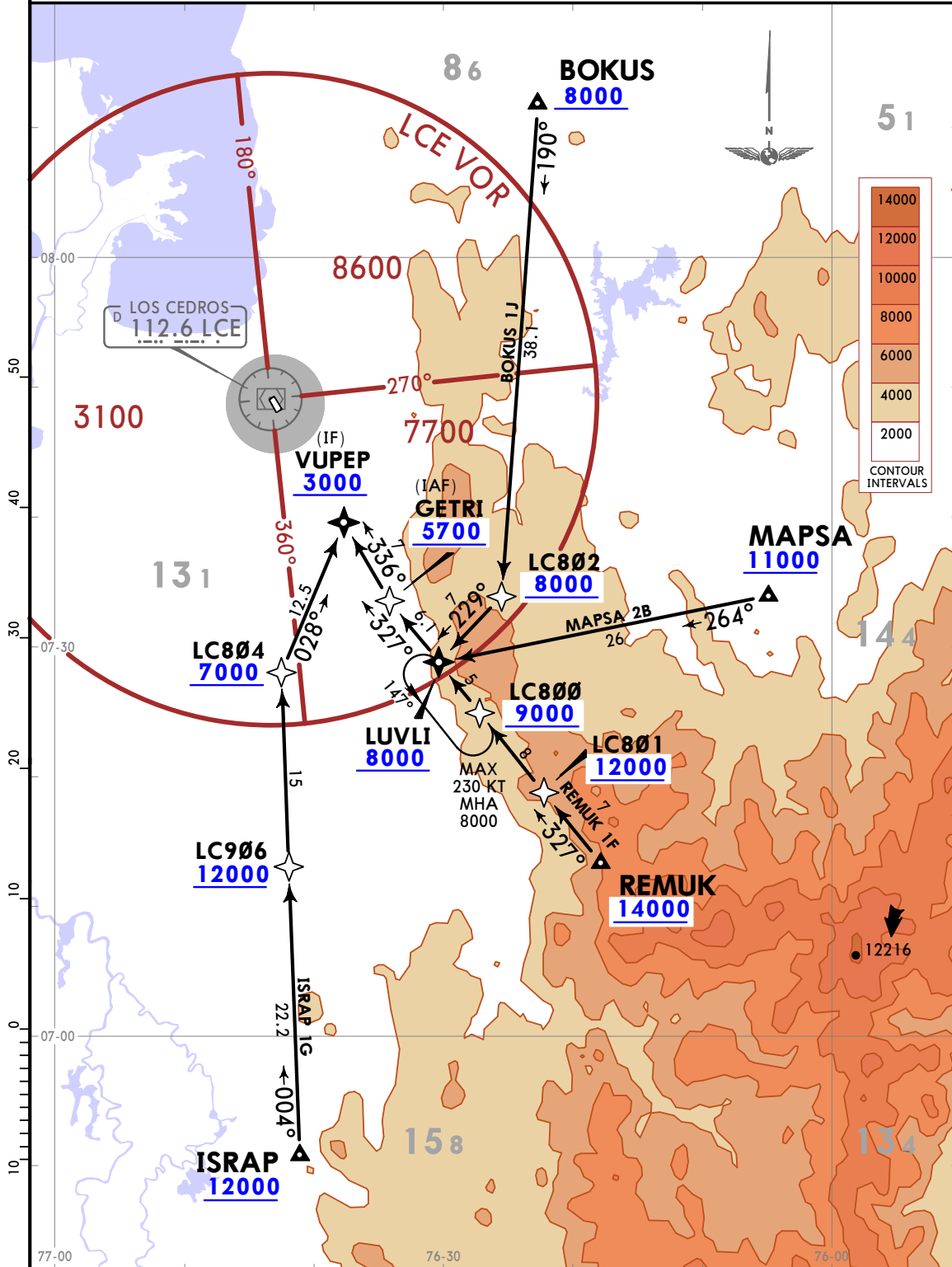


Apt Elev
52

Alt Set: IN (hPa on req) Trans level: FL190
1. RNP 1 or RNAV 1 certification required.
2. GNSS required.

BOKUS 1J [BOKU1J], ISRAP 1G [ISRA1G]
MAPSA 2B [MAPS2B], REMUK 1F [REMU1F]
RNAV (GNSS) ARRIVALS
(RWY 33)

CAT A, B & C



Apt Elev 52
Alt Set: IN (hPa on req) Trans level: FL190
1. RNP 1 or RNAV 1 certification required.
2. GNSS required.

