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Revision Letter For Cycle 01-2014
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General Information

Location: Madrid Esp
IATA Code: MAD
Lat/Long: N40° 28.3' W003° 33.6'
Elevation: 1998 ft

Airport Use: Public
Magnetic Variation: 1.2°W

Fuel Types: Jet A-1
Repair Types: Minor Airframe, Minor Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: No

Sunrise: 0738 Z
Sunset: 1702 Z,

Runway Information

Runway: 14L
Length x Width: 11483 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 1942 ft
Lighting: Edge, Centerline

Runway: 14R
Length x Width: 13084 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 1995 ft
Lighting: Edge, Centerline

Runway: 18L
Length x Width: 11483 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 1928 ft
Lighting: Edge, ALS, Centerline, TDZ
Displaced Threshold: 1640 ft

Runway: 18R
Length x Width: 13711 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 1991 ft
Lighting: Edge, ALS, Centerline, TDZ
Displaced Threshold: 2670 ft

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Runway: 32L
Length x Width: 13084 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 1949 ft
Lighting: Edge, ALS, Centerline, TDZ
Displaced Threshold: 3045 ft

Runway: 32R
Length x Width: 11483 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 1903 ft
Lighting: Edge, ALS, Centerline, TDZ
Displaced Threshold: 1640 ft

Runway: 36L
Length x Width: 13711 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 1985 ft
Lighting: Edge, Centerline

Runway: 36R
Length x Width: 11483 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 1942 ft
Lighting: Edge, Centerline

Communication Information

ATIS 130.85 Departure Service
ATIS 118.25 Arrival Service
Barajas Tower 130.25
Barajas Tower 123.325
Barajas Tower 120.65 Secondary
Barajas Tower 120.15 Secondary
Barajas Tower 118.975 Arrival Service
Barajas Tower 118.675 Arrival Service
Barajas Tower 118.15 Arrival Service
Barajas Tower 118.075 Arrival Service
Barajas Tower Ground Control 121.975
Barajas Tower Ground Control 121.75
Barajas Tower Ground Control 123.15
Barajas Tower Ground Control 121.625
Barajas Apron Ramp/Taxi Control 123.25
Barajas Apron Ramp/Taxi Control 123.0
Barajas Apron Ramp/Taxi Control 121.85
Barajas Apron Ramp/Taxi Control 121.7
Barajas Tower Clearance Delivery 130.35
Barajas Tower Clearance Delivery 130.075
Madrid Approach Control 136.1
Madrid Approach Control 134.95 Military
Madrid Approach Control 134.025
Madrid Approach Control 131.175

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Madrid Approach Control 130.8
Madrid Approach Control 128.7 Military
Madrid Approach Control 127.5
Madrid Approach Control 127.1
Madrid Approach Control 124.225
Madrid Approach Control 124.025
Madrid Approach Control 118.75
Madrid Approach Control 118.4

1. GENERAL

1.1. ATIS

ATIS Arrival 118.25
ATIS Departure 130.85

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. GENERAL

All general aviation and business ACFT wishing to operate at the APT must have hired:

- Ramp handling agent;
- General and business aviation manager, authorized by the APT.
  Contact data:

  GESTAIR FBO
  OCC (Operations & Control Centre)
  TEL: 34-916 78 26 48
  FAX: 34-913 93 68 99
  E-mail: occ@gestair.com
  SITA: MADOOG5
  FREQ: 131.900 MHz

  Multiservicios Aeroportuarios
  FBO MADRID
  TEL: 34-913 24 30 56
  E-mail: handling-fbo@maero.es
  SITA: MADOO7X
  FREQ: 131.950 MHz

In flight plan item 18 "Other information" and in every slot message or request for general aviation and business flights wishing to operate at the airport shall be included:

- Flight Handling agent;
- General and business aviation manager hired.

Arrival or Departure operations of ACFT licensed according to ICAO Annex 16, VOL I, Chapter II are forbidden.

Changes on the procedures must not be asked until reaching FL 100, except for propeller ACFT.

1.2.2. PREFERENTIAL RWYs

1.2.2.1. NORTH CONFIGURATION

Under normal operational conditions when the tail wind component is not higher than 10 KT (RWY surface is dry or wet with braking action good):

- Between 0700-2300LT RWYs 36L/R will be used for take-off and RWYs 32L/R for landing.
- Between 2300-0700LT RWY 36L will be used for take-off and RWY 32R for landing.

1.2.2.2. SOUTH CONFIGURATION

Under normal operational conditions (RWY surface is dry or wet with braking action good):

- Between 0700-2300LT RWYs 14L/R will be used for take-off and RWYs 18L/R for landing.
- Between 2300-0700LT RWY 14L will be used for take-off and RWY 18L for landing.
- To determine the preferential RWYs and the usable SID, during the nights from Friday to Saturday and from Saturday to Sunday, the night period will be considered from 2300-0900LT, whenever the circumstances permit to do so. Daytime SID must be used in its appropriate schedule.

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1. GENERAL

1.2.3. RUN-UP TESTS

Run-up tests higher than idle regime are allowed H24 at the engine testing area.
Procedures of preferential taxiing to the engine testing area:
- Entry in north configuration via MZ;
- Exit in north configuration via AZ;
- Entry in south configuration via AZ;
- Exit in south configuration via MZ.

The request of run-up test clearance in any regime type and any question about the test procedure must be addressed to:

Centro de Gestion Aeroportuaria (GCA)
Tel: 34-913 93 65 52
Fax: 34-913 93 62 01

1.2.4. NIGHT OPERATING RESTRICTION DUE TO NOISE QUOTA

1.2.4.1. OPERATING RESTRICTIONS

Departure and arrival operations classified as CR-4 or above are forbidden.

The APT authority may exceptionally authorize such ACFT to take-off or land if:
- The operation takes place within 30 minutes after or before the time limits expected as long as this is due to a delay caused by the programmed operation.
- The operation is justified on safety reasons as well as transportation of urgent alterations aid or in consequence of operational alterations like meteorological conditions, industrial actions and other exceptional occurrences.

A system of total noise quota is established between 2300-0700LT.

1.2.4.2. NOISE QUOTA AIRCRAFT CLASSIFICATION

ACFT are classified according to their Effective Perceived Noise measured in decibels (EPNdB):

EPNdB	NOISE CLASSIFICATION (CR)
more than 101.9	CR-16
99 - 101.9	CR-8
96 - 98.9	CR-4
93 - 95.9	CR-2
90 - 92.9	CR-1
less than 90	CR-0.5

Prop ACFT certified with regard to ICAO Annex 16 Chapters 6 and 10, and prop or jet ACFT certified according to Chapters 3 and 5 with a noise level less than 87 EPNdB, will be considered as CR-0.

1.2.5. AUXILIARY POWER UNITS (APU)

1.2.5.1. GENERAL

Stands T1 thru T35, 300 thru 312, 330 thru 394 and 500 thru 586:
- Use of 400 Hz facilities is obligatory.
- Use of air-conditioning facilities will be obligatory when the ACFT air conditioning is needed.
- Use of ACFT APU is forbidden in stands stated above between 2 minutes after on-block time and 5 minutes before off-block time.
- Use of ACFT APU only when fixed units are not operative and mobile units are not available.

Stands 70 thru 74 between 0700-2300LT:
- Use of 400 Hz facilities is obligatory.
- Use of air-conditioning facilities will be obligatory when the ACFT air conditioning is needed.
- Use of ACFT APU is forbidden in stands stated above between 2 minutes after on-block time and 5 minutes before off-block time.
- Use of ACFT APU only when fixed units are not operative and mobile units are not available.

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1. GENERAL

Stands 70 thru 74 between 2300-0700LT:
- use of APU is not allowed.

Stands 50 thru 69 and 80 thru 162:
- between 2300-0700LT use of APU is not allowed.

Stands 1 thru 49, 163 thru 175 and T36 thru T41:
- between 2300-0700LT the use of APU is forbidden except 10 minutes after on-block time and 10 minutes before off-block time; however, wide fuselage ACFT are permitted to use APU 50 minutes before departure and 15 minutes after arrival.

1.2.5.2. ACFT WITH NIGHT RESTRICTIONS FOR THE USE OF APU

IL (all models), DC8 (all models), F50, MD8 (all models), MD11, B747 (all models), CRJ2, E120, B717 (all models), B727 (all models).

1.3. LOW VISIBILITY PROCEDURES

1.3.1. GENERAL

Low Visibility Procedure will be in force when:

Manoeuvring area	- RVR (or VIS if RVR is out) is 700m or below. - Ceiling is 290' or below.
Apron	- RVR (or VIS if RVR out) is 400m or below.

Pilots will be informed when Low Visibility Procedures are in use via ATIS.
When LVP is activated, pilot in command of towed ACFT must switch on the Mode S transponder.

Low Visibility Procedure will be cancelled when:

Manoeuvring area	- RVR (or VIS if RVR is out) is higher than 800m. - Ceiling is 300' or above. - The improvement tendency of meteorological conditions is strong.
Apron	- VIS is higher than 400m.

1.3.2. ARRIVAL

Except otherwise authorized by ATC, ACFT must vacate the landing RWY via TWYs specified below:

LANDING RWY	EXIT
18L	Y5, Y4, Y3
18R	Z10, Z8, Z7
32L	L5, L4, L3, L2 (for arrivals to Terminal 4 prefer L2 and L4.)
32R	K5, K4, K3

When leaving RWY sensitive area pilots shall report:
- Sensitive area vacated
- TWY used

ACFT vacating the sensitive area have priority over all other ACFT taxiing in the vicinity.
After landing on RWY 18L/R or 32L/R follow appropriate TWY centerline lights until clear of sensitive area and await instructions from BARAJAS Ground or stop if lacking instructions.
Entry stands 616 thru 618 from RWY 32R: K3, KB2, A28, A27, A26, AM1, M27, M28.

1.3.3. DEPARTURE

Pilots in command will request permission for engine start-up from ATC if reported RVR values are the same or upper than their minimum for take-off.
When permitted to taxi to a RWY holding point, hold short at the CAT II markings and stopbar lights.
Unless otherwise instructed: In South configuration, access to RWY 14R via TWY LB.

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1. GENERAL

1.4. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM

1.4.1. OPERATION OF MODE S TRANSPONDER WHEN ACFT IS ON GROUND

ACFT operators shall ensure that the Mode S transponders are able to operate when the ACFT is on the ground.

From the request for towed push-back or taxi, whichever is earlier and after landing continuously until ACFT is fully parked on stand, pilots shall select AUTO mode or the equivalent according to specific installation, XPDR or ON if AUTO is not available, and the assigned Mode A code.

Select STBY when ACFT is fully parked.

Whenever ACFT is capable of reporting ACFT ident (i.e. callsign used in flight), ACFT ident should also be entered from the request for towed push-back or taxi, whichever is earlier (through the FMS or the transponder control panel). Flight crew must use the specific format defined by ICAO for entry the ACFT ident (e.g. BAW123, AFR6380).

To ensure that the performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) are not compromised, TCAS should not be selected before receiving the clearance to line up, and should be deselected after vacating the RWY.
ACFT taxiing without flight plan, Mode A code 2000 should be selected.

1.5. TAXI PROCEDURES

Between 2300-0700LT movements on Ramps 5 and 6 are forbidden.

TWYs CA, CB, C1 (between stand 116 thru 119), C8 and C9 MAX wingspan 79'/24m.
MAX wingspan 118'/36m for:
- TWYs C1, C2, J5, JI5, J6, JI6, W5, W6, WI6, WN1, WN2, WA and Gate 7.
- TWY I12 (except segment between stands 36 thru 40, which is limited to MAX wingspan 102'/31m).

TWY C11 and Gate 6 MAX wingspan 125'/38m.
MAX wingspan 171'/52m for:
- TWYs DI3, DI4, I8 thru I10, Gate 2, Gate 4 and Gate 5.
- TWY I11 (except segment between stand 1 thru 5, which is limited to MAX wingspan 125'/38m).

MAX wingspan 213'/65m for:
- TWYs A1 thru A17, E1 thru E4, F1 thru F4, M1 thru M17, M27 thru M34, Gate 1 and Gate 3.
- TWYs of Ramps 4, 5 and 6 except TWY C2.
- TWYs of RWY 14R/32L except L2, L4, LE and L42.
- TWYs of RWY 18R/36L except Z1, Z3, Z7, de-icing area of RWY 36L and access TWYs to Apron T4.
- TWYs AZ2 thru AZ6, MZ3 thru MZ6, EB1, EB2, EB6 thru EB8, EC1, EC2, EC4, EC6, EC8, KA8.

MAX wingspan 262'/80m for:
- TWYs A18 thru A34, L2, L4, L42, LE, ME1, ME2, M18 thru M25, MC, MD, Z1, Z3, Z7.
- TWYs of Apron T4S except EB and EC, de-icing area of RWY 36R, Gate 11 and Gate 12.
- TWYs of RWY 18L/36R and RWY 14L/32R.

In case of any doubt about the position of the ACFT or in case of difficulties, stop, notify ATC or the Apron Management Service (SDP) in its responsibility area and request Follow-me car.

ACFT vacating RWY via a rapid exit TWY will always have priority over the rest of ACFT, that must give way to them using the intermediate holding position.

When B747-8F taxiing via TWY R1, TWY R8 limited to MAX ACFT CAT D.
B747-8F can not use at the same time with other ACFT RWY holding position Z2 on RWY 36L or LA/LB on RWY 14R.
B747-8F can not use RWY holding position LC/LD on RWY 14R.

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1. GENERAL

1.5.1. NO ENTRIES

TWY POSITION	VISIBLE FROM TWY
On M6 btn M7 & G1	M6 & I8
Crossing of A14, A17, AZ2 & S2	A17 & S2
On Y7	Y7

1.6. PARKING INFORMATION

Stands 70 thru 74, 300 thru 312, 330 thru 394, 500 thru 586 and T1 thru T35 equipped with docking guidance system.

On stands 31 thru 33, 35 thru 37, 44, 45, 70 thru 74, 80 thru 97, 100 thru 126, 131, 133, 135 thru 165, 173, 175, 237 thru 239, 300 thru 328, 330 thru 394, 500 thru 586 and T1 thru T40 push-back required.

Do not enter stands T1, T2 and T3 from TWY I7.

Exit of stand 40 will be autonomous, except B747-8F, which will be towed to North on TWY A6.

1.6.1. RAMP 5 & 6

From 2300 to 0700LT, movements in Ramps 5 and 6 are forbidden. It shall only be permitted the use of equipment necessary for the tasks associated with the maintenance of the ACFT and, if required, when an ACFT needs to be dragged outside the restricted area, it shall be accomplished by means of an electric tractor, in which case it will comply with the following:

Entry to stands 75 and 80 to 140: All ACFT shall stop at TWY A4 (in North configuration) or at TWY M4 (in South configuration) and, from there, wait to be towed with the engine switched off to the stand assigned. Only electric engine towing tractors are allowed.

The use of APU is forbidden for all types of ACFT during taxiing operation.

1.7. OTHER INFORMATION

1.7.1. GENERAL

Birds.

1.7.2. WAKE VORTEX CATEGORIES

Due to unusual wake vortex characteristics, B757 is categorized as heavy when followed by a medium or light ACFT, but as medium when it follows a heavy ACFT.

ACFT unable to accept minimum wake vortex separation will advise ATC as soon as possible on transfer to departure frequency but before line-up clearance is issued. Pilots accepting line-up clearance without declaring the need for additional vortex separation will be assumed to have accepted the standard wake vortex minima.

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2. ARRIVAL

2.1. SPEED RESTRICTIONS

Pilot must plan the descent profile to comply with the following speed and altitude restrictions at specified points, unless ATC clears otherwise. If it is not possible to comply, then advise ATC of it.

RWY 18L/18R		
POSITION	**SPEED**	**ALTITUDE**
TAGOM or equivalent position	220 KT	10,000'
LALPI or equivalent position	220 KT	11,000' or above
12 DME ILS or equivalent position	180 KT	-
6 DME ILS or equivalent position	160 KT	-
4 DME ILS or equivalent position	160 KT	-

RWY 32L/32R		
POSITION	**SPEED**	**ALTITUDE**
TOBEK or equivalent position	220 KT	5000'
ASBIN or equivalent position	220 KT	6000' or above
12 DME ILS or equivalent position	180 KT	-
6 DME ILS or equivalent position	160 KT	-
4 DME ILS or equivalent position	160 KT	-

ACFT will be exempted from these speed limitations when a continuous descent arrival (CDA) is beeing performed.

2.2. NOISE ABATEMENT PROCEDURES

2.2.1. GENERAL

The following procedures are applicable to all ACFT for landing and take-off - except for safety reasons - to avoid excessive noise in areas surrounding the APT. Non-compliance will cause sanctions to ACFT operators except the execution of approach to RWY 18R with reduced flaps. If unable to comply submit alternative procedures to correspondent authority for approval.

Arrival paths will be radar-monitored and noise level will be measured for each operation.

South Configuration

RWY 18L: Usable for landing between 2300-0700LT.
RWY 18L/R: Usable for landing between 0700-2300LT.

Landing and approach procedures in VMC will be performed with an angle equal to or higher than the ILS GP or PAPI of each RWY.

Approaching RWY 18R the following landing procedure with reduced flaps is recommended, although its use is subject to pilot's decision and safety must prevail at all times:

- Intercept ILS with minimum flap configuration and landing gear retracted;
- Do not extend landing gear and keep the minimum possible flaps configuration up to 5 DME ILS.

2.2.2. REVERSE THRUST

The use of reverse thrust above idle is forbidden between 2300-0700LT except for safety reasons. In this case, it must be notified to the Tower and the 'Departamento de Medio Ambiente' of the APT.

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2. ARRIVAL

2.3. CAT II/III OPERATIONS

RWYs 18L/R and 32L/R approved for CAT II/III operations, special aircrew and ACFT certification required.

2.4. RWY OPERATIONS

2.4.1. MINIMUM REDUCED SEPARATION ON THE SAME RWY

Any ACFT on final approach will not be allowed to cross the beginning of the RWY until the following minimum separation from the preceding ACFT applies:

- Landing after take-off: The departing ACFT has taken off and is, at least, 2000m from THR.

These minimums will be applied only under the following conditions:

- Between SR and SS;
- While VMC prevails at the aerodrome;
- When the braking action is not negatively affected by precipitation remains on the RWY (slush, water, etc.);
- When the involved ACFT operates without any anomalies.

When issuing the landing clearance according to this procedure, the following instructions shall be used: "...(ACFT call sign) BEHIND LANDING/DEPARTING (ACFT type), CLEARED TO LAND RUNWAY (number)".

2.4.2. MINIMUM RWY OCCUPANCY TIME

In order to minimize the occurrence of "go-around", lessen the RWY occupancy time and, therefore, get the maximum RWY utilization, pilots shall exit the RWY as soon as possible and this will not affect the ACFT safety and standard operation.

Unless ATC advises otherwise and without prejudice to the noise abatement procedures, ACFT will vacate the corresponding RWY by the following rapid exit TWYs and reach the following TWY:

North Configuration

RWY	Rapid Exit	ACFT	Dist from THR	TWY
32L	L7	all	5446'/1660m	A10
32L	L5	all	6594'/2010m	A11
32L	L4	all	6594'/2010m	L42
32L	L2	all	6988'/2130m	LA4
32L	L3	all	8251'/2515m	A12
32R	K5	all	5906'/1800m	KA4
32R	K4	all	7874'/2400m	KA3 or KC3, KC2

South Configuration

RWY	Rapid Exit	ACFT	Dist from THR	TWY
18L	Y5	all	5906'/1800m	AY
18L	Y4	all	7874'/2400m	BY13
18R	Z10	all	6319'/1926m	ZW3
18R	Z8	all	7717'/2352m	W1
18R	Z7	all	7717'/2352m	B6

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2. ARRIVAL

2.5. TAXI PROCEDURES

2.5.1. STANDARD TAXI ROUTES

2.5.1.1. NORTH CONFIGURATION

From RWY 32L to:		
Terminal 1, 2 or 3		
Standard route : L7, L5 or L3, TWY A to TWY A10 (transfer point A10-2).		
R-7:	Stands 200 thru 239: Stands 240 thru 249:	Standard route to A6 to C7. Standard route to C9.
R-6:	Stand 75: Stands 80 thru 85: Stands 90 thru 110: Stands 111 thru 126: Stands 130 thru 135: Stands 136 thru 140: Stands 144 thru 148:	Standard route to A4 to C4 to I6. Standard route to A3 to C3. Standard route to A2 to C2. Standard route to A1 to C1. Standard route to A1 to C1 to CA. Standard route to A1 to C1 to CB. Standard route to A1.
R-5:	Stands 50 thru 74: Stands 150 thru 162:	Standard route to A4 to C4. Standard route to A4, A3 or A2 straight to stand.
R-4:	Stands 40 thru 43: Stands 44 and 45: Stands 30 thru 37: Stands 163 and 165: Stand 171: Stand 173: Stand 175:	Standard route to A6, then straight to stand. Standard route to A5 to C6 to M6 straight to stand. Standard route to A8 to G1 to Gate 1 to I7 to C5 to M5 to stand. Standard route to A6, then straight to stand. Standard route to A7 to E1 straight to stand. Standard route to A8 to F2 straight to stand. Standard route to A8 to F1 straight to stand .
R-3:	Standard route to A8 to G1 to Gate 1 to I7 or I8.	
Stands T1 thru T3: 0700 - 2259LT: Via A5 to A4 to C4 to I6; 2300 - 0659LT: Via A5 to C5.		
R-2:	Stands 14 thru 17:	Standard route to A9 to G3 to M9 straight to stand; or A9 to G3 to Gate 3 to I8 or I9.
R-1:	Stands 10 thru 13: Stands T22 thru T29: Stands 7 thru 9: Stands T30 thru T40:	Standard route to A9 to G3 to M9 straight to stand; Standard route to G4 to Gate 4 to I9 or I10 to stand. L7, L5 or L3 to TWY A to A11 to G5 to Gate 5 (transfer point) to I10, then straight to stand. L7, L5 or L3 to TWY A to A11, G5, Gate 5 (transfer point) to I12, then straight to stand.
R-0:	Stands 1 thru 5: Stand 6:	L7, L5 or L3 to TWY A to A11 to G5 to M11, then straight to stand. L7, L5 or L3 to TWY A to A11 to G5 to Gate 5 (transfer point) to I11, then straight to stand.

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2. ARRIVAL

From RWY 32L to:		
Terminal 4		
Follow ATC instructions to leave by the LEFT of RWY. Standard route : L7, L5 or L3 to TWY A, incorporate to TWY M by the first possible TWY, follow to TWY M13 to J3 (transfer point J3-2).		
R-10:	Stands 364 thru 374: Stands 372 thru 377: Stand 378: Stands 380 thru 394: Stands 444 and 446: Stand 448:	Standard route to J4 to D1 to D2 to D3. Standard route to J4 to D1 to D2. Standard route to J4 to J5. Standard route to J4 until J6. Standard route to J4 to D1 until D3 to R4 to X3. Standard route to J4 to D1 to D2 to S4 to X2.
R-11:	Stands 342 thru 362: Stands 430 and 432: Stands 434 thru 442:	Standard route to J4 to D1 until D4. Standard route to J4 to D1 until D5 to W4 to X5 to X4. Standard route to J4 to D1 until D3 to R4 to X3.
R-12:	Stands 300 thru 312: Stands 320 thru 329: Stands 330 thru 340: Stands 420 thru 428:	Standard route to J4 to D1 until D5 to W5 to WI6. Standard route to J4 to D1 until D5 to W5. Standard route to J4 to D1 until D4. Standard route to J4 to D1 until D5 to W4 to X5 to X4.
R-13:	Stands 400 thru 411: Stands 412 thru 419:	Standard route to J4 to D1 until D5 to W5. Standard route to J4 to D1 until D5 to W5 to WN1 to WA.
Terminal 4S		
Follow ATC instructions to leave to the RIGHT side of RWY. Standard route : L4 to L42 to L2 to B1 or L2 to B1.		
R-20:	Stands 568 thru 580: Stands 582 thru 586: Stands 620 thru 628:	Standard route to M21 until M24 to EB2. Standard route to M21 to EA2. Standard route to M21 until M27.
R-21:	Stands 556 thru 566: Stands 608 thru 618:	Standard route to M21 until M23 to EB2 to EB6. Standard route to M21 until M30.
R-22:	Stands 540 thru 554: Stands 600 thru 606:	Standard route to M21 until M23 to EB2 to EB6. Standard route to M21 until M31.
R-23:	Stands 500 thru 526: Stands 528 thru 530: Stands 532 thru 536: Stand 538:	Standard route to B2 until B5 to Gate 13 to EA5. Standard route to B2 until B5 to Gate 13. Standard route to B1 until B9 to EA7 to EA6. Standard route to B1 until B9 to EA7 to N10.
From RWY 32R to:		
Terminal 1, 2 or 3		
K5 to KA4 to KA3 to KB2 to TWY A to TWY A10 or K5 to KA4 to KC3 to KC2 to TWY A to TWY A10 or K4 to KC3 to KC2 to TWY A to TWY A10 or K3 to KB2 to TWY A to TWY A10, then same route as for RWY 32L.		

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2. ARRIVAL

Terminal 4		
Follow ATC instructions to leave RWY. Standard route : TWY A to H2 to H3(transfer point H3-2) or K5 to KA4 to KC3 to KC2 to TWY A to H2 to H3(transfer point H3-2)or K4 to KC3 to KC2 to TWY A to H2 to H3(transfer point H3-2) or K3 to KB2 to TWY A to H2 to H3(transfer point H3-2).		
R-10:	Stands 364 thru 370:	Standard route to H4 to D2 to D3.
	Stands 372 thru 377:	Standard route to H4 to D2.
	Stand 378:	Standard route to X1 to J4 to J5.
	Stands 380 thru 394:	Standard route to X1 to J4 until J6.
	Stands 444 and 446:	Standard route to H4 to D2 to D3 to R4 to X3.
	Stand 448:	Standard route to H4 to D2 to S4 to X2.
R-11:	Stands 342 thru 362:	Standard route to H4 to D2 until D4.
	Stands 430 thru 432:	Standard route to H4 to D2 until D5 to W4 to X5 to X4.
	Stands 434 thru 442:	Standard route to H4 to D2 to D3 to R4 to X3.
R-12:	Stands 300 thru 312:	Standard route to H4 to D2 until D5 to W5 to WI6.
	Stands 320 thru 329:	Standard route to H4 to D2 until D5 to W5.
	Stands 330 thru 340:	Standard route to H4 to D2 until D4.
	Stands 420 thru 428:	Standard route to H4 to D2 until D5 to W4 to X5 to X4.
R-13:	Stands 400 thru 411:	Standard route to H4 to D2 until D5 to W5.
	Stands 412 thru 419:	Standard route to H4 to D2 until D5 to W5 to WN1 to WA.
Terminal 4S		
Follow ATC instructions to leave RWY to TWY A. Standard route : K5 to KA4 to KA3 to KB2 to TWY A or K5 to KA4 to KC3 to KC2 to TWY A or K3 to KB2 to TWY A or K5 to KA4 until KA1 or K4 to KA3 until KA1 or K3 to KA2 to KA1.		
R-20:	Stands 568 thru 580:	Standard route to A25 to EC1 to EC2.
	Stands 582 thru 586:	Standard route to A23 to EA1 to EA2.
	Stands 620 thru 628:	Standard route to A26 to AM1 to M27.
R-21:	Stands 556 thru 556:	Standard route to Gate 14 to G14.
	Stands 562 thru 566:	Standard route to A25 to EC1 to EC2.
	Stand 608:	Standard route to M30.
	Stand 612:	K5 to KA4 to KA3 to KB2 to KB1 to M29.
	Stand 614:	K5 to KA4 to KA3 to KB2 to KB1 or K5 to KA4 to KC3 until KC1 to M28 or K4 to KC3 until KC1 to M28 or K3 to KB2 to A28 to KC1 to M28.
	Stand 616:	K5 to KA4 to KC3 until KC1 to M28 or K4 to KC3 until KC1 to M28 or K3 to KB2 to A28 to KC1 to M28.
	Stand 618:	K5 to KA4 to KC3 until KC1 or K4 to KC3 until KC1 or K3 to KB2 to A28 to KC1.
R-22:	Stands 540 thru 556:	Standard route to Gate 14 to EC6.
	Stands 600 thru 606:	Standard route to M30 to M31.
R-23:	Stands 500 thru 530:	Standard route to Gate 14 to EC6 to EC7 to N11 to N10 to EA6 to EA5.
	Stands 532 thru 536:	Standard route to Gate 14 to EC6 to EC7 to N11 to N10 to EA6.
	Stand 538:	Standard route to Gate 14 to EC6 to EC7 to N11 to N10.

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2. ARRIVAL

2.5.1.2. SOUTH CONFIGURATION

From RWY 18L to:	
Terminal 1, 2 or 3	
Y5 to AY to BY13 to M34 until M12 or Y4 to BY 13 to M34 until M12 or Y3 to A33 to N13 to M32 until M12 and follow the same routes as for RWY 18R.	
R-4:	Stands 40 and 165 (B747-8F): Follow ATC instructions. N to M21 until M8 to G1 to A6.
Terminal 4	
Follow ATC instructions. Standard route : Y5 to AY to BY13 to M34 until M14 to H3(transfer point H3-2) or Y4 to BY13 to M34 until M14 to H3(transfer point H3-2) or Y3 to A33 to N13 to M32 until M14 to H3(transfer point H3-2).	
R-10:	Stands 364 thru 370: Standard route to H4 to D2 to D3. Stands 372 thru 377: Standard route to H4 to D2. Stand 378: Standard route to X1 to J4 to J5. Stands 380 thru 394: Standard route to X1 to J4 until J6. Stands 444 and 446: Standard route to H4 to D2 to D3 to R4 to X3. Stand 448: Standard route to H4 to D2 to S4 to X2.
R-11:	Stands 342 thru 362: Standard route to H4 to D2 until D4. Stands 430 and 432: Standard route to H4 to D2 until D5 to W4 to X5 to X4. Stands 434 thru 442: Standard route to H4 to D2 to D3 to R4 to X3.
R-12:	Stands 300 thru 312: Standard route to H4 to D2 until D5 to W5 to WI6. Stands 320 thru 329: Standard route to H4 to D2 until D5 to W5. Stands 330 thru 340: Standard route to H4 to D2 until D4. Stands 420 thru 428: Standard route to H4 to D2 until D5 to W4 to X5 to X4.
R-13:	Stands 400 thru 411: Standard route to H4 to D2 until D5 to W5. Stands 412 thru 419: Standard route to H4 to D2 until D5 to W5 to WN1 to WA
Terminal 4S	
Leave RWY. Standard route : Y5 to AY to BY13 to M34 to M33 or Y4 to BY13 to M34 to M33 or Y3 to A33 to N13.	
R-20:	Stands 568 thru 580: Standard route to M32 until M24 to EB2. Stands 582 thru 586: Standard route to M32 until M23 to EA2. Stands 620 thru 628: Standard route to M32 until M27.
R-21:	Stands 556 thru 566: Standard route to M32 until M24 to EB2. Stands 608 thru 610: Standard route to M32 until M30. Stands 612 thru 618: Standard route to M32 until M29.
R-22:	Stands 540 thru 554: Standard route to M32 until M24 to EB2 to EB6. Stands 600 thru 608: Standard route to M32 to M31.
R-23:	Stands 500 thru 530: Standard route to N12 until N10 to EA6 to EA5. Stands 532 to 536: Standard route to N12 until N10 to EA6. Stand 538: Standard route to N12 until N10.

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2. ARRIVAL

From RWY 18R to:		
Terminal 1, 2 or 3		
Standard route : Z10 to ZW3 to W1 to W2 to MZ6 until MZ3 to M15 until M12 or Z8 to W1 to W2 to MZ6 until MZ3 to M15 until M12 or Z4 to ZW1 to V1 to V2 to MZ4 to MZ3 to M15 until M10 (transfer point M10-2).		
R-7:	Stands 200 thru 239:	Standard route to M6 to C6 to A5 to A6 to C7, then straight to stand.
	Stands 240 thru 249:	Standard route to M6 to C6 to A5 to C9, then straight to stand.
R-6:	Stand 75:	Standard route to M4 to C4 to I6.
	Stands 80 thru 85:	Standard route to M3 to C3.
	Stands 90 thru 110:	Standard route to M2 to C2.
	Stands 110 thru 126:	Standard route to M1 to C1.
	Stands 130 thru 135:	Standard route to M1 to C1 to CA.
	Stands 136 thru 140:	Standard route to M1 to C1 to CB.
	Stands 144 thru 148:	Standard route to M1 to C1 to A1, straight to stand.
R-5:	Stands 50 thru 74:	Standard route to M4 to C4.
	Stands 150 thru 153:	Standard route to M2 to C2 to A2, straight to stand.
	Stands 154 thru 157:	Standard route to M3 to C3 to A3, straight to stand.
	Stands 159 thru 162:	Standard route to M4 to C4 to A4, straight to stand.
R-4:	Stands 40 and 165 (B747-8F):	Standard route to M8 to G1 to A6.
	Stands 30 thru 37:	Standard route to M8 to Gate 1 to I7 to C5, straight to stand.
	Stands 40 thru 43:	Standard route to M6 to C6 to A5 to A6.
	Stands 44 and 45:	Standard route to M6 to C6.
	Stands 163 and 165:	Standard route to M6 to C6 to A5.
	Stand 171:	Standard route to M6 to C6 to A5 to A6 to E1, straight to stand.
	Stand 173:	Standard route to M8 to G1 to F2, straight to stand.
	Stand 175:	Standard route to M8 to G1 to A8 to F1, straight to stand.
R-3:	Standard route to M8 to Gate 1 to I7 or I8.	
Stands T1 thru T3: 0700 - 2259LT: M8 until M4 to C4 to I6; 2300 - 0659LT: M8 until M5 to C5.		
R-2:	Standard route to M9 straight to stands 14 thru 17 or Gate 3 to I8 or I9.	
R-1:	Stands 7 thru 9:	Standard route until M11, then to Gate 5 (transfer point) to I10.
	Stands 10 thru 13:	Standard route to M9 straight to stand.
	Stands T22 thru T29:	Standard route to Gate 4 to I9 or I10.
	Stands T30 thru T40:	Standard route until M11, then to Gate 5 (transfer point) to I10 to I12.
R-0:	Stands 1 thru 5:	Standard route until M11, then straight to stand.
	Stand 6:	Standard route until M11, then to Gate 5 (transfer point) to I11.

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2. ARRIVAL

From RWY 18R to: (cont'd)		
Terminal 4		
Leave RWY to the RIGHT side. Standard route : Z10 to ZW3 to W1 to W2 to W3(transfer point W3-2) or Z8 to W1 to W2 to W3(transfer point W3-2) or Z4 to ZW1 to V1 to AZ5 to AZ6 to W2 to W3 (transfer point W3-2).		
R-10:	Stands 364 thru 370: Stands 372 thru 377: Stand 378: Stands 380 thru 394: Stands 444 and 446: Stand 448:	Standard route to X5 to U4 to DI4 to DI3. Standard route to X5 until X2 to H4 to D2. Standard route to X5 until X1 to J4 to J5. Standard route to X5 until X1 to J4 until J6. Standard route to X5 to X4 to X3. Standard route to X5 until X2.
R-11:	Stands 342 thru 362: Stands 430 and 432: Stands 434 thru 442:	Standard route to X5 to U4 to DI4 to DI3. Standard route to X5 to X4. Standard route to X5 until X3.
R-12:	Stands 300 thru 312: Stands 320 thru 329: Stands 330 thru 340: Stands 420 thru 428:	Standard route to X5 to U4 to D5 to W5 to WI6. Standard route to X5 to U4 to D5 to W5. Standard route to X5 to U4 to DI4. Standard route to X5 to X4.
R-13:	Stands 400 thru 411: Stands 412 thru 419:	Standard route to X5 to U4 to D5 to W5. Standard route to X5 to U4 to D5 to W5 to WN1 to WA.
Terminal 4S		
Leave RWY to the LEFT side.		
R-20:	Stands 568 thru 580: Stands 582 thru 586: Stands 620 thru 628:	Z7 to B6 until B12 to M33 until M24 to EB2. Z7 to B6 until B12 to M33 until M23 to EA2. Z7 to B6 until B12 to M33 until M27.
R-21:	Stands 562 thru 566: Stands 608 thru 610: Stands 612 thru 618:	Z7 to B6 until B12 to M33 until M24 to EB2. Z7 to B6 until B12 to M33 until M30. Z7 to B6 until B12 to M33 until M29.
R-22:	Stands 540 thru 554: Stands 600 thru 606:	Z7 to B6 until B12 to M33 until M24 to EB2 to EB6. Z7 to B6 until B12 to M33 until M31.
R-23:	Stands 500 thru 526: Stands 528 thru 530: Stands 532 thru 536: Stand 538:	Z7 to G13 to Gate 13 to EA5. Z7 to G13 to Gate 13. Z7 to B6 until B9 to EA7 to EA6. Z7 to B6 to B9 to EA7 to N10.

2.5.2. COMMUNICATION FAILURE

In case of communication failure proceed as follows depending on position:

- Before or at the clearance limit:
  proceed to clearance limit of the STAR, fly two holding patterns and complete the ILS approach to land on the nearest available RWY.
- Passed the clearance limit:
  complete the ILS approach to land on the nearest available RWY.

ACFT will hold in the first segment of the TWY in which the ILS sensitive area is vacated and wait for a Follow-me car which will guide the ACFT to the assigned parking stand.

2.6. OTHER INFORMATION

2.6.1. PROCEDURE AGAINST OVERSHOOTING RWY CENTERLINE

After the pilot has been given a radar vector converging the assigned RWY centerline at an angle of less than 70°, pilots will take the initiative to intercept the ILS localizer or any replacement approach aid unless they have previously been instructed to cross the LOC or RWY centerline by ATC.

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3. DEPARTURE

3.1. DE-ICING PROCEDURE

3.1.1. OPERATION ON DE-ICING AREAS

On request for start-up clearance, pilot shall report the need for de-icing operation.

Pilots will maintain permanent watch on BARAJAS Ground frequency during taxiing and de-icing operation.

To carry out the de-icing operation pilots will park the ACFT at the corresponding position, taking into account the ACFT size.

Once the de-icing operation is finished pilots will notify BARAJAS Tower "Ready for departure" and when cleared, will vacate as soon as possible the spraying area.

ACFT affected by ATFM measures and with assigned approved departure time will have priority over another kind of traffic not affected by the restrictions.

Clearance for the entry to the de-icing area will be granted when an ACFT occupying a position on this area has vacated it after having finished its operation, except for established in item below.

Pilot in command will make sure that ACFT is properly located on the stand position in order to safeguard the movement of the de-icing equipments.

De-icing operation of ACFT will be carried out with IDLE regime and ready for take-off. For de-icing operation of a four-engine ACFT, according to the presence of ice at the back-side of the ACFT, pilot can be required by the agent in charge of the de-icing operation in order to turn off some of the outer engines.

When an ACFT operator with autohandling exceptionally could not give service to an ACFT located in the de-icing area, the ACFT will be serviced by the airport handling operator with priority over holding ACFT.

When an ACFT can not leave the de-icing area by its own, its responsible operator shall compulsory remove it immediately from the mentioned area according with the established procedure with its handling agent.

An operator will communicate with the pilot in command of the ACFT on
De-Icing area RWY 36L: BARAJAS De-icing **123.32** or
De-Icing area RWY 36R: BARAJAS De-Icing **130.25**,
or upon failure, by means of communication JACK, reporting the de-icing service conclusion.

Type and registration of ACFT shall be mentioned.

3.1.2. PROHIBITIONS

It is totally forbidden to carry out a motor test at the de-icing area.

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3. DEPARTURE

3.2. START-UP, PUSH-BACK & TAXI PROCEDURES

3.2.1. GENERAL

ACFT must be ready to start-up before calling on the appropriate frequency: Clearance Delivery West if they will proceed via SIE, ZMR, BARDI, CCS or VTB and Clearance Delivery East if they proceed via RBO, PINAR, NANDO, TEMIR or NASOS.

With South Configuration, the appropriate frequency for NASOS departures is Clearance Delivery West.

On requesting engine start-up clearance to ATC, pilots will report:

- ACFT call sign
- ACFT type and series
- Parking stand
- ATIS message received

Clearance will be issued as soon as requested. When delays are expected to exceed 15 min, the appropriate engine start-up time will be provided by ATC. Pilots should be aware that the taxi time to RWY 36L from the South apron is approximately between 10 and 20 min. ACFT with assigned Calculated Take-off Time (CTOT) must take into account these taxi time to start-up time accordingly.

It is forbidden to start-up engines higher than IDLE regime at all stands in contact with the terminal, until the ACFT is lined up with the TWY.

It is forbidden to use reverse power to leave the stands, except for express clearance of the APT authority.

Contact BARAJAS Ground for towed push-back and taxi clearance in stands 6 thru 9 in T123 Apron.

Simultaneous push-back will be strictly forbidden between stands 334 and 336.

3.2.2. RAMP 5 & 6

From 2300 to 0700LT, movements in Ramps 5 and 6 are forbidden. It shall only be permitted the use of equipment necessary for the tasks associated with the maintenance of the ACFT and, if required, when an ACFT needs to be dragged outside the restricted area, it shall be accomplished by means of an electric tractor, in which case it will comply with the following:

Exit from stands 75 and 80 to 140: ACFT shall be towed with engine switched off until being aligned with TWY M4 (in North configuration) or TWY A4 (in South configuration). Only electric engine towing tractors are allowed.

The use of APU is forbidden for all types of ACFT during taxiing operation.

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3. DEPARTURE

3.2.3. APT-COLLABORATIVE DECISION MAKING (A-CDM)

3.2.3.1. TARGET OFF-BLOCK TIME (TOBT)

TOBT represents the time that an ACFT expects to be ready to start up immediately and push-back within 5 minutes after reception of start-up clearance from TWR.

TOBTs should be updated via regular channels if the time that the ACFT will be ready to leave stand changes. Pilots should ensure that their flight is ready to depart at TOBT (window of -5 to +5 minutes).

TOBTs must be updated to an accuracy of +/-5 minutes.

TOBT earlier than 10 minutes from their APT Slot will not be accepted.
Flight Plan information should be updated with TOBT within a tolerance of +/-10 minutes.

3.2.3.2. TARGET START-UP APPROVAL TIME (TSAT)

TSAT is issued by ATC and represents the time at which an ACFT can expect start-up, taking into account the ATFM restrictions and local constraints.

ATC sequences the departures based on confirmed TOBT.

Pilots will be notified of their TSAT and any subsequent changes to it by their airline Company or handling agent, Docking Visual Guidance System or from BARAJAS Clearance Delivery when they call ready.

3.2.3.3. TARGET TAKE-OFF TIME (TTOT)

TTOT represents the time that an ACFT will be ready to take off taking into account TOBT/TSAT and variable Taxi-Out, depending on stand and RWY issue.

The TTOT for departing ACFT will be updated automatically and is available at the CDM-platform.

3.2.3.4. START-UP

Pilot must report Start-up Request to BARAJAS Clearance Delivery from TOBT -5 minutes to TSAT +5 minutes.

BARAJAS Clearance Delivery will then either approve start or advise the TSAT.

If the Pilot has called ready but the flight is then delayed by ATC, there is no requirement for TOBT to be updated to that TSAT.

If at TSAT + 5 minutes BARAJAS Clearance Delivery has not received a start-up request, the ACFT will lose its TSAT and a new TOBT is required. Once a new TOBT is entered, the flight will be re-sequenced with a new TSAT. ACFT will not be allowed to depart until a valid TOBT is entered and revised TSAT given and complied with.

3.2.3.5. PUSH-BACK

Push-back must be requested from BARAJAS Apron and start no later than 5 minutes after being transferred from BARAJAS Clearance Delivery.

If unable to meet this constraint, the ACFT may have start-up approval removed and will not be allowed to push-back. A new TOBT is required; once a new TOBT is entered, the flight will be resequenced with a new TSAT. ACFT will not be allowed to depart until a valid TOBT is entered and revised TSAT given and complied with.

3.2.3.6. REGULATED FLIGHTS

Regulated Flights should keep TOBT updated to an accuracy of +/- 5 minutes according to the time that the ACFT could be ready to leave stand if CTOT is removed.

Regulated flights should keep their Flight Plan up-to-date with TOBT within a tolerance of +/-10 minutes. Regulated Flights will have TSAT since CTOT reception based on CTOT. If CTOT is removed, a new TSAT will be issue based on TOBT available.

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3. DEPARTURE

3.2.4. PUSH-BACK DIRECTIONS

STANDS	PUSH-BACK WITH NOSE TO
31 thru 34	SW
35	SE
36	NE
37	N
44, 45	N
70, 71	NE
72 thru 74	SW
80 thru 97, 100 thru 126	SE
131, 133	NE
135	SE
136 thru 162	NE
163	North Configuration: SW on TWY A6 South Configuration: SE on TWY A5
165	ACFT with code letter F: SE on TWY A5 All other ACFT: North Configuration: SW on TWY A6 South Configuration: SE on TWY A5
173	W
175	S
237 thru 239	E
300 thru 312	N
320 thru 328	W
330 thru 334	N
336 thru 370	S
372 thru 378	N
380 thru 394	S
500 thru 536	S
538	W
540 thru 586	N
T1 thru T8	SW
T9 thru T13	S
T14 thru T16	N
T17, T18	S
T19 thru T21	SE
T22 thru T25	NW
T26, T27	N
T28, T29	SE
T30 thru T35	N
T36 thru T40	E

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3. DEPARTURE

3.2.5. STANDARD TAXI ROUTES

3.2.5.1. NORTH CONFIGURATION

To RWY 36L from:		
Terminal 1, 2 or 3		
Standard route: (From TWY) M10 (transfer point M10-2) until M17 to R5 or R6 or R7 to R8 to Z2.		
R-7:	Stands 200 thru 208:	C11 to E3 until E1 to A7 to G1 to M8, then standard route.
	Stands 210 thru 227:	Direct to E2 to E1 to A7 to G1 to M8, then standard route.
	Stands 230 thru 249:	Direct to C8 to A6 to A5 to C6 to M6 until M8, then standard route.
R-6:	Stands 80 thru 85, 98 and 99:	C3 to M3 until M10, then standard route.
	Stands 75, 90 thru 97 and 100 thru 110:	C2 to M2 until M10, then standard route.
	Stands 111 thru 126:	C1 to M1 until M10, then standard route.
	Stands 130 thru 135:	CA to C1 to M1 until M10, then standard route.
	Stands 136 thru 140:	CB to C1 to M1 until M10, then standard route.
R-5:	Stands 50 thru 69:	C3 or C5 to M5 until M10, then standard route.
	Stands 70 and 71:	I6 to C5 to M5 until M10, then standard route.
	Stands 72 thru 74:	I6 to C3 to M3 until M10, then standard route.
In R-6 and R-5, ACFT which are in stands 145 thru 162 and need push-back to leave them, will proceed nosing Southwest on TWY A, taxiing on the first possible intersection to TWY M.		
R-4:	I7 to C5 to M5, then standard route or C6 to M6, then standard route.	
	Stands 40 and 165 (B747-8F):	A6 to G1 to M8 until MZ3 to R1 and Z4 or A6 to G1 to M8 until M20 to B2 to Z1 or Z3.
	Stand 163 and 165:	A6 to A5 to C6 to M6, then standard route.
	Stands 171 and 173:	F2 to G1 to M8, then standard route.
	Stand 175:	F1 to A8 to G1 to M8, then standard route.
R-3:	I8 to M7, then standard route or I7 to C5 to M5, then standard route.	
Stands 22 thru 27: straight to M8, then standard route.		
R-2:	I8 or I9 to Gate 2 to M9, then standard route.	
R-1:	Stands 7 thru 9:	straight to M10 until M17 to R5 or R6 or R7 to R8 to Z2.
	Stands 10 thru 13 and T22 thru T29:	I9 or I10 to Gate 4, then standard route.
	Stands T30 thru T40:	I12 to I11 to Gate 6 (transfer point) to M12 until M17 to R5 or R6 or R7 to R8 to Z2.
R-0:	Stands 1 thru 5:	I11 to Gate 6 (transfer point) to M12 until M17 to R5 or R6 or R7 to R8 to Z2.
	Stand 6:	straight to M11 until M17 to R5 or R6 or R7 to R8 to Z2.
Terminal 4		
Standard route: R3 (transfer point R3 2) until R1 to Z4.		
R-10:	Stands 364 thru 370:	DI3 to D3 to R4, then standard route.
	Stands 372 thru 377:	D2 to D3 to R4, then standard route.
	Stand 378:	JI5 to D2 to D3 to R4, then standard route.
	Stands 380 thru 394:	JI6 to JI5 to D2 to D3 to R4, then standard route.
	Stands 444 thru 448:	D2 to D3 to R4, then standard route.

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3. DEPARTURE

To RWY 36L from: (cont'd)		
Terminal 4 (cont'd)		
R-11:	Stands 342 thru 346:	DI4 to R4, then standard route.
	Stands 348 thru 362:	DI3 to D3 to R4, then standard route.
	Stands 430 and 432:	D4 to D5 to W4 to X5 to X4, then standard route.
	Stands 434 thru 442:	D3 to R4, then standard route.
R-12:	Stands 300 thru 312:	W6 to WN1 to WN2 to WN3 to W4 to X5 to X4, then standard route.
	Stands 320 thru 329:	W5 to WN1 to WN2 to WN3 to W4 to X5 to X4, then standard route.
	Stands 330 thru 340:	DI4 to R4, then standard route.
	Stands 420 thru 428:	D4 to D5 to W4 to X5 to X4, then standard route.
R-13:	Stands 400 thru 419:	WN2 to WN3 to W4 to X5 to X4, then standard route.
Terminal 4S		
R-20:	Stands 582 thru 586:	Gate 11 to G11 to Z1.
	Stands 568 thru 580:	EB2 to EB6 to EB7 to N10 to N9 to N6 until N4 to BN1 to Z3 or EB2 to EB6 to EB7 to N10 to N9 to N6 until N3 to G11 to Z1.
	Stands 620 thru 628:	EC2 to EC6 to EC7 to N11 until N9 to N6 until N4 to BN1 to Z3 or EC2 to EC6 to EC7 to N11 until N9 to N6 until N3 to G11 to Z1.
R-21:	Stands 556 thru 566:	EB2 to EB6 to EB7 to N10 until N4 to BN1 to Z3 or EB2 to EB6 to EB7 to N10 until N3 to G11 to Z1.
	Stands 608 thru 618:	EC2 to EC6 to EC7 to N11 until N4 to BN1 to Z3 or EC2 to EC6 to EC7 to N11 until N3 to G11 to Z1.
R-22:	Stands 540 thru 554:	EB6 to EB7 to N10 until N4 to BN1 to Z3 or EB6 to EB7 to N10 until N3 to G11 to Z1.
	Stands 600 thru 606:	EC6 to EC7 to N11 until N4 to BN1 to Z3 or EC6 to EC7 to N11 until N3 to G11 to Z1.
R-23:	Stands 500 thru 536:	EA6 to EA5 to Gate 12 to N4 to BN1 to Z3 or EA6 to EA5 to Gate 12 to N3 to G11 to Z1.
	Stand 538:	N10 until N4 to BN1 to Z3 or N10 until N3 to G11 to Z1.

To RWY 36R from:		
Terminal 1, 2 or 3		
The same route as for RWY 36L until M17, then to M18 until M31 to NY13 to Y1 or M18 until M32 to N13 to Y2 or M18 until M33 to B13 to Y3.		
R-4:	Stands 40 and 165 (B747-8F): A6 to G1 to M8 until M20 to B2 until TWY B to RWY holding position Y3.	
Terminal 4		
Standard route: S3 (transfer point S3 2) to M15 until M31 to NY13 to Y1 or S3 (transfer point S3 2) to M15 until M32 to N13 to Y2 or S3 (transfer point S3 2) to M15 until M33 to B13 to Y3.		
R-10:	Stands 364 thru 370:	DI3 to S4, then standard route.
	Stands 372 thru 377:	D2 to S4, then standard route.
	Stand 378:	JI5 to D2 to S4, then standard route.
	Stands 380 thru 394:	JI6 to JI5 to D1 to D2 to S4, then standard route.
	Stands 444 and 446:	D3 to R4 to X3, then standard route.
	Stand 448:	D2 to S4, then standard route.

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3. DEPARTURE

To RWY 36R from: (cont'd)		
Terminal 4 (cont'd)		
R-11:	Stands 342 thru 362:	DI4 to DI3 to S4, then standard route.
	Stands 430 and 432:	D4 to D5 to W4 to X5 until X3, then standard route.
	Stands 434 thru 442:	D3 to R4 to X3, then standard route.
R-12:	Stands 300 thru 312:	W6 to WN1 to WN2 to WN3 to W4 to X5 until X3, then standard route.
	Stands 320 thru 329:	W5 to WN1 to WN2 to WN3 to W4 to X5 until X3, then standard route.
	Stands 330 thru 340:	DI4 to DI3 to S4, then standard route.
	Stands 420 thru 428:	D4 to D5 to W4 to X5 to X3, then standard route.
R-13:	Stands 400 thru 419:	WN2 to WN3 to W4 to X5 to X4 to X3, then standard route.
Terminal 4S		
R-20:	Stands 568 thru 580:	EB2 to EC2 to EC6 to NY12 to NY13 to Y1.
	Stands 582 thru 586:	Gate 11 to G11 to B3 until B13 to Y3 or Gate 11 to G11 to B3 until EC8 to N12 to N13 to Y2 or Gate 11 to G11 to B3 until EC8 to EC7 to NY12 to NY13 to Y1 or Gate 11 to G11 to B3 until EC9 to BY12 to M34 to B13 to Y3.
	Stands 620 thru 628:	EC2 to EC6 to NY12 to NY13 to Y1.
R-21:	Stands 556 thru 566:	EB2 to EC2 to EC6 to NY12 to NY13 to Y1.
	Stands 608 thru 618:	EC2 to EC6 to NY12 to NY13 to Y1.
R-22:	Stands 540 thru 554:	EB6 to EC6 to NY12 to NY13 to Y1.
	Stands 600 thru 606:	EC6 to NY12 to NY13 to Y1.
R-23:	Stands 500 thru 536:	EA6 to EA5 to Gate 12 to G12 to B5 until B13 to Y3 or EA6 to EA5 to Gate 12 to G12 to B5 until EC8 to N12 to N13 to Y2 or EA6 to EA5 to Gate 12 to G12 to B5 until EC8 to EC7 to NY12 to NY13 to Y1 or EA6 to EA5 to Gate 12 to G12 to B5 until EC9 to BY12 to M34 to B13 to Y3.
	Stand 538:	N10 to EA7 to B10 until B13 to Y3 or N10 to EA7 to B10 until EC8 to N12 to N13 to Y2 or N10 to EA7 to B10 until EC8 to EC7 to NY12 to NY13 to Y1 or N10 to EA7 to B10 until EC9 to BY12 to M34 to B13 to Y3.

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3. DEPARTURE

3.2.5.2. SOUTH CONFIGURATION

To RWY 14L from:		
Terminal 1, 2 or 3		
The same routes as for RWY 14R until A12, then until A27 to A28 to A29 to K1 to holding point or until A28 to KB2 to K2 or K3 to holding point.		
Terminal 4		
Standard route: S3 (transfer point S3-2) to S2 to A17 until A28 to A29 to K1 to holding point or S3 (transfer point S3-2) to S2 to A17 until A28 to KB2 to K2 or K3 to holding point.		
R-10:	Stands 364 thru 370:	DI3 to S4 to S3, then standard route.
	Stands 372 thru 377:	D2 to S4 to S3, then standard route.
	Stand 378:	JI5 to D2 to S4 to S3, then standard route.
	Stands 380 thru 394:	JI6 to JI5 to D1 to D2 to S4 to S3, then standard route.
	Stands 444 and 446:	D3 to R4 to X3 to S3, then standard route.
	Stand 448:	D2 to S4 to S3, then standard route.
R-11:	Stands 342 thru 362:	DI4 to DI3 to S4 to S3, then standard route.
	Stands 430 and 432:	D4 to D5 to W4 to X5 until X3 to S3, then standard route.
	Stands 434 thru 442:	D3 to R4 to X3 to S3, then standard route.
R-12:	Stands 300 thru 312:	W6 to WN1 to WN2 to WN3 to W4 to X5 until X3 to S3, then standard route.
	Stands 320 thru 329:	W5 to WN1 to WN2 to WN3 to W4 to X5 until X3 to S3 then standard route.
	Stands 330 thru 340:	DI4 to DI3 to S4 to S3, then standard route.
	Stands 420 thru 428:	D4 to D5 to W4 to X5 to X3 to S3, then standard route.
R-13:	Stands 400 thru 419:	WN2 to WN3 to W4 to X5 to X4 to X3, then standard route.
Terminal 4S		
R-20:	Stands 568 thru 580:	EB2 to EC2 to Gate 14 to KA1 to K1 to holding point.
	Stands 582 thru 586:	Gate 11 to G11 to B3 until B12 to M33 to M30 to KA1 to K1 to holding point.
	Stands 620 thru 628:	EC2 to Gate 14 to KA1 to K1 to holding point.
R-21:	Stands 556 thru 560:	EB6 to EC6 to NY12 to M31 to M30 to KA1 to K1 to holding point.
	Stands 562 thru 566:	EB2 to EC2 to Gate 14 to KA1 to K1 to holding point.
	Stands 608 thru 610:	EC6 to NY12 to M31 to M30 to KA1 to K1 to holding point.
	Stands 612 thru 618:	EC2 to Gate 14 to KA1 to K1 to holding point.
R-22:	Stands 540 thru 554:	EB6 to EC6 to NY12 to M31 to M30 to KA1 to K1 to holding point.
	Stands 600 thru 608:	EC6 to NY12 to M31 to M30 to KA1 to K1 to holding point.
R-23:	Stands 500 thru 536:	EA6 to EA5 to Gate 12 to B5 until B12 to M33 until M30 to KA1 to K1 to holding point.
	Stand 538:	N10 to EA7 to B10 until B12 to M33 until M30 to KA1 to K1 to holding point.

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3. DEPARTURE

To RWY 14R from:		
Terminal 1, 2 or 3		
Standard route: (from TWY) A10 (transfer point A10-2) until A12 to RWY holding position LA/LB.		
R-7:	Stands 200 thru 208:	C11 to E3 until E1 to A7 until A10, then standard route.
	Stands 210 thru 227:	Straight to E2 to E1 to A7 until A10, then standard route.
	Stands 230 thru 249:	Straight to C8 to A6 until A10, then standard route.
In R-6 and R-5 ACFT which need push-back to leave stands 146 thru 162 will proceed nosing Northeast to use TWY A directly.		
R-6:	Stands 80 thru 85, 98 and 99:	C3 to A3 until A10, then standard route.
	Stands 75, 90 thru 97 and 100 thru 110:	C2 to A2 until A10, then standard route.
	Stands 111 thru 126:	C1 to A1 until A10, then standard route.
	Stands 130 thru 135:	CA to C1 to A1 until A10, then standard route.
	Stands 136 thru 140:	CB to C1 to A1 until A10, then standard route.
	Stands 144 thru 148:	A1 until A10, then standard route.
R-5:	Stands 50 thru 69:	C3 or C5 to A5 until A10, then standard route.
	Stands 70 and 71:	I6 to C5 to A5 until A10, then standard route.
	Stands 72 thru 74:	I6 to C3 to A3 until A10, then standard route.
R-4:	Stands 30 thru 37:	I7 to C5 to A5 until A10, then standard route.
	Stands 40 thru 45:	M6 to C6 to A5 until A10, then standard route.
	Stands 40 and 165 (B747-8F):	Standard route to RWY holding position LA or A19 to ME2 to RWY holding position LE.
	Stands 163 and 165:	A5 until A10, then standard route.
	Stands 171 and 173:	F2 to A8 until A10, then standard route.
	Stand 175:	F1 to A8 until A10, then standard route.
R-3:	I8 to Gate 1 to G1 to A8 until A10, then standard route or I7 to C5 to A5 until A10, then standard route.	
Stands 22 thru 27: M8 to G1 to A8 until A10, then standard route.		
R-2:	I8 or I9 to Gate 2 to G2 to A9 to A10, then standard route.	
R-1:	Stands 7 thru 9:	Straight to M10 to G5 to A11 to A12 to RWY holding position LA/LB.
	Stands 10 thru 13 and T22 thru T29:	I9 or I10 to Gate 4 to G4 to A10, then standard route.
	Stands T30 thru T40:	I12 to I11 to Gate 6 (transfer point) to A12 to RWY holding position LA/LB.
R-0:	Stands 1 thru 5:	I11 to Gate 6 (transfer point) to A12 to RWY holding position LA/LB.
	Stand 6:	Straight to G5 to A11 to A12 to RWY holding position LA/LB.

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3. DEPARTURE

To RWY 14R from: (cont'd)		
Terminal 4		
Standard route: S3 (transfer point S3-2) to S2 to A17 to holding points LC to LD to LE. R3 and transfer point R3-2 will be used as alternative route.		
R-10:	Stands 364 thru 370:	DI3 to S4 to S3, then standard route.
	Stands 372 thru 377:	D2 to S4 to S3, then standard route.
	Stand 378:	JI5 to D1 to D2 to S4 to S3, then standard route.
	Stands 380 thru 394:	JI6 to JI5 to D1 to D2 to S4 to S3, then standard route.
	Stands 444 thru 446:	D3 to R4 to X3 to S3, then standard route.
	Stand 448:	D2 to S4 to S3, then standard route.
R-11:	Stands 342 thru 362:	DI4 to DI3 to S4 to S3, then standard route.
	Stands 430 and 432:	D4 to D5 to W4 to X5 to X4 to X3 to S3, then standard route.
	Stands 434 thru 442:	D3 to R4 to X3 to S3, then standard route.
R-12:	Stands 300 thru 312:	W6 to WN1 to WN2 to WN3 to W4 to X5 to X4 to X3 to S3, then standard route.
	Stands 320 thru 329:	W5 to WN1 to WN2 to WN3 to W4 to X5 to X4 to X3 to S3, then standard route.
	Stands 330 thru 340:	DI4 to DI3 to S4 to S3, then standard route.
	Stands 420 thru 428:	D4 to D5 to W4 to X5 to X4 to X3 to S3, then standard route.
R-13:	Stands 400 thru 419:	WN2 to WN3 to W4 to X5 to X4 to X3 to S3, then standard route.
	Stands PE-10 thru PE-30:	X6 to X5 to X4 to X3 to S3, then standard route.
Terminal 4S		
R-20:	Stands 568 thru 580:	EB2 to EB6 to EB7 to N10 until N2 to M21 to B1 to LE to holding point LE.
	Stands 582 thru 586:	Gate 11 to N2 to M21 to B1 to LE to holding point LE.
	Stands 620 thru 628:	EC2 to EB2 to EB6 to EB7 to N10 until N2 to M21 to B1 to LE to holding point LE.
R-21:	Stands 556 thru 560:	EB6 to EB7 to N10 until N2 to M21 to B1 to LE to holding point LE.
	Stands 562 thru 566:	EB2 to EB6 to EB7 to N10 until N2 to M21 to B1 to LE to holding point LE.
	Stands 608 thru 618:	EC6 to EB2 to EB6 to EB7 to N10 until N2 to M21 to B1 to LE to holding point LE.
R-22:	Stands 540 thru 554:	EB6 to EB7 to N10 until N2 to M21 to B1 to LE to holding point LE.
	Stands 600 thru 606:	EC6 to EB6 to EB7 to N10 until N2 to M21 to B1 to LE to holding point LE.
R-23:	Stands 500 thru 536:	EA6 to EA5 to Gate 12 to N4 until N2 to M21 to B1 to LE to holding point LE.
	Stand 538:	N10 until N2 to M21 to B1 to LE to holding point LE.

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3. DEPARTURE

3.2.6. COMMUNICATION FAILURE

ACFT will continue with extreme CAUTION on the assigned route to stop at an intermediate holding position or its clearance limit and wait for a Follow-me car which will guide the ACFT to the designated holding position or parking stand.

3.3. NOISE ABATEMENT PROCEDURES

For additional depiction refer to 10-4 & 10-4A.

3.3.1. GENERAL

The following procedures are applicable to all ACFT for landing and take-off - except for safety reasons - to avoid excessive noise in areas surrounding the APT. Non-compliance will cause sanctions to ACFT operators. If unable to comply submit alternative procedures to correspondent authority for approval.

Departure paths will be radar-monitored and noise level will be measured for each operation.

Departures shall be performed in accordance to ICAO DOC 8168 NOISE ABATEMENT DEPARTURE PROCEDURE A (NADP A).

ACFT may be exempted when using different procedures, duly reported to APT Management in advance, which are proved to lead to a less acoustic impact or due to safety reasons.

North Configuration

RWY 36L: Usable for take-off between 0700-2300LT.
SIDs BARDI 1X, 1AX, CCS 1X, 1AX, SIE 1X, VTB 1AX, 1XE, ZMR 1AX, 1XN are mandatory for ACFT included in the list shown below.*
ACFT not included in the list are allowed to use SIDs BARDI 1Y, 1AY, CCS 1Y, 1AY, SIE 2L, 1AL, VTB 1AY, 1YD, ZMR 2L, 1AL.

RWY 36L: Usable for take-off between 2300-0700LT.

***Acft List** AN72, A124, A340-600, A388, B721, B722, B731, B732, B741, B742, B743, B744, B74D, B74R, B74S, B748, DC10, DC85, DC86, DC87, H25A, IL62, L101, MD11, SBR1, T134, YK42.

South Configuration

RWY 14L/R: Usable for take-off between 0700-2300LT, following the initial segments of all publicated SIDs. Between 2300-0700LT RWY 14L will be used following the initial segments of all publicated SIDs.

3.4. RWY OPERATIONS

3.4.1. MINIMUM RWY OCCUPANCY TIME

ACFT not ready to initiate take-off run immediately when cleared for take-off, will have take-off clearance cancelled and will receive instructions to vacate the RWY at the first available TWY.

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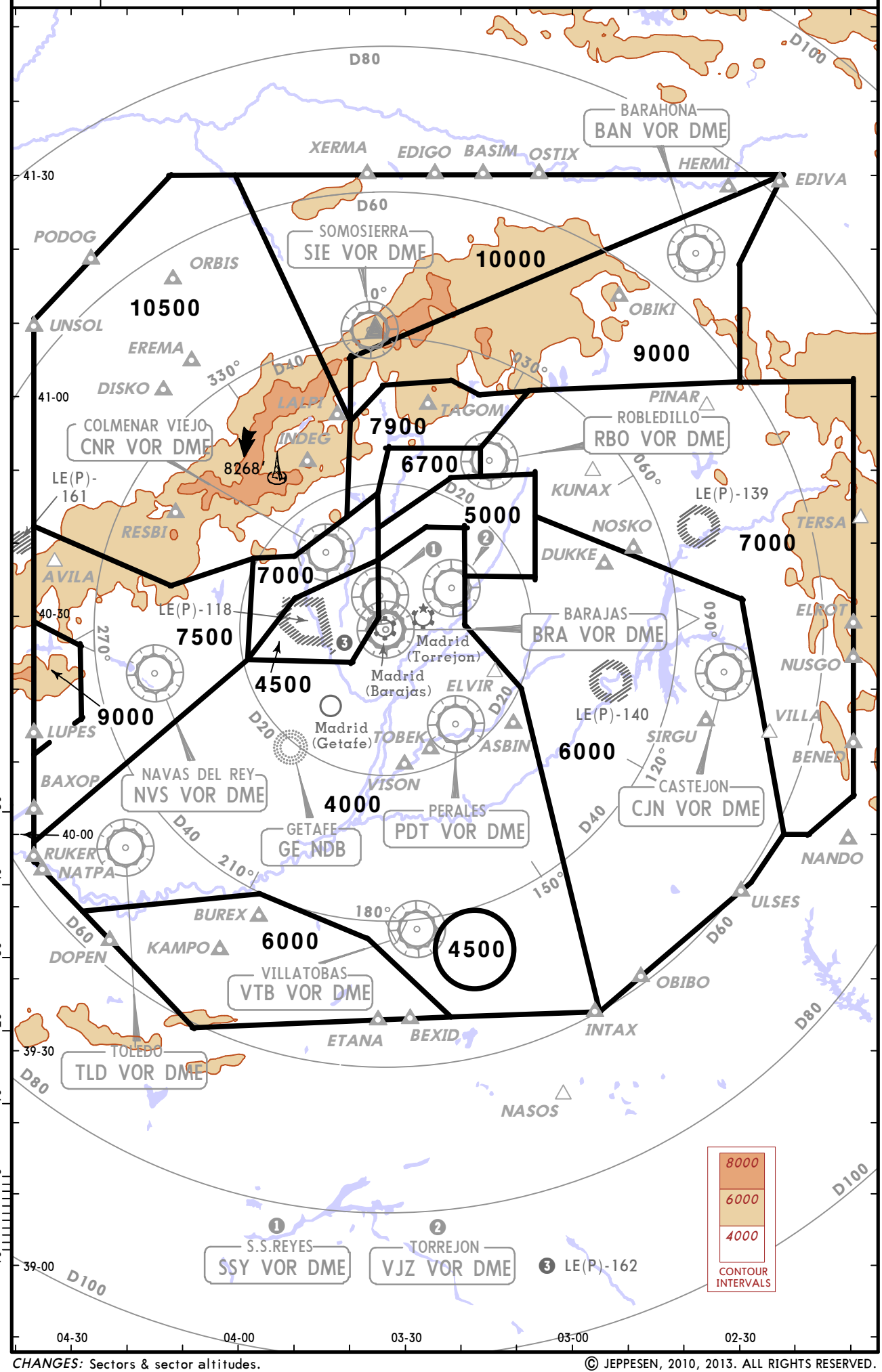
Apt Elev 1998'

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

1. The published minimum altitudes integrate no correction for low temperatures.
2. This chart may only be used for cross-checking of altitudes assigned while the aircraft is identified.



