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Airport Information For WMKK

Terminal Charts For WMKK

Revision Letter For Cycle 01-2015

Change Notices

Notebook

General Information

Location: Kuala Lumpur Mys
IATA Code: KUL
Lat/Long: N02° 44.6' E101° 41.9'
Elevation: 70 ft

Airport Use: Public
Magnetic Variation: 0.1°W

Customs: Yes
Airport Type: IFR
Landing Fee: No
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: No

Sunrise: 2320 Z
Sunset: 1118 Z,

Runway Information

Runway: 14L
Length x Width: 13186 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 54 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ

Runway: 14R
Length x Width: 13123 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 54 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ

Runway: 15
Length x Width: 12992 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 27 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ

Runway: 32L
Length x Width: 13123 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 48 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ

Runway: 32R
Length x Width: 13186 ft x 197 ft

Surface Type: concrete
TDZ-Elev: 69 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ

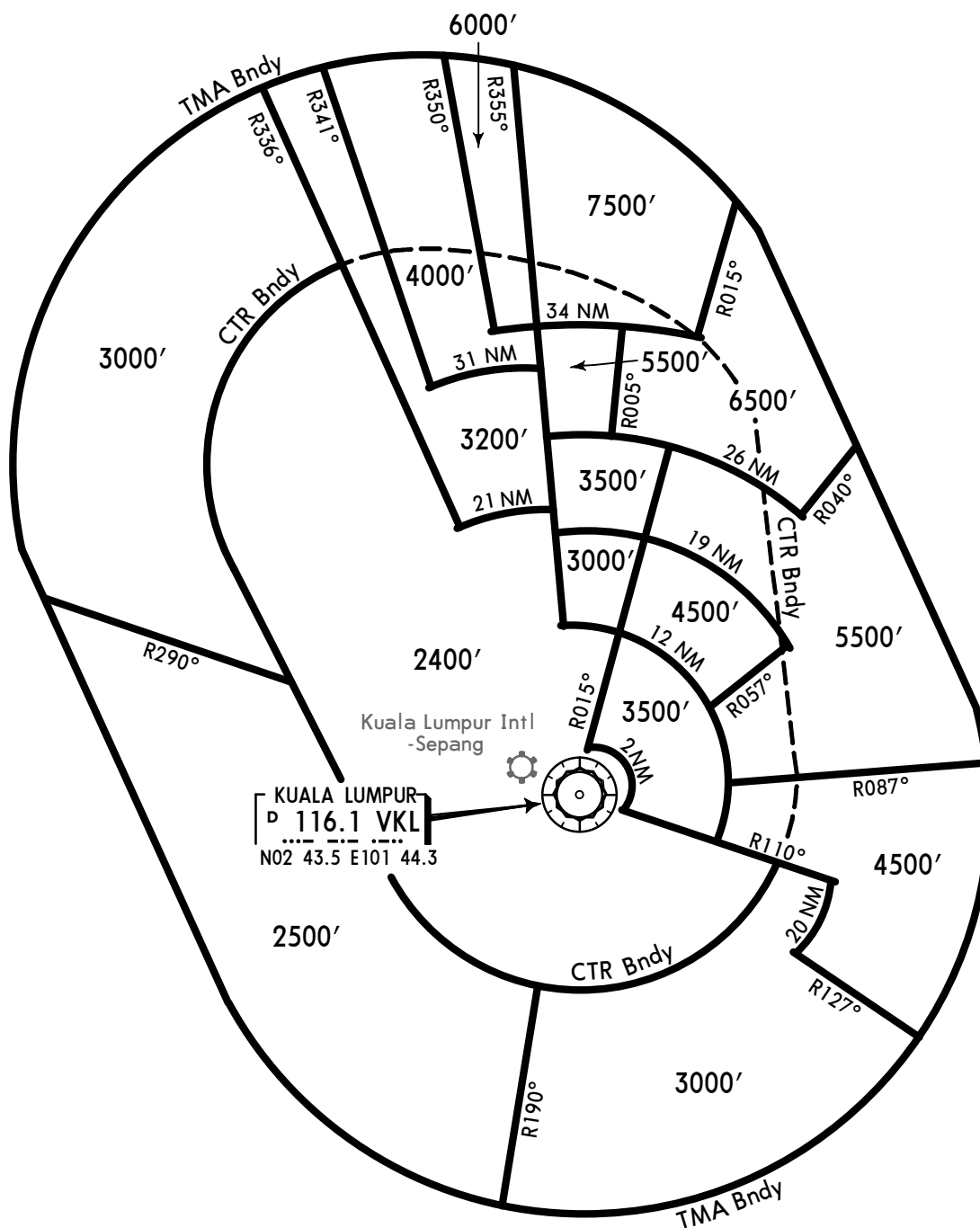
Runway: 33
Length x Width: 12992 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 27 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ

Communication Information

ATIS 128.05
ATIS 126.45
Lumpur Tower Tower 118.8
Lumpur Tower Tower 119.8
Lumpur Ground Ground Control 121.65
Lumpur Ground Ground Control 130.75
Lumpur Ground Ground Control 123.25
Lumpur Ground Ground Control 122.85
Lumpur Ground Ground Control 122.525
Lumpur Ground Ground Control 122.275
Lumpur Ground Ground Control 122.15
Lumpur Ground Ground Control 121.8
Lumpur Ground Ground Control 121.725
Lumpur Ground Ground Control 118.05
Lumpur Ramp/Taxi Control 123.25
Lumpur Ramp/Taxi Control 122.85
Lumpur Ramp/Taxi Control 122.275
Lumpur Ramp/Taxi Control 122.15
Lumpur Ramp/Taxi Control 121.8
Lumpur Ramp/Taxi Control 121.65
Lumpur Delivery Clearance Delivery 122.7
Lumpur Director (Approach Control Radar) 125.1

IFR MINIMUM ALTITUDE CLEARANCE

All bearings and distances are
referenced to VKL VOR.



ARRIVAL SPEED RESTRICTIONS

1. SPEED RESTRICTIONS (ARRIVING AIRCRAFT)

1.1 FLOW management is used to regulate traffic destined for Kuala Lumpur Intl-Sepang. The flow control sequencing action may include:

- a) Speed control;
- b) RADAR vectoring; and
- c) Holding.

1.2 The speed restriction of 250 KIAS below 10,000' is now applicable unless ATC issues the instruction "Maintain high speed".

2. SPEED LIMITATION POINTS ON ARRIVAL AND APPROACH PROCEDURES

(Refer to the appropriate procedure).

2.1 Pilots cleared to a published Instrument Approach Procedure shall comply with following speed restrictions:

- a) 180 KIAS at Intermediate Fix (IF);
- b) 160 KIAS from 10 NM until 4 NM to touchdown.

3. SPEED LIMITATION POINTS WHEN STAR IS CANCELLED

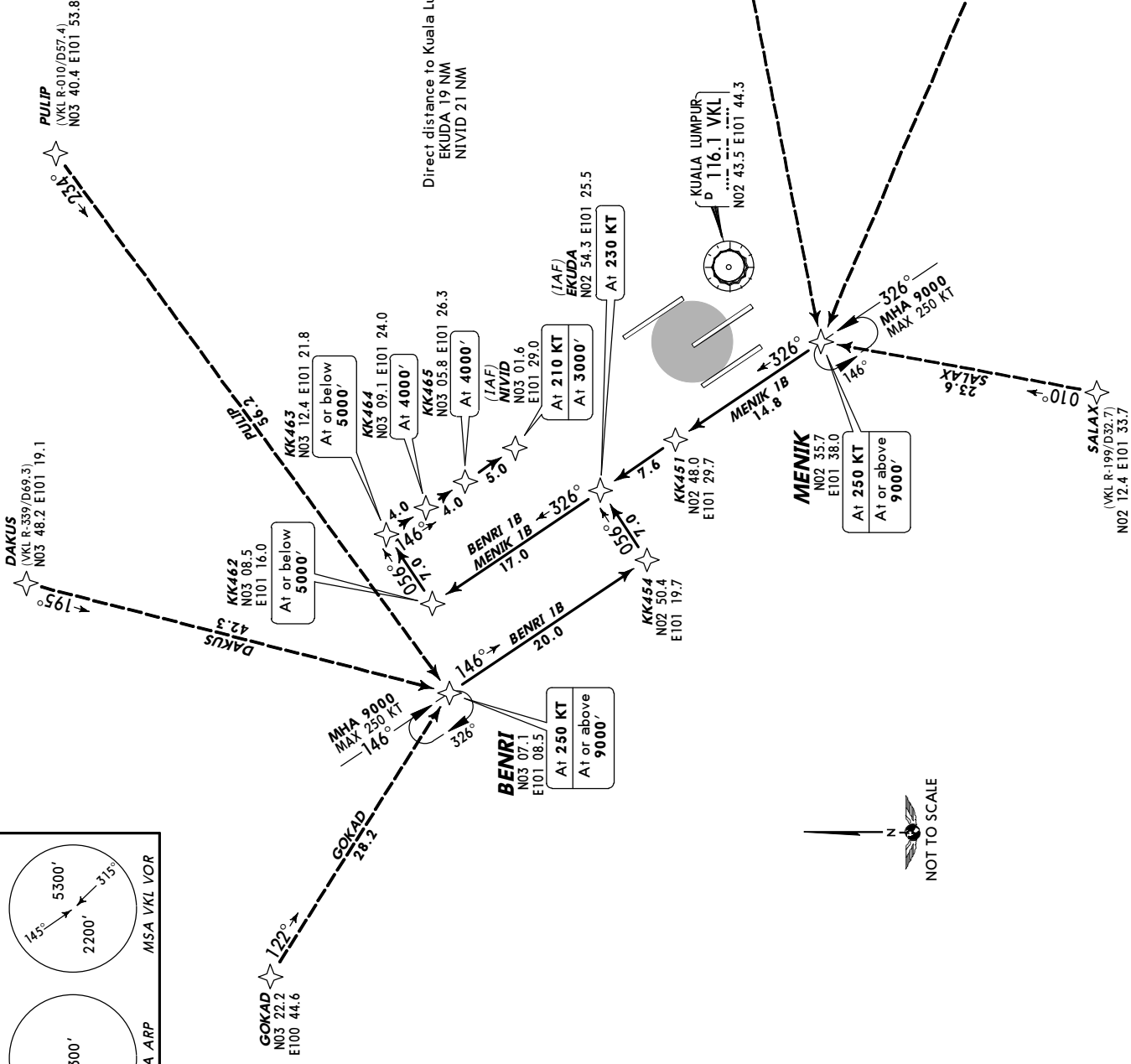
3.1 Pilots shall adopt the following speeds when notified that the STAR is cancelled:

- a) Under RADAR vectors:
 - 250 KIAS on passing 10,000';
 - 220 KIAS on turning base;
 - 180 KIAS on turning to intercept the localizer;
 - 160 KIAS from 10 NM until 4 NM to touchdown.
- b) Own navigation to intercept the final approach track:
 - 250 KIAS on passing 10,000';
 - 220 KIAS 20 track miles from touchdown;
 - 180 KIAS 15 track miles from touchdown;
 - 160 KIAS from 10 NM until 4 NM to touchdown.

3.2 ATC may issue other speeds to achieve a more accurate spacing, e.g. 220 KIAS prior to base turn.

4. CANCELLATION OF SPEED RESTRICTIONS

4.1 Pilots need not adopt the speed restrictions at the speed limitation points when they are issued a "No ATC Speed Restriction" clearance by ATC.

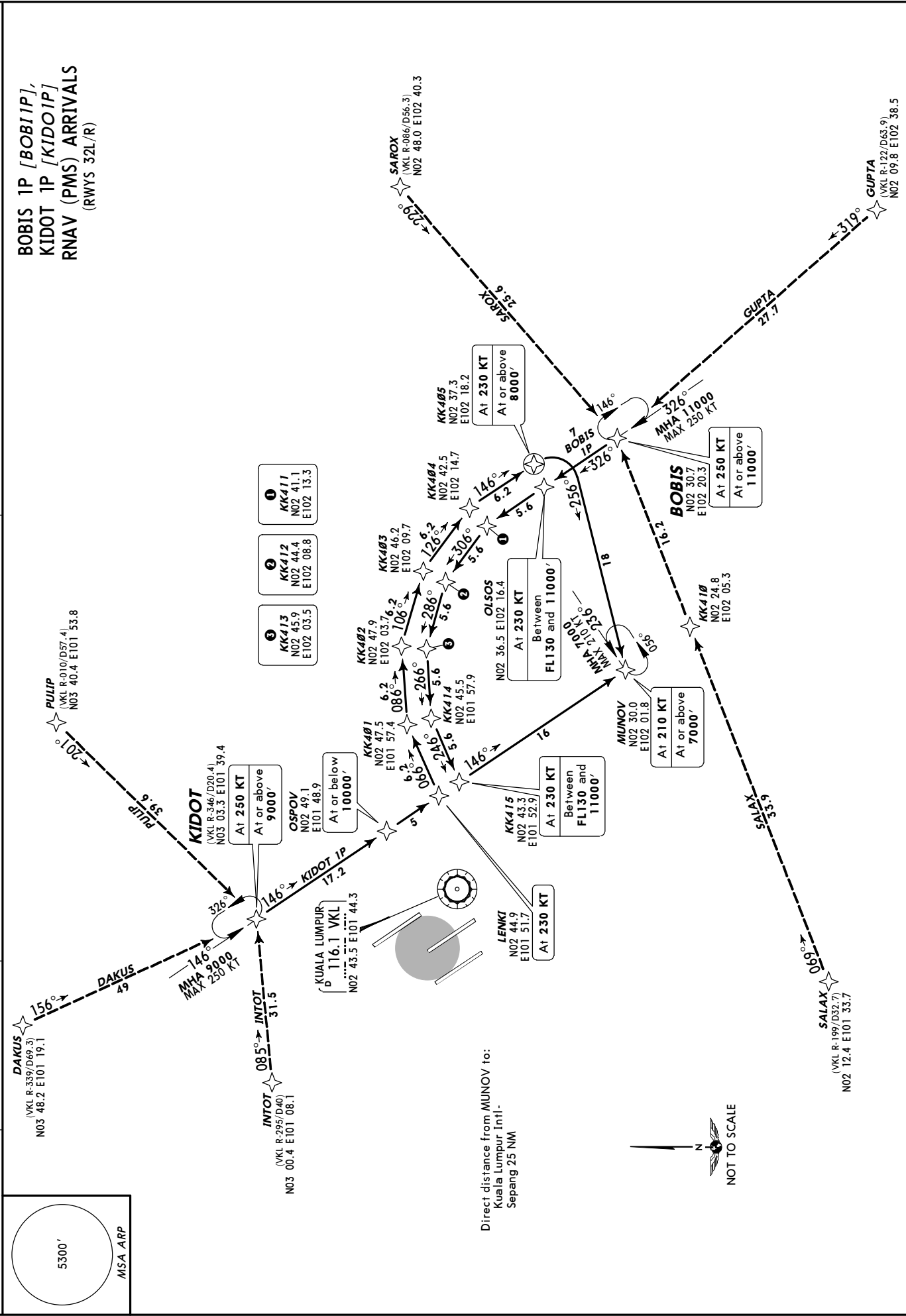
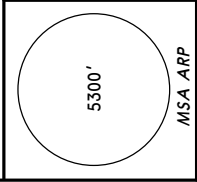


ATIS Arrival
128.05

Apt Elev
70'

Alt Set: hPa
Trans level: FL130
Trans alt: 11000'

1. RNAV 1 (GNSS).
2. PMS: Point Merge System.
3. Refer to page 20-2, ARRIVAL SPEED RESTRICTIONS, for additional information.



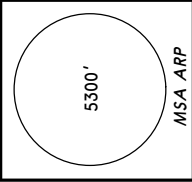
WMKK / KUL
KUALA LUMPUR INTL-SEPANG

ATIS Arrival
128.05

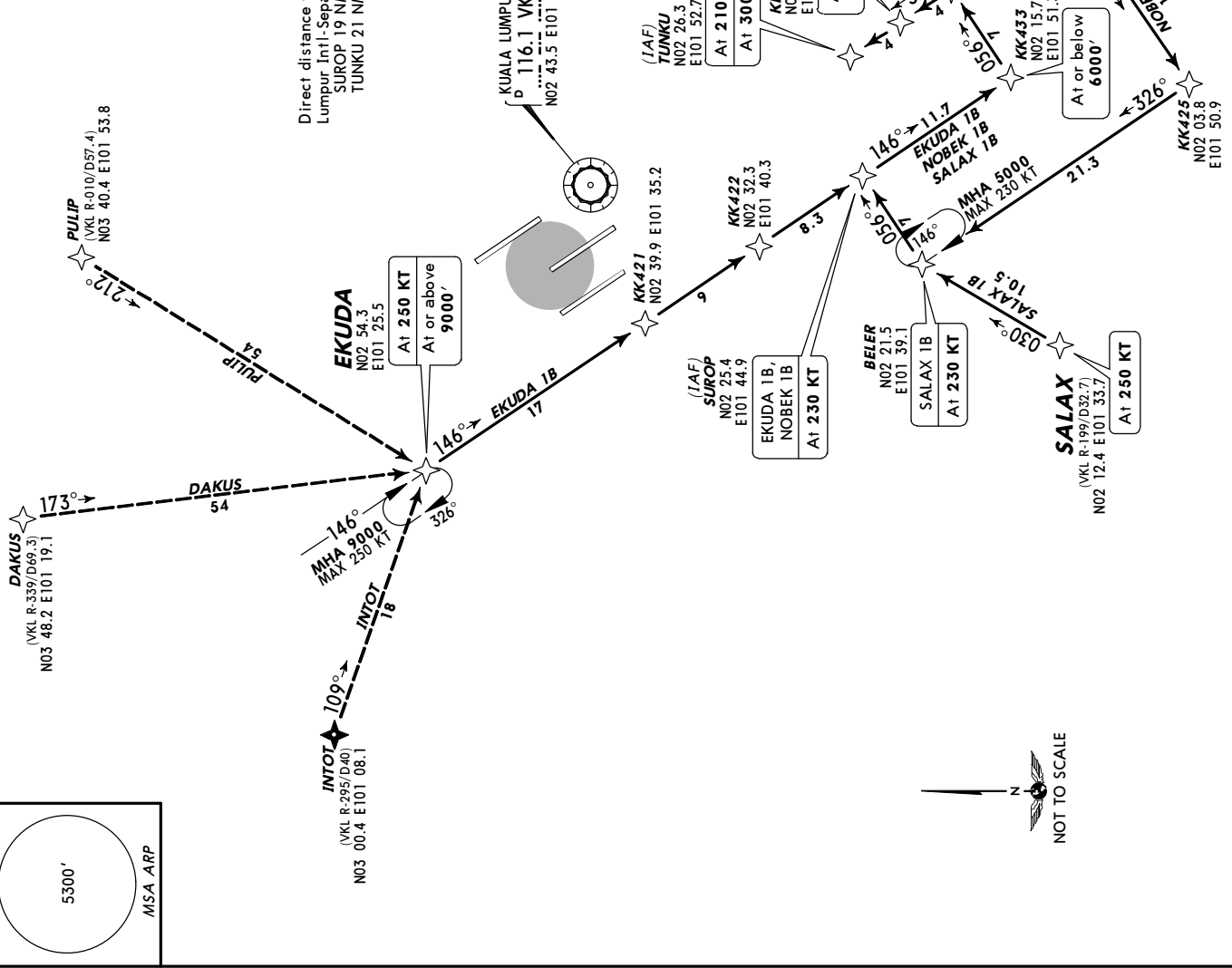
Apt Elev
70'

Alt Set: hPa Trans level: FL130 Trans alt: 11000'

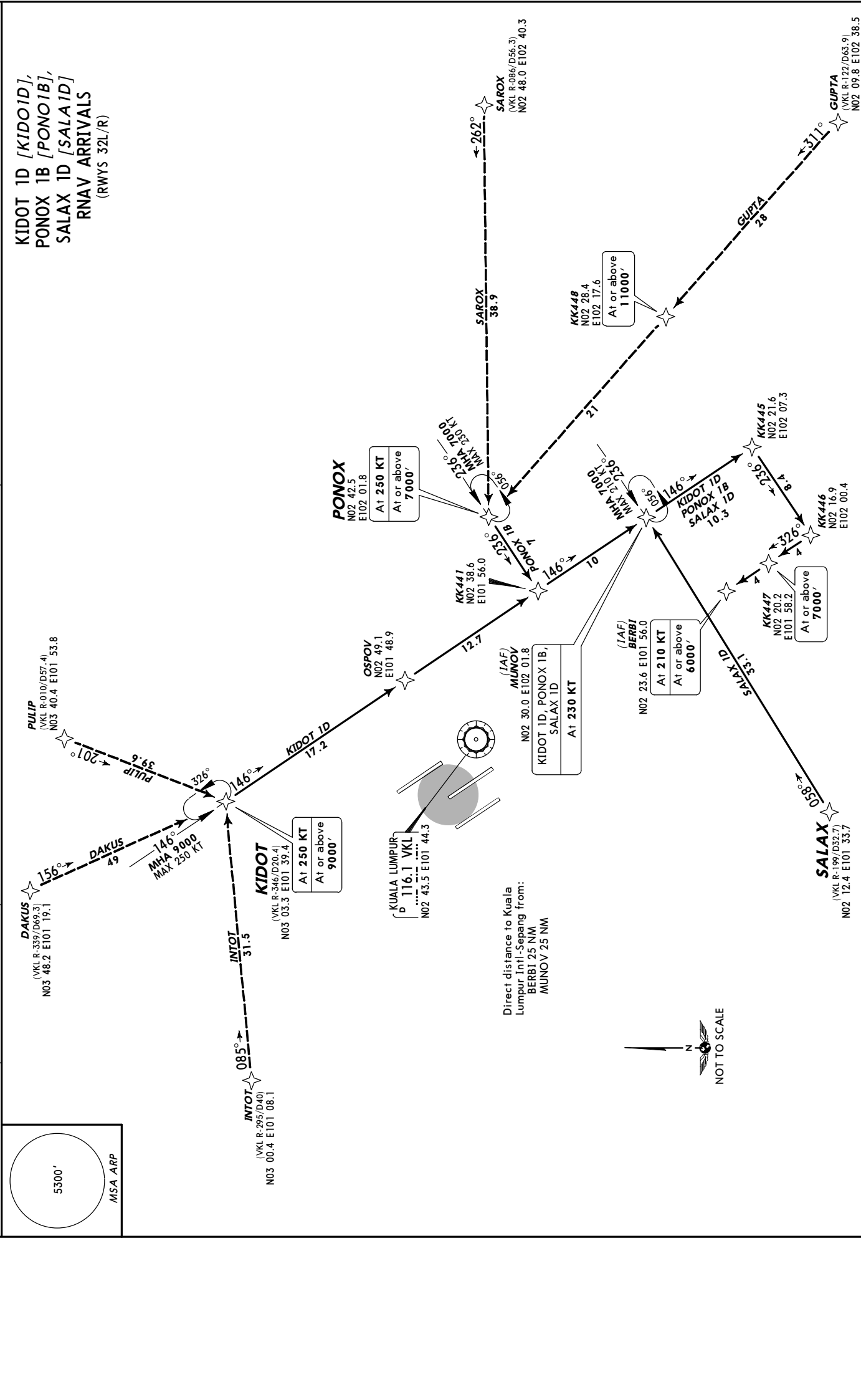
1. RNAV 1 (GNSS).
2. Refer to page 20-2, ARRIVAL SPEED RESTRICTIONS, for additional information.



EKUDA 1B [EKUD 1B],
NOBEK 1B [NOBE 1B],
SALAX 1B [SALA 1B]
RNAV ARRIVALS
(RWYS 32L, 33)



ATIS Arrival 128.05	Apt Elev 70'	Alt Set: hPa	Trans level: FL130	Trans alt: 11000'	1. RNAV 1 (GNSS). 2. Refer to page 20-2, ARRIVAL SPEED RESTRICTIONS, for additional information.
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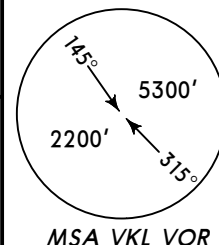


RWY	ROUTING
14L	From KIKAL make straight-in ILS approach to Rwy 14L (IEL LOC). Contact Tower at FAF.
14R	From KIKAL, VBA R-166 (166° track) to intercept IWR LOC. Make straight-in ILS approach to Rwy 14R. Contact Tower at FAF.
15	From KIKAL, VBA R-166 (166° track) to intercept IWK LOC. Make straight-in ILS approach to Rwy 15. Contact Tower at FAF.

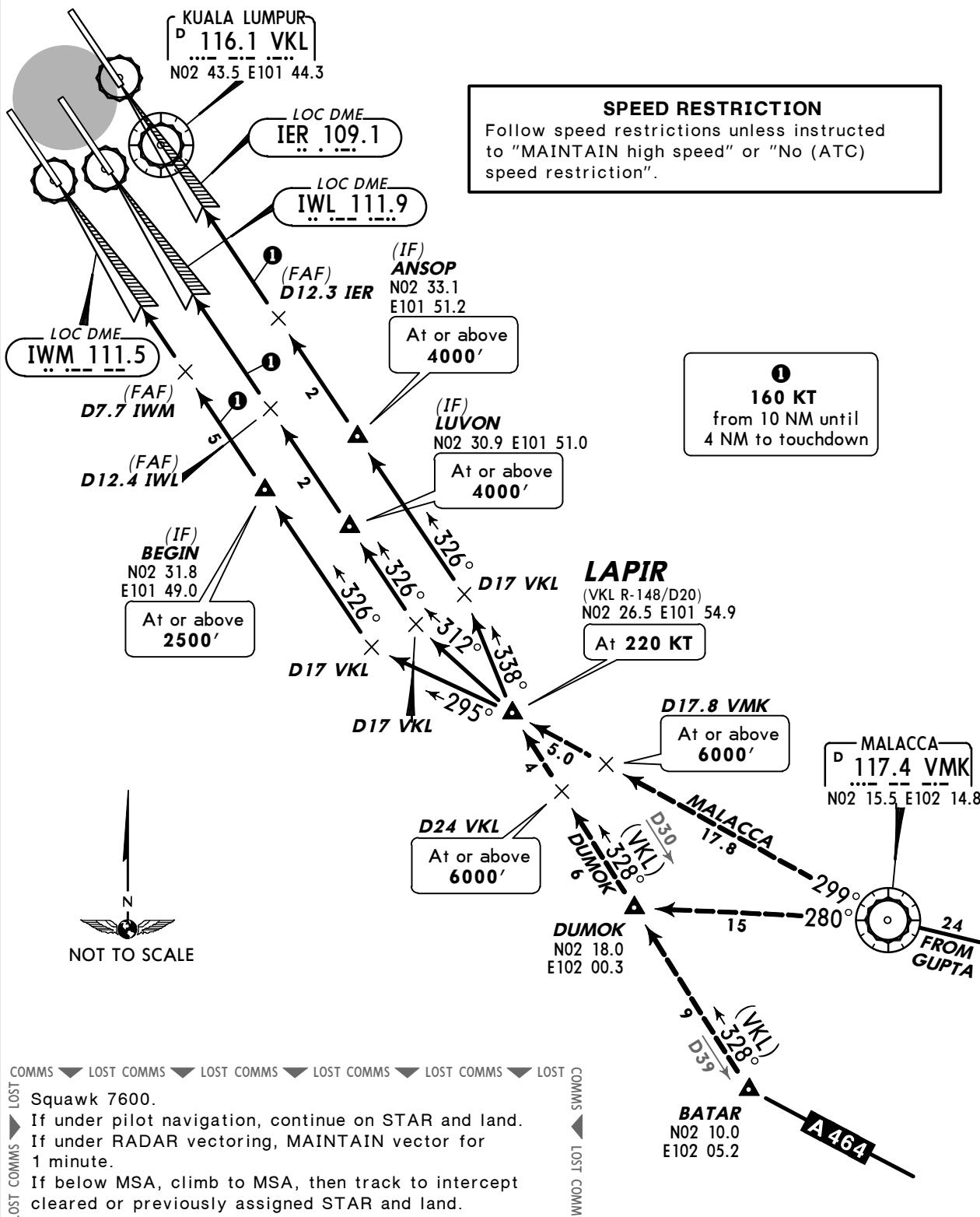
ATIS Arrival
128.05

Apt Elev
70'

Alt Set: hPa Trans level: FL130 Trans alt: 11000'
Refer to page 20-2, ARRIVAL SPEED
RESTRICTIONS, for additional information.

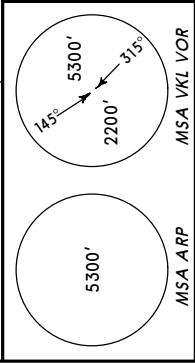


LAPIR THREE ARRIVAL [LAPIR3]
~~SPEED~~ CROSS 10000' AT 250 KIAS,
160 KIAS FROM 10 NM UNTIL 4 NM TO TOUCHDOWN

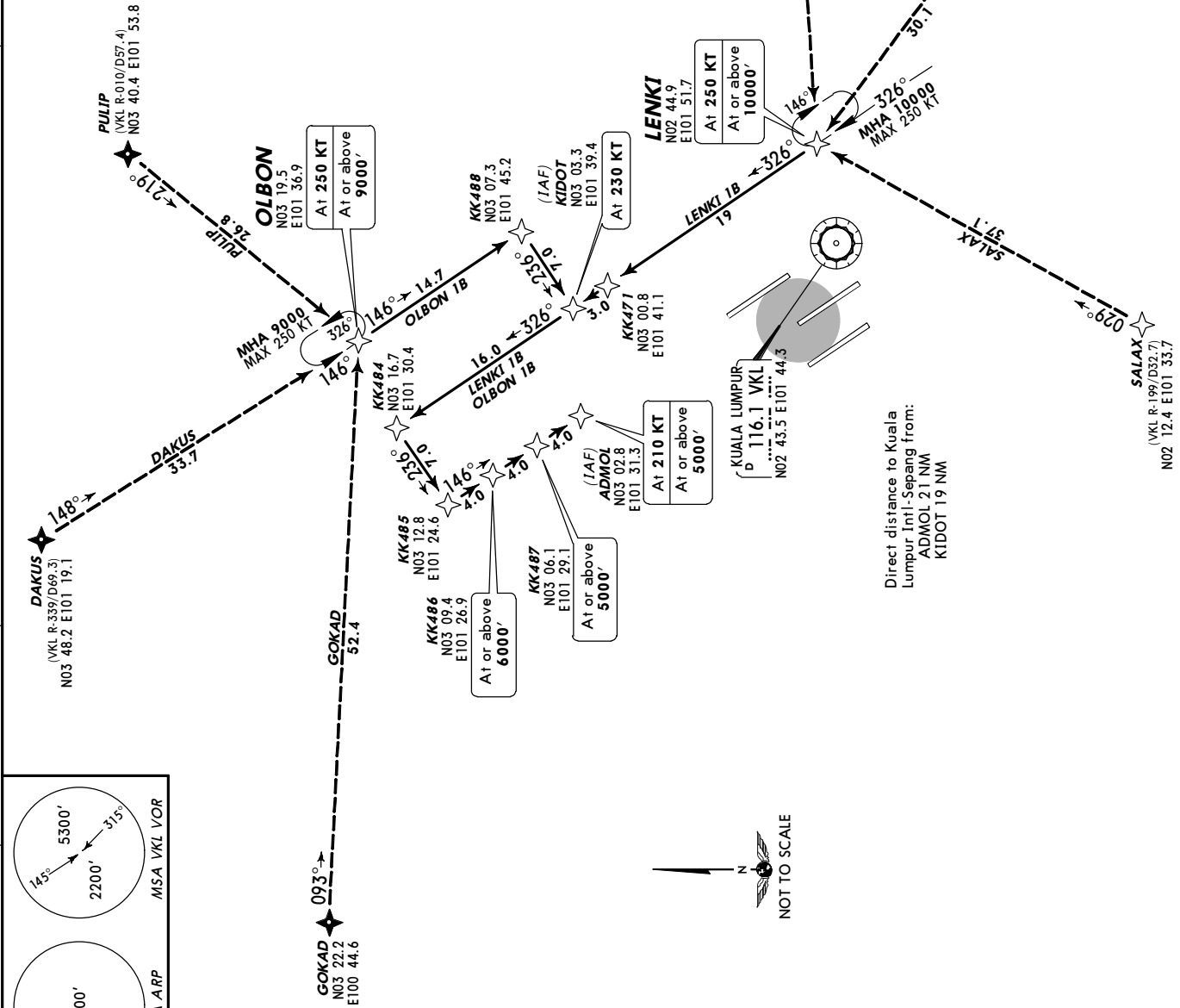


WMKK / KUL
KUALA LUMPUR INTL-SEPANG

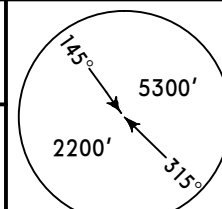
ATIS Arrival 128.05	Apt Elev 70'	Alt Set: hPa Trans level: FL130	Trans alt: 11000'	1. RNAV 1 (GNSS). 2. Refer to page 20-2, ARRIVAL SPEED RESTRICTIONS, for additional information.
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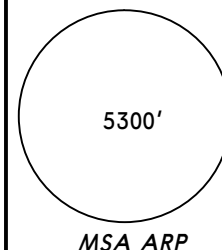
LENKI 1B [LENK1B],
OLBON 1B [OLBO1B]
RNAV ARRIVALS
(RWYS 14L/R)



LUMPUR Departure
135.25
Apt Elev
70'
Trans level: FL130 Trans alt: 11000'
Turn before DER is not allowed.

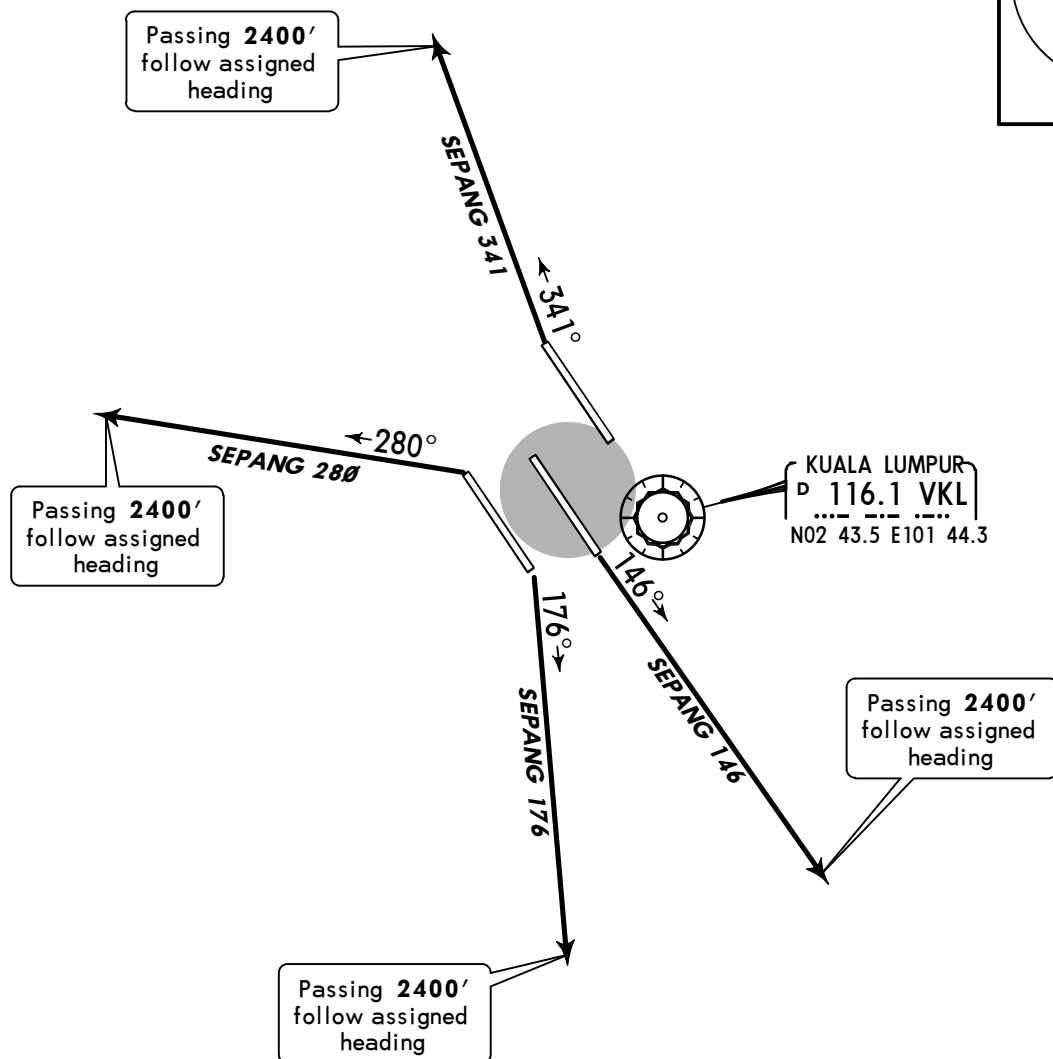


MSA VKL VOR



MSA ARP

SEPANG RADAR DEPARTURES SEPANG 146 [SEP146], SEPANG 176 [SEP176], SEPANG 280 [SEP280], SEPANG 341 [SEP341]

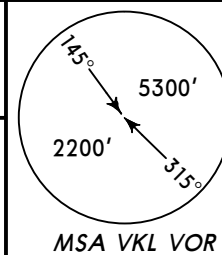


These SIDs require a minimum climb gradient of 5% (304' per NM) until passing 2400' for ATC purposes.

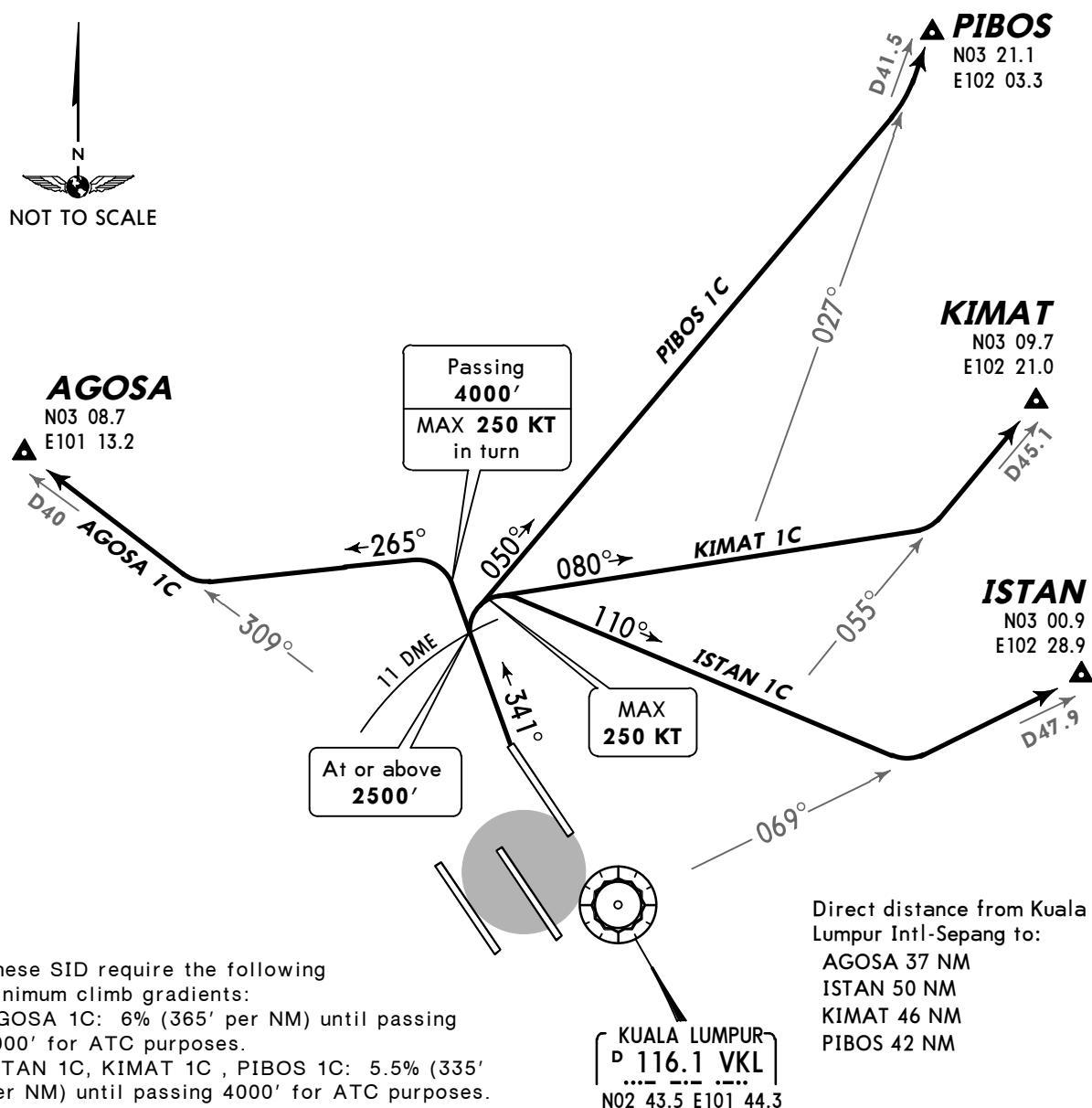
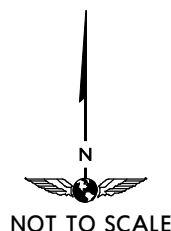
Gnd speed-KT	75	100	150	200	250	300
5.0% V/V(fpm)	380	506	760	1013	1266	1519



SID	RWY	INITIAL CLIMB
SEPANG 146	14R	After take-off proceed on track 146° until passing 2400', then follow the assigned heading.
SEPANG 176	15	After take-off turn RIGHT on track 176° until passing 2400', then follow the assigned heading.
SEPANG 280	33	After take-off turn LEFT on track 280° until passing 2400', then follow the assigned heading.
SEPANG 341	32R	After take-off proceed on track 341° until passing 2400', then follow the assigned heading.

LUMPUR Departure
135.25Apt Elev
70'Trans level: FL130 Trans alt: 11000'
Turn before DER is not allowed.AGOSA 1C [AGOS1C], ISTAN 1C [ISTA1C],
KIMAT 1C [KIMA1C], PIBOS 1C [PIBO1C]
DEPARTURES

(RWY 32R)



These SID require the following minimum climb gradients:
AGOSA 1C: 6% (365' per NM) until passing 4000' for ATC purposes.
ISTAN 1C, KIMAT 1C, PIBOS 1C: 5.5% (335' per NM) until passing 4000' for ATC purposes.

