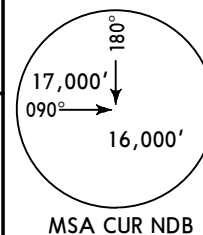
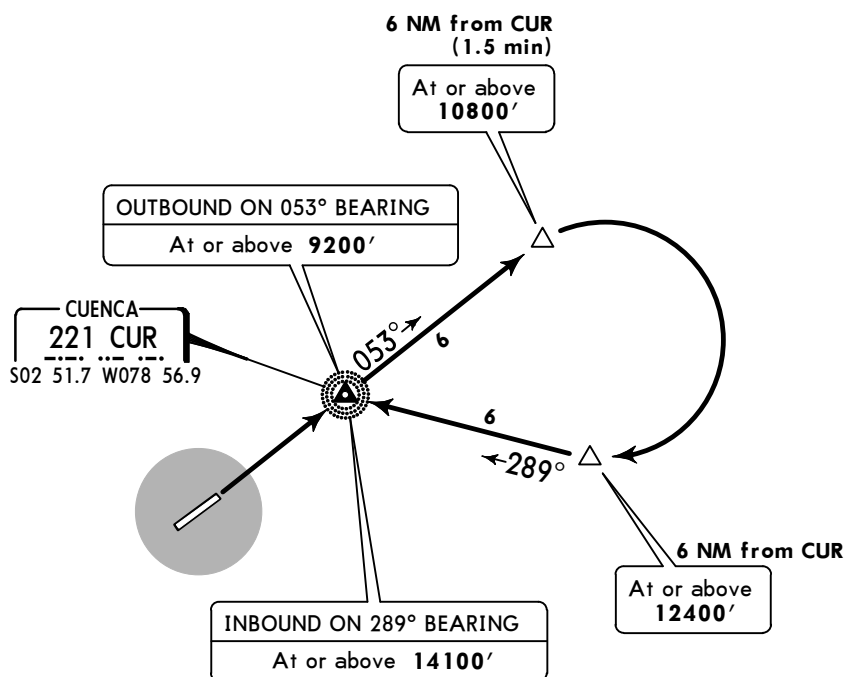


Apt Elev  
8306'

Trans level: By ATC Trans alt: 18000'



CUENCA NDB 1 DEPARTURE  
(CUR 1)  
(RWY 05)



Direct distance from Mariscal Lamar Apt to:  
CUR NDB 3 NM



This SID requires take-off minimums:  
Ceiling 250m, Visibility 4000m; and a minimum  
climb gradient of 4.4% (267' per NM).

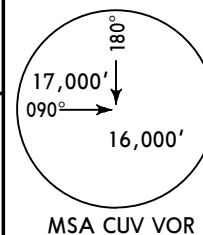
Gnd speed-KT	75	100	150	200	250	300
4.4% V/V (fpm)	334	446	668	891	1114	1337

INITIAL CLIMB

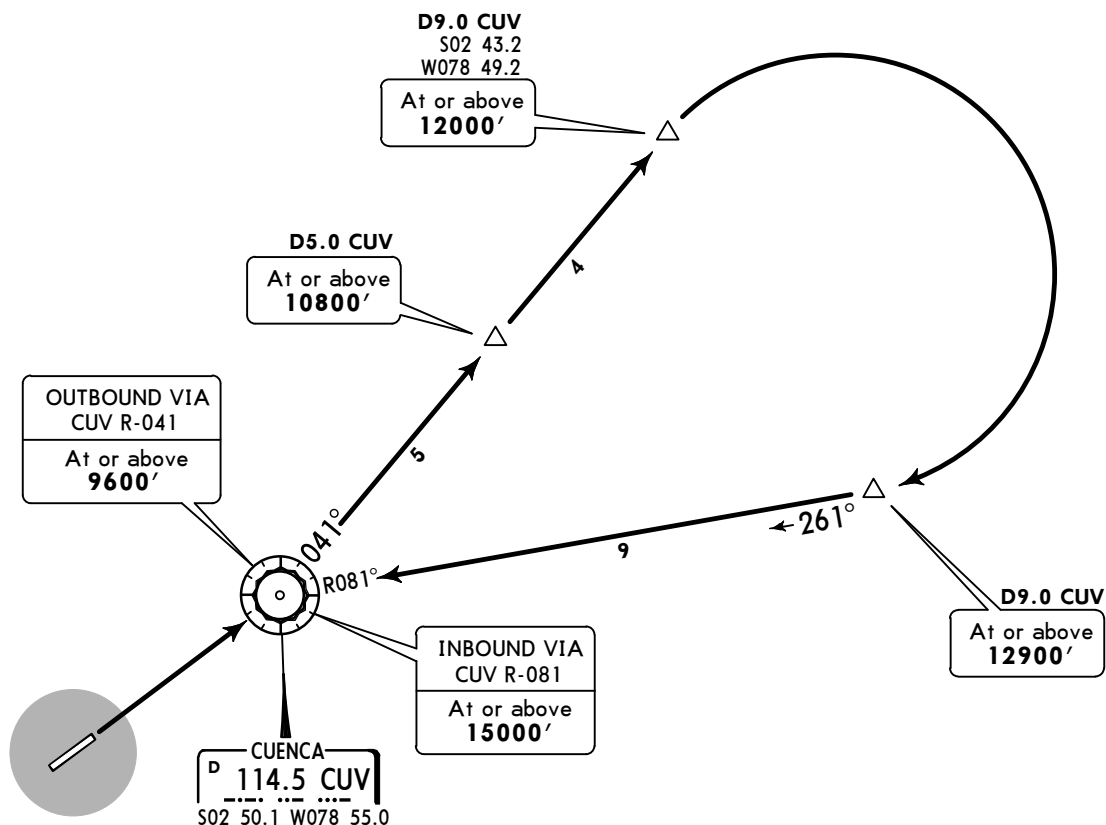
After take-off MAINTAIN heading to CUR NDB at or above 9200'. Follow CUR 053° bearing to 6 NM from CUR (1.5 min) at or above 10800', turn RIGHT CUR 289° bearing to cross 6 NM from CUR at or above 12400', continue climbing to CUR NDB at or above 14100', then proceed according to ATC instructions.

Apt Elev  
8306'

Trans level: By ATC Trans alt: 18000'



CUENCA VOR 1 DEPARTURE  
(CUV 1)  
(RWY 05)



Direct distance from Mariscal Lamar Apt to:  
CUV VOR 5 NM

This SID requires take-off minimums:  
Ceiling 250m, Visibility 4000m; and a  
minimum climb gradient of 4.4% (267' per NM).

Gnd speed-KT	75	100	150	200	250	300
4.4% V/V (fpm)	334	446	668	891	1114	1337

Altitude at distance from CUV VOR/DME.

CUV DME	4	3	2	1	0
ALTITUDE	8540'	8810'	9080'	9340'	9610'

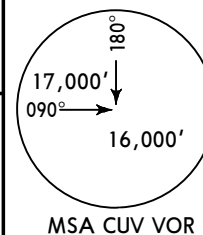


INITIAL CLIMB

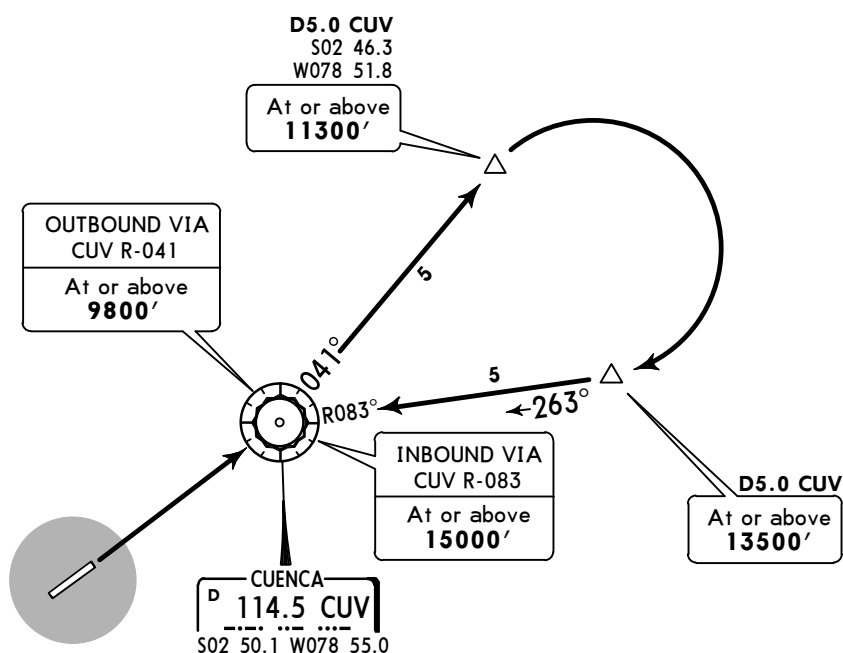
After take-off MAINTAIN heading to CUV VOR at or above 9600', turn LEFT course 041° (CUV R-041) to D5.0 CUV at or above 10800', to D9.0 CUV at or above 12000', turn RIGHT to intercept CUV R-081 (course 261°) at D9.0 CUV at or above 12900', continue to CUV VOR at or above 15000', then proceed according to ATC instructions.