CHANGES: Sectors & sector altitudes.

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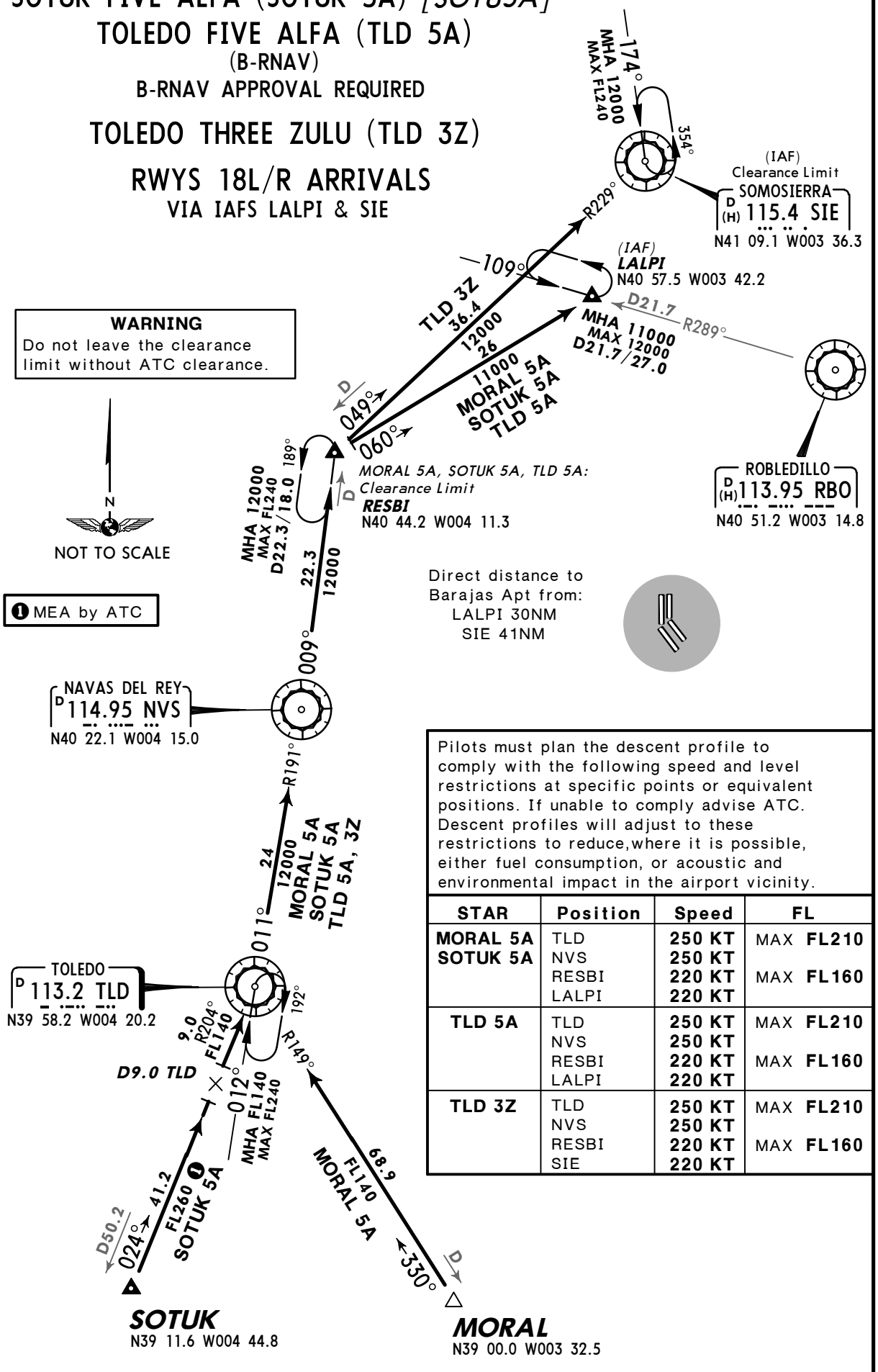
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′

MORAL FIVE ALFA (MORAL 5A) *[MORA5A]*
SOTUK FIVE ALFA (SOTUK 5A) *[SOTU5A]*
TOLEDO FIVE ALFA (TLD 5A)
(B-RNAV)
B-RNAV APPROVAL REQUIRED

TOLEDO THREE ZULU (TLD 3Z)

RWYS 18L/R ARRIVALS
VIA IAFS LALPI & SIE



Pilots must plan the descent profile to comply with the following speed and level restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce,where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL
MORAL 5A SOTUK 5A	TLD NVS RESBI LALPI	250 KT 250 KT 220 KT 220 KT	MAX FL210 MAX FL160
TLD 5A	TLD NVS RESBI LALPI	250 KT 250 KT 220 KT 220 KT	MAX FL210 MAX FL160
TLD 3Z	TLD NVS RESBI SIE	250 KT 250 KT 220 KT 220 KT	MAX FL210 MAX FL160

CHANGES: STAR ROLDO 5A withdrawn.

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ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′

ORBIS FOUR ALFA (ORBIS 4A) *[ORBI4A]*
RIDAV ONE ALFA (RIDAV 1A) *[RIDA1A]*
ZAMORA THREE ALFA (ZMR 3A)

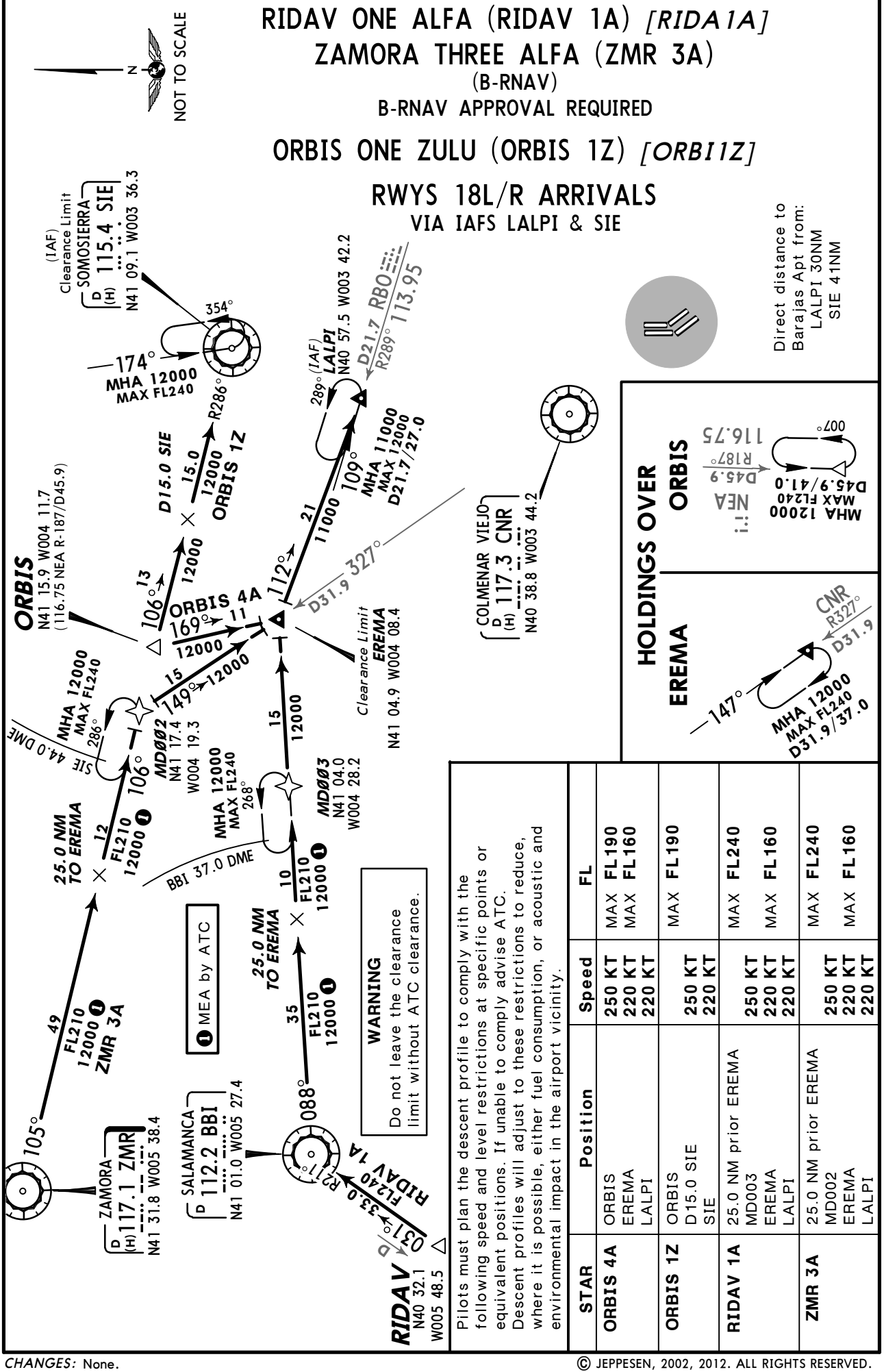
(B-RNAV)

B-RNAV APPROVAL REQUIRED

ORBIS ONE ZULU (ORBIS 1Z) *[ORBI1Z]*

RWYS 18L/R ARRIVALS

VIA IAFS LALPI & SIE



Pilots must plan the descent profile to comply with the following speed and level restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL
ORBIS 4A	ORBIS EREMA LALPI	250 KT 220 KT 220 KT	MAX FL190 MAX FL160
ORBIS 1Z	ORBIS D15.0 SIE SIE	250 KT 220 KT	MAX FL190
RIDAV 1A	25.0 NM prior EREMA MD003 EREMA LALPI	250 KT 220 KT 220 KT	MAX FL240 MAX FL160
ZMR 3A	25.0 NM prior EREMA MD002 EREMA LALPI	250 KT 220 KT 220 KT	MAX FL240 MAX FL160

CHANGES: None.

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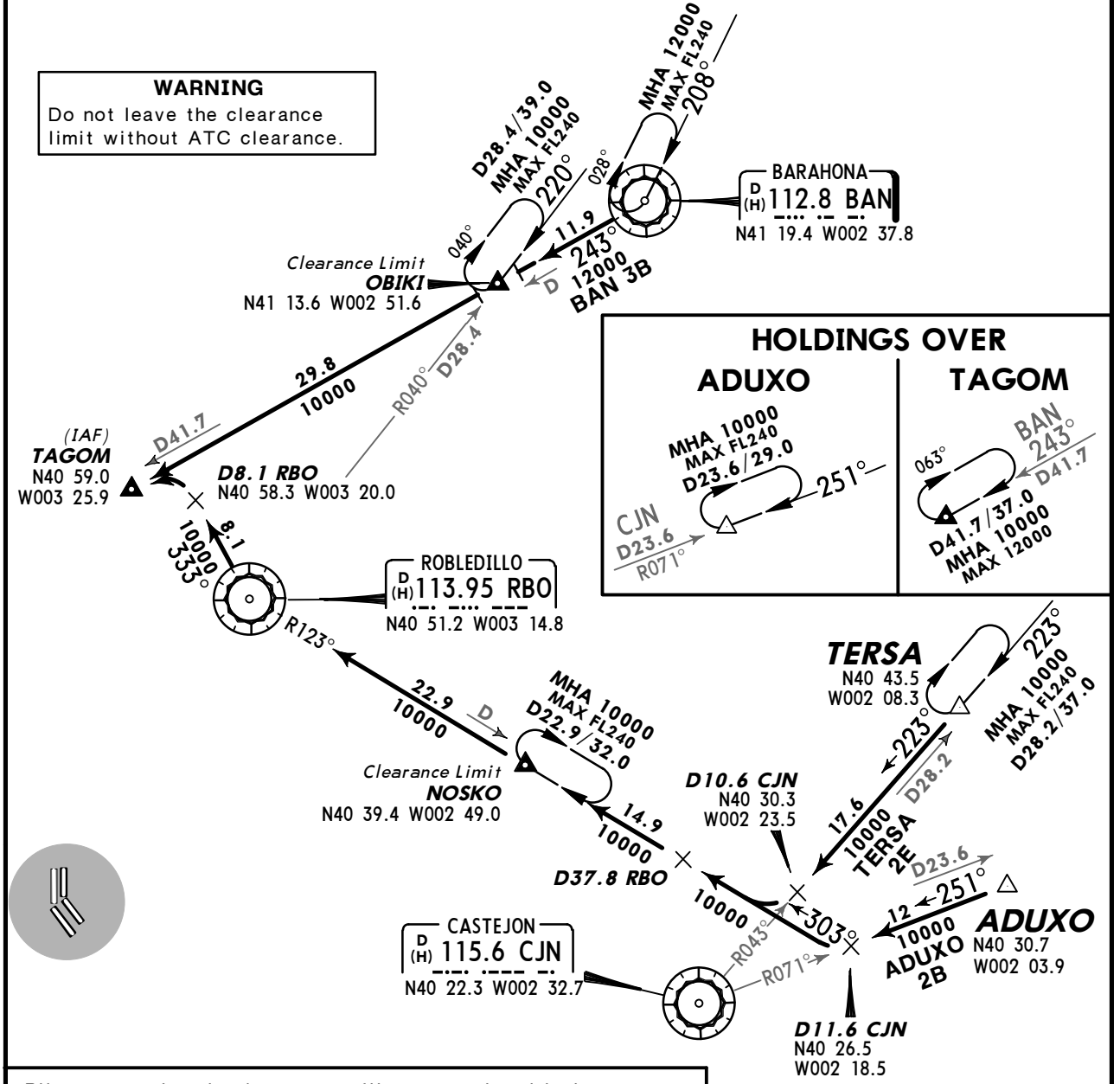
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′

ADUXO TWO BRAVO (ADUXO 2B) *[ADUX2B]*
BARAHONA THREE BRAVO (BAN 3B)
TERSA TWO ECHO (TERSA 2E) *[TERS2E]*
RWYS 18L/R ARRIVALS
VIA IAF TAGOM



Pilots must plan the descent profile to comply with the following speed and level/altitude restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL/Altitude
ADUXO 2B	ADUXO		MAX **FL210**
	D37.8 RBO	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**
BAN 3B	BAN	**250 KT**	MAX **FL190**
	OBIKI	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**
TERSA 2E	TERSA		MAX **FL210**
	D37.8 RBO	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**

N
NOT TO SCALE

CHANGES: Descent profile revised.

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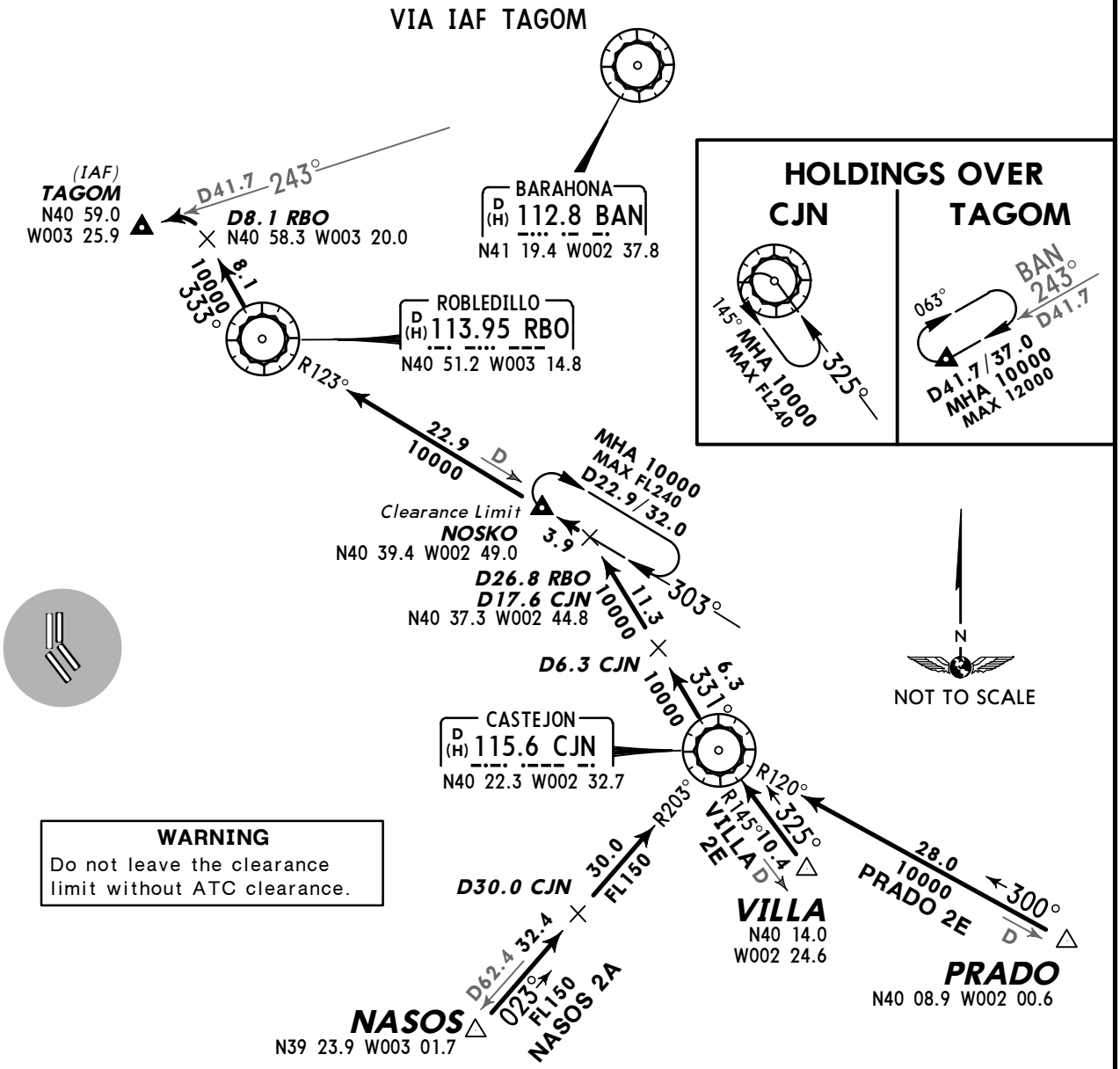
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′

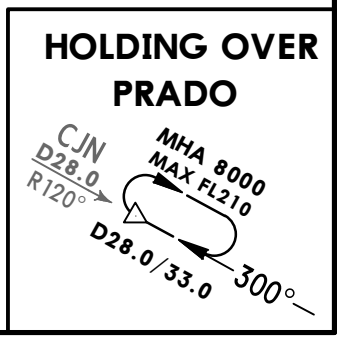
NASOS TWO ALFA (NASOS 2A) *[NASO2A]*
PRADO TWO ECHO (PRADO 2E) *[PRAD2E]*
VILLA TWO ECHO (VILLA 2E) *[VILA2E]*
RWYS 18L/R ARRIVALS
VIA IAF TAGOM



WARNING
Do not leave the clearance limit without ATC clearance.

Pilots must plan the descent profile to comply with the following speed and level/altitude restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL/Altitude
NASOS 2A	D30.0 CJN		MAX **FL210**
	D6.3 CJN	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**
PRADO 2E	PRADO		MAX **FL210**
	D6.3 CJN	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**
VILLA 2E	VILLA		MAX **FL210**
	D6.3 CJN	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**



CHANGES: Descent profile revised.

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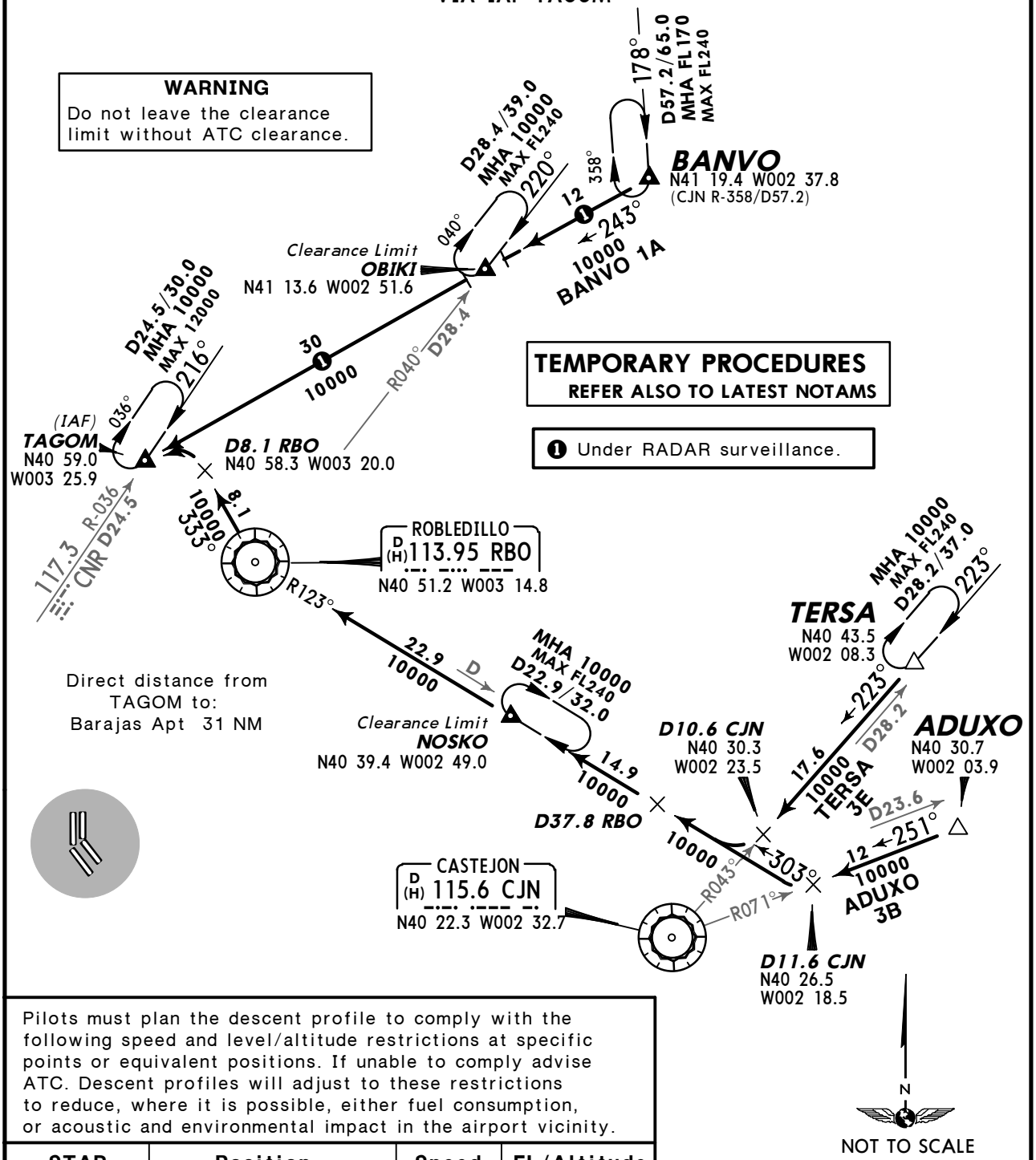
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′

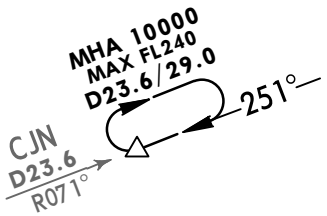
ADUXO THREE BRAVO (ADUXO 3B) *[ADUX3B]*
BANVO ONE ALFA (BANVO 1A) *[BANV1A]*
TERSA THREE ECHO (TERSA 3E) *[TERS3E]*
RWYS 18L/R ARRIVALS
VIA IAF TAGOM



Pilots must plan the descent profile to comply with the following speed and level/altitude restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL/Altitude
ADUXO 3B	ADUXO		MAX **FL210**
	D37.8 RBO	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**
BANVO 1A	BANVO	**250 KT**	MAX **FL190**
	OBIKI	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**
TERSA 3E	TERSA		MAX **FL210**
	D37.8 RBO	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**

HOLDING OVER ADUXO



CHANGES: New temporary chart.

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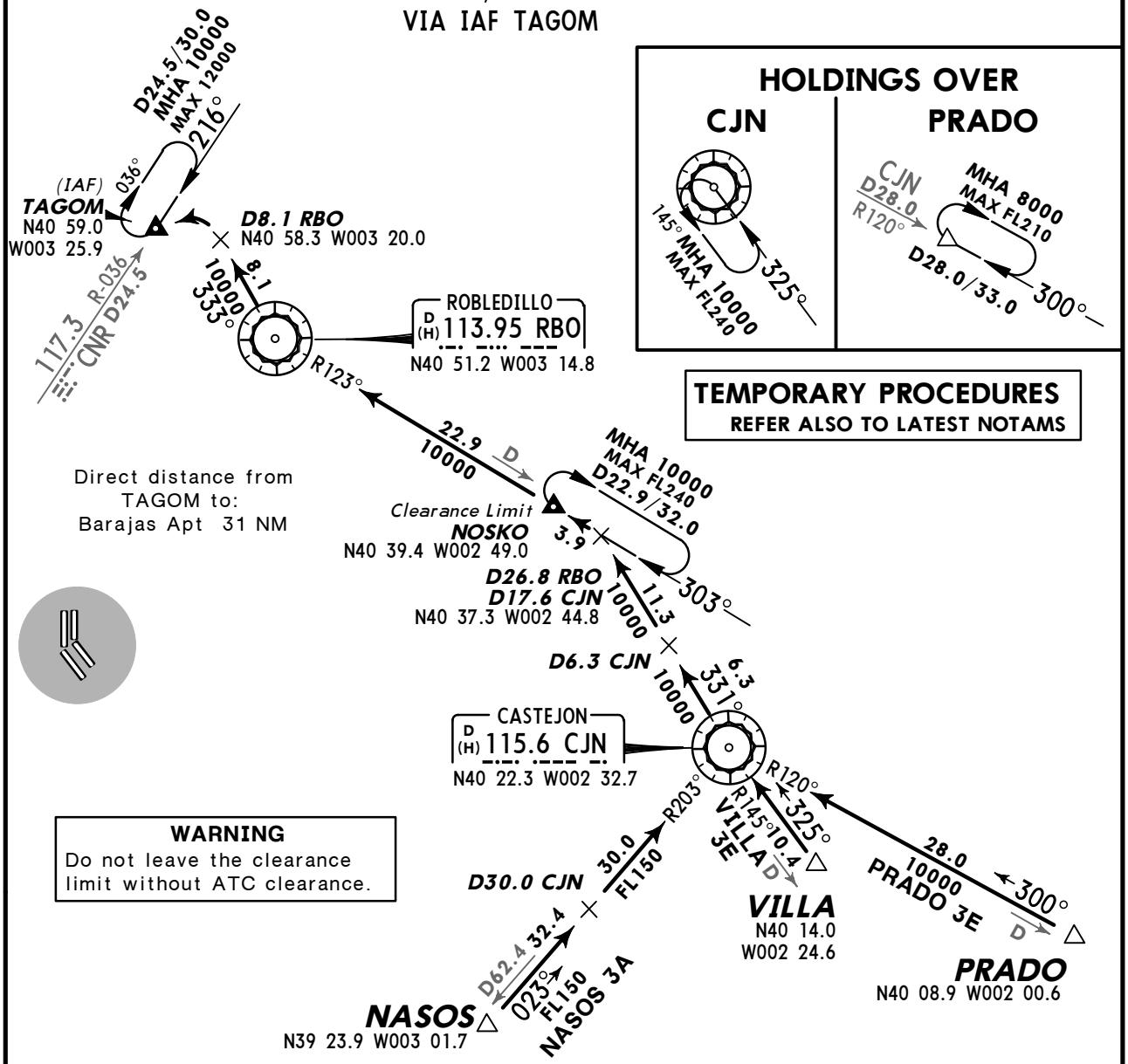
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′

NASOS THREE ALFA (NASOS 3A) *[NASO3A]*
PRADO THREE ECHO (PRADO 3E) *[PRAD3E]*
VILLA THREE ECHO (VILLA 3E) *[VILA3E]*
RWYS 18L/R ARRIVALS
VIA IAF TAGOM



Pilots must plan the descent profile to comply with the following speed and level/altitude restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL/Altitude
NASOS 3A	D30.0 CJN		MAX **FL210**
	D6.3 CJN	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**
PRADO 3E	PRADO		MAX **FL210**
	D6.3 CJN	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**
VILLA 3E	VILLA		MAX **FL210**
	D6.3 CJN	**250 KT**	
	NOSKO	**220 KT**	MAX **FL160**
	TAGOM	**220 KT**	**10000′**

N

NOT TO SCALE

CHANGES: New temporary chart.

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ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

ADUXO ONE DELTA (ADUXO 1D) *[ADUX1D]*

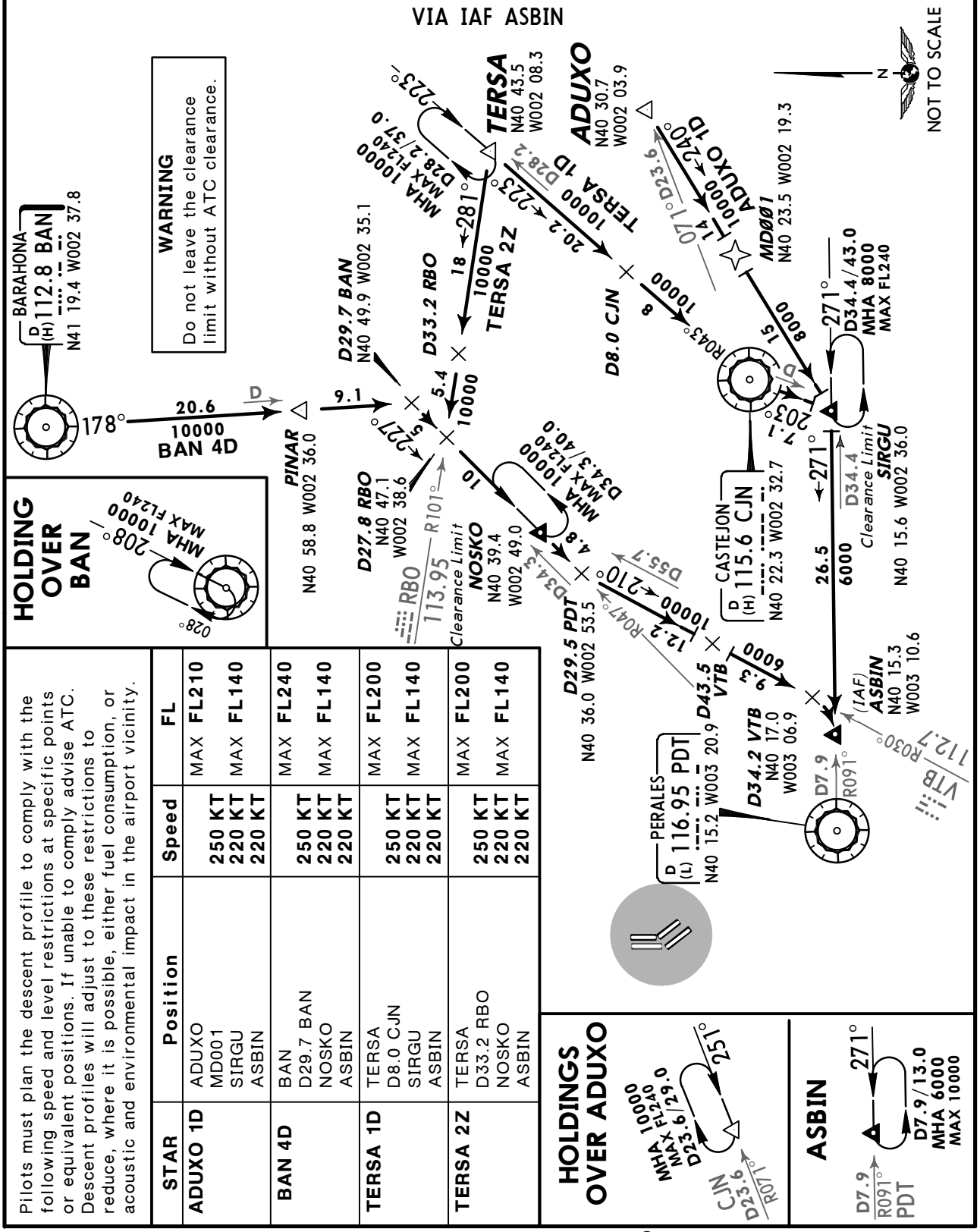
(B-RNAV)

B-RNAV APPROVAL REQUIRED

BARAHONA FOUR DELTA (BAN 4D)
TERSA ONE DELTA (TERSA 1D) *[TERS1D]*
TERSA TWO ZULU (TERSA 2Z) *[TERS2Z]*

RWYS 32L/R ARRIVALS

VIA IAF ASBIN



Pilots must plan the descent profile to comply with the following speed and level restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL
ADUXO 1D	ADUXO	250 KT	MAX FL210
	MD001	220 KT	MAX FL140
	SIRGU	220 KT	MAX FL140
	ASBIN	220 KT	MAX FL140
BAN 4D	BAN	250 KT	MAX FL240
	D29.7 BAN	220 KT	MAX FL140
	NOSKO	220 KT	MAX FL140
	ASBIN	220 KT	MAX FL140
TERSA 1D	TERSA	250 KT	MAX FL200
	D8.0 CJN	220 KT	MAX FL140
	SIRGU	220 KT	MAX FL140
	ASBIN	220 KT	MAX FL140
TERSA 2Z	TERSA	250 KT	MAX FL200
	D33.2 RBO	220 KT	MAX FL140
	NOSKO	220 KT	MAX FL140
	ASBIN	220 KT	MAX FL140

HOLDINGS OVER ADUXO

MHA 10000
MAX FL240
D23.6/29.0
251°
CJN
D23.6
R071°

ASBIN

271°
D7.9/13.0
MHA 6000
MAX 10000
D7.9
R091°
PDT

CHANGES: RWY designation; descent profile revised.

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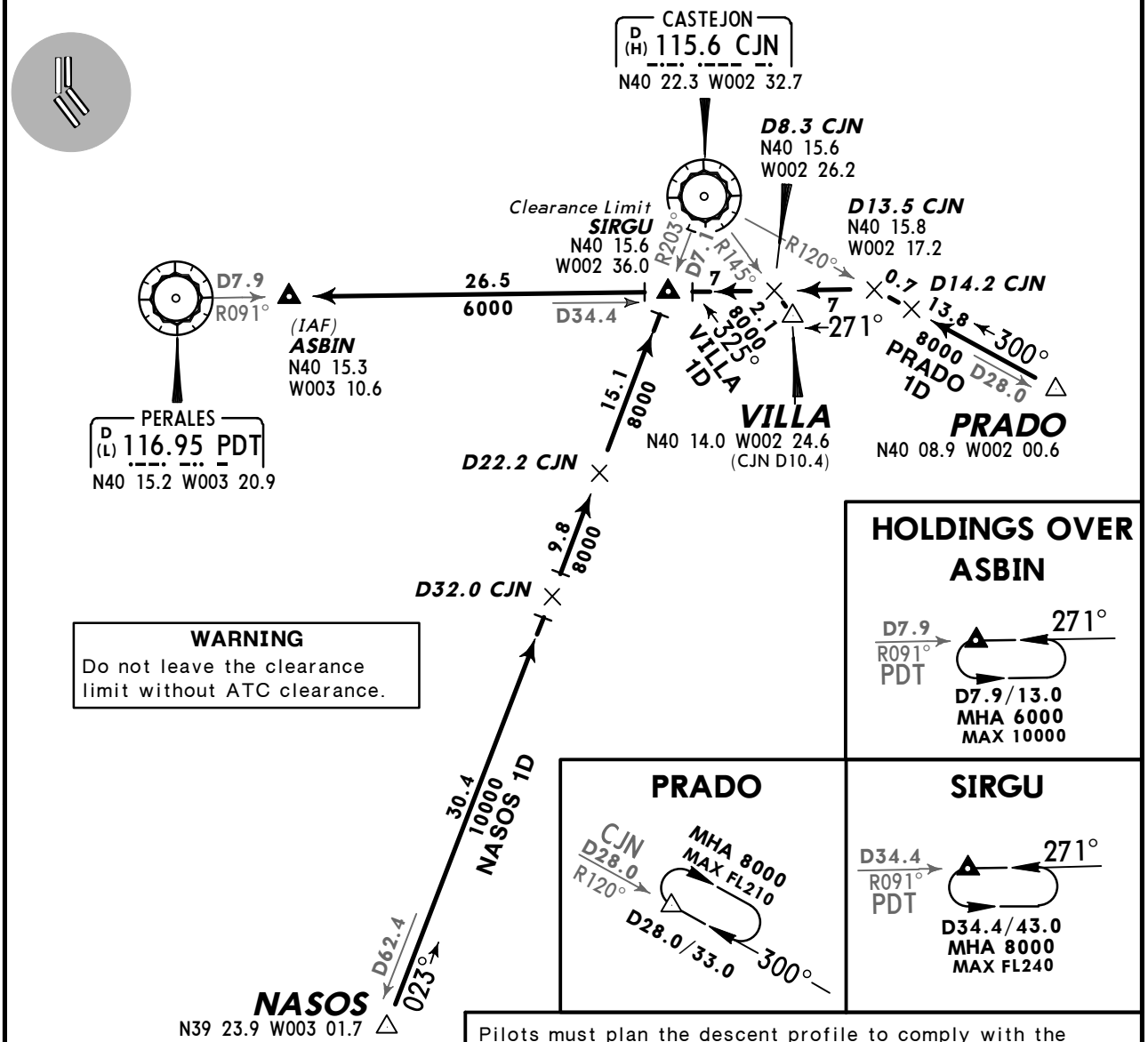
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

NASOS ONE DELTA (NASOS 1D) *[NASO1D]*
PRADO ONE DELTA (PRADO 1D) *[PRAD1D]*
VILLA ONE DELTA (VILLA 1D) *[VILA1D]*
RWYS 32L/R ARRIVALS
VIA IAF ASBIN



WARNING
Do not leave the clearance limit without ATC clearance.

HOLDINGS OVER ASBIN

PRADO

SIRGU

Pilots must plan the descent profile to comply with the following speed and level/altitude restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL
NASOS 1D	D32.0 CJN		MAX FL210
	D22.2 CJN	250 KT	
	SIRGU	220 KT	MAX FL140
	ASBIN	220 KT	
PRADO 1D	PRADO		MAX FL210
	D14.2 CJN	250 KT	
	SIRGU	220 KT	MAX FL140
	ASBIN	220 KT	
VILLA 1D	VILLA	250 KT	MAX FL190
	SIRGU	220 KT	MAX FL140
	ASBIN	220 KT	

CHANGES: RWY designation; descent profile revised.

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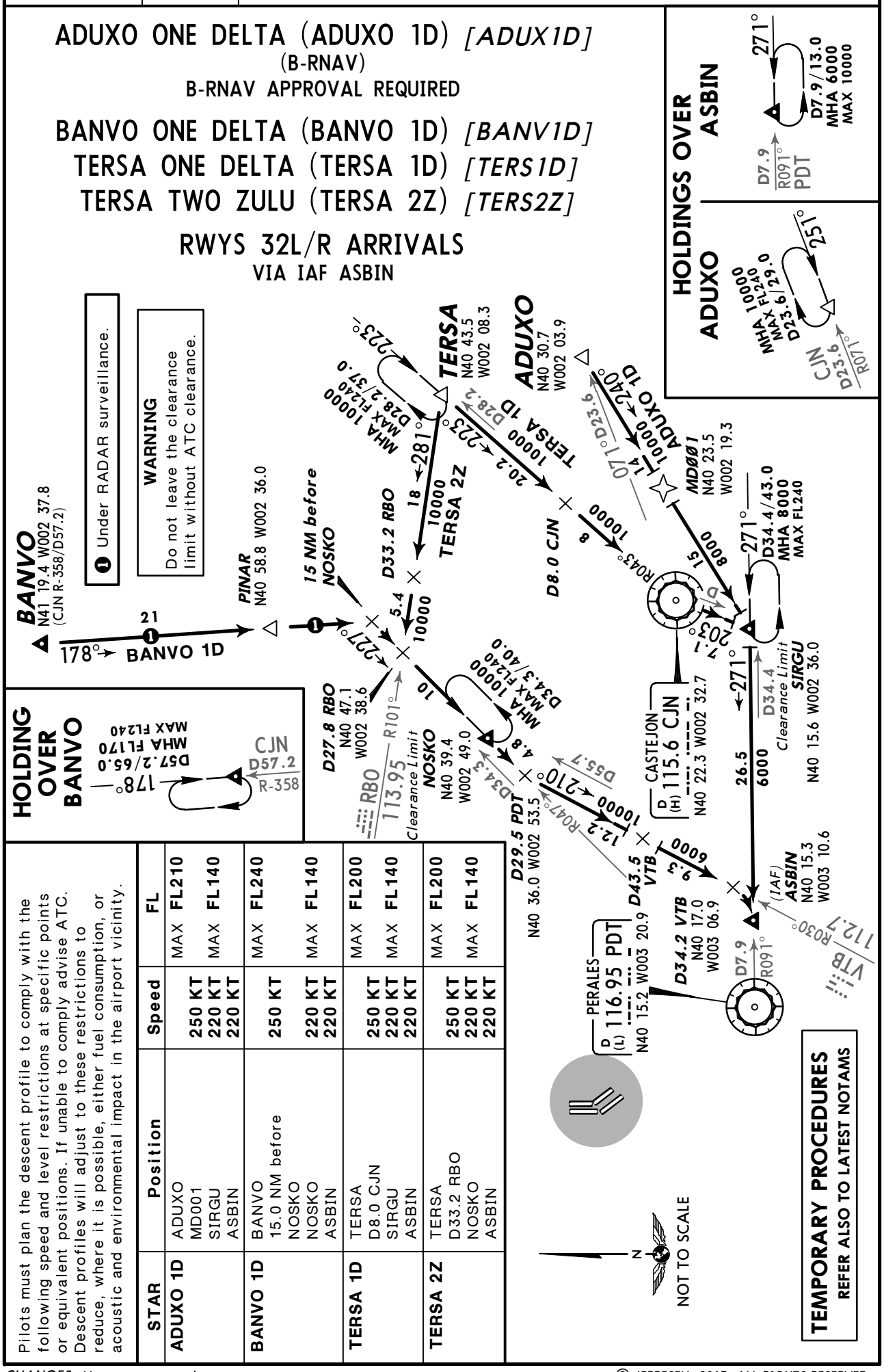
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

ADUXO ONE DELTA (ADUXO 1D) *[ADUX1D]*
(B-RNAV)
B-RNAV APPROVAL REQUIRED

BANVO ONE DELTA (BANVO 1D) *[BANV1D]*
TERSA ONE DELTA (TERSA 1D) *[TERS1D]*
TERSA TWO ZULU (TERSA 2Z) *[TERS2Z]*

RWYS 32L/R ARRIVALS
VIA IAF ASBIN



Pilots must plan the descent profile to comply with the following speed and level restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL
ADUXO 1D	ADUXO	250 KT	MAX FL210
	MD001	220 KT	MAX FL140
	SIRGU	220 KT	
	ASBIN	220 KT	
BANVO 1D	BANVO	250 KT	MAX FL240
	15.0 NM before NOSKO		
	NOSKO	220 KT	MAX FL140
	NOSKO	220 KT	
	ASBIN		
TERSA 1D	TERSA	250 KT	MAX FL200
	D8.0 CJN	220 KT	MAX FL140
	SIRGU	220 KT	
	ASBIN	220 KT	
TERSA 2Z	TERSA	250 KT	MAX FL200
	D33.2 RBO	220 KT	MAX FL140
	NOSKO	220 KT	
	ASBIN		

CHANGES: New temporary chart.

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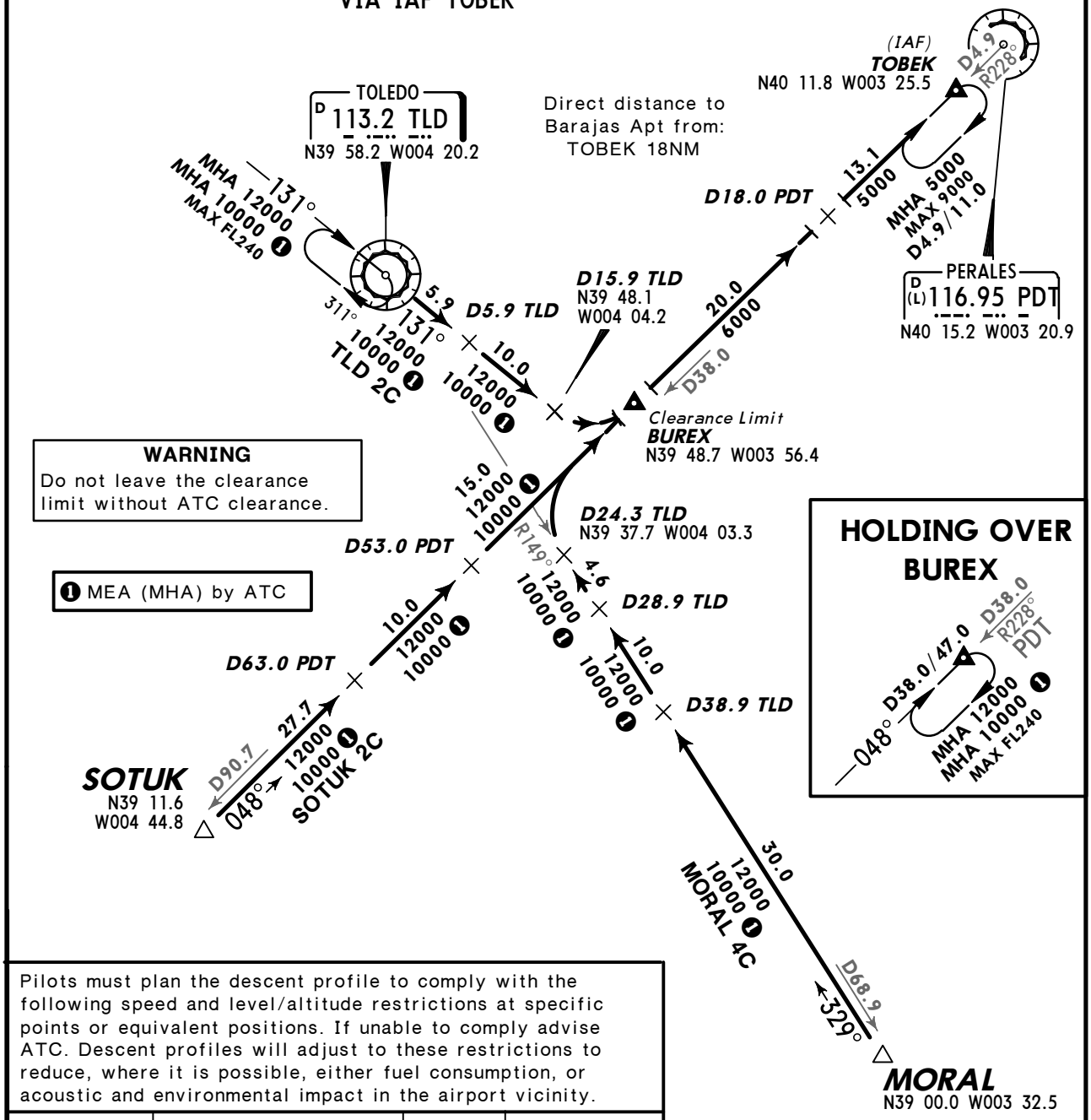
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

MORAL FOUR CHARLIE (MORAL 4C) *[MORA4C]*
SOTUK TWO CHARLIE (SOTUK 2C) *[SOTU2C]*
TOLEDO TWO CHARLIE (TLD 2C)
RWYS 32L/R ARRIVALS
VIA IAF TOBEK



Pilots must plan the descent profile to comply with the following speed and level/altitude restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL/Altitude
MORAL 4C	D38.9 TLD		MAX **FL210**
	D28.9 TLD	**250 KT**	
	BUREX	**220 KT**	MAX **FL140**
	TOBEK	**220 KT**	**5000′**
SOTUK 2C	D63.0 PDT		MAX **FL210**
	D53.0 PDT	**250 KT**	
	BUREX	**220 KT**	MAX **FL140**
	TOBEK	**220 KT**	**5000′**
TLD 2C	TLD		MAX **FL210**
	D5.9 TLD	**250 KT**	
	BUREX	**220 KT**	MAX **FL140**
	TOBEK	**220 KT**	**5000′**

CHANGES: STAR ROLDO 4C withdrawn.

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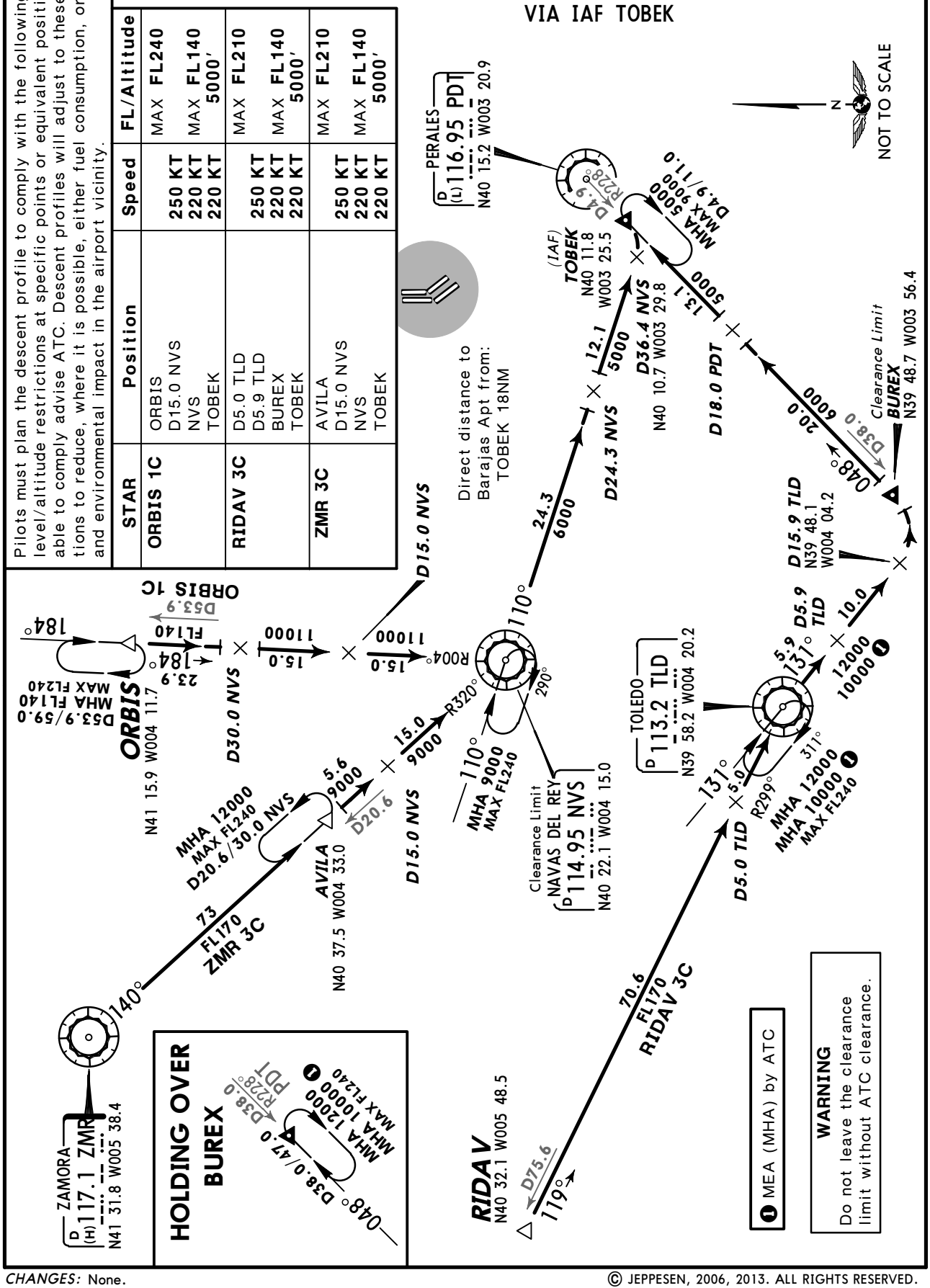
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

ORBIS ONE CHARLIE (ORBIS 1C) *[ORBI1C]*
RIDAV THREE CHARLIE (RIDAV 3C) *[RIDA3C]*
ZAMORA THREE CHARLIE (ZMR 3C)
RWYS 32L/R ARRIVALS
VIA IAF TOBEK

Pilots must plan the descent profile to comply with the following speed and level/altitude restrictions at specific points or equivalent positions. If unable to comply advise ATC. Descent profiles will adjust to these restrictions to reduce, where it is possible, either fuel consumption, or acoustic and environmental impact in the airport vicinity.

STAR	Position	Speed	FL/Altitude
ORBIS 1C	ORBIS D15.0 NVS NVS TOBEK	250 KT 220 KT 220 KT	MAX FL240 MAX FL140 5000′
RIDAV 3C	D5.0 TLD D5.9 TLD BUREX TOBEK	250 KT 220 KT 220 KT	MAX FL210 MAX FL140 5000′
ZMR 3C	AVILA D15.0 NVS NVS TOBEK	250 KT 220 KT 220 KT	MAX FL210 MAX FL140 5000′



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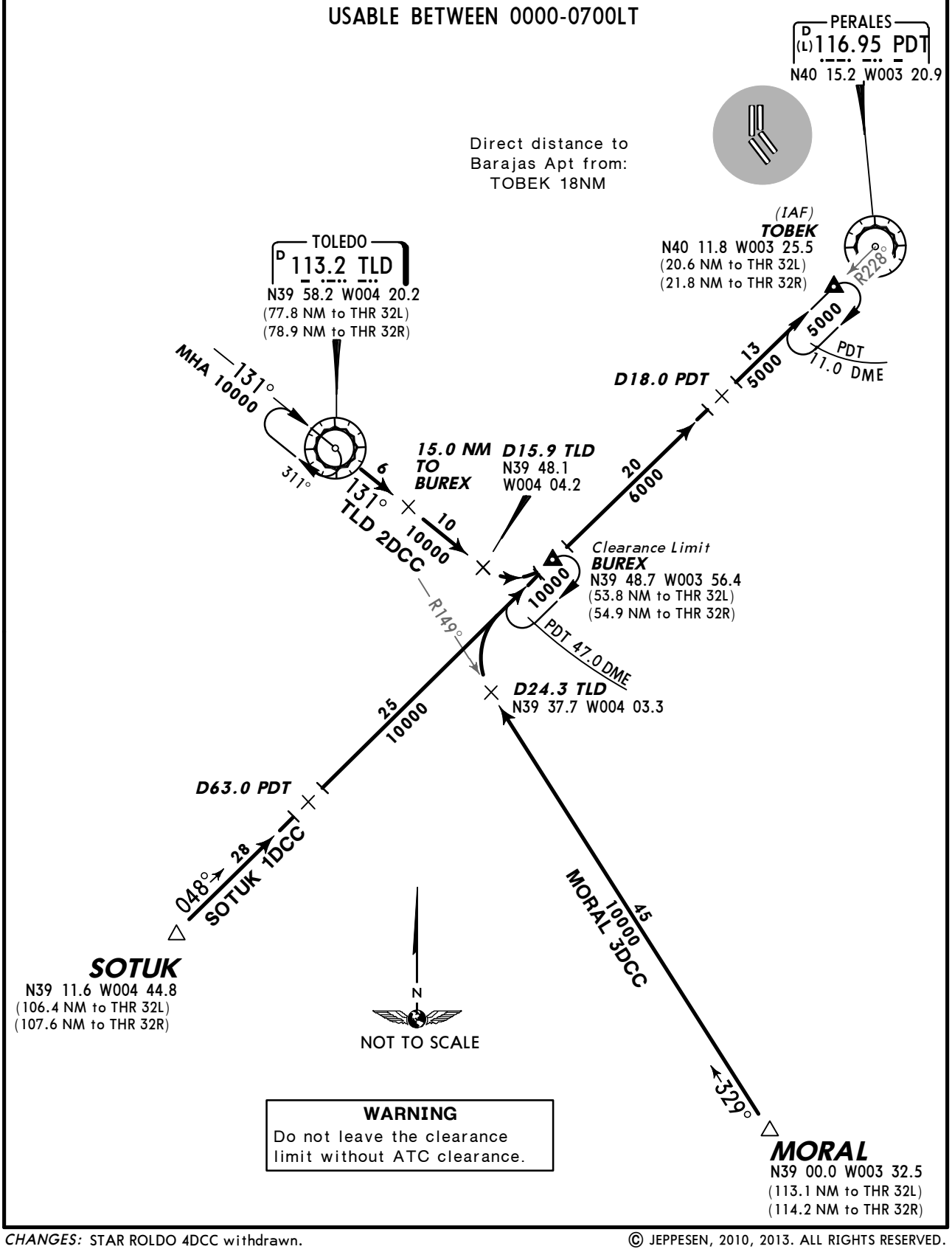
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

MORAL THREE DELTA CHARLIE CHARLIE (MORAL 3DCC) *[MO3DCC]*
SOTUK ONE DELTA CHARLIE CHARLIE (SOTUK 1DCC) *[SO1DCC]*
TOLEDO TWO DELTA CHARLIE CHARLIE (TLD 2DCC) *[TL2DCC]*
RWYS 32L/R CONTINUOUS DESCENT ARRIVALS (CDA)

BY ATC
VIA IAF TOBEK
USABLE BETWEEN 0000-0700LT



WARNING
Do not leave the clearance limit without ATC clearance.

CHANGES: STAR ROLDO 4DCC withdrawn.

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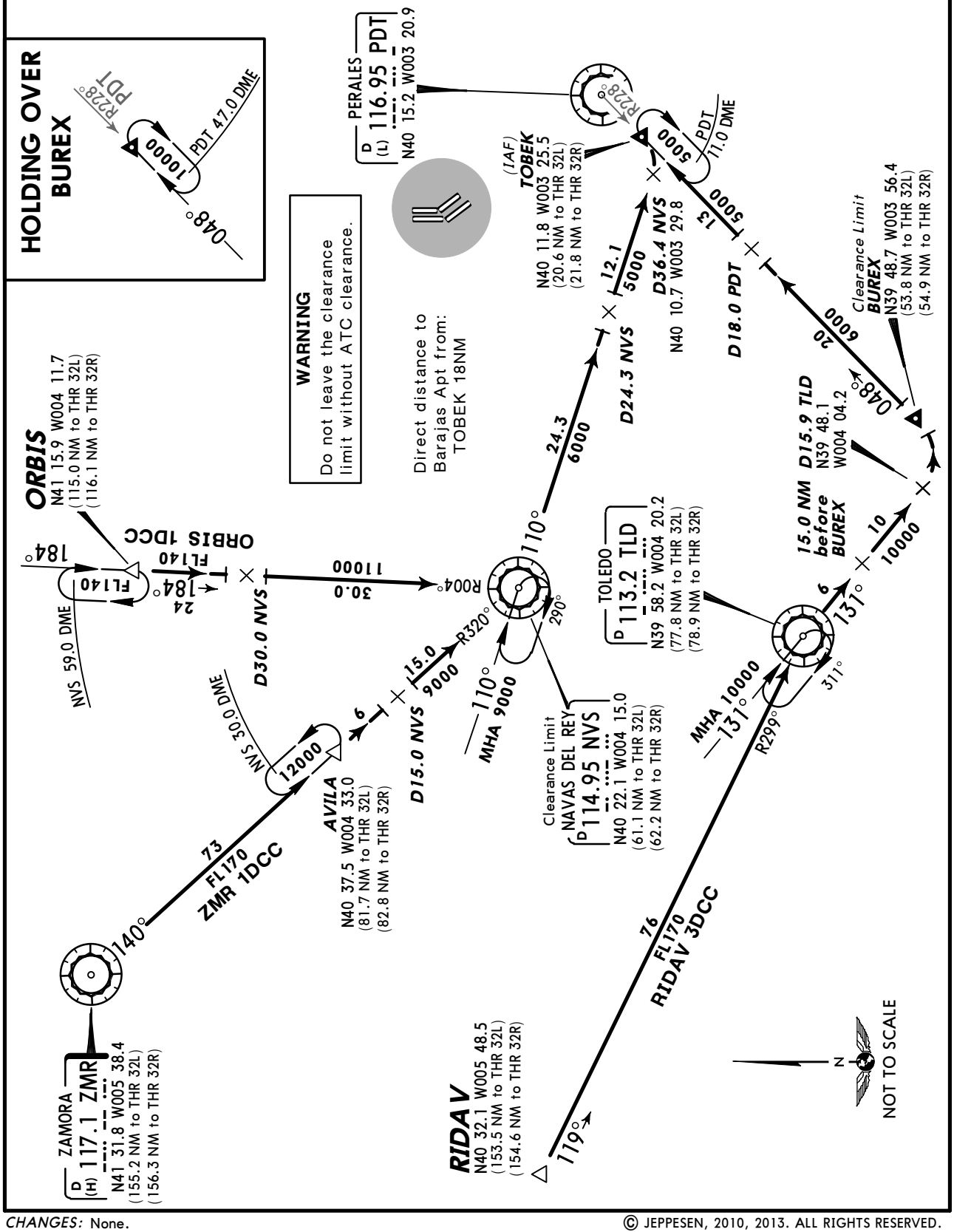
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

ORBIS ONE DELTA CHARLIE CHARLIE (ORBIS 1DCC) *[OR1DCC]*
RIDAV THREE DELTA CHARLIE CHARLIE (RIDAV 3DCC) *[RI3DCC]*
ZAMORA ONE DELTA CHARLIE CHARLIE (ZMR 1DCC) *[ZM1DCC]*
RWYS 32L/R CONTINUOUS DESCENT ARRIVALS (CDA)

BY ATC
VIA IAF TOBEK
USABLE BETWEEN 0000-0700LT



CHANGES: None.

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ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

ADUXO ONE DELTA CHARLIE DELTA (ADUXO 1DCD) *[AD1DCD]*

(B-RNAV)

B-RNAV APPROVAL REQUIRED

BARAHONA TWO DELTA CHARLIE DELTA (BAN 2DCD) *[BA2DCD]*

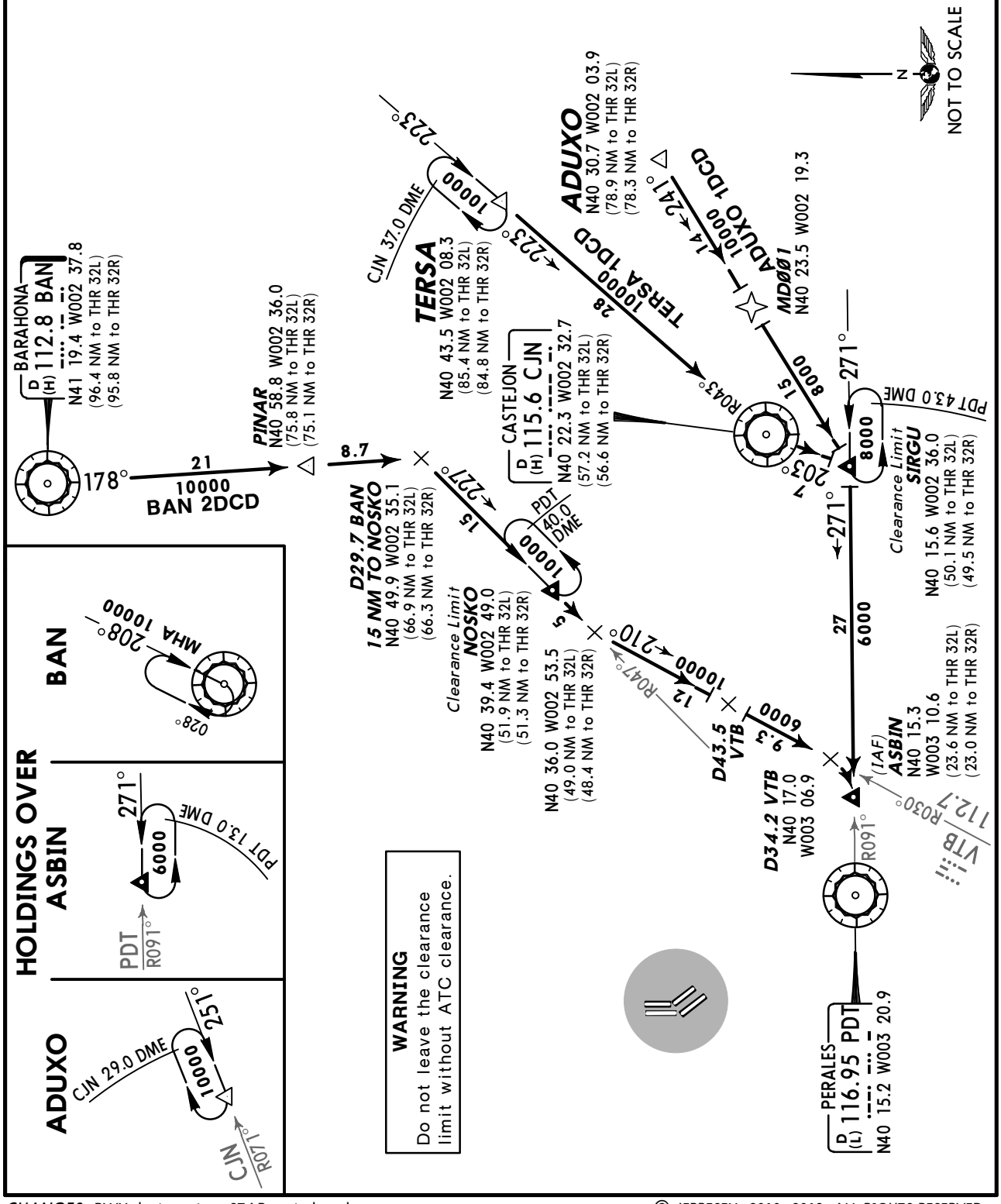
TERSA ONE DELTA CHARLIE DELTA (TERSA 1DCD) *[TE1DCD]*

RWYS 32L/R CONTINUOUS DESCENT ARRIVALS (CDA)

BY ATC

VIA IAF ASBIN

USABLE BETWEEN 0000LT-0700LT



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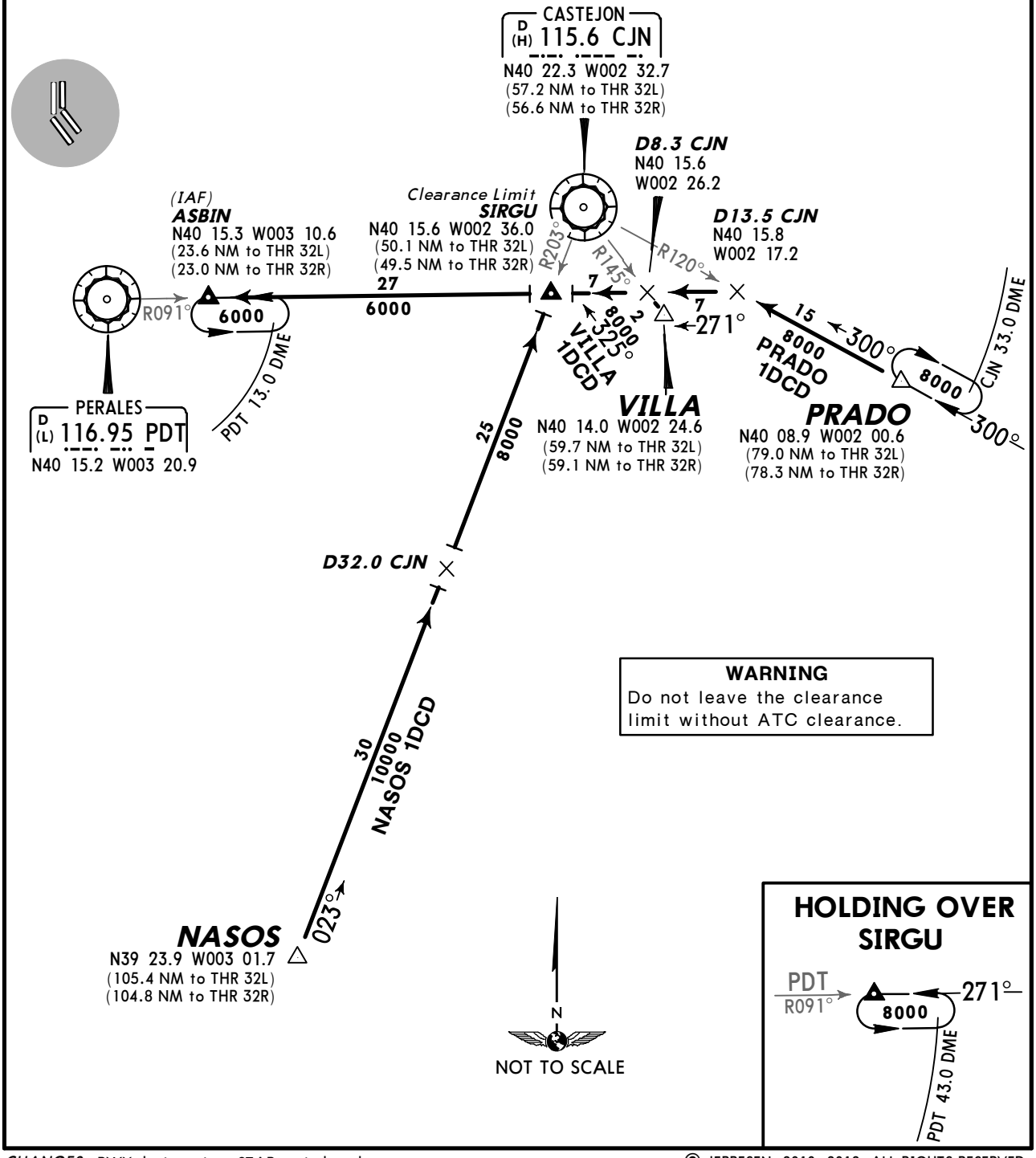
ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

NASOS ONE DELTA CHARLIE DELTA (NASOS 1DCD) *[NA1DCD]*
PRADO ONE DELTA CHARLIE DELTA (PRADO 1DCD) *[PR1DCD]*
VILLA ONE DELTA CHARLIE DELTA (VILLA 1DCD) *[VI1DCD]*
RWYS 32L/R CONTINUOUS DESCENT ARRIVALS (CDA)

BY ATC
VIA IAF ASBIN
USABLE BETWEEN 0000LT-0700LT



CHANGES: RWY designation; STARs reindexed.