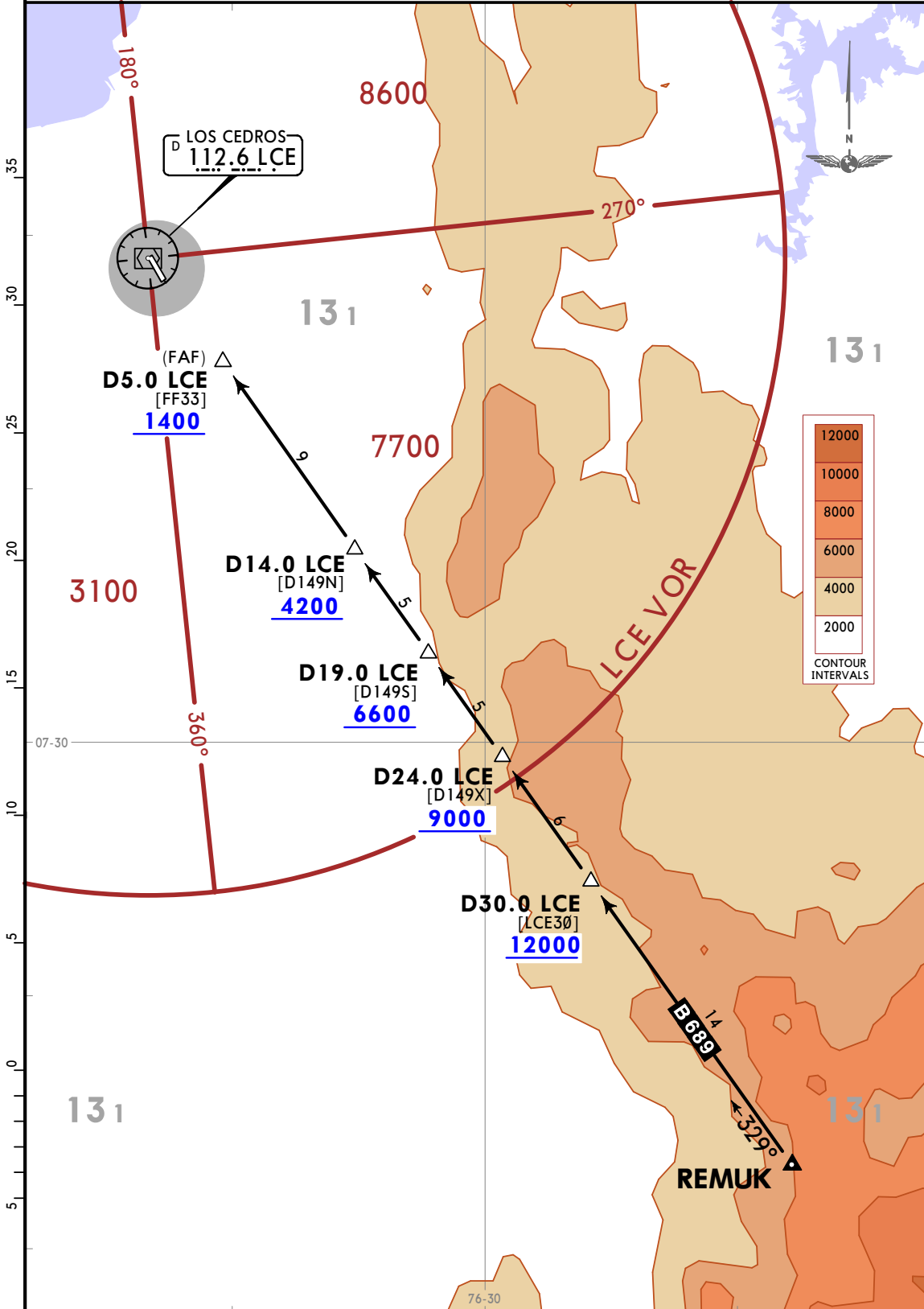
KAKOL 1B [KAKO1B], KUBEK 1B [KUBE1B]
RNAV (GNSS) ARRIVALS
(RWY 33)
CAT A, B & C



Apt Elev
52

Alt Set: IN (hPa on req) Trans level: FL190

REMUK 2A ARRIVAL [REMU2A]
(RWY 33)
CAT A, B & C



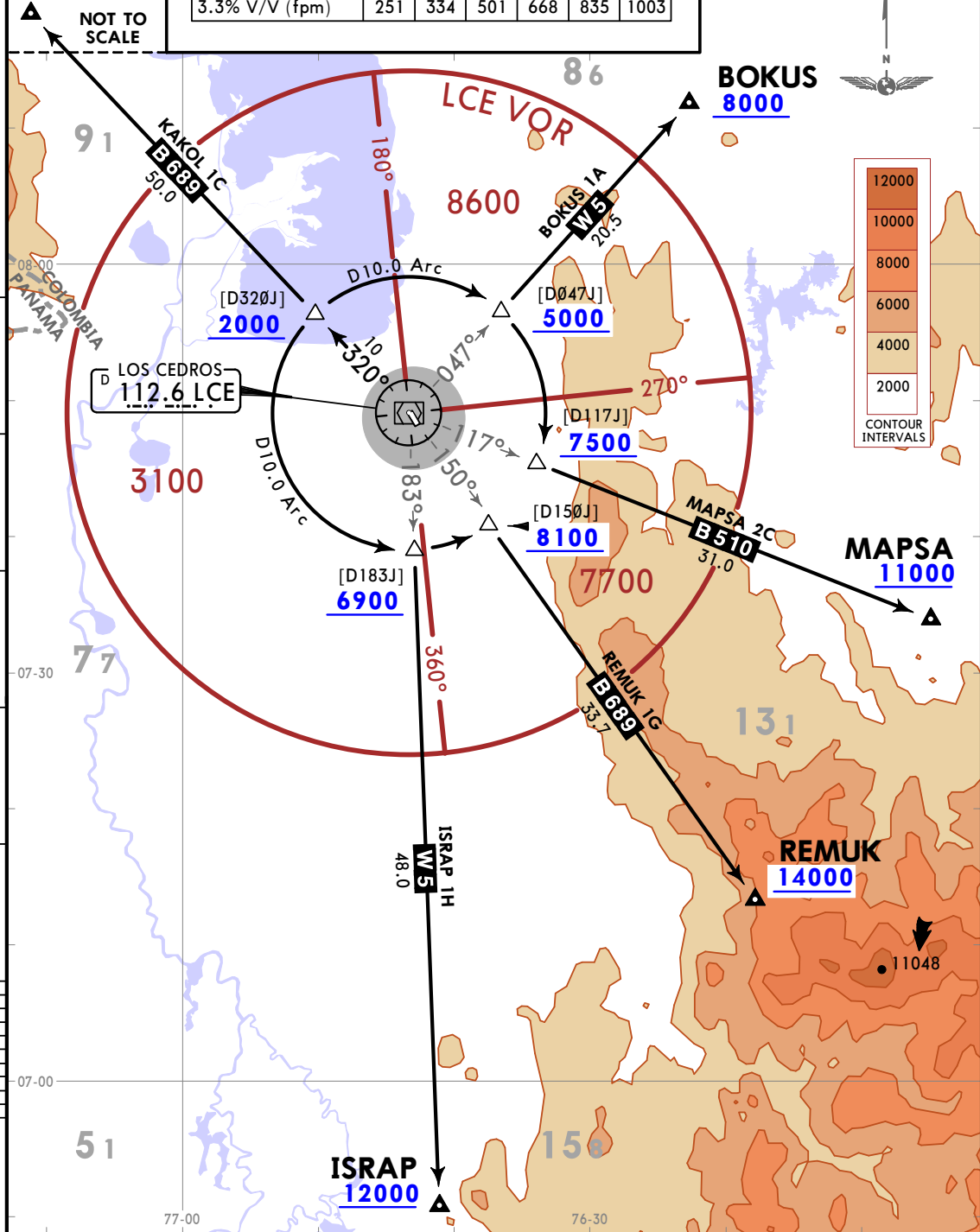
Apt Elev 52	Trans alt: 18000
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**BOKUS 1A [BOKU1A], ISRAP 1H [ISRA1H]
KAKOL 1C [KAKO1C], MAPSA 2C [MAPS2C]
REMUK 1G [REMU1G] DEPARTURES
(RWY 33)
CAT A, B & C**

KAKOL
11000

These SIDs require a minimum climb gradient of 3.3%.

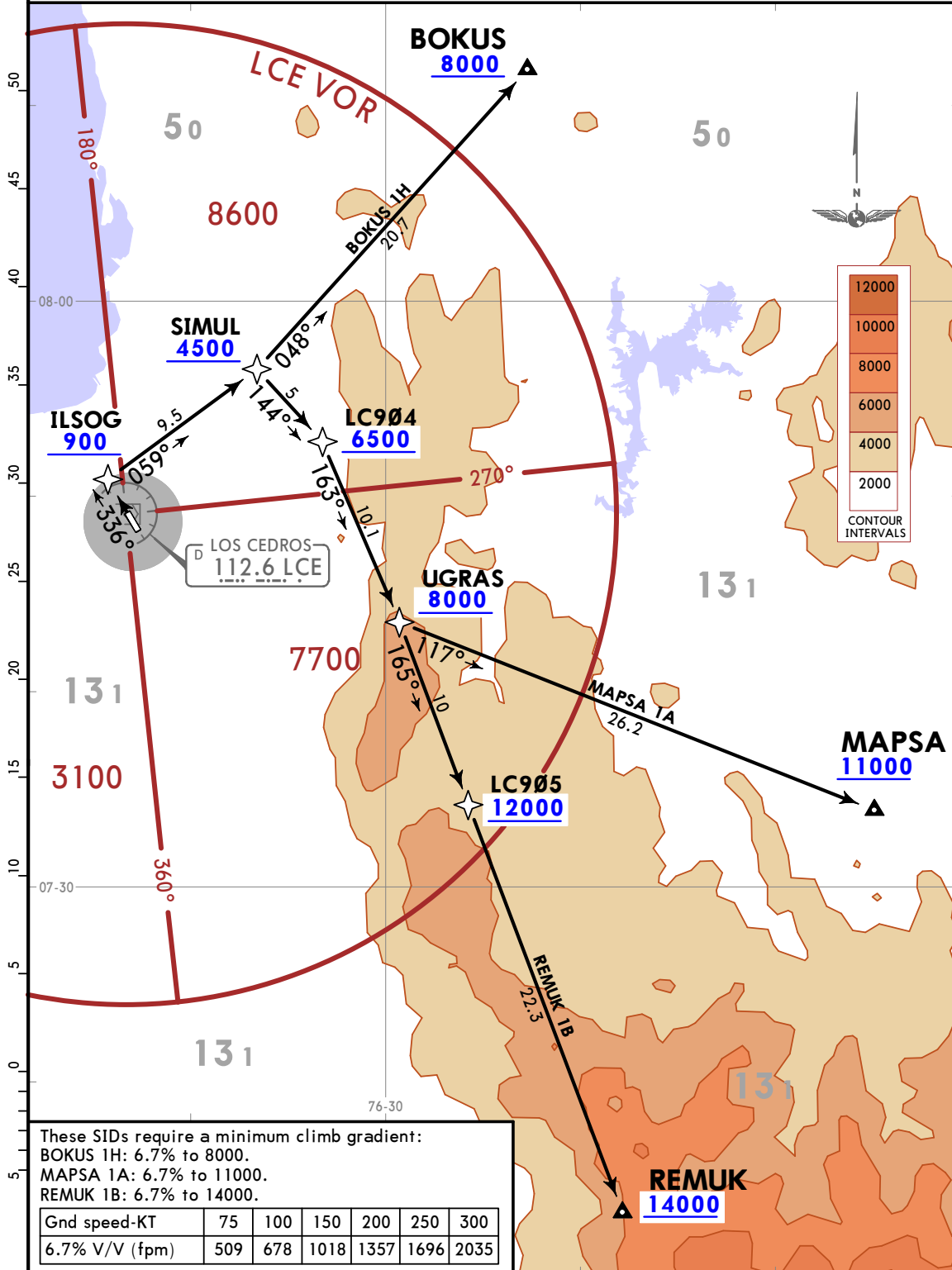
Grnd speed-KT	75	100	150	200	250	300
3.3% V/V (fpm)	251	334	501	668	835	1003