Apt Elev  
8306'

Trans level: By ATC Trans alt: 18000'



CUENCA 1A DEPARTURE  
(CUV 1A)  
(RWY 05)



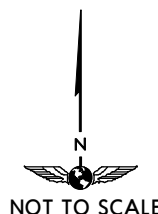
Direct distance from Mariscal Lamar Apt to:  
CUV VOR 5 NM

This SID requires take-off minimums:  
Ceiling 250m, Visibility 4000m; and a minimum  
climb gradient of 5.0% (304' per NM).

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

Altitude at distance from CUV VOR/DME.

CUV DME	4	3	2	1	0
ALTITUDE	8580'	8880'	9190'	9490'	9800'

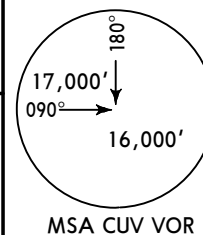


INITIAL CLIMB

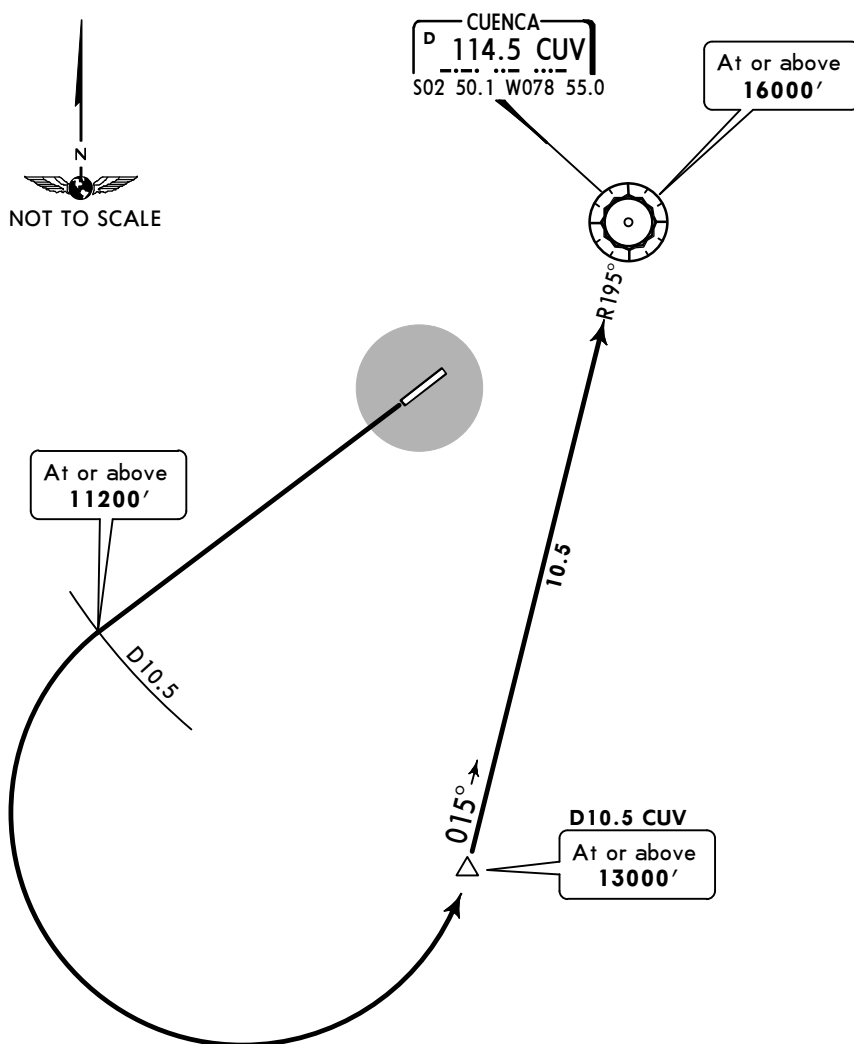
After take-off, climb direct to CUV VOR at or above 9800', turn LEFT course 041° (CUV R-041) to D5.0 CUV at or above 11300', turn RIGHT course 083° (CUV R-083), cross D5.0 CUV at or above 13500', continue climb to CUV VOR at or above 15000', then proceed according to ATC instructions.

Apt Elev  
8306'

Trans level: By ATC Trans alt: 18000'



CUENCA 1B DEPARTURE  
(CUV 1B)  
(RWY 23)



Direct distance from Mariscal Lamar Apt to:  
CUV VOR 5 NM

This SID requires take-off minimums:  
Ceiling 250m, Visibility 4000m; and  
minimum climb gradients of 9.9% (602' per NM)  
until D10.5 CUV, then 4.5% until CUV VOR.

Gnd speed-KT	75	100	150	200	250	300
4.5% V/V (fpm)	342	456	684	911	1139	1367
9.9% V/V (fpm)	753	1003	1505	2007	2508	3010

Altitude at distance from CUV VOR/DME.

CUV DME	6	7	8	9	10
ALTITUDE	8470'	9070'	9670'	10270'	10880'

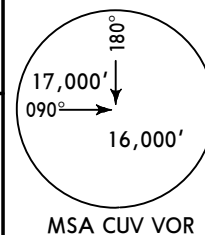
INITIAL CLIMB

After take-off MAINTAIN runway heading to D10.5 CUV at or above 11200', turn LEFT to intercept CUV R-195 (course 015°) at D10.5 CUV at or above 13000', continue to CUV VOR at or above 16000', then proceed according to ATC instructions.

