Page 1
Changed chart(s) since Disc 22-2010
ADD = Added chart, REV = Revised chart, DEL = Deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE

No revision activity since Disc 22-2010

TERMINAL CHART NOTAMs

No Chart NOTAMs for Airport LETO

General Info

Madrid, ESP
N 40° 29.8' W 03° 26.7' Mag Var: 3.1°W
Elevation: 2027'

Public, Military, IFR, Control Tower, Rotating Beacon, Customs,
Jet Starting Unit available
Pattern Altitude: 1206 feet AGL
Fuel: 100LL, Jet A-1

Time Zone Info: GMT+1:00 uses DST

Runway Info

Runway 05-23 12001' x 197' asphalt

Runway 05 (45.0°M) TDZE 1967'
  Lights: Edge, ALS, Centerline, REIL
  Right Traffic
  Stopway Distance 1066'
Runway 23 (225.0°M) TDZE 2027'
  Lights: Edge, ALS, Centerline, REIL
  Right Traffic
  Stopway Distance 2740'

Communications Info

Torrejon Tower **139.3** Military
Torrejon Tower **138.7** Military
Torrejon Tower **122.1** Military
Torrejon Tower **118.3**
Torrejon Tower **396.90** Military
Torrejon Tower **315.30** Military
Torrejon Tower **257.80** Military
Torrejon Approach Control **119.95** Military
Torrejon Approach Control **339.00** Military
Torrejon Approach Control **235.02** Military
Madrid Approach Control **131.175** Military
Madrid Approach Control **127.5**
Madrid Approach Control **124.225**
Madrid Approach Control **368.82** Military
Torrejon GCA Radar **125.3** Military
Torrejon GCA Radar **123.3** Military
Torrejon GCA Radar **118.9** Military
Torrejon GCA Radar **369.30** Military
Torrejon GCA Radar **278.45** Military
Torrejon GCA Radar **277.92** Military

Notebook Info

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JEPPESEN
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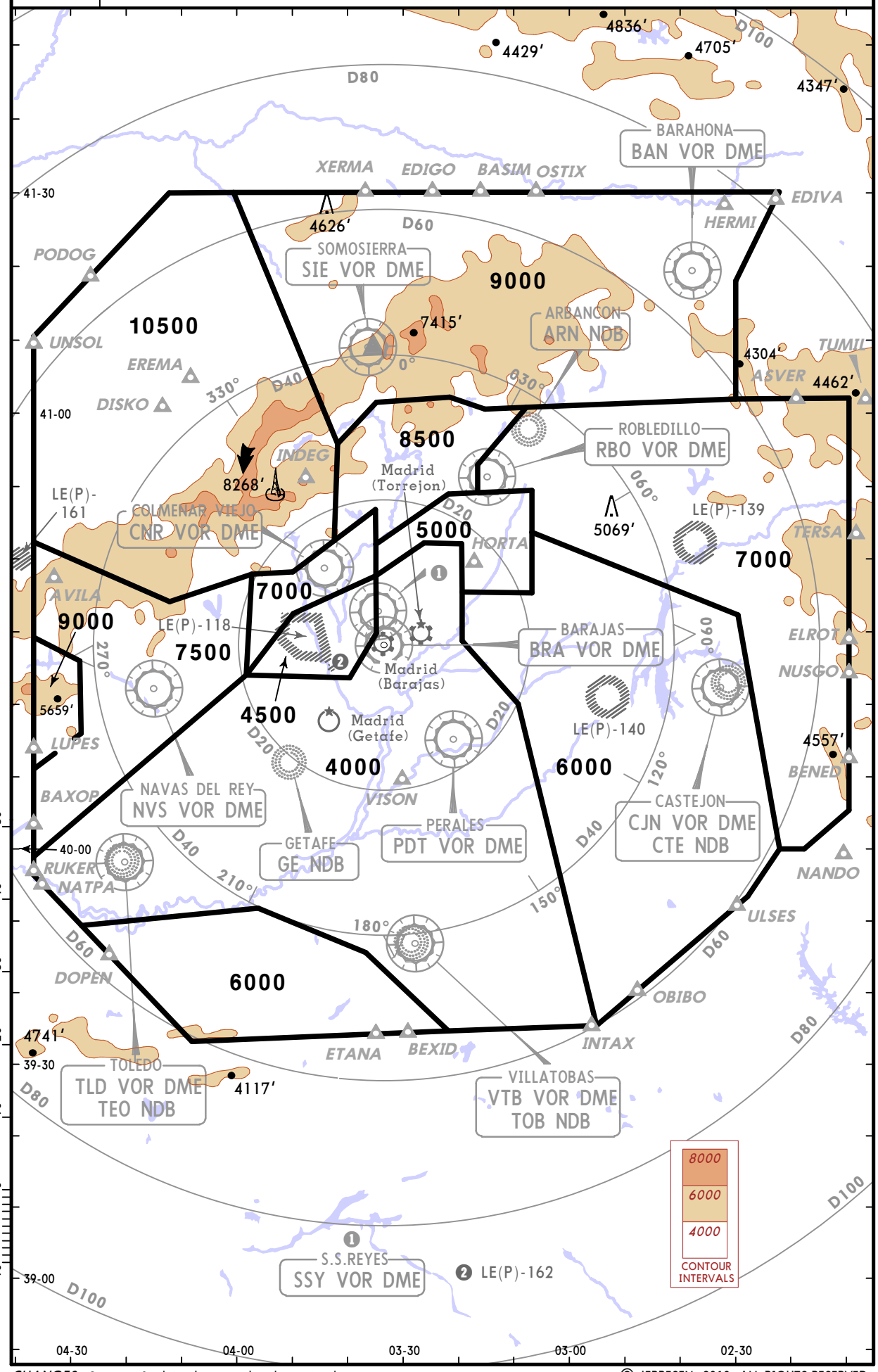
LETO/TOJ
TORREJON

JEPPESEN
3 SEP 10 30-1R

MADRID, SPAIN
RADAR MINIMUM ALTITUDES

Apt Elev 2027′

Alt Set: hPa Trans level: By ATC Trans alt: 13000′
The published minimum altitudes integrate no correction for low temperatures.



CHANGES: Sectors & altitudes completely revised.

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LETO/TOJ
TORREJON

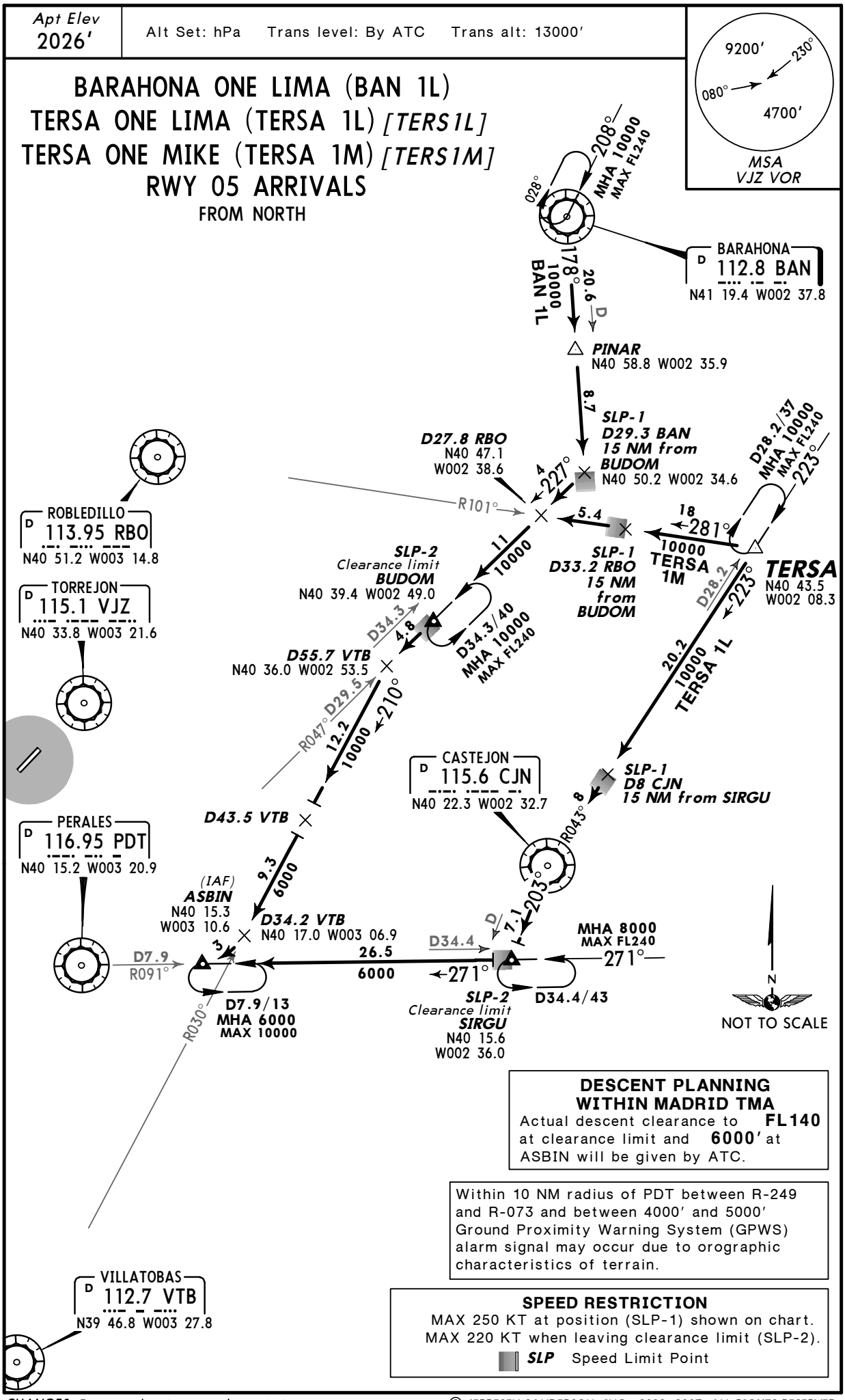
JEPPESEN
14 SEP 07 30-2 Eff 27 Sep

MADRID, SPAIN
STAR

Apt Elev 2026′

Alt Set: hPa Trans level: By ATC Trans alt: 13000′

BARAHONA ONE LIMA (BAN 1L)
TERSA ONE LIMA (TERSA 1L) [TERS1L]
TERSA ONE MIKE (TERSA 1M) [TERS1M]
RWY 05 ARRIVALS
FROM NORTH



DESCENT PLANNING WITHIN MADRID TMA
Actual descent clearance to **FL140** at clearance limit and **6000′** at ASBIN will be given by ATC.

Within 10 NM radius of PDT between R-249 and R-073 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

SPEED RESTRICTION
MAX 250 KT at position (SLP-1) shown on chart.
MAX 220 KT when leaving clearance limit (SLP-2).
SLP Speed Limit Point

CHANGES: Descent planning; speed restriction.

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JeppView 3.7.2.1

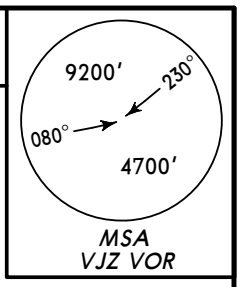
LETO/TOJ
TORREJON

JEPPESEN
14 SEP 07 30-2A Eff 27 Sep

MADRID, SPAIN
STAR

Apt Elev 2026′

Alt Set: hPa Trans level: By ATC Trans alt: 13000′

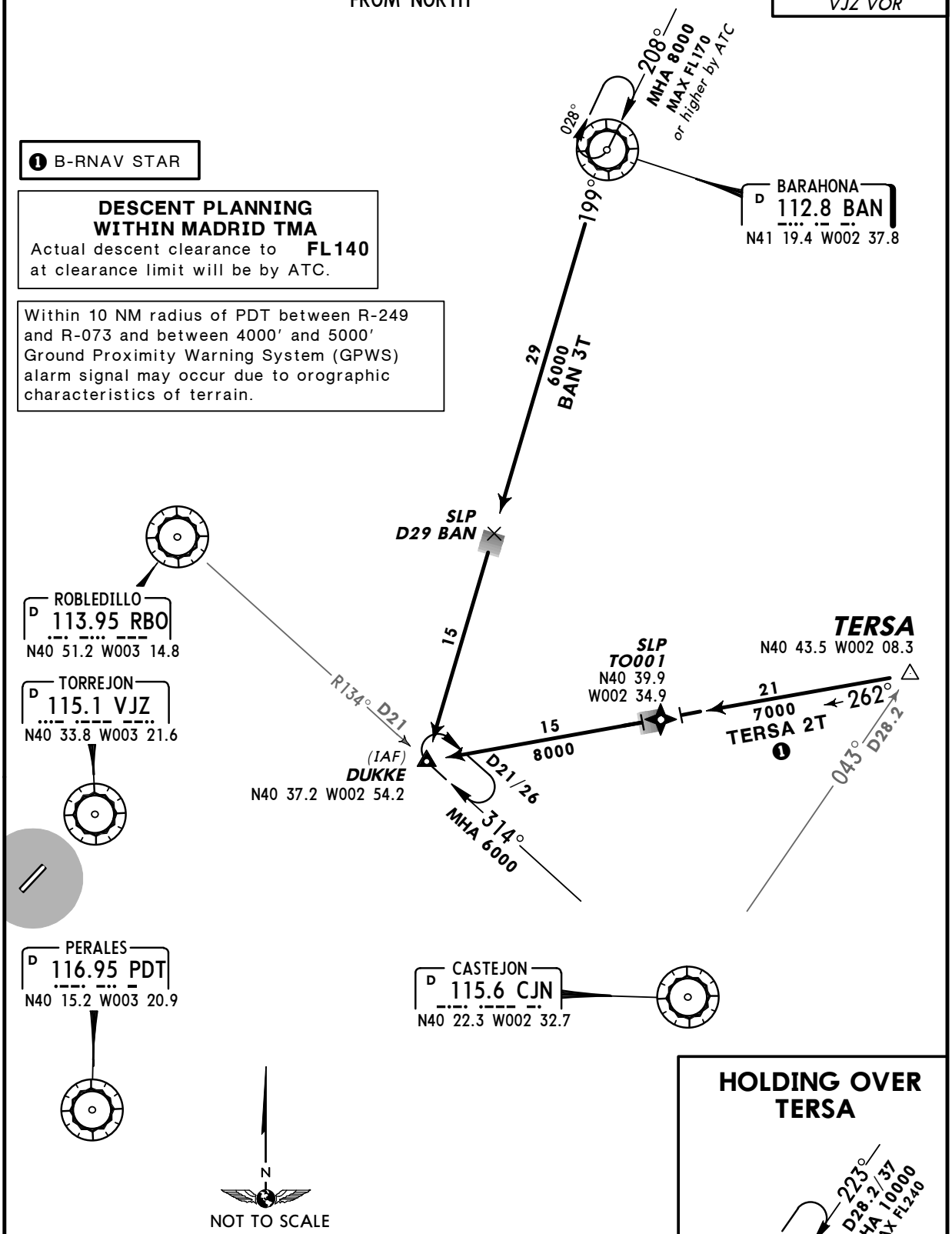


BARAHONA THREE TANGO (BAN 3T)
TERSA TWO TANGO (TERSA 2T) [TERS2T]❶
RWY 23 ARRIVALS
FROM NORTH

❶ B-RNAV STAR

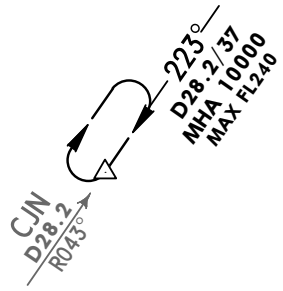
DESCENT PLANNING WITHIN MADRID TMA
Actual descent clearance to **FL140** at clearance limit will be by ATC.

Within 10 NM radius of PDT between R-249 and R-073 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.



SPEED RESTRICTION
MAX 250 KT at position (SLP) shown on chart.
MAX 220 KT when leaving clearance limit.
SLP Speed Limit Point

HOLDING OVER TERSA



CHANGES: Speed restriction.

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JEPPESEN
JeppView 3.7.2.1

LETO/TOJ
TORREJON

JEPPESEN
14 SEP 07 (30-2B) Eff 27 Sep

MADRID, SPAIN
STAR

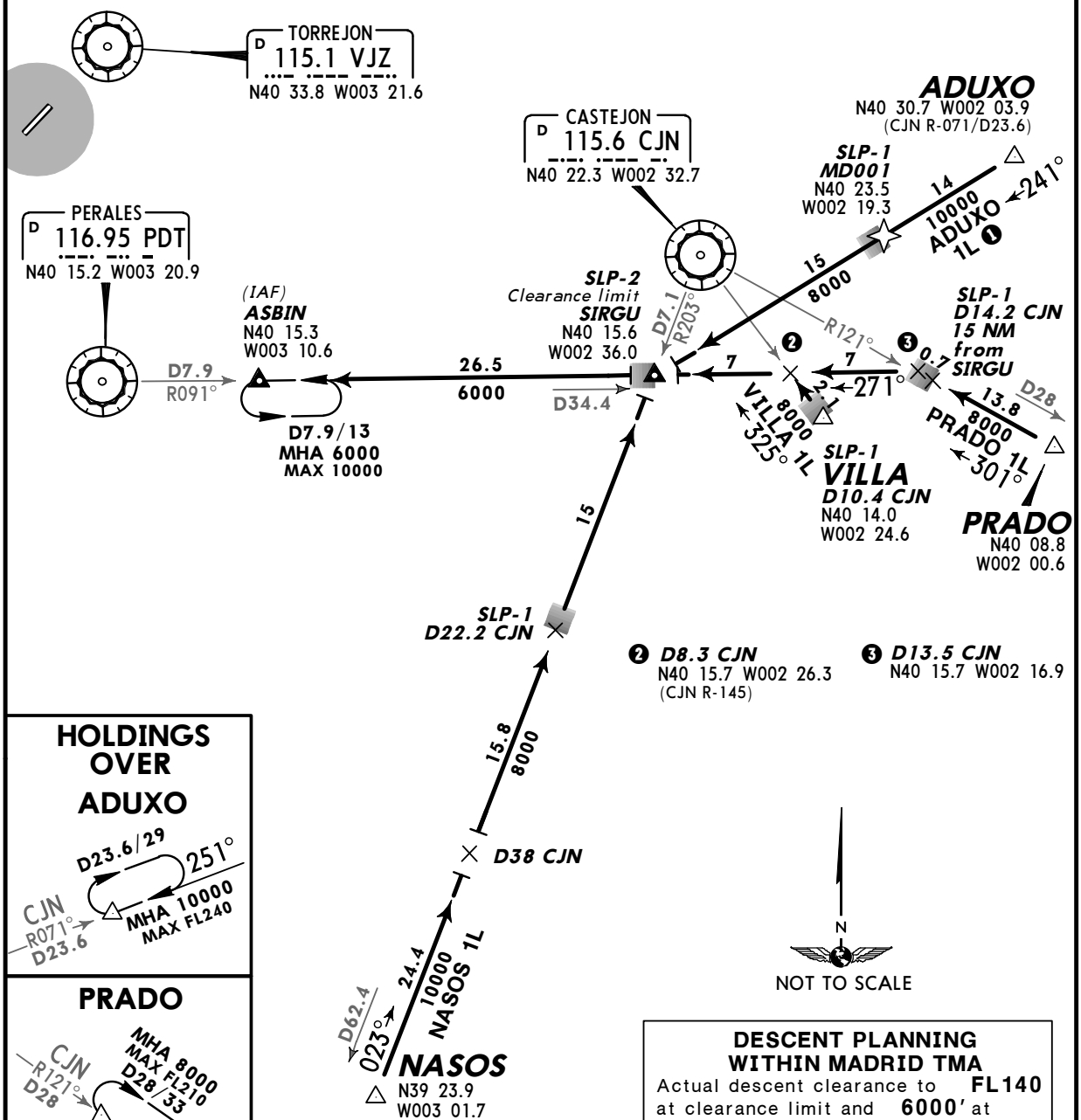
Apt Elev 2026′

Alt Set: hPa Trans level: By ATC Trans alt: 13000′

9200′ 230° 080° 4700′
MSA
VJZ VOR

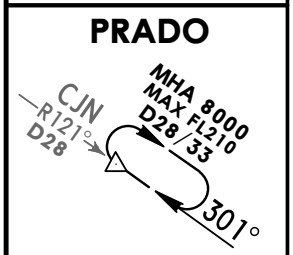
ADUXO ONE LIMA (ADUXO 1L) [ADUX1L] ❶
NASOS ONE LIMA (NASOS 1L) [NASO1L]
PRADO ONE LIMA (PRADO 1L) [PRAD1L]
VILLA ONE LIMA (VILLA 1L) [VILA1L]
RWY 05 ARRIVALS
FROM EAST & SOUTHEAST

❶ B-RNAV STAR

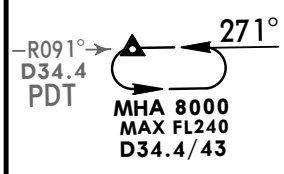


HOLDINGS OVER ADUXO

PRADO



SIRGU



DESCENT PLANNING WITHIN MADRID TMA
Actual descent clearance to **FL140** at clearance limit and **6000′** at ASBIN will be given by ATC.

