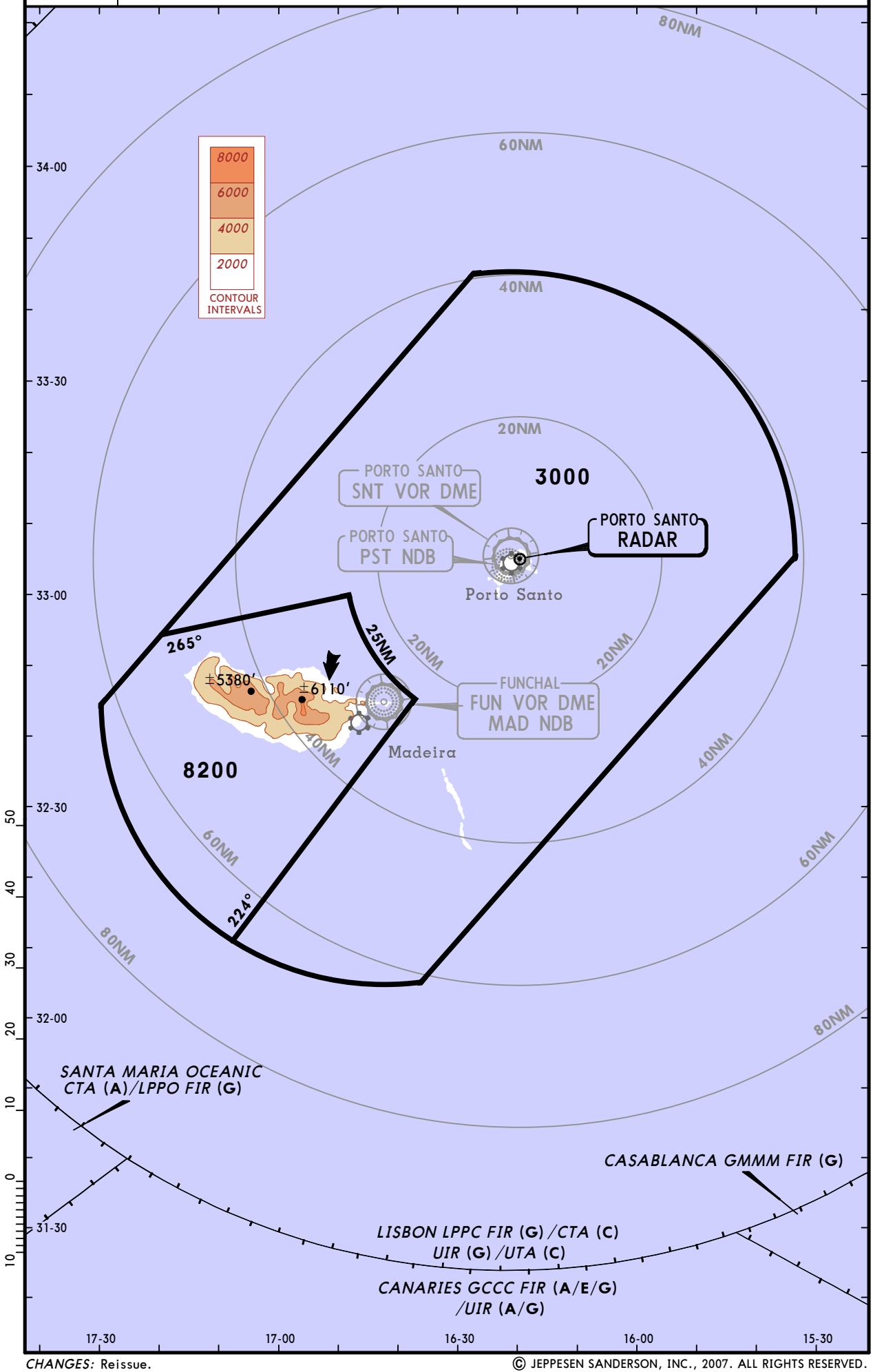
LPMA/FNC MADEIRA

JEPPESEN
30 MAR 07 (10-1R)

MADEIRA, MADEIRA IS

RADAR MINIMUM ALTITUDES

Apt Elev 192′ | Alt Set: hPa | Trans level: By ATC | Trans alt: 5000′



CHANGES: Reissue.

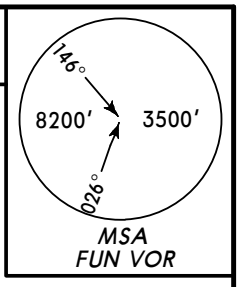
LPMA/FNC MADEIRA

JEPPESEN
14 JAN 11 (10-2)

MADEIRA, PORTUGAL

RNAV STAR

ATIS	Apt Elev	Alt Set: hPa Trans level: By ATC Trans alt: 5000′
124.4	192′	



LIDRO 4A *[LIDR4A]*
NIDUL 4A *[NIDU4A]*
RWYS 05, 23 RNAV ARRIVALS

FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B

Clearance limit is ABUSU at 3000′.

LIDRO
N33 40.1 W015 57.0

232°
37
4000
LIDRO 4A

TOBED
N33 14.3 W016 28.4

207°
24
3000

LOST COMMS LOST COMMS LOST COMMS

ALTERNATE HOLDING
To be used in case of communication failure.

XINGA
N33 03.0 W017 08.6

093°
FL100
D40 SNT
R273° 114.9
119°
28
3000

(IAF)
ABUSU
N32 52.0
W016 38.1

LOST COMMS LOST COMMS LOST COMMS

PORTO SANTO
P 114.9 SNT
N33 05.4 W016 21.0

027°
3000
D
8
032°
3000

(IAF)
ABUSU
N32 52.0 W016 38.1

(IAF)
FUNCHAL
P 112.2 FUN
N32 44.8 W016 42.3

R215°
25
5000

035°

NIDUL
N32 21.9
W017 21.2

094°
21
FL100
NIDUL 4A

XERON
N32 22.9 W016 56.6

N
NOT TO SCALE

STAR	ROUTING
LIDRO 4A	LIDRO - TOBED - ABUSU.
NIDUL 4A	NIDUL - XERON - FUN - ABUSU.

CHANGES: MEA between XINGA & ABUSU established.

LPMA/FNC
MADEIRA

JEPPESEN
14 JAN 11 (10-2A)

MADEIRA, PORTUGAL
STAR

ATIS	Apt Elev	Alt Set: hPa Trans level: By ATC Trans alt: 5000′
124.4	192′	

BIMBO 3A *[BIMB3A]*, MADAT 3A *[MADA3A]* NIKAV 3A *[NIKA3A]*, SANTO 3A (SNT 3A) RWYS 05, 23 ARRIVALS

FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B

Clearance limit is ABUSU at 3000′.

146°
8200′
3500′
026°
MSA
FUN VOR

NIKAV
N33 20.9 W016 52.4

126° 22 4000 NIKAV 3A

IRSAN
N33 10.0
W016 30.3

PORTO SANTO
D 114.9 SNT
N33 05.4 W016 21.0

212° 19 3000

9 SNT 3A 262° 4000

13 **D9 SNT**
N33 03.2
W016 31.4

LOST COMMS LOST COMMS LOST COMMS

ALTERNATE HOLDING
To be used in case of communication failure.

LOST COMMS LOST COMMS LOST COMMS

XINGA
N33 03.0 W017 08.6

D40 SNT
R273° 114.9

093° FL100 119° 28 3000

(IAF)
ABUSU
N32 52.0
W016 38.1

3000

(IAF)
ABUSU
N32 52.0 W016 38.1

D 8 032° 3000

(IAF)
FUNCHAL
D 112.2 FUN
N32 44.8 W016 42.3

R215° R172° R163°

D 9 4000

FUSUL
N32 36.1 W016 39.7

352°

40 5000 MADAT 3A

035°

MADAT
N32 09.7 W017 05.1

86 4000 BIMBO 3A

343°

BIMBO
N31 25.3 W016 02.0

N
NOT TO SCALE

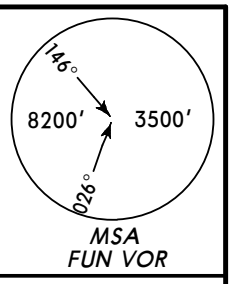
CHANGES: MEA between XINGA & ABUSU established.

LPMA/FNC
MADEIRA

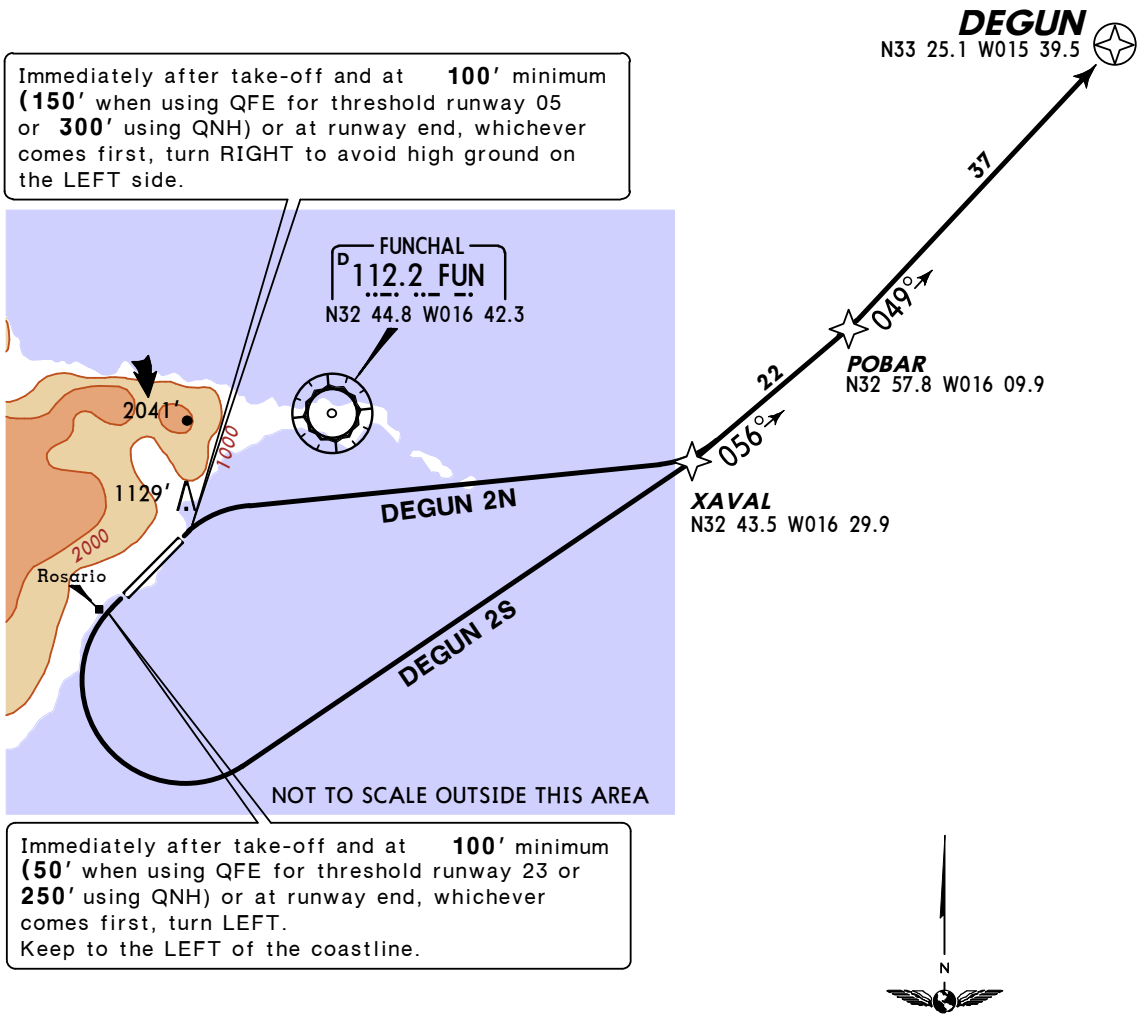
JEPPESEN 29 JAN 10 (10-3) Eff 11 Feb

MADEIRA, MADEIRA IS
RNAV SID

MADEIRA Approach 119.2	Trans level: By ATC Trans alt: 5000′ 1. Contact MADEIRA Approach immediately after take-off. 2. Pilots are advised to select full power on take-off in the presence of turbulence or downdraft reports. 3. Take-off must be made in a minimum visibility of 2800m. Required take-off alternate. 4. Each operator must prepare its own engine failure procedures.
Apt Elev 192′	



DEGUN 2N *[DEGU2N]*, DEGUN 2S *[DEGU2S]*
RWYS 05, 23 RNAV DEPARTURES
FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B



Rwy 23: With westerly winds, tailwind shears may be expected. Anemometer readings reported by Tower at the end of the runway and at Rosario may indicate this possibility.

Initial climb clearance **FL60**

ROUTING

XAVAL - POBAR - DEGUN.

CHANGES: Track update.