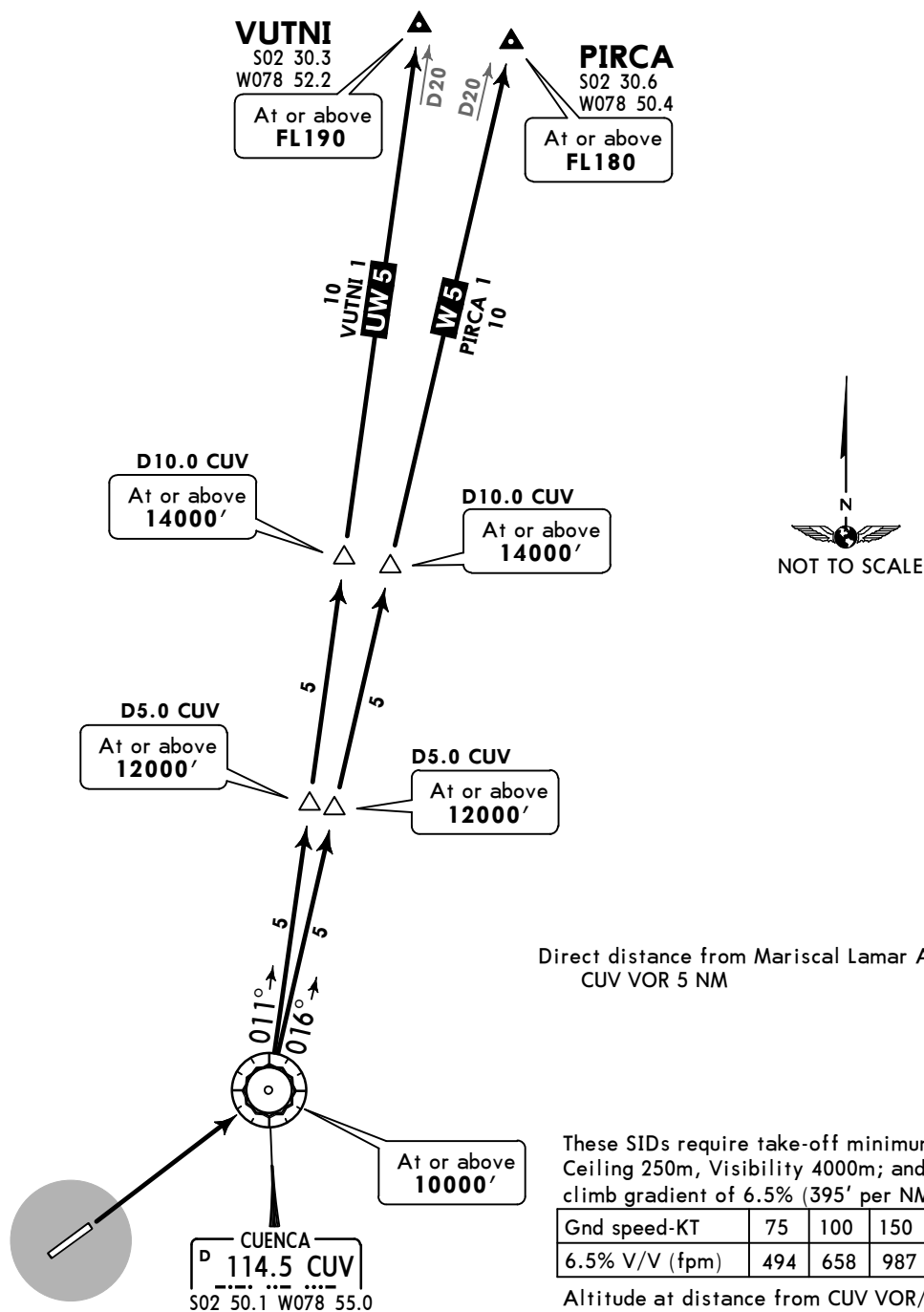


Apt Elev  
8306'

Trans level: By ATC Trans alt: 18000'



PIRCA 1 (PIRCA 1), VUTNI 1 (VUTNI 1)  
DEPARTURES  
(RWY 05)



Direct distance from Mariscal Lamar Apt to:  
CUV VOR 5 NM

These SIDs require take-off minimums:  
Ceiling 250m, Visibility 4000m; and a minimum  
climb gradient of 6.5% (395' per NM).

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1317	1646	1975

Altitude at distance from CUV VOR/DME.

CUV DME	4	3	2	1	0
ALTITUDE	8670'	9070'	9460'	9860'	10250'

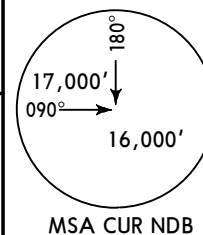
INITIAL CLIMB

After take-off, MAINTAIN heading to CUV VOR at or above 10000'.

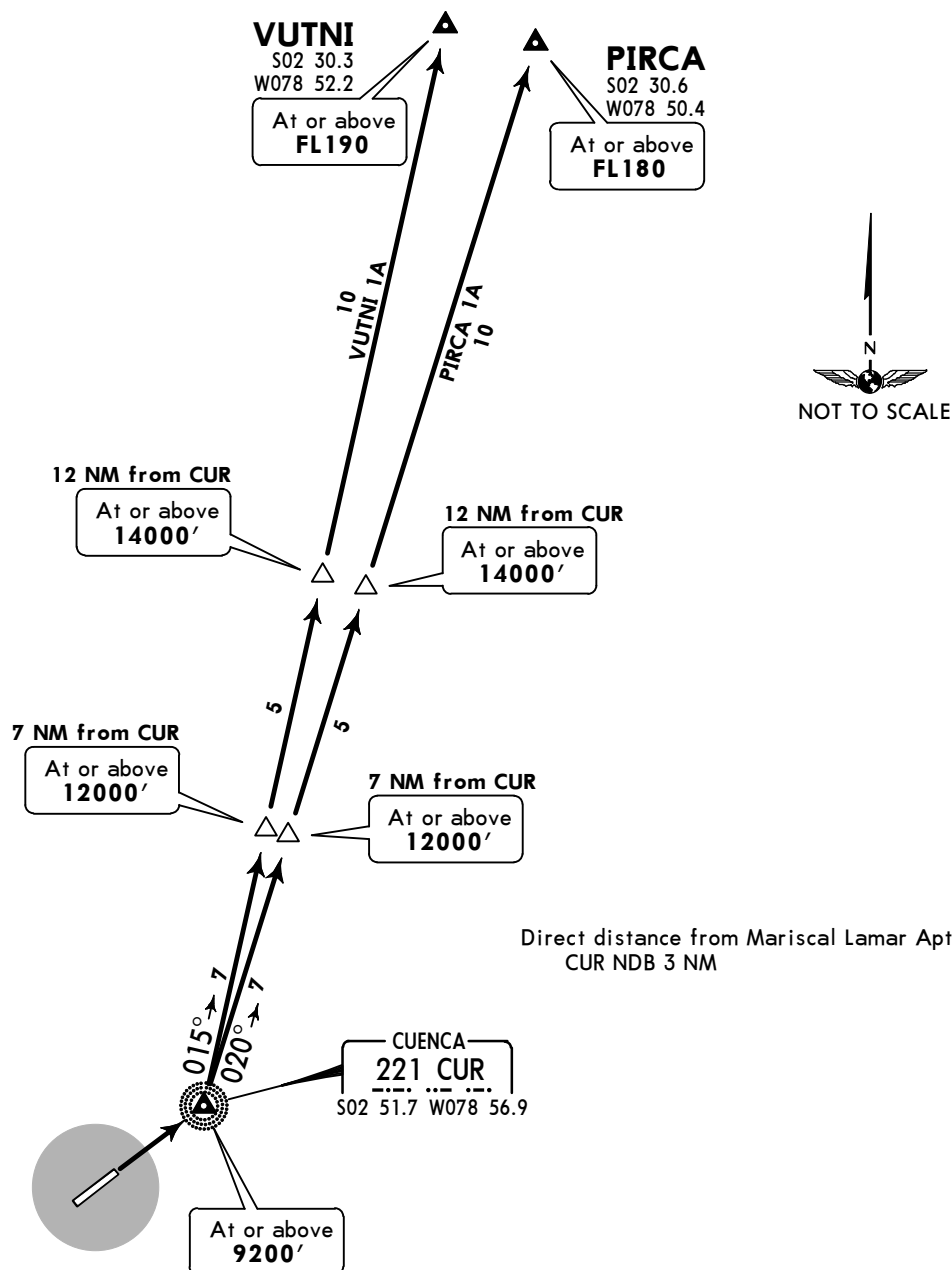
SID	ROUTING
PIRCA 1	At CUV VOR, turn LEFT course 016° (CUV R-016) direct to PIRCA at or above FL180, or proceed according to ATC instructions.
VUTNI 1	At CUV VOR, turn LEFT course 011° (CUV R-011) direct to VUTNI at or above FL190, or proceed according to ATC instructions.

Apt Elev  
8306'

Trans level: By ATC Trans alt: 18000'



PIRCA 1A (PIRCA 1A) [PIRC1A]  
VUTNI 1A (VUTNI 1A) [VUTN1A]  
DEPARTURES  
(RWY 05)



These SIDs require take-off minimums:  
Ceiling 250m, Visibility 4000m; and a minimum  
climb gradient of 6.5% (395' per NM).

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1317	1646	1975

INITIAL CLIMB

After take-off, MAINTAIN heading to CUR NDB at or above 9200'.

SID	ROUTING
PIRCA 1A	At CUR NDB, course 020° direct to PIRCA, cross at or above FL180, or proceed according to ATC instructions.
VUTNI 1A	At CUR NDB, course 015° direct to VUTNI, cross at or above FL190, or proceed according to ATC instructions.