Apt Elev
52

Trans alt: 18000
1. RNP 1 or RNAV 1 certification required.
2. GNSS required.

**BOKUS 1H [BOKU1H], MAPSA 1A [MAPS1A]
REMUK 1B [REMU1B]
RNAV (GNSS) DEPARTURES
(RWY 33)
CAT A, B & C**



Apt Elev
52

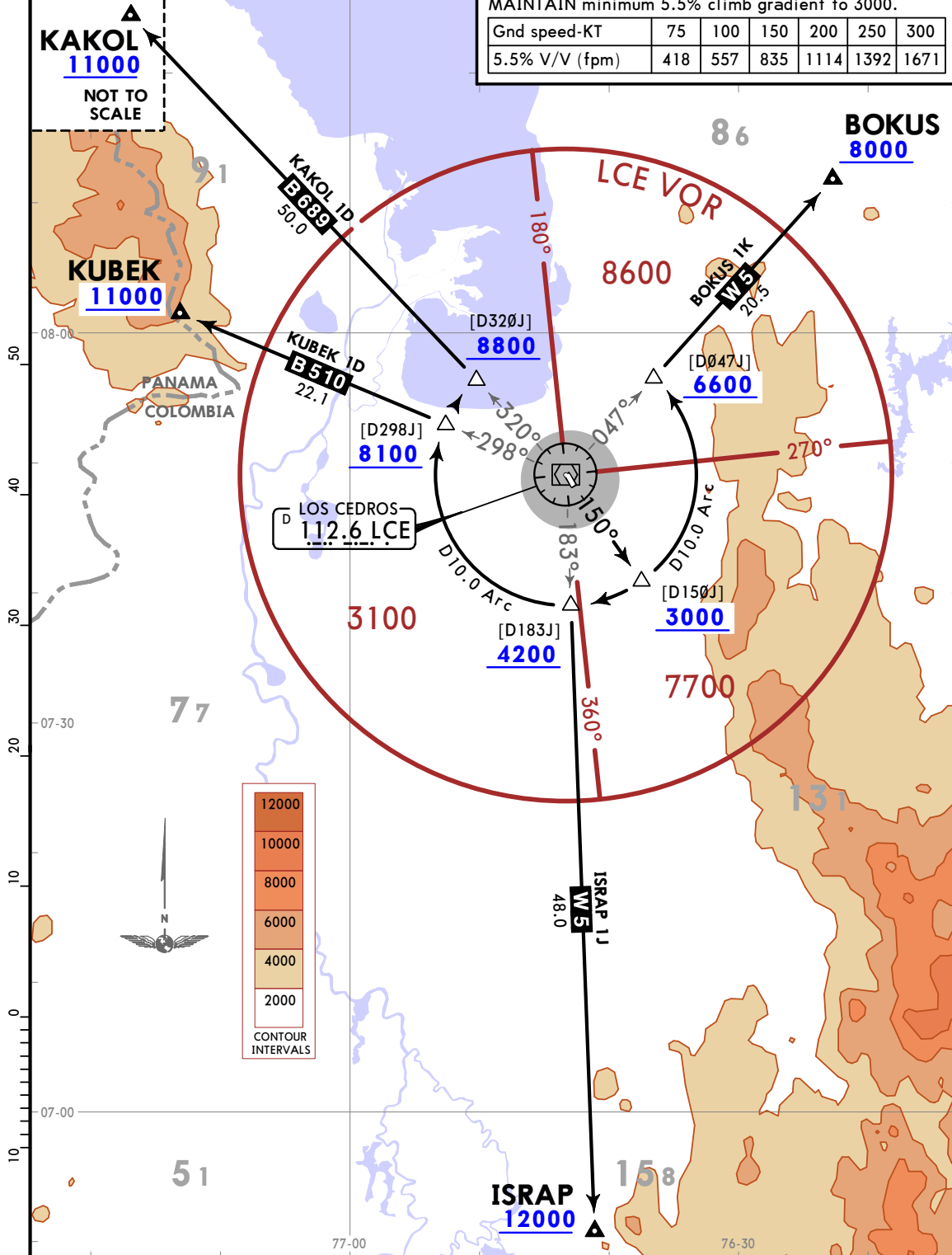
Trans alt: 18000

**BOKUS 1K [BOKU1K], ISRAP 1J [ISRA1J]
KAKOL 1D [KAKO1D], KUBEK 1D [KUBE1D]
DEPARTURES
(RWY 15)**

CAT A, B & C

MAINTAIN minimum 5.5% climb gradient to 3000.

