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Revision Letter For Cycle 01-2014

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General Information

Location: Munich Deu
IATA Code: MUC
Lat/Long: N48° 21.2' E011° 47.2'
Elevation: 1487 ft

Airport Use: Public
Magnetic Variation: 2.6°E

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

Sunrise: 0704 Z
Sunset: 1533 Z,

Runway Information

Runway: 08L
Length x Width: 13123 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1467 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 08R
Length x Width: 13123 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1486 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 26L
Length x Width: 13123 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1470 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 26R
Length x Width: 13123 ft x 197 ft
Surface Type: concrete
TDZ-Elev: 1449 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

ATIS 123.125
Munich Tower 120.5
Munich Tower 119.4
Munich Tower 118.7
Munich Tower 35.555 Military
Munich Ground Control 121.975
Munich Ground Control 121.825
Munich Apron 3 Ramp/Taxi Control 121.925
Munich Apron 2 Ramp/Taxi Control 121.7
Munich Apron 1 Ramp/Taxi Control 121.775
De-Icing South DA2 Ramp/Taxi Control 121.6
De-Icing South DA1 Ramp/Taxi Control 121.875
De-Icing North/South DA3 Ramp/Taxi Control 135.225
De-Icing North DA2 Ramp/Taxi Control 121.9
De-Icing North DA1 Ramp/Taxi Control 121.65
De-Icing Coordinator Ramp/Taxi Control 130.6
Munich Clearance Delivery 121.725
Munich Clearance Delivery 37.835
Munich Radar South Approach Control 127.95 TCA
Munich Radar North Approach Control 123.9 TCA
Munich Radar Approach Control 128.25 TCA
Munich Radar Approach Control 126.45
Munich Radar Approach Control 131.225 TCA
Munich Radar Approach Control 33.88 TCA
Munich Radar Approach Control 26.275 TCA Military
Munich Radar Approach Control 25.9 Military
Munich Director South Approach Control 132.3
Munich Director South Approach Control 25.955
Munich Director North Approach Control 118.825 TCA
Munich Arrival South Approach Control 120.775 TCA
Munich Arrival North Approach Control 128.025 TCA

1. GENERAL

1.1. ATIS

*D-ATIS 123.12

1.2. NOISE ABATEMENT PROCEDURES

For additional depiction refer to 10-4 chart.

1.2.1. GENERAL

Pilots shall reduce noise disturbance caused by aircraft engines to an unavoidable minimum at MUNICH APT and its vicinity. This applies in particular to the times of night flying restrictions.

1.2.2. NIGHT FLYING RESTRICTIONS

From 2200-0600LT, flight operations are subject to the following restrictions for noise abatement reasons:

Restrictions regarding operating times:

Night flights are only permitted with the following provisions and with ACFT not exceeding the noise limits as stipulated by Annex 16 Section 3 of the ICAO Convention:

1.2.2.1. In commercial scheduled air service and charter service s

a) up to 28 scheduled flight movements in the period from

- 2200-2330LT for take-offs and landings and
- from 0500-0600LT for landings only.

Intercontinental flights shall have priority; in exceptional cases and if there is a particular traffic-related interest, such flights may be planned up to 2400LT.

b) Delayed landings and take-offs in the period from 2200-2400LT, provided the scheduled time of arrival or departure at or from MUNICH APT is planned before 2200LT or in the case of flight movements stated in paragraph 1.2.2.1., 1.2.2.2. and 1.2.2.3. before 2330LT and provided the arrival or departure is before 2400LT. Early landings in the period from 0500-0600LT, provided the scheduled arrival time is planned after 0600LT.

c) Flights by airlines whose ACFT are mainly maintained at MUNICH APT in the period from 2200-2330LT for all landings and for scheduled take-offs of flights in intercontinental traffic and from 0500-0600LT for take-offs for ferry flights (empty flights) and for landings in intercontinental traffic.

In exceptional cases and if there is a particular traffic-related interest, flights in intercontinental traffic may be planned up to 2400LT.

1.2.2.2. Scheduled take-offs or landings of ACFT that do not generate on average an individual noise level exceeding 75 dB(A) at any single noise measuring point in the vicinity of MUNICH APT, in the period from 2200-2330LT and from 0500-0600LT.

This regulation shall also apply with lower priority to passenger flights by airlines with ACFT with a maximum take-off weight of more than 12t, provided such flights are carried out regularly and are reported to the APT Coordinator of the Federal Republic of Germany the day before to the following address:

Flughafenkoordinator der Bundesrepublik Deutschland

60549 Frankfurt/Main

Tel. (069) 69 07 33 60

Telefax: (069) 69 05 08 11, SITA: FRAZTXH, AFTN: EDDFYHYX

1. GENERAL

1.2.2.3. Flights that are performed for services pursuant to para 4 No. 1 a PostG (Postal Act) dated 22nd December 1997 (Official Federal Gazette I, page 3294) or are carried out as surveying flights for the calibration of navigational aids from 2200-0600LT.

Exceptions:

Above stated restrictions regarding operating times do not apply to:

- Flights for providing assistance in emergencies and disasters and for executing police duties,
- Landings for meteorological, technical and other flight safety reasons,
- Flights that have been approved in justified exceptional cases by the "Bayerisches Staatsministerium fuer Wirtschaft, Verkehr und Technologie" or upon its instruction - by the Luftaufsicht at MUNICH APT, in substantiated individual cases to avoid serious disruptions to air traffic or in cases of special public interest.

Modified Bonus List:

Beginning with the summer flight plan 2002, take-offs and landings in the period from 2200-0600LT are only allowed with ACFT that are listed in the actual bonus list of the "Bundesministerium fuer Verkehr, Bau- und Wohnungswesen".

This list has been extended by the authorizing agency to include the ACFT types B737-600/700/800. Flights according to paragraphs 1.2.2.1 b) and 1.2.2.2. are exempt from this regulation. The authorizing agency reserves the Right to modify the list beginning in the year 2004.

1.2.3. RUN-UP TESTS

Validity of the engine test hangar regulations remains unaffected.

- Engine test runs for maintenance reasons are only permitted in the engine test hangar.
- The operating period of the engine test hangar is H24.
- In order to ensure compliance with the existing noise abatement conditions, facility restrictions may be imposed, if necessary.

Use of the engine test hangar shall always be announced via phone ext. 21131 to the FMG traffic centre, comprising the following data:

ACFT identification, period of use, expected time for towing and planned change of position.

ACFT shall not taxi under their own power into or out of the engine test hangar.

1.3. LOW VISIBILITY PROCEDURES (LVP) DURING CAT II/III OPERATIONS

1.3.1. GENERAL

Whenever operation of CAT II/III LVP is announced, taxiing is restricted to TWYs with operating centerline lights for all ACFT.

TWY centerline lights within the ILS sensitive area from RWY 08R/26L towards TWY T and from RWY 08L/26R towards TWY M are colour-coded (yellow-green).

After landing pilots are requested to report vacating the colour-coded centerline lights to indicate that the ACFT has vacated the ILS sensitive area.

1.3.2. STOP BARS

Stop bars are installed at CAT II/III holding positions, TWY intersections, junctions and sections. Taxiing across stop bars is strictly prohibited when they are switched on. Clearances of any kind do not cover permission for taxiing across an operating stop bar.

1.3.3. GUIDANCE WITHIN AREA OF APRON CONTROL RESPONSIBILITY

Within area of Apron Control responsibility ACFT may be guided by means of segmented green TWY centerline lights, even if all-weather operations CAT II/III are not active. Unless otherwise instructed, taxiing is permitted for ACFT only on TWYs with operating centerline lights.

Taxi guidance lines to the parking positions are yellow-lighted.

Taxiing across operating red stop bars is not permitted.

1. GENERAL

1.4. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM

1.4.1. OPERATION OF MODE S TRANSPONDERS WHEN ACFT IS ON THE GROUND

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

Pilots shall select AUTO mode and assigned Mode A code.

If AUTO mode is not available, select ON (e.g. XPDR) and assigned Mode A code under the following conditions:

- From the request for push-back or taxi, whichever is earlier;
- After landing, continuously until the ACFT is fully parked on stand;
- When fully parked on stand, select STBY.

Whenever the ACFT is capable of reporting ACFT ident (i.e. callsign used in flight), the ACFT ident should also be entered from the request for push-back or taxi, whichever is earlier (through the FMS or the transponder control panel). ACFT crew shall use the format for entry of the ACFT ident as defined in item 7 of the ICAO flight plan (e.g. AFR6380, SAS589, BAW68PG).

To ensure that the performance of systems based on SSR frequencies (including airborne TCAS units and SSR radars) is not compromised, TCAS should be selected when approaching the holding point. It shall be deselected after vacating the RWY.

For ACFT taxiing without flight plan, Mode A code 2000 shall be selected.

1.5. TAXI PROCEDURES

On the aprons ACFT must taxi on or along yellow, blue or orange taxiing guidelines.

TWYs W1 orange and W1 blue, O1 orange and O1 blue and O3 orange and O3 blue
MAX wingspan 118'/36m.

1.6. PARKING INFORMATION

Visual Docking Guidance System available at stands 101, 102, 103, 104, 105, 107A, 107B, 108, 109B, 110, 111A, 111B, 112, 113A, 113B, 113X, 115A, 115B, 116, 117B, 118, 119, 120, 121, 131-135, 141-144, 151-155, 161-165, 181-189, 201-224, 231-234, 243-256 and 305-311.

2. ARRIVAL

2.1. SPEED RESTRICTIONS

MAX 250 KT below FL 100 or as by ATC. Not applicable within airspace C.

2.2. NOISE ABATEMENT PROCEDURES

2.2.1. REVERSE THRUST

When landing, reverse thrust other than idle thrust shall only be used to an extent necessary for safety reasons.

2.3. CAT II/III OPERATIONS

RWYs 08L, 08R, 26L and 26R are approved for CAT II/III operations, special air-crew and ACFT certification required.

2.4. RWY OPERATIONS

2.4.1. INDEPENDENT PARALLEL APPROACHES ON RWY s 08L/08R AND 26L/26R

Following the conditions and procedures described below, independent parallel approaches may be conducted for approaches on the parallel RWY system in all meteorological conditions:

- a) One approach radar system (ASR) is in operation.
- b) Both parallel ILS systems are in operation; or one of the two ILS systems is in operation while the localizer of the other is in operation.
- c) Radar separation of at least 3 NM, and/or 1000' vertical separation is maintained until both ACFT are stabilized on the localizer course within 25 NM.
- d) For radar vectoring to the Instrument Landing System (ILS), a course is allocated, showing an angle of not more than 30° to the localizer course.
- e) After a change of frequency to aerodrome control, the air-traffic controller at the aerodrome will take over the supervision of approaches with ASR until touchdown or until the pilot-in-command reports "aerodrome in sight".
- f) If the air-traffic controller ascertains deviations in one of the approaching ACFTs course which reduce the lateral separation, not only will the deviating ACFT be requested to perform an evasive manoeuvre, but also the ACFT on the parallel approach, even if the latter is flying on the correct final approach.

If the conditions under a) or b) no longer apply, radar and/or vertical separation will be provided immediately.

2.4.2. AVOIDANCE OF AN UNINTENDED CROSSING OF THE FINAL APPROACH COURSE WITH PARALLEL RWYS WHEN RADIO CONTACT IS TEMPORARILY IMPOSSIBLE

If an ACFT is on a radar vector which leads it to final approach course at an angle of 50° or less, or if ACFT has been cleared to a waypoint located on the final approach course, the pilot shall turn inbound to the final approach of the previously announced RWY and shall adhere to the cleared altitude/flight level, unless the pilot has been instructed by ATC clearance to cross final approach course.

2.4.3. AIR TRAFFIC HANDLING

2.4.3.1. USE OF RWYS

For arriving ACFT via ROKIL/LANDU, RWY 08L/26R will be basically assigned. For arriving ACFT via NAPSA/BETOS, RWY 08R/26L will be basically assigned. Pilots, whose flight is supposed to be positioned at the stand-groups 700/800/900 and hangar 1, 3, 4 should duly advise Approach Control. If traffic permits, these flights will be guided to RWY 08R/26L to avoid taxi delay on the ground. When RWY vacated, contact Ground.

2.4.3.2. FREQUENCY CHANGE

While being transferred from MUNICH Arrival to MUNICH Director, initial call shall be restricted to CALL SIGN only, in order to avoid frequency congestion.

2. ARRIVAL**2.4.3.3. HIRO HIGH INTENSITY RUNWAY OPERATIONS**

To achieve the highest possible rate/hour for arrivals and departures, RWY occupancy times are to be reduced to a minimum.
RWYs shall be vacated via high speed turn-offs.

Whenever RWY conditions permit, the following or earlier high-speed turn-offs shall be used:

RWY	Acft	Turn off intersection	Dist from THR ft/m
08L	heavy	A10	7415' / 2260m
	medium (JET)	A8	5610' / 1710m
	medium (PROP) / light	A5	4167' / 1270m
08R	heavy	B10	7218' / 2200m
	medium (JET + PROP) / light	B7	5184' / 1580m
26L	heavy	B6	7283' / 2220m
	medium (JET)	B8	5446' / 1660m
	medium (PROP) / light	B11	3806' / 1160m
26R	heavy	A6	7218' / 2200m
	medium (JET + PROP) / light	A9	5184' / 1580m

Plan earlier high-speed turn-offs only if vacating RWY via these exits is assured.
Do not vacate via TWY A7 and/or B9 unless advised by MUNICH Tower!

In the interest of noise abatement, from 2200-0600LT arriving ACFT should leave the RWY during idle thrust via the high-speed turn-offs stated above or later.
It is recommended to name the respective high-speed turn-off during the approach briefing (cockpit).

2.5. TAXI PROCEDURES

ACFT shall establish radio contact with MUNICH Apron prior leaving area of ATC competency and taxi independently as instructed by MUNICH Apron to the position assigned.

Taxiing ACFT should not deviate from centerline marking and lighting, except when advised by the control unit.

2.6. OTHER INFORMATION**2.6.1. FUEL SAVING AND NOISE REDUCING ILS APPROACH PROCEDURES
(CONTINUOUS DESCENT APPROACH - CDA)****2.6.1.1. GENERAL**

For the purpose of fuel-saving and noise abatement during approach the following approach procedure is announced. It may be requested by the pilot or offered by the controller. It can be conducted only in connection with an ILS approach.

2. ARRIVAL

2.6.1.2. PROCEDURE

ACFT will be guided by the approach control unit by means of radar vectoring and will be cleared for a continuous descent to the intermediate approach altitude in such a way that after reaching this intermediate approach altitude on the localizer course, about 1 NM will be left for intercepting the glide path in level flight. This intermediate approach segment will serve to reduce speed.

Intermediate approach altitude: 5000'. It is assumed that the continuous descent will be performed at a rate of 300 ft/NM (descent angle approx 3°), down to the cleared altitude.

If, for specific reasons (e.g. separation, airspace structure, obstacles), altitudes above the intermediate approach altitude have to be initially assigned, these restrictions will be lifted early enough to allow a continuous descent at a rate of 300 ft/NM.

Details about the distance from touchdown will be transmitted to the pilot together with the clearance for descent and usually at 20, 15 and 10 NM from touchdown. This should enable the pilot to correct the rate of descent as required.

In case of traffic situations allowing no CDA (e.g. approaches of ACFT with different performance data), pilots will be informed by the notice NO CDA POSSIBLE. In this case, approaches must be conducted according to the previous procedures.

2.6.1.3. NOISE ABATEMENT

On approaches in accordance with the CDA, pilots are also expected to use the approach techniques recommended for noise abatement in the vicinity of APTs (see AIR TRAFFIC CONTROL page GERMANY-1).

2.6.2. AIR TRAFFIC HANDLING

2.6.2.1. PROCEDURE

Arriving ACFT will be guided to final by radar vectoring or RNAV guidance (transitions/waypoints).

2.6.2.2. CLEARANCE LIMIT

With no further clearance issued, pilots have to consider the following clearance limits of the respective Standard Arrival Routes: ROKIL (via WLD), LANDU (via DIMGA and DINOG), NAPSA (via SBG) or BETOS (via DISUN).

2.6.2.3. HOLDING PROCEDURE

Expect holding overhead ROKIL/LANDU/TILGO and NAPSA according to the arrival route. RNAV-equipped ACFT are expected to enter published RNAV-holdings.

2.6.2.4. COMM FAILURE PROCEDURE

Only in the case of communication failure have pilots to proceed to the respective Initial Approach Fix MUN/MIQ, to hold overhead and execute a standard instrument approach following the published procedures.

Pilots already cleared for a RNAV-transition should follow the transition and execute a standard instrument approach to the respective RWY.

3. DEPARTURE

3.1. DE-ICING

3.1.1. GENERAL

Special areas are assigned for the de-icing of ACFT.

De-icing notification to the de-icing coordinator is mandatory at least 15 minutes prior to off-block on frequency 130.6 or via telephone (APT phone 181 - 65 66; external phone 089 - 977 - 65 66).

ATC will arrange the de-icing sequence and assign the respective de-icing area. During the de-icing treatment the assigned ATC frequency has to be monitored. With start-up request, Delivery shall be informed about the need of an engine run-up after de-icing in accordance with departure preparations.

The actual TSAT should be taken into account during de-icing procedures.

The deicing times shall not be taken into consideration when determining the TOBT. They will be considered when calculating the TSAT on the basis of the application for de-icing.

De-icing must, therefore, be applied for as early as possible.

3.1.2. COMMERCIAL JET ACFT

The de-icing on the areas listed below is performed with ACFT engines running.

The following facilities are also available for ATR 42/72 with operative propeller braking.

MUNICH De-icing:	NORTH 1 (RWY 26R)	121.65	SOUTH 1 (RWY 26L)	121.87/122.77
	NORTH 2 (RWY 26R)	121.9	SOUTH 2 (RWY 26L)	121.6
	NORTH 3 (RWY 26R)	122.55	SOUTH 3 (RWY 26L)	135.22
	NORTH 1 (RWY 08L)	121.65/132.25	SOUTH 1 (RWY 08R)	121.87/122.77
	NORTH 2 (RWY 08L)	121.9	SOUTH 2 (RWY 08R)	121.6
	NORTH 3 (RWY 08L)	122.55	SOUTH 3 (RWY 08R)	135.22

3.1.3. COMMERCIAL PROPELLER-DRIVEN ACFT

Propeller-driven ACFT (except ATR 42/72) are de-iced on Aprons 1, 2, 3, 6, 7, 8 and 9 at their respective parking position. De-icing is performed with engines switched off. Information on possible delay shall be obtained from Delivery before starting the de-icing procedure.

3.1.4. GENERAL AVIATION ACFT

On Apron 10 a de-icing area is assigned to General Aviation ACFT.

De-icing is performed with engines switched-off.

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

3.2.1. START-UP

3.2.1.1. DEFINITIONS

TOBT: Target Off-Block Time

The time which is binding and announced by the airline company/handling agent, at which the entire ground handling will be finished, the ACFT doors shut, the passenger gangways pushed back from the ACFT, the start-up clearance received and at which the push-back/taxi clearance can be given.

TOBT is a reference time used for all ground handling processes except for ACFT push-back and de-icing. This time is used for coordination purposes, since it is the most available time.

TSAT: Target Start-Up Approval Time

Calculated time at which start-up clearance can be expected at the latest. The TSAT includes all relevant parameters such as CTOT, variable taxiing time etc.

SEPL: Sequence planner

IT system for calculating the TOBT and TSAT.

3. DEPARTURE

MGT: Minimum Ground Time

The Minimum Ground Time is a minimum Turn-Round time for ACFT depending on the airline, type of ACFT and destination.

RMT: Remaining Time

The Remaining Time is the period between TSAT and the targeted take-off time.

3.2.1.2. AUTOMATIC TARGET OFF-BLOCK TIME (TOBT)

For ACFT not subject to a direct turn-round flight, the TOBT will be generated as of the time "Actual Off-Block from the directly preceding position".

Important dependencies for the primary generated TOBT:

(Estimated Inblock Time (EIBT) + Minimum Ground Time (MGT) smaller or equal than EOBT) (EIBT + Minimum Ground Time (MGT) more or equal than EOBT) (TOBT + Remaining Time (RMT) smaller or equal than CTOT).

In case of changing the ACFT, the original TOBT will remain unchanged. If the TOBT is not automatically generated for a flight, it must be entered by the TOBT responsible person.

3.2.1.3. PERSON RESPONSIBLE FOR TOBT

The handling agent, the airline company (for flights without a handling agent) or the Pilot-in-Command (for General Aviation Flights without a handling agent) is responsible for the correctness of and adherence to the TOBT.

3.2.1.4. TOBT CORRECTION/DELETION

If the TOBT cannot be adhered to, it must be corrected by the TOBT responsible person. Until the Target Start-Up Approval Time (TSAT) has been issued, the TOBT can be corrected as often as desired. After the TSAT has been issued, the TOBT may be corrected up to a maximum of three times. TOBT must then be deleted and filed anew. If TOBT is changed to an earlier time, the new TOBT must be 5 minutes later than the actual time.

The TOBT may not be set earlier than 10 minutes before the current EOBT of the ATC flight plan.

As the TOBT is triggering additional processes at the APT, TOBT adaptation shall be done as soon as possible. If a flight is to be withdrawn from the TOBT and/or TSAT calculation, the TOBT shall be cancelled. To set this process in motion again, the TOBT shall be filed anew. It is still mandatory to send a delay message to the IFPS if the EOBT deviates by 15 minutes or more.

3.2.1.5. TOBT DIALOGUE

The TOBT dialogue will take place using the following channels:

- Dialogue sequence planner (SEPL)
- Internal system of the airline/handling agent (via interface)
- HTML masks
- Internet dialogue WEASEL
- FMG traffic operation center following enquiry via phone +49 89 975 21135

For General Aviation flights:

Phone +49 89 975 21498 (MON - SUN 0530 - 2220 LT)

Outside opening times by calling the FMG traffic operation center:

Phone + 49 89 975 21135

3.2.1.6. TARGET START-UP APPROVAL TIME (TSAT)

TSAT will be calculated 40 minutes prior to TOBT. TSAT is the time at which the ACFT may expect the start-up and enroute clearance, at the latest. Changes to the TOBT do not affect the TSAT in general, as long as the newly calculated TOBT does not come after the calculated TSAT. The TSAT confirmation message is accomplished via the TOBT reporting path. The TOBT responsible person must ensure the correct transmission of the TSAT to the pilot.

3. DEPARTURE

3.2.1.7. PROCESS

The "Pre-Departure Sequence" will be determined in accordance with TSAT. On reaching the TOBT, the ACFT must be ready for start-up and/or apron de-icing.

The pilot can request start-up and enroute clearance 5 minutes or less before the TOBT. Depending on the TSAT as well as on the actual operational traffic situation, Delivery will grant start-up and enroute clearance. Shifting to an earlier TOBT of more than 5 minutes shall be done by the TOBT responsible person. The approval for push-back/taxi shall be requested not later than 5 minutes after start-up approval has been issued. Otherwise, the TOBT will be deleted and must be entered again. For datalink departure clearance (DCL), the published procedures and the time parameters continue to apply.

The TSAT is transmitted ("Start-up approved according to TSAT - hh:mm - ") using CLD (departure clearance uplink message - issuance of start-up approval and enroute clearance by Delivery).

The push-back/taxi request shall be made at TSAT +/- 5 minutes.

3.2.1.8. REMOTE HOLDING

Remote Holding can be applied for via the TOBT reporting channels.

3.2.2. PUSH-BACK & TAXIING

To obtain push-back instructions from a nose-in position, pilots must request permission from MUNICH Apron.

In order to avoid delays in taxiing, pilots are instructed to start engines during push-back.

After completion of push-back, "ready to taxi" shall be reported to MUNICH Apron.

To obtain instructions for taxiing from a taxi-out position, pilots must request taxi clearance from MUNICH Apron reporting "ready to taxi".

On initial radio contact with MUNICH Apron, pilots shall report position and RWY assigned.

Permission for push-back or taxiing from a position may only be requested if the pilot can perform the manoeuvre immediately.

3.3. NOISE ABATEMENT PROCEDURES

Between 2200-0600LT departures of ACFT with wake turbulence category "H" and "J" from RWY 26L via MUN shall use a departure route with designator "W" only.

3.4. RWY OPERATIONS

3.4.1. USE OF RWYS

Departing ACFT into N and NE directions have to expect RWY 08L/26R.

Departing ACFT into NW directions have to expect RWY 08L or 26L.

Departing ACFT into SW, S and SE directions have to expect RWY 08R/26L.

3.4.2. FREQUENCY CHANGE

While being transferred from Ground to Tower, initial call shall be omitted and Tower frequency shall be monitored to be ready for further clearances at all times.

After departure, pilots shall change to the pre-selected departure frequency only when advised by Tower.

3. DEPARTURE

3.4.3. HIGH INTENSITY RWY OPERATIONS

Pilots should ensure that they are able to follow the clearance to the take-off position or the take-off clearance without delay to keep RWY occupation times as short as possible.

Use CAT II/III holding position only during low visibility operation (CAT II/III) or when instructed by Tower. Otherwise taxi forward to CAT I holding position. Cockpit checks should be completed prior to line-up, and any checks requiring completion on the RWY should be kept to a minimum.

ATC instructions to be ready for immediate departure ("be ready for/expect immediate departure") will be issued if an immediate realization of the succeeding take-off clearance is possible, occupying the RWY as short as possible.

Pilots unable to perform, shall inform ATC accordingly without delay.

Pilots shall prepare for the following take-off runs available:

RWY	ACFT	TWY intersection	TORA ft/m
08L	heavy + medium (JET)	A1 / A2	13,123' / 4000m
	light (JET) + turboprop	A4	9252' / 2820m
	light (JET) + turboprop	A6	7218' / 2200m
08R	heavy + medium (JET)	B1 / B2	13,123' / 4000m
	heavy + medium (JET)	B3	12,467' / 3800m
	light (JET) + turboprop	B4	9318' / 2840m
	light (JET) + turboprop	B6	7283' / 2220m
26L	heavy + medium (JET)	B14 / B15	13,123' / 4000m
	heavy + medium (JET)	B13	12,467' / 3800m
	light (JET) + turboprop	B12	9252' / 2820m
	light (JET) + turboprop	B10	7218' / 2200m
26R	heavy + medium (JET)	A14 / A15	13,123' / 4000m
	heavy + medium (JET)	A13	12,467' / 3800m
	light (JET) + turboprop	A12	9121' / 2780m
	light (JET) + turboprop	A10	7415' / 2260m

The pilot may ask for shortened take-off runs.

3.5. OTHER INFORMATION

3.5.1. DATALINK DEPARTURE CLEARANCE (DCL)

DFS (Deutsche Flugsicherung GmbH) is offering to grant start-up and route clearance using Datalink. The procedures for this are described in an AIC.

Deviations from this and depending on the traffic and weather situation, the route clearance can be transmitted via Datalink in advance after receiving a RCD, while start-up clearance will be granted on the frequency listed in the CLD as the occasion arises.

Pilots shall maintain listening watch on this frequency and shall refrain from asking questions about the start-up clearance.

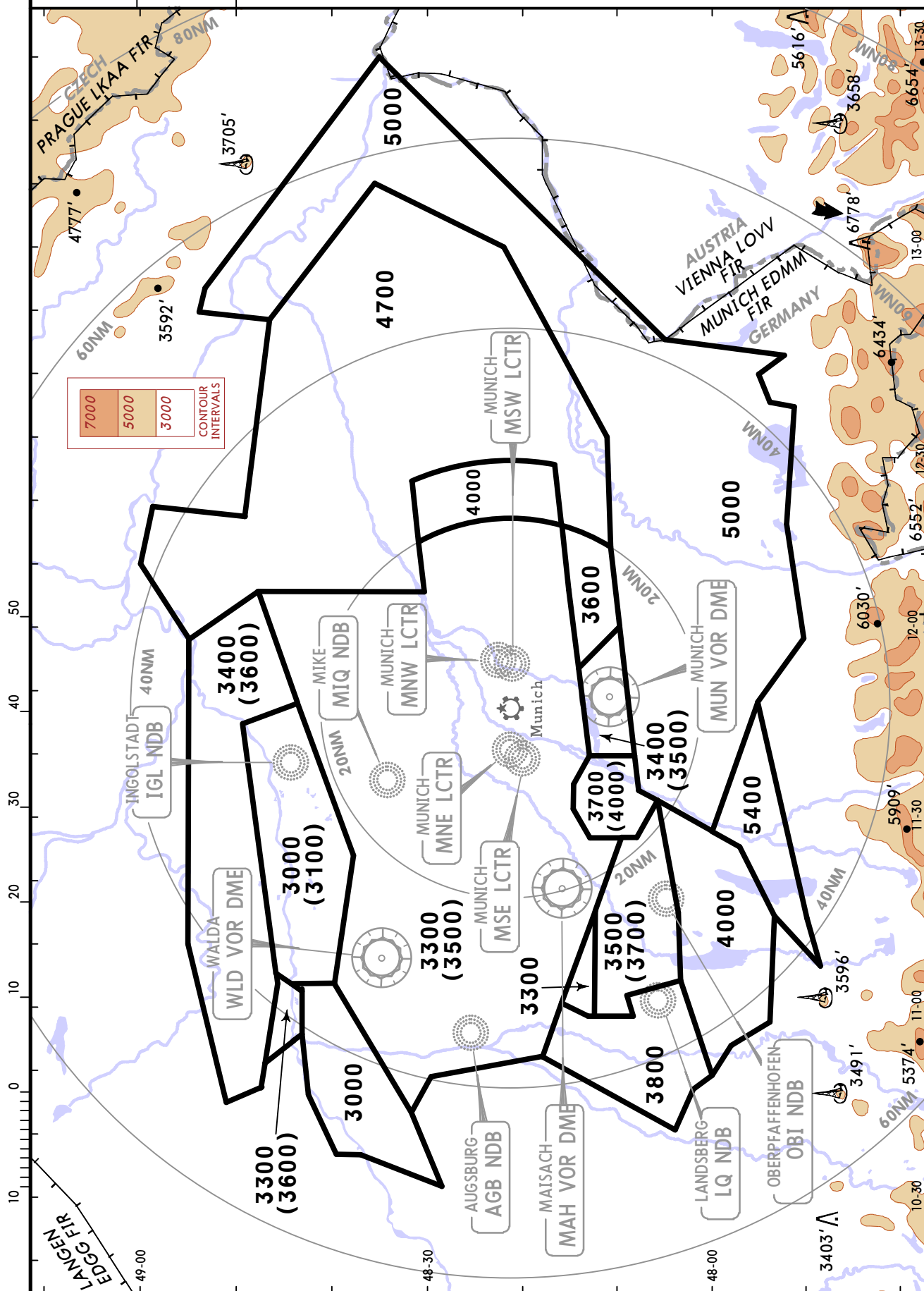
The following time parameters apply:

- t_i - 25 min prior to EOBT for unregulated flights.
- 30 min prior CTOT for ATFM regulated flights
- t_f - 11 min prior to EOBT for unregulated flights.
- 16 min prior to CTOT for ATFM regulated flights.
- t_0 - 1 min
- t_1 - 5 min
- t_2 - 1 min

MUNICH
Radar (APP)
123.9
127.95
128.25
*131.22

Apt Elev
1487'

Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000'
The MRVA (Minimum Radar Vectoring Altitude) is the lowest altitude which may be used for radar vectors for IFR flights taking into account the minimum safe height (1000' above the highest obstacle within a radius of 8 km) and airspace structure (lower limit of the controlled airspace plus a buffer of 500'). Below the MRVA, IFR flights will normally be cleared on published IFR procedures only.
Altitudes in brackets apply for the period from AIRAC date in November until AIRAC date in March in order to meet required obstacle clearance at cold temperatures.

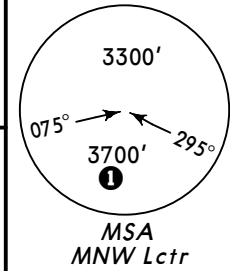


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*D-ATIS
123.12

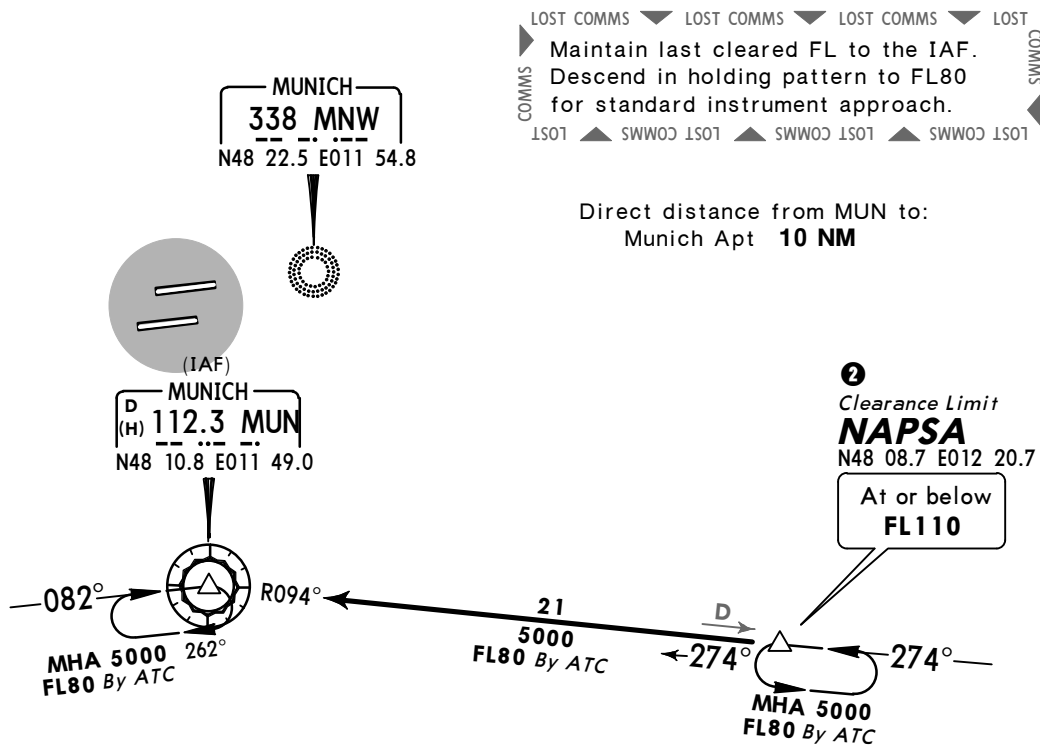
Apt Elev
1487'

Alt Set: hPa (IN on request)
Trans level: By ATC Trans alt: 5000'
Usage of STAR to the clearance limit is mandatory when reaching the first point of a STAR.



① 3300' within 10 NM

NAPSA ONE ALFA (NAPSA 1A) [NAPS1A] RWYS 08, 26 ARRIVAL



SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

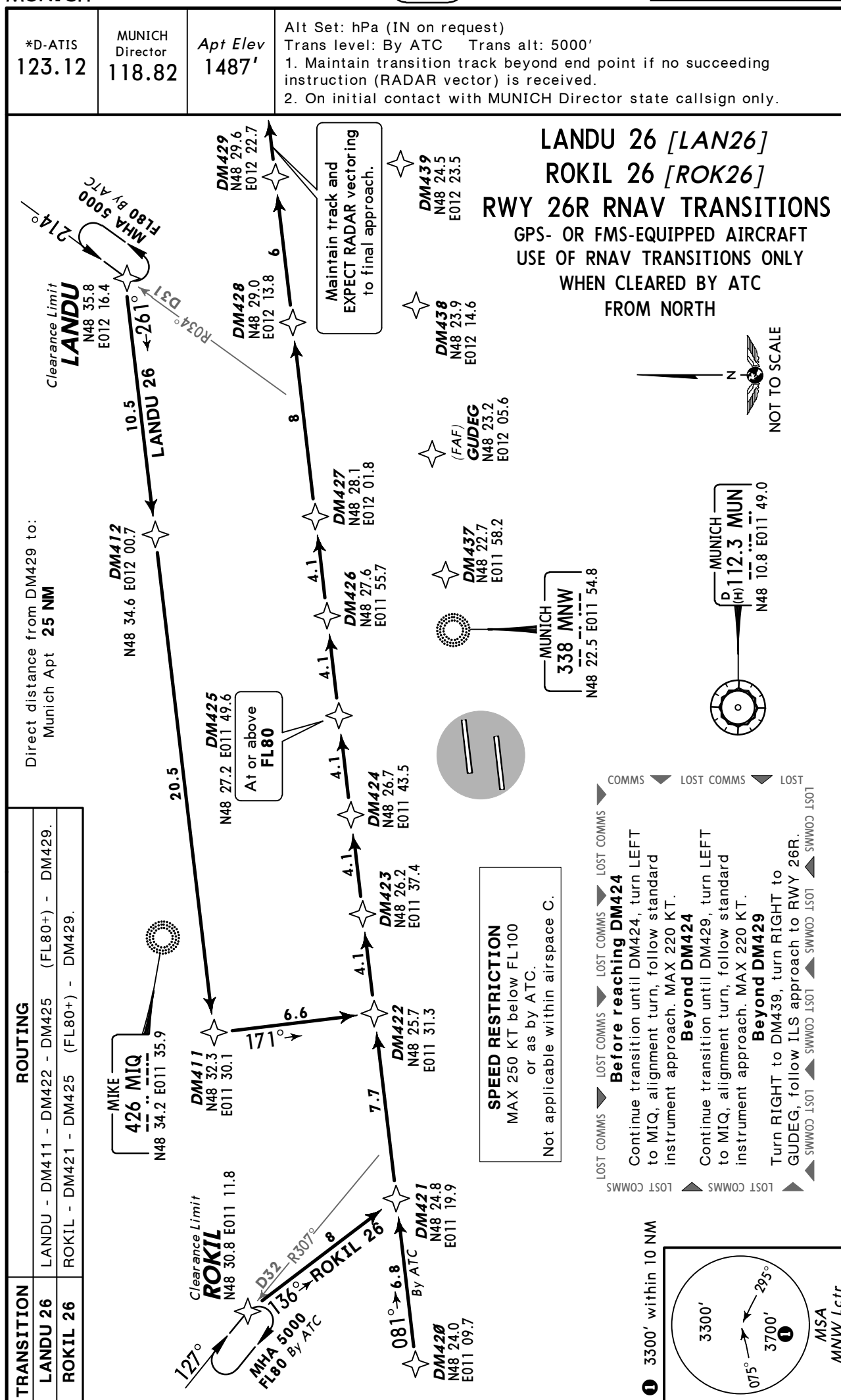
② Enter holding pattern and EXPECT
GPS/FMS RNAV Transition (refer
to charts 10-2F and 10-2G) or
RADAR vectoring to final.

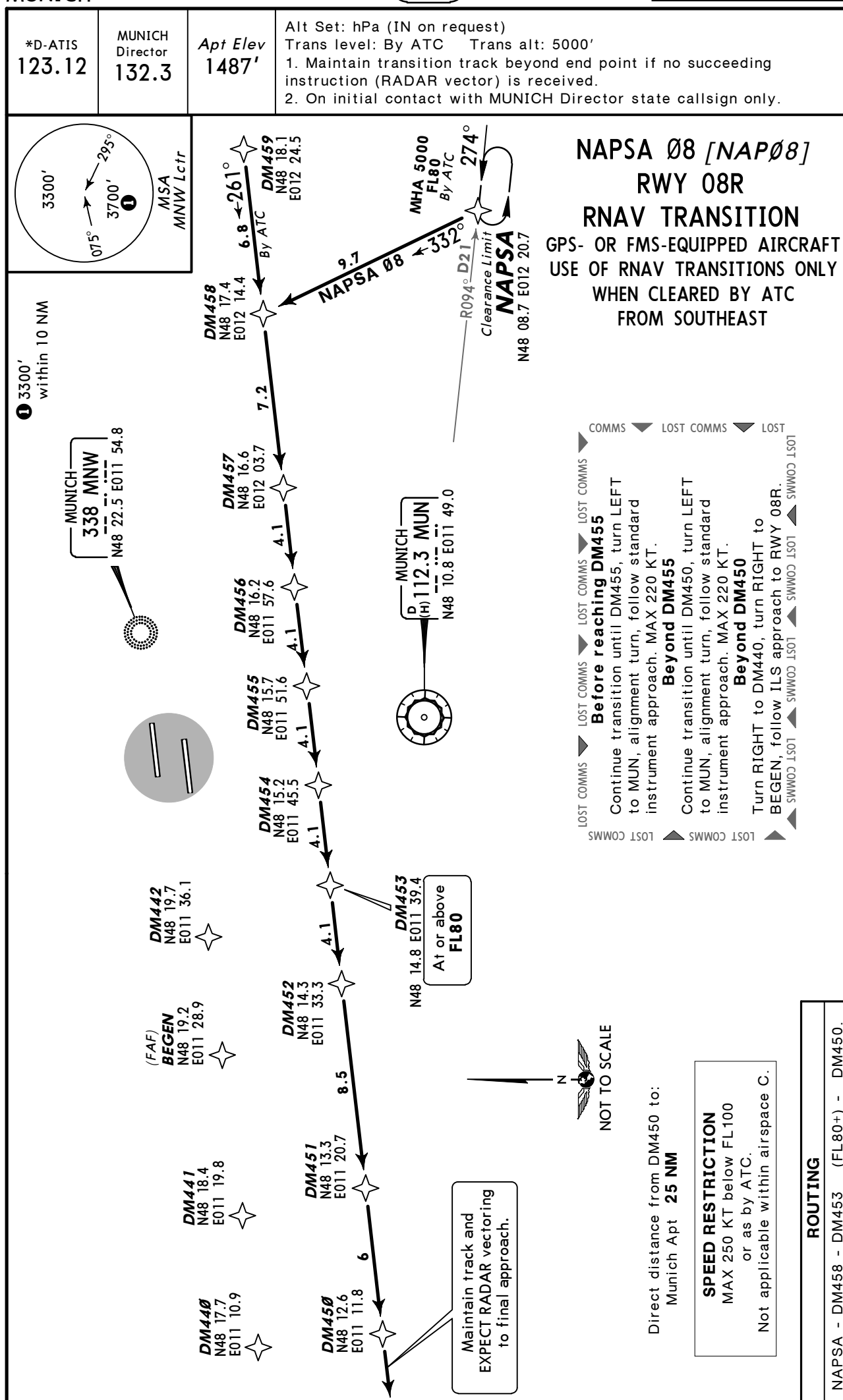


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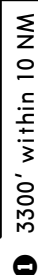
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Alt Set: hPa (IN on request)
Trans level: By ATC Trans alt: 5000'

1. Maintain transition track beyond end point if no succeeding instruction (RADAR vector) is received.
2. On initial contact with MUNICH Director state callsign only.

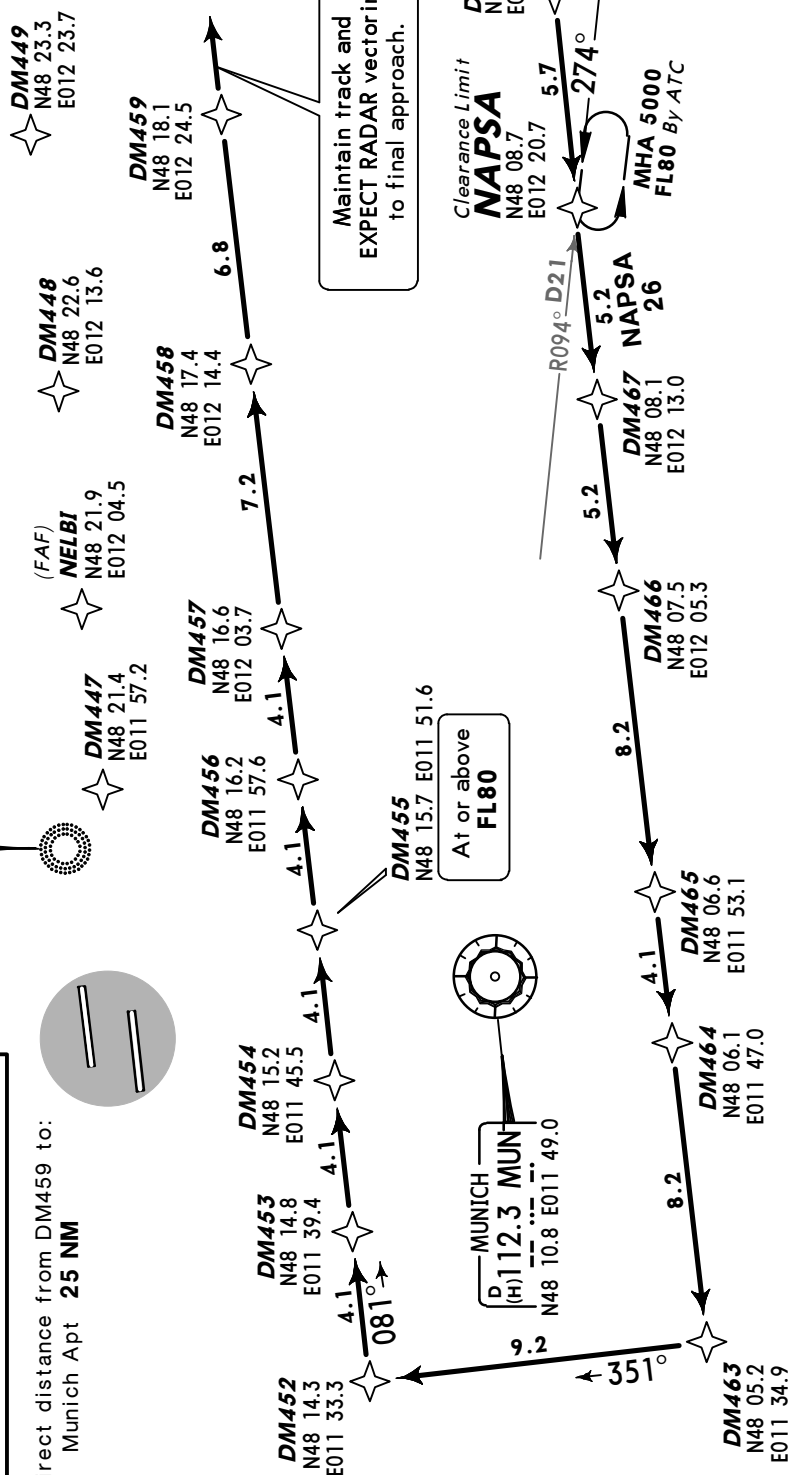


GPS- OR FMS-EQUIPPED AIRCRAFT
USE OF RNAV TRANSITIONS ONLY
WHEN CLEARED BY ATC
FROM SOUTHEAST

MUNICH
338 MNW
N48 22.5 E011 54.8

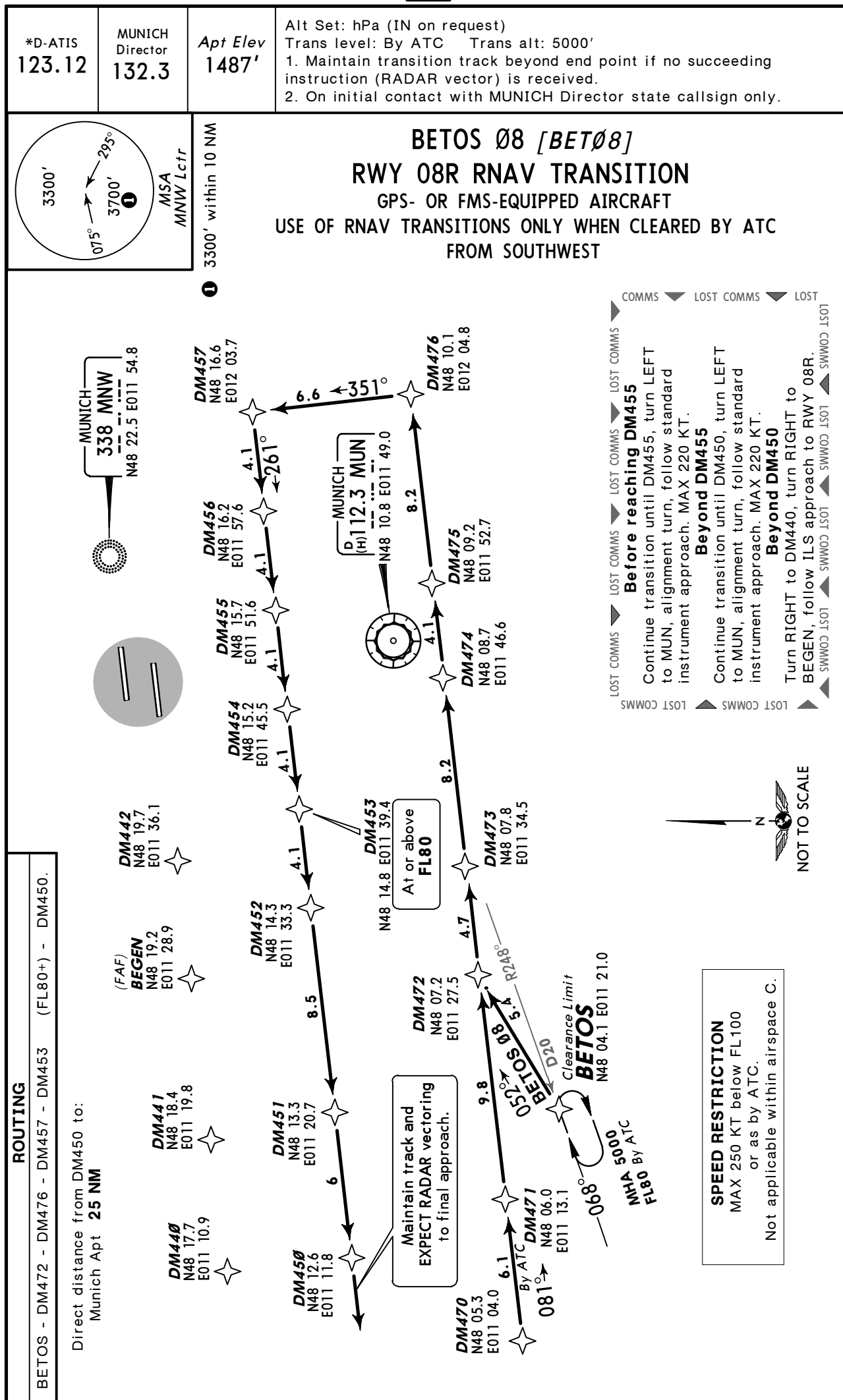
Not applicable within airspace C.

Direct distance from DM459 to:
Munich Apt **25 NM**



ROUTING

NAPSA - DM463 - DM452 - DM455 (FL80+) - DM459.



ROUTING

BETOS - DM472 - DM476 - DM457 - DM453 (FL80+) - DM450.

Direct distance from DM450 to:
Munich Apt **25 NM**

BEFORE REACHING DM455
Continue transition until DM455, turn LEFT to MUN, alignment turn, follow standard instrument approach. MAX 220 KT.

Beyond DM455
Continue transition until DM450, turn LEFT to MUN, alignment turn, follow standard instrument approach. MAX 220 KT.

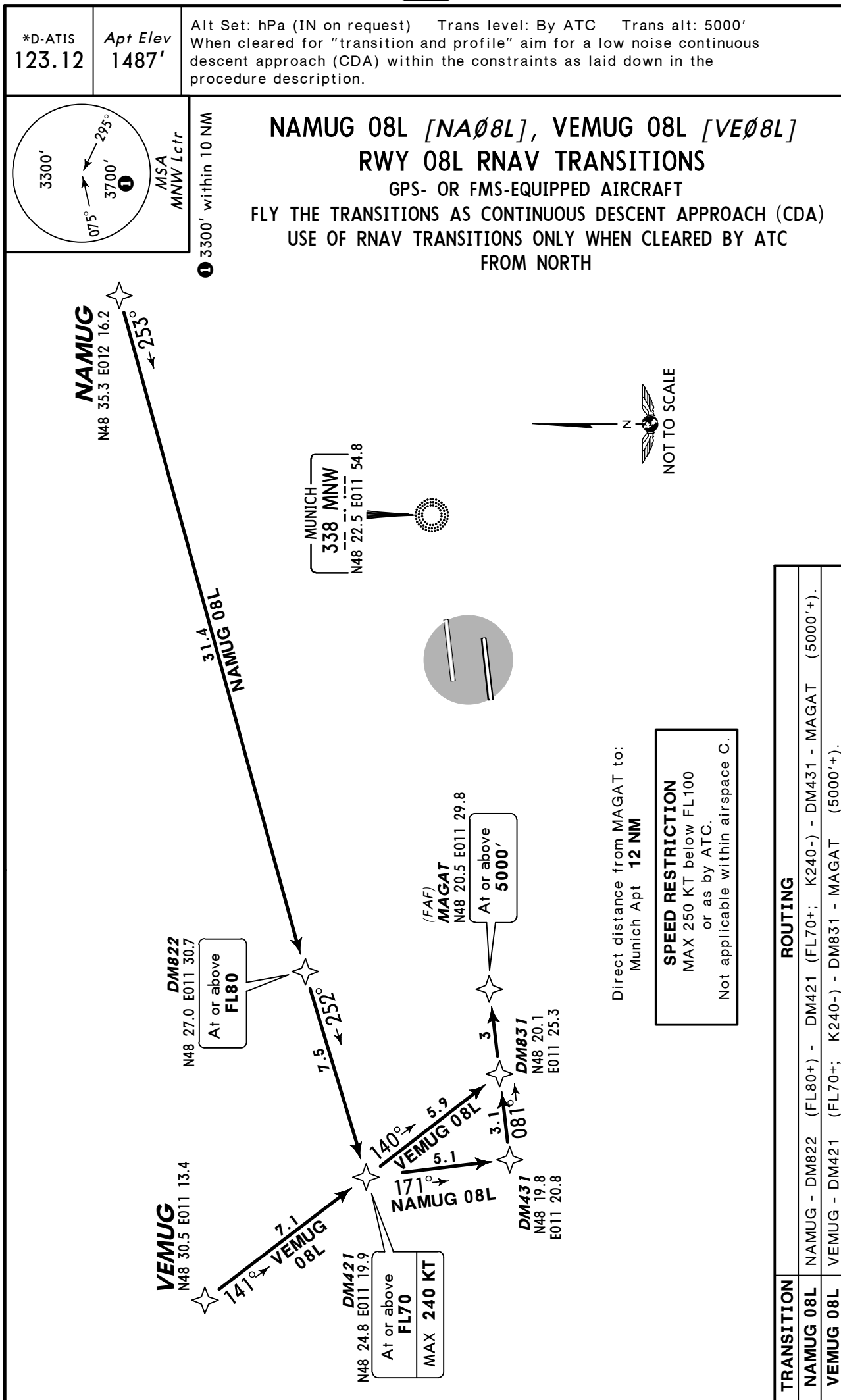
Beyond DM450
Turn RIGHT to DM440, turn RIGHT to BEGEN, follow ILS approach to RWY 08R.

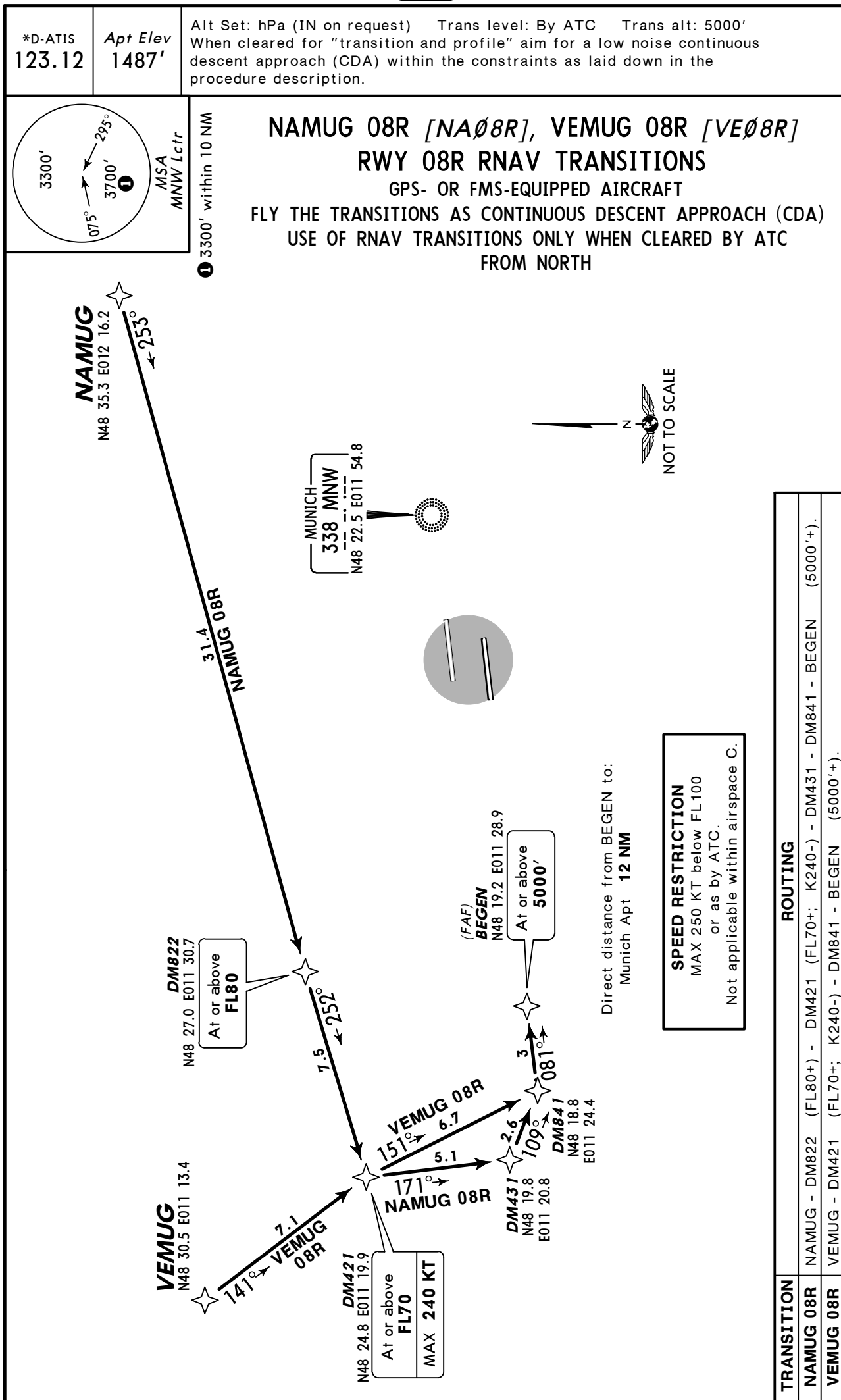
NOT TO SCALE

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

CHANGES: MSA.

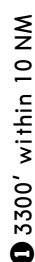
[illegible]





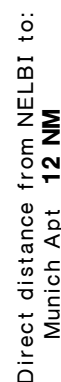
ROUTING	
NAMUG 08R	NAMUG - DM822 (FL80+) - DM421 (FL70+; K240-) - DM431 - DM841 - BEGEN (5000'+).
VEMUG 08R	VEMUG - DM421 (FL70+; K240-) - DM841 - BEGEN (5000'+).

Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000'
When cleared for "transition and profile" aim for a low noise continuous descent approach (CDA) within the constraints as laid down in the procedure description.



