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List of pages in this Trip Kit

Enroute Chart - EDDF - LOWI Departure
NavData cycle 2023-01 Expired: 19 Jan 2023
Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 24 Feb 2023

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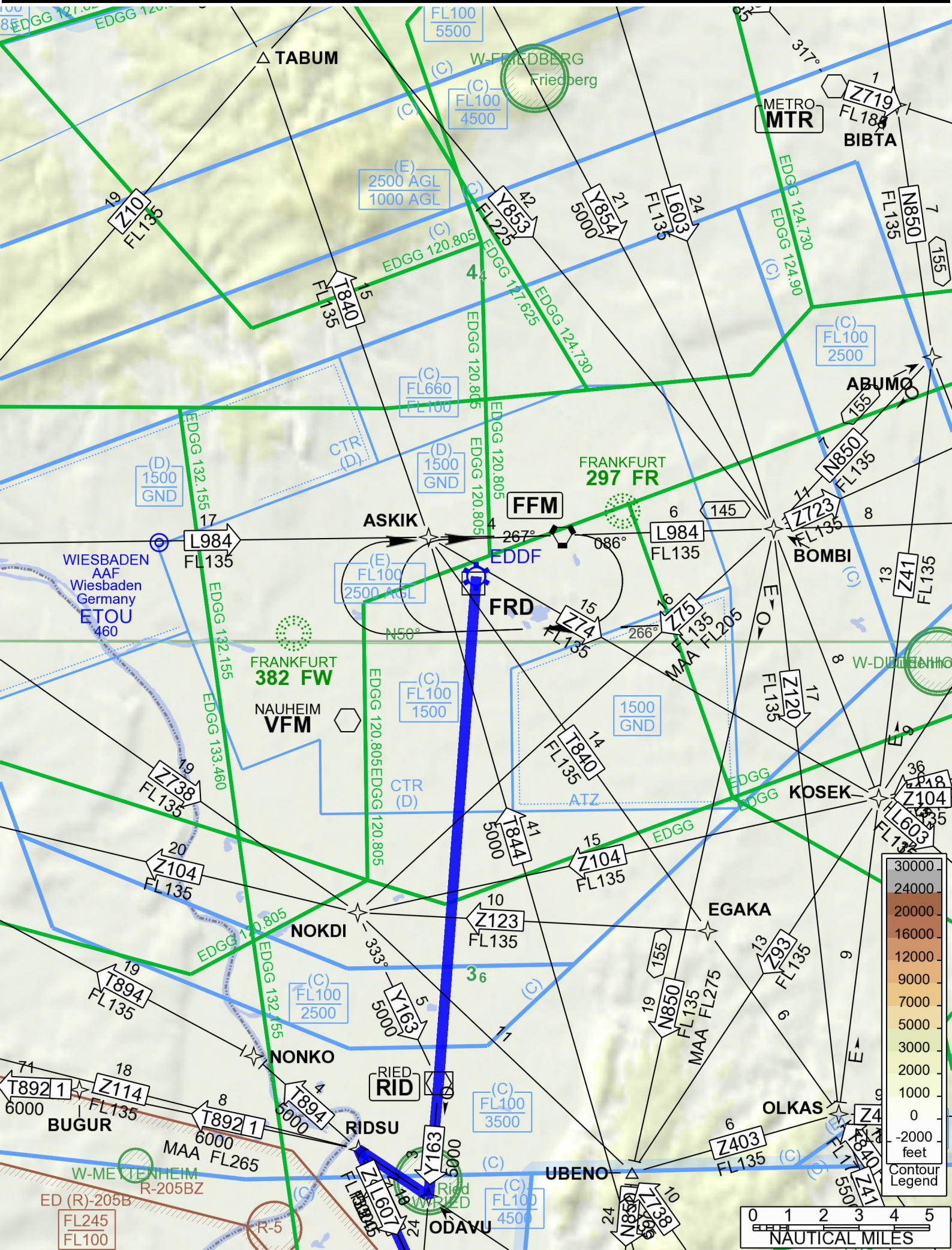

Enroute Chart - EDDF - LOWI Destination
NavData cycle 2023-01 Expired: 19 Jan 2023
Scale: 1:250000 (1 inch = 3.43 naut mi). Printed on 24 Feb 2023

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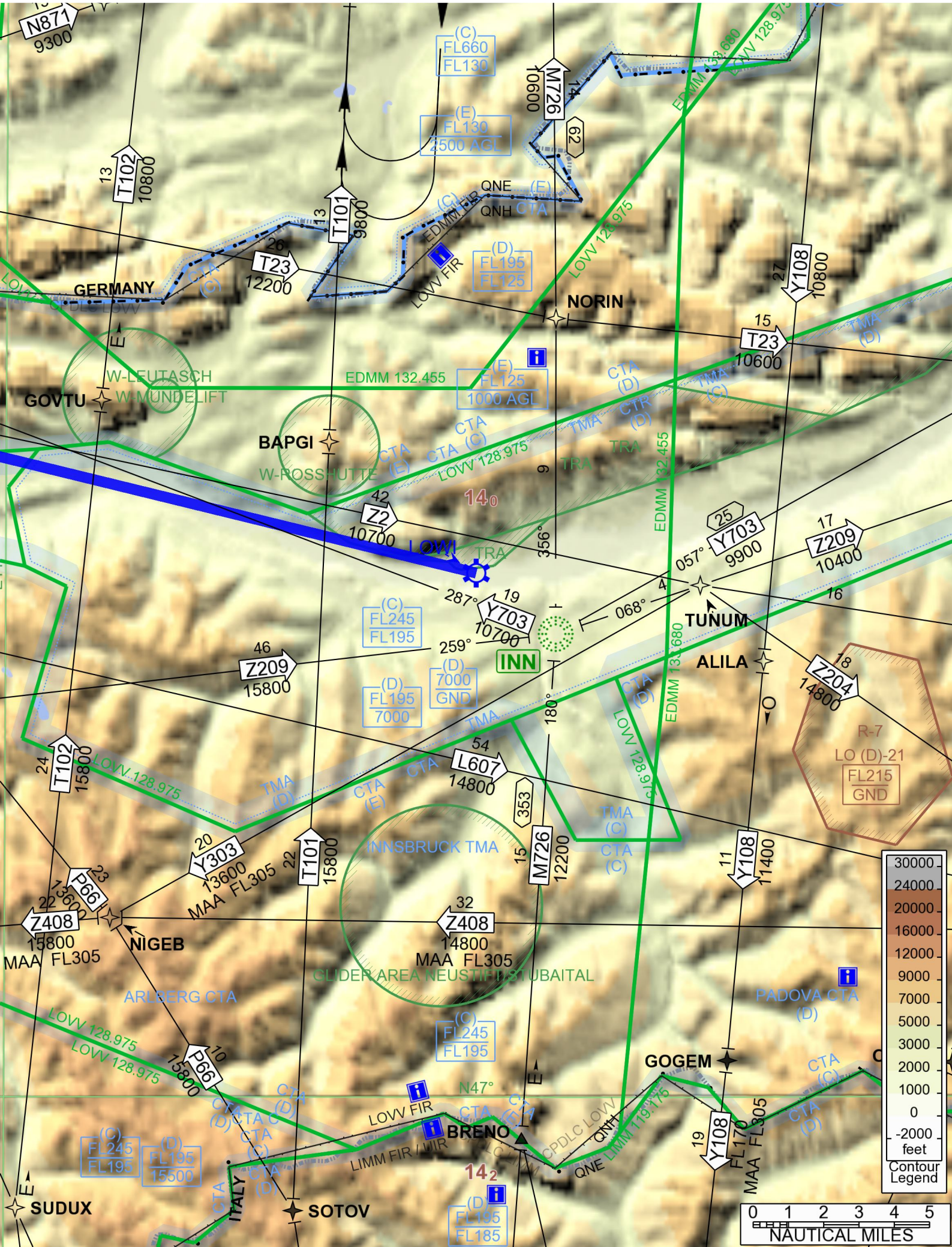

Enroute Chart - EDDF - LOWI Full Route
NavData cycle 2023-01 Expired: 19 Jan 2023
Scale: 1:1760414 (1 inch = 24.14 naut mi). Printed on 24 Feb 2023

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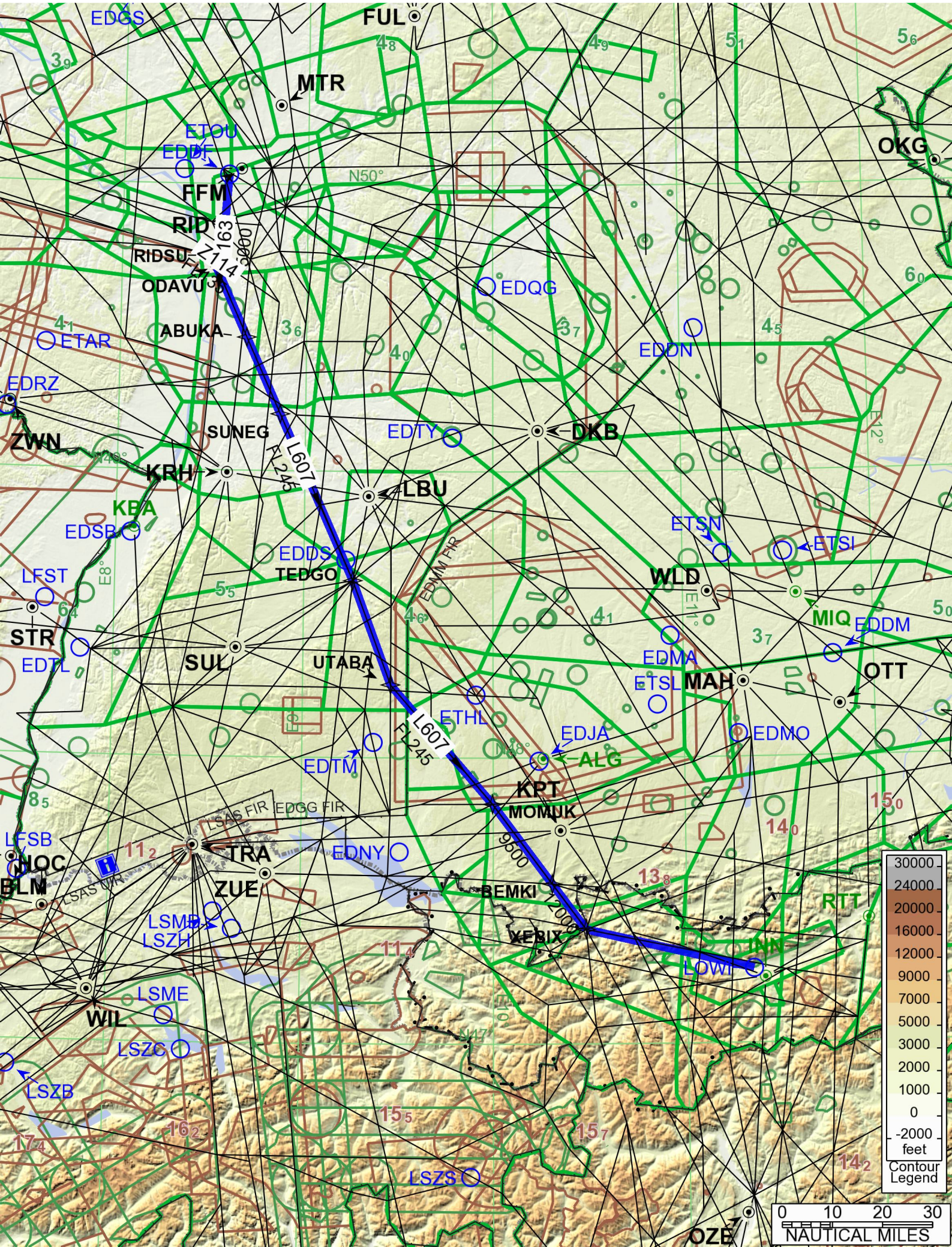

Enroute Chart - EDDF - LOWI Strip Chart Page 1
NavData cycle 2023-01 Expired: 19 Jan 2023
Scale: 1:7291344 (1 inch = 100.00 naut mi). Printed on 24 Feb 2023

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General Information

Location: FRANKFURT/MAIN DEU
ICAO/IATA: EDDF / FRA
Lat/Long: N50° 02.0', E008° 34.2'
Elevation: 364 ft

Airport Use: Public
Daylight Savings: Observed
UTC Conversion: -1:00 = UTC
Magnetic Variation: 3.0° E

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

Sunrise: 0620 Z
Sunset: 1658 Z

Runway Information

Runway: 07C
Length x Width: 13123 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 329 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 07L
Length x Width: 9186 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 305 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 07R
Length x Width: 13123 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 328 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 18
Length x Width: 13123 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 326 ft
Lighting: Edge, Centerline

Runway: 25C
Length x Width: 13123 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 364 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 25L
Length x Width: 13123 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 362 ft
Lighting: Edge, ALS, Centerline, TDZ

Runway: 25R
Length x Width: 9186 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 353 ft
Lighting: Edge, ALS, Centerline, TDZ

Communication Information

ATIS: 118.730 Departure Service
ATIS: 118.030 Arrival Service
Frankfurt Tower: 118.780
Frankfurt Tower: 119.905
Frankfurt Tower: 124.855
Frankfurt Tower: 127.330 Secondary
Frankfurt Tower: 136.500
Frankfurt Ground: 121.805
Frankfurt Apron Ramp/Taxi: 121.965
Frankfurt Apron Ramp/Taxi: 121.955
Frankfurt Apron Ramp/Taxi: 121.855
Frankfurt Apron Ramp/Taxi: 121.755
Frankfurt Apron Ramp/Taxi: 121.705
Frankfurt Apron Ramp/Taxi: 121.655
Frankfurt Delivery Clearance Delivery: 121.905
Langen Radar Approach: 119.030 Secondary RCO
Langen Radar Approach: 125.355 RCO
Langen Radar Approach: 120.155 RCO
Langen Radar Approach: 120.805 RCO
Langen Radar Approach: 126.555 RCO
Langen Radar Approach: 136.130 RCO
Frankfurt Deicing Operations: 121.985
Frankfurt Direct (Approach Control Radar): 118.505
Frankfurt Direct (Approach Control Radar): 127.280
Frankfurt Rescue Emergency: 121.555

1. GENERAL

1.1. ATIS

*D-ATIS Arrival 118.030
*D-ATIS Departure 118.730

1.2. NOISE ABATEMENT PROCEDURES

1.2.1. RWY USAGE

1.2.1.1. ARRIVALS/DEPARTURES

RWY 25 will preferably be assigned to landing ACFT, provided the tailwind component does not exceed 5 KT. However, the take-off and landing direction will be changed from RWY 25 to RWY 07 if the braking action on the RWYs is impaired by water, snow, slush, ice, or frost, etc., even if the tailwind component is less than 5 KT. The take-off and landing direction also depends on the availability of navigation aids or significant weather in the approach and departure area.

1.2.1.2. DEPARTURES

Preferred take-off direction for landing direction 25/18:

For departures to the Northwest (OBOKA), North (MARUN) and Northeast (TOBAK), RWY 25C is preferred.

For departures to the Southwest (SOBRA, ULKIG), South (ANEKI), Southeast (CINDY) and East (SULUS), RWY 18 is preferred, provided the tailwind component for RWY 18 is not greater than 15 KT.

Preferred take-off direction for landing direction 07/18:

For departures to the Northwest (OBOKA), North (MARUN), Northeast (TOBAK) and East (KOMIB, SULUS), RWY 07C is preferred.

For departures to the Southwest (SOBRA, ULKIG), South (ANEKI) and Southeast (CINDY), RWY 18 is preferred, provided the tailwind component for RWY 18 is not greater than 15 KT.

Exceptions are possible if required due to traffic safety, the availability of navigation aids, significant weather in the approach and departure area or noise abatement measures or if Aerodrome Control deems that the traffic situation permits.

Tailwind component RWY 18:

If the tailwind component for RWY 18 exceeds 10 KT, this will be broadcast by ATIS.

Pilots unable to accept the greater tailwind component are requested to advise ATC as early as possible - at the latest when they request start-up approval.

Warning: In cases of strong winds, wind shear and increased turbulence must be expected on RWY 18.

1.2.2. NIGHT FLYING RESTRICTIONS AND OPERATIONAL RESTRICTIONS OUTSIDE NIGHTTIME HOURS FOR CIVIL AVIATION

a) Landing RWY Northwest (07L/25R) may only be used by ACFT up to and including code letter E in compliance with ICAO categorization. Airplanes with code letter F in compliance with categorization according to ICAO Attachment 14, jet airplanes, which cannot be classified into the airplane groups up to and including S 6.3 in compliance with the instructions for calculating noise protection zones as well as airplanes of the type MD11 may not use landing RWY Northwest (07L/25R). Take-offs of ACFT are not permitted from landing RWY Northwest (07L/25R).

b) ACFT without a noise certification in accordance with ICAO Annex 16 are not permitted to take-off from or land on the whole RWY system of Frankfurt/Main APT during the entire hours of operation of Frankfurt/Main APT.

1. GENERAL

c) ACFT that merely meet the noise certification values in accordance with ICAO Annex 16, Volume I, Part II, Chapter 2 are not permitted to take-off from or land on the whole RWY system of Frankfurt/Main APT during the entire hours of operation of Frankfurt/Main APT unless - documented by a certificate according to Article 11c, paragraph 7 of the German Aviation Regulation (LuftVO) - the Federal Aviation Office (LBA) has granted an exemption for the ACFT concerned according to Article 11c, paragraphs 4 - 6 of the LuftVO or a Member State of the European Union has granted an exemption in accordance with Article 11c, paragraph 8 of the LuftVO.

d) The following operational provisions apply to ACFT that are marginally compliant with ICAO Annex 16, Volume 1, Part II, Chapter 3 within the meaning of Article 48a no. 4 of the Regulation on the Certification and Licensing in Aviation (LuftVZO):

Take-offs and landings are not permitted on all days of the week between 2000-0800LT, unless an exemption in accordance with Article 48f, paragraph 1 of the LuftVZO or an individual exemption in accordance with paragraph 2 of the regulation has been granted.

From the beginning of the winter 2011/2012 scheduling period, take-offs and landings are not permitted between Friday, 2000LT and Monday, 0800LT, unless they have been granted an exemption in accordance with Article 48f, paragraph 1 of the LuftVZO or an individual exemption in accordance with paragraph 2 of the regulation.

ACFT arriving late or early whose landing is planned by the APT coordinator for a slot outside the operational restrictions up to 2000LT or from 0800LT may land until 2200LT and from 0600LT, provided that the late or early arrival was not envisaged as such in the flight plan (Article 25 LuftVO).

e) Following the opening of the landing RWY Northwest, from the first day of the new scheduling period, which - because of the added capacity of the landing RWY Northwest - provides an increase in the coordinated hourly RWY capacity, take-offs and landings are not permitted on the whole RWY system of Frankfurt/Main APT between 2200-0600LT on all days of the week, unless otherwise provided.

Between 2200-2300LT as well as between 0500-0600LT, only such ACFT are permitted to take off and land that - have a noise certification value in accordance with ICAO Annex 16, Volume I, Part II, Chapter 4 and whose take-off or landing has been coordinated by the APT coordinator of the Federal Republic of Germany at least one day in advance.

Between 2300-0500LT scheduled ACFT movements are not permitted.

The following regulations apply to ACFT arriving late or early:

- ACFT that are not only marginally compliant with ICAO Annex 16, Volume I, Part III, Chapter 3 within the meaning of Article 48a of the LuftVZO, and ACFT fulfilling the provisions of ICAO Annex 16, Volume 1, Part II, Chapter 4 and whose landing is planned by the APT coordinator for a slot up to 2200LT or from 0600LT, are permitted to land until 2400LT and/or from 0500LT without being counted against the quota as well as the maximum limit, provided that the late or early arrival was not envisaged as such in the flight plan (Article 25 of the LuftVO).
- ACFT fulfilling the provisions of ICAO Annex 16, Volume I, Part II, Chapter4 and whose landing is planned by the APT coordinator for a slot between 2200-2300LT and between 0500-0600LT under the conditions set out, are permitted to land until 2400LT without being counted against the maximum limit provided that the late arrival was not envisaged as such in the flight plan (Article 25 of the LuftVO).

1. GENERAL

Early arrivals before 0500LT are not permitted.

ACFT are not permitted to use the landing RWY Northwest between 2300-0500LT. At Frankfurt/Main APT, take-offs and landings of ACFT conducting flight checks of radio, radar or APT facilities are permitted between 2200-0600LT only if the ACFT meet the provisions of ICAO Annex 16, Volume I, Part II, Chapter 4 and if it is absolutely necessary to conduct these checks during this period of time.

Propeller ACFT with a maximum take-off mass of less than 9,000kg may take-off and land between 2200-0600LT only under the restrictions outlined in sections above; instead of the mentioned noise certification values they must at least fulfill the higher sound-proofing requirements defined in Article 4 of the Airfield Noise Abatement Ordinance (Landeplatz-LaermschutzV) of 5 January 1999 (Federal Law Gazette I, page 35; German-language publication Nfl I 134/99).

f) Delayed take-offs to be conducted in a period of restricted operations by an ACFT subject to the restrictions require individual permission by the local aviation supervision office. Permission may only be granted if the delay is due to reasons beyond the control of the air carrier concerned. Delayed take-offs are not permitted between 2400-0500LT.

EXCEPTIONS

Excluded from the restrictions mentioned above are:

- Landings of ACFT approaching Frankfurt/Main APT as an alternate aerodrome for meteorological, technical or other safety reasons as well as take-offs and landings of ACFT rendering medical assistance or on missions in disasters, as well as evacuation flights;
- Flights conducted particularly in the public interest.

Apart from this, the approving authority may grant exemptions from the operational restrictions only upon application in cases of particular hardship. It is not a case of particular hardship if the operational restriction makes the air carrier's ACFT turn-around planning more difficult or requires arrangements for passenger transfer or accommodation. Processing of applications is subject to charges.

As a rule, the application shall be submitted in writing - in urgent cases also via telephone - to:

Hessisches Ministerium fuer Wirtschaft, Energie,
Verkehr und Wohnen
Oertliche Luftaufsichtsstelle/local Aviation Supervision Office
Gebaeude (building) 514
60547 Frankfurt am Main/Germany
Tel.: 069/690-71717
Fax: 069/690-66150

The application shall contain:

- Applicant's name and, if necessary, name of the handling partner;
- Applicant's telephone and fax numbers;
- Name and address of the air carrier;
- E-mail address of the applicant for the invoice;
- Flight number;
- Registration and type of ACFT;
- Classification of the ACFT according to noise certification level (noise certificate of the ACFT according to Section 11c LuftVO);
- Planned time of departure for which the exemption is requested;
- Number of passengers;
- Weight of cargo in tonnes.

1. GENERAL

The reasons for the application shall be specified; the applicant shall state, in particular, to what extent the take-off delay is due to reasons beyond the control of the airline and/or where the hardship lies.

Take-off or landing clearances granted by ATC as well as other clearances do not automatically include the necessary exemption by the approval authority.

ATC will not grant exemptions via radiotelephony.

The pilot-in-command (PIC) shall report any landing conducted during a period of restricted operations by an ACFT subject to the restriction which does not meet any of the grounds for exemption according to the provisions to the local aviation supervision office immediately after landing and specify the reasons (declaration of PIC).

1.2.3. REVERSE THRUST

Reverse thrust must not be used on the entire RWY system of Frankfurt/Main APT; except for safety reasons in unavoidable cases. This does not apply to idle reverse thrust.

1.2.4. RUN-UP TESTS

Engine run-ups with thrust settings above an idle power setting may only be conducted at the following positions:

- On the apron of hangar 5 and in the run-up enclosure in the time between 0600-2200LT;
- In the time between 2200-0600LT, engine run-ups with the thrust setting on part-load on the apron of hangar 5, whereby on the position hangar 5 west the maximum power setting may only be taken to part-load low (up to 50% N1), as well as in the run-up enclosure; engine run-ups with the thrust setting on full-load may only be conducted in the run-up enclosure.

Engine run-ups shall be conducted in such a way that their duration of exposure on the next built-up area shall not, on average, result in a continuous sound level higher than 57 dB(A) during the day and 50 dB(A) during the night.

Engine run-ups in the time between 2200-0600LT with a thrust setting above an idle power setting shall be notified to the local aviation supervision office.

Engine test runs and run-ups as well as extensive maintenance work on ACFT at the positions are not permitted. Apron control may grant exceptions in justified cases.

1.3. LOW VISIBILITY PROCEDURES

1.3.1. CAT III OPERATIONS

1.3.1.1. GENERAL

Whenever the operation of CAT III low visibility procedures is announced, taxiing is restricted for all ACFT to TWYs with operating centerline lights, unless otherwise instructed.

The TWY centerline lights within the ILS-critical/sensitive area are color-coded (yellow/green) from RWY 07C/25C to TWYs L and M, from RWY 07R/25L to TWYs M and R, from RWY 07L/25R to TWY P, from RWY 18 from the North to TWY Y5 and from RWY 18 from the South to TWYs L and N. Landing ACFT are requested to report when they are clear of the color-coded TWY centerline lights to indicate that they have vacated the ILS-critical/sensitive area.

In order to facilitate ground movement, centerline lights, several clearance bars and stop bars are installed.

1. GENERAL

1.3.1.2. CLEARANCE BARS

Clearance bars are operated together with the centerline lighting and consist of three unidirectional surface lights showing YELLOW in the direction of approach to the intersection, arranged at 90^ to the TWY centerline and partly displaced laterally to centerline.

If the traffic situation requires, ACFT may be instructed to hold at a specific clearance bar. If no such instruction is given, ACFT may taxi across the clearance bar without a specific clearance.

1.3.1.3. STOP BARS

Stop bars are operated independently of the centerline lighting and consist of unidirectional surface lights showing red in the direction of approach to a taxi-holding position/an intersection, spaced at intervals of 10'/3m across the overall width of a TWY at 90^ to the TWY centerline.

Taxiing across an operating stop bar is strictly prohibited.

1.4. SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM

1.4.1. OPERATION OF MODE S TRANSPONDERS

1.4.1.1. GENERAL

An Advanced Surface Movement Guidance and Control System, using Mode S multilateration, is in operation.

1.4.1.2. OPERATION OF MODE S TRANSPONDERS WHEN ACFT IS ON GROUND

ACFT operators shall ensure that Mode S transponders are able to operate when 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.

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

Whenever ACFT is capable of reporting ACFT ident (through the FMS or the transponder control panel), ACFT ident shall also be entered from request for push-back or taxi, whichever is earlier. Aircrew must use ICAO defined format for entry of ACFT ident (e.g. DLH5MC, AFR6380, SAS589, BAW68PG).

To ensure that performance of systems based on SSR frequencies is not compromised, TCAS shall not be activated before reaching the RWY holding position. After landing, it shall be deselected after vacating RWY.

ACFT taxiing without flight plan shall select STBY.

1.5. TAXI PROCEDURES

1.5.1. GENERAL

ACFT are permitted to taxi on the maneuvering area between RWY 07C/25C and TWY L only with the minimum engine revolutions absolutely required.

TWYs N blue, N orange, N7 blue, N 7 orange, N8 blue, N8 orange and western link between TWYs S33 and S MAX wingspan 118'/36m.

TWY N South MAX wingspan 171'/52m.

Taxi connection between TWY S33 and TWY S (direction West) MAX wingspan 118'/36m.

On the entire operating area including ACFT hangars and their aprons, taxi maneuvers which do not take place prior to take-off or after landing of an ACFT must be carried out by means of ACFT tractors and not by means of engine power.

1. GENERAL

1.5.2. TAXIING ON APRON

ACFT stand taxilanes on aprons have been classified as follows:

- L (East of U): EASA code C;
- N (between N3 and N-East): EASA code F;
- N-Blue (between N3 and N-East): EASA code C;
- N-Orange (between N3 and N-East): EASA code C;
- N3 (North of N): EASA code E;
- N5 (North of N): code E/code F (until A23);
- N7 (North of N): EASA code E;
- N8 (North of N): EASA code F;
- N13 (North of N): EASA code E;
- N14 (North of N): EASA code E;
- S4 (South of S): EASA code F;
- S5 (South of S): EASA code F;
- S6 (South of S): EASA code F;
- S7 (South of S): EASA code F;
- S8 (South of S): EASA code F;
- S9 (South of S): EASA code F;
- S11 (South of S): EASA code F;
- S13 (East of S15): EASA code E (up to K4)
- S15: EASA code F (up to K6)
- S16 (South of R): EASA code E;
- S21 (South of R): EASA code E;
- S23 (South of R): EASA code D;
- S23 (GAT): EASA code B.

Reduced wing-tip clearance for ACFT of EASA code A, B and C on ACFT stand taxilanes is minimum 15'/4.5m from obstacles.

Reduced wing-tip clearance for ACFT of EASA code D, E and F on ACFT stand taxilanes is minimum 25'/7.5m from obstacles and is minimum 8'/2.5m from parallel apron roadways or height restricted objects.

ACFT type A380-800 will be towed with reduced obstacle clearance of 16'/5m on TWY N11.

Heavy ACFT taxiing on apron shall apply minimum thrust only. When taxiing into parking stands, ACFT shall not stop in turns. If an ACFT comes to a stop, notify Apron Control prior to increasing engine power.

In the General Aviation area the wing-tip clearance is minimum 15'/4.5m.

Adhere strictly to the yellow, blue and orange taxi guidance lines. Adjust taxi speed accordingly.

1.5.3. TAXIING IN CASES OF LOW VISIBILITY

When leaving stands S401, S402, S404, S406, S408, S410, S412, S414, S416, S418, S420 and V173B at night and in other low visibility situations, nose gear lights shall generally be switched on. This shall not apply if ACFT is guided by Follow-me car and if the lights dazzle the pilot. In these situations, it is permitted to keep nose gear lights switched off even in cases of low visibility.

1.5.4. FAILURE OF AN ACFT's ANTI-COLLISION LIGHT (BEACON)

Before push-back or entering the apron, the red anti-collision lights (beacon) of an ACFT shall be switched on. If one anti-collision light (beacon) on the ACFT is inoperative, the pilot shall inform apron control and, additionally, switch on the white wing-tip strobe lights.

1.5.5. SEPARATE CENTERLINES FOR ACFT TYPE A380

Stands C15 and C16 have separate centerlines only available for ACFT type A380 designated with C15S and C16S. To park other ACFT types, the centerlines C15 and C16 shall be used. The separate centerlines C15S and C16S are parallel to centerlines C15 and C16. Due to the short distance between the centerlines C15 and C15S as well as between C16 and C16S, the pilot shall pay special attention when taxiing onto the stand.

1. GENERAL

1.5.6. DEVIATIONS TO EASA REGULATIONS

1.5.6.1. TWYs

Fillets

At numerous TWYs, the distances from the taxi guideline to the TWY side strip marking are up to 1.6'/0.5m less than required in curves. Therefore, taxiing in TWY curves always has to be performed with great accuracy at Frankfurt APT.

Rapid exit TWYs: TWY L7, L8, L10, L15

The radius of the turn-off curve is significantly less than the required minimum of 550m on rapid exit TWYs.

RWY holding positions: TWY L, L1, L21, M, M29, T, U, W, W9, Y, Y1, Y3, S33

At the following holding positions, approach surface 07C and/or take-off climb surface 25C are penetrated by holding ACFT:

- TWY L: CAT I RWY holding position before RWY 18,
- TWY M: CAT I RWY holding position before RWY 18 and RWY holding position M2,
- TWY L21: CAT I RWY holding position before RWY 07C/25C,
- TWY W: RWY holding positions W4, W6 and W8,
- TWY Y: RWY holding position Y2,
- TWY Y1: RWY holding position Y10.

At the following holding positions, approach surface 25C and/or take-off climb surface 07C are penetrated by holding ACFT:

- TWY L1: CAT I RWY holding position before RWY 07C/25C,
- TWY T: RWY holding positions T2 and T4,
- TWY U: RWY holding positions U2 and U4.

At the following holding positions, approach surface 07R is penetrated by holding ACFT:

- TWY M29: CAT I RWY holding position before RWY 07R/25L,
- TWY S33: RWY holding position S40,
- TWY W: RWY holding positions W6, W8 and W10,
- TWY W9: RWY holding position W9,
- TWY Y: RWY holding position Y6,
- TWY Y3: RWY holding position Y12.

At the following holding positions, approach surface 25L and/or take-off climb surface 07R are penetrated by holding ACFT:

- TWY T: RWY holding position T6 and T8,
- TWY U: RWY holding positions U6 and U8.

TWY width: TWY Y5

The TWY width is slightly less than the required 75'/23m for ACFT with an outer main gear wheel span 30'/9m to 49'/15m.

1.5.6.2. Clearance distances

At a majority of the ACFT stands, the clearance distances to neighbouring objects are less than required.

Especially for ACFT stands A26-A40, safe horizontal distances of at least 3.6'/0.8m to height-restricted objects are to be expected in the area of the wings.

1. GENERAL

1.6. PARKING INFORMATION

On stands A11 thru A40, A50 thru A69, B20 thru B48, C4 thru C16, D1 thru D4A, D5 thru D8A, E2, E2A, E5, E5A, E6 thru E9A, F211 thru F232, F233, F234thruF238, G1 thru G16, H2 thru H6, H14, J2 thru J8, K2 thru K10, S501thruS604, V94 thru V130, V143, V144, V266 thru V270 , V322 thru V328 and V702 thru V721 push-back required.

On stands A11, A13 thru A26, A28, A30, A34, A36, A38, A40, A50, A52, A54 thru A54B, A58 thru A58B, A62 thru A62B, A66 thru A66B, A69, B20, B22thruB28, B42 thru B48, C4, C5, C6, C8, C11, C13, C14, C15, C15A, C15S, C16, C16A, C16S, D1, D1A, D4, D4A, D5, D5A, D8, D8A, E2, E2A, E5, E5A, E6, E6A, E9, E9A, F211, F213, F214, F215, F231, F232, F233, F237, F238, G1 thru G6, G8, H2 thru H6, K2 thru K10, S501, S503, S504, V106 thru V130 and V266 thru V270 Visual Docking Guidance System (A-VDGS) available.

1.7. OTHER INFORMATION

Glider areas in vicinity of APT.

Warning: In cases of strong winds, wind shears and increased turbulence can be expected on RWY 18.

Bird strike warning system for RWY 07L APCH available.

For APT Collaborative Decision Making (ACDM) see ATC pages Germany.

2. ARRIVAL

2.1. NOISE ABATEMENT PROCEDURES

Between 2300-0500LT all inbound ACFT should expect clearances whereby final will be reached not closer to the APT than:

- approximately 18NM (RWYs 25C/L); and
- approximately 19NM (RWYS 07C/R) from THR.

These "final-interception points" correspond to the GPS/FMS waypoints DF622 (RWYs 25C/L) and DF652 (RWYs 07C/R). The fly-by function of these waypoints is not affected.

Pilots should subsequently expect a clearance for an ILS approach with GP interception at 5000'.

In addition pilots should expect a clearance to descend below FL070 only 6NM prior to reaching the above mentioned points. Pilots should adjust their speed accordingly (approximately 200-220 KT when leaving FL070) and are urgently requested to perform their descent from FL070 as a continuous descent whenever possible.

In the event of technical failure of the ILS equipment, i.e. the need to fly non-precision approaches, descent clearances to 4000' will be issued.

Requests for non-precision approaches for training purposes will be denied.

The above procedures will not be applied to:

- Flights with STS/HOSP;
- Flights in adverse weather conditions; and
- Flights in emergency situations.

Between 2300-0500LT approaching ACFT shall wait for clearances with the information that the final approach tracks can only be reached at a distance of 5.0NM (RWY 25C/25L) and 5.1NM (RWY 07C/07R) in front of the THR.

These "final approach points" correspond to the GPS/FMS waypoints RATRU (25C), TITUT (25L) as well as TIXAK (07C) and BOGVO (07R).

In addition, pilots should be prepared not to expect a descent clearance below FL070 until 6NM prior to reaching KUGUK and/or ORVIV (25C/25L) and 6NM prior to reaching ULNOK and/or IBLUS (07C/07R). Pilots shall adjust their speed accordingly (approx. 200-220 KT when leaving FL070) and are urgently requested to conduct the descent from FL070 as continuous descent, whenever possible.

2. ARRIVAL

These procedures may not be applied to:

- Flights with STS/HOSP;
- Flights in meteorological conditions such as CB, TS;
- Flights in emergencies.

In the case that R-NAV (GPS) approach procedures cannot be applied due to the absence of RNAV (GPS) equipment, pilots will be issued with a clearance for an ILS approach (in compliance with the night approach procedure above).

In the case of the ILS not being available, i.e. for clearances for non-precision approaches, approach control will issue descent clearances after 4000'.

2.2. CAT II/III OPERATIONS

RWYs 07L, 07C, 07R, 25L, 25C and 25R approved for CAT II/III operations, special aircrew and ACFT certification required.

2.3. RWY OPERATIONS

2.3.1. HIGH INTENSITY RWY OPERATIONS (HIRO)

ACFT of CAT SUPER will not be included in high intensity RWY operations, but should also vacate the RWY as quickly as possible.

At night, the use of HIRO is restricted to RWY 07L/25R and RWY 07R/25L.

2.3.1.1. APPROACH

Irrespective of the arrival route, approaching ACFT that have been assigned an ACFT stand in the southern area of the APT (Cargo City South, GAT, Terminal 3) will be guided by Approach Control preferably to RWY 07R/25L. As a rule, this RWY will also be assigned to ACFT to be parked on the Eastern section of the Northern apron.

When changing frequencies from LANGEN Radar to FRANKFURT Director initial call shall be restricted to

FRANKFURT DIRECTOR + CALLSIGN

to avoid frequency congestion. When being transferred from approach control to aerodrome control the initial call shall consist of

FRANKFURT TOWER, CALL SIGN, TYPE OF APPROACH + RWY

2.3.1.2. APPROACHES AT A GLIDE ANGLE OF 3.2^

RWY 07L/25R is equipped with two ILS systems for each landing direction.

One ILS per landing direction radiates signals for a glide angle of 3.2^, the other one for a glide angle of 3.0^.

The PAPI systems indicate the correct path down to a height of 200' for 3.0^ and 3.2^.

Regular operations will be conducted under CAT I conditions only. The approach procedure will only be assigned if no long-lasting tail wind (more than 30 minutes) is expected. If tail wind prevails or is to be expected, the provisions of Item 1.2.1.1. will be applied and an ILS approach procedure at 3.0^ will be assigned for RWY 07L/25R.

If it is not possible to conduct an approach at 3.2^ for safety reasons, the pilot shall mention this in the initial call to LANGEN RADAR. Such ACFT will be assigned another RWY.

2. ARRIVAL

2.3.1.3. ARRIVALS

Pilots are reminded:

- to plan and to name the expected rapid exit TWY during the APCH briefing;
- to vacate the RWY as quickly as possible;
- to adjust taxi speed after touchdown when it is evident that the ACFT will miss the planned rapid exit TWY. Low taxi speeds shall be avoided on the RWY.

Whenever RWY conditions permit, the following rapid exit TWYs shall be considered for planning:

RWY	ACFT	Preferred Turnoffs	Dist from THR ft (m)
07L	HEAVY (except SUPER)	P6	7382' (2250m)
	MEDIUM (JET)	P8	5741' (1750m)
	MEDIUM (PROP)/LIGHT	P10	4429' (1350m)
07C DAY only	HEAVY (except SUPER)	L9	8202' (2500m)
	MEDIUM/LIGHT	L11	5906' (1800m)
07R	HEAVY (except SUPER)	M13	7054' (2150m)
	MEDIUM/LIGHT	M15	5659' (1725m)
25L	HEAVY (except SUPER)	M21	7464' (2275m)
	MEDIUM (JET)	M17	6135' (1870m)
	MEDIUM (PROP)/LIGHT	M11	3560' (1085m)
25C DAY only	HEAVY (except SUPER)	L13	6742' (2055m)
	MEDIUM (JET)	L10	5577' (1700m)
	MEDIUM (PROP)/LIGHT	L8	3691' (1125m)
25R	HEAVY (except SUPER)	P20	7382' (2250m)
	MEDIUM (JET)	P16	5741' (1750m)
	MEDIUM (PROP)/LIGHT	P14	4429' (1350m)

Aerodrome Control may apply reduced separation on RWYs. Any changes in separation by Aerodrome Control shall be observed.

Pilots may only change the frequency after landing if instructed to do so by Aerodrome Control.

If pilots do not receive further taxi clearance, they shall stop in front of a RWY and the corresponding landing and take-off climb surfaces and TWYs L and N11.

2.4. TAXI PROCEDURES

To maintain smooth taxiing traffic, ACFT having landed on RWY 07R/25L will be guided, if possible, to defined change-over points, depending on the assigned parking position, to cross RWY 07C/25C.

This procedure will be withdrawn during adverse weather conditions, at the latest when CAT III operation is in force.

Exiting RWY 25C out of exit TWY L8 up to code C only.

2.5. OTHER INFORMATION

Parallel independent operation may be in force.

2.5.1. FLIGHT AND DESCENT PLANNING

For flight and descent planning purposes expect the following levels at the transfer points from Langen ACC to Frankfurt APP:

- KERAX between FL130 and FL110;
- SPESA between FL120 and FL100;
- ROLIS at FL150;
- UNOKO between FL130 and FL110 (at RAMOB).

These levels shall only be used for planning purposes. The actual transfer level will be cleared by ATC individually.

3. DEPARTURE

3.1. DE-ICING

3.1.1. GENERAL

Notification of ACFT de-icing may be sent on frequency 121.985 or via phone 069/690-30560 by the ACFT operator or his representative. In the period of 1 May up to and including 14 October, requests for ACFT de-icing can only be made by phone: 069/690-30560.

3.1.2. ACFT STANDS

The de-icing of ACFT at the respective ACFT stands will take place with engines switched off, passenger bridges cast off, and the ACFT clear of handling equipment.

3.1.3. REMOTE DE-ICING PADS (DPS)

The remote De-icing Pad West (DPW) falls within the responsibility of Aerodrome Control and includes de-icing pads DP1 and DP2. When carrying out de-icing procedure, responsibility will temporarily be transferred to FRANKFURT Apron.

If necessary for operations, the ADC will assign ACFT to be de-iced at additional locations (TWY N7, positions V159, V161 and G16A). Instructions for taxiing to and onto these positions will be issued by FRANKFURT Apron. ACFT will be guided by a marshaller to the de-icing position. The marshaller's instructions must be followed. When requested by FRANKFURT Apron, radiotelephony communication shall be established with the de-icing crew on the frequency assigned. ACFT parked on positions East of TWY N3 which intend to depart from RWY 18 can be de-iced at position G16A with running engines.

De-icing on DP1 and DP2 Center MAX wingspan less than 262'/80m.

De-icing on DP2 East and DP2 West MAX wingspan less than 118'/36m.

ACFT which were de-iced on DP1 will be guided to TWY W1 by Apron Control before handed over to ATC.

After de-icing on DP2 intersection take-off out of TWY W3 from RWY 18 required.

On the remote de-icing pads, only jet ACFT with running engines will be de-iced. Propeller ACFT will not be de-iced for safety reasons.

Underwing de-icing or with hot air, de-icing of undercarriage or de-icing with special viscosities, the control of the central engines (e.g. DC10, MD11), as well as special examinations of individual ACFT parts (e.g. hands on checks) cannot be carried out on the remote de-icing pads.

ACFT will be positioned on de-icing pad DP1 by an eyeline to the LEFT of centerline, which depicts the exact holding position to the pilot optically. This taxiing-aid is made up of 5 amber surface lights with single-sided beams. If the surface lighting or the eyeline is out of order, ACFT will be guided by a marshaller.

ACFT will be positioned on de-icing pad DP2 by an eyeline to the LEFT of the respective centerline, which enables the pilot to visualize the exact holding position. This eyeline is made up to 5 yellow surface lights which shine on one side. If centerline lighting or eyeline is out of operation, ACFT will be guided by a marshaller.

During the de-icing proceedings, the pilot-in-command shall ensure continuous listening watch on the respective frequency of FRANKFURT Apron. After de-icing proceedings have been concluded, the pilot-in-command shall report to FRANKFURT Apron that he is ready to taxi.

3. DEPARTURE

3.2. START-UP AND TAXI PROCEDURES

3.2.1. GENERAL

At TOBT, the ACFT must be ready for start-up or on-stand de-icing, and the pilot shall maintain continuous air-ground voice communication watch on the frequency of FRANKFURT Delivery.

ACFT parking on stand B10 have to contact FRANKFURT Apron, prior to actual engine start-up.

3.2.2. FROM 0600-2200LT

All ACFT parked at positions East of TWY N3 and planned for departure from RWY 18 have to expect to taxi via TWYs U, T, R and S. Departure will take place basically from position S. Pilots unable to comply with these conditions shall advise FRANKFURT Apron upon initial contact.

3.2.3. STANDARD TAXI ROUTE (STR)

Name	Handover from Apron to DFS	Taxi Instructions	Holding Point
TRANSITION 1	STOP U2	U-S-S11-R-S28-S	S-RWY18

If the flight crew is unable to follow the standard taxi route TRANSITION 1, they shall inform during the initial call.

If the flight crew becomes unsure about TRANSITION 1, they shall request an individual clearance.

3.2.3.1. VOICE COMMUNICATION

Standard taxi route TRANSITION 1.

ACFT CALL SIGN.

Taxi to holding point RWY 18, intersection Sierra, via TRANSITION 1.

3.3. NOISE ABATEMENT PROCEDURES

3.3.1. OPERATIONAL RWY USE AND SID CONCEPT - STANDARD OPS

In general, pilots have to expect en-route clearance according to this concept. OPR are requested to file SID in FPL according to this guideline. Different SID in FPL will be changed automatically. Route details and further non-standard SIDs see 10-3 pages. Non-standards on pilot's request only.
Non-standard operation temporarily possible, if considered necessary by ATC. If unable to comply with restrictions, advise EDDF Delivery prior to start-up.

RWY-in-use	RWY (C)enter (L)eft (R)ight	SID Route Designator	Direction/ACFT CAT	NAV Spec
25/18			RWY 25C for DEP to the NW (OBOKA), N (MARUN), NE (TOBAK). *RWY 25L* with special authorization by *TWR only* . RWY 18 for DEP to the SW (SOBRA, ULKIG), S (ANEKI), SE (CINDY), E (SULUS).	

3. DEPARTURE

In general, pilots have to expect en-route clearance according to this concept. OPR are requested to file SID in FPL according to this guide-line. Different SID in FPL will be changed automatically. Route details and further non-standard SIDs see 10-3 pages. Non-standards on pilot's request only.
Non-standard operation temporarily possible, if considered necessary by ATC. If unable to comply with restrictions, advise EDDF Delivery prior to start-up.

RWY-in-use	RWY (C)enter (L)eft (R)ight	SID Route Designator	Direction/ACFT CAT	NAV Spec
07/18			RWY 07C for DEP to the NW (OBOKA), N (MARUN), NE (TOBAK), E (SULUS) and EDDN Area (KOMIB). *RWY 07R* with special authorization by TWR only. RWY 18 for DEP to the SW (SOBRA, ULKIG), S (ANEKI), SE (CINDY).	
25	**C** + *L*	**FOXTROT**	2-engined HEAVY ACFT to the N, NE.	BRNAV
	C + *L*	**GOLF**	2-engined HEAVY ACFT to the NW, N, NE. All ACFT to the NW, N, NE unable to comply with restrictions on SIDs northbound.	BRNAV
	C	**MIKE**	All ACFT, except 2-engined HEAVY ACFT, to the NW, N, NE unable WHISKEY.	BRNAV
	C	**WHISKEY**	Shall be used by all ACFT, except 2-engined HEAVY ACFT, to the NW, N, NE complying with RNP-1 and RF-leg requirements instead of MIKE.	RNP-1*
	L	*HOTEL*	All ACFT RWY 25L (with special authorization by TWR only), except 2-engined HEAVY ACFT, to the NW, N, NE.	BRNAV
	L	*KILO*		RNP-1*
	C + *L*	**NOVEMBER**	Between 2200-0700LT: All 3- and 4-engined HEAVY and SUPER ACFT, B727 and YK42 due to noise abatement.	BRNAV
	C + *L*	**PAPA**	Single- and Twin-Props and DASH 7 may use PAPA instead of RWY18 to the SW.	BRNAV
	C + *L*	**QUEBEC**	NON-RNAV equipped ACFT.	

* Check SID description for required NAV-specification/sensor restriction.

3. DEPARTURE

In general, pilots have to expect en-route clearance according to this concept. OPR are requested to file SID in FPL according to this guide-line. Different SID in FPL will be changed automatically. Route details and further non-standard SIDs see 10-3 pages. Non-standards on pilot's request only.
Non-standard operation temporarily possible, if considered necessary by ATC. If unable to comply with restrictions, advise EDDF Delivery prior to start-up.

RWY-in-use	RWY (C)enter (L)eft (R)ight	SID Route Designator	Direction/ACFT CAT	NAV Spec
07	**C** + *R*	**CHARLIE**	NON-RNAV equipped ACFT.	
	C + *R*	**DELTA**	All HEAVY and SUPER ACFT to the NW, N, NE, E.	BRNAV
			All MEDIUM and LIGHT ACFT to the NE, E or if considered necessary by ATC.	
			All MEDIUM and LIGHT ACFT to the NW, N if considered necessary by ATC.	
			Between 2200-0700LT: All ACFT to the NW, N, NE, E due to noise abatement.	
	C + *R*	**ECHO**	Between 0700-2200LT: All MEDIUM and LIGHT ACFT to the NW, N.	BRNAV
18		**ALPHA**	All ACFT to the S, SE (by ATC only).	RNAV-1*
		LIMA	All ACFT to the SW, S, SE.	BRNAV or RNAV-1*
		UNIFORM	Shall be used by all ACFT to the SW complying with the restrictions and RNP-1 and RF-leg requirements.	RNP-1
		SIERRA	All ACFT to the SE. All ACFT to the SW, NW, N, NE (by ATC only).	BRNAV
		ROMEO	Between 2300-0600LT: All ACFT to the NW, N, NE (by ATC only).	BRNAV
		TANGO	Contingency SID under special circumstances, e.g. closure RWY 07 (by ATC only).	BRNAV

* Check SID description for required NAV-specification/sensor restriction.

3. DEPARTURE

3.3.2. ADDITIONAL NOISE ABATEMENT MEASURES

3.3.2.1. OPERATIONAL CONCEPT "NOISE RESPITE PERIODS"

At APT, noise respite periods for operating direction 25 will be implemented in accordance with the following plan.

As a rule, the following RWY shall always be used during the times shown:

Between 0500-0600LT

- RWYs 25C/R shall be used for landing;
- RWY 25L shall be used for departing.

Between 2200-2300LT

- RWY 25L shall be used for landing;
- RWYs 18 and 25C shall be used for departing.

GENERAL

As a rule, noise respite periods will always be implemented in the time periods between 0500-0600LT and between 2200-2300LT, provided the conditions required by air traffic control are met.

In the provision of air traffic control, the following flights, among others, will be exempt from the regulations of the noise respite periods:

- Flights for which the pilot has declared an emergency or which are apparently in an emergency situation, including flights affected or threatened by unlawful interference;
- Security flights of air defense;
- Flights on search and rescue missions;
- Flights transporting sick or injured persons requiring immediate medical assistance (including flights designated as LHO (Live Human Organ);
- Government flights, including flights with Head of State status in accordance with the regulations laid down by the Federal Ministry of Transport and Digital Infrastructure (BMVI);
- Flights where a pilot requests the use of a certain RWY for safety reasons;
- Particularly endangered flights;
- Calibration flights.

In addition, noise respite periods will not be implemented when restricted by infrastructure or poor weather conditions (e.g. construction work, snow clearing).

Further information can be found in the "alliance paper" which is the basis for the respite periods (www.wirtschaft.hessen.de).

PROCEDURES

The provisions concerning delayed take-offs and landings of ACFT described in Para 1.2.2. remain unchanged.

If the APT operator Fraport or an airline using the APT thinks that the implementation of the noise respite period in the morning or evening is very likely to lead to operational disruptions, they shall inform the aviation supervision office (Luftaufsicht) about this. The aviation supervision office will then suspend the noise respite period without further formalities or verification processes.

The aviation supervision office (Luftaufsicht) will inform Fraport about the suspension of the noise respite period. Fraport will in turn inform the air navigation services and airlines using its communication channels.

3. DEPARTURE

3.3.3. DEDICATED RWY OPERATIONS (DROPS)

When RWY 07 is in use, between 0500-0600LT RWY utilization will be arranged on odd calendar days:

All take-offs will be handled via RWY 18, thus avoiding the utilisation of the RWYs 07C/07R for take-offs.

When using the DROps procedures and operating direction 07 for departures to the North, only SIDs with the designation "R" will be allocated by the AD control tower. ACFT unable to adhere to "Cross FFM R-200 at or above 2500'" on the SIDs with the designation "R" will only be granted start-up approval and enroute clearance after coordination has taken place with the approach control unit.

Special Features

If meteorological conditions and/or other operational conditions do not allow the use of RWY 18, another RWY will be allocated after coordination has taken place with the approach control unit. This also applies to ambulance flights and/or flights with corresponding priority of service.

On even weekdays, the current procedures employed and published shall apply.

3.4. RWY OPERATIONS

3.4.1. CALCULATED TAKE-OFF TIME (CTOT) AND SLOT PROCEDURES

Departing ACFT shall be ready for take-off at the RWY 5 minutes prior to CTOT at the earliest, and at CTOT at the latest.

3.4.2. HIGH INTENSITY RWY OPERATIONS (HIRO)

ACFT that are not ready for departure will not receive clearance to line up.

Pilots are requested to report to Aerodrome Control if they are not ready to depart without being asked.

Pilots shall advise Aerodrome Control on initial call of the earliest possible intersection take-off.

When using RWYs 07 and 18, pilots of ACFT of wake turbulence categories light and medium which are taxiing to RWY 18 via TWY N or L due to their ACFT stand shall calculate the take-off run from the intersection to TWY M in order to avoid a departure delay due to required separation from arriving ACFT on RWY 07R. Pilots who cannot accept a take-off run from the intersection of TWY M are requested to advise ATC at the same time they request start-up approval.

The entire RWY system is characterized by interdependencies. Pilots are thus expected to begin their take-off runs immediately after receiving their take-off clearance.

After take-off, ACFT should rapidly accelerate to the published maximum speed for the initial segment of the cleared SID. Afterwards, or if there is no published MAX speed, ACFT below FL100 should rapidly accelerate to 250 KT.

3.5. OTHER INFORMATION

3.5.1. GENERAL

When glider areas in vicinity of APT activated, expect higher crossing altitude by ATC for SIDs which require higher climb gradient than standard.

Winds between 200^ and 160^ in a clockwise direction and speeds of 15 KT and more shall be expected on RWY 18. Gusts and strong windshifts up to tail wind components may occur.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN

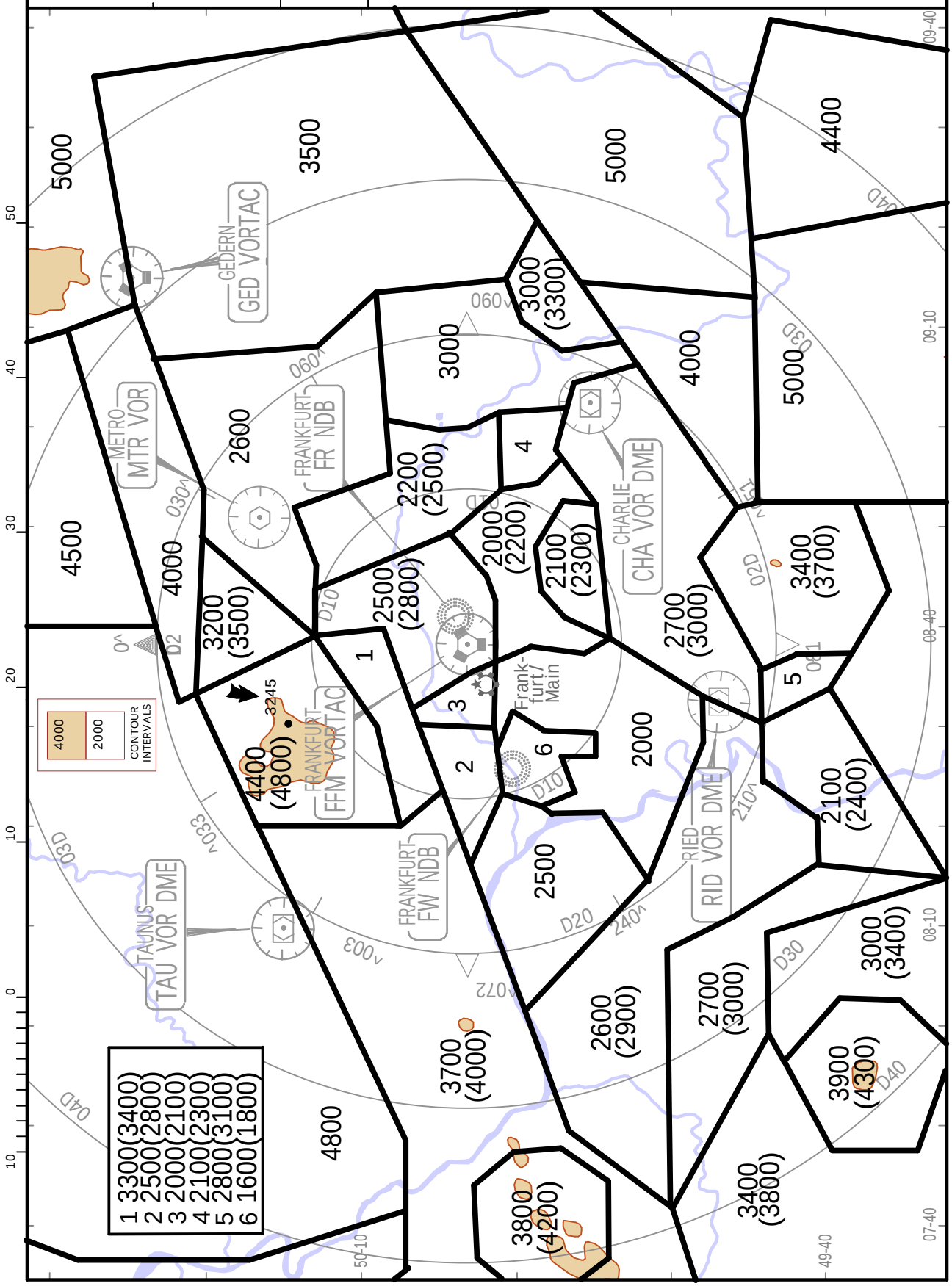
FRANKFURT/MAIN, GERMANY
30 APR 21 (10-1R)
.RADAR.MINIMUM.ALTITUDES.

LANGEN Radar (APP)

ARRIVAL	DEPARTURE
*119.030	*126.555
North 120.805	*120.155
South *125.355	South 136.130

Apt Elev 364

Alt Set: hPa (IN on request)
Trans level: By ATC Trans alt: 5000'
The MVA is the lowest altitude which may be used for 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 MVA, IFR flights will normally be cleared on published IFR procedures only.
Altitudes in brackets generally apply for the period from AIRAC date in November until AIRAC date in March in order to meet required obstacle clearance at cold temperatures.



CHANGES: Sectors & altitudes Southwest of ARP revised.

*D-ATIS	Apt Elev	
118.030	364	Alt Set: hPa (IN on request) Trans level: By ATC
		RNAV (GPS, DME/DME, DME/DME/IRU). RNAV 1 required. RADAR required.
		MAINTAIN downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.

PETIX 3C [PETI3C]
PETIX 3D [PETI3D]
RNAV ARRIVALS
(RWYS 07L/C/R)

BY ATC

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

STAR	ROUTING
PETIX 3C	PETIX - ODEGU - KEPIT - SUKAD - REKDI - OLALI - INBOS - SPESA (FL110) - CHA - DF635 - DF636 - DF64~ - DF641 - DF642 - DF643 - DF644.
PETIX 3D	PETIX - ODEGU - KEPIT - SUKAD - REKDI - OLALI - INBOS - SPESA (FL110) - RIPKU - DF436 - DF437 - DF439 - DF441 - DF442 - DF443 - DF444.

DF437
DF436
DF439
DF441
DF442
DF443
DF444
DF635
DF636
DF64~
DF641
DF642
DF643
DF644
DF454 (IAF)
DF554 (IAF)
DF654 (IAF)
RIPKU
INBOS
SPESA
FL110
OLALI
REKDI
SUKAD
KEPIT
ODEGU
PETIX
CHA
CHARLIE
MAX FL100
MHA 4000
5000 By ATC
MAX 230 KT
MHA 5000
MAX 230 KT
MAX FL240
MHA FL140
PETIX 3D
PETIX 3C
ARP
WIESBADEN
-AAF
ETOU
MANNHEIM
-City
EDFM
GIEBELSTADT
EDQG
NIEDERSTETTEN
ETHN
3245
4300

Before reaching SPESA and IF STAR PETIX is cleared:
Follow respective PETIX STAR maintaining last assigned FL.
If already cleared to a FL at or below FL130 continue via respective PETIX STAR, otherwise enter holding at SPESA, descend to FL130 and continue - if necessary deviating from a previously issued clearance for a PETIX 3D STAR - via PETIX 3C STAR (RWY 07R) without delay.

After passing SPESA:
Continue without delay via respective PETIX STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF644 (PETIX 3C) or DF444 (PETIX 3D); turn (if already beyond turn IMMEDIATELY) to IAF DF654 (RWY 07R) and follow an adequate instrument approach procedure to land on RWY 07R.
If RWY 07R is closed or a landing on RWY 07R is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 07C shall be used.

LOST COMMS

4000
2000
CONTOUR INTERVALS

08-00 08-30 09-00 09-30 10-00 10-30

CHANGES: RNAV STARs renumbered; track update; general notes.

*D-ATIS	Apt Elev
118.030	364

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

RNAV (GPS, DME/DME, DME/DME/IRU).
RNAV 1 required.
RADAR required.

MAINTAIN downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.

PETIX 3A [PETI3A], PETIX 3B [PETI3B] RNAV ARRIVALS (RWYS 25L/C/R)

BY ATC

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

STAR	ROUTING
PETIX 3A	PETIX - ODEGU - KEPIT - SUKAD - REKDI - OLALI - INBOS - SPESA (FL110) - RIPKU - DF4~6 - DF4~7 - DF4~8- DF411 - DF412 - DF413 - DF414 - DF415 - DF416.
PETIX 3B	PETIX - ODEGU - KEPIT - SUKAD - REKDI - OLALI - INBOS - SPESA (FL110) - CHA - DF6~6 - DF61~ - DF611 - DF612 - DF613 - DF614 - DF615 - DF616.

DF4~7
DF4~8
DF4~6
DF416
DF415 (IAF)
DF426 (IAF)
DF526 (IAF)
DF626
DF414
DF413
DF412
DF411
DF614
DF615
DF616
DF613
DF612
DF611
DF61~
DF6~6
PETIX 3A
RIPKU
MAX FL100
MHA 4000
5000 By ATC
INBOS
SPESA
FL110
MAX 230 KT
MHA 5000
PETIX 3B
CHARLIE
CHA
115.35
OLALI
REKDI
MAX 230 KT
MAX FL240
MHA FL140
SUKAD
KEPIT
ODEGU
PETIX
ARP
4300
3777
GIEBELSTADT
EDQG
MANNHEIM
-City
EDFM
NIEDERSTETTEN
ETHN
NUERNBERG
EDDN
44
48
49
36
40
37
45

Before reaching SPESA and IF STAR PETIX is cleared:
Follow respective PETIX STAR maintaining last assigned FL.
If already cleared to a FL at or below FL130 continue via respective PETIX STAR, otherwise enter holding at SPESA, descend to FL130 and continue - if necessary deviating from a previously issued clearance for a PETIX 3A STAR - via PETIX 3B STAR (RWY 25L) without delay.

After passing SPESA:
Continue without delay via respective PETIX STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF616 (PETIX 3B) or DF416 (PETIX 3A); turn (if already beyond turn IMMEDIATELY) to IAF DF626 (RWY 25L) and follow an adequate instrument approach procedure to land on RWY 25L.
If RWY 25L is closed or a landing on RWY 25L is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 25C shall be used.

LOST COMMS

4000
2000
CONTOUR INTERVALS

CHANGES: RNAV STARs renumbered; track update; general notes.

JEPPESEN
9 JUL 21 (10-2B) .Eff.15.Jul.

FRANKFURT/MAIN, GERMANY .RNAV.STAR.

*D-ATIS	Apt Elev
118.030	364

Alt Set: hPa (IN on request)
Trans level: By ATC
1. RNAV (GPS, DME/DME, DME/DME/IRU).
2. RNAV 1 required.
3. RADAR required.
4. Maintain downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.
5. If unable to comply with level restrictions advise ATC.

FAWUR 2C [FAWU2C]
FAWUR 2D [FAWU2D]
RWYS 07L/C/R RNAV ARRIVALS

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

SPEED RESTRICTION
Initiate descent with last MACH number, on speed transition MAINTAIN 280 KT +/- 20 KT until SPESA or unless otherwise instructed by ATC.

STAR	ROUTING
FAWUR 2C	FAWUR (FL240) - BOWEK - ITHIT (FL185) - SEVVE (FL145-; FL135+) - SPESA (FL110) - CHA - DF635 - DF636 - DF640 - DF641 - DF642 - DF643 - DF644.
FAWUR 2D By ATC	FAWUR (FL240) - BOWEK - ITHIT (FL185) - SEVVE (FL145-; FL135+) SPESA (FL110) - RIPKU - DF436 - DF437 - DF439 - DF441 - DF442 - DF443 - DF444.

A clearance for a STAR with level and/or speed restrictions consists of a lateral and a vertical part:
Lateral part: 'Cleared (designator) arrival.'
Vertical part: 'Descend via STAR FL (figures).'
Adherence to waypoint restrictions is mandatory after a 'Descend via STAR FL (figures).' clearance.
Non-adherence may lead to separation infringement.
Do not descend belelow the FL cleared by ATC.

DF437 DF436 DF439 DF441 DF442 DF443 DF444 DF635 DF636 DF454 DF554 DF654 DF64~ DF641 DF642 DF643 DF644 RIPKU SPESA FL110 SEVVE FL145 FL135 ITHIT FL185 BOWEK MHA FL140 FAWUR FL240 MHA 5000 MAX FL100 MHA 4000 5000 By ATC CHA CHARLIE 115.35 ARP WIESBADEN -AAF ETOU MANNHEIM -City EDFM GIEBELSTADT EDQG NIEDERSTETTEN ETHN 3245 4300

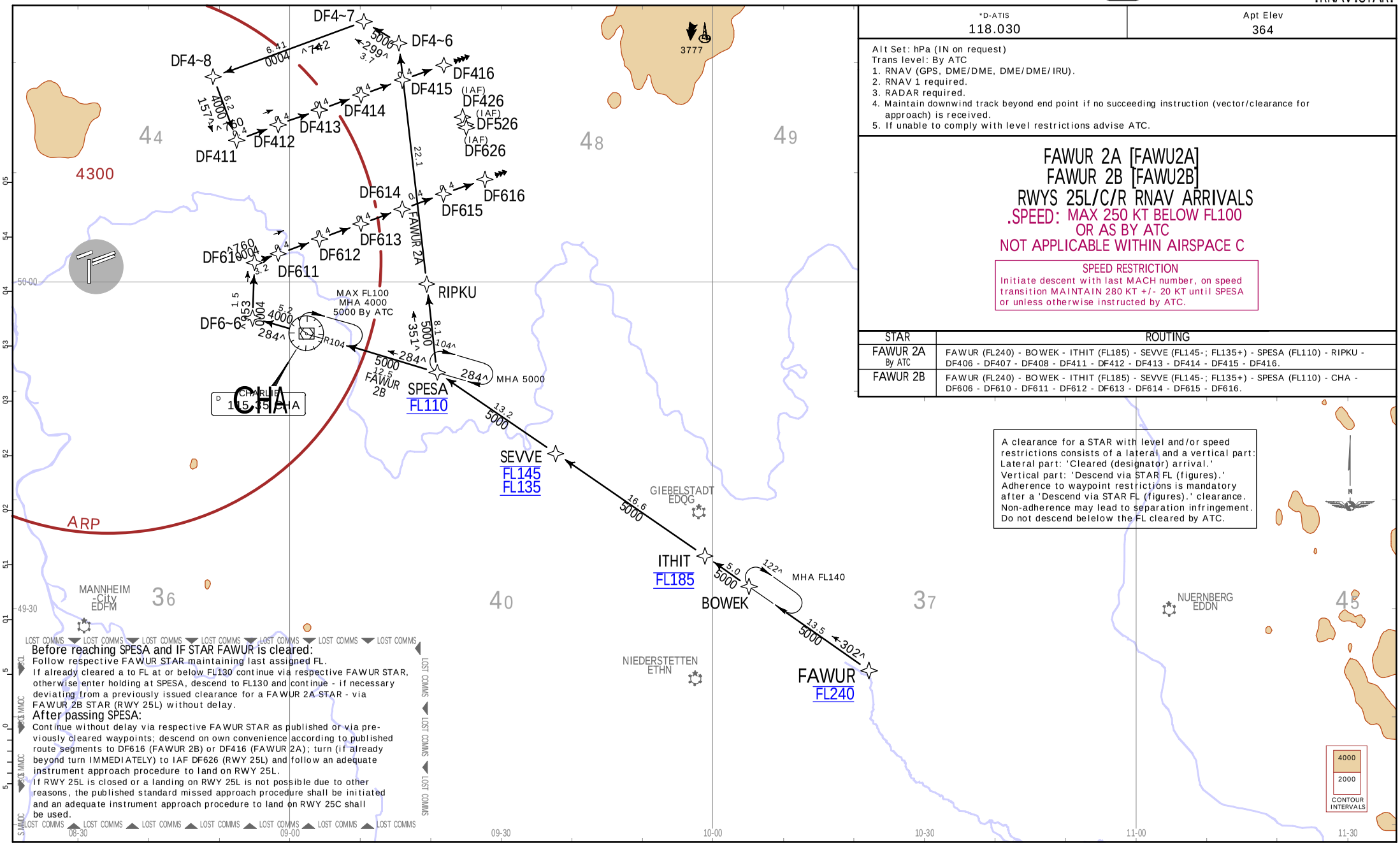
Before reaching SPESA and IF STAR FAWUR is filed in FPL or cleared:
Follow respective FAWUR STAR maintaining last assigned FL.
If already cleared to a FL at or below FL130 continue via respective FAWUR STAR, otherwise enter holding at SPESA, descend to FL130 and continue - if necessary deviating from a previously issued clearance for a FAWUR 2D STAR - via FAWUR 2C STAR (RWY 07R) without delay.

After passing SPESA:
Continue without delay via respective FAWUR STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF644 (FAWUR 2C) or DF444 (FAWUR 2D); turn (if already beyond turn IMMEDIATELY) to IAF DF654 (RWY 07R) and follow an adequate instrument approach procedure to land on RWY 07R.
If RWY 07R is closed or a landing on RWY 07R is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 07C shall be used.

LOST COMMS

4000
2000
CONTOUR INTERVALS

CHANGES: RNAV STARs renumbered; track update.



*D-ATIS	Apt Elev
118.030	364

Alt Set: hPa (IN on request)
Trans level: By ATC
1. RNAV (GPS, DME/DME, DME/DME/IRU).
2. RNAV 1 required.
3. RADAR required.
4. Maintain downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.
5. If unable to comply with level restrictions advise ATC.

FAWUR 2A [FAWU2A]
FAWUR 2B [FAWU2B]
RWYS 25L/C/R RNAV ARRIVALS

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

SPEED RESTRICTION
Initiate descent with last MACH number, on speed transition MAINTAIN 280 KT +/- 20 KT until SPESA or unless otherwise instructed by ATC.

STAR	ROUTING
FAWUR 2A By ATC	FAWUR (FL240) - BOWEK - ITHIT (FL185) - SEVVE (FL145-; FL135+) - SPESA (FL110) - RIPKU - DF406 - DF407 - DF408 - DF411 - DF412 - DF413 - DF414 - DF415 - DF416.
FAWUR 2B	FAWUR (FL240) - BOWEK - ITHIT (FL185) - SEVVE (FL145-; FL135+) - SPESA (FL110) - CHA - DF606 - DF610 - DF611 - DF612 - DF613 - DF614 - DF615 - DF616.

A clearance for a STAR with level and/or speed restrictions consists of a lateral and a vertical part:
Lateral part: 'Cleared (designator) arrival.'
Vertical part: 'Descend via STAR FL (figures).'
Adherence to waypoint restrictions is mandatory after a 'Descend via STAR FL (figures).' clearance.
Non-adherence may lead to separation infringement.
Do not descend belelow the FL cleared by ATC.

Before reaching SPESA and IF STAR FAWUR is cleared:
Follow respective FAWUR STAR maintaining last assigned FL.
If already cleared a to FL at or below FL130 continue via respective FAWUR STAR, otherwise enter holding at SPESA, descend to FL130 and continue - if necessary deviating from a previously issued clearance for a FAWUR 2A STAR - via FAWUR 2B STAR (RWY 25L) without delay.

After passing SPESA:
Continue without delay via respective FAWUR STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF616 (FAWUR 2B) or DF416 (FAWUR 2A); turn (if already beyond turn IMMEDIATELY) to IAF DF626 (RWY 25L) and follow an adequate instrument approach procedure to land on RWY 25L.
If RWY 25L is closed or a landing on RWY 25L is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 25C shall be used.

4000
2000
CONTOUR INTERVALS

CHANGES: RNAV STARS renumbered; track update.

EDF/FRA
FRANKFURT/MAIN

*D-ATIS	Apt Elev
118.030	364

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

RNAV (GPS, DME/DME, DME/DME/IRU).
RNAV 1 required.
RADAR required.

1. MAINTAIN downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.
2 .If unable to comply with level restrictions advise ATC.

EMPAX 4C [EMPA4C]
EMPAX 4D [EMPA4D]
RNAV ARRIVALS
(RWYS 07L/C/R)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

SPEED RESTRICTION
Initiate descent with last MACH number, on speed transition MAINTAIN 280 KT +/- 20 KT until SPESA or unless otherwise instructed by ATC.

STAR	ROUTING
EMPAX 4C	EMPAX (FL360-; FL290+) - NELLI (FL320-; FL260+) - KOVAN (FL270-; FL220+) - KISEK (FL240-; FL210+) - XINLA (FL180-; FL160+) - XARCU (FL110-; FL100+) - ADNIS (FL100) - SPESA - CHA - DF635 - DF636 - DF64~ - DF641 - DF642 - DF643 - DF644.
EMPAX 4D By ATC	EMPAX (FL360-; FL290+) - NELLI (FL320-; FL260+) - KOVAN (FL270-; FL220+) - KISEK (FL240-; FL210+) - XINLA (FL180-; FL160+) - XARCU (FL110-; FL100+) - ADNIS (FL100) - SPESA - RIPKU - DF436 - DF437 - DF439 - DF441 - DF442 - DF443 - DF444.

ARP
4300
MAX FL100
MHA 4000
5000 By ATC
WIESBADEN -AAF ETOU
CHARLIE
115.35 CHA
MANNHEIM -City EDFM
NIEDERSTETTEN ETHN
SCHWAEBISCH HALL EDTY
KARLSRUHE/BADEN-BADEN EDSB
STUTTGART EDDS
LAHR EDTL
4377
GERMANY
FRANCE

DF437
DF436
DF439
DF444
DF443
DF442
DF441
DF635
DF636
DF64~
DF641
DF642
DF643
DF644
RIPKU
SPESA
ADNIS
FL100
XARCU
FL110
FL100
XINLA
FL180
FL160
KISEK
FL240
FL210
KOVAN
FL270
FL220
NELLI
FL320
FL260
EMPAX
FL360
FL290

LOST COMMS

Before reaching SPESA and IF STAR EMPAX is filed in FPL or cleared:
Follow respective EMPAX STAR maintaining last assigned FL.
If already cleared to a FL at or below FL130 continue via respective EMPAX STAR, otherwise enter holding at SPESA, descend to FL130 and continue - if necessary deviating from a previously issued clearance for a EMPAX 4D STAR - via EMPAX 4C STAR (RWY 07R) without delay.

After passing SPESA:
Continue without delay via respective EMPAX STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF644 (EMPAX 4C) or DF444 (EMPAX 4D); turn (if already beyond turn IMMEDIATELY) to IAF DF654 (RWY 07R) and follow an adequate instrument approach procedure to land on RWY 07R.
If RWY 07R is closed or a landing on RWY 07R is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 07C shall be used.

A clearance for a STAR with level and/or speed restrictions consists of a lateral and a vertical part:
Lateral part: 'Cleared (designator) arrival.'
Vertical part: 'Descend via STAR FL (figures).'
Adherence to waypoint restrictions is mandatory after a 'Descend via STAR FL (figures).' clearance.
Non-adherence may lead to separation infringement.
Do not descend below the FL cleared by ATC.

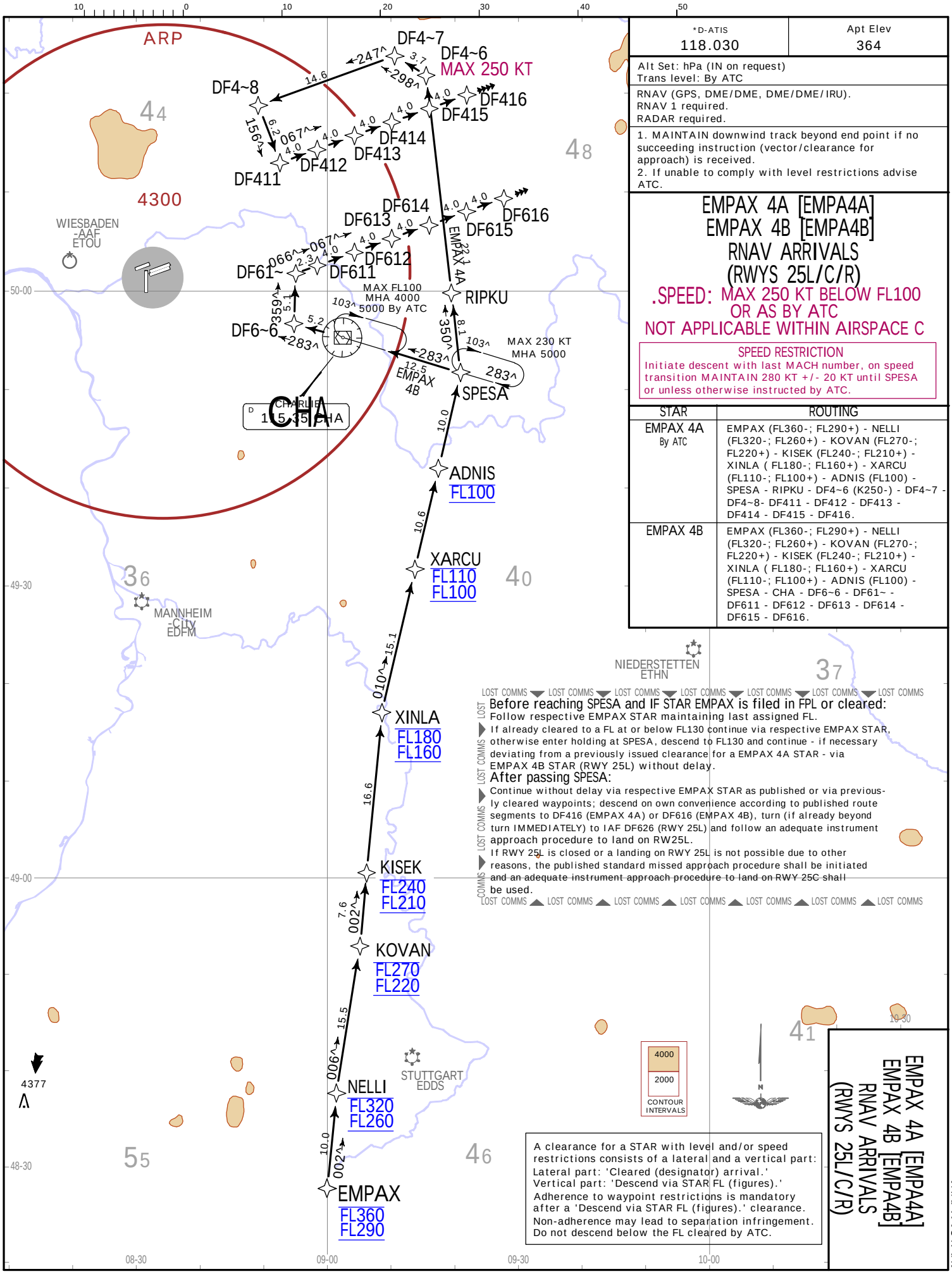
SPESA
103^
283^
MAX 230 KT
MHA 5000

4000
2000
CONTOUR INTERVALS

28 OCT 22 (10-2D) .Eff.3.Nov.

JEPPESEN FRANKFURT/MAIN, GERMANY .RNAV.STAR.

EMPAX 4C [EMPA4C]
EMPAX 4D [EMPA4D]
RNAV ARRIVALS
(RWYS 07L/C/R)



*D-ATIS	Apt Elev
118.030	364

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

RNAV (GPS, DME/DME, DME/DME/IRU).
RNAV 1 required.
RADAR required.

1. MAINTAIN downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.
2. If unable to comply with level restrictions advise ATC.

EMPAX 4A [EMPA4A]
EMPAX 4B [EMPA4B]
RNAV ARRIVALS
(RWYS 25L/C/R)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

SPEED RESTRICTION
Initiate descent with last MACH number, on speed transition MAINTAIN 280 KT +/- 20 KT until SPESA or unless otherwise instructed by ATC.

STAR	ROUTING
EMPAX 4A By ATC	EMPAX (FL360-; FL290+) - NELLI (FL320-; FL260+) - KOVAN (FL270-; FL220+) - KISEK (FL240-; FL210+) - XINLA (FL180-; FL160+) - XARCU (FL110-; FL100+) - ADNIS (FL100) - SPESA - RIPKU - DF4~6 (K250-) - DF4~7 - DF4~8- DF411 - DF412 - DF413 - DF414 - DF415 - DF416.
EMPAX 4B	EMPAX (FL360-; FL290+) - NELLI (FL320-; FL260+) - KOVAN (FL270-; FL220+) - KISEK (FL240-; FL210+) - XINLA (FL180-; FL160+) - XARCU (FL110-; FL100+) - ADNIS (FL100) - SPESA - CHA - DF6~6 - DF61~ - DF611 - DF612 - DF613 - DF614 - DF615 - DF616.

LOST COMMS

Before reaching SPESA and IF STAR EMPAX is filed in FPL or cleared:
Follow respective EMPAX STAR maintaining last assigned FL.
If already cleared to a FL at or below FL130 continue via respective EMPAX STAR, otherwise enter holding at SPESA, descend to FL130 and continue - if necessary deviating from a previously issued clearance for a EMPAX 4A STAR - via EMPAX 4B STAR (RWY 25L) without delay.

After passing SPESA:
Continue without delay via respective EMPAX STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF416 (EMPAX 4A) or DF616 (EMPAX 4B), turn (if already beyond turn IMMEDIATELY) to IAF DF626 (RWY 25L) and follow an adequate instrument approach procedure to land on RW25L.
If RWY 25L is closed or a landing on RWY 25L is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 25C shall be used.

A clearance for a STAR with level and/or speed restrictions consists of a lateral and a vertical part:
Lateral part: 'Cleared (designator) arrival.'
Vertical part: 'Descend via STAR FL (figures).'
Adherence to waypoint restrictions is mandatory after a 'Descend via STAR FL (figures).' clearance.
Non-adherence may lead to separation infringement.
Do not descend below the FL cleared by ATC.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN FRANKFURT/MAIN, GERMANY
.RNAV.STAR.

28 OCT 22 (10-2E) .Eff.3.Nov.

EMPAX 4A [EMPA4A]
EMPAX 4B [EMPA4B]
RNAV ARRIVALS
(RWYS 25L/C/R)

JEPPESEN
29 OCT 21 (10-2F) .Eff.4.Nov.

FRANKFURT/MAIN, GERMANY .RNAV.STAR.

*D-ATIS	Apt Elev	
118.030	364	Alt Set: hPa (IN on request) Trans level: By ATC
		RNAV (GPS, DME/DME, DME/DME/IRU). RNAV 1 required. RADAR required.
		MAINTAIN downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.

KERAX 3C [KERA3C]
KERAX 3D [KERA3D]
SPESA 3C [SPES3C]
SPESA 3D [SPES3D]
RNAV ARRIVALS
(RWYS 07L/C/R)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

STAR	ROUTING
KERAX 3C	KERAX - EBIPA - INBOS - SPESA - CHA - DF635 - DF636 - DF64~ - DF641 - DF642 - DF643 - DF644.
KERAX 3D	KERAX - GED - DF437 - DF439 - DF441 - DF442 - DF443 - DF444.
SPESA 3C	SPESA - CHA - DF635 - DF636 - DF64~ - DF641 - DF642 - DF643 - DF644.
SPESA 3D By ATC	SPESA - RIPKU - DF436 - DF437 - DF439 - DF441 - DF442 - DF443 - DF444.

LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

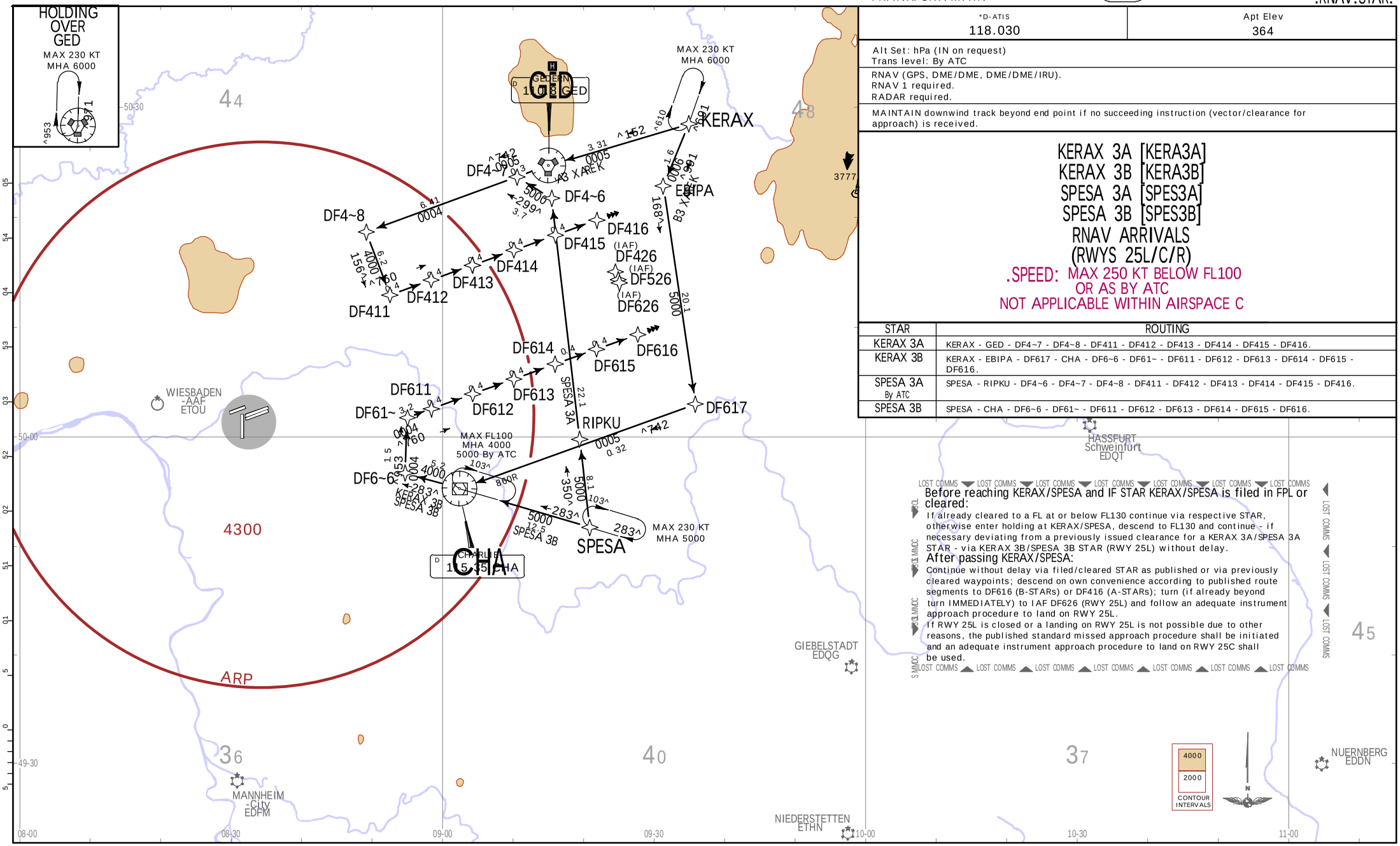
Before reaching KERAX/SPESA and IF STAR KERAX/SPESA is filed in FPL or cleared:
If already cleared to a FL at or below FL130 continue via respective STAR, otherwise enter holding at KERAX/SPESA, descend to FL130 and continue - if necessary deviating from a previously issued clearance for a KERAX 3D/SPESA 3D STAR - via KERAX 3C/SPESA 3C STAR (RWY 07R) without delay.

After passing KERAX/SPESA:
Continue without delay via filed/cleared STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF644 (C-STARs) or DF444 (D-STARs); turn (if already beyond turn IMMEDIATELY) to IAF DF654 (RWY 07R) and follow an adequate instrument approach procedure to land on RWY 07R.
If RWY 07R is closed or a landing on RWY 07R is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 07C shall be used.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

CONTOUR INTERVALS 4000 2000

CHANGES: RNAV STARs renumbered; track update; general notes.



*D-ATIS	Apt Elev
118.030	364

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

RNAV (GPS, DME/DME, DME/DME/IRU).
RNAV 1 required.
RADAR required.

MAINTAIN downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.

KERAX 3A [KERA3A]
KERAX 3B [KERA3B]
SPESA 3A [SPES3A]
SPESA 3B [SPES3B]
RNAV ARRIVALS
(RWYS 25L/C/R)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

STAR	ROUTING
KERAX 3A	KERAX - GED - DF4~7 - DF4~8 - DF411 - DF412 - DF413 - DF414 - DF415 - DF416.
KERAX 3B	KERAX - EBIPA - DF617 - CHA - DF6~6 - DF61~ - DF611 - DF612 - DF613 - DF614 - DF615 - DF616.
SPESA 3A By ATC	SPESA - RIPKU - DF4~6 - DF4~7 - DF4~8 - DF411 - DF412 - DF413 - DF414 - DF415 - DF416.
SPESA 3B	SPESA - CHA - DF6~6 - DF61~ - DF611 - DF612 - DF613 - DF614 - DF615 - DF616.

Before reaching KERAX/SPESA and IF STAR KERAX/SPESA is filed in FPL or cleared:

If already cleared to a FL at or below FL130 continue via respective STAR, otherwise enter holding at KERAX/SPESA, descend to FL130 and continue - if necessary deviating from a previously issued clearance for a KERAX 3A/SPESA 3A STAR - via KERAX 3B/SPESA 3B STAR (RWY 25L) without delay.

After passing KERAX/SPESA:

Continue without delay via filed/cleared STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF616 (B-STARs) or DF416 (A-STARs); turn (if already beyond turn IMMEDIATELY) to IAF DF626 (RWY 25L) and follow an adequate instrument approach procedure to land on RWY 25L.

If RWY 25L is closed or a landing on RWY 25L is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 25C shall be used.

JEPPESEN
29 OCT 21 (10-2H) .Eff.4.Nov.

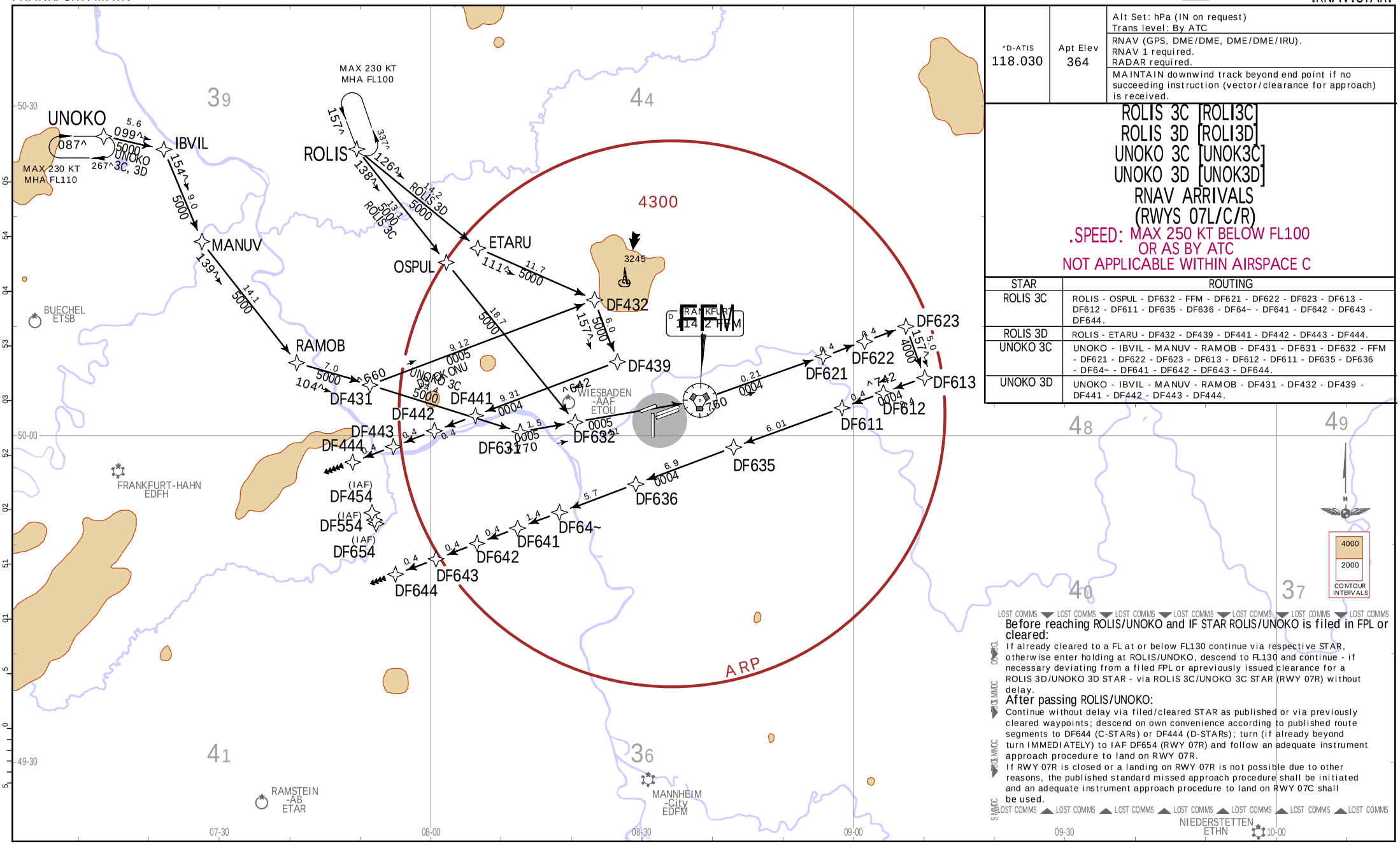
FRANKFURT/MAIN, GERMANY .RNAV.STAR.

*D-ATIS	Apt Elev	
118.030	364	Alt Set: hPa (IN on request) Trans level: By ATC
		RNAV (GPS, DME/DME, DME/DME/IRU). RNAV 1 required. RADAR required.
		MAINTAIN downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.

ROLIS 3C [ROLI3C]
ROLIS 3D [ROLI3D]
UNOKO 3C [UNOK3C]
UNOKO 3D [UNOK3D]
RNAV ARRIVALS
(RWYS 07L/C/R)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

STAR	ROUTING
ROLIS 3C	ROLIS - OSPUL - DF632 - FFM - DF621 - DF622 - DF623 - DF613 - DF612 - DF611 - DF635 - DF636 - DF64~ - DF641 - DF642 - DF643 - DF644.
ROLIS 3D	ROLIS - ETARU - DF432 - DF439 - DF441 - DF442 - DF443 - DF444.
UNOKO 3C	UNOKO - IBVIL - MANUV - RAMOB - DF431 - DF631 - DF632 - FFM - DF621 - DF622 - DF623 - DF613 - DF612 - DF611 - DF635 - DF636 - DF64~ - DF641 - DF642 - DF643 - DF644.
UNOKO 3D	UNOKO - IBVIL - MANUV - RAMOB - DF431 - DF432 - DF439 - DF441 - DF442 - DF443 - DF444.



LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS ▼ LOST COMMS

Before reaching ROLIS/UNOKO and IF STAR ROLIS/UNOKO is filed in FPL or cleared:

If already cleared to a FL at or below FL130 continue via respective STAR, otherwise enter holding at ROLIS/UNOKO, descend to FL130 and continue - if necessary deviating from a filed FPL or apreviously issued clearance for a ROLIS 3D/UNOKO 3D STAR - via ROLIS 3C/UNOKO 3C STAR (RWY 07R) without delay.

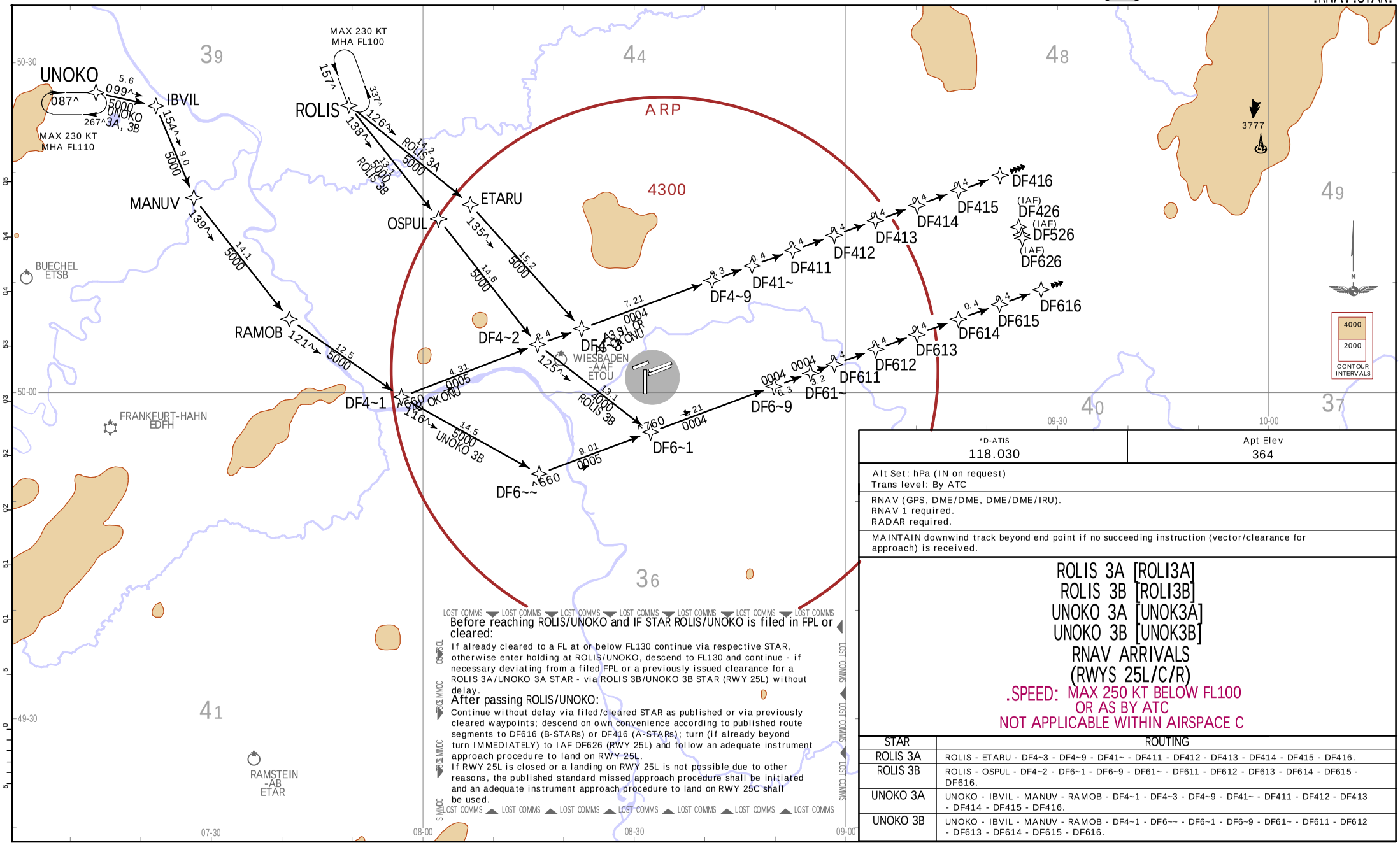
After passing ROLIS/UNOKO:

Continue without delay via filed/cleared STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF644 (C-STARs) or DF444 (D-STARs); turn (if already beyond turn IMMEDIATELY) to IAF DF654 (RWY 07R) and follow an adequate instrument approach procedure to land on RWY 07R.

If RWY 07R is closed or a landing on RWY 07R is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 07C shall be used.

LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS ▲ LOST COMMS

CHANGES: RNAV STARs renumbered; track update.



*D-ATIS	Apt Elev
118.030	364

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

RNAV (GPS, DME/DME, DME/DME/IRU).
RNAV 1 required.
RADAR required.

MAINTAIN downwind track beyond end point if no succeeding instruction (vector/clearance for approach) is received.

ROLIS 3A [ROLI3A]
ROLIS 3B [ROLI3B]
UNOKO 3A [UNOK3A]
UNOKO 3B [UNOK3B]
RNAV ARRIVALS
(RWYS 25L/C/R)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

STAR	ROUTING
ROLIS 3A	ROLIS - ETARU - DF4~3 - DF4~9 - DF41~ - DF411 - DF412 - DF413 - DF414 - DF415 - DF416.
ROLIS 3B	ROLIS - OSPUL - DF4~2 - DF6~1 - DF6~9 - DF61~ - DF611 - DF612 - DF613 - DF614 - DF615 - DF616.
UNOKO 3A	UNOKO - IBVIL - MANUV - RAMOB - DF4~1 - DF4~3 - DF4~9 - DF41~ - DF411 - DF412 - DF413 - DF414 - DF415 - DF416.
UNOKO 3B	UNOKO - IBVIL - MANUV - RAMOB - DF4~1 - DF6~~ - DF6~1 - DF6~9 - DF61~ - DF611 - DF612 - DF613 - DF614 - DF615 - DF616.

LOST COMMS

Before reaching ROLIS/UNOKO and IF STAR ROLIS/UNOKO is filed in FPL or cleared:

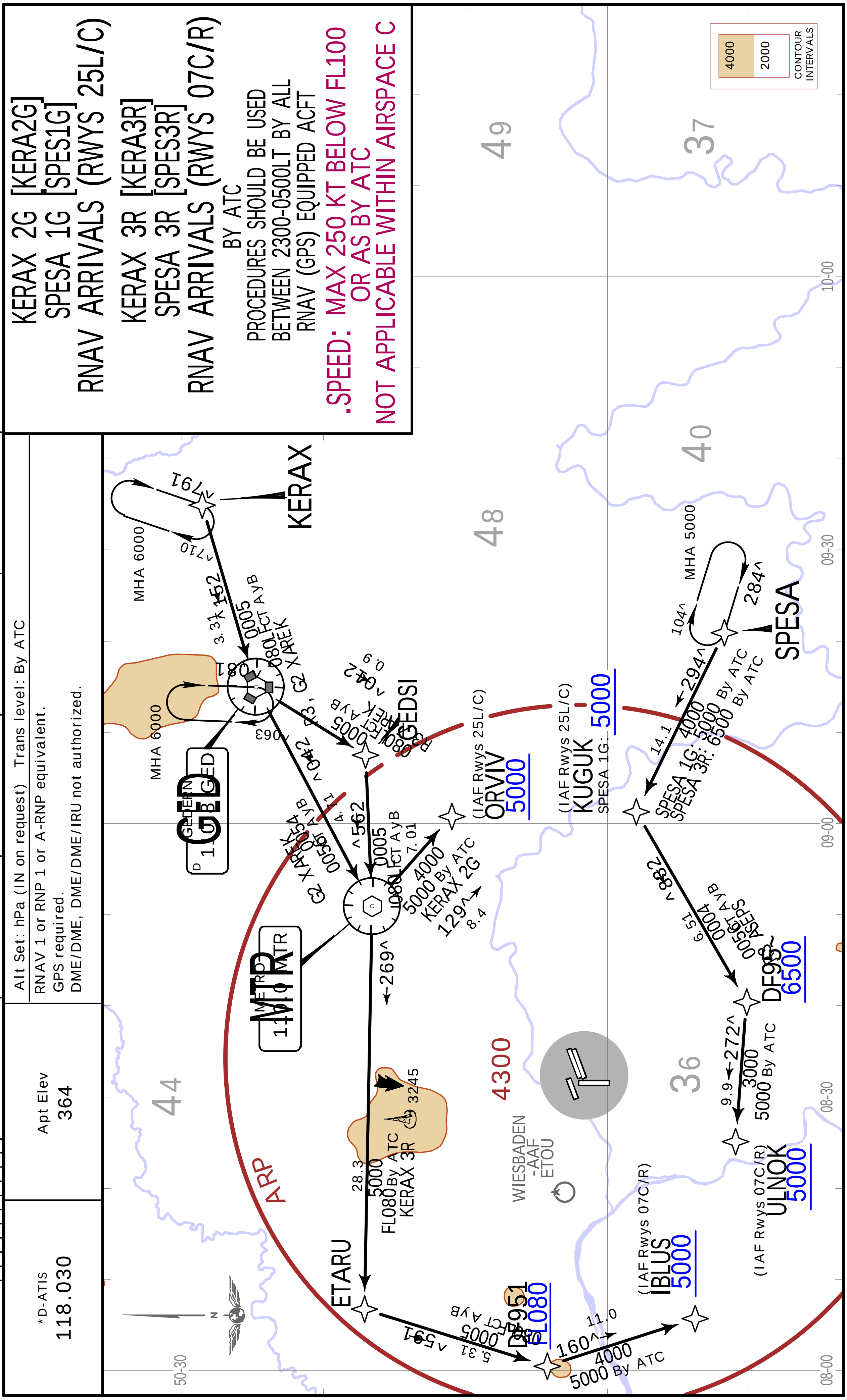
If already cleared to a FL at or below FL130 continue via respective STAR, otherwise enter holding at ROLIS/UNOKO, descend to FL130 and continue - if necessary deviating from a filed FPL or a previously issued clearance for a ROLIS 3A/UNOKO 3A STAR - via ROLIS 3B/UNOKO 3B STAR (RWY 25L) without delay.

After passing ROLIS/UNOKO:

Continue without delay via filed/cleared STAR as published or via previously cleared waypoints; descend on own convenience according to published route segments to DF616 (B-STARs) or DF416 (A-STARs); turn (if already beyond turn IMMEDIATELY) to IAF DF626 (RWY 25L) and follow an adequate instrument approach procedure to land on RWY 25L.

If RWY 25L is closed or a landing on RWY 25L is not possible due to other reasons, the published standard missed approach procedure shall be initiated and an adequate instrument approach procedure to land on RWY 25C shall be used.

CHANGES: RNAV STARs renumbered; track update; general notes.


*D-ATIS
118.030
Apt Elev
364
Alt Set: hPa (IN on request) Trans level: By ATC
RNAV 1 or RNP 1 or A-RNP equivalent.
GPS required.
DME/DME, DME/DME/IRU not authorized.
KERAX 2G [KERA2G]
SPESA 1G [SPES1G]
RNAV ARRIVALS (RWYS 25L/C)
KERAX 3R [KERA3R]
SPESA 3R [SPES3R]
RNAV ARRIVALS (RWYS 07C/R)
BY ATC
PROCEDURES SHOULD BE USED
BETWEEN 2300-0500LT BY ALL
RNAV (GPS) EQUIPPED ACFT
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C
KERAX
SPESA
MHA 6000
MHA 5000
GED
MTR
ARP
4300
WIESBADEN -AAF
ETARU
DF951
FL080
(IAF Rwys 25L/C)
ORVIV
5000
KUGUK
5000
(IAF Rwys 07C/R)
IBLUS
5000
ULNOK
5000
DF953
6500
CONTOUR INTERVALS
2000
4000

*D-ATIS	Apt Elev	Alt Set: hPa (IN on request) Trans level: By ATC
118.030	364	RNAV 1 or RNP 1 or A-RNP equivalent. GPS required. DME/DME, DME/DME/IRU not authorized.

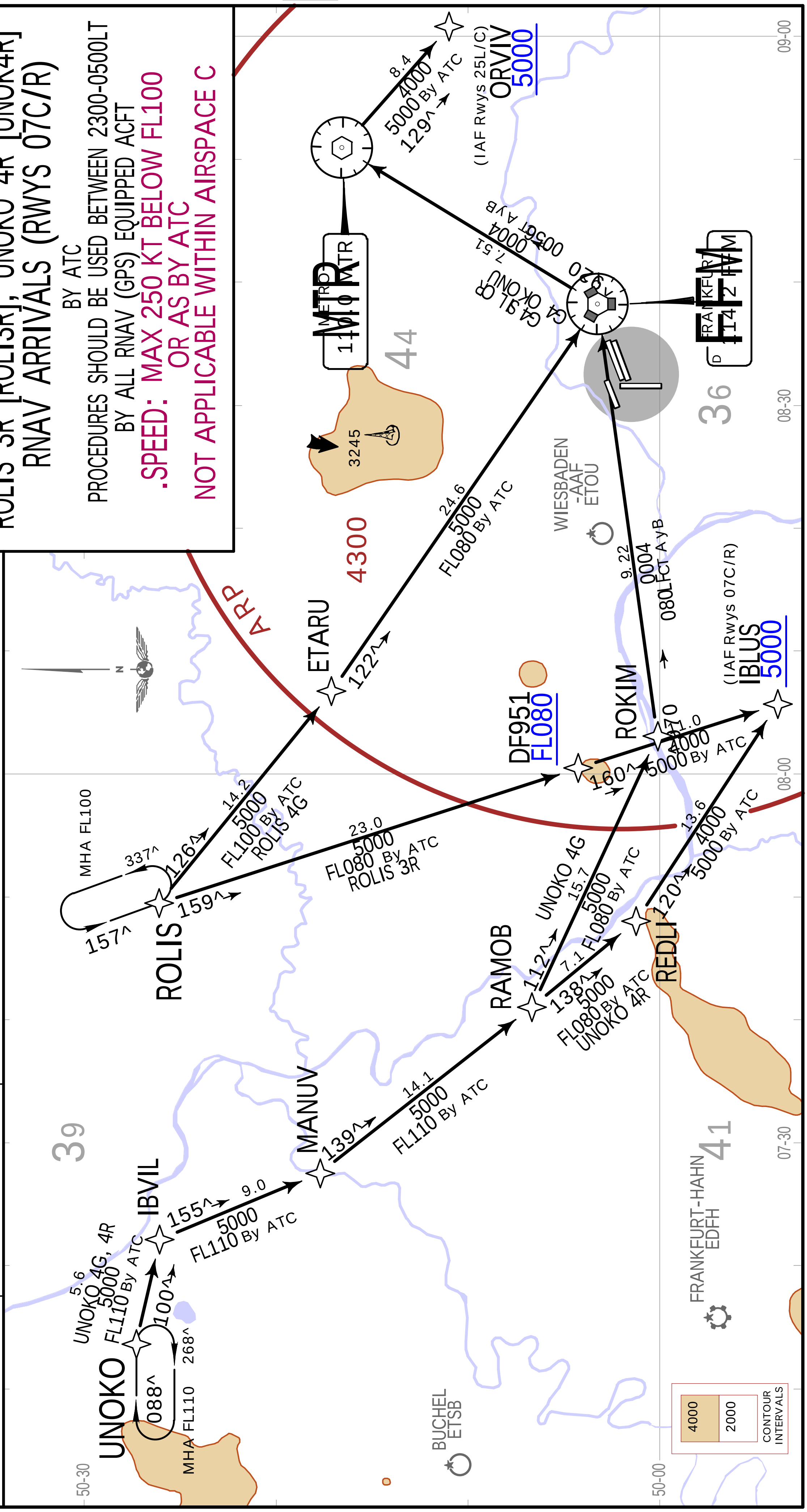
ROLIS 4G [ROLI4G], UNOKO 4G [UNOK4G] RNAV ARRIVALS (RWYS 25L/C)
ROLIS 3R [ROLI3R], UNOKO 4R [UNOK4R] RNAV ARRIVALS (RWYS 07C/R)

BY ATC

PROCEDURES SHOULD BE USED BETWEEN 2300-0500LT BY ALL RNAV (GPS) EQUIPPED ACFT

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C


UNOKO
088^
268^
MHA FL110
100^
UNOKO 4G, 4R
5.6
5000
FL110 By ATC
IBVIL
155^
9.0
5000
FL110 By ATC
MANUV
139^
14.1
5000
FL110 By ATC
RAMOB
112^
UNOKO 4G
15.7
5000
FL080 By ATC
138^
7.1
5000
FL080 By ATC
UNOKO 4R
REDLI
120^
13.6
4000
5000 By ATC
IBLUS
5000
(IAF Rwys 07C/R)
ROKIM
160^
11.0
4000
5000 By ATC
DF951
FL080
9.22
4000
080LFCT AyB
ROLIS
157^
337^
MHA FL100
126^
14.2
5000
FL100 By ATC
ROLIS 4G
159^
23.0
5000
FL080 By ATC
ROLIS 3R
ETARU
122^
24.6
5000
FL080 By ATC
ARP
4300
3245
44
METRO
MTR
FRANKFURT
FFM
36
WIESBADEN
-AAF
ETOU
7.51
4000
5000 By ATC
129^
8.4
4000
5000 By ATC
ORVIV
5000
(IAF Rwys 25L/C)
39
41
FRANKFURT-HAHN
EDFH
BUCHEL
ETSB
4000
2000
CONTOUR INTERVALS

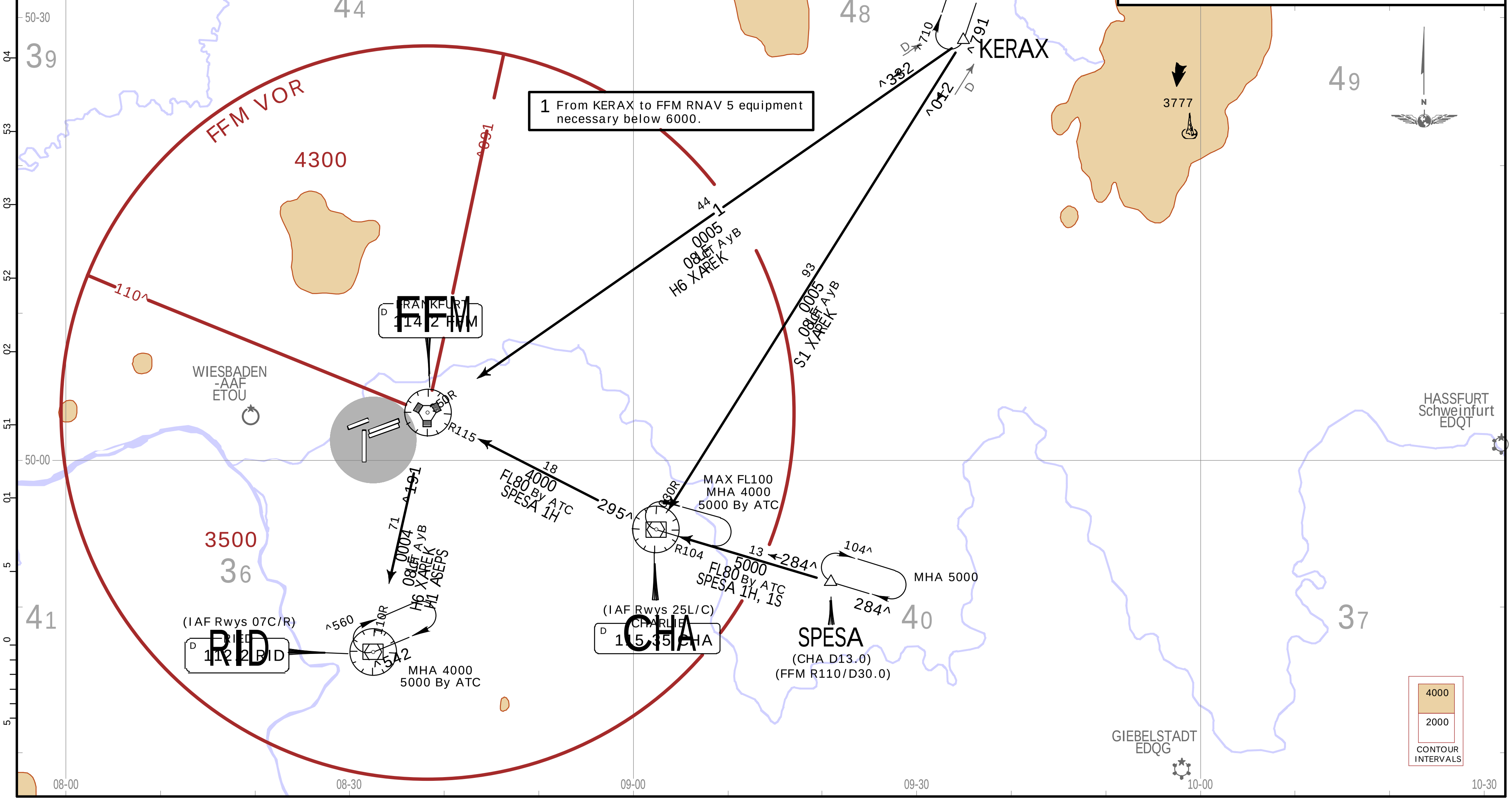
CHANGES: None.

*D-ATIS	Apt Elev	
118.030	364	Alt Set: hPa (IN on request) Trans level: By ATC EXPECT RADAR vectors to final approach.

KERAX 6H [KERA6H]
SPESA 1H [SPES1H]
RWYS 07C/R ARRIVALS

KERAX 1S [KERA1S]
SPESA 1S [SPES1S]
RWYS 25L/C ARRIVALS

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C


1 From KERAX to FFM RNAV 5 equipment necessary below 6000.
KERAX
MHA 6000
SPESA
(CHA D13.0)
(FFM R110/D30.0)
MHA 5000
MAX FL100
MHA 4000
5000 By ATC
(IAF Rwys 25L/C)
CHARLIE
115.35 CHA
FRANKFURT
114.2 FFM
(IAF Rwys 07C/R)
RIED
112.2 RID
MHA 4000
5000 By ATC
FFM VOR
4300
3500
SIEGERLAND
EDGS
WIESBADEN
-AAF
ETOU
HASSFURT
Schweinfurt
EDQT
GIEBELSTADT
EDQG
3777
H6 XAREK 08LEFT AyB 5000
S1 XAREK 08LEFT AyB 5000
FL80 By ATC
SPESA 1H
FL80 By ATC
SPESA 1H, 1S
4000
5000
CONTOUR INTERVALS
4000
2000

*D-ATIS	Apt Elev	Alt Set: hPa (IN on request)
118.030	364	Trans level: By ATC EXPECT RADAR vectors to final approach.

ROLIS 3H [ROLI3H]
UNOKO 3H [UNOK3H]
RWYS 07C/R ARRIVALS

ROLIS 2S [ROLI2S]
UNOKO 2S [UNOK2S]
RWYS 25L/C ARRIVALS

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

UNOKO
088^
106^
MHA FL110
268^
38
5000
FL110 By ATC
UNOKO 3H, 2S

ROLIS
(FFM D39.0)
MHA FL100
157^
337^ D
128^
17
5000
FL100 By ATC
ROLIS 3H, 2S

FFM VOR
4300
100
3245
R308
R286
TAU
TAUNUS
D 113.35 TAU
120^
150^
110^
22
5000
FL80 By ATC
ROLIS 2S
UNOKO 2S
R300
FFM
FRANKFURT
D 114.2 FFM
114^
18
4000
FL80 By ATC
R294
104^
MAX FL100
MHA 4000
5000 By ATC
284^
(IAF Rwys 25L/C)
CHARLIE
CHA
D 115.35 CHA
32
5000
FL80 By ATC
ROLIS 3H
UNOKO 3H
3500
R336
MHA 4000
5000 By ATC
RID
(IAF Rwys 07C/R)
RID
D 112.2 RID

SIEGERLAND
EDGS
BUECHEL
ETSB
WIESBADEN
-AAF
ETOU
FRANKFURT-HAHN
EDFH

39
44
48
41
36
40

50-30
50-00
07-00
07-30
08-00
08-30
09-00
09-30

4000
2000
CONTOUR INTERVALS

CHANGES: None.

RNAV SID DESIGNATION	REFER TO CHART
ANEKI 1X	10-3A3
ANEKI 1Y	10-3A4
CINDY 1X	10-3A5
CINDY 1Y	10-3A6
SOBRA 2U	10-3A7
SOBRA 1X	10-3A8
SOBRA 1Y	10-3A9
ANEKI 3A	10-3B
CINDY 2A	10-3C
MARUN 3K	10-3C1
MARUN 3W	10-3C2
OBOKA 3K	10-3C3
OBOKA 3W	10-3C4
SOBRA 2L	10-3C5
SULUS 3A	10-3C6
TOBAK 3K	10-3C7
TOBAK 3W	10-3C8

SID DESIGNATION	REFER TO CHART
ANEKI 2D, 4E	10-3C9
ANEKI 1F, 1L	10-3C10
CINDY 1D	10-3D
CINDY 2F	10-3E
CINDY 2L, 4S	10-3E1
KOMIB 3D	10-3E2
MARUN 9D, 5E	10-3E3
MARUN 6F, 9G	10-3E4
MARUN 5H	10-3E5
MARUN 7M	10-3E6
MARUN 9N	10-3E7
MARUN 3R	10-3E8
MARUN 7S	10-3E9
MARUN 5T	10-3F
METRO 5C	10-3G
OBOKA 1D, 1E	10-3G1
OBOKA 2G	10-3G2

FOR FURTHER SID DESIGNATION REFER TO PAGE 10-3A

CHANGES: RNAV SIDs SOBRA 1L & 1U renumbered 2L & 2U.

