

**VMMC/MFM**  
**MACAO INTL**

18 OCT 13

**JEPPESEN**

10-1P

**MACAO, PR OF CHINA****AIRPORT BRIEFING**

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**1. GENERAL**

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**1.1. ATIS**

ATIS 126.4

**1.2. NOISE ABATEMENT PROCEDURES****1.2.1. RUN-UP TESTS**

Engine runs above ground idle power are not permitted between 2200-0700LT. Exception may be considered case by case, depending on actual operational analyses.

An engine ground run is defined as any engine start-up not associated with the planned ACFT departure. Maintenance or test running of jet engine not mounted on an ACFT is prohibited unless performed in a test cell of adequate design.

Engine ground running at idle power for duration not exceeding 15 minutes may be conducted on ACFT parking bays with previous coordination with APT Operation Coordination Center. Extension of such limitation is subject to APT Operation Coordination Center approval depending on APT conditions. Power runs above idle for maintenance purpose must be conducted at designated areas.

Initial requests for a ground run at any time should be made by telephone to APT Operation Coordination Center. The airline or the engine tester is responsible for ensuring that all safety precautions against injury to persons or damage to properties, ACFT, vehicles, marine vessels (when the jet blast is directed towards the sea) and equipment in the vicinity are adopted. When ready to conduct the engine run, clearance from MACAO Ground on 121.72 MHz. A listening watch must be maintained on the frequency throughout the engine run. The ACFT anti-collision beacons must be activated for the entire duration and MACAO Ground should be advised on its completion.

**1.3. LOW VISIBILITY PROCEDURES (LVP)**

LVP will be in force whenever

- TDZ RVR of RWY 34 is 800m or below, or
- ceiling is 200' or below, or
- VIS conditions decrease rapidly.

Pilots will be informed when LVP are in use via RTF or ATIS through the message "Low Visibility Procedure in force".

**1.4. PARKING INFORMATION**

Advanced Visual Docking Guidance System available at stands A2, A4, B2 and B4.

**1.5. OTHER INFORMATION****1.5.1. GENERAL**

RWY 34 right-hand circuit.

**1.5.2. PREFERENTIAL RWY SYSTEM**

The preferential RWY is RWY 34, within the limits of a wind intensity (actual and/or forecasted) of no more than 10 KT as tailwind component.

If the tailwind component for RWY 34 is higher than 10 KT and the VIS or ceiling for RWY 16 are below minima for this RWY, no landings will be allowed unless specifically requested by the pilot.

**VMMC/MFM**  
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**10-1P1****MACAO, PR OF CHINA**  
**AIRPORT BRIEFING**

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## **2. ARRIVAL**

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### **2.1. SPEED RESTRICTIONS**

MAX 250 KT below FL 110 within Hong Kong airspace, unless otherwise instructed.

MAX 190 KT during approach turns.

### **2.2. NOISE ABATEMENT PROCEDURES**

#### **Landing on RWY 16:**

- Maintain 217° track inbound on LOC course.
- Do not deviate from ZAO R-230, which defines the northern limit for flights landing on RWY 16 due to noise abatement for Zhuhai City.
- ACFT according to ICAO Annex 16 Chapter 2 will only be considered in a case-by-case basis. For Chapter 2 Noise ACFT, operation time between 2400-0800LT is not allowed.

### **2.3. CAT II OPERATIONS**

RWY 34 approved for CAT II operations, special aircrew and ACFT certification required.

### **2.4. OTHER INFORMATION**

To harmonize the implementation of PBN procedures, pilots of arriving ACFT are requested to report the type of approach on their initial contact with ATC.

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## **3. DEPARTURE**

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### **3.1. START-UP & PUSH-BACK PROCEDURES**

For Color-Coded push-back procedures refer to 10-9 pages.

Contact Ground/Tower for clearance request 5 minutes prior to start-up.

Pilots have to inform Ground/Tower about their call sign, parking bay number/ location and proposed flight level if it is different from the filed flight plan when making the call.

ACFT should not commence start-up, push-back or any other manoeuvre on the apron unless pilot has obtained clearance from MACAO Ground/Tower as appropriate.

ACFT start-up engines will be allowed by Tower after the engines clear the white taxi line protection.

### **3.2. SPEED RESTRICTIONS**

MAX 250 KT below FL 110 within Hong Kong airspace, unless otherwise instructed.

### **3.3. NOISE ABATEMENT PROCEDURES**

#### **Take-off on RWY 34:**

- Climb offset 15° (Right) to 400', turn RIGHT.
- Do not overshoot ZAO R-230, which defines the northern limit for flights taking off on RWY 34 due to noise abatement for Zhuhai City.

**VMMC/MFM**  
**MACAO INTL**

**Eff 29 May**

23 MAY 14

**JEPPESEN**

10-2

MACAO, PR OF CHINA

## TERMINAL TRANSITION ROUTE

ATIS  
126.4

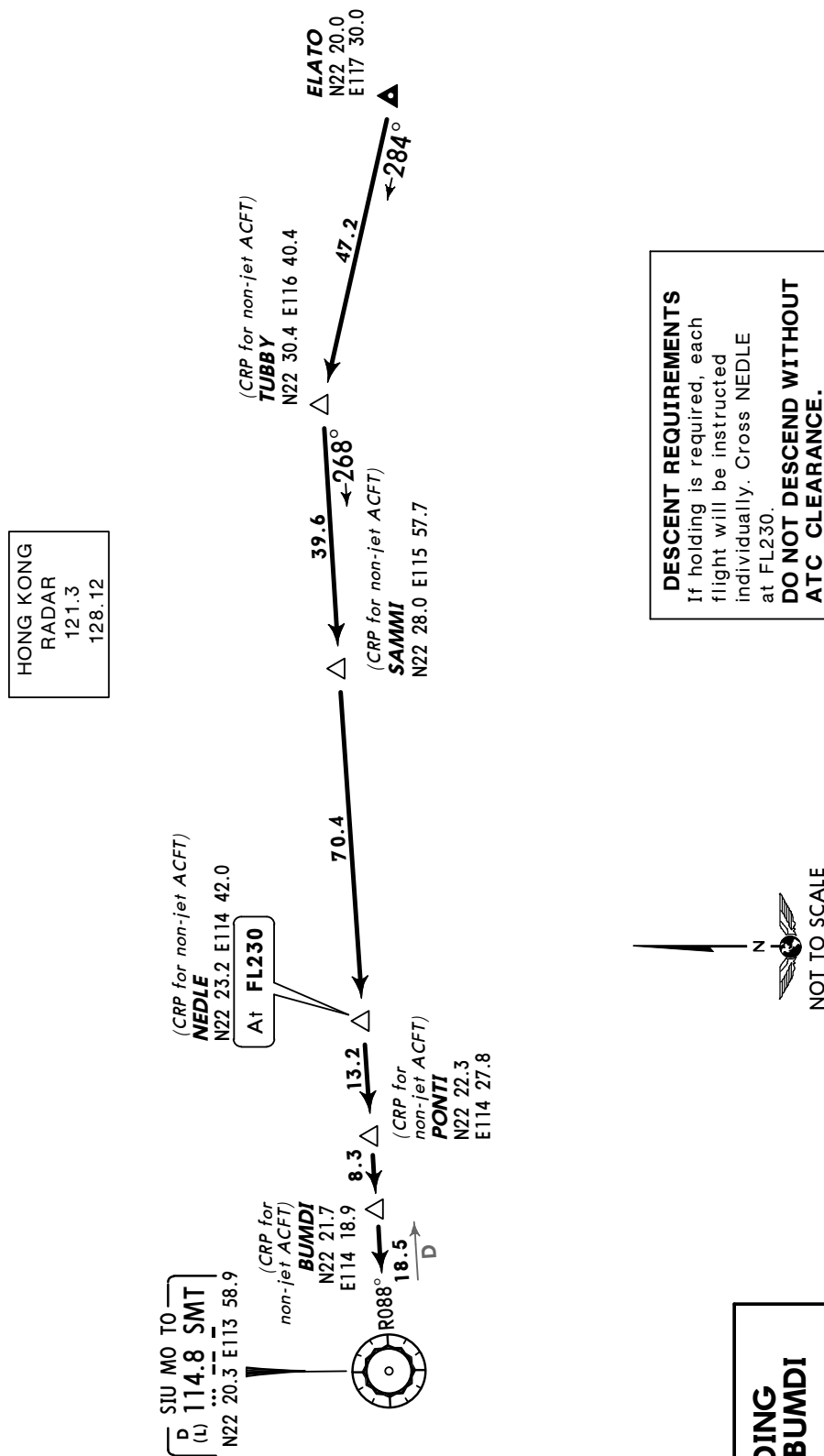
Apt Elev  
20'

Alt Set: hPa

Trans level: By ATC      Trans alt: 9000'

## TERMINAL TRANSITION ROUTE

**J101**  
**TO SMT**



## HOLDING OVER BUMDI



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**Eff 29 May**

23 MAY 14

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**10-2A**

**MACAO, PR OF CHINA**

**TERMINAL TRANSITION ROUTE**

ATIS  
**126.4**

Apt Elev  
**20'**

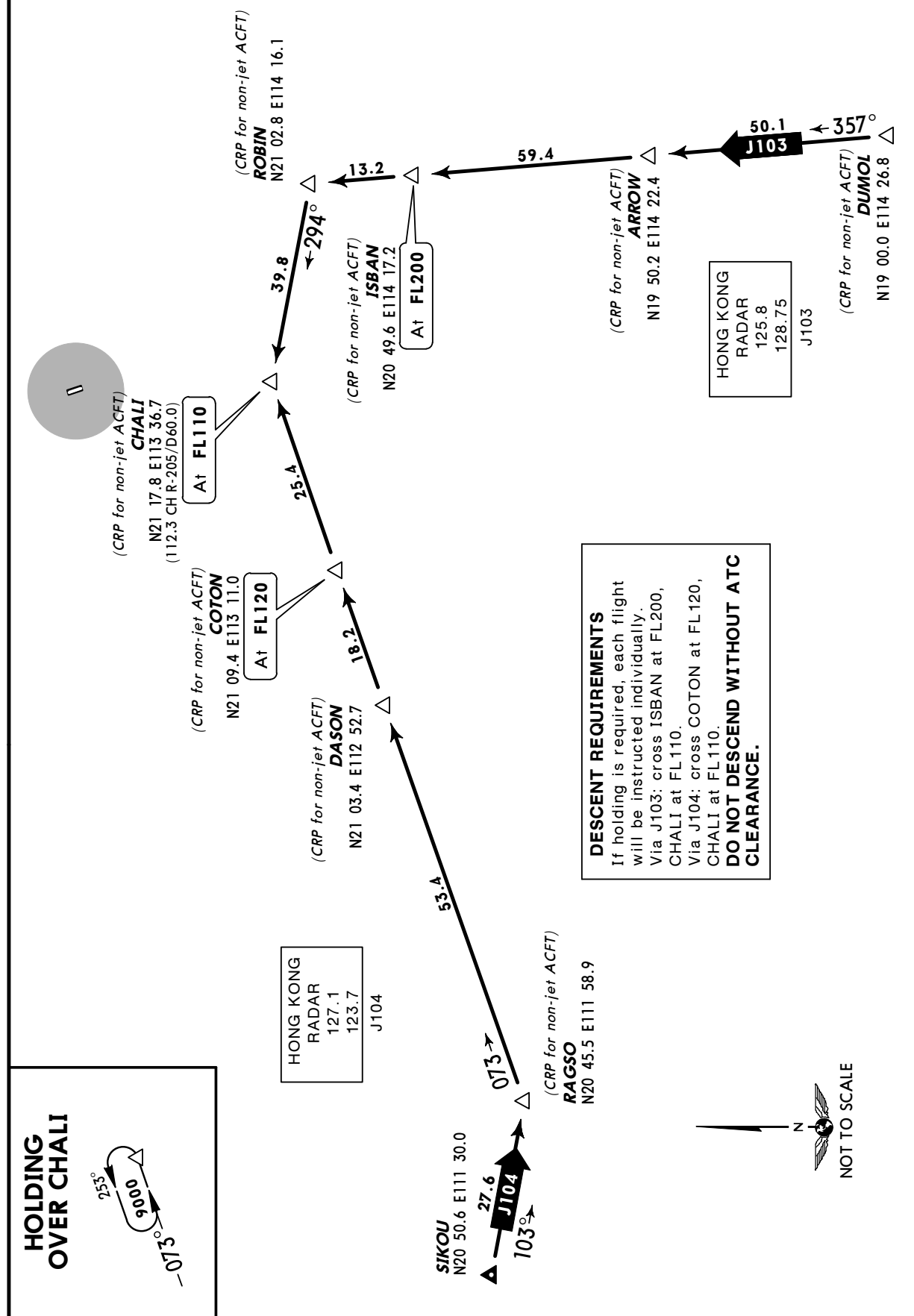
Alt Set: hPa

Trans level: By ATC Trans alt: 9000'

# **TERMINAL TRANSITION ROUTES**

**J103, J104**

**TO CHALI**



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**JEPPESEN**  
23 MAY 14 **10-2B** **Eff 29 May**

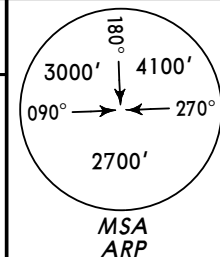
**MACAO, PR OF CHINA**

**RNAV STAR**

ATIS  
**126.4**

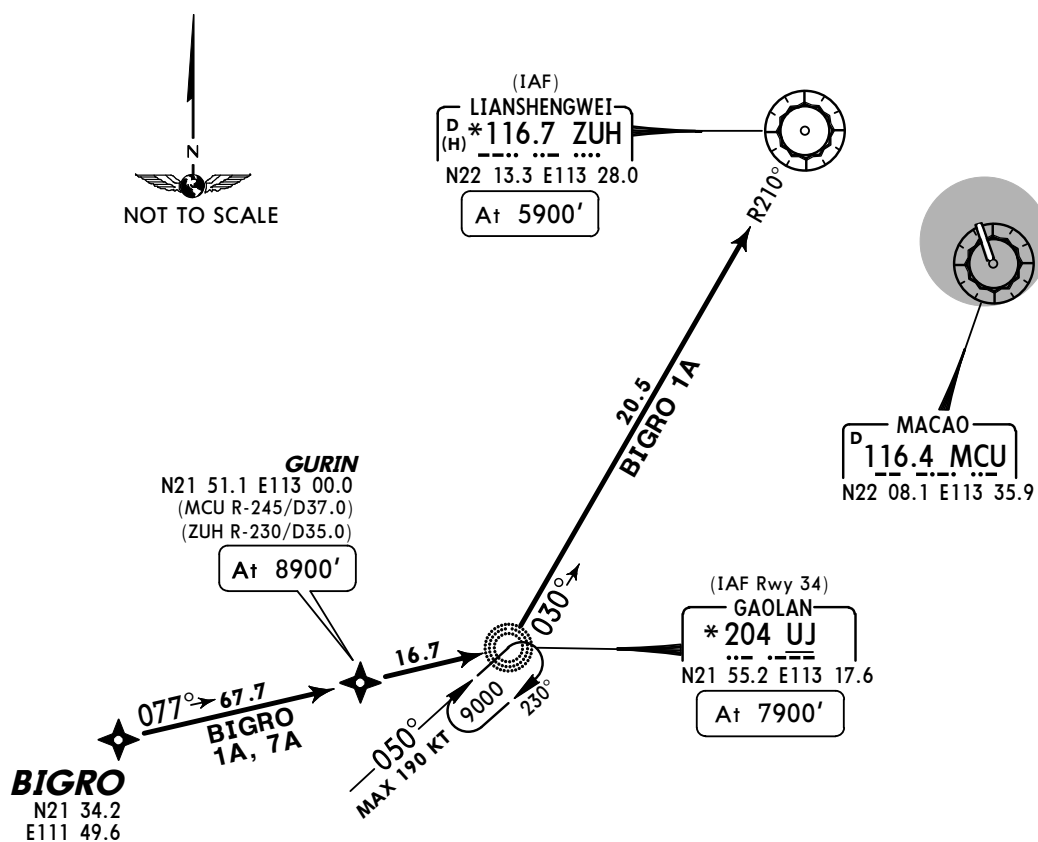
Apt Elev  
**20'**

Alt Set: hPa  
Trans level: By ATC Trans alt: 9000'



**BIGRO 1A [BIGR1A]**  
**BIGRO 7A [BIGR7A]**  
**RWYS 16, 34 RNAV (RNP 1) ARRIVALS**  
**RNAV (GNSS)**

**FOR AIRCRAFT APPROPRIATELY**  
**EQUIPPED AND APPROVED FOR RNP1 OPERATIONS**  
**~~SPEED~~ MAX 190 KT DURING APPROACH TURNS**



Direct distance to  
Macao Intl from:  
UJ 22 NM  
ZUH 8 NM

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼  
Comply with STAR, then join:  
**BIGRO 1A:** runway 16 approach.  
**BIGRO 7A:** runway 34 approach.  
COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

**FT/METER CONVERSION**  
QNH  
8900' - 2700m  
7900' - 2400m  
5900' - 1800m

STAR	RWY	ROUTING
<b>BIGRO 1A ①</b>	<b>16</b>	To GURIN, then to UJ, then to ZUH.
<b>BIGRO 7A ②</b>	<b>34</b>	To GURIN, then to UJ.

For Non-RNP 1 approved aircraft or whose RNP 1 capability has been degraded use  
non-RNAV STAR **①** BIGRO 9A/ **②** BIGRO 6A.

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**MACAO INTL**

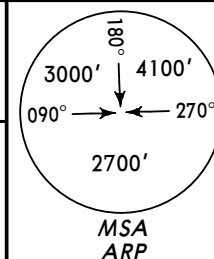
**JEPPesen** **MACAO, PR OF CHINA**  
23 MAY 14 **10-2C** **Eff 29 May**

**RNAV STAR**

ATIS  
**126.4**

Apt Elev  
**20'**

Alt Set: hPa  
Trans level: By ATC Trans alt: 9000'  
If holding is required each flight will be instructed individually.

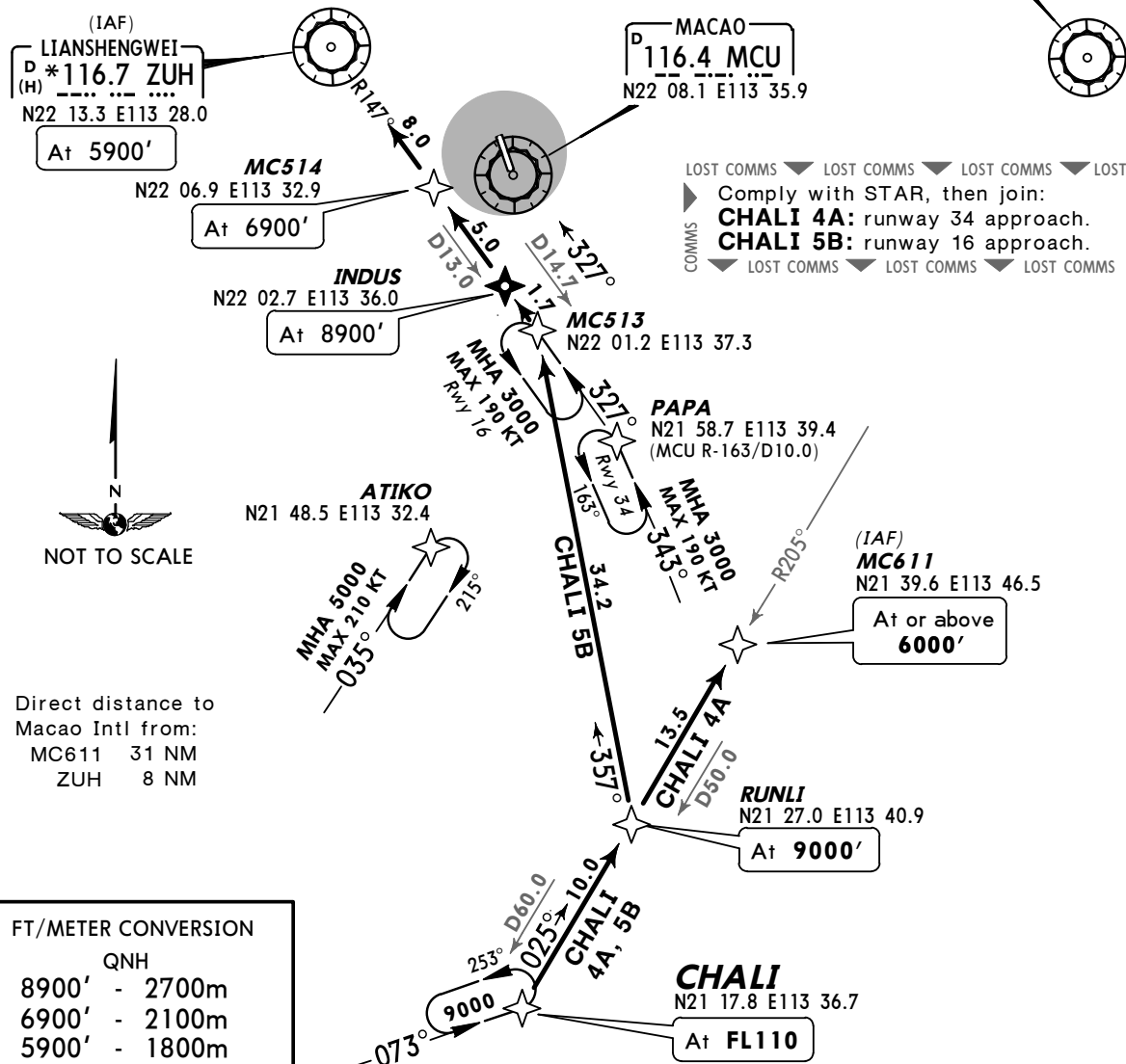


**CHALI 4A [CHAL4A], CHALI 5B [CHAL5B]**  
**RWYS 34, 16 RNAV (RNP1) ARRIVALS**  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY EQUIPPED AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE NON-RNAV PROCEDURE

**~~SPEED~~ MAX 250 KT BELOW FL110 WITHIN**  
**HONG KONG AIRSPACE UNLESS OTHERWISE INSTRUCTED**  
**MAX 190 KT DURING APPROACH TURNS**

CHEUNG CHAU  
D **112.3 CH**  
N22 13.2 E114 01.8



**FT/METER CONVERSION**

	QNH
8900'	- 2700m
6900'	- 2100m
5900'	- 1800m

STAR	RWY	ROUTING
<b>CHALI 4A</b>	<b>34</b>	Descent from CHALI at FL110, turn LEFT via RUNLI to MC611. Cross RUNLI at 9000' and MC611 at or above 6000' descending to 3000'. <b>Do not descent without ATC clearance.</b> <b>NON-RNAV:</b> On CH R-205 inbound, intercept MCU R-163 inbound, descending from FL110 to 3000'. <b>If MCU VOR not available:</b> At IAF, turn LEFT, 343° track, EXPECT ILS approach.
<b>CHALI 5B</b>	<b>16</b>	Descent from CHALI at FL110, turn LEFT to RUNLI, turn LEFT to MC513, then via INDUS and MC514 to ZUH. Cross RUNLI at 9000', INDUS at 8900', MC514 at 6900' and ZUH at 5900'. <b>Do not descent without ATC clearance.</b> <b>NON-RNAV:</b> Descent from CHALI at FL110 to RUNLI, turn LEFT, to MC513, intercept ZUH R-147 inbound to ZUH. Cross INDUS at 8900', D8.0 ZUH at 6900' and ZUH at 5900'.

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**MACAO INTL**

**JEPPESEN**  
13 JUN 14 **10-2D**

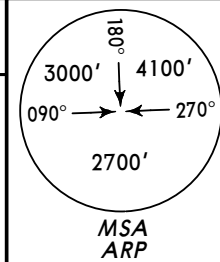
**MACAO, PR OF CHINA**

**RNAV STAR**

ATIS  
**126.4**

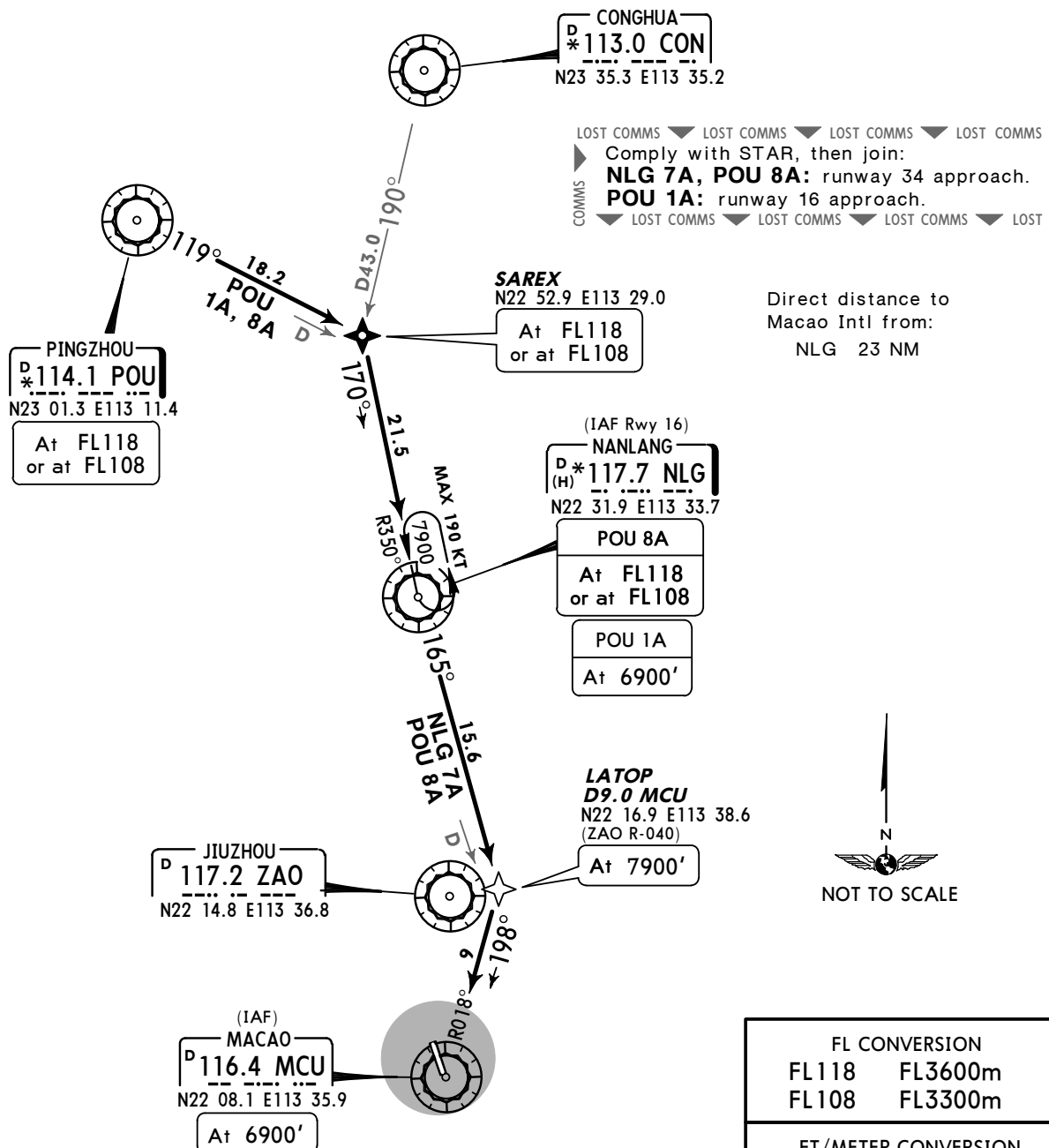
Apt Elev  
**20'**

Alt Set: hPa  
Trans level: By ATC Trans alt: 9000'



**NLG 7A, POU 1A, POU 8A**  
**RWY 34, 16 RNAV (RNP 1) ARRIVALS**  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY  
EQUIPPED AND APPROVED FOR RNP1 OPERATIONS  
**~~SPEED~~ MAX 190 KT DURING APPROACH TURNS**



FL CONVERSION  
FL118 FL3600m  
FL108 FL3300m

FT/METER CONVERSION  
QNH  
9000' - 2700m  
7900' - 2400m  
6900' - 2100m

STAR	RWY	ROUTING
<b>NLG 7A ①</b>	<b>34</b>	To LATOP, then to MCU.
<b>POU 1A ②</b>	<b>16</b>	To SAREX, then to NLG.
<b>POU 8A ③</b>	<b>34</b>	To SAREX, then to NLG, then to LATOP, then to MCU.

For Non-RNP 1 approved aircraft or whose RNP 1 capability has been degraded use non-RNAV STAR ① NLG 5A, 6A/ ② POU 9A/ ③ POU 6A, 7A.

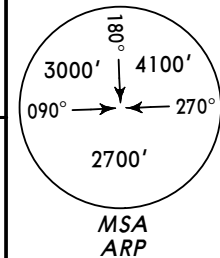
VMMC/MFM  
MACAO INTL

13 JUN 14

JEPPESEN  
10-2E

MACAO, PR OF CHINA

RNAV STAR

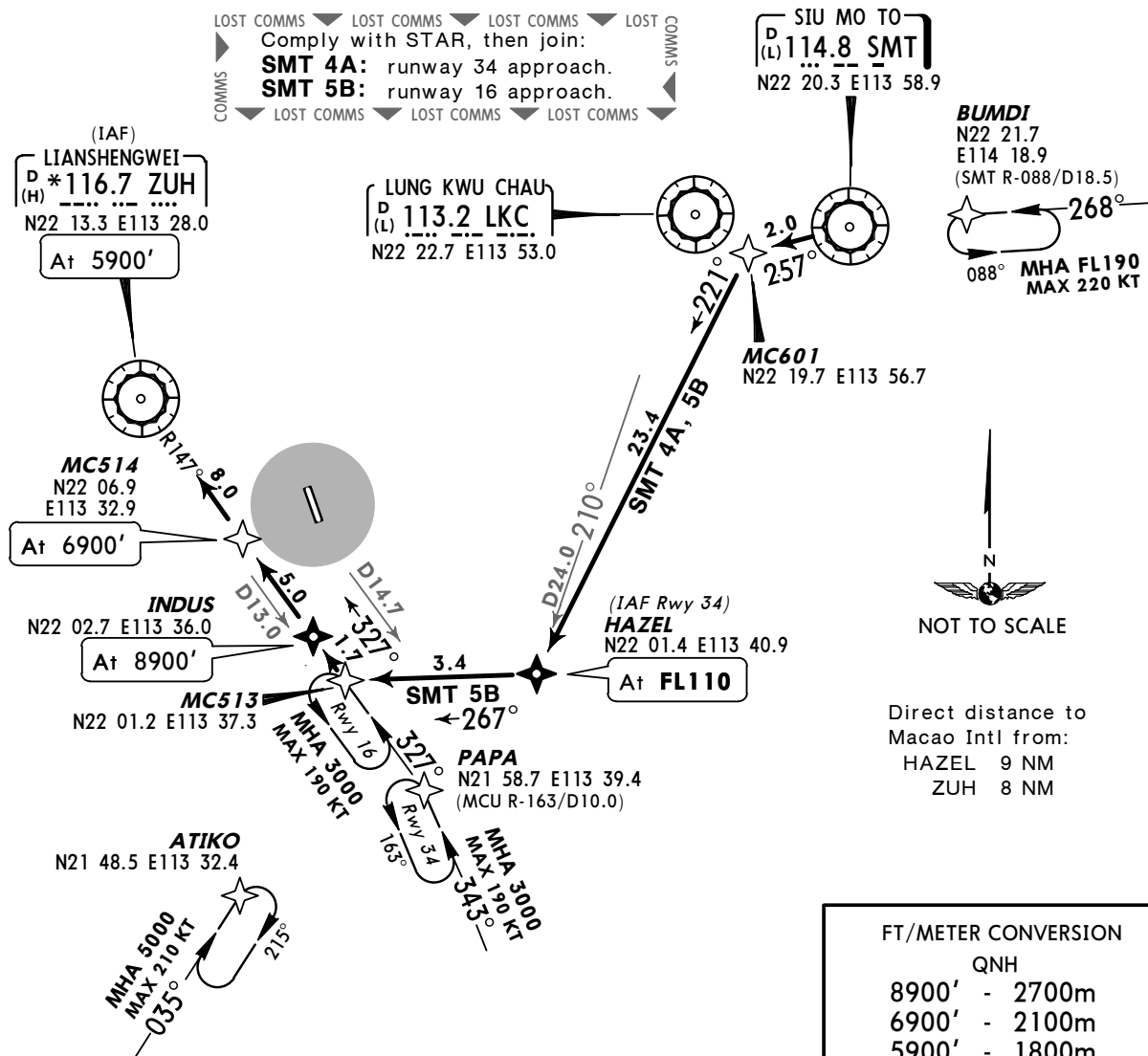
ATIS  
126.4Apt Elev  
20'Alt Set: hPa  
Trans level: By ATC Trans alt: 9000'  
If holding is required each flight will be  
instructed individually.

# SMT 4A, SMT 5B

## RWYS 34, 16 RNAV (RNP 1) ARRIVALS

### RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY  
EQUIPPED AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE NON-RNAV PROCEDURE  
**~~SPEED~~ MAX 250 KT BELOW FL110 WITHIN**  
**HONG KONG AIRSPACE UNLESS OTHERWISE INSTRUCTED**  
**MAX 190 KT DURING APPROACH TURNS**



STAR	RWY	ROUTING
SMT 4A	34	To MC601, turn LEFT to HAZEL. Cross HAZEL at FL110. <b>Do not descent without ATC clearance.</b> <b>NON-RNAV:</b> SMT R-254 to D2.0 SMT, turn LEFT to HAZEL. Cross HAZEL at FL110.
SMT 5B	16	To MC601, turn LEFT to HAZEL, turn RIGHT to MC513, then via INDUS and MC514 to ZUH. Cross HAZEL at FL110, INDUS at 8900', MC514 at 6900' and ZUH at 5900'. <b>Do not descent without ATC clearance.</b> <b>NON-RNAV:</b> SMT R-254 to D2.0 SMT, turn LEFT to HAZEL, turn RIGHT to INDUS, then via D8.0 ZUH to ZUH. Cross HAZEL at FL110, INDUS at 8900', D8.0 ZUH at 6900' and ZUH at 5900'.



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**MACAO INTL**

**JEPPesen**  
13 MAY 16 **10-2F** **Eff 26 May**

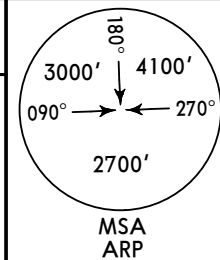
**MACAO, PR OF CHINA**

**STAR**

ATIS  
**126.4**

Apt Elev  
**20'**

Alt Set: hPa  
Trans level: By ATC Trans alt: 9000'



**BIGRO 6A [BIGR6A]**

**BIGRO 8A [BIGR8A]**

**ARRIVALS**

**SPEED: MAX 190 KT DURING APPROACH TURNS**

**NANLANG**  
D **117.7 NLG**  
N22 31.9 E113 33.7



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼  
Comply with STAR, then join:  
**BIGRO 6A:**  
ILS approach to runway 34.  
**BIGRO 8A:**  
approach to runway 16.  
▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼



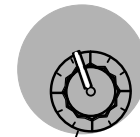
(IAF)  
**MC516**  
N22 12.8 E113 28.4  
(NLG D19.6)

At **5910'**

**JIUZHOU**  
D **117.2 ZAO**  
N22 14.8 E113 36.8



**MACAO**  
D **116.4 MCU**  
N22 08.1 E113 35.9



**GURIN**  
N21 51.1 E113 00.0  
(MCU R-245/D37.0)

At **9000'**

**BIGRO**  
N21 34.2  
E111 49.6

077° → 67.7  
**BIGRO 6A, 8A**

(IAF Rwy 34)  
**GAOLAN**  
\* **204 UJ**  
N21 55.2 E113 17.6

At **7880'**

032°  
050°  
MAX 190 KT  
9000'

Direct distance to  
Macao Intl from:  
MC516 8 NM  
UJ 22 NM

**FT/METER CONVERSION**  
QNH  
9000' - 2700m  
7880' - 2400m  
5910' - 1800m

STAR	RWY	ROUTING
<b>BIGRO 6A</b>	<b>34</b>	Via GURIN to UJ.
<b>BIGRO 8A</b>	<b>16</b>	Via GURIN to UJ, turn LEFT, 032° bearing to MC516.

**VMMC/MFM**  
**MACAO INTL**

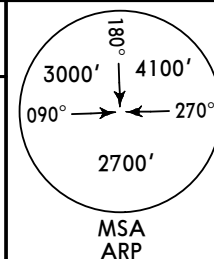
**JEPPESEN** **MACAO, PR OF CHINA**  
13 MAY 16 **(10-2G)** **Eff 26 May**

**STAR**

ATIS  
**126.4**

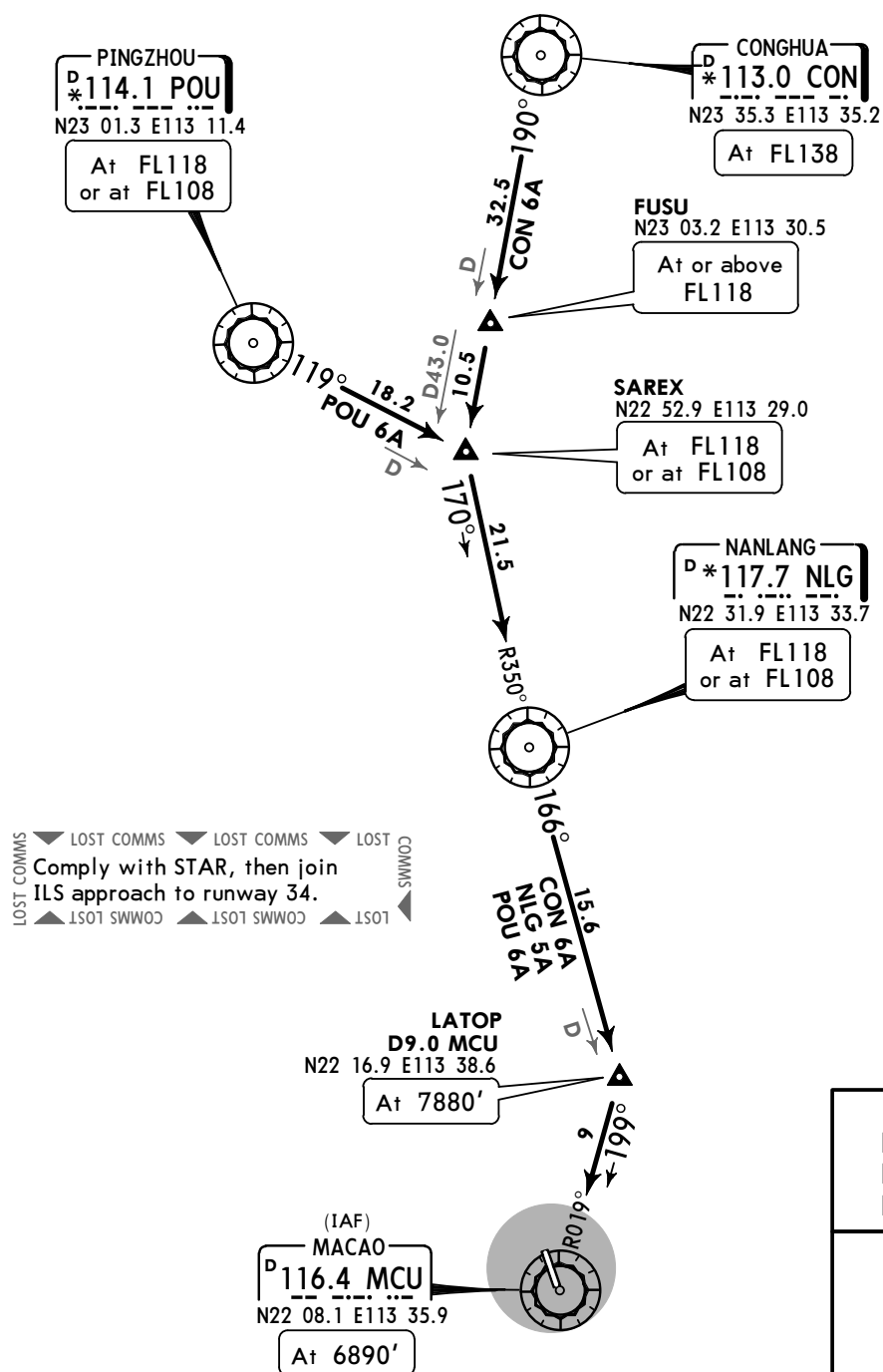
Apt Elev  
**20'**

Alt Set: hPa  
Trans level: By ATC Trans alt: 9000'



**CON 6A, NLG 5A, POU 6A**  
**RWY 34 ARRIVALS**

**SPEED: MAX 190 KT DURING APPROACH TURNS**



FL CONVERSION	
FL138	FL4200m
FL118	FL3600m
FL108	FL3300m

FT/METER CONVERSION	
QNH	
9000'	- 2700m
7880'	- 2400m
6890'	- 2100m

STAR	ROUTING
<b>CON 6A</b> IF MCU u/s REQUEST CON 7A	CON R-190 via FUSU to SAREX, turn LEFT, intercept NLG R-350 inbound to NLG, NLG R-166 to LATOP, intercept MCU R-019 inbound to MCU.
<b>NLG 5A</b> IF MCU u/s REQUEST NLG 6A	NLG R-166 to D9.0 MCU, intercept MCU R-019 inbound to MCU.
<b>POU 6A</b> IF MCU u/s REQUEST POU 7A	POU R-119 to SAREX, turn RIGHT, intercept NLG R-350 inbound to NLG, NLG R-166 to LATOP, intercept MCU R-019 inbound to MCU.

**VMMC/MFM**  
**MACAO INTL**

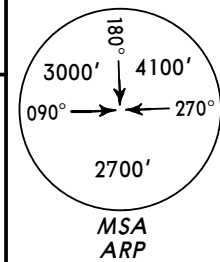
**JEPPESEN** **MACAO, PR OF CHINA**  
23 MAY 14 **10-2H** **Eff 29 May**

**STAR**

ATIS  
**126.4**

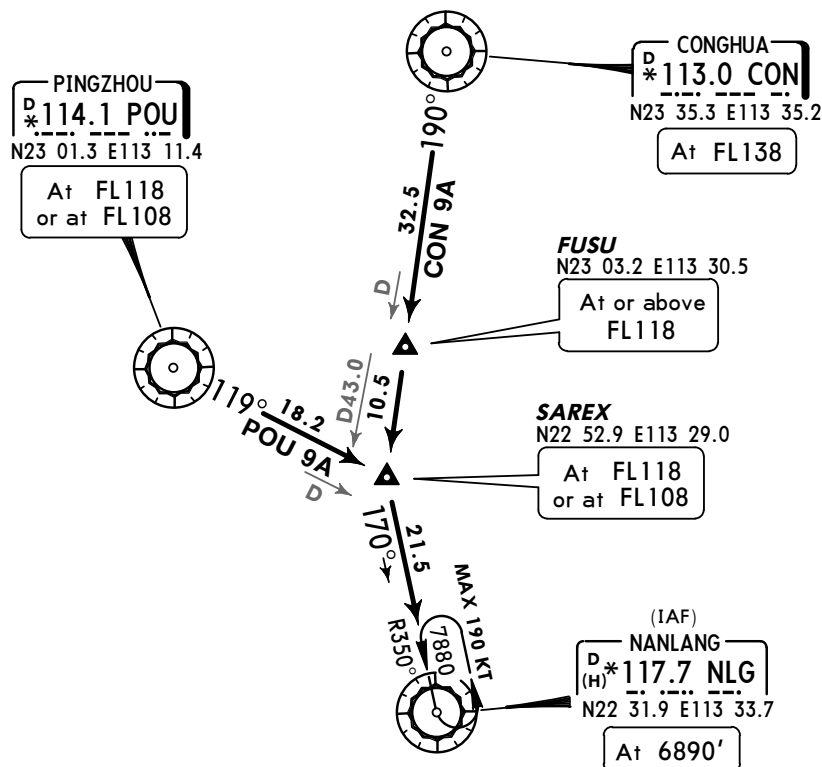
Apt Elev  
**20'**

Alt Set: hPa  
Trans level: By ATC Trans alt: 9000'



**CON 9A, POU 9A**  
**RWY 16 ARRIVALS**

***SPEED: MAX 190 KT DURING APPROACH TURNS***



Direct distance to  
Macao Intl from:  
NLG 23 NM

LOST COMMS  
LOST COMMS  
LOST COMMS  
Comply with STAR, then join  
approach to runway 16.  
LOST COMMS  
LOST COMMS  
LOST COMMS



FL CONVERSION	
FL138	FL4200m
FL118	FL3600m
FL108	FL3300m

FT/METER CONVERSION	
QNH	
9000'	- 2700m
7880'	- 2400m
6890'	- 2100m

**STAR**

**ROUTING**

**CON 9A** CON R-190 via FUSU to SAREX, turn LEFT, intercept NLG R-350 inbound to NLG.

**POU 9A** POU R-119 to SAREX, turn RIGHT, intercept NLG R-350 inbound to NLG.

**VMMC/MFM**  
**MACAO INTL**

**JEPPESEN** 23 MAY 14 **10-2J** **Eff 29 May**

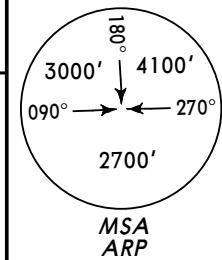
**MACAO, PR OF CHINA**

**STAR**

ATIS  
**126.4**

Apt Elev  
**20'**

Alt Set: hPa  
Trans level: By ATC Trans alt: 9000'

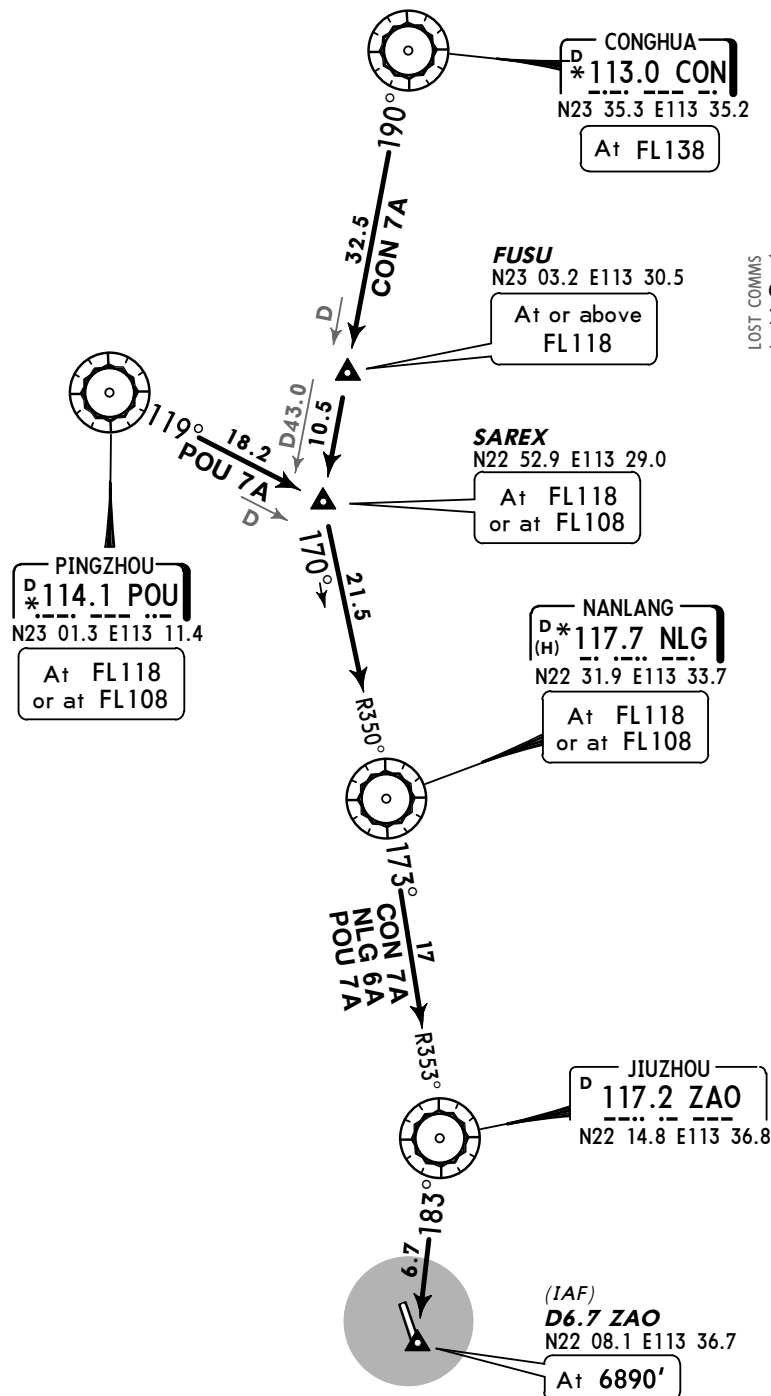


**CON 7A, NLG 6A, POU 7A**

**RWY 34 ARRIVALS**

TO BE USED WHEN MCU U/S

**~~SPEED~~ MAX 190 KT DURING APPROACH TURNS**



LOST COMMS  
Comply with STAR, then join  
ILS approach to runway 34.

FL CONVERSION	
FL138	FL4200m
FL118	FL3600m
FL108	FL3300m

FT/METER CONVERSION	
QNH	
9000'	2700m
6890'	2100m



**STAR**

**ROUTING**

<b>CON 7A</b>	CON R-190 via FUSU to SAREX, turn LEFT, intercept NLG R-350 inbound to NLG, NLG R-173 to ZAO, ZAO R-183 to D6.7 ZAO.
<b>NLG 6A</b>	NLG R-173 to ZAO, ZAO R-183 to D6.7 ZAO.
<b>POU 7A</b>	POU R-119 to SAREX, turn RIGHT, intercept NLG R-350 inbound to NLG, NLG R-173 to ZAO, ZAO R-183 to D6.7 ZAO

**VMMC/MFM**  
**MACAO INTL** **JEPPESEN**  
13 MAY 16 **10-3** **Eff 26 May****MACAO, PR OF CHINA****RNAV SID**

<b>RNAV SID DESIGNATION</b>	<b>REFER TO CHART</b>
ALLEY 2P	10-3B
ALLEY 2T	10-3C
ALLEY 2U	10-3D
BIGRO 2D, 7D	10-3E
CONGA 2P	10-3F
CONGA 2T	10-3G
CONGA 3U	10-3H
GRUPA 2P	10-3J
GRUPA 2T	10-3K
GRUPA 3U	10-3L
MIPAG 2D, NLG 2D	10-3M
MIPAG 7D, NLG 7D	10-3N
SHL 2D	10-3P
SHL 7D	10-3Q
SOUSA 2P	10-3S
SOUSA 3T	10-3T
SOUSA 3U	10-3U

FOR SID DESIGNATION &  
TERMINAL TRANSITION ROUTE REFER TO PAGE 10-3A

**VMMC/MFM**  
**MACAO INTL** **JEPPESEN**  
13 MAY 16 **10-3A** **Eff 26 May****MACAO, PR OF CHINA****SID**

SID DESIGNATION	REFER TO CHART
ALLEY 1V, 1W	10-3V
BIGRO 1D	10-3V1
BIGRO 4D, 9D	10-3V2
BIGRO 8D	10-3V3
CONGA 1V, 2W	10-3V4
GRUPA 1V, 2W	10-3W
MIPAG 1D, NLG 1D	10-3X
MIPAG 5D, 9D, NLG 5D, 9D	10-3X1
MIPAG 6D, NLG 6D	10-3X2
SHL 1D	10-3X3
SHL 5D, 9D	10-3X4
SHL 6D	10-3X5
SOUSA 2V, 2W	10-3X6
TERMINAL TRANSITION ROUTE	REFER TO CHART
V1, V2, V3, V13	10-3X7
V4, V5, V10, V31, V32	10-3X8

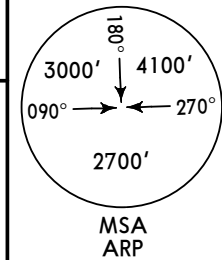
VMMC/MFM  
MACAO INTLJEPPESSEN  
10 JUL 15 10-3B Eff 23 Jul

MACAO, PR OF CHINA

RNAV SID

Apt Elev  
20'

Trans level: By ATC Trans alt: 9000'



# ALLEY 2P [ALEY2P] RWY 16 RNAV (RNP 1) DEPARTURE RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY  
EQUIPPED AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE CONVENTIONAL PROCEDURE

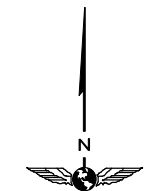
**SPEED: MAX 250 KT BELOW FL110  
WITHIN HONGKONG AIRSPACE**

MACAO  
D 116.4 MCU  
N22 08.1 E113 35.9

PAPA  
N21 58.7 E113 39.4  
(MCU R-163/D10.0)

At 4000'

EXPECT further  
climb when  
instructed by ATC



NOT TO SCALE

FT/METER CONVERSION  
QNH

4000' - 1220m  
9000' - 2700m

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼  
Comply with last acknowledged  
clearance up to the next reporting  
point, then climb to flight planned  
cruising level and follow the flight  
planned route to join the appropriate  
airway.  
SWWOC 1501 ▲ SWWOC 1501 ▲ SWWOC 1501 ▲

MULET  
N21 35.0 E113 47.9  
(MCU R-163/D35.0)

ALLEY  
N21 05.2 E113 47.2  
(112.3 CH R-193/D69.1)  
(116.1 TD R-204/D75.0)

## ROUTING

Climb on 163° track to PAPA, then to MULET, then to ALLEY, continue on terminal transition routes.

