

GENERAL**Operational Hours****ATS Hours / AD ADMIN Hours:** H24**Night Restriction:** No TKOF/LDG 0000-0600‡, except:

- ALTN LDG.
- Delayed LDG caused by ATC.
- With special permission from AD.
- LDG/TKOF (if planned before 0000‡) permitted until 0100‡ due to unforeseeable delay reasons.
- LDG between 0500-0600‡ possible due MET reason, if SKED time of ARR is planned after 0600‡.
- Emergency.

Airport Information**RFF:** CAT 7, higher CAT up to CAT 9 PPR 72HR.**PCN:** RWY 05/23: 80/F/A/W/T**Operation****Crew Requirement**

Initial experience

To operate at Madeira AD, PIC must have MNM 200HR as Captain on the concerned type of ACFT before completing initial training.

Recent experience

To operate at Madeira AD, PIC must have performed on the last 6 months:

- 1 LDG and TKOF, or
- a flight simulator training comprising a LDG and TKOF on each RWY, on a simulated adverse weather condition or
- a line training flight to AD comprising a LDG and TKOF, assisted by a qualified instructor.

Line training

No line training required if flight simulator used is level D. If level C flight simulator is used, line training must be performed with one LDG/TKOF at Madeira AD with an instructor on right hand seat.

Additionally, the operator must establish and accomplish a training program that must be approved by the Portuguese Civil Aviation Authority.

Turbulence

Attention should be paid to wind direction indicators located on S side of RWY, near each touchdown area. They will reflect unexpected wind changes. Occasionally they will indicate wind from opposite directions.

LDG RWY 05: Wind differences higher than 5KT between Rosario and MID anemometer may indicate TURB on final.

LDG RWY 23: Severe TURB may occur over THR at low ALT with winds from S and W sectors.

Headwind or nearly so will cause "weak" TURB.

Wind of 15KT from sector 020°-050° will cause "moderate" TURB.

Wind of 15KT or even less from sector 300°-020° will cause "severe" TURB.

Downdrafts are to be expected near THR RWY 05/23.

Report any TURB and/or windshear to TWR immediately.

GENERAL**RWY Restriction**

180° turns on turn pads mandatory for ACFT with MTOW above 30t / 66139lbs, except in EMERG.

TWY Restriction

Taxilane A MAX wingspan 65m / 213ft.

Taxi/Parking

Non scheduled flights PPR 2HR before EOBT of origin AD due to parking shortage.

Marshaller assistance compulsory for parking in APN area, stands entrance only allowed with follow-me.

Parking manoeuvres according nose-in/push-back system, except for wide body ACFT with wingspan 59m / 194ft and more, shall stop facing N.

Fuelling with PAX Aboard

Authorization required for all refuelling OPS with PAX on board and/or embarking or disembarking. Contact FREQ 131.850 or 131.875.

Warnings

VOR/DME FUN unusable: BTN R240-310 beyond 20NM below 9000ft.

VOR/DME SNT unusable: BTN R070-170.

BTN R195-250 beyond 10NM below 9000ft.

AD located on plateau on east coast of Madeira Island. Rapidly rising, high terrain close to AD. Wind variations, TURB, severe windshear and microbursts may occur.

Birds in vicinity of AD. Bird scaring is carried out by gas canon, activated daily SR/SS.

Wildlife personnel AVBL daily between 0830-1800.

ARRIVAL**Speed**

Unless otherwise advised by ATC, speed adjustment under radar CTL on ARR in accordance with the following:

- MAX IAS 280KT between FL245 and FL100.
- MAX IAS 250KT at and below FL100.
- MAX IAS 220KT at and below FL70.
- MAX IAS 200KT at and below 4000ft.
- MAX IAS between 180KT and 160KT when established on final APCH segment.
- Thereafter 160KT until 4NM from THR.

Additionally, ATC may REQ specific speeds for accurate spacing.

Comply with speed adjustments as promptly as feasible within own operational constraints.

Advise ATC if change of speed is required for performance reasons.

ARRIVAL**Communication****COM Failure**

Fly at/to last assigned LVL and intercept R031 FUN DVOR as soon as possible, descending to FL100 and then proceed to ABUSU HLDG. Over ABUSU HLDG pattern at FL100, at ETA according to CPL or at EAT (when received and acknowledged) start descent to initial APCH ALT for a standard IFR APCH.

MISAP COM Failure

RWY 05

RNP Y/Z AR

| Follow standard MISAP. On M514 HLDG, make one complete HLDG pattern at 3000ft, then proceed to perform RNAV (RNP) Y RWY 05 PROC.

RNAV GNSS A

| Follow standard MISAP. On MA514 HLDG proceed to MA412 then to MA532 HLDG, make one complete HLDG pattern at 3000ft to perform another RNAV (GNSS) RWY 05 APCH.

RWY 23

RNP RWY AR

| Follow standard MISAP. On M514 HLDG, make one complete HLDG pattern at 3000ft, then proceed to perform RNAV (RNP) RWY 23 PROC.

RNAV GNSS B

| Follow standard MISAP. On MA514 holding proceed to MA412 then to MA532 HLDG, make one complete HLDG pattern at 3000ft to perform another RNAV (GNSS) RWY 23 APCH.

Arrival Procedure

Straight-in APCHs from VOR to RWY 23 NA.

All LDGs are to be made in VIS COND.

Visual APCH

RWY 23: Stay slightly left of R237 from FUN VOR/DME until PAPI and TDZ in sight due to high terrain.

Warning

LDG Wind limitations: See IAC.

At night the hills (Pico do Facho - lighted) on your right to RWY 23 may be confused with mist.

PAPI on RWY 05 right side not visible on short final.

DEPARTURE**Take-off Minima**

RWY		05/23	
All ACFT	ft - m/km	0 - 2.8V	TKOF ALTN required

Communication**COM Failure**

Fly at/to last assigned and acknowledged LVL or to the LVL of SID if higher until passing D30 FUN. Thereafter adjust LVL and speed in accordance with FPL.

If being radar vectored or proceeding offset, rejoin CPL route after having passed D30 FUN.

If cleared direct to ... , fly at/to assigned LVL or to FL60, whichever is higher, until passing D30 FUN, maintain CPL route.

Departure Procedure

Pilots are advised to select MAX power on TKOF in the presence of TURB or downdraft reports.

TKOF RWY 05:

- After TKOF start right turn as soon as practicable to avoid high ground on left side.

TKOF RWY 23:

- After TKOF start left turn as soon as practicable, to avoid high ground on right side.
- With westerly winds, tail windshears may be expected. Anemometer readings reported by TWR at the end of RWY and at Rosario may indicate this possibility.

Start-up/Push-back

Contact TWR 10min prior to start-up with the following information:

- Call sign
- Stand number
- Cruising level
- ATIS code

ENG start-up is only allowed after push-back manoeuvre with ACFT positioned in breakaway area.

Push-back from A01 and A02 must be coordinated with Airport OPS and with follow-me assistance.

Warning**Visual TKOF Wind Limitations**

MAX 2min mean wind speed values indicated by the mid anemometer:

300-010 20KT with no gust limitations.

020-040 RWY 05: 25KT with no gust limitations.

120-190 RWY 05: 25KT with no gust limitations; RWY 23: 20KT with no gust limitations.

Note: The limitations above do not supersede any Operators or ACFT OPS Manual (AOM) limitations if these are more restrictive.

With west winds, tail windshear may be expected.

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Portugal Madeira

AGC

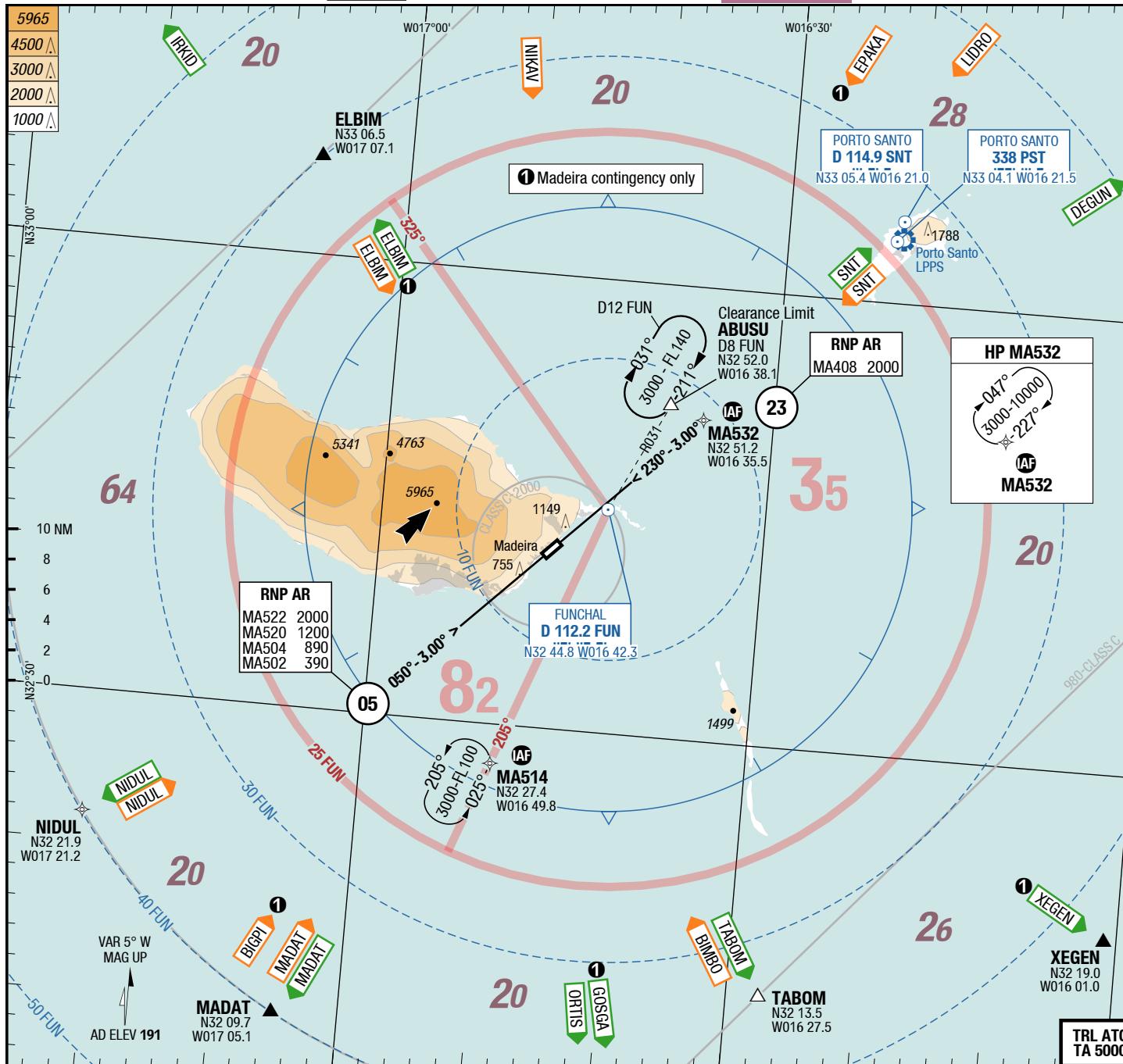
AFC

Madeira Portugal

AGC

AFC

2-10



Changes: Editorial

Effective 13-SEP-2018

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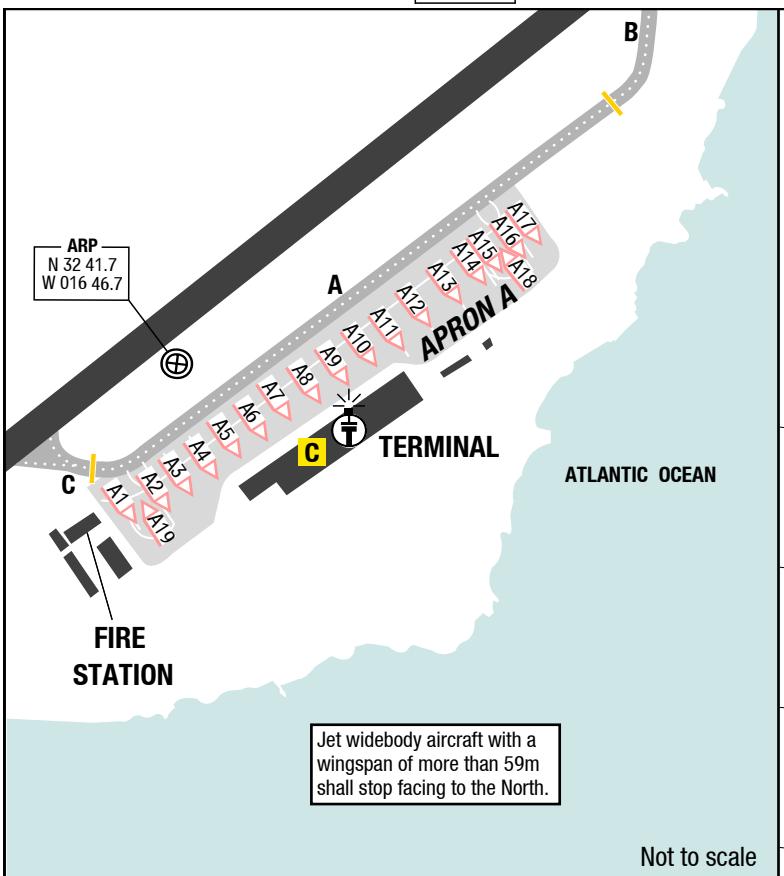
Portugal Madeira

