LPMA

Airport information:

Country: Portugal City: MADEIRA

Coordinates: N 32° 41.7', W 016° 46.7'

Elevation: 192 Customs: Customs Fuel: 100LL, Jet A1

RFF: CAT 7, higher up to CAT 9 avbl PPR 72 HR

hours: H24

Runways:

Runway 05

Takeoff length: 2631, Landing length: 2481

Runway 23

Takeoff length: 2631, Landing length: 2481

Aerodrome Briefing Card

1. GEOGRAPHICAL DATA

The aerodrome is located on a plateau on the east coast of Madeira Island. On the land side ground raises rapidly very close to the aerodrome. High terrain spots are found in all directions over land.

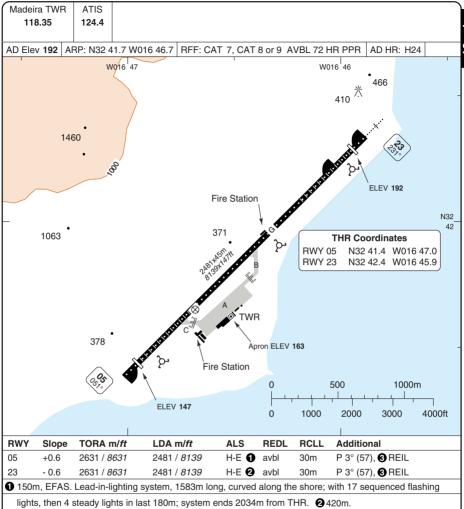
2. WEATHER

2.1 The island is situated in a subtropical area, with strong high pressures.

The geographical state very often generates wind variations and turbulence. Severe low altitude wind shear conditions and/or microbursts are likely to be encountered.

- 2.2 The summers are warm and weather stable, thanks to the high pressures in the area which centres at the Azores. There is very little rain, but often thunderstorms creating usual operational difficulties. Main wind direction is from the N slowly turning to NE from august and forth. Summer temperatures between 15C°-28C°, much higher for short periods.
- 2.3 The winter conditions are mainly good. Storms pass the island as the high pressures normally moves south. The rain period is from OCT-MAR. Occasionally heavy rainstorms can occur. Main wind direction is from the N. Winter temperatures between 9C°-20C°.
- TRAFFIC Open.
- MISCELLANEOUS
 Open.
- REPORTS Open.

AERODROME



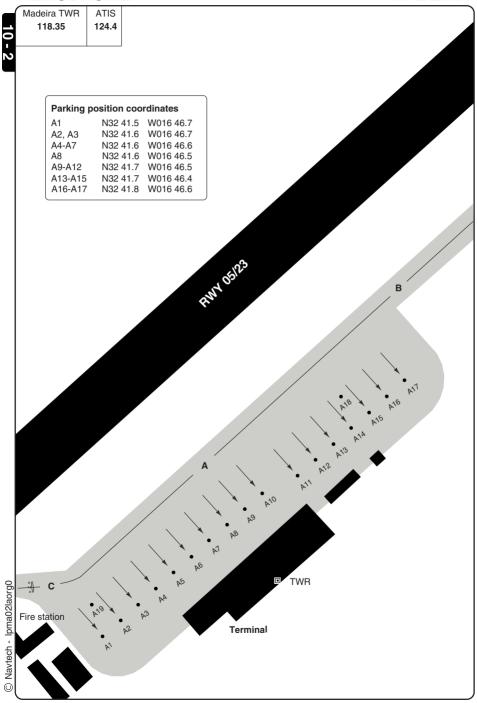
3 PAPI offset 5° to the right (to the sea), right side PAPI not visible on short final approach.

STATE	TAKE OFF MINIMA							
		With TKOF ALT AD	Without TKOF ALT AD					
		VIS						
RWY	Facilities	ABCD						
	REDL + RCLL		NA					
05/23	RCL (day only) or RCL + REDL	2.8 km						
	Nil (day only)							

Change: New spec.