SID DESIGNATION	REFER TO CHART
OBOKA 2H	10-3G3
OBOKA 2M	10-3G4
OBOKA 4N	10-3G5
OBOKA 1L, 3S	10-3G6
OBOKA 1R	10-3H
OBOKA 2T	10-3J
RIED 8C, 3Q	10-3J1
SOBRA 6D	10-3J2
SOBRA 6E	10-3K
SOBRA 7F, 7N, 6P	10-3L
SULUS 1D	10-3L1
SULUS 2F	10-3L2
SULUS 1L, 3S	10-3L3
TAUNUS 2Q	10-3L4
TOBAK 9D	10-3L5
TOBAK 7F, 1G	10-3L6
TOBAK 5H	10-3L7
TOBAK 7M	10-3L8
TOBAK 2N	10-3M
TOBAK 3R	10-3N
TOBAK 9S	10-3N1
TOBAK 7T	10-3N2
ULKIG 1L, 2S	10-3N3

FOR RNAV SID (OVERLAY) DESIGNATION REFER TO PAGE 10-3A1

RNAV SID DESIGNATION	REFER TO CHART
ANEKI 2D, 4E	10-3N4
ANEKI 1F, 1L	10-3N5
CINDY 1D	10-3N6
CINDY 2F	10-3N7
CINDY 2L, 4S	10-3N8
KOMIB 3D	10-3N9
MARUN 9D, 5E	10-3P
MARUN 6F, 9G	10-3Q
MARUN 5H	10-3Q1
MARUN 7M	10-3Q2
MARUN 9N	10-3Q3
MARUN 3R	10-3Q4
MARUN 7S	10-3Q5
MARUN 5T	10-3Q6
OBOKA 1D, 1E	10-3Q7
OBOKA 2G	10-3S
OBOKA 2H	10-3T
OBOKA 2M	10-3T1
OBOKA 4N	10-3T2
OBOKA 1L, 3S	10-3T3
OBOKA 1R	10-3T4
OBOKA 2T	10-3T5
SOBRA 6D	10-3T6
SOBRA 6E	10-3U
SOBRA 7F, 7N, 6P	10-3V

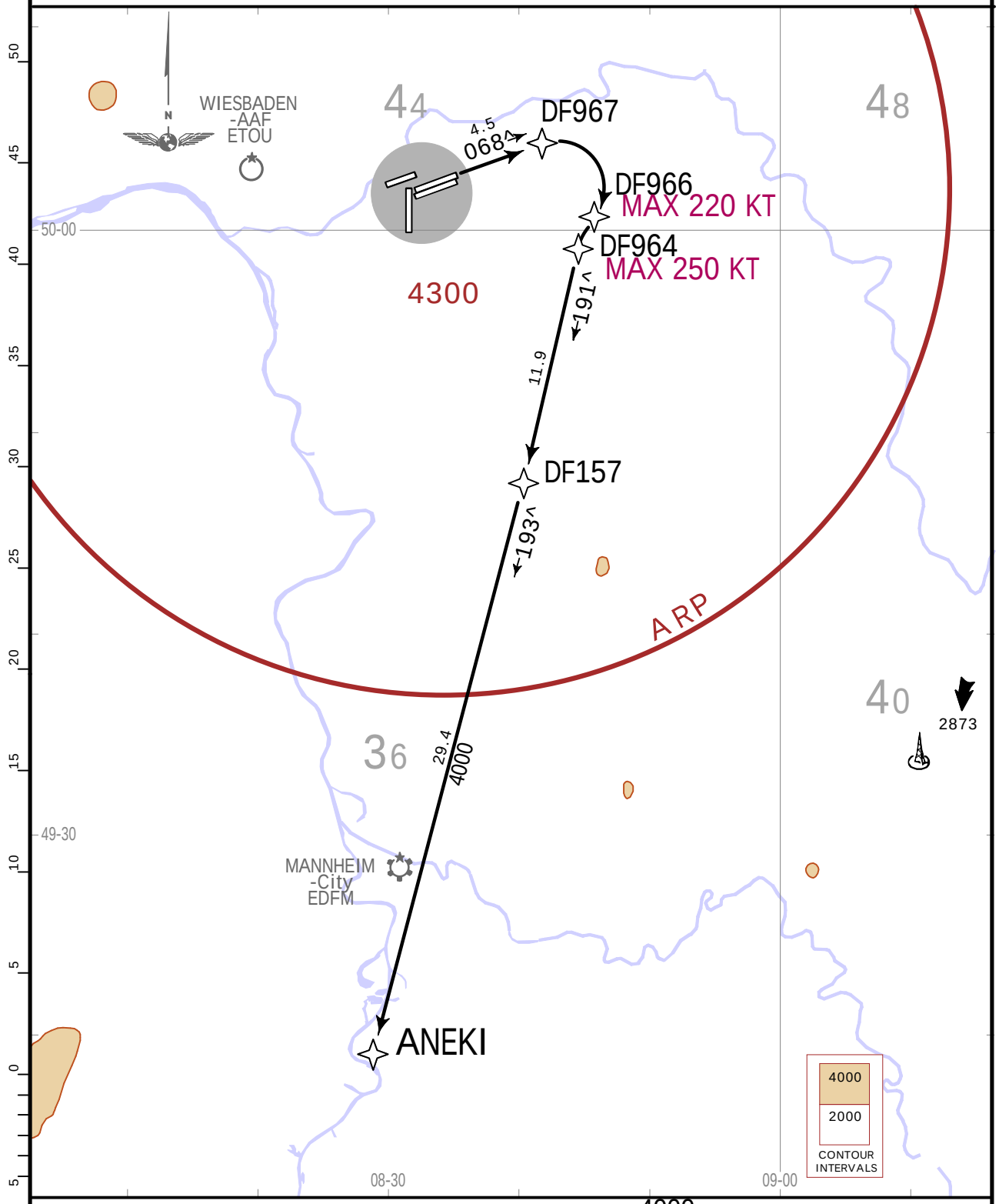
FOR FURTHER RNAV SID (OVERLAY) DESIGNATION REFER TO PAGE 10-3A2

RNAV SID DESIGNATION	REFER TO CHART
SULUS 1D	10-3V1
SULUS 2F	10-3V2
SULUS 1L, 3S	10-3V3
TOBAK 9D	10-3W
TOBAK 7F, 1G	10-3X
TOBAK 5H	10-3X1
TOBAK 7M	10-3X2
TOBAK 2N	10-3X3
TOBAK 3R	10-3X4
TOBAK 9S	10-3X5
TOBAK 7T	10-3X6
ULKIG 1L, 2S	10-3X7

CHANGES: RNAV SIDs renumbered.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. RNP-1/A-RNP, RF leg required. 2. GPS required. 3. Contact LANGEN Radar when advised by Tower. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. For operational RWY use concept refer to 10-1P pages.

ANEKI 1X [ANEK1X]
RWY 07C RNP DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

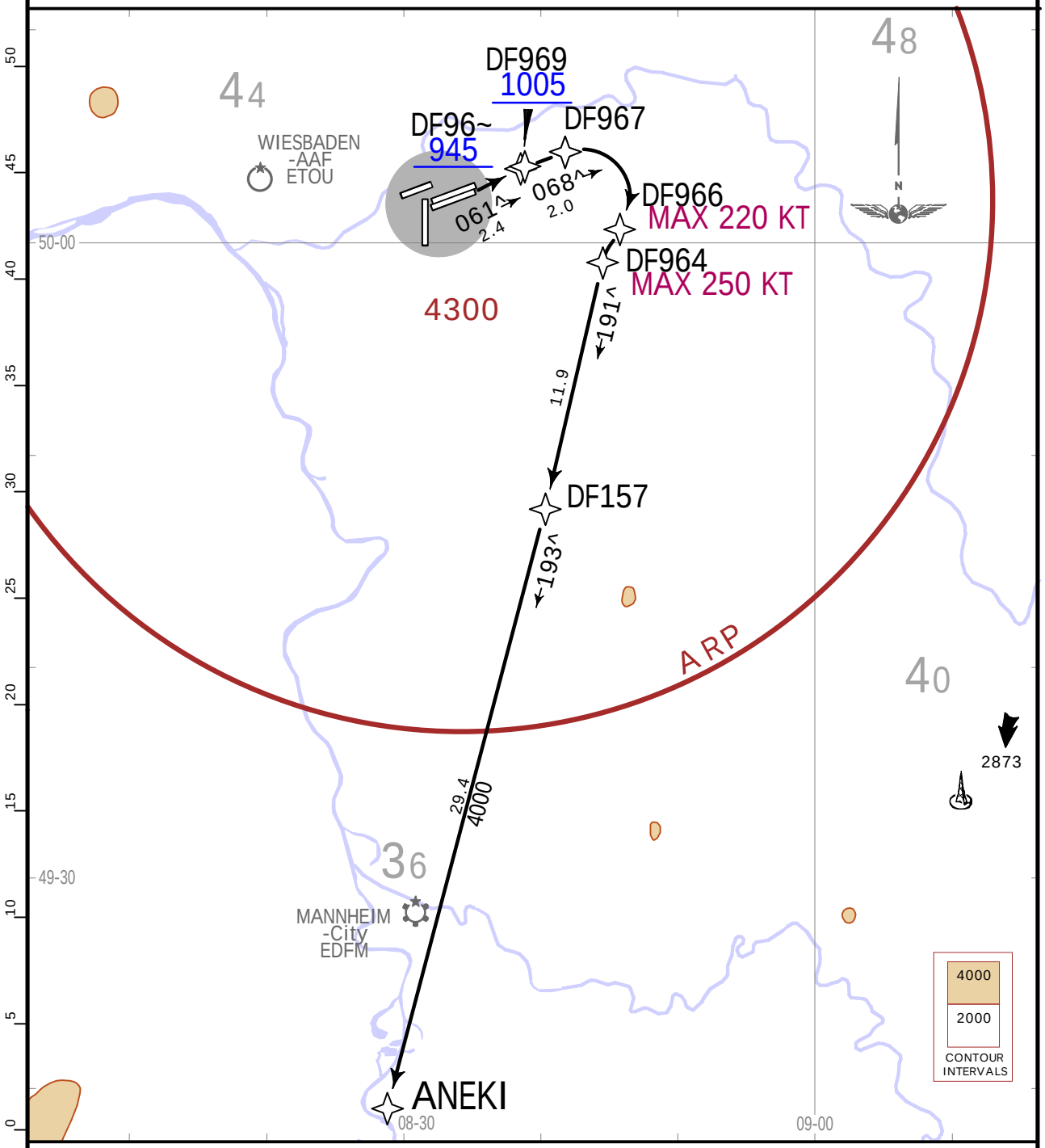
ROUTING

On 068^ track to DF967, turn RIGHT to DF966, turn LEFT to DF964, to DF157, to ANEKI.

CHANGES: ANEKI RNAV SID established; AKONI RNAV SID withdrawn.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. RNP-1/A-RNP, RF leg required. 2. GPS required. 3. Contact LANGEN Radar when advised by Tower. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. For operational RWY use concept refer to 10-1P pages.

ANEKI 1Y [ANEK1Y]
RWY 07R RNP DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of 240 per NM (3.9%) until passing 1005 due to operational reasons.

Gnd speed-KT	75	100	150	200	250	300
240 per NM	300	400	600	800	1000	1200

Initial climb clearance 4000

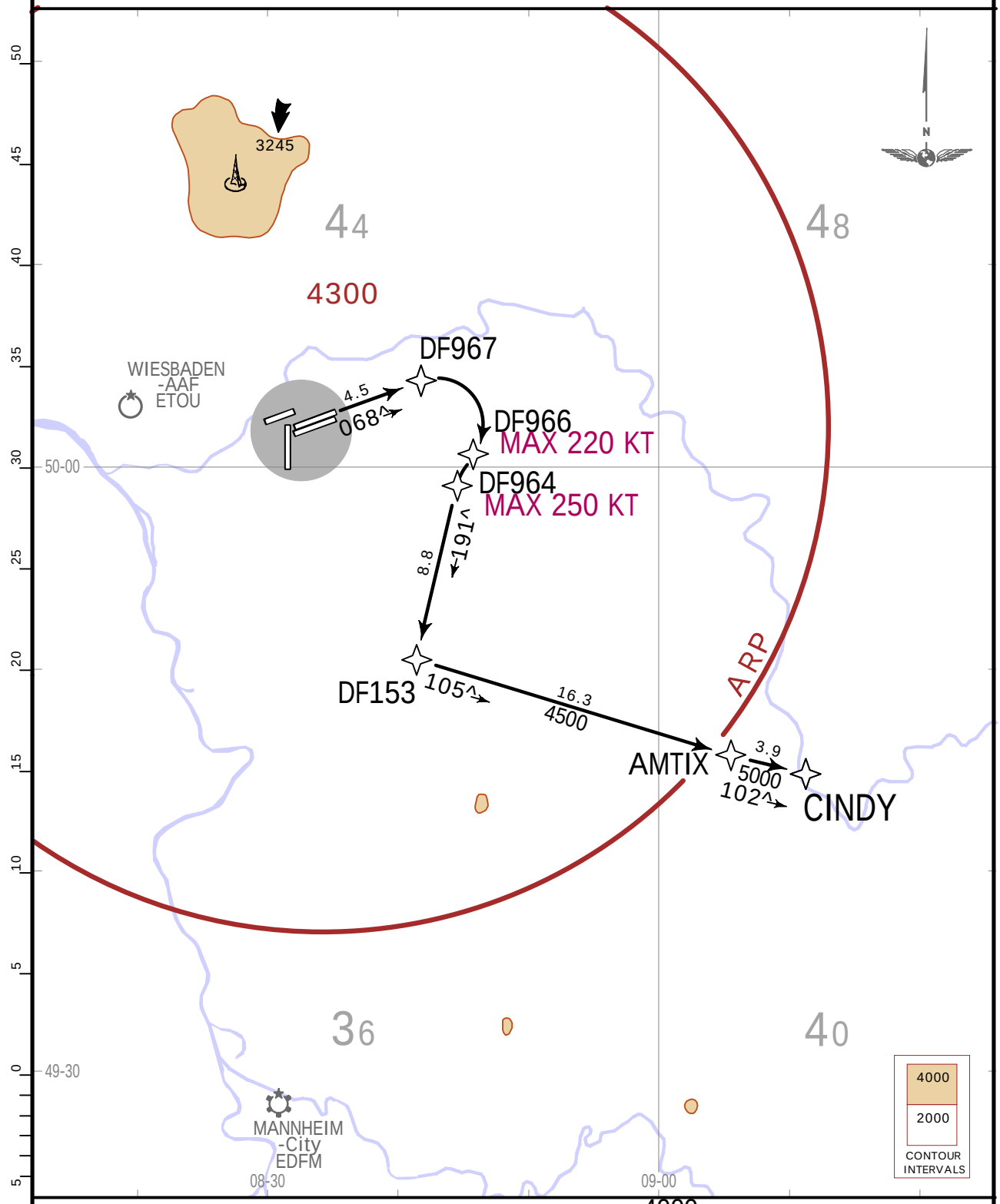
ROUTING

On 061^ track to DF960, turn RIGHT to DF969, to DF967, turn RIGHT to DF966, turn LEFT to DF964, to DF157, to ANEKI.

CHANGES: RNAV SIDs established & transferred.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. RNP-1/A-RNP, RF leg required. 2. GPS required. 3. Contact LANGEN Radar when advised by Tower. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. For operational RWY use concept refer to 10-1P pages.

CINDY 1X [CIND1X]
RWY 07C RNP DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

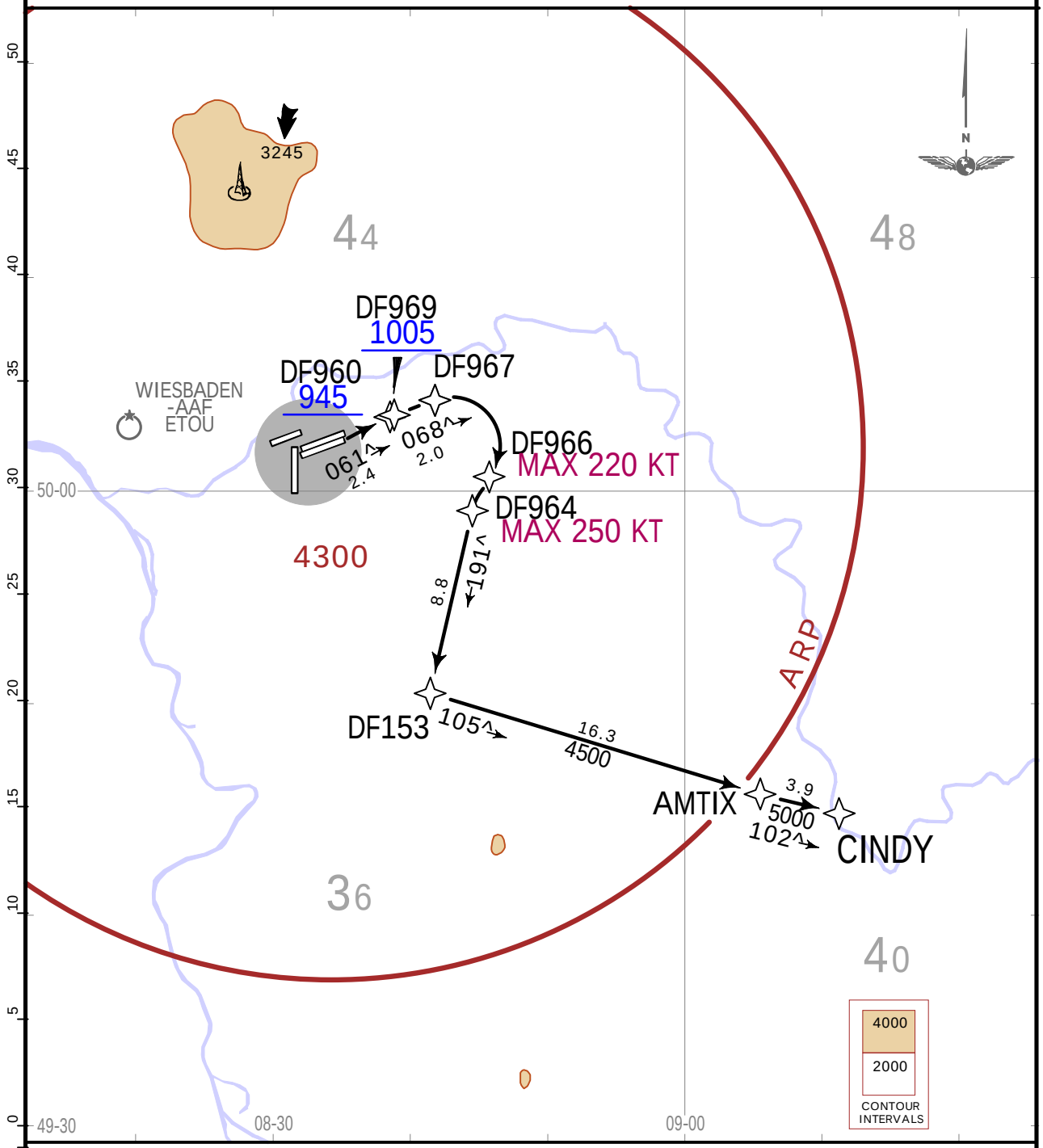
ROUTING

On 068^ track to DF967, turn RIGHT to DF966, turn LEFT to DF964, to DF153, to AMTIX, to CINDY.

CHANGES: MARUN RNAV SID transferred; CINDY RNAV SID established.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. RNP-1/A-RNP, RF leg required. 2. GPS required. 3. Contact LANGEN Radar when advised by Tower. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. For operational RWY use concept refer to 10-1P pages.

CINDY 1Y [CIND1Y]
RWY 07R RNP DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of 240 per NM (3.9%) until passing 1005 due to operational reasons.

Gnd speed-KT	75	100	150	200	250	300
240 per NM	300	400	600	800	1000	1200

Initial climb clearance 4000

ROUTING

On 061^ track to DF960, turn RIGHT to DF969, to DF967, turn RIGHT to DF966, turn LEFT to DF964, to DF153, to AMTIX, to CINDY.

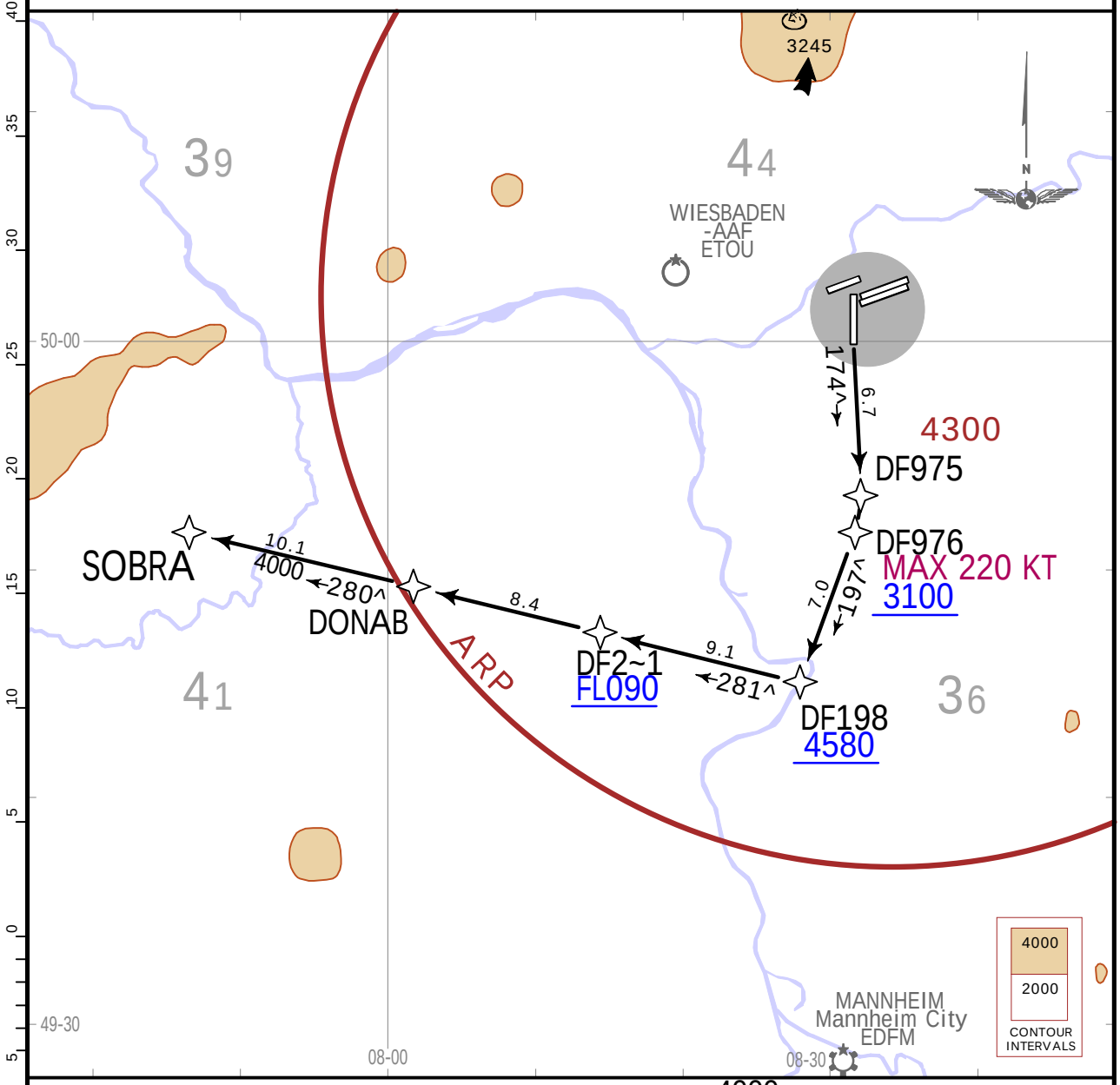
CHANGES: MARUN RNAV SID transferred; CINDY RNAV SID established.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000
		RNP-1, RF required. GPS.
		1. Contact LANGEN Radar when advised by Tower. 2. WARNING: Close-in obstacles. 3. Wind shears and increased turbulences must be EXPECTED when winds strong. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER. 7. If unable to cross DF2~1 at or above FL090 advise EDDF DELIVERY prior to start-up and EXPECT routing via SID ULKIG 1L.

SOBRA 2U [SOBR2U]
RNP DEPARTURE (RWY 18)

FOR FLIGHTS INTENDING TO PROCEED
AT OR ABOVE FL250 VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY FPL SHALL READ
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

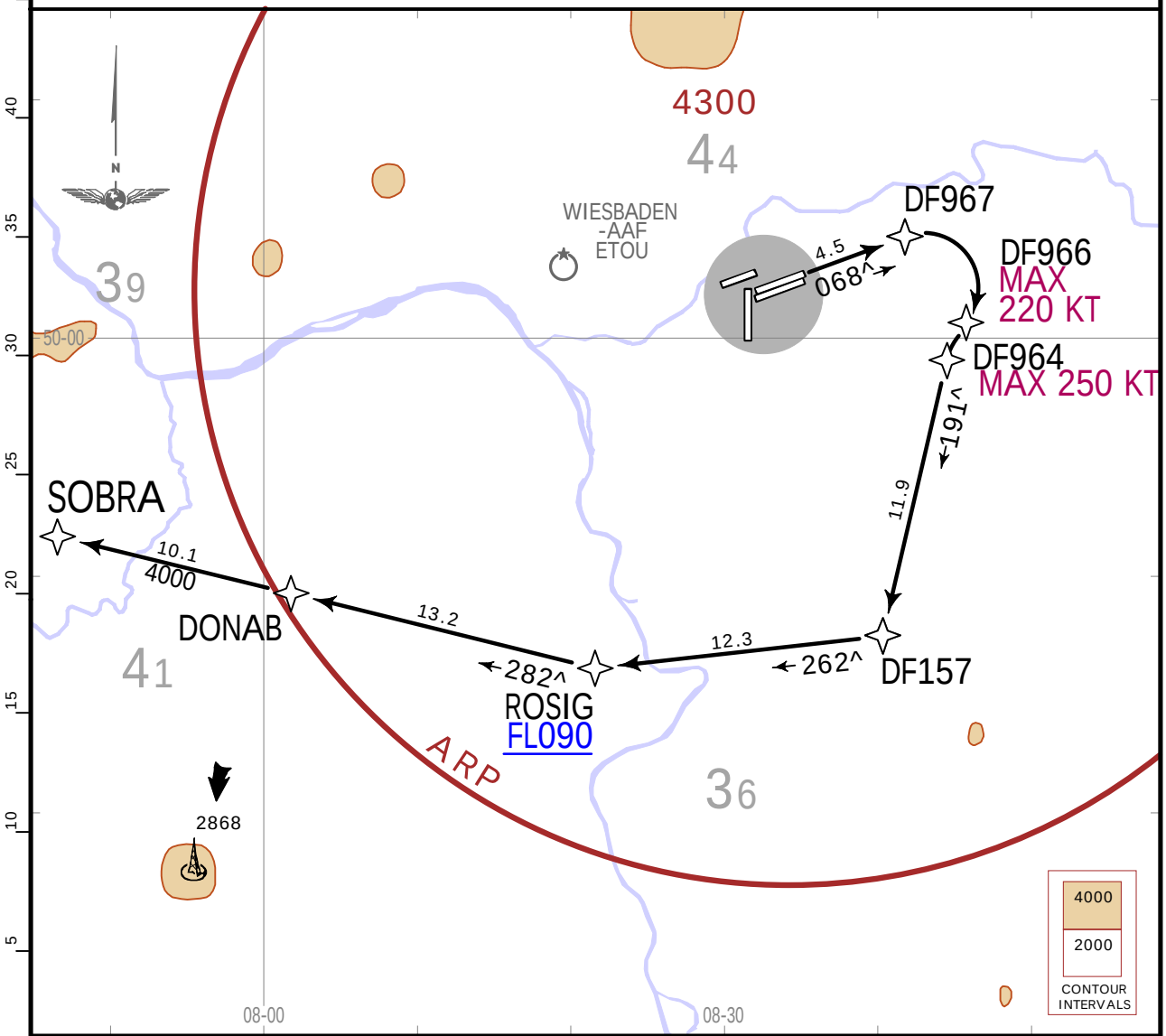
ROUTING

On 174^ track to DF975, turn RIGHT to DF976, to DF198, to DF2~1, to DONAB, to SOBRA.

CHANGES: RNAV SID renumbered & revised.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000
		RNP-1/A-RNP, RF leg required. GPS required.
		1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

SOBRA 1X [SOBR1X]
RNP DEPARTURE (RWY 07C)
FOR FLIGHTS INTENDING TO PROCEED
AT OR ABOVE FL250 VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY FPL SHALL READ
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of 3.9% (240 FT/NM) until passing FL090, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
3.9% V/V (fpm)	296	395	592	790	987	1185

If unable to comply advise EDDF DELIVERY prior to start-up.

Initial climb clearance 4000

ROUTING

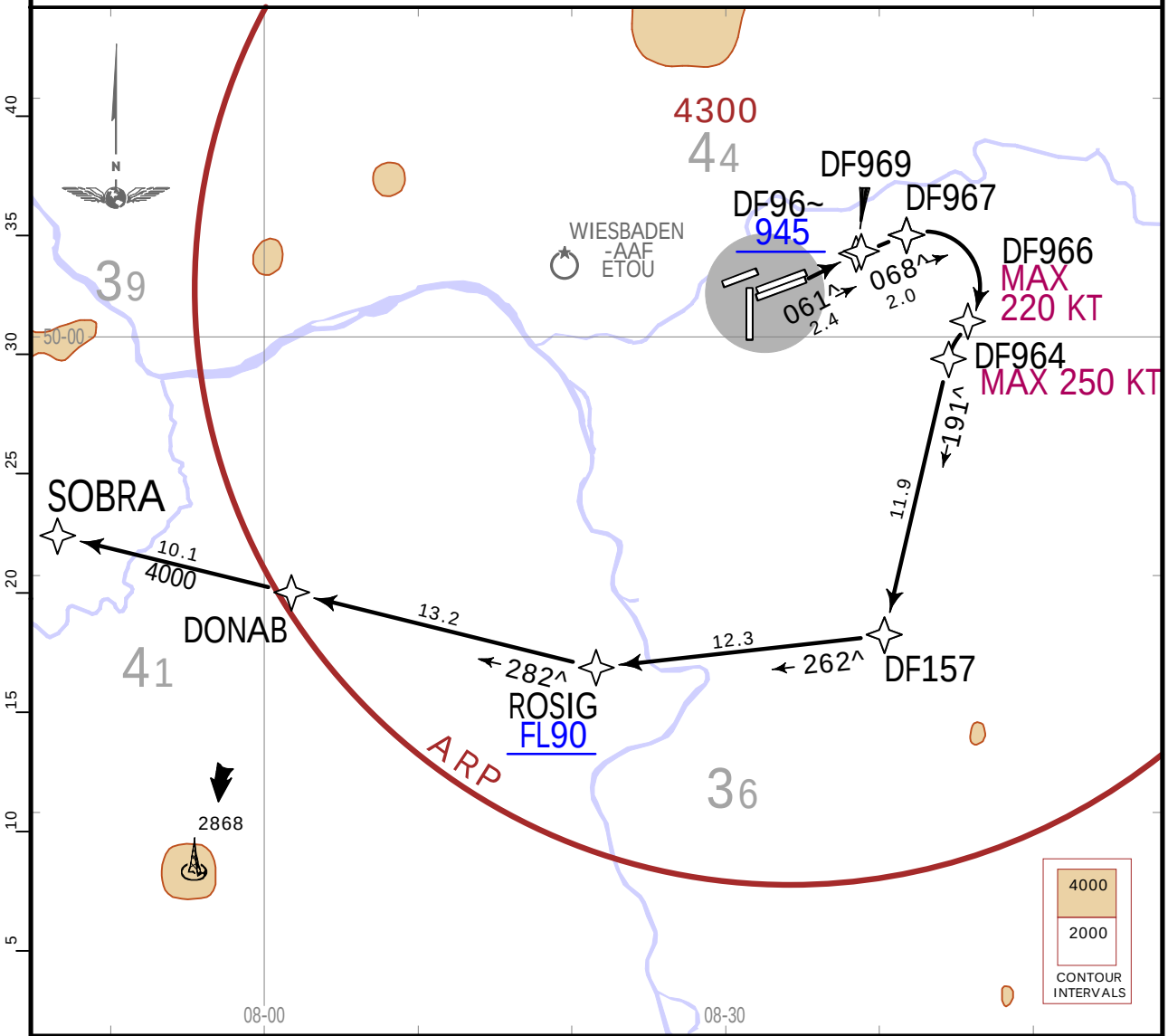
On 068^ track to DF967, turn RIGHT to DF966, turn LEFT to DF964, to DF157, to ROSIG, to DONAB, to SOBRA.

CHANGES: None.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. RNP-1/A-RNP, RF leg required. 2. GPS required. 3. Contact LANGEN Radar when advised by Tower. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. For operational RWY use concept refer to 10-1P pages.

SOBRA 1Y [SOBR1Y]
RWY 07R RNP DEPARTURE

FOR FLIGHTS INTENDING TO PROCEED
AT OR ABOVE FL250 VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY FPL SHALL READ
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of
240 per NM (3.9%) until passing FL90, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
240 per NM	300	400	600	800	1000	1200

If unable to comply advise EDDF DELIVERY prior to start-up.

Initial climb clearance 4000

ROUTING

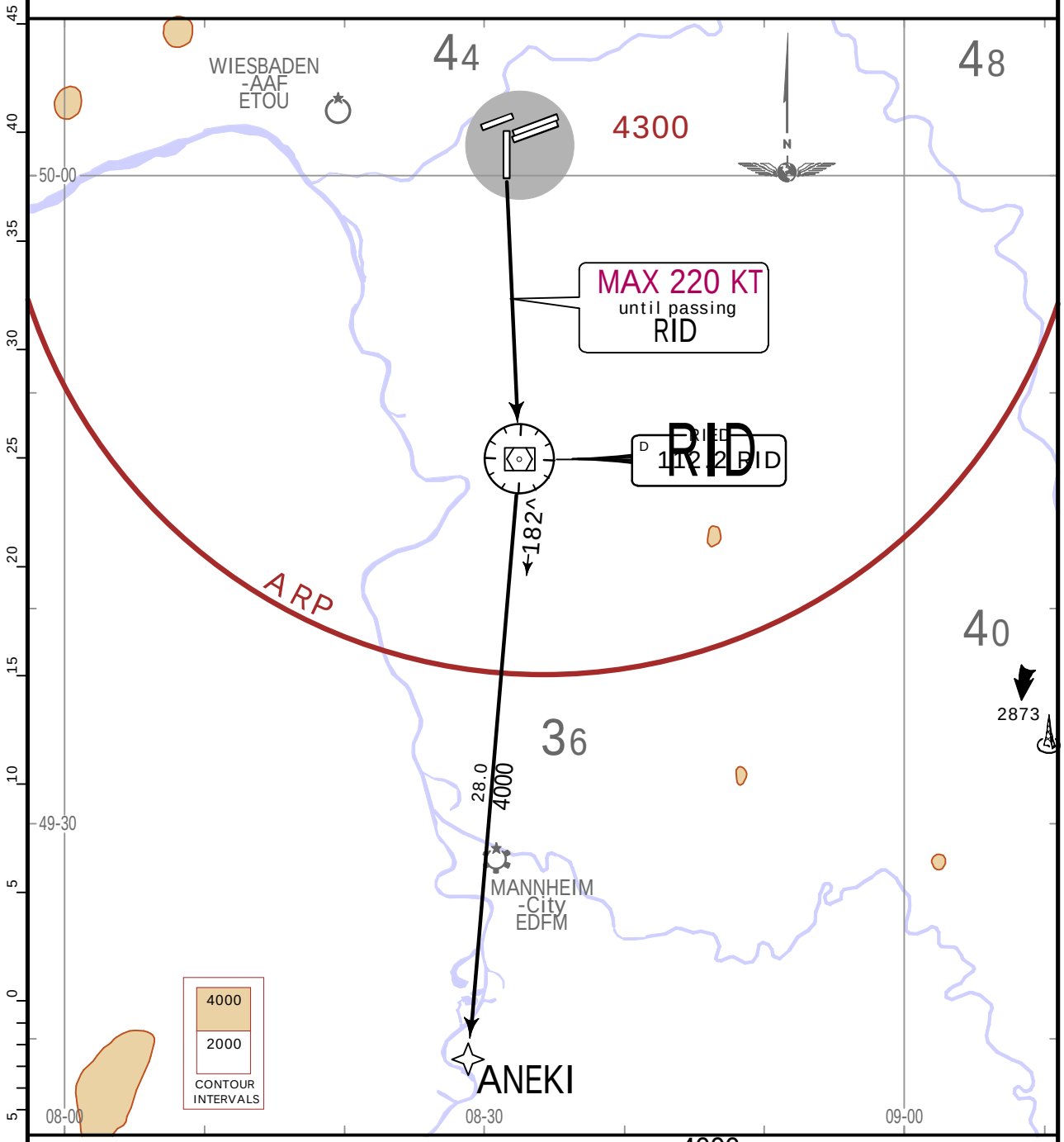
On 061^ track to DF960, turn RIGHT to DF969, to DF967, turn RIGHT to DF966, turn LEFT to DF964, to DF157, to ROSIG, to DONAB, to SOBRA.

CHANGES: New chart.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000
		RNAV 1 or RNP 1 or RNP equivalent. GPS required. DME/DME, DME/DME/IRU not authorized.
		1. Contact LANGEN Radar when advised by Tower. 2. WARNING: Close-in obstacles. 3. Wind shears and increased turbulences must be EXPECTED when winds strong. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

ANEKI 3A [ANEK3A]
RNAV DEPARTURE
(RWY 18)
BY ATC

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

ROUTING

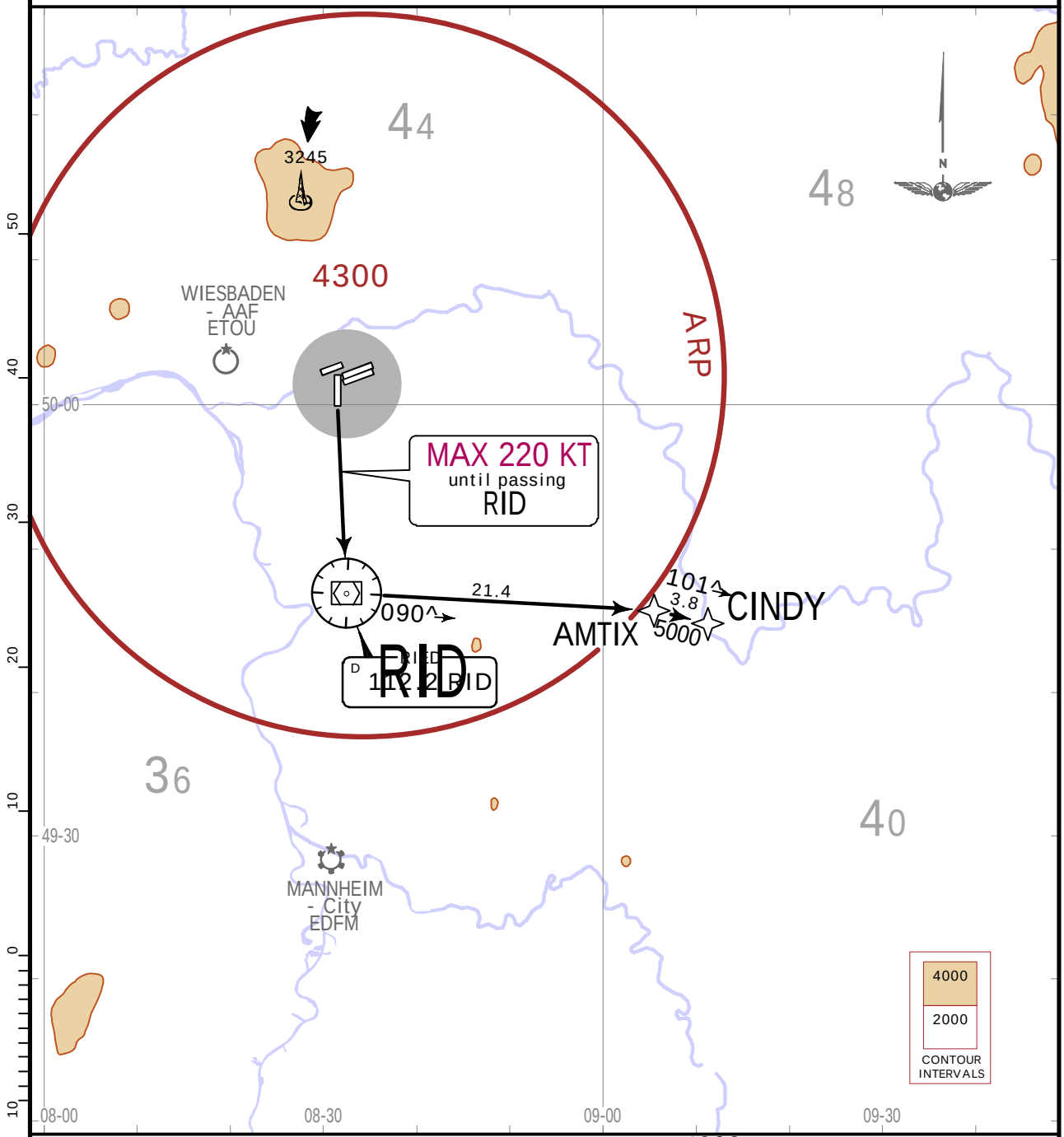
Climb on runway heading to 800, direct to RID, to ANEKI.

CHANGES: RNAV SID renumbered; track update.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000
		RNAV 1 or RNP 1 or RNP equivalent. GPS required. DME/DME, DME/DME/IRU not authorized.
		1. Contact LANGEN Radar when advised by Tower. 2. WARNING: Close-in obstacles. 3. Wind shears and increased turbulences must be EXPECTED when winds strong. 4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

CINDY 2A [CIND2A]
RNAV DEPARTURE
(RWY 18)
BY ATC

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

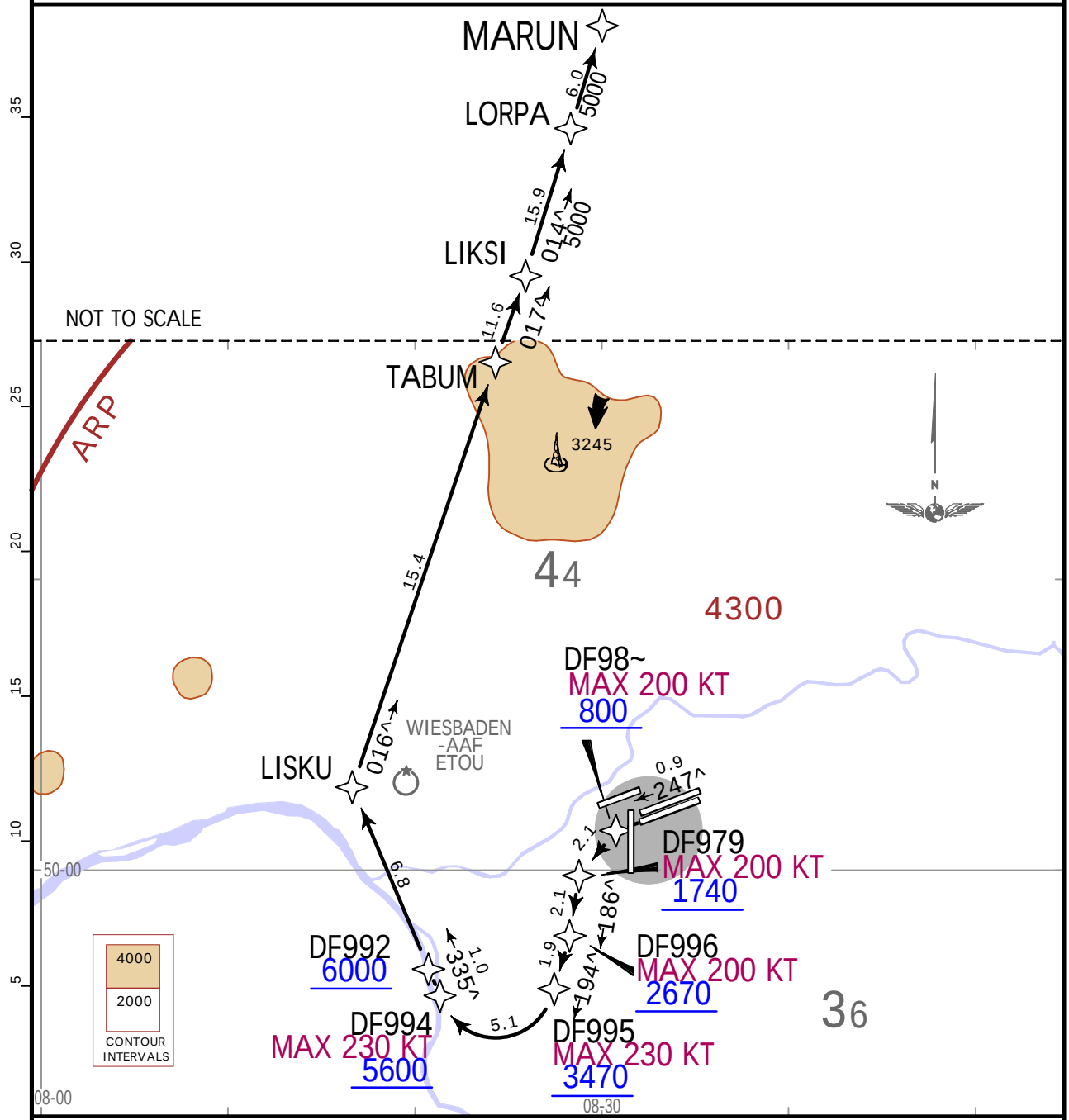
ROUTING

Climb on runway heading to 800, direct to RID, to AMTIX, to CINDY.

CHANGES: RNAV SID renumbered; track update.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. RNP 1/A-RNP required. 2. RF required. 3. GPS required. 4. Contact LANGEN Radar when advised by Tower. 5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 6. For operational RWY use concept refer to 10-1P pages.

MARUN 3K [MARU3K]
RWY 25L RNP DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) up to 800, due to operational requirements, then
445 per NM (7.3%) up to 2670, due to operational requirements, then
415 per NM (6.8%) up to 6000, due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
445 per NM	556	742	1113	1483	1854	2225
520 per NM	650	867	1300	1733	2167	2600

Initial climb clearance FL70

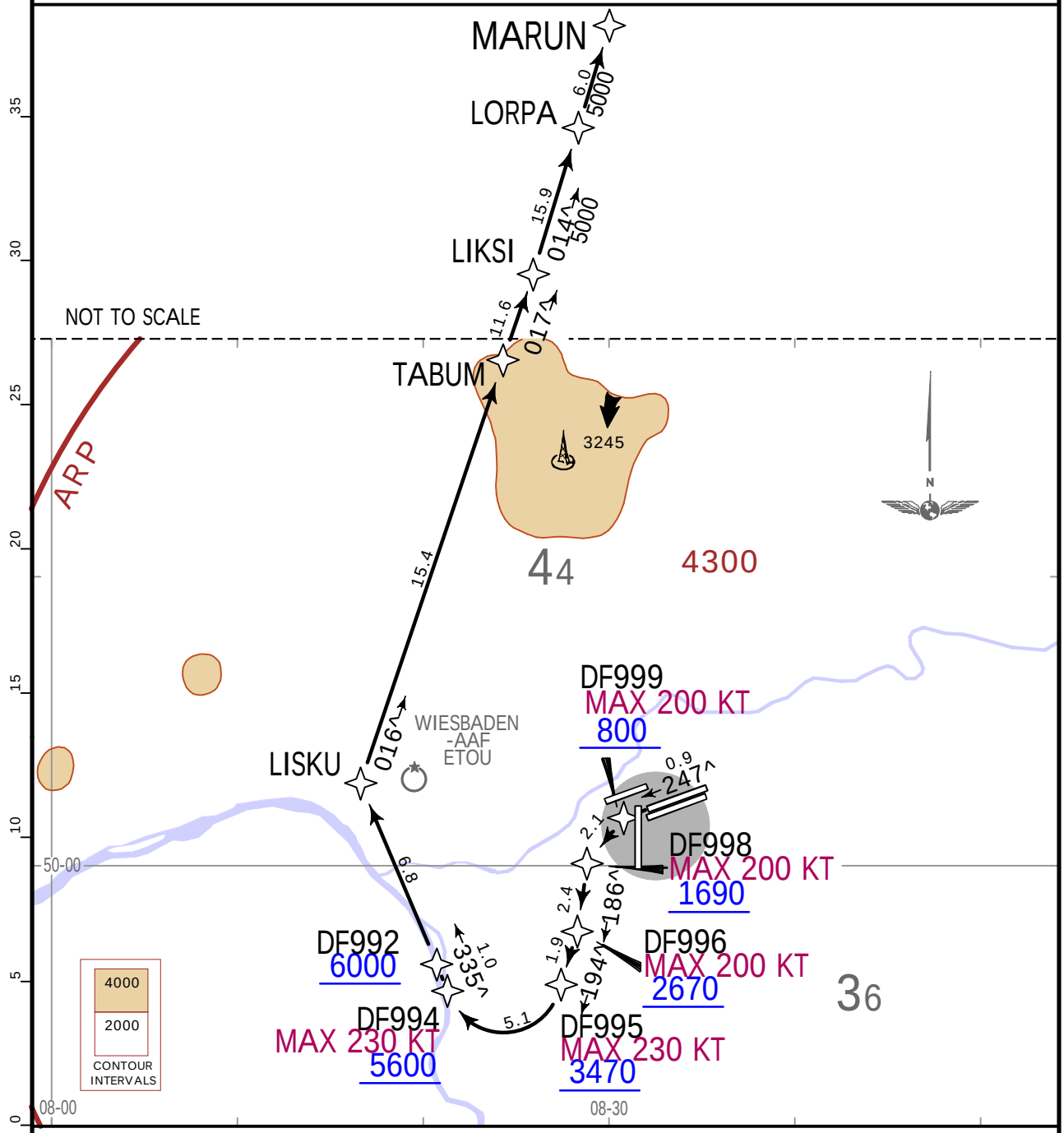
ROUTING

DF980 (K200-; 800+) - DF979 (K200-; 1740+) - DF996 (K200-; 2670+) - DF995 (K230-; 3470+) - DF994 (K230-; 5600+) - DF992 (6000+) - LISKU - TABUM - LIKSI - LORPA - MARUN.

CHANGES: RNAV SID renumbered & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. RNP 1/A-RNP required. 2. RF required. 3. GPS required. 4. Contact LANGEN Radar when advised by Tower. 5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 6. For operational RWY use concept refer to 10-1P pages.

MARUN 3W [MARU3W]
RWY 25C RNP DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) up to 800, due to operational requirements, then
415 per NM (6.8%) up to 6000, due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
520 per NM	650	867	1300	1733	2167	2600

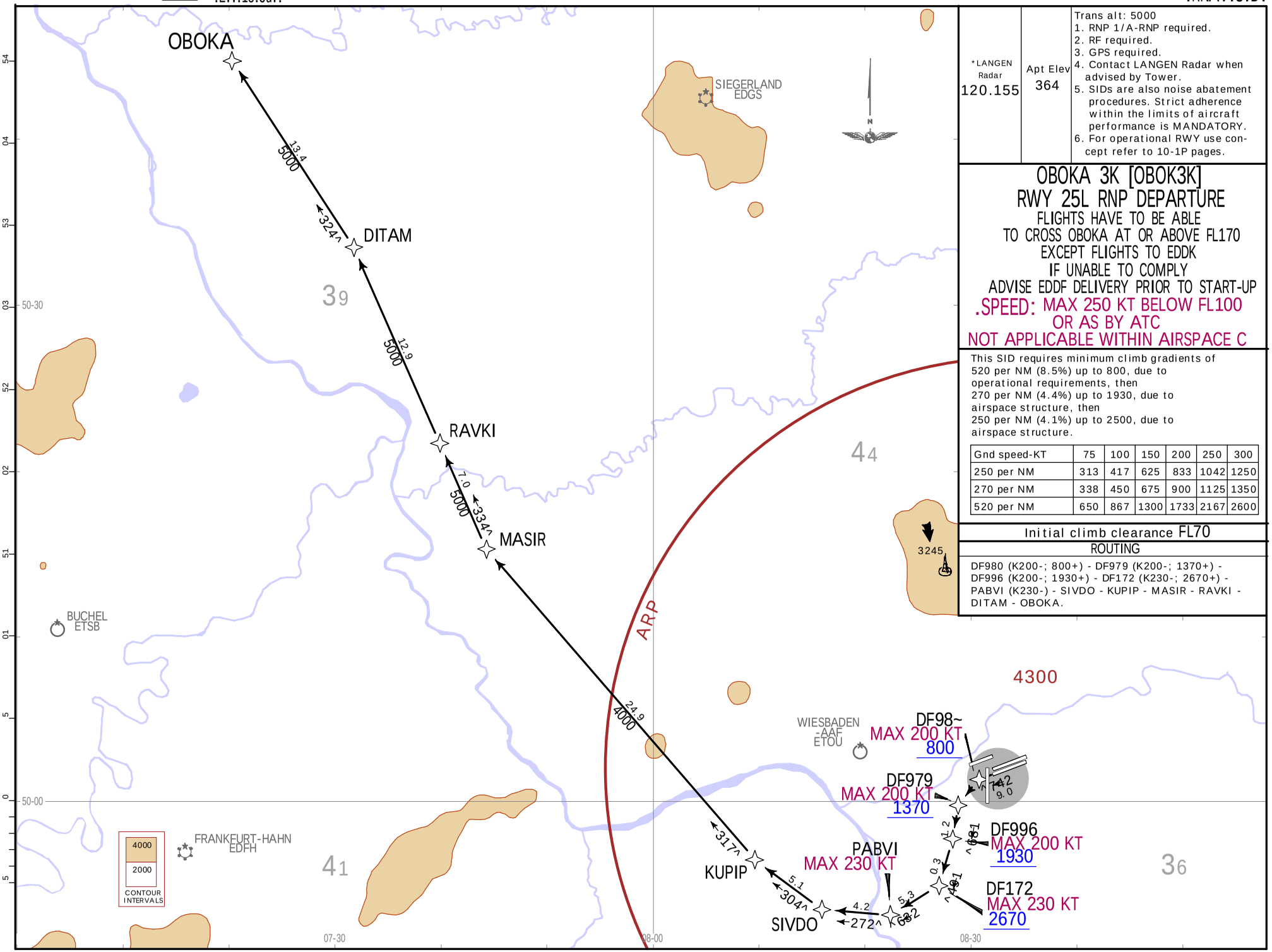
Initial climb clearance FL70

ROUTING

DF999 (K200-; 800+) - DF998 (K200-; 1690+) - DF996 (K200-; 2670+) - DF995 (K230-; 3470+) - DF994 (K230-; 5600+) - DF992 (6000+) - LISKU - TABUM - LIKSI - LORPA - MARUN.

CHANGES: RNAV SID renumbered & revised.

FRANKFURT/MAIN, GERMANY
.RNAV.SID.



*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. RNP 1/A-RNP required.
2. RF required.
3. GPS required.
4. Contact LANGEN Radar when advised by Tower.
5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
6. For operational RWY use concept refer to 10-1P pages.

OBOKA 3K [OBOK3K]
RWY 25L RNP DEPARTURE

FLIGHTS HAVE TO BE ABLE
TO CROSS OBOKA AT OR ABOVE FL170
EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY
ADVISE EDDF DELIVERY PRIOR TO START-UP
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires minimum climb gradients of
520 per NM (8.5%) up to 800, due to
operational requirements, then
270 per NM (4.4%) up to 1930, due to
airspace structure, then
250 per NM (4.1%) up to 2500, due to
airspace structure.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
270 per NM	338	450	675	900	1125	1350
520 per NM	650	867	1300	1733	2167	2600

Initial climb clearance FL70

ROUTING

DF980 (K200-; 800+) - DF979 (K200-; 1370+) - DF996 (K200-; 1930+) - DF172 (K230-; 2670+) - PABVI (K230-) - SIVDO - KUPIP - MASIR - RAVKI - DITAM - OBOKA.

CHANGES: RNAV SID renumbered & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. RNP 1/A-RNP required. 2. RF required. 3. GPS required. 4. Contact LANGEN Radar when advised by Tower. 5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 6. For operational RWY use concept refer to 10-1P pages.

OBOKA 3W [OBOK3W]
RWY 25C RNP DEPARTURE

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

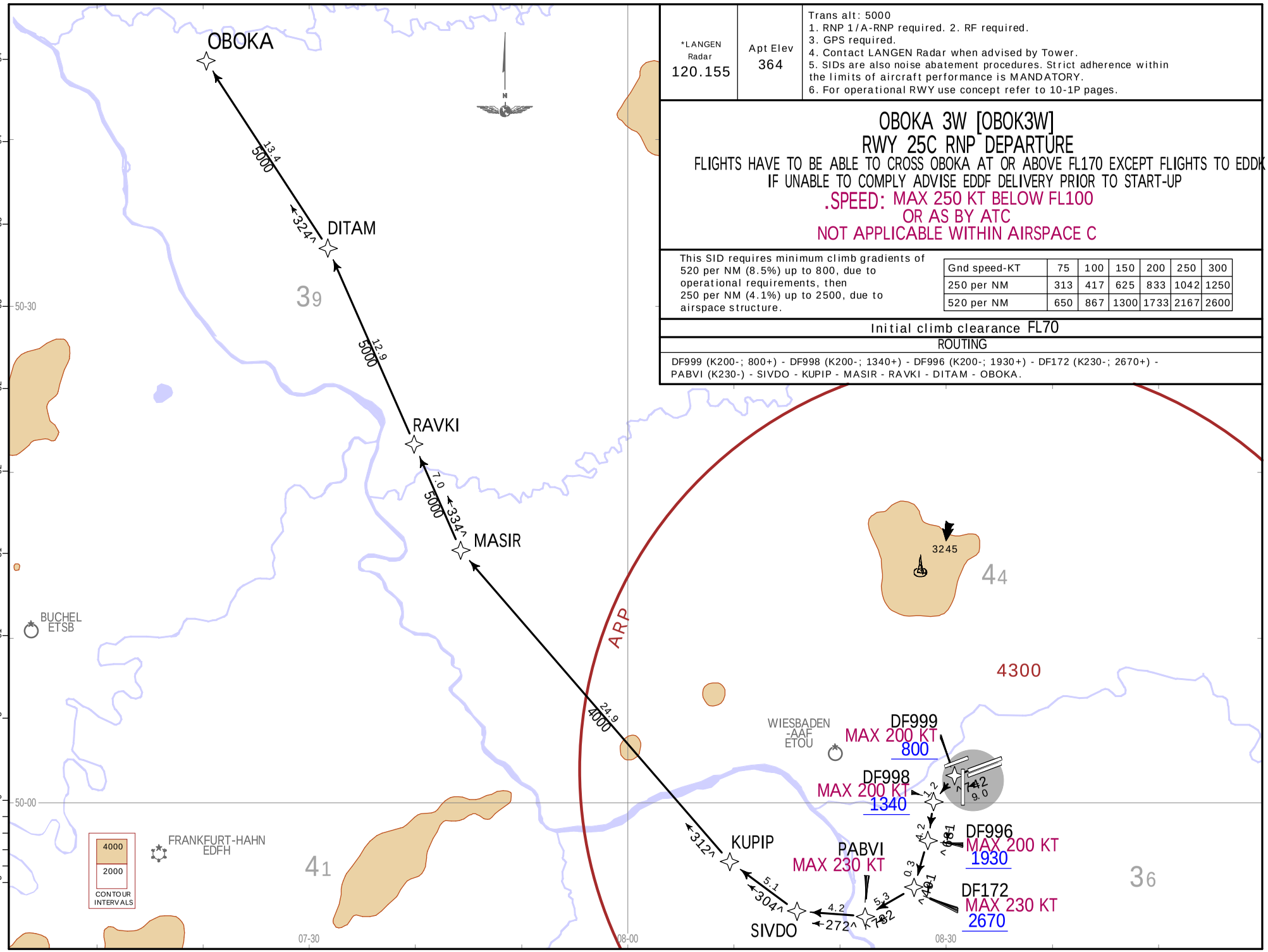
This SID requires minimum climb gradients of 520 per NM (8.5%) up to 800, due to operational requirements, then 250 per NM (4.1%) up to 2500, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
520 per NM	650	867	1300	1733	2167	2600

Initial climb clearance FL70

ROUTING

DF999 (K200-; 800+) - DF998 (K200-; 1340+) - DF996 (K200-; 1930+) - DF172 (K230-; 2670+) - PABVI (K230-) - SIVDO - KUPIP - MASIR - RAVKI - DITAM - OBOKA.



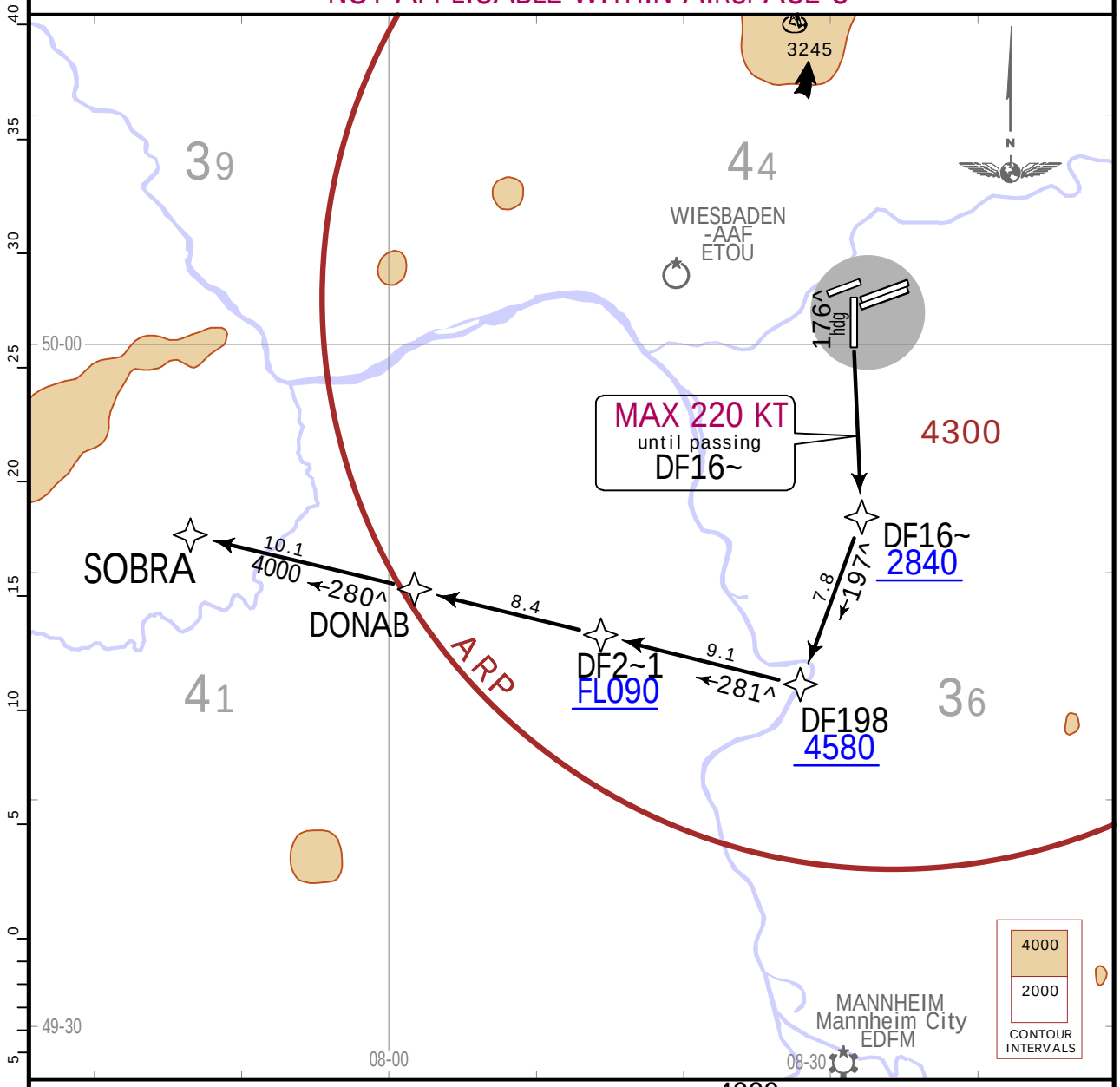
CHANGES: RNAV SID renumbered & revised.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000
		RNAV 1 required. GPS. DME/DME not authorized.
		1. Contact LANGEN Radar when advised by Tower. 2. RADAR required. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be EXPECTED when winds strong. 5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 6. For operational RWY use concept refer to 10-1P pages. 7. Do not turn before DER. 8. If unable to cross DF2~1 at or above FL090 advise EDDF DELIVERY prior to start-up and EXPECT routing via SID ULKIG 1L.

SOBRA 2L [SOBR2L]
RNAV DEPARTURE
(RWY 18)

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250 VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY FPL SHALL READ RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

ROUTING

Climb on 176^ heading to at or above 800, direct to DF16~, to DF198, to DF2~1, to DONAB, to SOBRA.

CHANGES: RNAV SID renumbered & revised.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN FRANKFURT/MAIN, GERMANY

28 OCT 22 (10-3C6) .Eff.3.Nov. .RNAV.SID.

SULUS 3A [SULU3A]
RNAV DEPARTURE
(RWY 18)
BY ATC

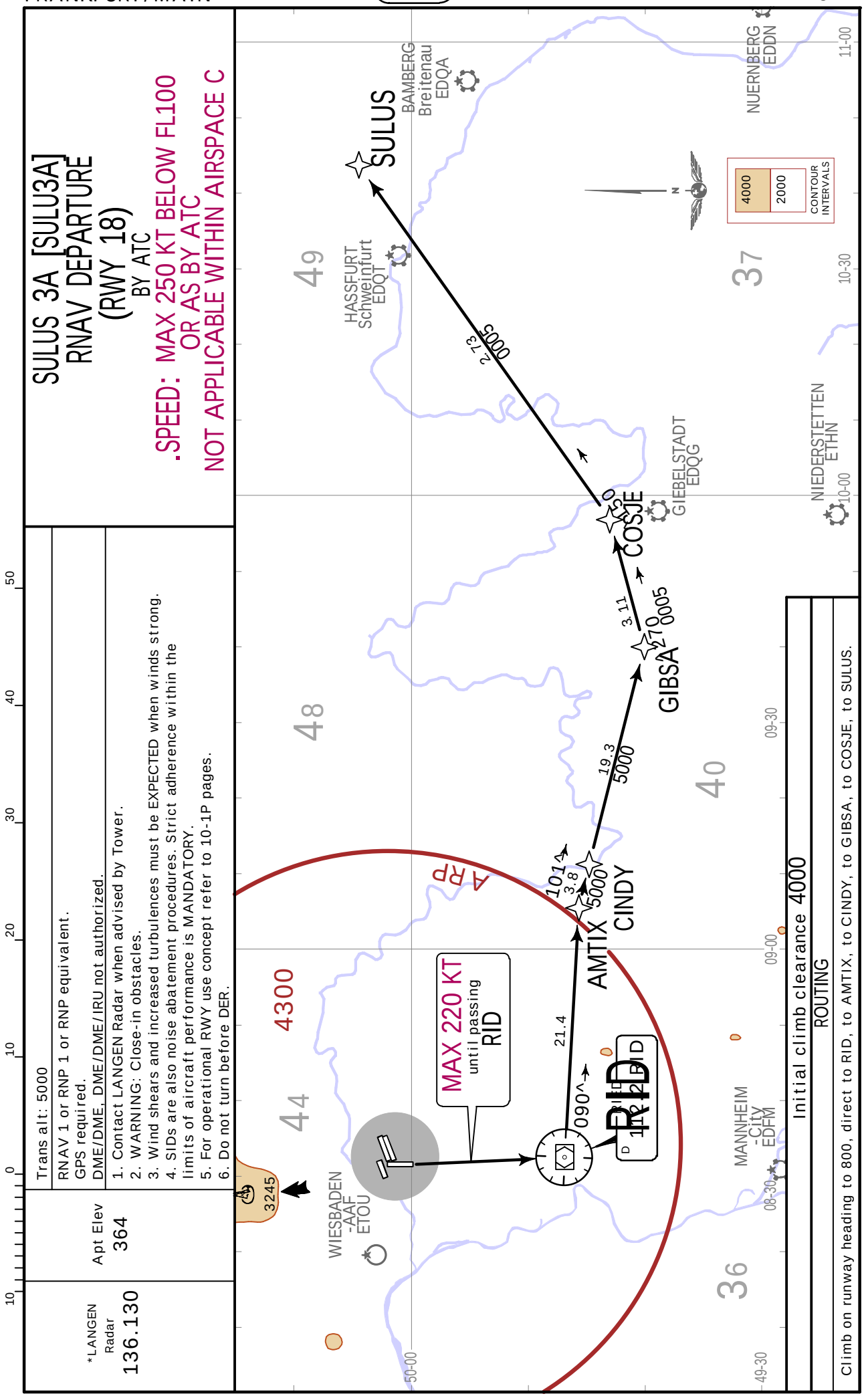
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

*LANGEN Radar 136.130

Apt Elev 364

Trans alt: 5000
RNAV 1 or RNP 1 or RNP equivalent.
GPS required.
DME/DME, DME/DME/IRU not authorized.

1. Contact LANGEN Radar when advised by Tower.
2. WARNING: Close-in obstacles.
3. Wind shears and increased turbulences must be EXPECTED when winds strong.
4. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

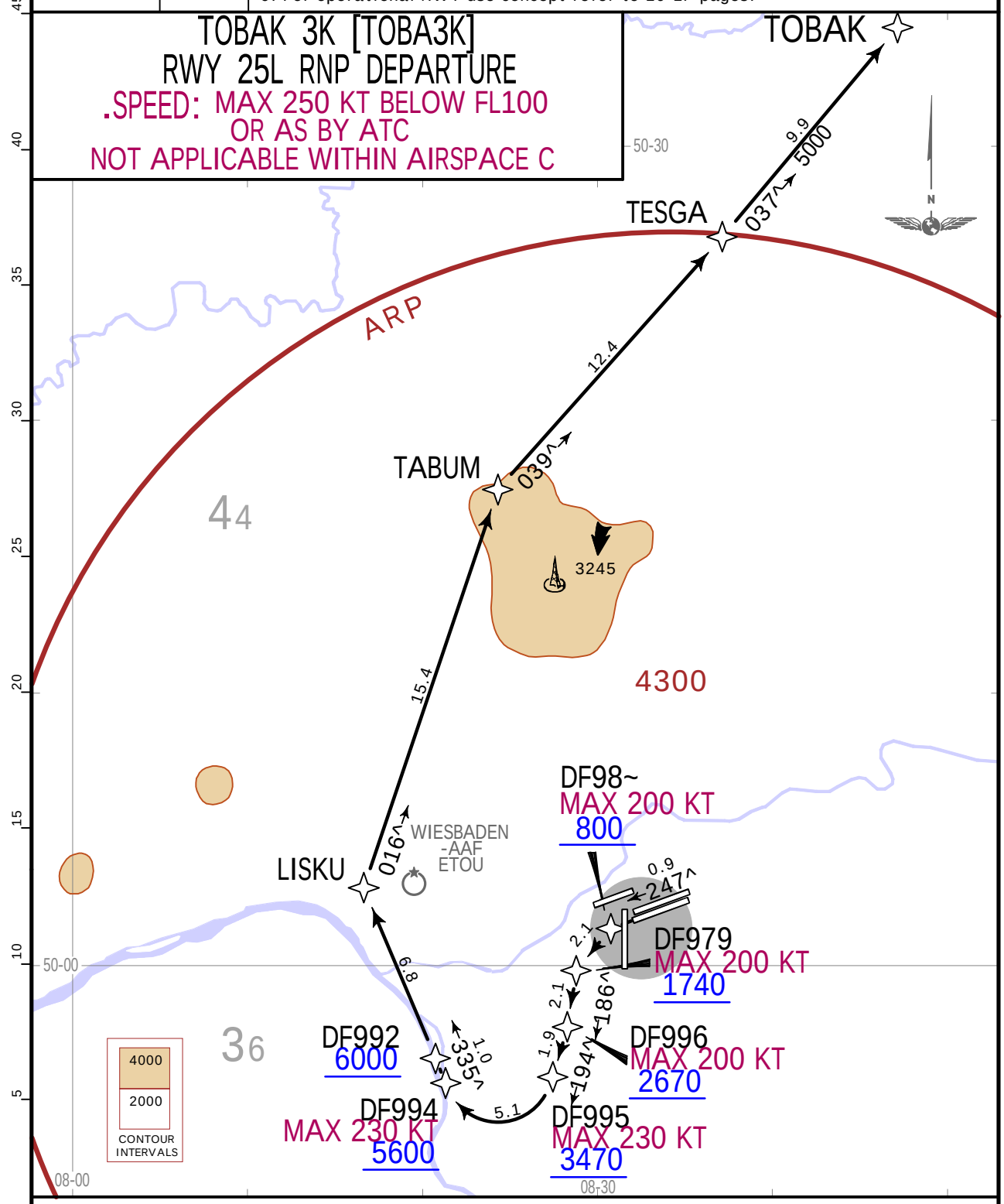


CHANGES: None.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. RNP 1/A-RNP required. 2. RF required. 3. GPS required. 4. Contact LANGEN Radar when advised by Tower. 5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 6. For operational RWY use concept refer to 10-1P pages.

TOBAK 3K [TOBA3K]
RWY 25L RNP DEPARTURE

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) up to 800, due to operational requirements, then
445 per NM (7.3%) up to 2670, due to operational requirements, then
415 per NM (6.8%) up to 6000, due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
445 per NM	556	742	1113	1483	1854	2225
520 per NM	650	867	1300	1733	2167	2600

Initial climb clearance FL70

ROUTING

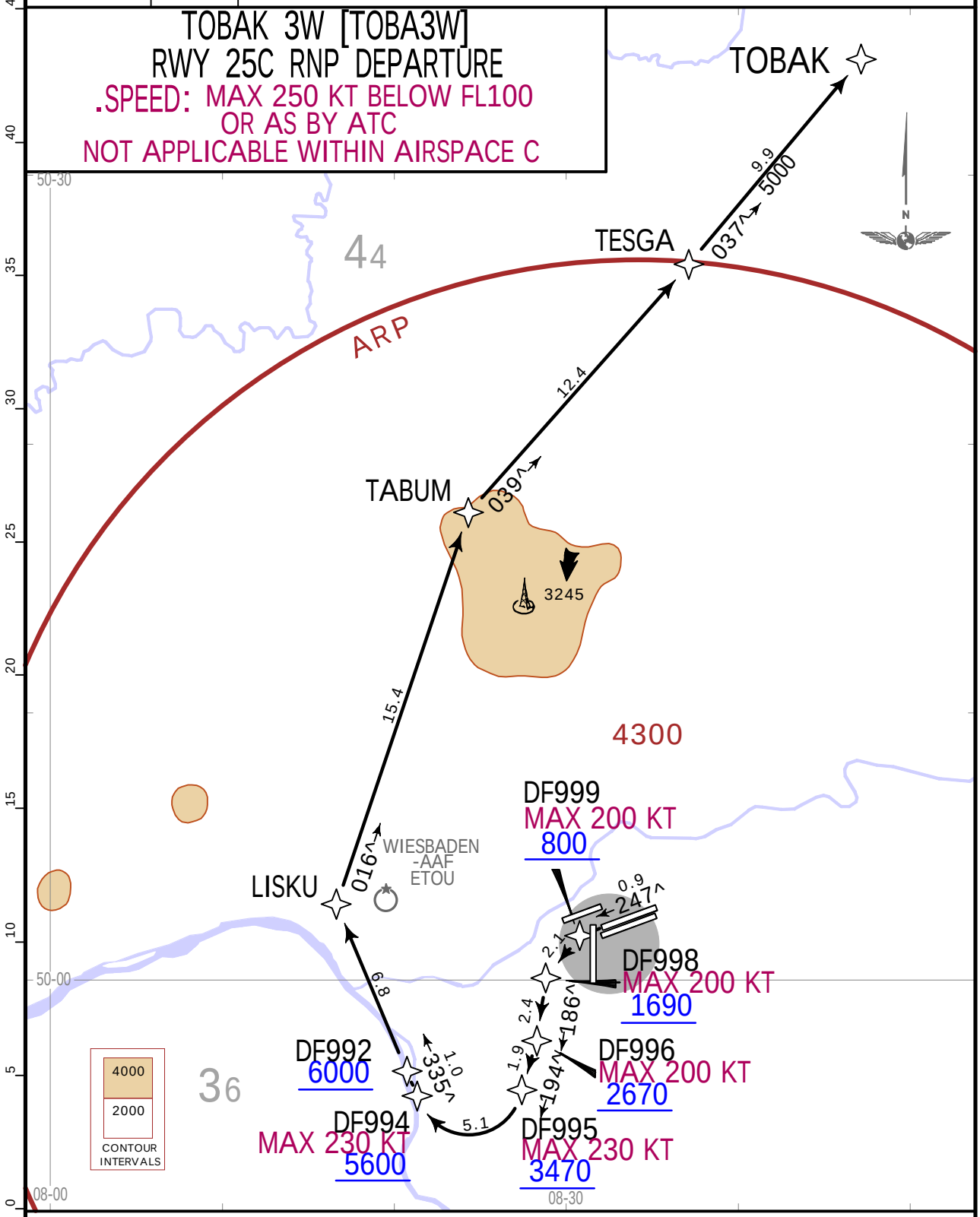
DF980 (K200-; 800+) - DF979 (K200-; 1740+) - DF996 (K200-; 2670+) - DF995 (K230-; 3470+) - DF994 (K230-; 5600+) - DF992 (6000+) - LISKU - TABUM - TESGA - TOBAK.

CHANGES: RNAV SID renumbered & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. RNP 1/A-RNP required. 2. RF required. 3. GPS required. 4. Contact LANGEN Radar when advised by Tower. 5. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 6. For operational RWY use concept refer to 10-1P pages.

TOBAK 3W [TOBA3W]
RWY 25C RNP DEPARTURE

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) up to 800, due to operational requirements, then
415 per NM (6.8%) up to 6000, due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
520 per NM	650	867	1300	1733	2167	2600

Initial climb clearance FL70

ROUTING

DF999 (K200-; 800+) - DF998 (K200-; 1690+) - DF996 (K200-; 2670+) - DF995 (K230-; 3470+) - DF994 (K230-; 5600+) - DF992 (6000+) - LISKU - TABUM - TESGA - TOBAK.

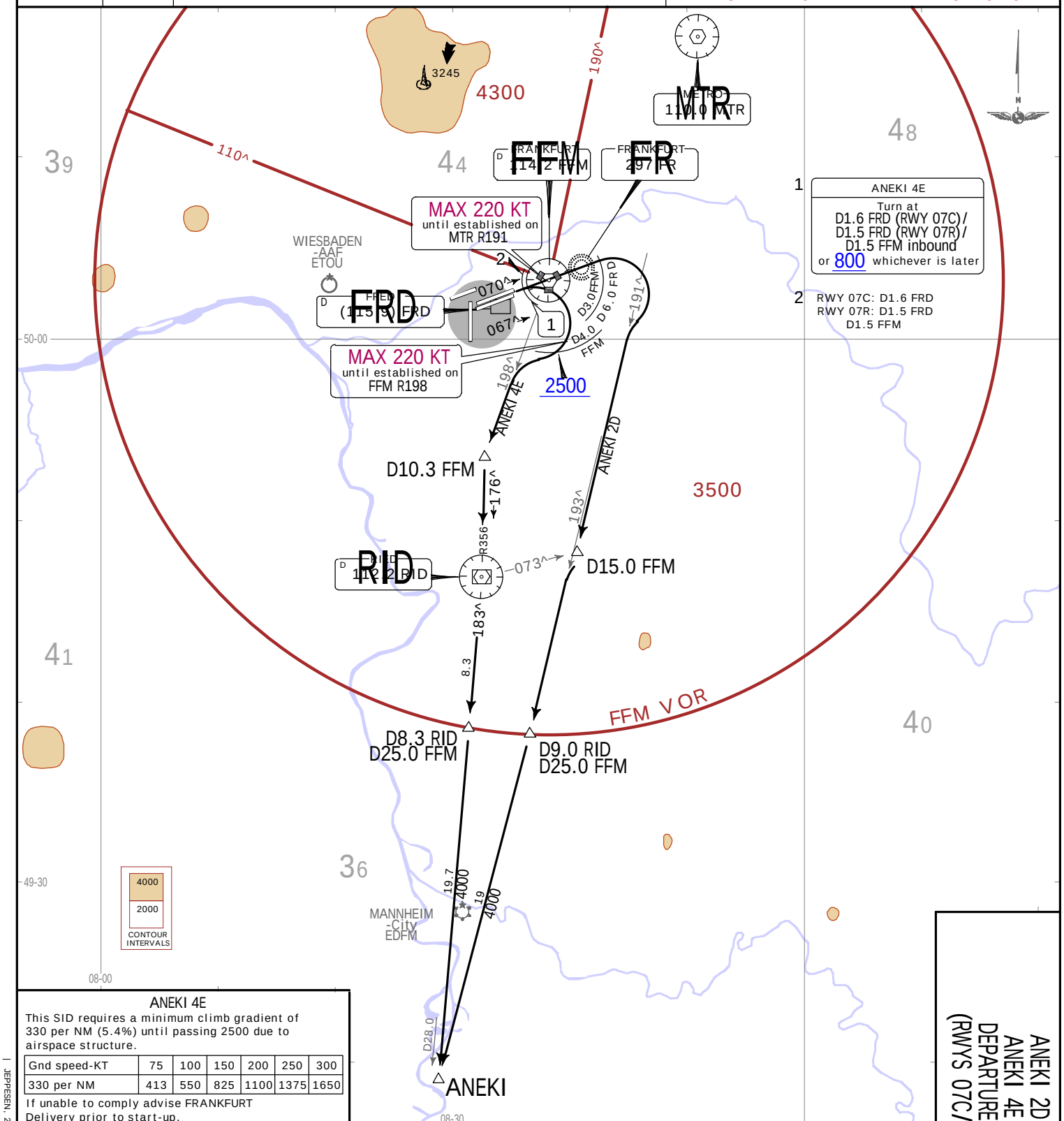
CHANGES: RNAV SID renumbered & revised.

CHANGES: None.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

ANEKI 2D, ANEKI 4E DEPARTURES (RWYS 07C/R)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



ANEKI 4E

This SID requires a minimum climb gradient of 330 per NM (5.4%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
330 per NM	413	550	825	1100	1375	1650

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

SID	ROUTING
ANEKI 2D	Climb on runway track to 800, via FR to D6.0 FRD (D3.0 FFM outbound), turn RIGHT, intercept MTR R191 to D15.0 FFM/RID R073, turn RIGHT, intercept MTR R193 to ANEKI.
ANEKI 4E	Climb on runway track to D1.6 FRD (RWY 07C)/D1.5 FRD (RWY 07R)/D1.5 FFM inbound or 800, whichever is later, turn RIGHT, intercept FFM R198, at D10.3 FFM turn LEFT, intercept RID R356 inbound to RID, turn RIGHT, RID R183 to ANEKI.

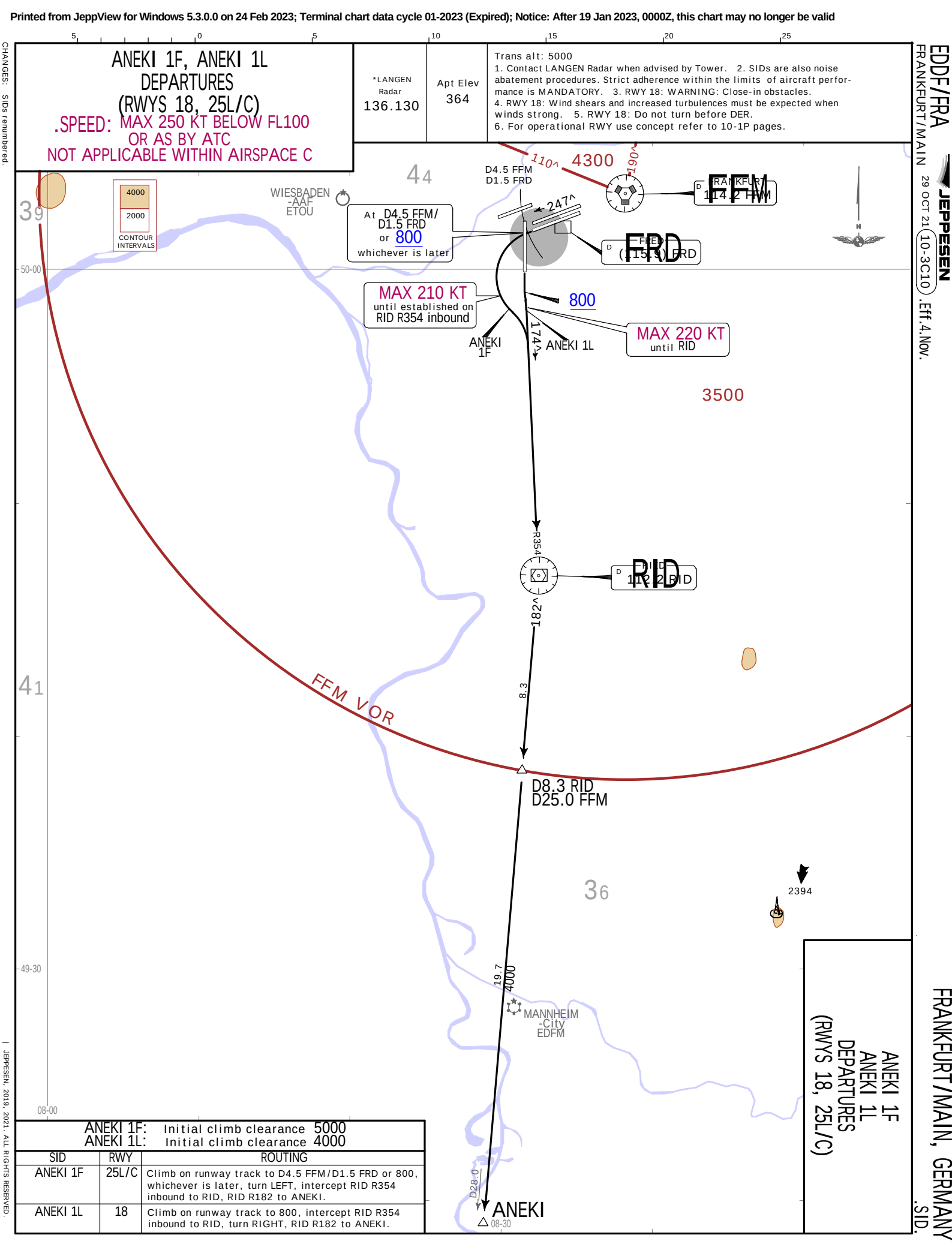
EDDF/FRA
FRANKFURT/MAIN
29 OCT 21 (10-3C9) .Eff.4.Nov.
JEPPESEN
FRANKFURT/MAIN, GERMANY
ANEKI 2D
ANEKI 4E
DEPARTURES
(RWYS 07C/R)
.SID.

ANEKI 1F, ANEKI 1L DEPARTURES (RWYS 18, 25L/C)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. RWY 18: WARNING: Close-in obstacles. 4. RWY 18: Wind shears and increased turbulences must be expected when winds strong. 5. RWY 18: Do not turn before DER. 6. For operational RWY use concept refer to 10-1P pages.



ANEKI 1F: Initial climb clearance 5000 ANEKI 1L: Initial climb clearance 4000		
SID	RWY	ROUTING
ANEKI 1F	25L/C	Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, intercept RID R354 inbound to RID, RID R182 to ANEKI.
ANEKI 1L	18	Climb on runway track to 800, intercept RID R354 inbound to RID, turn RIGHT, RID R182 to ANEKI.

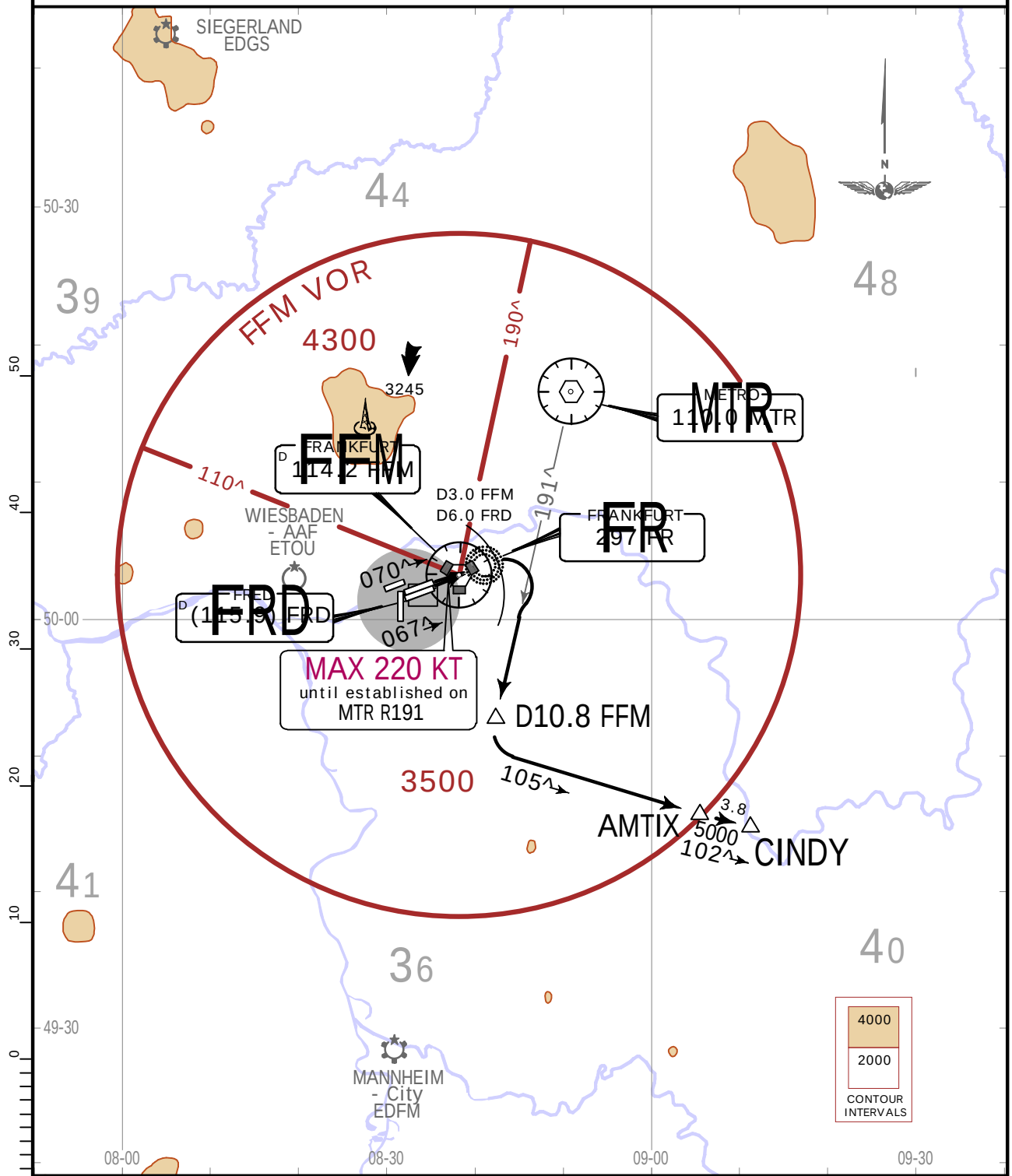
ANEKI 1F
ANEKI 1L
DEPARTURES
(RWYS 18, 25L/C)

EDDF/FRA
FRANKFURT/MAIN
29 OCT 21 (10-3C10) .Eff.4.Nov.
JEPPESEN
FRANKFURT/MAIN, GERMANY
.SID.

CHANGES: SIDs renumbered.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

CINDY 1D
RWYS 07C/R DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

ROUTING

Climb on runway track to 800, via FR to D6.0 FRD (D3.0 FFM outbound), turn RIGHT, intercept MTR R191, at D10.8 FFM 1 turn LEFT, 105^ track to AMTIX, turn LEFT, 102^ track to CINDY.

1 After D10.8 FFM BRNAV equipment necessary.

CHANGES: AKONI SID replaced by CINDY.

CINDY 2F DEPARTURE (RWYS 25L/C)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

*LANGEN Radar 136.130

Apt Elev 364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

Gnd speed-KT	75	100	150	200	250	300
320 per NM	400	533	800	1067	1333	1600

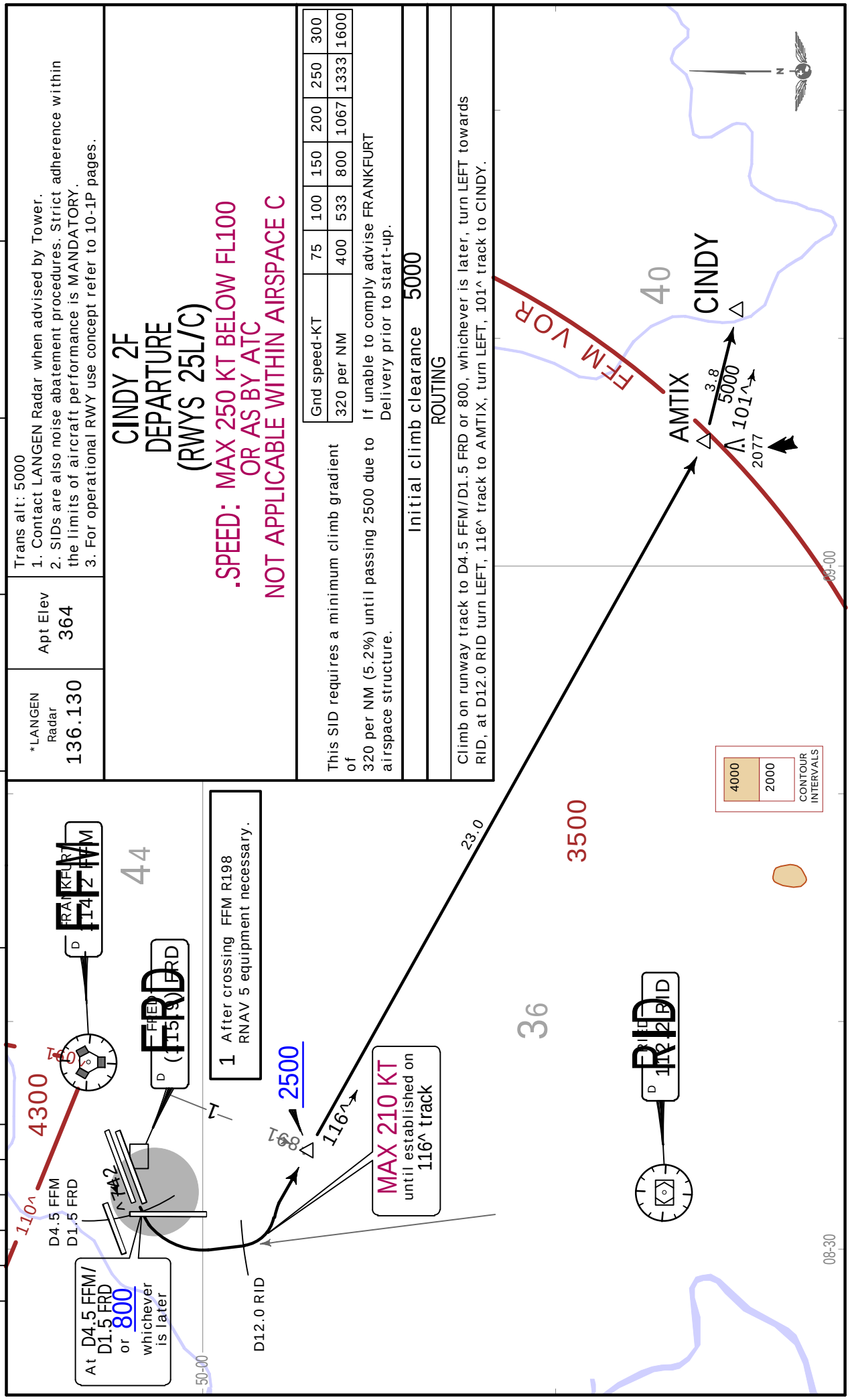
This SID requires a minimum climb gradient of 320 per NM (5.2%) until passing 2500 due to airspace structure.

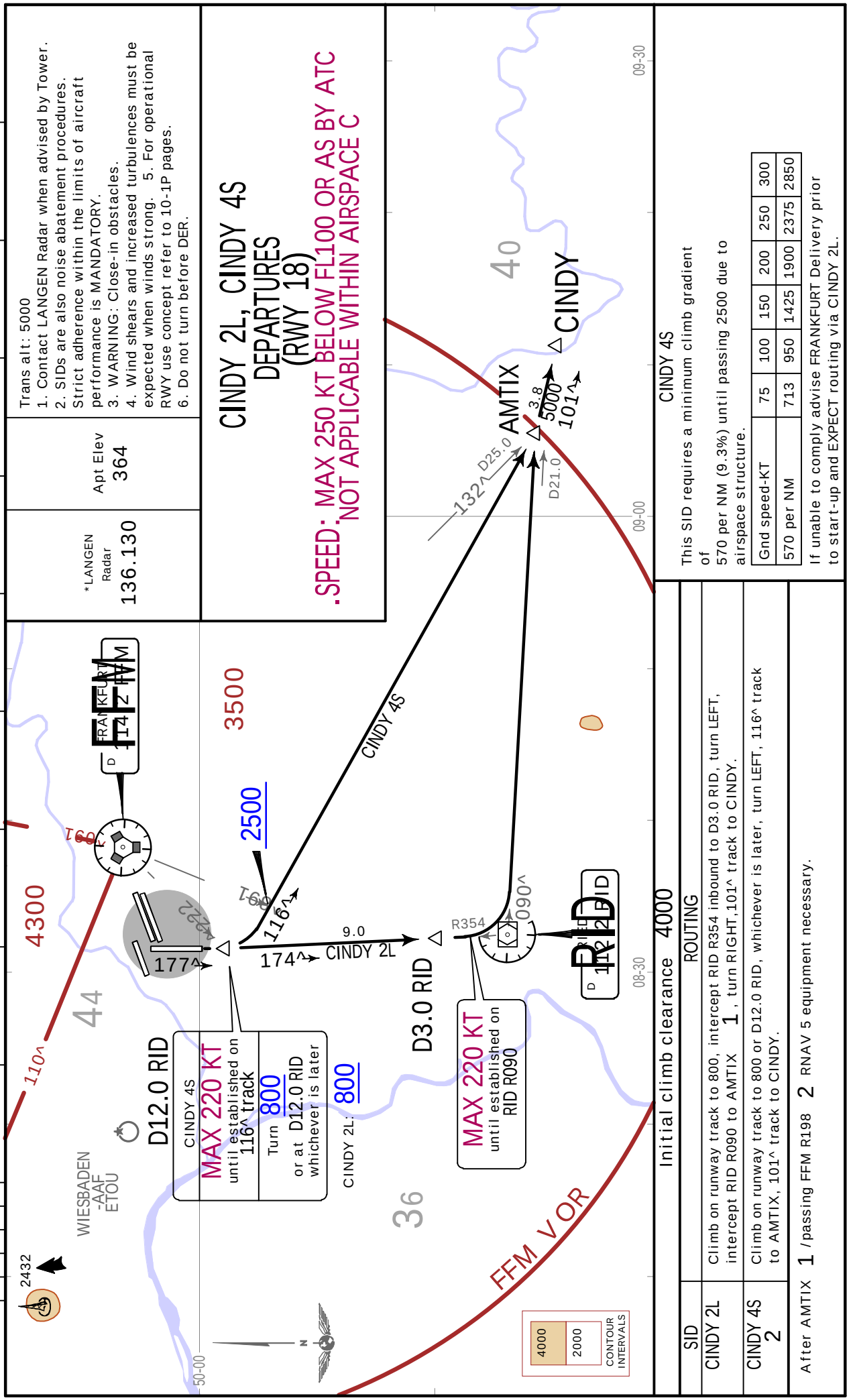
If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

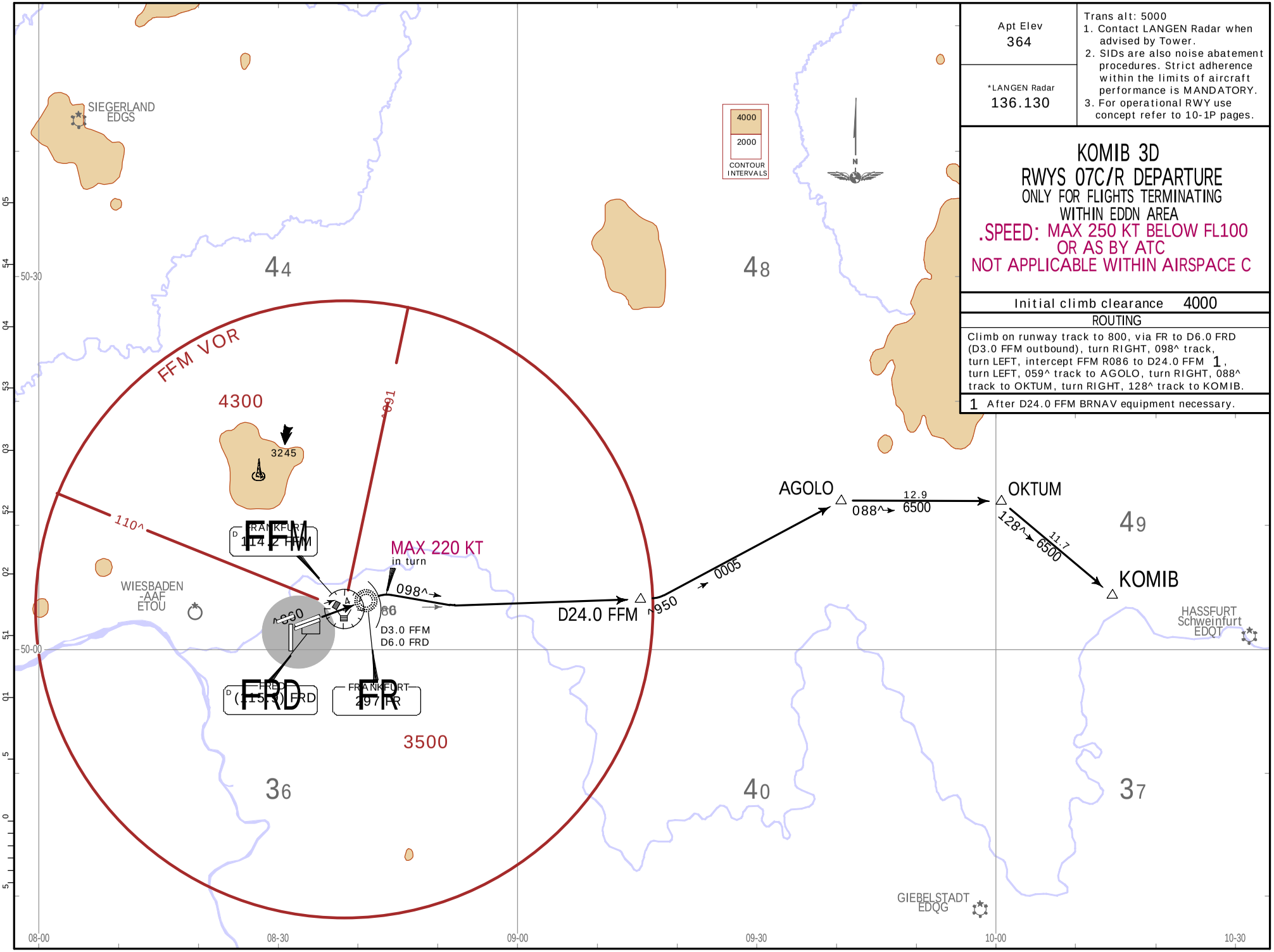
ROUTING

Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT towards RID, at D12.0 RID turn LEFT, 116^ track to AMTIX, turn LEFT, 101^ track to CINDY.





FRANKFURT/MAIN, GERMANY .SID.



Apt Elev	Trans alt: 5000
364	1. Contact LANGEN Radar when advised by Tower.
*LANGEN Radar	2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
136.130	3. For operational RWY use concept refer to 10-1P pages.

KOMIB 3D
RWYS 07C/R DEPARTURE
ONLY FOR FLIGHTS TERMINATING WITHIN EDDN AREA

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 4000

ROUTING

Climb on runway track to 800, via FR to D6.0 FRD (D3.0 FFM outbound), turn RIGHT, 098^ track, turn LEFT, intercept FFM R086 to D24.0 FFM 1, turn LEFT, 059^ track to AGOLO, turn RIGHT, 088^ track to OKTUM, turn RIGHT, 128^ track to KOMIB.

1 After D24.0 FFM BRNAV equipment necessary.

*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

MARUN 9D, MARUN 5E DEPARTURES (RWYS 07C/R)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

MARUN 5E
This SID requires a minimum climb gradient of 383 per NM (6.3%) until passing 2000.

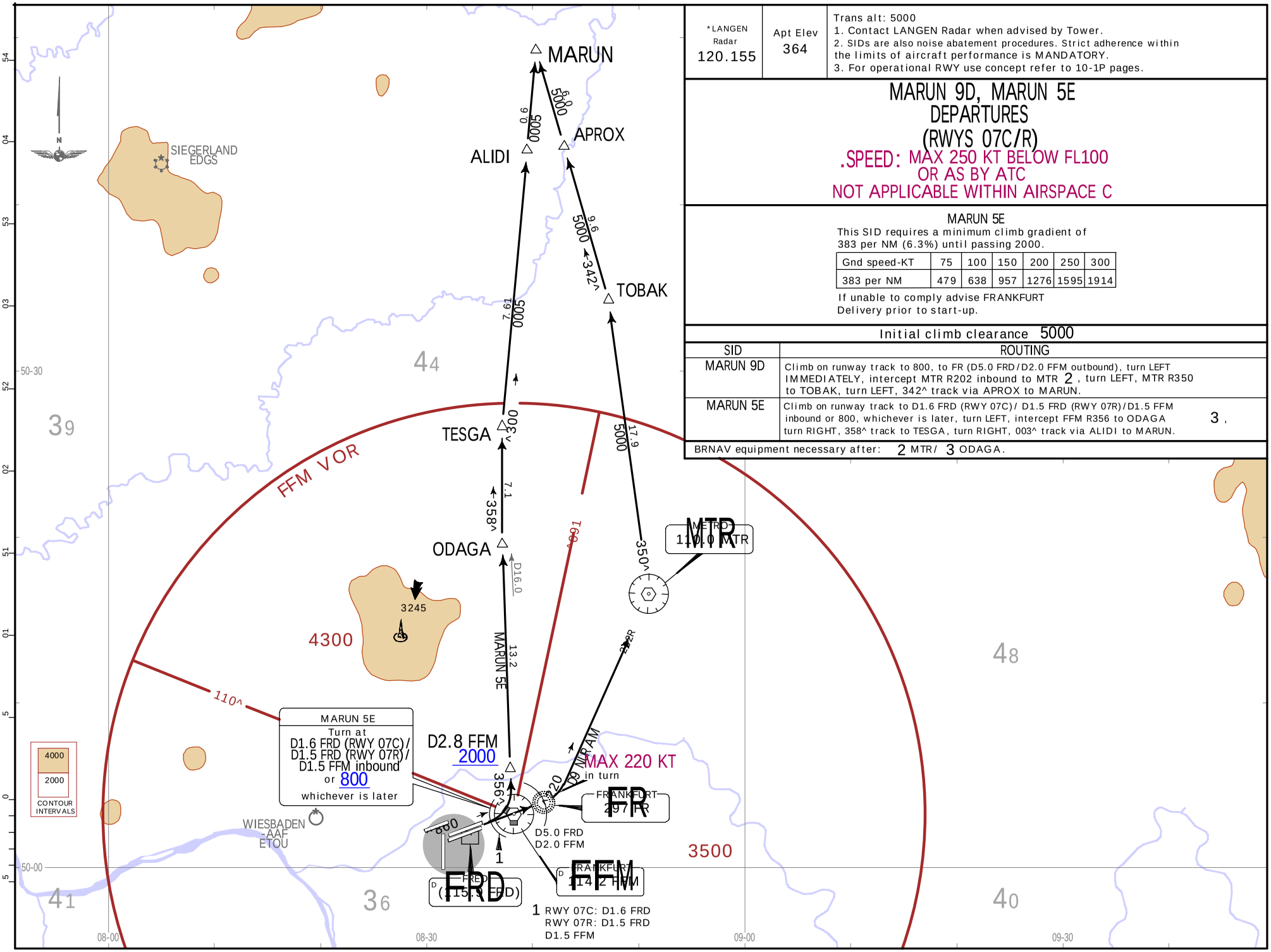
Gnd speed-KT	75	100	150	200	250	300
383 per NM	479	638	957	1276	1595	1914

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

SID	ROUTING
MARUN 9D	Climb on runway track to 800, to FR (D5.0 FRD/D2.0 FFM outbound), turn LEFT IMMEDIATELY, intercept MTR R202 inbound to MTR 2, turn LEFT, MTR R350 to TOBAK, turn LEFT, 342^ track via APROX to MARUN.
MARUN 5E	Climb on runway track to D1.6 FRD (RWY 07C)/ D1.5 FRD (RWY 07R)/D1.5 FFM inbound or 800, whichever is later, turn LEFT, intercept FFM R356 to ODAGA turn RIGHT, 358^ track to TESGA, turn RIGHT, 003^ track via ALIDI to MARUN. 3,

BRNAV equipment necessary after: 2 MTR/ 3 ODAGA.



CHANGES: None.

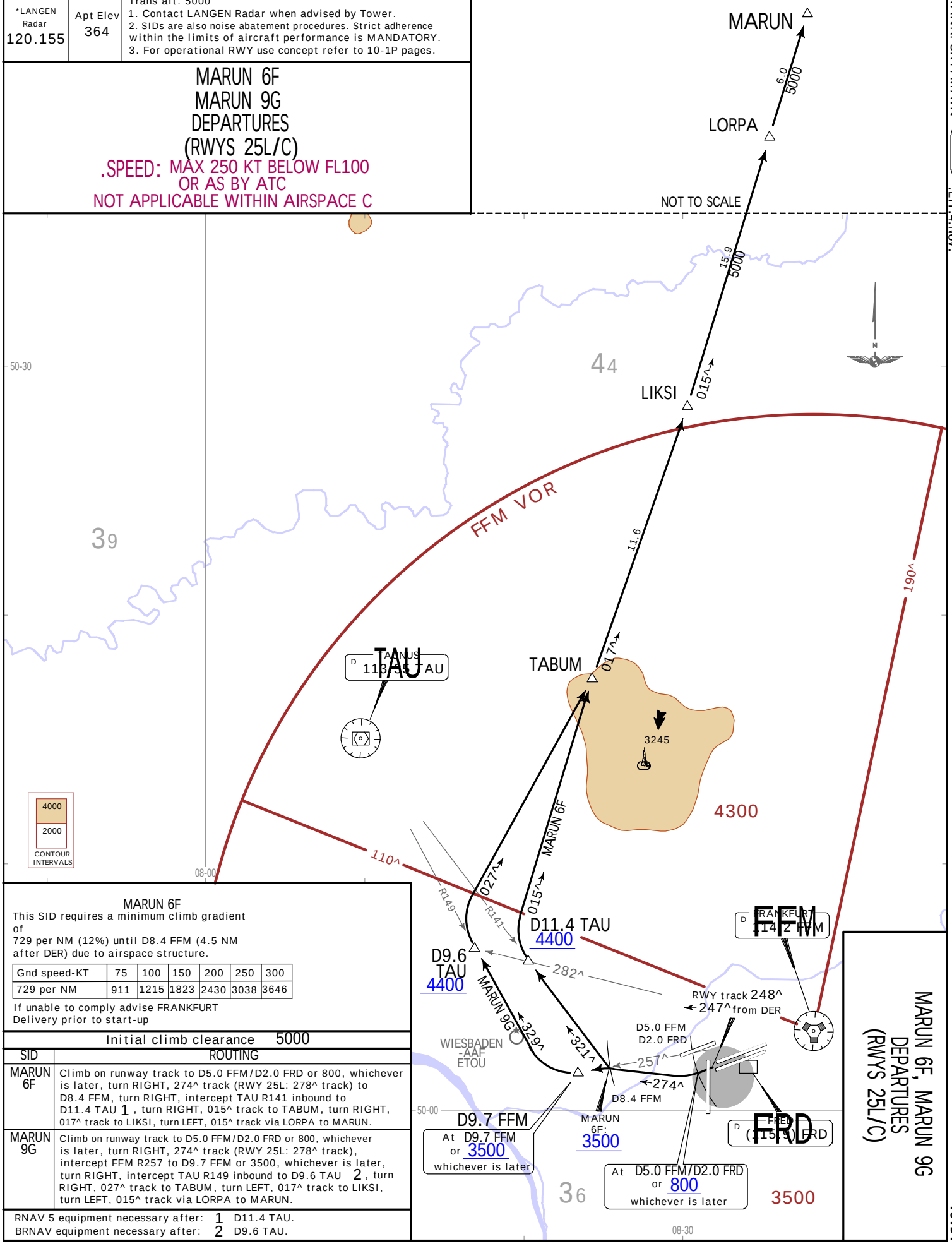
CHANGES: SID MARUN 6F availability.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 6F
MARUN 9G
DEPARTURES
(RWYS 25L/C)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

NOT TO SCALE



MARUN 6F

This SID requires a minimum climb gradient of
729 per NM (12%) until D8.4 FFM (4.5 NM after DER) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
729 per NM	911	1215	1823	2430	3038	3646

If unable to comply advise FRANKFURT
Delivery prior to start-up

Initial climb clearance 5000

SID	ROUTING
MARUN 6F	Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274^ track (RWY 25L: 278^ track) to D8.4 FFM, turn RIGHT, intercept TAU R141 inbound to D11.4 TAU 1, turn RIGHT, 015^ track to TABUM, turn RIGHT, 017^ track to LIKSI, turn LEFT, 015^ track via LORPA to MARUN.
MARUN 9G	Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274^ track (RWY 25L: 278^ track), intercept FFM R257 to D9.7 FFM or 3500, whichever is later, turn RIGHT, intercept TAU R149 inbound to D9.6 TAU 2, turn RIGHT, 027^ track to TABUM, turn LEFT, 017^ track to LIKSI, turn LEFT, 015^ track via LORPA to MARUN.

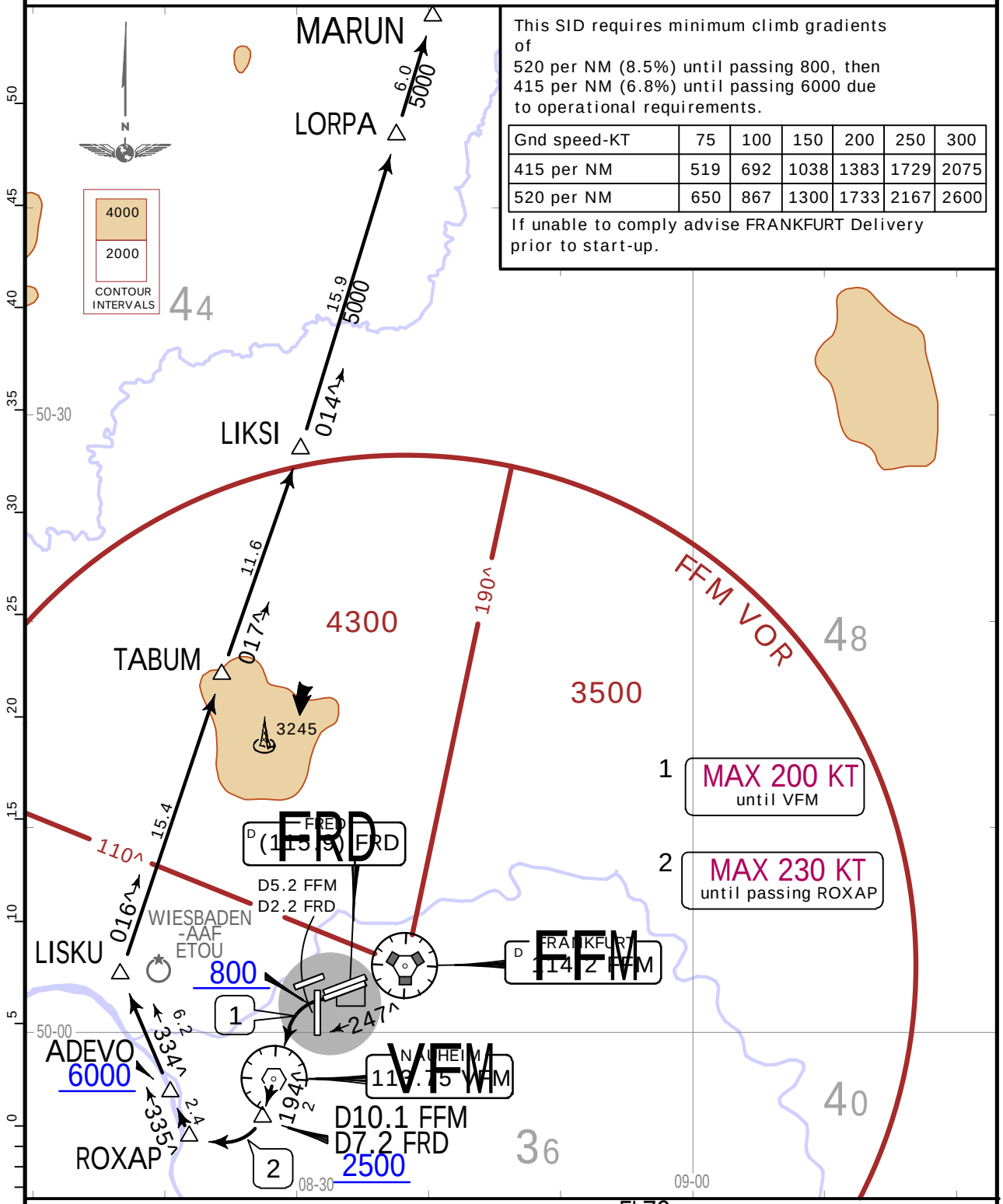
RNAV 5 equipment necessary after: 1 D11.4 TAU.
BRNAV equipment necessary after: 2 D9.6 TAU.

MARUN 6F, MARUN 9G
DEPARTURES
(RWYS 25L/C)

FRANKFURT/MAIN, GERMANY
.SID.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 5H
RWY 25L DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
415 per NM (6.8%) until passing 6000 due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
520 per NM	650	867	1300	1733	2167	2600

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL70

ROUTING

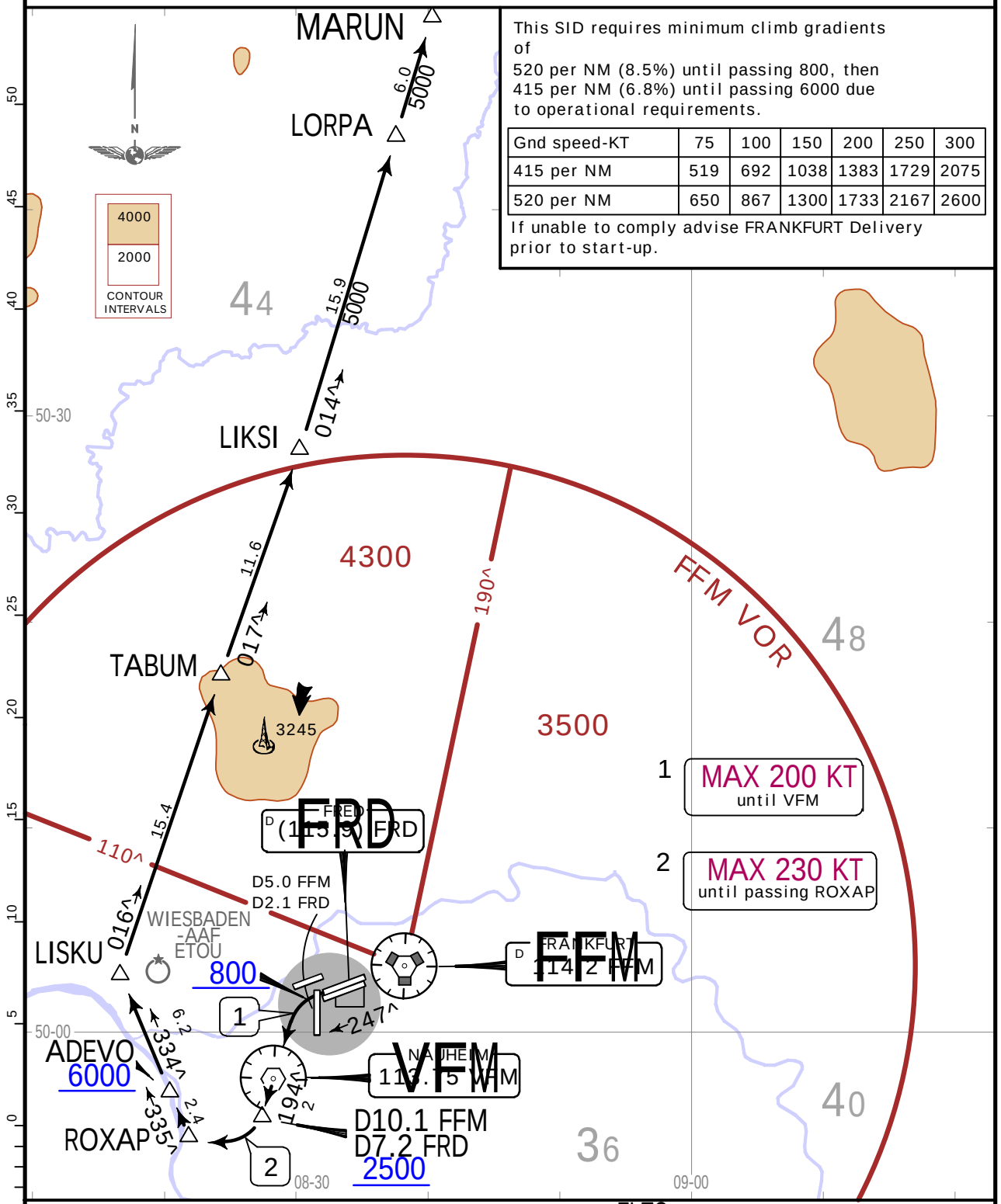
On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R194 to D10.1 FFM/D7.2 FRD turn RIGHT to ROXAP, to ADEVO, to LISKU, to TABUM, to LIKSI, to LORPA, to MARUN. 3,

3 After D10.1 FFM/D7.2 FRD RNAV 5 equipment necessary.

CHANGES: Initial climb out revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 7M
RWY 25C DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
415 per NM (6.8%) until passing 6000 due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
520 per NM	650	867	1300	1733	2167	2600

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL70

ROUTING

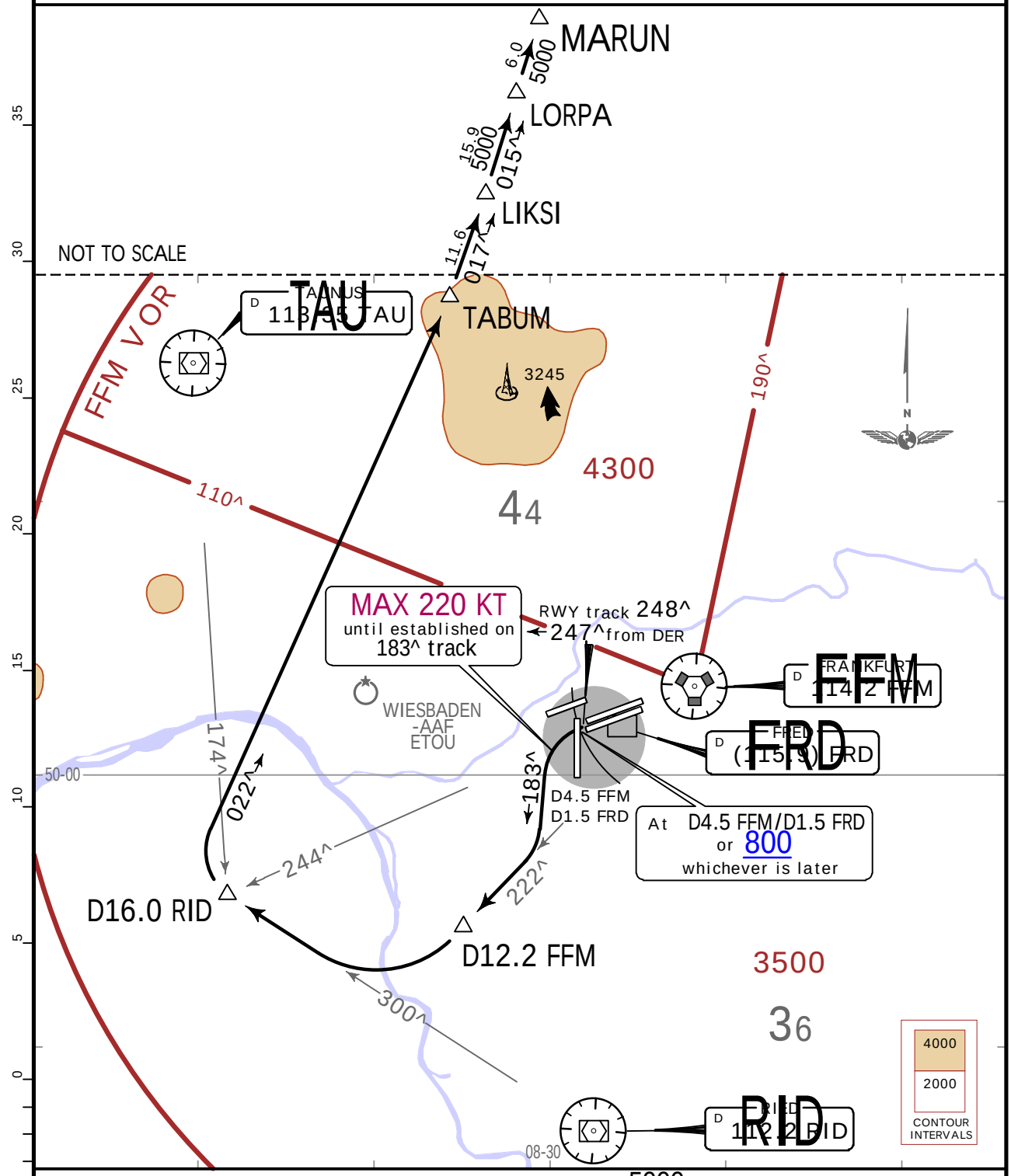
On runway track to D5.0 FFM/D2.1 FRD, turn LEFT direct to VFM, VFM R194 to D10.1 FFM/D7.2 FRD turn RIGHT to ROXAP, to ADEVO, to LISKU, to TABUM, to LIKSI, to LORPA, to MARUN. 3,

3 After D10.1 FFM/D7.2 FRD RNAV 5 equipment necessary.

CHANGES: Initial climb out revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 9N
RWYS 25L/C DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

ROUTING

Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, 183^ track, intercept FFM R222 to D12.2 FFM, turn RIGHT, intercept RID R300 to D16.0 RID 1, turn RIGHT, 022^ track to TABUM, turn LEFT, 017^ track to LIKSI, turn LEFT, 015^ track via LORPA to MARUN.