AGC

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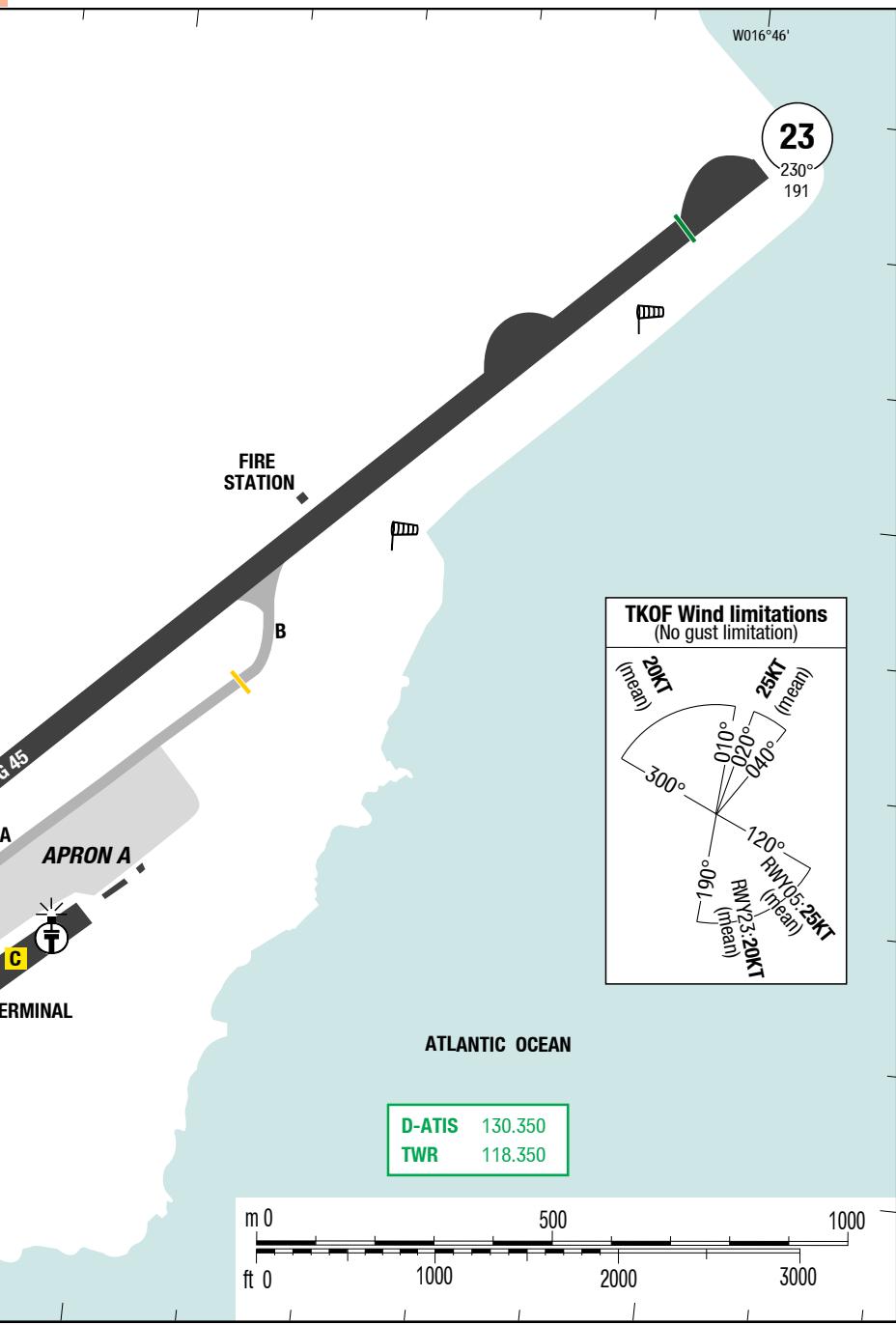
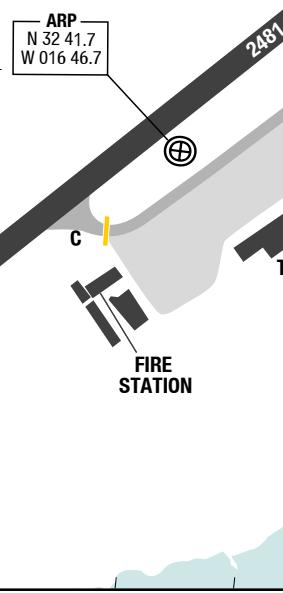
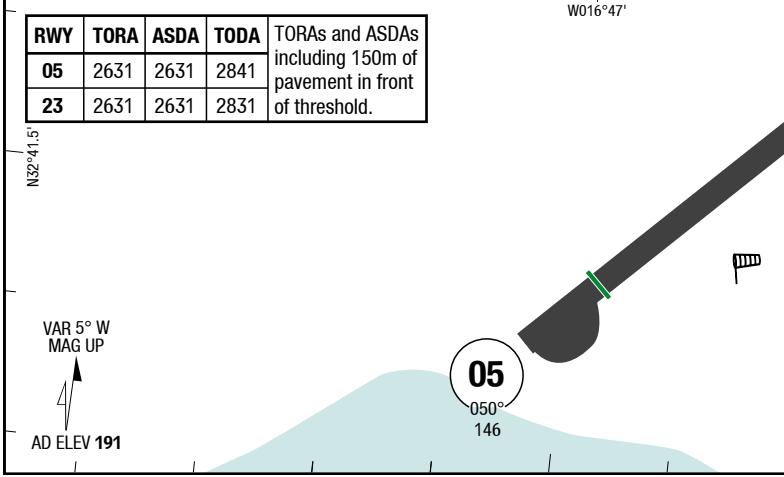
AGC

3-20



COORDINATES

A1	N32 41.5 W016 46.7
A2, A3	N32 41.6 W016 46.7
A4-A7	N32 41.6 W016 46.6
A8	N32 41.6 W016 46.5
A9-A12	N32 41.7 W016 46.5
A13-A15	N32 41.7 W016 46.4
A16-A18	N32 41.8 W016 46.4
A19	N32 41.6 W016 46.7