**NON-RNAV:** Intercept MCU R-163 to PAPA, further climb when instructed by ATC, EXPECT RADAR vectors to ALLEY.

If MCU u/s climb straight ahead to 4000', then direct to MULET, EXPECT RADAR vectors to ALLEY.

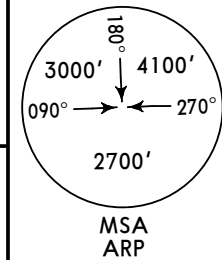
VMMC/MFM  
MACAO INTLJEPPesen  
10 JUL 15 10-3C Eff 23 Jul

MACAO, PR OF CHINA

RNAV SID

Apt Elev  
20'

Trans level: By ATC Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.

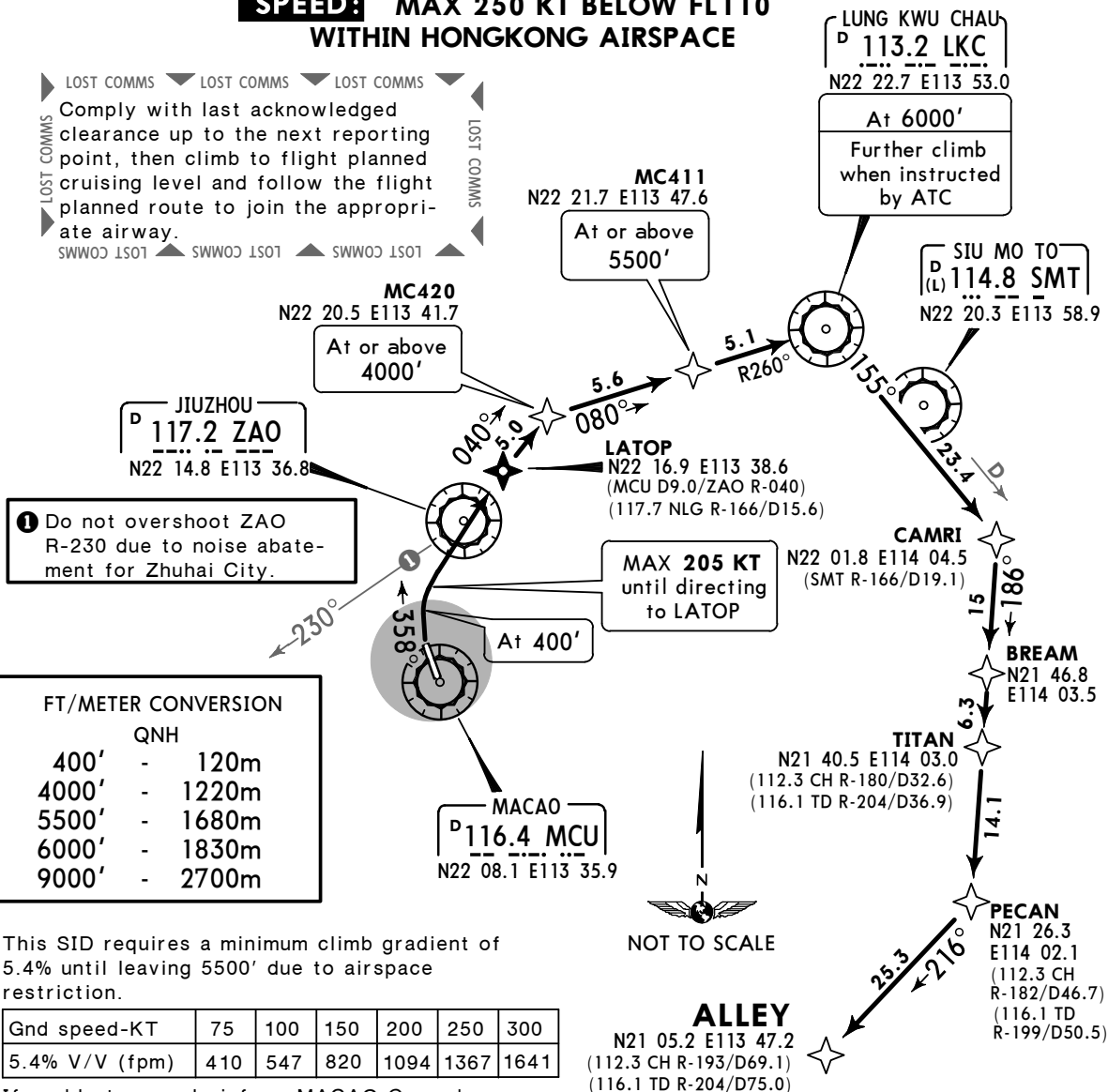


## ALLEY 2T [ALEY2T] RWY 34 RNAV (RNP 1) DEPARTURE RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY EQUIPPED AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE CONVENTIONAL PROCEDURE  
IF LKC U/S REQUEST ALLEY 1V

**SPEED: MAX 250 KT BELOW FL110  
WITHIN HONGKONG AIRSPACE**

LOST COMMS  
Comply with last acknowledged clearance up to the next reporting point, then climb to flight planned cruising level and follow the flight planned route to join the appropriate airway.  
SWW00 1501 SWW00 1501 SWW00 1501





**VMMC/MFM**  
**MACAO INTL**

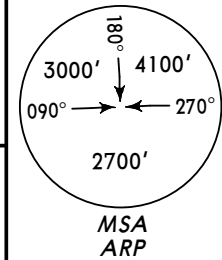
**JEPPESSEN** M  
24 JAN 14 (10-3D) Eff 6 Feb

MACAO, PR OF CHINA

**RNAV SID**

*Apt Elev*  
**20'**

Trans level: By ATC    Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.



**ALLEY 2U [ALEY2U]**  
**RWY 34 RNAV (RNP 1) DEPARTURE**  
**RNAV (GNSS)**

FOR AIRCRAFT APPROPRIATELY EQUIPPED AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE CONVENTIONAL PROCEDURE

IF LKC U/S REQUEST ALLEY 1W

**SPEED** MAX 250 KT BELOW FL110  
WITHIN HONGKONG AIRSPACE

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

▶ **LOST COMMS** Comply with last acknowledged clearance up to the next reporting point, then climb to flight planned cruising level and follow the flight planned route to join the appropriate airway.

SWW03 LOST COMMS ▲ SWW03 LOST COMMS ▲ SWW03 LOST COMMS

JIUZHOU  
D 117.2 ZAO  
N22 14.8 E113 36.8

**1** Do not overshoot ZAO R-230 due to noise abatement for Zhuhai City.

## FT/METER CONVERSION

	QNH
400'	- 120m
4000'	- 1220m
5500'	- 1680m
6000'	- 1830m
9000'	- 2700m

This SID requires a minimum climb gradient of 5.4% until leaving 5500' due to airspace restriction.

Gnd speed-KT	75	100	150	200	250	300
5.4% V/V (fpm)	410	547	820	1094	1367	1641

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn until directing to LATOP.

## ROUTING

Climb on 358° track to 400', turn RIGHT, direct to LATOP, turn RIGHT to MC420, then via MC411 to LKC, then via DOCTA to BREAM, then via TITAN to PECAN, then to ALLEY, continue on terminal transition routes.

**NON-RNAV:** Climb on 358° track to 400', turn RIGHT to ZAO, intercept ZAO R-040, climbing to 4000', at D11.5 LKC/D12.5 MCU turn RIGHT, intercept LKC R-259 inbound LKC to cross D5.0 LKC at 5500' and LKC at 6000', further climb when instructed by ATC, EXPECT RADAR vectors to ALLEY.

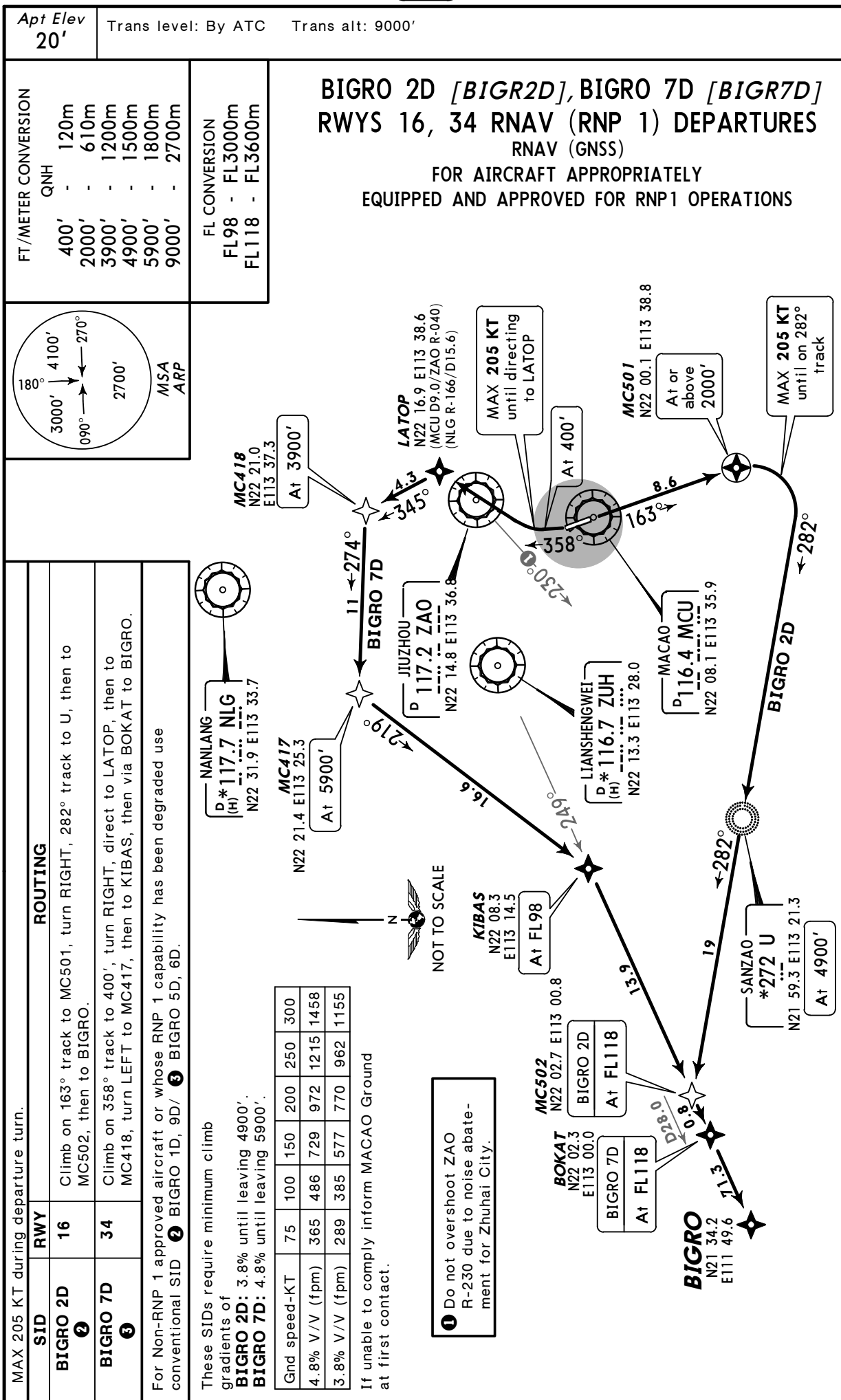
If ZAO u/s on 358° track to MCU 3.3 DME, turn RIGHT, 040° track to MCU 13.1 DME (LKC 11.4 DME), cross at 4000', turn RIGHT, intercept LKC R-259 inbound LKC to cross D5.0 LKC at 5500' and LKC at 6000', further climb when instructed by ATC, EXPECT RADAR vectors to ALLEY.

VMMC/MFM  
MACAO INTL

JEPPESSEN  
24 JAN 14 10-3E Eff 6 Feb

MACAO, PR OF CHINA

RNAV SID



**VMMC/MFM**  
**MACAO INTL**

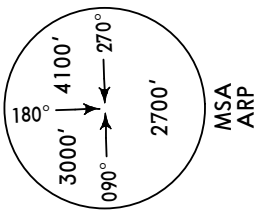
**JEPPesen**  
10 JUL 15 **10-3F** **Eff 23 Jul**

**MACAO, PR OF CHINA**

**RNAV SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



**CONGA 2P [CONG2P]**  
**RWY 16 RNAV (RNP 1) DEPARTURE**

RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY

EQUIPPED AND APPROVED FOR RNP1 OPERATIONS

FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE CONVENTIONAL PROCEDURE

**SPEED: MAX 250 KT BELOW FL110**  
**WITHIN HONGKONG AIRSPACE**

COMMS LOST COMMS

Comply with last acknowledged clearance up to the next reporting point, then climb to flight planned cruising level and follow the flight planned route to join the appropriate airway.  
SWW03 LSOT SWW03 LSOT SWW03 LSOT

**TUNG LUNG**  
D 116.1 TD  
N22 14.9 E114 17.6

**CHEUNG CHAU**  
D 112.3 CH  
N22 13.2 E114 01.8

**MACAO MCU**  
D 116.4 MCU  
N22 08.1 E113 35.9

**PAPA**  
N21 58.7 E113 39.4  
(MCU R-163/D10.0)

At 4000'  
EXPECT further climb when instructed by ATC

**MULET**  
N21 35.0 E113 47.9  
(MCU R-163/D35.0)

**SKATE**  
N21 31.9 E115 08.7

**CONGA**  
N21 44.0  
E116 47.1

104° D142.3  
102° D156.3

92.5

75.3

094°

134° D64.0  
125° D74.6

FT/METER CONVERSION

QNH

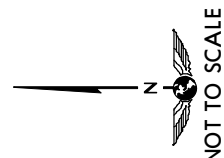
4000' - 1220m  
9000' - 2700m

**ROUTING**

Climb on 163° track to PAPA, then to MULET, then to SKATE, then to CONGA, continue on terminal transition route.

**NON-RNAV:** Intercept MCU R-163 to PAPA, further climb when instructed by ATC, EXPECT RADAR vectors to CONGA.

If MCU u/s climb straight ahead to 4000', then direct to MULET, EXPECT RADAR vectors to CONGA.



**VMMC/MFM**  
**MACAO INTL**

**JEPPESSEN**  
10 JUL 15 **(10-3G)** **Eff 23 Jul**

**MACAO, PR OF CHINA**

**RNAV SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.

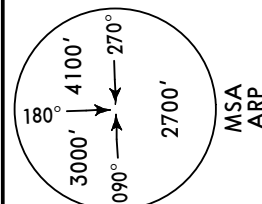
**CONGA 2T [CONG2T]**  
**RWY 34 RNAV (RNP 1) DEPARTURE**  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY EQUIPPED  
AND APPROVED FOR RNP1 OPERATIONS

FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1  
CAPABILITY HAS BEEN DEGRADED USE CONVENTIONAL  
PROCEDURE

IF LKC U/S REQUEST CONGA 1V

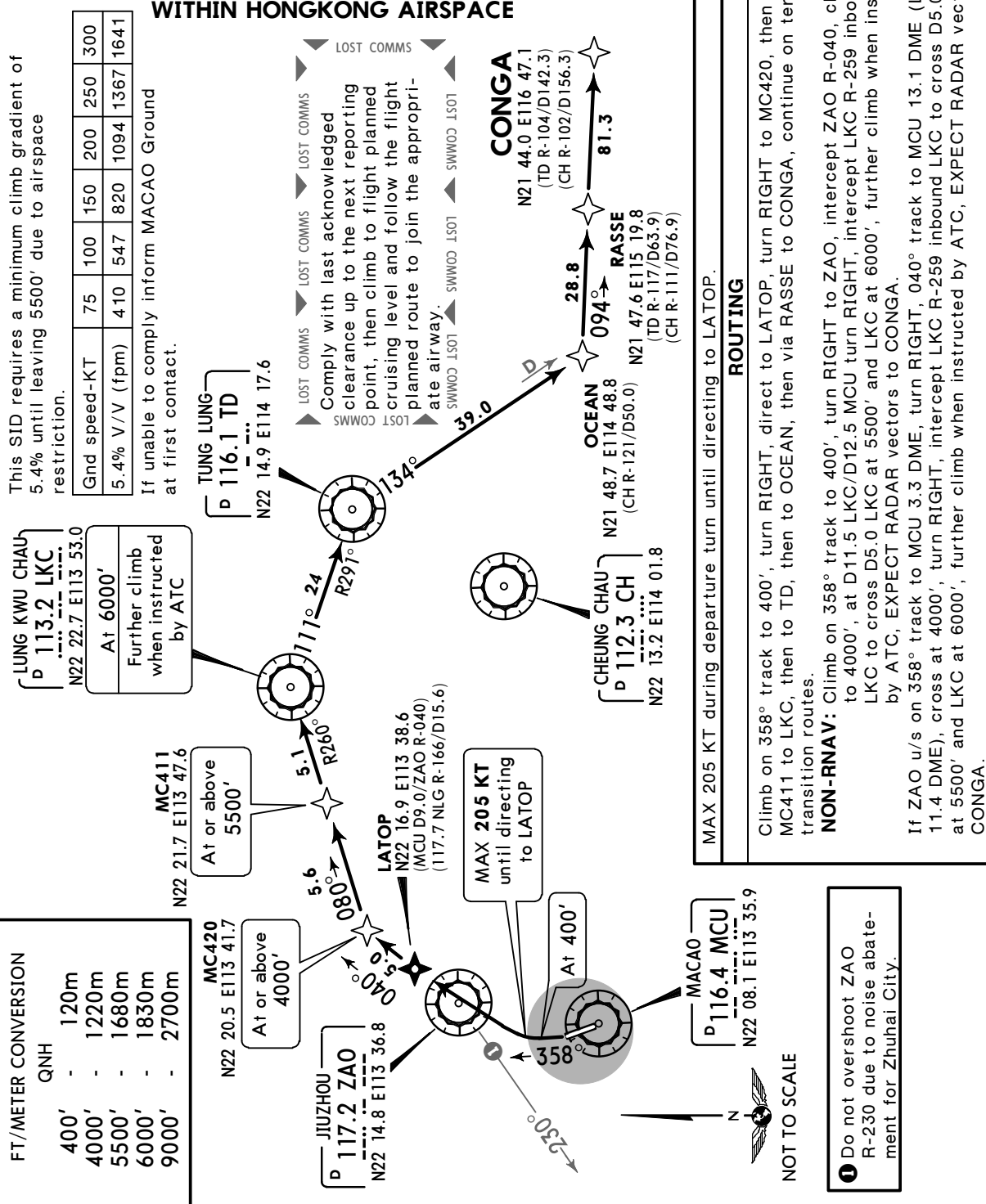
**SPEED: MAX 250 KT BELOW FL110**  
**WITHIN HONGKONG AIRSPACE**



This SID requires a minimum climb gradient of  
5.4% until leaving 5500' due to airspace  
restriction.

Gnd speed-KT	75	100	150	200	250	300
5.4% V/V (fpm)	410	547	820	1094	1367	1641

If unable to comply inform MACAO Ground  
at first contact.



**VMMC/MFM**  
**MACAO INTL**

**JEPPESSEN**  
10 JUL 15 **10-3H** Eff 23 Jul

**MACAO, PR OF CHINA**

**RNAV SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.

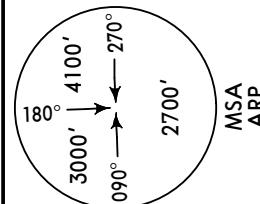
**CONGA 3U [CONG3U]**  
**RWY 34 RNAV (RNP 1) DEPARTURE**  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY EQUIPPED  
AND APPROVED FOR RNP1 OPERATIONS

FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1  
CAPABILITY HAS BEEN DEGRADED USE CONVENTIONAL  
PROCEDURE

IF LKC U/S REQUEST CONGA 2W

**SPEED: MAX 250 KT BELOW FL110**  
**WITHIN HONGKONG AIRSPACE**



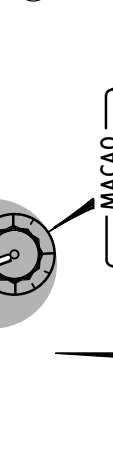
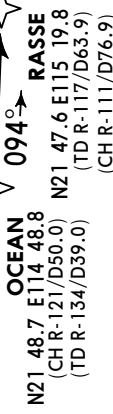
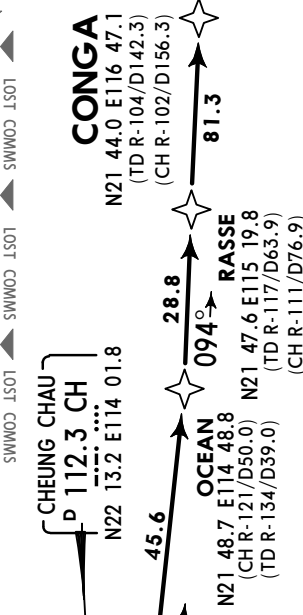
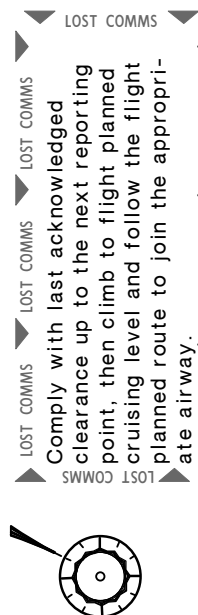
This SID requires a minimum climb gradient of 5.4% until leaving 5500' due to airspace restriction.

Gnd speed-KT	75	100	150	200	250	300
5.4% V/V (fpm)	410	547	820	1094	1367	1641

If unable to comply inform MACAO Ground at first contact.

**LUNG KWU CHAU**  
D 113.2 LKC  
N22 22.7 E113 53.0  
At 6000'  
Further climb when instructed by ATC

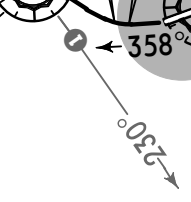
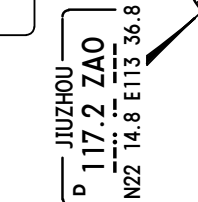
**TUNG LUNG**  
D 116.1 TD  
N22 14.9 E114 17.6



**FT/METER CONVERSION**

QNH	120m
400'	-
4000'	-
5500'	-
6000'	-
9000'	-

**MC420**  
N22 20.5 E113 41.7  
At or above 4000'



MAX 205 KT during departure turn until directing to LATOP.

**ROUTING**

Climb on 358° track to 400', turn RIGHT, direct to LATOP, turn RIGHT to MC420, then via MC411 to LKC, then to DOCTA, then to OCEAN, then via RASSE to CONGA, continue on terminal transition routes.

**NON-RNAV:** Climb on 358° track to 400', turn RIGHT to ZAO, intercept ZAO R-040, climbing to 4000', at D11.5 LKC/D12.5 MCU turn RIGHT, intercept LKC R-259 inbound LKC to cross D5.0 LKC at 5500' and LKC at 6000', further climb when instructed by ATC, EXPECT RADAR vectors to CONGA.

If ZAO u/s on 358° track to MCU 3.3 DME, turn RIGHT, 040° track to MCU 13.1 DME (LKC 11.4 DME), cross at 4000', turn RIGHT, intercept LKC R-259 inbound LKC to cross D5.0 LKC at 5500' and LKC at 6000', further climb when instructed by ATC, EXPECT RADAR vectors to CONGA.



NOT TO SCALE

**1** Do not overshoot ZAO R-230 due to noise abatement for Zhuhai City.

**VMMC/MFM**  
**MACAO INTL**

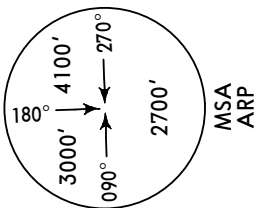
**JEPPESSEN**  
10 JUL 15 **10-3J** **Eff 23 Jul**

**MACAO, PR OF CHINA**

**RNAV SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



**GRUPA 2P [GRUP2P]**  
**RWY 16 RNAV (RNP 1) DEPARTURE**

RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY

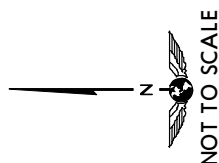
EQUIPPED AND APPROVED FOR RNP1 OPERATIONS

FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE CONVENTIONAL PROCEDURE

**SPEED: MAX 250 KT BELOW FL110**  
**WITHIN HONGKONG AIRSPACE**

COMMS ▼ LOST COMMS

Comply with last acknowledged clearance up to the next reporting point, then climb to flight planned cruising level and follow the flight planned route to join the appropriate airway.  
SWW00 LSOT SWW00 LSOT SWW00 LSOT



**TUNG LUNG**  
D 116.1 TD  
N22 14.9 E114 17.6

**CHEUNG CHAU**  
D 112.3 CH  
N22 13.2 E114 01.8

**MACAO**  
D 116.4 MCU  
N22 08.1 E113 35.9

**PAPA**  
N21 58.7 E113 39.4  
(MCU R-163/D10.0)

At 4000'  
EXPECT further climb when instructed by ATC

**SKATE**  
N21 31.9 E115 08.7

**MULET**  
N21 35.0 E113 47.9  
(MCU R-163/D35.0)

**GRUPA**  
N20 50.7 E115 57.0

**ROUTING**

Climb on 163° track to PAPA, then to MULET, then to SKATE, then to GRUPA, continue on terminal transition route.

**NON-RNAV:** Intercept MCU R-163 to PAPA, further climb when instructed by ATC, EXPECT RADAR vectors to GRUPA.

If MCU u/s climb straight ahead to 4000', then direct to MULET, EXPECT RADAR vectors to GRUPA.

FT/METER CONVERSION

QNH

4000' - 1220m  
9000' - 2700m

**VMMC/MFM**  
**MACAO INTL**

**JEPPESSEN**  
24 JAN 14 **10-3K** **Eff 6 Feb**

**MACAO, PR OF CHINA**

**RNAV SID**

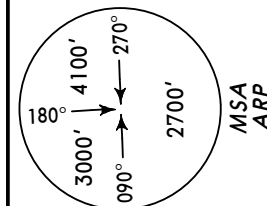
**Apt Elev**  
**20'**

Trans level: By ATC Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.

**GRUPA 2T [GRUP2T]**  
**RWY 34 RNAV (RNP 1) DEPARTURE**  
**RNAV (GNSS)**

**FOR AIRCRAFT APPROPRIATELY EQUIPPED**  
**AND APPROVED FOR RNP1 OPERATIONS**  
**FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1**  
**CAPABILITY HAS BEEN DEGRADED USE CONVENTIONAL**  
**PROCEDURE**

**IF LKC U/S REQUEST GRUPA 1V**  
**MAX 250 KT BELOW FL110**  
**WITHIN HONGKONG AIRSPACE**



FT/METER CONVERSION	QNH
400'	- 120m
4000'	- 1220m
5500'	- 1680m
6000'	- 1830m
9000'	- 2700m

**LOST COMMS**  
Comply with last acknowledged clearance up to the next reporting point, then climb to flight planned cruising level and follow the flight planned route to join the appropriate airway.  
SWM03 LSOT SWM03 LSOT

**LUNG KWU CHAU**  
**D 113.2 LKC**  
**N22 22.7 E113 53.0**  
**At 6000'**  
Further climb when instructed by ATC

This SID requires a minimum climb gradient of 5.4% until leaving 5500' due to airspace restriction.

Gnd speed-KT	75	100	150	200	250	300
5.4% V/V (fpm)	410	547	820	1094	1367	1641

If unable to comply inform MACAO Ground at first contact.

**MC411**  
**N22 21.7 E113 47.6**  
**At or above 5500'**

**MC420**  
**N22 20.5 E113 41.7**  
**At or above 4000'**

**JIUZHOU**  
**D 117.2 ZAO**  
**N22 14.8 E113 36.8**

**LATOP**  
**N22 16.9 E113 38.6**  
**(MCU D9.0/ZAO R-040)**  
**(117.7 NLG R-166/D15.6)**

**Do not overshoot ZAO R-230 due to noise abatement for Zhuhai City.**

**CHEUNG CHAU**  
**D 112.3 CH**  
**N22 13.2 E114 01.8**

**MACAO**  
**D 116.4 MCU**  
**N22 08.1 E113 35.9**

**GRUPA**  
**N20 50.7 E115 57.0**  
**(CH R-129/D135.2)**

**ROUTING**

Climb on 358° track to 400', turn RIGHT, direct to LATOP, then via MC411 to LKC, then to TD, then via OCEAN to GRUPA, continue on terminal transition routes.  
**NON-RNAV:** Climb on 358° track to 400', turn RIGHT to ZAO, intercept ZAO R-040, climbing to 4000', at D11.5 LKC/D12.5 MCU turn RIGHT, intercept LKC R-259 inbound LKC to cross D5.0 LKC at 5500' and LKC at 6000', further climb when instructed by ATC, EXPECT RADAR vectors to GRUPA.  
If ZAO u/s on 358° track to MCU 3.3 DME, turn RIGHT, 040° track to MCU 13.1 DME (LKC 11.4 DME), cross at 4000', turn RIGHT, intercept LKC R-259 inbound LKC to cross D5.0 LKC at 5500' and LKC at 6000', further climb when instructed by ATC, EXPECT RADAR vectors to GRUPA.

MAX 205 KT during departure turn until directing to LATOP.

VMMC/MFM  
MACAO INTL

JEPPESSEN  
24 JAN 14 10-3L Eff 6 Feb

MACAO, PR OF CHINA

RNAV SID

Apt Elev  
20'

Trans level: By ATC Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.

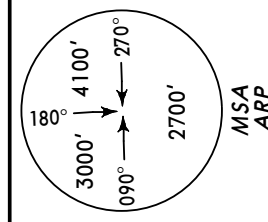
GRUPA 3U [GRUP3U]  
RWY 34 RNAV (RNP 1) DEPARTURE  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY EQUIPPED  
AND APPROVED FOR RNP1 OPERATIONS

FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1  
CAPABILITY HAS BEEN DEGRADED USE CONVENTIONAL  
PROCEDURE

IF LKC U/S REQUEST GRUPA 2W

**MAX 250 KT BELOW FL110  
WITHIN HONGKONG AIRSPACE**



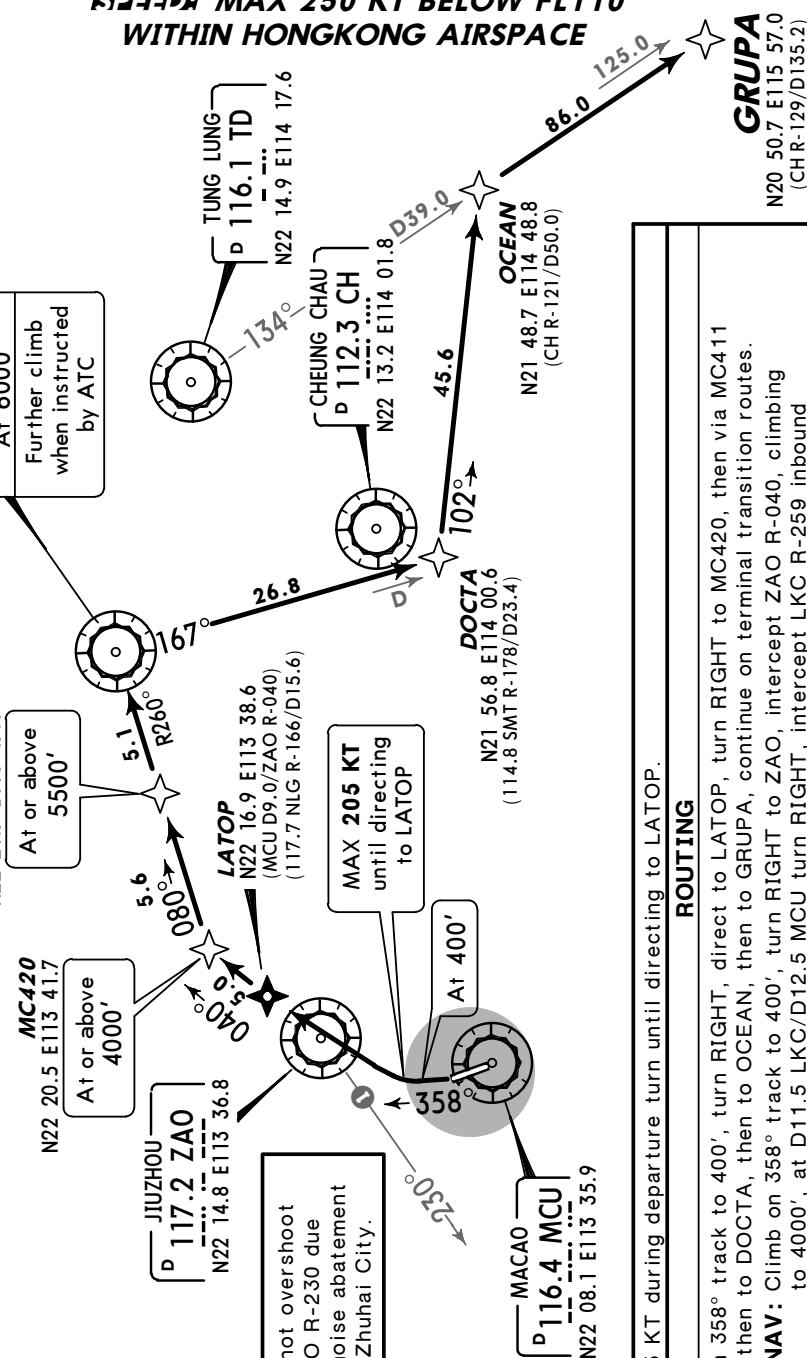
LOST COMMS  
Comply with last acknowledged clearance up to the next reporting point, then climb to flight planned cruising level and follow the flight planned route to join the appropriate airway.  
SWW03 LS01 SWW03 LS01 SWW03 LS01

This SID requires a minimum climb gradient of 5.4% until leaving 5500' due to airspace restriction.

Gnd speed-KT	75	100	150	200	250	300
5.4% V/V (fpm)	410	547	820	1094	1367	1641

If unable to comply inform MACAO Ground at first contact.  
MC411  
N22 21.7 E113 47.6

FT/METER CONVERSION	QNH
400'	120m
4000'	1220m
5000'	1680m
6000'	1830m
9000'	2700m



ROUTING

Climb on 358° track to 400', turn RIGHT, direct to LATOP, turn RIGHT to MC420, then via MC411 to LKC, then to DOCTA, then to OCEAN, then to GRUPA, continue on terminal transition routes.

**NON-RNAV:** Climb on 358° track to 400', turn RIGHT to ZAO, intercept ZAO R-040, climbing to 4000', at D11.5 LKC/D12.5 MCU turn RIGHT, intercept LKC R-259 inbound LKC to cross D5.0 LKC at 5500' and LKC at 6000', further climb when instructed by ATC, EXPECT RADAR vectors to GRUPA.

If ZAO u/s on 358° track to MCU 3.3 DME, turn RIGHT, 040° track to MCU 13.1 DME (LKC 11.4 DME), cross at 4000', turn RIGHT, intercept LKC R-259 inbound LKC to cross D5.0 LKC at 5500' and LKC at 6000', further climb when instructed by ATC, EXPECT RADAR vectors to GRUPA.

MAX 205 KT during departure turn until directing to LATOP.



**VMMC/MFM**  
**MACAO INTL**

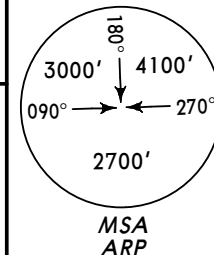
**JEPPESEN**  
4 APR 14 **(10-3M)**

**MACAO, PR OF CHINA**

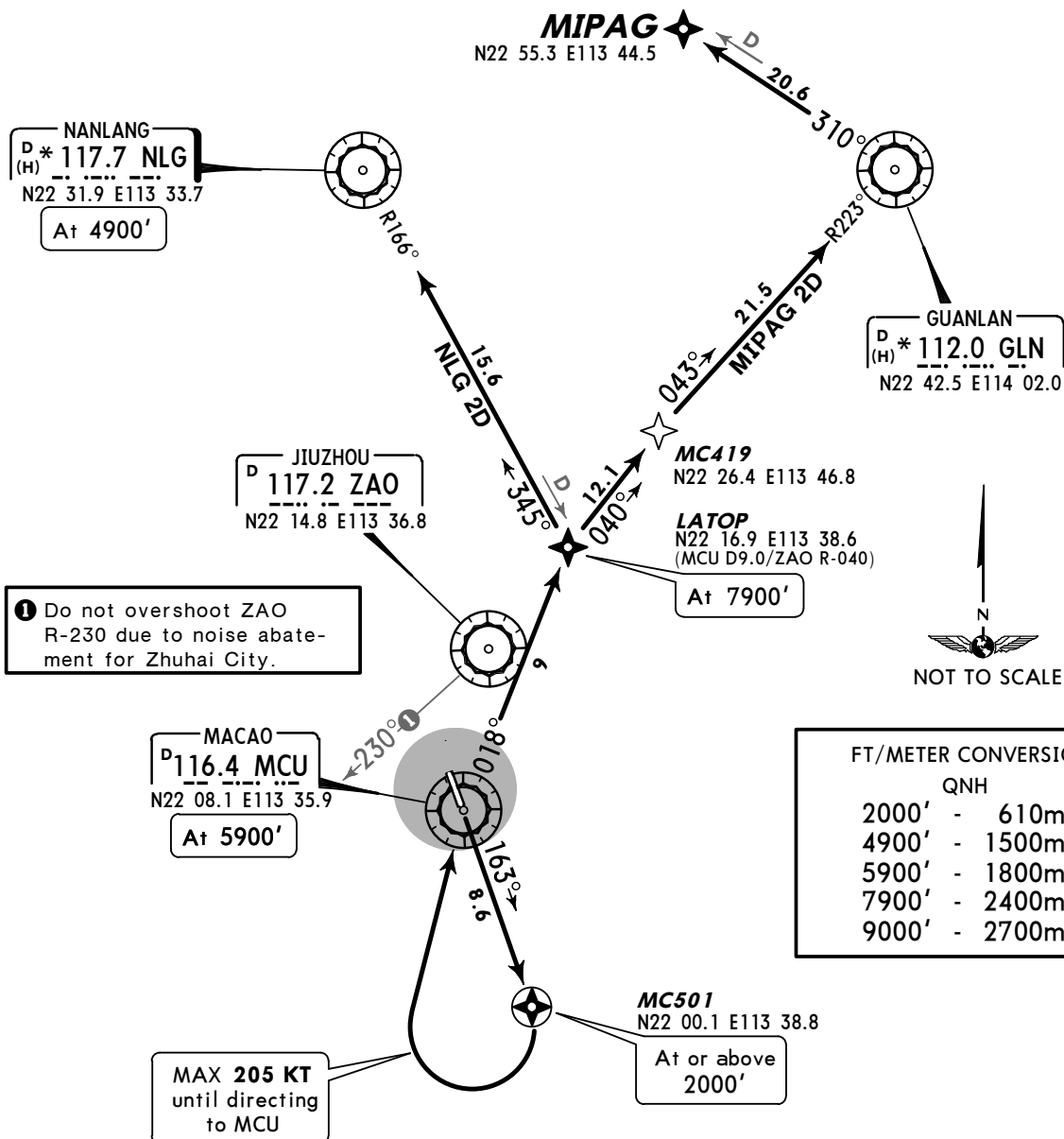
**RNAV SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



**MIPAG 2D [MIPA2D]**  
**NLG 2D**  
**RWY 16 RNAV (RNP 1) DEPARTURES**  
RNAV (GNSS)  
FOR AIRCRAFT APPROPRIATELY  
EQUIPPED AND APPROVED FOR RNP1 OPERATIONS



FT/METER CONVERSION	
QNH	
2000'	- 610m
4900'	- 1500m
5900'	- 1800m
7900'	- 2400m
9000'	- 2700m

Gnd speed-KT	75	100	150	200	250	300
3.8% V/V (fpm)	289	385	577	770	962	1155

These SID's require a minimum climb gradient of 3.8% until reaching 7900'.

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

SID	ROUTING
<b>MIPAG 2D ②</b>	Climb on 163° track to MC501, turn RIGHT, direct to MCU, then to LATOP, then to MC419, then to GLN, then to MIPAG.
<b>NLG 2D ③</b>	Climb on 163° track to MC501, turn RIGHT, direct to MCU, then to LATOP, then to NLG.

For Non-RNP 1 approved aircraft or whose RNP 1 capability has been degraded use conventional SID ② MIPAG 1D/ ③ NLG 1D, 9D.

VMMC/MFM  
MACAO INTL

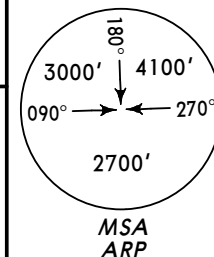
**JEPPESSEN**  
4 APR 14 (10-3N)

MACAO, PR OF CHINA

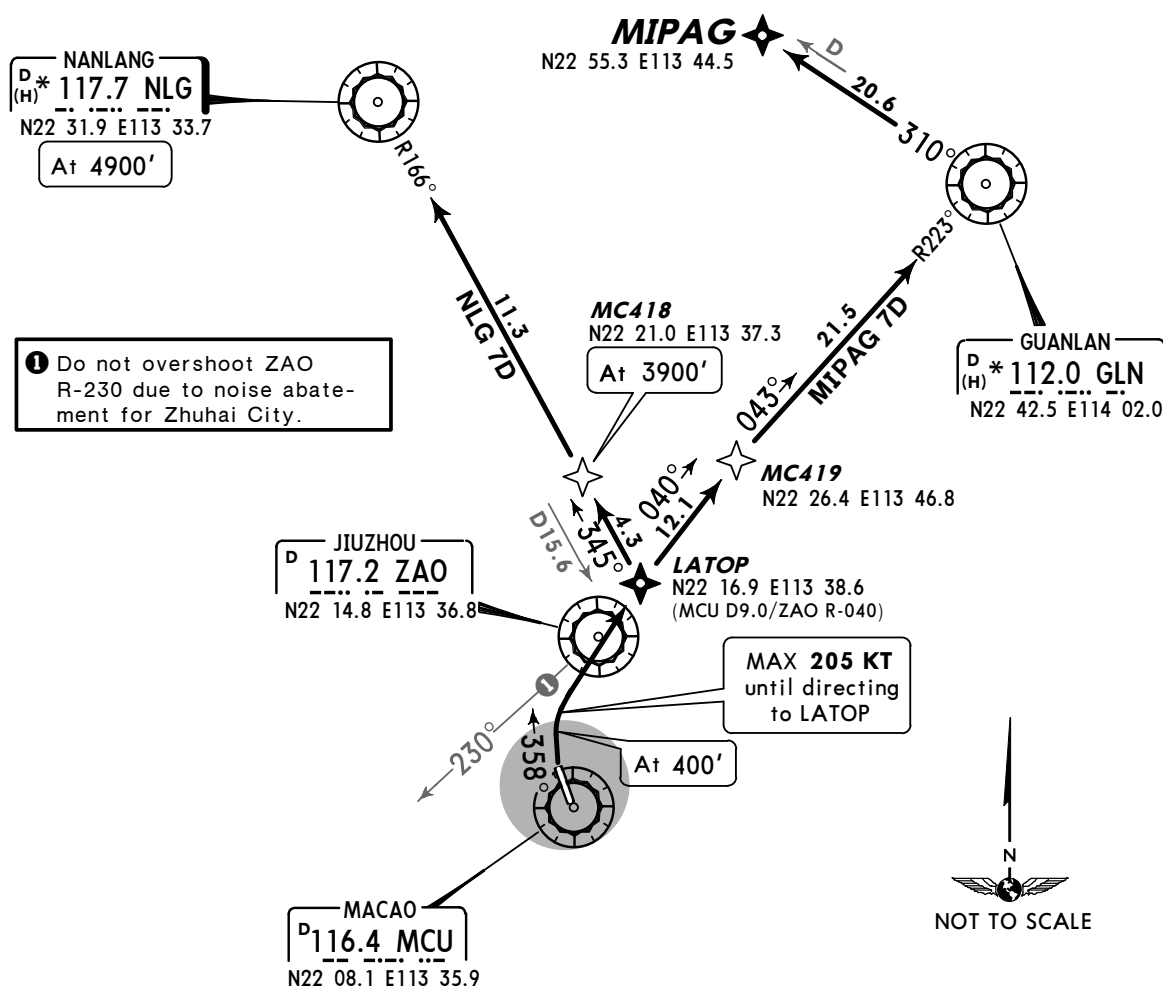
**RNAV SID**

Apt Elev  
20'

Trans level: By ATC      Trans alt: 9000'



**MIPAG 7D [MIPA7D]  
NLG 7D  
RWY 34 RNAV (RNP 1) DEPARTURES  
RNAV (GNSS)  
FOR AIRCRAFT APPROPRIATELY  
EQUIPPED AND APPROVED FOR RNP1 OPERATIONS**



These SIDs require a minimum climb gradient of

**MIPAG 7D:** 4.8% until reaching FL108.

**NLG 7D:** 4.8% until reaching 4900'.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

If unable to comply inform MACAO Ground at first contact.

FT/METER CONVERSION  
QNH

400'	-	120m
3900'	-	1200m
4900'	-	1500m
9000'	-	2700m

FL CONVERSION  
FL108 - FL3300m

MAX 205 KT during departure turn.

SID	ROUTING
<b>MIPAG 7D ②</b>	Climb 358° track to 400', turn RIGHT, direct to LATOP, then to MC419, then to GLN, turn LEFT to MIPAG.
<b>NLG 7D ③</b>	Climb on 358° track to 400', turn RIGHT, direct to LATOP, then via MC418 to NLG.

For Non-RNP 1 approved aircraft or whose RNP 1 capability has been degraded use conventional SID **②** MIPAG 5D, 6D/ **③** NLG 5D, 6D.

**VMMC/MFM**  
**MACAO INTL**

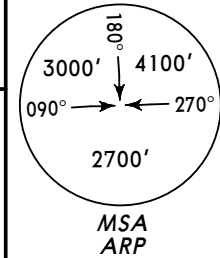
**JEPPESSEN**  
24 JAN 14 **10-3P** **Eff 6 Feb**

**MACAO, PR OF CHINA**

**RNAV SID**

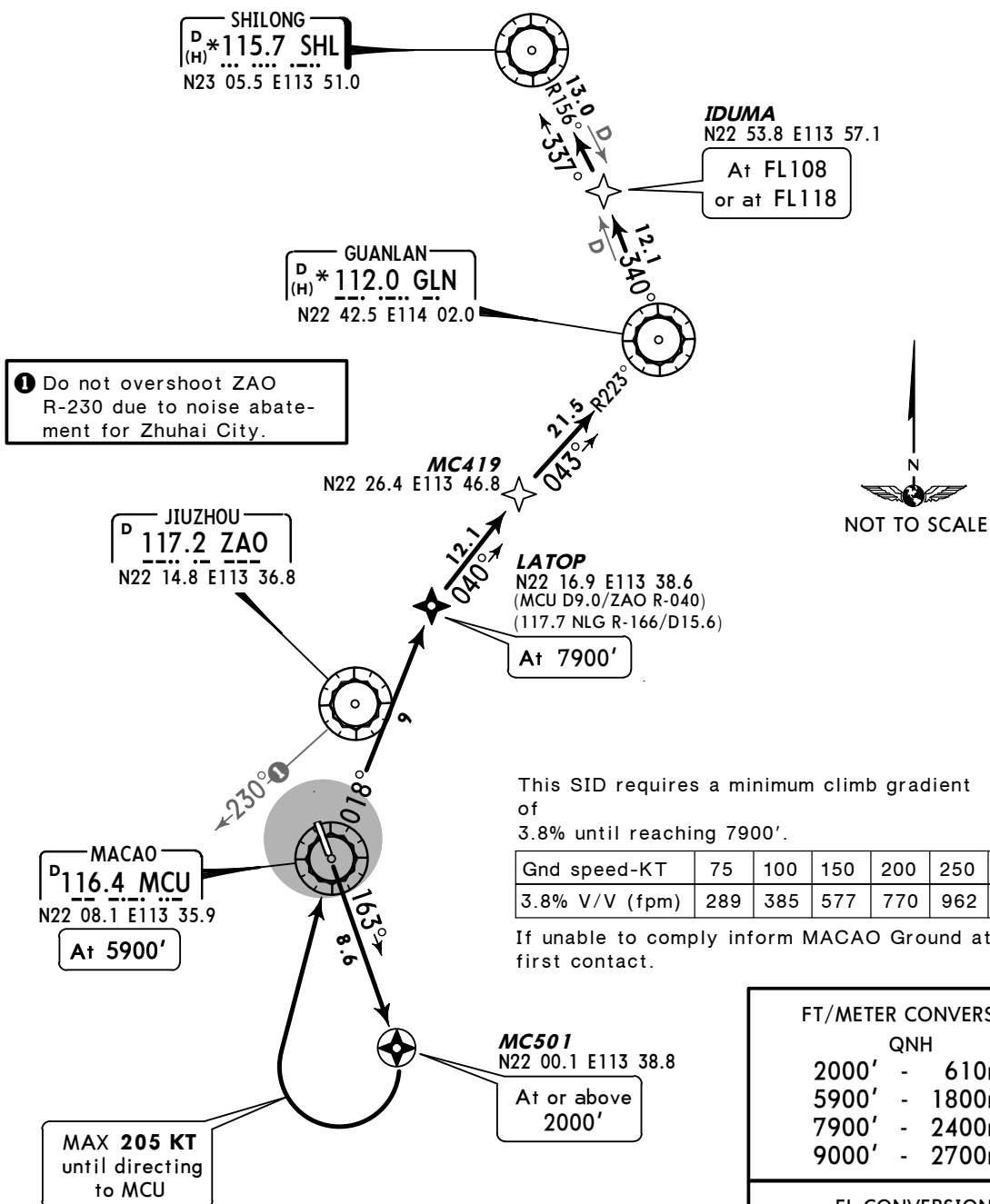
Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



**SHL 2D**  
**RWY 16 RNAV (RNP 1) DEPARTURE**  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY  
EQUIPPED AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE CONVENTIONAL SID SHL 1D OR SHL 9D



This SID requires a minimum climb gradient of 3.8% until reaching 7900'.

Gnd speed-KT	75	100	150	200	250	300
3.8% V/V (fpm)	289	385	577	770	962	1155

If unable to comply inform MACAO Ground at first contact.

**FT/METER CONVERSION**

QNH

2000'	-	610m
5900'	-	1800m
7900'	-	2400m
9000'	-	2700m

**FL CONVERSION**

FL108	-	FL3300m
FL118	-	FL3600m

MAX 205 KT during departure turn.

**ROUTING**

Climb on 163° track to MC501, turn RIGHT, direct to MCU, then to LATOP, then to MC419, then to GLN, then to IDUMA, then to SHL.