## CONTINGENCY PLAN

### CUENCA (CUV) VOR/DME NAVAID OUT OF SERVICE

#### 1. OBJECTIVE

Establish alternative ATS routes for entry/departure of aircraft to the Terminal Area (TMA) of Cuenca and overflying aircraft using the airways sustained in Cuenca VOR/DME (CUV) FREQ 114.5 MHZ CH92X, when the latter is out of service.

#### 2. GENERAL

Air Traffic Management in anticipation of this event has developed this "Contingency Plan - Cuenca (CUV) VOR/DME navaid out of service" to mitigate the operational impact that will be generated in the period during which the mentioned navaid remains out of service.

The Plan will also be executed by Air Traffic Units involved, when technical and operational reasons warrant its activation to maintain safety margins in the area of their responsibility.

#### 3. SCOPE

Guayaquil Area Control Center, Cuenca Approach Control, Quito Approach Control, Quito Aerodrome Control, Cuenca Aerodrome Control, Air Navigation Service, Air Traffic Management, International NOTAM Office and Bureau of Safety Management System.

#### 4. RESPONSIBILITY

##### 4.1 AIR TRAFFIC SERVICES

- ATM managers Quito/Guayaquil, Cuenca APP and TWR, coordinate and take the actions necessary to issue appropriate NOTAM, concerning the publication of current procedures in its entirety.
- Being constantly aware of the contingency situation.
- Give notice of the contingency situation to higher authority DGAC.
- The staff of the facilities involved, should coordinate efforts to establish air traffic flow according to conditions prevailing at the time.

##### 4.2 NOTAM INTERNATIONAL OFFICE (NOF)

- Prepares and promulgates different activation NOTAM this Contingency Plan and NOTAM that affect departure and approach procedures.

##### 4.3 FLIGHT CREW

- Check this Contingency Plan and current NOTAM information.



**CONTINGENCY PLAN**  
**CUENCA (CUV) VOR/DME NAVAID OUT OF SERVICE****5. NAVIGATION PROCEDURES****CUENCA TERMINAL AREA DEPARTURES**

TAKE OFF CLIMB ON VMC

**RUNWAYS 05 AND 23**

For a take-off of any of the two runways and especially Runway 23, where there is no standard instrument departure, you can make a VMC TAKEOFF CLIMB WITH thus applying as published in the AIP Manual part ENR1.3-7 point 3.4 (Purpose of ascents and descents caring own separation with terrain VMC). This will be used only between sunrise and sunset.

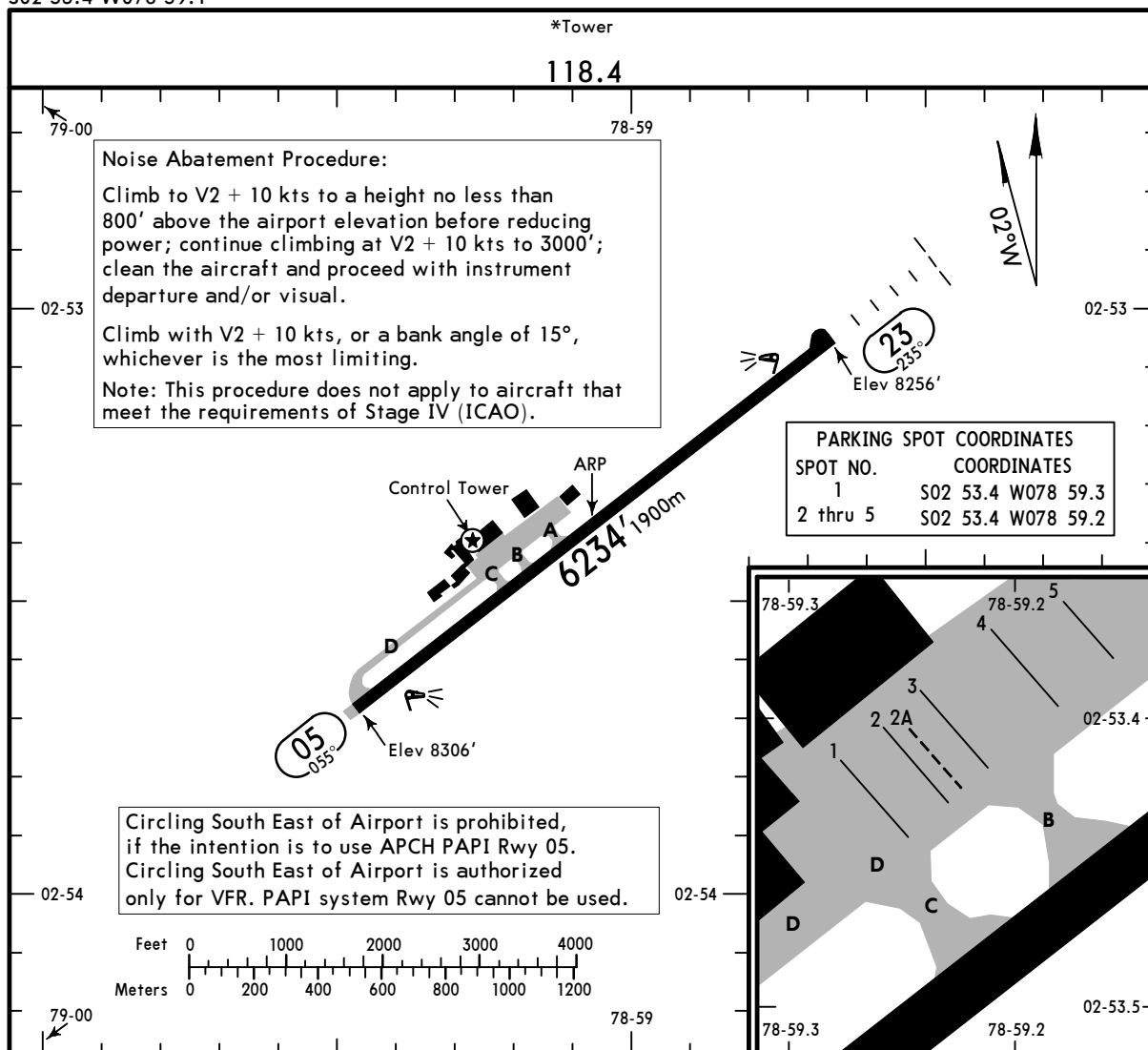
**MISSED APPROACH PROCEDURES****RUNWAY 23**

Climb on heading 234° within 6 NM of NDB/CUR to/or about 10,300 ft, turn LEFT heading 016° to the NDB/CUR to join holding pattern at 15,000 ft or proceed according to ATC instructions.

**RUNWAY 05**

- Procedures are not available.

In case of missed approach the aircraft must perform VMC climb towards the NDB/CUR, to join holding pattern or procedure in accordance with ATC instructions.



**ADDITIONAL RUNWAY INFORMATION**

ADDITIONAL RUNWAY INFORMATION					USABLE LENGTHS		TAKE-OFF	WIDTH
RWY					Threshold	Glide Slope		
05	HIRL	REIL	PAPI-L (angle 3.0°) ①					118'
23	HIRL	REIL	HIALS PAPI-R (angle 3.2°)			5423' 1653m		

① PAPI max range 3 NM from THR 05.