Changes: Nil

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30-NOV-2017

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SIDs/RNAV SIDs RWY 23

4-10

SIDs/RNAV SIDs RWY 05

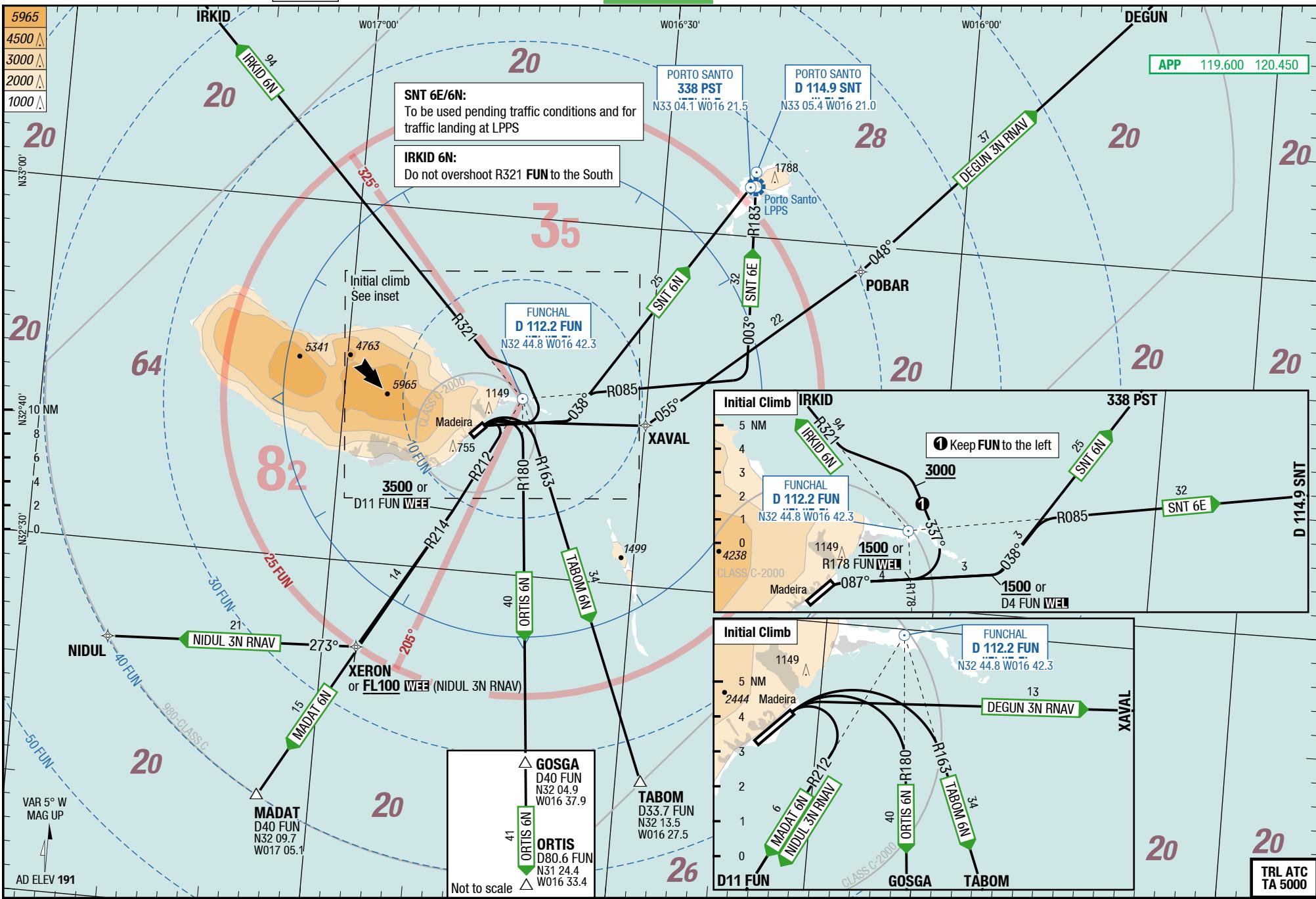
SID

SID

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SIDs/RNAV SIDs RWY 23

SIDs/RNAV SIDs RWY 05



Changes: Track, OBST, AD Code, Editorial

Effective 07-DEC-2017

30-NOV-2017

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4-20

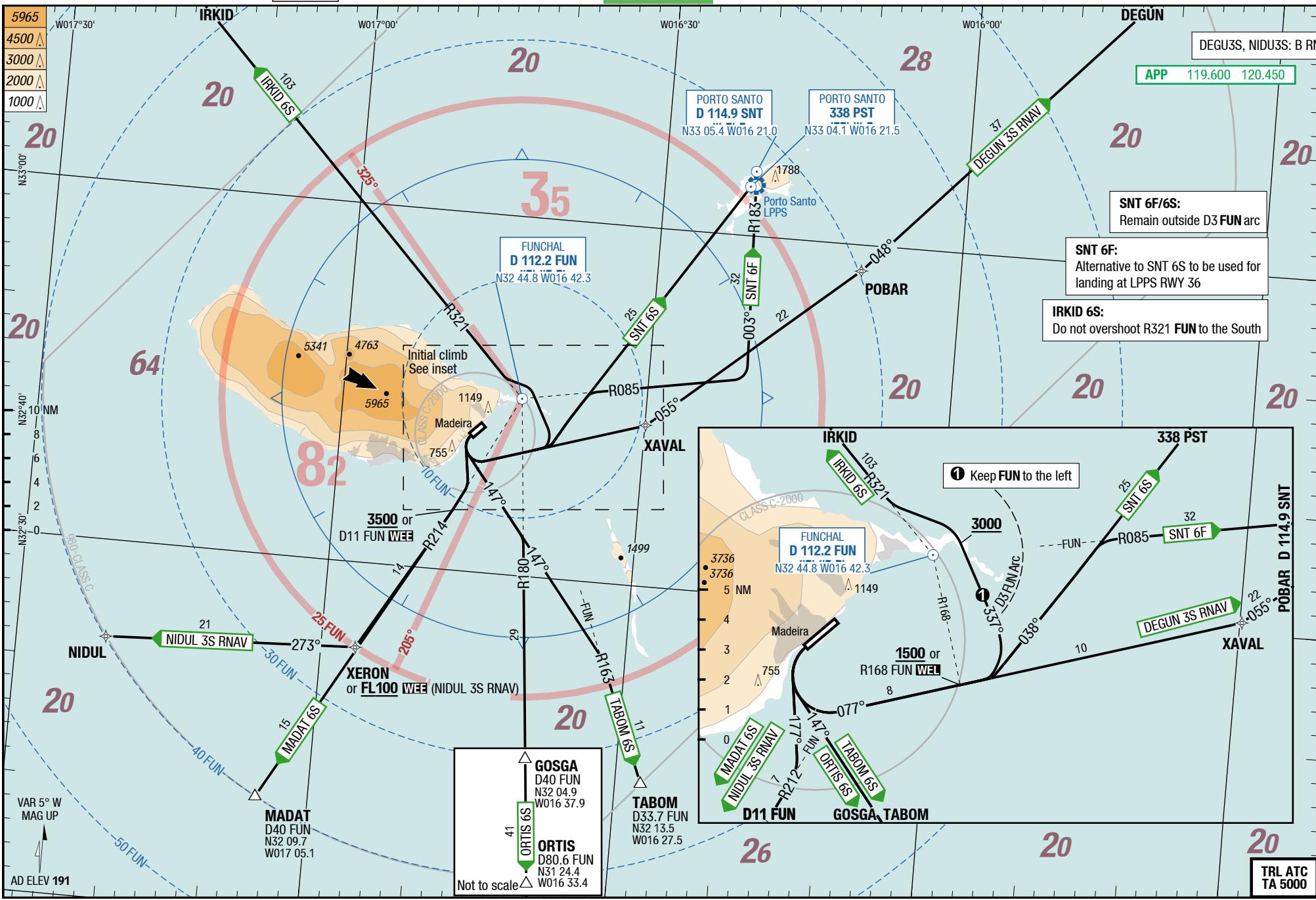
SIDs/RNAV SIDs RWY 23

SID

SID

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SIDs/RNAV SIDs RWY 23



Changes: Track, OBST, Editorial

Effective 07-DEC-2017

30-NOV-2017

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SIDs RWY 23 (RADAR U/S)

4-30

SIDs RWY 05 (RADAR U/S)

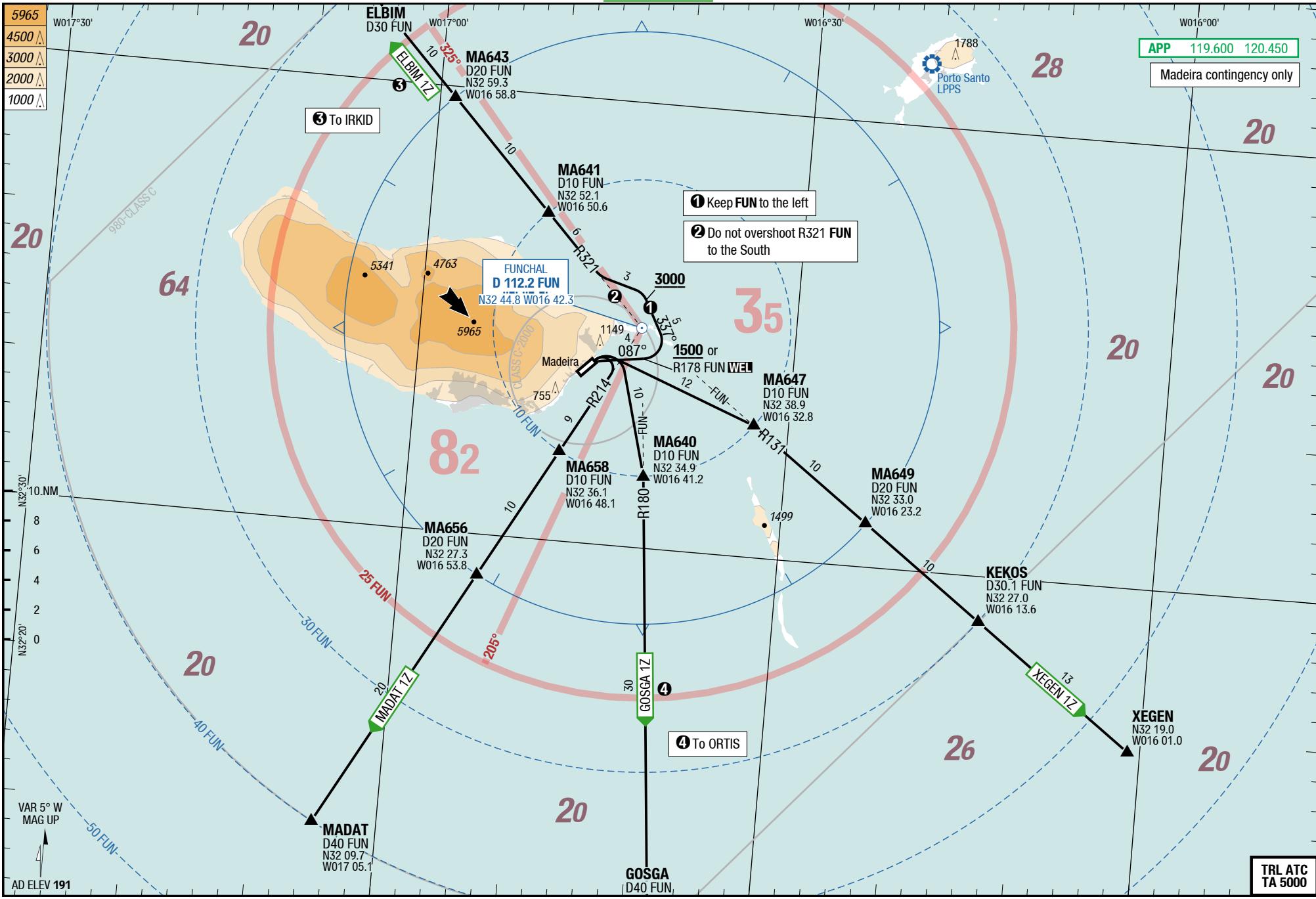
SID

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SIDs RWY 23 (RADAR U/S)

SIDs RWY 05 (RADAR U/S)



Changes: MSA, OBST

TRL ATC
TA 5000

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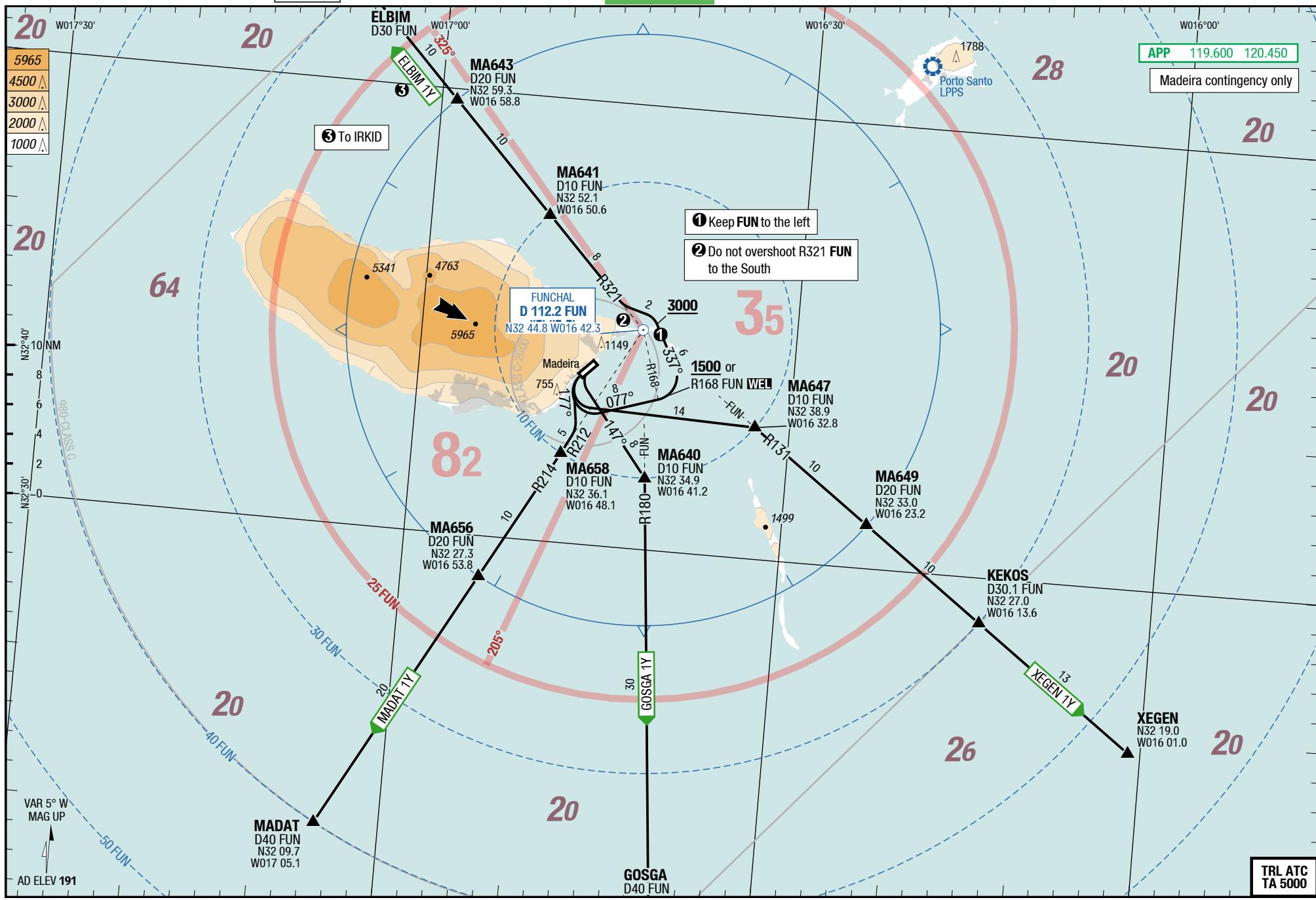
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4-40 SIDs RWY 23 (RADAR U/S)

sid

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DEGUN 3N RNAV / IRKID 6N / MADAT 6N / NIDUL 3N RNAV / ORTIS 6N / PORTO SANTO 6E / PORTO SANTO 6N / TABOM 6N
RWY 05 (050°)

After take-off, contact Madeira APP.

DESIGNATOR	ROUTING	ALTITUDES
	Runway 05	
DEGUN 3N RNAV 119.600 ①	DCT XAVAL - POBAR - <u>DEGUN</u>	initial climb FL60
IRKID 6N 119.600 ①	087° - abeam FUN (R178 FUN) or MNM 1500 , whichever is later, LT 337° (keep FUN to the left) - at MNM 3000 LT intercept R321 FUN to IRKID	initial climb FL60
MADAT 6N 119.600	RT intercept R212 FUN - at D11 FUN or MNM 3500 , whichever is earlier, RT intercept R214 FUN to MADAT	initial climb FL60
NIDUL 3N RNAV 119.600	RT intercept R212 FUN - at D11 FUN or MNM 3500 , whichever is earlier, RT intercept R214 FUN - at XERON or MNM FL100 , whichever is earlier, RT to NIDUL	initial climb FL100
ORTIS 6N 119.600	RT intercept R180 FUN to GOSGA - ORTIS	initial climb FL60
PORTO SANTO 6E SNT 6E 119.600 ②	087° - at D4 FUN or MNM 1500 , whichever is later, LT intercept QDM 038 PST - RT intercept R085 FUN - LT intercept R183 SNT to SNT	initial climb FL60
PORTO SANTO 6N SNT 6N 119.600 ②	087° - at D4 FUN or MNM 1500 , whichever is later, LT intercept QDM 038 PST to PST - direct SNT	initial climb FL60
TABOM 6N 119.600	RT intercept R163 FUN to TABOM	initial climb FL60

① Do not overshoot R321 **FUN** to the South and keep **FUN** to the left.