Gnd speed-KT	75	100	150	200	250	300
5.5% V/V (fpm)	418	557	835	1114	1392	1671



Apt Elev
52

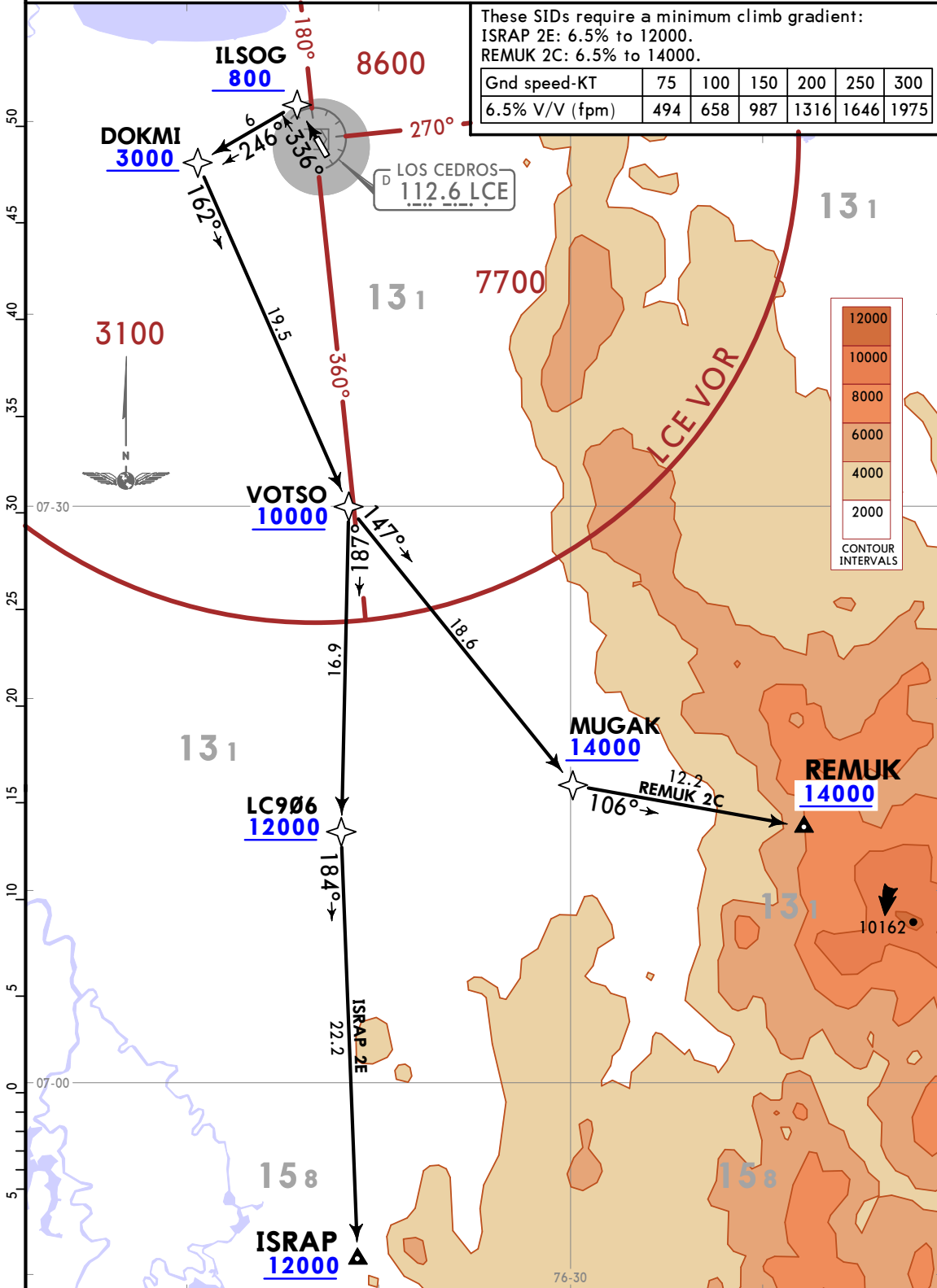
Trans alt: 18000
1. RNP 1 or RNAV 1 certification required.
2. GNSS required.

ISRAP 2E [ISRA2E], REMUK 2C [REMU2C]
RNAV (GNSS) DEPARTURES
(RWY 33)

CAT A, B & C

These SIDs require a minimum climb gradient:
ISRAP 2E: 6.5% to 12000.
REMU2C: 6.5% to 14000.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1316	1646	1975



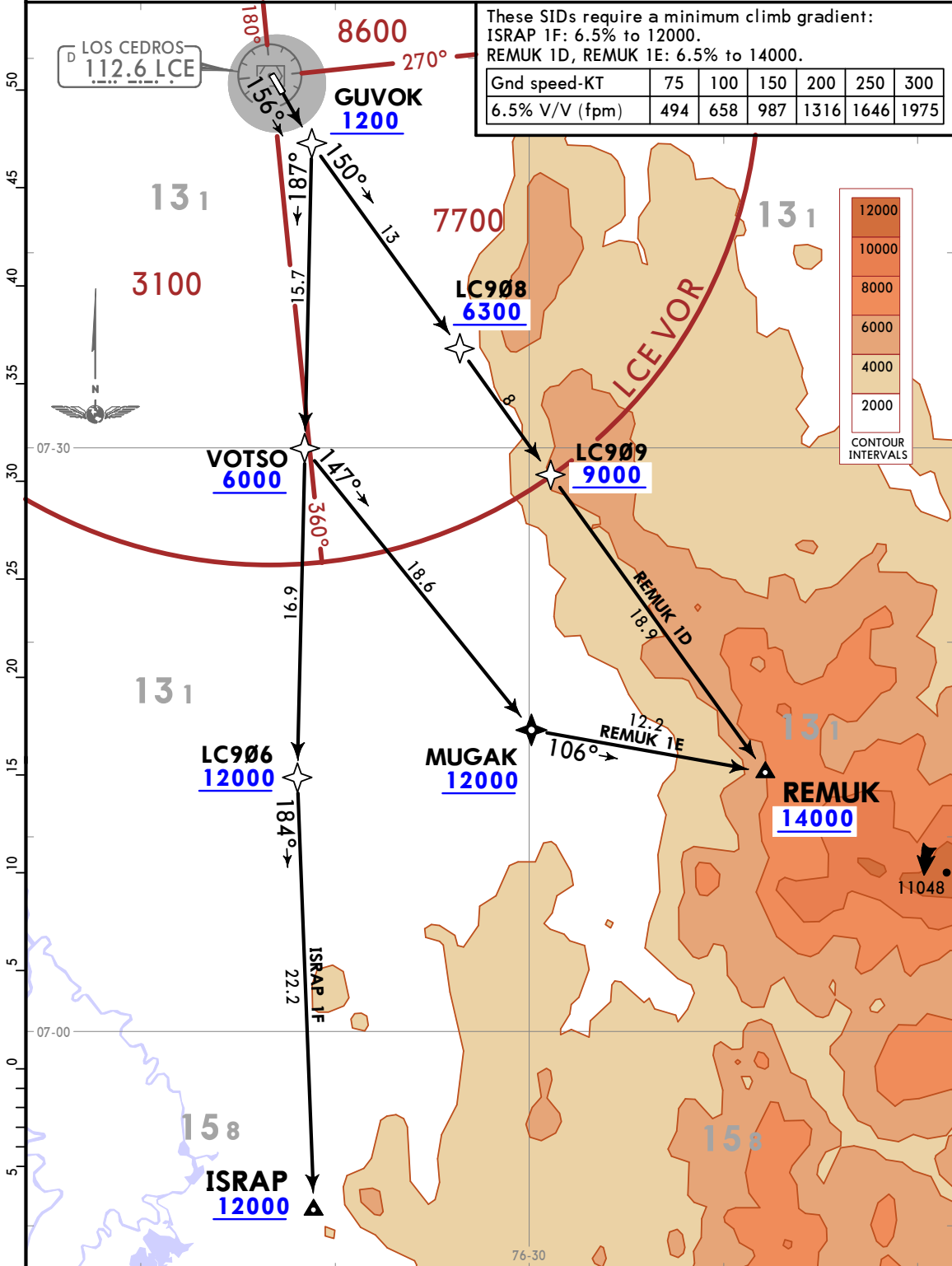
Apt Elev
52

Trans alt: 18000
1. RNP 1 or RNAV 1 certification required.
2. GNSS required.

ISRAP 1F [ISRA1F], REMUK 1D [REMU1D]
REMUK 1E [REMU1E]
RNAV (GNSS) DEPARTURES
(RWY 15)
CAT A, B & C

These SIDs require a minimum climb gradient:
ISRAP 1F: 6.5% to 12000.
REMUK 1D, REMUK 1E: 6.5% to 14000.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1316	1646	1975