Navtech - Ipma01laorg0

AERODROME



GENERAL

1. NIGHT FLIGHT RESTRICTION

Night operations are restricted to Captains who have previously operated into Madeira and have become familiar with the airport during day-time. Training flights are forbidden at night.

2. AERODROME RESTRICTION

- 2.1 The following requirements are mandatory to scheduled and non-scheduled revenue flights involving ACFT with a capacity in excess of 10 passengers. Pilots may be required, at any time, to show evidence to Madeira Airport Authorities of their compliance with them.
- 2.2 Crew requirements
- 2.2.1 Initial experience; to operate at Madeira AD the Pilot-in-Command must have a minimum of 200 flying hours as Captain on that type of ACFT before completing the initial training.
- 2.2.2 Recent experience; to operate at Madeira AD the Pilot-in-Command must have performed there, on the last six month:

 a) one LDG and TKOF or,
 b) a flight simulator training comprising a LDG and TKOF on each RWY, on a simulated adverse weather condition or,
 c) a line training flight to Madeira AD comprising a LDG and TKOF, assisted by a qualified instructor occupying the right-hand seat.
- 2.3 Minimum Training Requirements
- 2.3.1 In order to operate to Madeira AD, the operator must establish and accomplish beforehand a training programme on the type of ACFT in use. This training must include at least a local flight with LDG and TKOF by day and night in both directions emphasizing:
 - a) The TKOF flight path to RWY 05.
 - b) The TKOF flight path to RWY 23.
 - c) The balked LDG, (go-around initiated in LDG configuration from very low height), in both directions.
 - d) The let-down and APCH to each RWY.
 - e) The operational effect on RWY slope, reduced dimensions and associated safety margins.

- 2.3.2 If the flight is in a flight simulator, the following must be in the training program for each RWY:
 - a) TKOF with engine failure after V1.
 - b) Relight after engine failure.
 - c) VOR approach.
 - d) Balked LDG and go-around.
 - e) Visual approach.
 - f) LDG
 - g) Weather Conditions. The maximum winds as indicated in GENERAL item 6 and 7; severe turb, windshear and up and down drafts must be included on the different APCH
 - h) One LDG at night must be executed for each RWY.
- 2.3.3 After the flight simulator training programme, line training must be performed (unless level D simulator used). If level C is used, line training must be performed with one LDG and TKOF at Madeira AD with an instructor in the right-hand seat.
- 2.3.4 A Madeira qualified captain changing ACFT type must complete either simulator training as in item 2.3.2, or TKOF and land on both RWYs without the passengers on board, and no line training will be required.

WARNING

Caution during final APCH and TKOF due to birds.

4. WIND INFORMATION

On downwind and final APCH to RWY 05, TWR will provide 2min mean winds at Rosario and touch-down.

5. WIND LIMITATIONS

- 5.1 LDG
- a) in the sector 300° to 010° MAG:
 15kt, with MAX gust of 25kt.
 b) in the sector 020° to 040° MAG:
 20kt, with MAX gust of 30kt.
 c) in the sector 120° to 190° MAG, and if RWY 05 in use: 20kt, with MAX gust of 30kt.
 If RWY 23 in use: 15kt, with MAX gust of 25kt as indicated by MID anemometer.

indicated by touch-down anemometer:

5.1.1 MAX of 2min mean wind speed values

- 5.1.2 MAX of 2min mean wind speed values including gust indicated by MID or Rosario anemometers:
 - in the sector 200° to 230° MAG: 25kt.

GENERAL

5.2 TKOF

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

- a) in the sector 300° to 010° MAG: 20kt with no gust limitation.
- b) in the sector 020° to 040° MAG: 25kt with no gust limitation.
- c) in the sector 120° to 190° MAG, and if RWY 05 in use: 25kt with no gust limitation. If RWY 23 in use: 20kt with no gust limitation.

6. TURBULENCE

6.1 Attention should be paid to the WIND DIRECTION INDICATORS located on south side of the RWY, near each touch-down area.

They will reflect unexpected wind changes. Occasionally they will indicate wind from opposite directions.