**VMMC/MFM**  
**MACAO INTL**

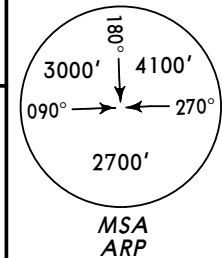
**JEPPESSEN**  
24 JAN 14 **10-3Q** **Eff 6 Feb**

**MACAO, PR OF CHINA**

**RNAV SID**

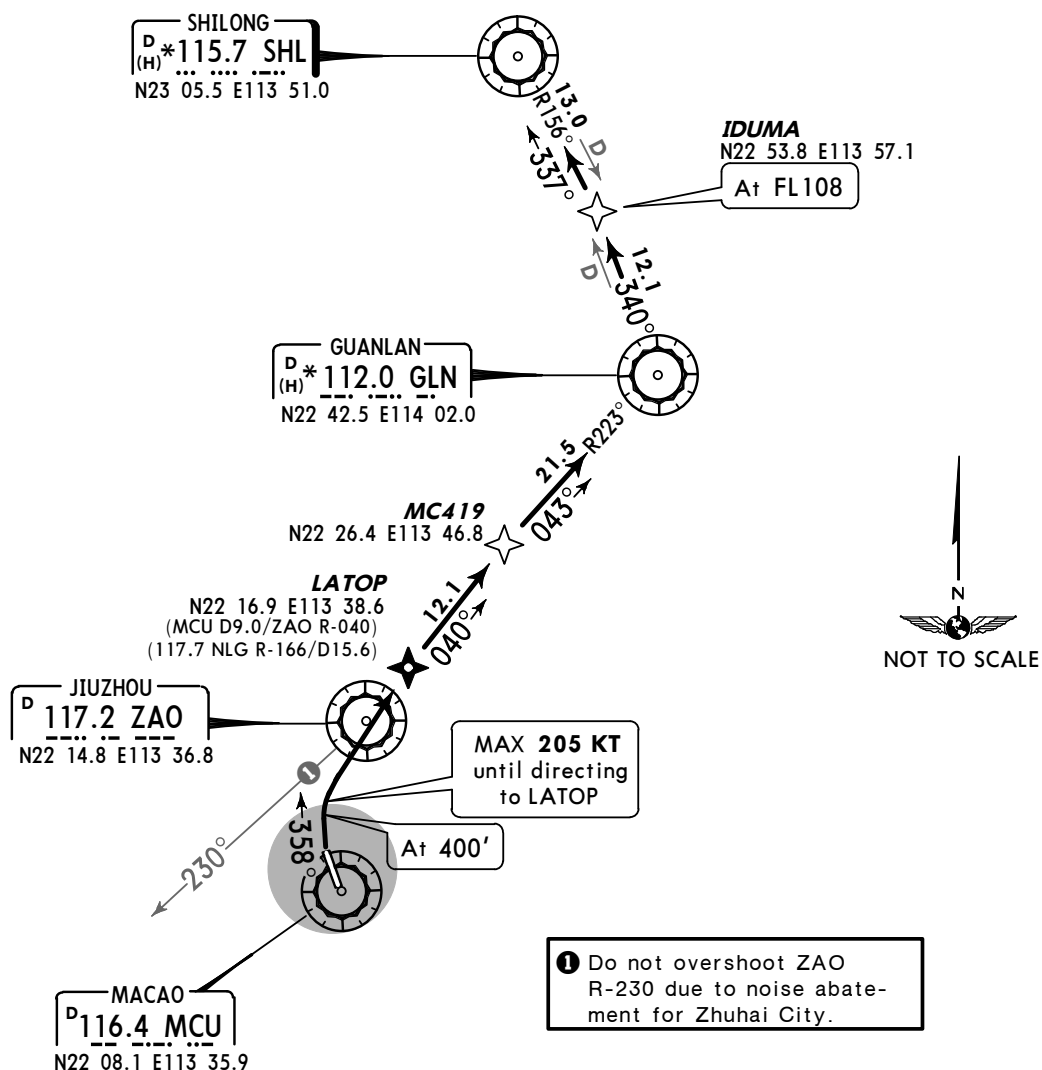
*Apt Elev*  
**20'**

Trans level: By ATC Trans alt: 9000'



**SHL 7D**  
**RWY 34 RNAV (RNP 1) DEPARTURE**  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY  
EQUIPPED AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE CONVENTIONAL SID SHL 5D OR SHL 6D



This SID requires a minimum climb gradient of 4.8% until leaving FL108.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

**ROUTING**

Climb 358° track to 400', turn RIGHT, direct to LATOP, then to MC419, then to GLN, turn LEFT to IDUMA, then to SHL.

**FT/METER CONVERSION**

QNH

400' - 120m  
9000' - 2700m

**FL CONVERSION**

FL108 - FL3300m

**VMMC/MFM**  
**MACAO INTL**

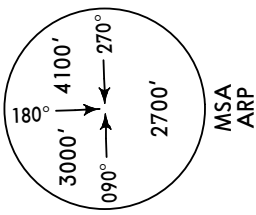
**JEPPESSEN**  
10 JUL 15 **10-3S** **Eff 23 Jul**

**MACAO, PR OF CHINA**

**RNAV SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



**SOUSA 2P [SOUS2P]**  
**RWY 16 RNAV (RNP 1) DEPARTURE**

RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY

EQUIPPED AND APPROVED FOR RNP1 OPERATIONS

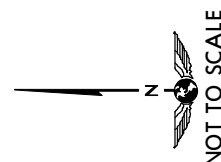
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1 CAPABILITY  
HAS BEEN DEGRADED USE CONVENTIONAL PROCEDURE

**SPEED: MAX 250 KT BELOW FL110**  
**WITHIN HONGKONG AIRSPACE**

COMMS ▼ LOST COMMS

Comply with last acknowledged clearance up to the next reporting point, then climb to flight planned cruising level and follow the flight planned route to join the appropriate airway.  
SWW03 LSOT SWW03 LSOT SWW03 LSOT

**SOUSA**  
N22 01.2  
E116 11.5



**TUNG LUNG**  
D 116.1 TD  
N22 14.9 E114 17.6



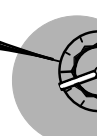
**CHEUNG CHAU**  
D 112.3 CH  
N22 13.2 E114 01.8



**PAPA**  
N21 58.7 E113 39.4  
(MCU R-163/D10.0)

At 4000'  
EXPECT further climb when instructed by ATC

**MACAO MCU**  
D 116.4 MCU  
N22 08.1 E113 35.9



**SKATE**  
N21 31.9 E115 08.7

134° D64.0  
125° D74.5

75.3

094°

**MULET**  
N21 35.0 E113 47.9  
(MCU R-163/D35.0)

**ROUTING**

Climb on 163° track to PAPA, then to MULET, then to SKATE, then to SOUSA, continue on terminal transition route.

**NON-RNAV:** Intercept MCU R-163 to PAPA, further climb when instructed by ATC, EXPECT RADAR vectors to SOUSA.

If MCU u/s climb straight ahead to 4000', then direct to MULET, EXPECT RADAR vectors to SOUSA.

FT/METER CONVERSION

QNH

4000' - 1220m  
9000' - 2700m

VMMC/MFM  
MACAO INTL

JEPPESSEN  
10 JUL 15 (10-3T) Eff 23 Jul

MACAO, PR OF CHINA

RNAV SID

Apt Elev  
20'

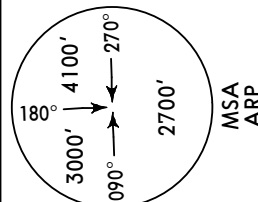
Trans level: By ATC Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots  
towards Hong Kong shall follow the SID until LKC. Any  
deviation could result in direct conflict with Hong Kong  
traffic.

SOUSA 3T [SOUS3T]  
RWY 34 RNAV (RNP 1) DEPARTURE  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY EQUIPPED  
AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1  
CAPABILITY HAS BEEN DEGRADED USE CONVENTIONAL  
PROCEDURE

IF LKC U/S REQUEST SOUSA 2V

**SPEED: MAX 250 KT BELOW FL110**  
**WITHIN HONGKONG AIRSPACE**



This SID requires a minimum climb gradient of  
5.4% until leaving 5500' due to airspace  
restriction.

Gnd speed-KT	75	100	150	200	250	300
5.4% V/V (fpm)	410	547	820	1094	1367	1641

If unable to comply inform MACAO Ground  
at first contact.

LOST COMMS  
TUNG LUNG  
p 116.1 TD  
N22 14.9 E114 17.6  
SWWOC LSOT  
Comply with last acknowledged  
clearance up to the next reporting  
point, then climb to flight planned  
cruising level and follow the flight  
planned route to join the appropri-  
ate airway.  
SWWOC LSOT  
SWWOC LSOT

LUNG KWU CHAU  
p 113.2 LKC  
N22 22.7 E113 53.0  
At 6000'  
Further climb  
when instructed  
by ATC

MC411  
N22 21.7 E113 47.6  
At or above  
5500'

MC420  
N22 20.5 E113 41.7  
At or above  
4000'

JIUZHOU  
p 117.2 ZAO  
N22 14.8 E113 36.8  
At 4000'

LATOP  
N22 16.9 E113 38.6  
(MCU D9.0/ZAO R-040)  
(117.7 NLG R-166/D15.6)

MAX 205 KT  
until directing  
to LATOP

CHEUNG CHAU  
p 112.3 CH  
N22 13.2 E114 01.8

SOUSA  
N22 01.2 E116 11.5  
(CH R-097/D121.0)

LAKES  
N21 58.7  
E114 54.6  
(CH R-108/D51.1)

SHELY  
N22 05.4 E114 39.2

NOT TO SCALE

MACAO  
p 116.4 MCU  
N22 08.1 E113 35.9

At 400'

At 4000'

At 5500'

At 6000'

At 7000'

At 8000'

At 9000'

FT/METER CONVERSION	QNH
400'	- 120m
4000'	- 1220m
5500'	- 1680m
6000'	- 1830m
9000'	- 2700m

At 4000'

At 5500'

At 6000'

At 7000'

At 8000'

At 9000'

At 10000'

At 11000'

At 12000'

At 13000'

At 14000'

At 15000'

At 16000'

At 17000'

At 18000'

At 19000'

At 20000'

VMMC/MFM  
MACAO INTL

JEPPESSEN  
24 JAN 14 10-3U Eff 6 Feb

MACAO, PR OF CHINA

RNAV SID

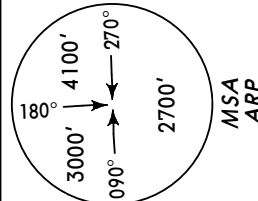
Apt Elev  
20'

Trans level: By ATC Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.

**SOUSA 3U [SOUS3U]**  
**RWY 34 RNAV (RNP 1) DEPARTURE**  
RNAV (GNSS)

FOR AIRCRAFT APPROPRIATELY EQUIPPED  
AND APPROVED FOR RNP1 OPERATIONS  
FOR NON-RNP 1 APPROVED AIRCRAFT OR WHOSE RNP 1  
CAPABILITY HAS BEEN DEGRADED USE CONVENTIONAL  
PROCEDURE

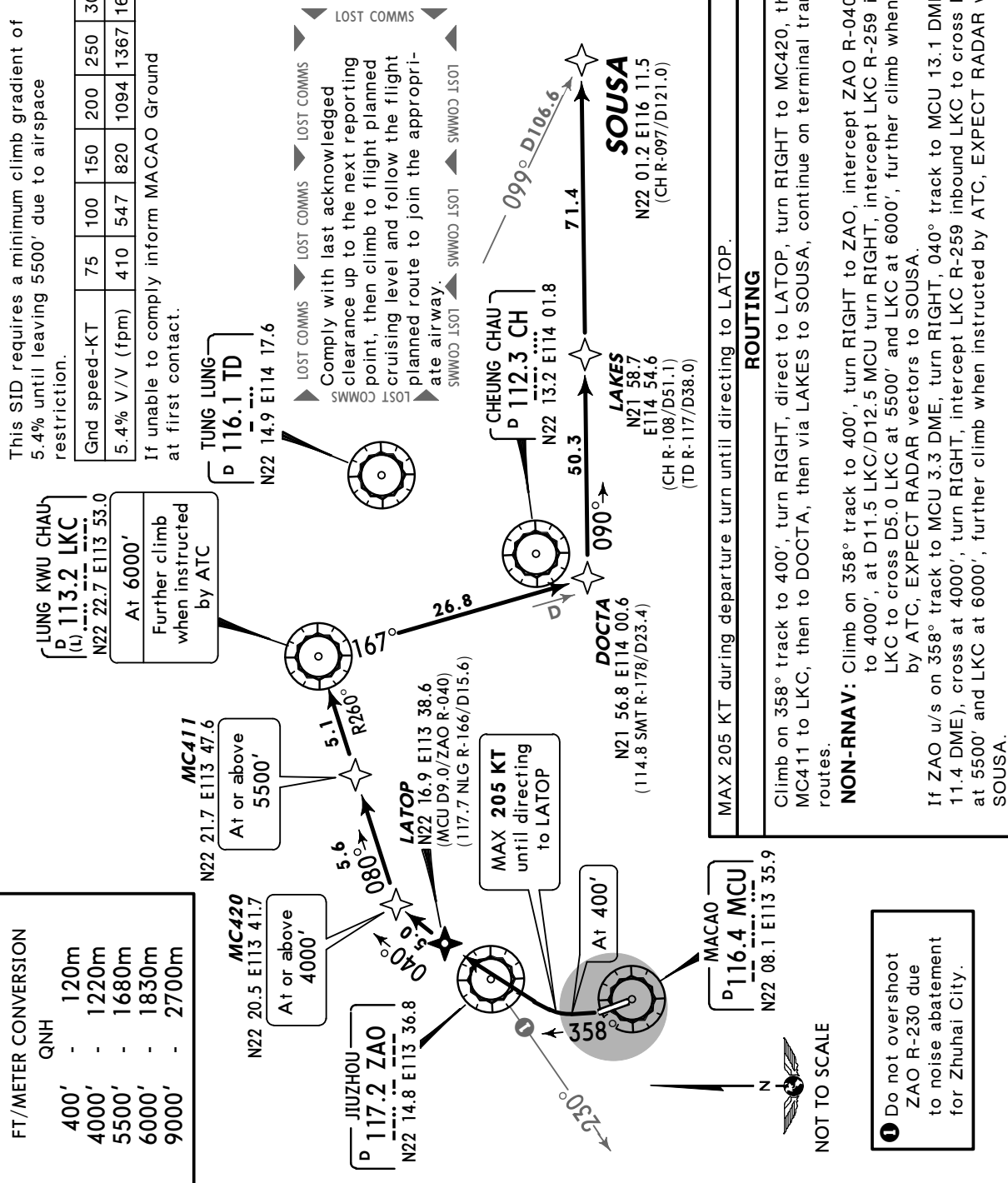
IF LKC U/S REQUEST SOUSA 2W  
**~~SPEED~~ MAX 250 KT BELOW FL110**  
**WITHIN HONGKONG AIRSPACE**



This SID requires a minimum climb gradient of 5.4% until leaving 5500' due to airspace restriction.

Gnd speed-KT	75	100	150	200	250	300
5.4% V/V (fpm)	410	547	820	1094	1367	1641

If unable to comply inform MACAO Ground at first contact.

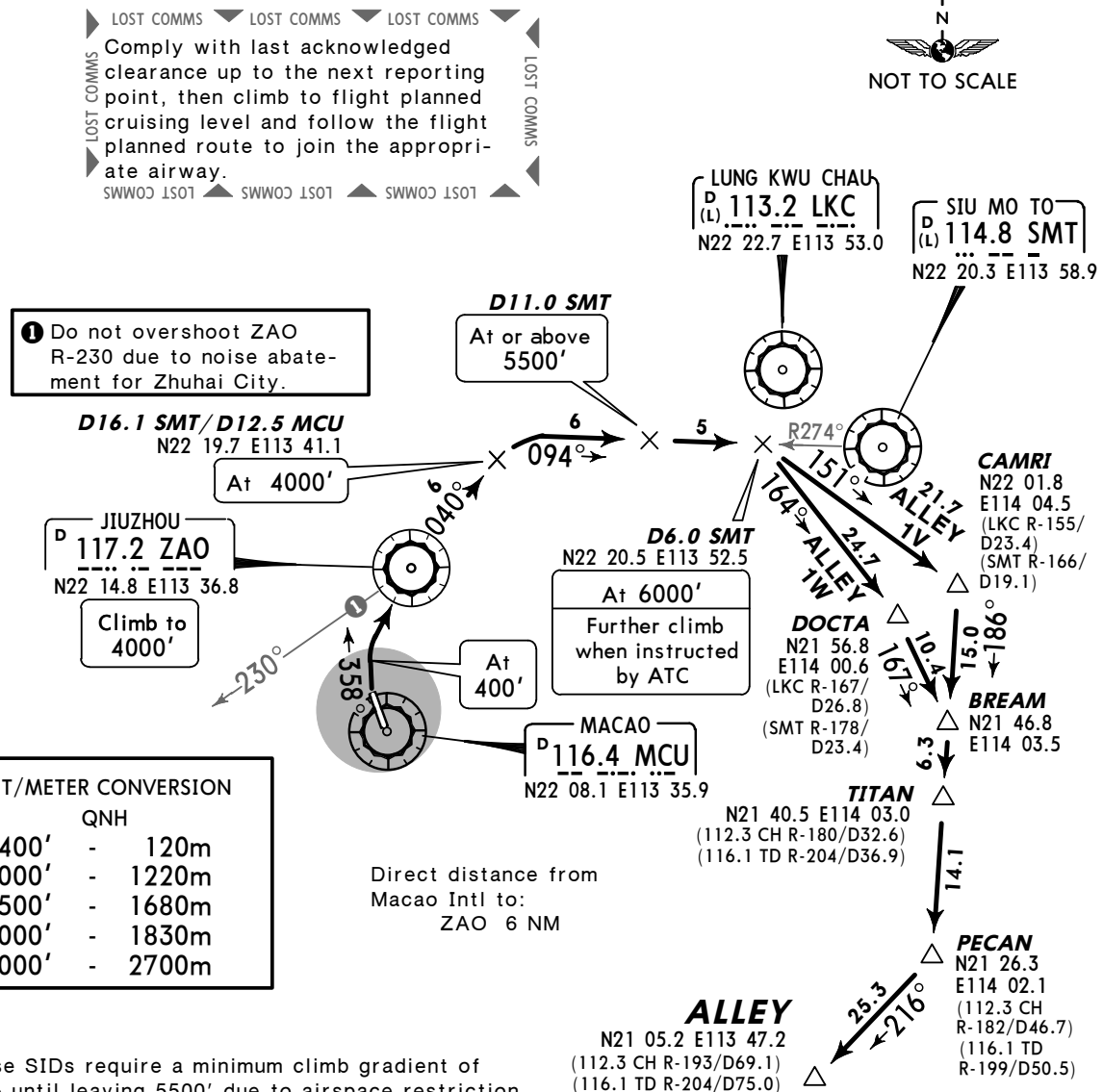


**VMMC/MFM**  
**MACAO INTL**
**JEPPESSEN**  
 24 JAN 14 **10-3V** **Eff 6 Feb**
**MACAO, PR OF CHINA**
**SID**
**Apt Elev**  
**20'**

 Trans level: By ATC Trans alt: 9000'  
 Owing to the proximity of Hong Kong Intl airport, pilots towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.

**ALLEY 1V [ALEY1V], ALLEY 1W [ALEY1W]**
**RWY 34 DEPARTURES**

NOT AVAILABLE IF SMT U/S

**~~SPEED~~ MAX 250 KT BELOW FL110**


MAX 205 KT during departure turn until ZAO.

SID	ROUTING
<b>ALLEY 1V</b>	Climb on 358° track to 400', turn RIGHT to ZAO, ZAO R-040 to D16.1 SMT (D12.5 MCU), turn RIGHT, intercept SMT R-274 inbound to D6.0 SMT, turn RIGHT to CAMRI, turn RIGHT via BREAM and TITAN to PECAN, turn RIGHT to ALLEY, continue on terminal transition routes.
<b>ALLEY 1W</b>	Climb on 358° track to 400', turn RIGHT to ZAO, ZAO R-040 to D16.1 SMT (D12.5 MCU), turn RIGHT, intercept SMT R-274 inbound to D6.0 SMT, turn RIGHT to DOCTA, then to BREAM, turn RIGHT via TITAN to PECAN, turn RIGHT to ALLEY, continue on terminal transition routes.
If ZAO u/s on 358° track to MCU 3.3 DME turn RIGHT, 040° track to MCU 13.8 DME (SMT 16.2 DME), cross at 4000', turn RIGHT, intercept SMT R-274 inbound and continue on SID.	

CHANGES: ZAO DME commissioned.

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**VMMC/MFM**  
**MACAO INTL**

**JEPPESSEN**  
13 MAY 16 **10-3V1** **Eff 26 May**

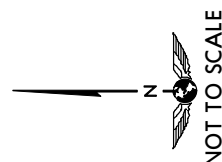
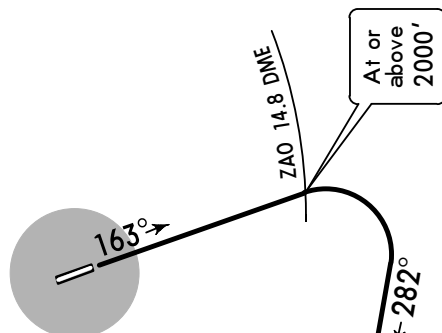
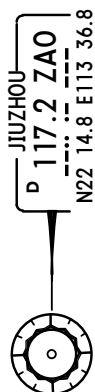
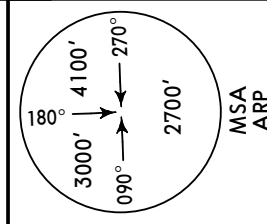
**MACAO, PR OF CHINA**

**SID**

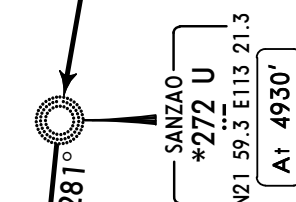
Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'

**BIGRO 1D [BIGR1D]**  
**RWY 16 DEPARTURE**  
TO BE USED WHEN MCU U/S



Direct distance from  
Macao Intl to:  
U 16 NM



**BOKAT**  
N22 02.3  
E113 00.0  
At FL118

**BIGRO**  
N21 34.2 E111 49.6

This SID requires a minimum climb gradient  
of  
3.8% until leaving 4930'.

Gnd speed-KT	75	100	150	200	250	300
3.8% V/V (fpm)	289	385	577	770	962	1155

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

**ROUTING**

Climb straight ahead, at ZAO 14.8 DME turn RIGHT, intercept 282° bearing to U,  
281° bearing to BOKAT, turn LEFT, 249° track to BIGRO.

**VMMC/MFM**  
**MACAO INTL**

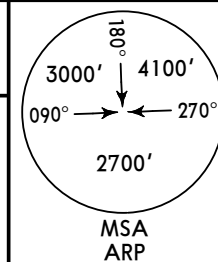
**JEPPESEN**  
13 MAY 16 **10-3V2** Eff 26 May

**MACAO, PR OF CHINA**

**SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



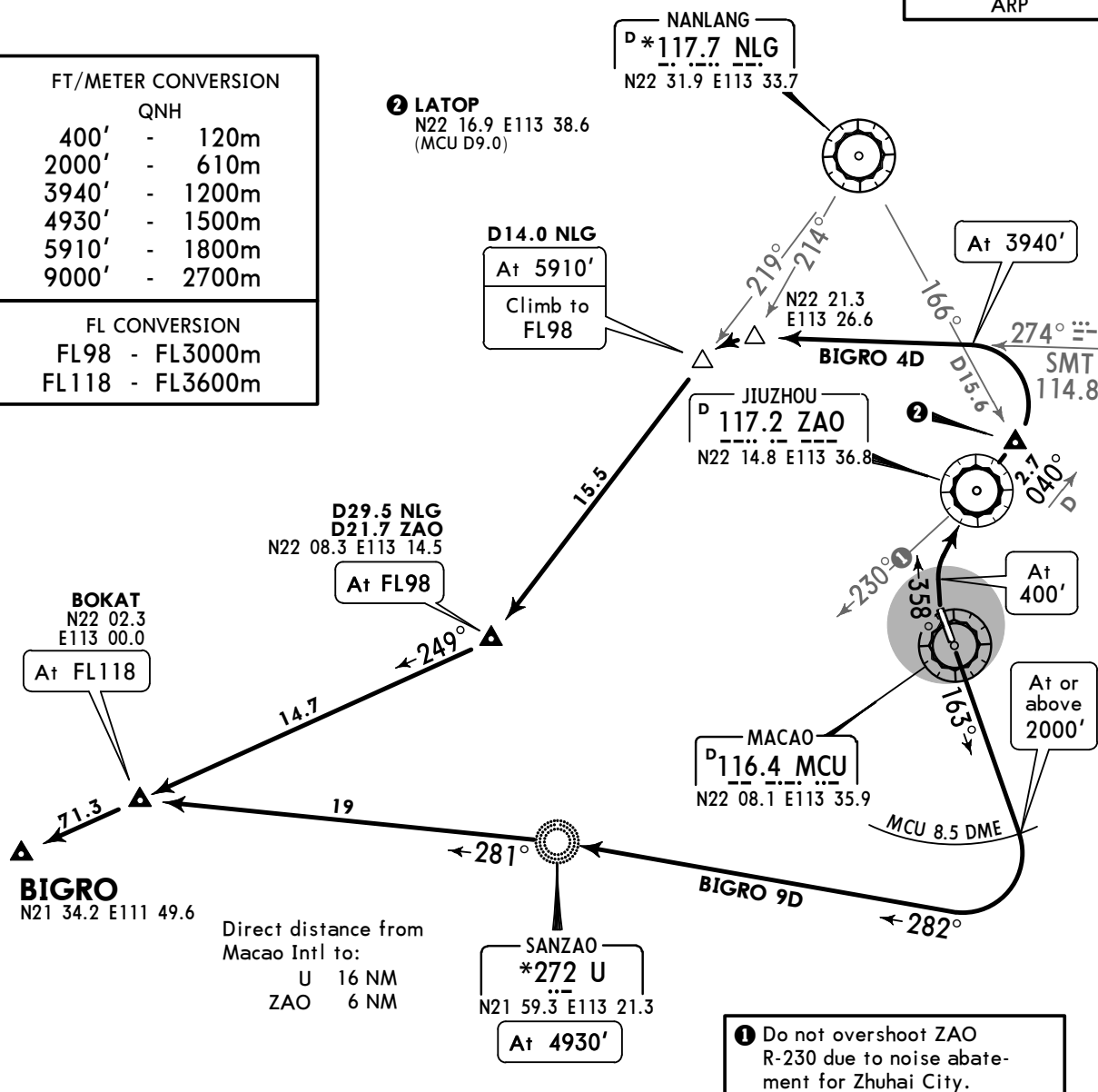
**BIGRO 4D [BIGR4D], BIGRO 9D [BIGR9D]**  
**RWYS 34, 16 DEPARTURES**

**FT/METER CONVERSION**

	QNH
400'	- 120m
2000'	- 610m
3940'	- 1200m
4930'	- 1500m
5910'	- 1800m
9000'	- 2700m

**FL CONVERSION**

FL98	- FL3000m
FL118	- FL3600m



These SIDs require minimum climb gradients of

**BIGRO 4D:** 4.8% until leaving 5910'.

**BIGRO 9D:** 3.8% until leaving 4930'.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458
3.8% V/V (fpm)	289	385	577	770	962	1155

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

SID	RWY	ROUTING
<b>BIGRO 4D</b>	<b>34</b>	Climb on 358° track to 400', turn RIGHT to ZAO, ZAO R-040 to LATOP, turn LEFT, intercept SMT R-274, at NLG R-214 turn LEFT, intercept NLG R-219 to D29.5 NLG/D21.7 ZAO, turn RIGHT, 249° track to BOKAT, to BIGRO.
<b>BIGRO 9D</b> IF MCU U/S REQUEST BIGRO 1D	<b>16</b>	Climb straight ahead, at MCU 8.5 DME turn RIGHT, intercept 282° bearing to U, 281° bearing to BOKAT, turn LEFT, 249° track to BIGRO.

**VMMC/MFM**  
**MACAO INTL**

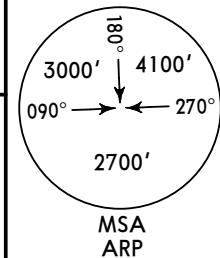
**JEPPESSEN**  
13 MAY 16 **10-3V3** Eff 26 May

**MACAO, PR OF CHINA**

**SID**

Apt Elev  
20'

Trans level: By ATC Trans alt: 9000'



**BIGRO 8D [BIGR8D]**  
**RWY 34 DEPARTURE**  
TO BE USED WHEN ZAO U/S

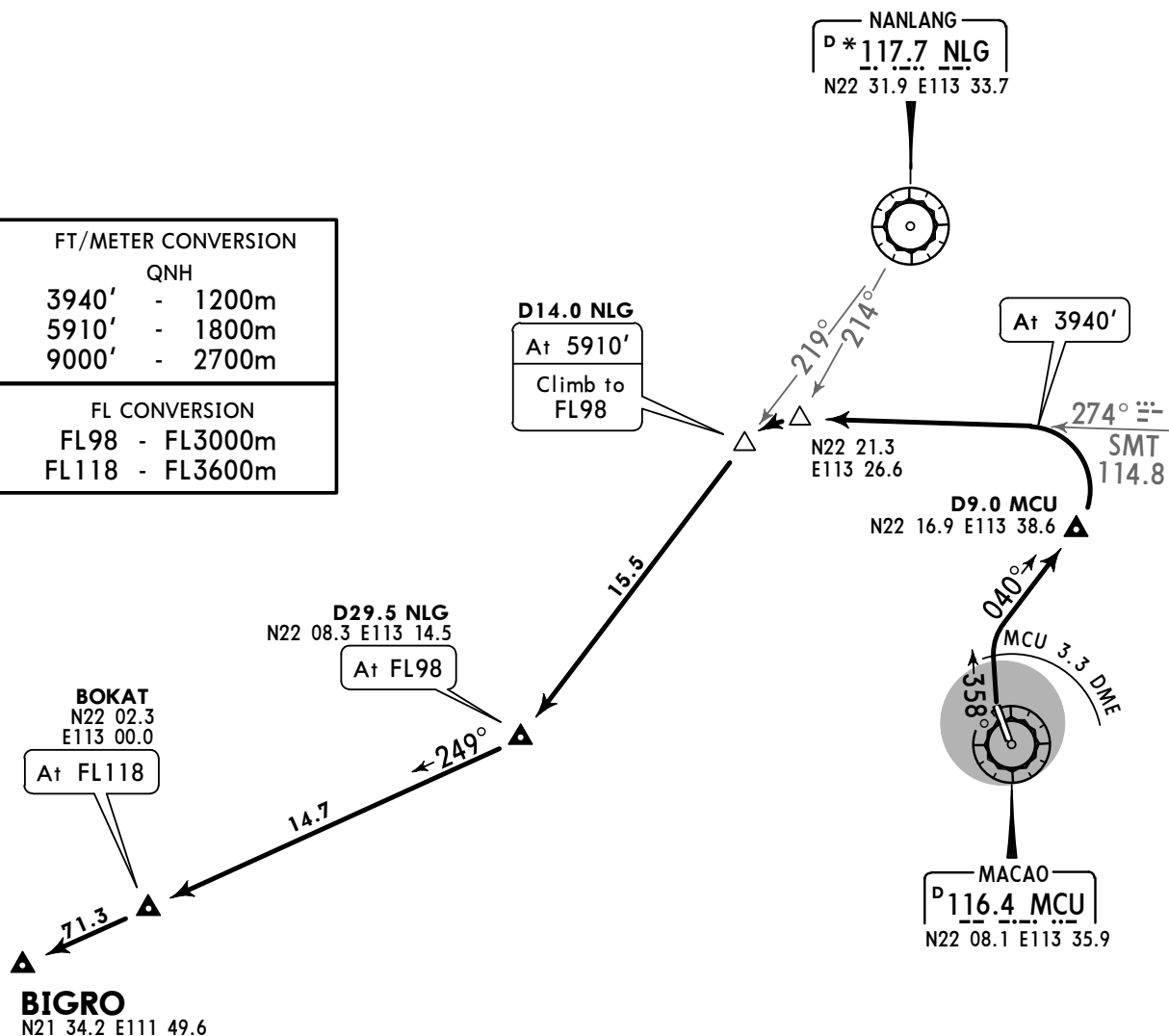
**FT/METER CONVERSION**

QNH

3940' - 1200m  
5910' - 1800m  
9000' - 2700m

**FL CONVERSION**

FL98 - FL3000m  
FL118 - FL3600m



This SID requires a minimum climb gradient  
of  
4.8% until leaving 5910'.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

**ROUTING**

On 358° track, at MCU 3.3 DME turn RIGHT, 040° track to D9.0 MCU, turn LEFT, intercept SMT R-274, at NLG R-214 turn LEFT, intercept NLG R-219 to D29.5 NLG, turn RIGHT, on 249° track to BOKAT, to BIGRO.



VMMC/MFM  
MACAO INTL

JEPPESSEN  
13 MAY 16 10-3V4 Eff 26 May

MACAO, PR OF CHINA

SID

Apt Elev  
20'

Trans level: By ATC Trans alt: 9000'  
Owing to the proximity of Hong Kong Intl airport, pilots departing towards Hong Kong shall follow the SID until LKC. Any deviation could result in direct conflict with Hong Kong traffic.

CONGA 1V [CONG1V]  
CONGA 2W [CONG2W]  
RWY 34 DEPARTURES  
NOT AVAILABLE IF SMT U/S  
**SPEED: MAX 250 KT**  
**BELOW FL110**

FT/METER CONVERSION	
	QNH
400'	- 120m
4000'	- 1220m
5500'	- 1680m
6000'	- 1830m
9000'	- 2700m

COMMS ▼ LOST COMMS

► Comply with last acknowledged clearance up to the next reporting point, then climb to flight planned cruising level and follow the flight planned route to join the appropriate airway.  
▼ LOST COMMS  
SWWOC JSOT SWWOC JSOT SWWOC JSOT

❶ Do not overshoot ZAO R-230 due to noise abatement for Zhuhai City.

Direct distance from Macao Intl to:  
ZAO 6 NM

CONGA  
N21 44.0 E116 47.1  
(TD R-104/D142.3)  
(CH R-102/D156.3)

RASSE  
N21 47.6 E115 19.8  
(TD R-117/D63.9)  
(CH R-111/D76.9)

OCEAN  
N21 48.7 E114 48.8  
(CH R-121/D50.0)

MACAO  
D116.4 MCU  
N22 08.1 E113 35.9

DOCTA  
N21 56.8 E114 00.6  
(LKC R-167/D26.8)

CHEUNG CHAU  
D112.3 CH  
N22 13.2 E114 01.8

TUNG LUNG  
D116.1 TD  
N22 14.9 E114 17.6

SIU MO TO  
D114.8 SMT  
N22 20.3 E113 58.9

LUNG KWU CHAU  
D113.2 LKC  
N22 22.7 E113 53.0

CONGA 1V  
D111.0 SMT  
N22 20.5 E113 52.5

CONGA 2W  
D12.5 MCU  
N22 19.7 E113 41.1

JIUZHOU  
D117.2 ZAO  
N22 14.8 E113 36.8

Further climb when instructed by ATC

At or above 5500'

At 4000'

At 400'

Climb to 4000'

EXPECT to cross at or above FL140

These SIDs require a minimum climb gradient of 5.4% until leaving 5500' due to airspace restrictions.

MAX 205 KT during departure turn until ZAO.

ROUTING

CONGA 1V  
Climb on 358° track to 400', turn RIGHT to ZAO, ZAO R-040 to D16.1 SMT (D12.5 MCU), turn RIGHT, intercept SMT R-274 inbound to SMT, then to TD, then to OCEAN, turn LEFT via RASSE to CONGA, continue on terminal transition routes.

CONGA 2W  
Climb on 358° track to 400', turn RIGHT to ZAO, ZAO R-040 to D16.1 SMT (D12.5 MCU), turn RIGHT, intercept SMT R-274 inbound to D6.0 SMT, turn RIGHT to DOCTA, turn LEFT to OCEAN, turn LEFT via RASSE to CONGA, continue on terminal transition routes.

If ZAO u/s on 358° track to MCU 3.3 DME, turn RIGHT, 040° track to MCU 13.8 DME (SMT 16.2 DME), cross at 4000', turn RIGHT, intercept SMT R-274 inbound and continue on SID.

❷ If TD not available EXPECT RADAR vectors to CONGA.

NOT TO SCALE

Grnd speed-KT 75 100 150 200 250 300

5.4% V/V (fpm) 410 547 820 1094 1367 1641

If unable to comply inform MACAO Ground at first contact.



**VMMC/MFM**  
**MACAO INTL**

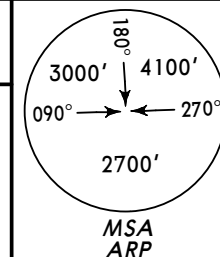
**JEPPESEN**  
24 JAN 14 **(10-3X)** **Eff 6 Feb**

**MACAO, PR OF CHINA**

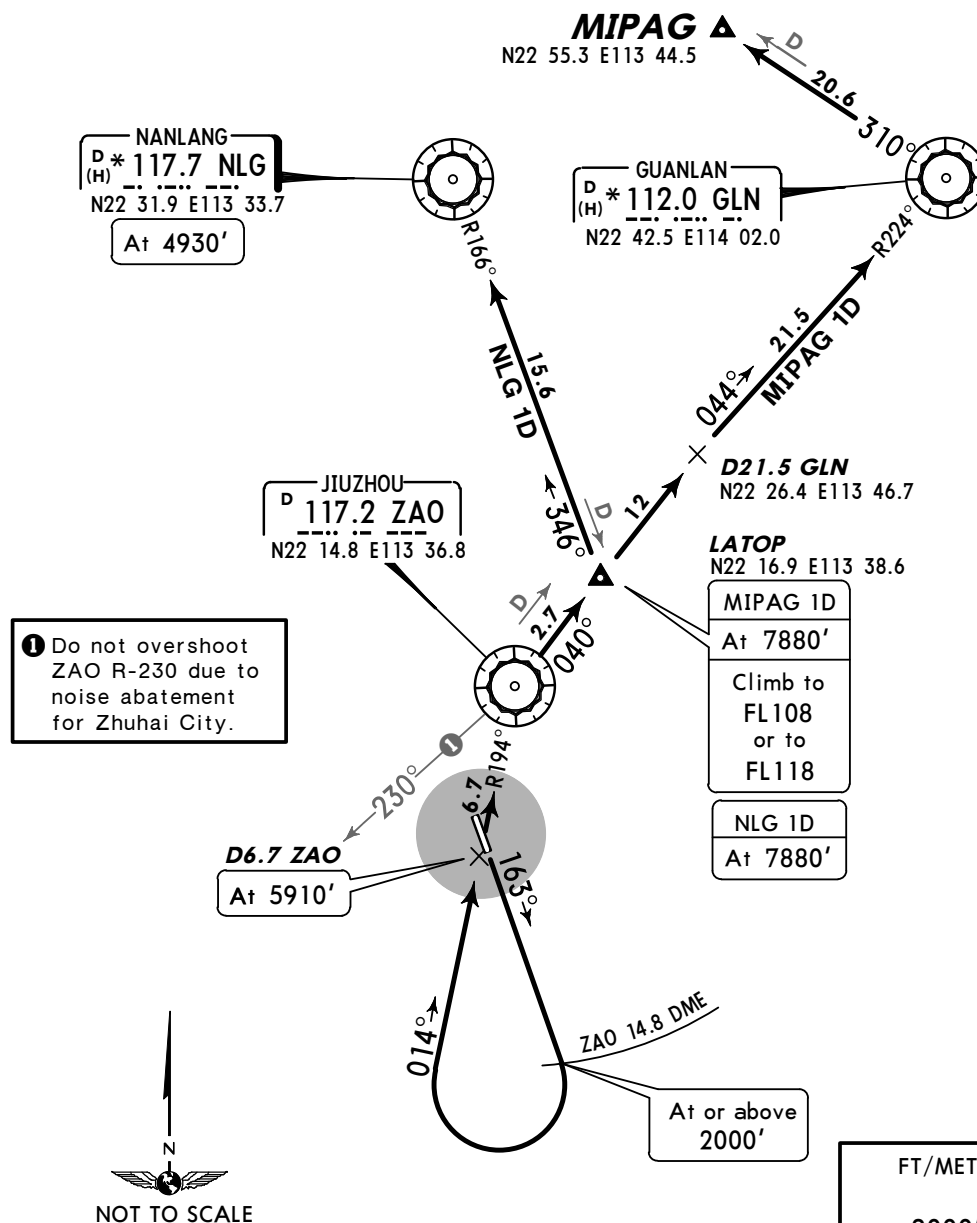
**SID**

Apt Elev  
**20'**

Trans level: By ATC    Trans alt: 9000'



**MIPAG 1D [MIPA1D]**  
**NLG 1D**  
**RWY 16 DEPARTURES**  
TO BE USED WHEN MCU U/S



These SIDs require a minimum climb gradient of 3.8% until reaching 7880'.

Gnd speed-KT	75	100	150	200	250	300
3.8% V/V (fpm)	289	385	577	770	962	1155

If unable to comply inform MACAO Ground at first contact.

**FT/METER CONVERSION**  
QNH

2000'	-	610m
4930'	-	1500m
5910'	-	1800m
7880'	-	2400m
9000'	-	2700m

**FL CONVERSION**

FL108	-	FL3300m
FL118	-	FL3600m

MAX 205 KT during departure turn.

SID	ROUTING
<b>MIPAG 1D</b>	Climb straight ahead, at ZAO 14.8 DME turn RIGHT, intercept ZAO R-194 inbound to ZAO, ZAO R-040 via LATOP to D21.5 GLN, intercept GLN R-224 inbound to GLN, turn LEFT, GLN R-310 to MIPAG.
<b>NLG 1D</b>	Climb straight ahead, at ZAO 14.8 DME turn RIGHT, intercept ZAO R-194 inbound to ZAO, ZAO R-040 to LATOP, turn LEFT, intercept NLG R-166 inbound to NLG.

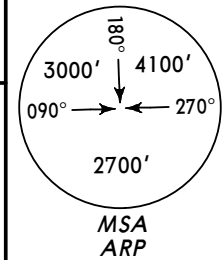
VMMC/MFM  
MACAO INTLJEPPESEN  
24 JAN 14 10-3X1 Eff 6 Feb

MACAO, PR OF CHINA

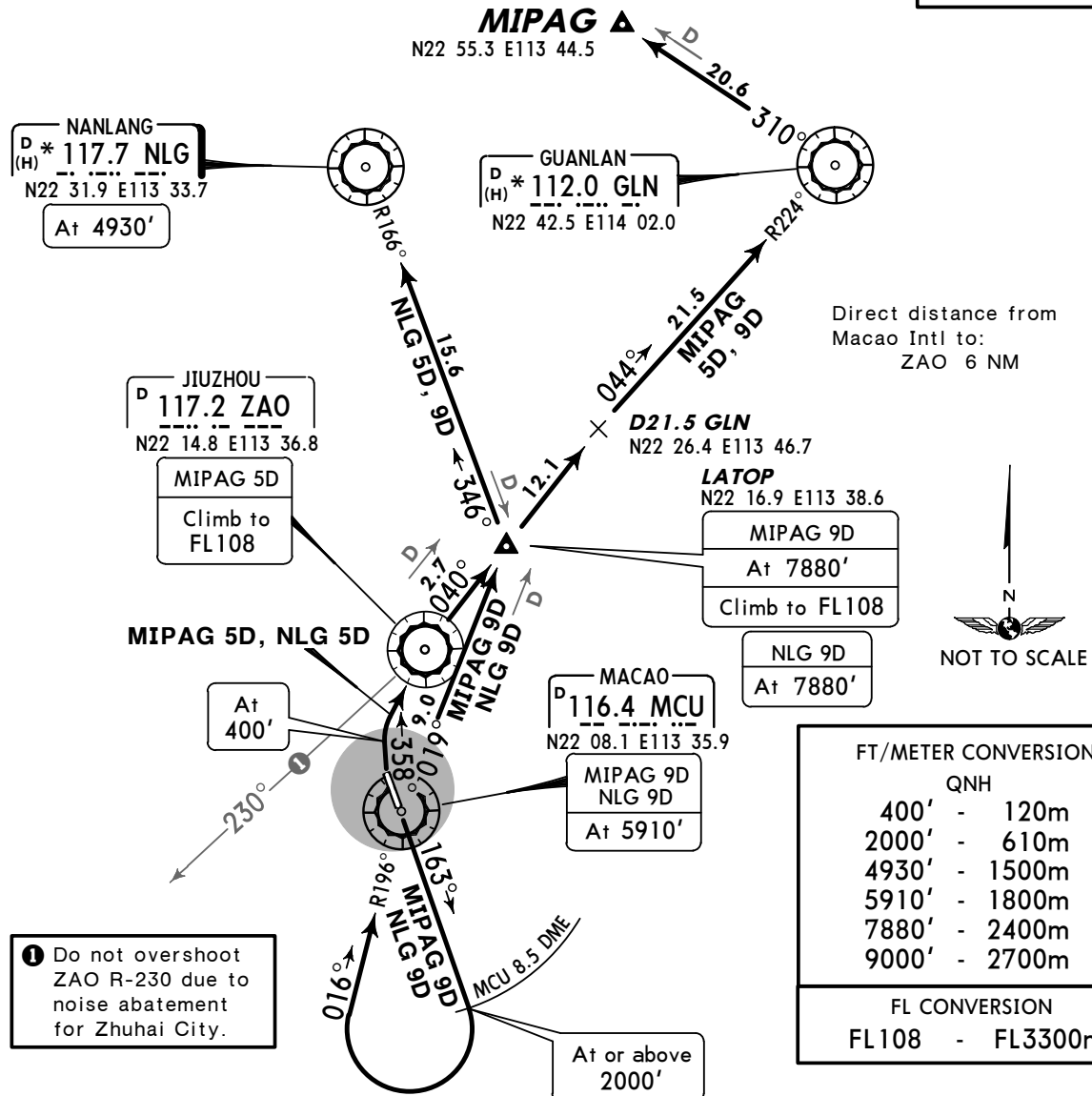
SID

Apt Elev  
20'

Trans level: By ATC Trans alt: 9000'



**MIPAG 5D [MIPA5D], MIPAG 9D [MIPA9D]  
NLG 5D, NLG 9D  
RWYS 34, 16 DEPARTURES**



**1** Do not overshoot ZAO R-230 due to noise abatement for Zhuhai City.

## FT/METER CONVERSION

QNH

400'	-	120m
2000'	-	610m
4930'	-	1500m
5910'	-	1800m
7880'	-	2400m
9000'	-	2700m

## FL CONVERSION

FL 108 - FL3300m

These SIDs require minimum climb gradients of

**MIPAG 5D:** 4.8% until reaching FL108.

**NLG 5D:** 4.8% until reaching 4930'.

**MIPAG 9D, NLG 9D:** 3.8% until reaching 7880'.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458
3.8% V/V (fpm)	289	385	577	770	962	1155

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

SID	RWY	ROUTING
<b>MIPAG 5D</b>	<b>34</b>	Climb on 358° track to 400', turn RIGHT to ZAO, ZAO R-040 to D21.5 GLN, turn RIGHT, intercept GLN R-224 inbound to GLN, turn LEFT, GLN R-310 to MIPAG.
<b>MIPAG 9D</b> IF MCU U/S REQUEST MIPAG 1D	<b>16</b>	Climb straight ahead, at MCU 8.5 DME turn RIGHT, intercept MCU R-196 inbound to MCU, MCU R-019 to LATOP, turn RIGHT, intercept ZAO R-040 to D21.5 GLN, intercept GLN R-224 inbound to GLN, turn LEFT, GLN R-310 to MIPAG.
<b>NLG 5D</b>	<b>34</b>	Climb on 358° track to 400', turn RIGHT to ZAO, ZAO R-040 to LATOP, turn LEFT, intercept NLG R-166 inbound to NLG.
<b>NLG 9D</b> IF MCU U/S REQUEST NLG 1D	<b>16</b>	Climb straight ahead, at MCU 8.5 DME turn RIGHT, intercept MCU R-196 inbound to MCU, MCU R-019 to LATOP, turn LEFT, intercept NLG R-166 inbound to NLG.

CHANGES: MIPAG SIDs established; ZAO DME commissioned.

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**VMMC/MFM**  
**MACAO INTL**

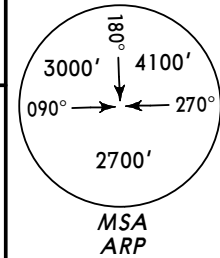
**JEPPESSEN**  
24 JAN 14 **(10-3X2)** **Eff 6 Feb**

**MACAO, PR OF CHINA**

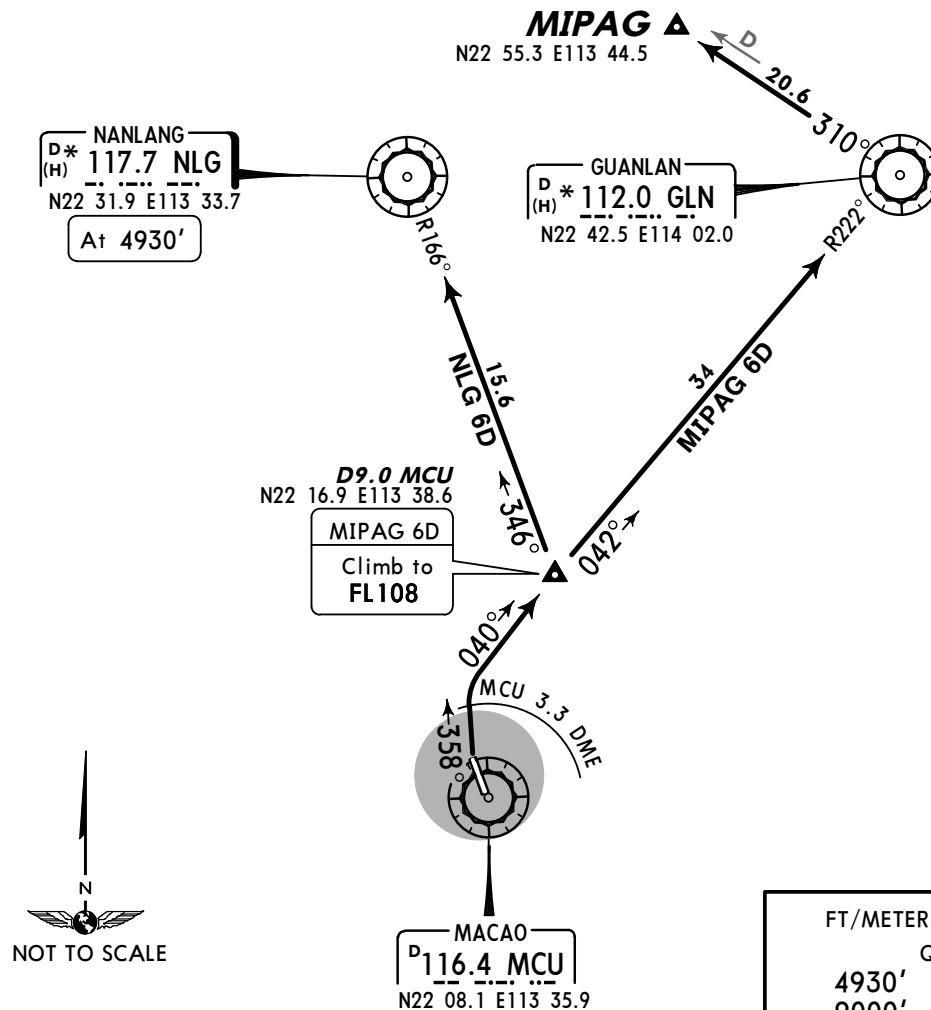
**SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



**MIPAG 6D [MIPA6D]**  
**NLG 6D**  
**RWY 34 DEPARTURES**  
**TO BE USED WHEN ZAO U/S**



FT/METER CONVERSION

QNH

4930' - 1500m

9000' - 2700m

FL CONVERSION

FL108 - FL3300m

These SIDs require a minimum climb gradient of

**MIPAG 6D:** 4.8% until reaching FL108.

**NLG 6D:** 4.8% until reaching 4930'.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

SID	ROUTING
<b>MIPAG 6D</b>	On 358° track, at MCU 3.3 DME turn RIGHT, 040° track to D9.0 MCU, intercept GLN R-222 inbound to GLN, turn LEFT, GLN R-310 to MIPAG
<b>NLG 6D</b>	On 358° track, at MCU 3.3 DME turn RIGHT, 040° track to D9.0 MCU, turn LEFT, intercept NLG R-166 inbound to NLG.

CHANGES: SID MIPAG 6D established.

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**VMMC/MFM**  
**MACAO INTL**

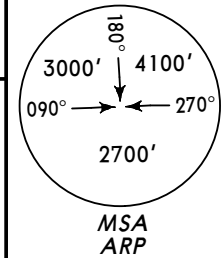
**JEPPESEN**  
24 JAN 14 **10-3X3** **Eff 6 Feb**

**MACAO, PR OF CHINA**

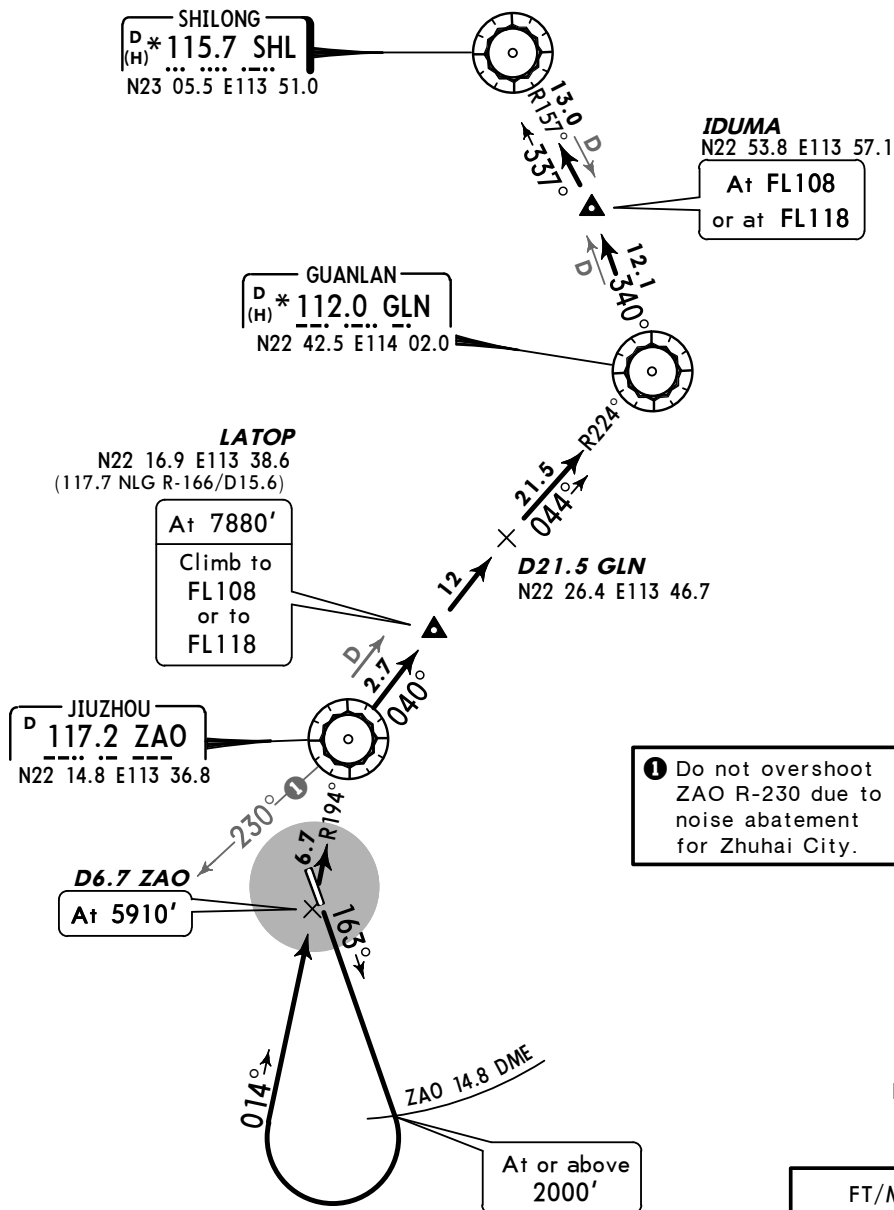
**SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



**SHL 1D**  
**RWY 16 DEPARTURE**  
TO BE USED WHEN MCU U/S



This SID requires a minimum climb gradient of 3.8% until reaching 7880'.