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ATIS	Apt Elev	
118.25	1998′	Alt Set: hPa Trans level: By ATC Trans alt: 13000′ Within 10 NM radius of PDT between R-250 and R-074 and between 4000′ and 5000′ Ground Proximity Warning System (GPWS) alarm signal may occur due to orographic characteristics of terrain.

ADUXO ONE DELTA CHARLIE DELTA (ADUXO 1DCD) *[AD1DCD]*

(B-RNAV)

B-RNAV APPROVAL REQUIRED

BANVO ONE DELTA CHARLIE DELTA (BANVO 1DCD) *[BA1DCD]*

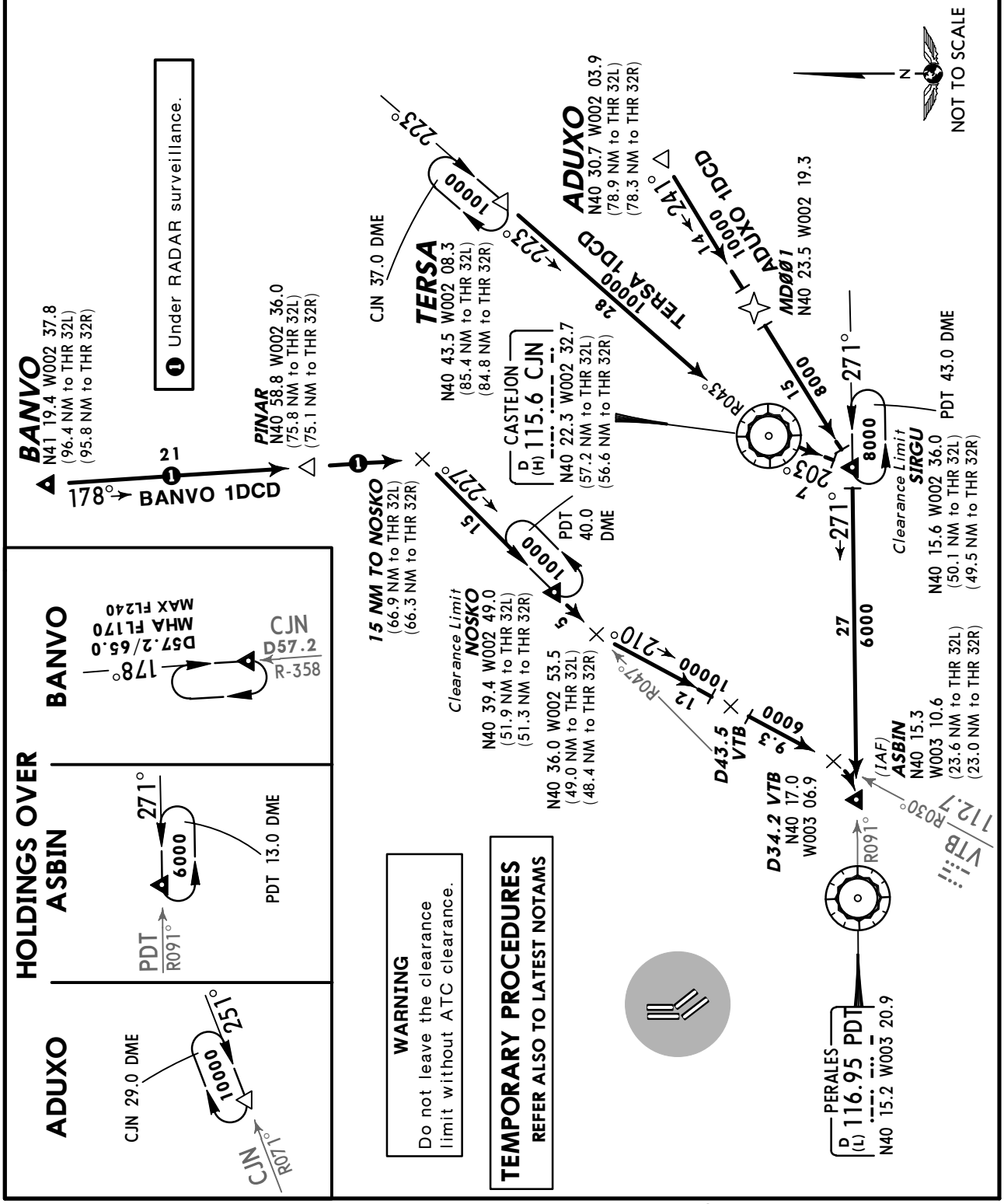
TERSA ONE DELTA CHARLIE DELTA (TERSA 1DCD) *[TE1DCD]*

RWYS 32L/R CONTINUOUS DESCENT ARRIVALS (CDA)

BY ATC

VIA IAF ASBIN

USABLE BETWEEN 0000LT-0700LT



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RNAV SID DESIGNATION	REFER TO CHART
BARDI 2AS	10-3B
BARDI 1AX, 1AY	10-3C
CCS 2AS	10-3D
CCS 1AX, 1AY	10-3E
NANDO 3AR, 1AU	10-3F
PINAR 2AR	10-3G
PINAR 1AU	10-3H
RBO 2AR, 1AU	10-3J
SIE 1AL	10-3K
SIE 2AS	10-3L
VTB 2AS	10-3L1
VTB 1AX, 1AY	10-3L2
ZMR 1AL, 1AX	10-3L3
ZMR 2AS	10-3L4

SID DESIGNATION	REFER TO CHART
BARDI 1B, 1S, 1V	10-3M
BARDI 1X, 1Y	10-3N
BARDI 1N, 1W	10-3N1
CACERES 1B, 1S, 1V	10-3N2
CACERES 1W	10-3N3
CACERES 3N	10-3N4
CACERES 1X, 1Y	10-3N5
NANDO 1B	10-3N6
NANDO 2N	10-3P
NANDO 4R, 2W	10-3Q
NANDO 1UV, 1VX	10-3S

FOR FURTHER SID DESIGNATION
REFER TO PAGE 10-3A

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SID DESIGNATION	REFER TO CHART
PINAR 2B	10-3T
PINAR 2N	10-3T1
PINAR 2R, 2W	10-3T2
PINAR 1UV, 1VX	10-3T3
ROBLEDILLO 1B	10-3T4
ROBLEDILLO 1N	10-3T5
ROBLEDILLO 1R, 1W	10-3U
ROBLEDILLO 1UV, 1VX	10-3V
SOMOSIERRA 2B	10-3V1
SOMOSIERRA 2L, 1NQ	10-3V2
SOMOSIERRA 1W, 1X	10-3V3
SOMOSIERRA 2S	10-3V4
SOMOSIERRA 2V	10-3V5
VILLATOBAS 1B, 2S, 1V	10-3V6
VILLATOBAS 1XE, 1YD	10-3V7
VILLATOBAS 2NF	10-3W
VILLATOBAS 3W	10-3X
ZAMORA 1BJ, 1SK, 1V	10-3X1
ZAMORA 2L, 1NZ, 1XN	10-3X2
ZAMORA 1W	10-3X3
CONTINGENCY DEPS	10-3X4

CHANGES: SIDs renumbered, withdrawn & reindexed.

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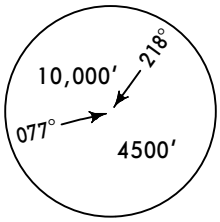
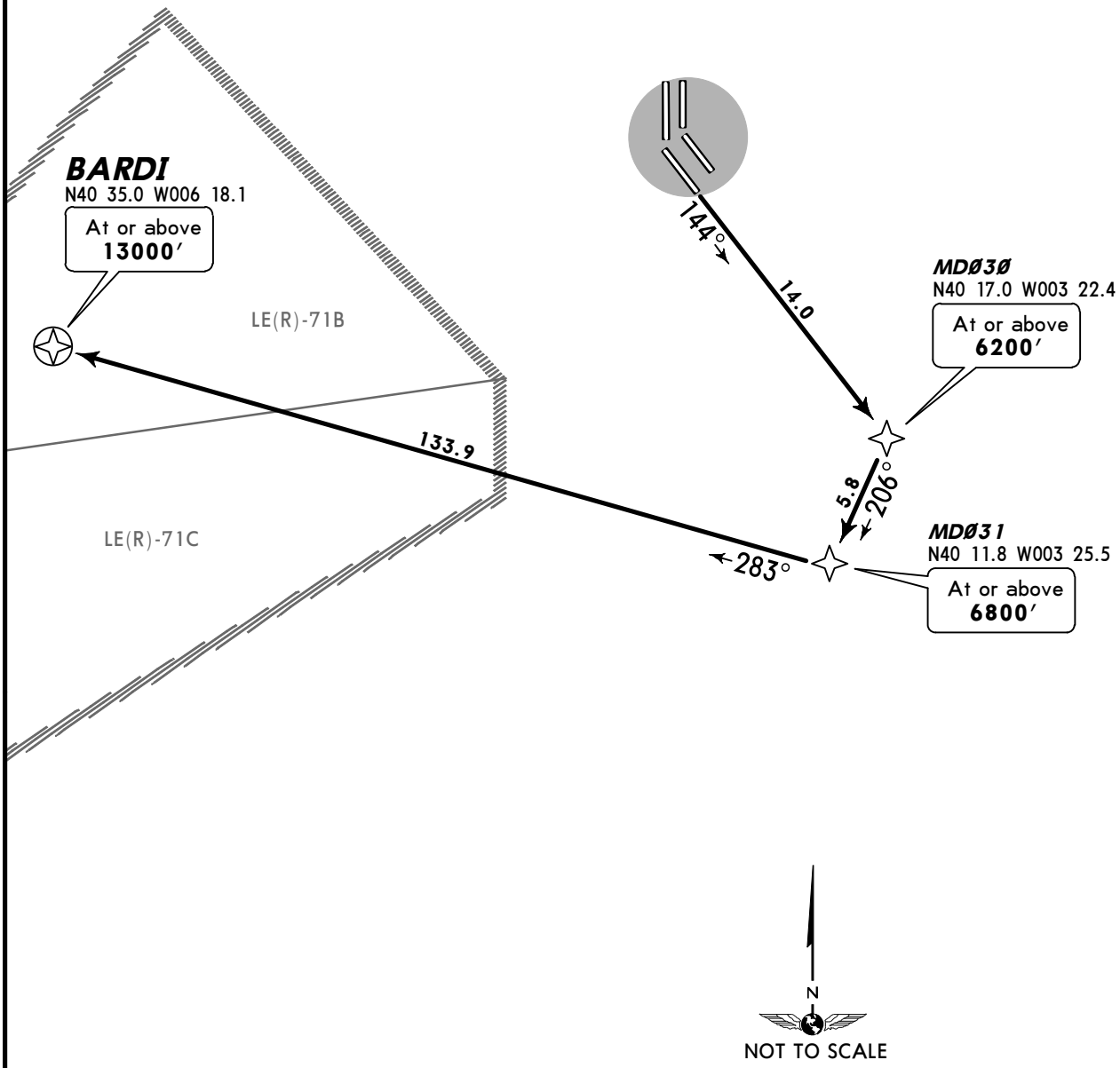
Apt Elev	
1998′	Trans level: By ATC Trans alt: 13000′ SIDs are also noise abatement procedures (refer to 10-4).



MSA
ARP

BARDI 2AS *[BAR2AS]*
RWY 14R P-RNAV DEPARTURE

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SUBJECT TO LE(R)-71B & LE(R)-71C ACTIVITY
SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of
5.5% until MD030.

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

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

(2400′+) - MD030 (6200′+) - MD031 (6800′+) - BARDI (13000′+).

CHANGES: None.

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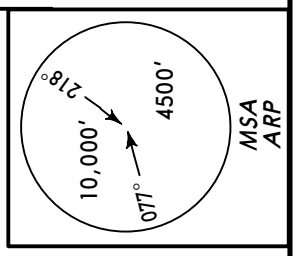
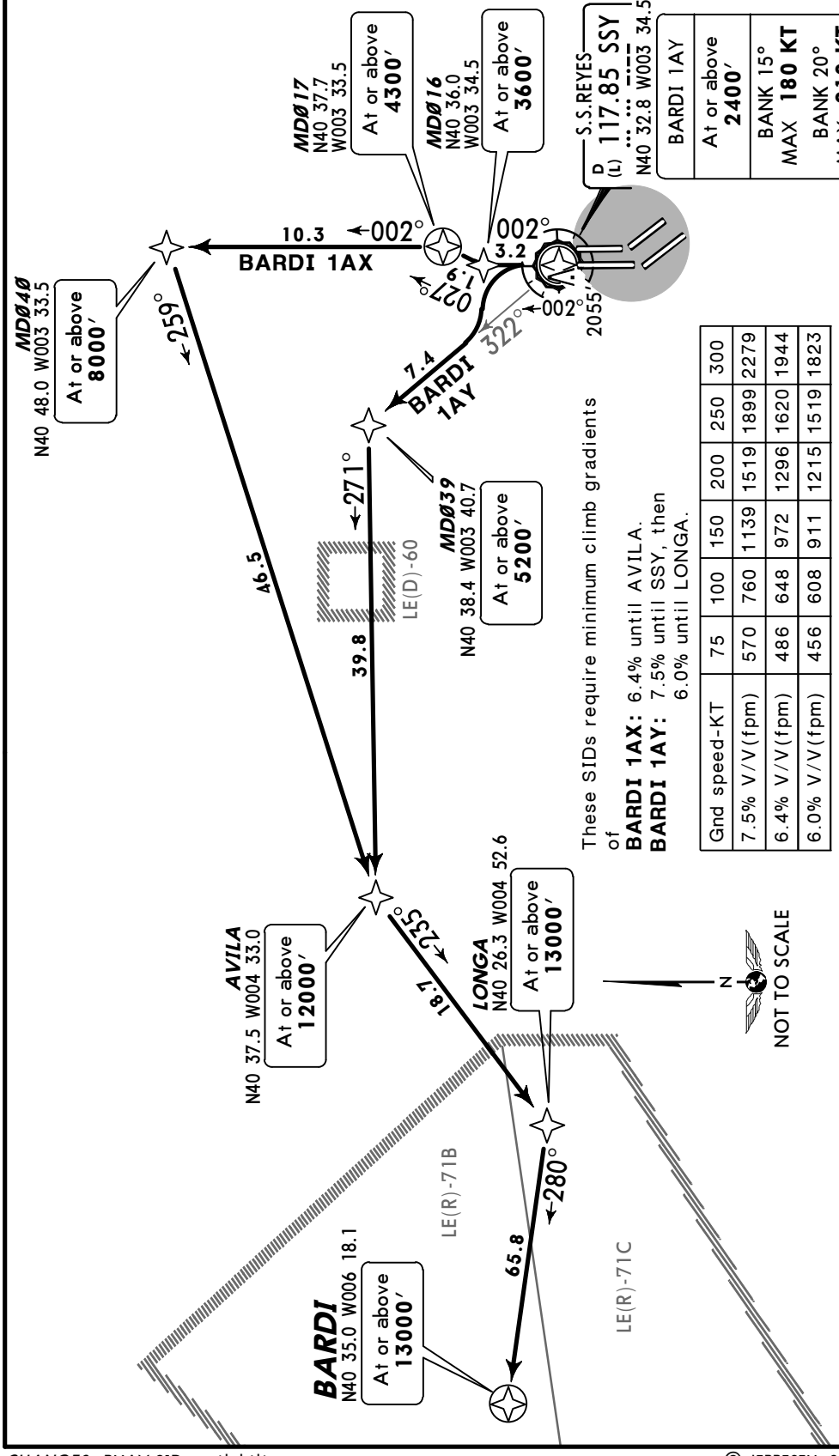
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2. EXPECT close-in obstacles.

BARDI 1AX *[BAR1AX]*, BARDI 1AY *[BAR1AY]*
RWY 36L P-RNAV DEPARTURES

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SUBJECT TO LE(R)-71B & LE(R)-71C ACTIVITY
FOR AIRCRAFT USABILITY REFER TO AIRPORT BRIEFING PAGES

SPEED: MAX 250 KT BELOW 10000′





These SIDs require minimum climb gradients of
BARDI 1AX: 6.4% until AVILA.
BARDI 1AY: 7.5% until SSY, then 6.0% until LONGA.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.4% V/V(fpm)	486	648	972	1296	1620	1944
6.0% V/V(fpm)	456	608	911	1215	1519	1823

BARDI 1AY: Maintain runway heading until DER.
Do not turn to reach 2400′ or above.

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
BARDI 1AX	MD016 (3600′+) - MD017 (4300′+) - MD040 (8000′+) - AVILA (12000′+) - LONGA (13000′+) - BARDI (13000′+).
BARDI 1AY ❶	SSY (2400′+; K180-/K210-/K240-) - MD039 (5200′+) - AVILA (12000′+) - LONGA (13000′+) - BARDI (13000′+).

❶ Subject to LE(D)-60 activity.

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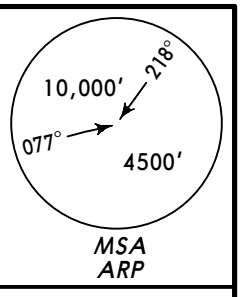
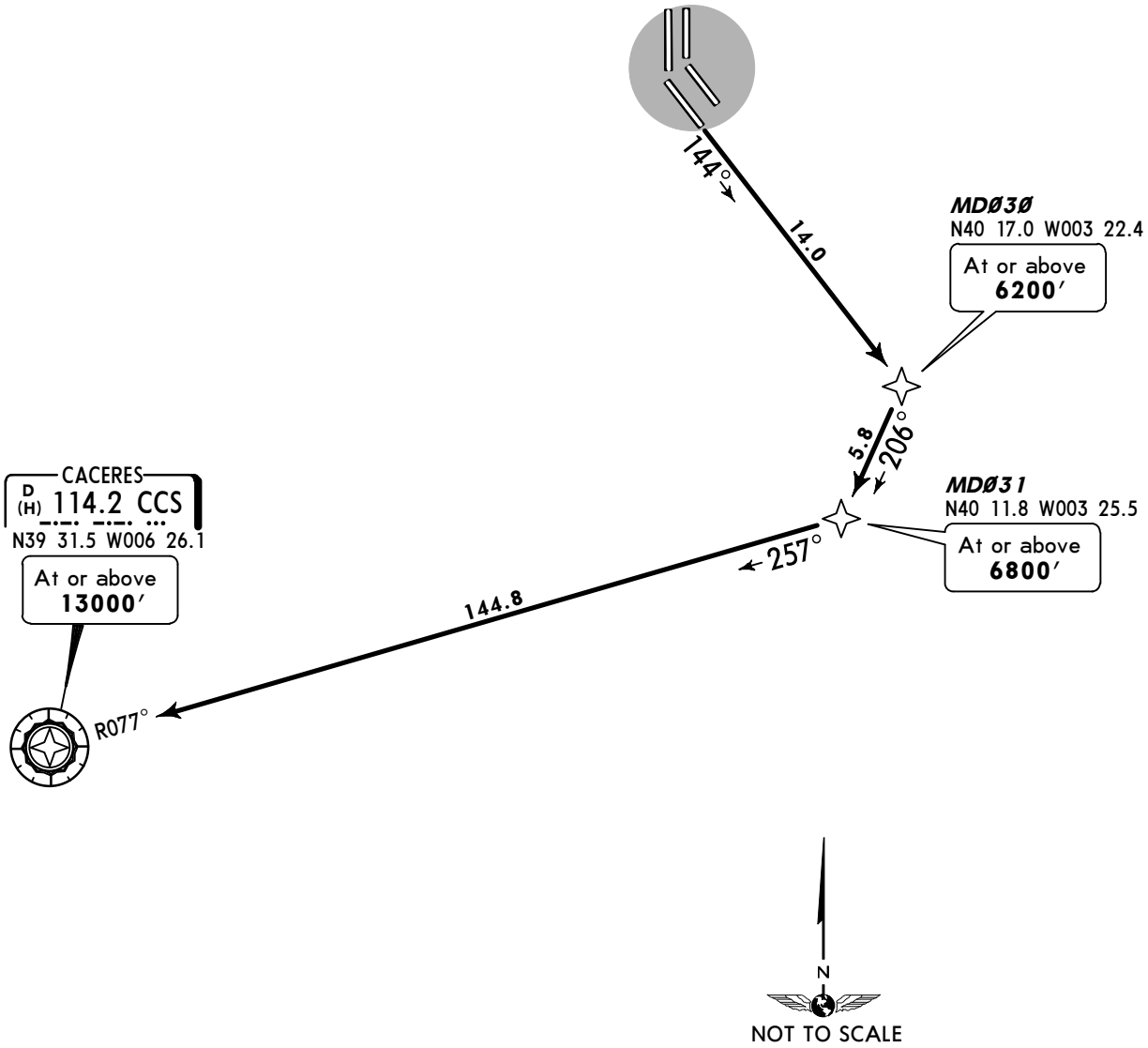
Apt Elev	
1998′	Trans level: By ATC Trans alt: 13000′ SIDs are also noise abatement procedures (refer to 10-4).



CCS 2AS
RWY 14R P-RNAV DEPARTURE
USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of
5.5% until MD030.

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

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

(2400′+) - MD030 (6200′+) - MD031 (6800′+) - CCS (13000′+).

CHANGES: RWY designation; RNAV SID renumbered & revised.

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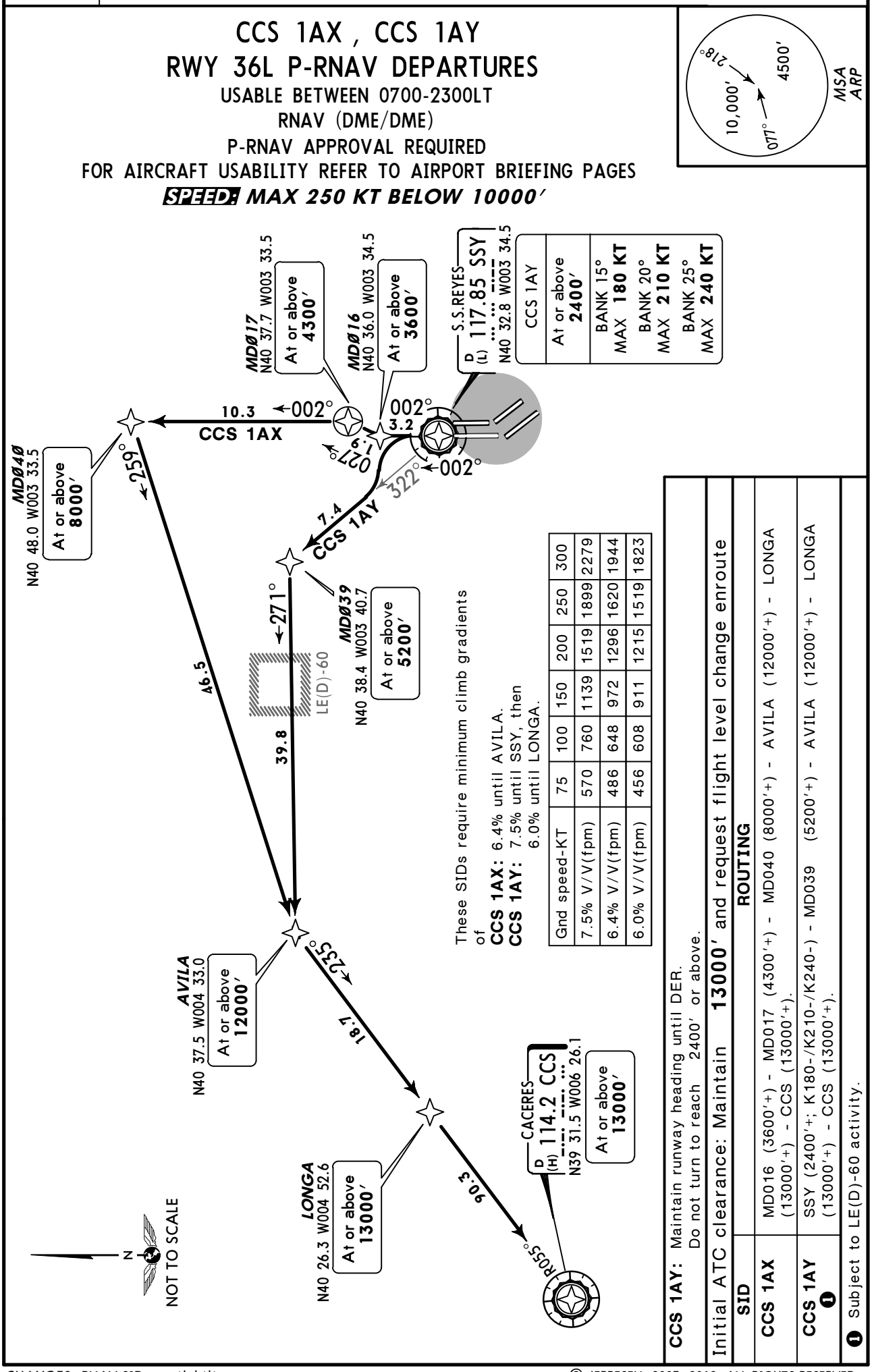
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2.EXPECT close-in obsacles.

CCS 1AX , CCS 1AY
RWY 36L P-RNAV DEPARTURES

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
FOR AIRCRAFT USABILITY REFER TO AIRPORT BRIEFING PAGES
SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
CCS 1AX: 6.4% until AVILA.
CCS 1AY: 7.5% until SSY, then 6.0% until LONGA.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.4% V/V(fpm)	486	648	972	1296	1620	1944
6.0% V/V(fpm)	456	608	911	1215	1519	1823

CCS 1AY: Maintain runway heading until DER.
Do not turn to reach 2400′ or above.

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
CCS 1AX	MD016 (3600′+) - MD017 (4300′+) - MD040 (8000′+) - AVILA (12000′+) - LONGA (13000′+) - CCS (13000′+).
CCS 1AY ❶	SSY (2400′+; K180-/K210-/K240-) - MD039 (5200′+) - AVILA (12000′+) - LONGA (13000′+) - CCS (13000′+).

❶ Subject to LE(D)-60 activity.

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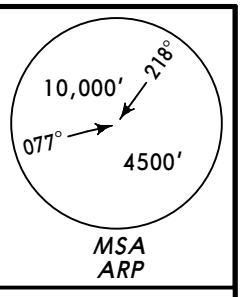
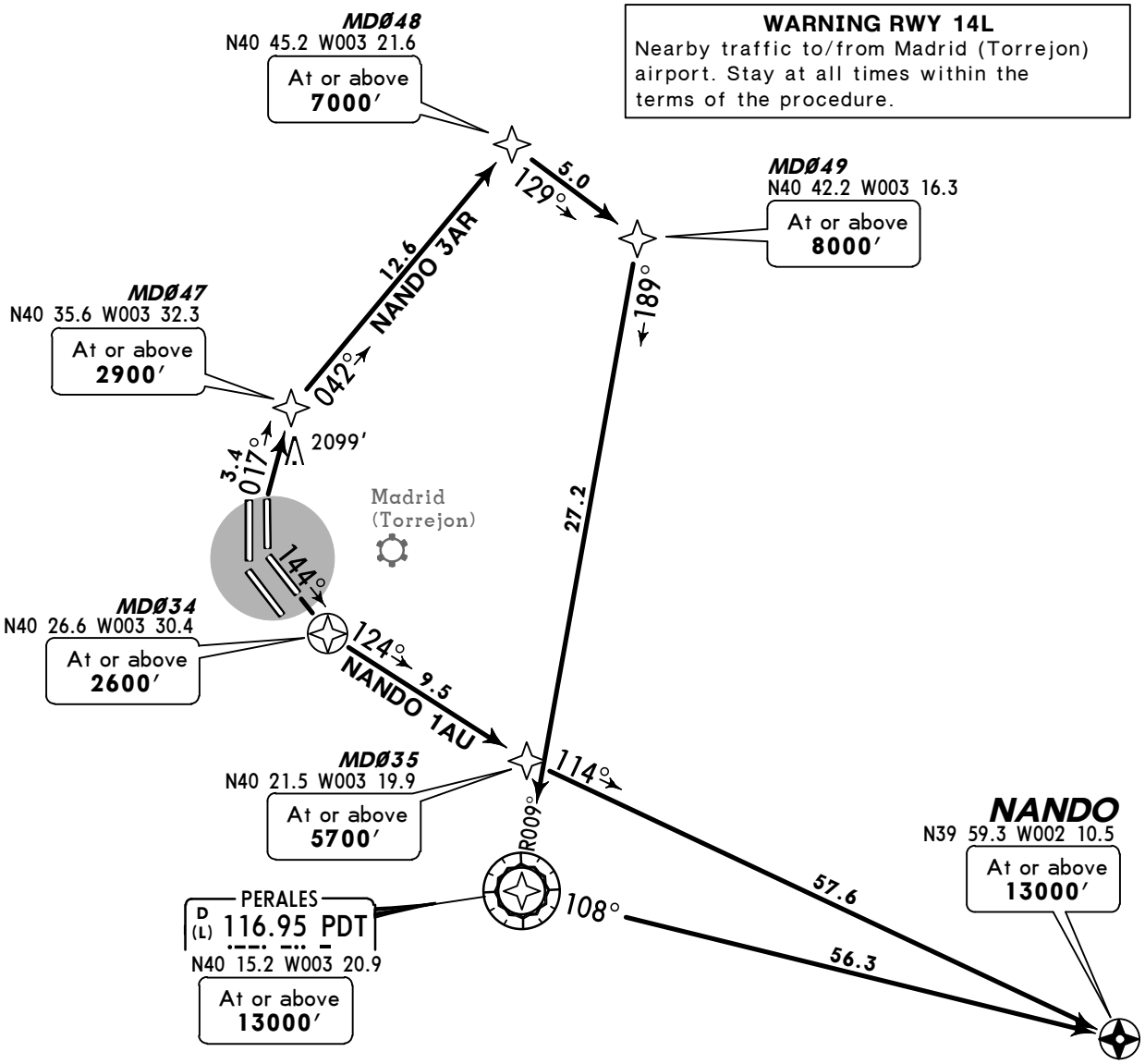
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2. EXPECT close-in obstacles



NANDO 3AR *[NAN3AR]*
NANDO 1AU *[NAN1AU]*
RWYS 36R, 14L P-RNAV DEPARTURES

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SPEED: MAX 250 KT BELOW 10000′

WARNING RWY 14L
Nearby traffic to/from Madrid (Torrejon) airport. Stay at all times within the terms of the procedure.



These SIDs require minimum climb gradients of
NANDO 3AR: 6.0% until PDT.
NANDO 1AU: 7.0% until MD034, then 5.5% until MD035.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V(fpm)	532	709	1063	1418	1772	2127
6.0% V/V(fpm)	456	608	911	1215	1519	1823
5.5% V/V(fpm)	418	557	835	1114	1392	1671

N
NOT TO SCALE

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	RWY	ROUTING
NANDO 3AR	**36R**	MD047 (2900′+) - MD048 (7000′+) - MD049 (8000′+) - PDT (13000′+) - NANDO (13000′+).
NANDO 1AU	**14L**	MD034 (2600′+) - MD035 (5700′+) - NANDO (13000′+).

CHANGES: WPT over PDT VOR changed from fly-over to fly-by.

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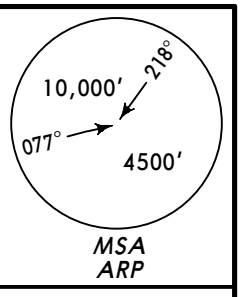
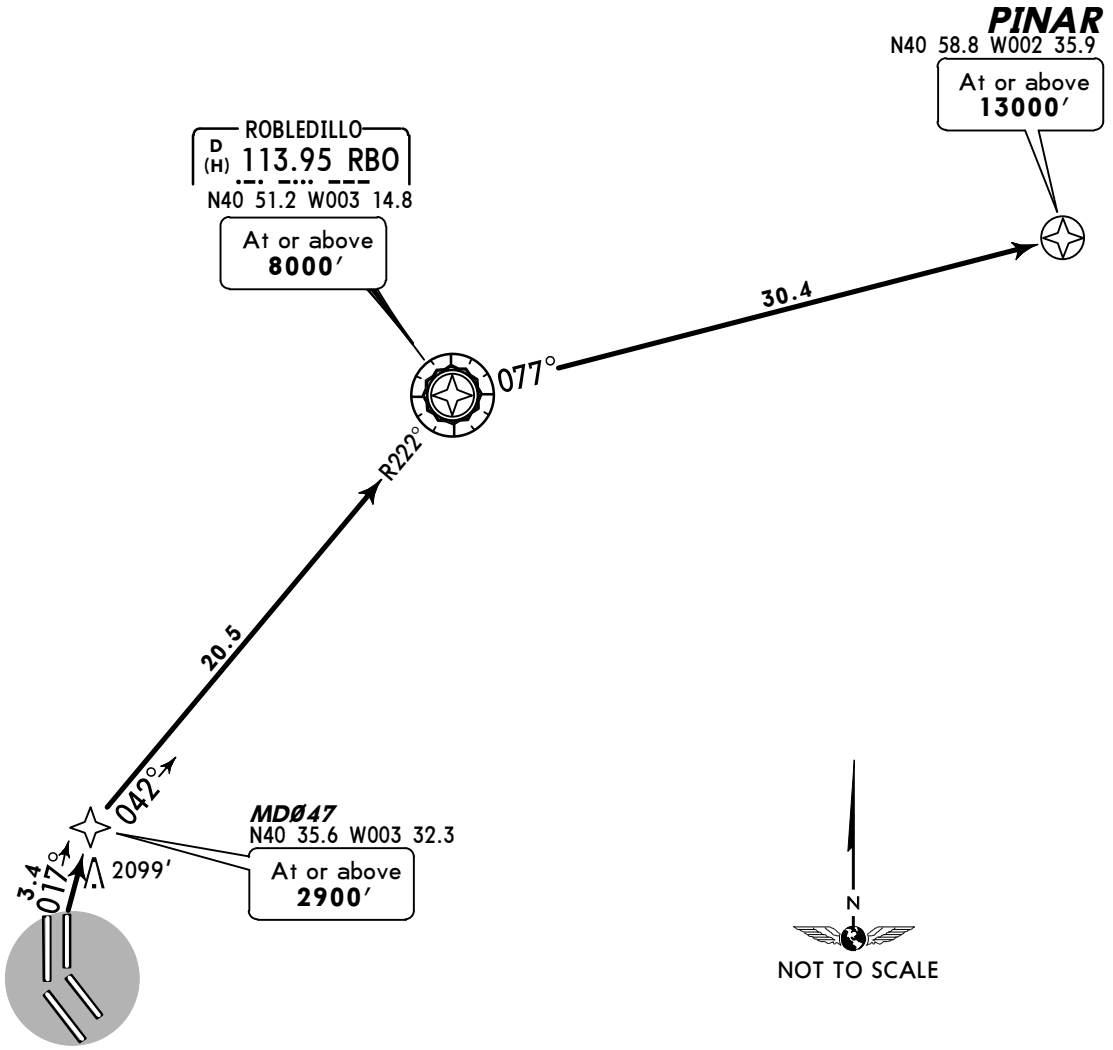
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2. EXPECT close-in obstacles



PINAR 2AR *[PIN2AR]*
RWY 36R P-RNAV DEPARTURE
USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SPEED: *MAX 250 KT BELOW 10000′*



This SID requires a minimum climb gradient of
5.0% until RBO.

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

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

MD047 (2900′+) - RBO (8000′+) - PINAR (13000′+).

CHANGES: None.

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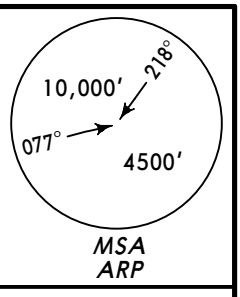
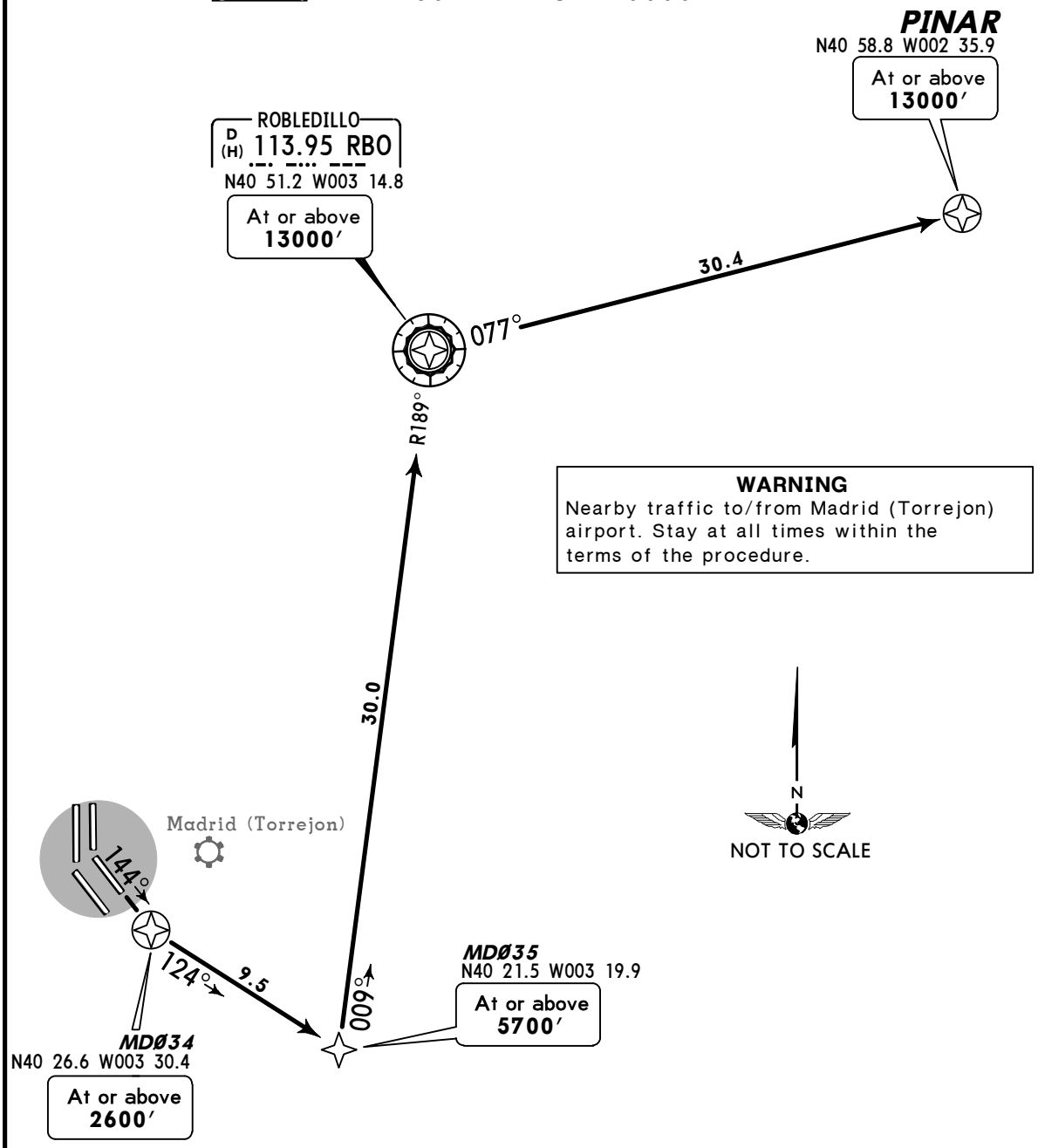
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2. EXPECT close-in obstacles



PINAR 1AU *[PIN1AU]*
RWY 14L P-RNAV DEPARTURE
USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SPEED: *MAX 250 KT BELOW 10000′*



This SID requires minimum climb gradients of
7.0% until MD034, then
6.0% until RBO.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V(fpm)	532	709	1063	1418	1772	2127
6.0% V/V(fpm)	456	608	911	1215	1519	1823

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

MD034 (2600′+) - MD035 (5700′+) - RBO (13000′+) - PINAR (13000′+).

CHANGES: Chart reindexed.

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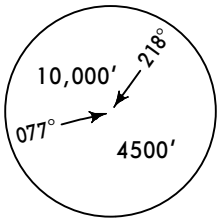
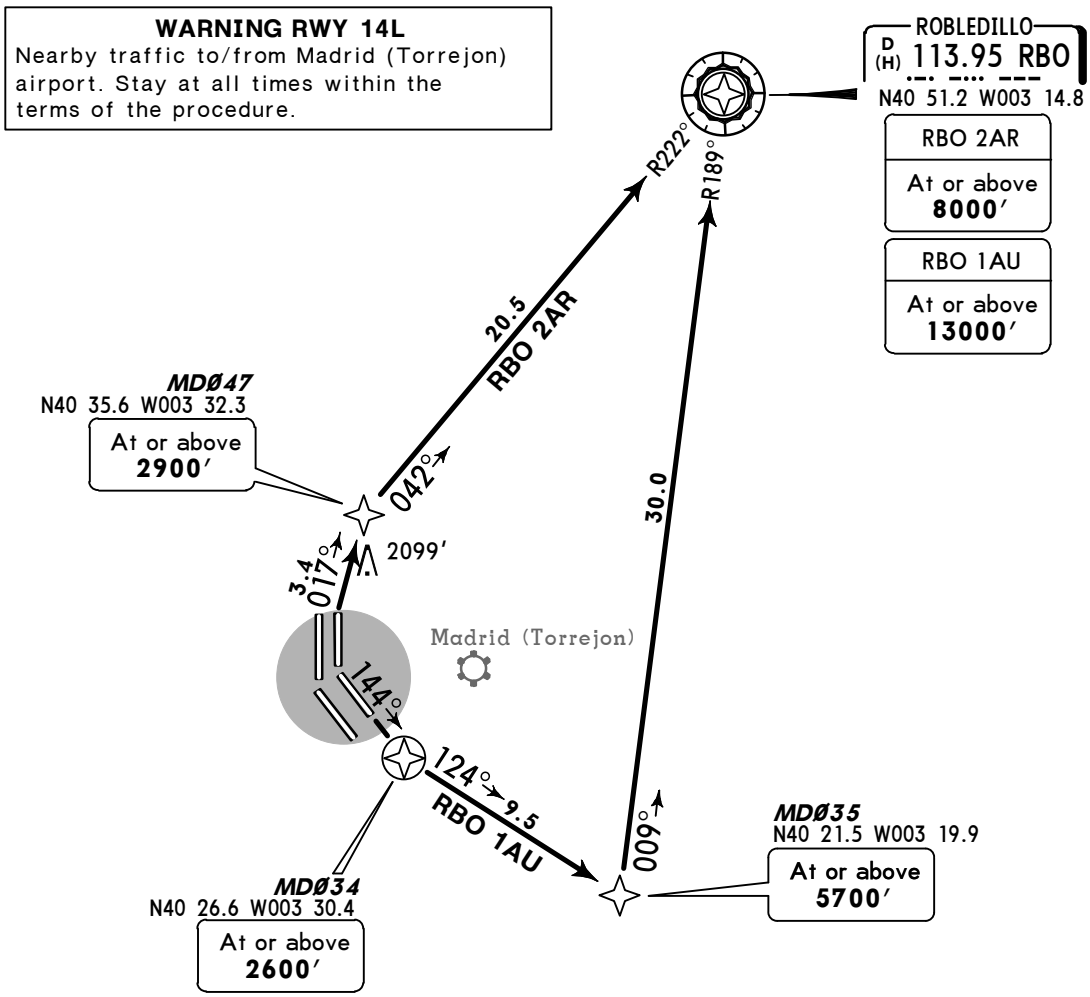
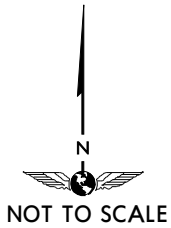
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2. EXPECT close-in obstacles



RBO 2AR, RBO 1AU
RWYS 36R, 14L P-RNAV DEPARTURES

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SPEED: MAX 250 KT BELOW 10000′





These SIDs require minimum climb gradients of
RBO 2AR: 5.0%.
RBO 1AU: 7.0% until MD034, then 6.0%.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V(fpm)	532	709	1063	1418	1772	2127
6.0% V/V(fpm)	456	608	911	1215	1519	1823
5.0% V/V(fpm)	380	506	760	1013	1266	1519

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	RWY	ROUTING
RBO 2AR	**36R**	MD047 (2900′+) - RBO (8000′+).
RBO 1AU	**14L**	MD034 (2600′+) - MD035 (5700′+) - RBO (13000′+).

CHANGES: Chart reindexed.

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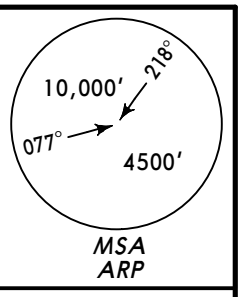
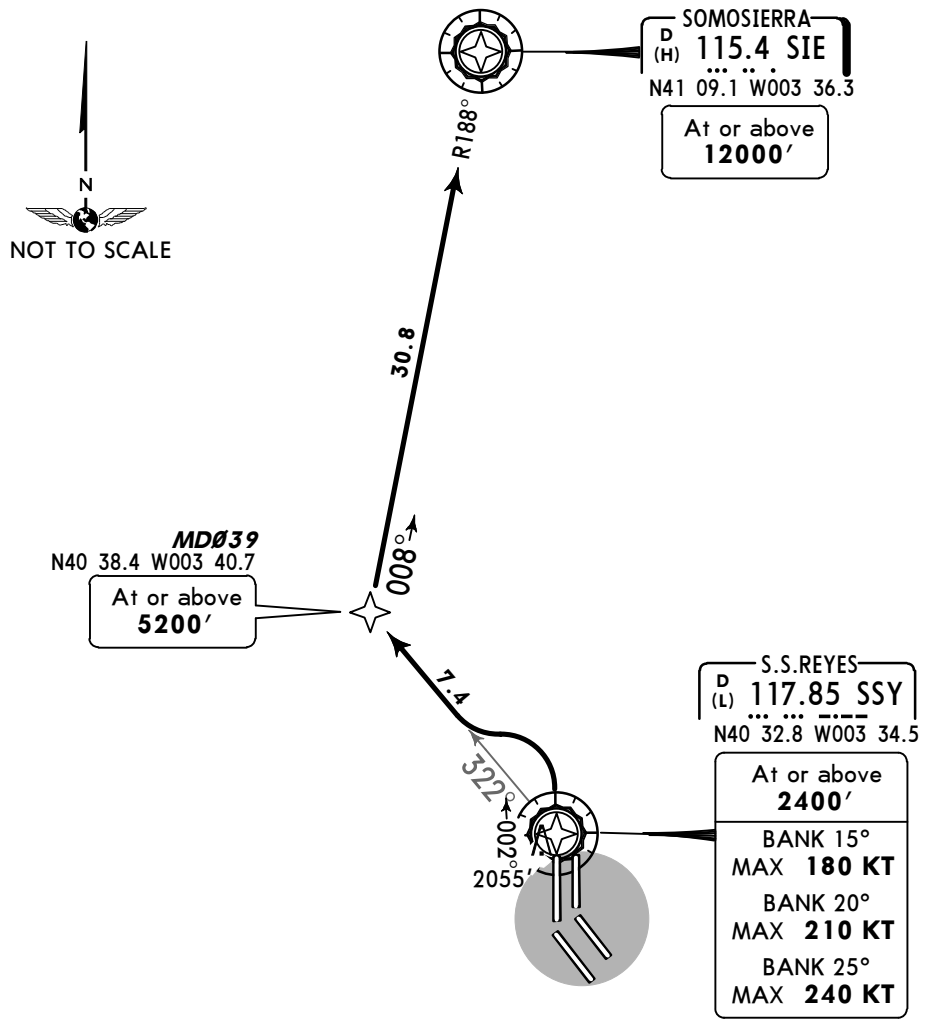
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2. EXPECT close-in obstacles.



SIE 1AL
RWY 36L P-RNAV DEPARTURE

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
FOR AIRCRAFT USABILITY REFER TO AIRPORT BRIEFING PAGES
SPEED: MAX 250 KT BELOW 10000′



This SID requires minimum climb gradients of
7.5% until MD039, then
6.0%.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.0% V/V (fpm)	456	608	911	1215	1519	1823

Maintain runway heading until DER. Do not turn to reach 2400′ or above.

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

SSY (2400′+; K180-/K210-/K240-) - MD039 (5200′+) - SIE (12000′+).

CHANGES: Chart reindexed.

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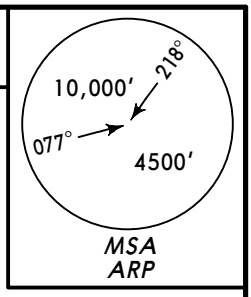
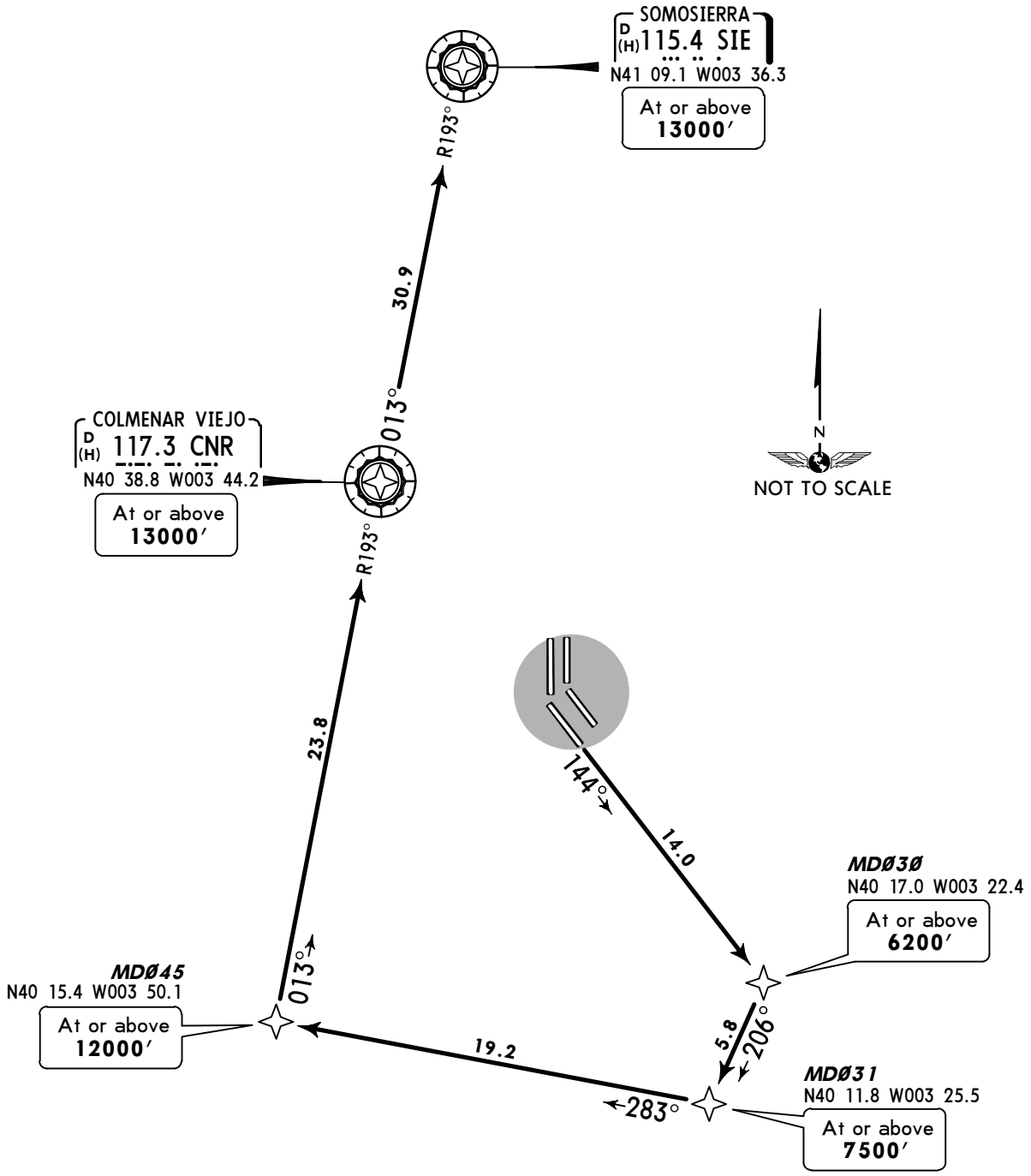
Apt Elev	
1998′	Trans level: By ATC Trans alt: 13000′ SIDs are also noise abatement procedures (refer to 10-4).



SIE 2AS
RWY 14R P-RNAV DEPARTURE
USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SPEED: MAX 250 KT BELOW 10000′



This SID requires minimum climb gradients of
5.5% until MD030, then
4.5% until CNR.

Gnd speed-KT	75	100	150	200	250	300
5.5% V/V(fpm)	418	557	835	1114	1392	1671
4.5% V/V(fpm)	342	456	684	911	1139	1367

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

(2400′+) - MD030 (6200′+) - MD031 (7500′+) - MD045 (12000′+) - CNR (13000′+) - SIE (13000′+).

CHANGES: Chart reindexed.

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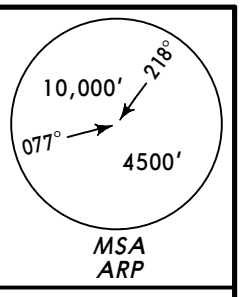
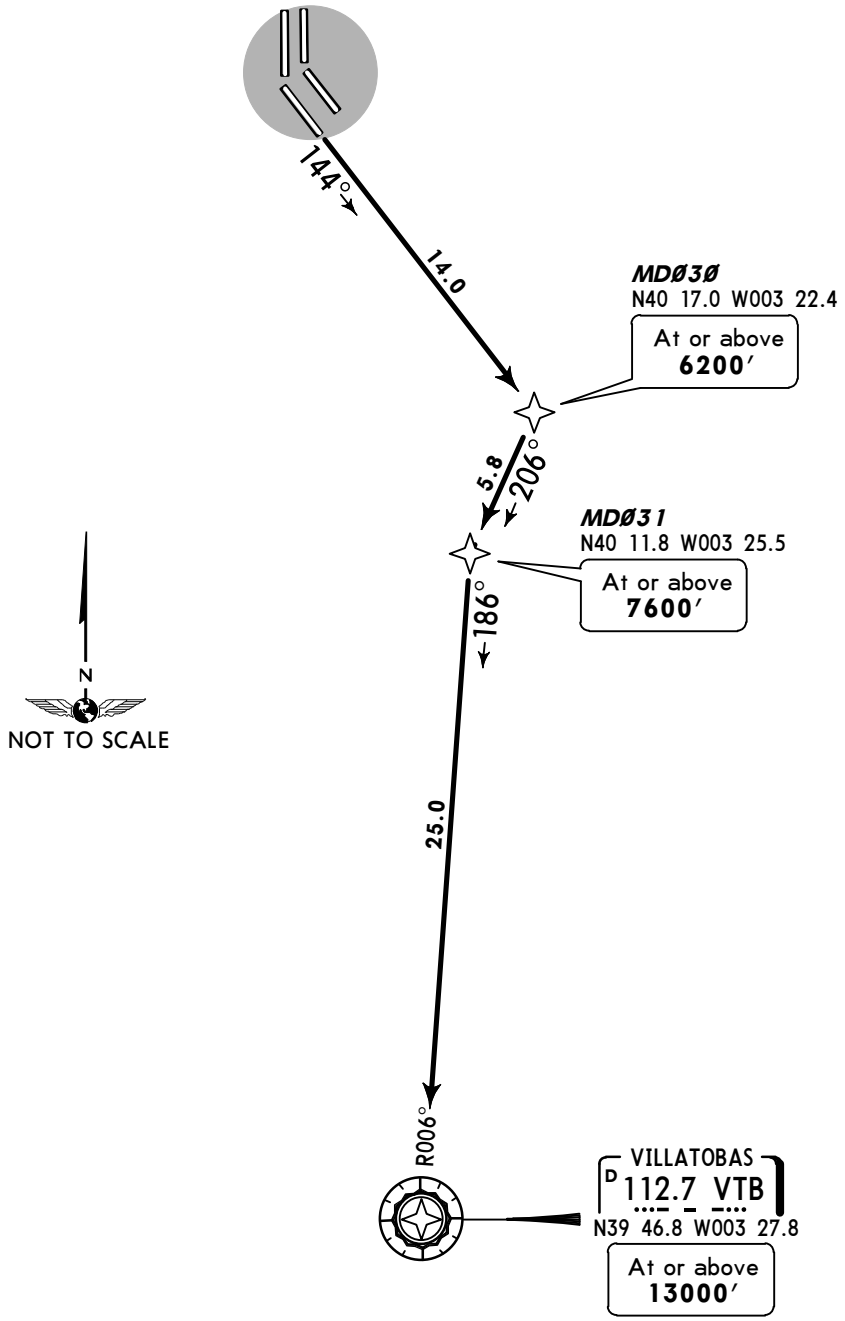
Apt Elev	
1998′	Trans level: By ATC Trans alt: 13000′ SIDs are also noise abatement procedures (refer to 10-4).



VTB 2AS
RWY 14R P-RNAV DEPARTURE

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of
5.5% until MD031.

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

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

(2400′+) - MD030 (6200′+) - MD031 (7600′+) - VTB (13000′+).

CHANGES: Chart reindexed.

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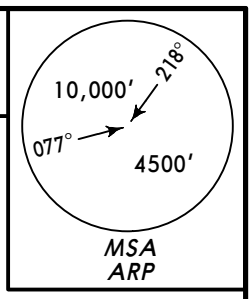
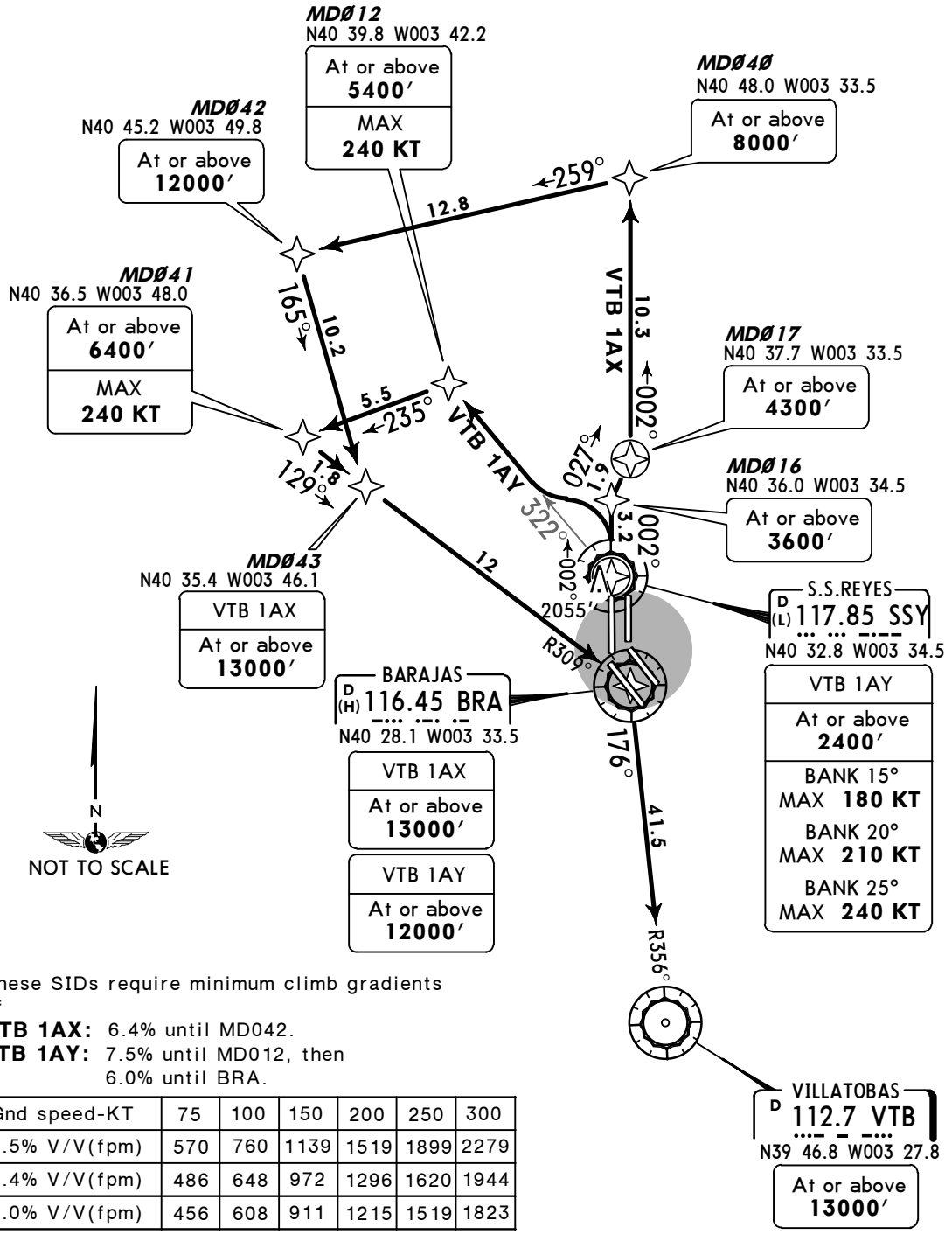
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2. EXPECT close-in obstacles.



VTB 1AX , VTB 1AY
RWY 36L P-RNAV DEPARTURES

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
FOR AIRCRAFT USABILITY REFER TO AIRPORT BRIEFING PAGES
SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
VTB 1AX: 6.4% until MD042.
VTB 1AY: 7.5% until MD012, then 6.0% until BRA.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.4% V/V(fpm)	486	648	972	1296	1620	1944
6.0% V/V(fpm)	456	608	911	1215	1519	1823

VTB 1AY: Maintain runway heading until DER.
Do not turn to reach 2400′ or above.

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
VTB 1AX	MD016 (3600′+) - MD017 (4300′+) - MD040 (8000′+) - MD042 (12000′+) - MD043 (13000′+) - BRA (13000′+) - VTB (13000′+).
VTB 1AY	SSY (2400′+; K180-/K210-/K240-) - MD012 (5400′+; K240-) - MD041 (6400′+; K240-) - BRA (12000′+) - VTB (13000′+).

CHANGES: Chart reindexed.

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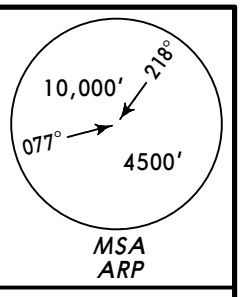
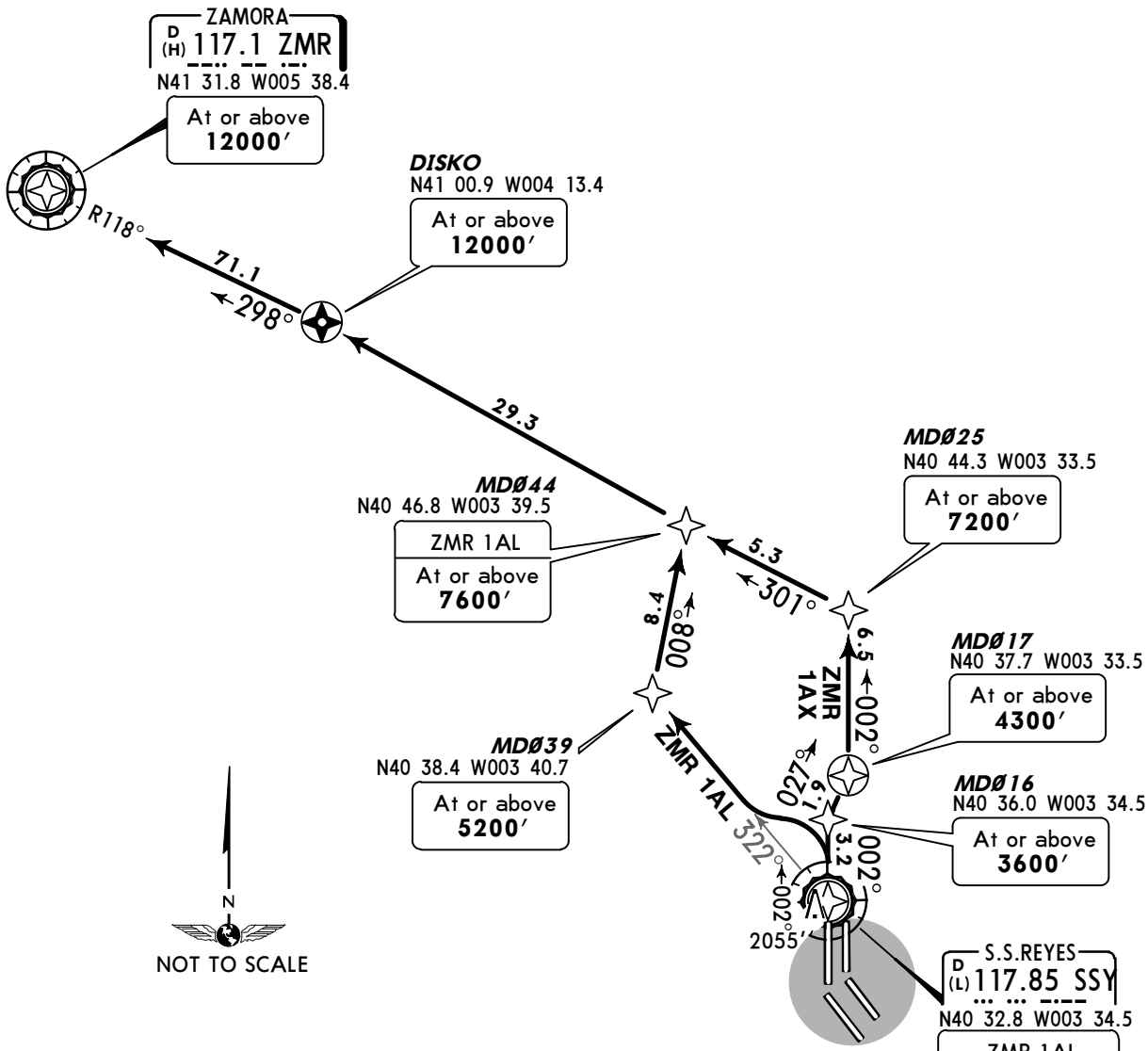
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4). 2. EXPECT close-in obstacles.



ZMR 1AL, ZMR 1AX
RWY 36L P-RNAV DEPARTURES

USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
FOR AIRCRAFT USABILITY REFER TO AIRPORT BRIEFING PAGES
SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
ZMR 1AL: 7.5% until MD039, then 6.0% until DISKO.
ZMR 1AX: 7.0% until MD025.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
7.0% V/V(fpm)	532	709	1063	1418	1772	2127
6.0% V/V(fpm)	456	608	911	1215	1519	1823

ZMR 1AL: Maintain runway heading until DER.
Do not turn to reach 2400′ or above.

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
ZMR 1AL	SSY (2400′+; K180-/K210-/K240-) - MD039 (5200′+) - MD044 (7600′+) - DISKO (12000′+) - ZMR (12000′+).
ZMR 1AX	MD016 (3600′+) - MD017 (4300′+) - MD025 (7200′+) - DISKO (12000′+) - ZMR (12000′+).

CHANGES: Chart reindexed.