- 6.2 When LDG on RWY 05 wind differences higher than 5kt, between Rosario and MID anemometer, may indicate turbulence on final.
- 6.3 When LDG on RWY 23 with winds from south and westerly sectors, severe turbulence may be experienced at low ALT over THR
- 6.4 Headwind or nearly so up to 15kt will cause "WEAK" turbulence on final.
- 6.5 Wind of 15kt from sector 020° to 050° MAG may cause "MODERATE" turbulence.
- 6.6 Wind of 15kt or even less from sector 300° to 020° MAG may cause "SEVERE" turbulence.
- 6.7 Downdrafts or updrafts to be expected near THR of RWY 05 and 23.

8. NOTE

Pilots are strongly requested to report any operational problems (turbulence, windshear, lights etc) to TWR.

10. ENGITEST

06-23LT, only on RWY.

ARRIVAL

1. TRAFFIC NOTE

All TKOF and LDG are to be made in visual conditions.

2. SPEED

MAX 280kt BTN FL245 and FL100. MAX 250kt at and below FL100. MAX 220kt at and below FL70. MAX 200KT at and below 4000ft.

MAX speed between 180kt and 160kt when established on final APCH and thereafter 160kt until 4nm from THR.

3. VISUAL APPROACHES

- 3.1 RWY 05
- 3.1.1 Downwind maintain 1140ft.
- 3.1.2 On the APCH, cross the coast over GELO at 850ft, then follow the curved APL, not crossing to the north (left) side of them; cross ROSARIO at approx 460ft.
- 3.1.3 At night the RWY 05 APL must be on; if they fail before the ACFT is in such a position over those lights that will ensure that the high ground on the left side will be avoided, a Missed Approach (right turn) should be initiated.
- 3.1.4 PAPI should be followed; they are set to define a 3° descent path crossing the THR at 57ft.

Due to high terrain, caution should be exercised to avoid flying left of APL to RWY 05.

3.2 RWY 23

- 3.2.1 In order to never cross to the right (north) of R237 FUN or 236° from MAD:
 - a) On the visual APCH initiated overhead VOR/DME FUN, the ACFT should be kept slightly left on this radial until a point where, with TDZ and PAPI in sight, it has to line up with the RWY.
 - b) Maintain MDA(H) until intercepting the 3° final APCH path defined by the PAPI, which crosses the THR at 57ft.
 - c) Due to high terrain, do not deviate to the north (to the right) of the extended RWY 23 CL. The high terrain includes:
 - Pico do Facho; 1129, DIST 1023m abeam a point 1nm from the THR.
 - Cliff; 558, DIST 608m abeam a point 1nm from the THR.

GENERAL

- 3.2.2 At night the hills, Pico do Facho, on the right, may be obscured by mist (obstacle is lit).
- 3.2.3 THR RWY 23 not visible from TWR.
- 3.2.4 TDZL is provided. A go-around should be performed if the ACFT has not landed by the end of these lights.

4. PARKING

- 4.1 Nose-in -& Push-back except for widebody or ACFT with wingspan more than 59m/ 193ft which shall stop facing north.
- 4.2 Marshall compulsory.

DEPARTURE

1. CLR

Contact TWR 0800-1630LT or APP 1630-0800LT 10min before ETD for AD info and amendment to/confirmation of ETD.

2. PUSH-BACK, START-UP

- Contact TWR 10min before Start-up for DEP approval.
- 2.2 JET ACFT: Start-up only permitted after push-back with ACFT in breakaway area.

3. WARNING

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

4. TKOF RWY 23

With westerly wind, tail windshears may be expected. Anemometer readings at RWY end and at Rosario may indicate this possibility.

5. VISUAL TKOF

RWY 05: Right turn to 089° initiated at MAX 100ft above DER.

RWY 23: Left turn to 179° or less initiated at MAX 100ft above DER.