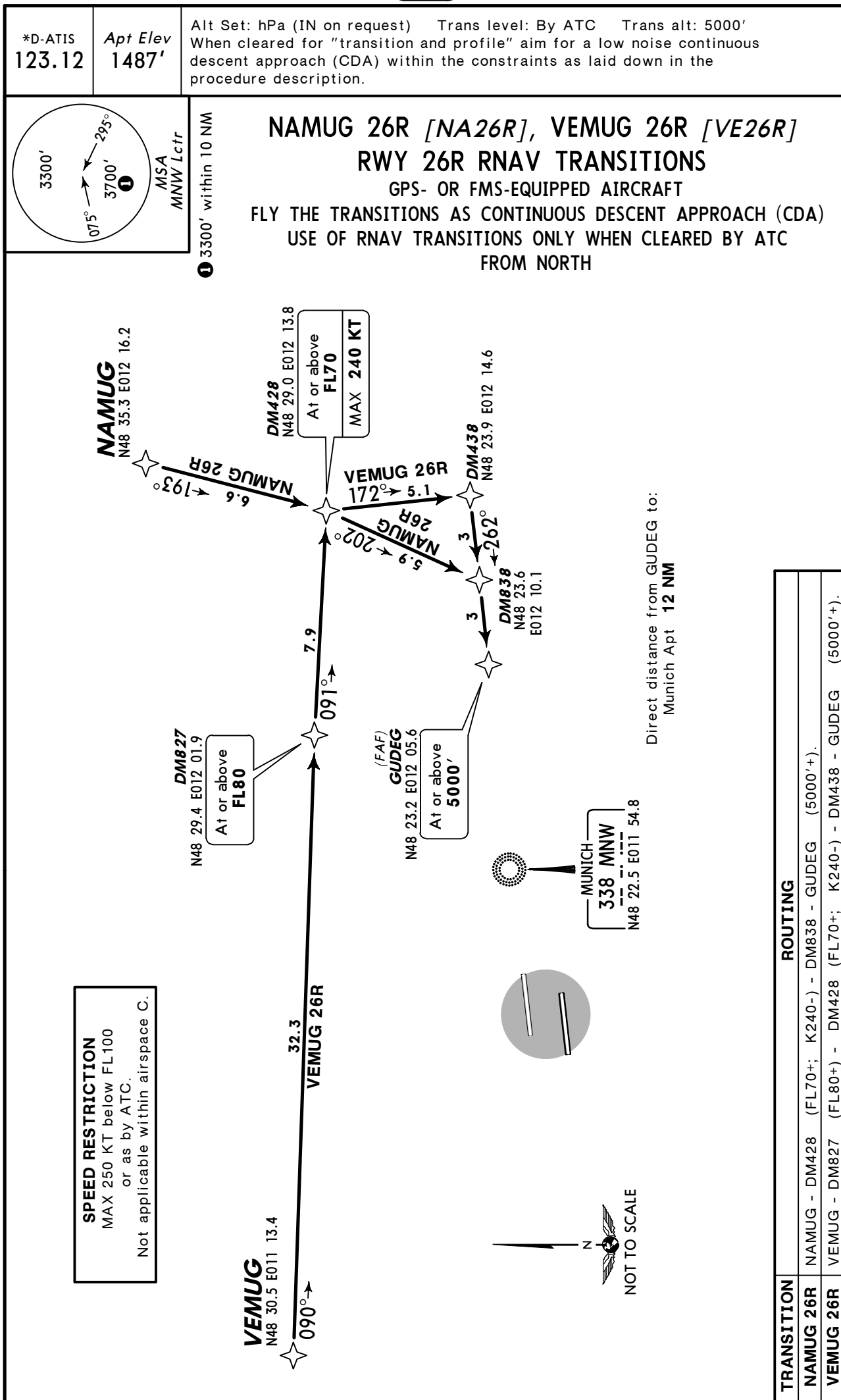
GPS- OR FMS-EQUIPPED AIRCRAFT

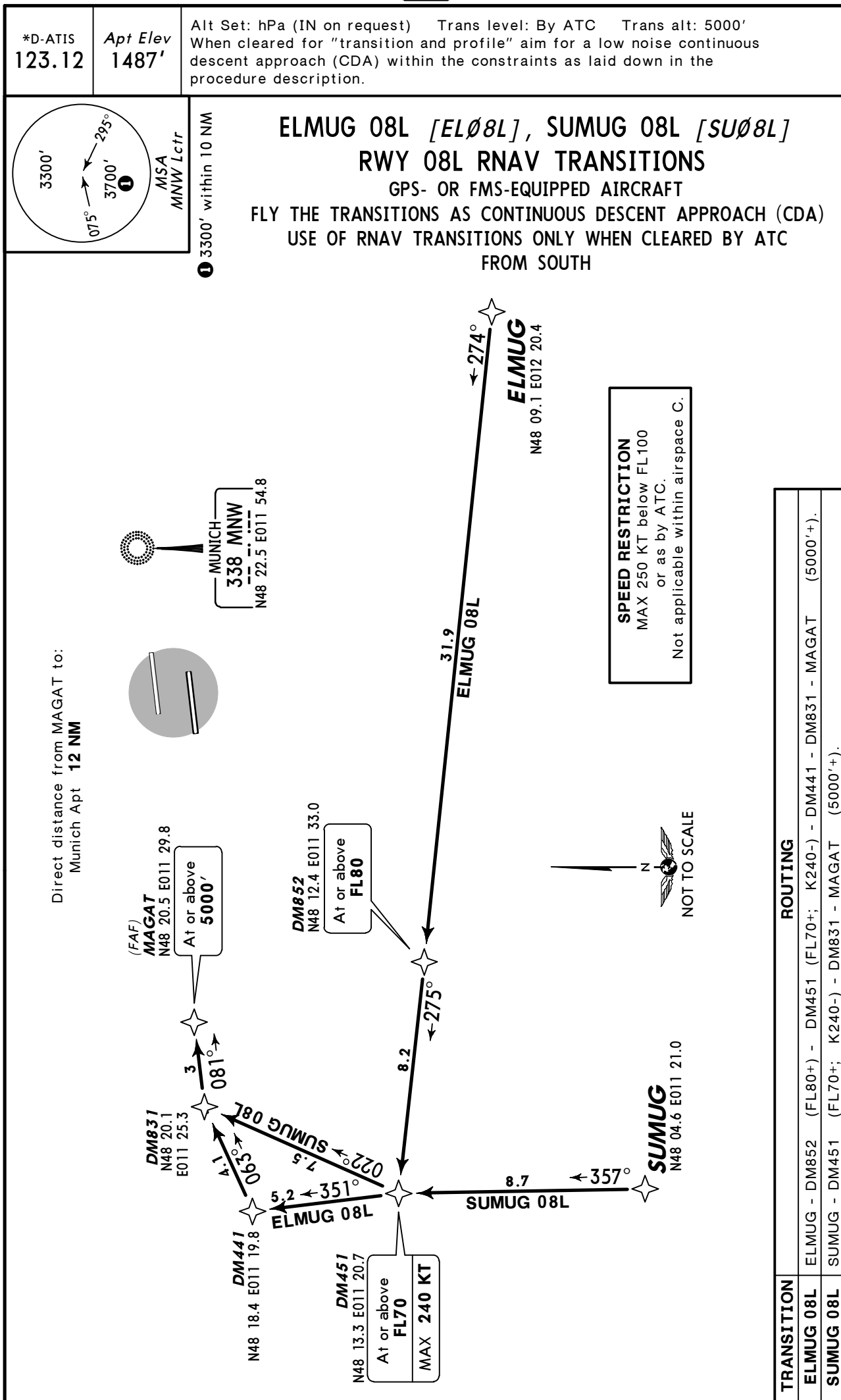
FLY THE TRANSITIONS AS CONTINUOUS DESCENT APPROACH (CDA)
USE OF RNAV TRANSITIONS ONLY WHEN CLEARED BY ATC
FROM NORTH

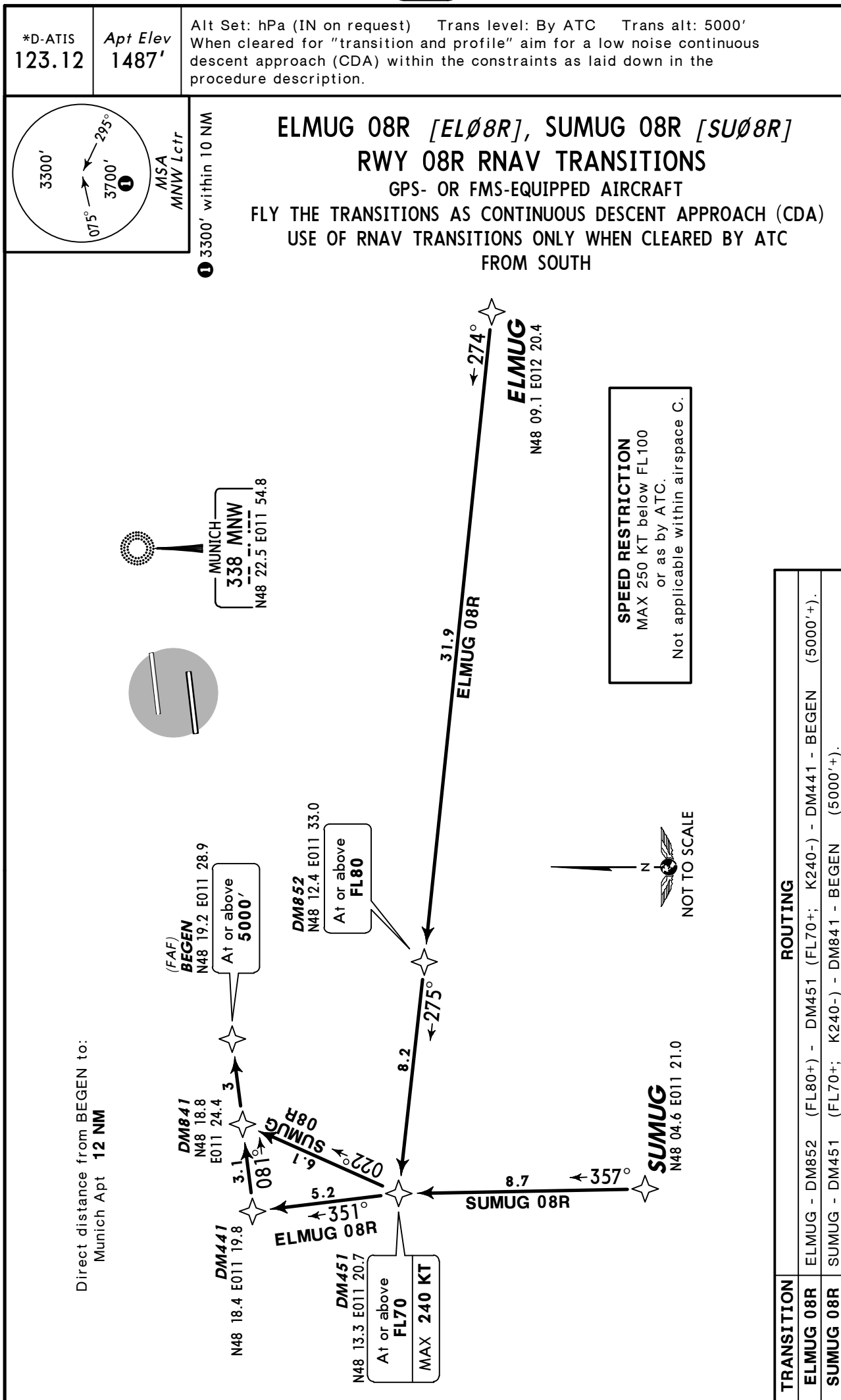


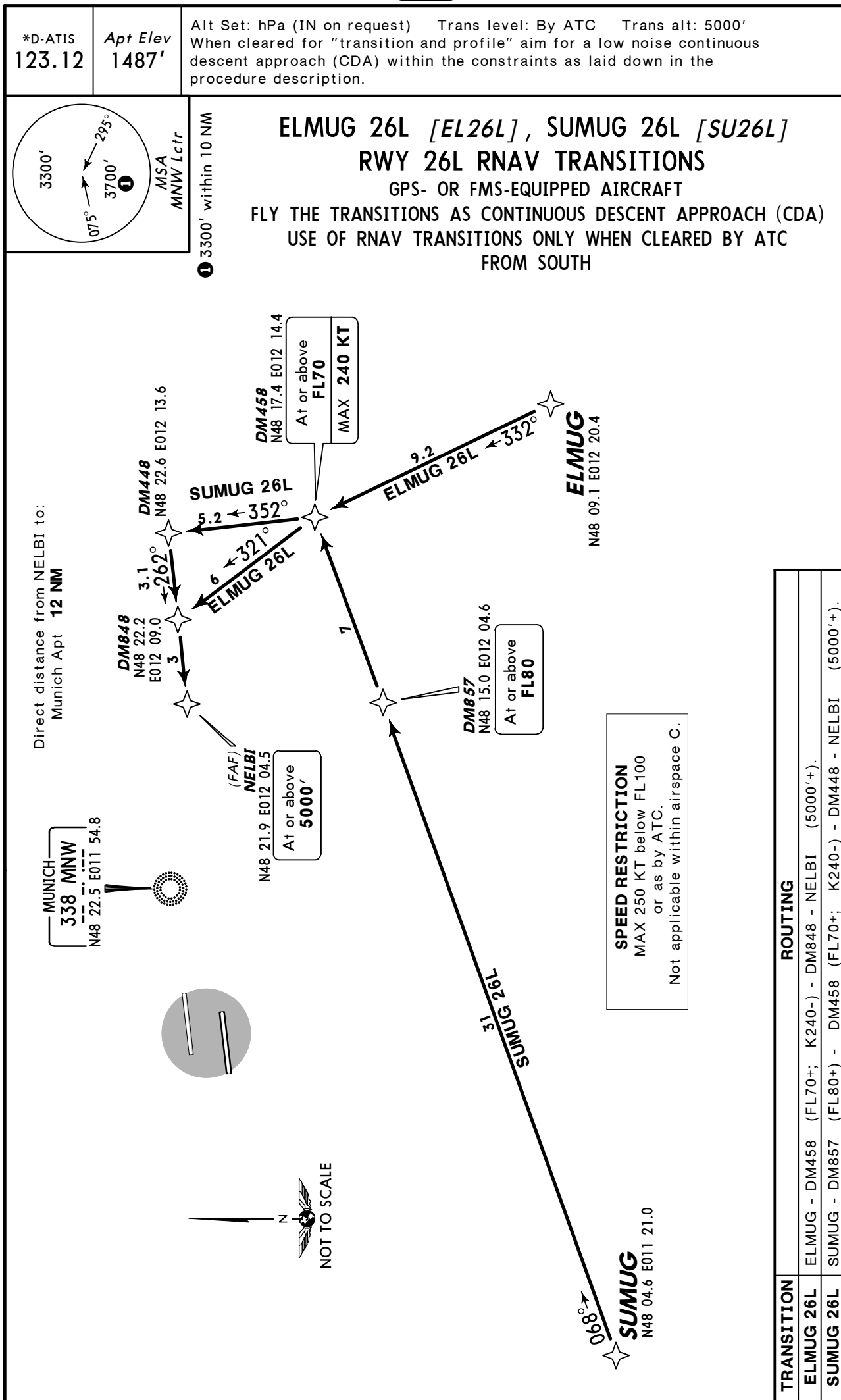
TRANSITION	ROUTING
NAMUG 26L	NAMUG - DM428 (FL70+; K240-) - DM848 - NELBI (5000'+).
VEMUG 26L	VEMUG - DM827 (FL80+) - DM428 (FL70+; K240-) - DM438 - DM848 - NELBI (5000'+).

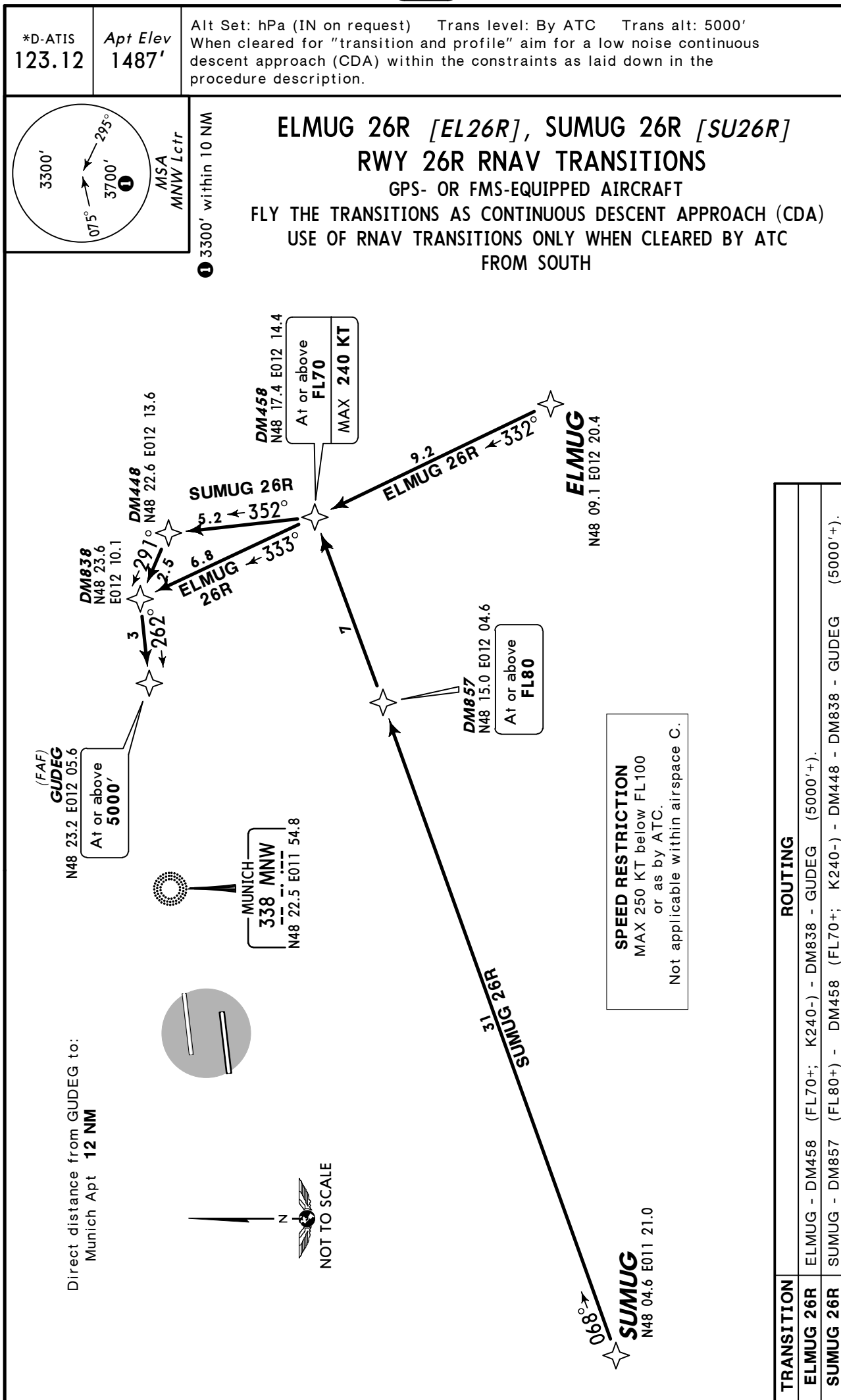
SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace











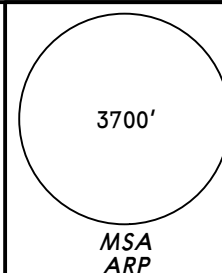
TRANSITION	ROUTING
ELMUG 26R	ELMUG - DM458 (FL70+; K240-) - DM838 - GUDEG (5000'+).
SUMUG 26R	SUMUG - DM857 (FL80+) - DM458 (FL70+; K240-) - DM448 - DM838 - GUDEG (5000'+).

RNAV SID DESIGNATION	REFER TO CHART
ANKER 8E, 7Q	10-3B
ANKER 8N, 6S	10-3C
EVIVA 2E, 2Q	10-3D
EVIVA 3N, 2S	10-3E
INPUD 1E, 1Q	10-3F
INPUD 1N, 1S	10-3G
SID DESIGNATION	REFER TO CHART
ALGOI 1E, 1Q	10-3H
ALGOI 1N, 1S	10-3J
BIBAG 1E, 1Q	10-3K
BIBAG 1N, 1S, 1W	10-3L
GIVMI 4E, 4Q	10-3M
GIVMI 5S, 5W	10-3N
KEMPTEN 2E, 2Q	10-3N1
KEMPTEN 1P, 1T	10-3N2
KEMPTEN 1N, 1S	10-3N3
KIRDI 1E, 1Q	10-3N4
KIRDI 1N, 1S, 1W	10-3N5
MERSI 2E, 2Q	10-3N6
MERSI 3N, 3S	10-3N7
MIKE 7E, 7Q	10-3P
MIKE 8N, 7S	10-3Q
OBAXA 3E, 3Q	10-3Q1
OBAXA 3N, 4S	10-3Q2
OLASO 1E, 1Q	10-3Q2A
OLASO 1N, 1S	10-3Q2B
RIDAR 5E, 5Q	10-3Q3
RIDAR 5N, 5S	10-3Q4
ROTAX 2E, 2Q	10-3Q5
ROTAX 1N, 1S, 1W	10-3Q6
TULSI 1E, 9Q	10-3Q7
TULSI 9N, 4S, 1W	10-3Q8
TURBU 5E, 6Q	10-3Q9
TURBU 4N, 5S, 5W	10-3Q10
VAVOR 2E, 2Q	10-3S
VAVOR 1N, 1S, 1W	10-3T
FOR RNAV SID (OVERLAY) DESIGNATION REFER TO PAGE 10-3A	

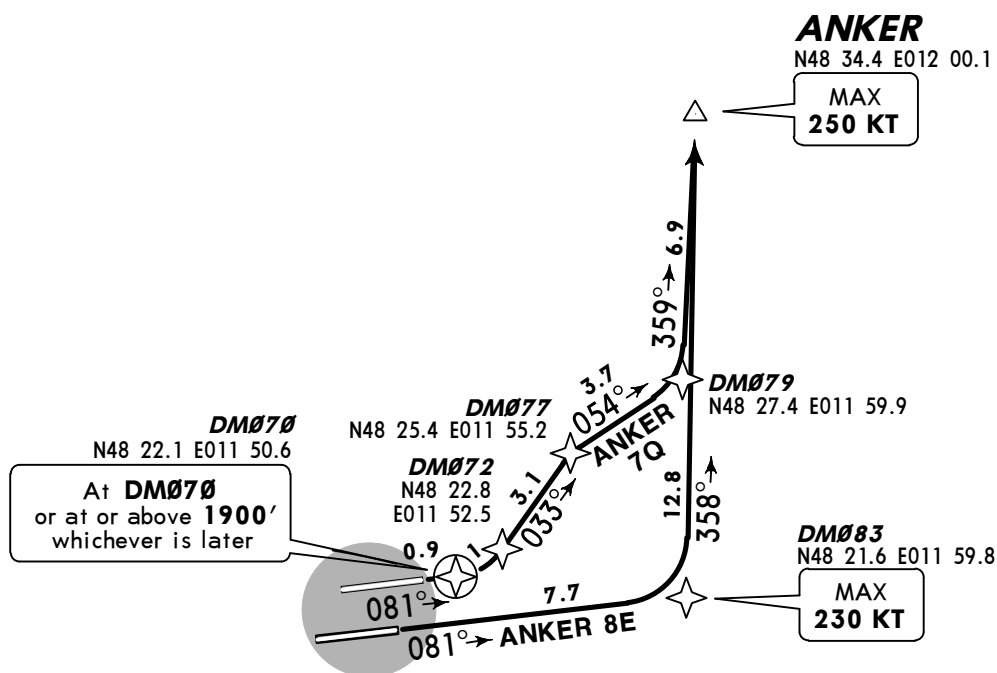
RNAV SID DESIGNATION	REFER TO CHART
ALGOI 1E, 1Q	10-3T1
ALGOI 1N, 1S	10-3T2
BIBAG 1E, 1Q	10-3T3
BIBAG 1N, 1S, 1W	10-3T4
GIVMI 4E, 4Q	10-3T5
GIVMI 5S, 5W	10-3T6
KEMPTEN 2E, 2Q	10-3T7
KEMPTEN 1P, 1T	10-3T8
KEMPTEN 1N, 1S	10-3T9
KIRDI 1E, 1Q	10-3U
KIRDI 1N, 1S, 1W	10-3V
MERSI 2E, 2Q	10-3V1
MERSI 3N, 3S	10-3V2
OBAXA 3E, 3Q	10-3V3
OBAXA 3N, 4S	10-3V4
OLASO 1E, 1Q	10-3V4A
OLASO 1N, 1S	10-3V4B
RIDAR 5E, 5Q	10-3V5
RIDAR 5N, 5S	10-3V6
ROTAX 2E, 2Q	10-3V7
ROTAX 1N, 1S, 1W	10-3V8
TULSI 1E, 9Q	10-3W
TULSI 9N, 4S, 1W	10-3X
TURBU 5E, 6Q	10-3X1
TURBU 4N, 5S, 5W	10-3X2
VAVOR 2E, 2Q	10-3X3
VAVOR 1N, 1S, 1W	10-3X4

MUNICH Radar 123.9	Apt Elev 1487'	Trans level: By ATC Trans alt: 5000' 1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar. 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. 3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.
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ANKER EIGHT ECHO (ANKER 8E) [ANKE8E]
ANKER SEVEN QUEBEC (ANKER 7Q) [ANKE7Q]
RWYS 08R/L RNAV DEPARTURES
RNAV (GPS)



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



Initial climb clearance **FL70**

SID	RWY	ROUTING
ANKER 8E	08R	(1900'+) - DM083 (K230-) - ANKER (K250-).
ANKER 7Q	08L	(1900'+) - DM070 (1900'+) - DM072 - DM077 - DM079 - ANKER (K250-).

MUNICH Radar
123.9Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

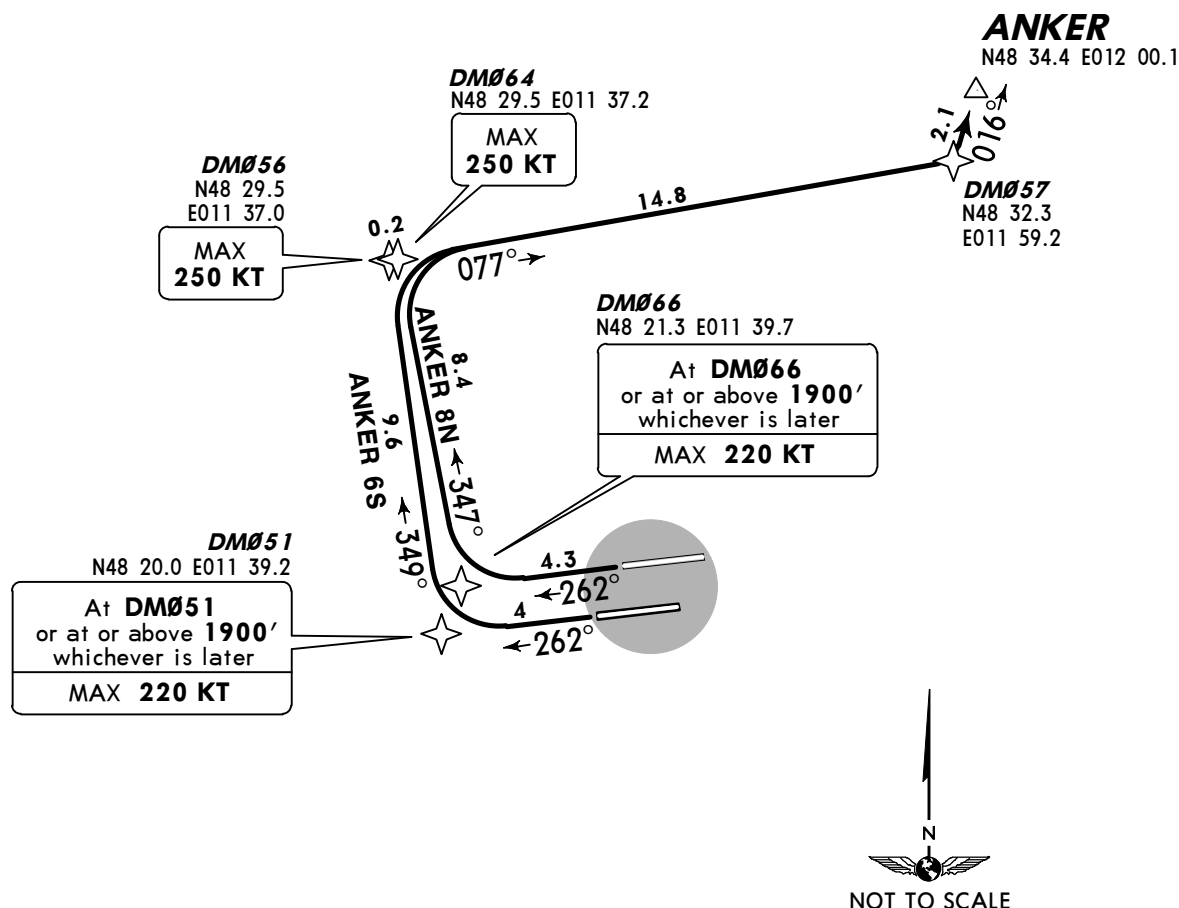
**ANKER EIGHT NOVEMBER (ANKER 8N) [ANKE8N]
ANKER SIX SIERRA (ANKER 6S) [ANKE6S]
RWYS 26R/L RNAV DEPARTURES
RNAV (GPS)**

3700'

MSA
ARP**SPEED RESTRICTION**

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

Initial climb clearance **FL70**

SID	RWY	ROUTING
ANKER 8N	26R	(1900'+) - DM066 (1900'+; K220-) - DM064 (K250-) - DM057 - ANKER.
ANKER 6S	26L	(1900'+) - DM051 (1900'+; K220-) - DM056 (K250-) - DM057 - ANKER.

CHANGES: None.

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MUNICH Radar
123.9Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

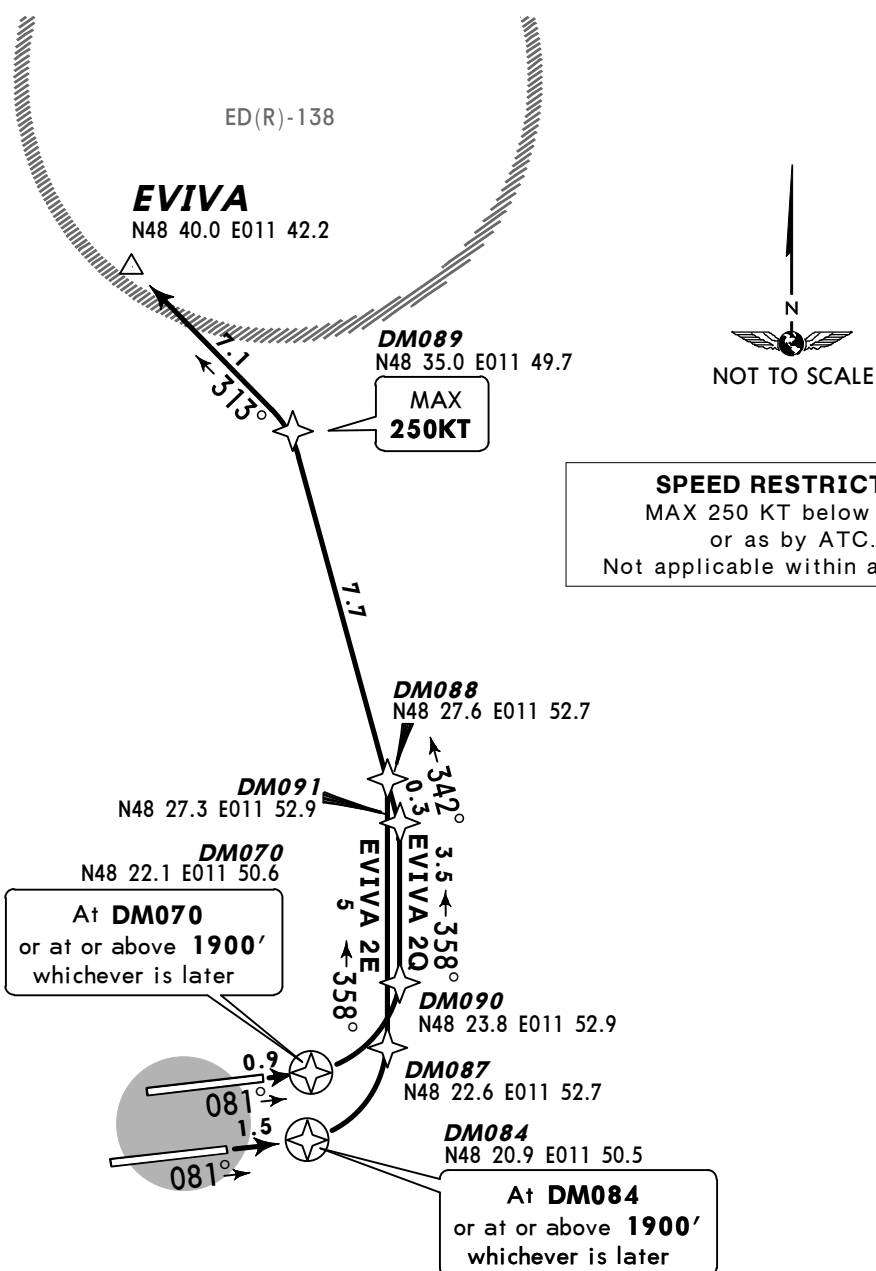
EVIVA TWO ECHO (EVIVA 2E) [EVIV2E]
EVIVA TWO QUEBEC (EVIVA 2Q) [EVIV2Q]
RWYS 08R/L RNAV DEPARTURES

RNAV (GPS)

NOT AVAILABLE FOR JET ACFT

DURING ACTIVITY OF ED(R)-138 EXPECT ALTERNATE CLEARANCE BY ATC

3700'

MSA
ARPInitial climb clearance **FL70**

SID	RWY	ROUTING
EVIVA 2E	08R	(1900'+) - DM084 (1900'+) DM087 - DM088 - DM089 (K250-) - EVIVA.
EVIVA 2Q	08L	(1900'+) - DM070 (1900'+) DM090 - DM091 - DM089 (K250-) - EVIVA.

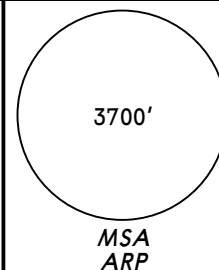
MUNICH Radar
123.9

Apt Elev
1487'

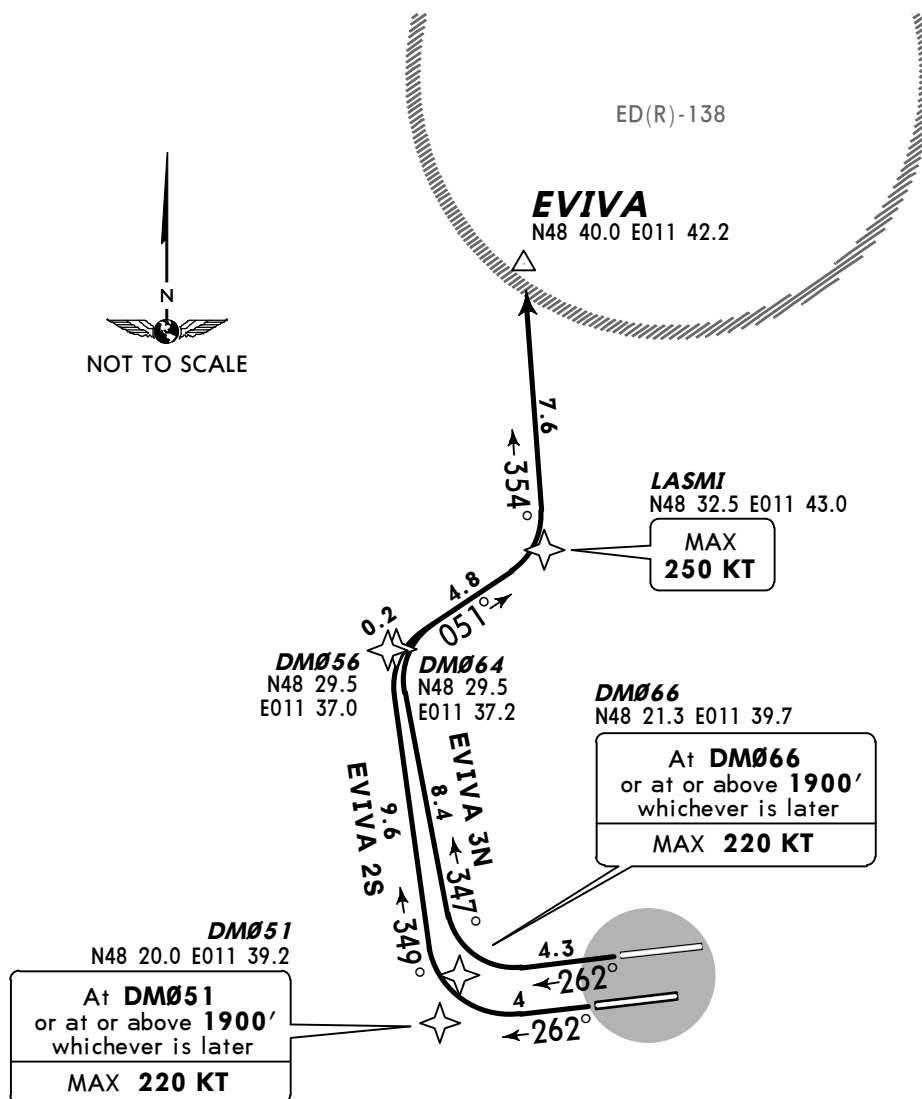
Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**EVIVA THREE NOVEMBER (EVIVA 3N) [EVIV3N]
EVIVA TWO SIERRA (EVIVA 2S) [EVIV2S]
RWYS 26R/L RNAV DEPARTURES
RNAV (GPS)**

NOT AVAILABLE FOR JET ACFT
DURING ACTIVITY OF ED(R)-138 EXPECT ALTERNATE CLEARANCE BY ATC



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



Initial climb clearance **FL70**

SID	RWY	ROUTING
EVIVA 3N	26R	(1900'+) - DM066 (1900'+; K220-) - DM064 - LASMI (K250-) - EVIVA.
EVIVA 2S	26L	(1900'+) - DM051 (1900'+; K220-) - DM056 - LASMI (K250-) - EVIVA.

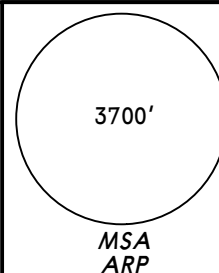
MUNICH Radar
123.9Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

INPUT ONE ECHO (INPUT 1E) [INPUT 1E]
INPUT ONE QUEBEC (INPUT 1Q) [INPUT 1Q]
RWYS 08R/L DEPARTURES
RNAV (GPS)
JET ACFT ONLY

(CLIMB PROFILE RESTRICTION WITHIN Y-102 -
REFER TO ENROUTE/ENROUTE DATA EUROPE -
AIRWAY RESTRICTIONS - EUROPE LOWER AND UPPER AIRSPACE)
MANDATORY FOR FLIGHTS VIA SULUS CONTINUING VIA (U)L-604/T-852
MANDATORY FOR FLIGHTS VIA LASGA CONTINUING VIA (U)M-726/T-202



INPUT
△ N48 40.0 E011 32.5

DM065
N48 34.2 E011 35.9

MAX
250KT



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

DM070
N48 22.1 E011 50.6

At **DM070**
or at or above **1900'**
whichever is later

DM073
N48 25.1 E011 52.0

DM076
N48 23.8 E011 52.0

DM084
N48 20.9 E011 50.5

At **DM084**
or at or above **1900'**
whichever is later

Initial climb clearance **FL70**

SID	RWY	ROUTING
INPUT 1E	08R	(1900'+) - DM084 (1900'+) - DM076 - DM065 (K250-) - INPUT.
INPUT 1Q	08L	(1900'+) - DM070 (1900'+) - DM073 - DM065 (K250-) - INPUT.

MUNICH Radar
123.9Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

INPUD ONE NOVEMBER (INPUD 1N) [INPU1N]

INPUD ONE SIERRA (INPUD 1S) [INPU1S]

RWYS 26R/L DEPARTURES

RNAV (GPS)

JET ACFT ONLY

(CLIMB PROFILE RESTRICTION WITHIN Y-102 -

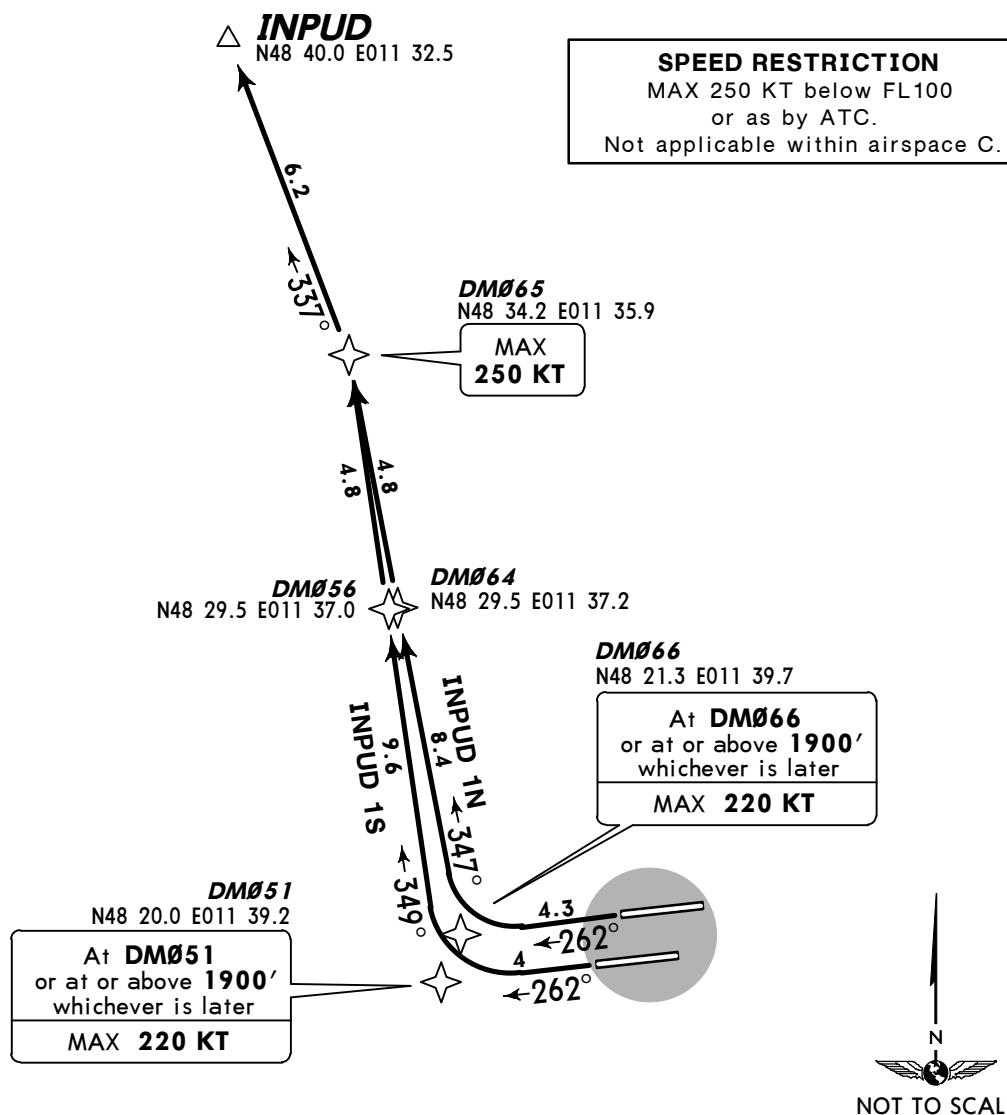
REFER TO ENROUTE/ENROUTE DATA EUROPE -

AIRWAY RESTRICTIONS - EUROPE LOWER AND UPPER AIRSPACE)

MANDATORY FOR FLIGHTS VIA SULUS CONTINUING VIA (U)L-604/T-852

MANDATORY FOR FLIGHTS VIA LASGA CONTINUING VIA (U)M-726/T-202

3700'

MSA
ARP

Initial climb clearance FL70		
SID	RWY	ROUTING
INPUD 1N	26R	(1900'+) - DM066 (1900'+; K220-) - DM065 (K250-) - INPUD.
INPUD 1S	26L	(1900'+) - DM051 (1900'+; K220-) - DM065 (K250-) - INPUD.

MUNICH Radar
127.95Apt Elev
1487'

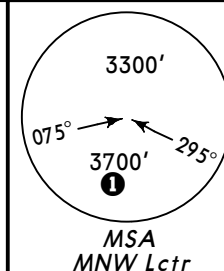
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

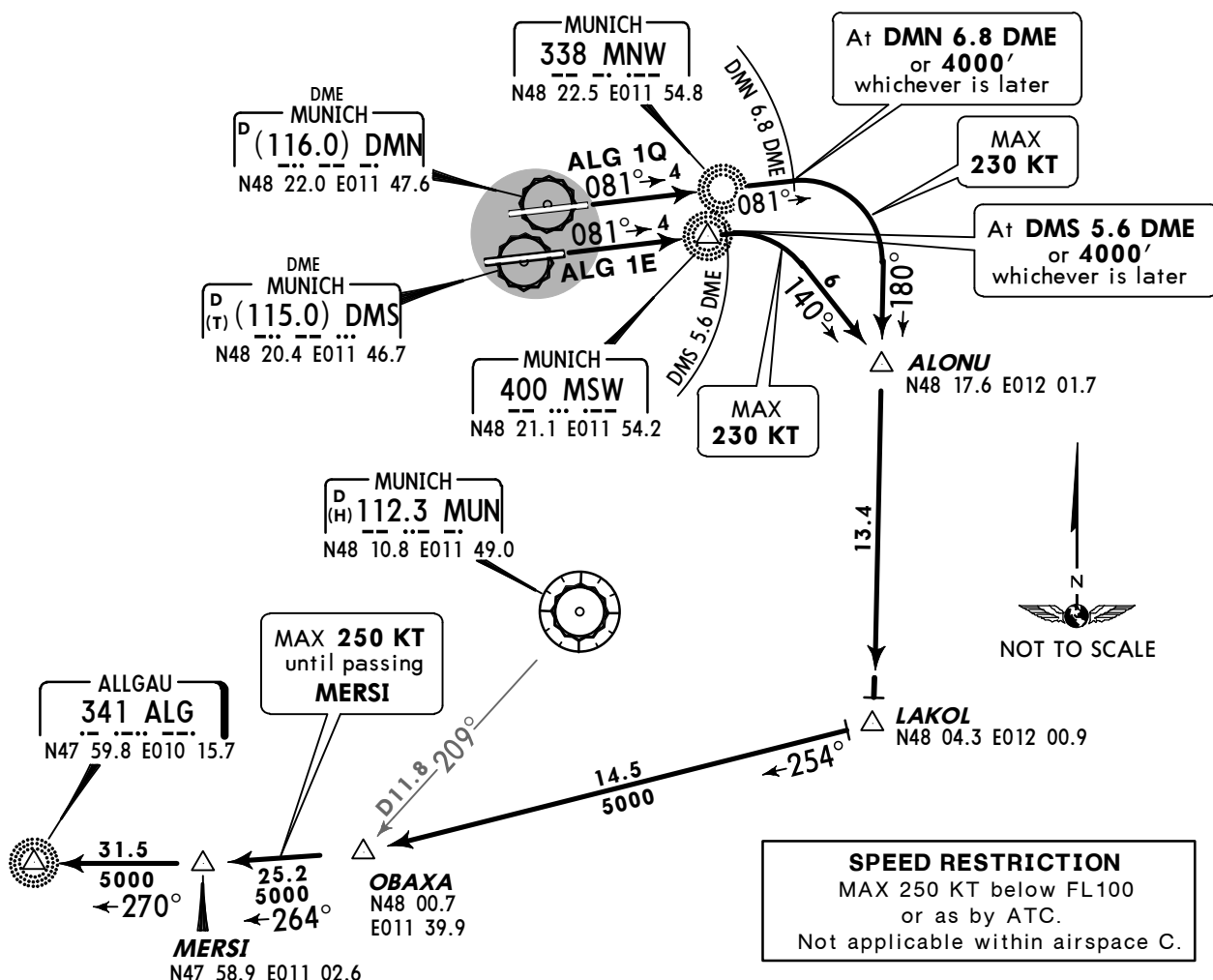
ALGOI ONE ECHO (ALG 1E)
ALGOI ONE QUEBEC (ALG 1Q)
RWYS 08R/L DEPARTURES
JET ACFT ONLY

AVAILABLE FOR FLIGHTS DESTINATION EDJA AT OR BELOW FL90
MANDATORY FOR TRAFFIC PROCEEDING VIA MILKA
AT OR ABOVE REQUESTED FL245 DURING FOLLOWING TIMES
DAILY 2330-0800LT
FRI 1700LT TO MON 0800LT
HOL

OUTSIDE THESE TIMES FILE SID MERSI - AIRWAY Y 110



① 3300' within 10 NM



Initial climb clearance **FL70**

SID	RWY	ROUTING
ALG 1E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME ② or 4000', whichever is later, turn RIGHT, 140° track to ALONU, turn RIGHT, 180° track to LAKOL, turn RIGHT, 254° track to OBAXA, turn RIGHT, 264° track to MERSI, turn RIGHT, 270° track to ALG.
ALG 1Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME ③ or 4000', whichever is later, turn RIGHT, 180° track to LAKOL, turn RIGHT, 254° track to OBAXA, turn RIGHT, 264° track to MERSI, turn RIGHT, 270° track to ALG.

② After DMS 5.6 DME BRNAV equipment necessary.

③ After DMN 6.8 DME BRNAV equipment necessary.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

ALGOI ONE NOVEMBER (ALG 1N)
ALGOI ONE SIERRA (ALG 1S)
RWYS 26R/L DEPARTURES

JET ACFT ONLY

AVAILABLE FOR FLIGHTS DESTINATION EDJA AT OR BELOW FL90

MANDATORY FOR TRAFFIC PROCEEDING VIA MILKA

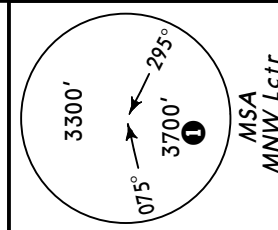
AT OR ABOVE REQUESTED FL245 DURING FOLLOWING TIMES

DAILY 2330-0800LT

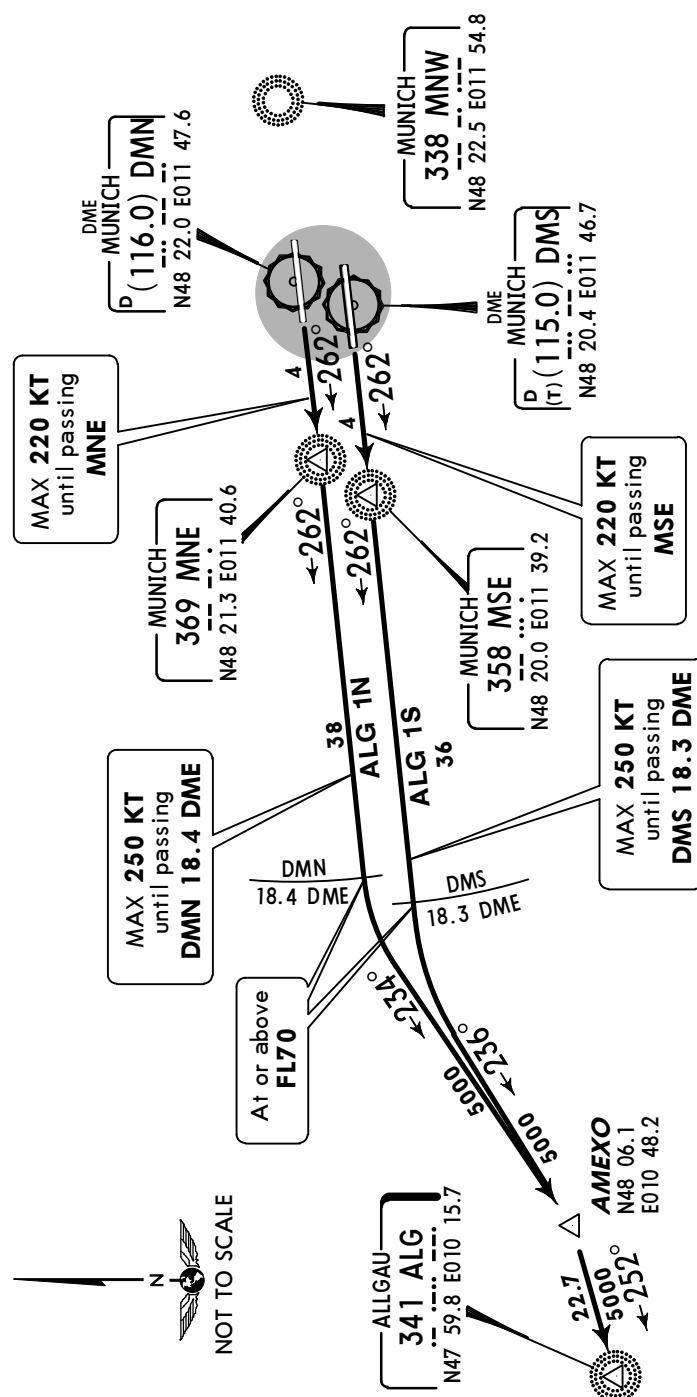
FRI 1700LT TO MON 0800LT

HOL

OUTSIDE THESE TIMES FILE SID MERSI - AIRWAY Y 110



① 3300' within 10 NM

**SPEED RESTRICTION**

MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

These SIDs require a minimum climb gradient of 316' per NM (5.2%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
316' per NM	395	527	790	1053	1317	1580

If unable to comply advise ATC.

Initial climb clearance FL70		
ROUTING		
SID	RWY	ROUTING
ALG 1N	26R	Climb on runway track to 1900', intercept 262° bearing via MNE to DMN 18.4 DME ②, turn LEFT, 234° track to AMEXO, turn RIGHT, 252° track to ALG.
ALG 1S	26L	Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 18.3 DME ③, turn LEFT, 236° track to AMEXO, turn RIGHT, 252° track to ALG.

② After DMN 18.4 DME BRNAV equipment necessary.

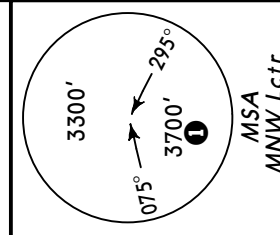
③ After DMS 18.3 DME BRNAV equipment necessary.

MUNICH Radar
127.95

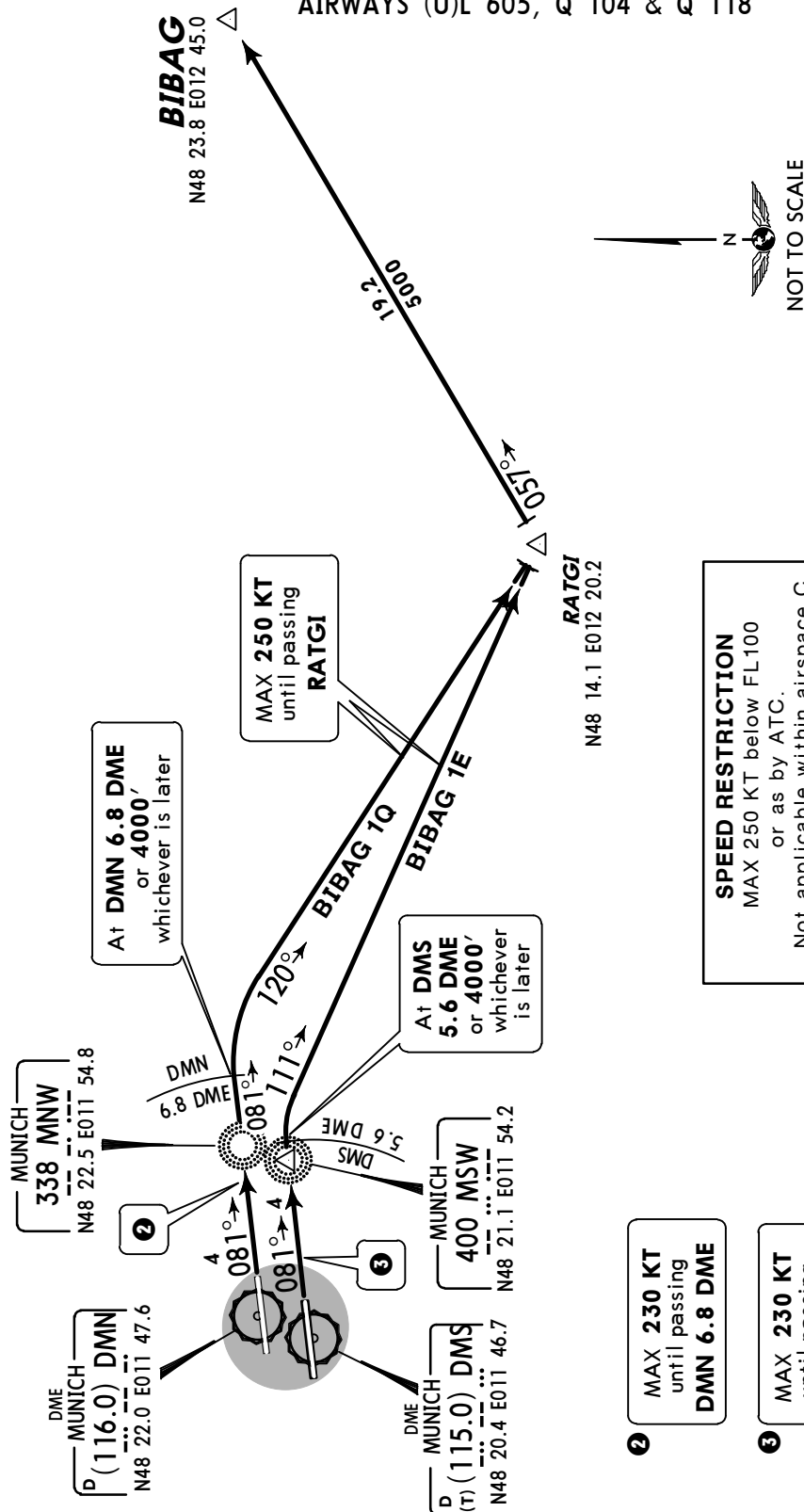
Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**BIBAG ONE ECHO (BIBAG 1E)
BIBAG ONE QUEBEC (BIBAG 1Q)
RWYS 08R/L DEPARTURES
NOT AVAILABLE FOR FLIGHTS VIA
AIRWAYS (U)L 605, Q 104 & Q 118**



① 3300'
within 10 NM



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

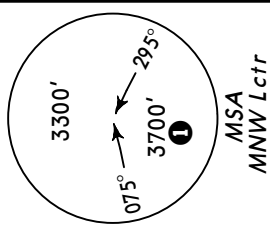
Initial climb clearance FL70
ROUTING

SID	RWY	ROUTING
BIBAG 1E	08R	④ Climb on runway track to 1900', then via MSW to DMS 5.6 DME or 4000', whichever is later, turn RIGHT, 111° track to RATGI, turn LEFT, 057° track to BIBAG.
BIBAG 1Q	08L	⑤ Climb on runway track to 1900', then via MNW to DMN 6.8 DME or 4000', whichever is later, turn RIGHT, 120° track to RATGI, turn LEFT, 057° track to BIBAG.
BRNAV equipment necessary after: ④ DMS 5.6 DME/ ⑤ DMN 6.8 DME.		