**TAKE-OFF**

		<b>All Rwys</b>
1 & 2 Eng	250m -4000m	
3 & 4 Eng		



SECU/CUE

MARISCAL LAMAR

JEPPESEN

17 MAY 19

Eff 23 May

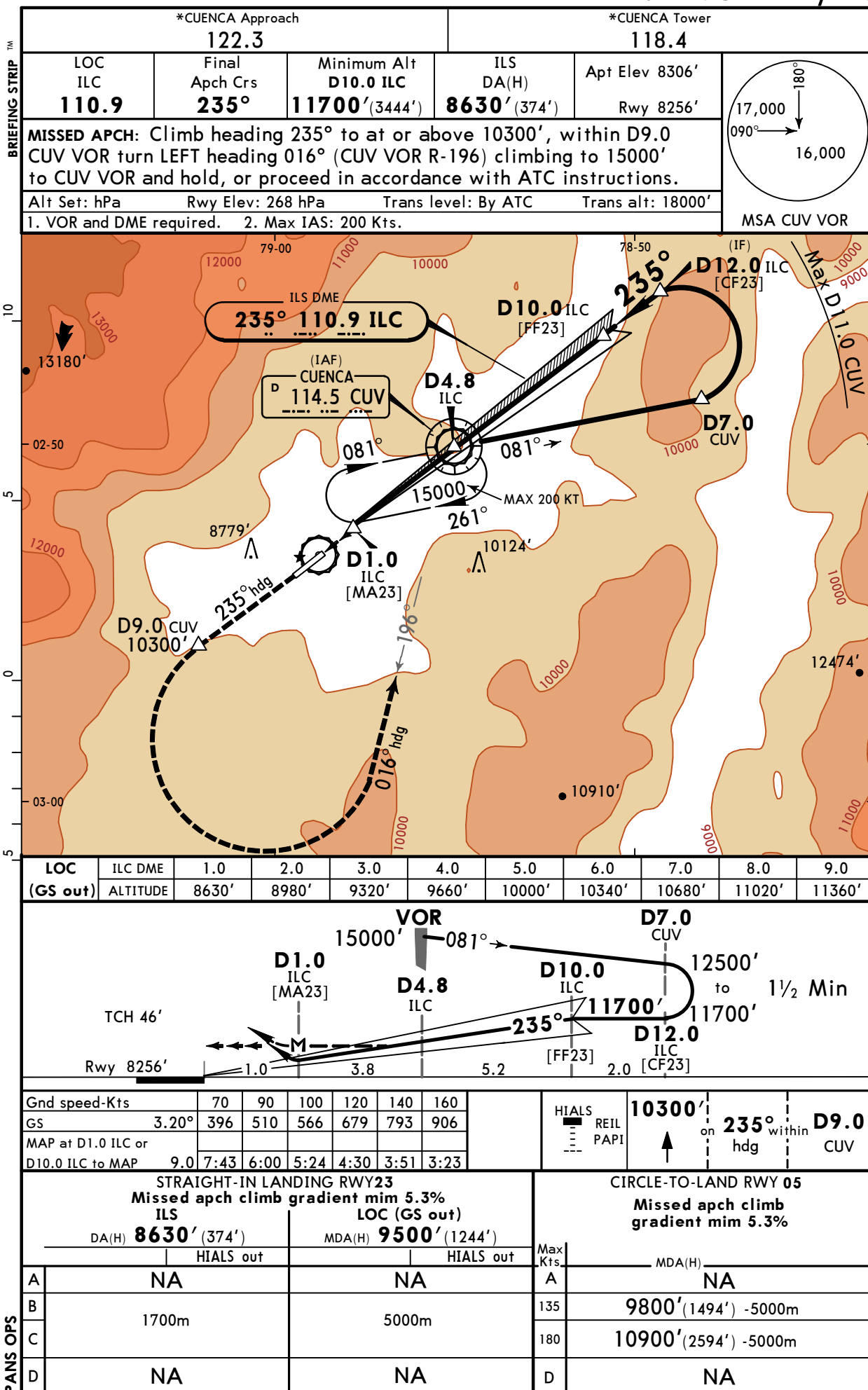
11-2

MISSED APCH CLIMB  
GRADIENT MIN 5.3%

CUENCA, ECUADOR

CAT B & C

ILS or LOC Y Rwy 23



SECU/CUE

MARISCAL LAMAR

JEPPESSEN  
17 MAY 19  
Eff 23 May

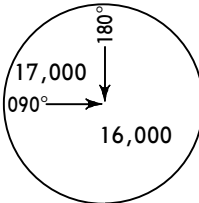
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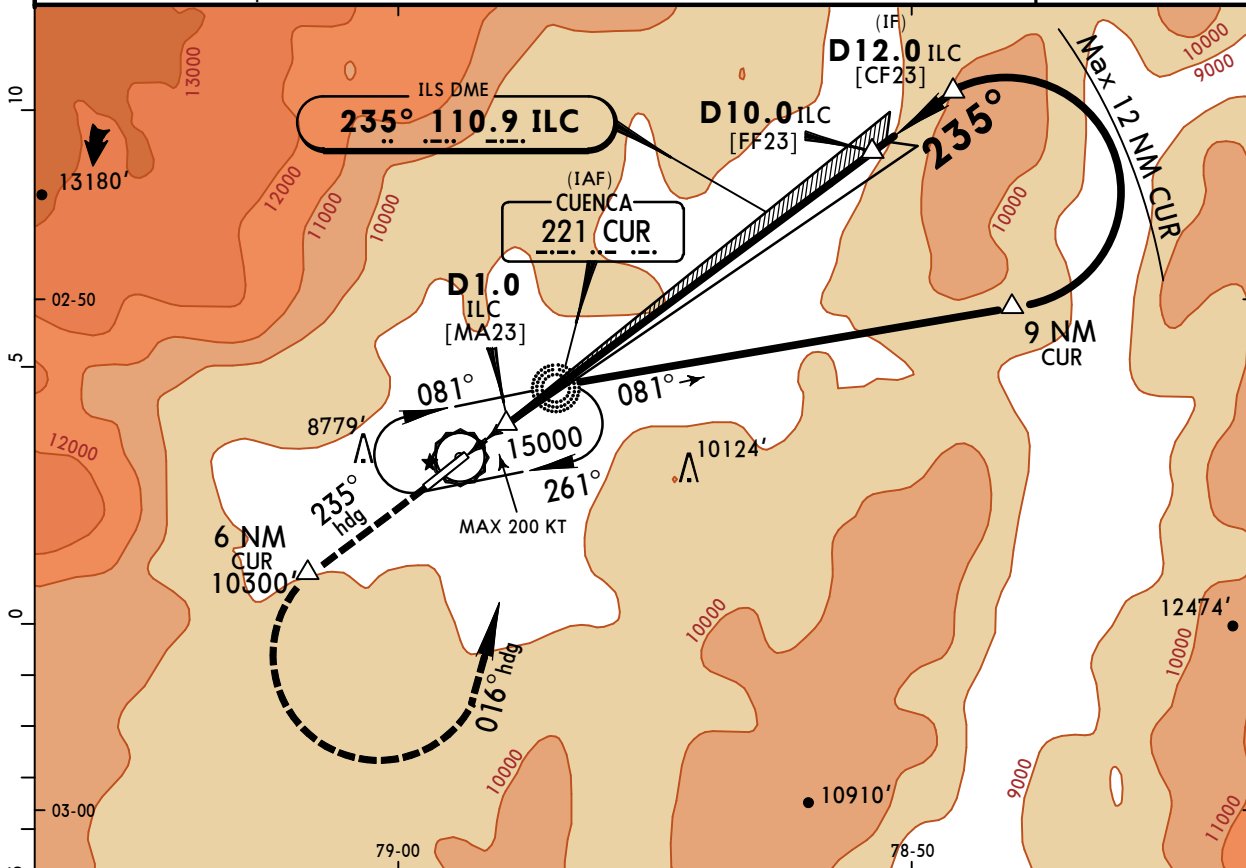
MISSED APCH CLIMB  
GRADIENT MIM 5.3%

CUENCA, ECUADOR

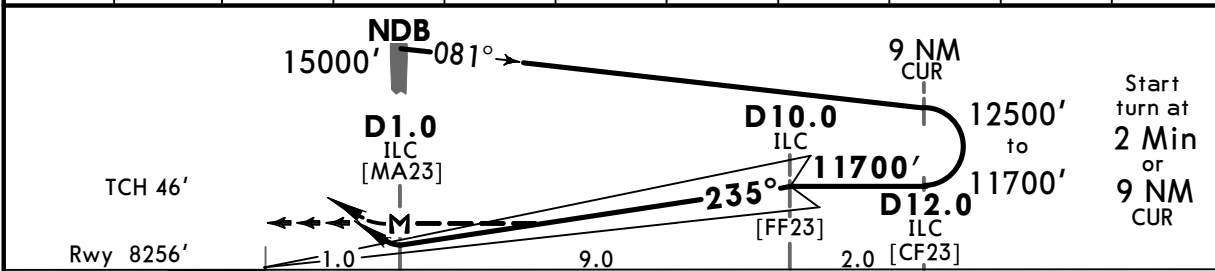
CAT B & C

ILS or LOC X Rwy 23

*CUENCA Approach				*CUENCA Tower	
122.3				118.4	
LOC ILC <b>110.9</b>	Final Apch Crs <b>235°</b>	Minimum Alt <b>D10.0 ILC</b> <b>11700'</b> (3444')	ILS DA(H) <b>8630'</b> (374')	Apt Elev 8306'	Rwy 8256'
MISSED APCH: Climb heading 235° to at or above 10300', within 6 NM CUR NDB turn LEFT heading 016° climbing to 15000' to CUR NDB and hold, or in accordance with ATC instructions.					
Alt Set: hPa Rwy Elev: 268 hPa Trans level: By ATC Trans alt: 18000'					MSA CUR NDB
1. NDB and DME required. 2. Max IAS: 200 kts.					