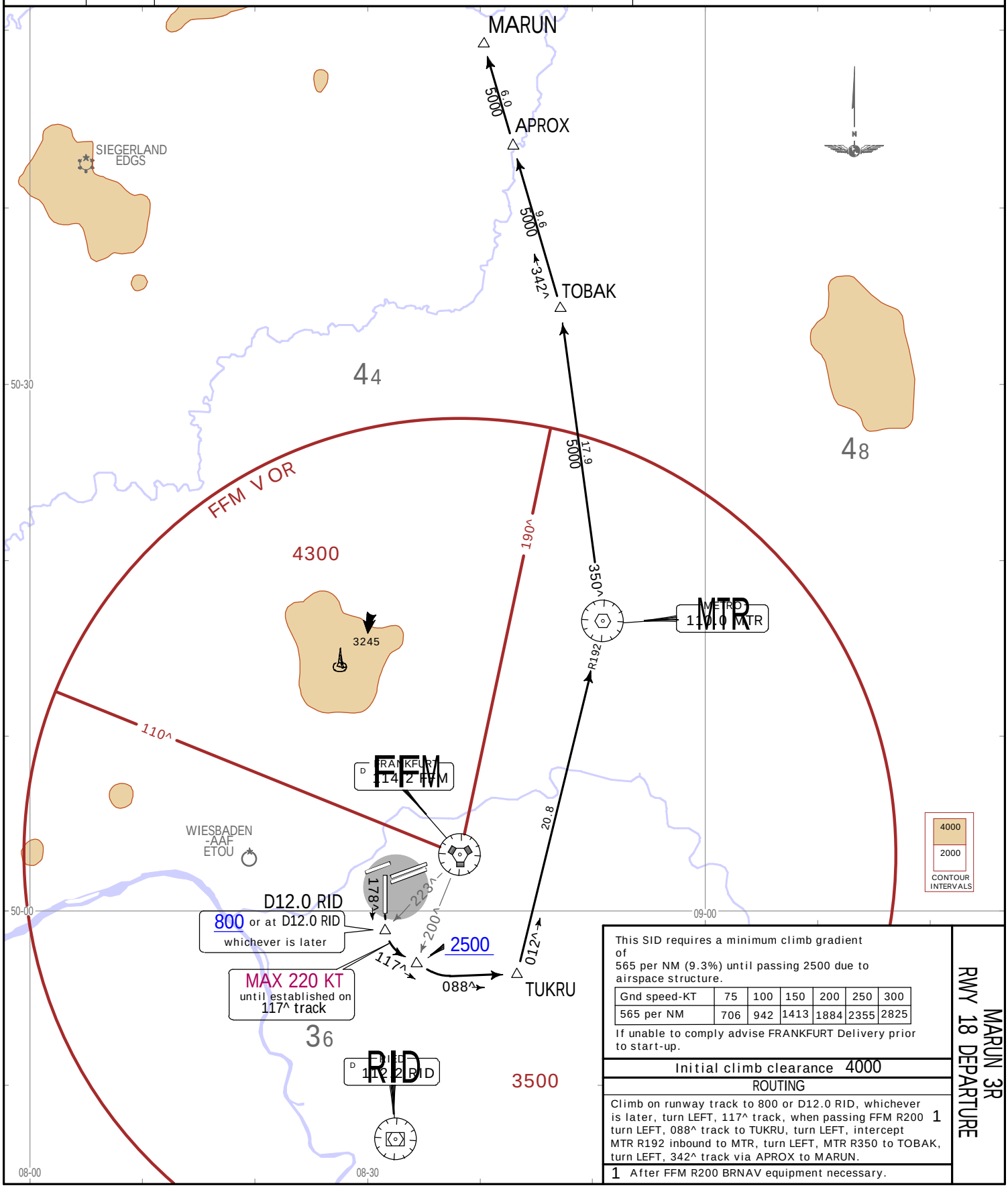
1 After D16.0 RID BRNAV equipment necessary.

CHANGES: SID renumbered & revised.

*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

MARUN 3R
RWY 18 DEPARTURE
BY ATC
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
565 per NM	706	942	1413	1884	2355	2825

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

Climb on runway track to 800 or D12.0 RID, whichever is later, turn LEFT, 117^ track, when passing FFM R200 1 turn LEFT, 088^ track to TUKRU, turn LEFT, intercept MTR R192 inbound to MTR, turn LEFT, MTR R350 to TOBAK, turn LEFT, 342^ track via APROX to MARUN.

1 After FFM R200 BRNAV equipment necessary.

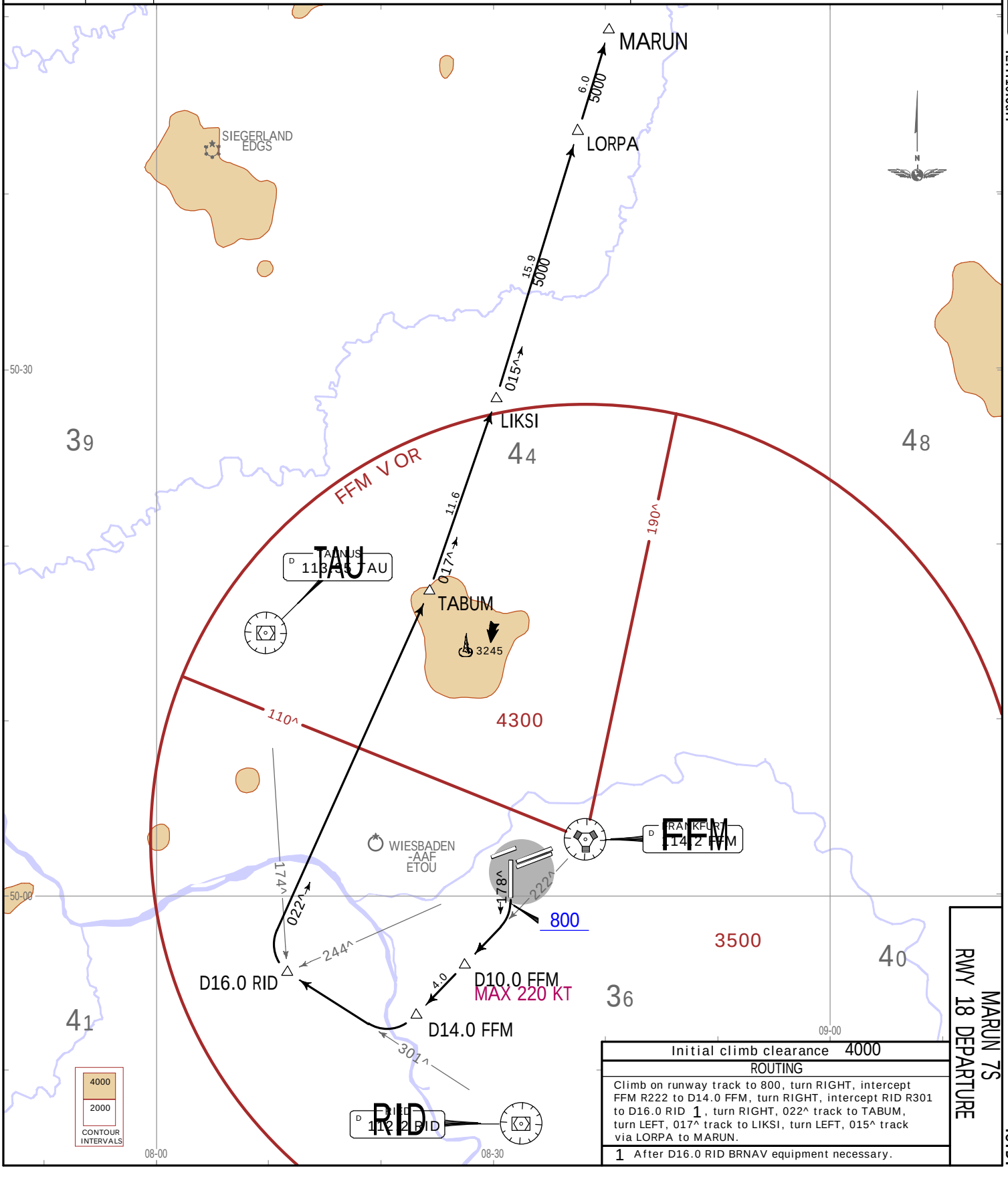
MARUN 3R
RWY 18 DEPARTURE

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. EXPECT close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

MARUN 7S
RWY 18 DEPARTURE
WILL ONLY BE ASSIGNED WHEN LANDING DIRECTION IS RWY 25

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

EDDF/FRA JEPPESEN
FRANKFURT/MAIN (10-3E9) 10 JUL 20
.Eff.16.Jul.



Initial climb clearance 4000

ROUTING

Climb on runway track to 800, turn RIGHT, intercept FFM R222 to D14.0 FFM, turn RIGHT, intercept RID R301 to D16.0 RID 1, turn RIGHT, 022^ track to TABUM, turn LEFT, 017^ track to LIKSI, turn LEFT, 015^ track via LORPA to MARUN.

1 After D16.0 RID BRNAV equipment necessary.

FRANKFURT/MAIN, GERMANY
MARUN 7S
RWY 18 DEPARTURE
.SID.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

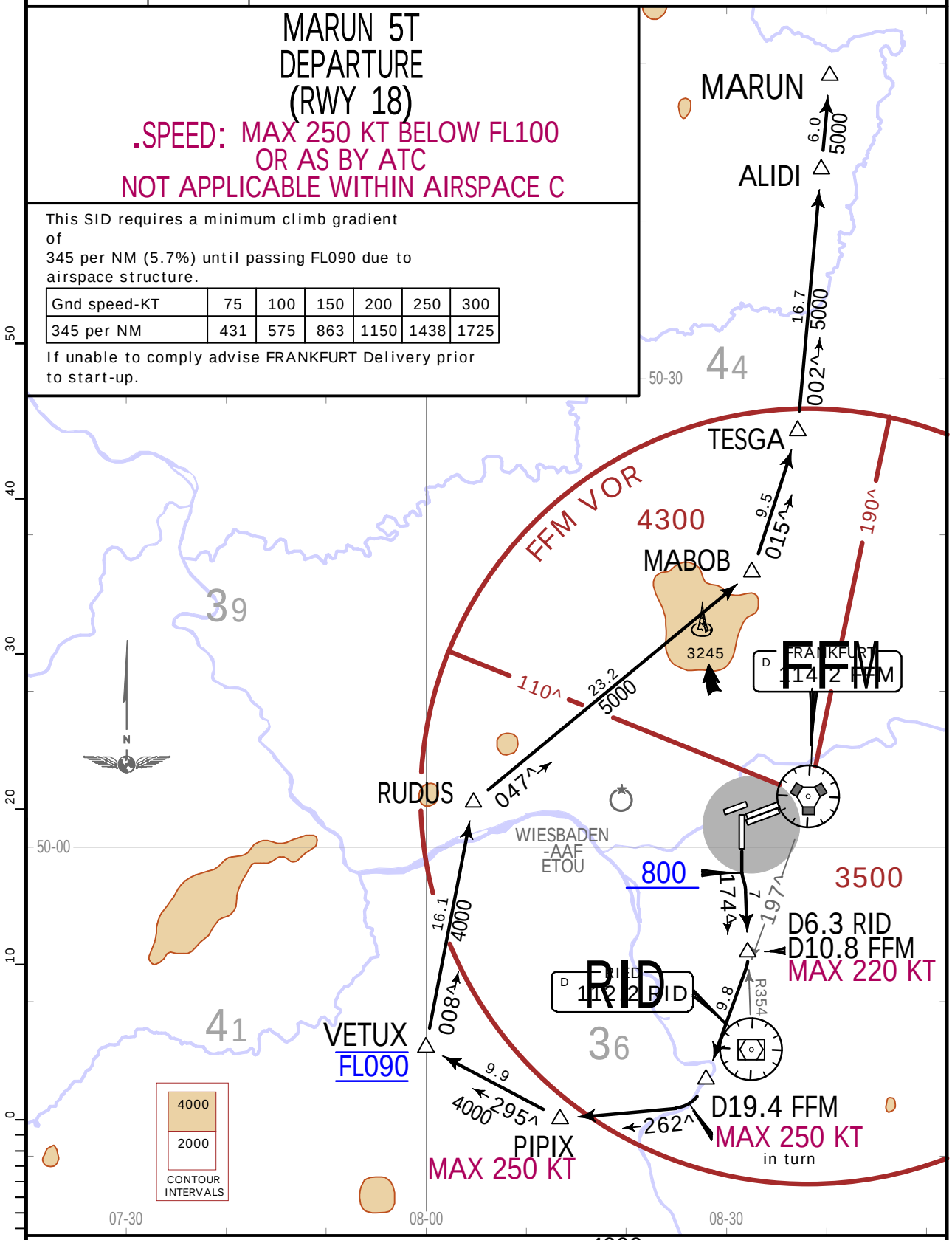
MARUN 5T DEPARTURE (RWY 18)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 345 per NM (5.7%) until passing FL090 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
345 per NM	431	575	863	1150	1438	1725

If unable to comply advise FRANKFURT Delivery prior to start-up.



Initial climb clearance 4000

ROUTING

Climb on runway track to 800, intercept RID R354 inbound to D6.3 RID (D10.8 FFM), turn RIGHT, intercept FFM R197 to D19.4 FFM 1, turn RIGHT, 262^ track to PIPIX, turn RIGHT, 295^ track to VETUX, turn RIGHT, 008^ track to RUDUS, turn RIGHT, intercept 047^ track to MABOB, turn LEFT, 015^ track to TESGA, turn LEFT, 002^ track via ALIDI to MARUN.

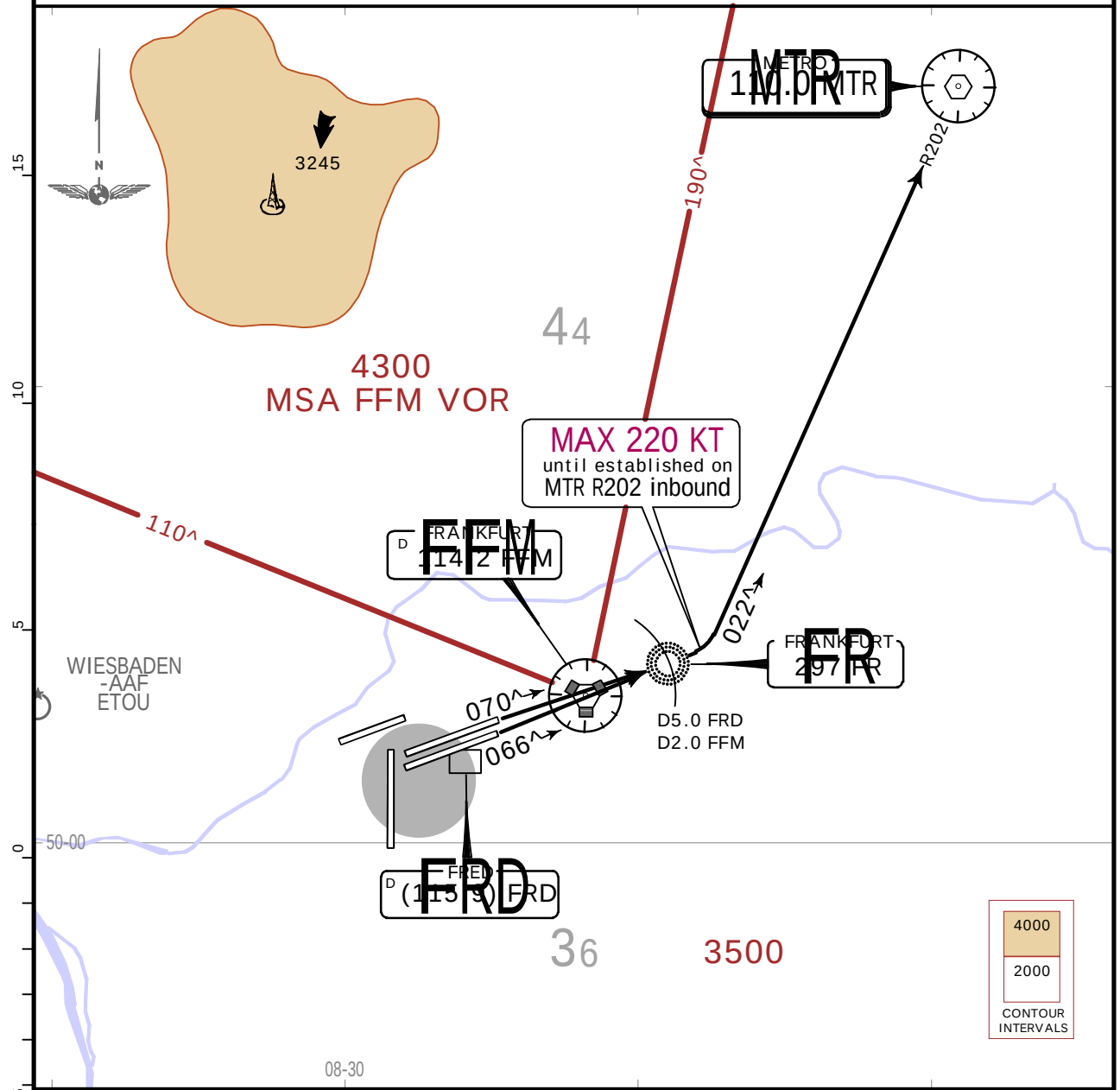
1 After D19.4 FFM RNAV 5 equipment necessary.

CHANGES: SID renumbered & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

METRO 5C (MTR 5C)
DEPARTURE
(RWYS 07C/R)

NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT ONLY
DELAY HAS TO BE EXPECTED
FURTHER ROUTING TO DESTINATION SHALL BE BASED ON VOR AND HAS TO BE COORDINATED WITH ATC PRIOR TO START-UP
NO RNAV OVERLAY EXISTING
MAX FL090
SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

ROUTING

Climb on runway track to 800, direct to FR (D5.0 FRD/D2.0 FFM outbound), turn LEFT IMMEDIATELY, intercept MTR R202 inbound to MTR.

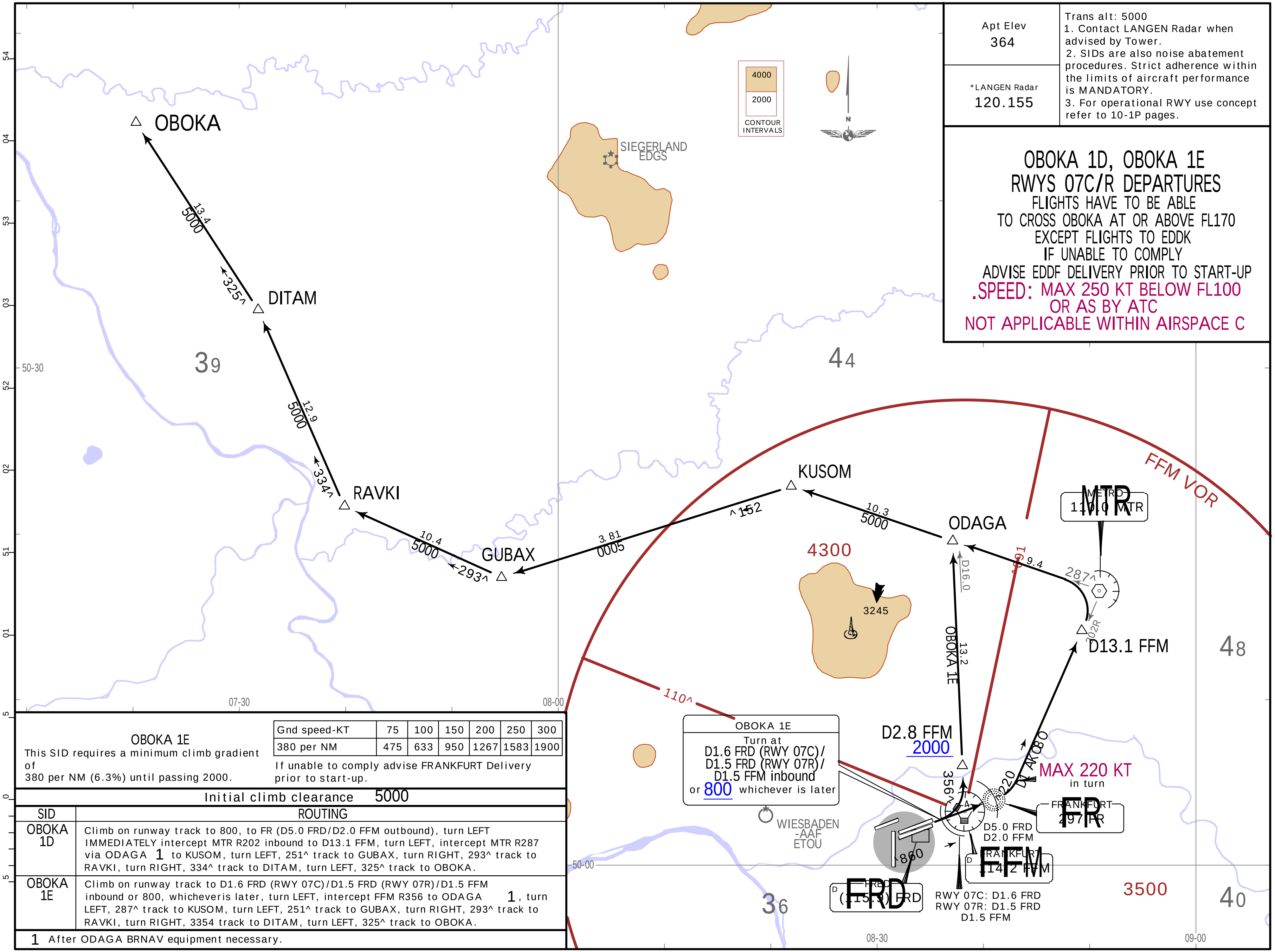
CHANGES: None.

Apt Elev 364	Trans alt: 5000
*LANGEN Radar 120.155	1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

OBOKA 1D, OBOKA 1E
RWYS 07C/R DEPARTURES

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



OBOKA 1E
This SID requires a minimum climb gradient of 380 per NM (6.3%) until passing 2000.

Gnd speed-KT	75	100	150	200	250	300
380 per NM	475	633	950	1267	1583	1900

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

SID	ROUTING
OBOKA 1D	Climb on runway track to 800, to FR (D5.0 FRD/D2.0 FFM outbound), turn LEFT IMMEDIATELY intercept MTR R202 inbound to D13.1 FFM, turn LEFT, intercept MTR R287 via ODAGA 1 to KUSOM, turn LEFT, 251^ track to GUBAX, turn RIGHT, 293^ track to RAVKI, turn RIGHT, 334^ track to DITAM, turn LEFT, 325^ track to OBOKA.
OBOKA 1E	Climb on runway track to D1.6 FRD (RWY 07C)/D1.5 FRD (RWY 07R)/D1.5 FFM inbound or 800, whicheveris later, turn LEFT, intercept FFM R356 to ODAGA 1, turn LEFT, 287^ track to KUSOM, turn LEFT, 251^ track to GUBAX, turn RIGHT, 293^ track to RAVKI, turn RIGHT, 3354 track to DITAM, turn LEFT, 325^ track to OBOKA.

1 After ODAGA BRNAV equipment necessary.

CHANGES: None.

*LANGEN Radar	Apt Elev	
120.155	364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

OBOKA 2G
RWYS 25L/C DEPARTURE

FLIGHTS HAVE TO BE ABLE
TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY
ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 350 per NM (5.8%) until passing 3600, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
350 per NM	438	583	875	1167	1458	1750

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

ROUTING

Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274^ track (RWY 25L: 278^ track), intercept FFM R257 to D13.7 FFM 1, turn RIGHT, 292^ track to ESUPI, turn RIGHT, 306^ track to MASIR, turn RIGHT, 334^ track via RAVKI to DITAM, turn LEFT, 325^ track to OBOKA.

1 After D13.7 FFM BRNAV equipment necessary.

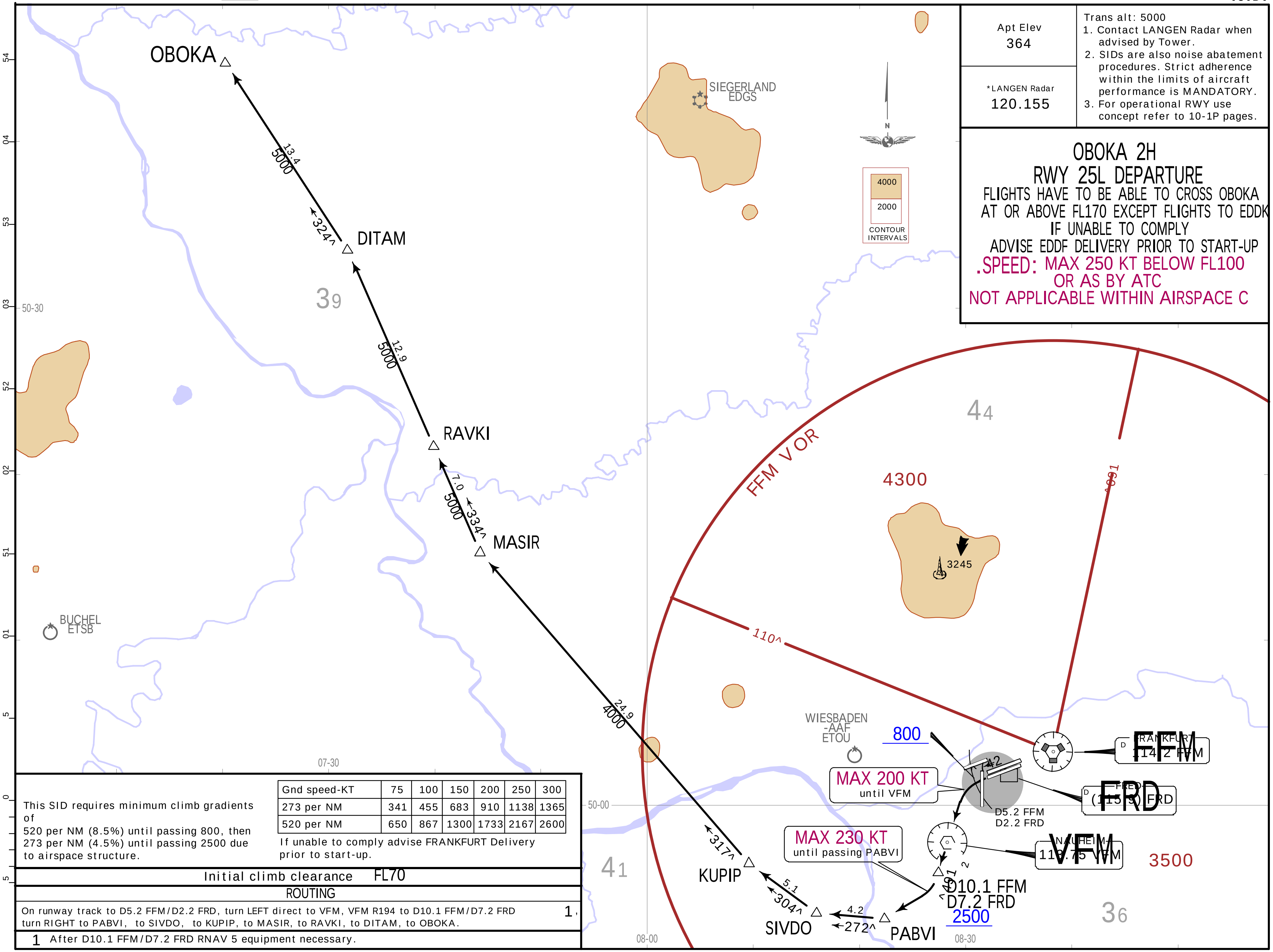
OBOKA
DITAM
RAVKI
MASIR
ESUPI
D13.7 FFM
3600
At D5.0 FFM/ D2.0 FRD or 800 whichever is later
D5.0 FFM
D2.0 FRD
FFM
FRD
SIEGERLAND EDGS
WIESBADEN -AAF ETOU
FRANKFURT-HAHN EDFH
FFM VOR
RWY track 248^
247^ from DER
274^
292^
306^
334^
325^
13.4
5000
12.9
5000
7.0
5000
18.9
4000
6.9
752
3245
4300
3500
110^
100^
4000
2000
CONTOUR INTERVALS
39
44
41
36
48
40
50-30
50-00
07-30
08-00
08-30
09-00

Apt Elev 364	Trans alt: 5000
*LANGEN Radar 120.155	1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

OBOKA 2H
RWY 25L DEPARTURE

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Gnd speed-KT	75	100	150	200	250	300
273 per NM	341	455	683	910	1138	1365
520 per NM	650	867	1300	1733	2167	2600

This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
273 per NM (4.5%) until passing 2500 due to airspace structure.

If unable to comply advise FRANKFURT Delivery prior to start-up.

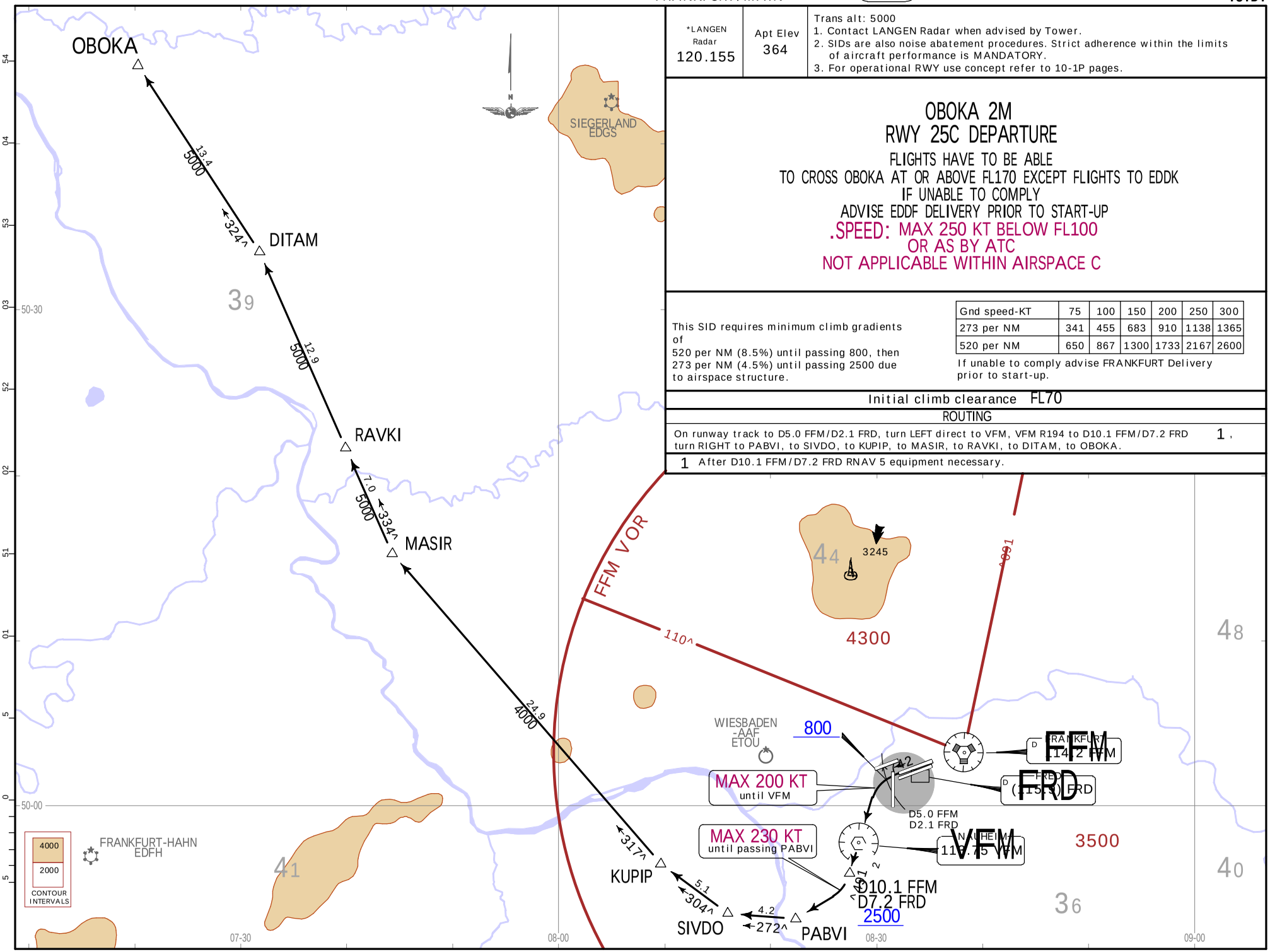
Initial climb clearance FL70

ROUTING

On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R194 to D10.1 FFM/D7.2 FRD turn RIGHT to PABVI, to SIVDO, to KUPIP, to MASIR, to RAVKI, to DITAM, to OBOKA. 1

1 After D10.1 FFM/D7.2 FRD RNAV 5 equipment necessary.

CHANGES: Initial climb out revised.



*LANGEN Radar	Apt Elev	
120.155	364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

OBOKA 2M
RWY 25C DEPARTURE

FLIGHTS HAVE TO BE ABLE
TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY
ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
273 per NM (4.5%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
273 per NM	341	455	683	910	1138	1365
520 per NM	650	867	1300	1733	2167	2600

If unable to comply advise FRANKFURT Delivery prior to start-up.

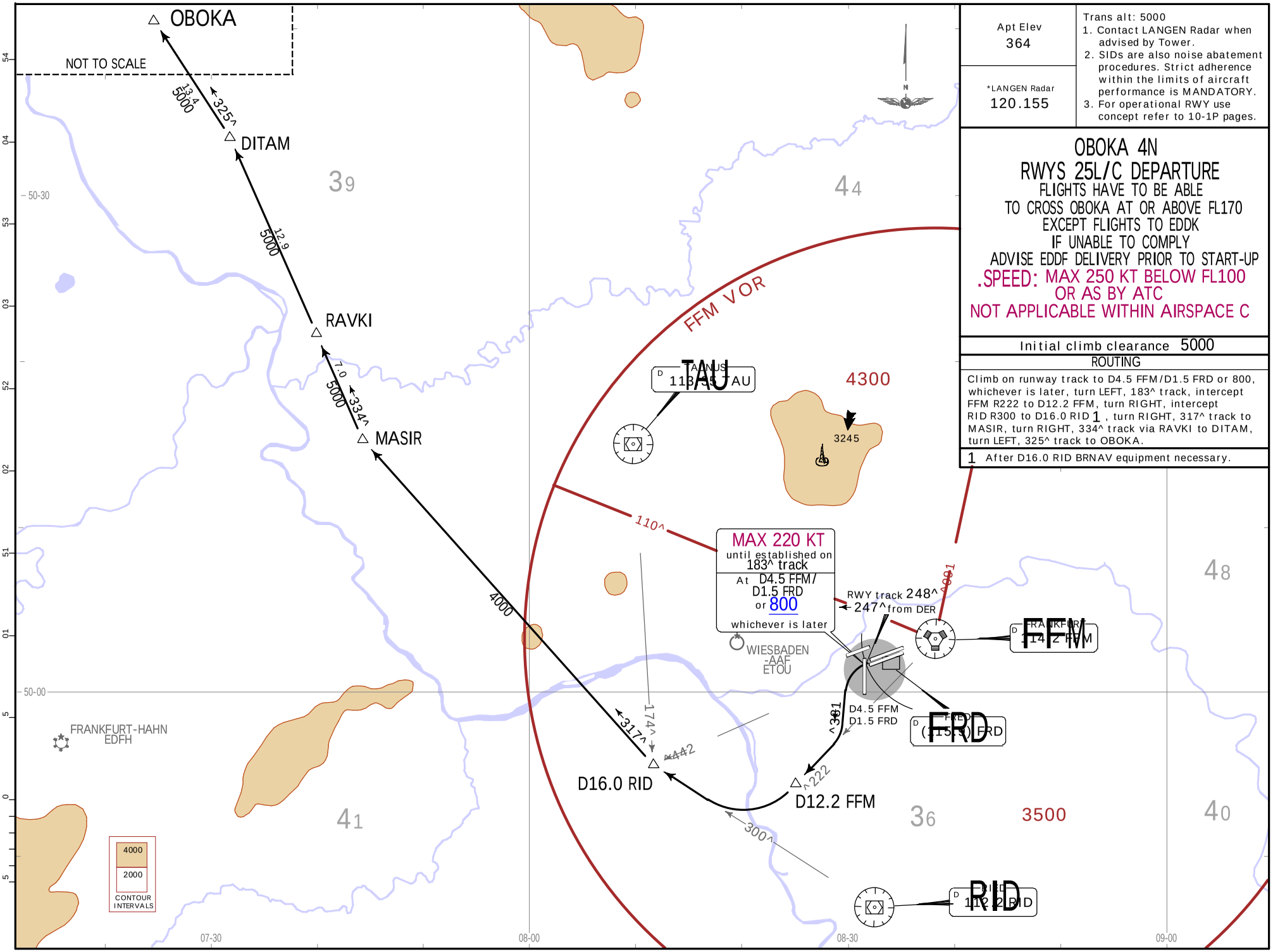
Initial climb clearance FL70

ROUTING

On runway track to D5.0 FFM/D2.1 FRD, turn LEFT direct to VFM, VFM R194 to D10.1 FFM/D7.2 FRD turn RIGHT to PABVI, to SIVDO, to KUPIP, to MASIR, to RAVKI, to DITAM, to OBOKA. 1,

1 After D10.1 FFM/D7.2 FRD RNAV 5 equipment necessary.

CHANGES: Initial climb out revised.



Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.
*LANGEN Radar 120.155	

OBOKA 4N
RWYS 25L/C DEPARTURE

FLIGHTS HAVE TO BE ABLE
TO CROSS OBOKA AT OR ABOVE FL170
EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY
ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

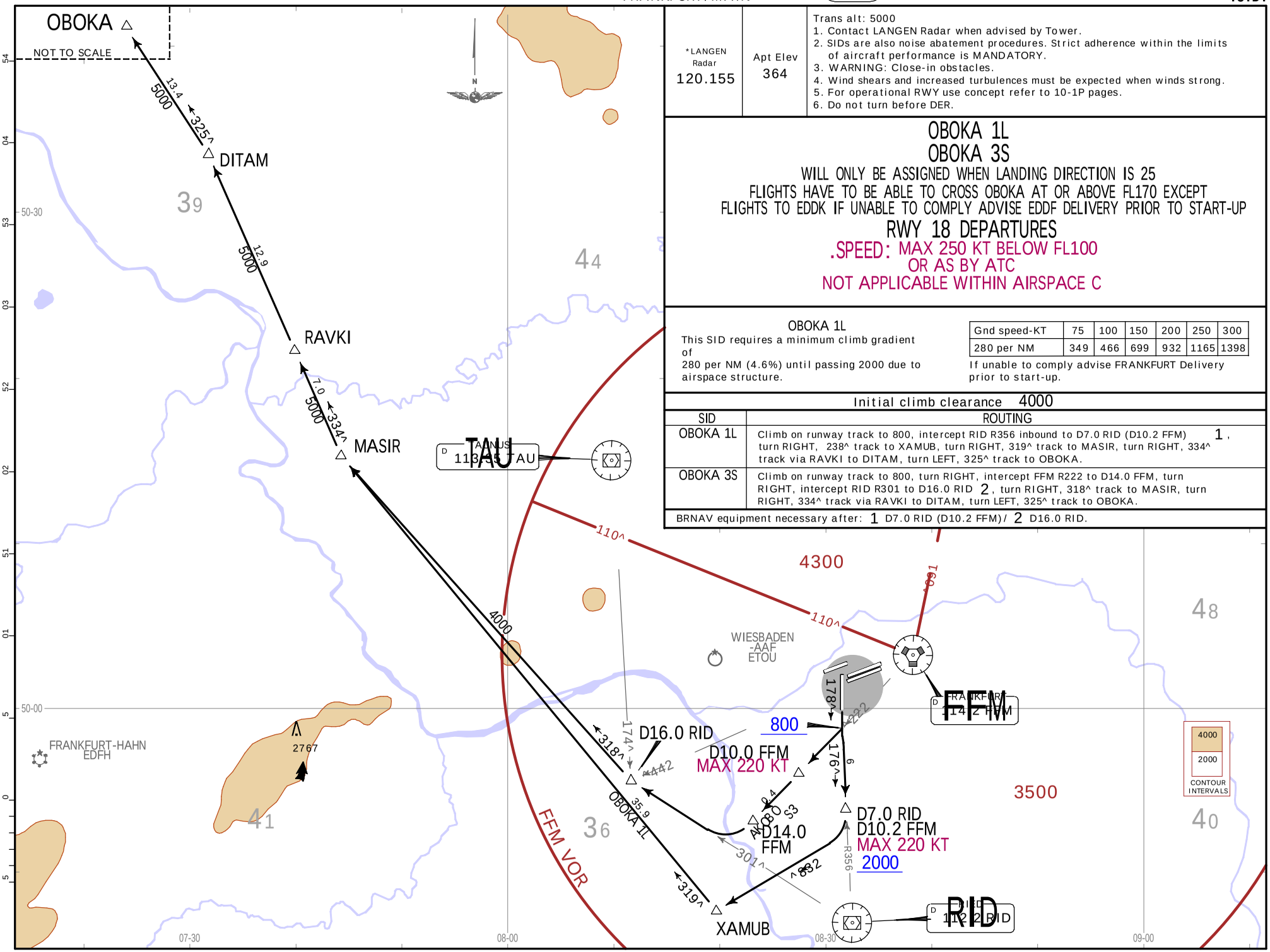
Initial climb clearance 5000

ROUTING

Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, 183^ track, intercept FFM R222 to D12.2 FFM, turn RIGHT, intercept RID R300 to D16.0 RID 1, turn RIGHT, 317^ track to MASIR, turn RIGHT, 334^ track via RAVKI to DITAM, turn LEFT, 325^ track to OBOKA.

1 After D16.0 RID BRNAV equipment necessary.

CHANGES: SID renumbered & revised.



*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. WARNING: Close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

OBOKA 1L
OBOKA 3S

WILL ONLY BE ASSIGNED WHEN LANDING DIRECTION IS 25
FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT
FLIGHTS TO EDDK IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP

RWY 18 DEPARTURES

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

OBOKA 1L
This SID requires a minimum climb gradient of
280 per NM (4.6%) until passing 2000 due to airspace structure.

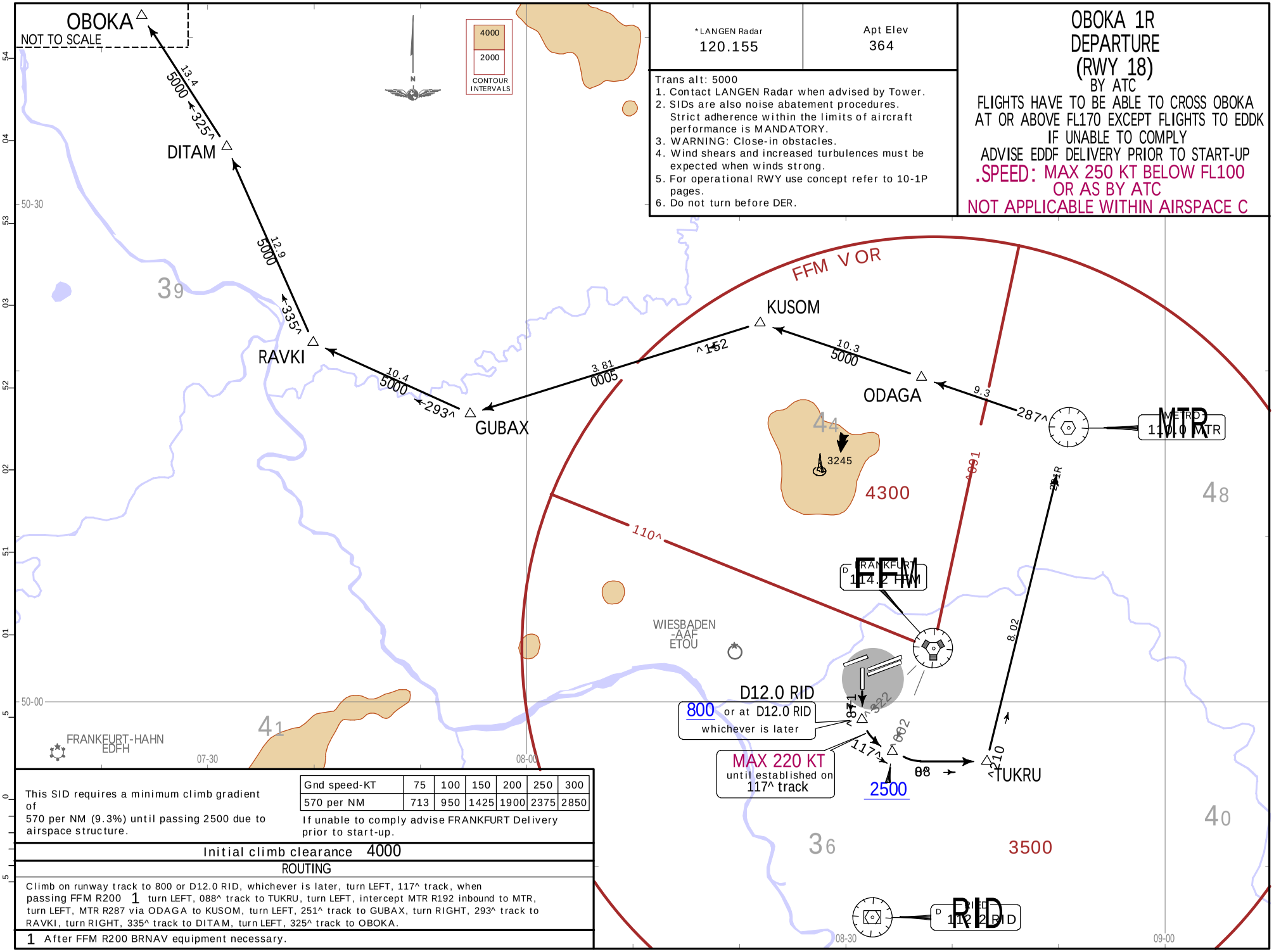
Gnd speed-KT	75	100	150	200	250	300
280 per NM	349	466	699	932	1165	1398

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

SID	ROUTING
OBOKA 1L	Climb on runway track to 800, intercept RID R356 inbound to D7.0 RID (D10.2 FFM) 1, turn RIGHT, 238^ track to XAMUB, turn RIGHT, 319^ track to MASIR, turn RIGHT, 334^ track via RAVKI to DITAM, turn LEFT, 325^ track to OBOKA.
OBOKA 3S	Climb on runway track to 800, turn RIGHT, intercept FFM R222 to D14.0 FFM, turn RIGHT, intercept RID R301 to D16.0 RID 2, turn RIGHT, 318^ track to MASIR, turn RIGHT, 334^ track via RAVKI to DITAM, turn LEFT, 325^ track to OBOKA.

BRNAV equipment necessary after: 1 D7.0 RID (D10.2 FFM)/ 2 D16.0 RID.



*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. WARNING: Close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

OBOKA 1R DEPARTURE (RWY 18)

BY ATC

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK IF UNABLE TO COMPLY

ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 570 per NM (9.3%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
570 per NM	713	950	1425	1900	2375	2850

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

Climb on runway track to 800 or D12.0 RID, whichever is later, turn LEFT, 117^ track, when passing FFM R200 1 turn LEFT, 088^ track to TUKRU, turn LEFT, intercept MTR R192 inbound to MTR, turn LEFT, MTR R287 via ODAGA to KUSOM, turn LEFT, 251^ track to GUBAX, turn RIGHT, 293^ track to RAVKI, turn RIGHT, 335^ track to DITAM, turn LEFT, 325^ track to OBOKA.

1 After FFM R200 BRNAV equipment necessary.

CHANGES: None.

*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. WARNING: Close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

OBOKA 2T DEPARTURE (RWY 18)

FLIGHTS HAVE TO BE ABLE
TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY
ADVISE EDDF DELIVERY PRIOR TO START-UP
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 345 per NM (5.7%) until passing FL090 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
345 per NM	431	575	863	1150	1438	1725

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

Climb on runway track to 800, intercept RID R354 inbound to D6.3 RID (D10.8 FFM), turn RIGHT, intercept FFM R197 to D19.4 FFM 1, turn RIGHT, 262^ track to PIPIX, turn RIGHT, 295^ track to VETUX, turn RIGHT, 008^ track to RUDUS, turn LEFT, 311^ track to MASIR, turn RIGHT, 333^ track via RAVKI to DITAM, turn LEFT, 324^ track to OBOKA.

1 After D19.4 FFM RNAV 5 equipment necessary.

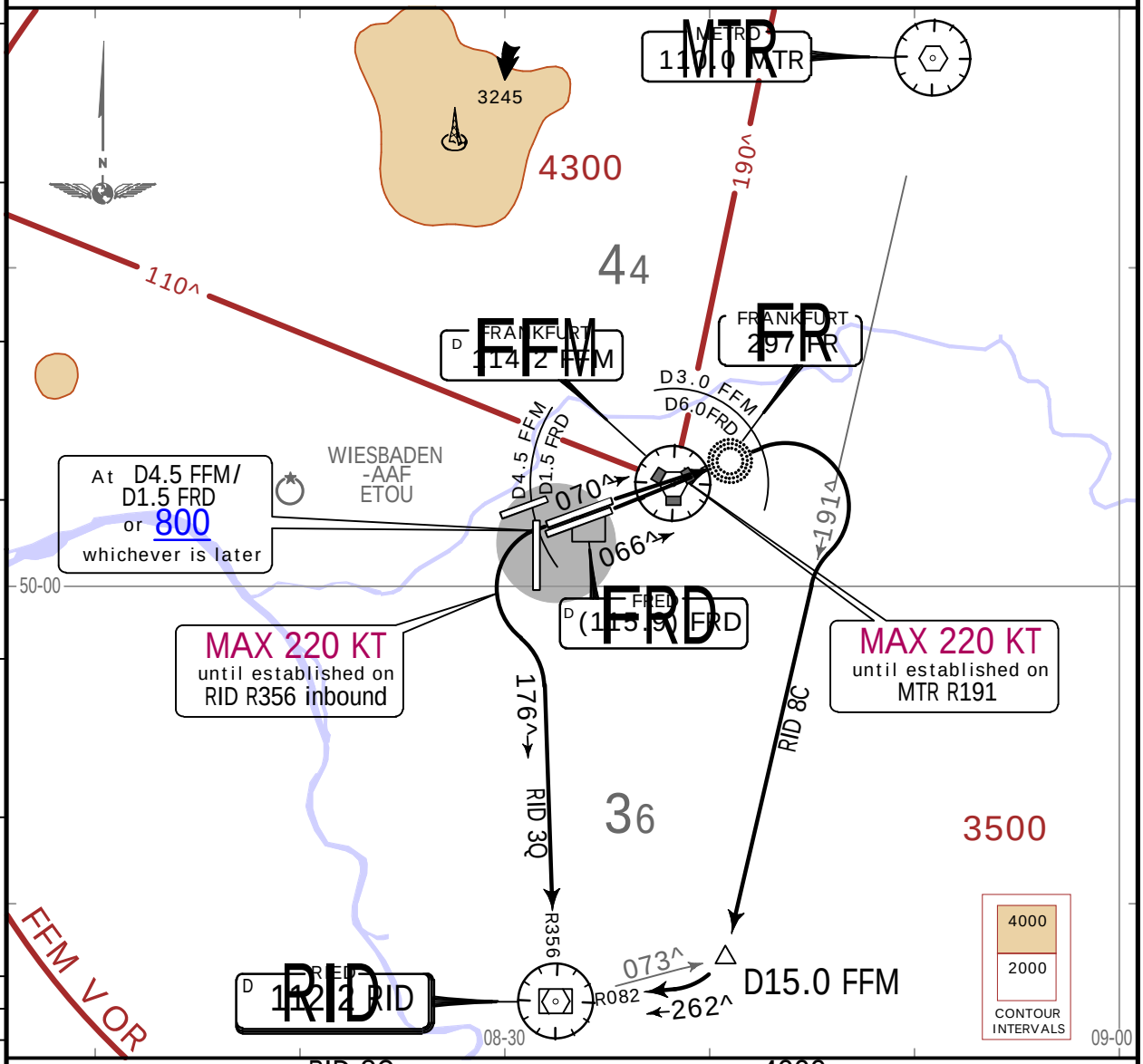
OBOKA
13.4
5000
324^
DITAM
NOT TO SCALE
12.9
5000
RAVKI
5000
333^
MASIR
18.1
4000
311^
RUDUS
4300
110^
FFM VOR
FFM
FRANKFURT
114.2 FFM
WIESBADEN
-AAF
ETOU
800
174^
7
3500
D6.3 RID
D10.8 FFM
MAX 220 KT
19.7
4000
R354
8.9
RID
RID
112.2 RID
D19.4 FFM
MAX 250 KT
in turn
PIPIX
MAX 250 KT
9.9
4000
295^
^262
VETUX
FL090
800
2767
FRANKFURT-HAHN
EDFH
4000
2000
CONTOUR INTERVALS
39
41
36
44
40
48
50-30
50-00
07-30
08-00
08-30
09-00

CHANGES: SID renumbered & revised.

*LANGEN Radar	Apt Elev	
136.130	364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

RIED 8C (RID 8C)
RIED 3Q (RID 3Q)
DEPARTURES

NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT ONLY
DELAY HAS TO BE EXPECTED
FURTHER ROUTING TO DESTINATION SHALL BE BASED ON VOR AND
HAS TO BE COORDINATED WITH ATC PRIOR TO START-UP
NO RNAV OVERLAY EXISTING
MAX FL90
SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



RID 8C: Initial climb clearance 4000
RID 3Q: Initial climb clearance 5000

SID	RWY	ROUTING
RID 8C	07C/R	Climb on runway track to 800, via FR to D6.0 FRD (D3.0 FFM outbound), turn RIGHT, intercept MTR R191, at D15.0 FFM turn RIGHT, intercept RID R082 inbound to RID.
RID 3Q	25L/C	Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, intercept RID R356 inbound to RID.

CHANGES: RATIM SID withdrawn; RIED SIDs transferred; communication.

*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

SOBRA 6D
RWYS 07C/R DEPARTURE

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250 VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of
240 per NM (3.9%) until passing FL90
due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
240' per NM	300	400	600	800	1000	1200

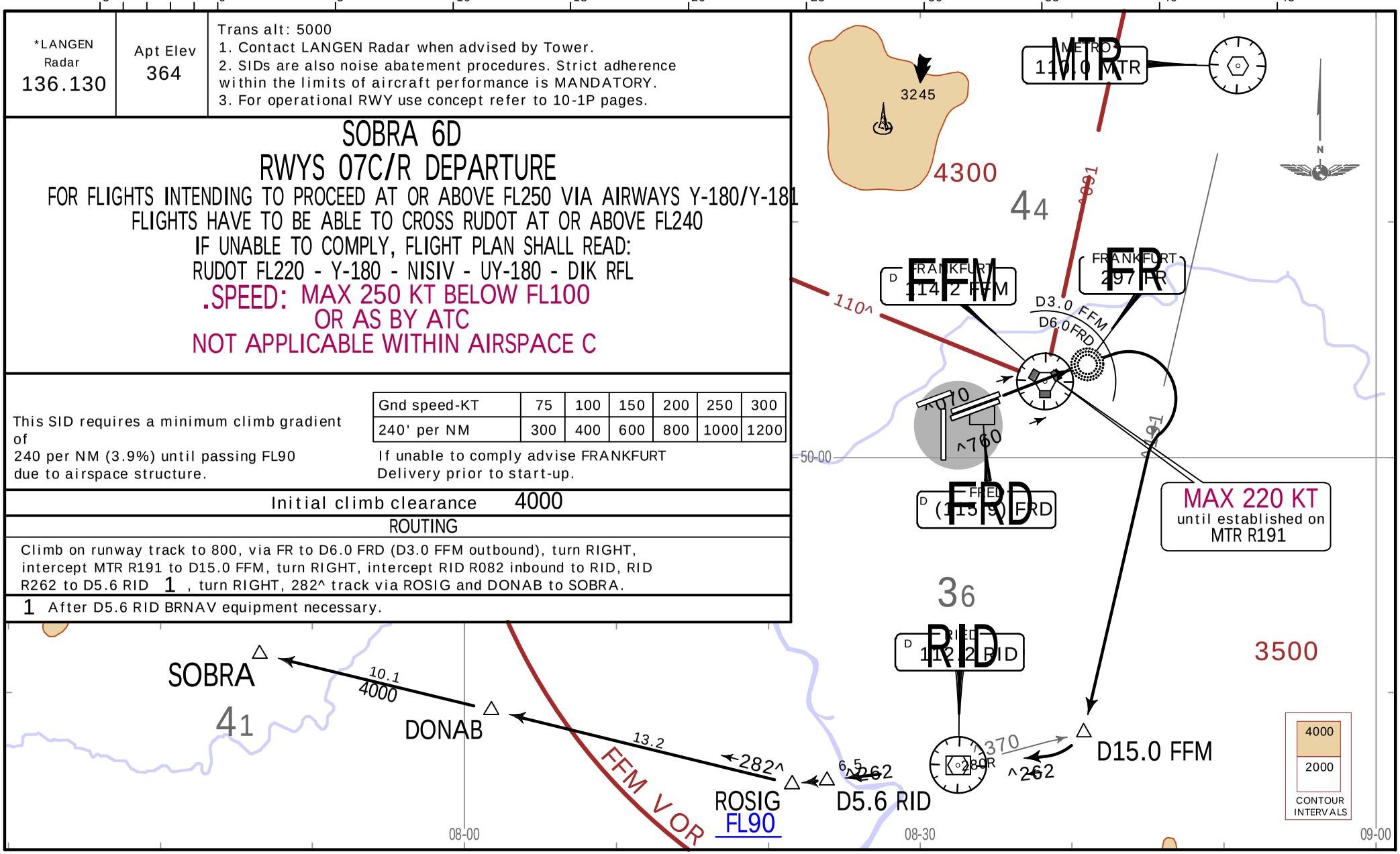
If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

Climb on runway track to 800, via FR to D6.0 FRD (D3.0 FFM outbound), turn RIGHT, intercept MTR R191 to D15.0 FFM, turn RIGHT, intercept RID R082 inbound to RID, RID R262 to D5.6 RID 1, turn RIGHT, 282^ track via ROSIG and DONAB to SOBRA.

1 After D5.6 RID BRNAV equipment necessary.



*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

SOBRA 6E DEPARTURE (RWYS 07C/R)

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250
VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of
335 per NM (5.5%) until passing FL090
due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
335 per NM	419	558	838	1117	1396	1675

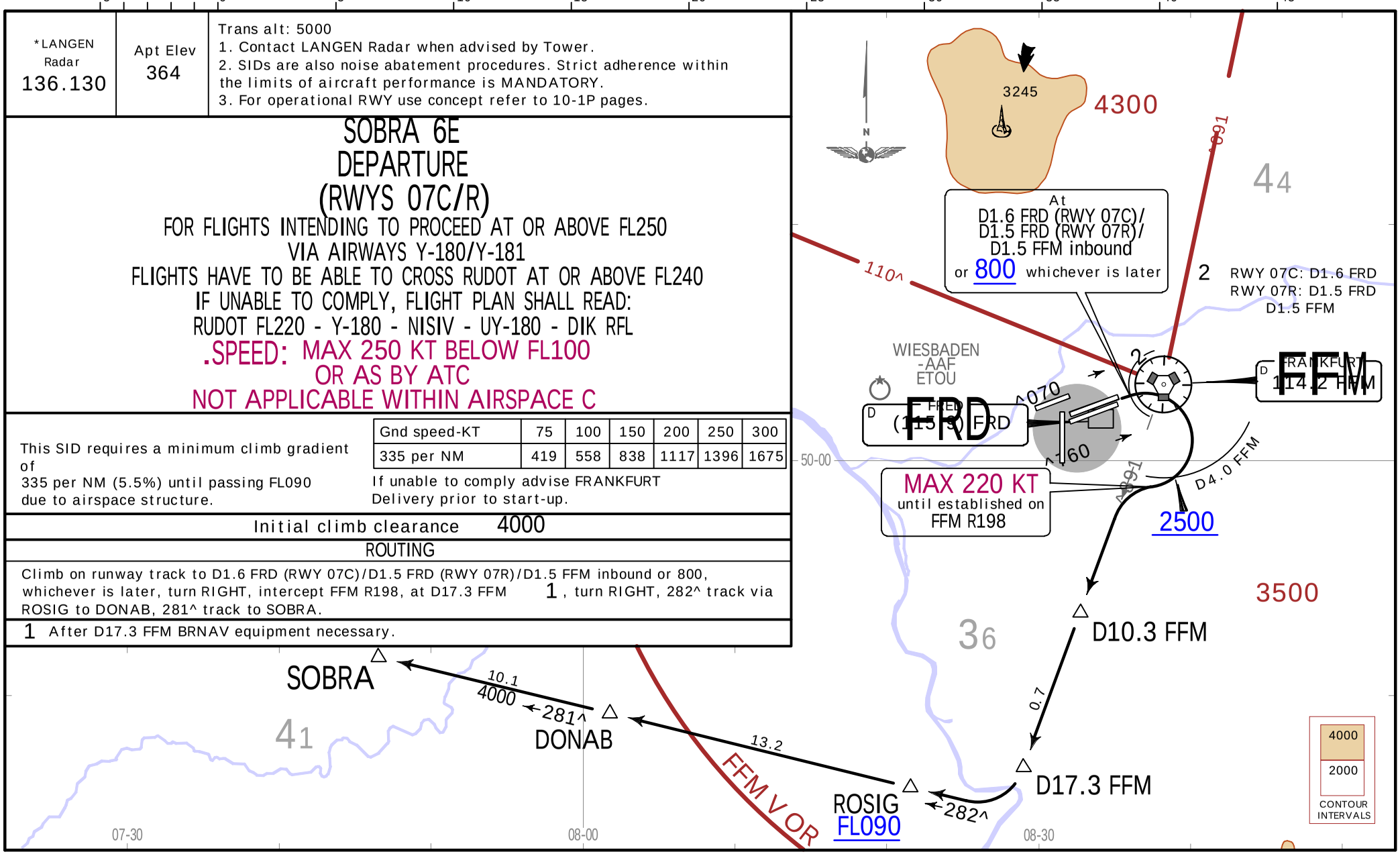
If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

Climb on runway track to D1.6 FRD (RWY 07C)/D1.5 FRD (RWY 07R)/D1.5 FFM inbound or 800, whichever is later, turn RIGHT, intercept FFM R198, at D17.3 FFM 1, turn RIGHT, 282^ track via ROSIG to DONAB, 281^ track to SOBRA.

1 After D17.3 FFM BRNAV equipment necessary.



*LANGEN Radar
136.130

Apt Elev
364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

SOBRA 7F, SOBRA 7N, SOBRA 6P
DEPARTURES
(RWYS 25L/C)

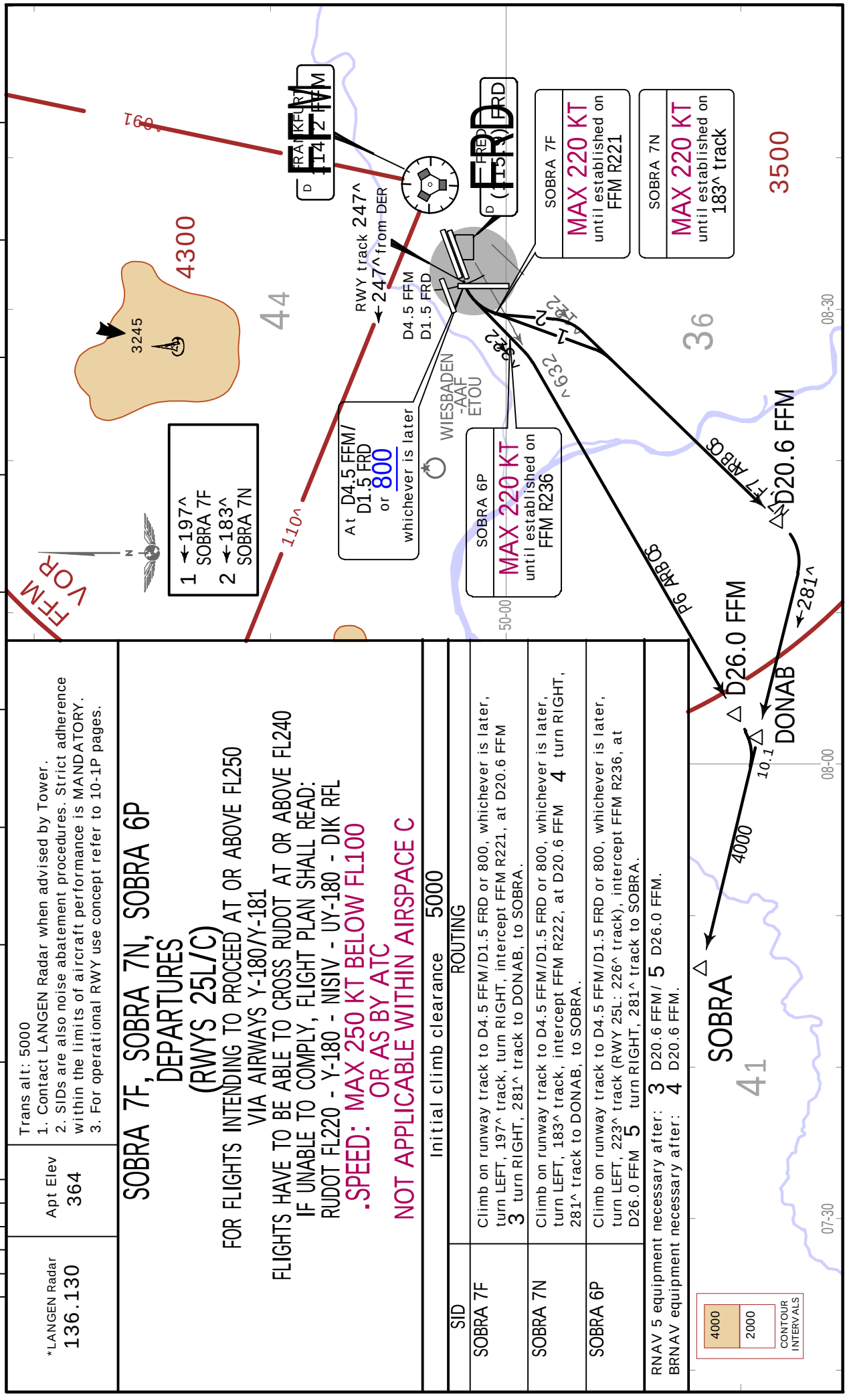
FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250
VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 5000

SID	ROUTING
SOBRA 7F	Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, 197^ track, turn RIGHT, intercept FFM R221, at D20.6 FFM 3 turn RIGHT, 281^ track to DONAB, to SOBRA.
SOBRA 7N	Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, 183^ track, intercept FFM R222, at D20.6 FFM 4 turn RIGHT, 281^ track to DONAB, to SOBRA.
SOBRA 6P	Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, 223^ track (RWY 25L: 226^ track), intercept FFM R236, at D26.0 FFM 5 turn RIGHT, 281^ track to SOBRA.

RNAV 5 equipment necessary after: 3 D20.6 FFM/ 5 D26.0 FFM.
BRNAV equipment necessary after: 4 D20.6 FFM.

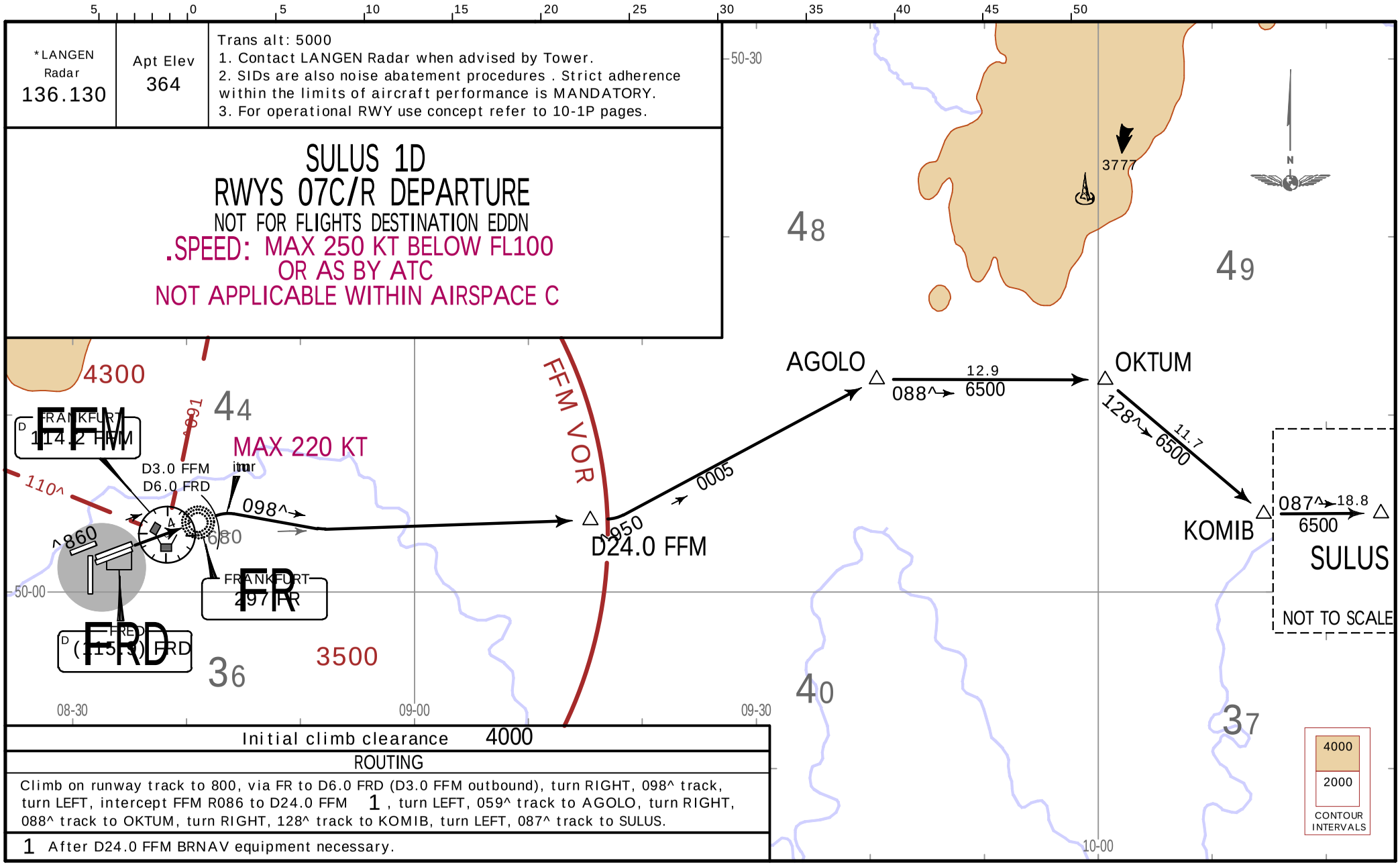


CHANGES: SIDs renumbered & revised.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures . Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

SULUS 1D
RWYS 07C/R DEPARTURE
NOT FOR FLIGHTS DESTINATION EDDN

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

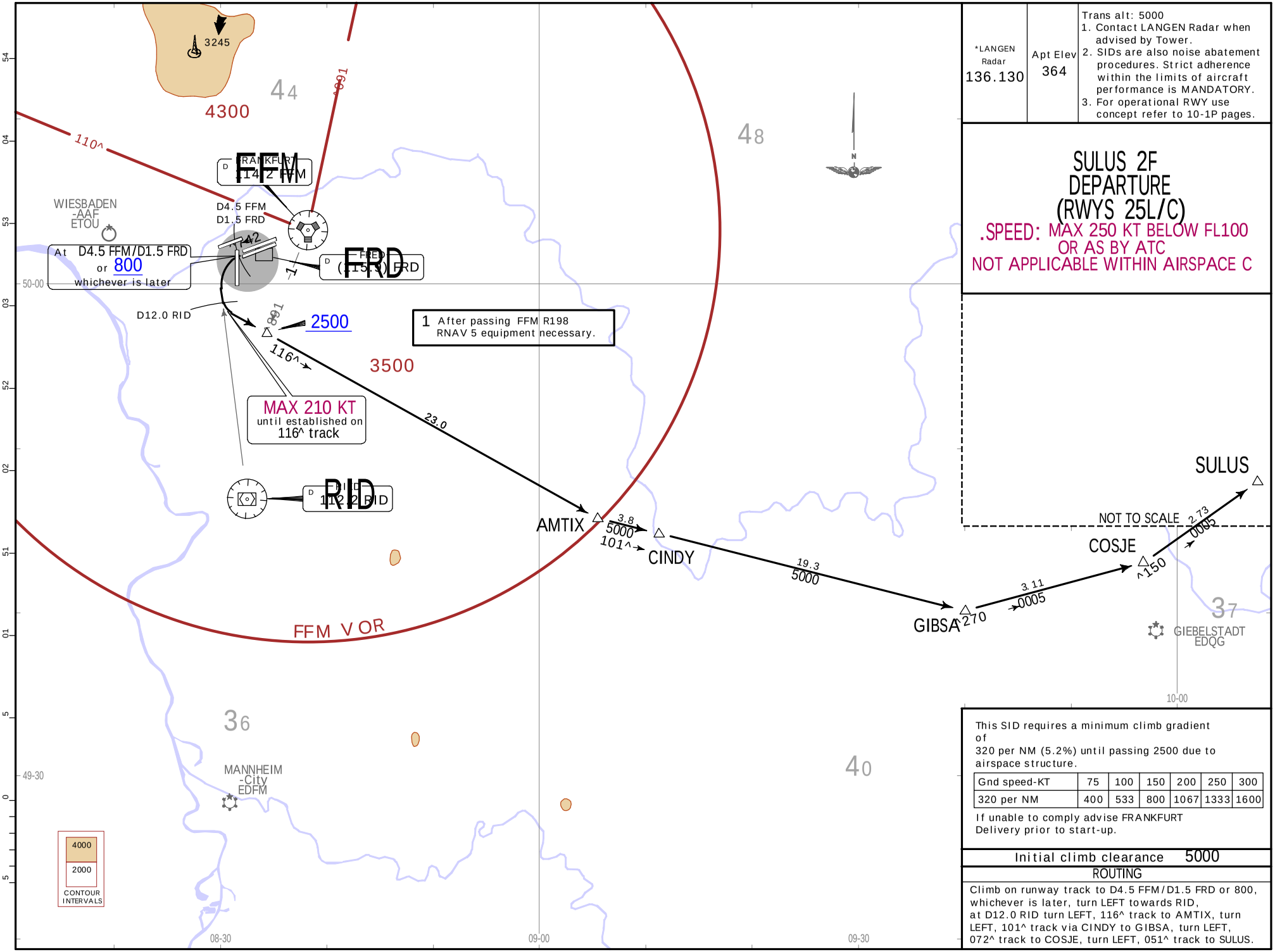


Initial climb clearance 4000

ROUTING

Climb on runway track to 800, via FR to D6.0 FRD (D3.0 FFM outbound), turn RIGHT, 098^ track, turn LEFT, intercept FFM R086 to D24.0 FFM 1 , turn LEFT, 059^ track to AGOLO, turn RIGHT, 088^ track to OKTUM, turn RIGHT, 128^ track to KOMIB, turn LEFT, 087^ track to SULUS.

1 After D24.0 FFM BRNAV equipment necessary.



*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

SULUS 2F DEPARTURE (RWYS 25L/C)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 320 per NM (5.2%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
320 per NM	400	533	800	1067	1333	1600

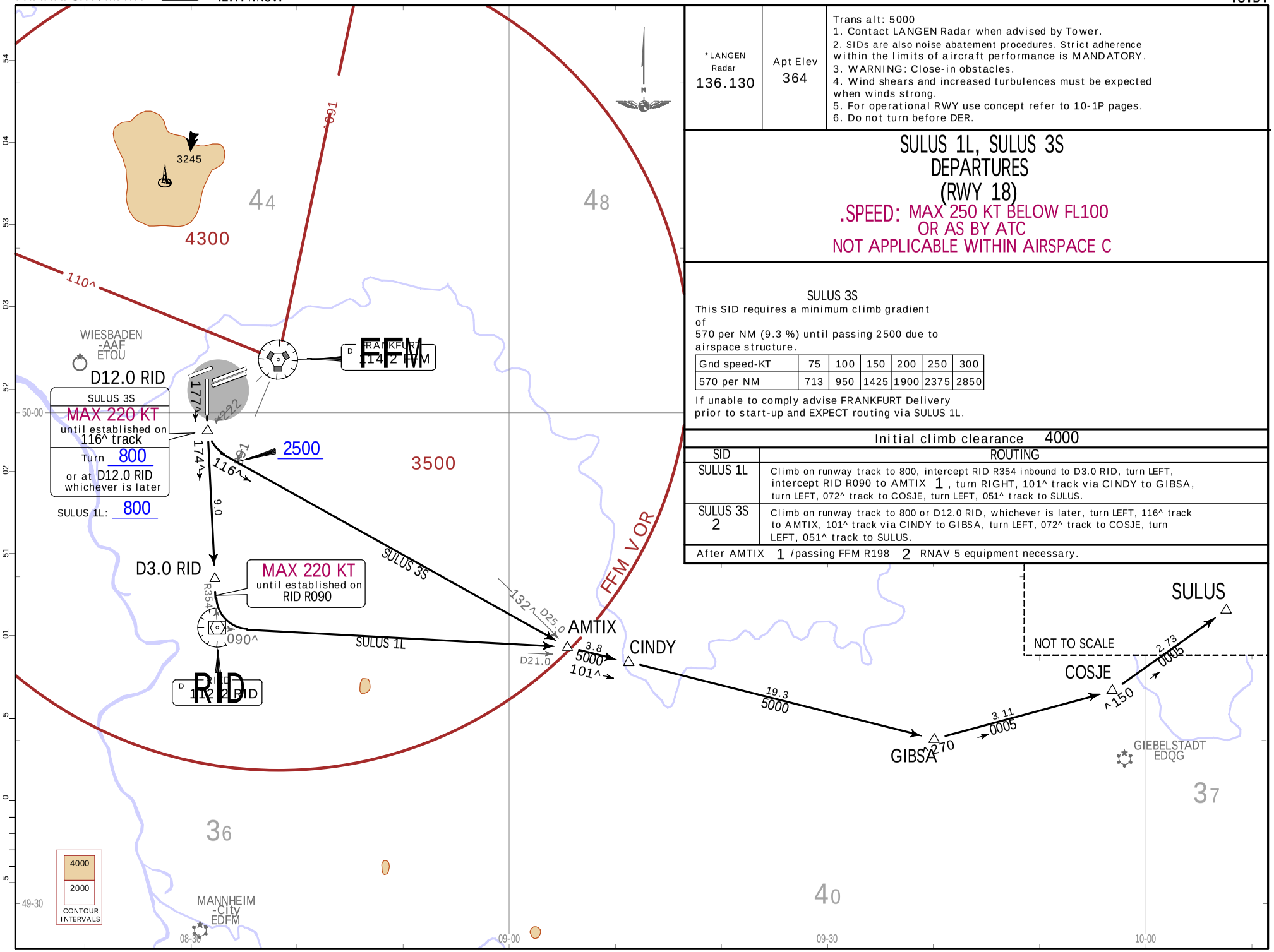
If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

ROUTING

Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT towards RID, at D12.0 RID turn LEFT, 116^ track to AMTIX, turn LEFT, 101^ track via CINDY to GIBSA, turn LEFT, 072^ track to COSJE, turn LEFT, 051^ track to SULUS.

CHANGES: SID renumbered & revised.



*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. WARNING: Close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

SULUS 1L, SULUS 3S DEPARTURES (RWY 18)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

SULUS 3S

This SID requires a minimum climb gradient of 570 per NM (9.3 %) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
570 per NM	713	950	1425	1900	2375	2850

If unable to comply advise FRANKFURT Delivery prior to start-up and EXPECT routing via SULUS 1L.

Initial climb clearance 4000

SID	ROUTING
SULUS 1L	Climb on runway track to 800, intercept RID R354 inbound to D3.0 RID, turn LEFT, intercept RID R090 to AMTIX 1, turn RIGHT, 101^ track via CINDY to GIBSA, turn LEFT, 072^ track to COSJE, turn LEFT, 051^ track to SULUS.
SULUS 3S 2	Climb on runway track to 800 or D12.0 RID, whichever is later, turn LEFT, 116^ track to AMTIX, 101^ track via CINDY to GIBSA, turn LEFT, 072^ track to COSJE, turn LEFT, 051^ track to SULUS.

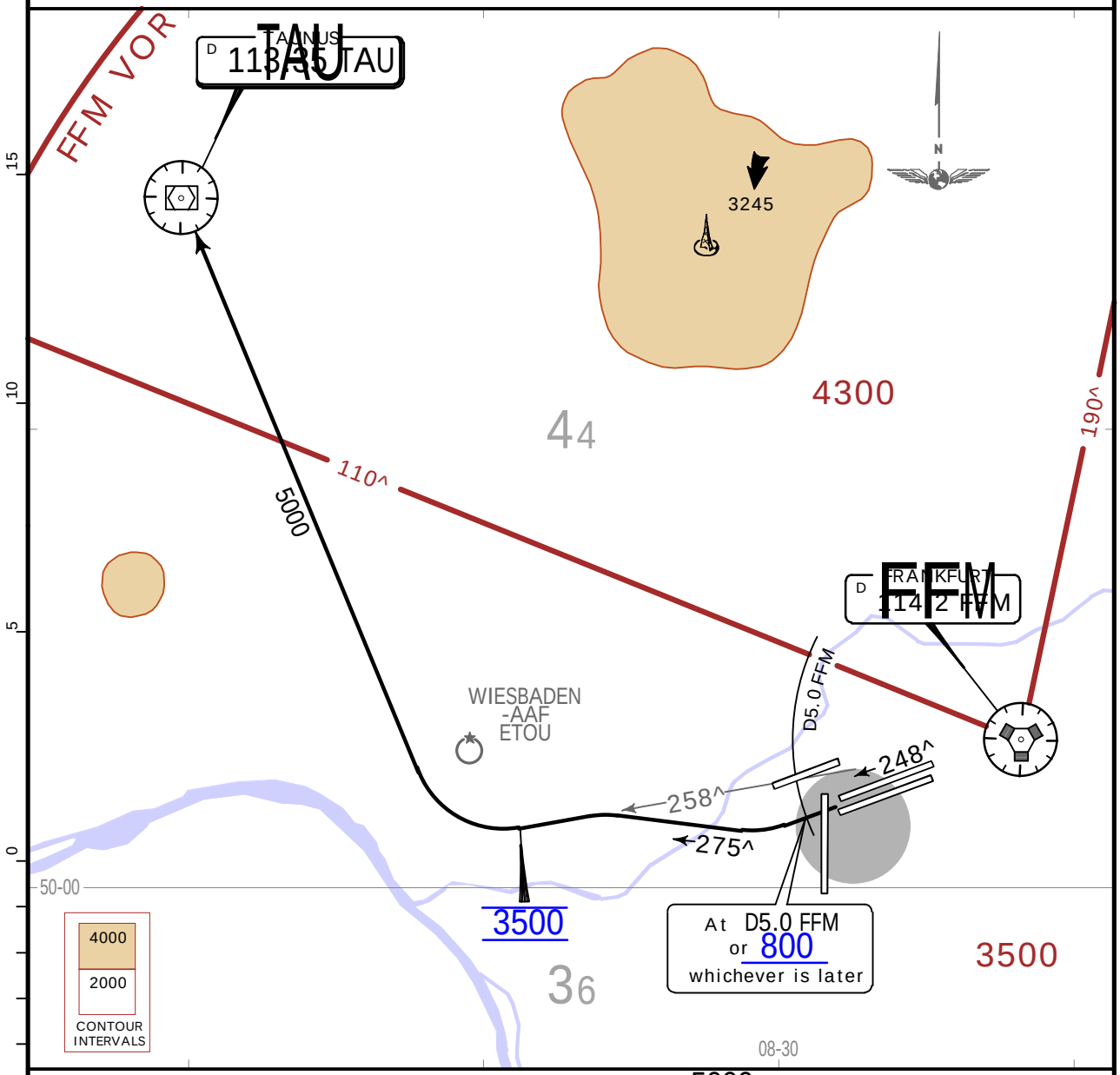
After AMTIX 1 /passing FFM R198 2 RNAV 5 equipment necessary.

CHANGES: SIDs renumbered & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TAUNUS 2Q (TAU 2Q) DEPARTURE (RWYS 25L/C)

NON RNAV (ENROUTE ONLY) EQUIPPED AIRCRAFT ONLY
DELAY HAS TO BE EXPECTED
FURTHER ROUTING TO DESTINATION SHALL BE BASED ON VOR AND HAS TO BE COORDINATED WITH ATC PRIOR TO START-UP
NO RNAV OVERLAY EXISTING
MAX FL090
SPECIAL PERMISSION NEEDED PRIOR TO FLIGHT
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

ROUTING

Climb on runway track to D5.0 FFM or 800, whichever is later, turn RIGHT, 275^ track (RWY 25L: 278^ track), intercept FFM R258, at 3500 turn RIGHT to TAU, but not before reaching FFM R258.

CHANGES: None.

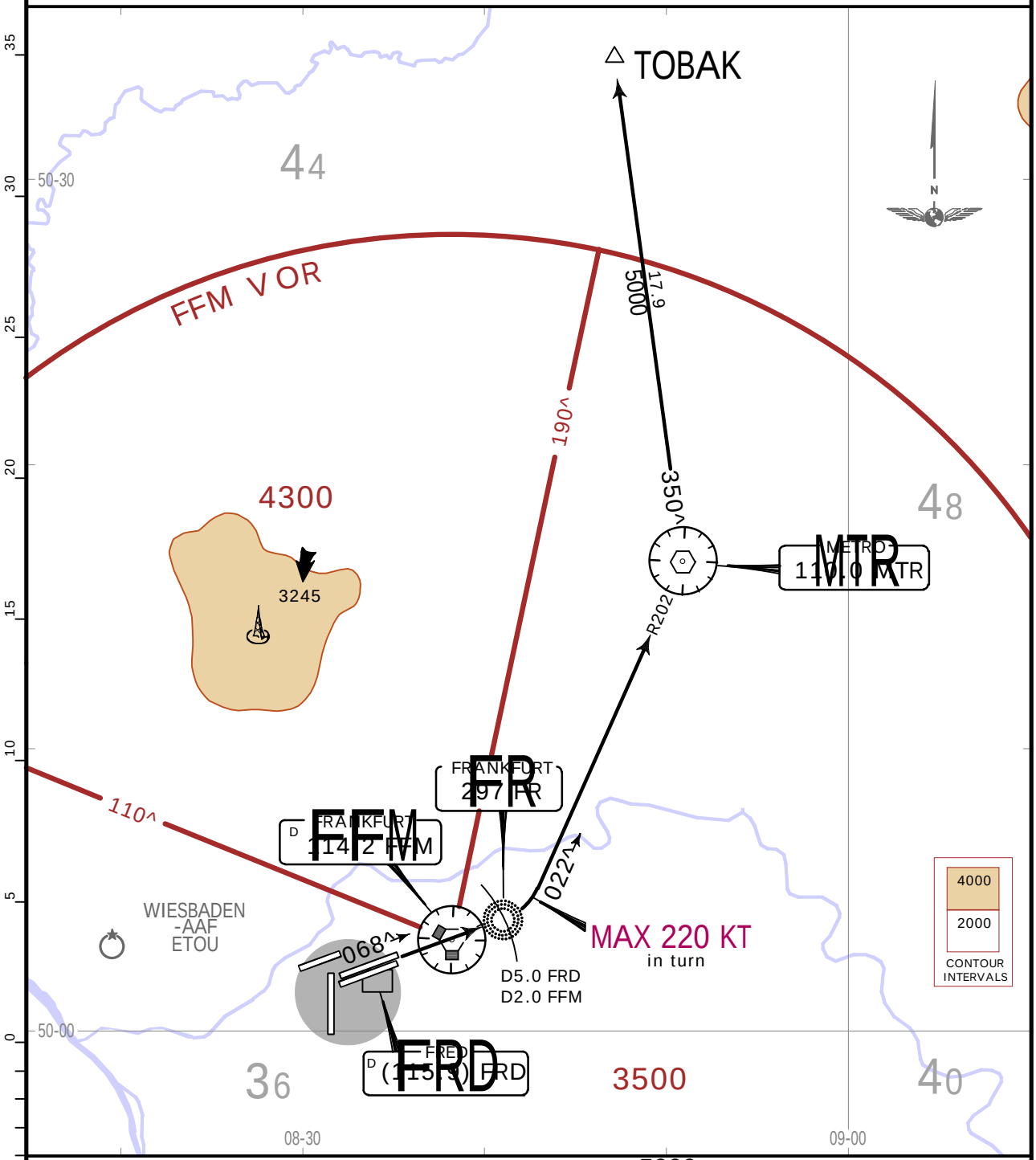
*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 9D DEPARTURE (RWYS 07C/R)

NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

ROUTING

Climb on runway track to 800, to FR (D5.0 FRD/D2.0 FFM outbound), turn LEFT IMMEDIATELY intercept MTR R202 inbound to MTR 1 , turn LEFT, MTR R350 to TOBAK.

1 After MTR BRNAV equipment necessary.

CHANGES: None.

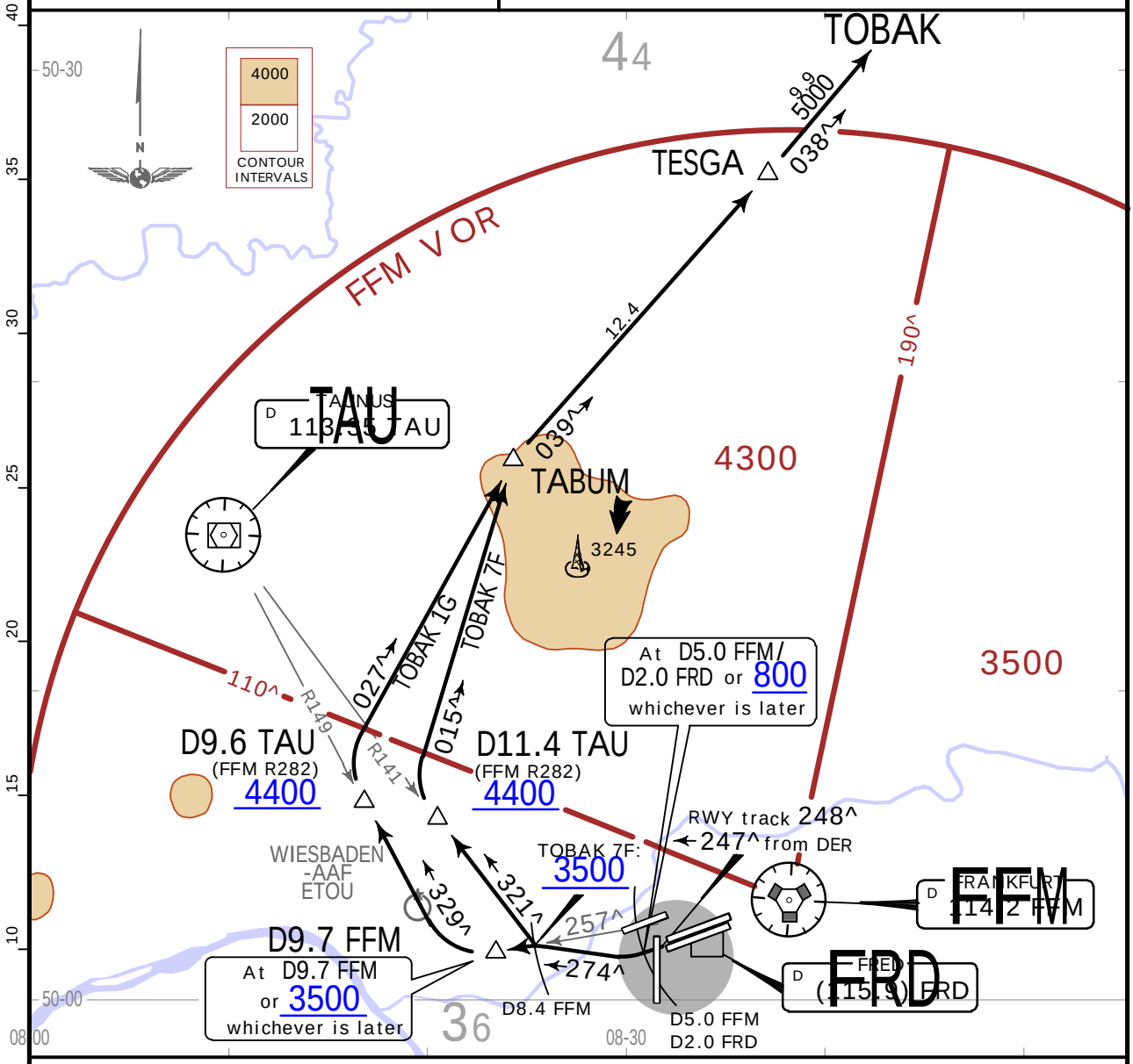
TOBAK 7F, TOBAK 1G DEPARTURES (RWYS 25L/C)

NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.



TOBAK 7F

This SID requires a minimum climb gradient of 729 per NM (12%) until D8.4 FFM (4.5 NM after DER) due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
729 per NM	911	1215	1823	2430	3038	3646

If unable to comply advise FRANKFURT Delivery prior to start-up

Initial climb clearance 5000

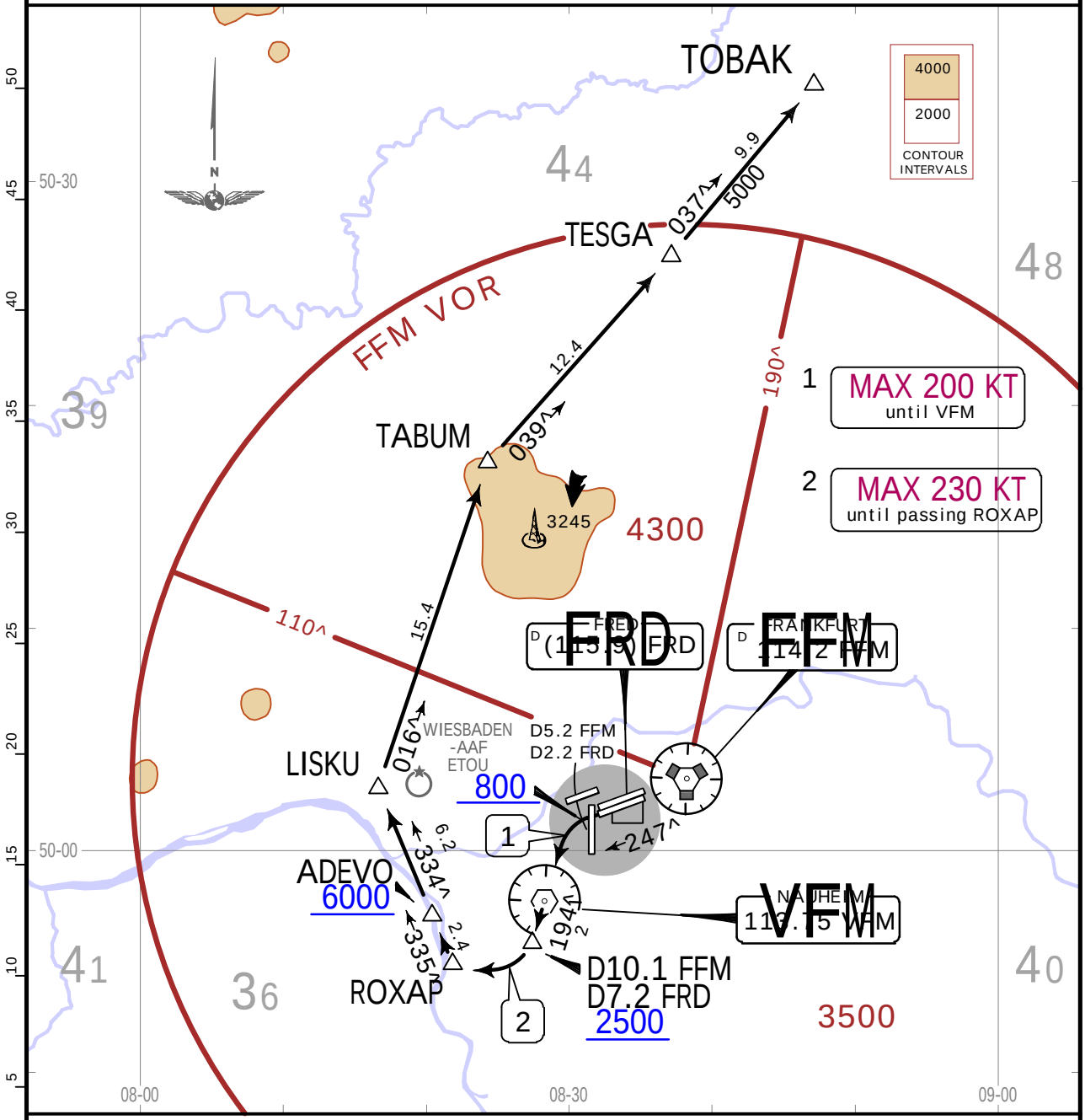
SID	ROUTING
TOBAK 7F	Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274^ track (RWY 25L: 278^ track) to D8.4 FFM, turn RIGHT, intercept TAU R141 inbound to D11.4 TAU 1, turn RIGHT, 015^ track to TABUM, turn RIGHT, 039^ track to TESGA, turn LEFT, 038^ track to TOBAK.
TOBAK 1G	Climb on runway track to D5.0 FFM/D2.0 FRD or 800, whichever is later, turn RIGHT, 274^ track (RWY 25L: 278^ track), intercept FFM R257 to D9.7 FFM or 3500, whichever is later, turn RIGHT, intercept TAU R149 inbound to D9.6 TAU turn RIGHT, 027^ track to TABUM, turn RIGHT, 039^ track to TESGA, turn LEFT, 038^ track to TOBAK. 2,

1 After D11.4 TAU RNAV 5 equipment necessary.
2 After D9.6 TAU BRNAV equipment necessary.

CHANGES: SID TOBAK 7F availability.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 5H
RWY 25L DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
415 per NM (6.8%) until passing 6000 due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
520 per NM	650	867	1300	1733	2167	2600

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL70

ROUTING

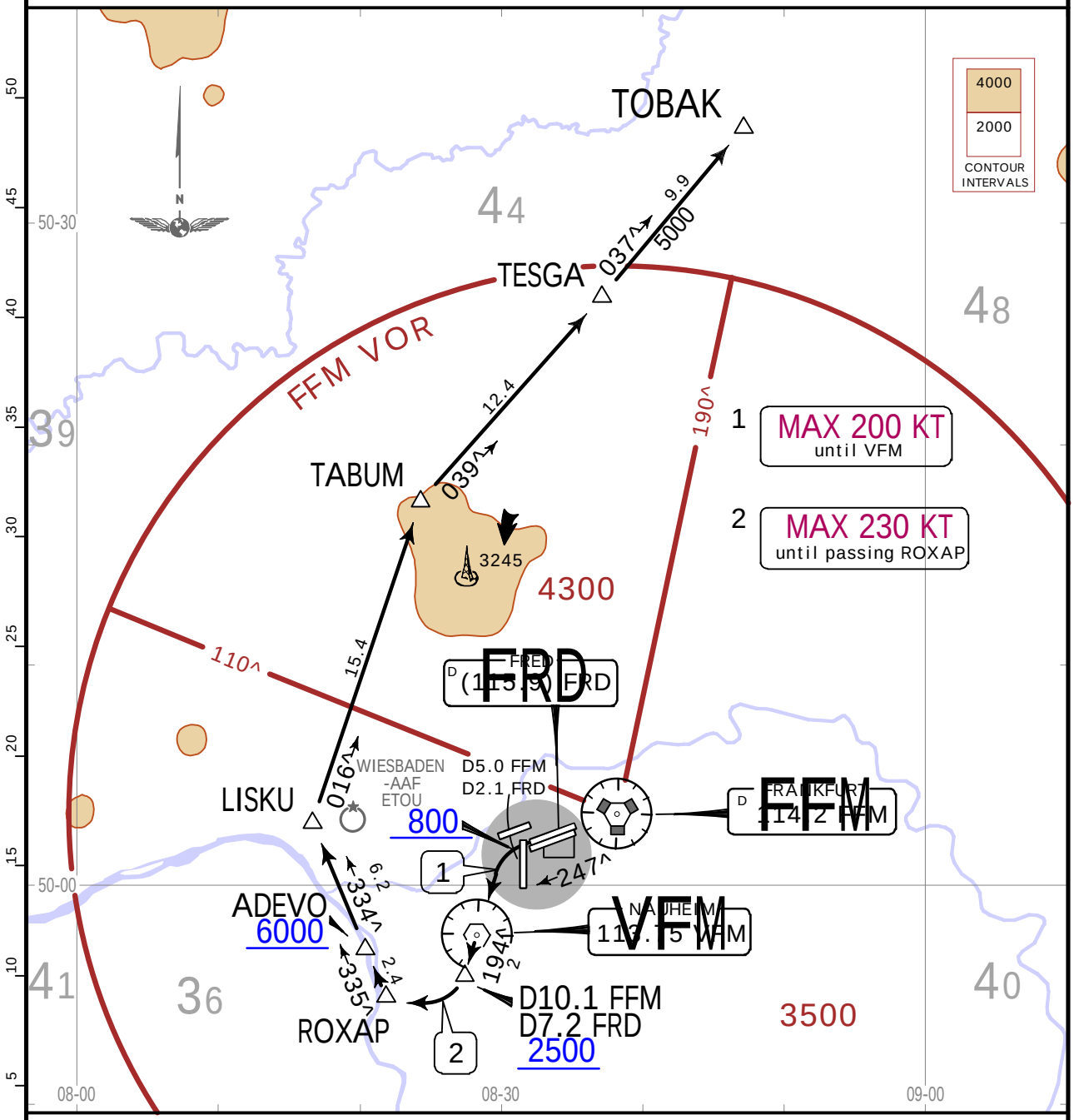
On runway track to D5.2 FFM/D2.2 FRD, turn LEFT direct to VFM, VFM R194 to D10.1 FFM/D7.2 FRD turn RIGHT to ROXAP, to ADEVO, to LISKU, to TABUM, to TESGA, to TOBAK. 3,

3 After D10.1 FFM/D7.2 FRD RNAV 5 equipment necessary.

CHANGES: Initial climb out revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 7M
RWY 25C DEPARTURE
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
415 per NM (6.8%) until passing 6000 due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
520 per NM	650	867	1300	1733	2167	2600

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL70

ROUTING

On runway track to D5.0 FFM/D2.1 FRD, turn LEFT direct to VFM, VFM R194 to D10.1 FFM/D7.2 FRD turn RIGHT to ROXAP, to ADEVO, to LISKU, to TABUM, to TESGA, to TOBAK. 3,

3 After D10.1 FFM/D7.2 FRD RNAV 5 equipment necessary.

CHANGES: Initial climb out revised.

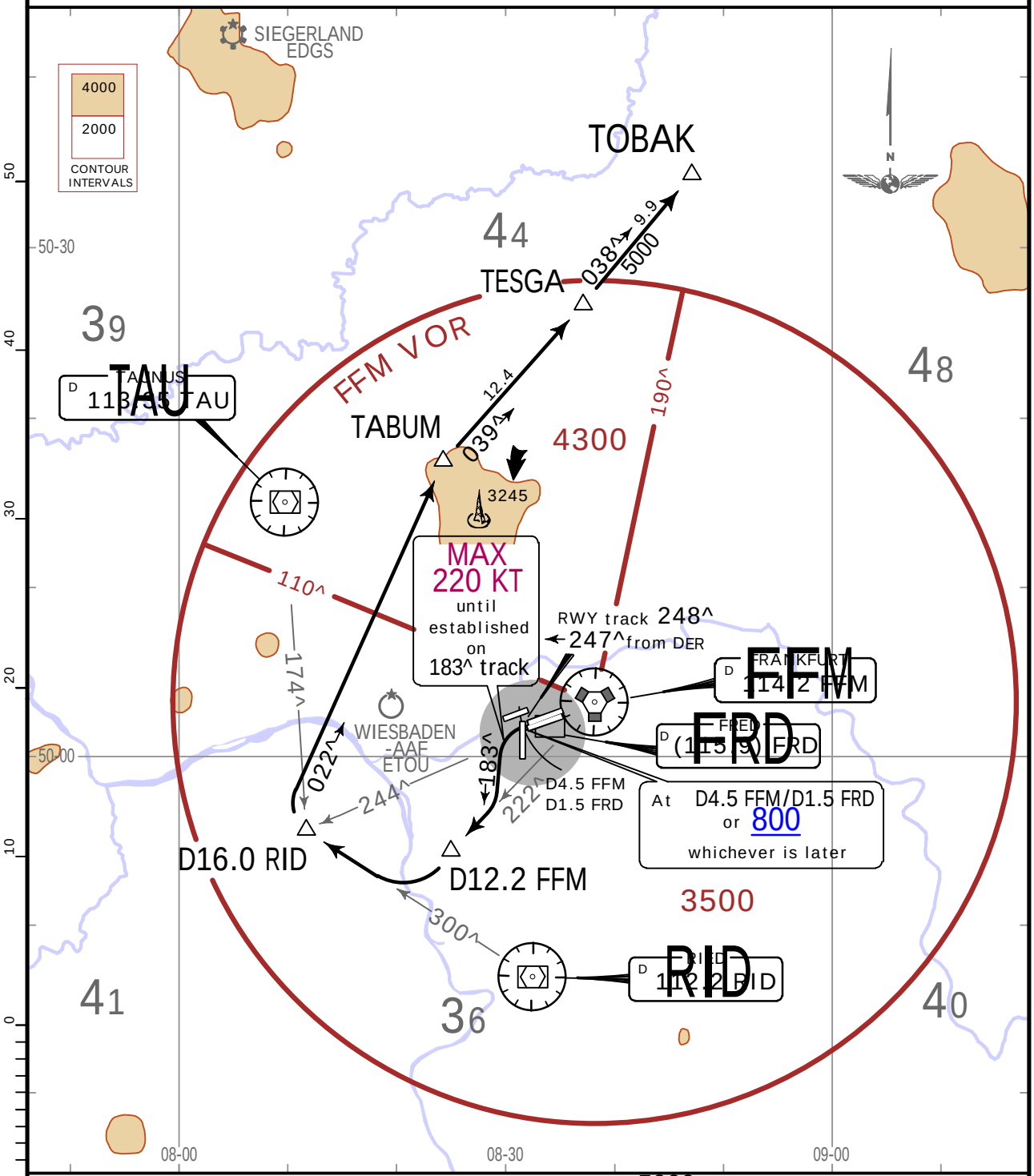
*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 2N
RWYS 25L/C DEPARTURE

NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC

NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

ROUTING

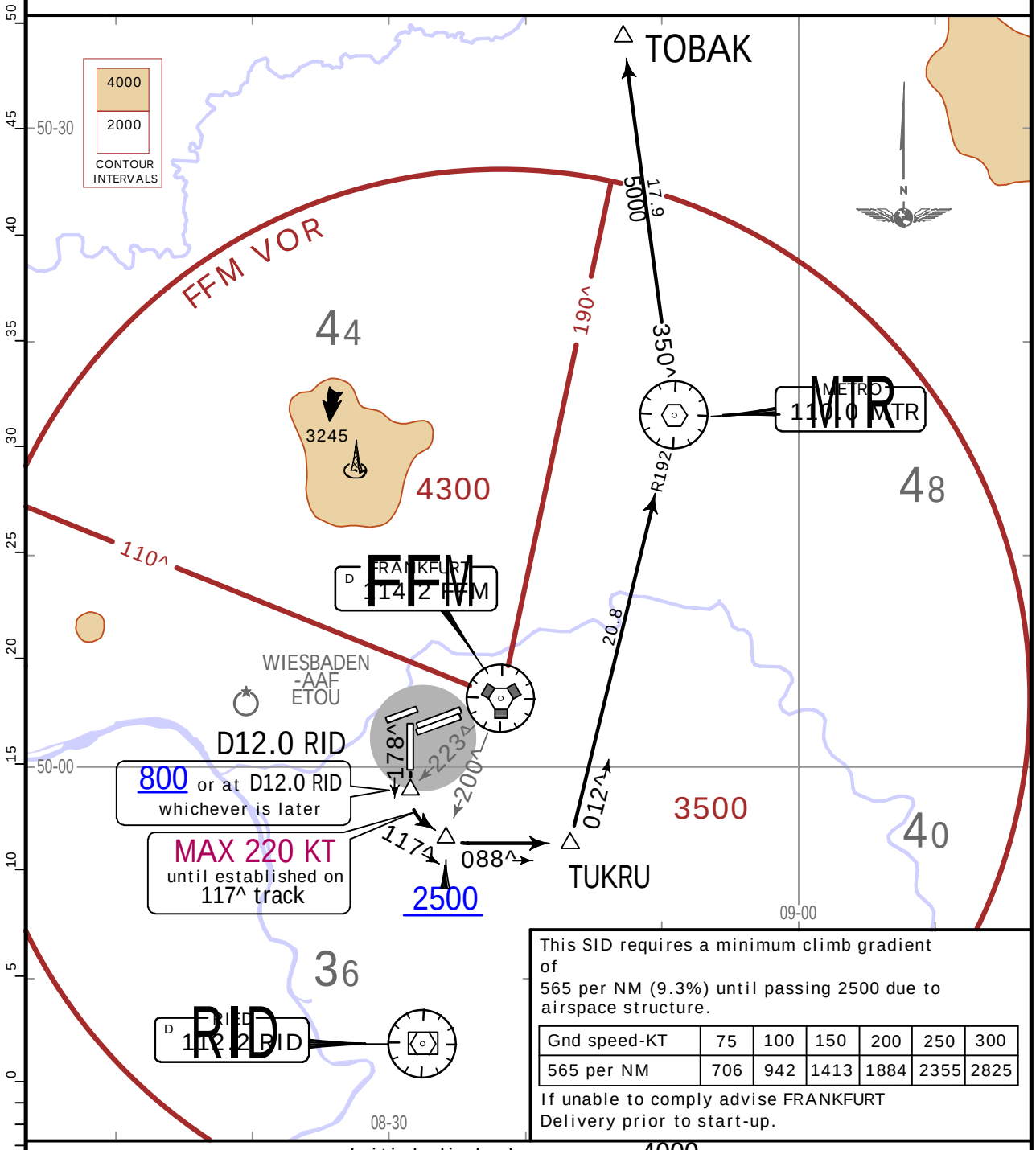
Climb on runway track to D4.5 FFM/D1.5 FRD or 800, whichever is later, turn LEFT, 183^ track, intercept FFM R222 to D12.2 FFM, turn RIGHT, intercept RID R300 to D16.0 RID [1], turn RIGHT, 022^ track to TABUM, turn RIGHT, 039^ track to TESGA, turn LEFT, 038^ track to TOBAK.

[1] After D16.0 RID BRNAV equipment necessary.

CHANGES: SID renumbered & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. EXPECT close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

TOBAK 3R
RWY 18 DEPARTURE
BY ATC
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
565 per NM	706	942	1413	1884	2355	2825

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

Climb on runway track to 800 or D12.0 RID, whichever is later, turn LEFT, 117^ track, when passing FFM R200 1 turn LEFT, 088^ track to TUKRU, turn LEFT, intercept MTR R192 inbound to MTR, turn LEFT, MTR R350 to TOBAK.

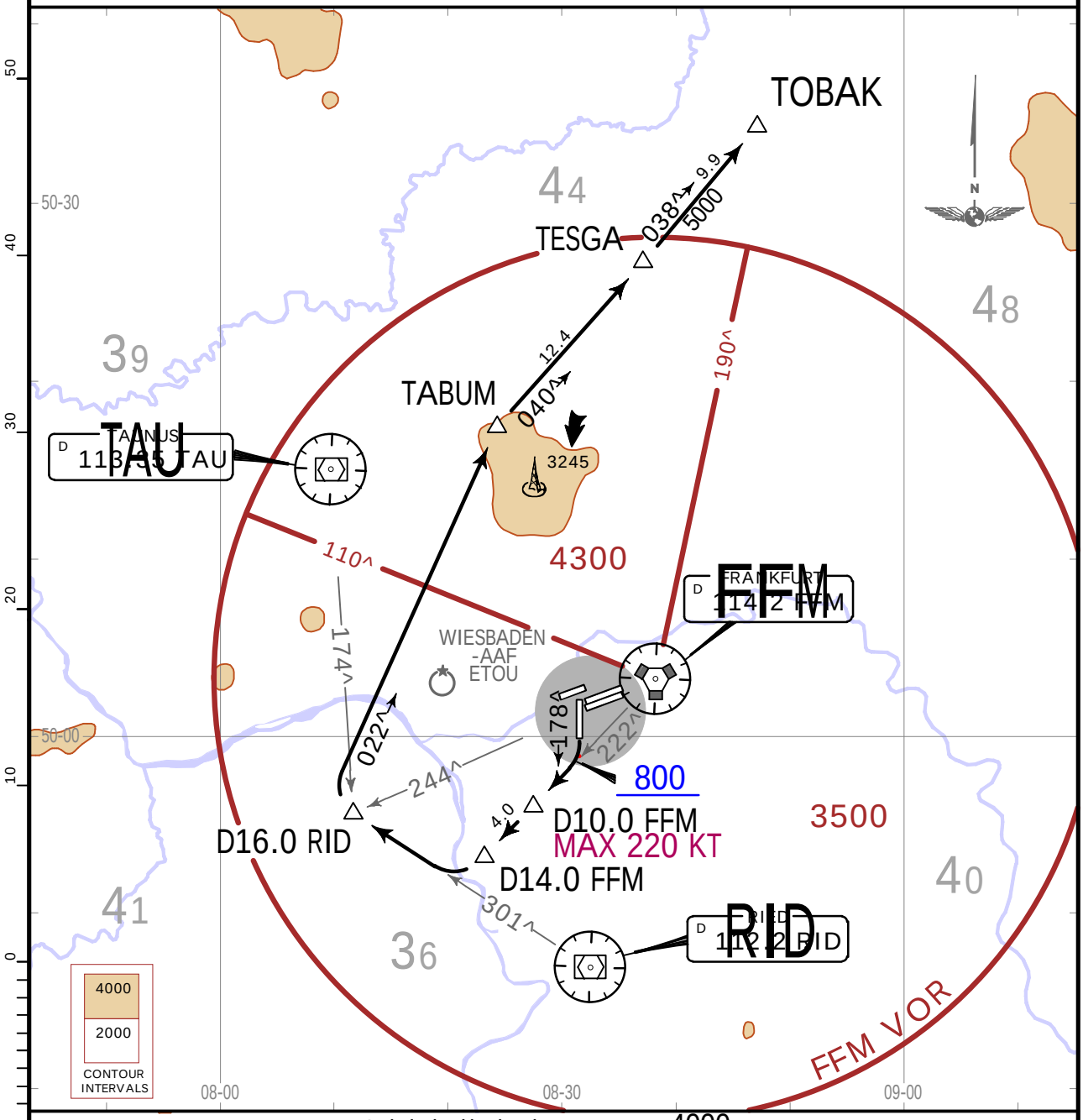
1 After FFM R200 BRNAV equipment necessary.

CHANGES: None.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

TOBAK 9S DEPARTURE (RWY 18)

WILL ONLY BE ASSIGNED
WHEN LANDING DIRECTION IS RWY 25
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

ROUTING

Climb on runway track to 800, turn RIGHT, intercept FFM R222 to D14.0 FFM, turn RIGHT, intercept RID R301 to D16.0 RID 1, turn RIGHT, 022^ track to TABUM, turn RIGHT, 040^ track to TESGA, turn LEFT, 038^ track to TOBAK.

1 After D16.0 RID BRNAV equipment necessary.

CHANGES: None.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

TOBAK 7T DEPARTURE (RWY 18)

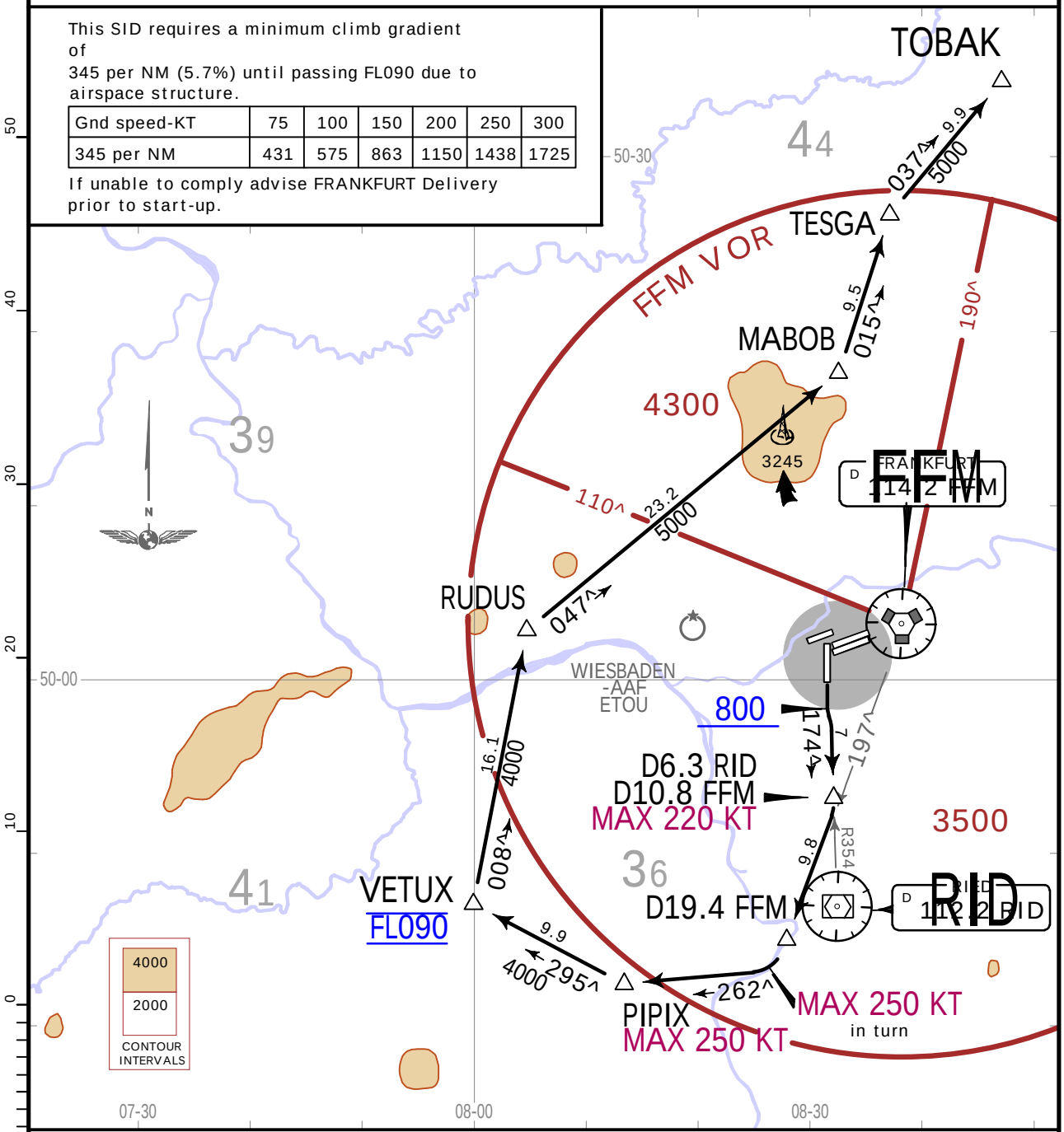
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of
345 per NM (5.7%) until passing FL090 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
345 per NM	431	575	863	1150	1438	1725

If unable to comply advise FRANKFURT Delivery prior to start-up.



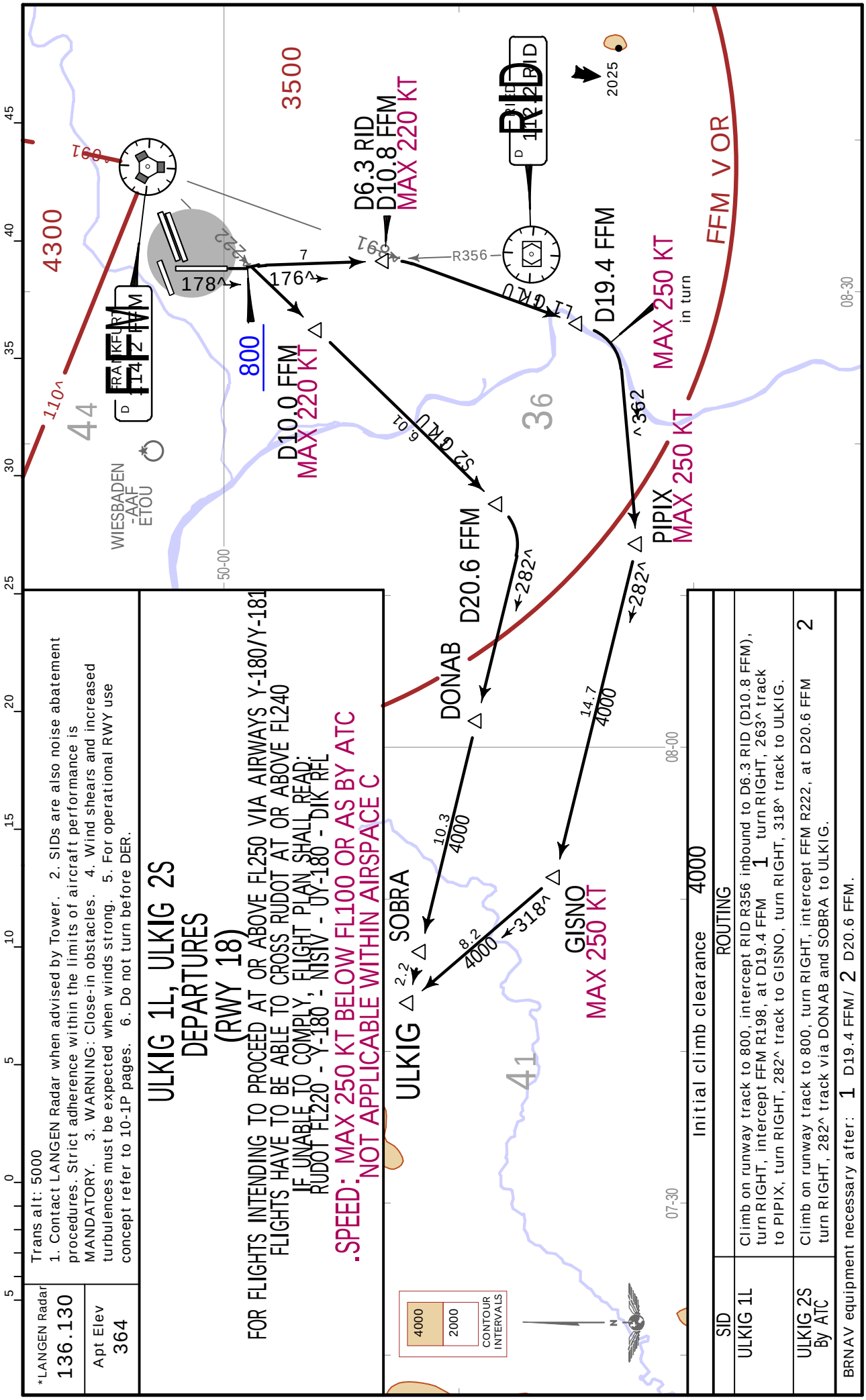
Initial climb clearance 4000

ROUTING

Climb on runway track to 800, intercept RID R354 inbound to D6.3 RID (D10.8 FFM), turn RIGHT, intercept FFM R197 to D19.4 FFM 1, turn RIGHT, 262^ track to PIPIX, turn RIGHT, 295^ track to VETUX, turn RIGHT, 008^ track to RUDUS, turn RIGHT, 047^ track to MABOB, turn LEFT, 015^ track to TESGA, turn RIGHT, 037^ track to TOBAK.