S. COM FAIL

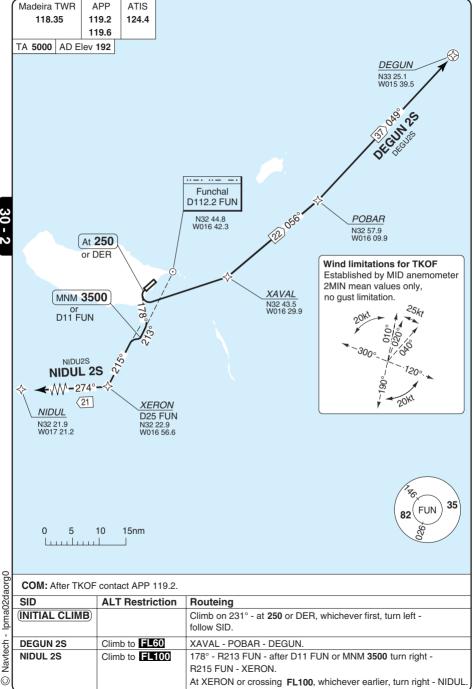
 a) Fly at/to the last assigned and acknowledged level or to the level of SID if it's higher than the last assigned level until passing D30 FUN.

- b) Thereafter adjust level and speed according flightplan.
- c) If being radar vectored or proceeding offset, when passing D30 FUN, rejoin the current flightplan route and proceed according item b).
- d) If cleared DCT to..., fly at/to the assigned and acknowledged level or to FL60, whichever is higher, until passing D30 FUN maintain the current flightplan route and proceed according item b).

SID RWY 05 RNAV

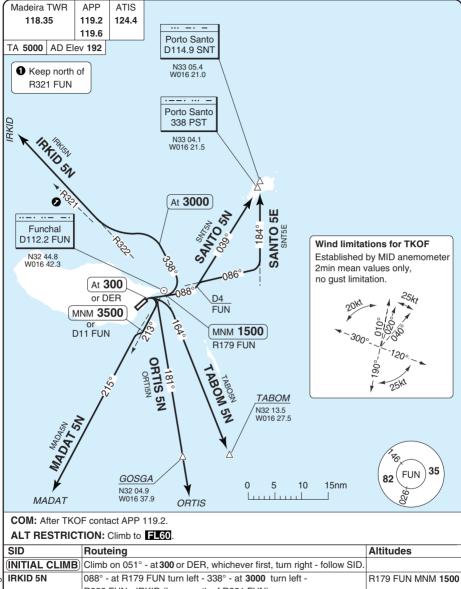
OID IWI OO	HIVAV	WINDEITON
	PP ATIS	
	9.2 124.4 9.6	
NIDU2N NIDUL 2 NIDUL 2 NIDUL NIDUL NIDUL	At 300 or DER	Funchal D112.2 FUN N32 44.8 W016 42.3 Wind limitations for TKOF Established by MID anemometer 2min mean values only, no gust limitation. Wind limitations for TKOF Established by MID anemometer 2min mean values only, no gust limitation.
0 5 LL.	10 15nm	82 FUN 35
COM: After TKOF	contact APP 119.2.	
SID	ALT Restriction	Routeing
INITIAL CLIMB		Climb on 051° - at 300 or DER, whichever first, turn right - follow SID.
DEGUN 2N	Climb to FL60	XAVAL - POBAR - DEGUN.
NIDUL 2N	Climb to FL100	R213 FUN - after D11 FUN or MNM 3500 turn right -
		R215 FUN - XERON.
		At XERON or crossing FL100, whichever earlier, turn right - NIDUL

MADFIRA



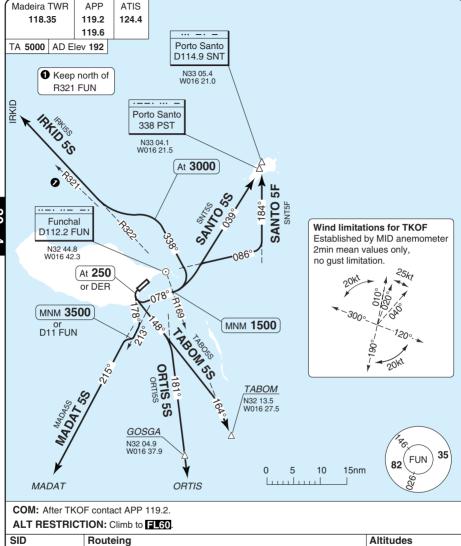
Change: New spec.