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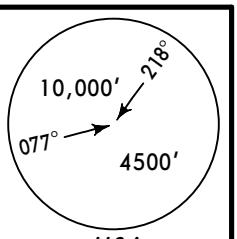
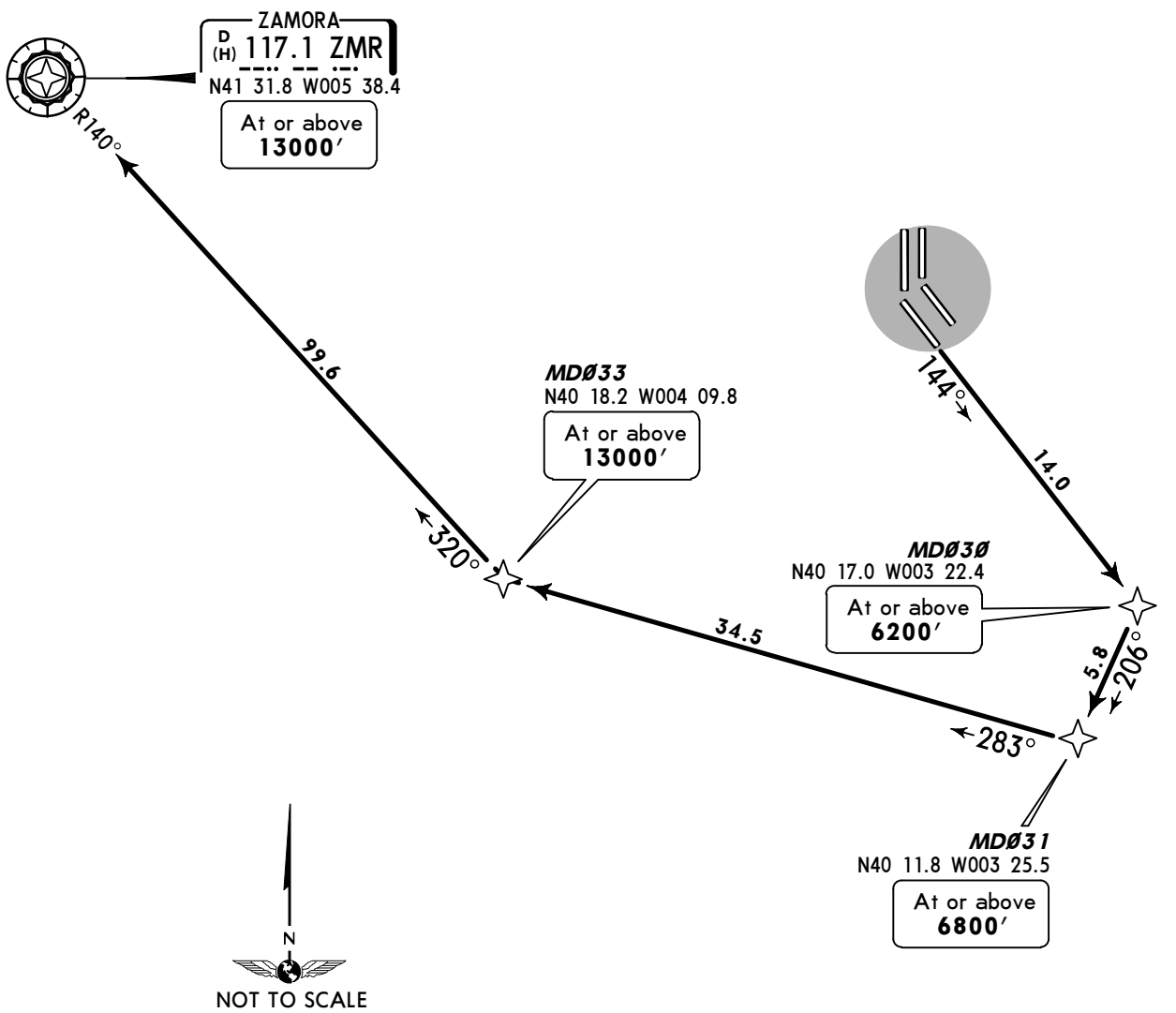
Apt Elev	
1998′	Trans level: By ATC Trans alt: 13000′ SIDs are also noise abatement procedures (refer to 10-4).



ZMR 2AS
RWY 14R P-RNAV DEPARTURE
USABLE BETWEEN 0700-2300LT
RNAV (DME/DME)
P-RNAV APPROVAL REQUIRED
SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of
5.5% until MD030.

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

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

(2400′+) - MD030 (6200′+) - MD031 (6800′+) - MD033 (13000′+) - ZMR (13000′+).

CHANGES: Chart reindexed.

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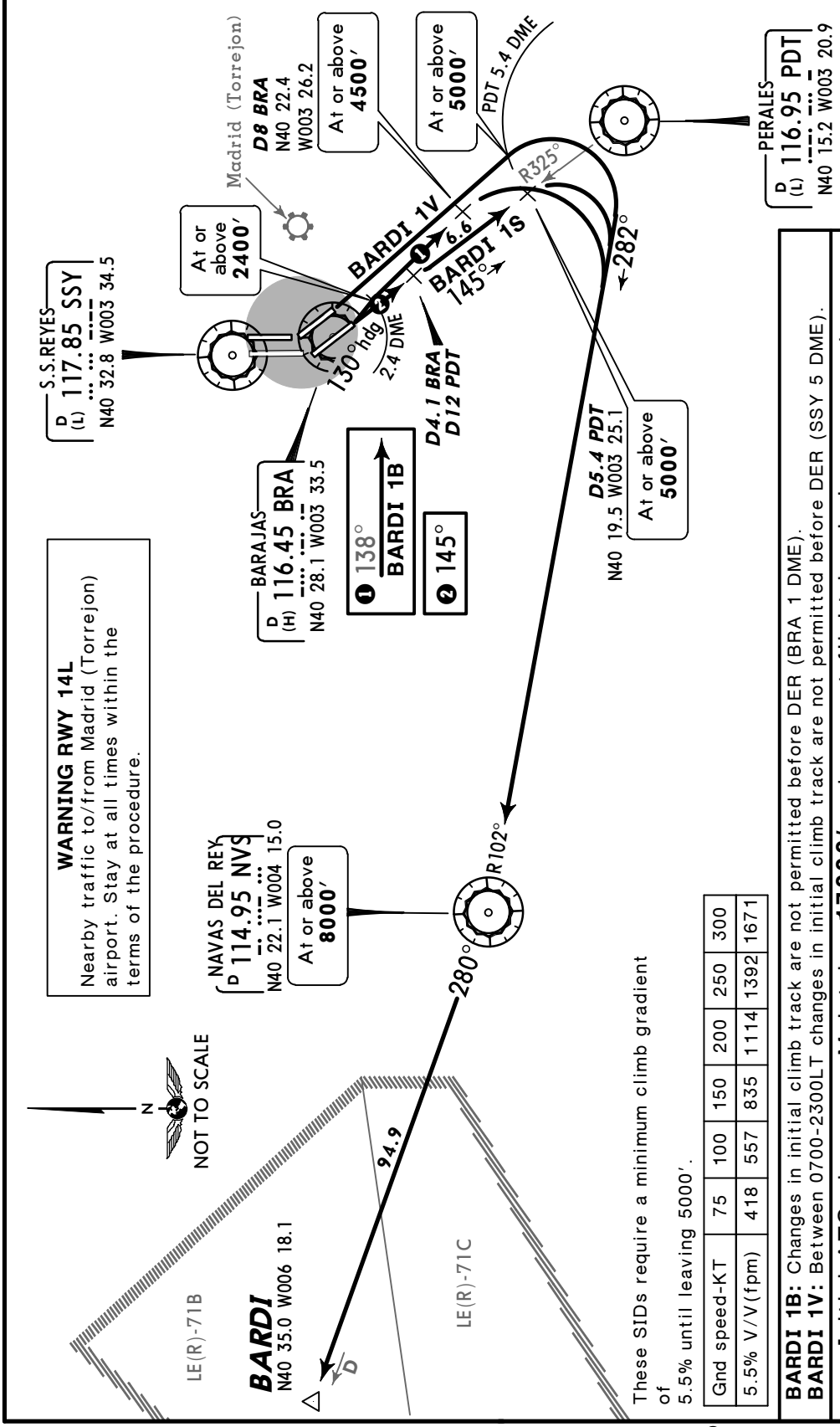
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

BARDI ONE BRAVO (BARDI 1B) *[BARD1B]*
BARDI ONE SIERRA (BARDI 1S) *[BARD1S]*
BARDI ONE VICTOR (BARDI 1V) *[BARD1V]*
RWYS 14R/L DEPARTURES
SUBJECT TO LE(R)-71B & LE(R)-71C ACTIVITY
SPEED: MAX 250 KT BELOW 10000′



These SIDs require a minimum climb gradient of 5.5% until leaving 5000′.

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

BARDI 1B: Changes in initial climb track are not permitted before DER (BRA 1 DME).
BARDI 1V: Between 0700-2300LT changes in initial climb track are not permitted before DER (SSY 5 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	RWY	ROUTING
BARDI 1B Usable 2300-0700LT	**14R**	Climb on 130° heading to BRA 2.4 DME, turn RIGHT, intercept BRA R-138 to D8 BRA, turn RIGHT, intercept NVS R-102 inbound to NVS, NVS R-280 to BARDI.
BARDI 1S Usable 0700-2300LT		Climb on BRA R-145 to D4.1 BRA/D12 PDT, turn RIGHT, intercept PDT R-325 inbound to D5.4 PDT, turn RIGHT, intercept NVS R-102 inbound to NVS, NVS R-280 to BARDI.
BARDI 1V	**14L**	Climb on runway heading to PDT 5.4 DME, turn RIGHT, intercept NVS R-102 inbound to NVS, NVS R-280 to BARDI.

CHANGES: RWY designation; warning note established; general instructions.

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Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

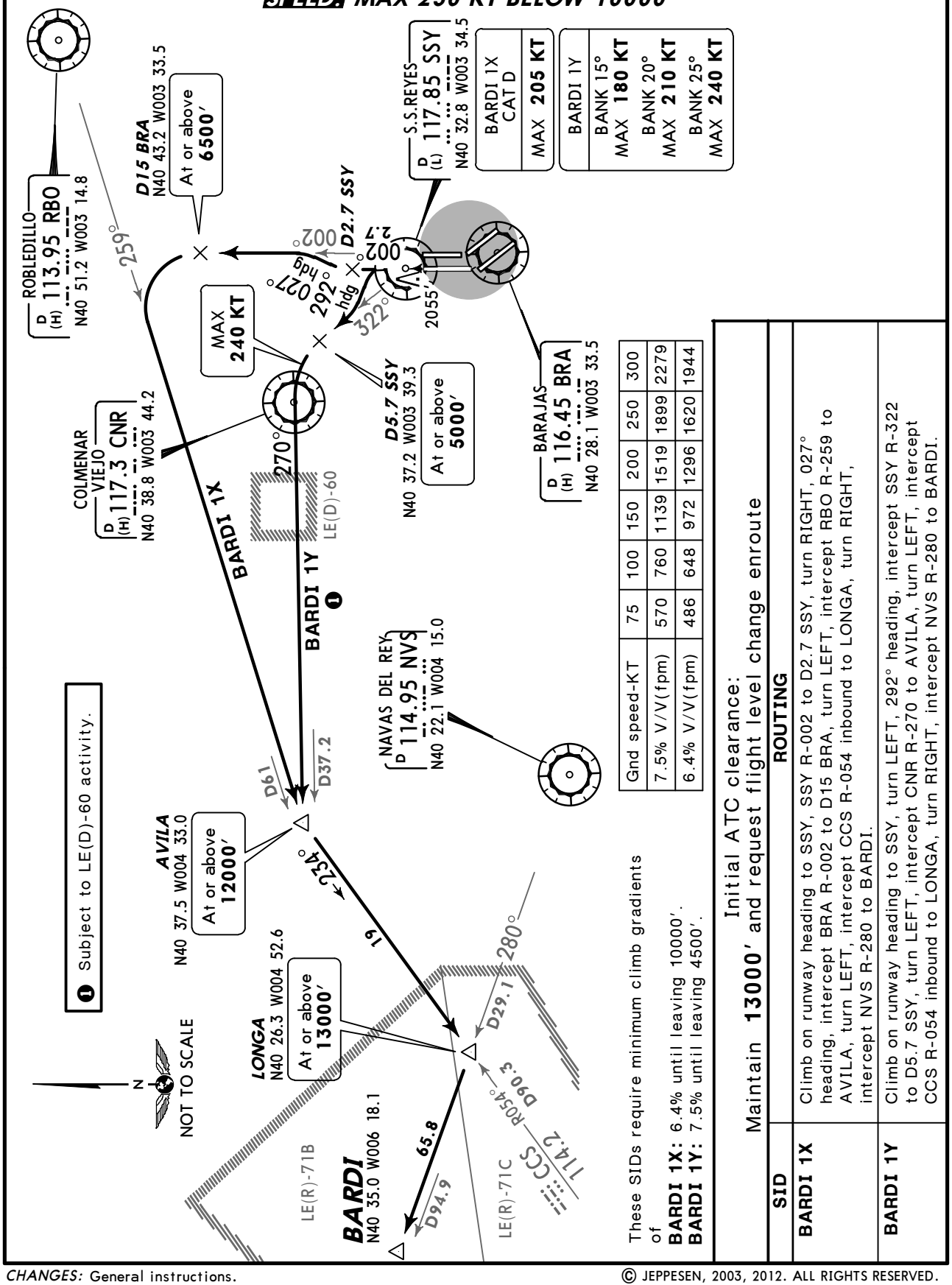
BARDI ONE X-RAY (BARDI 1X) *[BARD1X]*
BARDI ONE YANKEE (BARDI 1Y) *[BARD1Y]* ❶
RWY 36L DEPARTURES

USABLE 0700-2300LT

SUBJECT TO LE(R)-71B & LE(R)-71C ACTIVITY

FOR AIRCRAFT USABILITY REFER TO AIRPORT BRIEFING PAGES

SPEED: MAX 250 KT BELOW 10000′



Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.4% V/V(fpm)	486	648	972	1296	1620	1944

These SIDs require minimum climb gradients of
BARDI 1X: 6.4% until leaving 10000′.
BARDI 1Y: 7.5% until leaving 4500′.

Initial ATC clearance:
Maintain **13000′** and request flight level change enroute

SID	ROUTING
BARDI 1X	Climb on runway heading to SSY, SSY R-002 to D2.7 SSY, turn RIGHT, 027° heading, intercept BRA R-002 to D15 BRA, turn LEFT, intercept RBO R-259 to AVILA, turn LEFT, intercept CCS R-054 inbound to LONGA, turn RIGHT, intercept NVS R-280 to BARDI.
BARDI 1Y	Climb on runway heading to SSY, turn LEFT, 292° heading, intercept SSY R-322 to D5.7 SSY, turn LEFT, intercept CNR R-270 to AVILA, turn LEFT, intercept CCS R-054 inbound to LONGA, turn RIGHT, intercept NVS R-280 to BARDI.

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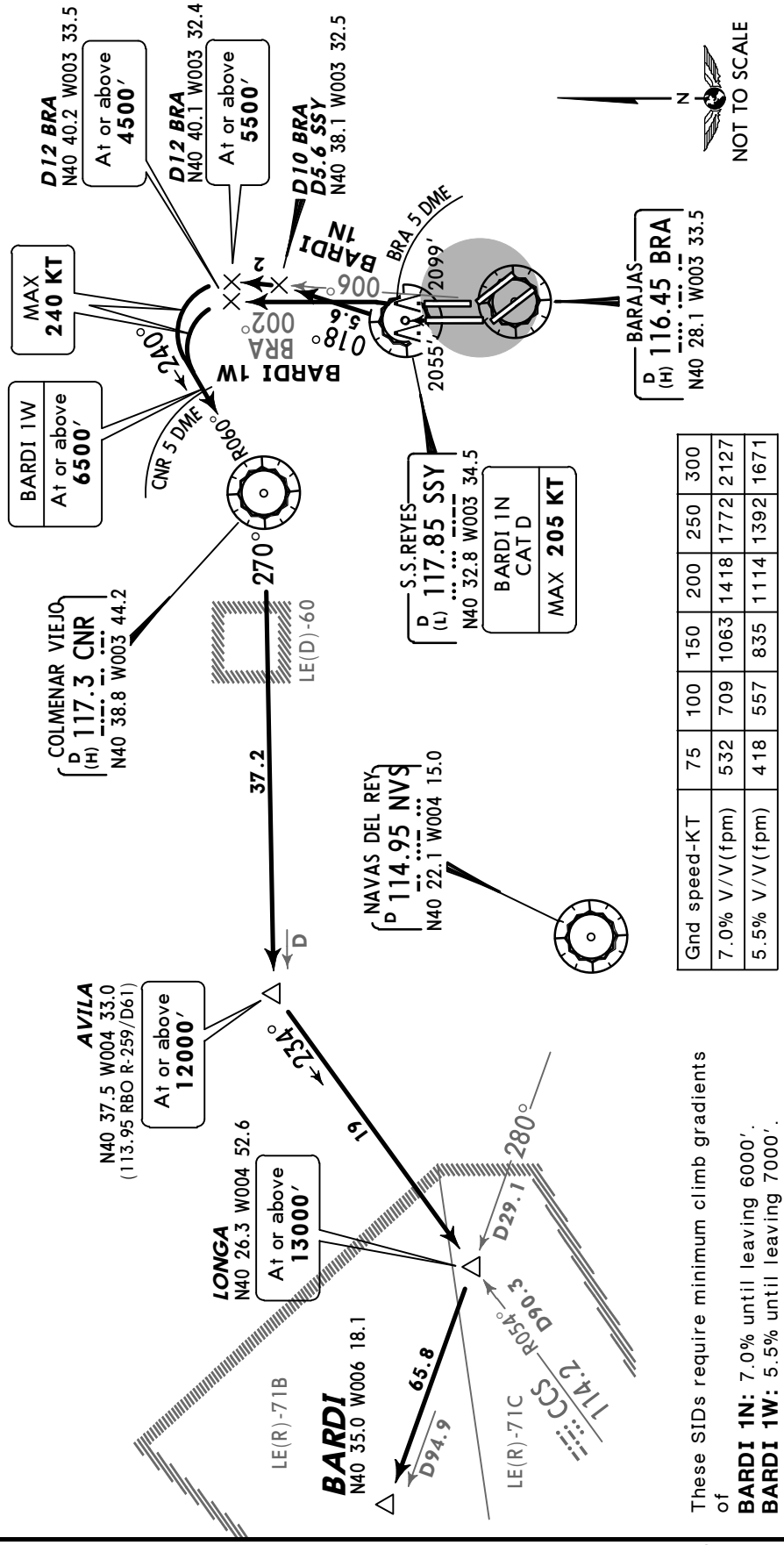
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

BARDI ONE NOVEMBER (BARDI 1N) *[BARD1N]*
BARDI ONE WHISKEY (BARDI 1W) *[BARD1W]*
RWYS 36L/R DEPARTURES

SUBJECT TO LE(R)-71B & LE(R)-71C ACTIVITY

SPEED: MAX 250 KT BELOW 10000′



Gnd speed-KT	75	100	150	200	250	300
7.0% V/V(fpm)	532	709	1063	1418	1772	2127
5.5% V/V(fpm)	418	557	835	1114	1392	1671

These SIDs require minimum climb gradients of
BARDI 1N: 7.0% until leaving 6000′.
BARDI 1W: 5.5% until leaving 7000′.

BARDI 1W: Between 0700-2300LT changes in initial climb track are not permitted before DER (BRA 4.0 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute.

SID	RWY	ROUTING
BARDI 1N Usable 2300-0700LT	**36L**	Climb on runway heading to SSY, SSY R-018 to D10 BRA/D5.6 SSY, turn LEFT, intercept BRA R-006 to D12 BRA, turn LEFT, intercept CNR R-060 inbound to CNR, CNR R-270 to AVILA, turn LEFT, intercept CCS R-054 inbound to LONGA, turn RIGHT, intercept NVS R-280 to BARDI.
BARDI 1W ❶	**36R**	Climb on runway heading to BRA 5 DME, intercept BRA R-002 to D12 BRA, turn LEFT to CNR, CNR R-270 to AVILA, turn LEFT, intercept CCS R-054 inbound to LONGA, turn RIGHT, intercept NVS R-280 to BARDI.

❶ Between 0700-2300LT subject to LE(D)-60 activity.

CHANGES: SID BARDI 1W initial climb.

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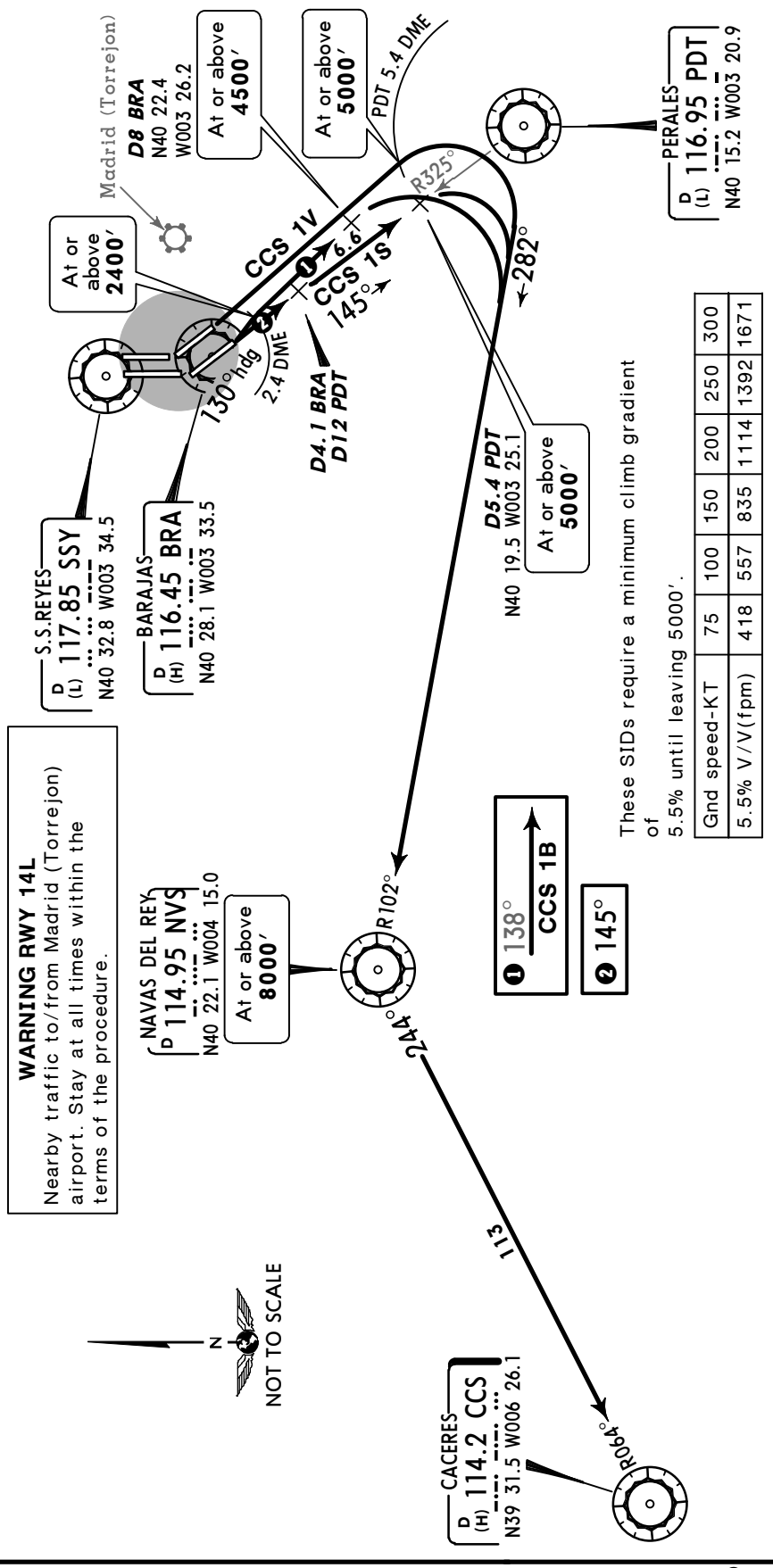
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

CACERES ONE BRAVO (CCS 1B)
CACERES ONE SIERRA (CCS 1S)
CACERES ONE VICTOR (CCS 1V)
RWYS 14R/L DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



These SIDs require a minimum climb gradient of 5.5% until leaving 5000′.

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

CCS 1B: Changes in initial climb track are not permitted before DER (BRA 1 DME).
CCS 1V: Between 0700-2300LT changes in initial climb track are not permitted before DER (SSY 5 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	RWY	ROUTING
CCS 1B Usable 2300-0700LT	**14R**	Climb on 130° heading to BRA 2.4 DME, turn RIGHT, intercept BRA R-138 to D8 BRA, turn RIGHT, intercept NVS R-102 inbound to NVS, turn LEFT, intercept CCS R-064 inbound to CCS.
CCS 1S Usable 0700-2300LT		Climb on BRA R-145 to D4.1 BRA/D12 PDT, turn RIGHT, intercept PDT R-325 inbound to D5.4 PDT, turn RIGHT, intercept NVS R-102 inbound to NVS, turn LEFT, intercept CCS R-064 inbound to CCS.
CCS 1V	**14L**	Climb on runway heading to PDT 5.4 DME, turn RIGHT, intercept NVS R-102 inbound to NVS, turn LEFT, intercept CCS R-064 inbound to CCS.

CHANGES: None.

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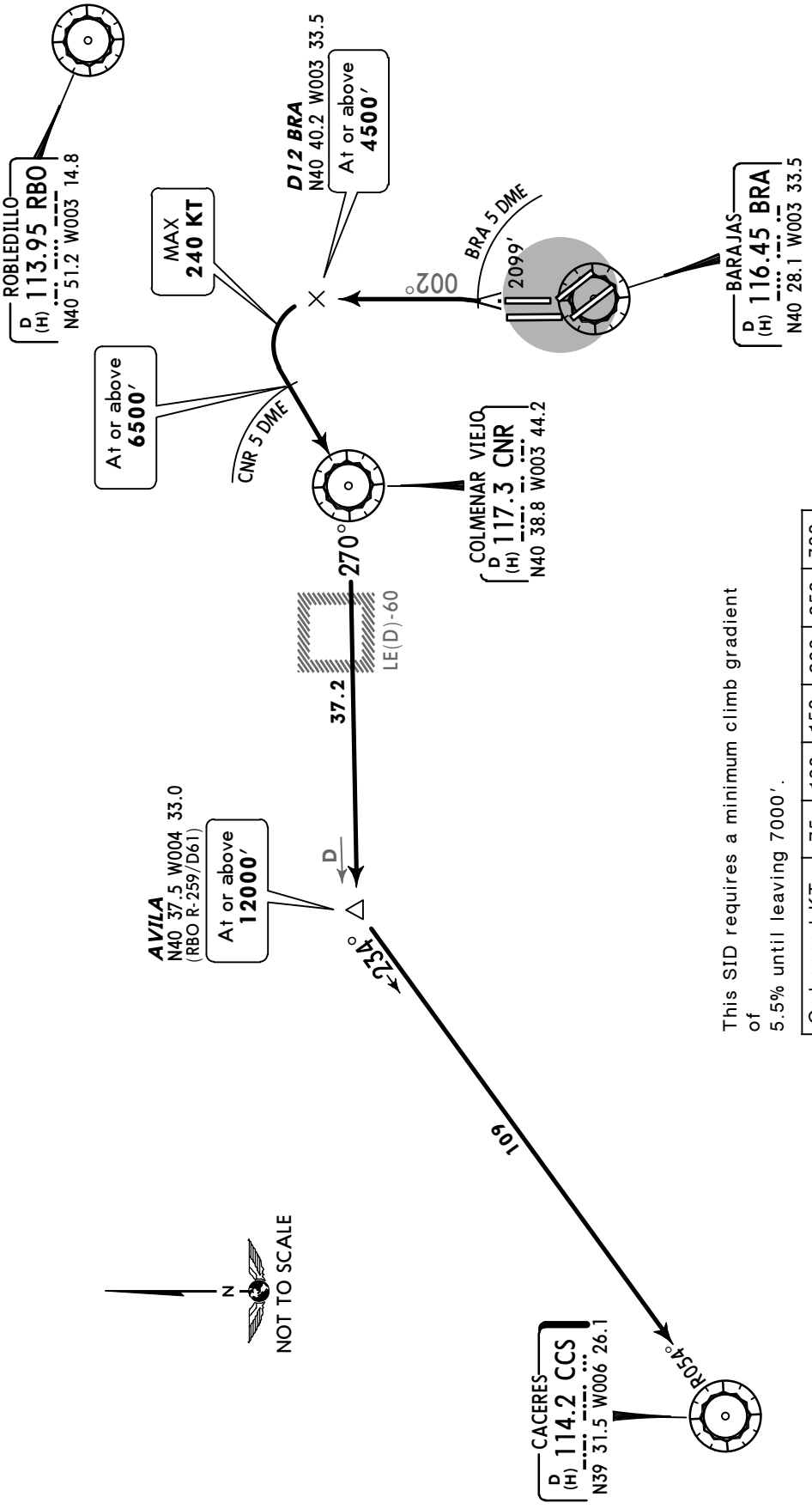
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

CACERES ONE WHISKEY (CCS 1W)
RWY 36R DEPARTURE

SUBJECT TO LE(D)-60 ACTIVITY

SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of 5.5% until leaving 7000′.

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

Between 0700-2300LT changes in initial climb track are not permitted before DER (BRA 4.0 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on runway heading to BRA 5 DME, intercept BRA R-002 to D12 BRA, turn LEFT to CNR, CNR R-270 to AVILA, turn LEFT, intercept CCS R-054 inbound to CCS.

CHANGES: Initial climb.

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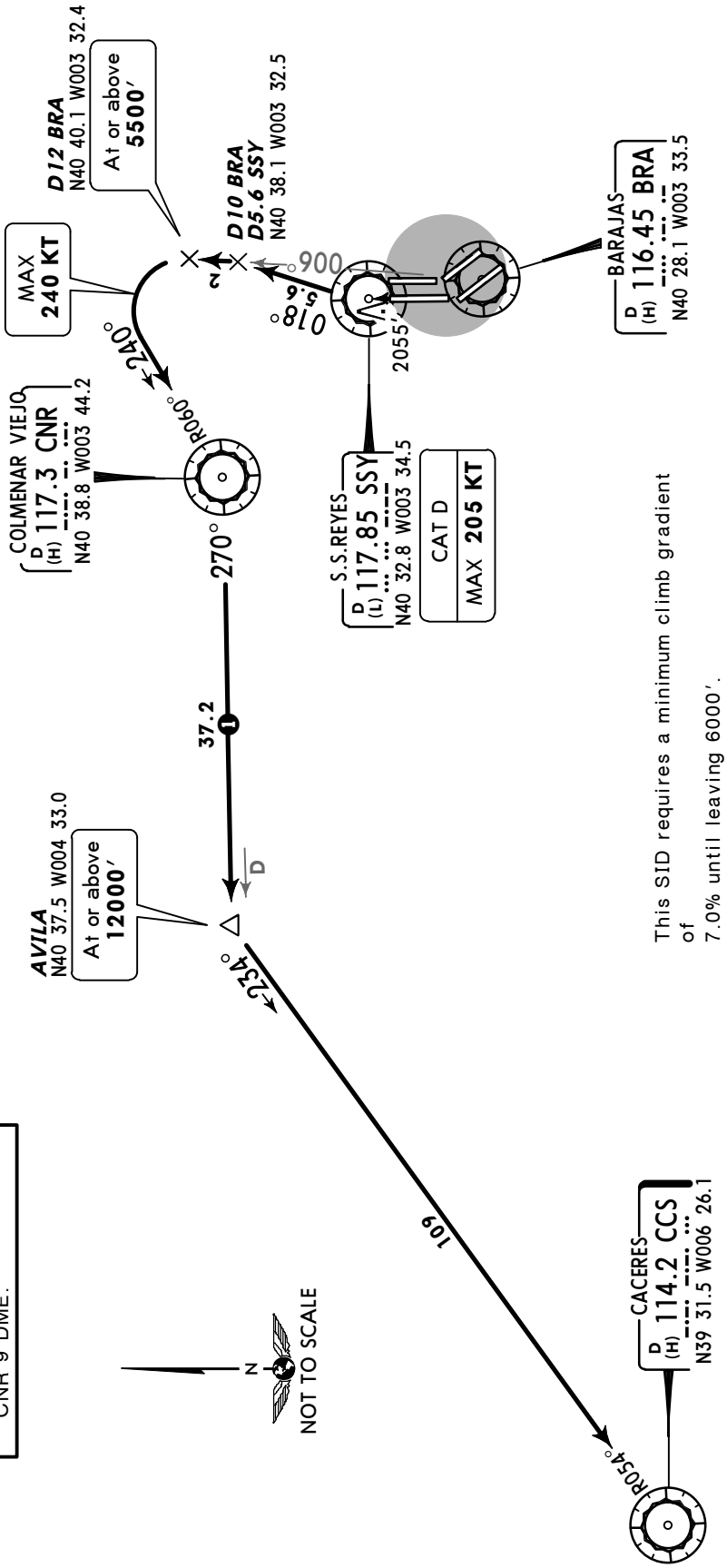
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

CACERES THREE NOVEMBER (CCS 3N)
RWY 36L DEPARTURE

USABLE 2300-0700LT

SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of 7.0% until leaving 6000′.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V(fpm)	532	709	1063	1418	1772	2127

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on runway heading to SSY, SSY R-018 to D10 BRA/D5.6 SSY, turn LEFT, intercept BRA R-006 to D12 BRA, turn LEFT, intercept CNR R-060 inbound to CNR, CNR R-270 to AVILA, turn LEFT, intercept CCS R-054 inbound to CCS.

CHANGES: None.

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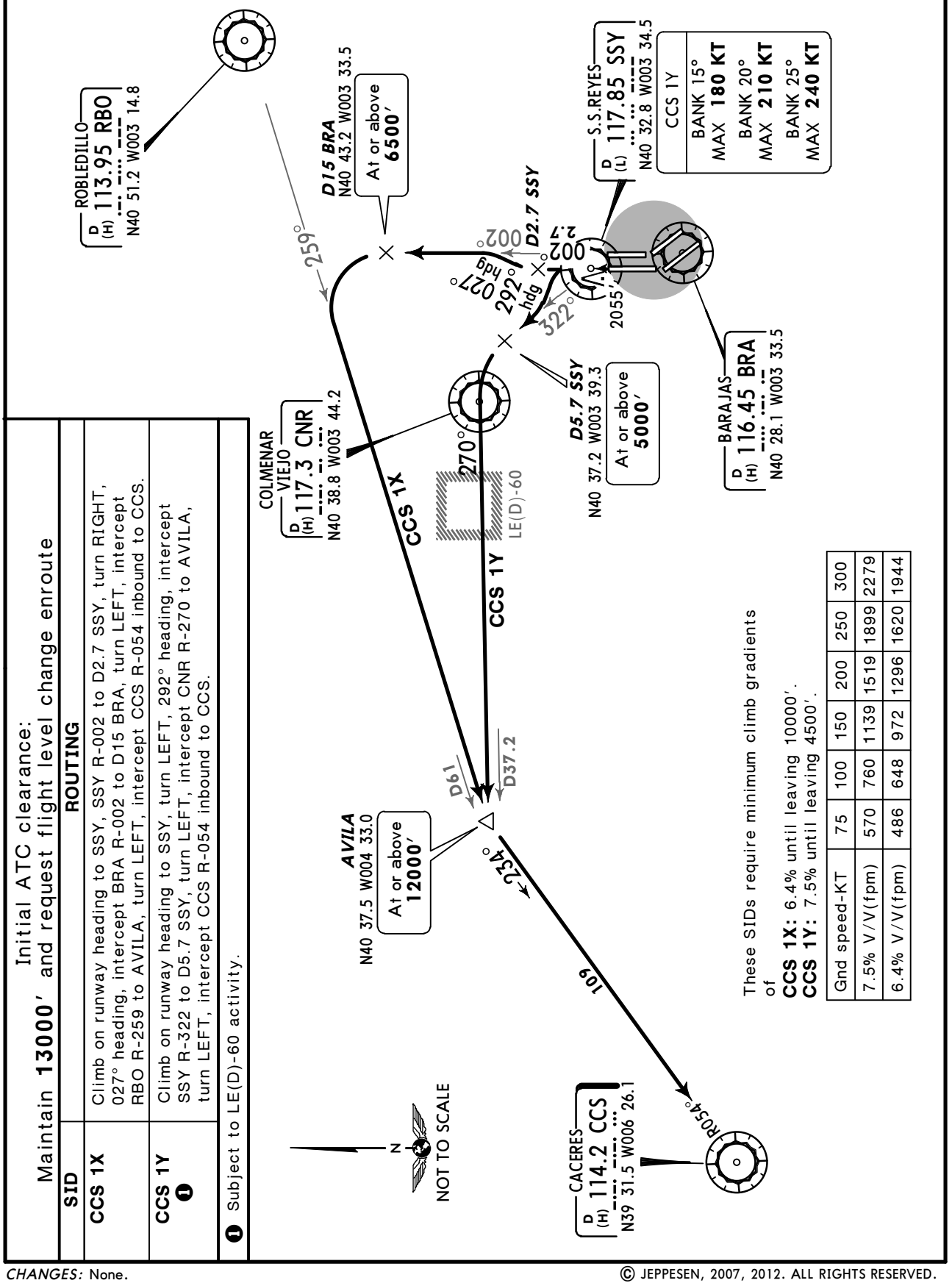
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

CACERES ONE X-RAY (CCS 1X)
CACERES ONE YANKEE (CCS 1Y)
RWY 36L DEPARTURES

USABLE 0700-2300LT

FOR AIRCRAFT USABILITY REFER TO AIRPORT BRIEFING PAGES

SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
CCS 1X: 6.4% until leaving 10000′.
CCS 1Y: 7.5% until leaving 4500′.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.4% V/V(fpm)	486	648	972	1296	1620	1944

Initial ATC clearance:
Maintain **13000′** and request flight level change enroute

SID	ROUTING
CCS 1X	Climb on runway heading to SSY, SSY R-002 to D2.7 SSY, turn RIGHT, 027° heading, intercept BRA R-002 to D15 BRA, turn LEFT, intercept RBO R-259 to AVILA, turn LEFT, intercept CCS R-054 inbound to CCS.
CCS 1Y ❶	Climb on runway heading to SSY, turn LEFT, 292° heading, intercept SSY R-322 to D5.7 SSY, turn LEFT, intercept CNR R-270 to AVILA, turn LEFT, intercept CCS R-054 inbound to CCS.

❶ Subject to LE(D)-60 activity.

CHANGES: None.

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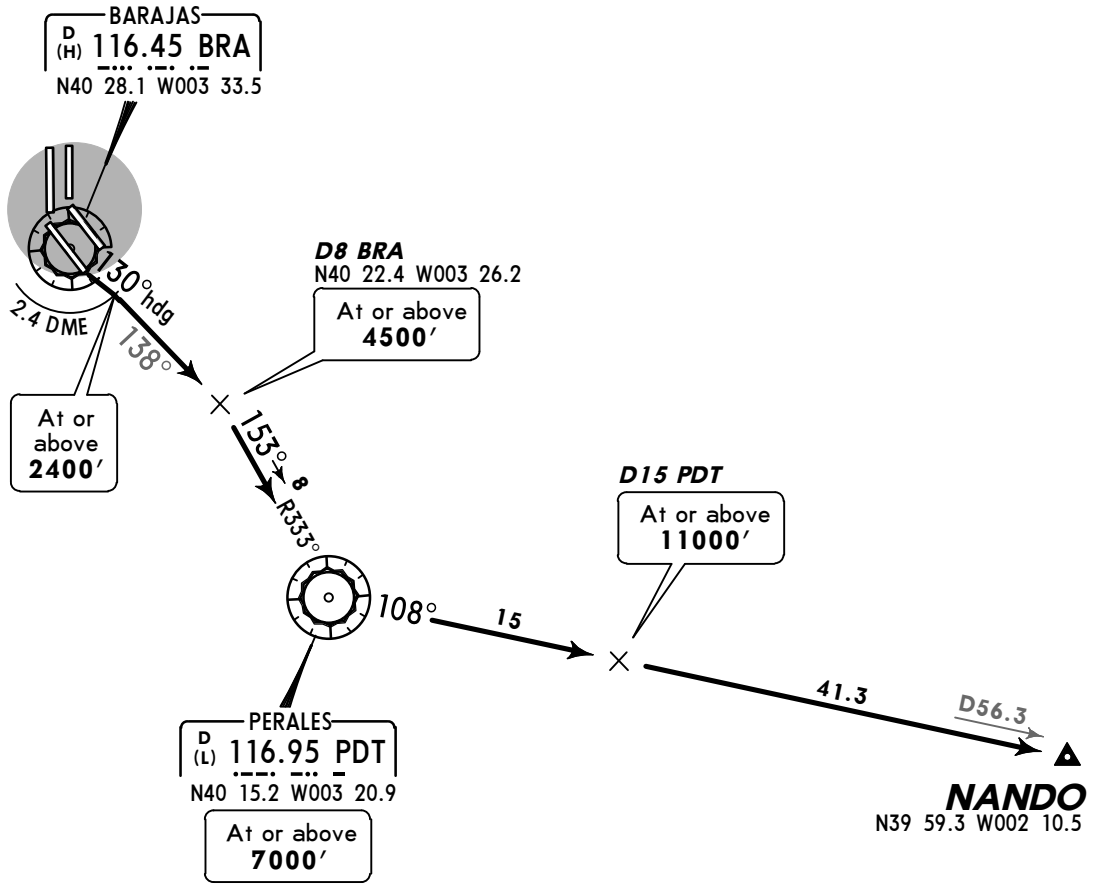
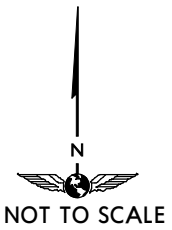
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

NANDO ONE BRAVO (NANDO 1B) *[NAND1B]*
RWY 14R DEPARTURE
SPEED: MAX 250 KT BELOW 10000′





This SID requires a minimum climb gradient of
6.1% until leaving 7000′.

Gnd speed-KT	75	100	150	200	250	300
6.1% V/V(fpm)	463	618	927	1235	1544	1853

Between 2300-0700LT changes in initial climb track are not permitted before DER (BRA 1 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on 130° heading to BRA 2.4 DME, turn RIGHT, intercept BRA R-138 to D8 BRA, turn RIGHT, intercept PDT R-333 inbound to PDT, PDT R-108 to NANDO.

CHANGES: Chart reindexed.

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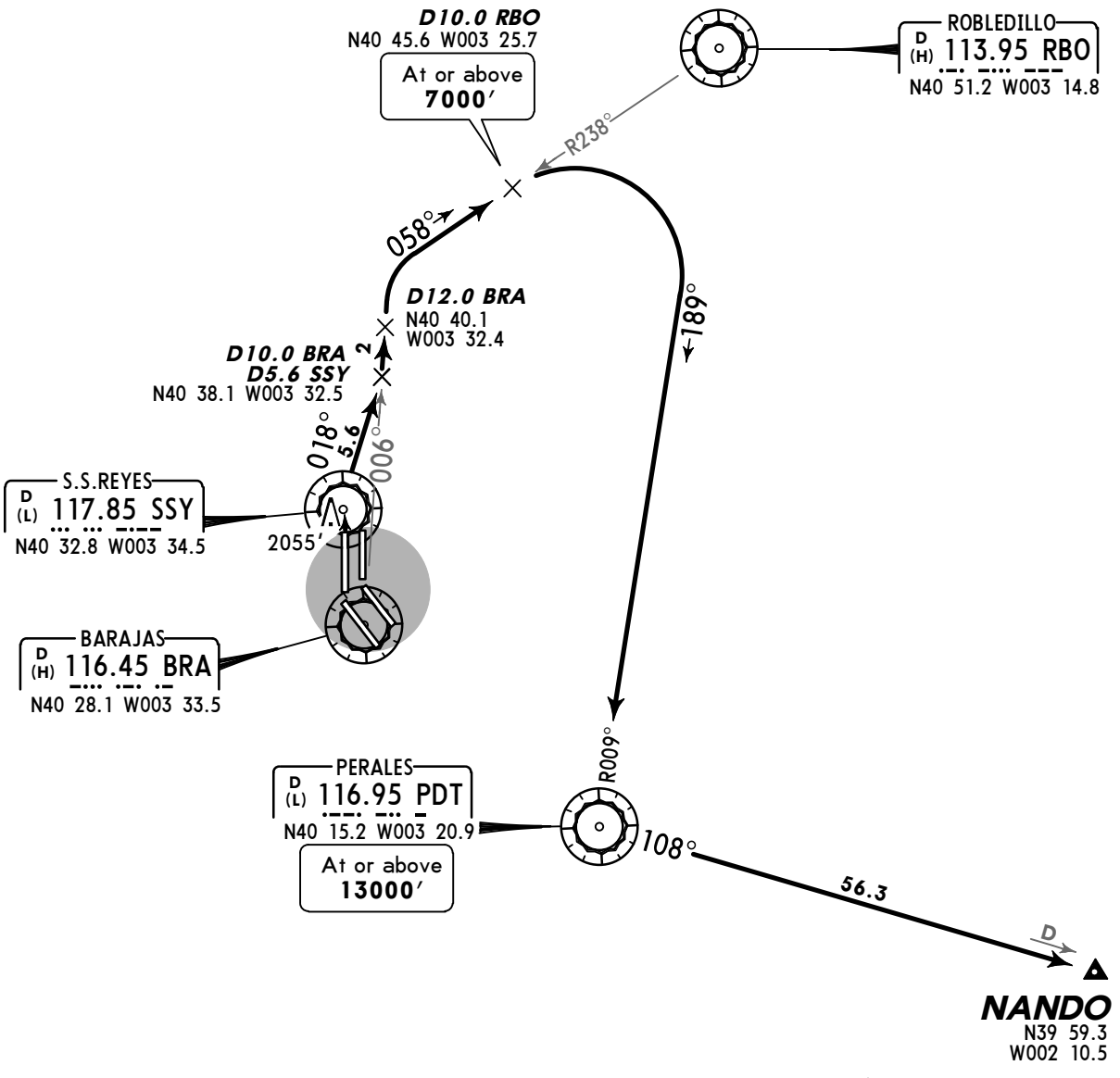
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. EXPECT close-in obstacles. 2. SIDs are also noise abatement procedures (refer to 10-4A).

NANDO TWO NOVEMBER (NANDO 2N) *[NAND2N]*
RWY 36L DEPARTURE
SPEED: MAX 250 KT BELOW 10000′



This SID requires minimum climb gradients of
Between 0700-2300LT: 6.6% until leaving 8000′.
Between 2300-0700LT: 5.5% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
6.6% V/V(fpm)	501	668	1003	1337	1671	2005
5.5% V/V(fpm)	418	557	835	1114	1392	1671

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on runway heading to SSY, SSY R-018 to D10 BRA/D5.6 SSY, turn LEFT, intercept BRA R-006 to D12 BRA, turn RIGHT, intercept RBO R-238 inbound to D10 RBO, turn RIGHT, intercept PDT R-009 inbound to PDT, PDT R-108 to NANDO.

CHANGES: SID renumbered & revised; climb gradients.

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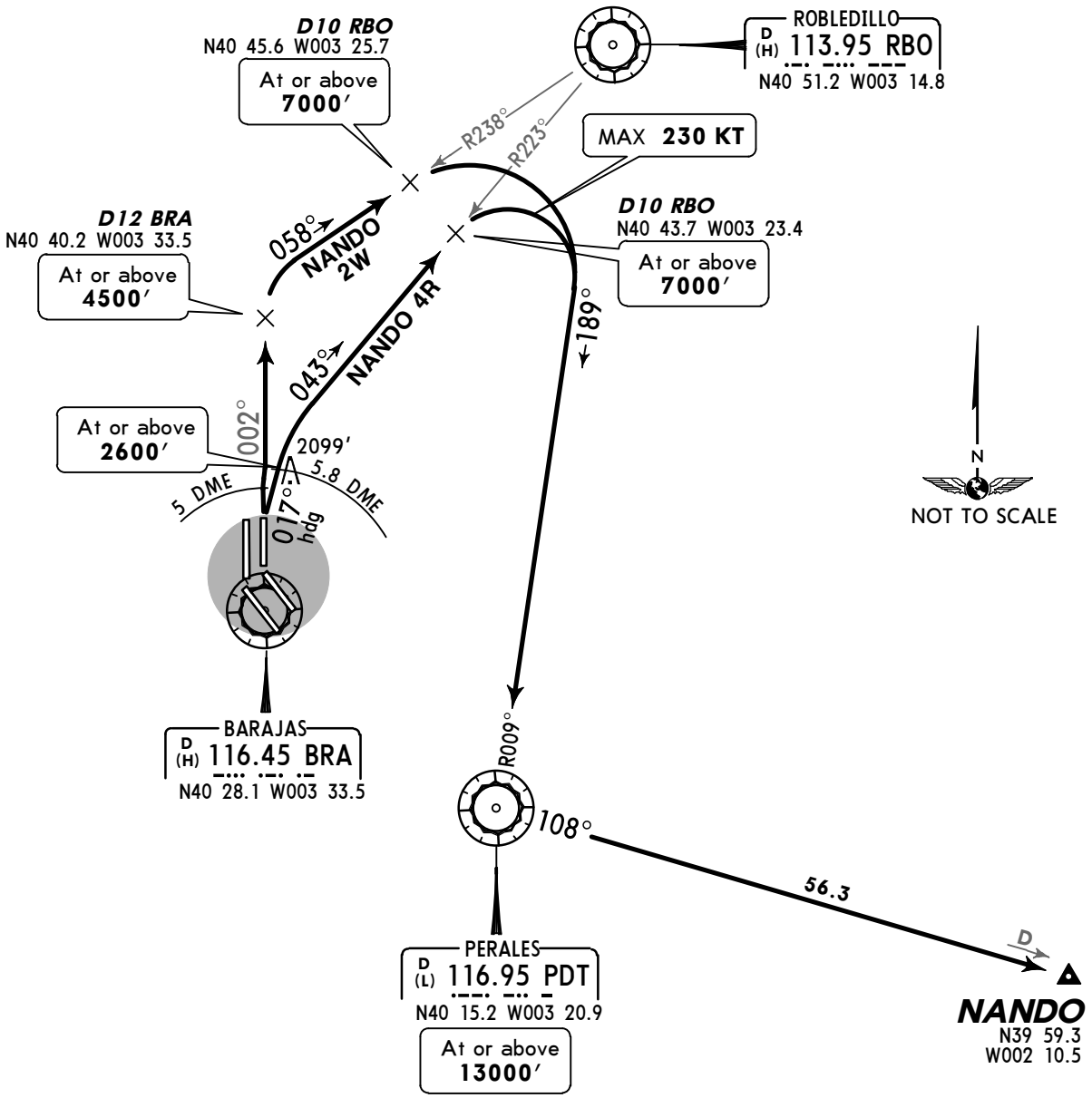
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. EXPECT close-in obstacles. 2. SIDs are also noise abatement procedures (refer to 10-4A).

NANDO FOUR ROMEO (NANDO 4R) *[NAND4R]*
NANDO TWO WHISKEY (NANDO 2W) *[NAND2W]*
RWY 36R DEPARTURES
SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
6.0% until leaving 9000′.

Gnd speed-KT	75	100	150	200	250	300
6.0% V/V(fpm)	456	608	911	1215	1519	1823

NANDO 4R: Changes in initial climb track are not permitted before DER (BRA 4.0 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
NANDO 4R Usable 0700-2300LT	Climb on 017° heading to BRA 5.8 DME, intercept RBO R-223 inbound to D10 RBO, turn RIGHT, intercept PDT R-009 inbound to PDT, PDT R-108 to NANDO.
NANDO 2W Usable 2300-0700LT	Climb on runway heading to BRA 5 DME, intercept BRA R-002 to D12 BRA, turn RIGHT, intercept RBO R-238 inbound to D10 RBO, turn RIGHT, intercept PDT R-009 inbound to PDT, PDT R-108 to NANDO.

CHANGES: SIDs renumbered & revised; initial climb; climb gradient.

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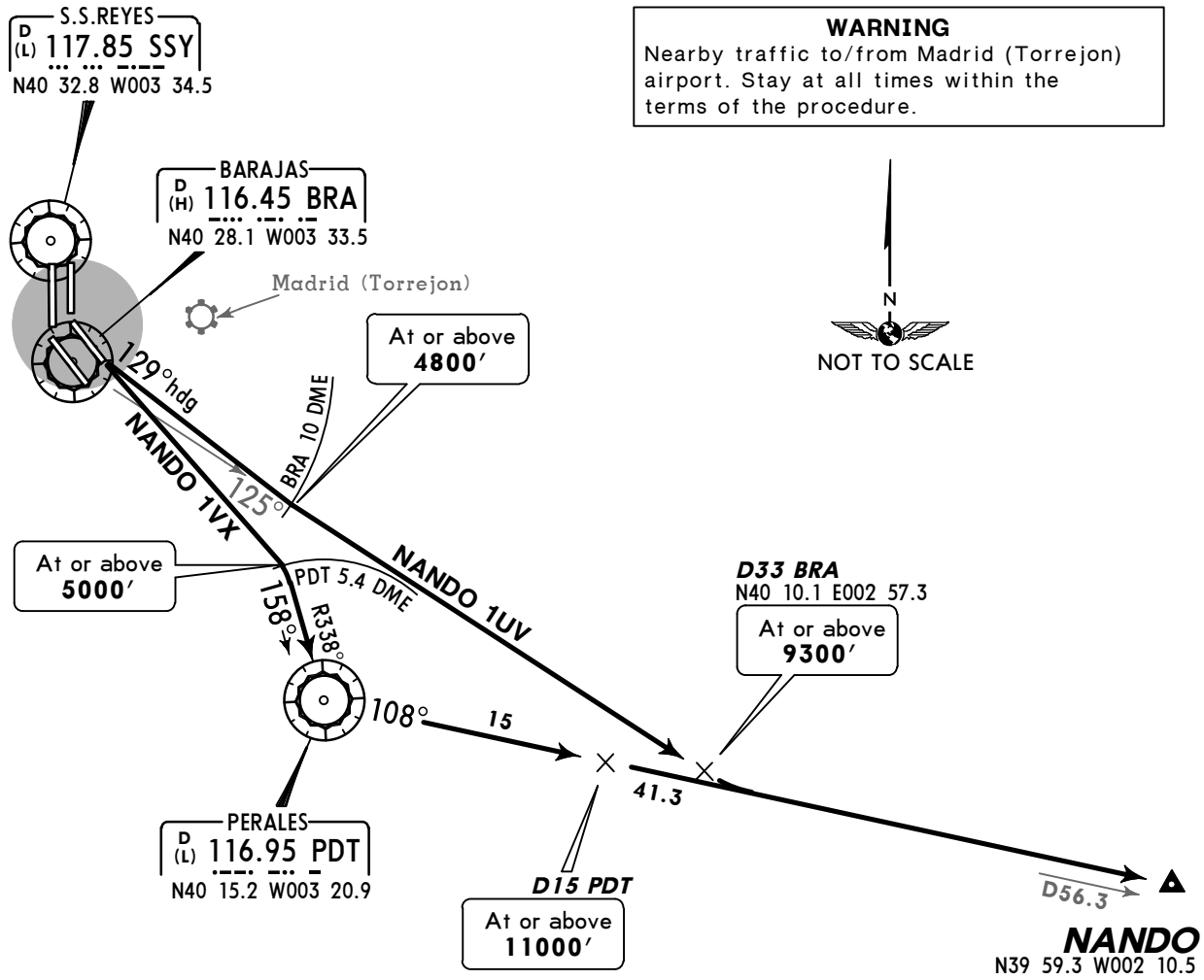
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

NANDO ONE UNIFORM VICTOR (NANDO 1UV) *[NAN1UV]*
NANDO ONE VICTOR X-RAY (NANDO 1VX) *[NAN1VX]*
RWY 14L DEPARTURES
SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
7.0% until leaving 2200′, then
NANDO 1UV: 5.8% until leaving 4800′.
NANDO 1VX: 5.5% until leaving 11000′.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V(fpm)	532	709	1063	1418	1772	2127
5.8% V/V(fpm)	441	587	881	1175	1468	1762
5.5% V/V(fpm)	418	557	835	1114	1392	1671

NANDO 1UV: Changes in initial climb track are not permitted before DER (SSY 5 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
NANDO 1UV Usable 0700-2300LT	Climb on 129° heading to BRA 10 DME, turn LEFT, intercept BRA R-125 to D33 BRA, turn LEFT, intercept PDT R-108 to NANDO.
NANDO 1VX Usable 2300-0700LT	Climb on runway heading to PDT 5.4 DME, turn RIGHT, intercept PDT R-338 inbound to PDT, PDT R-108 to NANDO.

CHANGES: None.

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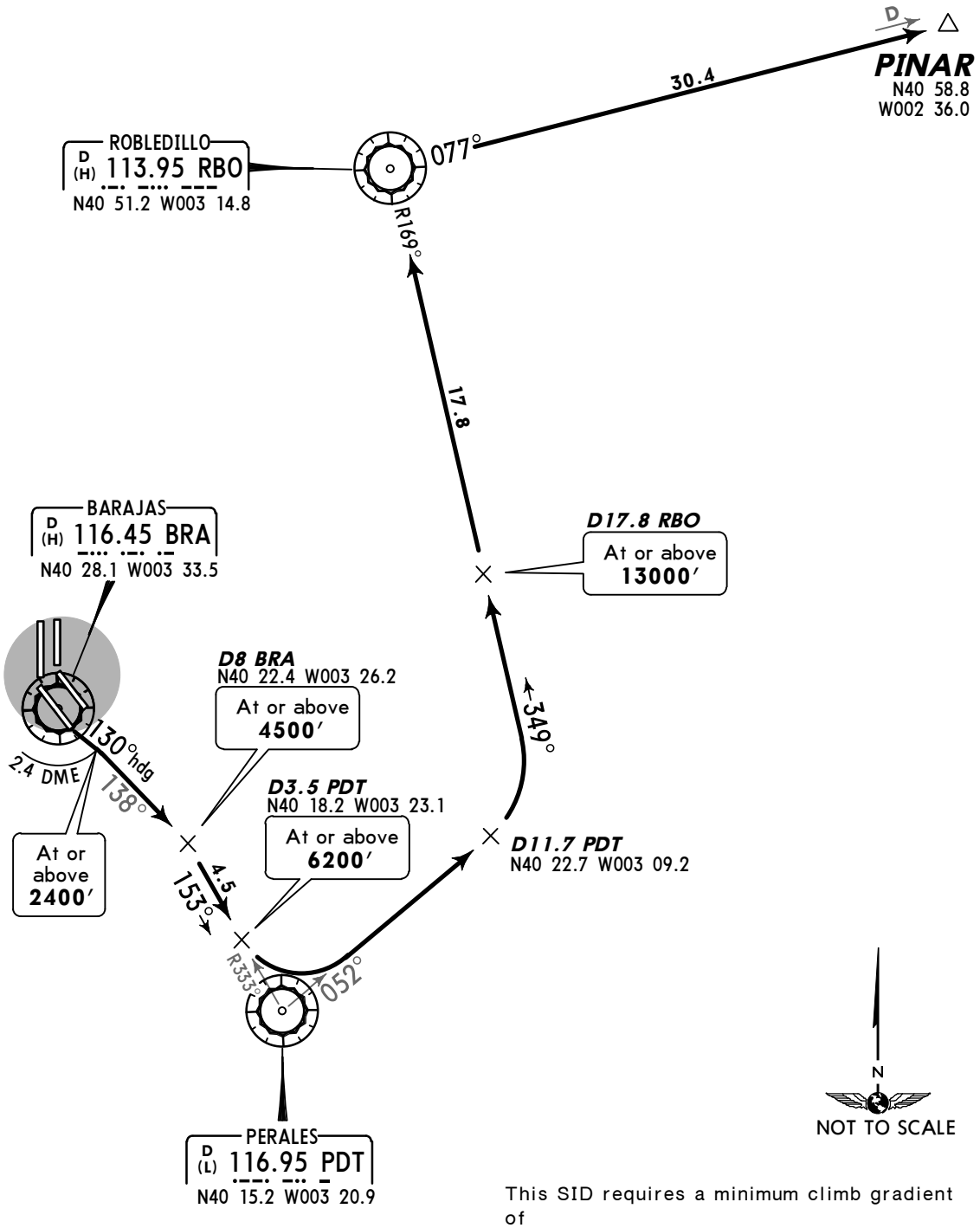
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. EXPECT close-in obstacles. 2. SIDs are also noise abatement procedures (refer to 10-4A).

PINAR TWO BRAVO (PINAR 2B) *[PINA2B]*
RWY 14R DEPARTURE
SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of
6.1% until leaving 13000′.

Gnd speed-KT	75	100	150	200	250	300
6.1% V/V(fpm)	463	618	927	1235	1544	1853

Between 2300-0700LT changes in initial climb track are not permitted before DER (BRA 1 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on 130° heading to BRA 2.4 DME, turn RIGHT, intercept BRA R-138 to D8 BRA, turn RIGHT, intercept PDT R-333 inbound to D3.5 PDT, turn LEFT, intercept PDT R-052 to D11.7 PDT, turn LEFT, intercept RBO R-169 inbound to RBO, RBO R-077 to PINAR.

CHANGES: Chart reindexed.

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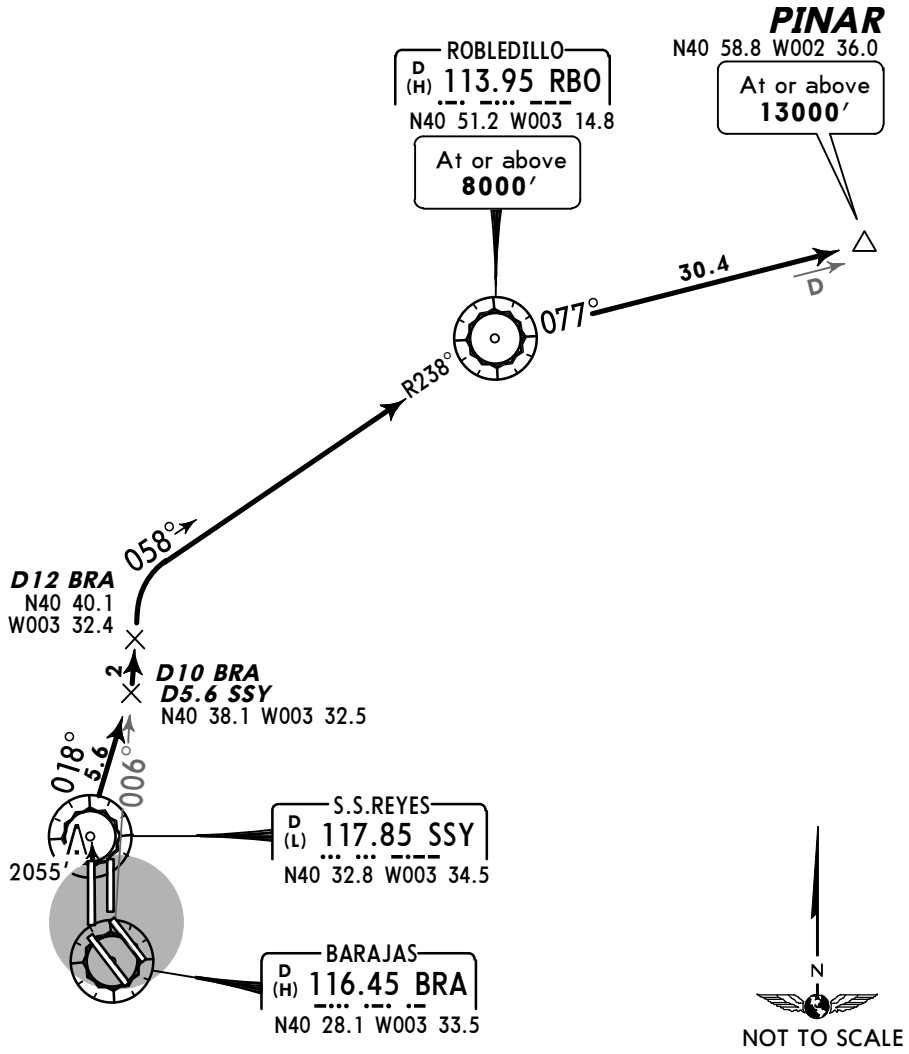
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. EXPECT close-in obstacles. 2. SIDs are also noise abatement procedures (refer to 10-4A).

PINAR TWO NOVEMBER (PINAR 2N) *[PINA2N]*
RWY 36L DEPARTURE
SPEED: MAX 250 KT BELOW 10000′



This SID requires minimum climb gradients of
Between 0700-2300LT: 6.6% until leaving 8000′.
Between 2300-0700LT: 5.5% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
6.6% V/V(fpm)	501	668	1003	1337	1671	2005
5.5% V/V(fpm)	418	557	835	1114	1392	1671

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on runway heading to SSY, SSY R-018 to D10 BRA/D5.6 SSY, turn LEFT, intercept BRA R-006 to D12 BRA, turn RIGHT, intercept RBO R-238 inbound to RBO, RBO R-077 to PINAR.

CHANGES: Chart reindexed; climb gradient.

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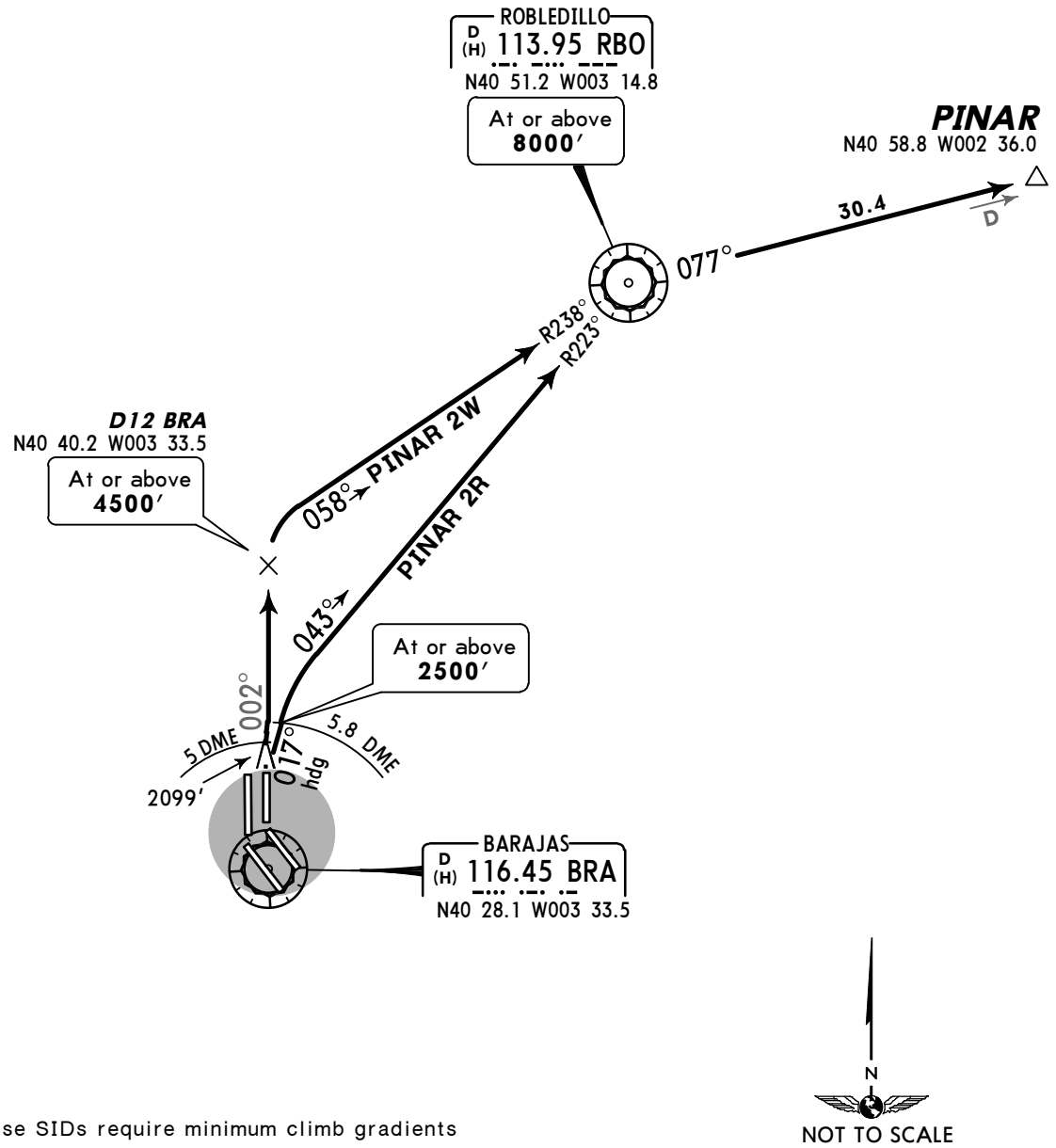
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. ExPECT clos-in obstacles

PINAR TWO ROMEO (PINAR 2R) *[PINA2R]*
PINAR TWO WHISKEY (PINAR 2W) *[PINA2W]*
RWY 36R DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
PINAR 2R: 5.0% until leaving 8000′.
PINAR 2W: 5.5% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
5.5% V/V(fpm)	418	557	835	1114	1392	1671
5.0% V/V(fpm)	380	506	760	1013	1266	1519

PINAR 2R: Changes in initial climb track are not permitted before DER (BRA 4.0 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
PINAR 2R Usable 0700-2300LT	Climb on 017° heading to BRA 5.8 DME, intercept RBO R-223 inbound to RBO, RBO R-077 to PINAR.
PINAR 2W Usable 2300-0700LT	Climb on runway heading to BRA 5 DME, intercept BRA R-002 to D12 BRA, turn RIGHT, intercept RBO R-238 inbound to RBO, RBO R-077 to PINAR.