1 After D19.4 FFM RNAV 5 equipment necessary.

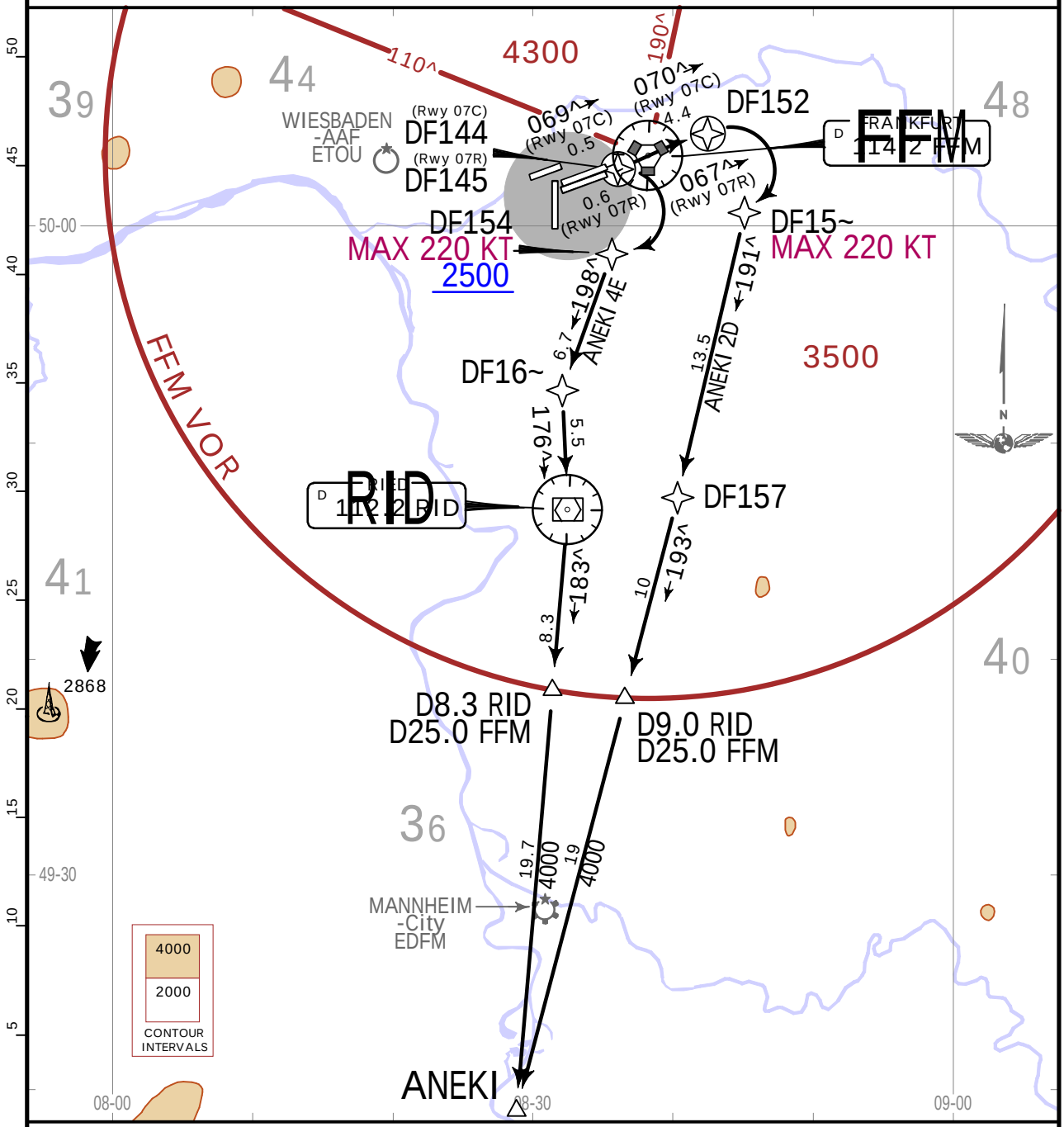
CHANGES: SID renumbered & revised.



*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

ANEKI 2D [ANEK2D], ANEKI 4E [ANEK4E]
RNAV DEPARTURES (OVERLAY 10-3C9)
(RWYS 07C/R)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



ANEKI 4E

This SID requires a minimum climb gradient of
330 per NM (5.4%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
330 per NM	413	550	825	1100	1375	1650

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

SID	ROUTING
ANEKI 2D	(800+) - DF152 - DF15~ (K220-) - DF157 - ANEKI.
ANEKI 4E	(800+) - DF144 (07C)/DF145 (07R) - DF154 (K220-; 2500+) - DF16~ - RID - ANEKI.

CHANGES: None.

*LANGEN Radar 136.130	Apt Elev 364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. RWY 18: WARNING: Close-in obstacles. 4. RWY 18: Wind shears and increased turbulences must be expected when winds strong. 5. RWY 18: Do not turn before DER.
6. For operational RWY use concept refer to 10-1P pages.

ANEKI 1F [ANEK1F]
ANEKI 1L [ANEK1L]
RNAV DEPARTURES (OVERLAY 10-3C10)
(RWYS 18, 25L/C)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

EDF/FRA
FRANKFURT/MAIN
29 OCT 21 10-3N5 .Eff.4.Nov.
JEPPESEN

CHANGES: RNAV SIDs renumbered; track update.

(Rwy 25C) DF134
(Rwy 25L) DF135
(Rwy 25C) DF141
(Rwy 25L) DF142
DF143
DF137
ANEKI 1F:
MAX 210 KT
ANEKI 1L
4300
110^
190^
247^
174^
171^
WIESBADEN -AAF ETOU
FFM
FRANKFURT
114.2 FFM
RID
112.2 RID
ANEKI 1L:
MAX 220 KT
182^
3500
FFM VOR
D8.3 RID
D25.0 FFM
2394
MANNHEIM -City EDFM
4000
ANEKI
08-30
09-00
50-00
49-30
44
48
40
36
11.1
8.3
19.7
4000
2000
CONTOUR INTERVALS

ANEKI 1F: Initial climb clearance 5000 ANEKI 1L: Initial climb clearance 4000		
SID	RWY	ROUTING
ANEKI 1F	25L/C	(800+) - DF134 (25C)/DF135 (25L) - DF141 (25C)/DF142 (25L) - DF143 - DF137 (K210-) - RID - ANEKI.
ANEKI 1L	18	(800+) - RID (K220-) - ANEKI.

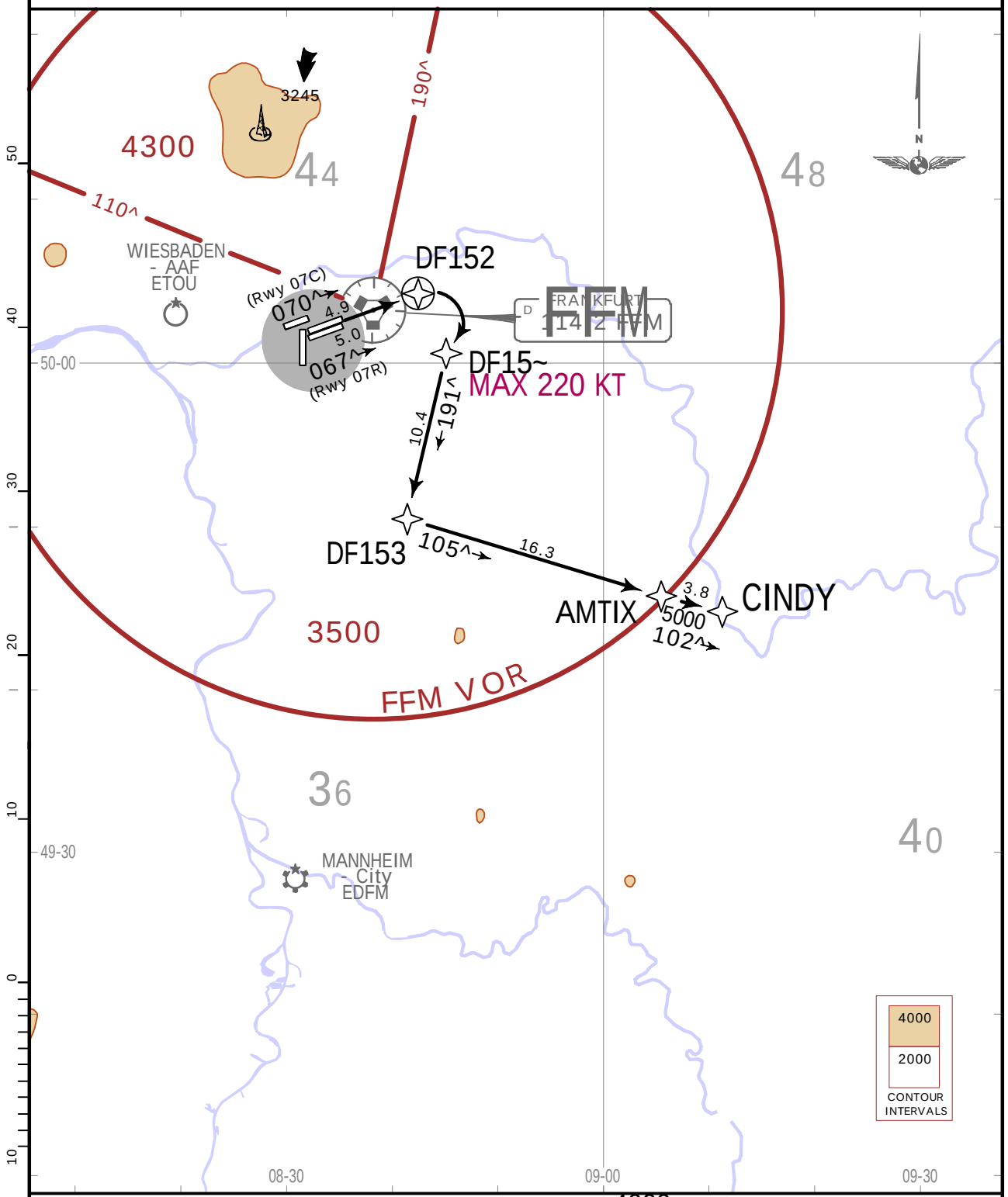
ANEKI 1F [ANEK1F]
ANEKI 1L [ANEK1L]
RNAV DEPARTURES
(OVERLAY 10-3C10)
(RWYS 18, 25L/C)

FRANKFURT/MAIN, GERMANY
.RNAV.SID.(OVERLAY).

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

CINDY 1D [CIND1D]
RNAV DEPARTURE (OVERLAY 10-3D)
(RWYS 07C/R)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

ROUTING

(800+) - DF152 - DF15~ (K220-) - DF153 - AMTIX - CINDY.

CHANGES: None.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN 29 OCT 21 10-3N7 .Eff.4.Nov.

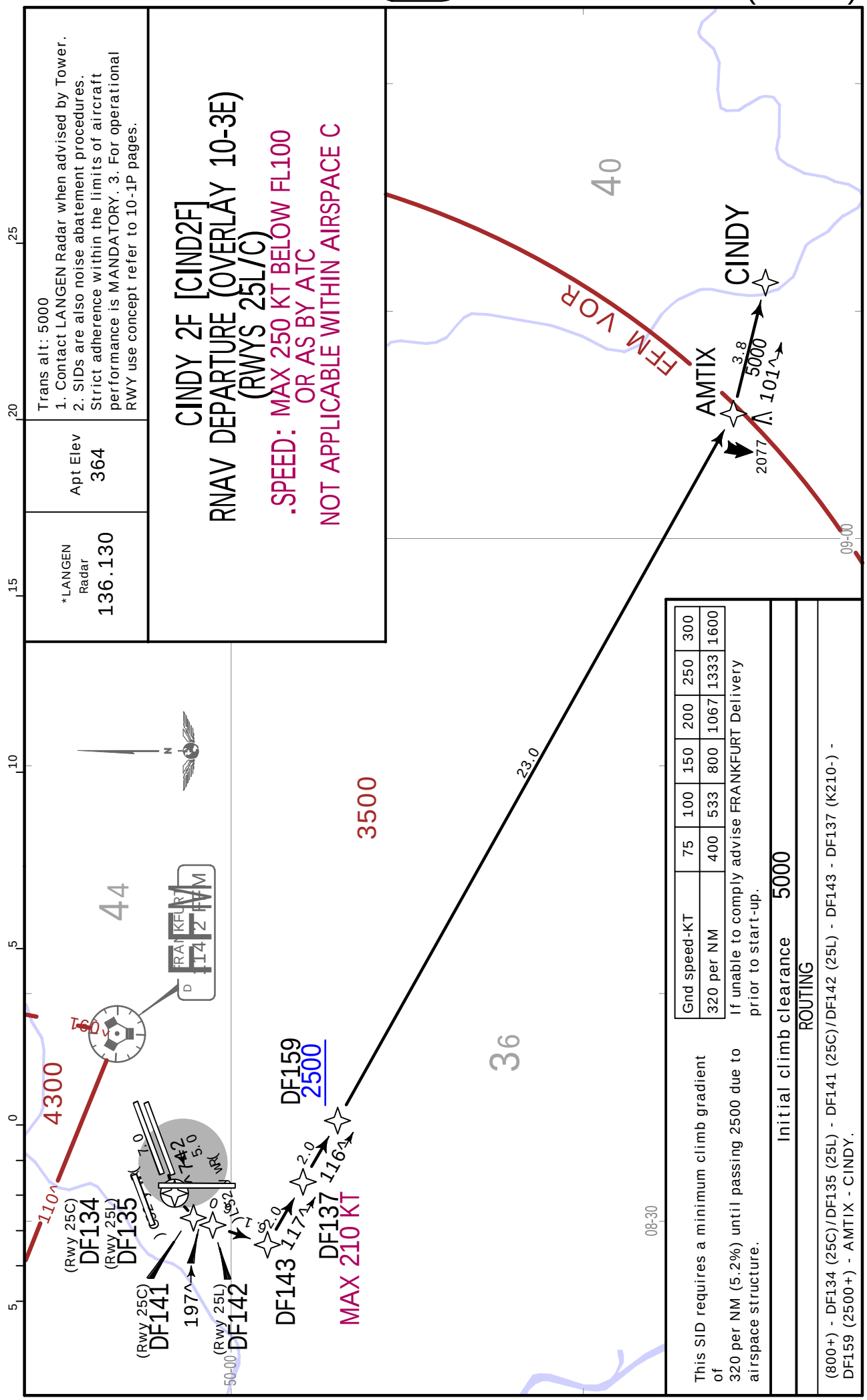
FRANKFURT/MAIN, GERMANY
.RNAV.SID.(OVERLAY).

CINDY 2F [CIND2F]
RNAV DEPARTURE (OVERLAY 10-3E)
(RWYS 25L/C)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.



Gnd speed-KT	75	100	150	200	250	300
320 per NM	400	533	800	1067	1333	1600

If unable to comply advise FRANKFURT Delivery prior to start-up.

This SID requires a minimum climb gradient of 320 per NM (5.2%) until passing 2500 due to airspace structure.

Initial climb clearance 5000

ROUTING

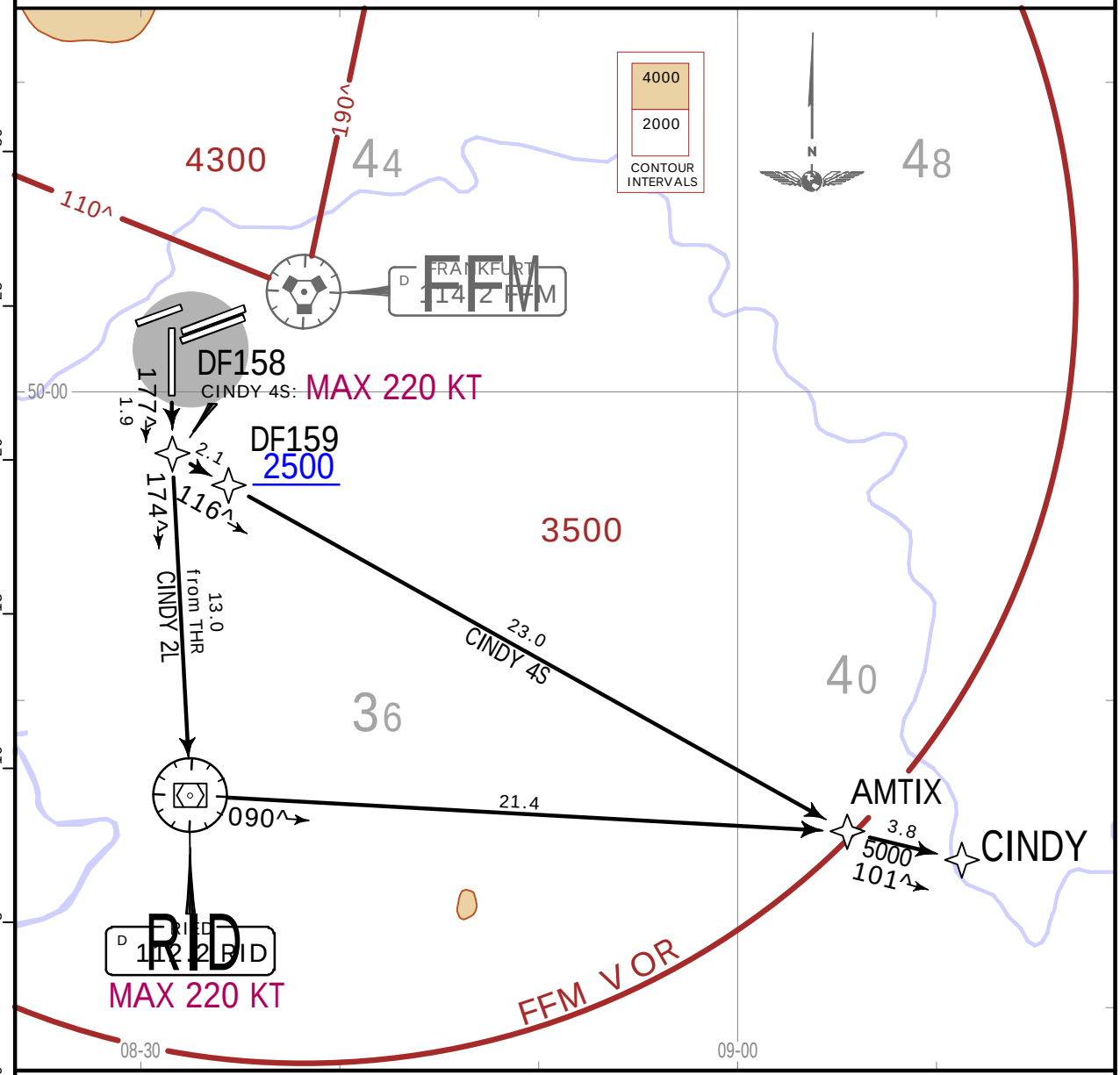
(800+) - DF134 (25C)/DF135 (25L) - DF141 (25C)/DF142 (25L) - DF143 - DF137 (K210-) - DF159 (2500+) - AMTIX - CINDY.

CHANGES: RNAV SID renumbered; track update.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

CINDY 2L [CIND2L]
CINDY 4S [CIND4S]
RNAV DEPARTURES (OVERLAY 10-3E1)
(RWY 18)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



CINDY 4S

This SID requires a minimum climb gradient of 570 per NM (9.3%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
570 per NM	713	950	1425	1900	2375	2850

If unable to comply advise FRANKFURT Delivery prior to start-up and EXPECT routing via CINDY 2L.

Initial climb clearance 4000

SID	ROUTING
CINDY 2L	(800+) - RID (K220-) - AMTIX - CINDY.
CINDY 4S	(800+) - DF158 (K220-) - DF159 (2500+) - AMTIX - CINDY.

CHANGES: RNAV SIDs renumbered; track update.

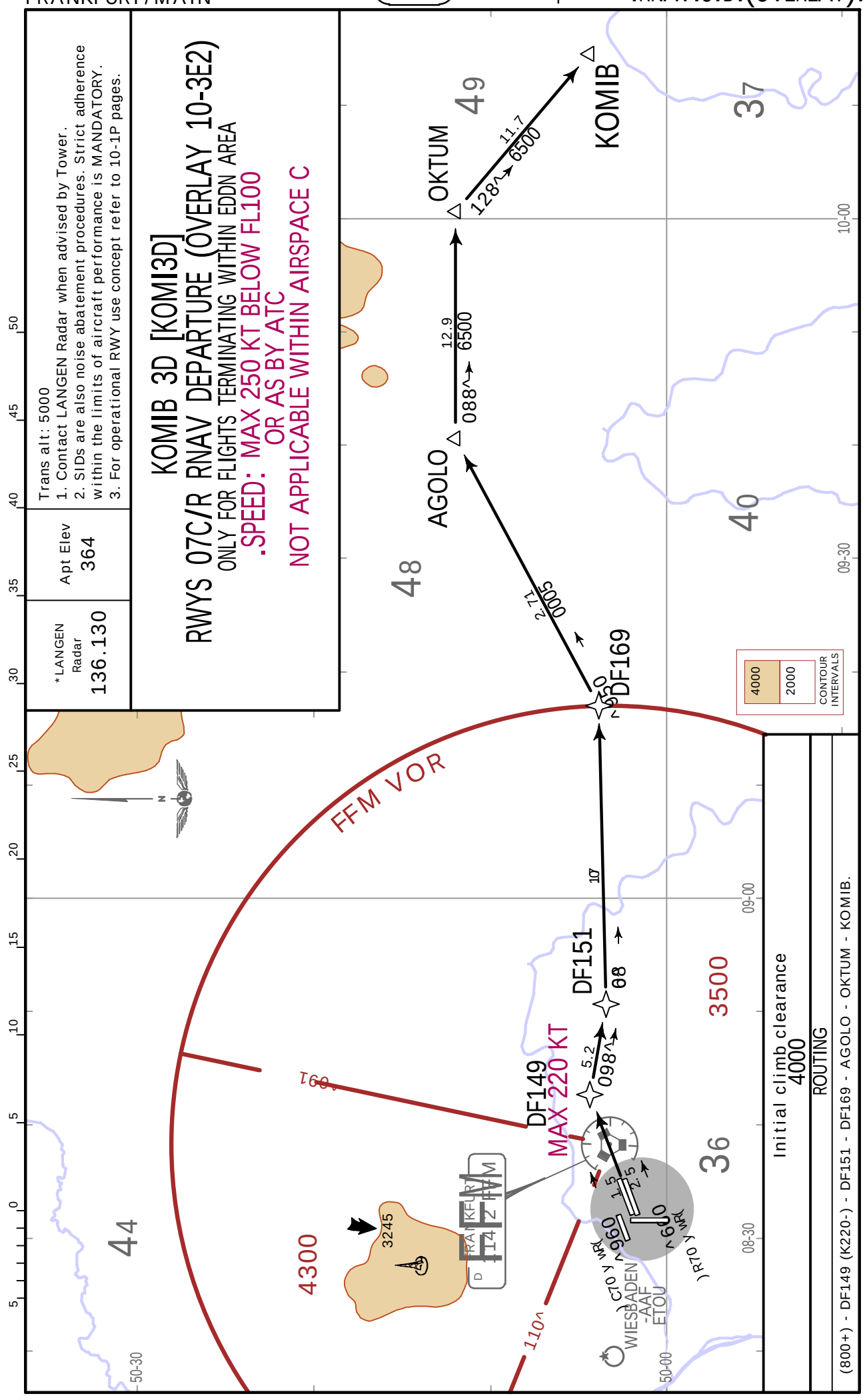
KOMIB 3D [KOMI3D]
RWYS 07C/R RNAV DEPARTURE (OVERLAY 10-3E2)
ONLY FOR FLIGHTS TERMINATING WITHIN EDDN AREA

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

Apt Elev 364

*LANGEN Radar 136.130

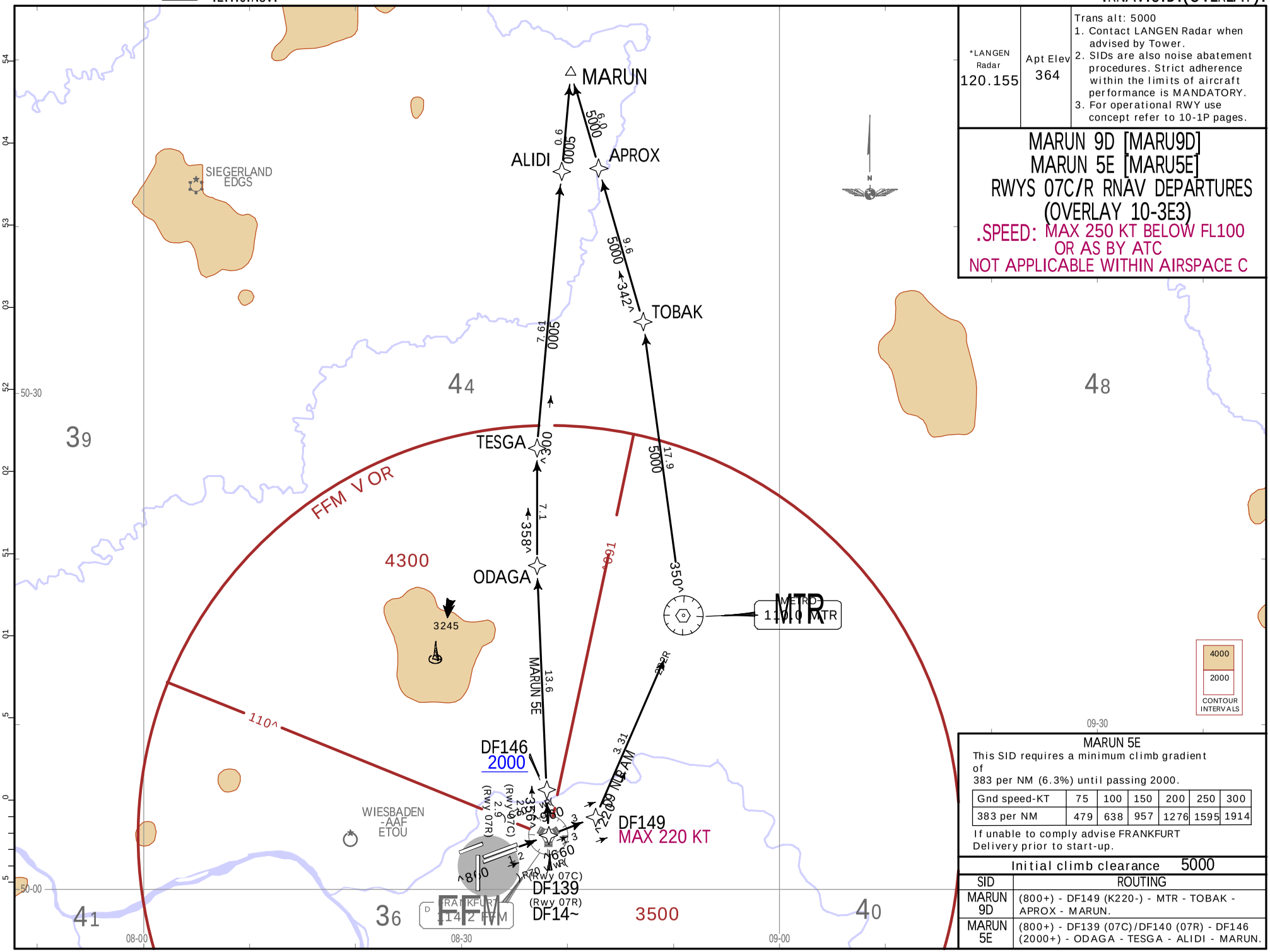


FRANKFURT/MAIN, GERMANY
.RNAV.SID.(OVERLAY).

*LANGEN Radar	Apt Elev	Trans alt: 5000
120.155	364	1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 9D [MARU9D]
MARUN 5E [MARU5E]
RWYS 07C/R RNAV DEPARTURES
(OVERLAY 10-3E3)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



MARUN 5E

This SID requires a minimum climb gradient of 383 per NM (6.3%) until passing 2000.

Gnd speed-KT	75	100	150	200	250	300
383 per NM	479	638	957	1276	1595	1914

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

SID	ROUTING
MARUN 9D	(800+) - DF149 (K220-) - MTR - TOBAK - APROX - MARUN.
MARUN 5E	(800+) - DF139 (07C)/DF140 (07R) - DF146 (2000+) - ODAGA - TESGA - ALIDI - MARUN.

CHANGES: None.

CHANGES: RNAV SID MARUN 8G renumbered 9G & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 6F [MARU6F]
MARUN 9G [MARU9G]
RWYS 25L/C RNAV DEPARTURES (OVERLAY 10-3E4)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

NOT TO SCALE

MARUN
6.0
5000
LORPA
15.9
5000
LIKSI
015^
11.6
FFM VOR
190^
110^
TABUM
017^
11.1
11.0
MARUN 6F
3245
4300
DF238
4400
027^
015^
DF132
4400
MARUN 9G
6.3
321^
329^
DF233
3500
WIESBADEN -AAF ETOU
(Rwy 25C)
274^
(Rwy 25C)
1.1
1.0
2.2
2.4
2.7
257^
278^
(Rwy 25L)
0.7
(Rwy 25L)
248^
MARUN 6F:
MARUN 9G:
247^
DF133
DF236
At D236
or 3500
whichever is later
(Rwy 25C)
DF234
(Rwy 25L)
DF235
3500
FRANKFURT
114.2 FFM
4000
2000
CONTOUR INTERVALS
50-30
50-00
08-00
08-30
39
44
36

MARUN 6F

This SID requires a minimum climb gradient of
729 per NM (12%) until DF233 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
729 per NM	911	1215	1823	2430	3038	3646

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

SID	ROUTING
MARUN 6F	(800+) - DF234 (25C)/DF235 (25L) - DF233 (3500+) - DF132 (4400+) - TABUM - LIKSI - LORPA - MARUN.
MARUN 9G	(800+) - DF234 (25C)/DF235 (25L) - DF133 - DF236 - (3500+) - DF238 (4400+) - TABUM - LIKSI - LORPA - MARUN.

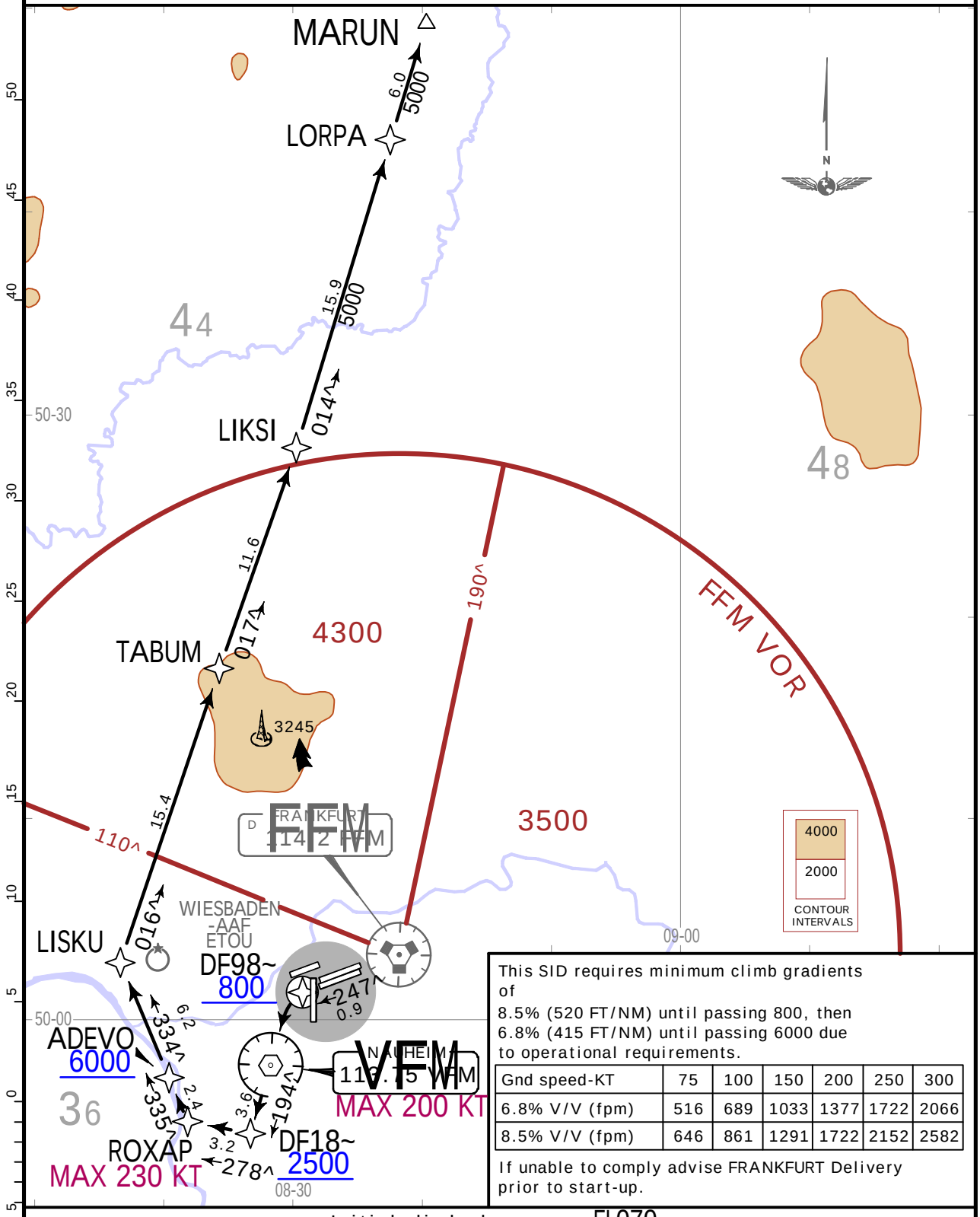
EDDF/FRA
FRANKFURT/MAIN
30 OCT 20
10-3Q
.Eff.5.Nov.

FRANKFURT/MAIN, GERMANY
.RNAV.SID.(OVERLAY).

MARUN 6F [MARU6F]
MARUN 9G [MARU9G]
RWYS 25L/C RNAV DEPARTURES
(OVERLAY 10-3E4)

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 5H [MARU5H]
RNAV DEPARTURE (OVERLAY 10-3E5) (RWY 25L)
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
8.5% (520 FT/NM) until passing 800, then
6.8% (415 FT/NM) until passing 6000 due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
6.8% V/V (fpm)	516	689	1033	1377	1722	2066
8.5% V/V (fpm)	646	861	1291	1722	2152	2582

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL070

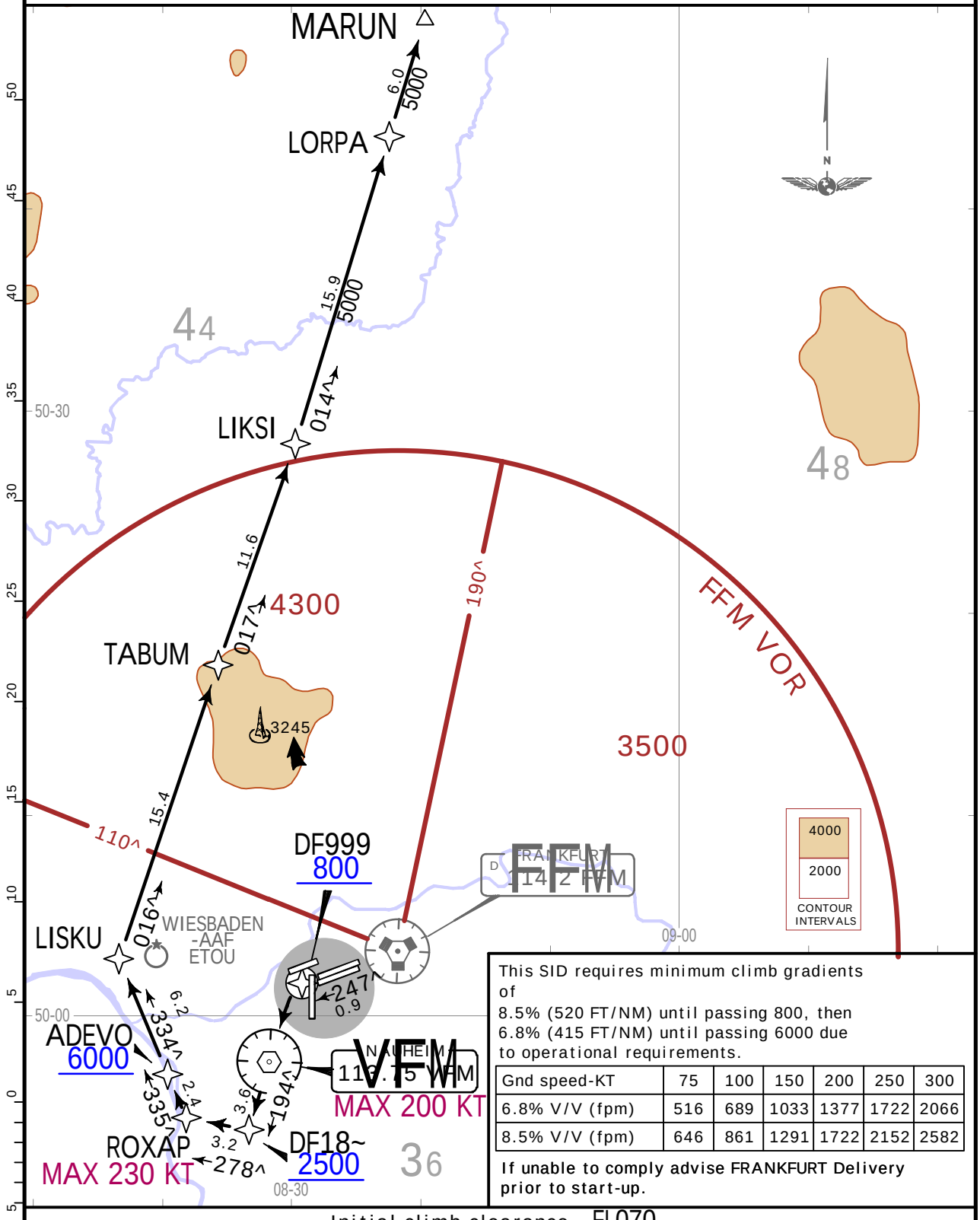
ROUTING

DF98~ (800+) - VFM (K200-) - DF18~ (2500+) - ROXAP (K230-) - ADEVO (6000+) - LISKU - TABUM - LIKSI - LORPA - MARUN.

CHANGES: Reissue.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 7M [MARU7M]
RNAV DEPARTURE (OVERLAY 10-3E6) (RWY 25C)
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
8.5% (520 FT/NM) until passing 800, then
6.8% (415 FT/NM) until passing 6000 due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
6.8% V/V (fpm)	516	689	1033	1377	1722	2066
8.5% V/V (fpm)	646	861	1291	1722	2152	2582

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL070

ROUTING

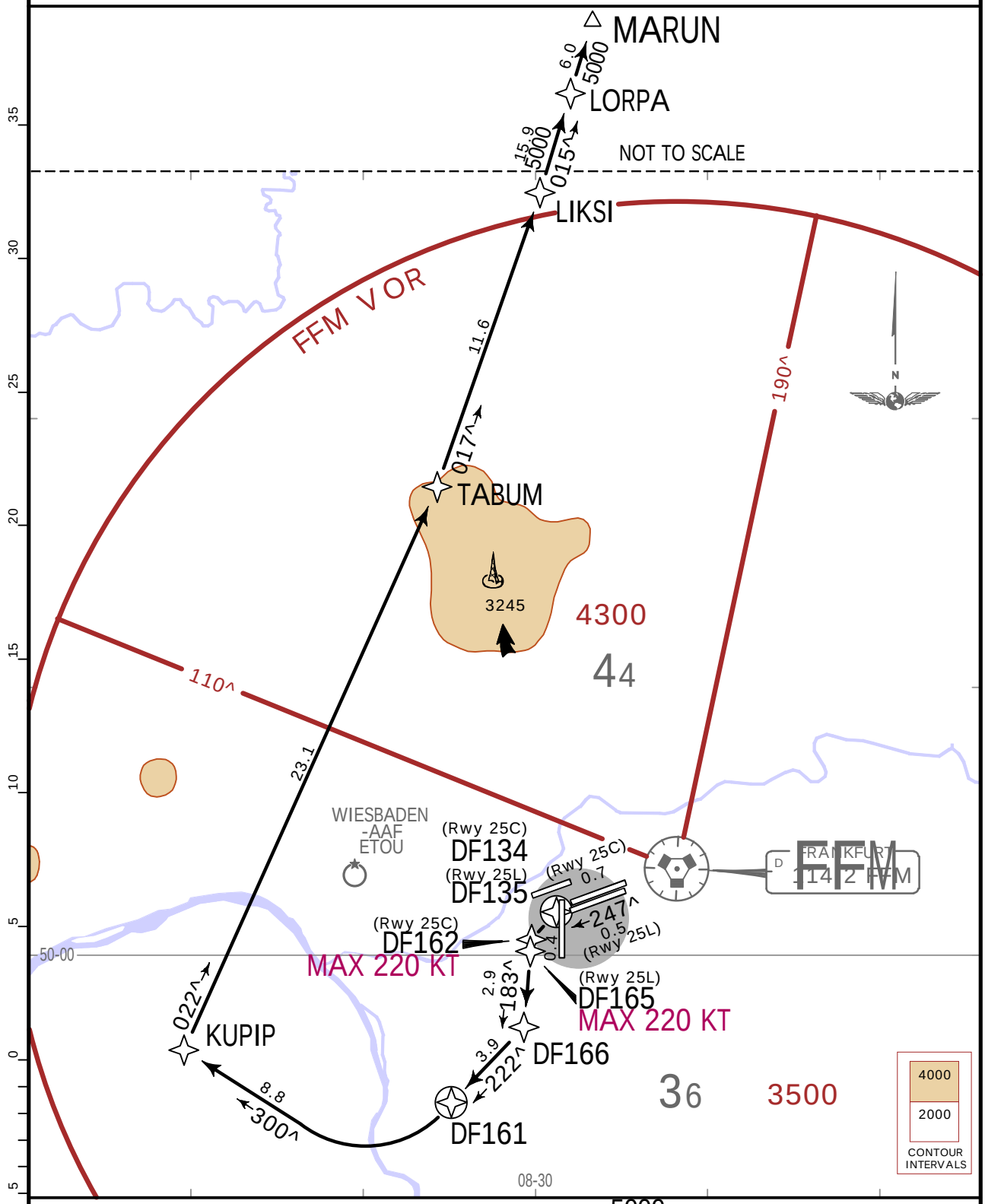
DF999 (800+) - VFM (K200-) - DF18~ (2500+) - ROXAP (K230-) - ADEVO (6000+) - LISKU - TABUM - LIKSI - LORPA - MARUN.

CHANGES: None.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

MARUN 9N [MARU9N]
RWYS 25L/C RNAV DEPARTURE (OVERLAY 10-3E7)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

ROUTING

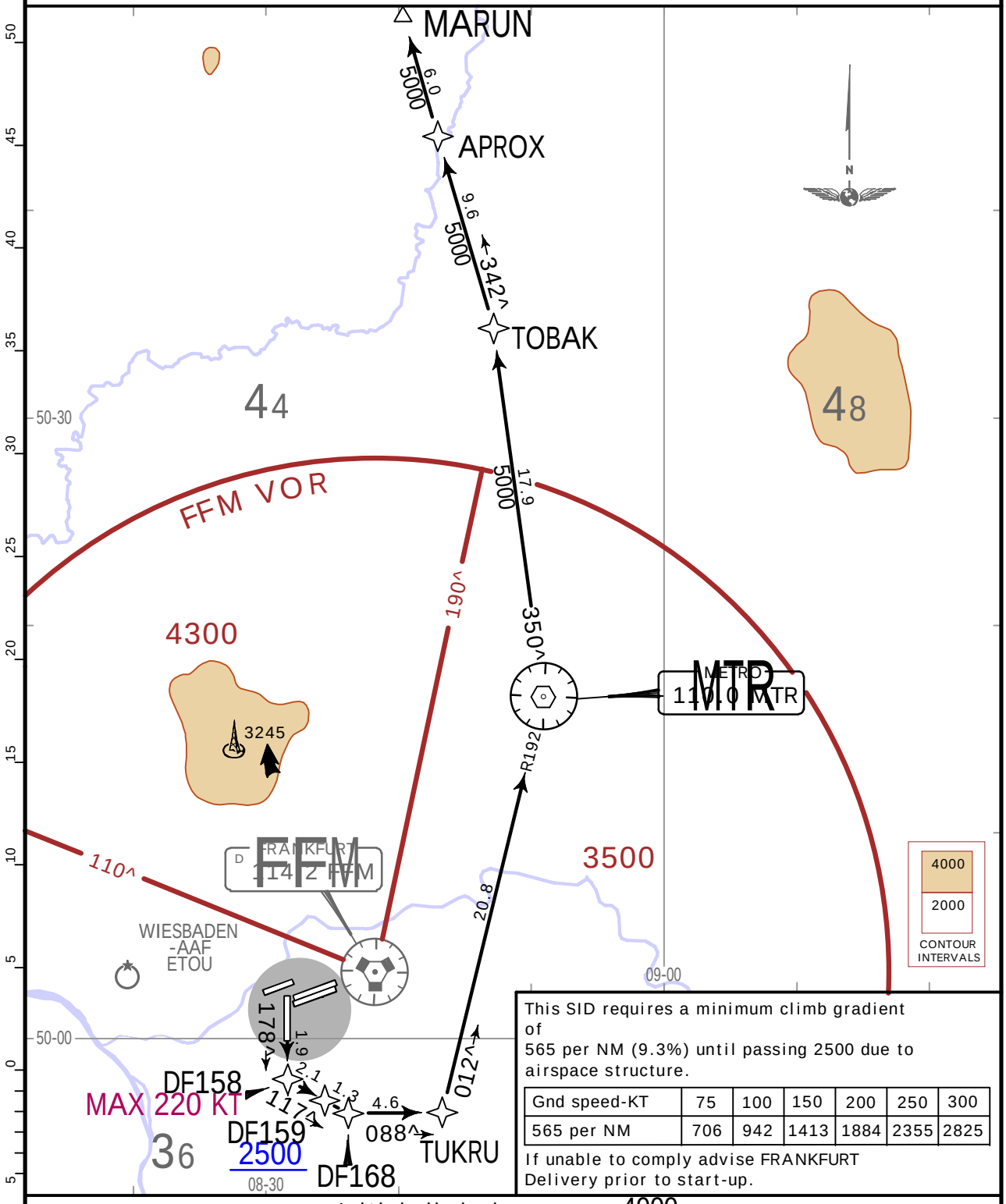
(800+) - DF134 (25C)/DF135 (25L) - DF162 (25C; K220-)/DF165 (25L; K220-) - DF166 - DF161 - KUPIP - TABUM - LIKSI - LORPA - MARUN.

CHANGES: RNAV SID renumbered & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

MARUN 3R [MARU3R]
RWY 18 RNAV DEPARTURE (OVERLAY 10-3E8)
BY ATC

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
565 per NM	706	942	1413	1884	2355	2825

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

(800+) - DF158 (K220-) - DF159 (2500+) - DF168 - TUKRU - MTR - TOBAK - APROX - MARUN.

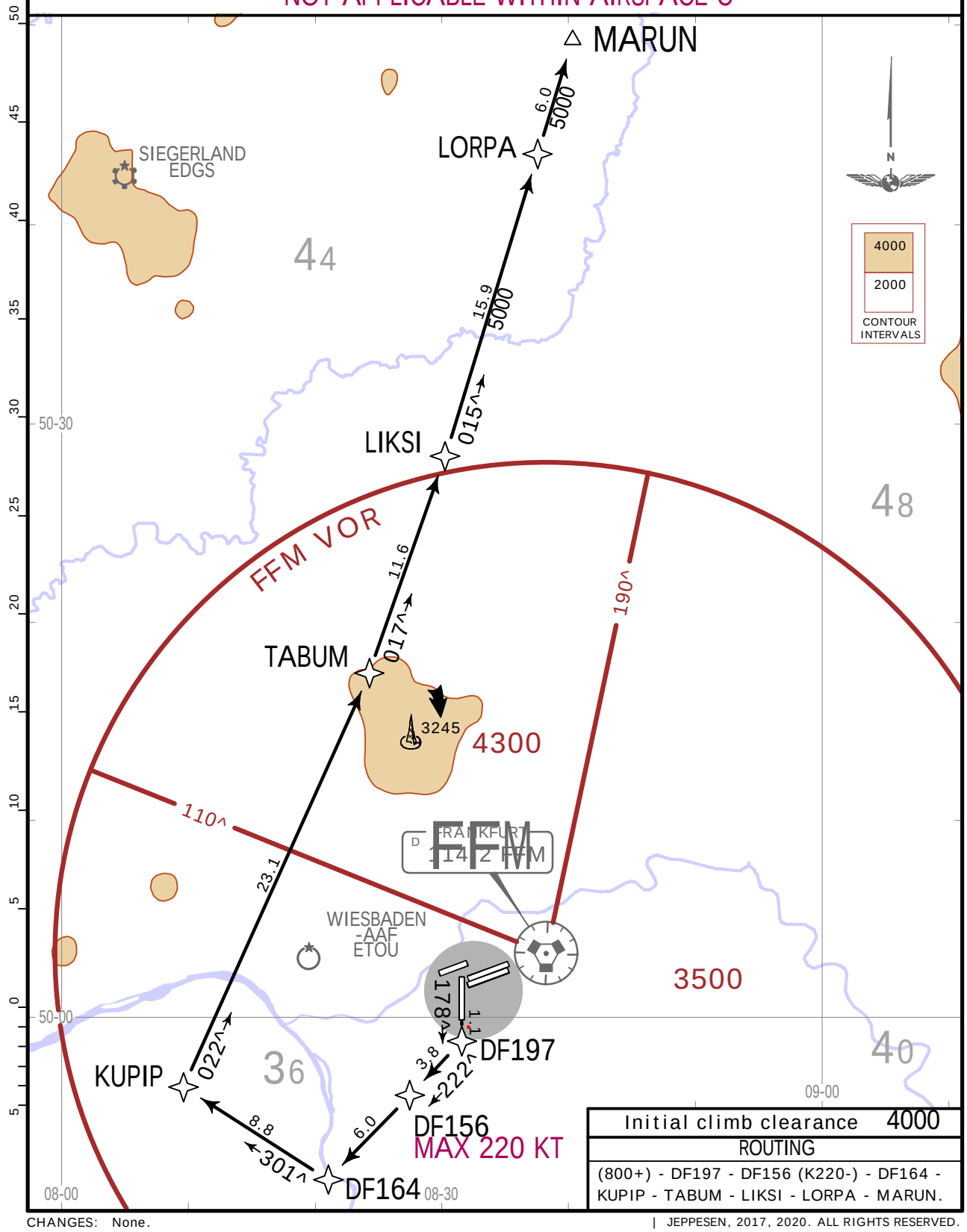
CHANGES: None.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

MARUN 7S [MARU7S]
RNAV DEPARTURE (OVERLAY 10-3E9)
(RWY 18)

WILL ONLY BE ASSIGNED WHEN LANDING DIRECTION IS RWY 25

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



CHANGES: None.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

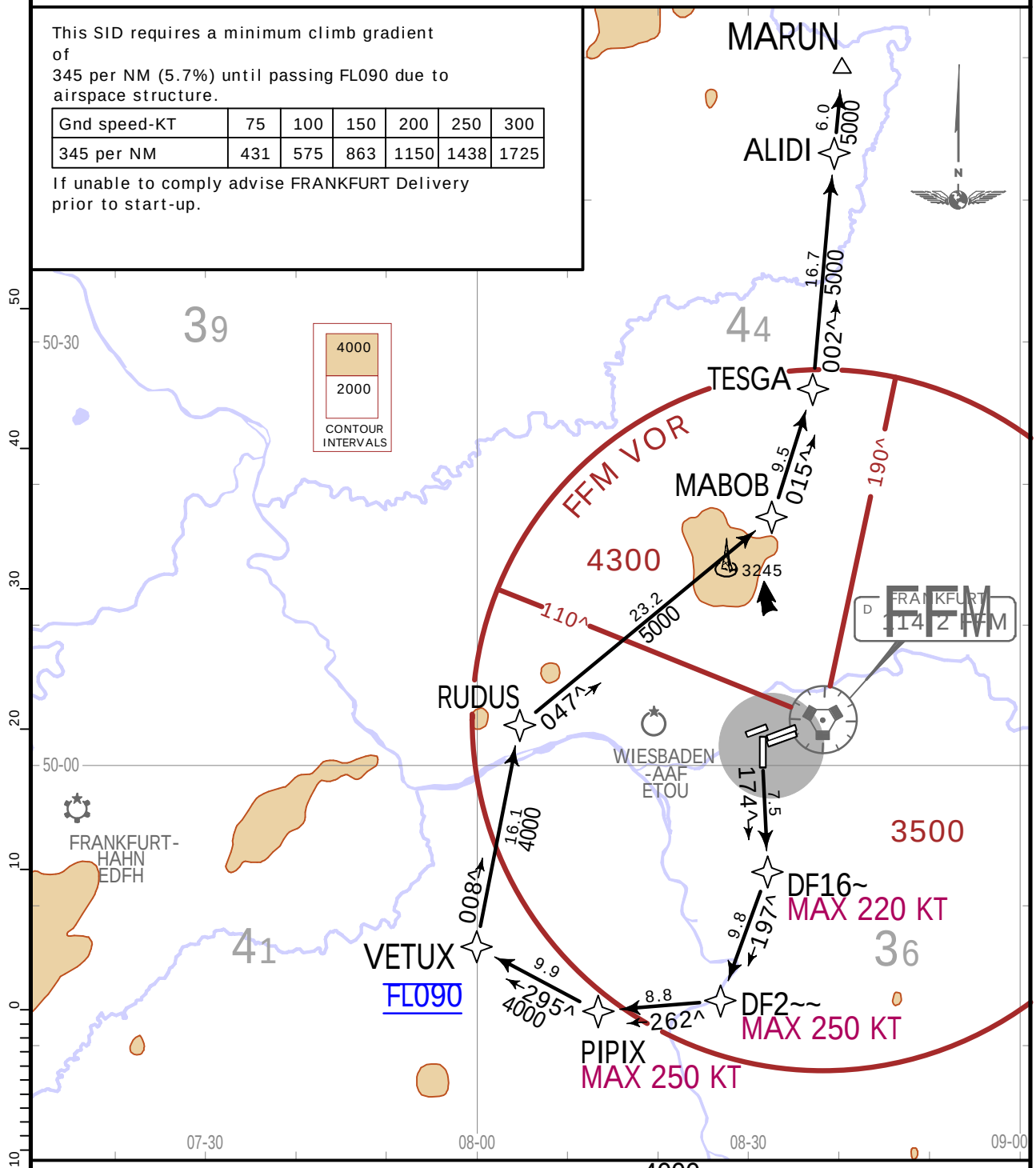
MARUN 5T [MARU5T]
RNAV DEPARTURE (OVERLAY 10-3F)
(RWY 18)

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of
345 per NM (5.7%) until passing FL090 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
345 per NM	431	575	863	1150	1438	1725

If unable to comply advise FRANKFURT Delivery prior to start-up.



Initial climb clearance 4000

ROUTING

(800+) - DF16~ (K220-) - DF2~~ (K250-) - PIPIX (K250-) - VETUX (FL090) - RUDUS - MABOB - TESGA - ALIDI - MARUN.

CHANGES: RNAV SID renumbered & revised.

FRANKFURT/MAIN, GERMANY
.RNAV.SID.(OVERLAY).

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

OBOKA 1D [OBOK1D]
OBOKA 1E [OBOK1E]
RWYS 07C/R RNAV DEPARTURES (OVERLAY 10-3G1)

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

OBOKA
13.4
5000
325^
DITAM
12.9
5000
335^
RAVKI
10.4
5000
293^
GUBAX
3.81
0005
152^
KUSOM
10.3
5000
ODAGA
9.4
287^
FFM VOR
MTR
MTRO
110.0 MTR
4300
3245
OBOKA 1E
13.6
110^
DF146
2000
DF149
MAX 220 KT
DF139
(Rwy 07R)
DF14~
3500
WIESBADEN
-AAF
ETOU
FRANKFURT
114.2 FFM
SIEGERLAND
EDGS
4000
2000
CONTOUR INTERVALS

Initial climb clearance 5000	
SID	ROUTING
OBOKA 1D	(800+) - DF149 (K220-) - MTR - ODAGA - KUSOM - GUBAX - RAVKI - DITAM - OBOKA.
OBOKA 1E	(800+) - DF139 (07C)/DF140 (07R) - DF146 (2000+) - ODAGA - KUSOM - GUBAX - RAVKI - DITAM - OBOKA.

OBOKA 1E

This SID requires a minimum climb gradient of 380 per NM (6.3%) until passing 2000.

Gnd speed-KT	75	100	150	200	250	300
380 per NM	475	633	950	1267	1583	1900

If unable to comply advise FRANKFURT Delivery prior to start-up.

CHANGES: Restrictions revised.

FRANKFURT/MAIN, GERMANY
.RNAV.SID.(OVERLAY).

*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

OBOKA 2G [OBOK2G]
RWYS 25L/C RNAV DEPARTURE
(OVERLAY 10-3G2)

FLIGHTS HAVE TO BE ABLE
TO CROSS OBOKA AT OR ABOVE FL170
EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY
ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 350 per NM (5.8%) until passing 3600, due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
350 per NM	438	583	875	1167	1458	1750

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

ROUTING

(800+) - DF234 (25C)/DF235 (25L) - DF133 - DF136 (3600+) - ESUPI - MASIR - RAVKI - DITAM - OBOKA .

OBOKA
13.4
5000
325^
DITAM
12.9
5000
RAVKI
7.0
5000
334^
MASIR
18.9
4000
306^
ESUPI
6.9
292^
DF136
3600
DF133
4.6
252^
DF234
(Rwy 25C)
DF235
(Rwy 25L)
(Rwy 25C)
2.4
274^
(Rwy 25L)
2.7
278^
7.0
342^
FFM VOR
4300
3500
110^
091
3245
ALLENDORF/EDER EDFQ
COLOGNE-BONN EDDK
SIEGERLAND EDGS
BUCHEL ETSB
FRANKFURT-HAHN EDFH
WIESBADEN -AAF ETOU
FRANKFURT FFM
4000
2000
CONTOUR INTERVALS

*LANGEN Radar	Apt Elev	
120.155	364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

OBOKA 2H [OBOK2H]

RWY 25L RNAV DEPARTURE (OVERLAY 10-3G3)

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
273 per NM (4.5%) until passing 2500 due to airspace structure.

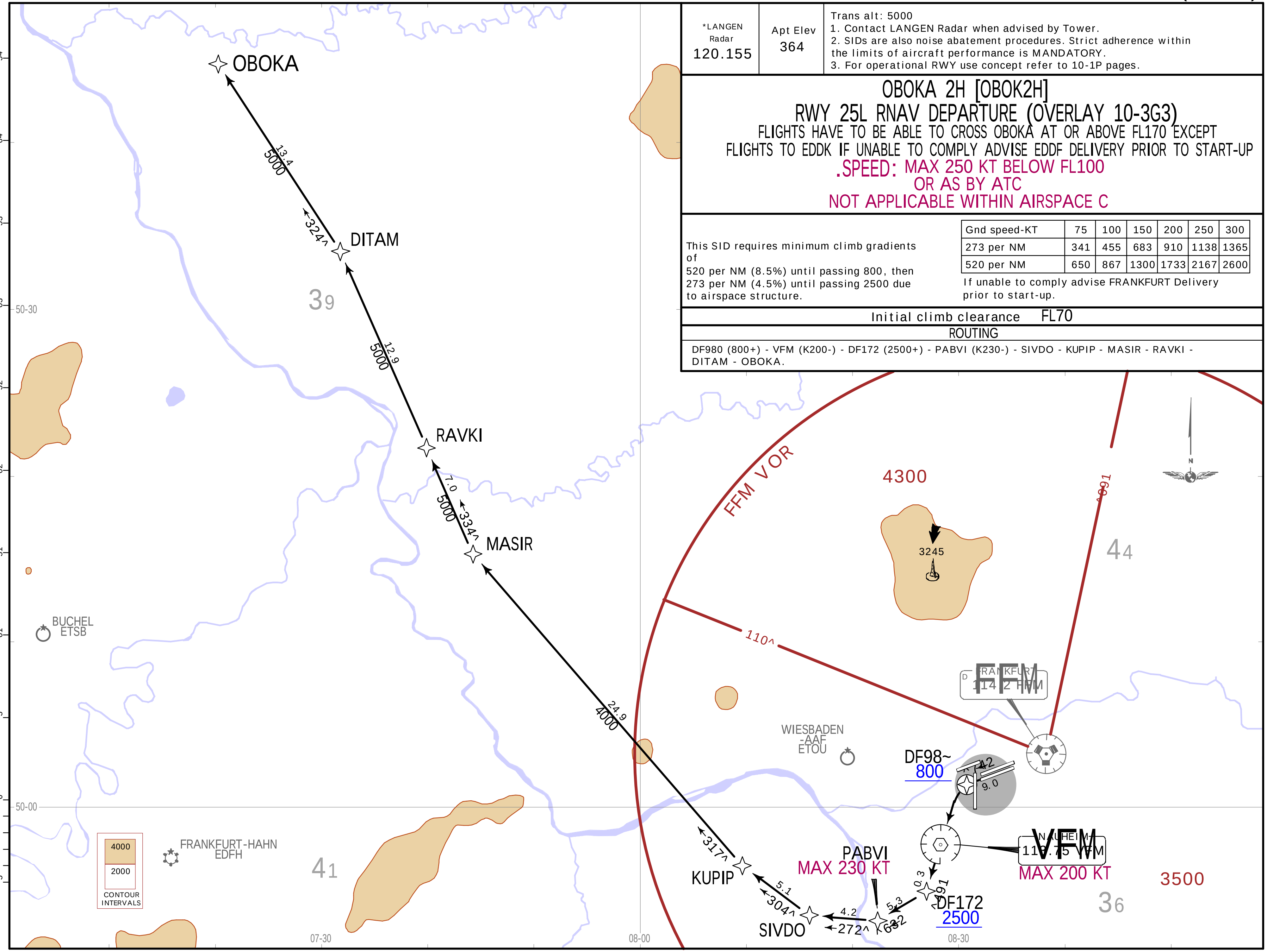
Gnd speed-KT	75	100	150	200	250	300
273 per NM	341	455	683	910	1138	1365
520 per NM	650	867	1300	1733	2167	2600

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL70

ROUTING

DF980 (800+) - VFM (K200-) - DF172 (2500+) - PABVI (K230-) - SIVDO - KUPIP - MASIR - RAVKI - DITAM - OBOKA.



*LANGEN Radar	Apt Elev	
120.155	364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

OBOKA 2M [OBOK2M]
RWY 25C RNAV DEPARTURE
(OVERLAY 10-3G4)

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires minimum climb gradients of 520 per NM (8.5%) until passing 800, then 273 per NM (4.5%) until passing 2500 due to airspace structure.

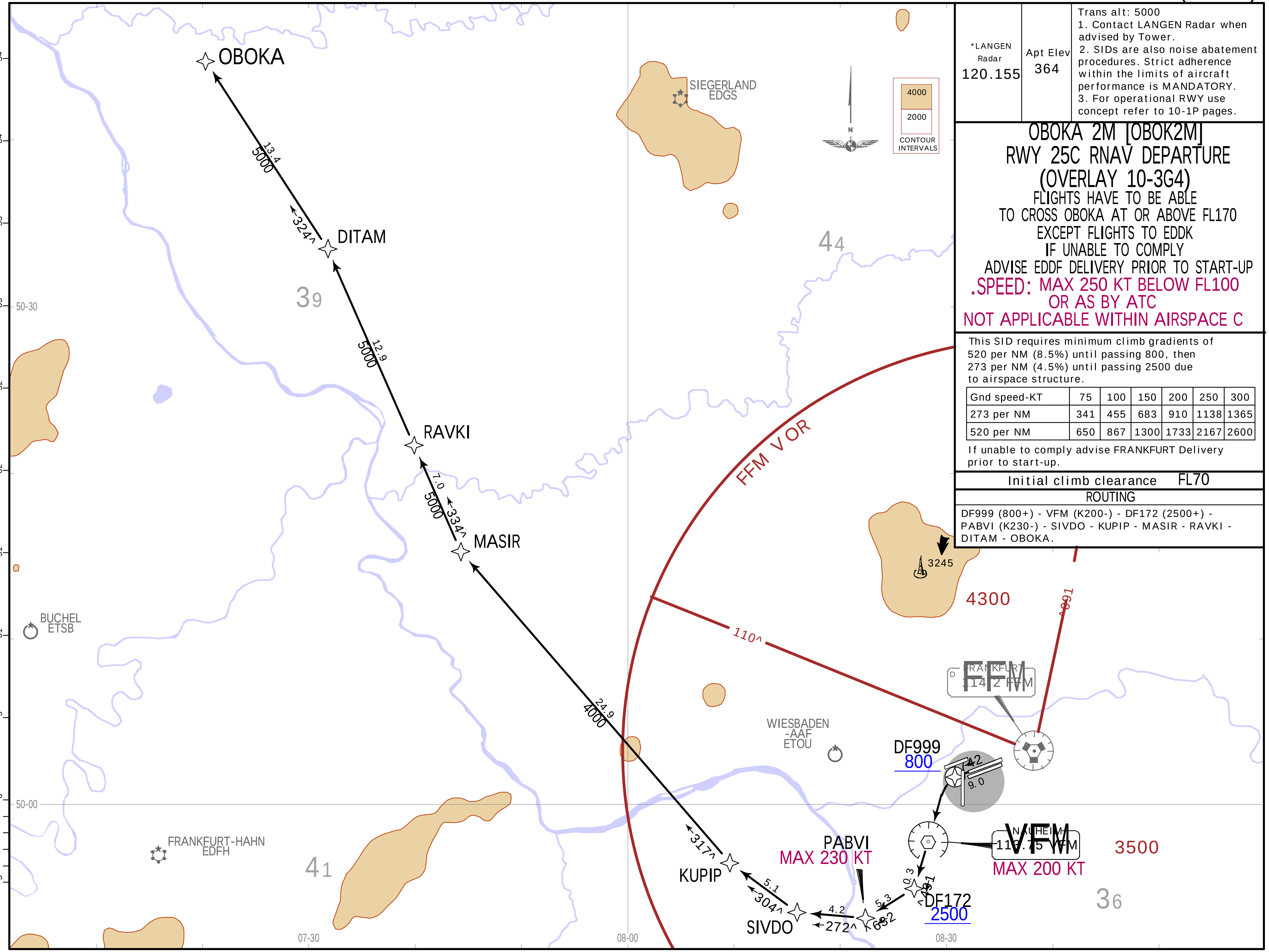
Gnd speed-KT	75	100	150	200	250	300
273 per NM	341	455	683	910	1138	1365
520 per NM	650	867	1300	1733	2167	2600

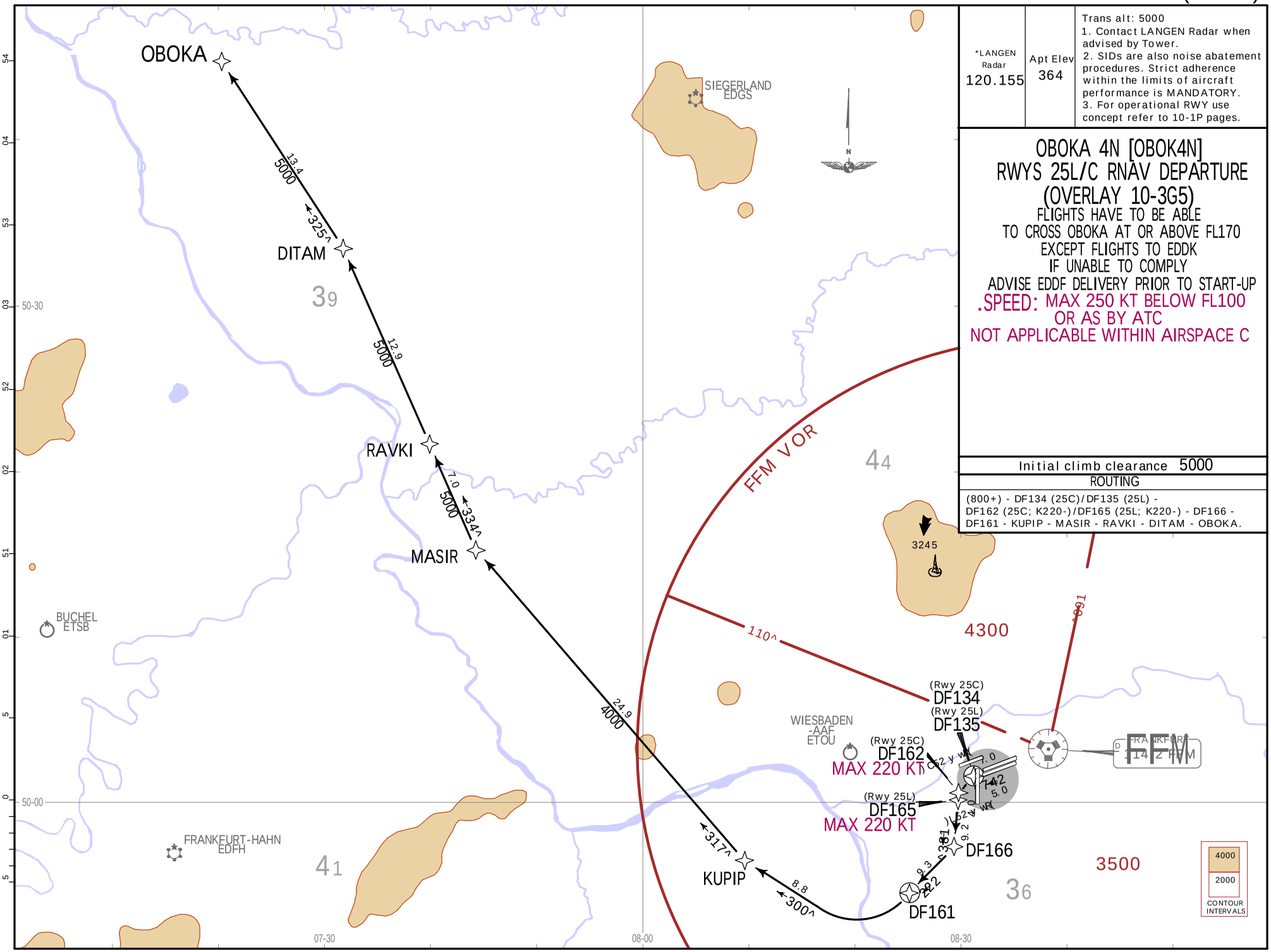
If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL70

ROUTING

DF999 (800+) - VFM (K200-) - DF172 (2500+) - PABVI (K230-) - SIVDO - KUPIP - MASIR - RAVKI - DITAM - OBOKA.





*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

OBOKA 4N [OBOK4N]
RWYS 25L/C RNAV DEPARTURE
(OVERLAY 10-3G5)

FLIGHTS HAVE TO BE ABLE
TO CROSS OBOKA AT OR ABOVE FL170
EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY
ADVISE EDDF DELIVERY PRIOR TO START-UP

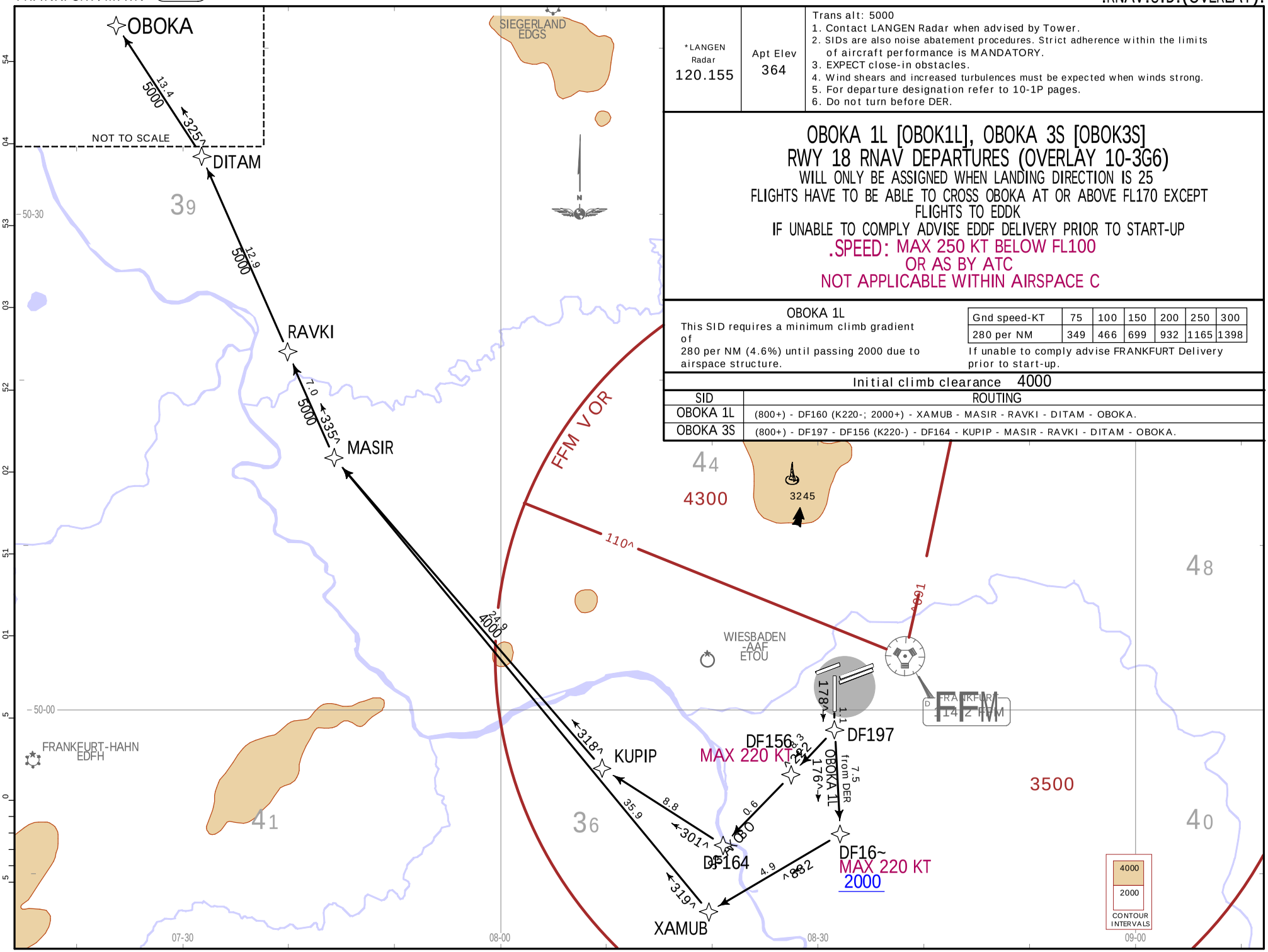
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Initial climb clearance 5000

ROUTING

(800+) - DF134 (25C)/DF135 (25L) - DF162 (25C; K220-)/DF165 (25L; K220-) - DF166 - DF161 - KUPIP - MASIR - RAVKI - DITAM - OBOKA.

CHANGES: None.



*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For departure designation refer to 10-1P pages.
6. Do not turn before DER.

OBOKA 1L [OBOK1L], OBOKA 3S [OBOK3S]
RWY 18 RNAV DEPARTURES (OVERLAY 10-3G6)

WILL ONLY BE ASSIGNED WHEN LANDING DIRECTION IS 25
FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

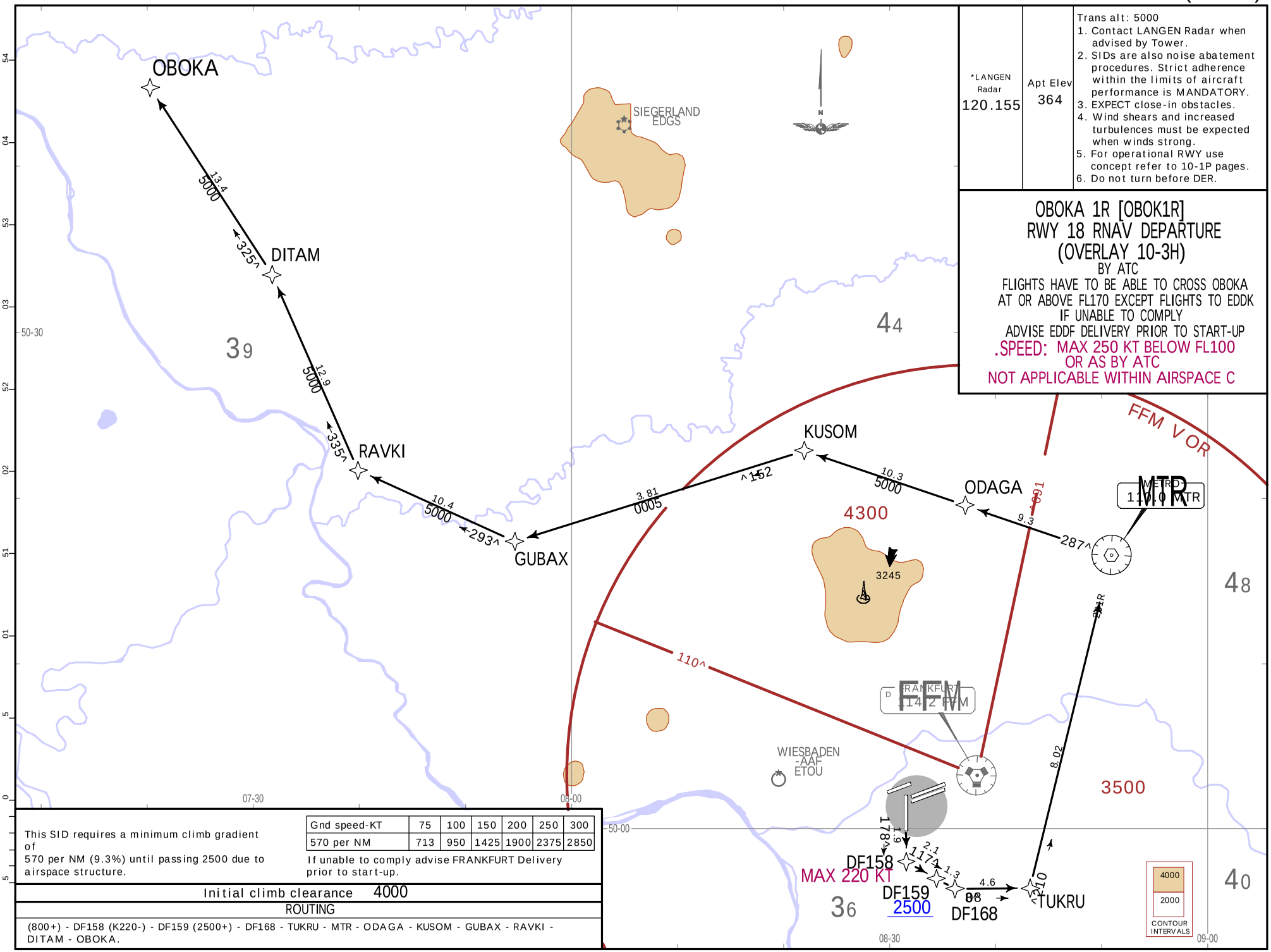
OBOKA 1L
This SID requires a minimum climb gradient of
280 per NM (4.6%) until passing 2000 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
280 per NM	349	466	699	932	1165	1398

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

SID	ROUTING
OBOKA 1L	(800+) - DF160 (K220-; 2000+) - XAMUB - MASIR - RAVKI - DITAM - OBOKA.
OBOKA 3S	(800+) - DF197 - DF156 (K220-) - DF164 - KUPIP - MASIR - RAVKI - DITAM - OBOKA.



*LANGEN Radar	Apt Elev
120.155	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. EXPECT close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

OBOKA 1R [OBOK1R]
RWY 18 RNAV DEPARTURE
(OVERLAY 10-3H)

BY ATC
FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170 EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY
ADVISE EDDF DELIVERY PRIOR TO START-UP
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 570 per NM (9.3%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
570 per NM	713	950	1425	1900	2375	2850

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

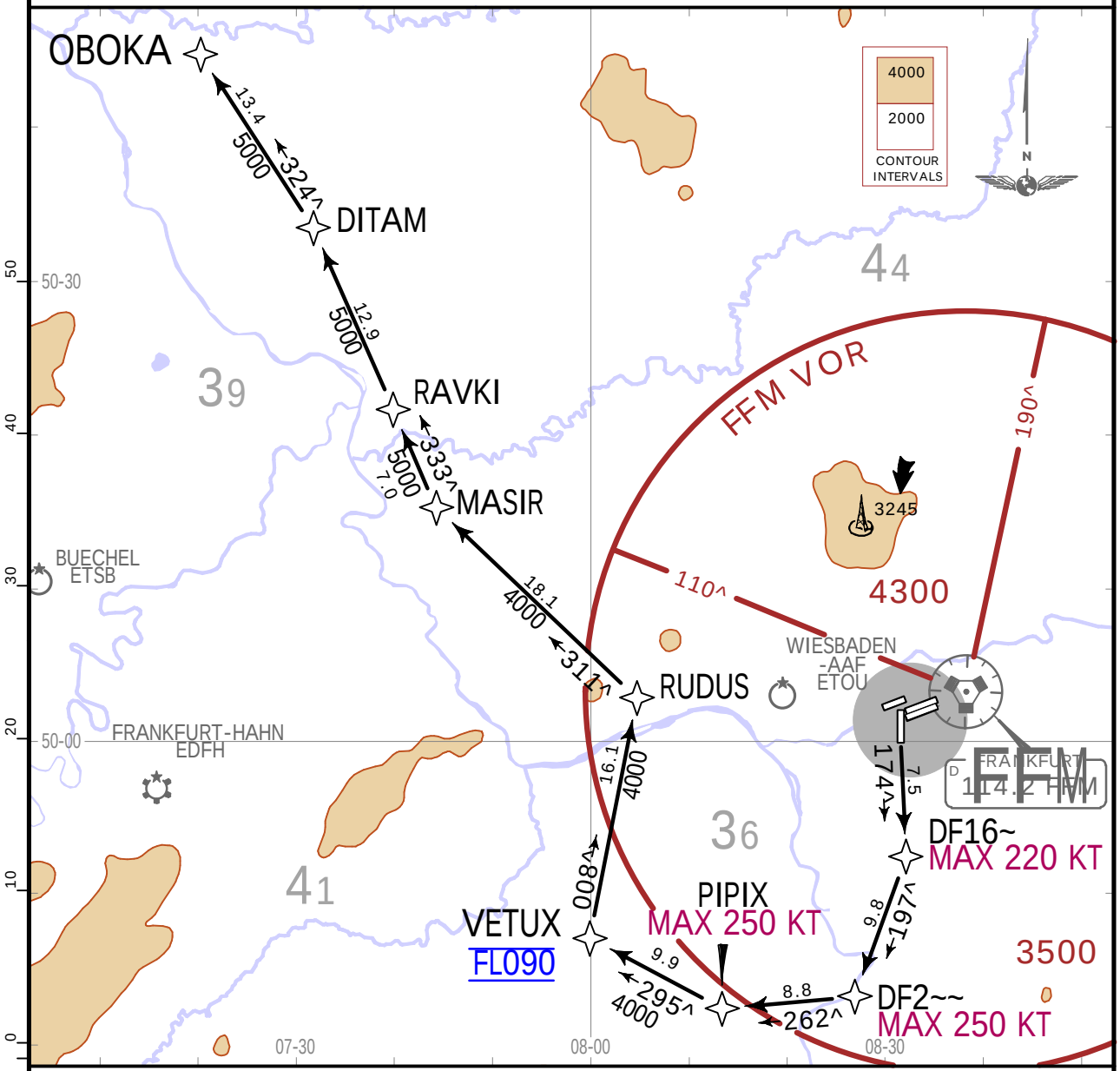
(800+) - DF158 (K220-) - DF159 (2500+) - DF168 - TUKRU - MTR - ODAGA - KUSOM - GUBAX - RAVKI - DITAM - OBOKA.

CHANGES: None.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

OBOKA 2T [OBOK2T]
RNAV DEPARTURE (OVERLAY 10-3J)
(RWY 18)

FLIGHTS HAVE TO BE ABLE TO CROSS OBOKA AT OR ABOVE FL170
EXCEPT FLIGHTS TO EDDK
IF UNABLE TO COMPLY ADVISE EDDF DELIVERY PRIOR TO START-UP
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of 345 per NM (5.7%) until passing FL090 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
345 per NM	431	575	863	1150	1438	1725

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

(800+) - DF16~ (K220-) - DF2~~ (K250-) - PIPIX (K250-) - VETUX (FL090) - RUDUS - MASIR - RAVKI - DITAM - OBOKA.

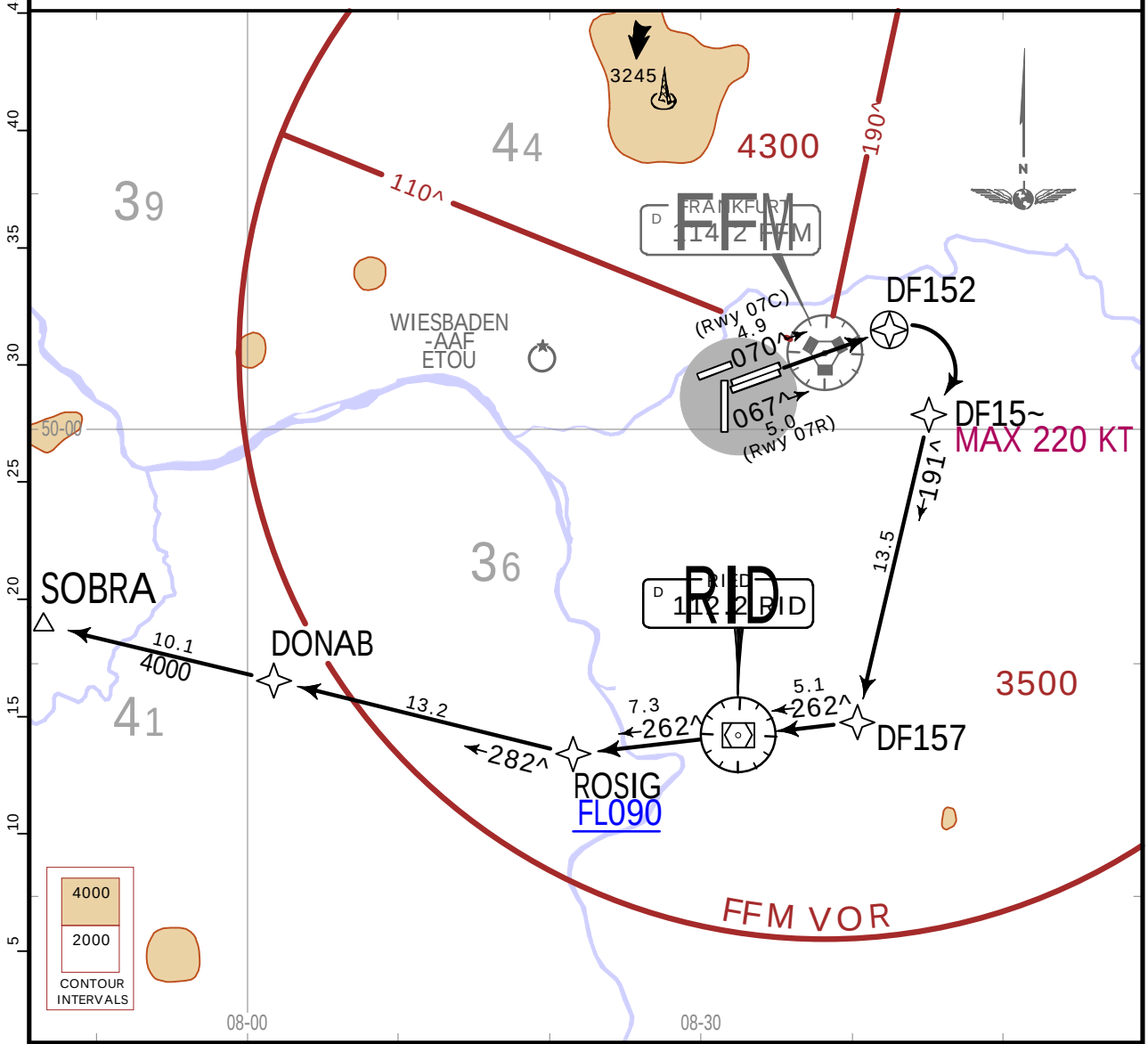
CHANGES: RNAV SID renumbered & revised.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

SOBRA 6D [SOBR6D]
RNAV DEPARTURE (OVERLAY 10-3J2)
(RWYS 07C/R)

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250
VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of
240 per NM (3.9%) until passing FL090
due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
240' per NM	300	400	600	800	1000	1200

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

(800+) - DF152 - DF15~ (K220-) - DF157 - RID - ROSIG (FL090+) - DONAB - SOBRA.

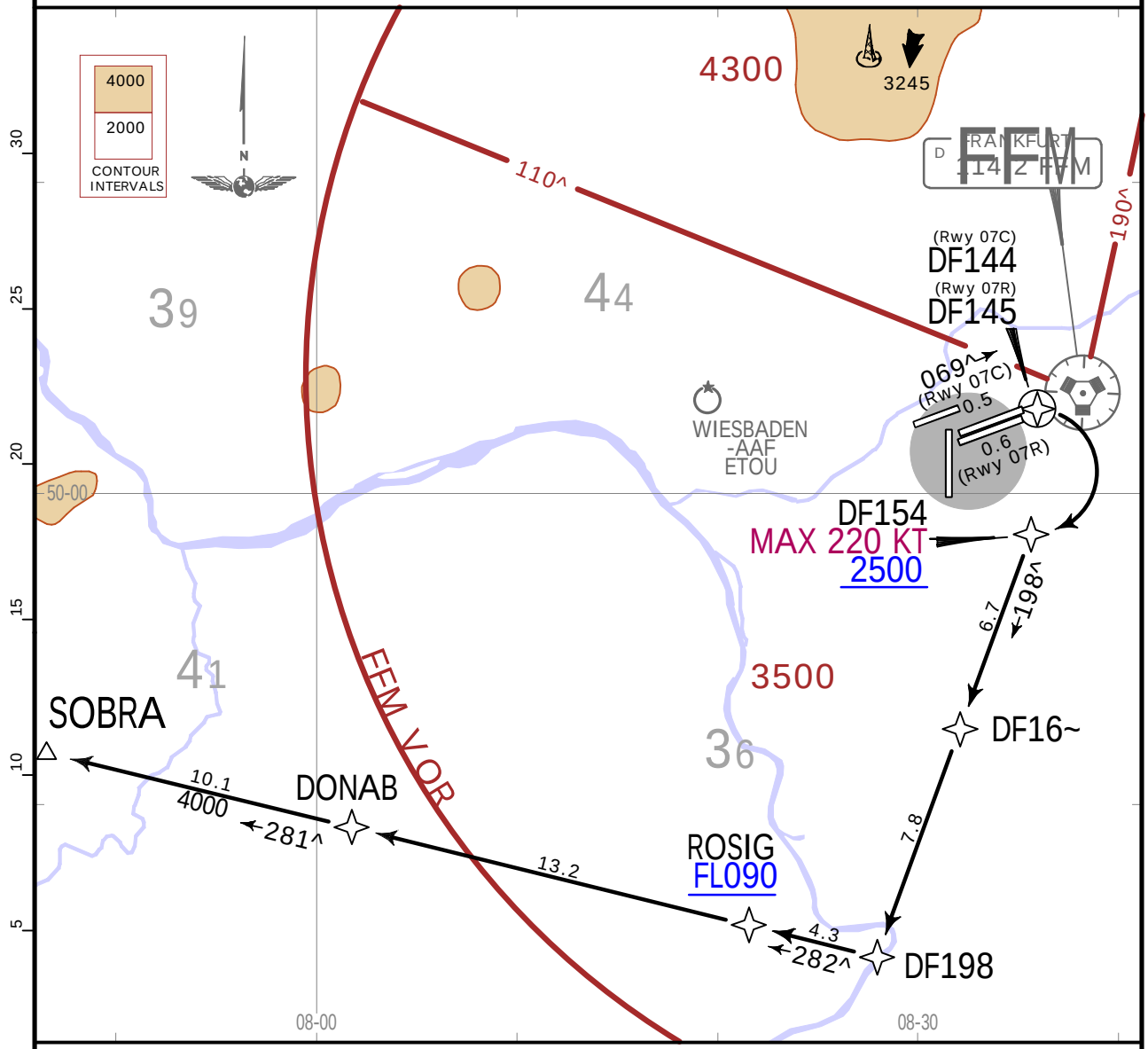
CHANGES: None.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

SOBRA 6E [SOBR6E]
RNAV DEPARTURE (OVERLAY 10-3K)
(RWYS 07C/R)

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250 VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Gnd speed-KT	75	100	150	200	250	300
335' per NM	419	558	838	1117	1396	1675

This SID requires a minimum climb gradient of
335 per NM (5.5%) until passing FL90
due to airspace structure.

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

(800+) - DF144 (07C)/DF145 (07R) - DF154 (K220-; 2500+) - DF16~ - DF198 - ROSIG (FL090+) - DONAB - SOBRA.

CHANGES: None.

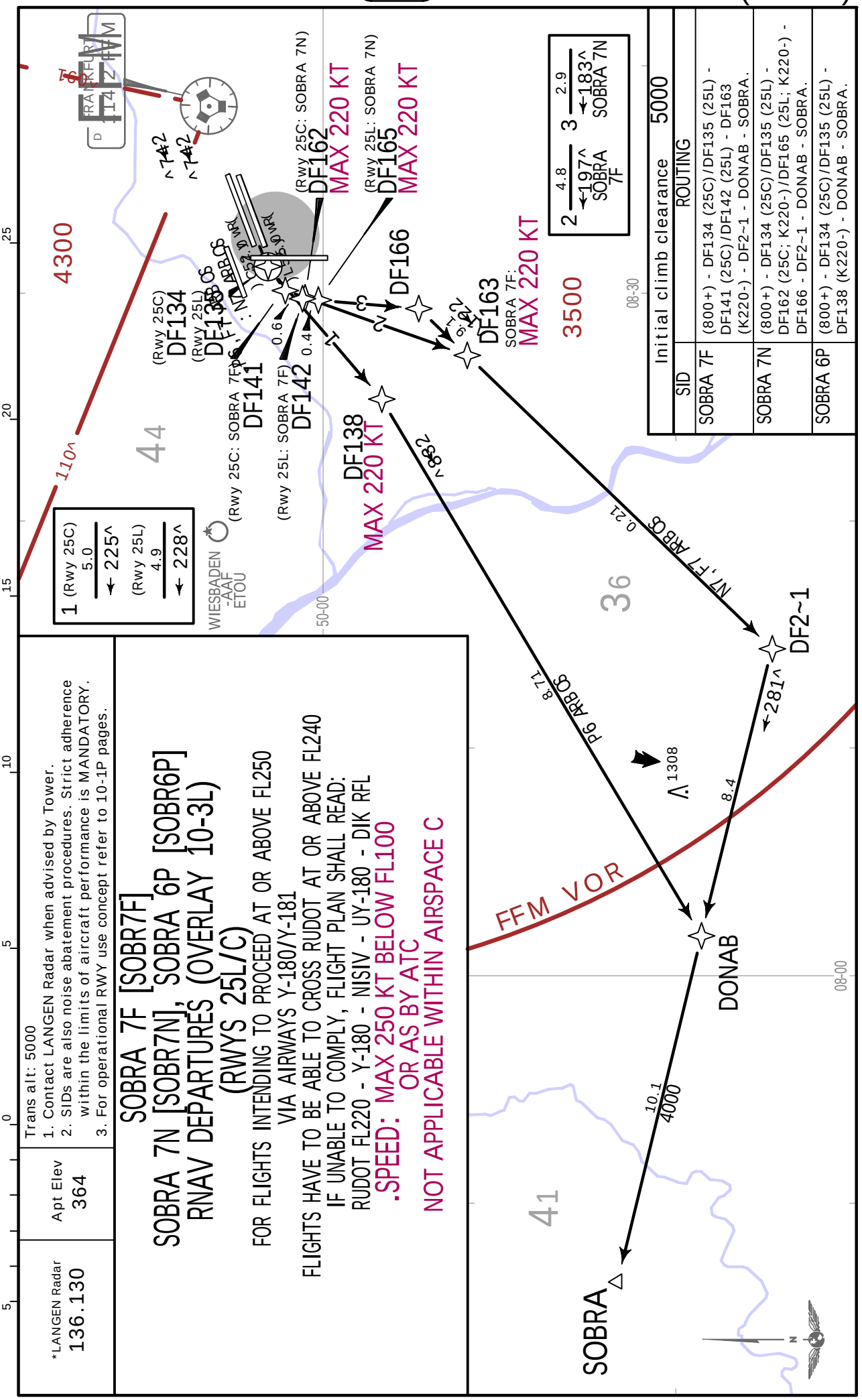
SOBRA 7F [SOBR7F]
SOBRA 7N [SOBR7N], SOBRA 6P [SOBR6P]
RNAV DEPARTURES (OVERLAY 10-3L)
(RWYS 25L/C)

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250
VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240
IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

*LANGEN Radar 136.130
Apt Elev 364

Initial climb clearance 5000	
SID	ROUTING
SOBRA 7F	(800+) - DF134 (25C)/DF135 (25L) - DF141 (25C)/DF142 (25L) - DF163 (K220-) - DF2~1 - DONAB - SOBRA.
SOBRA 7N	(800+) - DF134 (25C)/DF135 (25L) - DF162 (25C; K220-)/DF165 (25L; K220-) - DF166 - DF2~1 - DONAB - SOBRA.
SOBRA 6P	(800+) - DF134 (25C)/DF135 (25L) - DF138 (K220-) - DONAB - SOBRA.



SULUS 1D [SULU1D]
RWYS 07C/R RNAV DEPARTURE
(OVERLAY 10-3L1)

NOT FOR FLIGHTS DESTINATION EDDN

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

Apt Elev 364

*LANGEN Radar 136.130

Initial climb clearance 4000

ROUTING

(800+) - DF149 (K220-) - DF151 - DF169 - AGOLO - OKTUM - KOMIB - SULUS.

FFM VOR

DF149
MAX 220 KT

DF151

DF169

AGOLO

OKTUM

KOMIB

SULUS

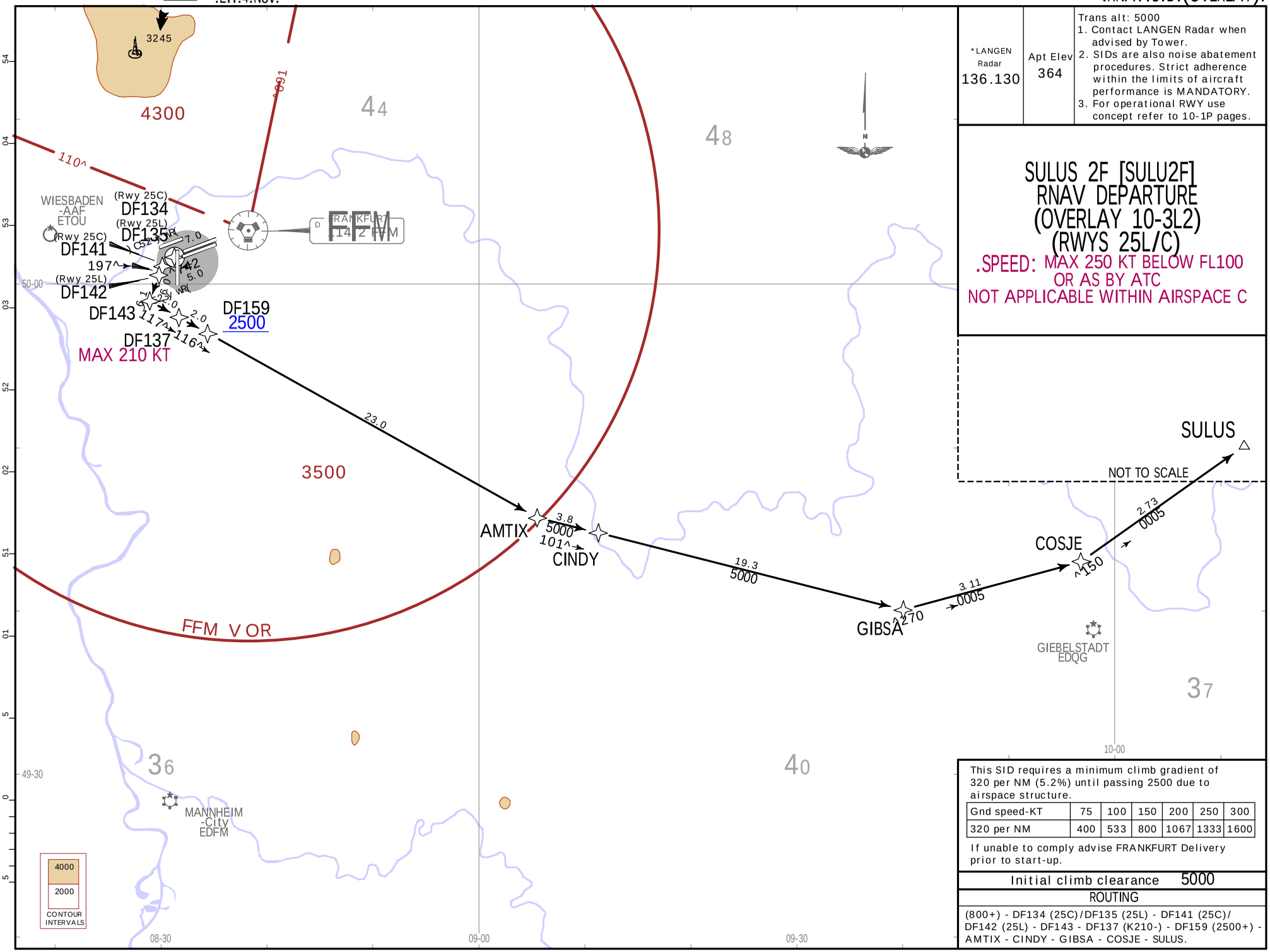
NOT TO SCALE

CONTOUR INTERVALS 4000 2000

4300

3500

FRANKFURT/MAIN, GERMANY
.RNAV.SID.(OVERLAY).



*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. For operational RWY use concept refer to 10-1P pages.

SULUS 2F [SULU2F]
RNAV DEPARTURE
(OVERLAY 10-3L2)
(RWYS 25L/C)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 320 per NM (5.2%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
320 per NM	400	533	800	1067	1333	1600

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 5000

ROUTING

(800+) - DF134 (25C)/DF135 (25L) - DF141 (25C)/ DF142 (25L) - DF143 - DF137 (K210-) - DF159 (2500+) - AMTIX - CINDY - GIBSA - COSJE - SULUS.

CHANGES: RNAV SID renumbered; track update.

FRANKFURT/MAIN, GERMANY
.RNAV.SID.(OVERLAY).

*LANGEN Radar	Apt Elev
136.130	364

Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower.
2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY.
3. WARNING: Close-in obstacles.
4. Wind shears and increased turbulences must be expected when winds strong.
5. For operational RWY use concept refer to 10-1P pages.
6. Do not turn before DER.

SULUS 1L [SULU1L], SULUS 3S [SULU3S] RNAV DEPARTURES (OVERLAY 10-3L3) (RWY 18)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

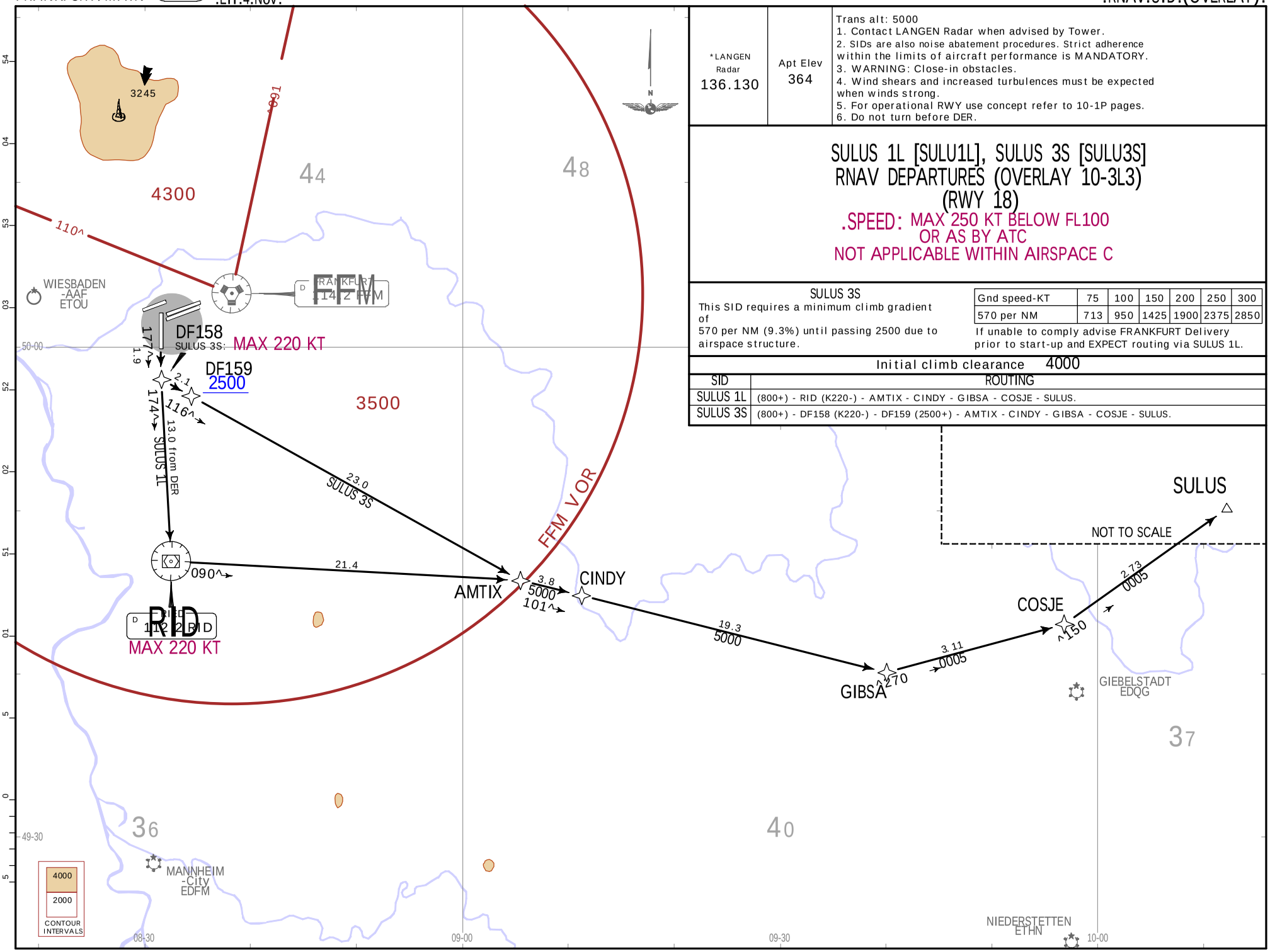
SULUS 3S
This SID requires a minimum climb gradient of 570 per NM (9.3%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
570 per NM	713	950	1425	1900	2375	2850

If unable to comply advise FRANKFURT Delivery prior to start-up and EXPECT routing via SULUS 1L.

Initial climb clearance 4000

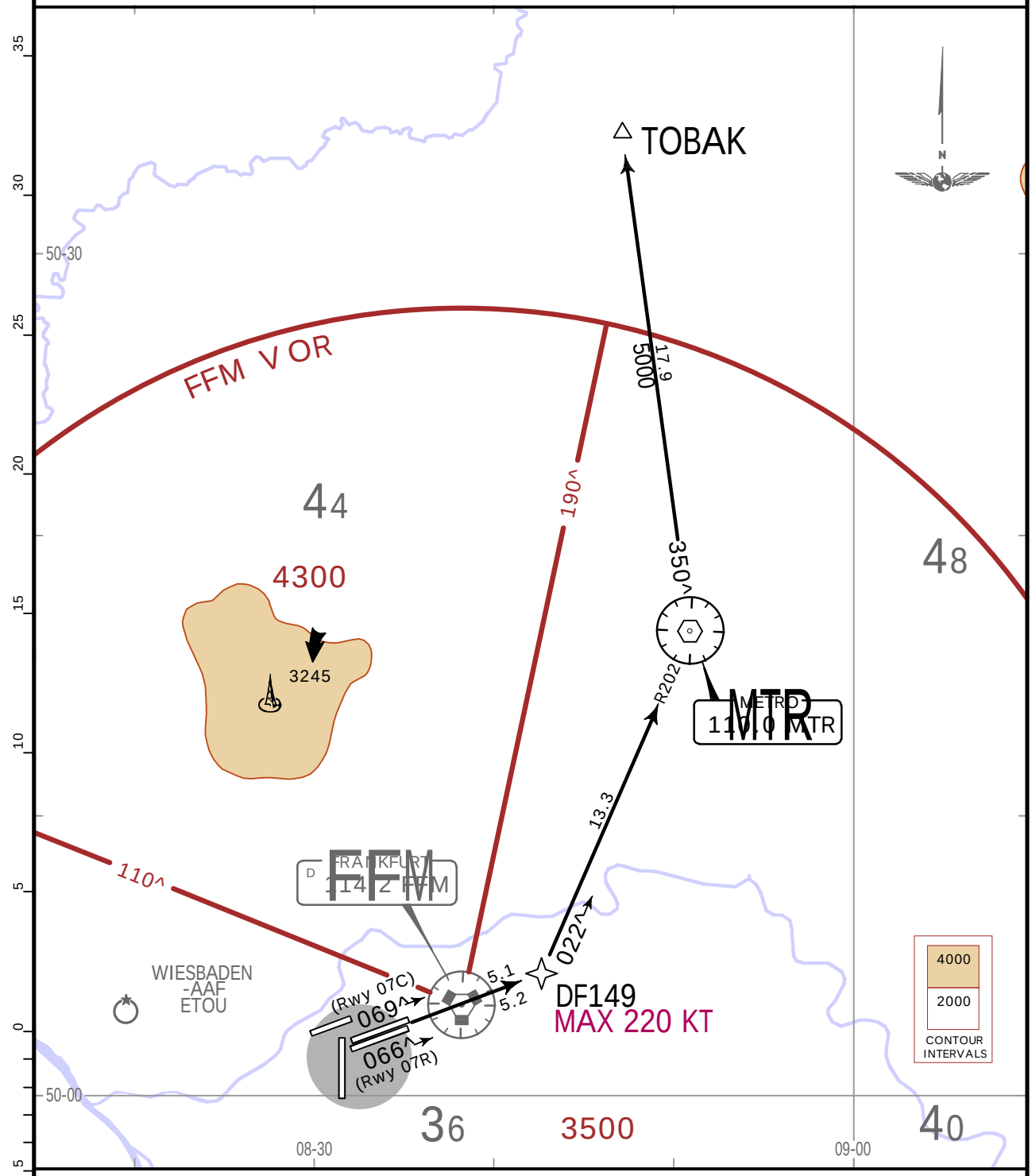
SID	ROUTING
SULUS 1L	(800+) - RID (K220-) - AMTIX - CINDY - GIBSA - COSJE - SULUS.
SULUS 3S	(800+) - DF158 (K220-) - DF159 (2500+) - AMTIX - CINDY - GIBSA - COSJE - SULUS.



*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 9D [TOBA9D]
RWYS 07C/R RNAV DEPARTURE (OVERLAY 10-3L5)
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance
5000

ROUTING

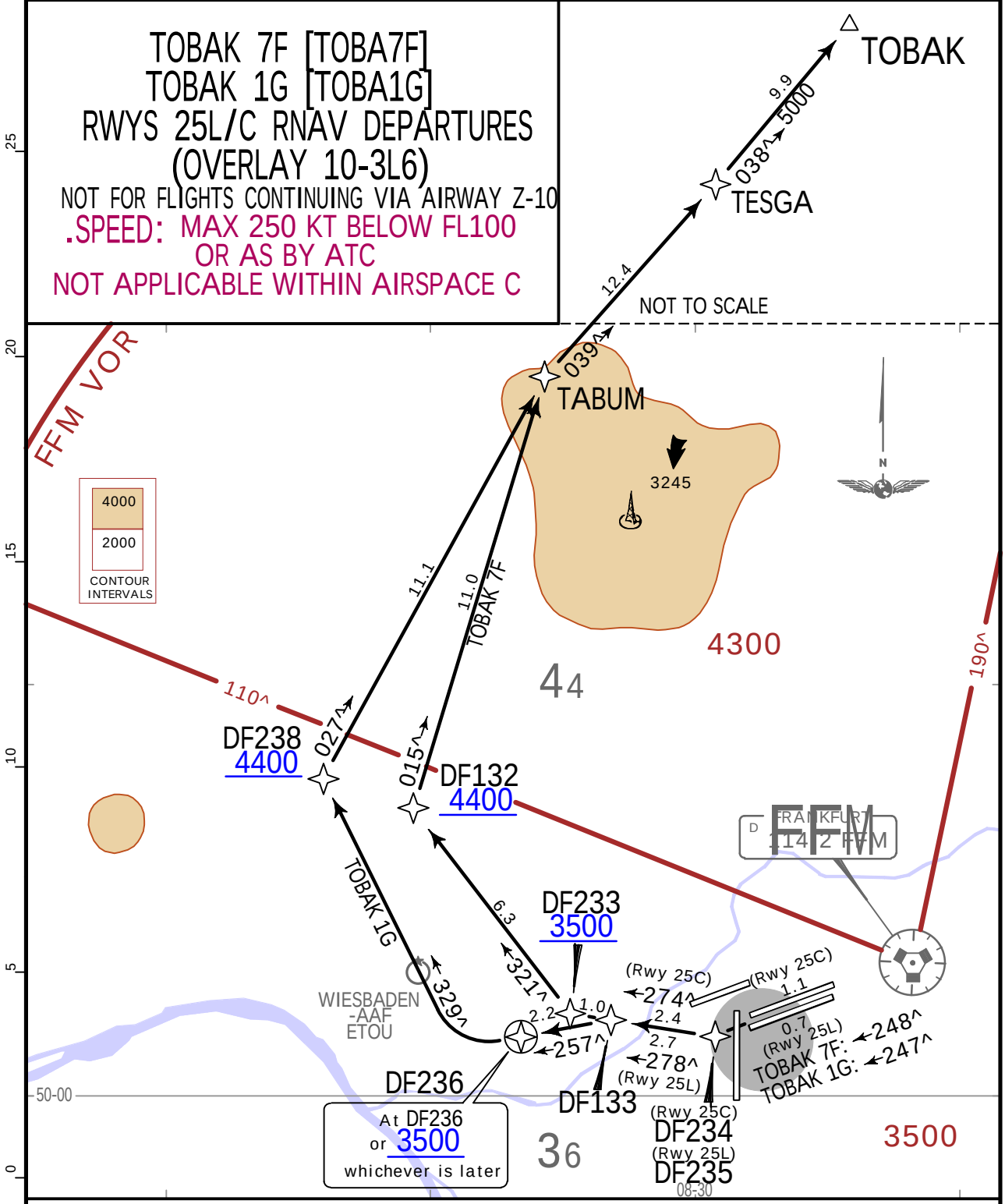
(800+) - DF149 (K220-) - MTR - TOBAK.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 7F [TOBA7F]
TOBAK 1G [TOBA1G]
RWYS 25L/C RNAV DEPARTURES
(OVERLAY 10-3L6)

NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



TOBAK 7F

This SID requires a minimum climb gradient of
729 per NM (12%) until DF233 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
729 per NM	911	1215	1823	2430	3038	3646

If unable to comply advise FRANKFURT Delivery prior to start-up

Initial climb clearance 5000

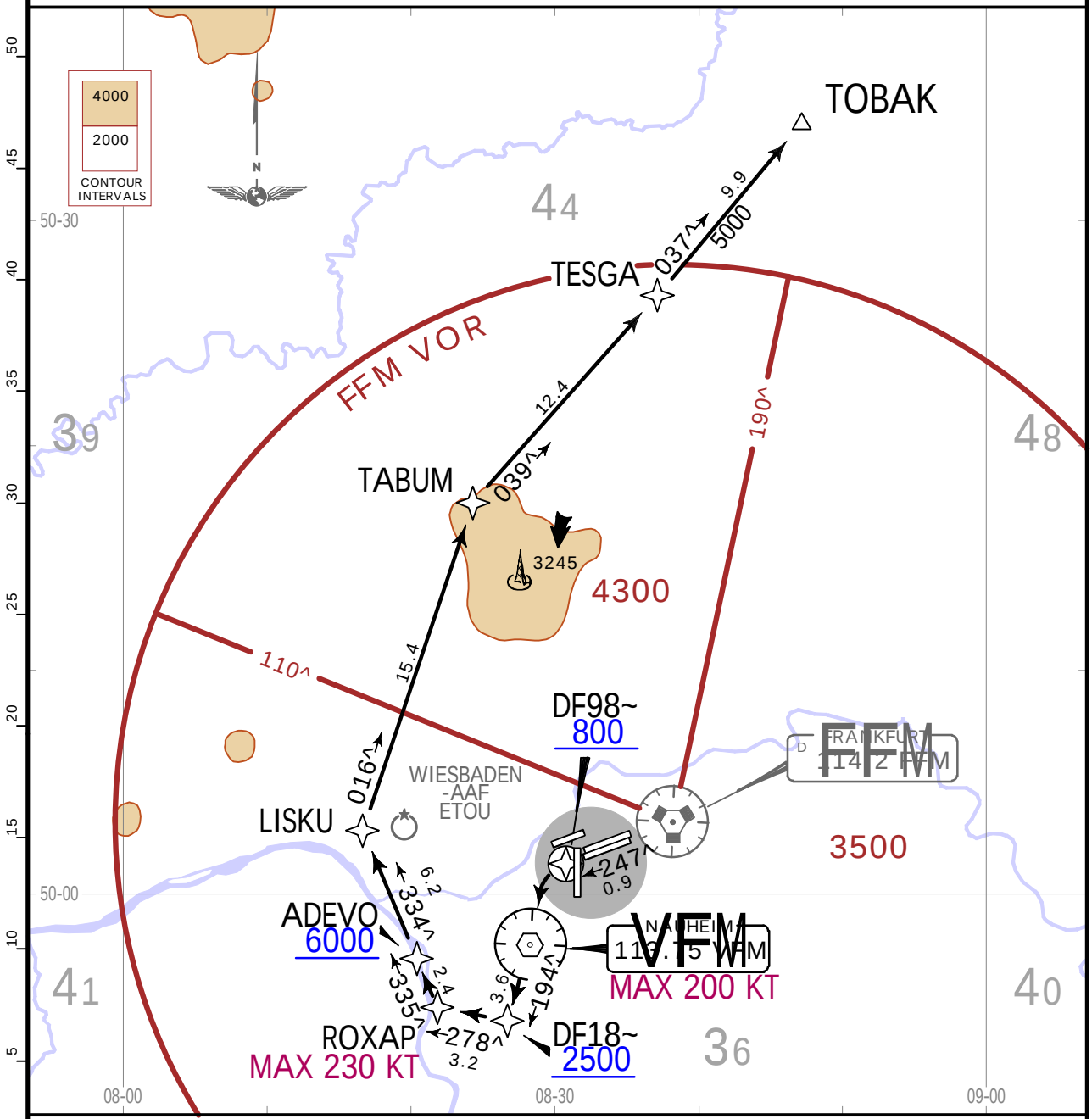
SID	ROUTING
TOBAK 7F	(800+) - DF234 (25C)/DF235 (25L) - DF233 (3500+) - DF132 (4400+) - TABUM - TESGA - TOBAK.
TOBAK 1G	(800+) - DF234 (25C)/DF235 (25L) - DF133 - DF236 - (3500+) - DF238 (4400+) - TABUM - TESGA - TOBAK.

CHANGES: RNAV SID TOBAK 9G renumbered 1G & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 5H [TOBA5H]
RWY 25L RNAV DEPARTURE
(OVERLAY 10-3L7)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
415 per NM (6.8%) until passing 6000 due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
520 per NM	650	867	1300	1733	2167	2600

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL70

ROUTING

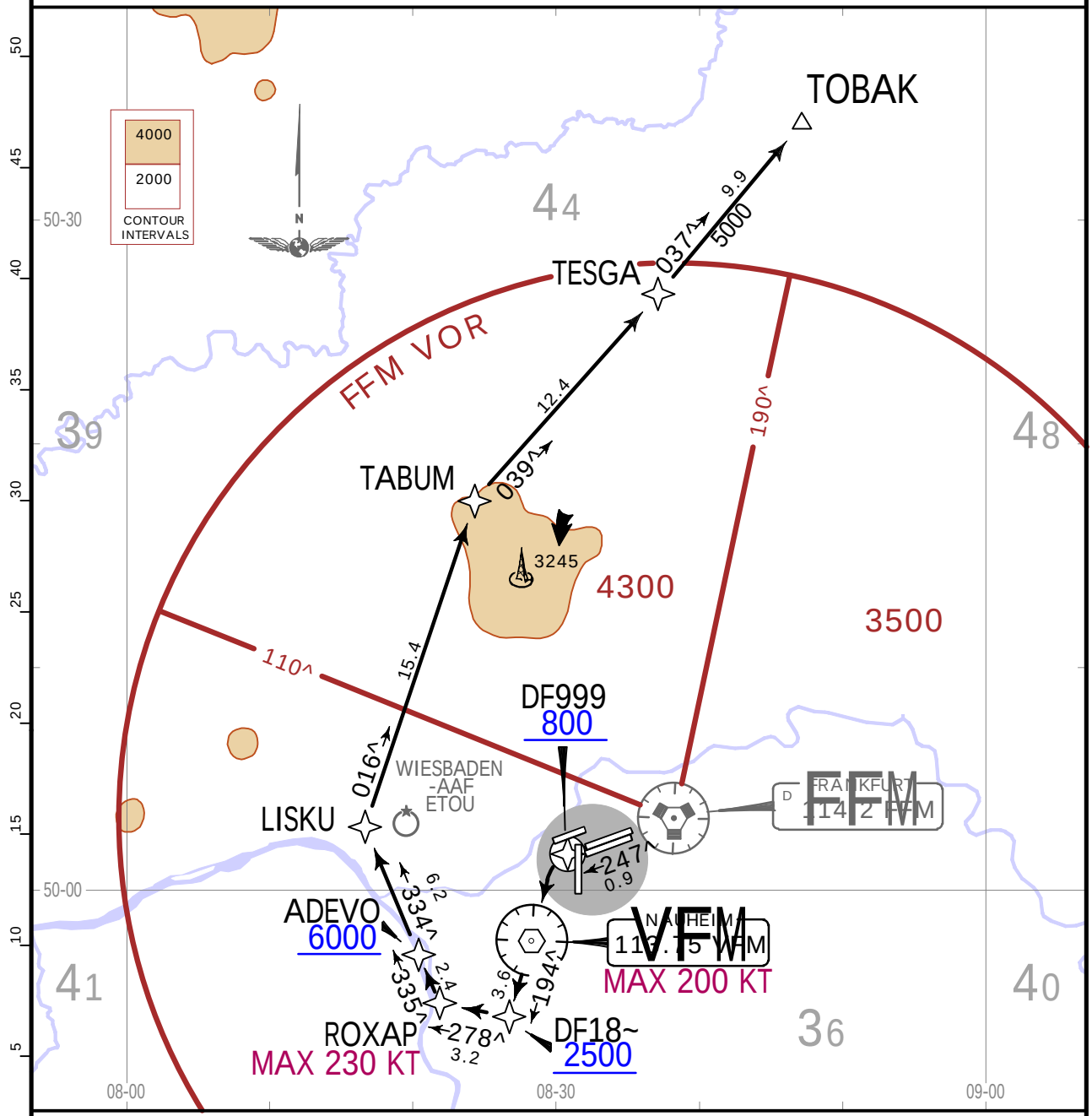
DF980 (800+) - VFM (K200-) - DF180 (2500+) - ROXAP (K230-) - ADEVO (6000+) - LISKU - TABUM - TESGA - TOBAK.