Within 10 NM radius of PDT between R-249 and R-073 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

SPEED RESTRICTION
MAX 250 KT at position (SLP-1) shown on chart.
MAX 220 KT when leaving clearance limit (SLP-2).
SLP Speed Limit Point

CHANGES: Descent planning; speed restriction.

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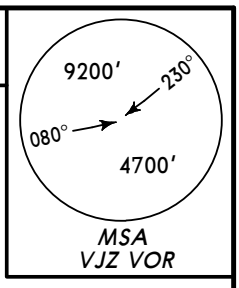
LETO/TOJ
TORREJON

JEPPESEN
14 SEP 07 30-2C Eff 27 Sep

MADRID, SPAIN
STAR

Apt Elev 2026′

Alt Set: hPa Trans level: By ATC Trans alt: 13000′



NASOS ONE TANGO (NASOS 1T) [NASO1T]
PRADO ONE TANGO (PRADO 1T) [PRAD1T]
VILLA ONE TANGO (VILLA 1T) [VILA1T]
RWY 23 ARRIVALS
FROM EAST & SOUTHEAST

SPEED RESTRICTION
MAX 250 KT at position (SLP) shown on chart.
MAX 220 KT when leaving clearance limit.
SLP Speed Limit Point

ROBLEDILLO
D 113.95 RBO
N40 51.2 W003 14.8

TORREJON
D 115.1 VJZ
N40 33.8 W003 21.6

PERALES
D 116.95 PDT
N40 15.2 W003 20.9

CASTEJON
D 115.6 CJN
N40 22.3 W002 32.7

R134° D21
MHA 6000
D21/26
(IAF)
DUKKE
N40 37.2 W002 54.2
15
6000
SLP
D7.2 CJN
7.2
6000
314°
R121°
R145°
R203°
D 7.1
8000
SIRGU
N40 15.6 W002 36.0
PRADO
N40 08.8 W002 00.6
28
8000
PRADO 1T
301°
D
10.4
8000
VILLA 1T
325°
VILLA
N40 14.0
W002 24.6
30.9
8000
D38 CJN
D62.4
024.4
10000
NASOS 1T
023°
NASOS
N39 23.9
W003 01.7
N
NOT TO SCALE

HOLDINGS OVER CJN
145°
325°
MHA 7000
MAX FL170
or higher by ATC

PRADO
CJN
R121°
D28
MHA 8000
MAX FL210
D28/33
301°

DESCENT PLANNING WITHIN MADRID TMA
Actual descent clearance to **FL140** at clearance limit will be by ATC.

Within 10 NM radius of PDT between R-249 and R-073 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

CHANGES: Speed restriction.

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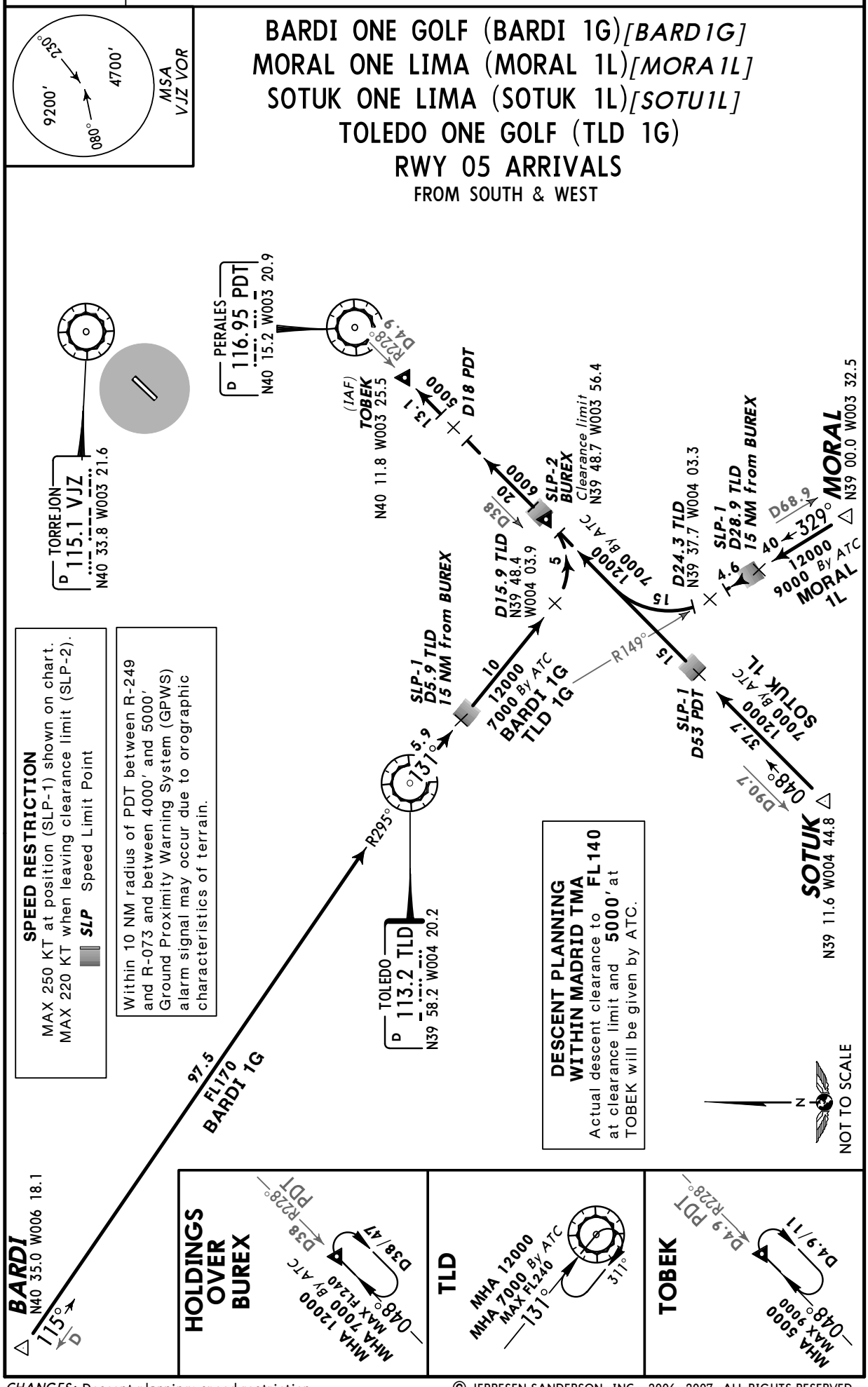
LETO/TOJ
TORREJON

MADRID, SPAIN
STAR

Apt Elev 2026′

Alt Set: hPa Trans level: By ATC Trans alt: 13000′



CHANGES: Descent planning; speed restriction.

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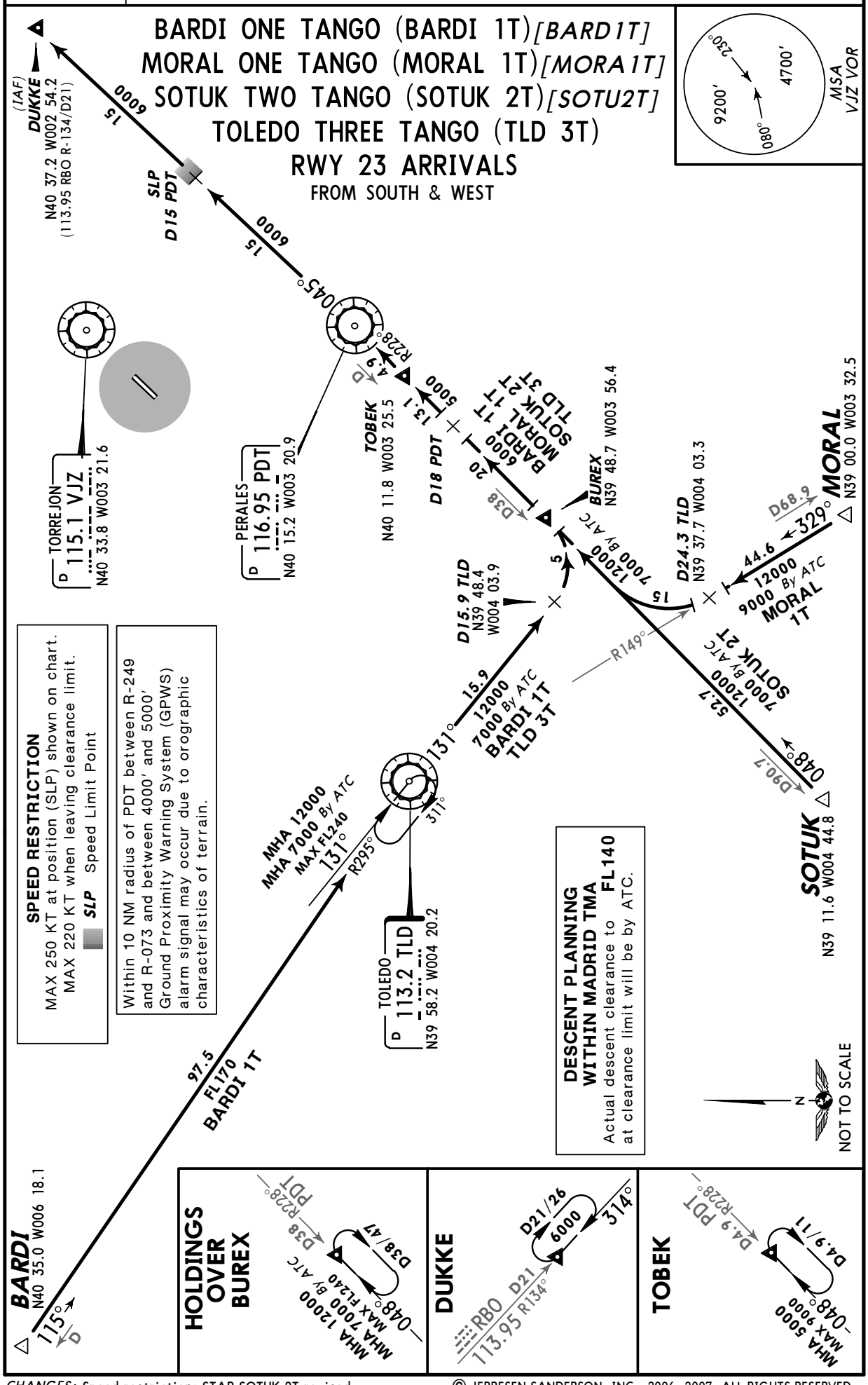
LETO/TOJ
TORREJON

JEPPESEN
14 SEP 07 (30-2E) Eff 27 Sep

MADRID, SPAIN
STAR

Apt Elev	
2026′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′



CHANGES: Speed restriction; STAR SOTUK 2T revised.

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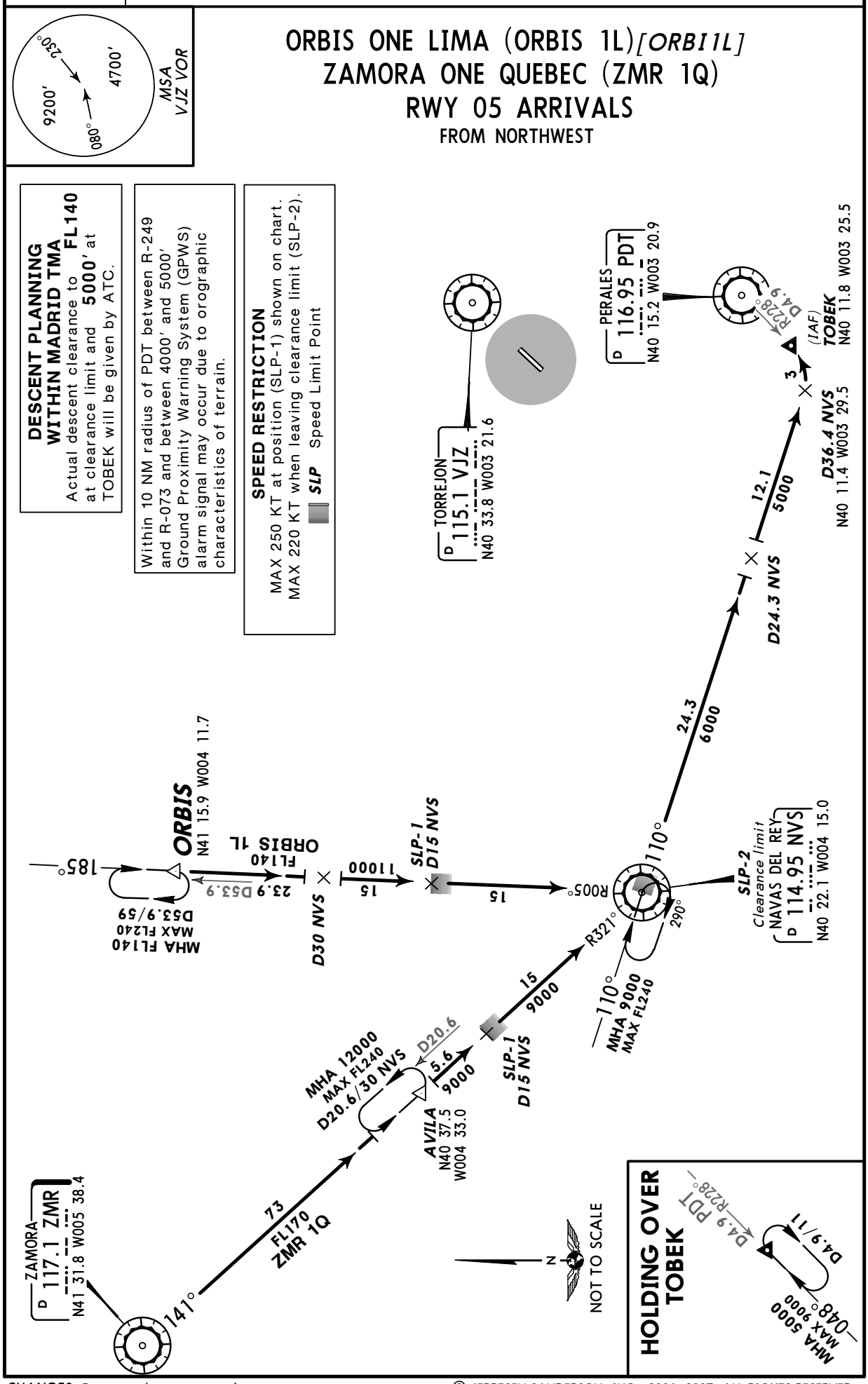
LETO/TOJ
TORREJON

JEPPESEN
14 SEP 07 (30-2F) Eff 27 Sep

MADRID, SPAIN
STAR

Apt Elev 2026′

Alt Set: hPa Trans level: By ATC Trans alt: 13000′



CHANGES: Descent planning; speed restriction.

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JeppView 3.7.2.1

LETO/TOJ
TORREJON

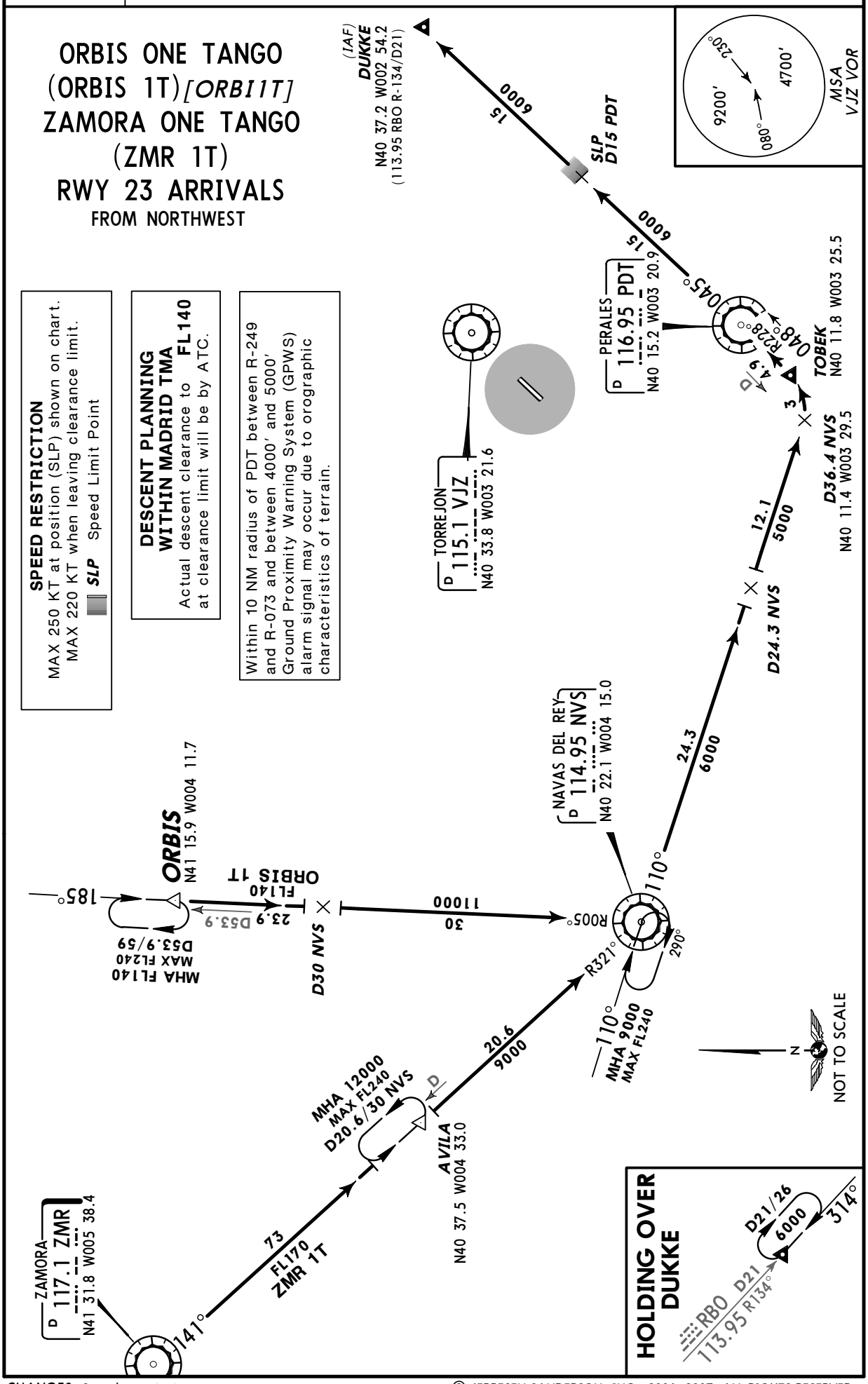
JEPPESEN
14 SEP 07 30-2G Eff 27 Sep

MADRID, SPAIN
STAR

Apt Elev 2026′

Alt Set: hPa Trans level: By ATC Trans alt: 13000′

ORBIS ONE TANGO (ORBIS 1T) [ORBI1T]
ZAMORA ONE TANGO (ZMR 1T)
RWY 23 ARRIVALS
FROM NORTHWEST



CHANGES: Speed restriction.