Gnd speed-KT	75	100	150	200	250	300
5.5% V/V(fpm)	418	557	835	1114	1392	1671
6.0% V/V(fpm)	456	608	911	1215	1519	1823

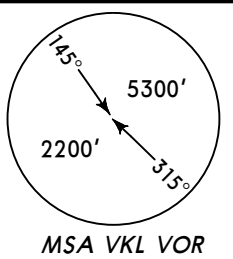
INITIAL CLIMB

After take-off proceed on track 341° until VKL 11 DME, then follow the assigned SID.

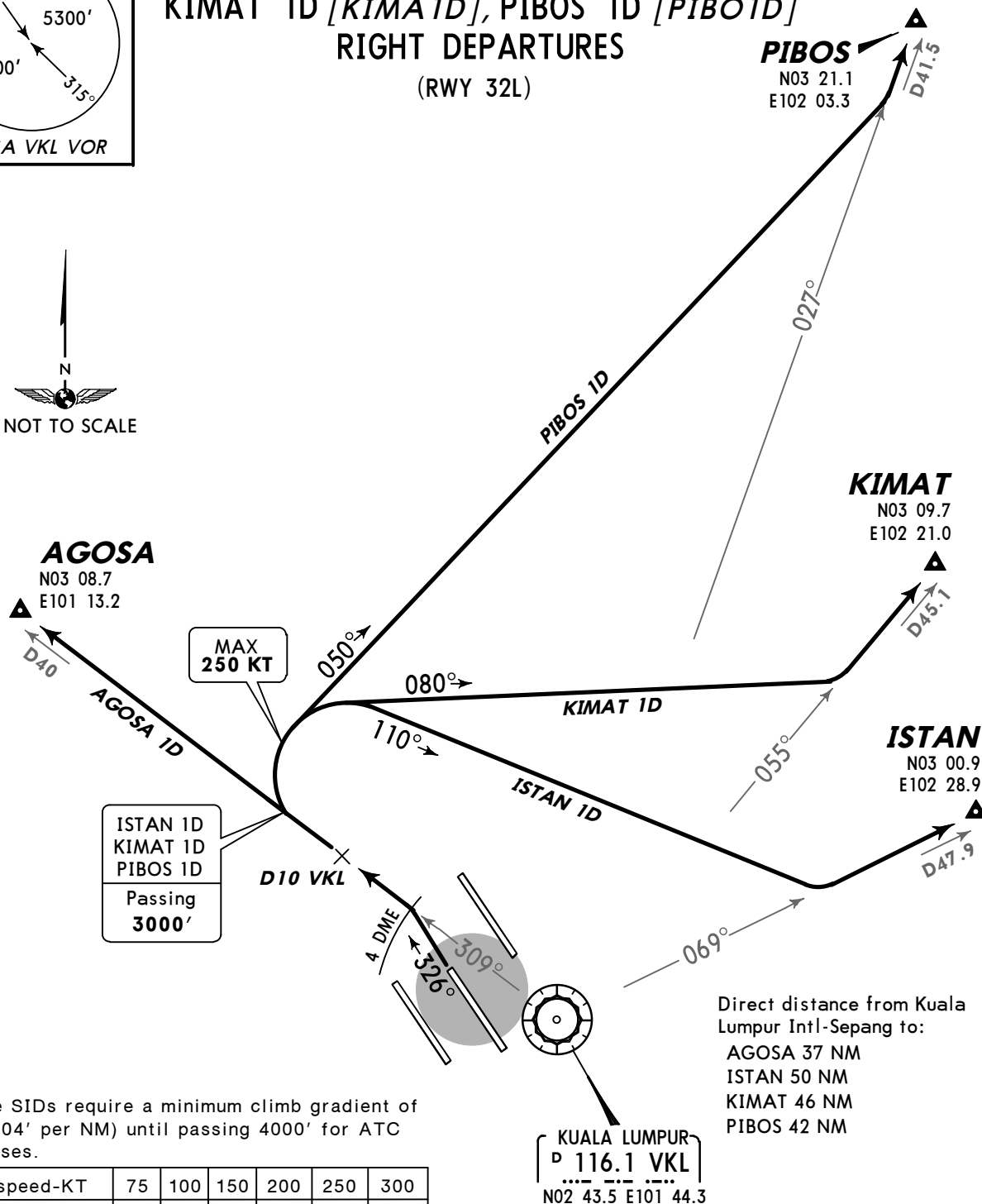
SID	ROUTING
AGOSA 1C	Continue on track 341°, passing 4000' turn LEFT (MAX 250 KT) on track 265° until joining VKL R-309 (track 309°) bound to AGOSA.
ISTAN 1C	Turn RIGHT (MAX 250 KT) on track 110° until joining VKL R-069 (track 069°) bound to ISTAN.
KIMAT 1C	Turn RIGHT (MAX 250 KT) on track 080° until joining VKL R-055 (track 055°) bound to KIMAT.
PIBOS 1C	Turn RIGHT (MAX 250 KT) on track 050° until joining VKL R-027 (track 027°) bound to PIBOS.

LUMPUR Departure
135.25Apt Elev
70'

Trans level: FL130 Trans alt: 11000'



MSA VKL VOR

**AGOSA 1D [AGOS1D], ISTAN 1D [ISTA1D],
KIMAT 1D [KIMA1D], PIBOS 1D [PIBO1D]
RIGHT DEPARTURES**
(RWY 32L)

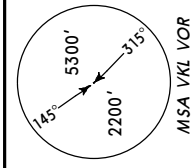
These SIDs require a minimum climb gradient of 5% (304' per NM) until passing 4000' for ATC purposes.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V(fpm)	380	506	760	1013	1266	1519

INITIAL CLIMB

After take-off proceed on track 326°. At VKL 4 DME turn LEFT on VKL R-309 (track 309°) until D10 VKL, then follow the assigned SID.

SID	ROUTING
AGOSA 1D	Continue on VKL R-309 (track 309°) bound to AGOSA.
ISTAN 1D	Continue on VKL R-309 (track 309°), passing 3000' turn RIGHT (MAX 250 KT) on track 110° until joining VKL R-069 bound to ISTAN.
KIMAT 1D	Continue on VKL R-309 (track 309°), passing 3000' turn RIGHT (MAX 250 KT) on track 080° until joining VKL R-055 bound to KIMAT.
PIBOS 1D	Continue on VKL R-309 (track 309°), passing 3000' turn RIGHT (MAX 250 KT) on track 050° until joining VKL R-027 bound to PIBOS.



MSA VKL VOR

NOT TO SCALE

These SIDs require a minimum climb gradient of 5% (304' per NM) until passing 4000' for ATC purposes.

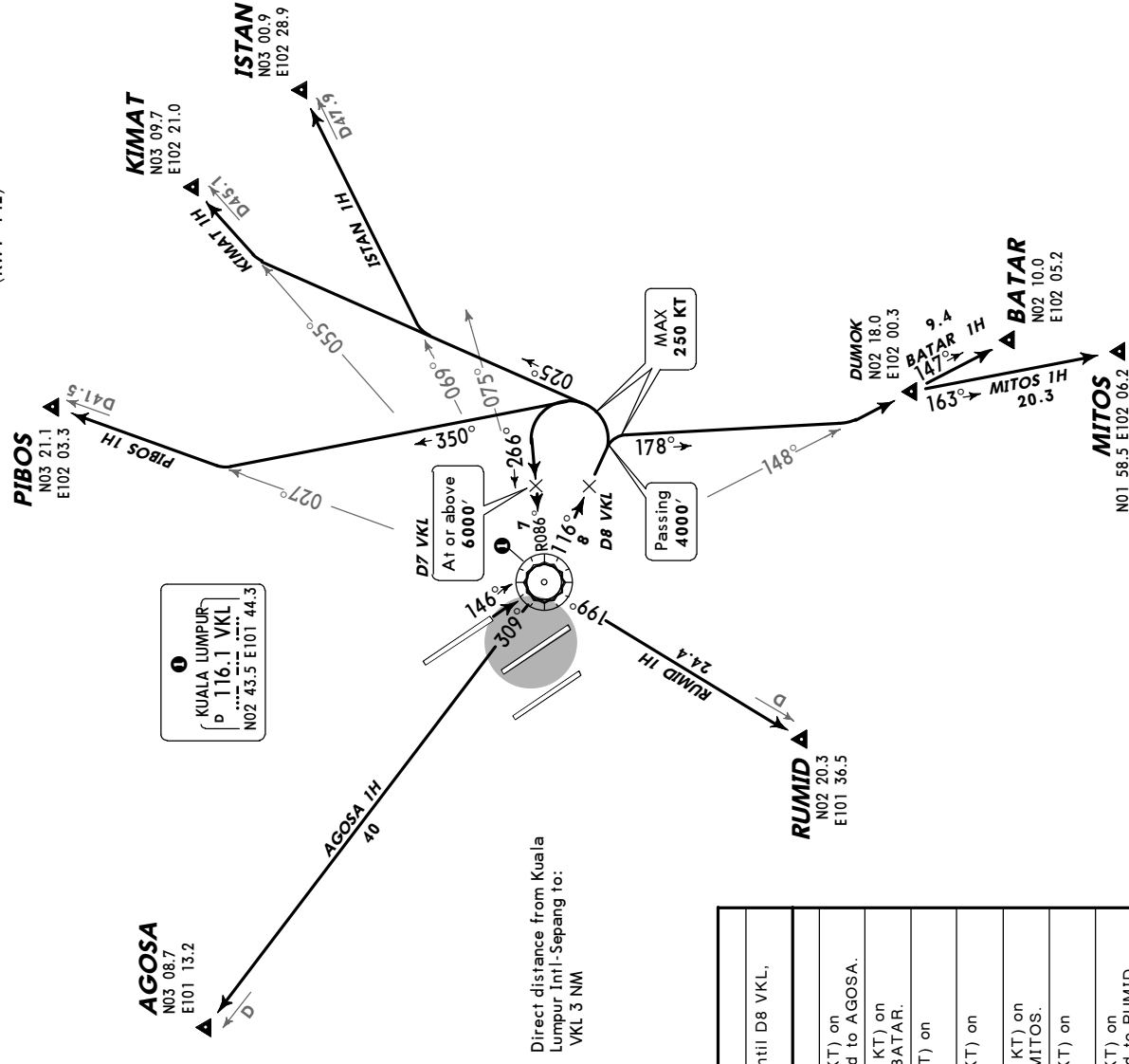
Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519

INITIAL CLIMB

After take-off proceed on track 146° to VKL. Leave VKL on VKL R-116 (track 116°) until D8 VKL, then follow the assigned SID.

ROUTING

AGOSA 1H	Continue on track 116° (VKL R-116), passing 4000' turn LEFT (MAX 250 KT) on track 266° (VKL R-086) to VKL, to leave on VKL R-309 (track 309°) bound to AGOSA.
BATAR 1H	Continue on track 116° (VKL R-116), passing 4000' turn RIGHT (MAX 250 KT) on track 178° until joining VKL R-148 (track 148°) inbound to DUMOK, then BATAR.
ISTAN 1H	Continue on track 116° (VKL R-116) passing 4000' turn LEFT (MAX 250KT) on track 025° until joining VKL R-069 (track 089°) bound to ISTAN.
KIMAT 1H	Continue on track 116° (VKL R-116), passing 4000' turn LEFT (MAX 250 KT) on track 025° until joining VKL R-055 (track 055°) bound to KIMAT.
MITOS 1H	Continue on track 116° (VKL R-116), passing 4000' turn RIGHT (MAX 250 KT) on track 178° until joining VKL R-148 (track 148°) inbound to DUMOK, then MITOS.
PIBOS 1H	Continue on track 116° (VKL R-116), passing 4000' turn LEFT (MAX 250 KT) on track 350° until joining VKL R-027 (track 027°) bound to PIBOS.
RUMID 1H	Continue on track 116° (VKL R-116), passing 4000' turn LEFT (MAX 250 KT) on track 266° (VKL R-086) to VKL, to leave on VKL R-199 (track 199°) bound to RUMID.



Direct distance from Kuala Lumpur Intl-Selang to:
VKL 3 NM

AGOSA 1H [AGOSIH], BATAR 1H [BATAIH],
 ISTAN 1H [ISTA IH], KIMAT 1H [KIMA IH],
 MITOS 1H [MITO IH], PIBOS 1H [PIBO IH]
 RUMID 1H [RUMI IH] DEPARTURES
 (RWY 14L)

(RWY 14L)

① KUALA LUMPUR
D 116.1 VKL
... ..
N02 43.5 E101 44.3

AGOSA
N03 08.7
E101 13.2

D7 VKL

At or above

6000

A diagram showing a line graph with a downward-sloping line and a point labeled '1' on the y-axis.

R086°

D8 VKL

Passing

4000'

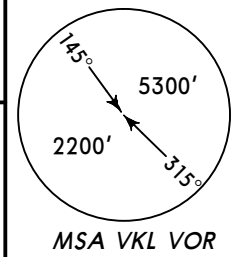
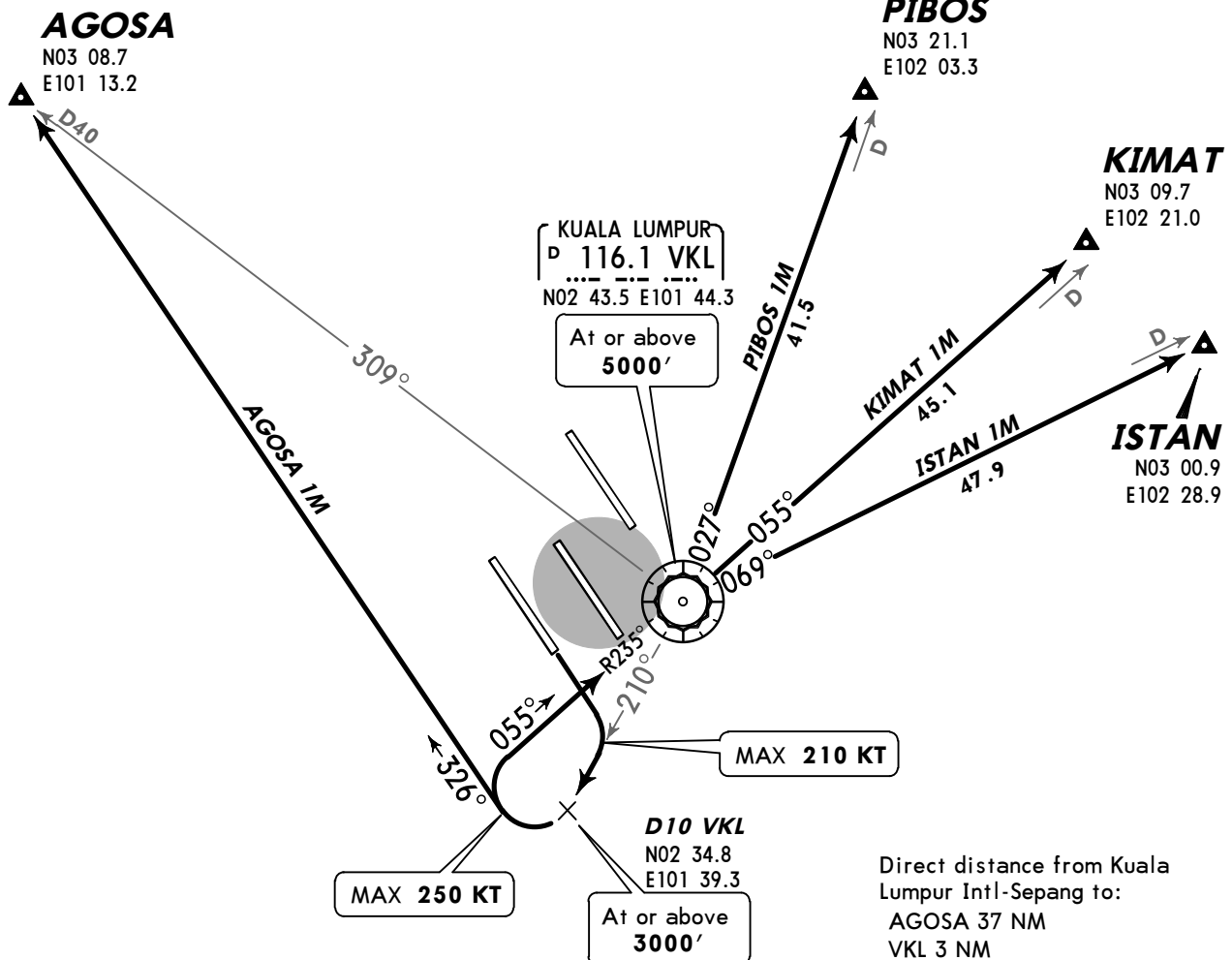
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N01 5

1111

LUMPUR Departure
135.25Apt Elev
70'

Trans level: FL130 Trans alt: 11000'

**AGOSA 1M [AGOS1M], ISTAN 1M [ISTA1M],
KIMAT 1M [KIMA1M], PIBOS 1M [PIBO1M]
DEPARTURES**
(RWY 15)

These SIDs require a minimum climb gradient of 5.2% (316' per NM) until passing 4000' for ATC purposes.

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

**INITIAL CLIMB**

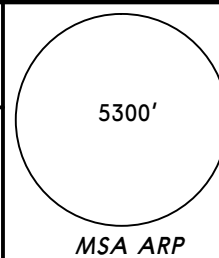
After take-off turn RIGHT (MAX 210 KT during turn) to intercept and follow VKL R-210 (track 210°) until D10 VKL, then follow the assigned SID.

SID	ROUTING
AGOSA 1M	Turn RIGHT (MAX 250 KT) on track 326° bound to AGOSA.
ISTAN 1M	Turn RIGHT (MAX 250 KT) on track 055° (VKL R-235) to VKL to leave on VKL R-069 (track 069°) bound to ISTAN.
KIMAT 1M	Turn RIGHT (MAX 250 KT) on track 055° (VKL R-235) to VKL to leave on VKL R-055 (track 055°) bound to KIMAT.
PIBOS 1M	Turn RIGHT (MAX 250 KT) on track 055° (VKL R-235) to VKL to leave on VKL R-027 (track 027°) bound to PIBOS.

LUMPUR Departure
135.25

Apt Elev
70'

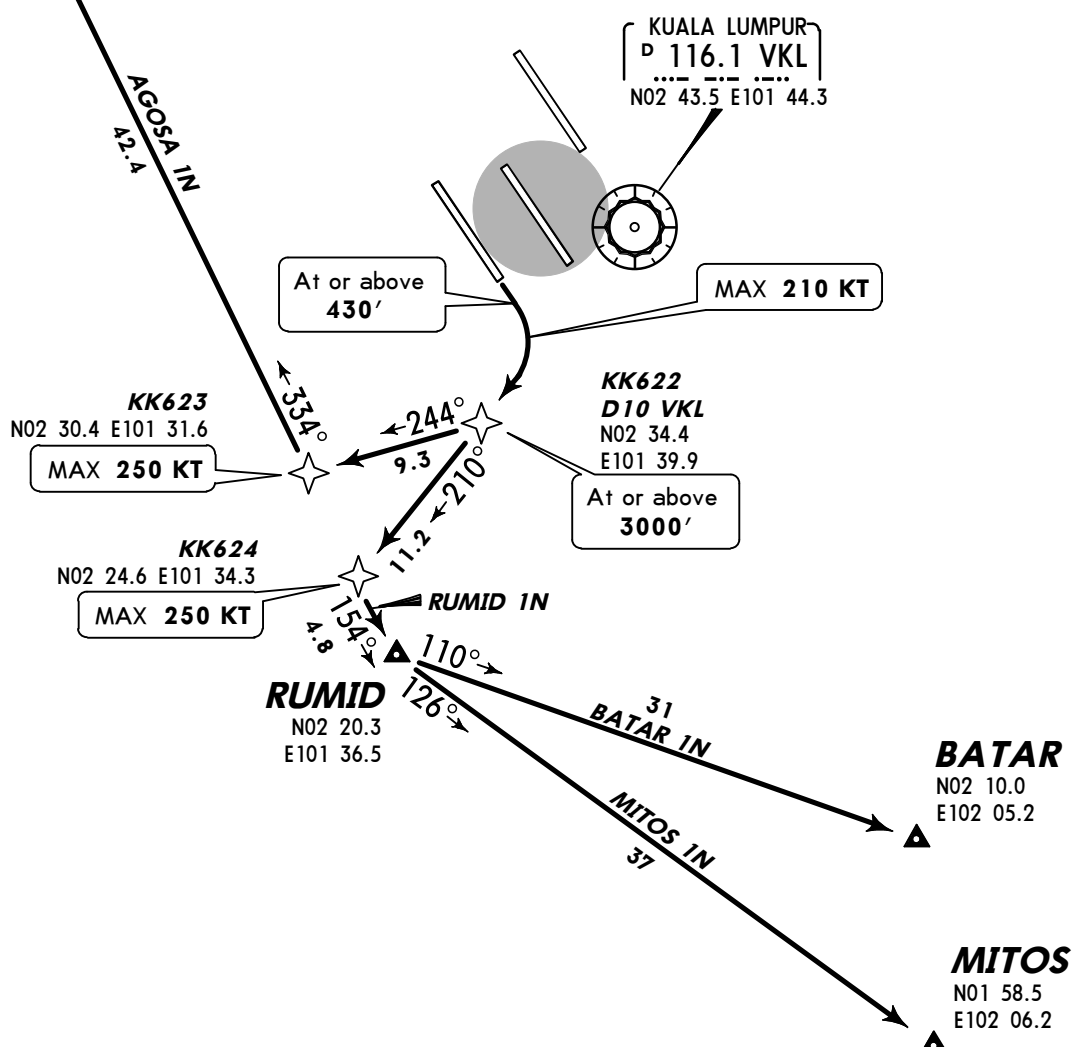
Trans level: FL130 Trans alt: 11000'
RNAV 1.



**AGOSA 1N [AGOS1N], BATAR 1N [BATA1N],
MITOS 1N [MITO1N], RUMID 1N [RUMI1N]
RNAV DEPARTURES
(RWY 15)**

AGOSA
N03 08.7
E101 13.2

Direct distance from Kuala
Lumpur Intl-Sepang to:
KK622 10 NM



These SIDs require a minimum climb gradient
of 5.2% (316' per NM) until passing 4000' for
ATC purposes.

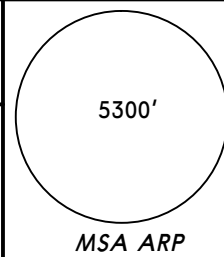
Gnd speed-KT	75	100	150	200	250	300
5.2% V/V (fpm)	395	527	790	1053	1316	1580



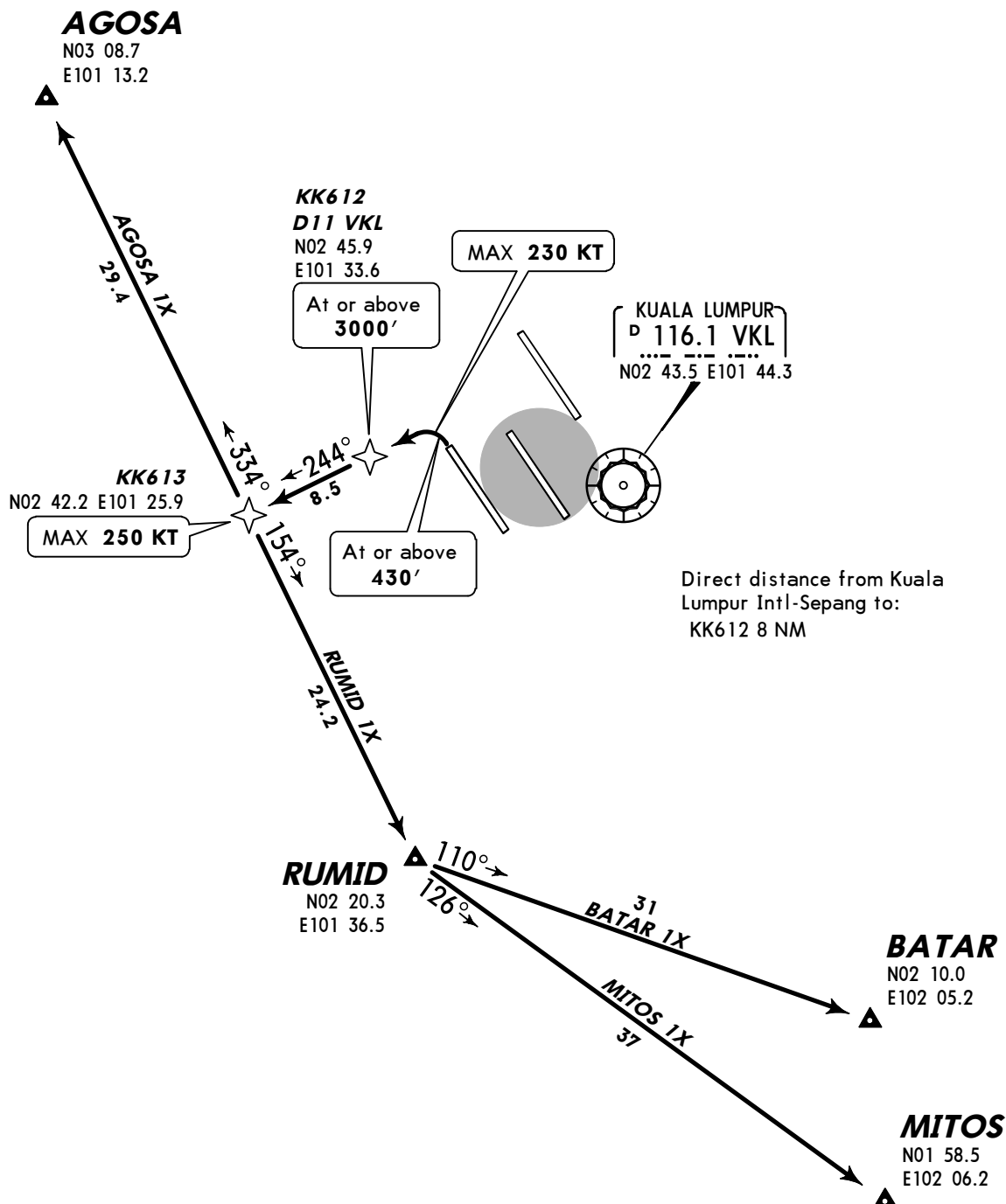
LUMPUR Departure
135.25

Apt Elev
70'

Trans level: FL130 Trans alt: 11000'
RNAV 1.



**AGOSA 1X [AGOS1X], BATAR 1X [BATA1X],
MITOS 1X [MITO1X], RUMID 1X [RUMI1X]
RNAV DEPARTURES
(RWY 33)**



These SIDs require a minimum climb gradient of 5.9% (360' per NM) until passing 4000' for ATC purposes.

Gnd speed-KT	75	100	150	200	250	300
5.9% V/V (fpm)	448	597	896	1195	1494	1792





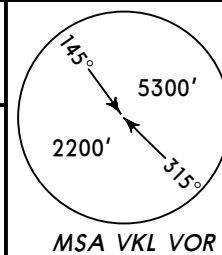
Gnd speed-KT	75	100	150	200	250	300
6.0% V/V (fpm)	456	608	911	1215	1519	1823

SID	ROUTING
BATAR 1C	Continue on track 341°, passing 4000' turn LEFT (MAX 250 KT) on track 265° crossing VBA R-165, turn LEFT to intercept and follow VBA R-171 bound to RUMID, then BATAR.
DUMOK 1C	Continue on track 341°, passing 4000' turn LEFT (MAX 250 KT) on track 265° crossing VBA R-165, turn LEFT to intercept and follow VBA R-171 bound to RUMID, then DUMOK.
MITOS 1C	Continue on track 341°, passing 4000' turn LEFT (MAX 250 KT) on track 265° crossing VBA R-165, turn LEFT to intercept and follow VBA R-171 bound to RUMID, then MITOS.
RUMID 1C	Continue on track 341°, passing 4000' turn LEFT (MAX 250 KT) on track 265° crossing VBA R-165, turn LEFT to intercept and follow VBA R-171 bound to RUMID.

LUMPUR Departure
135.25Apt Elev
70'

Trans level: FL130

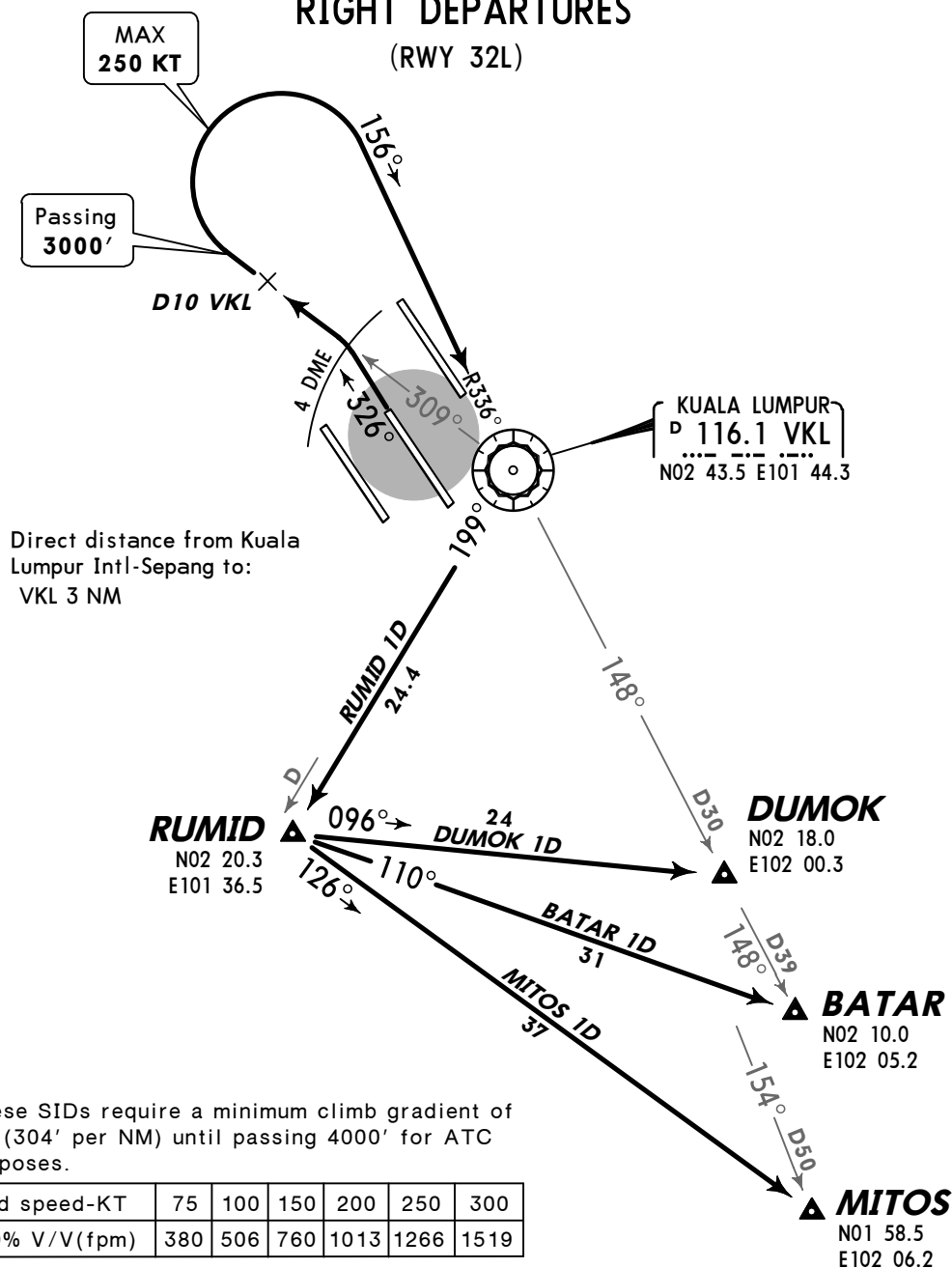
Trans alt: 11000'



MSA VKL VOR

**BATAR 1D [BATA1D], DUMOK 1D [DUMO1D],
MITOS 1D [MITO1D], RUMID 1D [RUMI1D]
RIGHT DEPARTURES**

(RWY 32L)

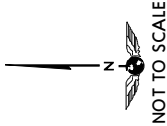
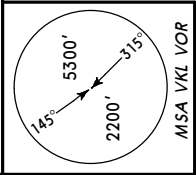
Direct distance from Kuala
Lumpur Intl-Sepang to:
VKL 3 NMKUALA LUMPUR
D 116.1 VKL
N02 43.5 E101 44.3RUMID
N02 20.3
E101 36.5DUMOK 1D
24DUMOK
N02 18.0
E102 00.3BATAR
N02 10.0
E102 05.2MITOS
N01 58.5
E102 06.2These SIDs require a minimum climb gradient of
5% (304' per NM) until passing 4000' for ATC
purposes.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V(fpm)	380	506	760	1013	1266	1519

INITIAL CLIMBAfter take-off proceed on track 326°. At VKL 4 DME turn LEFT on VKL R-309° (track 309°)
until D10 VKL, then follow assigned SID.

SID	ROUTING
BATAR 1D	Continue on VKL R-309 (track 309°) passing 3000' turn RIGHT (MAX 250 KT) to intercept and follow VKL R-336 (track 156°) inbound VKL. Leave VKL on VKL R-199 (track 199°) bound to RUMID, then BATAR.
DUMOK 1D	Continue on VKL R-309 (track 309°) passing 3000' turn RIGHT (MAX 250 KT) to intercept and follow VKL R-336 (track 156°) inbound VKL. Leave VKL on VKL R-199 (track 199°) bound to RUMID, then DUMOK.
MITOS 1D	Continue on VKL R-309 (track 309°) passing 3000' turn RIGHT (MAX 250 KT) to intercept and follow VKL R-336 (track 156°) inbound VKL. Leave VKL on VKL R-199 (track 199°) bound to RUMID, then MITOS.
RUMID 1D	Continue on VKL R-309 (track 309°) passing 3000' turn RIGHT (MAX 250 KT) to intercept and follow VKL R-336 (track 156°) inbound VKL. Leave VKL on VKL R-199 (track 199°) bound to RUMID.

LUMPUR Departure 135.25	Apt Elev 70'	Trans level: FL130 Trans alt: 11000'
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MAX
250 KT

Passing
3000'

D 10 VKL

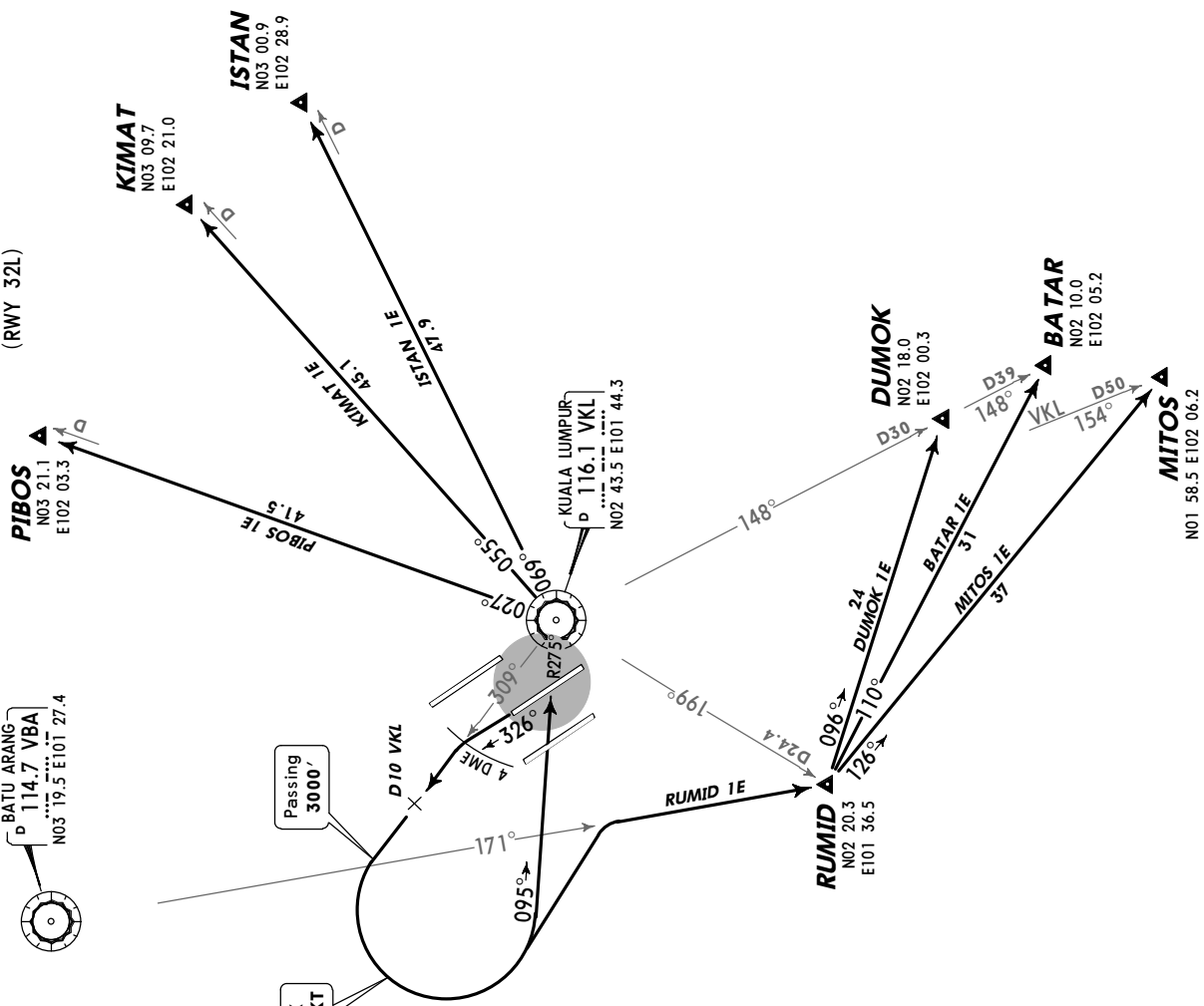
Direct distance from Kuala
Lumpur Intl-Sepang to:
RUMID 25 NM
VKL 3 NM

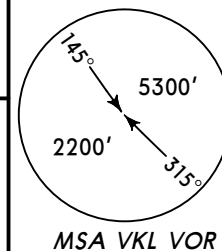
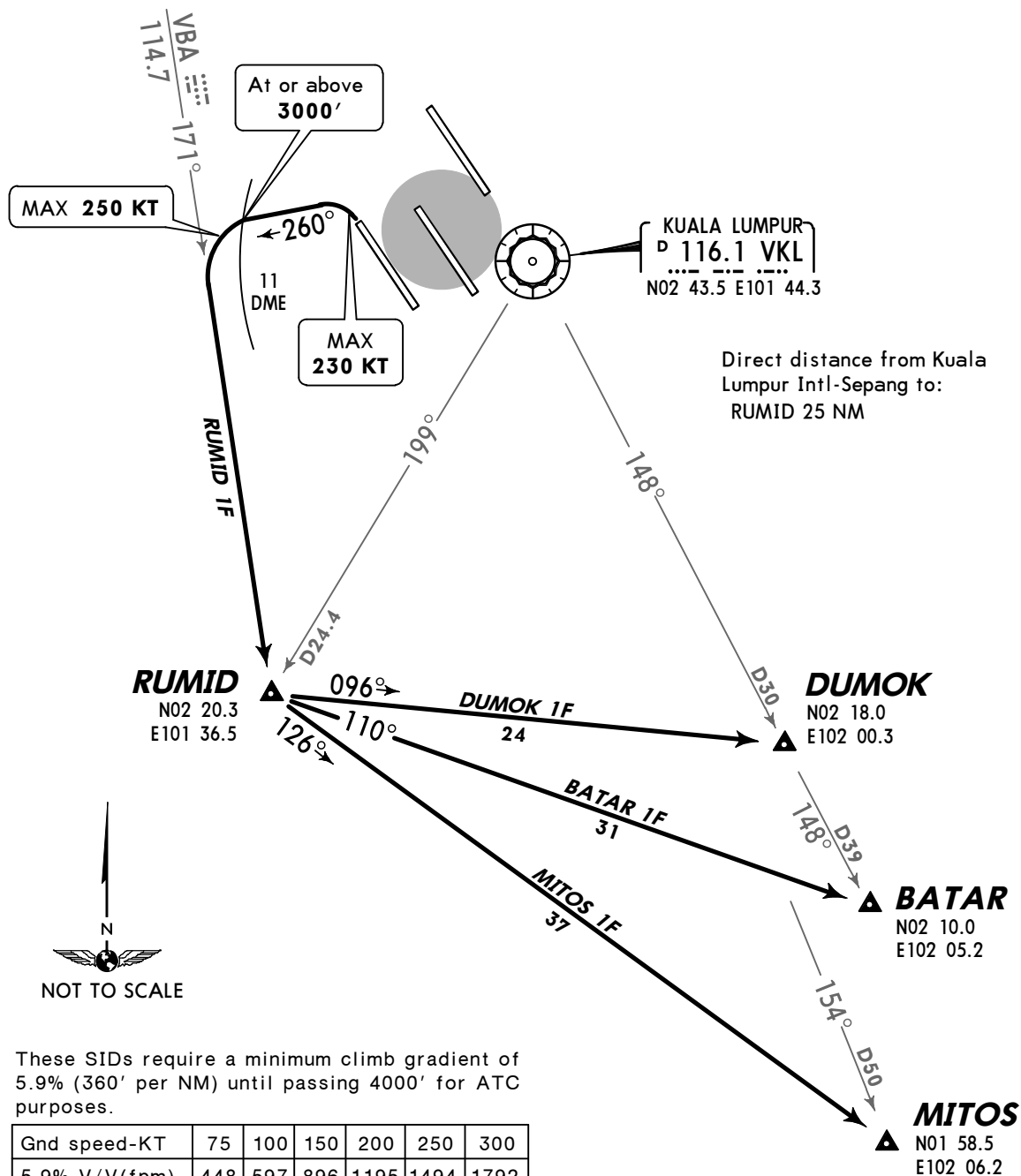
These SIDs require a minimum climb gradient of
5% (304' per NM) until passing 4000' for ATC
purposes.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V(fpm)	380	506	760	1013	1266	1519

INITIAL CLIMB	
After take-off proceed on track 326°. At VKL 4 DME turn LEFT on VKL R-309 (track 309°) until D10 VKL, then follow the assigned SID.	
SID	ROUTING
BATAR 1E	Continue on VKL R-309 (track 309°) passing 3000' turn LEFT (MAX 250KT) until joining VBA R-171 (track 171°) bound to RUMID, then BATAR.
DUMOK 1E	Continue on VKL R-309 (track 309°) passing 3000' turn LEFT (MAX 250KT) until joining VBA R-171 (track 171°) bound to RUMID, then DUMOK.
ISTAN 1E	Continue on VKL R-309 (track 309°) passing 3000' turn LEFT (MAX 250KT) to intercept and follow VKL R-275 (track 095°) inbound to VKL. Leave VKL on VKL R-069 (track 069°) bound to ISTAN.
KIMAT 1E	Continue on VKL R-309 (track 309°) passing 3000' turn LEFT (MAX 250KT) to intercept and follow VKL R-275 (track 095°) inbound to VKL. Leave VKL on VKL R-055 (track 055°) bound to KIMAT.
MITOS 1E	Continue on VKL R-309 (track 309°) passing 3000' turn LEFT (MAX 250KT) until joining VBA R-171 (track 171°) bound to RUMID, then MITOS.
PIBOS 1E	Continue on VKL R-309 (track 309°) passing 3000' turn LEFT (MAX 250KT) to intercept and follow VKL R-275 (track 095°) inbound to VKL. Leave VKL on VKL R-027 (track 027°) bound to PIBOS.
RUMID 1E	Continue on VKL R-309 (track 309°) passing 3000' turn LEFT (MAX 250KT) until joining VBA R-171 (track 171°) bound to RUMID.