LOC (GS out)	ILC DME	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
	ALTITUDE	8630'	8980'	9320'	9660'	10000'	10340'	10680'	11020'	11360'



Gnd speed-Kts	70	90	100	120	140	160				
GS	3.20°	396	510	566	679	793	906			
MAP at D1.0 ILC or D10.0 ILC to MAP	9.0	7:43	6:00	5:24	4:30	3:51	3:23			

STRAIGHT-IN LANDING RWY23				CIRCLE-TO-LAND RWY05			
Missed apch climb gradient mim 5.3%				Missed apch climb gradient mim 5.3%			
ILS		LOC (GS out)		ILS		LOC (GS out)	
DA(H) <b>8630'</b> (374')		MDA(H) <b>9500'</b> (1244')		DA(H) <b>8630'</b> (374')		MDA(H) <b>9500'</b> (1244')	
HIALS out		HIALS out		HIALS out		HIALS out	
A	NA	A	NA	A	NA	A	NA
B	1700m	B	5000m	B	9800'(1494') -5000m	B	9800'(1494') -5000m
C		C		C	10900'(2594') -5000m	C	10900'(2594') -5000m
D	NA	D	NA	D	NA	D	NA

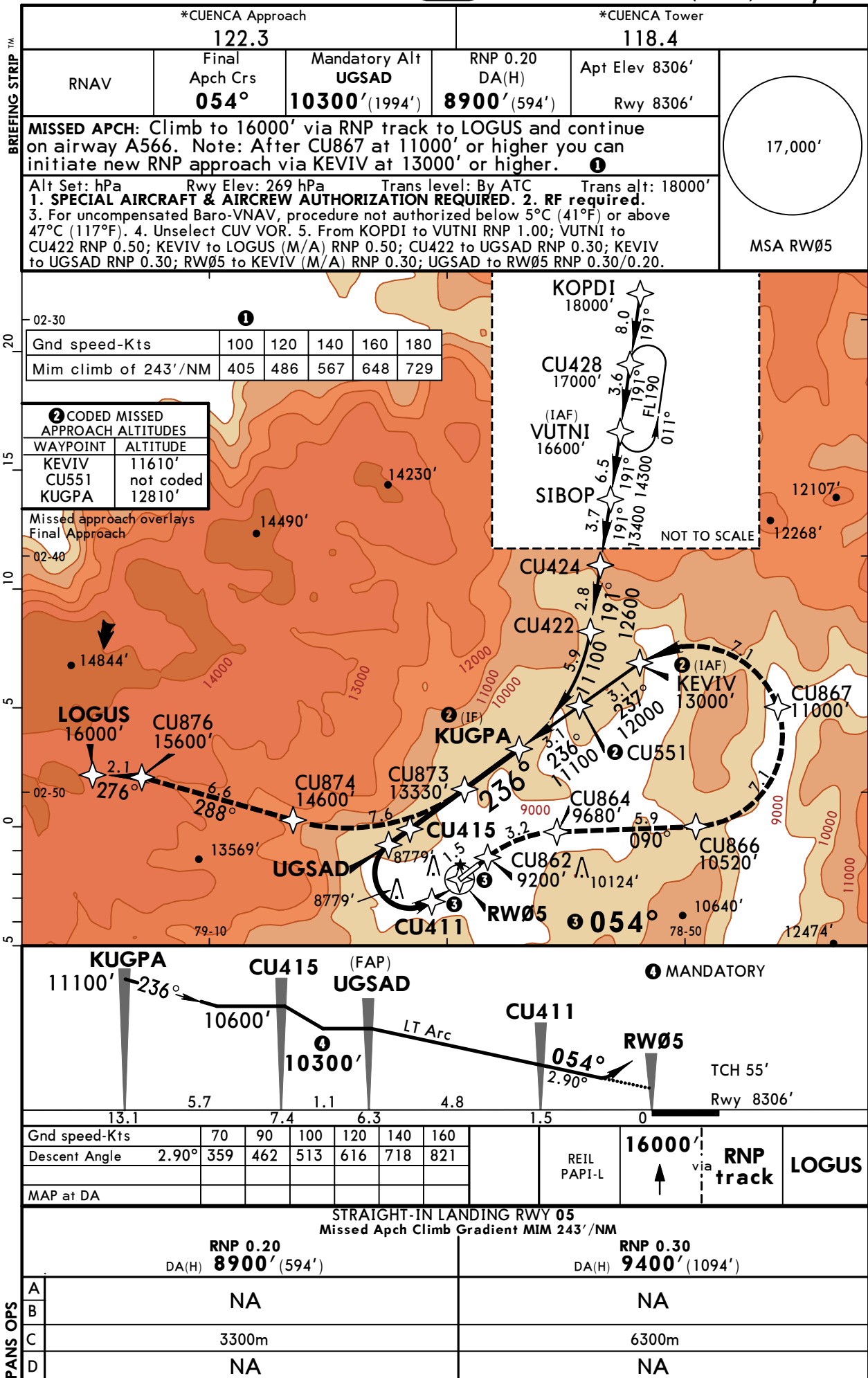
CHANGES: MDA(H), MAP, minimums.

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SECU/CUE  
MARISCAL LAMAR

JEPPESSEN  
29 JUL 16 (12-20)