Gnd speed-KT	75	100	150	200	250	300
3.8% V/V (fpm)	289	385	577	770	962	1155

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

**ROUTING**

Climb straight ahead, at ZAO 14.8 DME turn RIGHT, intercept ZAO R-194 inbound to ZAO, ZAO R-040 via LATOP to D21.5 GLN, intercept GLN R-224 inbound to GLN, GLN R-340 to IDUMA, turn LEFT, intercept SHL R-157 inbound to SHL.

FT/METER CONVERSION	
QNH	
2000'	610m
5910'	1800m
7880'	2400m
9000'	2700m

FL CONVERSION	
FL108	FL3300m
FL118	FL3600m

**VMMC/MFM**  
**MACAO INTL**

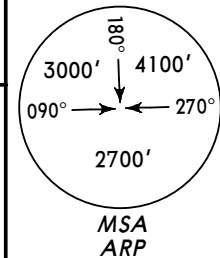
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24 JAN 14 **10-3X4** **Eff 6 Feb**

**MACAO, PR OF CHINA**

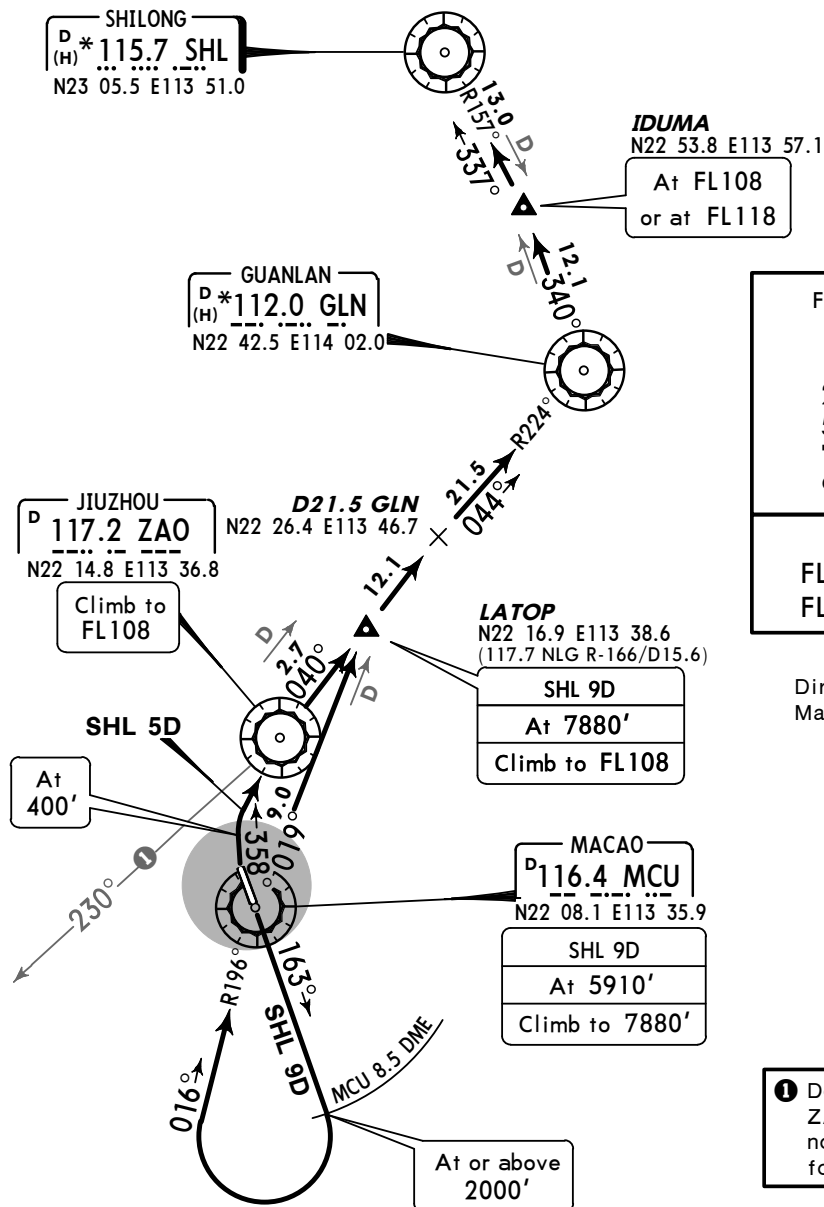
**SID**

Apt Elev  
20'

Trans level: By ATC Trans alt: 9000'



# **SHL 5D, SHL 9D** **RWYS 34, 16 DEPARTURES**



## **FT/METER CONVERSION**

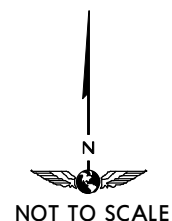
QNH

400'	-	120m
2000'	-	610m
5910'	-	1800m
7880'	-	2400m
9000'	-	2700m

## **FL CONVERSION**

FL108	-	FL3300m
FL118	-	FL3600m

Direct distance from  
Macao Intl to:  
ZAO 6 NM



**1** Do not overshoot  
ZAO R-230 due to  
noise abatement  
for Zhuhai City.

These SIDs require minimum climb gradients  
of

**SHL 5D:** 4.8% until leaving FL108.

**SHL 9D:** 3.8% until leaving 7880'.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458
3.8% V/V (fpm)	289	385	577	770	962	1155

If unable to comply inform MACAO Ground at  
first contact.

MAX 205 KT during departure turn.

SID	RWY	ROUTING
<b>SHL 5D</b>	<b>34</b>	Climb on 358° track to 400', turn RIGHT to ZAO, ZAO R-040 to D21.5 GLN, intercept GLN R-224 inbound to GLN, GLN R-340 to IDUMA, turn LEFT, intercept SHL R-157 inbound to SHL.
<b>SHL 9D</b> IF MCU U/S REQUEST SHL 1D	<b>16</b>	Climb straight ahead, at MCU 8.5 DME turn RIGHT, intercept MCU R-196 inbound to MCU, MCU R-019 to LATOP, turn RIGHT, intercept ZAO R-040 to D21.5 GLN, intercept GLN R-224 inbound to GLN, GLN R-340 to IDUMA, turn LEFT, intercept SHL R-157 inbound to SHL.

**VMMC/MFM**  
**MACAO INTL**

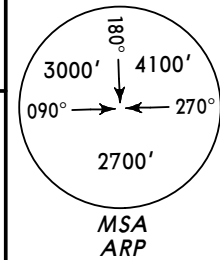
**JEPPESEN**  
24 JAN 14 **10-3X5** **Eff 6 Feb**

**MACAO, PR OF CHINA**

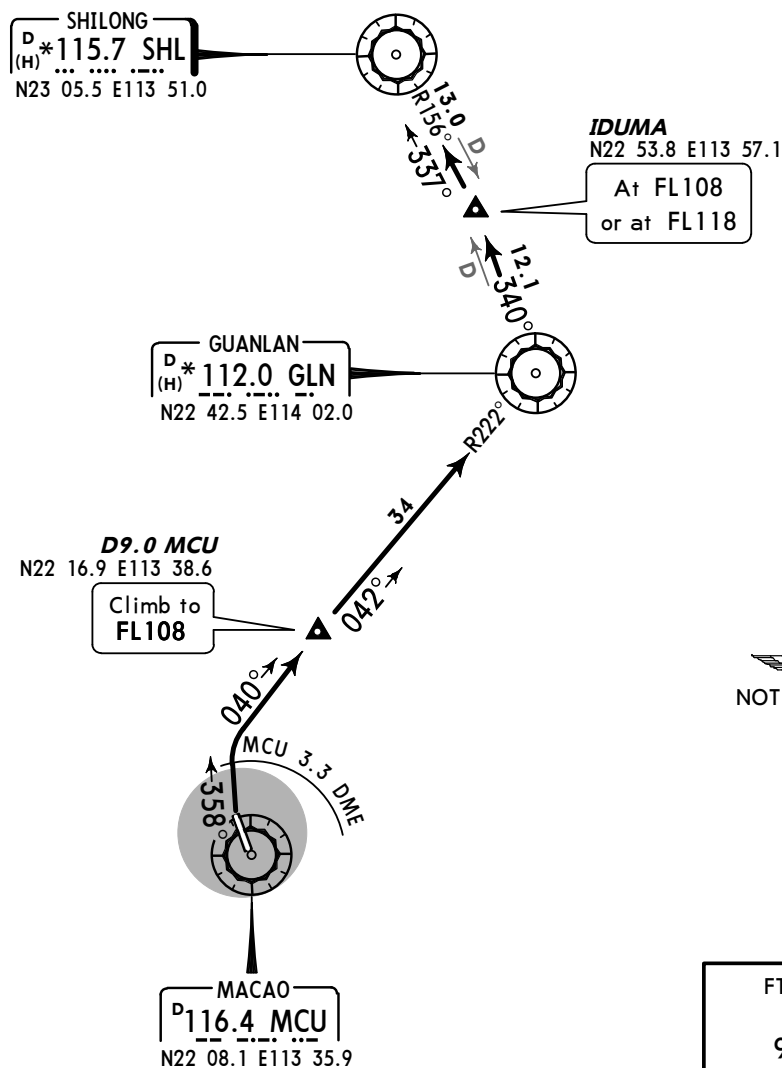
**SID**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'



**SHL 6D**  
**RWY 34 DEPARTURE**  
TO BE USED WHEN ZAO U/S



FT/METER CONVERSION  
QNH  
9000' - 2700m

FL CONVERSION  
FL108 - FL3300m  
FL118 - FL3600m

This SID requires a minimum climb gradient of 4.8% until leaving FL108.

Gnd speed-KT	75	100	150	200	250	300
4.8% V/V (fpm)	365	486	729	972	1215	1458

If unable to comply inform MACAO Ground at first contact.

MAX 205 KT during departure turn.

**ROUTING**

On 358° track, at MCU 3.3 DME turn RIGHT, 040° track to D9.0 MCU, intercept GLN R-222 inbound to GLN, GLN R-340 to IDUMA, turn LEFT, intercept SHL R-156 inbound to SHL.



**VMMC/MFM**  
**MACAO INTL**

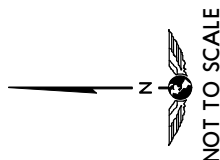
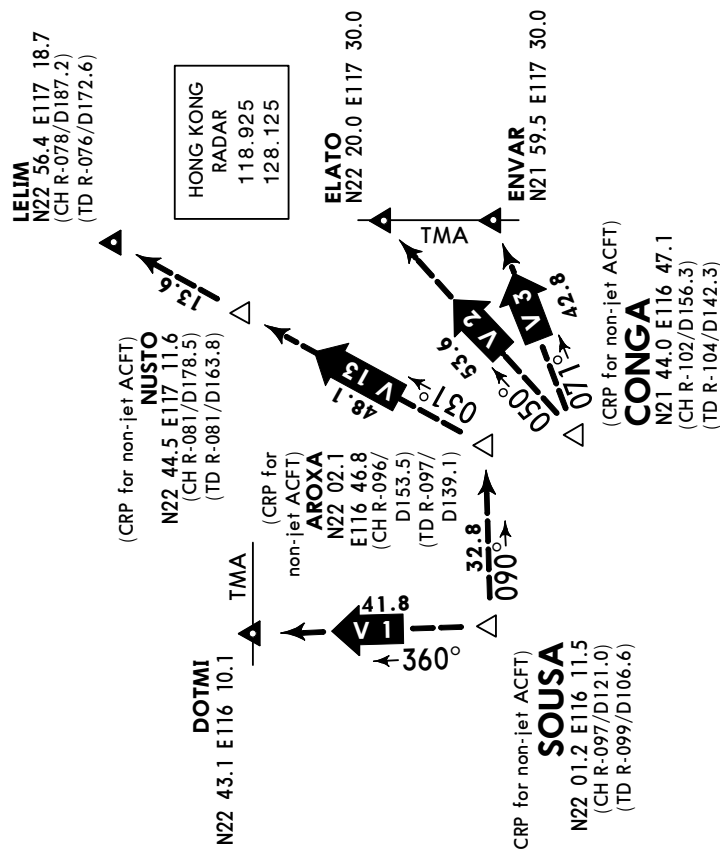
**JEPPESEN**  
1 JAN 16 **10-3X7** Eff 7 Jan

**MACAO, PR OF CHINA**  
**TERMINAL TRANSITION ROUTE**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'

# **TERMINAL TRANSITION ROUTES** **V1, V2, V3, V13**



CHEUNG CHAU  
N22 13.2 E114 01.8

TUNG LUNG  
N22 14.9 E114 17.6

Aircraft leaving HONG KONG FIR via terminal transition route V13 are required to reach assigned cruising level at or before AROXA.

Aircraft are required to reach assigned cruising level at or before TMA boundary as indicated below:

TMA Exit Point	Specified Location
DOTMI	SOUSA (41.8 NM before DOTMI)
ELATO	20 NM before ELATO
ENVAR	ENVAR

**VMMC/MFM**  
**MACAO INTL**

**JEPPesen**  
1 JAN 16 **(10-3X8)** Eff 7 Jan

**MACAO, PR OF CHINA**  
**TERMINAL TRANSITION ROUTE**

Apt Elev  
**20'**

Trans level: By ATC Trans alt: 9000'

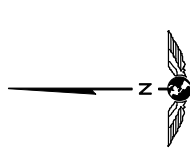
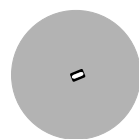
# **TERMINAL TRANSITION ROUTES** **V4, V5, V10, V31, V32**

Aircraft are required to reach assigned  
cruising level at or before TMA boundary  
as indicated below:

TMA Exit Point	Specified Location
EPDOS	SURFA (22.7 NM before IDOSI)
IDOSI	NOMAN 20 NM before NOMAN
NOMAN	SABNO 20 NM before SABNO
SABNO	DONKI (40.7 NM before SIKOU)
SIKOU	

**TUNG LUNG**  
D 116.1 TD  
N22 14.9 E114 17.6

**CHEUNG CHAU**  
D 112.3 CH  
N22 13.2 E114 01.8

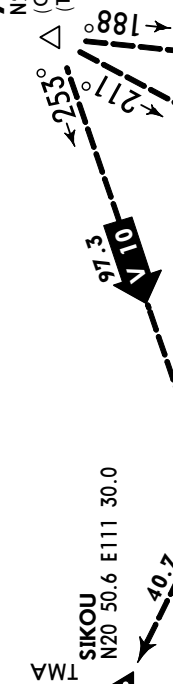


NOT TO SCALE

(CRP for non-jet ACFT)

**ALLEY**

N21 05.2 E113 47.2  
(CH R-193/D69.1)  
(TD R-204/D75.0)



(CRP for non-jet ACFT)

**DONKI**

N20 33.0 E112 09.2  
(CH R-229/D145)  
(TD R-232/D157.1)

(CRP for non-jet ACFT)

**SURFA**

N19 18.9 E112 44.2  
(CH R-205/D188.8)  
(TD R-209/D196.5)

(CRP for non-jet ACFT)

**V32**

N21 05.2 E113 47.2  
(CH R-193/D69.1)  
(TD R-204/D75.0)

(CRP for non-jet ACFT)

**V31**

N21 05.2 E113 47.2  
(CH R-193/D69.1)  
(TD R-204/D75.0)

(CRP for non-jet ACFT)

**V5**

N20 50.7 E115 57.0  
(CH R-129/D135.2)  
(TD R-134/D125.0)

(CRP for non-jet ACFT)

**V4**

N20 50.7 E115 57.0  
(CH R-129/D135.2)  
(TD R-134/D125.0)

(CRP for non-jet ACFT)

**NOMAN**

N20 00.0 E116 40.3

(CRP for non-jet ACFT)

**SABNO**

N18 59.1 E115 50.7

(CRP for non-jet ACFT)

**EPDOS**

N19 00.0 E113 33.3

(CRP for non-jet ACFT)

**IDOSI**

N19 00.0 E112 30.0

(CRP for non-jet ACFT)

**NOMAN**

N20 00.0 E116 40.3

(CRP for non-jet ACFT)

**SABNO**

N18 59.1 E115 50.7

(CRP for non-jet ACFT)

**EPDOS**

N19 00.0 E113 33.3

(CRP for non-jet ACFT)

**IDOSI**

N19 00.0 E112 30.0

(CRP for non-jet ACFT)

**NOMAN**

N20 00.0 E116 40.3

(CRP for non-jet ACFT)

**SABNO**

N18 59.1 E115 50.7

(CRP for non-jet ACFT)

**EPDOS**

N19 00.0 E113 33.3

(CRP for non-jet ACFT)

**IDOSI**

N19 00.0 E112 30.0

(CRP for non-jet ACFT)

**NOMAN**

N20 00.0 E116 40.3

(CRP for non-jet ACFT)

**SABNO**

N18 59.1 E115 50.7

(CRP for non-jet ACFT)

**EPDOS**

N19 00.0 E113 33.3

(CRP for non-jet ACFT)

**IDOSI**

N19 00.0 E112 30.0

(CRP for non-jet ACFT)

**NOMAN**

N20 00.0 E116 40.3

(CRP for non-jet ACFT)

**SABNO**

N18 59.1 E115 50.7

(CRP for non-jet ACFT)

**EPDOS**

N19 00.0 E113 33.3

(CRP for non-jet ACFT)

**IDOSI**

N19 00.0 E112 30.0

(CRP for non-jet ACFT)

**NOMAN**

N20 00.0 E116 40.3

(CRP for non-jet ACFT)

**SABNO**

N18 59.1 E115 50.7

**HONG KONG  
RADAR**  
128.75  
132.15

**HONG KONG  
RADAR**  
126.3  
132.6

**VMMC/MFM**

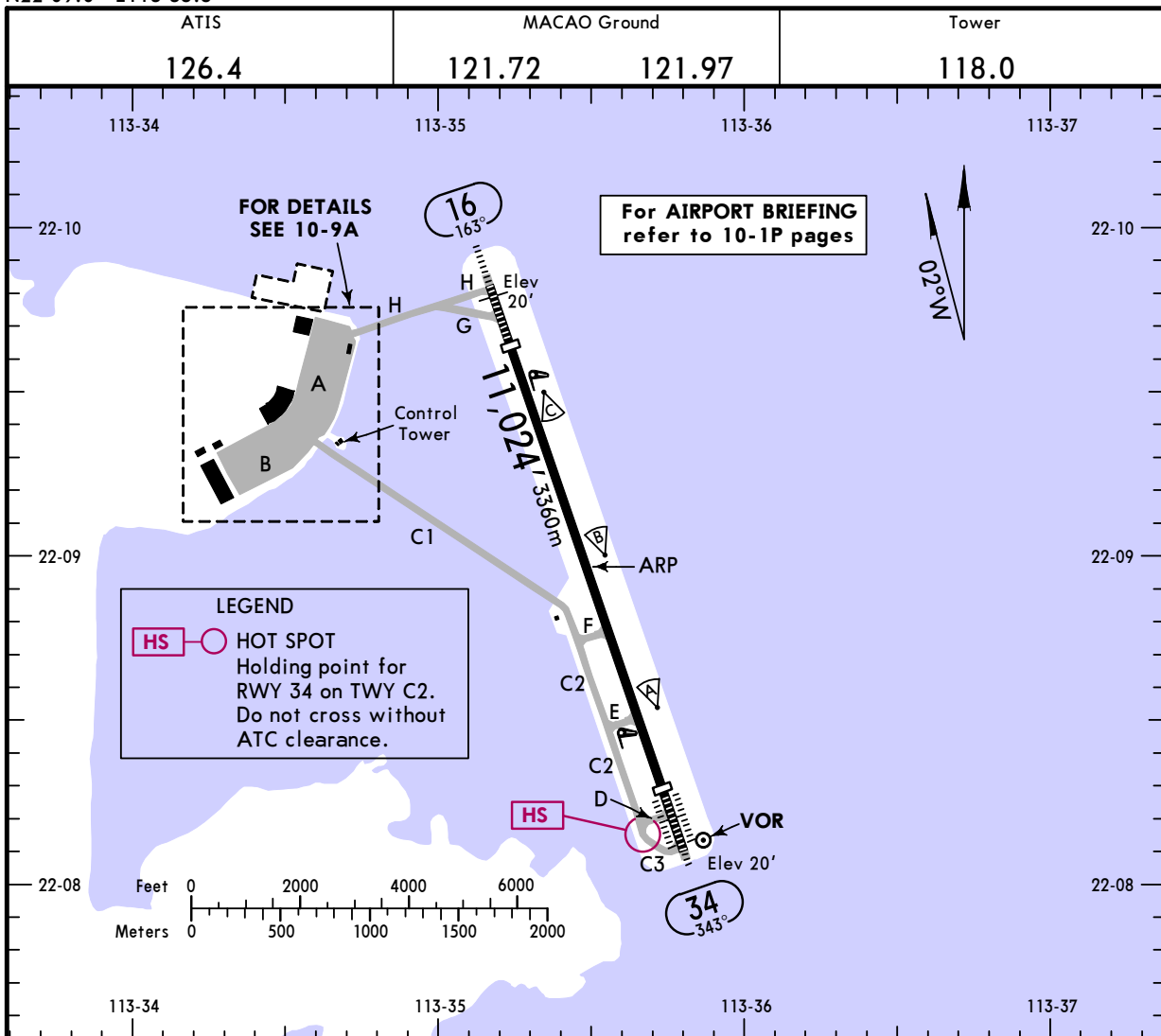
Apt Elev **20'**  
N22 09.0 E113 35.5

**JEPPesen**

17 FEB 17 **(10-9)** Eff 2 Mar

**MACAO, PR OF CHINA**

**MACAO INTL**



**ADDITIONAL RUNWAY INFORMATION**

RWY		RVR	USABLE LENGTHS		TAKE-OFF	WIDTH
			Threshold	Landing Beyond Glide Slope		
16	HIRL ① CL ② HIALS PAPI (3.0°)	RVR	9400' 2865m		③ ④	148'
34	HIRL ① CL ② HIALS SFL TDZ PAPI-R (3.0°)	RVR	9613' 2930m	8580' 2615m		45m

① spacing 60m.

② spacing 30m.

③ TAKE-OFF RUN AVAILABLE

RWY 16:

From rwy head 10,581' (3225m)

twy G int 10,105' (3080m)

RWY 34:

From rwy head 10,827' (3300m)

twy D int 10,171' (3100m)

twy E int 8301' (2530m)

twy F int 6611' (2015m)

④ Additional 197'/60m available as stopway.

**TAKE-OFF**

**AIR CARRIER  
All Rwys**

**LVP must be in force**

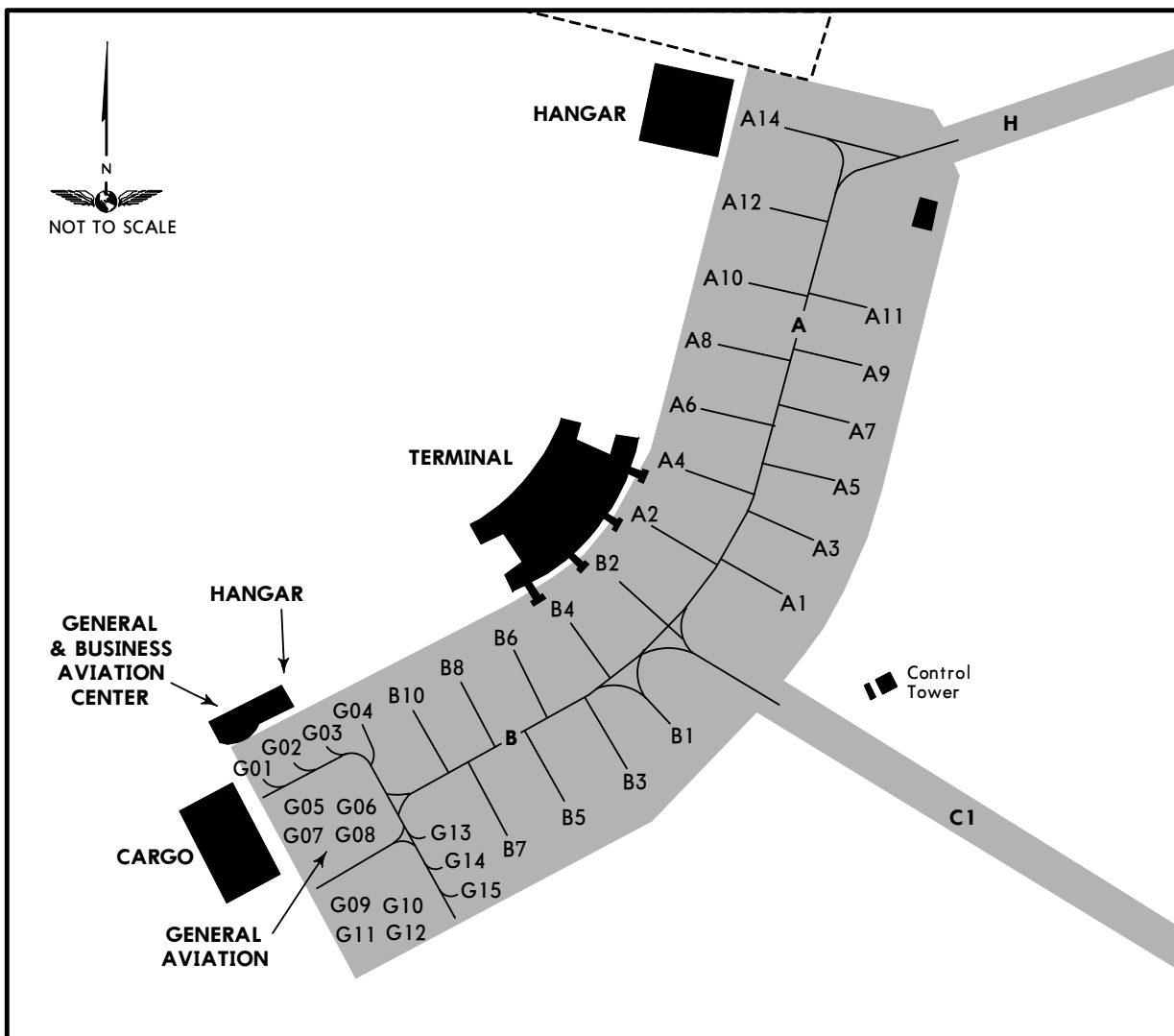
	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL
A			
B	200m (175m)	250m	400m
C			
D	250m (200m)	300m	

VMMC/MFM

**JEPPESEN**  
17 FEB 17 **(10-9A)** Eff 2 Mar

MACAO, PR OF CHINA

MACAO INTL



**INS COORDINATES**

STAND No.	COORDINATES	STAND No.	COORDINATES
A1	N22 09.4 E113 34.6	B8	N22 09.4 E113 34.4
A2	N22 09.4 E113 34.5	B10	N22 09.3 E113 34.4
A3	N22 09.4 E113 34.6	G01 thru G08	N22 09.3 E113 34.3
A4	N22 09.4 E113 34.5	G09	N22 09.2 E113 34.3
A5	N22 09.5 E113 34.7	G10 thru G12	N22 09.2 E113 34.4
A6	N22 09.5 E113 34.5	G13	N22 09.3 E113 34.4
A7	N22 09.5 E113 34.7	G14, G15	N22 09.2 E113 34.4
A8	N22 09.6 E113 34.6		
A9	N22 09.5 E113 34.7		
A10	N22 09.6 E113 34.6		
A11	N22 09.6 E113 34.7		
A12	N22 09.6 E113 34.6		
A14	N22 09.7 E113 34.6		
B1	N22 09.3 E113 34.6		
B2	N22 09.4 E113 34.5		
B3	N22 09.3 E113 34.5		
B4	N22 09.4 E113 34.5		
B5	N22 09.3 E113 34.5		
B6	N22 09.4 E113 34.4		
B7	N22 09.2 E113 34.4		



**VMMC/MFM** **JEPPesen**  
9 MAR 12 **(10-9B)****MACAO, PR OF CHINA**  
**MACAO INTL****ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (AVDGS)****1. START-OF-DOCKING**

The system is started by pressing one of the aircraft type buttons on the operator panel. When the button has been pressed, "WAIT" will be displayed.

**2. CAPTURE**

The floating arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft.

It shall be checked that the correct aircraft type is displayed. The lead-in line shall be followed.

THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE, UNLESS THE ARROWS HAVE BEEN SUPERSEDED BY THE CLOSING RATE BAR.

**3. TRACKING**

When the aircraft has been caught by the laser, the floating arrow is replaced by the yellow centerline indicator.

A flashing red arrow indicates the direction to turn.

The vertical yellow arrow shows position in relation to the centerline. This indicator gives correct position and azimuth guidance.

**4. CLOSING RATE**

The closing rate is the final countdown from a specific distance to the stop position. A yellow vertical closing rate bar/centerline indicator appears with or without a digital countdown, depending on the configuration.

The closing rate bar represents the distance from stop, it consists of a number of rows representing 2'/0.5m per row. Each row turns off as the aircraft approaches stop (reducing the length of the bar, bottom upwards) and as the last row turns off, less than the interval for one row remains until "STOP" appears.

A digital countdown shows the distance to stop numerically, starting from 98'/30m.

The digital countdown also uses different decrements during the closing rate process.

Metric digital count starting with 3'/1m decrements from 98'/30m down to 7'/2m followed by 1'/0.2m decrements from 7'/2m down to 1'/0.2m and then followed by "STOP".

The pictures illustrate aircraft in the closing rate distance from stop position, slightly left of the center line. The red arrow indicates the direction to steer.

**5. ALIGNED TO CENTER**

The aircraft is at the displayed distance from the stop position. The absence of any direction arrow indicates an aircraft on the centerline.

**6. SLOW DOWN (DECREASE SPEED)**

AVDGS is configured with a slowdown active zone (distances set from the stop position, between 20'/6m to 79'/24m) according to an acceptable docking speed (max allowed speed, 7'/2m/s).

Note: When 7'/2m/s is rounded down to a single digit, it is approximately 7 km/h, 4 mph or 3 knots.

If the aircraft is approaching faster than the accepted speed, the system will show "SLOW" or "SLOW DOWN" as a warning to the pilots.

**7. AZIMUTH GUIDANCE**

The aircraft is at the displayed distance from the stop-position. The yellow arrow indicates an aircraft to the right of the centerline, and the red flashing arrow indicates the direction to turn.

**8. STOP POSITION REACHED**

When the correct stop-position is reached, the display will show "STOP" with a red border or with red lights.

**9. DOCKING COMPLETED**

When the aircraft has parked, "OK" will be displayed.

**10. CHOCK ON**

"CHOCK ON" will be displayed, when the ground staff has put the chocks in front of the nose wheel and press the Chocks On button on the Operator Panel.

**11. STOP SHORT**

If the aircraft is found standing still but has not reached the intended stop position, the message "STOP OK" will be shown after a pre-configured time.

**12. WAIT**

If some object is blocking the view toward the approaching aircraft or the detected aircraft is lost during docking close to "STOP", the display will show "WAIT".

The docking will continue as soon as the blocking object has disappeared or the system detects the aircraft again.

THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE, UNLESS THE "WAIT" MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.

**VMMC/MFM****JEPPESEN**  
9 MAR 12 **10-9C****MACAO, PR OF CHINA**  
**MACAO INTL****13. SLOW (IN ABNORMAL SITUATIONS)**

This display can be shown for two reasons:

**A) BAD WEATHER CONDITION**

During heavy fog, rain or snow, the visibility for the docking system can be reduced. When the system is activated and in capture mode, the display will disable the floating arrows and display "SLOW" and the aircraft Type.

As soon as the system detects the approaching aircraft, the vertical closing rate bar will appear.

If the system has been configured in this mode to make a shortened ID verification (check of engine position excluded), the aircraft symbol will blink to give attention.

**B) AIRCRAFT LOST DURING DOCKING**

If the aircraft is lost during docking far out from the bridge or PBB area, the display will show "SLOW". As soon as the system detects the approaching aircraft, the vertical closing rate bar will re-appear.

THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE, UNLESS THE CLOSING RATE BAR IS SHOWN.

**14. AIRCRAFT VERIFICATION FAILURE**

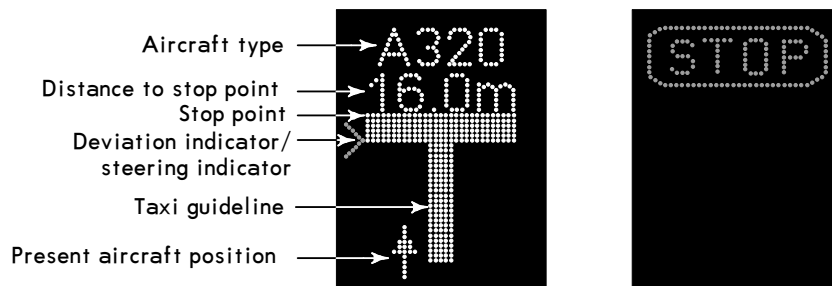
During entry into the stand, the aircraft geometry is being checked.

If, for any reason, aircraft verification is not made 39'/12m before the stop-position, the display will first show "WAIT" and make a second verification check. If this fails "STOP" and "ID FAIL" will be displayed.

THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE WITHOUT MANUAL GUIDANCE, UNLESS THE WAIT MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.

**15. TOO FAST**

If the aircraft approaches with a speed higher than the docking system can handle, the message "STOP TOO FAST" will be displayed. The docking system must be re-started or the docking procedure completed by manual guidance.

**DISPLAY OF IMAGES AND FUNCTIONS ON THE PANEL****Examples:**

Depending on the system type, displays can be slightly different or additional.

VMMC/MFM

17 FEB 17

**JEPPESEN**

(10-9D)

Eff 2 Mar

**MACAO, PR OF CHINA**  
MACAO INTL**COLOR-CODED PUSHBACK PROCEDURES**

STAND NUMBER	RWY 16/34 DEPARTURE	
	Normal pushback and start-up	Pushback after engine start-up
A1 thru A12, A14, B1 thru B6, B8	BLUE	BLUE
B7, B10	GREEN	GREEN/PINK
G01 thru G15	FOLLOW BREAKAWAY POINT X, Y OR Z	NOT AUTHORIZED

COLOR CODE	DETAILED DESCRIPTION
BLUE	Aircraft pushback facing South or North depending on Runway-in-use. If necessary, special instruction will be issued by Control Tower. Startup can be commenced after the engines cross the white taxi line protection.
GREEN	Pushback of aircraft on B7 or B10 in normal situation shall be done by pushing the aircraft tail towards GAP, and then towed forward until breakaway point 1 for aircraft with wingspan less than 118'/36m (narrow body), and breakaway point 2 for aircraft with wingspan more than 118'/36m (wide body). Breakaway point 2 also applies for aircraft with APU problem on B7 or B10, and requires starting up engine on stand while no aircraft is parked on G05 thru G08.  <b>Except for startup on stands due to APU problem, other startup can only be commenced when the pushback finishes at breakaway point.</b>
PINK	The pink procedure requires pushing the aircraft tail towards North until either the beginning of Taxiway C1 for Rwy 16 departure or taxiway A for Rwy 34 departure. Except for startup on stands due to APU problem, other startup can only be commenced when the pushback finishes. The procedure applies for pushback of aircraft with APU problem, which requires to start up engine on stand B7 or B10 while aircraft is parked on G05 thru G08.

**Remarks**

- For aircraft parked on stands B1 and B3, no simultaneous pushback is allowed.
- For aircraft start-up on the stand, coordination shall be done in advance among ATC, Pilot and AOCC (for follow-me to inspect the surrounding area of the aircraft involved) in order to guarantee ground safety.
- The breakaway point 1 mentioned above is the one at B7 and breakaway point 2 is the one between B5 and B7.
- For blue procedure, the color code may be omitted in the air-ground communication between ATC and pilot.

VMC/MFM

17 FEB 17 **JEPPESEN**  
**10-9E** **Eff 2 Mar****MACAO, PR OF CHINA**  
**MACAO INTL****G01 thru G15 PUSHBACK/TOW PROCEDURES**

<b>AIRCRAFT STAND</b>	<b>After pushback/towing nose wheel on breakaway point</b>
G01 thru G06	X
G07 thru G10	Y
G11 thru G15	Z

**Remarks**

-All GA arrivals will be guided by follow-me to the designated aircraft stands.

-The breakaway points are located on the taxilane centre line:  
X behind G03, Y ahead of G10 and Z behind G13.

-NO simultaneous pushback/tow operations on breakaway points  
Y and Z are allowed.

-NO engine start up on stand before pushback/tow is allowed.  
Exception can be considered for aircraft parked on G06, G08, G10  
or G13 with coordination made in advance among AOCC,  
Ground Handling Agent (GHA), pilot and ATC.

**VMMC/MFM**

**JEPPESEN**  
 13 SEP 13  
 Eff 19 Sep **10-9S**
**Standard**  
**MACAO, PR OF CHINA**  
**MACAO INTL**

STRAIGHT-IN RWY		A	B	C	D
<b>16</b>	LOC ❶	<b>720'</b> (700') <b>V3600m</b>	<b>720'</b> (700') <b>V3600m</b>	<b>720'</b> (700') <b>V3600m</b>	<b>720'</b> (700') <b>V3600m</b>
	RNAV (LNAV) ❶ ❷	<b>970'</b> (950') <b>V5000m</b>	<b>970'</b> (950') <b>V5000m</b>	<b>970'</b> (950') <b>V5000m</b>	<b>970'</b> (950') <b>V5000m</b>
<b>34</b>	CAT 2 ILS ❸	<b>120'</b> (100') <b>RA 100' R350m</b>	<b>120'</b> (100') <b>RA 100' R350m</b>	<b>120'</b> (100') <b>RA 100' R350m</b>	<b>120'</b> (100') <b>RA 100' R350m</b>
	ILS ❸	<b>220'</b> (200') <b>V800m</b>	<b>220'</b> (200') <b>V800m</b>	<b>220'</b> (200') <b>V800m</b>	<b>220'</b> (200') <b>V800m</b>
	ALS out	1200m	1200m	1200m	1200m
	LOC ❶ ❸	<b>310'</b> (290') <b>V1200m</b>	<b>310'</b> (290') <b>V1200m</b>	<b>310'</b> (290') <b>V1200m</b>	<b>310'</b> (290') <b>V1600m</b>
	ALS out	1400m	1400m	1400m	V1600m
	RNAV (LNAV/VNAV) ❸	<b>540'</b> (520') <b>V2700m</b>	<b>540'</b> (520') <b>V2700m</b>	<b>540'</b> (520') <b>V2700m</b>	<b>540'</b> (520') <b>V2700m</b>
	RNAV (LNAV) ❶ ❸	<b>570'</b> (550') <b>V2900m</b>	<b>570'</b> (550') <b>V2900m</b>	<b>570'</b> (550') <b>V2900m</b>	<b>570'</b> (550') <b>V2900m</b>
	VOR ❶ ❸	<b>550'</b> (530') <b>V2000m</b>	<b>550'</b> (530') <b>V2000m</b>	<b>550'</b> (530') <b>V2400m</b>	<b>550'</b> (530') <b>V3200m</b>

❶ Continuous Descent Final Approach.

❷ Missed apch climb gradient mim 3.0% up to 5500'.

❸ Missed apch climb gradient mim 5.4% up to 5500'.

CIRCLE-TO-LAND ❹	100 KT	135 KT	160 KT	D
WITH PRESCRIBED FLIGHT TRACKS TO RWY 16	<b>660'</b> (640') ceil1500' V6000m	<b>770'</b> (750') ceil1500' V6000m	<b>870'</b> (850') ceil1500' V6000m	NOT APPLICABLE

❹ After apch to rwy 16: NOT APPLICABLE.

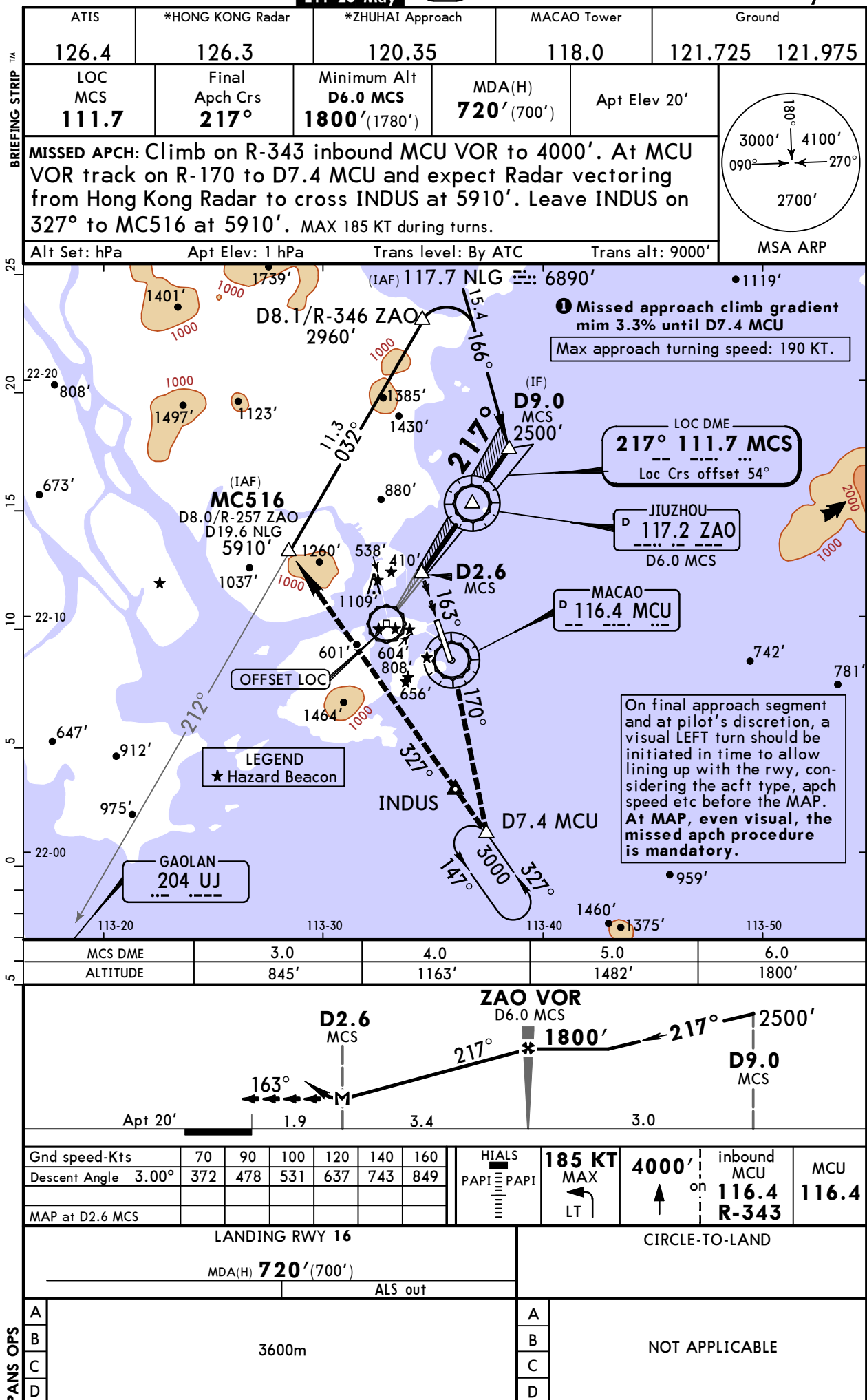
**TAKE-OFF RWY 16, 34**

LVP must be in Force				
RL, CL & mult. RVR required	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A				
B	175m	200m	250m	400m
C				500m
D	200m	250m	300m	

**VMMC/MFM**  
**MACAO INTL**

**JEPPesen**  
13 MAY 16  
Eff 26 May **(11-1)**

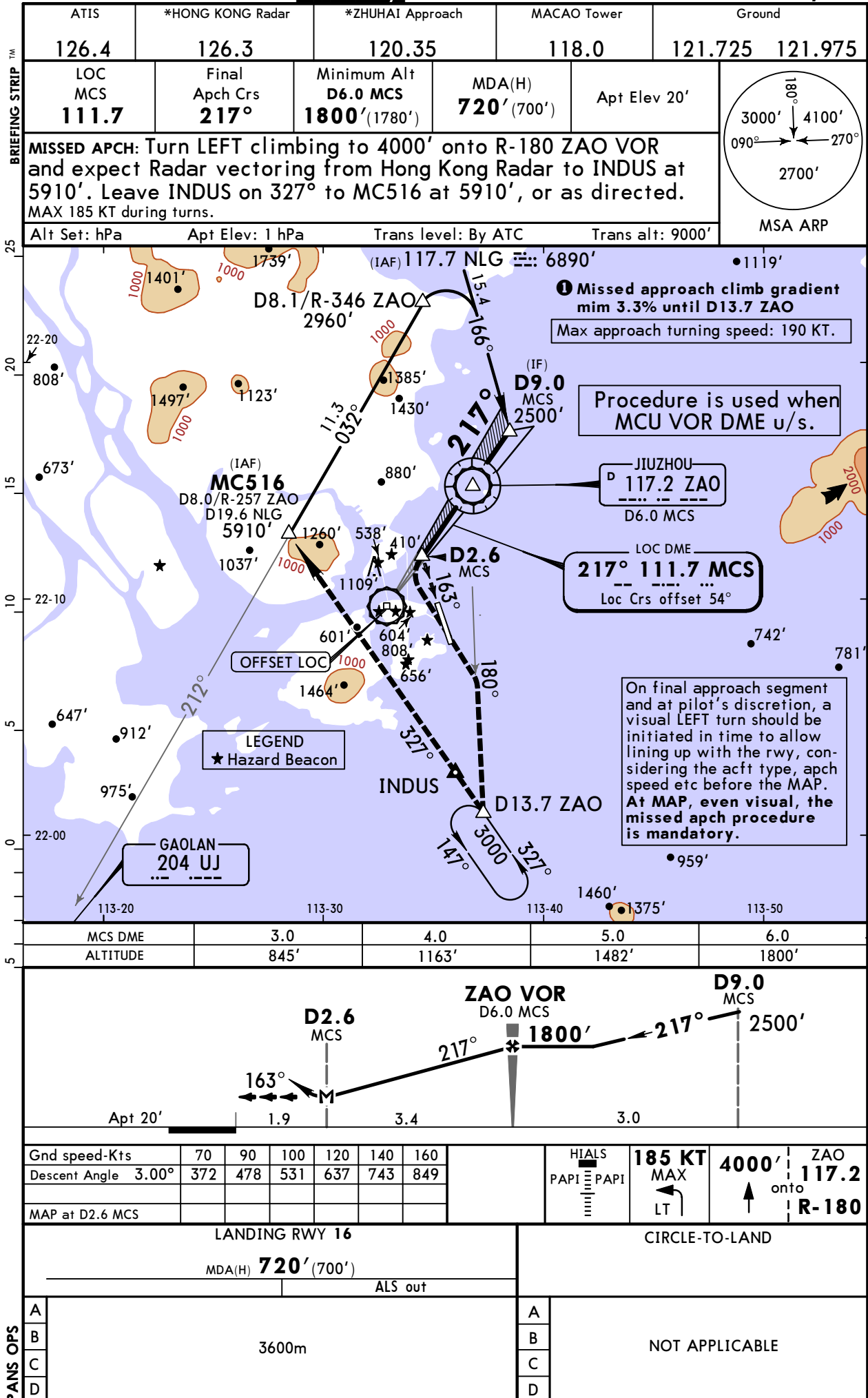
**MACAO, PR OF CHINA**  
**LOC DME Z Rwy 16**



**VMMC/MFM**  
**MACAO INTL**

**JEPPesen**  
13 MAY 16  
**Eff 26 May** **(11-2)**

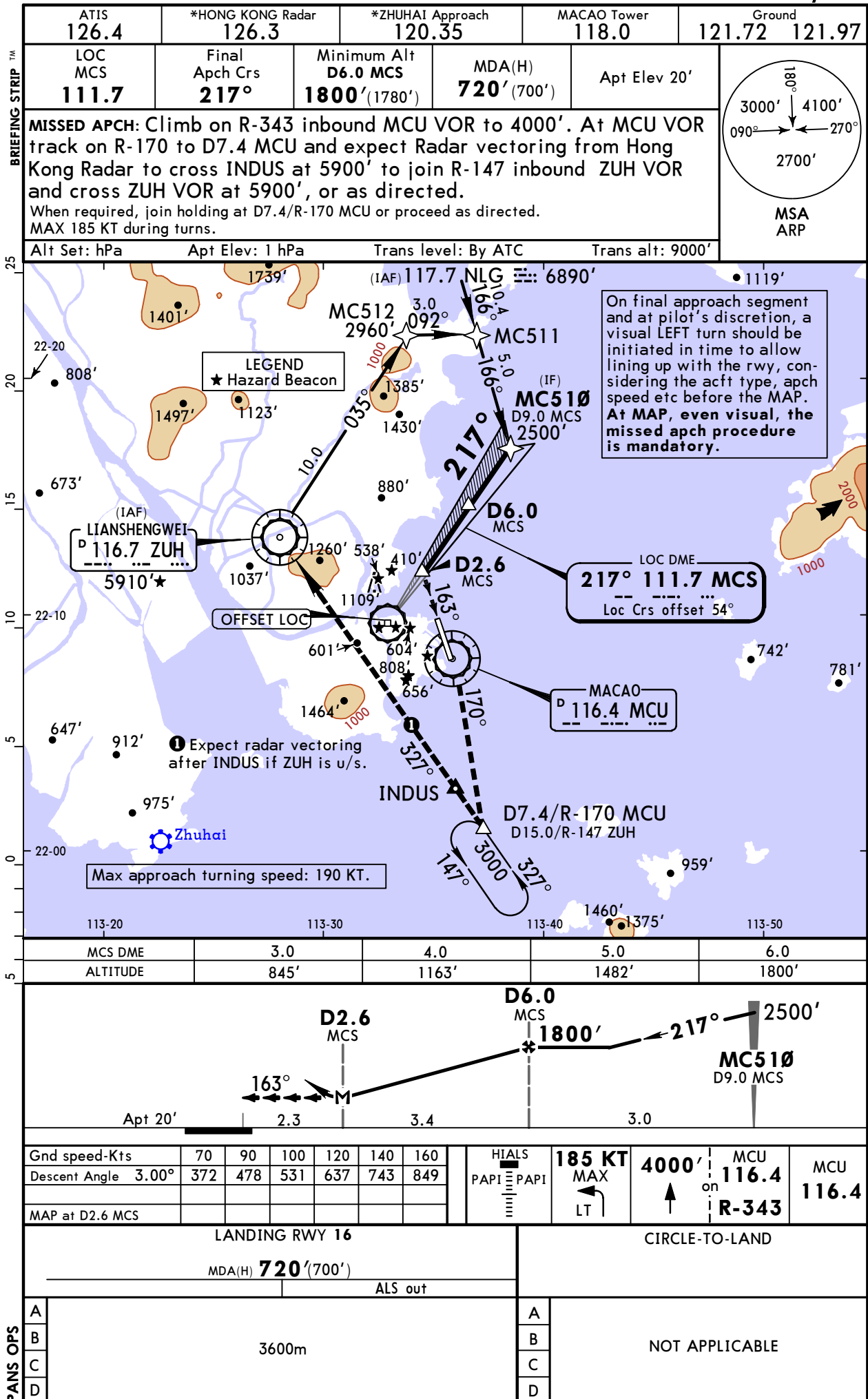
**MACAO, PR OF CHINA**  
**LOC DME Y Rwy 16**



**VMMC/MFM**  
**MACAO INTL**

**JEPPESSEN**  
1 JUL 16 (11-3)

**MACAO, PR OF CHINA**  
**RNAV LOC DME X Rwy 16**





**VMMC/MFM**  
**MACAO INTL**

24 JAN 14  
Eff 6 Feb

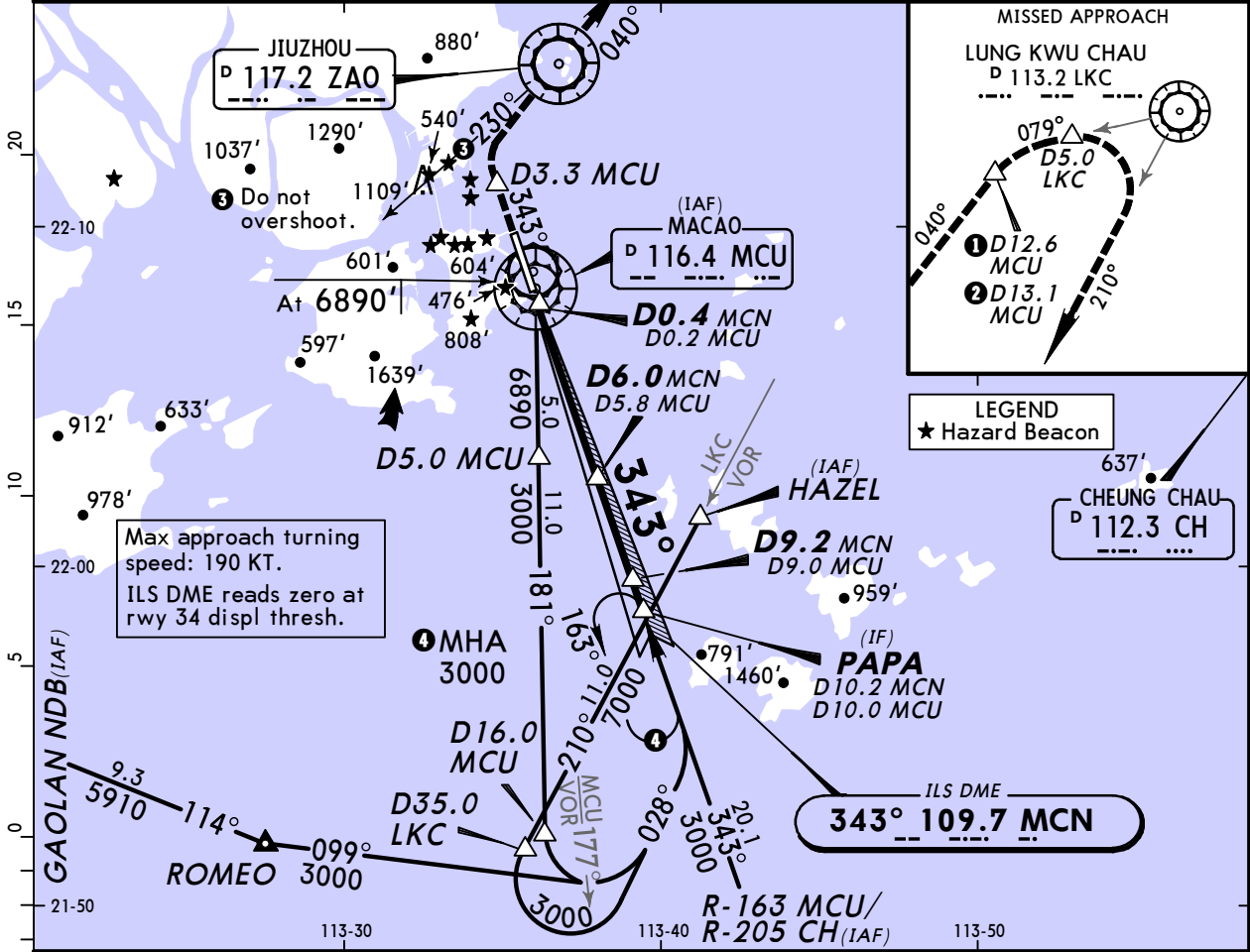
**JEPPesen**  
**(11-4)**

**MACAO, PR OF CHINA**  
**MISSED APCH CLIMB**  
**GRADIENT MIM 5.4%**

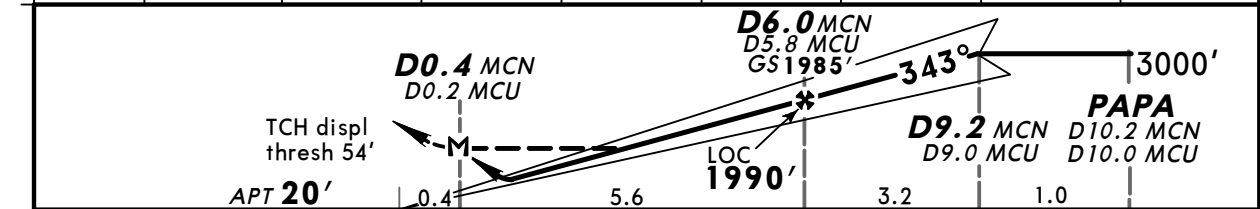
**ILS Z Rwy 34**

ATIS <b>126.4</b>	*HONG KONG Radar <b>126.3</b>	*ZHUHAI Approach <b>120.35</b>	MACAO Tower <b>118.0</b>	Ground <b>121.72 121.97</b>
LOC MCN <b>109.7</b>	Final Apch Crs <b>343°</b>	GS <b>D6.0 MCN</b> <b>1985' (1965')</b>	ILS DA(H) <b>220' (200')</b>	Apt Elev <b>20'</b>
<b>MISSED APCH:</b> <b>① With ZAO VOR:</b> Climb on rwy hdg to 600'. At or before D3.3 MCU turn RIGHT to ZAO VOR, climbing to 3940'. Leave ZAO VOR on R-040. At D12.6 MCU turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. <b>② W/o ZAO VOR:</b> Climb on rwy hdg. At D3.3 MCU turn RIGHT on track 040°, at D13.1 MCU and 3940' turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. <b>Continuation:</b> At D5.0 LKC and at or above 5500' turn RIGHT to establish on R-210 LKC and at D35.0 LKC descend to 3000' and turn LEFT on track 028° to intercept final approach track, or expect radar vectoring by Hong Kong ATC via the most expeditious means to final approach. MAX 185 KT during turns.				

Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 9000'



LOC (GS out)	MCN DME	1.0	2.0	3.0	4.0	5.0	6.0	7.0
	ALTITUDE	392'	711'	1029'	1348'	1666'	1985'	2303'



Gnd speed-Kts	70	90	100	120	140	160	HIALS-II	
ILS GS or LOC Descent Angle 3.00°	377	485	539	647	755	862	Refer to Missed Apch above	
MAP at D0.4 MCN/D0.2 MCU							PAPI	

STRAIGHT-IN LANDING RWY 34				CIRCLE-TO-LAND	
Missed apch climb gradient mim 5.4% 1					
ILS		LOC (GS out)			
DA(H) 220'(200')		MDA(H) 310'(290')			
FULL		ALS out		ALS out	
A/B	1200m		1200m	RVR 1500m VIS 1600m	
C					
D			1600m		
				For Circle-to-land procedure with prescribed flight tracks see 19-10.	

**1** Climb gradient up to 5500'.

CHANGES: Procedure title. MSA. ZAO DME added.

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**VMMC/MFM**  
**MACAO INTL**

24 JAN 14  
Eff 6 Feb

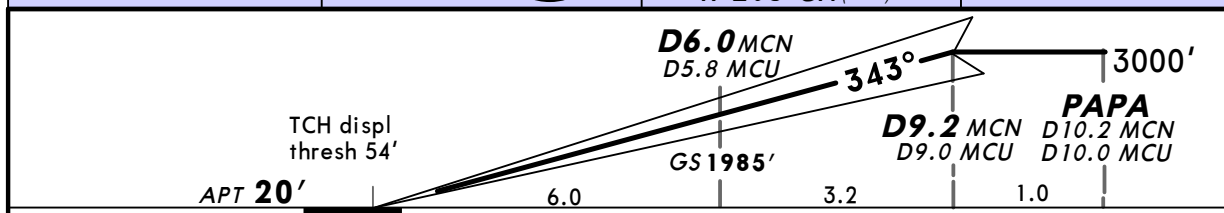
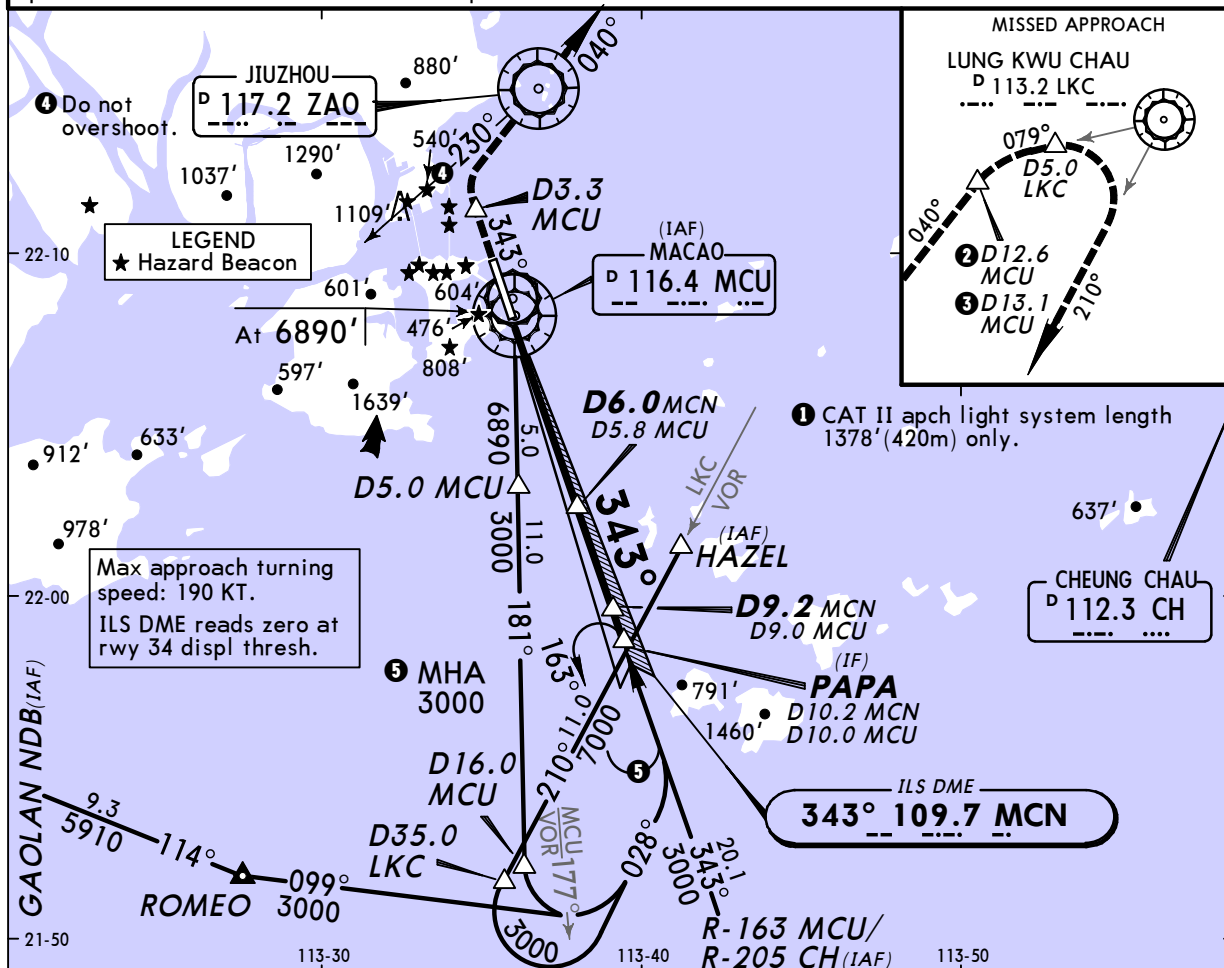
**11-4A**

**MISSED APCH CLIMB**  
**GRADIENT MIM 5.4%**

**MACAO, PR OF CHINA**  
**CAT II ILS Z Rwy 34**

BRIEFING STRIP

ATIS 126.4	*HONG KONG Radar 126.3	*ZHUHAI Approach 120.35	MACAO Tower 118.0	Ground 121.72 121.97
LOC MCN <b>109.7</b>	Final Apch Crs <b>343°</b>	GS <b>D6.0 MCN</b> <b>1985' (1965')</b>	CAT II ILS <b>RA 100'</b> DA(H) 120' (100')	Apt Elev <b>20'</b>
<b>MISSED APCH:</b> <b>②</b> With ZAO VOR: Climb on rwy hdg to 600'. At or before D3.3 MCU turn RIGHT to ZAO VOR, climbing to 3940'. Leave ZAO VOR on R-040. At D12.6 MCU turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. <b>③</b> W/o ZAO VOR: Climb on rwy hdg. At D3.3 MCU turn RIGHT on track 040°, at D13.1 MCU and 3940' turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. <b>Continuation:</b> At D5.0 LKC and at or above 5500' turn RIGHT to establish on R-210 LKC and at D35.0 LKC descend to 3000' and turn LEFT on track 028° to intercept final approach track, or expect radar vectoring by Hong Kong ATC via the most expeditious means to final approach. MAX 185 KT during turns.				
Alt Set: hPa      Apt Elev: 1 hPa      Trans level: By ATC      Trans alt: 9000' Special Aircrew & Acft Certification Required.				



Gnd speed-Kts	70	90	100	120	140	160		HTALS-II	Refer to Missed Apch above
GS	3.00°	377	485	539	647	755	862	PAPI	

**STRAIGHT-IN LANDING RWY 34**  
Missed apch climb gradient mim 5.4% **①**  
**CAT II ILS**  
**RA 100'**  
DA(H) **120' (100')**

**RVR 350m**  
**①** Climb gradient up to 5500'.

PANS OPS

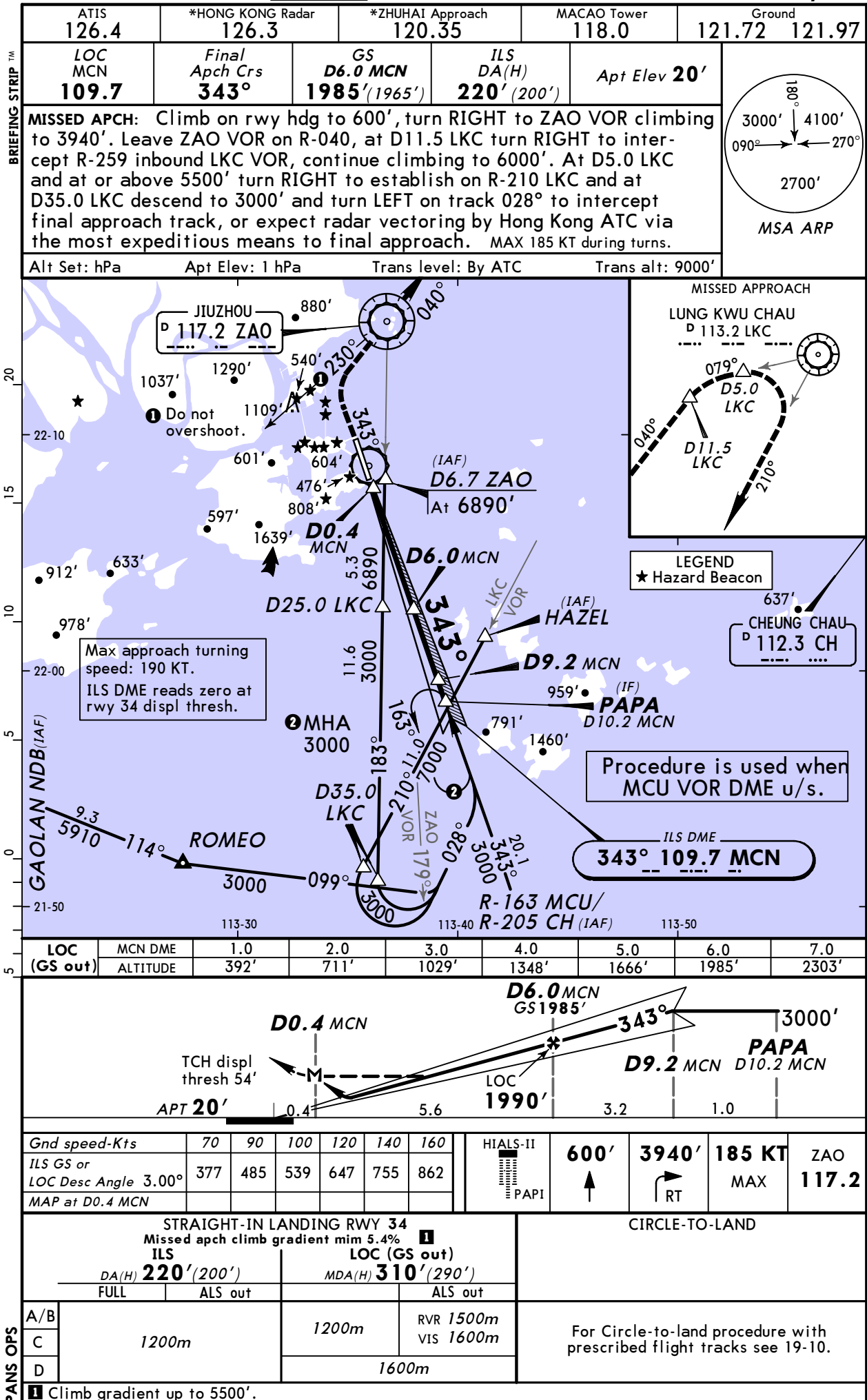
**VMMC/MFM**  
**MACAO INTL**

24 JAN 14  
Eff 6 Feb

**JEPPesen**  
(11-5)

**MACAO, PR OF CHINA**  
MISSED APCH CLIMB  
GRADIENT MIM 5.4%

**ILS Y Rwy 34**




**VMMC/MFM**  
**MACAO INTL**

24 JAN 14  
Eff 6 Feb

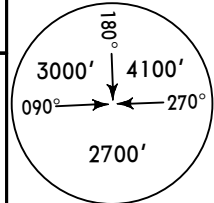

**JEPPesen**

**MISSED APCH CLIMB  
GRADIENT MIM 5.4%**

MACAO, PR OF CHINA  
● CAT II ILS Y Rwy 34

ATIS <b>126.4</b>	*HONG KONG Radar <b>126.3</b>	*ZHUHAI Approach <b>120.35</b>	MACAO Tower <b>118.0</b>	Ground <b>121.72 121.97</b>	
LOC MCN <b>109.7</b>	Final Aptch Crs <b>343°</b>	GS D6.0 MCN <b>1985' (1965')</b>	CAT II ILS RA 100' DA (H) 120' (100')	Apt Elev <b>20'</b>	

**MISSED APCH:** Climb on rwy hdg to 600', turn RIGHT to ZAO VOR climbing to 3940'. Leave ZAO VOR on R-040, at D11.5 LKC turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. At D5.0 LKC and at or above 5500' turn RIGHT to establish on R-210 LKC and at D35.0 LKC descend to 3000' and turn LEFT on track 028° to intercept final approach track, or expect radar vectoring by Hong Kong ATC via the most expeditious means to final approach. MAX 185 KT during turns.



*MSA ARP*

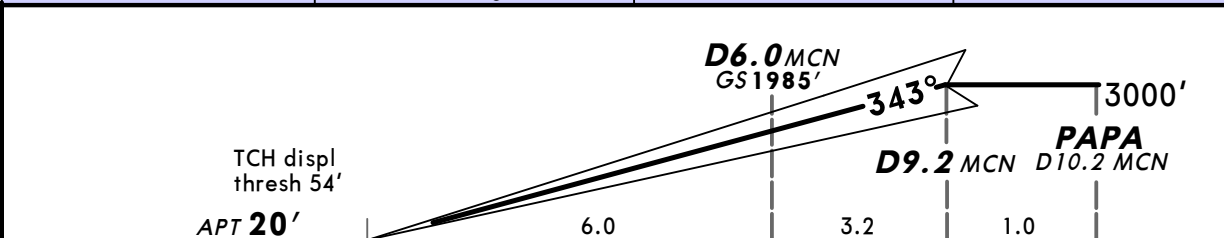
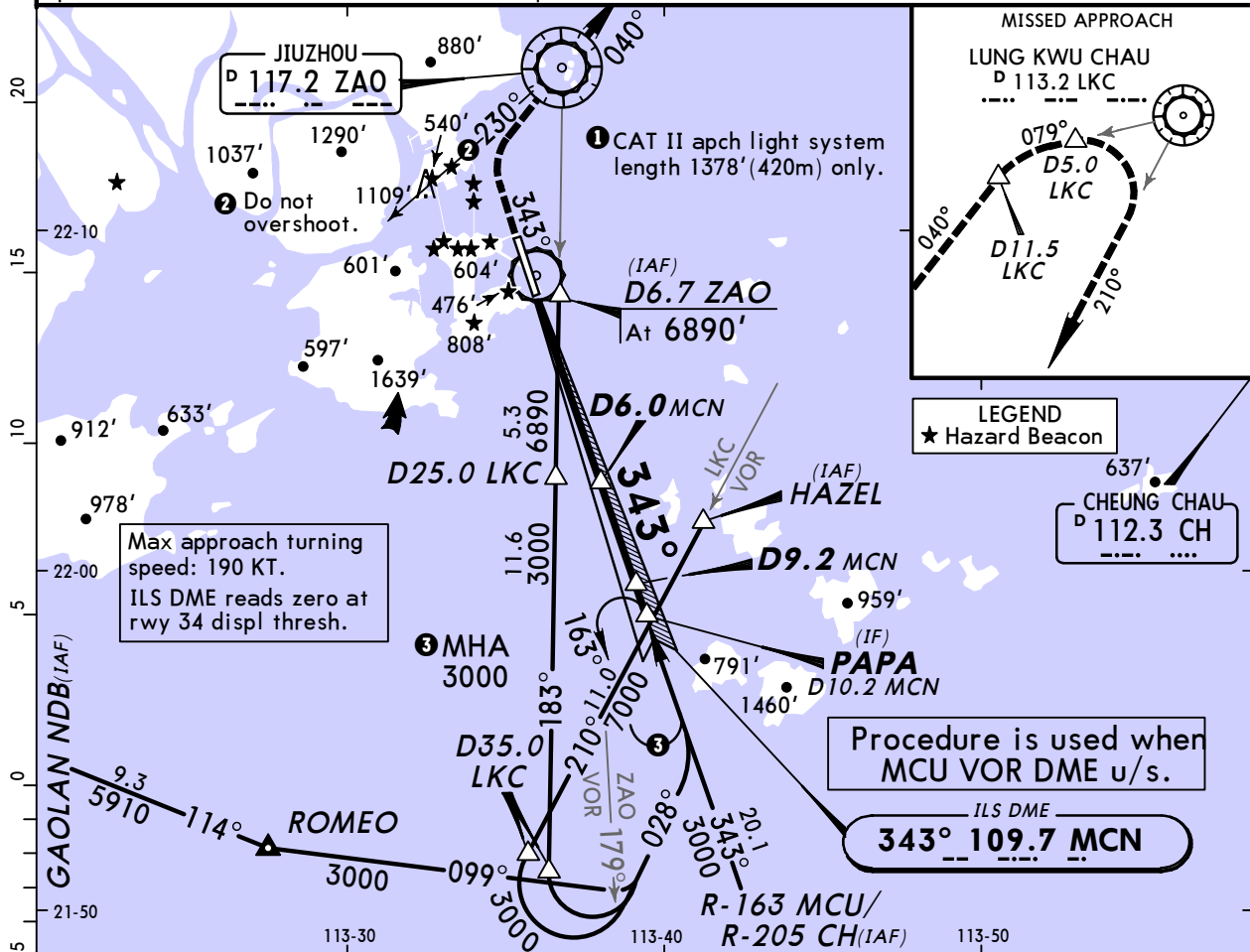
Alt Set: hPa




Apt Elev: 1 hPa

Trans level: By ATC

Trans alt: 9000'

**Special Aircrew & Aircraft Certification Required.**



<i>Gnd speed-Kts</i>	70	90	100	120	140	160	 HIALS-II PAPI	 600'	 3940' RT	<b>185 KT</b> MAX	<b>ZAO</b> <b>117.2</b>
<i>ILS GS 3.00°</i>	377	485	539	647	755	862					

STRAIGHT-IN LANDING RWY 34  
Missed apch climb gradient min 5.4% **1**

## CAT II ILS

RA 100'

$DA(H)$  **120'** (100')

RVR **350m**

**1** Climb gradient up to 5500'.

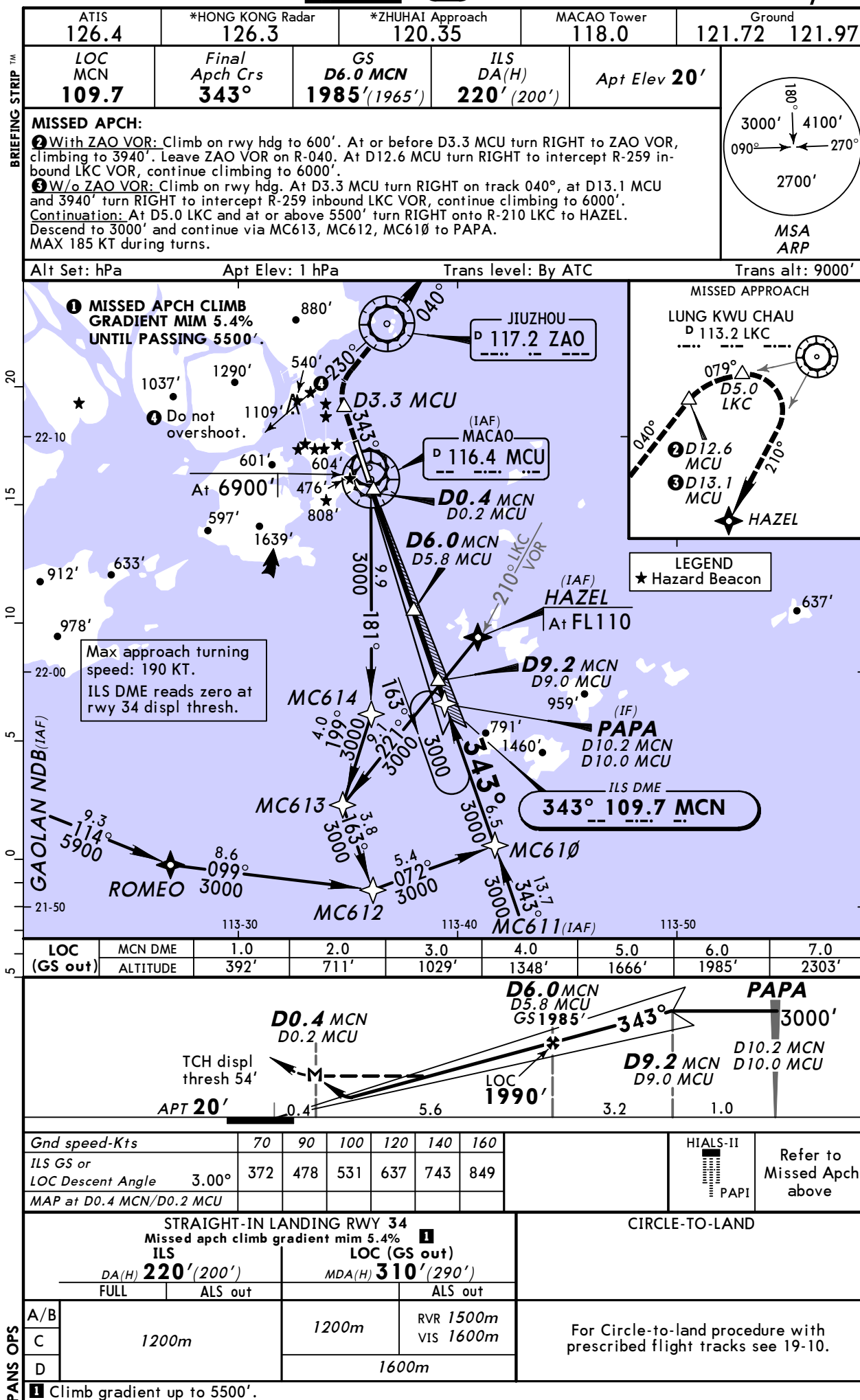
CHANGES: Procedure title, MSA, ZAO DME added.

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VMMC/MFM  
MACAO INTL24 JAN 14  
Eff 6 Feb

(11-6)

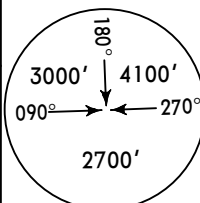
MACAO, PR OF CHINA  
• RNAV ILS X Rwy 34

**VMMC/MFM**  
**MACAO INTL**

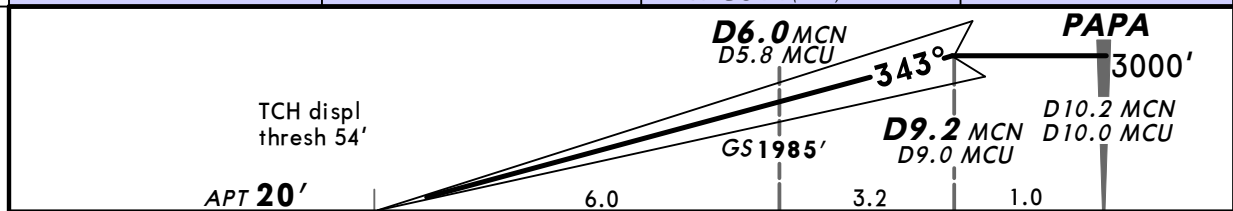
24 JAN 14  
Eff 6 Feb

**JEPPESSEN MACAO, PR OF CHINA**  
**11-6A CAT II RNAV ILS X Rwy 34**

BRIEFING STRIP™

ATIS <b>126.4</b>	*HONG KONG Radar <b>126.3</b>	*ZHUHAI Approach <b>120.35</b>	MACAO Tower <b>118.0</b>	Ground <b>121.72 121.97</b>
LOC MCN <b>109.7</b>	Final Apch Crs <b>343°</b>	GS <b>D6.0 MCN</b> <b>1985' (1965')</b>	CAT II ILS <b>RA 100'</b> DA(H) 120' (100')	Apt Elev <b>20'</b>
<b>MISSED APCH:</b> <b>② With ZAO VOR:</b> Climb on rwy hdg to 600'. At or before D3.3 MCU turn RIGHT to ZAO VOR, climbing to 3940'. Leave ZAO VOR on R-040. At D12.6 MCU turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. <b>③ W/o ZAO VOR:</b> Climb on rwy hdg. At D3.3 MCU turn RIGHT on track 040°, at D13.1 MCU and 3940' turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. <b>Continuation:</b> At D5.0 LKC and at or above 5500' turn RIGHT onto R-210 LKC to HAZEL. Descend to 3000' and continue via MC613, MC612, MC610 to PAPA. <b>MAX 185 KT during turns.</b>				
				

Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 9000'  
 1. Special Aircrew & Aircraft Certification Required. 2. CAT II apch light system length 1378' (420m) only.



Gnd speed-Kts	70	90	100	120	140	160		HIALS-II	
GS	3.00°	372	478	531	637	743	849		Refer to Missed Apch above

**STRAIGHT-IN LANDING RWY 34**  
**Missed apch climb gradient min 5.4% ①**  
**CAT II ILS**  
**RA 100'**  
**DA(H) 120' (100')**

PANS OPS

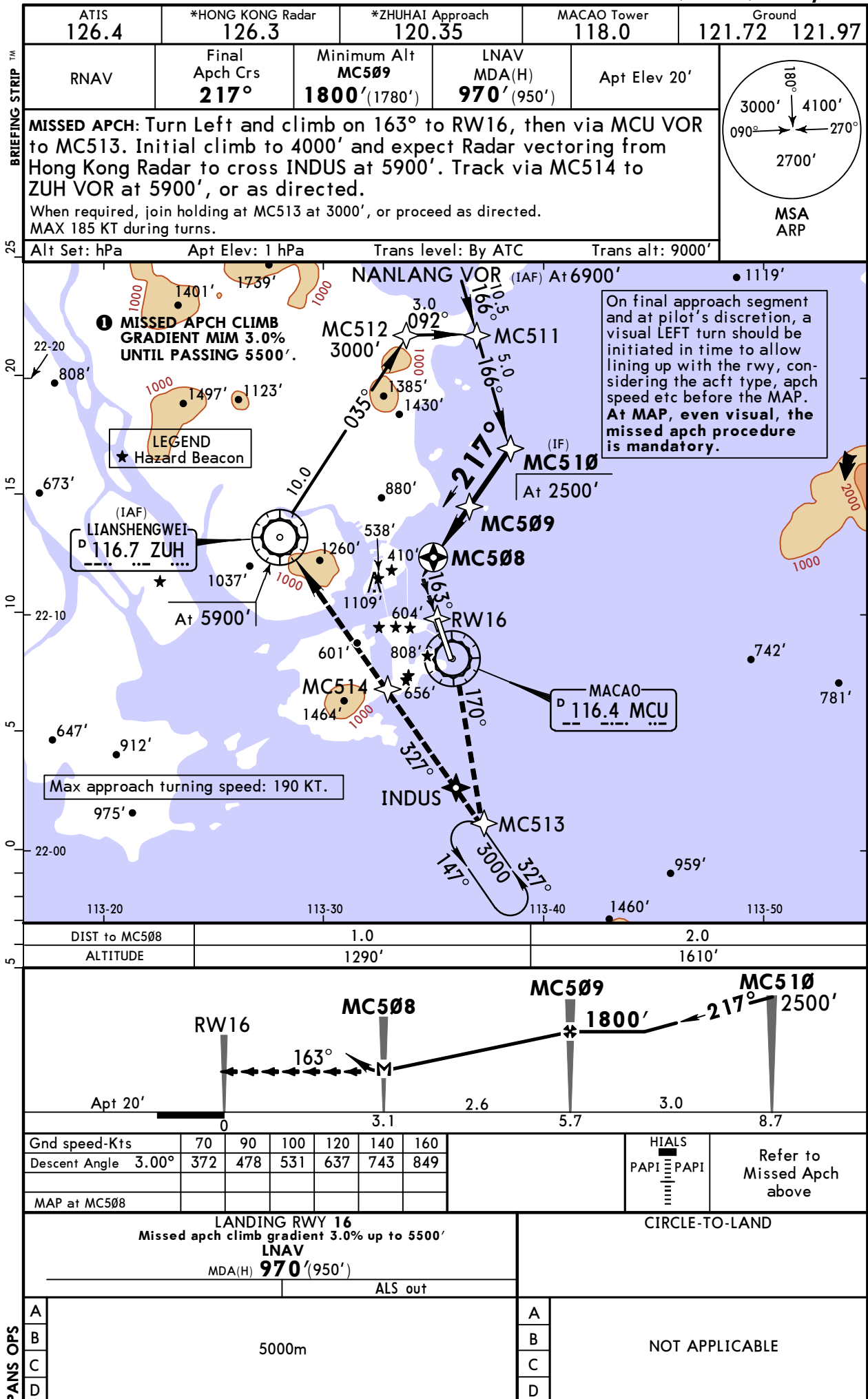
**RVR 350m**

**① Climb gradient up to 5500'.**

**VMMC/MFM**  
**MACAO INTL**

**JEPPesen**  
19 FEB 16 (12-1)

**MACAO, PR OF CHINA**  
**RNAV (GNSS) Rwy 16**



**VMMC/MFM**  
**MACAO INTL**

19 FEB 16 (12-2)

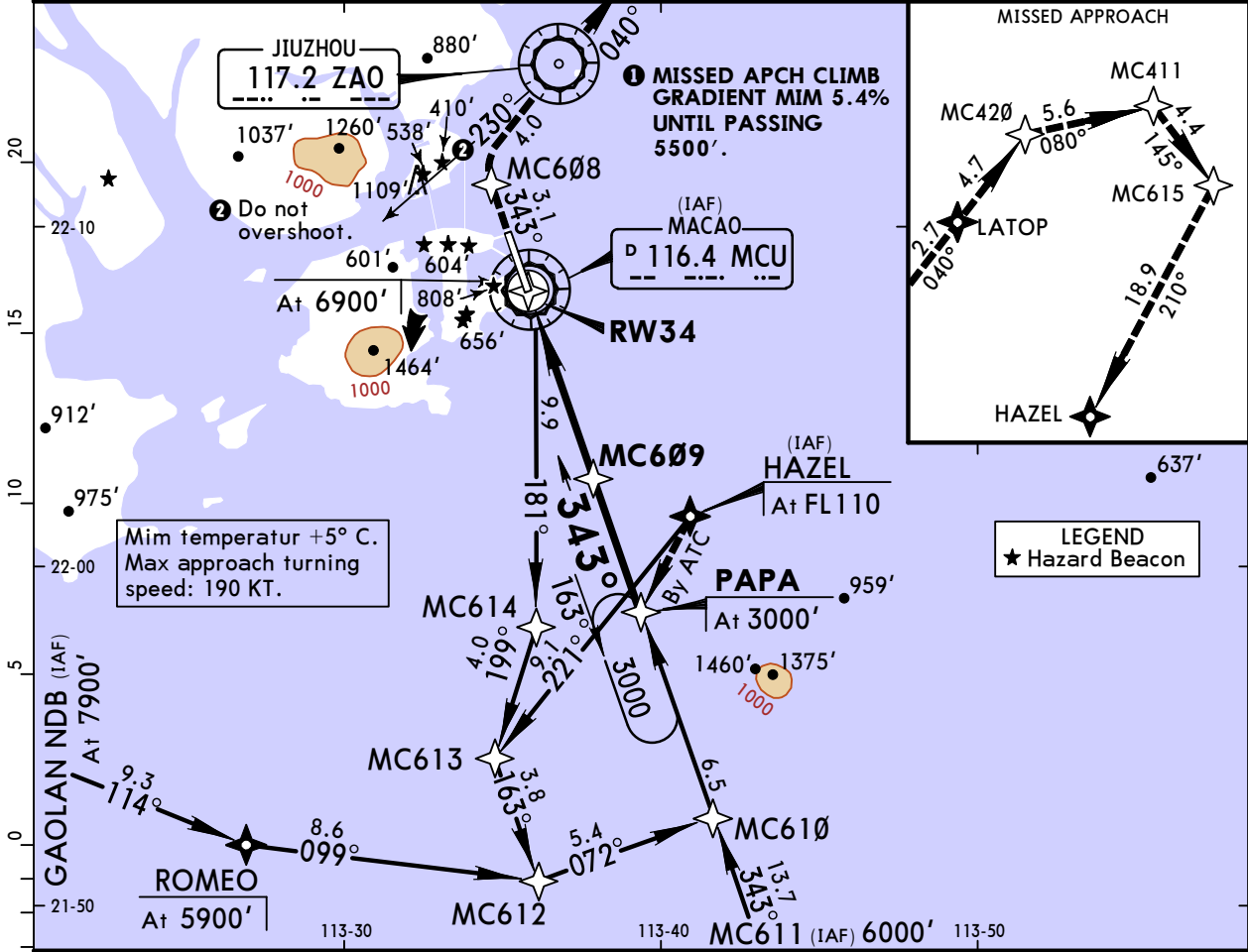
**JEPPesen**

**MACAO, PR OF CHINA**  
**• RNAV (GNSS) Rwy 34**

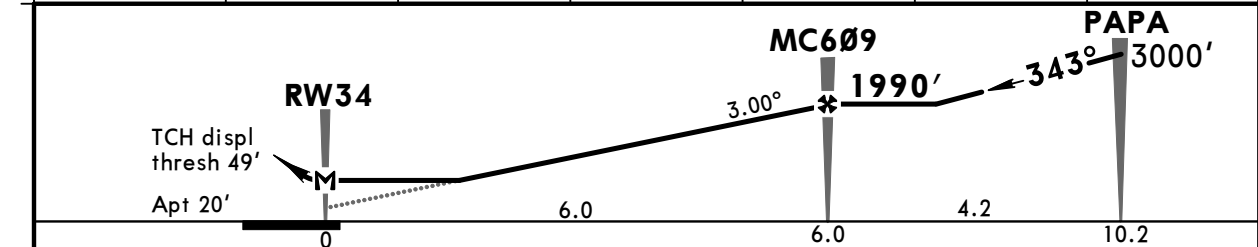
BRIEFING STRIP™

ATIS <b>126.4</b>	*HONG KONG Radar <b>126.3</b>	*ZHUHAI Approach <b>120.35</b>	MACAO Tower <b>118.0</b>	Ground <b>121.72 121.97</b>
RNAV	Final Apch Crs <b>343°</b>	Minimum Alt <b>MC609</b> <b>1990'</b> (1970')	LNAV/VNAV DA(H) <b>540'</b> (520')	Apt Elev 20'
<b>MISSED APCH:</b> Climb to MC608 at 600' or above, then climbing turn RIGHT to ZAO VOR, LATOP, MC420 at 3900' or above. Track to MC411 at or above 5500' and continue climb to 6000', or as directed. Fly via MC615 onto 210° to HAZEL, PAPA, MC613 and MC612, or as directed. When requested, join holding at PAPA at 3000' or above, or as directed. MAX 185 KT during turns.				

Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 9000'



DIST to RW34	1.0	2.0	3.0	4.0	5.0	6.0
ALTITUDE	390'	710'	1030'	1350'	1670'	1990'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
MAP at RW34						

<b>STRAIGHT-IN LANDING RWY 34</b> Missed apch climb gradient mim 5.4% until passing 5500' <b>VNAV/LNAV</b> DA(H) <b>540'</b> (520') ALS out		<b>CIRCLE-TO-LAND</b> <b>LNAV</b> MDA(H) <b>570'</b> (550') ALS out	
A/B			
C	2700m	2900m	For Circle-to-land procedure with prescribed flight tracks see 19-10.
D			

PANS OPS



**VMMC/MFM**  
**MACAO INTL**

**JEPPesen**  
7 MAR 14 **(13-1)**

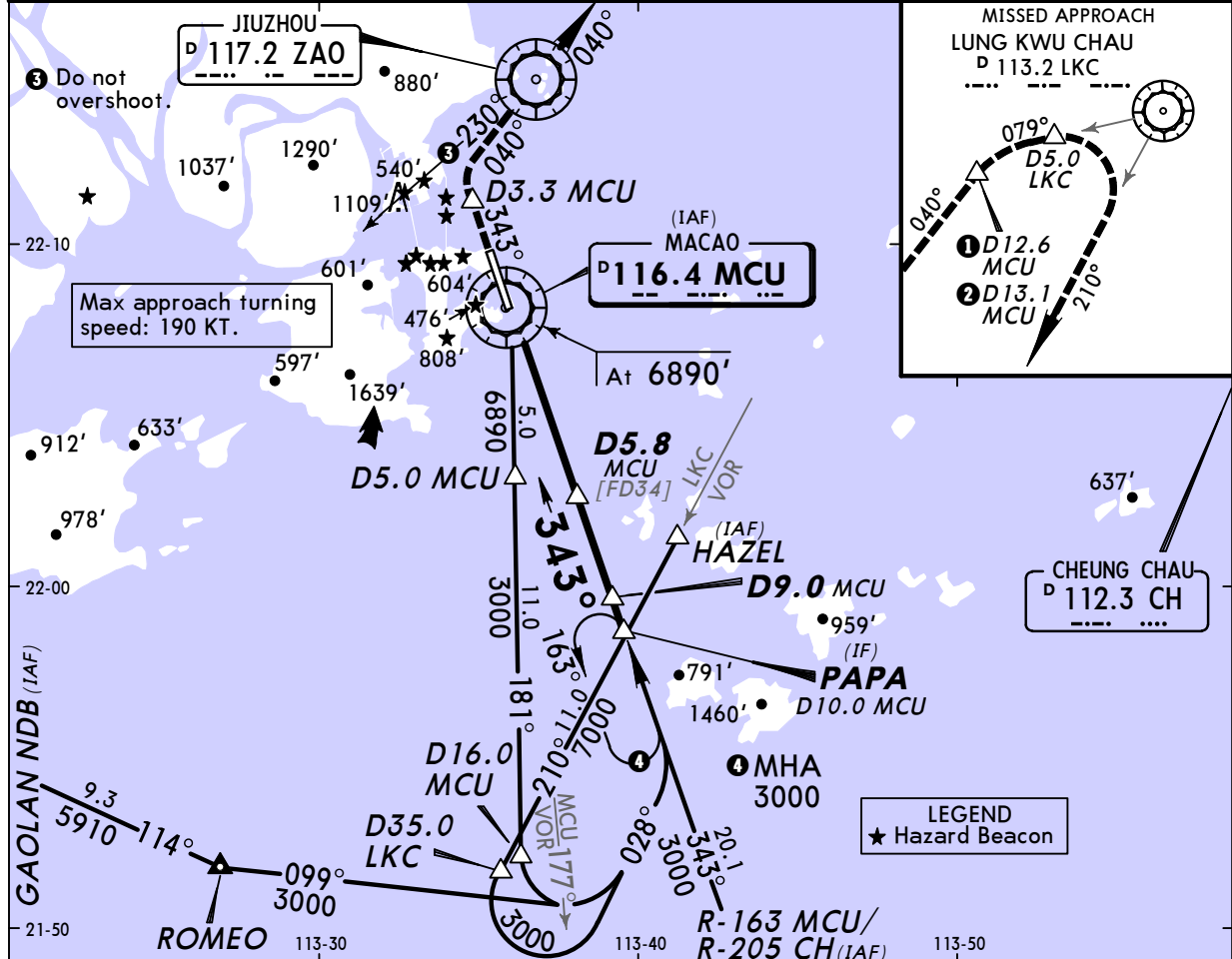
**MISSED APCH CLIMB**  
**GRADIENT MIM 5.4%**

**MACAO, PR OF CHINA**  
**VOR DME Rwy 34**

BRIEFING STRIP™

ATIS <b>126.4</b>	*HONG KONG Radar <b>126.3</b>	*ZHUHAI Approach <b>120.35</b>	MACAO Tower <b>118.0</b>	Ground <b>121.72 121.97</b>
VOR MCU <b>116.4</b>	Final Apch Crs <b>343°</b>	Minimum Alt <b>D5.8 MCU</b> <b>1990' (1970')</b>	MDA(H) <b>550' (530')</b>	Apt Elev <b>20'</b>
<b>MISSED APCH:</b> <b>① With ZAO VOR:</b> Climb on rwy hdg to 600'. At or before D3.3 MCU turn RIGHT to ZAO VOR, climbing to 3940'. Leave ZAO VOR on R-040. At D12.6 MCU turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. <b>② W/o ZAO VOR:</b> Climb on rwy hdg. At D3.3 MCU turn RIGHT on track 040°, at D13.1 MCU and 3940' turn RIGHT to intercept R-259 inbound LKC VOR, continue climbing to 6000'. <b>Continuation:</b> At D5.0 LKC and at or above 5500' turn RIGHT to establish on R-210 LKC and at D35.0 LKC descend to 3000' and turn LEFT on track 028° to intercept final approach track, or expect radar vectoring by Hong Kong ATC via the most expeditious means to final approach. MAX 185 KT during turns.				

Alt Set: hPa Apt Elev: 1 hPa Trans level: By ATC Trans alt: 9000'



MCU DME	2.0	3.0	4.0	5.0	6.0	7.0
ALTITUDE	770'	1088'	1407'	1725'	2044'	2362'

<div><div><div><div><div><div></div><div>MCU VOR</div></div><div><div>TCH displ thresh 54'</div><div>APT 20'</div></div></div><div><div><div><div><div></div><div>0</div><div>0.2</div></div><div><div>5.8</div><div>3.2</div><div>1.0</div></div></div><div><div><div><div><div></div><div>D5.8 MCU</div><div>[FD34]</div></div><div><div>343°</div><div>1990'</div></div></div><div><div><div><div><div></div><div>D9.0</div><div>MCU</div></div><div><div>PAPA</div><div>D10.0 MCU</div></div></div><div><div>3000'</div></div></div></div></div></div></div></div></div></div></div>						
Gnd speed-Kts	70	90	100	120	140	160
Descent Angle	3.00°	372	478	531	637	743
MAP at MCU VOR						
					</	

VMMC/MFM

**JEPPESEN**

MACAO, PR OF CHINA

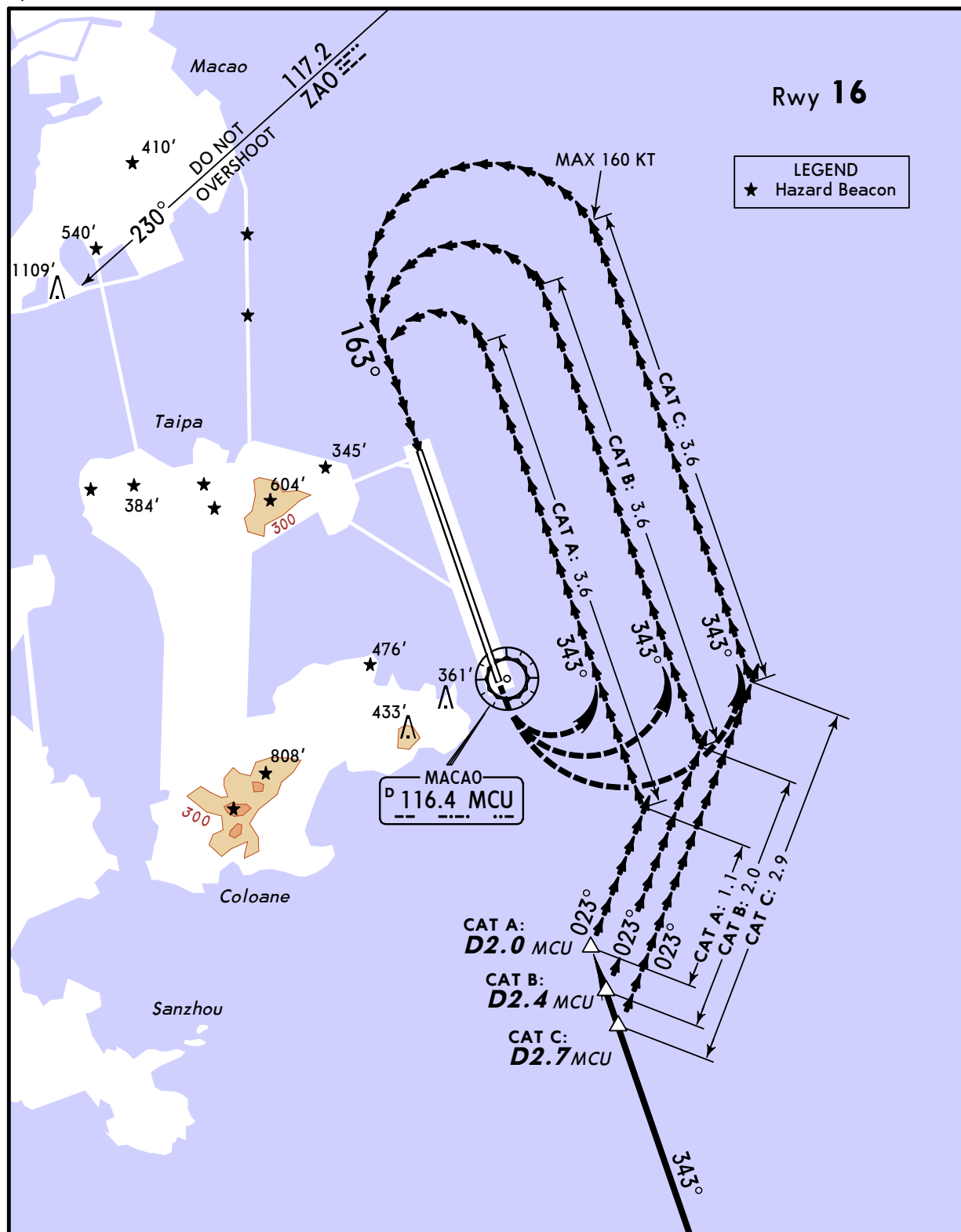
7 MAR 14

19-10

MACAO INTL

Apt Elev **20'**

CIRCLE-TO-LAND  
WITH PRESCRIBED FLIGHT TRACKS



**CEILING REQUIRED**

	Max Kts	MDA(H)	CEIL-VIS
A	100	<b>660'</b> (640')	1500' - 6000m
B	135	<b>770'</b> (750')	1500' - 6000m
C	160	<b>870'</b> (850')	1500' - 6000m
D		NOT APPLICABLE	

**JEPPESEN** TAIPEI, TAIWAN

20-1R 30 DEC 16  
Eff 5 Jan

## RADAR MINIMUM ALTITUDES

1. Range marks are centered at RCTP ARP (N25 04.8 E121 13.9).
2. Minimum altitudes are calculated taking into account of minimum clearance above terrain/obstacles. Radar control service cannot be provided to aircraft below the applicable minimum. However, aircraft at designated altitude in relevant sector is not assured of radar contact.

1. SQUAWK 7600 immediately, and
2. Follow "Radio Communication Failure Procedures." (see Jeppesen text pages / Emergency / State Rules and Procedure - Far East / Taiwan -).