BATAR 1E [BATA1E], DUMOK 1E [DUMO1E],
ISTAN 1E [ISTA1E], KIMAT 1E [KIMA1E],
MITOS 1E [MITO1E], PIBOS 1E [PIBO1E]
RUMID 1E [RUMI1E] LEFT DEPARTURES
(RWY 32L)



LUMPUR Departure
135.25Apt Elev
70'Trans level: FL130 Trans alt: 11000'
Turn before DER is not allowed.**BATAR 1F [BATA1F], DUMOK 1F [DUMO1F],
MITOS 1F [MITO1F], RUMID 1F [RUMI1F],
DEPARTURES**
(RWY 33)

NOT TO SCALE

These SIDs require a minimum climb gradient of 5.9% (360' per NM) until passing 4000' for ATC purposes.

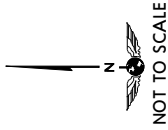
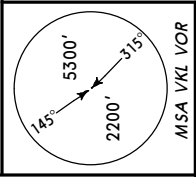
Gnd speed-KT	75	100	150	200	250	300
5.9% V/V(fpm)	448	597	896	1195	1494	1792

INITIAL CLIMB

After take-off turn LEFT (MAX 230 KT) on track 260°, then follow the assigned SID.

SID	ROUTING
BATAR 1F	Continue on track 260°, at VKL 11 DME, turn LEFT (MAX 250 KT) to intercept and follow VBA R-171 (track 171°) bound to RUMID, then BATAR.
DUMOK 1F	Continue on track 260°, at VKL 11 DME, turn LEFT (MAX 250 KT) to intercept and follow VBA R-171 (track 171°) bound to RUMID, then DUMOK.
MITOS 1F	Continue on track 260°, at VKL 11 DME, turn LEFT (MAX 250 KT) to intercept and follow VBA R-171 (track 171°) bound to RUMID, then MITOS.
RUMID 1F	Continue on track 260°, at VKL 11 DME, turn LEFT (MAX 250 KT) to intercept and follow VBA R-171 (track 171°) bound to RUMID.

LUMPUR Departure 135.25	Apt Elev 70'	Trans level: FL130	Trans alt: 11000'
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Direct distance from Kuala Lumpur Intl. - Sepang to:

- DUMOK 32 NM
- ISTAN 50 NM
- KIMAT 46 NM
- PIBOS 42 NM
- RUMID 25 NM
- VKL 3 NM

These SIDs require a minimum climb gradient of 5% (304' per NM) until passing 4000' for ATC purposes.

Gnd speed-KT	75	100	150	200	250	300
5.0% V/V (fpm)	380	506	760	1013	1266	1519

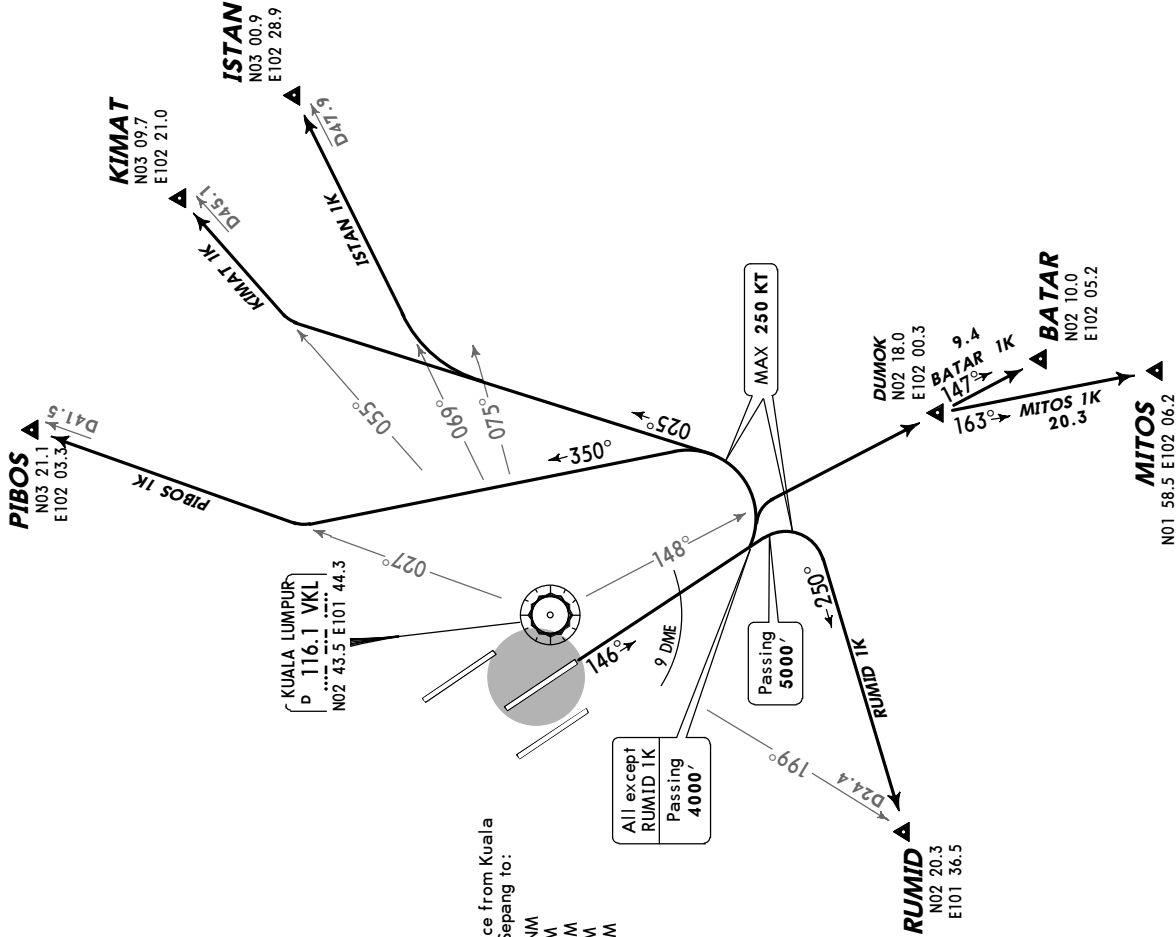
INITIAL CLIMB

After take-off proceed on track 146° until VKL 9 DME, then follow the assigned SID.

ROUTING

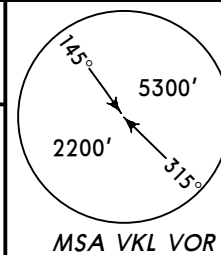
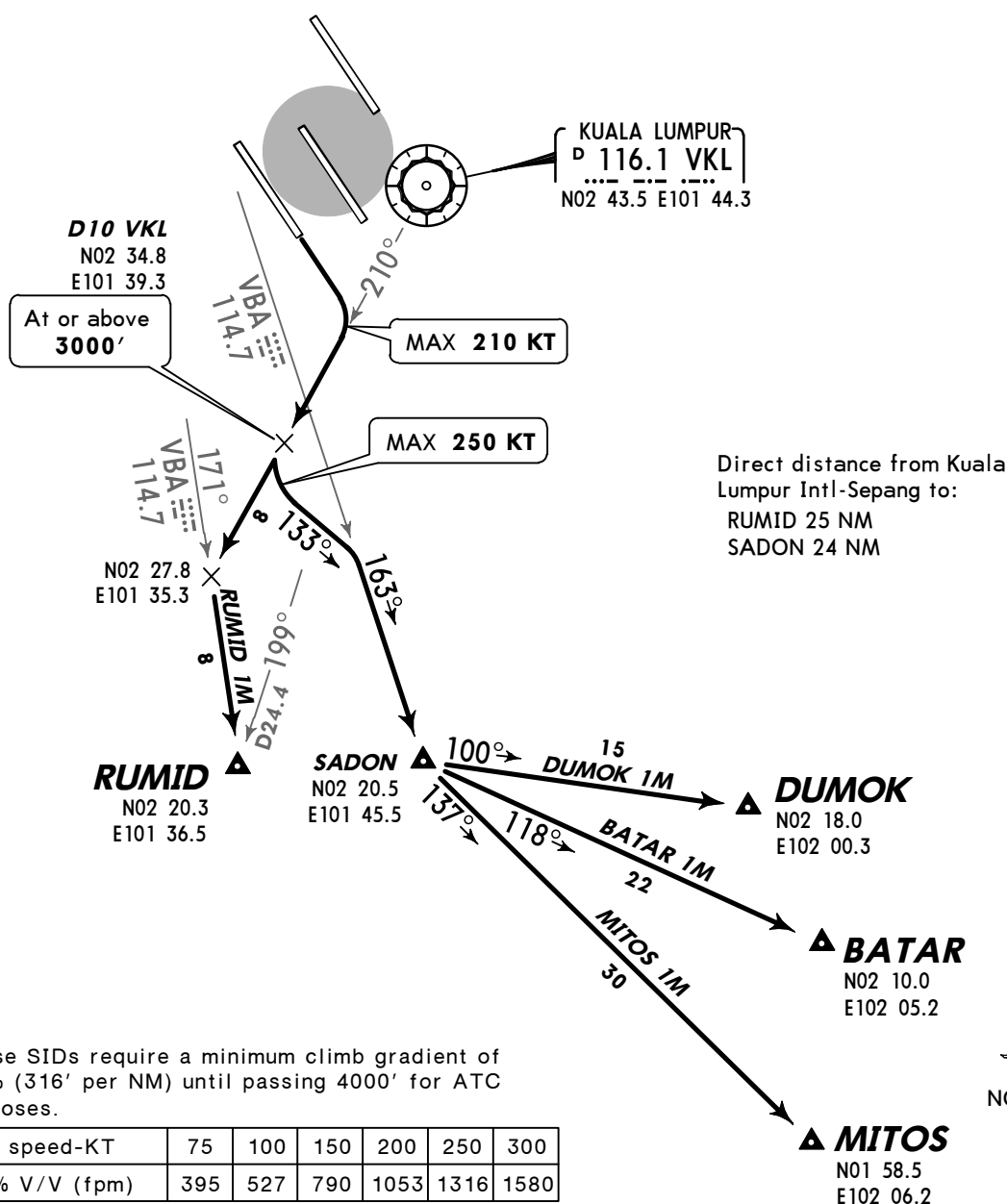
BATAR 1K	Continue on track 146°, passing 4000' turn LEFT (MAX 250 KT) to join VKL R-148 inbound to DUMOK, then BATAR.
ISTAN 1K	Continue on track 146°, passing 4000' turn LEFT (MAX 250 KT) on track 025°, crossing VKL R-075 turn RIGHT to join VKL R-069 (track 069°) bound to ISTAN.
KIMAT 1K	Continue on track 146°, passing 4000' turn LEFT (MAX 250 KT) on track 025° until joining VKL R-055 (track 055°) bound to KIMAT.
MITOS 1K	Continue on track 146°, passing 4000' turn LEFT (MAX 250 KT) to join VKL R-148 inbound to DUMOK, then MITOS.
PIBOS 1K	Continue on track 146°, passing 4000' turn LEFT (MAX 250 KT) on track 350° until joining VKL R-027 (track 027°) bound to PIBOS.
RUMID 1K	Continue on track 146°, passing 5000' turn RIGHT (MAX 250 KT) on track 250° bound to RUMID.

BATAR 1K [BATA1K], ISTAN 1K [ISTA1K],
KIMAT 1K [KIMA1K], MITOS 1K [MITO1K],
PIBOS 1K [PIBO1K], RUMID 1K [RUMI1K]
DEPARTURES
(RWY 14R)



LUMPUR Departure
135.25Apt Elev
70'

Trans level: FL130 Trans alt: 11000'

**BATAR 1M [BATA1M], DUMOK 1M [DUMO1M],
MITOS 1M [MITO1M], RUMID 1M [RUMI1M]
DEPARTURES**
(RWY 15)

These SIDs require a minimum climb gradient of 5.2% (316' per NM) until passing 4000' for ATC purposes.

Gnd speed-KT	75	100	150	200	250	300
5.2% V/V (fpm)	395	527	790	1053	1316	1580

INITIAL CLIMB

After take-off turn RIGHT (MAX 210 KT during turn) to intercept and follow VKL R-210 (track 210°) until D10 VKL, then follow the assigned SID.

SID	ROUTING
BATAR 1M	Turn LEFT (MAX 250 KT) on track 133° until joining VBA R-163 (track 163°) inbound to SADON, then BATAR.
DUMOK 1M	Turn LEFT (MAX 250 KT) on track 133° until joining VBA R-163 (track 163°) inbound to SADON then DUMOK.
MITOS 1M	Turn LEFT (MAX 250 KT) on track 133° until joining VBA R-163 (track 163°) inbound to SADON then MITOS.
RUMID 1M	Continue on track 210° (VKL R-210) until joining VBA R-171 (track 171°) bound to RUMID.

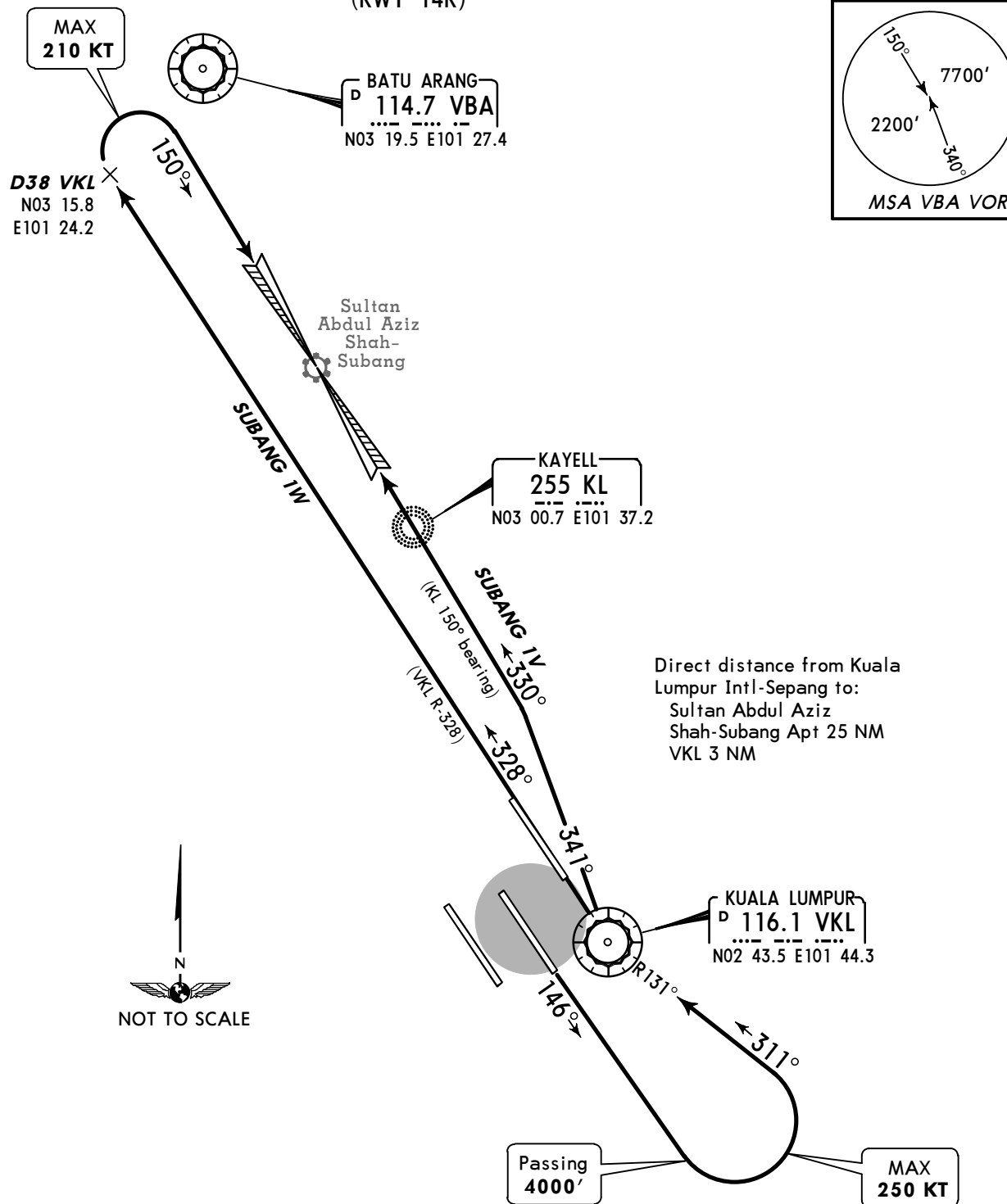
LUMPUR Departure
135.25

Apt Elev
70'

Trans level: FL130 Trans alt: 11000'

SUBANG 1V [SUBA1V], SUBANG 1W [SUBA1W] DEPARTURES

(FOR SULTAN ABDUL AZIZ SHAH-SUBANG)
(RWY 14R)



INITIAL CLIMB

After take-off proceed on track 146°, passing 4000' turn LEFT (MAX 250 KT) until joining VKL R-131 (track 311°) inbound to VKL.

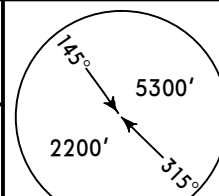
SID	ROUTING
SUBANG 1V	At VKL proceed on VKL R-341 (track 341°) until joining KL 150° bearing, to intercept the localizer for ILS approach RWY 33.
SUBANG 1W	At VKL proceed on VKL R-328 (track 328°). At D38 VKL turn RIGHT (MAX 210 KT) to intercept the localizer for ILS approach RWY 15.

LUMPUR Departure
135.25

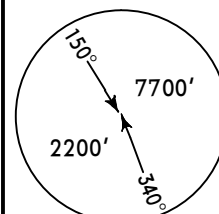
Apt Elev
70'

Trans level: FL130 Trans alt: 11000'

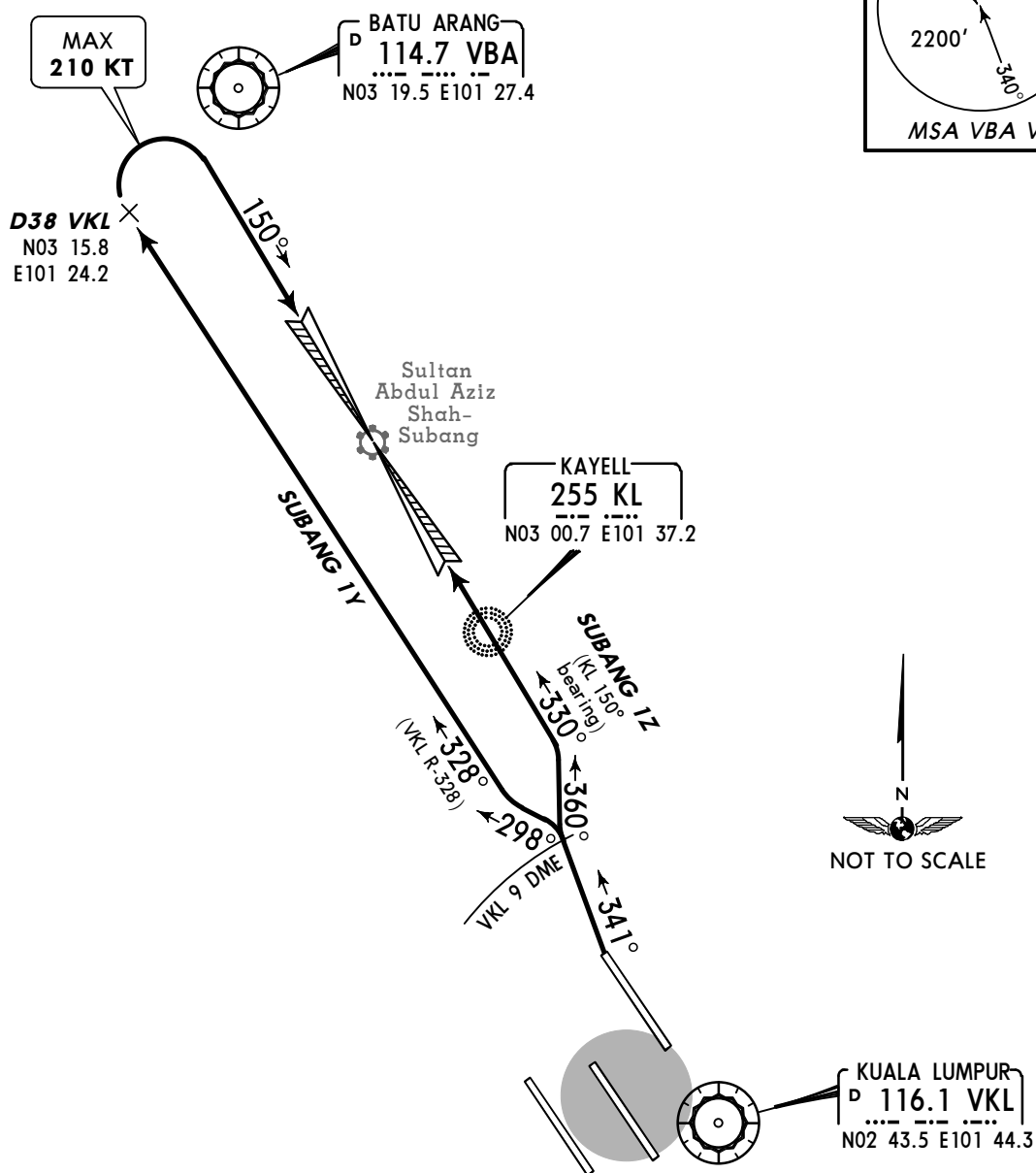
**SUBANG 1Y [SUBA1Y], SUBANG 1Z [SUBA1Z]
DEPARTURES**
(FOR SULTAN ABDUL AZIZ SHAH-SUBANG)
(RWY 32R)



MSA VKL VOR



MSA VBA VOR



Direct distance from Kuala
Lumpur Intl-Sepang to:
Sultan Abdul Aziz Shah-Subang Apt 25 NM

INITIAL CLIMB

After take-off proceed on track 341°, until VKL 9 DME.

SID	ROUTING
SUBANG 1Y	At VKL 9 DME turn LEFT on track 298° to intercept and follow VKL R-328. At D38 VKL turn RIGHT (MAX 210 KT) to intercept the localizer for ILS approach RWY 15.
SUBANG 1Z	At VKL 9 DME turn RIGHT on track 360° until joining KL 150° bearing to intercept the localizer for ILS approach RWY 33.

TAXI ROUTES FOR ARRIVALS

Examples of the phraseology used for Standard Routes are as follows:

GMC: 'C/S, taxi to stand Charlie 33 via standard route,' (if required hold short of taxiway...)

Apron: 'C/S, taxi to stand Charlie 33'

Examples of the phraseology used for Non-standard Routes are as follows:

GMC: 'C/S, taxi to stand Alpha 6 via Charlie and Delta 2, hold short of Golf.'

Apron: 'C/S, continue taxi to stand Alpha 6 Rwy 32R via Golf, Foxtrot 6, Tango 6 and Tango 7'

ARRIVALS RUNWAY 14L

All aircraft to vacate runway via intersections A6 or A7.

Exits via A8, A9 and A11 may be approved on request.

APRON	GATES	TAXI ROUTE DETAIL
MAIN(MS) 122.15	A2-A14 (EVEN Nos.) & A51, A52, A53, A54	Exit onto A then: B8/B11/B13 (Turn right onto B - if required) F, T5, T7
MAIN(MW) 122.15	A3- A13 (ODD Nos.)	Exit onto A then: B8, F, T6, T9, T8
MAIN(MN) 122.15	B3- B23 (ODD Nos.) Includes stands B61, B62 & B63	Exit onto A then: B6/B8(Turn right onto B - if required) T1, T2 B747 for stands B61/B62/B63: B8/B11/B13(Turn right onto B - if required)T2, T3
MAIN(ME) 122.15	B2- B16 (EVEN Nos.) & B51, B52, B53, B54	Exit onto A then: B8/F/T4, T2
VIP 122.15	A61, A62 & A63	Exit onto A then: B8/B11/B13 (Turn right onto B - if required) F, T6, T7, D, T13
SATELLITE (SS) 122.27	C1, C3, C7, C32, C34, C36, C38, C51, C52, C53	Exit onto A then: B14, K, H5, H, S5, S9, (S4, dependent on stand no.)
SATELLITE (SW) 122.85	C2, C4, C6, C11, C13, C15, C61, C62	Exit onto A then: B8/B11/B13 (Turn right onto B - if required) F, F4, S6, S10, (S7, dependent on stand no.)
SATELLITE (SN) 122.85	C12, C14, C16, C18, C21, C23, C25, C72, C73, C74	Exit onto A then: B8/B11/B13 (Turn right onto B - if required) F, F2, S8, (S1, dependent on stand no.) A380; Exit onto A via A7, A10 or A11 then: B9/B12/B13 (Turn right onto B - if required) G, S8, S1
SATELLITE (SE) 122.27	C22, C24, C26, C28, C31, C33, C35, C81, C82, C83	Exit onto A then: B11/B13, B, S2 (S3 dependent on stand no.)
SATELLITE (C17) 122.85	C17	Exit onto A then: B8/B11/B13 (Turn right onto B - if required) F, F4, G A380; Exit onto A via A7, A10 or A11 then: B9/B12/B13 (Turn right onto B - if required) G
SATELLITE (C27) 121.65	C27	Exit onto A then: B11/B13, B A380: Exit onto A via A7, A10 or A11 then: B9/B12/B13 onto B
SATELLITE (C37) 122.27	C37	Exit onto A then: B14, K, H5, H A380: Exit onto A via A7, A10 or A11 then: B9/B12/B13 (Turn onto B - if required) H
CARGO (CS) 121.8	F8, F9, F10, F11	Exit onto A then: B14, K, E
CARGO (CW) 123.25	F1- F7	Exit onto A then: B14, K
CARGO (CN) 123.25	F21- F23 F51- F58 F61- F68	Exit onto A then: B14, K (K1 or K2 dependent on stand no.)
CARGO (CE) 123.25	F71- F78 F81- F88 F91- F98	Exit onto A then: B14, B (N1/N2), L1/L2/L3 dependent on stand no.)

TAXI ROUTES FOR ARRIVALS

ARRIVALS RUNWAY 14R

All aircraft to vacate runway via intersections C7 or C8.
Exits via C9, C10 and C11 may be approved on request.

APRON	GATES	TAXI ROUTE DETAIL
MAIN(MS) 122.15	A2-A14 (EVEN Nos.) & A51, A52, A53, A54	Exit onto C then: D11/D10, D, G, F5, T5, T7
MAIN(MW) 122.15	A3- A13 (ODD Nos.)	Exit onto C then: D11/D10, D, G, F6, T6, T9, T8
MAIN(MN) 122.15	B3- B23 (ODD Nos.) Includes stands B61, B62 & B63	Exit onto C then: D11/D10, D, G, B, T1, T12 B747 for stands B61/B62/B63: D11/D10, D, G, B, T2, T3
MAIN(ME) 122.15	B2- B16 (EVEN Nos.) & B51, B52, B53, B54	Exit onto C then: D11/D10, D, G, F4, T4, T2
VIP 122.15	A61, A62 & A63	Exit onto C then: D11/D10, D, T13
SATELLITE (SS) 122.27	C1, C3, C7, C32, C34, C36, C38, C51, C52, C53	Exit onto C then: D11/D10, D, H, S5, S9, (S4, dependent on stand no.)
SATELLITE (SW) 122.85	C2, C4, C6, C11, C13, C15, C61, C62	Exit onto C then: D11/D10, D, G, S6, S10, (S7, dependent on stand no.)
SATELLITE (SN) 122.85	C12, C14, C16, C18, C21, C23, C25, C72, C73, C74	Exit onto C then: D11/D10, D, G, S8, (S1, dependent on stand no.) A380: Exit via C8 onto D11 (or Exit C11 onto C then D11) D, G, S8, S1
SATELLITE (SE) 122.27	C22, C24, C26, C28, C31, C33, C35, C81, C82, C83	Exit onto C then: D11/D10, D, H, B, S2, (S3 dependent on stand no.)
SATELLITE (C17) 122.85	C17	Exit onto C then: D11/D10, D, G A380: Exit via C8 onto D11 (or Exit C11 onto C then D11) D, G
SATELLITE (C27) 121.65	C27	Exit onto C then: D11/D10, D, H, B A380: Exit via C8 onto D11 (or Exit C11 onto C then D11) D, H, B
SATELLITE (C37) 122.27	C37	Exit onto C then: D11/D10, D, H A380: Exit via C8 onto D11 (or Exit C11 onto C then D11) D, H
CARGO (CS) 121.8	F8, F9, F10, F11	Exit onto C then: D11/D10, D, E2, E
CARGO (CW) 123.25	F1- F7	Exit onto C then: D10/D11, D, H, H3, K
CARGO (CN) 123.25	F21- F23 F51- F58 F61- F68	Exit onto C then: D11/D10, D, H, B12, A, B14, K (K1 or K2 dependent on stand no.)
CARGO (CE) 123.25	F71- F78 F81- F88 F91- F98	Exit onto C then: D11/D10, D, H, B12, A, B14, B, N1/ N2, L (L1 or L2 or L3 dependent on stand no.)

TAXI ROUTES FOR ARRIVALS

ARRIVALS RUNWAY 32L

All aircraft to vacate runway via intersections C5 or C6.

Exits via C2, C3 and C4 may be approved on request.

APRON	GATES	TAXI ROUTE DETAIL
MAIN(MS) 122.15	A2-A14 (EVEN Nos.) & A51, A52, A53, A54	Exit onto C then: D2, G, F5, T5, T7
MAIN(MW) 122.15	A3- A13 (ODD Nos.)	Exit onto C then: D2, G, F6, T6, T9, T8
MAIN(MN) 122.15	B3- B23 (ODD Nos.) Includes stands B61, B62 & B63	Exit onto C then: D2, G, F1, T3, T1, T12 B747 for stands B61/B62/B63: D2, G, F1, T3
MAIN(ME) 122.15	B2- B16 (EVEN Nos.) & B51, B52, B53, B54	Exit onto C then: D2, G, F4, T4, T2
VIP 122.15	A61, A62 & A63	Exit onto C then: D2, G, F6, T6, T7, D, T13
SATELLITE (SS) 122.27	C1, C3, C7, C32, C34, C36, C38, C51, C52, C53	Exit onto C, then: D5/D3/D2 (Turn right onto D - if required) H, S5, S9, (S4, dependent on stand no.)
SATELLITE (SW) 122.85	C2, C4, C6, C11, C13, C15, C61, C62	Exit onto C then: D2, G, S6, S10, (S7 dependent on stand no.)
SATELLITE (SN) 122.85	C12, C14, C16, C18, C21, C23, C25, C72, C73, C74	Exit onto C then: D2, G, S8, (S1, dependent on stand no.) A380: Exit C5 onto D5, or C2 onto D2, or C1 onto D1, (turn onto D- if required) G, S8, S1
SATELLITE (SE) 122.27	C22, C24, C26, C28, C31, C33, C35, C81, C82, C83	Exit onto C then: D2, G, B, S2 (S3 dependent on stand no.)
SATELLITE (C17) 122.85	C17	Exit onto C then: D2 A380: Exit C5 onto D5, or C2 onto D2, or C1 onto D1, (turn onto D- if required), G
SATELLITE (C27) 121.65	C27	Exit onto C then: D2, G, B A380: Exit C5 onto D5, or C2 onto D2, or C1 onto D1, (turn onto D- if required), G, B
SATELLITE (C37) 122.27	C37	Exit onto C, then: D5/D3/D2 (Turn right onto D - if required) H A380: Exit C5 onto D5, or C2 onto D2, or C1 onto D1, (turn onto D- if required), H
CARGO (CS) 121.8	F8, F9, F10, F11	Exit onto C then: D5/D3/D2, (Turn right onto D - if required) D, E2, E
CARGO (CW) 123.25	F1- F7	Exit onto C then: D5/D3/D2 (Turn right onto D - if required) H, H3, K
CARGO (CN) 123.25	F21- F23 F51- F58 F61- F68	Exit onto C then: D5/D3/D2 (Turn right onto D - if required) H, B, K (K1 or K2 dependent on stand no.)
CARGO (CE) 123.25	F71- F78 F81- F88 F91- F98	Exit onto C then: D5/D3/D2 (Turn right onto D - if required) H, B, N1/N2, L (L1 or L2 or L3 dependent on stand no.)

TAXI ROUTES FOR ARRIVALS

ARRIVALS RUNWAY 32R

All aircraft to vacate runway via intersections A4 or A5.

Exits via A1, A2 and A3 may be approved on request.

APRON	GATES	TAXI ROUTE DETAIL
MAIN(MS) 122.15	A2- A14 (EVEN Nos.) & A51, A52, A53, A54	Exit onto A then: B5, B, F, T5, T7
MAIN(MW) 122.15	A3- A13 (ODD Nos.)	Exit onto A then: B5, B, F, T6, T9, T8
MAIN(MN) 122.15	B3- B23 (ODD Nos.) Includes stands B61, B62 & B63	Exit onto A then: B5, B, T1, T12 B747 for stands B62/B63: B5, B, T2, T3
MAIN(ME) 122.15	B2- B16 (EVEN Nos.) & B51, B52, B53, B54	Exit onto A then: B5, B, F, T4, T2
VIP 122.15	A61, A62 & A63	Exit onto A then: B5, B, F, T6, T7, D, T13
SATELLITE (SS) 122.27	C1, C3, C7, C32, C34, C36, C38, C51, C52, C53	Exit onto A then: B5, B, K, H5, H, S5, S9, (S4, dependent on stand no.)
SATELLITE (SW) 122.85	C2, C4, C6, C11, C13, C15, C61, C62	Exit onto A then: B5, B, F, F4, S6, S10, (S7, dependent on stand no.)
SATELLITE (SN) 122.85	C12, C14, C16, C18, C21, C23, C25, C72, C73, C74	Exit onto A then: B5, B, F, F2, S8 (S1, dependent on stand no.) A380: Exit via A4/A1 onto A, then: B5, B, G, S8, S1
SATELLITE (SE) 122.27	C22, C24, C26, C28, C31, C33, C35, C81, C82, C83	Exit onto A then: B5, B, S2 (S3 dependent on stand no.)
SATELLITE (C17) 122.85	C17	Exit onto A then: B5, B, F, F4, G A380: Exit via A4/A1 onto A, then: B5, B, G
SATELLITE (C27) 121.65	C27	Exit onto A then: B5, B A380: Exit via A4/A1 onto A, then: B5, B
SATELLITE (C37) 122.27	C37	Exit onto A then: B5, B, K, H5, H A380: Exit via A4/A1 onto A, then: B5, B, H
CARGO (CS) 121.8	F8, F9, F10, F11	Exit onto A then: B5, B, K, D, E2, E
CARGO (CW) 123.25	F1- F7	Exit onto A then: B5, B, K
CARGO (CN) 123.25	F21- F23 F51- F58 F61- F68	Exit onto A then: B5, B, K (K1 or K2 dependent on stand no.)
CARGO (CE) 123.25	F71- F78 F81- F88 F91- F98	Exit onto A then: B5, B, N1/N2, L (L1 or L2 or L3 dependent on stand no.)

TAXI ROUTES FOR DEPARTURES

Examples of the phraseology used for Standard Routes are as follows:

Apron: 'C/S, taxi to holding point Runway 32R via standard route,' (if required hold short of taxiway...)

GMC: 'C/S, continue taxi to Holding Point Alpha 11 Rwy 32R'

Examples of the phraseology used for Non-standard Routes are as follows:

Apron: 'C/S, taxi to holding point Runway 32R via Tango 4, Foxtrot, Hold short of Bravo.'

GMC: 'C/S, continue taxi to Holding Point Alpha 9 Rwy 32R via Alpha'

DEPARTURES RUNWAY 14L Intersections A2 and A3 available on request.		
APRON	GATES	TAXI ROUTE DETAIL
MAIN(MS) 122.15	A2-A14 (EVEN Nos.) & A51, A52, A53, A54	T7, T6, F6, G, B, B5, A, A1
MAIN(MW) 122.15	A3- A13 (ODD Nos.)	T8, T6, F6, G, B, B5, A, A1
MAIN(MN) 122.15	B3- B23 (ODD Nos.) Includes stands B61, B62 & B63	T12, T3, T2, B, B5, A, A1
MAIN(ME) 122.15	B2- B16 (EVEN Nos.) & B51, B52, B53, B54	T2, B, B5, A, A1
VIP 122.15	A61, A62 & A63	T13, T6, F6, G, B, B5, A, A1
SATELLITE (SS) 122.27	C1, C3, C7, C32, C34, C36, C38, C51, C52, C53	S4, H, B, B5, A, A1
SATELLITE (SW) 122.85	C2, C4, C6, C11, C13, C15, C61, C62	S7, G, B, B5, A, A1
SATELLITE (SN) 122.85	C12, C14, C16, C18, C21, C23, C25, C72, C73, C74	S1, B, B5, A, A1 A380: S1, B, B5, A, A1
SATELLITE (SE) 122.27	C22, C24, C26, C28, C31, C33, C35, C81, C82, C83	S3, H, B, B5, A, A1
SATELLITE (C17) 122.85	C17	G, B, B5, A, A1 A380: G, B, B5, A, A1
SATELLITE (C27) 121.65	C27	B, B5, A, A1 A380: B, B5, A, A1
SATELLITE (C37) 122.27	C37	H, B, B5, A, A1 A380: H, B, B5, A, A1
CARGO (CS) 121.8	F8, F9, F10, F11	E, E1, D, H, B, B5, A, A1
CARGO (CW) 123.25	F1- F7	K, H5, H, B, B5, A, A1
CARGO (CN) 123.25	F21- F23 F51- F58 F61- F68	(K1 or K2 dependent on stand no.)K, H5, H, B, B5, A, A1
CARGO (CE) 123.25	F71- F78 F81- F88 F91- F98	(L1/L2/L3 dependent on stand no.)L, K, H5, H, B, B5, A, A1

TAXI ROUTES FOR DEPARTURES

DEPARTURES RUNWAY 14R Intersections C2 and C3 available on request.		
APRON	GATES	TAXI ROUTE DETAIL
MAIN(MS) 122.15	A2-A14 (EVEN Nos.) & A51, A52, A53, A54	T7, T6, F, D1, C1
MAIN(MW) 122.15	A3- A13 (ODD Nos.)	T8,T6, F, D1, C1
MAIN(MN) 122.15	B3- B23 (ODD Nos.) Includes stands B61, B62 & B63	T12, T3, F, D1, C1
MAIN(ME) 122.15	B2- B16 (EVEN Nos.) & B51, B52, B53, B54	T2, T3, F, D1, C1
VIP 122.15	A61, A62 & A63	T13, T6, F, D1, C1
SATELLITE (SS) 122.27	C1, C3, C7, C32, C34, C36, C38, C51, C52, C53	S4, H3, K, D7, C, C1
SATELLITE (SW) 122.85	C2, C4 ,C6, C11, C13, C15, C61, C62	S7, F3, F, D1, C1
SATELLITE (SN) 122.85	C12, C14, C16, C18, C21, C23, C25, C72, C73, C74	S1, B, F, D1, C1 A380: S1, B, G, D, D1, C1
SATELLITE (SE) 122.27	C22, C24, C26, C28, C31, C33, C35, C81, C82, C83	S3, H, B, F, D1, C1
SATELLITE (C17) 122.85	C17	G, F1, F, D1, C1 A380: G, D, D1, C1
SATELLITE (C27) 121.65	C27	B, F, D1, C1 A380: B, G, D, D1, C1
SATELLITE (C37) 122.27	C37	H, B, F, D1, C1 A380: H, B, G, D, D1, C1
CARGO (CS) 121.8	F8, F9, F10, F11	E, E1, D8, C, C1
CARGO (CW) 123.25	F1- F7	K, D7, C, C1
CARGO (CN) 123.25	F21- F23 F51- F58 F61- F68	(K1 or K2 dependent on stand no.) K, D7, C, C1
CARGO (CE) 123.25	F71- F78 F81- F88 F91- F98	(L1 or L2 or L3 dependent on stand no.) L, K, D7, C, C1

TAXI ROUTES FOR DEPARTURES

DEPARTURES RUNWAY 32L Intersections C7, C9 and C10 available on request.		
APRON	GATES	TAXI ROUTE DETAIL
MAIN(MS) 122.15	A2-A14 (EVEN Nos.) & A51, A52, A53, A54	T7, T6, F, D, D11, C, C11
MAIN(MW) 122.15	A3- A13 (ODD Nos.)	T8, T6, F, D, D11, C, C11
MAIN(MN) 122.15	B3- B23 (ODD Nos.) Includes stands B61, B62 & B63	T12, T3, F, D, D11, C, C11
MAIN(ME) 122.15	B2- B16 (EVEN Nos.) & B51, B52, B53, B54	T2, T3, F, D, D11, C, C11
VIP 122.15	A61, A62 & A63	T13, T6, F, D, D11, C, C11
SATELLITE (SS) 122.27	C1, C3, C7, C32, C34, C36, C38, C51, C52, C53	S4, H3, K, D, D11, C, C11
SATELLITE (SW) 122.85	C2, C4, C6, C11, C13, C15, C61, C62	S7, F3, F, D, D11, C, C11
SATELLITE (SN) 122.85	C12, C14, C16, C18, C21, C23, C25, C72, C73, C74	S1, B, K, D, D11, C, C11 A380: S1, B, G, D, D11, C, C11
SATELLITE (SE) 122.27	C22, C24, C26, C28, C31, C33, C35, C81, C82, C83	S3, H, B, K, D, D11, C, C11
SATELLITE (C17) 122.85	C17	G, F1, F, D, D11, C, C11 A380: G, D, D11, C, C11
SATELLITE (C27) 121.65	C27	B, K, D, D11, C, C11 A380: B, G, D, D11, C, C11
SATELLITE (C37) 122.27	C37	H, B, K, D, D11, C, C11 A380: H, D, D11, C, C11
CARGO (CS) 121.8	F8, F9, F10, F11	E, E1, D, D11, C, C11
CARGO (CW) 123.25	F1- F7	K, D, D11, C, C11
CARGO (CN) 123.25	F21- F23 F51- F58 F61- F68	(K1 or K2 dependent on stand no.) K, D, D11, C, C11
CARGO (CE) 123.25	F71- F78 F81- F88 F91- F98	(L1 or L2 or L3 dependent on stand no.) L, K, D, D11, C, C11

TAXI ROUTES FOR DEPARTURES

DEPARTURES RUNWAY 32R Intersections A9 and A10 available on request.		
APRON	GATES	TAXI ROUTE DETAIL
MAIN(MS) 122.15	A2-A14 (EVEN Nos.) & A51, A52, A53, A54	T7, T6, F6, G, B9, A, A11
MAIN(MW) 122.15	A3- A13 (ODD Nos.)	T8, T6, F6, G, B9, A, A11
MAIN(MN) 122.15	B3- B23 (ODD Nos.) Includes stands B61, B62 & B63	T12, T3, F1, G, B9, A, A11
MAIN(ME) 122.15	B2- B16 (EVEN Nos.) & B51, B52, B53, B54	T2, T3, F1, G, B9, A, A11
VIP 122.15	A61, A62 & A63	T13, T6, F6, G, B9, A, A11
SATELLITE (SS) 122.27	C1, C3, C7, C32, C34, C36, C38, C51, C52, C53	S4, H, B12, A, A11
SATELLITE (SW) 122.85	C2, C4, C6, C11, C13, C15, C61, C62	S7, G, B9, A, A11
SATELLITE (SN) 122.85	C12, C14, C16, C18, C21, C23, C25, C72, C73, C74	S1, B10, A, A11 A380: S1, B, B13, A11
SATELLITE (SE) 122.27	C22, C24, C26, C28, C31, C33, C35, C81, C82, C83	S3, H, B12, A, A11
SATELLITE (C17) 122.85	C17	G, B9, A, A11 A380: G, B, B13, A11
SATELLITE (C27) 121.65	C27	B, B12, A, A11 A380: B, B13, A11
SATELLITE (C37) 122.27	C37	H, B12, A, A11 A380: H, B, B13, A11
CARGO (CS) 121.8	F8, F9, F10, F11	E, K, D7, C, D5, H, B12, A, A11
CARGO (CW) 123.25	F1- F7	K, H5, H, B12, A, A11
CARGO (CN) 123.25	F21- F23 F51- F58 F61- F68	(K1 or K2 dependent on stand no.) K, H5, H, B12, A, A11
CARGO (CE) 123.25	F71- F78 F81- F88 F91- F98	(L1 or L2 or L3 dependent on stand no.) L, K, H5, H, B12, A, A11

TAXI ROUTES FOR ARRIVALS (KLIA2)
ARRIVALS RUNWAY 15 TO KLIA2

All aircraft to vacate runway via intersections Y6 or Y7.
 Exits via Y8 and Y9 may be approved on request.