Apt Elev
52

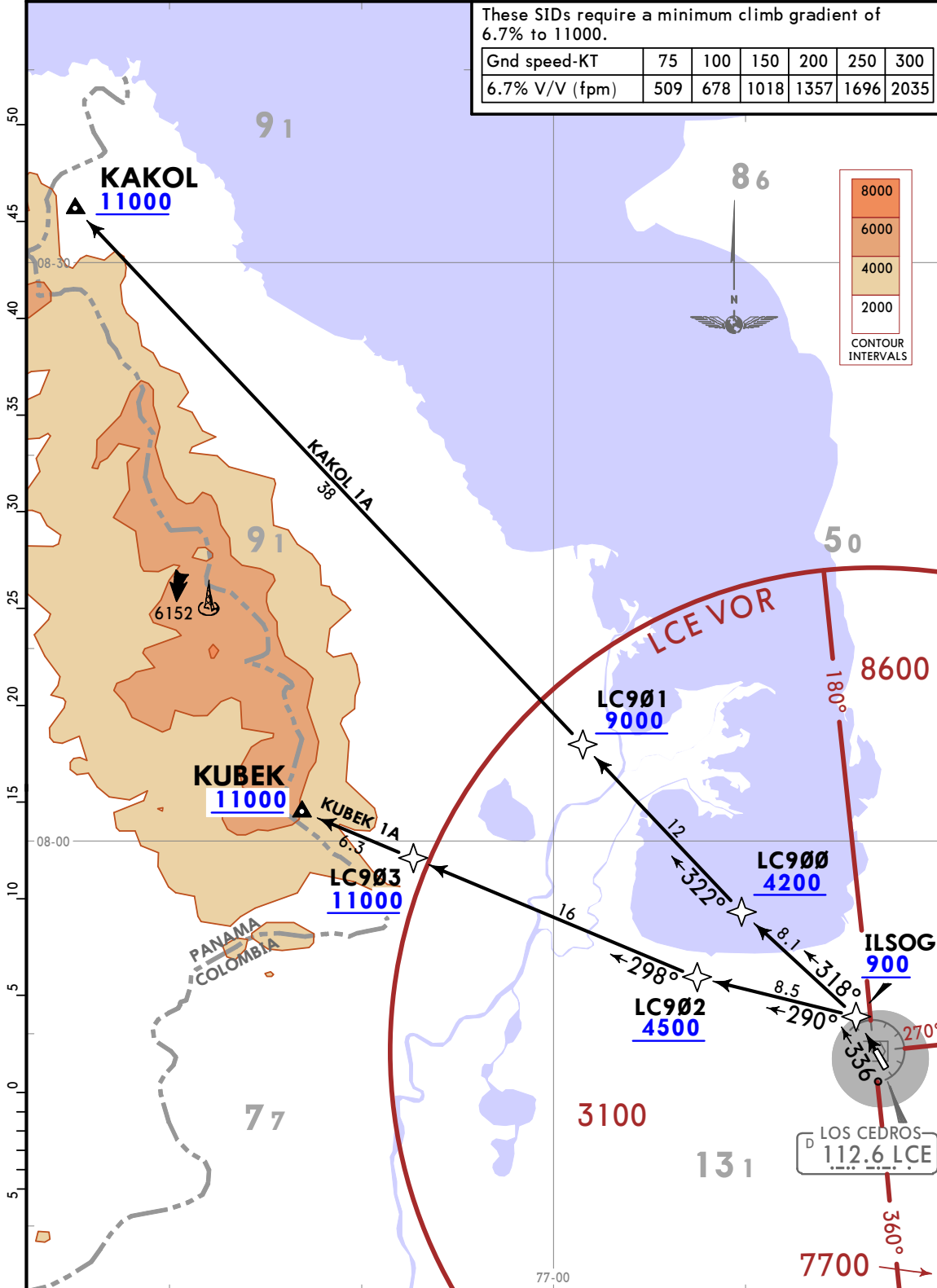
Trans alt: 18000
1. RNP 1 or RNAV 1 certification required.
2. GNSS required.

**KAKOL 1A [KAKO1A], KUBEK 1A [KUBE1A]
RNAV (GNSS) DEPARTURES
(RWY 33)**

CAT A, B & C

These SIDs require a minimum climb gradient of 6.7% to 11000.

Gnd speed-KT	75	100	150	200	250	300
6.7% V/V (fpm)	509	678	1018	1357	1696	2035

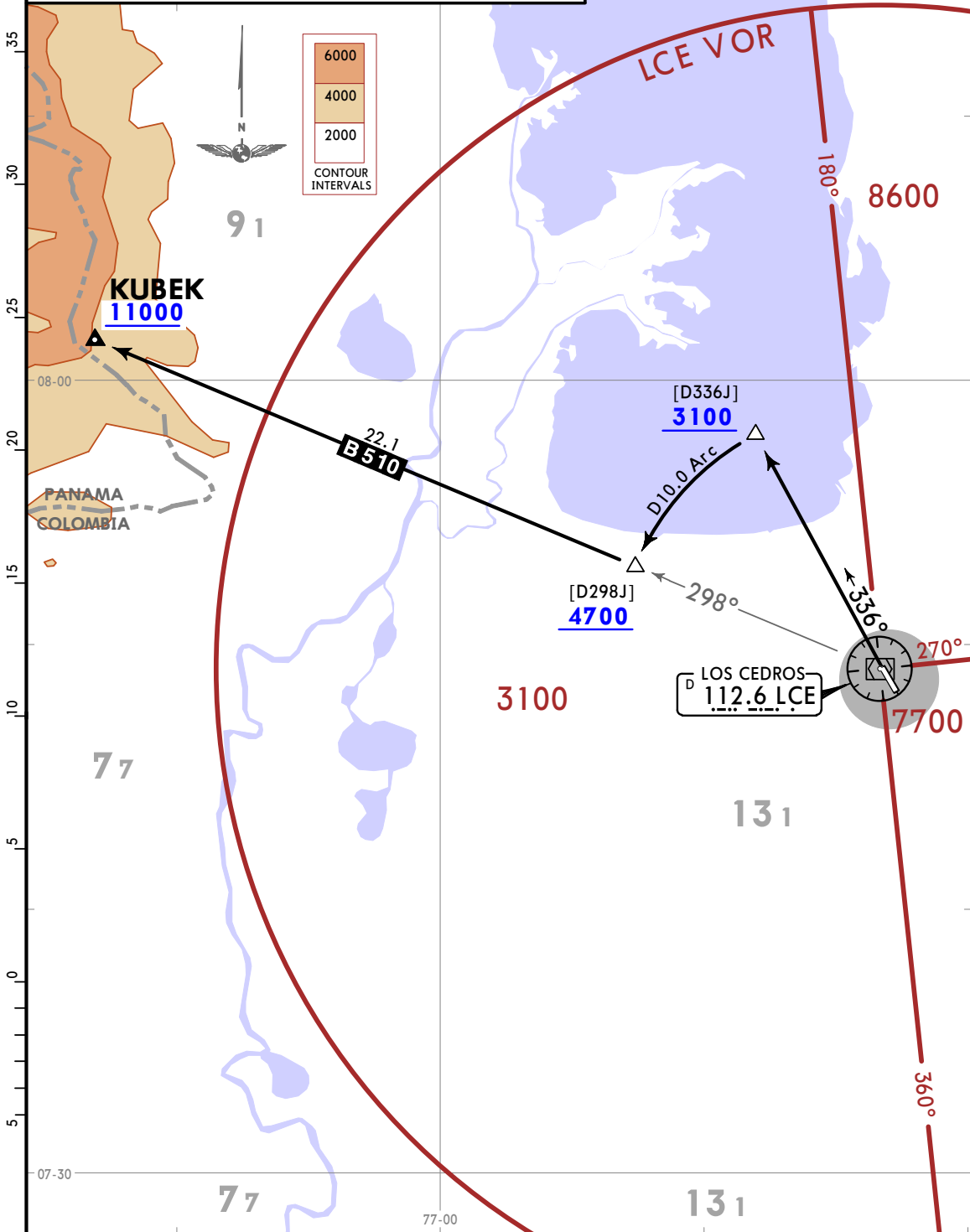


Apt Elev 52	Trans alt: 18000
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KUBEK 1C DEPARTURE
[KUBE1C]
(RWY 33)
CAT A, B & C

MAINTAIN minimum 5.1% climb gradient until reaching MEA.