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

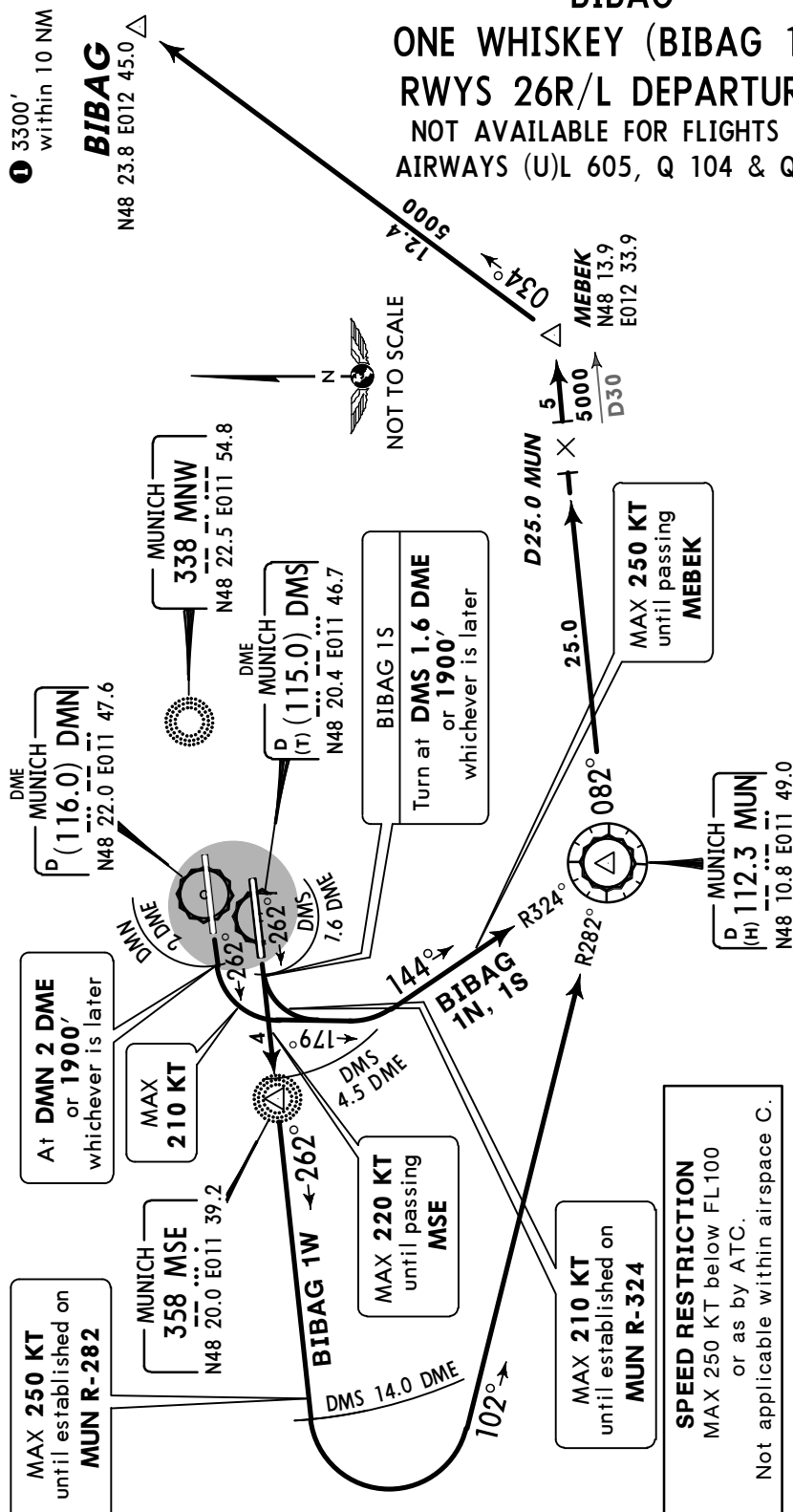


BIBAG
ONE NOVEMBER (BIBAG 1N)
BIBAG
ONE SIERRA (BIBAG 1S)
BIBAG
ONE WHISKEY (BIBAG 1W)
RWYS 26R/L DEPARTURES
NOT AVAILABLE FOR FLIGHTS VIA
AIRWAYS (U)L 605, Q 104 & Q 118

These SIDs require minimum climb gradients of
BIBAG 1N: 334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).
BIBAG 1S: 413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.



Initial climb clearance FL70		ROUTING	
SID	RWY		
BIBAG 1N	26R	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT, 179° track, intercept MUN R-324 inbound to MUN, turn LEFT, MUN R-082 to MEBEK, turn LEFT, 034° track to BIBAG.	
BIBAG 1S	26L	Climb on runway track to DMS 1.6 DME or 1900', whichever is later, turn LEFT within DMS 4.5 DME, 179° track, intercept MUN R-324 inbound to MUN, turn LEFT, MUN R-082 to MEBEK, turn LEFT, 034° track to BIBAG.	
BIBAG 1W		Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 14.0 DME, turn LEFT, intercept MUN R-282 inbound to MUN, turn LEFT, MUN R-082 to MEBEK, turn LEFT, 034° track to BIBAG.	

② If unable to comply with speed and turn restrictions request SID BIBAG 1W.
③ After MEBEK BRNAV equipment necessary.

MUNICH Radar
123.9Apt Elev
1487'

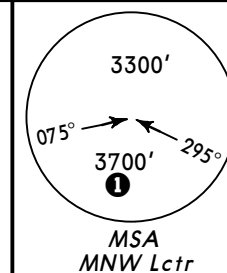
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

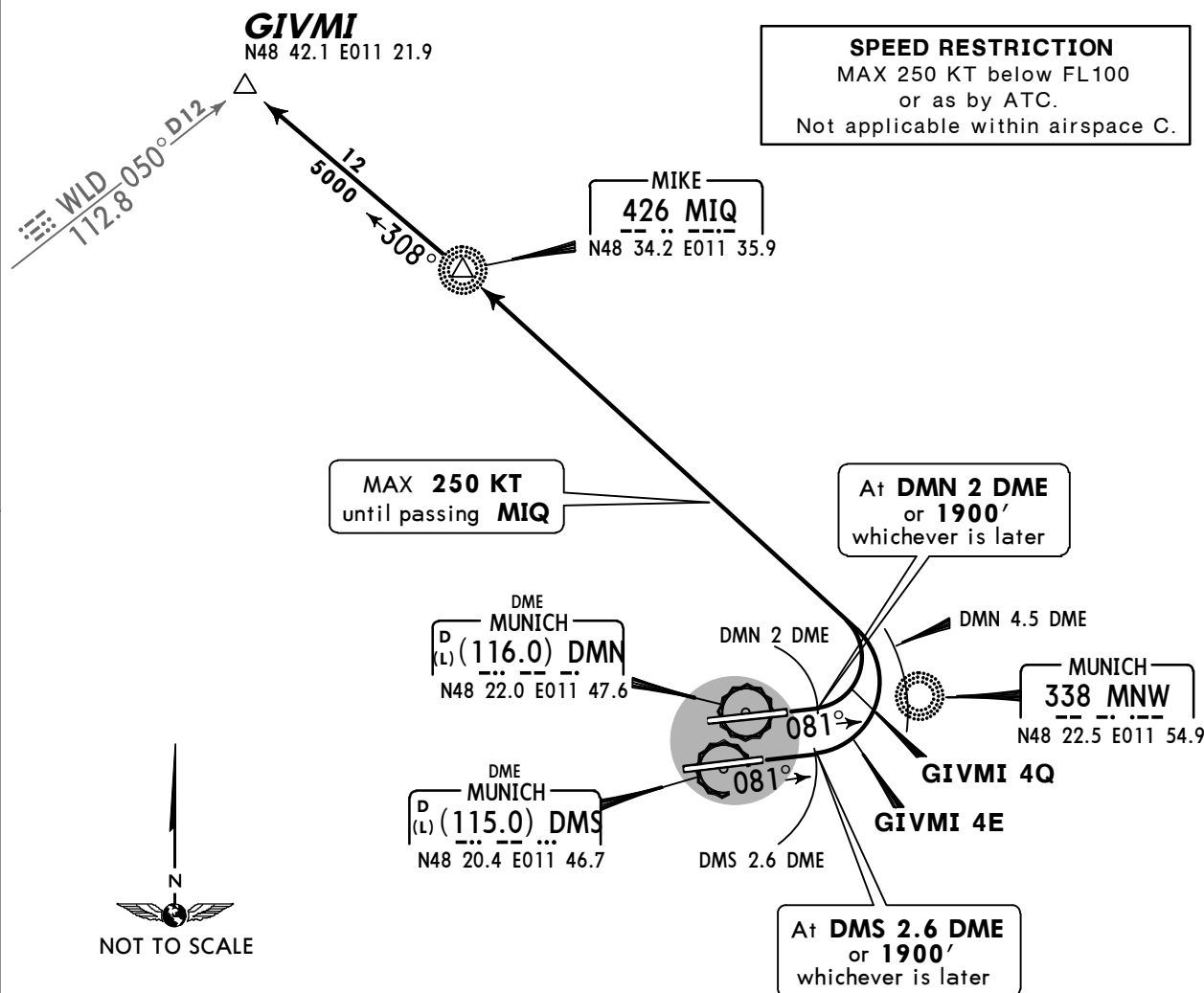
**GIVMI FOUR ECHO (GIVMI 4E)
GIVMI FOUR QUEBEC (GIVMI 4Q)
RWYS 08R/L DEPARTURES**

**JET ACFT ONLY (EXCEPT FLIGHTS ACCORDING
REMARKS OF AIRWAY T-161)
MANDATORY FOR FLIGHTS**

**VIA AIRWAY Y-101 - INBED - AIRWAYS (U)L-610
(CLIMB PROFILE RESTRICTION WITHIN Y-101 -
REFER TO ENROUTE/ENROUTE DATA EUROPE -
AIRWAY RESTRICTIONS - EUROPE LOWER AND UPPER AIRSPACE)
OR VIA AIRWAY Y-101 - ERNAS - AIRWAY T-161**



① 3300' within 10 NM



Initial climb clearance **FL70**

SID	RWY	ROUTING
GIVMI 4E	08R	Climb on runway track to DMS 2.6 DME or 1900', whichever is later, turn LEFT to MIQ, 308° bearing to GIVMI.
GIVMI 4Q	08L	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT within DMN 4.5 DME to MIQ, 308° bearing to GIVMI.

MUNICH Radar
123.9Apt Elev
1487'

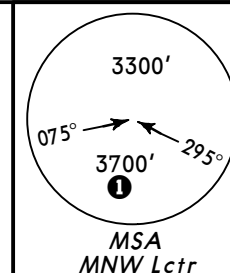
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**GIVMI FIVE SIERRA (GIVMI 5S)
GIVMI FIVE WHISKEY (GIVMI 5W)
RWYS 26L/R DEPARTURES**

**JET ACFT ONLY (EXCEPT FLIGHTS ACCORDING
REMARKS OF AIRWAY T-161)
MANDATORY FOR FLIGHTS**

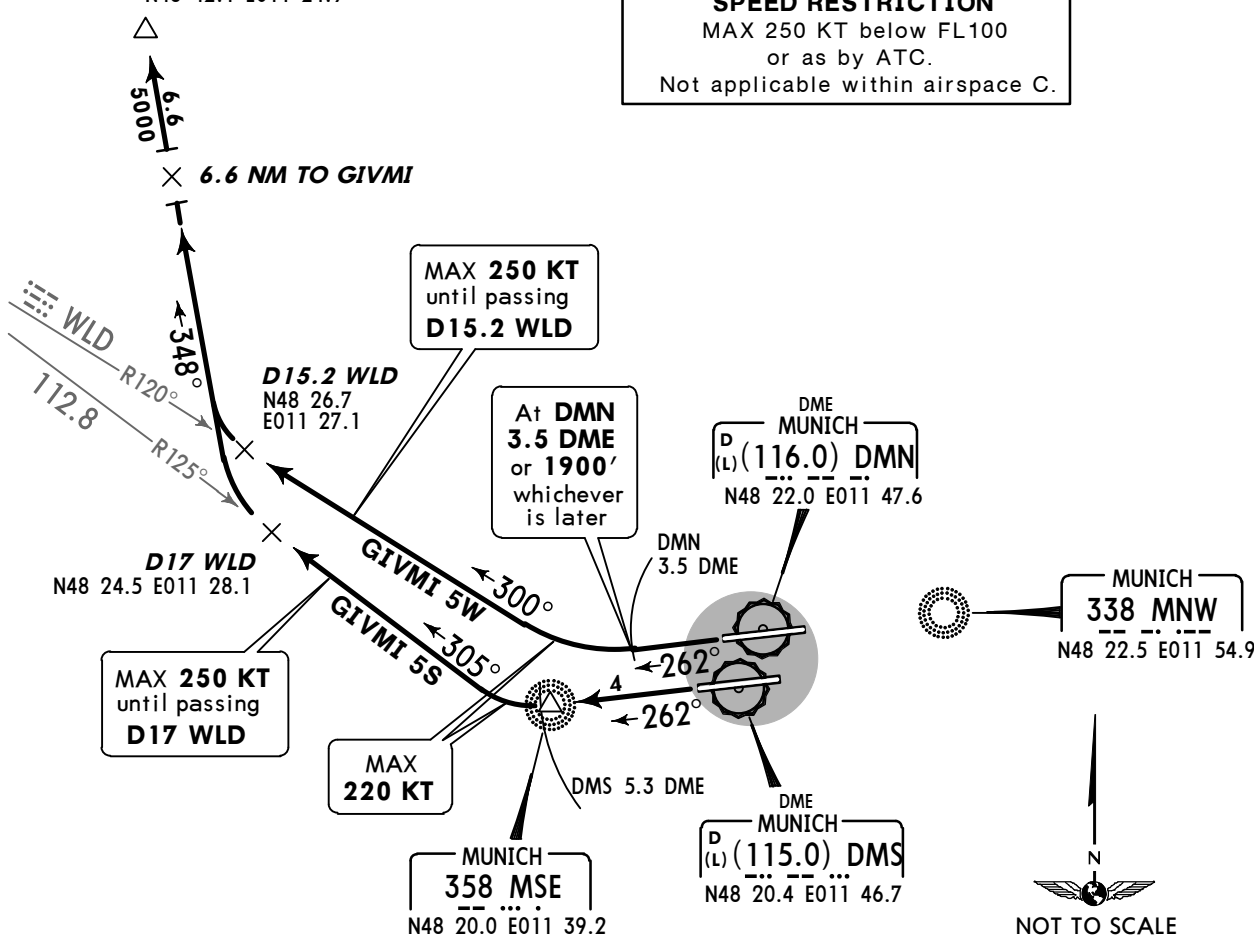
**VIA AIRWAY Y-101 - INBED - AIRWAYS (U)L-610
(CLIMB PROFILE RESTRICTION WITHIN Y-101 -
REFER TO ENROUTE/ENROUTE DATA EUROPE -
AIRWAY RESTRICTIONS - EUROPE LOWER AND UPPER AIRSPACE)
OR VIA AIRWAY Y 101 - ERNAS - AIRWAY T-161**



① 3300' within 10 NM

GIVMI

N48 42.1 E011 21.9



Initial climb clearance **FL70**

SID	RWY	ROUTING
GIVMI 5S	26L	Climb on runway track to 1900', then via MSE to DMS 5.3 DME, turn RIGHT, intercept WLD R-125 inbound to D17 WLD ②, turn RIGHT, 348° track to GIVMI.
GIVMI 5W	26R	Climb on runway track to DMN 3.5 DME or 1900', whichever is later, turn RIGHT, intercept WLD R-120 inbound to D15.2 WLD ③, turn RIGHT, 348° track to GIVMI.

② After D17 WLD BRNAV equipment necessary.

③ After D15.2 WLD BRNAV equipment necessary.

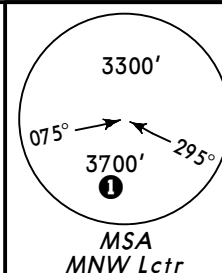
MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

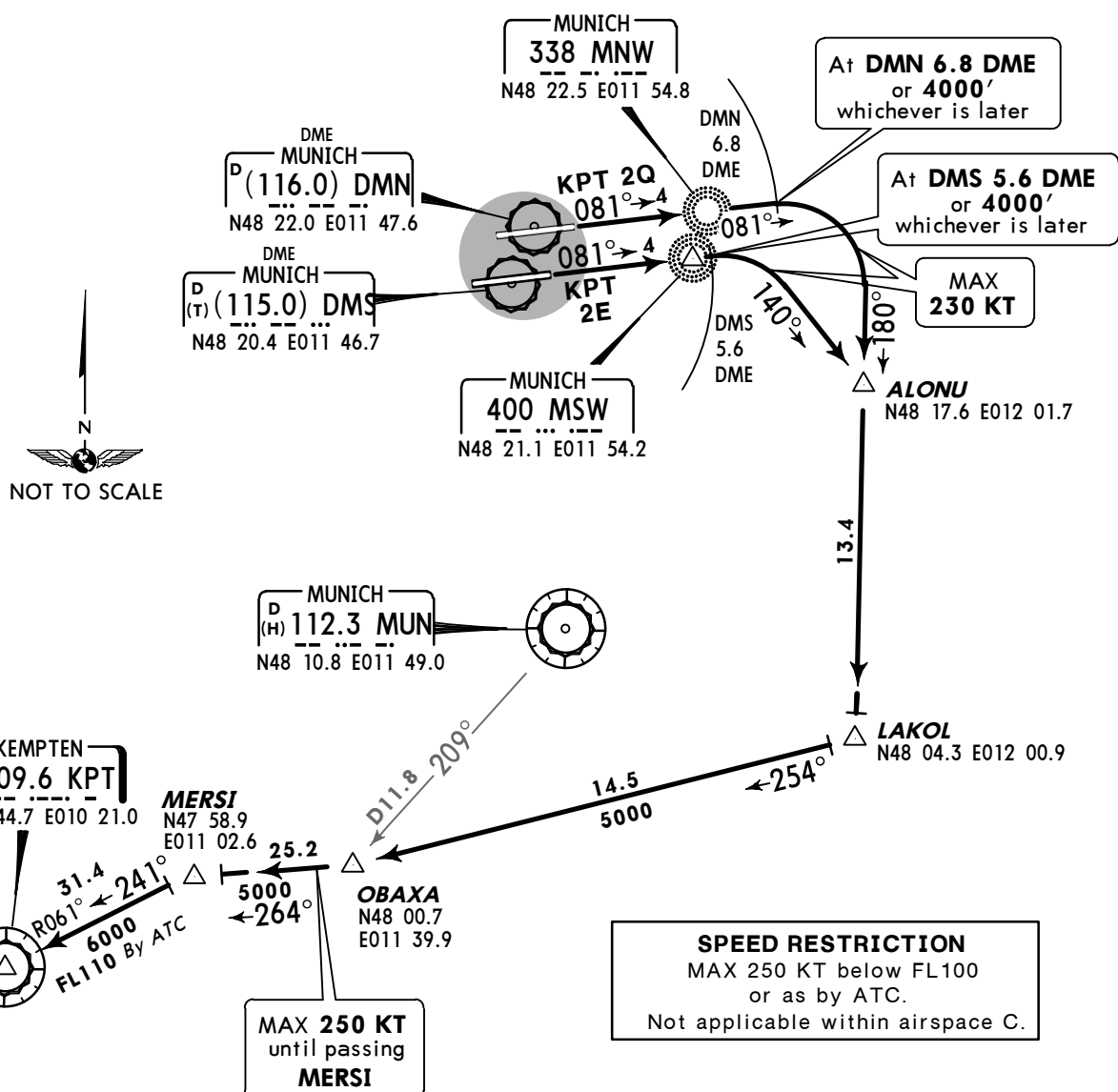
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

KEMPTEN TWO ECHO (KPT 2E)
KEMPTEN TWO QUEBEC (KPT 2Q)
RWYS 08R/L DEPARTURES

MANDATORY FOR JET ACFT TO DESTINATIONS EDNY, LSZH & LIM*
NOT AVAILABLE FOR TRAFFIC VIA KPT - AIRWAYS Y-740/Z-999
EXCEPT FOR DESTINATION LIM*



① 3300' within 10 NM



Initial climb clearance **FL70**

SID	RWY	ROUTING
KPT 2E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME ② or 4000', whichever is later, turn RIGHT, 140° track to ALONU, turn RIGHT, 180° track to LAKOL, turn RIGHT, 254° track to OBAXA, turn RIGHT, 264° track to MERSI, turn LEFT, intercept KPT R-061 inbound to KPT.
KPT 2Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME ③ or 4000', whichever is later, turn RIGHT, 180° track to LAKOL, turn RIGHT, 254° track to OBAXA, turn RIGHT, 264° track to MERSI, turn LEFT, intercept KPT R-061 inbound to KPT.

② After DMS 5.6 DME BRNAV equipment necessary.

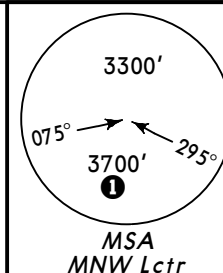
③ After DMN 6.8 DME BRNAV equipment necessary.

Apt Elev
1487'

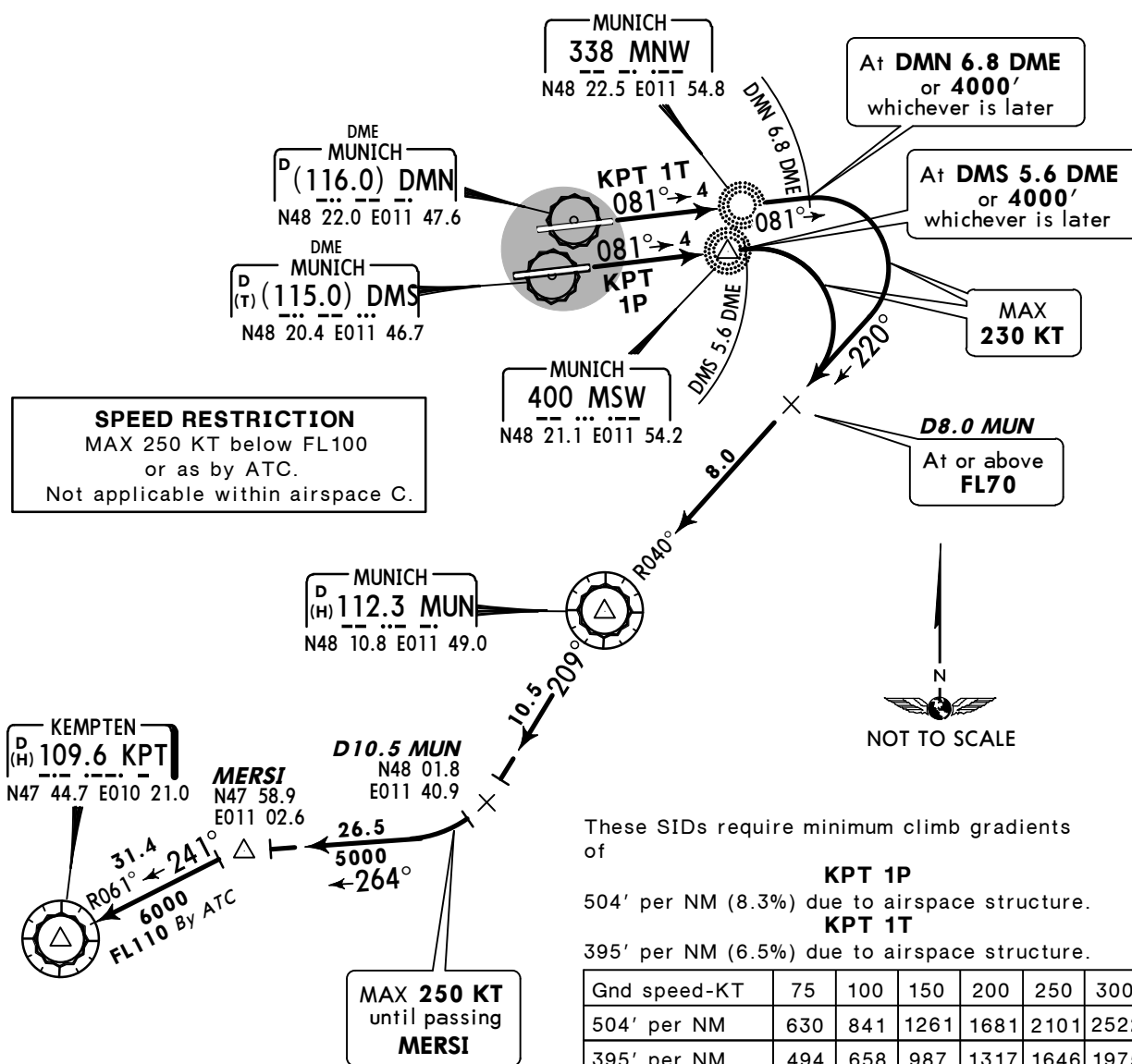
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

ONLY AVAILABLE FOR NON-JET ACFT
NOT AVAILABLE FOR TRAFFIC VIA KPT - AIRWAYS Y-740/Z-999
EXCEPT FOR DESTINATION LIM*



① 3300' within 10 NM



These SIDs require minimum climb gradients of

KPT 1P

504' per NM (8.3%) due to airspace structure.

KPT 1T

395' per NM (6.5%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
504' per NM	630	841	1261	1681	2101	2522
395' per NM	494	658	987	1317	1646	1975

If unable to comply advise ATC.

Initial climb clearance **FL70**

SID	RWY	ROUTING
KPT 1P	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME or 4000', whichever is later, turn RIGHT, intercept MUN R-040 inbound to MUN, turn LEFT, MUN R-209 to D10.5 MUN ②, turn RIGHT, 264° track to MERSI, turn LEFT, intercept KPT R-061 inbound to KPT.
KPT 1T	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME or 4000', whichever is later, turn RIGHT, intercept MUN R-040 inbound to MUN, turn LEFT, MUN R-209 to D10.5 MUN ②, turn RIGHT, 264° track to MERSI, turn LEFT, intercept KPT R-061 inbound to KPT.

② After D10.5 MUN BRNAV equipment necessary.

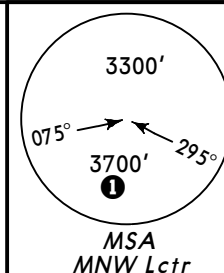
MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

KEMPTEN ONE NOVEMBER (KPT 1N)
KEMPTEN ONE SIERRA (KPT 1S)
RWYS 26R/L DEPARTURES

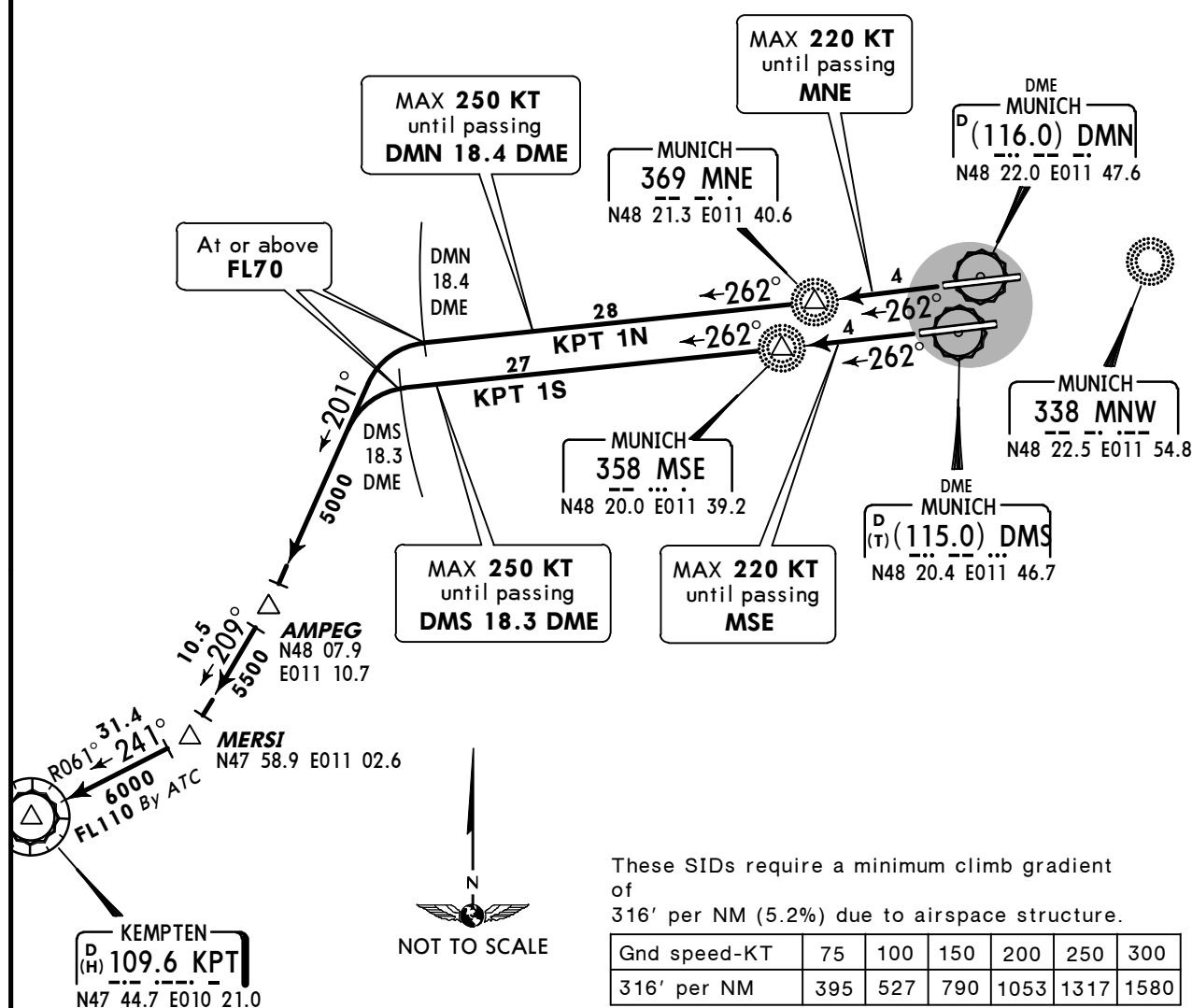
MANDATORY FOR JET ACFT TO DESTINATIONS EDNY, LSZH & LIM*
NOT AVAILABLE FOR TRAFFIC VIA KPT - AIRWAYS Y-740/Z-999
EXCEPT FOR DESTINATION LIM*



① 3300' within 10 NM

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

**Initial climb clearance FL70**

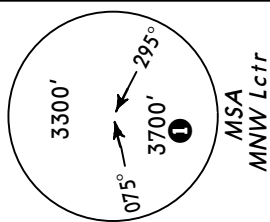
SID	RWY	ROUTING
KPT 1N	26R	Climb on runway track to 1900', intercept 262° bearing via MNE to DMN 18.4 DME ②, turn LEFT, 201° track to AMPEG, turn RIGHT, 209° track to MERSI, turn RIGHT, intercept KPT R-061 inbound to KPT.
KPT 1S	26L	Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 18.3 DME ③, turn LEFT, 201° track to AMPEG, turn RIGHT, 209° track to MERSI, turn RIGHT, intercept KPT R-061 inbound to KPT.

BRNAV equipment necessary after: ② DMN 18.4 DME/ ③ DMS 18.3 DME.

MUNICH Radar
127.95

Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.



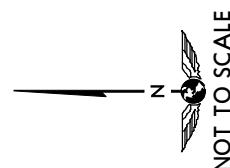
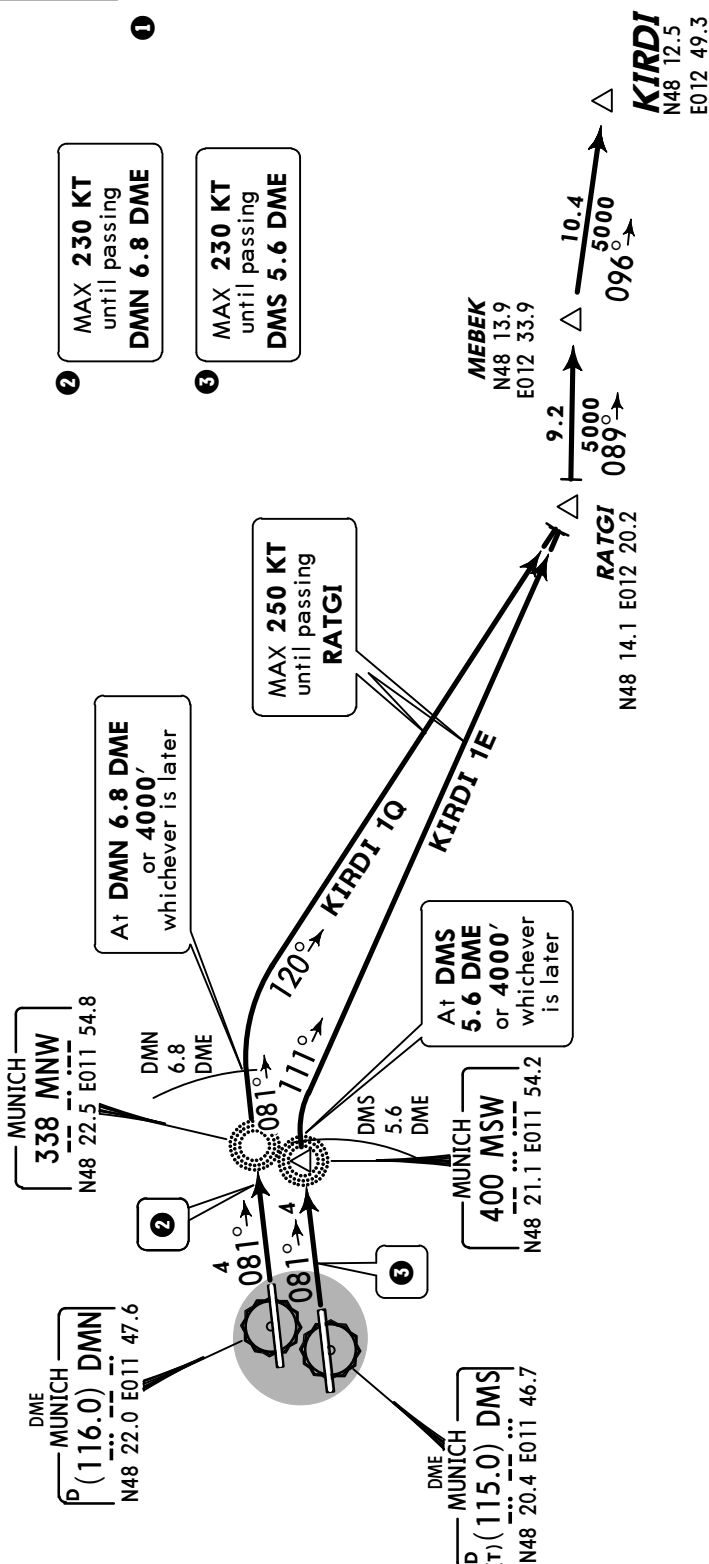
① 3300' within 10 NM

**KIRDI ONE ECHO (KIRDI 1E)
KIRDI ONE QUEBEC (KIRDI 1Q)
RWYS 08R/L DEPARTURES
NOT AVAILABLE FOR FLIGHTS VIA BIBAG**

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

② MAX 230 KT
until passing
DMN 6.8 DME

③ MAX 230 KT
until passing
DMS 5.6 DME



Initial climb clearance FL70		
ROUTING		
SID	RWY	
KIRDI 1E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME ④ or 4000', whichever is later, turn RIGHT, 111° track to RATGI, turn LEFT, 089° track to MEBEK, turn RIGHT, 096° track to KIRDI.
KIRDI 1Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME ⑤ or 4000', whichever is later, turn RIGHT, 120° track to RATGI, turn LEFT, 089° track to MEBEK, turn RIGHT, 096° track to KIRDI.

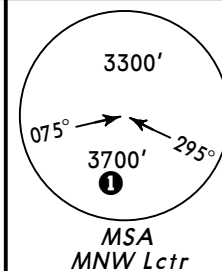
BRNAV equipment necessary after: ④ DMS 5.6 DME/ ⑤ DMN 6.8 DME.

MUNICH Radar
127.95Apt Elev
1487'

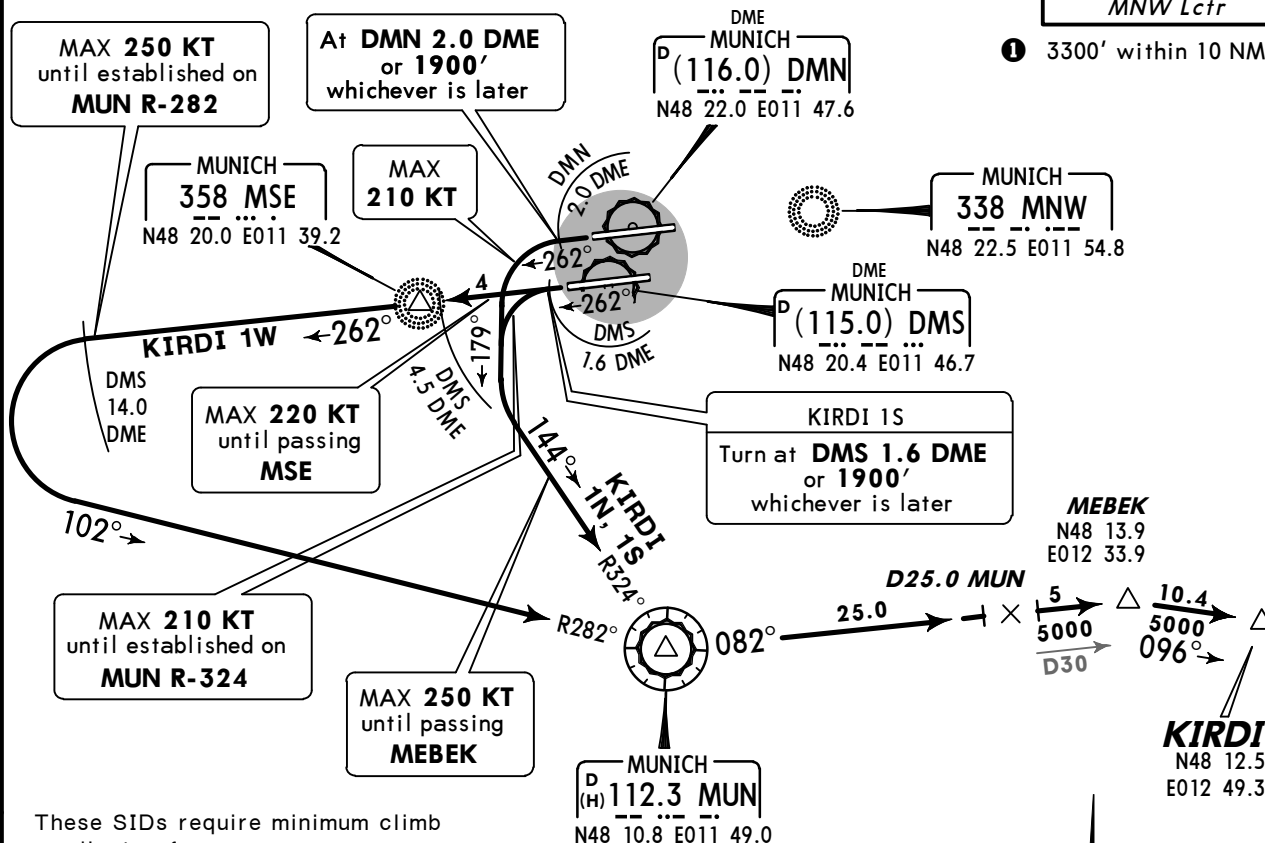
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

KIRDI ONE NOVEMBER (KIRDI 1N)
KIRDI ONE SIERRA (KIRDI 1S)
KIRDI ONE WHISKEY (KIRDI 1W)
RWYS 26R/L DEPARTURES
NOT AVAILABLE FOR FLIGHTS VIA BIBAG



① 3300' within 10 NM



These SIDs require minimum climb gradients of

KIRDI 1N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

KIRDI 1S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

SPEED RESTRICTIONMAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.Initial climb clearance **FL70**

SID	RWY	ROUTING
KIRDI 1N	26R	Climb on runway track to DMN 2.0 DME or 1900', whichever is later, turn LEFT, 179° track, intercept MUN R-324 inbound to MUN, turn LEFT, MUN R-082 to MEBEK ② turn RIGHT, 096° track to KIRDI.
KIRDI 1S ③	26L	Climb on runway track to DMS 1.6 DME or 1900', whichever is later, turn LEFT within DMS 4.5 DME, 179° track, intercept MUN R-324 inbound to MUN, turn LEFT, MUN R-082 to MEBEK ② turn RIGHT, 096° track to KIRDI.
KIRDI 1W		Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 14.0 DME, turn LEFT, intercept MUN R-282 inbound to MUN, turn LEFT, MUN R-082 to MEBEK ② turn RIGHT, 096° track to KIRDI.

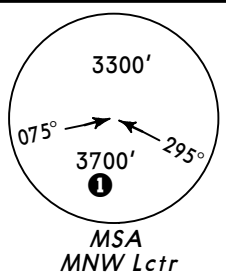
② BRNAV equipment necessary after MEBEK.

③ If unable to comply with speed and turn restrictions request SID KIRDI 1W.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.



① 3300' within 10 NM



MERSI TWO ECHO (MERSI 2E) MERSI TWO QUEBEC (MERSI 2Q) RWYS 08R/L DEPARTURES

JET ACFT ONLY

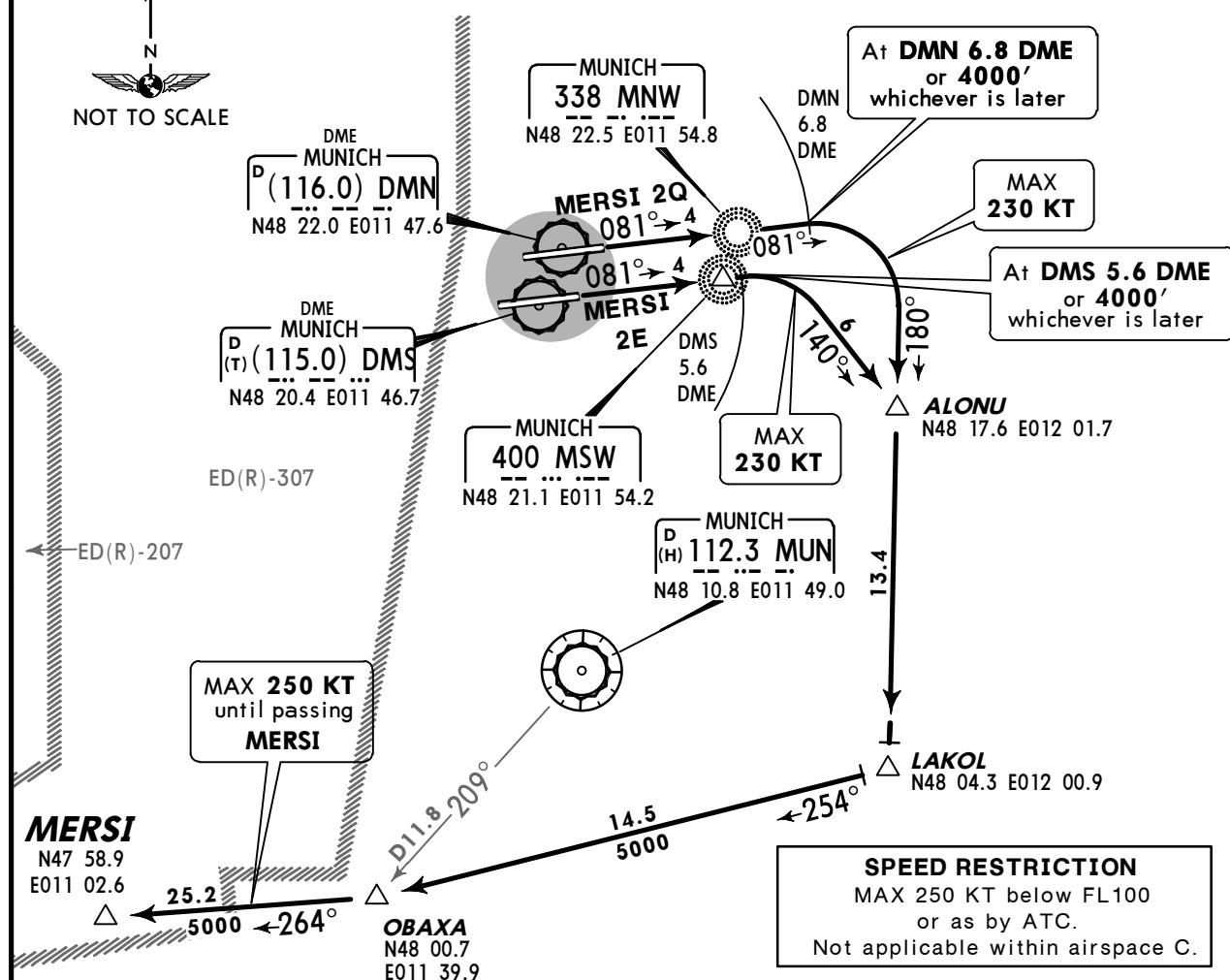
NOT AVAILABLE FOR FLIGHTS DESTINATION LSZH AND LIM*
THESE FLIGHTS SHALL FILE KPT SIDS

NOT AVAILABLE FOR TRAFFIC PROCEEDING VIA MILKA
AT OR ABOVE REQUESTED FL245 DURING FOLLOWING TIMES:

DAILY 2330-0800LT/FRI 1700LT TO MON 0800LT/HOL

DURING THESE TIMES FILE SID ALG

DURING ACTIVATION OF ED(R)-207/307 EXPECT RE-ROUTING BY ATC

Initial climb clearance **FL70**

SID	RWY	ROUTING
MERSI 2E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME ② or 4000', whichever is later, turn RIGHT, 140° track to ALONU, turn RIGHT, 180° track to LAKOL, turn RIGHT, 254° track to OBAXA, turn RIGHT, 264° track to MERSI.
MERSI 2Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME ③ or 4000', whichever is later, turn RIGHT, 180° track to LAKOL, turn RIGHT, 254° track to OBAXA, turn RIGHT, 264° track to MERSI.

BRNAV equipment necessary after: ② DMS 5.6 DME/ ③ DMN 6.8 DME.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

MERSI THREE NOVEMBER (MERSI 3N)**MERSI THREE SIERRA (MERSI 3S)****RWYS 26R/L DEPARTURES**

JET ACFT ONLY

NOT AVAILABLE FOR FLIGHTS DESTINATION LSZH AND LIM*

THESE FLIGHTS SHALL FILE KPT SIDS

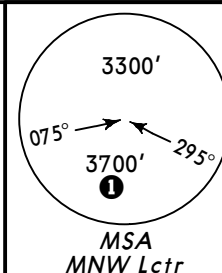
NOT AVAILABLE FOR TRAFFIC PROCEEDING VIA MILKA

AT OR ABOVE REQUESTED FL245 DURING FOLLOWING TIMES:

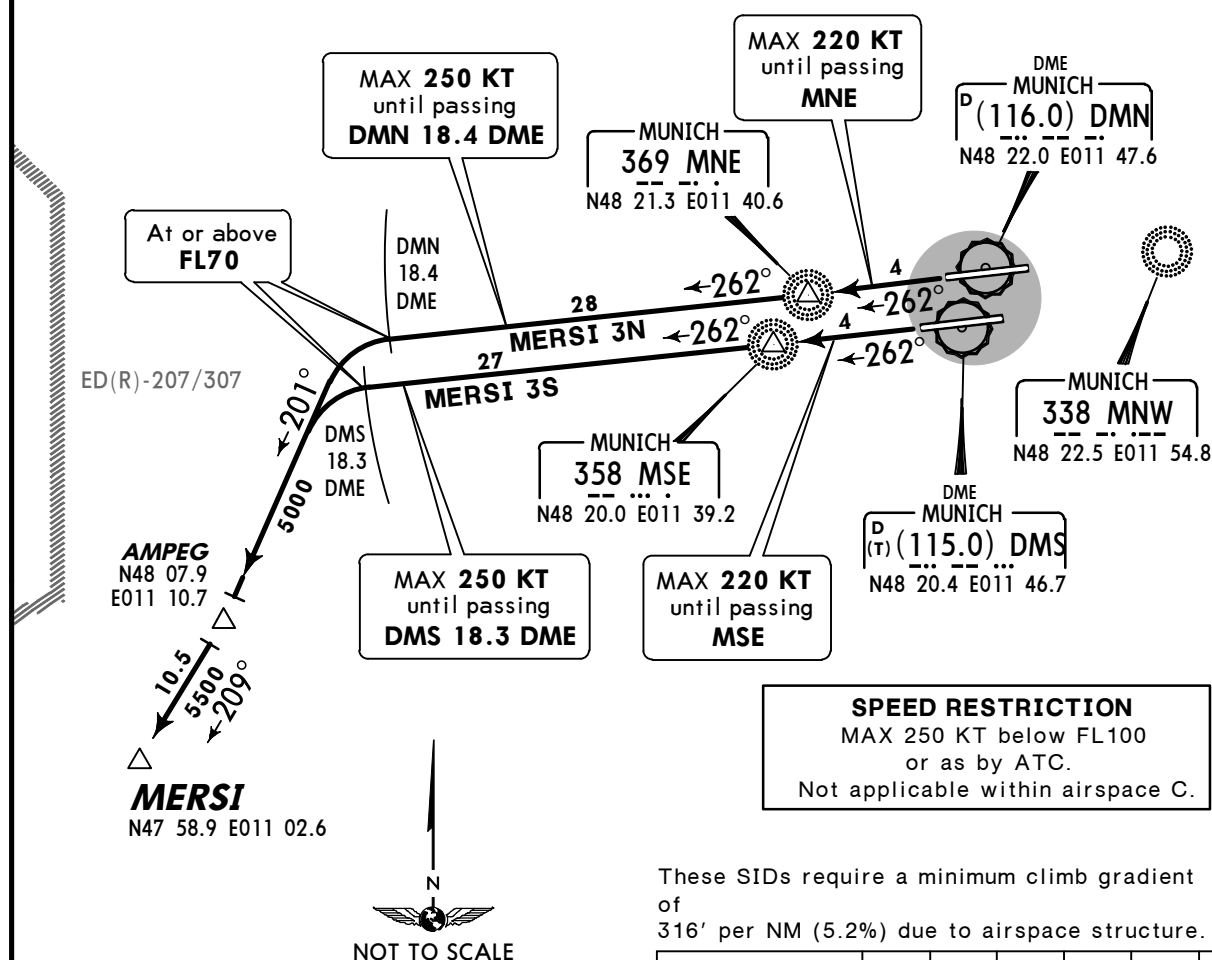
DAILY 2330-0800LT/FRI 1700LT TO MON 0800LT/HOL

DURING THESE TIMES FILE SID ALG

DURING ACTIVATION OF ED(R)-207/307 EXPECT RE-ROUTING BY ATC



① 3300' within 10 NM



These SIDs require a minimum climb gradient of 316' per NM (5.2%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
316' per NM	395	527	790	1053	1317	1580

If unable to comply advise ATC.

Initial climb clearance FL70

SID	RWY	ROUTING
MERSI 3N	26R	Climb on runway track to 1900', intercept 262° bearing via MNE to DMN 18.4 DME ②, turn LEFT, 201° track to AMPEG, turn RIGHT, 209° track to MERSI.
MERSI 3S	26L	Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 18.3 DME ③, turn LEFT, 201° track to AMPEG, turn RIGHT, 209° track to MERSI.

② After DMN 18.4 DME BRNAV equipment necessary.

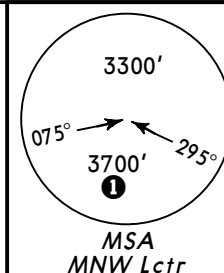
③ After DMS 18.3 DME BRNAV equipment necessary.

MUNICH Radar
123.9Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

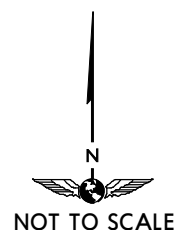
**MIKE SEVEN ECHO (MIQ 7E)
MIKE SEVEN QUEBEC (MIQ 7Q)
RWYS 08R/L DEPARTURES
BY ATC
ONLY FOR NON-RNAV EQUIPPED ACFT**



① 3300' within 10 NM

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

MIKE
426 MIQ
N48 34.2 E011 35.9

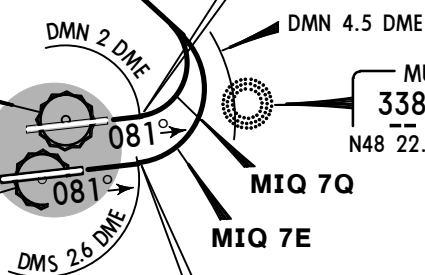


MAX 250 KT
until passing MIQ

At DMN 2 DME
or 1900'
whichever is later

DME
MUNICH
D (116.0) DMN
N48 22.0 E011 47.6

DME
MUNICH
D (T) (115.0) DMS
N48 20.4 E011 46.7



At DMS 2.6 DME
or 1900'
whichever is later

Initial climb clearance **FL70**

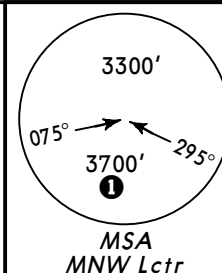
SID	RWY	ROUTING
MIQ 7E	08R	Climb on runway track to DMS 2.6 DME or 1900', whichever is later, turn LEFT to MIQ.
MIQ 7Q	08L	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT within DMN 4.5 DME to MIQ.

MUNICH Radar
123.9Apt Elev
1487'

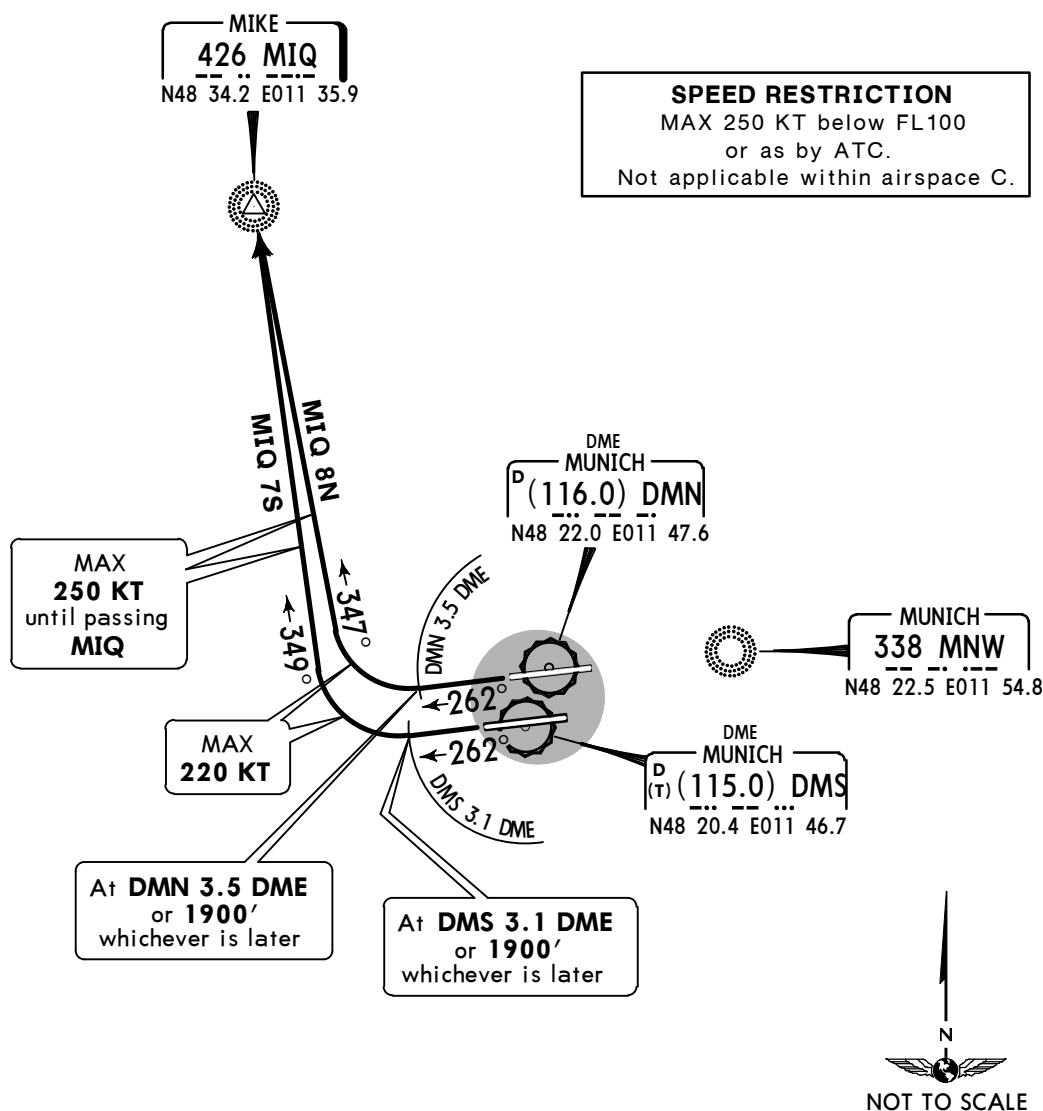
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**MIKE EIGHT NOVEMBER (MIQ 8N)
MIKE SEVEN SIERRA (MIQ 7S)
RWYS 26R/L DEPARTURES
BY ATC
ONLY FOR NON-RNAV EQUIPPED ACFT**



① 3300' within 10 NM

Initial climb clearance **FL70**

SID	RWY	ROUTING
MIQ 8N	26R	Climb on runway track to DMN 3.5 DME or 1900', whichever is later, turn RIGHT, intercept 347° bearing to MIQ.
MIQ 7S	26L	Climb on runway track to DMS 3.1 DME or 1900', whichever is later, turn RIGHT, intercept 349° bearing to MIQ.

Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

3300'

075° 295°

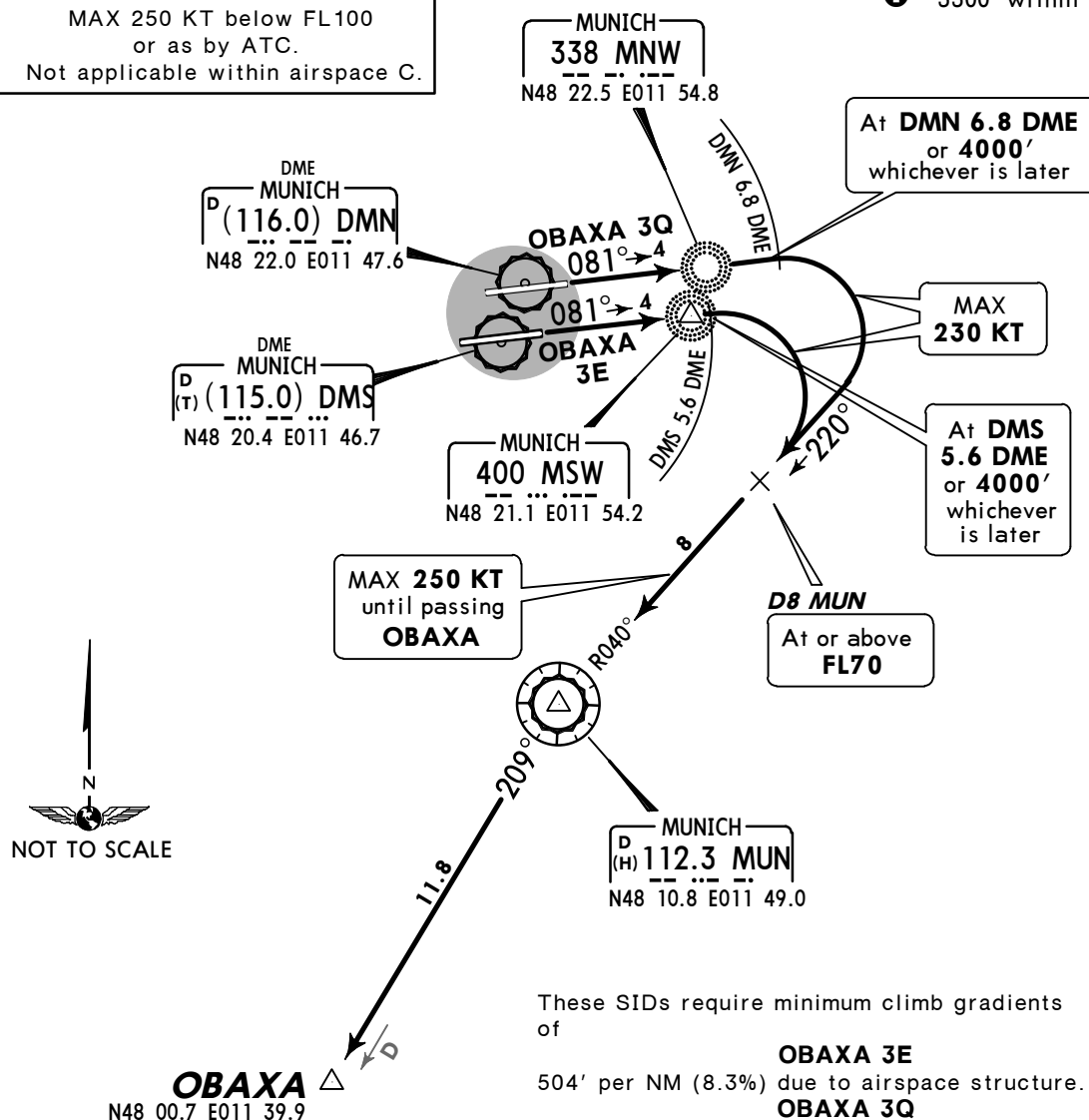
3700'

①

MSA
MNW Lctr

① 3300' within 10 NM

MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



These SIDs require minimum climb gradients of

OBAXA 3E

504' per NM (8.3%) due to airspace structure.

OBAXA 3Q

395' per NM (6.5%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
504' per NM	630	841	1261	1681	2101	2522
395' per NM	494	658	987	1317	1646	1975

If unable to comply advise ATC.

Initial climb clearance **FL70**

SID	RWY	ROUTING
OBAXA 3E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME or 4000', whichever is later, turn RIGHT, intercept MUN R-040 inbound to MUN, turn LEFT, MUN R-209 to OBAXA.
OBAXA 3Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME or 4000', whichever is later, turn RIGHT, intercept MUN R-040 inbound to MUN, turn LEFT, MUN R-209 to OBAXA.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

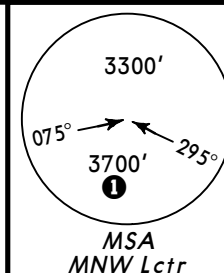
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

OBAXA THREE NOVEMBER (OBAXA 3N)
OBAXA FOUR SIERRA (OBAXA 4S)
RWYS 26R/L DEPARTURES
ONLY AVAILABLE FOR NON-JET ACFT

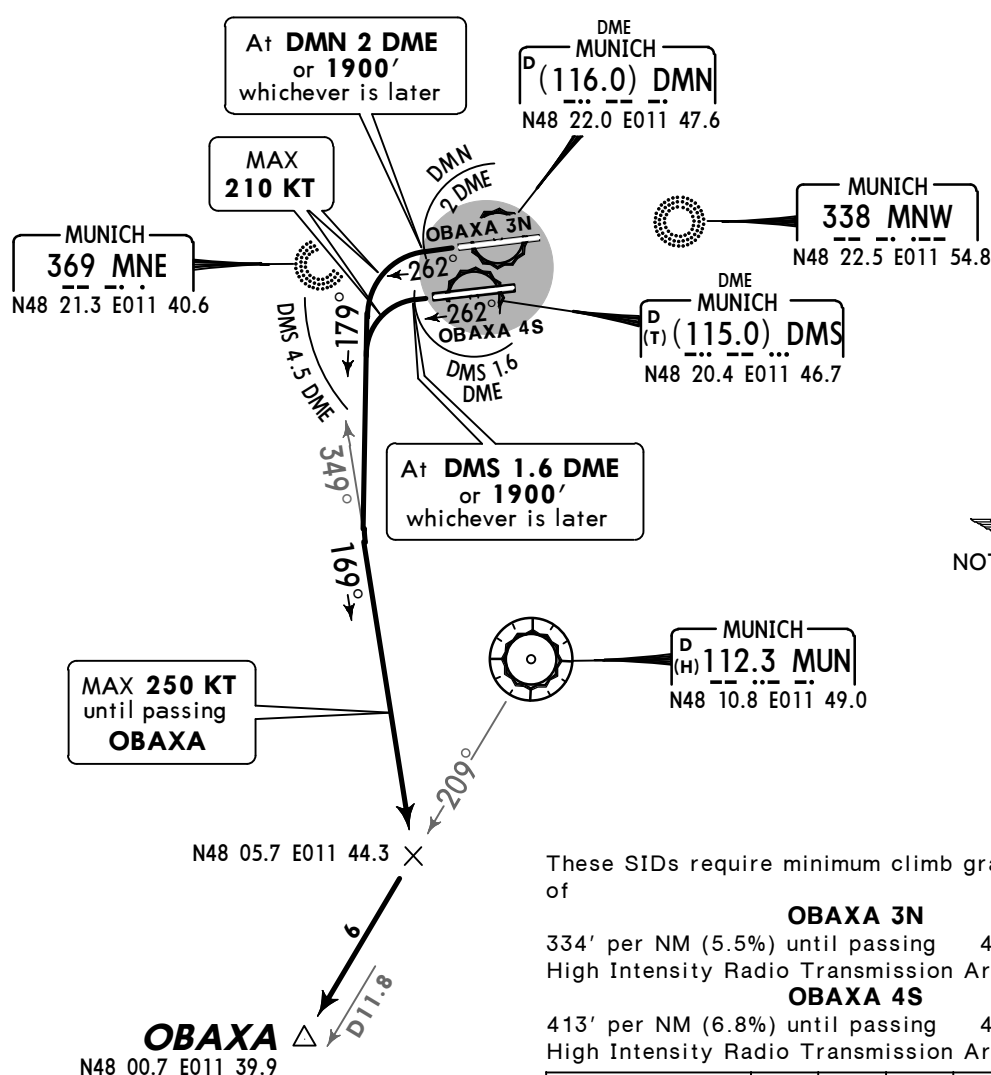
SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.



① 3300' within 10 NM



These SIDs require minimum climb gradients of

OBAXA 3N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

OBAXA 4S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance FL70

SID	RWY	ROUTING
OBAXA 3N	26R	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT, 179° track, intercept 169° bearing from MNE, intercept MUN R-209 to OBAXA.
OBAXA 4S	26L	Climb on runway track to DMS 1.6 DME or 1900', whichever is later, turn LEFT within DMS 4.5 DME, 179° track, intercept 169° bearing from MNE, intercept MUN R-209 to OBAXA.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

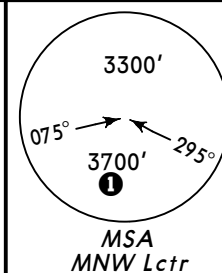
**OLASO ONE ECHO (OLASO 1E)
OLASO ONE QUEBEC (OLASO 1Q)
RWYS 08R/L DEPARTURES**

AVAILABLE

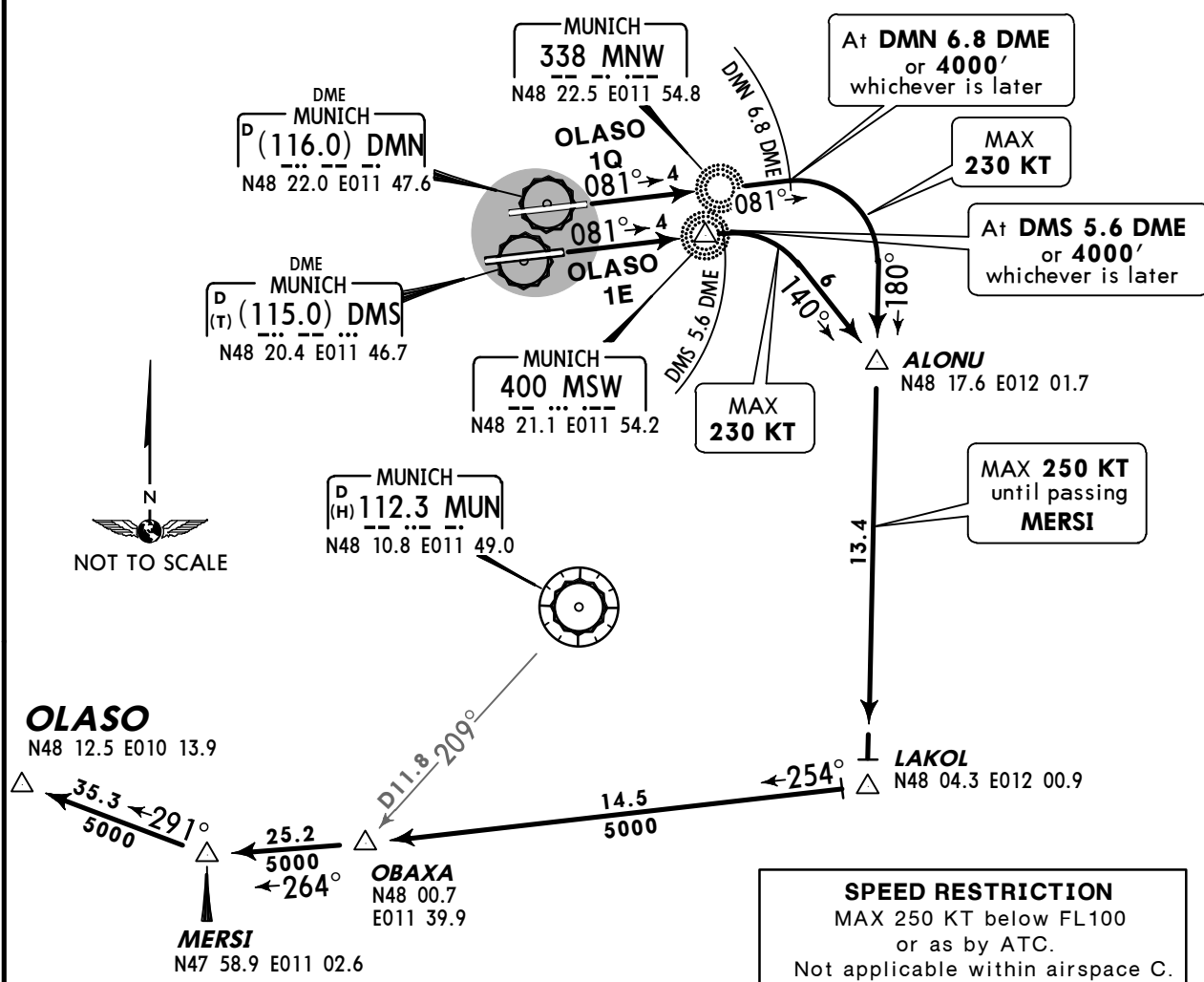
DAILY 2330-0800LT

FRI 1700LT TO MON 0800LT

& BAVARIAN HOL



① 3300' within 10 NM

Initial climb clearance **FL70**

SID	RWY	ROUTING
OLASO 1E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME ② or 4000', whichever is later, turn RIGHT, 140° track to ALONU, turn RIGHT, 180° track to LAKOL, turn RIGHT, 254° track to OBAXA, turn RIGHT, 264° track to MERSI, turn RIGHT, 291° track to OLASO.
OLASO 1Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME ③ or 4000', whichever is later, turn RIGHT, 180° track to LAKOL, turn RIGHT, 254° track to OBAXA, turn RIGHT, 264° track to MERSI, turn RIGHT, 291° track to OLASO.

BRNAV equipment necessary after: ② DMS 5.6 DME/ ③ DMN 6.8 DME.

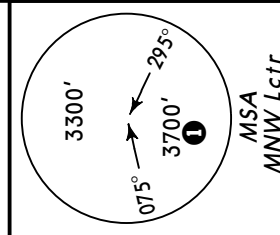
MUNICH Radar
127.95

Apt Elev
1487'

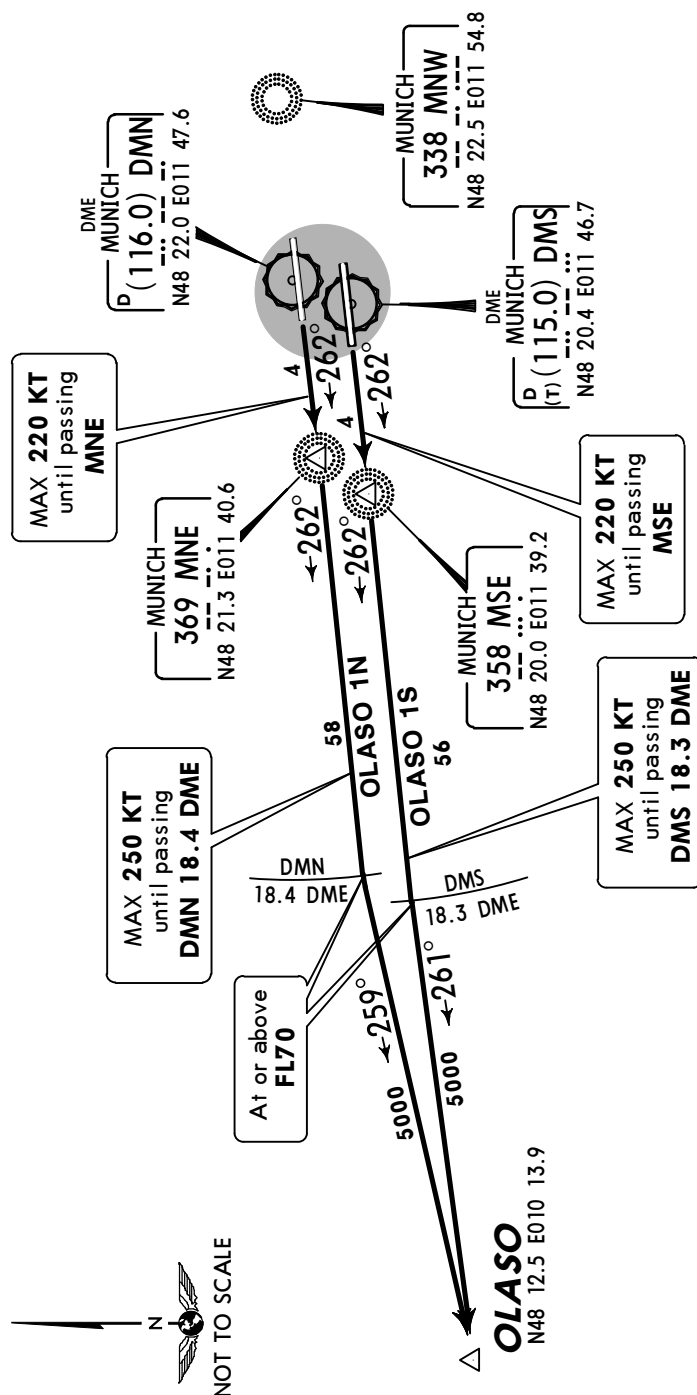
Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**OLASO ONE NOVEMBER (OLASO 1N)
OLASO ONE SIERRA (OLASO 1S)
RWYS 26R/L DEPARTURES**

AVAILABLE
DAILY 2330-0800LT
FRI 1700LT TO MON 0800LT
& BAVARIAN HOL



① 3300' within 10 NM



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

These SIDs require a minimum climb gradient of 316' per NM (5.2%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
316' per NM	395	527	790	1053	1317	1580

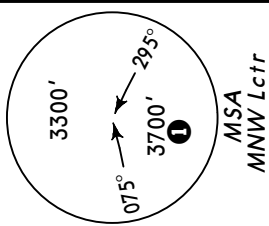
If unable to comply advise ATC.

Initial climb clearance FL70		ROUTING	
SID	RWY		
OLASO 1N	26R	Climb on runway track to 1900', intercept 262° bearing via MNE to DMN 18.4 DME ②, turn LEFT, 259° track to OLASO.	
OLASO 1S	26L	Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 18.3 DME ③, turn LEFT, 261° track to OLASO.	
BRNAV equipment necessary after:		② DMN 18.4 DME/	③ DMS 18.3 DME.

Apt Elev
1487'

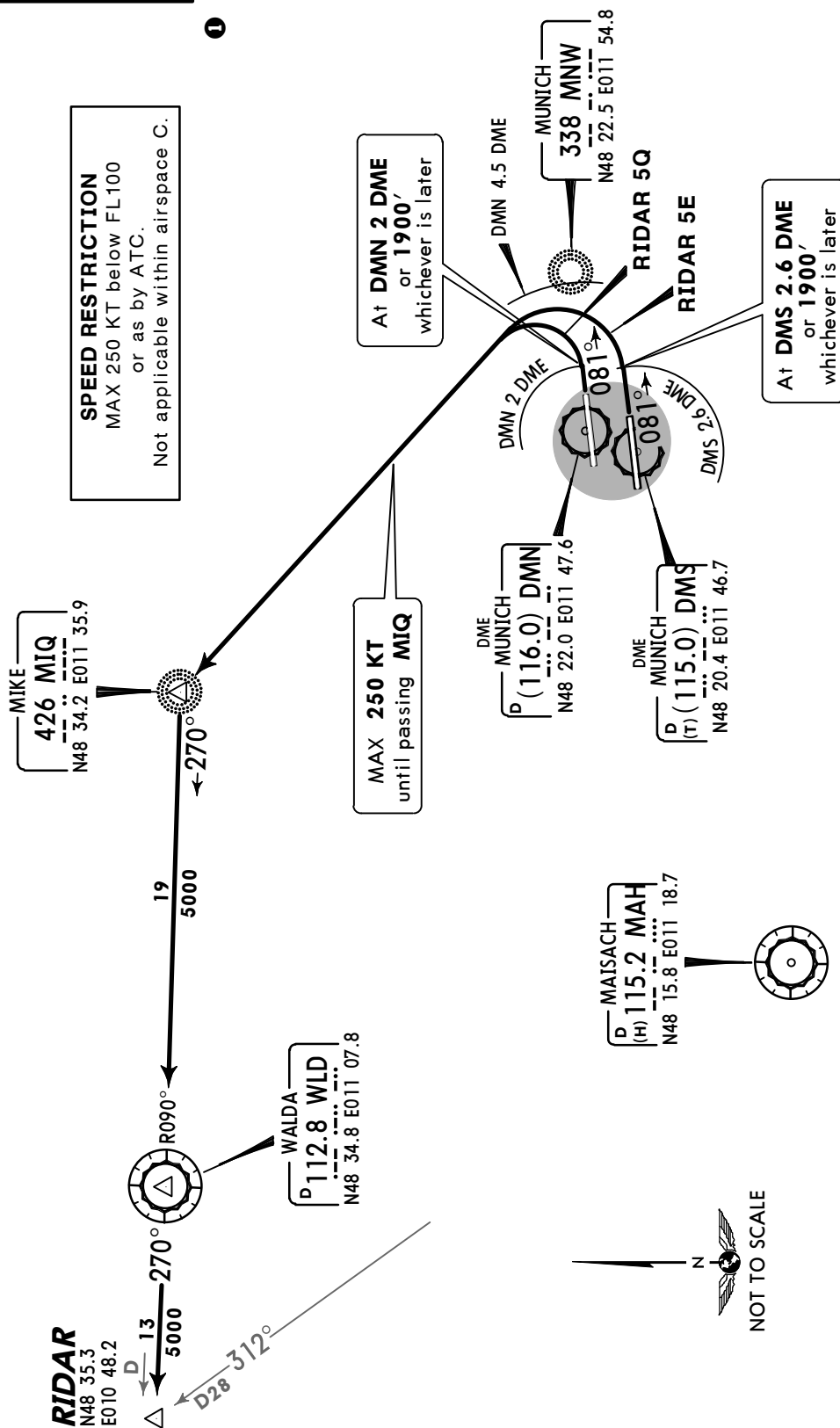
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.



1 3300' within 10 NM

**RIDAR FIVE ECHO (RIDAR 5E)
RIDAR FIVE QUEBEC (RIDAR 5Q)
RWYS 08R/L DEPARTURES
NOT AVAILABLE FOR FLIGHTS PLANNED
VIA ELVAG - AIRWAY W 718 - DKB**

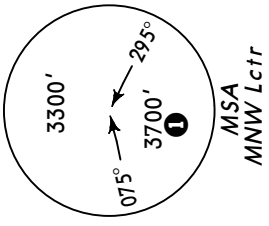


Initial climb clearance FL70		
SID	RWY	ROUTING
RIDAR 5E	08R	Climb on runway track to DMS 2.6 DME or 1900', whichever is later, turn LEFT to MIQ, intercept WLD R-090 inbound to WLD, WLD R-270 to RIDAR.
RIDAR 5Q	08L	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT within DMN 4.5 DME to MIQ, intercept WLD R-090 inbound to WLD, WLD R-270 to RIDAR.

MUNICH Radar
123.9

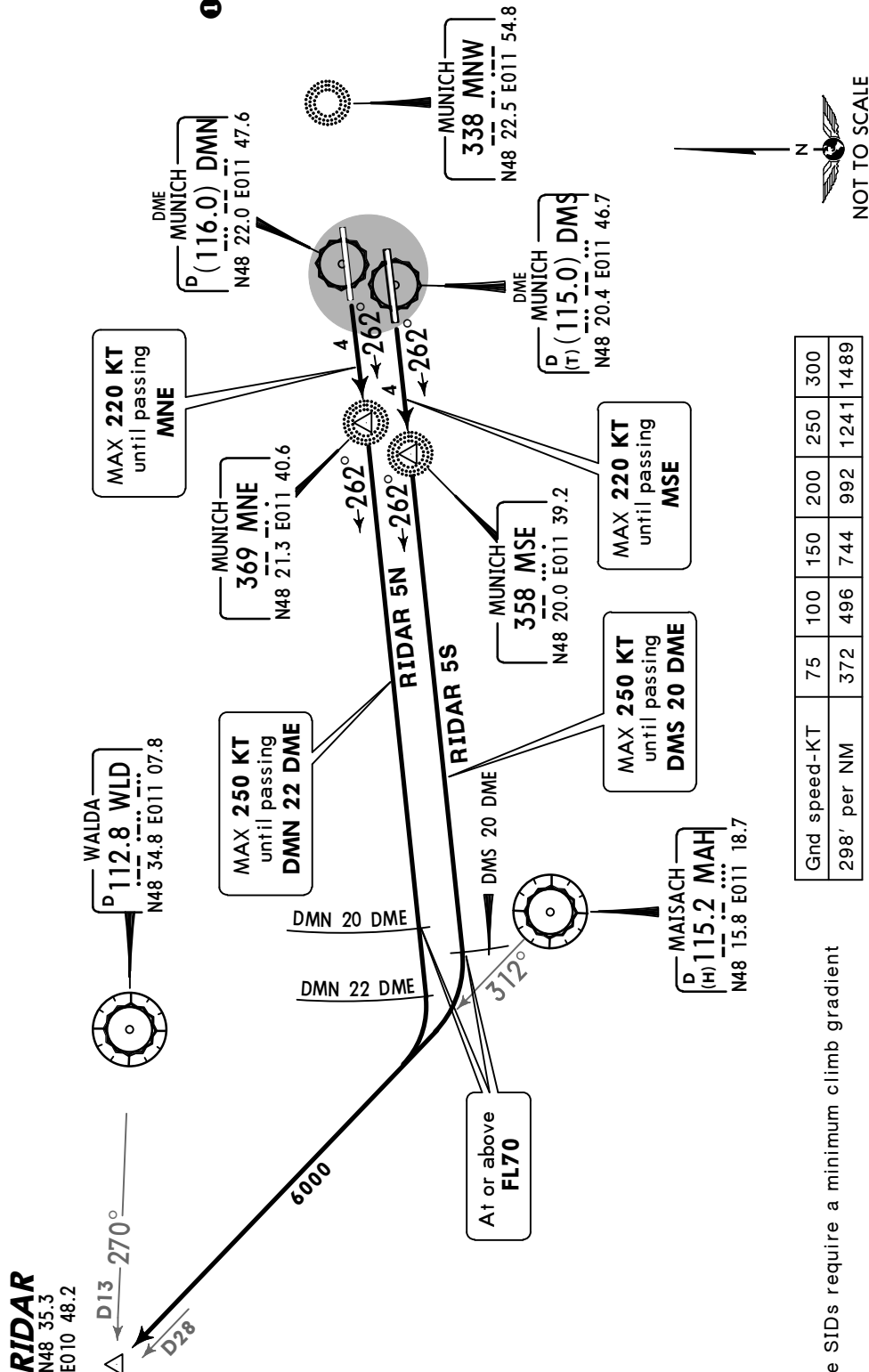
Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.



① 3300' within 10 NM

**RIDAR FIVE NOVEMBER (RIDAR 5N)
RIDAR FIVE SIERRA (RIDAR 5S)
RWYS 26R/L DEPARTURES
NOT AVAILABLE FOR FLIGHTS PLANNED
VIA ELVAG - AIRWAY W 718 - DKB**



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

Gnd speed-KT	75	100	150	200	250	300
298' per NM	372	496	744	992	1241	1489

If unable to comply advise ATC.

Initial climb clearance FL70

ROUTING

SID	RWY	ROUTING
RIDAR 5N	26R	Climb on runway track to 1900', intercept 262° bearing via MNE to DMN 22 DME, turn RIGHT, intercept MAH R-312 to RIDAR.
RIDAR 5S	26L	Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 20 DME, turn RIGHT, intercept MAH R-312 to RIDAR.

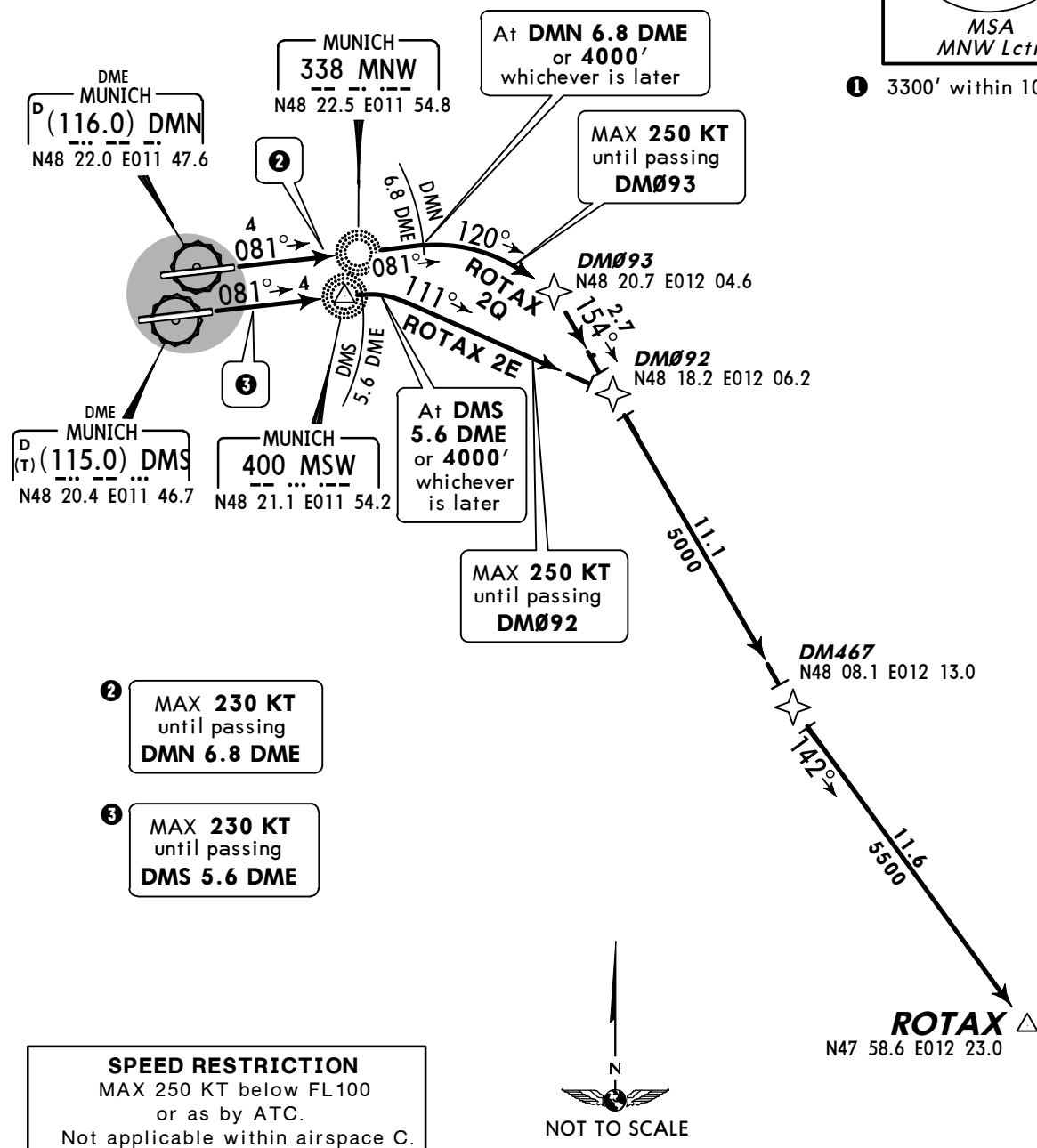
These SIDs require a minimum climb gradient of 298' per NM (4.9%) due to airspace structure.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

ROTAX TWO ECHO (ROTAX 2E)
ROTAX TWO QUEBEC (ROTAX 2Q)
RWYS 08R/L DEPARTURES

Initial climb clearance **FL70**

SID	RWY	ROUTING
ROTAX 2E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME ④ or 4000', whichever is later, turn RIGHT, 111° track to DM092, turn RIGHT, 154° track to DM467, turn LEFT, 142° track to ROTAX.
ROTAX 2Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME ⑤ or 4000', whichever is later, turn RIGHT, 120° track to DM093, turn RIGHT, 154° track to DM467, turn LEFT, 142° track to ROTAX.

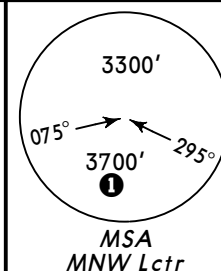
④ After DMS 5.6 DME BRNAV equipment necessary.**⑤** After DMN 6.8 DME BRNAV equipment necessary.

MUNICH Radar
127.95Apt Elev
1487'

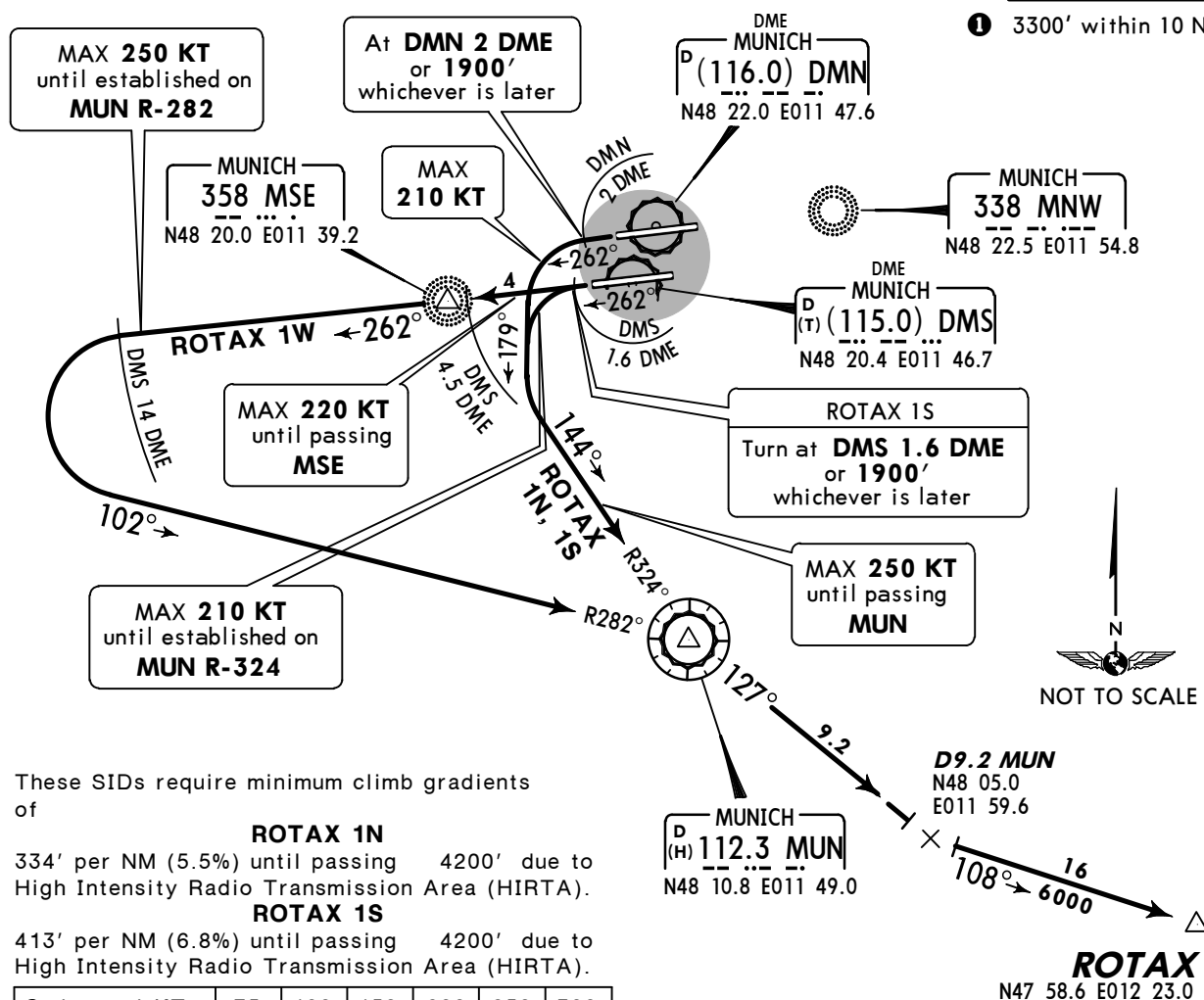
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

ROTAX ONE NOVEMBER (ROTAX 1N)
ROTAX ONE SIERRA (ROTAX 1S)
ROTAX ONE WHISKEY (ROTAX 1W)
RWYS 26R/L DEPARTURES



① 3300' within 10 NM



These SIDs require minimum climb gradients of

ROTAX 1N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

ROTAX 1S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

SPEED RESTRICTION
MAX 250 KT below FL100 or as by ATC.
Not applicable within airspace C.

Initial climb clearance FL70

SID	RWY	ROUTING
ROTAX 1N	26R	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT, 179° track, intercept MUN R-324 inbound to MUN, turn LEFT, MUN R-127 to D9.2 MUN ③, turn LEFT, 108° track to ROTAX.
ROTAX 1S ②	26L	Climb on runway track to DMS 1.6 DME or 1900', whichever is later, turn LEFT within DMS 4.5 DME, 179° track, intercept MUN R-324 inbound to MUN, turn LEFT, MUN R-127 to D9.2 MUN ③, turn LEFT, 108° track to ROTAX.
ROTAX 1W		Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 14 DME, turn LEFT, intercept MUN R-282 inbound to MUN, turn RIGHT, MUN R-127 to D9.2 MUN ③, turn LEFT, 108° track to ROTAX.

② If unable to comply with speed and turn restrictions request SID ROTAX 1W.

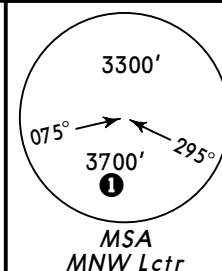
③ After D9.2 MUN BRNAV equipment necessary.

MUNICH Radar
127.95

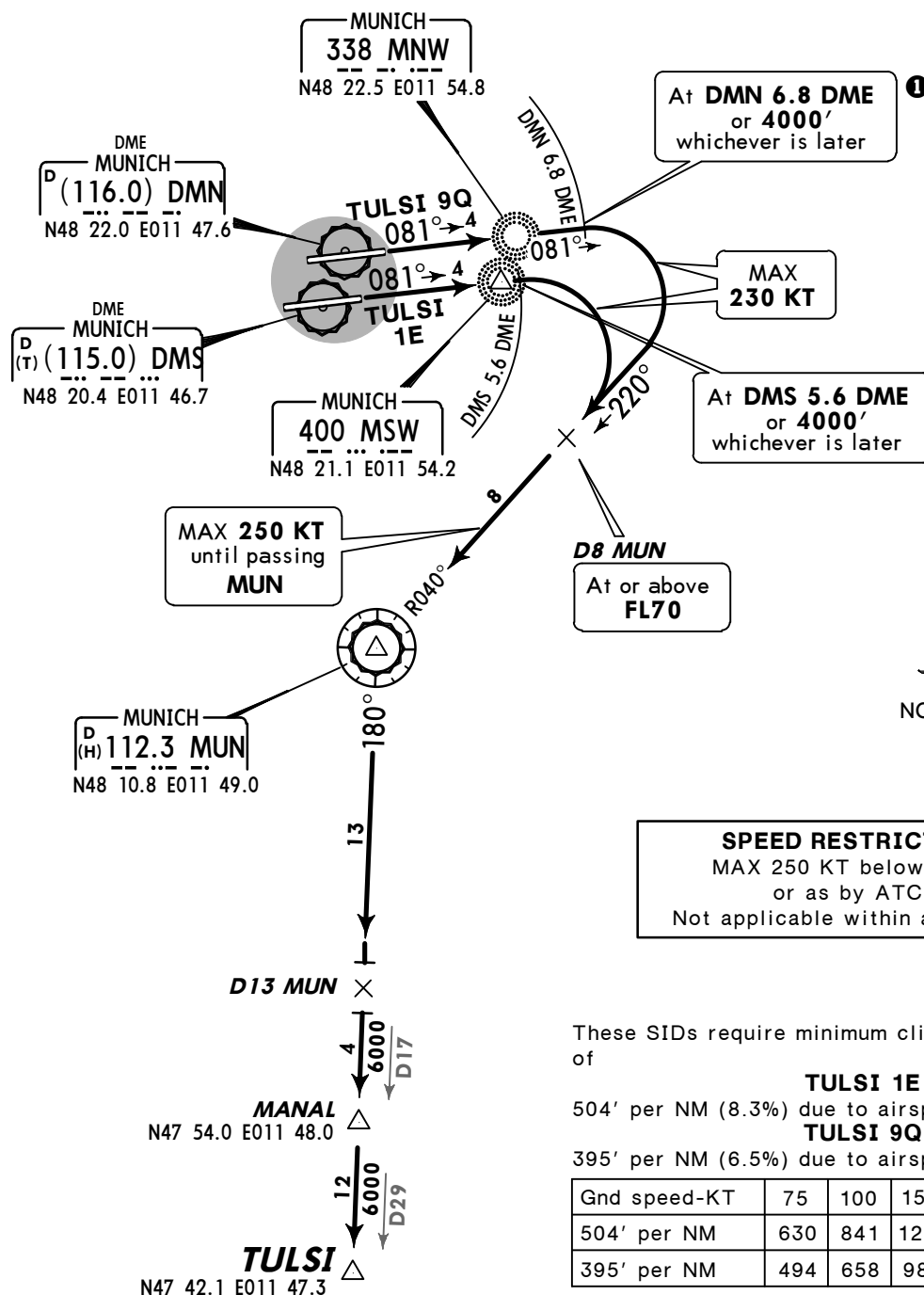
Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**TULSI ONE ECHO (TULSI 1E)
TULSI NINE QUEBEC (TULSI 9Q)
RWYS 08R/L DEPARTURES
NOT TO BE FILED IN FLIGHT PLAN**



① 3300' within 10 NM



These SIDs require minimum climb gradients of

TULSI 1E

504' per NM (8.3%) due to airspace structure.

TULSI 9Q

395' per NM (6.5%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
504' per NM	630	841	1261	1681	2101	2522
395' per NM	494	658	987	1317	1646	1975

If unable to comply advise ATC.

Initial climb clearance FL70

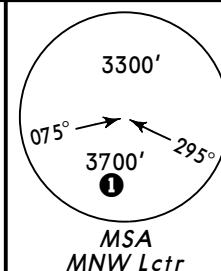
SID	RWY	ROUTING
TULSI 1E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME or 4000', whichever is later, turn RIGHT, intercept MUN R-040 inbound to MUN, turn LEFT, MUN R-180 via MANAL to TULSI.
TULSI 9Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME or 4000', whichever is later, turn RIGHT, intercept MUN R-040 inbound to MUN, turn LEFT, MUN R-180 via MANAL to TULSI.

MUNICH Radar
127.95Apt Elev
1487'

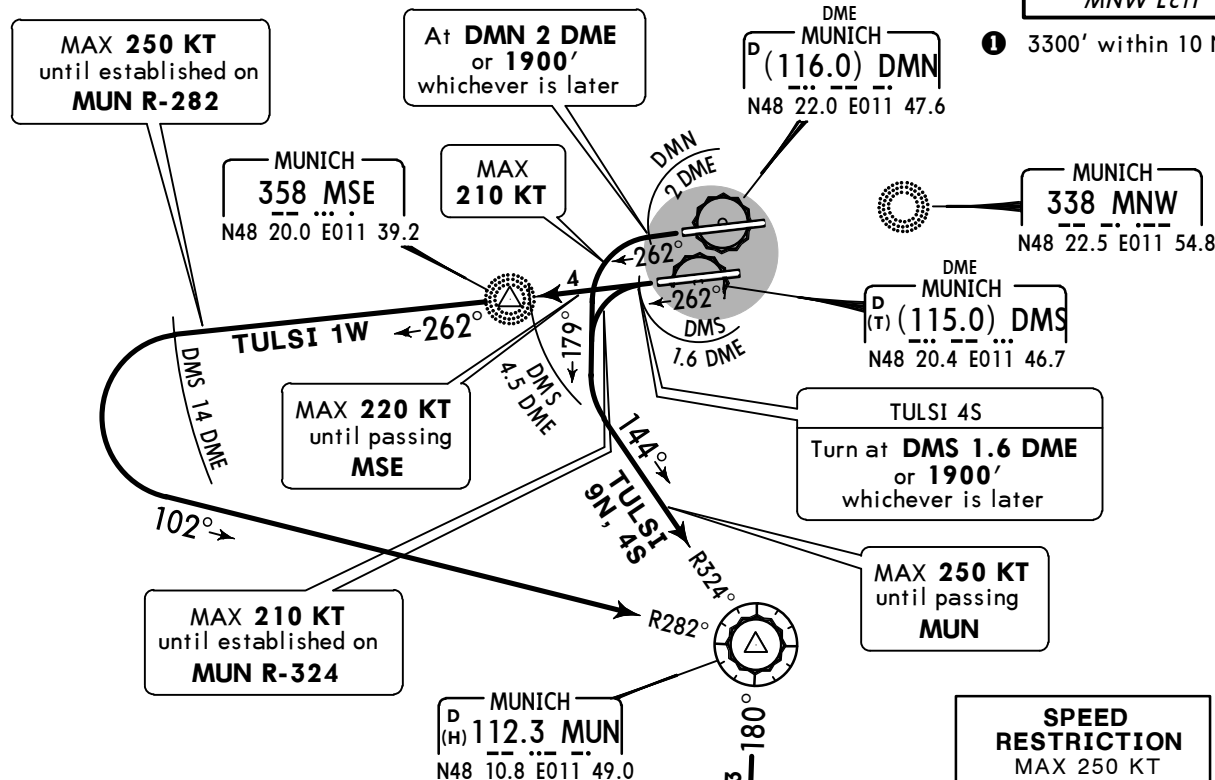
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

TULSI NINE NOVEMBER (TULSI 9N)
TULSI FOUR SIERRA (TULSI 4S)
TULSI ONE WHISKEY (TULSI 1W)
RWYS 26R/L DEPARTURES
NOT TO BE FILED IN FLIGHT PLAN



① 3300' within 10 NM



These SIDs require minimum climb gradients of

TULSI 9N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

TULSI 4S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance **FL70**

SID	RWY	ROUTING
TULSI 9N	26R	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT, 179° track, intercept MUN R-324 inbound to MUN, turn RIGHT, MUN R-180 via MANAL to TULSI.
TULSI 4S ②	26L	Climb on runway track to DMS 1.6 DME or 1900', whichever is later, turn LEFT within DMS 4.5 DME, 179° track, intercept MUN R-324 inbound to MUN, turn RIGHT, MUN R-180 via MANAL to TULSI.
TULSI 1W		Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 14 DME, turn LEFT, intercept MUN R-282 inbound to MUN, turn RIGHT, MUN R-180 via MANAL to TULSI.

② If unable to comply with speed and turn restrictions request SID TULSI 1W.

MUNICH Radar
127.95Apt Elev
1487'

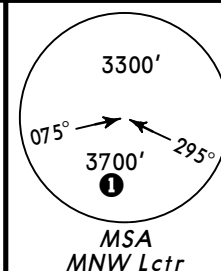
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

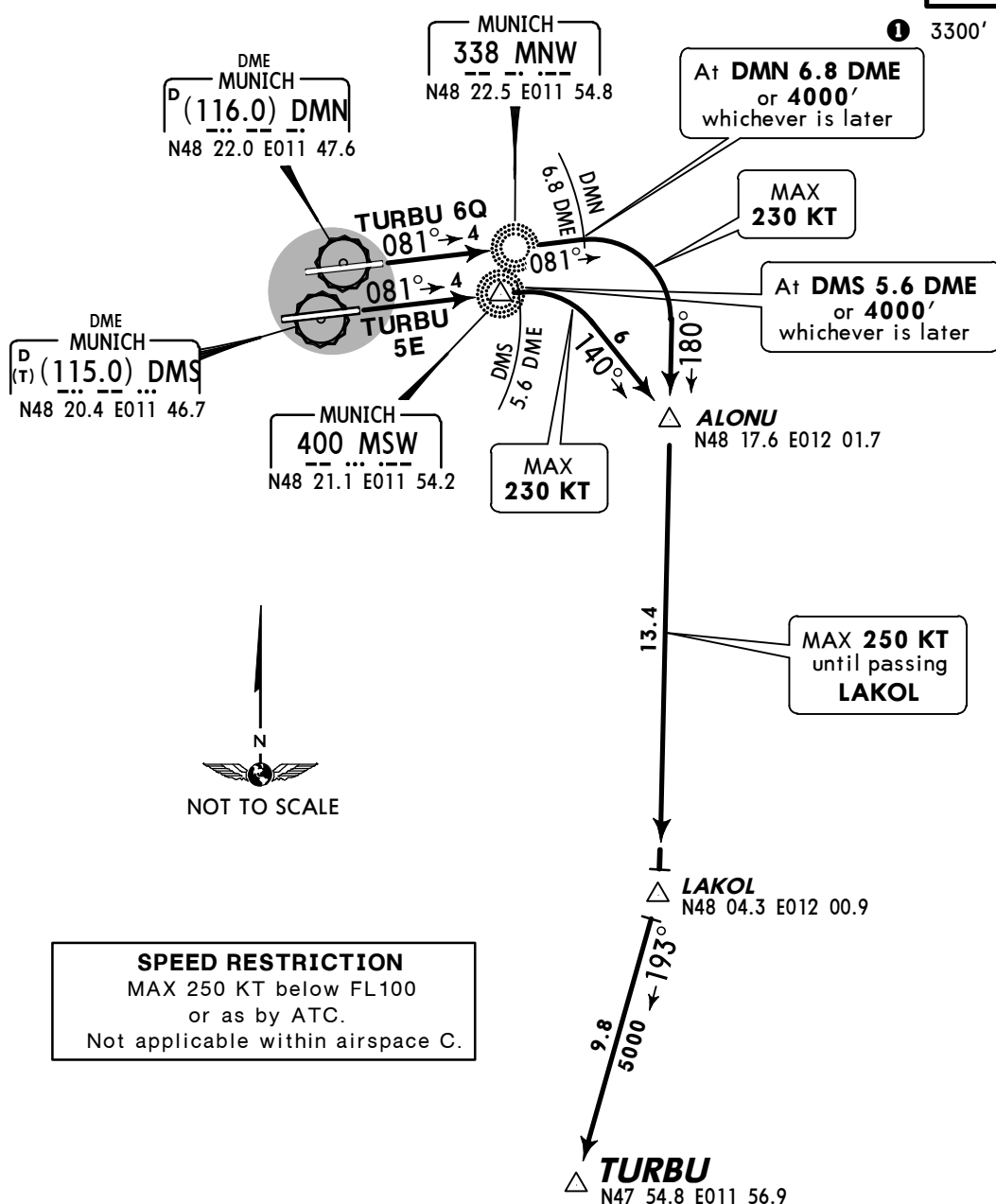
**TURBU FIVE ECHO (TURBU 5E)
TURBU SIX QUEBEC (TURBU 6Q)****RWYS 08R/L DEPARTURES**

ONLY AVAILABLE FOR JET ACFT

NON-JET ACFT SHALL FILE OBAXA OR ROTAX SIDS INSTEAD



① 3300' within 10 NM

Initial climb clearance **FL70**

SID	RWY	ROUTING
TURBU 5E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME ② or 4000', whichever is later, turn RIGHT, 140° track to ALONU, turn RIGHT, 180° track to LAKOL, turn RIGHT, 193° track to TURBU.
TURBU 6Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME ③ or 4000', whichever is later, turn RIGHT, 180° track to LAKOL, turn RIGHT, 193° track to TURBU.

② After DMS 5.6 DME BRNAV equipment necessary.

③ After DMN 6.8 DME BRNAV equipment necessary.

MUNICH Radar
127.95Apt Elev
1487'

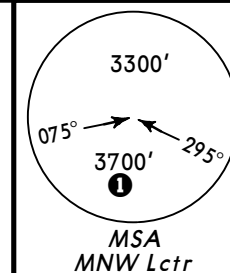
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

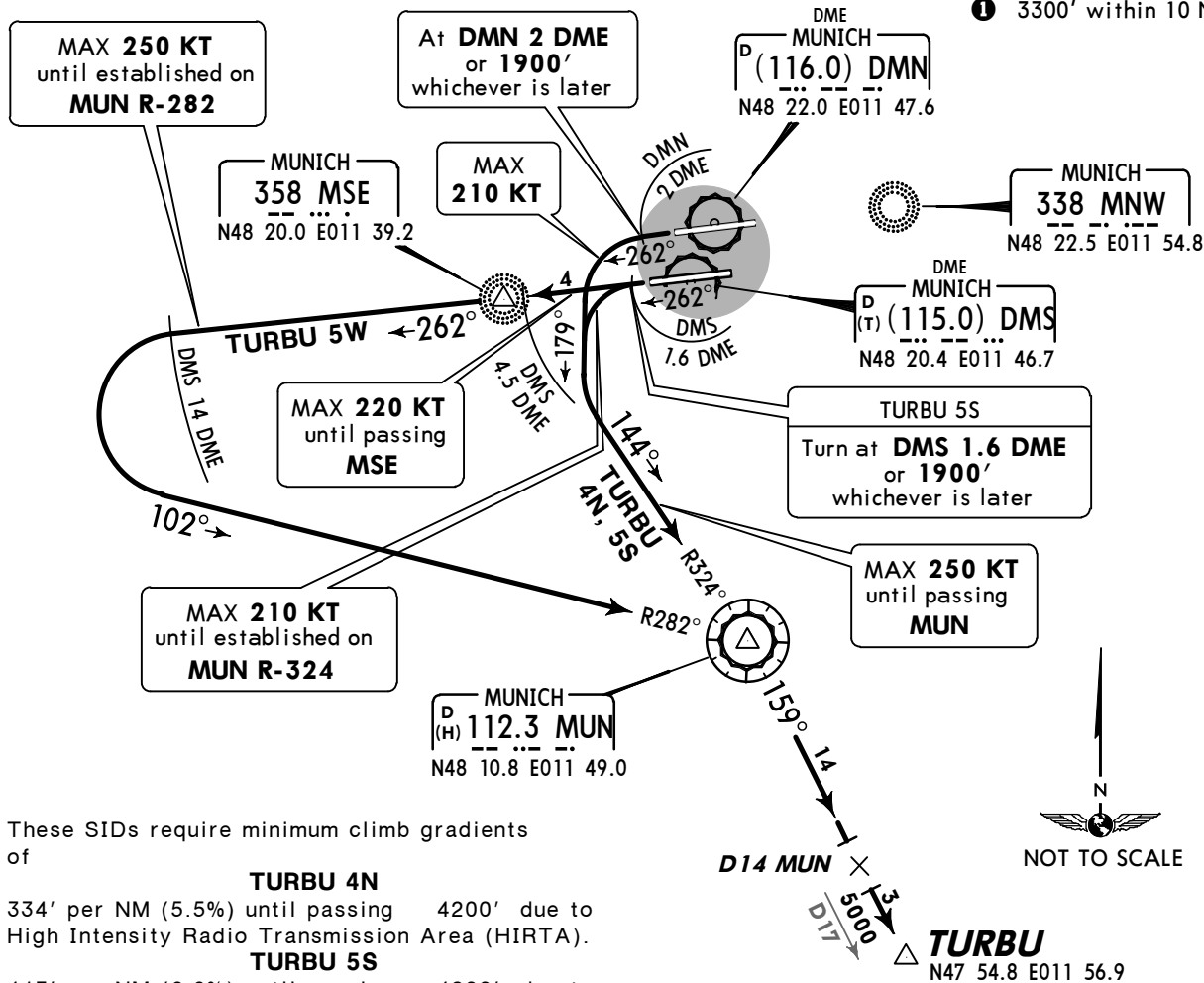
**TURBU FOUR NOVEMBER (TURBU 4N)
TURBU FIVE SIERRA (TURBU 5S)
TURBU FIVE WHISKEY (TURBU 5W)
RWYS 26R/L DEPARTURES**

ONLY AVAILABLE FOR JET ACFT

NON-JET ACFT SHALL FILE OBAXA OR ROTAX SIDS INSTEAD



① 3300' within 10 NM



These SIDs require minimum climb gradients of

TURBU 4N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

TURBU 5S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

Initial climb clearance FL70

SID	RWY	ROUTING
TURBU 4N	26R	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT, 179° track, intercept MUN R-324 inbound to MUN, turn RIGHT, MUN R-159 to TURBU.
TURBU 5S ②	26L	Climb on runway track to DMS 1.6 DME or 1900', whichever is later, turn LEFT within DMS 4.5 DME, 179° track, intercept MUN R-324 inbound to MUN, turn RIGHT, MUN R-159 to TURBU.
TURBU 5W		Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 14 DME, turn LEFT, intercept MUN R-282 inbound to MUN, turn RIGHT, MUN R-159 to TURBU.

② If unable to comply with speed and turn restrictions request SID TURBU 5W.

MUNICH Radar
127.95Apt Elev
1487'

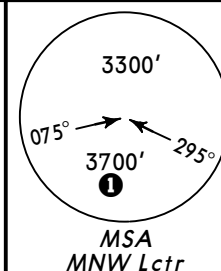
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

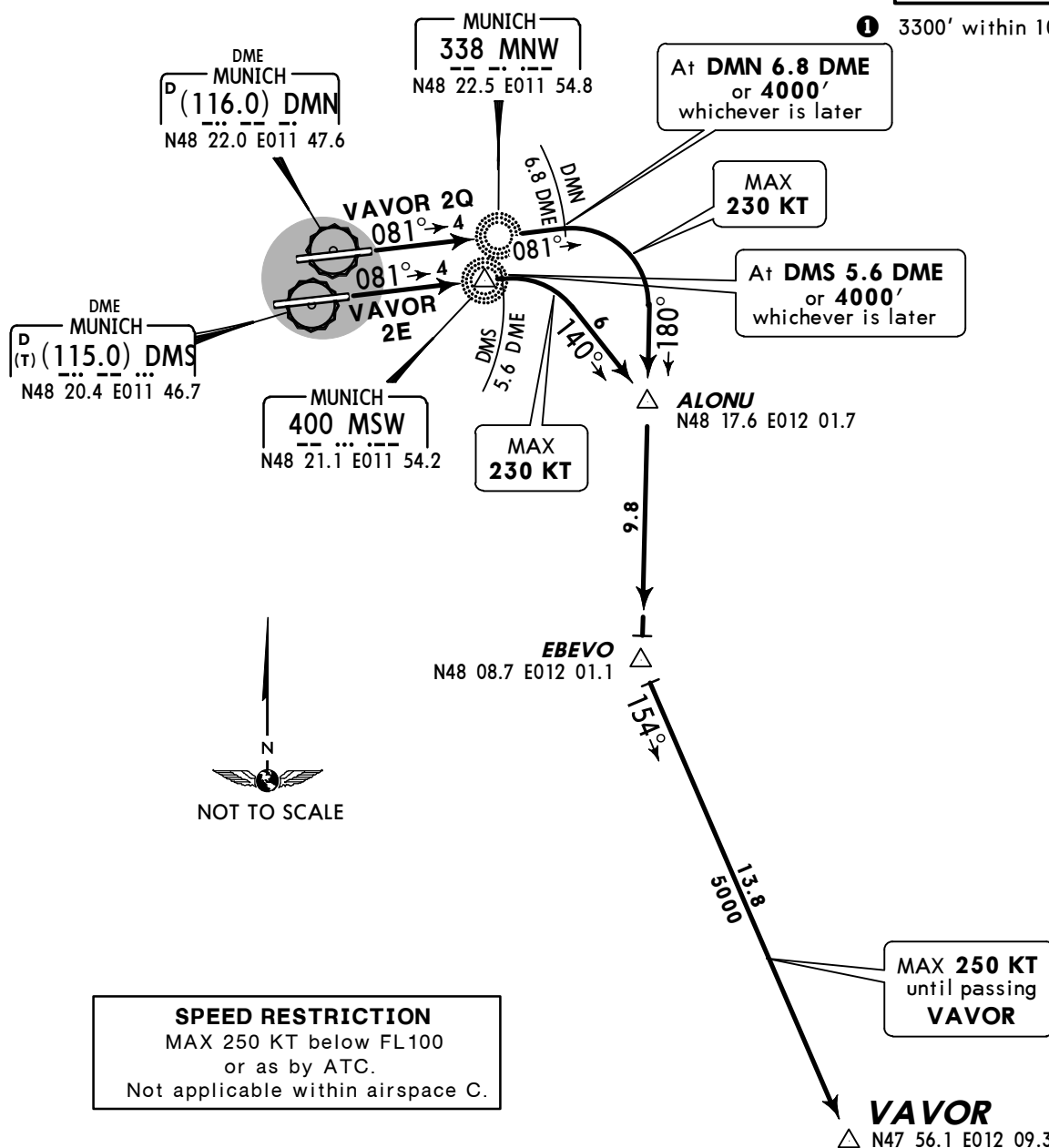
**VAVOR TWO ECHO (VAVOR 2E)
VAVOR TWO QUEBEC (VAVOR 2Q)****RWYS 08R/L DEPARTURES**

ONLY AVAILABLE FOR JET ACFT

NON-JET ACFT SHALL FILE OBAXA OR ROTAX SIDS INSTEAD



① 3300' within 10 NM

Initial climb clearance **FL70**

SID	RWY	ROUTING
VAVOR 2E	08R	Climb on runway track to 1900', then via MSW to DMS 5.6 DME ② or 4000', whichever is later, turn RIGHT, 140° track to ALONU, turn RIGHT, 180° track to EBEVO, turn LEFT, 154° track to VAVOR.
VAVOR 2Q	08L	Climb on runway track to 1900', then via MNW to DMN 6.8 DME ③ or 4000', whichever is later, turn RIGHT, 180° track to EBEVO, turn LEFT, 154° track to VAVOR.