APRON	GATES	TAXI ROUTE DETAIL
WEST TERMINAL SOUTH (WTS) 122.55 MHz	K2 - K18 (EVEN NR)	Exit onto Y then: Z7/Z8, Z, U4, U3D/U3E, U3
WEST TERMINAL WEST (WTW) 121.72 MHz	K1 - K13 (ODD NR) & K20 - K24 (EVEN NR)	Exit onto Y then: Z7/Z8, Z, U8 For gates K20, K22 & K24 via Z7/Z8, Z, U7
WEST TERMINAL NORTH (WTN) 121.72 MHz	J1 - J17 (ODD NR)	Exit onto Y then: Z7/Z8, Z, U6, Q6, P, Q1, U1, U2
WEST TERMINAL EAST (WTE) 122.55 MHz	J2 - J22 (EVEN NR)	Exit onto Y then: Z7/Z8, Z, U4, U3A/U3B/U3C, U3
WEST SATELLITE SOUTH (WSS) 130.75 MHz	Q2 - Q18 (EVEN NR)	Exit onto Y then: Z7/Z8, Z, U6, U5B/U5C/U5D, U5
WEST SATELLITE WEST (WSW) 122.55 MHz	Q1 - Q21 (ODD NR)	Exit onto Y then: Z7/Z8, Z, U4
WEST SATELLITE NORTH (WSN) 122.55 MHz	P1 - P21 (ODD NR)	Exit onto Y then: Z7/Z8, Z, U4
WEST SATELLITE EAST (WSE) 130.75 MHz	P2 - P12 (EVEN NR)	Exit onto Y then: Z7/Z8, Z, U6, U5A/U5B, U5

ARRIVALS RUNWAY 33 TO KLIA2

All aircraft to vacate runway via intersection Y4 or Y5.
 Exits via Y1, Y2 and Y3 may be approved on request.

APRON	GATES	TAXI ROUTE DETAIL
WEST TERMINAL SOUTH (WTS) 122.55 MHz	K2 - K18 (EVEN NR)	Exit onto Y then: Z2, U3
WEST TERMINAL WEST (WTW) 121.72 MHz	K1 - K13 (ODD NR) & K20 - K24 (EVEN NR)	Exit onto Y then: Z1, U9, U8 For gates K20, K22 & K24 via Z1, Z, U7
WEST TERMINAL NORTH (WTN) 121.72 MHz	J1 - J17 (ODD NR)	Exit onto Y then: Z5, U6, Q6, P, Q1, U1, U2
WEST TERMINAL EAST (WTE) 122.55 MHz	J2 - J22 (EVEN NR)	Exit onto Y then: Z2, U3
WEST SATELLITE SOUTH (WSS) 130.75 MHz	Q2 - Q18 (EVEN NR)	Exit onto Y then: Z5, U6, U5B/U5C/U5D, U5
WEST SATELLITE WEST (WSW) 122.55 MHz	Q1 - Q21 (ODD NR)	Exit onto Y then: Z2, U3, U3D/U3E/U3F, U4
WEST SATELLITE NORTH (WSN) 122.55 MHz	P1 - P21 (ODD NR)	Exit onto Y then: Z2, U3, U3A/U3B/U3C, U4
WEST SATELLITE EAST (WSE) 130.75 MHz	P2 - P12 (EVEN NR)	Exit onto Y then: Z5, U6, U5A/U5B/U5C, U5

TAXI ROUTES FOR ARRIVALS (KLIA2)

ARRIVALS RUNWAY 32L TO KLIA2

APRON	GATES	TAXI ROUTE DETAIL
WEST TERMINAL SOUTH (WTS) 122.55 MHz	K2 - K18 (EVEN NR)	P3/P4 (preferably), P, Q3, Q, U4, U3D/U3E/U3F, U3
WEST TERMINAL WEST (WTW) 121.72 MHz	K1 - K13 (ODD NR) & K20 - K24 (EVEN NR)	P3/P4 (preferably), P, Q5, U5, Z4, Y, Z1, U9, U8 For gates K20, K22 & K24 via P, Q5, U5, Z4, Y, Z1, Z, U7
WEST TERMINAL NORTH (WTN) 121.72 MHz	J1 - J17 (ODD NR)	P3/P4 (preferably), P, Q1, U1, U2
WEST TERMINAL EAST (WTE) 122.55 MHz	J2 - J22 (EVEN NR)	P3/P4 (preferably), P, Q3, Q, U4, U3A/U3B/U3C, U3
WEST SATELLITE SOUTH (WSS) 130.75 MHz	Q2 - Q18 (EVEN NR)	P3/P4 (preferably), P, Q5, U5
WEST SATELLITE WEST (WSW) 122.55 MHz	Q1 - Q21 (ODD NR)	P3/P4 (preferably), P, Q3, Q, U4
WEST SATELLITE NORTH (WSN) 122.55 MHz	P1 - P21 (ODD NR)	P3/P4 (preferably), P, Q3, Q, U4
WEST SATELLITE EAST (WSE) 130.75 MHz	P2 - P12 (EVEN NR)	P3/P4 (preferably), P, Q5, U5

TAXI ROUTES FOR DEPARTURES (KLIA2)

DEPARTURES RUNWAY 14R TO KLIA2
 If RWY 14R in use for arrival, standard taxi route ends at Q6.
 TWY P2 in taxi route detail to be considered as standard route,
 TWYs P3 and P4 to be used on ATC discretion.

APRON	GATES	TAXI ROUTE DETAIL
WEST TERMINAL SOUTH (WTS) 122.55 MHz	K2 - K18 (EVEN NR)	U3, U3D/U3E/U3F, U4, Q, Q6, P2
WEST TERMINAL WEST (WTW) 121.72 MHz	K1 - K13 (ODD NR) & K20 - K24 (EVEN NR)	U8, Z, U4, Q, Q6, P2 For gates K20, K22 & K24 via Z, U6, Q, Q6, P2
WEST TERMINAL NORTH (WTN) 121.72 MHz	J1 - J17 (ODD NR)	U2, Q, Q6, P2
WEST TERMINAL EAST (WTE) 122.55 MHz	J2 - J22 (EVEN NR)	U3, U3A/U3B/U3C, U4, Q, Q6, P2
WEST SATELLITE SOUTH (WSS) 130.75 MHz	Q2 - Q18 (EVEN NR)	U5, U5C/U5D, U6, Q6, P2
WEST SATELLITE WEST (WSW) 122.55 MHz	Q1 - Q21 (ODD NR)	U4, Q, Q6, P2
WEST SATELLITE NORTH (WSN) 122.55 MHz	P1 - P21 (ODD NR)	U4, Q, Q6, P2
WEST SATELLITE EAST (WSE) 130.75 MHz	P2 - P12 (EVEN NR)	U5, U5A/U5B/U5C, U6, Q6, P2

TAXI ROUTES FOR DEPARTURES (KLIA2)
DEPARTURES RUNWAY 15 TO KLIA2

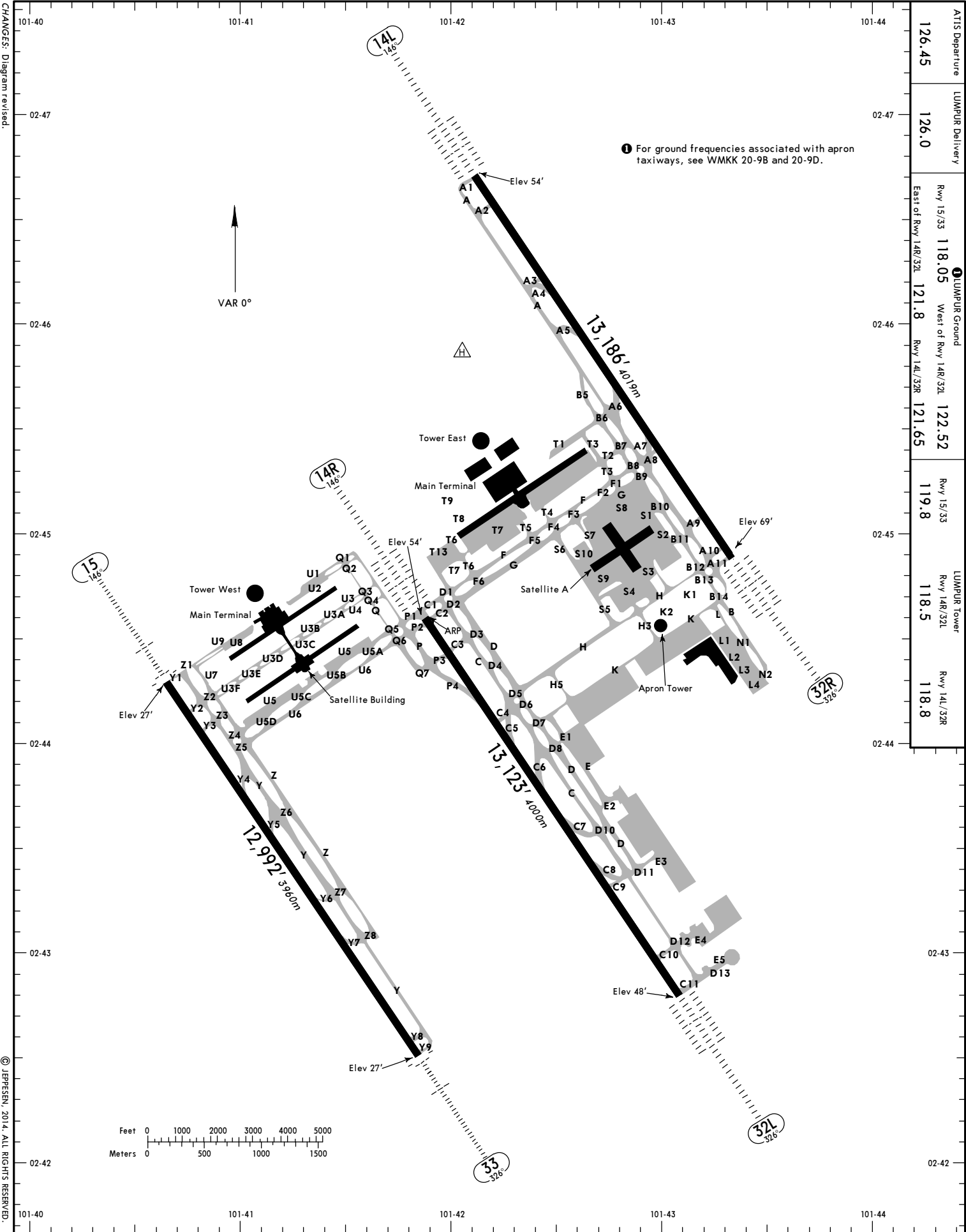
Intersection Y2 and Y3 maybe available on request.

APRON	GATES	TAXI ROUTE DETAIL
WEST TERMINAL SOUTH (WTS) 122.55 MHz	K2 - K18 (EVEN NR)	U3, Z2, Y, Y1
WEST TERMINAL WEST (WTW) 121.72 MHz	K1 - K13 (ODD NR) & K20 - K24 (EVEN NR)	U9, Z1, Y1 For gates K20, K22 & K24 via U7, Z, Z1, Y1
WEST TERMINAL NORTH (WTN) 121.72 MHz	J1 - J17 (ODD NR)	U2, Q, U3, Z2, Y, Y1
WEST TERMINAL EAST (WTE) 122.55 MHz	J2 - J22 (EVEN NR)	U3, Z2, Y, Y1
WEST SATELLITE SOUTH (WSS) 130.75 MHz	Q2 - Q18 (EVEN NR)	U5, Z4, Y, Y1
WEST SATELLITE WEST (WSW) 122.55 MHz	Q1 - Q21 (ODD NR)	U4, U3D/U3E/U3F, U3, Z2, Y, Y1
WEST SATELLITE NORTH (WSN) 122.55 MHz	P1 - P21 (ODD NR)	U4, U3A/U3B/U3C, U3, Z2, Y, Y1
WEST SATELLITE EAST (WSE) 130.75 MHz	P2 - P12 (EVEN NR)	U5, Z4, Y, Y1

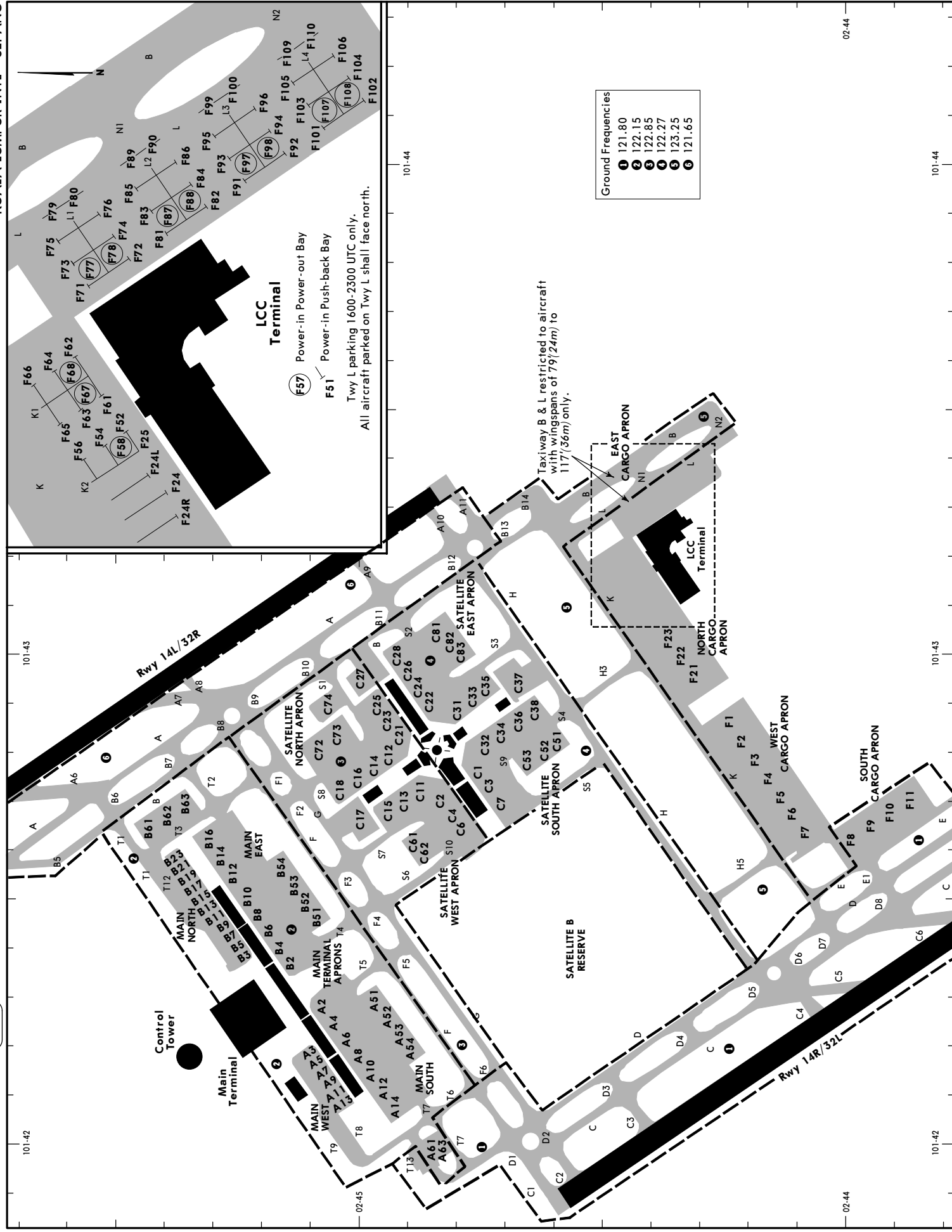
DEPARTURES RUNWAY 33 TO KLIA2

Intersection Y8 and Y7 maybe available on request.

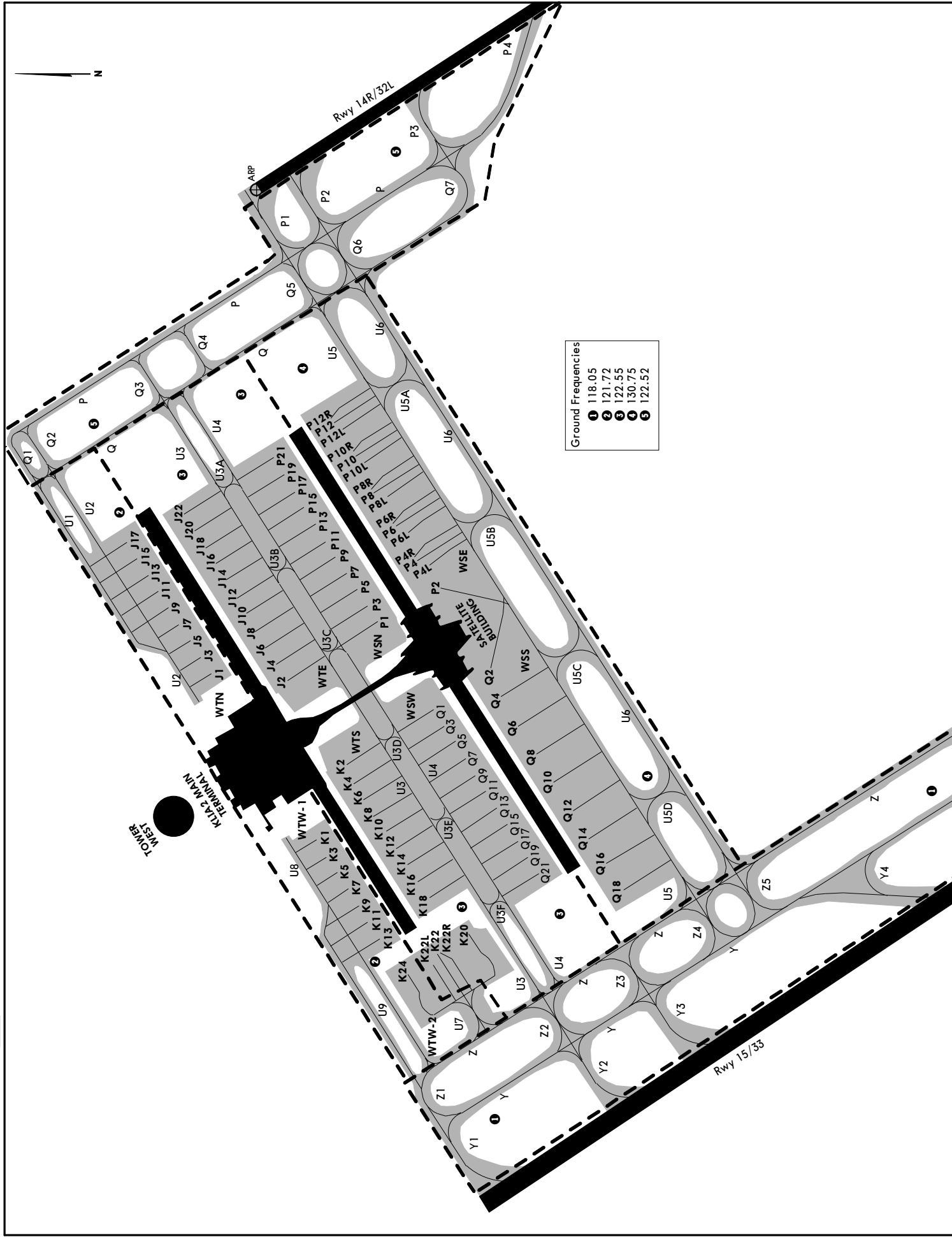
APRON	GATES	TAXI ROUTE DETAIL
WEST TERMINAL SOUTH (WTS) 122.55 MHz	K2 - K18 (EVEN NR)	U3, U3D/U3E, U4, Z, Z8, Y, Y9
WEST TERMINAL WEST (WTW) 121.72 MHz	K1 - K13 (ODD NR) & K20 - K24 (EVEN NR)	U8, Z, Z8, Y, Y9 For gates K20, K22 & K24 via U7, Z, Z8, Y, Y9
WEST TERMINAL NORTH (WTN) 121.72 MHz	J1 - J17 (ODD NR)	U2, Q, U4, Z, Z8, Y, Y9
WEST TERMINAL EAST (WTE) 122.55 MHz	J2 - J22 (EVEN NR)	U3, U3A/U3B/U3C, U4, Z, Z8, Y, Y9
WEST SATELLITE SOUTH (WSS) 130.75 MHz	Q2 - Q18 (EVEN NR)	U5, Z, Z8, Y, Y9
WEST SATELLITE WEST (WSW) 122.55 MHz	Q1 - Q21 (ODD NR)	U4, Z, Z8, Y, Y9
WEST SATELLITE NORTH (WSN) 122.55 MHz	P1 - P21 (ODD NR)	U4, Z, Z8, Y, Y9
WEST SATELLITE EAST (WSE) 130.75 MHz	P2 - P12 (EVEN NR)	U5, Z, Z8, Y, Y9



ADDITIONAL RUNWAY INFORMATION					
RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	LANDING BEYOND Glide Slope		
14L ① 32R	HIRL(60m) CL(15m) ALSF-II TDZ REIL PAPI (angle 3.0°)		12,202' 3719m		197' 60m
			12,130' 3697m		
① grooved					
14R ② 32L	HIRL(60m) CL(15m) ALSF-II TDZ REIL PAPI-L (angle 3.0°)		12,140' 3700m		197' 60m
	HIRL(60m) CL(15m) ALSF-II TDZ REIL PAPI (angle 3.0°)		12,138' 3700m		
② grooved					
15	HIRL(60m) CL(15m) HIALS REIL PAPI-R (angle 3.0°)		12,015' 3662m		197' 60m
33	HIRL(60m) CL(15m) HIALS REIL PAPI-L (angle 3.0°)		12,013' 3662m		
INTERSECTION TAKE-OFF POSITIONS & DISTANCES					
RUNWAY	FROM TAXIWAY	RUNWAY REMAINING	RUNWAY	FROM TAXIWAY	RUNWAY REMAINING
14L	TWY A2	11182' (3604m)	32L	TWY C7	6717' (2048m)
	TWY A3	9289' (2832m)		TWY C8	8202' (2500m)
	TWY A4	8266' (2520m)		TWY C9	9223' (2812m)
	TWY A5	6790' (2070m)		TWY C10	11759' (3585m)
14R	TWY C2	12749' (3887m)	32R	TWY A6	6773' (2065m)
	TWY C3	11696' (3566m)		TWY A7	8443' (2574m)
	TWY C4	9250' (2820m)		TWY A8	9469' (2887m)
	TWY C5	8223' (2507m)		TWY A9	11920' (3634m)
	TWY C6	6724' (2050m)		TWY A10	12969' (3954m)
	TWY P2	12585' (3837m)	33	TWY Y6	6726' (2050m)
	TWY P3	11535' (3517m)		TWY Y7	8202' (2500m)
	TWY P4	9892' (3016m)		TWY Y8	12231' (3728m)
15	TWY Y1	12621' (3847m)		TWY Y9	12625' (3848m)
	TWY Y2	11490' (3502m)			
	TWY Y3	10827' (3300m)			
	TWY Y4	8202' (2500m)			
	TWY Y5	6726' (2050m)			
TAKE-OFF					
AIR CARRIER (JAA)			AIR CARRIER (FAR 121)		
LVP must be in force All Rwys		All Rwys	All Rwys		
RL & CL	RCLM (Day only) or RL	RCLM (Day only) or RL	Adequate Vis Ref		
A			2 Eng		
B	RVR 200m	RVR 250m	3 & 4 Eng	RVR 500m VIS 400m	
C		RVR 400m			
D	RVR 250m				RVR 300m



PARKING STAND COORDINATES				PARKING STAND COORDINATES			
STAND/BAY NO.	COORDINATES	STAND/BAY NO.	COORDINATES	STAND/BAY NO.	COORDINATES	STAND/BAY NO.	COORDINATES
MAIN SOUTH		SATELLITE SOUTH		SOUTH CARGO Cont.		LCC TERMINAL Cont.	
A2, A2L, A2R	N02 45.1, E101 42.3	C1	N02 44.8, E101 42.8	F10R	N02 44.0, E101 42.7	F93	N02 44.4, E101 43.3
A4, A4L, A4R	N02 45.1, E101 42.3	C3, C3L, C3R, C7	N02 44.8, E101 42.7	F11, F11L, F11R	N02 43.9, E101 42.7	F94	N02 44.3, E101 43.4
A6, A6R	N02 45.1, E101 42.2	C7L	N02 44.7, E101 42.7			F95	N02 44.4, E101 43.4
A6L, A8, A8L, A8R	N02 45.0, E101 42.2	C7R	N02 44.8, E101 42.7	WEST CARGO		F96	N02 44.3, E101 43.4
A10, A10L	N02 45.0, E101 42.1	C32, C32L, C32R	N02 44.8, E101 42.8	F1, F1L	N02 44.3, E101 42.9	F97	N02 44.4, E101 43.2
A10R	N02 45.0, E101 42.2	C34	N02 44.8, E101 42.9	F1R	N02 44.3, E101 42.8	F98	N02 44.3, E101 43.3
A12, A12L, A12R	N02 45.0, E101 42.1	C36	N02 44.7, E101 42.9	F2, F2L, F2R	N02 44.3, E101 42.8	F99, F100	N02 44.4, E101 43.4
A14, A14R	N02 45.0, E101 42.1	C38	N02 44.7, E101 42.9	F3, F3L, F3R	N02 44.2, E101 42.8	F101 thru F108	N02 44.3, E101 43.4
A14L	N02 44.9, E101 42.1	C51, C52, C52L	N02 44.6, E101 42.8	F4, F4L, F4R	N02 44.2, E101 42.7	F109	N02 44.3, E101 43.3
A51, A51L, A51R	N02 45.0, E101 42.3	C52R	N02 44.7, E101 42.8	F5, F5L, F5R	N02 44.2, E101 42.7	F110	N02 44.3, E101 43.4
A52, A52L, A52R	N02 45.0, E101 42.3	C53, C53L, C53R	N02 44.7, E101 42.8	F6, F6L	N02 44.2, E101 42.7		
A53, A53L	N02 44.9, E101 42.3			F6R	N02 44.2, E101 42.6		
A53R	N02 44.9, E101 42.2			F7, F7L, F7R	N02 44.1, E101 42.6		
A54, A54L, A54R	N02 44.9, E101 42.2	SATELLITE WEST		NORTH CARGO			
A61, A63	N02 44.9, E101 42.1	C2, C2L	N02 44.9, E101 42.7	F21, F21L	N02 44.4, E101 43.0		
MAIN WEST		C2R, C4, C6	N02 44.8, E101 42.7	F21R	N02 44.4, E101 42.9		
A3, A5, A7	N02 45.1, E101 42.2	C11	N02 44.9, E101 42.7	F22, F22L, F22R	N02 44.4, E101 43.0		
A9, A11	N02 45.1, E101 42.1	C13, C15	N02 45.0, E101 42.7	F23, F23L, F23R	N02 44.4, E101 43.0		
A13	N02 45.0, E101 42.1	C17, C17L, C17R	N02 45.0, E101 42.7	F24, F24L, F24R	N02 44.4, E101 43.0		
MAIN NORTH		C61, C61L, C61R	N02 44.9, E101 42.6	F25	N02 44.5, E101 43.0		
		C62	N02 44.9, E101 42.6	LCC TERMINAL			
B3, B5	N02 45.3, E101 42.4	SATELLITE NORTH		F52, F54	N02 44.5, E101 43.1		
B7, B9, B11	N02 45.3, E101 42.5	C12, C12L, C12R	N02 45.0, E101 42.8	F56	N02 44.5, E101 43.8		
B13, B15	N02 45.3, E101 42.5	C14	N02 45.0, E101 42.8	F58	N02 44.5, E101 43.0		
B17	N02 45.3, E101 42.6	C16	N02 45.0, E101 42.7	F61	N02 44.5, E101 43.1		
B19, B21, B23	N02 45.4, E101 42.6	C18	N02 45.1, E101 42.7	F62	N02 44.5, E101 43.2		
B61, B61L	N02 45.5, E101 42.7	C21, C23, C25	N02 45.0, E101 42.9	F63	N02 44.5, E101 43.1		
B62, B62L, B62R	N02 45.4, E101 42.7	C27, C27L	N02 45.0, E101 43.0	F64	N02 44.5, E101 43.2		
B63, B63L, B63R	N02 45.4, E101 42.7	C27R	N02 45.0, E101 42.9	F65	N02 44.5, E101 43.1		
MAIN EAST		C72, C72L, C72R	N02 45.0, E101 42.9	F66	N02 44.6, E101 43.1		
B2, B2L, B2R	N02 45.2, E101 42.4	C73, C73L, C73R	N02 45.1, E101 42.8	F67	N02 44.5, E101 43.0		
B4, B4L, B4R	N02 45.2, E101 42.4	C74, C74L, C74R	N02 45.1, E101 42.9	F68	N02 44.5, E101 43.1		
B6, B6L	N02 45.2, E101 42.5	SATELLITE EAST		F71	N02 44.5, E101 43.2		
B6R, B8, B8L	N02 45.2, E101 42.5	C22, C22L, C22R	N02 44.9, E101 42.9	F72	N02 44.5, E101 43.3		
B8R, B10	N02 45.3, E101 42.5	C24	N02 44.9, E101 42.9	F73	N02 44.5, E101 43.2		
B10L, B10R	N02 45.3, E101 42.5	C26, C28	N02 45.0, E101 43.0	F74, F75, F76	N02 44.5, E101 43.3		
B12, B12L, B12R	N02 45.3, E101 42.6	C31, C33, C35	N02 44.8, E101 42.9	F77	N02 44.5, E101 43.1		
B14, B14L, B14R	N02 45.3, E101 42.6	C37, C37L, C37R	N02 44.7, E101 42.9	F78	N02 44.4, E101 43.2		
B16, B16L	N02 45.3, E101 42.6	C81	N02 44.9, E101 43.1	F79	N02 44.6, E101 43.3		
B16R	N02 45.4, E101 42.6	C82, C82L, C82R	N02 44.9, E101 43.0	F80	N02 44.5, E101 43.3		
B51, B51L, B51R	N02 45.1, E101 42.5	C83, C83L, C83R	N02 44.8, E101 43.0	F81, F82	N02 44.4, E101 43.3		
B52, B52L, B52R	N02 45.1, E101 42.5	SOUTH CARGO		F83	N02 44.5, E101 43.3		
B53	N02 45.1, E101 42.6	F8, F8L	N02 44.1, E101 42.6	F84	N02 44.4, E101 43.3		
B53L	N02 45.2, E101 42.6	F8R	N02 44.0, E101 42.6	F85	N02 44.5, E101 43.3		
B53R	N02 45.1, E101 42.5	F9, F9L, F9R	N02 44.0, E101 42.6	F86	N02 44.4, E101 43.3		
B54, B54L, B54R	N02 45.2, E101 42.6	F10	N02 44.0, E101 42.7	F87, F88	N02 44.4, E101 43.2		
		F10L	N02 44.0, E101 42.6	F89	N02 44.5, E101 43.3		
				F90	N02 44.4, E101 43.4		
				F91	N02 44.4, E101 43.3		
				F92	N02 44.3, E101 43.4		



PARKING STAND COORDINATES

STAND/BAY NO.	COORDINATES	STAND/BAY NO.	COORDINATES
MAIN NORTH (WTN)		SATELLITE SOUTH (WSS)	
J1, J3	N02 44.6, E101 41.3	Q2, Q4	N02 44.3, E101 41.3
J5, J7	N02 44.7, E101 41.3	Q6	N02 44.3, E101 41.2
J9, J11, J13	N02 44.7, E101 41.4	Q8, Q10	N02 44.2, E101 41.2
J15, J17	N02 44.7, E101 41.4	Q12, Q14, Q16	N02 44.2, E101 41.1
		Q18	N02 44.1, E101 41.0
MAIN EAST (WTE)			
J2, J4, J6	N02 44.6, E101 41.3		
J8, J10	N02 44.6, E101 41.3		
J12, J14, J16	N02 44.6, E101 41.4		
J18, J20	N02 44.7, E101 41.4		
J22	N02 44.7, E101 41.5		
MAIN WEST (WTW-1)			
K1, K3	N02 44.5, E101 41.1		
K5, K7	N02 44.5, E101 41.0		
K9, K11, K13	N02 44.4, E101 41.0		
MAIN SOUTH (WTS)			
K2	N02 44.5, E101 41.2		
K4, K6	N02 44.5, E101 41.1		
K8, K10, K12	N02 44.4, E101 41.1		
K14, K16, K18	N02 44.4, E101 41.0		
MAIN WEST (WTW-2)			
K20	N02 44.3, E101 41.0		
K22, K22L	N02 44.4, E101 40.9		
K22R	N02 44.4, E101 41.0		
K24	N02 44.4, E101 40.9		
SATELLITE NORTH (WSN)			
P1	N02 44.4, E101 41.3		
P3	N02 44.4, E101 41.4		
P5, P7, P9, P11	N02 44.5, E101 41.4		
P13, P15, P17, P19	N02 44.5, E101 41.5		
P21	N02 44.6, E101 41.5		
SATELLITE EAST (WSE)			
P2, P4, P4L, P4R	N02 44.4, E101 41.4		
P6, P6L, P6R, P8L	N02 44.4, E101 41.5		
P8, P8R	N02 44.5, E101 41.5		
P10, P10L, P10R	N02 44.5, E101 41.5		
P12	N02 44.4, E101 41.6		
P12L, P12R	N02 44.5, E101 41.6		
SATELLITE WEST (WSW)			
Q1	N02 44.4, E101 41.2		
Q3, Q5, Q7, Q9	N02 44.3, E101 41.2		
Q11, Q13	N02 44.3, E101 41.1		
Q15, Q17	N02 44.3, E101 41.1		
Q19, Q21	N02 44.2, E101 41.1		

LOW VISIBILITY OPERATING PROCEDURES**1. General**

- 1.1 There are 3 visibility conditions under which the airport may be required to operate:
- a.) Visibility Condition 1:
 - Horizontal visibility sufficient for pilot to taxi and to avoid collision with other traffic on the taxiways and at intersections by visual reference, and for personnel of air traffic control units to exercise control over all traffic on the basis of visual surveillance; and
 - The visibility shall not be less than 800m or 550m RVR.
 - b.) Visibility Condition 2:
 - Horizontal visibility sufficient for pilot to taxi and to avoid collision with other traffic on the taxiways and at intersections by visual reference, but insufficient for personnel of air traffic control units to exercise control over all traffic on the basis of visual surveillance; and
 - The visibility shall not be less than 400m RVR
 - c.) Visibility Condition 3:
 - Horizontal visibility less than 400m RVR.

2. Visibility Condition 2 and 3

- 2.1 Regulation of aircraft and vehicles shall be as follows:
- a.) Air traffic control shall be responsible for the regulation of aircraft and vehicles with respect to other aircraft and the provision of essential traffic information on aircraft to pilots-in-command and drivers of vehicles to facilitate separation;
 - b.) Pilots-in-command shall be responsible for maintaining separation with other aircraft on the manoeuvring area, other than the runways;
 - c.) Drivers of vehicles shall be responsible for separation with aircraft and other vehicles.
- 2.2 When low visibility operating procedures are in operation, air traffic control will:
- a.) Broadcast on the ATIS that low visibility operating procedures are in operation;
 - b.) Ensure all vehicles and personnel are clear of the maneuvering area;
 - c.) Provide runway landing intervals of 6NM or more;
 - d.) Provide landing clearances no later than 2NM from touchdown;
 - e.) Provide pilot-in-command of every departing and landing aircraft with:
 - The current RVR reading for the relevant runway if RVR values are below 1500m;
 - Unserviceability of any component parts of the CAT II facilities not previously broadcasted on ATIS.
- 2.3 When low visibility operating procedures are in operation pilots-in-command shall:
- a.) Be directed to use the full length of the runway or the last holding point available for departure (if full length is not available);
 - b.) Ensure that after landing, the aircraft clears the LSA as soon as possible;
 - c.) Be aware that any emergency conditions (brake fire etc.) may not be visible to the control tower, apron control tower or AFRS.
- 2.4 Responsibility for separation and regulation of aircraft shall be as follows:
- 2.4.1 Air traffic control will separate aircraft using the following methods:
- a.) Pilots-in-command will be provided with taxiing clearances and clearance limits which, in the event of a potential conflict, require the pilot-in-command to hold short of a taxiway intersection and report sighting and able to follow, or pass behind, the conflicting aircraft;
 - b.) If the pilot-in-command is not able to see the conflicting aircraft, clearance to proceed will be withheld until the preceding aircraft has reported passing the next taxiway intersection;
 - c.) If visual contact is lost, pilots-in-command shall inform air traffic control immediately and he shall be instructed to hold position. Further clearance to proceed will be withheld until the preceding aircraft has reported passing the next taxiway intersection.
- 2.5 When low visibility operating procedures are in operation pilots-in-command shall adjust aircraft taxiing speeds to ensure that they are able to comply with ATC instructions.

LOCAL TRAFFIC REGULATIONS**1. Start Up and Push Back**

- 1.1 Air traffic control will authorize the initiation of engine start up and aircraft push back in order to regulate the movement of aircraft with respect to other aircraft on the apron edge and apron center lane taxiways.
- 1.2 The pilots-in-command of all aircraft require clearance from air traffic control for both engine start up and push back. All departing aircraft shall contact LUMPUR DELIVERY for ATC clearance 5 minutes before engine start.
- 1.3 When air traffic control provides the pilot-in-command with approval to push back, this approval is intended on the taxilane or on the push back line (where present). The approval may also contain an expectation to exit the apron via a specified apron taxiway if the intended taxiing route is not a standard taxiing route. Whether complying with a standard taxiing route or a special taxiing route, the pilot-in-command shall ensure that the direction of push back enables the aircraft to taxi via the specified apron access taxiway.
- 1.4 During engine start up, it shall be the responsibility of the pilot-in-command and the aircraft marshaller to ensure that the area of the blast cone is clear.
- 1.5 During aircraft push back, it shall be the responsibility of the pilot-in-command and the aircraft marshaller to ensure that the area behind the aircraft is clear of vehicles and other objects.
- 1.6 Prior to, and during engine start up, the pilot-in-command and aircraft marshalls shall be responsible to ensure that the aircraft is towed to the correct position for engine start and that the appropriate blast zone behind an aircraft is clear during engine start up.
- 1.7 It is prudent practice for aircraft to be pushed back from the parking stand before start-up. However if required due to technical reasons a start-up may be approved while the aircraft is still at the parking stand. The following requirements and restrictions shall apply to aircraft for engine runs:
 - 1.7.1 Idle power engine run may be carried on all bays for all types in the Main, Satellite and Cargo terminals provided the aircraft marshaller ensures that the area of the blast cone is clear and there is no other aircraft taxiing on the taxilane behind it.
 - 1.7.2 Wide-body aircraft with tail mounted engines e.g. MD11, DC10, L1011 need a clear distance of at least 820 ft (250m) behind if the top engine is involved.
- 1.8 Power back at KL International Airport is not permitted.
- 1.9 Pilots are to ensure that the transponder is switched on only after push back clearance has been given by ATC. Whenever the aircraft is capable of reporting Aircraft Identification, the identification of the aircraft should also be entered through the FMS or the Transponder Control Panel. Flight crew must use the 3-letter ICAO designator of the operator followed by the flight identification number (e.g. MAS123, AXM4567, TSE890, etc.). If no transponder code is provided, the pilot shall enter the non-discrete code 1000.
- 1.10 Pilots should ensure that the transponder is operating (set XPNDR or the equivalent according to specific installation, AUTO if available, not OFF or SDBY) and the assigned Mode A code selected from the request for push back or taxi, whichever is earlier.