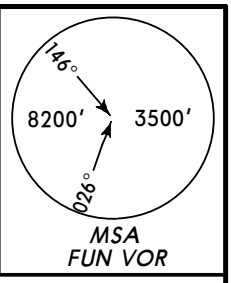
LPMA/FNC MADEIRA

JEPPESEN 29 JAN 10 (10-3A) Eff 11 Feb

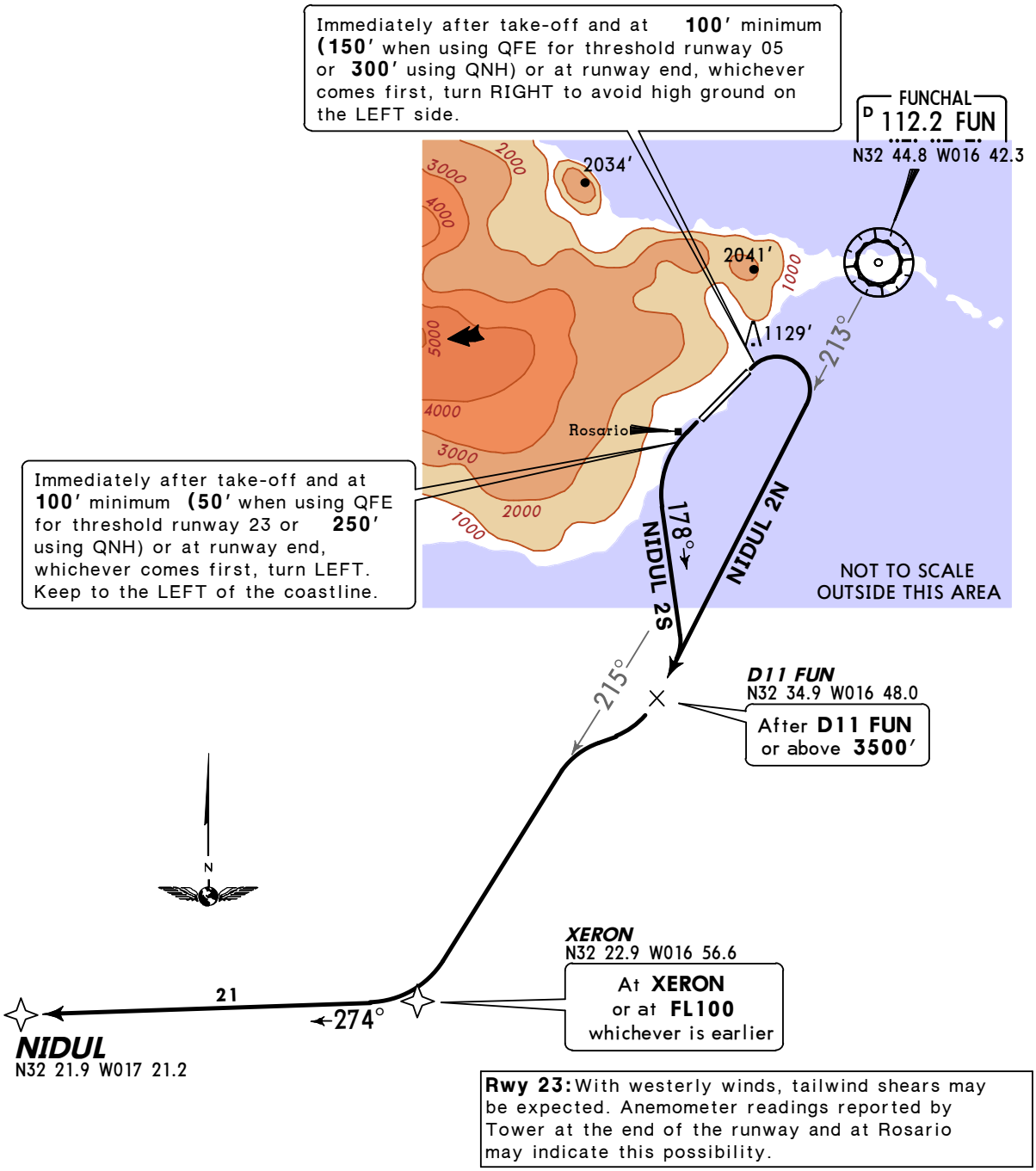
MADEIRA, MADEIRA IS

RNAV SID

MADEIRA Approach 119.2	Trans level: By ATC Trans alt: 5000′ 1. Contact MADEIRA Approach immediately after take-off. 2. Pilots are advised to select full power on take-off in the presence of turbulence or downdraft reports. 3. Take-off must be made in a minimum visibility of 2800m. Required take-off alternate. 4. Each operator must prepare its own engine failure procedures.
Apt Elev 192′	



NIDUL 2N[NIDU2N], NIDUL 2S[NIDU2S]
RWYS 05, 23 RNAV DEPARTURES
FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B



Rwy 23: With westerly winds, tailwind shears may be expected. Anemometer readings reported by Tower at the end of the runway and at Rosario may indicate this possibility.

Initial climb clearance **FL100**

SID	RWY	ROUTING
NIDUL 2N	**05**	Intercept FUN R-213, after D11 FUN or above **3500′** turn RIGHT, intercept FUN R-215 to XERON, at XERON or at **FL100**, whichever is earlier, turn RIGHT to NIDUL.
NIDUL 2S	**23**	On 178° track, intercept FUN R-213, after D11 FUN or above **3500′** turn RIGHT, intercept FUN R-215 to XERON, at XERON or at **FL100**, whichever is earlier, turn RIGHT to NIDUL.

CHANGES: NIDUL downgraded to NCRP.

LPMA/FNC
MADEIRA

JEPPESEN
24 APR 09 (10-3B) Eff 7 May

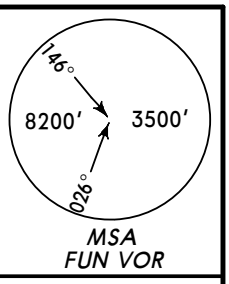
MADEIRA, MADEIRA IS
SID

MADEIRA Approach
119.2

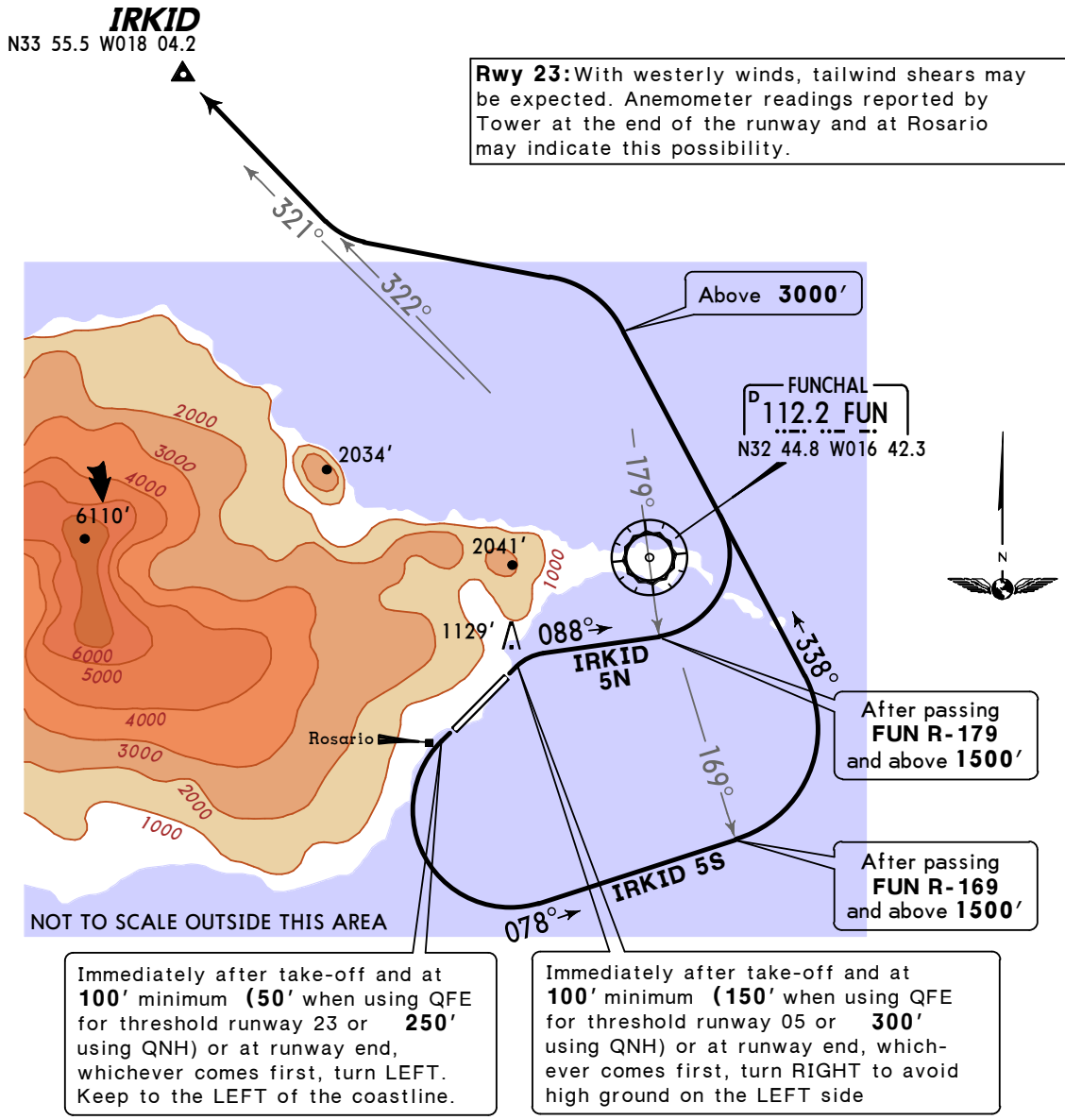
Apt Elev
192′

Trans level: By ATC Trans alt: 5000′

1. Contact MADEIRA Approach immediately after take-off.
2. Pilots are advised to select full power on take-off in the presence of turbulence or downdraft reports.
3. Take-off must be made in a minimum visibility of 2800m. Required take-off alternate.
4. Each operator must prepare its own engine failure procedures.



IRKID 5N *[IRKI5N]*, IRKID 5S *[IRKI5S]*
RWYS 05, 23 DEPARTURES
FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B



Initial climb clearance **FL60**

SID	RWY	ROUTING
IRKID 5N	**05**	On 088° track, after passing FUN R-179 (abeam FUN) and above **1500′** turn LEFT, 338° track keeping FUN LEFT hand, above **3000′** intercept FUN R-322 to IRKID, do not overshoot FUN R-321 to the south.
IRKID 5S	**23**	On 078° track, after passing FUN R-169 (abeam FUN) and above **1500′** turn LEFT, 338° track keeping FUN LEFT hand, above **3000′** intercept FUN R-322 to IRKID, do not overshoot FUN R-321 to the south.

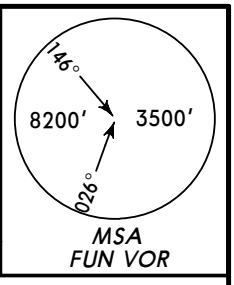
CHANGES: SIDs renumbered; chart reindexed.

LPMA/FNC
MADEIRA

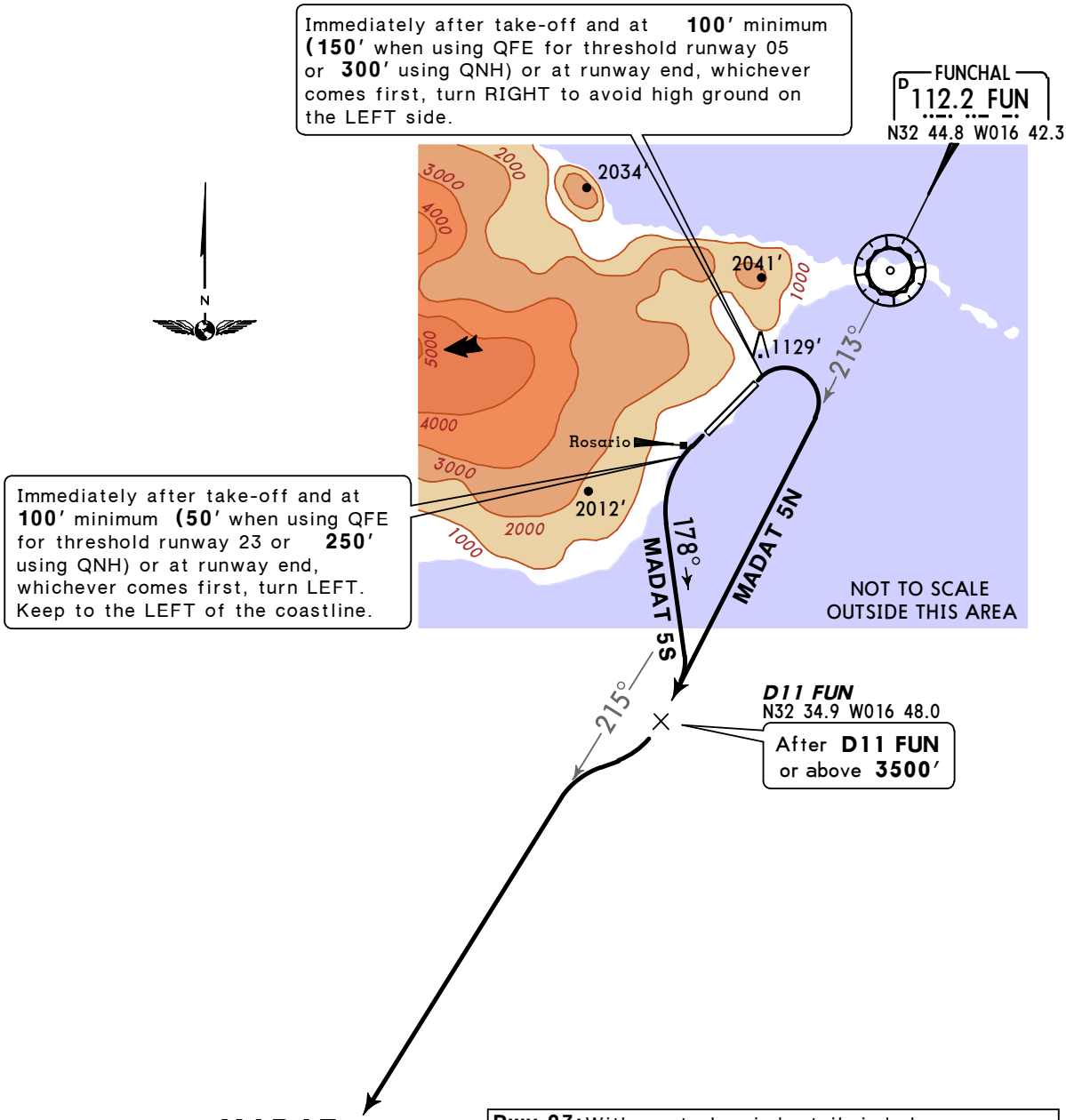
JEPPESEN
24 APR 09 (10-3C) Eff 7 May

MADEIRA, MADEIRA IS
SID

MADEIRA Approach 119.2	Trans level: By ATC Trans alt: 5000′ 1. Contact MADEIRA Approach immediately after take-off. 2. Pilots are advised to select full power on take-off in the presence of turbulence or downdraft reports. 3. Take-off must be made in a minimum visibility of 2800m. Required take-off alternate. 4. Each operator must prepare its own engine failure procedures.
Apt Elev 192′	



MADAT 5N *[MADA5N]*, MADAT 5S *[MADA5S]*
RWYS 05, 23 DEPARTURES
FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B



Rwy 23: With westerly winds, tailwind shears may be expected. Anemometer readings reported by Tower at the end of the runway and at Rosario may indicate this possibility.

Initial climb clearance **FL60**

SID	RWY	ROUTING
MADAT 5N	**05**	Intercept FUN R-213, after D11 FUN or above **3500′** turn RIGHT, intercept FUN R-215 to MADAT.
MADAT 5S	**23**	On 178° track, intercept FUN R-213, after D11 FUN or above **3500′** inter-intercept FUN R-215 to MADAT.

CHANGES: SIDs renumbered; chart reindexed.

LPMA/FNC
MADEIRA

JEPPESEN
24 APR 09 (10-3D) Eff 7 May

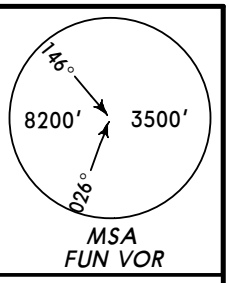
MADEIRA, MADEIRA IS
SID

MADEIRA Approach
119.2

Apt Elev
192′

Trans level: By ATC Trans alt: 5000′

1. Contact MADEIRA Approach immediately after take-off.
2. Pilots are advised to select full power on take-off in the presence of turbulence or downdraft reports.
3. Take-off must be made in a minimum visibility of 2800m. Required take-off alternate.
4. Each operator must prepare its own engine failure procedures.