BRNAV equipment necessary after: ② DMS 5.6 DME/ ③ DMN 6.8 DME.

MUNICH Radar
127.95Apt Elev
1487'

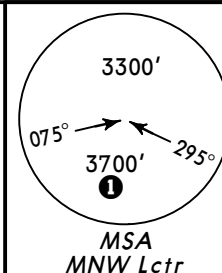
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

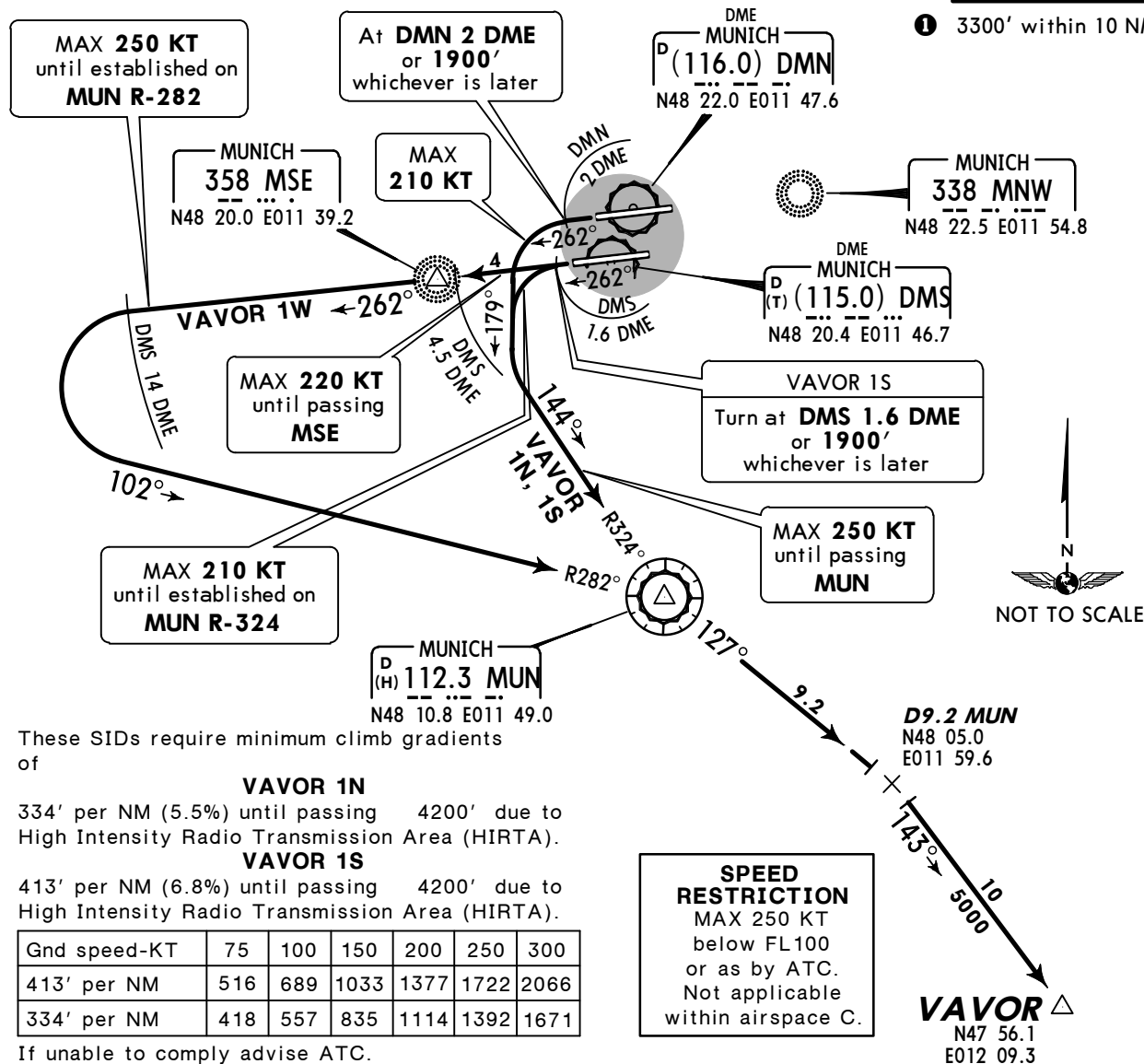
**VAVOR ONE NOVEMBER (VAVOR 1N)
VAVOR ONE SIERRA (VAVOR 1S)
VAVOR ONE WHISKEY (VAVOR 1W)
RWYS 26R/L DEPARTURES**

ONLY AVAILABLE FOR JET ACFT

NON-JET ACFT SHALL FILE OBAXA OR ROTAX SIDS INSTEAD



① 3300' within 10 NM



These SIDs require minimum climb gradients of

VAVOR 1N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

VAVOR 1S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

SPEED RESTRICTION

MAX 250 KT
below FL100
or as by ATC.
Not applicable
within airspace C.

Initial climb clearance FL70

SID	RWY	ROUTING
VAVOR 1N	26R	Climb on runway track to DMN 2 DME or 1900', whichever is later, turn LEFT, 179° track, intercept MUN R-324 inbound to MUN, turn LEFT, MUN R-127 to D9.2 MUN ③, turn RIGHT, 143° track to VAVOR.
VAVOR 1S ②	26L	Climb on runway track to DMS 1.6 DME or 1900', whichever is later, turn LEFT within DMS 4.5 DME, 179° track, intercept MUN R-324 inbound to MUN, turn LEFT, MUN R-127 to D9.2 MUN ③, turn RIGHT, 143° track to VAVOR.
VAVOR 1W		Climb on runway track to 1900', intercept 262° bearing via MSE to DMS 14 DME, turn LEFT, intercept MUN R-282 inbound to MUN, turn RIGHT, MUN R-127 to D9.2 MUN ③, turn RIGHT, 143° track to VAVOR.

② If unable to comply with speed and turn restrictions request SID VAVOR 1W.

③ After passing D9.2 MUN BRNAV equipment necessary.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

ALGOI ONE ECHO (ALG 1E)
ALGOI ONE QUEBEC (ALG 1Q)
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3H)

JET ACFT ONLY

AVAILABLE FOR FLIGHTS DESTINATION EDJA AT OR BELOW FL90

MANDATORY FOR TRAFFIC PROCEEDING VIA MILKA

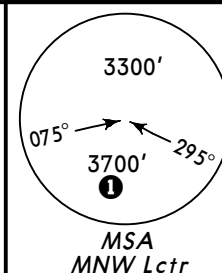
AT OR ABOVE REQUESTED FL245 DURING FOLLOWING TIMES

DAILY 2330-0800LT

FRI 1700LT TO MON 0800LT

HOL

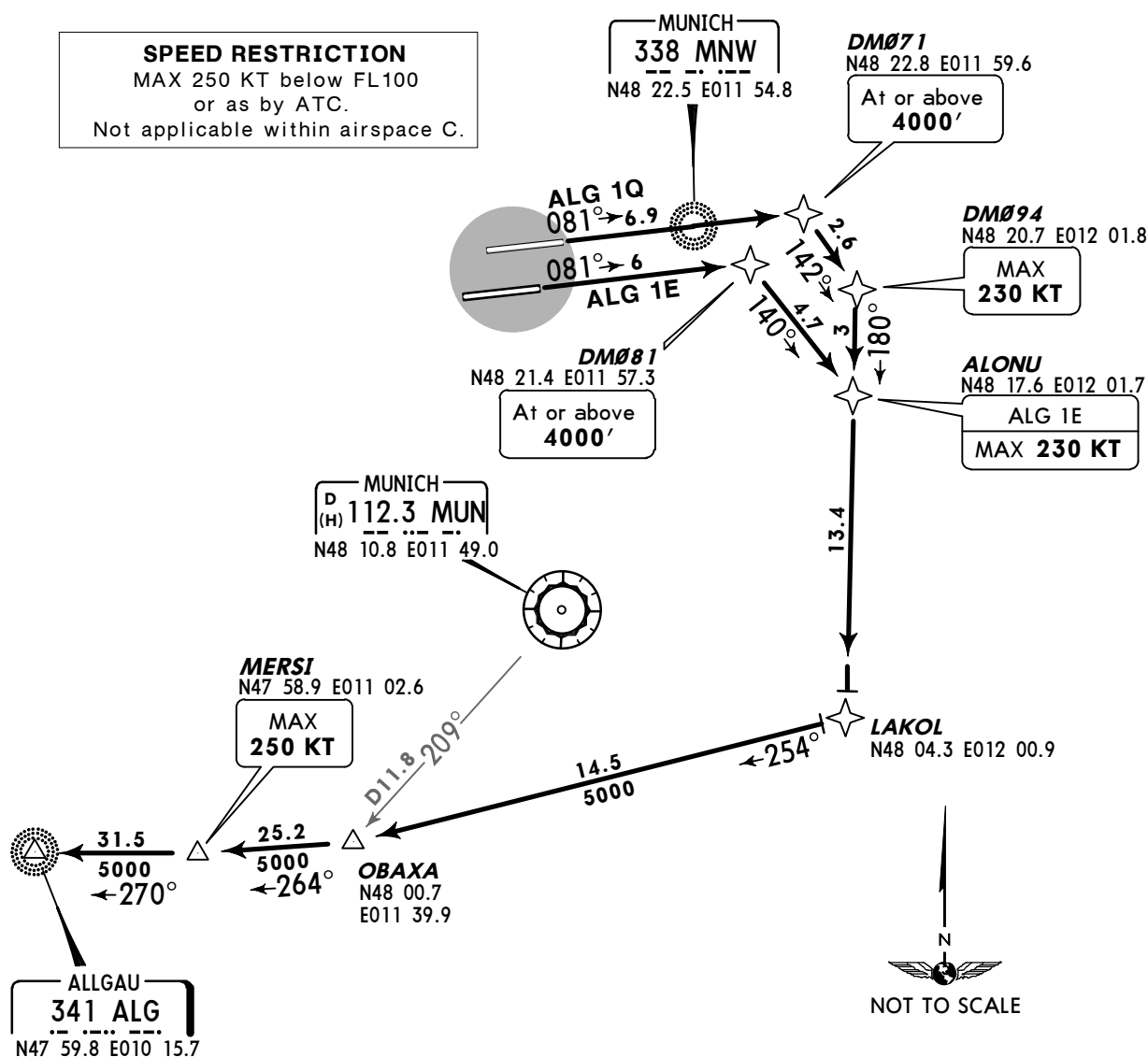
OUTSIDE THESE TIMES FILE SID MERSI - AIRWAY Y 110



① 3300' within 10 NM

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

Initial climb clearance **FL70**

SID	RWY	ROUTING
ALG 1E	08R	(1900'+) - DM081 (4000'+) - ALONU (K230-) - LAKOL - OBAXA - MERSI (K250-) - ALG.
ALG 1Q	08L	(1900'+) - DM071 (4000'+) - DM094 (K230-) - LAKOL - OBAXA - MERSI (K250-) - ALG.

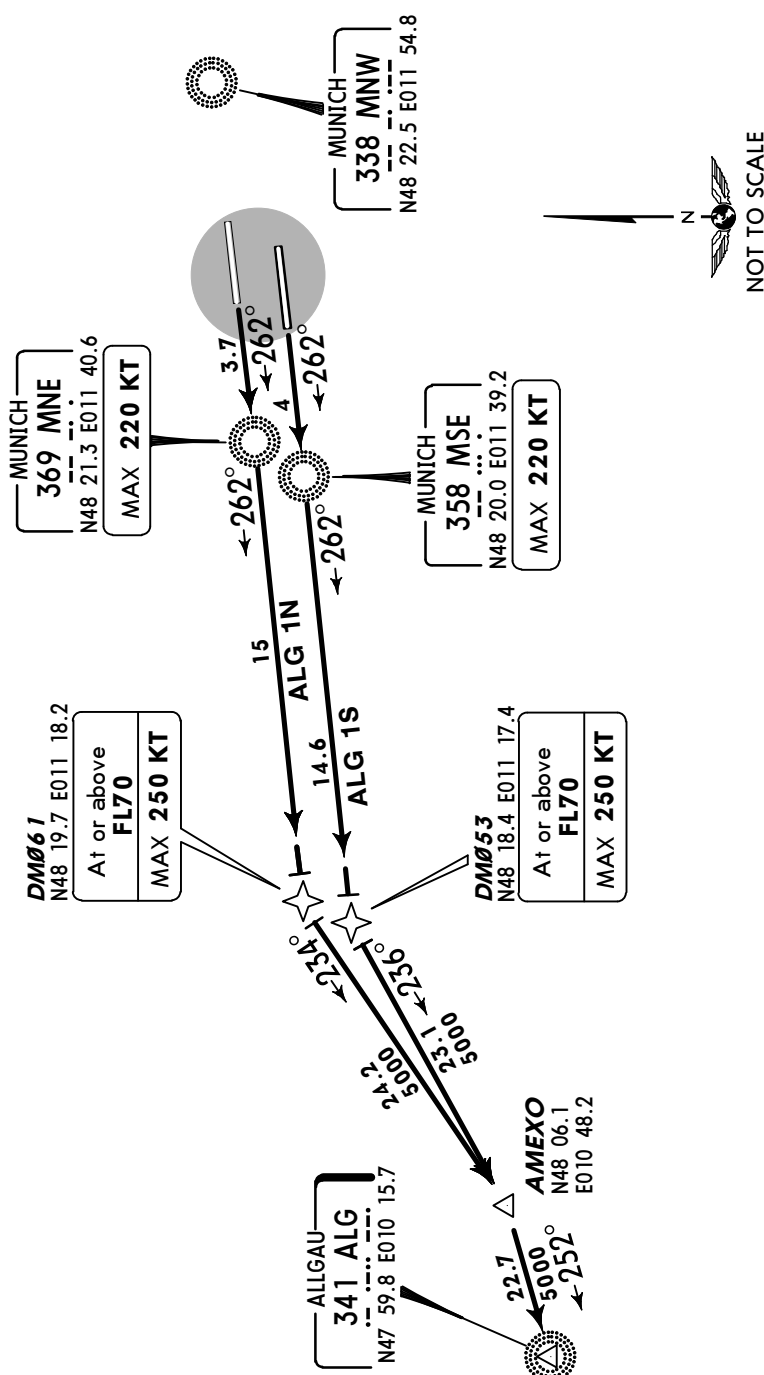
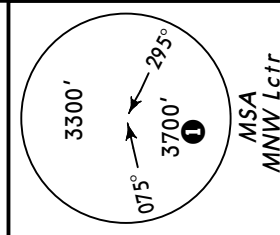
MUNICH Radar
127.95

Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

ALGOI ONE NOVEMBER (ALG 1N)
ALGOI ONE SIERRA (ALG 1S)
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3J)
JET ACFT ONLY

AVAILABLE FOR FLIGHTS DESTINATION EDJA AT OR BELOW FL90
MANDATORY FOR TRAFFIC PROCEEDING VIA MILKA
AT OR ABOVE REQUESTED FL245 DURING FOLLOWING TIMES
DAILY 2330-0800LT
FRI 1700LT TO MON 0800LT
HOL
OUTSIDE THESE TIMES FILE SID MERSI - AIRWAY Y 110



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

These SIDs require a minimum climb gradient of 316' per NM (5.2%) due to airspace structure.
If unable to comply advise ATC.

Gnd speed-KT	75	100	150	200	250	300
316' per NM	395	527	790	1053	1317	1580

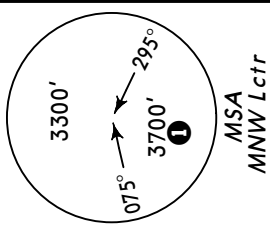
Initial climb clearance FL70			ROUTING	
SID	RWY			
ALG 1N	26R	(1900'+) - MNE (K220-) - DM061 (FL70+; K250-) - AMEXO - ALG.		
ALG 1S	26L	(1900'+) - MSE (K220-) - DM053 (FL70+; K250-) - AMEXO - ALG.		

① 3300' within 10 NM

MUNICH Radar
127.95

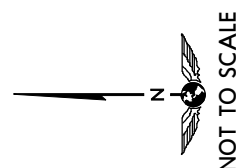
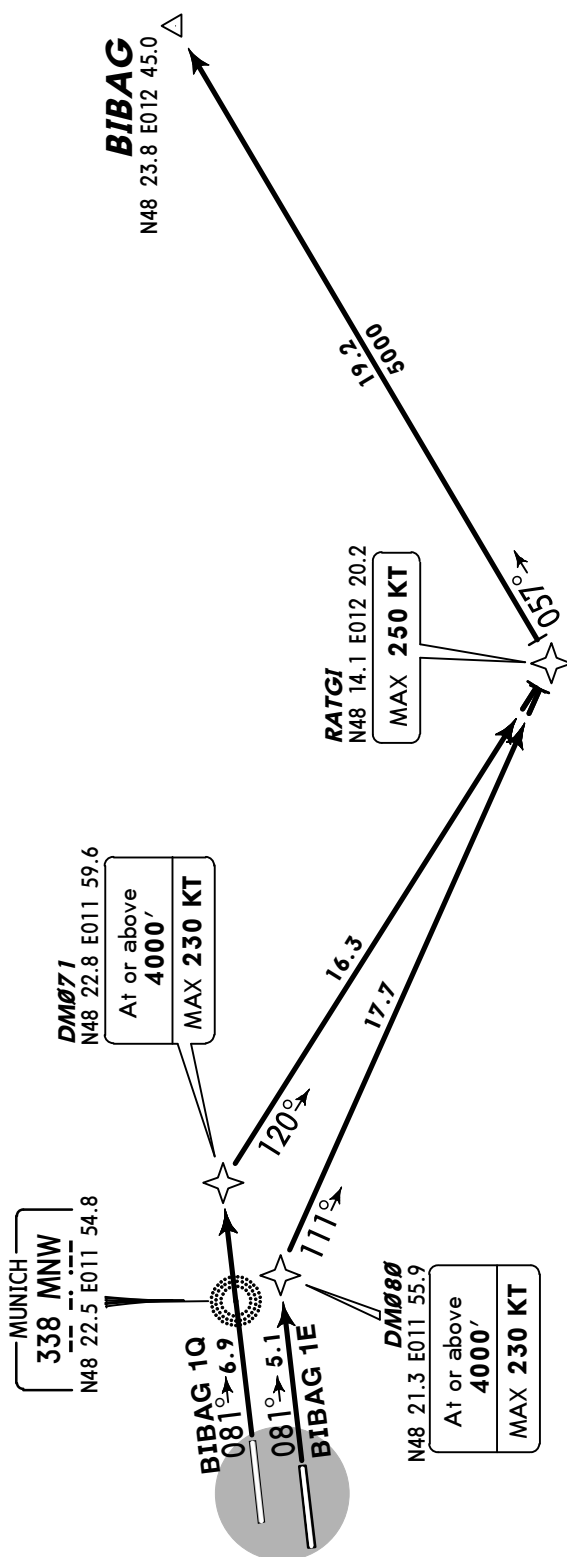
Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.



BIBAG ONE ECHO (BIBAG 1E) [BIBA1E]
BIBAG ONE QUEBEC (BIBAG 1Q) [BIBA1Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3K)
NOT AVAILABLE FOR FLIGHTS VIA AIRWAYS (U)L 605, Q 104 & Q 118

① 3300'
within 10 NM



Initial climb clearance **FL70**

ROUTING	
SID	RWY
BIBAG 1E	08R
BIBAG 1Q	08L

(1900'+) - DM080 (4000'+; K230-) - RATGI (K250-) - BIBAG.
(1900'+) - DM071 (4000'+; K230-) - RATGI (K250-) - BIBAG.

MUNICH Radar
123.9Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**GIVMI FOUR ECHO (GIVMI 4E) [GIVM4E]
GIVMI FOUR QUEBEC (GIVMI 4Q) [GIVM4Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3M)**

JET ACFT ONLY (EXCEPT FLIGHTS ACCORDING
REMARKS OF AIRWAY T-161)

MANDATORY FOR FLIGHTS

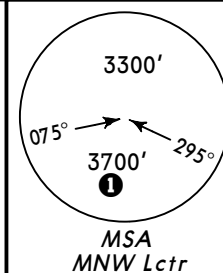
VIA AIRWAY Y-101 - INBED - AIRWAYS (U)L-610

(CLIMB PROFILE RESTRICTION WITHIN Y-101 -

REFER TO ENROUTE/ENROUTE DATA EUROPE -

AIRWAY RESTRICTIONS - EUROPE LOWER AND UPPER AIRSPACE)

OR VIA AIRWAY Y-101 - ERNAS - AIRWAY T-161

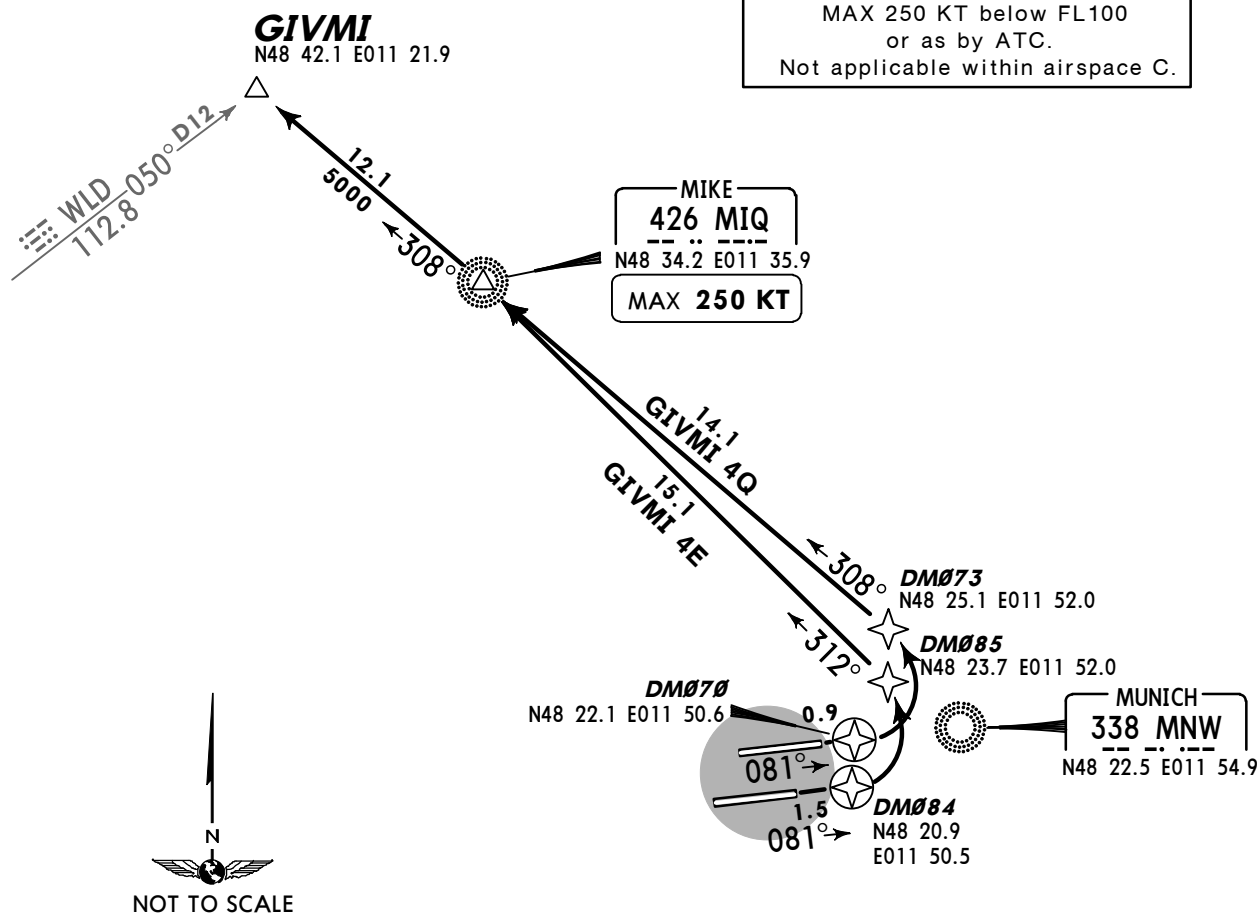


① 3300' within 10 NM

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.



Initial climb clearance **FL70**

SID	RWY	ROUTING
GIVMI 4E	08R	(1900'+) - DM084 - DM085 - MIQ (K250-) - GIVMI.
GIVMI 4Q	08L	(1900'+) - DM070 - DM073 - MIQ (K250-) - GIVMI.

MUNICH Radar
123.9Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**GIVMI FIVE SIERRA (GIVMI 5S) [GIVM5S]
GIVMI FIVE WHISKEY (GIVMI 5W) [GIVM5W]
RWYS 26L/R RNAV DEPARTURES (OVERLAY 10-3N)**

JET ACFT ONLY (EXCEPT FLIGHTS ACCORDING
REMARKS OF AIRWAY T-161)

MANDATORY FOR FLIGHTS

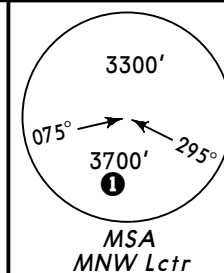
VIA AIRWAY Y-101 - INBED - AIRWAYS (U)L-610

(CLIMB PROFILE RESTRICTION WITHIN Y-101 -

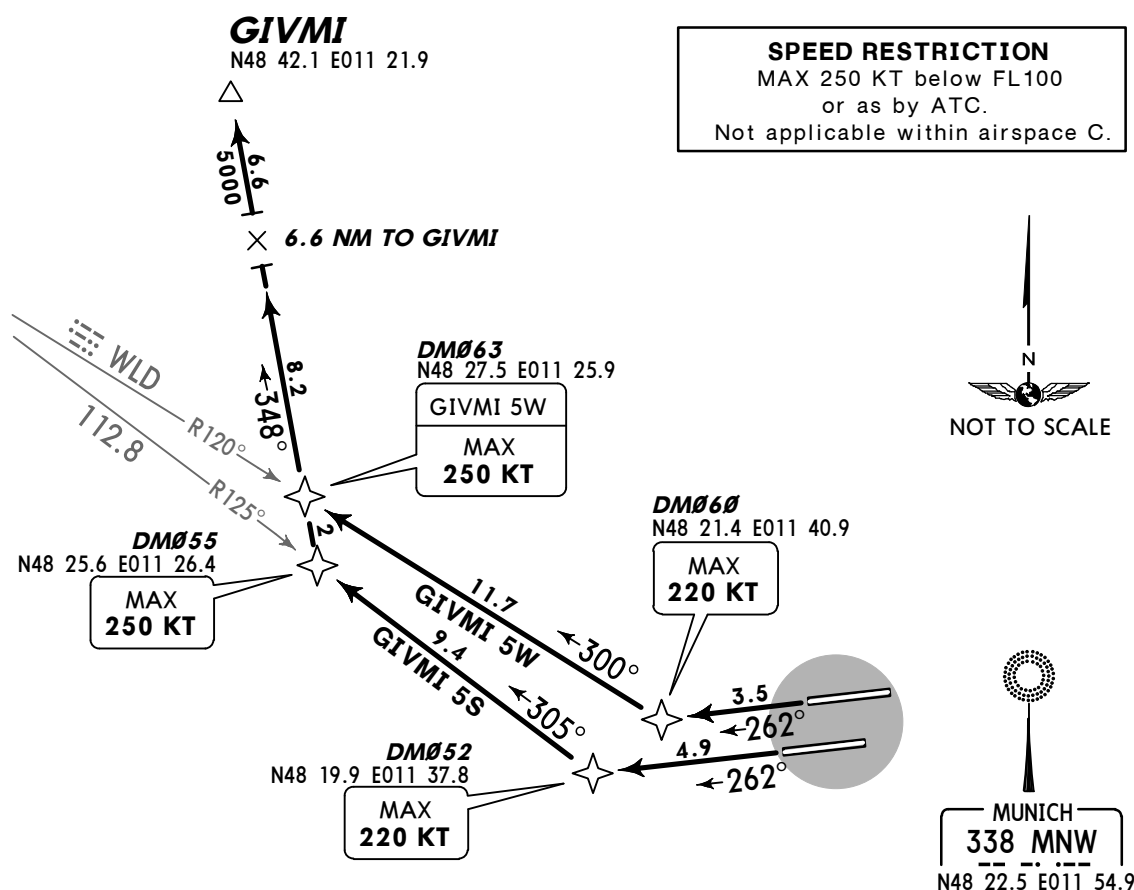
REFER TO ENROUTE/ENROUTE DATA EUROPE -

AIRWAY RESTRICTIONS - EUROPE LOWER AND UPPER AIRSPACE)

OR VIA AIRWAY Y-101 - ERNAS - AIRWAY T-161



① 3300' within 10 NM

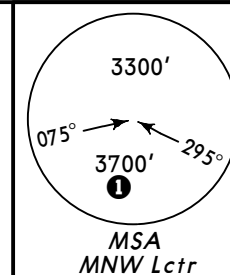


Initial climb clearance **FL70**

SID	RWY	ROUTING
GIVMI 5S	26L	(1900'+) - DM052 (K220-) - DM055 (K250-) - GIVMI.
GIVMI 5W	26R	(1900'+) - DM060 (K220-) - DM063 (K250-) - GIVMI.

MUNICH Radar 127.95	Apt Elev 1487'	Trans level: By ATC Trans alt: 5000' 1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar. 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. 3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.
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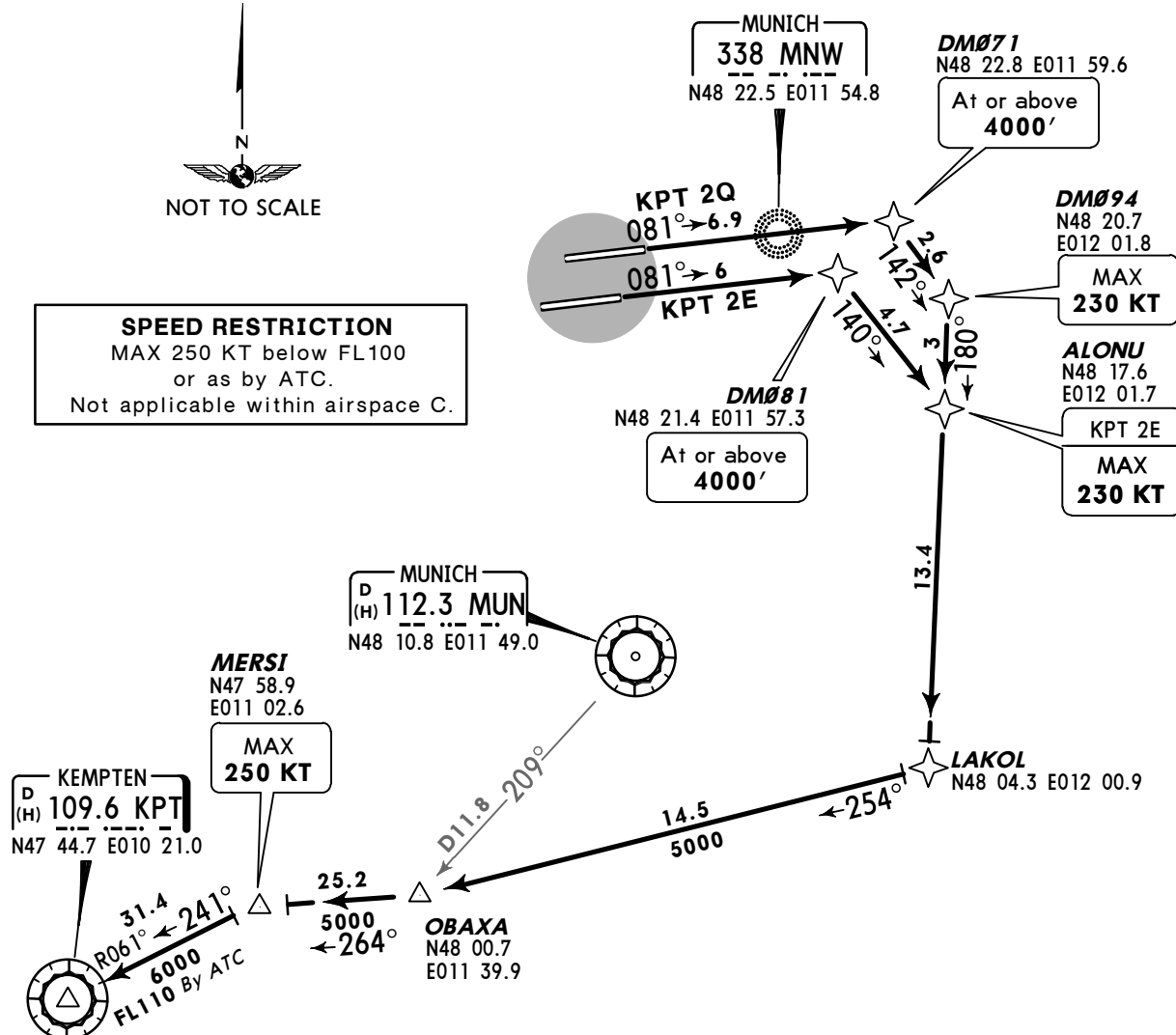
KEMPTEN TWO ECHO (KPT 2E)
KEMPTEN TWO QUEBEC (KPT 2Q)
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3N1)
MANDATORY FOR JET ACFT TO DESTINATIONS EDNY, LSZH & LIM*
NOT AVAILABLE FOR TRAFFIC VIA KPT - AIRWAYS Y-740/Z-999
EXCEPT FOR DESTINATION LIM*



① 3300' within 10 NM



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

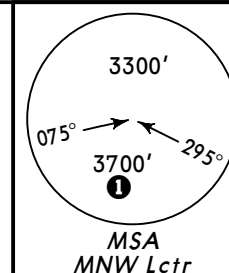


Initial climb clearance **FL70**

SID	RWY	ROUTING
KPT 2E	08R	(1900'+) - DM081 (4000'+) - ALONU (K230-) - LAKOL - OBAXA - MERSI (K250-) - KPT.
KPT 2Q	08L	(1900'+) - DM071 (4000'+) - DM094 (K230-) - LAKOL - OBAXA - MERSI (K250-) - KPT.

MUNICH Radar 127.95	Apt Elev 1487'	Trans level: By ATC Trans alt: 5000' 1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar. 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. 3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.
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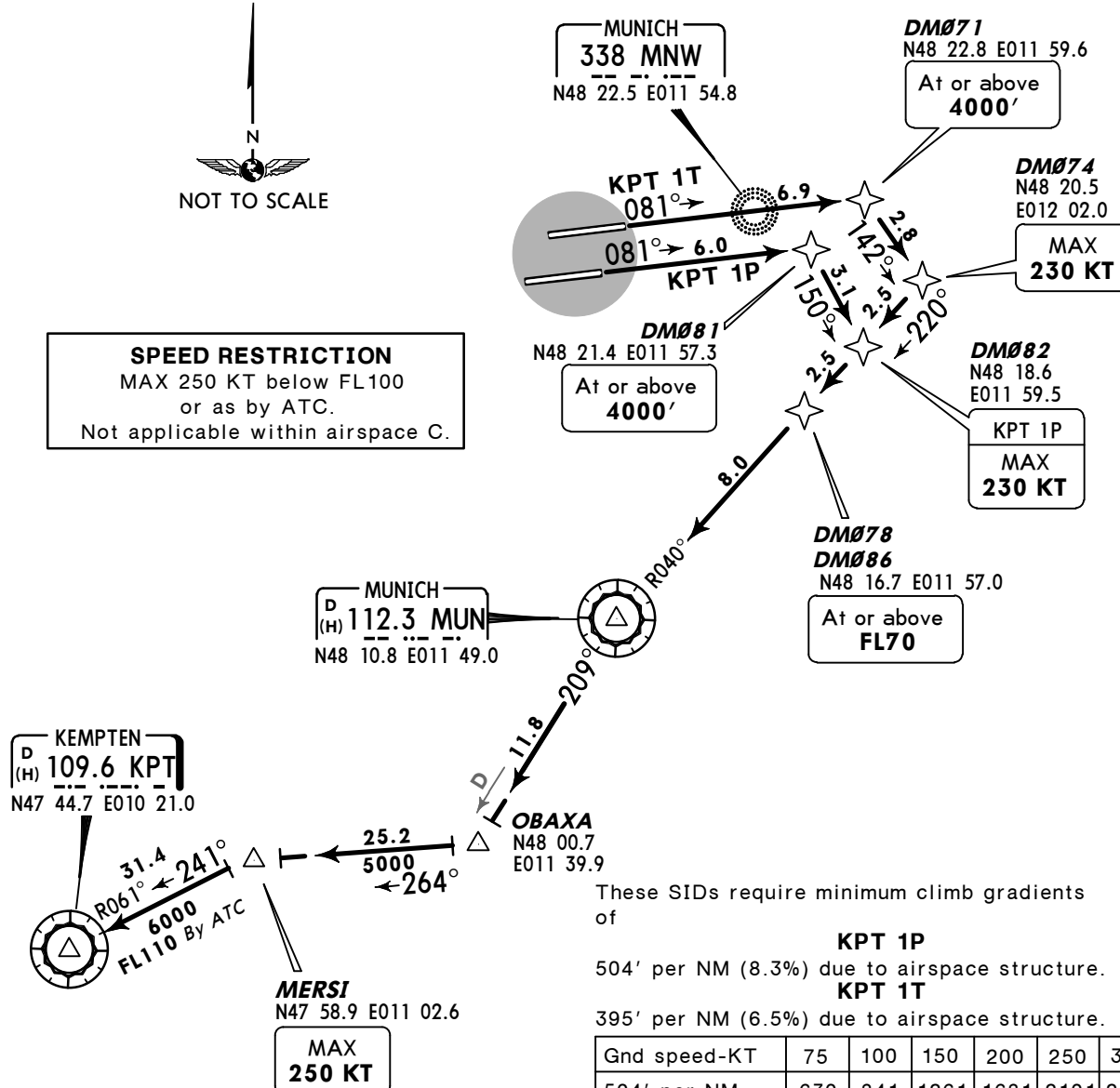
KEMPTEN ONE PAPA (KPT 1P)
KEMPTEN ONE TANGO (KPT 1T)
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3N2)
ONLY AVAILABLE FOR NON-JET ACFT
NOT AVAILABLE FOR TRAFFIC VIA KPT - AIRWAYS Y-740/Z-999
EXCEPT FOR DESTINATION LIM*



① 3300' within 10 NM



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



These SIDs require minimum climb gradients of

KPT 1P

504' per NM (8.3%) due to airspace structure.

KPT 1T

395' per NM (6.5%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
504' per NM	630	841	1261	1681	2101	2522
395' per NM	494	658	987	1317	1646	1975

If unable to comply advise ATC.

Initial climb clearance FL70

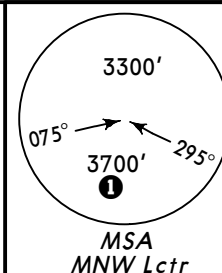
SID	RWY	ROUTING
KPT 1P	08R	(1900'+) - DM081 (4000'+) - DM082 (K230-) - DM086 (FL70+) - MUN - OBAXA - MERSI (K250-) - KPT.
KPT 1T	08L	(1900'+) - DM071 (4000'+) - DM074 (K230-) - DM078 (FL70+) - MUN - OBAXA - MERSI (K250-) - KPT.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

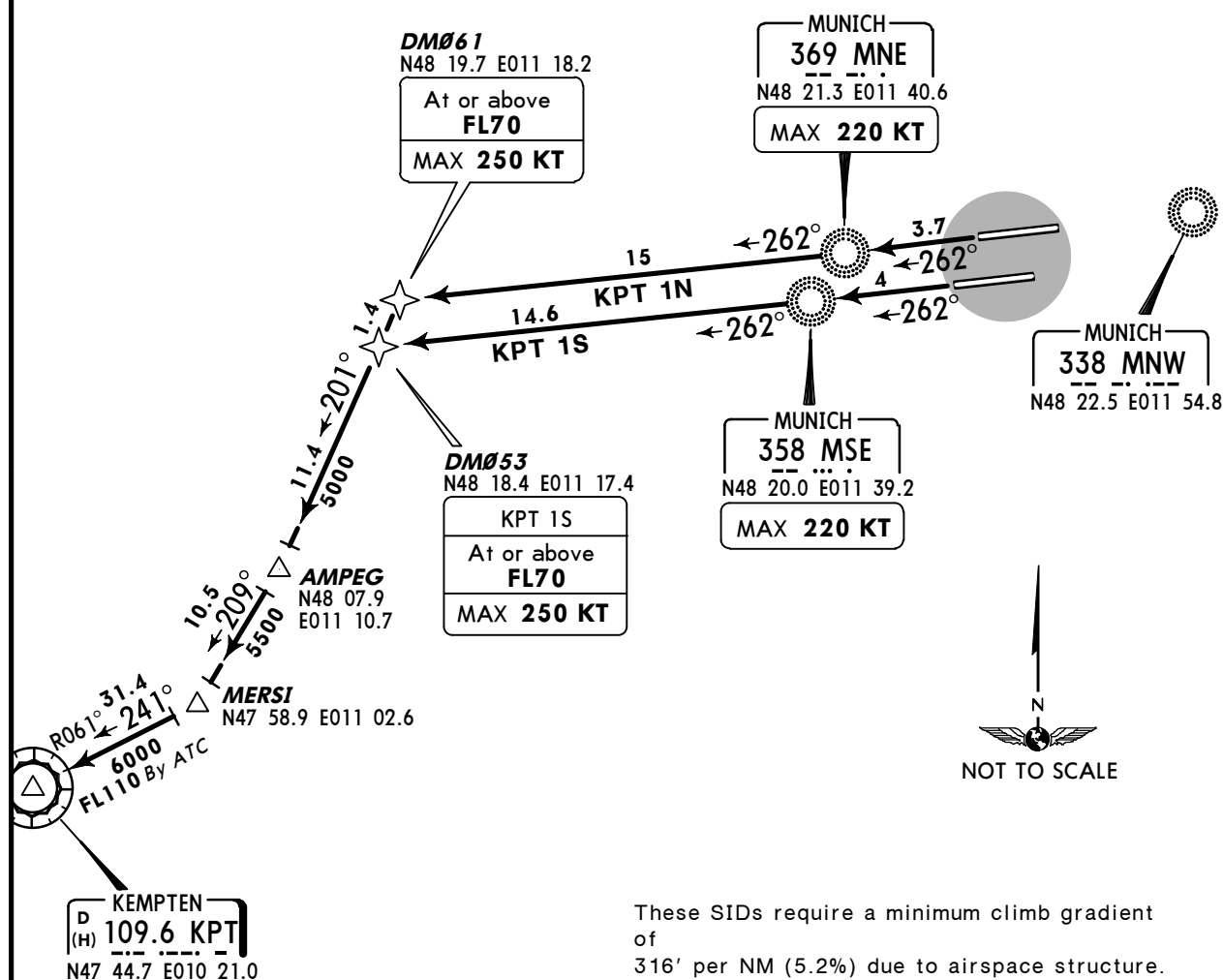
KEMPTEN ONE NOVEMBER (KPT 1N)
KEMPTEN ONE SIERRA (KPT 1S)
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3N3)
MANDATORY FOR JET ACFT TO DESTINATIONS EDNY, LSZH & LIM*
NOT AVAILABLE FOR TRAFFIC VIA KPT - AIRWAYS Y-740/Z-999
EXCEPT FOR DESTINATION LIM*



① 3300' within 10 NM

SPEED RESTRICTIONMAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.



These SIDs require a minimum climb gradient of 316' per NM (5.2%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
316' per NM	395	527	790	1053	1317	1580

If unable to comply advise ATC.

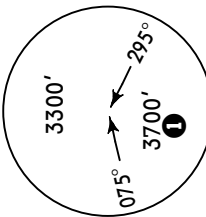
Initial climb clearance **FL70**

SID	RWY	ROUTING
KPT 1N	26R	(1900'+) - MNE (K220-) - DM061 (FL70+; K250-) - AMPEG - MERSI - KPT.
KPT 1S	26L	(1900'+) - MSE (K220-) - DM053 (FL70+; K250-) - AMPEG - MERSI - KPT.

MUNICH Radar
127.95

Apt Elev
1487'

- Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
 3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

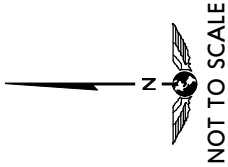
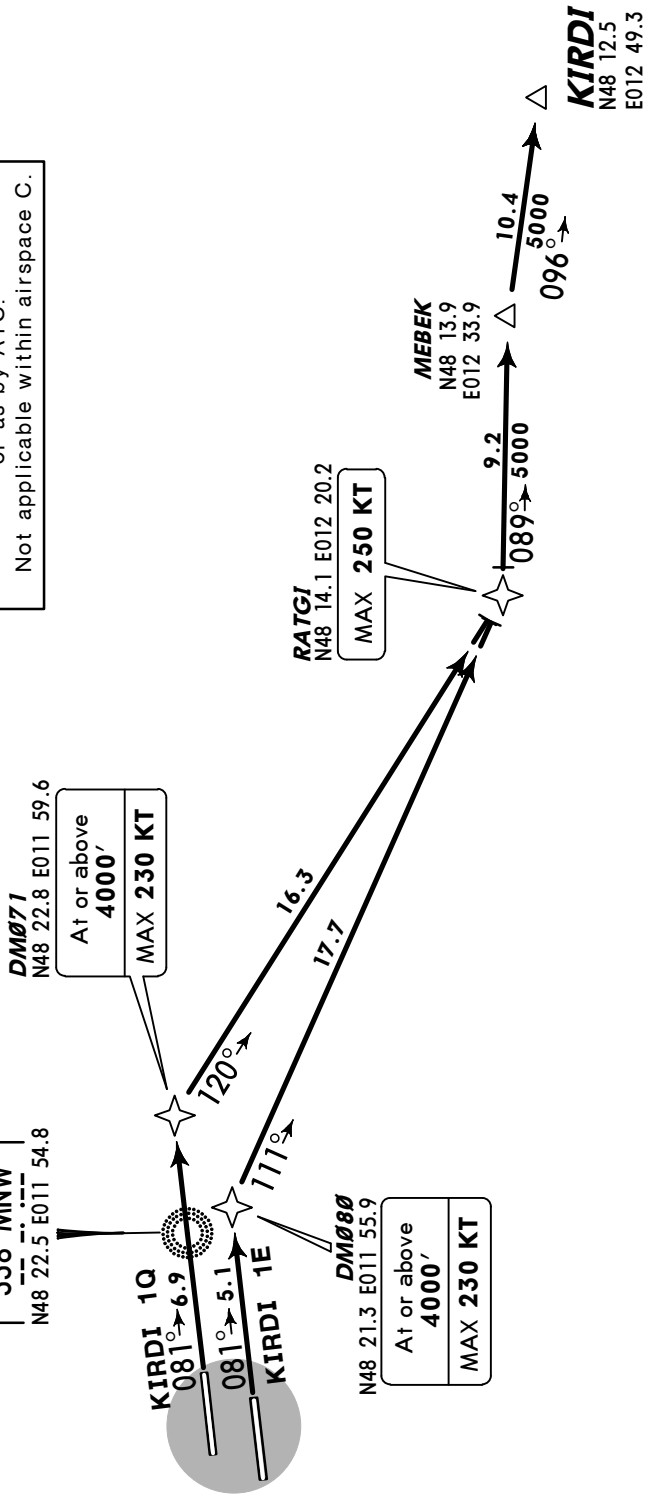


MSA
MNV Lctr

① 3300' within 10 NM

KIRDI ONE ECHO (KIRDI 1E) [KIRD1E]
KIRDI ONE QUEBEC (KIRDI 1Q) [KIRD1Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3N4)
NOT AVAILABLE FOR FLIGHTS VIA BIBAG

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

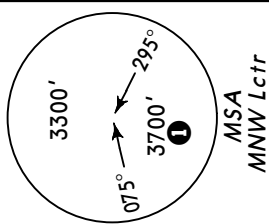


Initial climb clearance FL70		
ROUTING		
SID	RWY	
KIRDI 1E	08R	(1900'+) - DMØ80 (4000'+) - RATGI (K250-) - MEBEK - KIRDI.
KIRDI 1Q	08L	(1900'+) - DMØ71 (4000'+) - RATGI (K250-) - MEBEK - KIRDI.

MUNICH Radar
127.95

Apt Elev
1487'

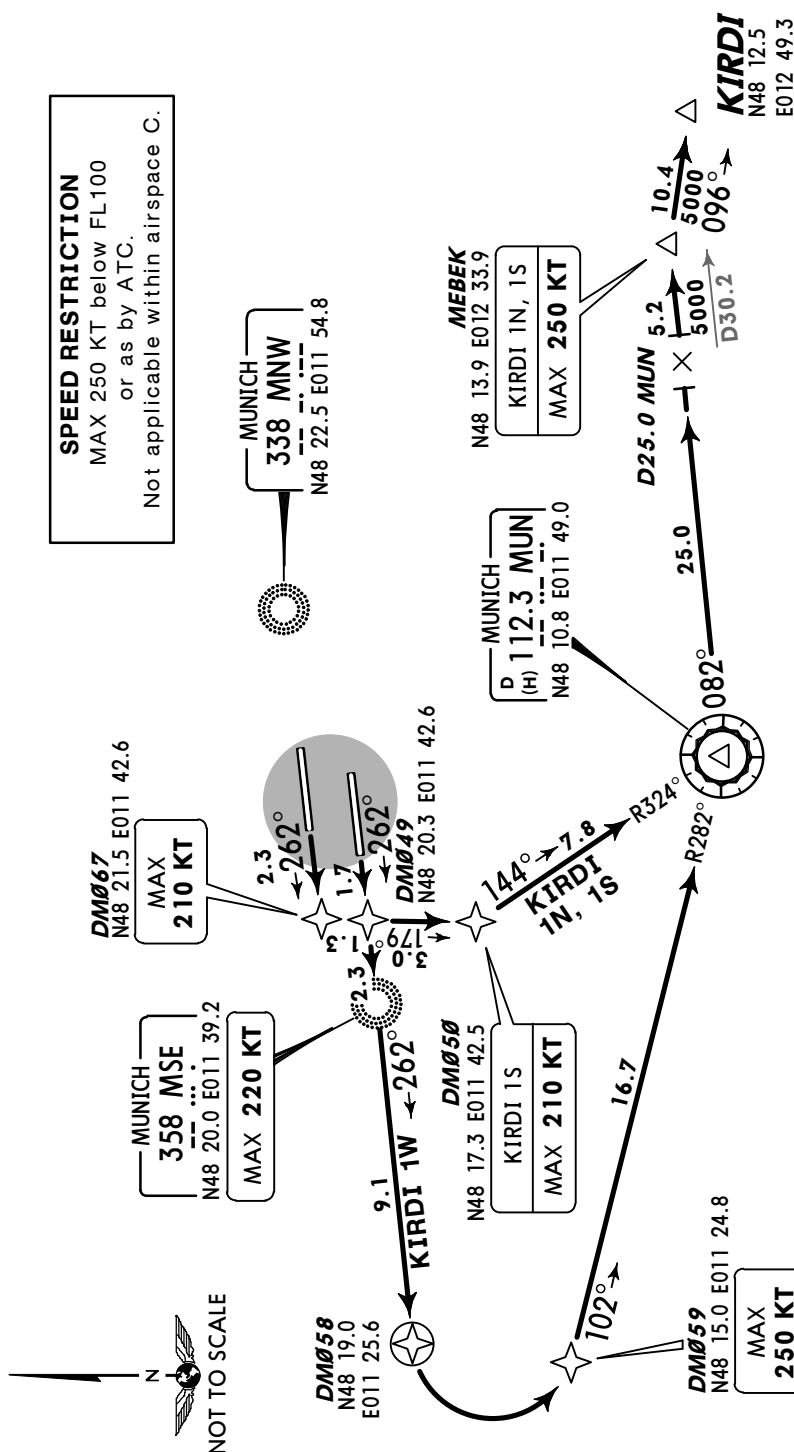
Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.



① 3300' within 10 NM

KIRDI ONE NOVEMBER (KIRDI 1N) [KIRD1N]
KIRDI ONE SIERRA (KIRDI 1S) [KIRD1S]
KIRDI ONE WHISKEY (KIRDI 1W) [KIRD1W]
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3N5)
NOT AVAILABLE FOR FLIGHTS VIA BIBAG

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



These SIDs require minimum climb gradients
of

KIRDI 1N

334' per NM (5.5%) until passing 4200' due to
High Intensity Radio Transmission Area (HIRTA).

KIRDI 1S

413' per NM (6.8%) until passing 4200' due to
High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance **FL70**

SID	RWY	ROUTING
KIRDI 1N	26R	(1900'+) - DM067 (K210-) - DM050 - MUN - - MEBEK (K250-) - KIRDI.
KIRDI 1S ②	26L	(1900'+) - DM049 - DM050 (K210-) - MUN - - MEBEK (K250-) - KIRDI.
KIRDI 1W		(1900'+) - MSE (K220-) - DM058 - DM059 (K250-) - - MUN - MEBEK - KIRDI

② If unable to comply with speed and turn restrictions
request SID KIRDI 1W.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**MERSI TWO ECHO (MERSI 2E) [MERS2E]
MERSI TWO QUEBEC (MERSI 2Q) [MERS2Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3N6)**

JET ACFT ONLY

NOT AVAILABLE FOR FLIGHTS DESTINATION LSZH AND LIM*

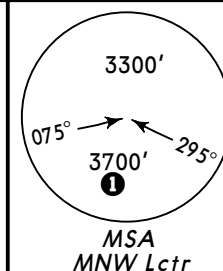
THESE FLIGHTS SHALL FILE KPT SIDS

NOT AVAILABLE FOR TRAFFIC PROCEEDING VIA MILKA
AT OR ABOVE REQUESTED FL245 DURING FOLLOWING TIMES:

DAILY 2330-0800LT/FRI 1700LT TO MON 0800LT/HOL

DURING THESE TIMES FILE SID ALG

DURING ACTIVATION OF ED(R)-207/307 EXPECT RE-ROUTING BY ATC



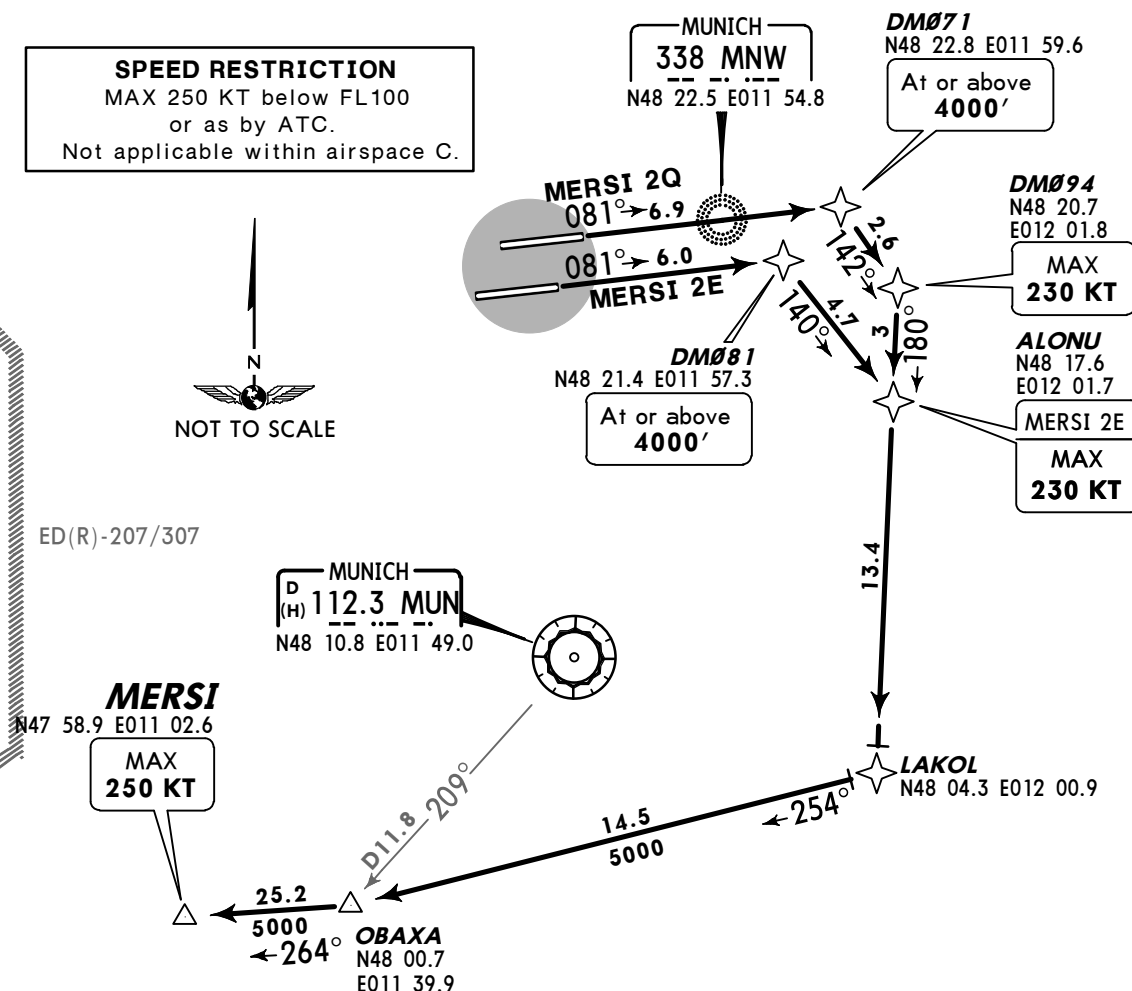
① 3300' within 10 NM

SPEED RESTRICTIONMAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.