2. Taxiing Routes - Departure and Arrival

- 2.1 Arriving and departing aircraft shall follow the published (standard) taxi routes described in the aerodrome ground movement charts as applicable, unless directed otherwise by ATC. The issuance by ATC of a taxi route to an aircraft does not relieve the pilot-in-command of the responsibility to maintain separation with other aircraft on the movement area or to comply with ATC directions intended to regulate aircraft on the maneuvering area.
- 2.2 For each aircraft apron, access and exit taxiways are defined and shown in the 20-6 series charts. In conducting engine start and push back, pilots-in-command should be aware that they will be required to proceed by a specified exit or access taxiway.
- 2.3 Taxiing clearance limits may be applied.

3. Intersection Departures

- 3.1 Departing aircraft will normally be directed by ATC to use the full length of the runway for take-off. Pilots-in-command may request an intersection departure or ATC may propose an intersection departure to a pilot-in-command to resolve a particular runway or maneuvering area conflict. The final decision whether to make an intersection departure rests with the pilot-in-command.

LOCAL TRAFFIC REGULATIONS (CONTD)

4. Departure Regulation

- 4.1 In order to reduce congestion at the holding points during peak hours, a procedure to regulate departures will be enforced. Departing aircraft may expect delays at start-up. Aircraft with ATC time restrictions will be afforded priority for start and push back.

5. Helicopter Operations

- 5.1 All helicopter operations should land at, and take off from, the helipad.
- 5.2 Pilots-in-command of helicopters wishing to depart from KL International Airport shall call the Ground Movement frequency (121.65 MHz) for ATC clearance prior to commencing any taxiing movement. Clearance for take-off will be provided by Aerodrome Control. The take-off clearance may be accompanied by an initial tracking clearance to resolve aerodrome traffic conflicts.
- 5.3 Pilots-in-command of arriving helicopters will be issued with tracking instructions to avoid aerodrome traffic conflicts and a clearance to the helipad.
- 5.4 After landing at the helipad, the pilot-in-command will be issued with a parking position within the vicinity of the helipad. The pilot-in-command shall taxi the aircraft to the parking position. Parking on the marked helipad landing area is not permitted.

6. Jet Blast Procedures

- 6.1 Jet Blast Procedures for KL International Airport are as follows:

Aircraft Stand	Standard Departure Taxi Routes	Non Standard Departure Taxi Routes
A03 and A05 B03 and B05	Aircraft to be pushed back and towed forward to breakaway point 328 ft (100m) from the blast fence before taxiing out.	
A02 and A04	Aircraft to be pushed back and towed forward to breakaway point abeam A06 before taxiing out.	
B02 and B04	Aircraft to be pushed back and towed forward to breakaway point abeam B06 before taxiing out.	
C02, C04, C06, C13 and C15	Wide body aircraft at Bay C06 to be pushed back and towed forward to breakaway point abeam Bay C04 before taxiing out. Wide body aircraft at Bay C13 to be pushed back and towed forward to breakaway point abeam Bay C15 before taxiing out.	Wide body aircraft at Bays C02 and C04 to be pushed back and towed forward to breakaway point abeam Bay C06 before taxiing out.
C03, C07, C34 and C36	Wide body aircraft at Bays C34 and C36 to be pushed back and towed forward to breakaway point abeam Bay C36 before taxiing out.	Wide body aircraft at Bays C03 and C07 to be pushed back and towed forward to breakaway point abeam Bay C07 before taxiing out.
C14, C16, C23 and C25	Wide body aircraft at Bays C23 and C25 to be pushed back and towed forward to breakaway point abeam Bay C25 before taxiing out.	Wide body aircraft at Bays C14 and C16 to be pushed back and towed forward to breakaway point abeam Bay C16 before taxiing out.
C24, C26, C33 and C35	Wide body aircraft at Bays C33 and C35 to be pushed back and towed forward to breakaway point abeam Bay C35 before taxiing out.	Wide body aircraft at Bays C24 and C26 to be pushed back and towed forward to breakaway point abeam Bay C26 before taxiing out.
Cargo Bays	All wide body aircraft at cargo bays are to be pushed back and aligned on taxiway centerline before taxiing out.	

FLIGHT PROCEDURES

1. General

- 1.1 All operations into and out of KL International Airports shall be in accordance with the Instrument Flight Rules. Helicopter flights to and from KL International Airport may be in accordance with the Visual Flight Rules.

2. Clearance Delivery

- 2.1 Pilots-in-command shall request from Lumpur Clearance Delivery an airways clearance 5 minutes before engine start-up. Slot departure times, if in effect, will also be provided from Lumpur Clearance Delivery.
- 2.2 Notwithstanding para 2.1 above, eastbound departures planned along the following ATS route segments shall only request an airways clearance when they are ready for engine start:
- R208
 - VPK M758
 - VPK M761
 - VPK L629

3. Aerodrome Control and Apron Services

- 3.1 Aerodrome control services at KL International Airport are provided by air traffic control from Tower East, Tower West and Apron Control Tower. Regulation of aircraft movement within the aprons are provided:
- From Tower East for Aprons ETN, ETS, ETE, ETW, ESW, ESN and ECS
 - From Tower West for Aprons WTN, WTS, WTE, WTW, WSN, WSS, WSE and WSW
 - From Apron Control Tower for Aprons ESE, ESS, ECE, ECN and ECW
- 3.2 Aerodrome control services at KL International Airport are provided for all runways, designated taxiways and on apron edge taxiways and apron centre lane taxiways.
- 3.3 On runways and designated taxiways ATC controls and regulates:
- Aircraft with respect to other aircraft, vehicles and obstructions;
 - Vehicles with respect to aircraft.
- 3.4 On apron edge taxiways and centre lane taxiways, and other designated parts of the movement area, ATC regulates aircraft with respect to other aircraft and fixed obstructions. ATC does not provide regulation or control of aircraft with respect to vehicles or people movement on this areas.
- 3.5 The pilot-in-command and aircraft marshallers shall be responsible for the safety of aircraft with respect to all vehicles during push back, engine start up and taxiing. Prior to, and during engine start up, the pilot-in-command and aircraft marshallers shall be responsible to ensure that the aircraft is towed to the correct position for engine start and that the appropriate blast zone behind an aircraft is clear during engine start up.

4. Communication Services

- 4.1 On the movement area, all communications between air traffic control and pilots and between air traffic control and drivers of vehicles is on VHF. The functions and associated VHF frequencies are indicated in para WMKK AD 2.18. ATS COMMUNICATIONS FACILITIES.

5. Approach and Departure Procedures**5.1 Departing Aircraft**

- 5.1.1 The order in which aircraft are given take-off clearances will be determined on the basis of normal traffic priorities, the application of wake turbulence standard, separation standards and departure slot allocations and management. The order of departure may not be the order in which aircraft arrive at the departure queue.
- 5.1.2. If the SID has been cancelled and replaced with a Radar Departure (RD):
"...callsign, recleared SEPANG 341 Departure, runway 32R - read back..."
- 5.1.3. Contact "Lumpur Departure" after airborne as soon as practicable before passing 2000FT on the following frequencies:
- Departing aircraft 32R/32L/33 - 135.25 MHz
 - Departing aircraft 14R/14L/15 - 135.25 MHz
- 5.1.3.1. If the departure frequency is different from the standard in para 5.1.3:
"...callsign, departure frequency XXX.xx Runway 32R, cleared for take off, wind..."
- 5.1.3.2. On the first contact with Approach after becoming airborne, advise SID/RD identifier or assigned heading, the last level vacated to the nearest 100FT and the assigned altitude.

Examples:

If the aircraft is on SD or RD:

"...callsign, ..KIMAT ONE CHARLIE Departure, leaving one thousand seven hundred, climbing to six thousand..."

If the aircraft is on assigned heading:

"...callsign, ..on heading XXX, leaving one thousand seven hundred, climbing to six thousand..."

5.1.4. Immediate Take-off Clearance

- 5.1.4.1. A pilot receiving the ATC instruction "cleared for immediate take-off" is required to act as follows:
- If not yet lined up on the runway, line up and begin take-off run without stopping the aircraft;
 - if already lined up on the runway, take-off without delay;
 - if unable to comply with the instruction, inform ATC immediately.

5.1.5. Wake turbulence waiver

- 5.1.5.1. Pilots-in-command of departing aircraft may choose to commence take-off without the applicable wake turbulence standard being applied. In this event the following conditions will apply:

(Cont. on next page)

FLIGHT PROCEDURES

- a.) The pilot shall expressly initiate the request for waiver using the phraseology: *"callsign...request wake turbulence waiver..."*
- b.) Waiver on the wake turbulence standard shall apply in VMC by day;
- c.) The waiver shall not apply to a LIGHT or MEDIUM aircraft taking off behind a HEAVY aircraft take-off, if the take-off by LIGHT or MEDIUM aircraft is commenced from a point more than 150 metres along the runway in the direction of take-off, from the commencement point of the HEAVY aircraft take-off.

5.1.5.2. When a pilot-in-command requests for a wake turbulence waiver, the pilot acknowledges that ATC will no longer be responsible for the application of wake turbulence separation standards to that specific flight operation.

5.2 Landing Aircraft

5.2.1 A succeeding aircraft may be cleared to land before the preceding landing aircraft which has landed or before the preceding departing aircraft which has commenced take-off run, is clear of the runway-in-use provided the following conditions are met:

- a.) In VMC;
- b.) ATC must have reasonable assurance that the appropriate separation will exist when the succeeding aircraft crosses the runway threshold;
- c.) when issuing a landing clearance following the application of the above procedures, ATC will issue the following aircraft with the instruction below:
"...callsign...preceding (aircraft type) vacating runway via (taxiway designator/airborne), surface wind...Runway (designator) cleared to land,..."
"...callsign...preceding (aircraft type) is rolling for departure, surface wind...Runway (designator), cleared to land,..."

5.3 Missed Approach Procedures

5.3.1 When a pilot-in-command executes a "go around", he shall comply with the published missed approach procedure for the runway unless given a specific alternate missed approach procedure by air traffic control. If the aircraft performance or weather conditions preclude the pilot-in-command from complying with this requirement he shall advise air traffic control immediately.

5.4 Speed Restrictions (Arriving Aircraft)

5.4.1 FLOW management is used to regulate traffic destined to KLIA. The flow control sequencing action, as described in AIP ENR 1.9-1, may include:

- a.) speed control;
- b.) radar vectoring; and
- c.) holding.

5.4.2 The speed restriction of 250 KIAS below 10,000FT is now applicable unless ATC issues the instruction "maintain high speed".

5.4.3 Speed limitations points on Arrival and Approach Procedures

5.4.3.1 Pilots cleared to proceed on Conventional STARs shall comply with following speed restrictions:

ARRIVAL	SPEED RESTRICTIONS
KIKAL THREE	Cross KIKAL 220 KIAS 160 KIAS from 10NM until 4NM to touchdown
DAKUS ONE VICTOR PULIP ONE VICTOR SAROX ONE VICTOR GUPTA ONE VICTOR SALAX ONE VICTOR INTOT ONE VICTOR	VKL VOR/DME 230 KIAS
LAPIR THREE	Cross LAPIR 220 KIAS 160 KIAS from 10 NM until 4 NM to touchdown

5.4.3.2 Pilots cleared to proceed on RNAV1 STAR shall comply with speed restrictions reported on applicable coding table.

5.4.3.3 Pilots cleared to proceed on RNAV1 Initial Approach Segment shall comply with speed restrictions reported on applicable coding table.

5.4.3.4 Pilots cleared to a published Instrument Approach Procedure shall comply with the following speed restrictions:

- a.) 180 KIAS at Intermediate Fix (IF);
- b.) 160 KIAS from 10NM until 4NM to touchdown.

5.4.4 Speed limitation points when STAR is cancelled

5.4.4.1 Pilots shall adopt the following speeds when notified that the STAR is cancelled:

- a.) Under radar vectors:
 - 250 KIAS on passing 10,000FT;
 - 220 KIAS on turning base;
 - 180 KIAS on turning to intercept the localizer;
 - 160 KIAS from 10NM until 4NM to touchdown.
- b.) Own navigation to intercept the final approach track:
 - 250 KIAS on passing 10,000FT;
 - 220 KIAS 20 track miles from touchdown;
 - 180 KIAS 15 track miles from touchdown;
 - 160 KIAS from 10NM until 4NM to touchdown.

(Cont. on next page)

FLIGHT PROCEDURES

5.4.4.2 ATC may issue other speeds to achieve a more accurate spacing, e.g. 220 KIAS prior to base turn.

5.4.5 Cancellation of speed restrictions

5.4.5.1 Pilots need not adopt the speed restrictions at the speed limitation points when they are issued a "No ATC Speed Restriction" clearance by ATC.

6. Hazardous Weather Warning

6.1 Pilots will be advised when there are reported occurrences of microburst or wind shear

These alerts will be in the following form:

- a.) Runway designation;
- b.) Arrival or Departure;
- c.) Type of alert (microburst or wind shear);
- d.) Quantified headwind loss or gain;
- e.) Location of alert, in nautical miles, on final approach or departure path.

Example ".....C/S, Runway 14L, arrival, microburst, headwind loss 40 knots, 2 miles final."

7. Runway Operations

7.1 Modes of Operation

7.1.1 Under normal traffic conditions, operating runway mode selections will be:

- a.) Runway 32R for departures, Runway 32L for arrivals and Runway 33 for mixed mode;
- b.) Runway 14R for departures, Runway 14L for arrivals and Runway 15 for mixed mode.

7.2 Simultaneous Parallel Runway Operations

7.2.1 General

7.2.2 In KL International Airport are in use simultaneous parallel runway operations, both for departures and for arrivals. SPD - simultaneous parallel departures can be conducted from combination of any two of the three parallel instrument runways or to all of the three runways at one time. SPA - simultaneous parallel arrivals according to the traffic imbalance or to mode of operations, can be conducted as Dependent Parallel Approaches or Independent Parallel Approaches.

7.3 Dependent Parallel Approaches - DPA

7.3.1 DPA are simultaneous approaches to parallel or near-parallel instrument runways where radar separation minima between aircraft on adjacent extended runway center lines are prescribed.

7.3.2 DPA are subject to coordination between Lumpur ATCC and Lumpur TWRs and shall be notified to pilots via ATIS.

7.3.3 During Parallel approaches "Visual Approach/Side Step" on the adjacent runway shall be avoided.

7.4 Independent Parallel Approaches - IPA

7.4.1 IPA are simultaneous approaches to parallel or near-parallel instrument runways where radar separation minima between aircraft on adjacent extended runway center lines are not prescribed.

7.4.2 IPA are subject to coordination between Lumpur ATCC and Lumpur TWRs and shall be notified to pilots via ATIS.

7.4.3 During the execution of parallel approaches "Visual Approach/Side Step" on the adjacent runway shall be avoided.

7.4.4 Normal Operating Zone (NOZ): Airspace of defined dimensions extending to either side of an ILS localizer course and/or MLS final approach track. Only the inner half of the normal operating zone is taken into account in independent parallel approaches.

7.4.5 No Transgression Zone (NTZ): In the context of independent parallel approaches, a corridor or airspace of defined dimensions located centrally between the two extended runway center lines, where a penetration by an aircraft requires an ATCO intervention to manoeuvre any threatened aircraft on the adjacent approach.

7.5 Break-Out Manoeuvres

7.5.1 If any aircraft is committing a NTZ infringement, the ATCO supervising the adjacent approach has to provide a break-out instruction to the aircraft under his responsibility to protect it from the threat. Break-out manoeuvres consist of heading and altitude instruction issued by a radar approach controller.

7.6 Override

7.6.1 The ATCO supervising the approach when in condition to issue a break-out manoeuvre because of the infringement of the NTZ from the adjacent approach path will override the relevant Tower frequency.

8. Crossing Procedures

8.1 General

8.1.1 Kuala Lumpur International Airport (KLIA) is divided in two parts:

- a.) KLIA1: the area between RWY 32R/14L and RWY 32L/14R
- b.) klia2: the area west of RWY 32L/14R until RWY 33/15

8.1.2 Even if the preferred scenarios avoid runway crossing, such situations could realize in the following cases:

- a.) Traffic landed on RWY 15 or RWY 33 allocated to KLIA1 stands;
- b.) Traffic landed on RWY 14L allocated to klia2 stands;
- c.) During RWY 15/33 unavailability.

8.2 Traffic flow from KLIA1 to klia2

8.2.1 When RWY 14R/32L is active, crossing aircraft will be instructed from Lumpur Ground to taxi on TWY C1 and hold short of RWY 14R, where it will contact Lumpur Tower to obtain the crossing clearance and instruction to hold short of TWY Q.

(Cont. on next page)

FLIGHT PROCEDURES

- 8.2.2 Instruction via TWY C2 or C3 shall be used in case of unavailability of TWY C1 or when operational requirements dictate.
- 8.2.3 Stop bars will be switched off at the same time of crossing clearance issuing.
- 8.2.4 Once runway crossing is completed, the aircraft will be instructed to contact Lumpur Ground in order to receive further taxi instructions.
- 8.2.5 Phraseology examples
- 8.2.5.1 Ground movement phraseology:
- GMC2 East: *"MAS14, Lumpur Ground, taxi to holding point C1, runway 14R via..., hold short of runway 14R"*
 - MAS14: *"Lumpur Ground, MAS14, roger, taxi to holding point C1, runway 14R via..., hold short of runway 14R"*
 - MAS14: *"Lumpur Ground, MAS14, holding point C1"*
 - GMC2 East: *"MAS14, Lumpur Ground, contact Tower (ADC2) frequency 118.5"*
 - MAS14: *"Lumpur Ground, MAS14, roger, contact Tower (ADC2) frequency 118.5"*
- 8.2.5.2 Tower phraseology:
- MAS14: *"Lumpur Tower, MAS14, holding point C1 request to cross runway 14R"*
 - ADC2: *"MAS14, Lumpur Tower, cross runway 14R, hold short of taxiway Q (if necessary expedite crossing runway 14R)", report runway vacated"*
 - MAS14: *"Lumpur Tower, MAS14, roger, crossing runway 14R, hold short of taxiway Q and report runway vacated"*
 - MAS14: *"Lumpur Tower, MAS14, runway 14R vacated"*
 - ADC2: *"MAS14, Lumpur Tower contact Ground (GMC2 West) frequency 122.525"*
 - MAS14: *"Lumpur Tower, MAS14, roger, contact Ground (GMC2 West) frequency 122.525"*
- 8.3 Traffic flow from klia2 to KLIA1**
- 8.3.1 When RWY 14R/32L is active, crossing aircraft will be instructed from Lumpur Ground to taxi on TWY P2 or P3 and hold short of RWY 14R, where it will contact Lumpur Tower to obtain the crossing clearance and instruction to hold short of TWY D.
- 8.3.2 Instruction via TWY P1 shall be used in case of unavailability of TWYs P2 and P3 or when operational requirements dictate.
- 8.3.3 Stop bars will be switched off at the same time of crossing clearance issuing.
- 8.3.4 Once runway crossing is completed, the aircraft will be instructed to contact Lumpur Ground in order to receive further taxi instructions.
- 8.3.5 Phraseology examples
- 8.3.5.1 Ground movement phraseology:
- GMC2 West: *"MAS14, Lumpur Ground, taxi to holding point P2, runway 14R via..., hold short of runway 14R"*
 - MAS14: *"Lumpur Ground, MAS14, roger, taxi to holding point P2, runway 14R via..., hold short of runway 14R"*
 - MAS14: *"Lumpur Ground, MAS14, reaching holding point P2"*
 - GMC2 West: *"MAS14, Lumpur Ground, contact Tower (ADC2) frequency 118.5"*
 - MAS14: *"Lumpur Ground, MAS14, roger, contact Tower (ADC2) frequency 118.5"*
- 8.3.5.2 Tower phraseology:
- MAS14: *"Lumpur Tower, MAS14, holding point P2 request to cross runway 14R"*
 - ADC2: *"MAS14, Lumpur Tower, cross runway 14R, hold short of taxiway D (if necessary expedite crossing runway 14R)", report runway vacated"*
 - MAS14: *"Lumpur Tower, MAS14, roger, crossing runway 14R, hold short of taxiway D and report runway vacated"*
 - MAS14: *"Lumpur Tower, MAS14, runway 14R vacated"*
 - ADC2: *"MAS14, Lumpur Tower, contact Ground (GMC2 East) frequency 121.8"*
 - MAS14: *"Lumpur Tower, MAS14, roger, contact Ground (GMC2 East) frequency 121.8"*
- 8.4 Runway 14R in use for landing**
- 8.4.1 Regarding crossing movement between klia2 and KLIA1 via TWY P1 and P2, ATC shall consider the 14R GP critical and sensitive areas as not protected. In order to keep these areas clear of traffic, when RWY 14R is in use for landing, RHP to be used are Q5 and Q6.

AUTOMATED GUIDE-IN SYSTEM DOCKING PROCEDURES

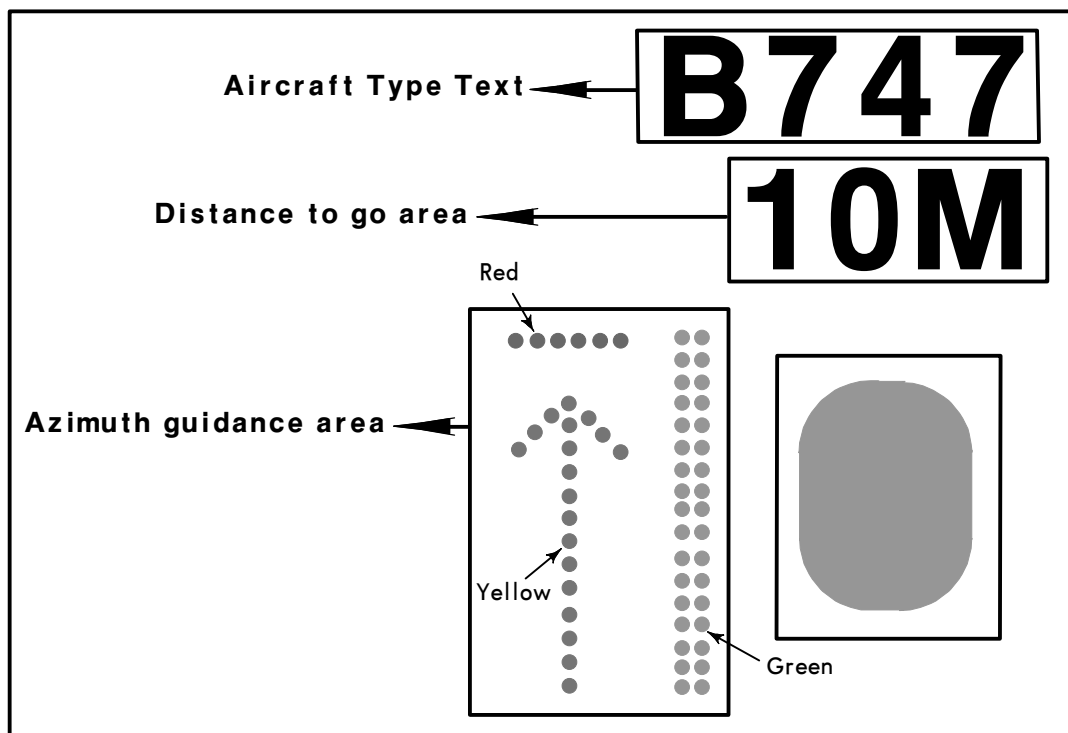
1. INTRODUCTION

- 1.1 The RLG GIS206-2 Automated Guide-In System is a fully automatic aircraft docking guidance system for various types of modern aircraft installed at the fixed gates of the klia2 Terminal KL International Airport, Sepang.

2. DESCRIPTION OF SYSTEM

- 2.1 The RLG GIS206-2 Laser Guided Docking System utilizes 2-axis laser scanning technique to track both the lateral and longitudinal positions of the incoming aircraft. This 3-D approach allows the system to identify the incoming aircraft and check it against the one selected by the operator. If the incoming aircraft fails to match the expected aircraft, an '**NO ID**' indication is immediately issued to both the pilot and the co-pilot.
- 2.2 Aircraft type, continuous closing distance, and azimuth guidance, etc, are presented on a single console clearly visible to both the pilot and co-pilot, simultaneously. *Figure A* shows the Aircraft Display console, mounted on the terminal in front of the aircraft stand.
- 2.3 The system is operated only in the automatic mode. When the system fails, the aircraft must then be marshalled into the stand manually.

Figure A: In this picture the aircraft is at 10 Metres and is on the centre line.

**3. DOCKING PROCEDURES**

- 3.1 Please refer to **APPENDIX 'A'** on 20-9P.

(Cont. on next page)

AUTOMATED GUIDE-IN SYSTEM DOCKING PROCEDURES

APPENDIX 'A'**DOCKING PROCEDURES****WARNING:**

Pilot must stop the aircraft immediately if he or she sees that:

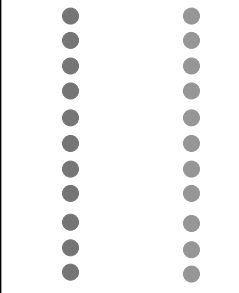
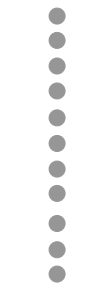
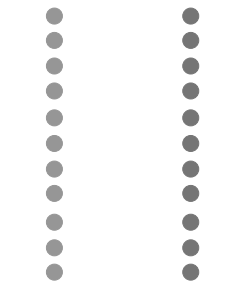
The docking system is not activated.

A wrong type of aircraft indicates 'NO ID' is displayed.

The word **STOP** is displayed.

Confirm that the correct aircraft type is displayed. Proceed slowly forward.

Look at the azimuth guidance bars at the lower centre of the display, and interpret the guidance as shown, always steering to the green.

Aircraft left of centre line, steer towards GREEN	Aircraft on centre line	Aircraft right of centre line, steer towards GREEN
 (Red) (Green)	 (Green)	 (Green) (Red)

When the aircraft is approaching approximately 30 metres from the stop position, closing information will start to display. The display information below the aircraft type is the digital readout of the close-in distance, in 1m decimal place decrement from 30-10 metres, and in 0.1m decrement below 10 metres. The close-in distance is also displayed in the form of a progress meter (Arrow Pointer), at the lower left corner of the display console. The progress arrow starts to activate approximately at 30 metres, moving forward at 2.5 metres decrement, and will reach the red target line at the stop position.

When the correct position is reached, the digital readout will display the word **STOP**, in red. The progress meter will indicate the merging of the arrow and the target line.

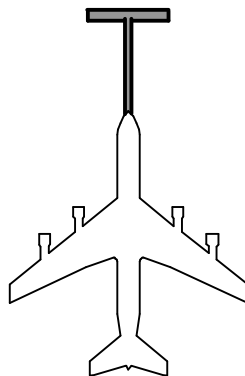
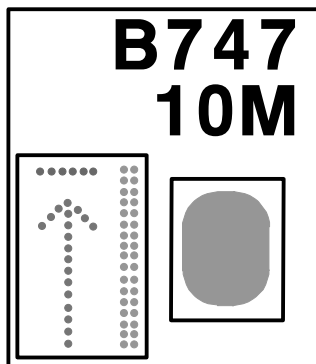
If the aircraft stops at the correct position, the word **"OK"** will be displayed after a few seconds, then the entire display will turn off, indicating the completion of the docking sequence.

If the aircraft overshoots, the word **"2FAR"** will be displayed.

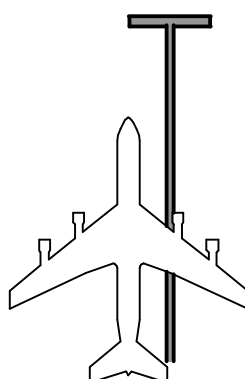
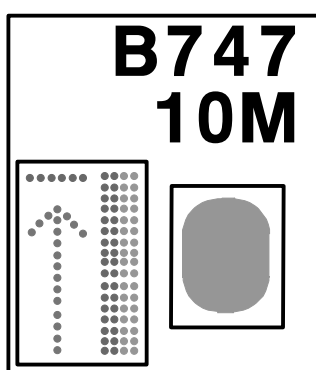
The aircraft must be identified and confirmed at least 12 metres before the correct stopping position. If this does not occur, the system will display **"STOP"** in red. At this point, the aircraft must be manually guided in by a marshaller.

(Cont. on next page)

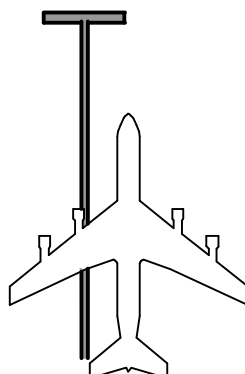
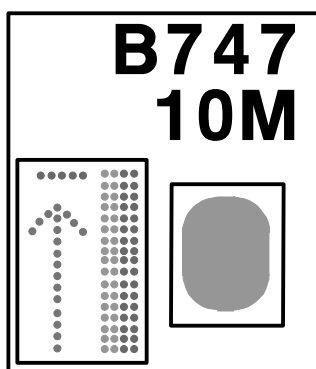
AUTOMATED GUIDE-IN SYSTEM DOCKING PROCEDURES



Green light bar illuminates,
the aircraft is on centre line.
Keep straight ahead.



If red light bar appears on
the left side of the green
light bar, the aircraft is off
centre line to left. It should
be moved rightwards.



If red light bar appears on
the right side of the green
light bar, the aircraft is off
centre line to right. It should
be moved leftwards.

SAFETY MEASURES

Pilot must stop the aircraft immediately if he or she sees that:

The docking system is not activated.

A wrong type of aircraft shows 'NO ID' is displayed.

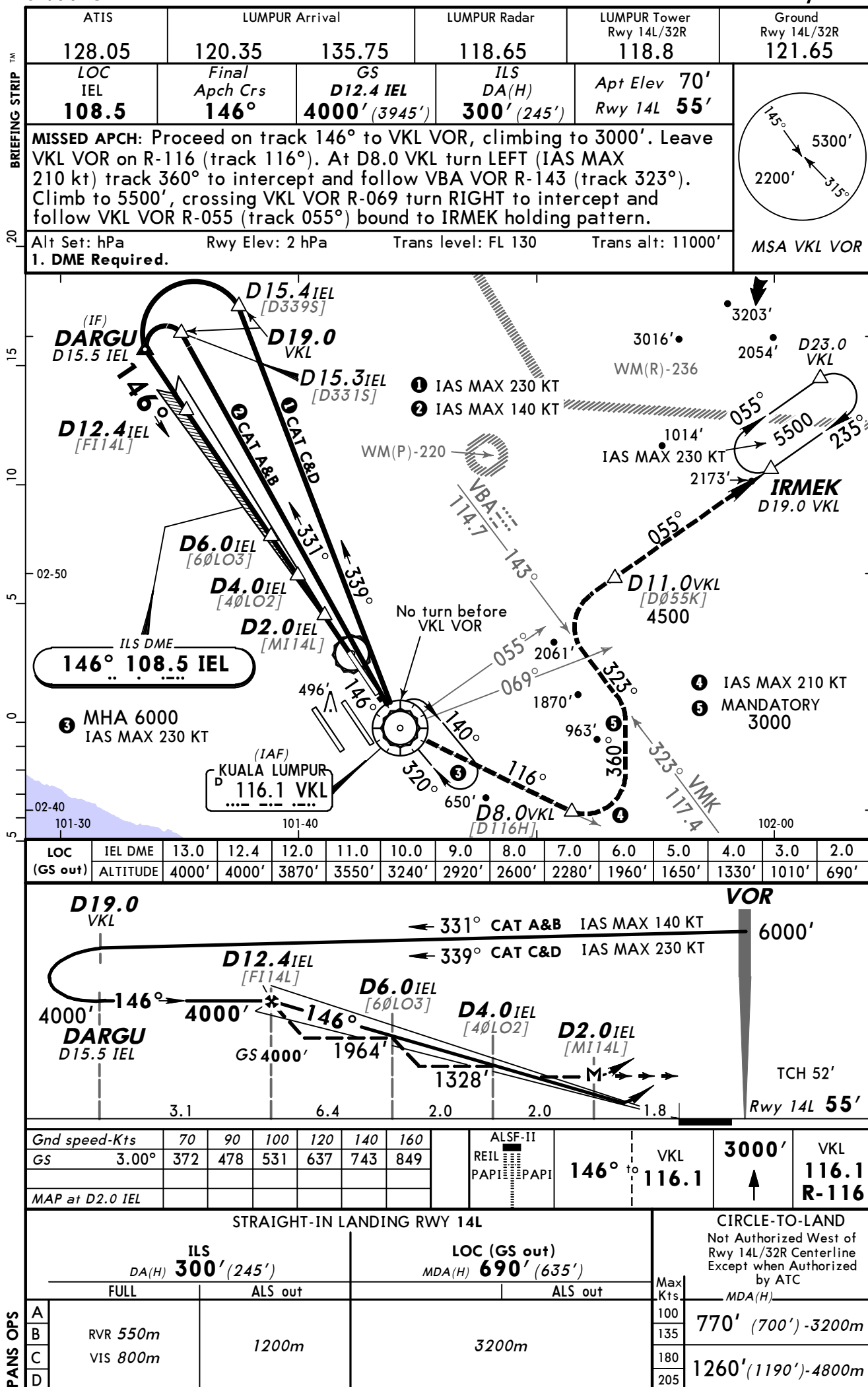
The word **STOP** is displayed.

When using the automated docking system, the pilot must taxi into the aircraft stand at minimum speed. The system will display "**SLOW**" if the aircraft taxi speed is too fast for reliable detection.

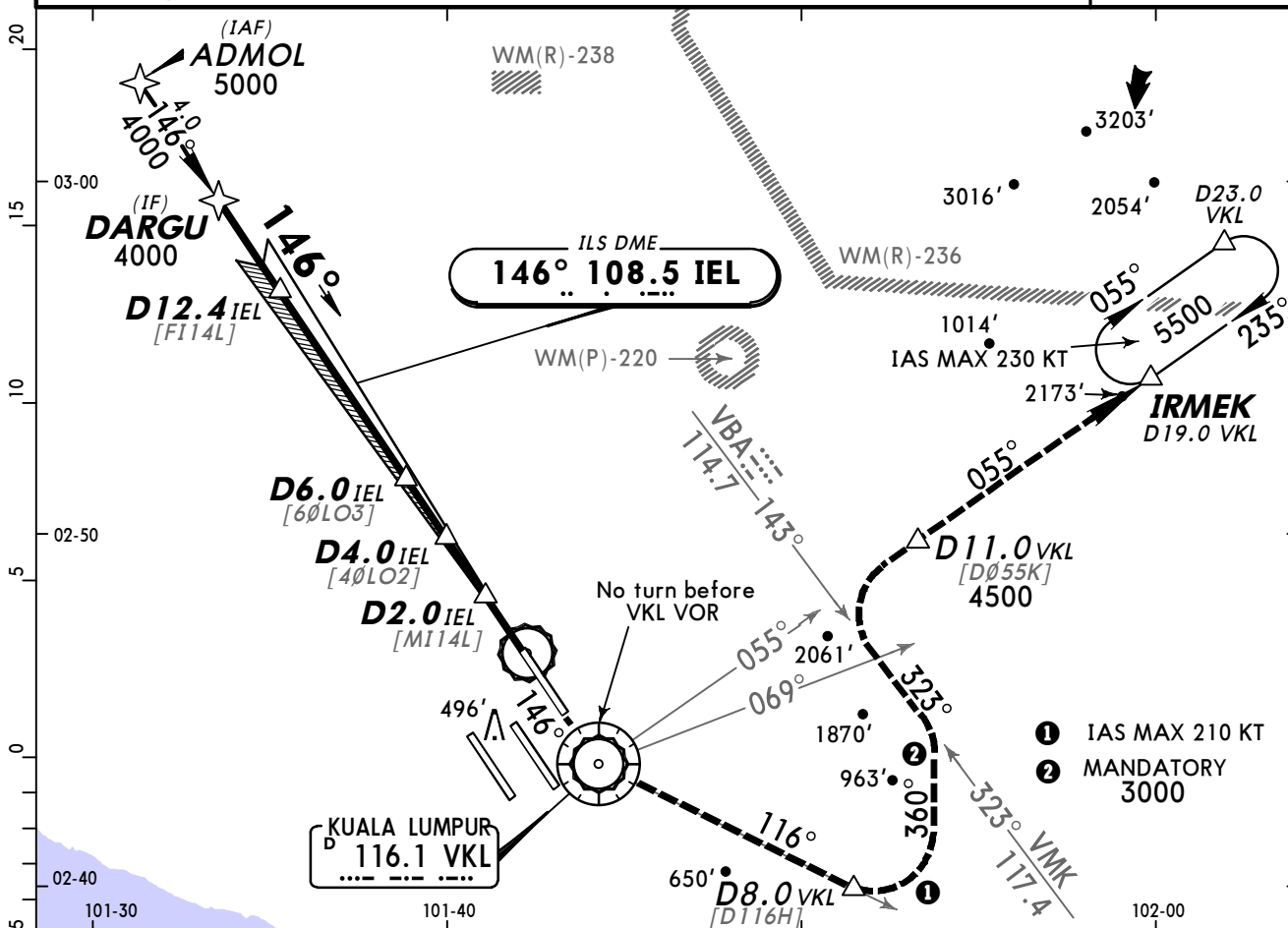
To avoid overshoot, the pilot is advised to approach the stop position slowly and observe the closing rate information displayed. Closing information is displayed both as digital readout and in the form of progress meter.

Pilot must stop the aircraft immediately when seeing the "**STOP**" indication or when signaled by the marshaller.

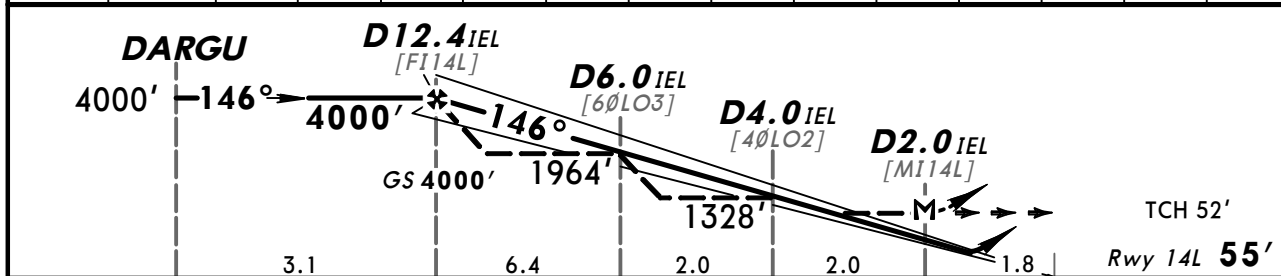
The system will indicate any overshoot by displaying "**2 FAR**".