CHANGES: Chart reindexed; initial climb.

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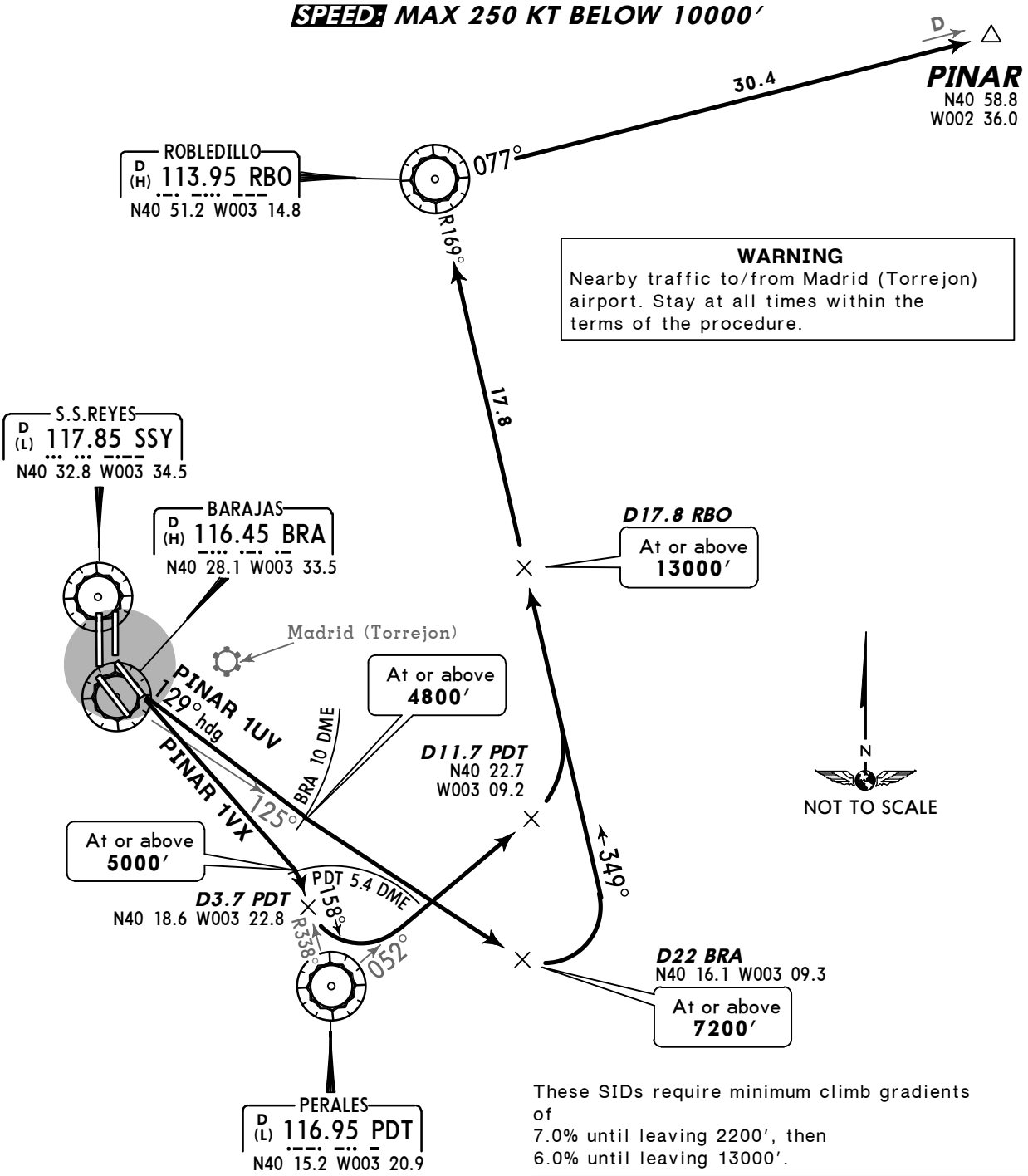
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

PINAR ONE UNIFORM VICTOR (PINAR 1UV) *[PIN1UV]*
PINAR ONE VICTOR X-RAY (PINAR 1VX) *[PIN1VX]*
RWY 14L DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
7.0% until leaving 2200′, then
6.0% until leaving 13000′.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V(fpm)	532	709	1063	1418	1772	2127
6.0% V/V(fpm)	456	608	911	1215	1519	1823

PINAR 1UV: Changes in initial climb track are not permitted before DER (SSY 5 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
PINAR 1UV Usable 0700-2300LT	Climb on 129° heading to BRA 10 DME, turn LEFT, intercept BRA R-125 to D22 BRA, turn LEFT, intercept RBO R-169 inbound to RBO, RBO R-077 to PINAR.
PINAR 1VX Usable 2300-0700LT	Climb on runway heading to PDT 5.4 DME, turn RIGHT, intercept PDT R-338 inbound to D3.7 PDT, turn LEFT, intercept PDT R-052 to D11.7 PDT, turn LEFT, intercept RBO R-169 inbound to RBO, RBO R-077 to PINAR.

CHANGES: Chart reindexed.

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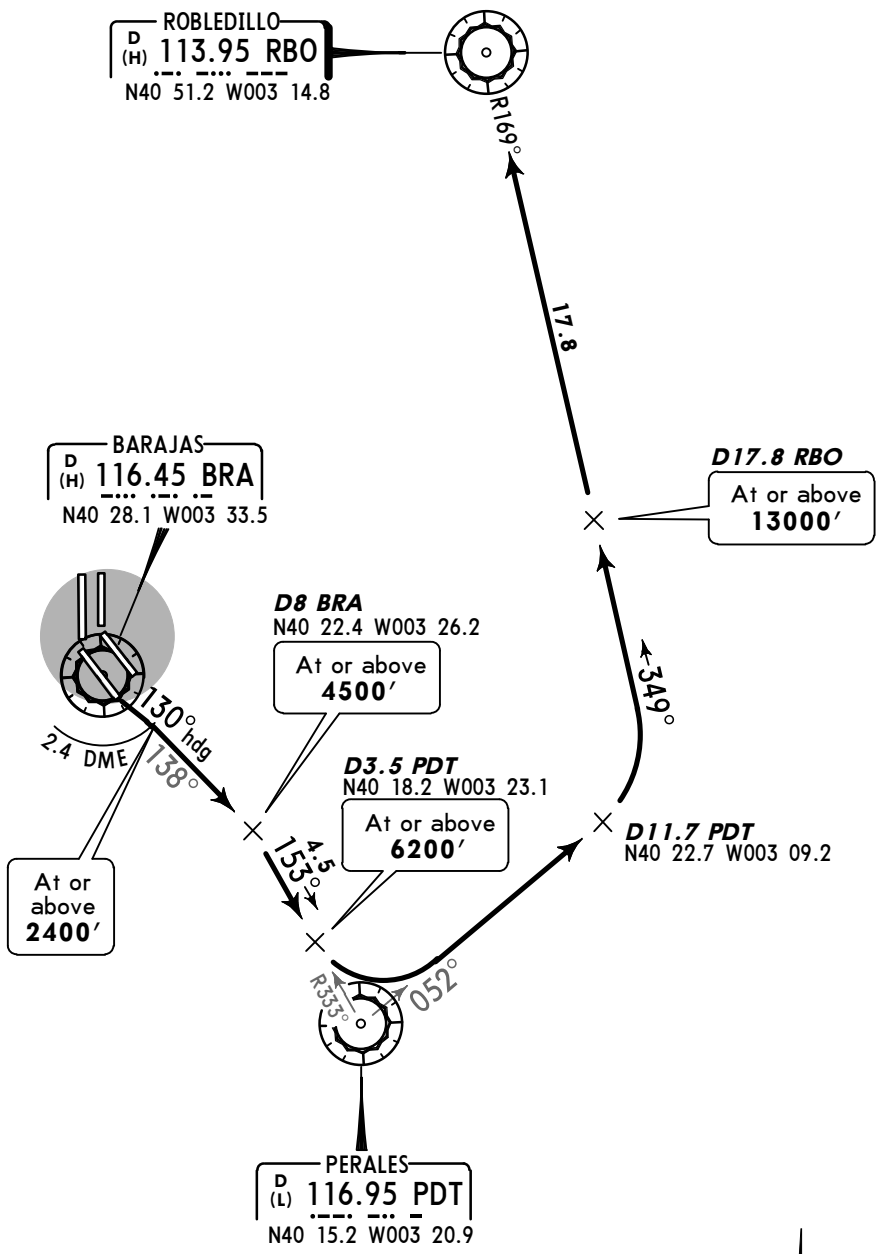
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. EXPECT close-in obstacles. 2. SIDs are also noise abatement procedures (refer to 10-4A).

ROBLEDILLO ONE BRAVO (RBO 1B)
RWY 14R DEPARTURE
SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of
6.1% until leaving 13000′.

Gnd speed-KT	75	100	150	200	250	300
6.1% V/V(fpm)	463	618	927	1235	1544	1853

Beween 2300-0700LT changes in initial climb track are not permitted before DER (BRA 1 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on 130° heading to BRA 2.4 DME, turn RIGHT, intercept BRA R-138 to D8 BRA, turn RIGHT, intercept PDT R-333 inbound to D3.5 PDT, turn LEFT, intercept PDT R-052 to D11.7 PDT, turn LEFT, intercept RBO R-169 inbound to RBO.

CHANGES: Chart reindexed.

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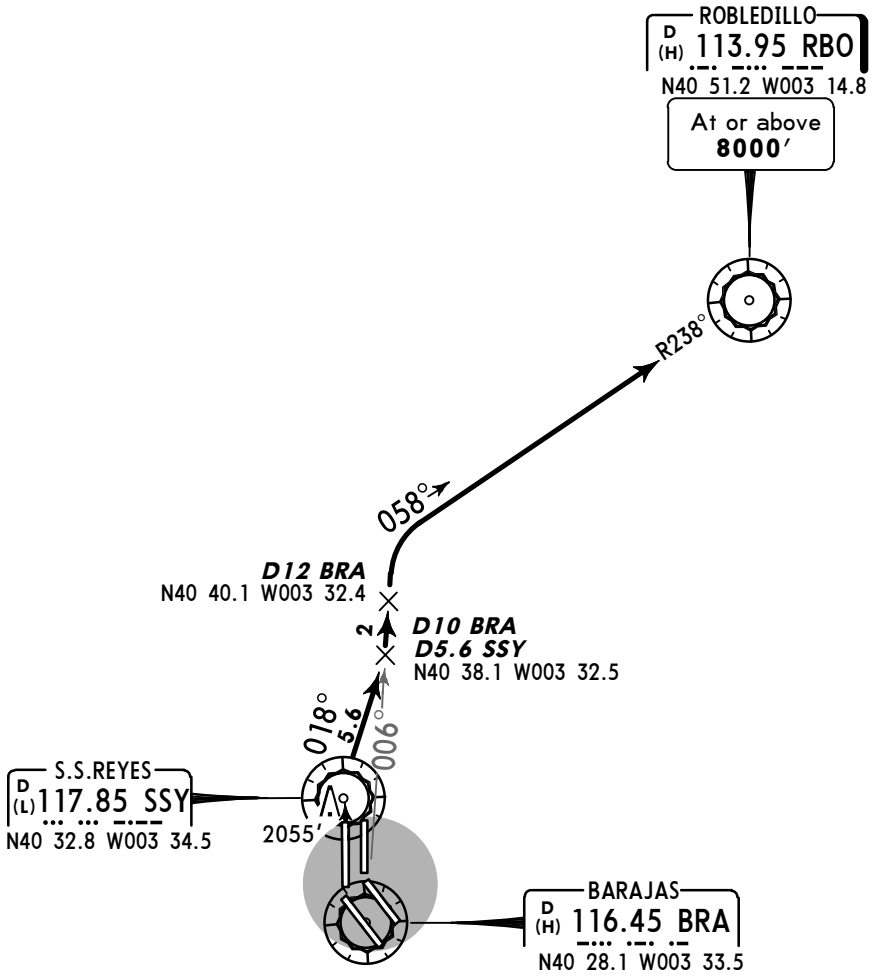
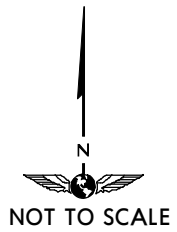
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. EXPECT close-in obstacles. 2. SIDs are also noise abatement procedures (refer to 10-4A).

ROBLEDILLO ONE NOVEMBER (RBO 1N)
RWY 36L DEPARTURES

SPEED: MAX 250 KT BELOW 10000′





This SID requires minimum climb gradients of
Between 0700-2300LT: 6.6% until leaving 8000′.
Between 2300-0700LT: 5.5% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
6.6% V/V(fpm)	501	668	1003	1337	1671	2005
5.5% V/V(fpm)	418	557	835	1114	1392	1671

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on runway heading to SSY, SSY R-018 to D10 BRA/D5.6 SSY, turn LEFT, intercept BRA R-006 to D12 BRA, turn RIGHT, intercept RBO R-238 inbound to RBO.

CHANGES: Chart reindexed; climb gradient.

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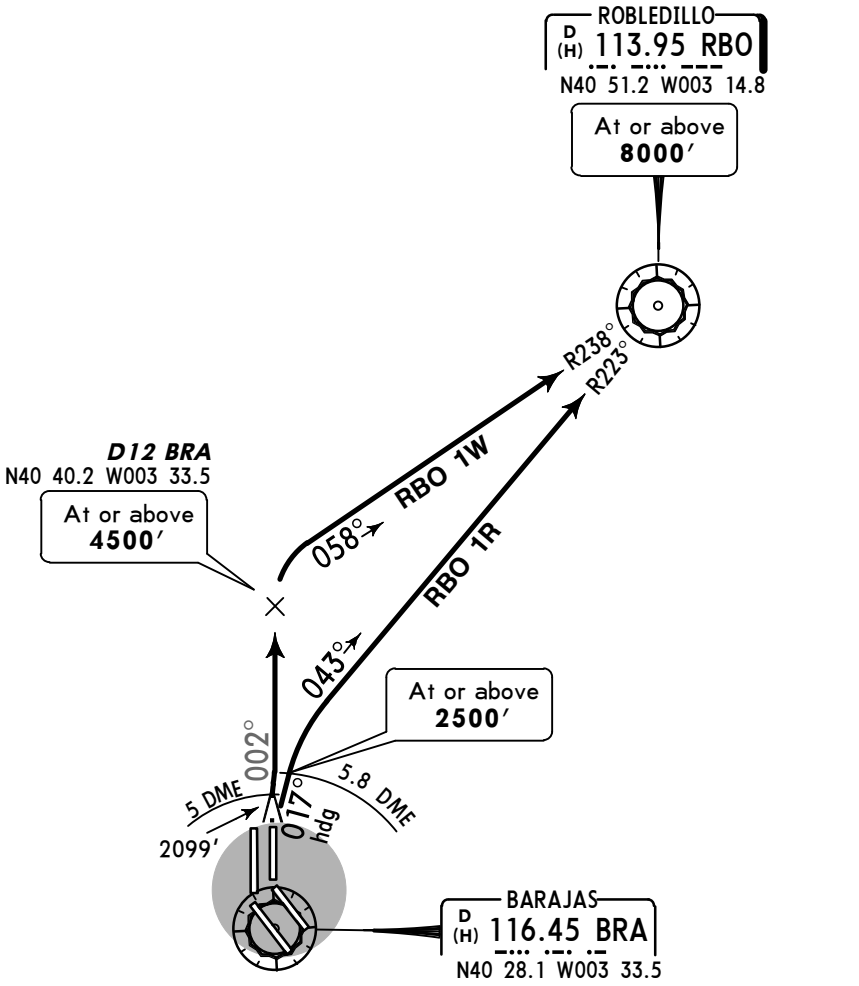
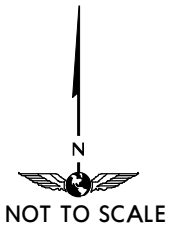
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

ROBLEDILLO ONE ROMEO (RBO 1R)
ROBLEDILLO ONE WHISKEY (RBO 1W)
RWY 36R DEPARTURES

SPEED: MAX 250 KT BELOW 10000′





These SIDs require minimum climb gradients of
RBO 1R: 5.0% until leaving 8000′.
RBO 1W: 5.5% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
5.5% V/V(fpm)	418	557	835	1114	1392	1671
5.0% V/V(fpm)	380	506	760	1013	1266	1519

RBO 1R: Changes in initial climb track are not permitted before DER (BRA 4.0 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
RBO 1R Usable 0700-2300LT	Climb on 017° heading to BRA 5.8 DME, intercept RBO R-223 inbound to RBO.
RBO 1W Usable 2300-0700LT	Climb on runway heading to BRA 5 DME, intercept BRA R-002 to D12 BRA, turn RIGHT, intercept RBO R-238 inbound to RBO.

CHANGES: Initial climb.

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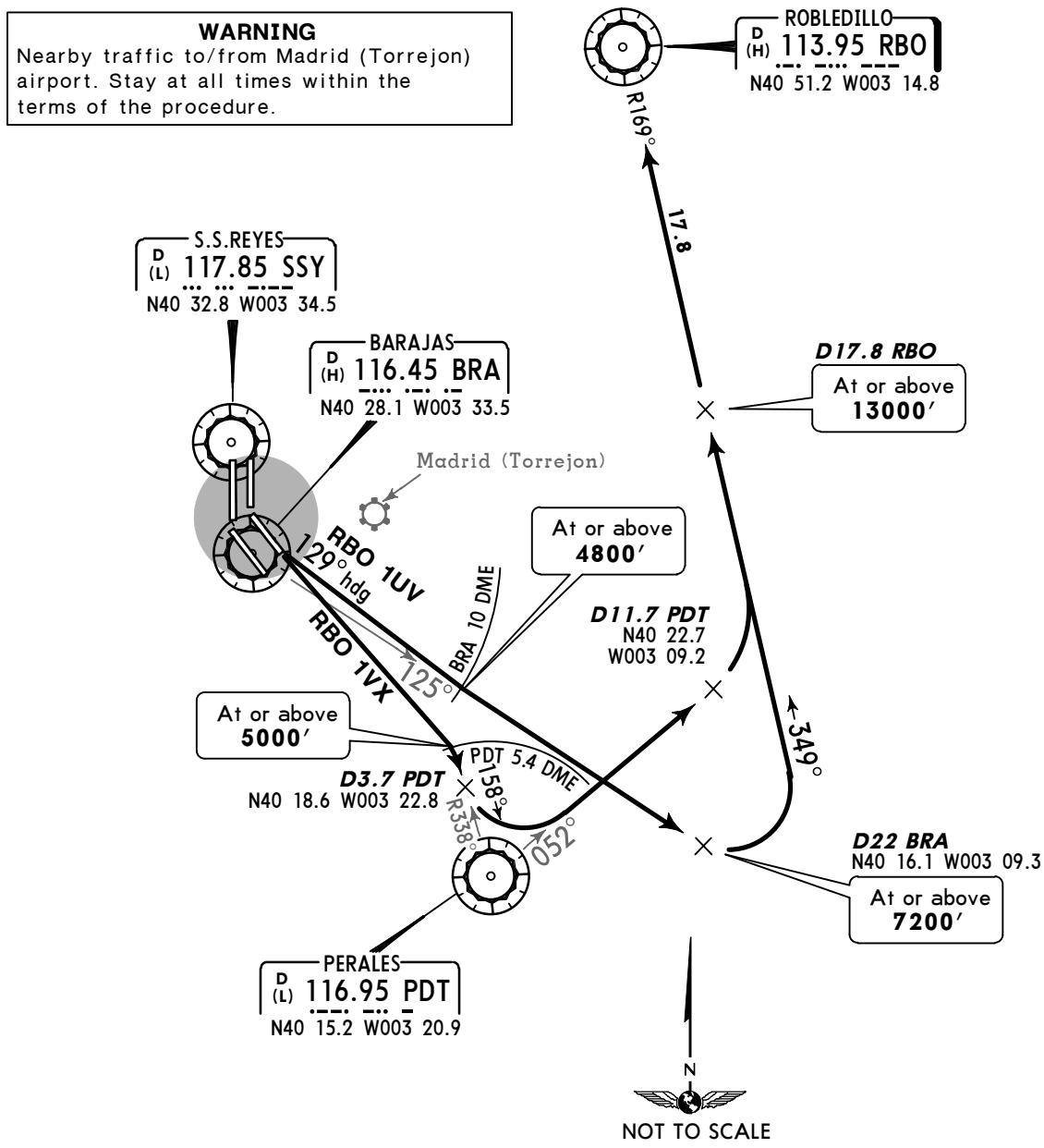
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

ROBLEDILLO ONE UNIFORM VICTOR (RBO 1UV)
ROBLEDILLO ONE VICTOR X-RAY (RBO 1VX)
RWY 14L DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
7.0% until leaving 2200′, then
RBO 1UV: 6.0% until leaving 13000′.
RBO 1VX: 5.0% until leaving 13000′.

Gnd speed-KT	75	100	150	200	250	300
7.0% V/V(fpm)	532	709	1063	1418	1772	2127
6.0% V/V(fpm)	456	608	911	1215	1519	1823
5.0% V/V(fpm)	380	506	760	1013	1266	1519

RBO 1UV: Changes in initial climb track are not permitted before DER (SSY 5 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
RBO 1UV Usable 0700-2300LT	Climb on 129° heading to BRA 10 DME, turn LEFT, intercept BRA R-125 to D22 BRA, turn LEFT, intercept RBO R-169 inbound to RBO.
RBO 1VX Usable 2300-0700LT	Climb on runway heading to PDT 5.4 DME, turn RIGHT, intercept PDT R-338 inbound to D3.7 PDT, turn LEFT, intercept PDT R-052 to D11.7 PDT, turn LEFT, intercept RBO R-169 inbound to RBO.

CHANGES: None.

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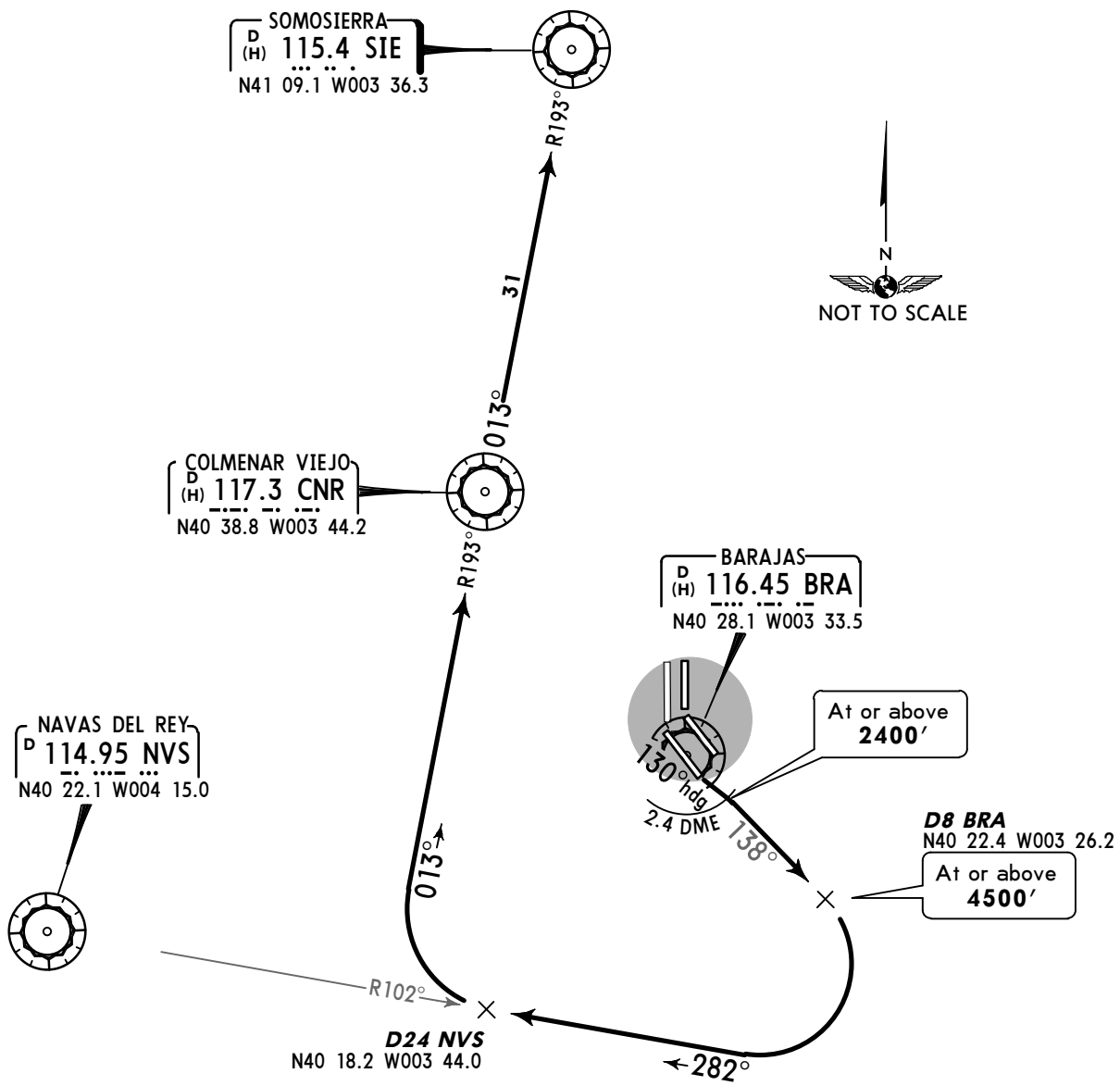
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

SOMOSIERRA TWO BRAVO (SIE 2B)
RWY 14R DEPARTURE
USABLE 2300-0700LT

SPEED: MAX 250 KT BELOW 10000′



This SID requires minimum climb gradients of
5.5% until leaving 5000′, then
4.5% until leaving FL145.

Gnd speed-KT	75	100	150	200	250	300
5.5% V/V(fpm)	418	557	835	1114	1392	1671
4.5% V/V(fpm)	342	456	684	911	1139	1367

Changes in initial climb track are not permitted before DER (BRA 1 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on 130° heading to BRA 2.4 DME, turn RIGHT, intercept BRA R-138 to D8 BRA, turn RIGHT, intercept NVS R-102 inbound to D24 NVS, turn RIGHT, intercept CNR R-193 inbound to CNR, intercept SIE R-193 inbound to SIE.

CHANGES: RWY designation; general instructions.

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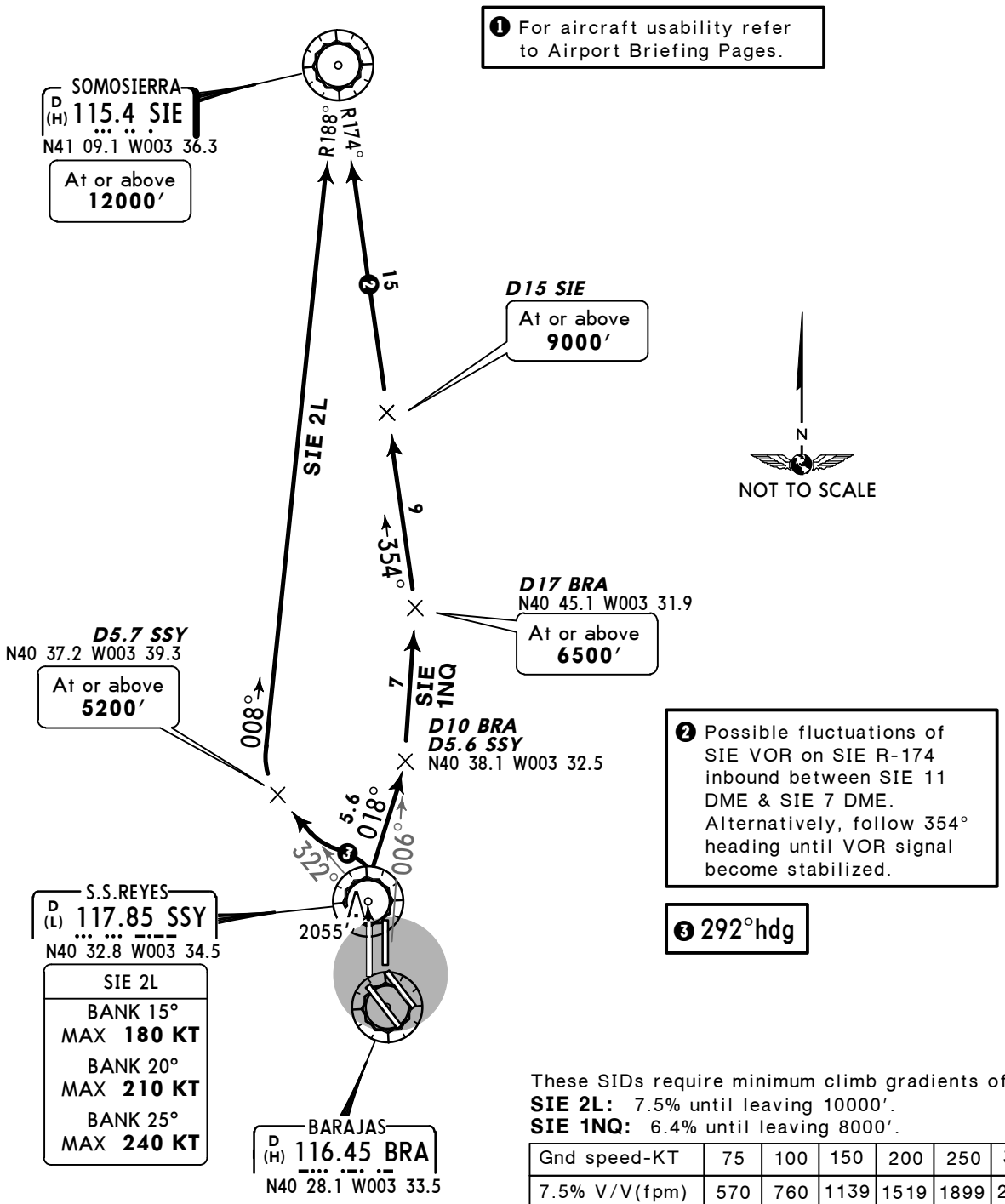
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

SOMOSIERRA TWO LIMA (SIE 2L)❶
SOMOSIERRA ONE NOVEMBER QUEBEC (SIE 1NQ)
RWY 36L DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
SIE 2L: 7.5% until leaving 10000′.
SIE 1NQ: 6.4% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.4% V/V(fpm)	486	648	972	1296	1620	1944

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
SIE 2L Usable 0700-2300LT	Climb on runway heading to SSY, turn LEFT, 292° heading, intercept SSY R-322 to D5.7 SSY, turn RIGHT, intercept SIE R-188 inbound to SIE.
SIE 1NQ Usable 2300-0700LT	Climb on runway heading to SSY, SSY R-018 to D10 BRA/D5.6 SSY, turn LEFT, intercept BRA R-006 to D17 BRA, turn LEFT, intercept SIE R-174 inbound to SIE.

CHANGES: None.

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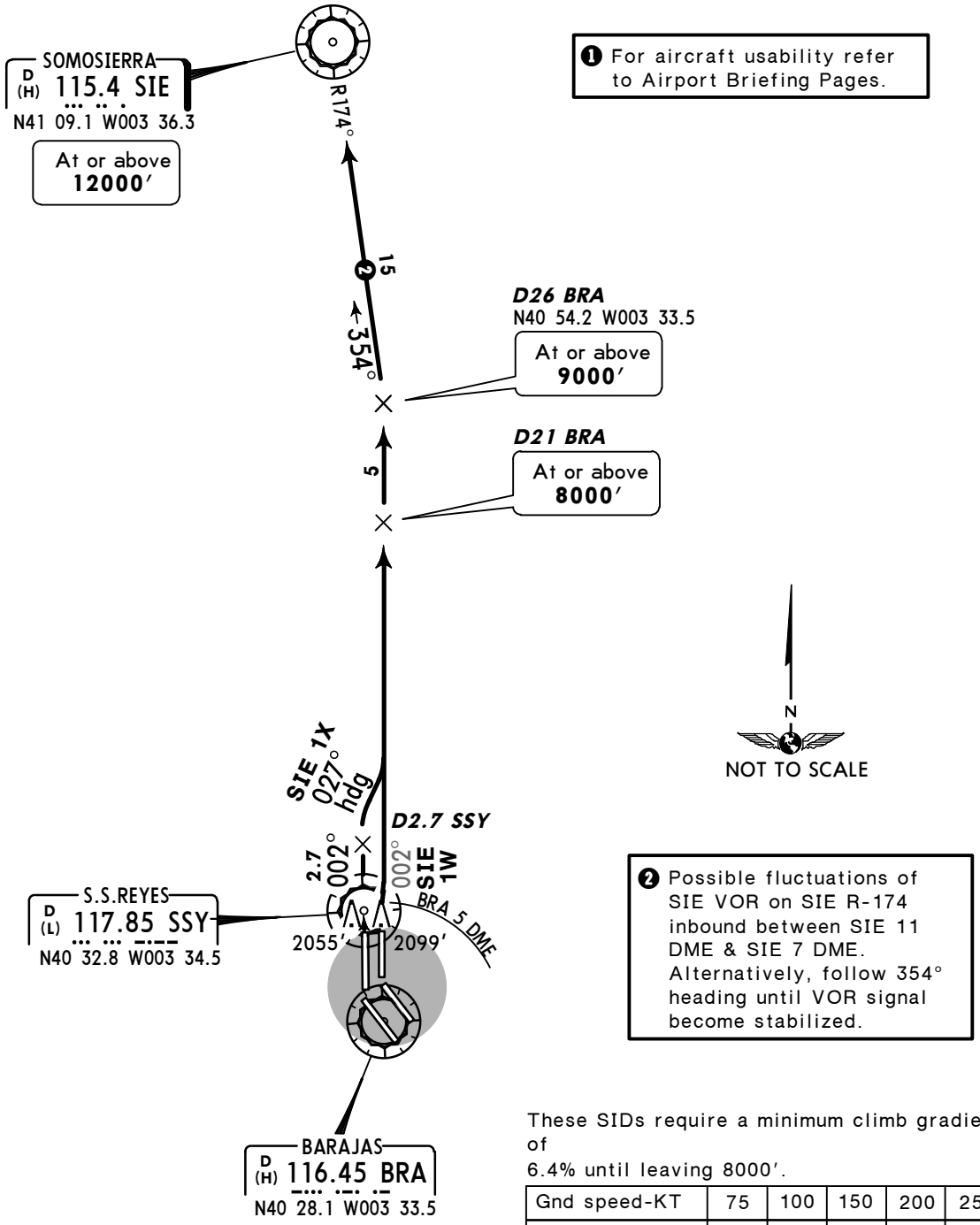
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

SOMOSIERRA ONE WHISKEY (SIE 1W)
SOMOSIERRA ONE X-RAY (SIE 1X)❶
RWYS 36L/R DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



❶ For aircraft usability refer to Airport Briefing Pages.

❷ Possible fluctuations of SIE VOR on SIE R-174 inbound between SIE 11 DME & SIE 7 DME. Alternatively, follow 354° heading until VOR signal become stabilized.

These SIDs require a minimum climb gradient of
6.4% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
6.4% V/V(fpm)	486	648	972	1296	1620	1944

SIE 1W: Between 0700-2300LT changes in initial climb track are not permitted before DER (BRA 4.0 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	RWY	ROUTING
SIE 1W	**36R**	Climb on runway heading to BRA 5 DME, intercept BRA R-002 to D26 BRA, turn LEFT, intercept SIE R-174 inbound to SIE.
SIE 1X Usable 0700-2300LT	**36L**	Climb on runway heading to SSY, SSY R-002 to D2.7 SSY, turn RIGHT, 027° heading, intercept BRA R-002 to D26 BRA, turn LEFT, intercept SIE R-174 inbound to SIE.

CHANGES: Initial climb.

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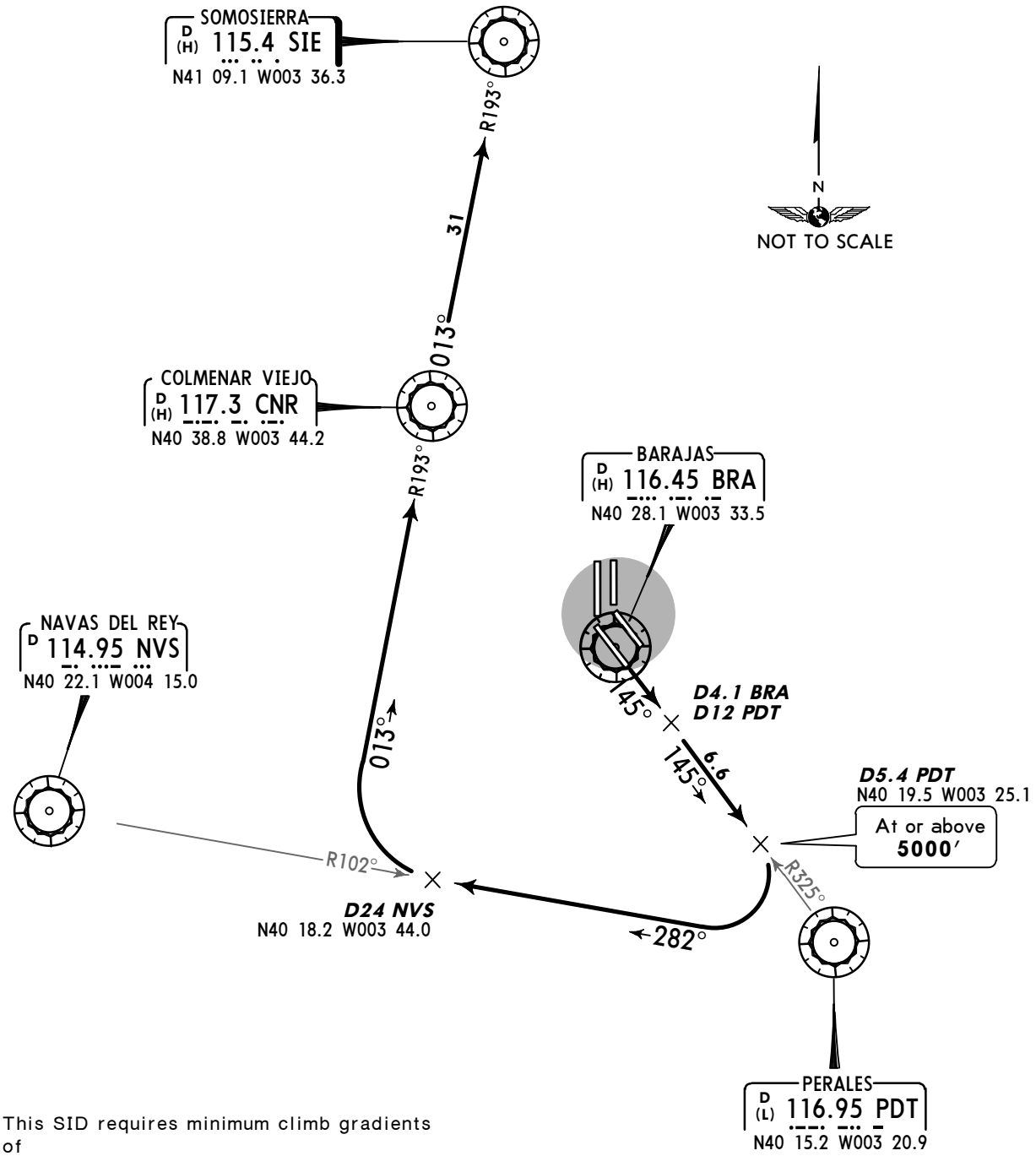
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

SOMOSIERRA TWO SIERRA (SIE 2S)
RWY 14R DEPARTURE

USABLE 0700-2300LT

SPEED: MAX 250 KT BELOW 10000′



This SID requires minimum climb gradients of
5.5% until leaving 5000′, then
4.5% until leaving FL145.

Gnd speed-KT	75	100	150	200	250	300
5.5% V/V(fpm)	418	557	835	1114	1392	1671
4.5% V/V(fpm)	342	456	684	911	1139	1367

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on BRA R-145 to D4.1 BRA/D12 PDT, turn RIGHT, intercept PDT R-325 inbound to D5.4 PDT, turn RIGHT, intercept NVS R-102 inbound to D24 NVS, turn RIGHT, intercept CNR R-193 inbound to CNR, intercept SIE R-193 inbound to SIE.

CHANGES: None.

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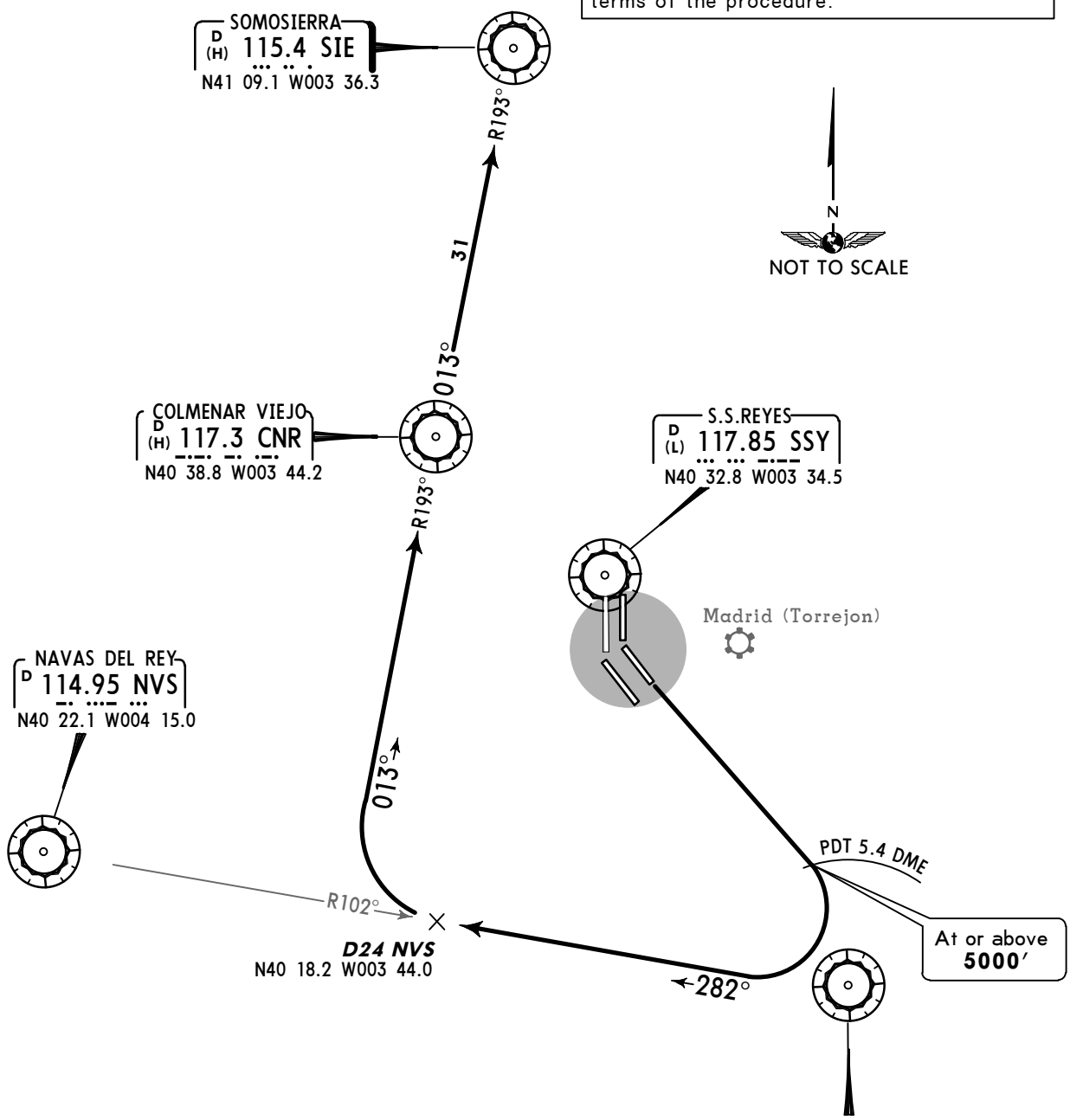
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

SOMOSIERRA TWO VICTOR (SIE 2V)
RWY 14L DEPARTURE
SPEED: MAX 250 KT BELOW 10000′

WARNING
Nearby traffic to/from Madrid (Torrejon) airport. Stay at all times within the terms of the procedure.



This SID requires a minimum climb gradient of
5.5% until leaving 5000′.

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

Between 0700-2300LT changes in initial climb track are not permitted before DER (SSY 5 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on runway heading to PDT 5.4 DME, turn RIGHT, intercept NVS R-102 inbound to D24 NVS, turn RIGHT, intercept CNR R-193 inbound to CNR, intercept SIE R-193 inbound to SIE.

CHANGES: RWY designation; warning note established; general instructions.

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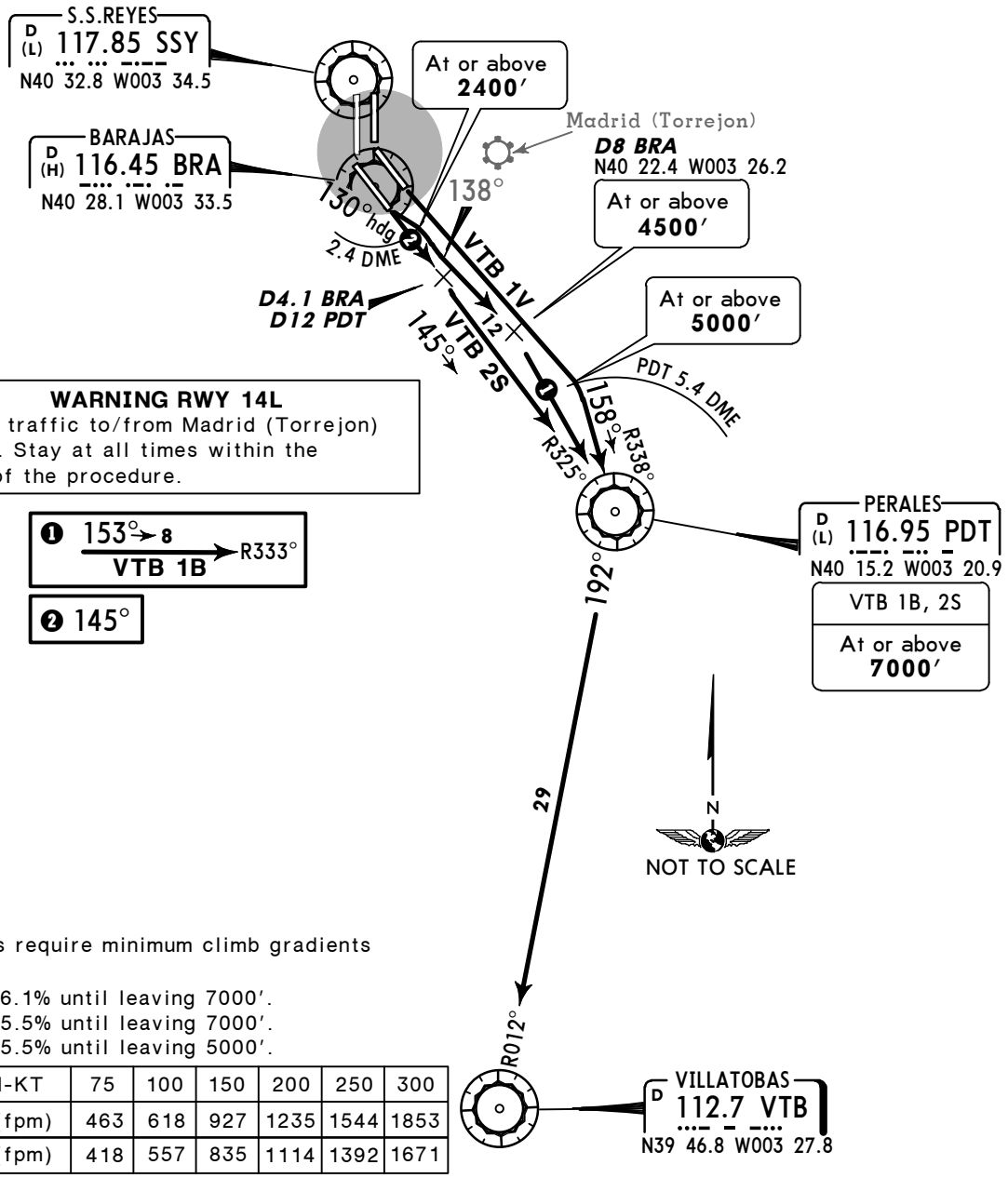
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

VILLATOBAS ONE BRAVO (VTB 1B)
VILLATOBAS TWO SIERRA (VTB 2S)
VILLATOBAS ONE VICTOR (VTB 1V)
RWYS 14R/L DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



WARNING RWY 14L
Nearby traffic to/from Madrid (Torrejon) airport. Stay at all times within the terms of the procedure.

❶ 153° → 8 → R333°
VTB 1B

❷ 145°

These SIDs require minimum climb gradients of
VTB 1B: 6.1% until leaving 7000′.
VTB 2S: 5.5% until leaving 7000′.
VTB 1V: 5.5% until leaving 5000′.

Gnd speed-KT	75	100	150	200	250	300
6.1% V/V(fpm)	463	618	927	1235	1544	1853
5.5% V/V(fpm)	418	557	835	1114	1392	1671

VTB 1B: Changes in initial climb track are not permitted before DER (BRA 1 DME).
VTB 1V: Between 0700-2300LT changes in initial climb track are not permitted before DER (SSY 5 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	RWY	ROUTING
VTB 1B Usable 2300-0700LT	**14R**	Climb on 130° heading to BRA 2.4 DME, turn RIGHT, intercept BRA R-138 to D8 BRA, turn RIGHT, intercept PDT R-333 inbound to PDT, turn RIGHT, intercept VTB R-012 inbound to VTB.
VTB 2S Usable 0700-2300LT		Climb on BRA R-145 to D4.1 BRA/D12 PDT, turn RIGHT, intercept PDT R-325 inbound to PDT, turn RIGHT, intercept VTB R-012 inbound to VTB.
VTB 1V	**14L**	Climb on runway heading to PDT 5.4 DME, turn RIGHT, intercept PDT R-338 inbound to PDT, turn RIGHT, intercept VTB R-012 inbound to VTB.

CHANGES: RWY designation; warning note established; general instructions.

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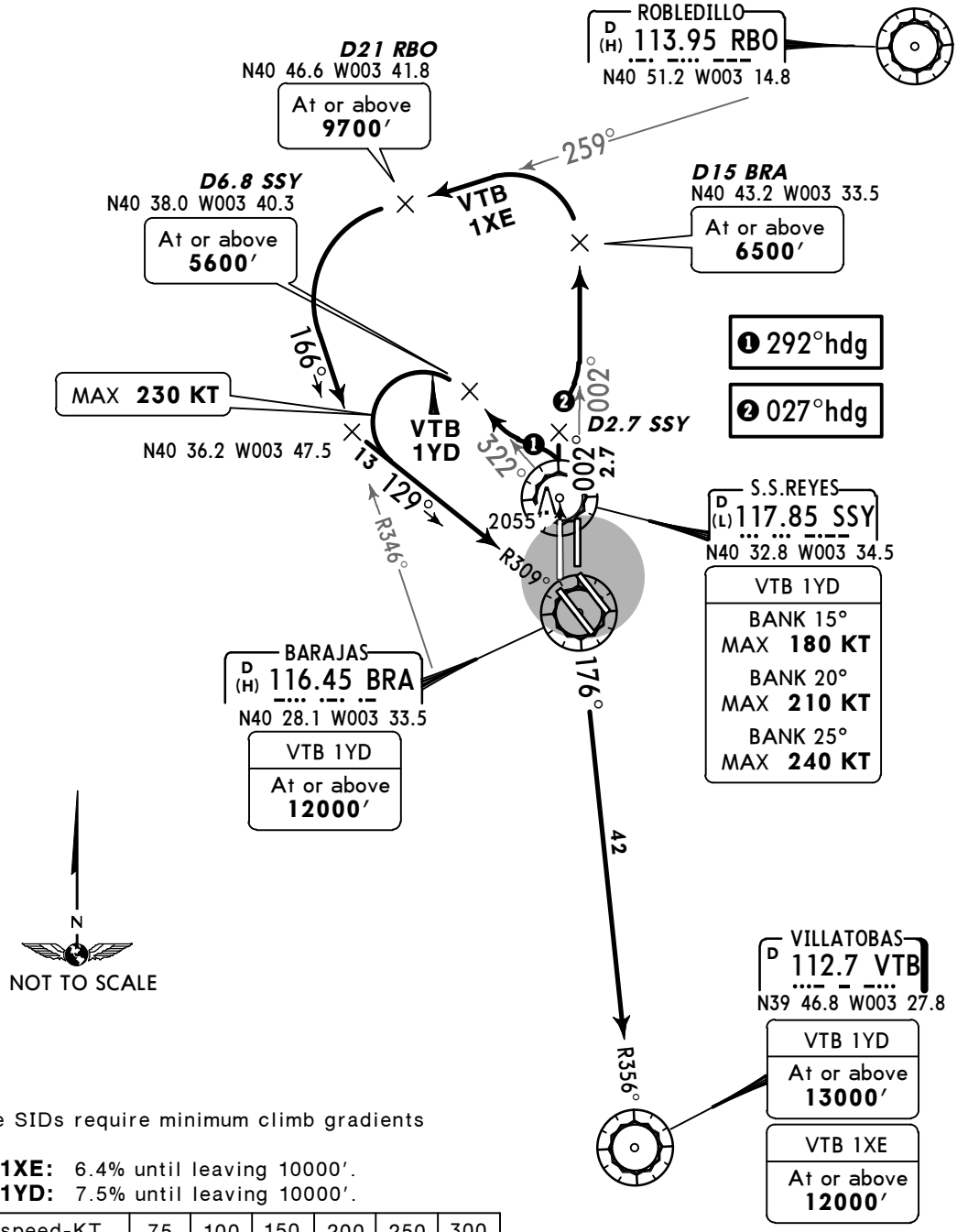
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

VILLATOBAS ONE X-RAY ECHO (VTB 1XE)
VILLATOBAS ONE YANKEE DELTA (VTB 1YD)
RWY 36L DEPARTURES

USABLE 0700-2300LT

FOR AIRCRAFT USABILITY REFER TO AIRPORT BRIEFING PAGES

SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
VTB 1XE: 6.4% until leaving 10000′.
VTB 1YD: 7.5% until leaving 10000′.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.4% V/V(fpm)	486	648	972	1296	1620	1944

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
VTB 1XE	Climb on runway heading to SSY, SSY R-002 to D2.7 SSY, turn RIGHT, 027° heading, intercept BRA R-002 to D15 BRA, turn LEFT, intercept RBO R-259 to D21 RBO, turn LEFT, intercept VTB R-346 inbound, intercept BRA R-309 inbound to BRA, turn RIGHT, intercept VTB R-356 inbound to VTB.
VTB 1YD	Climb on runway heading to SSY, turn LEFT, 292° heading, intercept SSY R-322 to D6.8 SSY, turn LEFT, intercept BRA R-309 inbound to BRA, turn RIGHT, intercept VTB R-356 inbound to VTB.

CHANGES: Reissue.

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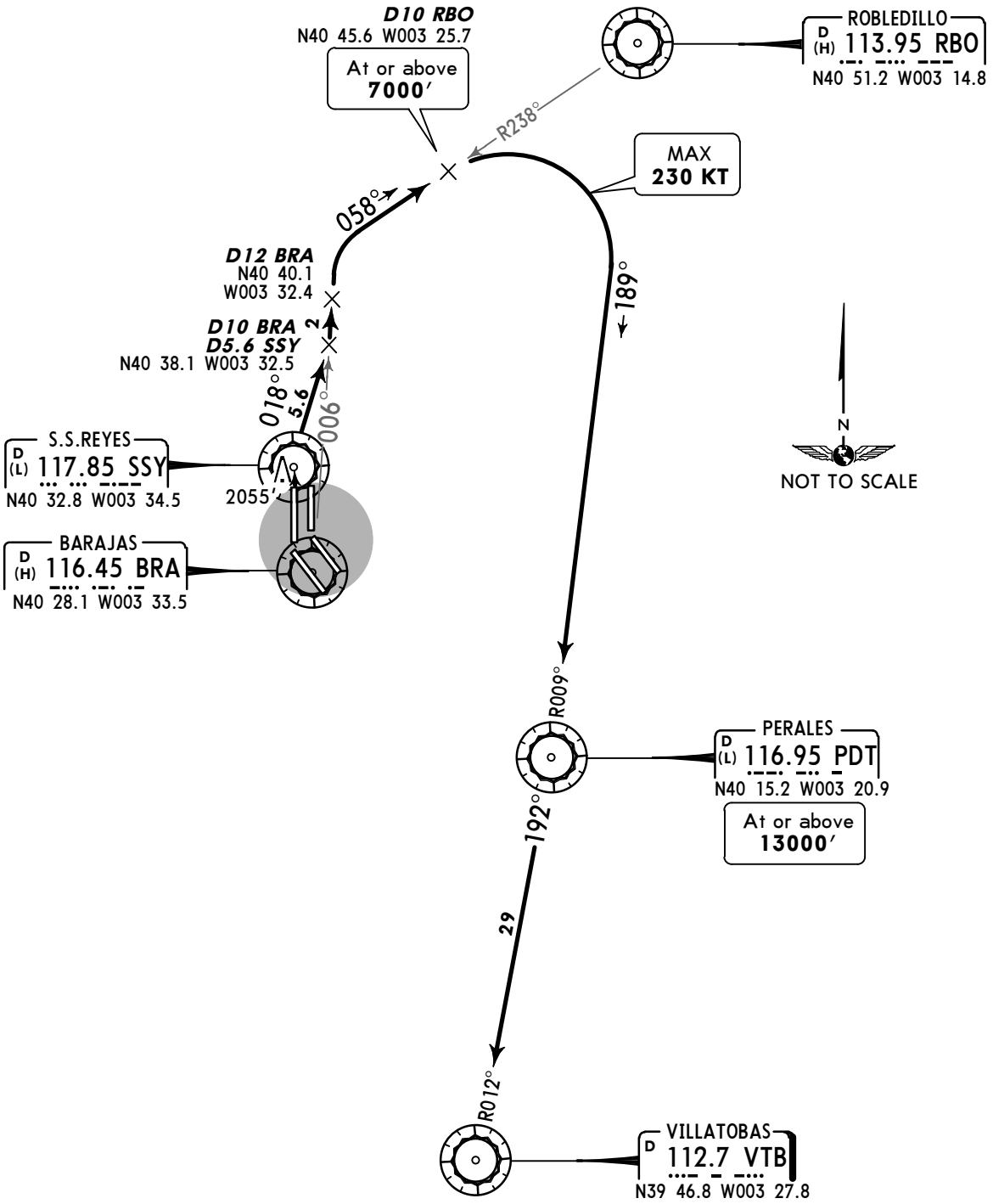
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

VILLATOBAS TWO NOVEMBER FOXTROT (VTB 2NF)
RWY 36L DEPARTURES

USABLE BETWEEN 2300-0700LT

SPEED: MAX 250 KT BELOW 10000′



This SID require a minimum climb gradient of
5.5% until leaving 8000′.

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

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on runway heading to SSY, SSY R-018 to D10 BRA/D5.6 SSY, turn LEFT, intercept BRA R-006 to D12 BRA, turn RIGHT, intercept RBO R-238 inbound to D10 RBO, turn RIGHT, intercept PDT R-009 inbound to PDT, VTB R-012 inbound to VTB.

CHANGES: None.

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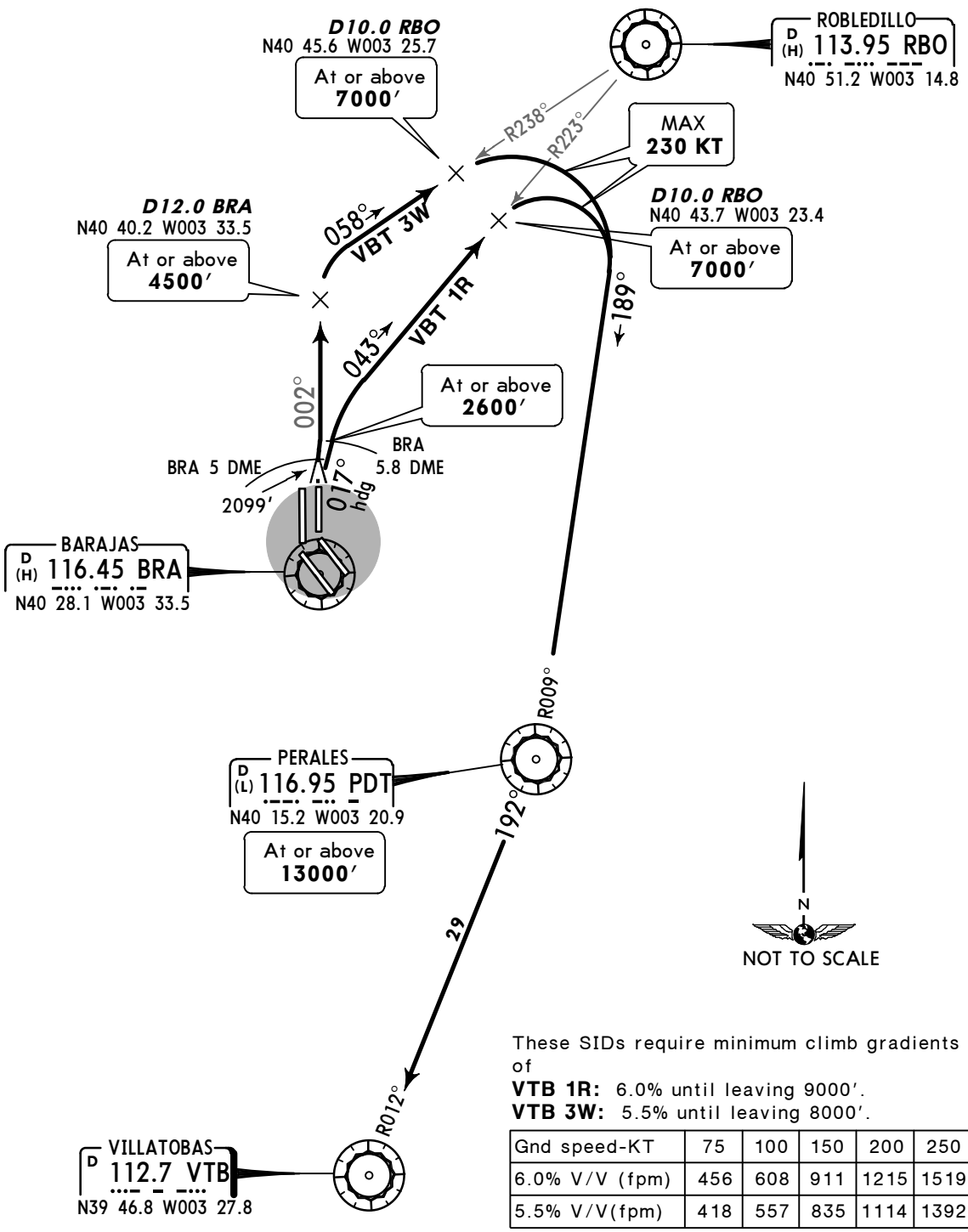
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

VILLATOBAS ONE ROMEO (VTB 1R)
VILLATOBAS THREE WHISKEY (VTB 3W)
RWY 36R DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



These SIDs require minimum climb gradients of
VTB 1R: 6.0% until leaving 9000′.
VTB 3W: 5.5% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
6.0% V/V (fpm)	456	608	911	1215	1519	1823
5.5% V/V(fpm)	418	557	835	1114	1392	1671

VTB 1R: Changes in initial climb track are not permitted before DER (BRA 4.0 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
VTB 1R Usable 0700-2300LT	Climb on 017° heading to BRA 5.8 DME, intercept RBO R-223 inbound to D10.0 RBO, turn RIGHT, intercept PDT R-009 inbound to PDT, VTB R-012 inbound to VTB.
VTB 3W Usable 2300-0700LT	Climb on runway heading to BRA 5 DME, intercept BRA R-002 to D12.0 BRA, turn RIGHT, intercept RBO R-238 inbound to D10.0 RBO, turn RIGHT, intercept PDT R-009 inbound to PDT, VTB R-012 inbound to VTB.

CHANGES: SID VTB 1R established.

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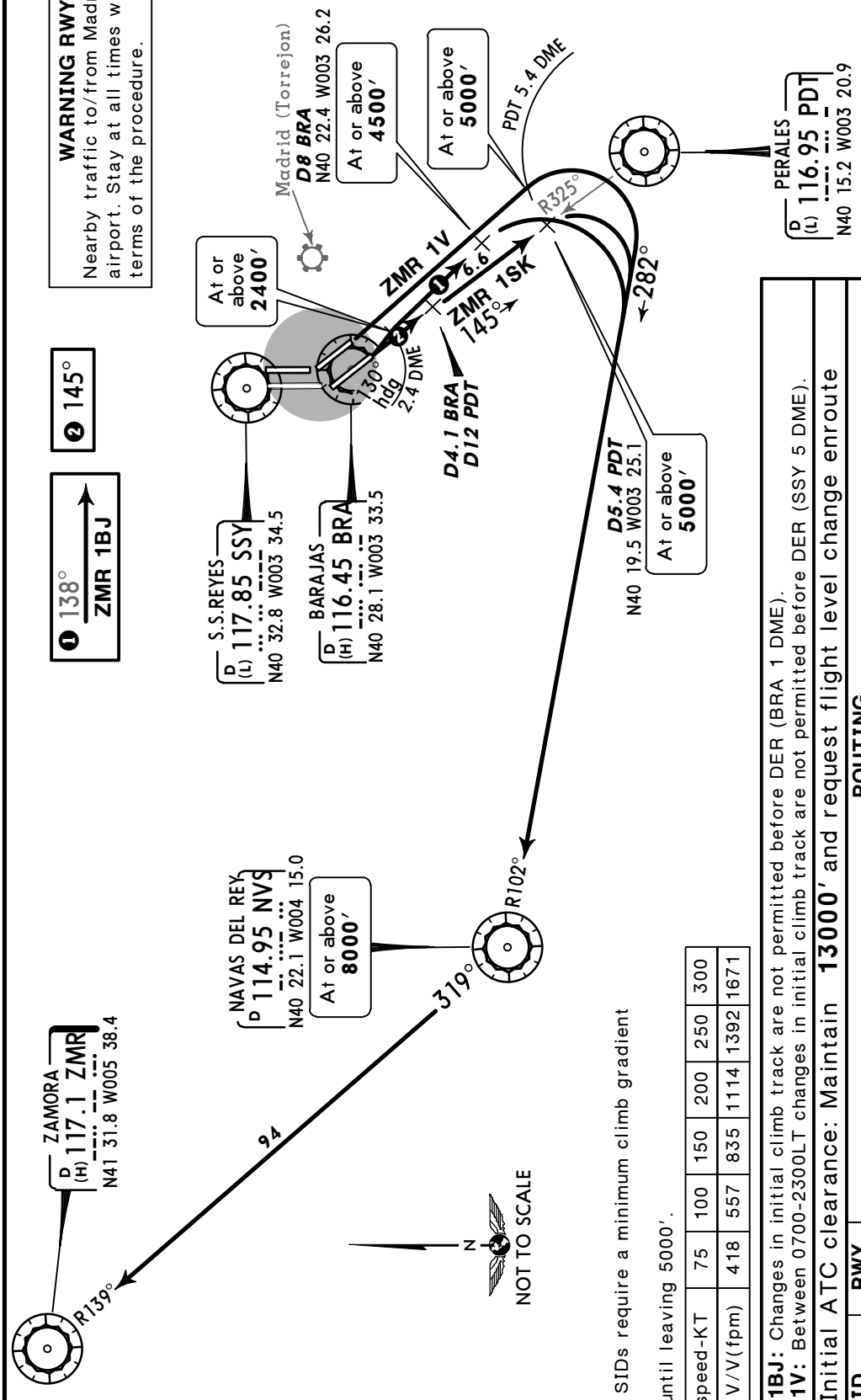
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

ZAMORA ONE BRAVO JULIETT (ZMR 1BJ)
ZAMORA ONE SIERRA KILO (ZMR 1SK)
ZAMORA ONE VICTOR (ZMR 1V)
RWYS 14R/L DEPARTURES

SPEED: MAX 250 KT BELOW 10000′

WARNING RWY 14L
Nearby traffic to/from Madrid (Torrejon) airport. Stay at all times within the terms of the procedure.



These SIDs require a minimum climb gradient of 5.5% until leaving 5000′.

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

ZMR 1BJ: Changes in initial climb track are not permitted before DER (BRA 1 DME).
ZMR 1V: Between 0700-2300LT changes in initial climb track are not permitted before DER (SSY 5 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	RWY	ROUTING
ZMR 1BJ Usable 2300-0700LT	**14R**	Climb on 130° heading to BRA 2.4 DME, turn RIGHT, intercept BRA R-138 to D8 BRA, turn RIGHT, intercept NVS R-102 inbound to NVS, turn RIGHT, intercept ZMR R-139 inbound to ZMR.
ZMR 1SK Usable 0700-2300LT		Climb on BRA R-145 to D4.1 BRA/D12 PDT, turn RIGHT, intercept PDT R-325 inbound to D5.4 PDT, turn RIGHT, intercept NVS R-102 inbound to NVS, turn RIGHT, intercept ZMR R-139 inbound to ZMR.
ZMR 1V	**14L**	Climb on runway heading to PDT 5.4 DME, turn RIGHT, intercept NVS R-102 inbound to NVS, turn RIGHT, intercept ZMR R-139 inbound to ZMR.