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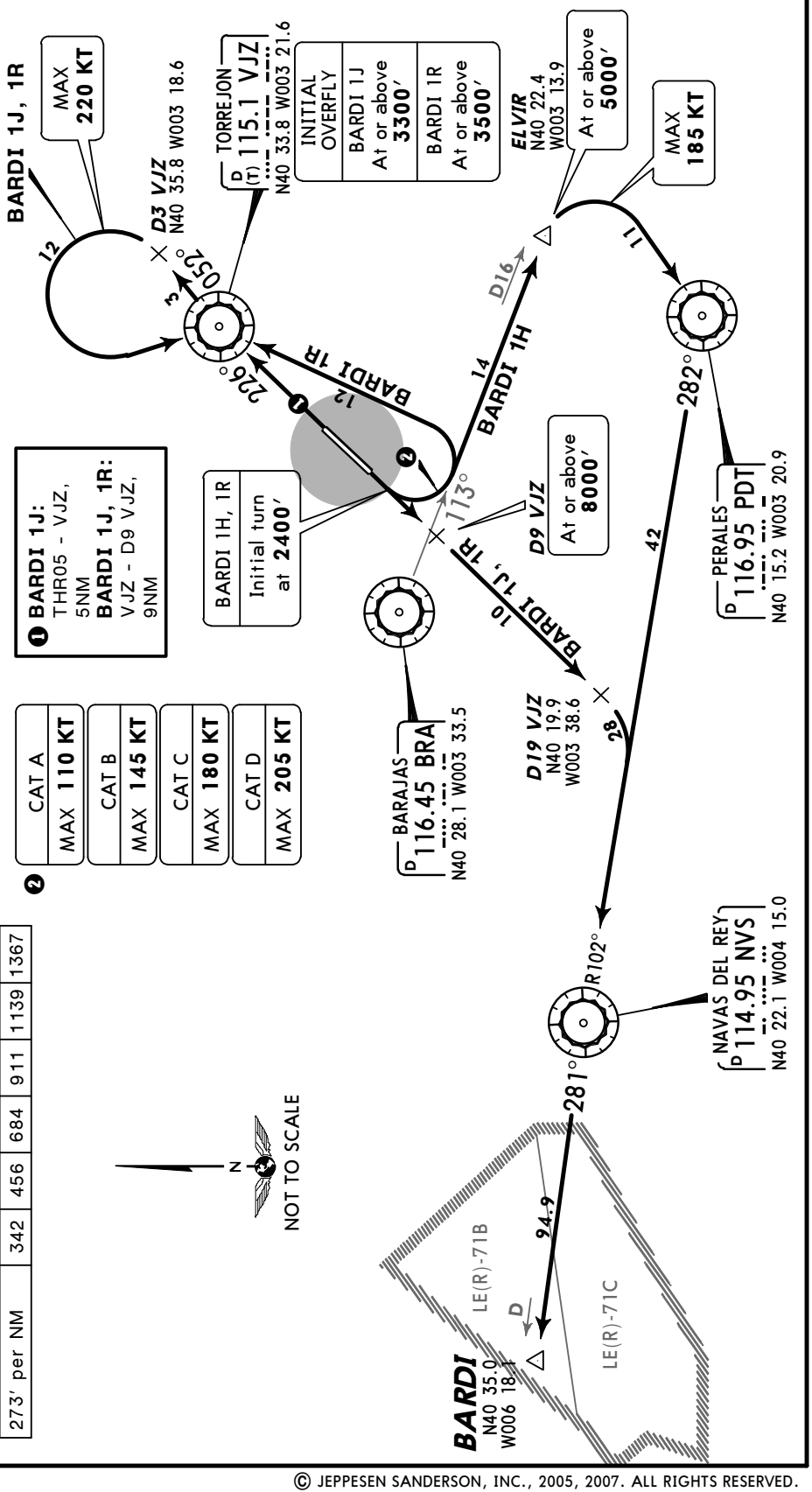
Apt Elev
2026′

Trans level: By ATC Trans alt: 13000′

BARDI ONE HOTEL (BARDI 1H) *[BARD1H]*
BARDI ONE JULIETT (BARDI 1J) *[BARD1J]*
BARDI ONE ROMEO (BARDI 1R) *[BARD1R]*
RWYS 23, 05 DEPARTURES
SUBJECT TO LE(R)-71B & LE(R)-71C ACTIVITY

MSA VJZ VOR: 9200′ (080°–230°), 4700′

SID	RWY	ROUTING
BARDI 1H	23	Climb to **2400′**, turn LEFT, intercept BRA R-113 to ELVIR, turn RIGHT to PDT, PDT R-282 (NVS R-102 inbound) to NVS, NVS R-281 to BARDI.
BARDI 1J	05	Climb to VJZ, VJZ R-052 to D3 VJZ, turn LEFT to VJZ, VJZ R-226 to D19 VJZ, turn RIGHT, intercept NVS R-102 inbound to NVS, NVS R-281 to BARDI.
BARDI 1R	23	Climb to **2400′**, turn LEFT to VJZ, VJZ R-052 to D3 VJZ, turn LEFT to VJZ, VJZ R-226 to D19 VJZ, turn RIGHT, intercept NVS R-102 inbound to NVS, NVS R-281 to BARDI.



These SIDs require minimum climb gradients of

322′ per NM (5.3%) until leaving **BARDI 1H** **5000′.**
273′ per NM (4.5%) until leaving **BARDI 1J** **9000′.**
322′ per NM (5.3%) until leaving **BARDI 1R** **9000′.**

Gnd speed-KT	75	100	150	200	250	300
322′ per NM	403	537	805	1073	1342	1610
273′ per NM	342	456	684	911	1139	1367

CHANGES: SIDs availability.

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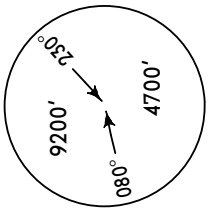
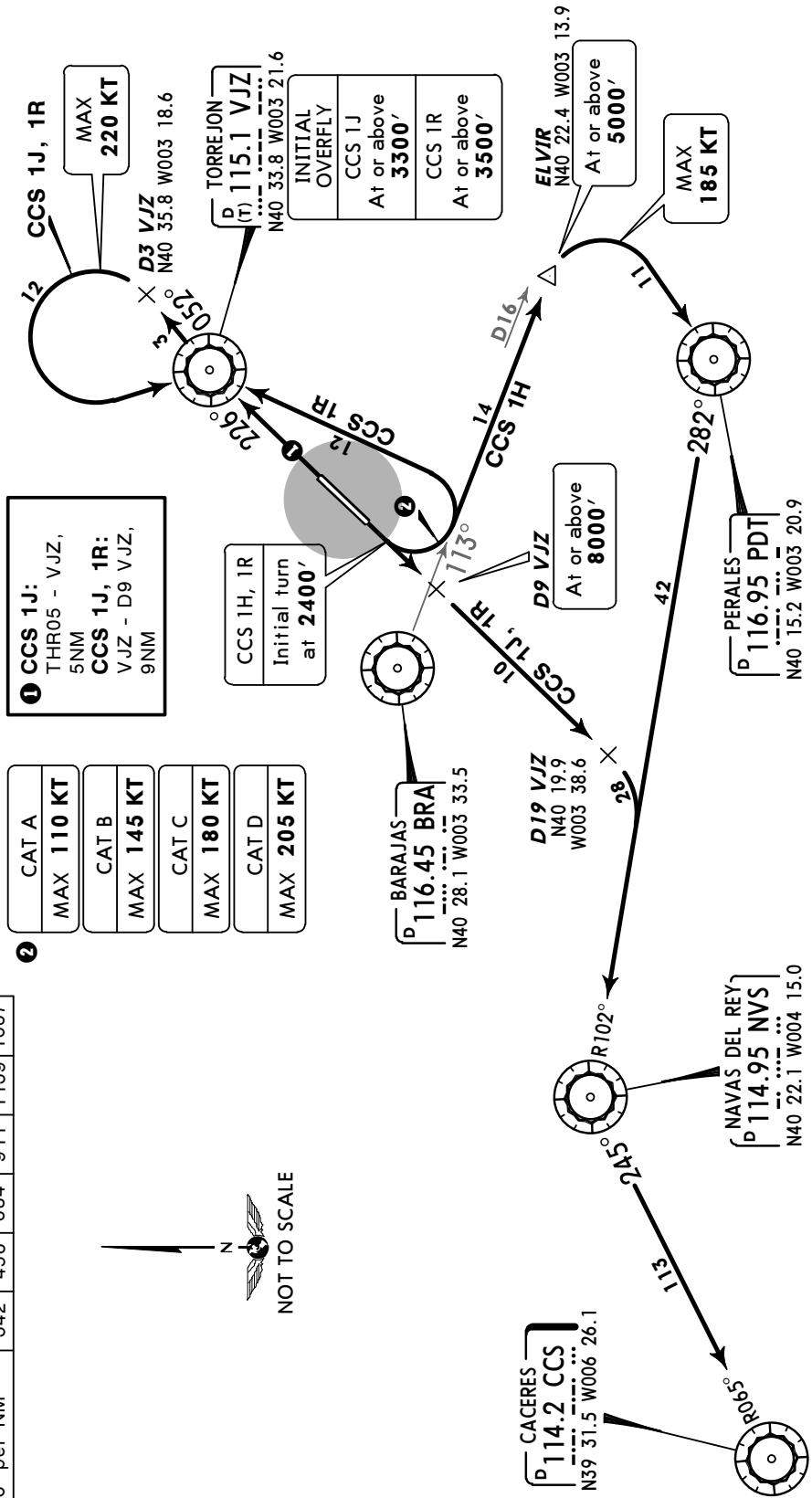
Apt Elev
2026′

Trans level: By ATC Trans alt: 13000′

CACERES ONE HOTEL (CCS 1H)
CACERES ONE JULIETT (CCS 1J)
CACERES ONE ROMEO (CCS 1R)
RWYS 23, 05 DEPARTURES



SID	RWY	ROUTING
CCS 1H	23	Climb to **2400′**, turn LEFT, intercept BRA R-113 to ELVIR, turn RIGHT to PDT, PDT R-282 (NVS R-102 inbound) to NVS, turn LEFT, CCS R-065 inbound to CCS.
CCS 1J	05	Climb to VJZ, VJZ R-052 to D3 VJZ, turn LEFT to VJZ, VJZ R-226 to D19 VJZ, turn RIGHT, intercept NVS R-102 inbound to NVS, turn LEFT, CCS R-065 inbound to CCS.
CCS 1R	23	Climb to **2400′**, turn LEFT to VJZ, VJZ R-052 to D3 VJZ, turn LEFT to VJZ, turn RIGHT, VJZ R-226 to D19 VJZ, turn RIGHT, intercept NVS R-102 inbound to NVS, turn LEFT, CCS R-065 inbound to CCS.



These SIDs require minimum climb gradients of

322′ per NM (5.3%) until leaving **CCS 1H** **5000′.**

273′ per NM (4.5%) until leaving **CCS 1J** **9000′.**

322′ per NM (5.3%) until leaving **CCS 1R** **9000′.**

Gnd speed-KT	75	100	150	200	250	300
322′ per NM	403	537	805	1073	1342	1610
273′ per NM	342	456	684	911	1139	1367

CHANGES: None.

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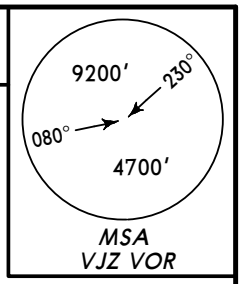
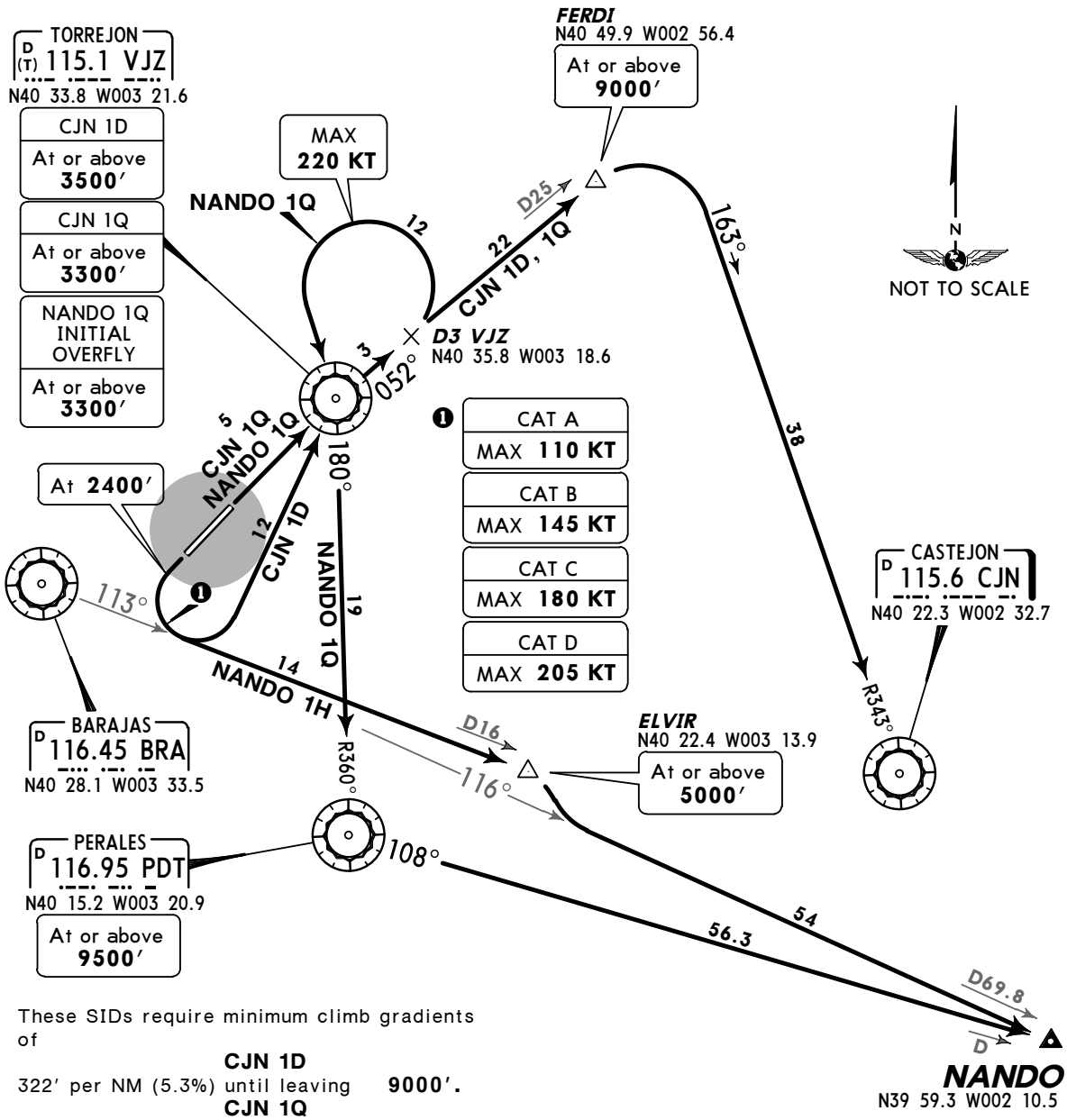
Apt Elev	Trans level: By ATC Trans alt: 13000′
2026′	

CASTEJON ONE DELTA (CJN 1D)
CASTEJON ONE QUEBEC (CJN 1Q)
NANDO ONE HOTEL (NANDO 1H) *[NAND1H]*
NANDO ONE QUEBEC (NANDO 1Q) *[NAND1Q]*
RWYS 23, 05 DEPARTURES





CAT A	MAX **110 KT**
CAT B	MAX **145 KT**
CAT C	MAX **180 KT**
CAT D	MAX **205 KT**

These SIDs require minimum climb gradients of

CJN 1D
322′ per NM (5.3%) until leaving **9000′.**

CJN 1Q
273′ per NM (4.5%) until leaving **9000′.**

NANDO 1H
322′ per NM (5.3%) until leaving **5000′.**

NANDO 1Q
322′ per NM (5.3%) until leaving **9500′.**

Gnd speed-KT	75	100	150	200	250	300
322′ per NM	403	537	805	1073	1342	1610
273′ per NM	342	456	684	911	1139	1367

SID	RWY	ROUTING
CJN 1D	**23**	Climb to **2400′**, turn LEFT to VJZ, VJZ R-052 to FERDI, turn RIGHT, intercept CJN R-343 inbound to CJN.
CJN 1Q	**05**	Climb to VJZ, VJZ R-052 to FERDI, turn RIGHT, intercept CJN R-343 inbound to CJN.
NANDO 1H	**23**	Climb to **2400′**, turn LEFT, intercept BRA R-113 to ELVIR, turn RIGHT, intercept BRA R-116 to NANDO.
NANDO 1Q	**05**	Climb to VJZ, VJZ R-052 to D3 VJZ, turn LEFT to VJZ, PDT R-360 inbound to PDT, PDT R-108 to NANDO.

CHANGES: SID NANDO 1Q radial update.

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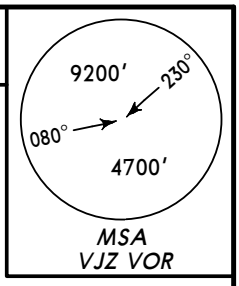
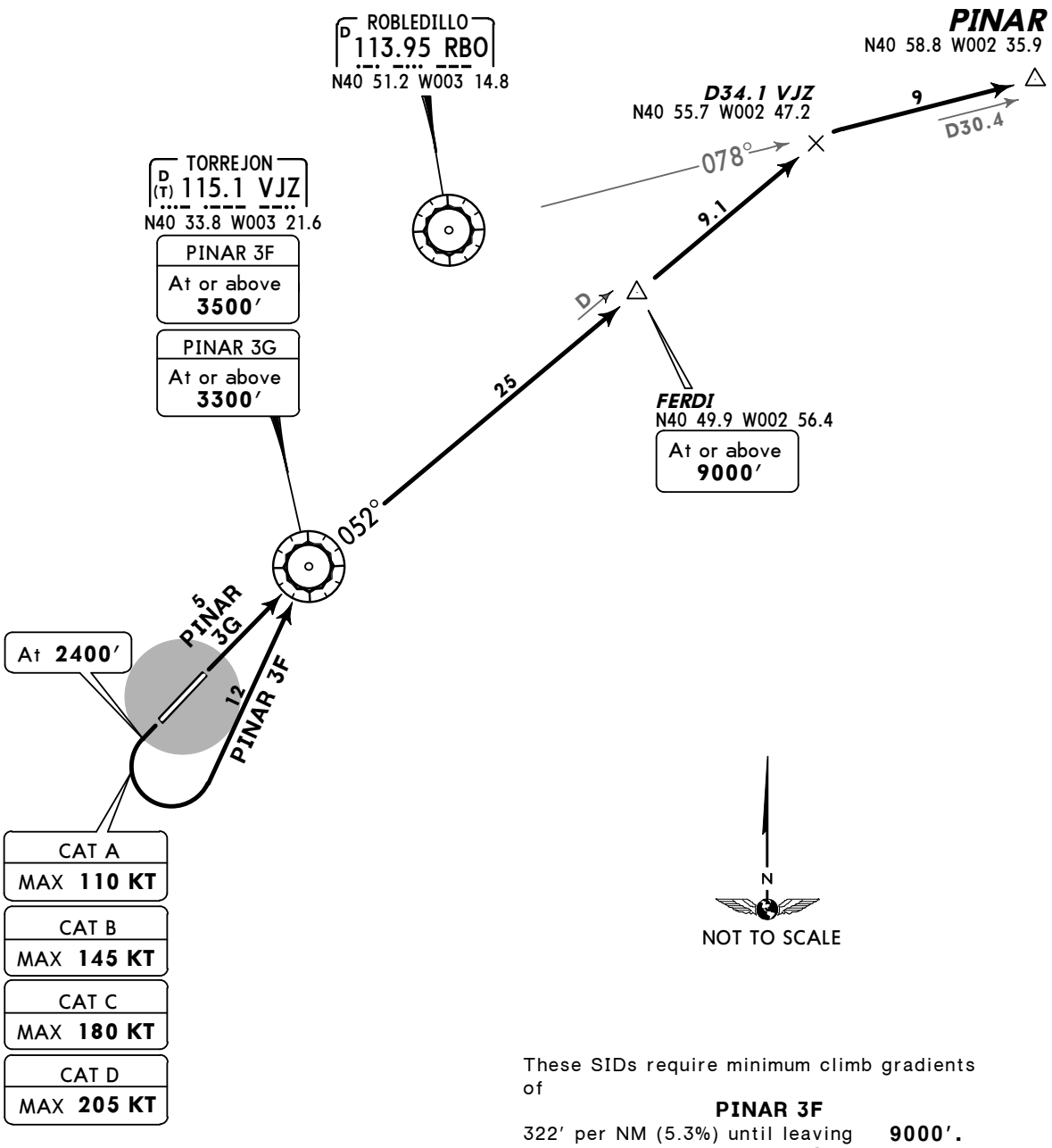
Apt Elev	Trans level: By ATC Trans alt: 13000′
2026′	

PINAR THREE FOXTROT (PINAR 3F) *[PINA3F]*
PINAR THREE GOLF (PINAR 3G) *[PINA3G]*
RWYS 23, 05 DEPARTURES





These SIDs require minimum climb gradients of

PINAR 3F
322′ per NM (5.3%) until leaving **9000′.**

PINAR 3G
273′ per NM (4.5%) until leaving **9000′.**

Gnd speed-KT	75	100	150	200	250	300
322′ per NM	403	537	805	1073	1342	1610
273′ per NM	342	456	684	911	1139	1367

SID	RWY	ROUTING
PINAR 3F	**23**	Climb to **2400′**, turn LEFT to VJZ, VJZ R-052 via FERDI to D34.1 VJZ, turn RIGHT, intercept RBO R-078 to PINAR.
PINAR 3G	**05**	Climb to VJZ, VJZ R-052 via FERDI to D34.1 VJZ, turn RIGHT, intercept RBO R-078 to PINAR.