SID RWY 05



	SID	Routeing	Altitudes
	INITIAL CLIMB	Climb on 051° - at 300 or DER, whichever first, turn right - follow SID.	
rg0	IRKID 5N	088° - at R179 FUN turn left - 338° - at 3000 turn left -	R179 FUN MNM 1500
ao			
a03daorg0	MADAT 5N	R213 FUN - after D11 FUN or MNM 3500 turn right - R215 FUN -	
lpma		MADAT.	
<u>a</u>	ORTIS 5N	R181 FUN - GOSGA - ORTIS.	
당	SANTO 5E	088° - at D4 FUN turn left - 039° PST - R086 FUN -	R179 FUN MNM 1500
Navtech		turn left - R184 SNT - SNT.	
Ra	SANTO 5N	088° - at D4 FUN turn left - 039° to PST - PST - SNT.	R179 FUN MNM 1500
0	TABOM 5N	R164 FUN - TABOM.	J

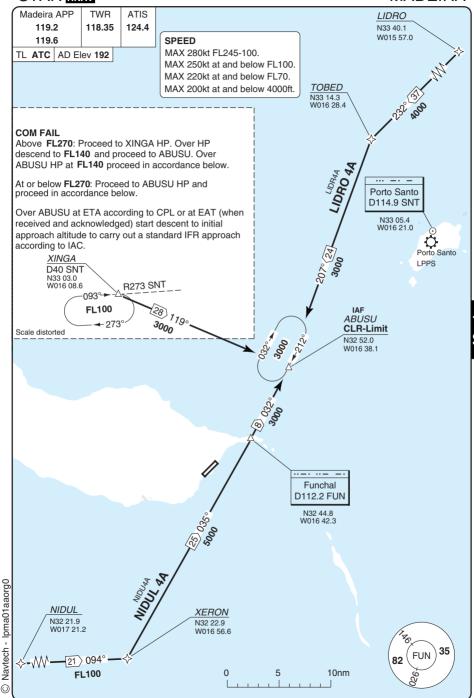
Change: New spec.



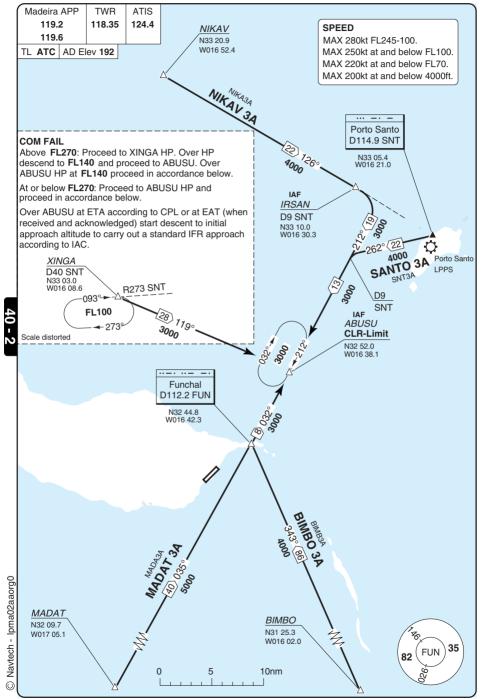
	SID	Routeing	Altitudes
	INITIAL CLIMB	Climb on 231° - at $$ 250 or DER, whichever first, turn left - follow SID.	
	IRKID 5S	078° - at R169 FUN turn left - 338° - at 3000 turn left -	R169 FUN MNM 1500
org(R322 FUN - IRKID (keep north of R321 FUN).	
dac	MADAT 5S	178° - R213 FUN - after D11 FUN or MNM 3500 turn right -	
Q Q		R215 FUN - MADAT.	
pma04daorg0	ORTIS 5S	148° - R181 FUN - GOSGA - ORTIS.	
-	SANTO 5F	078° - at R169 FUN turn left (keep beyond D3 FUN arc) -	R169 FUN MNM 1500
ç		039° to PST - R086 FUN - turn left - R184 SNT - SNT.	
Navtech	SANTO 5S	078° - at R169 FUN turn left (keep beyond D3 FUN arc) -	R169 FUN MNM 1500
		039° to PST - PST - SNT.	
0	TABOM 5S	148° - R164 FUN - TABOM.	j

Change: New spec.