BRIEFING STRIP	ATIS		LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 14L/32R	Ground Rwy 14L/32R
	128.05		120.35	135.75	118.65	118.8	121.65
	LOC IEL	Final Apch Crs	GS D12.4 IEL	ILS DA(H)	Apt Elev 70'		5300'
	108.5	146°	4000' (3945')	300' (245')	Rwy 14L 55'		
	MISSED APCH: Proceed on track 146° to VKL VOR, climbing to 3000'. Leave VKL VOR on R-116 (track 116°). At D8.0 VKL turn LEFT (IAS MAX 210 kt) track 360° to intercept and follow VBA VOR R-143 (track 323°). Climb to 5500', crossing VKL VOR R-069 turn RIGHT to intercept and follow VKL VOR R-055 (track 055°) bound to IRMEK holding pattern.						
	Alt Set: hPa Rwy Elev: 2 hPa Trans level: FL 130 Trans alt: 11000'						
1. DME Required.							MSA ARP

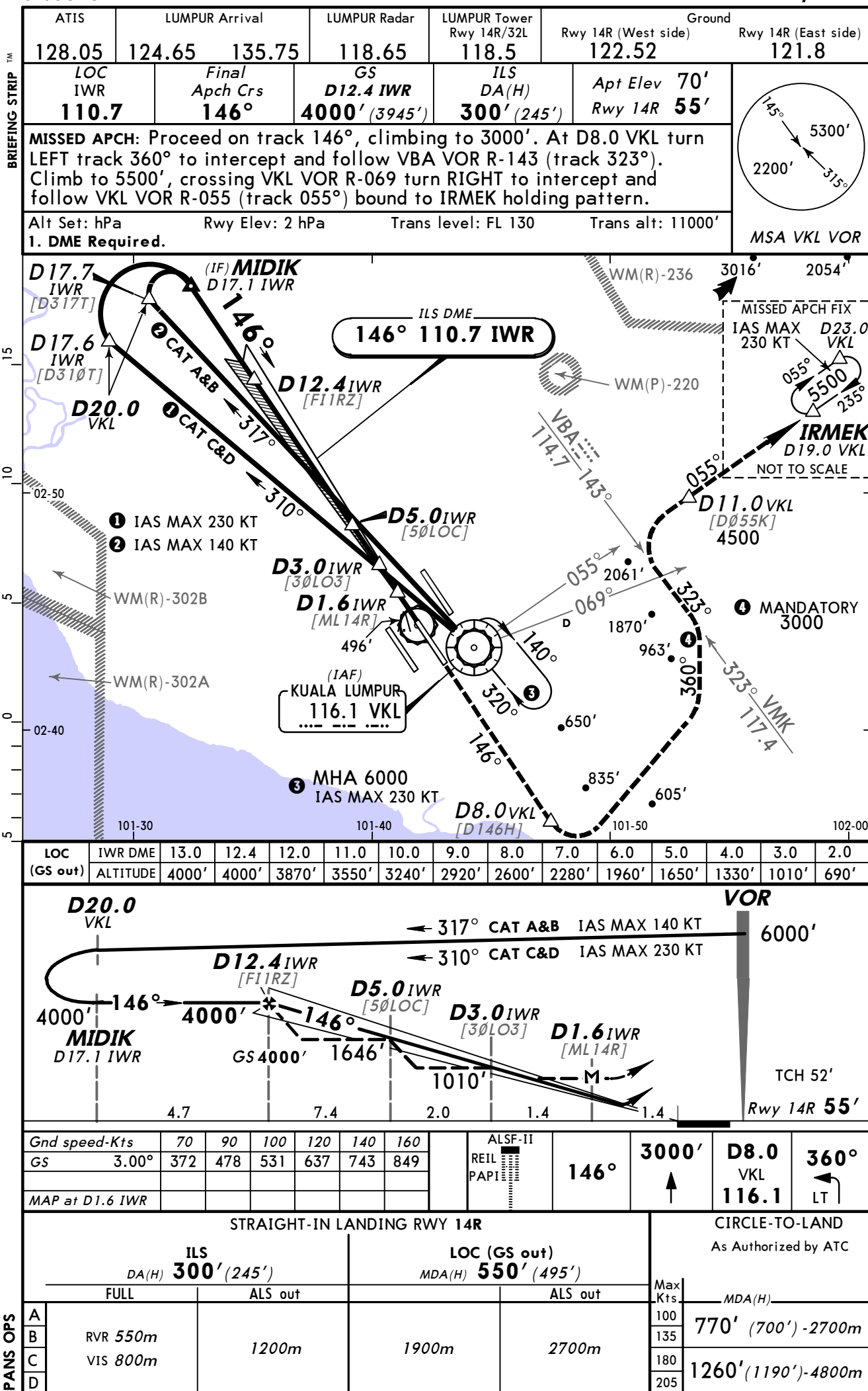


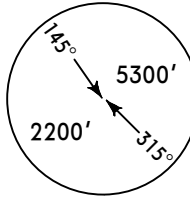
LOC	IEL DME	13.0	12.4	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
(GS out)	ALTITUDE	4000'	4000'	3870'	3550'	3240'	2920'	2600'	2280'	1960'	1650'	1330'	1010'	690'

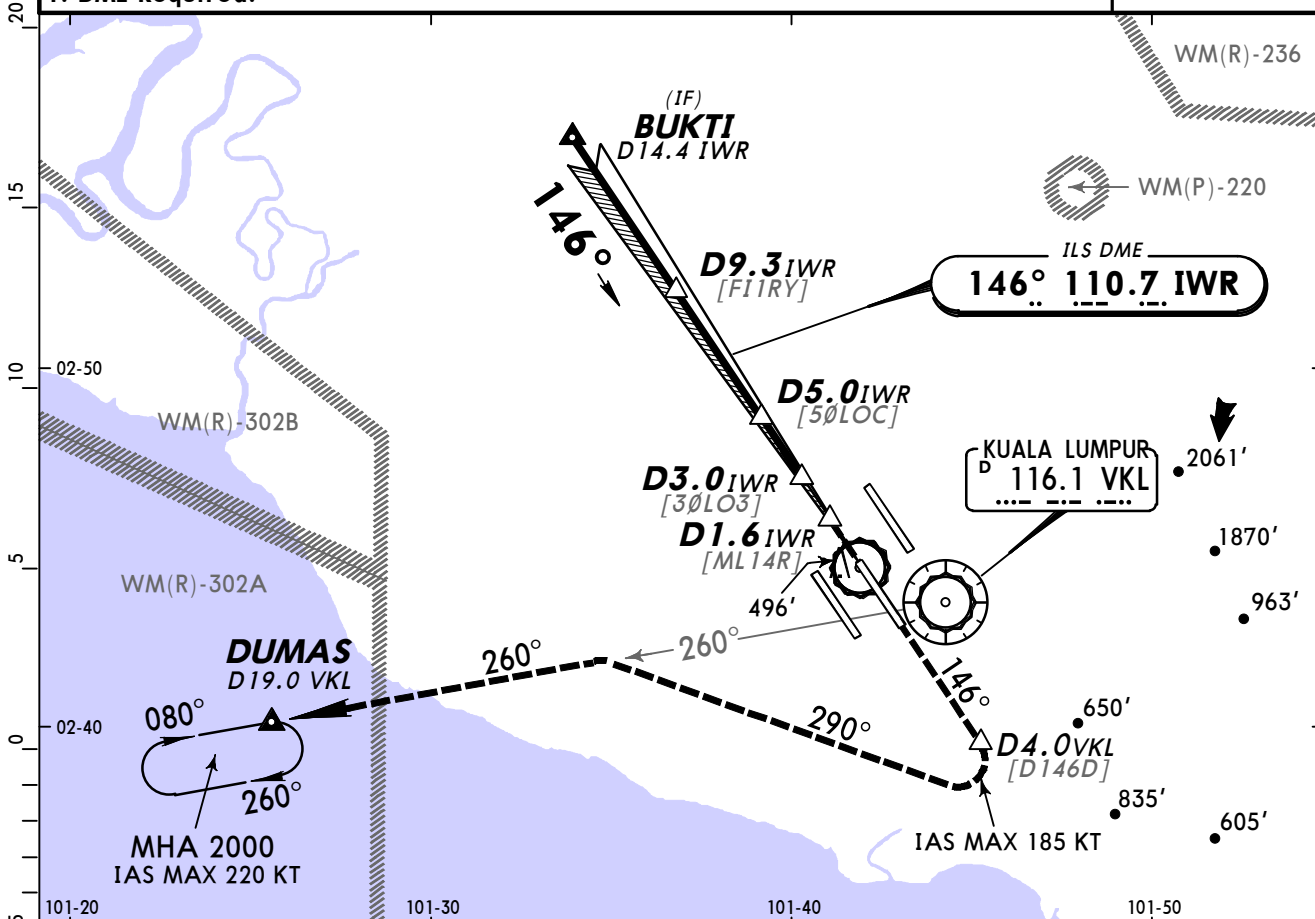


Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II		VKL		3000'	VKL
GS	3.00°	372	478	531	637	743	849	REIL	146° to	116.1	↑	116.1
MAP at D2.0 IEL								PAPI				R-116

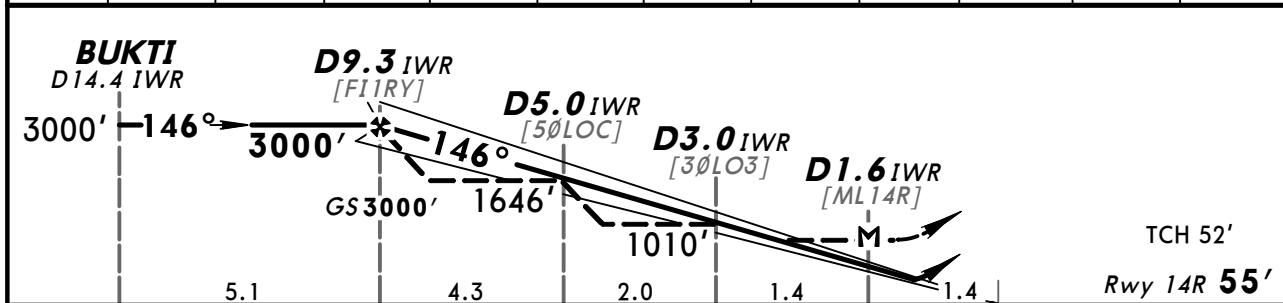
STRAIGHT-IN LANDING RWY 14L				CIRCLE-TO-LAND			
ILS		LOC (GS out)		Not Authorized West of Rwy 14L/32R Centerline Except when Authorized by ATC			
DA(H) 300' (245')		MDA(H) 690' (635')					
FULL		ALS out		Max Kts			
				100		770' (700') -3200m	
				135			
				180		1260' (1190') -4800m	
				205			



BRIEFING STRIP	ATIS	LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 14R/32L	Ground Rwy 14R (West side)	Rwy 14R (East side)
	128.05	119.45	124.65	124.2	118.5	122.52	121.8
	LOC IWR	Final Apch Crs	GS D9.3 IWR	ILS DA(H)	Apt Elev 70'		
	110.7	146°	3000' (2945')	300' (245')	Rwy 14R 55'		
	MISSED APCH: Proceed on track 146° climbing to 2500'. At D4.0 VKL turn RIGHT (IAS MAX 185 kt), track 290°, to intercept and follow VKL VOR R-260 bound to DUMAS holding pattern. REMARK: missed approach obstacle clearance is provided by 2.5% gradient; 4.5% gradient until 2000' is required to acquire separation from VFR traffic along coastal route. Advise ATC if unable.						
	Alt Set: hPa Rwy Elev: 2 hPa Trans level: FL 130 Trans alt: 11000'						
1. DME Required.							MSA VKL VOR



LOC (GS out)	IWR DME	10.0	9.3	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE		3000'	3000'	2920'	2600'	2280'	1960'	1650'	1330'	1010'	690'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI		146° ↑ 2500' D4.0 VKL 116.1 290° RT	
GS	3.00°	372	478	531	637	743				
MAP at D1.6 IWR										

STRAIGHT-IN LANDING RWY 14R				CIRCLE-TO-LAND As Authorized by ATC			
ILS DA(H) 300' (245')		LOC (GS out) MDA(H) 550' (495')		Max Kts		MDA(H)	
FULL	ALS out	FULL	ALS out	100	135	770' (700') - 2700m	
A				180	205	1260' (1190') - 4800m	
B	RVR 550m						
C	VIS 800m	1200m	1900m				
D			2700m				

WMKK/KUL

KUALA LUMPUR INTL-
SEPANG

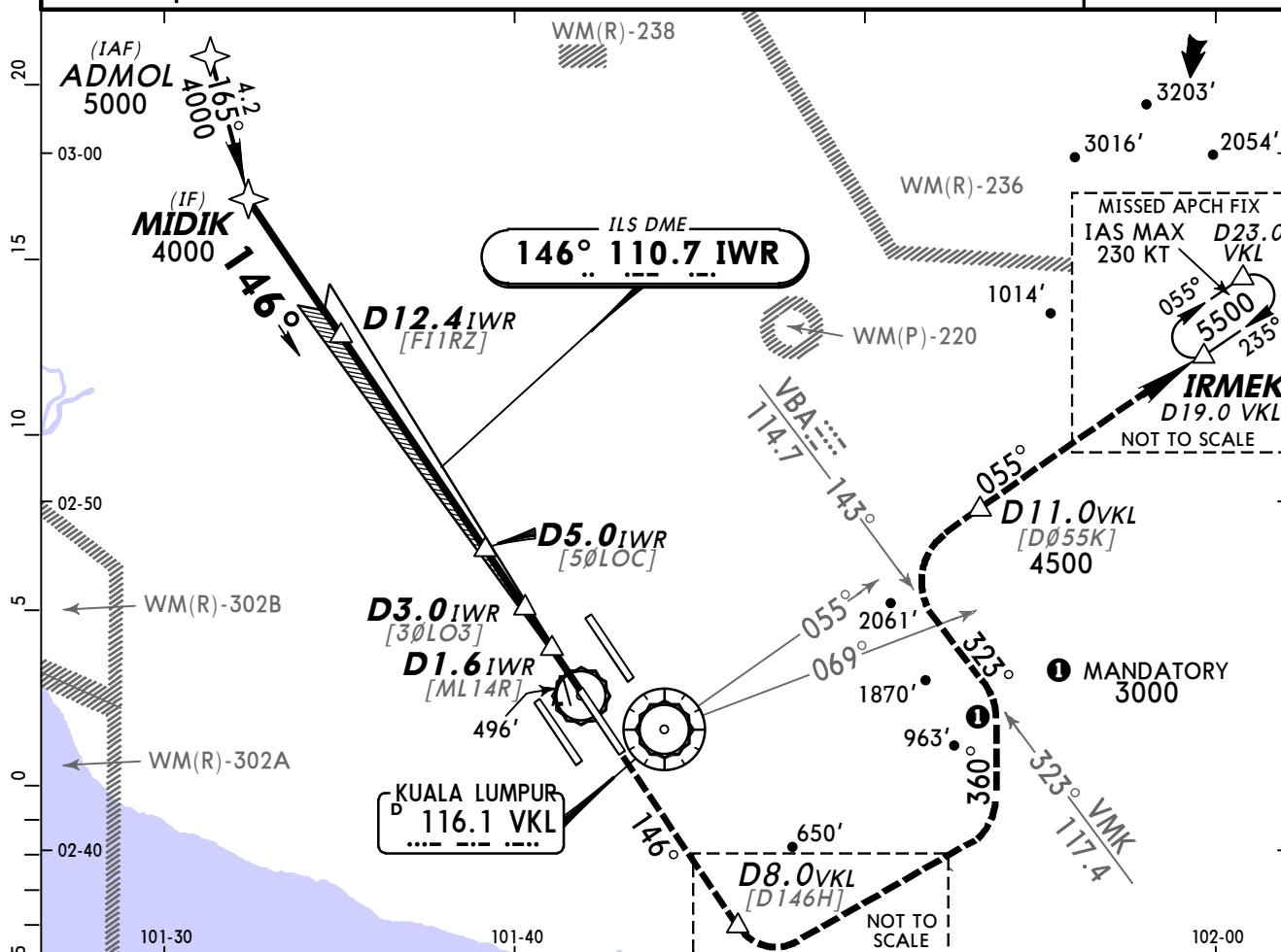
1 AUG 14

(21-5)

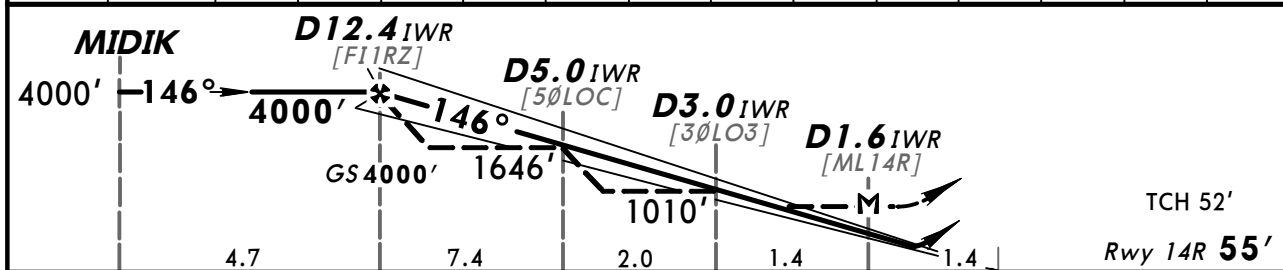
JEPPESEN KUALA LUMPUR, MALAYSIA

ILS-Z RNAV1 (GNSS) Rwy 14R

BRIEFING STRIP™	ATIS		LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 14R/32L	Ground		
	128.05		120.35	135.75	118.65	118.5	Rwy 14R (West side) 122.52	Rwy 14R (East side) 121.8	
	LOC IWR 110.7		Final Apch Crs 146°		GS D12.4 IWR 4000' (3945')	ILS DA(H) 300' (245')	Apt Elev 70' Rwy 14R 55'	5300'	
	MISSED APCH: Proceed on track 146°, climbing to 3000'. At D8.0 VKL turn LEFT track 360° to intercept and follow VBA VOR R-143 (track 323°). Climb to 5500', crossing VKL VOR R-069 turn RIGHT to intercept and follow VKL VOR R-055 (track 055°) bound to IRMEK holding pattern.								
	Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 130		Trans alt: 11000'		
	1. DME Required.								
MSA ARP									



LOC (GS out)	IWR DME	13.0	12.4	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	4000'	4000'	3870'	3550'	3240'	2920'	2600'	2280'	1960'	1650'	1330'	1010'	690'



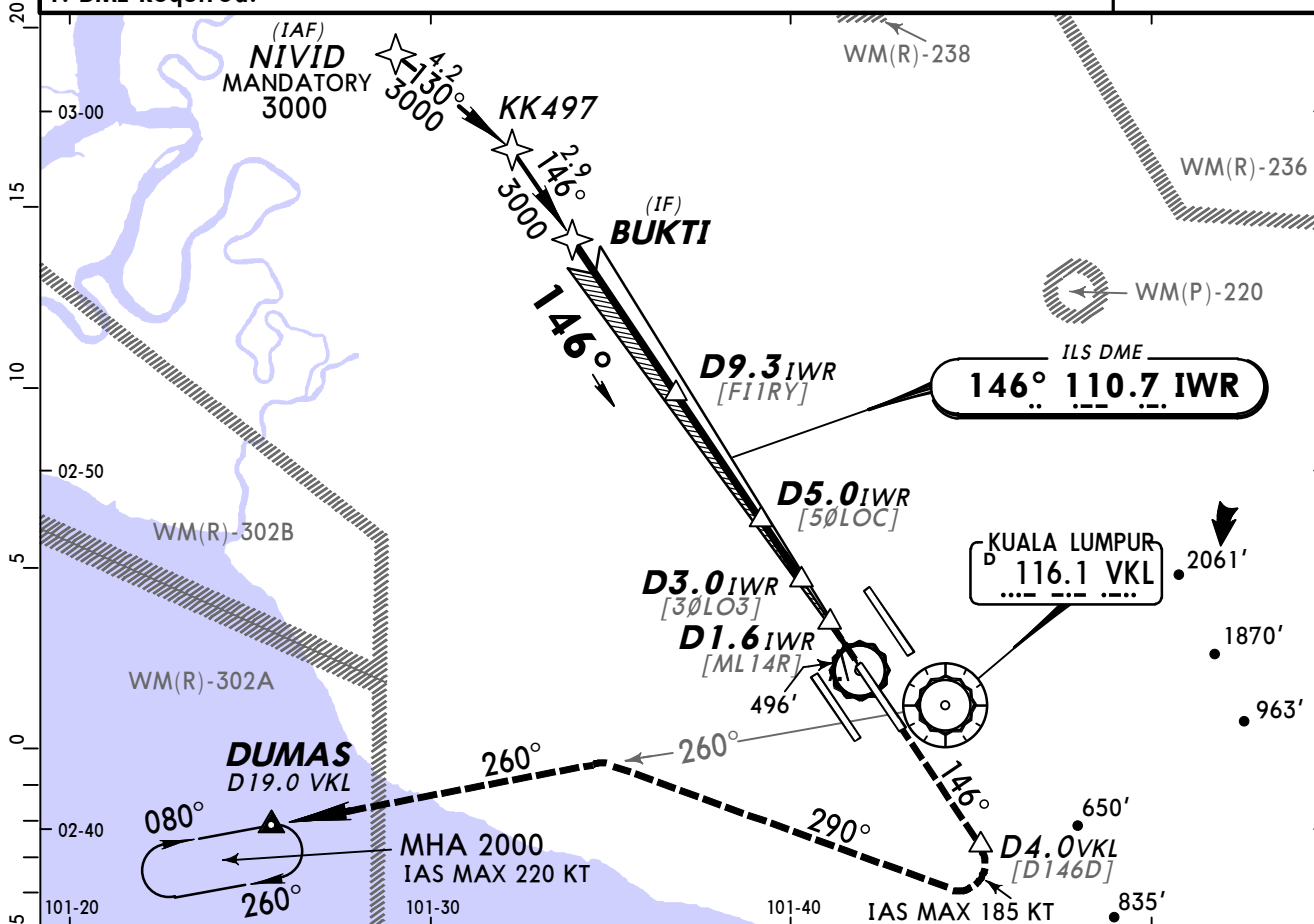
Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II		3000'		D8.0 VKL		360°	
GS	3.00°	372	478	531	637	743	REIL PAPI		146°		116.1		LT	
MAP at D1.6 IWR														

STRAIGHT-IN LANDING RWY 14R						CIRCLE-TO-LAND As Authorized by ATC			
ILS DA(H) 300' (245')			LOC (GS out) MDA(H) 550' (495')			Max Kts		MDA(H)	
FULL			ALS out			100		770' (700') - 2700m	
RVR 550m			1200m			135			
VIS 800m			1900m			180			
			2700m			205		1260' (1190') - 4800m	

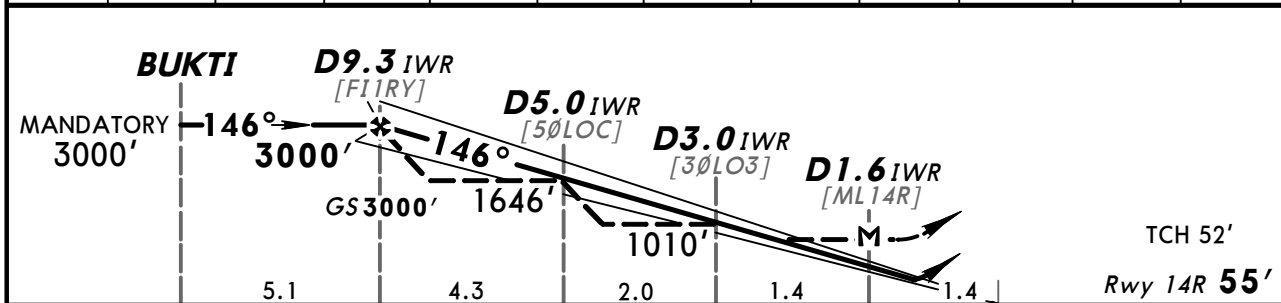
CHANGES: KIDOT transition removed.

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BRIEFING STRIP™	ATIS	LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 14R/32L	Ground	
	128.05	119.45	124.65	124.2	118.5	Rwy 14R (West side)	Rwy 14R (East side)
	LOC IWR 110.7	Final Apch Crs 146°	GS D9.3 IWR 3000' (2945')	ILS DA(H) 300' (245')	Apt Elev 70' Rwy 14R 55'		5300' MSA ARP
	MISSED APCH: Proceed on track 146° climbing to 2500'. At D4.0 VKL turn RIGHT (IAS MAX 185 kt), track 290°, to intercept and follow VKL VOR R-260 bound to DUMAS holding pattern. REMARK: missed approach obstacle clearance is provided by 2.5% gradient; 4.5% gradient until 2000' is required to acquire separation from VFR traffic along coastal route. Advise ATC if unable.						
	Alt Set: hPa		Rwy Elev: 2 hPa	Trans level: FL 130		Trans alt: 11000'	
	1. DME Required.						



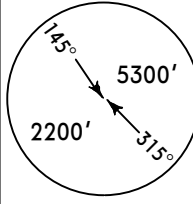
LOC (GS out)	IWR DME	10.0	9.3	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE		3000'	3000'	2920'	2600'	2280'	1960'	1650'	1330'	1010'	690'

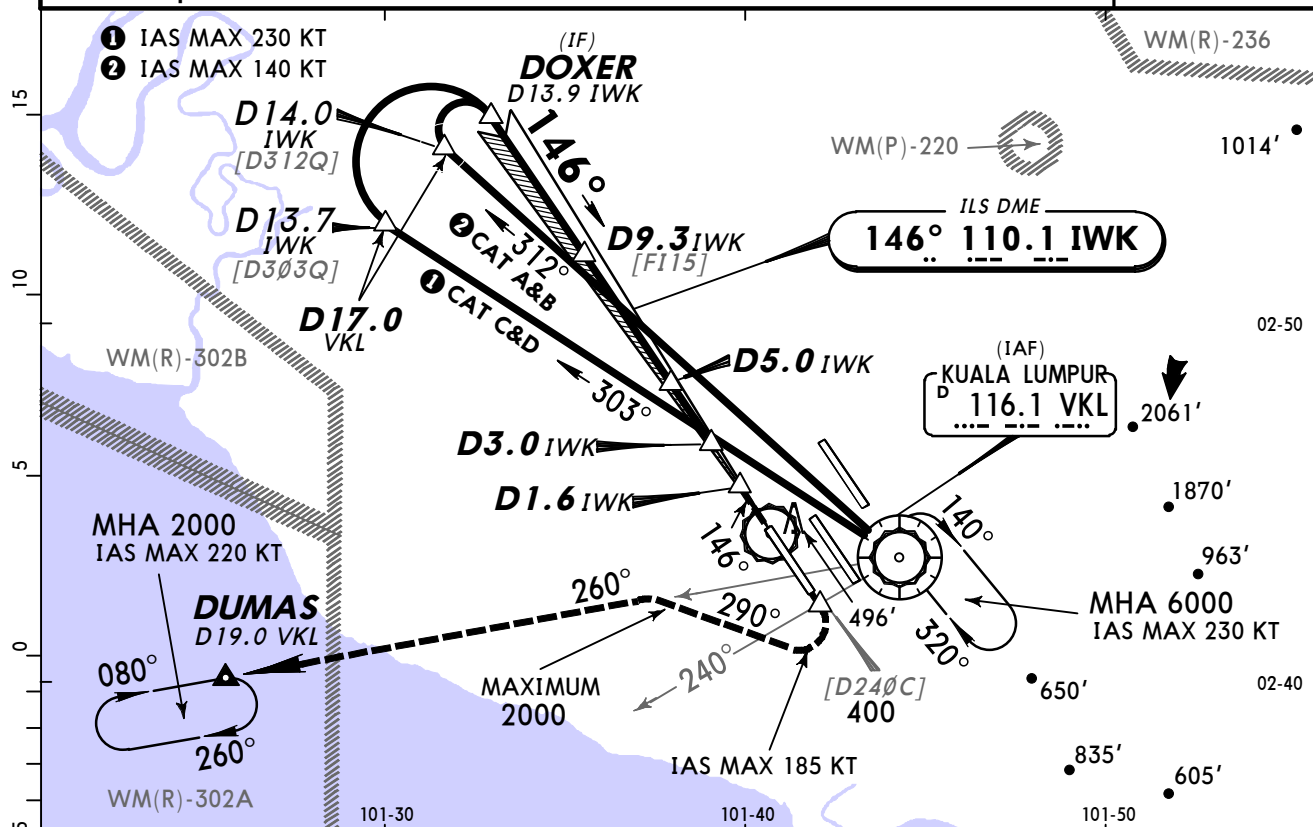


Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II REIL PAPI	146°	2500'	D4.0 VKL 116.1	290° RT
GS	3.00°	372	478	531	637	743					
MAP at D1.6 IWR											

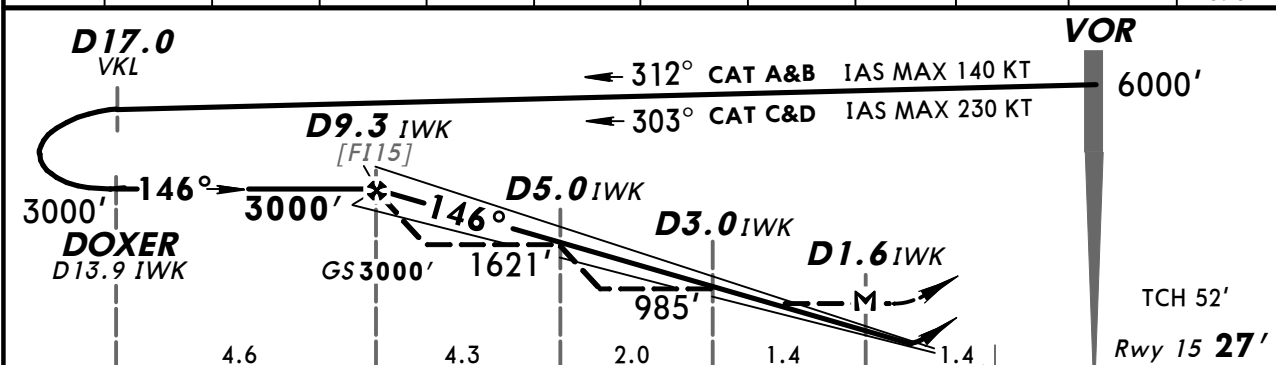
PANS OPS	STRAIGHT-IN LANDING RWY 14R				CIRCLE-TO-LAND As Authorized by ATC			
	ILS DA(H) 300' (245')		LOC (GS out) MDA(H) 550' (495')		Max Kts		MDA(H)	
	FULL	ALS out		ALS out	100	135	770' (700') - 2700m	
	RVR 550m	1200m	1900m	2700m	180	205	1260' (1190') - 4800m	
	VIS 800m							

BRIEFING STRIP™

ATIS		LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 15/33	Ground Rwy 15/33
128.05		119.45	125.1	124.2	119.8	118.05
LOC IWK 110.1	Final Apch Crs 146°	GS D9.3 IWK 3000' (2973')	ILS DA(H) 230' (203')	Apt Elev 70' Rwy 15 27'		 MSA VKL VOR
MISSED APCH: Proceed on track 146° climbing to 2000'. Crossing VKL VOR R-240 turn RIGHT, not below 400' (IAS MAX 185 kt), track 290° to intercept and follow VKL VOR R-260. Continue climb to 2500' bound to DUMAS holding pattern. REMARK: missed approach obstacle clearance is provided by 2.5% gradient; 4.5% gradient until 2000' is required to acquire separation from VFR traffic along coastal route. Advise ATC if unable.						
Alt Set: hPa		Rwy Elev: 1 hPa	Trans level: FL 130		Trans alt: 11000'	
1. DME Required.						



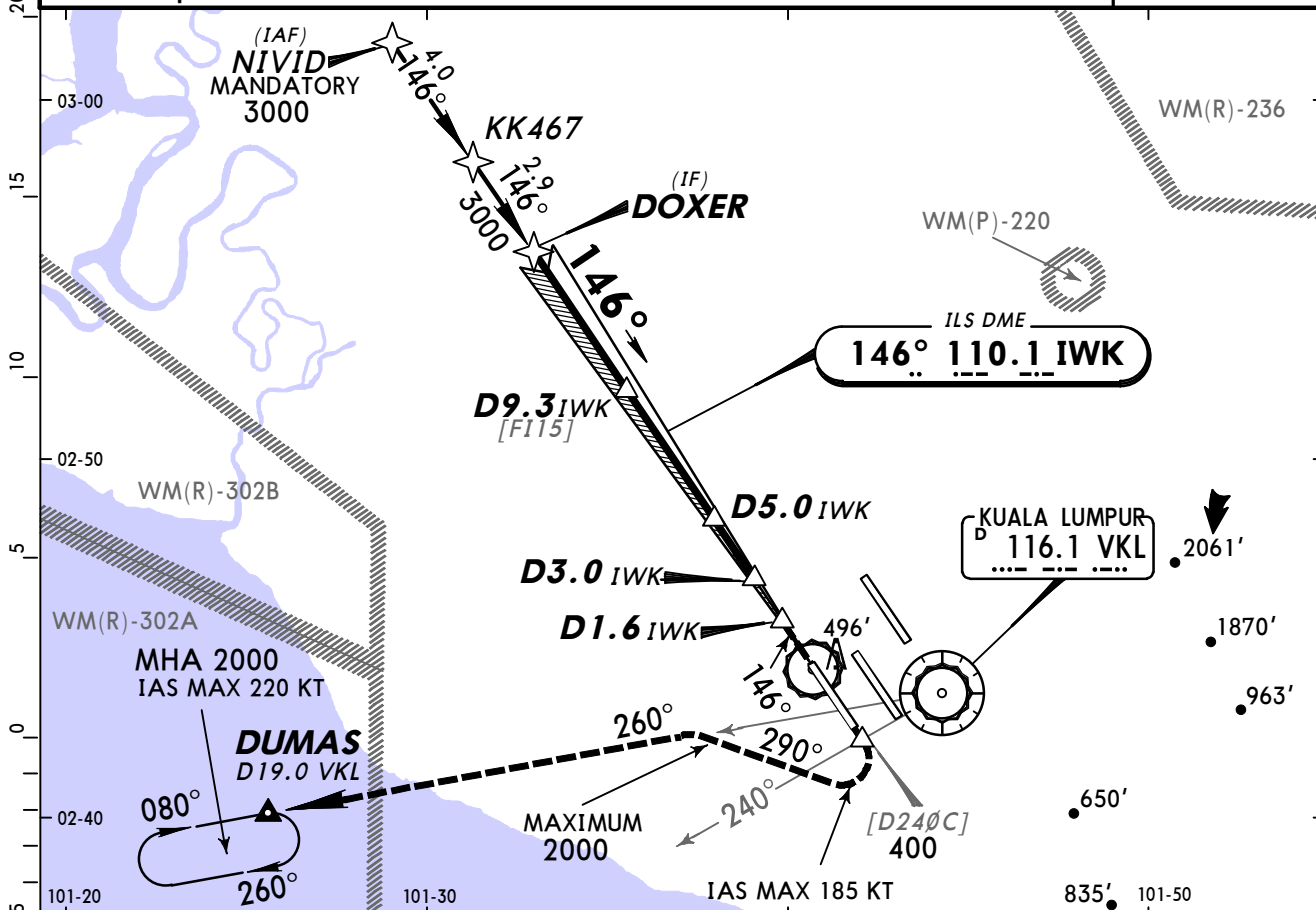
LOC (GS out)	IWK DME	10.0	9.3	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE		3000'	3000'	2890'	2580'	2260'	1940'	1620'	1300'	990'	670'



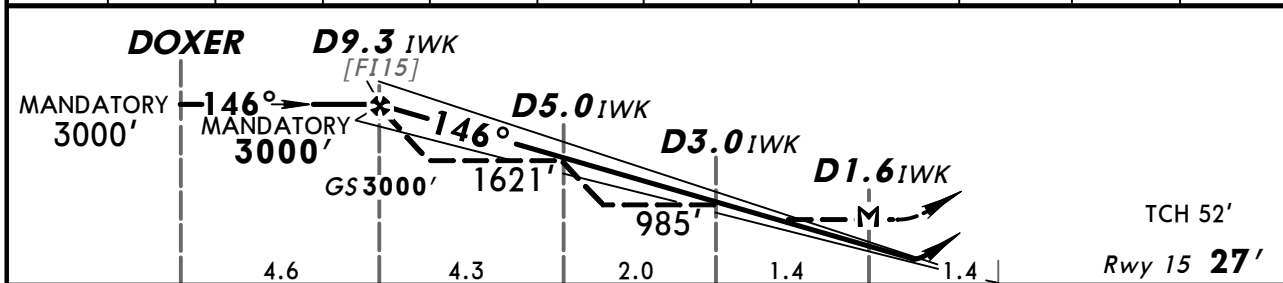
Gnd speed-Kts	70	90	100	120	140	160	HIALS		crossing	
GS	3.00°	372	478	531	637	743	849	REIL	2000'	R-240
MAP at D1.6 IWK								PAPI	146°	VKL
										290°
										RT

STRAIGHT-IN LANDING RWY 15				CIRCLE-TO-LAND	
ILS		LOC (GS out)		Not Authorized East of Rwy 14R/32L Centerline Except when Authorized by ATC	
DA(H) 230' (203')		MDA(H) 550' (523')		Max Kts	
FULL		ALS out		MDA(H)	
A				100	770' (700') - 2700m
B	RVR 550m	1200m	1900m	135	
C	VIS 800m		2700m	180	1260' (1190') - 4800m
D			2000m	205	

BRIEFING STRIP™	ATIS		LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 15/33	Ground Rwy 15/33
	128.05		119.45	124.65	124.2	119.8	118.05
	LOC IWK 110.1	Final Apch Crs 146°	GS D9.3 IWK 3000' (2973')	ILS DA(H) 230' (203')	Apt Elev 70' Rwy 15 27'		5300' MSA ARP
	MISSED APCH: Proceed on track 146° climbing to 2000'. Crossing VKL VOR R-240 turn RIGHT, not below 400' (IAS MAX 185 kt), track 290° to intercept and follow VKL VOR R-260. Continue climb to 2500' bound to DUMAS holding pattern. REMARK: missed approach obstacle clearance is provided by 2.5% gradient; 4.5% gradient until 2000' is required to acquire separation from VFR traffic along coastal route. Advise ATC if unable.						
	Alt Set: hPa Rwy Elev: 1 hPa Trans level: FL 130 Trans alt: 11000'						
1. DME Required.							

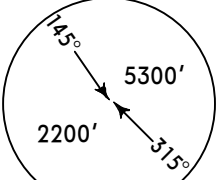


LOC (GS out)	IWK DME	10.0	9.3	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	3000'	3000'	2890'	2580'	2260'	1940'	1620'	1300'	990'	670'

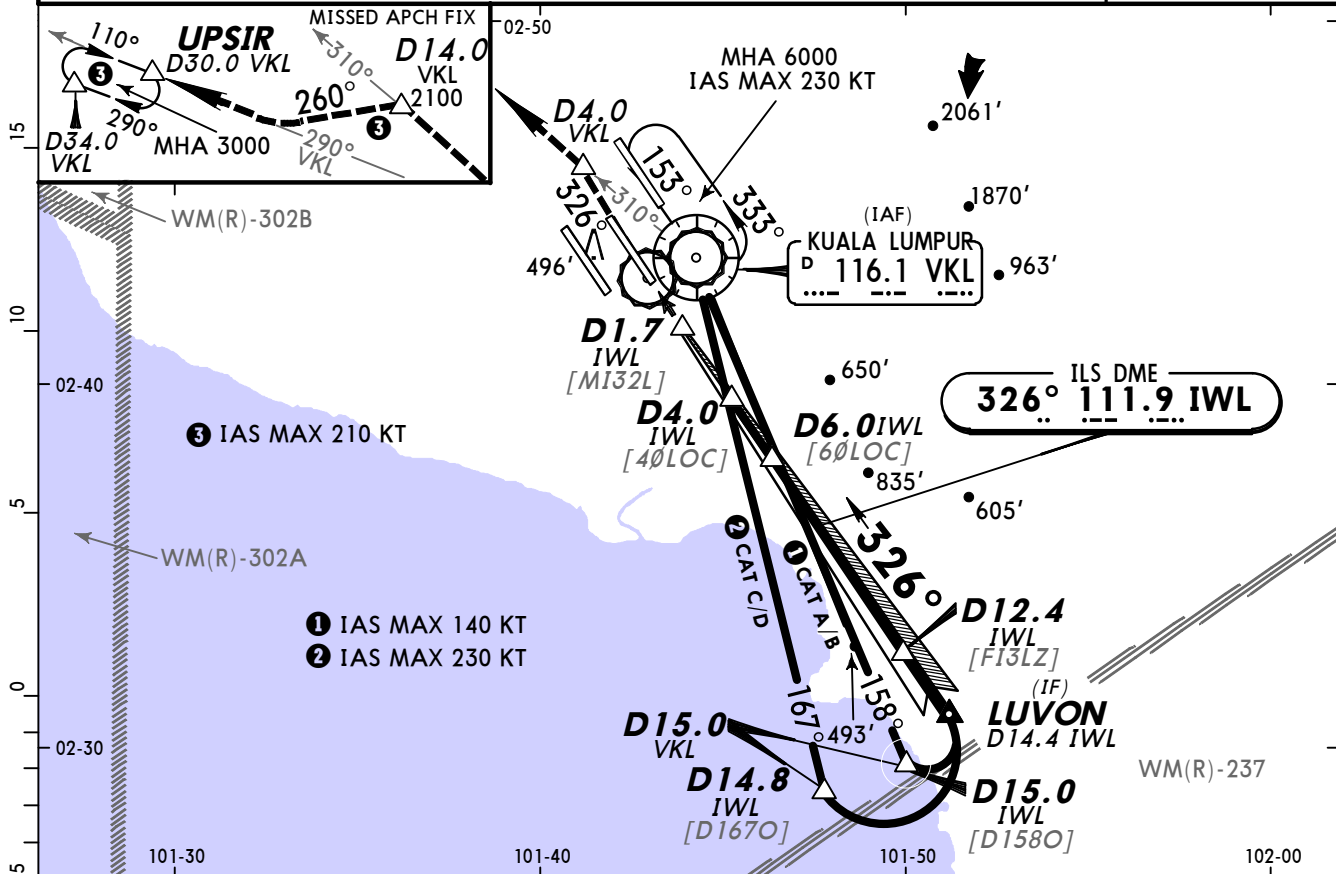


Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI 146°	2000' ↑	crossing R-240 VKL 116.1 RT
GS	3.00°	372	478	531	637	743			
MAP at D1.6 IWK									

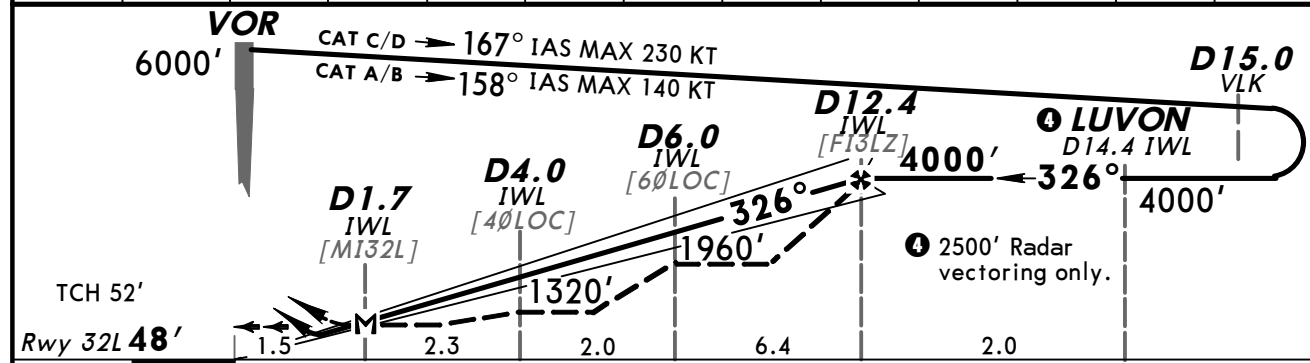
STRAIGHT-IN LANDING RWY 15				CIRCLE-TO-LAND Not Authorized East of Rwy 14R/32L Centerline Except when Authorized by ATC	
ILS DA(H) 230' (203')		LOC (GS out) MDA(H) 550' (523')		Max Kts	
FULL	ALS out		ALS out	100	770' (700') - 2700m
A				135	
B	RVR 550m	1200m	1900m	180	
C	VIS 800m		2000m	205	1260' (1190') - 4800m
D			2800m		

ATIS		LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 14R/32L	Ground Rwy 32L (West side)		Rwy 32L (East side)
128.05		124.65 135.75		121.25	118.5	122.52		121.8
LOC IWL 111.9		Final Apch Crs 326°		GS D12.4 IWL 4000' (3952')	ILS DA(H) 288' (240')		Apt Elev 70' Rwy 32L 48'	
MISSED APCH: Proceed on track 326°, climbing to 3000'. At D4.0 VKL turn LEFT on R-310 VKL. At D14.0 VKL turn LEFT track 260° intercept and follow R-290 VKL bound to UPSIR holding pattern.								
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 130		Trans alt: 11000'		
1. DME required.								

