

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

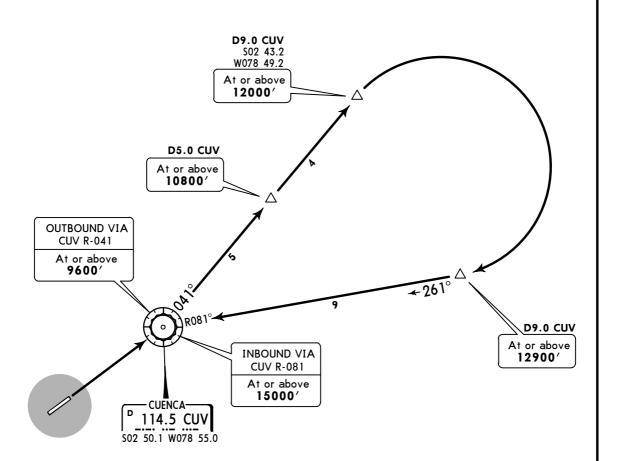
After take-off MAINTAIN heading to CUR NDB at or above 9200'. Follow CUR 053° bearing to 6 NM from CUR (1.5 min) at or above 10800', turn RIGHT CUR 289° bearing to cross 6 NM from CUR at or above 12400', continue climbing to CUR NDB at or above 14100', then proceed according to ATC instructions.

SIC



(RWY 05)

17,000' \\
090° \\
16,000' \\
MSA CUV VOR



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



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



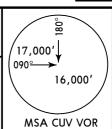
INITIAL CLIMB

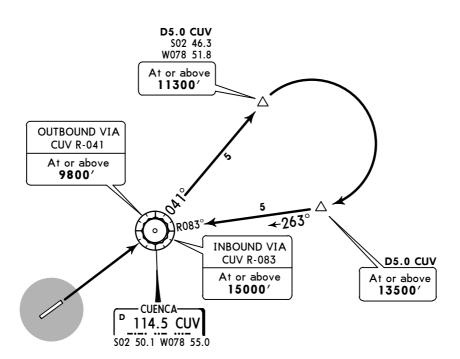
After take-off MAINTAIN heading to CUV VOR at or above 9600', turn LEFT course 041° (CUV R-041) to D5.0 CUV at or above 10800', to D9.0 CUV at or above 12000', turn RIGHT to intercept CUV R-081 (course 261°) at D9.0 CUV at or above 12900', continue to CUV VOR at or above 15000', then proceed according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

ermis gradiem er ereze (eeu per run).										
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

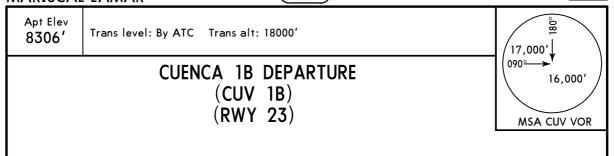
Attitione at distance from Cov VOR/ DIVIE.								
CUV DME	4	3	2	1	0			
ALTITUDE	8580'	8880'	9190'	9490'	9800'			

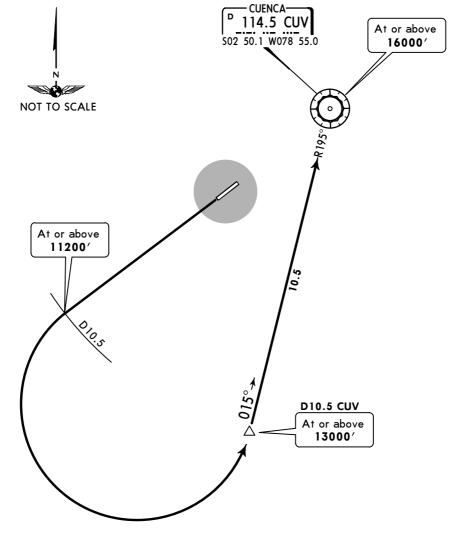


INITIAL CLIMB

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.

SI





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.