② To be used pending traffic conditions and traffic landing at LPSS.

DEGUN 3S RNAV / IRKID 6S / MADAT 6S / NIDUL 3S RNAV / ORTIS 6S / PORTO SANTO 6F / PORTO SANTO 6S / TABOM 6S

RWY 23 (230°)

After take-off, contact Madeira APP.

DESIGNATOR	ROUTING	ALTITUDES
	Runway 23	
DEGUN 3S RNAV 119.600	DCT XAVAL - POBAR - <u>DEGUN</u>	initial climb FL60
IRKID 6S 119.600 ①	LT 077° - abeam FUN (R168 FUN) or MNM 1500, whichever is later, LT 337° (keep FUN to the left) - at MNM 3000 LT intercept R321 FUN to IRKID	initial climb FL60
MADAT 6S 119.600	LT 177° intercept R212 FUN - at D11 FUN or MNM 3500, whichever is earlier, RT intercept R214 FUN to MADAT	initial climb FL60
NIDUL 3S RNAV 119.600	LT 177° - intercept R212 FUN - at D11 FUN or MNM 3500, whichever is earlier, RT intercept R214 FUN - at XERON or MNM FL100 , whichever is earlier, RT to NIDUL	initial climb FL100
ORTIS 6S 119.600	LT 147° - RT intercept R180 FUN to GOSGA - ORTIS	initial climb FL60
PORTO SANTO 6F SNT 6F 119.600 ②③	LT 077° - abeam FUN (R168 FUN) or MNM 1500, whichever is later, LT intercept QDM 038 PST - RT intercept R085 FUN - LT intercept R183 SNT to SNT	initial climb FL60
PORTO SANTO 6S SNT 6S 119.600 ③	LT 077° - abeam FUN (R168 FUN) or MNM 1500, whichever is later, LT intercept QDM 038 PST to PST - direct SNT	initial climb FL60
TABOM 6S 119.600	LT 147° - RT intercept R163 FUN to TABOM	initial climb FL60

① Do not overshoot R321 **FUN** to the South and keep **FUN** to the left.

② Alternative to SNT 6S to be used for landing at LPPS RWY 36.

③ Remain beyond D3 **FUN** arc.

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5-30

SIDs RWY 05 (RADAR U/S)

ELBIM 1Z / GOSGA 1Z / MADAT 1Z / XEGEN 1Z

RWY 05 (050°)

DESIGNATOR	ROUTING	ALTITUDES
	Runway 05	
ELBIM 1Z 119,600 ①②③	RT 087° - abeam FUN (R178 FUN) or MNM 1500, whichever is later, LT 337° (keep FUN to the left) - at MNM 3000 LT intercept R321 FUN to MA641 - MA643 - ELBIM	Initial climb FL60
GOSGA 1Z 119,600 ①④	RT direct MA640 - RT intercept R180 FUN to GOSGA	Initial climb FL60
MADAT 1Z 119,600 ①	RT intercept R214 FUN to MA658 - MA656 - MADAT	Initial climb FL60
XEGEN 1Z 119,600 ①	RT direct MA647 - RT intercept R131 FUN to MA649 - KEKOS - XEGEN	Initial climb FL60

① Madeira contingency only.

② Do not overshoot R321 FUN to the South.

③ To IRKID.

④ To ORTIS.

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5-40

SIDs RWY 23 (RADAR U/S)

ELBIM 1Y / GOSGA 1Y / MADAT 1Y / XEGEN 1Y

RWY 23 (230°)

DESIGNATOR	ROUTING	ALTITUDES
	Runway 23	
ELBIM 1Y 119,600 ①②③	LT 077° - abeam FUN (R168 FUN) or MNM 1500, whichever is later, LT 337° (keep FUN to the left) - at MNM 3000 LT intercept R321 FUN to MA641 - MA643 - ELBIM	Initial climb FL60
GOSGA 1Y 119,600 ①	LT 147° to MA640 - RT intercept R180 FUN to GOSGA	Initial climb FL60
MADAT 1Y 119,600 ①	LT 177° - RT intercept R212 FUN to MA658 - intercept R214 FUN to MA656 - MADAT	Initial climb FL60
XEGEN 1Y 119,600 ①	LT direct MA647 - RT intercept R131 FUN to MA649 - KEKOS - XEGEN	Initial climb FL60

① Madeira contingency only.

② Do not overshoot R321 FUN to the South.

③ To IRKID.

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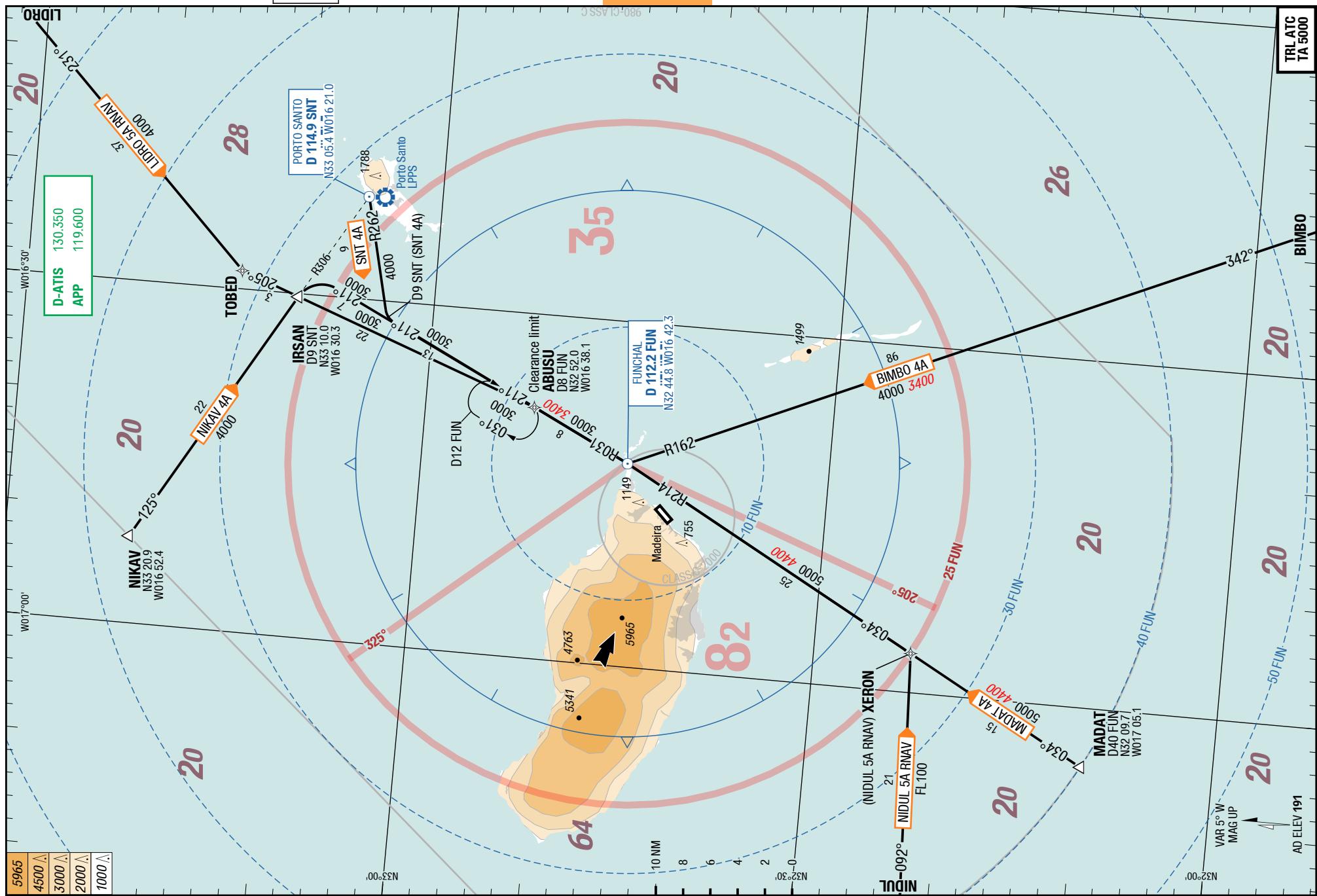
RNAV LIDRO 1C/NIDUL 1C/NIDUL 1R **STARs/RNAV STARs**

10

11

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RNAV LIDRO 1C/NIDUL 1C/NIDUL 1F STARs/RNAV STARs



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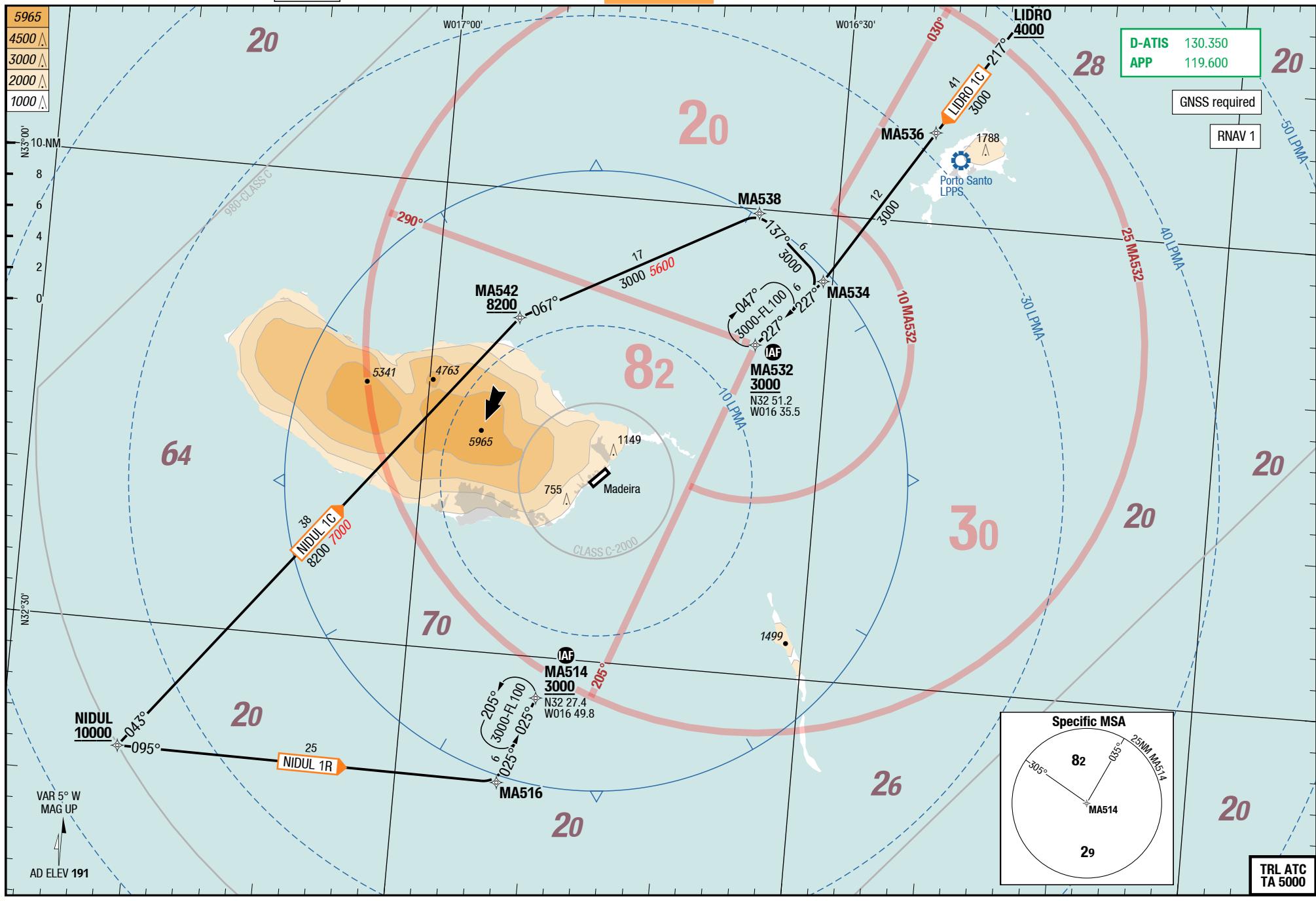
6-20