MSA VKL VOR



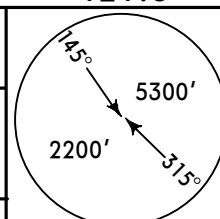
LOC (GS out)	IWL DME	2.0	3.0	5.0	7.0	8.0	9.0	10.0	11.0	12.0	12.4	13.0
	ALTITUDE	702'	1020'	1656'	2292'	2610'	2928'	3246'	3564'	3882'	4000'	4000'



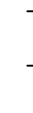
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II		326°	3000'	D4.0 VKL
GS	3.00°	372	478	531	637	743	849	REIL PAPI			
MAP at D1.7 IWL											

STRAIGHT-IN LANDING RWY 32L				CIRCLE-TO-LAND	
ILS		LOC (GS out)		As authorized by ATC	
DA(H) 288' (240')		MDA(H) 570' (522')			
FULL		ALS out			
A				Max Kts	
B				100	770' (700')-2800m
C	RVR 550m VIS 800m	1200m	2000m	135	
D				180	1260' (1190')-4800m
				205	

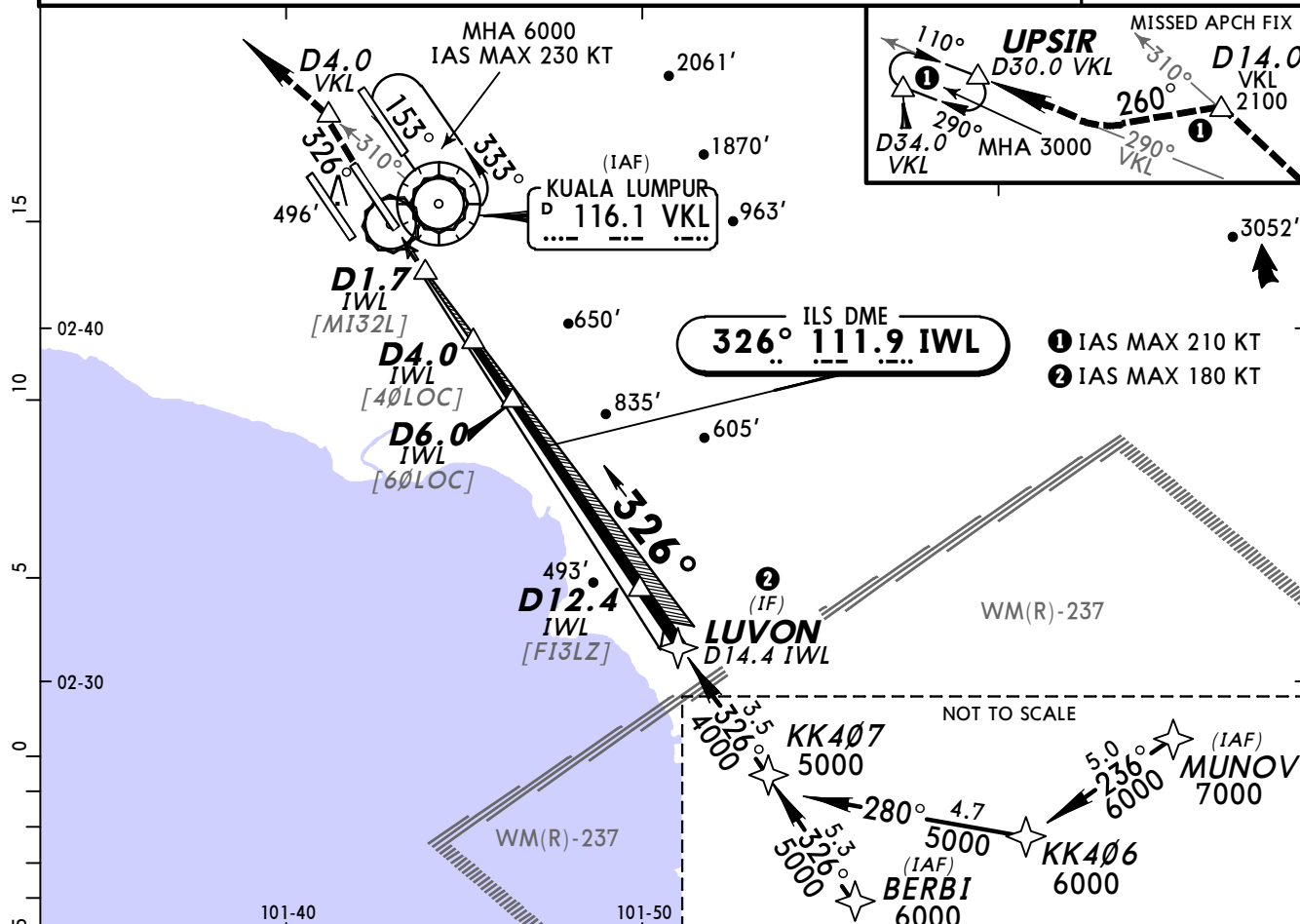
BRIEFING STRIP™



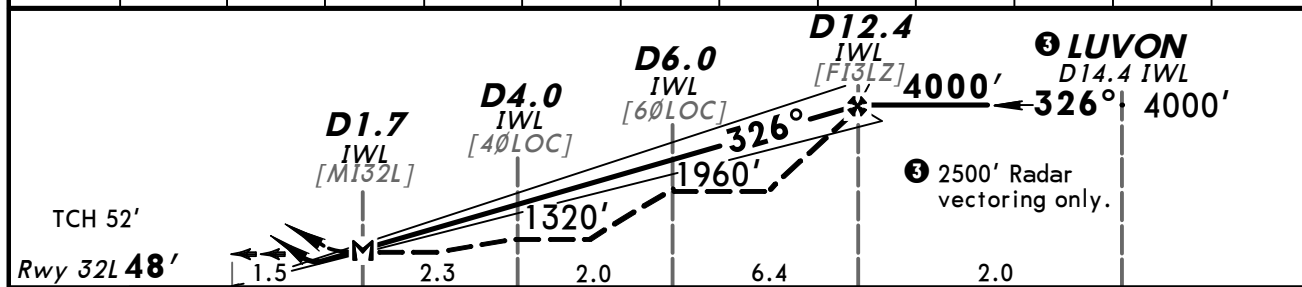
MSA VKL VOR

5.

BRIEFING STRIP™	ATIS		LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 14R/32L	Ground	
	128.05		124.65 135.75		121.25	118.5	Rwy 32L (West side) 122.52	Rwy 32L (East side) 121.8
	LOC IWL 111.9		Final Apch Crs 326°		GS D12.4 IWL 4000' (3952')	ILS DA(H) 288' (240')		Apt Elev 70' Rwy 32L 48'
	MISSED APCH: Proceed on track 326°, climbing to 3000'. At D4.0 VKL turn LEFT on R-310 VKL. At D14.0 VKL turn LEFT track 260° intercept and follow R-290 VKL bound to UPSIR holding pattern.							5300' MSA ARP
	Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 130		Trans alt: 11000'	
	1. DME required.							



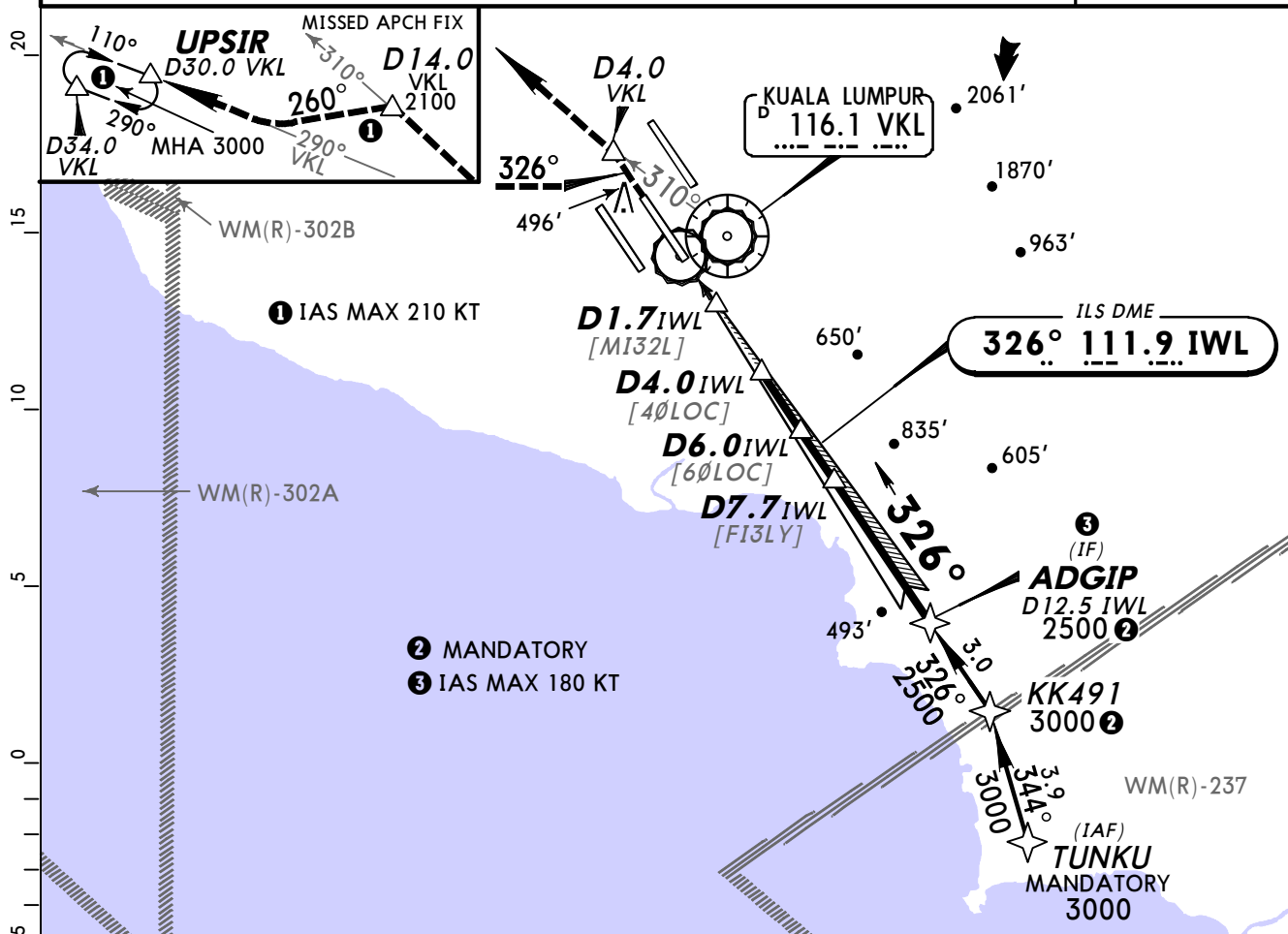
LOC (GS out)	IWL DME	2.0	3.0	5.0	7.0	8.0	9.0	10.0	11.0	12.0	12.4	13.0
	ALTITUDE	702'	1020'	1656'	2292'	2610'	2928'	3246'	3564'	3882'	4000'	4000'



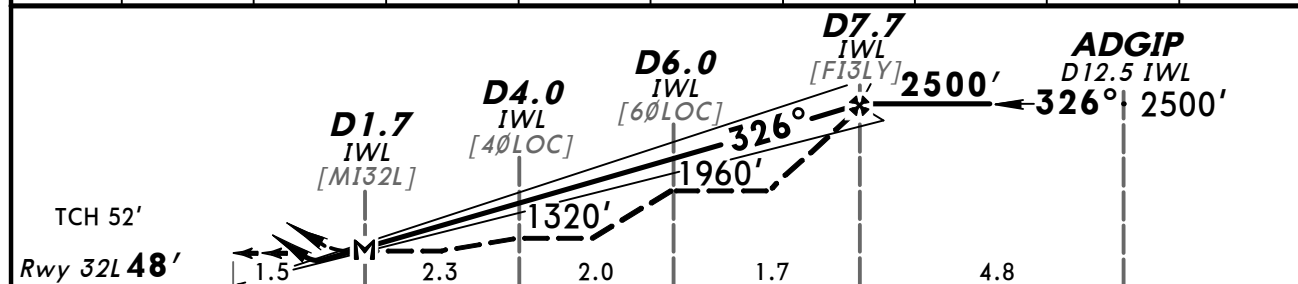
Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II		326°		3000'	D4.0 VKL
GS	3.00°	372	478	531	637	743	849	REIL PAPI	PAPI			
MAP at D1.7 IWL												

STRAIGHT-IN LANDING RWY 32L				CIRCLE-TO-LAND			
ILS		LOC (GS out)		As authorized by ATC			
DA(H) 288' (240')		MDA(H) 570' (522')					
FULL		ALS out		Max Kts			
				100			
				135			
				180			
				205			
RVR 550m		1200m		770' (700') - 2800m			
VIS 800m		2000m		1260' (1190') - 4800m			

ATIS		LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 14R/32L	Ground	
128.05		119.45	124.65	124.2	118.5	Rwy 32L (West side) 122.52	Rwy 32L (East side) 121.8
LOC IWL 111.9		Final Apch Crs 326°		GS D7.7 IWL 2500' (2452')	ILS DA(H) 288' (240')	Apt Elev 70' Rwy 32L 48'	5300' MSA ARP
MISSED APCH: Proceed on track 326°, climbing to 3000'. At D4.0 VKL turn LEFT on R-310 VKL. At D14.0 VKL turn LEFT track 260° intercept and follow R-290 VKL bound to UPSIR holding pattern.							
Alt Set: hPa		Rwy Elev: 2 hPa		Trans level: FL 130		Trans alt: 11000'	
1. DME required.							



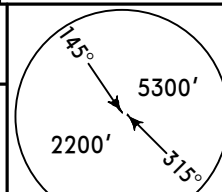
LOC (GS out)	IWL DME	2.0	3.0	4.0	5.0	6.0	7.0	7.7	8.0
	ALTITUDE	702'	1020'	1338'	1656'	1974'	2292'	2500'	2500'



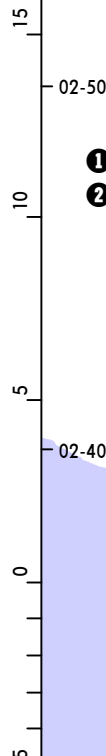
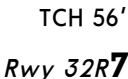
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI PAPI		326° 3000' D4.0 VKL	
GS	3.00°	372	478	531	637	743				
MAP at D1.7 IWL										

STRAIGHT-IN LANDING RWY 32L				CIRCLE-TO-LAND	
ILS		LOC (GS out)		As authorized by ATC	
DA(H) 288' (240')		MDA(H) 570' (522')			
FULL	ALS out		ALS out	Max Kts	MDA(H)
A				100	770'(700')-2800m
B	RVR 550m			135	
C	VIS 800m	1200m	2000m	180	1260'(1190')-4800m
D			2800m	205	

BRIEFING STRIP™



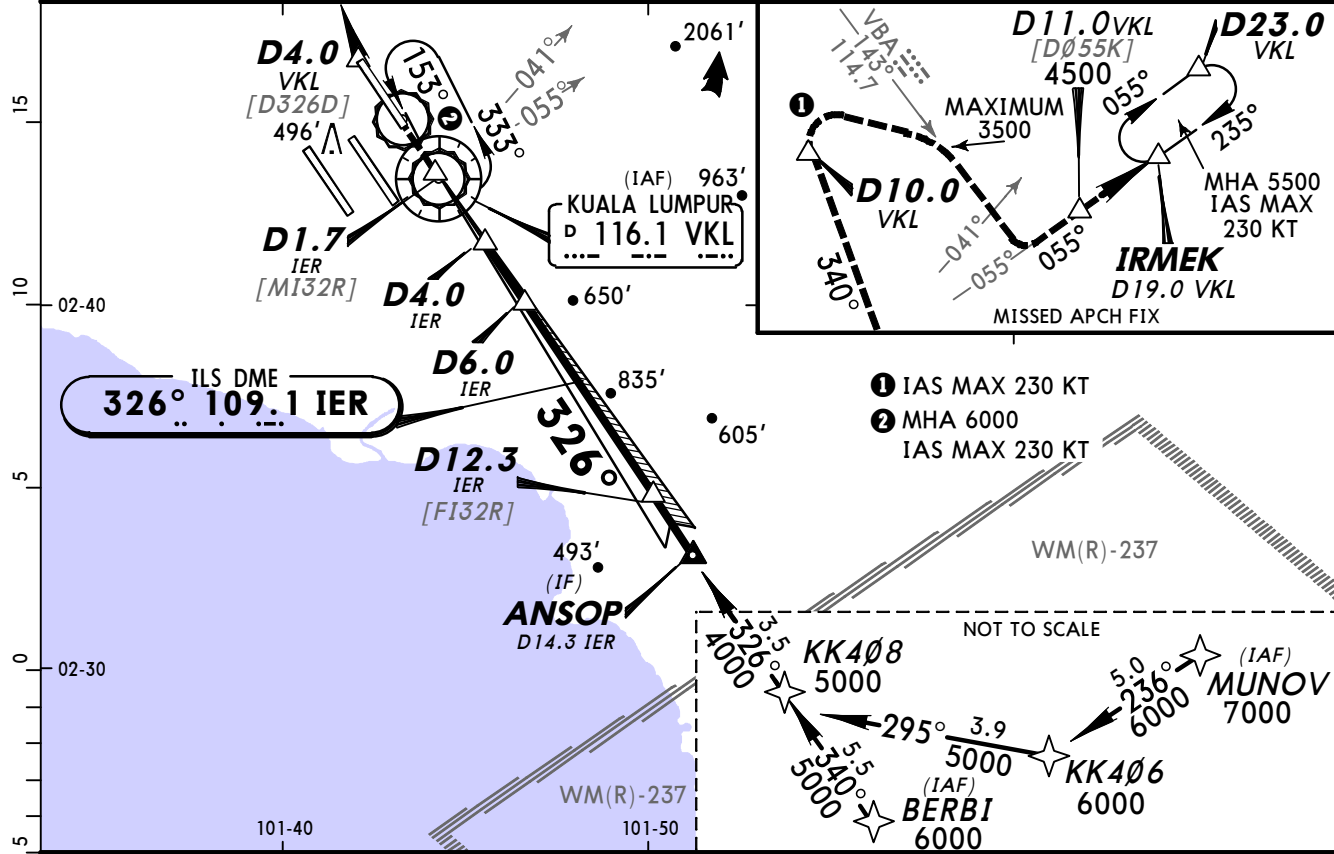
MSA VKL VOR

(GS out

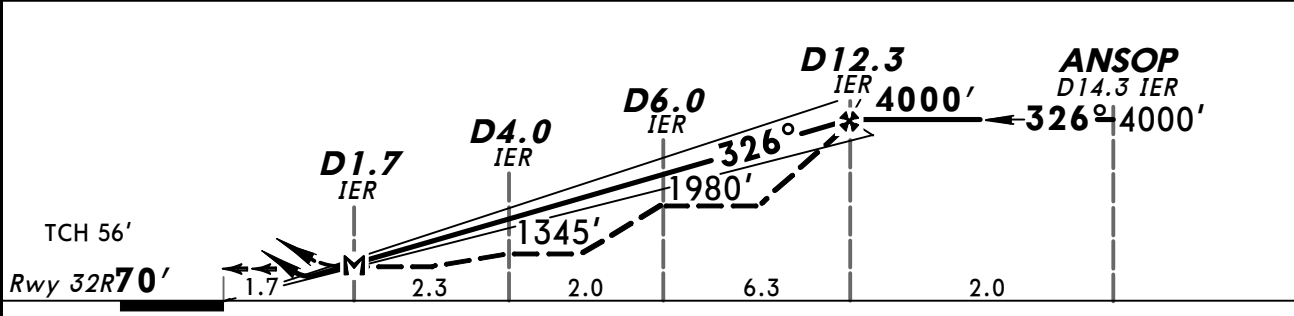
Gnd speed-K

PANS OPS

BRIEFING STRIP™	ATIS	LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 14L/32R	Ground Rwy 14L/32R
	128.05	120.35	135.75	121.25	118.8	121.65
	LOC IER	Final Apch Crs	GS D12.3 IER	ILS DA(H)	Apt Elev 70'	5300'
	109.1	326°	4000' (3930')	309' (239')	Rwy 32R 70'	
	MISSED APCH: Proceed on track 326°, climbing to 3500'. At D4.0 VKL turn RIGHT track 340°. At D10.0 VKL turn RIGHT to intercept and follow R-143 VBA outbound. Continue climb to 5500', crossing R-055 VKL track 055° to IRMEK holding pattern.					
	Alt Set: hPa	Rwy Elev: 2 hPa	Trans level: FL 130	Trans alt: 11000'		
1. DME required.					MSA ARP	



LOC (GS out)	IER DME	2.0	3.0	5.0	7.0	8.0	9.0	10.0	11.0	12.0	12.3	13.0
ALTITUDE		702'	1020'	1656'	2292'	2610'	2928'	3246'	3565'	3883'	4000'	4000'



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II REIL PAPI PAPI	326°	3500' ↑	D4.0 VKL
GS 3.00°	372	478	531	637	743	849				
MAP at D1.7 IER										

STRAIGHT-IN LANDING RWY 32R						CIRCLE-TO-LAND	
ILS DA(H) 309' (239')			LOC (GS out) MDA(H) 570' (500')			Not Authorized West of Rwy 32R/14L centerline, except when authorized by ATC	
FULL		ALS out	ALS out		Max Kts	MDA(H)	
A					100	770' (700') - 3200m	
B					135		
C	800m	1200m	2400m	3200m	180	1260' (1190') - 4800m	
D					205		

WMKK/KUL

KUALA LUMPUR INTL-
SEPADANG

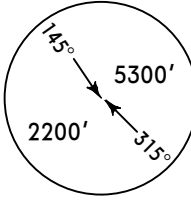
1 AUG 14

(21-15)

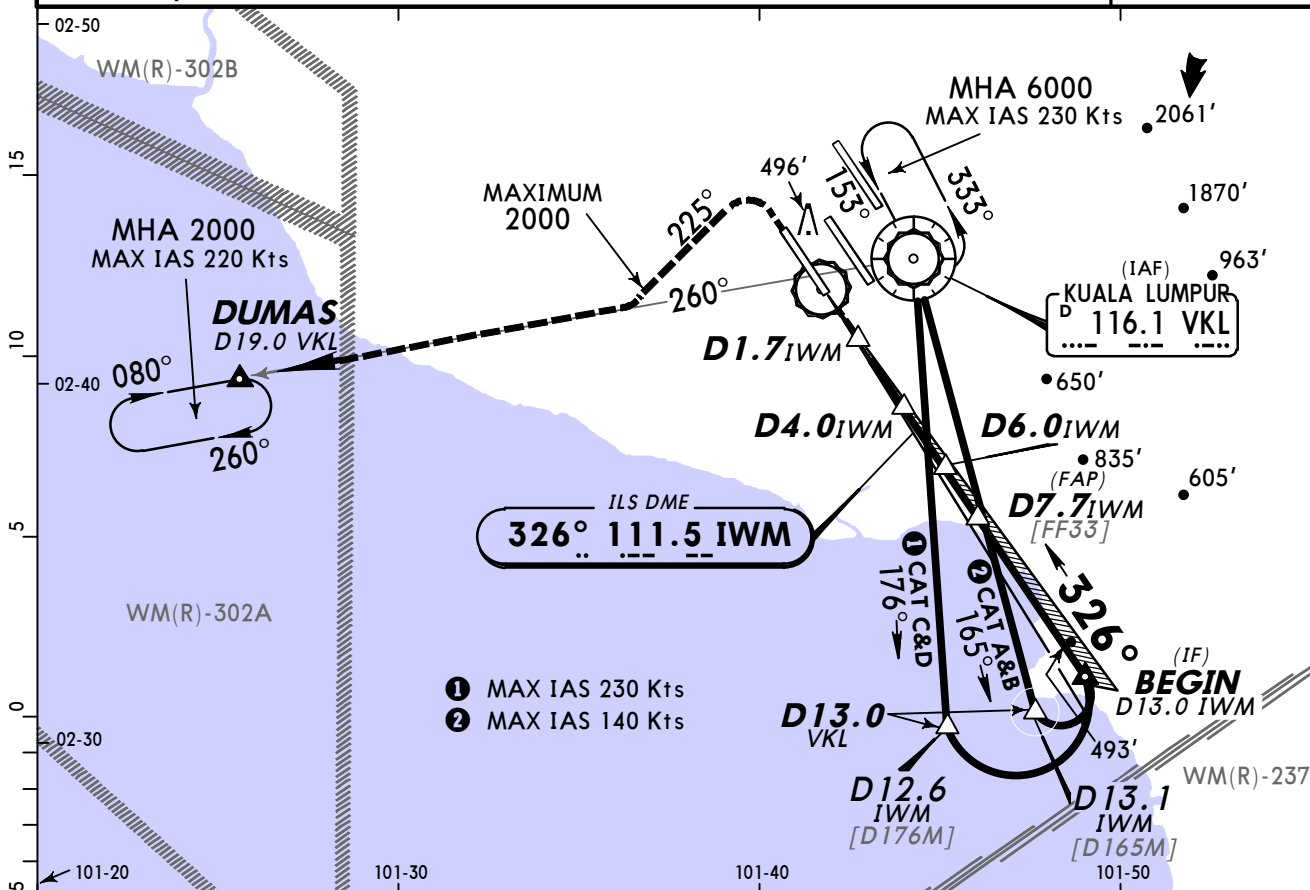
JEPPESEN KUALA LUMPUR, MALAYSIA

ILS or LOC Rwy 33

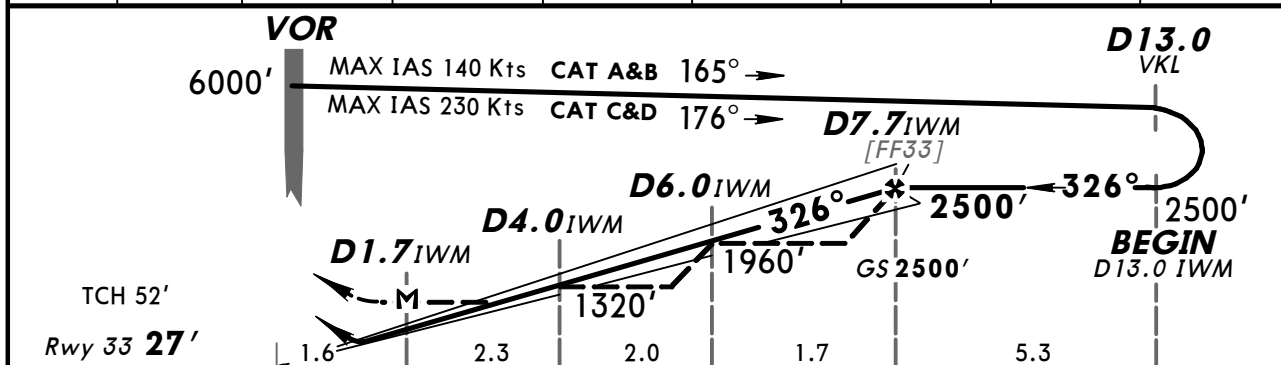
BRIEFING STRIP™

ATIS	LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 15/33	Ground Rwy 15/33
128.05	119.45	125.1	125.85	119.8	118.05
LOC IWM 111.5	Final Apch Crs 326°	GS D7.7 IWM 2500' (2473')	ILS DA(H) 311' (284')	Apt Elev 70' Rwy 33 27'	
MISSED APCH: Climb initially to 2000'. As soon as possible turn LEFT (not below 400') on track 225°, to join VKL VOR R-260, then continue climb to 2500' bound to DUMAS holding pattern.					
Alt Set: hPa 1. DME Required.		Rwy Elev: 1 hPa	Trans level: FL 130		

MSA VKL VOR



LOC (GS out)	IWM DME	2.0	3.0	4.0	5.0	6.0	7.0	7.7
	ALTITUDE	688'	1006'	1324'	1642'	1960'	2277'	2500'



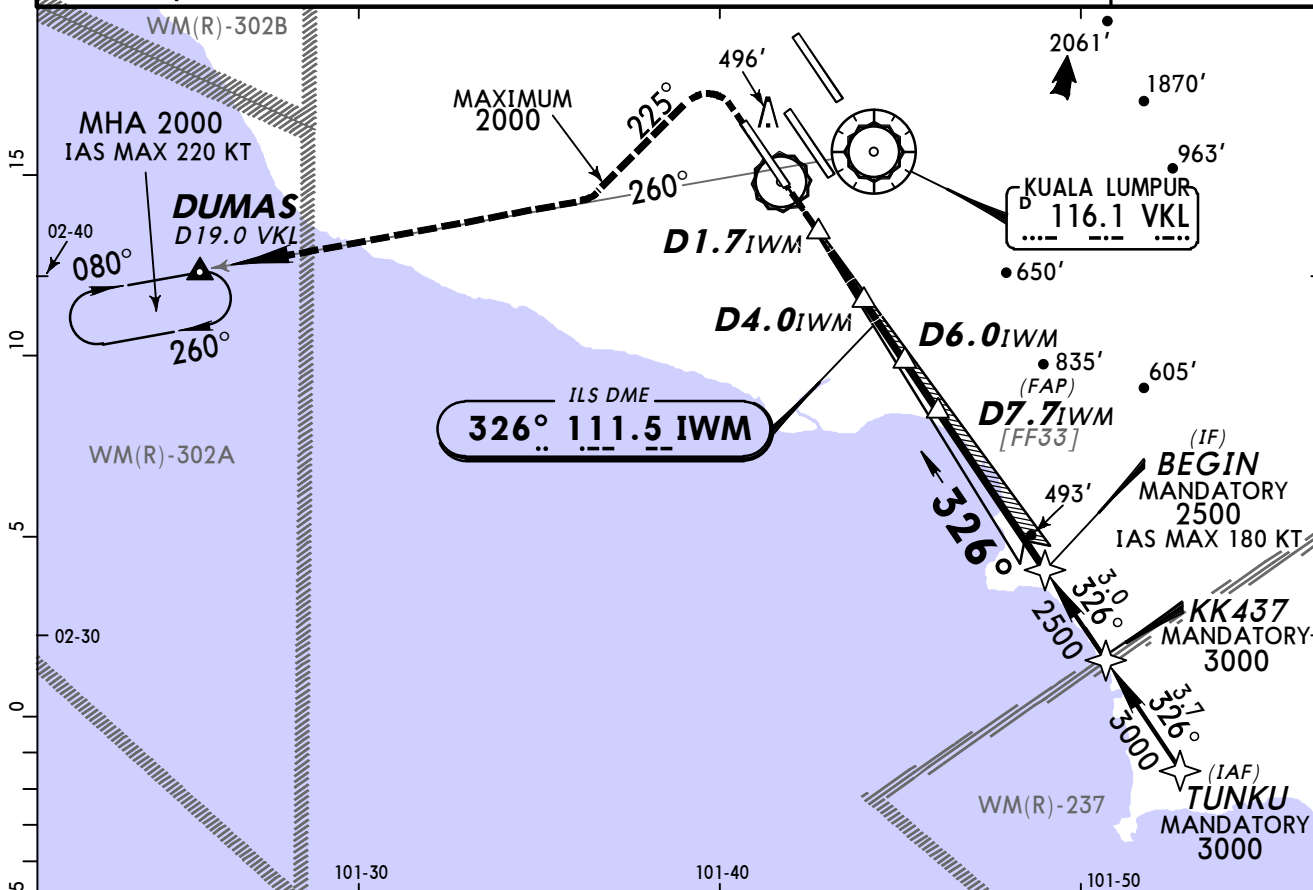
Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI	2000'	225° LT	VKL 116.1 R-260	DUMAS
GS	3.00°	372	478	531	637	743					
MAP at D1.7 IWM											

STRAIGHT-IN LANDING RWY 33				CIRCLE-TO-LAND Not Authorized East of Rwy 15/33 Centerline Except when Authorized by ATC			
ILS DA(H) 311' (284')		LOC (GS out) MDA(H) 570' (543')		Max Kts			
FULL	ALS out			100	135	770' (700') -2900m	
				180	205	1260' (1190') -4800m	
A							
B	RVR 550m						
C	VIS 800m	1200m	1900m	2900m			
D							

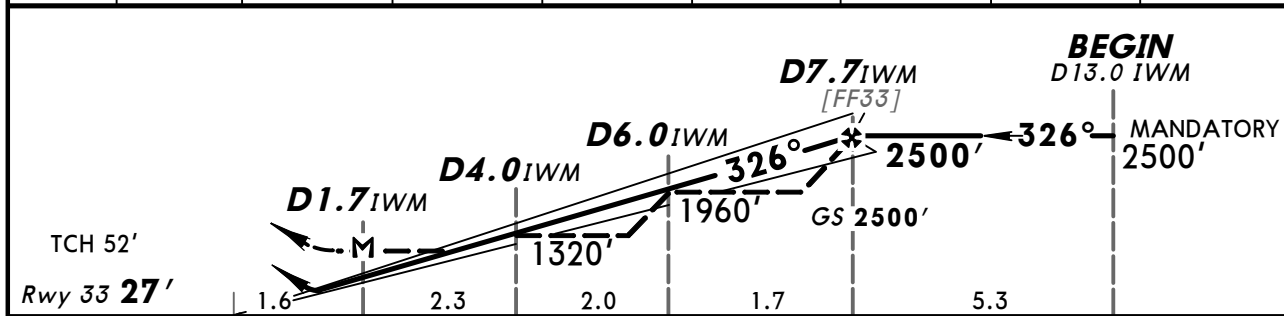
CHANGES: None.

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BRIEFING STRIP™	ATIS		LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 15/33	Ground Rwy 15/33
	128.05		119.45	125.1	125.85	119.8	118.05
	LOC IWM	Final Apch Crs	GS D7.7 IWM	ILS DA(H)	Apt Elev 70' Rwy 33 27'		5300'
	111.5	326°	2500' (2473')	311' (284')			
	MISSED APCH: Climb initially to 2000'. As soon as possible turn LEFT (not below 400') on track 225°, to join VKL VOR R-260, then continue climb to 2500' bound to DUMAS holding pattern.						
Alt Set: hPa		Rwy Elev: 1 hPa	Trans level: FL 130		Trans alt: 11000'		
J. DME Required.							MSA ARP



LOC (GS out)	IWM DME ALTITUDE	2.0	3.0	4.0	5.0	6.0	7.0	7.7
		688'	1006'	1324'	1642'	1960'	2277'	2500'



Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI	2000'	225° LT	VKL 116.1 R-260	DUMAS
GS	3.00°	372	478	531	637	743					
MAP at D1.7 IWM											

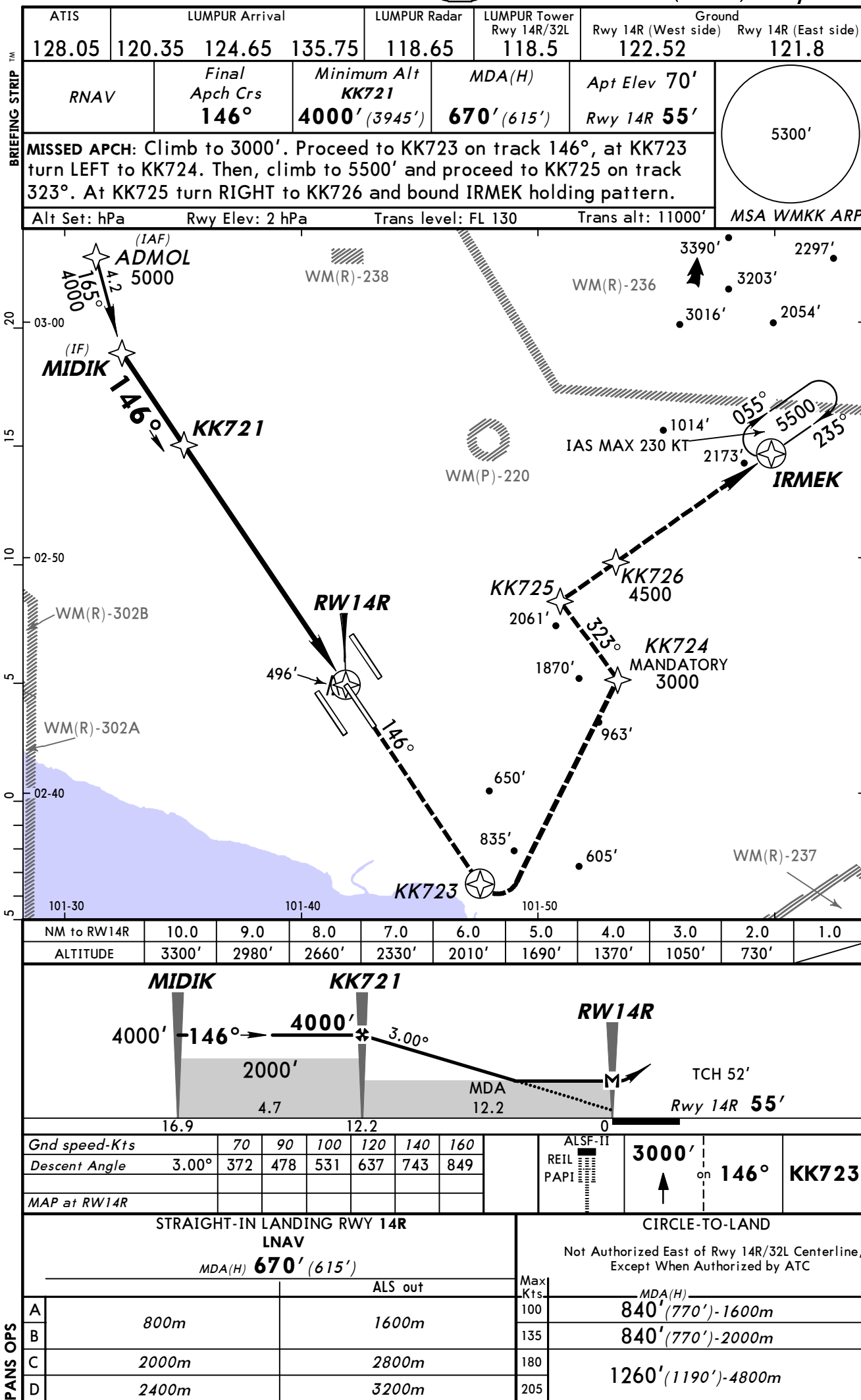
STRAIGHT-IN LANDING RWY 33				CIRCLE-TO-LAND			
ILS DA(H) 311' (284')		LOC (GS out) MDA(H) 570' (543')		Not Authorized East of Rwy 15/33 Centerline Except when Authorized by ATC			
FULL	ALS out	FULL	ALS out	Max Kts	MDA(H)		
A				100	770' (700') -2900m		
B	RVR 550m	1200m	1900m	135			
C	VIS 800m		2900m	180	1260' (1190') -4800m		
D				205			

WMKK/KUL

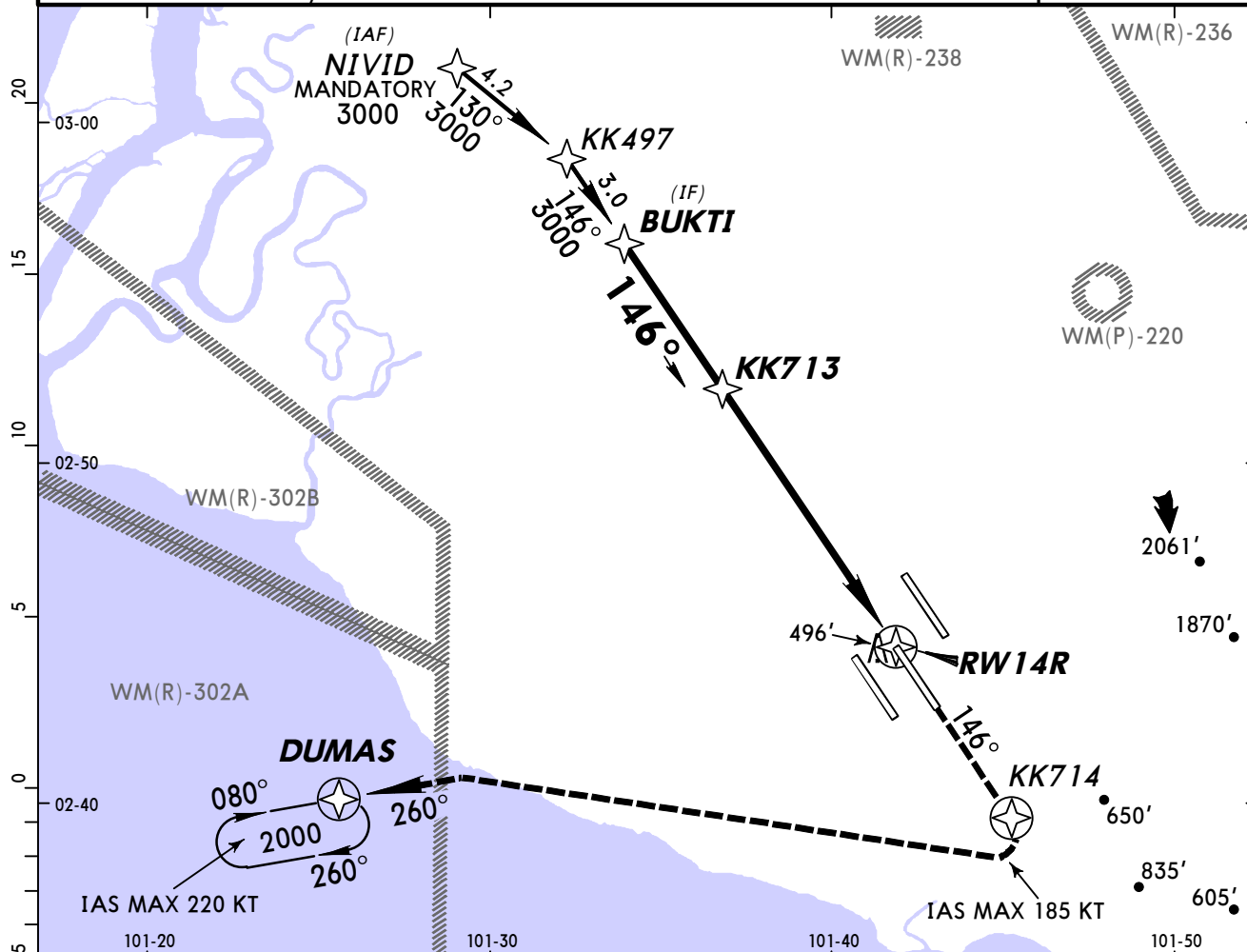
KUALA LUMPUR INTL - SEPANG

1 AUG 14

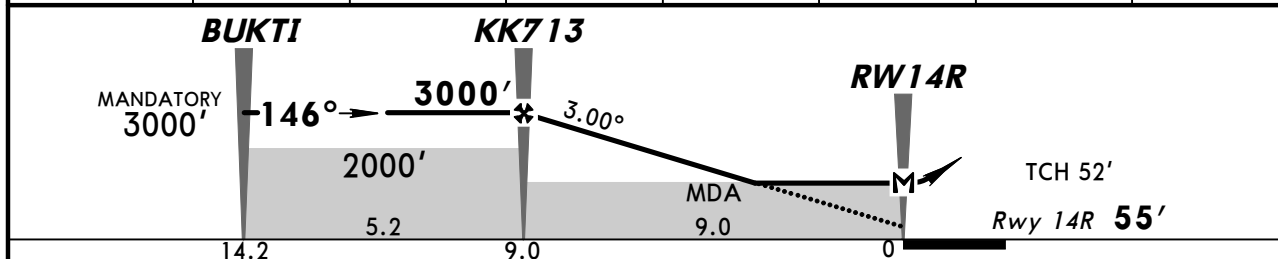
(22-1)