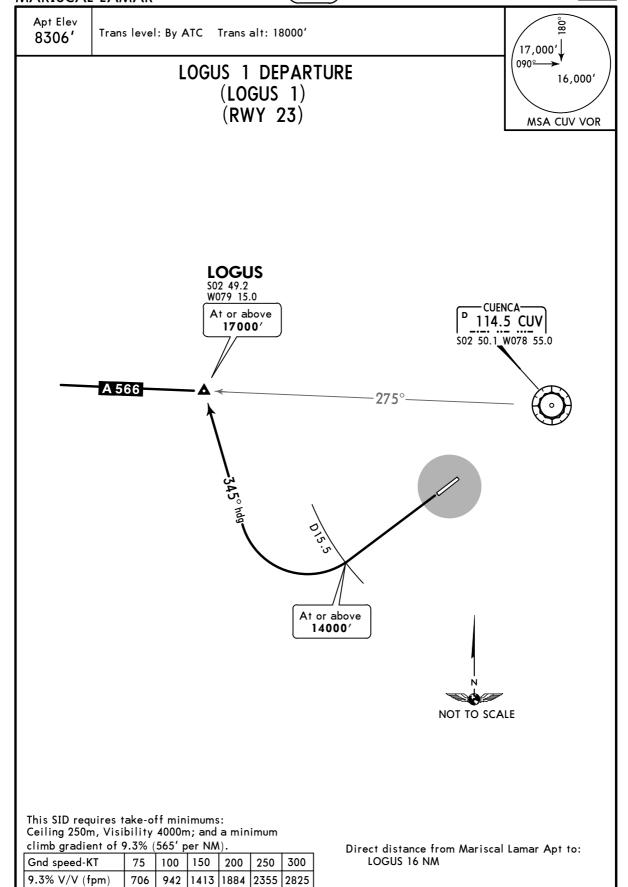
Gnd speed-KT	75	100	150	200	250	300
4.5% V/V (fpm)	342	456	684	911	1139	1367
9.9% V/V (fpm)	753	1003	1505	2007	2508	3010

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.

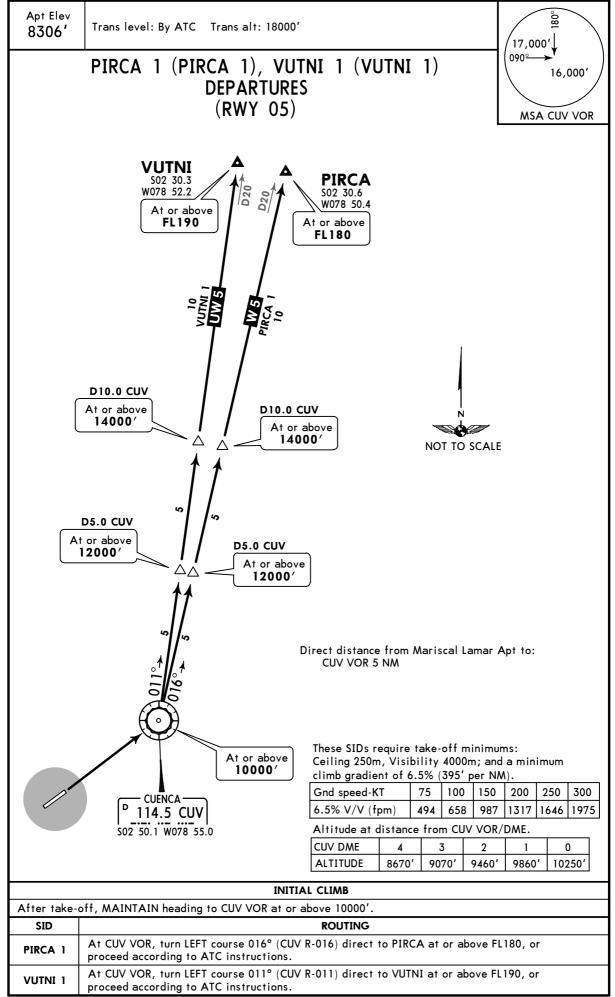


Altitude at distance from CUV VOR/DME.