CAT C CUENCA, ECUADOR  
RNAV (RNP) Rwy 05





SECU/CUE  
MARISCAL LAMAR

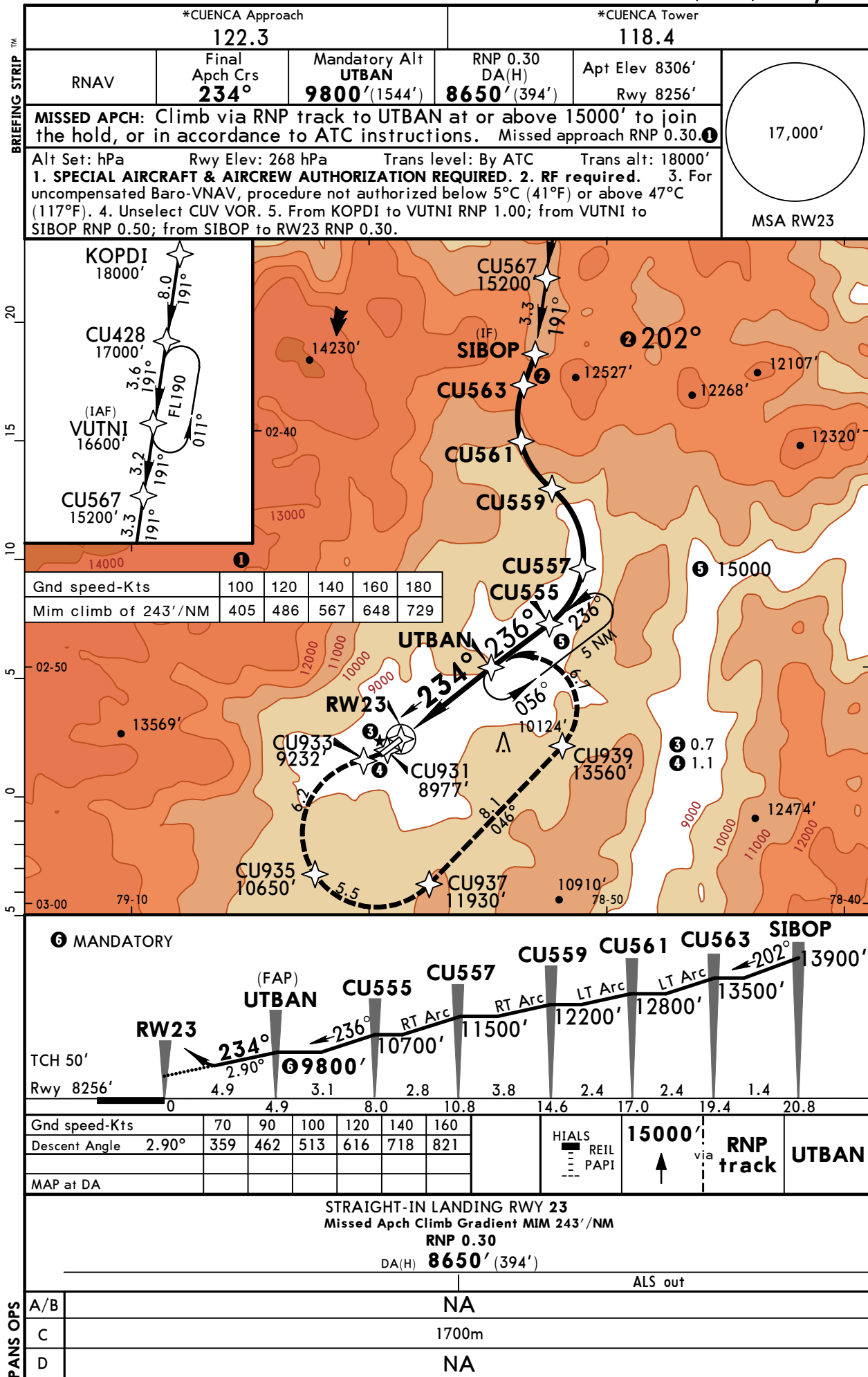
JEPPESSEN

29 JUL 16

(12-21)

CAT C

CUENCA, ECUADOR  
RNAV (RNP) Rwy 23



CHANGES: Procedure.

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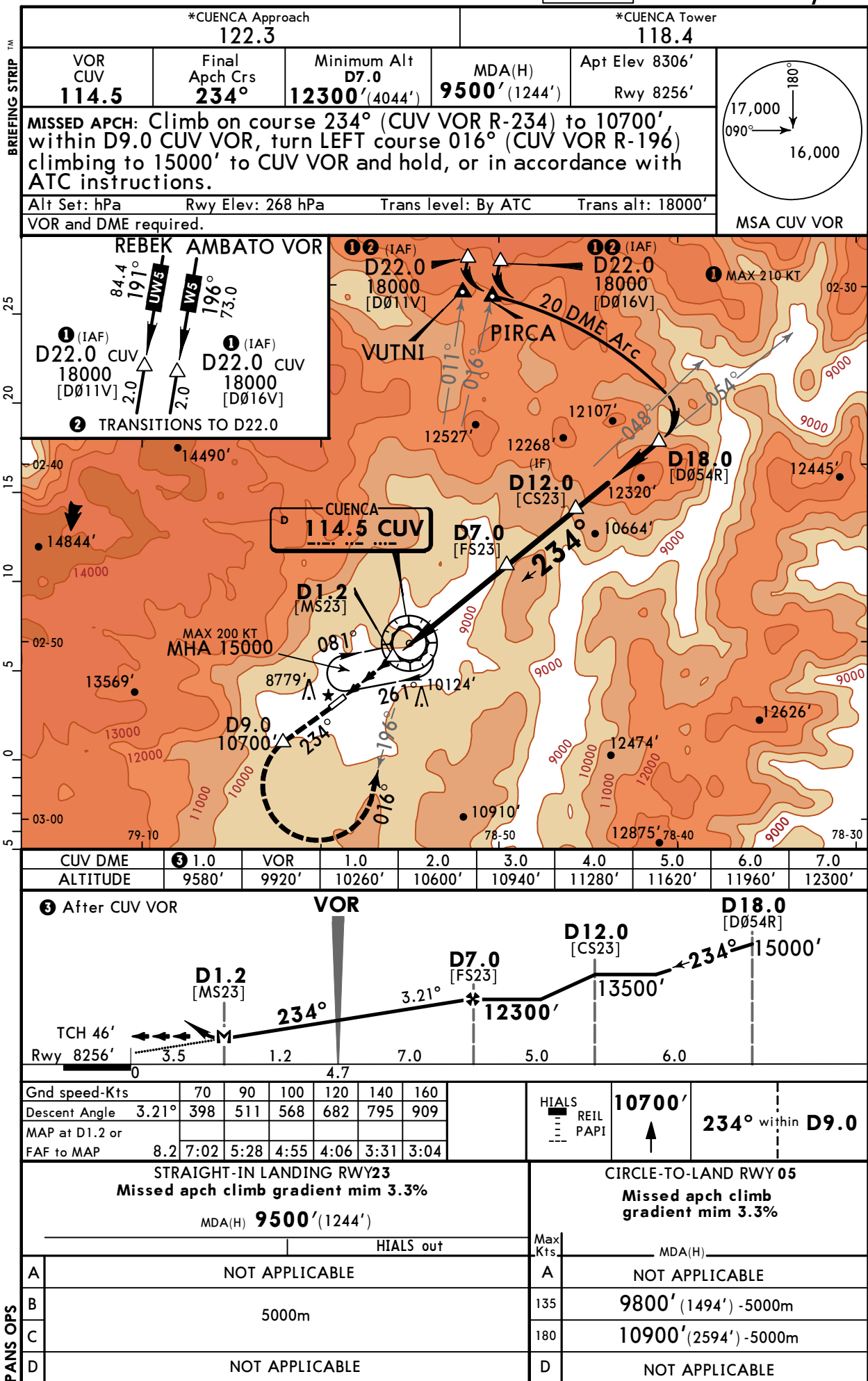
# SECU/CUE MARISCAL LAMAR

31 MAY 19 (13-1)

JEPPESSEN MISSED APCH CLIMB  
GRADIENT MIM 3.3%

CUENCA, ECUADOR  
VOR Z Rwy 23

CAT B & C





SECU/CUE

MARISCAL LAMAR

31 MAY 19

(13-2)