Gnd speed-KT	75	100	150	200	250	300
5.1% V/V (fpm)	387	516	775	1033	1291	1549



Apt Elev
52

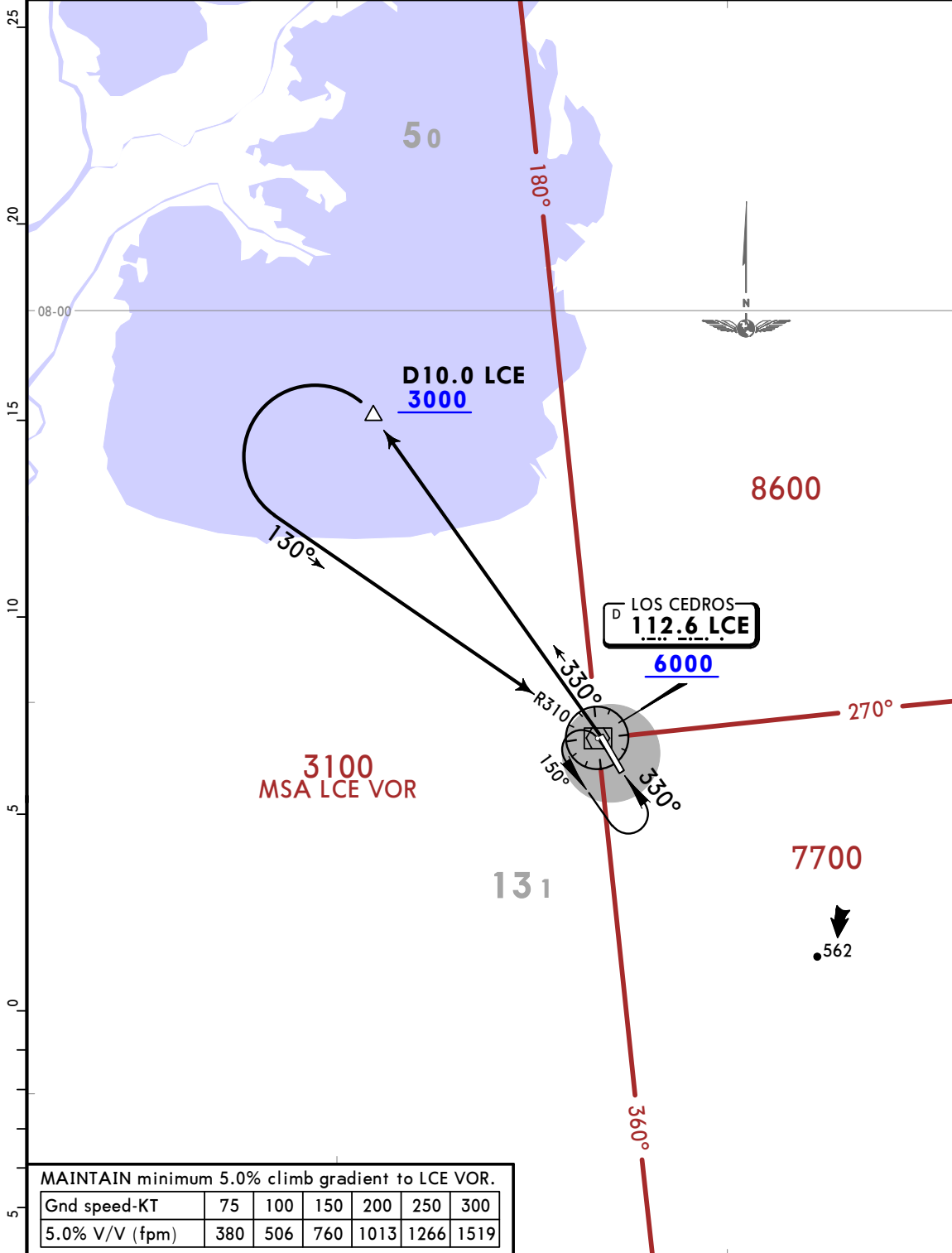
Trans alt: 18000

LOS CEDROS 1A DEPARTURE

[LCE1A]

(RWY 33)

CAT A, B & C



MAINTAIN minimum 5.0% climb gradient to LCE VOR.

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

INITIAL CLIMB

Climb over LCE VOR to MEA of assigned route.