RNAV LIDRO 1C/NIDUL 1C/NIDUL 1R

STAR

21

RNAV LIDRO 1C/NIDUL 1C/NIDUL 1I



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6-30

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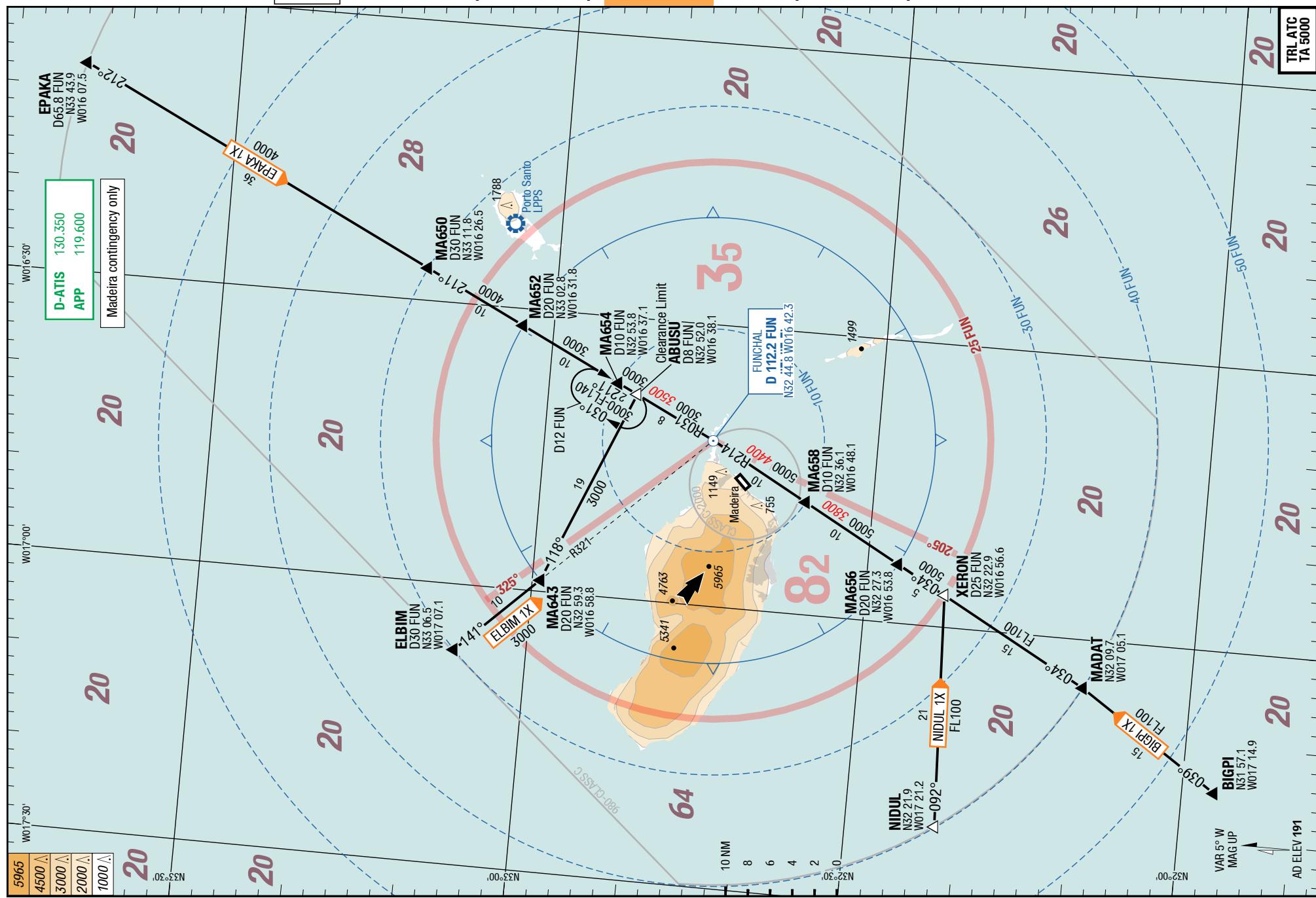
STARs (RADAR U/S)

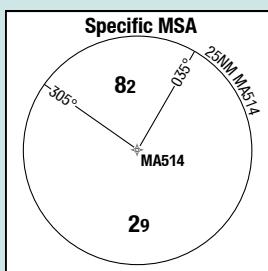
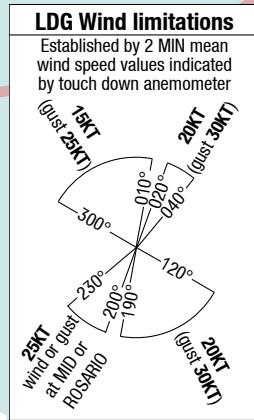
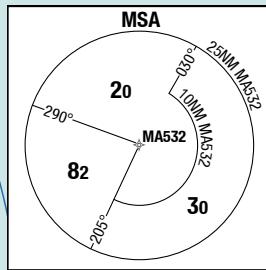
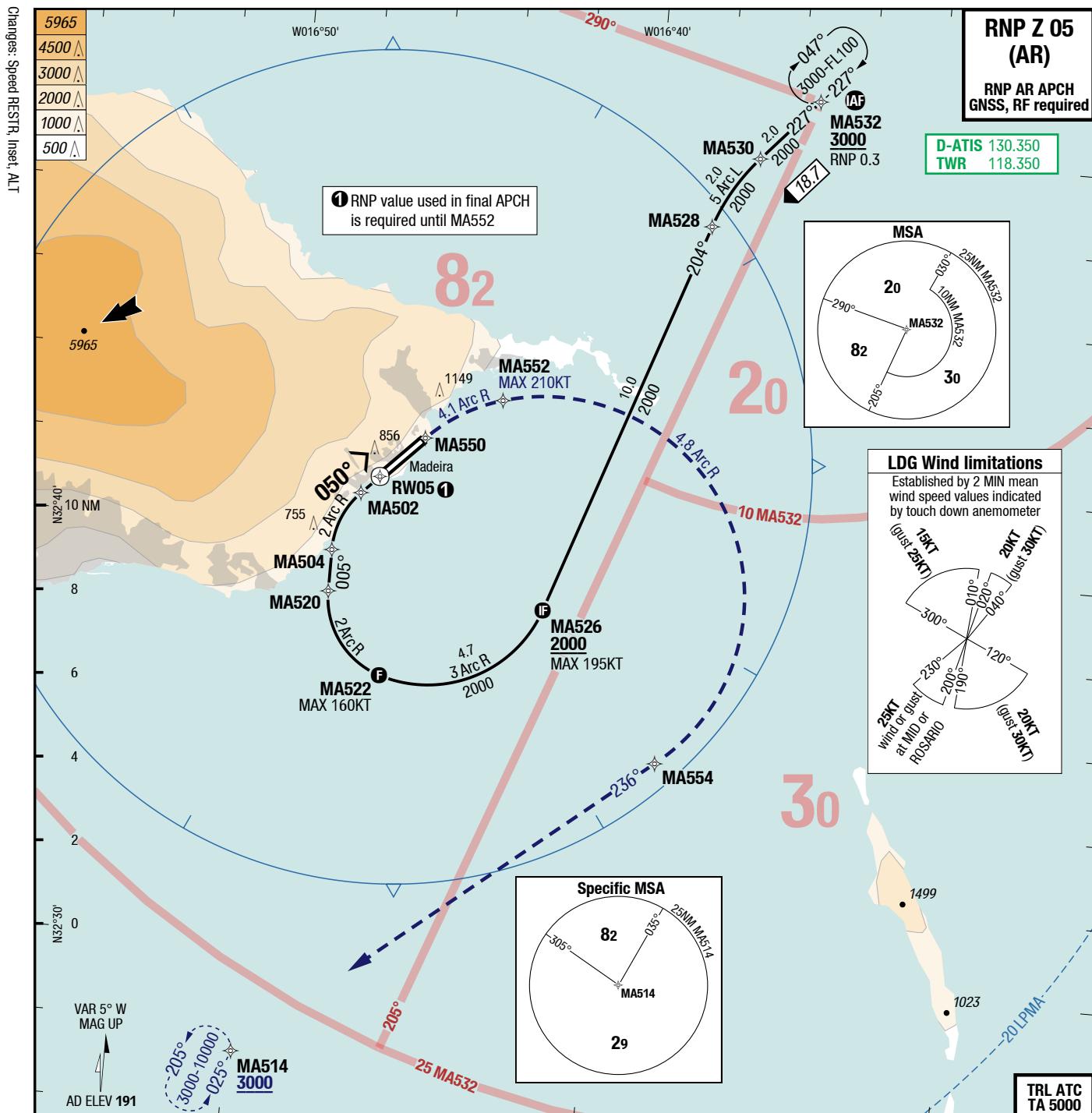
SIAR

SIAR

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STARs (RADAR U/S)



RNP Z 05 (AR)RNP AR APCH
GNSS, RF requiredD-ATIS 130.350
TWR 118.350

30

TRL ATC TA 5000

Right side PAPI invisible 83.0° on short final
150 2481 G 45 60 HL
150 150 RTZL 600m
THR 146 (5hPa) / TDZ --- (+0.9%) +0.6%

MA550 -
4.1 ARC R MA552 [K210] -
4.8 ARC R MA554 -
MA514 [A3000+]

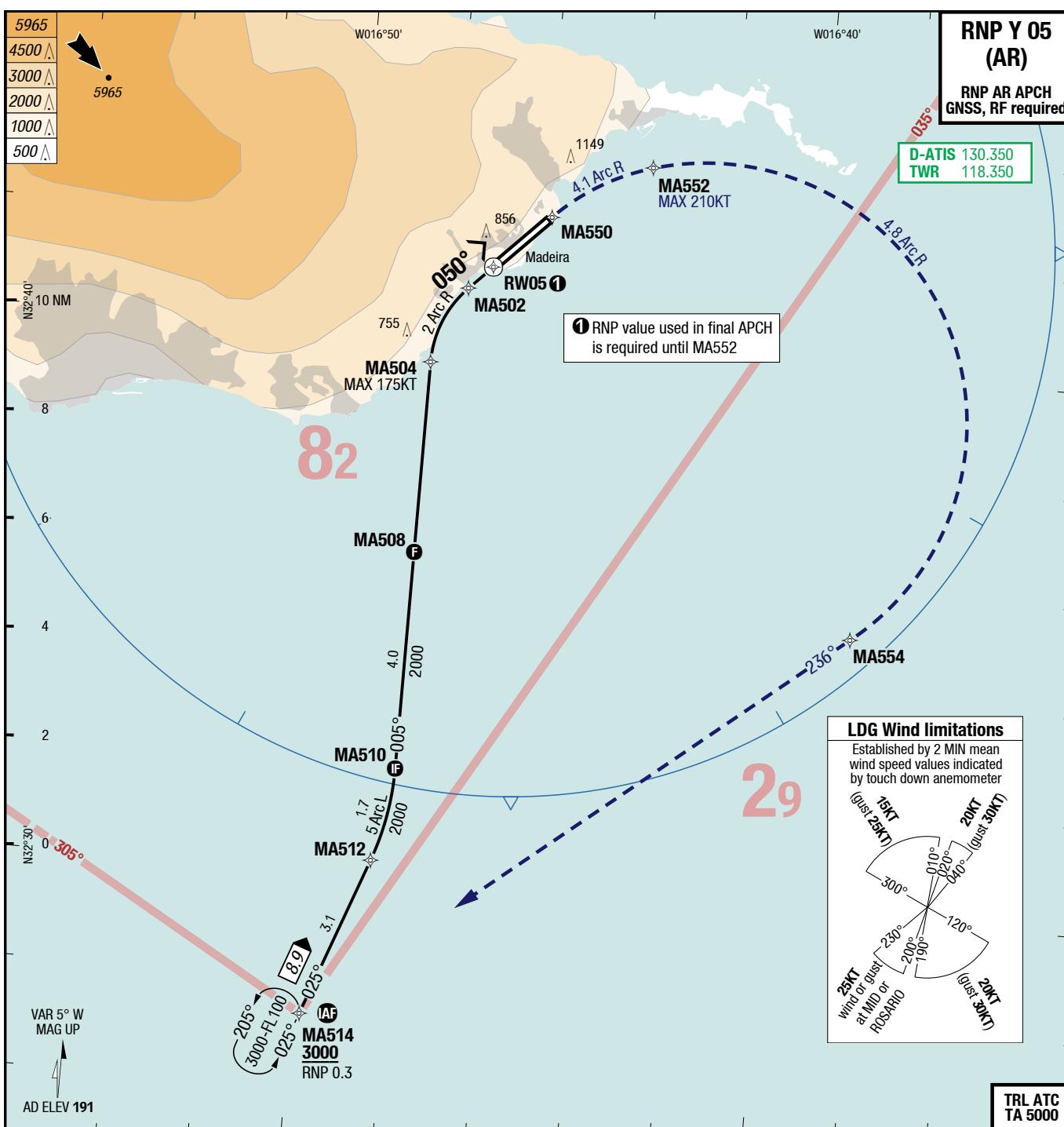
RCF: See AOI

GS	120	140	160
640	740	850	

Circling

05		RNP 0.10 VNAV 1)	RNP 0.20 VNAV 1) 2)	RNP 0.30 VNAV 1) 2)				Circling
C	ft - m/km ft	380 - 1.7 520 3)	680 - 2.4 820	770 - 2.4 910				Not published
D	ft - m/km ft	390 - 1.8 530 4)	690 - 2.4 830	780 - 2.4 920				Not published