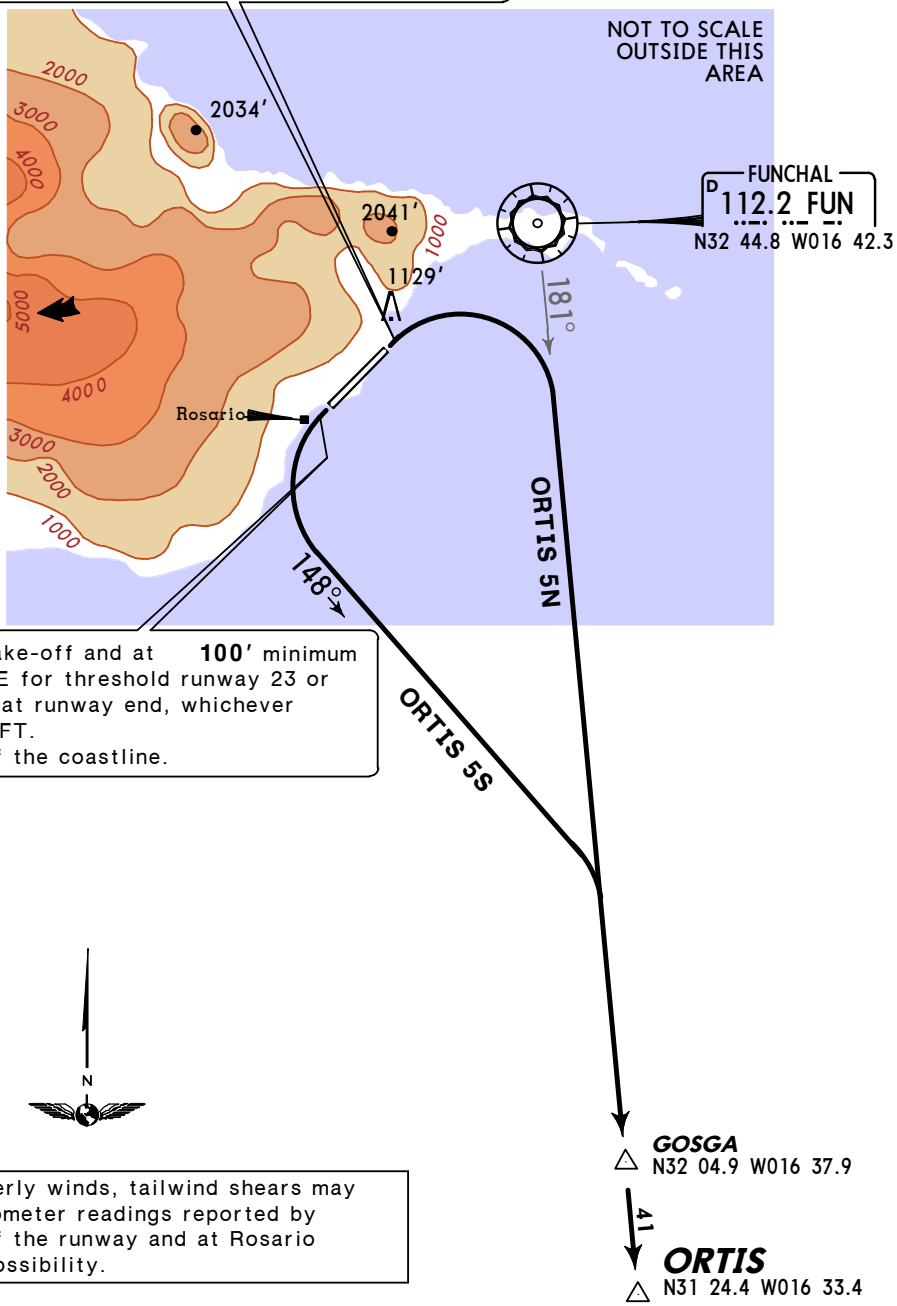


ORTIS 5N *[ORTI5N]*, ORTIS 5S *[ORTI5S]*

RWYS 05, 23 DEPARTURES

FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B

Immediately after take-off and at **100′** minimum (**150′** when using QFE for threshold runway 05 or **300′** using QNH) or at runway end, whichever comes first, turn RIGHT to avoid high ground on the LEFT side.



Immediately after take-off and at **100′** minimum (**50′** when using QFE for threshold runway 23 or **250′** using QNH) or at runway end, whichever comes first, turn LEFT.
Keep to the LEFT of the coastline.

Rwy 23: With westerly winds, tailwind shears may be expected. Anemometer readings reported by Tower at the end of the runway and at Rosario may indicate this possibility.

Initial climb clearance **FL60**

SID	RWY	ROUTING
ORTIS 5N	**05**	Intercept FUN R-181 to GOSGA, then to ORTIS.
ORTIS 5S	**23**	On 148° track, intercept R-181 to GOSGA, then to ORTIS.

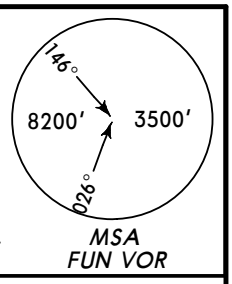
CHANGES: ORTIS SIDs established; DEGUN SIDs transferred.

LPMA/FNC MADEIRA

MADEIRA, MADEIRA IS

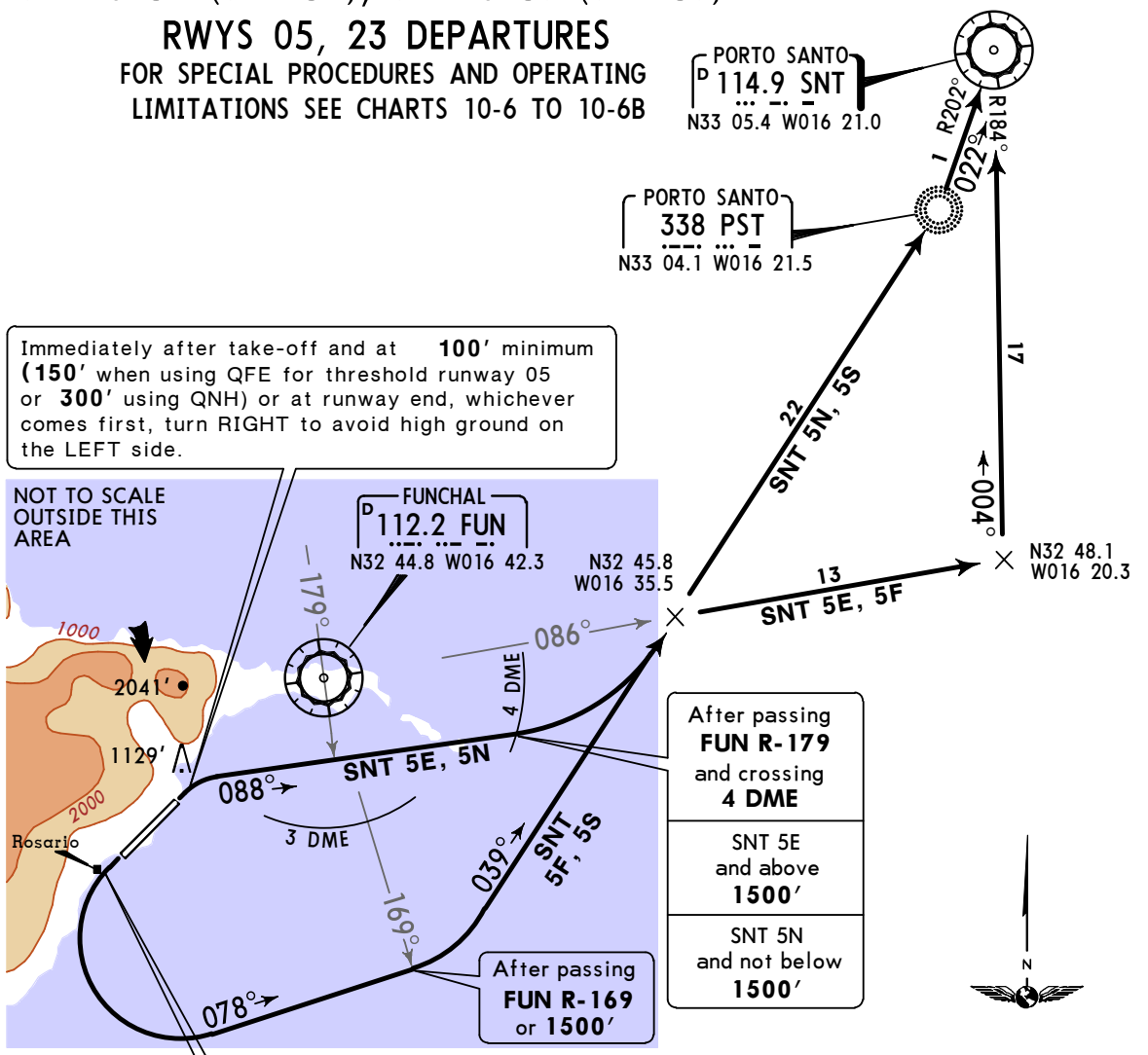
SID

MADEIRA Approach 119.2	Trans level: By ATC Trans alt: 5000′ 1. Contact MADEIRA Approach immediately after take-off. 2. Pilots are advised to select full power on take-off in the presence of turbulence or downdraft reports. 3. Take-off must be made in a minimum visibility of 2800m. Required take-off alternate. 4. Each operator must prepare its own engine failure procedures.
Apt Elev 192′	



SANTO 5E (SNT 5E), SANTO 5F (SNT 5F)
SANTO 5N (SNT 5N), SANTO 5S (SNT 5S)
RWYS 05, 23 DEPARTURES

FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B



Initial climb clearance **FL60**

SID	RWY	ROUTING
SNT 5E ❶	**05**	On 088° track, after passing FUN R-179 (abeam FUN) and crossing FUN 4 DME and above **1500′** intercept 039° bearing towards PST, intercept FUN R-086, intercept SNT R-184 inbound to SNT.
SNT 5F ❷	**23**	On 078° track, after passing FUN R-169 (abeam FUN) or **1500′** intercept 039° bearing towards PST, keep beyond FUN 3 DME, intercept FUN R-086, intercept SNT R-184 inbound to SNT.
SNT 5N ❶	**05**	On 088° track, after passing FUN R-179 (abeam FUN) and crossing FUN 4 DME and not below **1500′** intercept 039° bearing to PST, then to SNT.
SNT 5S	**23**	On 078° track, after passing FUN R-169 (abeam FUN) or **1500′** intercept 039° bearing to PST, keep beyond FUN 3 DME, then to SNT.

❶ To be used pending traffic conditions and for traffic landing at LPPS.
❷ Alternate for SNT 5S. To be used for landing at LPPS runway 36.

CHANGES: SIDs renumbered & revised; chart reindexed.

LPMA/FNC
MADEIRA

JEPPESEN 24 APR 09 (10-3F) Eff 7 May

MADEIRA, MADEIRA IS

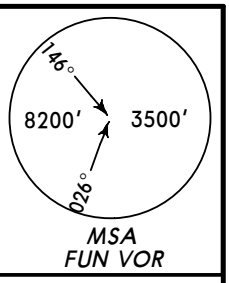
SID

MADEIRA Approach
119.2

Apt Elev
192′

Trans level: By ATC Trans alt: 5000′

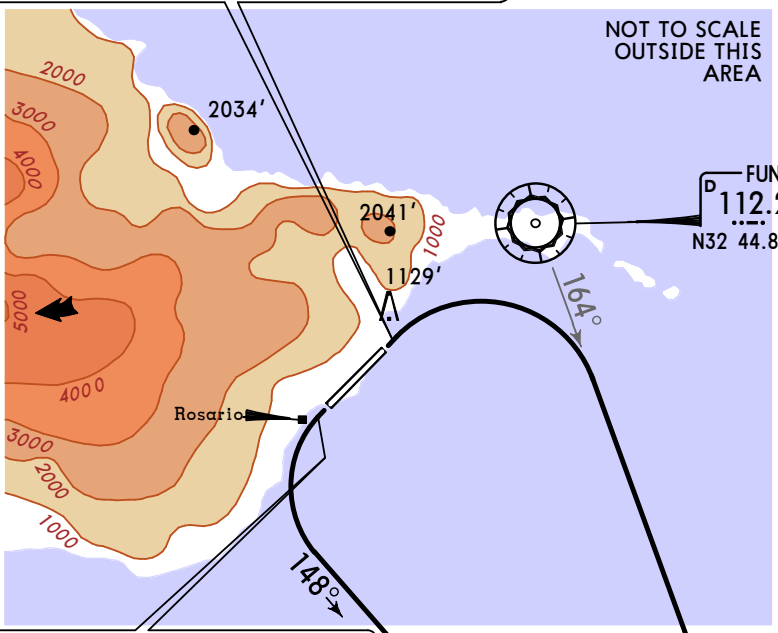
1. Contact MADEIRA Approach immediately after take-off.
2. Pilots are advised to select full power on take-off in the presence of turbulence or downdraft reports.
3. Take-off must be made in a minimum visibility of 2800m. Required take-off alternate.
4. Each operator must prepare its own engine failure procedures.



TABOM 5N *[TABO5N]*, TABOM 5S *[TABO5S]*
RWYS 05, 23 DEPARTURES

FOR SPECIAL PROCEDURES AND OPERATING LIMITATIONS SEE CHARTS 10-6 TO 10-6B

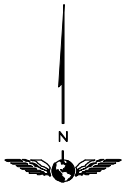
Immediately after take-off and at **100′** minimum (**150′** when using QFE for threshold runway 05 or **300′** using QNH) or at runway end, whichever comes first, turn RIGHT to avoid high ground on the LEFT side.



Immediately after take-off and at **100′** minimum (**50′** when using QFE for threshold runway 23 or **250′** using QNH) or at runway end, whichever comes first, turn LEFT.
Keep to the LEFT of the coastline.

TABOM 5S

TABOM 5N



Rwy 23: With westerly winds, tailwind shears may be expected. Anemometer readings reported by Tower at the end of the runway and at Rosario may indicate this possibility.

TABOM
N32 13.5 W016 27.5 △

Initial climb clearance **FL60**

SID	RWY	ROUTING
TABOM 5N	**05**	Intercept FUN R-164 to TABOM.
TABOM 5S	**23**	On 148° track, intercept FUN R-164 to TABOM.

CHANGES: New chart.

AIRPORT BRIEFING

SPECIAL PROCEDURES AND OPERATING LIMITATIONS

OPERATING AT MADEIRA AIRPORT

a) The airport is located on a plateau on the East coast of Madeira Island. Except for the seaside ground raises rapidly very closed to it. This fact generates, very often, wind variation and turbulence. Also severe low altitude wind shear conditions and/or microburst are likely to be encountered.

b) STRAIGHT-IN APPROACHES NOT AUTHORIZED FROM FUNCHAL VOR TO RWY 23.

1. APPLICABILITY
   a) The following items 2 thru 5 are mandatory to scheduled and non-scheduled revenue flights involving aircraft with a capacity in excess of 10 passengers.
   b) Pilots are informed that, at any time, they may be required to show evidence to Madeira airport authorities of compliance with referred items.