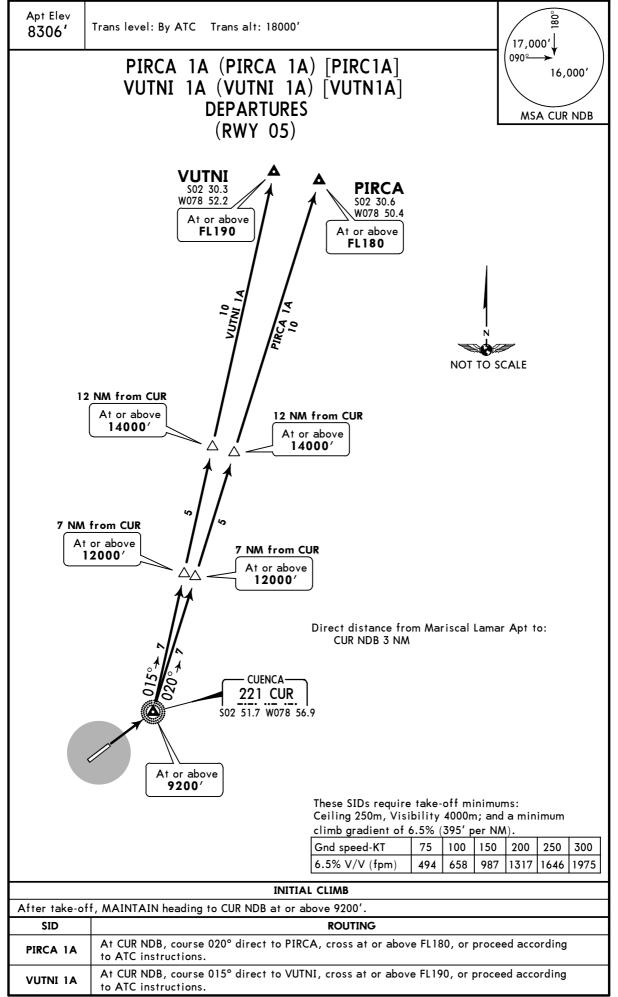
CUV DME	6	7	8	9	10	11	12	13	14	15
ALTITUDE	8470'	9080'	9645'	10235'	10820'	11410'	12000'	12590'	13180'	13770'

INITIAL CLIMB

After take-off MAINTAIN runway heading to D15.5 CUV at or above 14000', turn RIGHT heading 345° direct to LOGUS at or above 17000', or proceed according to ATC instructions.



SIL



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 Contigency 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 PROCEDRUES

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

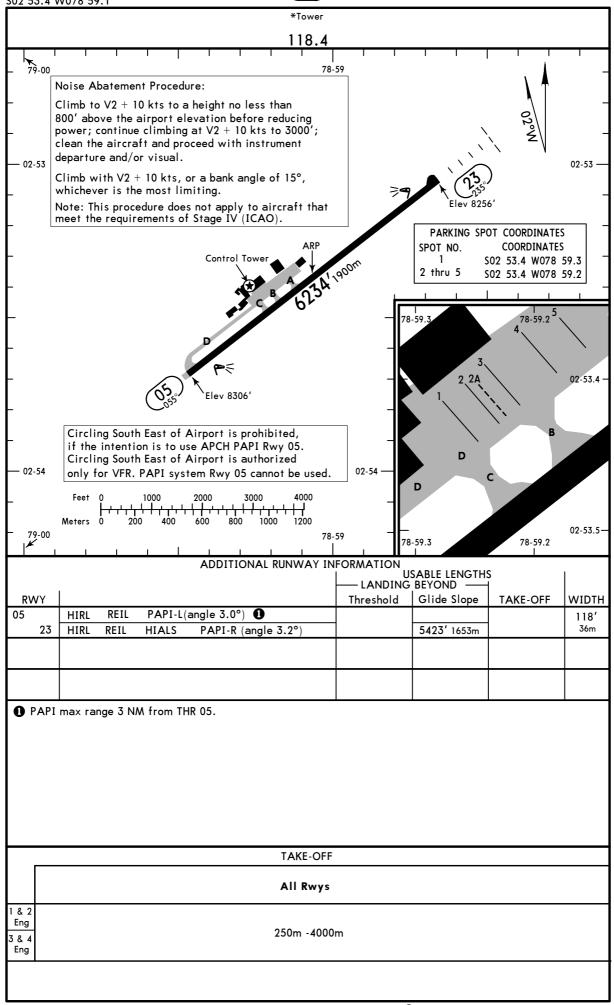
RUNWAY 23

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.



NA

D

NA

© JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

D

NA

CHANGES: DA(H), MAP, minimums.