14000
12000
10000
8000
6000
4000
2000

CONTOUR INTERVALS



**RCTP/TPE** **JEPPESEN**  
4 JUL 14 (20-2)**TAIPEI, TAIWAN**  
-TAOYUAN INTL

## ARRIVAL SPEED RESTRICTIONS

### 1. ARRIVAL SPEED CONTROL AND DESCENT PLANNING

- 1.1 Turbojet aircraft arriving to Taipei/Taiwan Taoyuan International Airport shall comply with the arrival speed control listed below, unless otherwise instructed by ATC or entering holding pattern.

### 2. ARRIVAL SPEED CONTROL

- a) At or below FL250 and at or above FL130: MAINTAIN 280 KT.
- b) Below FL130 and at or above 10000': maximum 280 KT.

### 3. ADDITIONAL INFORMATION

- a) The speed control applies to all turbojet aircraft arriving via STARs, under RADAR vectoring, or weather deviation.
- b) Aircraft may be instructed to increase or reduce speed as dictated by actual overall traffic. If ATC unit has given instruction to increase or or reduce speed, and later instructed to resume normal speed, pilots shall revert to the aforementioned arrival speed control. If any change in airspeed, other than the speed control listed above, is necessary due to turbulence, etc., pilots shall inform ATC as soon as possible.

**RCTP/TPE** **JEPPESEN**  
4 JUL 14 **(20-2A)****TAIPEI, TAIWAN**  
-TAOYUAN INTL**CONTINUOUS DESCENT OPERATION (CDO) FOR ARRIVALS****1. Introduction**

- 1.1 CDO is an aircraft operating technique which enables the pilot to execute an optimized arrival descent profile utilizing the onboard capability of the aircraft. CDO is facilitated by appropriate instrument flight procedure design and ATC procedures.
- 1.2 The vertical profile of CDO takes the form of a continuously descending path with minimum level flight segments to enable smooth aircraft deceleration and configuration prior to an ILS approach.
- 1.3 Both open path and closed path designs are utilized in CDO STARs into Taipei/Taiwan Taoyuan International Airport to maximize total efficiency. Arriving traffic from the direction aligned with the runway-in-use expect closed path CDO STAR for straight-in approach and distance to go (DTG) information to runway threshold. Arriving traffic on the opposite direction with runway-in-use expect open path CDO STAR terminated at downwind termination waypoint (DTW) with DTG to DTW and radar vectoring or direct route assigned by ATC afterward.
- 1.4 Where air traffic permits, CDO arrivals will be available for flights arriving into Taipei/Taiwan Taoyuan International Airport on runways 05L/R and 23L/R. ATC may suspend or cancel the CDO due to traffic conditions even after CDO is cleared. Alternate ATC instructions will be issued when CDO is suspended or cancelled.

**2. Conditions for conducting a CDO**

- a) ILS for the intended runway of landing is in operation;  
 b) RVR for the intended runway of landing are not lower than ILS CAT I minimum;  
 c) No other system degradation that may affect a GNSS or ILS operation; and  
 d) Eligible time window to operate CDO: 1700UTC till 2300UTC daily.

**3. Requirements for individual flights**

- 3.1 Flights that fulfill the following requirements can be allowed to conduct a CDO subject to ATC and real-time traffic condition. RNAV-equipped aircraft with FMC capable of:
- a) LNAV and VNAV;  
 b) Continuing on planned vertical path from RNAV STAR onto ILS of intended runway of landing.

**4. CDO Preparation**

- 4.1 To ensure that the CDO can be effectively carried out, pilots are advised to abide by the following:
- a) Check if conditions for conducting the CDO are met;  
 b) Check if flight meets requirement for executing a CDO; and  
 c) Plan the lateral route in your FMC as shown below based on FIR entry point and landing runway-in-use. The landing runway-in-use is available from ATIS.

<b>FIR entry point</b>	<b>RWY</b>	<b>STAR</b>
KASKA, SALMI, SULEM	05L/R	BK1A
	23L/R	BK1B
BULAN	05L/R	DR1A
	23L/R	DR1B
SEDKU	05L/R	GR1A
	23L/R	GR1B
ENVAR, OLDID	05L/R	TG1A
	23L/R	TG1B
KAPLI, POTIB	05L/R	SA1A
	23L/R	SA1B

- d) Distance to GO (DTG)

<b>BK1A/DR1A/GR1A WAYPOINT DTG to MARCH</b>	<b>BK1B/DR1B/GR1B WAYPOINT DTG to THRESHOLD</b>	
BAKER - 60.9 NM	RWY23L	RWY23R
DRAKE - 70.2 NM	BAKER - 51.4 NM	50.5 NM
GRACE - 86.9 NM	DRAKE - 60.7 NM	59.8 NM
SEPIA - 41.9 NM	GRACE - 77.4 NM	76.5 NM
AUGUR - 33.9 NM	SEPIA - 32.4 NM	31.5 NM
APRIL - 8 NM	AUGUR - 24.4 NM	23.5 NM

RCTP/TPE


**JEPPESEN**  
 30 DEC 16 **(20-2B)** Eff 5 Jan
**TAIPEI, TAIWAN**  
-TAOYUAN INTL**CONTINUOUS DESCENT OPERATION (CDO) FOR ARRIVALS**

<b>SA1A/TG1A</b>	
<b>WAYPOINT</b>	<b>DTG to THRESHOLD</b>
RWY05L	RWY05R
TNN - 138.2 NM	138.4 NM
MEICH - 104 NM	104.2 NM
TONGA - 148.8 NM	149 NM
BOCCA - 127.9 NM	128.1 NM
ELBER - 83.1 NM	83.3 NM
BRAVO - 43.1 NM	43.3 NM
JAMMY - 23.4 NM	23.6 NM

<b>SA1B/TG1B</b>	
<b>WAYPOINT</b>	<b>DTG to JUNTA</b>
TNN - 148.8 NM	
MEICH - 114.6 NM	
TONGA - 159.4 NM	
BOCCA - 138.5 NM	
ELBER - 93.7 NM	
BRAVO - 53.7 NM	
JAMMY - 34 NM	
MAYOR - 8 NM	

**5. CDO Execution**

5.1 On first contact with Taipei ACC, pilots may initiate the request for a CDO.

**EXAMPLE:**

"Taipei control, ABC 123, Request **C-D-O**"

-Depending on the situation, Taipei ACC will make an early assessment and coordination to approve/disapprove your request accordingly. When it is obvious to ATC that the conduct of CDO flight will not reap any operational benefit, ATC shall disapprove your request and inform you accordingly.

5.2 If CDO is approved, Taipei ACC shall inform pilots and issue related ATC clearance as soon as possible.

**EXAMPLE:**

"ABC 123, **C-D-O** approved and cleared to AUGUR via DR1B RNAV Arrival, Runway 23L, when ready descend and MAINTAIN FL140."

**NOTE:**

- Once in contact with Taipei Approach, ATC shall issue onward clearance to facilitate final phase of the CDO flight.
  - During CDO, standard ATM procedures continue to apply. ATC may at times clear flight to an intermediate level which would still facilitate a CDO profile. In doing so, ATC shall endeavor to issue further descent clearance prior to the CDO flight reaching 3000' from last assigned level so as to prevent leveling off.
  - If CDO flight has commenced and in the course of the CDO execution, Taipei/Taiwan Taoyuan International Airport changes direction of its runway-in-use, i.e. RWY05L to RWY23R or vice versa, ATC shall advise if the CDO flight can resume and issue the necessary re-clearance. Pilot shall then re-plan arrival route to the revised landing runway and advise ATC if the flight would still be able to continue CDO.
- 5.3 Deviation from lateral or vertical path - At times, it may be necessary for ATC to take you off track temporarily or stop descent at an intermediate level due to a change in traffic situation. When instructed, pilot shall comply with ATC instructions until such a time when informed that the CDO flight can resume.
- 5.4 For traffic arriving on the opposite direction aligned with runway-in-use, pilot should plan to cross MARCH at 4000' (RWY05L/R), or cross JUNTA at 4700' (RWY23L/R) for overall arrival/approach descent planning; ATC may issue the approach clearance in conjunction with direct route from MARCH/JUNTA or RADAR vectoring for final approach.
- 5.5 Termination of a CDO - In the event that traffic complexity reaches a stage where cancellation of the CDO flight becomes necessary, ATC shall issue a clearance to terminate the CDO flight.

**EXAMPLE:**

"ABC 123, due to traffic, **C-D-O terminated**. MAINTAIN FL160."

5.6 Radio Communication Failure - In the event of a radio communication failure, CDO is to be terminated immediately and pilot is to apply the radio communication failure procedures.

RCTP/TPE  
-TAOYUAN INTL

**JEPPESEN**  
30 DEC 16 (20-2D) Eff 5 Jan

## TAIPEI, TAIWAN

**RNAV STAR**

D-ATIS  
**127.6**

Apt Elev  
**108'**

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

1. **RADAR monitoring required.** 2. RNAV 1.

3. Critical DME & DME gap not surveyed.

9000'

MSA ARP

**BAKER 1A (BK1A), BAKER 1B (BK1B)**

**DRAKE 1A (DR1A), DRAKE 1B (DR1B)**

**GRACE 1A (GR1A), GRACE 1B (GR1B)**

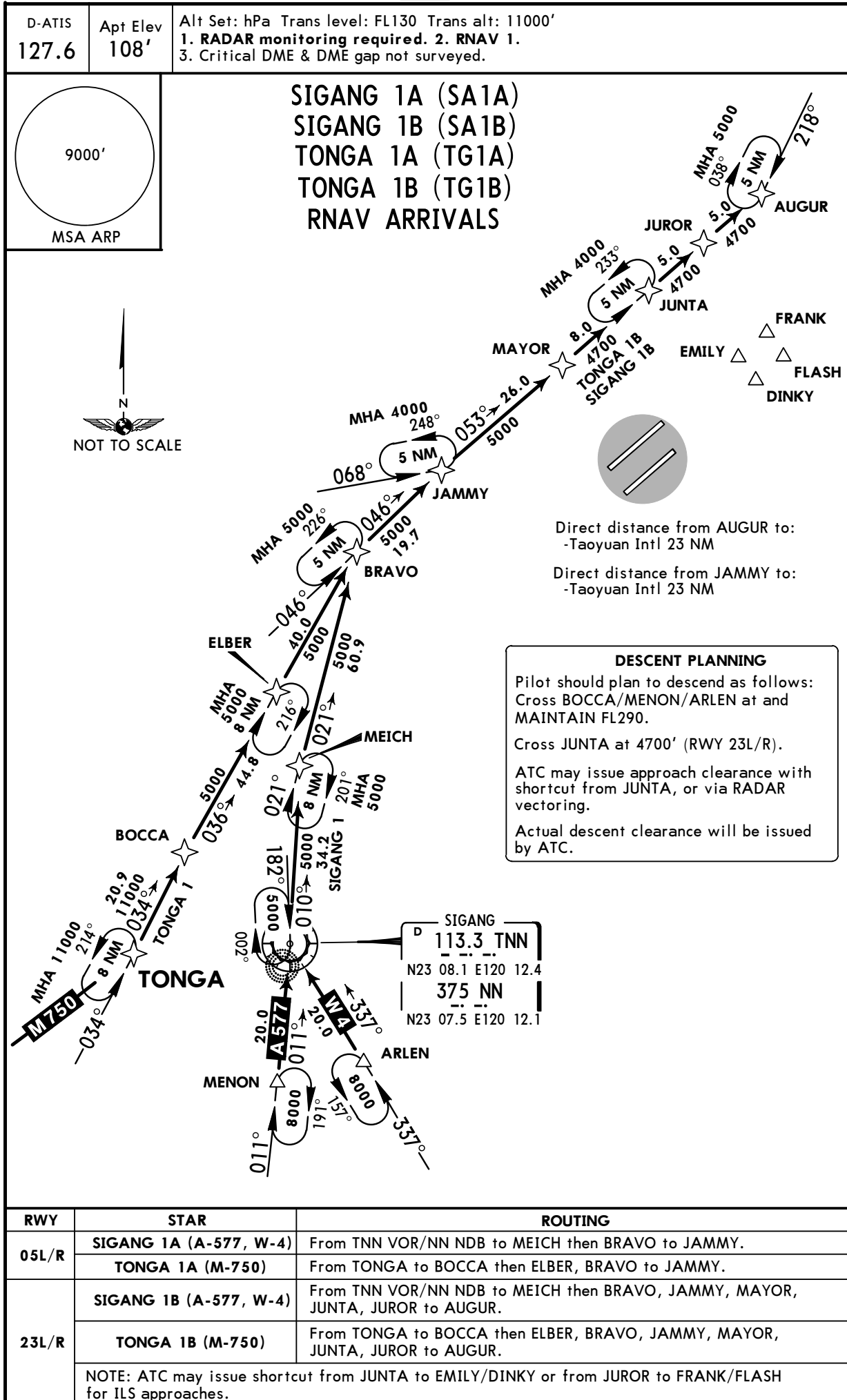
**RNAV ARRIVALS**

**ROUTING**

RWY	STAR	ROUTING
05L/R	BAKER 1A (B-576)	From BAKER to SEPIA then AUGUR, APRIL, MARCH, FETUS to JAMMY.
	DRAKE 1A (A-1)	From DRAKE to SEPIA then AUGUR, APRIL, MARCH, FETUS to JAMMY.
	GRACE 1A (R-595)	From GRACE to SEPIA then AUGUR, APRIL, MARCH, FETUS to JAMMY.
23L/R	BAKER 1B (B-576)	From BAKER to SEPIA then AUGUR.
	DRAKE 1B (A-1)	From DRAKE to SEPIA then AUGUR.
	GRACE 1B (R-595)	From GRACE to SEPIA then AUGUR.

NOTE: ATC may issue shortcut from MARCH to ANKLE/TULIP or from FETUS to KARAN/HUKOU for ILS approaches.

**RCTP/TPE**  
**-TAOYUAN INTL**
**JEPPESEN**  
 30 DEC 16 **20-2E** Eff 5 Jan

**TAIPEI, TAIWAN**  
**RNAV STAR**


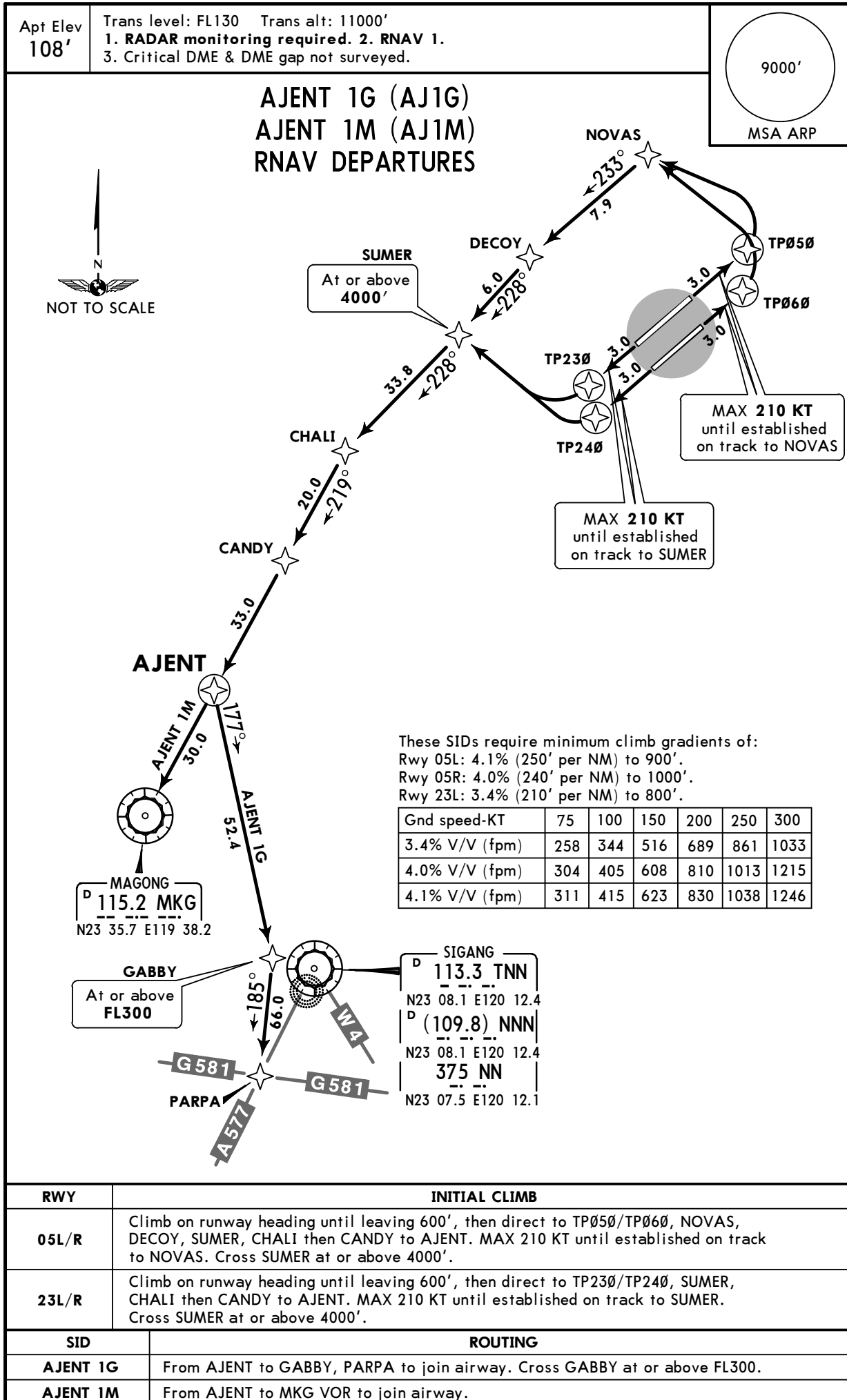


**RCTP/TPE**  
**-TAOYUAN INTL**

30 DEC 16

20-3

Eff 5 Jan

**TAIPEI, TAIWAN**
**RNAV SID**


**RCTP/TPE**  
**-TAOYUAN INTL**

**JEPPESSEN**

30 DEC 16

**20-3A**

**Eff 5 Jan**

**TAIPEI, TAIWAN**

**RNAV SID**

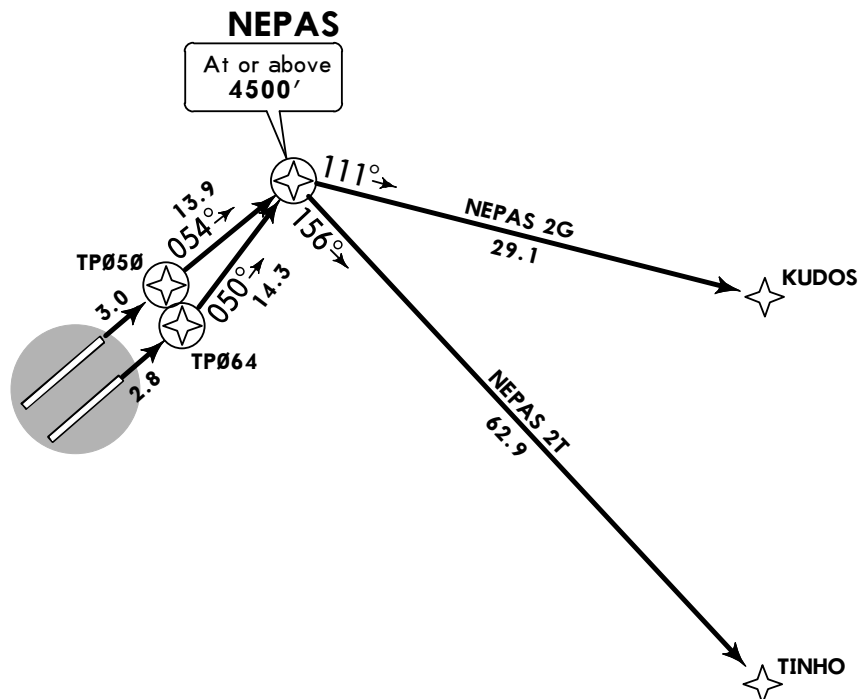
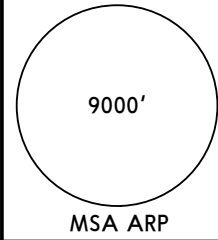
Apt Elev  
**108'**

Trans level: FL130 Trans alt: 11000'

**1. RADAR monitoring required. 2. RNAV 1.**

**3. If unable to meet climb gradient, advise ATC. 4. Critical DME & DME gap not surveyed.**

**NEPAS 2G (NP2G)**  
**NEPAS 2T (NP2T)**  
**RNAV DEPARTURES**



These SIDs require minimum climb gradients of:

Rwy 05L: 4.1% (250' per NM) to 900'.

Rwy 05R: 4.0% (240' per NM) to 1000'.

Gnd speed-KT	75	100	150	200	250	300
4.0% V/V (fpm)	304	405	608	810	1013	1215
4.1% V/V (fpm)	311	415	623	830	1038	1246



RWY	INITIAL CLIMB
<b>05L</b>	Climb on runway heading until leaving 600', then direct to TP050, NEPAS. Cross NEPAS at or above 4500'.
<b>05R</b>	Climb on runway heading until leaving 600', then direct to TP064, NEPAS. Cross NEPAS at or above 4500'.
SID	ROUTING
<b>NEPAS 2G</b>	From NEPAS to KUDOS.
<b>NEPAS 2T</b>	From NEPAS to TINHO.

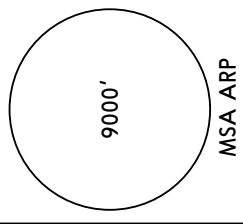
RCTP/TPE  
-TAOYUAN INTL

JEPPESEN  
30 DEC 16 **20-3B** Eff 5 Jan

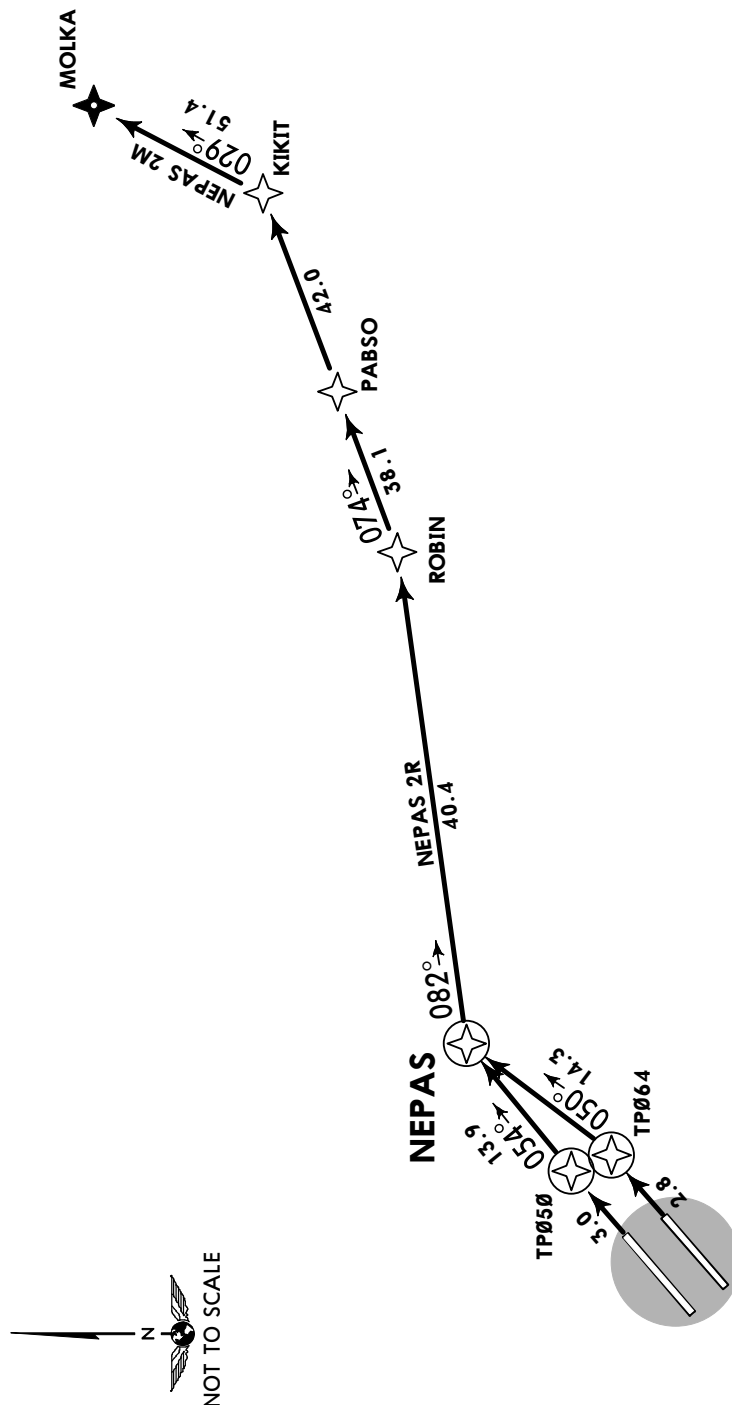
TAIPEI, TAIWAN  
**RNAV SID**

Apt Elev  
**108'**

Trans level: FL130 Trans alt: 11000'  
**1. RADAR monitoring required. 2. RNAV 1.**  
3. Critical DME & DME gap not surveyed.



NEPAS 2M (NP2M)  
NEPAS 2R (NP2R)  
RNAV DEPARTURES



These SIDs require minimum climb gradients of:  
Rwy 05L: 4.1% (250' per NM) to 900'.  
Rwy 05R: 4.0% (240' per NM) to 1000'.

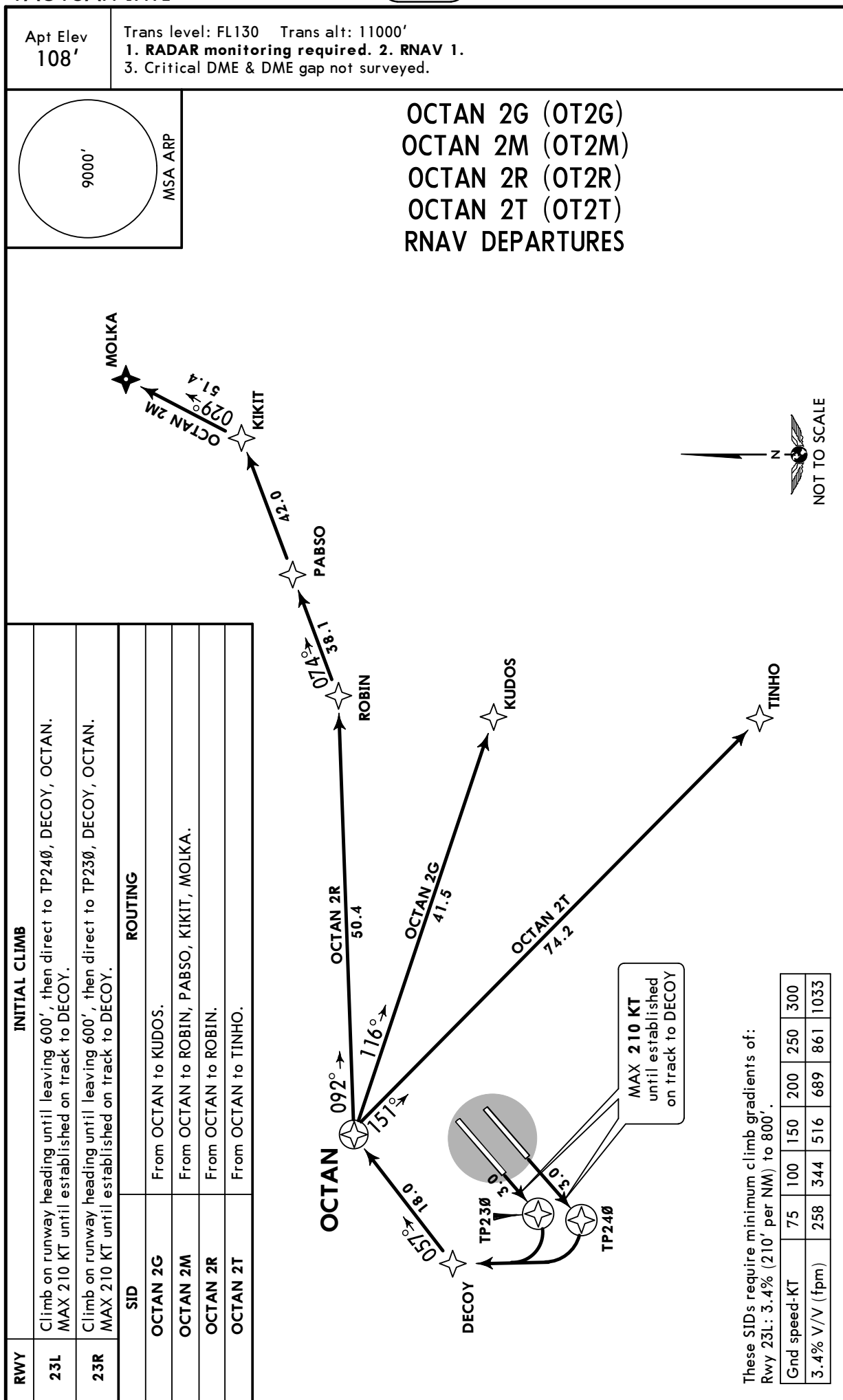
Gnd speed-KT	75	100	150	200	250	300
4.0% V/V (fpm)	304	405	608	810	1013	1215
4.1% V/V (fpm)	311	415	623	830	1038	1246

RWY	INITIAL CLIMB
05L	Climb on runway heading until leaving 600', then direct to TP050, NEPAS.
05R	Climb on runway heading until leaving 600', then direct to TP064, NEPAS.
ROUTING	
SID	
NEPAS 2M	From NEPAS to ROBIN, PABSO, KIKIT, MOLKA.
NEPAS 2R	From NEPAS to ROBIN.

**RCTP/TPE**  
**-TAOYUAN INTL**

**JEPPESEN**  
30 DEC 16 **(20-3C)** **Eff 5 Jan**

**TAIPEI, TAIWAN**  
**RNAV SID**



RCTP/TPE  
-TAOYUAN INTL

**JEPPESEN**  
30 DEC 16 (20-3D) Eff 5 Jan

**TAIPEI, TAIWAN**  
**RNAV SID**

SID	RWYS	INITIAL CLIMB
<b>PIANO 1A</b>	<b>05L/R</b>	Climb on runway heading until leaving 600', then direct to TP050/TP064, OCTAN, PIANO to join L3 RNAV Transition.
<b>PIANO 1B</b>	<b>23L/R</b>	Climb on runway heading until leaving 600', then direct to TP230/TP240, DECOY, OCTAN, PIANO to join L3 RNAV transition. MAX 210 KT until established on track to DECOY. Cross OCTAN at or above 800'.

These SIDs require minimum climb gradients of:

- Rwy 05L: 4.1% (250' per NM) to 900'.
- Rwy 05R: 4.0% (240' per NM) to 1000'.
- Rwy 23L: 3.4% (210' per NM) to 800'.

Gnd speed-KT	75	100	150	200	250	300
3.4% V/V (fpm)	258	344	516	689	861	1033
4.0% V/V (fpm)	304	405	608	810	1013	1215
4.1% V/V (fpm)	311	415	623	830	1038	1246

NOT TO SCALE

CHANGES: Chart reindexed, airport elevation, climb gradient note deleted.

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RCTP/TPE  
-TAOYUAN INTL

30 DEC 16

20-3E

**Eff 5 Jan**

## TAIPEI, TAIWAN

**SID**

Apt Elev  
108'

Trans level: FL130    Trans alt: 11000'

1. No turn before Departure End of Runway. 2. East sector is not permitted. 3. If unable to meet climb gradient, advise ATC.
4. Available hours: 0000-0300, 0600-1000 UTC daily; except heading 053° and 233° no time restriction.

9000'

MSA ARP

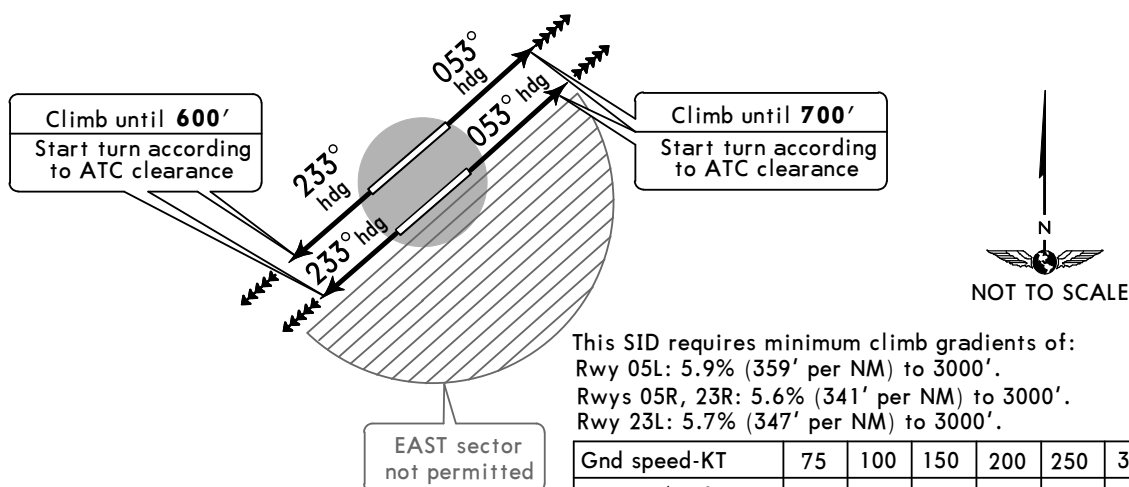
## SPRAY 1 RADAR DEPARTURE (SP1)

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼

If not in contact with departure control, squawk 7600. After passing 4500', continue climb to assigned altitude and proceed to assigned route/fix/transition.

- A. In airspace where RADAR is used in the provision of air traffic control, MAINTAIN the last assigned speed and level, or minimum flight altitude if higher, for a period of 7 minutes, following:
  1. The time the last assigned level or minimum flight altitude is reached; or
  2. The time the transponder is set to code 7600; or
  3. The aircraft's failure to report its position over a compulsory reporting point;whichever is later and thereafter adjust level and speed in accordance with the filed flight plan.
- B. When being RADAR vectored or having being directed by ATC to proceed offset using RNAV without a specified limit, rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude.
- C. Proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with D. below, hold over this aid or fix until commencement of descent.
- D. Commence descent from the navigation aid or fix specified in C. at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan;
- E. Complete a normal instrument approach procedure as specified for the designated navigation aid or fix; and
- F. Land, if possible, within 30 minutes after the estimated time of arrival specified in the filed flight plan or the last acknowledged expected approach time, whichever is later.

▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS



This SID requires minimum climb gradients of:  
 Rwy 05L: 5.9% (359' per NM) to 3000'.  
 Rwy 05R, 23R: 5.6% (341' per NM) to 3000'.  
 Rwy 23L: 5.7% (347' per NM) to 3000'.

Gnd speed-KT	75	100	150	200	250	300
5.6% V/V (fpm)	425	567	851	1134	1418	1701
5.7% V/V (fpm)	433	577	866	1155	1443	1732
5.9% V/V (fpm)	448	597	896	1195	1494	1792

RWY	INITIAL CLIMB
05L/R	Climb on heading 053° until 700', then start turn according to ATC clearance.
23L/R	Climb on heading 233° until 600', then start turn according to ATC clearance.
ROUTING	
EXPECT RADAR vectoring by ATC to join the cleared ATS route. ATC may assign headings from 053° counterclockwise to 233°.	

**RCTP/TPE**

Apt Elev **108'**  
N25 04.8 E121 13.9

30 DEC 16

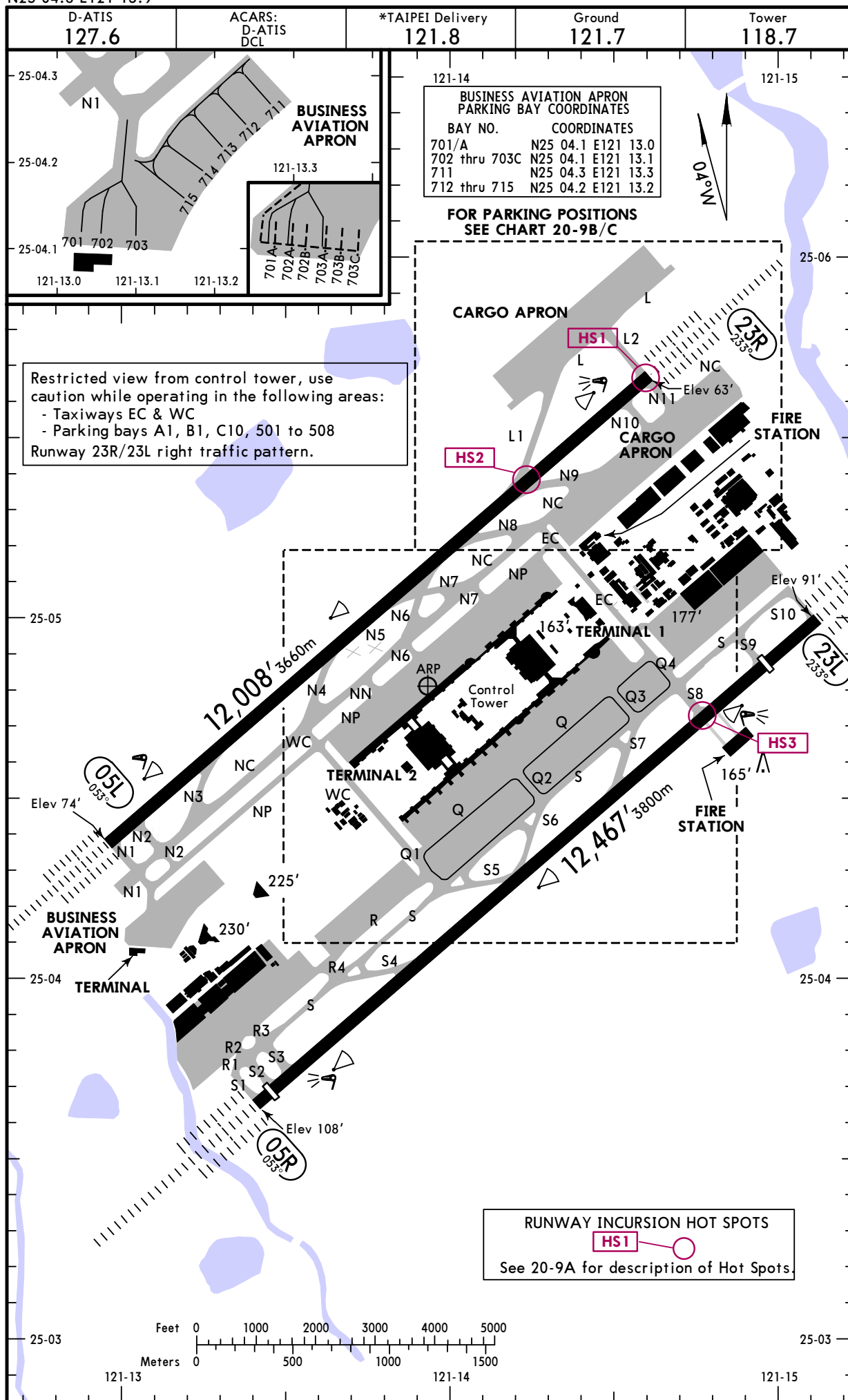
**(20-9)**

Eff 5 Jan

**JEPPesen**

**TAIPEI, TAIWAN**

-TAOYUAN INTL



CHANGES: VOR deleted.

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**RCTP/TPE****JEPPESEN**  
30 DEC 16 **20-9A****Eff 5 Jan****TAIPEI, TAIWAN**  
-TAOYUAN INTLGENERAL

Except as authorized by appropriate authority, no aircraft shall make engine tests from 1600-2200 UTC due to noise abatement.

SIDs comprise the 3 NM initial climb on runway heading are mandatory for noise abatement. No early turn should be made unless ATC instruction or in emergency.

North bound aircraft shall use RNAV departures during 1400-2300 UTC when runway 23R/23L is active.

Low-level wind shear alert system.

Birds in vicinity of airport.

**ADDITIONAL RUNWAY INFORMATION**

				ADDITIONAL RUNWAY INFORMATION		USABLE LENGTHS			
RWY				LANDING BEYOND		TAKE-OFF			
				Threshold	Glide Slope				
05L  23R	HIRL CL 49'(15m spacing) PAPI-L (angle 3.0°)	ALSF-II	TDZ	RVR	10,992' 3350m	①	197' 60m		
					11,004' 3354m				
① TAKE-OFF RUN AVAILABLE									
<u>RWY 05L:</u>				<u>RWY 23R:</u>					
From rwy head 12,008' 3660m				From rwy head 12,008' 3660m					
Twy N2 11,398' 3474m				Twy N10 11,394' 3473m					
05R  23L	HIRL CL 49'(15m spacing) PAPI-L (angle 3.0°)	ALSF-II	TDZ	RVR	12,139' 3700m	②	197' 60m		
					11,319' 3450m			10,281' 3134m	

**2 TAKE-OFF RUN AVAILABLE**RWY 05R:

From rwy head 12,467' 3800m  
 Twy S2 12,139' 3700m  
 Twy S3 11,660' 3554m

RWY 23L:

From rwy head 12,467' 3800m  
 Twy S8 9934' 3028m  
 Twy S9 11,319' 3450m

**RUNWAY INCURSION HOT SPOTS**

For information only, not to be constructed as ATC instructions.

Because of the configuration of the runways, taxiways and aprons, there are 3 locations where aircraft and vehicles will have to frequently cross the runway. These locations with potential risk of runway incursions are listed below as Hot Spots, and heightened attention by pilots/drivers is necessary.

**HS1** Taxiway N11 and L2 crossing runway 05L/23R to/from the cargo apron (parking bays 516-525).

**HS2** Taxiway N9 and L1 crossing runway 05L/23R to/from the cargo apron (parking bays 516-525).

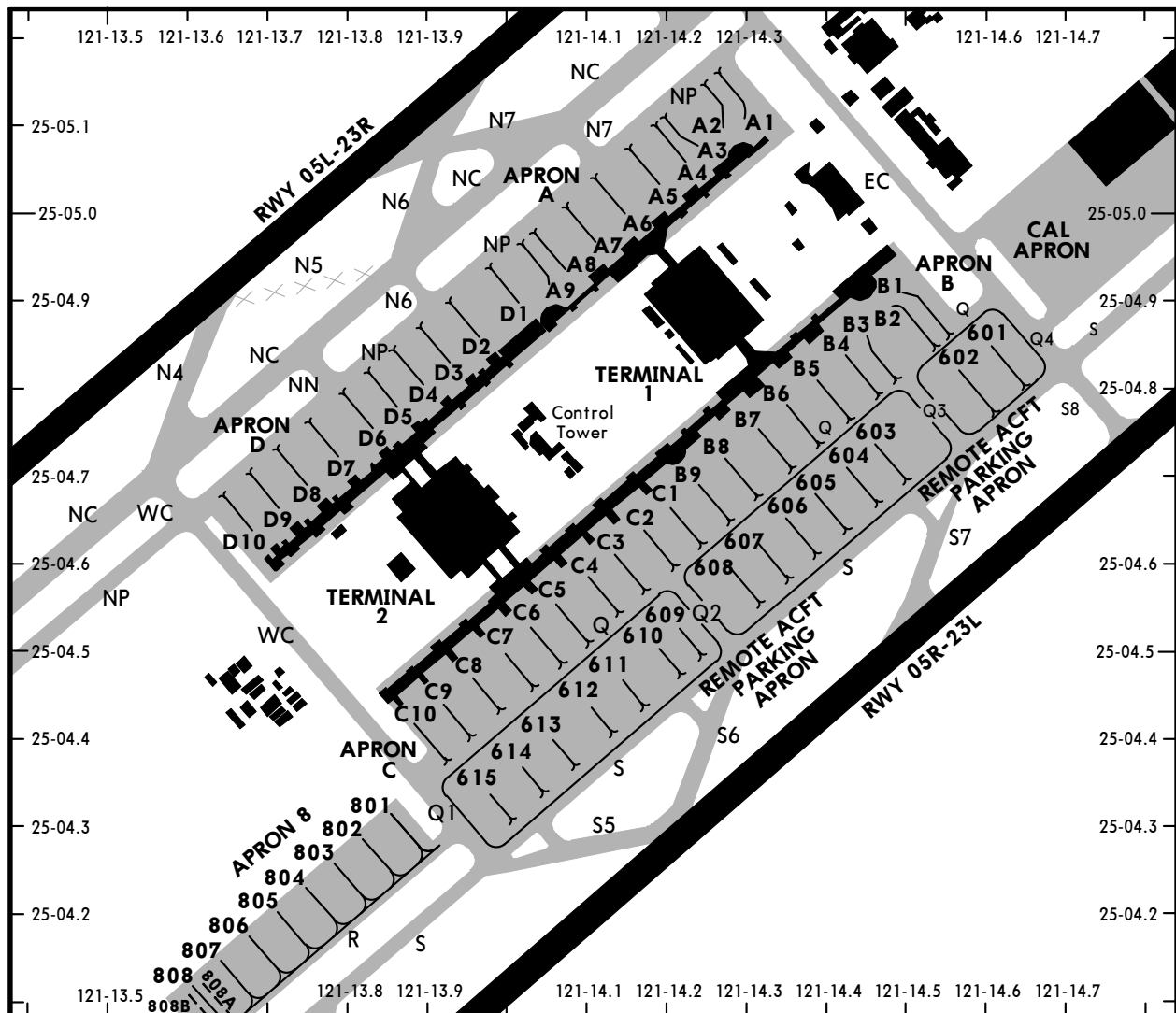
**HS3** The service road and taxiway S8 crossing runway 05R/23L to/from the south fire station.

**TAKE-OFF**

	All Rwys				
	RL, CL and 3 RVR	RL, CL and any 2 RVR	RL and RCLM	RL or CL out	Other
1 & 2 Eng	RVR 175m	RVR 350m	RVR 500m	VIS 1600m	Available Landing Minimums
3 & 4 Eng				800m	



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15 JAN 16 20-9BTAIPEI, TAIWAN  
-TAOYUAN INTL

## PARKING BAY COORDINATES

BAY No.	COORDINATES	BAY No.	COORDINATES
<b>APRON A - TERMINAL 1</b>		<b>APRON D - TERMINAL 2</b>	
A1 thru A3	N25 05.1 E121 14.3	D1	N25 04.9 E121 14.0
A4 thru A6	N25 05.0 E121 14.2	D2	N25 04.8 E121 14.0
A7, A8	N25 04.9 E121 14.1	D3 thru D5	N25 04.8 E121 13.9
A9	N25 04.9 E121 14.0	D6 thru D8	N25 04.7 E121 13.8
		D9, D10	N25 04.6 E121 13.7
<b>APRON B - TERMINAL 1</b>		<b>REMOTE ACFT PARKING APRON</b>	
B1 thru B3	N25 04.9 E121 14.5	601, 602	N25 04.8 E121 14.6
B4	N25 04.9 E121 14.4	603	N25 04.7 E121 14.5
B5	N25 04.8 E121 14.4	604, 605	N25 04.7 E121 14.4
B6, B7	N25 04.8 E121 14.3	606	N25 04.6 E121 14.4
B8	N25 04.7 E121 14.3	607, 608	N25 04.6 E121 14.3
B9	N25 04.7 E121 14.2		
<b>APRON C - TERMINAL 2</b>		609, 610	N25 04.5 E121 14.2
C1	N25 04.7 E121 14.2	611	N25 04.5 E121 14.1
C2	N25 04.6 E121 14.2	612, 613	N25 04.4 E121 14.1
C3 thru C5	N25 04.6 E121 14.1	614	N25 04.4 E121 14.0
C6, C7	N25 04.5 E121 14.0	615	N25 04.3 E121 14.0
C8, C9	N25 04.5 E121 13.9		
C10	N25 04.4 E121 13.9	<b>APRON 8</b>	
		801	N25 04.3 E121 13.8
		802, 803	N25 04.3 E121 13.8
		804	N25 04.2 E121 13.7
		805 thru 807	N25 04.2 E121 13.7
		808, 808A/B	N25 04.1 E121 13.6

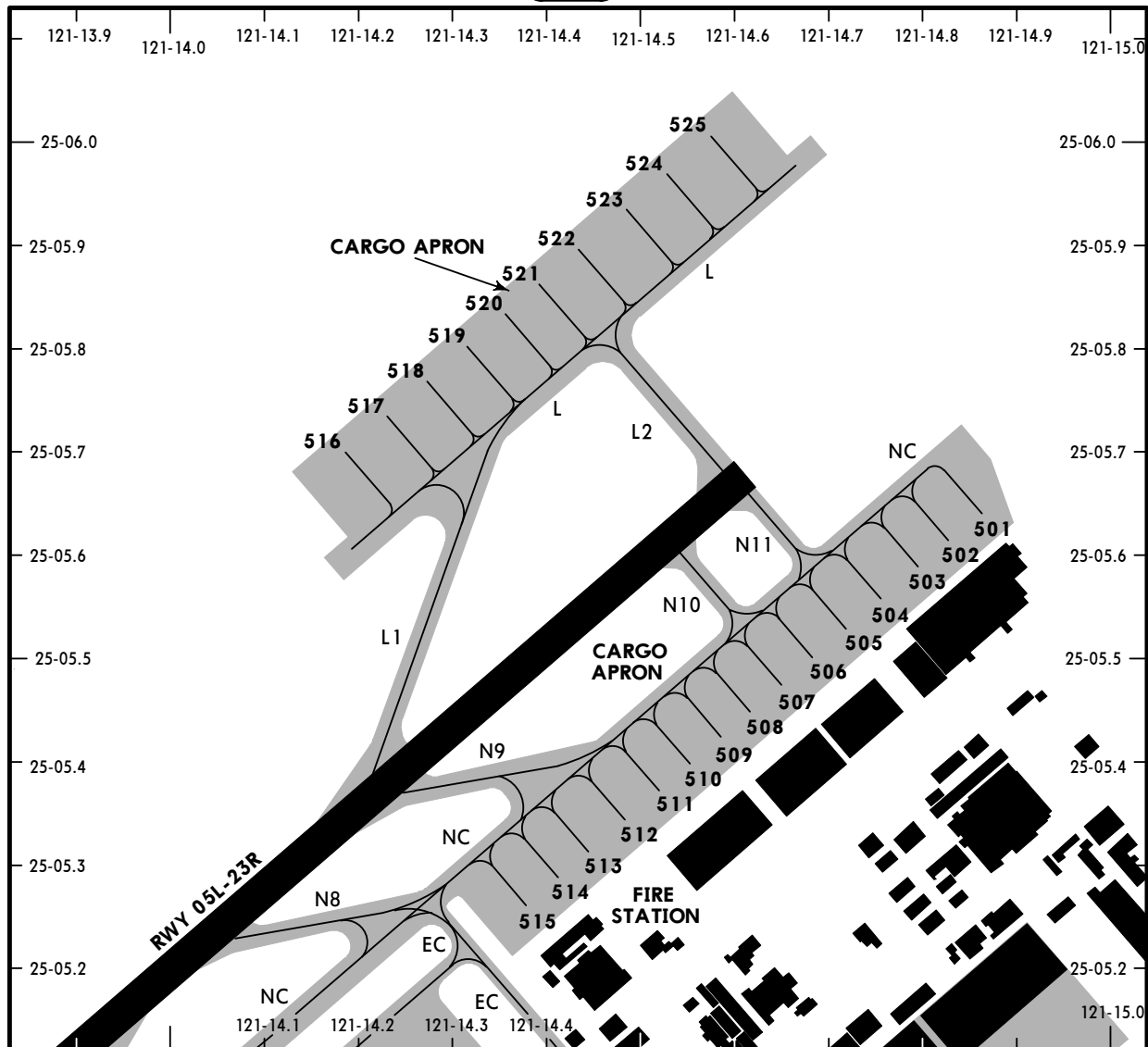
CHANGES: Airport beacon withdrawn, twy N5 closed.

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RCTP/TPE

**JEPPESEN**  
15 JAN 16 **(20-9C)**

**TAIPEI, TAIWAN**  
-TAOYUAN INTL



**PARKING BAY COORDINATES**

BAY No.	COORDINATES		
<b>CARGO APRON</b>			
501	N25 05.6 E121 14.9		
502, 503	N25 05.6 E121 14.8		
504	N25 05.5 E121 14.8		
505, 506	N25 05.5 E121 14.7		
507	N25 05.4 E121 14.7		
508 thru 510	N25 05.4 E121 14.6		
511 thru 513	N25 05.3 E121 14.5		
514	N25 05.3 E121 14.4		
515	N25 05.2 E121 14.4		
516, 517	N25 05.7 E121 14.2		
518	N25 05.7 E121 14.3		
519, 520	N25 05.8 E121 14.3		
521	N25 05.8 E121 14.4		
522	N25 05.9 E121 14.4		
523, 524	N25 05.9 E121 14.5		
525	N25 06.0 E121 14.6		

**RCTP/TPE** **JEPPESEN**  
23 SEP 16 (20-9D)**TAIPEI, TAIWAN**  
-TAOYUAN INTL**START-UP, PUSHBACK AND TAXIING PROCEDURE**

Departing aircraft shall not commence start-up, push back or other movements unless they have been approved by ATC.