CHANGES: RWY designation; warning note established; general instructions.

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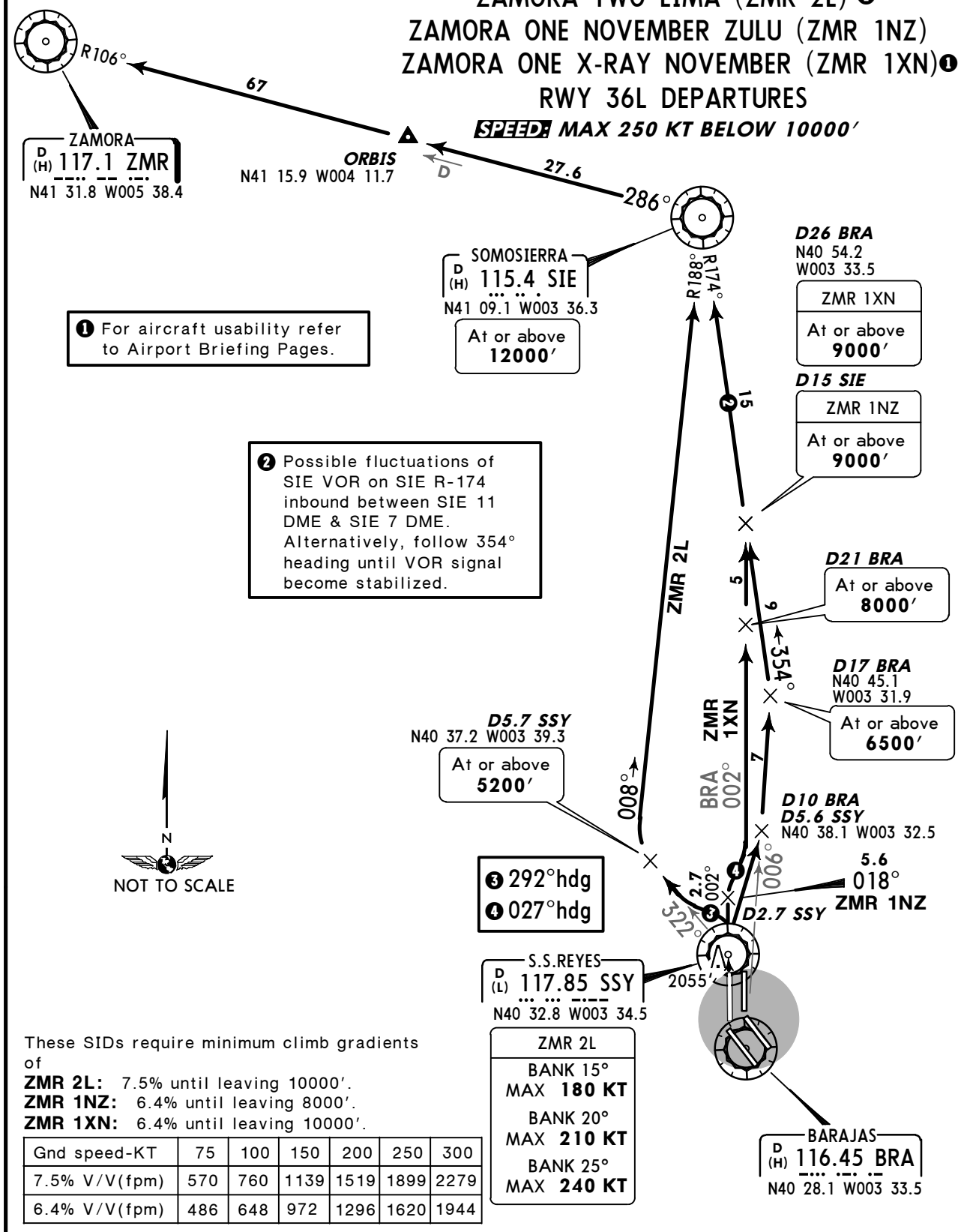
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles.

ZAMORA TWO LIMA (ZMR 2L) ❶
ZAMORA ONE NOVEMBER ZULU (ZMR 1NZ)
ZAMORA ONE X-RAY NOVEMBER (ZMR 1XN)❶
RWY 36L DEPARTURES

SPEED: MAX 250 KT BELOW 10000′



❶ For aircraft usability refer to Airport Briefing Pages.

❷ Possible fluctuations of SIE VOR on SIE R-174 inbound between SIE 11 DME & SIE 7 DME. Alternatively, follow 354° heading until VOR signal become stabilized.

❸ 292°hdg
❹ 027°hdg

ZMR 2L
BANK 15° MAX **180 KT**
BANK 20° MAX **210 KT**
BANK 25° MAX **240 KT**

These SIDs require minimum climb gradients of
ZMR 2L: 7.5% until leaving 10000′.
ZMR 1NZ: 6.4% until leaving 8000′.
ZMR 1XN: 6.4% until leaving 10000′.

Gnd speed-KT	75	100	150	200	250	300
7.5% V/V(fpm)	570	760	1139	1519	1899	2279
6.4% V/V(fpm)	486	648	972	1296	1620	1944

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

SID	ROUTING
ZMR 2L Usable 0700-2300LT	Climb on runway heading to SSY, turn LEFT, 292° heading, intercept SSY R-322 to D5.7 SSY, turn RIGHT, intercept SIE R-188 inbound to SIE, SIE R-286 via ORBIS to ZMR.
ZMR 1NZ Usable 2300-0700LT	Climb on runway heading to SSY, SSY R-018 to D10 BRA/D5.6 SSY, turn LEFT, intercept BRA R-006 to D17 BRA, turn LEFT, intercept SIE R-174 inbound to SIE, SIE R-286 via ORBIS to ZMR.
ZMR 1XN Usable 0700-2300LT	Climb on runway heading to SSY, SSY R-002 to D2.7 SSY, turn RIGHT, 027° heading, intercept BRA R-002 to D26 BRA, turn LEFT, intercept SIE R-174 inbound to SIE, SIE R-286 via ORBIS to ZMR.

CHANGES: None.

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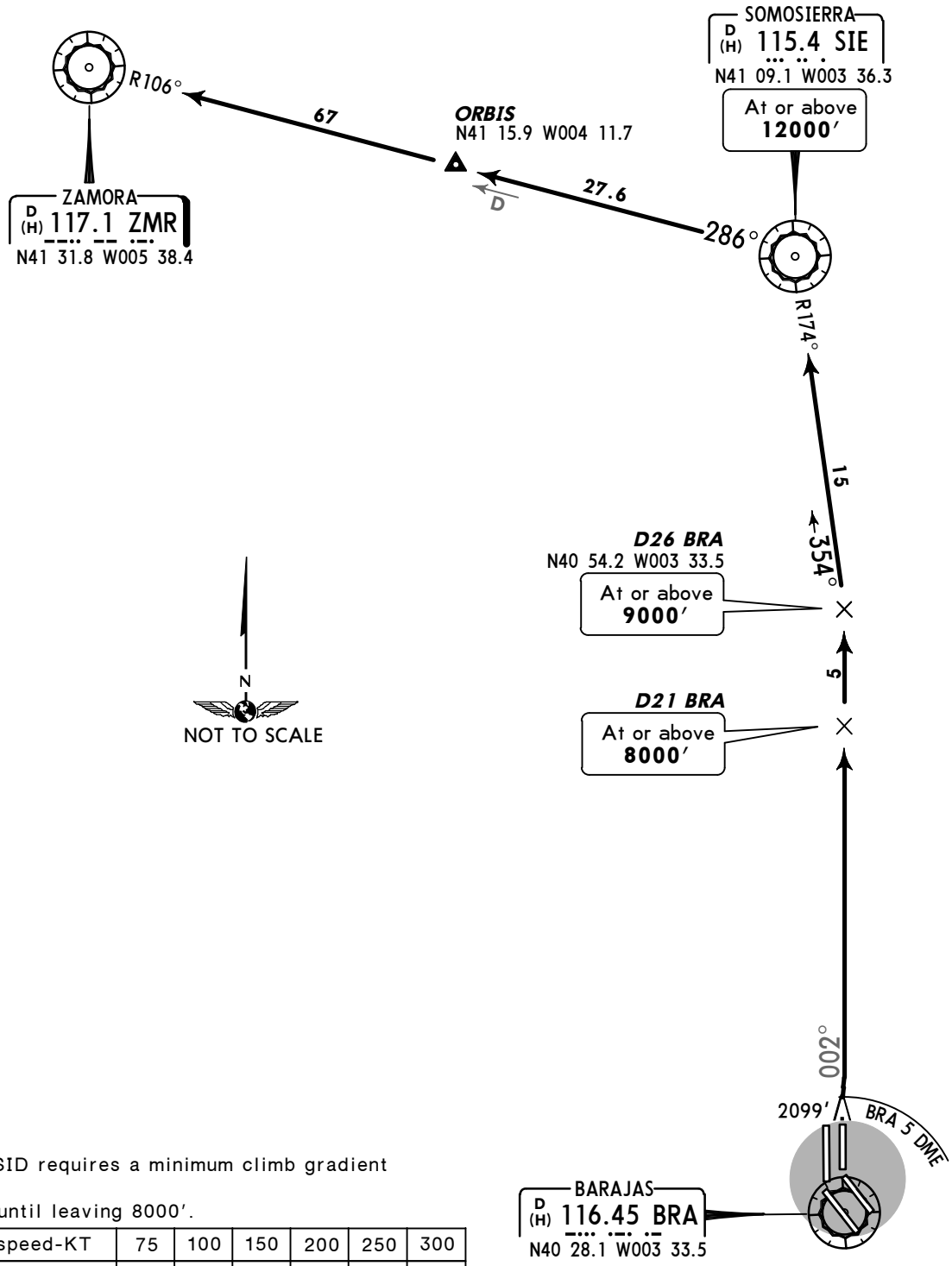
Apt Elev 1998′	Trans level: By ATC Trans alt: 13000′ 1. SIDs are also noise abatement procedures (refer to 10-4A). 2. EXPECT close-in obstacles

ZAMORA ONE WHISKEY (ZMR 1W)
RWY 36R DEPARTURE
SPEED: MAX 250 KT BELOW 10000′



This SID requires a minimum climb gradient of 6.4% until leaving 8000′.

Gnd speed-KT	75	100	150	200	250	300
6.4% V/V(fpm)	486	648	972	1296	1620	1944

Between 0700-2300LT changes in the initial departure track are not permitted before DER (BRA 4.0 DME).

Initial ATC clearance: Maintain **13000′** and request flight level change enroute

ROUTING

Climb on runway heading to BRA 5 DME, intercept BRA R-002 to D26 BRA, turn LEFT, intercept SIE R-174 inbound to SIE, turn LEFT, SIE R-286 via ORBIS to ZMR.

CHANGES: Initial climb.

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RWYS 14L, 36L CONTINGENCY DEPARTURES

Verify take-off frequency before starting take-off.

In the event of failure of BRA or PDT VORDME used for the departures from runways 14L, 36L the following procedures shall be carried out:

RWY 14L: Climb on runway heading to 5000′ and hold for ATC instructions.

RWY 36L: 2300-0700LT On runway heading to SSY, SSY R-018 to D5.6 SSY, turn LEFT, intercept SIE R-176 inbound to reach 8500′ and hold for ATC instructions.

These departures require minimum climb gradients of
RWY 14L: 5.5%.
RWY 36L: 6.4%.

Gnd speed-KT	75	100	150	200	250	300
6.4% V/V(fpm)	486	648	972	1296	1620	1944
5.5% V/V(fpm)	418	557	835	1114	1392	1671

CHANGES: New chart (Contingency departures established).

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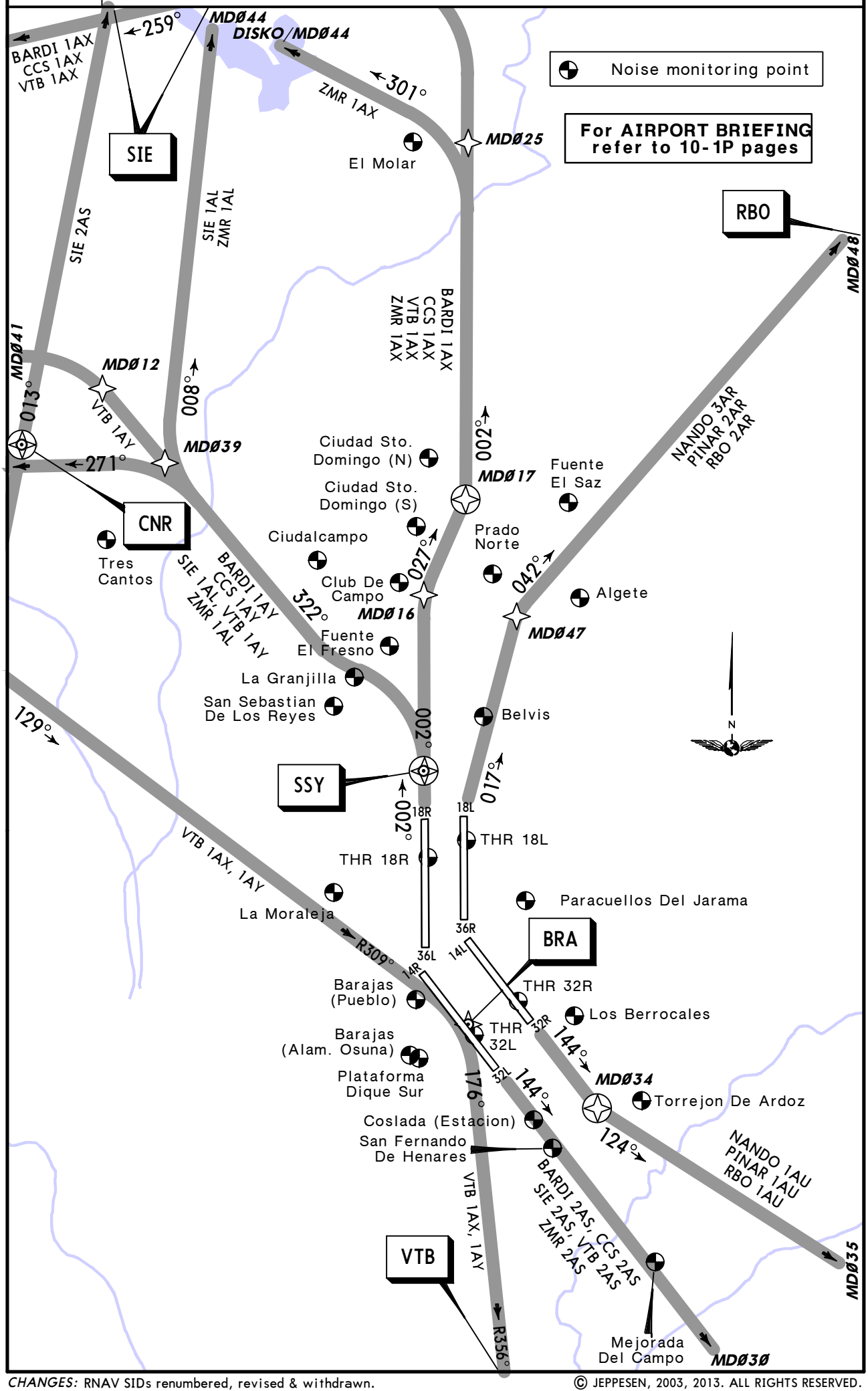
Apt Elev 1998'

NOISE ABATEMENT - P-RNAV SID



CHANGES: RNAV SIDs renumbered, revised & withdrawn.

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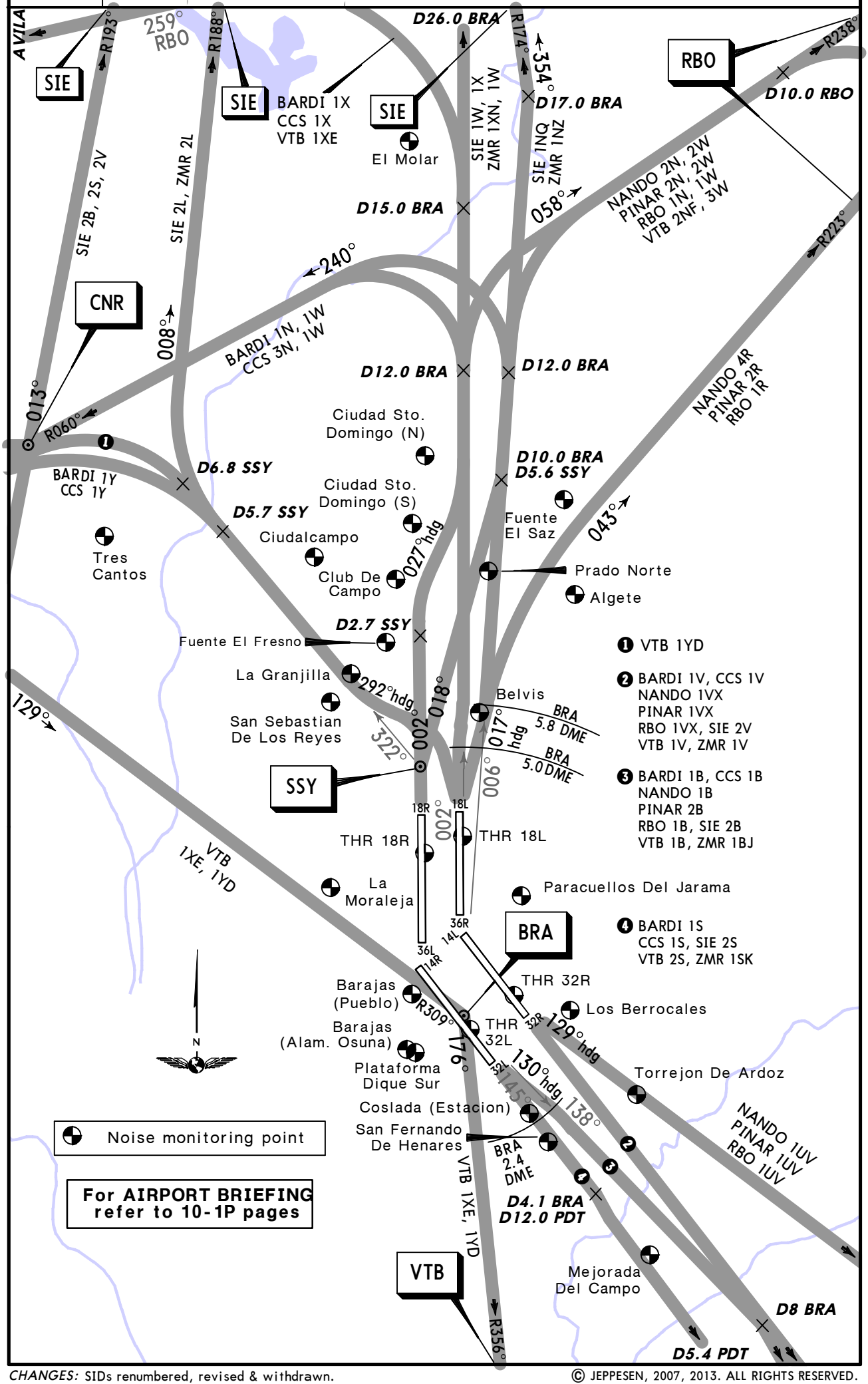
Apt Elev
1998'

NOISE ABATEMENT - SID



CHANGES: SIDs renumbered, revised & withdrawn.

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LEMD/MAD

Apt Elev **1998′**

N40 28.3 W003 33.7

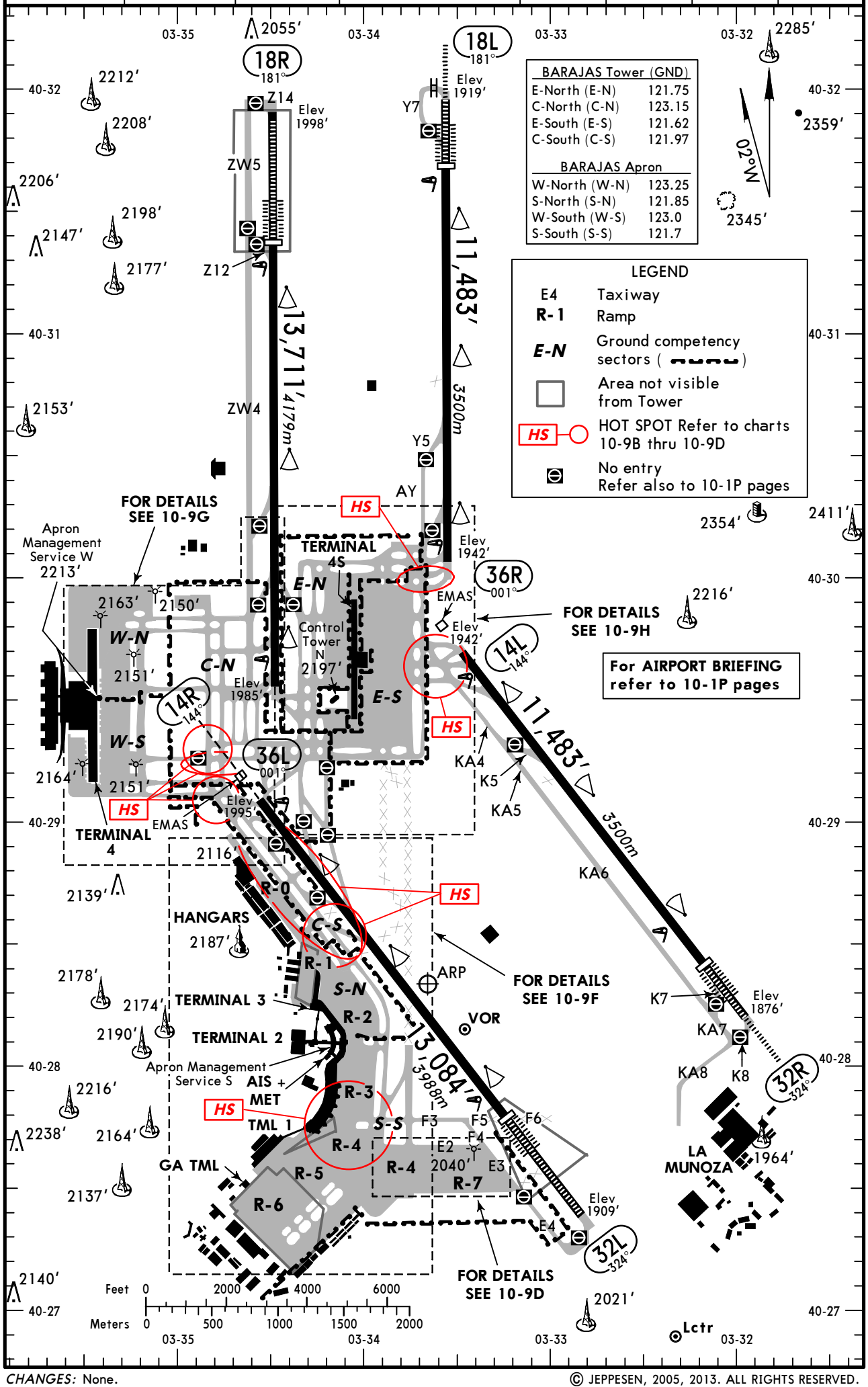
JEPPESEN

29 NOV 13 (10-9) **Eff 12 Dec**

MADRID, SPAIN

BARAJAS

ATIS Departure	BARAJAS Clearance Delivery West	BARAJAS Clearance Delivery East	Tower (GND)/Apron	Tower (DEP) Rwy 14L	Tower (DEP) Rwy 14R	Tower (DEP) Rwy 36L	Tower (DEP) Rwy 36R
130.85	130.35	130.07	For sectors see table below	118.97	118.15	118.07	118.67



CHANGES: None.

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ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
14L	HIRL *(60m)* CL *(15m)* RVR	NA		❷	197′ *60m*
32R	HIRL *(60m)* CL *(15m)* HIALS-II TDZ PAPI(3.0°) ❶ RVR	9843′ *3000m*	8932′ *2722m*	NA	

❶ HSTIL-K5 & K4
❷ TORA RWY 14L: From rwy head 11,483′(3500m)
twy K3 int 10,761′(3280m)

14R	HIRL *(60m)* CL *(15m)* RVR	NA		❹	197′ *60m*
32L	HIRL *(60m)* CL *(15m)* HIALS-II TDZ PAPI(3.0°) ❸ RVR	10,039′ *3060m*	9067′ *2764m*	NA	

❸ HSTIL-L7, L5, L4, L3 & L2
❹ TORA RWY 14R: From rwy head 13,084′(3988m)
twy L1 int 11,995′(3656m)
twy LF int 10,860′(3310m)

18L	HIRL *(60m)* CL *(15m)* HIALS-II TDZ PAPI(3.0°) ❻ RVR	9843′ *3000m*	8871′ *2704m*	NA	197′ *60m*
❺ 36R	HIRL *(60m)* CL *(15m)* RVR	NA		❼	

❺ RWY with antiskid layer.
❻ HSTIL-Y5 & Y4
❼ TORA RWY 36R: From rwy head 11,483′(3500m)
twy Y2 int 11,302′(3445m)
twy Y3 int 10,974′(3345m)

18R	HIRL *(60m)* CL *(15m)* HIALS-II TDZ PAPI(3.0°) ❾ RVR	11,040′ *3365m*	9962′ *3036m*	NA	197′ *60m*
❽ 36L	HIRL *(60m)* CL *(15m)* RVR	NA		❿	

❽ RWY with antiskid layer.
❾ HSTIL-Z10, Z8 & Z7
❿ TORA RWY 36L: From rwy head 13,711′(4179m)
twy Z6 int 12,205′(3720m)

Standard TAKE-OFF **1**

Rwys 14L/R, 36L/R
LVP must be in Force

Approved Operators	HIRL, CL & mult. RVR req	RL, CL & mult. RVR req	RL & CL	RCLM (DAY only) or RL	RCLM (DAY only) or RL	NIL (DAY only)
A	*125m*	*150m*	*200m*	*250m*	*400m*	*500m*
B						
C						
D	*150m*	*200m*	*250m*	*300m*		

1 Operators applying U.S. Ops Specs: CL required below 300m; approved HUD required below 150m.

CHANGES: Usable lengths.

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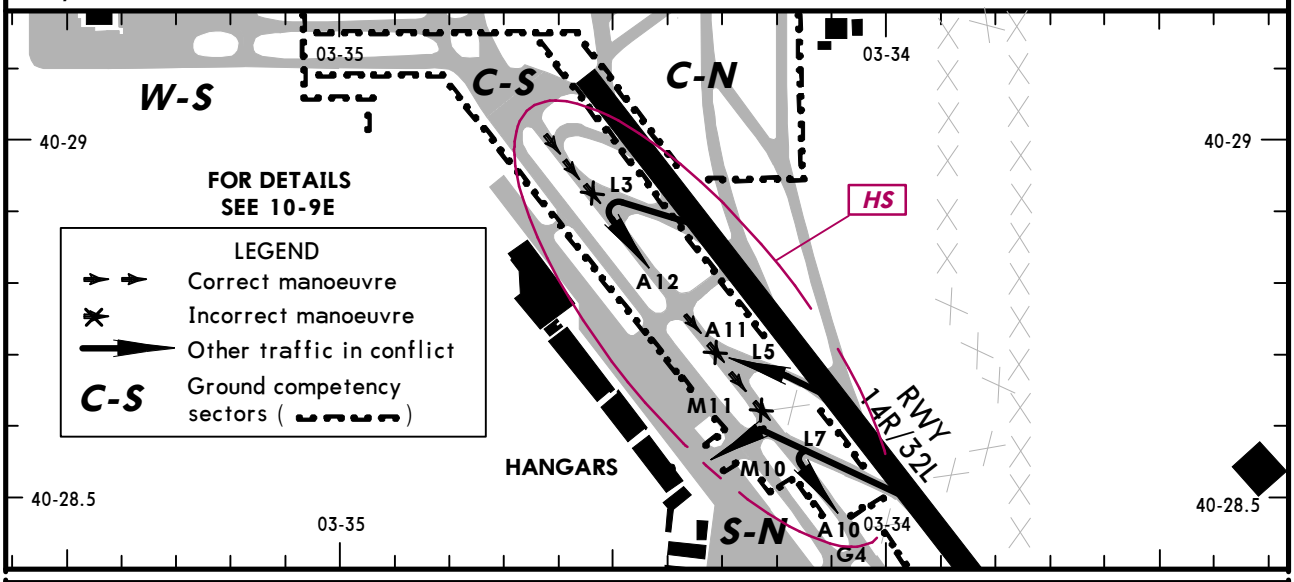
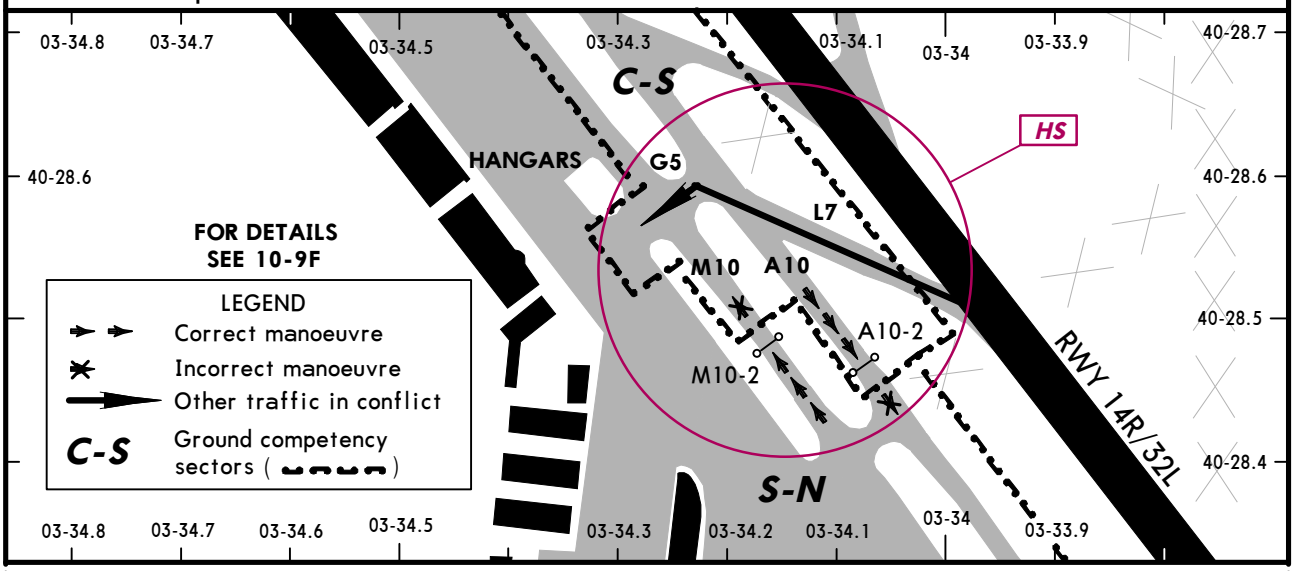
HOT SPOTS NORTH CONFIGURATION

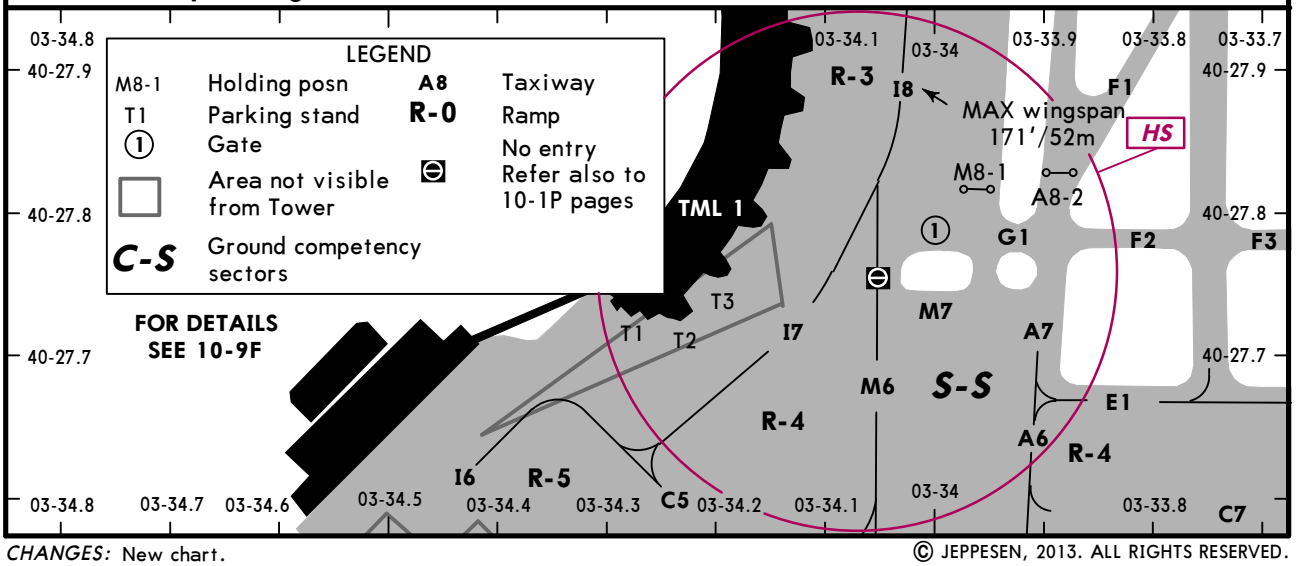
West area RWY 14R/32L. TWYs M10, M11, A10, A11 and A12.
Aircraft along TWY A **MUST GIVE WAY** to aircraft vacating runway via rapid exits L3, L5 and L7.



West area RWY 14R/32L. Apron - Tower transfer points (A10-2 and M10-2).
Aircraft taxiing along TWYs M10 and A10 w/o contact with the next unit **MUST STOP** at transfer points M10-2 and A10-2.



West area RWY 14R/32L. TWYs M6, M7 and INNER and GATE 1.
CAUTION: Area of possible disorientation. Special heed must be paid to BARAJAS Apron instructions and signaling (especially to NO ENTRY and MAX Span).
Access to parking stands T1, T2 and T3 from TWY I7 is forbidden.



CHANGES: New chart.

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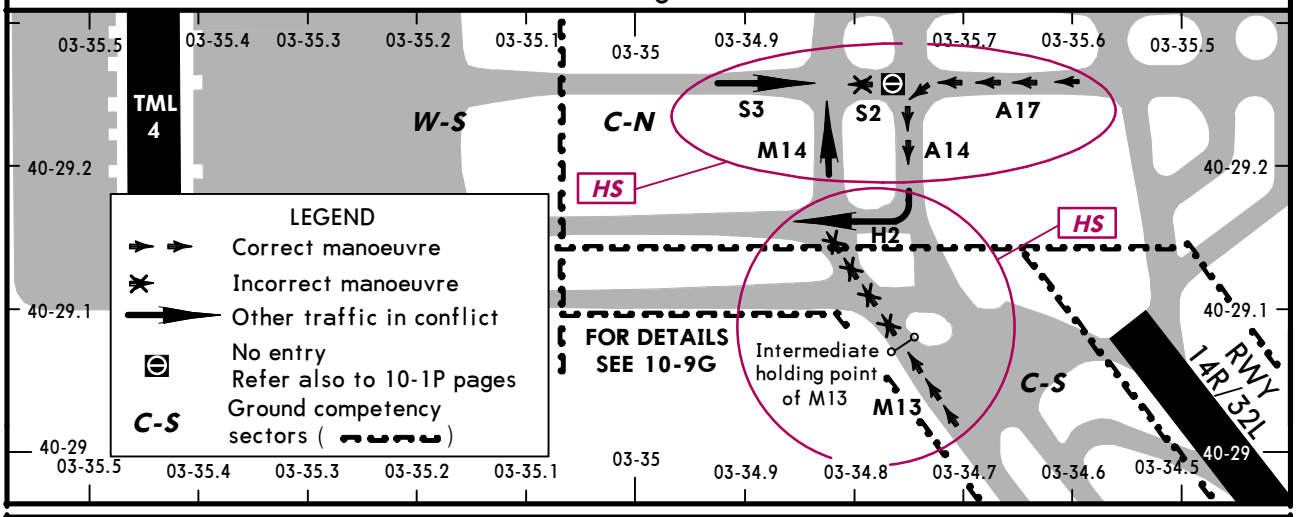
HOT SPOTS NORTH CONFIGURATION

West area near threshold RWY 14R/32L. TWY M13.

Aircraft taxiing via TWY M13 instructed to stop must do so **AT THE INTERMEDIATE HOLDING POINT OF M13**, to avoid conflict with traffic taxiing via TWY H towards Terminal T4.

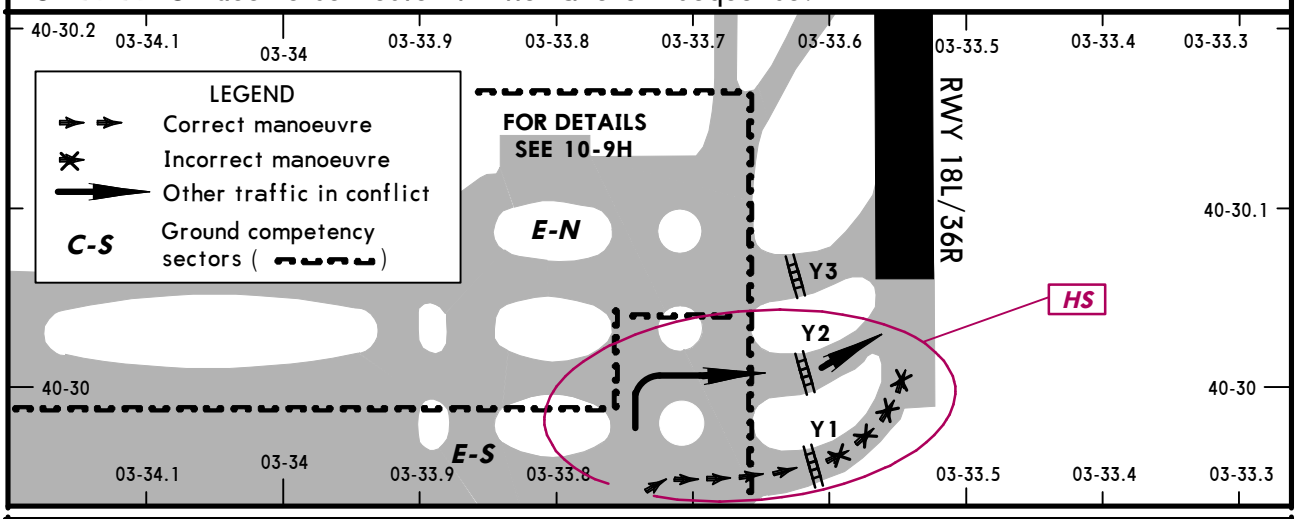
Northwest area near threshold RWY 14R/32L. Close to TWYs A17 and S2.

Aircraft taxiing via TWY A17 **MUST TURN LEFT ON TWY A14** and NOT go STRAIGHT AHEAD to avoid conflict with aircraft taxiing from TWYs S3 and M.



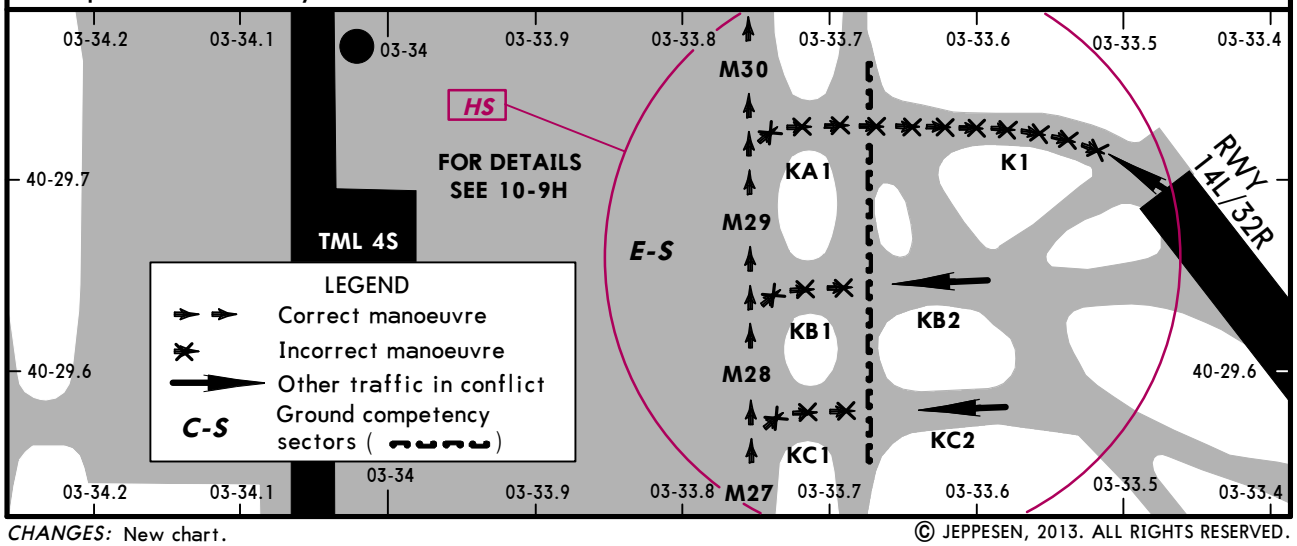
Area near threshold RWY 36R. TWYs Y1, Y2 and Y3.

Aircraft aligned on TWY Y1, Y2 or Y3 **MUST NOT ACCESS RUNWAY WITHOUT CLEARANCE** due to confusion in the take-off sequence.



Area near threshold RWY 14L. TWY M.

Aircraft taxiing via TWY M heading towards RWY 36R **MUST CONTINUE STRAIGHT AND NOT TURN RIGHT**, in order to avoid conflict with aircraft vacating RWY 32R and possible runway incursion.



CHANGES: New chart.

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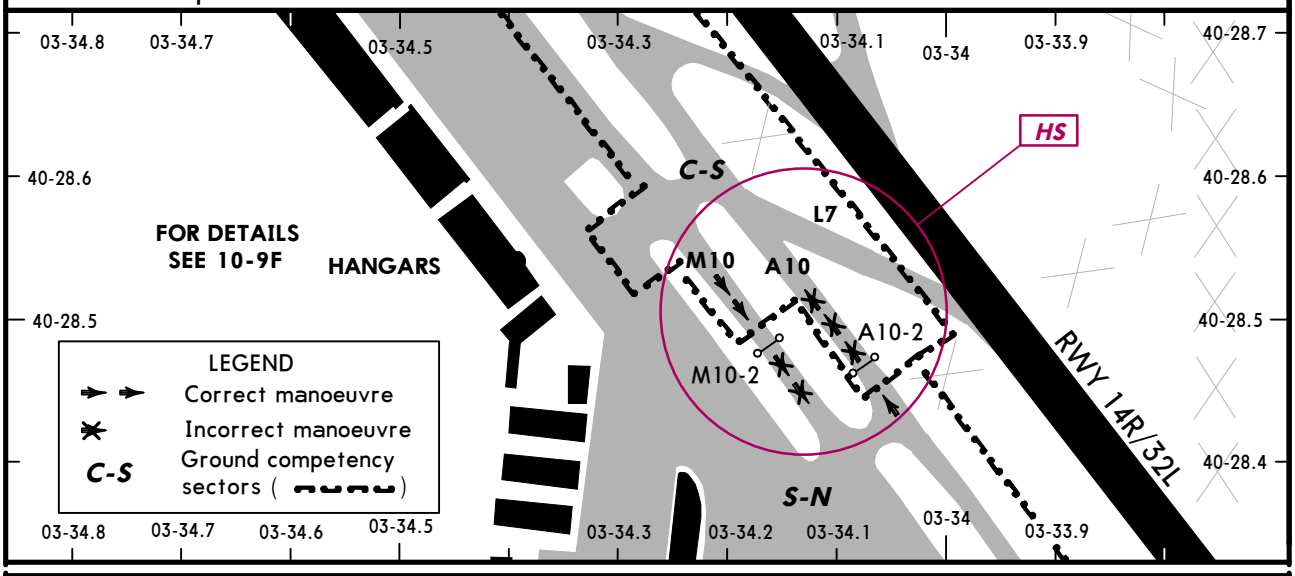
HOT SPOTS SOUTH CONFIGURATION

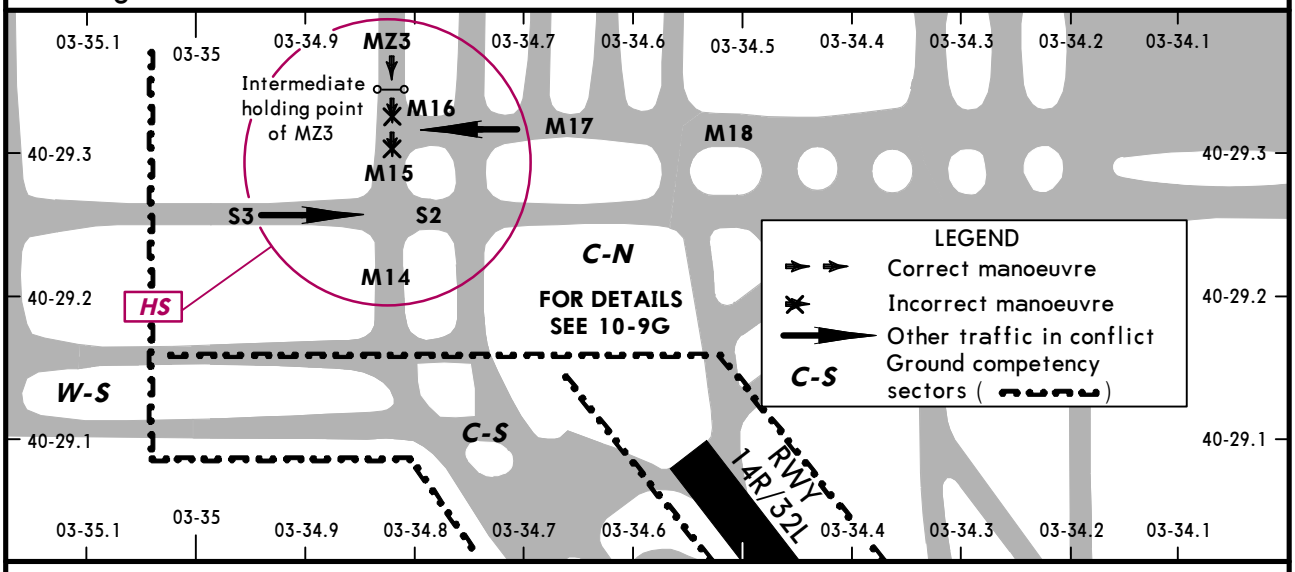
West area RWY 14R/32L.
TWYs M10 and A10 (Apron - Tower transfer points M10-2 and A10-2)

Aircraft taxiing via TWYs M10 and A10 w/o contact with the next unit **MUST STOP** at transfer points M10-2 and A10-2.



West area near threshold RWY 14R. TWYs MZ3 and M.

Aircraft coming from RWY 18R via TWY MZ instructed to hold short of TWY M **MUST STOP AT THE INTERMEDIATE HOLDING POINT OF MZ3** to avoid conflict with aircraft coming from TWYs M and S.



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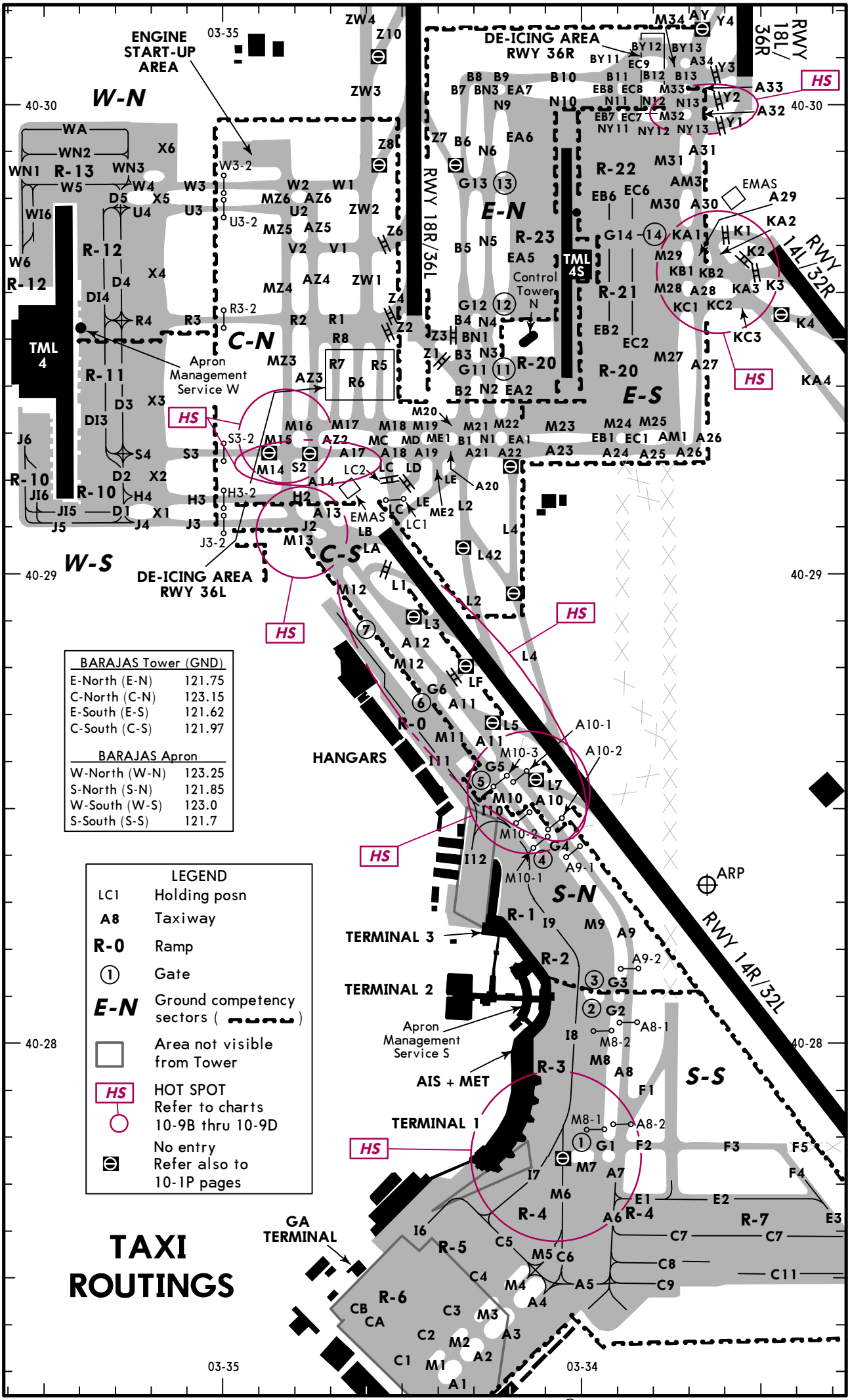

CHANGES: Push and hold areas withdrawn.

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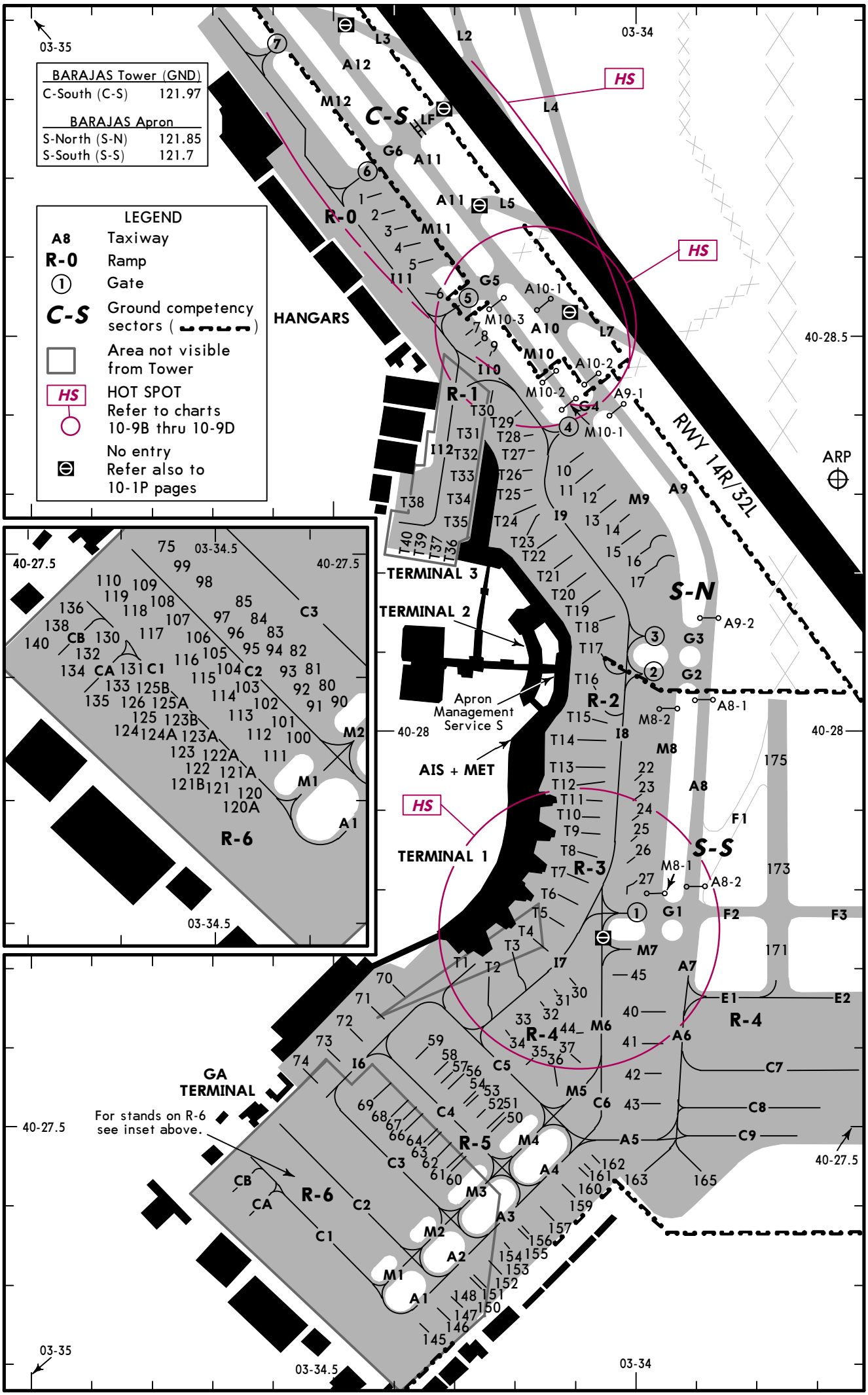

CHANGES: None.

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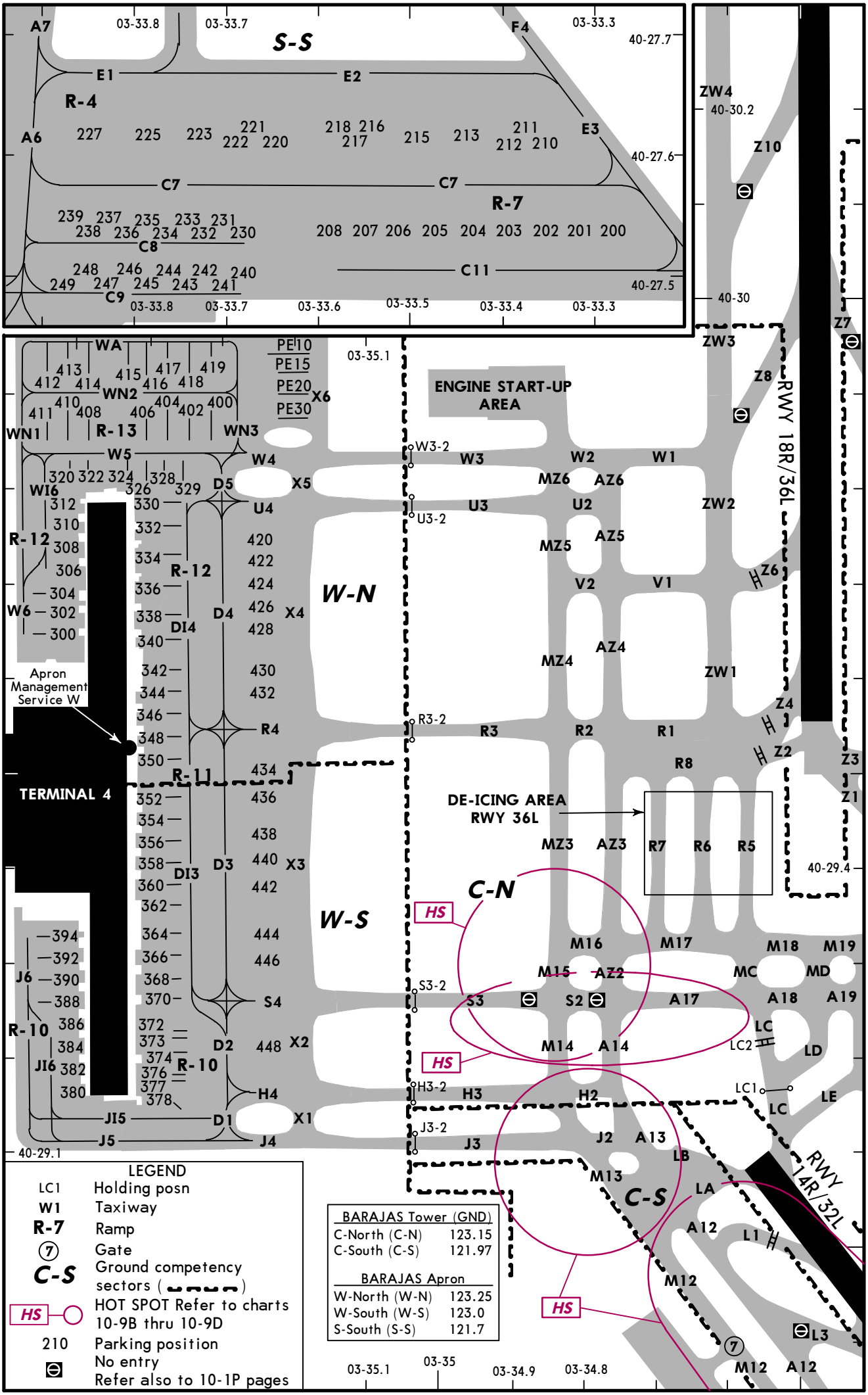

CHANGES: Push and hold areas withdrawn.

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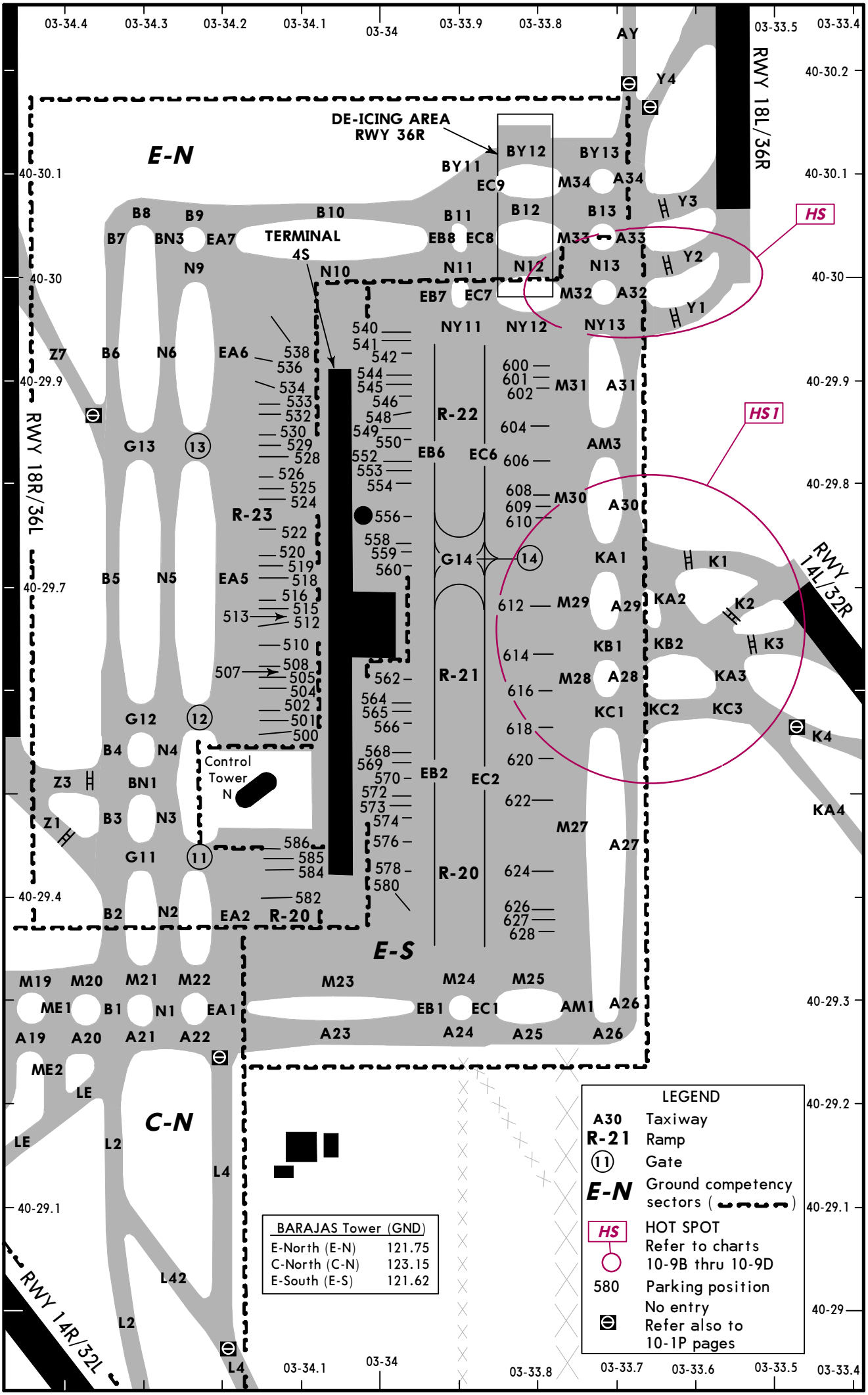

CHANGES: Push and hold areas withdrawn.

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INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
1	N40 28.7 W003 34.5	157 thru 160	N40 27.4 W003 34.1
2	N40 28.7 W003 34.4	161, 162	N40 27.4 W003 34.0
3 thru 5	N40 28.6 W003 34.4	163	N40 27.4 W003 34.0
6	N40 28.6 W003 34.3	165	N40 27.4 W003 33.9
7, 8	N40 28.5 W003 34.3	171	N40 27.7 W003 33.8
9	N40 28.5 W003 34.2	173	N40 27.8 W003 33.8
10 thru 13	N40 28.3 W003 34.1	175	N40 27.9 W003 33.8
14	N40 28.3 W003 34.0	200, 201	N40 27.5 W003 33.3
15 thru 17	N40 28.2 W003 34.0	202 thru 204	N40 27.5 W003 33.4
22	N40 28.0 W003 34.0	205 thru 207	N40 27.5 W003 33.5
23 thru 26	N40 27.9 W003 34.0	208	N40 27.5 W003 33.6
27	N40 27.8 W003 34.0	210 thru 213	N40 27.6 W003 33.4
30, 31	N40 27.7 W003 34.1	215, 216	N40 27.6 W003 33.5
32	N40 27.6 W003 34.1	217, 218	N40 27.6 W003 33.6
33 thru 35	N40 27.6 W003 34.2	220 thru 223	N40 27.6 W003 33.7
36, 37	N40 27.6 W003 34.1	225	N40 27.6 W003 33.8
40 thru 42	N40 27.6 W003 34.0	227	N40 27.6 W003 33.9
43	N40 27.5 W003 34.0	230 thru 232	N40 27.5 W003 33.7
44	N40 27.6 W003 34.1	233 thru 237	N40 27.5 W003 33.8
45	N40 27.7 W003 34.0	238, 239	N40 27.5 W003 33.9
50 thru 53	N40 27.5 W003 34.2	240 thru 242	N40 27.5 W003 33.7
54	N40 27.5 W003 34.3	243 thru 247	N40 27.5 W003 33.8
56 thru 59	N40 27.6 W003 34.3	248, 249	N40 27.5 W003 33.9
60, 61	N40 27.4 W003 34.3	300	N40 29.6 W003 35.5
62	N40 27.5 W003 34.3	302 thru 308	N40 29.7 W003 35.5
63 thru 69	N40 27.5 W003 34.4	310 thru 322	N40 29.8 W003 35.5
70	N40 27.7 W003 34.4	324 thru 328	N40 29.8 W003 35.4
71	N40 27.7 W003 34.5	329	N40 29.8 W003 35.3
72, 73	N40 27.6 W003 34.5	330, 332	N40 29.8 W003 35.4
74	N40 27.6 W003 34.6	334 thru 338	N40 29.7 W003 35.4
75	N40 27.5 W003 34.6	340 thru 346	N40 29.6 W003 35.4
80 thru 84	N40 27.4 W003 34.4	348 thru 352	N40 29.5 W003 35.4
85, 90	N40 27.4 W003 34.5	354 thru 362	N40 29.4 W003 35.4
91 thru 93	N40 27.5 W003 34.5	364 thru 370	N40 29.3 W003 35.4
94 thru 98	N40 27.4 W003 34.4	372 thru 378	N40 29.2 W003 35.4
99	N40 27.4 W003 34.5	380 thru 386	N40 29.2 W003 35.5
100, 101	N40 27.3 W003 34.4	388 thru 394	N40 29.3 W003 35.5
102 thru 106	N40 27.4 W003 34.5	400, 402	N40 29.9 W003 35.3
107, 108	N40 27.4 W003 34.6	404, 406	N40 29.9 W003 35.4
109, 110	N40 27.5 W003 34.6	408 thru 414	N40 29.9 W003 35.5
111	N40 27.3 W003 34.4	415 thru 417	N40 29.9 W003 35.4
112 thru 116	N40 27.4 W003 34.5	418, 419	N40 29.9 W003 35.3
117	N40 27.4 W003 34.6	420	N40 29.8 W003 35.3
118, 119	N40 27.5 W003 34.6	422 thru 428	N40 29.7 W003 35.3
120 thru 123B	N40 27.3 W003 34.5	430, 432	N40 29.6 W003 35.3
124	N40 27.4 W003 34.6	434, 436	N40 29.5 W003 35.3
124A	N40 27.3 W003 34.6	438 thru 442	N40 29.4 W003 35.3
125 thru 133	N40 27.4 W003 34.6	444, 446	N40 29.3 W003 35.3
134	N40 27.4 W003 34.7	448	N40 29.2 W003 35.3
135	N40 27.4 W003 34.6	500, 501	N40 29.6 W003 34.1
136	N40 27.5 W003 34.7	502 thru 510	N40 29.6 W003 34.1
138 thru 140	N40 27.4 W003 34.7	512 thru 520	N40 29.7 W003 34.1
145	N40 27.2 W003 34.3	522 thru 529	N40 29.8 W003 34.1
146 thru 148	N40 27.3 W003 34.3	530 thru 538	N40 29.9 W003 34.1
150 thru 156	N40 27.3 W003 34.2	540	N40 30.0 W003 34.0

CHANGES: None.

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INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
541 thru 549	N40 29.9 W003 34.0	T1	N40 27.7 W003 34.3
550 thru 556	N40 29.8 W003 34.0	T2, T3	N40 27.7 W003 34.2
558 thru 560	N40 29.7 W003 34.0	T4, T5	N40 27.8 W003 34.2
562 thru 566	N40 29.6 W003 34.0	T6, T7	N40 27.8 W003 34.1
568 thru 576	N40 29.5 W003 34.0	T8 thru T12	N40 27.9 W003 34.1
578, 580	N40 29.4 W003 34.0	T13 thru T15	N40 28.0 W003 34.1
582 thru 586	N40 29.4 W003 34.1	T16 thru T18	N40 28.1 W003 34.1
600 thru 604	N40 29.9 W003 33.8	T19, T21	N40 28.2 W003 34.1
606 thru 610	N40 29.8 W003 33.8	T22	N40 28.2 W003 34.2
612	N40 29.7 W003 33.8	T23 thru T26	N40 28.3 W003 34.2
614 thru 618	N40 29.6 W003 33.8	T27 thru T29	N40 28.4 W003 34.2
620, 622	N40 29.5 W003 33.8	T30 thru T32	N40 28.4 W003 34.3
624 thru 628	N40 29.4 W003 33.8	T33 thru T35	N40 28.3 W003 34.3
PE10, PE15	N40 30.0 W003 35.2	T36, T37	N40 28.2 W003 34.3
PE20, PE30	N40 29.9 W003 35.2	T38	N40 28.3 W003 34.4
		T39 thru T40	N40 28.2 W003 34.4

CHANGES: Chart reindexed.