STAR BNAV

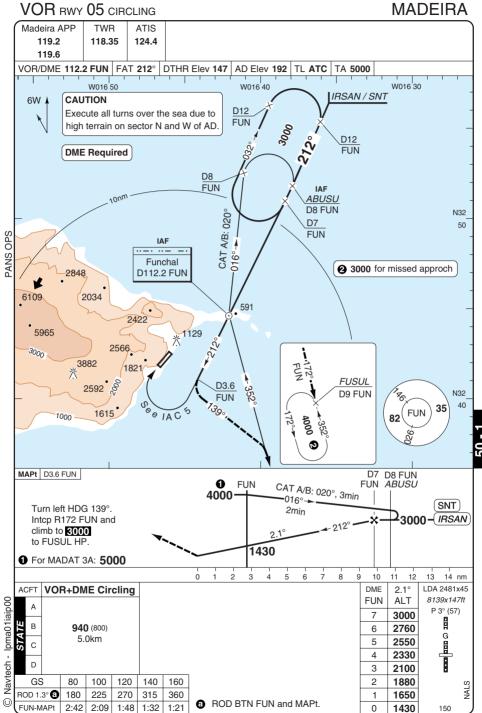


STAR



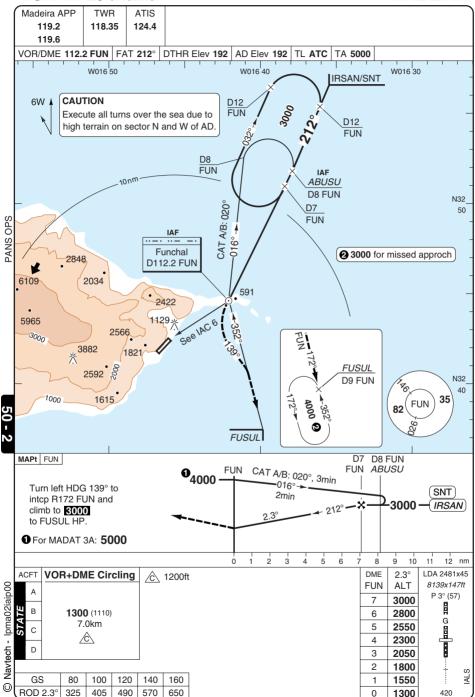
Change: New spec.