CHANGES: Initial climb out revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 7M [TOBA7M]
RWY 25C RNAV DEPARTURE
(OVERLAY 10-3L8)

.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires minimum climb gradients of
520 per NM (8.5%) until passing 800, then
415 per NM (6.8%) until passing 6000 due to operational requirements.

Gnd speed-KT	75	100	150	200	250	300
415 per NM	519	692	1038	1383	1729	2075
520 per NM	650	867	1300	1733	2167	2600

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance FL70

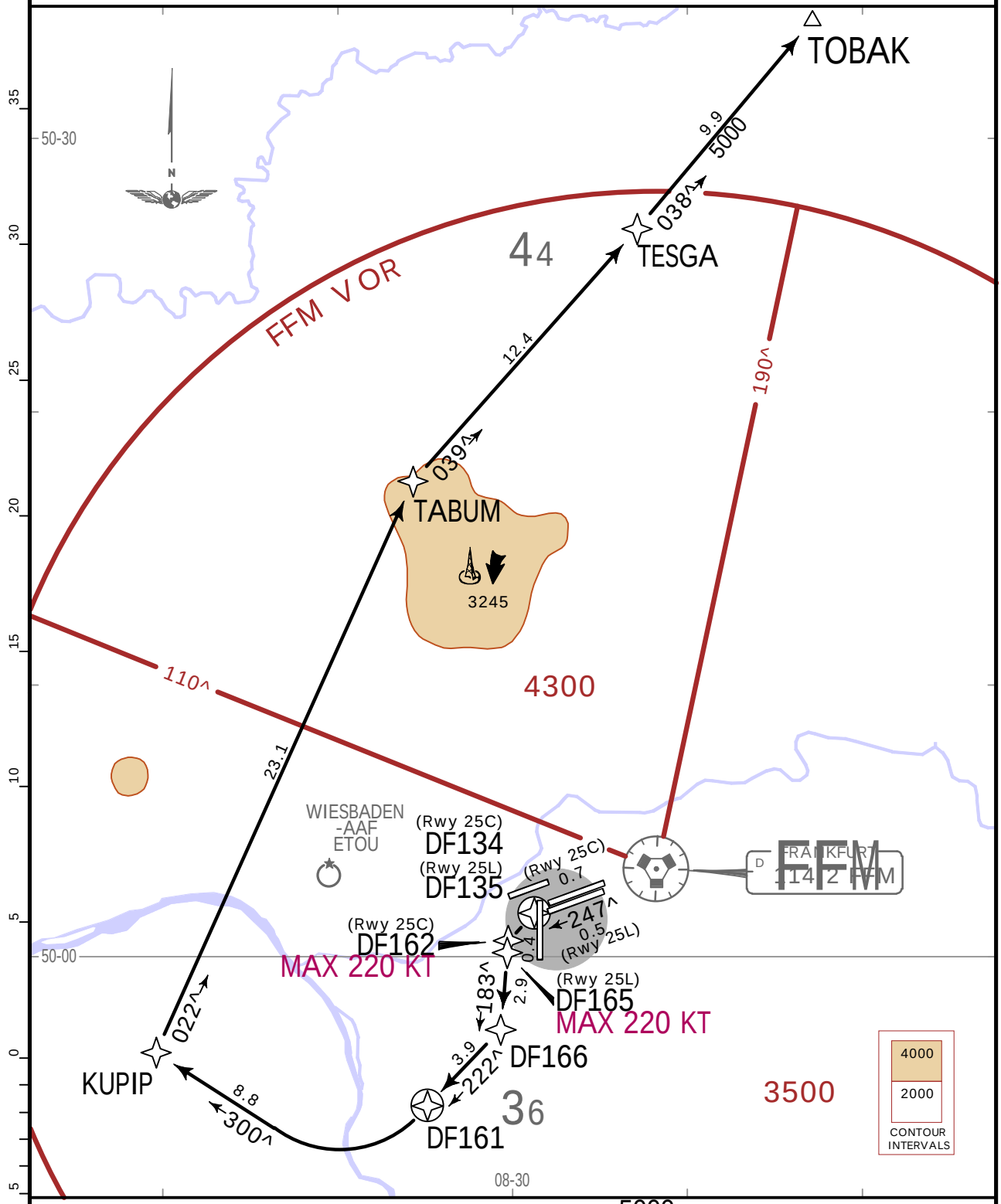
ROUTING

DF999 (800+) - VFM (K200-) - DF180 (2500+) - ROXAP (K230-) - ADEVO (6000+) - LISKU - TABUM - TESGA - TOBAK.

CHANGES: Initial climb out revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. For operational RWY use concept refer to 10-1P pages.

TOBAK 2N [TOBA2N]
RWYS 25L/C RNAV DEPARTURE (OVERLAY 10-3M)
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
.SPEED: MAX 250 KT BELOW FL100
OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 5000

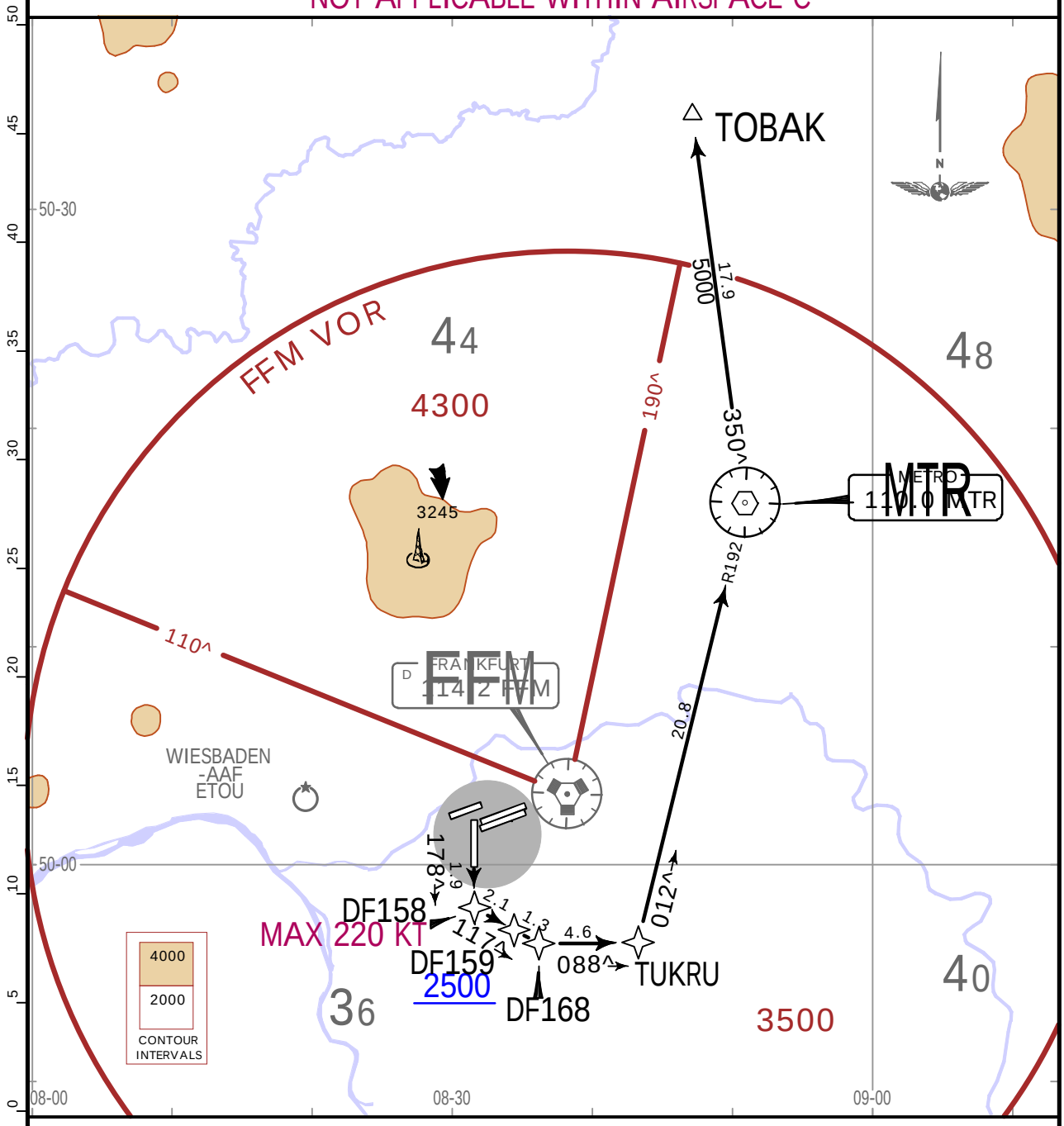
ROUTING

(800+) - DF134 (25C)/DF135 (25L) - DF162 (25C; K220-)/DF165 (25L; K220-) - DF166 - DF161 - KUPIP - TABUM - TESGA - TOBAK.

CHANGES: RNAV SID renumbered & revised.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING:Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

TOBAK 3R [TOBA3R]
RWY 18 RNAV DEPARTURE (OVERLAY 10-3N)
BY ATC
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



This SID requires a minimum climb gradient of 565 per NM (9.3%) until passing 2500 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
565 per NM	706	942	1413	1884	2355	2825

If unable to comply advise FRANKFURT Delivery prior to start-up.

Initial climb clearance 4000

ROUTING

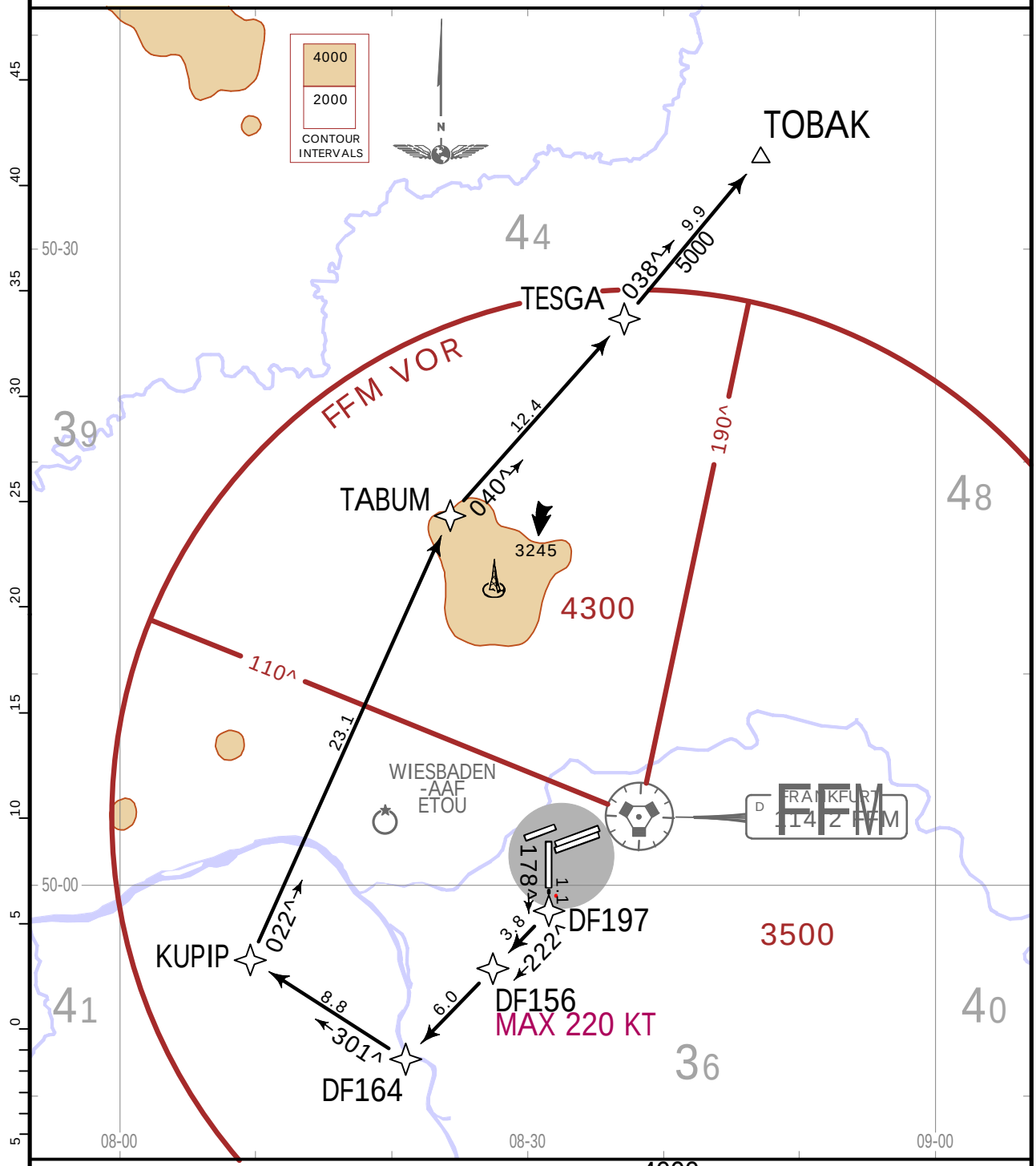
(800+) - DF158 (K220-) - DF159 (2500+) - DF168 - TUKRU - MTR - TOBAK.

CHANGES: None.

*LANGEN Radar 120.155	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

TOBAK 9S [TOBA9S]
RNAV DEPARTURE (OVERLAY 10-3N1)
(RWY 18)

WILL ONLY BE ASSIGNED WHEN LANDING DIRECTION IS RWY 25
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10
.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C



Initial climb clearance 4000

ROUTING

(800+) - DF197 - DF156 (K220-) - DF164 - KUPIP - TABUM - TESGA - TOBAK.

CHANGES: None.

*LANGEN Radar 136.130	Apt Elev 364	Trans alt: 5000 1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

TOBAK 7T [TOBA7T]
RNAV DEPARTURE (OVERLAY 10-3N2)
(RWY 18)

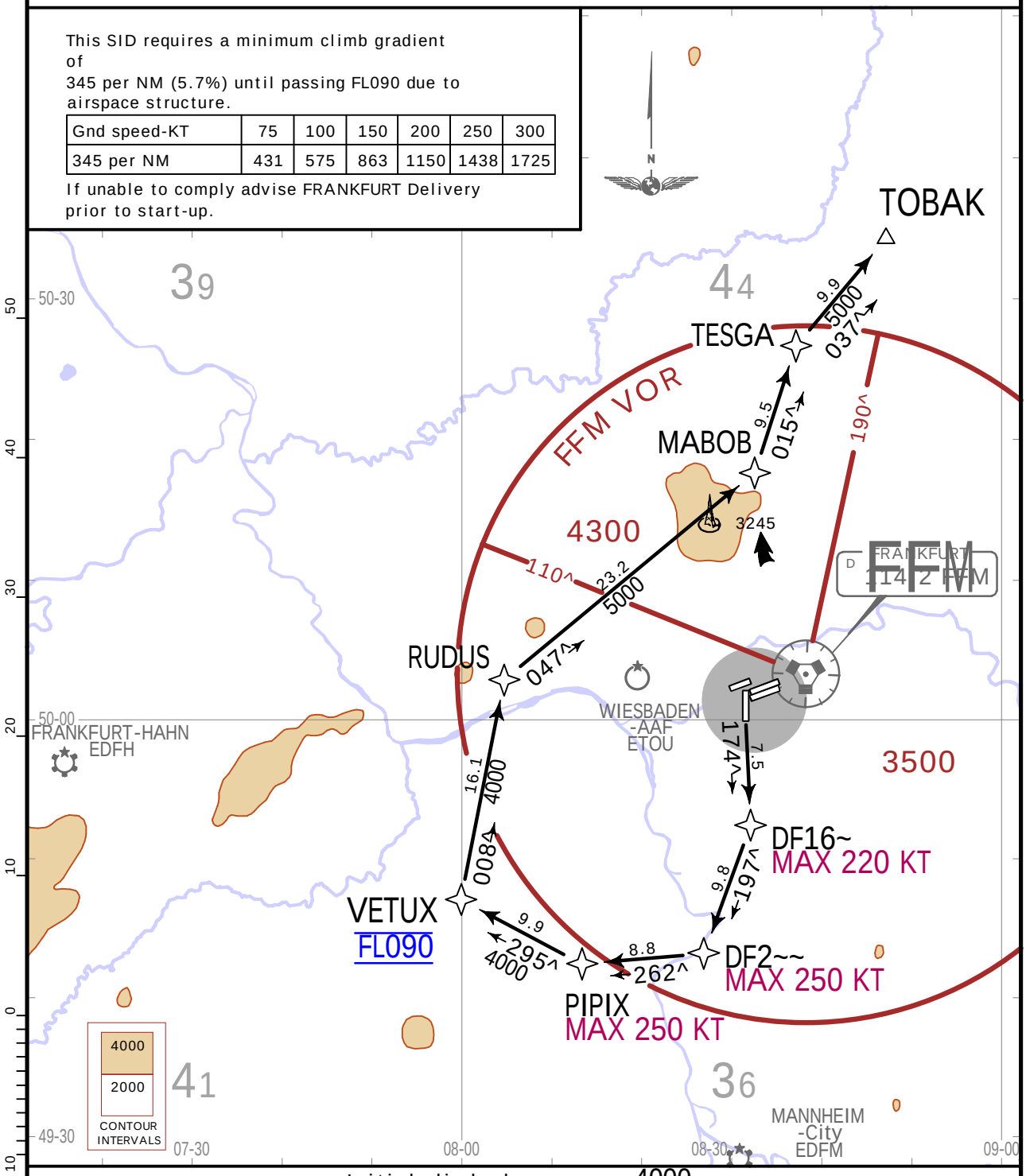
NOT FOR FLIGHTS CONTINUING VIA AIRWAY Z-10

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC
NOT APPLICABLE WITHIN AIRSPACE C

This SID requires a minimum climb gradient of 345 per NM (5.7%) until passing FL090 due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
345 per NM	431	575	863	1150	1438	1725

If unable to comply advise FRANKFURT Delivery prior to start-up.

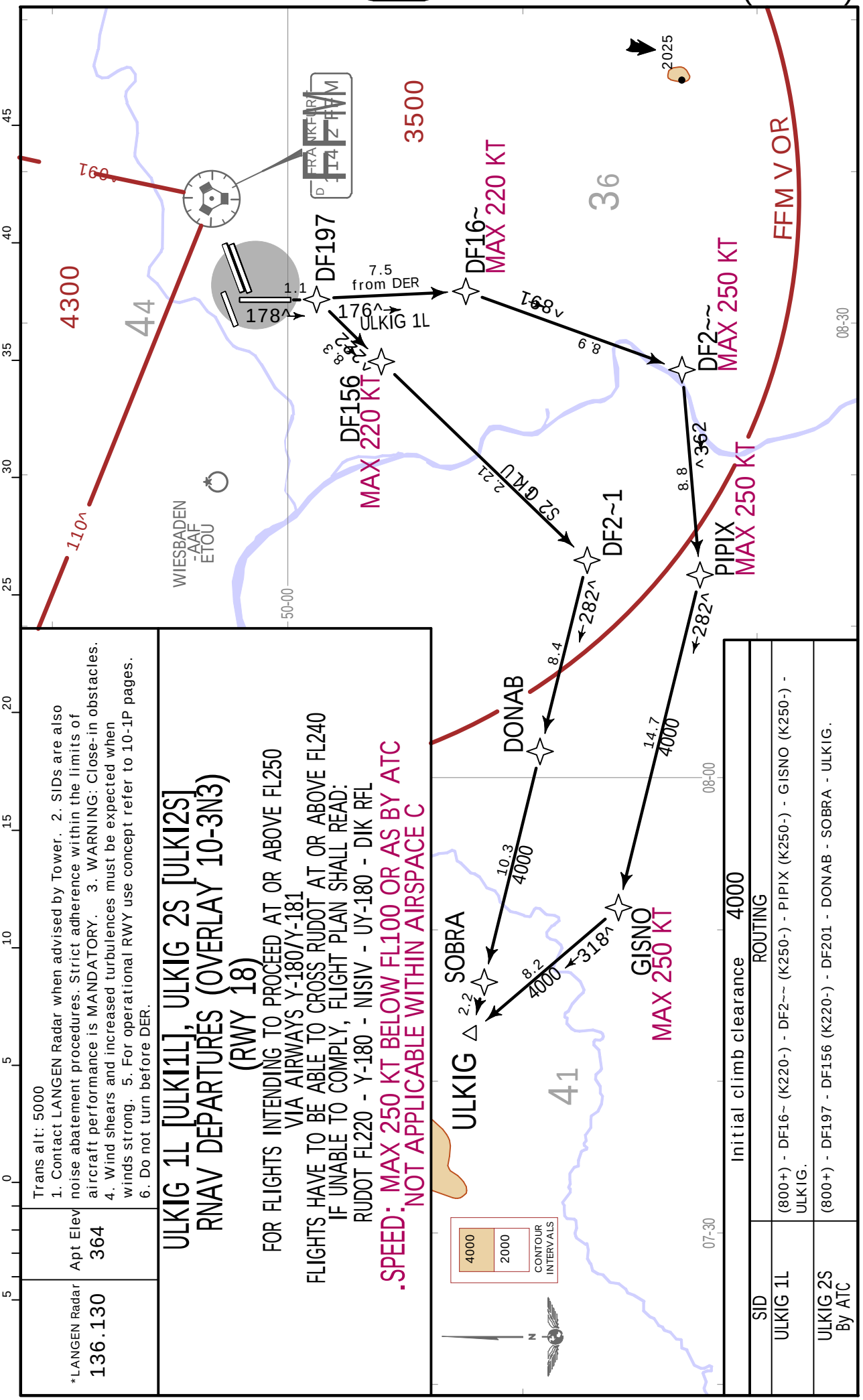


Initial climb clearance 4000

ROUTING

(800+) - DF16~ (K220-) - DF2~~ (K250-) - PIPIX (K250-) - VETUX (FL090) - RUDUS - MABOB - TESGA - TOBAK.

CHANGES: RNAV SID renumbered & revised.



Trans alt: 5000
1. Contact LANGEN Radar when advised by Tower. 2. SIDs are also noise abatement procedures. Strict adherence within the limits of aircraft performance is MANDATORY. 3. WARNING: Close-in obstacles. 4. Wind shears and increased turbulences must be expected when winds strong. 5. For operational RWY use concept refer to 10-1P pages. 6. Do not turn before DER.

*LANGEN Radar	Apt Elev
136.130	364

ULKIG 1L [ULKI1L], ULKIG 2S [ULKI2S] RNAV DEPARTURES (OVERLAY 10-3N3) (RWY 18)

FOR FLIGHTS INTENDING TO PROCEED AT OR ABOVE FL250 VIA AIRWAYS Y-180/Y-181
FLIGHTS HAVE TO BE ABLE TO CROSS RUDOT AT OR ABOVE FL240 IF UNABLE TO COMPLY, FLIGHT PLAN SHALL READ:
RUDOT FL220 - Y-180 - NISIV - UY-180 - DIK RFL

.SPEED: MAX 250 KT BELOW FL100 OR AS BY ATC NOT APPLICABLE WITHIN AIRSPACE C

SID	ROUTING
ULKIG 1L	(800+) - DF16~ (K220-) - DF2~~ (K250-) - PIPIX (K250-) - GISNO (K250-) - ULKIG.
ULKIG 2S By ATC	(800+) - DF197 - DF156 (K220-) - DF201 - DONAB - SOBRA - ULKIG.

Initial climb clearance 4000

FRANKFURT/MAIN, GERMANY

FRANKFURT/MAIN

*D-ATIS Departure	Data Comm ACARS: DCL	FRANKFURT Delivery (Initial call and Start-up clearance)	*Ground	Apron			*Tower RWY 07L/25R	Tower RWY 07C/25C		RWY 07R/25L	*Tower DEP via RWY 18	*LANGEN Radar	
118.730		121.905	121.805	121.655	121.755	121.955	136.5	118.780	119.905	119.905	124.855	120.155	136.130
				121.705	121.855	121.965							

For taxiway designations and stopbars refer to TAXI CHART OVERVIEW.

DO NOT TAXI BEYOND AREA OF APRON CONTROL(▪▪▪▪▪▪▪▪▪) W/o CLEARANCE FROM APRON.

FOR DETAILS SEE PARKING STANDS (EAST)

FOR DETAILS SEE PARKING STANDS (SOUTH)

FOR DETAILS SEE INS COORDS CONTD GA PARKING STANDS

FOR DETAILS SEE PARKING STANDS (WEST)

FOR DETAILS SEE PARKING STANDS (SOUTH)

HOT SPOT

(For information only, not to be construed as ATC instructions.)

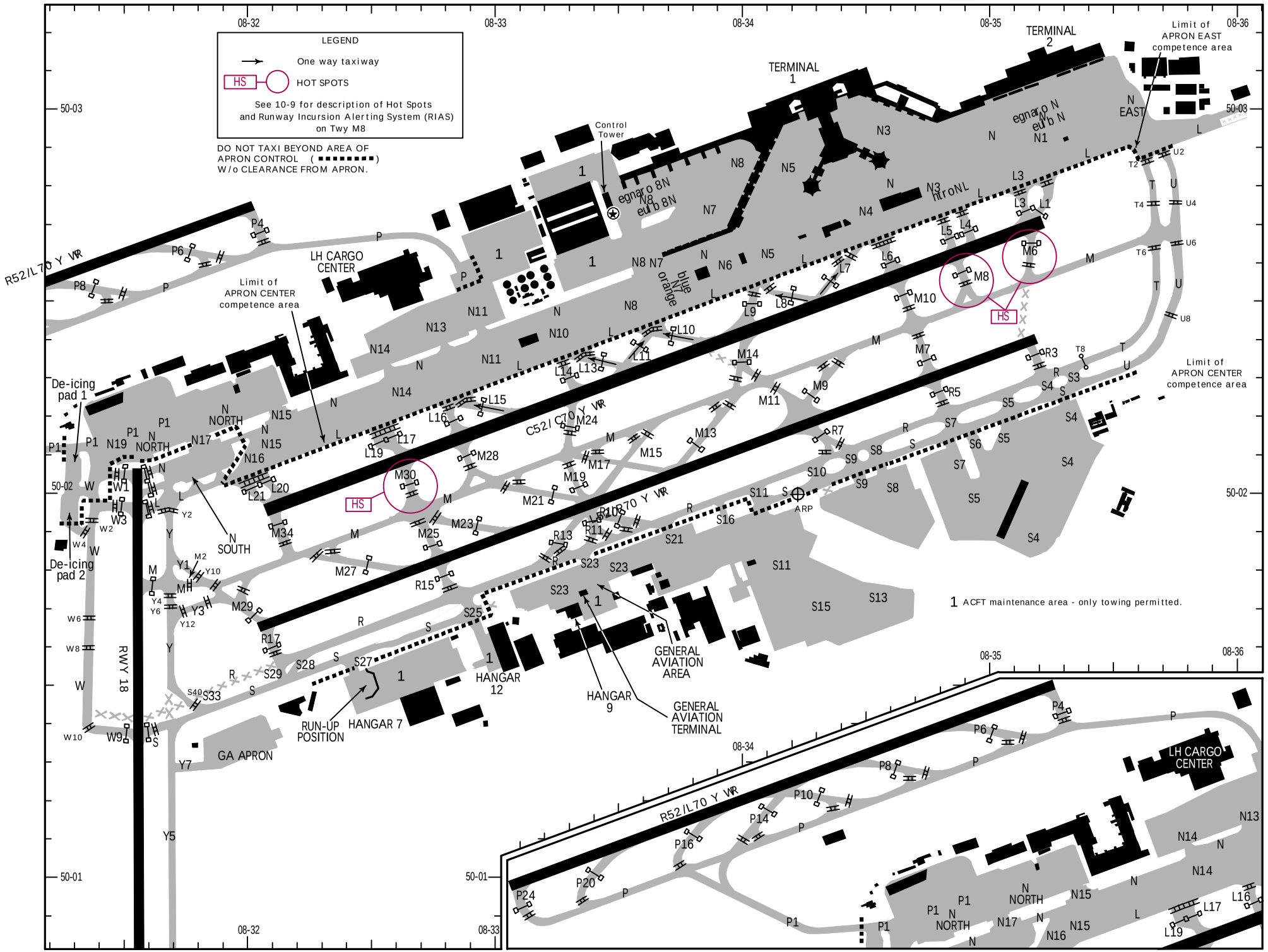
HS Explicit clearance required for crossing Rwy 07C/25C. Stop at CAT II/III holding point, STB is illuminated under all weather conditions.

1 On Twy M8 a Runway Incursion Alerting System (RIAS) is established to support the existing CAT II/III holding position. The alerting system is activated when an acft even slightly crosses the active stop bar. This sends an alert to the pilot. In case of an unauthorized crossing of the active stop bar, radio contact must immediately be established between the pilot and the ATC controller. Before continuing to taxi, the pilot shall wait for instructions of the tower controller.

LEGEND
- Ⓡ Take-off position
- ▪▪▪▪▪ Limit of Apron competence area
- HS HOT SPOT

Feet 0 1000 2000 3000 4000 5000
Meters 0 500 1000 1500

CHANGES: Apron.



CHANGES: Apron, twy S4.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
07L	HIRL 1 CL 2 ALSF-II TDZ REIL PAPI-L 3 4 RVR		8215' 2504m	NA	148' 45m
25R	HIRL 1 CL 2 ALSF-II TDZ REIL PAPI-R 3 5 RVR		7972' 2430m		

PAPI systems: For all acft on ILS CAT I approaches PAPI is only usable up to a height of 200' referring to the respective threshold.

1 spacing 60m. 2 spacing 15m.
3 (angle 3.0^/3.2^)
4 HST-P8 & P10 5 HST-P16 & P20

07C	HIRL 6 CL 7 ALSF-II TDZ REIL PAPI-L (3.0^) 8 RVR		11,968' 3648m	0	197' 60m
25C	HIRL 6 CL 7 ALSF-II TDZ REIL PAPI-L (3.0^) 9 RVR				

PAPI systems: For all acft on ILS CAT I approaches PAPI is only usable up to a height of 200' referring to the respective threshold.

6 spacing 60m. 7 spacing 15m.
8 HST-L11 & L7 9 HST-L8, L10, L13 & L15
0 TAKE-OFF RUN AVAILABLE

RWY 07C:

From rwy head	13,123'(4000m)
position L20	12,927'(3940m)
position L17/L19/M30	10,866'(3312m)
position L16/M28	9882'(3012m)
position M24	8018'(2444m)
position L14	7913'(2412m)

RWY 25C:

From rwy head	13,123'(4000m)
position L3	13,031'(3972m)
position L4	12,139'(3700m)
position L5/M8	11,795'(3595m)
position L6/M10	10,715'(3266m)

07R	HIRL ! CL " ALSF-II TDZ REIL PAPI-L (3.0^) # RVR		12,090' 3685m	%	148' 45m
25L	HIRL ! CL " ALSF-II TDZ REIL PAPI-L (3.0^) $ RVR		11,909' 3630m		

PAPI systems: For all acft on ILS CAT I approaches PAPI is only usable up to a height of 200' referring to the respective threshold.

! spacing 60m. " spacing 15m.
HST-M15, M13, M9 & R10
$ HST-M17, M21, M23, M27 & R13
% TAKE-OFF RUN AVAILABLE

RWY 07R:

From rwy head	13,123'(4000m)
position M25/R15	10,121'(3085m)
position M19/R11	7644'(2330m)

RWY 25L:

From rwy head	13,123'(4000m)
position M7/R5	11,463'(3494m)
position R7	9423'(2872m)
position M19	5577'(1700m)

18	HIRL (60m) CL (15m) RVR	NA		&	148' 45m

& TAKE-OFF RUN AVAILABLE

RWY 18:

From rwy head	13,025'(3970m)
position N-SOUTH	12,776'(3894m)
position L	12,543'(3823m)
position W3	12,523'(3817m)
position M	11,332'(3454m)
position R	9324'(2842m)
position W7	9262'(2823m)
position S	9039'(2755m)
position W9	8944'(2726m)

.Standard. TAKE-OFF

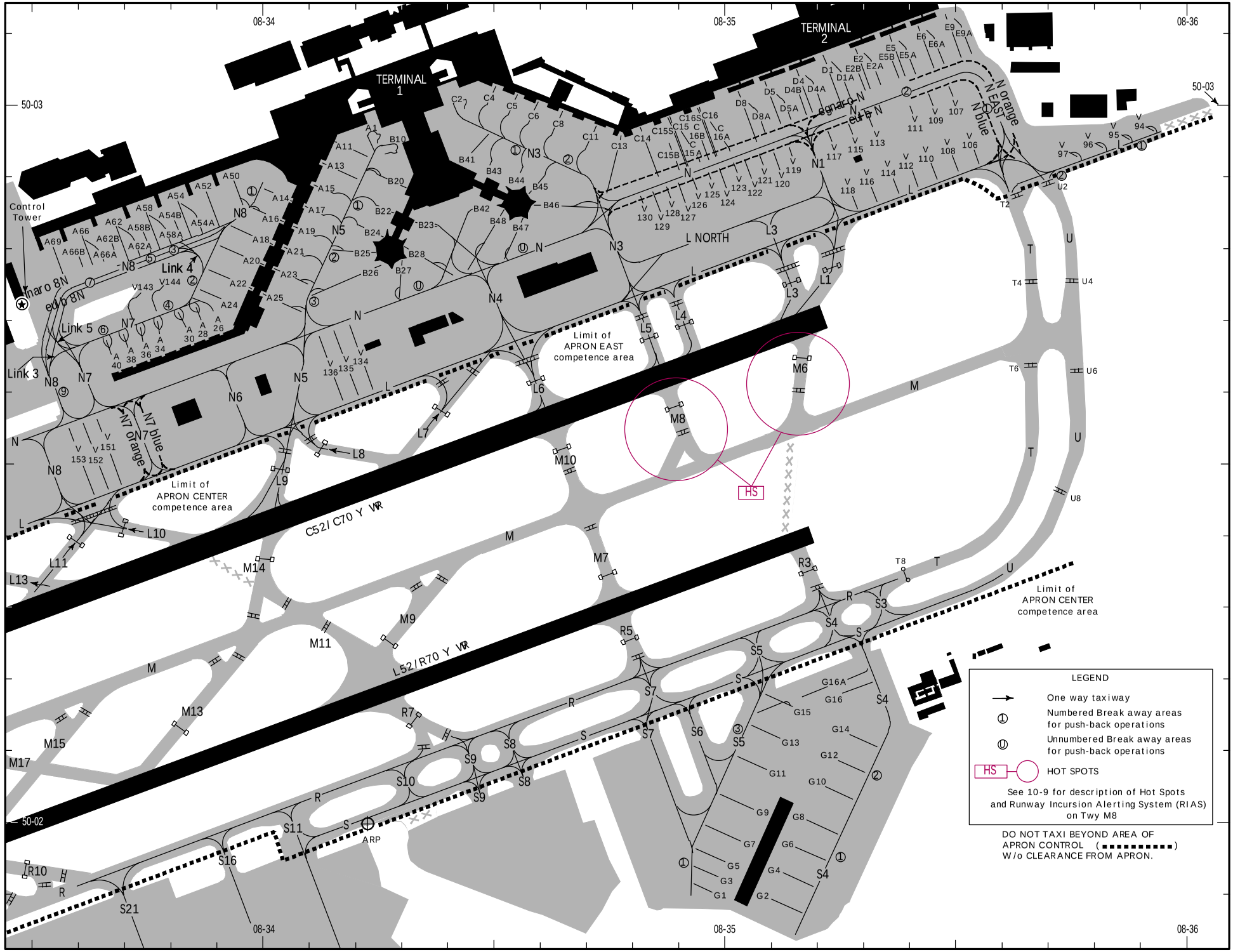
	Rwys 07C/R, 18, 25L/C Low Visibility Take-off				Rwys 07C/R, 18, 25L/C	
	1 HIRL, CL & relevant RVR	RL, CL & relevant RVR	RL & CL	Day: RL & RCLM Night: RL or CL	Day: RL or RCLM Night: RL or CL	Adequate vis ref (Day only)
A						
B	TDZ, MID, RO RVR 125m	TDZ, MID, RO RVR 150m	RVR 200m	RVR 300m	400m	500m
C						
D						

1 RWY 07C/R, 25L/C :RVR 75m with approved guidance system or HUD/HUDLS.

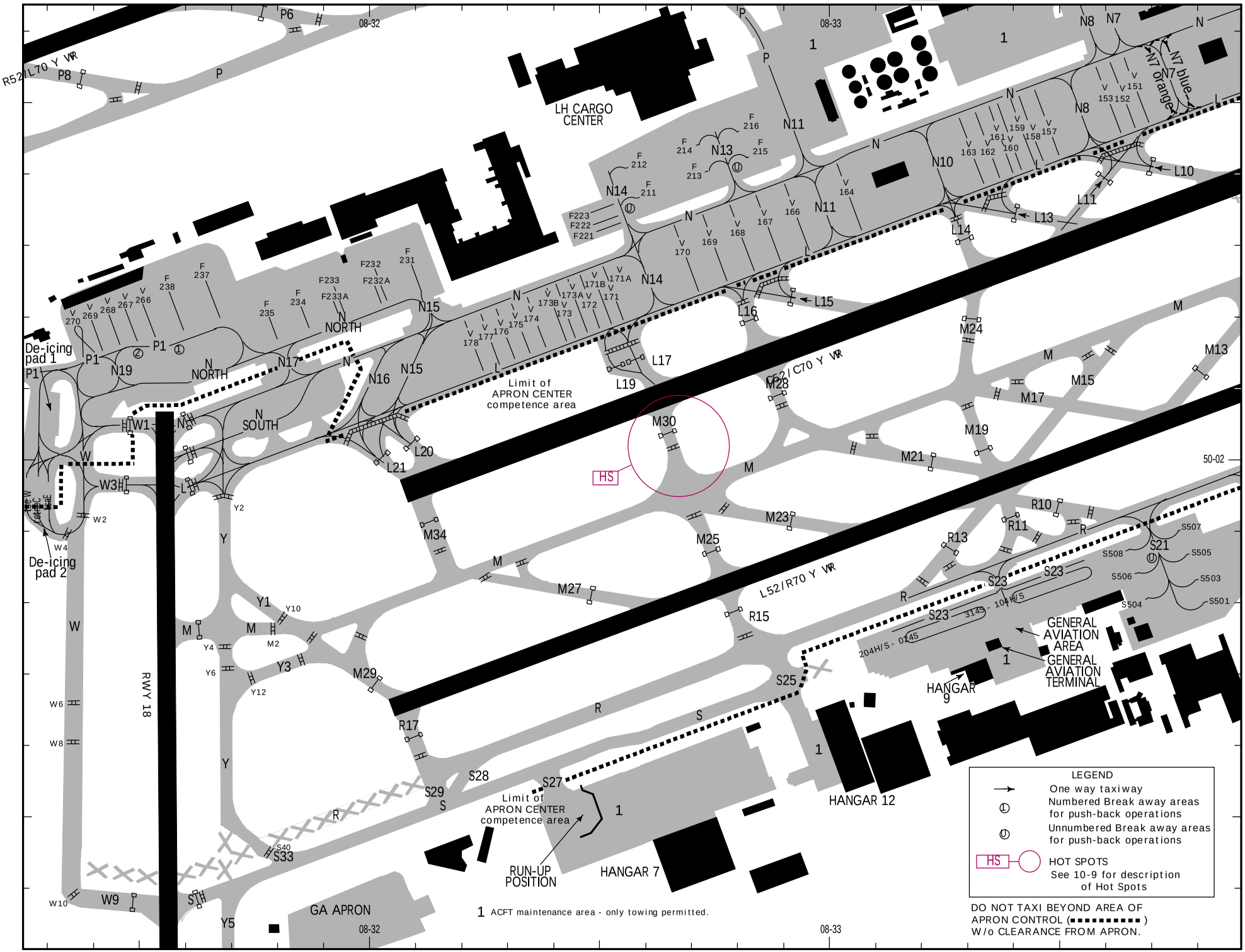
CHANGES: Intersection take-off.

FRANKFURT/MAIN, GERMANY

FRANKFURT/MAIN



CHANGES: Apron, twy S4, parking stands G2, G4, G6 and G8 established.



CHANGES: None.

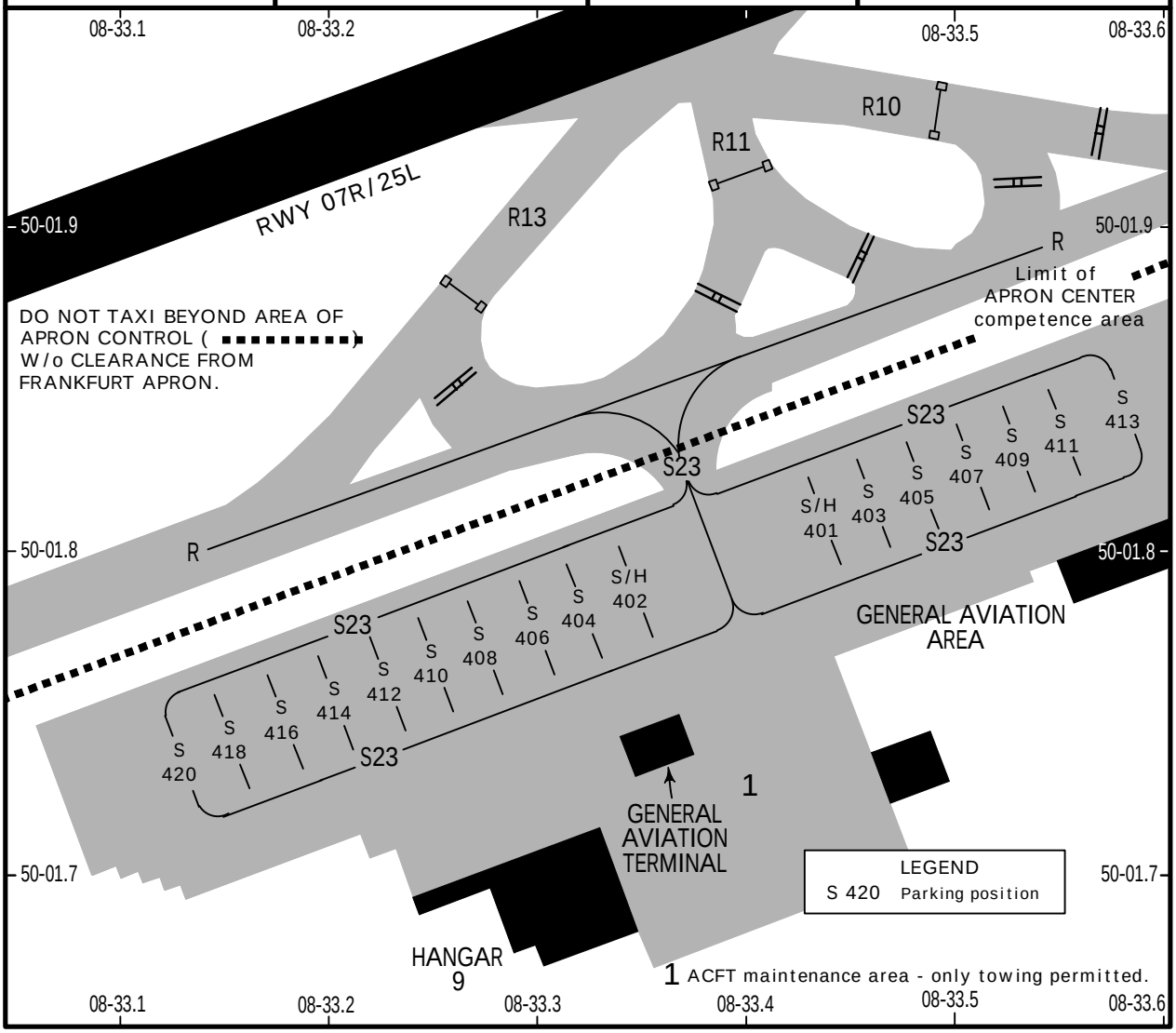
INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
A1	N50 02.9 E008 34.3	F238	N50 02.2 E008 31.6
A11	N50 02.9 E008 34.2	G1	N50 01.9 E008 35.0
A13 thru A15	N50 02.9 E008 34.1	G2	N50 01.9 E008 35.1
A16	N50 02.8 E008 34.1	G3	N50 01.9 E008 35.0
A17	N50 02.9 E008 34.1	G4	N50 01.9 E008 35.1
A18	N50 02.8 E008 34.0	G5	N50 01.9 E008 35.0
A19	N50 02.8 E008 34.1	G6, G7	N50 02.0 E008 35.1
A20	N50 02.8 E008 34.0	G8	N50 02.0 E008 35.2
A21	N50 02.8 E008 34.1	G9	N50 02.0 E008 35.1
A22	N50 02.7 E008 34.0	G10	N50 02.1 E008 35.2
A23	N50 02.8 E008 34.0	G11	N50 02.1 E008 35.1
A24, A25	N50 02.7 E008 34.0	G12, G13	N50 02.1 E008 35.2
A26 thru A30	N50 02.7 E008 33.9	G14	N50 02.1 E008 35.3
A34, A36	N50 02.6 E008 33.8	G15	N50 02.1 E008 35.2
A38, A40	N50 02.6 E008 33.7	G16	N50 02.2 E008 35.2
A50, A52	N50 02.9 E008 33.9	G16A	N50 02.2 E008 35.3
A54 thru A58	N50 02.9 E008 33.8	H2	N50 01.9 E008 34.9
A58A	N50 02.8 E008 33.8	H4	N50 01.9 E008 34.8
A58B thru A62B	N50 02.8 E008 33.7	H6	N50 02.0 E008 34.8
A66 thru A69	N50 02.8 E008 33.6	H14	N50 02.1 E008 34.8
B10, B20	N50 02.9 E008 34.3	J2A thru J2B	N50 01.9 E008 34.6
B22 thru B28	N50 02.8 E008 34.3	J4 thru J6B	N50 01.9 E008 34.5
B41 thru B43	N50 02.9 E008 34.5	J8	N50 02.0 E008 34.4
B44 thru B46	N50 02.9 E008 34.6	K2	N50 01.7 E008 34.7
B47	N50 02.8 E008 34.6	K4	N50 01.7 E008 34.6
B48	N50 02.9 E008 34.5	K6, K8	N50 01.6 E008 34.5
C2, C4	N50 03.0 E008 34.5	K10	N50 01.6 E008 34.4
C5, C6	N50 03.0 E008 34.6	S401, S402	N50 01.8 E008 33.4
C8, C11	N50 03.0 E008 34.7	S403	N50 01.8 E008 33.5
C13, C14	N50 03.0 E008 34.8	S404	N50 01.8 E008 33.3
C15 thru C15S	N50 03.0 E008 34.9	S405	N50 01.8 E008 33.5
C16 thru C16S	N50 03.0 E008 35.0	S406	N50 01.8 E008 33.3
D1	N50 03.1 E008 35.2	S407	N50 01.8 E008 33.5
D1A thru D4B	N50 03.0 E008 35.2	S408	N50 01.8 E008 33.3
D5, D5A	N50 03.0 E008 35.1	S409	N50 01.8 E008 33.6
D8	N50 03.0 E008 35.0	S410	N50 01.8 E008 33.3
D8A	N50 03.0 E008 35.1	S411	N50 01.8 E008 33.6
E2 thru E2B	N50 03.1 E008 35.3	S412	N50 01.7 E008 33.2
E5 thru E6A	N50 03.1 E008 35.4	S413	N50 01.8 E008 33.6
E9, E9A	N50 03.1 E008 35.5	S414 thru S418	N50 01.7 E008 33.2
F211	N50 02.4 E008 32.7	S420	N50 01.7 E008 33.1
F212	N50 02.4 E008 32.6	S501, S503	N50 01.8 E008 33.9
F213, F214	N50 02.4 E008 32.7	S504	N50 01.8 E008 33.7
F215	N50 02.4 E008 32.9	S505	N50 01.9 E008 33.8
F216	N50 02.5 E008 32.9	S506	N50 01.8 E008 33.6
F221, F222	N50 02.3 E008 32.5	S507	N50 01.9 E008 33.8
F223	N50 02.3 E008 32.4	S508	N50 01.9 E008 33.6
F231	N50 02.3 E008 32.1	S601	N50 01.9 E008 34.1
F232	N50 02.3 E008 32.0	S602	N50 01.8 E008 33.9
F232A	N50 02.2 E008 32.0	S603	N50 01.9 E008 34.1
F233	N50 02.3 E008 31.9	S604	N50 01.9 E008 33.9
F233A	N50 02.2 E008 32.0		
F234	N50 02.3 E008 31.8		
F235	N50 02.2 E008 31.8		
F237	N50 02.3 E008 31.7		

CHANGES: Parking stands G2, G4, G6 and G8 established.

INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
V92, V93	N50 03.0 E008 36.0	V171 thru V172	N50 02.2 E008 32.5
V94, V95	N50 03.0 E008 35.9	V173	N50 02.2 E008 32.4
V96	N50 03.0 E008 35.8	V173A	N50 02.2 E008 32.5
V97	N50 02.9 E008 35.7	V173B, V174	N50 02.2 E008 32.4
V106 thru V111	N50 03.0 E008 35.5	V175, V176	N50 02.2 E008 32.3
V112 thru V114	N50 02.9 E008 35.4	V177, V178	N50 02.1 E008 32.2
V115 thru V118	N50 02.9 E008 35.3	V322	N50 01.6 E008 34.1
V119	N50 02.9 E008 35.2	V324, V326	N50 01.7 E008 34.1
V120 thru V123	N50 02.9 E008 35.1	V328	N50 01.8 E008 34.1
V124, V125	N50 02.9 E008 35.0	V266 thru V268	N50 02.2 E008 31.5
V126	N50 02.8 E008 35.0	V269, V270	N50 02.2 E008 31.4
V127 thru V130	N50 02.8 E008 34.9	V701	N50 01.3 E008 31.9
V134 thru V136	N50 02.6 E008 34.2	V702	N50 01.4 E008 31.8
V143	N50 02.7 E008 33.7	V704, V706, V708	N50 01.4 E008 31.9
V144	N50 02.7 E008 33.8	V711	N50 01.3 E008 32.0
V151, V152	N50 02.5 E008 33.7	V712	N50 01.4 E008 32.0
V153	N50 02.5 E008 33.6	V713	N50 01.3 E008 32.0
V157	N50 02.5 E008 33.5	V714	N50 01.4 E008 32.0
V158, V159	N50 02.4 E008 33.5	V715	N50 01.3 E008 32.0
V160 thru V162	N50 02.4 E008 33.4	V716	N50 01.4 E008 32.0
V163	N50 02.4 E008 33.3	V717	N50 01.3 E008 32.0
V164	N50 02.3 E008 33.1	V718	N50 01.4 E008 32.0
V166, V167	N50 02.3 E008 32.9	V719, V721	N50 01.3 E008 32.1
V168, V169	N50 02.3 E008 32.8		
V170	N50 02.3 E008 32.7		

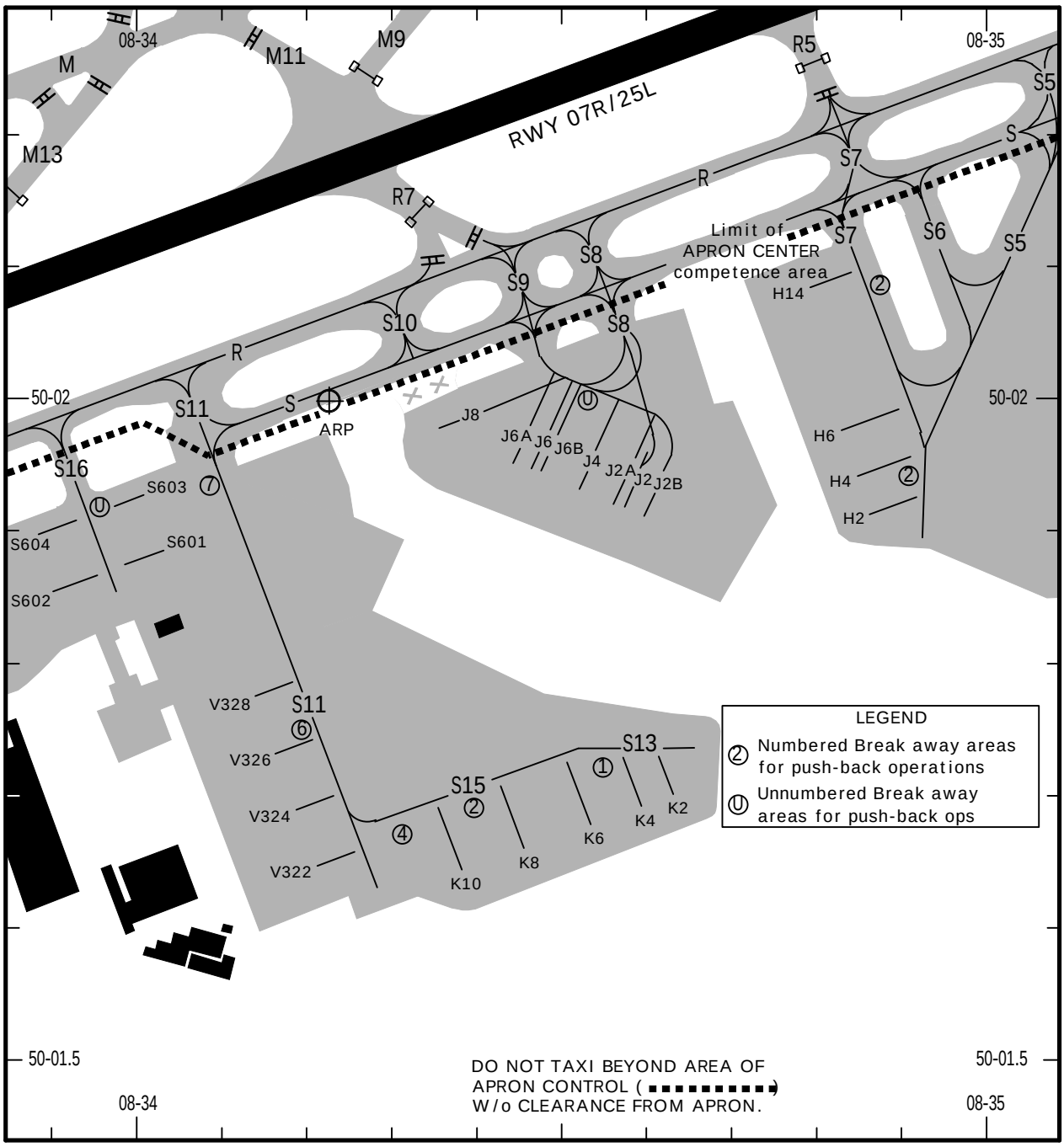


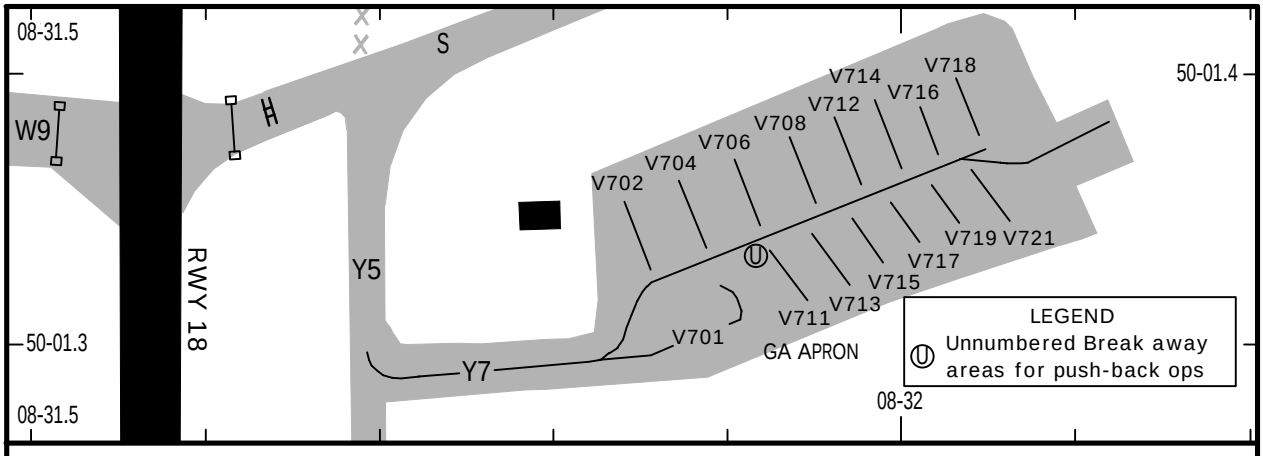
CHANGES: None.

EDDF/FRA JEPPESEN FRANKFURT/MAIN, GERMANY

24 JUN 22 (10-9E1)

FRANKFURT/MAIN



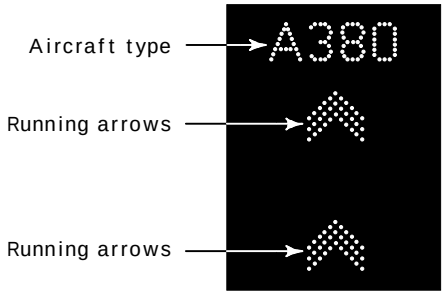


CHANGES: Stands H2, H4, H6 established. Stands H8, H10, H12 withdrawn.

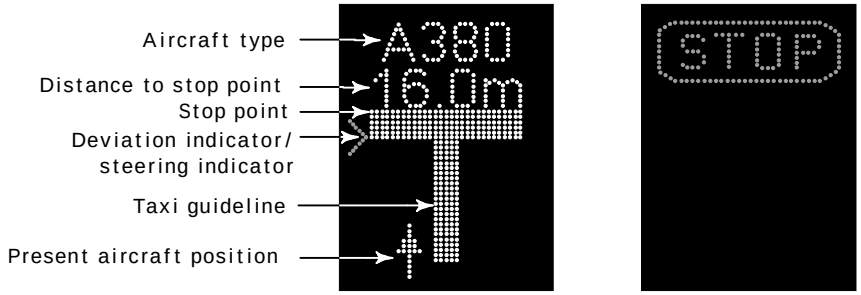
ADVANCED VISUAL DOCKING GUIDANCE SYSTEM (A-VDGS)

DISPLAY OF IMAGES AND FUNCTIONS ON THE PANEL

Examples:



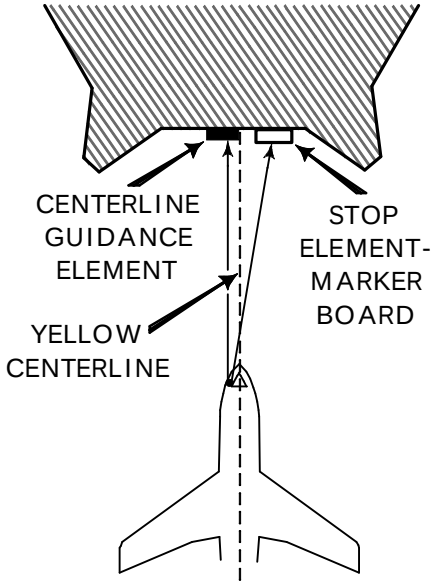
Safety Information:
- If a pilot is unsure of the information shown on the display the acft has to be stopped immediately and further information for clearance needs to be obtained.
- A pilot shall not enter the stand area unless the vertical running arrows are displayed on the docking system and unless the acft type displayed matches the approaching acft.
- The pilot shall not proceed beyond the first passenger loading bridge in sight unless the running arrows are superseded by the final lead-in information (distance to stop-point, stop-point, deviation indicator or steering direction, taxi guidance line, present acft position). The same applies in case the display shows "WAIT", "WAIT VIEW BLOCK" or "WAIT GATE BLOCK" or "WAIT ID FAIL".



Depending on the system type, displays can be slightly different or additional.

CHANGES: A-VDGS description.

AIRCRAFT GUIDANCE FOR NOSE-IN STANDS (AGNIS)



GENERAL

The visual guidance system for nose-in parking positions AGNIS (Aircraft Guidance for Nose-In Stands) consists of the following elements:

1. CENTERLINE GUIDANCE ELEMENT
2. YELLOW CENTERLINE
3. STOP ELEMENT - MARKER BOARD

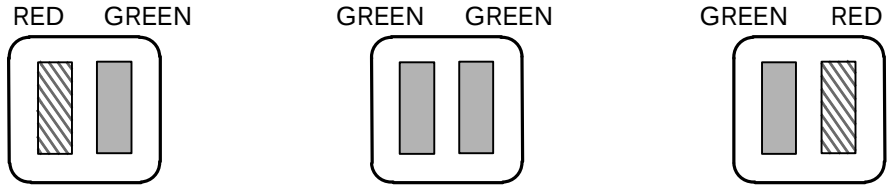
CAUTION

The system is aligned with the LEFT hand pilot seat only. In case of AGNIS failure, nose-in positioning will be guided by marshaller.

NOTE: Nose-in parking aircraft (on push-back position) have to use towing truck when leaving parking position.

CENTERLINE GUIDANCE ELEMENT

Approach the parking position along the yellow centerline so that both vertical slots in the Centerline Guidance Element show GREEN. Adjustments to the left or right shall always be made towards the GREEN.



LEFT of centerline. Turn towards GREEN. (RIGHT)

Aircraft on centerline.

RIGHT of centerline. Turn towards GREEN. (LEFT)

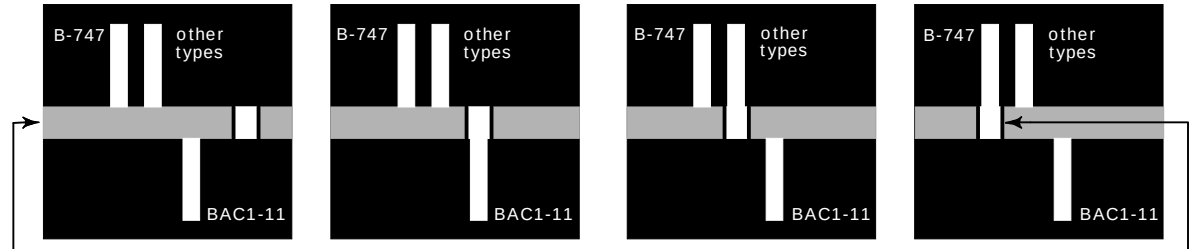
STOP ELEMENT - MARKER BOARD

The aircraft is stopped at the correct position by means of the Stop Element. When the tubular light, visible through the horizontal slot in the marker board, registers in line with the appropriate vertical reference mark, the aircraft has reached the correct stopping position.

CAUTION

Be sure to select the correct vertical reference mark corresponding to your type of aircraft. Marker board layouts are different for the various nose-in parking positions.

AGNIS CENTRE LINE GUIDANCE STOP ELEMENT - MARKER BOARD



All types continue taxiing.

BAC 1-11 stop. Other types and B-747 continue taxiing.

Other types stop. B-747 continue taxiing.

B-747 stop.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN

29 OCT 21 .Eff.4.Nov. (11-1)

FRANKFURT/MAIN, GERMANY

MISSED APCH CLIMB GRAD MIM 4.6%

ILS Z Rwy 07L

BRIEFING STRIP ™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

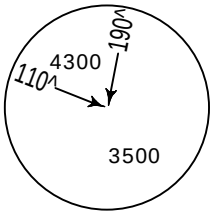
LOC IFNE 111.75	Final Apch Crs 066^	NODGO 5000' (4695')	DA(H) Refer to Minimums	Apt Elev 364' Rwy 305'

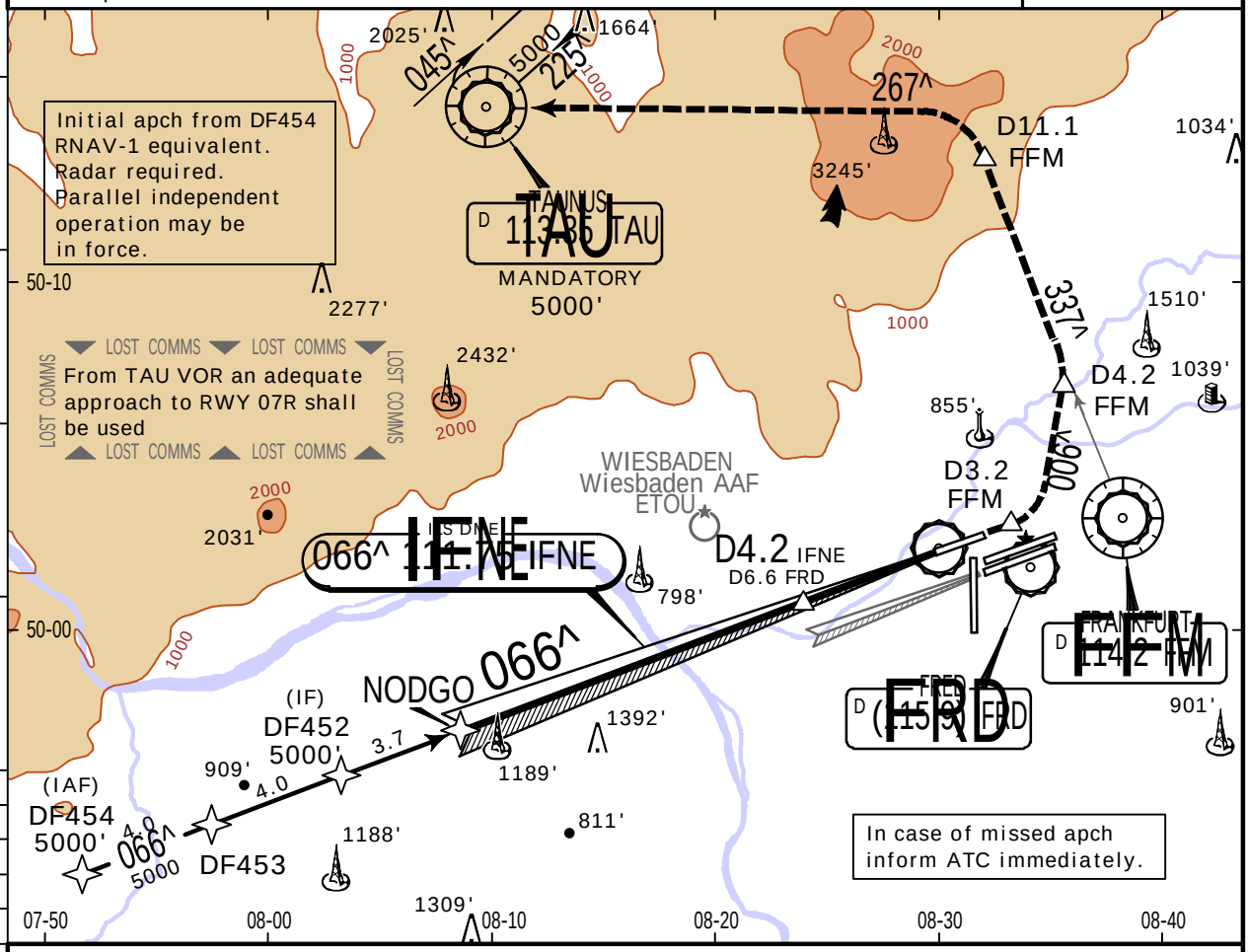
MISSED APCH: Climb STRAIGHT AHEAD. At D3.2 FFM turn LEFT onto 006^. At D4.2 FFM turn LEFT to intercept R-337 FFM. At D11.1 FFM turn LEFT to intercept R-087 inbound TAU VOR climbing to 5000'.

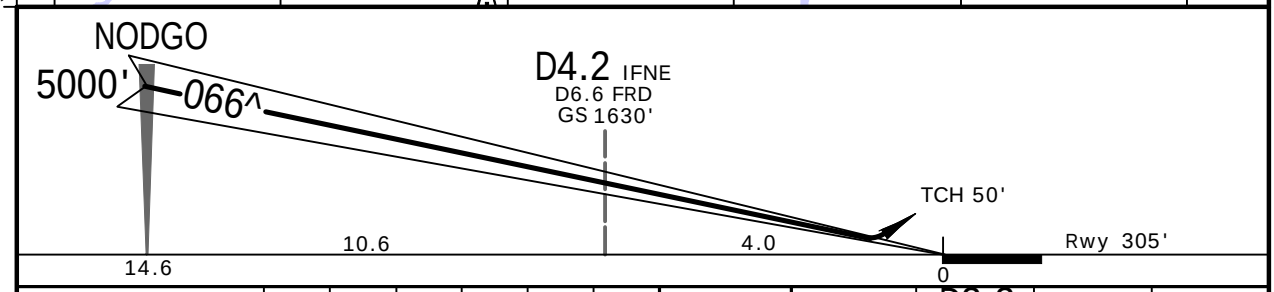
Alt Set: hPa(IN on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 5000'

DME required.

MSA FFM VOR







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

ALSF-II
REIL
PAPI

D3.2 FFM

006^ LT

D4.2 FFM

.Standard.

STRAIGHT-IN LANDING RWY 07L
ILS
Missed apch climb gradient mim 4.6% up to 3500'

DA(H) ABC: 505' (200')
D: 512' (207')

PANS OPS

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Bearings.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN
29 OCT 21
.Eff.4.Nov.
11-1A

FRANKFURT/MAIN, GERMANY
1 CAT II/III ILS Z Rwy 07L

BRIEFING STRIP ™

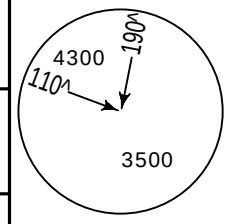
*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)	*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505 127.280	136.5	121.805

LOC IFNE	Final Apch Crs	NODGO	CAT IIIB, IIIA & II ILS	Apt Elev 364'
111.75	066^	5000' (4695')	Refer to Minimums	Rwy 305'

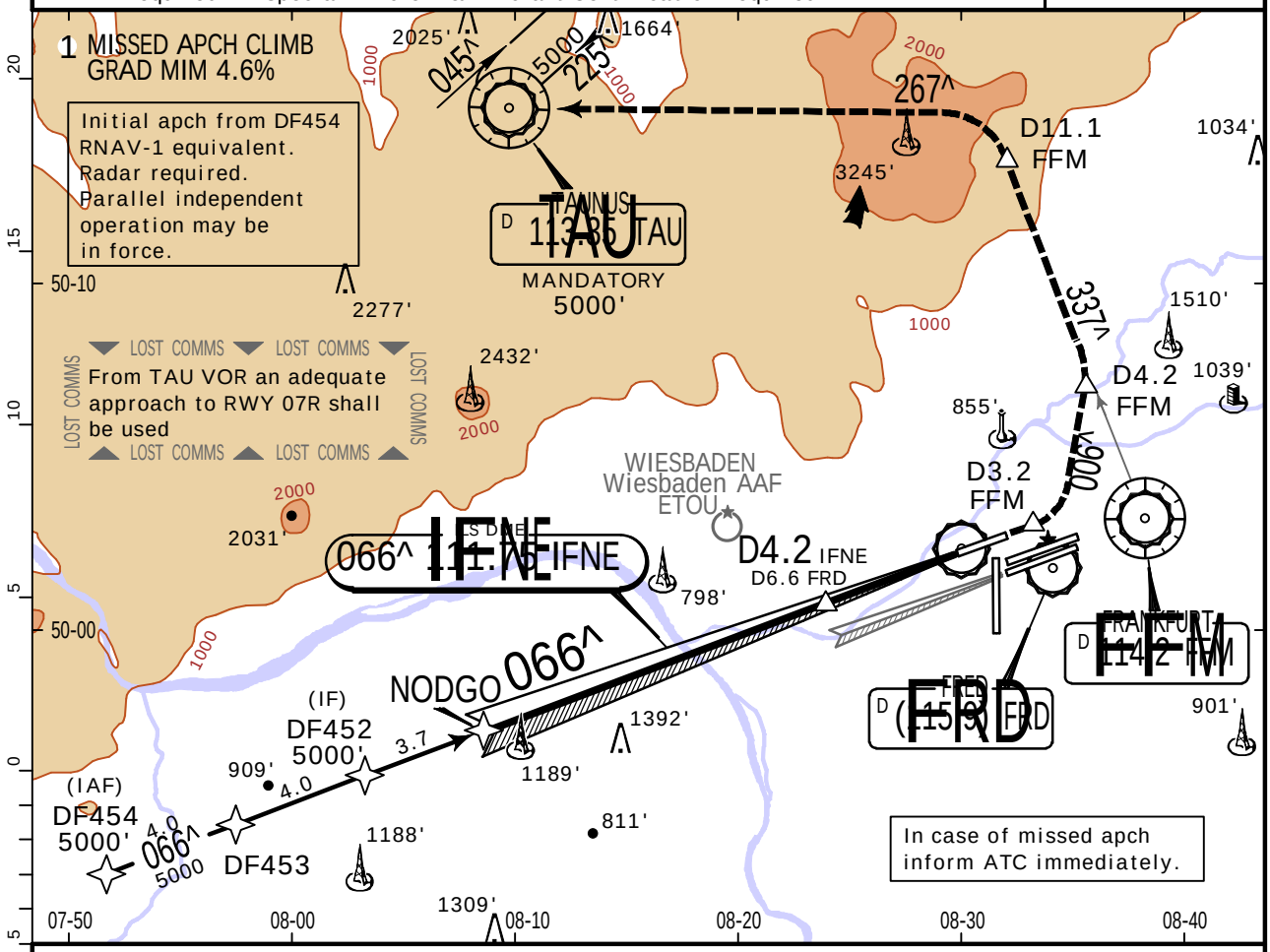
MISSED APCH: Climb STRAIGHT AHEAD. At D3.2 FFM turn LEFT onto 006^. At D4.2 FFM turn LEFT to intercept R-337 FFM. At D11.1 FFM turn LEFT to intercept R-087 inbound TAU VOR climbing to 5000'.

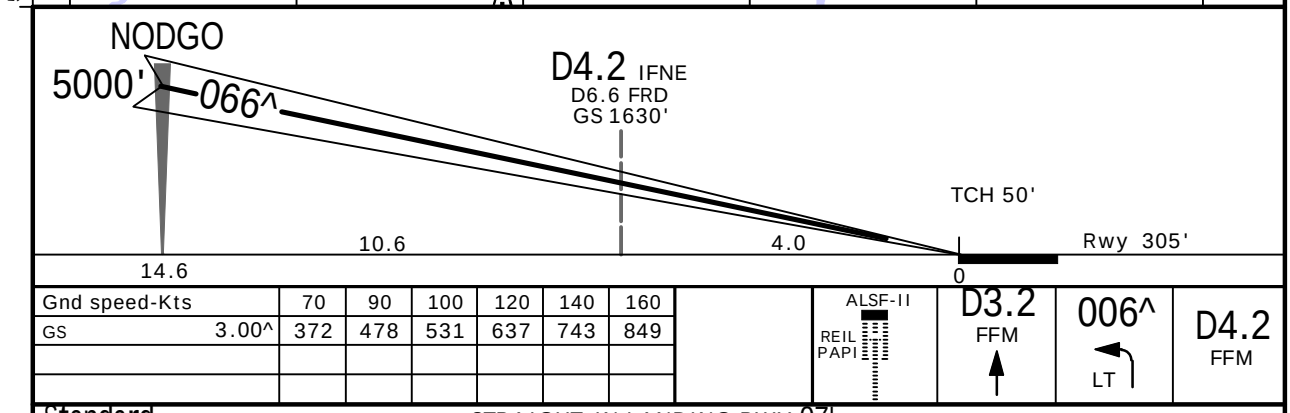
Alt Set: hPa(IN on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 5000'

1. DME required. 2. Special Aircrew & Aircraft Certification Required.



MSA FFM VOR





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

ALSF-II
REIL
PAPI

D3.2 FFM

006^ LT

D4.2 FFM

PANS OPS

.Standard.

STRAIGHT-IN LANDING RWY 07L
Missed apch climb gradient mim 4.6% up to 3500'

CAT IIIB ILS	CAT IIIA ILS	CAT II ILS	
	DH 50'	A: RA 99' DA(H) 405' (100') B: RA 105' DA(H) 411' (106') C: RA 118' DA(H) 424' (119')	D: RA 131' DA(H) 437' (132')
RVR 75m	RVR 200m	RVR 300m	RVR 400m

CHANGES: Bearings.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN

29 OCT 21 .Eff.4.Nov. (11-2)

FRANKFURT/MAIN, GERMANY

MISSED APCH CLIMB GRAD MIM 4.6%

ILS Y Rwy 07L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

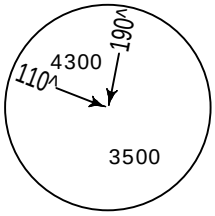
LOC IFEL	Final Apch Crs	VAGUL	DA(H) Refer to Minimums	Apt Elev 364' Rwy 305'
110.30	066^	5000' (4695')		

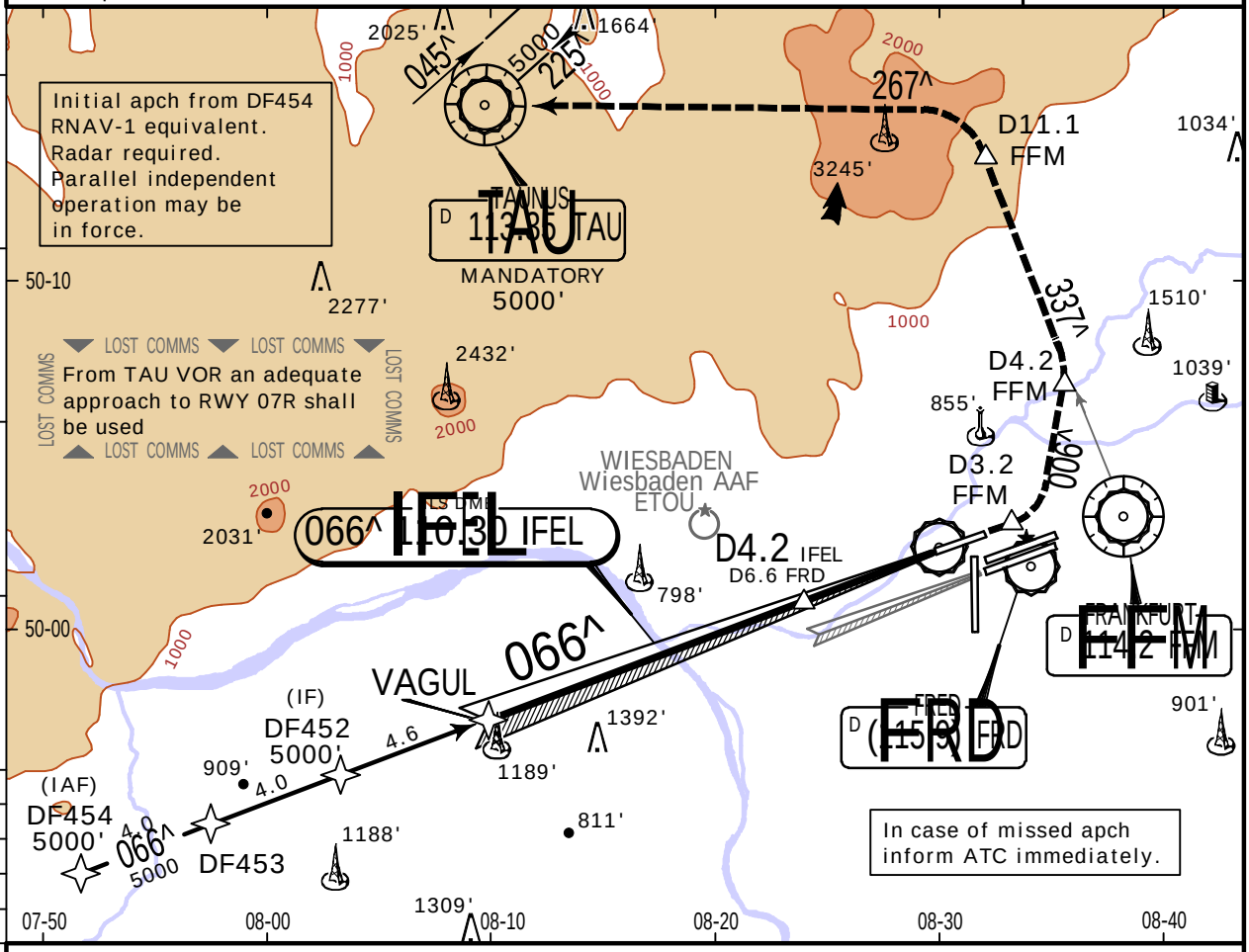
MISSED APCH: Climb STRAIGHT AHEAD. At D3.2 FFM turn LEFT onto 006^. At D4.2 FFM turn LEFT to intercept R-337 FFM. At D11.1 FFM turn LEFT to intercept R-087 inbound TAU VOR climbing to 5000'.

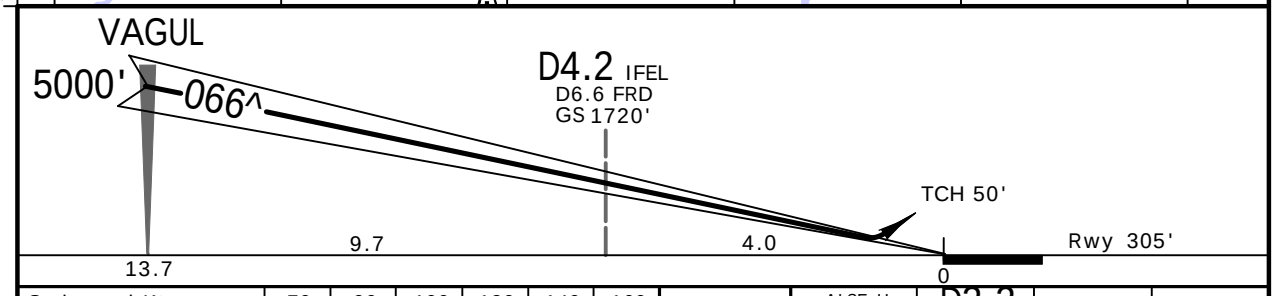
Alt Set: hPa(IN on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 5000'

DME required.

MSA FFM VOR







Gnd speed-Kts		70	90	100	120	140	160
GS	3.20^	396	510	566	679	793	906

ALSF-II REIL PAPI | D3.2 FFM | 006^ LT | D4.2 FFM

.Standard.

STRAIGHT-IN LANDING RWY 07L
ILS
Missed apch climb gradient mim 4.6% up to 3500'

DA(H) ABC: 505' (200') D: 512' (207')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Bearings.

BRIEFING STRIP ™ PANS OPS

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN 29 OCT 21 (11-3) .Eff.4.Nov.

FRANKFURT/MAIN, GERMANY
ILS or LOC Rwy 07C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

LOC IFCE	Final Apch Crs	LOMPO	ILS DA(H)	Apt Elev 364'
110.55	066^	4000' (3671')	529' (200')	Rwy 329'

MISSED APCH: Climb STRAIGHT AHEAD via FR Lctr to D10.0 FRD/ D7.0 FFM or 5000', whichever is later, then turn LEFT to TAU VOR maintain 5000'.

Alt Set: hPa(IN on req) | Rwy Elev: 12 hPa | Trans level: By ATC | Trans alt: 5000'

MSA FFM VOR: 190^ 110^ 4300 3500

BRIEFING STRIP ™

DME required.
Initial apch from DF554
RNAV-1 equivalent.
Radar required.
Parallel independent
operation may be
in force.

In case of missed apch
inform ATC immediately.

TAU (IAF) TAUNUS 113.35 TAU

IFCE 066^ 110.55 IFCE

FFM FRANKFURT 114.2 FFM

FRD FRANKFURT 115.9 FRD

FR 297 FRANKFURT FR

WIESBADEN Wiesbaden AAF ETOU

LOMPO
D11.5 IFCE
D12.5 FRD

D16.0 TAU 1189'

D8.0 IFCE
D9.0 FRD
[FF~7C]

D4.1 IFCE
D5.1 FRD
[41LOC]

D0.6 IFCE
D1.7 FRD
[ML~7C]

D10.0 FRD
D7.0 FFM

DF552 DF553 DF551 4000' DF554 4000'

(IF) 1392'

D14.0 RID 811'

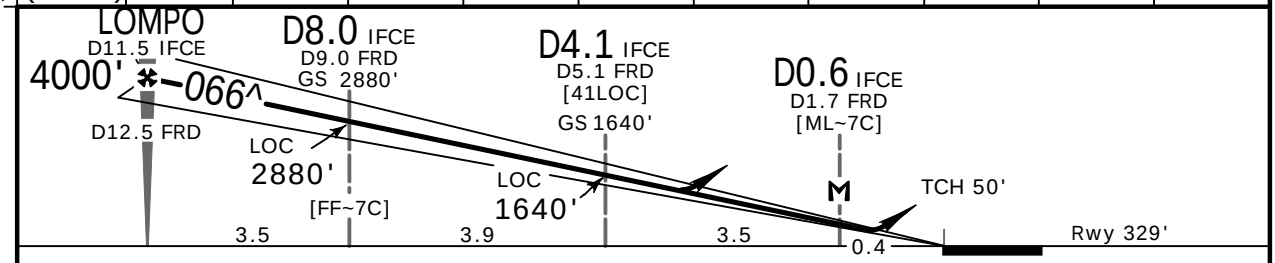
(IAF) 112.2 RID

ATTENTION: Acft taxiing independently on twy W underneath short final.

RID HOLDING
064^ 244^
MHA 4000
(5000 by ATC)

NOT TO SCALE

LOC (GS out)	IFCE DME	11.0	10.0	9.0	7.0	6.0	5.0	4.0	3.0	2.0
	ALTITUDE	3830'	3520'	3200'	2560'	2240'	1920'	1610'	1290'	970'



Gnd speed-Kts	70	90	100	120	140	160
ILS GS or LOC Descent Angle 3.00^	372	478	531	637	743	849
MAP at D0.6 IFCE/D1.7 FRD						

ALSF-II REIL PAPI

D10.0 FRD 5000'
D7.0 FFM
whichever is later
via FR 297

.Standard. STRAIGHT-IN LANDING RWY 07C

	ILS			LOC (GS out) CDFA	
	DA(H) 529' (200')			DA/MDA(H) 820' (491')	
	FULL	TDZ or CL out	ALS out		ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m	RVR 1500m	
B					
C				RVR 1500m	RVR 2300m
D					

PANS OPS

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Bearings.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN

29 OCT 21
.Eff.4.Nov.

11-3A

FRANKFURT/MAIN, GERMANY
CAT II/III ILS Rwy 07C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

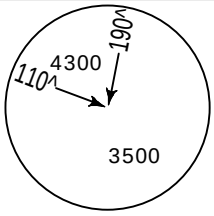
LOC IFCE	Final Apch Crs	LOMPO	CAT IIIB, IIIA & II ILS Refer to Minimums	Apt Elev 364' Rwy 329'
110.55	066^	4000' (3671')		

MISSED APCH: Climb STRAIGHT AHEAD via FR Lctr to D10.0 FRD/D7.0 FFM or 5000', whichever is later, then turn LEFT to TAU VOR maintain 5000'.

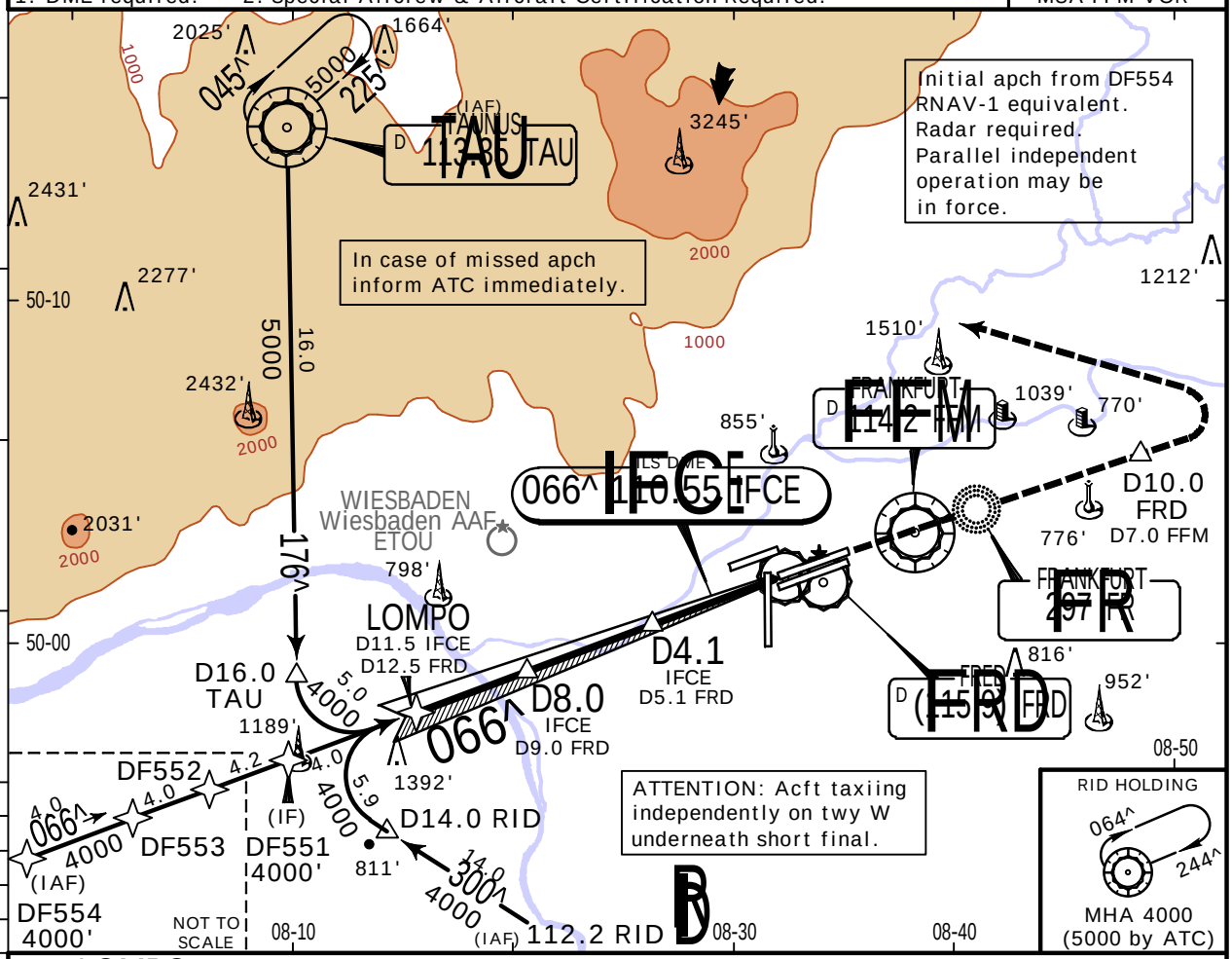
Alt Set: hPa(IN on reg) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'

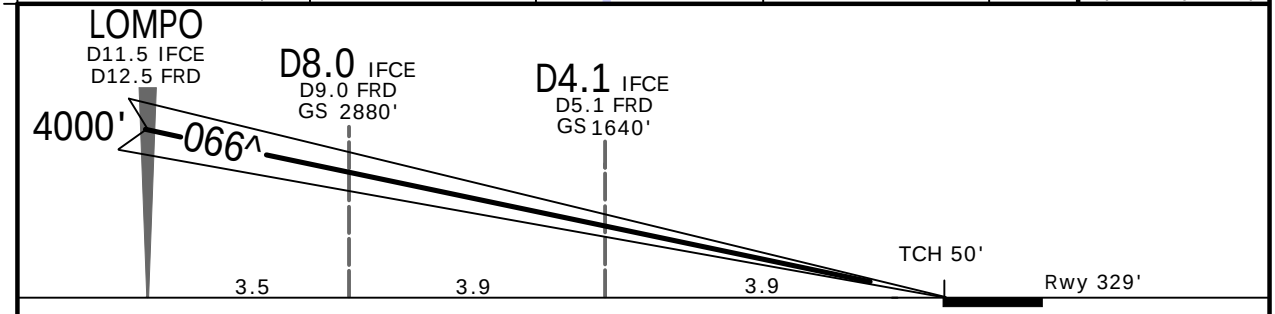
1. DME required. 2. Special Aircrew & Aircraft Certification Required.

MSA FFM VOR



BRIEFING STRIP ™





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

ALSF-II
REIL
PAPI

D10.0 FRD
D7.0 FFM
5000'
whichever is later
via FR 297

PANS OPS

.Standard.

STRAIGHT-IN LANDING RWY 07C

CAT IIIB ILS	CAT IIIA ILS	CAT II ILS
	DH 50'	RA 102' DA(H) 429' (100')
RVR 75m	RVR 200m	RVR 300m

CHANGES: Bearings.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 OCT 21 (11-4) .Eff.4.Nov.

FRANKFURT/MAIN, GERMANY ILS or LOC Rwy 07R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

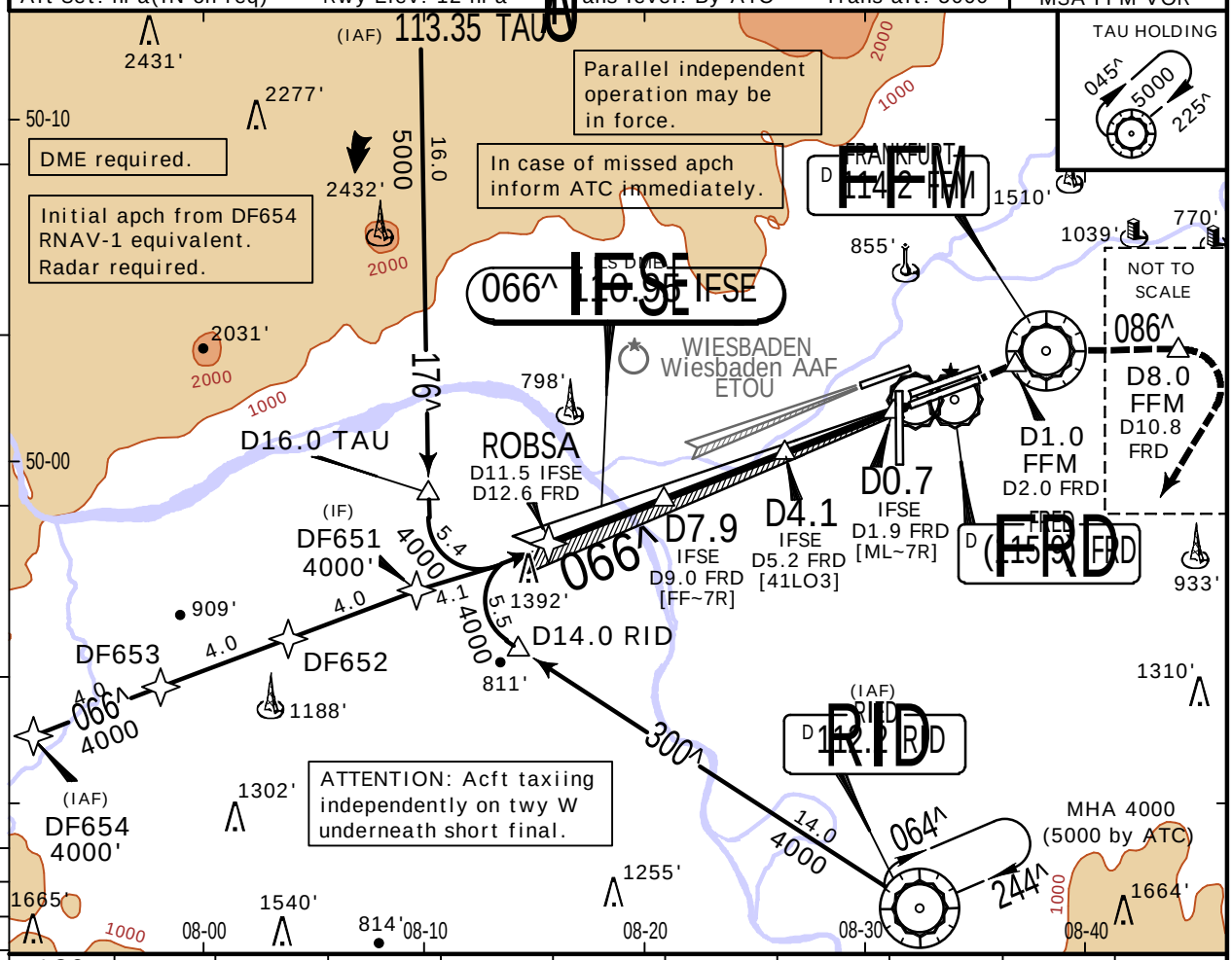
BRIEFING STRIP ™

LOC IFSE	Final Apch Crs	ROBSA	ILS DA(H)	Apt Elev 364'
110.95	066^	4000' (3672')	528' (200')	Rwy 328'

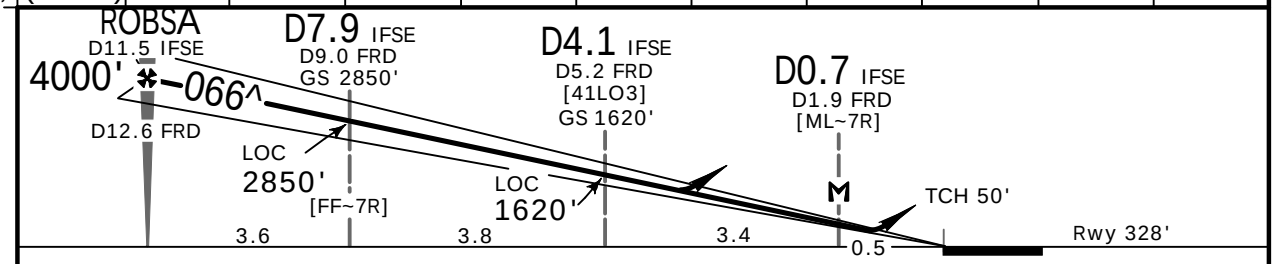
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 inbound FFM/D2.0 FRD, then turn RIGHT to intercept R-086 FFM outbound to D8.0 FFM/D10.8 FRD or 5000', whichever is later, then turn RIGHT to RID VOR and maintain 5000'.

Alt Set: hPa(IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'

MSA FFM VOR



LOC (GS out)	IFSE DME	11.0	10.0	9.0	8.0	7.0	6.0	5.0	3.0	2.0
	ALTITUDE	3830'	3510'	3190'	2870'	2560'	2240'	1920'	1280'	960'



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00^	372	478	531	637	743	849
MAP at D0.7 IFSE/D1.9 FRD							

ALSF-II
REIL
PAPI

D1.0 inbound FFM D2.0 FRD

.Standard.

STRAIGHT-IN LANDING RWY 07R

ILS DA(H) 528' (200')			LOC (GS out) CDFA DA/MDA(H) 810' (482')	
FULL	TDZ or CL out	ALS out		ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m	RVR 1500m	
B					
C				RVR 1500m	RVR 2300m
D					

PANS OPS

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Second Tower frequency. Bearings.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN FRANKFURT/MAIN, GERMANY

29 OCT 21 (11-4A) .Eff.4.Nov. CAT II/III ILS Rwy 07R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

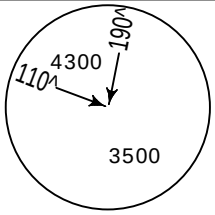
LOC IFSE	Final Apch Crs	ROBSA	CAT IIIB, IIIA & II ILS Refer to Minimums	Apt Elev 364'
110.95	066^	4000' (3672')		Rwy 328'

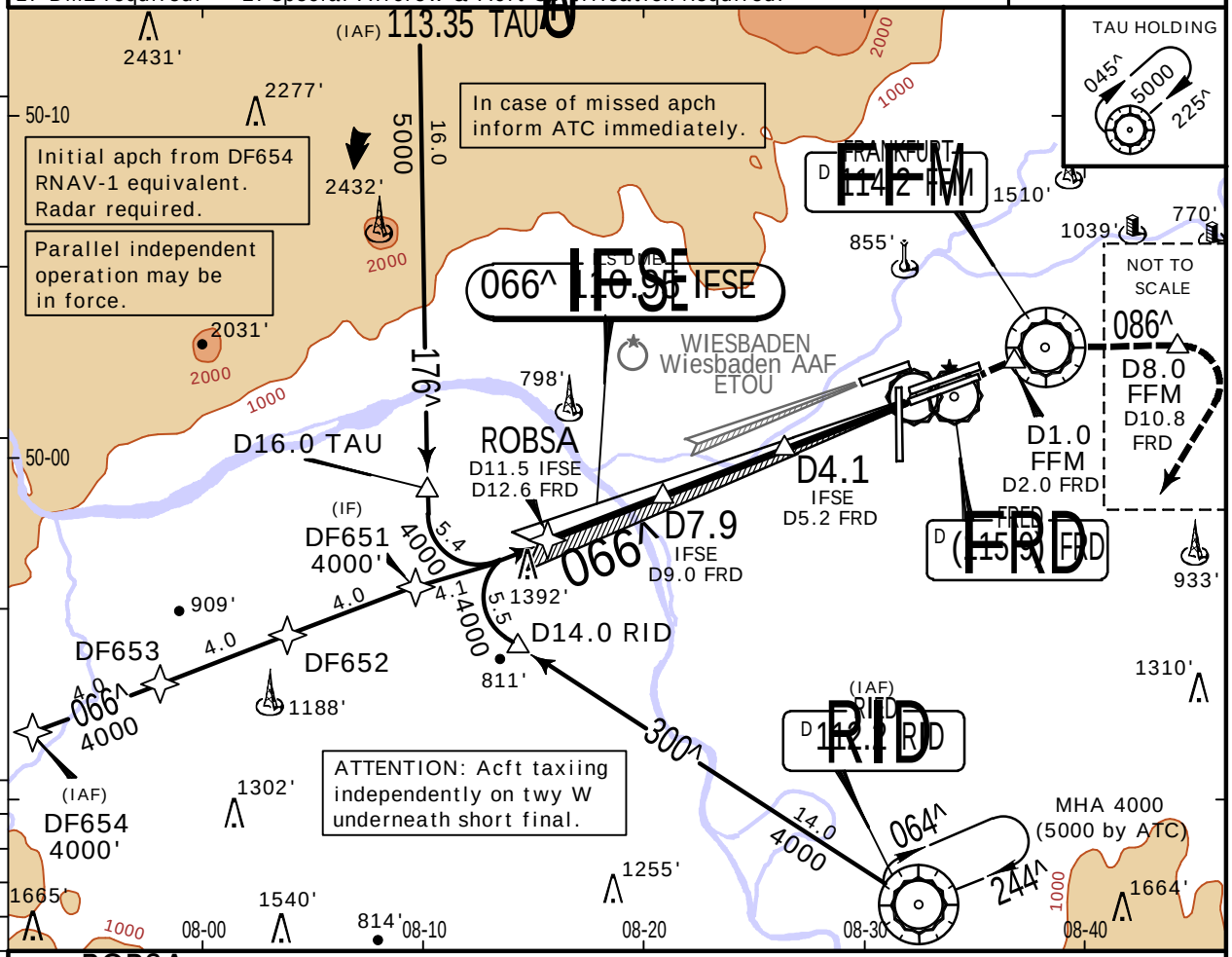
MISSED APCH: Climb STRAIGHT AHEAD to D1.0 inbound FFM/D2.0 FRD, then turn RIGHT to intercept R-086 FFM outbound to D8.0 FFM/D10.8 FRD or 5000', whichever is later, then turn RIGHT to RID VOR and maintain 5000'.

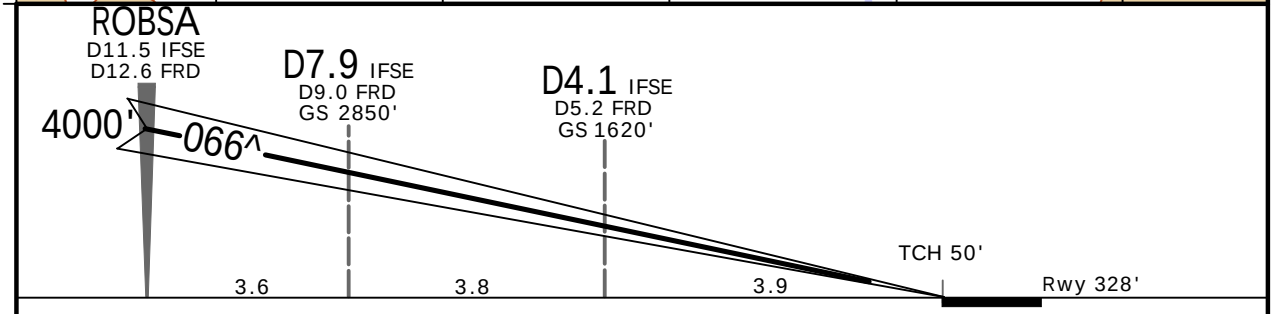
Alt Set: hPa(IN on reg) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'

1. DME required. 2. Special Aircrew & Acft Certification Required.

MSA FFM VOR







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

ALSF-II
REIL
PAPI

D1.0
inbound FFM
D2.0 FRD

.Standard.

STRAIGHT-IN LANDING RWY 07R

CAT IIIB ILS	CAT IIIA ILS	CAT II ILS
	DH 50'	RA 101' DA(H) 428' (100')
RVR 75m	RVR 200m	RVR 300m

PANS OPS

CHANGES: Second Tower frequency. Bearings.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 OCT 21 (11-5) .Eff.4.Nov.

FRANKFURT/MAIN, GERMANY ILS or LOC Rwy 25L

BRIEFING STRIP ™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

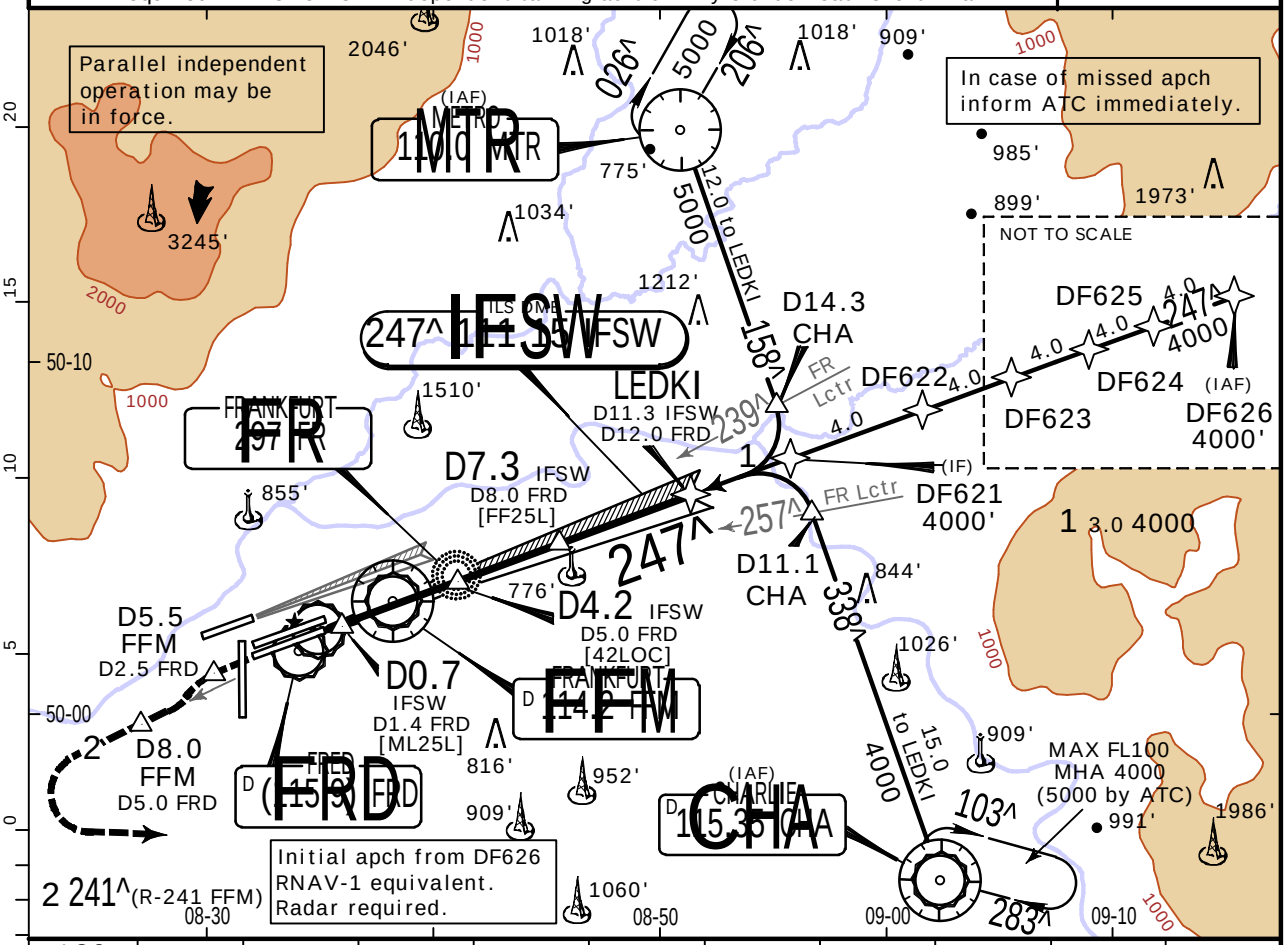
LOC IFSW	Final Apch Crs	LEDKI	ILS DA(H)	Apt Elev 364'
111.15	247^	4000' (3638')	562' (200')	Rwy 362'

MISSED APCH: Climb STRAIGHT AHEAD to D5.5 FFM/D2.5 FRD, then turn LEFT to intercept R-241 FFM. Then on R-241 FFM to D8.0 FFM/D5.0 FRD or 5000', whichever is later, then turn LEFT to CHA VOR and maintain 5000'.

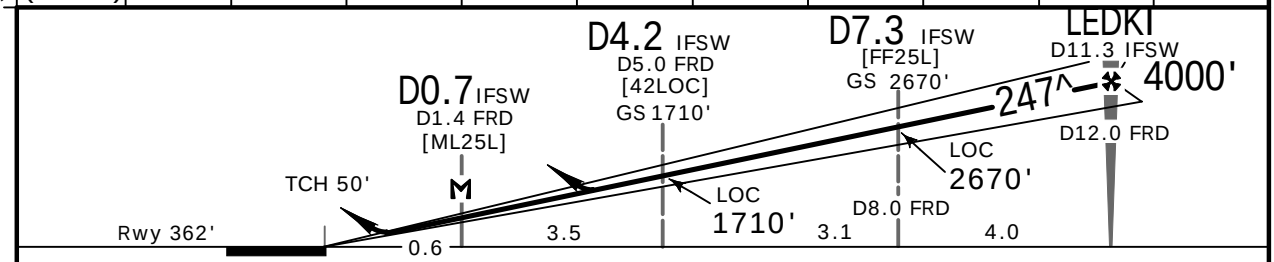
MSA FFM VOR: 4300 (190^–110^), 3500

Alt Set: hPa(IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

1. DME required. 2. CAUTION: Independent taxiing acft on Twy U underneath short final.



LOC (GS out)	IFSW DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
	ALTITUDE	990'	1310'	1630'	1950'	2270'	2590'	2900'	3220'	3540'



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.00^	372	478	531	637	743	849
MAP at D0.7 IFSW/D1.4 FRD							

ALSF-II REIL PAPI

D5.5 FFM D2.5 FRD

PANS OPS

.Standard. STRAIGHT-IN LANDING RWY 25L

ILS 1 DA(H) 562' (200')

LOC (GS out) CDFA DA/MDA(H) 820' (458')

	FULL	TDZ or CL out	ALS out		ALS out
A	RVR 550m	RVR 550m 2	RVR 1200m	RVR 1400m	RVR 1500m
B					
C					RVR 2100m
D					

1 LACFT: DA(H) 589' (227'). 2 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Second Tower frequency. Bearings.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN

29 OCT 21 (11-5A) .Eff.4.Nov.

FRANKFURT/MAIN, GERMANY
CAT II/III ILS Rwy 25L

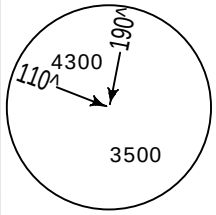
*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

LOC IFSW 111.15	Final Apch Crs 247^	LEDKI 4000' (3638')	CAT IIIB, IIIA & II ILS Refer to Minimums	Apt Elev 364' Rwy 362'

MISSED APCH: Climb STRAIGHT AHEAD to D5.5 FFM/D2.5 FRD, then turn LEFT to intercept R-241 FFM. Then on R-241 FFM to D8.0 FFM/D5.0 FRD or 5000', whichever is later, then turn LEFT to CHA VOR and maintain 5000'.

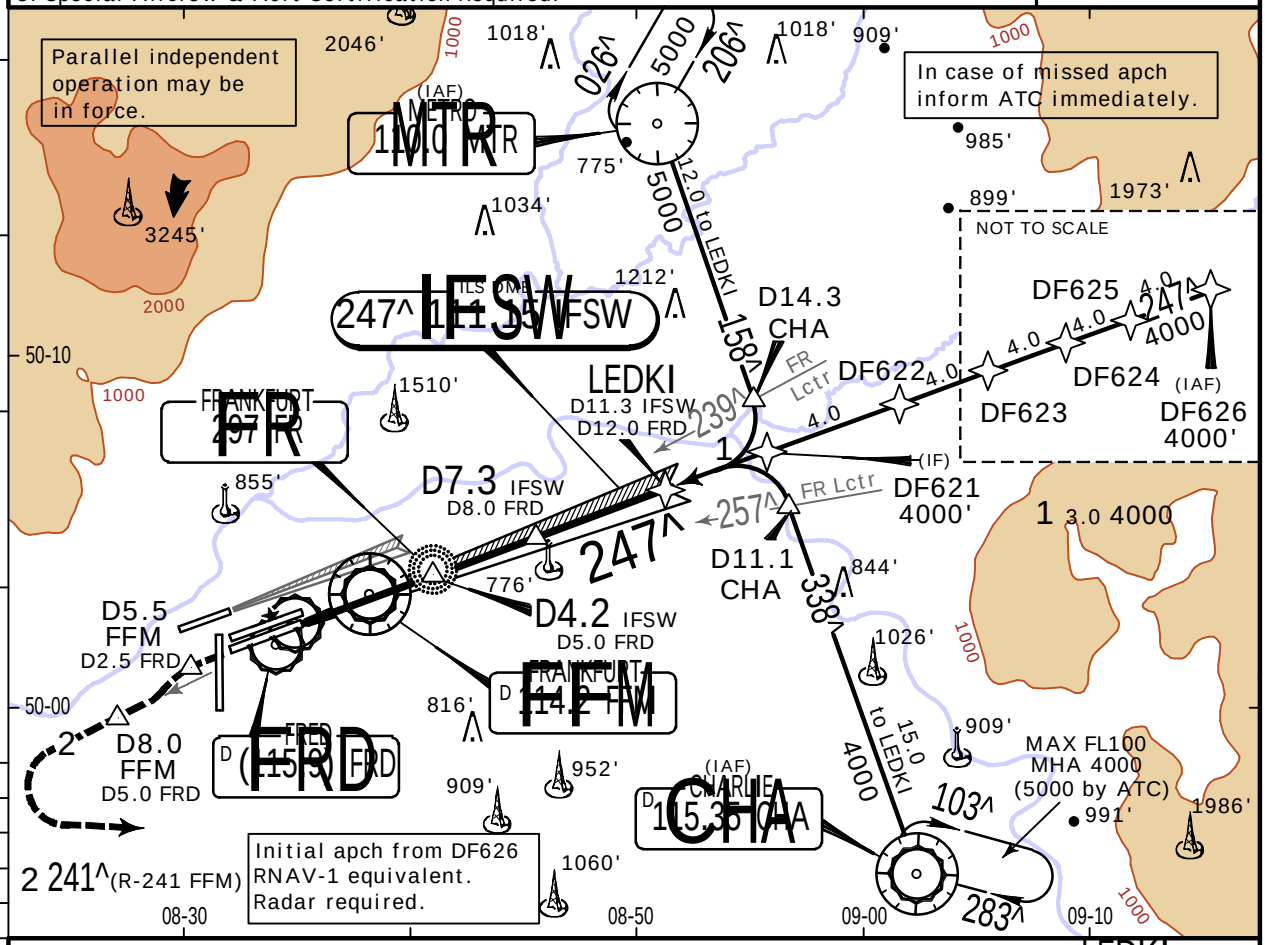
Alt Set: hPa(IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

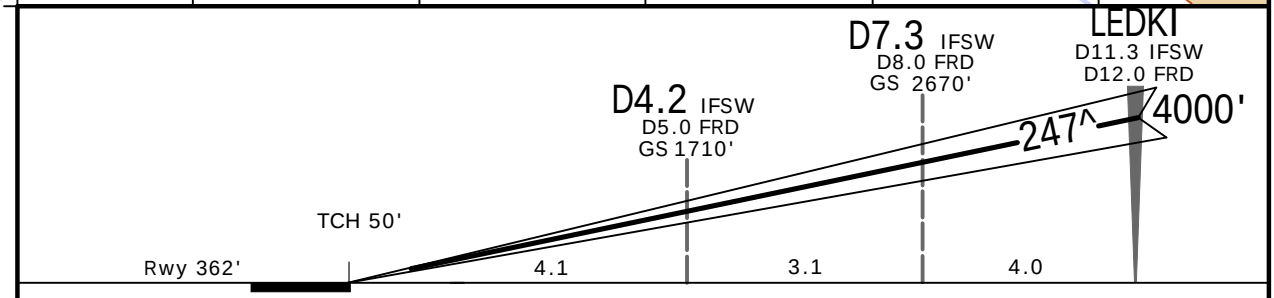
1. DME required. 2. CAUTION: Independent taxiing acft on Twy U underneath short final.
3. Special Aircrew & Acft Certification Required.



MSA FFM VOR

BRIEFING STRIP ™





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

ALSF-II REIL PAPI

D5.5 FFM D2.5 FRD

PANS OPS

.Standard. STRAIGHT-IN LANDING RWY 25L

CAT IIIB ILS	CAT IIIA ILS	CAT II ILS
	DH 50'	RA 95' DA(H) 462' (100')
RVR 75m	RVR 200m	RVR 300m

ILS or LOC Rwy 25C

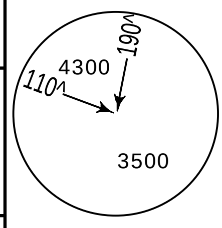
*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

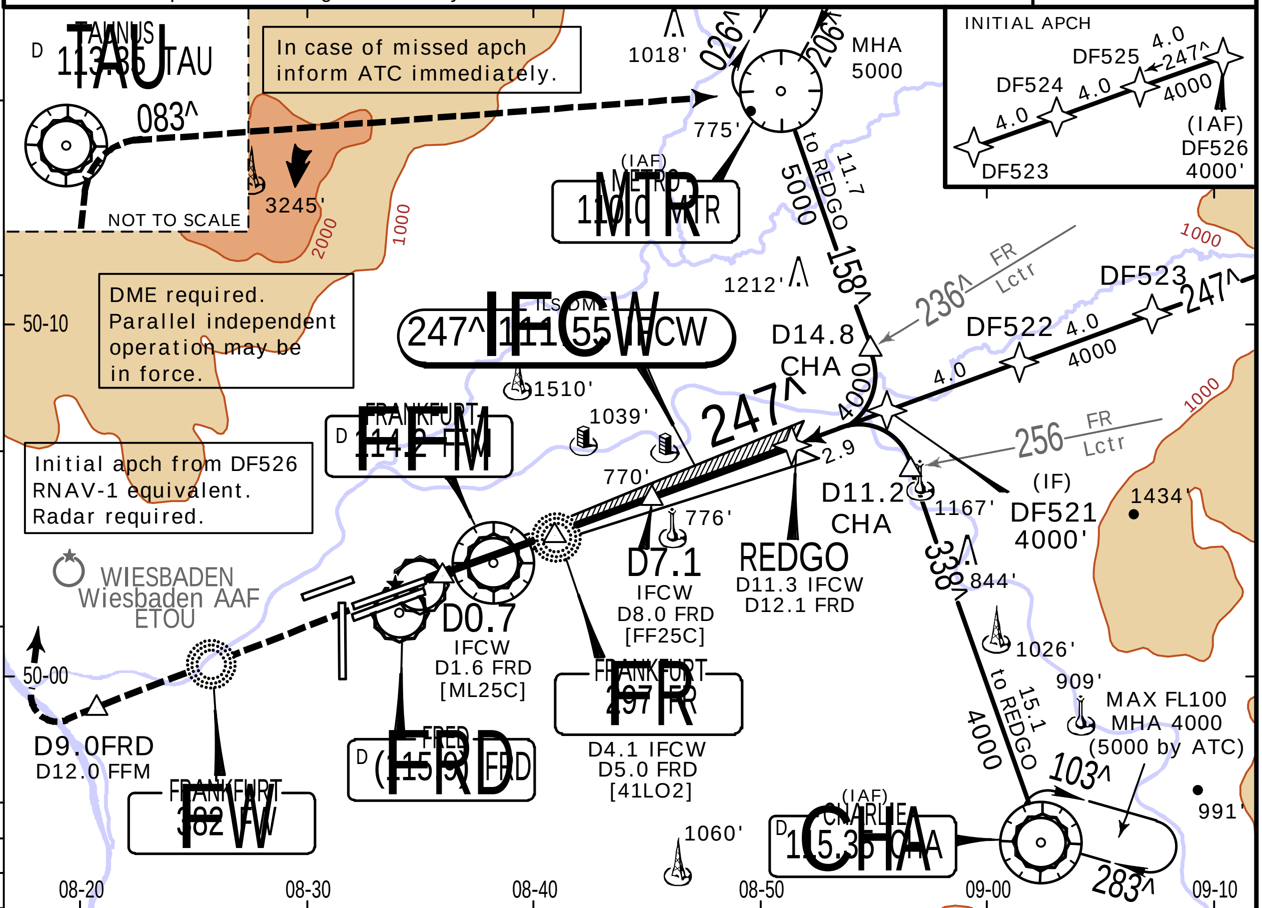
LOC	Final Apch Crs	REDGO	ILS DA(H)	Apt Elev 364'
IFCW 111.55	247^	4000' (3636')	564' (200')	Rwy 364'

MISSED APCH: Climb STRAIGHT AHEAD via FW Lctr to D9.0 FRD/ D12.0 FFM or 5000', whichever is later, then turn RIGHT to TAU VOR. Turn RIGHT to intercept R-083 TAU/R-264 inbound MTR VOR and maintain 5000'.