ED(R)-207/307

Initial climb clearance **FL70**

SID	RWY	ROUTING
MERSI 2E	08R	(1900'+) - DM081 (4000'+) - ALONU (K230-) - LAKOL - OBAXA - MERSI (K250-).
MERSI 2Q	08L	(1900'+) - DM071 (4000'+) - DM094 (K230-) - LAKOL - OBAXA - MERSI (K250-).

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

MERSI THREE NOVEMBER (MERSI 3N) [MERS3N]
MERSI THREE SIERRA (MERSI 3S) [MERS3S]
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3N7)

JET ACFT ONLY

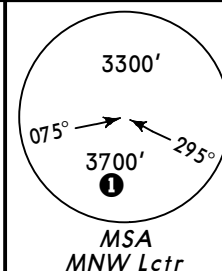
NOT AVAILABLE FOR FLIGHTS DESTINATION LSZH AND LIM*
THESE FLIGHTS SHALL FILE KPT SIDS

NOT AVAILABLE FOR TRAFFIC PROCEEDING VIA MILKA
AT OR ABOVE REQUESTED FL245 DURING FOLLOWING TIMES:

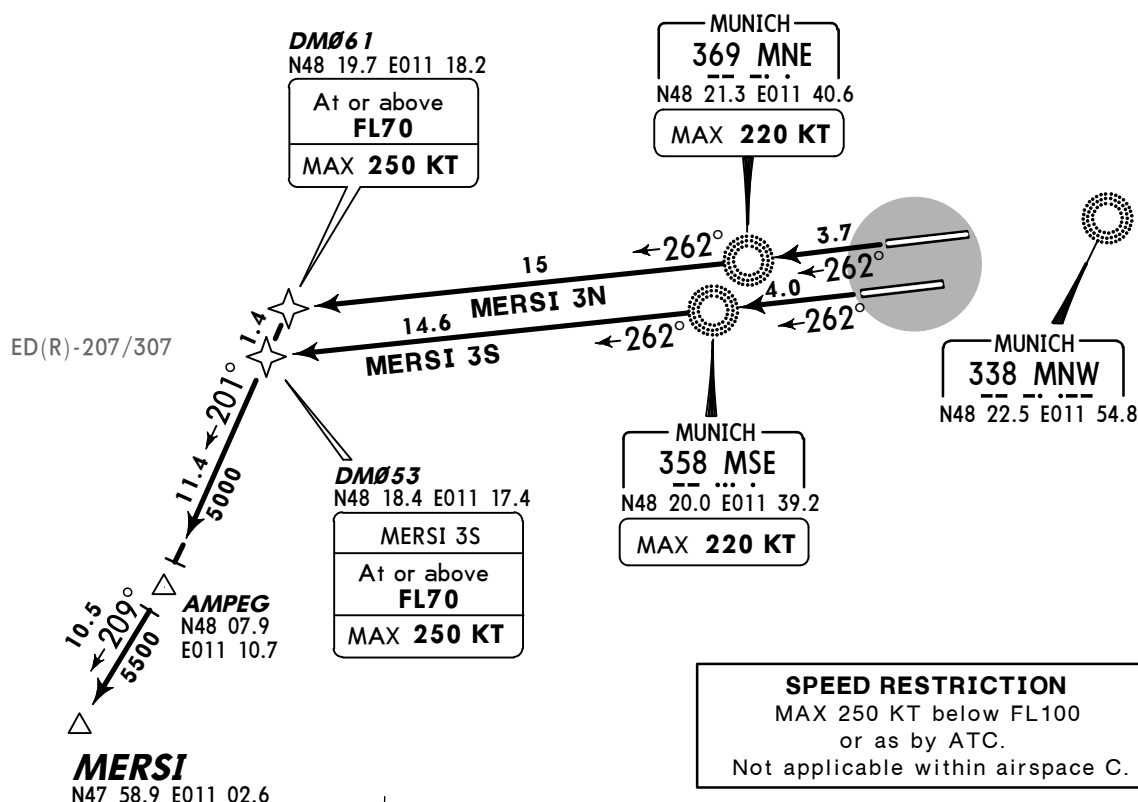
DAILY 2330-0800LT/FRI 1700LT TO MON 0800LT/HOL

DURING THESE TIMES FILE SID ALG

DURING ACTIVATION OF ED(R)-207/307 EXPECT RE-ROUTING BY ATC



① 3300' within 10 NM



These SIDs require a minimum climb gradient of 316' per NM (5.2%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
316' per NM	395	527	790	1053	1317	1580

If unable to comply advise ATC.

Initial climb clearance **FL70**

SID	RWY	ROUTING
MERSI 3N	26R	(1900'+) - MNE (K220-) - DM061 (FL70+; K250-) - AMPEG - MERSI.
MERSI 3S	26L	(1900'+) - MSE (K220-) - DM053 (FL70+; K250-) - AMPEG - MERSI.

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

3300'

075° 295°

3700'

1

MSA
MNW Lctr

[illegible]

Gnd speed-KT	75	100	150	200	250	300
504' per NM	630	841	1261	1681	2101	2522
395' per NM	494	658	987	1317	1646	1975

SID	RWY	ROUTING
OBAXA 3E	08R	(1900'+) - DM081 (4000'+) - DM082 (K230-) - DM086 (FL70+) - MUN - OBAXA (K250-).
OBAXA 3Q	08L	(1900'+) - DM071 (4000'+) - DM074 (K230-) - DM078 (FL70+) - MUN - OBAXA (K250-).

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

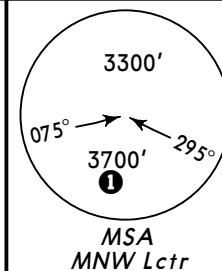
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**OBAXA THREE NOVEMBER (OBAXA 3N) [OBAX3N]
OBAXA FOUR SIERRA (OBAXA 4S) [OBAX4S]
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3Q2)
ONLY AVAILABLE FOR NON-JET ACFT**

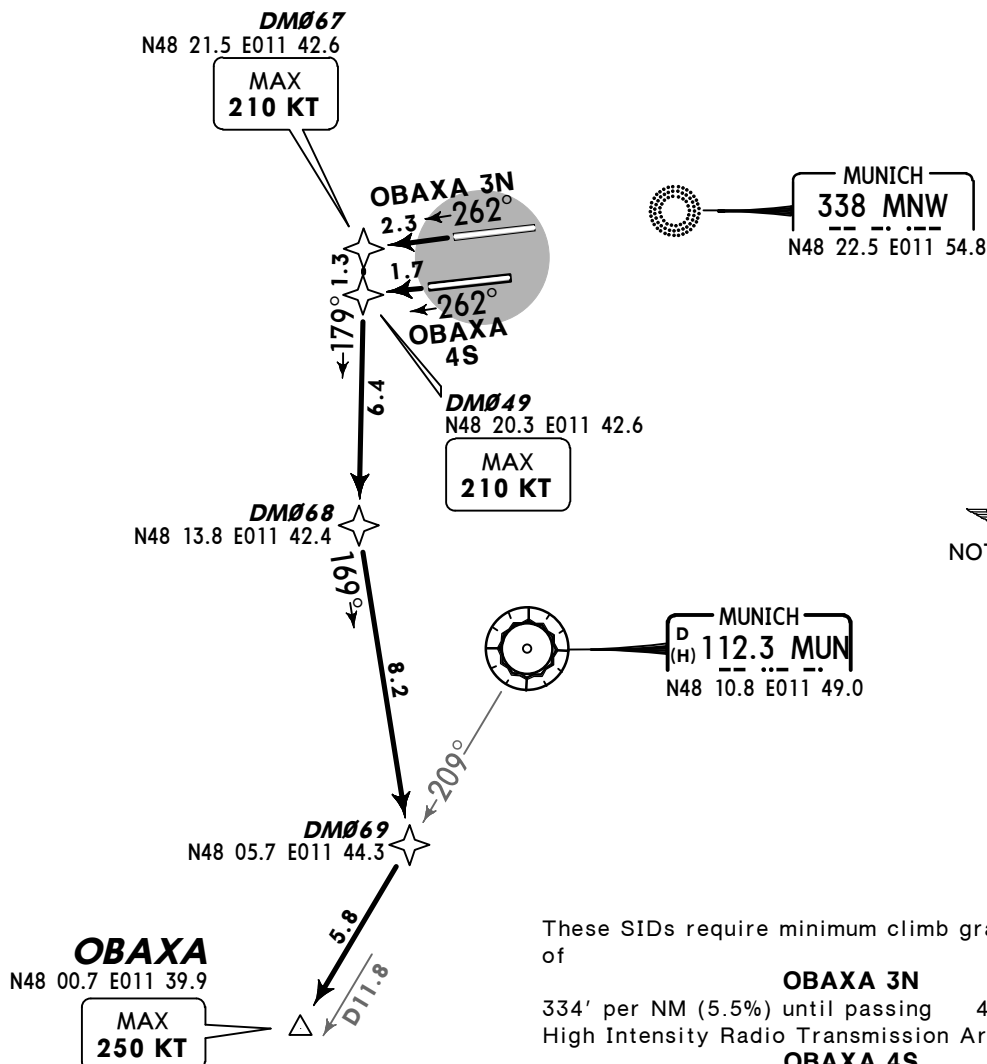
SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.



① 3300' within 10 NM



These SIDs require minimum climb gradients of

OBAXA 3N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

OBAXA 4S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance **FL70**

SID	RWY	ROUTING
OBAXA 3N	26R	(1900'+) - DM067 (K210-) - DM068 - DM069 - OBAXA (K250-).
OBAXA 4S	26L	(1900'+) - DM049 (K210-) - DM068 - DM069 - OBAXA (K250-).

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

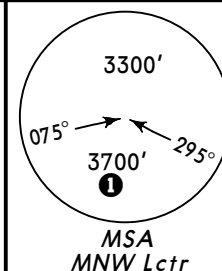
**OLASO ONE ECHO (OLASO 1E)[OLAS1E]
OLASO ONE QUEBEC (OLASO 1Q)[OLAS1Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3Q2A)**

AVAILABLE

DAILY 2330-0800LT

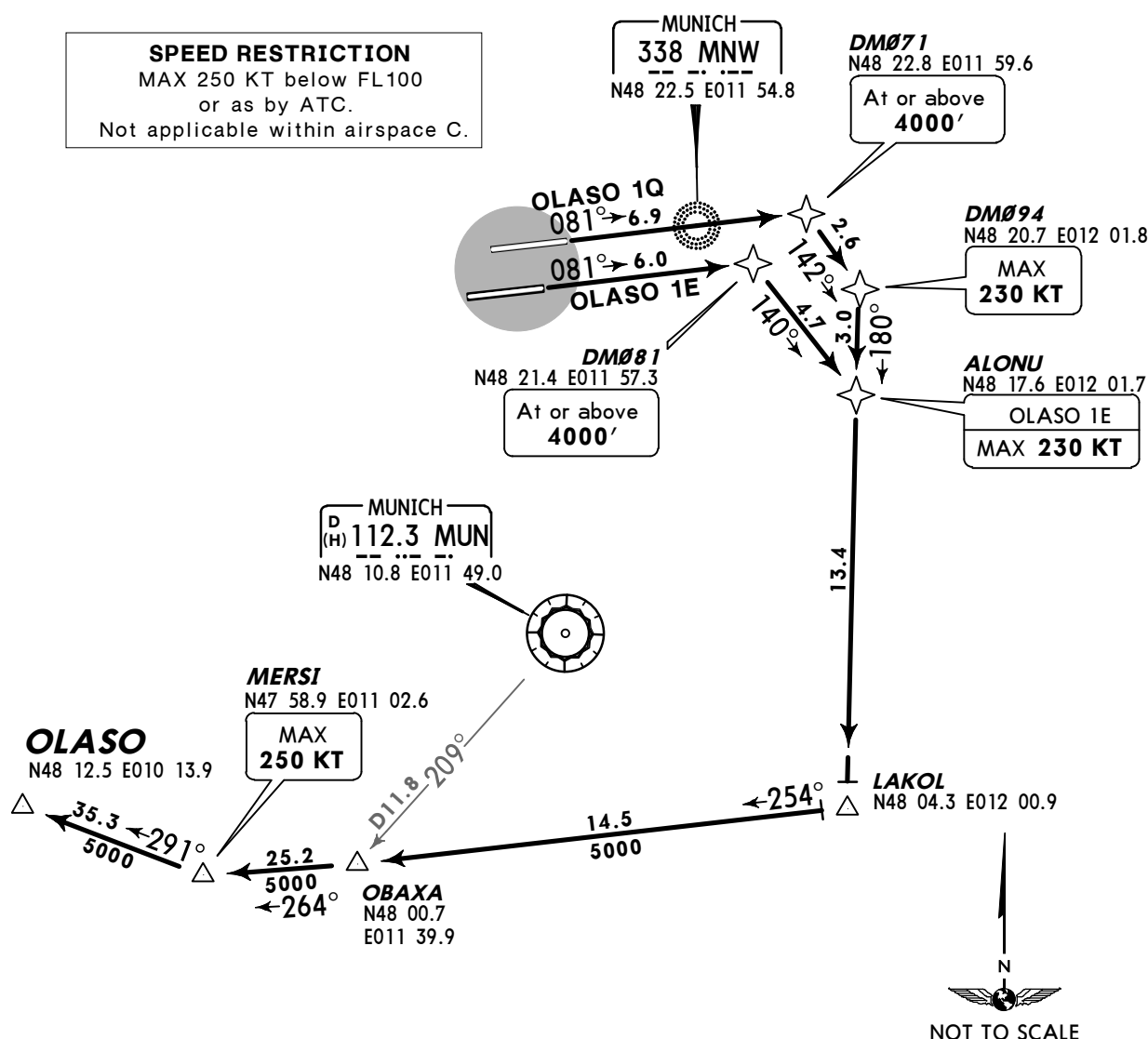
FRI 1700LT TO MON 0800LT

& BAVARIAN HOL



① 3300' within 10 NM

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

Initial climb clearance **FL70**

SID	RWY	ROUTING
OLASO 1E	08R	(1900'+) - DM081 (4000'+) - ALONU (K230-) - LAKOL - OBAXA - MERSI (K250-) - OLASO.
OLASO 1Q	08L	(1900'+) - DM071 (4000'+) - DM094 (K230-) - LAKOL - OBAXA - MERSI (K250-) - OLASO.

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

MUNICH Radar
127.95

Apt Elev
1487'

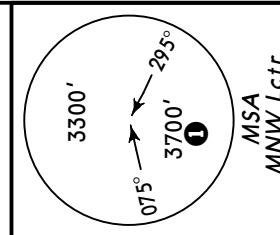
**OLASO ONE NOVEMBER (OLASO 1N) [OLAS1N]
OLASO ONE SIERRA (OLASO 1S) [OLAS1S]
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3Q2B)**

AVAILABLE

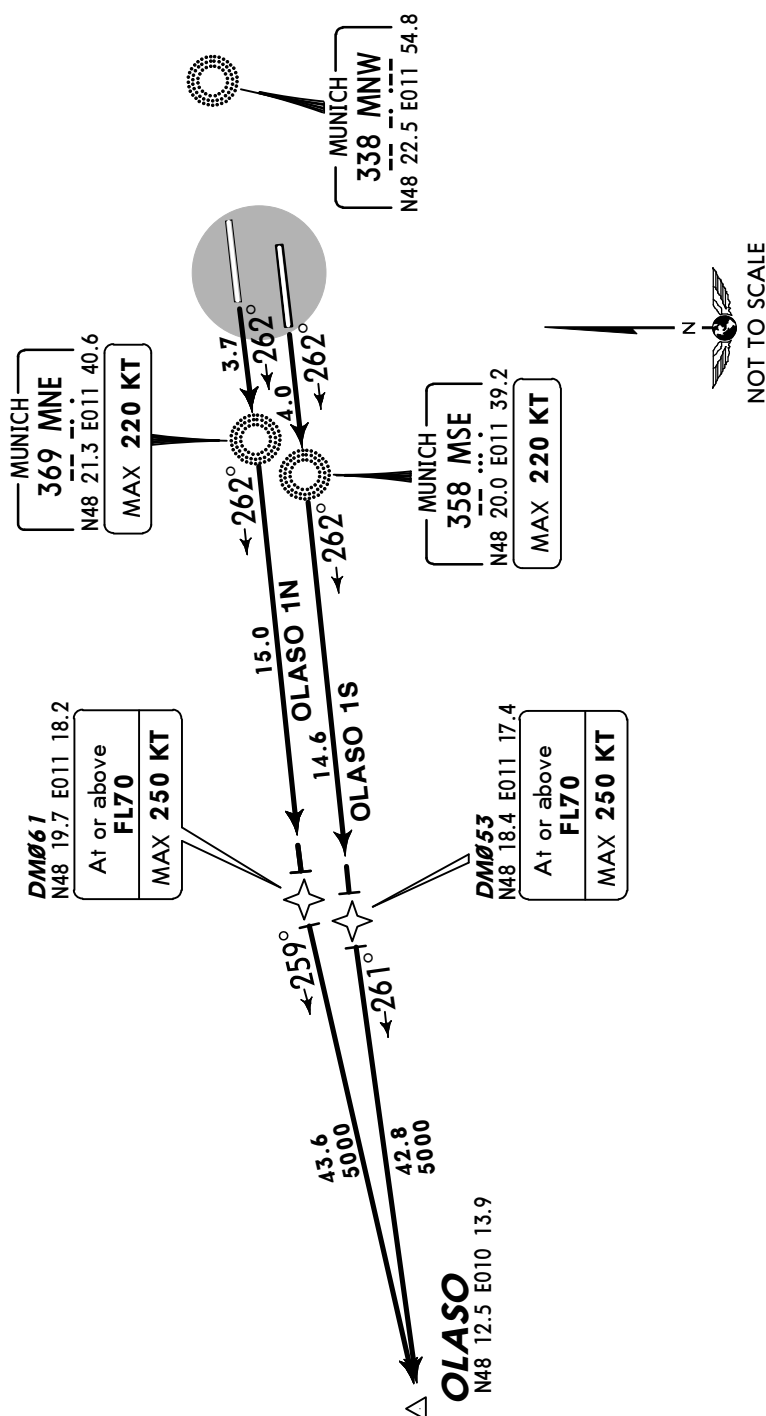
DAILY 2330-0800LT

FRI 1700LT TO MON 0800LT

& BAVARIAN HOL



① 3300' within 10 NM



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

These SIDs require a minimum climb gradient of 316' per NM (5.2%) due to airspace structure.
If unable to comply advise ATC.

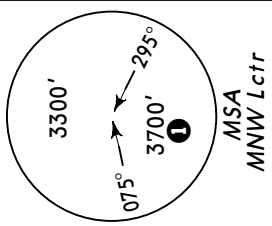
Gnd speed-KT	75	100	150	200	250	300
316' per NM	395	527	790	1053	1317	1580

Initial climb clearance FL70		
SID	RWY	ROUTING
OLASO 1N	26R	(1900'+) - MNE (K220-) - DM061 (FL70+; K250-) - OLASO.
OLASO 1S	26L	(1900'+) - MSE (K220-) - DM053 (FL70+; K250-) - OLASO

Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

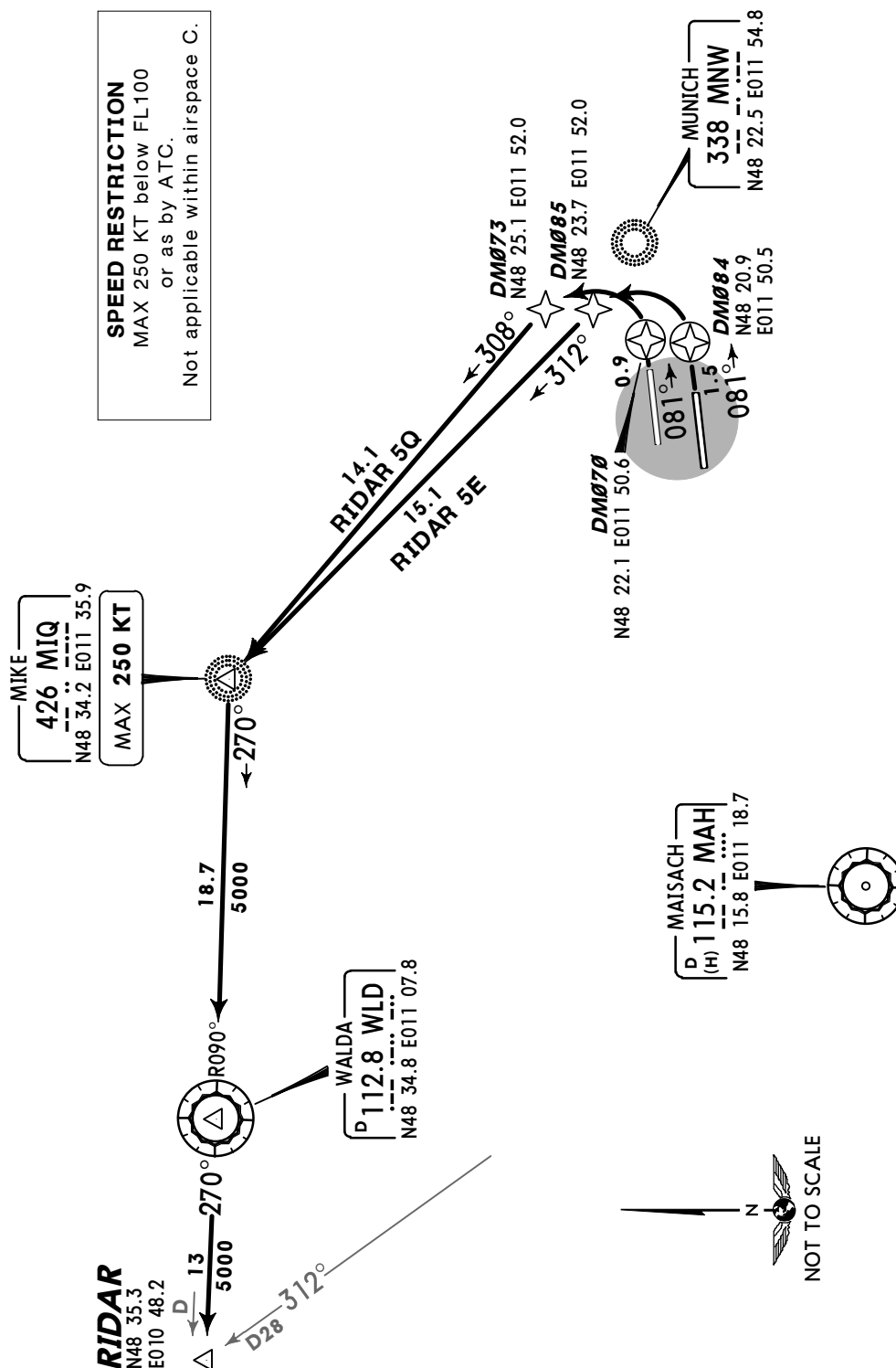


1 3300' within 10 NM

RIDAR FIVE ECHO (RIDAR 5E) [RIDA5E]
 RIDAR FIVE QUEBEC (RIDAR 5Q) [RIDA5Q]
 RWYS 08R/L RNAV DEPARTURES
 (OVERLAY 10-3Q3)

NOT AVAILABLE FOR FLIGHTS PLANNED
VIA ELVAG - AIRWAY W 718 - DKB

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace

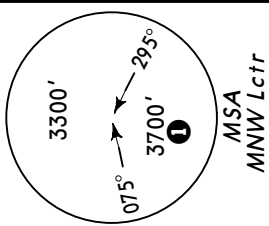


Initial climb clearance FL70		
SID	RWY	ROUTING
RIDAR 5E	08R	(1900'+) - DM084 - DM085 - MIQ (K250-) - WLD - RIDAR.
RIDAR 5Q	08L	(1900'+) - DM070 - DM073 - MIQ (K250-) - WLD - RIDAR.

MUNICH Radar
123.9

Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.



3300' within 10 NM

RIDAR FIVE NOVEMBER (RIDAR 5N) [RIDA5N] RIDAR FIVE SIERRA (RIDAR 5S) [RIDA5S] RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3Q4)

NOT AVAILABLE FOR FLIGHTS PLANNED
VIA ELVAG - AIRWAY W 718 - DKB

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

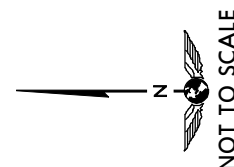
MUNICH
338 MNW
N48 22.5 E011 54.8

MUNICH
369 MNE
N48 21.3 E011 40.6

MAX 220 KT

MUNICH
358 MSE
N48 20.0 E011 39.2

MAX 220 KT



RIDAR
N48 35.3
E010 48.2

WALDA
D 112.8 WLD
N48 34.8 E011 07.8

DM062
N48 19.3 E011 13.3

RIDAR 5N
MAX
250 KT

DM061
N48 19.7 E011 18.2

At or above
FL70

DM054
N48 18.2 E011 14.9

MAX
250 KT

DM053
N48 18.4 E011 17.4

At or above
FL70

MAISACH
D 115.2 MAH
N48 15.8 E011 18.7

Gnd speed-KT	75	100	150	200	250	300
298' per NM	372	496	744	992	1241	1489

If unable to comply advise ATC.

These SIDs require a minimum climb gradient of 298' per NM (4.9%) due to airspace structure.

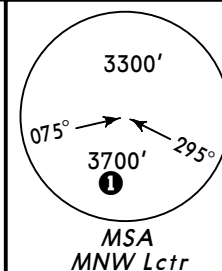
Initial climb clearance FL70		
SID	RWY	ROUTING
RIDAR 5N	26R	(1900'+) - MNE (K220-) - DM061 (FL70+) - DM062 (K250-) - RIDAR.
RIDAR 5S	26L	(1900'+) - MSE (K220-) - DM053 (FL70+) - DM054 (K250-) - RIDAR.

MUNICH Radar
127.95Apt Elev
1487'

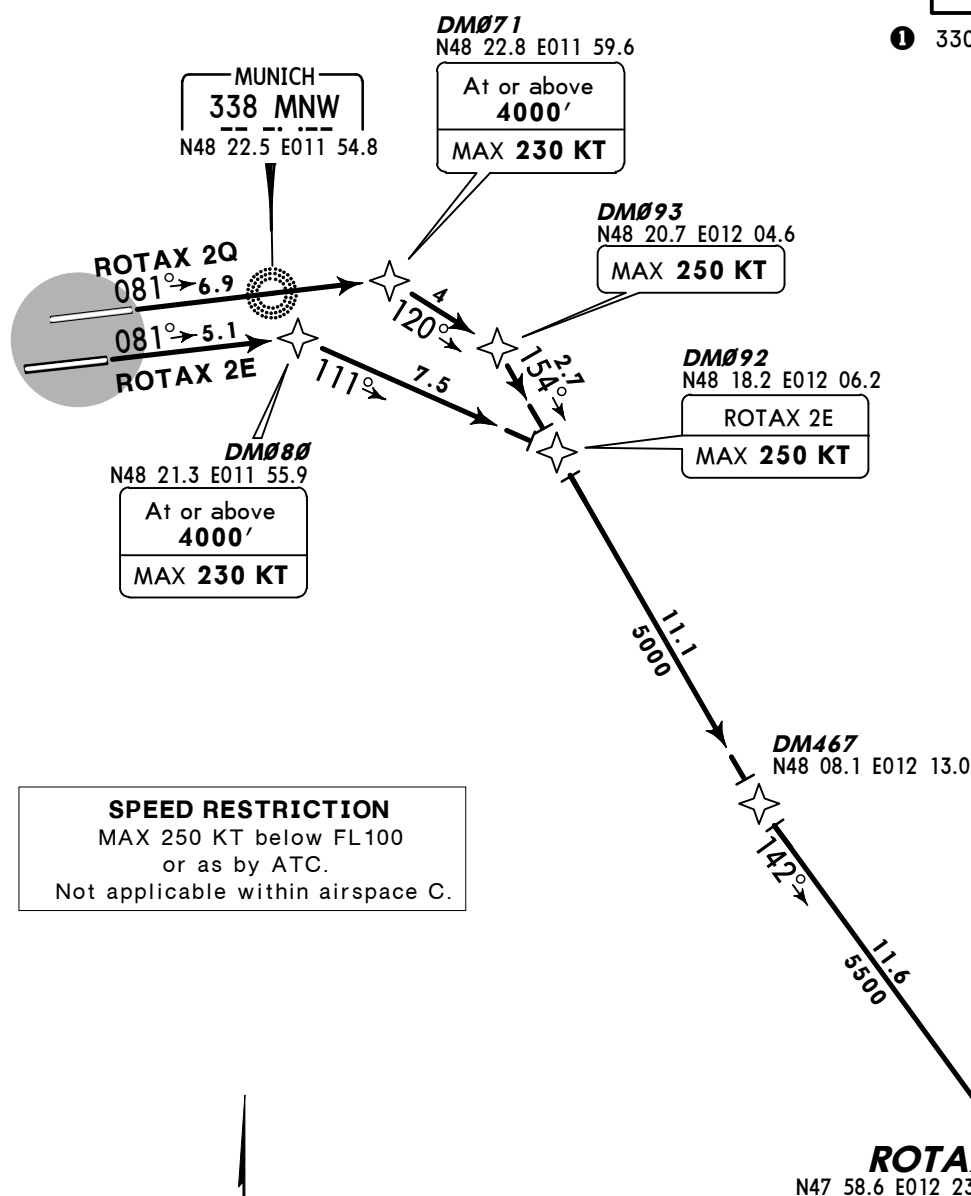
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

ROTAX TWO ECHO (ROTAX 2E) [ROTA2E]
ROTAX TWO QUEBEC (ROTAX 2Q) [ROTA2Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3Q5)



① 3300' within 10 NM

Initial climb clearance **FL70**

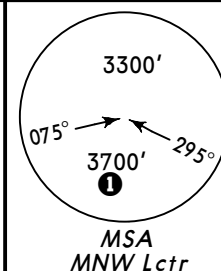
SID	RWY	ROUTING
ROTAX 2E	08R	(1900'+) - DM080 (4000'+; K230-) - DM092 (K250-) - DM467 - ROTAX.
ROTAX 2Q	08L	(1900'+) - DM071 (4000'+; K230-) - DM093 (K250-) - DM467 - ROTAX.

MUNICH Radar
127.95Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

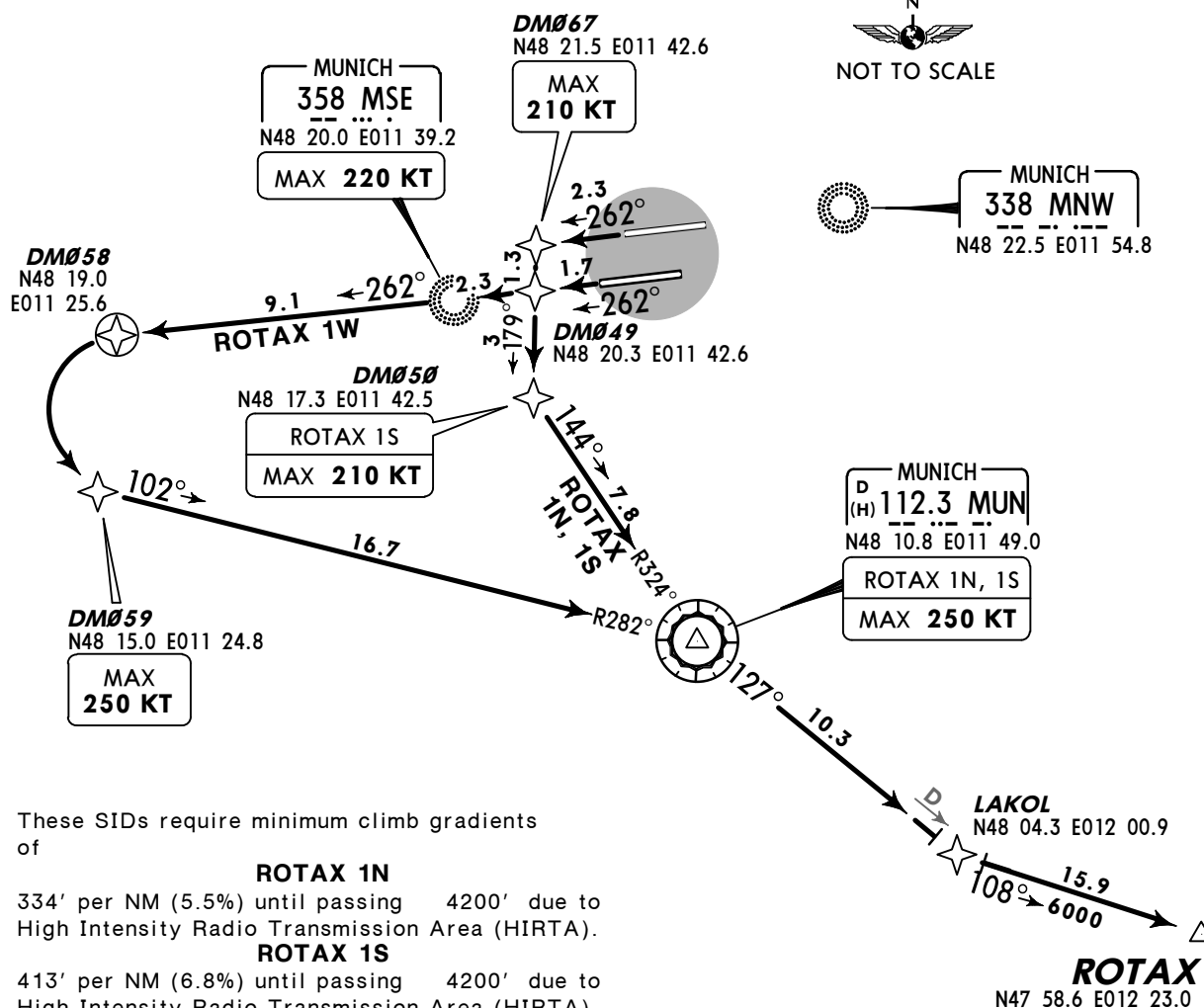
ROTAX ONE NOVEMBER (ROTAX 1N) [ROTA1N]
ROTAX ONE SIERRA (ROTAX 1S) [ROTA1S]
ROTAX ONE WHISKEY (ROTAX 1W) [ROTA1W]
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3Q6)



① 3300' within 10 NM

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



These SIDs require minimum climb gradients of

ROTAX 1N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

ROTAX 1S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance **FL70**

SID	RWY	ROUTING
ROTAX 1N	26R	(1900'+) - DM067 (K210-) - DM050 - MUN (K250-) - LAKOL - ROTAX.
ROTAX 1S ②	26L	(1900'+) - DM049 - DM050 (K210-) - MUN (K250-) - LAKOL - ROTAX.
ROTAX 1W		(1900'+) - MSE (K220-) - DM058 - DM059 (K250-) - MUN - LAKOL - ROTAX.

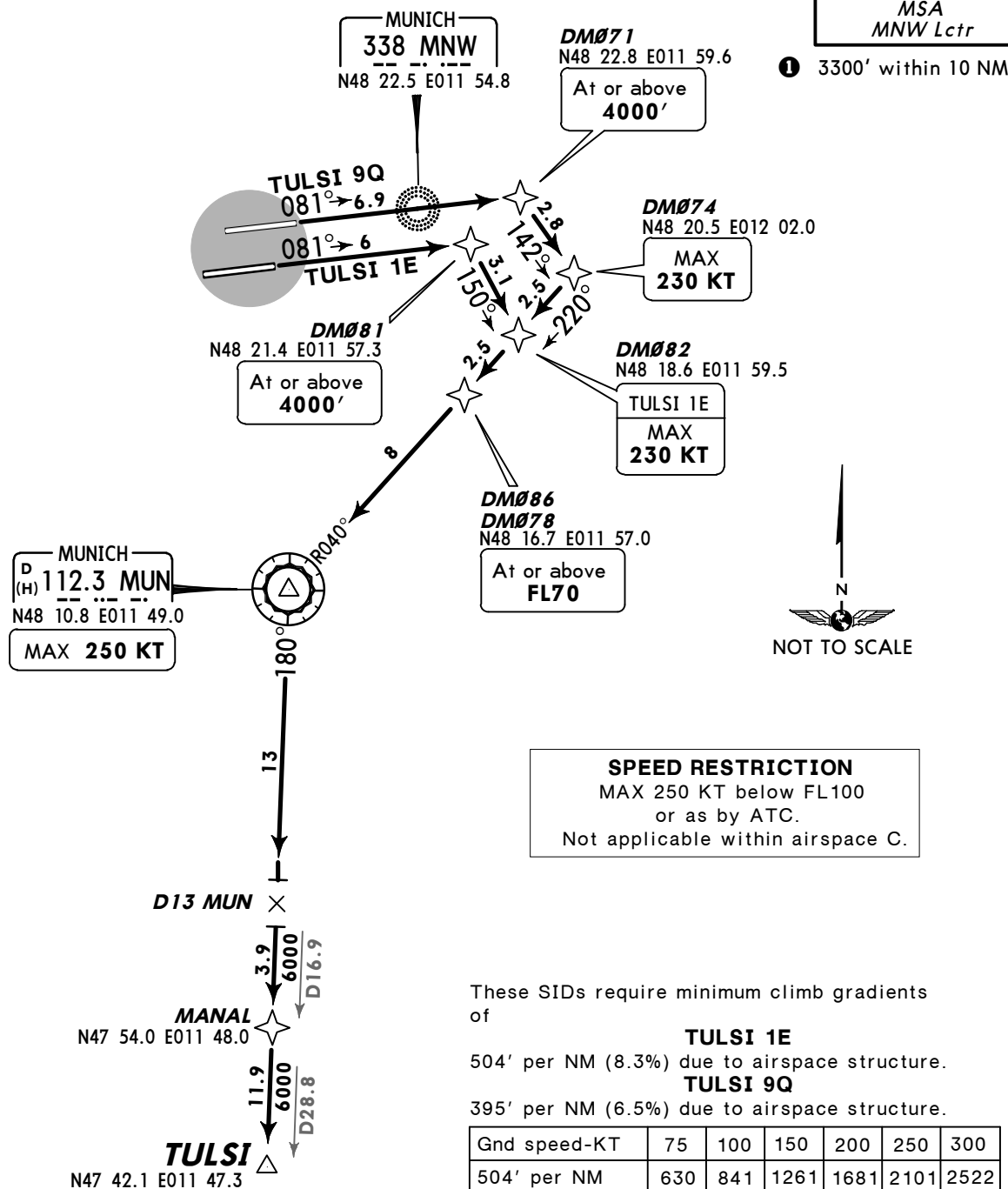
② If unable to comply with speed and turn restrictions request SID ROTAX 1W.

Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

TULSI ONE ECHO (TULSI 1E) [TULS1E]
TULSI NINE QUEBEC (TULSI 9Q) [TULS9Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3Q7)
NOT TO BE FILED IN FLIGHT PLAN



These SIDs require minimum climb gradients of

TULSI 1E

504' per NM (8.3%) due to airspace structure.

TULSI 9Q

395' per NM (6.5%) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
504' per NM	630	841	1261	1681	2101	2522
395' per NM	494	658	987	1317	1646	1975

If unable to comply advise ATC.

Initial climb clearance **FL70**

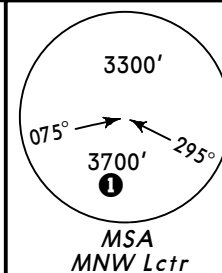
SID	RWY	ROUTING
TULSI 1E	08R	(1900'+) - DM081 (4000'+) - DM082 (K230-) - DM086 (FL70+) - MUN (K250-) - MANAL - TULSI.
TULSI 9Q	08L	(1900'+) - DM071 (4000'+) - DM074 (K230-) - DM078 (FL70+) - MUN (K250-) - MANAL - TULSI.

MUNICH Radar
127.95

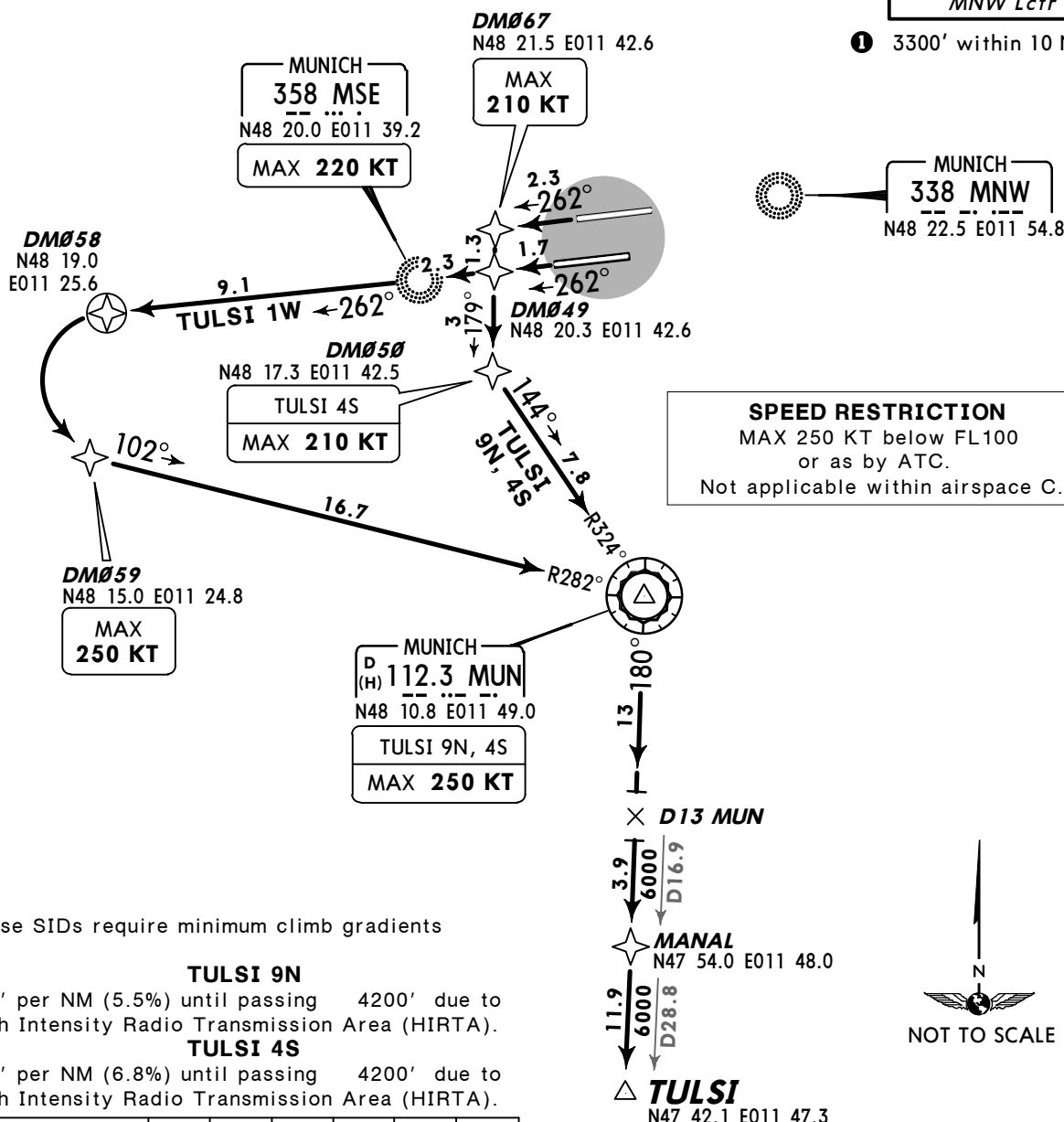
Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

**TULSI NINE NOVEMBER (TULSI 9N) [TULS9N]
TULSI FOUR SIERRA (TULSI 4S) [TULS4S]
TULSI ONE WHISKEY (TULSI 1W) [TULS1W]
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3Q8)
NOT TO BE FILED IN FLIGHT PLAN**



① 3300' within 10 NM



These SIDs require minimum climb gradients of

TULSI 9N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

TULSI 4S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

Initial climb clearance FL70

SID	RWY	ROUTING
TULSI 9N	26R	(1900'+) - DM067 (K210-) - DM050 - MUN (K250-) - MANAL - TULSI.
TULSI 4S ②	26L	(1900'+) - DM049 - DM050 (K210-) - MUN (K250-) - MANAL - TULSI.
TULSI 1W		(1900'+) - MSE (K220-) - DM058 - DM059 (K250-) - MUN - MANAL - TULSI.

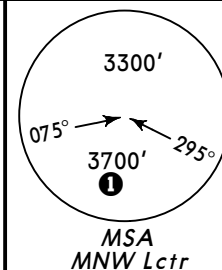
② If unable to comply with speed and turn restrictions request SID TULSI 1W.

MUNICH Radar
127.95

Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

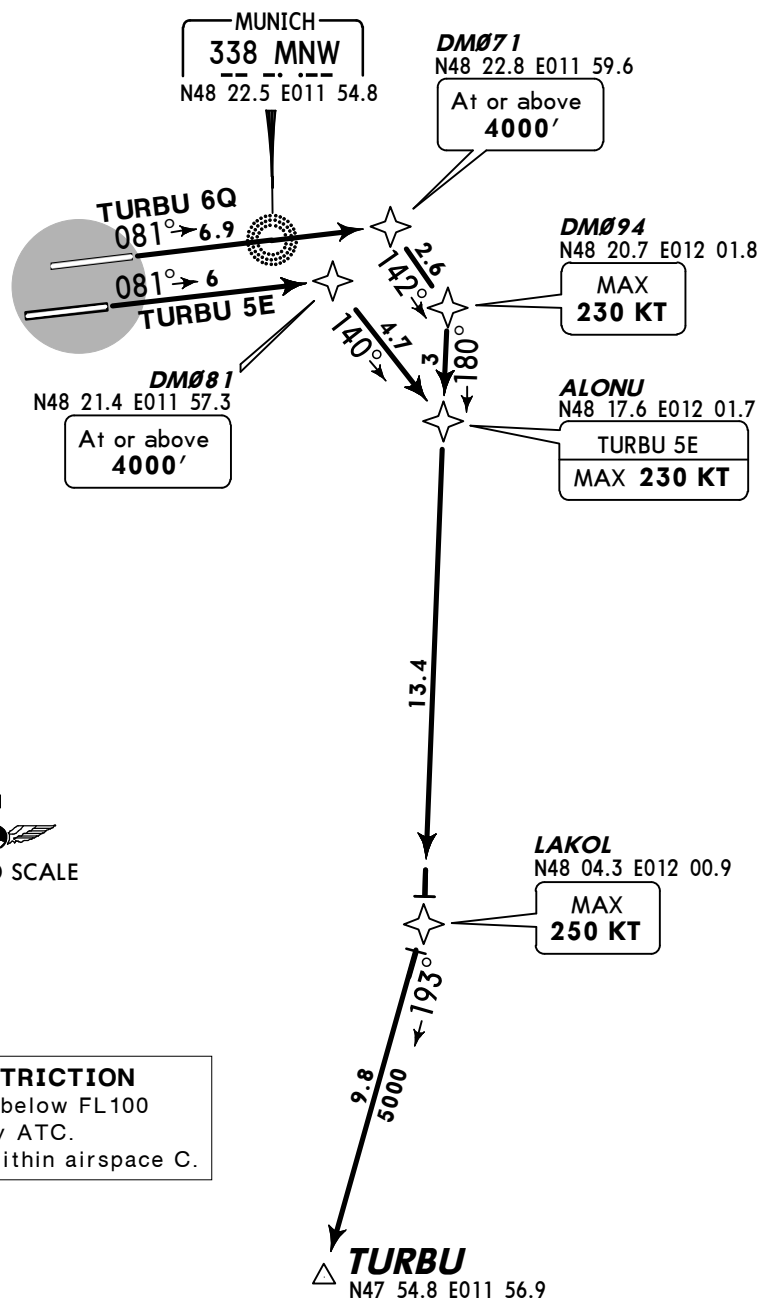
**TURBU FIVE ECHO (TURBU 5E) [TURB5E]
TURBU SIX QUEBEC (TURBU 6Q) [TURB6Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3Q9)
ONLY AVAILABLE FOR JET ACFT
NON-JET ACFT SHALL FILE OBAXA OR ROTAX SIDS INSTEAD**



① 3300' within 10 NM



SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



Initial climb clearance **FL70**

SID	RWY	ROUTING
TURBU 5E	08R	(1900'+) - DM081 (4000'+) - ALONU (K230-) - LAKOL (K250-) - TURBU.
TURBU 6Q	08L	(1900'+) - DM071 (4000'+) - DM094 (K230-) - LAKOL (K250-) - TURBU.

MUNICH Radar
127.95

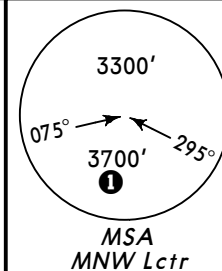
Apt Elev
1487'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

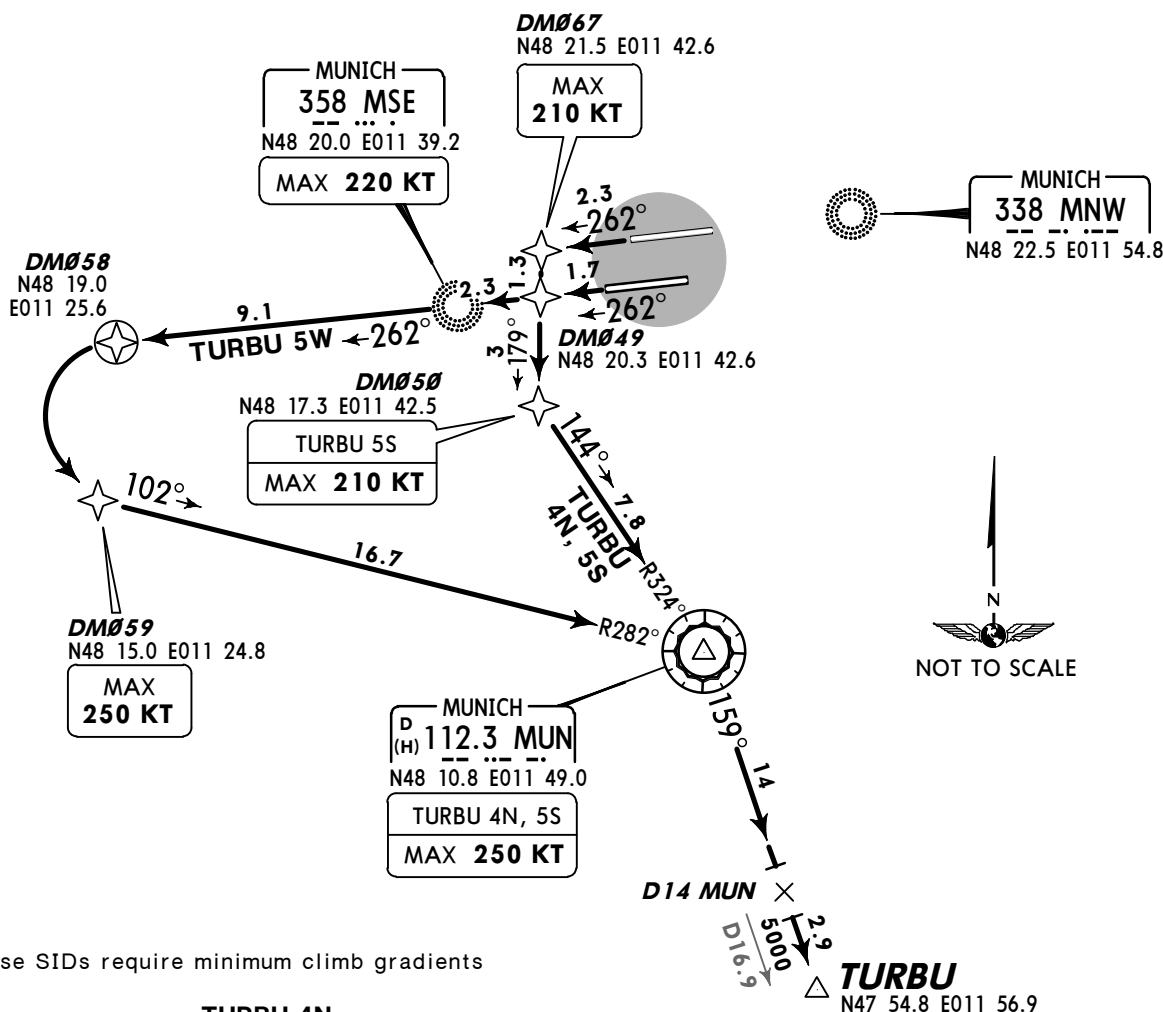
TURBU FOUR NOVEMBER (TURBU 4N) [TURB4N]
TURBU FIVE SIERRA (TURBU 5S) [TURB5S]
TURBU FIVE WHISKEY (TURBU 5W) [TURB5W]
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3Q10)

ONLY AVAILABLE FOR JET ACFT

NON-JET ACFT SHALL FILE OBAXA OR ROTAX SIDS INSTEAD



① 3300' within 10 NM



These SIDs require minimum climb gradients of

TURBU 4N

334' per NM (5.5%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

TURBU 5S

413' per NM (6.8%) until passing 4200' due to High Intensity Radio Transmission Area (HIRTA).

Gnd speed-KT	75	100	150	200	250	300
413' per NM	516	689	1033	1377	1722	2066
334' per NM	418	557	835	1114	1392	1671

If unable to comply advise ATC.

SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.

Initial climb clearance FL70

SID	RWY	ROUTING
TURBU 4N	26R	(1900'+) - DM067 (K210-) - DM050 - MUN (K250-) - TURBU.
TURBU 5S ②	26L	(1900'+) - DM049 - DM050 (K210-) - MUN (K250-) - TURBU.
TURBU 5W		(1900'+) - MSE (K220-) - DM058 - DM059 (K250-) - MUN - TURBU.

② If unable to comply with speed and turn restrictions request SID TURBU 5W.

MUNICH Radar
127.95Apt Elev
1487'

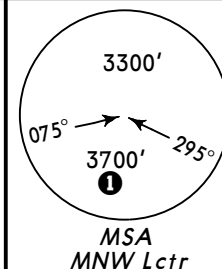
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

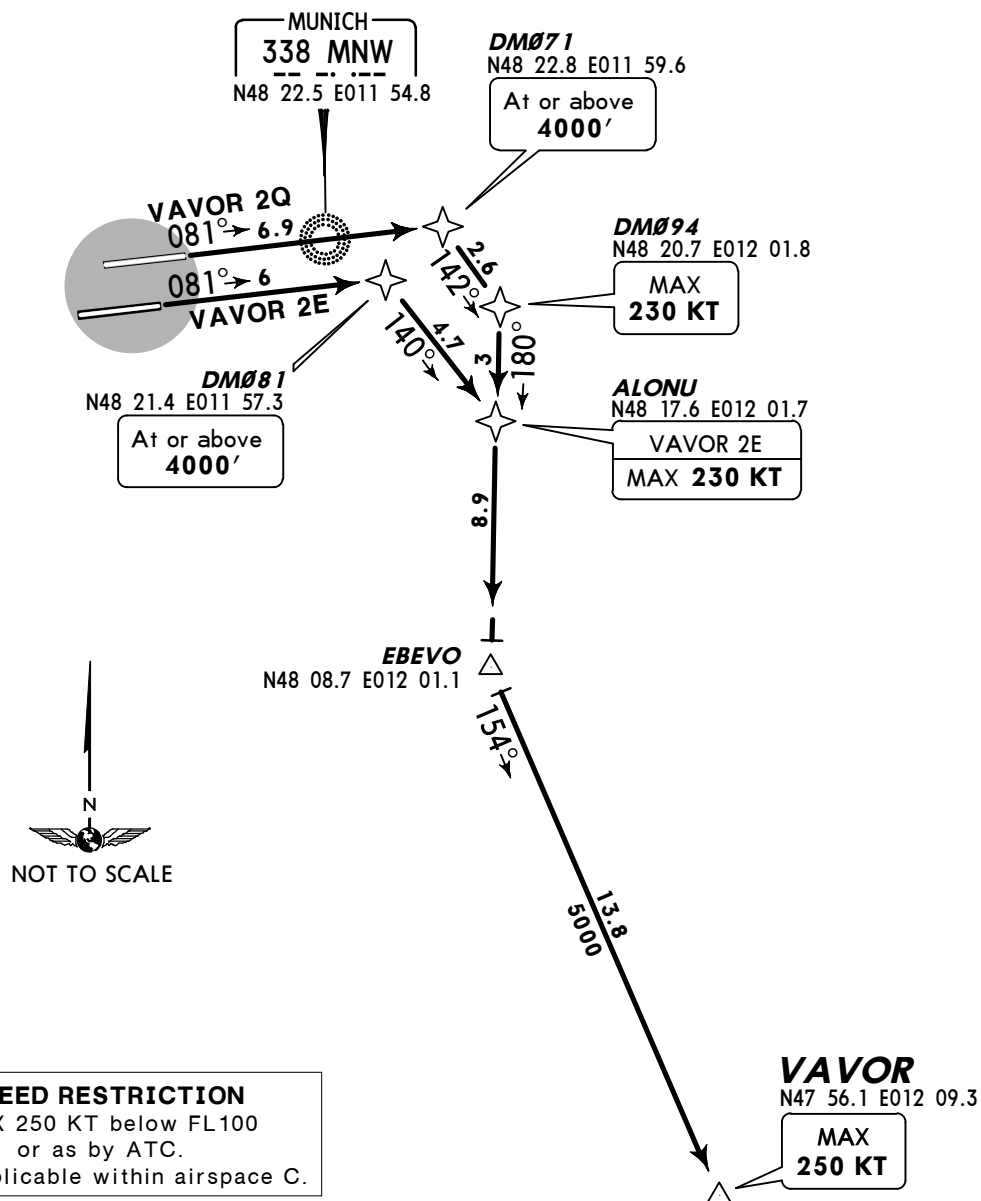
VAVOR TWO ECHO (VAVOR 2E) [VAVO2E]
VAVOR TWO QUEBEC (VAVOR 2Q) [VAVO2Q]
RWYS 08R/L RNAV DEPARTURES (OVERLAY 10-3S)

ONLY AVAILABLE FOR JET ACFT

NON-JET ACFT SHALL FILE OBAXA OR ROTAX SIDS INSTEAD



① 3300' within 10 NM

Initial climb clearance **FL70**

SID	RWY	ROUTING
VAVOR 2E	08R	(1900'+) - DM081 (4000'+) - ALONU (K230-) - EBEVO - VAVOR (K250-).
VAVOR 2Q	08L	(1900'+) - DM071 (4000'+) - DM094 (K230-) - EBEVO - VAVOR (K250-).