Apt Elev
52

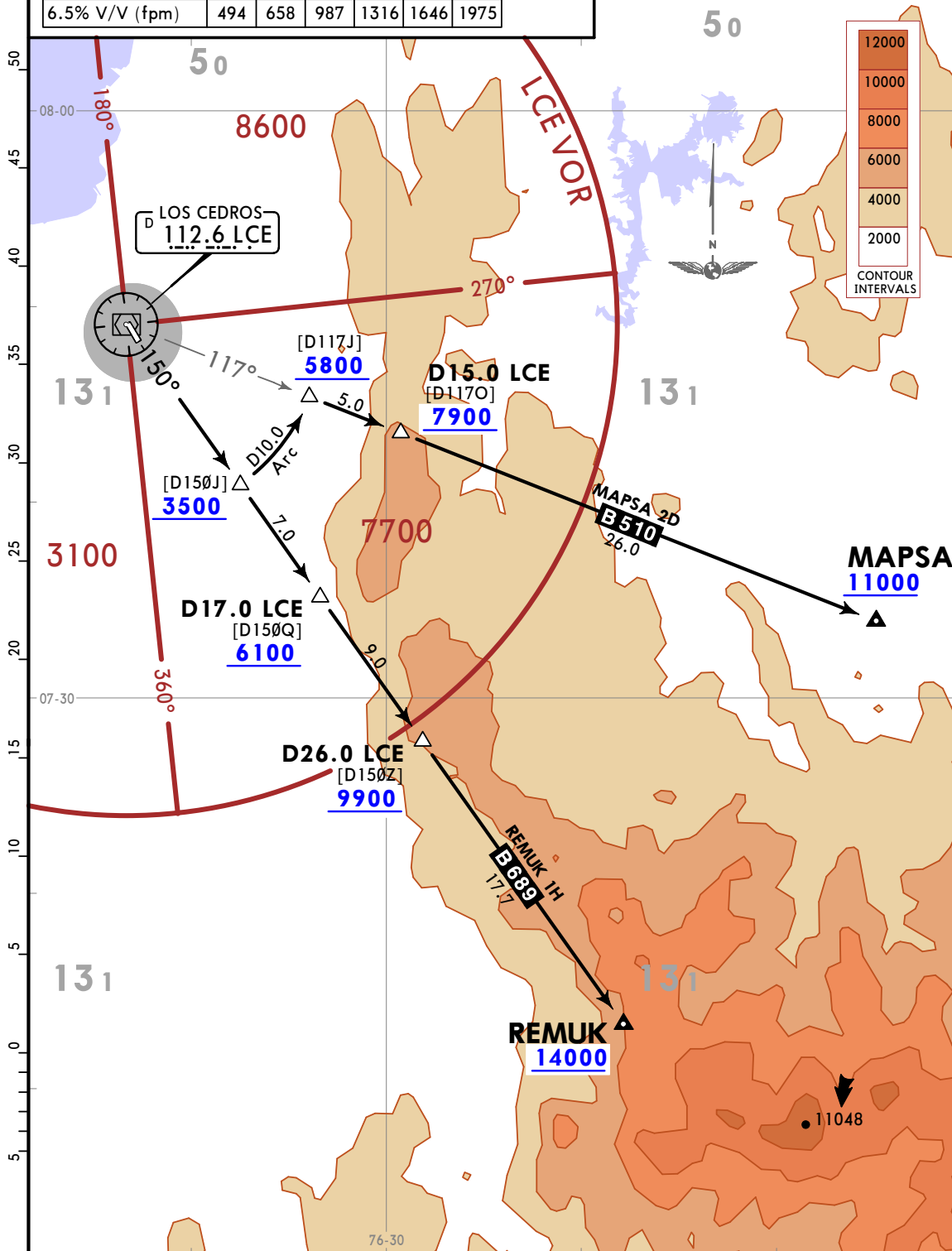
Trans alt: 18000

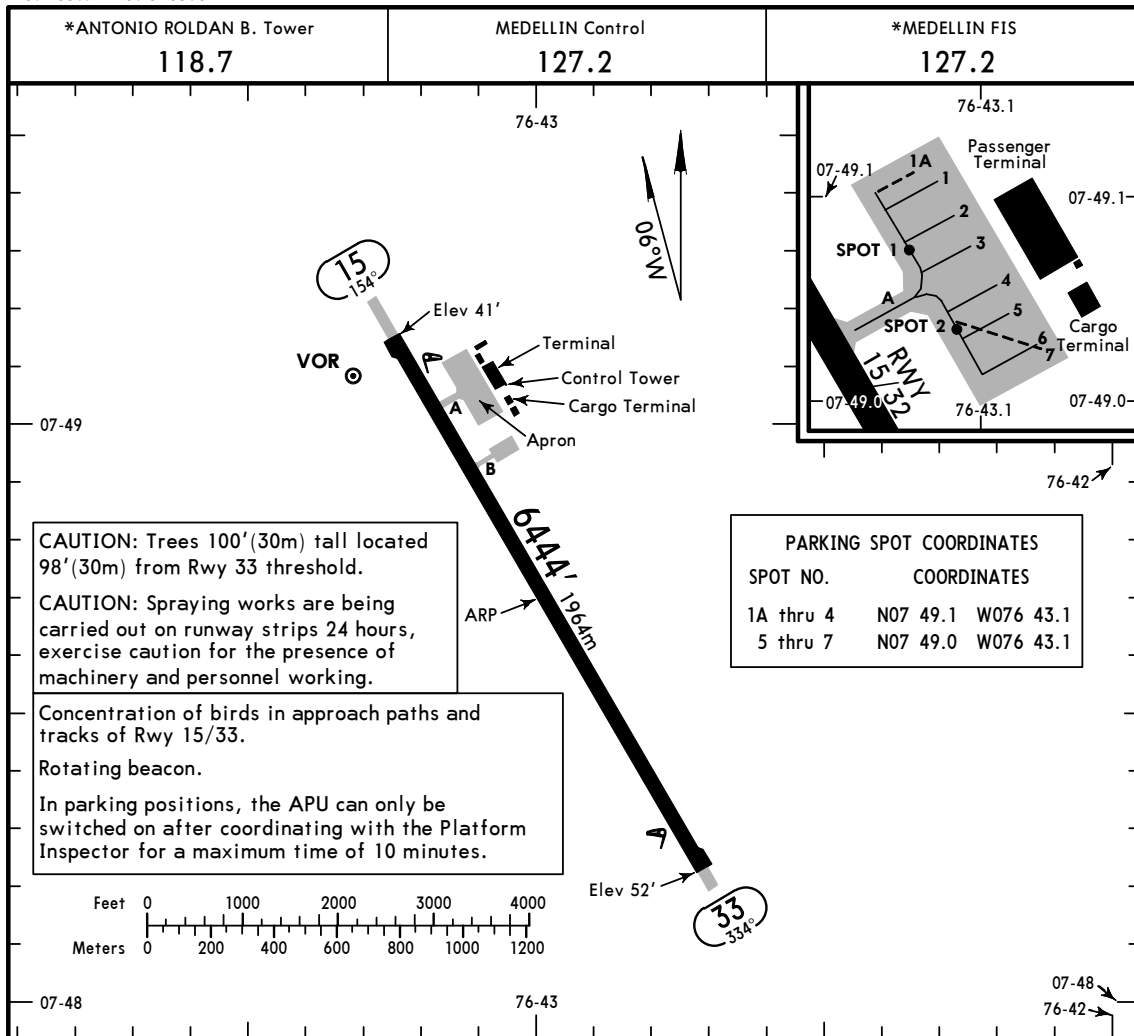
MAPSA 2D [MAPS2D], REMUK 1H [REMU1H]
DEPARTURES
(RWY 15)

CAT A, B & C

MAINTAIN minimum 6.5% climb gradient until reaching MEA.

Gnd speed-KT	75	100	150	200	250	300
6.5% V/V (fpm)	494	658	987	1316	1646	1975





ADDITIONAL RUNWAY INFORMATION

RWY	LANDING BEYOND	USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	Glide Slope		
15	RL				148'
33	RL PAPI-L (angle 3.00°)				45m

TAKE-OFF

All Rwys

Standard

1 & 2 Eng

3 & 4 Eng

1600m

800m

SKLC
ANTONIO ROLDAN
BETANCOURT

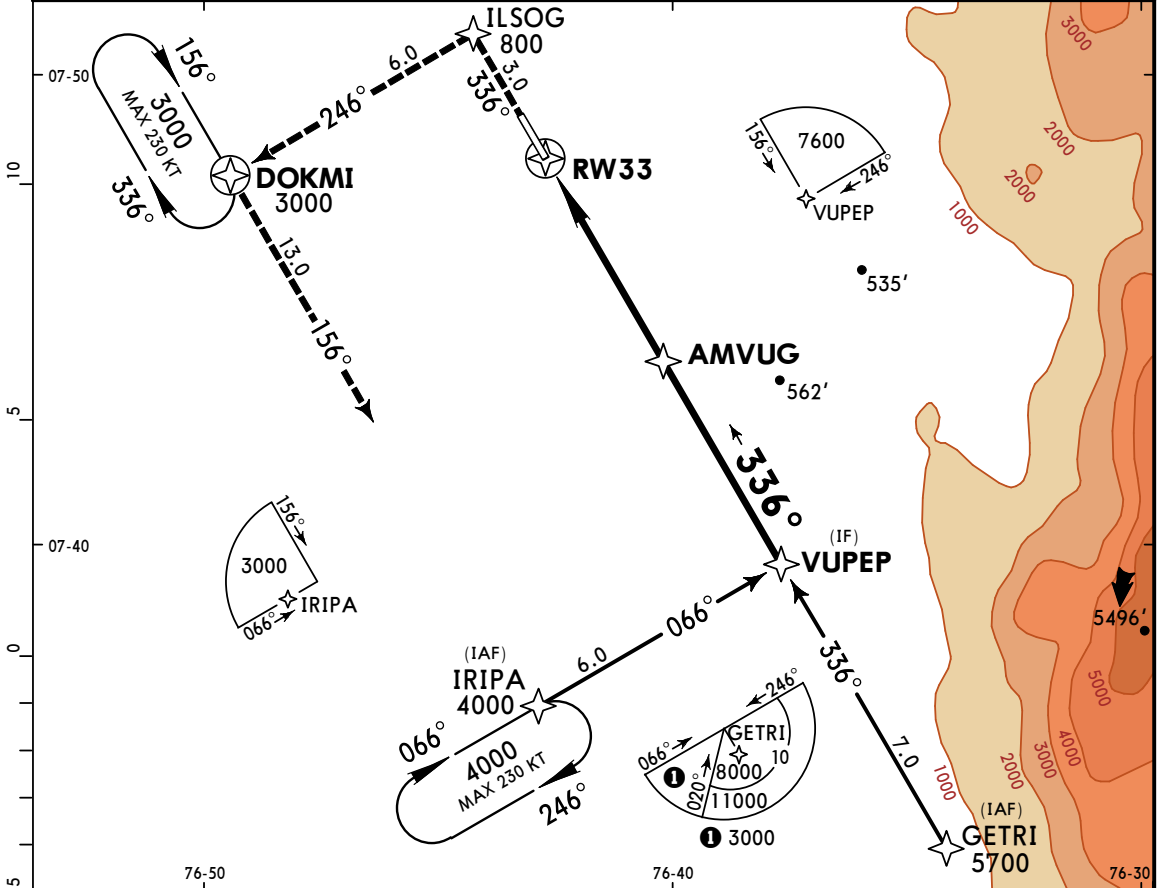


CAREPA, COLOMBIA

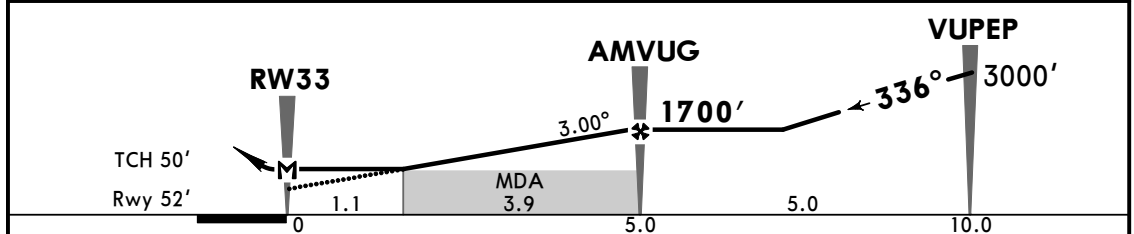
25 DEC 20
Eff 31 Dec (12-1)