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VISUAL DOCKING GUIDANCE SYSTEM

A. GENERAL

This system contains information about azimuth guidance (shows the aircraft position with relation to the centerline of the parking area) and distance to the stop position by means, in both cases, of the achieve of images by an optical sensor that sends the sign to a computer in order to process them and to provide the information to the pilot by a display unit, in front of the cockpit.

B. DISPLAY UNIT

The display unit to the pilot is designed by 5 modules LCD in 2 sections. As a consequence of the pixel technology, each module allows to show letters, numbers and also symbols. The size of the characters of the display allows the reading from a distance of approximately 328′/100m. If the aircraft is seeded, the situation of the aircraft respect of the docking centerline is indicated by means of the symbol of a plane in the low section of the unit. The lateral diversion with regard to the docking centerline of guided and the remaining distance to the stop point are also presented in a clear and unequivocal way. Beginning from a distance of 98′/30m to the stop point, the remaining distance is showed in an additional way in the top section of the unit. When the blocks are placed, the unit presents in an optional way the message "CHOCK ON" using the special push-button installed in the apron area.

C. PILOT INSTRUCTIONS

The following sequence of events identifies how a pilot would use this system to dock an aircraft at this gate.

1. GATE READY FOR DOCKING.
Aircraft type and gate number are alternated in a flashing sequence across the top of display board.

2. AIRCRAFT DETECTED.
When the aircraft is detected, only the aircraft type is displayed steady across the top of the display. At this point, the symbol of a plane is showed across the bottom of the display and the pilot will obtain information about the remaining distance to the stop point as a consequence of passing by fixed distances from stop point as well as azimuth guidance with regard to the centerline:

98′/30m to 66′/20m	16′/5m steps
66′/20m to 33′/10m	7′/2m steps
33′/10m to 3′/1m	3′/1m steps
3′/1m to STOP	0.7′/0.2m steps

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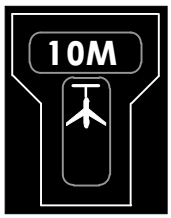
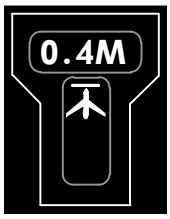
VISUAL DOCKING GUIDANCE SYSTEM

3. AIRCRAFT IS RIGHT OF CENTERLINE.
Correction to the LEFT is required.

4. AIRCRAFT IS LEFT OF CENTERLINE.
Correction to the RIGHT is required.



5. AIRCRAFT IS ON CENTERLINE.
It is 33′/10m to final stop position.
Important: Approach slowly to final stop position.



6. AIRCRAFT IS ON CENTERLINE.
It is 1.3′/0.4m to final stop position.
Prepare to stop the aircraft.

7. STOP.
Stop now, docking point reached.

8. OK.
Successful docking.

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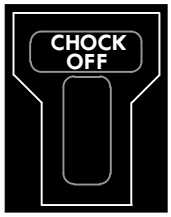
VISUAL DOCKING GUIDANCE SYSTEM

9. TOO FAR.
Aircraft has gone beyond docking position.

10. ESTOP (EMERGENCY STOP).
Stop aircraft immediately,
wait for docking instructions from
TWR to resume docking procedure.

11. CHOCKS INSERTED AND CHOCKS REMOVED.
When the chocks are inserted, the docking guidance presents the message CHOCK-ON during 5 minutes.



12. When the chocks are removed, the docking guidance presents the message CHOCK-OFF and it stays during 10 seconds.

If the following events occur, the pilot must stop the docking procedure, report problem to TWR and wait for further instructions:

- Displayed aircraft type is not the incoming aircraft.
- Display board become unreadable (loss of display).
- ESTOP message is displayed.
- Pilot believes system is transmitting erroneous docking data.
- Display board illuminates error messages.

If the system does not detect the aircraft and the pilot does not get a steady aircraft type read out on the top of display until the aircraft nose reached the passengers boarding bridge, pilot should contact TWR and wait for a marshall guidance.

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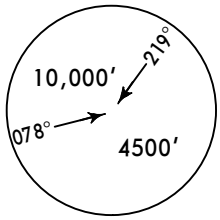
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.67	

BRIEFING STRIP ™

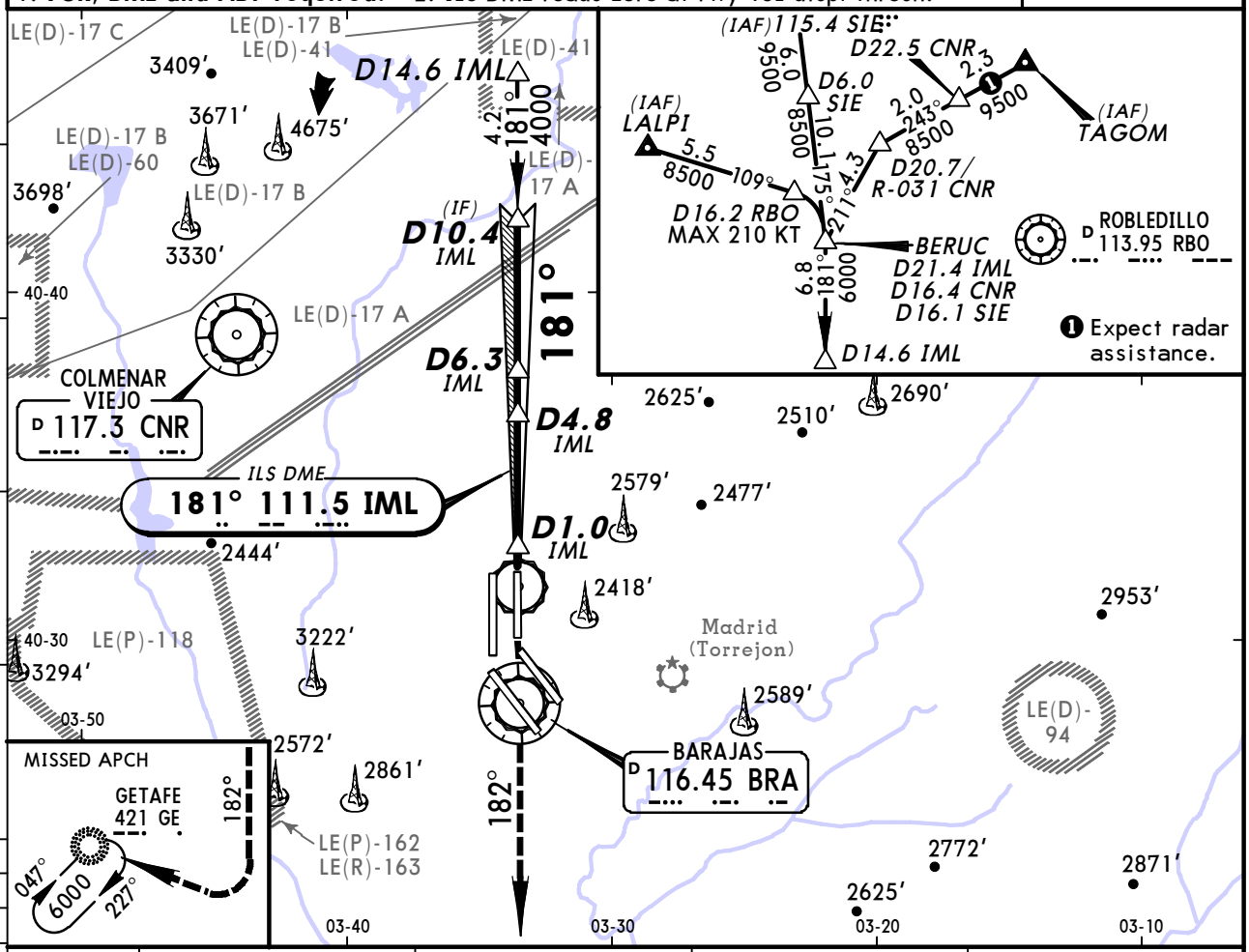
LOC IML	Final Apch Crs	GS	ILS DA(H)	Apt Elev 1998′
111.5	**181°**	**D6.3 IML** **4000′** (2078′)	Refer to Minimums	RWY **1922′**

MISSED APCH: Climb on rwy heading to BRA VOR. Continue on R-182 BRA until reaching 6000′, then turn RIGHT to GE NDB to join holding at 6000′. Do not climb above 6000′.

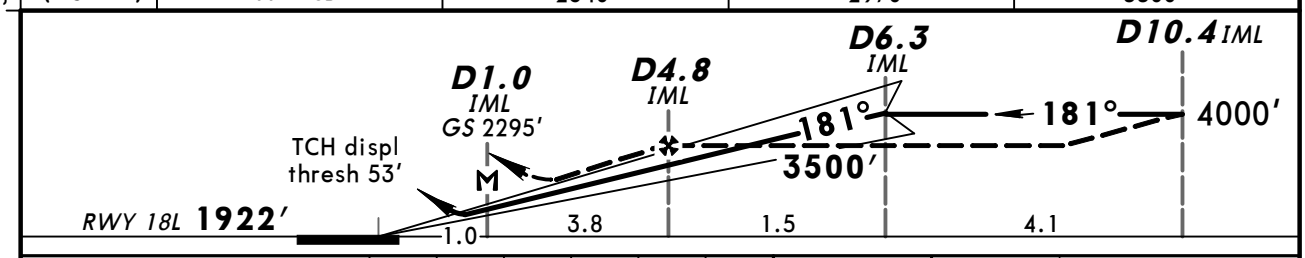
Alt Set: hPa Rwy Elev: 68 hPa Trans level: By ATC Trans alt: 13000′
1. **VOR, DME and ADF required.** 2. ILS DME reads zero at rwy 18L displ thresh.



MSA BRA VOR



LOC (GS out)	IML DME	2.0	3.0	4.0
	ALTITUDE	2640′	2970′	3300′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.10°	384	494	548	658	768	878
MAP at D1.0 IML							

HIALS-II
PAPI PAPI
BRA
116.45
on
Rwy hdg

Standard STRAIGHT-IN LANDING RWY **18L**

ILS DA(H)		LOC (GS out) DA(H) 2410′ (488′)	
AB: **2122′** (200′)	C: **2129′** (207′) D: **2140′** (218′)		
FULL	Limited	ALS out	ALS out

PANS OPS

	FULL	Limited	ALS out		ALS out
A	RVR 550m	RVR 750m	RVR 1200m	RVR 1500m	
B					
C				RVR 1500m	CMV 2300m
D					

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

CHANGES: Initial apch. Notes.

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LEMD/MAD
BARAJAS

JEPPESEN

29 NOV 13
Eff 12 Dec
(11-1A)

MADRID, SPAIN
CAT II/III ILS Z Rwy 18L

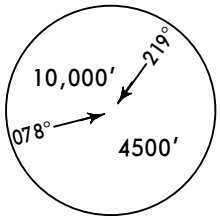
BRIEFING STRIP ™

ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.67	

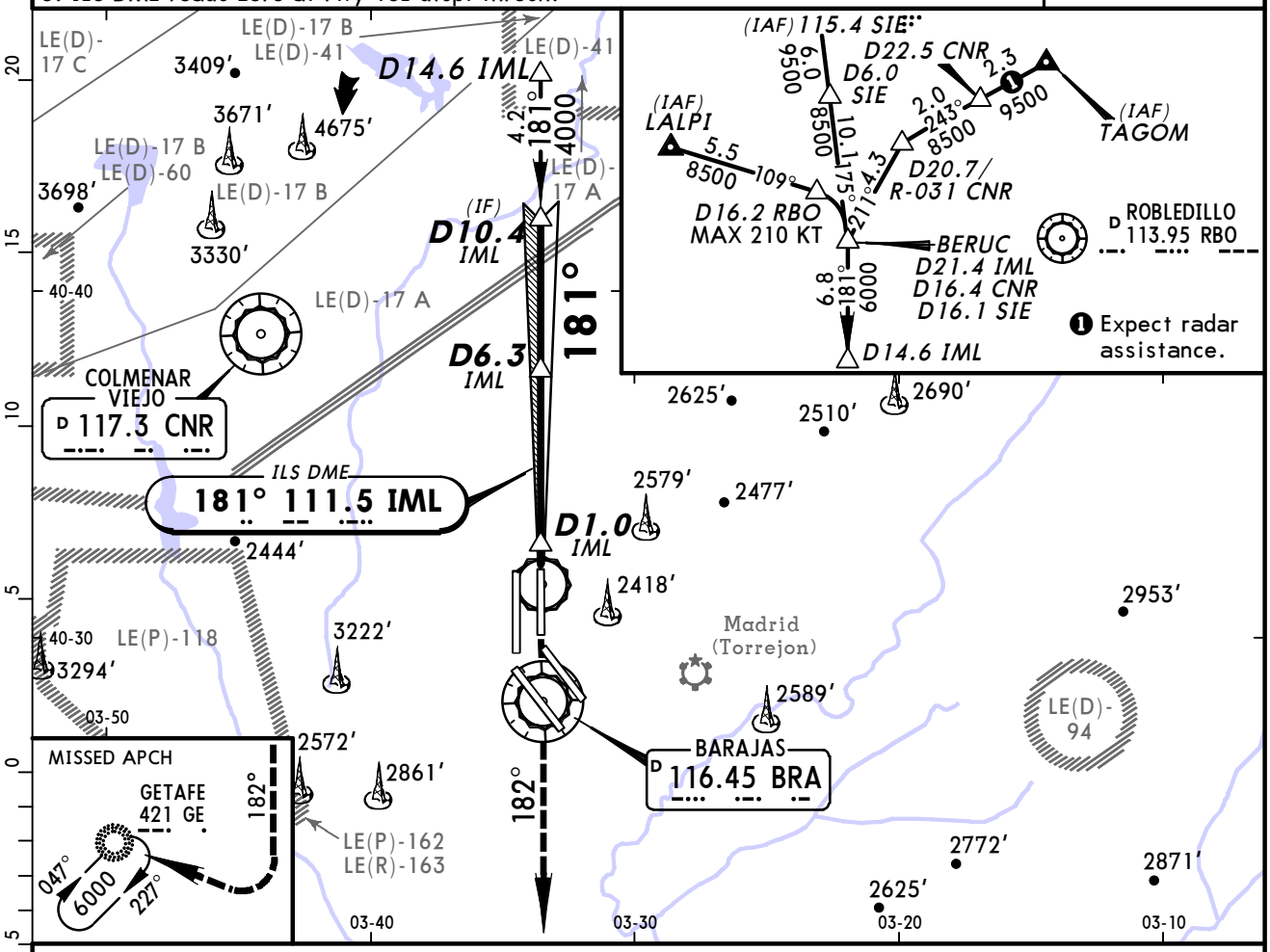
LOC IML	Final Apch Crs	GS	CAT II & IIIA ILS	Apt Elev 1998′
111.5	**181°**	**D6.3 IML** **4000′** (2078′)	Refer to Minimums	RWY **1922′**

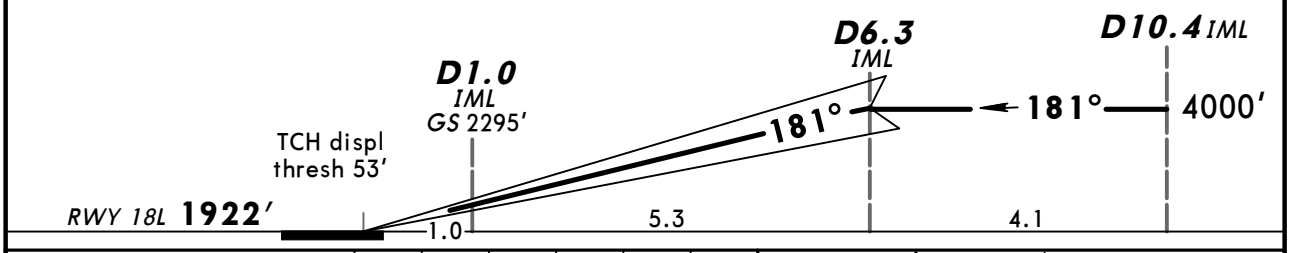
MISSED APCH: Climb on rwy heading to BRA VOR. Continue on R-182 BRA until reaching 6000′, then turn RIGHT to GE NDB to join holding at 6000′. Do not climb above 6000′.

Alt Set: hPa Rwy Elev: 68 hPa Trans level: By ATC Trans alt: 13000′
1. **VOR, DME and ADF required.** 2 Special Aircrew & Acft Certification Required.
3. ILS DME reads zero at rwy 18L displ thresh.



MSA
BRA VOR





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

HIALS-II
PAPI PAPI
BRA
116.45
on
Rwy hdg

Standard

STRAIGHT-IN LANDING RWY **18L**

CAT IIIA ILS	CAT II ILS AB	CAT II ILS C	CAT II ILS D
DH **50′**	RA **104′** DA(H) **2022′**(100′)	RA **114′** DA(H) **2032′**(110′)	RA **129′** DA(H) **2046′**(124′)
RVR 200m	RVR 300m [1]		RVR 400m

PANS OPS

[1] Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

CHANGES: Initial apch. Notes.

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LEMD/MAD
BARAJAS

JEPPESEN

29 NOV 13 (11-2) **Eff 12 Dec**

MADRID, SPAIN
ILS Y Rwy 18L

BRIEFING STRIP ™

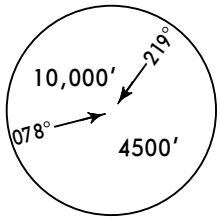
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.67	

LOC IML	Final Apch Crs	GS	ILS DA(H)	Apt Elev 1998′
111.5	**181°**	**D6.3 IML** **4000′** (2078′)	Refer to Minimums	RWY **1922′**

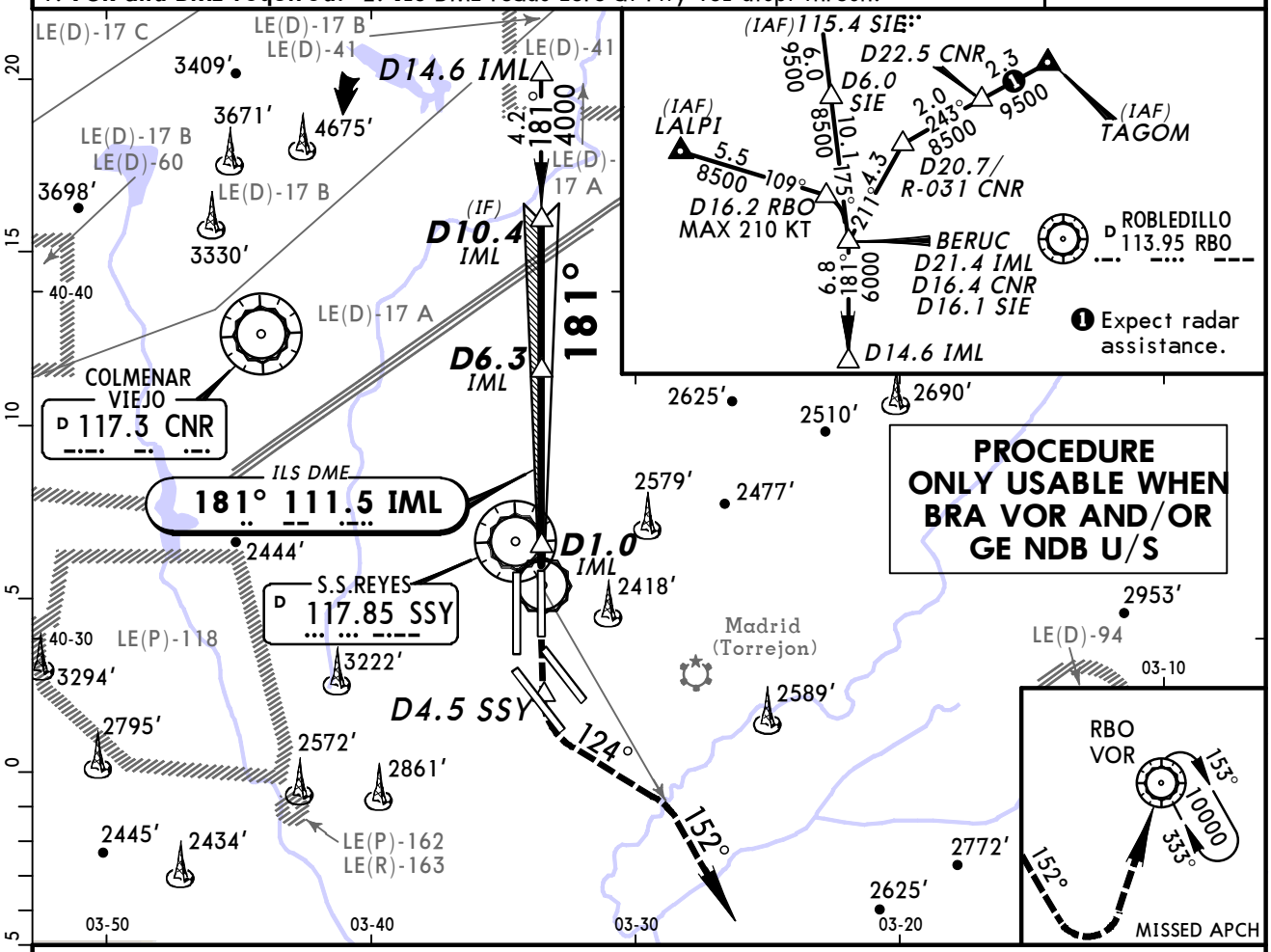
MISSED APCH: Climb on rwy heading to D4.5 SSY, then turn LEFT onto 124°. Intercept R-152 SSY. At 4500′ turn LEFT to RBO VOR to join holding at 10000′. Contact ATC before reaching 4000′ and follow instructions.

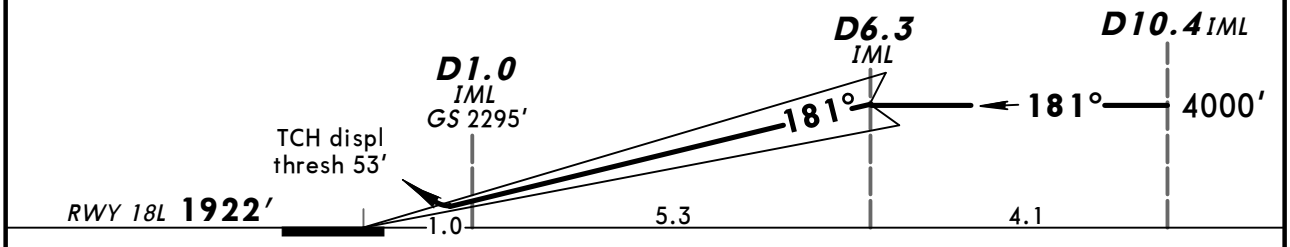
Alt Set: hPa Rwy Elev: 68 hPa Trans level: By ATC Trans alt: 13000′

1. **VOR and DME required.** 2. ILS DME reads zero at rwy 18L displ thresh.



MSA SSY VOR





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

HIALS-II PAPI PAPI

D4.5 SSY on Rwy hdg

Standard STRAIGHT-IN LANDING RWY **18L**

DA(H) AB: **2122′** (200′) C: **2129′** (207′) D: **2140′** (218′)

	FULL	Limited	ALS out
A	RVR *550m*	RVR *750m*	RVR *1200m*
B			
C			
D			

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

PANS OPS

CHANGES: Initial apch. Notes.

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LEMD/MAD
BARAJAS

JEPPESEN

29 NOV 13
Eff 12 Dec

(11-2A)

MADRID, SPAIN
CAT II/III ILS Y Rwy 18L

BRIEFING STRIP ™

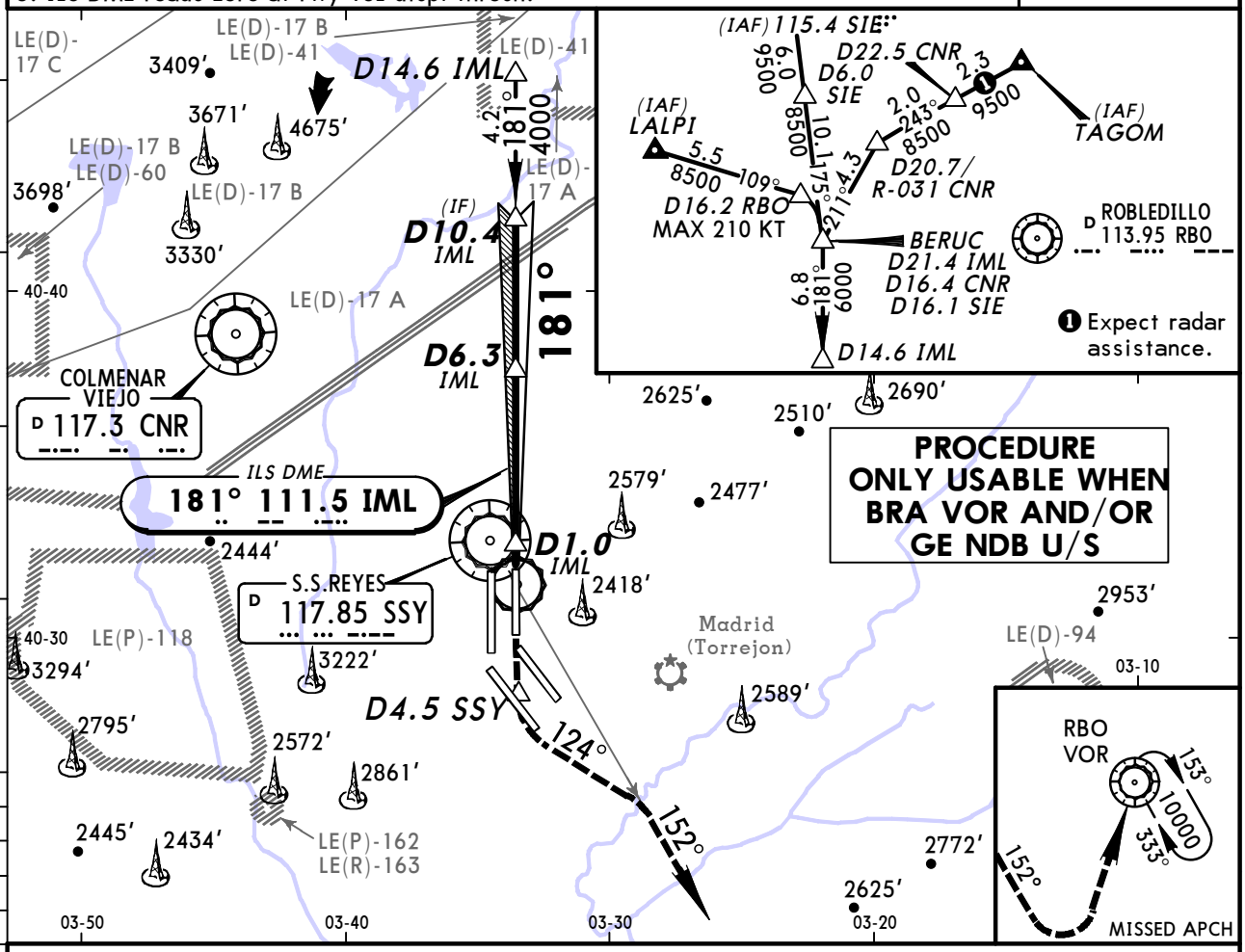
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.67	

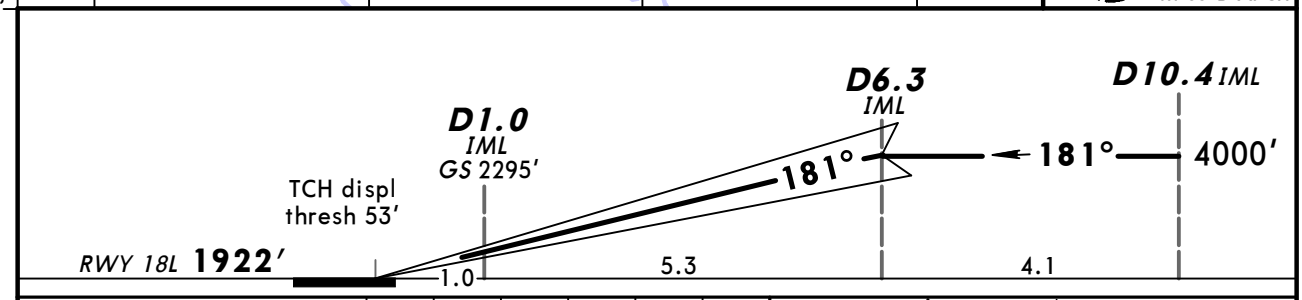
LOC IML	Final Apch Crs	GS	CAT II & IIIA ILS	Apt Elev 1998′
111.5	**181°**	**D6.3 IML** **4000′** (2078′)	Refer to Minimums	RWY **1922′**

MISSED APCH: Climb on rwy heading to D4.5 SSY, then turn LEFT onto 124°. Intercept R-152 SSY. At 4500′ turn LEFT to RBO VOR to join holding at 10000′. Contact ATC before reaching 4000′ and follow instructions.

Alt Set: hPa Rwy Elev: 68 hPa Trans level: By ATC Trans alt: 13000′
1. **VOR and DME required.** 2 Special Aircrew & Acft Certification Required.
3. ILS DME reads zero at rwy 18L displ thresh.

MSA SSY VOR: 10,000′ (078°–219°), 4500′





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

HIALS-II, PAPI, PAPI

D4.5 SSY on Rwy hdg

PANS OPS

Standard STRAIGHT-IN LANDING RWY **18L**

CAT IIIA ILS	CAT II ILS AB	CAT II ILS C	CAT II ILS D
DH **50′**	RA **104′** DA(H) **2022′**(100′)	RA **114′** DA(H) **2032′**(110′)	RA **129′** DA(H) **2046′**(124′)
RVR 200m	RVR 300m [1]		RVR 400m

[1] Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

CHANGES: Initial apch. Notes.

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LEMD/MAD
BARAJAS

JEPPESEN

29 NOV 13
Eff 12 Dec

(11-3)

MADRID, SPAIN
ILS Z or LOC Rwy 18R

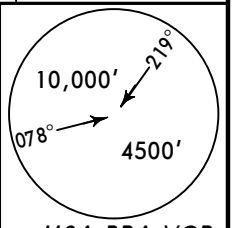
BRIEFING STRIP ™

ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.07	

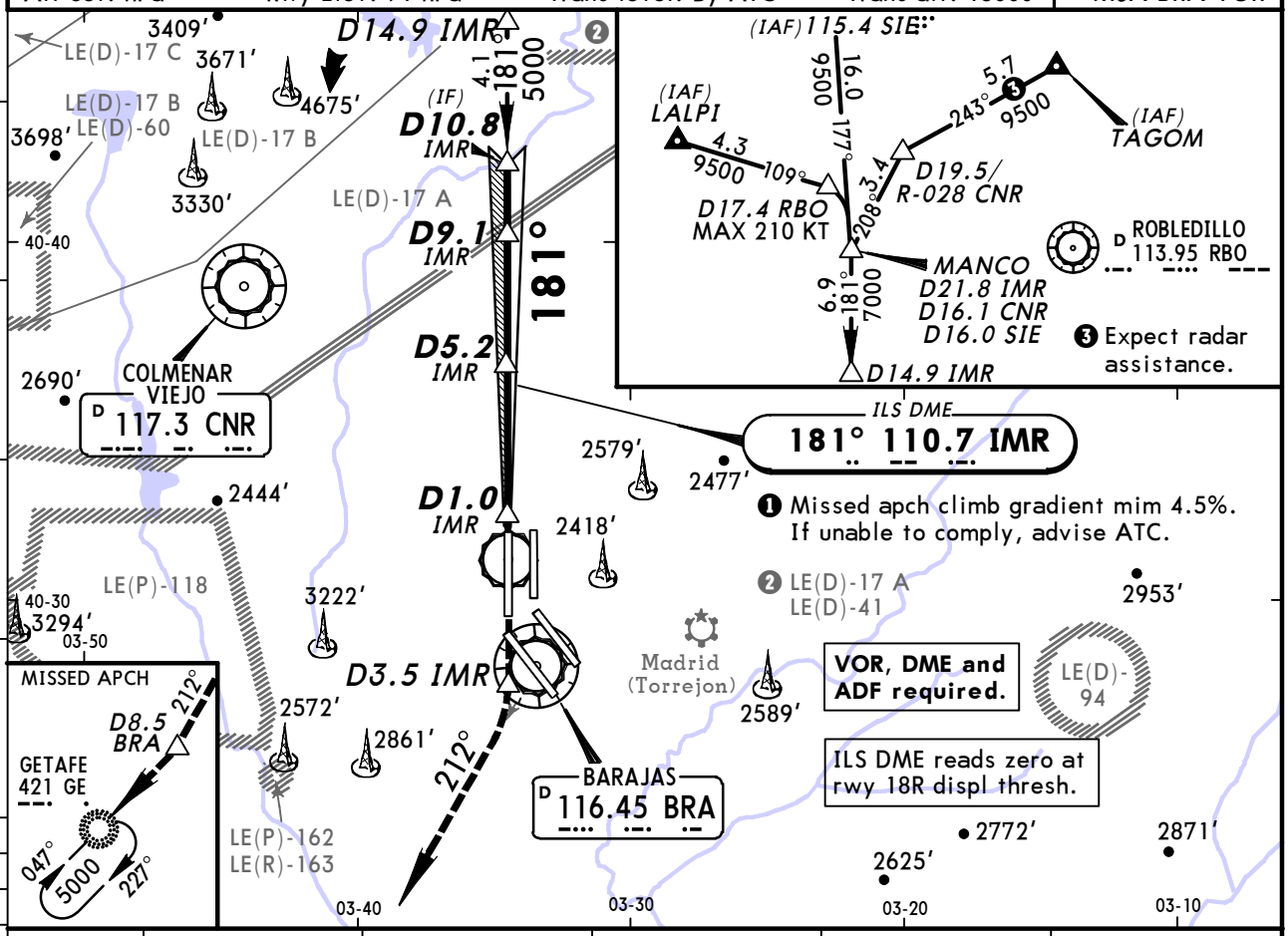
LOC IMR	Final Apch Crs	GS D9.1 IMR	ILS DA(H)	Apt Elev 1998′
110.7	**181°**	**5000′** (3009′)	**2191′** (200′)	RWY **1991′**

MISSED APCH: Climb on rwy heading to D3.5 IMR, then turn RIGHT (MAX 220 KT) to intercept R-212 BRA. Cross D8.5 BRA at 5000′, then turn RIGHT (MAX 220 KT) to GE NDB to join holding at 5000′. Do not climb above 5000′. ❶

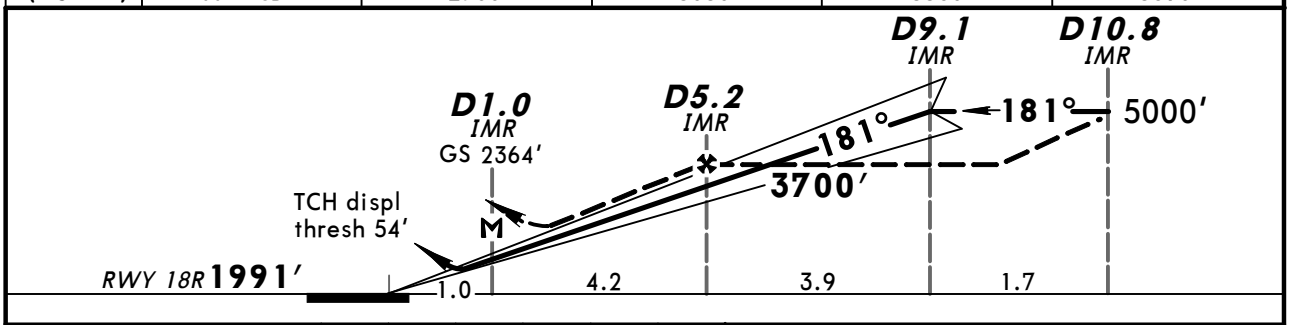
Alt Set: hPa | Rwy Elev: 71 hPa | Trans level: By ATC | Trans alt: 13000′



MSA BRA VOR



LOC (GS out)	IMR DME	2.0	3.0	4.0	5.0
	ALTITUDE	2700′	3030′	3360′	3690′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.10°	384	494	548	658	768	878
MAP at D1.0 IMR							

HIALS-II PAPI PAPI — D3.5 IMR on Rwy hdg

Standard STRAIGHT-IN LANDING RWY **18R**

	ILS DA(H) 2191′ (200′)			LOC (GS out) DA(H) 2480′ (489′)		CIRCLE-TO-LAND		
	FULL	Limited	ALS out		ALS out	Max Kts	MDA(H)	VIS
A	RVR 550m	RVR 750m	RVR 1200m	RVR 1500m		100	2720′ (722′)	1500m
B						135	2860′ (862′)	1600m
C				RVR 1500m	CMV 2300m	180	3280′ (1282′)	2400m
D						205	3620′ (1622′)	3600m

PANS OPS

CHANGES: Initial apch. Notes.

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LEMD/MAD
BARAJAS

JEPPESEN

29 NOV 13
Eff 12 Dec

(11-3A)

MADRID, SPAIN
CAT II/III ILS Z Rwy 18R

BRIEFING STRIP

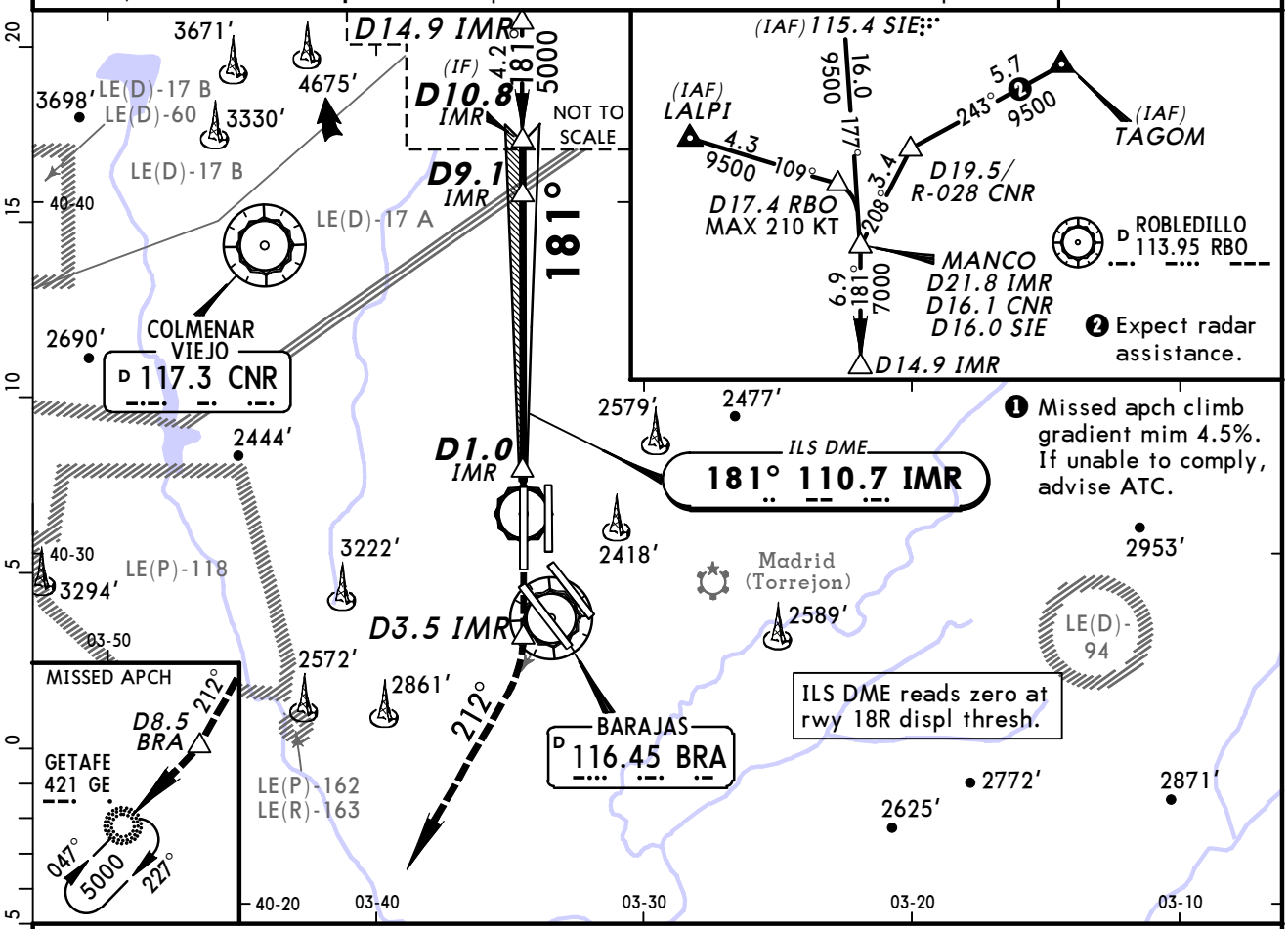
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.07	

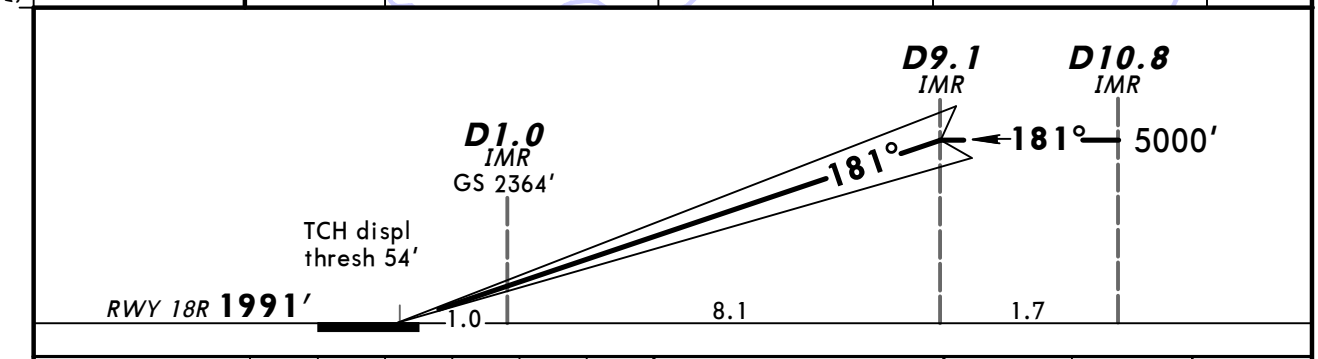
LOC IMR	Final Apch Crs	GS	CAT II & IIIA ILS	Apt Elev 1998′
110.7	**181°**	**D9.1 IMR** **5000′** (3009′)	Refer to Minimums	RWY **1991′**

MISSED APCH: Climb on rwy heading to D3.5 IMR, then turn RIGHT (MAX 220 KT) to intercept R-212 BRA. Cross D8.5 BRA at 5000′, then turn RIGHT (MAX 220 KT) to GE NDB to join holding at 5000′. Do not climb above 5000′. ❶

Alt Set: hPa Rwy Elev: 71 hPa Trans level: By ATC Trans alt: 13000′
1. **VOR, DME and ADF required.** 2. Special Aircrew & Acft Certification Required.

MSA BRA VOR
10,000′ 219° 078° 4500′





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

HIALS-II PAPI PAPI

D3.5 IMR on Rwy hdg

Standard STRAIGHT-IN LANDING RWY **18R**

CAT IIIA ILS	CAT II ILS ABC	CAT II ILS D
DH **50′**	RA **98′** DA(H) **2091′** (100′)	RA **110′** DA(H) **2104′** (113′)
RVR 200m	RVR 300m ❶	

PANS OPS

❶ Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m

CHANGES: Initial apch. Notes.

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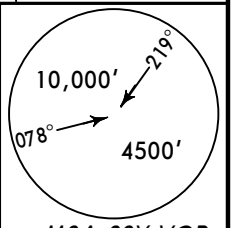
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.07	

BRIEFING STRIP ™

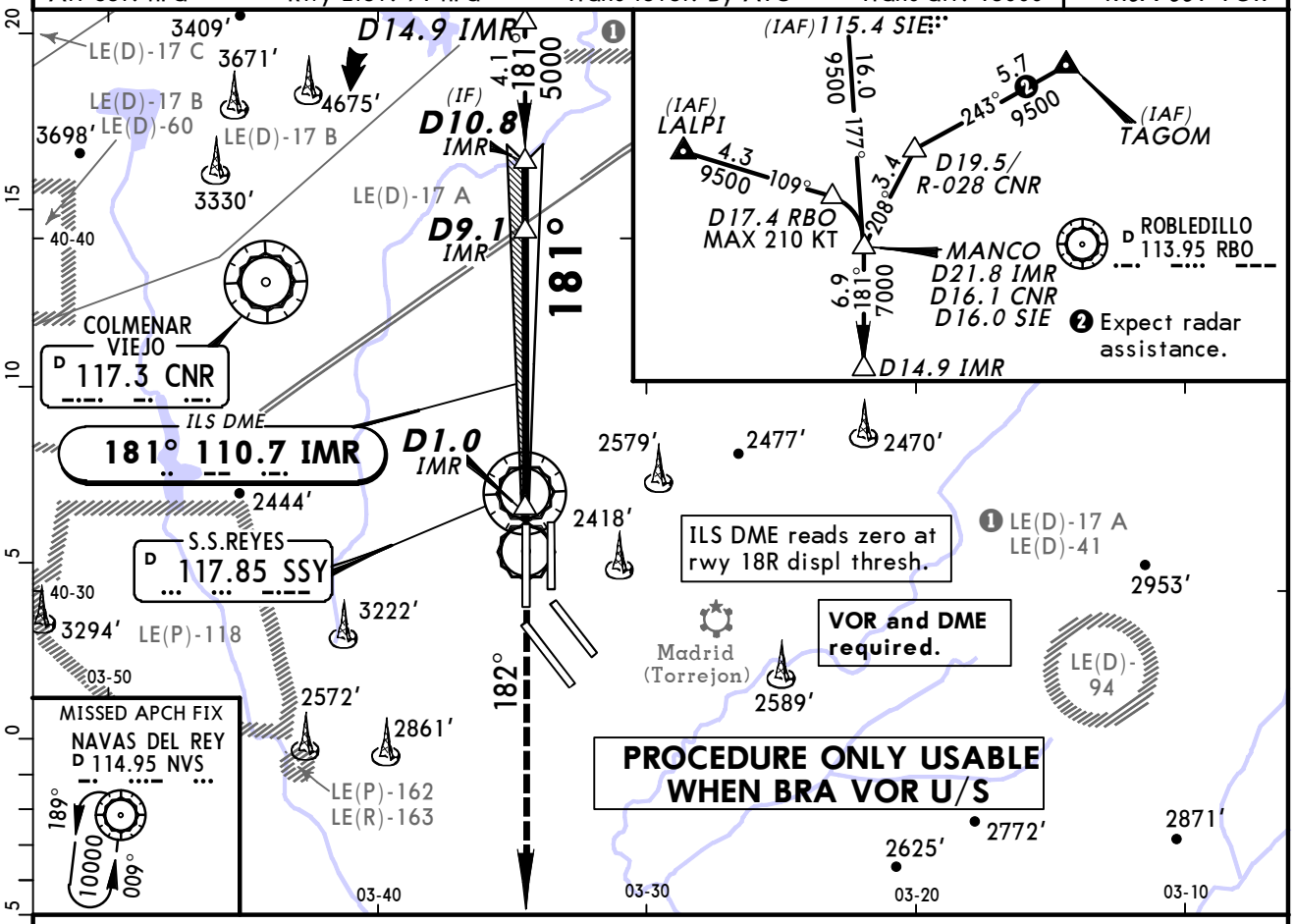
LOC IMR	Final Apch Crs	GS	ILS DA(H)	Apt Elev 1998′
110.7	**181°**	**D9.1 IMR** **5000′** (3009′)	**2191′** (200′)	RWY **1991′**

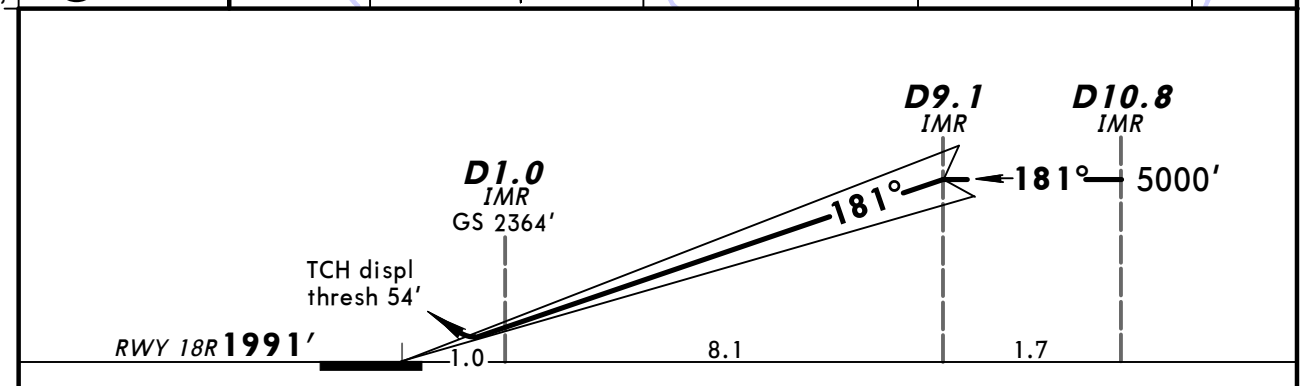
MISSED APCH: Climb on R-182 SSY until reaching 5000′, then turn RIGHT to NVS VOR to join holding at 10000′.

Alt Set: hPa Rwy Elev: 71 hPa Trans level: By ATC Trans alt: 13000′



MSA SSY VOR





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

HIALS-II
PAPI PAPI

5000′ on SSY 117.85 R-182

Standard STRAIGHT-IN LANDING RWY **18R**

DA(H) **2191′** (200′)

	FULL	Limited	ALS out
A	RVR 550m	RVR 750m	RVR 1200m
B			
C			
D			

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

PANS OPS

CHANGES: Initial apch. Notes.

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LEMD/MAD
BARAJAS

JEPPESEN
29 NOV 13
Eff 12 Dec
11-4A

MADRID, SPAIN
CAT II/III ILS Y Rwy 18R

BRIEFING STRIP

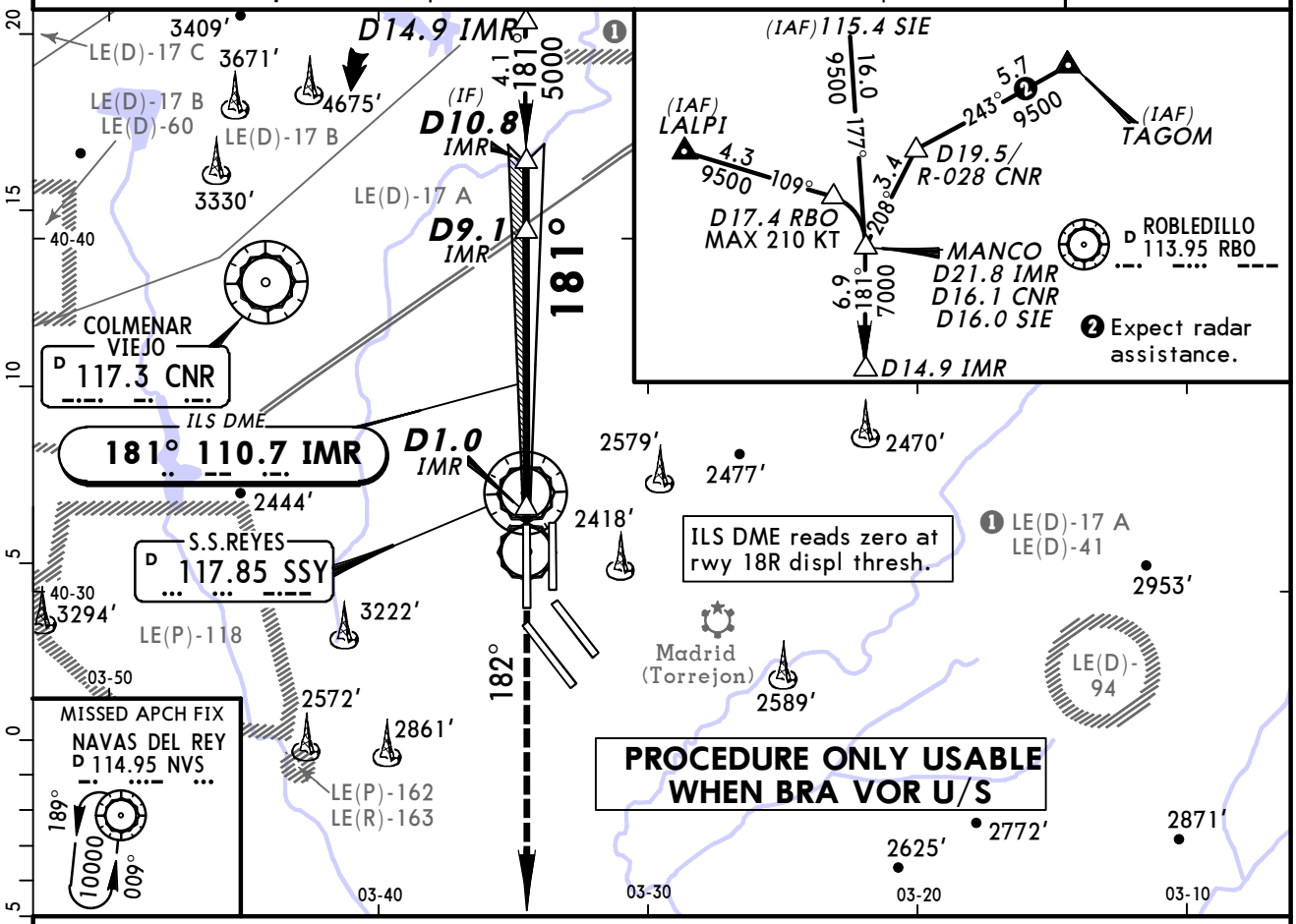
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.07	

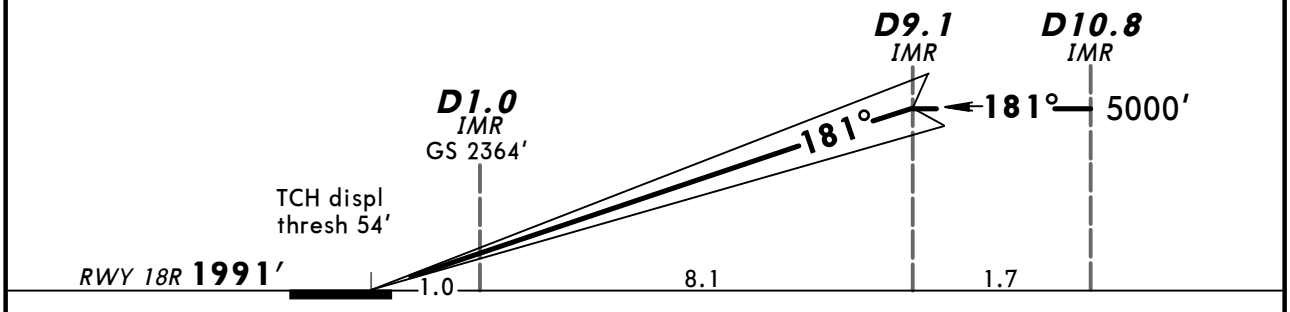
LOC IMR	Final Apch Crs	GS	CAT II & IIIA ILS	Apt Elev 1998′
110.7	**181°**	**D9.1 IMR** **5000′** (3009′)	Refer to Minimums	RWY **1991′**

MISSED APCH: Climb on R-182 SSY until reaching 5000′, then turn RIGHT to NVS VOR to join holding at 10000′.

Alt Set: hPa Rwy Elev: 71 hPa Trans level: By ATC Trans alt: 13000′
1. **VOR and DME required.** 2. Special Aircrew & Acft Certification Required.

MSA SSY VOR: 10,000′ (219°, 078°), 4500′





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

HIALS-II PAPI PAPI

5000′ on SSY 117.85 R-182

Standard STRAIGHT-IN LANDING RWY **18R**

CAT IIIA ILS	CAT II ILS ABC	CAT II ILS D
DH **50′**	RA **98′** DA(H) **2091′** (100′)	RA **110′** DA(H) **2104′** (113′)
RVR *200m*	RVR *300m* ❶	

PANS OPS

❶ Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

CHANGES: Initial apch. Notes.

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LEMD/MAD
BARAJAS

JEPPESEN

1 NOV 13
Eff 14 Nov

(11-5)

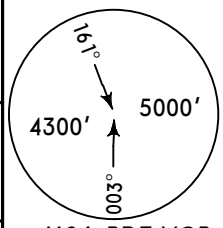
MADRID, SPAIN
ILS Z or LOC Rwy 32L

ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground freq
118.25	127.1	127.5	128.7	134.95	118.15	refer to 10-9

BRIEFING STRIP ™

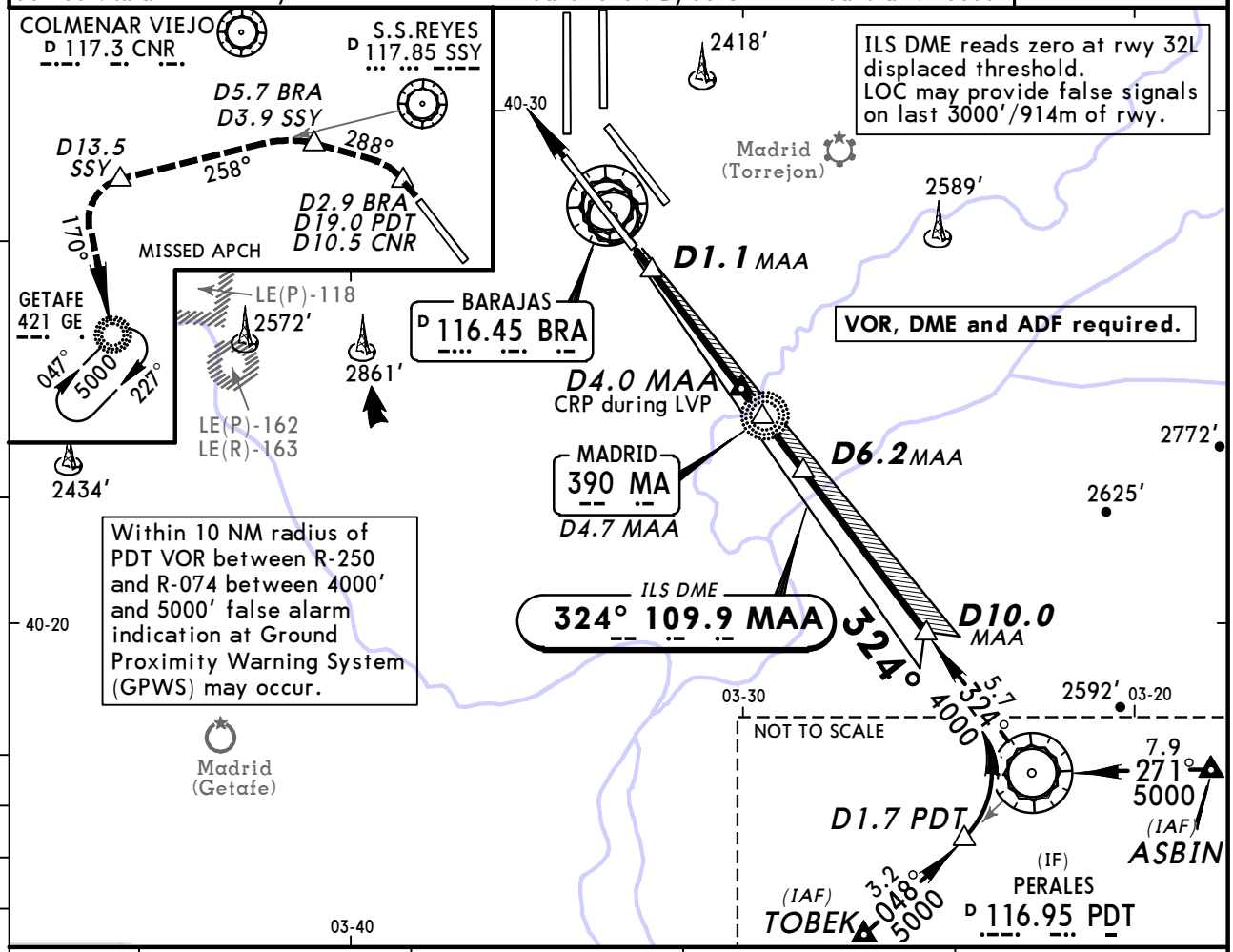
LOC MAA	Final Apch Crs	GS MA Lctr	ILS DA(H)	Apt Elev 1998′
109.9	**324°**	**3503′** (1570′)	Refer to Minimums	RWY **1933′**

MISSED APCH: Climb on rwy heading to D2.9 BRA/D19.0 PDT/D10.5 CNR at or above 2500′ (LOC: 2700′). Turn LEFT (MAX 185 KT) onto 288° to D5.7 BRA/D3.9 SSY at or above 3000′. Turn LEFT (MAX 185 KT) to intercept R-258 SSY. Pass D13.5 SSY at or above 4400′, then turn LEFT (MAX 220 KT) onto 170° GE NDB to join holding at 5000′.
Do not climb above 5000′.

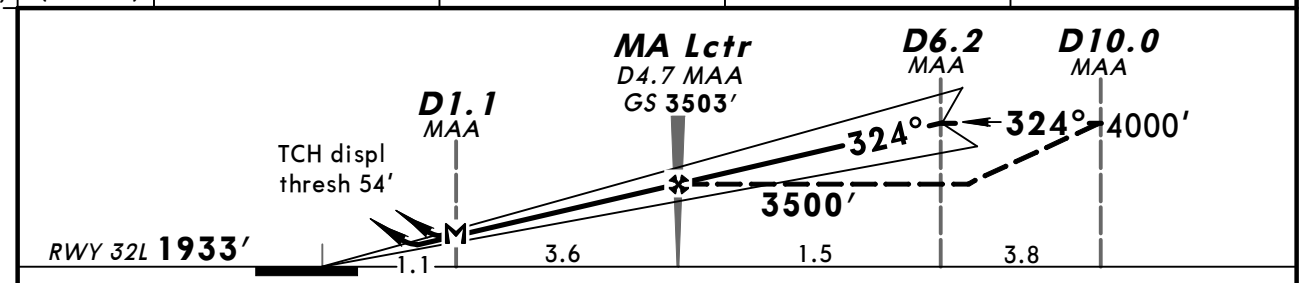


MSA PDT VOR

Alt Set: hPa | Rwy Elev: 69 hPa | Trans level: By ATC | Trans alt: 13000′



LOC (GS out)	MAA DME	2.0	3.0	4.0
	ALTITUDE	2650′	2980′	3310′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.10°	384	494	548	658	768	878
MAP at D1.1 MAA							

HIALS-II
PAPI PAPI

D2.9 BRA
D19.0 PDT
D10.5 CNR on **Rwy** hdg

Standard STRAIGHT-IN LANDING RWY **32L**

ILS DA(H) A: **2183′** (250′) B: **2195′** (262′) C: **2203′** (270′) D: **2214′** (281′)

LOC (GS out) DA(H) **2350′** (417′)

PANS OPS

	FULL	Limited	ALS out		ALS out
A	RVR 550m	RVR 750m	RVR 1300m	RVR 1200m	RVR 1500m
B	RVR 600m				
C					RVR 1900m
D	RVR 650m		RVR 1400m		

CIRCLE-TO-LAND

Max Kts.	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

CHANGES: Missed apch.

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LEMD/MAD
BARAJAS

JEPPESEN

1 NOV 13
Eff 14 Nov

(11-5A)

MADRID, SPAIN
CAT II/III ILS Z Rwy 32L

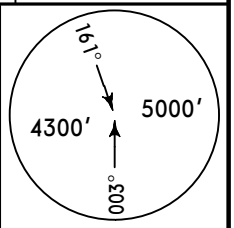
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground freq frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.15	

BRIEFING STRIP™

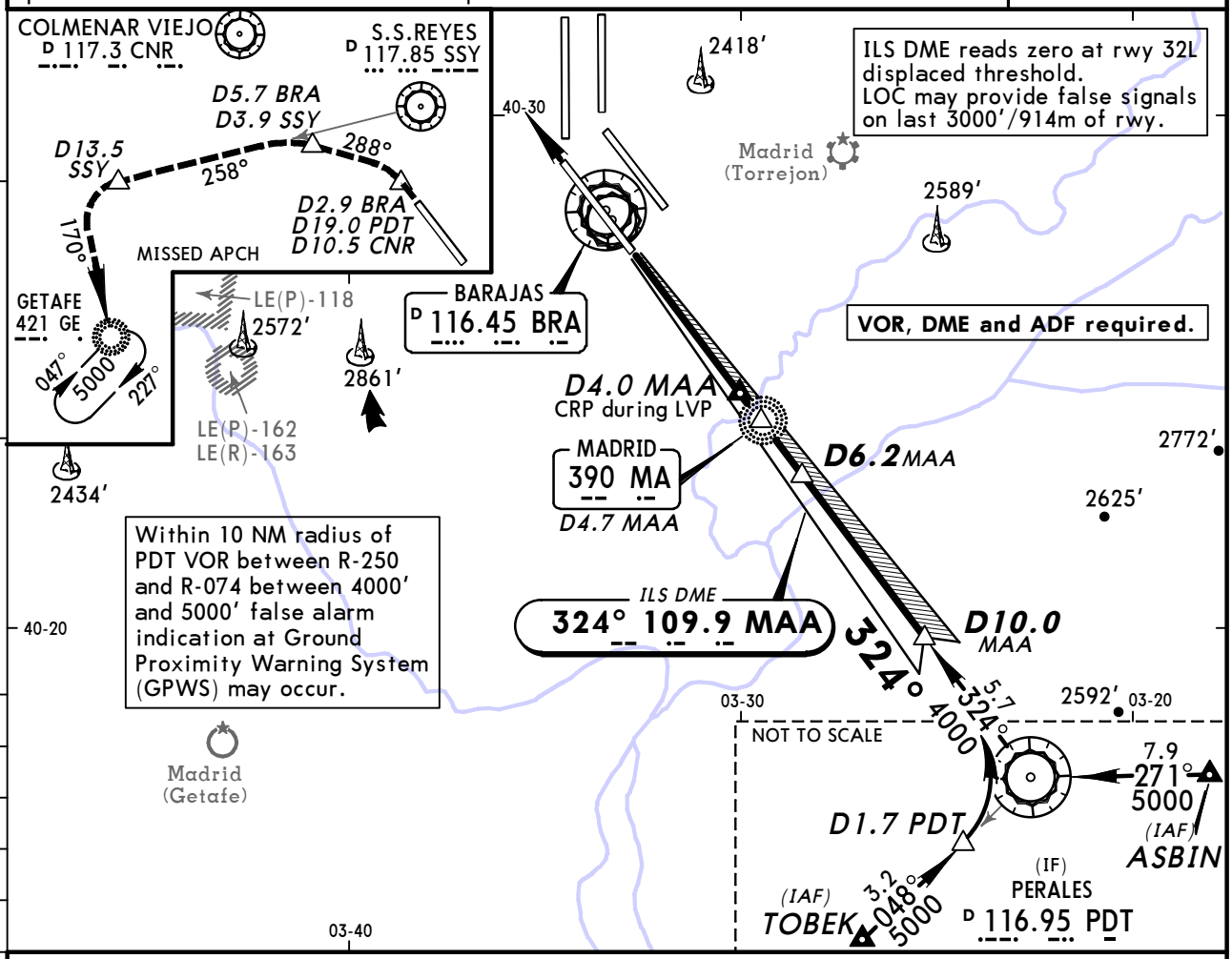
LOC MAA	Final Apch Crs	GS MA Lctr	CAT II & IIIA ILS	Apt Elev 1998′
109.9	**324°**	**3503′** (1570′)	Refer to Minimums	RWY **1933′**

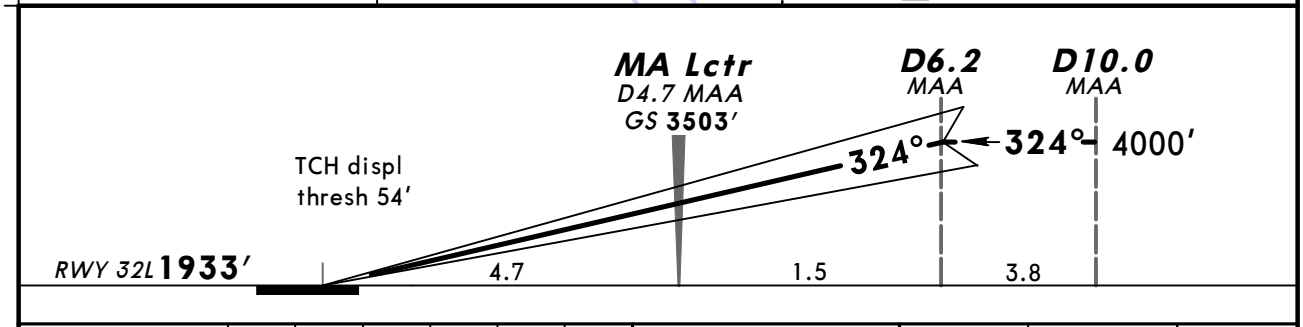
MISSED APCH: Climb on rwy hdg to D2.9 BRA/D19.0 PDT/D10.5 CNR at or above 2500′. Turn LEFT (MAX 185 KT) onto 288° to D5.7 BRA/D3.9 SSY at or above 3000′. Turn LEFT (MAX 185 KT) to intercept R-258 SSY. Pass D13.5 SSY at or above 4400′, then turn LEFT (MAX 220 KT) onto 170° GE NDB to join holding at 5000′. Do not climb above 5000′.