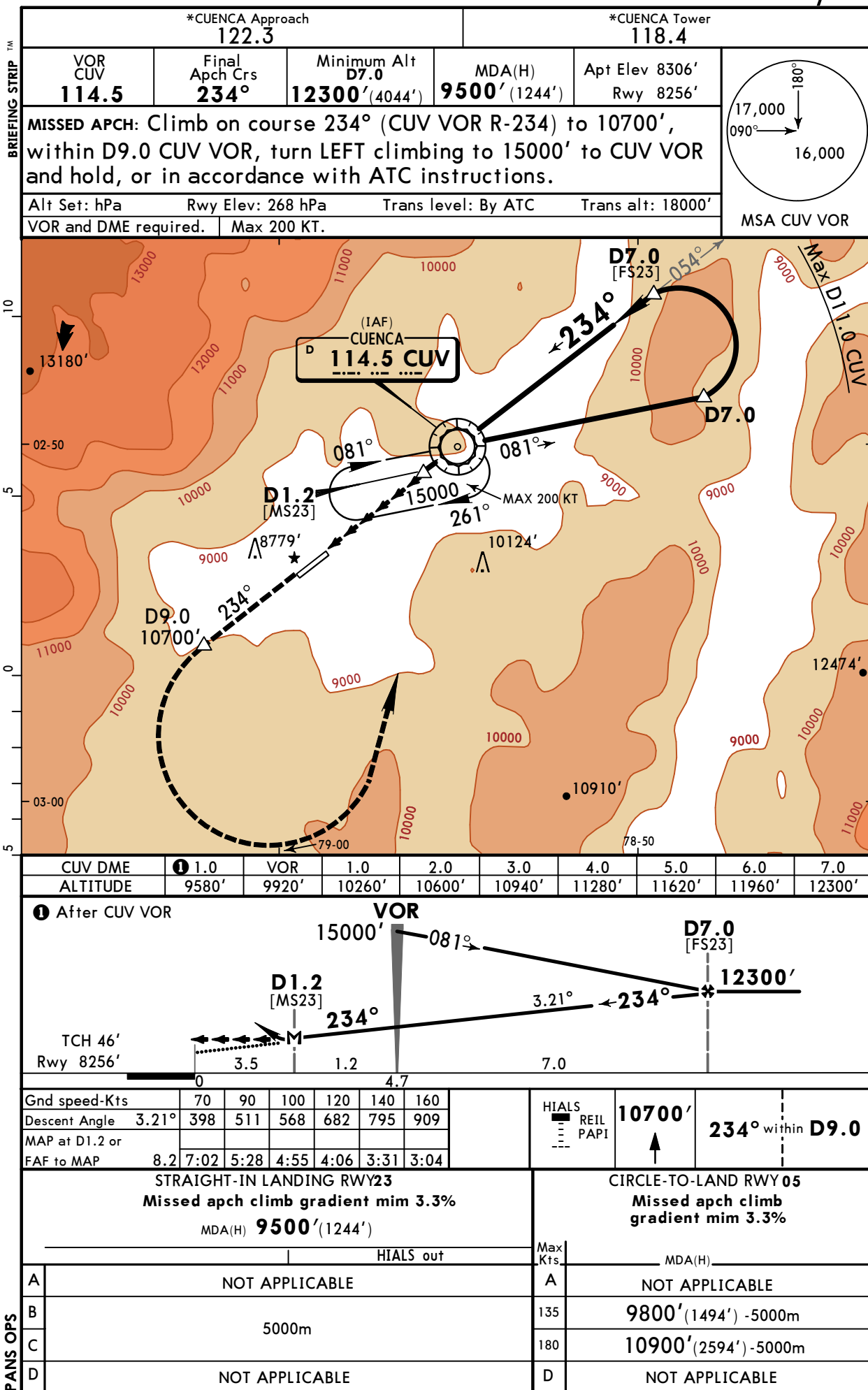
JEPPESEN

MISSED APCH CLIMB  
GRADIENT MIM 3.3%

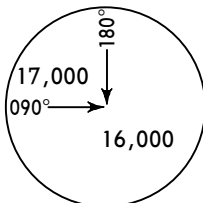
CUENCA, ECUADOR

CAT B & C

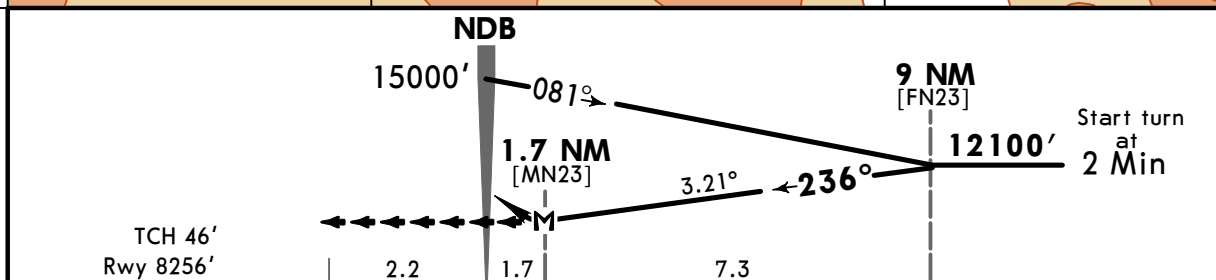
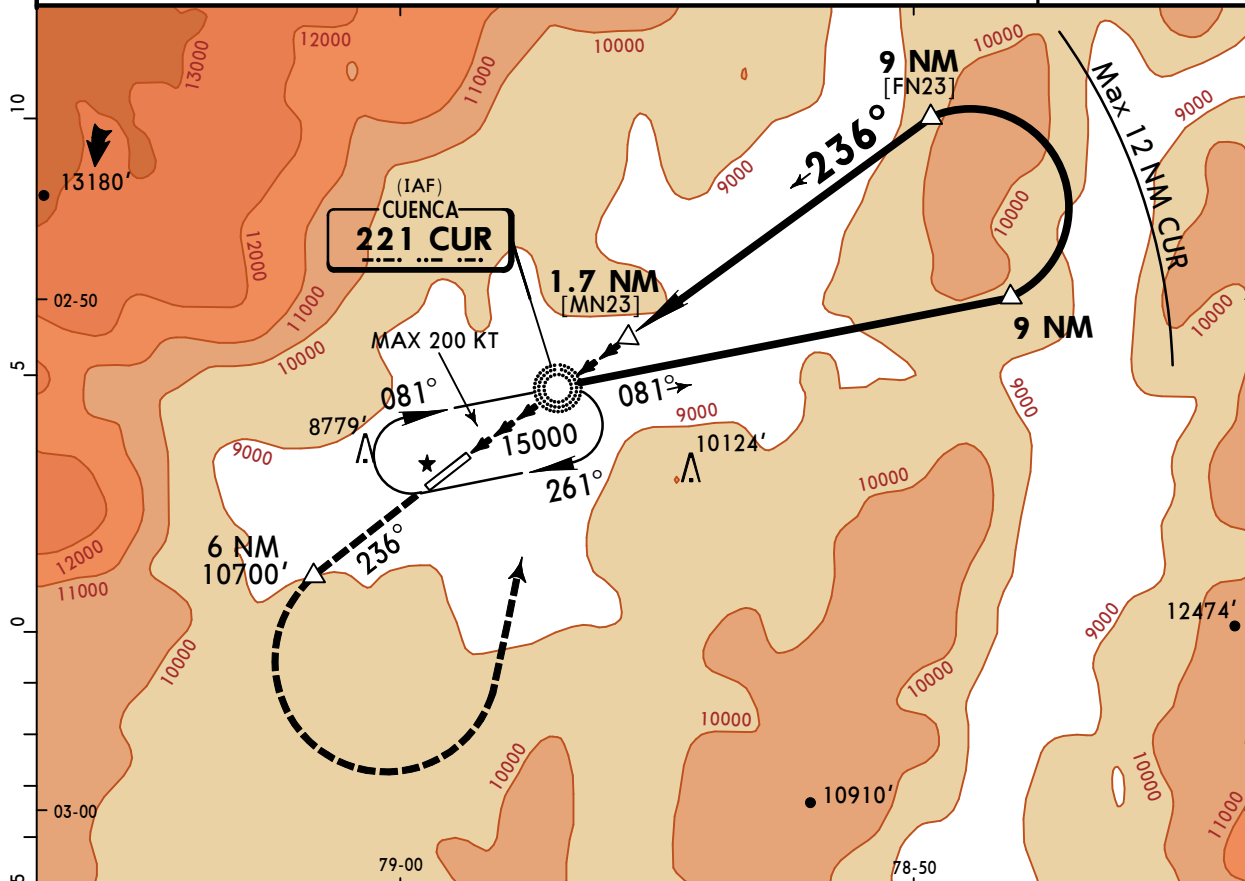
VOR Y Rwy 23




BRIEFING STRIP

*CUENCA Approach				*CUENCA Tower	
122.3				118.4	
NDB CUR 221	Final Apch Crs 236°	No FAF	MDA(H) 9600' (1344')	Apt Elev 8306' Rwy 8256'	
MISSED APCH: Climb to at or above 10700' on course 236° within 6 NM from CUR NDB, turn LEFT climbing to 15000' to CUR NDB and hold, or in accordance with ATC instructions.					
Alt Set: hPa		Rwy Elev: 268 hPa	Trans level: By ATC	Trans alt: 18000'	
Max 200 KT.					

MSA CUR NDB



Gnd speed-Kts	70	90	100	120	140	160		10700'	236° within 6 NM
Descent Angle 3.21°	398	511	568	682	795	909			
MAP at 1.7 NM or 9 NM to MAP	7.3	6:15	4:52	4:23	3:39	3:08			

STRAIGHT-IN LANDING RWY 23 Missed apch climb gradient mim 3.3%			CIRCLE-TO-LAND RWY 05 Missed apch climb gradient mim 3.3%		
MDA(H) <b>9600'</b> (1344')			MDA(H)		
HIALS out			Max Kts		
A NOT APPLICABLE			A NOT APPLICABLE		
B 5000m			135 9800' (1494') -5000m		
C			180 10900' (2594') -5000m		
D NOT APPLICABLE			D NOT APPLICABLE		