CAT A, B & C RNP Rwy 33

MEDELLIN Approach 126.1	*ANTONIO ROLDAN B. Tower 118.7	MEDELLIN Control 127.2	*FIS 127.2	
RNAV	Final Apch Crs 336°	AMVUG 1700' (1648')	LNAV MDA(H) 452' (400')	
Apt Elev 52' Rwy 52'			TAA 25 NM GETRI, IRIPA, VUPEP	
MISSED APCH: Runway heading until ILSOG, then LEFT turn to DOKMI holding pattern climbing to 3000'.				
Alt Set: IN (hPa on req)		Trans level: FL 190		Trans alt: 18000'
RNP Apch Holding at IRIPA and DOKMI simultaneously at the same altitude is prohibited.				



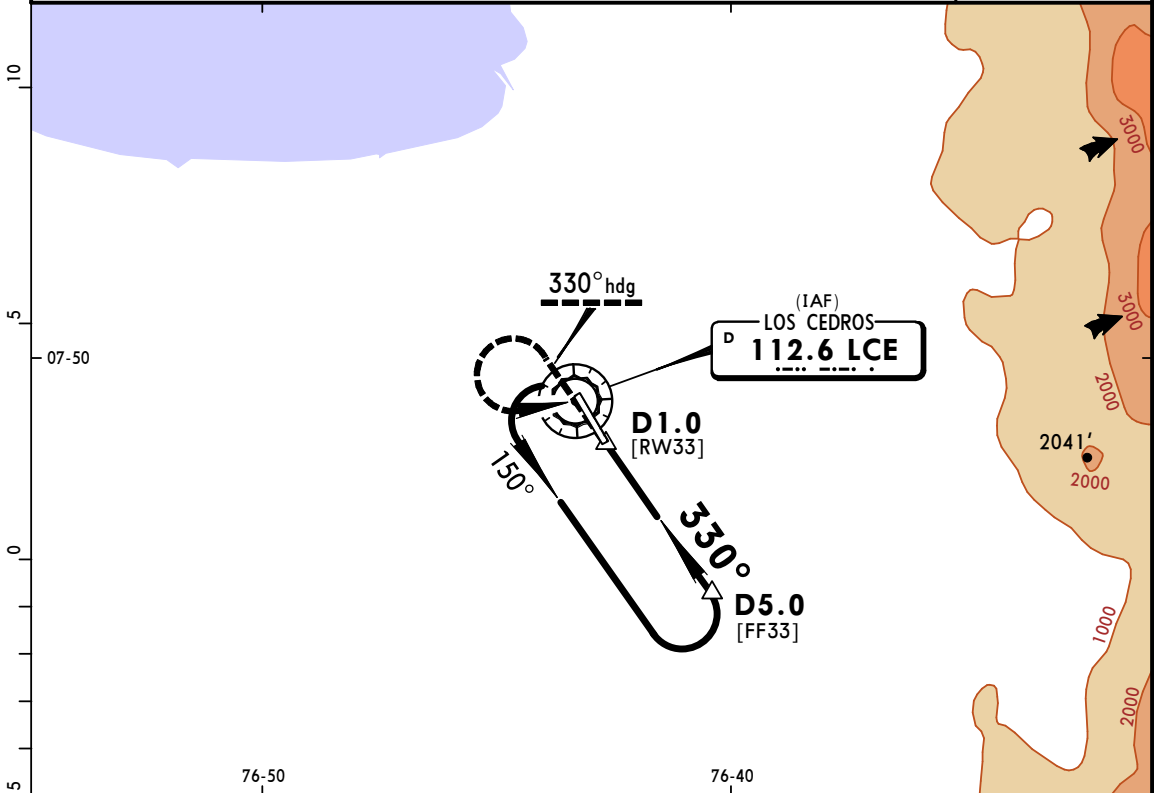
NM to RW33	1.1	2.0	3.0	4.0	5.0
ALTITUDE	452'	740'	1060'	1380'	1700'



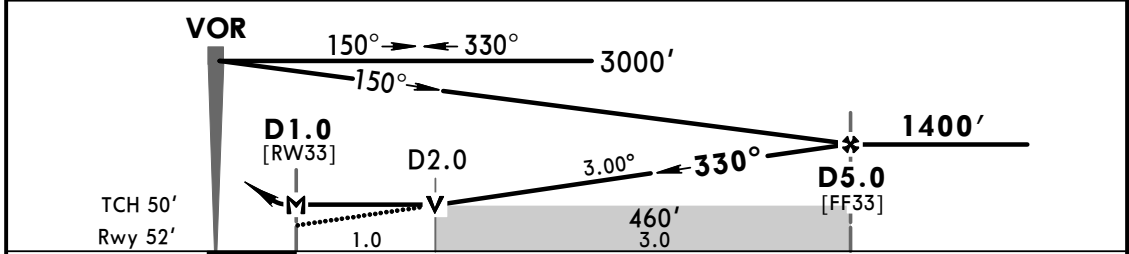
Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	↑	ILSOG	3000'	LT	DOKMI	
Descent Angle	3.00°	372	478	531	637	743							849
MAP at RW33	5.0	4:17	3:20	3:00	2:30	2:09							1:53

STRAIGHT-IN LANDING RWY 33				CIRCLE-TO-LAND			
LNAV MDA(H) 452' (400')				MDA(H)			
A	2000m			Max Kts	100		
B	2200m			135	552' (500') - 2000m		
C	2200m			180	652' (600') - 2400m		
D	NOT APPLICABLE			D	NOT APPLICABLE		

MEDELLIN Approach 126.1		*ANTONIO ROLDAN B. Tower 118.7		MEDELLIN Control 127.2		*FIS 127.2	
VOR LCE 112.6	Final Apch Crs 330°	Minimum Alt D5.0 1400' (1348')	MDA(H) 460' (408')	Apt Elev 52' Rwy 52'			
MISSED APCH: Maintain 330° heading to LCE VOR, then LEFT turn to holding pattern climbing to 3000'.						MSA LCE VOR	
Alt Set: IN (hPa on req)		Trans level: FL 190		Trans alt: 18000'			
1. LCE DME required.							



LCE DME	2.0	3.0	4.0	5.0
ALTITUDE	460'	760'	1080'	1400'



Gnd speed-Kts	70	90	100	120	140	160	PAPI-L	330° hdg	LCE 112.6	3000' LT	LCE 112.6
Descent Angle 3.00°	372	478	531	637	743	849					
MAP at D1.0 or FAF to MAP	4.0	3:26	2:40	2:24	2:00	1:43					

STRAIGHT-IN LANDING RWY 33						CIRCLE-TO-LAND					
MDA(H) 460' (408')						Max Kts					
A	2000m					100	MDA(H)				
B	2200m					135	560' (508') - 2000m				
C	2200m					180	660' (608') - 2400m				
D	NOT APPLICABLE					D	NOT APPLICABLE				

PANS OPS