CHANGES: None.

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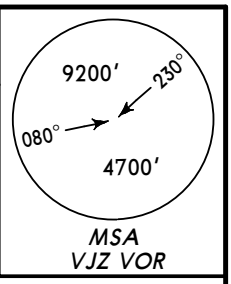
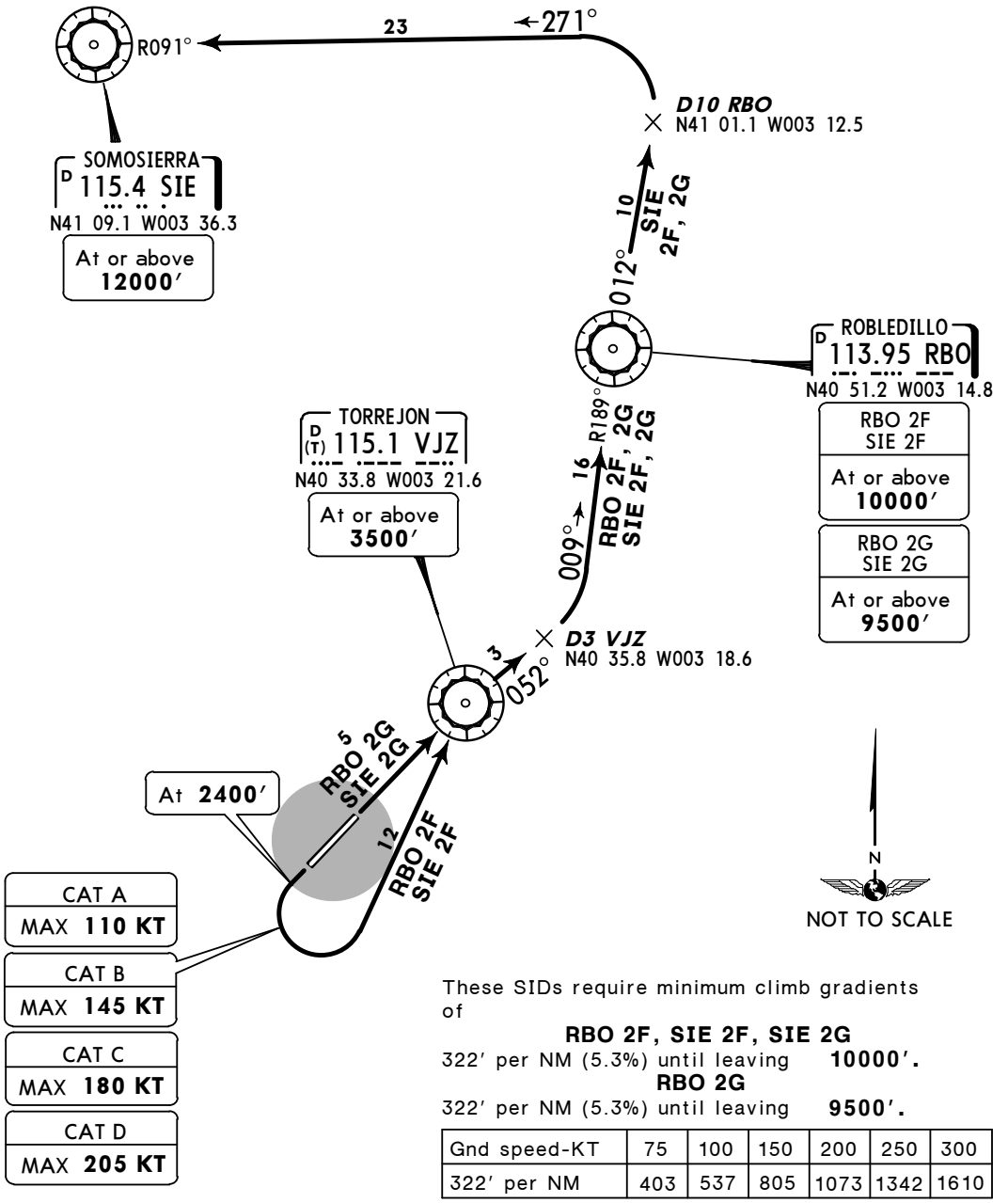
Apt Elev	Trans level: By ATC Trans alt: 13000′
2026′	



ROBLEDILLO TWO FOXTROT (RBO 2F)
ROBLEDILLO TWO GOLF (RBO 2G)
SOMOSIERRA TWO FOXTROT (SIE 2F)
SOMOSIERRA TWO GOLF (SIE 2G)
RWYS 23, 05 DEPARTURES



These SIDs require minimum climb gradients of

RBO 2F, SIE 2F, SIE 2G
322′ per NM (5.3%) until leaving **10000′.**

RBO 2G
322′ per NM (5.3%) until leaving **9500′.**

Gnd speed-KT	75	100	150	200	250	300
322′ per NM	403	537	805	1073	1342	1610

SID	RWY	ROUTING
RBO 2F	**23**	Climb to **2400′**, turn LEFT to VJZ, VJZ R-052 to D3 VJZ, turn LEFT, intercept RBO R-189 inbound to RBO.
RBO 2G	**05**	Climb to VJZ, VJZ R-052 to D3 VJZ, turn LEFT, intercept RBO R-189 inbound to RBO.
SIE 2F	**23**	Climb to **2400′**, turn LEFT to VJZ, VJZ R-052 to D3 VJZ, turn LEFT, intercept RBO R-189 inbound to RBO, RBO R-012 to D10 RBO, turn LEFT, intercept SIE R-091 inbound to SIE.
SIE 2G	**05**	Climb to VJZ, VJZ R-052 to D3 VJZ, turn LEFT, intercept RBO R-189 inbound to RBO, RBO R-012 to D10 RBO, turn LEFT, intercept SIE R-091 inbound to SIE.

CHANGES: None.

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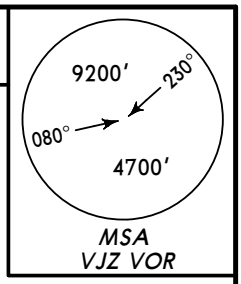
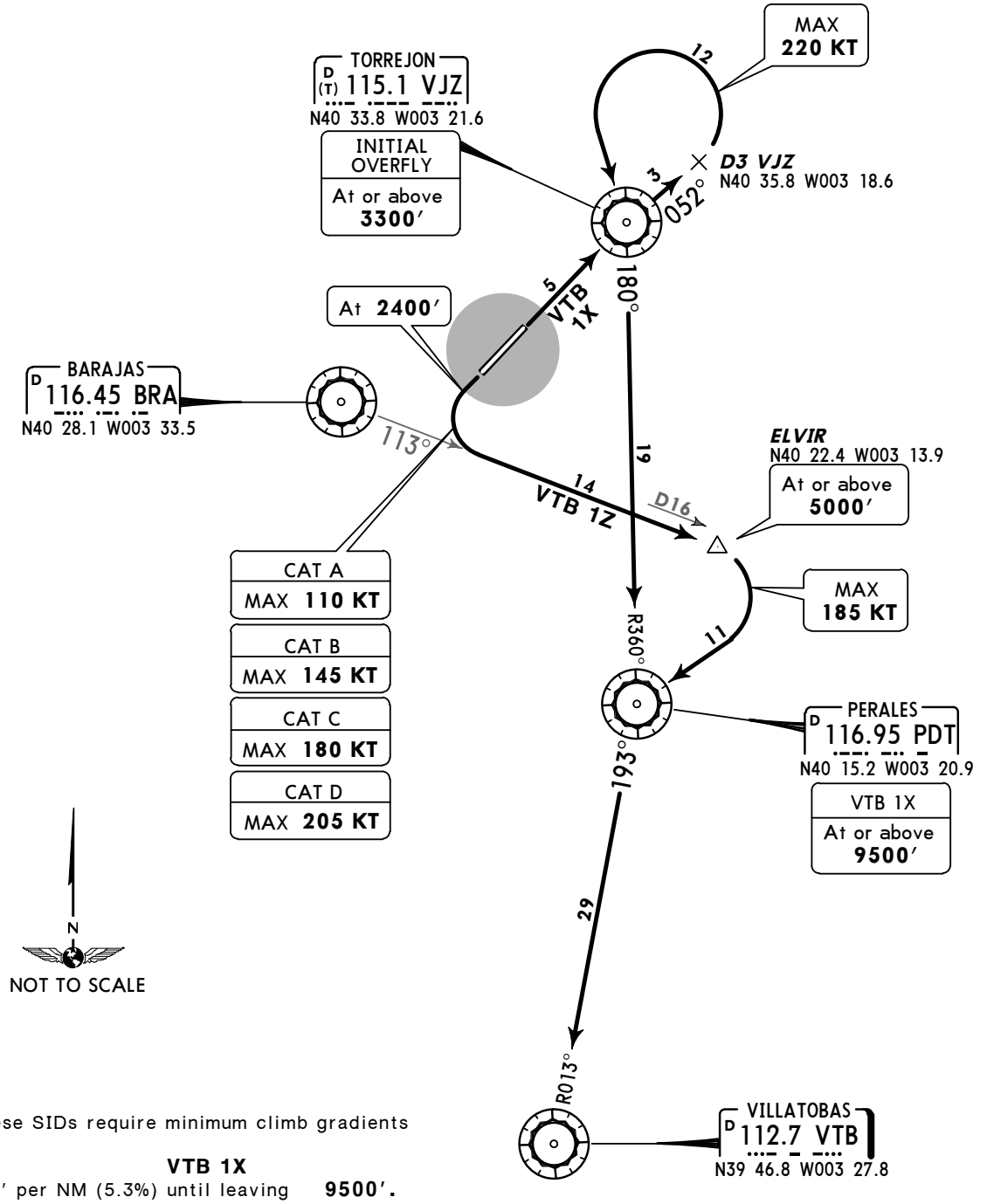
Apt Elev	Trans level: By ATC Trans alt: 13000′
2026′	

VILLATOBAS ONE X-RAY (VTB 1X)
VILLATOBAS ONE ZULU (VTB 1Z)
RWYS 05, 23 DEPARTURES





These SIDs require minimum climb gradients of

VTB 1X
322′ per NM (5.3%) until leaving **9500′.**

VTB 1Z
322′ per NM (5.3%) until leaving **5000′.**

Gnd speed-KT	75	100	150	200	250	300
322′ per NM	403	537	805	1073	1342	1610

SID	RWY	ROUTING
VTB 1X	**05**	Climb to VJZ, VJZ R-052 to D3 VJZ, turn LEFT to VJZ, PDT R-360 inbound to PDT, turn RIGHT, VTB R-013 inbound to VTB.
VTB 1Z	**23**	Climb to **2400′**, turn LEFT, intercept BRA R-113 to ELVIR, turn RIGHT to PDT, turn LEFT, VTB R-013 inbound to VTB.

CHANGES: SID VTB 1X radial update.

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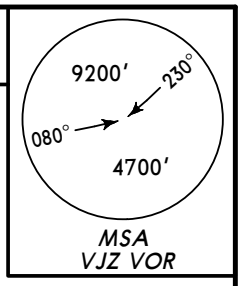
LETO/TOJ
TORREJON

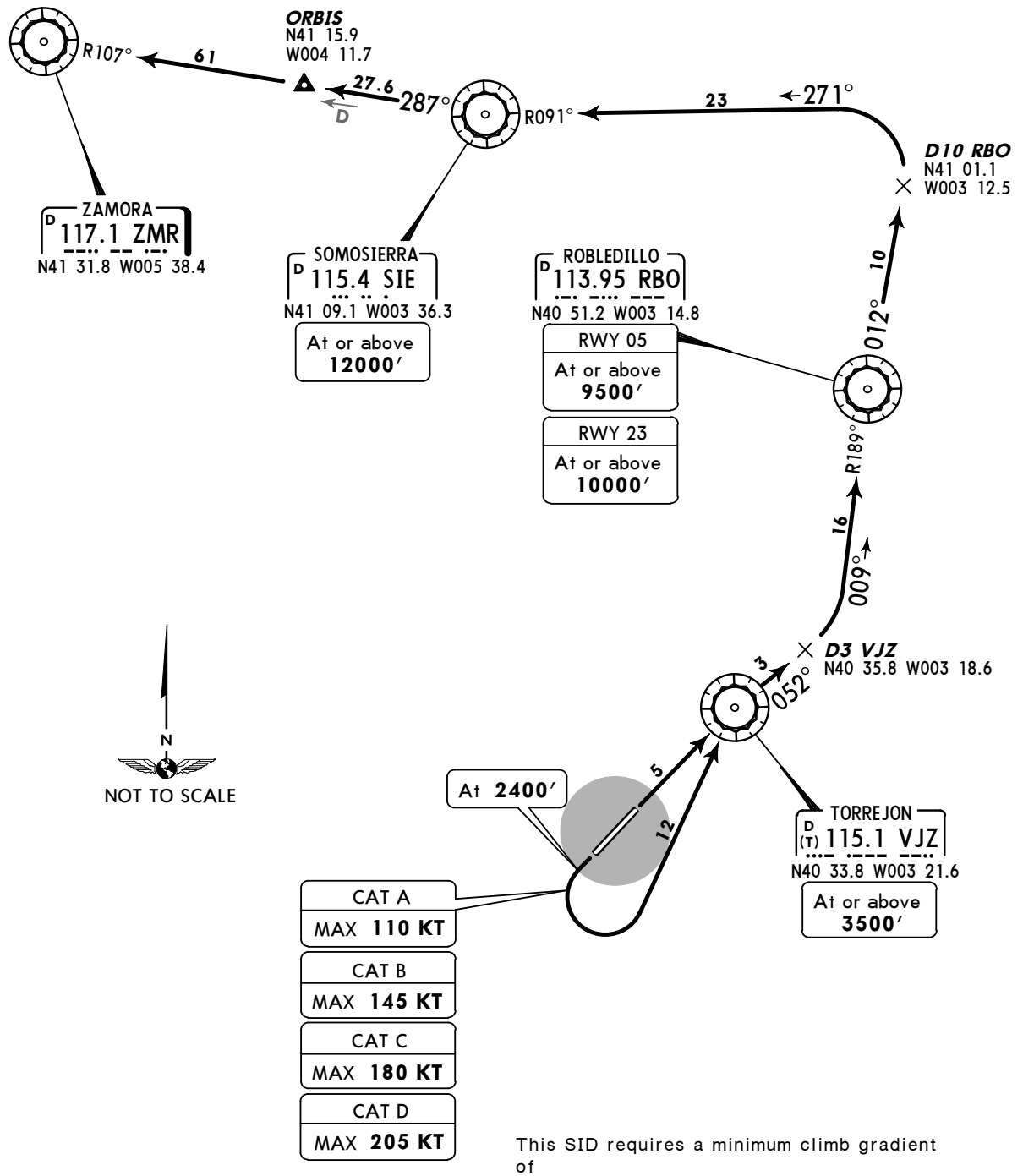
JEPPESEN
24 NOV 06 (30-3F)

MADRID, SPAIN
SID

Apt Elev	Trans level: By ATC Trans alt: 13000′
2026′	



ZAMORA ONE ALFA CHARLIE (ZMR 1AC)
RWYS 05, 23 DEPARTURE



This SID requires a minimum climb gradient of
322′ per NM (5.3%) until leaving **10000′.**

Gnd speed-KT	75	100	150	200	250	300
322′ per NM	403	537	805	1073	1342	1610

RWY	ROUTING
05	Climb to VJZ, VJZ R-052 to D3 VJZ, turn LEFT, intercept RBO R-189 inbound to RBO, RBO R-012 to D10 RBO, turn LEFT, intercept SIE R-091 inbound to SIE, turn RIGHT, SIE R-287 via ORBIS to ZMR.
23	Climb to **2400′**, turn LEFT to VJZ, VJZ R-052 to D3 VJZ, turn LEFT, intercept RBO R-189 inbound to RBO, RBO R-012 to D10 RBO, turn LEFT, intercept SIE R-091 inbound to SIE, SIE R-287 via ORBIS to ZMR.

CHANGES: SID reindexed; chart reindexed.