MUNICH Radar
127.95Apt Elev
1487'

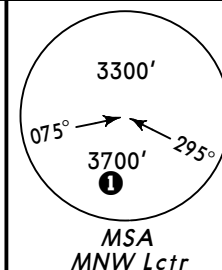
Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency, when advised by ATC contact MUNICH Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Simultaneous parallel departures in progress. Pilots have to proceed exactly on extended centerline until starting turns as published in departure routes.

VAVOR ONE NOVEMBER (VAVOR 1N) [VAVO1N]
VAVOR ONE SIERRA (VAVOR 1S) [VAVO1S]
VAVOR ONE WHISKEY (VAVOR 1W) [VAVO1W]
RWYS 26R/L RNAV DEPARTURES (OVERLAY 10-3T)

ONLY AVAILABLE FOR JET ACFT

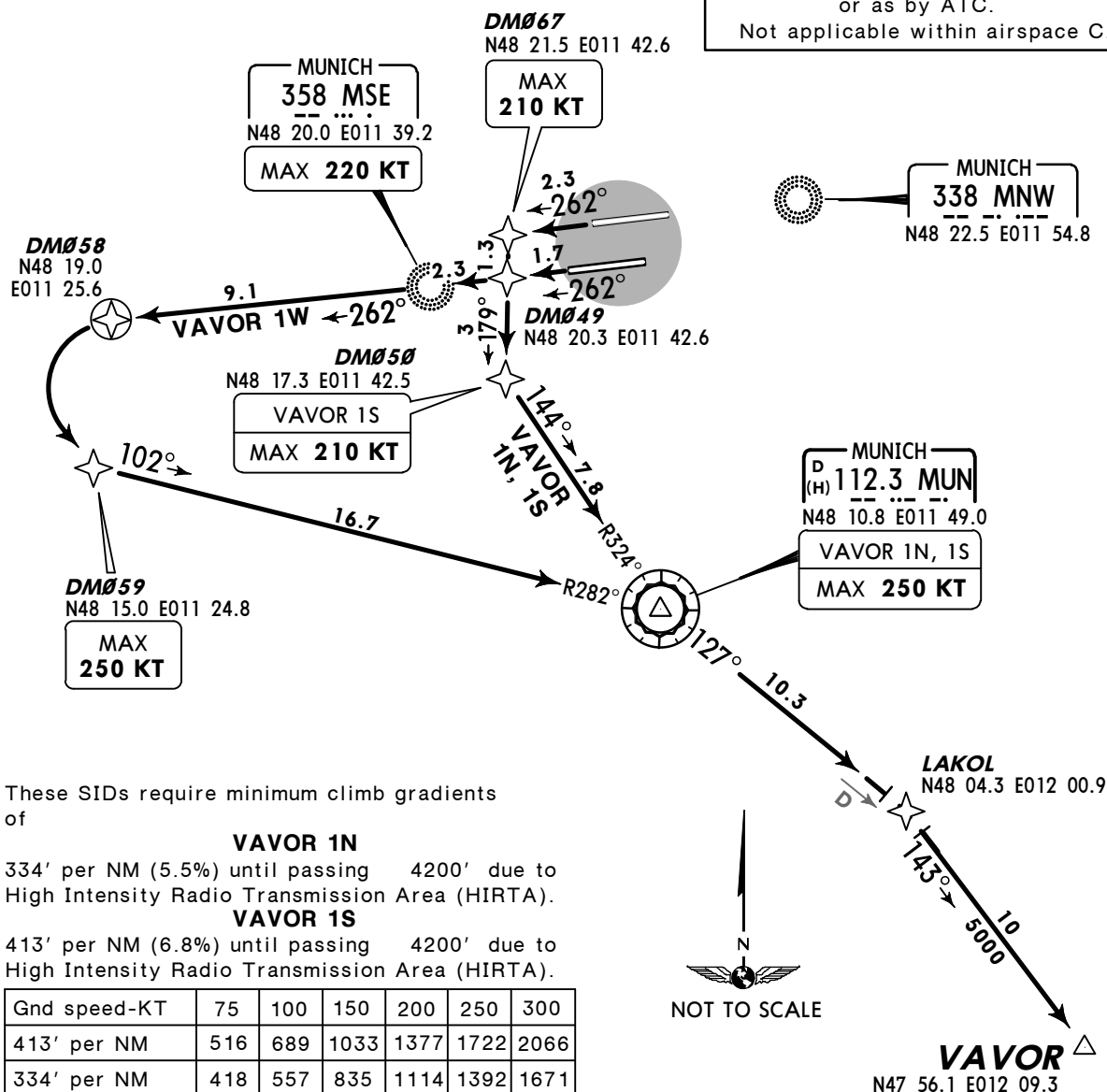
NON-JET ACFT SHALL FILE OBAXA OR ROTAX SIDS INSTEAD



① 3300' within 10 NM

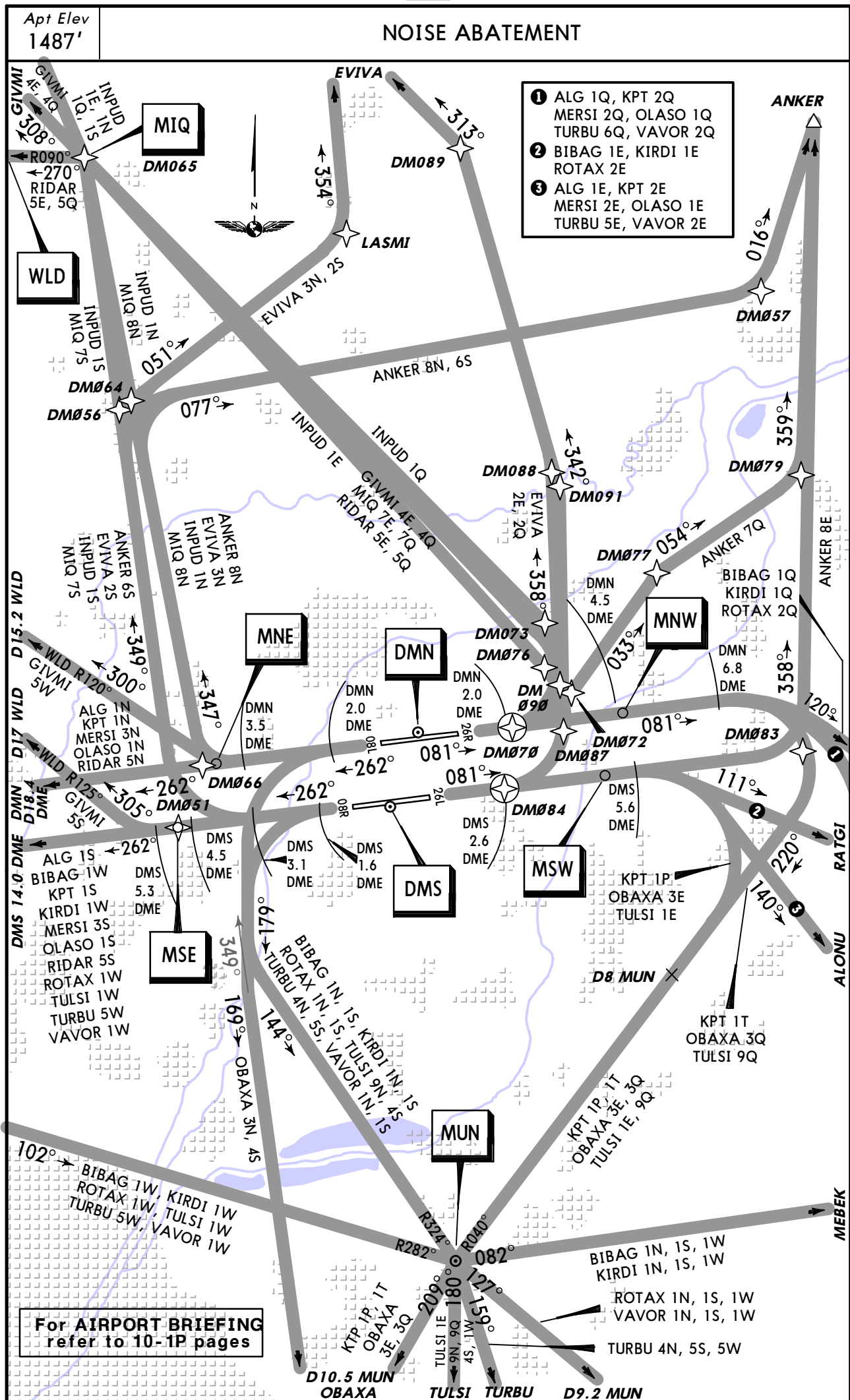
SPEED RESTRICTIONMAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

Initial climb clearance **FL70**

SID	RWY	ROUTING
VAVOR 1N	26R	(1900'+) - DM067 (K210-) - DM050 - MUN (K250-) - LAKOL - VAVOR.
VAVOR 1S ②	26L	(1900'+) - DM049 - DM050 (K210-) - MUN (K250-) - LAKOL - VAVOR.
VAVOR 1W		(1900'+) - MSE (K220-) - DM058 - DM059 (K250-) - MUN - LAKOL - VAVOR.

② If unable to comply with speed and turn restrictions request SID VAVOR 1W.

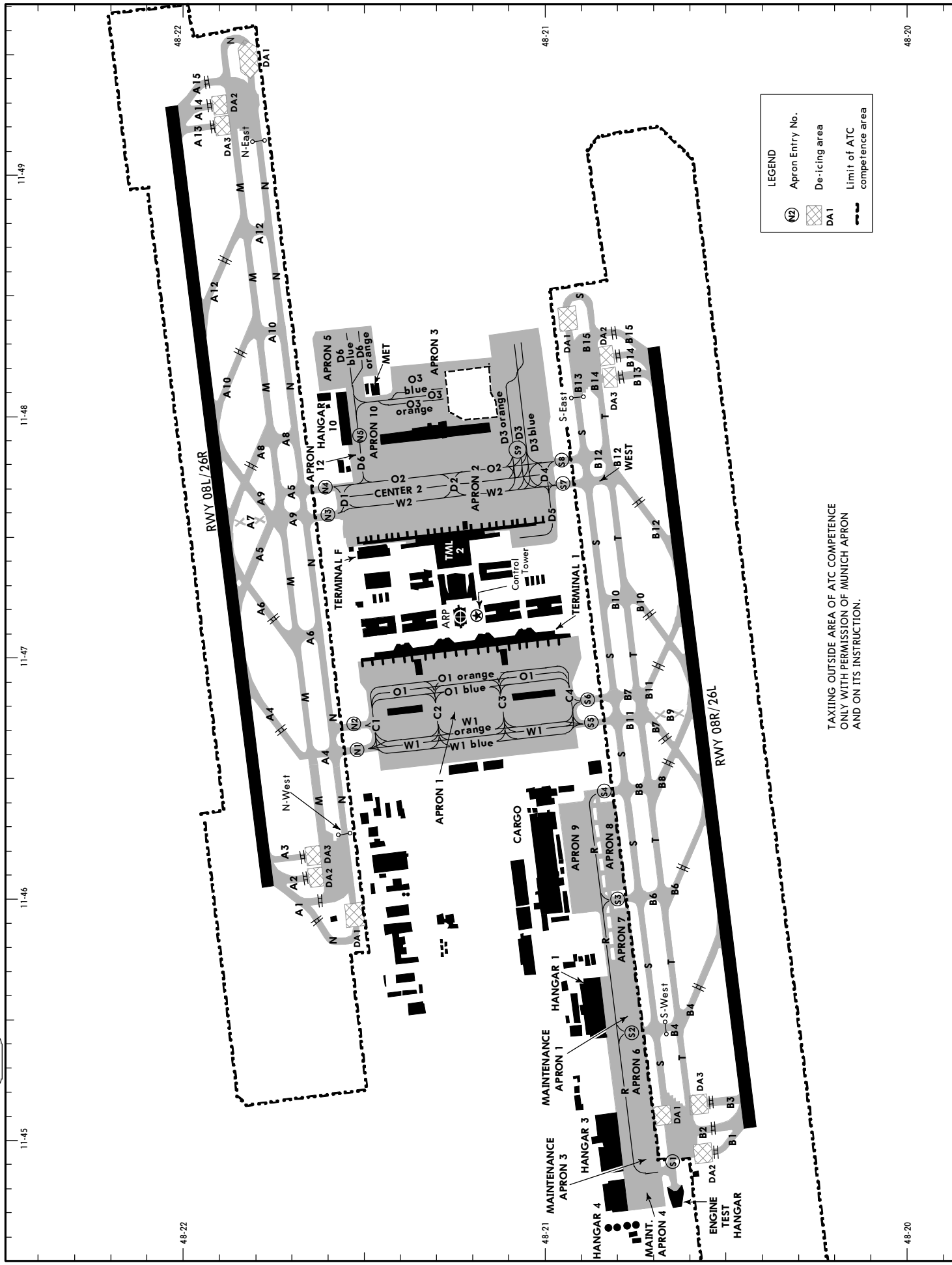


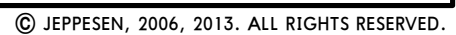
For AIRPORT BRIEFING
refer to 10-1P pages

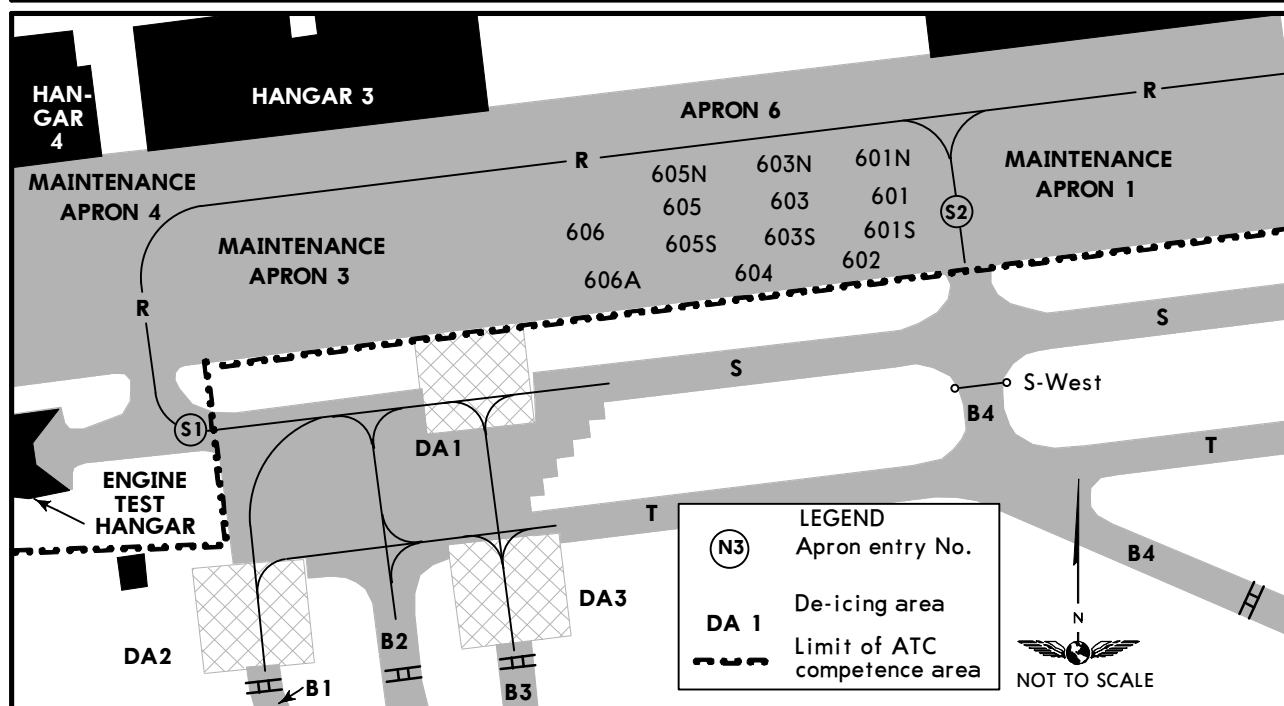
ADDITIONAL RUNWAY INFORMATION									
RWY						USABLE LENGTHS		TAKE-OFF	WIDTH
						LANDING BEYOND			
						Threshold	Glide Slope		
08L	③	HIRL CL(15m)	ALSF-II	TDZ	PAPI-L (3.0°)	① RVR	11,969' 3648m	④	197' 60m
26R		HIRL CL(15m)	ALSF-II	TDZ	PAPI-L (3.0°)	② RVR	12,029' 3666m		
① HST-A5, A8, A10 & A12 ② HST-A9, A6 & A4 ③ Rwy grooved. ④ TAKE-OFF RUN AVAILABLE RWY 08L: From rwy head 13,123'(4000m) twy A3 int 12,467'(3800m) twy A4 int 9252'(2820m) twy A6 int 7218'(2200m) twy A7 int 6627'(2020m) RWY 26R: From rwy head 13,123'(4000m) twy A13 int 12,467'(3800m) twy A12 int 9121'(2780m) twy A10 int 7415'(2260m) twy A7 int 5610'(1710m)									
08R	⑦	HIRL CL(15m)	ALSF-II	TDZ	PAPI-L (3.0°)	⑤ RVR	12,029' 3666m	⑧	197' 60m
26L		HIRL CL(15m)	ALSF-II	TDZ	PAPI-L (3.0°)	⑥ RVR	12,151' 3704m		
⑤ HST-B7, B10 & B12 ⑥ HST-B11, B8, B6 & B4 ⑦ Rwy grooved. ⑧ TAKE-OFF RUN AVAILABLE RWY 08R: From rwy head 13,123' (4000m) twy B3 int 12,467' (3800m) twy B4 int 9318' (2840m) twy B6 int 7283' (2220m) twy B9 int 5479' (1670m) RWY 26L: From rwy head 13,123'(4000m) twy B13 int 12,467'(3800m) twy B12 int 9252'(2820m) twy B10 int 7218'(2200m) twy B9 int 6627'(2020m)									

Standard		TAKE-OFF ①					
		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							
B	125m	150m	200m	250m	400m	500m	
C							
D	150m	200m	250m	300m			

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





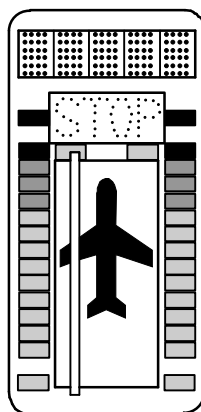


INS COORDINATES			
STAND No.	COORDINATES	STAND No.	COORDINATES
101, 102	N48 21.5 E011 47.0	251B thru 255	N48 21.2 E011 47.9
103 thru 105	N48 21.4 E011 47.0	256	N48 21.1 E011 47.9
107A thru 109B	N48 21.3 E011 47.0	261, 262	N48 21.0 E011 47.9
110 thru 112	N48 21.2 E011 47.0	305 thru 307	N48 21.4 E011 48.0
113A thru 116	N48 21.1 E011 47.0	309 thru 311	N48 21.3 E011 48.0
117A, 117B	N48 21.0 E011 47.0	321W/E	N48 21.4 E011 48.1
118, 119	N48 21.0 E011 47.1	322W/E, 323	N48 21.3 E011 48.2
120	N48 20.9 E011 47.1	332	N48 21.2 E011 48.3
121	N48 21.0 E011 47.1	341 thru 343	N48 21.0 E011 48.0
131	N48 21.3 E011 46.8	344 thru 346	N48 21.0 E011 48.1
132 thru 135	N48 21.2 E011 46.8	347 thru 349	N48 21.0 E011 48.2
141 thru 143	N48 21.4 E011 46.7	351, 352	N48 21.0 E011 48.3
144, 151	N48 21.3 E011 46.8	511, 512	N48 21.2 E011 48.3
152 thru 155	N48 21.2 E011 46.8	581 thru 583	N48 21.5 E011 48.1
161	N48 21.1 E011 46.8	584 thru 586	N48 21.5 E011 48.2
162 thru 165	N48 21.0 E011 46.8	591, 592	N48 21.5 E011 48.2
171 thru 173	N48 21.4 E011 46.6	593 thru 595	N48 21.5 E011 48.3
174 thru 183	N48 21.3 E011 46.6	601	N48 20.8 E011 45.4
184 thru 186	N48 21.2 E011 46.6	602 thru 604	N48 20.7 E011 45.3
187 thru 191	N48 21.1 E011 46.6	605, 606	N48 20.7 E011 45.2
192 thru 196	N48 21.0 E011 46.6	701N/S, 702N/S	N48 20.8 E011 45.9
197	N48 20.9 E011 46.6	703N/S	N48 20.8 E011 45.8
201A thru 203	N48 21.5 E011 47.5	901	N48 20.9 E011 46.4
204A thru 205A	N48 21.5 E011 47.6	902	N48 20.9 E011 46.3
205B thru 209B	N48 21.4 E011 47.6	903, 904	N48 20.9 E011 46.2
210A thru 214	N48 21.3 E011 47.6	905, 906	N48 20.9 E011 46.1
215A thru 217B	N48 21.2 E011 47.6	907	N48 20.9 E011 46.0
218 thru 222B	N48 21.1 E011 47.6		
223A thru 224B	N48 21.0 E011 47.6		
231	N48 21.1 E011 47.5		
232 thru 234	N48 21.0 E011 47.5		
243	N48 21.5 E011 47.8		
244 thru 248A	N48 21.4 E011 47.8		
248B thru 250	N48 21.3 E011 47.8		
251A	N48 21.3 E011 47.9		

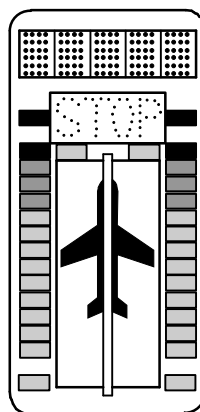
VISUAL DOCKING GUIDANCE SYSTEM (SAFEGATE)**STANDARD DOCKING PROCEDURE**

1. Line-up to center acft symbol with green reference bar.
2. Check correct acft type is flashing on display.
3. Check green bottom lights are flashing.
4. When nosegear passes over first sensor, acft type display and green bottom lights will both change from flashing to steady.
5. Green closing rate lights will move upwards in relation to actual acft speed.
6. At 10'/3m before the STOP position yellow lights will illuminate.
7. Reaching the STOP position, all four red lights will illuminate current with the displayed command "STOP".
8. If correctly positioned "OK" is displayed. Beyond 3'/1m of the nominal STOP position, a warning will be displayed in a flashing mode "TOO FAR".

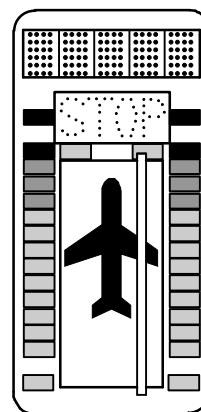
EMERGENCY STOP: All four red STOP position lights and "STOP" will flash.



TURN LEFT

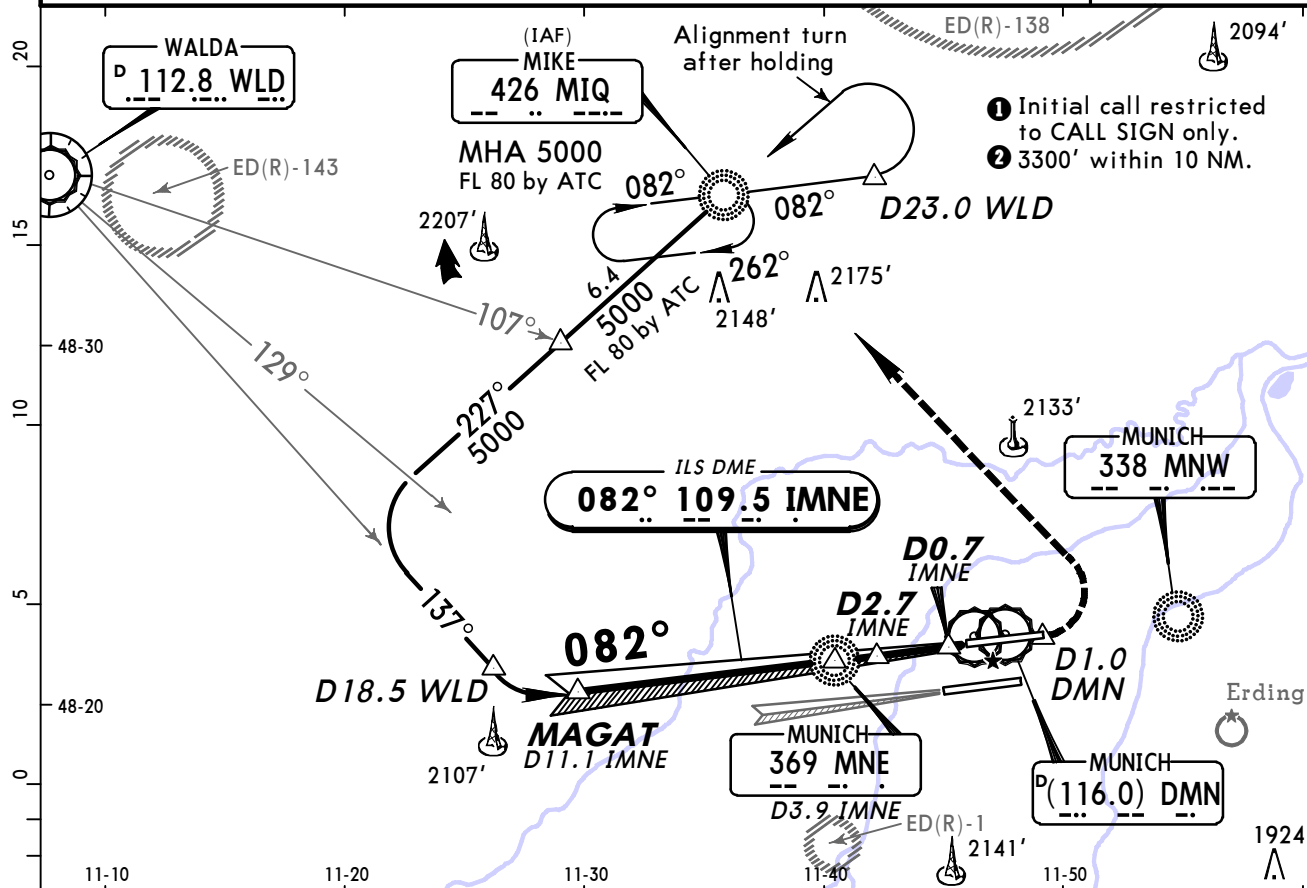


ON CENTERLINE

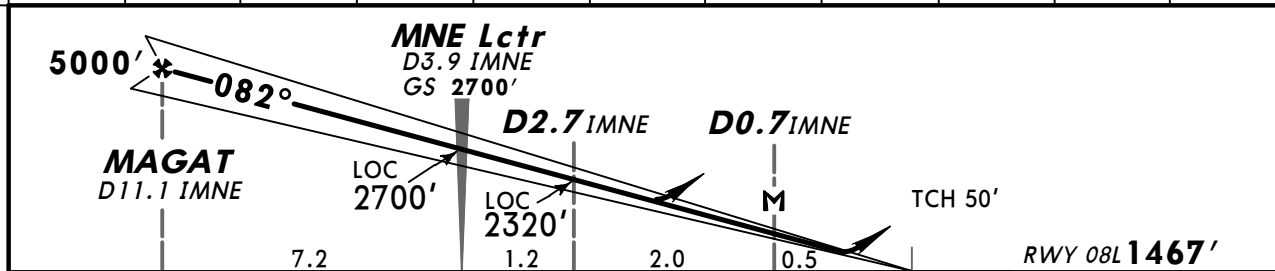


TURN RIGHT

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	128.02	123.9	118.82	118.7	121.97
LOC IMNE 109.5	Final Apch Crs 082°	GS MNE Lctr 2700' (1233')	ILS DA(H) 1667' (200')	Apt Elev 1487' RWY 1467'	3300' 075° ← 295° 3700' ②
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 East of DMN or 1900', whichever is later, then turn LEFT to MIQ NDB climbing to 5000'.					MSA MNW Lctr
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					
DME required.					



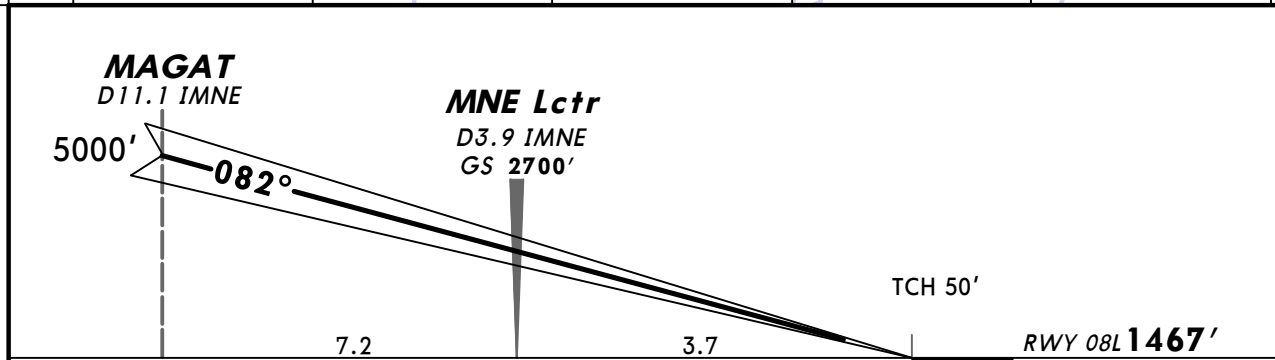
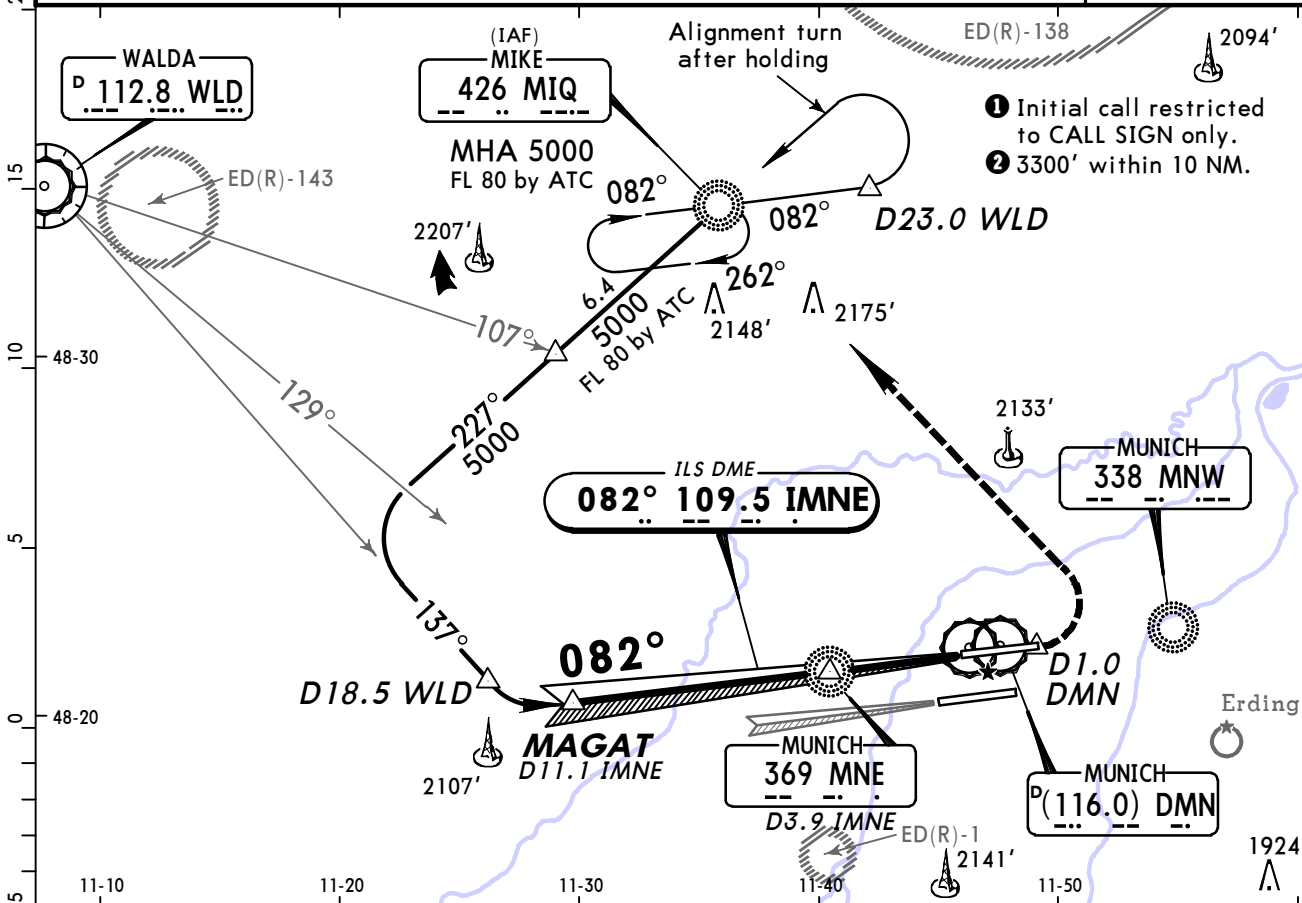
LOC (GS out)	IMNE DME	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0
	ALTITUDE	4960'	4640'	4320'	4010'	3690'	3370'	3050'	2730'	2410'



Gnd speed-Kts	70	90	100	120	140	160		ALS F-II	PAPI	D1.0 East of DMN	1900'
ILS GS or LOC Descent Angle 3.00°	377	485	539	647	755	862				↑	↑
MAP at D0.7 IMNE										↑	↑

STRAIGHT-IN LANDING RWY 08L					LOC (GS out)	
ILS			LOC (GS out)			
DA(H) 1667' (200')			DA(H) 1860' (393')			
FULL	Limited	ALS out	FULL	Limited	ALS out	
A						RVR 1500m
B						
C	RVR 550m	RVR 750m	RVR 1200m	RVR 1100m		RVR 1800m
D						

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	128.02	123.9	118.82	118.7	121.97
LOC IMNE 109.5	Final Apch Crs 082°	GS MNE Lctr 2700' (1233')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 1487' RWY 1467'	3300' 075° ← 295° 3700' ② MSA MNW Lctr
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 East of DMN or 1900', whichever is later, then turn LEFT to MIQ NDB climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					
1. Special Aircrew & Acft Certification Required. 2. DME required.					



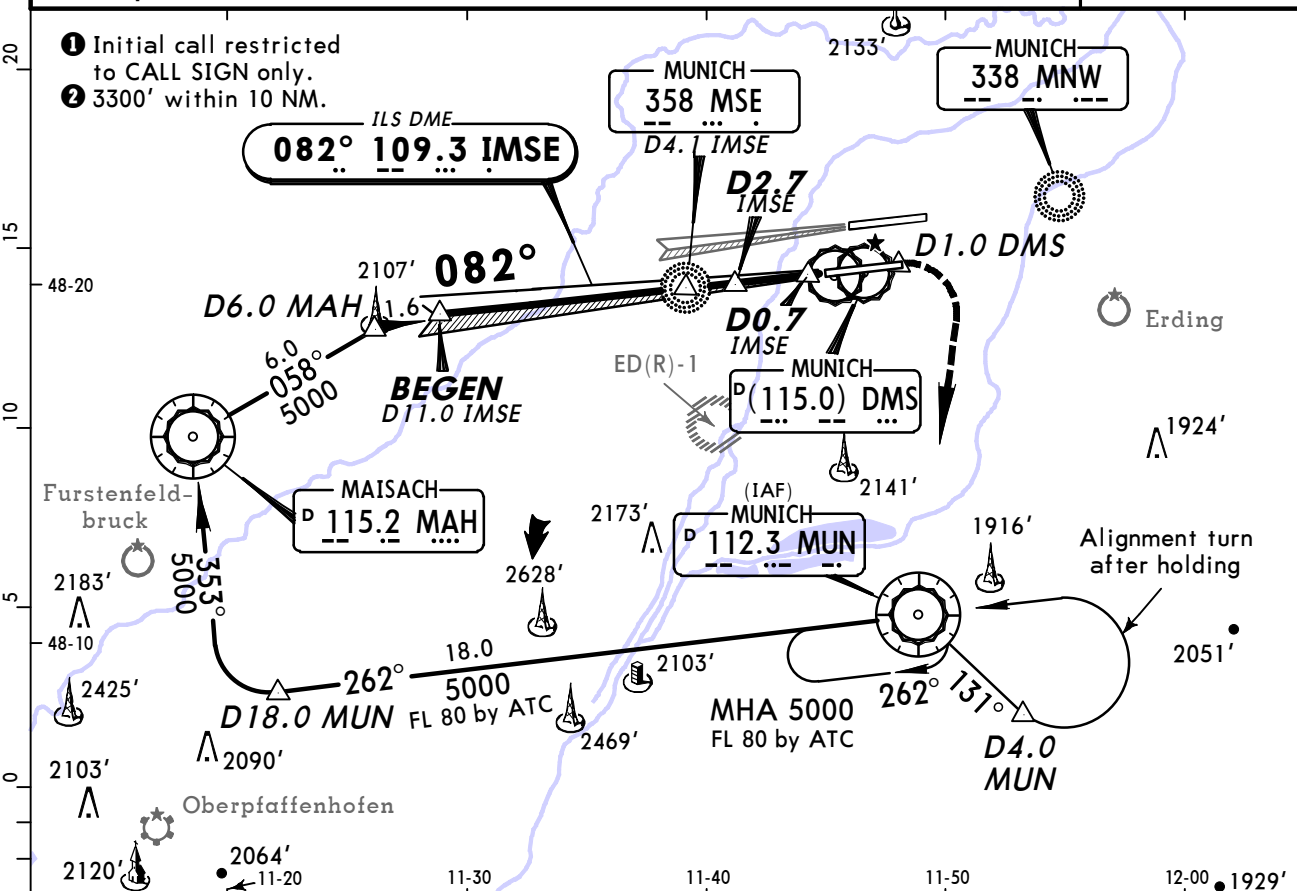
<i>Gnd speed-Kts</i>	70	90	100	120	140	160
<i>Gs</i> 3.00°	377	485	539	647	755	862

ALS-F-II
PAPI

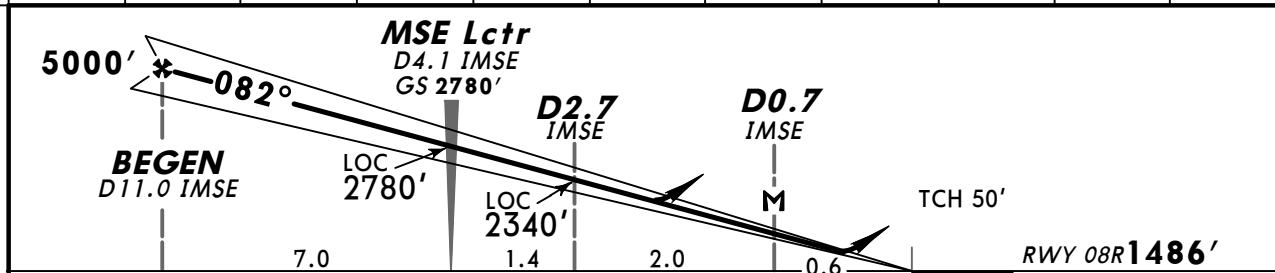
Standard		STRAIGHT-IN LANDING RWY 08L	
CAT IIIA ILS		CAT II ILS ABCD	
DH 50'		RA 104'	
RVR 200m		DA(H) 1567' (100')	
RVR 300m ①		RVR 300m ①	

BRIEFING STRIP

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	120.77	127.95	132.3	120.5	121.82
LOC IMSE 109.3	Final Apch Crs 082°	GS MSE Lctr 2780' (1294')	ILS DA(H) 1686' (200')	Apt Elev 1487' RWY 1486'	3300' 075° ← 295° 3700' ② MSA MNW Lctr
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 East of DMS or 1900', whichever is later, then turn RIGHT to MUN VOR climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					
DME required.					



LOC (GS out)	IMSE DME	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	4660'	4340'	4020'	3710'	3390'	3070'	2750'	2430'	2110'

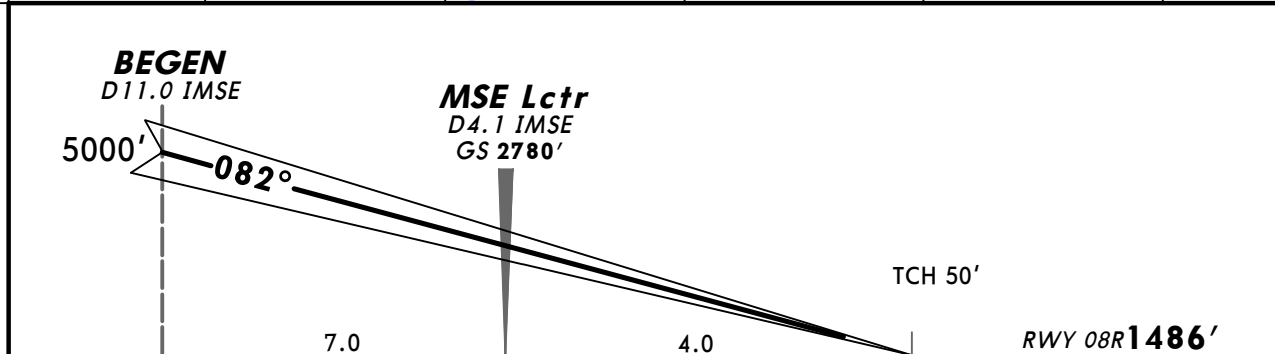
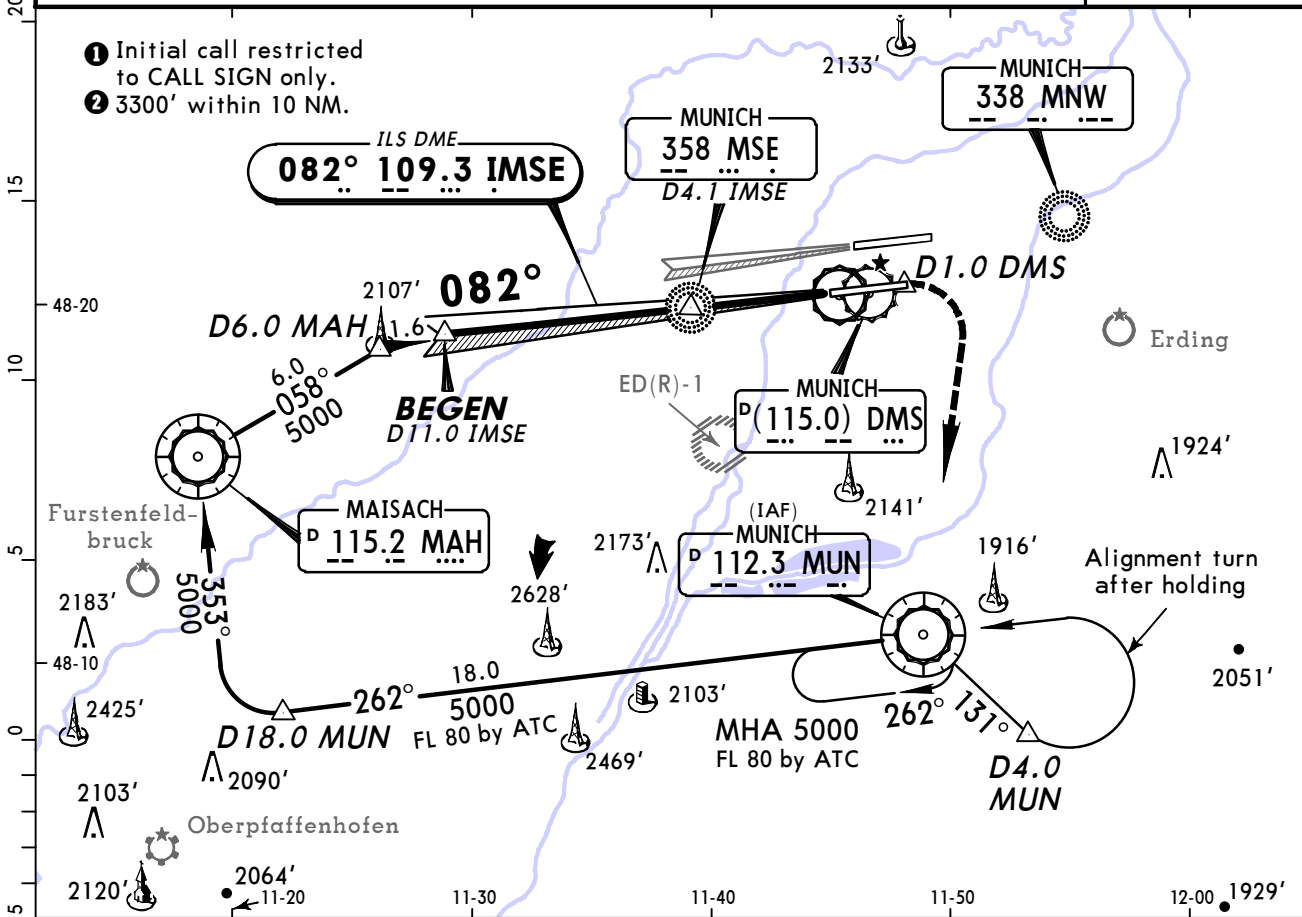


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	D1.0 East of DMS ↑ which ever is later ↑	1900'
ILS GS or LOC Descent Angle 3.00°	377	485	539	647	755	862			
MAP at D0.7 IMSE									

STRAIGHT-IN LANDING RWY 08R					LOC (GS out)	
ILS						
DA(H) 1686' (200')			DA(H) 1870' (384')			
FULL	Limited	ALS out	ALS out			
A					RVR 1500m	
B						
C	RVR 550m	RVR 750m	RVR 1200m	RVR 1100m	RVR 1800m	
D						

BRIEFING STRIP™

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ❶	MUNICH Tower	Ground
123.12	120.77	127.95	132.3	120.5	121.82
LOC IMSE 109.3	Final Aptch Crs 082°	GS MSE Lctr 2780' (1294')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 1487' RWY 1486'	3300' 075° ← → 295° 3700' ❷ MSA MNW Lctr
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 East of DMS or 1900', whichever is later, then turn RIGHT to MUN VOR climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000' 1. Special Aircrew & Acft Certification Required. 2. DME required.					

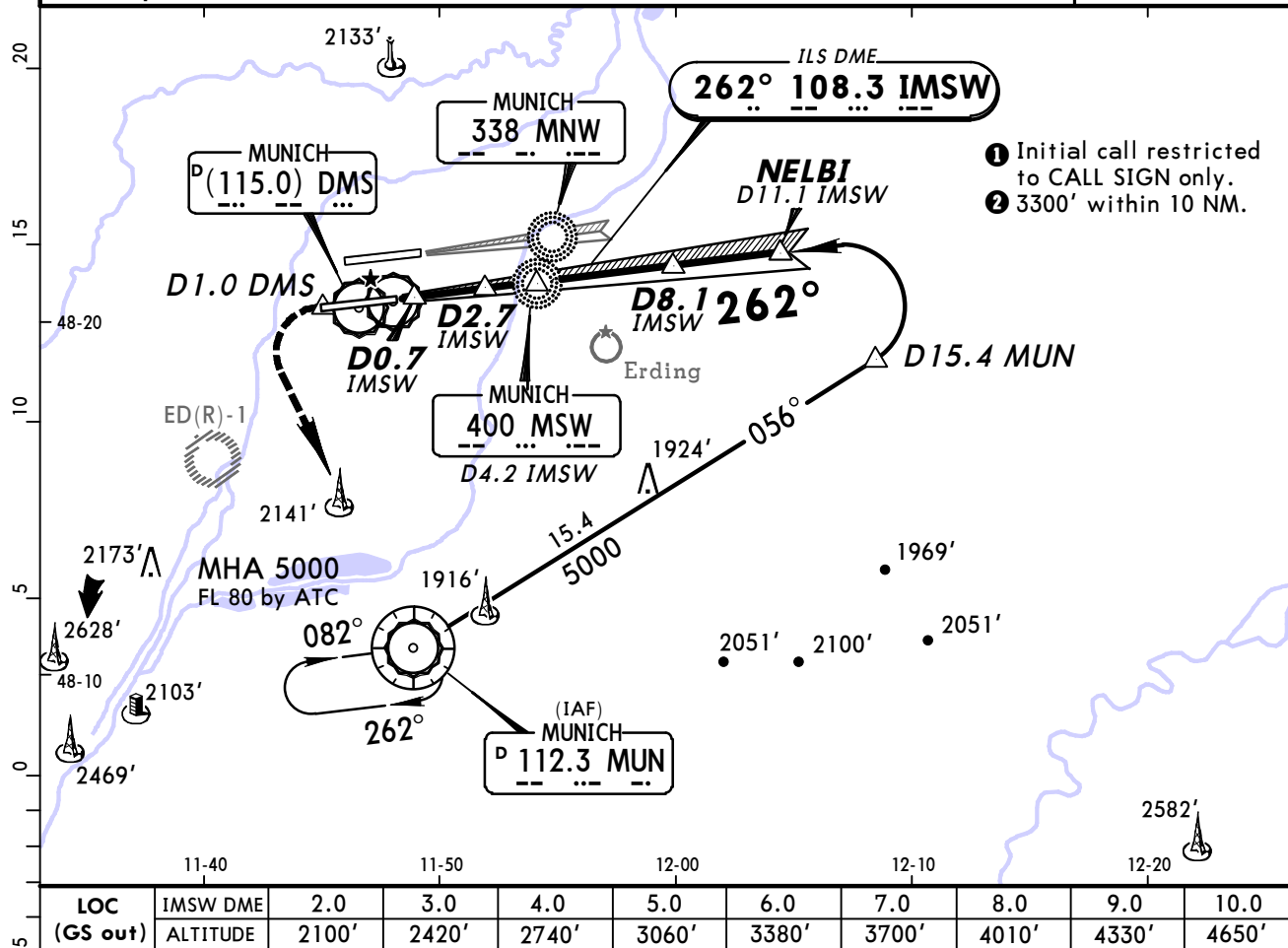


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	D1.0 East of DMS ↑ whichever is later ↑ 1900'
GS	3.00°	377	485	539	647	755		

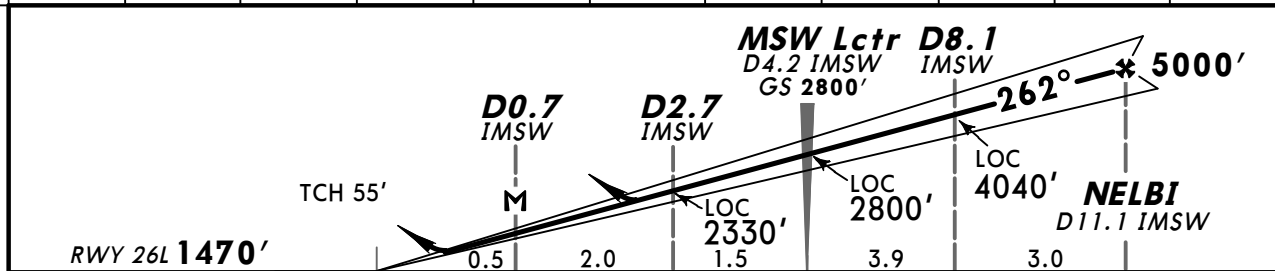
Standard		STRAIGHT-IN LANDING RWY 08R	
CAT IIIA ILS		CAT II ILS ABCD	
DH 50'		RA 101' DA(H) 1586' (100')	
RVR 200m		RVR 300m ①	

BRIEFING STRIP

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	120.77	127.95	132.3	120.5	121.82
LOC IMSW 108.3	Final Apch Crs 262°	GS MSW Lctr 2800' (1330')	ILS DA(H) 1670' (200')	Apt Elev 1487' RWY 1470'	3300' 075° ← → 295° 3700' ② MSA MNW Lctr
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 West of DMS or 1900', whichever is later, then turn LEFT to MUN VOR climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					
DME required.					



- ① Initial call restricted to CALL SIGN only.
- ② 3300' within 10 NM.



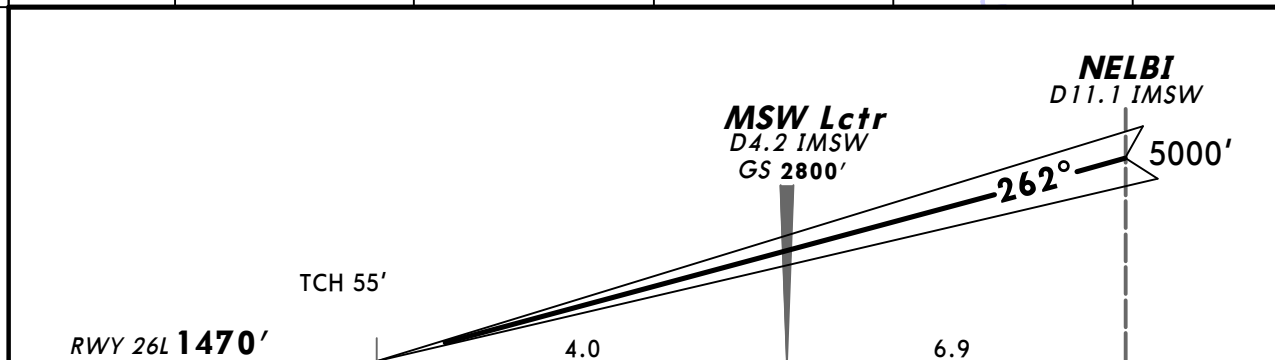
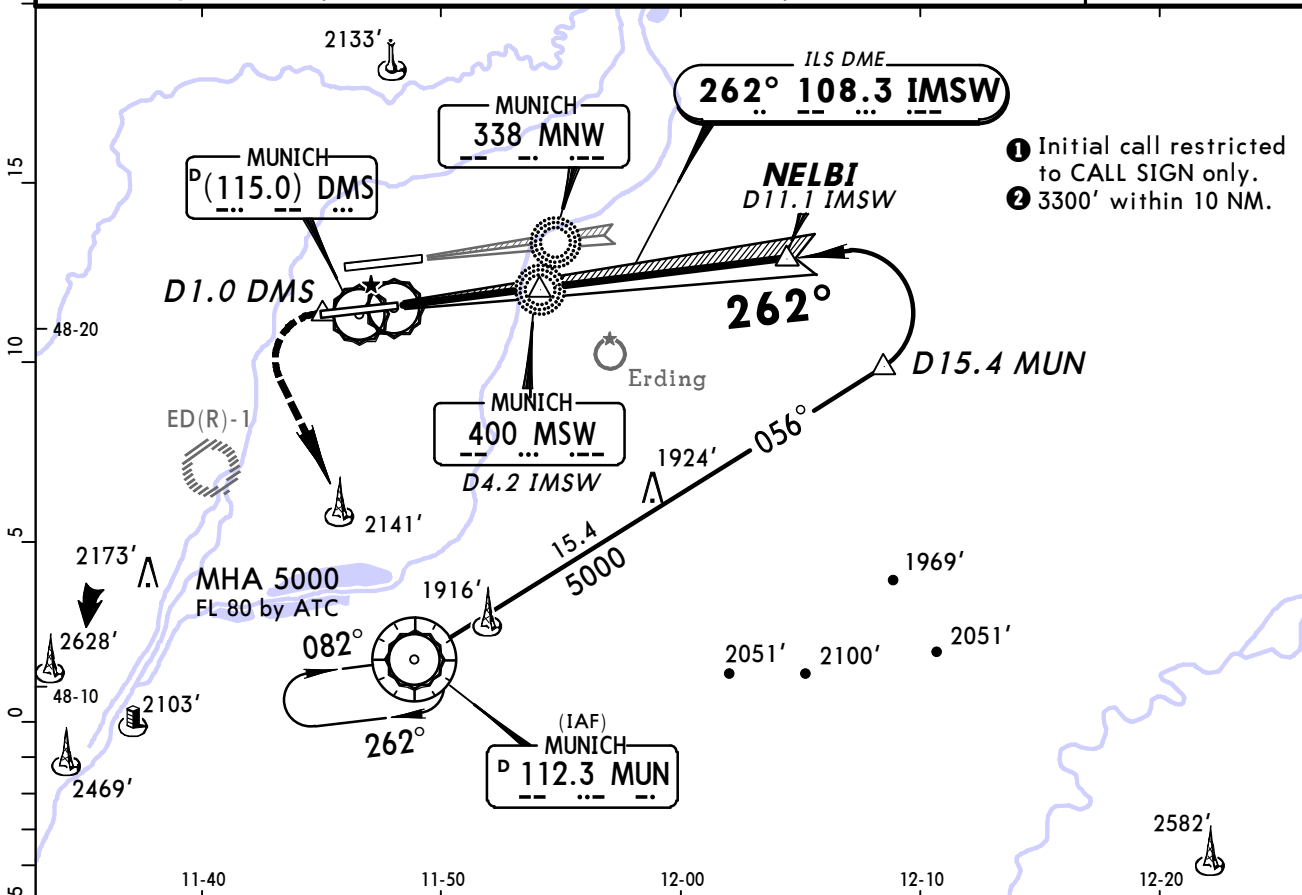
Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II PAPI		D1.0 West of DMS	1900'
ILS GS or LOC Descent Angle 3.00°	377	485	539	647	755	862			↑	↑
MAP at D0.7 IMSW									↑	↑

STRAIGHT-IN LANDING RWY 26L					LOC (GS out)	
ILS			LOC (GS out)			
DA(H) 1670' (200')			DA(H) 1880' (410')			
FULL	Limited	ALS out	FULL	Limited	ALS out	
A						RVR 1500m
B						
C	RVR 550m	RVR 750m	RVR 1200m	RVR 1200m		RVR 1900m
D						

BRIEFING STRIP™

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ❶	MUNICH Tower	Ground
123.12	120.77	127.95	132.3	120.5	121.82
LOC IMSW 108.3	Final Apch Crs 262°	GS MSW Lctr 2800' (1330')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 1487' RWY 1470'	3300' 075° ← → 295° 3700' ❷ MSA MNW Lctr
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 West of DMS or 1900', whichever is later, then turn LEFT to MUN VOR climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					
1. DME required. 2. Special Aircrew & Acft Certification Required.					