MADFIRA



VOR RWY 23 CIRCLING

MADFIRA



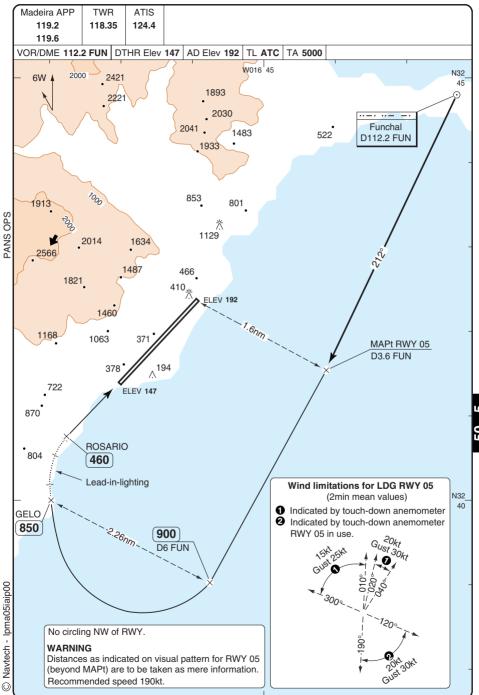
NDB RWY 05 CIRCLING

Madeira APP **TWR** ATIS 119.2 118.35 124.4 119.6 DTHR Elev 147 AD Elev 192 TL ATC TA 5000 NDB 318 MAD FAT 200° W016 50 W016 40 W016 30 6W CAUTION 10nm Execute all turns over the sea due to high terrain on sector N and W of AD. N32 50 IAF Funchal 318 MAD 2848 2034 591 PANS OPS 2422 ^光1129 2566 3000 182 2592 3882 N32 3.2nm 40 after MAD 1615 1000 At **4500** 35 FUN MAPt 3.2nm after MAD MAD CAT A/B: 3min 5000 0200 Climb on 200° from 2min MAD to 4500. 3200 turn left to MAD 2009 climbing to 5000. 1430 4 0 2 3 8 9 10 11 12 13 nm NDB Circling LDA 2481x45 ACFT Navtech - Ipma03iaip00 8139x147ft P 3° (57) STATE В 940 (800) Good 5.0km D NALS GS 80 100 120 140 160 0 MAD-MAPt 1:55 2:24 1:36 1:22 1:12

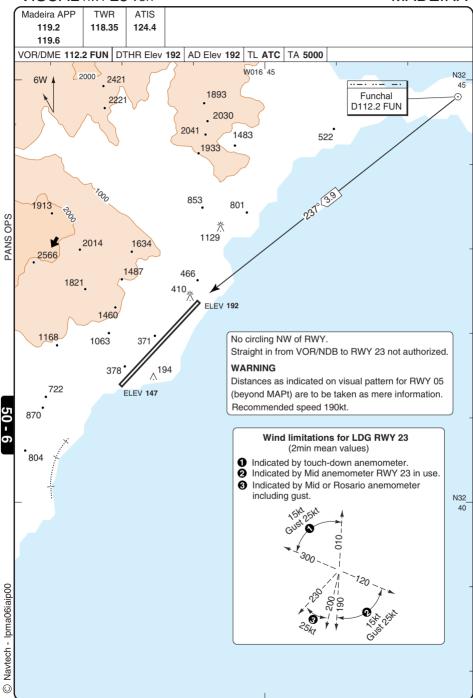
420

NDB RWY 23 CIRCLING

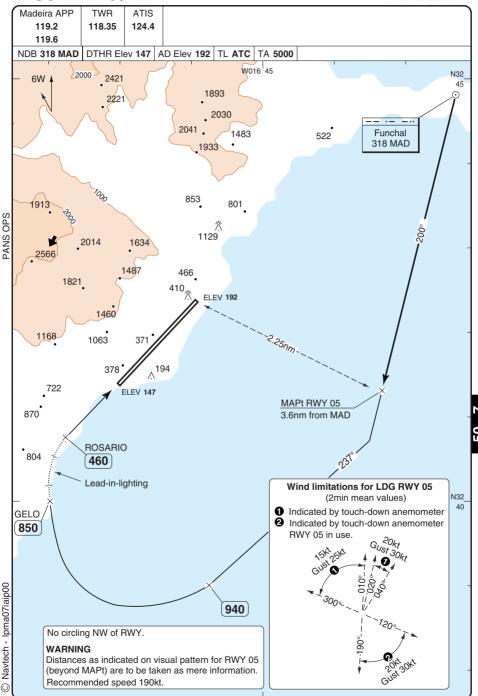
Madeira APP **TWR** ATIS 119.2 124.4 118.35 119.6 DTHR Elev 192 AD Elev 192 TL ATC TA 5000 NDB 318 MAD FAT 200° W016 50 W016 40 W016 30 6W CAUTION Execute all turns over the sea due to high terrain on sector N and W of AD. N32 50 IAF Funchal 318 MAD 2848 2034 591 PANS OPS 2422 See IAC 8 2566 3000 3882 N32 40 1615 1000 At **4500** 35 FUN 82 MAPt MAD MAD CAT A/B: 3min 5000 020° Climb on 200° from MAD 2min to 4500, turn left to MAD 3200 climbing to 5000. 200 ż 0 2 3 4 5 6 8 10 11 nm LDA 2481x45 **NDB Circling** ACFT ∕c\ 1200ft Navtech - Ipma04iaip00 8139x147ft P 3° (57) STATE В 1300 (1110) G 7.0km С D IALS 0