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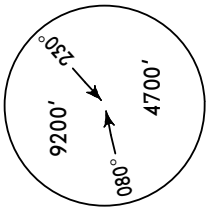
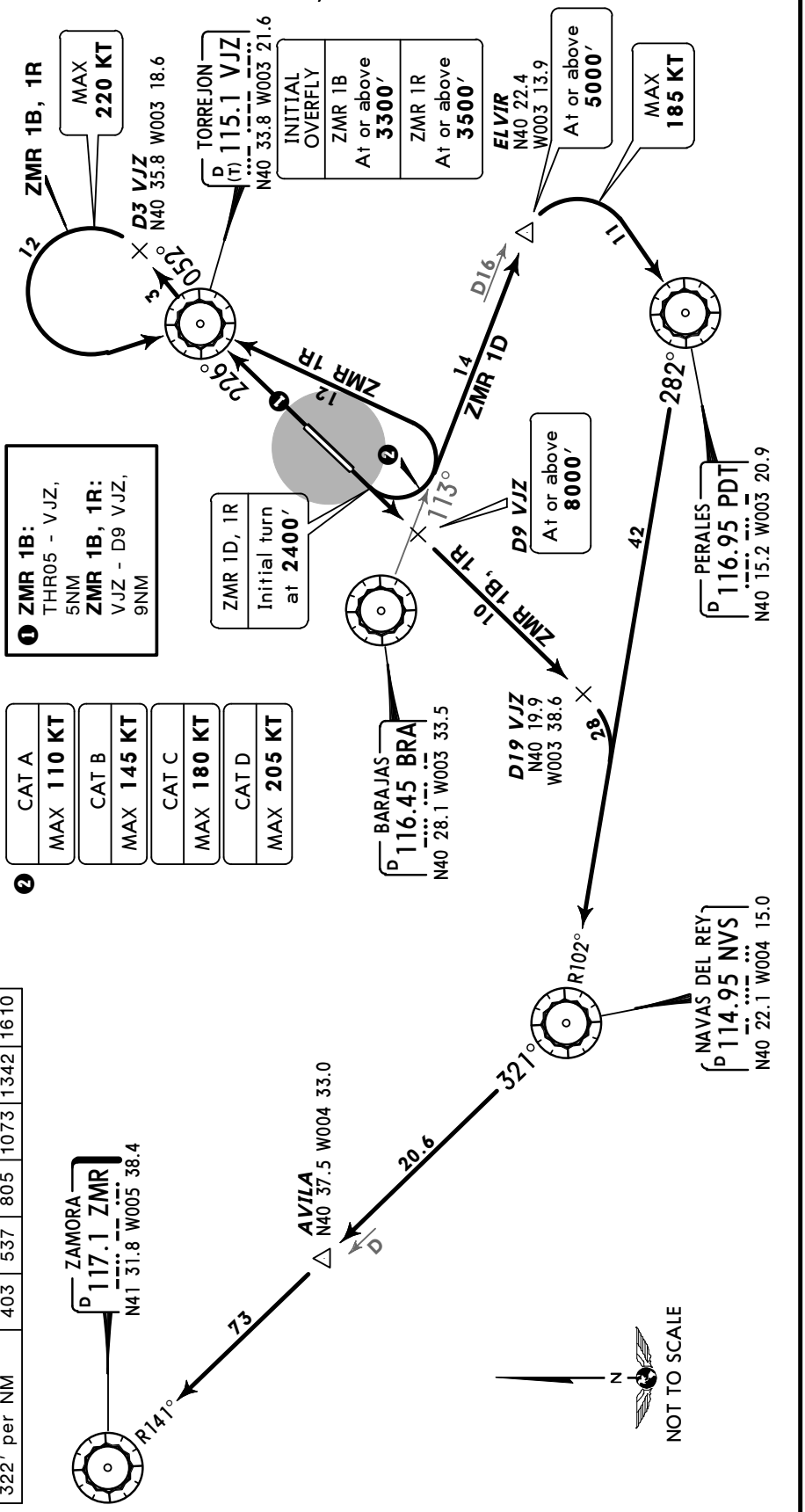
Apt Elev
2026′

Trans level: By ATC Trans alt: 13000′

ZAMORA ONE BRAVO (ZMR 1B)
ZAMORA ONE DELTA (ZMR 1D)
ZAMORA ONE ROMEO (ZMR 1R)
RWYS 05, 23 DEPARTURES



SID	RWY	ROUTING
ZMR 1B	05	Climb to VJZ, VJZ R-052 to D3 VJZ, turn LEFT to VJZ, VJZ R-226 to D19 VJZ, turn RIGHT, intercept NVS R-102 inbound to NVS, NVS R-321 via AVILA to ZMR.
ZMR 1D	23	Climb to **2400′**, turn LEFT, intercept BRA-113 to ELVIR, turn RIGHT to PDT, PDT R-282 (NVS R-102 inbound) to NVS, NVS R-321 via AVILA to ZMR.
ZMR 1R		Climb to **2400′**, turn LEFT to VJZ, VJZ R-052 to D3 VJZ, turn LEFT to VJZ, VJZ R-226 to D19 VJZ, turn RIGHT, intercept NVS R-102 inbound to NVS, NVS R-321 via AVILA to ZMR.



These SIDs require minimum climb gradients of

273′ per NM (4.5%) until leaving **ZMR 1B** **9000′.**

322′ per NM (5.3%) until leaving **ZMR 1D** **5000′.**

322′ per NM (5.3%) until leaving **ZMR 1R** **9000′.**

Gnd speed-KT	75	100	150	200	250	300
273′ per NM	342	456	684	911	1139	1367
322′ per NM	403	537	805	1073	1342	1610

CHANGES: Chart reindexed.

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LETO/TOJ

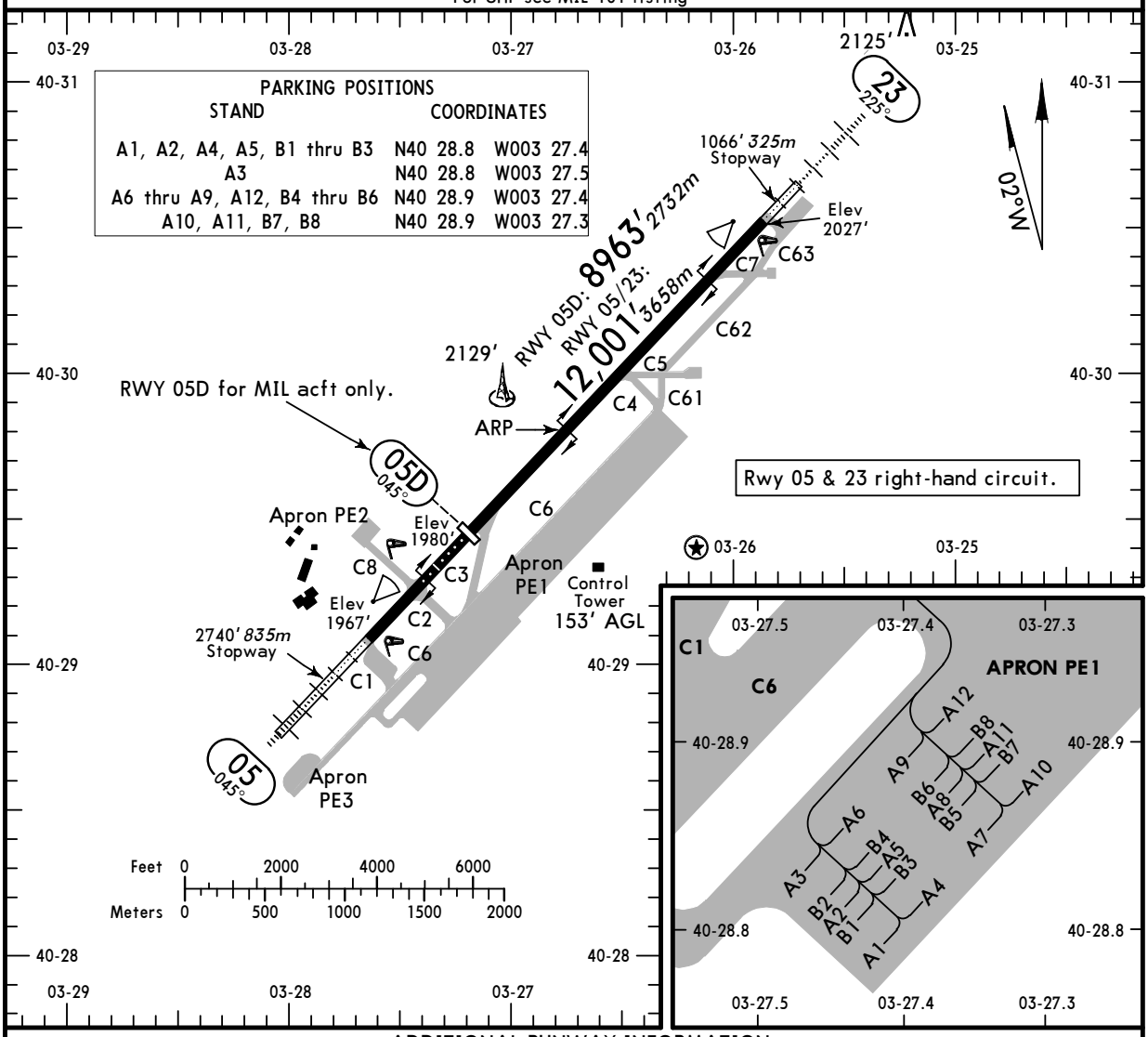
Apt Elev **2027'**
N40 29.8 W003 26.8

JEPPESEN
28 MAY 10 (30-9) Eff 3 Jun

MADRID, SPAIN
TORREJON

TORREJON Tower (GND)	Tower
118.3	122.1

For UHF see MIL-101 listing



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
05 23	HIRL *(50m)* CL *(30m)* HIALS REIL PAPI (3.0°) RVR		10,672' *3253m*		197' *60m*
05D ❶	HIRL *(50m)* CL *(30m)* ALS REIL PAPI (3.0°) RVR				197' *60m*

❶ Rwy usable for mil acft only.

Standard

TAKE-OFF 1 2

	LVP must be in force: RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A	*150m*	*200m*	*250m*	*400m*	*500m*
B					
C					
D	*200m*	*250m*	*300m*		

1 Operators applying U.S. Ops Specs: CL required below 300m.

2 Acft taking-off from rwy 23 shall not overshoot 8 DME Arc VJZ. If unable notify to Tower before taking-off.

CHANGES: Apt & rwy 23 elev. Rwy 05D. Aprons. Lights. Minimums.

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LETO/TOJ

JEPPESEN

28 MAY 10 30-9X Eff 3 Jun

JAA MINIMUMS

MADRID, SPAIN
TORREJON

STRAIGHT-IN RWY		A	B	C	D
23	ILS Z/Y ❶	**2468′**(441′)	**2480′**(453′)	**2488′**(461′)	**2499′**(472′)
		R800m	**R800m**	**R800m**	**R800m**
	ALS out	R1200m	R1200m	R1200m	R1200m
	ILS Z/Y ❷	**2543′**(516′)	**2555′**(528′)	**2563′**(536′)	**2574′**(547′)
		R800m	**R800m**	**R800m**	**R800m**
	ALS out	R1200m	R1200m	R1200m	R1200m
	LOC	**2580′**(553′)	**2580′**(553′)	**2580′**(553′)	**2580′**(553′)
		R1000m	**R1200m**	**R1200m**	**R1600m**
	ALS out	R1500m	R1500m	R2000m	R2000m
	VOR	**2700′**(673′)	**2700′**(673′)	**2700′**(673′)	**2700′**(673′)
		R1200m	**R1400m**	**R1400m**	**R1800m**
	ALS out	R1500m	R1500m	R2000m	R2000m

❶ Missed apch climb gradient mim 3.0%.
❷ Missed apch climb gradient mim 2.5%.

CIRCLE-TO-LAND	100 KT	135 KT	180 KT	205 KT
	2580′(553′)❸ V1500m	**2890′**(863′) V1600m	**3050′**(1023′) V2400m	**3140′**(1113′) V3600m
LOC (LEMD Rwy 33R) Z 05	**2700′**(673′) V1500m	**2890′**(863′) V1600m	NOT APPLICABLE	
LOC (LEMD Rwy 33R) Y 05	NOT APPLICABLE		**3050′**(1023′) V2400m	**3140′**(1113′) V3600m
LOC (LEMD Rwy 33L) X 05	**2700′**(673′) V1500m	**2890′**(863′) V1600m	NOT APPLICABLE	
LOC (LEMD Rwy 33L) V 05	NOT APPLICABLE		**3050′**(1023′) V2400m	**3140′**(1113′) V3600m
VOR Z/Y 05	**2700′**(673′) V1500m	**2890′**(863′) V1600m	NOT APPLICABLE	
VOR X/V 05	NOT APPLICABLE		**3050′**(1023′) V2400m	**3140′**(1113′) V3600m

❸ After VOR 23: 2700′ (673′).

TAKE-OFF RWY 05, 23

	LVP must be in force				
	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A, B, C	*150m*	*200m*	*250m*	*400m*	*500m*
D	*200m*	*250m*	*300m*		

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LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10
Eff 3 Jun
31-1

CAT A & B

MADRID, SPAIN
LOC (LEMD Rwy33R) Z Rwy 05

BRIEFING STRIP ™

MADRID Approach			TORREJON Approach	TORREJON Tower	Ground
124.22	127.5	131.17	119.95	122.1	118.3

For UHF see MIL-101 listing

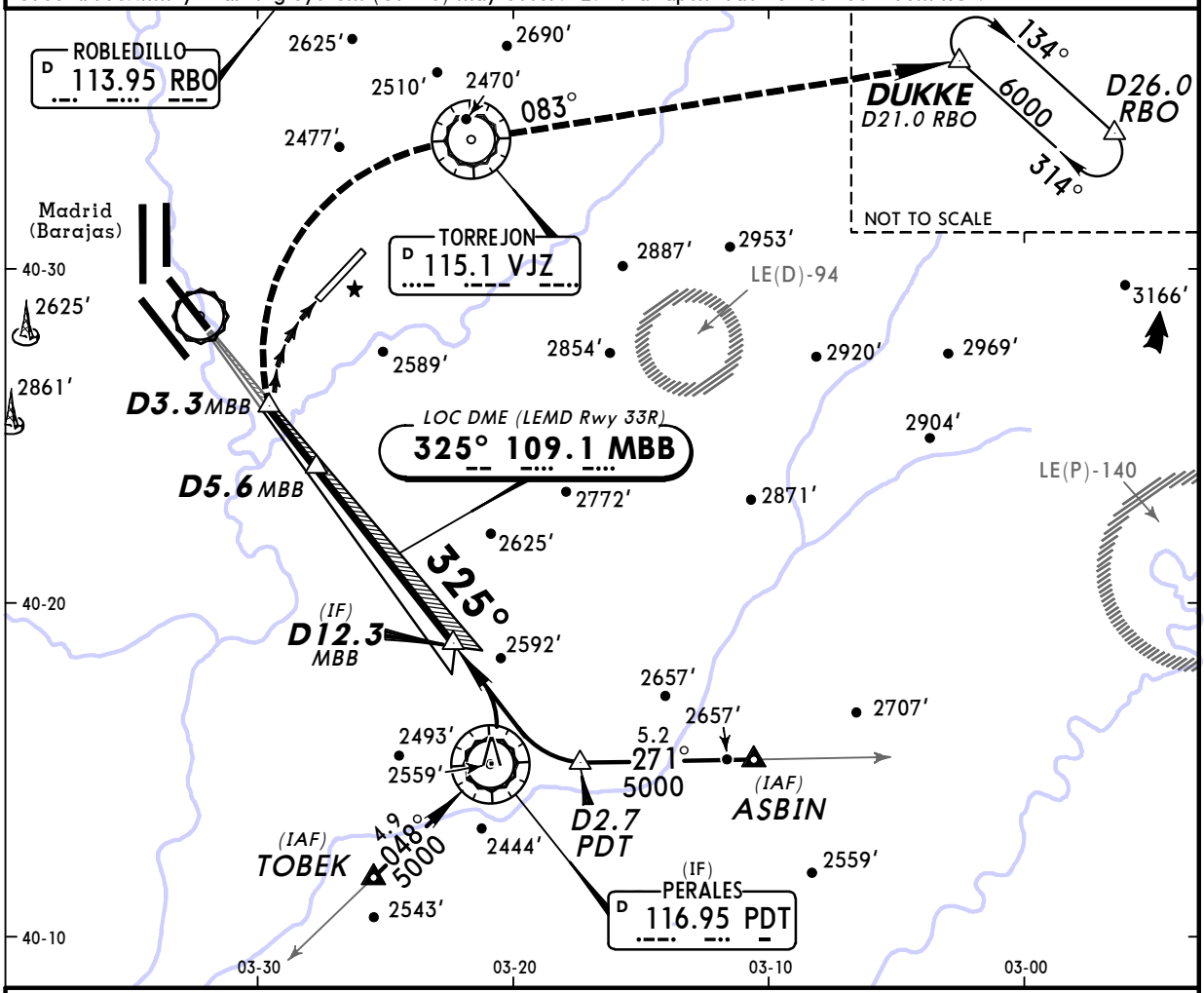
LOC MBB	Final Apch Crs	Minimum Alt D5.6 MBB	MDA(H) Refer to Minimums	Apt Elev
109.1	325°	3500′ (1473′)		2027′

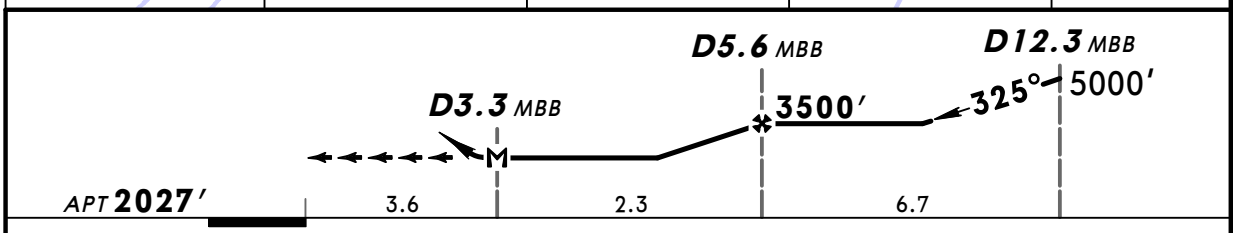
MISSED APCH: As soon as possible turn RIGHT (CAT A: MAX 100 KT, CAT B: MAX 130 KT) to VJZ VOR. Proceed on R-083 VJZ to DUKKE and join holding at 6000′.

MSA VJZ VOR: 9200′ 230°, 080°, 4700′

Alt Set: hPa | Apt Elev: 72 hPa | Trans level: By ATC | Trans alt: 13000′

1. Within 10 NM radius of PDT VOR btn R-249 and R-073 btn 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur. 2. Final apch track offset 80° from RCL.





MAP at D3.3 MBB							

HIALS
REIL
PAPI PAPI

Refer to Missed Apch above

Standard

CIRCLE-TO-LAND

	Max Kts	MDA(H)	VIS
A	100	2700′ (673′)	1500m
B	135	2890′ (863′)	1600m
C		NOT APPLICABLE	
D			

PANS OPS 4

CHANGES: Communications. Apt elev. Minimums.

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LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10
Eff 3 Jun
31-2

CAT C & D

MADRID, SPAIN
LOC (LEMD Rwy33R) Y Rwy 05

BRIEFING STRIP ™

MADRID Approach			TORREJON Approach	TORREJON Tower	Ground
124.22	127.5	131.17	119.95	122.1	118.3

For UHF see MIL-101 listing

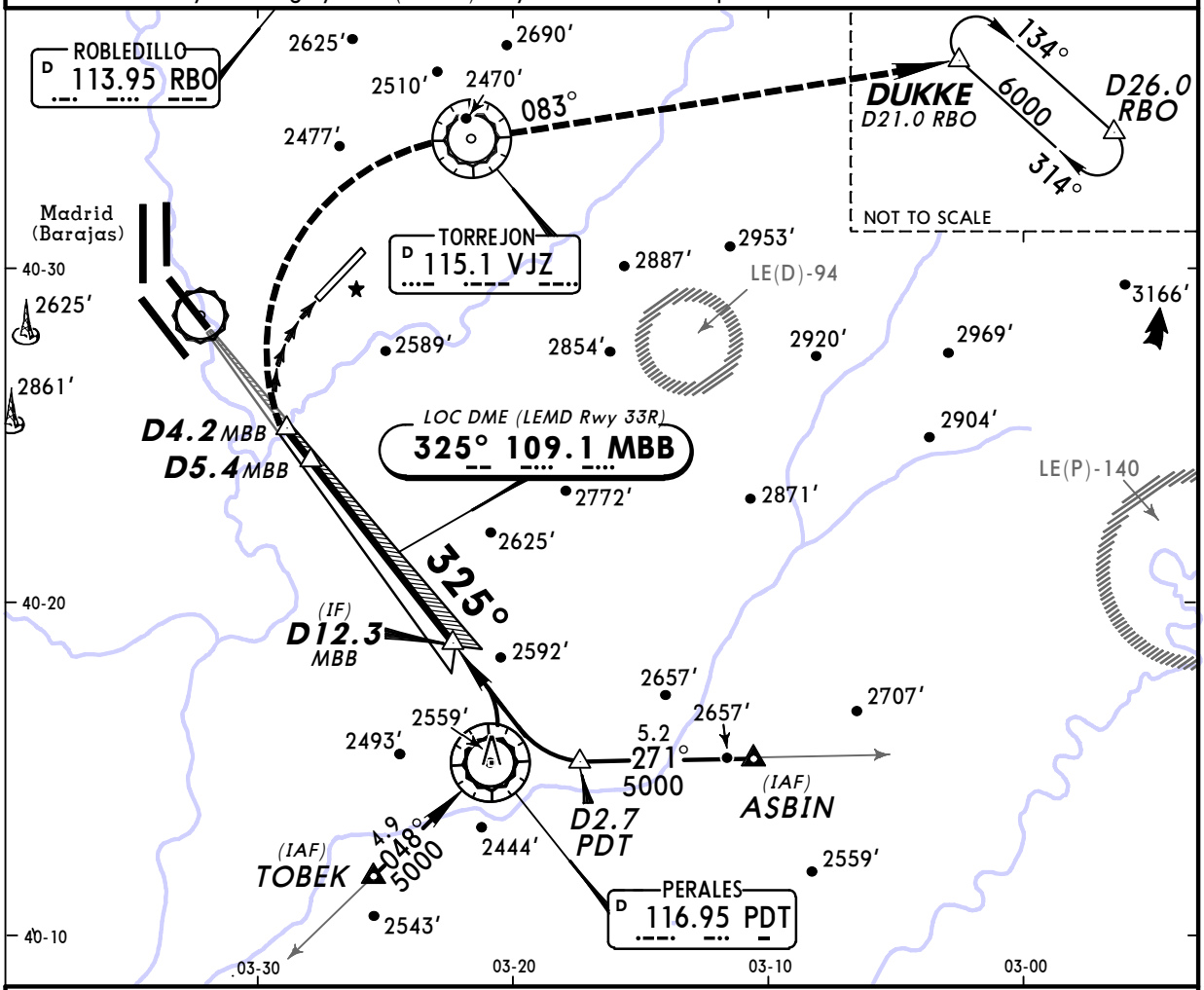
LOC MBB	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev
109.1	325°	D5.4 MBB 3500′ (1473′)	Refer to Minimums	2027′

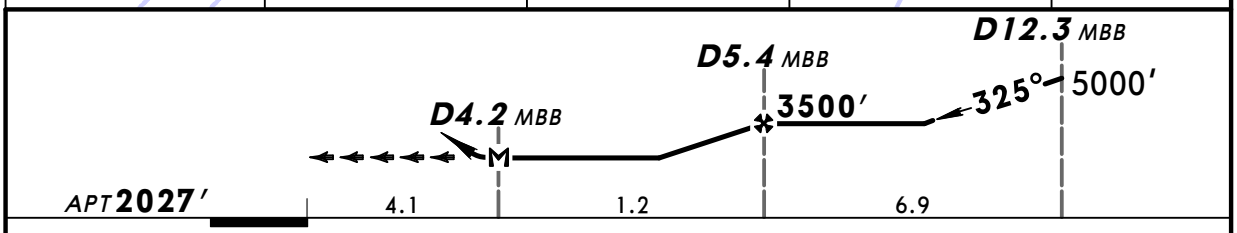
MISSED APCH: As soon as possible turn RIGHT (CAT C: MAX 160 KT, CAT D: MAX 185 KT) to VJZ VOR. Proceed on R-083 VJZ to DUKKE and join holding at 6000′.