20



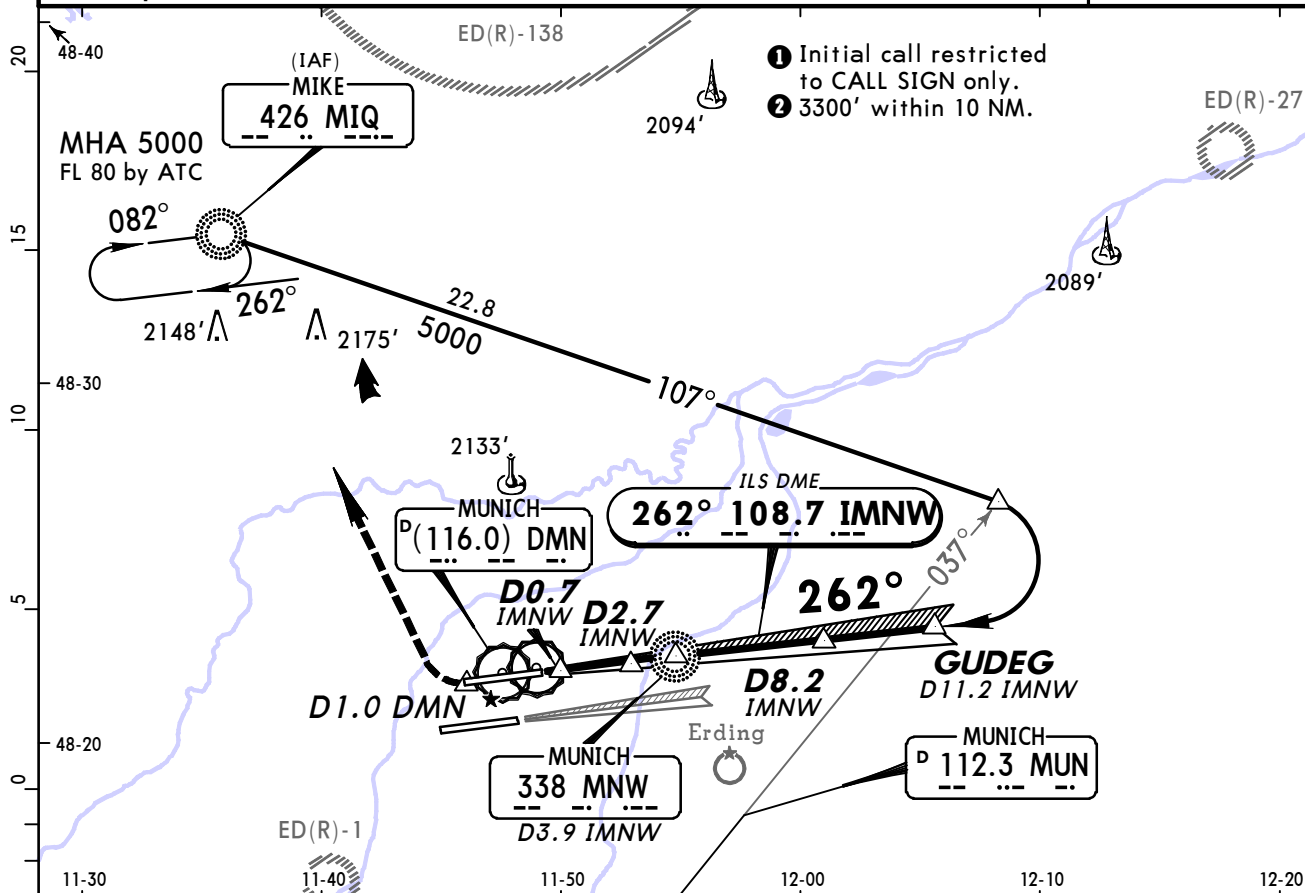
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	D1.0 West of DMS	1900'
GS	3.00°	377	485	539	647	755			

STRAIGHT-IN LANDING RWY 26L	
CAT IIIA ILS	CAT II ILS ABCD
DH 50'	RA 106' DA(H) 1570' (100')
RVR 200m	RVR 300m ①

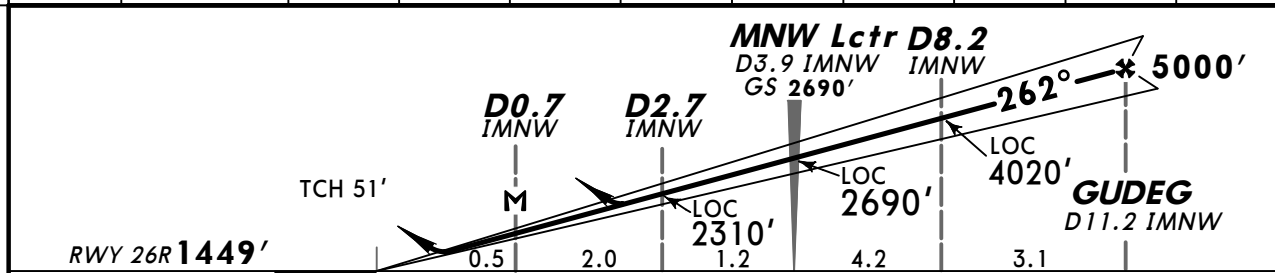
① Operators applying U.S. Ops Specs: Autoland or HUD required below RVR 350m.

BRIEFING STRIP

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	128.02	123.9	118.82	118.7	121.97
LOC IMNW 108.7	Final Aptch Crs 262°	GS MNW Lctr 2690' (1241')	ILS DA(H) 1649' (200')	Apt Elev 1487' RWY 1449'	3300' 075° ← → 295° 3700' ② MSA MNW Lctr
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 West of DMN or 1900', whichever is later, then turn RIGHT to MIQ NDB climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 52 hPa Trans level: By ATC Trans alt: 5000' DME required.					



LOC (GS out)	IMNW DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
	ALTITUDE	2080'	2400'	2710'	3030'	3350'	3670'	3990'	4310'	4630'

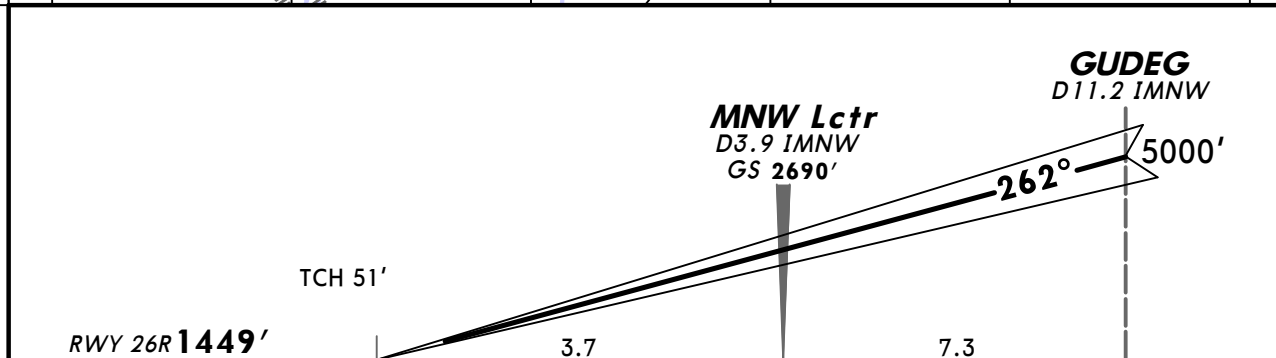
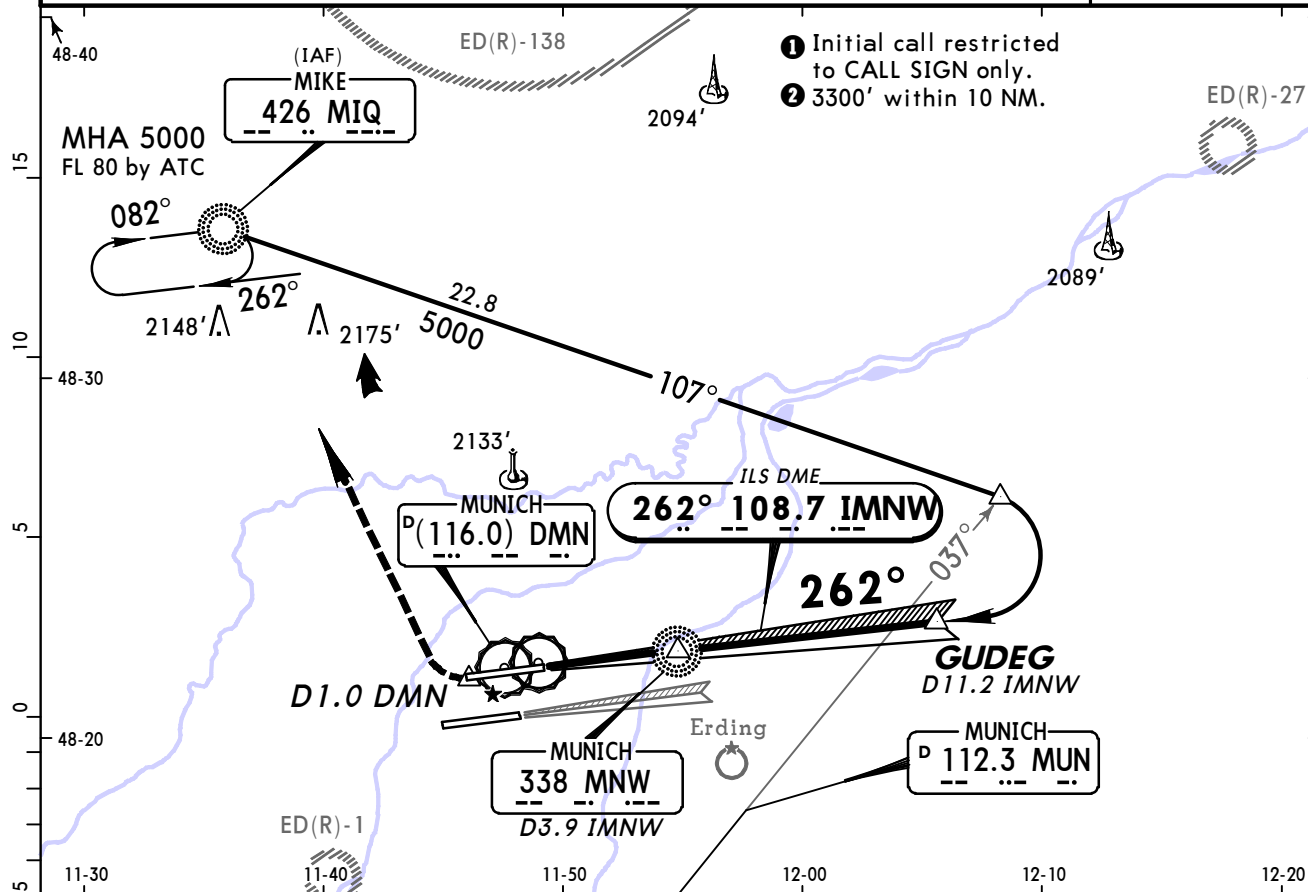


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	D1.0 West of DMN ↑ which ever is later ↑	1900'
ILS GS or LOC Descent Angle 3.00°	377	485	539	647	755	862			
MAP at D0.7 IMNW									

PANS OPS 4	STRAIGHT-IN LANDING RWY 26R			
	ILS			LOC (GS out)
	DA(H) 1649' (200')			DA(H) 1860' (411')
	FULL	Limited	ALS out	ALS out
	A			RVR 1500m
B				
C	RVR 550m	RVR 750m	RVR 1200m	RVR 1200m
D				RVR 1900m

BRIEFING STRIP™

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ❶	MUNICH Tower	Ground
123.12	128.02	123.9	118.82	118.7	121.97
LOC IMNW 108.7	Final Apch Crs 262°	GS MNW Lctr 2690' (1241')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 1487' RWY 1449'	3300' 075° ← → 295° 3700' ❷ MSA MNW Lctr
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 West of DMN or 1900', whichever is later, then turn RIGHT to MIQ NDB climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 52 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Special Aircrew & Acft Certification Required.					

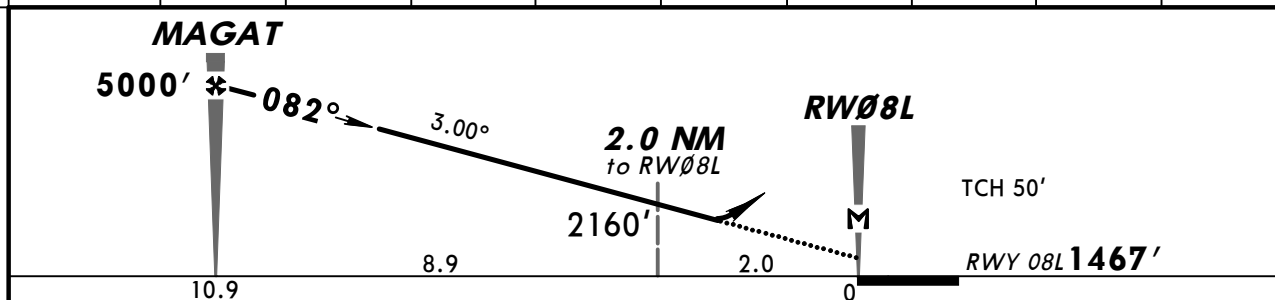
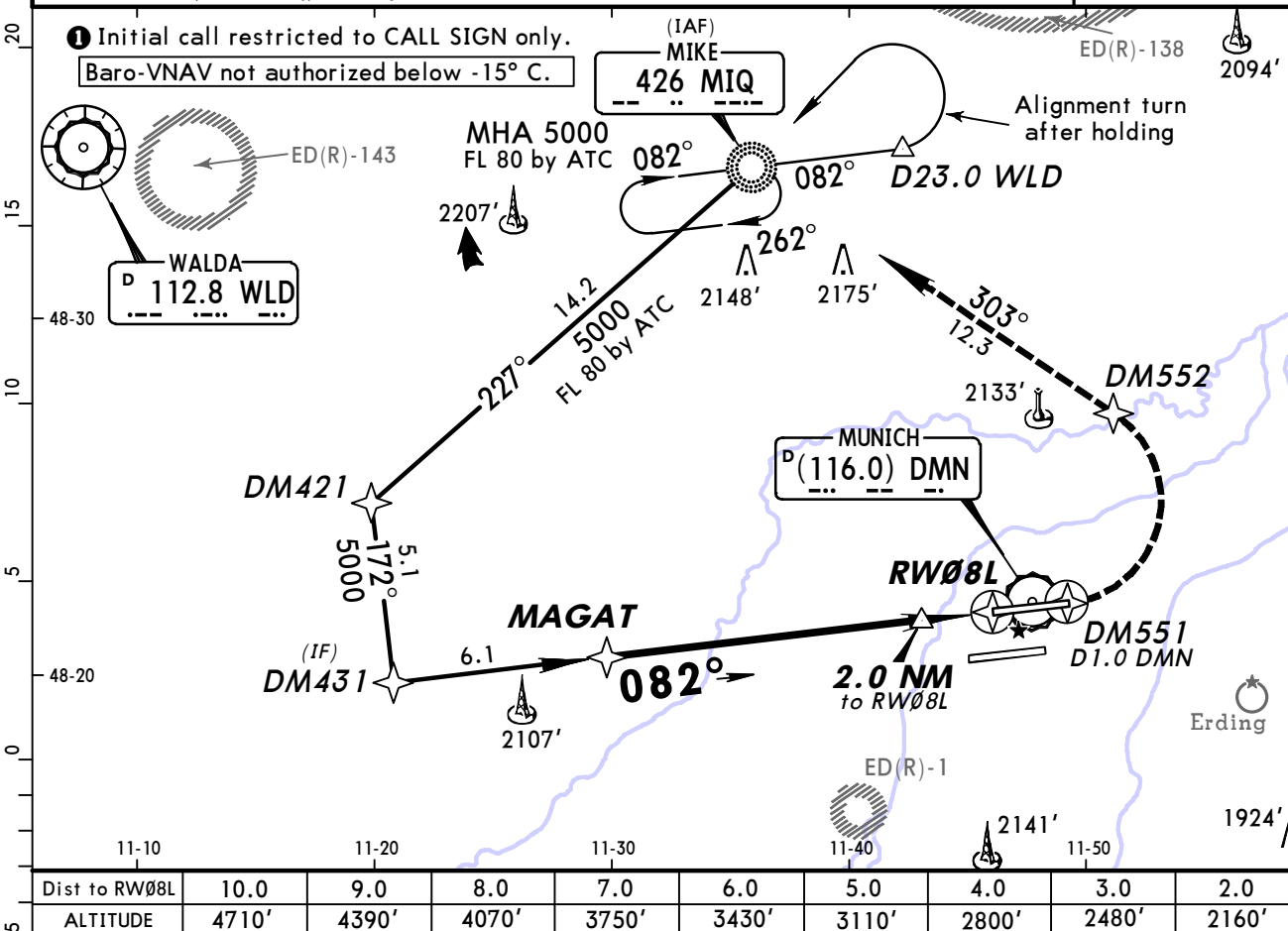


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	D1.0 West of DMN ↑ which ever is later ↑	1900'
GS	3.00°	377	485	539	647	755			

PANS OPS 4	STRAIGHT-IN LANDING RWY 26R	
	CAT IIIA ILS	CAT II ILS ABCD
	DH 50' RVR 200m	RA 105' DA(H) 1549' (100') RVR 300m ①

BRIEFING STRIP

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	128.02	123.9	118.82	118.7	121.97
RNAV	Final Aptch Crs 082°	Minimum Alt MAGAT 5000' (3533')	LNAV/VNAV DA(H) 1890' (423')	Apt Elev 1487' RWY1467'	3700' MSA ARP
MISSED APCH: RNAV: Climb on 082° to DM551 or 1900', whichever is later, then turn LEFT via DM552 onto 303° to NDB climbing to 5000'. NON-RNAV: Climb STRAIGHT AHEAD to D1.0 East of DMN or 1900', whichever is later, then turn LEFT to NDB climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					



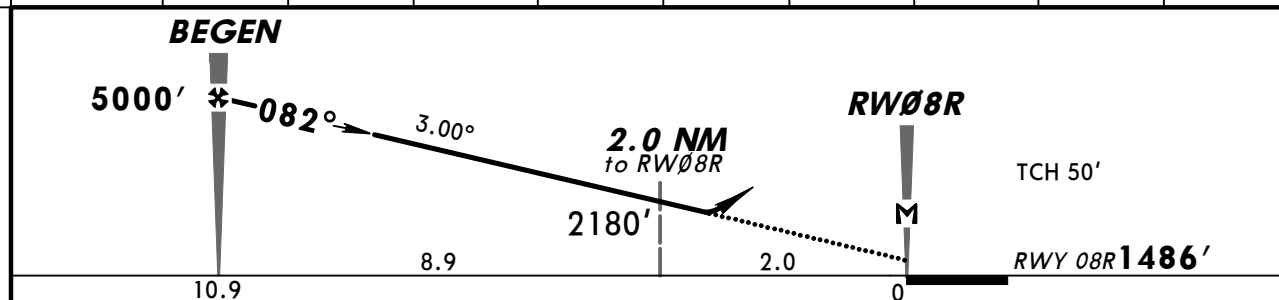
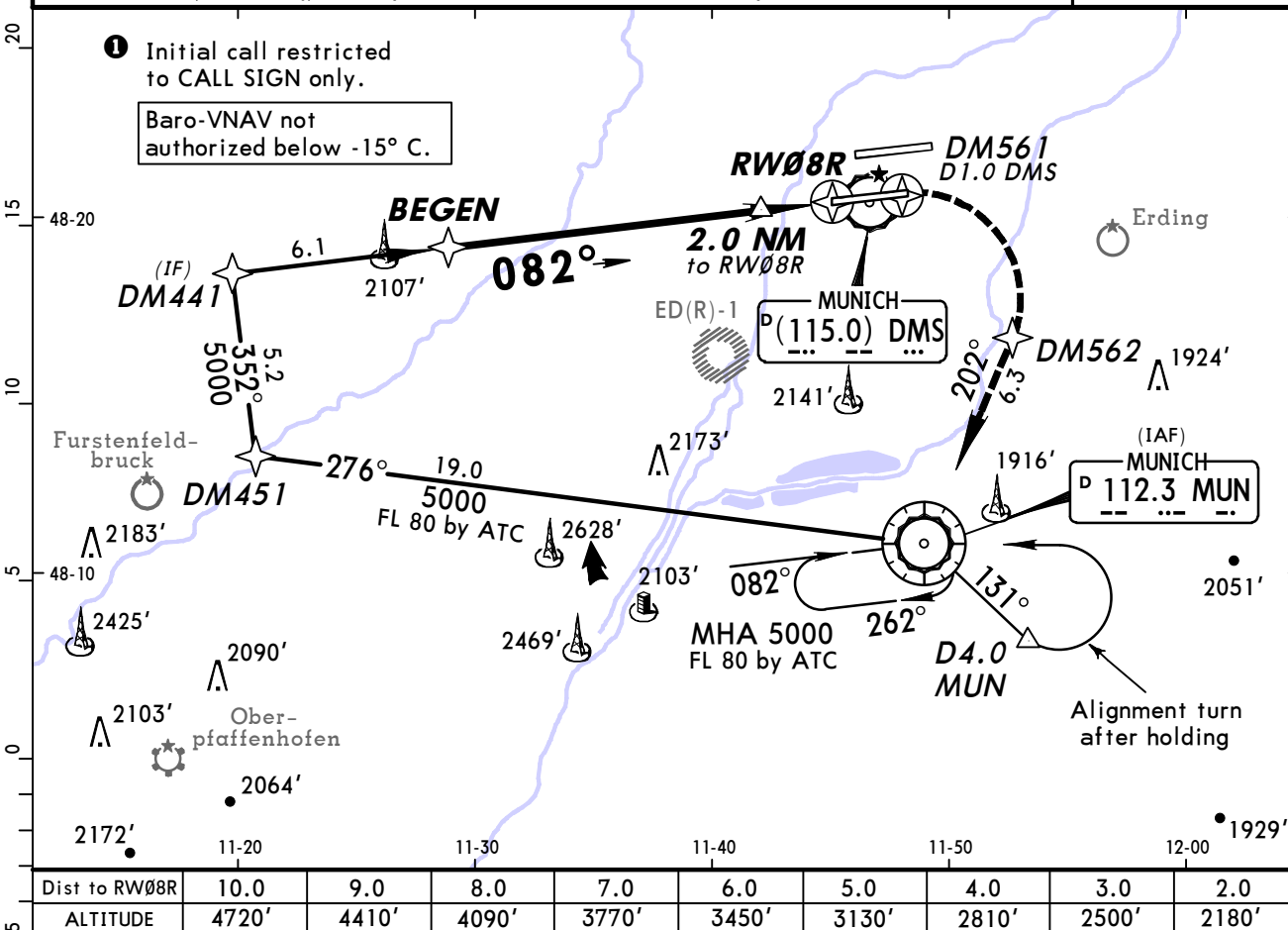
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI		Refer to Missed Apch above
Descent Angle 3.00°	372	478	531	637	743	849			
MAP at RW08L									

STRAIGHT-IN LANDING RWY 08L			
LNAV/VNAV		LNAV	
DA(H) 1890' (423')		DA(H) 1950' (483')	
ALS out		ALS out	
A	RVR 1500m		RVR 1500m
	RVR 1500m		CMV 2300m
	RVR 2000m		
B	RVR 1500m		
C	RVR 1500m		
D	RVR 1500m		

PANS OPS 4

BRIEFING STRIP™

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	120.77	127.95	132.3	120.5	121.82
RNAV	Final Aptch Crs 082°	Minimum Alt BEGEN 5000' (3514')	LNAV/VNAV DA(H) 2010' (524')	Apt Elev 1487' RWY 1486'	3700' MSA ARP
MISSED APCH: RNAV: Climb on 082° to DM561 or 1900', whichever is later, then turn RIGHT via DM562 onto 202° to VOR climbing to 5000'. NON-RNAV: Climb STRAIGHT AHEAD to D1.0 East of DMS or 1900', whichever is later, then turn RIGHT to VOR climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					

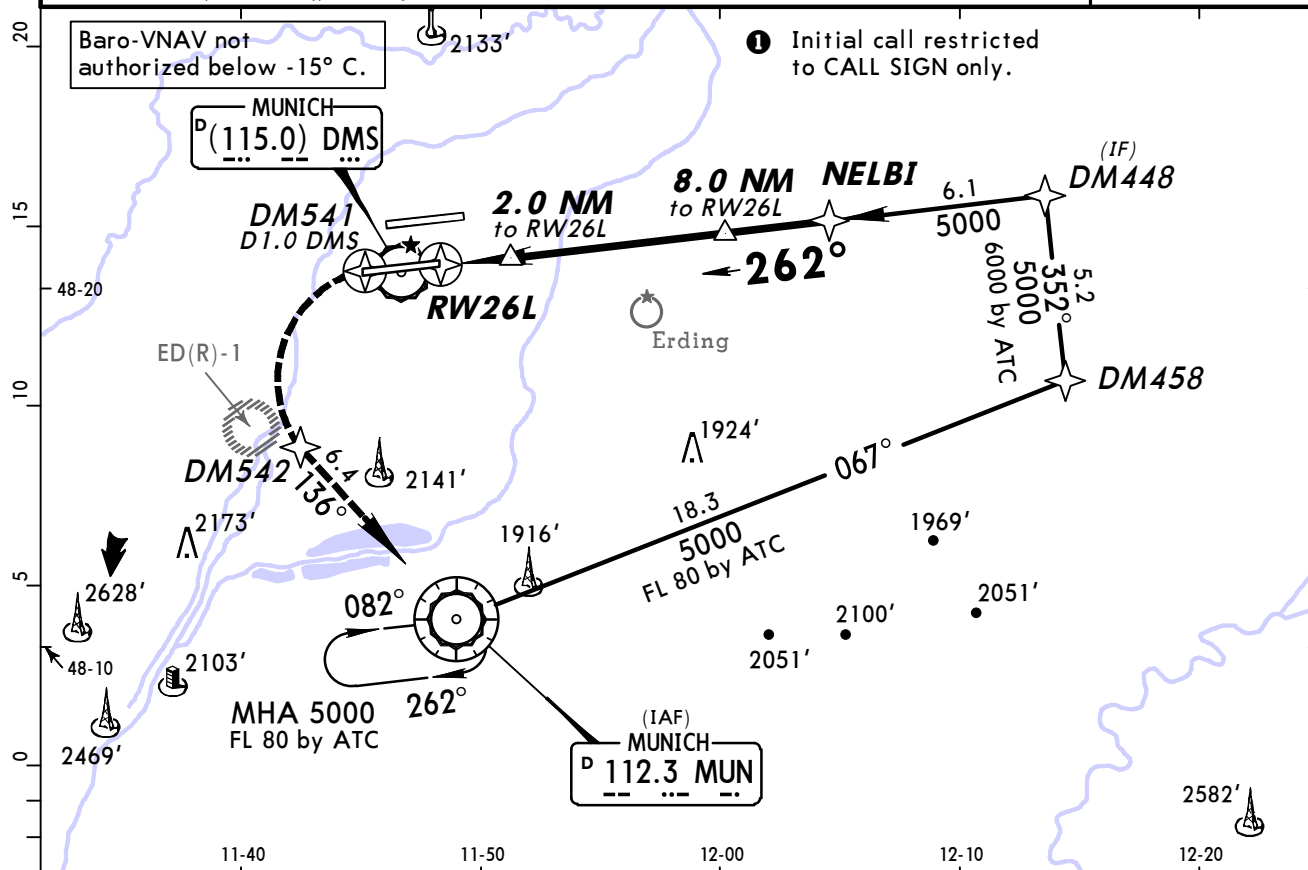


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI Refer to Missed Apch above	
Descent Angle	3.00°	372	478	531	637	743		
MAP at RW08R								

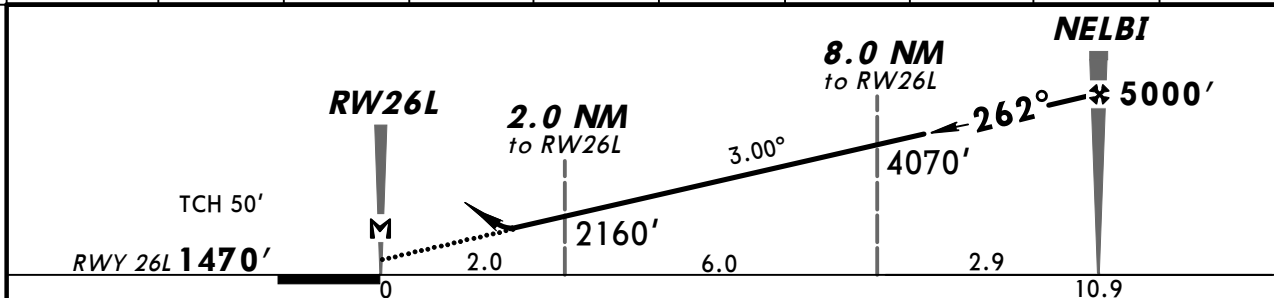
STRAIGHT-IN LANDING RWY 08R			
LNAV/VNAV		LNAV	
DA(H) 2010' (524')		DA(H) 2010' (524')	
ALS out		ALS out	
A	RVR 1500m		RVR 1500m
B	RVR 1500m		RVR 1500m
C	RVR 1700m	CMV 2400m	RVR 1700m
D	RVR 1700m	CMV 2400m	RVR 1700m

BRIEFING STRIP™

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	120.77	127.95	132.3	120.5	121.82
RNAV	Final Aptch Crs 262°	Minimum Alt NELBI 5000' (3530')	LNAV/VNAV DA(H) 1900' (430')	Apt Elev 1487' RWY 1470'	3700' MSA ARP
MISSED APCH: RNAV: Climb on 262° to DM541 or 1900', whichever is later, then turn LEFT via DM542 onto 136° to VOR climbing to 5000'. NON-RNAV: Climb STRAIGHT AHEAD to D1.0 West of DMS or 1900', whichever is later, then turn LEFT to VOR climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					



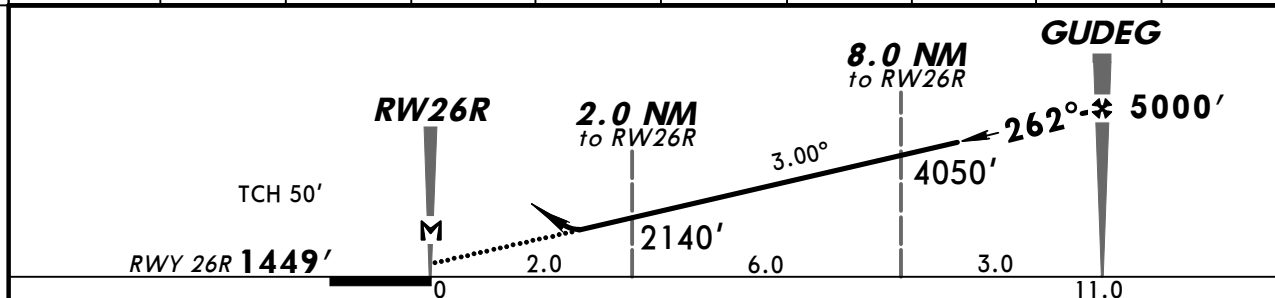
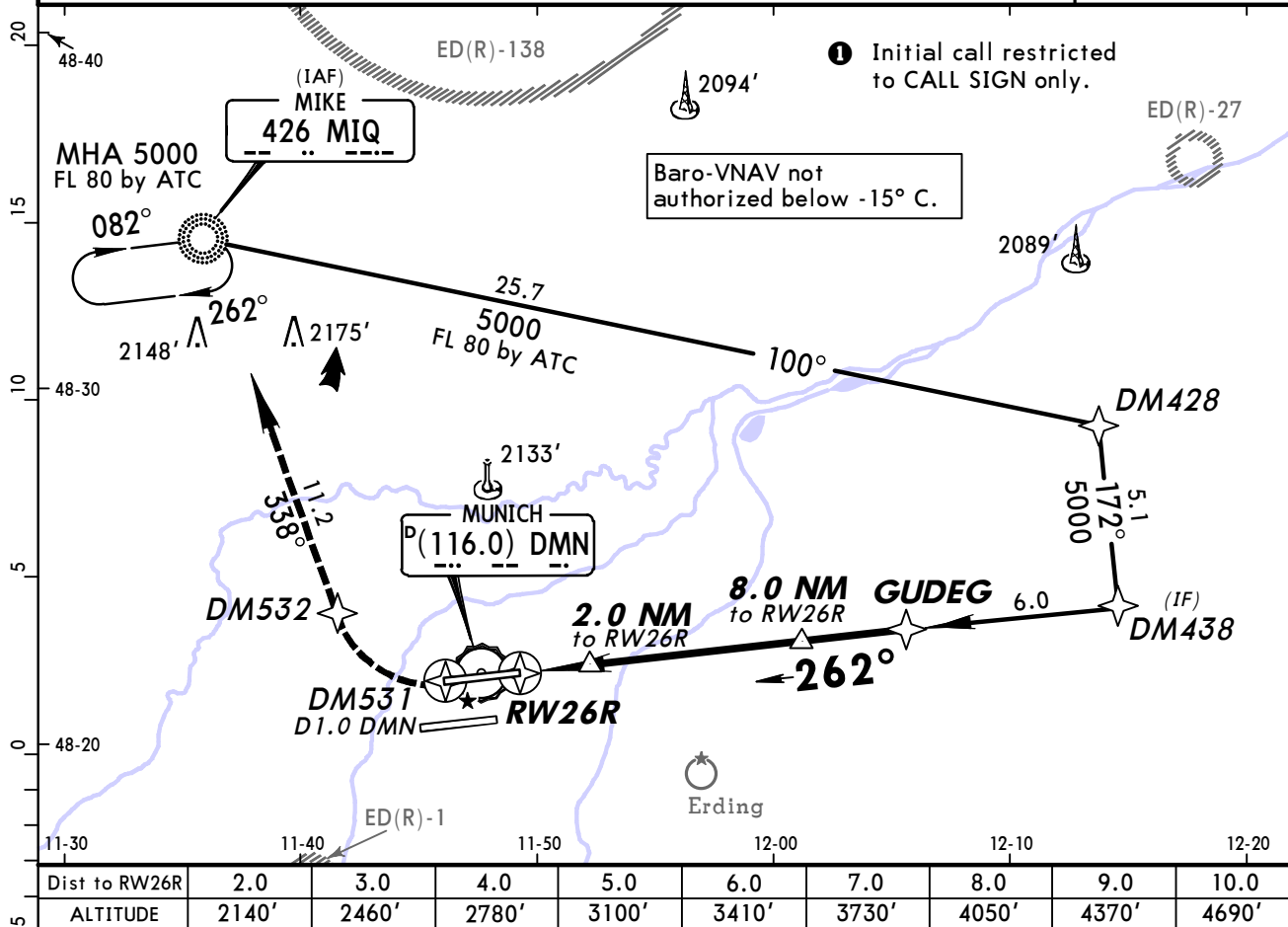
Dist to RW26L	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	2160'	2480'	2800'	3120'	3440'	3750'	4070'	4390'	4710'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI Refer to Missed Apch above
Descent Angle 3.00°	372	478	531	637	743	849	
MAP at RW26L							

Standard				STRAIGHT-IN LANDING RWY 26L			
LNAV/VNAV				LNAV			
DA(H) 1900' (430')				DA(H) 1980' (510')			
ALS out				ALS out			
A	RVR 1300m			RVR 1500m			
B				RVR 1500m			
C				RVR 1600m			
D				CMV 2400m			

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ①	MUNICH Tower	Ground
123.12	128.02	123.9	118.82	118.7	121.97
RNAV	Final Aptch Crs 262°	Minimum Alt GUDEG 5000' (3551')	LNAV/VNAV DA(H) 2010' (561')	Apt Elev 1487' RWY1449'	3700' MSA ARP
MISSED APCH: RNAV: Climb on 262° to DM531 or 1900', whichever is later, then turn RIGHT via DM532 onto 338° to NDB climbing to 5000'. NON-RNAV: Climb STRAIGHT AHEAD to D1.0 West of DMN or 1900', whichever is later, then turn RIGHT to NDB climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 52 hPa Trans level: By ATC Trans alt: 5000'					

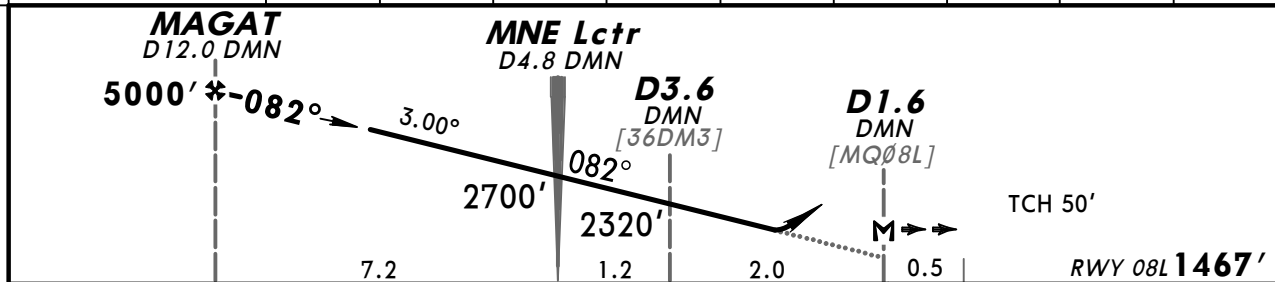
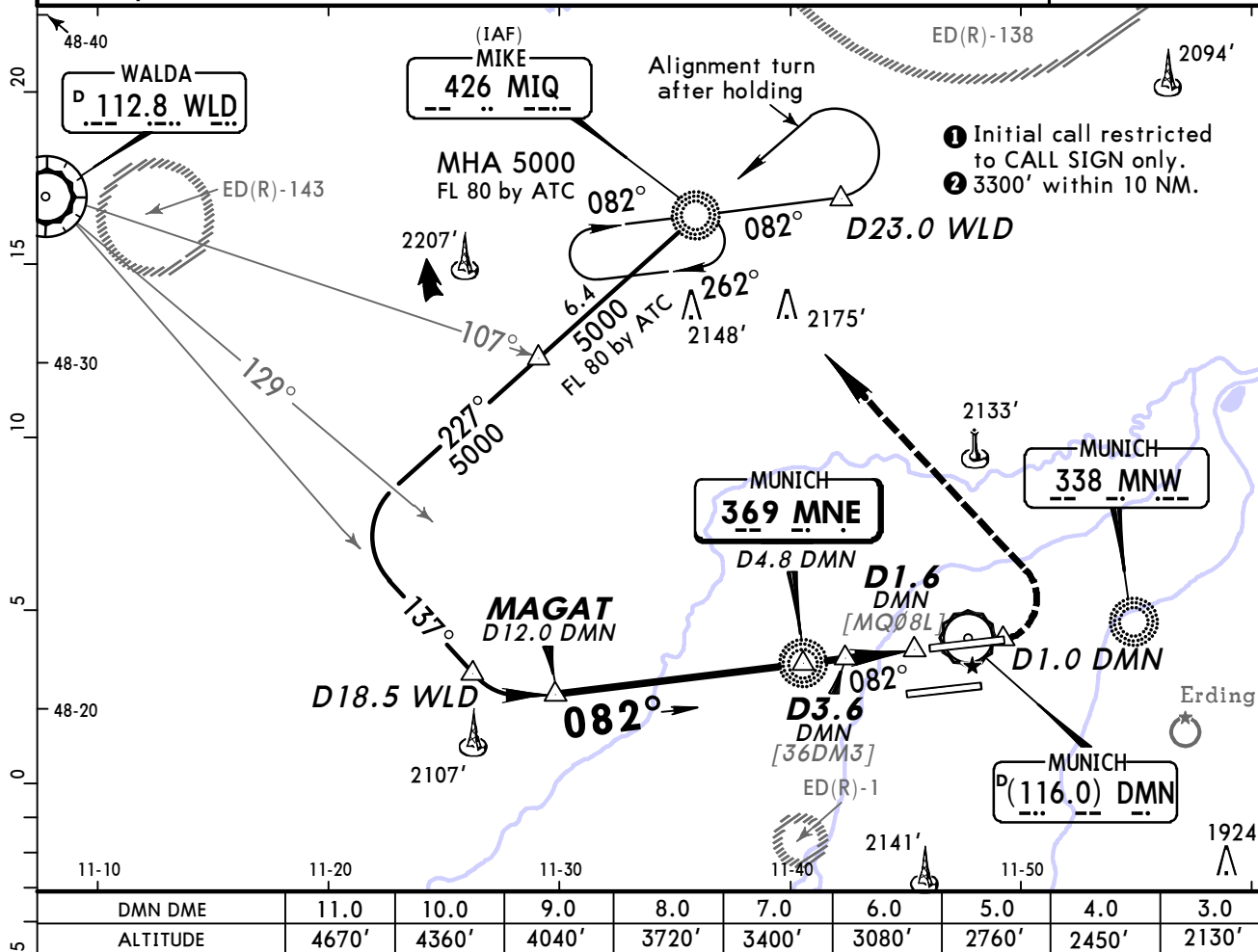


Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	Refer to Missed Apch above
Descent Angle	3.00°	372	478	531	637	743		
MAP at RW26R								

PANS OPS 4	STRAIGHT-IN LANDING RWY 26R			
	LNAV/VNAV		LNAV	
	DA(H) 2010' (561')		DA(H) 2010' (561')	
	ALS out		ALS out	
A	RVR 1500m		RVR 1500m	
B	RVR 1500m		RVR 1500m	
C	RVR 1900m	CMV 2400m	RVR 1900m	CMV 2400m
D	RVR 1900m	CMV 2400m	RVR 1900m	CMV 2400m

BRIEFING STRIP™

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ❶	MUNICH Tower	Ground
123.12	128.02	123.9	118.82	118.7	121.97
Lctr MNE 369	Final Apch Crs 082°	Minimum Alt MAGAT 5000' (3533')	DA(H) 2010' (543')	Apt Elev 1487' RWY 1467'	3300' 075° ← → 295° 3700' ❷
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 East of DMN or 1900', whichever is later, then turn LEFT to MIQ NDB climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					
DME required.					
					MSA MNW Lctr



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
MAP at D1.6 DMN						

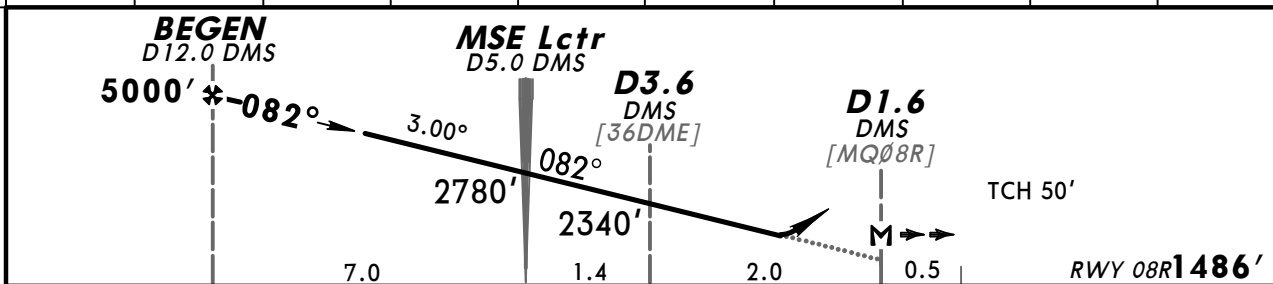
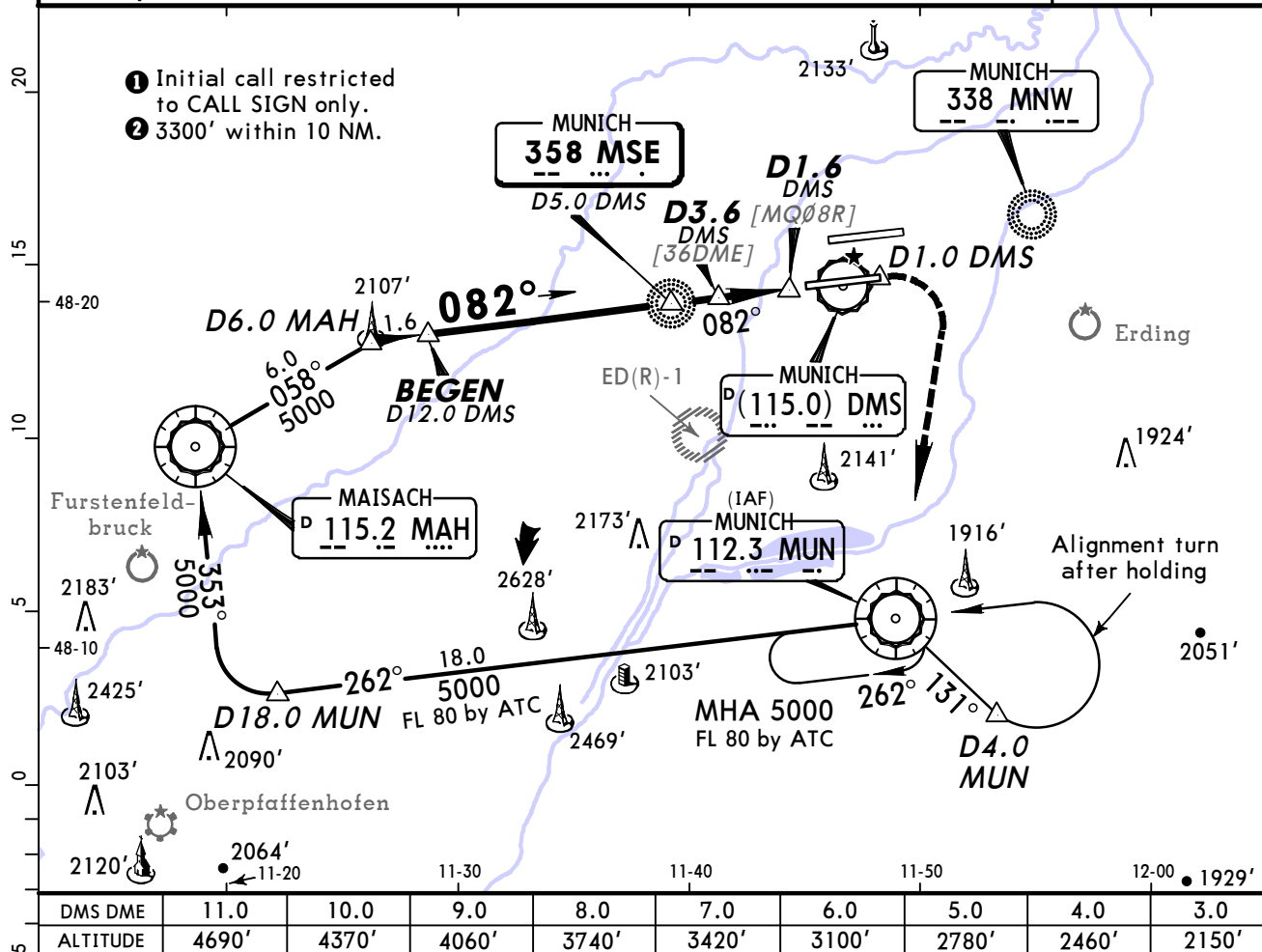
Standard STRAIGHT-IN LANDING RWY 08L

DA(H) 2010' (543')	ALS out
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A	RVR 1500m	
B		
C	RVR 1800m	CMV 2400m
D		

BRIEFING STRIP™

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director①	MUNICH Tower	Ground
123.12	120.77	127.95	132.3	120.5	121.82
Lctr MSE 358	Final Apch Crs 082°	Minimum Alt BEGEN 5000' (3514')	DA(H) 2050' (564')	Apt Elev 1487' RWY 1486'	3300' 075° ← → 295° 3700' ②
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 East of DMS or 1900', whichever is later, then turn RIGHT to MUN VOR climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					
DME required.					MSA MNW Lctr



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI 	D1.0 East of DMS which ever is later
Descent Angle 3.00°	372	478	531	637	743	849		
MAP at D1.6 DMS								

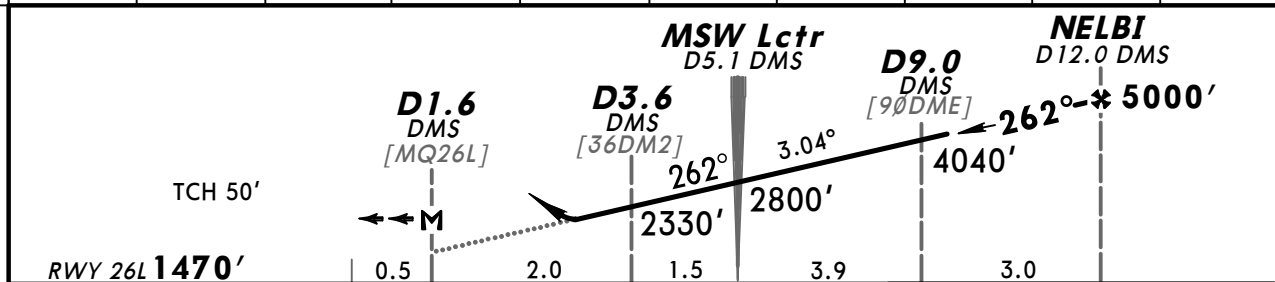
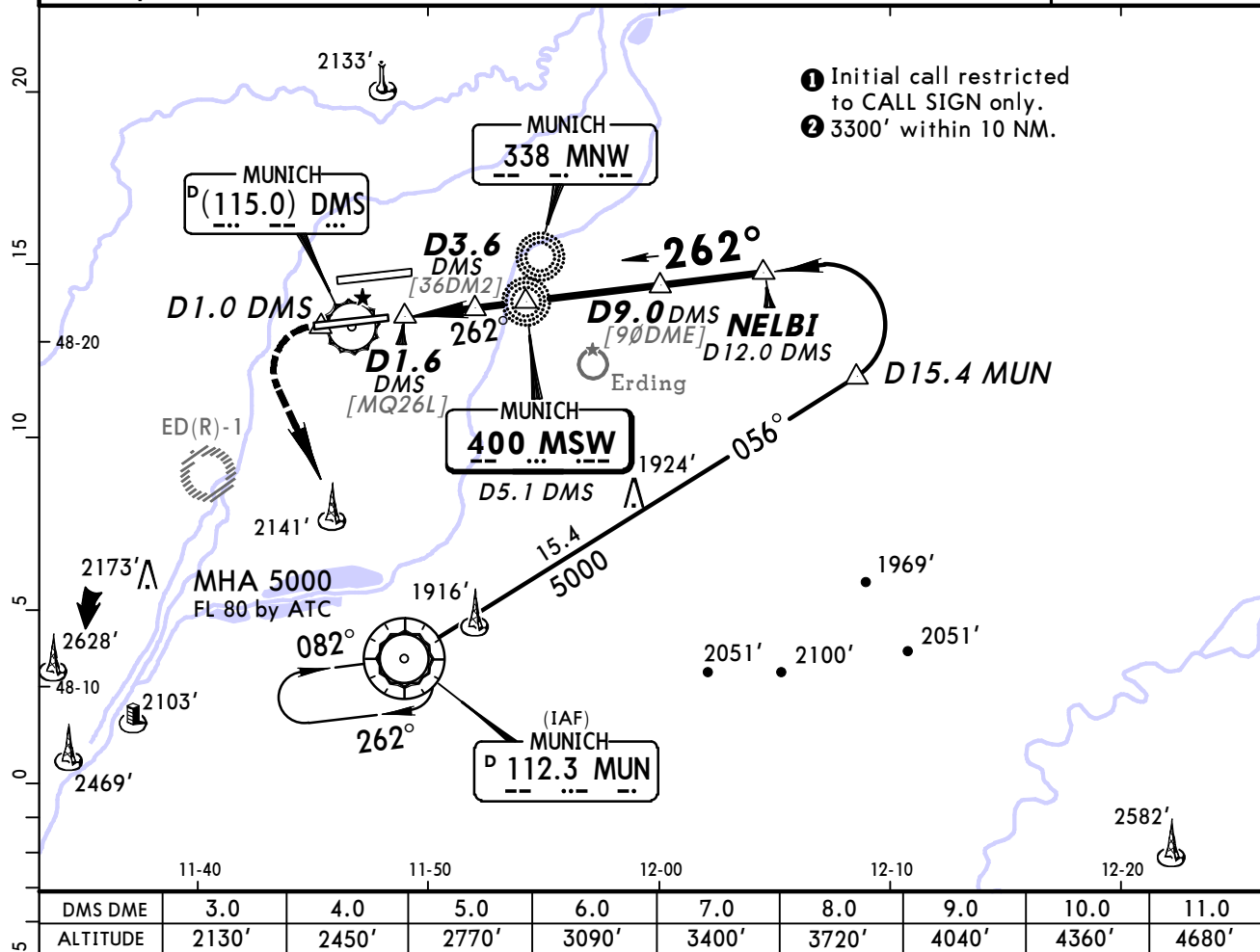
Standard STRAIGHT-IN LANDING RWY 08R

DA(H) 2050' (564')		ALS out
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A	RVR 1500m	
B		
C	RVR 1900m	CMV 2400m
D		

BRIEFING STRIP™

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ❶	MUNICH Tower	Ground
123.12	120.77	127.95	132.3	120.5	121.82
Lctr MSW 400	Final Apch Crs 262°	Minimum Alt NELBI 5000' (3530')	DA(H) 2020' (550')	Apt Elev 1487' RWY 1470'	3300' 075° ← → 295° 3700' ❷
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 West of DMS or 1900', whichever is later, then turn LEFT to MUN VOR climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 53 hPa Trans level: By ATC Trans alt: 5000'					
DME required.					
					MSA MNW Lctr



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II PAPI	D1.0 West of DMS	1900'
Descent Angle 3.04°	376	484	538	645	753	861		↑	↑
MAP at D1.6 DMS									

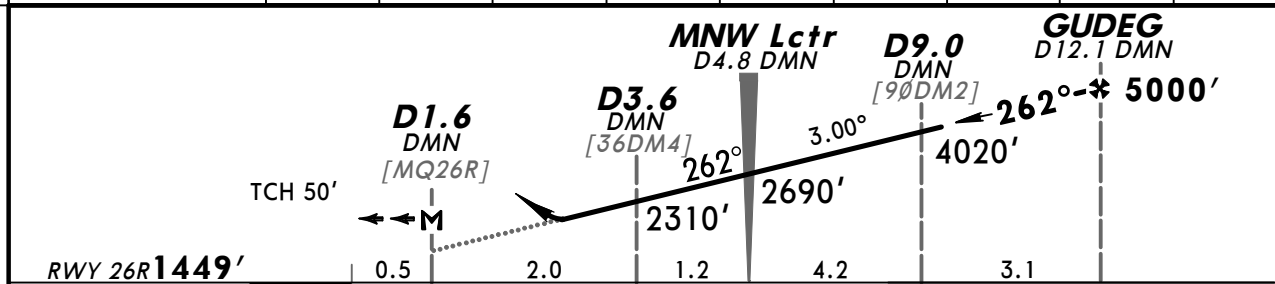
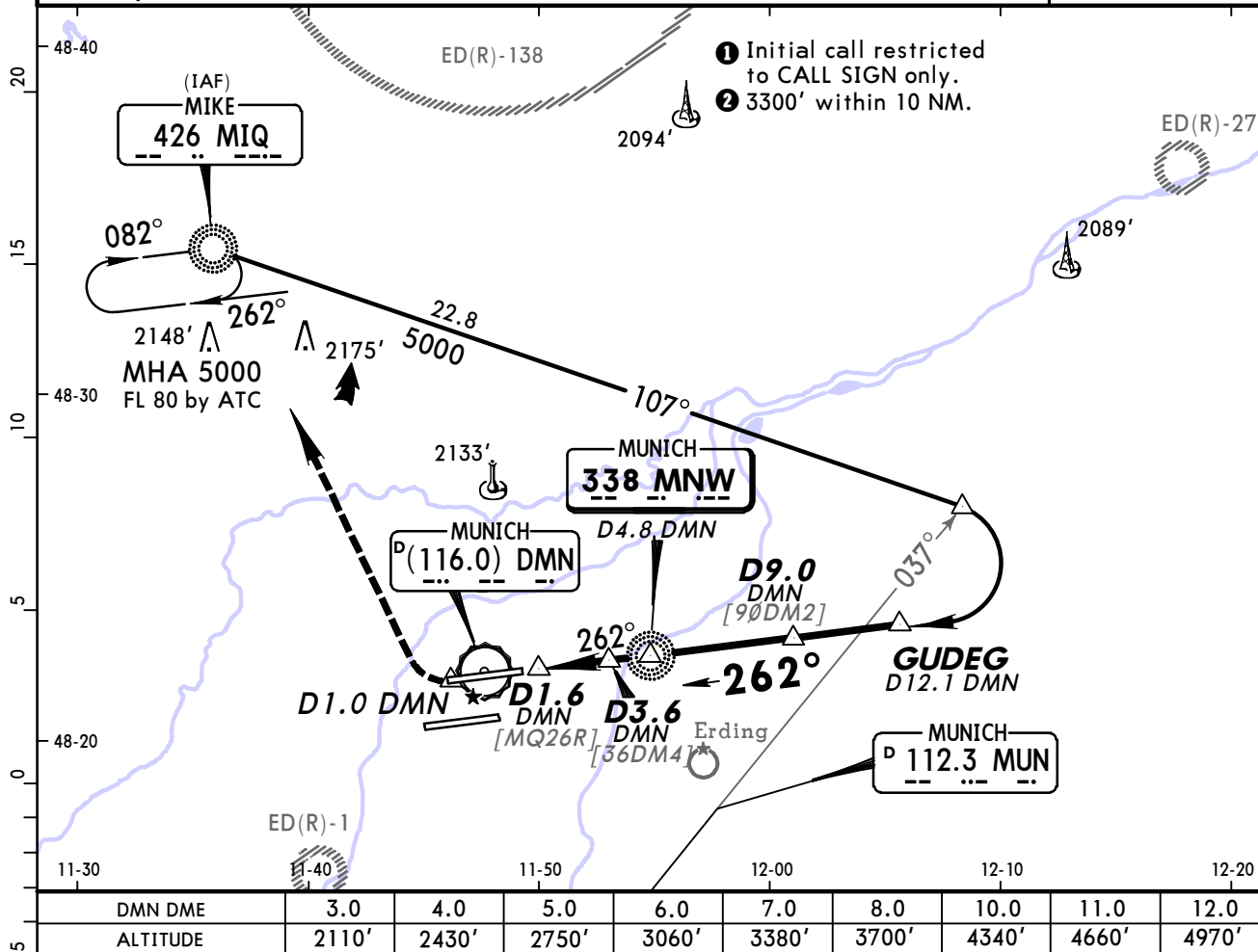
Standard STRAIGHT-IN LANDING RWY 26L

DA(H) 2020' (550')		ALS out
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A	RVR 1500m	
B		
C	RVR 1800m	CMV 2400m
D		

BRIEFING STRIP

*D-ATIS	MUNICH Arrival (APP)	MUNICH Radar (APP)	MUNICH Director ❶	MUNICH Tower	Ground
123.12	128.02	123.9	118.82	118.7	121.97
Lctr MNW 338	Final Apch Crs 262°	Minimum Alt GUDEG 5000' (3551')	DA(H) 2050' (601')	Apt Elev 1487' RWY 1449'	3300' 075° ← → 295° 3700' ❷
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 West of DMN or 1900', whichever is later, then turn RIGHT to MIQ NDB climbing to 5000'.					
Alt Set: hPa (IN on req) Rwy Elev: 52 hPa Trans level: By ATC Trans alt: 5000'					
DME required.					
					MSA MNW Lctr



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00°	372	478	531	637	743	849
MAP at D1.6 DMN						

Standard STRAIGHT-IN LANDING RWY 26R

DA(H) 2050' (601')		ALS out
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A	RVR 1500m	
B		
C	CMV 2100m	CMV 2400m
D		

Chart changes since cycle 26-2013

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

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
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MUNICH, (MUNICH - EDDM)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport EDDM