Changes: Speed RESTR, Inset



3.00° RW05

Right side PAPI invisible 83.0° on short final 60 HL
HL-N 150 150 RTZL 600m

150 2481 G 45 30 HL

83.0° 83.0° RTZL 600m

THR 146 (5hPa) / TDZ --- (+0.9%) +0.6%

② OBST BLW DA MA510 MA508 MA504 MA502 0.6 RW05 RW05 MA550 -
MA552 [K210] -
MA554 -
MA514 [A3000+]
RCF: See AOI

at 2000 F 005° 890 390 050° 50 GS 120 140 160
2000 F 1000 DA ② 0.6 0 640 740 850

RW05 N32 41.4 W016 47.0

DIST TO THR 10 5 0.6 0

05		RNP 0.10 VNAV 1)	RNP 0.20 VNAV 1(2)	RNP 0.30 VNAV 1(2)			Circling
C	ft - m/km ft	380 - 1.7 520 3)	680 - 2.4 820	770 - 2.4 910			Not published
D	ft - m/km ft	390 - 1.8 530 4)	690 - 2.4 830	780 - 2.4 920			Not published

1) Uncompensated BARO VNAV NA below 8°C (46°F)
2) With EVS 1.6km
3) With EVS 1.1km
4) With EVS 1.2km

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7-30

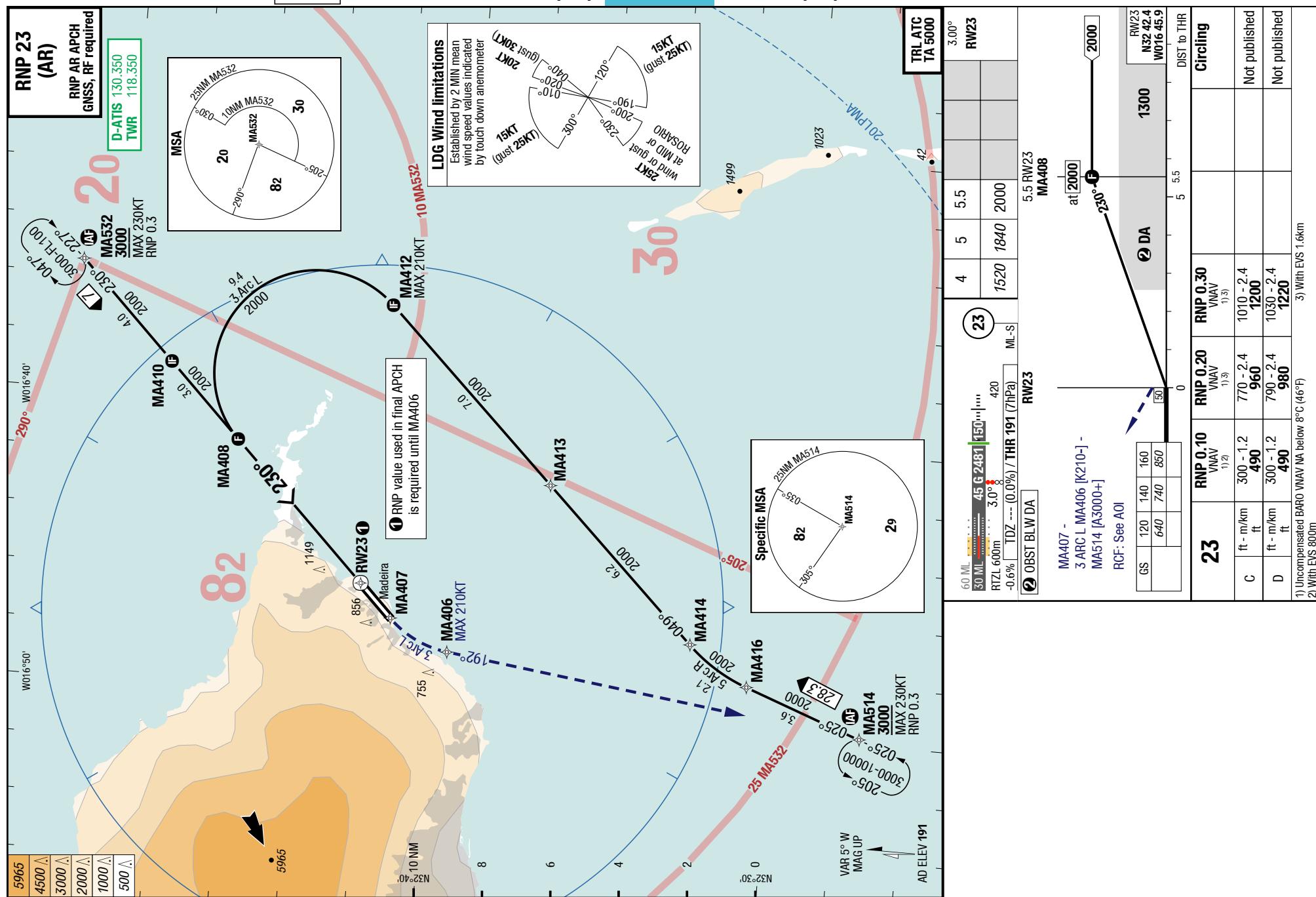
Portugal Madeira

RNP 23 (AR)

140

Madeira Portugal

RNP 23 (AR)



7-50

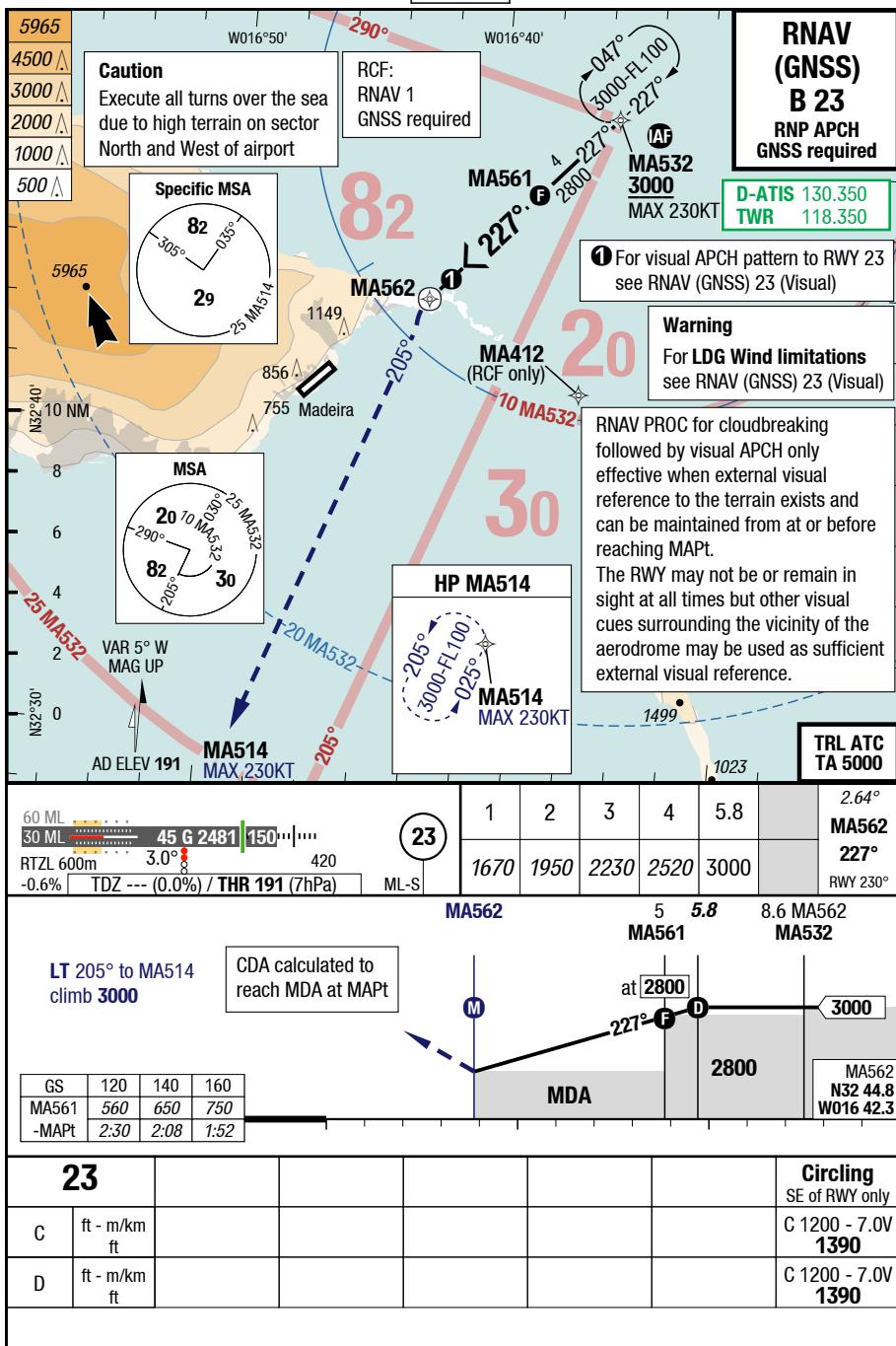
RNAV (GNSS) A 05

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Changes: Speed RESTRICTIONS

7-60

RNAV (GNSS) B 23



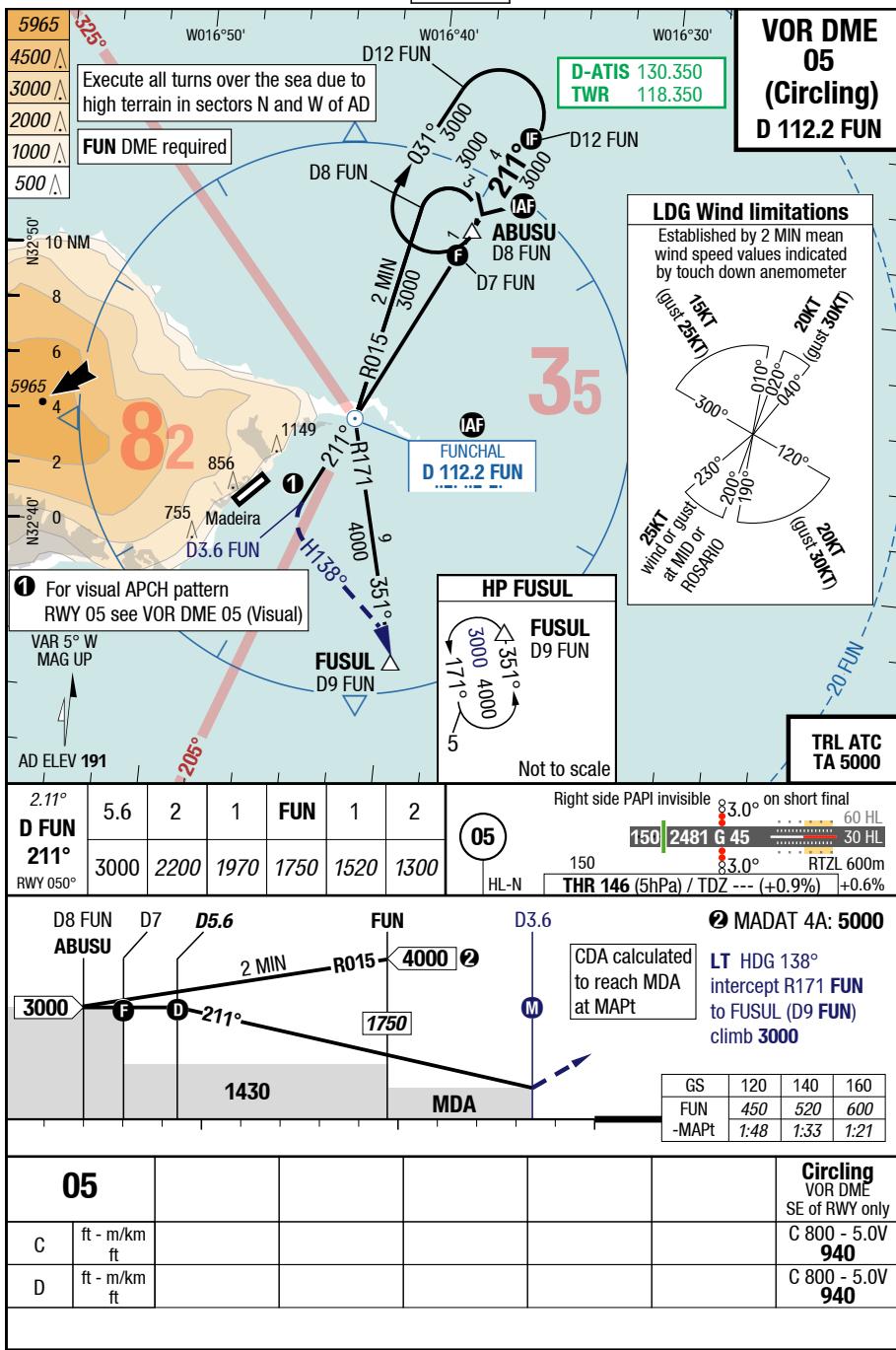
Changes: chart title, Speed RESTR, PROC renamed