MISSED APCH CLIMB CUENCA, ECUADOR GRADIENT MIM 5.3% **JEPPESEN** SECU/CUE *CUENCA Tower MARISCAL LAMAR Eff 23 May *CUENCA Approach 122.3 118.4 Final LOC ILS Minimum Alt **BRIEFING STRIP** Apt Elev 8306 ILC Apch Crs **D10.0 ILC** DA(H)235° 8630'(374') 110.9 11700′(3444′) Rwy 8256 17,000 090° MISSED APCH: Climb heading 235° to at or above 10300', within D9.0 16,000 CUV VOR turn LEFT heading 016° (CUV VOR R-196) climbing to 15000' to CUV VOR and hold, or proceed in accordance with ATC instructions. Rwy Elev: 268 hPa Trans level: By ATC Trans alt: 18000' 2. Max IAS: 200 Kts. MSA CUV VOR 1. VOR and DME required. (IF) 78-50 **D12.0** ILC 9000 ILS DME 0 D10.01LC 2 235° 110.9 ILC [FF23] 13180 (IAF) CÙENCA-D4. 114.5 CUV **D7.0** 02-50 081 5000 MAX 20<mark>0 K</mark>T 261° 12000 10124 D1.0 <u>`</u>^. ILC [MA23] D9.0 cuv 12474 • 10910 03-00 7.0 LOC ILC DME 1.0 2.0 3.0 4.0 5.0 6.0 8.0 9.0 ALTITUDE 8630 8980 9320 9660 10000 10340 10680' 11020 (GS out) 11360' D7.0 VOR 15000' •081° D1.0 12500' D10.0 D4.8 [MA23] $1\frac{1}{2}$ Min ILC **炒11700′** 11700′ TCH 46' 235 D12.0 ILC 2.0 [CF23] [FF23] Rwy 8256 3.8 5.2 70 90 HIALS REIL Gnd speed-Kts 100 120 140 160 10300 235° in D9.0 3.20° 396 510 566 679 793 906 GS E PAPI MAP at D1.0 ILC or hdg 9.0 7:43 6:00 5:24 4:30 3:51 D10.0 ILC to MAP STRAIGHT-IN LANDING RWY23 CIRCLE-TO-LAND RWY 05 Missed apch climb gradient mim 5.3% Missed apch climb ILS LOC (GS out) gradient mim 5.3% DA(H) **8630'**(374') MDA(H) **9500'**(1244') HIALS out HIALS out MDA(H) Α NA NA NA В 135 9800'(1494') -5000m 1700m 5000m OPS С 10900'(2594') -5000m 180 NA D NA D NA CHANGES: DA(H), MAP, minimums. © JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

MISSED APCH CLIMB CUENCA, ECUADOR GRADIENT MIM 5.3% JEPPESEN SECU/CUE MARISCAL LAMAR Eff 23 May (11-3)CATB&C ILS or LOC X Rwy 23 *CUENCA Tower *CUENCA Approach 118.4 122.3 Final LOC Minimum Alt ILS **BRIEFING STRIP** Apt Elev 8306 D10.0 ILC ILC Apch Crs DA(H) 235° 110.9 11700′(3444′) 8630'(374') Rwy 8256 17,000 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. 090°-16,000 Rwy Elev: 268 hPa Trans level: By ATC Alt Set: hPa Trans alt: 18000' MSA CUR NDB 1. NDB and DME required. 2. Max IAS: 200 kts. D12.0 ILC [CF23] ILS D'ME 9 **D10.0**11C 235° 110.9 ILC 13180 (IAF CUENCA-221 (CUR D 1.0 ILC [MA23] 02-50 9 NM 081°→ 081 .∧10124 8779 15000 261 MAX 200 KT 6 NM CUR 10300 12474' 900 • 10910 03-00 78-50 79-00 LOC ILC DME 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 ALTITUDE (GS out) 8630 8980 9320 9660 10000' 10340 10680' 11020 11360' **NDB** 9 NM CUR ∙081° 15000 Start turn at D10.0 12500' 2 Min to **171 1700**′ [MA23] 11700' TCH 46' 9 NM **D12.0** CUR [FF23] 2.0 [CF_.23] Rwy 8256 9.0 Gnd speed-Kts 70 90 100 120 140 160 HIALS = REIL = PAPI 10300 235° 6 NM 3.20° 396 510 566 679 793 906 CUR MAP at D1.0 ILC or hdg D10.0 ILC to MAP 9.0 7:43 6:00 5:24 4:30 STRAIGHT-IN LANDING RWY23 Missed apch climb gradient mim 5.3% CIRCLE-TO-LAND RWY 05 Missed apch climb ILS LOC (GS out) gradient mim 5.3% DA(H) **8630'**(374') MDA(H) 9500'(1244') HIALS out HIALS out MDA(H) NA NA Α NA В 135 9800'(1494') -5000m 1700m 5000m OPS С 180 10900'(2594') -5000m NA D NA D NA

© JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

CHANGES: MDA(H), MAP, minimums.