MSA VJZ VOR: 9200′ 230°, 080°, 4700′

Alt Set: hPa Apt Elev: 72 hPa Trans level: By ATC Trans alt: 13000′

1. Within 10 NM radius of PDT VOR btn R-249 and R-073 btn 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur. 2. Final apch track offset 80° from RCL.





MAP at D4.2 MBB							

HIALS
REIL
PAPI PAPI

Refer to Missed Apch above

Standard

PANS OPS 4

CIRCLE-TO-LAND

	Max Kts	MDA(H)	VIS
A		NOT APPLICABLE	
B			
C	180	3050′ (1023′)	2400m
D	205	3140′ (1113′)	3600m

CHANGES: Communications. Apt elev. Minimums.

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LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10
Eff 3 Jun
31-3
CAT A & B

MADRID, SPAIN
LOC (LEMD Rwy33L) X Rwy 05

BRIEFING STRIP ™

MADRID Approach			TORREJON Approach	TORREJON Tower	Ground
124.22	127.5	131.17	119.95	122.1	118.3

For UHF see MIL-101 listing

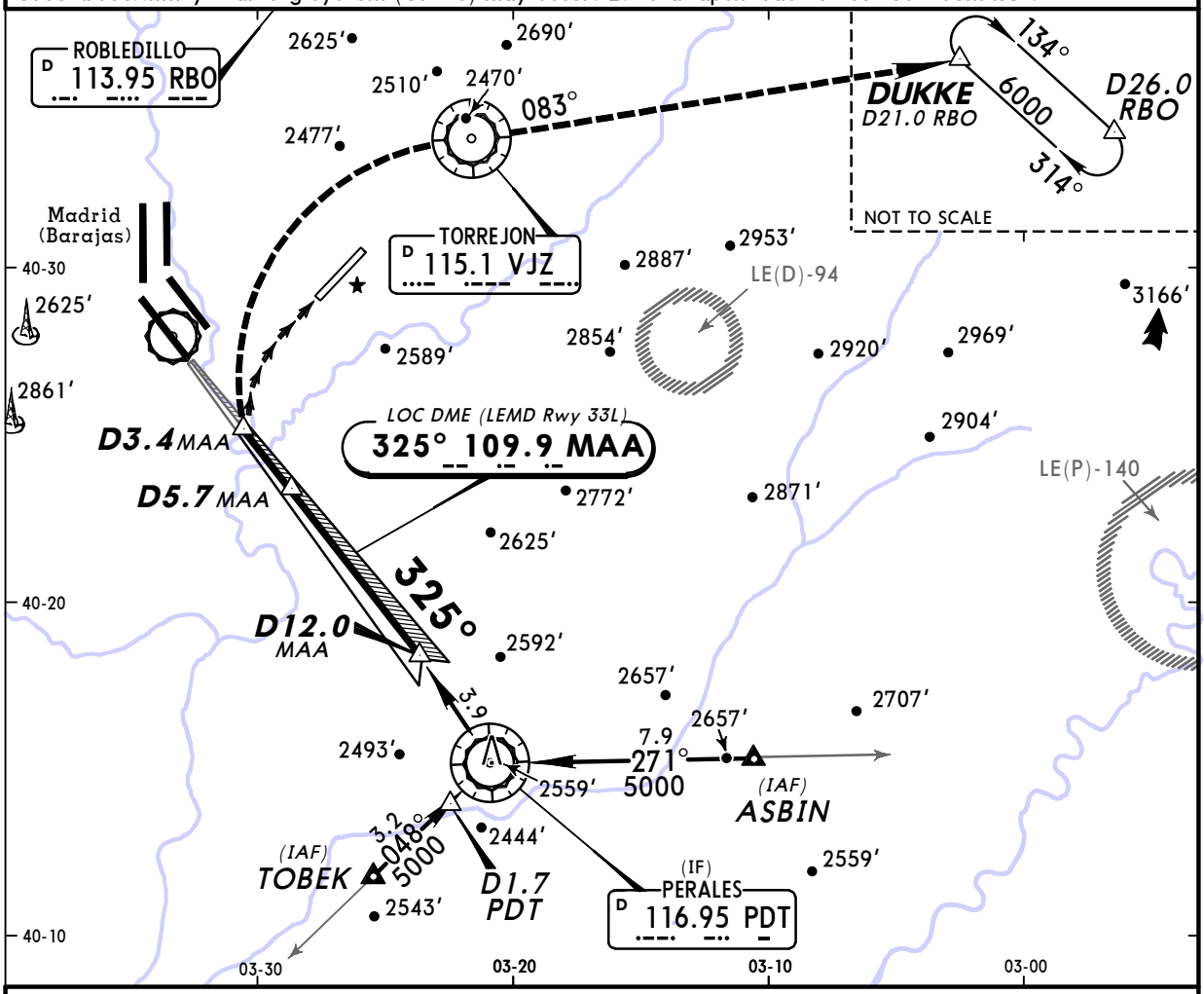
LOC MAA	Final Apch Crs	Minimum Alt D5.7 MAA	MDA(H) Refer to Minimums	Apt Elev
109.9	325°	3500′ (1473′)		2027′

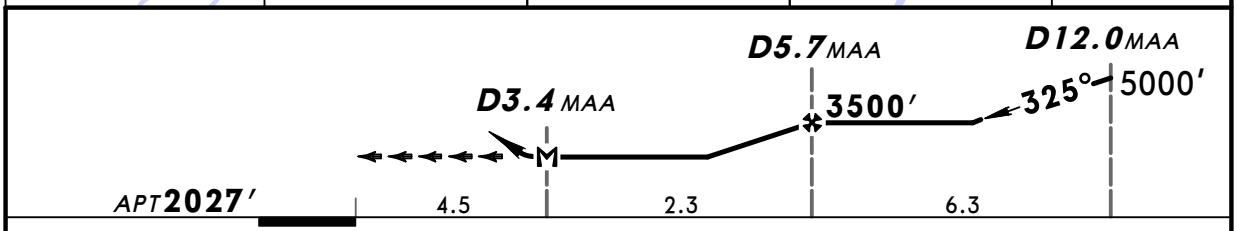
MISSED APCH: As soon as possible turn RIGHT (CAT A: MAX 100 KT, CAT B: MAX 130 KT) to VJZ VOR. Proceed on R-083 VJZ to DUKKE and join holding at 6000′.

MSA VJZ VOR: 9200′ 230°, 080°, 4700′

Alt Set: hPa Apt Elev: 72 hPa Trans level: By ATC Trans alt: 13000′

1. Within 10 NM radius of PDT VOR btn R-249 and R-073 btn 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur. 2. Final apch track offset 80° from RCL.





MAP at D3.4 MAA							

HIALS
REIL PAPI PAPI

Refer to Missed Apch above

Standard

CIRCLE-TO-LAND

	Max Kts	MDA(H)	VIS
A	100	2700′ (673′)	1500m
B	135	2890′ (863′)	1600m
C		NOT APPLICABLE	
D			

PANS OPS 4

CHANGES: Communications. Apt elev. Minimums.

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LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10
Eff 3 Jun
31-4

CAT C & D

MADRID, SPAIN
LOC (LEMD Rwy33L) V Rwy 05

BRIEFING STRIP ™

MADRID Approach			TORREJON Approach	TORREJON Tower	Ground
124.22	127.5	131.17	119.95	122.1	118.3

For UHF see MIL-101 listing

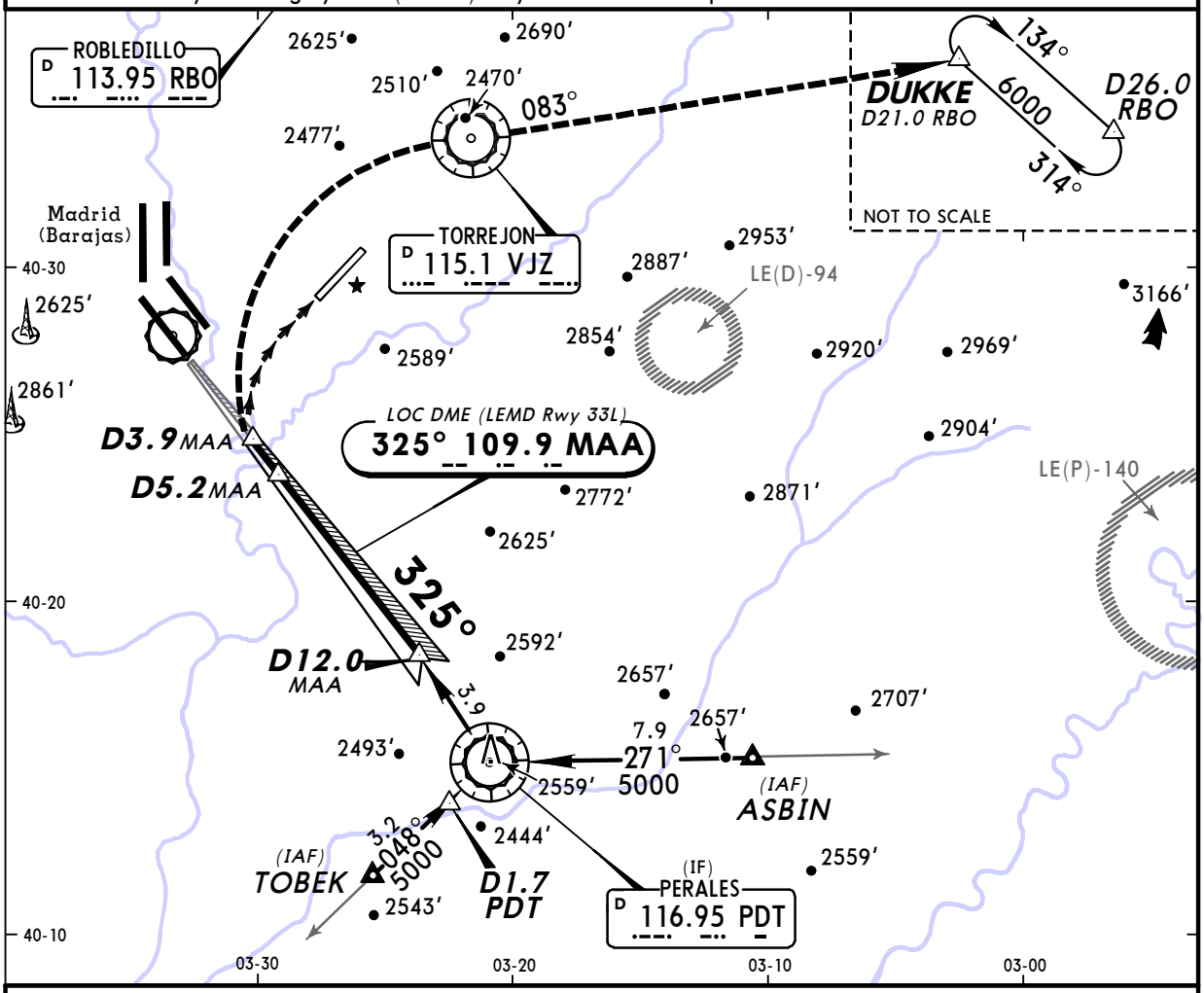
LOC MAA	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev
109.9	325°	D5.2 MAA 3500′ (1473′)	Refer to Minimums	2027′

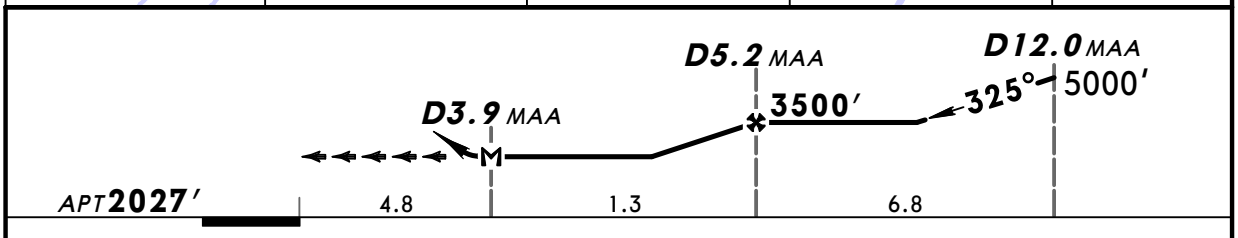
MISSED APCH: As soon as possible turn RIGHT (CAT C: MAX 160 KT, CAT D: MAX 185 KT) to VJZ VOR. Proceed on R-083 VJZ to DUKKE and join holding at 6000′.

MSA VJZ VOR: 9200′ 230°, 080°, 4700′

Alt Set: hPa Apt Elev: 72 hPa Trans level: By ATC Trans alt: 13000′

1. Within 10 NM radius of PDT VOR btn R-249 and R-073 btn 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur. 2. Final apch track offset 80° from RCL.





MAP at D3.9 MAA							

HIALS
REIL
PAPI PAPI

Refer to Missed Apch above

Standard

CIRCLE-TO-LAND

	Max Kts	MDA(H)	VIS
A		NOT APPLICABLE	
B			
C	180	3050′ (1023′)	2400m
D	205	3140′ (1113′)	3600m

PANS OPS 4

CHANGES: Communications. Apt elev. Minimums.

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LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10 (31-5) Eff 3 Jun

MADRID, SPAIN
ILS Z Rwy 23

MADRID Approach	TORREJON Approach	TORREJON Tower	Ground
124.22 127.5 131.17	119.95	122.1	118.3

For UHF see MIL-101 listing

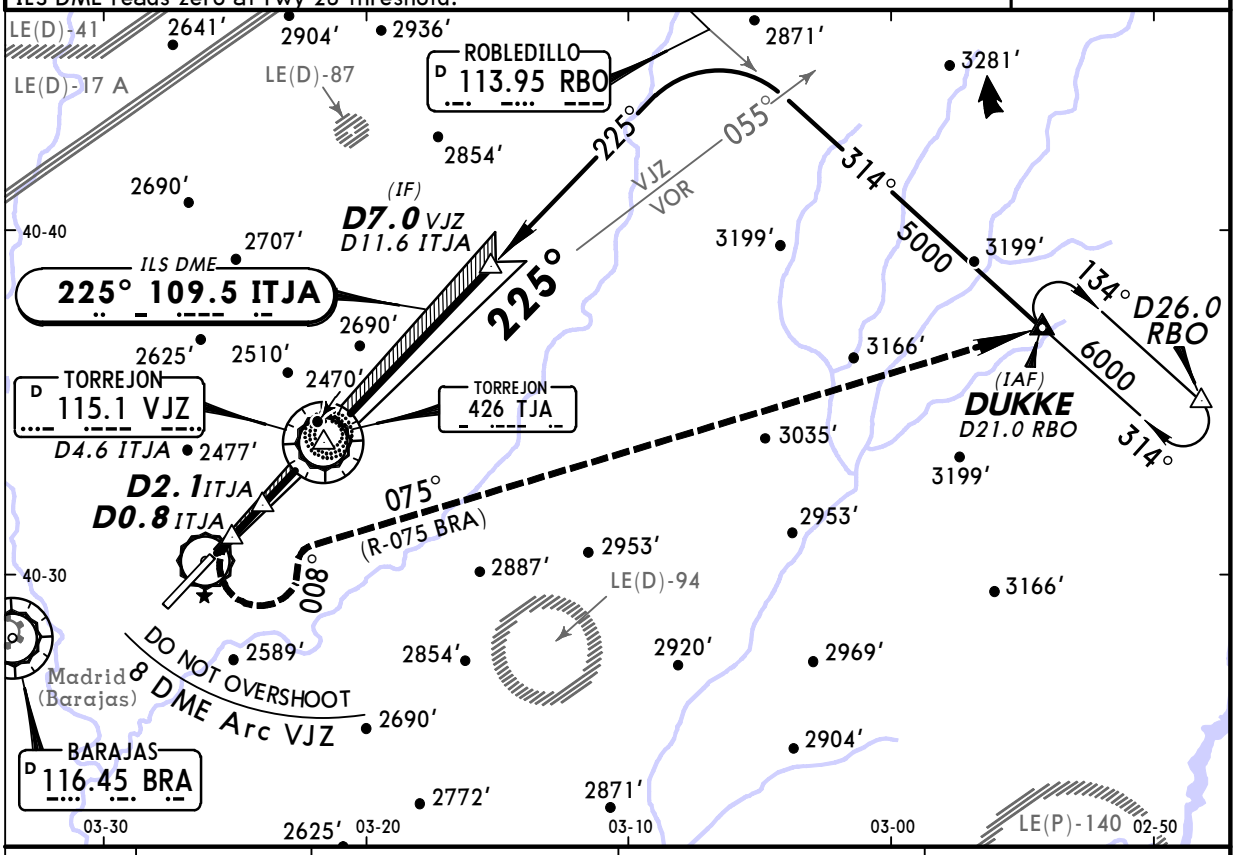
BRIEFING STRIP ™

LOC	Final Apch Crs	GS	ILS DA(H)	Apt Elev 2027′
ITJA 109.5	225°	No alt published	Refer to Minimums	RWY 2027′

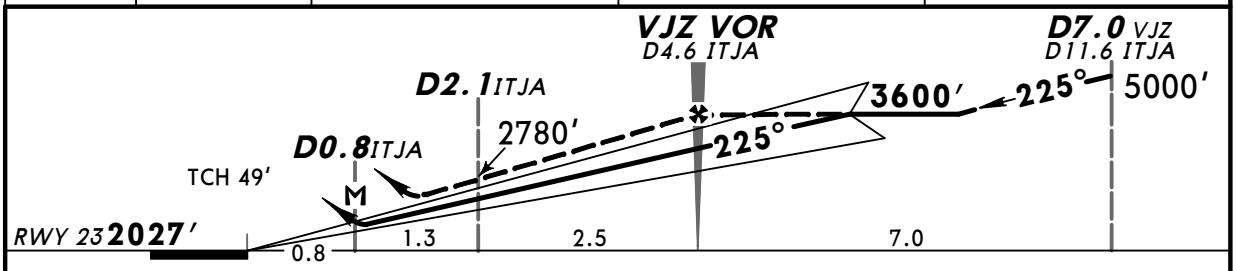
MISSED APCH: As soon as possible turn LEFT (MAX 185 KT, do not overshoot 8 DME Arc VJZ) onto 008° to intercept and follow R-075 BRA to DUKKE and join holding at 6000′. Do not turn before MAP.