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7-70

VOR DME 05 Circling

IAC



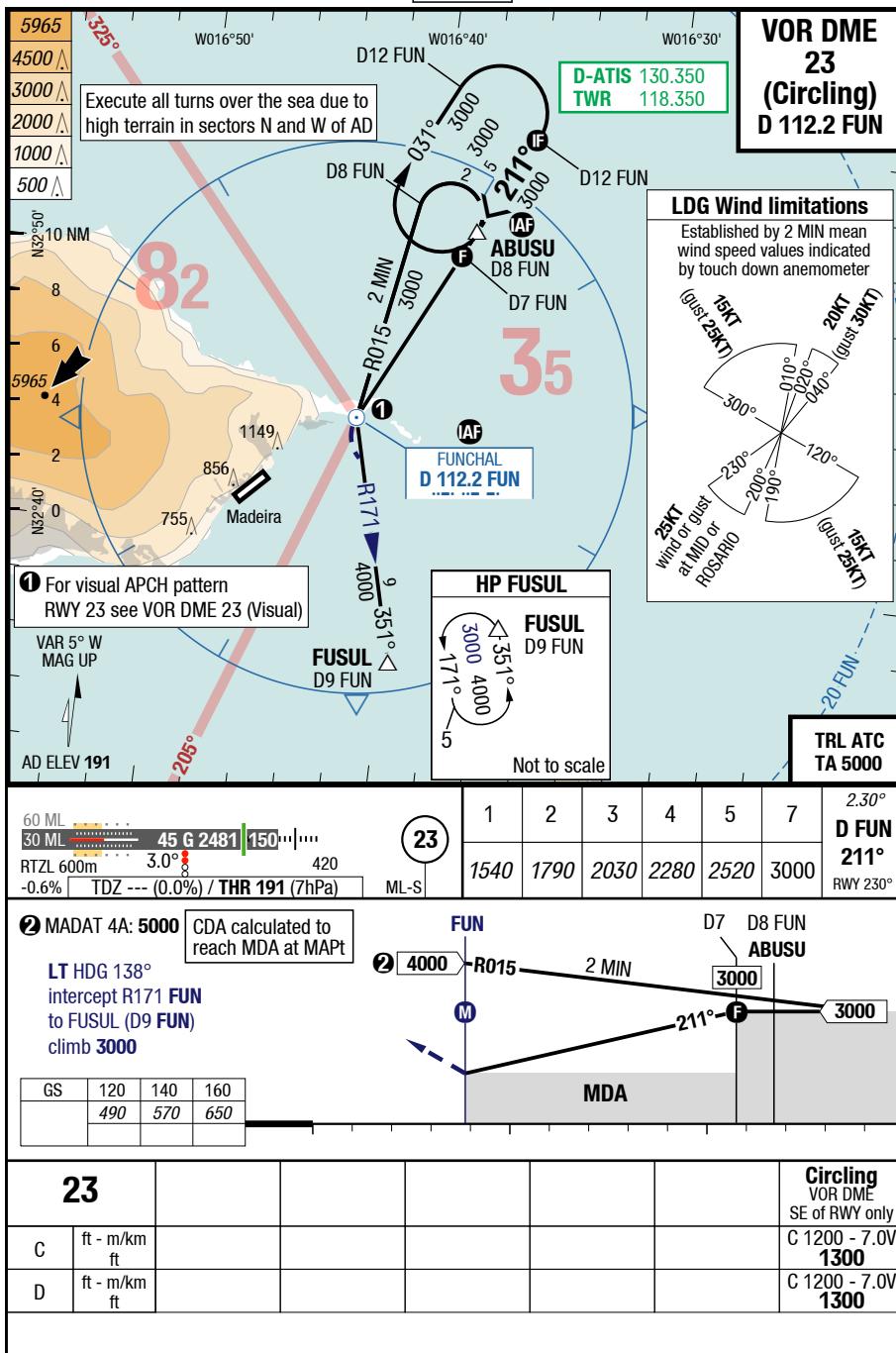
Changes: Inset

FNC-LPMA

7-80

VOR DME 23 Circling

IAC

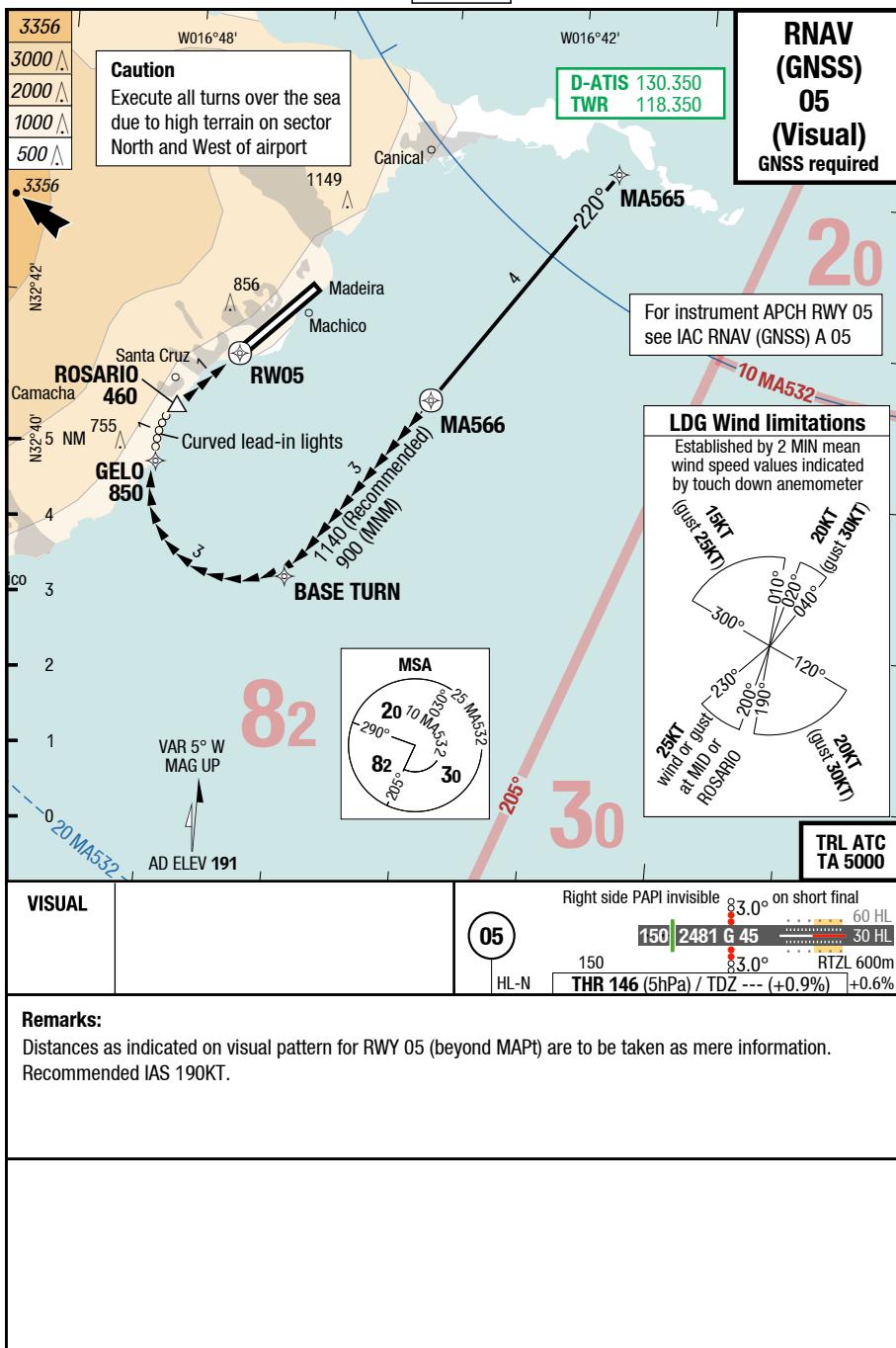


Changes: Inset

FNC-LPMA

7-90

RNAV (GNSS) 05 (Visual)