SECU/CUE CUENCA, ECUADOR JEPPESEN 29 JUL 16 CAT C RNAV (RNP) Rwy 05 MARISCAL LAMAR 12-20 *CUENCA Tower *CUENCA Approach 122.3 118.4 RNP 0.20 Mandatory Alt STRIP Final Apt Elev 8306' Apch Crs **UGSAD** DA(H) **RNAV** 054° 8900'(594') 10300′(1994′) Rwy 8306' MISSED APCH: Climb to 16000' via RNP track to LOGUS and continue on airway A566. Note: After CU867 at 11000' or higher you can initiate new RNP approach via KEVIV at 13000' or higher. 17,000' Alt Set: hPa Rwy Elev: 269 hPa Trans level: By ATC Trans alt: 18

1. SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED. 2. RF required.

3. For uncompensated Baro-VNAV, procedure not authorized below 5°C (41°F) or above 47°C (117°F). 4. Unselect CUV VOR. 5. From KOPDI to VUTNI RNP 1.00; VUTNI to Trans alt: 18000 CU422 RNP 0.50; KEVIV to LOGUS (M/A) RNP 0.50; CU422 to UGSAD RNP 0.30; KEVIV to UGSAD RNP 0.30; RWØ5 to KEVIV (M/A) RNP 0.30; UGSAD to RWØ5 RNP 0.30/0.20 MSA RWØ5 KOPDI 18000 0 02-30 Gnd speed-Kts 100 120 140 160 180 **CU428** 405 486 567 648 Mim climb of 243'/NM 729 17000 2 CODED MISSED (IAF) INTÚV APPROACH ALTITUDES WAYPOINT ALTITUDE 16600 15 KEVIV 11610 14230 CU551 not coded 12107 SIBOP **KUGPA** 12810 Missed approach overlays NOT TO SCALE 02-40 CU424 2 CU422. 14844 KEVIV CU867 13000 2 11000 LOGUS 2 (IE **CU876** 16000 15600 O CU551 CU873 **CU874** 13330 4600 CU864 288 9680 **CU866** CU862 0520 9200' 10124' 10640 0054° CU411 79-10 78-50 12474 **KUGPA** (FAP) **CU415** MANDATORY 11100' **-236**° **UGSAD CU411** 10600 LT Arc RWØ5 054° 10300 TCH 55' Rwy 8306' 5.7 <u> 13.1</u> 100 Gnd speed-Kts 70 90 120 140 160 16000 2.90° 359 462 513 616 821 **RNP** Descent Angle 718 REIL **LOGUS** PAPI-L track MAP at DA STRAIGHT-IN LANDING RWY 05 Missed Apch Climb Gradient MIM 243'/NM