2. CREW REQUIREMENTS
   a) Initial experience
      To operate at Madeira airport, the Pilot-in-Command must have a minimum of 200 flying hours as captain on the concerned type of aircraft, before completing the initial training.
   b) Recent experience
      To operate at Madeira airport, the Pilot-in-Command must have performed there, on the last 6 months:
      - one landing and take-off or,
      - a flight simulator training comprising a landing and take-off on each runway, on a simulated adverse weather condition or,
      - a line training flight to Madeira airport, comprising a landing and take-off, assisted by a qualified instructor occupying the right-hand seat.

3. MINIMUM TRAINING REQUIREMENTS
   In order to operate at Madeira airport, the operator must establish and accomplish beforehand a training program concerning the type of aircraft to be used. This training, if performed on local flights, must include at least, landings and take-offs by day and night in both directions, emphasizing:
   - the take-off flight path to runway 23;
   - the take-off flight path to runway 05;
   - the balked landing (go-around initiated in landing configuration from very low height) on both directions;
   - the let-down and approach to both runways;
   - the operational effect on runway slope and dimensions and associated safety margins.

   If the training is to be performed in a flight simulator, the following procedures must be included in the training program, for each runway:
   a) Take-off with engine failure after V1;
   b) Relight after engine failure;
   c) VOR approach;
   d) Balked landing and go-around;
   e) Visual approach;
   f) Landing;
   g) Weather conditions: Winds - the maximums as indicated in Operating Procedures and Limitations paragraph 1.b. & 1.c. (see 10-6A & 10-6B), severe turbulence. Windshear and up and downdrafts must be included in the different approaches;
   h) One landing at night must be executed for each runway.

cont'd

OPERATING AT MADEIRA AIRPORT (cont'd)

4. LINE TRAINING
   No line training is required if the flight simulator used is level D. If level C flight simulator is used, line training must be performed with one landing and take-off at Madeira airport, with an instructor occupying the right-hand seat.

5. AIRCRAFT TYPE CHANGE
   A captain qualified at Madeira airport in one type of aircraft, changing to another type, must do the flight simulator training program mentioned in paragraph 3 or, instead, will land and take-off in both runways without passengers on board and no line training will be required on both cases.

6. TRAINING PROGRAM
   The training program referred in paragraph 3 will have to be approved by INAC (Portuguese Civil Aviation Authority).

7. DEVIATIONS OR UNCONFORMITIES
   Any deviations or unconformities stated from requirements stated in paragraph 2 thru 5 will be dealt in a case by case basis.

RESPONSIBILITY

Compliance with operating limitations is mandatory. Any deviation must be reported to INAC by Tower.

OPERATING PROCEDURES AND LIMITATIONS

WIND/TURBULENCE

a. Wind Information
   On downwind and final approach to rwy 05 the Control Tower will provide two minutes mean wind values at Rosario and touch down. Instantaneous wind read out will be provided at pilot's request.

b. Wind Limitations
   When landing
   Maximum of two minutes mean wind speed values indicated by the touchdown anemometer:
   - In the sector 300° to 010° MAG (clockwise) - 15 KT with a maximum wind gust of 25 KT.
   - In the sector 020° to 040° MAG (clockwise) - 20 KT with a maximum wind gust of 30 KT.
   - In the sector 120° to 190° MAG (clockwise) and if rwy in use is 05 - 20 KT, with a maximum wind gust of 30 KT, and if runway in use is 23 - 15 KT subject also to a maximum wind gust of 25 KT as indicated by MID anemometer.

   Maximum of two minutes mean wind speed values, including gust indicated by the MID or Rosario anemometer:
   - In the sector 200° to 230° MAG (clockwise) - 25 KT.

cont'd

OPERATING PROCEDURES AND LIMITATIONS (cont'd)

b. Wind Limitations (cont'd)

When taking-off

Maximum of two minutes mean wind speed values indicated by the MID anemometer:

- In the sector 300° to 010° MAG (clockwise) - 20 KT with no gust limitations.
- In the sector 020° to 040° MAG (clockwise) - 25 KT with no gust limitations.
- In the sector 120° to 190° MAG (clockwise), and if runway in use is 05 - 25 KT with no gust limitations, and if runway in use is 23 - 20 KT also with no gust limitations.

NOTE: *The limitations above do not supersede any operators or AOM limitations if these are more restrictive.*

c. Turbulence

- Attention should be paid to the WIND DIRECTION INDICATORS located on the south side of the runway, near each touch-down area. They will reflect unexpected wind changes. Occasionally they will indicate wind from opposite directions.
- When landing on rwy 05 wind differences higher than 5 KT, between Rosario and MID anemometer, may indicate turbulence on final.
- When landing on rwy 23 with winds from southerly and westerly sectors, severe turbulences may be experienced at low altitude over the rwy threshold.
- Headwind or nearly so, up to 15 KT will cause "WEAK" turbulence on final;
- Wind of 15 KT from sector 020° to 050° MAG (clockwise) may cause "MODERATE" turbulence;
- Wind of 15 KT or even less from sector 300° to 020° MAG (clockwise) may cause "SEVERE" turbulence;
- Down or updrafts are to be expected near the threshold of runways 05 and 23.

NOTE: *Pilots are strongly requested to report to the Control Tower as soon as possible any turbulence and/or windshear that may affect operational conditions.*

VISUAL APPROACH PROCEDURES

See appropriate charts for approaches to rwy 05 and 23

LANDING PROCEDURES

All landings are to be made in visual conditions (see appropriate chart).

DEPARTURE PROCEDURES

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

Take-off on both runways must be made in a minimum visibility shown on 10-9, required take-off alternate.

There are curved trajectories defined for both runways and for all engines.

Each operator must prepare its own engine failure procedure.

NIGHT OPERATIONS

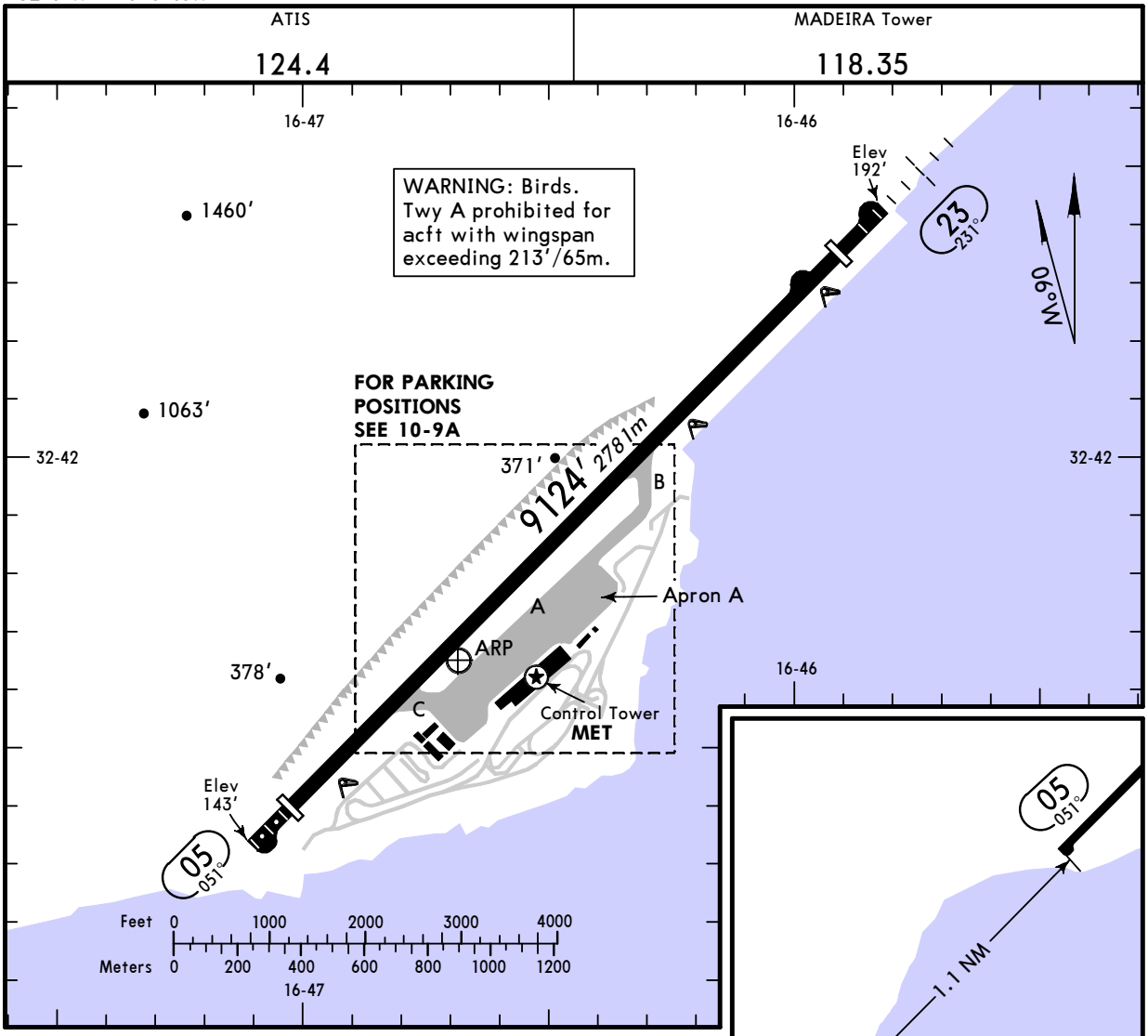
A captain can operate at night provided he has previously operated and got familiar with Madeira Airport during daytime.

LPMA/FNC MADEIRA, MADEIRA IS

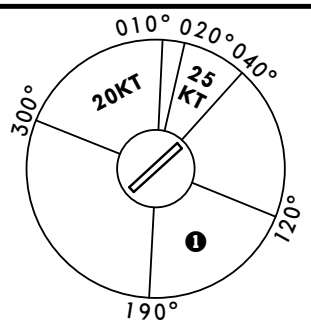
Apt Elev **192′**
N32 41.7 W016 46.7

JEPPESEN 24 APR 09 (10-9) **Eff 7 May**

MADEIRA



Wind limitations when taking-off (relative to the MID anemometer two minutes mean values only): max permissible wind.



❶ Rwy 05: 25 KT
Rwy 23: 20 KT

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
05 ❷ 23	RL ❸ CL ❹ HIALS TDZ LDIN ❺ PAPI ❻	8140′ *2481m*		❼ 8632′ *2631m*	148′ *45m*
	RL ❸ CL ❹ ALS TDZ PAPI-L (3.0°)				

❷ grooved ❸ (spacing 60m) ❹ (spacing 30m)
❺ See inset.
❻ (angle 3.00°). Both sides offset 5° to the Right. Right side not visible on short final.
❼ Including 492′/150m of pavement before threshold.

Standard

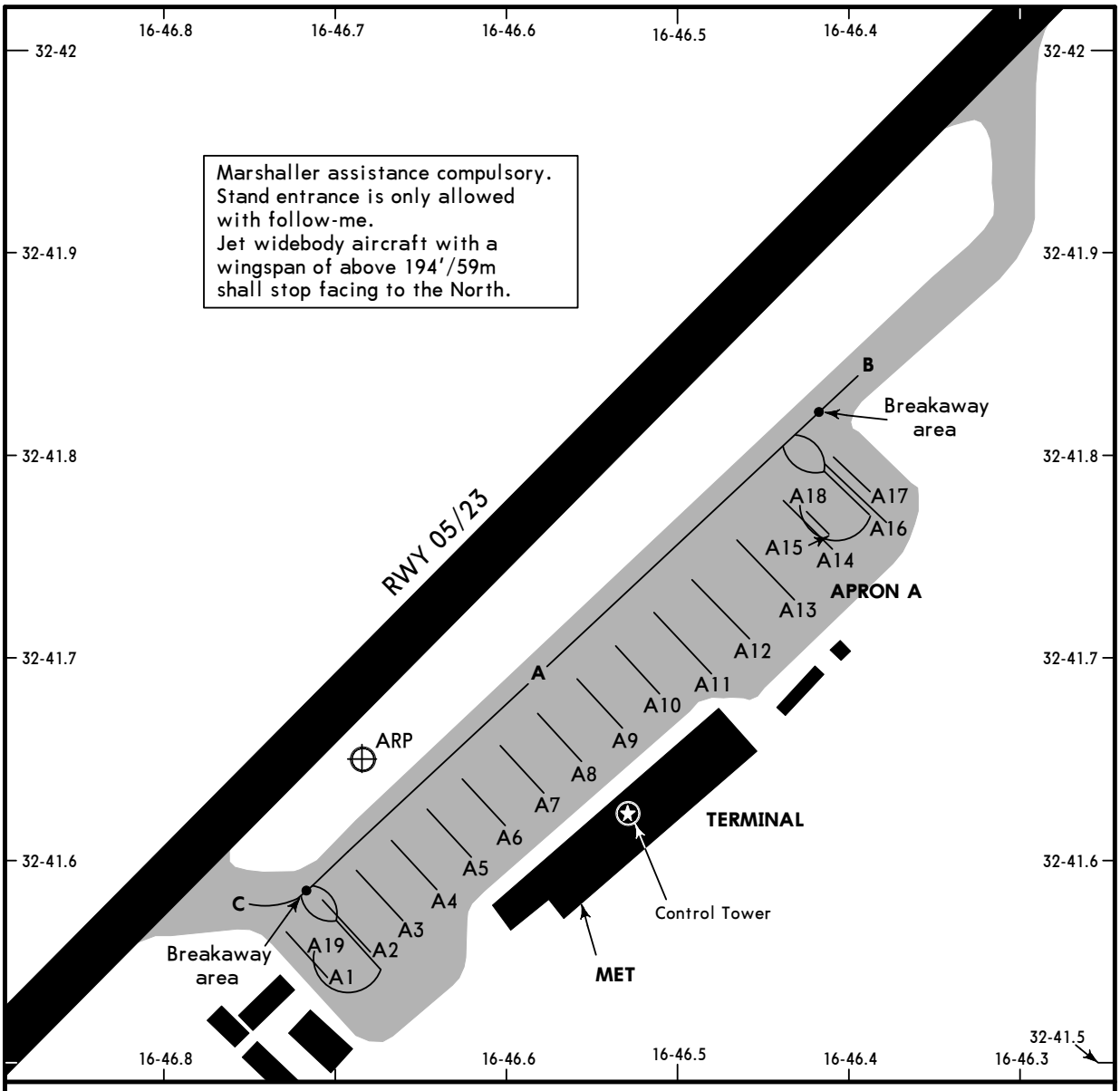
TAKE-OFF ❶

	All Rwys	
	RCLM (DAY only) or RL	NIL (DAY only)
A B C D	*2800m*	

❶ Take-off alternate required.

CHANGES: Minimums.