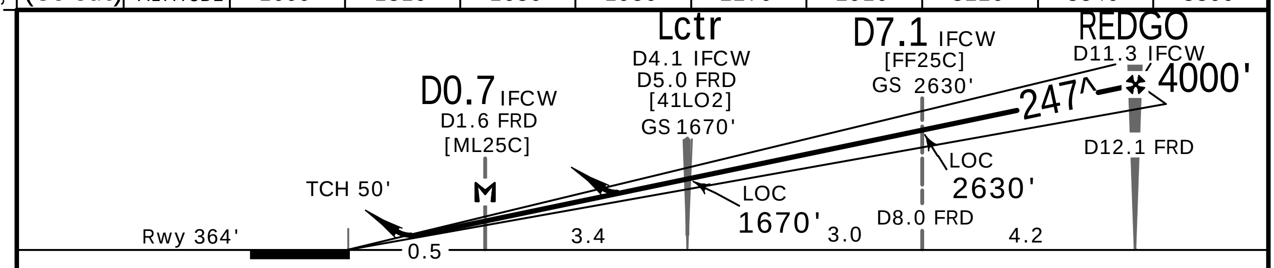
Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

CAUTION: Independent taxiing acft on Twy U underneath short final.





LOC (GS out)	IFCW DME	2.0	3.0	4.0	5.0	6.0	8.0	9.0	10.0	11.0
	ALTITUDE	1000'	1310'	1630'	1950'	2270'	2910'	3220'	3540'	3860'



Gnd speed-Kts		70	90	100	120	140	160
ILS GS or LOC Descent Angle	3.06^	379	487	541	650	758	866
MAP at D0.7 IFCW/D1.6 FRD							

ALSF-II REIL PAPI

D9.0 FRD D12.0 FFM | 5000' whichever later

.Standard.

STRAIGHT-IN LANDING RWY 25C

	ILS DA(H) 564' (200') FULL	ILS TDZ or CL out	ILS ALS out	LOC (GS out) CDFA DA/MDA(H) 810' (446')	LOC ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m	RVR 1400m	RVR 1500m
B	RVR 550m	RVR 550m 1	RVR 1200m	RVR 1400m	RVR 1500m
C	RVR 550m	RVR 550m 1	RVR 1200m	RVR 1400m	RVR 2100m
D	RVR 550m	RVR 550m 1	RVR 1200m	RVR 1400m	RVR 2100m

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

PANS OPS

BRIEFING STRIP ™

CHANGES: Bearings.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN

29 OCT 21
.Eff.4.Nov.
11-6A

FRANKFURT/MAIN, GERMANY
CAT II/III ILS Rwy 25C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	118.780 119.905	121.805

LOC IFCW 111.55	Final Apch Crs 247^	REDGO 4000' (3636')	CAT IIIB, IIIA & II ILS Refer to Minimums	Apt Elev 364' Rwy 364'

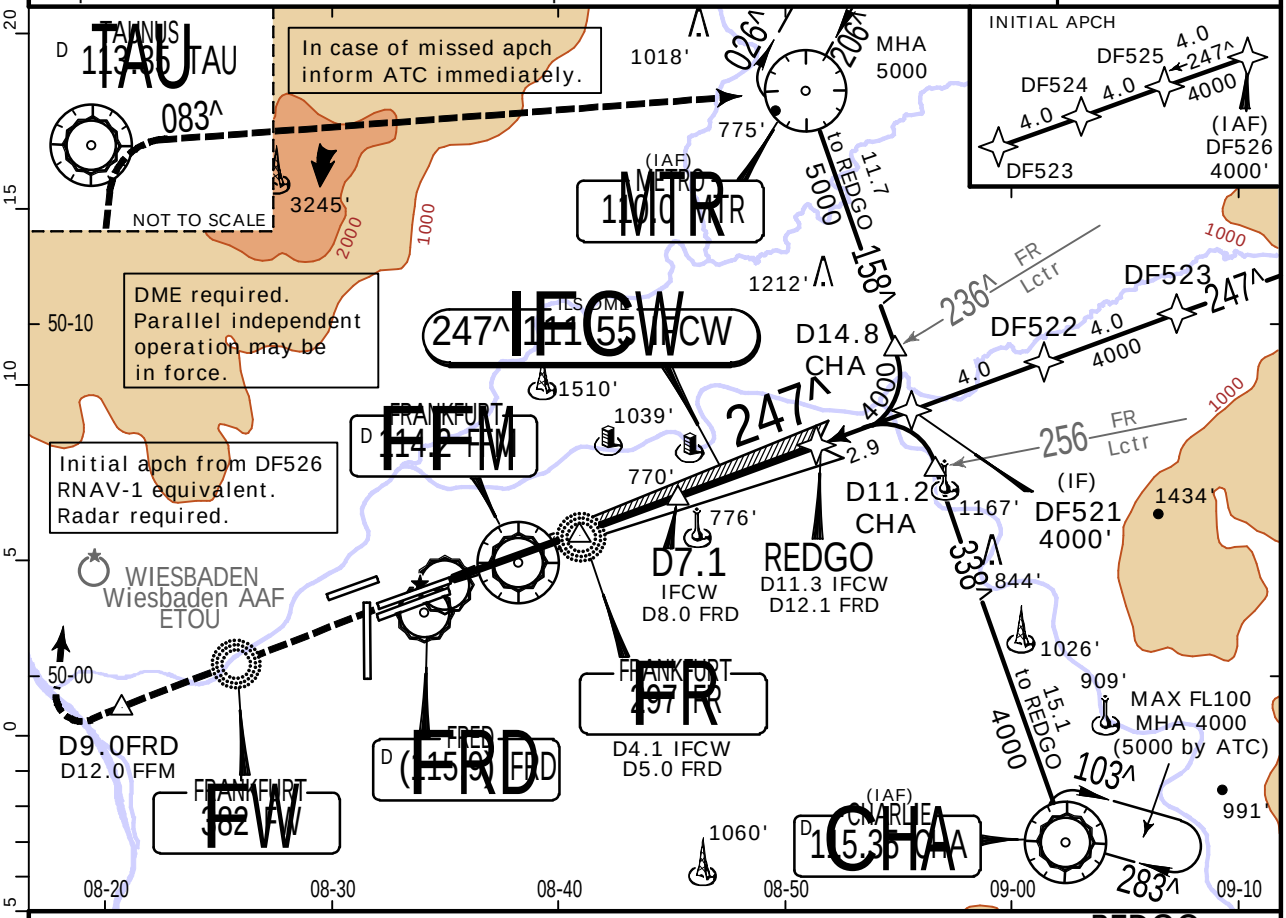
MISSED APCH: Climb STRAIGHT AHEAD via FW Lctr to D9.0 FRD/ D12.0 FFM or 5000', whichever is later, then turn RIGHT to TAU VOR. Turn RIGHT to intercept R-083 TAU/R-264 inbound MTR VOR and maintain 5000'.

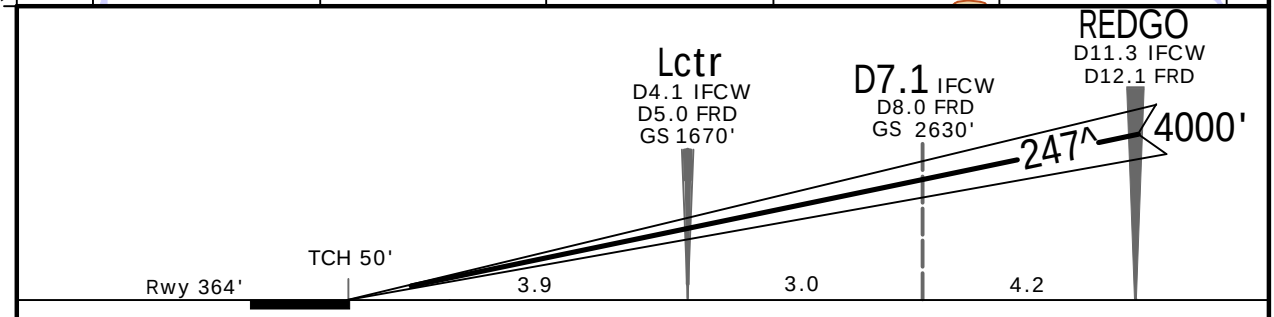
Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

1. CAUTION: Independent taxiing acft on Twy U underneath short final.
2. Special Aircrew & Aircraft Certification Required.

MSA FFM VOR
4300 190^ 110^ 3500

BRIEFING STRIP ™





Gnd speed-Kts		70	90	100	120	140	160
GS	3.06^	379	487	541	650	758	866

ALSF-II
REIL
PAPI

D9.0 FRD
D12.0 FFM
5000'
whichever later

PANS OPS

.Standard.

STRAIGHT-IN LANDING RWY 25C

CAT IIIB ILS	CAT IIIA ILS	CAT II ILS
	DH 50'	RA 98' DA(H) 464' (100')
RVR 75m	RVR 200m	RVR 300m

CHANGES: Bearings.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN

29 OCT 21
.Eff.4.Nov.
11-7

FRANKFURT/MAIN, GERMANY
MISSED APCH CLIMB GRAD MIM 5.0%
ILS Z Rwy 25R

BRIEFING STRIP ™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

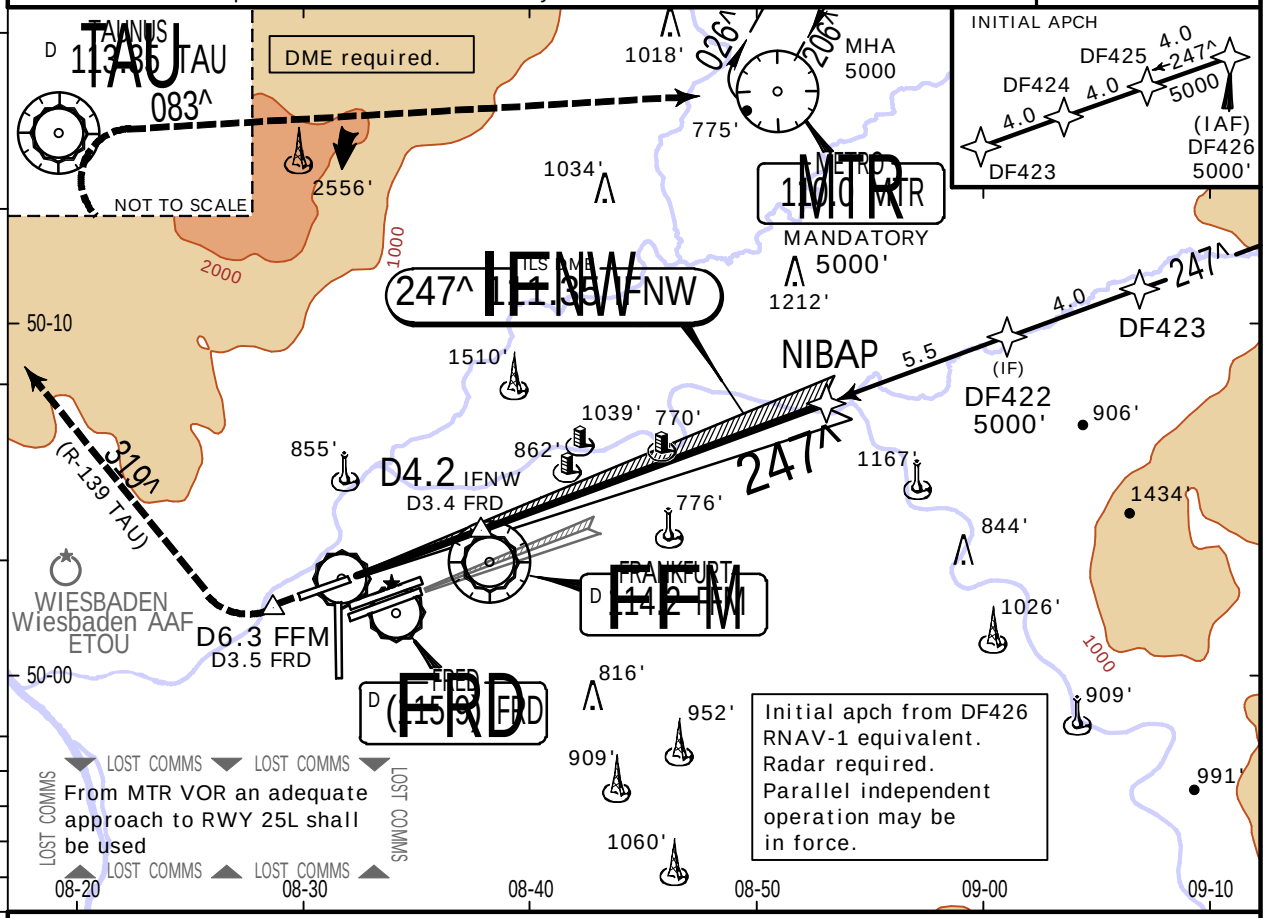
LOC IFNW	Final Apch Crs	NIBAP	DA(H) Refer to Minimums	Apt Elev 364' Rwy 353'
111.35	247^	5000' (4647')		

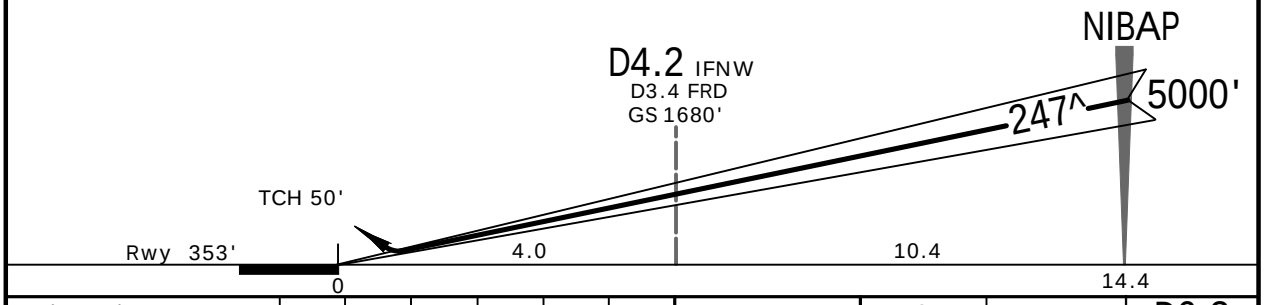
MISSED APCH: Climb STRAIGHT AHEAD to D6.3 FFM/D3.5 FRD at 800' or above, then turn RIGHT to intercept R-139 inbound TAU VOR. Turn RIGHT to intercept R-083 TAU/R-264 inbound MTR VOR climbing to 5000'.

Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

In case of missed apch inform ATC immediately.

MSA FFM VOR
4300
190^
110^
3500





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

ALSF-II REIL PAPI

MIM 800' at D6.3 FFM D3.5 FRD

.Standard.

STRAIGHT-IN LANDING RWY 25R
ILS
Missed apch climb gradient mim 5.0% up to 2000'
DA(H) ABC: 553' (200') D: 558' (205')

PANS OPS

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Bearings.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN FRANKFURT/MAIN, GERMANY

29 OCT 21 .Eff.4.Nov. (11-7A) 1 CAT II/III ILS Z Rwy 25R

BRIEFING STRIP ™

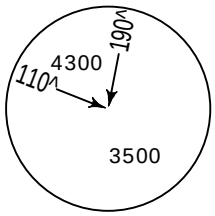
*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

LOC IFNW	Final Apch Crs	NIBAP	CAT IIIB, IIIA & II ILS Refer to Minimums	Apt Elev 364' Rwy 353'
111.35	247^	5000' (4647')		

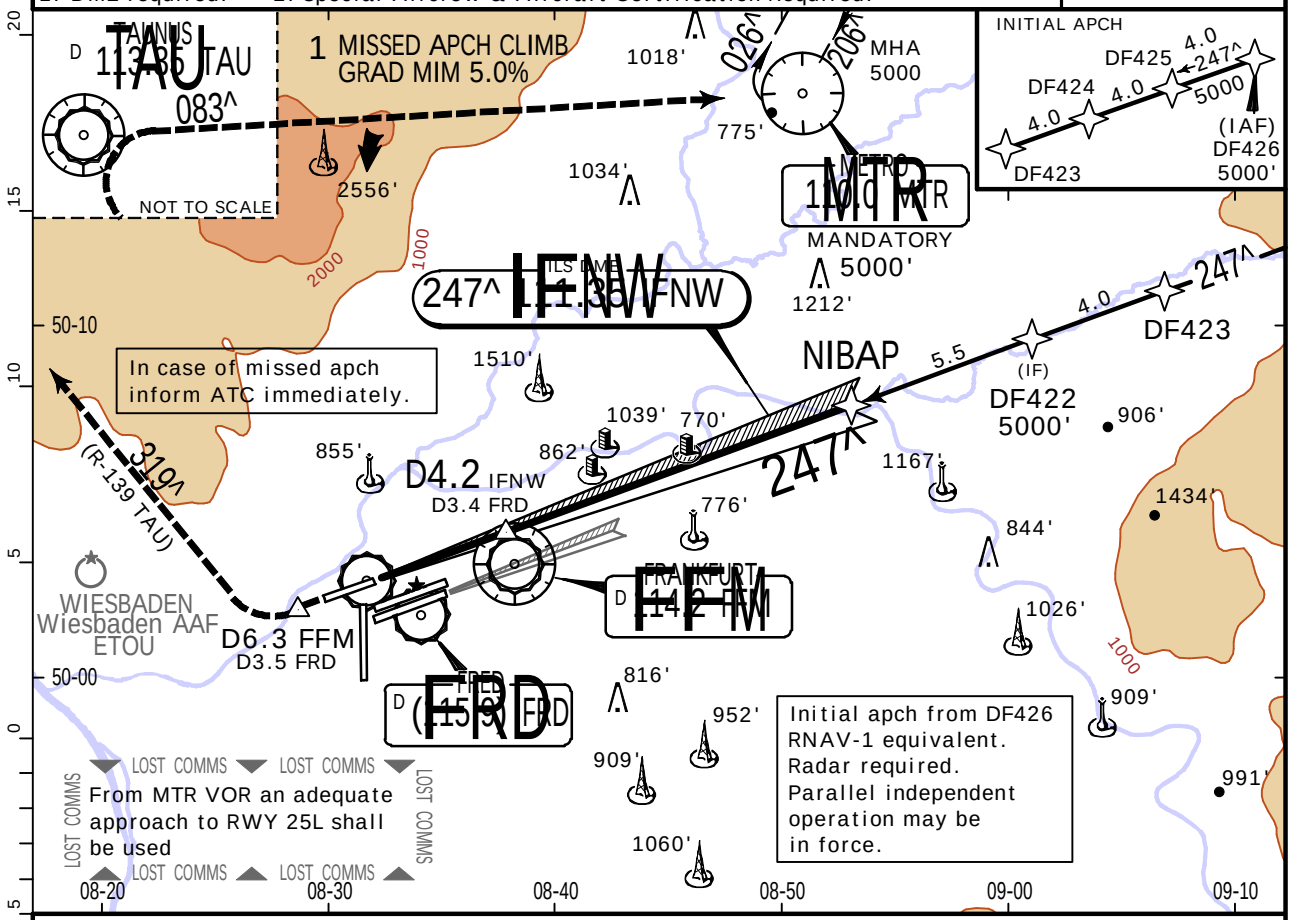
MISSED APCH: Climb STRAIGHT AHEAD to D6.3 FFM/D3.5 FRD at 800' or above, then turn RIGHT to intercept R-139 inbound TAU VOR.
Turn RIGHT to intercept R-083 TAU/R-264 inbound MTR VOR climbing to 5000'.

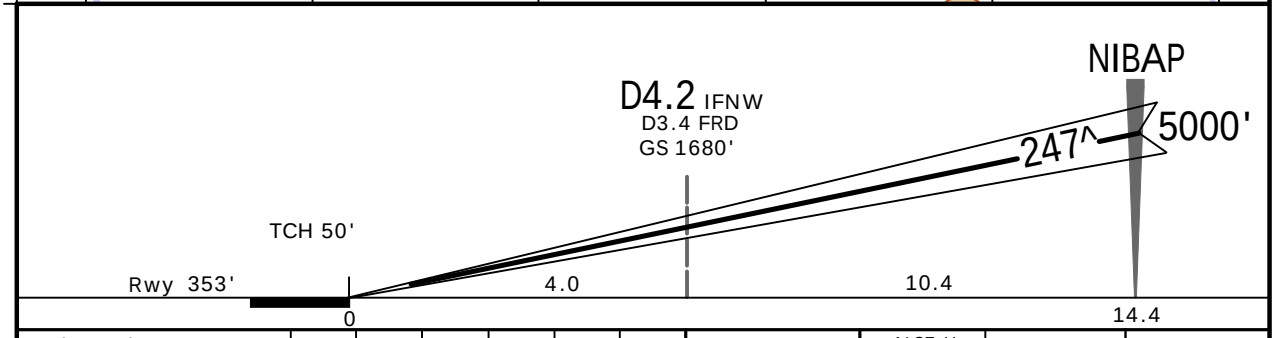
Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

1. DME required. 2. Special Aircrew & Aircraft Certification Required.



MSA FFM VOR





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

ALSF-II REIL PAPI

MIM 800' at D6.3 FFM D3.5 FRD

.Standard.

STRAIGHT-IN LANDING RWY 25R
Missed apch climb gradient mim 5.0% up to 2000'

CAT IIIB ILS	CAT IIIA ILS	CAT II ILS	
	DH 50'	A: RA 103' DA(H) 453' (100') B: RA 107' DA(H) 457' (104') C: RA 121' DA(H) 470' (117')	D: RA 143' DA(H) 483' (130')
RVR 75m	RVR 200m	RVR 300m	RVR 400m

PANS OPS

CHANGES: Bearings.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN

29 OCT 21 (11-8) .Eff.4.Nov.

FRANKFURT/MAIN, GERMANY

MISSED APCH CLIMB GRAD MIM 5.0% **ILS Y Rwy 25R**

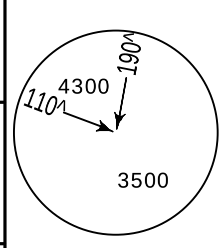
*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

LOC IFWR	Final Apch Crs	EDEPU	DA(H)	Apt Elev / Rwy
109.75	247^	5000' (4647')	Refer to Minimums	Apt Elev 364'; Rwy 353'

MISSED APCH: Climb STRAIGHT AHEAD to D6.3 FFM/D3.5 FRD at 800' or above, then turn RIGHT to intercept R-139 inbound TAU VOR. Turn RIGHT to intercept R-083 TAU/R-264 inbound MTR VOR climbing to 5000'.

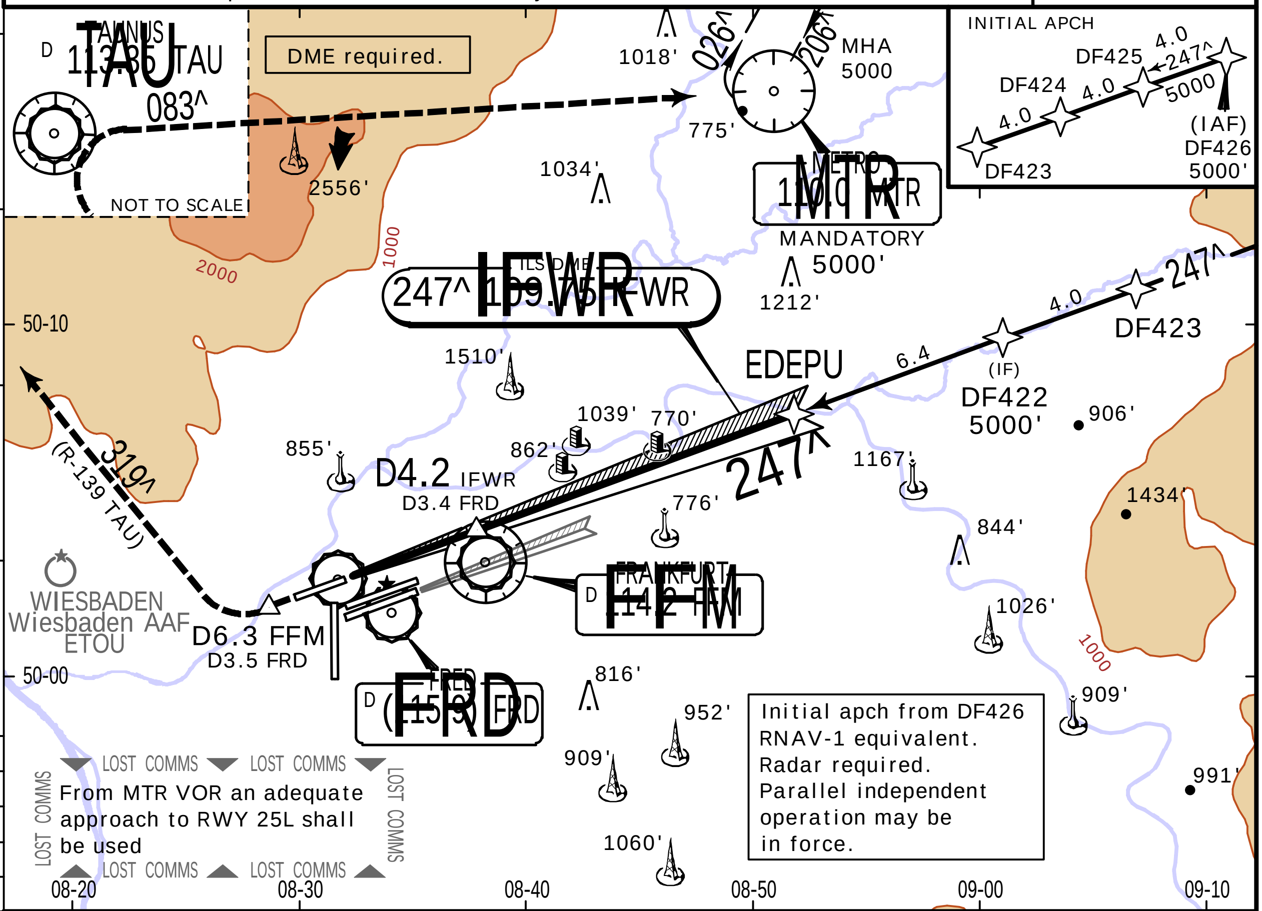
Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

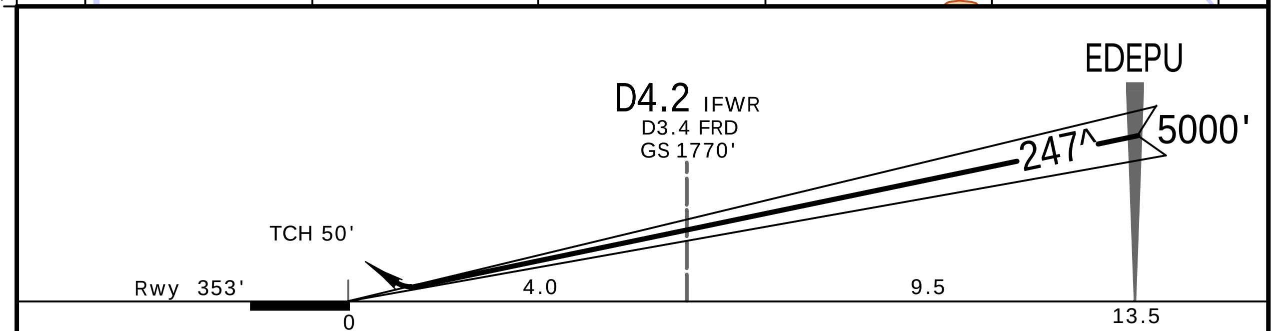
In case of missed apch inform ATC immediately.



MSA FFM VOR

BRIEFING STRIP ™





Gnd speed-Kts		70	90	100	120	140	160
GS	3.20^	396	510	566	679	793	906

ALSF-II REIL PAPI

MIM 800' at D6.3 FFM D3.5 FRD

.Standard.

STRAIGHT-IN LANDING RWY 25R

ILS

Missed apch climb gradient mim 5.0% up to 2000'

DA(H) ABC: 553' (200') D: 558' (205')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

PANS OPS

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Bearings.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 28 OCT 22 (12-1) .Eff.3.Nov.

FRANKFURT/MAIN, GERMANY RNP Z Rwy 07C

BRIEFING STRIP ™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

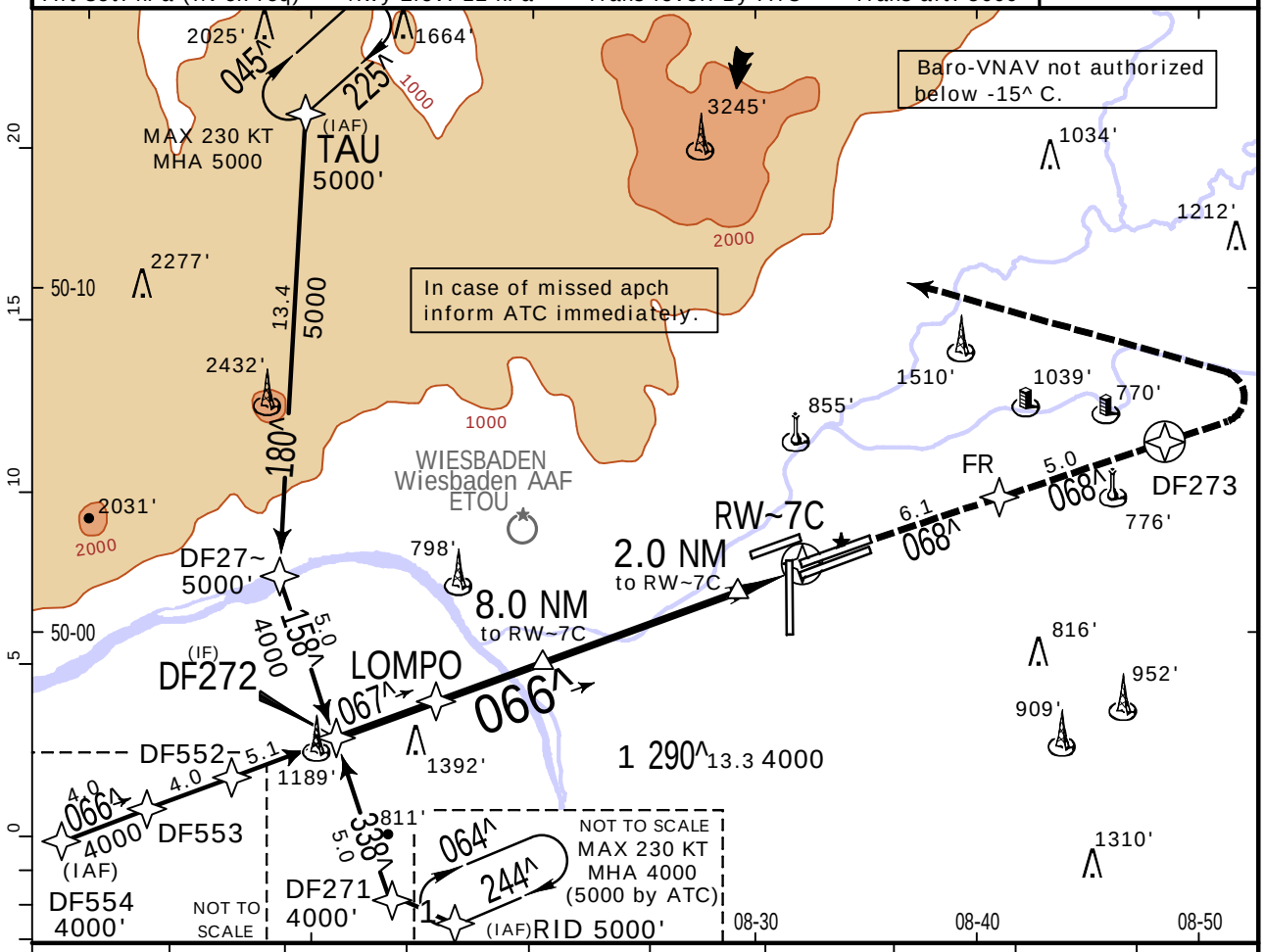
RNAV	Final Apch Crs 066^	LOMPO 4000' (3671')	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 364' Rwy 329'

MISSED APCH: Climb on 068^ to FR, then to DF273 or 5000', whichever is later, then turn LEFT direct to TAU maintain 5000'.

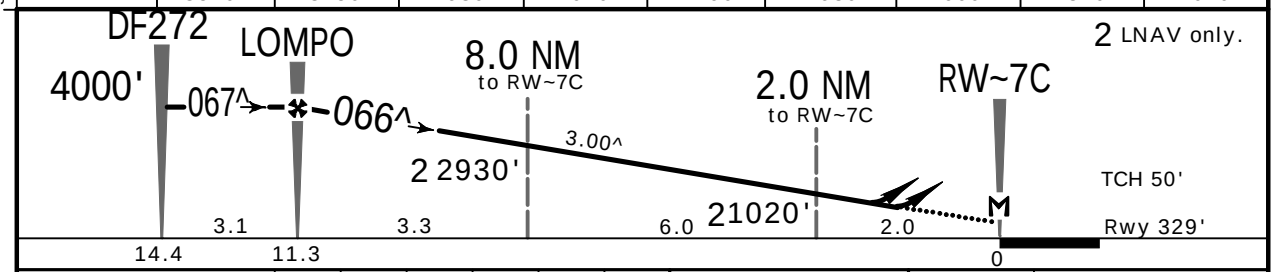
4300

MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'



NM to RW~7C	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3570'	3250'	2930'	2610'	2290'	1980'	1660'	1340'	1020'



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.00^	372	478	531	637	743	849
MAP at RW~7C							

ALSF-II
REIL
PAPI
FR
on
068^

.Standard. STRAIGHT-IN LANDING RWY 07C

	LNAV/VNAV		LNAV CDFA	
DA(H)	A: 654' (325')	C: 692' (363')	DA/MDA(H) B: 820' (491')	
	B: 664' (335')	D: 701' (372')	A: 790' (461')	CD: 840' (511')
	ALS out			ALS out
A	RVR 800m	RVR 1500m	RVR 1500m	
B				
C	RVR 1000m	RVR 1700m	RVR 1600m	RVR 2400m
D				

PANS OPS

CHANGES: None.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 28 OCT 22 (12-2) .Eff.3.Nov.

FRANKFURT/MAIN, GERMANY RNP Y Rwy 07C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

RNAV	Final Apch Crs 066^	TIXAK 2000' (1671')	DA/MDA(H) Refer to Minimums	Apt Elev 364' Rwy 329'

MISSED APCH: Climb on 068^ to FR, then to DF273 or 5000', whichever is later, then turn LEFT direct to TAU maintain 5000'.

RNP Apch | Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'

4300

MSA ARP

BRIEFING STRIP ™

In case of missed apch inform ATC immediately.

2025' 045^ 225^ 1664' 1000

TAU MANDATORY 5000'

MAX 230 KT MHA 5000

LOST COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS LOST COMMS

From TAU an adequate approach to RWY 07R shall be used

50-10

Procedure should be used between 2300 LT and 0500 LT by all RNP equipped acft.

2000 1000

3245' 2000 1000

775' 1034' 1212' 1510' 1039' 770' 855' 1167' 776' 844'

WIESBADEN Wiesbaden AAF ETOU

798'

RW~7C 2.0 NM to RW~7C TIXAK 066^ 6.1 068^ FR 5.0 068^ DF273

50-00

(IF) DF92~ 2400' 3.9 036^ 2000

816' 952' 909'

1189' 1392' 4.0 (SMA 2400) 068^ 6.3 (SMA 2500)

(IAF) IBLUS 5000'

811' DF911 3500'

DF914 3400' 4.5 346^ (SMA 2200) 3.6 309^ (SMA 2500)

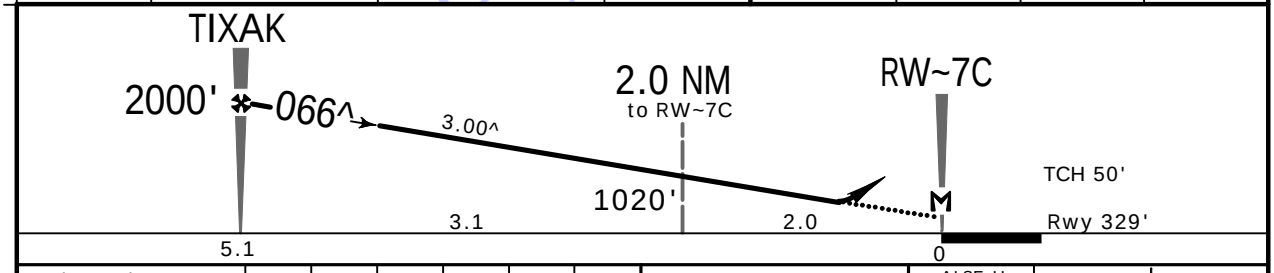
(IAF) ULNOK 5000'

1310' 1680' 1000

1438' 1113'

49-50 08-10 08-20

08-40	08-50	
NM to RW~7C	4.0	3.0	2.0
ALTITUDE	1660'	1340'	1020'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00^	372	478	531	637	743	849
MAP at RW~7C						

ALSF-II REIL PAPI FR on 068^

.Standard.

STRAIGHT-IN LANDING RWY 07C

LNAV

CDFA

DA/MDA(H)

A: 790' (461') B: 820' (491') CD: 840' (511')

ALS out

PANS OPS

A	RVR 1500m	
B		
C	RVR 1600m	RVR 2400m
D		

CHANGES: Altitude at ULNOK. Note.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 28 OCT 22 (12-3) .Eff.3.Nov.

FRANKFURT/MAIN, GERMANY RNP Z Rwy 07R

BRIEFING STRIP ™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

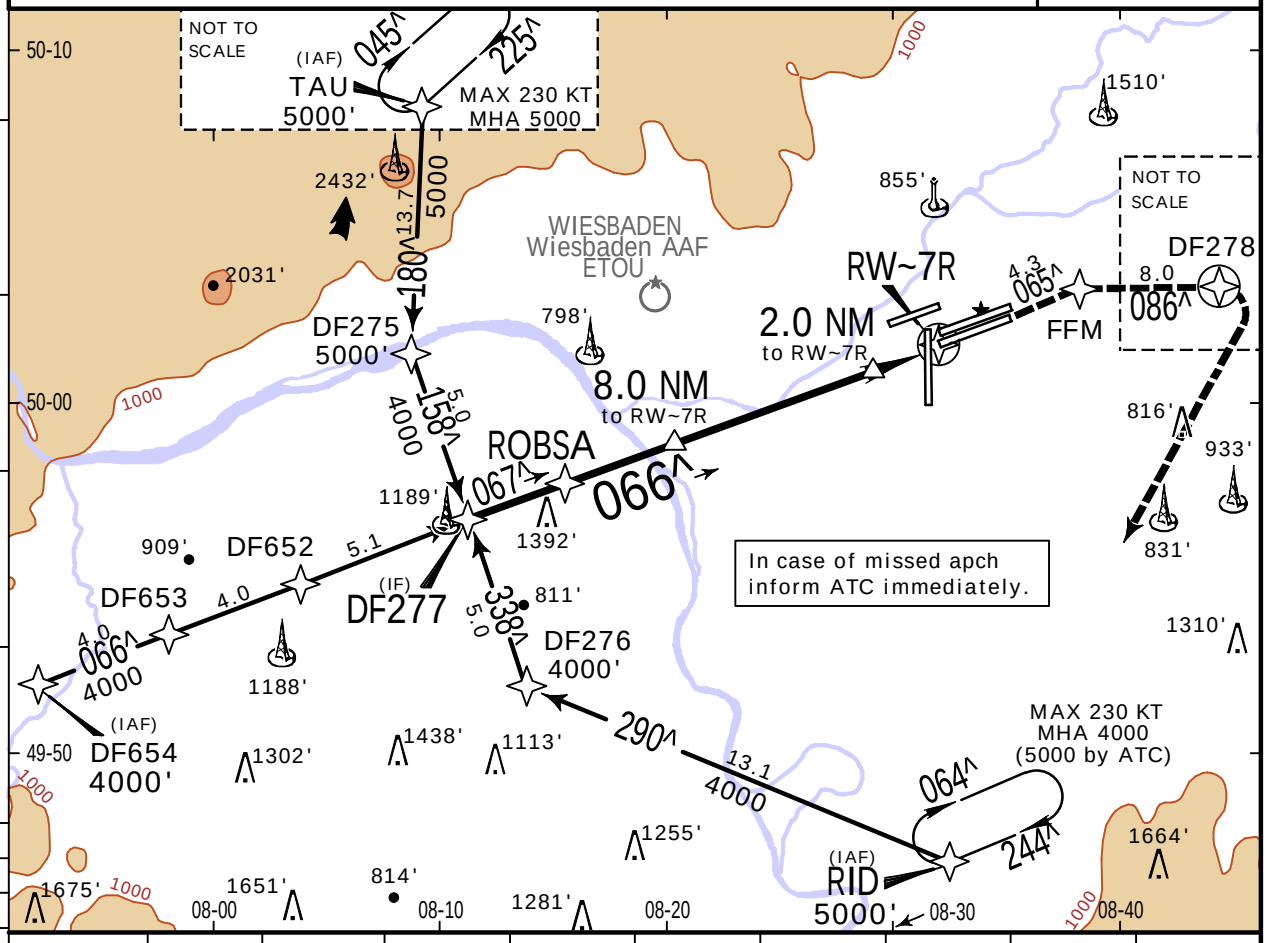
RNAV	Final Apch Crs	ROBSA	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev 364' Rwy 328'
	066^	4000' (3672')		

MISSED APCH: Climb on 065^ to FFM, then to DF278 or 5000', whichever is later, then turn RIGHT to RID and maintain 5000'.

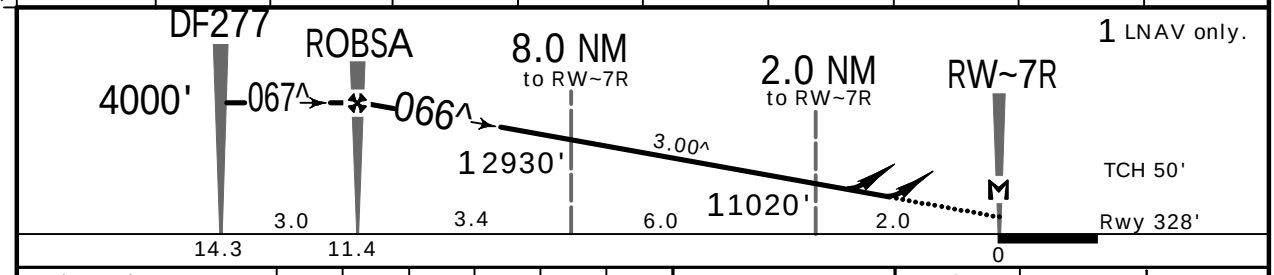
Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'

Baro-VNAV not authorized below -15^ C.

4300 MSA ARP



NM to RW~7R	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	3570'	3250'	2930'	2610'	2290'	1970'	1660'	1340'	1020'



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.00^	372	478	531	637	743	849
MAP at RW~7R							

ALSF-II REIL PAPI FFM on 065^

PANS OPS

.Standard. STRAIGHT-IN LANDING RWY 07R

	LNAV/VNAV DA(H)		LNAV CDFA DA/MDA(H)	
A:	624' (296')	C: 644' (316')	AB: 810' (482')	C: 830' (502')
B:	634' (306')	D: 716' (388')		D: 840' (512')

	ALS out		ALS out	
A	RVR 750m 1	RVR 1400m	RVR 1500m	
B	RVR 750m 2			
C			RVR 1600m	RVR 2400m
D	RVR 1100m	RVR 1800m		

1 With TDZ & CL & HUD: RVR 650m. 2 With TDZ & CL & HUD: RVR 700m.

CHANGES: None.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 28 OCT 22 (12-4) .Eff.3.Nov.

FRANKFURT/MAIN, GERMANY RNP Y Rwy 07R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

RNAV	Final Apch Crs	BOGVO	DA/MDA(H)	Apt Elev 364'
	066^	2000' (1672')	Refer to Minimums	Rwy 328'

MISSED APCH: Climb on 065^ to FFM, then to DF278 or 5000', whichever is later, then turn RIGHT to RID and maintain 5000'.

4300

MSA ARP

RNP Apch	Alt Set: hPa (IN on req)	Rwy Elev: 12 hPa	Trans level: By ATC	Trans alt: 5000'

In case of missed apch inform ATC immediately.

Procedure should be used between 2300 LT and 0500 LT by all RNP equipped acft.

WIESBADEN
Wiesbaden AAF
ETOU

RW~7R

2.0 NM to RW~7R

BOGVO (IF)

DF91~ 2400'

DF911 3500'

DF914 3400'

IBLUS (IAF) 5000'

ULNOK (IAF) 5000'

RID MANDATORY 5000'

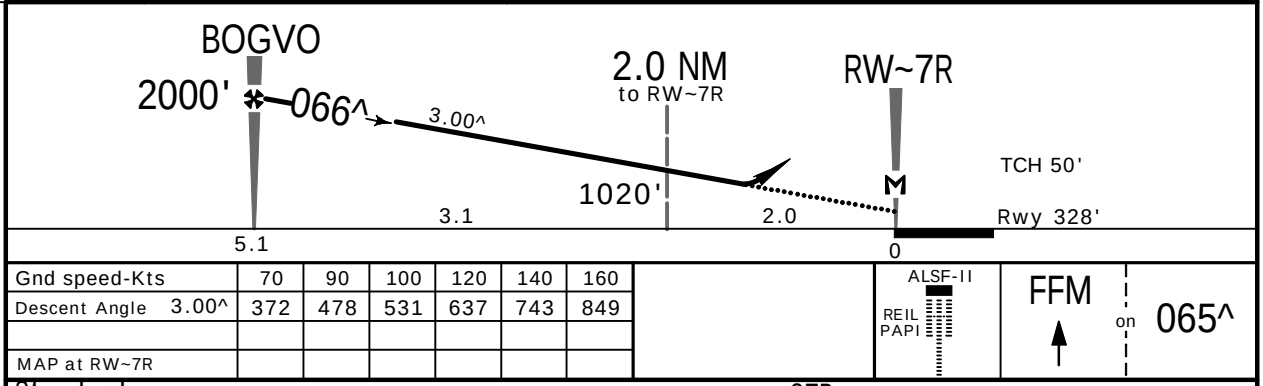
DF278

FFM

MAX 230 KT
MHA 4000
(5000 by ATC)

LOST COMMS ▼ LOST COMMS ▼
From RID an adequate approach to RWY 07C shall be used
LOST COMMS ▲ LOST COMMS ▲

NM to RW~7R	4.0	3.0	2.0
ALTITUDE	1660'	1340'	1020'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00^	372	478	531	637	743	849
MAP at RW~7R						

ALSF-II
REIL
PAPI

FFM on 065^

.Standard.

STRAIGHT-IN LANDING RWY 07R

LNAV

CDFA

DA/MDA(H)
AB: 810' (482')
C: 830' (502')
D: 840' (512')

ALS out

PANS OPS

A	RVR 1500m	
B		
C	RVR 1600m	RVR 2400m
D		

CHANGES: Altitude at ULNOK. Bearing. Note.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 28 OCT 22 (12-5) .Eff.3.Nov.

FRANKFURT/MAIN, GERMANY RNP Z Rwy 25L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

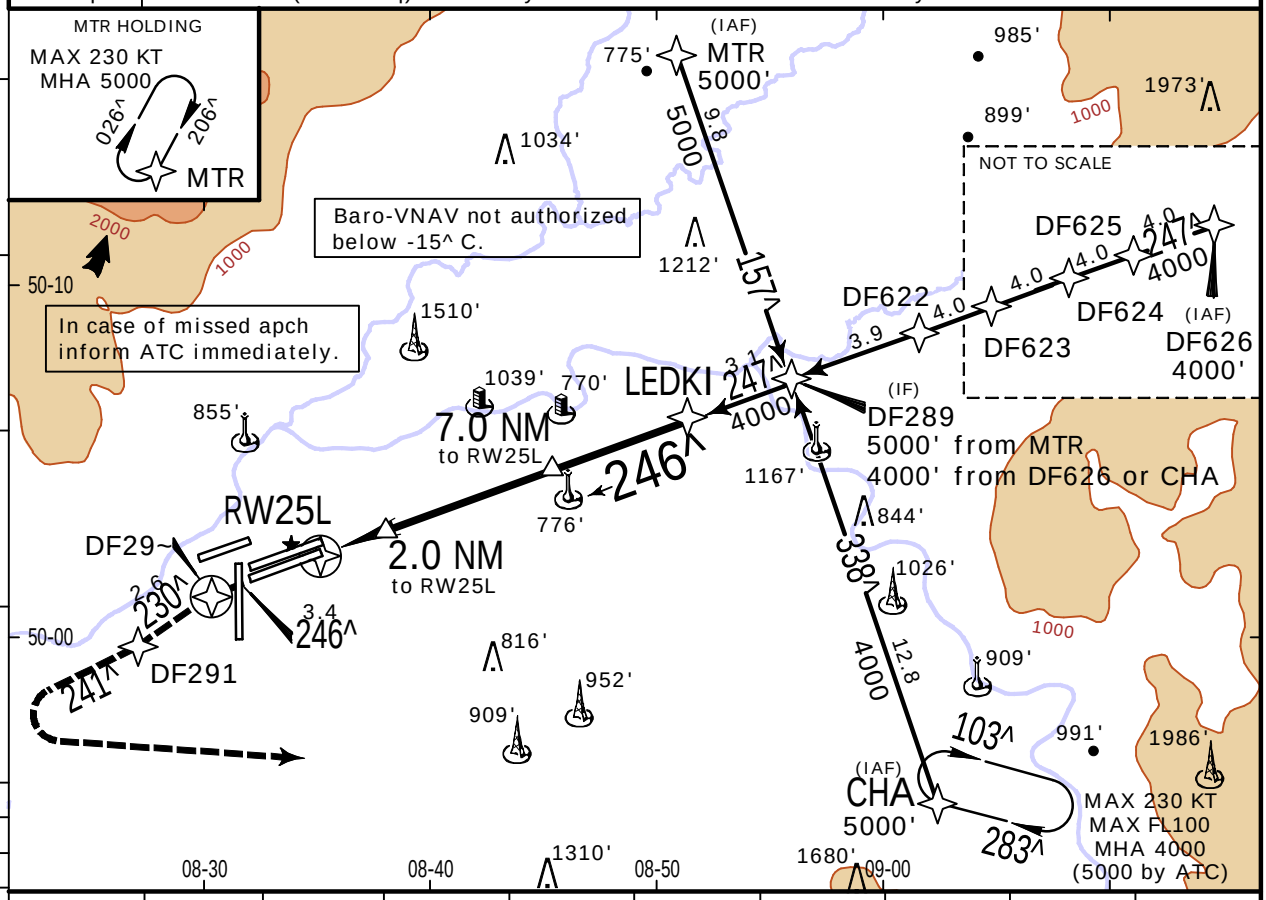
RNAV	Final Apch Crs	LEDKI	LNAV/VNAV DA(H) Refer to Minimums	Apt Elev	Rwy
	246^	4000' (3638')		364'	362'

MISSED APCH: Climb on 246^ to DF29~, then to DF291. Then on 241^ climb to 5000', then turn LEFT direct to CHA and maintain 5000'.

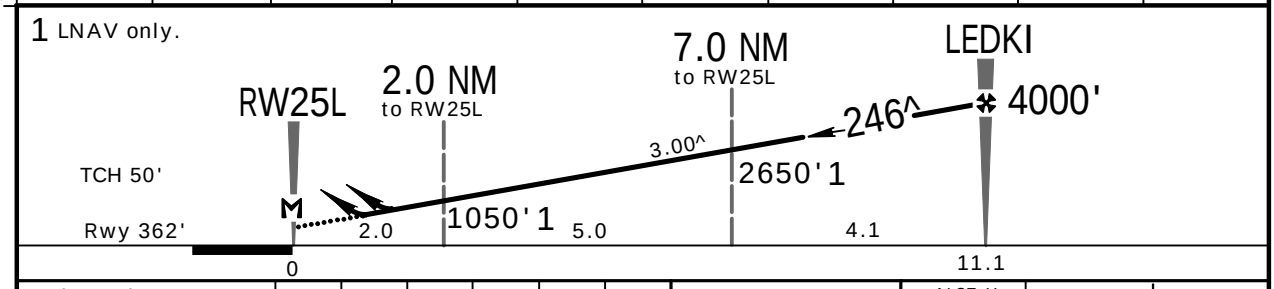
4300

MSA ARP

RNP Apch	Alt Set: hPa (IN on req)	Rwy Elev: 13 hPa	Trans level: By ATC	Trans alt: 5000'



NM to RW25L	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	1050'	1370'	1690'	2010'	2330'	2650'	2960'	3280'	3600'



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.00^	372	478	531	637	743	849
MAP at RW25L							

ALSF-II
REIL
PAPI

DF29~ on 246^

.Standard. STRAIGHT-IN LANDING RWY 25L

	LNAV/VNAV				LNAV	
DA(H)	A: 654' (292')	C: 673' (311')		DA/MDA(H)	CDFA 820' (458')	
	B: 663' (301')	D: 683' (321')				
	ALS out				ALS out	
A	RVR 750m 1	RVR 1400m		RVR 1400m		RVR 1500m
B	RVR 750m 2					
C						RVR 2100m
D	RVR 800m	RVR 1500m				

1 With TDZ & CL & HUD: RVR 650m. 2 With TDZ & CL & HUD: RVR 700m.

PANS OPS

CHANGES: Altitude at DF289. Bearings. Note.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 28 OCT 22 (12-6) .Eff.3.Nov.

FRANKFURT/MAIN, GERMANY RNP Y Rwy 25L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

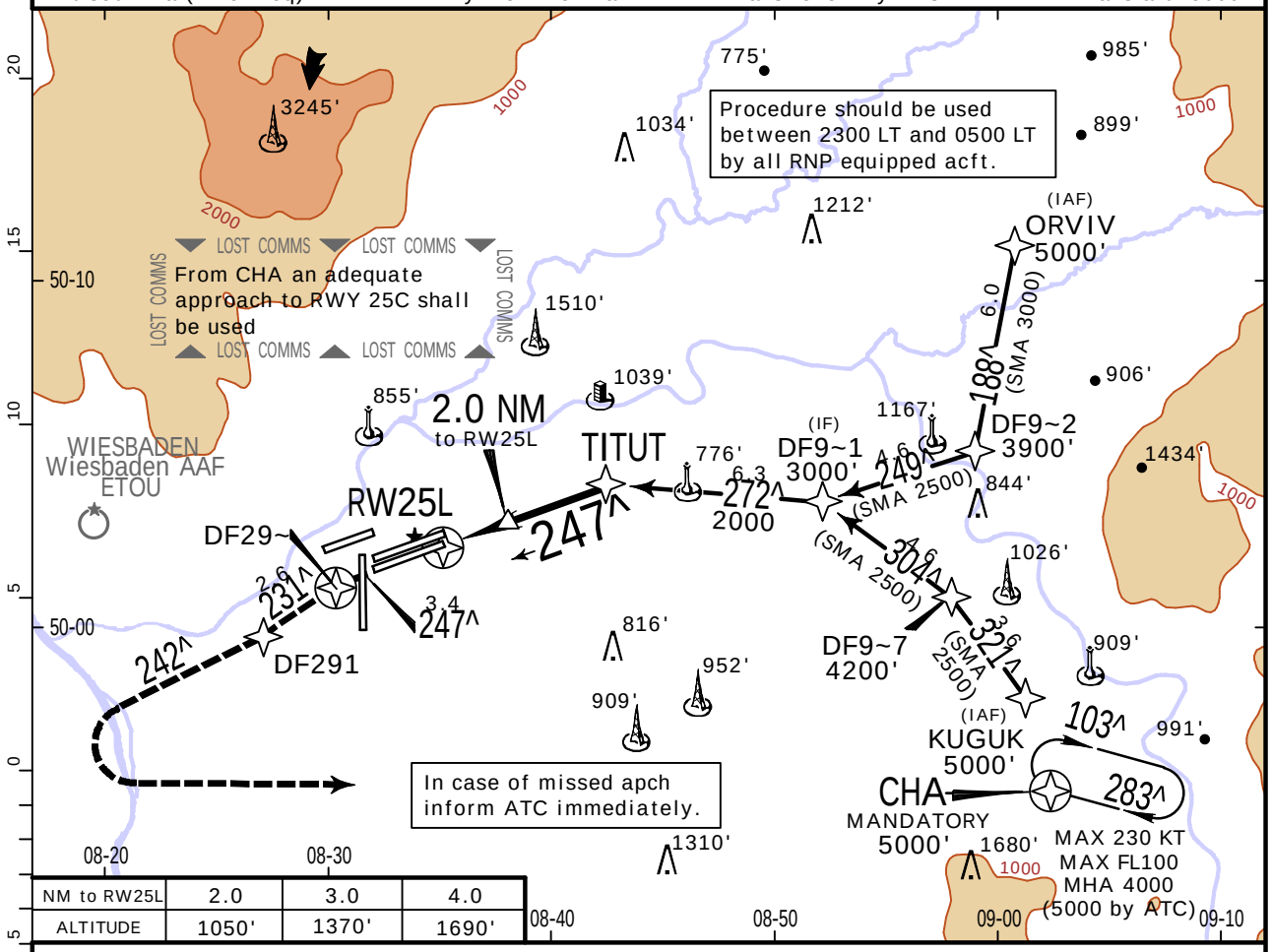
RNAV	Final Apch Crs 247^	TITUT 2000' (1638')	DA/MDA(H) Refer to Minmums	Apt Elev 364' Rwy 362'

MISSED APCH: Climb on 247^ to DF29~, then to DF291. Then on 242^ climb to 5000', then turn LEFT direct to CHA and maintain 5000'.

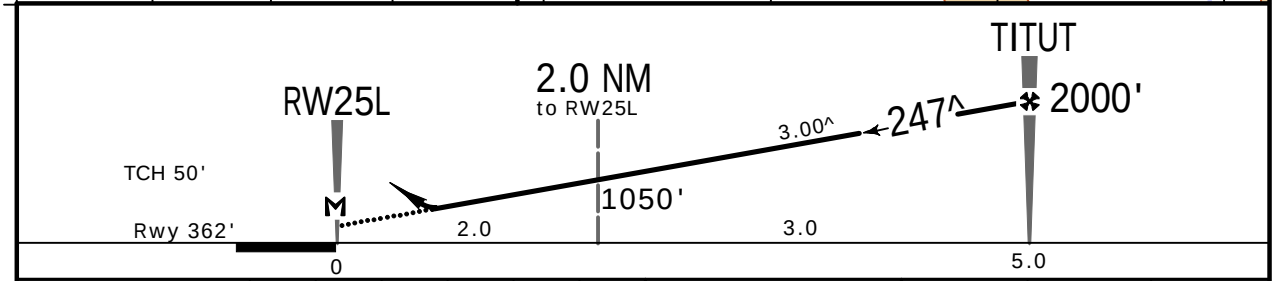
4300

MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



NM to RW25L	2.0	3.0	4.0
ALTITUDE	1050'	1370'	1690'



Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00^	372	478	531	637	743	849
MAP at RW25L						

ALSF-II
REIL
PAPI

DF29~ on 247^

.Standard.

STRAIGHT-IN LANDING RWY 25L
LNAV
CDFA

DA/MDA(H) A: 770' (408') BCD: 820' (458')

PANS OPS

		ALS out
A	RVR 1200m	RVR 1500m
B	RVR 1400m	
C		RVR 2100m
D		

CHANGES: None.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 28 OCT 22 (12-7) .Eff.3.Nov.

FRANKFURT/MAIN, GERMANY RNP Z Rwy 25C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

RNAV	Final Apch Crs	REDGO	LNAV/VNAV DA(H)	Apt Elev 364'
	246^	4000' (3636')	Refer to Minimums	Rwy 364'

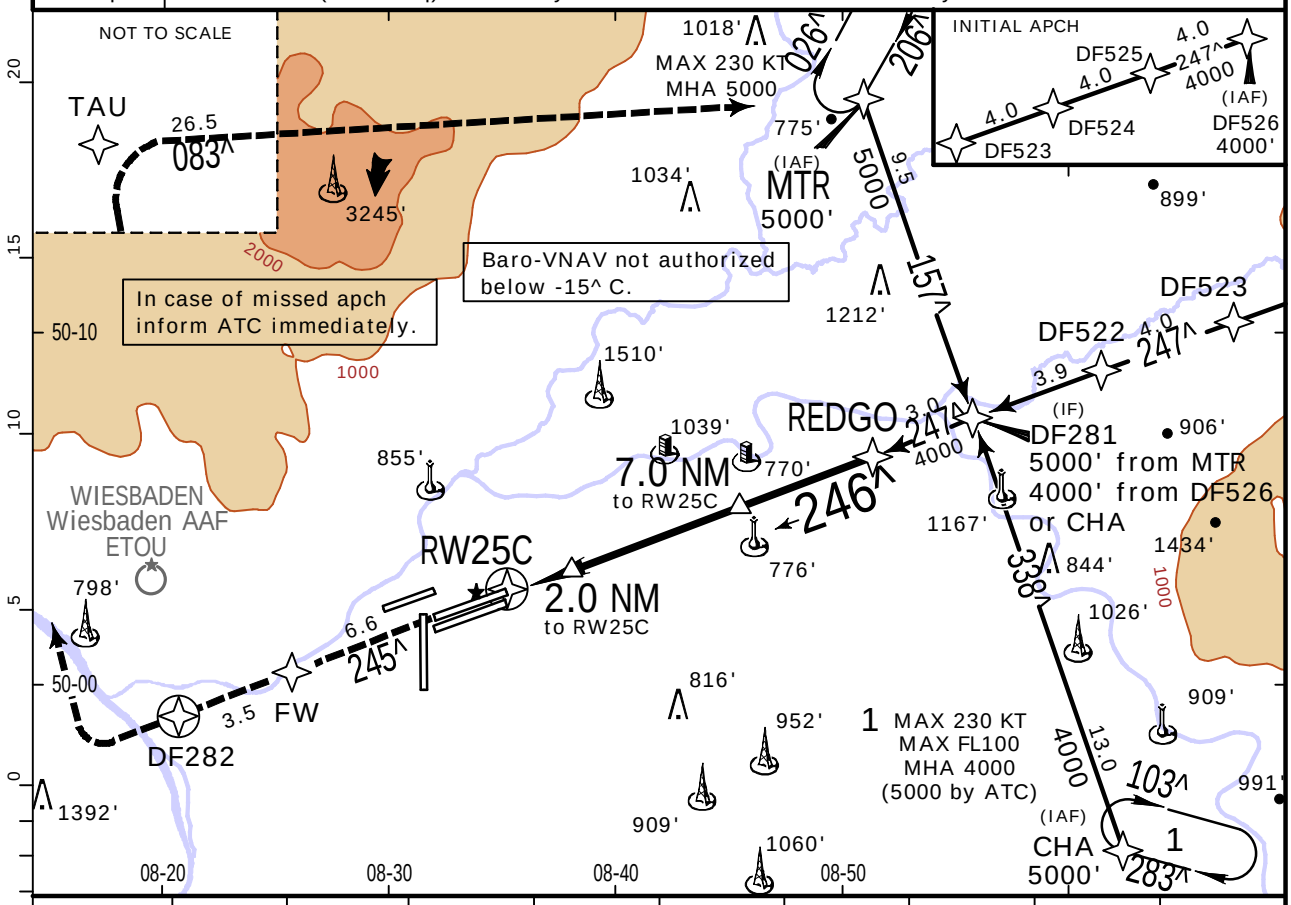
MISSED APCH: Climb on 245^ to FW, then to DF282 or 5000', whichever is later, then turn RIGHT direct to TAU. Turn RIGHT to MTR and maintain 5000'.

4300

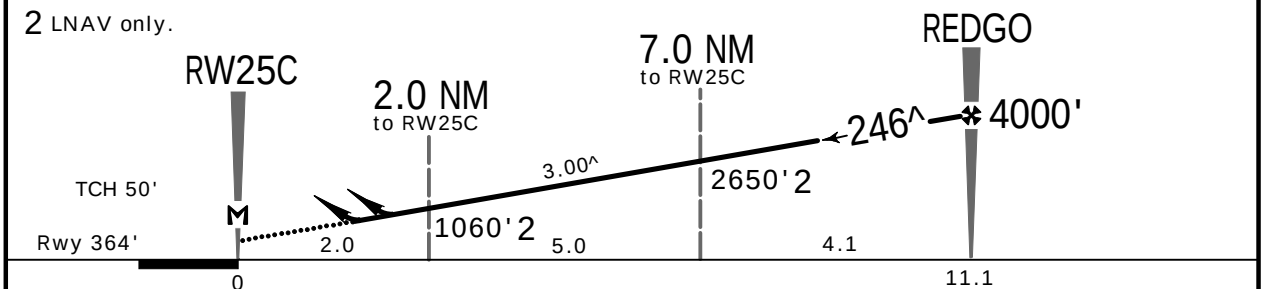
MSA ARP

RNP Apch	Alt Set: hPa (IN on req)	Rwy Elev: 13 hPa	Trans level: By ATC	Trans alt: 5000'

BRIEFING STRIP ™



NM to RW25C	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	1060'	1370'	1690'	2010'	2330'	2650'	2970'	3280'	3600'



Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.00^	372	478	531	637	743	849
MAP at RW25C							

ALSF-II
REIL
PAPI

FW on 245^

PANS OPS

.Standard. STRAIGHT-IN LANDING RWY 25C

	LNAV/VNAV DA(H)	LNAV CDFA DA/MDA(H)
A	693' (329')	800' (436')
B	700' (336')	
C	707' (343')	
D	714' (350')	840' (476')

	ALS out	ALS out
A	RVR 800m	RVR 1500m
B		
C	RVR 900m	RVR 1600m
D		

	RVR 1300m	RVR 1500m
AB		
CD	RVR 1500m	RVR 2200m

CHANGES: Altitude at DF281. Bearings. Note.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN FRANKFURT/MAIN, GERMANY

28 OCT 22 (12-8) .Eff.3.Nov.

RNP Y Rwy 25C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

RNAV	Final Apch Crs 247^	RATRU 2000' (1636')	DA/MDA(H) Refer to Minimums	Apt Elev 364' Rwy 364'

MISSED APCH: Climb on 245^ to FW, then to DF282 or 5000', whichever is later, then turn direct to TAU. Turn RIGHT to MTR and maintain 5000'.

4300

MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'

NOT TO SCALE

TAU

26.5 083^

3245'

2000

1000

1018'

026^ 206^

768'

909'

MAX 230 KT
MHA 5000

985'

MTR
MANDATORY
5000

775'

1034'

899'

(IAF)
ORVIV
5000

1212'

Procedure should be used between 2300 LT and 0500 LT by all RNP equipped acft.

In case of missed apch inform ATC immediately.

-50-10

1510'

188^ 6.8 (SMA 3000)

906'

1039'

855'

2.0 NM to RW25C

RATRU

776'

1167'

DF9~2
3900

1434'

6.3 274^ 2000

4.6 249^ 1

844'

WIESBADEN
Wiesbaden AAF
ETOU

RW25C

247^

(IF)

DF9~1
3000

304^ 6.6 1

1026'

798'

6.6 245^

DF9~7
4200

321^ 1

909'

-50-00

3.5 FW

816'

952'

DF282

1392'

LOST COMMS LOST COMMS

From MTR an adequate approach to RWY 25L shall be used

LOST COMMS LOST COMMS

LOST COMMS

909'

(IAF)
KUGUK
5000

1 (SMA 2500)

811'

08-20

08-30

1310'

1680'

08-40

08-50

09-00

NM to RW25C	2.0	3.0	4.0
ALTITUDE	1060'	1370'	1690'

RW25C

2.0 NM to RW25C

RATRU

TCH 50'

3.00^

247^

2000'

1060'

Rwy 364'

2.0

3.0

0

5.0

Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.00^	372	478	531	637	743	849
MAP at RW25C						

ALSF-II
REIL
PAPI

FW

on 245^

.Standard.

STRAIGHT-IN LANDING RWY 25C

LNAV

DA/MDA(H)
CDFA
AB: 800' (436')
CD: 840' (476')

PANS OPS	ALS out	
A	RVR 1300m	RVR 1500m
B		
C	RVR 1500m	RVR 2200m
D		

CHANGES: None.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 (12-40)

FRANKFURT/MAIN, GERMANY

1 GLS Z Rwy 07L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)	*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505 127.280	136.5	121.805

GBAS	Final Apch Crs	DF46~	DA(H) Refer to Minimums	Apt Elev 364' Rwy 305'
Ch 21159 G07A	066^	5000' (4695')		

MISSED APCH: On 066^ to DF363, then turn LEFT direct to DF364, then to DF365, then to DF366, then to TAU climbing to 5000'.

Alt Set: hPa (IN on req)	Rwy Elev: 11 hPa	Trans level: By ATC	Trans alt: 5000'

1. GPS required. 2. Parallel independent operation may be in force.

4300

MSA ARP

BRIEFING STRIP ™

1 MISSED APCH CLIMB GRAD MIN 4.6%

MAX 230 KT
MHA 5000

TAU
MANDATORY
5000'

LOST COMMS LOST COMMS
From TAU an adequate approach to RWY 07R shall be used
LOST COMMS LOST COMMS

In case of missed apch inform ATC immediately.

045^ 225^ 14.0 267^ DF366 3245' 2000 7.7 337^ 1510' DF365 855' 3.6 066^ 1039' 2.3 066^ DF364 DF363

WIESBADEN
Wiesbaden AAF
ETOU

2431' 2277' 2432' 2031' 798' 1392' 909' 1189' 811' 1188' 1309'

1000 2000

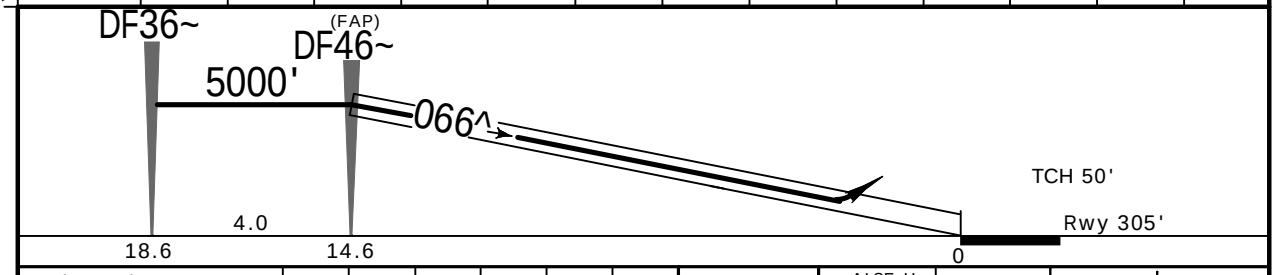
50-10 50-00

DF46~ (IF) DF36~ 3.7 066^ (IAF) DF454 5000' 4.0 066^ 5000 DF453

GBAS Ch 21159 G07A

07-50 08-00 08-10 08-20 08-30 08-40

DIST to THR	13.0	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	4500'	4180'	3860'	3540'	3230'	2910'	2590'	2270'	1950'	1630'	1320'	1000'	680'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00^	372	478	531	637	743	849

ALSF-II
REIL
PAPI

DF363 on 066^ DF364 LT

Standard.

STRAIGHT-IN LANDING RWY 07L
GLS
Missed apch climb gradient mim 4.6% until passing 3500'
DA(H) ABC: 505' (200') D: 512' (207')

PANS OPS

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Plotting sequence.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN
29 JUL 22 (12-40A)

FRANKFURT/MAIN, GERMANY
1 CAT II GLS Z Rwy 07L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)	*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505 127.280	136.5	121.805

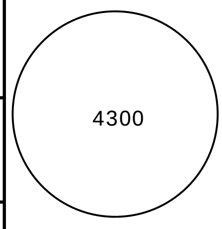
BRIEFING STRIP ™

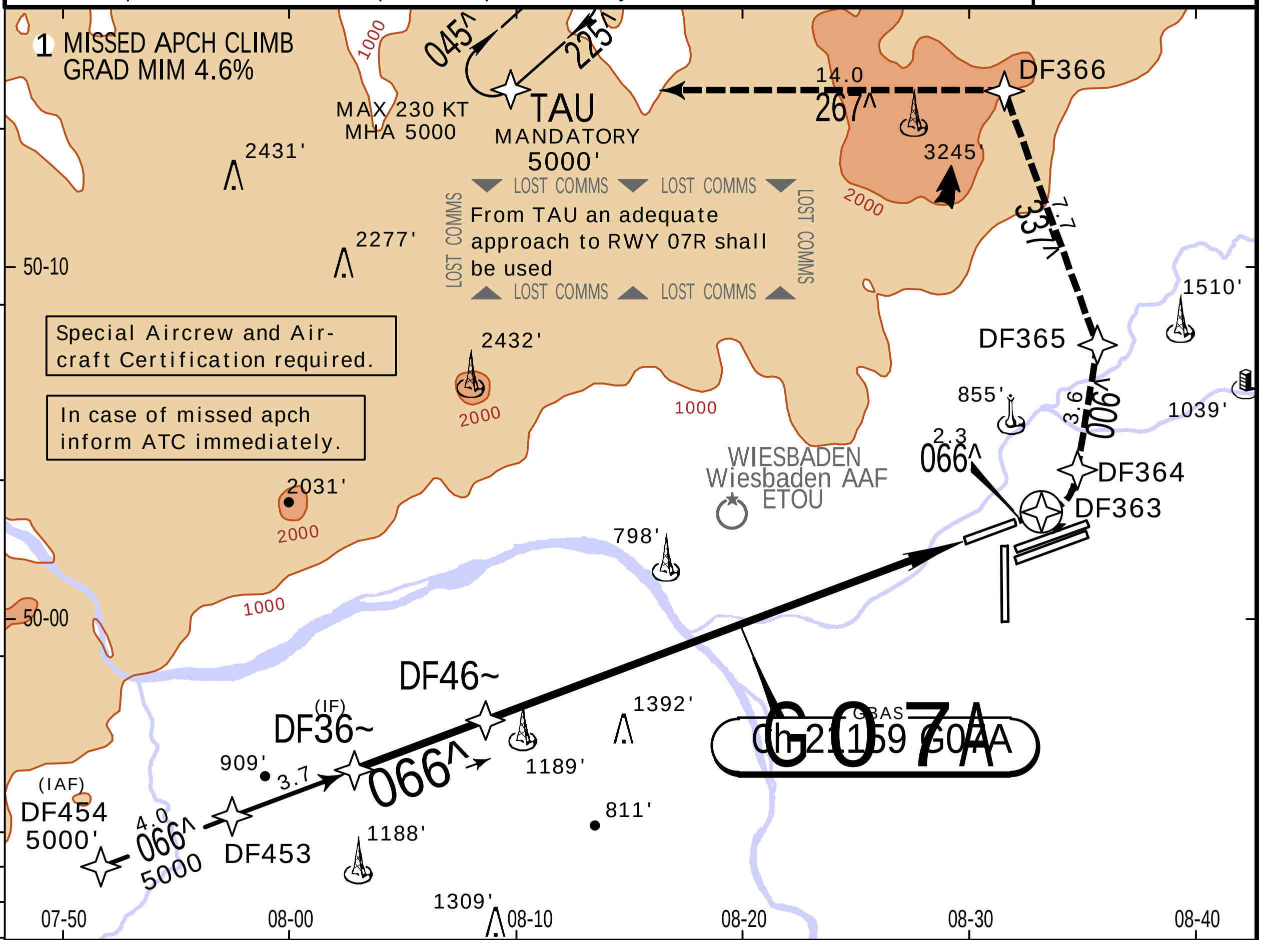
GBAS	Final Apch Crs	DF46~	CAT II GLS	Apt Elev 364'
Ch 21159 G07A	066^	5000' (4695')	Refer to Minimums	Rwy 305'

MISSED APCH: On 066^ to DF363, then turn LEFT direct to DF364, then to DF365, then to DF366, then to TAU climbing to 5000'.

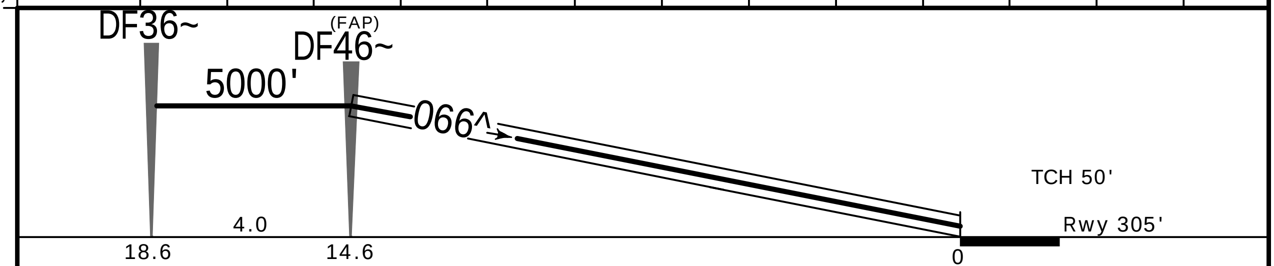
Alt Set: hPa (IN on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 5000'

1. GPS required. 2. Parallel independent operation may be in force.

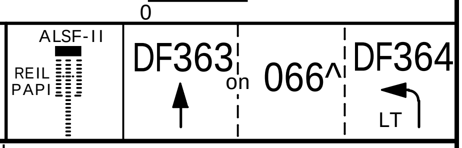




DIST to THR	13.0	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	4500'	4180'	3860'	3540'	3230'	2910'	2590'	2270'	1950'	1630'	1320'	1000'	680'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00^	372	478	531	637	743	849



.Standard.

STRAIGHT-IN LANDING RWY 07L
Missed apch climb gradient mim 4.6% up to 3500'

A: RA 99' DA(H) 405'(100') B: RA 105' DA(H) 411'(106') C: RA 118' DA(H) 424'(119')	D: RA 131' DA(H) 437'(132')
RVR 300m	RVR 400m

PANS OPS

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 (12-41)

FRANKFURT/MAIN, GERMANY

1 GLS Y Rwy 07L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)	*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505 127.280	136.5	121.805

GBAS	Final Apch Crs	DF45~	DA(H) Refer to Minimums	Apt Elev 364' Rwy 305'
Ch 23625 G07E	066^	5000' (4695')		

MISSED APCH: On 066^ to DF363, then turn LEFT direct to DF364, then to DF365, then to DF366, then to TAU climbing to 5000'.

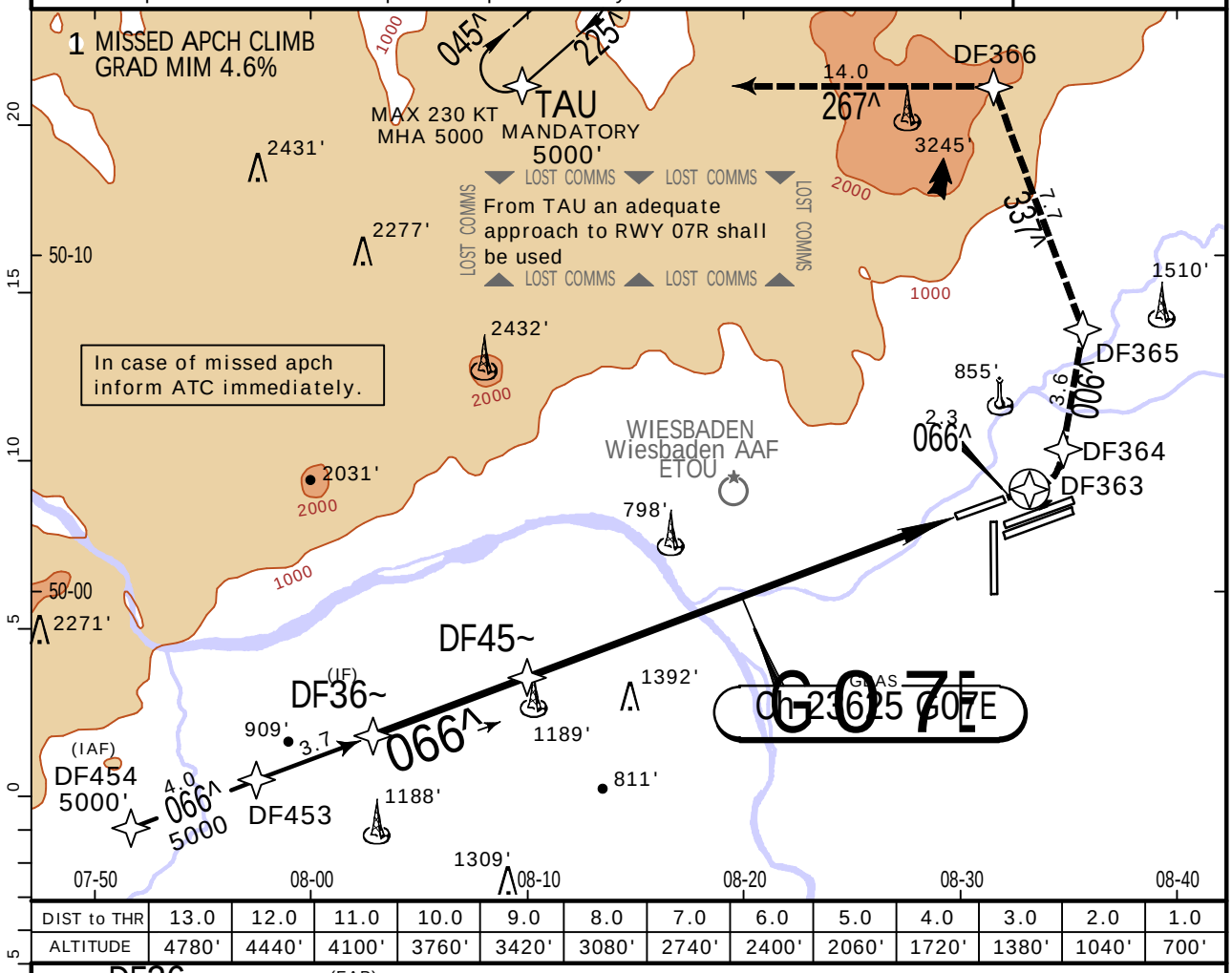
Alt Set: hPa (IN on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 5000'

1. GPS required. 2. Parallel independent operation may be in force.

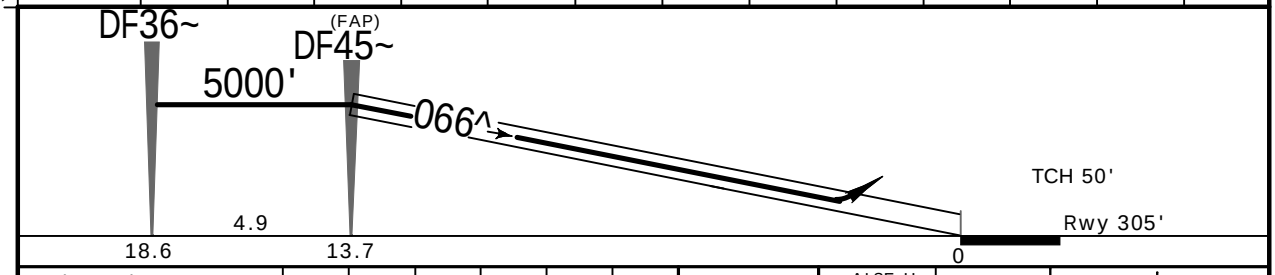
4300

MSA ARP

BRIEFING STRIP ™



DIST to THR	13.0	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	4780'	4440'	4100'	3760'	3420'	3080'	2740'	2400'	2060'	1720'	1380'	1040'	700'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI

DF363 on 066^ DF364 LT

Standard.

STRAIGHT-IN LANDING RWY 07L
GLS
Missed apch climb gradient mim 4.6% until passing 3500'
DA(H) ABC: 505' (200') D: 512' (207')

PANS OPS

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-41A

FRANKFURT/MAIN, GERMANY
1 CAT II GLS Y Rwy 07L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

BRIEFING STRIP ™

GBAS	Final Apch Crs	DF45~	CAT II GLS	Apt Elev 364'
Ch 23625 G07E	066^	5000' (4695')	Refer to Minimums	Rwy 305'

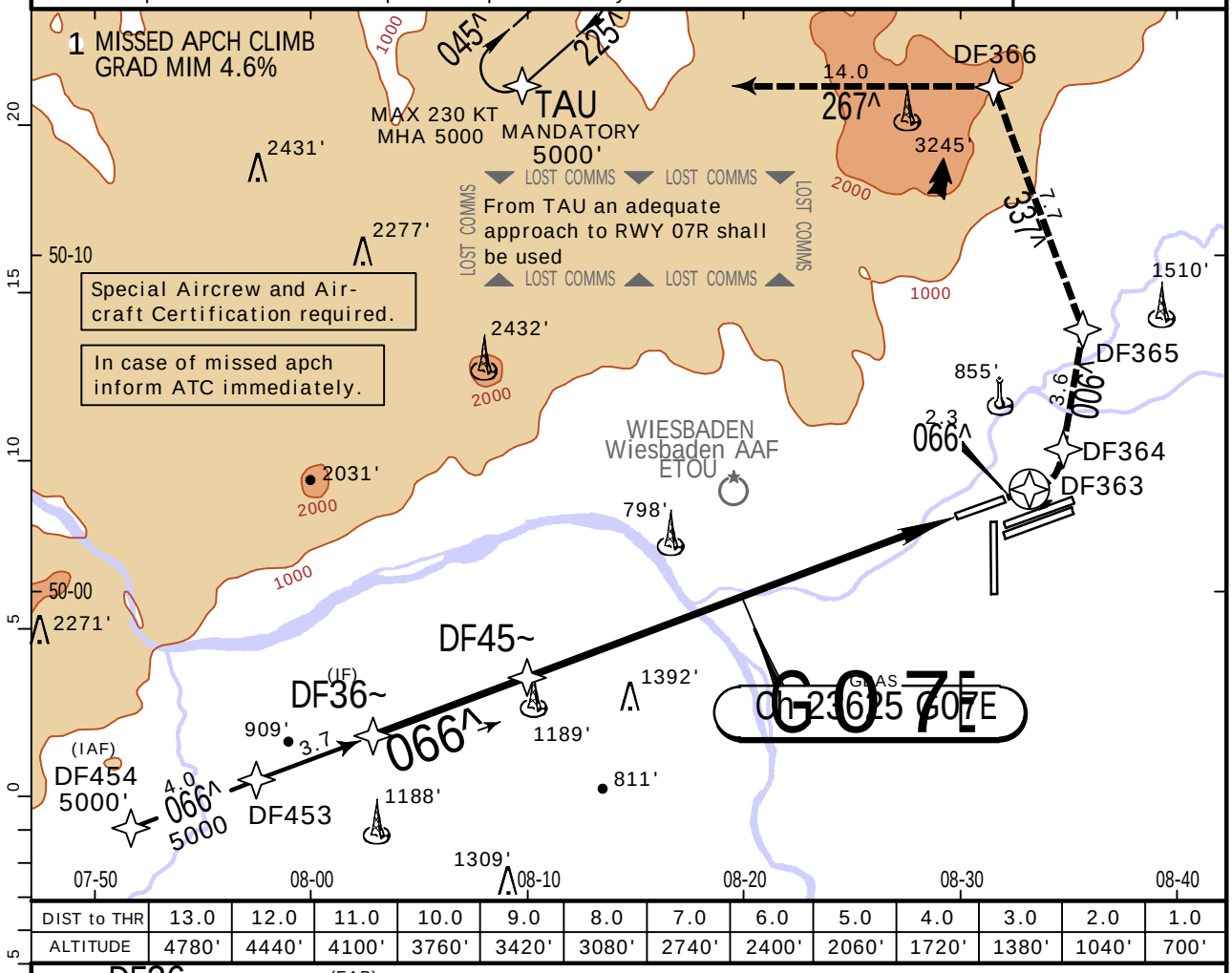
MISSED APCH: On 066^ to DF363, then turn LEFT direct to DF364, then to DF365, then to DF366, then to TAU climbing to 5000'.

Alt Set: hPa (IN on req) | Rwy Elev: 11 hPa | Trans level: By ATC | Trans alt: 5000'

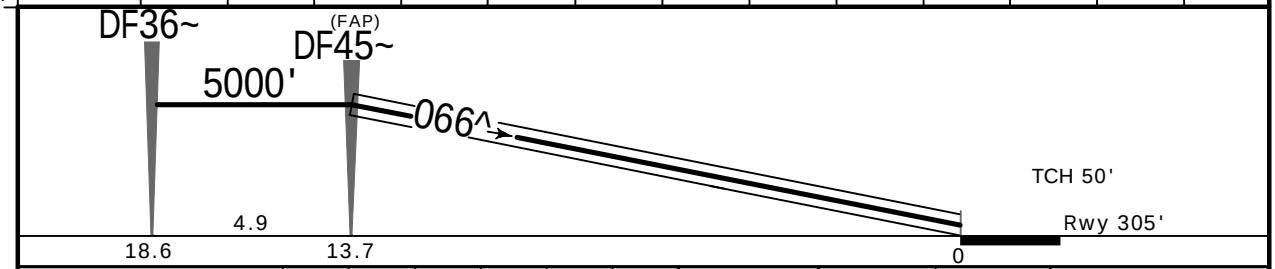
1. GPS required. 2. Parallel independent operation may be in force.

4300

MSA ARP



DIST to THR	13.0	12.0	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	4780'	4440'	4100'	3760'	3420'	3080'	2740'	2400'	2060'	1720'	1380'	1040'	700'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI

DF363 on 066^ DF364 LT

PANS OPS

.Standard.

STRAIGHT-IN LANDING RWY 07L
Missed apch climb gradient mim 4.6% up to 3500'

A: RA 99' DA(H) 405' (100')	D: RA 131'
B: RA 105' DA(H) 411' (106')	DA(H) 437' (132')
C: RA 118' DA(H) 424' (119')	
RVR 300m	RVR 400m

CHANGES: New chart.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN 29 JUL 22 (12-42)

FRANKFURT/MAIN, GERMANY
GLS Z Rwy 07C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

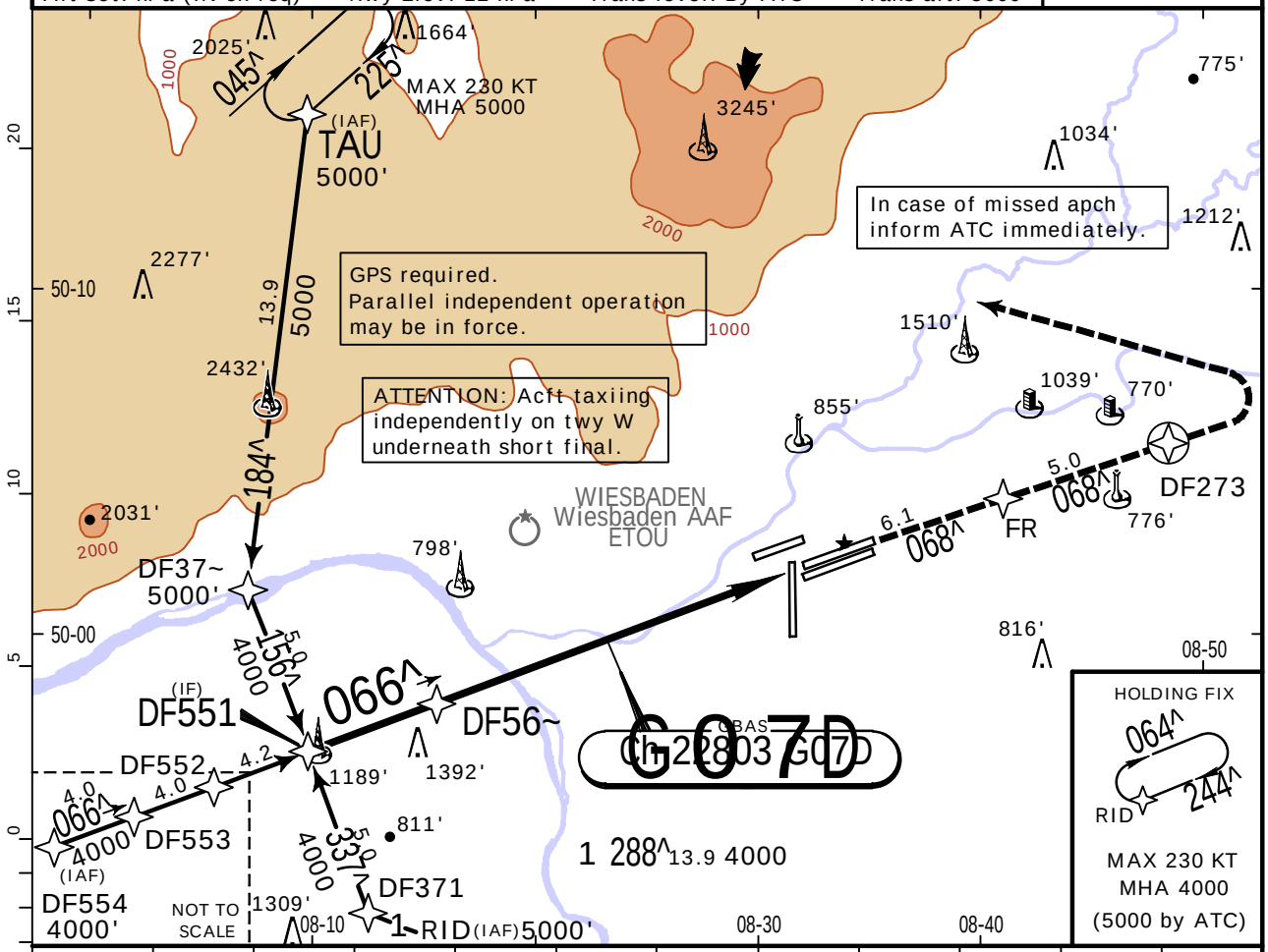
GBAS	Final Apch Crs	DF56~	DA(H)	Apt Elev 364'
Ch 22803 G07D	066^	4000' (3671')	529' (200')	Rwy 329'

MISSED APCH: Climb on 068^ to FR, then to DF273 or 5000' whichever is later. Turn LEFT direct to TAU, maintain 5000'.

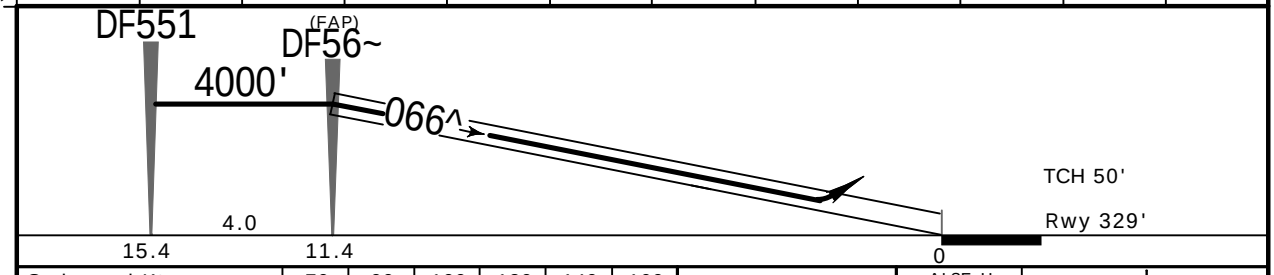
4300

MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'



DIST to THR	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	3890'	3570'	3250'	2930'	2610'	2290'	1980'	1660'	1340'	1020'	700'



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00^	372	478	531	637	743	849

ALSF-II
REIL
PAPI
FR
on 068^

Standard.

STRAIGHT-IN LANDING RWY 07C
GLS
DA(H) 529' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

PANS OPS

CHANGES: Printing sequence.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-42A

FRANKFURT/MAIN, GERMANY
CAT II GLS Z Rwy 07C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

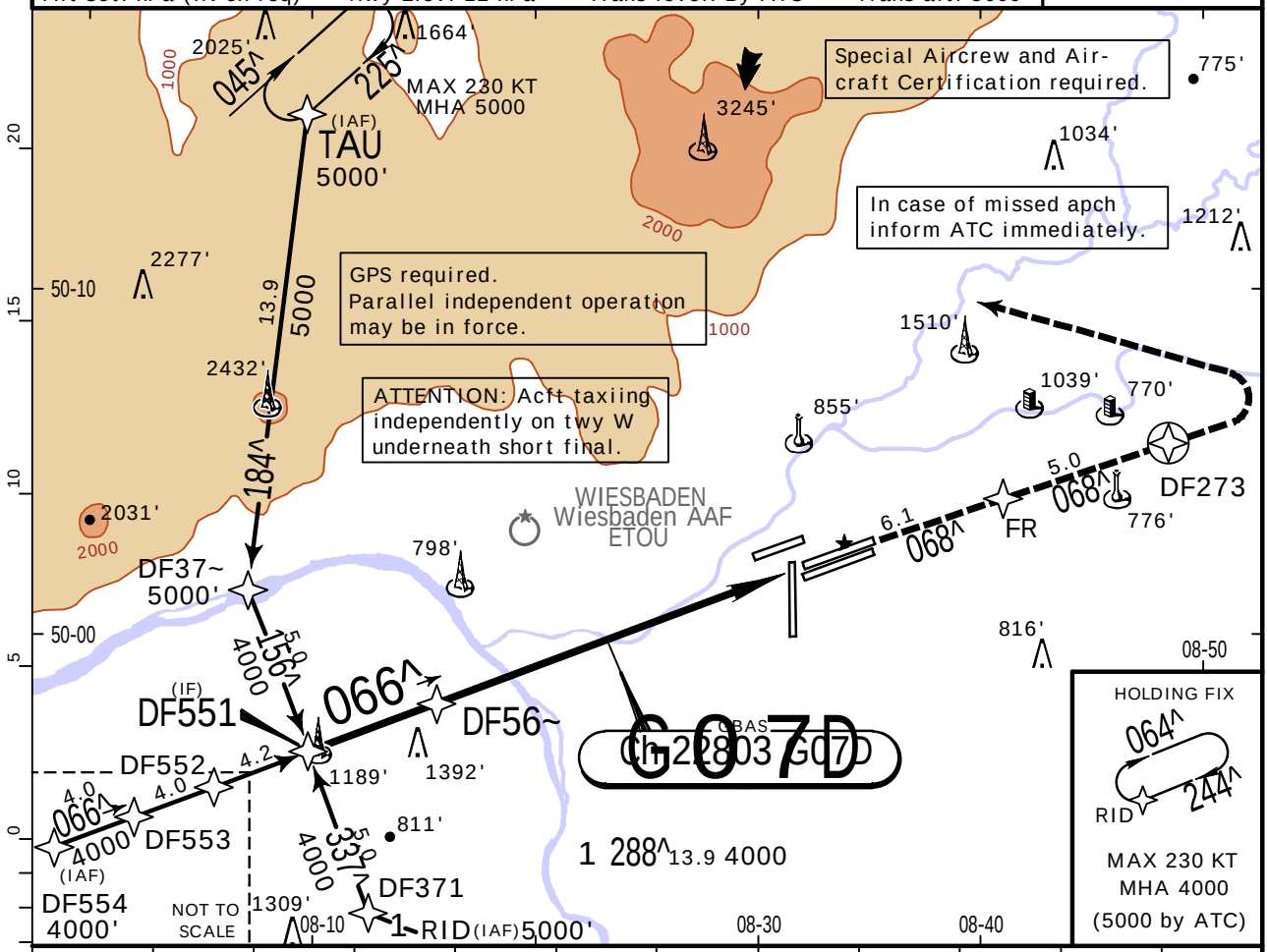
GBAS	Final Apch Crs	DF56~	CAT II GLS	Apt Elev 364'
Ch 22803 G07D	066^	4000' (3671')	RA 102' DA(H) 429'(100')	Rwy 329'

MISSED APCH: Climb on 068^ to FR, then to DF273 or 5000' whichever is later. Turn LEFT direct to TAU, maintain 5000'.

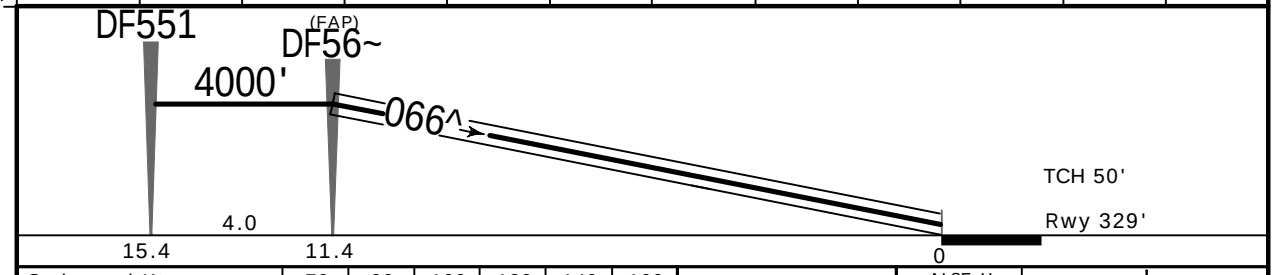
4300 MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'

BRIEFING STRIP ™



DIST to THR	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	3890'	3570'	3250'	2930'	2610'	2290'	1980'	1660'	1340'	1020'	700'



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00^	372	478	531	637	743	849

ALSF-II REIL PAPI FR on 068^

.Standard. STRAIGHT-IN LANDING RWY 07C

RA 102'
DA(H) 429' (100')

RVR 300m

PANS OPS

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 (12-43)

FRANKFURT/MAIN, GERMANY GLS Y Rwy 07C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

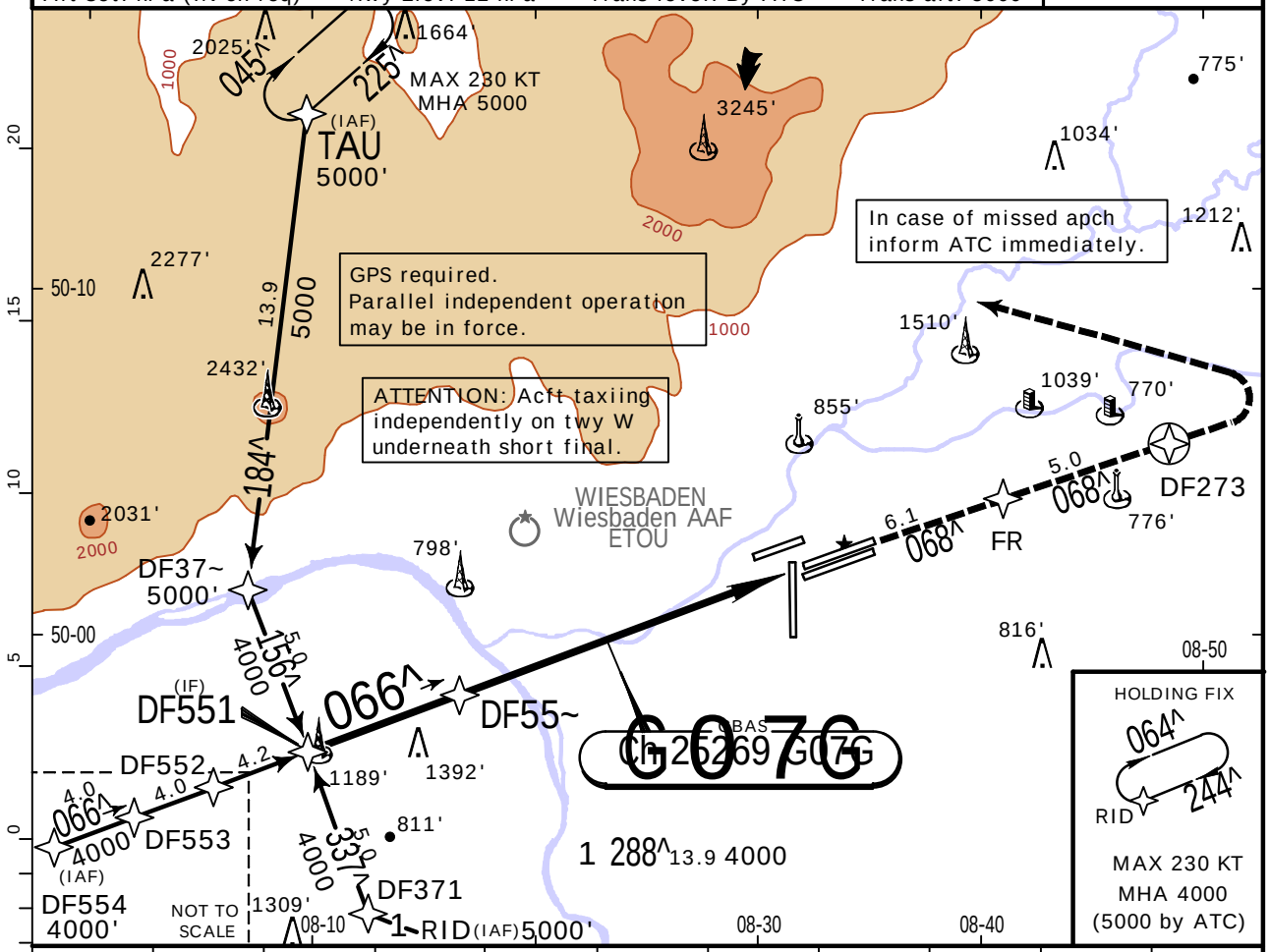
GBAS	Final Apch Crs	DF55~	DA(H)	Apt Elev 364'
Ch 25269 G07G	066^	4000' (3671')	529' (200')	Rwy 329'

MISSED APCH: Climb on 068^ to FR, then to DF273 or 5000' whichever is later. Turn LEFT direct to TAU, maintain 5000'.

4300

MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'



DIST to THR	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	3780'	3440'	3100'	2760'	2420'	2080'	1740'	1400'	1060'	720'

Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI
FR
on 068^

Standard.

STRAIGHT-IN LANDING RWY 07C
GLS
DA(H) 529' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

PANS OPS

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-43A

FRANKFURT/MAIN, GERMANY
CAT II GLS Y Rwy 07C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

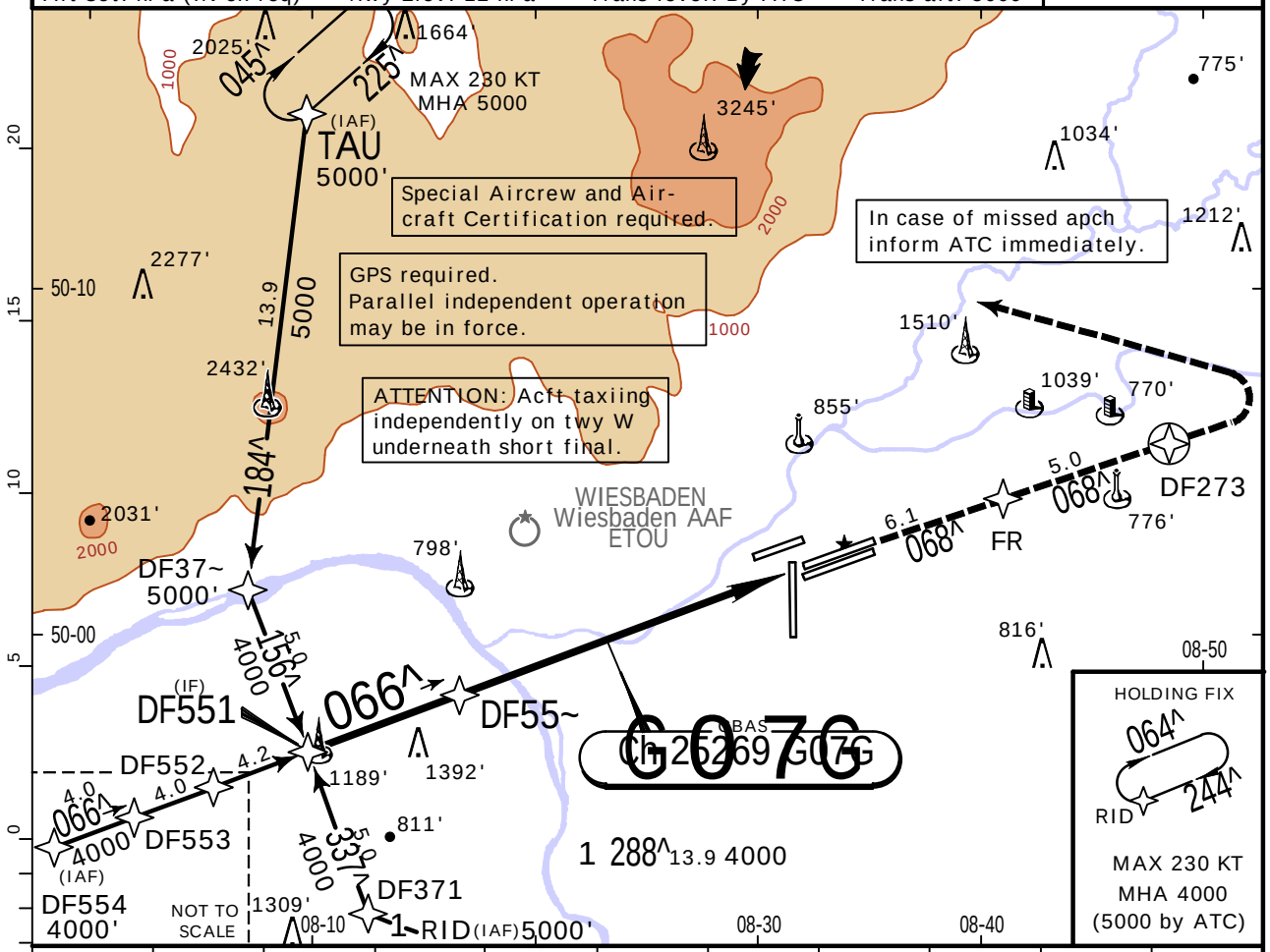
GBAS	Final Apch Crs	DF55~	CAT II GLS RA 102' DA(H)	Apt Elev 364' Rwy 329'
Ch 25269 G07G	066^	4000' (3671')	429'(100')	

MISSED APCH: Climb on 068^ to FR, then to DF273 or 5000' whichever is later. Turn LEFT direct to TAU, maintain 5000'.

4300 MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'

BRIEFING STRIP ™



DIST to THR	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	3780'	3440'	3100'	2760'	2420'	2080'	1740'	1400'	1060'	720'

Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.20^	396	510	566	679	793	906

ALSF-II REIL PAPI FR on 068^

PANS OPS

.Standard. STRAIGHT-IN LANDING RWY 07C

RA 102'
DA(H) 429'(100')

RVR 300m

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-44

FRANKFURT/MAIN, GERMANY GLS Z Rwy 07R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

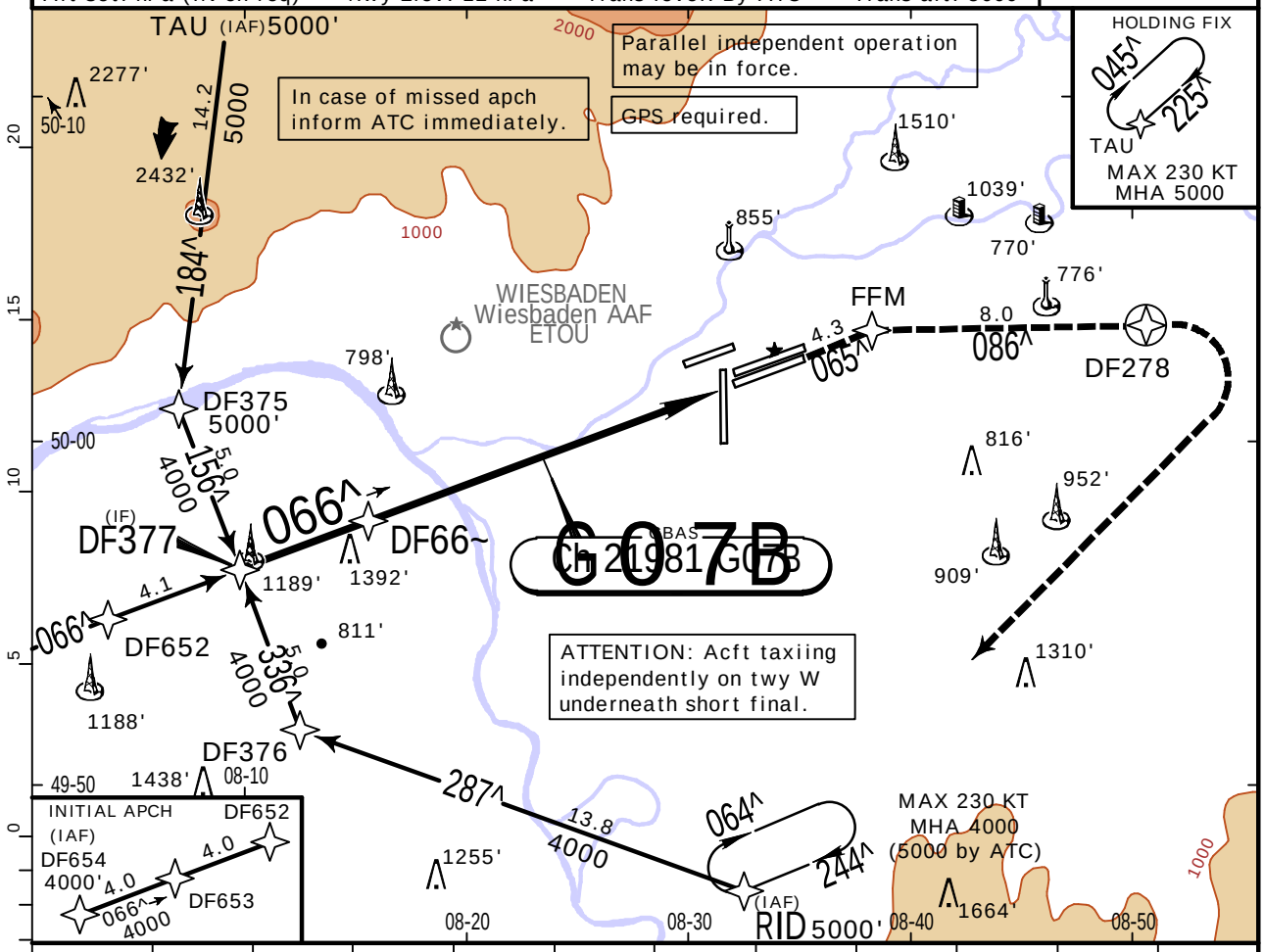
GBAS	Final Apch Crs	DF66~	DA(H)	Apt Elev 364'
Ch 21981 G07B	066^	4000' (3672')	528' (200')	Rwy 328'

MISSED APCH: Climb on 065^ to FFM, then to DF278 or 5000' whichever is later. Turn RIGHT direct to RID, maintain 5000'.

4300

MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'



DIST to THR	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	3890'	3570'	3250'	2930'	2610'	2290'	1970'	1660'	1340'	1020'	700'

Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00^	372	478	531	637	743	849

ALSF-II
REIL
PAPI

FFM on 065^

Standard.

STRAIGHT-IN LANDING RWY 07R
GLS
DA(H) 528' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

PANS OPS

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-44A

FRANKFURT/MAIN, GERMANY
CAT II GLS Z Rwy 07R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

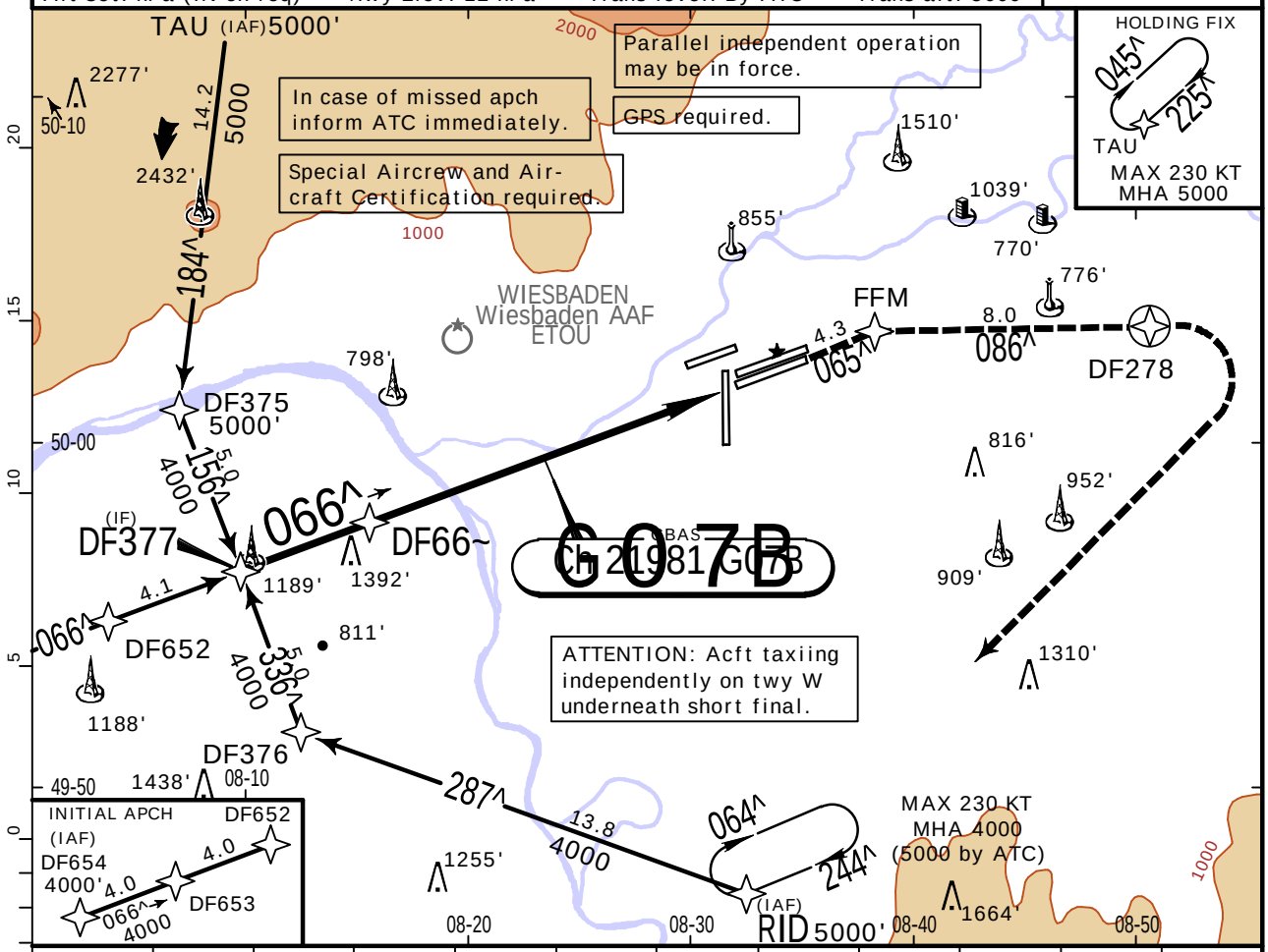
GBAS	Final Apch Crs	DF66~	CAT II GLS	Apt Elev 364'
Ch 21981 G07B	066^	4000' (3672')	RA 101' DA(H) 428'(100')	Rwy 328'

MISSED APCH: Climb on 065^ to FFM, then to DF278 or 5000' whichever is later. Turn RIGHT direct to RID, maintain 5000'.

4300

MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'



DIST to THR	11.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	3890'	3570'	3250'	2930'	2610'	2290'	1970'	1660'	1340'	1020'	700'

Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00^	372	478	531	637	743	849

ALSF-II
REIL
PAPI

FFM on 065^

.Standard.

STRAIGHT-IN LANDING RWY 07R

RA 101'
DA(H) 428'(100')

RVR 300m

PANS OPS

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-45

FRANKFURT/MAIN, GERMANY GLS Y Rwy 07R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

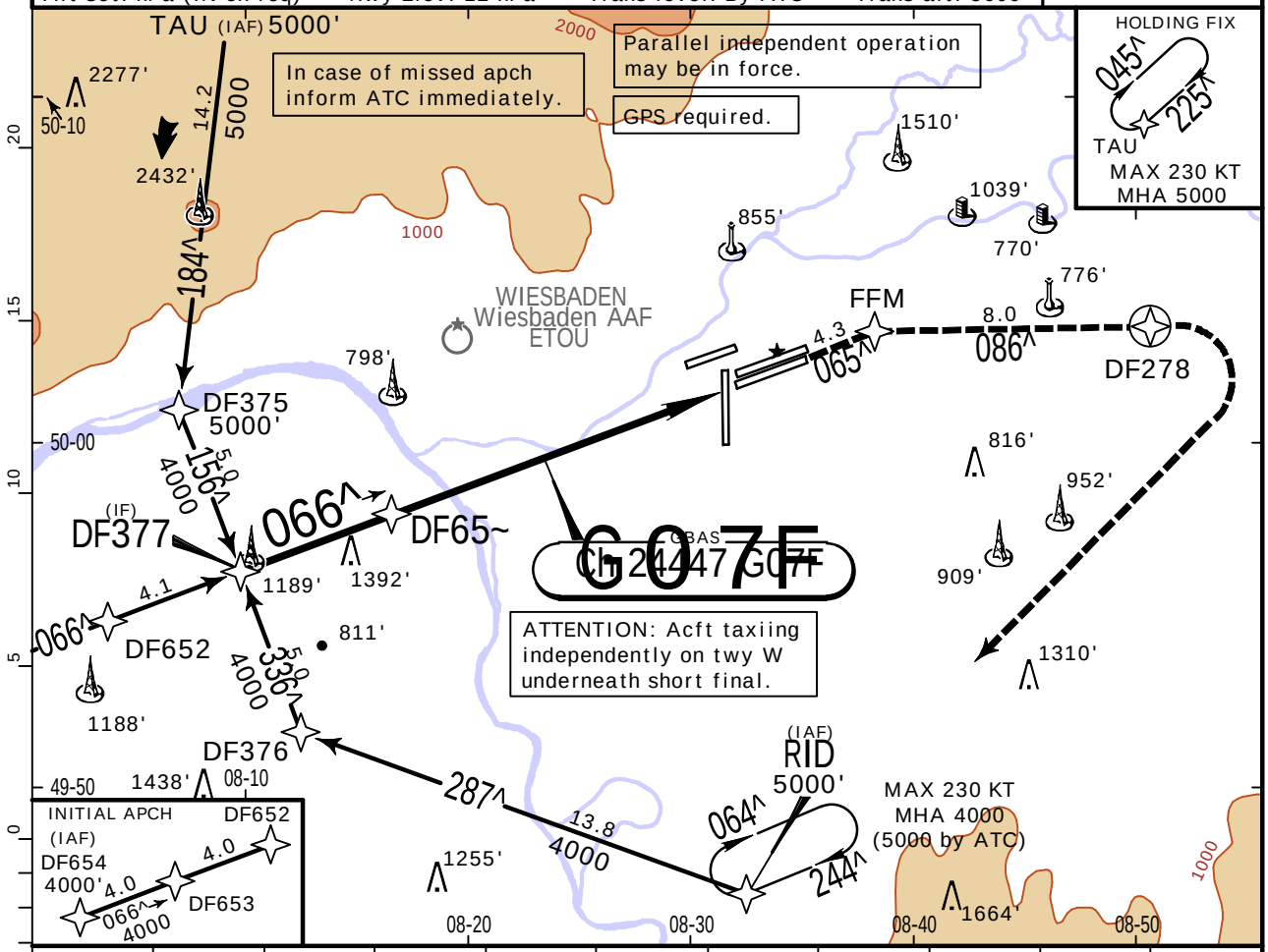
GBAS	Final Apch Crs	DF65~	DA(H)	Apt Elev 364'
Ch 24447 G07F	066^	4000' (3672')	528' (200')	Rwy 328'

MISSED APCH: Climb on 065^ to FFM, then to DF278 or 5000' whichever is later. Turn RIGHT direct to RID, maintain 5000'.