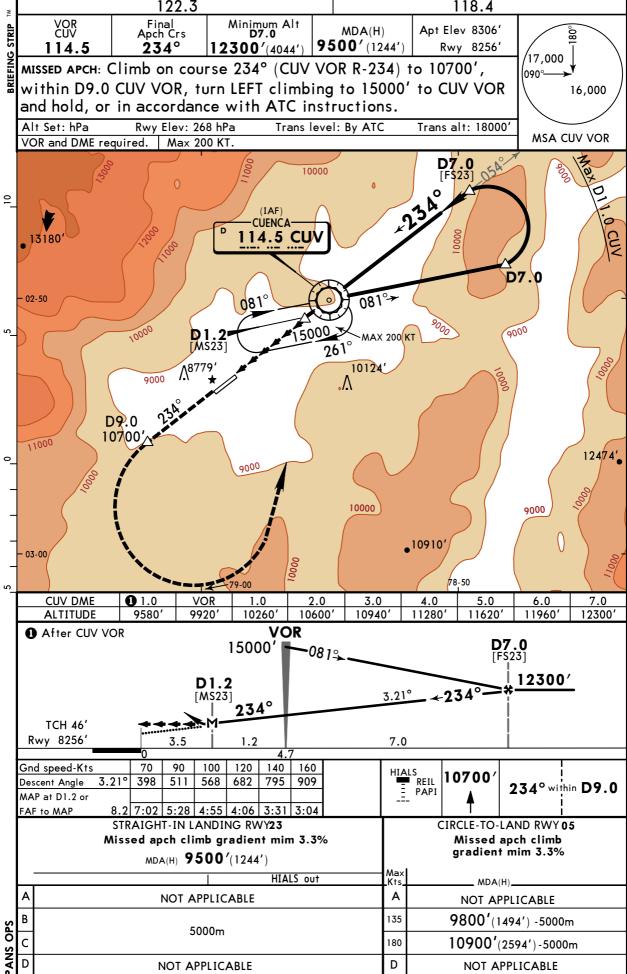
CHANGES: Procedure.

29 JUL 16 12-21 CAT C *CUENCA Tower *CUENCA Approach 118.4 122.3 Final Apch Crs Mandatory Alt
UTBAN RNP 0.30 STRIP Apt Elev 8306' DA(H) **RNAV 8650'**(394') 234° 9800'(1544') Rwy 8256 MISSED APCH: Climb via RNP track to UTBAN at or above 15000' to join 17,000 the hold, or in accordance to ATC instructions. Missed approach RNP 0.30. Rwy Elev: 268 hPa Trans level: By ATC 1. SPECIAL AIRCRAFT & AIRCREW AUTHORIZATION REQUIRED. 2. RF required. uncompensated Baro-VNAV, procedure not authorized below 5°C (41°F) or above 47°C (117°F). 4. Unselect CUV VOR. 5. From KOPDI to VUTNI RNP 1.00; from VUTNI to MSA RW23 SIBOP RNP 0.50; from SIBOP to RW23 RNP 0.30. KOPDI **CU567** 18000 15200 20 @202° **CU428** SIBOP 17000' 12107 • 12527 • 12268 **CU563** (IAF)VUTNI 16600 15 02-40 12320 **CU561 CU567 CU**559 15200' 0 **CU55**7 **9** 15000 Gnd speed-Kts 100 120 140 160 180 CU555 Mim climb of 243'/NM 405 486 729 02-50 RW 23 **3** 0.7 CU939 **Q** 1.1 CU931 897 12474 CU935 10650' 10910 1930 - 03-00 2 **SIBOP** CU559 CU561 CU563 MANDATORY 202° 13900 **CU557** (FAP) **CU555** LT Arc 13500[°] **UTBAN** 2800' 12200′ 236 1500' **RW23** 107001 TCH 50' **©**9800′ Rwy 8256' 3.8 2.4 4.9 8.0 10.8 14.6 17.0 20.8 Gnd speed-Kts 70 90 100 120 140 160 15000 HIALS REIL 2.90° 359 513 **RNP** Descent Angle 462 616 718 821 **UTBAN** PAPI track MAP at DA STRAIGHT-IN LANDING RWY 23 Missed Apch Climb Gradient MIM 243'/NM **RNP 0.30** DA(H) **8650'** (394') ALS out A/B NA OPS 1700m C PANS D NA