LPMA/FNC JEPPESEN MADEIRA, MADEIRA IS



INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
A1	N32 41.5 W016 46.7	A13 thru A15	N32 41.7 W016 46.4
A2, A3	N32 41.6 W016 46.7	A16 thru A18	N32 41.8 W016 46.4
A4 thru A7	N32 41.6 W016 46.6	A19	N32 41.6 W016 46.7
A8	N32 41.6 W016 46.5		
A9 thru A12	N32 41.7 W016 46.5		

PUSH-BACK, START-UP AND TAXI PROCEDURES

Jet acft engine start-up is only permitted after push-back manoeuvre with acft positioned in breakaway area.
All acft must activate anti-collision lights before starting engines.
To prevent blast damage in acft equipment and personnel, all acft operations on the apron must be made using lowest power setting.

CHANGES: None.

LPMA/FNC

JAA MINIMUMS

MADEIRA, MADEIRA IS
MADEIRA

CIRCLE-TO-LAND ❶	100 KT	135 KT	180 KT	205 KT
CIRCLING VOR DME RWY 05	**940′** (793′) ceil 800′/245m - **5000m**	**940′** (793′) ceil 800′/245m - **5000m**	**940′** (793′) ceil 800′/245m - **5000m**	**940′** (793′) ceil 800′/245m - **5000m**
CIRCLING VOR DME RWY 23	**1300′** (1108′) ceil 1200′/370m - **7000m**	**1300′** (1108′) ceil 1200′/370m - **7000m**	**1300′** (1108′) ceil 1200′/370m - **7000m**	**1300′** (1108′) ceil 1200′/370m - **7000m**
CIRCLING NDB RWY 05	**940′** (793′) ceil 800′/245m - **5000m**	**940′** (793′) ceil 800′/245m - **5000m**	**940′** (793′) ceil 800′/245m - **5000m**	**940′** (793′) ceil 800′/245m - **5000m**
CIRCLING NDB RWY 23	**1300′** (1108′) ceil 1200′/370m - **7000m**	**1300′** (1108′) ceil 1200′/370m - **7000m**	**1300′** (1108′) ceil 1200′/370m - **7000m**	**1300′** (1108′) ceil 1200′/370m - **7000m**

❶ Not authorized Northwest of rwy.

TAKE-OFF RWY 05, 23 ❷

	RCLM (DAY only) or RL	NIL (DAY only)
A B C D	*2800m*	

❷ Take-off alternate required.

LPMA/FNC MADEIRA

JEPPESEN 18 SEP 09 (13-1)

MADEIRA, MADEIRA IS
❶ CIRCLING VOR DME Rwy 05

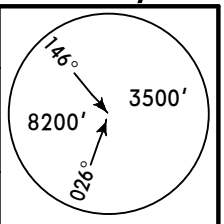
BRIEFING STRIP ™

ATIS	MADEIRA Approach	MADEIRA Tower
124.4	119.2	118.35

VOR FUN	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev / RWY
112.2	212°	D7.0 3000′ (2853′)	940′ (793′)	Apt Elev 192′ RWY 147′

MISSED APCH: Turn LEFT onto heading 139° to intercept R-172, proceed to FUSUL climbing to 3000′ and hold. Contact APP.

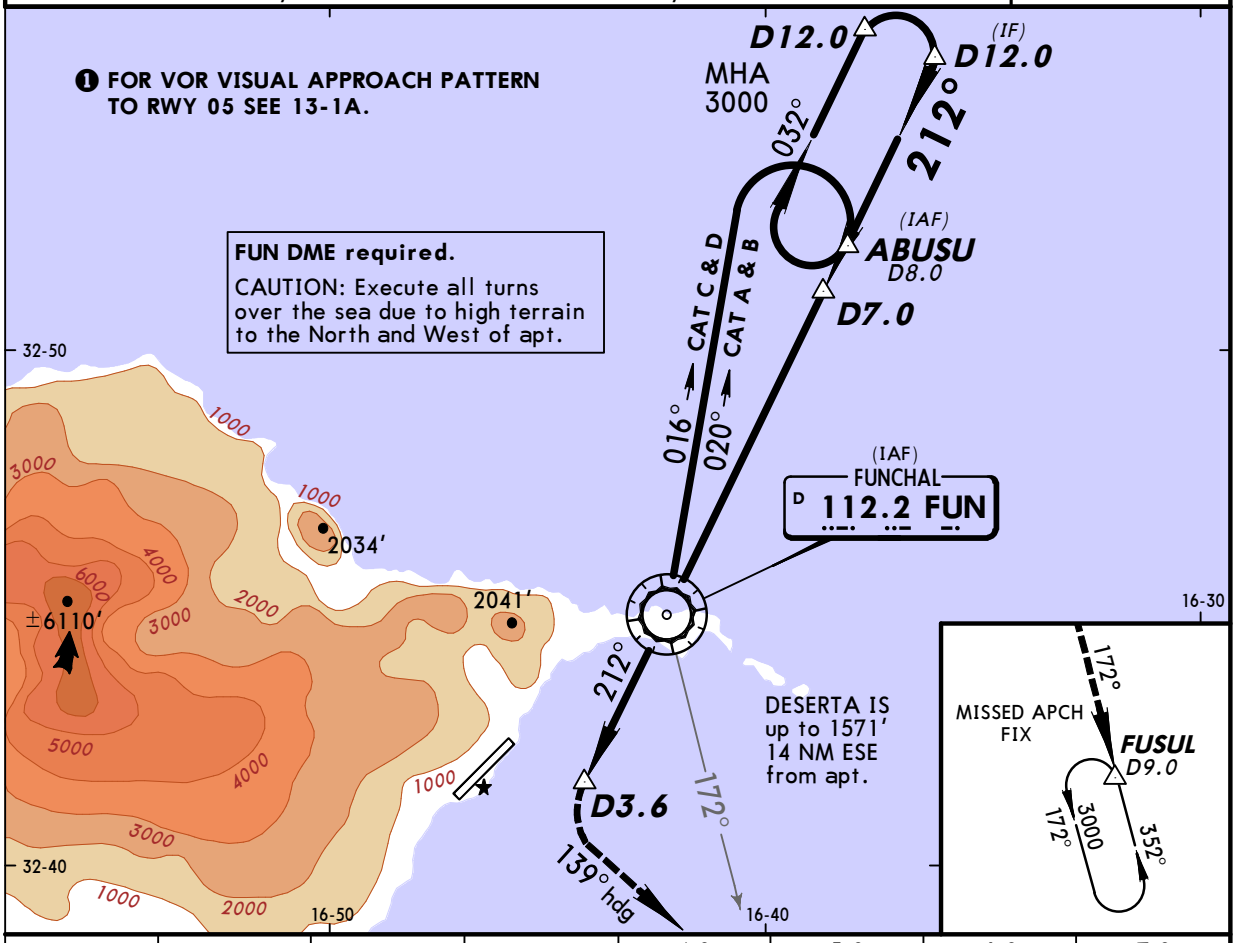
Alt Set: hPa | Rwy Elev: 5 hPa | Trans level: By ATC | Trans alt: 5000′



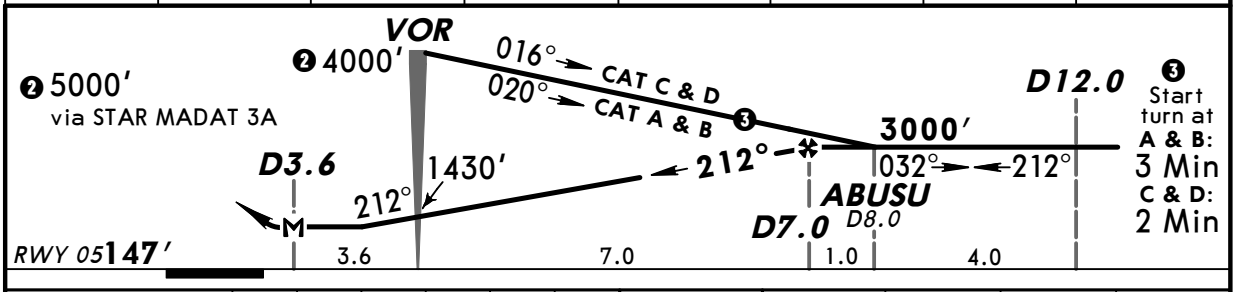
MSA
FUN VOR

❶ FOR VOR VISUAL APPROACH PATTERN TO RWY 05 SEE 13-1A.

FUN DME required.
CAUTION: Execute all turns over the sea due to high terrain to the North and West of apt.



FUN DME	1.0	2.0	3.0	4.0	5.0	6.0	7.0
ALTITUDE	1650′	1880′	2100′	2330′	2550′	2760′	3000′



Gnd speed-Kts	70	90	100	120	140	160
Descent angle 2.12°	262	337	375	450	525	600
MAP at D3.6						

HIALS PAPI PAPI

139° hdg LT

FUN 112.2 R-172

3000′ FUSUL

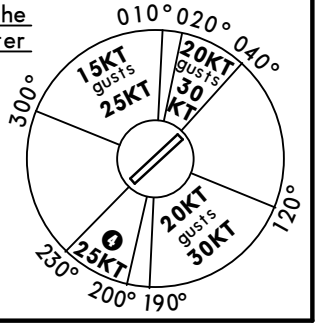
PANS OPS 4

Standard CIRCLE-TO-LAND TO RWY **05** **CEILING REQUIRED**

Not authorized Northwest of rwy

	Max Kts	MDA(H)	CEIL-VIS
A	100	940′ (793′)	800′ - 5000m 245m
B	135		
C	180		
D	205		

Wind limitations for landing (relative to the touchdown anemometer two minutes mean values only): max permissible wind.



❹ Relative to the MID or Rosario anemometers including gust.

CHANGES: None.

LPMA/FNC MADEIRA

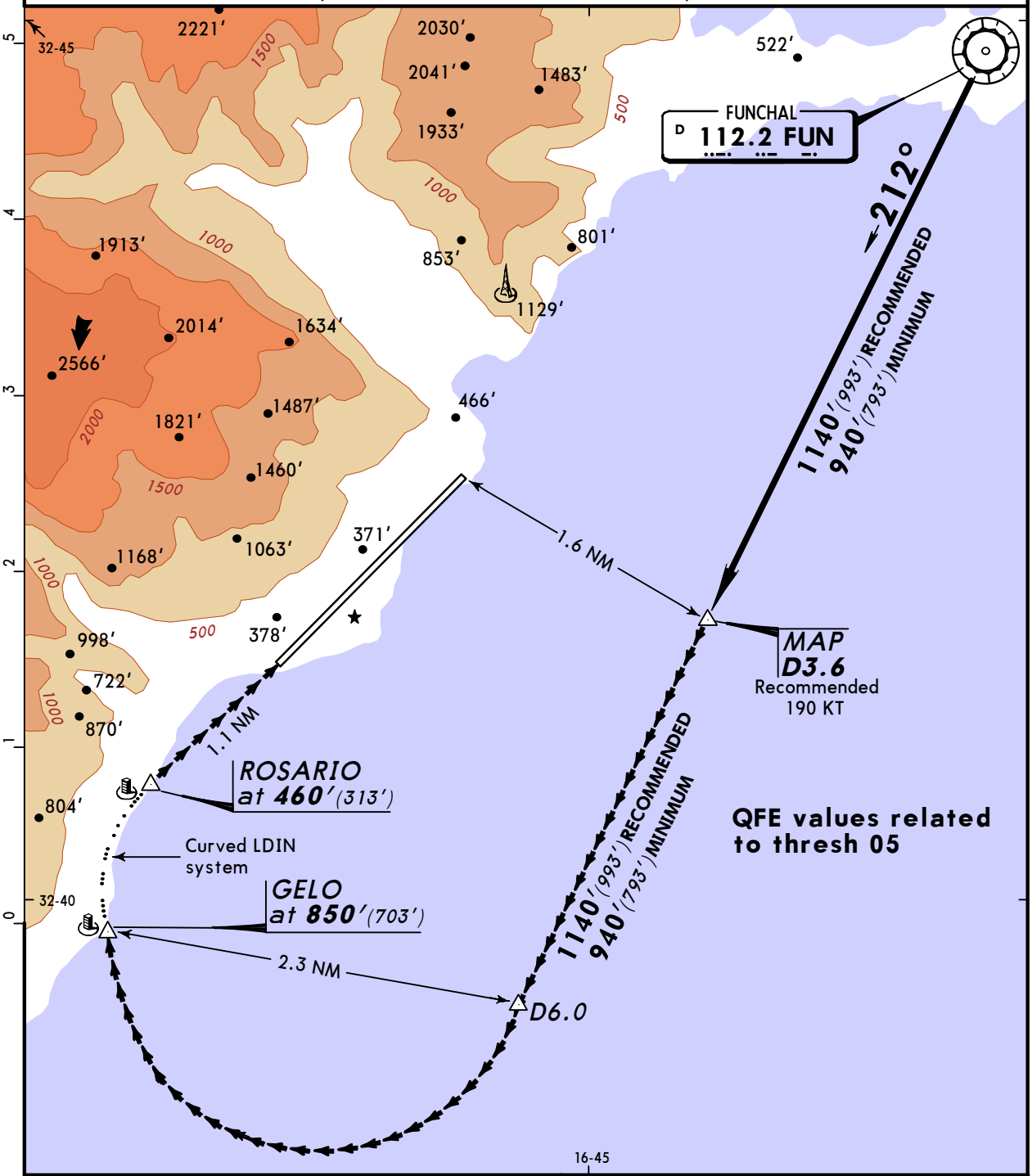
JEPPESEN 18 SEP 09 (13-1A)

MADEIRA, MADEIRA IS VOR VISUAL APPROACH Rwy 05

BRIEFING STRIP™

ATIS	MADEIRA Approach	MADEIRA Tower
124.4	119.2	118.35
VOR FUN **112.2**	*Final Apch Crs* **212°**	*Apt Elev* 192′ *RWY* **147′**

Alt Set: hPa | Rwy Elev: 5 hPa | Trans level: By ATC | Trans alt: 5000′



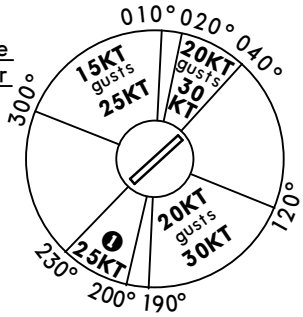
By night the rwy 05 approach lights **MUST BE ON.** If those lights fail before the aircraft is in such a position, over those lights, that will ensure that the high ground on their left side will be avoided, a missed approach (RIGHT turn) should be initiated.

PAPI (Both sides offset 5° to the Right. Right side not visible on short final) should be followed. They are set to define a 3.0° descent path crossing the thresh at 57′.

Rwy slope is 0.8-1% up.

Due to high terrain **CAUTION** should be exercised not flying left of approach light path.

Wind limitations for landing (relative to the touchdown anemometer two minutes mean values only): max permissible wind.



❶ Relative to the MID or Rosario anemometers including gust.

CHANGES: Missed apch withdrawn.