JEPPESSEN KUALA LUMPUR, MALAYSIA
RNAV-Z (GNSS) Rwy 14R

ATIS 128.05	LUMPUR Arrival 119.45 124.65	LUMPUR Radar 124.2	LUMPUR Tower Rwy 14R/32L 118.5	Ground Rwy 14R (West side) 122.52	Rwy 14R (East side) 121.8
RNAV	Final Apch Crs 146°	Minimum Alt KK713 3000' (2945')	MDA(H) 670' (615')	Apt Elev 70' Rwy 14R 55'	5300'
MISSED APCH: Climb to 2000'. Proceed to KK714 on track 146°, at KK714 turn RIGHT to DUMAS on track 260° (IAS MAX 185 KT), bound DUMAS holding pattern. Missed approach obstacle clearance is provided by 2.5% gradient; 4.5% gradient until 2000' is required to acquire separation from VFR traffic along coastal route. Advise ATC if unable.					MSA WMKK ARP
Alt Set: hPa	Rwy Elev: 2 hPa	Trans level: FL 130	Trans alt: 11000'		



NM to RW14R	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2680'	2360'	2030'	1710'	1380'	1060'	740'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
MAP at RW14R						

ALSF-II
REIL
PAPI

2000'

↑

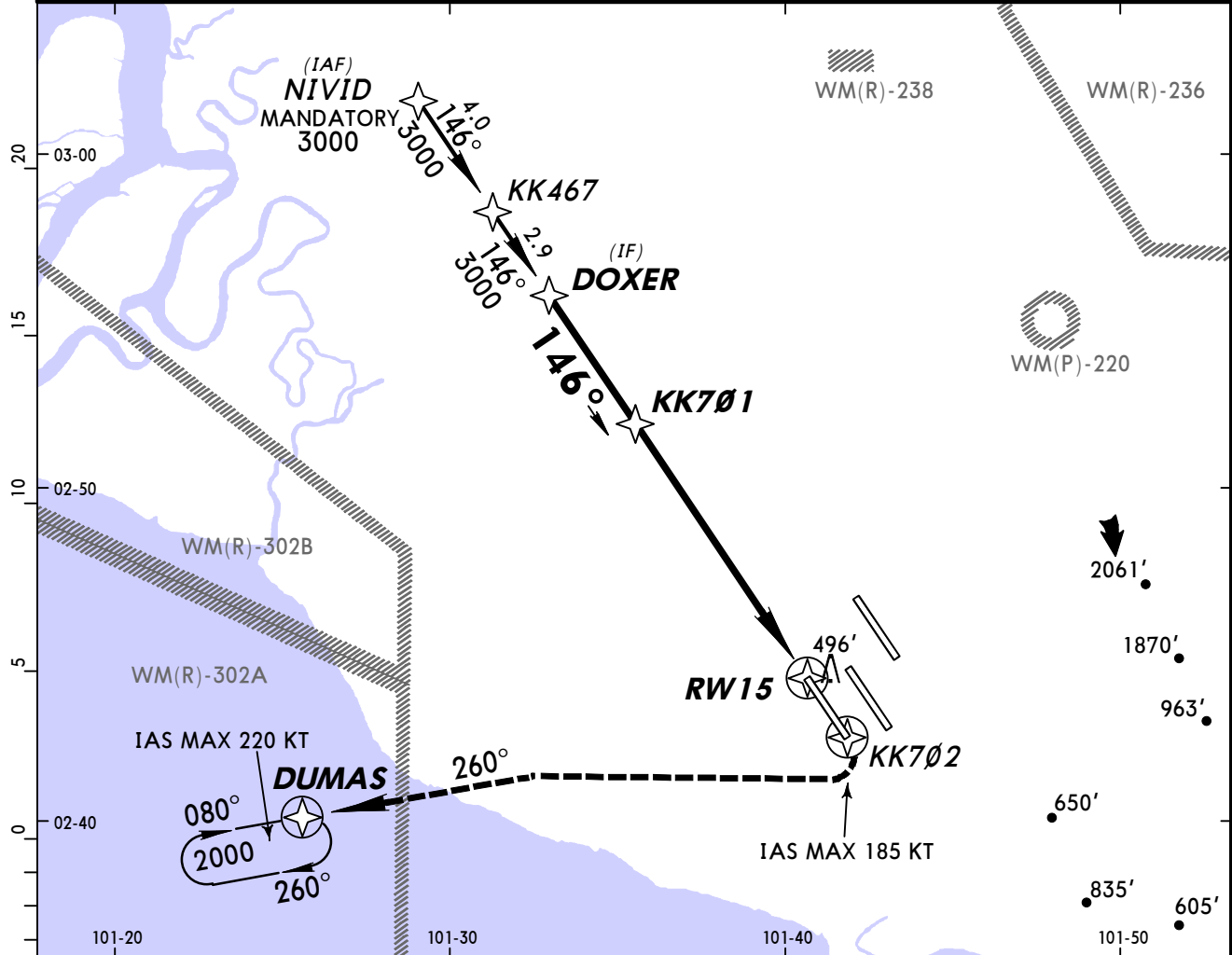
on 146°

KK714

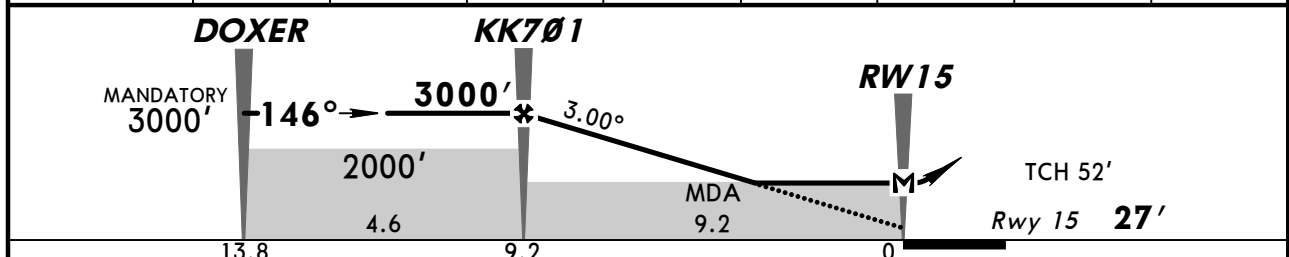
STRAIGHT-IN LANDING RWY 14R				CIRCLE-TO-LAND			
LNAV				Not Authorized East of Rwy 14R/32L Centerline, Except When Authorized by ATC			
MDA(H) 670' (615')							
		ALS out	Max Kts				
A			100				
B	800m	1600m	135				
C	2000m	2800m	180				
D	2400m	3200m	205				

BRIEFING STRIP

ATIS	LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 15/33	Ground Rwy 15/33
128.05	119.45	124.65	124.2	119.8	118.05
RNAV	Final Apch Crs 146°	Minimum Alt KK701 3000' (2973')	MDA(H) 650' (623')	Apt Elev 70' Rwy 15 27'	5300'
MISSED APCH: Climb to 2500'. Proceed to KK702 on track 146°, at KK702 turn RIGHT to DUMAS on track 260° (IAS MAX 185 KT), bound DUMAS holding pattern.					
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: FL 130	Trans alt: 11000'	MSA WMKK ARP	



NM to RW15	9.2	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3000'	2620'	2310'	1990'	1670'	1360'	1040'	720'



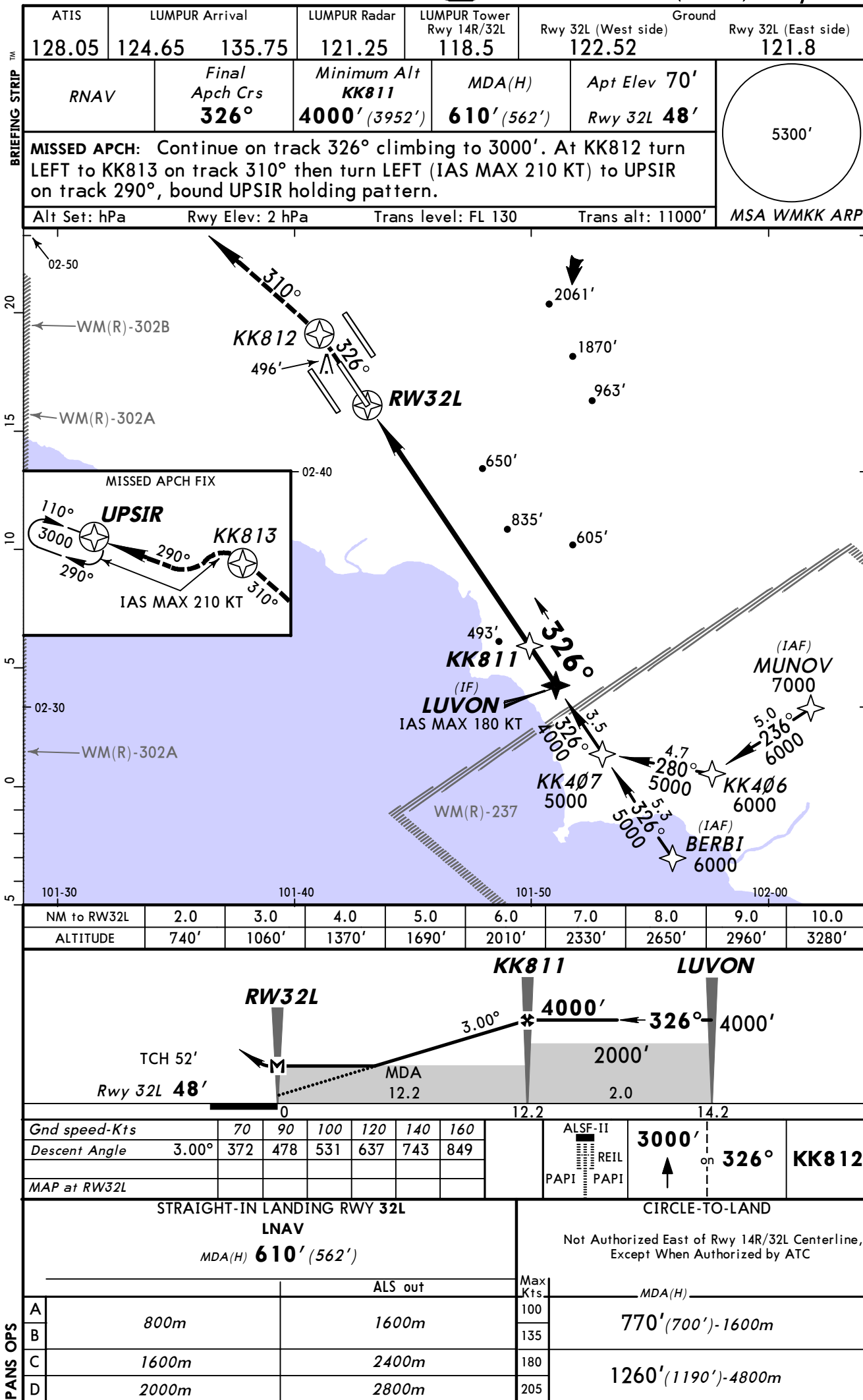
Gnd speed-Kts	70	90	100	120	140	160	ALSF-I REIL PAPI 2500' on 146° KK702
Descent Angle	3.00°	372	478	531	637	743	
MAP at RW15							

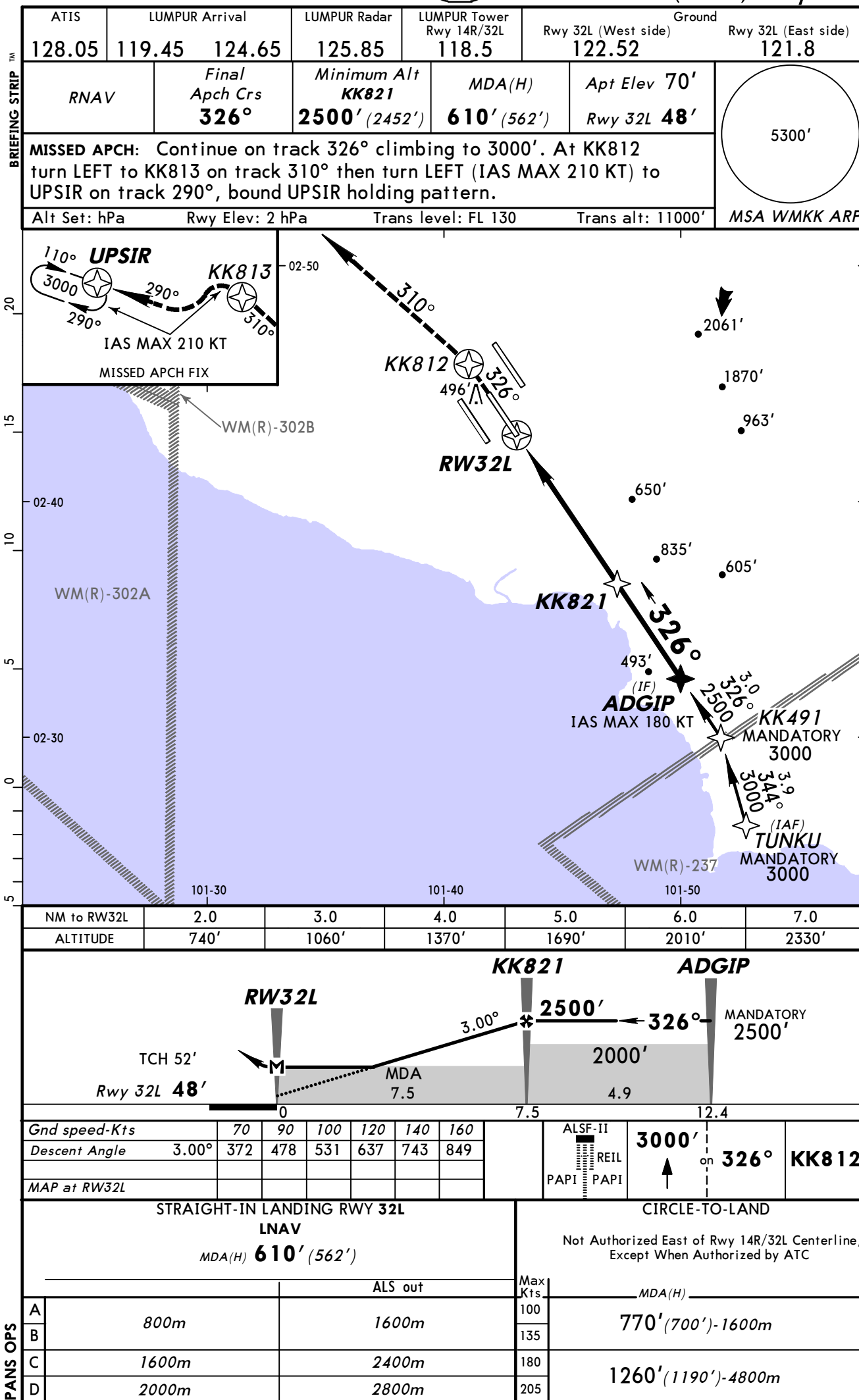
PANS OPS	STRAIGHT-IN LANDING RWY 15			CIRCLE-TO-LAND		
	LNAV			Not Authorized East of Rwy 15/33 Centerline, Except When Authorized by ATC		
	MDA(H) 650' (623')					
	ALS out			MDA(H)		
	A	800m	1600m	Max Kts	100	770' (700')-1600m
B				135		
C		2000m	2800m	180		
D		2400m	3200m	205		1260' (1190')-4800m

WMKK/KUL

KUALA LUMPUR INTL - SEPANG

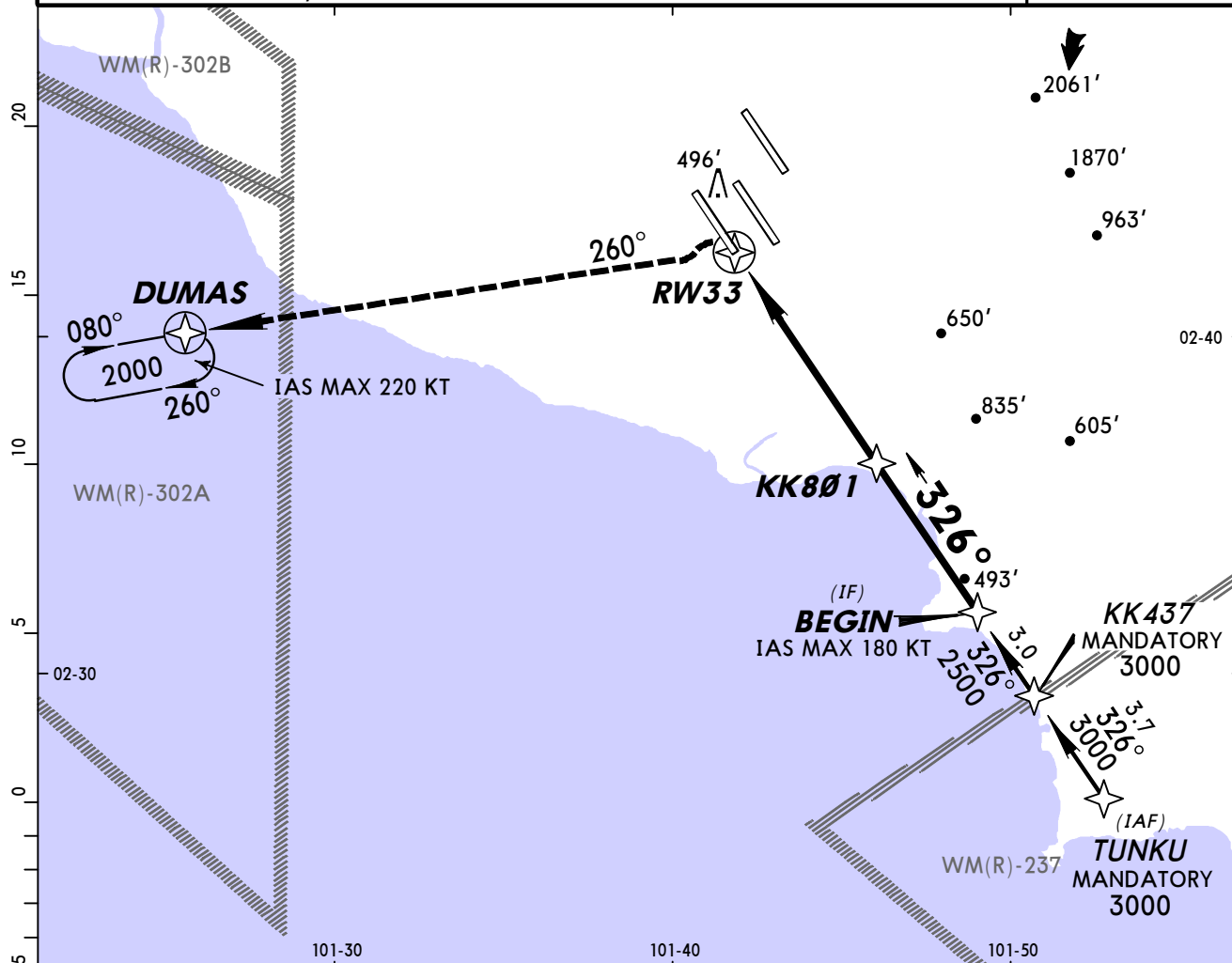
1 AUG 14 (22-4)

JEPPESSEN KUALA LUMPUR, MALAYSIA
RNAV-Z (GNSS) Rwy 32L

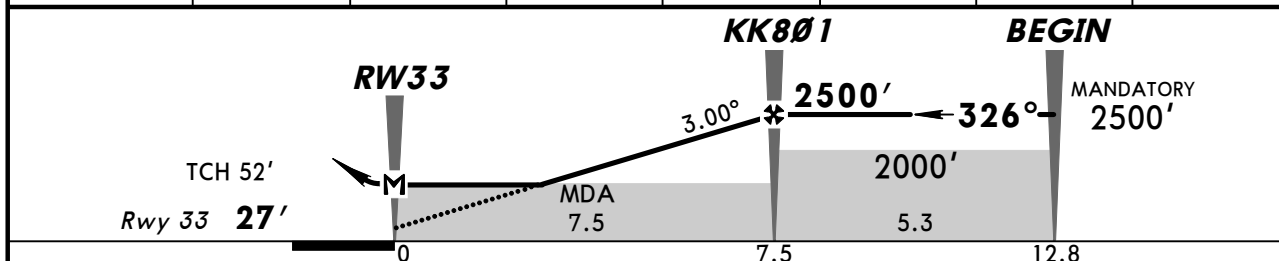


BRIEFING STRIP

ATIS	LUMPUR Arrival		LUMPUR Radar	LUMPUR Tower Rwy 15/33	Ground Rwy 15/33
128.05	119.45	125.1	125.85	119.8	118.05
RNAV	Final Apch Crs 326°	Minimum Alt KK801 2500' (2473')	MDA(H) 500' (473')	Apt Elev 70' Rwy 33 27'	5300'
MISSED APCH: Climb to 2500'. At RW33 turn LEFT to DUMAS on track 260°, bound holding pattern.					
Alt Set: hPa	Rwy Elev: 1 hPa	Trans level: FL 130	Trans alt: 11000'	MSA WMKK ARP	



NM to RW33	2.0	3.0	4.0	5.0	6.0	7.0	7.5
ALTITUDE	730'	1050'	1380'	1700'	2020'	2340'	2500'

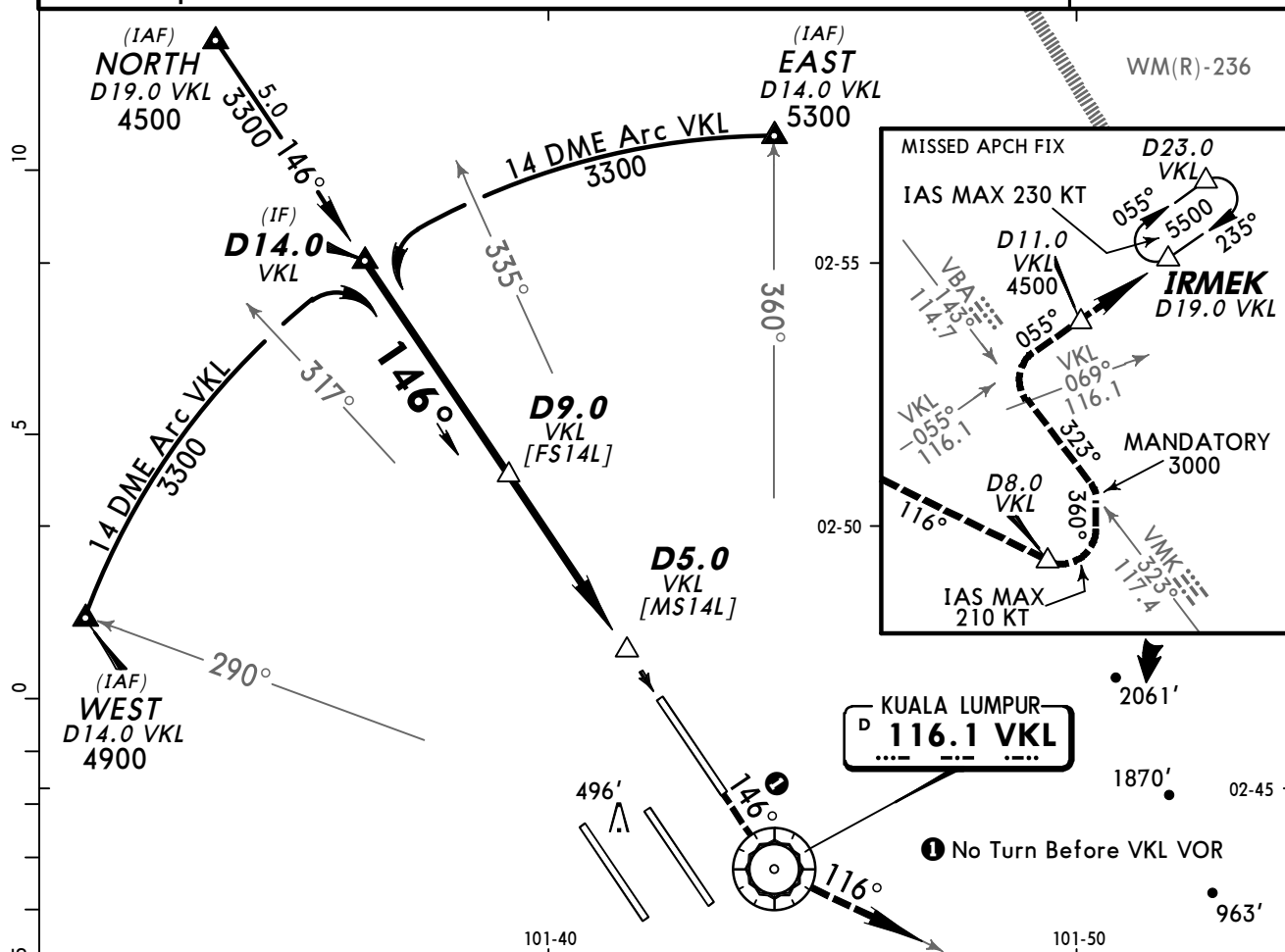


Gnd speed-Kts	70	90	100	120	140	160	ALSF-I REIL PAPI	2500'	260'	DUMAS
Descent Angle	3.00°	372	478	531	637	743				
MAP at RW33										

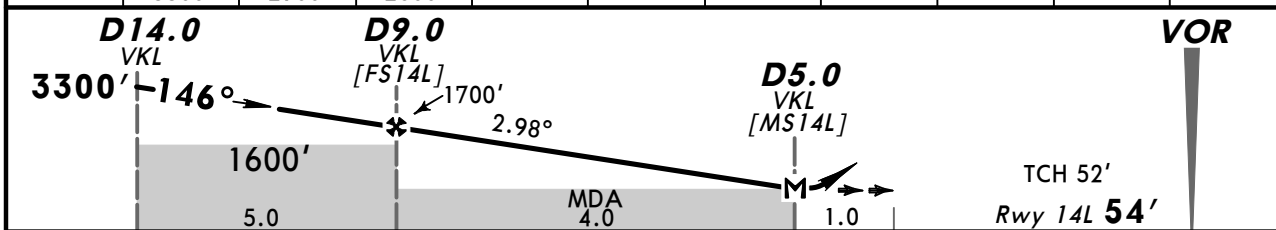
PANS OPS	STRAIGHT-IN LANDING RWY 33 LNAV MDA(H) 500' (473')			CIRCLE-TO-LAND Not Authorized East of Rwy 15/33 Centerline, Except When Authorized by ATC		
	ALS out		Max Kts	MDA(H)		
	A	800m	1600m	100	770' (700')-1600m	
	B	1200m	2000m	135		
	C	1600m	2400m	180	1260' (1190')-4800m	

BRIEFING STRIP

ATIS	LUMPUR Arrival			LUMPUR Radar		LUMPUR Tower Rwy 14L/32R	Ground Rwy 14L/32R
128.05	119.45	120.35	135.75	118.65	124.2	118.8	121.65
VOR VKL 116.1	Final Apch Crs 146°	Procedure Alt D9.0 VKL 1700' (1646')	MDA(H) Refer to Minimums	Apt Elev 70' Rwy 14L 54'			
MISSED APCH: Proceed on track 146° to VKL VOR, climbing to 3000'. Leave VKL VOR on R-116 (track 116°). At D8.0 VKL turn LEFT (IAS MAX 210 KT) track 360° to intercept and follow R-143 VBA VOR (track 323°). Climb to 5500', crossing R-069 VKL VOR turn RIGHT to intercept and follow R-055 VKL VOR (track 055°) bound to IRMEK holding pattern.							
Alt Set: hPa	Rwy Elev: 2 hPa	Trans level: FL 130		Trans alt: 11000'		MSA VKL VOR	
1. DME Required.							

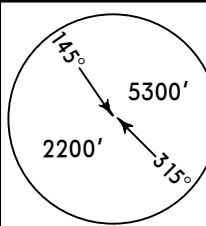


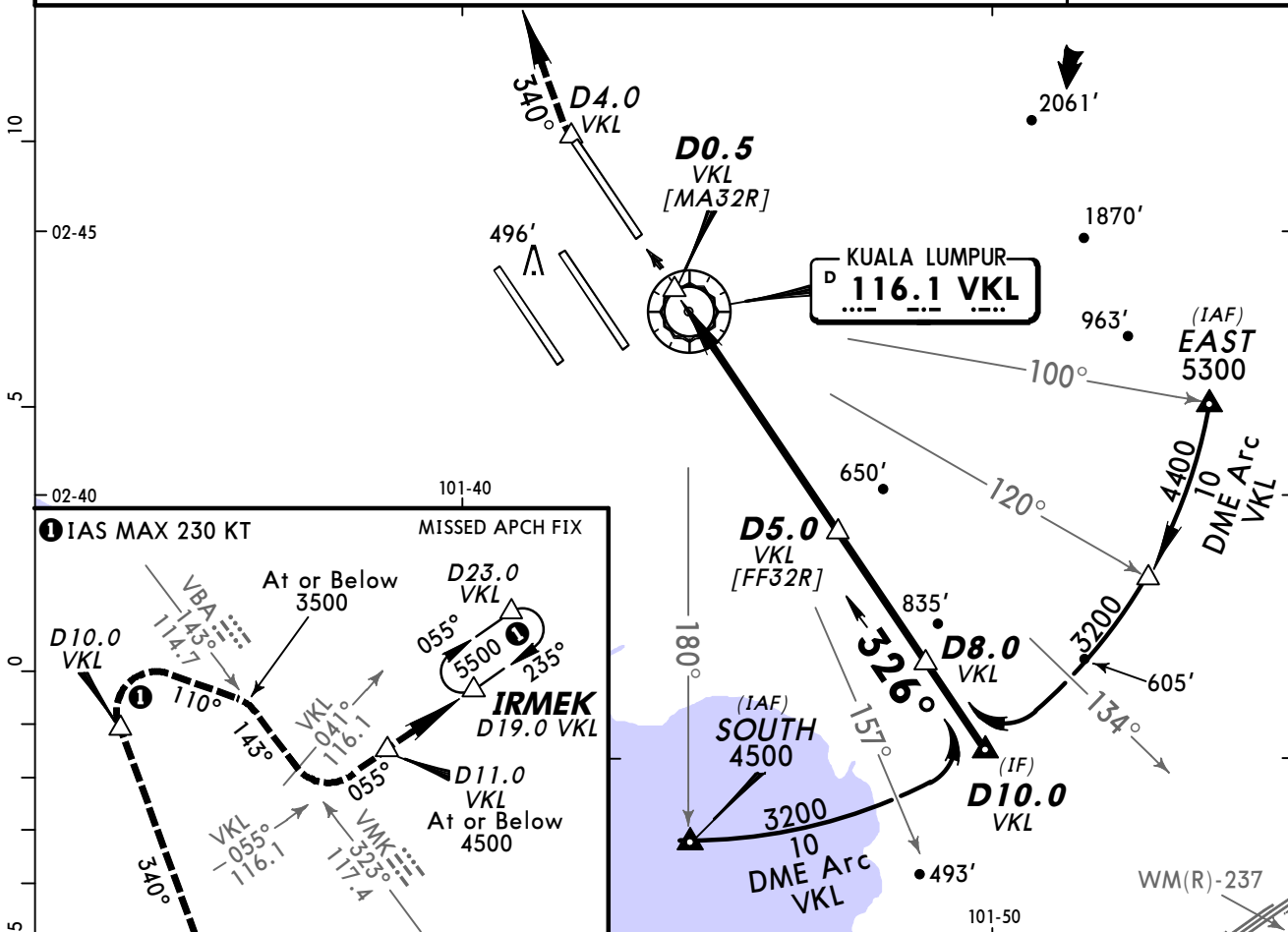
VKL DME	14.0	13.0	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.2
ALTITUDE	3300'	2900'	2600'	2300'	2000'	1700'	1360'	1020'	680'	470'



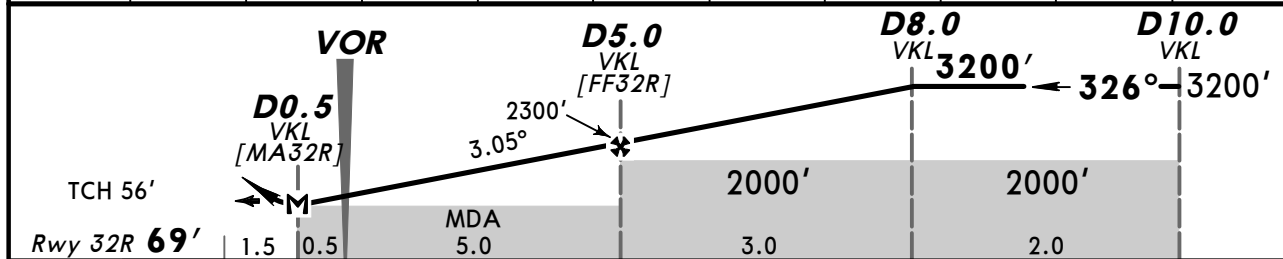
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	VKL	3000'	VKL
Descent Angle	2.98°	369	474	527	633	738	REIL PAPI	146° to 116.1	↑	116.1
MAP at D5.0 VKL										

STRAIGHT-IN LANDING RWY 14L				CIRCLE-TO-LAND			
MDA(H) A, B: 430' (376') C: 450' (396') D: 470' (416')				Not Authorized West of Rwy 14L/32R Centerline, Except When Authorized by ATC			
ALS out				MDA(H)			
A			Max Kts				
B	1200m		100	770' (700') - 1900m			
C			135				
D	1600m		180	1260' (1190') - 4800m			
			205				

BRIEFING STRIP™	ATIS	LUMPUR Arrival			LUMPUR Radar		LUMPUR Tower Rwy 14L/32R	Ground Rwy 14L/32R
	128.05	119.45	120.35	135.75	121.25	125.85	118.8	121.65
	VOR VKL 116.1	Final Apch Crs 326°	Procedure Alt D5.0 VKL 2300' (2231')	MDA(H) 610' (541')		Apt Elev 70' Rwy 32R 69'		 MSA VKL VOR
	MISSED APCH: Proceed on track 326°, climbing to 3500'. At D4.0 VKL turn RIGHT, tracking 340°. At D10.0 VKL turn RIGHT (IAS MAX 230 KT) to intercept and follow R-143 VBA/R-323 VMK (track 143°). Continue climb to 5500', crossing R-041 VKL turn LEFT to intercept and follow R-055 VKL (track 055°), bound IRMEK holding pattern.							
	Alt Set: hPa		Rwy Elev: 3 hPa		Trans level: FL 130		Trans alt: 11000'	
1. DME Required.								



VKL DME	0.5	VOR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	610'	660'	1000'	1300'	1600'	1900'	2300'	2600'	2900'	3200'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI PAPI	326° 	D4.0 VKL
Descent Angle	3.05°	378	486	540	648	755			
MAP at D0.5 VKL									

STRAIGHT-IN LANDING RWY 32R					CIRCLE-TO-LAND					
MDA(H) 610' (541')					Not Authorized West of Rwy 14L/32R Centerline, Except When Authorized by ATC					
			ALS out		Max Kts	MDA(H)				
A	2000m			2800m		100	770' (700')-2800m			
B						135				
C						180				
D						205	1260' (1190')-4800m			

KUALA LUMPUR INTL-SEPANG

BRIEFING STRIP™

ATIS	LUMPUR Approach		LUMPUR Tower		Ground				
	North	South	[DIRECTOR (R)]	Rwy 14L/32R	Rwy 14R/32L	Rwy 14L/32R	Rwy 14R/32L		
126.45	124.2	119.45	125.1	118.8	118.5	121.65	121.8		
NAVAIDS- See Planview		Final Apch Crs See Planview		No FAF		MDA(H) None published		Apt Elev 70'	
MISSED APCH: Runway heading to 1500' then as directed by ATC.									
Alt Set: hPa (IN on req) Apt Elev: 3 hPa Trans level: FL 130 Trans alt: 11000'									
1. CAUTION: ILS on adjacent runway may be inoperative. 2. Terrain clearance is pilot responsibility. 3. Headings are suggested only, for no wind conditions. 4. Distances are from touchdown. 5. Max IAS 185 Kts, Max achieved bank angle 25°. 6. Intercept point = 3 NM from touchdown, suggested headings provide 30° intercept.									

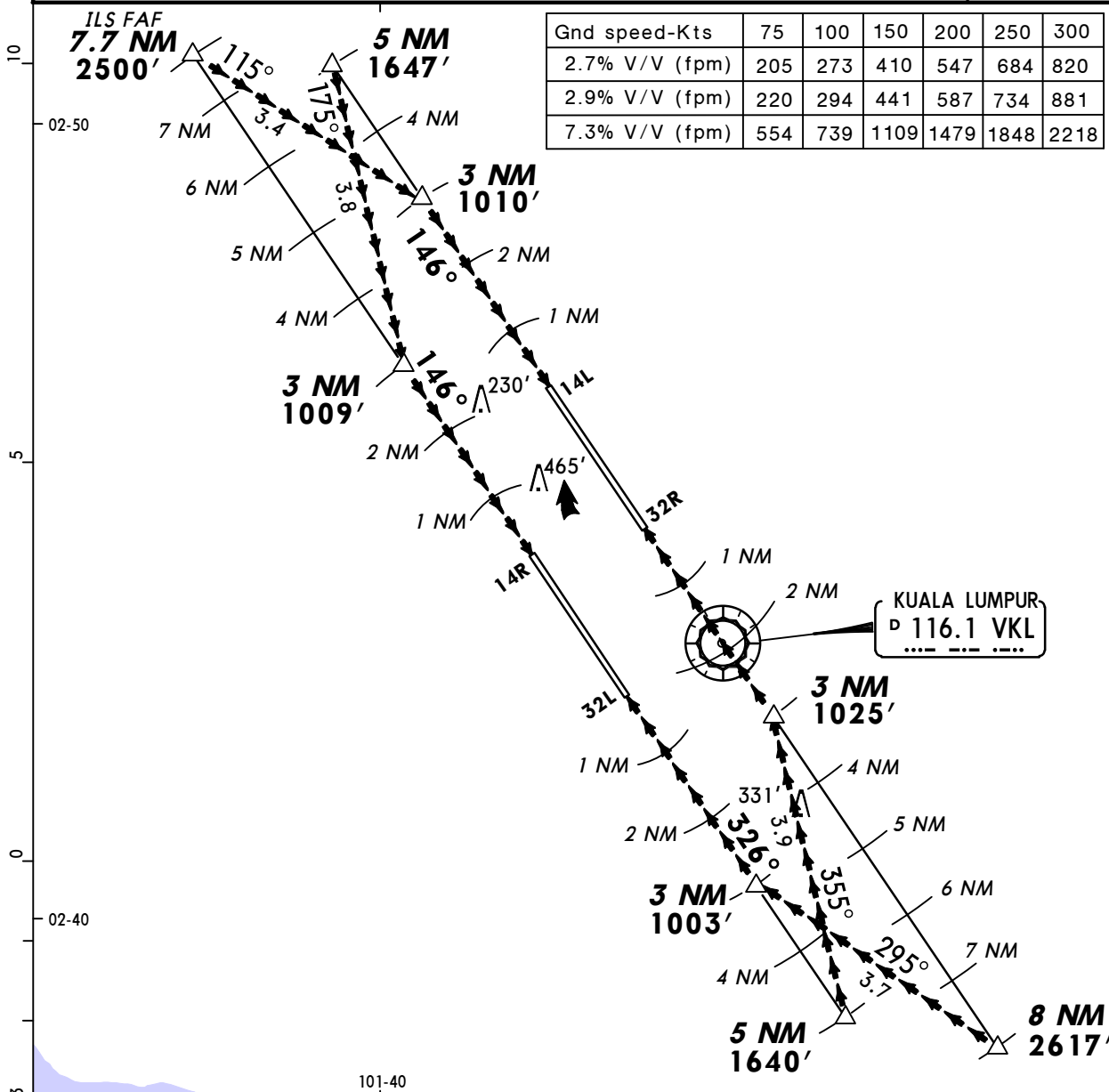
145°

5300'

2200'

315°

MSA VKL VOR

**SIDE-STEP PROCEDURE****LATEST MANEUVERING FROM ONE RUNWAY TO ADJACENT RUNWAY
VISUAL CONDITIONS BY DAY ONLY**

(Terrain visual and in-flight visibility 5000m or adjacent runway in sight)

RWY 32L for 32R: On assignment of Side-Step Make visual approach (advise ATC if visual approach not possible or if procedure not acceptable). By 5 NM from touchdown turn RIGHT for adjacent runway. Descent gradient 2.7% from 5 NM to 3 NM (see table above).

RWY 32R for 32L (CAT C and below only): On assignment of Side-Step make visual approach (advise ATC if visual approach not possible or if procedure not acceptable). By 8 NM from touchdown turn LEFT for adjacent runway. Descent gradient 7.3% from 8 NM to 3 NM (see table above).

RWY 14L for 14R: On assignment of Side-Step Make visual approach (advise ATC if visual approach not possible or if procedure not acceptable). By 5 NM from touchdown turn RIGHT for adjacent runway. Descent gradient 2.9% from 5 NM to 3 NM (see table above).

RWY 14R for 14L (CAT C and below only): On assignment of Side-Step make visual approach (advise ATC if visual approach not possible or if procedure not acceptable). By 7.7 NM from touchdown turn LEFT for adjacent runway. Descent gradient 7.3% from 7.7 NM to 3 NM (see table above).

Chart changes since cycle 26-2014

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
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KUALA LUMPUR, (KUALA LUMPUR INTL - SEPANG - WMKK)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport WMKK