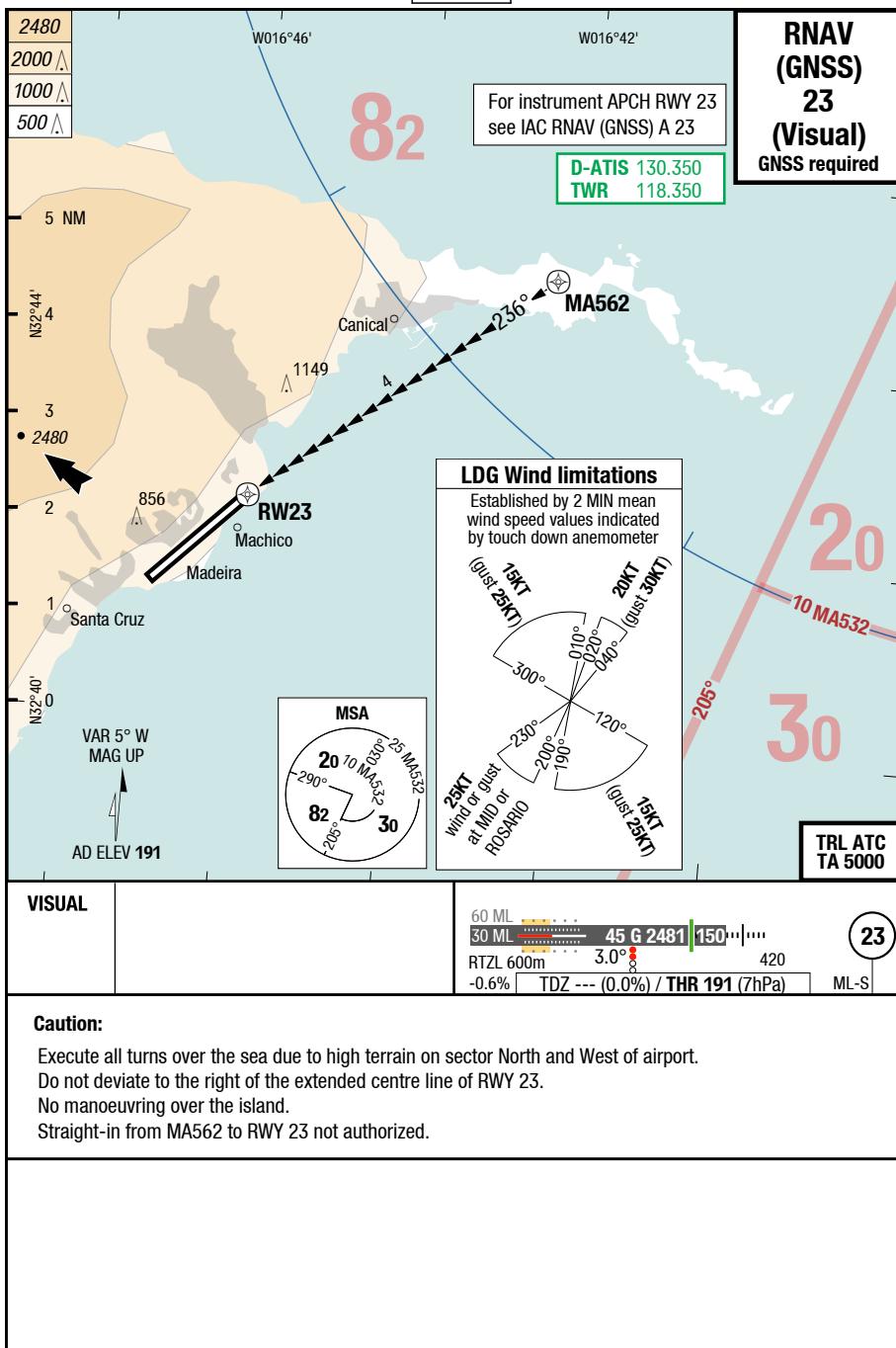


FNC-LPMA

7-100

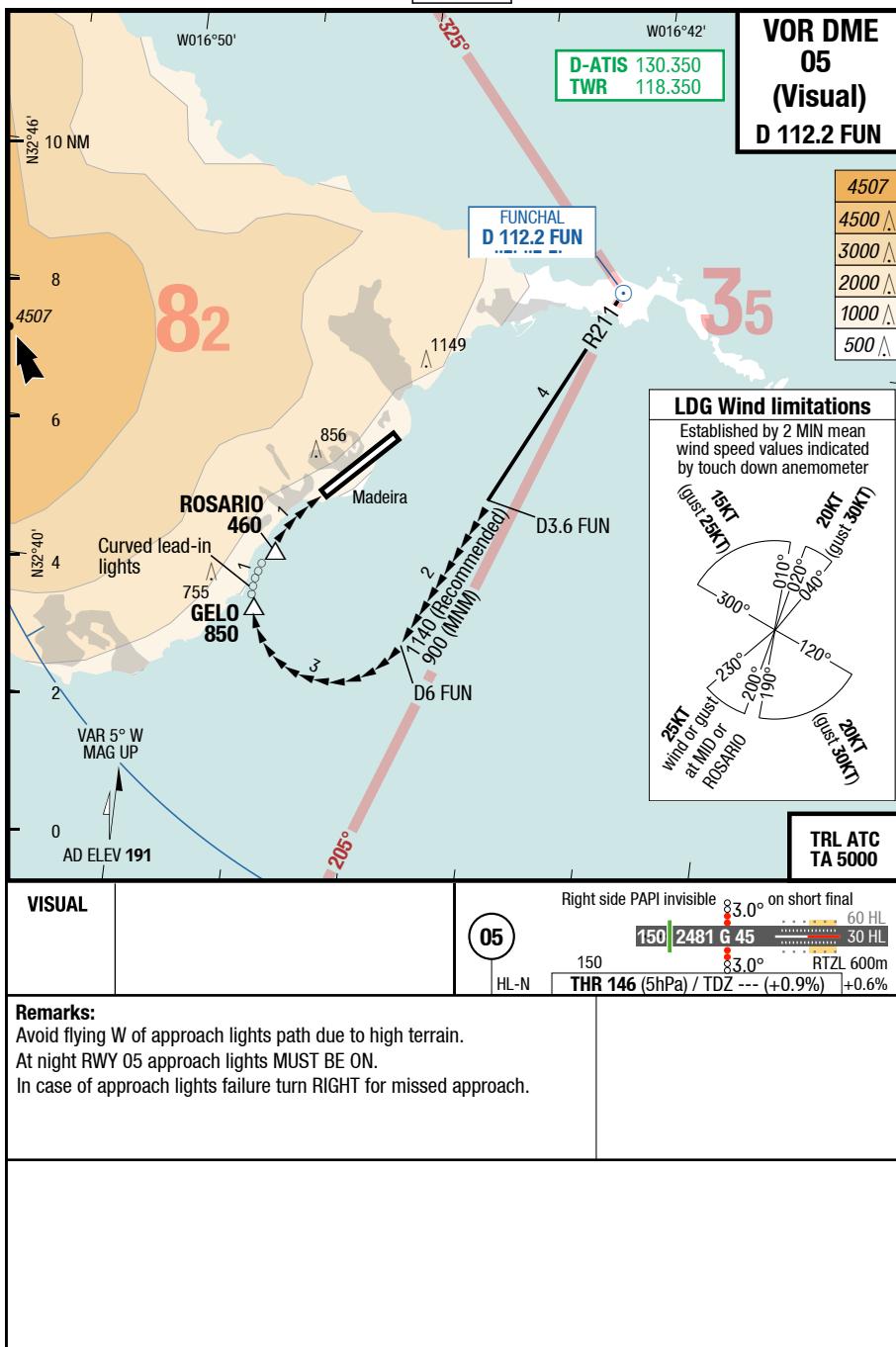
RNAV (GNSS) 23 (Visual)

VAC



7-110

VOR DME 05 (Visual)



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06-SEP-2018

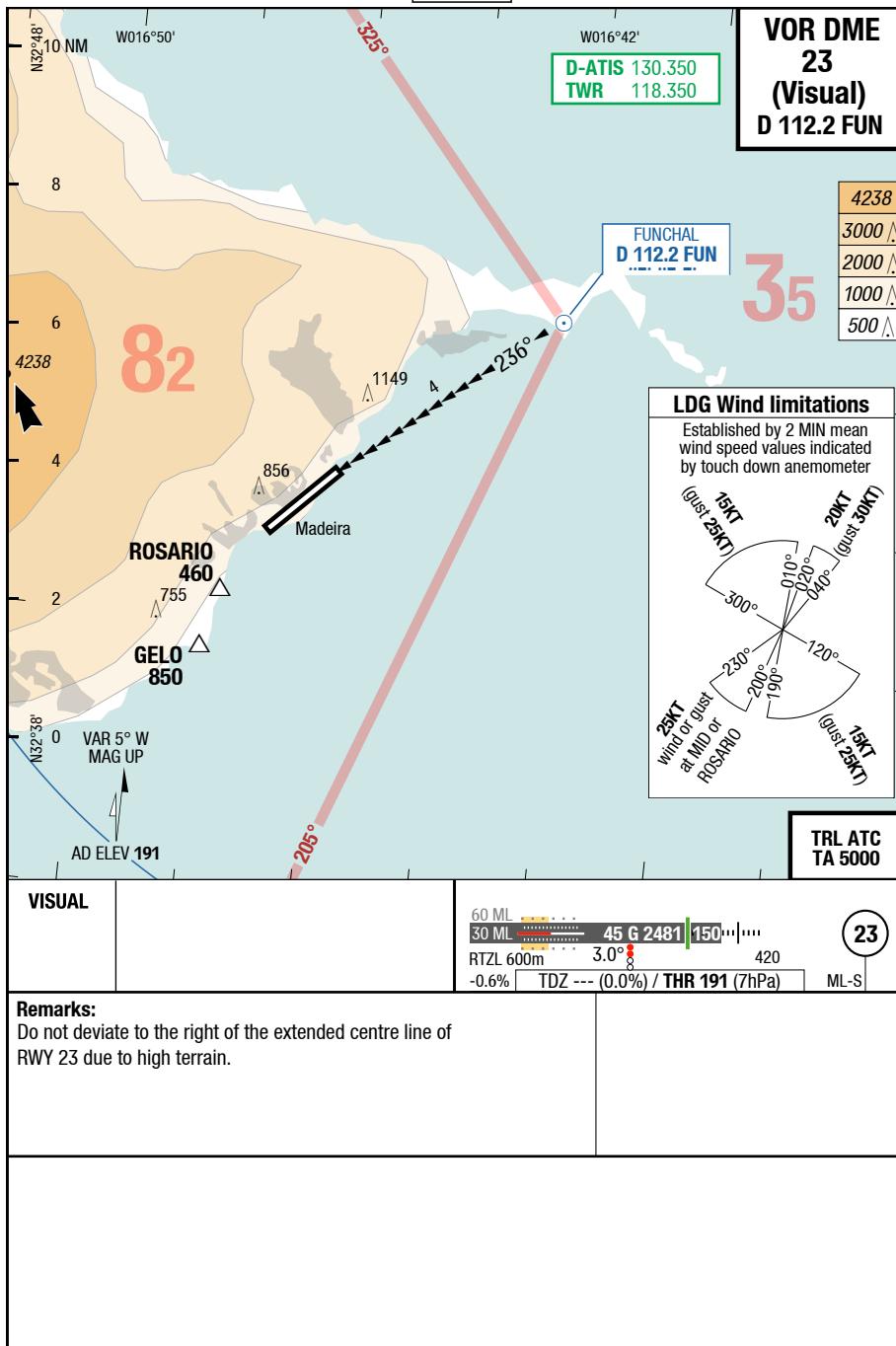
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FNC-LPMA

7-120

VOR DME 23 (Visual)

VAC



30-NOV-2017

FNC-LPMA

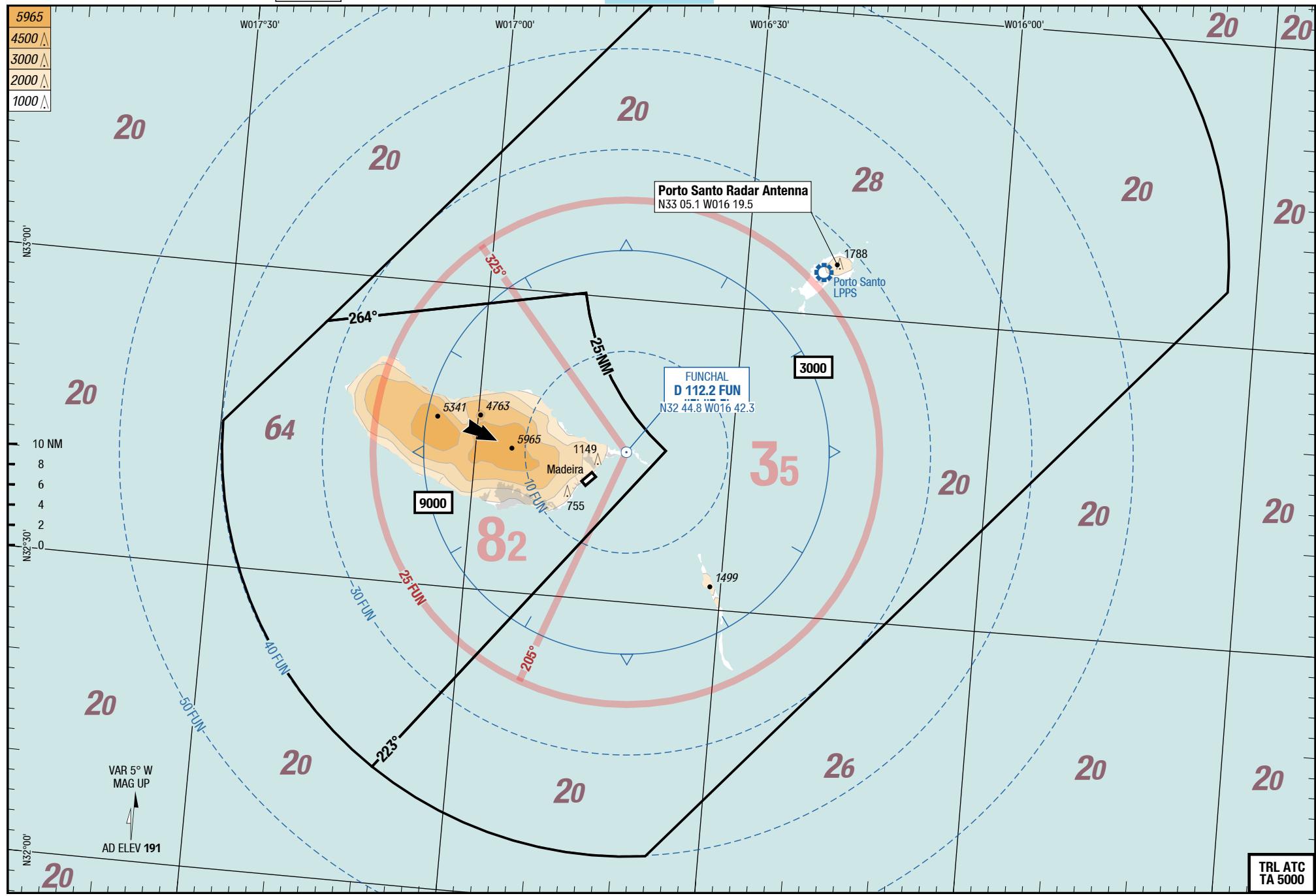
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MRC
MRC

Madeira Portugal

MRC
MRC

8-10



Changes: OBST, Editorial