LPMA/FNC MADEIRA

JEPPESEN 18 JUN 10 (13-2)

MADEIRA, MADEIRA IS CIRCLING VOR DME Rwy 23

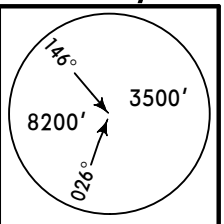
BRIEFING STRIP ™

ATIS	MADEIRA Approach	MADEIRA Tower
124.4	119.2	118.35

VOR FUN	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev / RWY
112.2	212°	D7.0 3000′ (2808′)	1300′ (1108′)	Apt Elev 192′ RWY 192′

MISSED APCH: Turn LEFT onto heading 139° to intercept R-172, proceed to FUSUL climbing to 3000′ and hold. Contact APP.

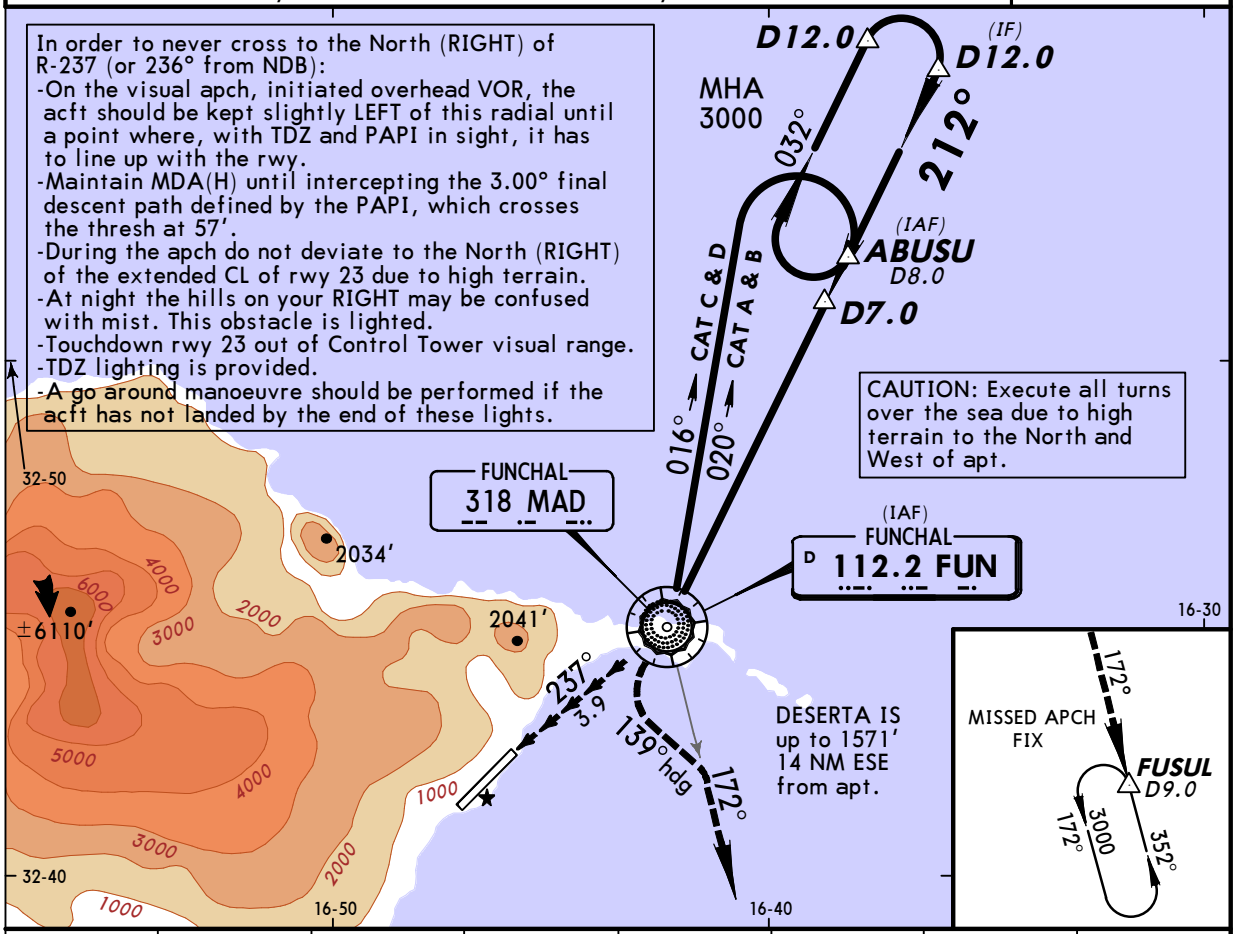
Alt Set: hPa | Rwy Elev: 7 hPa | Trans level: By ATC | Trans alt: 5000′



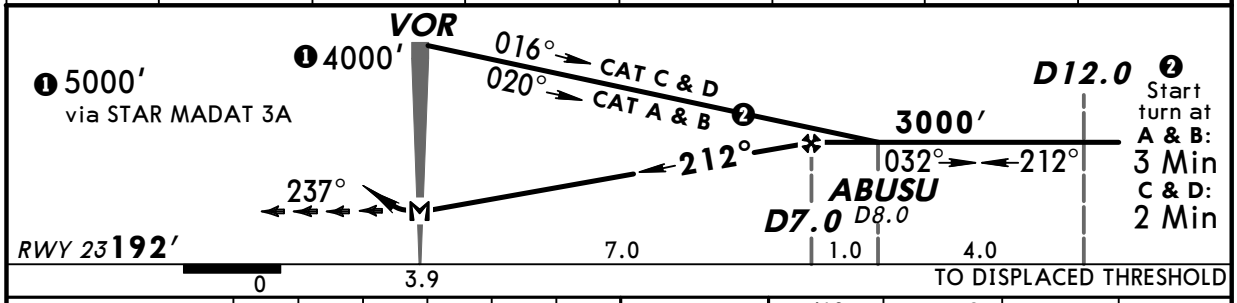
MSA
FUN VOR

In order to never cross to the North (RIGHT) of R-237 (or 236° from NDB):
-On the visual apch, initiated overhead VOR, the acft should be kept slightly LEFT of this radial until a point where, with TDZ and PAPI in sight, it has to line up with the rwy.
-Maintain MDA(H) until intercepting the 3.00° final descent path defined by the PAPI, which crosses the thresh at 57′.
-During the apch do not deviate to the North (RIGHT) of the extended CL of rwy 23 due to high terrain.
-At night the hills on your RIGHT may be confused with mist. This obstacle is lighted.
-Touchdown rwy 23 out of Control Tower visual range.
-TDZ lighting is provided.
-A go around manoeuvre should be performed if the acft has not landed by the end of these lights.

CAUTION: Execute all turns over the sea due to high terrain to the North and West of apt.



FUN DME	1.0	2.0	3.0	4.0	5.0	6.0	7.0
ALTITUDE	1550′	1800′	2050′	2300′	2550′	2800′	3000′



Gnd speed-Kts	70	90	100	120	140	160
Descent angle 2.29°	283	364	405	486	567	648
MAP at VOR						

ALS / PAPI	139° hdg / LT	FUN 112.2 R-172	3000′ FUSUL

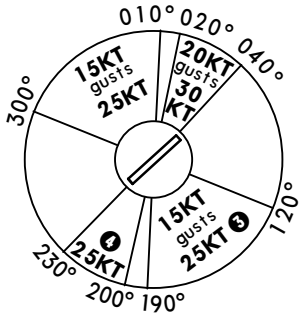
PANS OPS 4

Standard CIRCLE-TO-LAND **CEILING REQUIRED**
TO RWY **23**

Not authorized Northwest of rwy

	Max Kts	MDA(H)	CEIL-VIS
A	100	1300′ (1108′)	1200′ - 7000m 370m
B	135		
C	180		
D	205		

Wind limitations for landing (relative to the touchdown anemometer two minutes mean values only): max permissible wind.



❸ Relative to the MID anemometer.
❹ Relative to the MID or Rosario anemometers including gust.

CHANGES: MAP.

LPMA/FNC
MADEIRA

JEPPESEN 18 SEP 09 (16-1)

MADEIRA, MADEIRA IS
❶ CIRCLING NDB Rwy 05

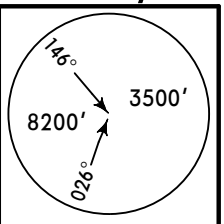
BRIEFING STRIP ™

ATIS	MADEIRA Approach	MADEIRA Tower
124.4	119.2	118.35

NDB MAD	Final Apch Crs	Minimum Alt NDB	MDA(H)	Apt Elev 192′
318	200°	1430′ (1283′)	940′ (793′)	RWY 147′

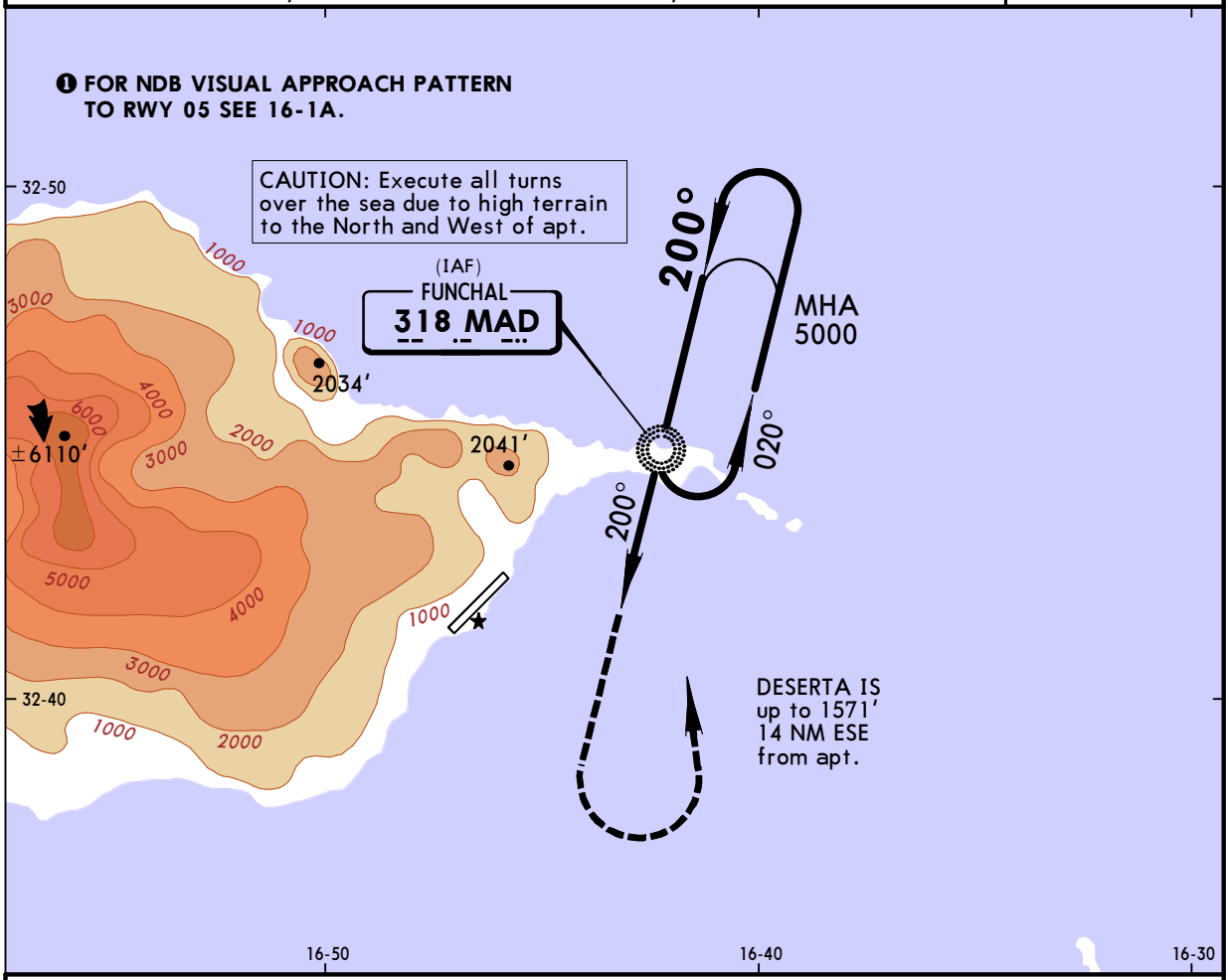
MISSED APCH: Climb on 200° from NDB to 4500′, then turn LEFT to NDB climbing to 5000′ and hold. Contact APPROACH.

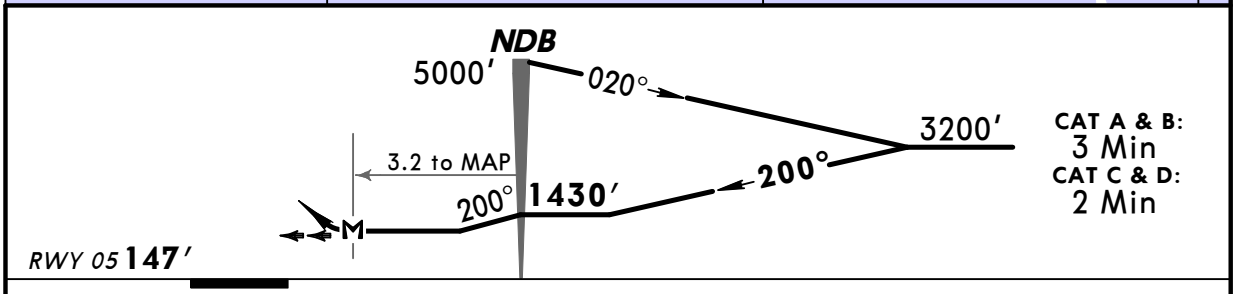
Alt Set: hPa | Rwy Elev: 5 hPa | Trans level: By ATC | Trans alt: 5000′



MSA
MAD NDB

❶ FOR NDB VISUAL APPROACH PATTERN TO RWY 05 SEE 16-1A.





Gnd speed-Kts		70	90	100	120	140	160
NDB to MAP	3.2	2:45	2:08	1:55	1:36	1:22	1:12

HIALS
PAPI PAPI

4500′ on 200° from MAD 318

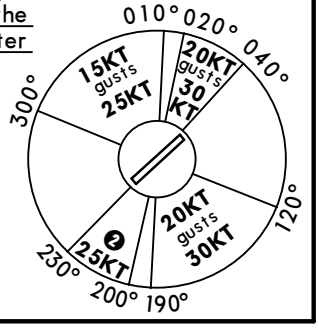
PANS OPS 4

Standard CIRCLE-TO-LAND TO RWY **05** **CEILING REQUIRED**

Not authorized Northwest of rwy

	Max Kts	MDA(H)	CEIL-VIS
A	100	940′ (793′)	800′ - 5000m 245m
B	135		
C	180		
D	205		

Wind limitations for landing (relative to the touchdown anemometer two minutes mean values only): max permissible wind.



❷ Relative to the MID or Rosario anemometers including gust.

CHANGES: Missed apch.