31 MAY 19 (13-1) MARISCAL LAMAR VOR Z Rwy 23 CAT B & C *CUENCA Approach *CUENCA Tower 122.3 118.4 Apt Elev 8306 VOR Final Minimum Alt STRIP MDA(H) CUV Apch Crs 234° D7.0 8 9500'(1244') Rwy 8256 114.5 12300'(4044') 17,000 MISSED APCH: Climb on course 234° (CUV VOR R-234) to 10700', within D9.0 CUV VOR, turn LEFT course 016° (CUV VOR R-196) 090°-16,000 climbing to 15000' to CUV VOR and hold, or in accordance with ATC instructions. Alt Set: hPa Rwy Elev: 268 hPa Trans level: By ATC Trans alt: 18000' VOR and DME required. MSA CUV VOR AMBATO VOR 10 (LAF **10** (IAF) D22.0 D22.0 1 MAX 210 KT 18000 18000 02-30 [DØ16V] 25 [DØ11V] PIRCA **1**(IAF) D22.0 CUV (IAF) VUTNI D22.0 cuv 18000 18000 [DØ11V] S 20 [DØ16V] 12107 9000 TRANSITIONS TO D22.0 12527 12268 D18.0 02-40 (HF) 12445 [DØ54R] D12.0 [CS23] 2 12320 • 10664 114.5 CUV D7.0 14844 14000 MHA 15000 081 02-50 9000 13569' 12626 D9.0 12474 10700 . 10910 03-00 12875 78-40 78-30 **CUV DME** VOR 3.0 7.0 6.0 12300 **ALTITUDE** 9580 9920 10260' 10600 10940 11280' 11620 11960' **VOR** D18.0 3 After CUV VOR [DØ54R] **D12.0** [CS23] 234°-15000′ **D1.2** [MS23] 13500' 234° $\overline{12300}'$ TCH 46' <u>Rwy</u> 8256' 5.0 7.0 6.0 Gnd speed-Kts 70 90 100 120 140 160 HIALS E REIL 10700 511 3.21° 398 568 682 795 909 Descent Angle 234° within D9.0 E PAPI MAP at D1.2 or FAF to MAP 8.2 7:02 5:28 4:55 4:06 3:31 3:04 STRAIGHT-IN LANDING RWY23 CIRCLE-TO-LAND RWY 05 Missed apch climb gradient mim 3.3% Missed apch climb gradient mim 3.3% MDA(H) 9500'(1244') Max Kts HIALS out MDA(H)_ Α Α NOT APPLICABLE NOT APPLICABLE В 135 9800' (1494') -5000m OPS 5000m С 180 10900'(2594') -5000m D NOT APPLICABLE D NOT APPLICABLE CHANGES: MAP navdata ident. © JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

SECU/CUE

JEPPESEN MISSED APCH CLIMB CUENCA, ECUADOR GRADIENT MIM 3.3%



© JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

CHANGES: Missed approach, MAP.

(16-1)28 JUN 19 CATB&C NDB Rwy 23 MARISCAL LAMAR *CUENCA Approach *CUENCA Tower 118.4 122.3 STRIP NDB CUR Final Apt Elev 8306 MDA(H) No FAF Apch Crs 9600'(1344') Rwy 8256 236° 221 17,000 MISSED APCH: Climb to at or above 10700' on course 236° within 090° 6 NM from CUR NDB, turn LEFT climbing to 15000' to CUR NDB 16,000 and hold, or in accordance with ATC instructions. Alt Set: hPa Max 200 KT. Trans alt: 18000' Rwy Elev: 268 hPa Trans level: By ATC MSA CUR NDB 10000 9 NM [FN23] 9000 2 13180 (IAF) CÙENĆA: **221 CUR** 1.7 NM [MN23] 02-50 9 NM MAX 200 KT 081°> 0<u>8</u>1° 9000 8779 5000 10124 9000 10000 26 6 NM 10700 11000 12474 10000 10000 • 10910 03-00 79-00 78-50 NDB **9 NM** [FN23] 15000' 081% Start turn 2 Min 12100 1.7 NM [MN23] 3.21° +236° TCH 46' Rwy 8256 1.7 2.2 7.3 120 Gnd speed-Kts 70 90 100 140 160 HIALS REIL PAPI 10700 Descent Angle 3.21° 398 511 568 682 795 909 236° within 6 NM MAP at 1.7 NM or 7.3 6:15 4:52 4:23 3:39 3:08 9 NM to MAP STRAIGHT-IN LANDING RWY 23 CIRCLE-TO-LAND RWY 05 Missed apch climb gradient mim 3.3% Missed apch climb gradient mim 3.3% MDA(H) **9600'**(1344') HIALS out _ MDA(H)_ Α NOT APPLICABLE NOT APPLICABLE 9800'(1494')-5000m В 135 5000m 10900'(2594')-5000m C 180 OPS NOT APPLICABLE D NOT APPLICABLE D PANS (CHANGES: Missed approach, chart format. © JEPPESEN, 2015, 2019. ALL RIGHTS RESERVED.

JEPPESEN

SECU/CUE

MISSED APCH CLIMB CUENCA, ECUADOR GRADIENT MIM 3.3%