**ATC CLEARANCE**

1. Aircraft shall call "Taipei Delivery" or "Taipei Ground" for obtaining ATC clearance 5 minutes ahead of engine start-up:
  - a. 23:00-15:00UTC, Taipei Delivery on 121.8MHZ.
  - b. 15:00-23:00UTC, Taipei Ground on 121.7MHZ.
2. Aircraft are to call "Taipei Delivery" or "Taipei Ground", as appropriate, giving their call sign, parking bay number, and proposed flight level. When flight operations permit, pilots are encouraged to identify a strata of acceptable altitudes so that an altitude may be assigned with one message in order to avoid communication congestion; then, ATC will assign a suitable altitude.
3. An aircraft requesting an altitude occupied by a transit flight operating through the Taipei FIR may have to accept an alternate altitude or may have to delay its departure in order for ATC to establish the prescribed separation.
4. Unless a restriction on departure time has otherwise been specified, an aircraft that is not ready to push back within five minutes of receiving an ATC clearance may have its clearance withdrawn. In such a situation, ATC will inform the aircraft of the clearance cancellation plus the reason. Following the cancellation of an ATC clearance, aircraft will follow the normal clearance request procedure as if it is the first time they were ready to depart.

**START-UP AND PUSHBACK**

1. Ground control at Taipei/Taiwan Taoyuan International Airport
  - a. 23:00-10:00UTC, Aircraft using APRON B, APRON C and REMOTE-PARKING APRON (601-615) call "Taipei Ground" on 121.6MHZ. Aircraft using the rest of APRON call "Taipei Ground" on 121.7MHZ.
  - b. 10:00-23:00UTC, Aircraft call "Taipei Ground" on 121.7MHZ.
2. After receiving the ATC clearance, aircraft are to call Taipei Ground for start-up and push back when ready.
3. Unless otherwise approved by ATC departing aircraft, at the end of push back, must have all engines started and be ready to taxi to reduce the overall delay of traffic.

**TAXIING**

1. Unless otherwise approved by ATC, pilots shall not cross runways or use runways for taxiing.
2. Aircraft may request tower for FOLLOW ME guidance if necessary. But FOLLOW ME guidance is needed when taxiing within business aviation apron.

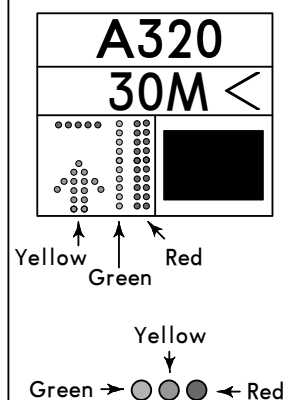
RCTP/TPE

JEPPESEN  
23 SEP 16 (20-9E)TAIPEI, TAIWAN  
-TAOYUAN INTL**A-VDGS (ADVANCED VISUAL DOCKING GUIDANCE SYSTEM)  
COMMISSIONED AT TAIPEI/TAIWAN TAOYUAN  
INTERNATIONAL AIRPORT**

Advanced Visual Docking Guidance System (A-VDGS) is installed at parking bay A1-A9, B1-B9, C1-C10, D1-D10, 501-525 of Taipei/Taiwan Taoyuan International Airport.

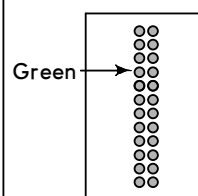
**1. Description of System**

- I. Docking information, such as aircraft type, is displayed in the first row. Make sure the correct aircraft type is displayed, if not, the aircraft shall stop immediately and must be manually guided in by a marshaller.
- II. When an aircraft is detected 40M before the stop position, the green azimuth center bar will be displayed in the third row to alert the aircraft whether it is on center line or not. If the red light bar appears on the right/left side of the green azimuth center bar, simultaneously a flashing red arrow will be shown in the second row, indicating the aircraft is off center line and it should be moved leftwards/rightwards.
- III. Starting at 30M away from the stop position, the digital close-in distance is displayed in second row. If the aircraft is approaching faster than the accepted speed, the second row will display "SLOW" as a warning to the pilot. The yellow arrow will proceed every 3M until it merges with the red stop line.
- IV. The system will be suspended when RVR is at or below 550m.

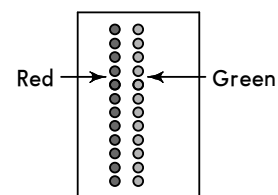
**2. Display Information**

**Caution: Always steer and follow to the green azimuth center bar.**

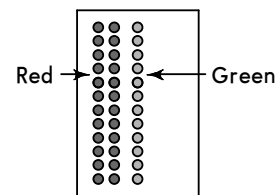
Aircraft on the green azimuth center bar



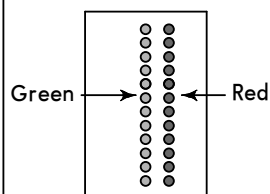
Aircraft a little left of the green azimuth center bar, steer towards the green azimuth center bar



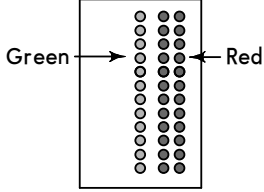
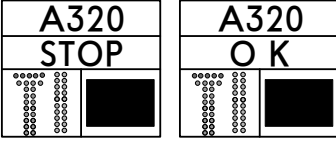
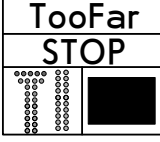
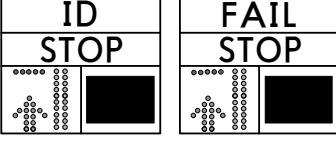
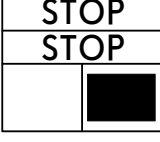
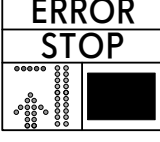
Aircraft more left of the green azimuth center bar, steer towards the green azimuth center bar



Aircraft a little right of the green azimuth center bar, steer towards the green azimuth center bar



**RCTP/TPE****JEPPESEN**  
23 OCT 15 **(20-9F)****TAIPEI, TAIWAN**  
-TAOYUAN INTL**ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (CONTD)**

Aircraft more right of the green azimuth center bar, steer towards the green azimuth center bar	
The aircraft is perfectly parked at the stop position, the second row will display "STOP." If no motion is detected, the word "OK" will be displayed to follow.	
If the aircraft has overshoot the stop position, the word "TooFar" is displayed. The aircraft shall stop immediately.	
The system displays alternate "ID/FAIL" in the first row. The second row displaying "STOP" indicates that the incoming aircraft is identified and verified incorrectly. The aircraft shall stop immediately and must be manually guided in by a marshaller.	
The first and second row will display "STOP". The aircraft shall stop immediately and must be manually guided in by a marshaller.	
The first and second row displaying "ERROR" and "STOP" indicates the system detects any hardware error. The aircraft shall stop immediately and must be manually guided in by a marshaller.	

**RCTP/TPE** **JEPPESEN**  
15 JAN 16 (20-9K)**TAIPEI, TAIWAN**  
-TAOYUAN INTL**SURFACE MOVEMENT SURVEILLANCE SYSTEM OF TAIPEI/  
TAIWAN TAOYUAN INTERNATIONAL AIRPORT**

Aircraft operators should ensure that the Mode S transponders are able to operate when the aircraft is on the ground according to ICAO specifications.

1. Aircraft equipped with Mode S transponder, Pilots shall adhere to the following procedures:
  - a. Departing aircraft, from either push-back or taxi request, whichever is earlier:
    - i. Enter through the FMS or transponder control panel:
      - Flight Identification as specified in item 7 of ICAO flight plan form; or
      - In the absence of Flight Identification, the Aircraft Registration;
    - ii. Select XPNDR or its equivalent depending on the specification of the installed model;
    - iii. Select AUTO mode, if the function is available;
    - iv. Do not select the OFF or STANDBY functions;
    - v. Set the Mode A code assigned by ATC and activate the Mode S transponder.
  - b. Arriving aircraft, after landing until it is stationary at the aircraft stand:
    - i. Select XPNDR or its equivalent depending on the specification of the installed model;
    - ii. Select AUTO mode, if the function is available;
    - iii. Do not select the OFF or STANDBY functions;
    - iv. Maintain the Mode A code assigned by ATC;
    - v. Deactivate the Mode S transponder immediately after fully parked.
2. Aircraft not equipped with Mode S transponder or with unserviceable Mode S transponder; Pilots shall adhere to the following procedures:
  - a. Departing aircraft:
    - Maintain Mode A + C transponder to OFF until line up;
  - b. Arriving aircraft:
    - Set the Mode A + C transponder to OFF as soon as the runway is vacated;
  - c. Pilots of departing aircraft are requested to state, "No Mode S transponder" or "Mode S transponder unserviceable" to Taipei Delivery at initial contact.
3. To avoid the performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) from being compromised; TCAS should not be selected before cleared to line up on the departure runway. For arriving aircraft, TCAS should be deselected as soon as possible after vacating the runway.

**RCTP/TPE** **JEPPESEN**  
15 JAN 16 (20-9L)**TAIPEI, TAIWAN**  
-TAOYUAN INTL**LOW VISIBILITY PROCEDURES FOR PILOTS  
AT TAIPEI/TAIWAN TAOYUAN INTERNATIONAL AIRPORT**

1. Pilots are expected to note the following when taxiing during low visibility:
  - a. Pilots and aircraft operators shall constantly be aware that during low visibility conditions the movement of aircraft and vehicles on the airport may not be visible to the tower controller. This may prevent visual confirmation of pilots' compliance with taxiing instructions. Pilots should, therefore, exercise extreme vigilance and proceed cautiously under such conditions.
  - b. When visual difficulties are encountered, or at the first indication of becoming disoriented, pilots should immediately inform the controller.
2. The weather criteria of Low Visibility Procedures (LVP) is defined as 'When RVR is below 550M or when RVR is not available but VIS 800M'.
  - a. When RVR is below 550M or when RVR is not available but VIS 800M.
    - i. ATIS broadcasts "Low Visibility Procedure in effect."
    - ii. Tower may issue progressive taxi instructions in accordance with air traffic management procedure.
    - iii. Tower may request aircraft to report when passing specific intersection, or instruct aircraft to hold short of specific intersection.
  - b. When VIS/RVR is below 300M (Still Low Visibility Procedures):  
Tower shall provide updated RVR continuously to the aircraft which has been approved to take off or land.
  - c. When VIS/RVR is below 175M (Still Low Visibility Procedures):
    - i. Tower shall advise all aircraft on maneuvering area that the VIS/RVR is below 175m.
    - ii. Tower shall provide current RVR to the departure aircraft and obtain their intentions before approving start-up and pushback, thereafter, the Low Visibility Procedure will be exercised.
    - iii. Tower shall provide current RVR to the departure aircraft which have already taxied out and arrange them to depart, taxi back to apron or wait on suitable points according to pilot's intention.
3. When Low Visibility Procedures are in force and The Surface Movement Surveillance System or Stop Bars are out of service:
  - a. ATIS broadcasts "Surface Movement Surveillance System out of service" or "Stop Bars out of service."
  - b. ATIS broadcasts "Landing aircraft shall vacate runway via the end."
  - c. Tower may provide "block separation" to aircraft/vehicles on the maneuvering area. (Block separation: Maneuvering area is divided into blocks according to the intersections of runways and taxiways. No more than one aircraft is allowed in each block at any time).
  - d. Aircraft shall taxi via the standard taxi route. Tower shall issue alternative taxi route when the standard taxi route is not available due to construction works or designated taxi route for specific aircraft type (ex: A380).
  - e. Unless ATC instructs the landing aircraft to remain on runway for the separation purpose, arriving aircraft shall vacate runway and continue proceeding to the checkpoints as follows:
    - Rwy 05L: intersection of Twy NC/N10 or L/L2
    - Rwy 23R: intersection of Twy NP/N1 or NC/N2
    - Rwy 05R: intersection of Twy S/S9
    - Rwy 23L: intersection of Twy R/R1 or S/S3.
  - f. The number of traffic allowed on maneuvering area will be significantly reduced.
4. When Low Visibility Procedures are in force, The Surface Movement Surveillance System and Stop Bars are out of service:
  - a. ATIS broadcasts "Surface Movement Surveillance System and Stop Bars out of service."
  - b. Tower may provide "degraded block separation" to aircraft/vehicles on the maneuvering area.
  - c. The number of traffic allowed on maneuvering area will be reduced to 4 and under.
5. Low Visibility Procedure standard taxi route chart and block/checkpoint diagram found on charts 20-9M thru 20-9R.

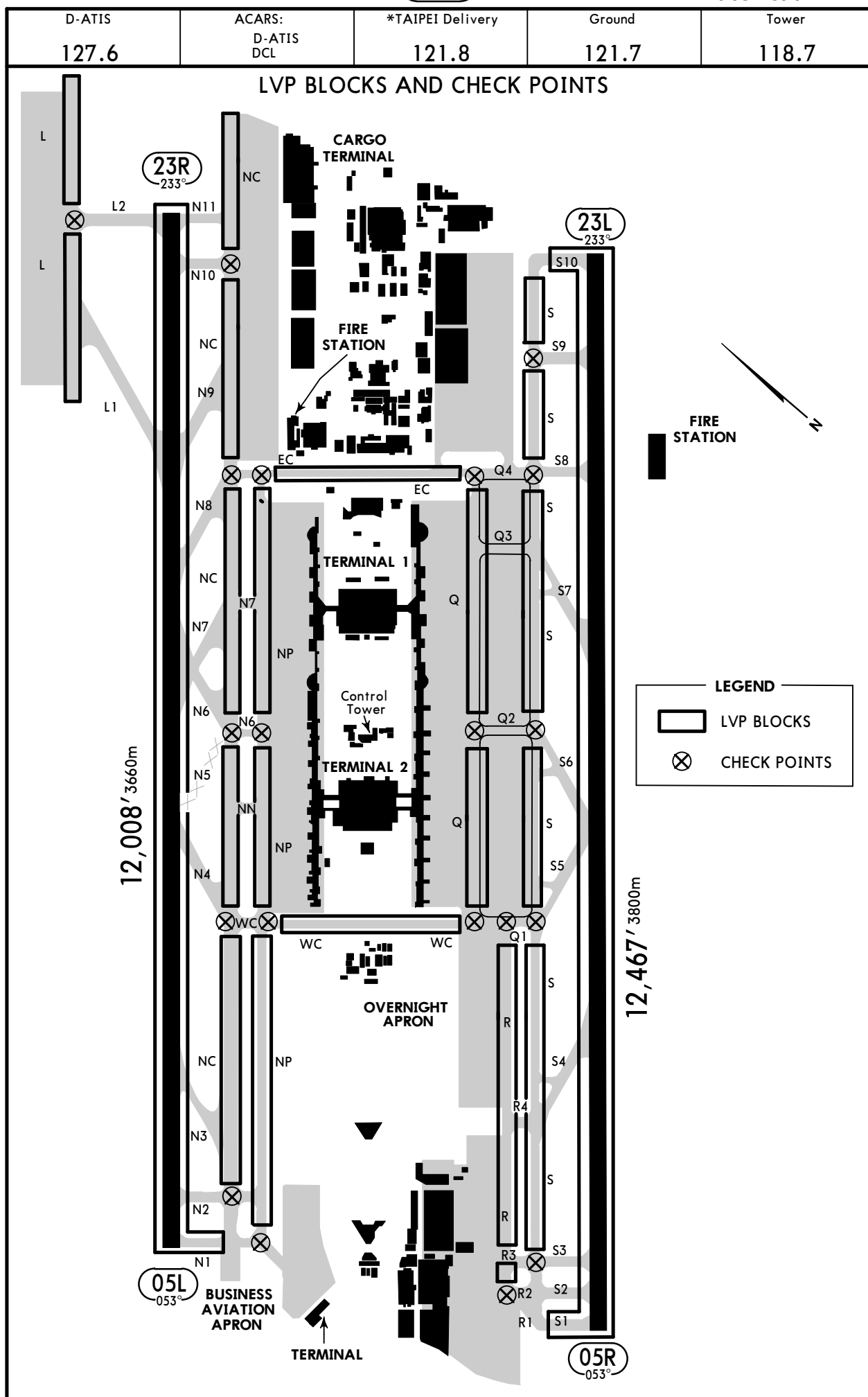
RCTP/TPE

**JEPPESEN**

TAIPEI, TAIWAN

4 NOV 16 **(20-9M)** Eff 10 Nov

-TAOYUAN INTL





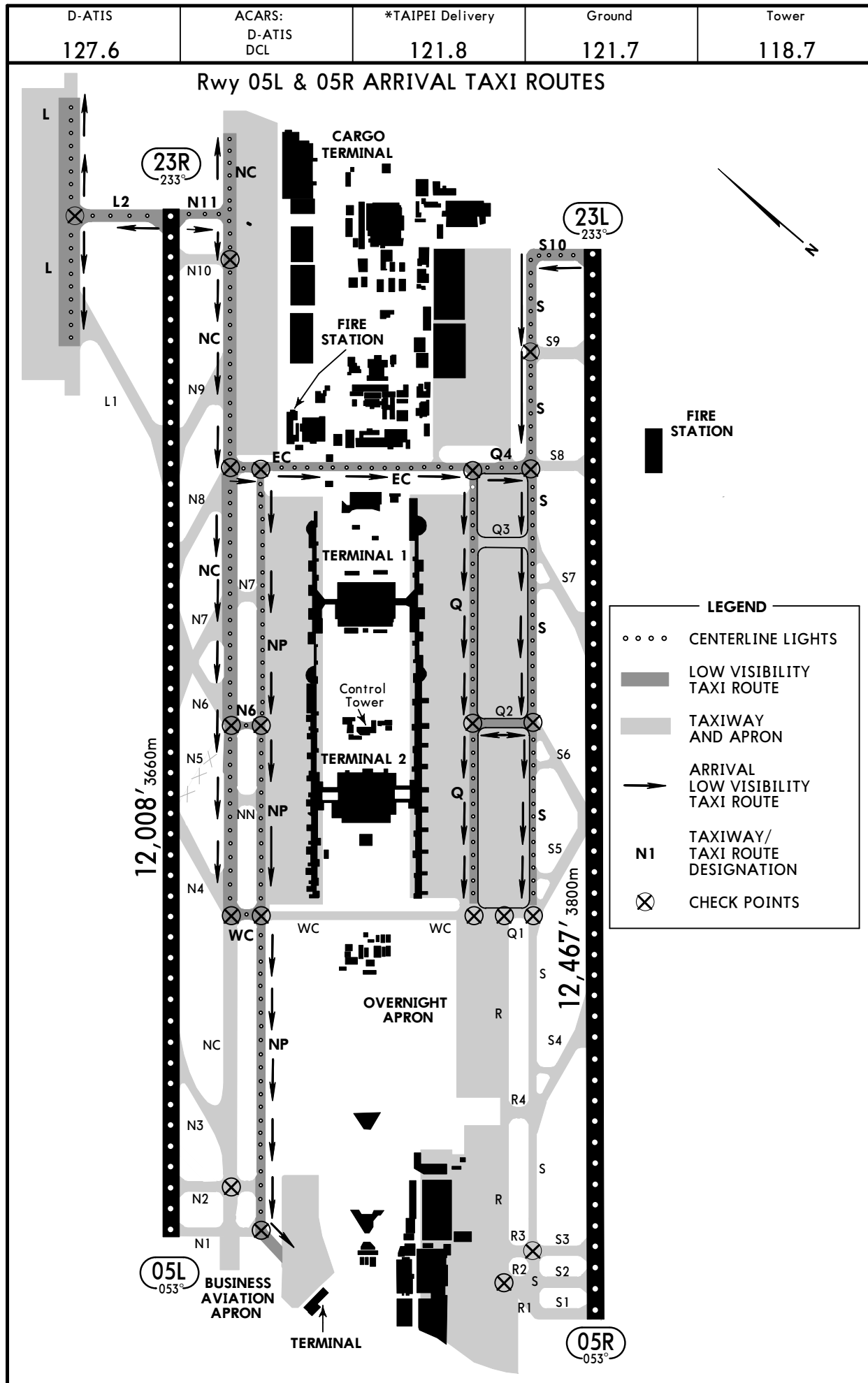
**RCTP/TPE**  
**-TAOYUAN INTL**

4 NOV 16

**(20-9N)** Eff 10 Nov

**TAIPEI, TAIWAN**  
**LOW VISIBILITY TAXI ROUTES**

**RVR 800m OR LESS**



CHANGES: Taxiway N3 added.

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**RCTP/TPE**

**-TAOYUAN INTL**

4 NOV 16

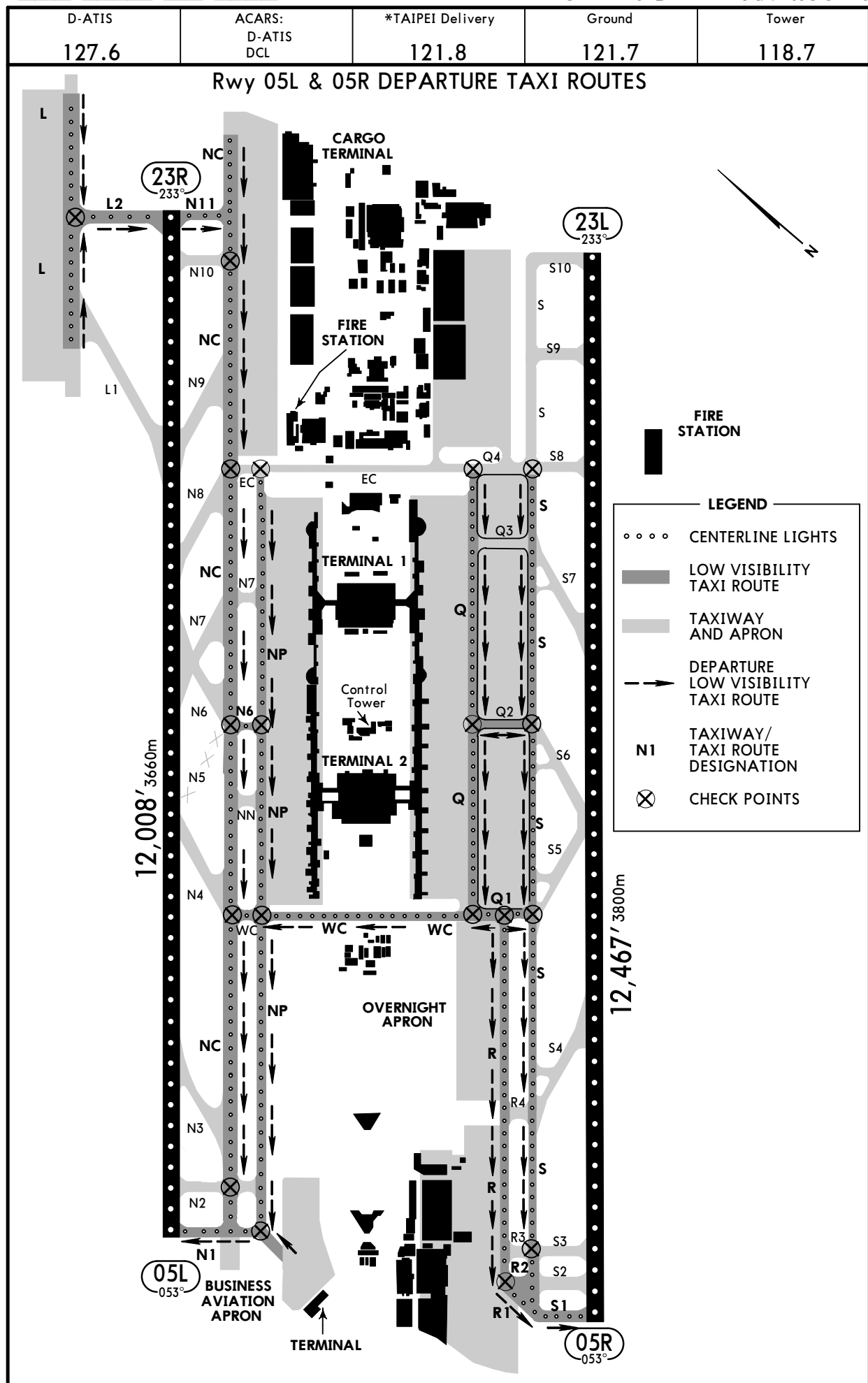
**(20-9P)**

**Eff 10 Nov**

**TAIPEI, TAIWAN**

**RVR 800m OR LESS**

**LOW VISIBILITY TAXI ROUTES**



CHANGES: Taxiway N3 added.

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**RCTP/TPE**

**-TAOYUAN INTL**

4 NOV 16

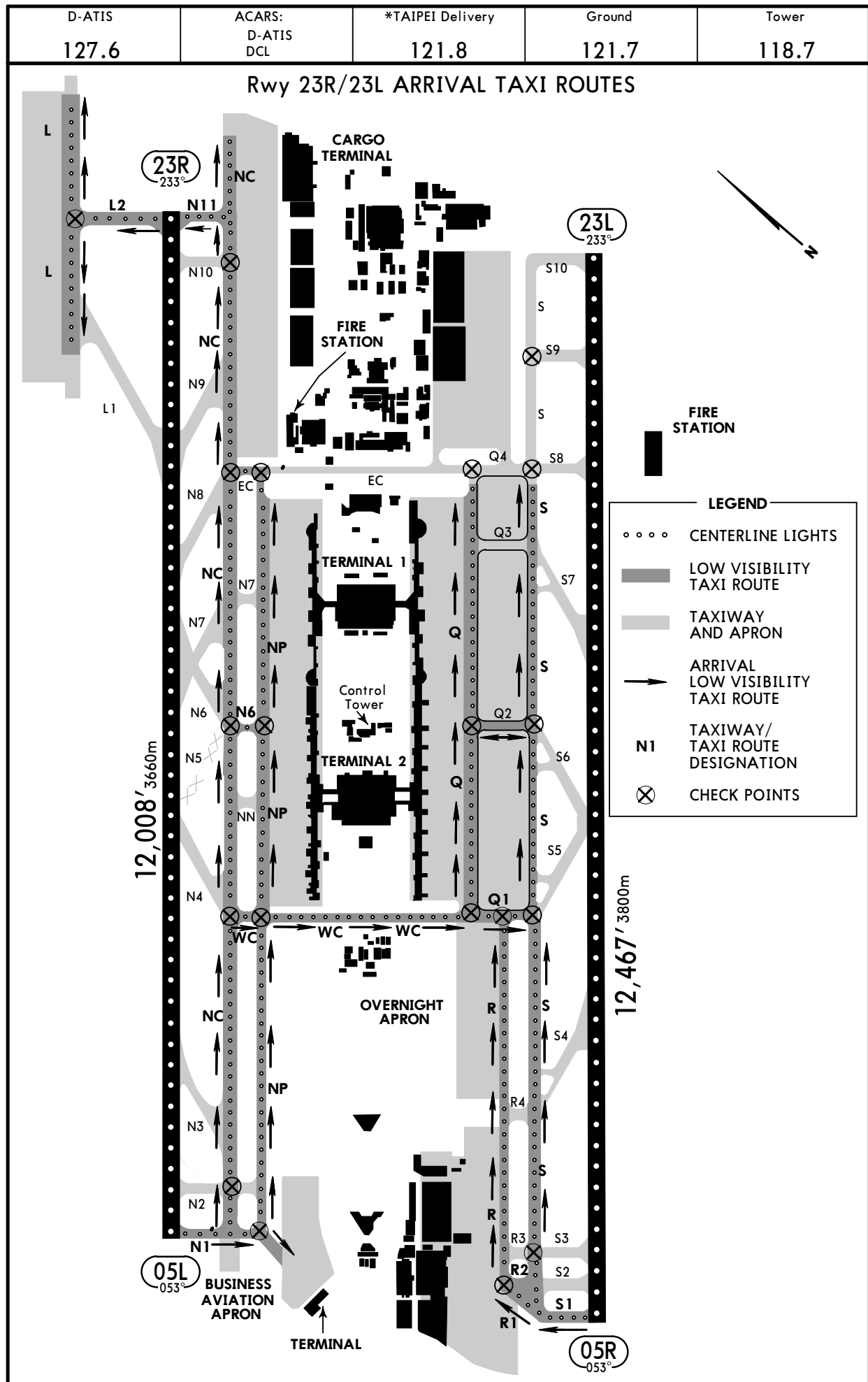
**(20-9Q)**

**Eff 10 Nov**

**TAIPEI, TAIWAN**

**RVR 800m OR LESS**

**LOW VISIBILITY TAXI ROUTES**



CHANGES: Taxiway N3 added.

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**RCTP/TPE**

**-TAOYUAN INTL**

4 NOV 16

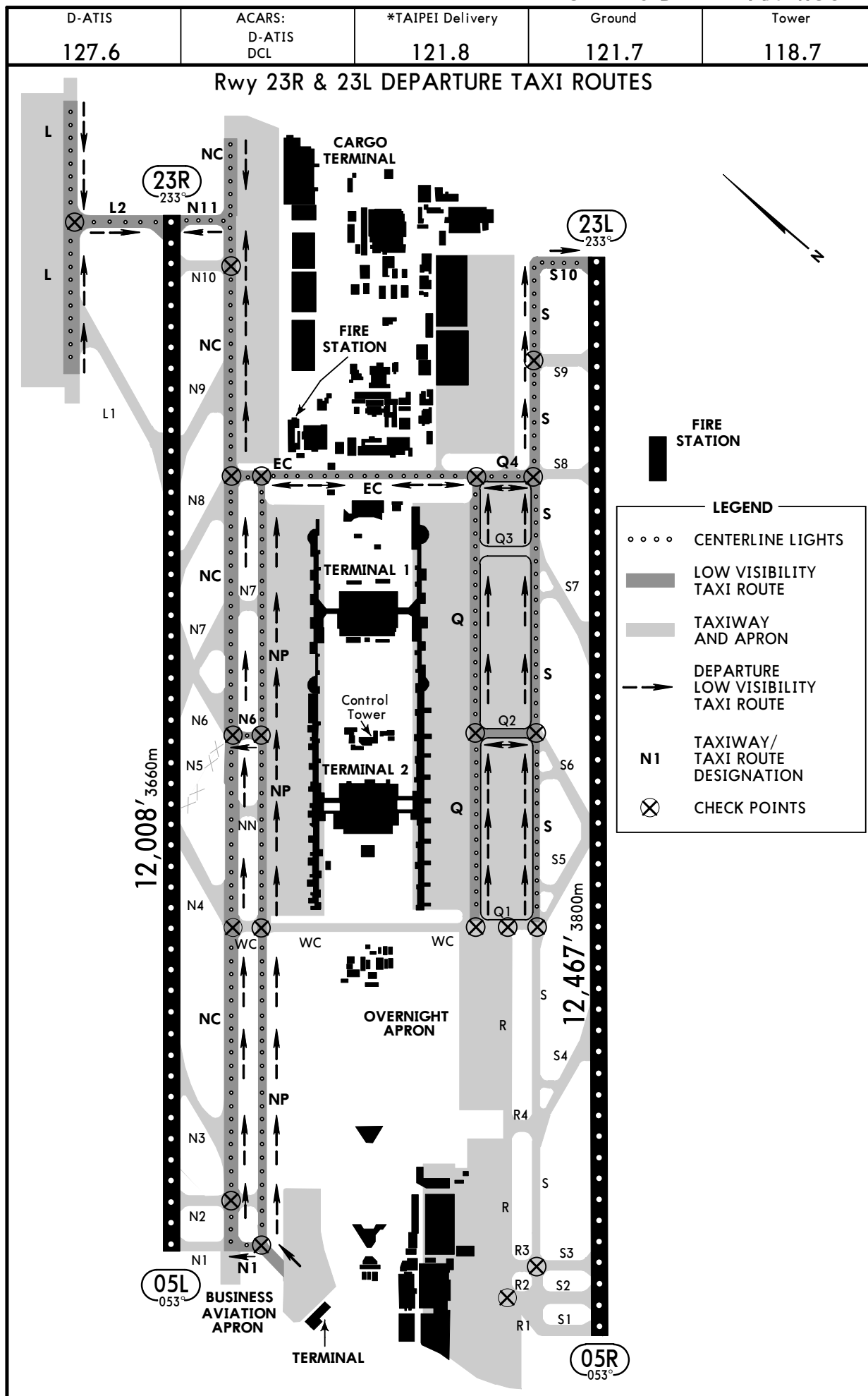
**(20-9R)**

**Eff 10 Nov**

**TAIPEI, TAIWAN**

**RVR 800m OR LESS**

**LOW VISIBILITY TAXI ROUTES**



CHANGES: Taxiway N3 added.

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# RCTP/TPE -TAOYUAN INTL

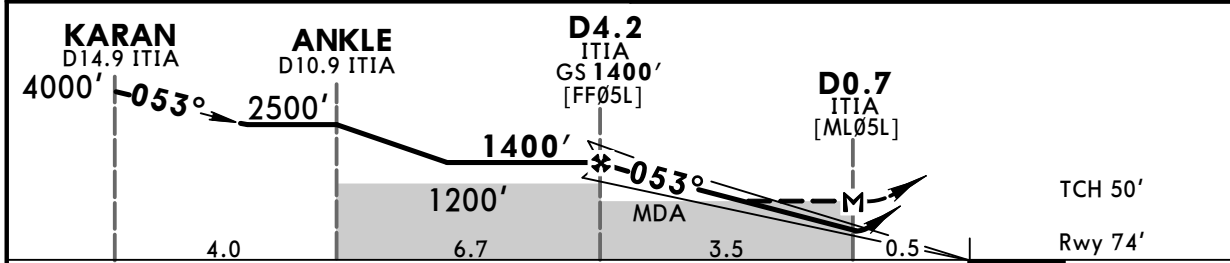
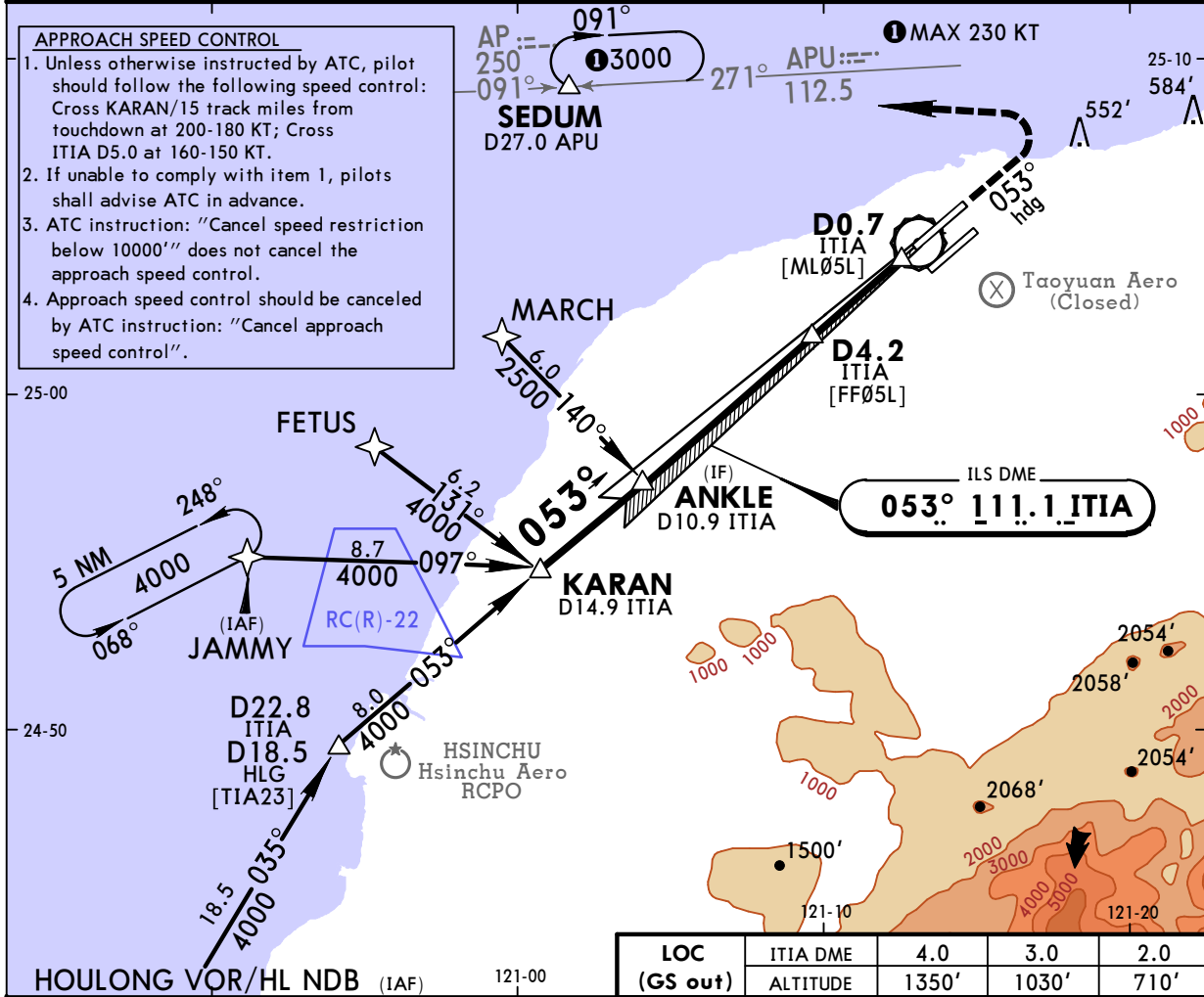
30 DEC 16 (21-1) Eff 5 Jan

## TAIPEI, TAIWAN ILS or LOC Rwy 05L

BRIEFING STRIP TM	D-ATIS 127.6		TAIPEI Approach (R) 125.1      128.5		TAIPEI Tower 118.7      129.3		Ground 121.7      121.6	
	LOC ITIA 111.1	Final Apch Crs 053°	GS D4.2 ITIA 1400' (1326')	ILS Refer to Minimums	Apt Elev 108' Rwy 74'		<div><div>9000'</div><div>MSA ARP</div></div>	
	MISSED APCH: Climb on 053° heading to 800', then turn LEFT direct to SEDUM, maintain 3000' and hold.							
	Alt Set: hPa      Rwy Elev: 3 hPa      Trans level: FL 130      Trans alt: 11000'							
	1. DME required. 2. Radar monitoring required for missed apch and dead-reckoning segment. 3. No turn prior to MAP.							

### APPROACH SPEED CONTROL

1. Unless otherwise instructed by ATC, pilot should follow the following speed control: Cross KARAN/15 track miles from touchdown at 200-180 KT; Cross ITIA D5.0 at 160-150 KT.
2. If unable to comply with item 1, pilots shall advise ATC in advance.
3. ATC instruction: "Cancel speed restriction below 10000'" does not cancel the approach speed control.
4. Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



Gnd speed-Kts	70	90	100	120	140	160	<div><div>ALSF-II</div><div>PAPI</div><div><div>800'</div><div>on</div><div>053°</div><div>hdg</div><div>LT</div></div></div>	SEDUM	
Gs	3.00°	372	478	531	637	743			849
MAP at D0.7 ITIA									

PANS OPS	STRAIGHT-IN LANDING RWY05L				CIRCLE-TO-LAND	
	ILS			LOC (GS out)	Not Authorized Southeast of Rwy 05R/23L	
	DA(H)			MDA(H)		
	A: 274' (200') C: 289' (215') B: 281' (207') D: 300' (226')			550' (476')		
	FULL	TDZ and/or CL out	ALS out	ALS out	Max Kts	MDA(H)
A				R/V 1200m	100	880' (772') - 1900m
B				1600m	135	930' (822') - 2800m
C	RVR 550m VIS 800m	RVR 750m VIS 800m	R/V 1200m	1600m	180	1030' (922') - 4400m
D				2200m	205	1030' (922') - 4800m

CHANGES: MSA, VOR DME TIA deleted, JAMMY wpt note deleted.

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**RCTP/TPE**  
**-TAOYUAN INTL**

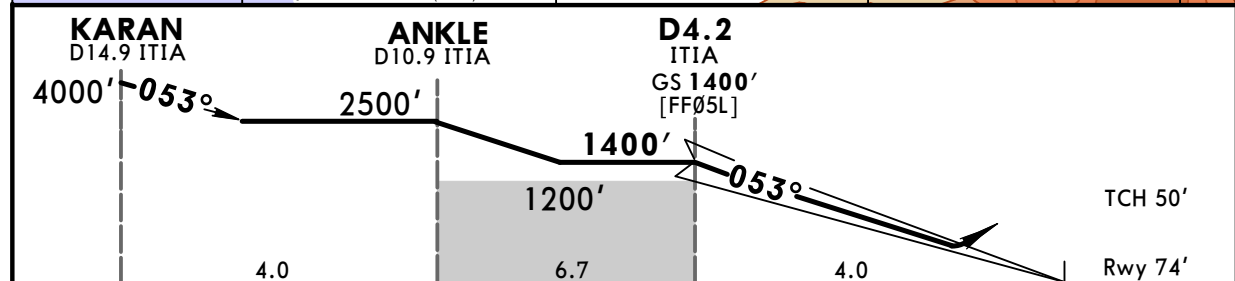
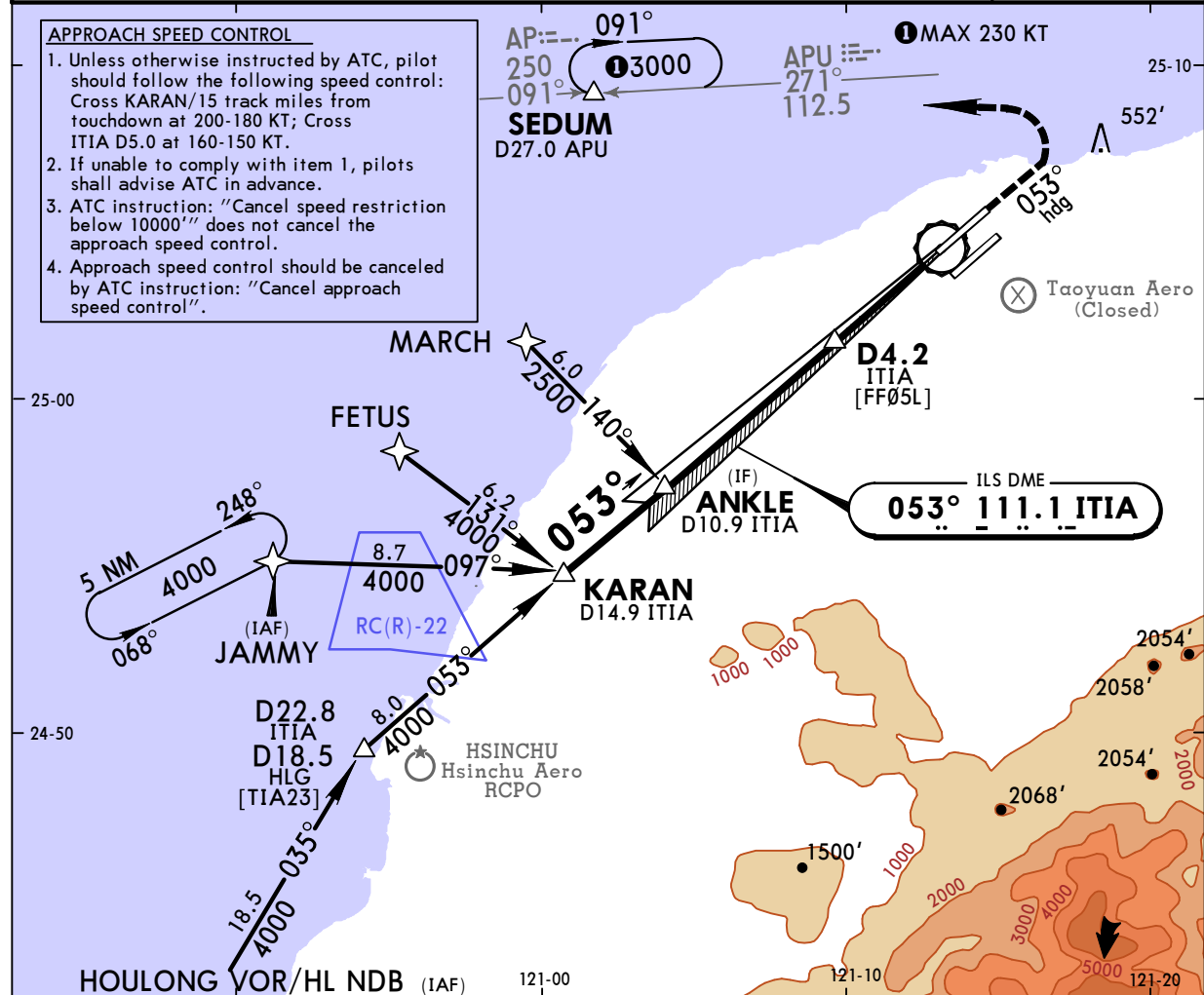
30 DEC 16 **(21-1A)** Eff 5 Jan

**TAIPEI, TAIWAN**  
**ILS Rwy 05L CAT II**

BRIEFING STRIP™	D-ATIS 127.6		TAIPEI Approach (R) 125.1      128.5		TAIPEI Tower 118.7      129.3		Ground 121.7      121.6	
	LOC ITIA 111.1	Final Apch Crs 053°	GS D4.2 ITIA 1400' (1326')	CAT II ILS Refer to Minimums		Apt Elev 108' Rwy 74'		<div><div>9000'</div><div>MSA ARP</div></div>
	MISSED APCH: Climb on 053° heading to 800', then turn LEFT direct to SEDUM, maintain 3000' and hold.							
	Alt Set: hPa      Rwy Elev: 3 hPa      Trans level: FL 130      Trans alt: 11000'							
	1. DME Required. 2. Special Aircrew & Acft Certification Required. 3. Radar monitoring required for missed apch and dead-reckoning segment. 4. No turn prior to THR Rwy 05L.							

**APPROACH SPEED CONTROL**

- Unless otherwise instructed by ATC, pilot should follow the following speed control: Cross KARAN/15 track miles from touchdown at 200-180 KT; Cross ITIA D5.0 at 160-150 KT.
- If unable to comply with item 1, pilots shall advise ATC in advance.
- ATC instruction: "Cancel speed restriction below 10000'" does not cancel the approach speed control.
- Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



ALSIF-II	800'	053°	LT	SEDUM
PAPI	↑	hdg		

**STRAIGHT-IN LANDING RWY05L**

**CAT II ILS**

A, B, C: **RA 100'** D: **RA 107'**  
DA(H) **174'** (100') DA(H) **181'** (107')

**RVR 300m**

PANS OPS

RCTP/TPE  
-TAOYUAN INTL

JEPPESEN

30 DEC 16 (21-2) Eff 5 Jan

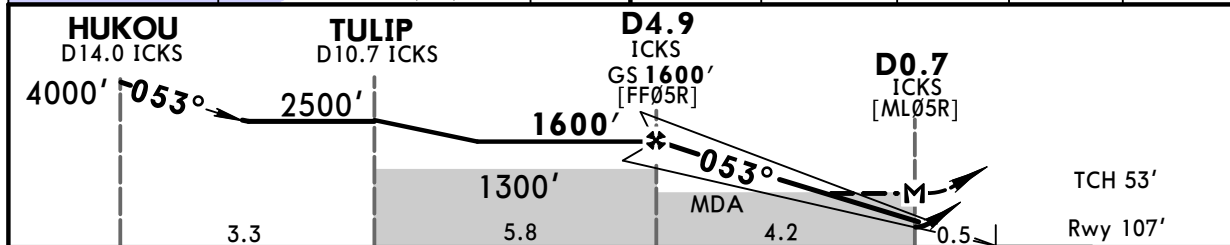
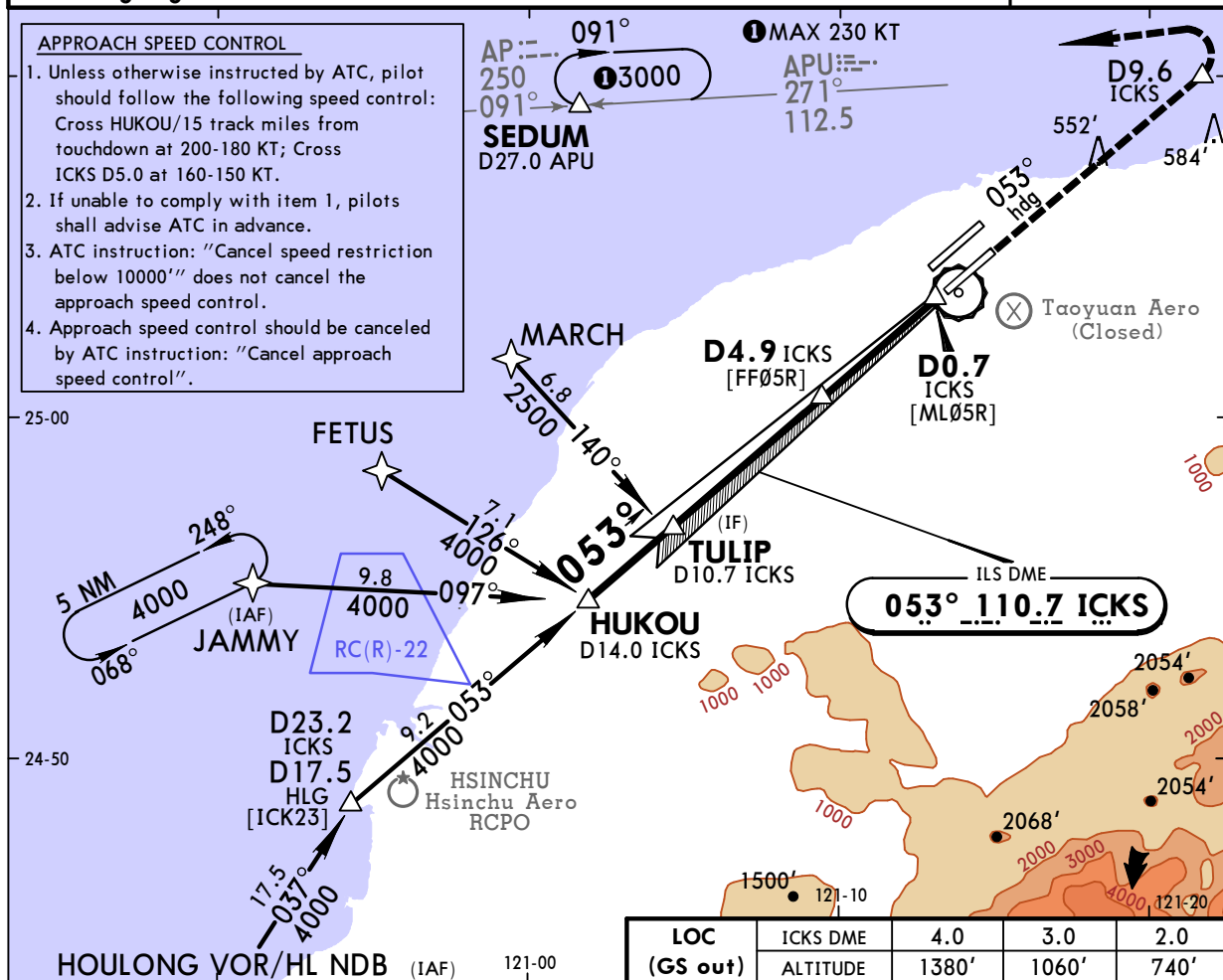
TAIPEI, TAIWAN  
ILS or LOC Rwy 05R

BRIEFING STRIP

D-ATIS 127.6	TAIPEI Approach (R) 125.1      128.5		TAIPEI Tower 118.7      129.3		Ground 121.7      121.6	
LOC ICKS 110.7	Final Aptch Crs 053°	GS D4.9 ICKS 1600' (1493')	ILS Refer to Minimums	Apt Elev 108' Rwy 107'	<div>9000'</div> <div>MSA ARP</div>	
MISSED APCH: Climb on 053° heading until D9.6 ICKS, then turn LEFT direct to SEDUM, maintain 3000' and hold.						
Alt Set: hPa      Rwy Elev: 4 hPa      Trans level: FL 130      Trans alt: 11000' 1. DME required. 2. Radar monitoring required for missed apch and dead-reckoning segment.						

## APPROACH SPEED CONTROL

- Unless otherwise instructed by ATC, pilot should follow the following speed control: Cross HUKOU/15 track miles from touchdown at 200-180 KT; Cross ICKS D5.0 at 160-150 KT.
- If unable to comply with item 1, pilots shall advise ATC in advance.
- ATC instruction: "Cancel speed restriction below 10000'" does not cancel the approach speed control.
- Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



MAP at D0.7 ICKS							ALS-II	PAPI	053° hdg
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PANS OPS

STRAIGHT-IN LANDING RWY05R				CIRCLE-TO-LAND	
ILS		LOC (GS out)		Not Authorized Southeast of Rwy 05R-23L	
DA(H) A: 307'(200') C: 323'(216')		MDA(H) 630'(523')			
B: 315'(208') D: 334'(227')					
FULL	TDZ and/or CL out	ALS out	ALS out	Max Kts	MDA(H)
A			R/V 1200m	100	880'(772') - 1900m
B	RVR 550m	RVR 750m	1600m	135	930'(822') - 2800m
C	VIS 800m	VIS 800m	2400m	180	1030'(922') - 4400m
D				205	1030'(922') - 4800m

CHANGES: MSA, VOR DME TIA deleted, JAMMY wpt note deleted.