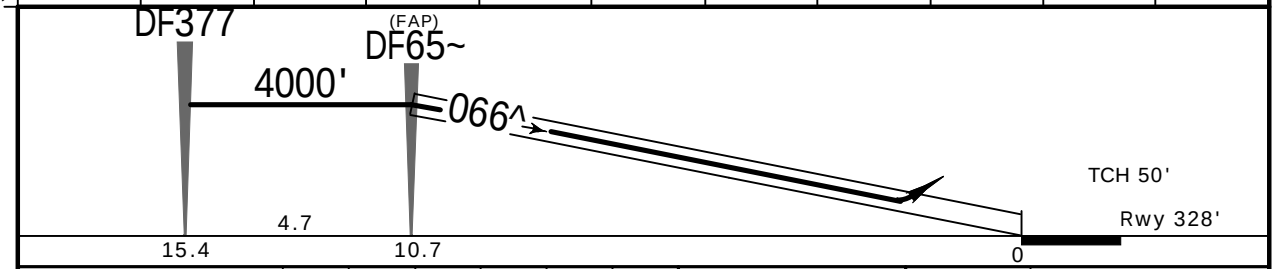
4300

MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'



DIST to THR	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	3780'	3440'	3100'	2760'	2420'	2080'	1740'	1400'	1060'	720'



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI

FFM on 065^

Standard.

STRAIGHT-IN LANDING RWY 07R
GLS
DA(H) 528' (200')

PANS OPS

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-45A

FRANKFURT/MAIN, GERMANY
CAT II GLS Y Rwy 07R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

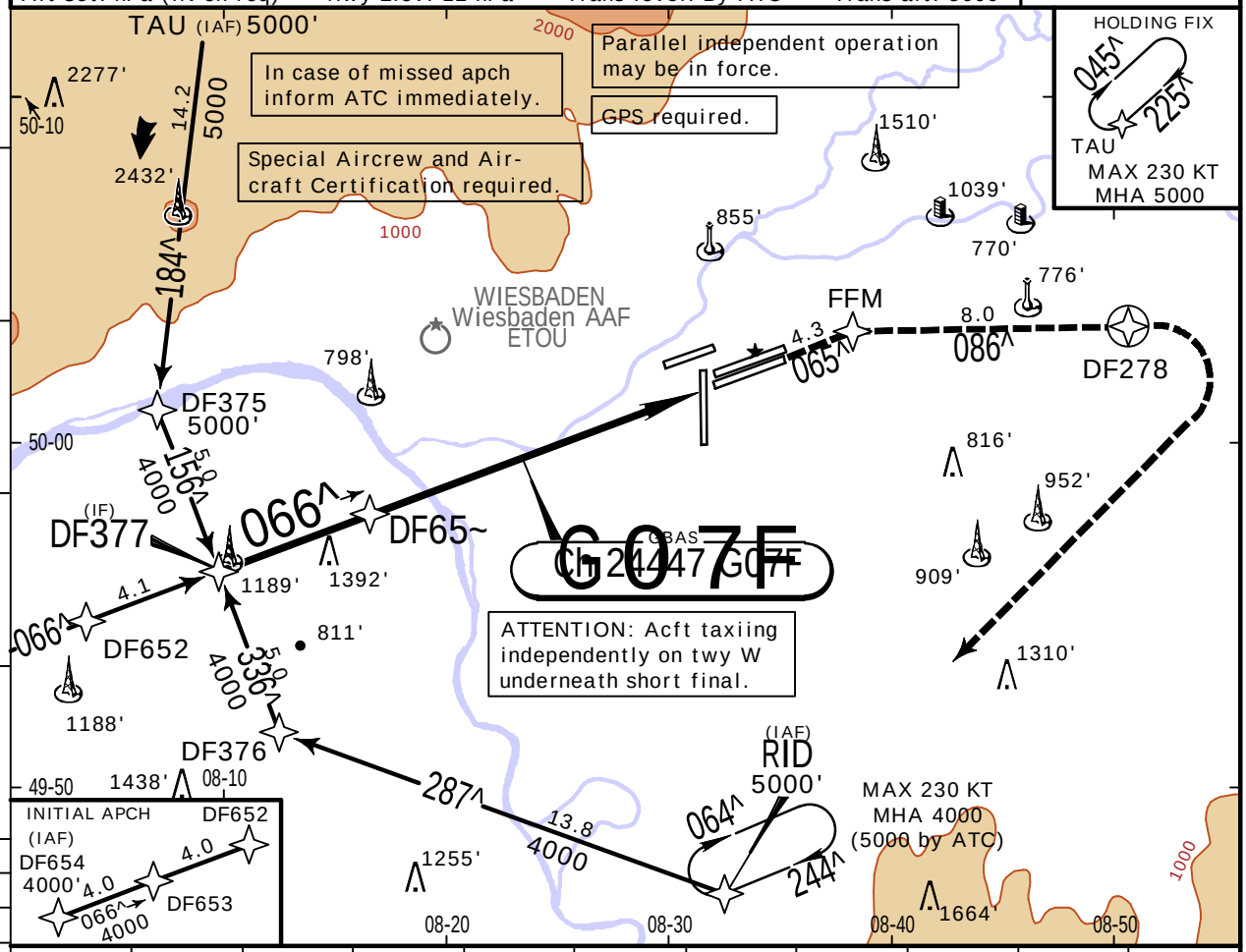
GBAS	Final Apch Crs	DF65~	CAT II GLS	Apt Elev 364'
Ch 24447 G07F	066^	4000' (3672')	RA 101' DA(H) 428' (100')	Rwy 328'

MISSED APCH: Climb on 065^ to FFM, then to DF278 or 5000' whichever is later. Turn RIGHT direct to RID, maintain 5000'.

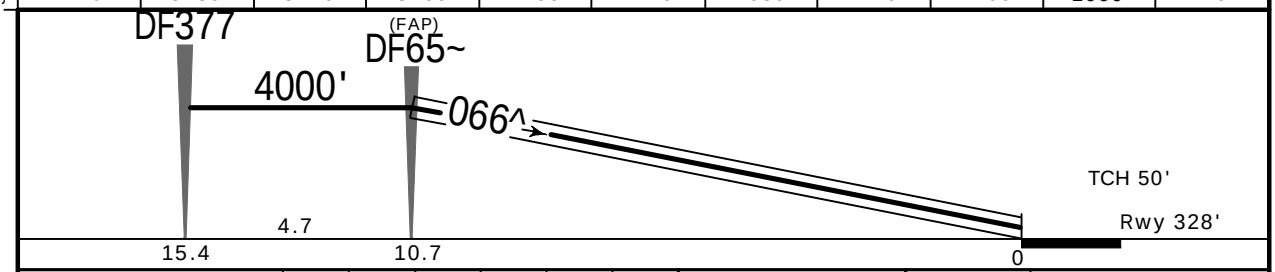
4300

MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 12 hPa Trans level: By ATC Trans alt: 5000'



DIST to THR	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.0
ALTITUDE	3780'	3440'	3100'	2760'	2420'	2080'	1740'	1400'	1060'	720'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI

FFM on 065^

.Standard.

STRAIGHT-IN LANDING RWY 07R

RA 101'
DA(H) 428' (100')

RVR 300m

PANS OPS

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 (12-46)

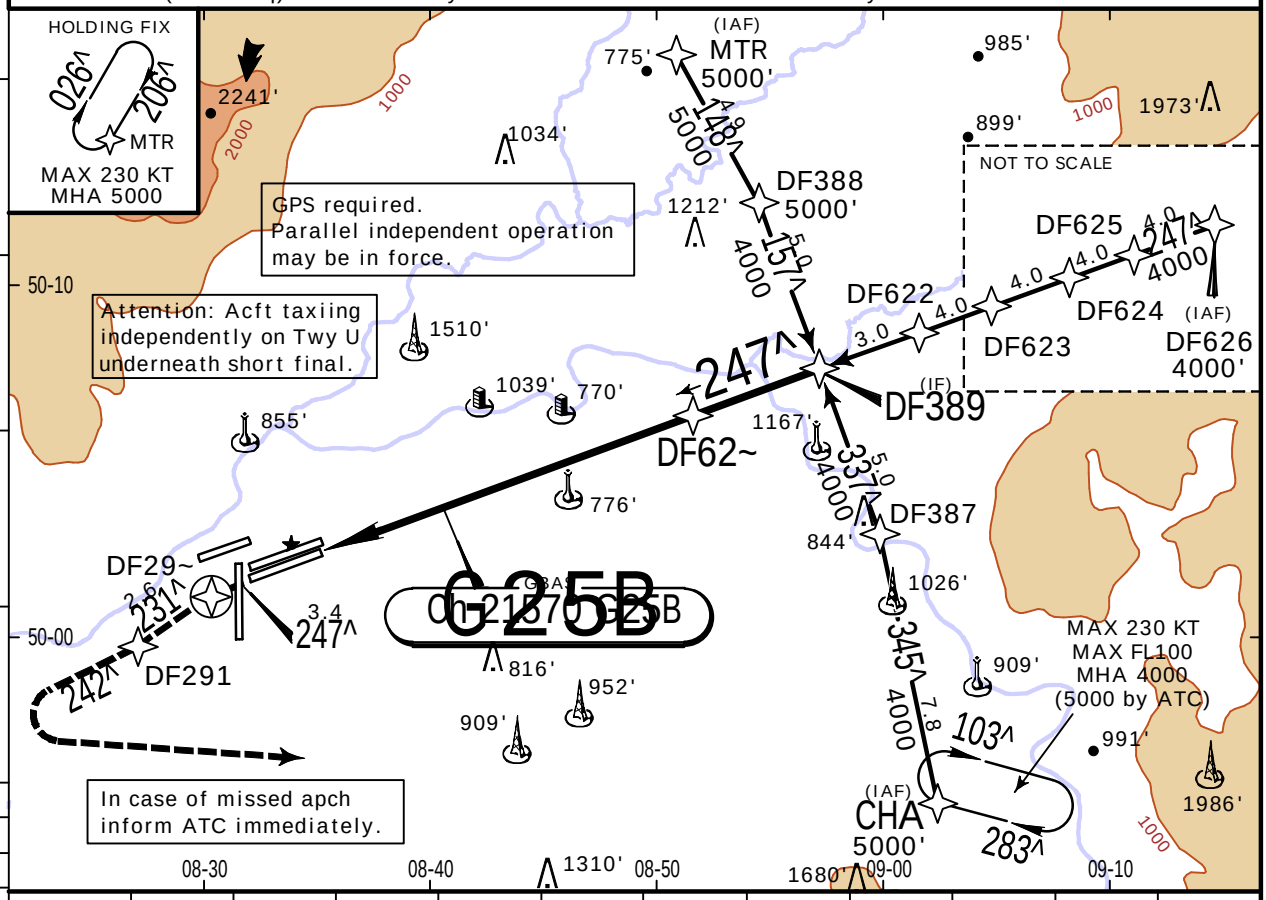
FRANKFURT/MAIN, GERMANY GLS Z Rwy 25L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

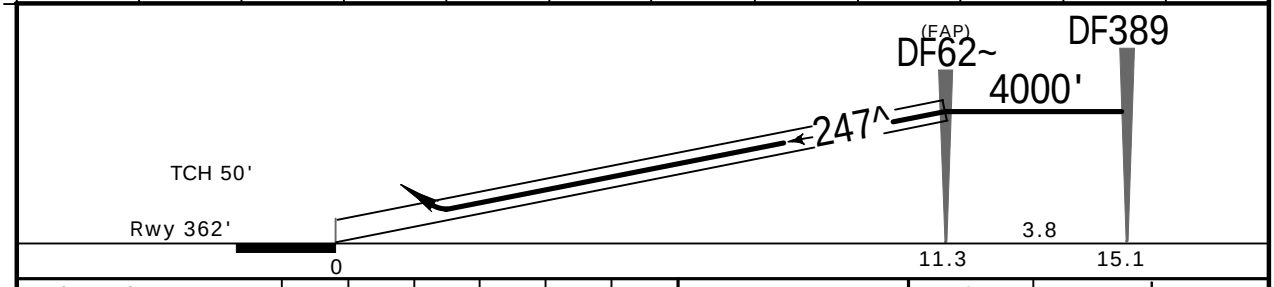
GBAS	Final Apch Crs	DF62~	DA(H)	Apt Elev 364'	4300
Ch 21570 G25B	247^	4000' (3638')	562' (200')	Rwy 362'	MSA ARP

MISSED APCH: Climb on 247^ to DF29~, then to DF291. Then on 242^ climb to 5000', then turn LEFT direct to CHA and maintain 5000'.

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
ALTITUDE	740'	1050'	1370'	1690'	2010'	2330'	2650'	2960'	3280'	3600'	3920'



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00^	372	478	531	637	743	849

ALSF-II
REIL
PAPI

DF29~ on 247^

Standard.

STRAIGHT-IN LANDING RWY 25L

GLS 1

DA(H) 562' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 2	RVR 1200m
B			
C			
D			

1 LACFT: DA(H) 589' (227').

2 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 (12-46A)

FRANKFURT/MAIN, GERMANY
CAT II GLS Z Rwy 25L

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

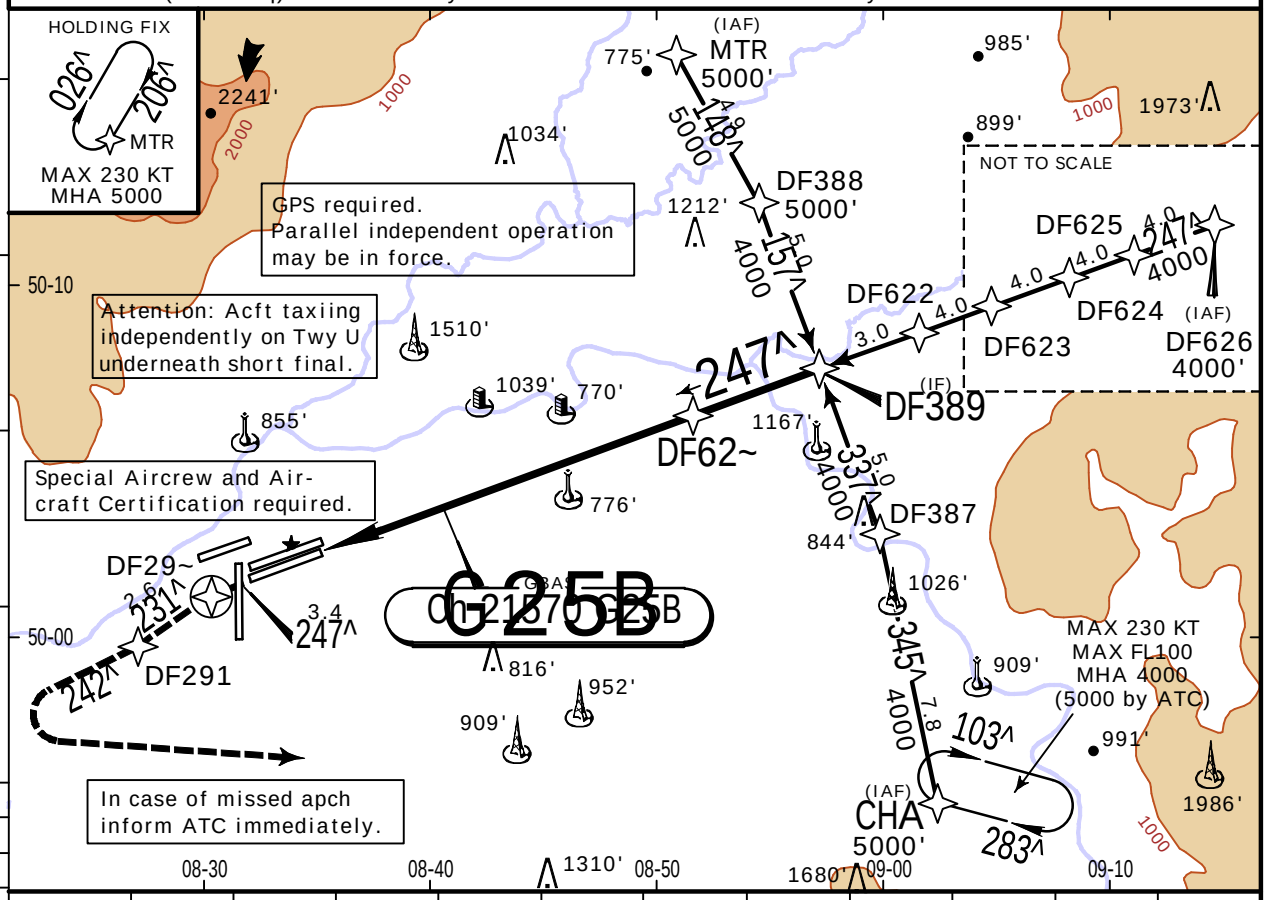
BRIEFING STRIP ™

GBAS	Final Apch Crs	DF62~	CAT II GLS	Apt Elev 364'
Ch 21570 G25B	247^	4000' (3638')	RA 95' DA(H) 462' (100')	Rwy 362'

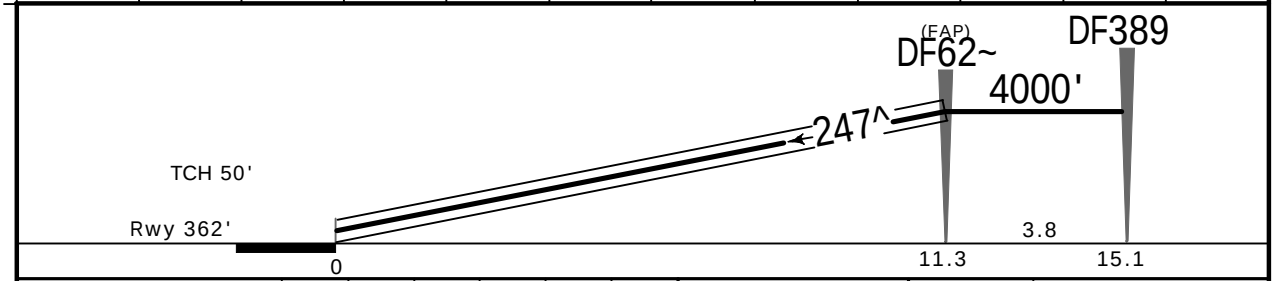
MISSED APCH: Climb on 247^ to DF29~, then to DF291. Then on 242^ climb to 5000', then turn LEFT direct to CHA and maintain 5000'.

4300 MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
ALTITUDE	740'	1050'	1370'	1690'	2010'	2330'	2650'	2960'	3280'	3600'	3920'



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.00^	372	478	531	637	743	849

ALSF-II REIL PAPI

DF29~ on 247^

.Standard.

STRAIGHT-IN LANDING RWY 25L

RA 95'
DA(H) 462' (100')

RVR 300m

PANS OPS

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN

29 JUL 22 (12-47)

FRANKFURT/MAIN, GERMANY GLS Y Rwy 25L

BRIEFING STRIP ™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

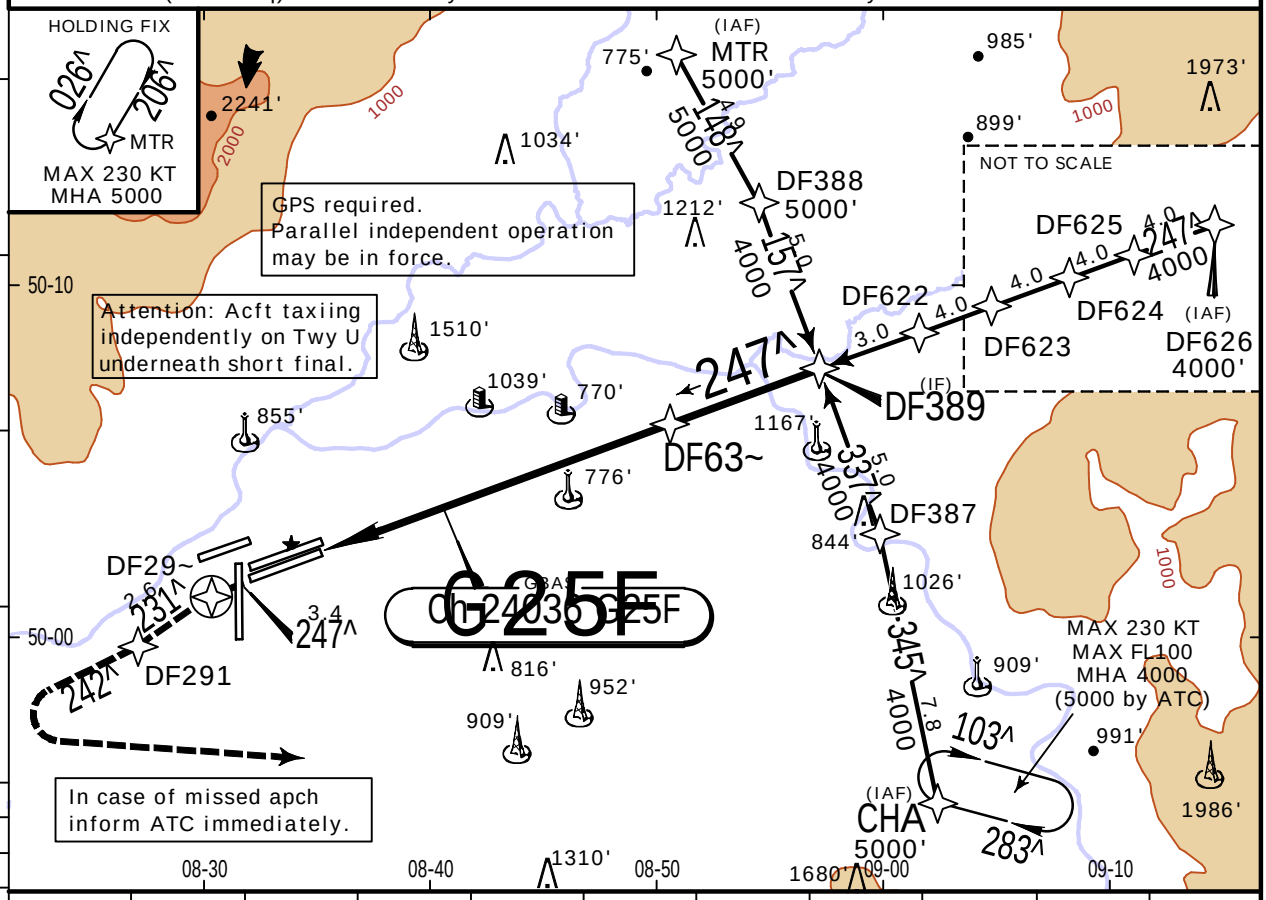
GBAS	Final Apch Crs	DF63~	DA(H)	Apt Elev 364' / Rwy 362'
Ch 24036 G25F	247^	4000' (3638')	562' (200')	

MISSED APCH: Climb on 247^ to DF29~, then to DF291. Then on 242^ climb to 5000', then turn LEFT direct to CHA and maintain 5000'.

4300

MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	760'	1100'	1440'	1780'	2120'	2450'	2790'	3130'	3470'	3810'

Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI

DF29~ on 247^

Standard.

STRAIGHT-IN LANDING RWY 25L

GLS

DA(H) 562' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

PANS OPS

CHANGES: Printing sequence.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-47A

FRANKFURT/MAIN, GERMANY
CAT II GLS Y Rwy 25L

BRIEFING STRIP ™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

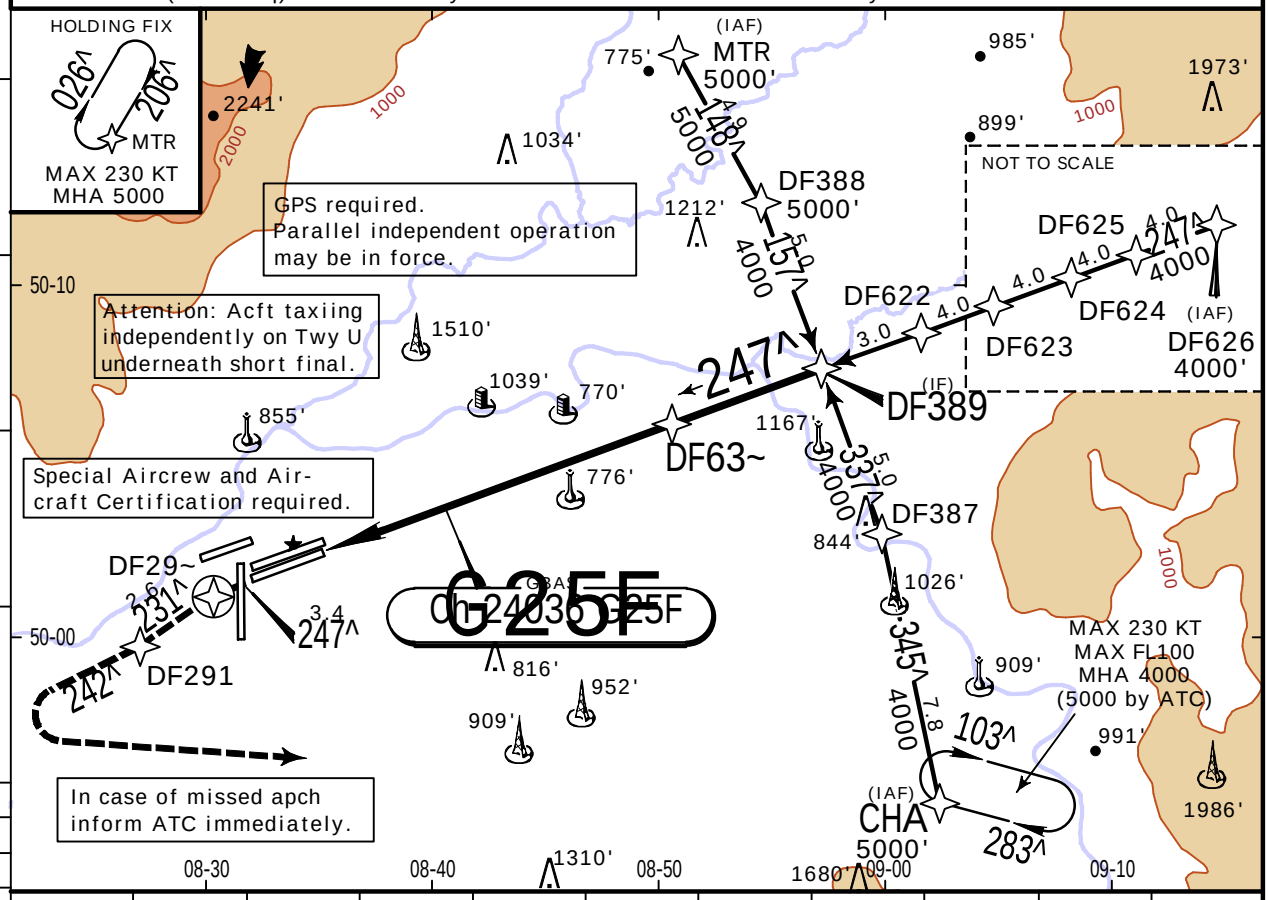
GBAS	Final Apch Crs	DF63~	CAT II GLS	Apt Elev 364'
Ch 24036 G25F	247^	4000' (3638')	RA 95' DA(H) 462' (100')	Rwy 362'

MISSED APCH: Climb on 247^ to DF29~, then to DF291. Then on 242^ climb to 5000', then turn LEFT direct to CHA and maintain 5000'.

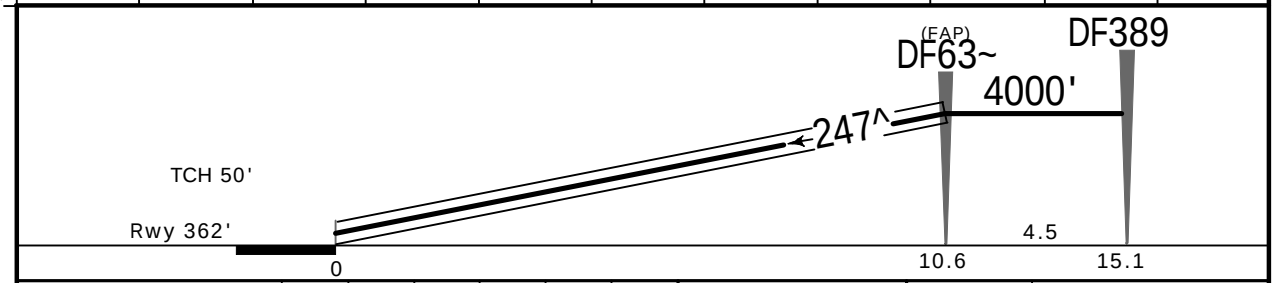
4300

MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	760'	1100'	1440'	1780'	2120'	2450'	2790'	3130'	3470'	3810'



Gnd speed-Kts		70	90	100	120	140	160
Glide Path Angle	3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI

DF29~ on 247^

.Standard.

STRAIGHT-IN LANDING RWY 25L

RA 95'
DA(H) 462' (100')

RVR 300m

PANS OPS

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 (12-48)

FRANKFURT/MAIN, GERMANY GLS Z Rwy 25C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

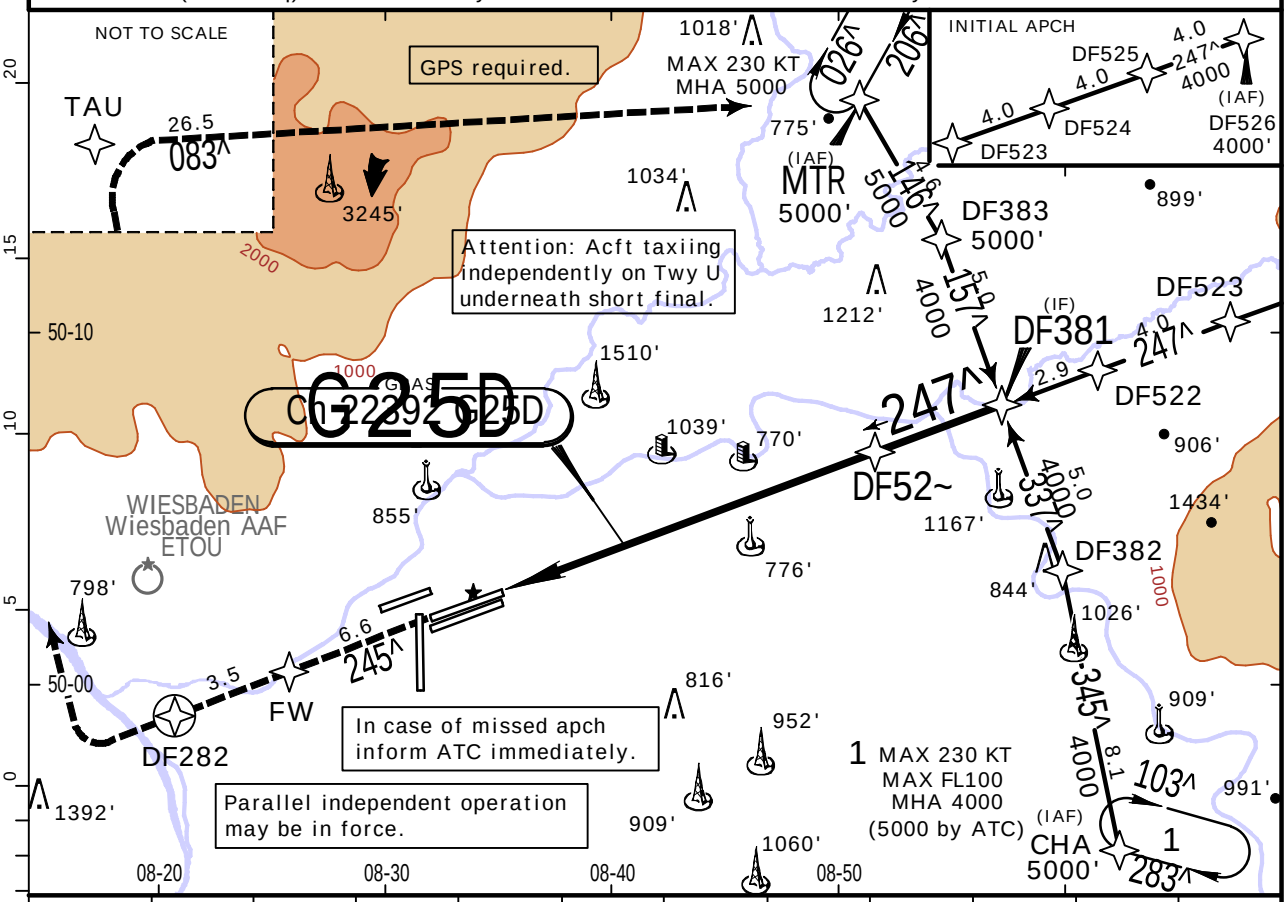
GBAS	Final Apch Crs	DF52~	DA(H)	Apt Elev 364' / Rwy 364'
Ch 22392 G25D	247^	4000' (3636')	564' (200')	

MISSED APCH: Climb on 245^ to FW, then to DF282 or 5000', whichever is later, then turn RIGHT direct to TAU. Turn RIGHT to MTR and maintain 5000'.

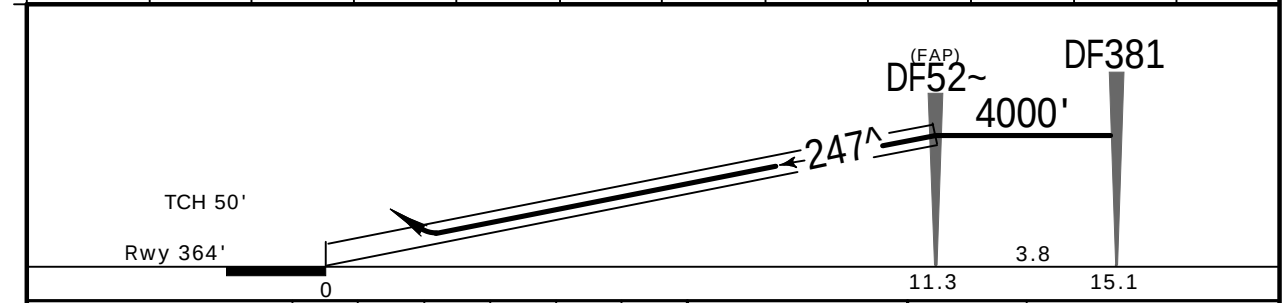
4300

MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
ALTITUDE	740'	1060'	1370'	1690'	2010'	2330'	2650'	2970'	3280'	3600'	3920'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00^	372	478	531	637	743	849

ALSF-II
REIL
PAPI
FW
on
245^

Standard.

STRAIGHT-IN LANDING RWY 25C

GLS

DA(H) 564' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

BRIEFING STRIP ™

PANS OPS

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-48A

FRANKFURT/MAIN, GERMANY
CAT II GLS Z Rwy 25C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

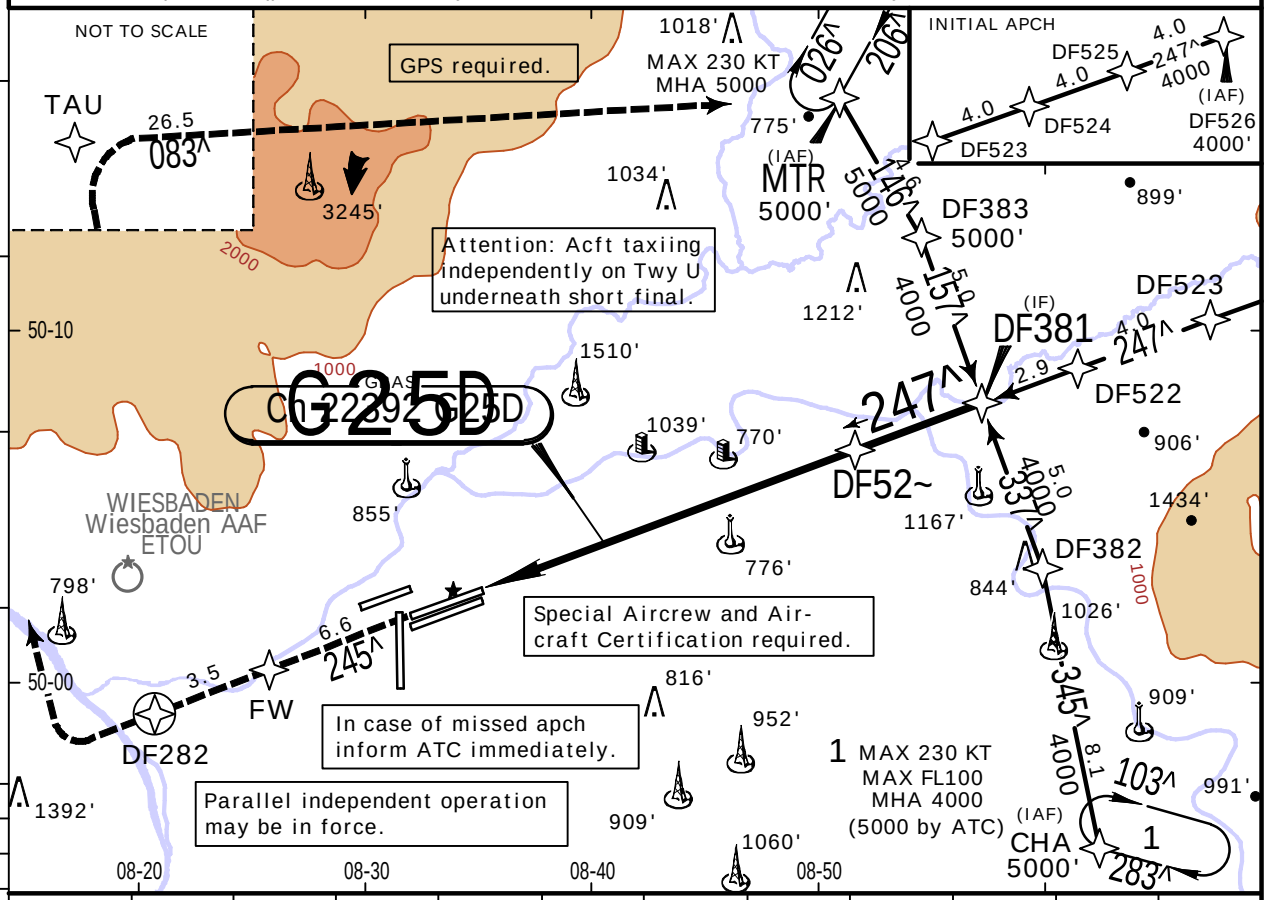
GBAS	Final Apch Crs	DF52~	CAT II GLS	Apt Elev 364'
Ch 22392 G25D	247^	4000' (3636')	RA 98' DA(H) 464' (100')	Rwy 364'

MISSED APCH: Climb on 245^ to FW, then to DF282 or 5000', whichever is later, then turn RIGHT direct to TAU. Turn RIGHT to MTR and maintain 5000'.

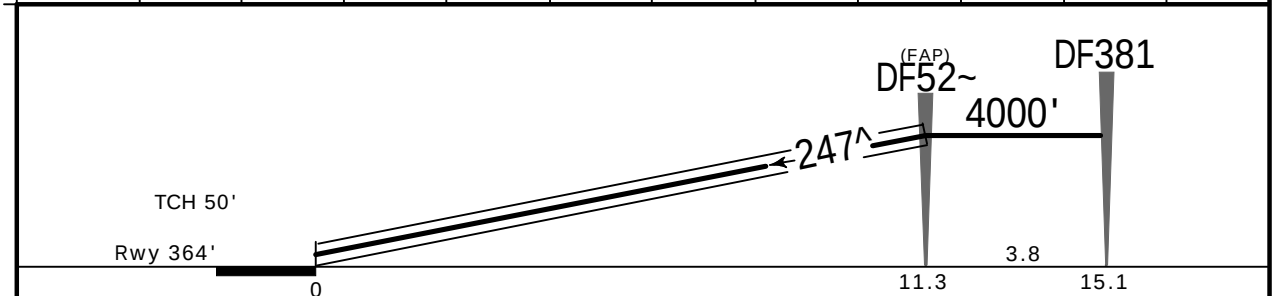
4300

MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
ALTITUDE	740'	1060'	1370'	1690'	2010'	2330'	2650'	2970'	3280'	3600'	3920'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00^	372	478	531	637	743	849

ALSF-II
REIL
PAPI
FW
on
245^

.Standard.

STRAIGHT-IN LANDING RWY 25C

RA 98'
DA(H) 464' (100')

RVR 300m

PANS OPS

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-49

FRANKFURT/MAIN, GERMANY GLS Y Rwy 25C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

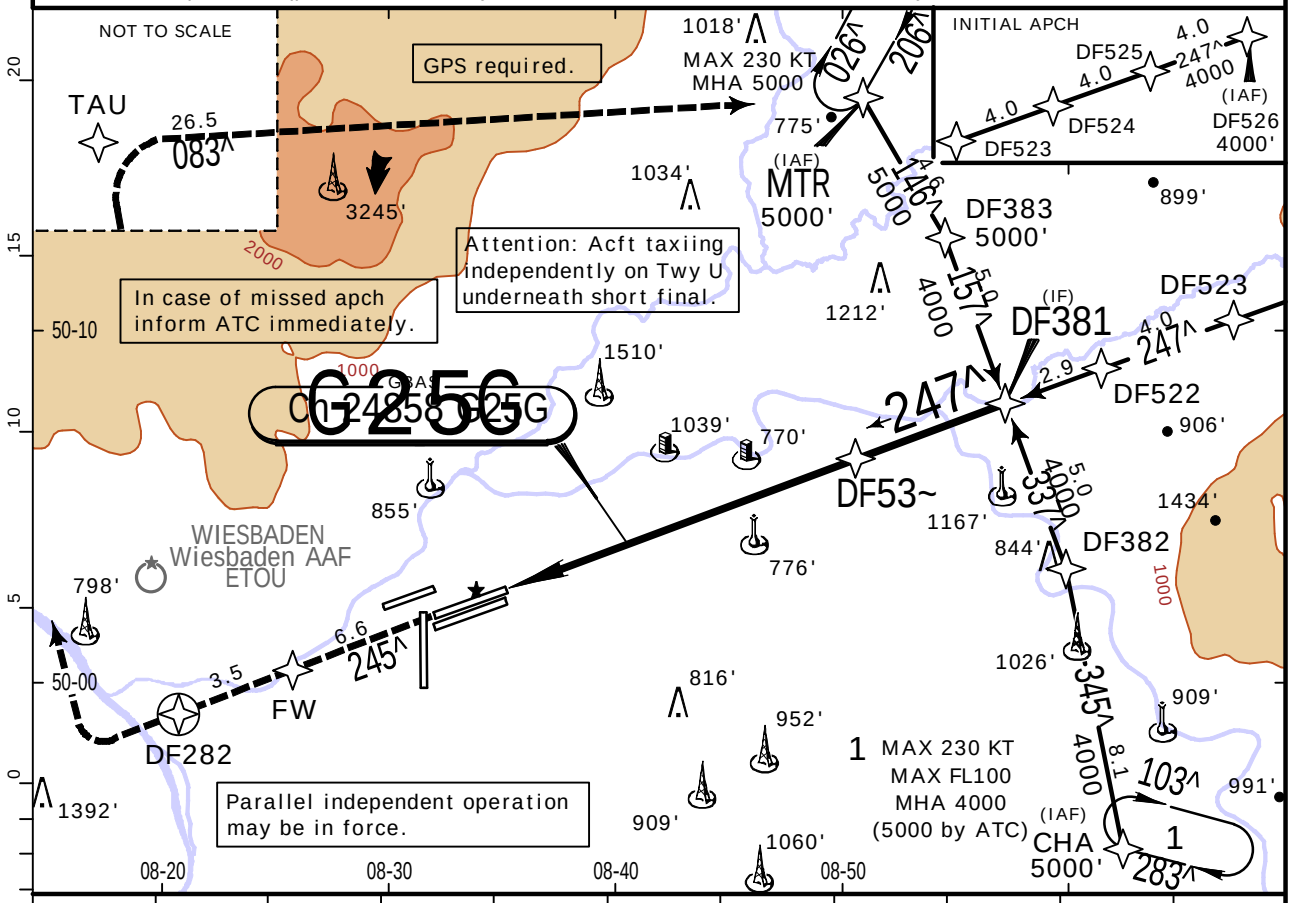
GBAS	Final Apch Crs	DF53~	DA(H)	Apt Elev 364' / Rwy 364'
Ch 24858 G25G	247^	4000' (3636')	564' (200')	

MISSED APCH: Climb on 245^ to FW, then to DF282 or 5000', whichever is later, then turn RIGHT direct to TAU. Turn RIGHT to MTR and maintain 5000'.

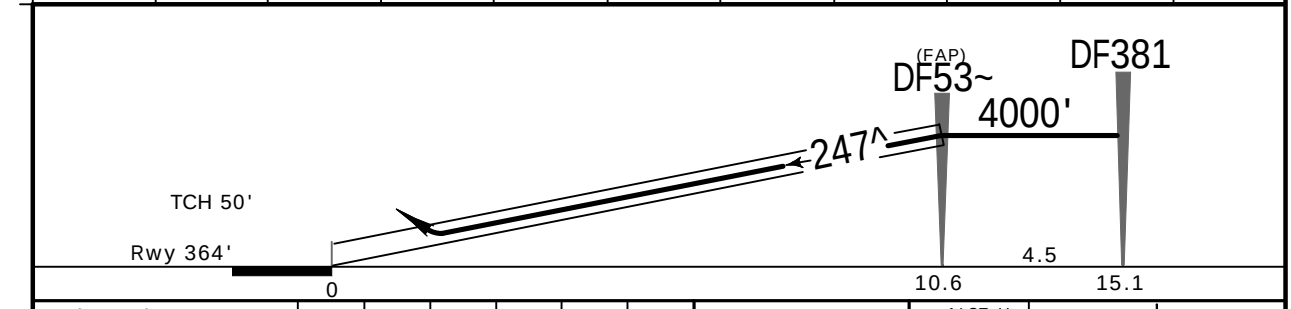
4300

MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	760'	1100'	1440'	1780'	2120'	2460'	2800'	3140'	3480'	3820'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI
FW
on
245^

Standard.

STRAIGHT-IN LANDING RWY 25C

GLS

DA(H) 564' (200')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

PANS OPS

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-49A

FRANKFURT/MAIN, GERMANY
CAT II GLS Y Rwy 25C

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		FRANKFURT Tower		*Ground
118.030	120.805	125.355	118.505	127.280	118.780	119.905	121.805

BRIEFING STRIP ™

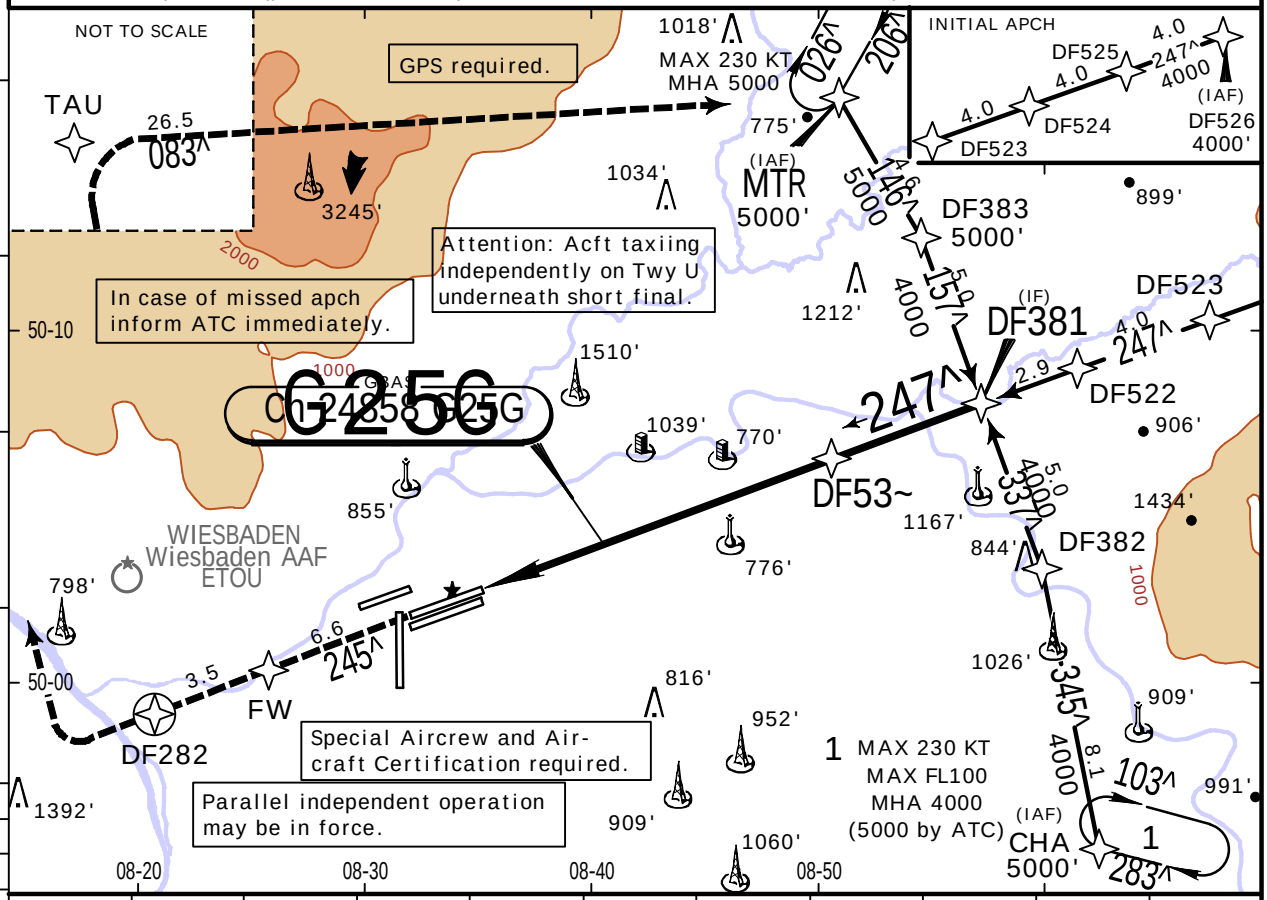
GBAS	Final Apch Crs	DF53~	CAT II GLS	Apt Elev 364'
Ch 24858 G25G	247^	4000' (3636')	RA 98' DA(H) 464' (100')	Rwy 364'

MISSED APCH: Climb on 245^ to FW, then to DF282 or 5000', whichever is later, then turn RIGHT direct to TAU. Turn RIGHT to MTR and maintain 5000'.

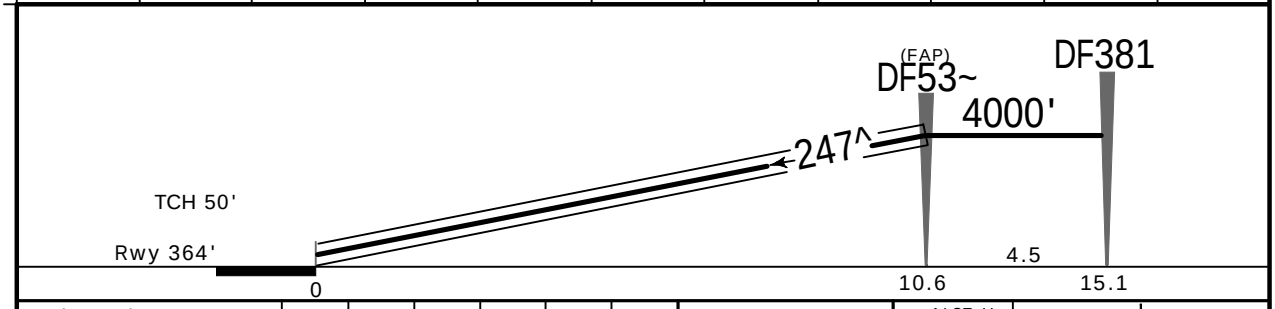
4300

MSA ARP

Alt Set: hPa (IN on req) | Rwy Elev: 13 hPa | Trans level: By ATC | Trans alt: 5000'



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	760'	1100'	1440'	1780'	2120'	2460'	2800'	3140'	3480'	3820'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.20^	396	510	566	679	793	906

ALSF-II
REIL
PAPI
FW
on
245^

.Standard.

STRAIGHT-IN LANDING RWY 25C

RA 98'

DA(H) 464' (100')

RVR 300m

PANS OPS

CHANGES: New chart.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN

29 JUL 22 (12-50)

FRANKFURT/MAIN, GERMANY
1 GLS Z Rwy 25R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

BRIEFING STRIP™

GBAS	Final Apch Crs	DF42~	DA(H)	Apt Elev 364'
Ch 20748 G25A	247^	5000' (4647')	Refer to Minimums	Rwy 353'

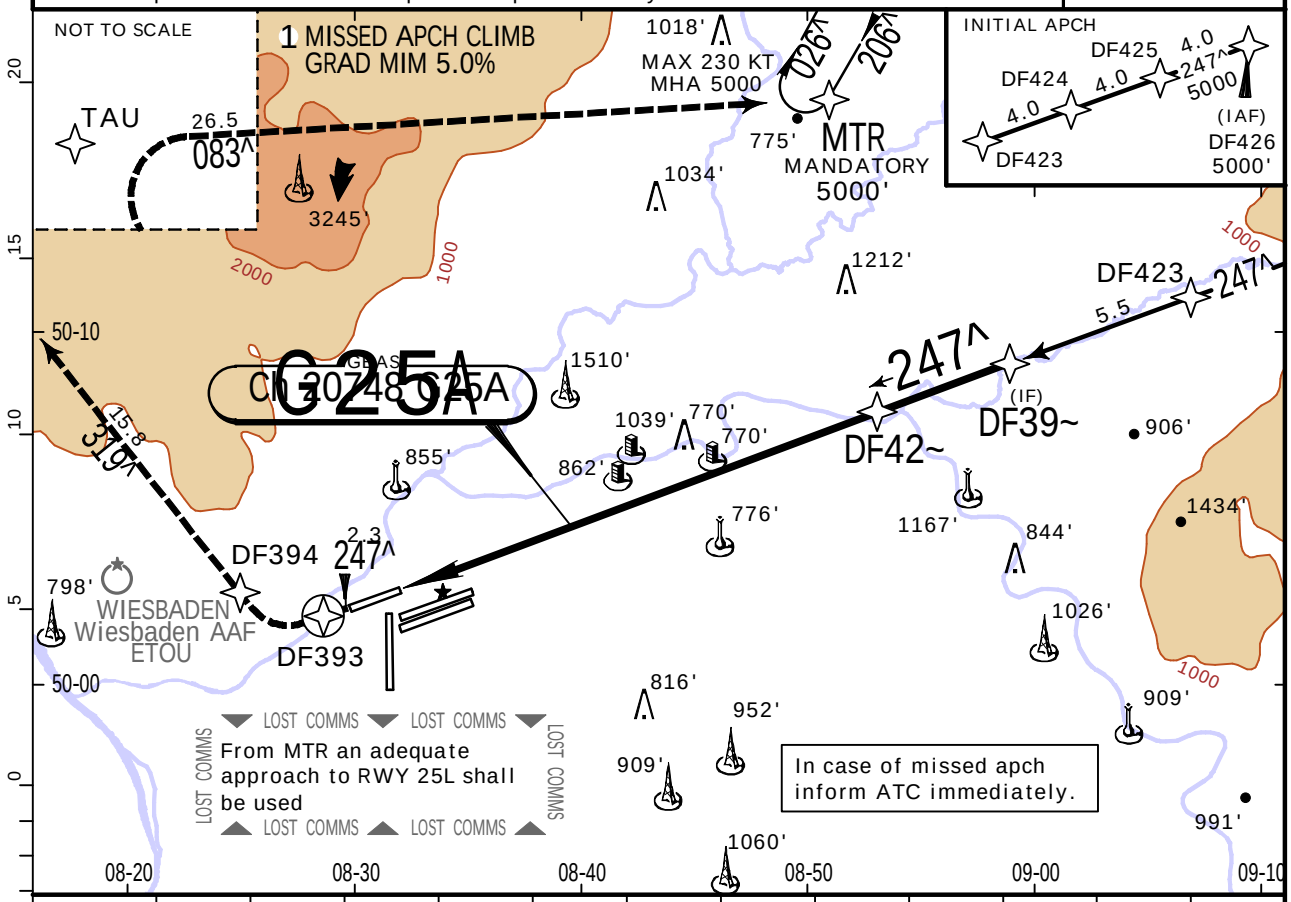
MISSED APCH: On 247^ to DF393 at or above 800'. Turn RIGHT direct to DF394, then to TAU. Turn RIGHT to MTR climbing to 5000'.

4300

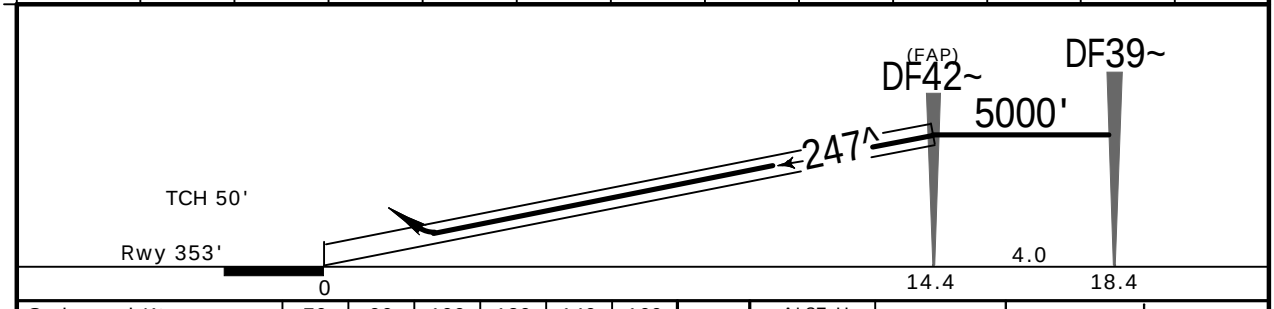
MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

1. GPS required. 2. Parallel independent operation may be in force.



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
ALTITUDE	730'	1040'	1360'	1680'	2000'	2320'	2640'	2960'	3270'	3590'	3910'	4230'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00^	372	478	531	637	743	849

ALSF-II
REIL PAPI

MIM 800' at DF393 on 247^

.Standard.

STRAIGHT-IN LANDING RWY 25R
GLS
Missed apch climb gradient mim 5.0% until passing 2000'
DA(H) ABC: 553' (200') D: 558' (205')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

PANS OPS

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-50A

FRANKFURT/MAIN, GERMANY

1 CAT II GLS Z Rwy 25R

BRIEFING STRIP™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

GBAS	Final	DF42~	CAT II GLS	Apt Elev 364'
Ch 20748 G25A	Apch Crs 247^	5000' (4647')	Refer to Minimums	Rwy 353'

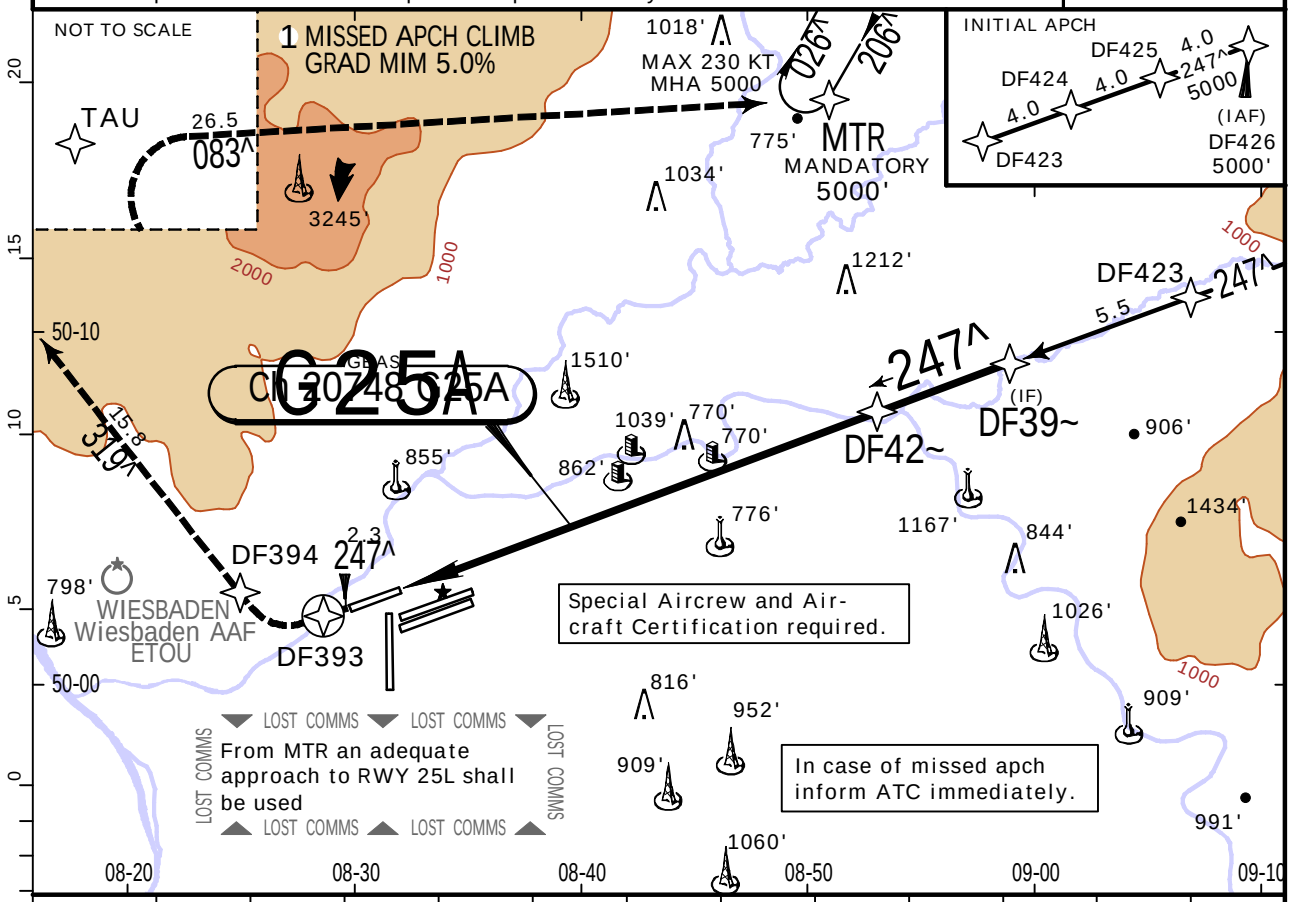
MISSED APCH: On 247^ to DF393 at or above 800'. Turn RIGHT direct to DF394, then to TAU. Turn RIGHT to MTR climbing to 5000'.

Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

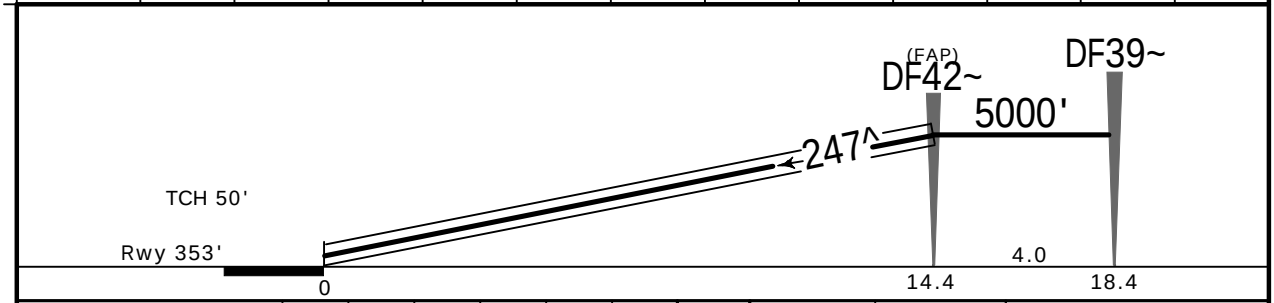
1. GPS required. 2. Parallel independent operation may be in force.

4300

MSA ARP



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
ALTITUDE	730'	1040'	1360'	1680'	2000'	2320'	2640'	2960'	3270'	3590'	3910'	4230'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.00^	372	478	531	637	743	849

ALSF-II REIL PAPI

MIM 800' at DF393 on 247^

.Standard.

STRAIGHT-IN LANDING RWY 25R

Missed apch climb gradient mim 5.0% up to 2000'

A: RA 103' DA(H) 453' (100')	D: RA 143' DA(H) 483' (130')
B: RA 107' DA(H) 457' (104')	
C: RA 121' DA(H) 470' (117')	
RVR 300m	RVR 400m

PANS OPS

CHANGES: New chart.

EDDF/FRA FRANKFURT/MAIN

JEPPESEN 29 JUL 22 (12-51)

FRANKFURT/MAIN, GERMANY

1 GLS Y Rwy 25R

BRIEFING STRIP ™

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

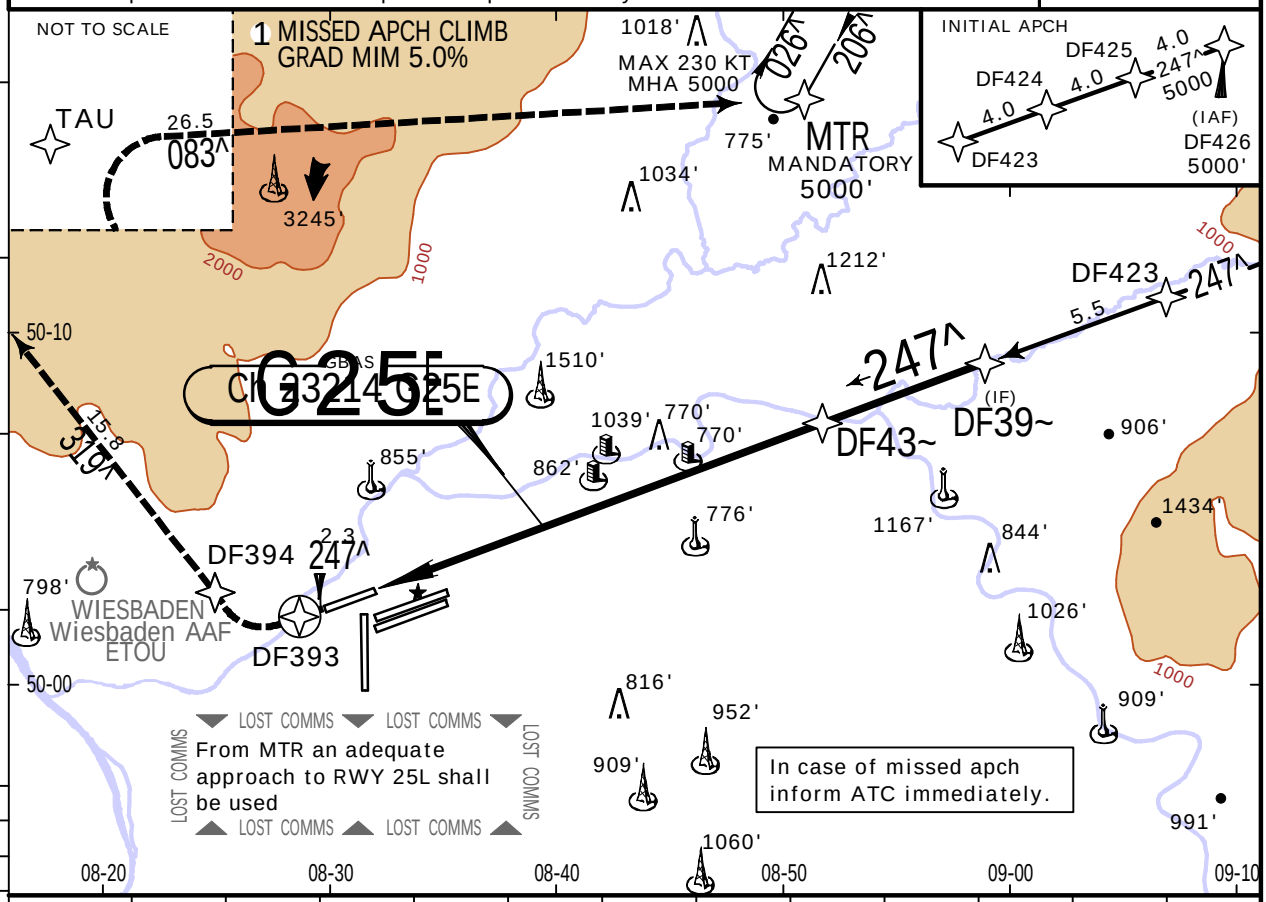
GBAS	Final Apch Crs	DF43~	DA(H) Refer to Minimums	Apt Elev 364' Rwy 353'
Ch 23214 G25E	247^	5000' (4647')		

MISSED APCH: On 247^ to DF393 at or above 800'. Turn RIGHT direct to DF394, then to TAU. Turn RIGHT to MTR climbing to 5000'.

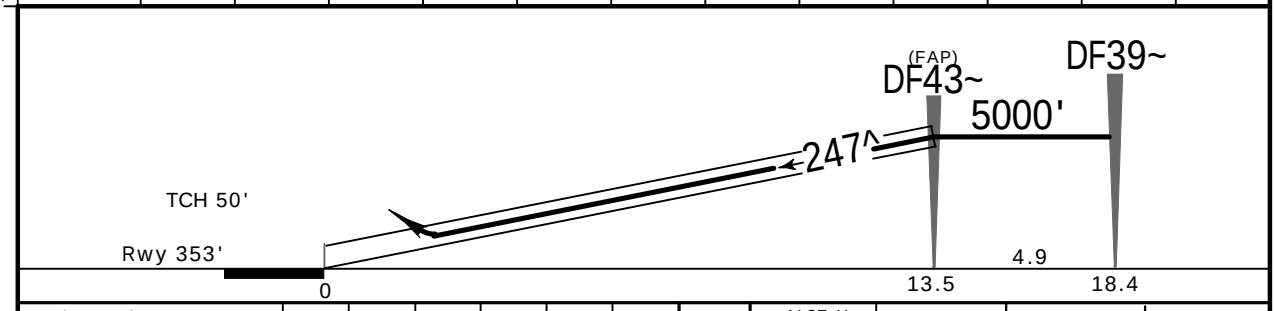
4300 MSA ARP

Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

1. GPS required. 2. Parallel independent operation may be in force.



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
ALTITUDE	750'	1090'	1430'	1770'	2110'	2450'	2790'	3130'	3460'	3800'	4140'	4480'



Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.20^	396	510	566	679	793	906

ALSF-II REIL PAPI

MIM 800' at DF393 on 247^

.Standard.

STRAIGHT-IN LANDING RWY 25R
GLS
Missed apch climb gradient mim 5.0% until passing 2000'
DA(H) ABC: 553' (200') D: 558' (205')

	FULL	TDZ or CL out	ALS out
A	RVR 550m	RVR 550m 1	RVR 1200m
B			
C			
D			

PANS OPS

1 RVR 750m when a Flight Director or Autopilot or HUD to DA is not used.

CHANGES: Printing sequence.

EDDF/FRA
FRANKFURT/MAIN

JEPPESEN 29 JUL 22 12-51A

FRANKFURT/MAIN, GERMANY
1 CAT II GLS Y Rwy 25R

*D-ATIS Arrival	LANGEN Radar (APP) North	LANGEN Radar (APP) South	*FRANKFURT Director (APP)		*FRANKFURT Tower	*Ground
118.030	120.805	125.355	118.505	127.280	136.5	121.805

BRIEFING STRIP ™

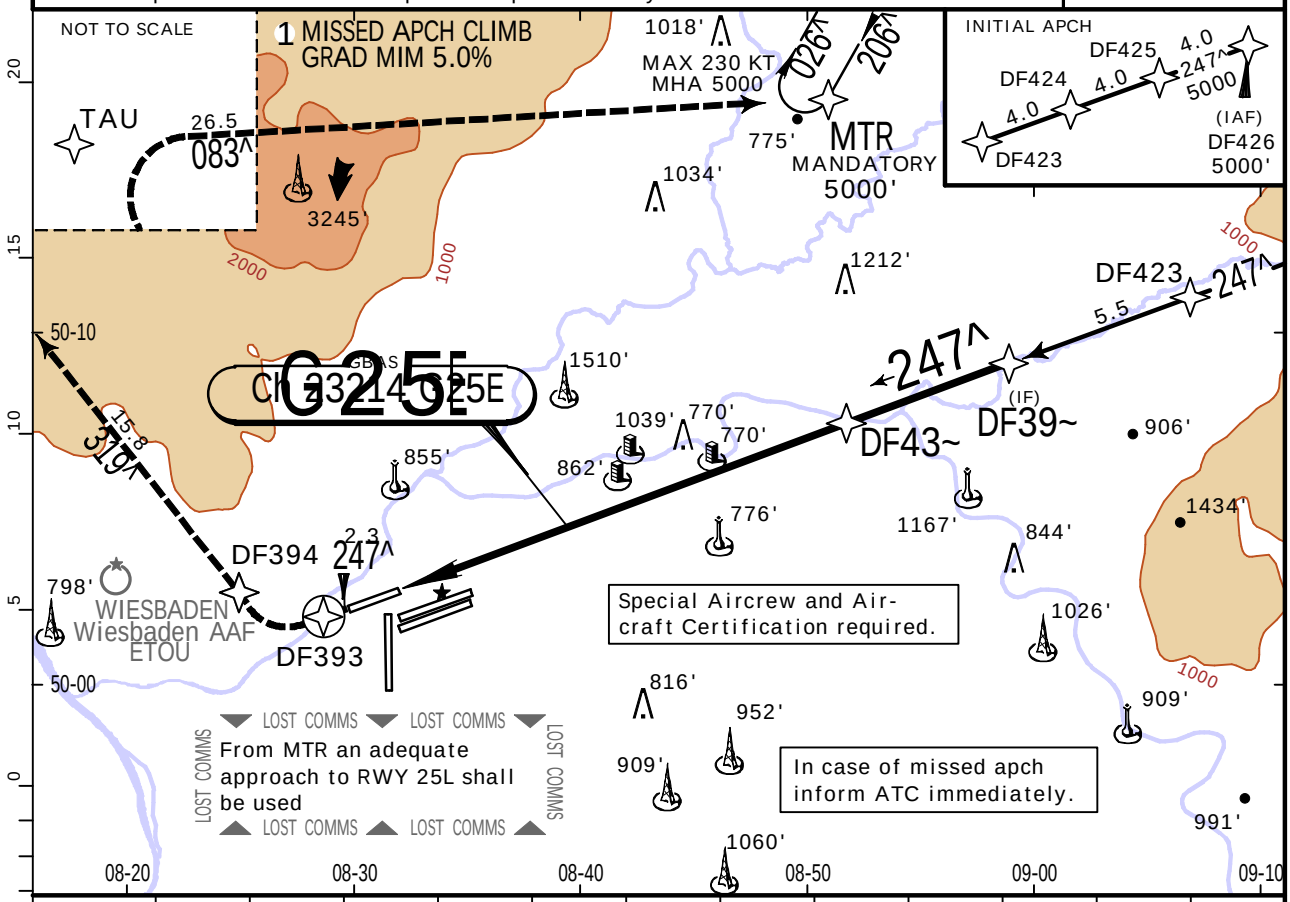
GBAS	Final Apch Crs	DF43~	CAT II GLS	Apt Elev 364'
Ch 23214 G25E	247^	5000' (4647')	Refer to Minimums	Rwy 353'

MISSED APCH: On 247^ to DF393 at or above 800'. Turn RIGHT direct to DF394, then to TAU. Turn RIGHT to MTR climbing to 5000'.

Alt Set: hPa (IN on req) Rwy Elev: 13 hPa Trans level: By ATC Trans alt: 5000'

1. GPS required. 2. Parallel independent operation may be in force.

4300
MSA ARP



DIST to THR	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
ALTITUDE	750'	1090'	1430'	1770'	2110'	2450'	2790'	3130'	3460'	3800'	4140'	4480'

Gnd speed-Kts	70	90	100	120	140	160
Glide Path Angle 3.20^	396	510	566	679	793	906

ALSF-II
REIL PAPI

MIM 800' at DF393 on 247^

.Standard.

STRAIGHT-IN LANDING RWY 25R
Missed apch climb gradient mim 5.0% up to 2000'

A: RA 102' DA(H) 453' (100')	D: RA 134' DA(H) 483' (130')
B: RA 106' DA(H) 457' (104')	
C: RA 121' DA(H) 470' (117')	
RVR 300m	RVR 400m

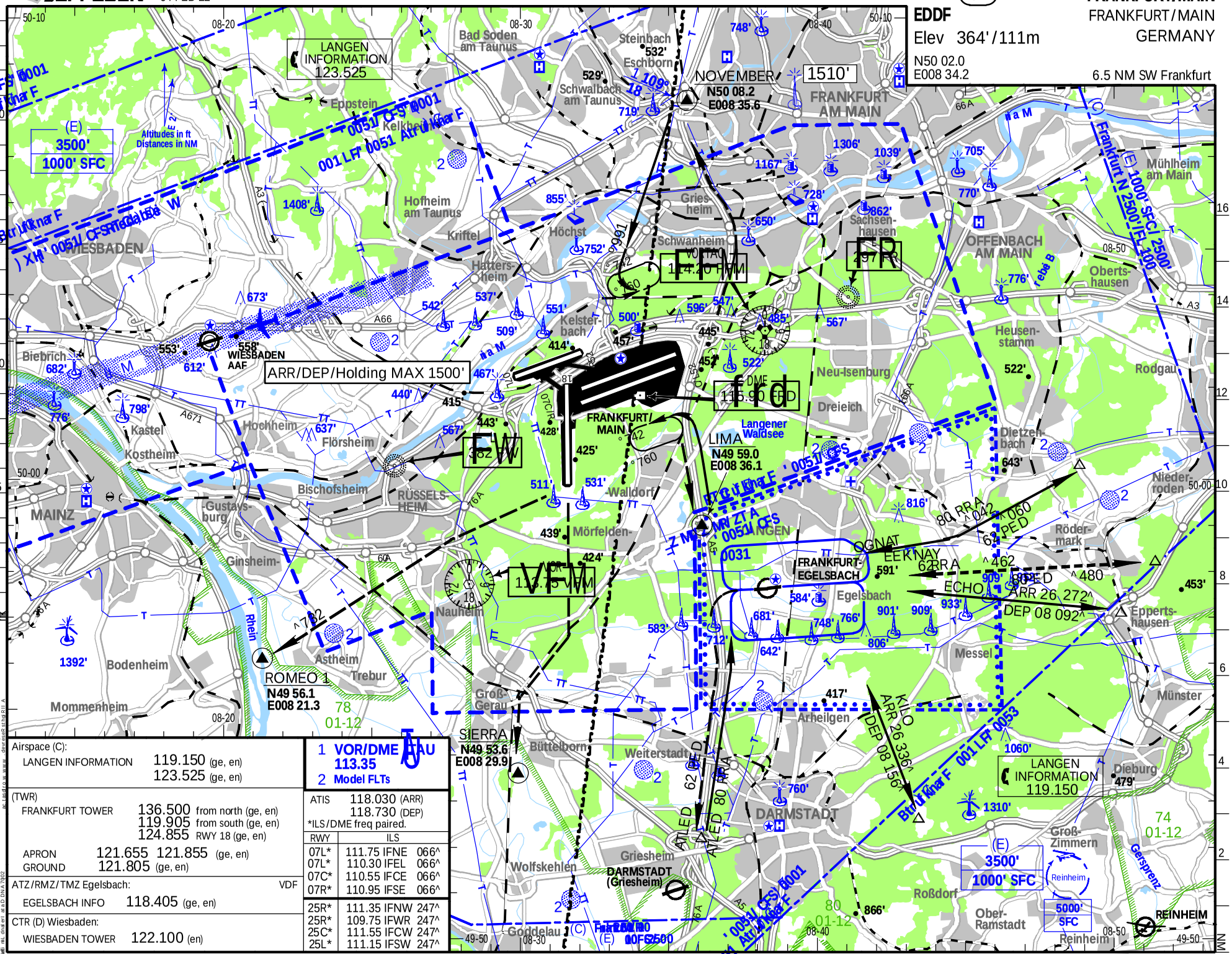
PANS OPS

CHANGES: New chart.

FRANKFURT/MAIN

FRANKFURT/MAIN
GERMANY

EDDF
Elev 364'/111m
N50 02.0
E008 34.2
6.5 NM SW Frankfurt



Airspace (C):		
LANGEN INFORMATION	119.150 (ge, en)	
	123.525 (ge, en)	
(TWR)		
FRANKFURT TOWER	136.500	from north (ge, en)
	119.905	from south (ge, en)
	124.855	RWY 18 (ge, en)
APRON	121.655 121.855	(ge, en)
GROUND	121.805	(ge, en)
ATZ/RMZ/TMZ Egelsbach:		VDF
EGELSBACH INFO	118.405	(ge, en)
CTR (D) Wiesbaden:		
WIESBADEN TOWER	122.100	(en)

1 VOR/DME TAU 113.35
2 Model FLTs

ATIS	118.030 (ARR)
	118.730 (DEP)

*ILS/DME freq paired.

RWY	ILS	
07L*	111.75 IFNE	066^
07L*	110.30 IFEL	066^
07C*	110.55 IFCE	066^
07R*	110.95 IFSE	066^
25R*	111.35 IFNW	247^
25R*	109.75 IFWR	247^
25C*	111.55 IFCW	247^
25L*	111.15 IFSW	247^

CHANGES: ILS - Direction Arrow.

FRANKFURT/MAIN

FRANKFURT/MAIN

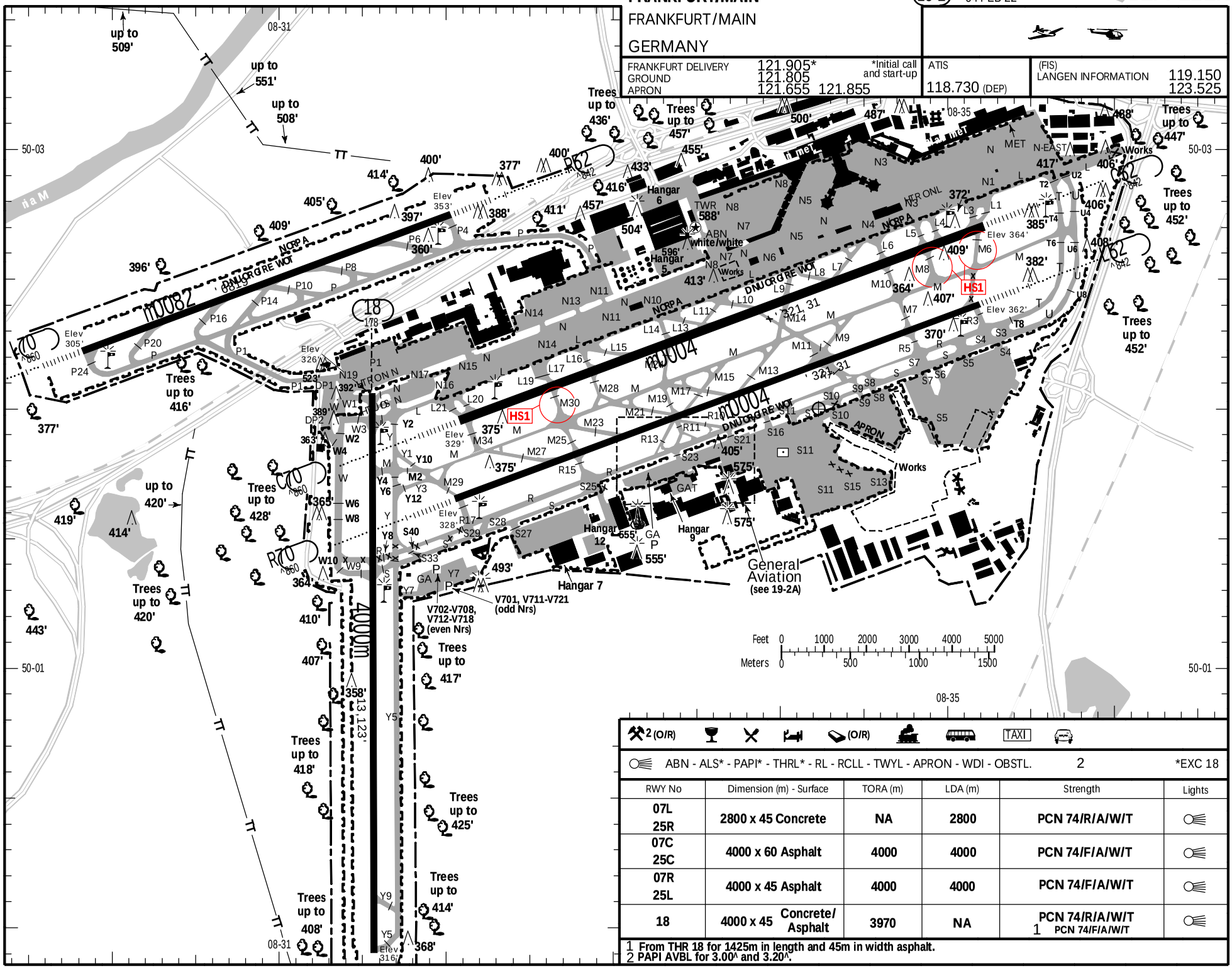
GERMANY

19-2 04 FEB 22

JEPPESEN

FRANKFURT DELIVERY	121.905*	*Initial call and start-up
GROUND	121.805	
APRON	121.655 121.855	

ATIS	118.730 (DEP)
(FIS) LANGEN INFORMATION	119.150 123.525



2 (O/R) (O/R) TAXI

ABN - ALS* - PAPI* - THRL* - RL - RCLL - TWYL - APRON - WDI - OBSTL. 2 *EXC 18

RWY No	Dimension (m) - Surface	TORA (m)	LDA (m)	Strength	Lights
07L 25R	2800 x 45 Concrete	NA	2800	PCN 74/R/A/W/T	
07C 25C	4000 x 60 Asphalt	4000	4000	PCN 74/F/A/W/T	
07R 25L	4000 x 45 Asphalt	4000	4000	PCN 74/F/A/W/T	
18	4000 x 45 Concrete/ Asphalt	3970	NA	PCN 74/R/A/W/T 1 PCN 74/F/A/W/T	

1 From THR 18 for 1425m in length and 45m in width asphalt.
2 PAPI AVBL for 3.00^ and 3.20^.

CHANGES: Intersection TKOF - QFU - TWY - Apron - Parking Stands - Buildings - Boundary of Jurisdiction - Text.

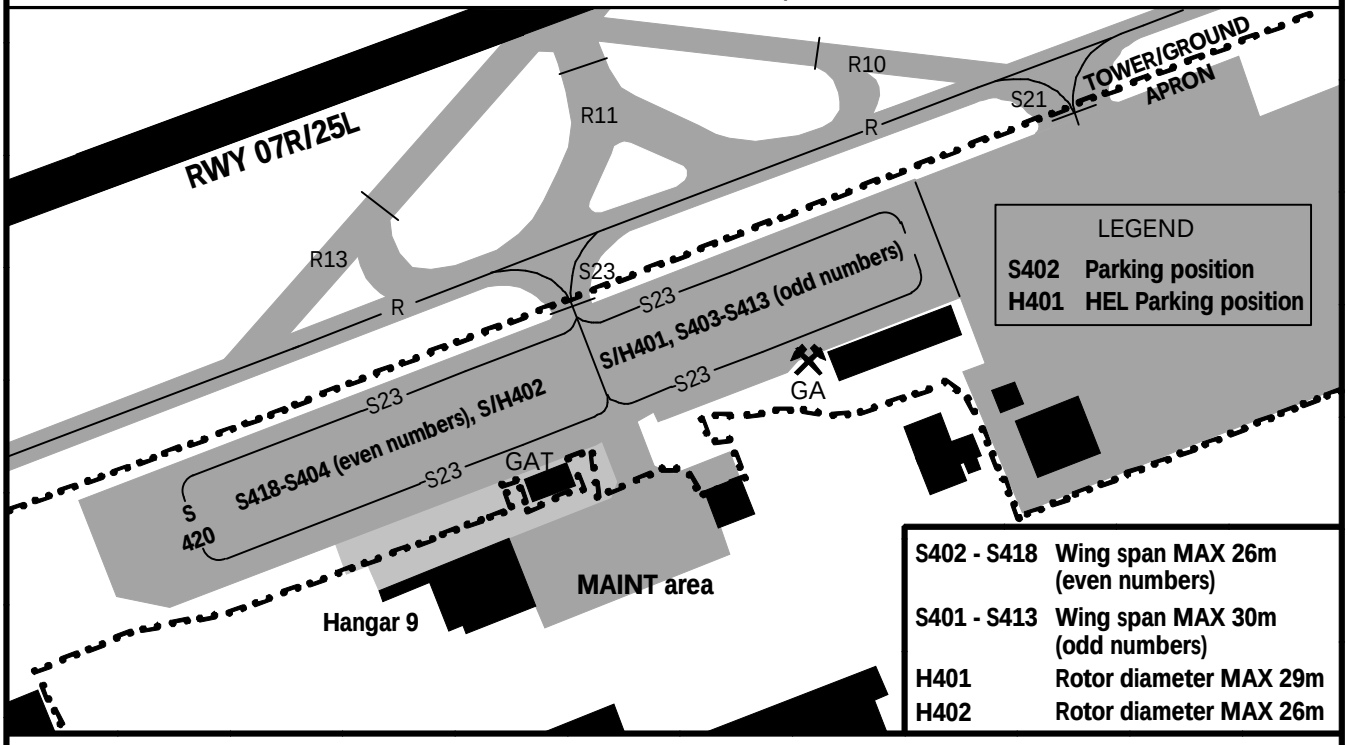
FRANKFURT/MAIN

FRANKFURT/MAIN

GERMANY

ATIS 118.730 (DEP)
FRANKFURT DELIVERY 121.905 (Initial call & start-up)
APRON 121.655 121.855

General Aviation Apron



For text please refer to 19-3.

CHANGES: None.

Intersection TKOF

RWY	TWY	TORA (m)
07C	L20	3940
	L19/M30	3312
	L17	3312
	L16/M28	3012
	L14	2412
	M24	2444
25C	L3	3972
	L4	3700
	L5/M8	3595
	L6/M10	3266
07R	M25/R15	3085
	M19/R11	2330
25L	M7/R5	3494
	R7	2872
	M19	1700
18	N-South	3894
	L	3823
	W3	3817
	M	3454
	R	2842
	W7	2823
	S	2755
	W9	2726

RWY Incursion Hot Spots

HS1 - Explicit clearance required for crossing RWY 07C/25C. Stop at CAT II/III holding point, stop bar is illuminated under all weather conditions.

General

Radio contact shall be established with FRANKFURT TOWER at least 5 MIN prior to the first reporting point.

Aproaches via LIMA will cross ATZ / RMZ / TMZ Egelsbach and will be coordinated by LANGEN INFORMATION in advance. Initial contact with EGELSBACH INFO.

Departures RWY 25 via NOVEMBER, all inbounds via NOVEMBER and crossing traffic north to south and vice versa in exceptional cases only.

Pilots intending to use AD shall ensure that the Mode S transponders can be operated when the ACFT is on the ground. Pilots shall select the AUTO mode and the assigned Mode A code.

CAUTION: IFR Traffic.

Avoid departure sector RWY 18!

WARNING: **In cases of strong winds, wind shears and increased turbulences can be expected on TKOF RWY 18.**

TOWER/GROUND is responsible for preventing collisions between aircraft as well as between aircraft and other vehicles or obstacles on the manoeuvring area. In individual cases and after prior consultation between TOWER/GROUND and APRON, the boundaries of the manoeuvring area and thus the responsibility for handling traffic can be moved temporarily, for example to carry out construction work or snow removal. During the consultation, TOWER/GROUND and APRON will agree on temporary transfer points. Fraport will take all necessary closing-off and safety measures.

Taxiing Instructions

Arrival

Pilots of arriving ACFT will be instructed by TOWER to contact APRON.

Departure

Pilots of departing ACFT shall first contact DELIVERY, report "ready for taxiing" and will then be instructed to contact APRON.

AD control may give permission for ACFT up to 2.5t MPW to use TWY M between TWYs L1/M6 and L14/M24 for take-offs and landings.

General Aviation Apron

Taxiing on the GA Apron

The wing-tip-clearance is MNM 4.5m.

Adhere strictly to the yellow taxi guidance lines.

ACFT maintenance area E of Hangar 9 - only towing permitted.

HEL

All helicopters parking at the GA Terminal have to expect LDG and TKOF on RWY 07R/25L.

General Information

Location: INNSBRUCK AUT
ICAO/IATA: LOWI / INN
Lat/Long: N47° 15.6', E011° 20.6'
Elevation: 1907 ft

Airport Use: Public
Daylight Savings: Observed
UTC Conversion: -1:00 = UTC
Magnetic Variation: 4.0° E

Fuel Types: 100 Octane (LL), Jet A-1
Repair Types: Minor Airframe, Minor Engine
Customs: Yes
Airport Type: IFR
Landing Fee: Yes
Control Tower: Yes
Jet Start Unit: No
LLWS Alert: No
Beacon: No

Sunrise: 0605 Z
Sunset: 1651 Z

Runway Information

Runway: 08
Length x Width: 6562 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 1907 ft
Lighting: Edge, Centerline
Displaced Threshold: 197 ft

Runway: 26
Length x Width: 6562 ft x 148 ft
Surface Type: asphalt
TDZ-Elev: 1894 ft
Lighting: Edge, ALS, Centerline, REIL

Communication Information

ATIS: 126.030
Innsbruck Tower: 120.100
Innsbruck Radar: 128.975

1. GENERAL

1.1. ATIS

D-ATIS 126.030

1.2. NOISE ABATEMENT PROCEDURES

According to the Austrian ordinance 'Zivilluftfahrzeug-Laermzulaessigkeits-verordnung ZLZV-2005' the following is applicable:

Approaches and departures to/from Austrian civil aerodromes are only permitted to be performed by subsonic jet ACFT if the produced noise does not exceed the noise limits specified in Chapter 3 of ICAO Annex 16, Vol I.

Daily operational hours from 0630-2000LT.

For commercial flights, executed by air carriers according to paragraph 101 "Luftfahrtgesetz" (air navigation law) with prop and turbo-prop ACFT, which do not exceed the maximum noise level of Dash 8, operational hours are valid from 0600-2300LT, but between 2200-2300LT only arrivals are granted.

For commercial flights, executed by air carriers according to paaragraph 101 "Luftfahrtgesetz" (air navigation law) with jet-propelled ACFT, that maximum noise level is less than the maximum noise level of Dash 8, arrivals are granted between 2000-2300LT.

For rescue-, ambulance- and catastrophe operations with noise reduced ACFT according to ICAO Annex 16, Chapter III and IV, and with helicopters operational hours are valid analogues to item 2.

1.3. LOW VISIBILITY PROCEDURES (LVP)

Low visibility take-off becomes effective when RVR for TDZ is 400m or less and will be activated with the phrase "LVP IN OPERATION" via RTF or ATIS.

1.4. RWY OPERATIONS

1.4.1. REDUCED RWY SEPARATION

1.4.1.1. GENERAL

Reduced RWY separation will be applied for RWYs 08 and 26 with 600m or 1500m separation.

ACFT will be classified as follows:

- **CAT 1 ACFT:**
  Single engine propeller ACFT with MTOM of 2000kg or less.
- **CAT 2 ACFT:**
  Single engine propeller ACFT with MTOM of more than 2000kg but less than 7000kg or twin engine propeller ACFT with MTOM of less than 7000kg.
- **CAT 3 ACFT:**
  All other ACFT.

1.4.1.2. LANDING ACFT

Separation shall in no case be less than following minimums:

A succeeding landing CAT 1 ACFT may cross THR when preceding ACFT is a CAT 1 or 2 ACFT which either:

- has landed and passed a point at least 600m from THR, is in motion and will vacate RWY without backtracking; or
- is airborne and has passed a point at least 600m from THR.

A succeeding landing CAT 2 ACFT may cross THR when preceding ACFT is a CAT 1 or 2 ACFT which either:

- has landed and passed a point at least 1500m from THR, is in motion and will vacate RWY without backtracking; or
- is airborne and has passed a point at least 1500m from THR.

1. GENERAL

A succeeding landing ACFT may cross THR when preceding CAT 3 ACFT:

- has landed and passed a point at least 2400m from THR, is in motion and will vacate RWY without backtracking, or
- is airborne and has passed a point at least 2400m from THR.

1.4.1.3. DEPARTING ACFT

A CAT 1 ACFT may be cleared for take-off when preceding departing ACFT is a CAT 1 or 2 ACFT which is airborne and has passed a point at least 600m from position of succeeding ACFT.

A CAT 2 ACFT may be cleared for take-off when preceding departing ACFT is a CAT 1 or 2 ACFT which is airborne and has passed a point at least 1500m from position of succeeding ACFT.

An ACFT may be cleared for take-off when a preceding departing CAT 3 ACFT is airborne and has passed a point at least 2400m from position of succeeding ACFT.

1.4.1.4. WAKE TURBULENCE

The prescribed wake turbulence separation minimums have to be applied except:

- pilot of approaching ACFT announces that he is able to attend an appropriate distance himself; or
- pilot of departing ACFT reports after being questioned by Tower that he can avoid wake turbulence of preceding departed ACFT ("able to avoid..."), e.g. possibility of a visual turn.

1.5. OTHER INFORMATION

1.5.1. GENERAL

Extensive glider activity.

1.5.2. SPECIAL NOTES

Due to mountainous terrain in the vicinity of APT and the requirement for visual maneuvering, it is considered essential that pilots are well familiar with descent, approach and missed approach procedures, balked landing procedures as well as the circling manoeuvres, and the departure procedures.

Familiarization with the procedures intended for use with adequate briefing material is mandatory. The responsibility for the preparation of such information rests with the operator for commercial flights, respectively pilot-in-command (for non-commercial flights). A sample briefing may be obtained from the APT administration but needs to be updated for the needs of the intended operation.

Operation in VMC on site or in a flight simulation training device FSTD (full flight simulator-FFS; Flight and navigation procedures trainer II-FNPT II) is required before first use of the approach procedures in weather conditions of less than 3000' (AAL) ceiling and 5km visibility and for the approval of any special approach and/or departure procedure.

Note: Operation in an FSTD shall include the program in VMC as well as in IMC unless a collision detection system is used.

The operation in VMC on site (or in the FSTD) shall include at least:

- one LOC/DME EAST followed by missed approach;
- one LOC/DME EAST approach followed by balked landing RWY 26 (may be replaced by one departure from RWY 26 utilizing the same track as for the intended balked landing);
- one LOC/DME EAST followed by a circling RWY 08;
- one departure RWY 26 (may be replaced by one balked landing RWY 26 utilizing the same track).

Details of the required information and training for the approval of special procedures will be specified.

However, training for the use of any one of the special procedures need to be performed in a FFS or FNPT II (exemptions for on site training may be granted if the situation requires such a decision).

1. GENERAL

The design of any departure contingency procedure and balked landing procedure is the responsibility of the operator/pilot-in-command. When designing the balked landing, the initial part of the departure procedure and the contingency procedure for RWY 26 the following guiding principles should be considered:

Balked Landing and Departure Contingency:

The operator/pilots-in-command should define the use of a turn procedure not later than D3.3 West OEV DME, or the use of an alternative contingency procedure along the Inn valley (this needs more detailed preparation and knowledge of the procedures and area).

Proposed Early Turn Procedure:

Climb visually with maximum gradient on RWY track. At D1.2 West OEV turn RIGHT and climb on 272^ along the Northern side of the valley. Not later than at D3.3 West OEV turn LEFT and join LOC OEJ and continue climb along LOC OEJ to RTT NDB.

Unless a detailed obstacle survey allows/requires another turning altitude, the required climb gradient is 6.1% to achieve an altitude of 3200' at D3.3 West of OEV, which may be considered as sufficient altitude for a safe LEFT turn with a maximum radius of 1800m. Due to ACFT mass and associated climb performance of less than 6.1% one engine inoperative climb it may be required to design an alternative contingency procedure along the Western part of the Inn valley.

AOC type "B" and any adequate extension is recommended for preparation!

During FOEHN conditions (surface wind 100^-180^, average windspeed 15-25 KT, gusts 30-50 KT) with horizontal/vertical windshear and associated with possible moderate to severe turbulence and following partly severe downdraughts at various altitudes have to be expected especially over the city below 5000'.

To minimize operation in turbulence, pilots may during an approach procedure request a visual approach to RWY 08 from a position West of APT or stop descent at 7000' and proceed visually to a position over or South of APT but not below 5000'.

Thereafter continue descent and join RIGHT hand baseleg for RWY 08. A downdraught over the river INN on final approach to RWY 08 is most likely, too.

Caution is advised when actual outside air temperature differs from ISA by more than MINUS 10^C, due to substantial difference between true altitude and indicated altitude. Pilots will normally be informed by ATC.

Cloud base reports are available for two positions on final approach to RWY 26 at D1.8 OEV and at D0.5 OEV (indicating low clouds close to MAPs) and one position 2NM West of the APT.

In the area around INNSBRUCK it may happen that different values of visibility exist in various directions mainly caused by haze or mist layers over the city. If such situations are observed and the ground visibility is 8km or less, an additional reference in plain language to the INNSBRUCK MET REPORT is made, or ATC will refer to.

This plain language appendix refers especially to existing haze layers and as far as possible to the estimated visibility above these haze layers.

1.5.3. ADDITIONAL SERVICE

Surveillance based on multilateration is used by INNSBRUCK Tower/APP in order to provide additional service for the provision of air traffic services in the INN Valley.

This non-standard ICAO system is using on board transponder mode A/C/S replies by calculating time/distance of signals in order to locate position and altitude of ACFT.

All standard ICAO radar procedures, phraseology and services apply.

Radar service will be initiated by identification procedure for ACFT equipped with serviceable transponder mode A/C/S: Departures when entering RWY.

2. ARRIVAL

2.1. OTHER INFORMATION

2.1.1. ATC PROCEDURES

No approach clearance will be issued by ATC below CEIL 1300' AAL and 1500m ground visibility.

In case of fog, haze, cloud and/or mist layers or blowing snow in vicinity of the APT a clearance for approach will be granted on pilot's request provided:

- the RVR is at least 1000m and
- the visibility above these layers is at least 5.0km and there are no further clouds below 3100' AAL.

2.1.2. GUIDELINES FOR RNP Z RWY 08 (AR) AND RNP Z RWY 26 (AR)

2.1.2.1. EQUIPMENT REQUIREMENTS

Approved Dual FMS installation according AC20-138() including RNP capability of 0.3NM or better (equal or smaller than 0.3NM).

Dual GNSS and at least one Inertial Reference Unit or equivalent (DME/DME, VOR/DME or LOC update not authorized).

FMS must be capable to perform ARINC 424 "RF" Path Terminator.

Required RNP AR approach functions/airworthiness according EASA CS-ACNS Issue 3.

To assure availability of GNSS signal, operators/pilots shall perform a RAIM check.

A tool (AUGUR by EUROCONTROL) is available on:
https://augur.eurocontrol.int.

2.1.2.2. APPLICATION

This procedure requires special authorization by Austro Control. This authorization does not relieve the operator/pilot to obtain an approval/acceptance from the competent National Aviation Authority of the State of the operator/pilot.

Only operators/pilots of multi-engine ACFT shall apply for such permission.

The application shall contain:

- ACFT type;
- FMS type and certification;
- Instrument approach and landing chart;
- Flight crew training documentation for normal and non-normal operation including documentation changes (FCOM, AFM, etc.);
- Data file with ARINC 424 coding of the procedure;
- Safety analysis in regard to accuracy, integrity, continuity and availability for normal and non-normal operations;
- A copy of the letter of approval to conduct RNP AR operations granted by their National Aviation Authority.

2.1.3. SPECIAL LOC ROMEO RWY 26 GUIDELINES

2.1.3.1. GENERAL

To assure availability of GNSS signal operators/pilots shall perform a RAIM check.

A tool (AUGUR by EUROCONTROL) is available on:
https://augur.eurocontrol.int.

If no effective external visual reference at the MAPt or when discontinuing an approach between D-19 OEV and the MAP, climb with MAX gradient on MT 254^ to WI700 (LOC course OEV 254^ provides guidance until short before WI700), thereafter the missed approach is based on RNP 0.3 and therefore LNAV shall be engaged accordingly.

2. ARRIVAL

2.1.3.2. EQUIPMENT REQUIREMENTS

Approved Dual FMS installation according AC20-138() including RNP capability of 0.3NM or better (equal or smaller than 0.3NM).

Dual GNSS and at least one Inertial Reference Unit or equivalent (DME/DME or VOR/DME update not authorized during missed approach).

FMS must be capable to perform ARINC 424 "RF" Path Terminator.

Required RNP AR approach functions/airworthiness according EASA CS-ACNS Issue 3.

2.1.3.3. APPLICATION

This procedure requires special authorization by Austro Control. This authorization does not relieve the operator/pilot to obtain an approval/acceptance from the competent National Aviation Authority of the State of the operator/pilot.

Only operators/pilots of multi-engine ACFT shall apply for such permission.

The application shall contain:

- ACFT type;
- Relevant details of the AFM showing compliance with the requirements;
- Standard Operating Procedures and flight crew training documentation for normal and non-normal operation including documentation changes (FCOM, AFM, etc.);
- Safety analysis in regard to accuracy, integrity, continuity and availability for normal and non-normal operations;
- A copy of the letter of approval to conduct RNP AR operations granted by their National Aviation Authority;
- A shortened approval process will be applied for operators holding an approval for RNP Z RWY 26 (AR).

2.1.4. APPLICATION GENERAL

The relevant data shall be submitted in a listed form together with copies of the relevant pages of the Aeroplane Flight Manual and - if relevant other certified data.

Applications shall be conveyed at least six weeks prior to the intended operations.

Note: Details for approval shall be obtained by special.procedures@austrocontrol.at

Operators shall address their application to:

Austro Control GmbH
Flugsicherungsstelle Innsbruck
ATM/TERM Innsbruck
Postfach 1
6026 Innsbruck
AUSTRIA
FAX: +43 5 1703 6656
+43 5 1703 6666
E-mail: special.procedures@austrocontrol.at

3. DEPARTURE

3.1. SPECIAL PERFORMANCE DEPARTURES

Only operators/pilots of multi-engine ACFT shall apply for such permission.

The application shall contain:

- ACFT type;
- Relevant details of the AFM showing compliance with the requirements;
- Standard Operating Procedures and flight crew training documentation for normal and non-normal operation including documentation changes (FCOM, AFM, etc.);
- Safety Analysis in regard to accuracy, integrity, continuity and availability for normal and non-normal operations;
- A copy of the letter of approval to conduct RNP AR operations granted by their National Aviation Authority.

The relevant data shall be submitted in a listed form together with copies of the relevant pages of the Aeroplane Flight Manual and - if relevant - other certified data.

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Austro Control GmbH
Flugsicherungsstelle Innsbruck
ATM/TERM Innsbruck
Postfach 1
6026 Innsbruck
AUSTRIA
FAX: +43 5 1703 6656
+43 5 1703 6666
E-mail: special.procedures@austrocontrol.at

3.2. OTHER INFORMATION

3.2.1. ATC PROCEDURES

Except for special performance departure no clearance will be issued by ATC below CEIL 1300'AAL and/or 1500m ground visibility.

In case of low layers of (low stratus) fog, haze, mist or blowing snow a clearance for departure on RWY 08 will be granted to pilots for multi-engine ACFT only provided:

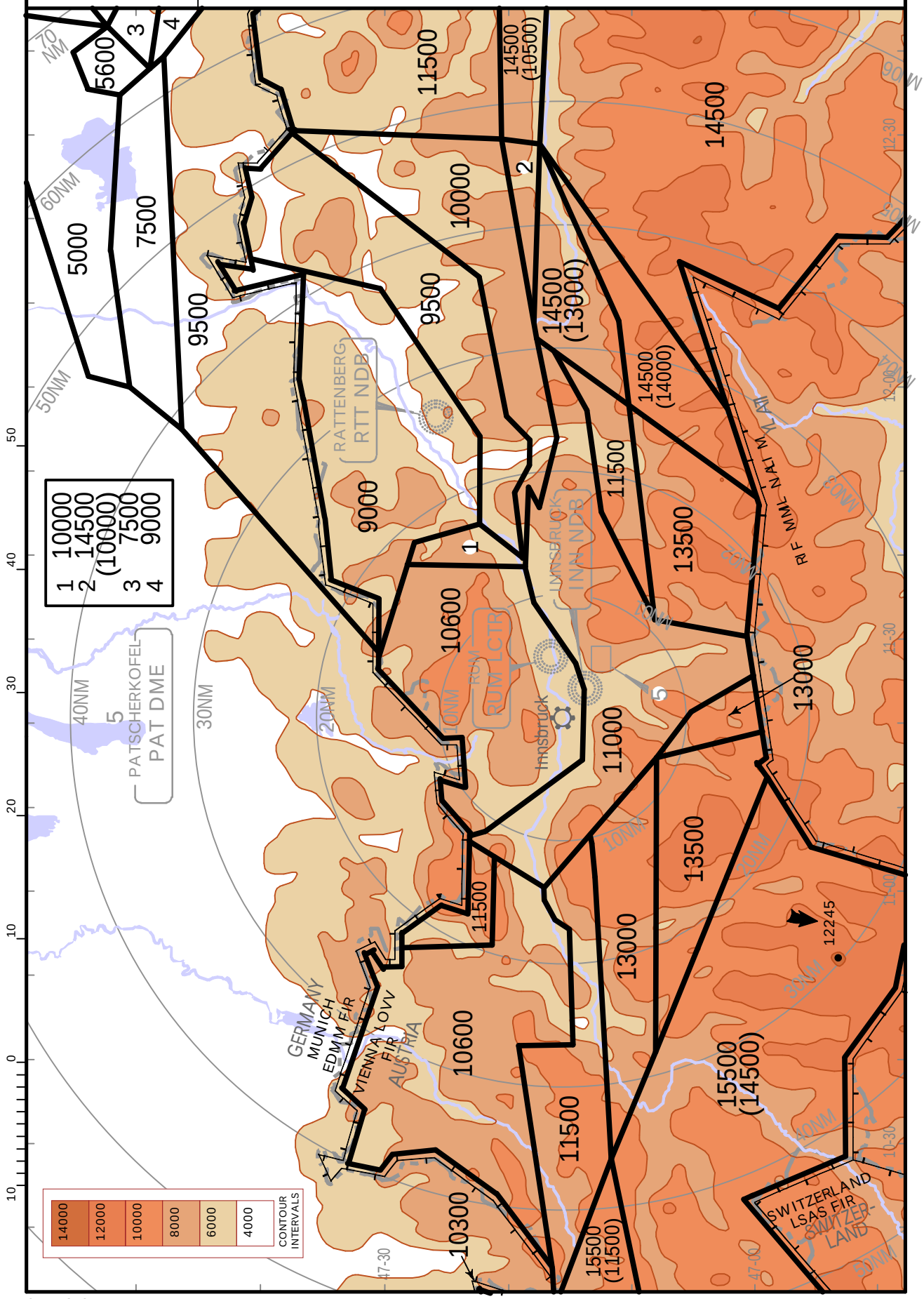
- the RVR is at least 600m and
- the visibility above these layers is at least 5.0km and
- there are no further clouds below 3100' AAL and
- one engine-out climb gradient MIM 4.8%.

LOWI/INN
INNSBRUCK

JEPPESEN
1 OCT 21 (10-1R) .Eff.7.Oct.

INNSBRUCK, AUSTRIA
.RADAR.MINIMUM.ALTITUDES.

* INNSBRUCK Radar (APP) 128.975	Alt Set: hPa Trans level: By ATC Trans alt: 10000
Apt Elev 1907	1. Minimum altitudes applicable for RADAR controlled aircraft within controlled airspace. Values in brackets refer to minimum altitudes in uncontrolled airspace providing adequate obstacle clearance.
	2. This chart may only be used for cross-checking of assigned altitudes while under RADAR control.
	3. Cold temperature altitude correction to the minimum altitude will be applied by ATC.

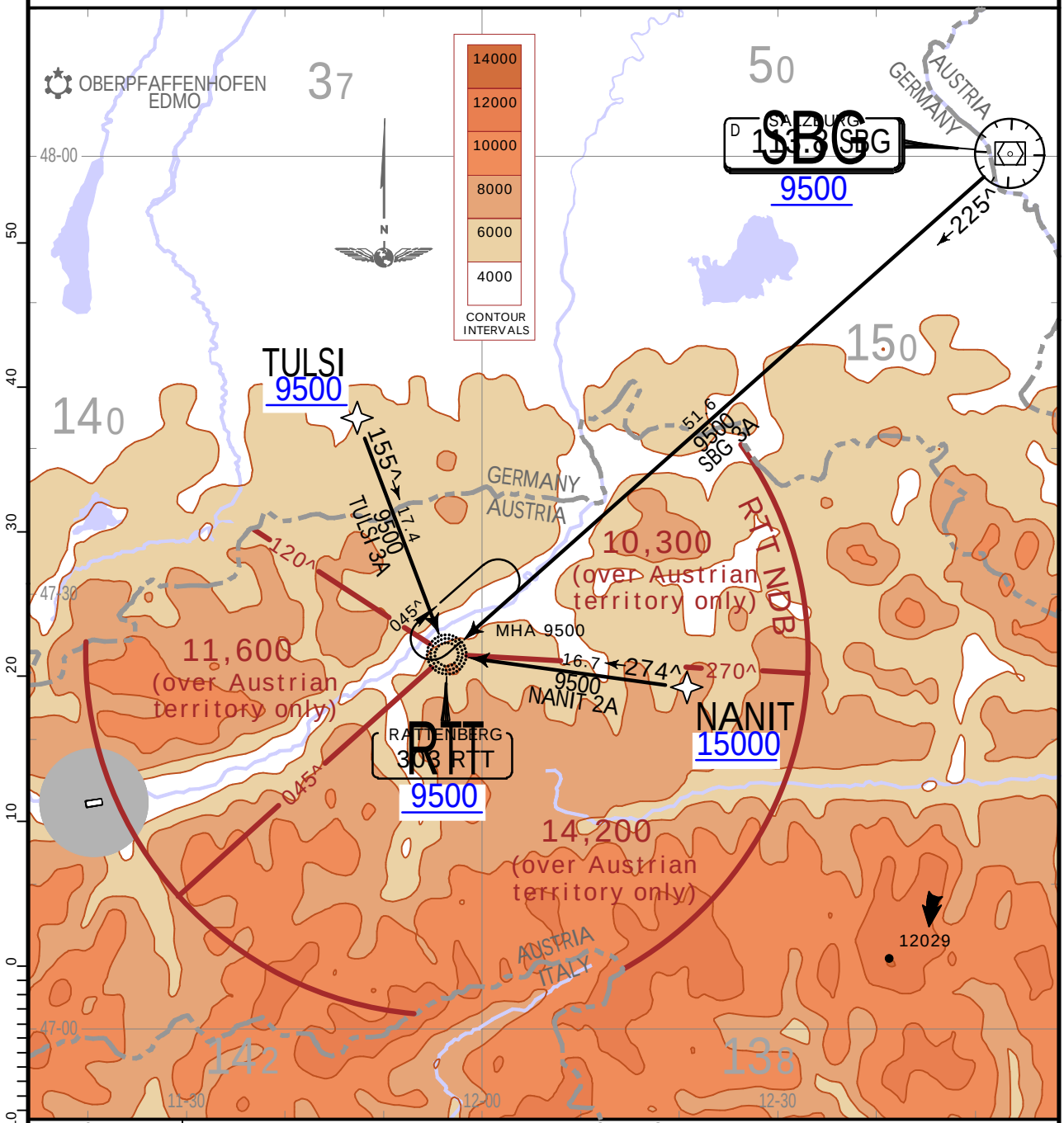


CHANGES: RADAR frequency.

D-ATIS	Apt Elev	
126.030	1907	Alt Set: hPa Trans level: By ATC 1. RNAV 5 approval required. 2. GNSS required. 3. Non-RNAV aircraft: EXPECT RADAR vectors to final approach.

NANIT 2A [NANI2A]
SALZBURG 3A (SBG 3A) [SBG3A]
TULSI 3A [TULS3A]
RNAV ARRIVALS
(ALL RWYS)

STARs crossing through
airspace class E
up to FL125



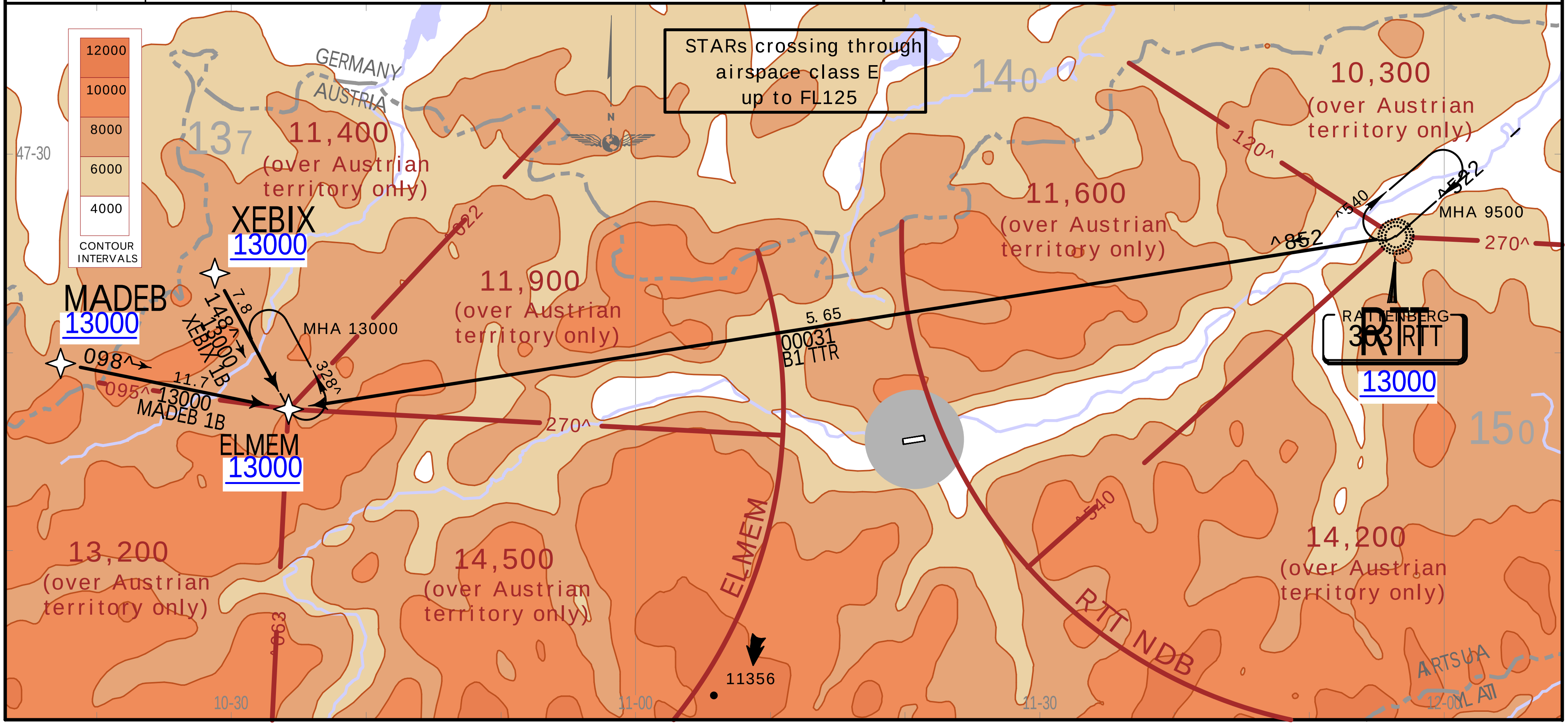
STAR	ROUTING
NANIT 2A	NANIT - RTT.
SBG 3A	SBG - RTT.
TULSI 3A	TULSI - RTT.

CHANGES: Track update.

D-ATIS	Apt Elev	
126.030	1907	Alt Set: hPa Trans level: By ATC 1. RNAV 5 approval required. 2. GNSS required. 3. Non-RNAV aircraft: EXPECT RADAR vectors to final approach.

MADEB 1B [MADE1B]
RATTENBERG 1B (RTT 1B) [RTT1B]
XEBIX 1B [XEBI1B]
RNAV ARRIVALS
(ALL RWYS)

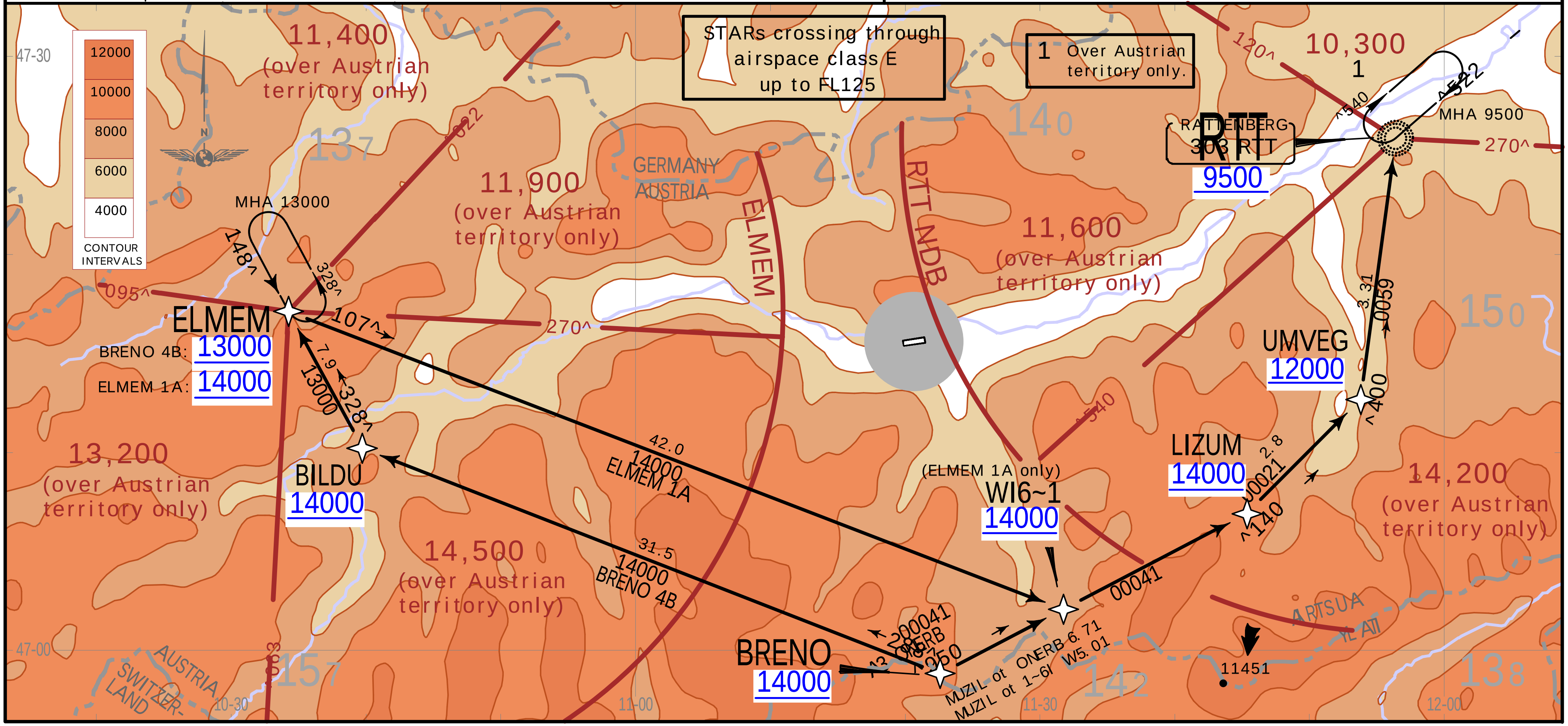
STAR	ROUTING
MADEB 1B	MADEB - ELMEM.
RTT 1B	RTT - ELMEM.
XEBIX 1B	XEBIX - ELMEM.


STARs crossing through airspace class E up to FL125
CONTOUR INTERVALS
12000
10000
8000
6000
4000
GERMANY
AUSTRIA
137
140
150
11,400 (over Austrian territory only)
10,300 (over Austrian territory only)
11,600 (over Austrian territory only)
11,900 (over Austrian territory only)
13,200 (over Austrian territory only)
14,500 (over Austrian territory only)
14,200 (over Austrian territory only)
XEBIX 13000
MADEB 13000
ELMEM 13000
RATTENBERG 303 RTT
13000
MHA 13000
MHA 9500
098^
095^
11.7
13000
MADEB 1B
148^
7.8
13000
XEBIX 1B
328^
270^
120^
^540
^852
^522
5.65
00031
B1 TTR
ELMEM
RTT NDB
11356
47-30
10-30
11-00
11-30
12-00

D-ATIS	Apt Elev	
126.030	1907	Alt Set: hPa Trans level: By ATC 1. RNAV 1 approval required. 2. GNSS required. 3. Non-RNAV aircraft: EXPECT RADAR vectors to final approach.