Alt Set: hPa Rwy Elev: 69 hPa Trans level: By ATC Trans alt: 13000′
Special Aircrew & Acft Certification Required.



MSA
PDT VOR





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

HIALS-II
PAPI PAPI

D2.9 BRA
D19.0 PDT
D10.5 CNR on Rwy hdg

Standard

STRAIGHT-IN LANDING RWY **32L**

CAT IIIA ILS	CAT II ILS A	B	C	D
DH **50′**	RA **161′** DA(H) **2081′** (148′)	RA **180′** DA(H) **2098′** (165′)	RA **195′** DA(H) **2110′** (177′)	RA **211′** DA(H) **2124′** (191′)

PANS OPS

RVR 200m	RVR 450m

CHANGES: Missed apch.

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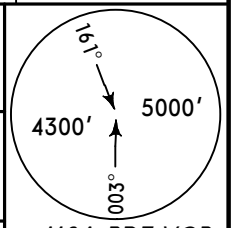
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.15	

BRIEFING STRIP

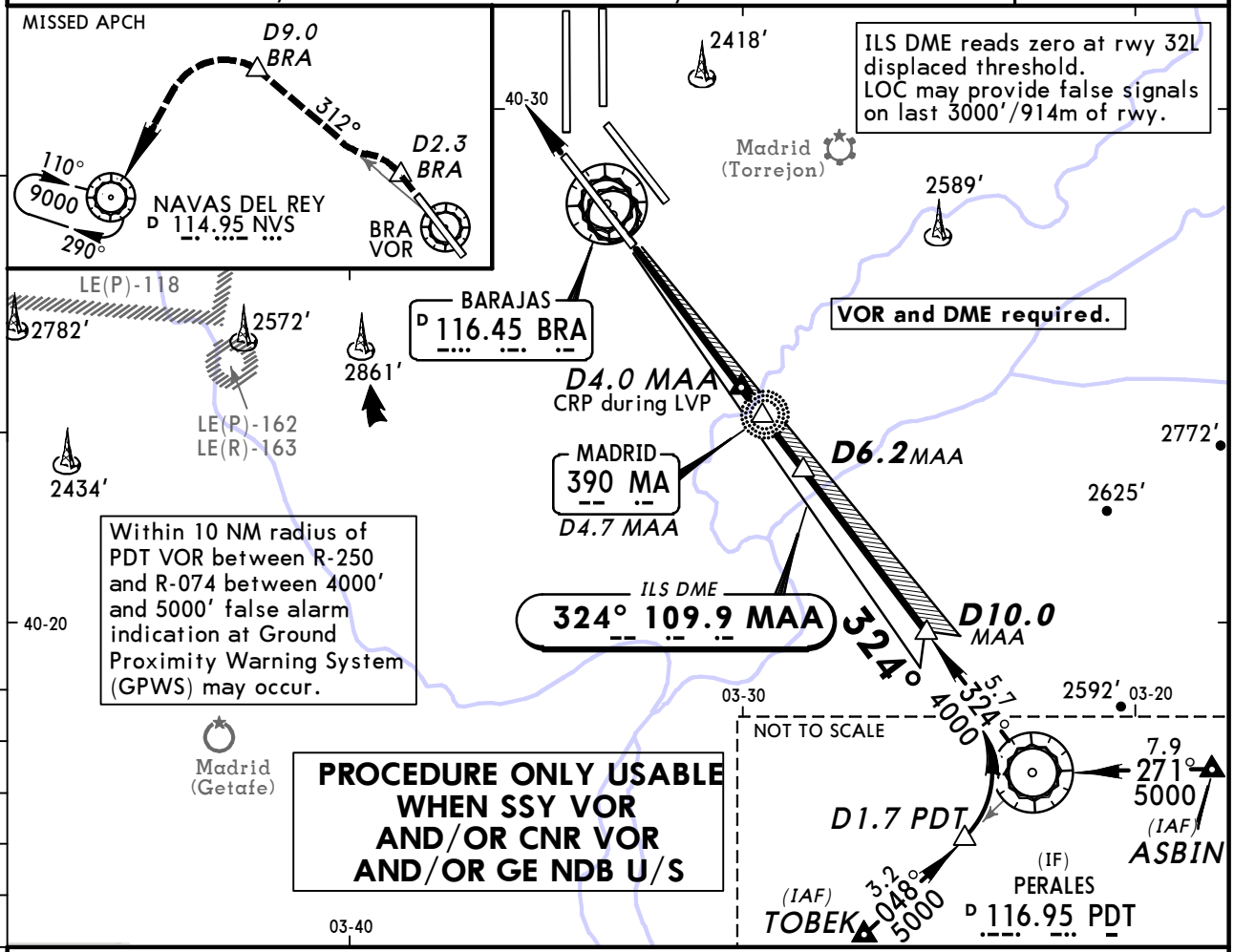
LOC MAA	Final Apch Crs	GS MA Lctr	ILS DA(H)	Apt Elev 1998′
109.9	324°	3503′ (1570′)	Refer to Minimums	RWY 1933′

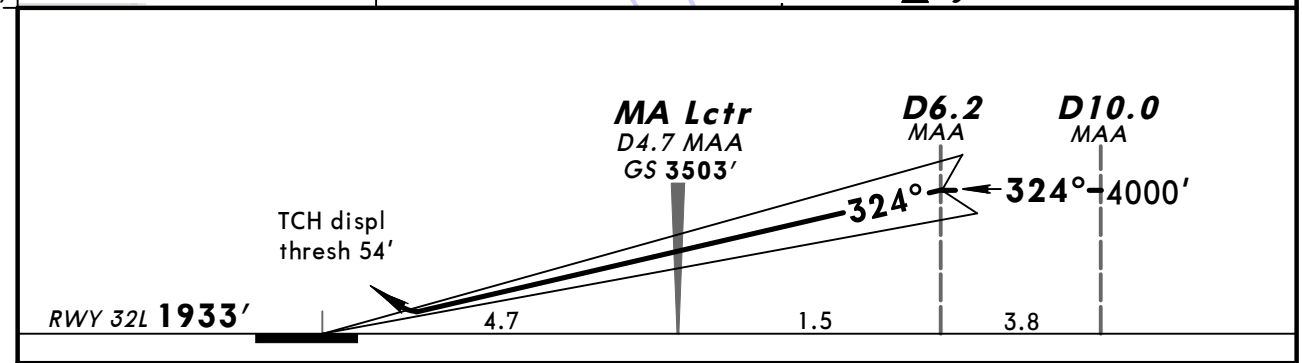
MISSED APCH: Climb on rwy heading to D2.3 BRA at or above 2400′, then turn LEFT and follow R-312 BRA to D9.0 BRA at or above 3500′, then turn LEFT (MAX 220 KT) to NVS VOR to join holding at 9000′.
Contact ATC before reaching 4000′ and follow instructions.

Alt Set: hPa | Rwy Elev: 69 hPa | Trans level: By ATC | Trans alt: 13000′



MSA PDT VOR





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

HIALS-II
PAPI PAPI
D2.3 BRA on Rwy hdg

Standard

STRAIGHT-IN LANDING RWY 32L
ILS
DA(H) A: 2183′ (250′) C: 2203′ (270′)
B: 2195′ (262′) D: 2214′ (281′)

	FULL	Limited	ALS out
A	RVR 550m	RVR 750m	RVR 1300m
B	RVR 600m		
C			
D	RVR 650m		RVR 1400m

CIRCLE-TO-LAND

Max Kts.	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

PANS OPS

CHANGES: Chart reindexed. LOC proc withdrawn. Approach frequencies. Note.

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LEMD/MAD
BARAJAS

JEPPESEN

9 AUG 13
Eff 22 Aug

(11-6A)

MADRID, SPAIN
CAT II/III ILS W Rwy 32L

ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.15	

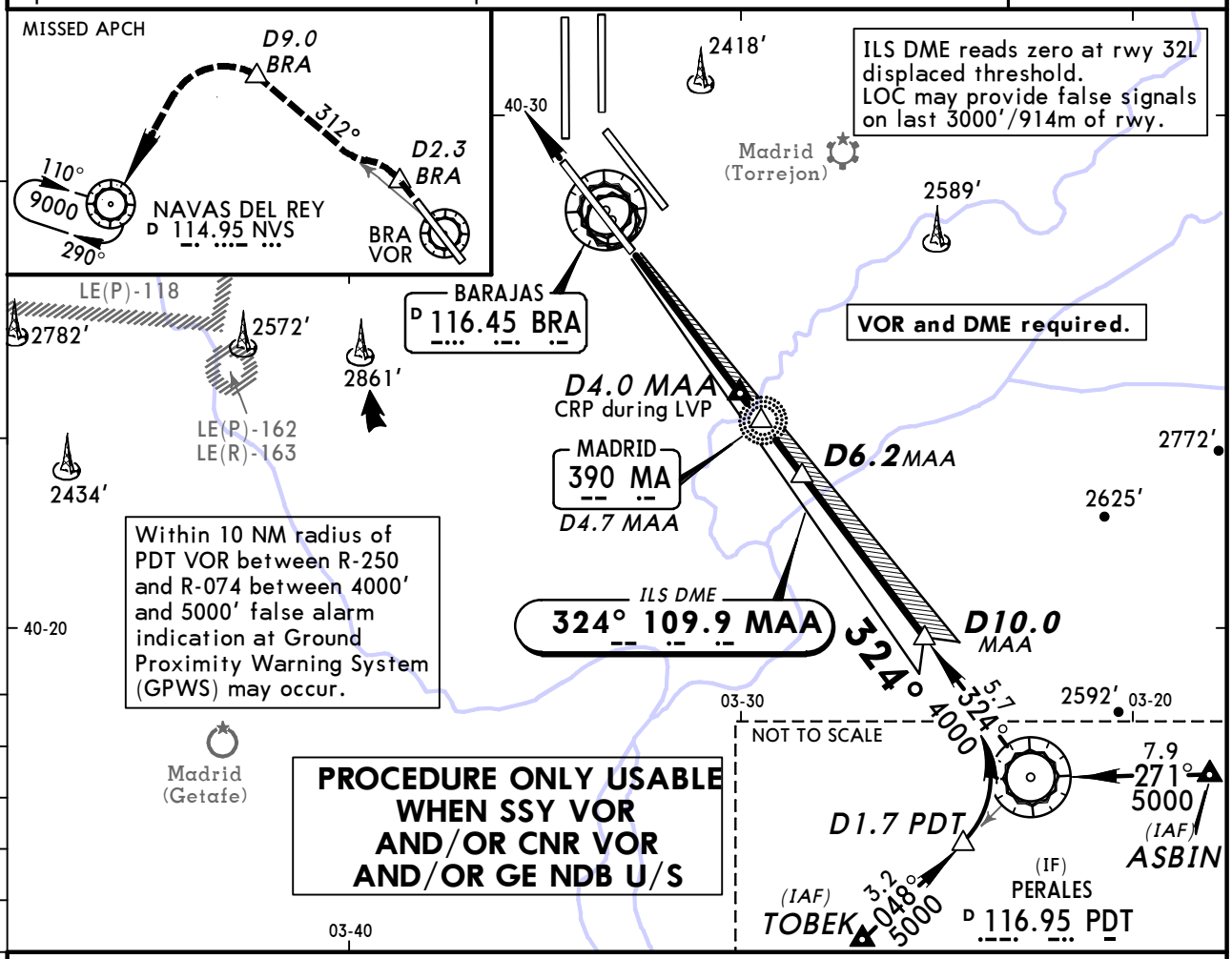
BRIEFING STRIP ™

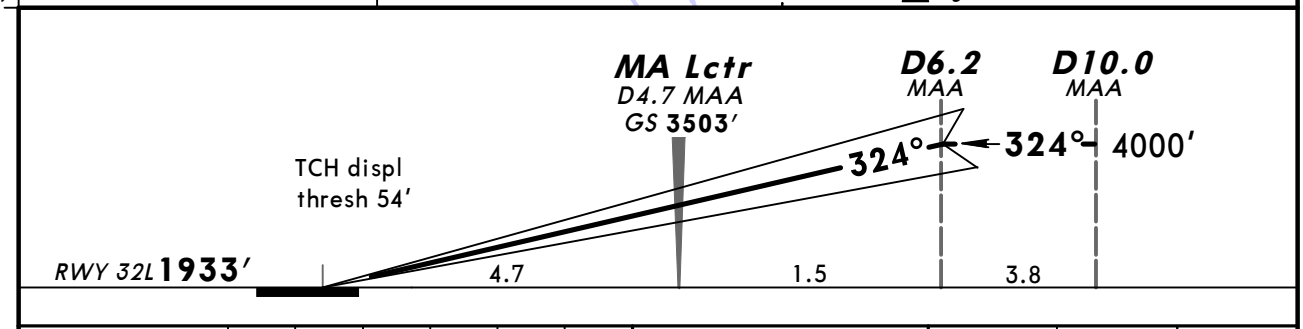
LOC MAA	Final Apch Crs	GS MA Lctr	CAT II & IIIA ILS	Apt Elev 1998′
109.9	324°	3503′ (1570′)	Refer to Minimums	RWY 1933′

MISSED APCH: Climb on rwy heading to D2.3 BRA at or above 2400′. Turn LEFT and follow R-312 BRA to D9.0 BRA at or above 3500′. Turn LEFT (MAX 220 KT) to NVS VOR to join holding at 9000′.
Contact ATC before reaching 4000′ and follow instructions.

Alt Set: hPa Rwy Elev: 69 hPa Trans level: By ATC Trans alt: 13000′
Special Aircrew & Acft Certification Required.

MSA PDT VOR: 161° 5000′; 4300′; 003°





Gnd speed-Kts	70	90	100	120	140	160
GS 3.00°	372	478	531	637	743	849

HIALS-II PAPI PAPI

D2.3 BRA on Rwy hdg

Standard

STRAIGHT-IN LANDING RWY 32L

CAT IIIA ILS	CAT II ILS A	CAT II ILS B	CAT II ILS C	CAT II ILS D
DH 50′	RA 161′ DA(H) 2081′ (148′)	RA 180′ DA(H) 2098′ (165′)	RA 195′ DA(H) 2110′ (177′)	RA 211′ DA(H) 2124′ (191′)

PANS OPS

RVR 200m	RVR 450m

CHANGES: Chart reindexed. Approach frequencies. Note.

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ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.97	

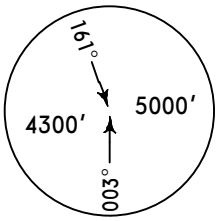
BRIEFING STRIP™

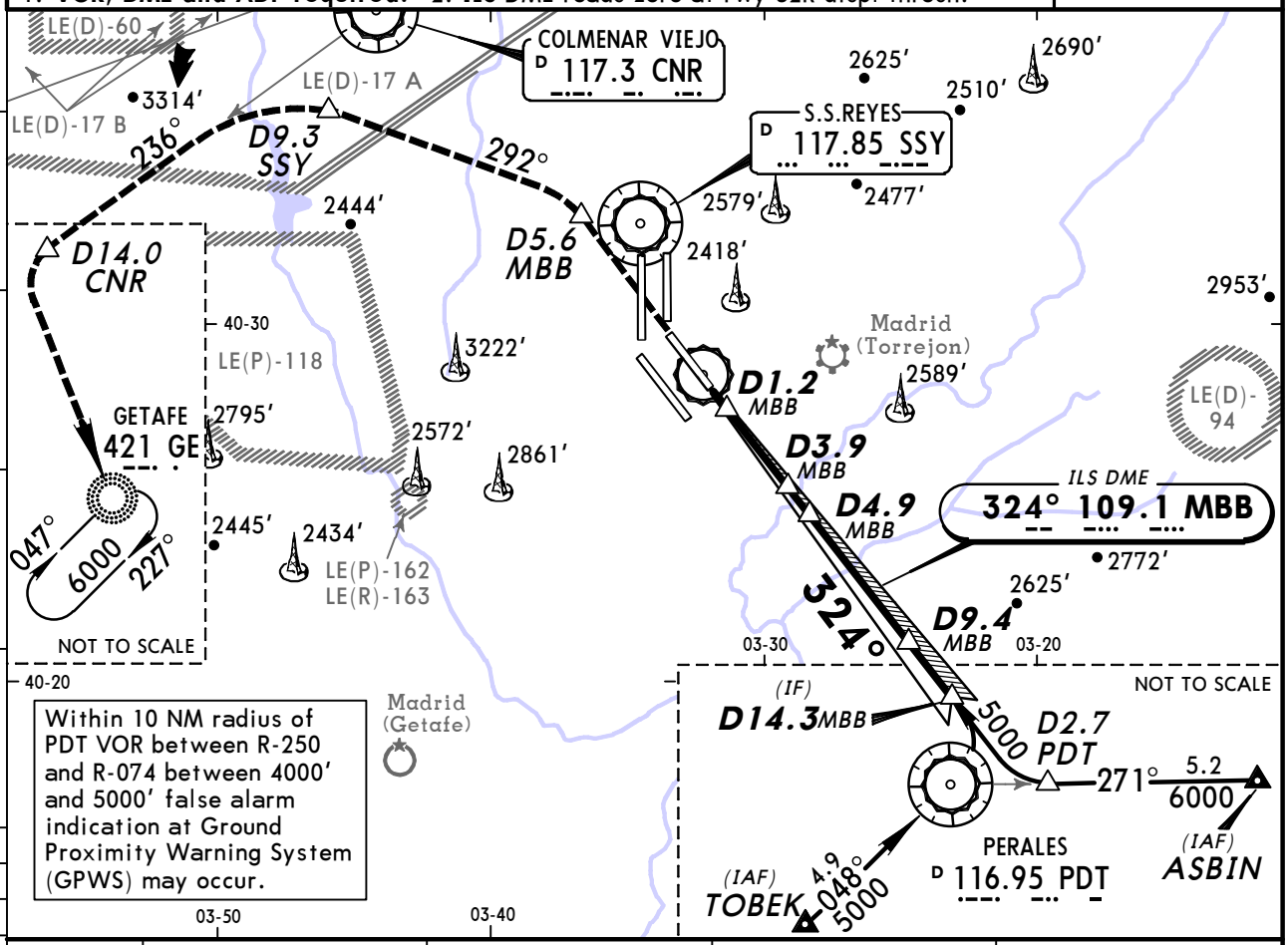
LOC MBB 109.1	Final Apch Crs 324°	GS D3.9 MBB 3195′ (1309′)	ILS DA(H) Refer to Minimums	Apt Elev 1998′ RWY 1886′

MISSED APCH: Climb on rwy heading to D5.6 MBB. Turn LEFT (MAX 185 KT) to intercept R-292 SSY to D9.3 SSY at or above 4000′ (LOC: 4300′). Turn LEFT (MAX 220 KT) to intercept R-236 CNR. Cross D14.0 CNR at 6000′, then turn LEFT (MAX 220 KT) to GE NDB to join holding at 6000′. Do not climb above 6000′.

Alt Set: hPa Rwy Elev: 67 hPa Trans level: By ATC Trans alt: 13000′

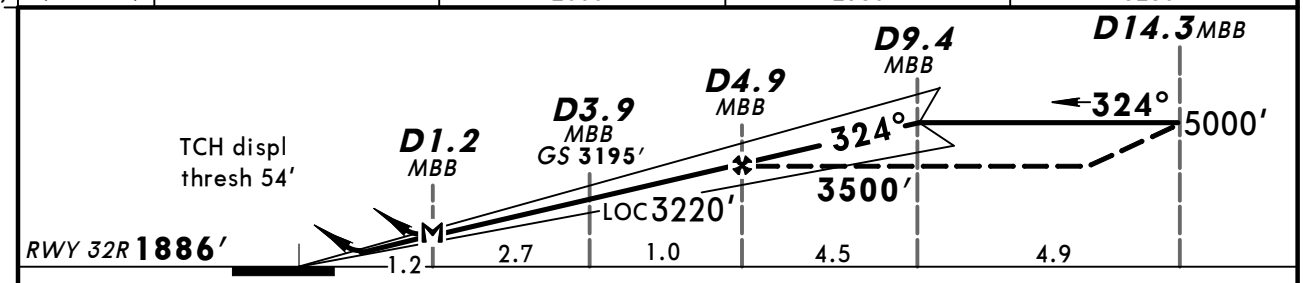
1. **VOR, DME and ADF required.** 2. ILS DME reads zero at rwy 32R displ thresh.





Within 10 NM radius of PDT VOR between R-250 and R-074 between 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur.

LOC (GS out)	MBB DME	2.0	3.0	4.0
	ALTITUDE	2600′	2930′	3250′



Gnd speed-Kts		70	90	100	120	140	160
ILS GS	3.00°	372	478	531	637	743	849
LOC Descent Angle	3.10°	384	494	548	658	768	878
MAP at D1.2 MBB							

HIALS-II
PAPI PAPI
D5.6 MBB on Rwy hdg

Standard STRAIGHT-IN LANDING RWY **32R**

ILS: DA(H) AB: **2086′** (200′) C: **2094′** (208′) D: **2105′** (219′)

LOC (GS out): DA(H) **2340′** (454′)

PANS OPS

	FULL	Limited	ALS out		ALS out
A	RVR 550m	RVR 750m	RVR 1200m	RVR 1400m	RVR 1500m
B					
C					CMV 2100m
D					

CIRCLE-TO-LAND

Max Kts.	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

CHANGES: Missed apch.

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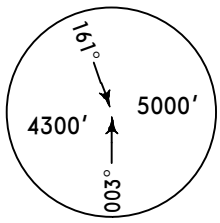
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.97	

BRIEFING STRIP™

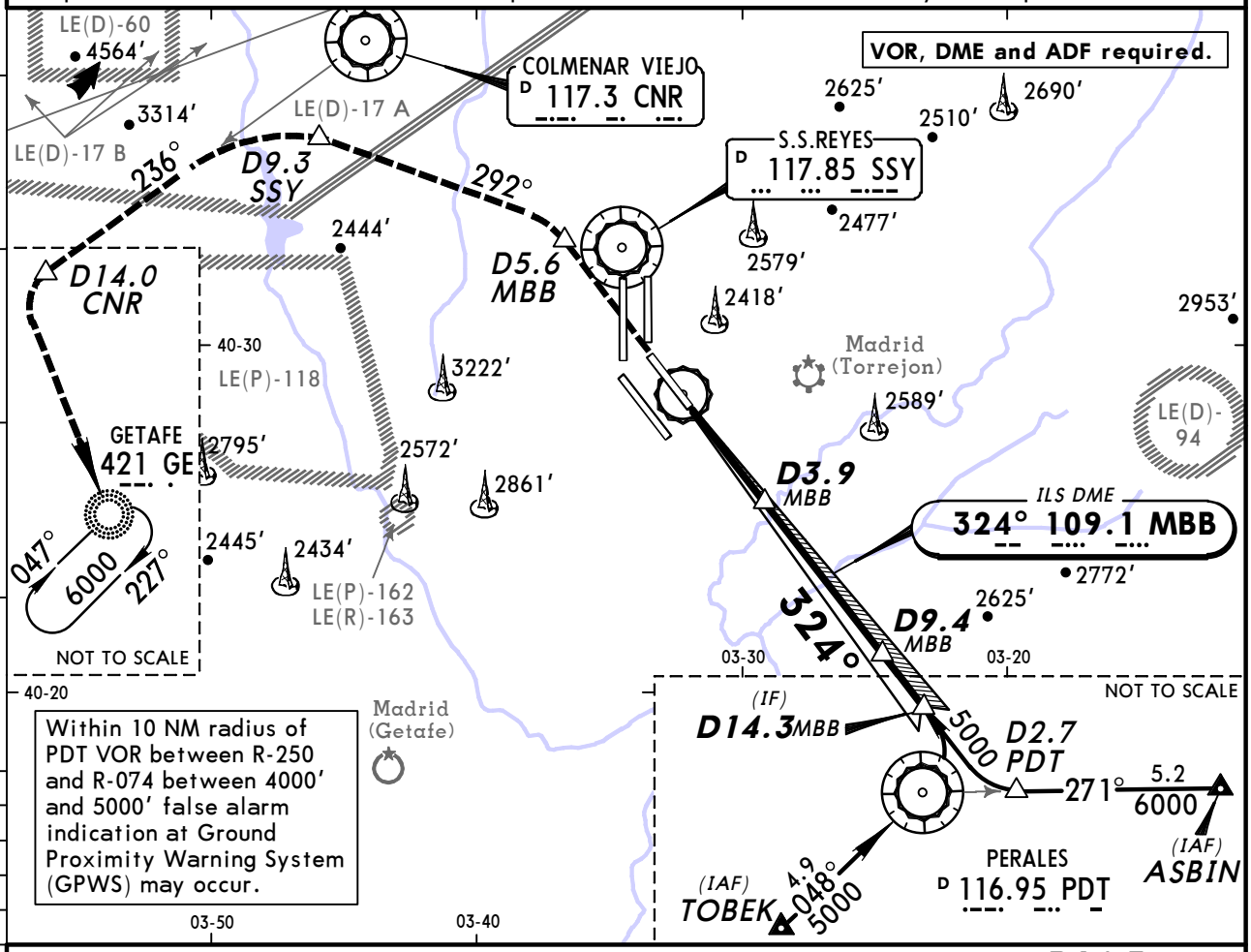
LOC MBB	Final Apch Crs	GS	CAT II & IIIA ILS	Apt Elev 1998′
109.1	**324°**	**D3.9 MBB** **3195′** (1309′)	Refer to Minimums	RWY **1886′**

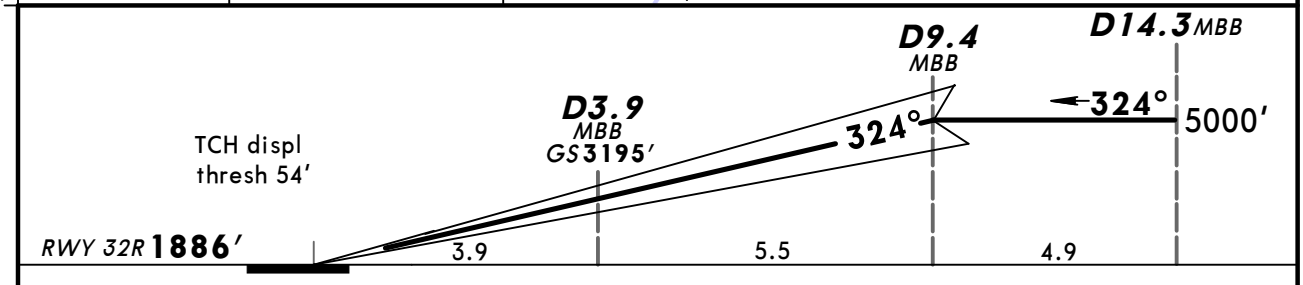
MISSED APCH: Climb on rwy heading to D5.6 MBB. Turn LEFT (MAX 185 KT) to intercept R-292 SSY to D9.3 SSY at or above 4000′. Turn LEFT (MAX 220 KT) to intercept R-236 CNR. Cross D14.0 CNR at 6000′, then turn LEFT (MAX 220 KT) to GE NDB to join holding at 6000′.
Do not climb above 6000′.



MSA PDT VOR

Alt Set: hPa Rwy Elev: 67 hPa Trans level: By ATC Trans alt: 13000′
1. Special Aircrew & Acft Certification Required. 2. ILS DME reads zero at rwy 32R displ thresh.





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

HIALS-II PAPI PAPI D5.6 MBB on Rwy hdg

PANS OPS

Standard STRAIGHT-IN LANDING RWY **32R**

CAT IIIA ILS	CAT II ILS AB	CAT II ILS C	CAT II ILS D
DH **50′**	RA **109′** DA(H) **1986′** (100′)	RA **124′** DA(H) **1998′** (112′)	RA **141′** DA(H) **2012′** (126′)
RVR 200m	RVR 300m [1]		RVR 400m

[1] Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

CHANGES: Missed apch.

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ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.97	

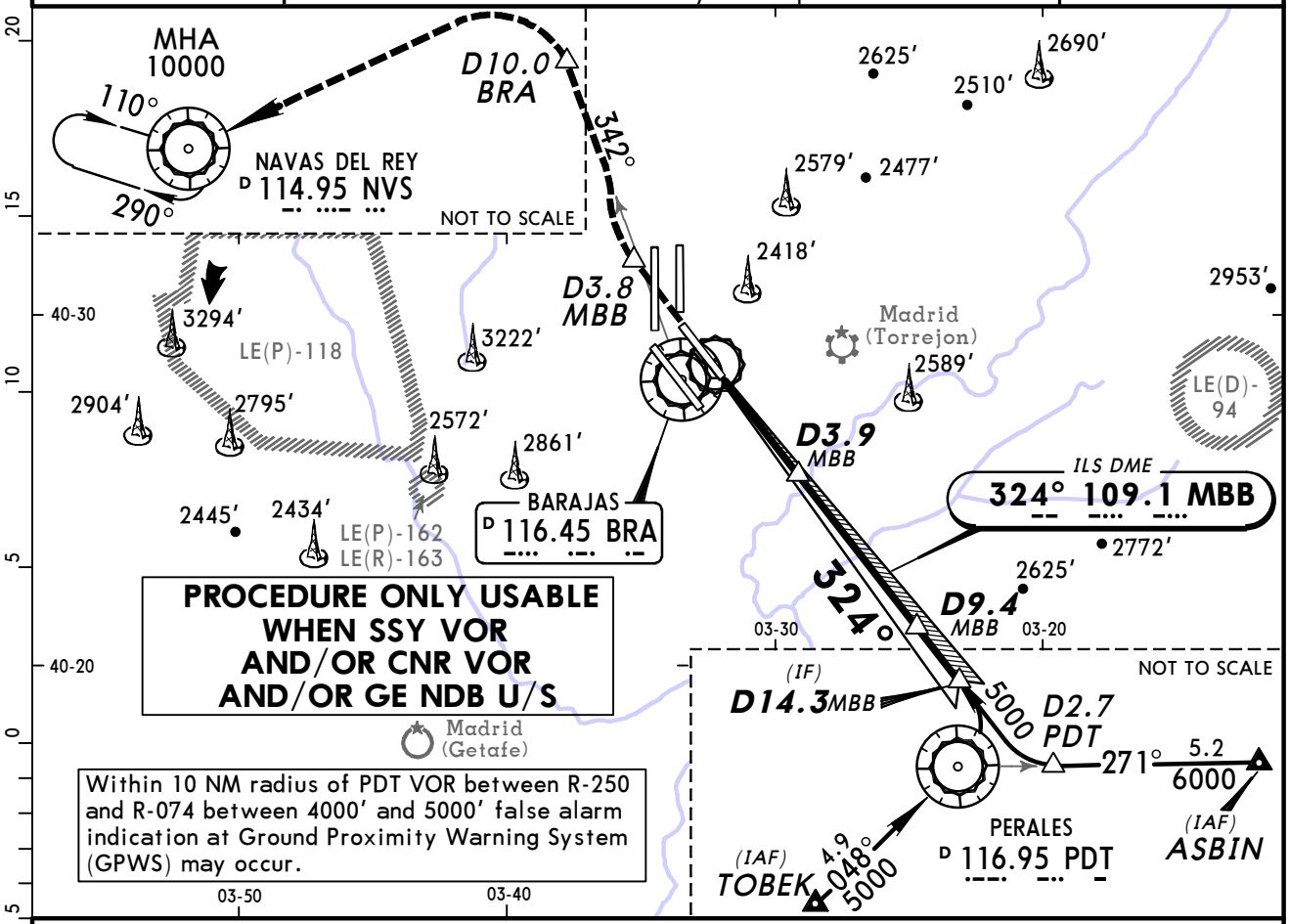
BRIEFING STRIP™

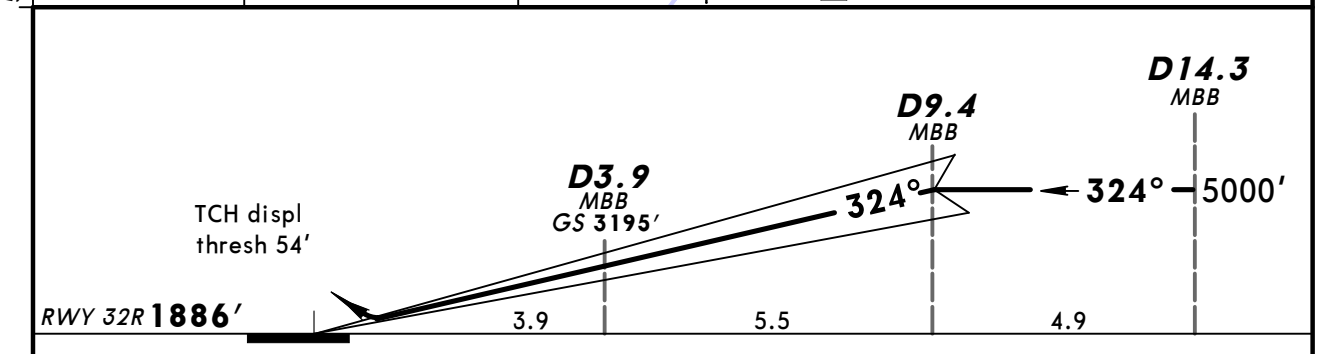
LOC MBB	Final Apch Crs	GS	ILS DA(H)	Apt Elev 1998′
109.1	**324°**	**D3.9 MBB** **3195′** (1309′)	Refer to Minimums	RWY **1886′**

MISSED APCH: Climb on rwy heading to D3.8 MBB, then turn RIGHT to intercept R-342 BRA to D10.0 BRA at or above 3500′. Turn LEFT (MAX 210 KT) to NVS VOR to join holding at 10000′.
Contact ATC before reaching 4000′ and follow instructions.

Alt Set: hPa Rwy Elev: 67 hPa Trans level: By ATC Trans alt: 13000′
1. **VOR and DME required.** 2. ILS DME reads zero at rwy 32R displ thresh.

MSA PDT VOR
4300′ 161° 5000′ 003°





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

HIALS-II PAPI PAPI D3.8 MBB on Rwy hdg

PANS OPS

Standard STRAIGHT-IN LANDING RWY **32R**

DA(H) AB: **2086′**(200′) C: **2094′**(208′) D: **2105′**(219′)

	FULL	Limited	ALS out
A	RVR 550m	RVR 750m	RVR 1200m
B			
C			
D			

CIRCLE-TO-LAND

Max Kts.	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′(1282′)	2400m
205	3620′(1622′)	3600m

CHANGES: Chart reindexed. LOC procedure withdrawn. Note.

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CAT II/III ILS W Rwy 32R

ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.97	

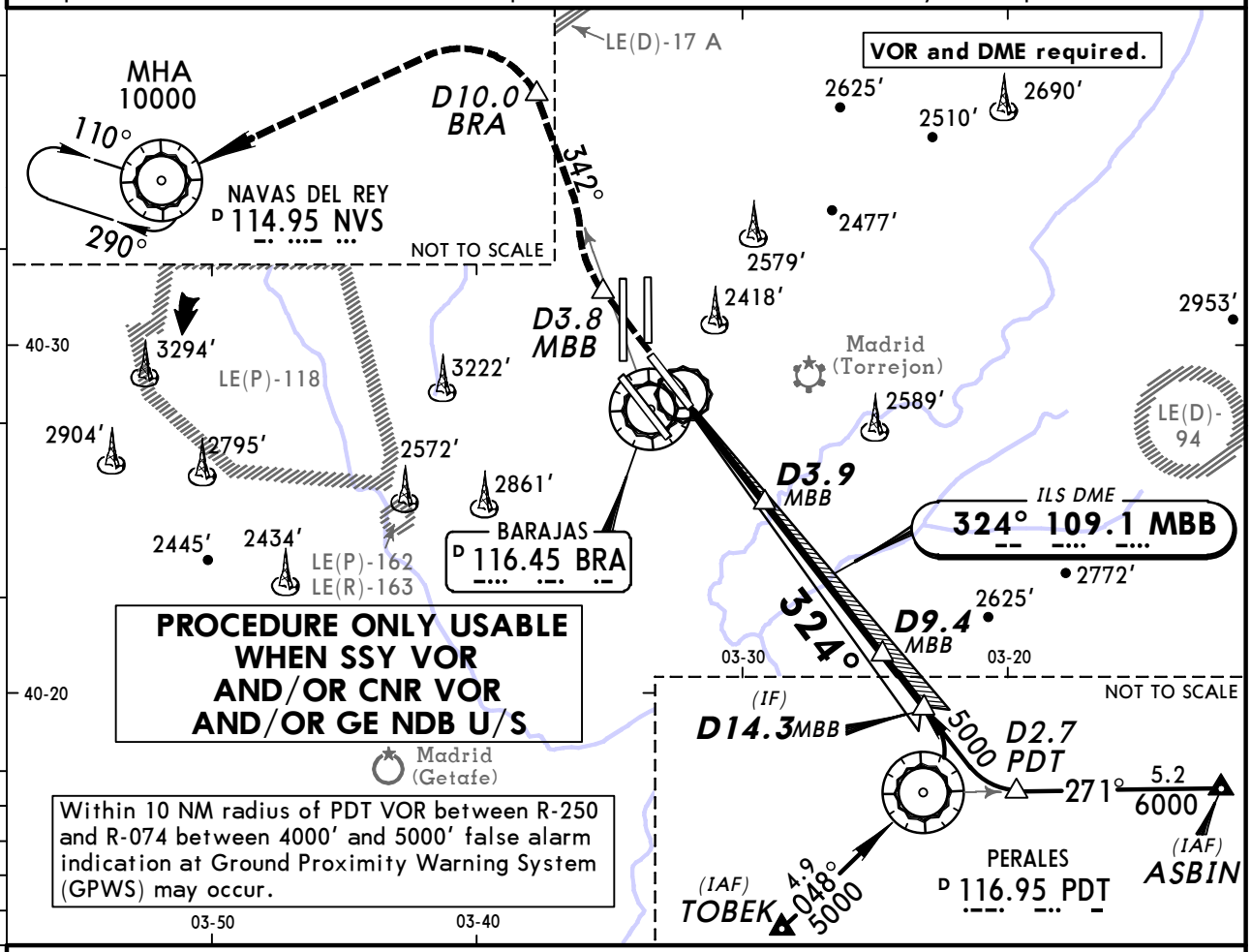
LOC MBB	Final Apch Crs	GS	CAT II & IIIA ILS	Apt Elev 1998′
109.1	324°	D3.9 MBB 3195′ (1309′)	Refer to Minimums	RWY 1886′

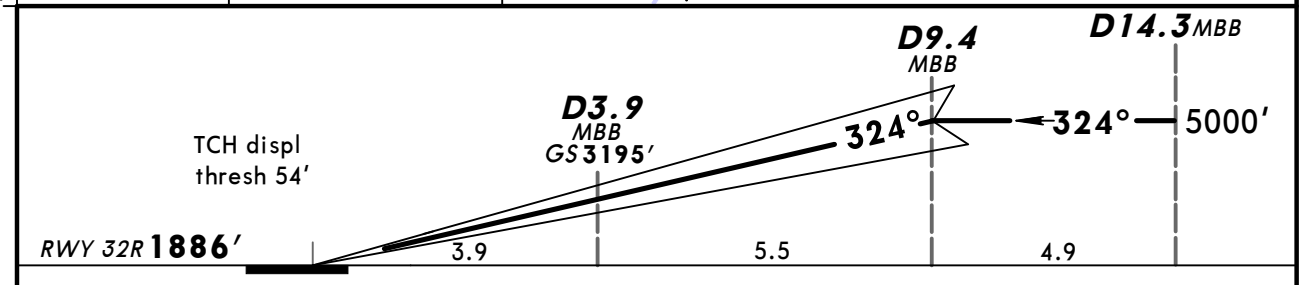
MISSED APCH: Climb on rwy heading to D3.8 MBB, then turn RIGHT to intercept R-342 BRA to D10.0 BRA at or above 3500′. Turn LEFT (MAX 210 KT) to NVS VOR to join holding at 10000′.
Contact ATC before reaching 4000′ and follow instructions.

MSA PDT VOR: 161° 5000′; 4300′; 003°

Alt Set: hPa Rwy Elev: 67 hPa Trans level: By ATC Trans alt: 13000′

1. Special Aircrew & Acft Certification Required. 2. ILS DME reads zero at rwy 32R displ thresh.





Gnd speed-Kts		70	90	100	120	140	160
GS	3.00°	372	478	531	637	743	849

HIALS-II PAPI PAPI

D3.8 MBB on Rwy hdg

Standard STRAIGHT-IN LANDING RWY 32R

CAT IIIA ILS	CAT II ILS AB	CAT II ILS C	CAT II ILS D
DH 50′	RA 109′ DA(H) 1986′ (100′)	RA 124′ DA(H) 1998′ (112′)	RA 141′ DA(H) 2012′ (126′)
RVR 200m	RVR 300m [1]		RVR 400m

[1] Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

CHANGES: Chart reindexed. Note.

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LEMD/MAD
BARAJAS

JEPPESEN
29 NOV 13 (13-1) Eff 12 Dec

MADRID, SPAIN
VOR Rwy 18L

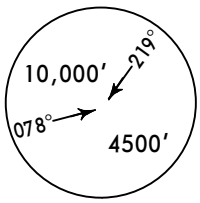
BRIEFING STRIP

ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.67	

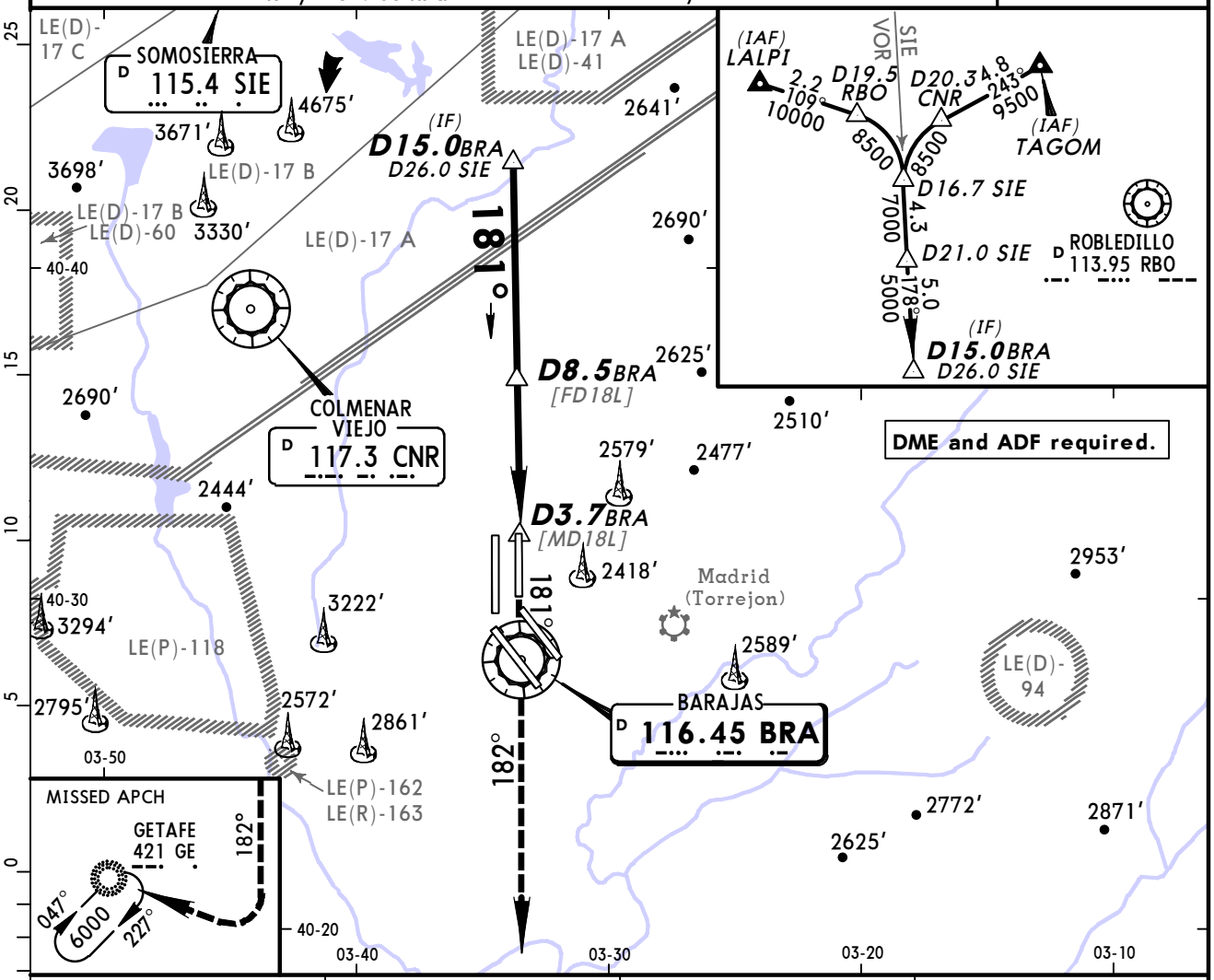
VOR BRA	Final Apch Crs	Minimum Alt D8.5 BRA	DA(H)	Apt Elev 1998′
116.45	181°	3500′ (1578′)	2500′ (578′)	RWY 1922′

MISSED APCH: Climb to BRA VOR. Continue on R-182 BRA until reaching 6000′, then turn RIGHT to GE NDB to join holding at 6000′. Do not climb above 6000′.

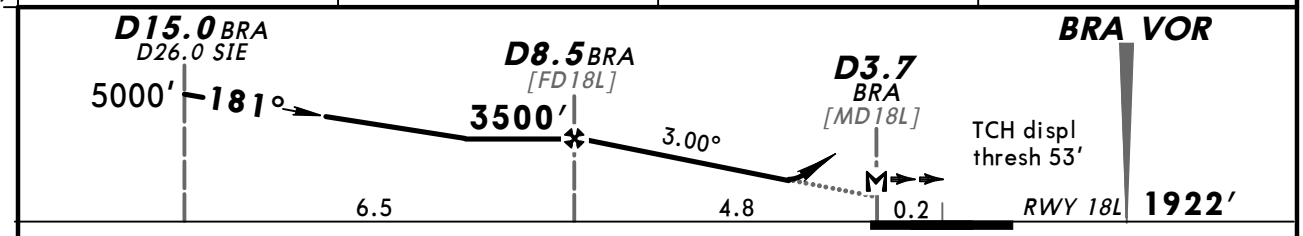
Alt Set: hPa | Rwy Elev: 68 hPa | Trans level: By ATC | Trans alt: 13000′



MSA BRA VOR



BRA DME	8.0	7.0	6.0
ALTITUDE	3400′	3080′	2760′



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.00°	372	478	531	637	743	849
MAP at D3.7 BRA							

HIALS-II
PAPI PAPI
BRA 116.45

PANS OPS

Standard STRAIGHT-IN LANDING RWY **18L**

DA(H) **2500′** (578′)

		ALS out
A	RVR 1500m	
B		
C	RVR 1900m	CMV 2400m
D		

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

CHANGES: Initial apch.

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LEMD/MAD
BARAJAS

JEPPESEN
29 NOV 13 (13-2) Eff 12 Dec

MADRID, SPAIN
VOR Rwy 18R

ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.07	

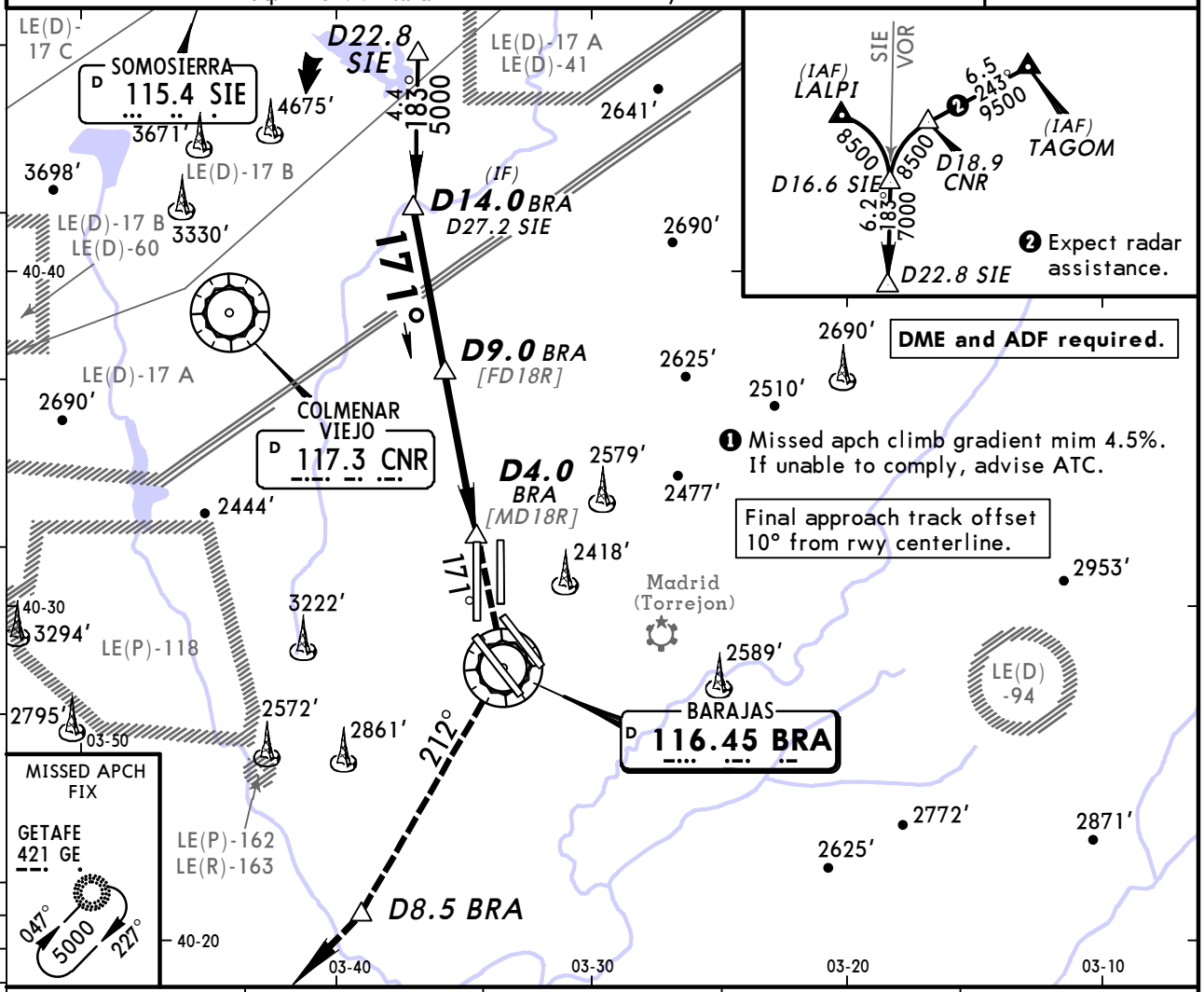
BRIEFING STRIP™

VOR	Final Apch Crs	Minimum Alt	DA(H)	Apt Elev
BRA 116.45	171°	D9.0 BRA 3900′ (1902′)	2550′ (552′)	1998′

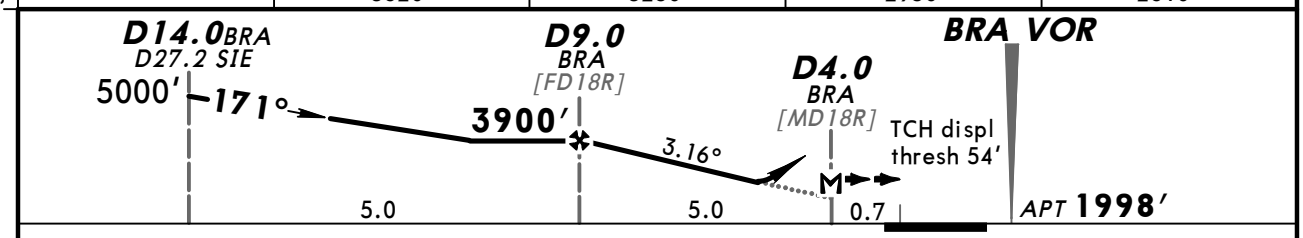
MISSED APCH: Climb to BRA VOR, then turn RIGHT (MAX 220 KT) to intercept R-212 BRA. Cross D8.5 BRA at 5000′, then turn RIGHT (MAX 220 KT) to GE NDB to join holding at 5000′. Do not climb above 5000′. ❶

Alt Set: hPa | Apt Elev: 71 hPa | Trans level: By ATC | Trans alt: 13000′

MSA BRA VOR: 10,000′ (219°, 078°) 4500′



BRA DME	8.0	7.0	6.0	5.0
ALTITUDE	3620′	3280′	2950′	2610′



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.16°	391	503	559	671	783	895
MAP at D4.0 BRA							

HIALS-II PAPI PAPI

BRA 116.45

PANS OPS

Standard STRAIGHT-IN LANDING RWY **18R**

DA(H) **2550′** (552′)

		ALS out
A	RVR 1500m	
B		
C	RVR 1800m	CMV 2500m
D		

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

CHANGES: Initial apch. Notes.

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LEMD/MAD
BARAJAS

JEPPESEN
1 NOV 13 (13-3) Eff 14 Nov

MADRID, SPAIN
VOR Rwy 32L

BRIEFING STRIP

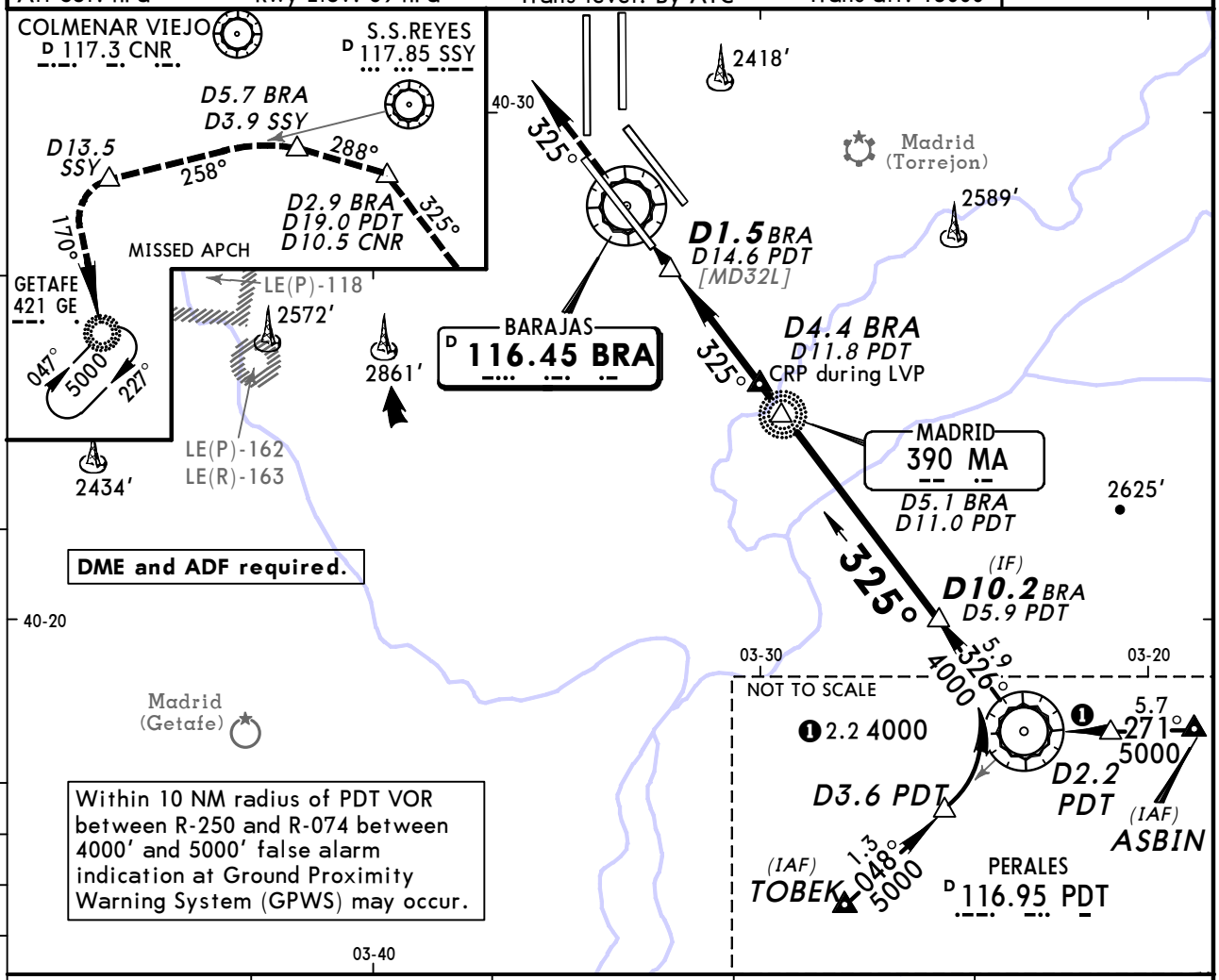
ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.15	

VOR BRA	Final Apch Crs	Minimum Alt MA Lctr	DA(H)	Apt Elev 1998′
116.45	325°	3400′ (1467′)	2420′ (487′)	RWY 1933′

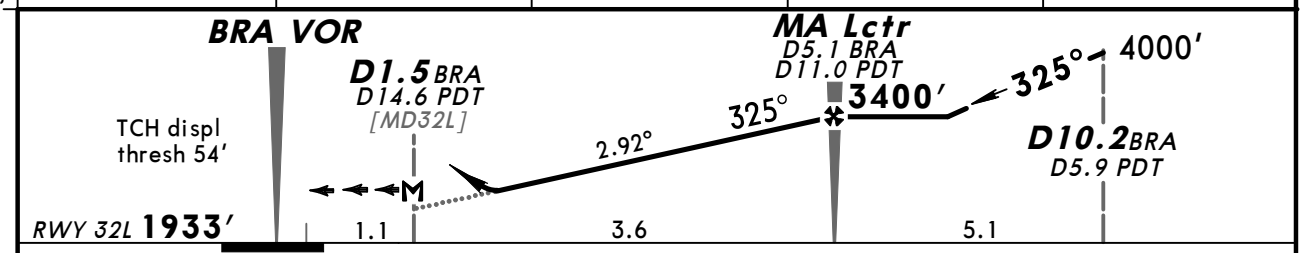
MISSED APCH: Climb on R-325 BRA to D2.9 BRA/D19.0 PDT/D10.5 CNR at or above 2700′. Turn LEFT (MAX 185 KT) onto 288° to D5.7 BRA/D3.9 SSY at or above 3000′. Turn LEFT (MAX 185 KT) to intercept R-258 SSY. Pass D13.5 SSY at or above 4400′, then turn LEFT (MAX 220 KT) onto 170° GE NDB to join holding at 5000′. Do not climb above 5000′.

161° 4300′ 5000′ 003°
MSA PDT VOR

Alt Set: hPa | Rwy Elev: 69 hPa | Trans level: By ATC | Trans alt: 13000′



BRA DME	2.0	3.0	4.0	5.0
ALTITUDE	2490′	2800′	3110′	3420′



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	2.92°	362	465	517	620	723	826
MAP at D1.5 BRA/D14.6 PDT							

HIALS-II
PAPI PAPI

D2.9 BRA
D19.0 PDT
D10.5 CNR on

BRA 116.45
R-325

PANS OPS

Standard STRAIGHT-IN LANDING RWY 32L

DA(H) 2420′ (487′)

		ALS out
A	RVR 1500m	
B		
C	RVR 1500m	CMV 2300m
D		

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

CHANGES: Missed apch.

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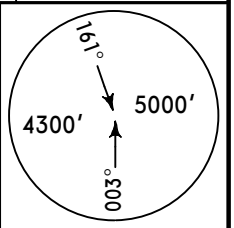
BRIEFING STRIP

ATIS Arrival	MADRID Approach				BARAJAS Tower	For Ground frequencies refer to 10-9
118.25	127.1	127.5	128.7	134.95	118.97	

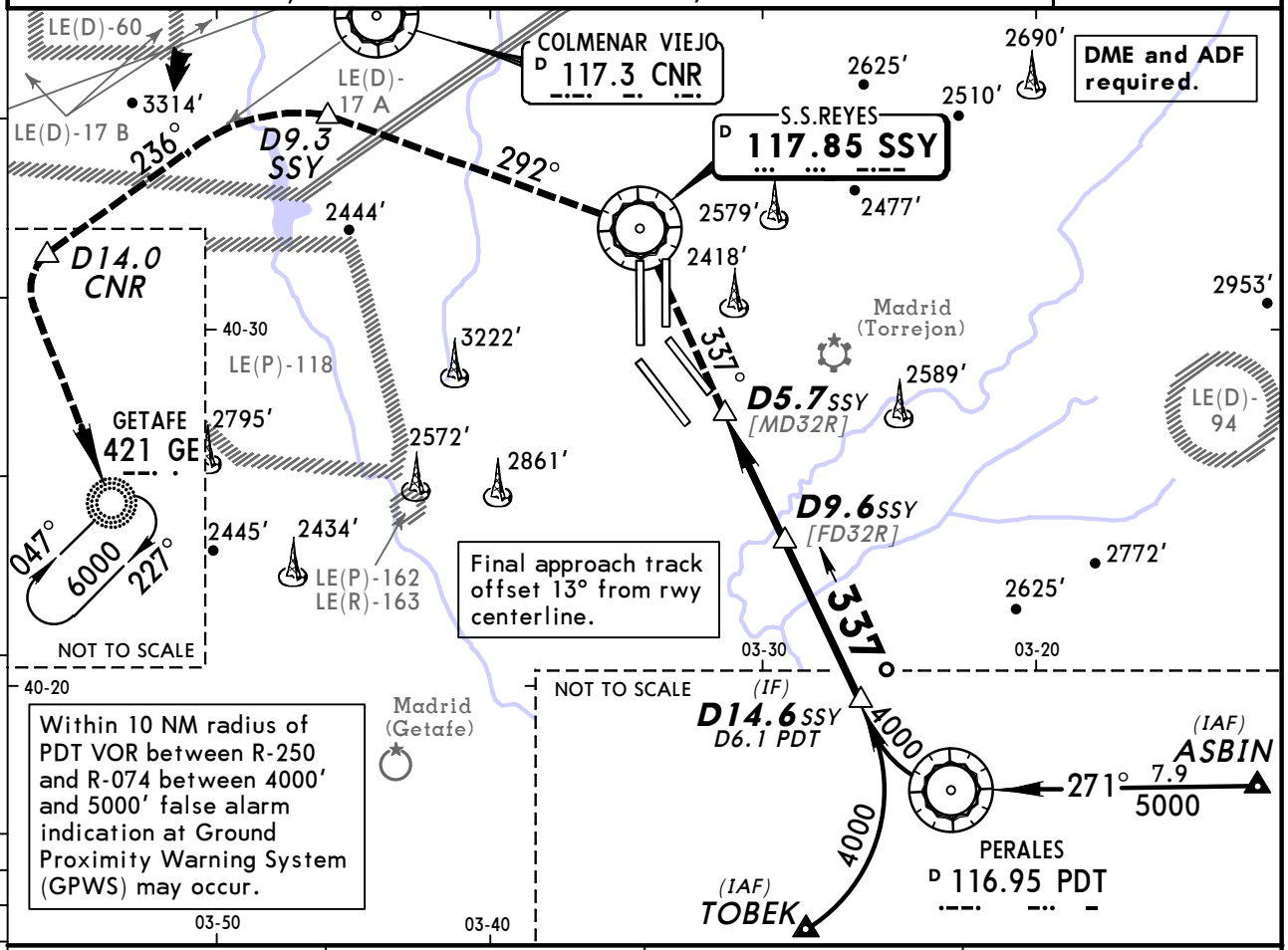
VOR	Final Apch Crs	Minimum Alt	DA(H)	Apt Elev 1998′
SSY 117.85	337°	D9.6 SSY 3400′ (1514′)	2490′ (604′)	RWY 1886′

MISSED APCH: Climb to SSY VOR, then turn LEFT (MAX 185 KT) to intercept R-292 SSY to D9.3 SSY at or above 4500′. Turn LEFT (MAX 220 KT) to intercept R-236 CNR. Cross D14.0 CNR at 6000′, then turn LEFT (MAX 220 KT) to GE NDB to join holding at 6000′. Do not climb above 6000′.

Alt Set: hPa | Rwy Elev: 67 hPa | Trans level: By ATC | Trans alt: 13000′



MSA PDT VOR

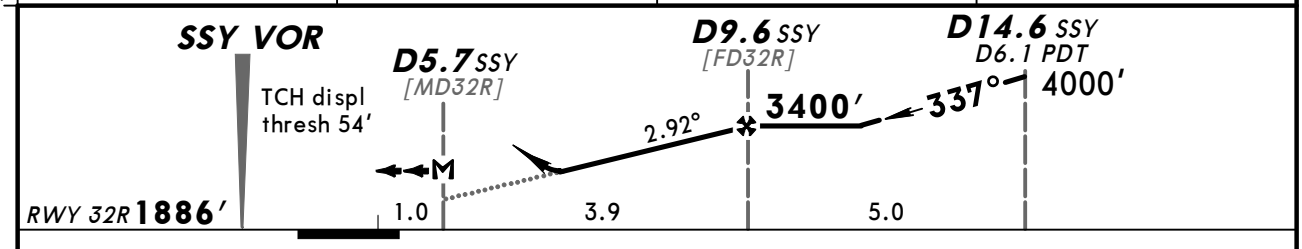


DME and ADF required.

Final approach track offset 13° from rwy centerline.

Within 10 NM radius of PDT VOR between R-250 and R-074 between 4000′ and 5000′ false alarm indication at Ground Proximity Warning System (GPWS) may occur.

SSY DME	7.0	8.0	9.0
ALTITUDE	2650′	2960′	3270′



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	2.92°	362	465	517	620	723	826
MAP at D5.7 SSY							

HIALS-II
PAPI PAPI
SSY 117.85

Standard STRAIGHT-IN LANDING RWY **32R**

DA(H) **2490′** (604′)

		ALS out
A	RVR 1500m	
B		
C	CMV 2100m	CMV 2800m
D		

CIRCLE-TO-LAND

Max Kts	MDA(H)	VIS
100	2720′ (722′)	1500m
135	2860′ (862′)	1600m
180	3280′ (1282′)	2400m
205	3620′ (1622′)	3600m

PANS OPS

CHANGES: Missed apch.

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Chart changes since cycle 26-2013

ADD = added chart, REV = revised chart, DEL = deleted chart.

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
MADRID, (BARAJAS - LEMD)				
ADD	ADUXO 3B, BANVO 1A, TERSA...	10-2C1	29 Nov 2013	12 Dec 2013
ADD	NASOS 3A, PRADO & VILLA 3...	10-2C2	29 Nov 2013	12 Dec 2013
ADD	ADUXO 1D, BANVO 1D, TERSA...	10-2E1	29 Nov 2013	12 Dec 2013
ADD	ADUXO, BANVO & TERSA 1DCD...	10-2M	29 Nov 2013	12 Dec 2013
REV	VILLATOBAS 2NF DEP	10-3W	29 Nov 2013	12 Dec 2013
ADD	VILLATOBAS 1R & 3W DEPS	10-3X	29 Nov 2013	12 Dec 2013
DEL	VILLATOBAS 3W DEP	10-3X	29 Nov 2013	12 Dec 2013
REV	AIRPORT	10-9	29 Nov 2013	12 Dec 2013
REV	AIRPORT INFO, TAKE-OFF MN...	10-9A	29 Nov 2013	12 Dec 2013
REV	ILS Z OR LOC RWY 18L	11-1	29 Nov 2013	12 Dec 2013
REV	CAT II/III ILS Z RWY 18L	11-1A	29 Nov 2013	12 Dec 2013
REV	ILS Y RWY 18L	11-2	29 Nov 2013	12 Dec 2013
REV	CAT II/III ILS Y RWY 18L	11-2A	29 Nov 2013	12 Dec 2013
REV	ILS Z OR LOC RWY 18R	11-3	29 Nov 2013	12 Dec 2013
REV	CAT II/III ILS Z RWY 18R	11-3A	29 Nov 2013	12 Dec 2013
REV	ILS Y RWY 18R	11-4	29 Nov 2013	12 Dec 2013
REV	CAT II/III ILS Y RWY 18R	11-4A	29 Nov 2013	12 Dec 2013
REV	VOR RWY 18L	13-1	29 Nov 2013	12 Dec 2013
REV	VOR RWY 18R	13-2	29 Nov 2013	12 Dec 2013

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TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport LEMD

Type: Terminal
Effectivity: Temporary
Begin Date: Immediately
End Date: Until Further Notice

(SIDs) DEPARTURE EAST freq provided by Madrid APP on 124.225, DEPARTURE WEST freq provided by Madrid APP on 131.175 commissioned.

Type: Terminal
Effectivity: Permanent
Begin Date: Immediately
End Date: No end date

A-CDM operational trials are planned to start in October 2013. Information implemented in 10-1P pages with revision 27-Sep-13.

Type: Terminal
Effectivity: Permanent
Begin Date: Immediately
End Date: No end date

(11-2, 11-2A) Procedure only usable when BRA VOR and/or GE NDB u/s.