LPMA/FNC MADEIRA

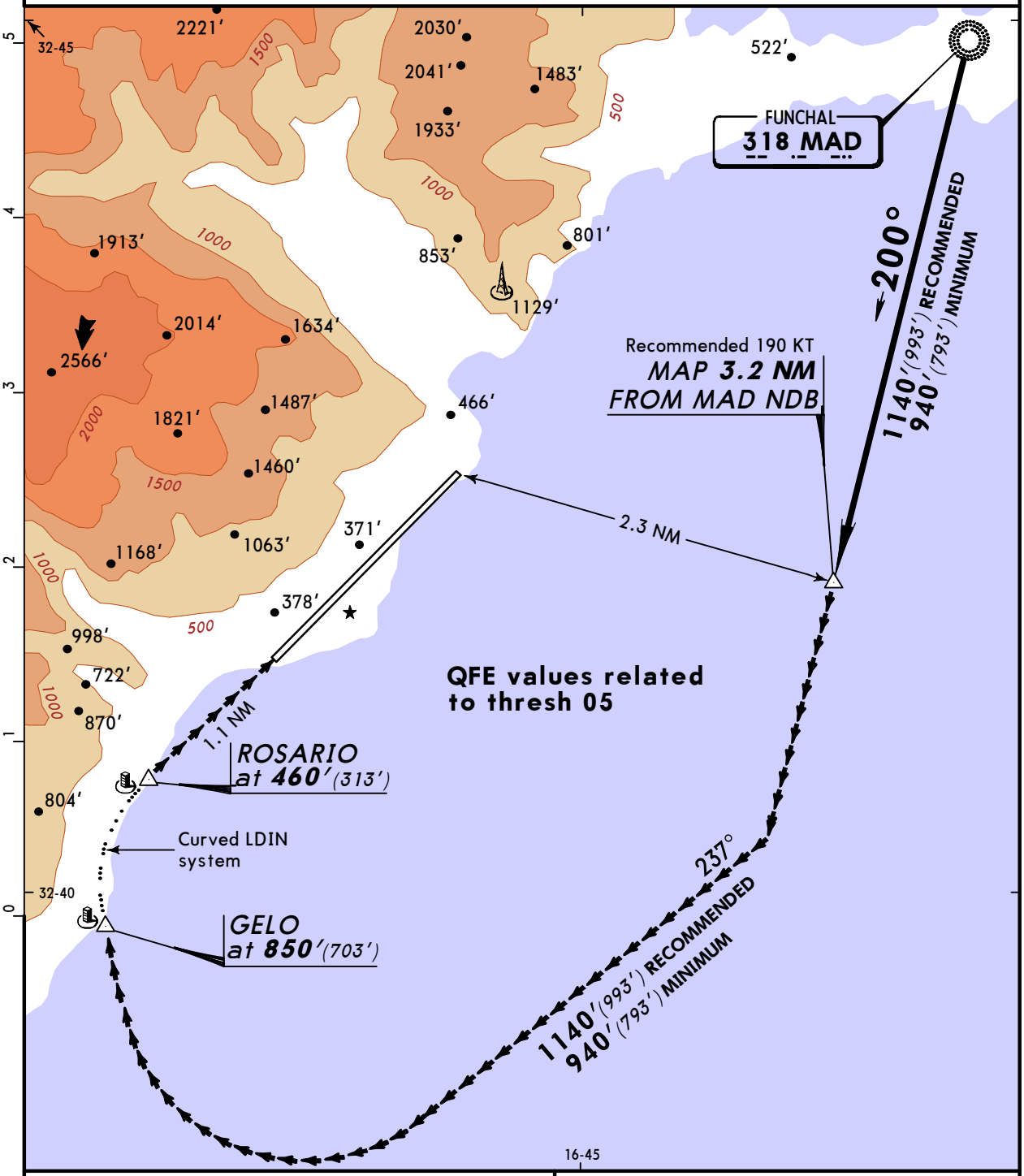
JEPPESEN 18 SEP 09 (16-1A)

MADEIRA, MADEIRA IS
NDB VISUAL APPROACH Rwy 05

BRIEFING STRIP ™

ATIS	MADEIRA Approach	MADEIRA Tower
124.4	119.2	118.35
NDB MAD **318**	*Final Apch Crs* **200°**	*Apt Elev* 192′ *RWY* **147′**

Alt Set: hPa | Rwy Elev: 5 hPa | Trans level: By ATC | Trans alt: 5000′



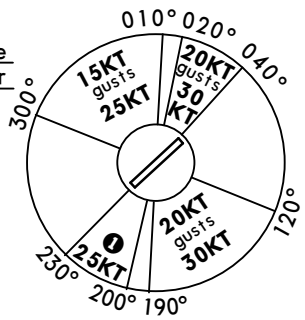
By night the rwy 05 approach lights **MUST BE ON.** If those lights fail before the aircraft is in such a position, over those lights, that will ensure that the high ground on their left side will be avoided, a missed approach (RIGHT turn) should be initiated.

PAPI (Both sides offset 5° to the Right. Right side not visible on short final) should be followed. They are set to define a 3.0° descent path crossing the thresh at 57′.

Rwy slope is 0.8-1% up.

Due to high terrain **CAUTION** should be exercised not flying left of approach light path.

Wind limitations for landing (relative to the touchdown anemometer two minutes mean values only): max permissible wind.



❶ Relative to the MID or Rosario anemometers including gust.

CHANGES: Missed apch withdrawn.

LPMA/FNC MADEIRA

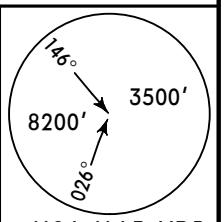
JEPPESEN 18 SEP 09 (16-2)

MADEIRA, MADEIRA IS CIRCLING NDB Rwy 23

ATIS	MADEIRA Approach	MADEIRA Tower
124.4	119.2	118.35

BRIEFING STRIP ™

NDB MAD	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev 192′
318	200°	No FAF	1300′ (1108′)	RWY 192′

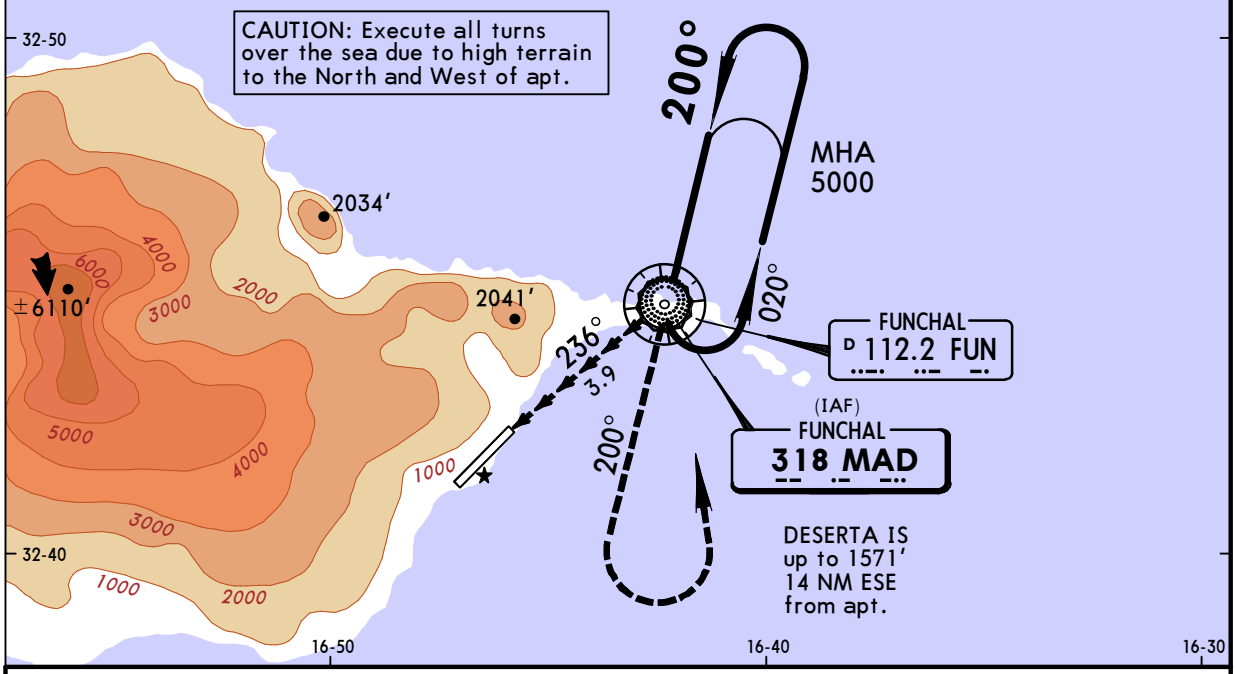


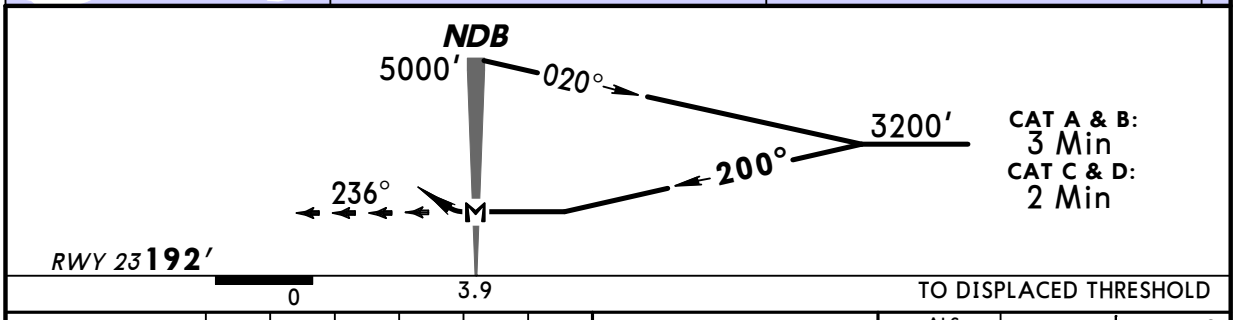
MSA MAD NDB

MISSED APCH: Climb on 200° from NDB to 4500′, then turn LEFT to NDB climbing to 5000′ and hold. Contact APPROACH.

Alt Set: hPa | Rwy Elev: 7 hPa | Trans level: By ATC | Trans alt: 5000′

In order to never cross to the North (RIGHT) of R-237 (or 236° from NDB):
-On the visual apch, initiated overhead VOR, the acft should be kept slightly LEFT of this radial until a point where, with TDZ and PAPI in sight, it has to line up with the rwy.
-Maintain MDA(H) until intercepting the 3.00° final descent path defined by the PAPI, which crosses the thresh at 57′.
-During the apch do not deviate to the North (RIGHT) of the extended CL of rwy 23 due to high terrain.
-At night the hills on your RIGHT may be confused with mist. This obstacle is lighted.
-Touchdown rwy 23 out of Control Tower visual range.
-TDZ lighting is provided.
-A go around manoeuvre should be performed if the acft has not landed by the end of these lights.





CAT A & B: 3 Min
CAT C & D: 2 Min

MAP at NDB							

ALS
PAPI

4500′ on 200° from MAD 318

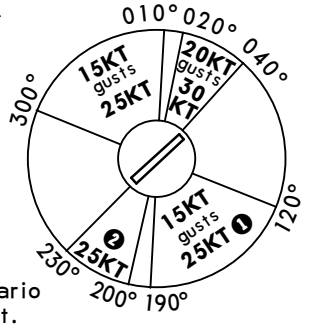
PANS OPS 4

Standard CIRCLE-TO-LAND **CEILING REQUIRED**
TO RWY **23**

Not authorized Northwest of rwy

	Max Kts	MDA(H)	CEIL-VIS
A	100	1300′ (1108′)	1200′ - 7000m 370m
B	135		
C	180		
D	205		

Wind limitations for landing (relative to the touchdown anemometer two minutes mean values only): max permissible wind.



❶ Relative to the MID anemometer.
❷ Relative to the MID or Rosario anemometers including gust.

CHANGES: Missed apch.

JEPPESEN 14 MAY 10 (19-1)

MADEIRA

MADEIRA

Madeira Islands
PORTUGAL

LPMA

Elev **192'**/59m

N32 41.7
W016 46.7

7.1 NM ENE Funchal

(APP) Within TMA (C) Madeira:

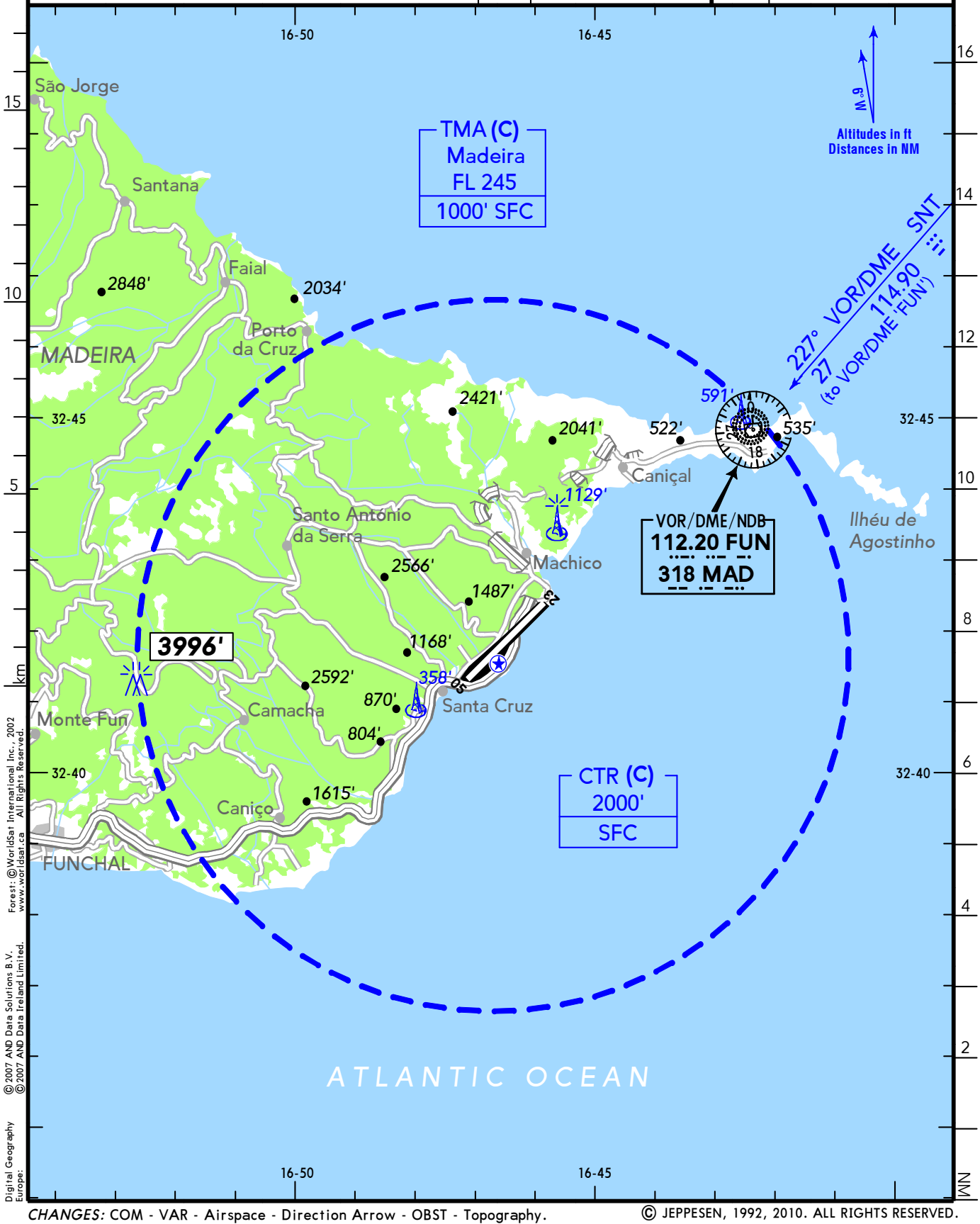
MADEIRA APPROACH **119.20 119.60** (S) (po, en)

(TWR)

MADEIRA TOWER **118.35** (po, en)

ATIS **124.40**

RWY	ILS	RWY	ILS



CHANGES: COM - VAR - Airspace - Direction Arrow - OBST - Topography.