VISUAL RWY 23 VOR



VISUAL RWY 05 NDB



VISUAL RWY 23 NDB

Madeira APP **TWR** ATIS 119.2 118.35 124.4 119.6 DTHR Elev 192 AD Elev 192 TL ATC TA 5000 NDB 318 MAD W016 45 N32 2000 2421 45 1893 Funchal D112.2 FUN 2030 2041 1483 522 1933 853 801 PANS OPS <u>*</u> 1129 2014 1634 2566 466 1821 410 **ELEV 192** 1460 1168 No circling NW of RWY. 1063 Straight in from VOR/NDB to RWY 23 not authorized. WARNING 378 Distances as indicated on visual pattern for RWY 05 **ELEV 147** (beyond MAPt) are to be taken as mere information. Recommended speed 190kt. 870 Wind limitations for LDG RWY 23 (2min mean values) 804 1 Indicated by touch-down anemometer. 2 Indicated by Mid anemometer RWY 23 in use. 3 Indicated by Mid or Rosario anemometer including gust. N32 40 Navtech - Ipma08iaip00

JAR-OPS Landing Minima

MADEIRA

The following Minima is for Public Transport aircraft and conforms to JAR-OPS1 regulations.

STRAIGHT-IN APPROACH		С			D				
R/W	Procedure	DA/	DH/	RVR	RVR	DA/	DH/	RVR	RVR
		MDA	MDH		No	MDA	MDH		No
		QNH	QFE		ALS	QNH	QFE		ALS
		ft	ft	m	m	ft	ft	m	m
All	Not authorised					·			

Notes:

CIRCLING		С			D			
R/W	Procedure	MDA	MDH	Vis	MDA	MDH	Vis	
		QNH	QFE		QNH	QFE		
		ft	ft	m	ft	ft	m	
05 VOF	R/DME to CIRC (1)(3)	950	800	5000	950	800	5000	
05 NDE	3 to CIRC (1)(3)	950	800	5000	950	800	5000	
23 VOF	R/DME to CIRC (2)(3)	1310	1110	7000	1310	1110	7000	
23 NDE	3 to CIRC (2)(3)	1310	1110	7000	1310	1110	7000	

Notes:

- (1) Ceiling 800ft / 245m.
- (2) Ceiling 1200ft / 370m.
- (3) Prohibited west of extended runway centreline.

TAKE-OFF	С				
Runway	Facilities	RVR	Vis	RVR	Vis
05 / 23 (1)		-	2800	-	2800

Notes:

(1) Take-off Alternate required.

JAR-OPS Landing Minima

MADEIRA

The following Minima is for Public Transport aircraft and conforms to JAR-OPS1 regulations.

STRAIGHT-IN APPROACH		Α			В				
R/W	Procedure	DA/	DH/	RVR	RVR	DA/	DH/	RVR	RVR
		MDA	MDH		No	MDA	MDH		No
		QNH	QFE		ALS	QNH	QFE		ALS
		ft	ft	m	m	ft	ft	m	m
All	Not authorised							, The second second	

Notes:

CIRCLING		Α			В			
R/W	Procedure	MDA	MDH	Vis	MDA	MDH	Vis	
		QNH	QFE		QNH	QFE		
		ft	ft	m	ft	ft	m	
05 VOR/DME to CIRC (1)(3)		950	800	5000	950	800	5000	
05 NDB to CIRC (1)(3)		950	800	5000	950	800	5000	
23 VOR/DME to CIRC (2)(3)		1310	1110	7000	1310	1110	7000	
23 NDB	to CIRC (2)(3)	1310	1110	7000	1310	1110	7000	

Notes:

- (1) Ceiling 800ft / 245m.
- (2) Ceiling 1200ft / 370m.
- (3) Prohibited west of extended runway centreline.

TAKE-OFF			Δ.	В	
Runway	Facilities	RVR	Vis	RVR	Vis
05 / 23 (1)		-	2800	-	2800

Notes:

(1) Take-off Alternate required.