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**RCTP/TPE**  
-TAOYUAN INTL

**JEPPESSEN**  
30 DEC 16 (21-2A) Eff 5 Jan

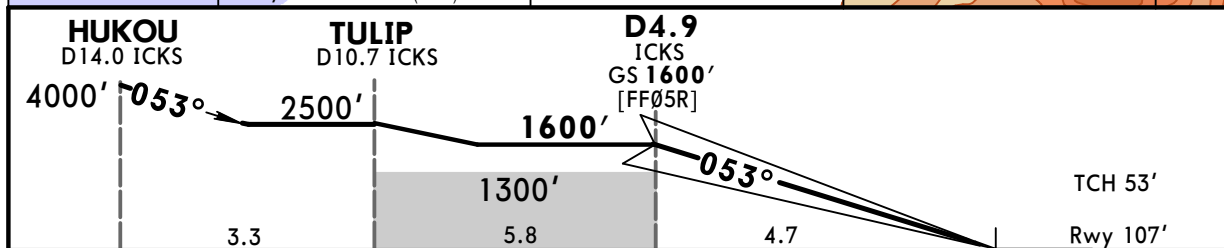
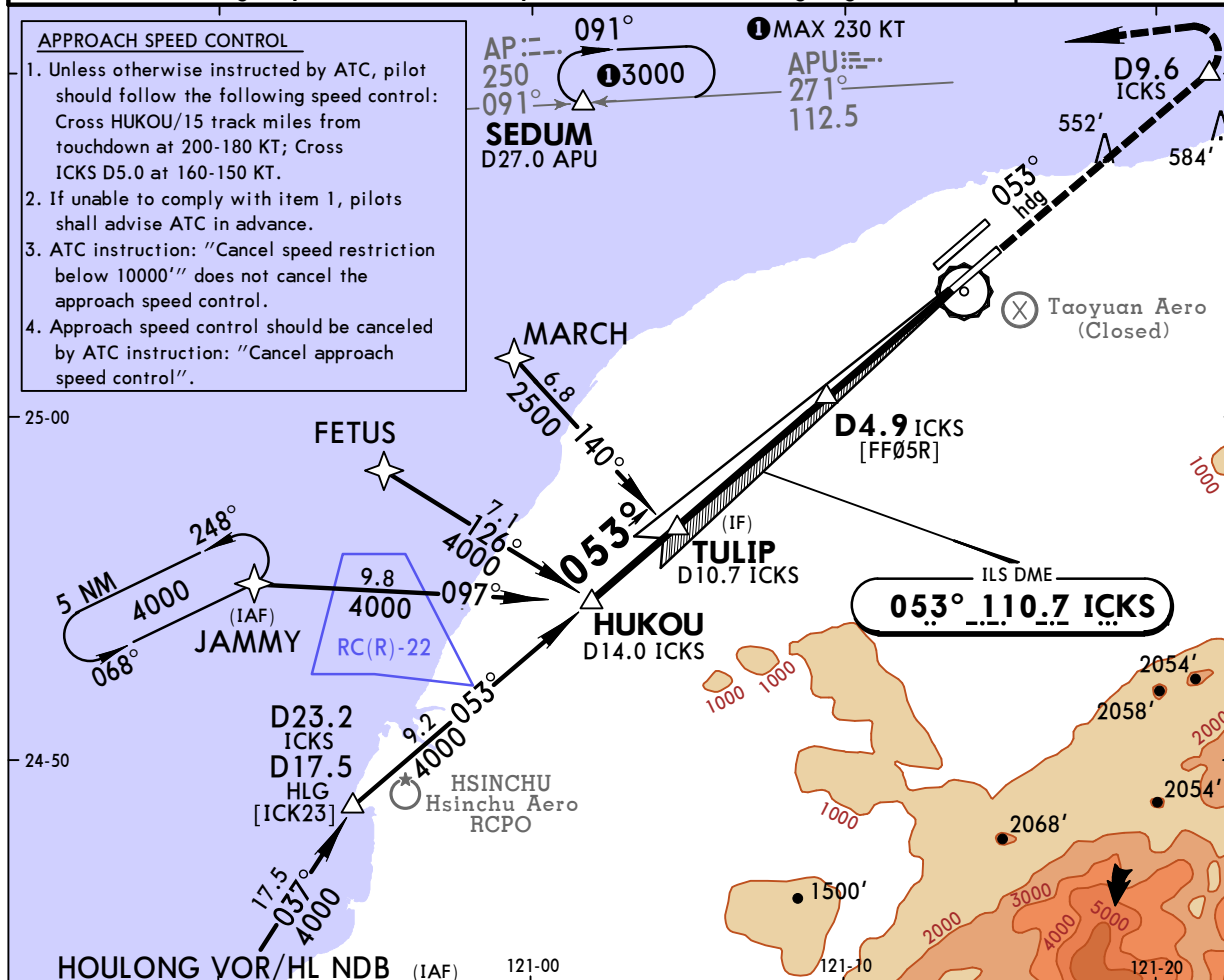
**TAIPEI, TAIWAN**  
ILS Rwy 05R CAT II

BRIEFING STRIP

D-ATIS 127.6	TAIPEI Approach (R) 125.1      128.5		TAIPEI Tower 118.7      129.3		Ground 121.7      121.6	
LOC ICKS 110.7	Final Aptch Crs 053°	GS D4.9 ICKS 1600' (1493')	CAT II ILS Refer to Minimums	Apt Elev 108' Rwy 107'	<div><div>9000'</div><div>MSA ARP</div></div>	
MISSED APCH: Climb on 053° heading until D9.6 ICKS, then turn LEFT direct to SEDUM, maintain 3000' and hold.						
Alt Set: hPa      Rwy Elev: 4 hPa      Trans level: FL 130      Trans alt: 11000' 1. DME required. 2. Special Aircrew & Aircraft Certification Required. 3. Radar monitoring required for missed apch and dead-reckoning segment.						

**APPROACH SPEED CONTROL**

- Unless otherwise instructed by ATC, pilot should follow the following speed control: Cross HUKOU/15 track miles from touchdown at 200-180 KT; Cross ICKS D5.0 at 160-150 KT.
- If unable to comply with item 1, pilots shall advise ATC in advance.
- ATC instruction: "Cancel speed restriction below 10000'" does not cancel the approach speed control.
- Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



Gnd speed-Kts	70	90	100	120	140	160	<div style="text-align: center;"> <b>ALSF-II</b>            PAPI         </div>	<div style="text-align: center;">           on            053°            hdg         </div>
GS 3.00°	372	478	531	637	743	849		

**STRAIGHT-IN LANDING RWY05R**

**CAT II ILS**

A, B: **RA 100'**    C: **RA 110'**    D: **RA 124'**  
 DA(H) **207'**(100')    DA(H) **217'**(110')    DA(H) **231'**(124')

**RVR 300m**

PANS OPS



# RCTP/TPE -TAOYUAN INTL

**JEPPESSEN**  
30 DEC 16 (21-3) Eff 5 Jan

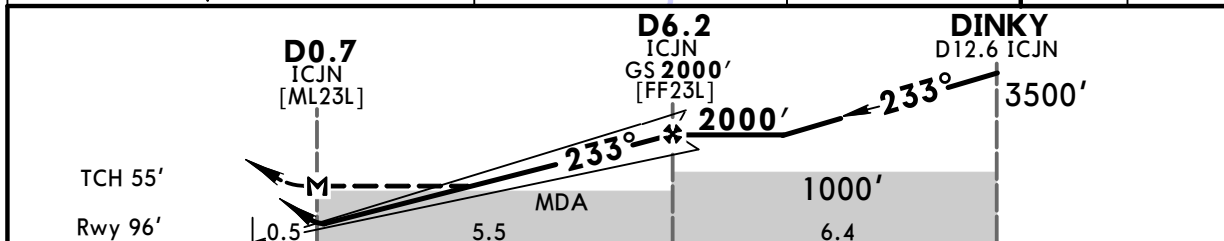
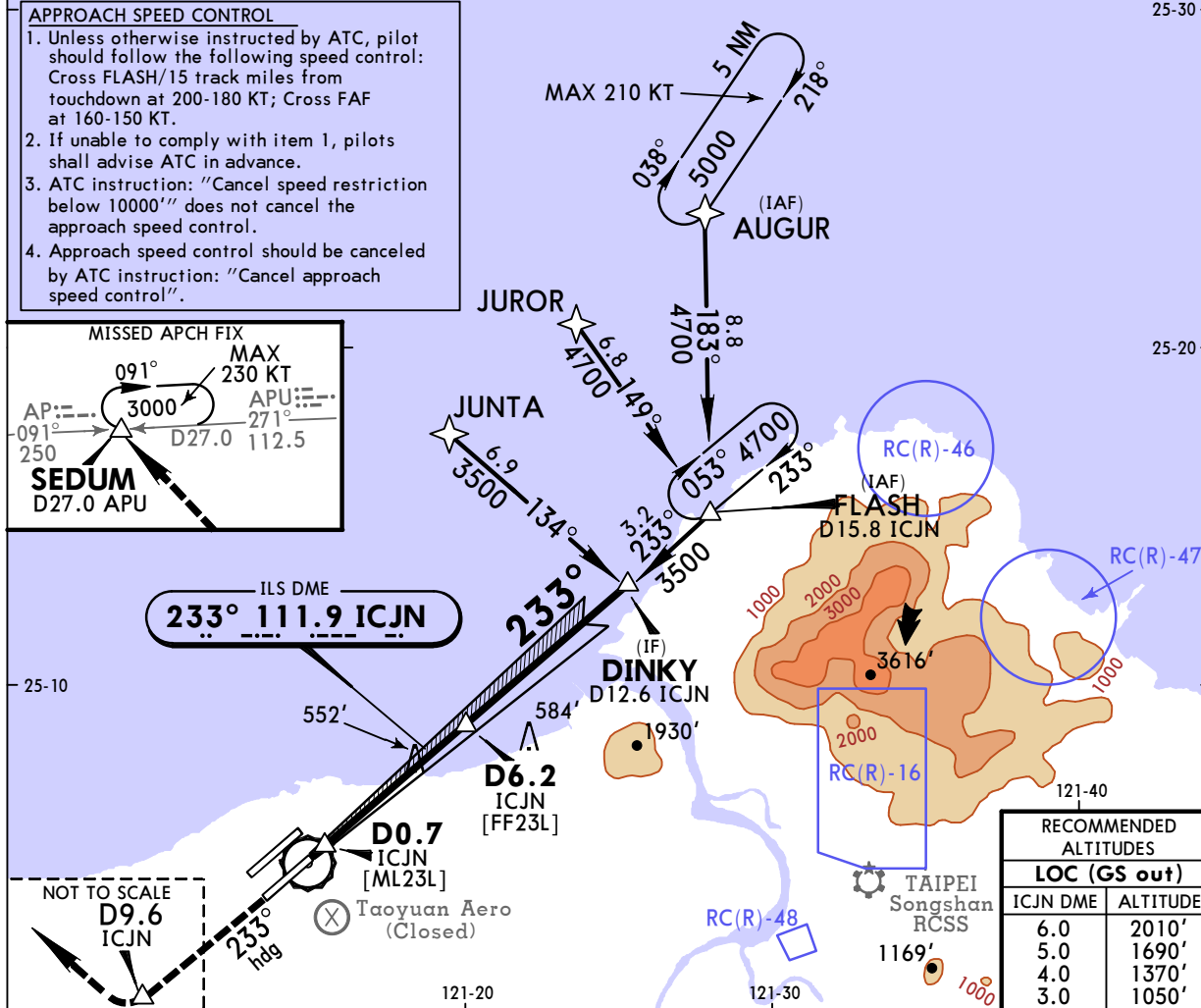
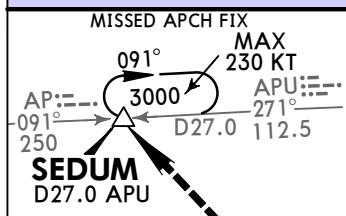
# TAIPEI, TAIWAN ILS or LOC Rwy 23L


BRIEFING STRIP

D-ATIS 127.6	TAIPEI Approach (R) 125.1 128.5		TAIPEI Tower 118.7 129.3		Ground 121.7 121.6	
LOC ICJN 111.9	Final Aptch Crs 233°	GS D6.2 ICJN 2000' (1904')	ILS Refer to Minimums	Apt Elev 108' Rwy 96'		<div>9000'</div> <div>MSA ARP</div>
MISSED APCH: Climb on heading 233° until D9.6 ICJN, then turn RIGHT direct SEDUM, maintain 3000' and hold.						
Alt Set: hPa      Rwy Elev: 3 hPa      Trans level: FL 130      Trans alt: 11000'						
1. DME required. 2. Radar monitoring required for missed apch and dead- reckoning segment.						

## APPROACH SPEED CONTROL

1. Unless otherwise instructed by ATC, pilot should follow the following speed control: Cross FLASH/15 track miles from touchdown at 200-180 KT; Cross FAF at 160-150 KT.
2. If unable to comply with item 1, pilots shall advise ATC in advance.
3. ATC instruction: "Cancel speed restriction below 10000'" does not cancel the approach speed control.
4. Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



Gnd speed-Kts	70	90	100	120	140	160			ALSF-II			
GS 3.00°	372	478	531	637	743	849			PAPI		↑	on 233° hdg
MAP at D0.7 ICJN												

STRAIGHT-IN LANDING RWY23L				CIRCLE-TO-LAND	
ILS				Not Authorized Southeast of Rwy 05R-23L	
DA(H) A: 296'(200') C: 312'(216') B: 304'(208') D: 322'(226')				MDA(H) 880'(784')	
FULL				ALS out	Max Kts
A				R/V 1200m	100
B	RVR 550m	RVR 750m	R/V 1200m	1600m	135
C	VIS 800m	VIS 800m		2000m	180
D				2900m	205
				3600m	
					1030'(922')-4400m
					1030'(922')-4800m

**RCTP/TPE**  
**-TAOYUAN INTL**

**JEPPESEN**  
30 DEC 16 **(21-3A)** Eff 5 Jan

**TAIPEI, TAIWAN**  
**ILS Rwy 23L CAT II**

BRIEFING STRIP

D-ATIS <b>127.6</b>	TAIPEI Approach (R) <b>125.1 128.5</b>		TAIPEI Tower <b>118.7 129.3</b>		Ground <b>121.7 121.6</b>	
LOC ICJN <b>111.9</b>	Final Aptch Crs <b>233°</b>	GS <b>D6.2 ICJN</b> <b>2000'</b> (1904')	CAT II ILS Refer to Minimums	Apt Elev 108' Rwy 96'	<div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 80px; height: 80px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 60px; height: 60px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; 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**RCTP/TPE**  
**-TAOYUAN INTL**

**JEPPesen**  
30 DEC 16 (21-4) Eff 5 Jan

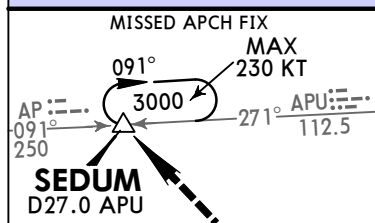
**TAIPEI, TAIWAN**  
**ILS or LOC Rwy 23R**

BRIEFING STRIP

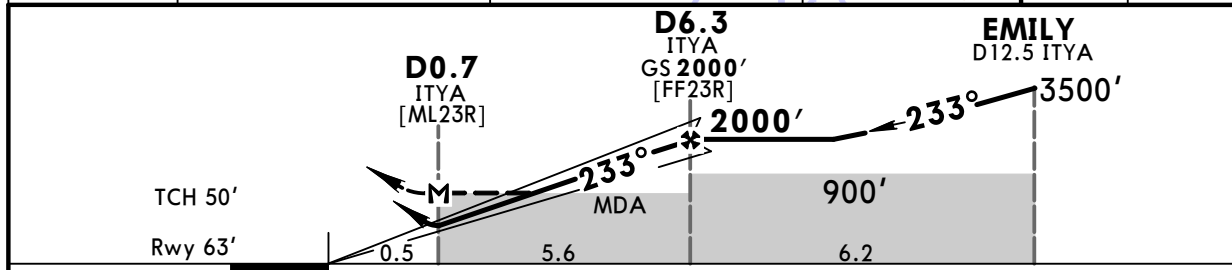
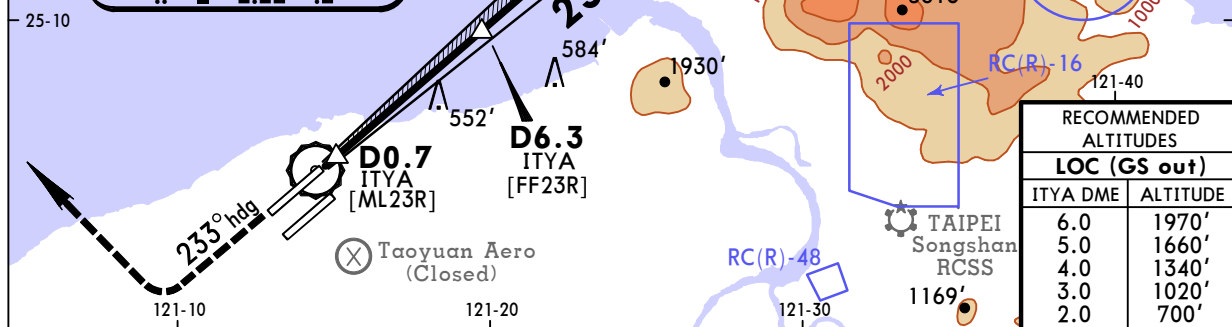
D-ATIS		TAIPEI Approach (R)		TAIPEI Tower		Ground	
127.6		125.1	128.5	118.7	129.3	121.7	121.6
LOC ITYA 109.3	Final Apt Crs 233°	GS D6.3 ITYA 2000'(1937')	ILS Refer to Minimums	Apt Elev 108'  Rwy 63'		<div><div>9000'</div><div>MSA ARP</div></div>	
MISSED APCH: Climb on 233° heading to 800', then turn RIGHT direct to SEDUM, maintain 3000' and hold.							
Alt Set: hPa      Rwy Elev: 2 hPa      Trans level: FL 130      Trans alt: 11000'							
1. DME required. 2. Radar monitoring required for missed apch and dead-reckoning segment. 3. No turn prior to MAP.							

**APPROACH SPEED CONTROL**

1. Unless otherwise instructed by ATC, pilot should follow the following speed control: Cross FRANK/15 track miles from touchdown at 200-180 KT; Cross FAF at 160-150 KT.
2. If unable to comply with item 1, pilots shall advise ATC in advance.
3. ATC instruction: "Cancel speed restriction below 10000'" does not cancel the approach speed control.
4. Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



ILS DME  
**233° 109.3 ITYA**



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II	800'	233°	SEDUM
GS 3.00°	372	478	531	637	743	849	PAPI	↑	hdg	RT
MAP at D0.7 ITYA										

PANS OPS

STRAIGHT-IN LANDING RWY23R					CIRCLE-TO-LAND		
ILS		LOC (GS out)			Not Authorized Southeast of Rwy 05R/23L		
DA(H) A: <b>263'</b> (200') C: <b>278'</b> (215')		MDA(H) <b>610'</b> (547')					
B: <b>270'</b> (207') D: <b>288'</b> (225')							
FULL	TDZ and/or CL out	ALS out	R/V 1200m	ALS out	Max Kts	MDA(H)	
A					100	<b>880'</b> (772') -1900m	
B	RVR 550m	RVR 750m			135	<b>930'</b> (822') -2800m	
C	VIS 800m	VIS 800m			180	<b>1030'</b> (922') -4400m	
D					205	<b>1030'</b> (922') -4800m	

# RCTP/TPE -TAOYUAN INTL

30 DEC 16 **(21-4A)** Eff 5 Jan

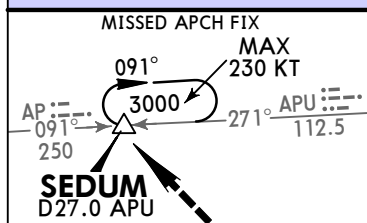
**TAIPEI, TAIWAN**  
ILS Rwy 23R CAT II

BRIEFING STRIP

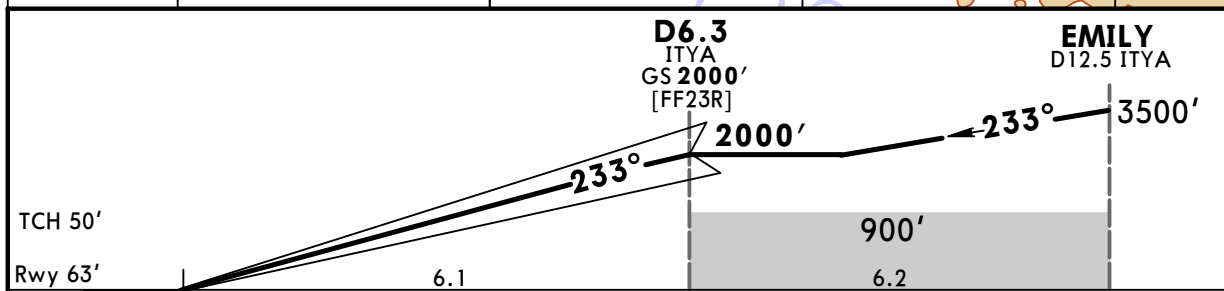
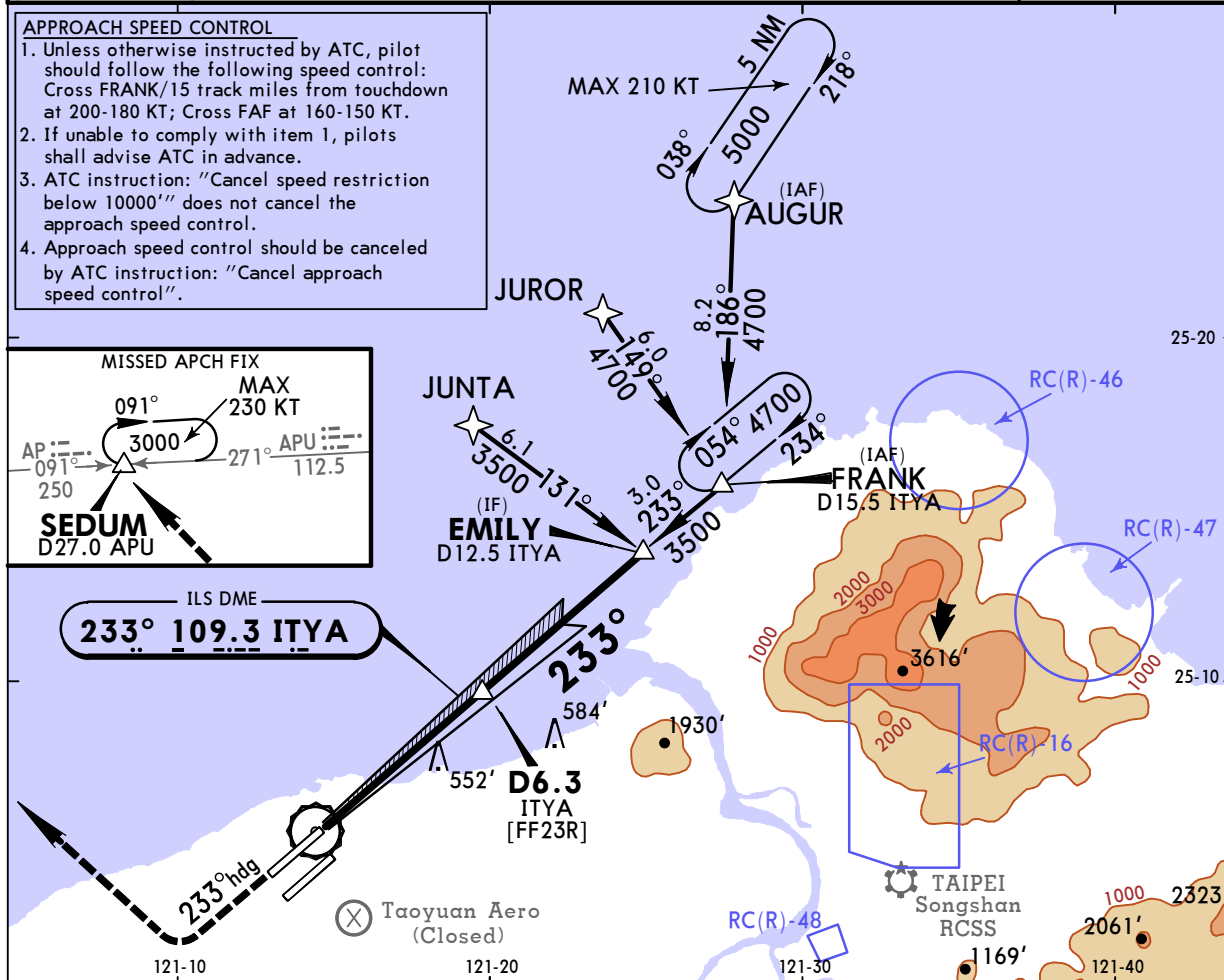
D-ATIS 127.6		TAIPEI Approach (R) 125.1      128.5		TAIPEI Tower 118.7      129.3		Ground 121.7      121.6	
LOC ITYA 109.3	Final Apch Crs 233°	GS D6.3 ITYA 2000' (1937')	CAT II ILS RA 100' DA(H) 163'(100')	Apt Elev 108' Rwy 63'		<div><div></div><div>9000'</div><div>MSA ARP</div></div>	
MISSED APCH: Climb on 233° heading to 800', then turn RIGHT direct to SEDUM, maintain 3000' and hold.							
Alt Set: hPa      Rwy Elev: 2 hPa      Trans level: FL 130      Trans alt: 11000' 1. DME required. 2.Special Aircrew and Acft Certification Required. 3. Radar monitoring required for missed apch and dead-reckoning segment. 4. No turn prior to THR Rwy 23R.							

## APPROACH SPEED CONTROL

- Unless otherwise instructed by ATC, pilot should follow the following speed control: Cross FRANK/15 track miles from touchdown at 200-180 KT; Cross FAF at 160-150 KT.
- If unable to comply with item 1, pilots shall advise ATC in advance.
- ATC instruction: "Cancel speed restriction below 10000'" does not cancel the approach speed control.
- Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



ILS DME  
**233° 109.3 ITYA**



Gnd speed-Kts	70	90	100	120	140	160	<div><div>ALSF-II</div><div>PAPI</div><div><div><div>800'</div><div>↑</div></div><div><div>on</div><div>hdg</div></div></div><div><div>RT</div><div>SEDUM</div></div></div>
GS 3.00°	372	478	531	637	743	849	

STRAIGHT-IN LANDING RWY23R  
CAT II ILS  
**RA 100'**  
DA(H) **163'(100')**

RVR 300m

PANS OPS

**RCTP/TPE**  
**-TAOYUAN INTL**

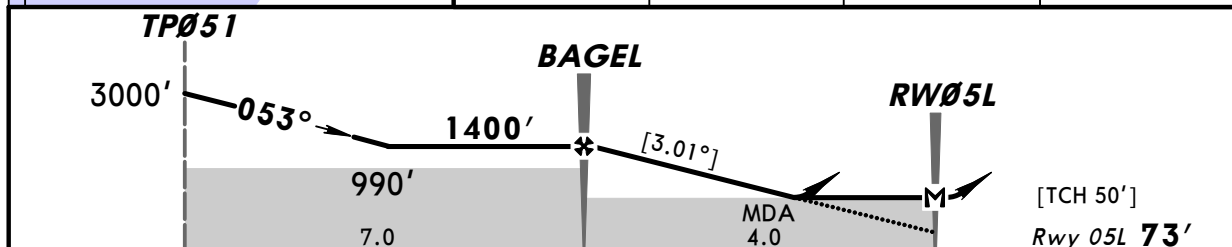
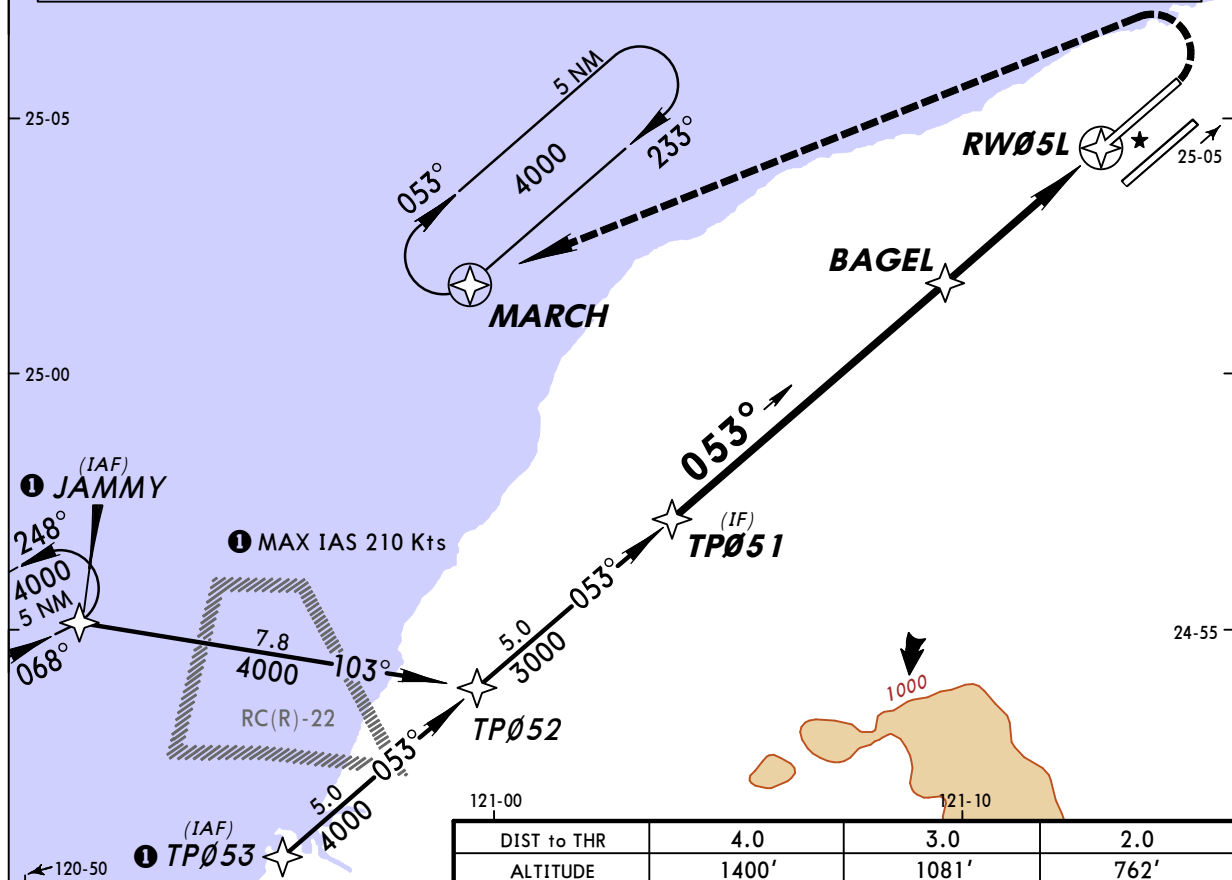
**JEPPesen**  
28 FEB 14  
**Eff 6 Mar** (22-1)

**TAIPEI, TAIWAN**  
**RNAV (GNSS) Rwy 05L**

BRIEFING STRIP

D-ATIS 127.6	TAIPEI Approach (R) 125.1 128.5		TAIPEI Tower 118.7 129.3		Ground 121.7 121.6	
RNAV	Final Apch Crs 053°	Minimum Alt BAGEL 1400' (1327')	LNAV/VNAV DA(H) 550' (477')	Apt Elev 106' Rwy 05L 73'	<div>9000'</div> <div>MSA ARP</div>	
MISSED APCH: Climb rwy heading until leaving 800', then turn LEFT direct to MARCH, maintain 4000' and hold.						
Alt Set: hPa      Rwy Elev: 3 hPa      Trans level: FL 130      Trans alt: 11000' 1. Baro-VNAV not authorized below 0°C. 2. No turn prior to MAP. 3. DME/DME not authorized.						

**APPROACH SPEED CONTROL:** 1. Unless otherwise instructed by ATC, pilot should follow the following speed control:  
 Cross TP052/15 track miles from touchdown at 200-180 KT IAS; Cross BAGEL at 160-150 KT IAS. 2. If unable to comply  
 with item 1, pilots shall advise ATC in advance. 3. ATC instruction: "Cancel speed restriction below 10000" does not  
 cancel the approach speed control. 4. Approach speed control should be canceled by ATC instruction:  
 "Cancel approach speed control".



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	800'	LT	MARCH
Descent Angle [3.01°]	373	479	532	639	745	852				
MAP at RW05L										

STRAIGHT-IN LANDING RWY05L				CIRCLE-TO-LAND	
LNAV/VNAV		LNAV			
DA(H) <b>550' (477')</b>		MDA(H) <b>550' (477')</b>			
ALS out		ALS out			
A		1500m		A	NOT AUTHORIZED
B				B	
C	1500m	2200m	1600m	C	
D			2200m	D	

PANS OPS

CHANGES: TP051, profile.

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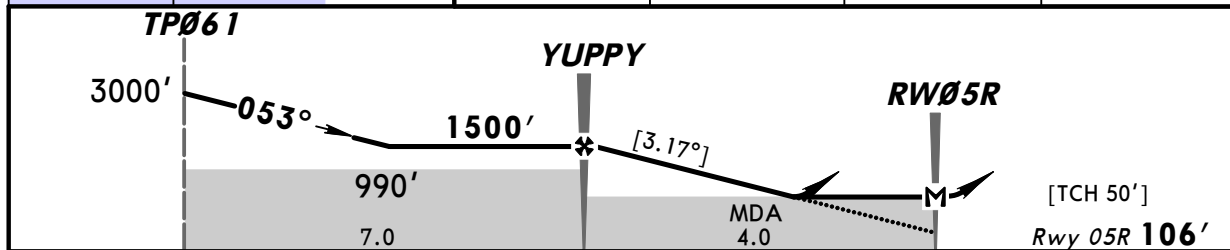
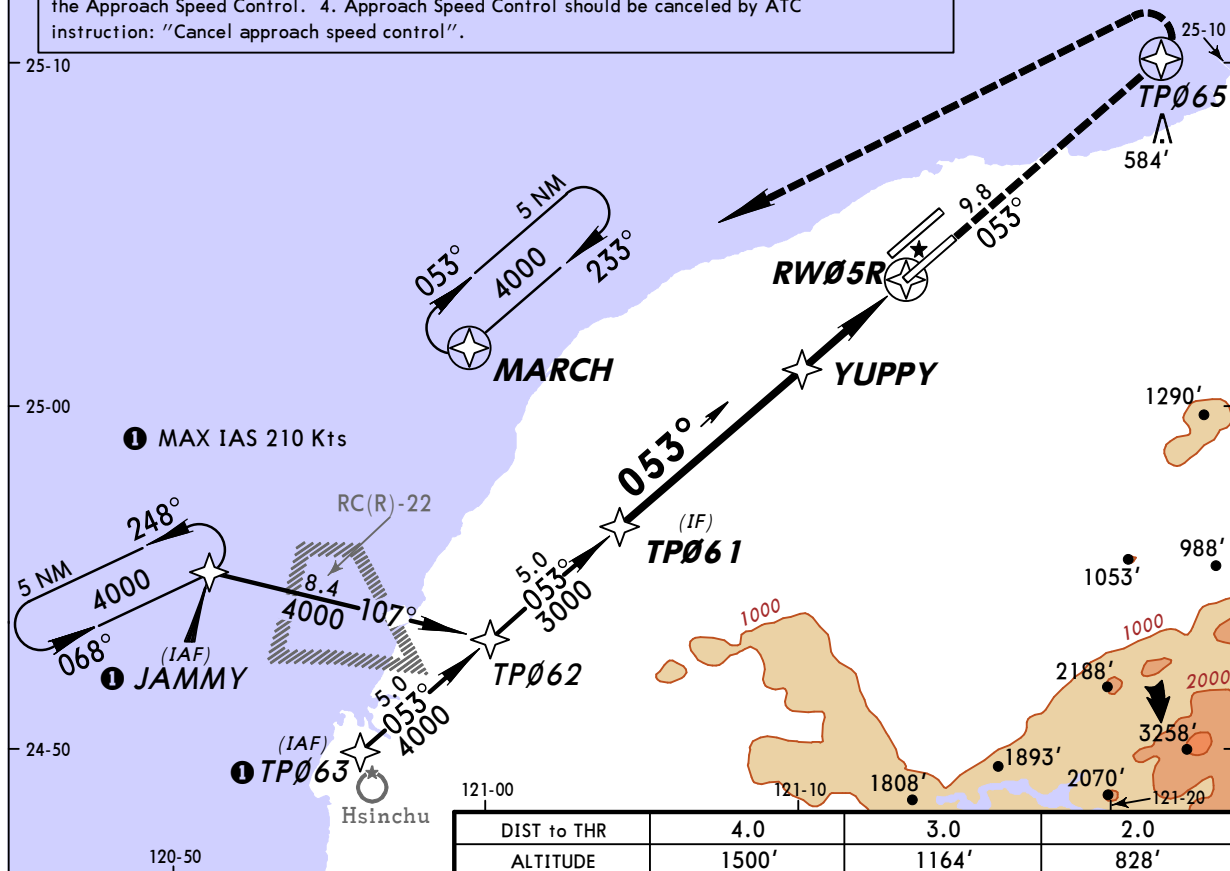


RCTP/TPE  
-TAOYUAN INTLJEPPESEN  
28 FEB 14  
Eff 6 Mar (22-2)TAIPEI, TAIWAN  
RNAV (GNSS) Rwy 05R

BRIEFING STRIP

D-ATIS	TAIPEI Approach (R)		TAIPEI Tower		Ground	
127.6	125.1	128.5	118.7	129.3	121.7	121.6
RNAV	Final Apch Crs 053°	Minimum Alt YUPPY 1500' (1394')	LNAV/VNAV DA(H) 610' (504')	Apt Elev 106' Rwy 05R 106'	<div>9000'</div> <div>MSA ARP</div>	
MISSED APCH: Climb direct to TP065, then turn LEFT direct to MARCH, maintain 4000' and hold.						
Alt Set: hPa      Rwy Elev: 4 hPa      Trans level: FL 130      Trans alt: 11000'						
1. Baro-VNAV not authorized below 0°C.    2. DME/DME not authorized.						

**APPROACH SPEED CONTROL:** 1. Unless otherwise instructed by ATC, pilot should follow the following speed control: Cross TP062/15 track miles from touchdown at 200-180 KT IAS; Cross YUPPY at 160-150 KT IAS. 2. If unable to comply with item 1, pilots shall advise ATC in advance. 3. ATC instruction: "Cancel speed restriction below 10,000" does not cancel the Approach Speed Control. 4. Approach Speed Control should be canceled by ATC instruction: "Cancel approach speed control".



Gnd speed-Kts	70	90	100	120	140	160	SSALR	PAPI	TP065	MARCH
Descent Angle [3.17°]	393	505	561	673	785	897				
MAP at RWY05R										

STRAIGHT-IN LANDING RWY05R				CIRCLE-TO-LAND			
LNAV/VNAV DA(H) <b>610'</b> (504')		LNAV MDA(H) <b>610'</b> (504')		NOT AUTHORIZED			
ALS out		ALS out					
A				A		NOT AUTHORIZED	
B				B			
C	1600m	2400m	1600m	C			
D				D			

CHANGES: TP061, profile.

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**RCTP/TPE**  
**-TAOYUAN INTL**

**JEPPesen**  
28 FEB 14  
Eff 6 Mar (22-3)

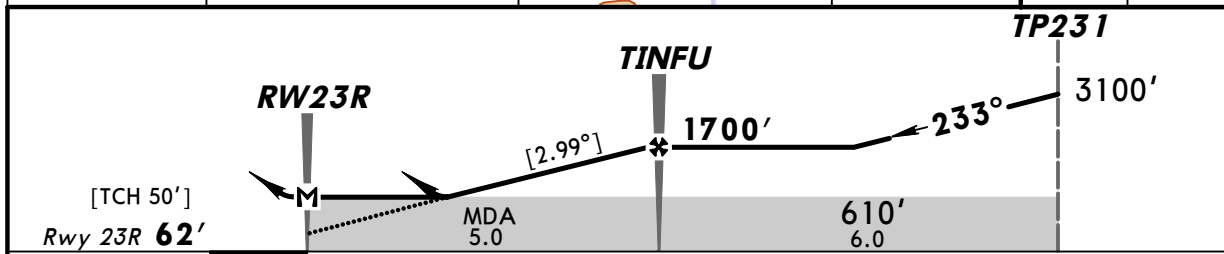
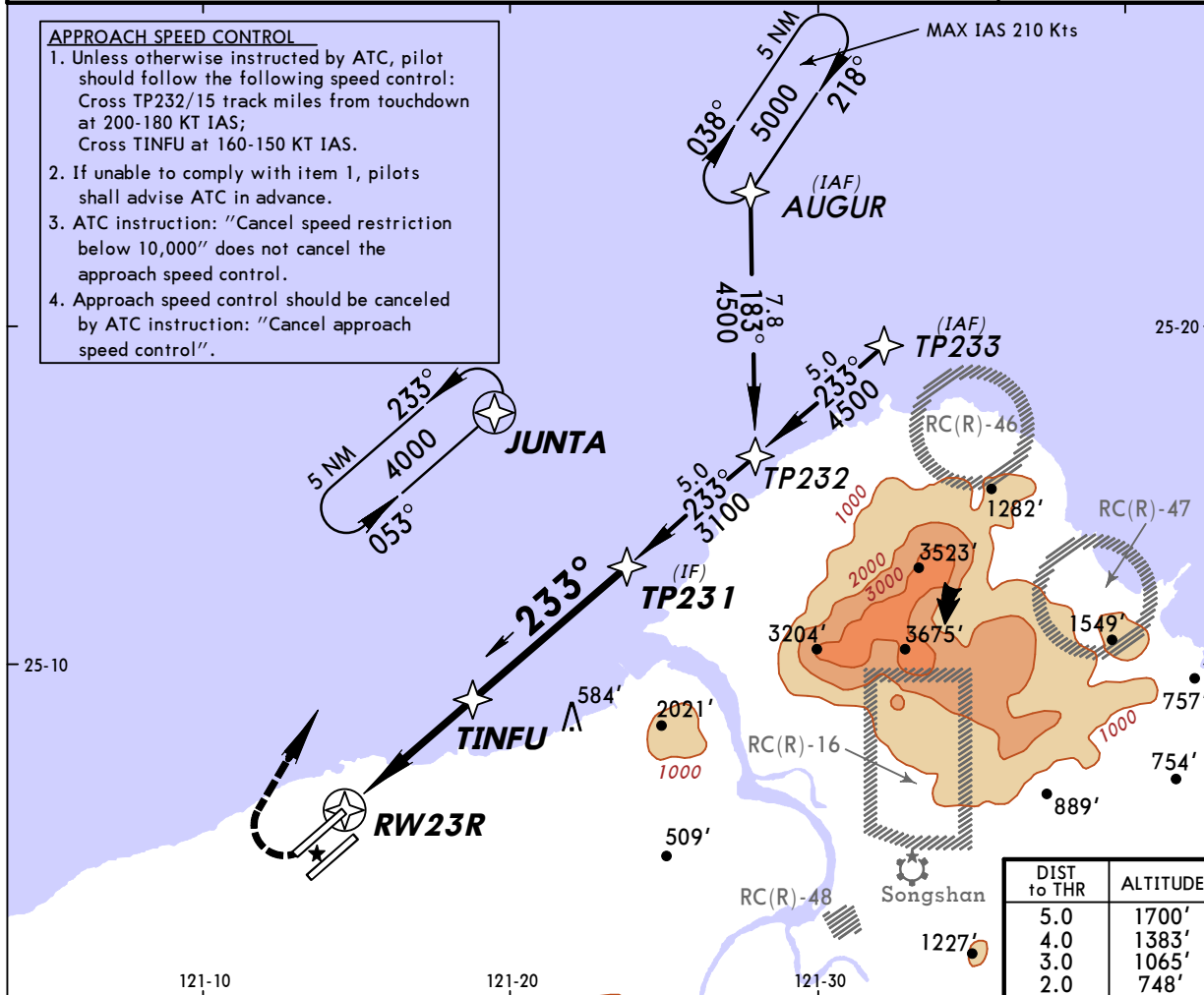
**TAIPEI, TAIWAN**  
**RNAV (GNSS) Rwy 23R**

BRIEFING STRIP

D-ATIS 127.6	TAIPEI Approach (R) 125.1      128.5		TAIPEI Tower 118.7      129.3		Ground 121.7      121.6	
RNAV	Final Apch Crs 233°	Minimum Alt TINFU 1700' (1638')	LNAV/VNAV DA(H) 510' (448')	Apt Elev 106' Rwy 23R 62'	<div>9000'</div> <div>MSA ARP</div>	
MISSED APCH: Climb runway heading until leaving 800', then turn RIGHT direct to JUNTA, maintain 4000' and hold.						
Alt Set: hPa      Rwy Elev: 2 hPa      Trans level: FL 130      Trans alt: 11000' 1. Baro-VNAV not authorized below 0°C.    2. PAPI and RNAV glidepath not coincident. 3. Simultaneous holding at AUGUR and JUNTA not authorized.    4. DME/DME not authorized.						

**APPROACH SPEED CONTROL**

1. Unless otherwise instructed by ATC, pilot should follow the following speed control:  
Cross TP232/15 track miles from touchdown at 200-180 KT IAS;  
Cross TINFU at 160-150 KT IAS.
2. If unable to comply with item 1, pilots shall advise ATC in advance.
3. ATC instruction: "Cancel speed restriction below 10,000'" does not cancel the approach speed control.
4. Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 800' RT JUNTA
Descent Angle [2.99°]	370	476	529	635	741	846	
MAP at RW23R							

STRAIGHT-IN LANDING RWY 23R					CIRCLE-TO-LAND	
LNAV/VNAV			LNAV		NOT AUTHORIZED	
DA(H) 510'(448')			MDA(H) 610'(548')			
ALS out			ALS out			
A	1400m	2100m	1400m	2100m	A	
B			1600m		B	
C			1800m	2500m	C	
D					D	

PANS OPS

# RCTP/TPE -TAOYUAN INTL

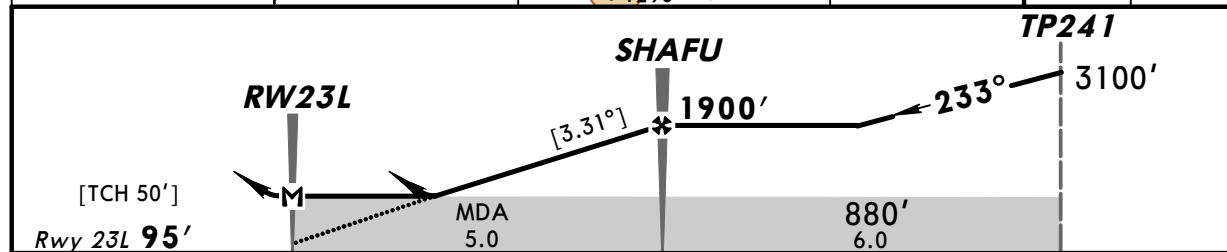
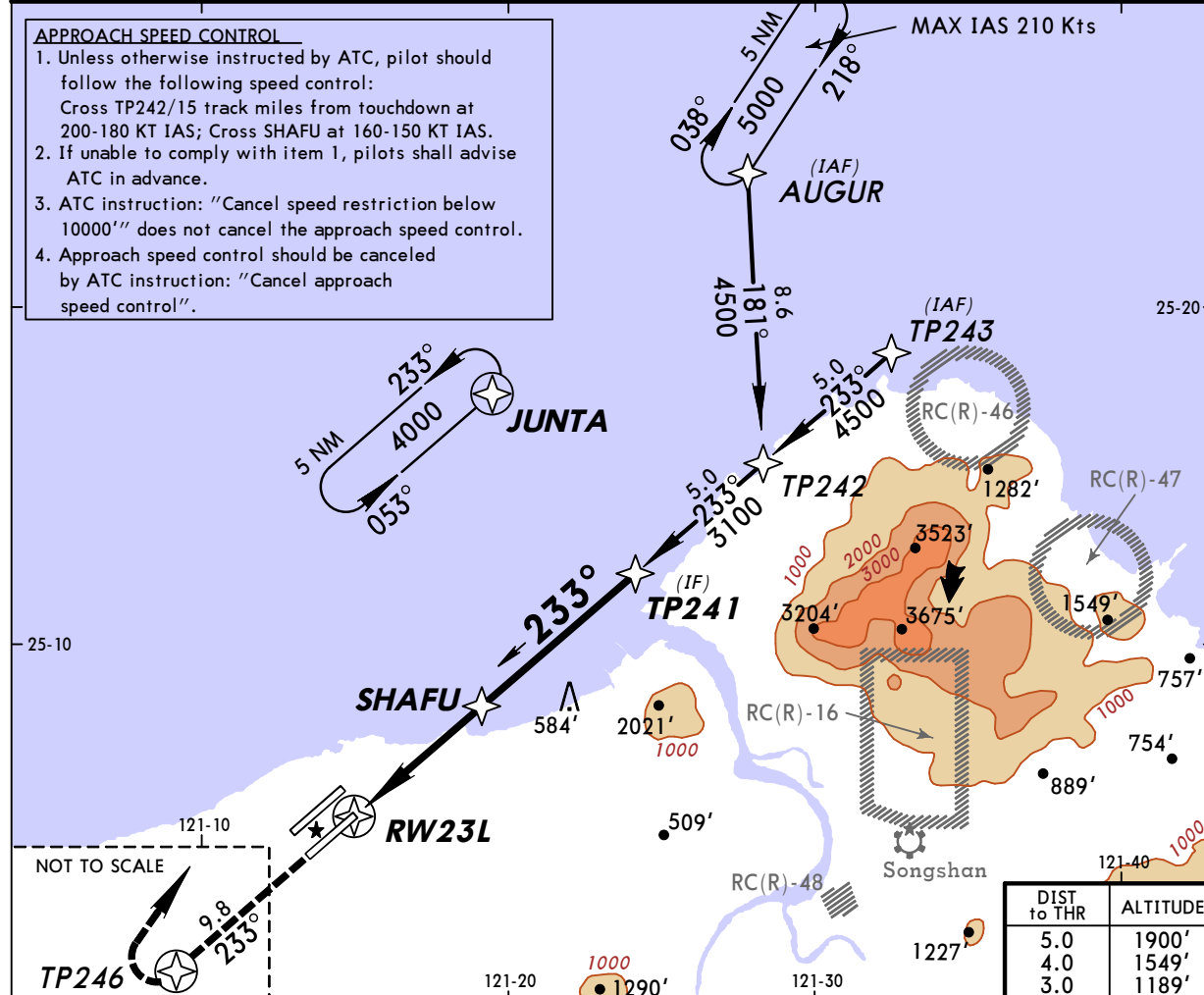
28 FEB 14  
**Eff 6 Mar** (22-4)

## TAIPEI, TAIWAN RNAV (GNSS) Rwy 23L

D-ATIS	TAIPEI Approach (R)		TAIPEI Tower		Ground	
127.6	125.1	128.5	118.7	129.3	121.7	121.6
RNAV	Final Apch Crs 233°	Minimum Alt SHAFU 1900' (1805')	LNAV MDA(H) 880' (785')	Apt Elev 106' Rwy 23L 95'	<div><div>9000'</div><div>MSA ARP</div></div>	
MISSED APCH: Climb direct to TP246, then turn RIGHT direct to JUNTA, maintain 4000' and hold.						
Alt Set: hPa      Rwy Elev: 4 hPa      Trans level: FL 130      Trans alt: 11000'						
1. Baro-VNAV not authorized below 0°C. 2. DME/DME not authorized. 3. PAPI and descent angle not coincident. 4. Simultaneous holding at AUGUR and JUNTA not authorized.						

### APPROACH SPEED CONTROL

- Unless otherwise instructed by ATC, pilot should follow the following speed control:  
Cross TP242/15 track miles from touchdown at 200-180 KT IAS; Cross SHAFU at 160-150 KT IAS.
- If unable to comply with item 1, pilots shall advise ATC in advance.
- ATC instruction: "Cancel speed restriction below 10000'" does not cancel the approach speed control.
- Approach speed control should be canceled by ATC instruction: "Cancel approach speed control".



Gnd speed-Kts	70	90	100	120	140	160	SSALR				
Descent Angle [3.31°]	410	527	586	703	820	937	PAPI	→	TP246	RT	JUNTA
MAP at RW23L											

STRAIGHT-IN LANDING RWY 23L				CIRCLE-TO-LAND			
LNAV/VNAV		LNAV					
DA(H) <b>880'</b> (785')		MDA(H) <b>880'</b> (785')					
ALS out		ALS out					
A				A		NOT AUTHORIZED	
B				B			
C	2900m	3600m	2900m	C			
D				D			