VOR APCH

MADEIRA

19-1A 14 MAY 10

JEPPESEN

MADEIRA

PORTUGAL, Madeira Islands

Straight-In-Approaches from VOR/DME "FUN" to RWY 23 are NOT AUTHORISED

Altitudes in ft
Distances in NM

MADEIRA

Caniçal

Machico

Santa Cruz

2566'

VOR/DME/NDB
112.20 FUN
318 MAD

APCH RWY 23
237°/3.9 DME

APCH RWY 05
212°

1.6
3.6 DME

1.1

2.26
6 DME

1140' (1000' QFE) Normal
940' (800' QFE) MNM

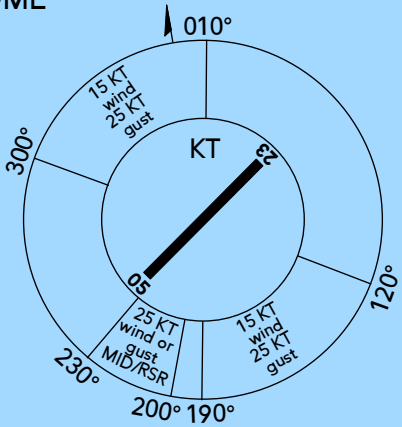
ROSÁRIO
460'
(320' QFE)

GELO
850'
(710' QFE)

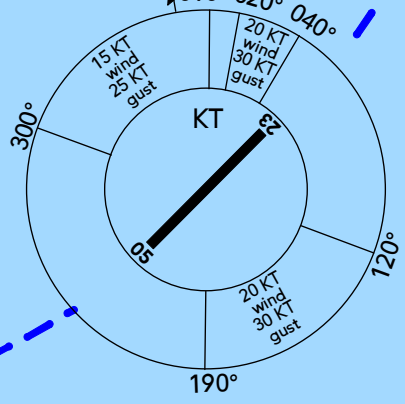
CTR (C)
2000'
SFC

TMA (C)
Madeira
FL 245
1000' SFC

APCH RWY 23



APCH RWY 05



Wind limitations on LDG: Touch-down anemometer 2 MIN mean value.

ATLANTIC OCEAN

CAUTION:
No manoeuvring in the area W & N of AD due to high terrain.

JEPPESEN 14 MAY 10 (19-1B)

NDB APCH

MADEIRA

MADEIRA

Madeira Islands, PORTUGAL

Straight-In-Approaches from VOR/DME "FUN" to RWY 23 are NOT AUTHORISED

Altitudes in ft
Distances in NM

MADEIRA

Caniçal

Machico

Santa Cruz

ATLANTIC OCEAN

2421' 1605' 2041' 1483' 522' 591' 535' 1913' 853' 801' 1129' 2014' 1634' 2566' 1821' 1487' 466' 1460' 371' 1168' 1063' 378' 998' 870' 358' 804'

VOR/DME/NDB
112.20 FUN
318 MAD

APCH RWY 23
236°/3.9 DME

APCH RWY 05
200°
3.6 DME

2.25

1.1

CTR (C)
2000'
SFC

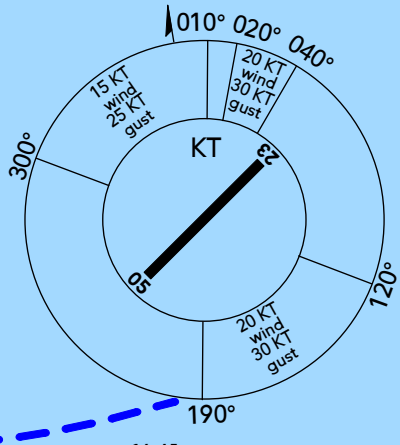
TMA (C)
Madeira
FL 245
1000' SFC

ROSÁRIO
460'
(320' QFE)

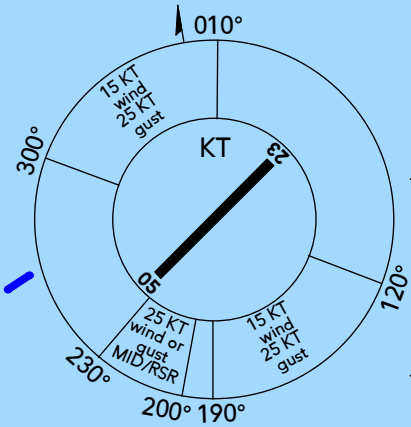
GELO
850'
(710' QFE)

237°
1140' (1000' QFE) Normal
940' (800' QFE) MNM

APCH RWY 05



APCH RWY 23



CAUTION:
No manoeuvring in the area W & N of AD due to high terrain.

Wind limitations on LDG: Touch-down anemometer 2 MIN mean value.

TKOF 05/23

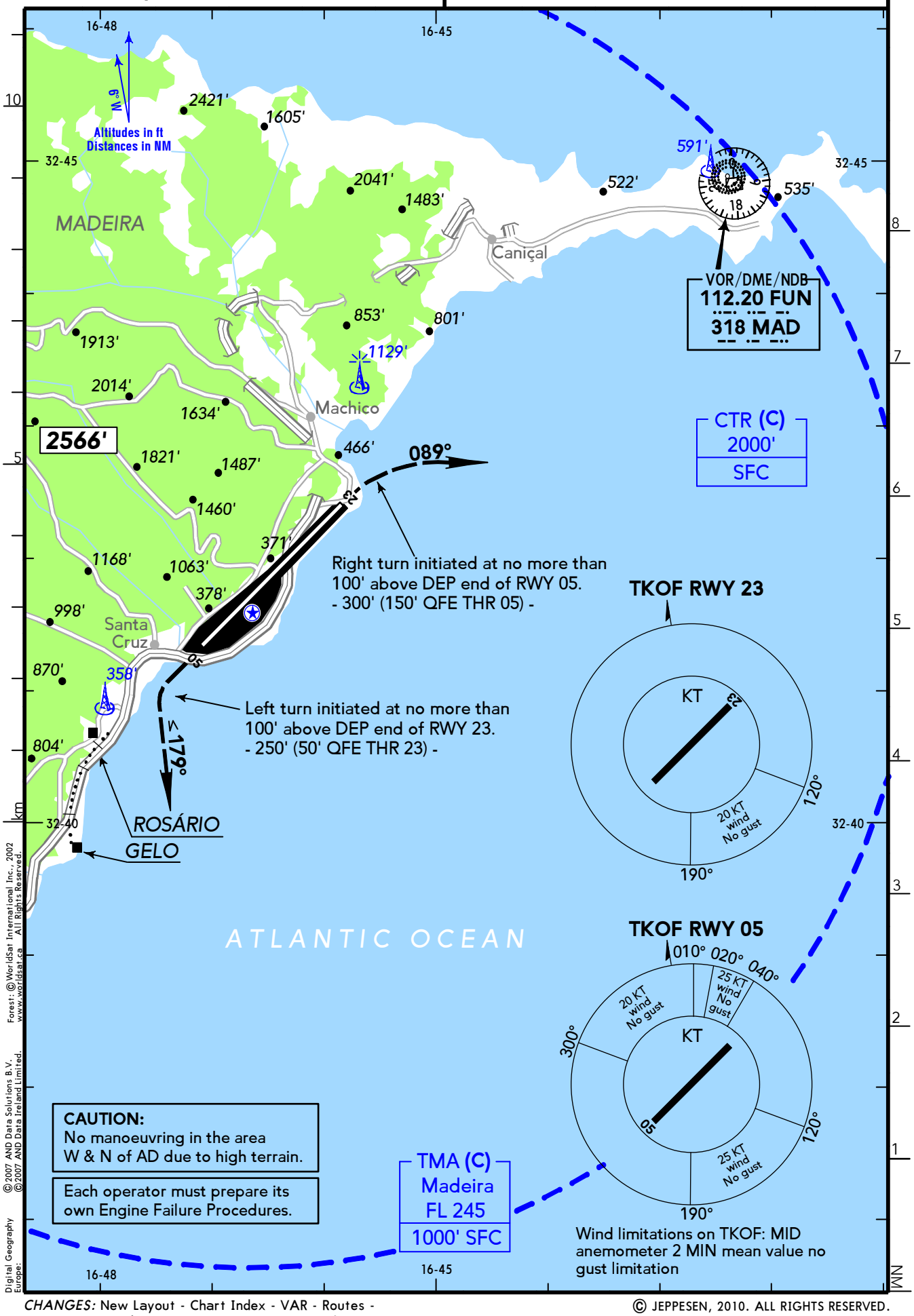
MADEIRA

19-1C 14 MAY 10

JEPPESEN

MADEIRA

PORTUGAL, Madeira Islands



CHANGES: New Layout - Chart Index - VAR - Routes - Wind Limitations - OBST - Topography.

JEPPESEN 14 MAY 10 (19-2)

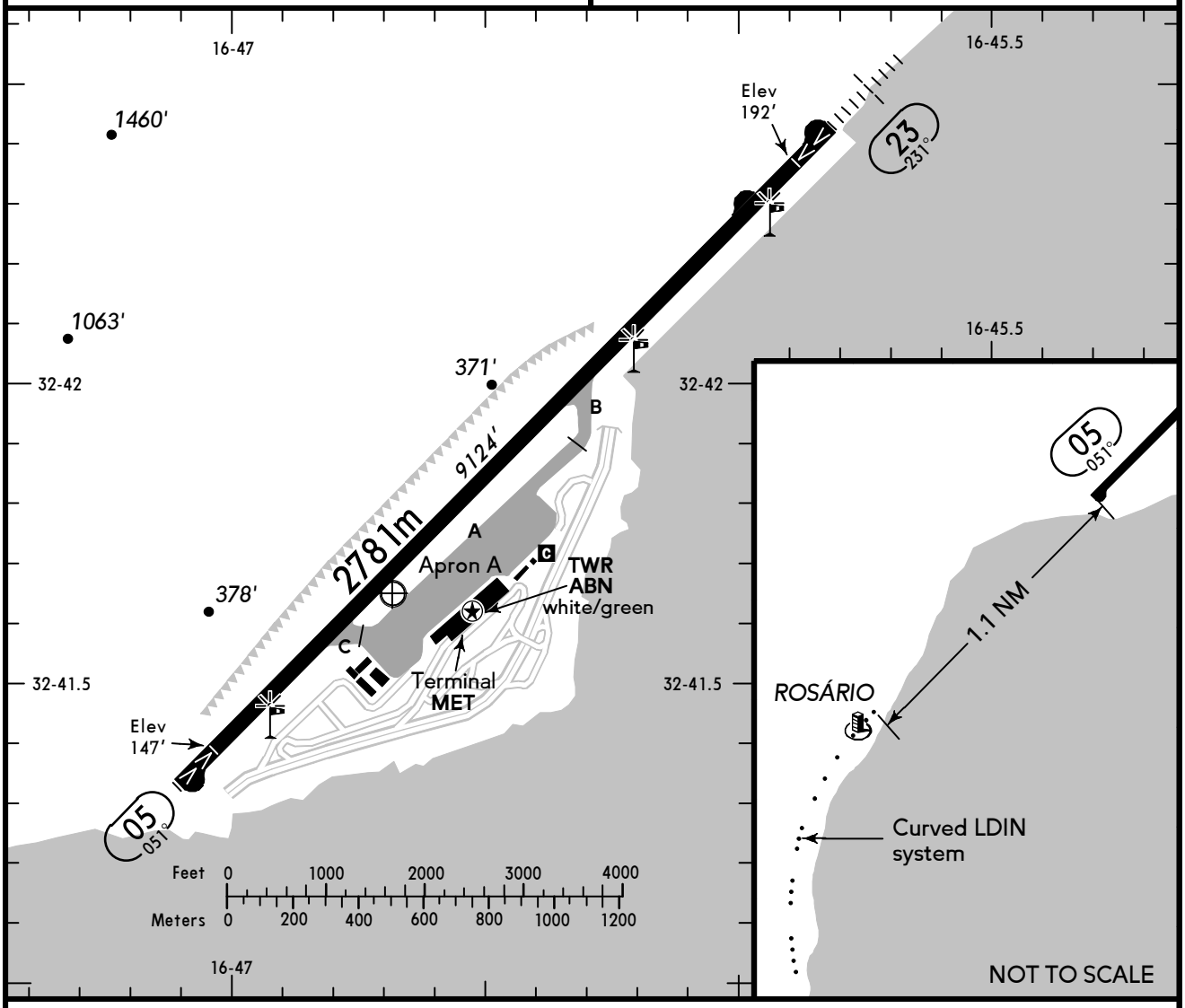
MADEIRA

MADEIRA

Madeira Islands, PORTUGAL

ATIS **124.40**

(FIS)
LISBOA CONTROL **132.25**



TAXI

ABN - ALS 05 (see inset), 23 - PAPI - THRL - RL - RCLL - TWYL - WDI - OBSTL. ❶

RWY No	Dimension (m) - Surface	TORA (m)	LDA (m)	Strength	Lights
05 23	2781 x 45 Asphalt	2631	2481	PCN 80/F/A/W/T	

❶ PAPI 05 located on the right side is not visible on short final APCH. 5° slewed towards sea.

NOTE: Special attention is drawn for the observance of the published restrictions and procedures; special training required.
Straight-In-Approaches are not authorised from VOR/DME 'FUN' to RWY 23.
Night operations restricted to crews familiar with day time operation.
NORDO ACFT prohibited.
Pilot's Information Report: Pilots are strongly requested to report to TWR, as soon as possible, any problem affecting operational conditions (lighting system/turbulence/wind shear).

WARNINGs:
High terrain and other obstructions on northern and western sector of RWY.
The AD is located on a plateau on the east coast of Madeira Island. Except for the seaside, ground raises rapidly very close to it. This fact generates, very often, wind variation and turbulence.
Also severe low altitude wind shear conditions and/or microburst are likely to be encountered.
Bird scaring is accomplished by use of gas cannon units. These units are activated during all year daily SR/SS. Pilots should exercise caution.

CHANGES: COM - QFU - AD Facilities - Text.