Alt Set: hPa Rwy Elev: 72 hPa Trans level: By ATC Trans alt: 13000′
ILS DME reads zero at rwy 23 threshold.

MSA VJZ VOR: 9200′ 230° 080° 4700′



LOC (GS out)	ITJA DME	2.0	3.0	4.0
	ALTITUDE	2740′	3070′	3390′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Desc Angle 3.09°	383	492	547	656	765	875
MAP at D0.8 ITJA						

HIALS REIL PAPI PAPI

Refer to Missed Apch above

Standard STRAIGHT-IN LANDING RWY 23

ILS Missed apch climb gradient mim 3.0%	ILS Missed apch climb gradient mim 2.5%	LOC (GS out)
A: 2468′ (441′)	A: 2543′ (516′)	
B: 2480′ (453′)	B: 2555′ (528′)	
C: 2488′ (461′)	C: 2563′ (536′)	
D: 2499′ (472′)	D: 2574′ (547′)	DA(H) 2580′ (553′)

	FULL/Limited	ALS out	FULL/Limited	ALS out		ALS out
A	RVR 1400m	RVR 1500m	RVR 1500m		RVR 1500m	
B						
C	RVR 1500m	CMV 2200m	RVR 1700m	CMV 2400m	RVR 1800m	CMV 2400m
D			RVR 1800m			

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2580′ (553′)	1500m
135	2890′ (863′)	1600m
180	3050′ (1023′)	2400m
205	3140′ (1113′)	3600m

PANS OPS 4

CHANGES: Communications. Apt & rwy elev. Minimums.

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LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10 (31-6) Eff 3 Jun

MADRID, SPAIN
ILS Y Rwy 23

BRIEFING STRIP™

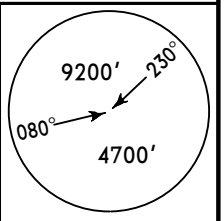
MADRID Approach	TORREJON Approach	TORREJON Tower	Ground
124.22 127.5 131.17	119.95	122.1	118.3

For UHF see MIL-101 listing

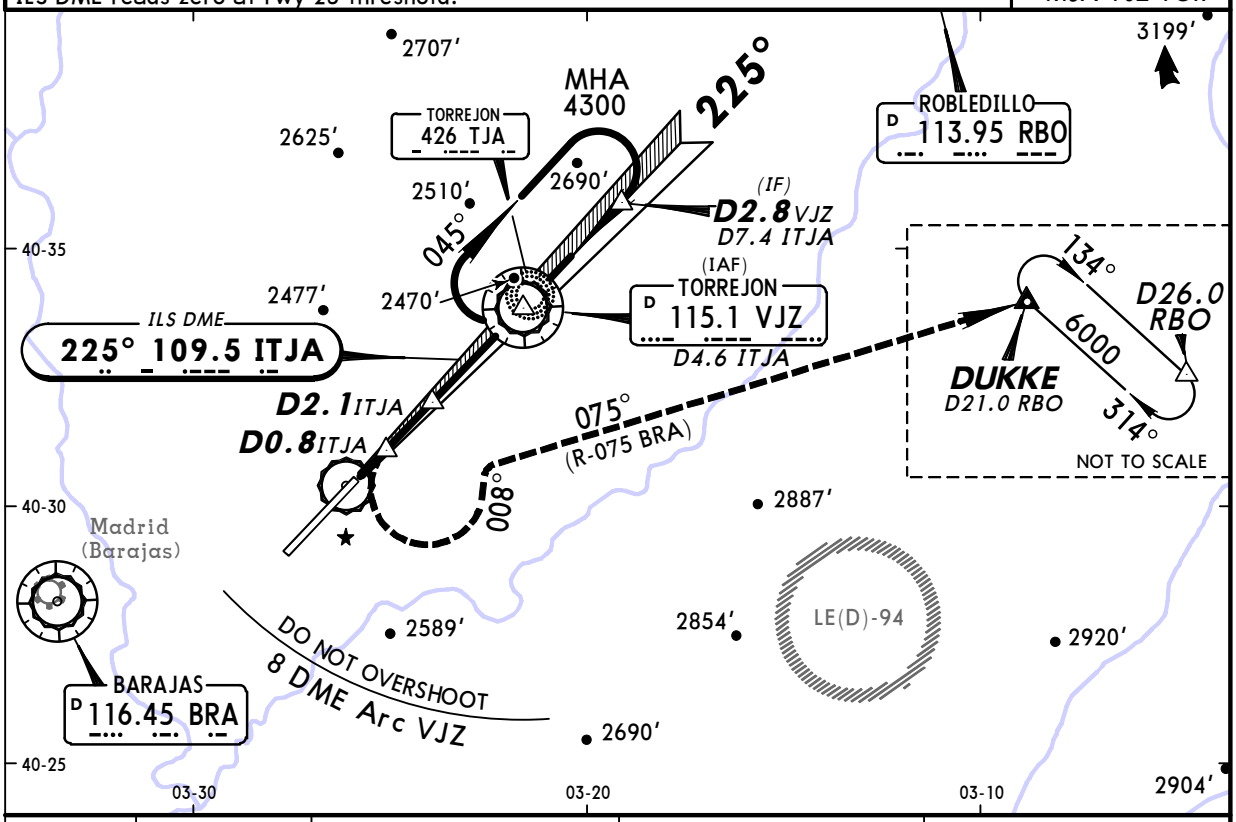
LOC	Final Apch Crs	GS	ILS DA(H)	Apt Elev 2027′
ITJA 109.5	225°	No alt published	Refer to Minimums	RWY 2027′

MISSED APCH: As soon as possible turn LEFT (MAX 185 KT, do not overshoot 8 DME Arc VJZ) onto 008° to intercept and follow R-075 BRA to DUKKE and join holding at 6000′. Do not turn before MAP.

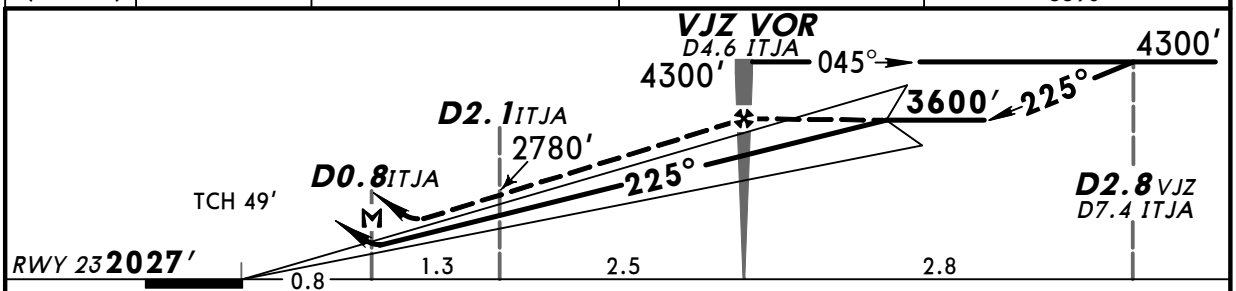
Alt Set: hPa Rwy Elev: 72 hPa Trans level: By ATC Trans alt: 13000′
ILS DME reads zero at rwy 23 threshold.



MSA VJZ VOR



LOC (GS out)	ITJA DME	2.0	3.0	4.0
	ALTITUDE	2740′	3070′	3390′



Gnd speed-Kts	70	90	100	120	140	160
ILS GS 3.00°	377	484	538	646	753	861
LOC Desc Angle 3.09°	383	492	547	656	765	875
MAP at D0.8 ITJA						

HIALS
REIL PAPI PAPI

Refer to Missed Apch above

Standard STRAIGHT-IN LANDING RWY 23

	ILS Missed apch climb gradient mim 3.0%	ILS Missed apch climb gradient mim 2.5%	LOC (GS out)
A	2468′ (441′)	2543′ (516′)	
B	2480′ (453′)	2555′ (528′)	
C	2488′ (461′)	2563′ (536′)	
D	2499′ (472′)	2574′ (547′)	DA(H) 2580′ (553′)

PANS OPS 4

	FULL/Limited	ALS out	FULL/Limited	ALS out		ALS out
A	RVR 1400m	RVR 1500m	RVR 1500m		RVR 1500m	
B						
C	RVR 1500m	CMV 2200m	RVR 1700m	CMV 2400m	RVR 1800m	CMV 2400m
D			RVR 1800m			

CIRCLE-TO-LAND

Max Kts.	MDA(H)	VIS
100	2580′ (553′)	1500m
135	2890′ (863′)	1600m
180	3050′ (1023′)	2400m
205	3140′ (1113′)	3600m

CHANGES: Communications. Apt & rwy elev. Minimums.

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LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10
Eff 3 Jun
33-1
CAT A & B

MADRID, SPAIN
VOR Z Rwy 05

BRIEFING STRIP ™

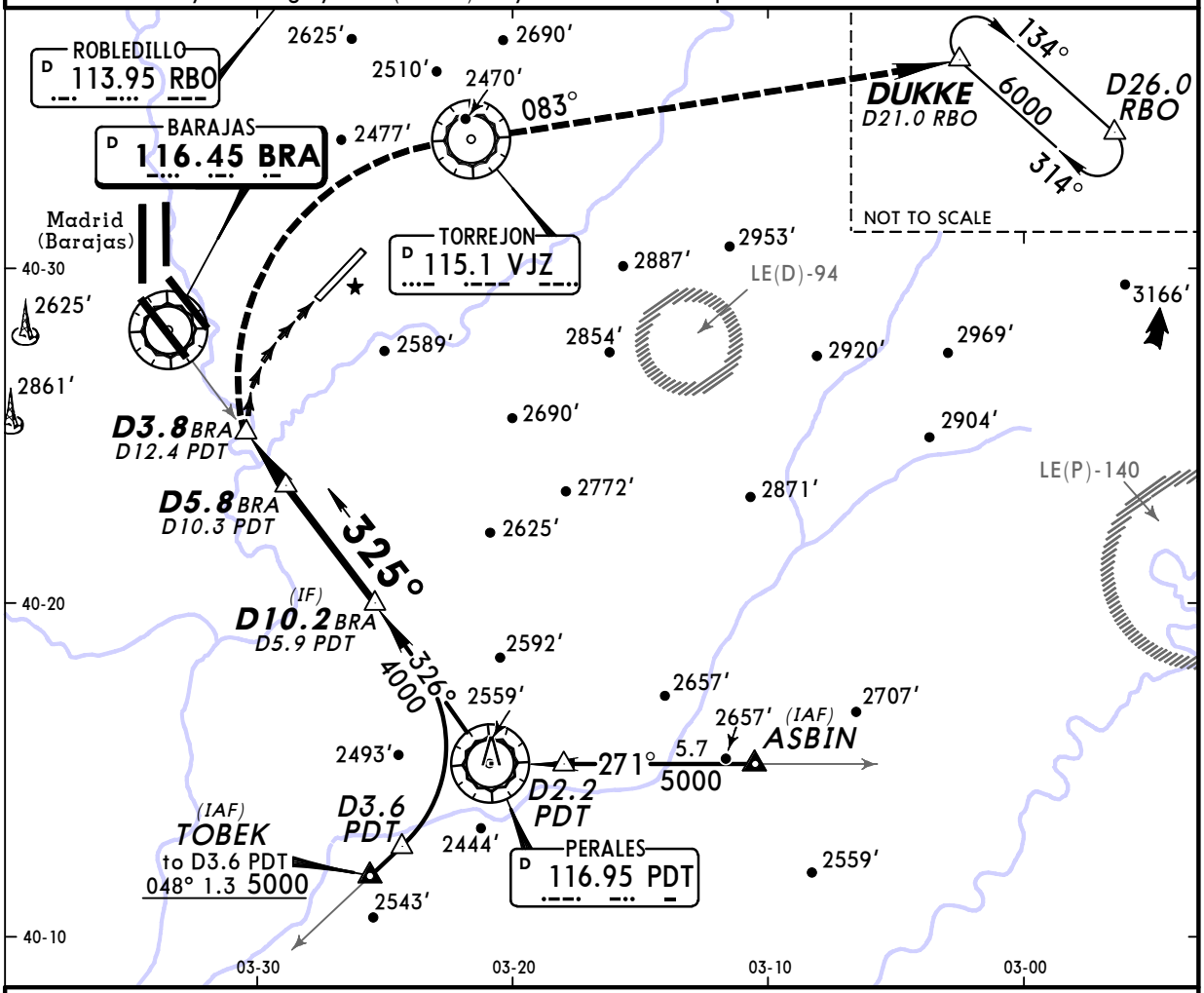
MADRID Approach			TORREJON Approach	TORREJON Tower	Ground
124.22	127.5	131.17	119.95	122.1	118.3
For UHF see MIL-101 listing					

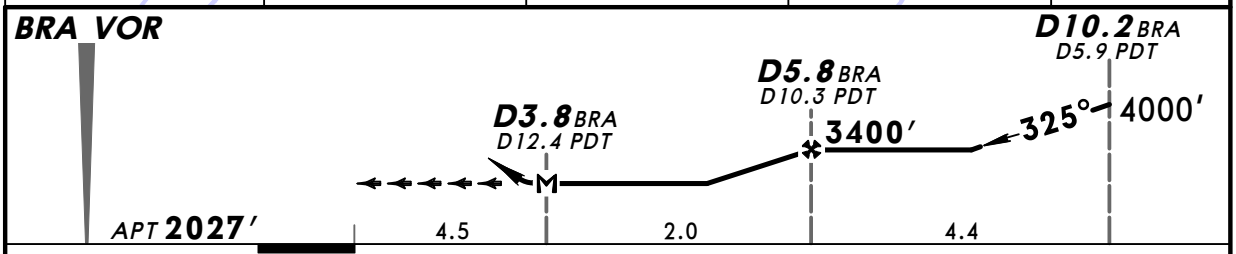
VOR	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev
BRA 116.45	325°	D5.8 BRA 3400′ (1373′)	Refer to Minimums	2027′

MISSED APCH: As soon as possible turn RIGHT (CAT A: MAX 100 KT, CAT B: MAX 130 KT) to VJZ VOR. Proceed on R-083 VJZ to DUKKE and join holding at 6000′.

9200′ 230° 080° 4700′
MSA VJZ VOR

Alt Set: hPa Apt Elev: 72 hPa Trans level: By ATC Trans alt: 13000′
1. Within 10 NM radius of PDT VOR btn R-249 and R-073 btn 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur. 2. Final apch track offset 80° from RCL.





MAP at D3.8 BRA/D12.4 PDT

HIALS
REIL
PAPI PAPI

Refer to Missed Apch above

Standard

CIRCLE-TO-LAND

	Max Kts	MDA(H)	VIS
A	100	2700′ (673′)	1500m
B	135	2890′ (863′)	1600m
C		NOT APPLICABLE	
D			

PANS OPS 4

CHANGES: Communications. Apt elev. Minimums.

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JEPPESEN
JeppView 3.7.2.1

LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10
Eff 3 Jun
33-2
CAT A & B

MADRID, SPAIN
VOR Y Rwy 05

BRIEFING STRIP ™

MADRID Approach			TORREJON Approach	TORREJON Tower	Ground
124.22	127.5	131.17	119.95	122.1	118.3

For UHF see MIL-101 listing

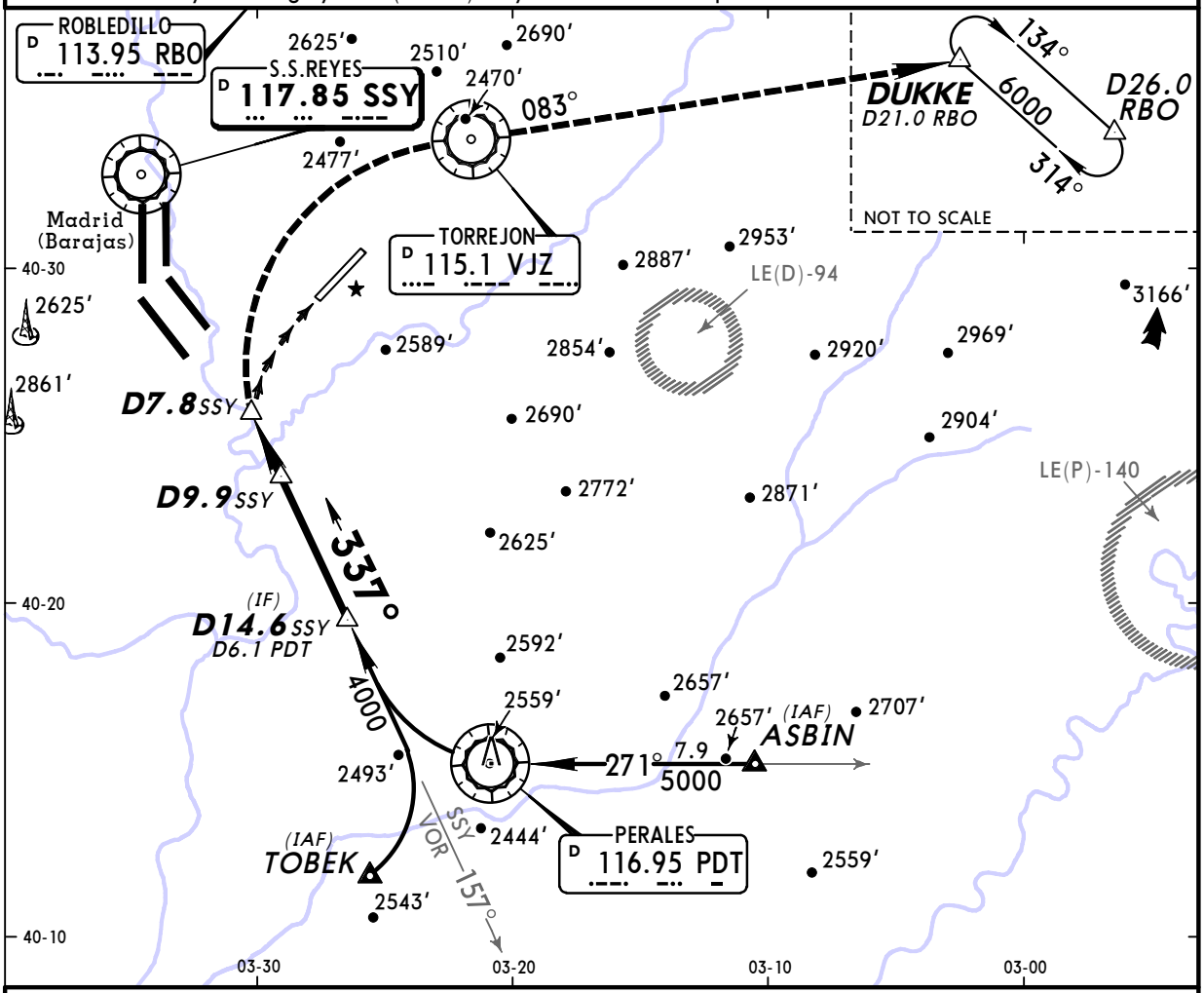
VOR	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev
SSY 117.85	337°	D9.9 SSY 3400′ (1373′)	Refer to Minimums	2027′

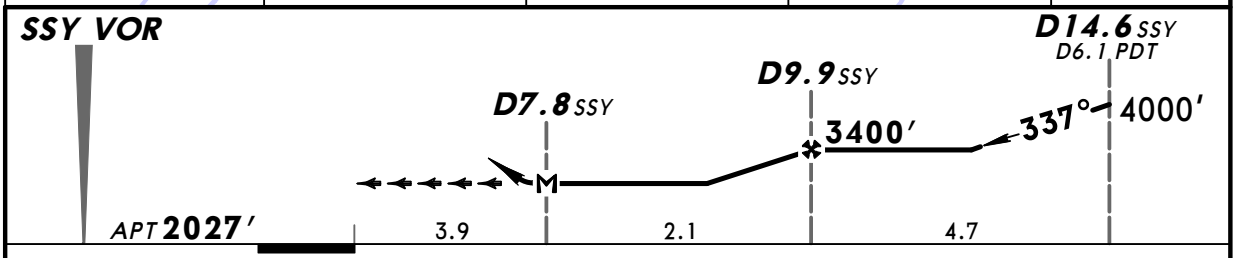
MISSED APCH: As soon as possible turn RIGHT (CAT A: MAX 100 KT, CAT B: MAX 130 KT) to VJZ VOR. Proceed on R-083 VJZ to DUKKE and join holding at 6000′.

MSA VJZ VOR: 9200′ 230°, 080°, 4700′

Alt Set: hPa Apt Elev: 72 hPa Trans level: By ATC Trans alt: 13000′

1. Within 10 NM radius of PDT VOR btn R-249 and R-073 btn 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur. 2. Final apch track offset 68° from RCL.





MAP at D7.8 SSY						

HIALS
REIL
PAPI PAPI

Refer to Missed Apch above

Standard

CIRCLE-TO-LAND

	Max Kts	MDA(H)	VIS
A	100	2700′ (673′)	1500m
B	135	2890′ (863′)	1600m
C		NOT APPLICABLE	
D			

PANS OPS 4

CHANGES: Communications. Apt elev. Minimums.

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JEPPESEN
JeppView 3.7.2.1

LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10
Eff 3 Jun
33-3
CAT C & D

MADRID, SPAIN
VOR X Rwy 05

BRIEFING STRIP ™

MADRID Approach			TORREJON Approach	TORREJON Tower	Ground
124.22	127.5	131.17	119.95	122.1	118.3

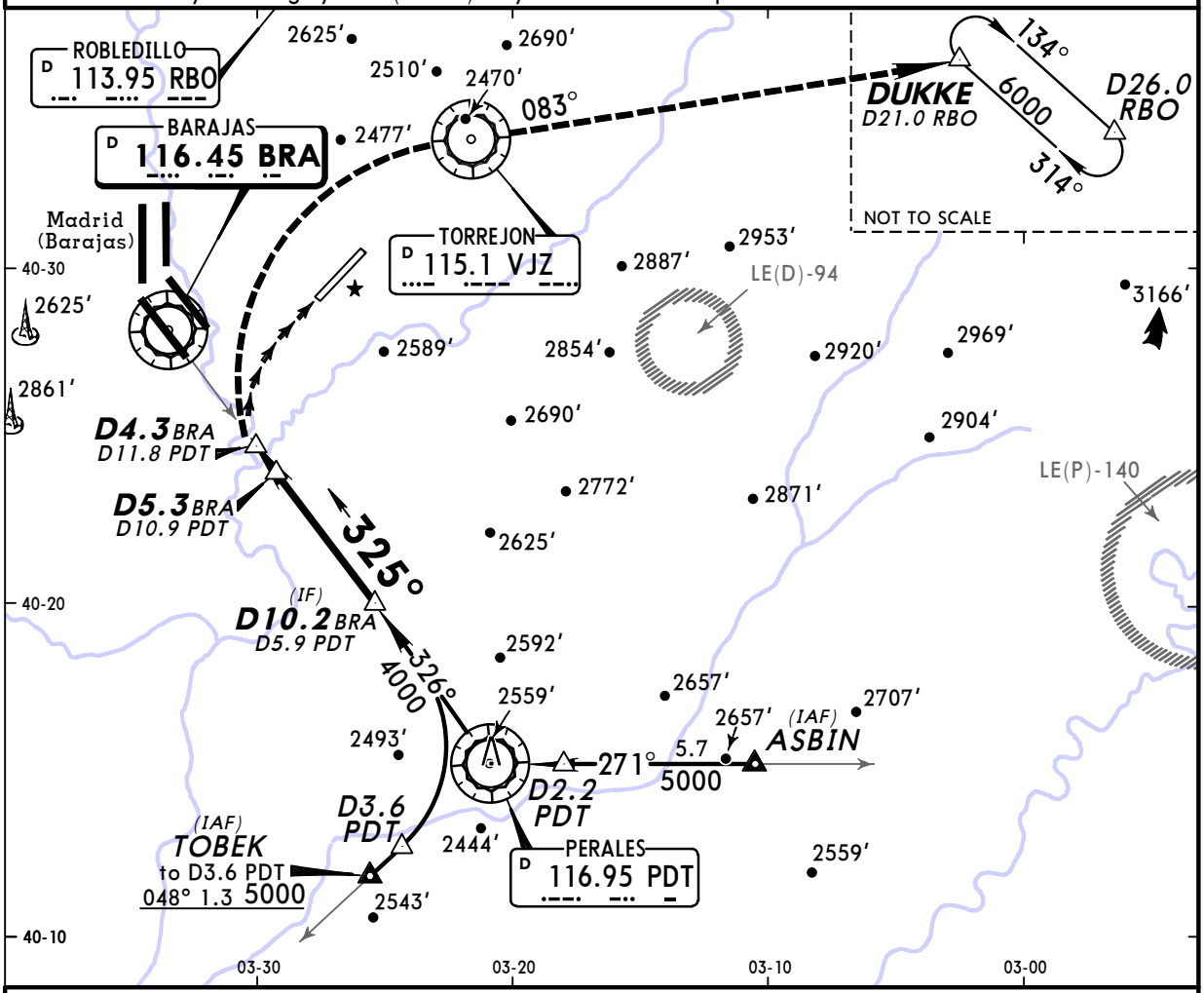
For UHF see MIL-101 listing

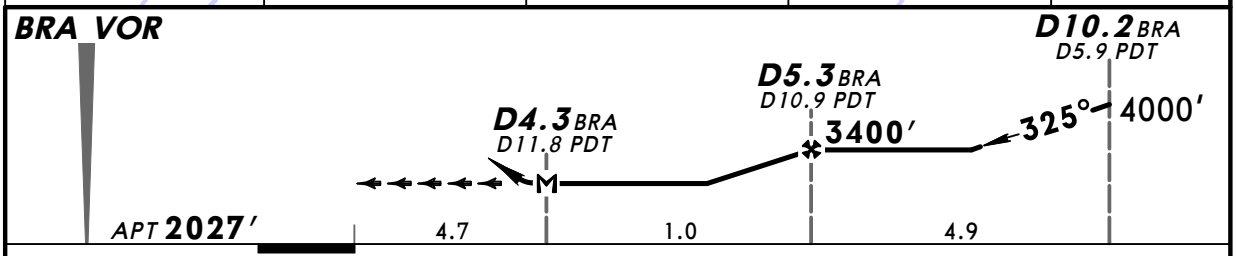
VOR	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev
BRA 116.45	325°	D5.3 BRA 3400′ (1373′)	Refer to Minimums	2027′

MISSED APCH: As soon as possible turn RIGHT (CAT C: MAX 160 KT, CAT D: MAX 185 KT) to VJZ VOR. Proceed on R-083 VJZ to DUKKE and join holding at 6000′.

MSA VJZ VOR: 9200′ 230° 080° 4700′

Alt Set: hPa Apt Elev: 72 hPa Trans level: By ATC Trans alt: 13000′
1. Within 10 NM radius of PDT VOR btn R-249 and R-073 btn 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur. 2. Final apch track offset 80° from RCL.





MAP at D4.3 BRA/D11.8 PDT						

HIALS
REIL PAPI PAPI

Refer to Missed Apch above

Standard

PANS OPS 4

CIRCLE-TO-LAND

	Max Kts	MDA(H)	VIS
A		NOT APPLICABLE	
B			
C	180	3050′ (1023′)	2400m
D	205	3140′ (1113′)	3600m

CHANGES: Communications. Apt elev. Minimums.

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JeppView 3.7.2.1

LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10
Eff 3 Jun
33-4
CAT C & D

MADRID, SPAIN
VOR V Rwy 05

BRIEFING STRIP ™

MADRID Approach			TORREJON Approach	TORREJON Tower	Ground
124.22	127.5	131.17	119.95	122.1	118.3

For UHF see MIL-101 listing

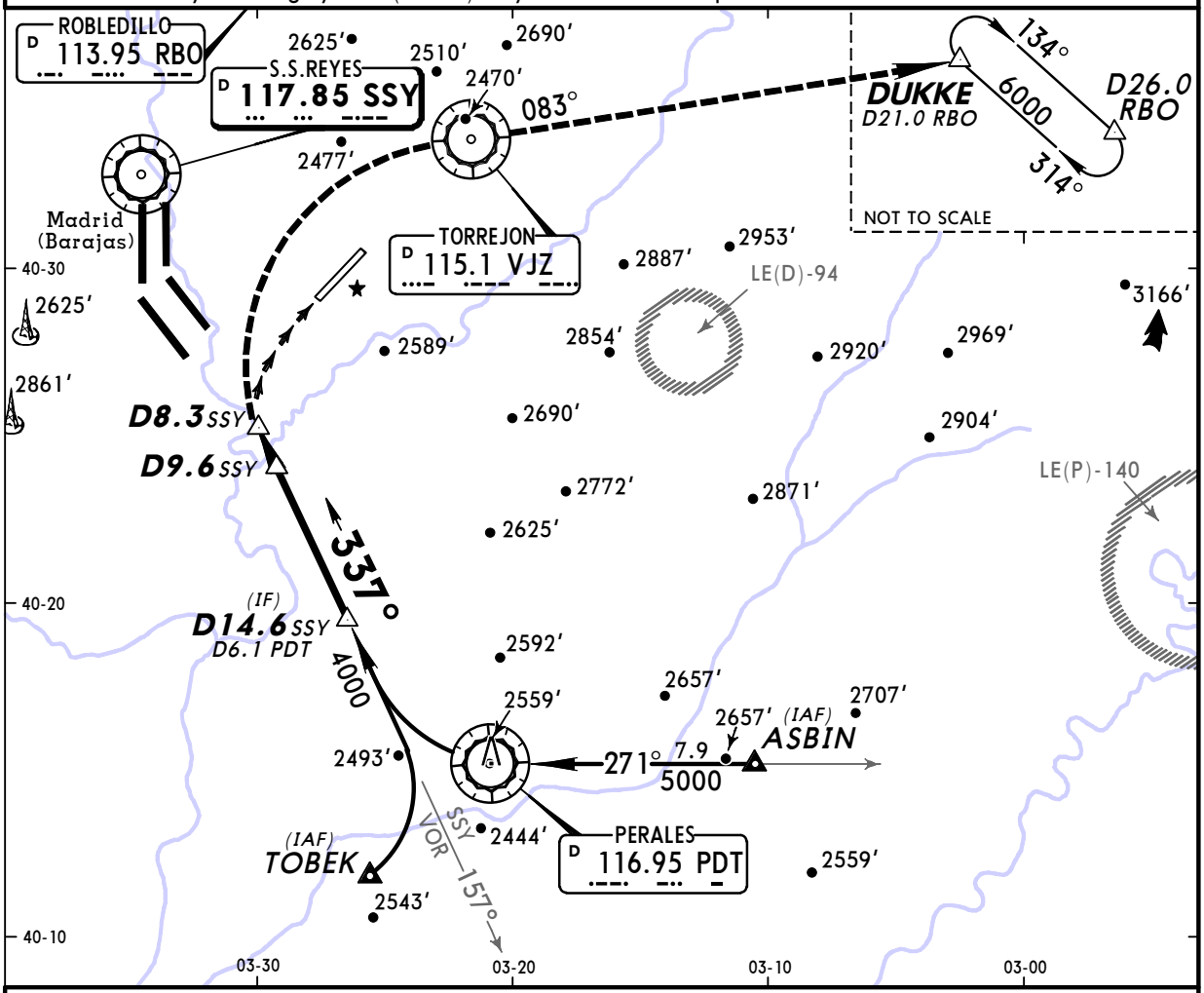
VOR	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev
SSY 117.85	337°	D9.6 SSY 3400′ (1373′)	Refer to Minimums	2027′

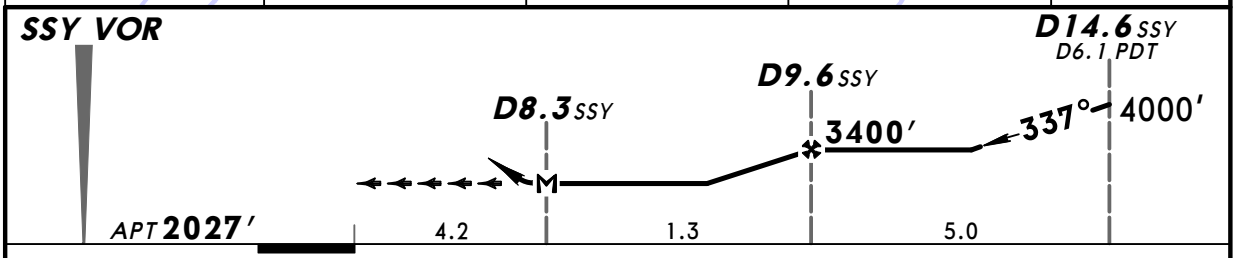
MISSED APCH: As soon as possible turn RIGHT (CAT C: MAX 160 KT, CAT D: MAX 185 KT) to VJZ VOR. Proceed on R-083 VJZ to DUKKE and join holding at 6000′.

MSA VJZ VOR: 9200′ 230° 080° 4700′

Alt Set: hPa Apt Elev: 72 hPa Trans level: By ATC Trans alt: 13000′

1. Within 10 NM radius of PDT VOR btn R-249 and R-073 btn 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur. 2. Final apch track offset 68° from RCL.





MAP at D8.3 SSY						

HIALS
REIL
PAPI PAPI

Refer to Missed Apch above

Standard

PANS OPS 4

CIRCLE-TO-LAND

	Max Kts	MDA(H)	VIS
A		NOT APPLICABLE	
B			
C	180	3050′ (1023′)	2400m
D	205	3140′ (1113′)	3600m

CHANGES: Communications. Apt elev. Minimums.

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JEPPESEN
JeppView 3.7.2.1

LETO/TOJ
TORREJON

JEPPESEN
28 MAY 10 (33-5) Eff 3 Jun

MADRID, SPAIN
VOR Rwy 23

BRIEFING STRIP TM

MADRID Approach	TORREJON Approach	TORREJON Tower	Ground
124.22 127.5 131.17	119.95	122.1	118.3

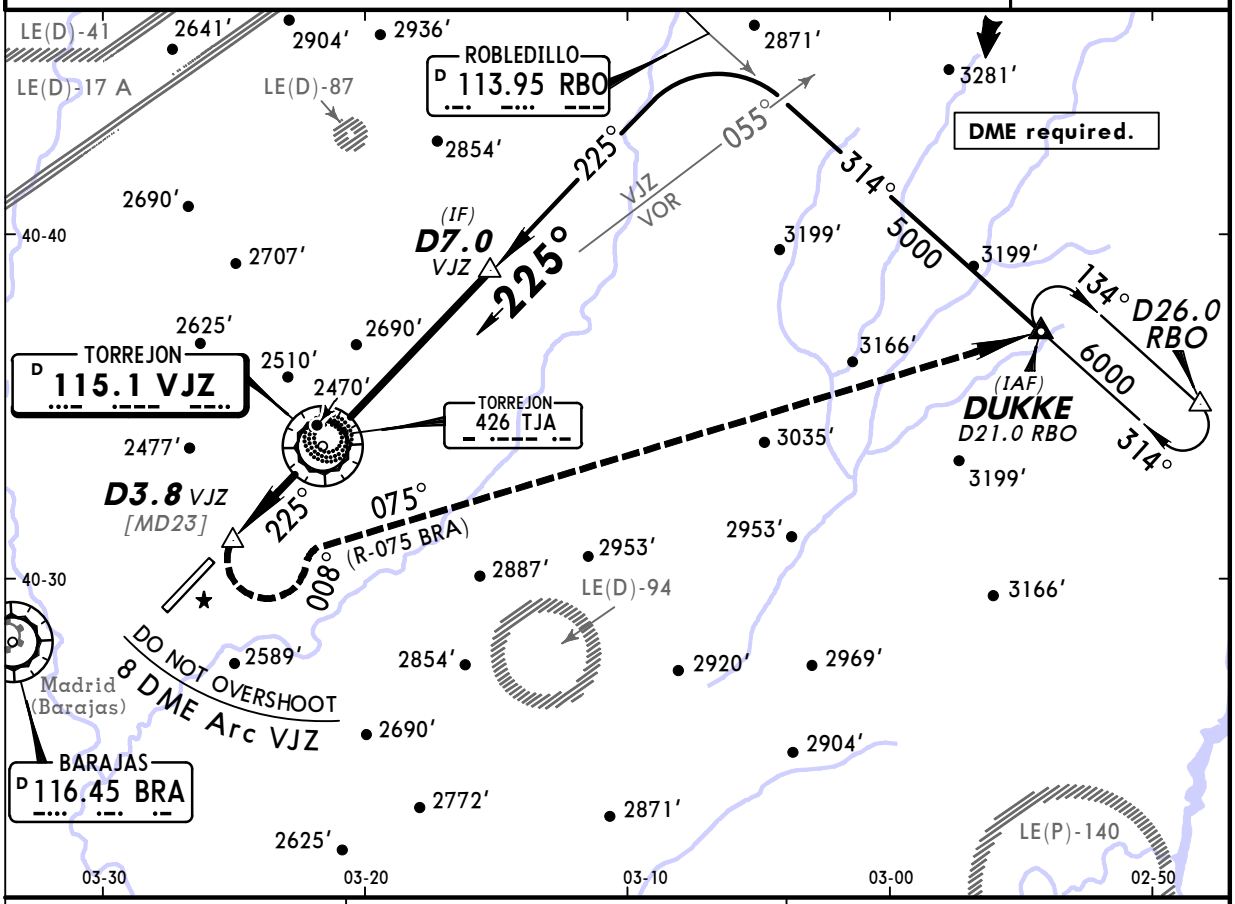
For UHF see MIL-101 listing

VOR	Final Apch Crs	Minimum Alt	DA(H)	Apt Elev 2027′
VJZ 115.1	225°	VJZ VOR 3600′ (1573′)	2700′ (673′)	RWY 2027′

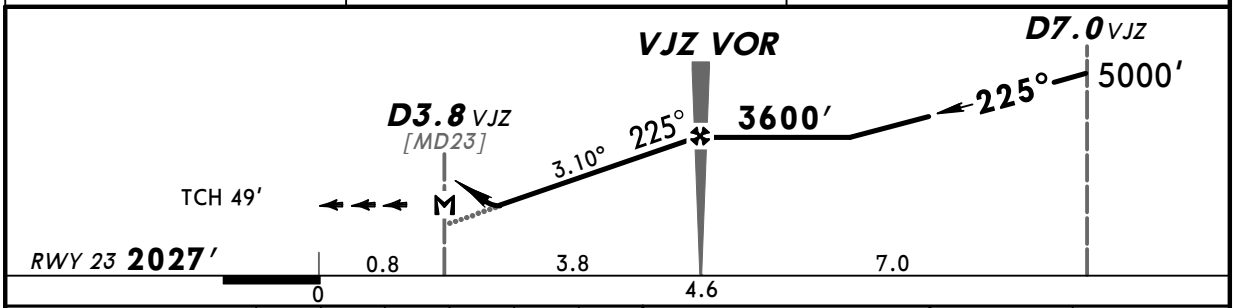
MISSED APCH: As soon as possible turn LEFT (MAX 185 KT, do not overshoot 8 DME Arc VJZ) onto 008° to intercept and follow R-075 BRA to DUKKE and join holding at 6000′.

Alt Set: hPa Rwy Elev: 72 hPa Trans level: By ATC Trans alt: 13000′

MSA VJZ VOR: 9200′ 230° 080° 4700′



VJZ DME	2.0	1.0
ALTITUDE	2950′	3280′



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.10°	384	494	548	658	768	878
MAP at D3.8 VJZ						

HIALS
REIL PAPI PAPI

Refer to Missed Apch above

PANS OPS 4

Standard STRAIGHT-IN LANDING RWY 23

DA(H) 2700′ (673′)

	ALS out	Max Kts	MDA(H)	VIS
A	RVR 1500m	100	2700′ (673′)	1500m
B		135	2890′ (863′)	1600m
C	CMV 2400m	180	3050′ (1023′)	2400m
D		205	3140′ (1113′)	3600m

CIRCLE-TO-LAND

CHANGES: Communications. Apt & rwy elev. Minimums.

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