BRENO 3A [BREN3A]
BRENO 4B [BREN4B]
ELMEM 1A [ELME1A]
RNAV ARRIVALS
(ALL RWYS)

STAR	ROUTING
BRENO 3A	BRENO - LIZUM - UMVEG - RTT.
BRENO 4B	BRENO - BILDU - ELMEM.
ELMEM 1A	ELMEM - WI6~1 - LIZUM - UMVEG - RTT.


STARs crossing through airspace class E up to FL125
1 Over Austrian territory only.
RATTENBERG
303 RTT
9500
MHA 9500
270^
^322
^540
120^
10,300
1
140
UMVEG
12000
3.31
0059
^400
LIZUM
14000
2.8
00021
^140
00041
14,200
(over Austrian territory only)
150
11,600
(over Austrian territory only)
RTT NDB
^540
(ELMEM 1A only)
WI6~1
14000
ELMEM
GERMANY
AUSTRIA
11,900
(over Austrian territory only)
270^
11,400
(over Austrian territory only)
137
022
MHA 13000
148^
328^
095^
107^
ELMEM
BRENO 4B: 13000
ELMEM 1A: 14000
7.9
328^
13000
BILDU
14000
13,200
(over Austrian territory only)
42.0
14000
ELMEM 1A
31.5
14000
BRENO 4B
14,500
(over Austrian territory only)
BRENO
14000
200041
ONERB
050
MUZIL ot ONERB 6.71
MUZIL ot 1~6I W5.01
ARTSUA
YL AII
11451
142
138
157
AUSTRIA
SWITZERLAND
47-30
47-00
10-30
11-00
11-30
12-00
12000
10000
8000
6000
4000
CONTOUR INTERVALS

CHANGES: New chart (STARs transferred, revised, renumb & estbld).

LOWI/INN INNSBRUCK

JEPPESEN

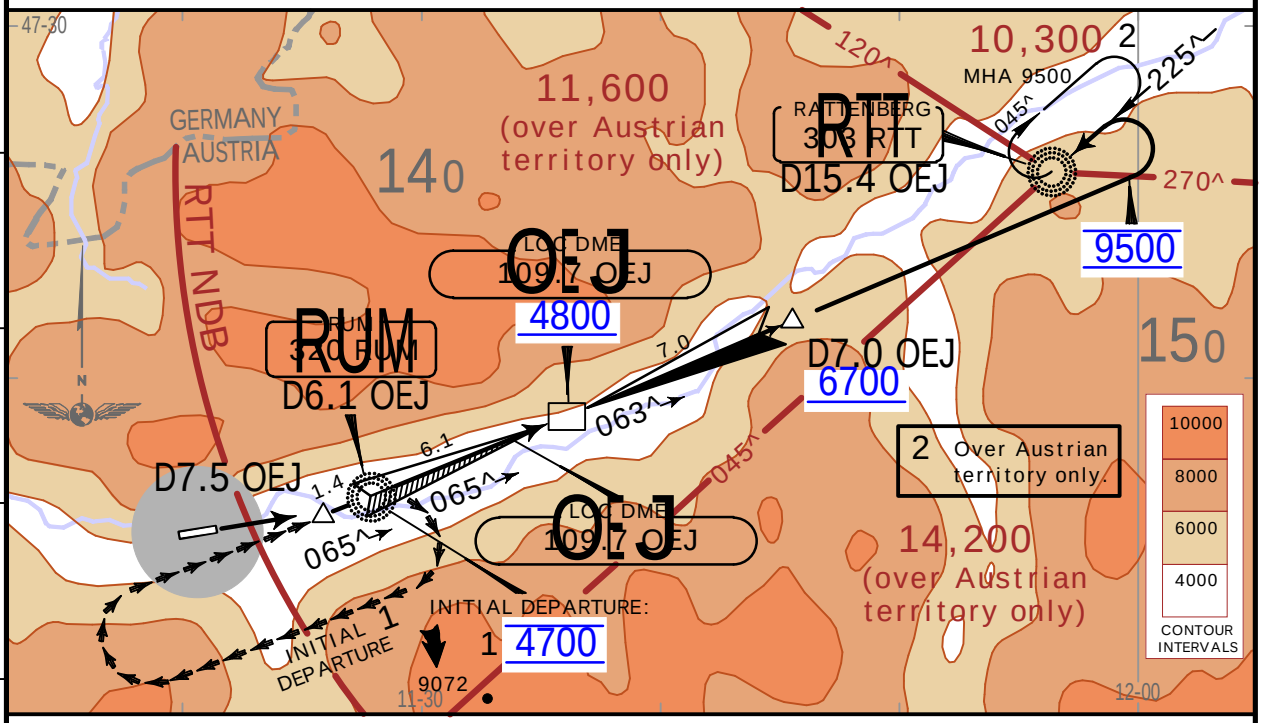
1 OCT 21 (10-3) .Eff.7.Oct.

INNSBRUCK, AUSTRIA .SID.

*INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000
128.975	1907	1. Contact INNSBRUCK Radar when advised by Tower. 2. High mountains surrounding the aerodrome.

RWY 08 INITIAL DEPARTURE

FOLLOWED BY SIDS SHOWN ON CHARTS 10-3B & 10-3C



SIDs crossing through airspace class E up to FL125

Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km, for aircraft CAT C & D 5km.
SPECIAL PERFORMANCE DEPARTURE
RVR: 150m
Take-off alternate required.

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient of
290 per NM (4.8%) until passing 6700.

Gnd speed-KT	75	100	150	200	250	300
290 per NM	363	483	725	967	1208	1450

1 If unable to cross OEJ at 4800 and D7.0 OEJ EAST of OEJ at 6700, a higher ceiling and visibility is necessary. In this case climb visually via RUM at 4700
205 per NM (3.3%).

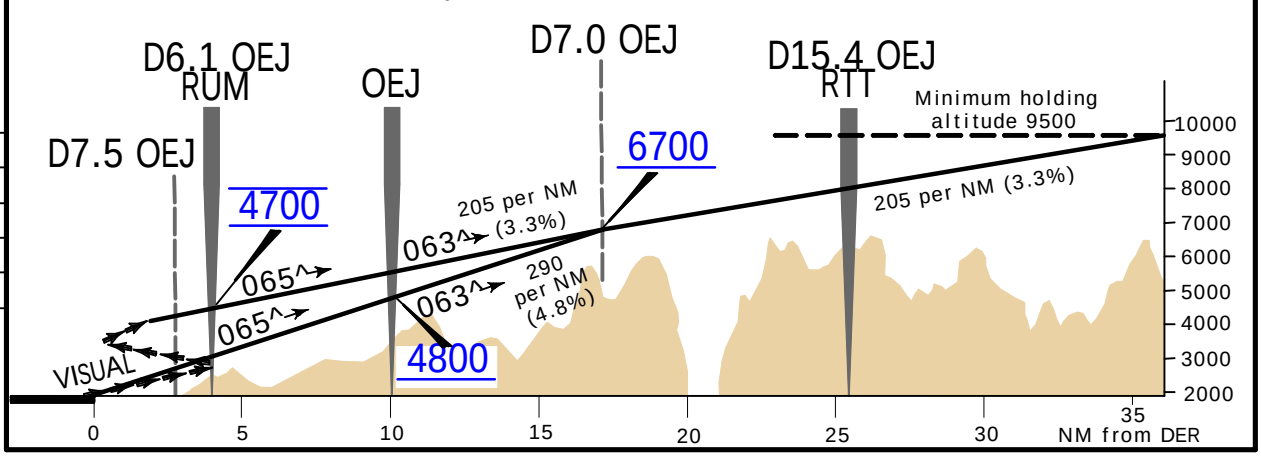
Gnd speed-KT	75	100	150	200	250	300
205 per NM	256	342	513	683	854	1025

Initial climb clearance By ATC

INITIAL CLIMB

Climb on runway track with maximum rate of climb until intercepting OEJ course (D7.5 OEJ) inbound to RUM, continue on 065^ OEJ course. At OEJ change to 063^ and continue to 9500 using OEJ back course, then turn LEFT to RTT. After RTT join SID or cleared ATS route.
Due to erroneous LOC indications when off centerline from 2.0 DME before until 2.0 DME after LOC-DME station, use RUM as additional guidance.

REQUIRED MINIMUM CLIMB PROFILE



LOWI/INN INNSBRUCK

JEPPESEN

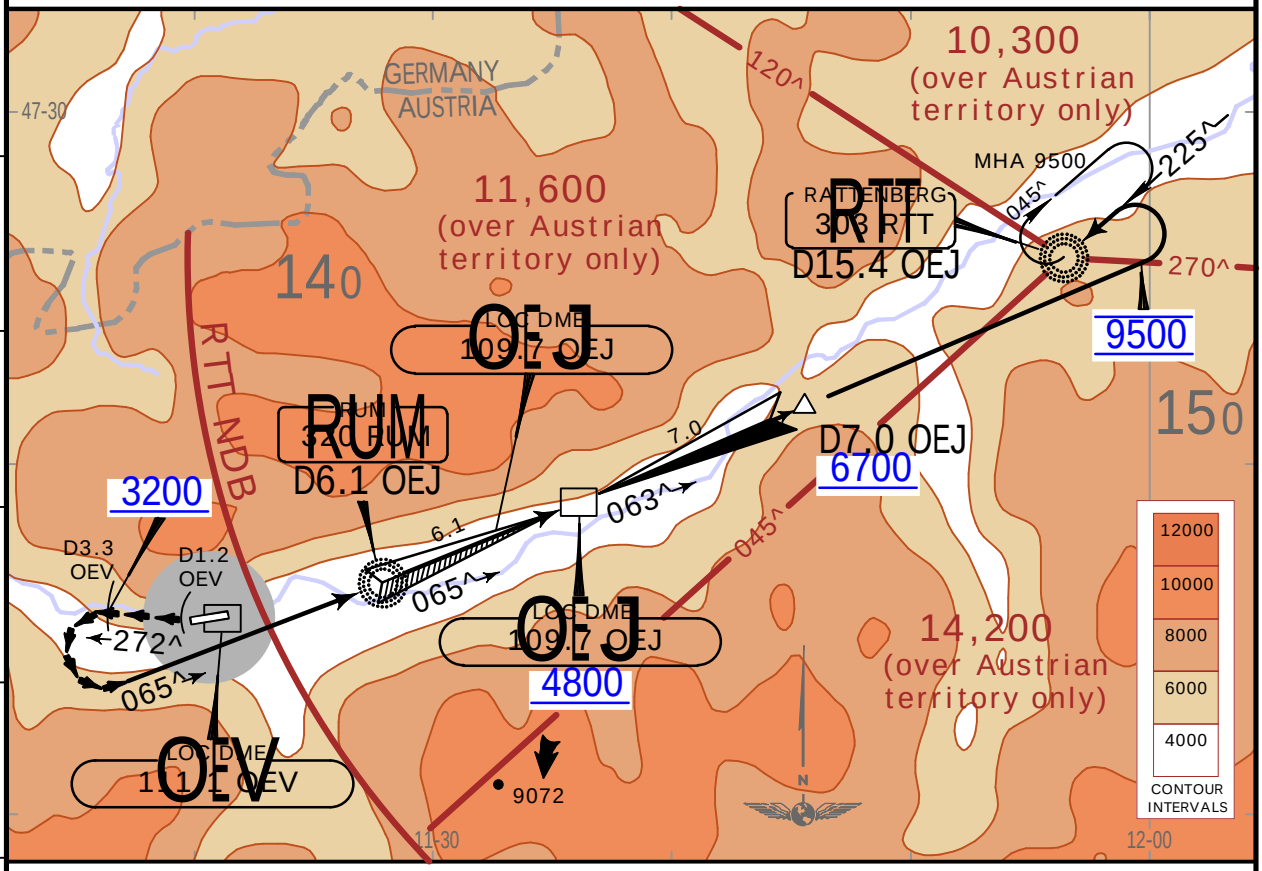
1 OCT 21 (10-3A) .Eff.7.Oct.

INNSBRUCK, AUSTRIA .SID.

*INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000
128.975	1907	1. Contact INNSBRUCK Radar when advised by Tower. 2. High mountains surrounding the aerodrome.

RWY 26 INITIAL DEPARTURE

FOLLOWED BY SIDS SHOWN ON CHARTS 10-3B & 10-3C



SIDs crossing through airspace class E up to FL125

Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km, for aircraft CAT C & D 5km.

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient of 205 per NM (3.3%).

Gnd speed-KT	75	100	150	200	250	300
205 per NM	256	342	513	683	854	1025

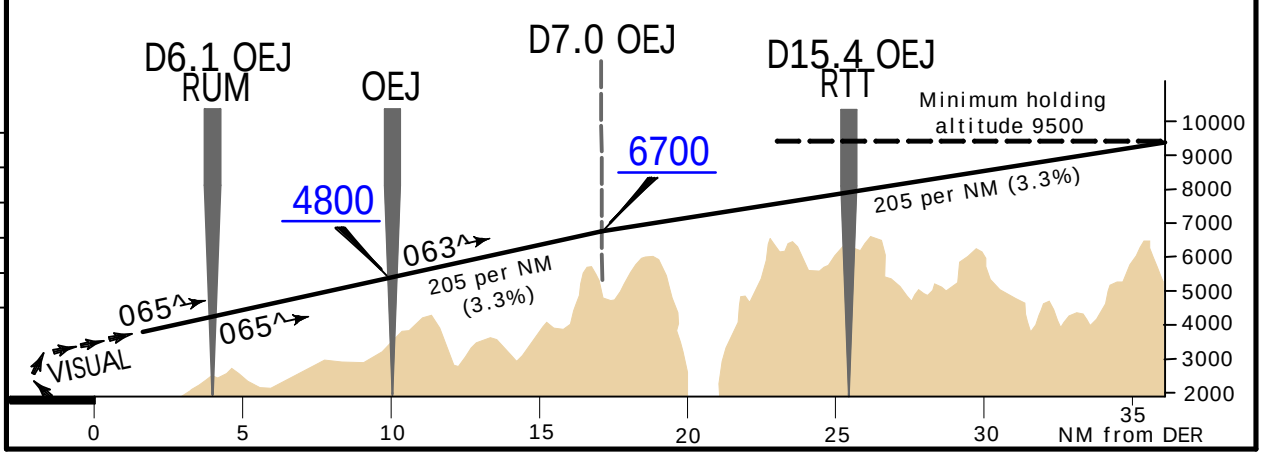
Therefore the procedure requires sufficient ceiling and flight visibility until aircraft is established on OEJ.

Initial climb clearance By ATC

INITIAL CLIMB

Climb visually on RWY track to D1.2 OEV, turn RIGHT, 272^ track to D3.3 OEV, turn visually LEFT (e. g. 160 KT/25^ bank), join OEJ on course 065^ via RUM. At OEJ change to 063^ and continue to 9500 using OEJ back course, then turn LEFT to RTT. After RTT join SID or cleared ATS route.
Due to erroneous LOC indications when off centerline from 2.0 DME before until 2.0 DME after LOC-DME station, use RUM as additional guidance.

REQUIRED MINIMUM CLIMB PROFILE

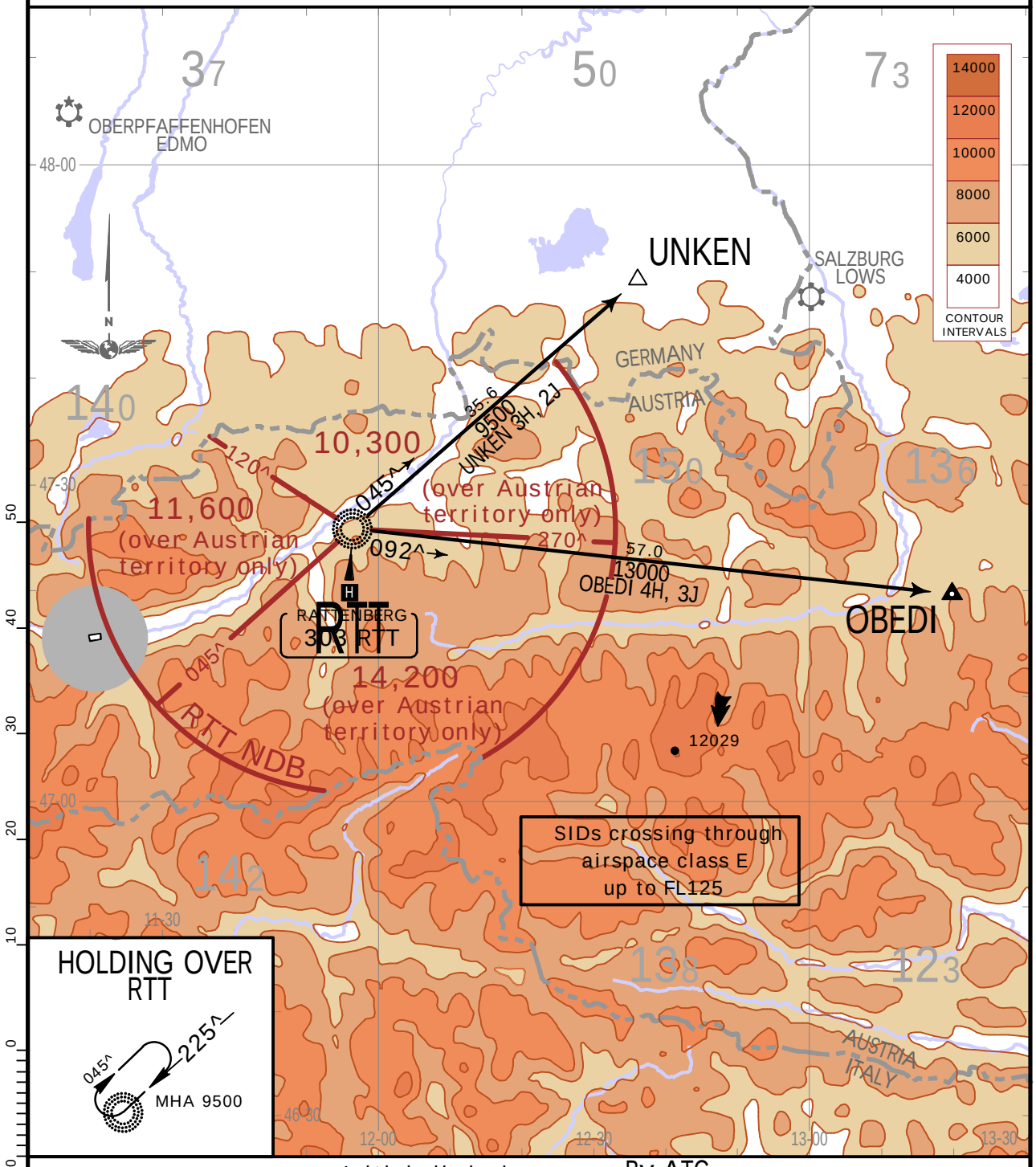


*INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000 Contact INNSBRUCK RADAR when advised by Tower.
128.975	1907	

OBEDI 4H
UNKEN 3H
RWY 26 DEPARTURES

OBEDI 3J [OBED3J]
UNKEN 2J [UNKE2J]
RWY 08 DEPARTURES

FOR INITIAL CLIMB-OUT REFER TO CHARTS 10-3 OR 10-3A



Initial climb clearance By ATC

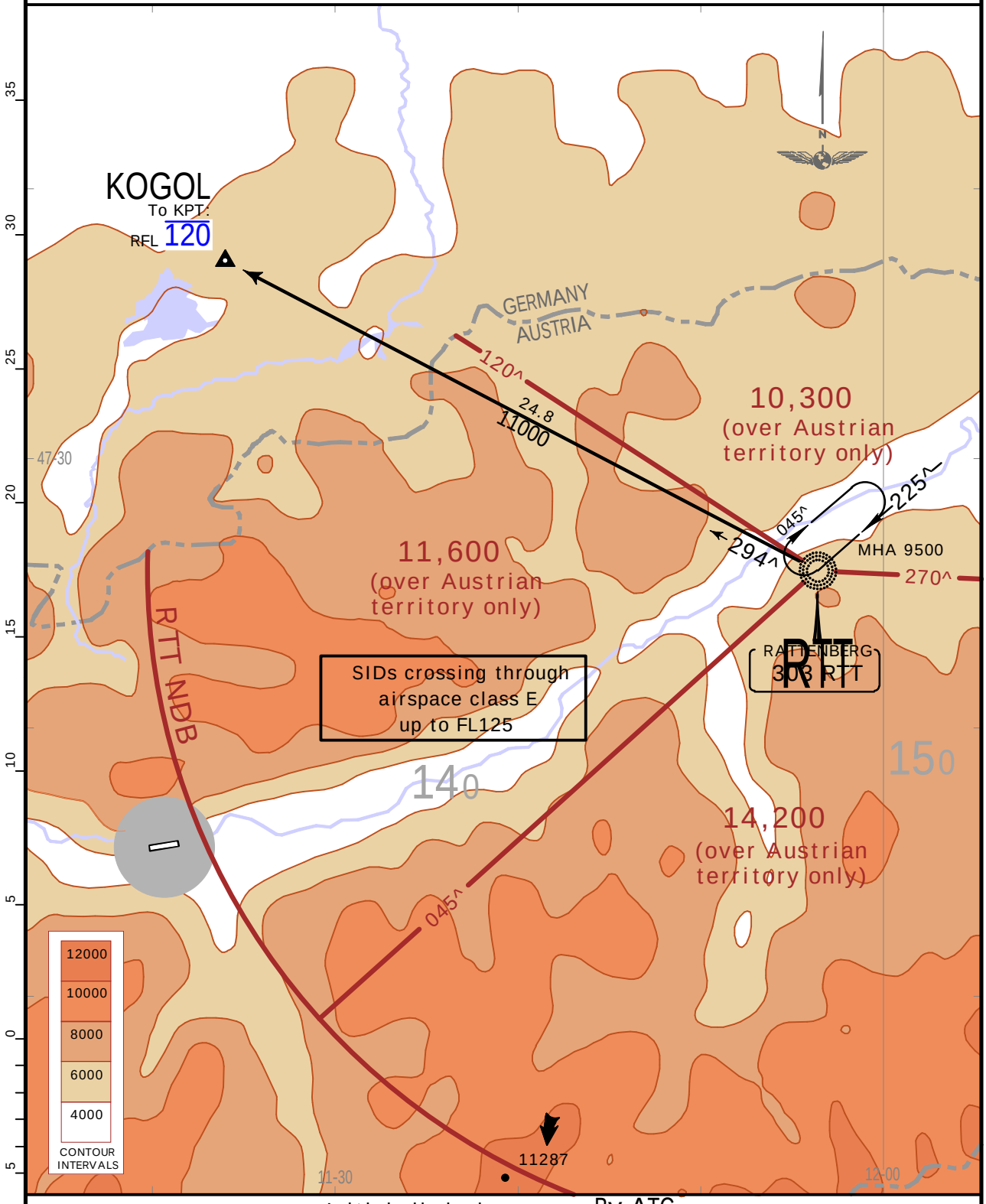
SID	ROUTING
OBEDI 4H, 3J	At RTT 092^ bearing to OBEDI.
UNKEN 3H, 2J	At RTT 045^ bearing to UNKEN.

CHANGES: RADAR frequency; bearings.

*INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000
128.975	1907	Contact INNSBRUCK RADAR when advised by Tower.

KOGOL 4H
RWY 26 DEPARTURE
KOGOL 3J [KOGO3J]
RWY 08 DEPARTURE

FOR INITIAL CLIMB-OUT REFER
TO CHARTS 10-3 OR 10-3A



Initial climb clearance By ATC

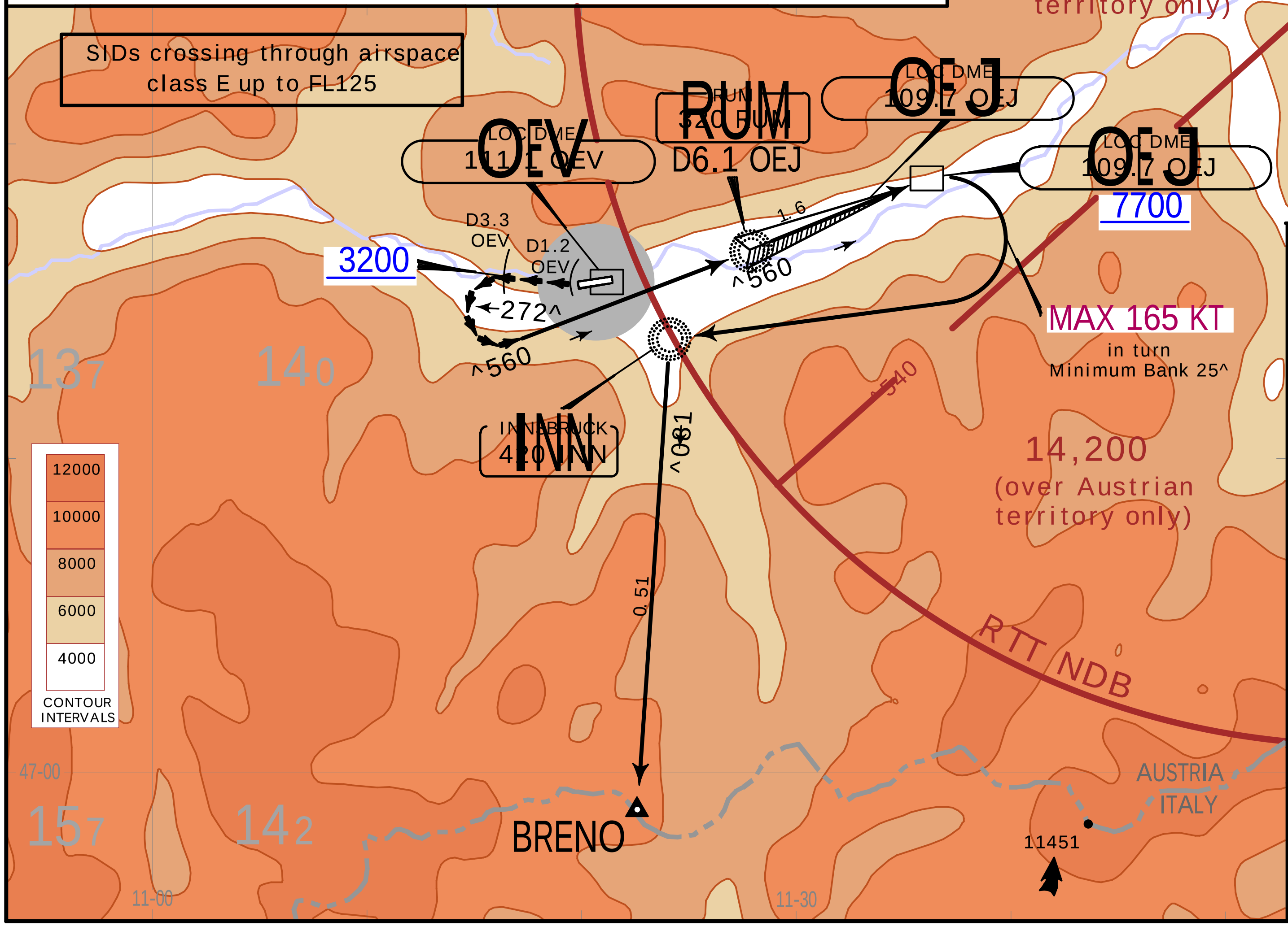
ROUTING

At RTT 294^ bearing to KOGOL.

CHANGES: RADAR frequency; bearings.

* INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000
128.975	1907	1. Contact INNSBRUCK Radar when advised by Tower. 2. High mountains surrounding the aerodrome.

BRENO 3H
RWY 26 DEPARTURE



Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km, for aircraft CAT C & D 5km.

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient of
395 per NM (6.5%) until OEJ, then
365 per NM (6.0%) until passing 11200, then
261 per NM (4.3%) until passing 15000.

Gnd speed-KT	75	100	150	200	250	300
261 per NM	326	435	653	870	1088	1305
365 per NM	456	608	913	1217	1521	1825
395 per NM	494	658	988	1317	1646	1975

Therefore the procedure requires sufficient ceiling and flight visibility until aircraft is established on OEJ.

Initial climb clearance By ATC

INITIAL CLIMB/ROUTING

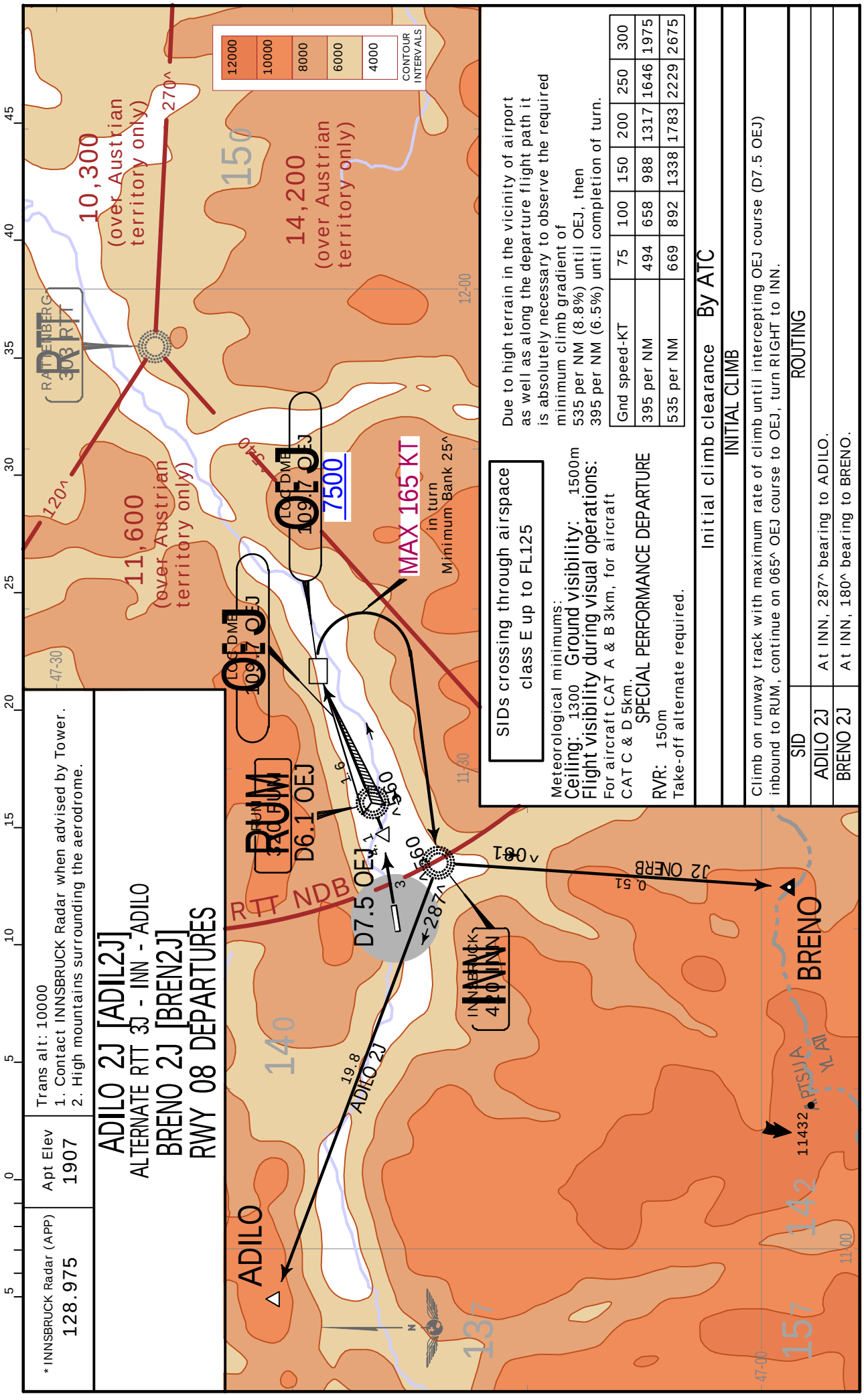
Climb visually on RWY track to D1.2 OEV, turn RIGHT, 272^ track to D3.3 OEV, turn visually LEFT (e.g. 160 KT/25^ bank), join OEJ on course 065^ to OEJ, turn RIGHT to INN, 180^ bearing to BRENO.

CHANGES: RADAR frequency; bearings.

LOWI/INN
INNSBRUCK

JEPPESEN
1 OCT 21 (10-3E) .Eff.7.Oct.

INNSBRUCK, AUSTRIA
.SID.



CHANGES: RADAR frequency; bearings.

*INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000
128.975	1907	1. Contact INNSBRUCK Radar when advised by Tower. 2. High mountains surrounding the aerodrome.

KEMPTEN 5J (KPT 5J)
RWY 08 DEPARTURE

INITIAL DEPARTURE

Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km, for aircraft CAT C & D 5km.

SPECIAL PERFORMANCE DEPARTURE
RVR: 150m
Take-off alternate required.

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient of 620 per NM (10.2%) until passing INN.

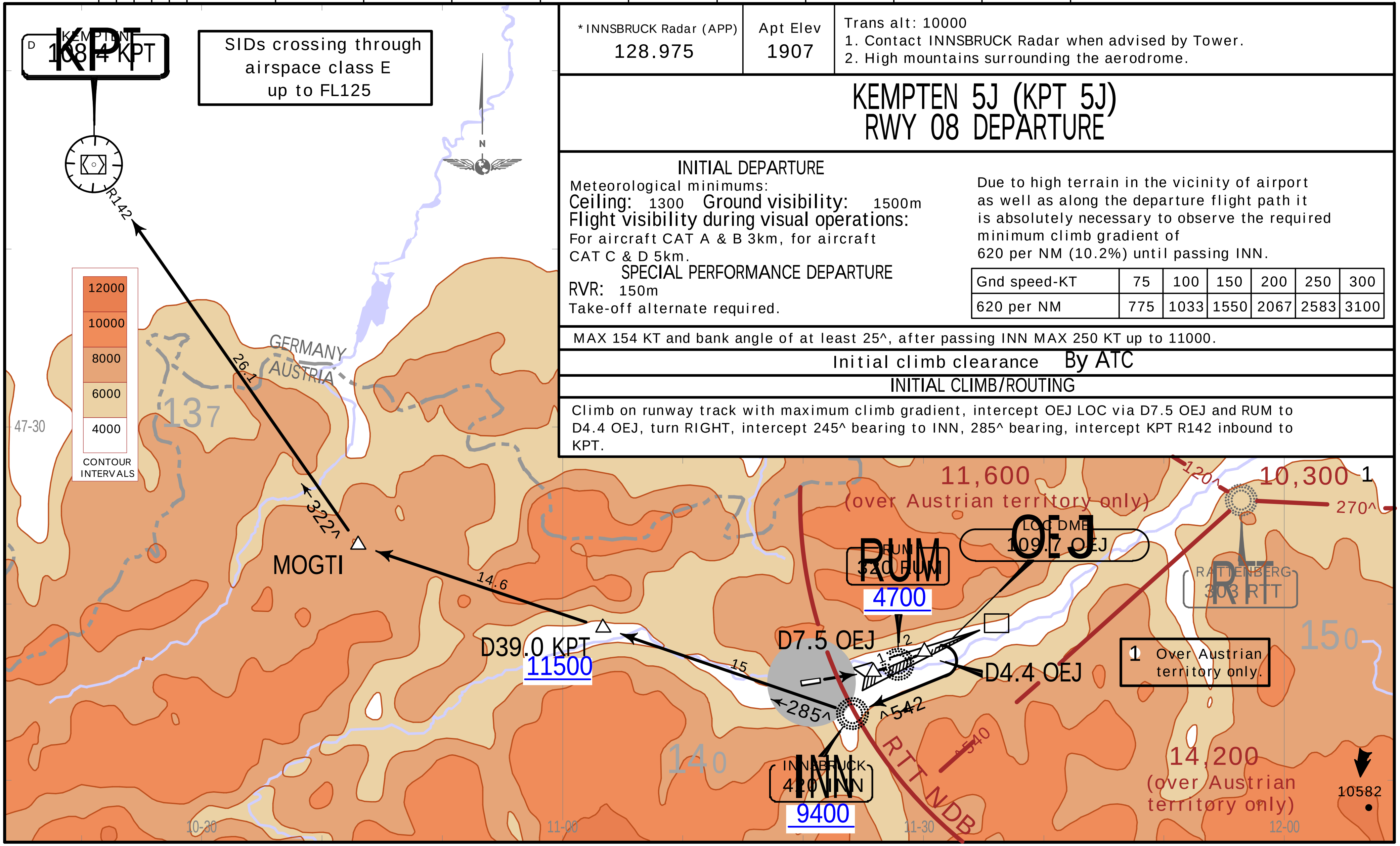
Gnd speed-KT	75	100	150	200	250	300
620 per NM	775	1033	1550	2067	2583	3100

MAX 154 KT and bank angle of at least 25^, after passing INN MAX 250 KT up to 11000.

Initial climb clearance By ATC

INITIAL CLIMB/ROUTING

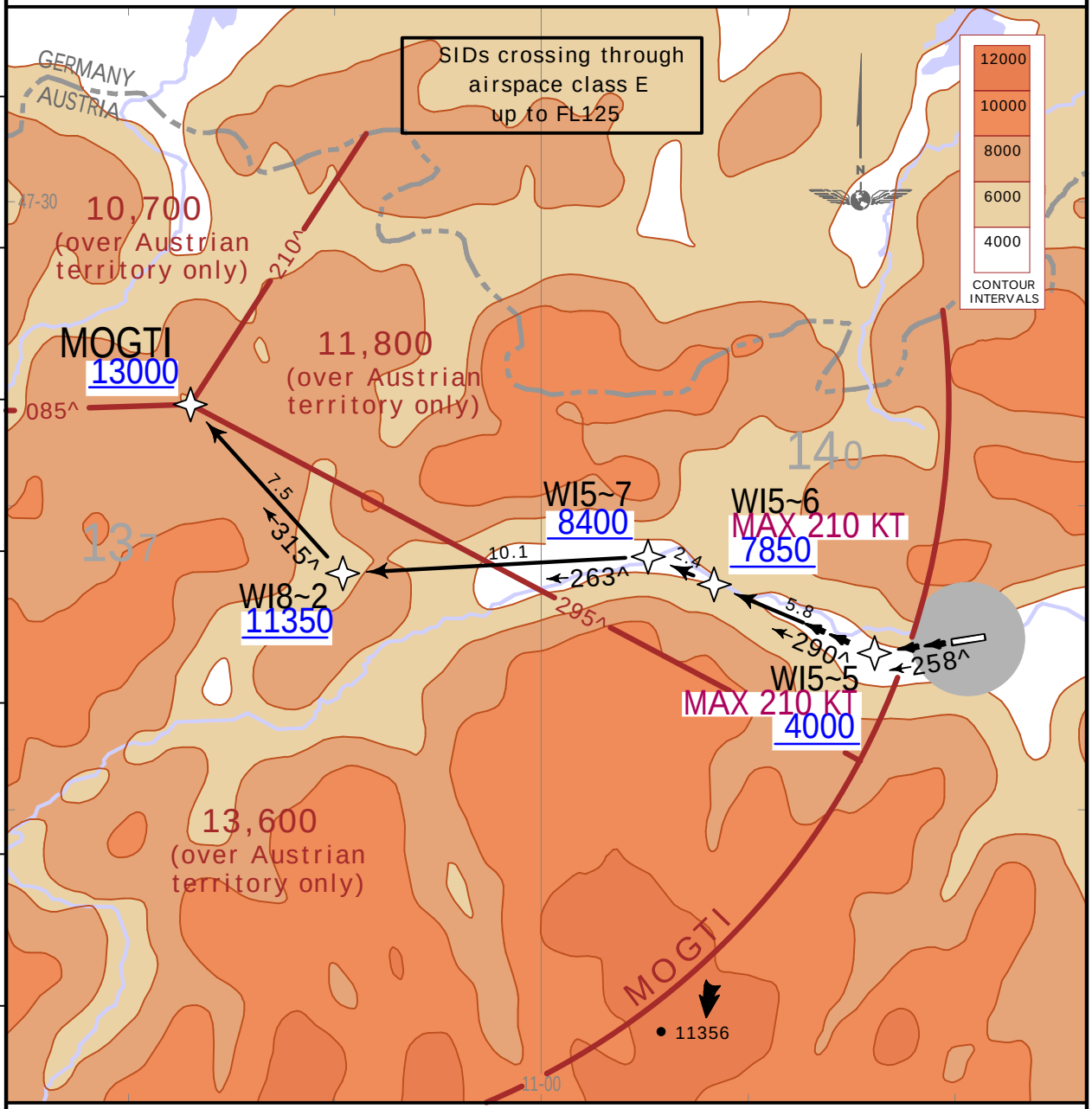
Climb on runway track with maximum climb gradient, intercept OEJ LOC via D7.5 OEJ and RUM to D4.4 OEJ, turn RIGHT, intercept 245^ bearing to INN, 285^ bearing, intercept KPT R142 inbound to KPT.



*INNSBRUCK Radar (APP)	Apt Elev
128.975	1907

Trans alt: 10000
1. GNSS required. 2. RNAV 1 approval required.
3. Contact INNSBRUCK Radar when advised by Tower.
4. Pilots shall be well familiar with RNAV SID and the terrain along the western part of the Inn valley.
5. Lower weather minima and reduced length of the visual part are available on request for operators/pilots of multi-engine ACFT with improved RNAV capability.
6. High mountains surrounding the aerodrome.

MOGTI 3H [MOGT3H]
RWY 26 RNAV DEPARTURE
JETS AND TURBOPROPS



This SID requires minimum climb gradients of
670 per NM (11.0%) up to 8400, then
295 per NM (4.8%).

Gnd speed-KT	75	100	150	200	250	300
295' per NM	369	492	738	983	1229	1475
670' per NM	838	1117	1675	2233	2792	3350

Meteorological minimums:
Ceiling: 2100 Ground visibility: 5000m or better along the visual part west of aerodrome.

Initial climb clearance By ATC

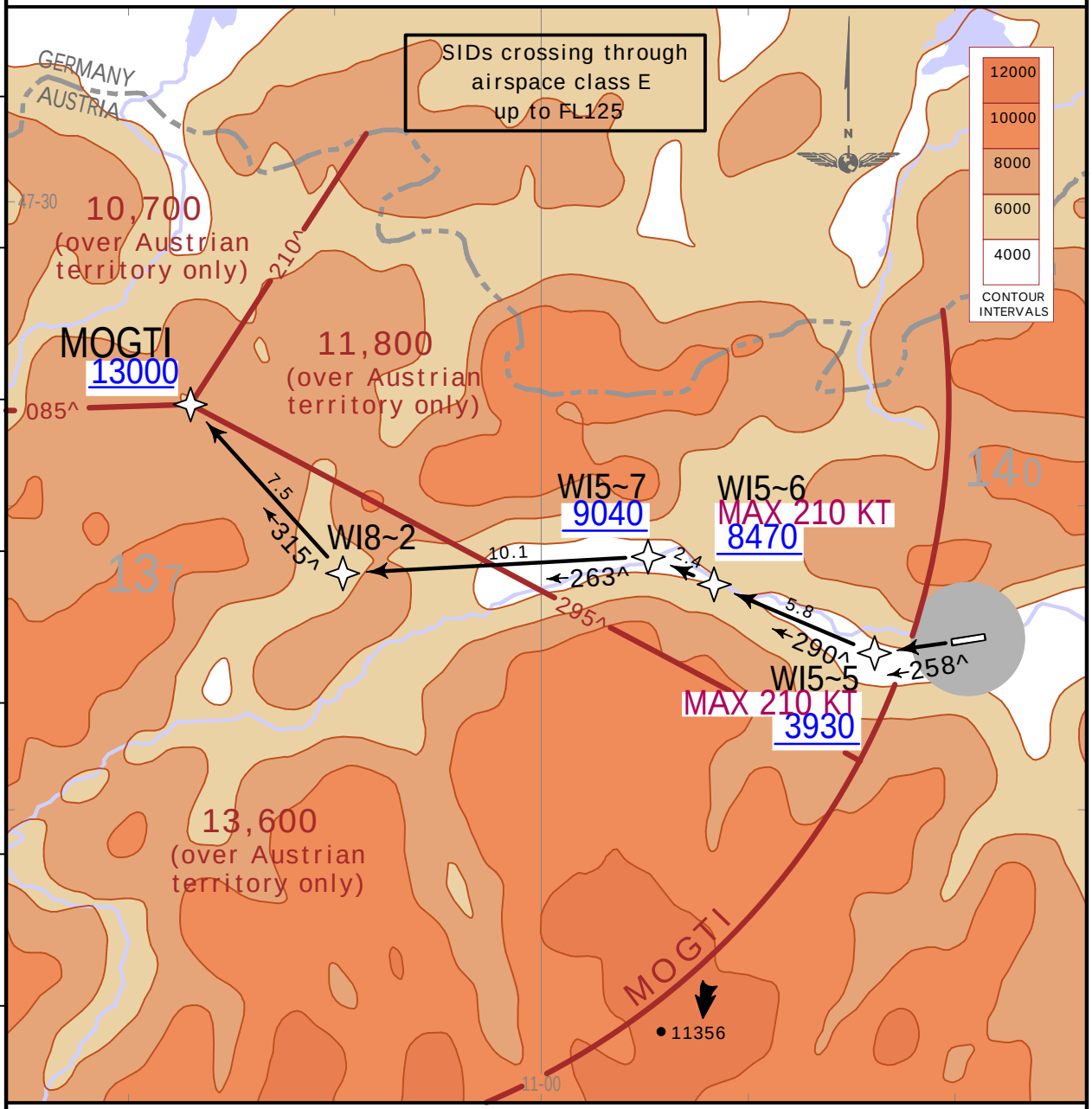
INITIAL CLIMB/ROUTING

Climb on 258^ track, MAINTAIN visual until passing 4000 and established on 290^ track at WI5~5 - WI5~6 - WI5~7 - WI8~2 - MOGTI.

CHANGES: RADAR frequency.

*INNSBRUCK Radar (APP)	Apt Elev	
128.975	1907	Trans alt: 10000 1. GNSS required. 2. RNAV 1 approval required. 3. Contact INNSBRUCK Radar when advised by Tower. 4. Pilots shall be well familiar with RNAV SID and the terrain along the western part of the Inn valley. 5. High mountains surrounding the aerodrome.

MOGTI 1R [MOGT1R]
RWY 26 RNAV DEPARTURE
JETS AND TURBOPROPS



Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km,
for aircraft CAT C & D 5km.

Gnd speed-KT	75	100	150	200	250	300
250 per NM	313	417	625	833	1042	1250
780 per NM	975	1300	1950	2600	3250	3900

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient
of
780 per NM (12.8%) until passing 8470, then
250 per NM (4.1%) until passing 11 520.

Initial climb clearance By ATC

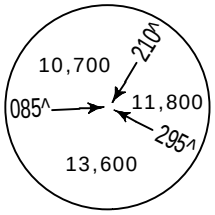
INITIAL CLIMB/ROUTING

Climb on 258^ track to WI5~5 - WI5~6 - WI5~7 - WI8~2 - MOGTI.

CHANGES: RADAR frequency.

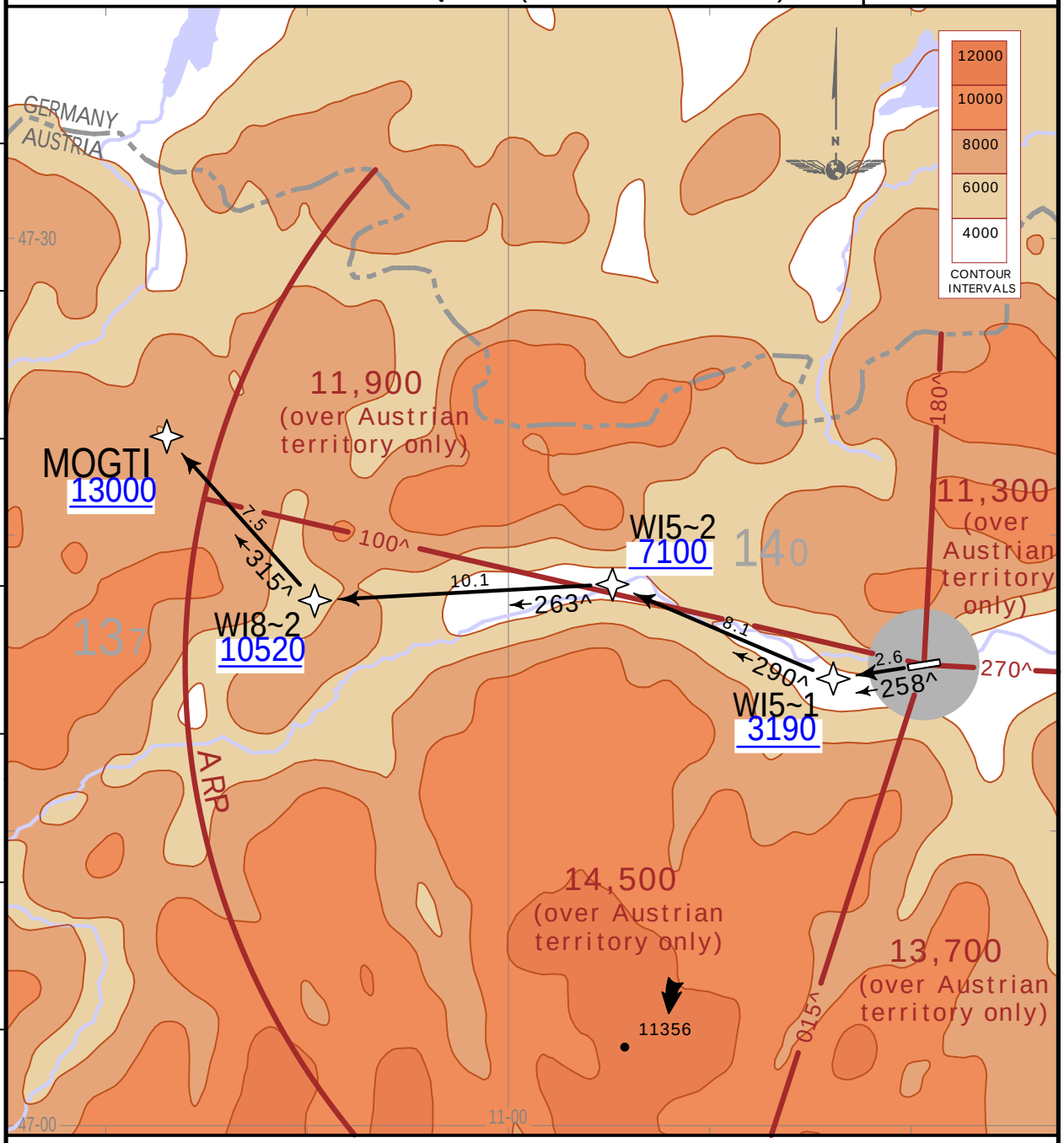
*INNSBRUCK Radar (APP)	Apt Elev
128.975	1907

Trans alt: 10000
1. Dual GNSS and at least one IRU or equivalent.
2. DME/DME, LOC and VOR/DME updating not authorized.
3. Contact INNSBRUCK Radar when advised by Tower.
4. High mountains surrounding the aerodrome.



MSA
MOGTI
applicable over Austrian territory only

MOGTI 1X [MOGT1X]
RWY 26 SPECIAL PERFORMANCE RNAV (RNP) DEPARTURE
SPECIAL AUTHORIZATION REQUIRED (REFER TO 10-1P PAGES)



This SID requires minimum climb gradients of
8.0% (490 per NM) until passing 7100, then
5.6% (345 per NM).

Gnd speed-KT	75	100	150	200	250	300
5.6% V/V (fpm)	425	567	851	1134	1418	1701
8.0% V/V (fpm)	608	810	1215	1620	2025	2430

SIDs crossing through airspace class E up to FL125

Initial climb clearance By ATC

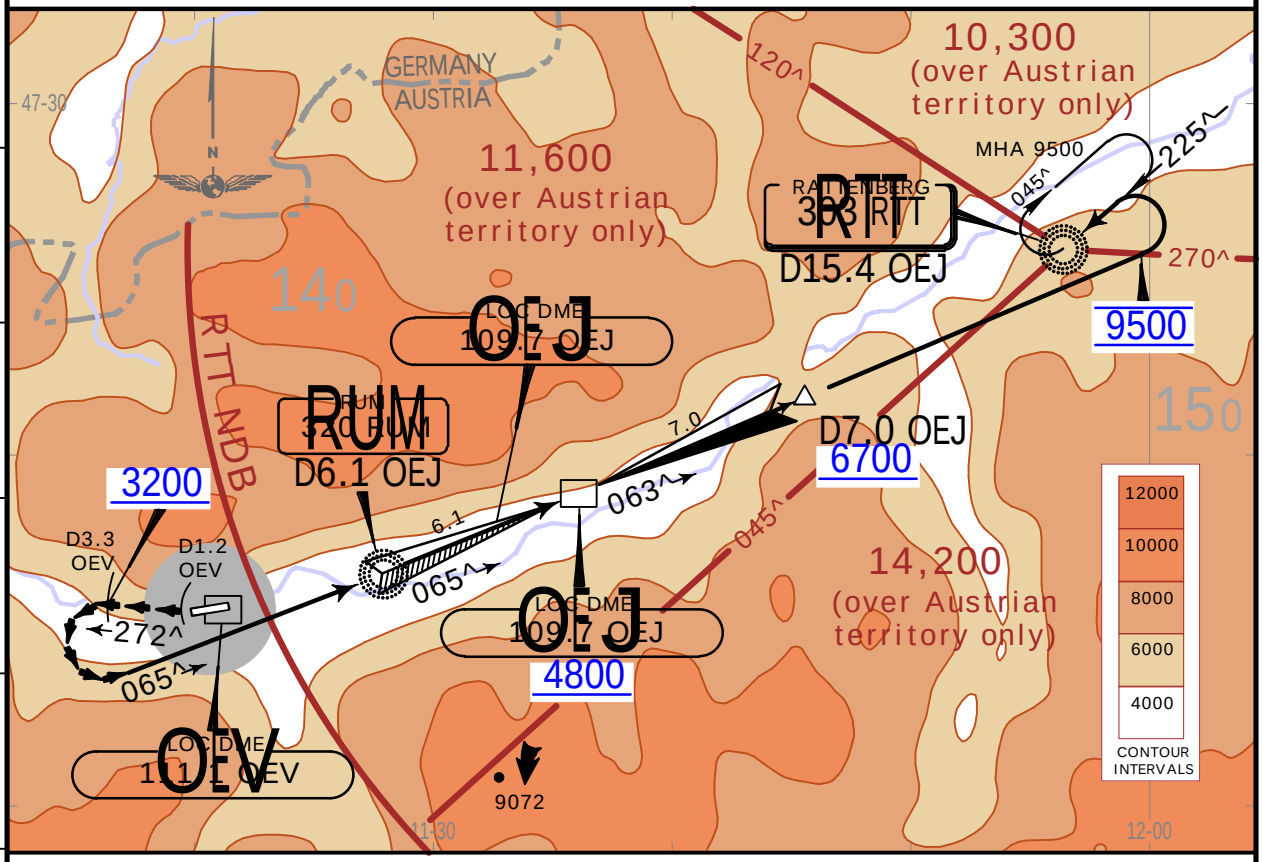
INITIAL CLIMB/ROUTING

Climb on 258^ track to WI5~1 - WI5~2 - WI8~2 - MOGTI.

CHANGES: RADAR frequency.

*INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000
128.975	1907	1. Contact INNSBRUCK Radar when advised by Tower. 2. High mountains surrounding the aerodrome.

RATTENBERG 4H (RTT 4H)
RWY 26 DEPARTURE



SIDs crossing through airspace class E up to FL125

Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km, for aircraft CAT C & D 5km.

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient of 205 per NM (3.3%).

Gnd speed-KT	75	100	150	200	250	300
205 per NM	256	342	513	683	854	1025

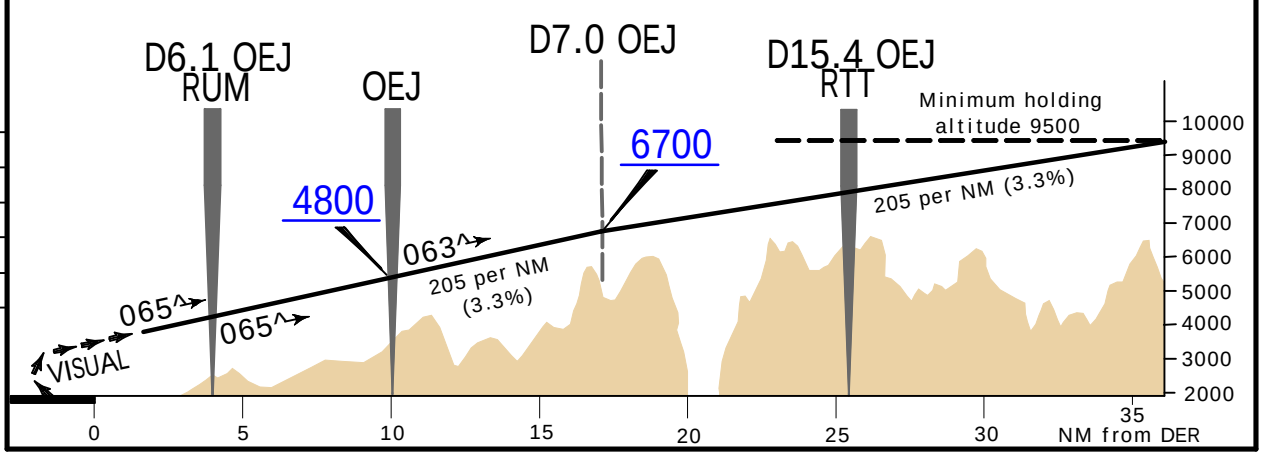
Therefore the procedure requires sufficient ceiling and flight visibility until aircraft is established on OEJ.

Initial climb clearance By ATC

INITIAL CLIMB/ROUTING

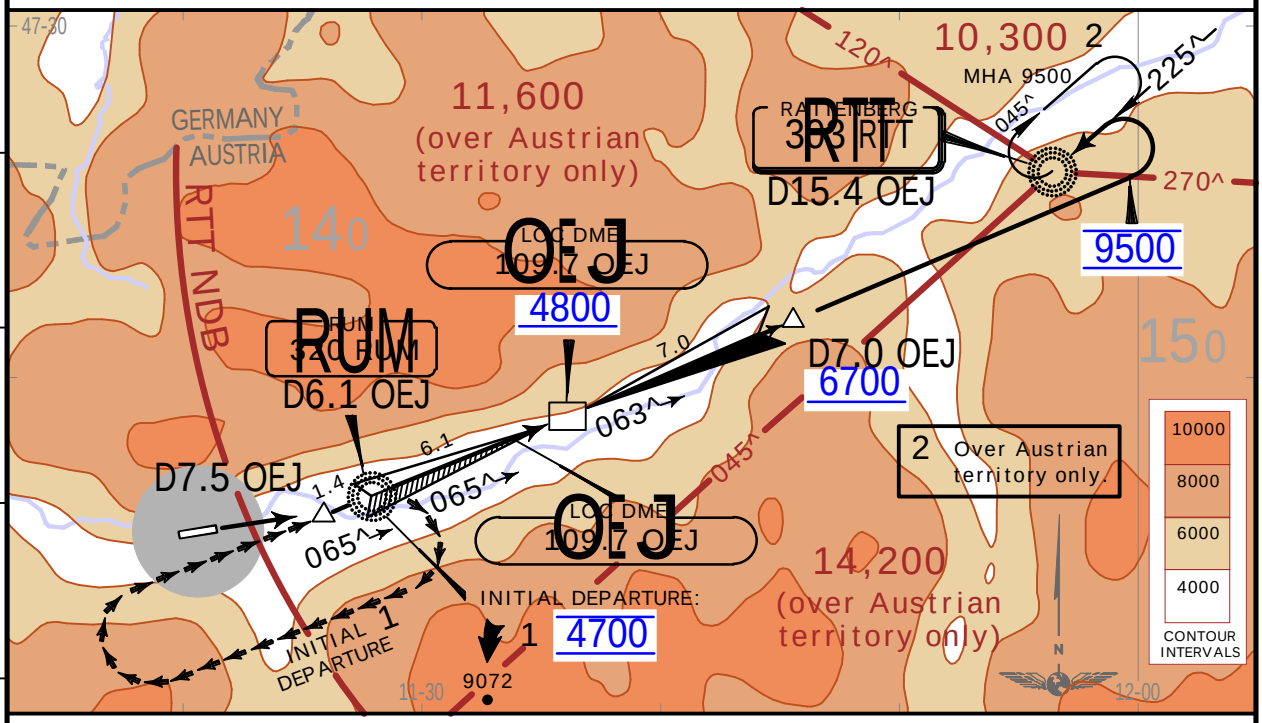
Climb visually on RWY track to D1.2 OEV, turn RIGHT, 272^ track to D3.3 OEV, turn visually LEFT (e.g. 160 KT/25^ bank), join OEJ on course 065^ to OEJ. At OEJ change to 063^ and continue to 9500 using OEJ back course, then turn LEFT to RTT.
Due to erroneous LOC indications when off centerline from 2.0 DME before until 2.0 DME after LOC-DME station, use RUM as additional guidance.

REQUIRED MINIMUM CLIMB PROFILE



* INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000
128.975	1907	1. Contact INNSBRUCK Radar when advised by Tower. 2. High mountains surrounding the aerodrome.

RATTENBERG 3J (RTT 3J)
RWY 08 DEPARTURE



SIDs crossing through airspace class E up to FL125

Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km, for aircraft CAT C & D 5km.
SPECIAL PERFORMANCE DEPARTURE
RVR: 150m
Take-off alternate required.

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient of
290 per NM (4.8%) until passing 6700.

Gnd speed-KT	75	100	150	200	250	300
290 per NM	363	483	725	967	1208	1450

1 If unable to cross OEJ at 4800 and D7.0 OEJ EAST of OEJ at 6700, a higher ceiling and visibility is necessary. In this case climb visually via RUM at 4700
205 per NM (3.3%).

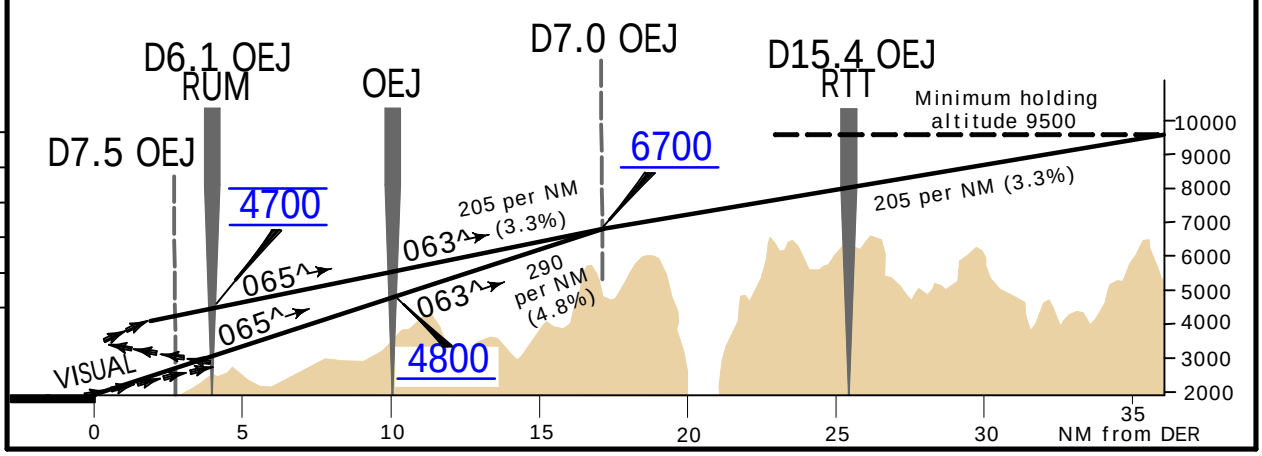
Gnd speed-KT	75	100	150	200	250	300
205 per NM	256	342	513	683	854	1025

Initial climb clearance By ATC

INITIAL CLIMB

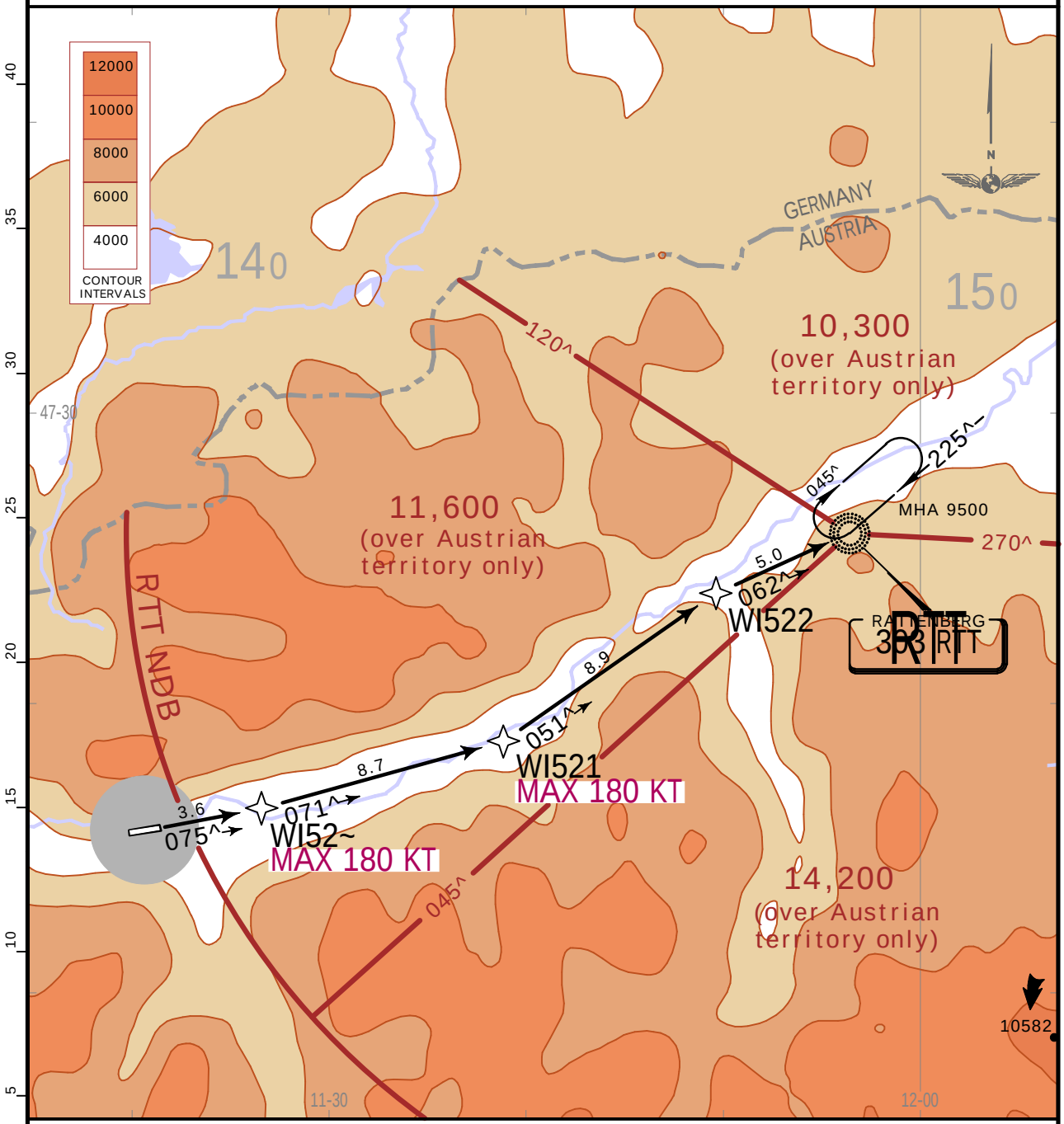
Climb on runway track with maximum rate of climb until intercepting OEJ course (D7.5 OEJ) inbound to RUM, continue on 065^ OEJ course. At OEJ change to 063^ and continue to 9500 using OEJ back course, then turn LEFT to RTT.
Due to erroneous LOC indications when off centerline from 2.0 DME before until 2.0 DME after LOC-DME station, use RUM as additional guidance.

REQUIRED MINIMUM CLIMB PROFILE



*INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000 1. GNSS required. 2. RNAV 1 approval required. 3. Contact INNSBRUCK Radar when advised by Tower. 4. High mountains surrounding the aerodrome.
128.975	1907	

RATTENBERG 2Q (RTT 2Q)
RWY 08 RNAV DEPARTURE



SIDs crossing through airspace class E up to FL125

Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km, for aircraft CAT C & D 5km.
SPECIAL PERFORMANCE DEPARTURE
RVR: 150m
Take-off alternate required.

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient of 425 per NM (7.0%) until passing WI521.

Gnd speed-KT	75	100	150	200	250	300
425 per NM	531	708	1063	1417	1771	2125

Initial climb clearance By ATC

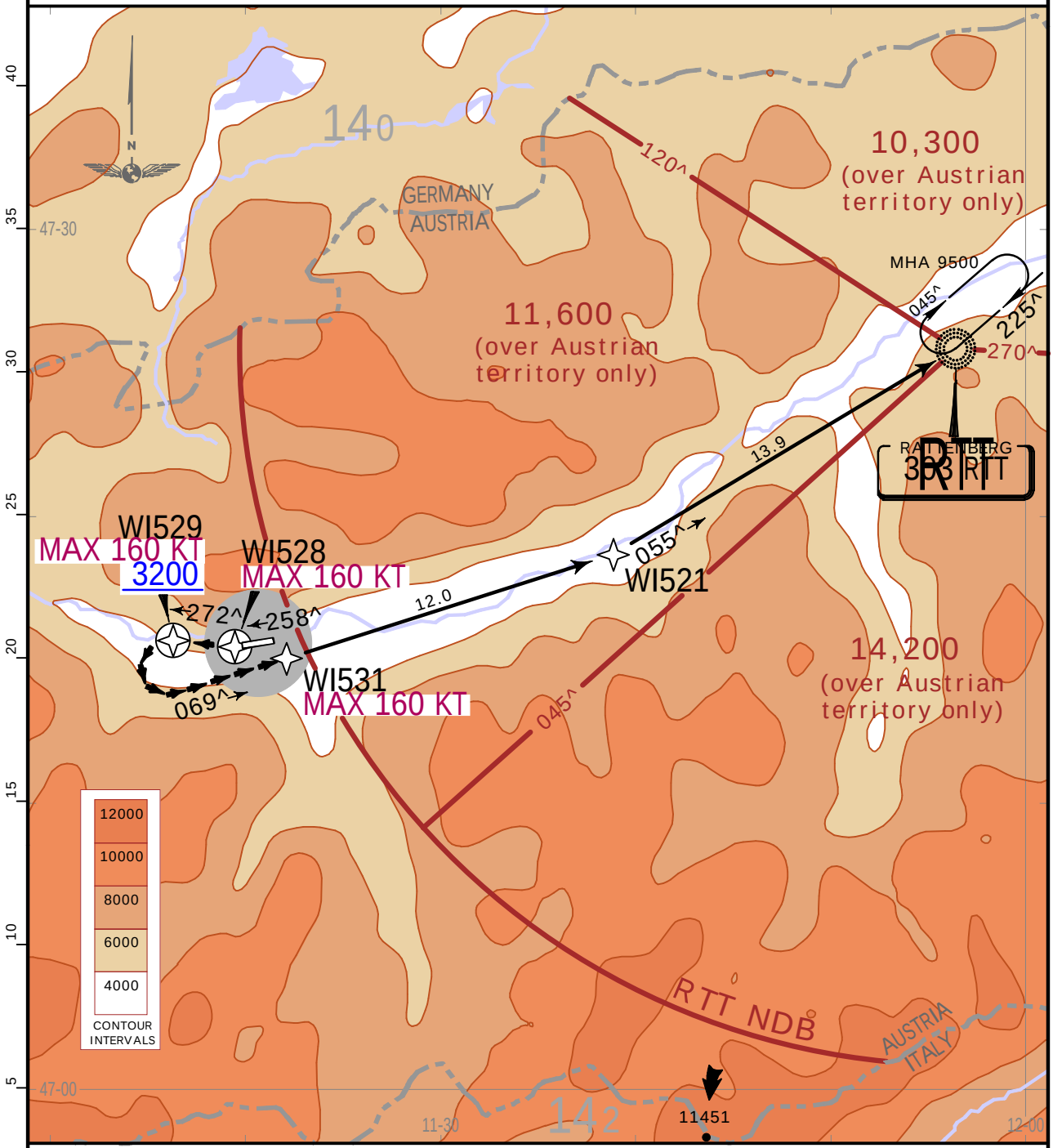
INITIAL CLIMB/ROUTING

WI52~ - WI521 - WI522 - RTT.

CHANGES: RADAR frequency.

*INNSBRUCK Radar (APP)	Apt Elev	Trans alt: 10000 1. GNSS required. 2. RNAV 1 approval required. 3. Contact INNSBRUCK Radar when advised by Tower. 4. High mountains surrounding the aerodrome.
128.975	1907	

RATTENBERG 1R (RTT 1R)
RWY 26 RNAV DEPARTURE



SIDs crossing through airspace class E up to FL125

Meteorological minimums:
Ceiling: 1300 Ground visibility: 1500m
Flight visibility during visual operations:
For aircraft CAT A & B 3km, for aircraft CAT C & D 5km.

Due to high terrain in the vicinity of airport as well as along the departure flight path it is absolutely necessary to observe the required minimum climb gradient
of
535 per NM (8.8%) until passing WI531.

Gnd speed-KT	75	100	150	200	250	300
535 per NM	669	892	1338	1783	2229	2675

Initial climb clearance By ATC

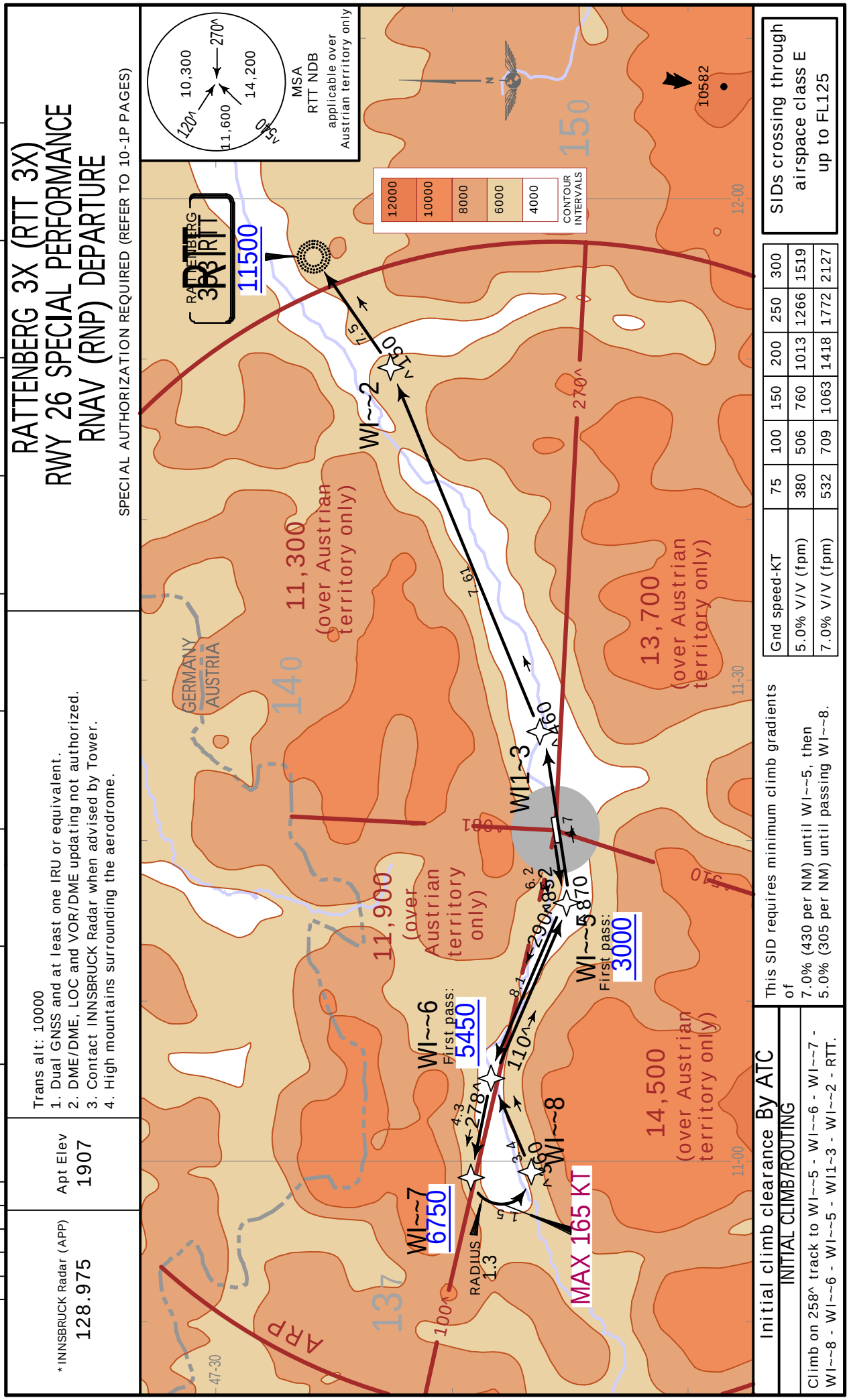
INITIAL CLIMB/ROUTING

Climb visually on 258^ track to WI528 - WI529, MAINTAIN visual until 069^ track to WI531 - WI521 - RTT.

CHANGES: RADAR frequency.

RATTENBERG 3X (RTT 3X)
RWY 26 SPECIAL PERFORMANCE RNAV (RNP) DEPARTURE

SPECIAL AUTHORIZATION REQUIRED (REFER TO 10-1P PAGES)



Trans alt: 10000
1. Dual GNSS and at least one IRU or equivalent.
2. DME/DME, LOC and VOR/DME updating not authorized.
3. Contact INNSBRUCK Radar when advised by Tower.
4. High mountains surrounding the aerodrome.

Apt Elev
1907

*INNSBRUCK Radar (APP)
128.975

SIDs crossing through airspace class E up to FL125

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

This SID requires minimum climb gradients of
7.0% (430 per NM) until WI~~5, then
5.0% (305 per NM) until passing WI~~8.

Initial climb clearance By ATC

INITIAL CLIMB/ROUTING

Climb on 258^ track to WI~~5 - WI~~6 - WI~~7 - WI~~8 - WI~~6 - WI~~5 - WI1~3 - WI~~2 - RTT.

CHANGES: RADAR frequency.

LOWI/INN.

Apt Elev 1907'

N47 15.6 E011 20.6

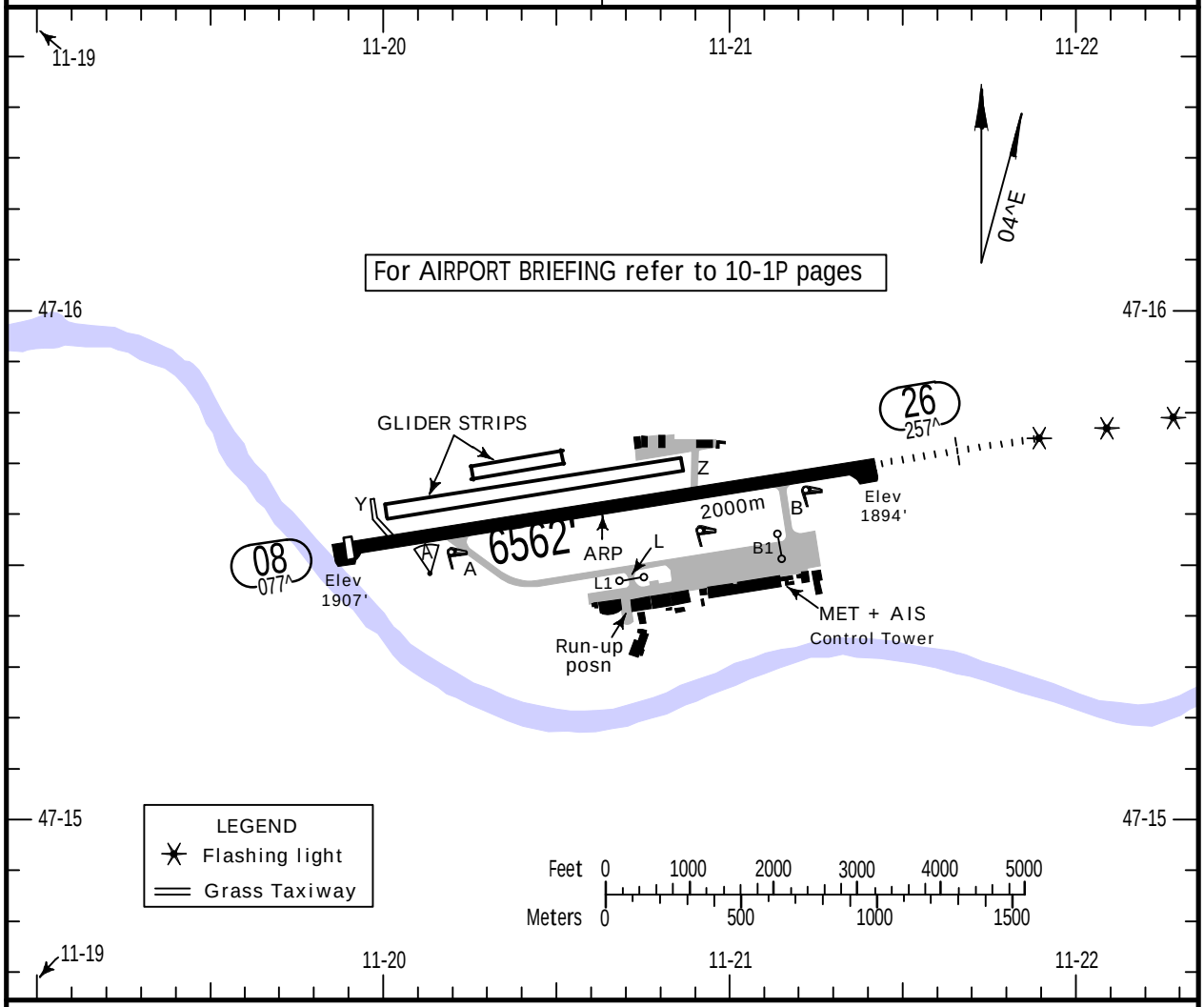
JEPPESEN

1 OCT 21 (10-9) .Eff.7.Oct.

INNSBRUCK, AUSTRIA

INNSBRUCK

D-ATIS	*INNSBRUCK Tower
126.030	120.1



ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS LANDING BEYOND Threshold	Glide Slope	TAKE-OFF	WIDTH
08	HIRL (60m) CL (15m) 1 TDZ 2 PAPI (3.5^) RVR	6365' 1940m		5	148' 45m
26	HIRL (60m) CL (15m) HIALS 3 TDZ 2 SFL REIL 4 RVR		5453' 1662m		

1 No CL lights on first 197'/60m from begin of RWY until displ thresh.
To use full RWY length observe TORA 6562'/2000m sign.

2 Simple Touchdown Zone Lights

3 only partly visible between 1969'/600m and 1870'/570m before thresh rwy 26.

4 PAPI-L (3.5^)

5 TAKE-OFF RUN AVAILABLE

Rwy 08: from rwy head 6562' (2000m)
twy Y int (grass) 5925' (1806m)
twy A int 5203' (1586m)
twy Z int 2201' (671m)

Rwy 26: from rwy head 6365' (1940m)
twy B int 5256' (1602m)
twy Z int 4206' (1282m)

.Standard.

TAKE-OFF

All Rwys

A	
B	1300' - 1500m 1
C	
D	

1 Special performance departure: RVR 150m, take-off alternate required.

CHANGES: Lights. Usable lengths.

INNSBRUCK, AUSTRIA
LOC DME EAST

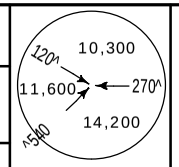
D-ATIS	* INNSBRUCK Radar (APP)	* INNSBRUCK Tower
126.030	128.975	120.1

LOC OEV	Final Apch Crs	Minimum Alt D19.0 OEV	MDA(H) Refer to Minimums	Apt Elev 1907' Rwy 1894'
111.1	254^	9500' (7606')		

MISSED APCH: Climb on LOC crs (254^) with max gradient to D1.0 OEV, then turn LEFT (max radius 0.9 NM, eg.: 155 KT, 25^ bank) onto 060^ to RUM Lctr, rejoin LOC outbound and continue climb on 074^ with max gradient. At D14.0 OEV turn LEFT to RTT NDB and hold at 9500'.

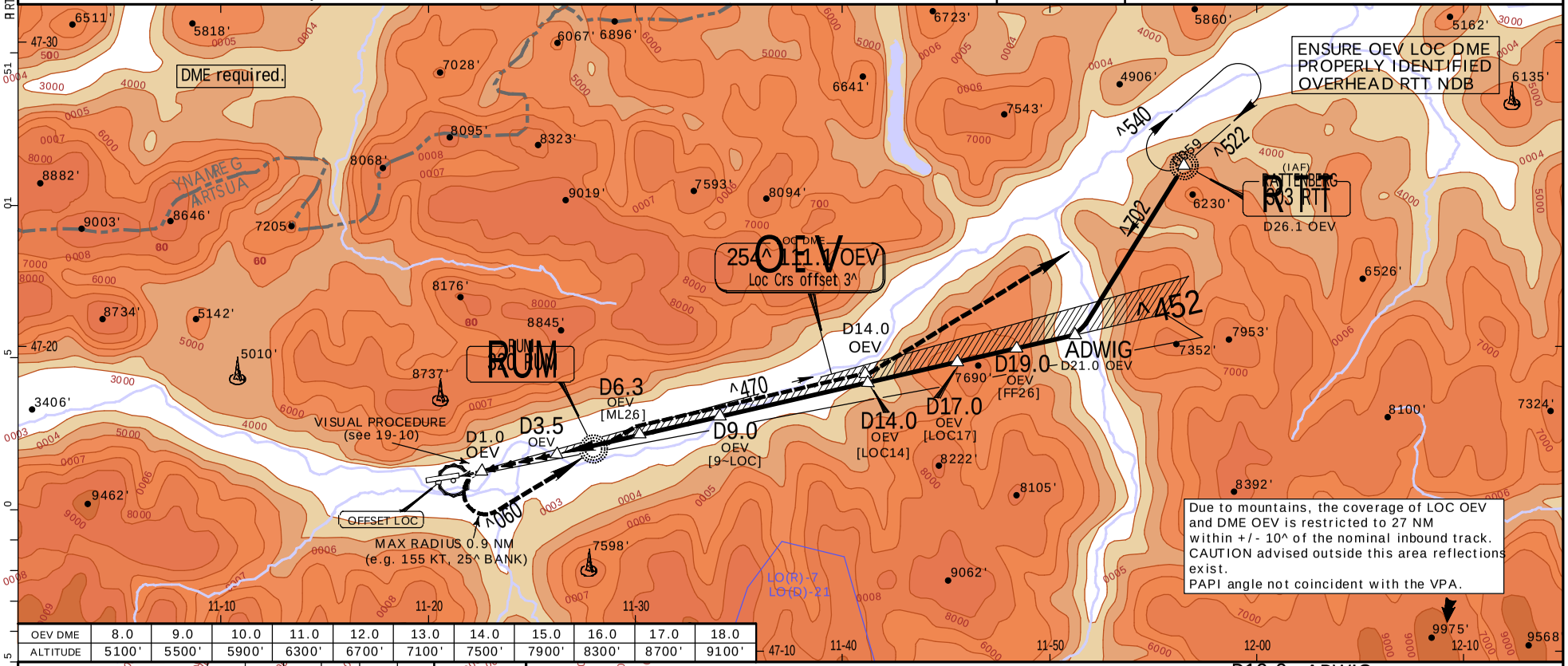
WARNING: Be aware of back course indication on reciprocal track.

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



MSA RTT NDB
Applicable over Austrian territory only

PILOTS USING THIS CHART MUST REFER TO 10-1P PAGES.



OEV DME	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0
ALTITUDE	5100'	5500'	5900'	6300'	6700'	7100'	7500'	7900'	8300'	8700'	9100'

Gnd speed-Kts		70	90	100	120	140	160
GS or LOC Descent Angle	3.77^	467	601	667	801	934	1068
For MAP see profile.							

HIALS
REIL
PAPI

Refer to Missed Apch above

.Standard. VISUAL STRAIGHT-IN LANDING RWY26

Missed apch climb gradient mim

5.0%	4.0%	3.0%	2.5%
MDA(H) 3300' (1406') 1	MDA(H) 3700' (1806') 1	MDA(H) 4400' (2506') 1	MDA(H) 4900' (3006') 1

FLIGHT VISIBILITY — ALS out

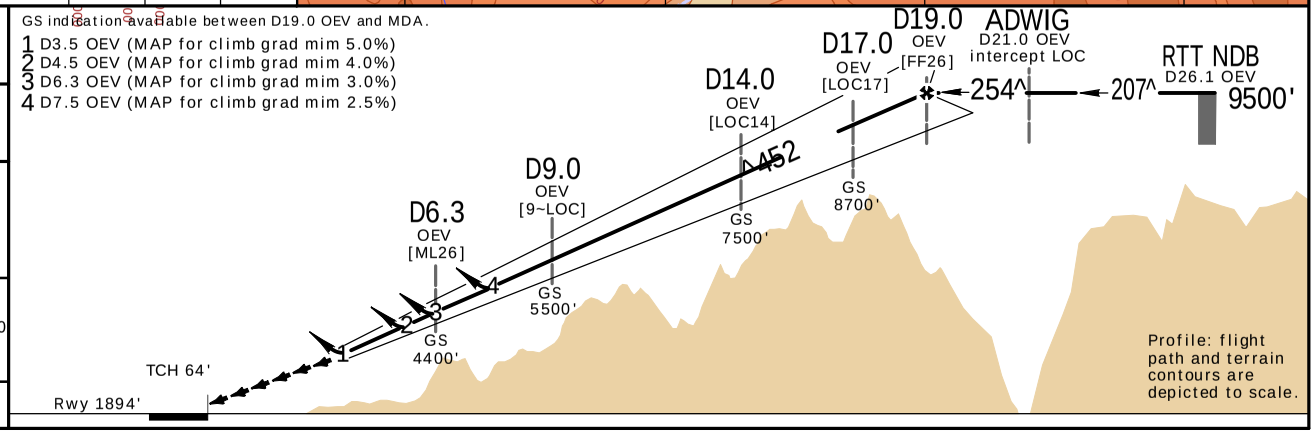
A	5000m	A	SEE 19-10
B		B	
C		C	
D		D	

CIRCLE-TO-LAND with prescribed flight tracks

1 Ceiling required at MDA(H).
For ground visibility & ceiling requirement see 10-1P pages.

GS indication available between D19.0 OEV and MDA.

1 D3.5 OEV (MAP for climb grad mim 5.0%)
2 D4.5 OEV (MAP for climb grad mim 4.0%)
3 D6.3 OEV (MAP for climb grad mim 3.0%)
4 D7.5 OEV (MAP for climb grad mim 2.5%)

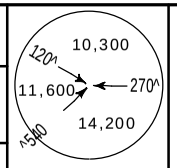


D-ATIS	* INNSBRUCK Radar (APP)	* INNSBRUCK Tower
126.030	128.975	120.1

LOC OEV	Final Apch Crs	Minimum Alt D19.0 OEV	MDA(H) Refer to Minimums	Apt Elev 1907' / Rwy 1894'
111.1	254^	9500' (7606')		

MISSED APCH: Climb on OEV LOC crs (254^) with max gradient to D0.8 OEV, then turn LEFT (max radius 0.86 NM e.g. 153 KT, 25^ bank) onto 060^ to RUM Lctr, intercept OEJ LOC crs (065^). Upon passing OEJ LOC station proceed outbound OEJ LOC back crs (063^), continue climb with max gradient to 9500', then turn LEFT to RTT NDB and hold.
Due to erroneous LOC indications from D2.0 OEJ before until D2.0 OEJ after LOC DME station, use RUM Lctr for additional guidance.

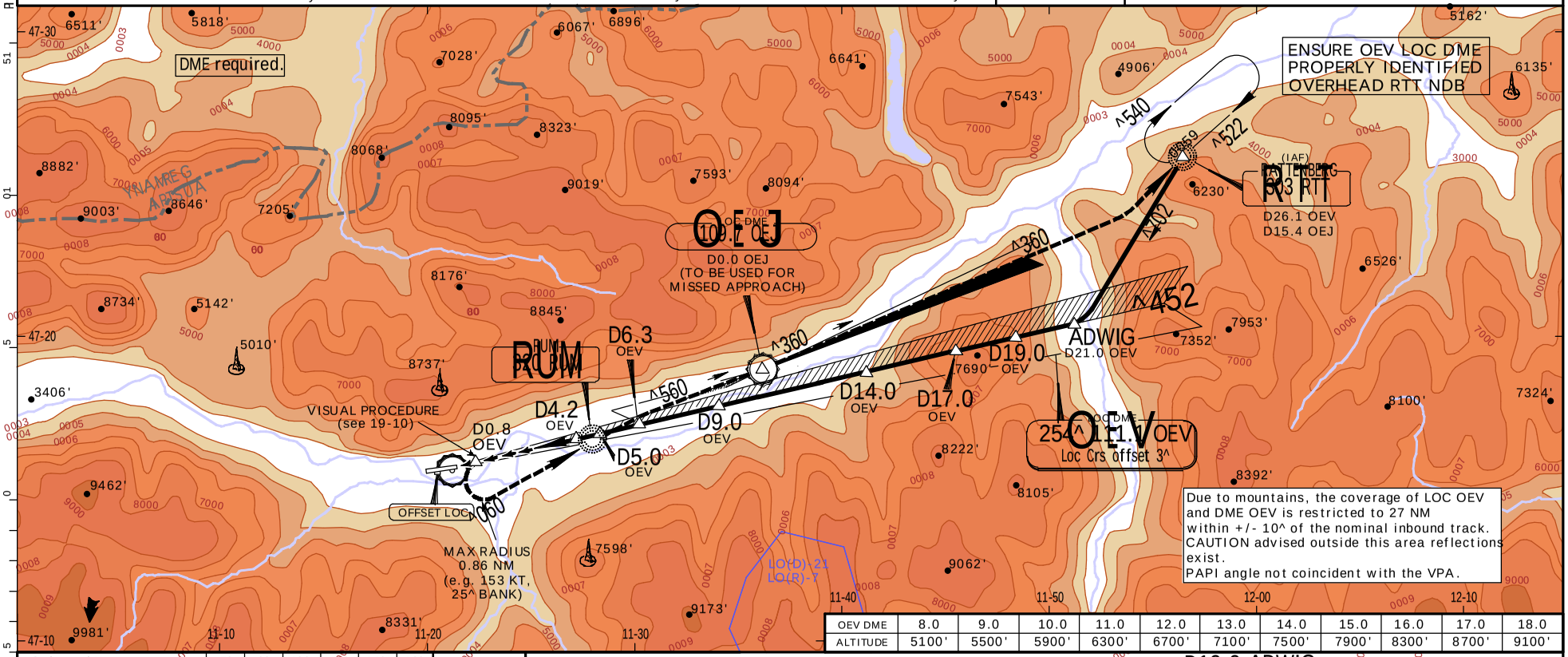
Alt Set: hPa | Rwy Elev: 67 hPa | Trans level: By ATC | Trans alt: By ATC



MSA RTT NDB
Applicable over Austrian territory only

THE USE OF THIS PROCEDURE REQUIRES AUTHORIZATION BY AUSTRO CONTROL GMBH.

PILOTS USING THIS CHART MUST REFER TO 10-1P PAGES.



OEV DME	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0
ALTITUDE	5100'	5500'	5900'	6300'	6700'	7100'	7500'	7900'	8300'	8700'	9100'

Gnd speed-Kts		70	90	100	120	140	160
GS or LOC Descent Angle	3.77^	467	601	667	801	934	1068
MAP as approved.							

HIALS
REIL
PAPI

Refer to Missed Apch above

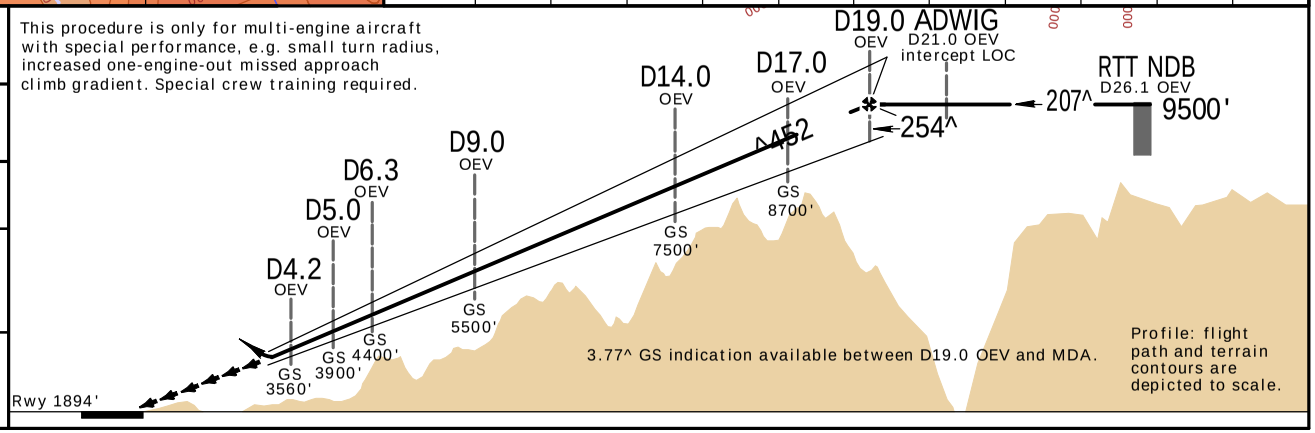
.Standard. VISUAL STRAIGHT-IN LANDING RWY 26
ALS out

CIRCLE-TO-LAND
with prescribed flight tracks

A	ACCORDING SPECIAL AUTHORIZATION
B	
C	
D	

A	SEE 19-10
B	
C	
D	

This procedure is only for multi-engine aircraft with special performance, e.g. small turn radius, increased one-engine-out missed approach climb gradient. Special crew training required.



D-ATIS	* INNSBRUCK Radar (APP)	* INNSBRUCK Tower
126.030	128.975	120.1

LOC	Final Apch Crs	Minimum Alt	MDA(H)	Apt Elev
OEJ 109.7	065^	KUDAV 11500' (9593')	5000' (3093')	1907'

MISSED APCH: Climb on LOC crs (065^) with max gradient. Upon passing LOC station proceed outbound LOC back crs on 063^ and continue climb with max gradient to 9500', then turn LEFT to RTT NDB and hold.

Due to erroneous LOC indications from D2.0 OEJ before until D2.0 OEJ after LOC DME station, use RUM Lctr for additional guidance.

Alt Set: hPa | Apt Elev: 68 hPa | Trans level: By ATC | Trans alt: By ATC

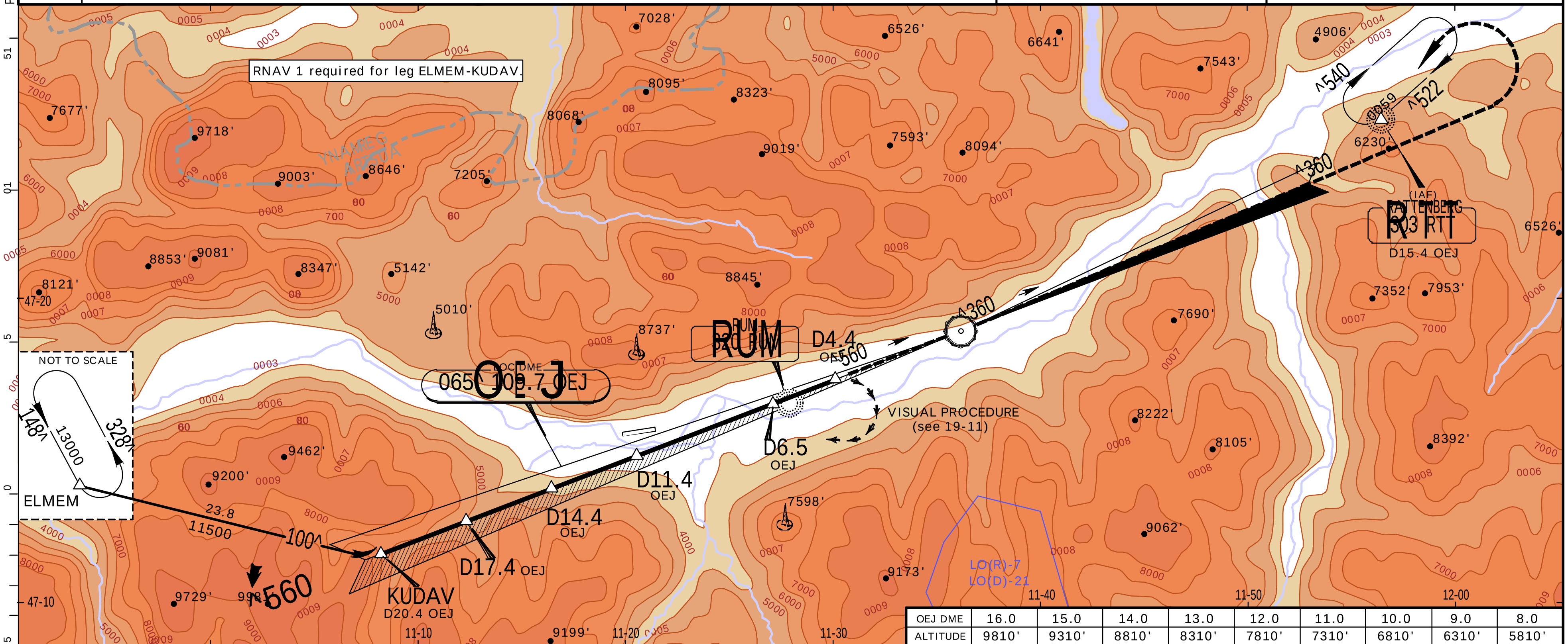
DME required.

MSA RTT NDB: 10,300; 11,600; 14,200 (120^, 270^, 540^)

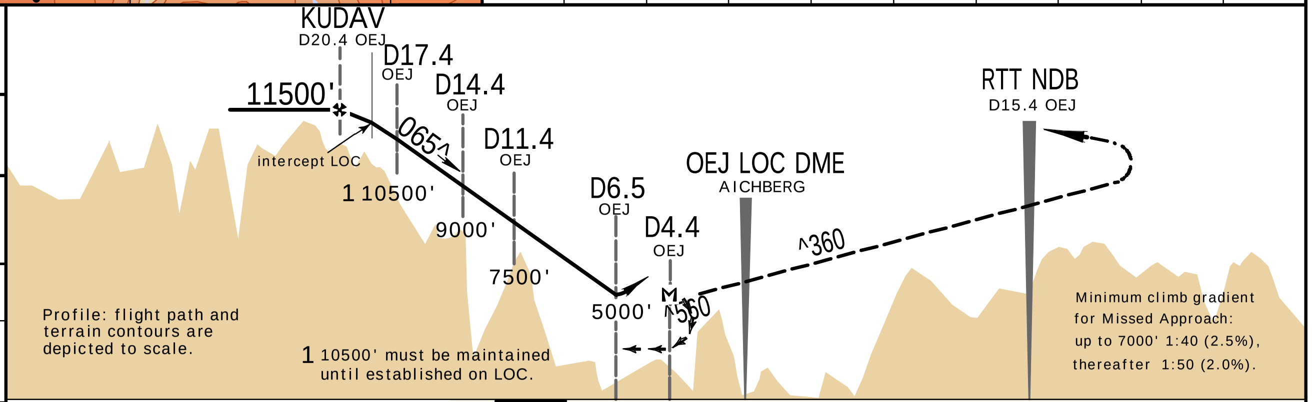
MSA ELMEM: 11,400; 13,200; 14,500 (095^, 270^, 022^, 063^)

Applicable over Austrian territory only

PILOTS USING THIS CHART MUST REFER TO 10-1P PAGES.



OEJ DME	16.0	15.0	14.0	13.0	12.0	11.0	10.0	9.0	8.0
ALTITUDE	9810'	9310'	8810'	8310'	7810'	7310'	6810'	6310'	5810'



Gnd speed-Kts		70	90	100	120	140	160
LOC Descent Angle	4.70^	583	749	833	999	1166	1332
MAP at D4.4 OEJ							

Lighting- Refer to Airport Chart | Refer to Missed Apch above

.Standard. STRAIGHT-IN LANDING | .CEILING.REQUIRED. CIRCLE-TO-LAND

For prescribed flight tracks see 19-11

	STRAIGHT-IN LANDING		MDA(H)	CEIL-FLIGHT VIS
A	NOT APPLICABLE	A	5000' (3093')	3100' - 3000m
B		B		
C		C	5000' (3093')	3100' - 5000m
D		D		

For ground visibility & ceiling requirement see 10-1P pages.

CHANGES: Note.

LOWI/INN
INNSBRUCK

JEPPESEN
28 OCT 22 (11-4) .Eff.3.Nov.

INNSBRUCK, AUSTRIA
CAT A, B & C 1 LOC 'R' Rwy 26

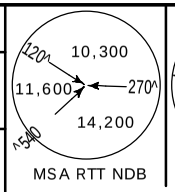
D-ATIS	*INNSBRUCK Radar (APP)	*INNSBRUCK Tower
126.030	128.975	120.1

LOC OEV	Final Apch Crs	Minimum Alt	MDA(H)	
111.1	254^	D19.0 OEV 9500' (7606')	Refer to Minimums	Apt Elev 1907' Rwy 1894'

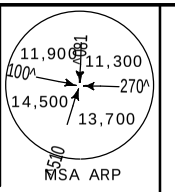
MISSED APCH: Climb to 11500' via RNAV missed approach track to RTT and hold.
RNAV missed apch track from WI7~~ onward is based on RNP 0.3.

Alt Set: hPa | Apt Elev: 67 hPa | Trans level: By ATC | Trans alt: By ATC

1. SPECIAL AIRCREW & AIRCRAFT AUTHORIZATION REQUIRED (refer to AIRPORT BRIEFING 10-1P pages). 2. DME required.



MSA RTT NDB

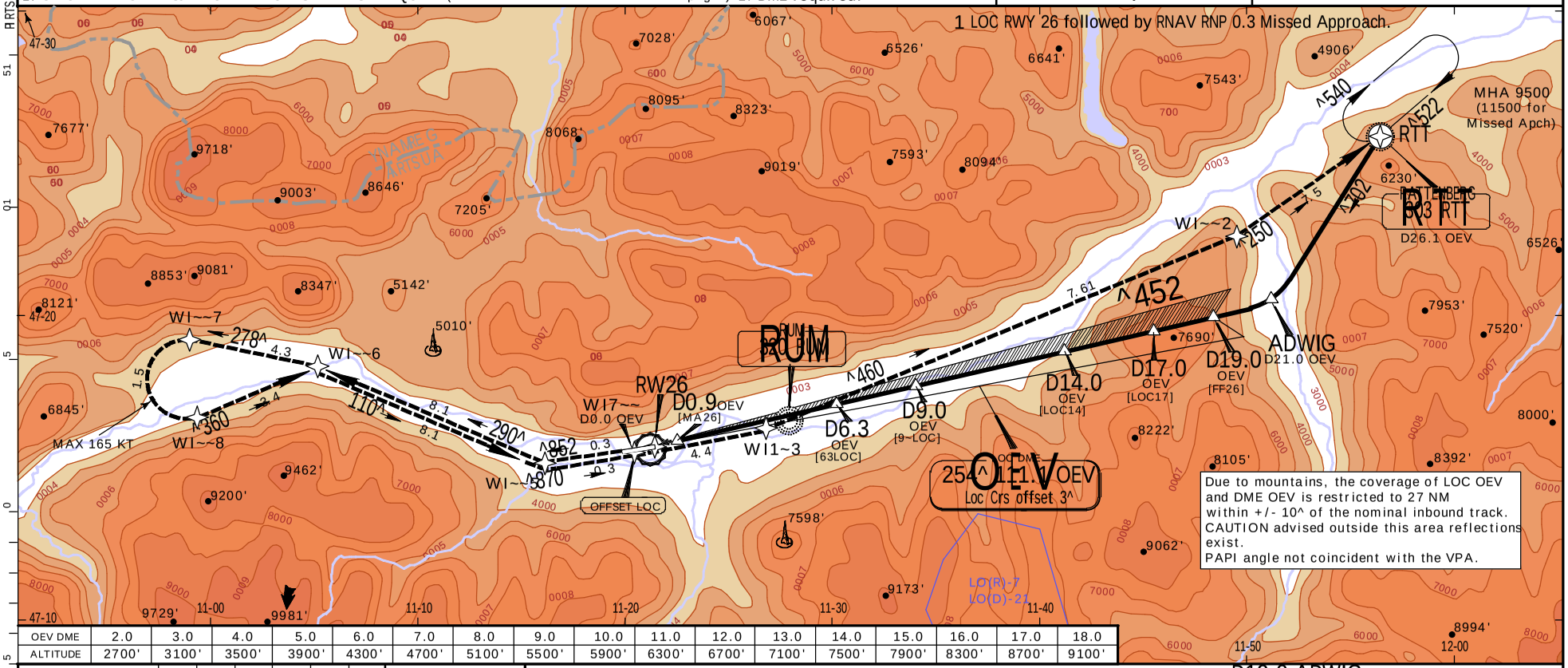


MSA ARP

Applicable over Austrian territory only

THE CHART MAY ONLY BE USED IN CONNECTION WITH THE DESCRIPTION OF THE PROCEDURE.

PILOTS USING THIS CHART MUST REFER TO 10-1P PAGES.



OEV DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0
ALTITUDE	2700'	3100'	3500'	3900'	4300'	4700'	5100'	5500'	5900'	6300'	6700'	7100'	7500'	7900'	8300'	8700'	9100'

Gnd speed-Kts		70	90	100	120	140	160
Descent Angle	3.77^	467	601	667	801	934	1068
MAP at D0.9 OEV							

HIALS
REIL
PAPI

11500' via WI7~~

.Standard. STRAIGHT-IN LANDING RWY26
Missed apch climb gradient until 3200' mim

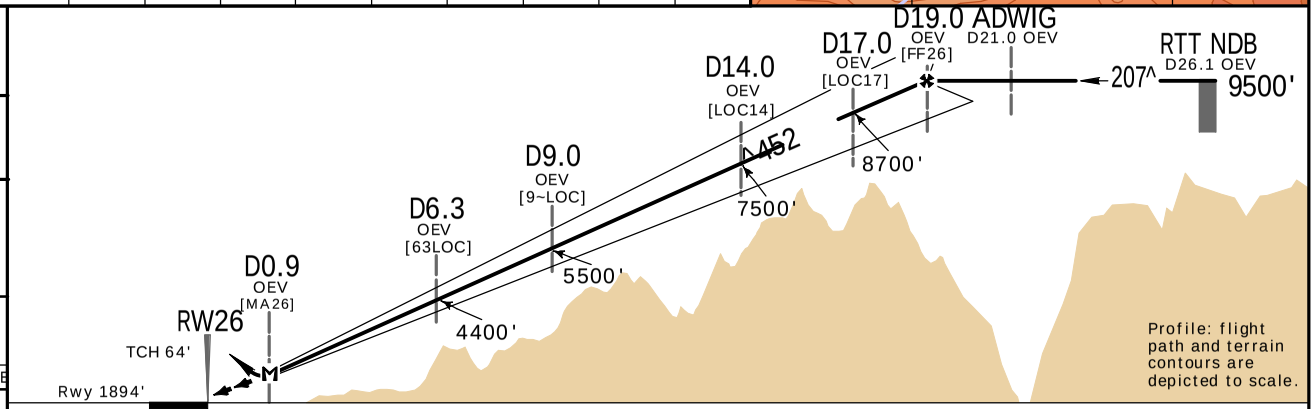
5.0%	4.0%	2.5%	CIRCLE-TO-LAND
MDA(H) 2250' (356') CDFA 1 ALS out	MDA(H) 2450' (556') CDFA 1 ALS out	MDA(H) 2750' (856') CDFA 1 ALS out	with prescribed flight tracks

A	RVR 1200m	RVR 1500m	RVR1500m		RVR1500m		A
B							B
C		RVR 1600m	RVR 2100m	RVR 2500m	RVR 3600m	RVR 4000m	C
D	NOT APPLICABLE						D

SEE 19-10

NOT APPLICABLE

1 Ceiling required at MDA(H).
For ground visibility & ceiling requirement see 10-1P pages.



CHANGES: None.

LOWI/INN
INNSBRUCK

JEPPESEN
17 DEC 21
.Eff.30.Dec.
12-1

INNSBRUCK, AUSTRIA
RNP Y Rwy 08

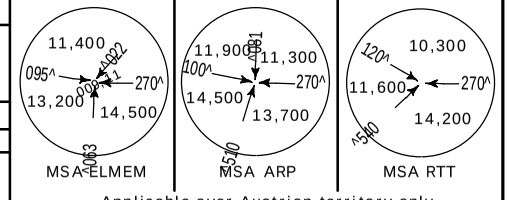
D-ATIS	* INNSBRUCK Radar (APP)	* INNSBRUCK Tower
126.030	128.975	120.1

RNAV	Final Apch Crs	WI813	MDA(H)	Apt Elev 1907'
	083^	8300' (6393')	7100' (5193')	Rwy 1907'

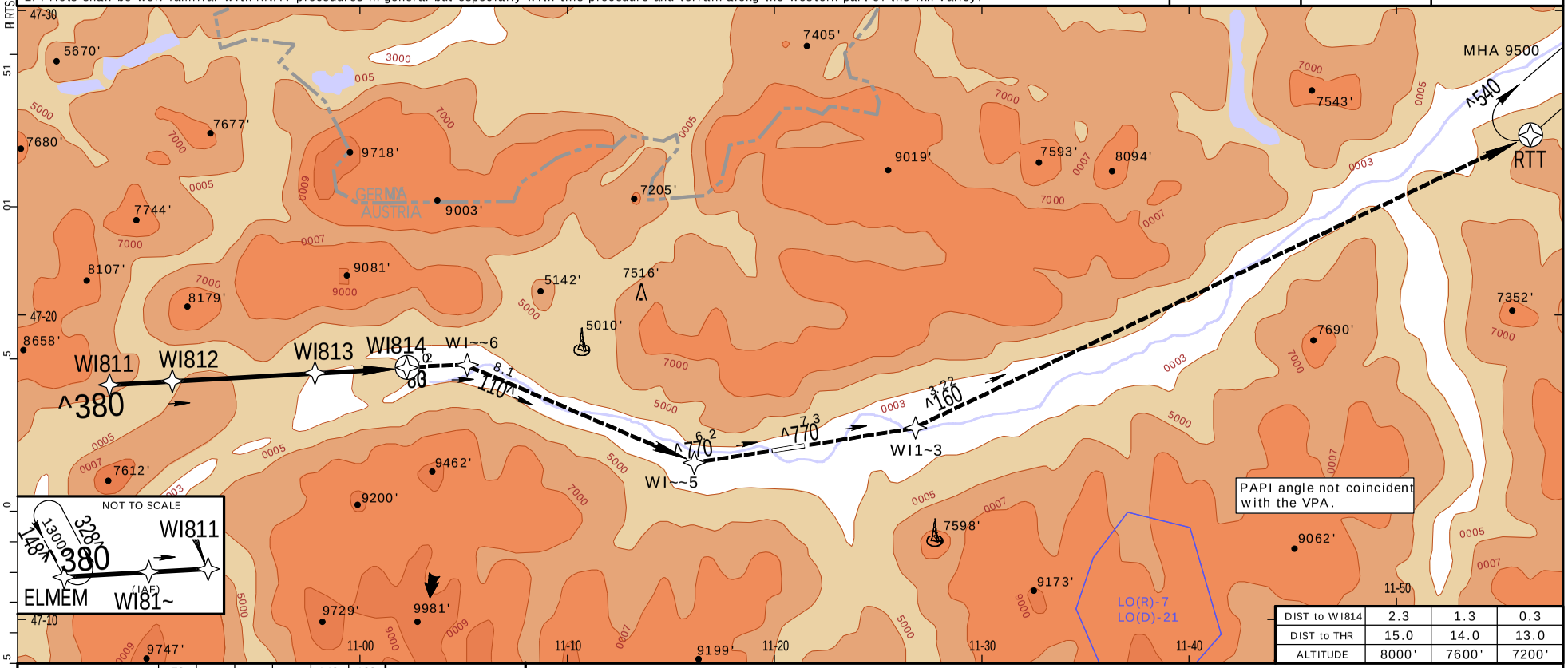
MISSED APCH: Climb to 9500' via RNAV missed approach track to RTT and hold.

RNP Apch | Alt Set: hPa | Rwy Elev: 68 hPa | Trans level: By ATC | Trans alt: By ATC

1. Procedure for cloudbreaking only provided effective external visual reference to the terrain exists and can be maintained from at or before reaching the MAP. Continue visually along the prescribed track (identical to missed approach track) and the required vertical descent profile. The rwy may not be or remain in sight at all times but other visual cues surrounding the track and the vicinity ot the aerodrome may be used as sufficient external visual reference.
2. Pilots shall be well familiar with RNAV procedures in general but especially with this procedure and terrain along the western part of the Inn Valley.



Applicable over Austrian territory only



DIST to WI814	2.3	1.3	0.3
DIST to THR	15.0	14.0	13.0
ALTITUDE	8000'	7600'	7200'

Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.77^	467	601	667	801	934	1068
MAP at WI814						

PAPI | 9500' via WI~~6

.Standard. LANDING RWY 08

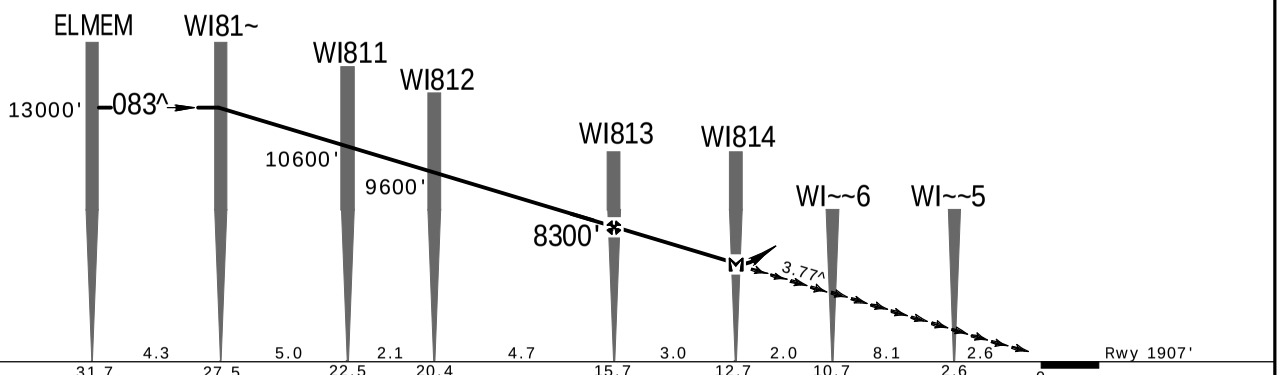
LNAV

MDA(H) 7100' (5193')

CEIL - FLIGHT VISIBILITY

A	
B	
C	
D	

5200'- 5000m



CHANGES: Note.

JEPPESEN
17 DEC 21
.Eff.30.Dec.
12-2
CAT A, B & C

INNSBRUCK, AUSTRIA
RNP E Rwy 26 (LPV)

D-ATIS	* INNSBRUCK Radar (APP)	* INNSBRUCK Tower
126.030	128.975	120.1

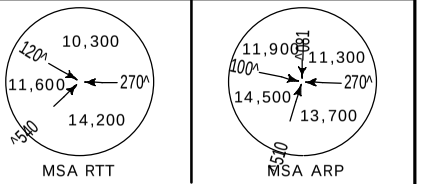
EGNOS	Final Apch Crs	WI613	DA(H) Refer to Minimums	Apt Elev 1907'
Ch 95193 E26A	253^	5750' (3856')		Rwy 1894'

MISSED APCH: Climb STRAIGHT AHEAD to WI614, then turn LEFT and climb to 9500' via RNAV missed approach track to RTT and hold.

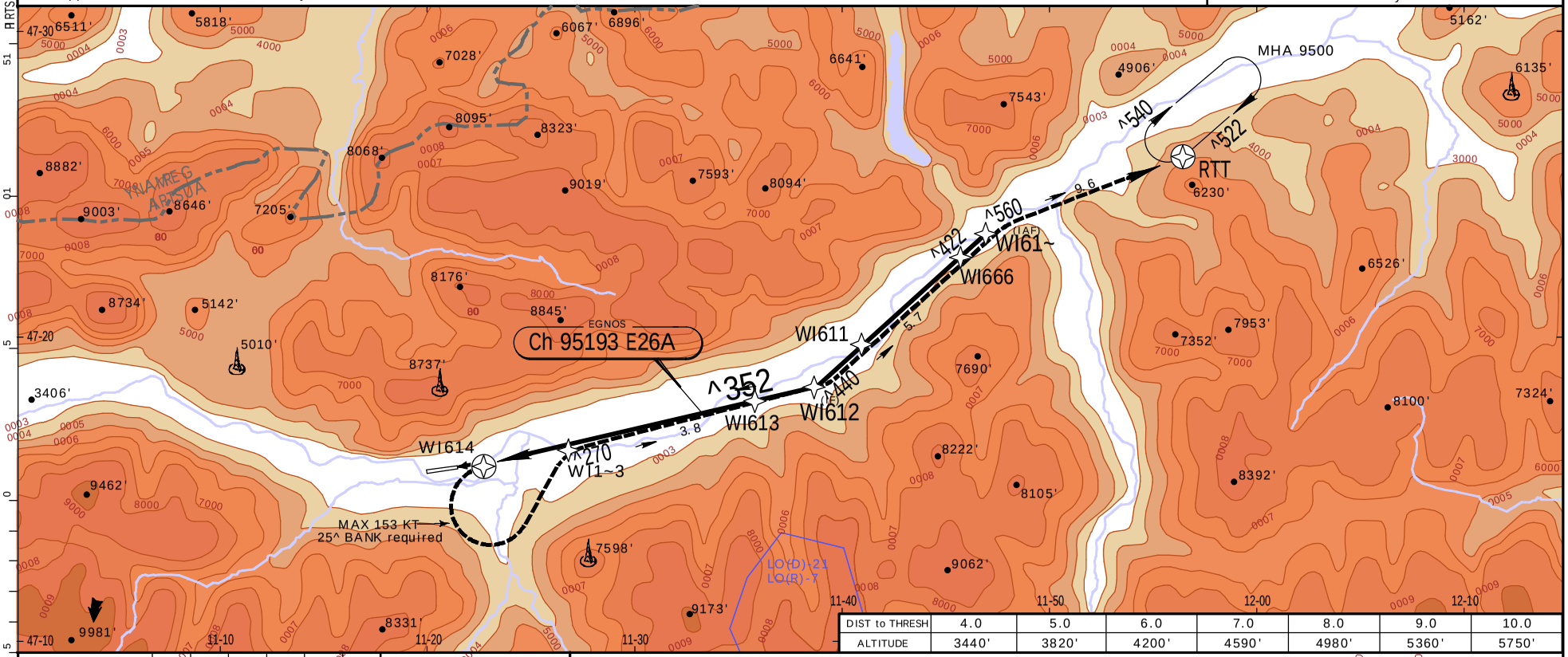
Alt Set: hPa | Rwy Elev: 67 hPa | Trans level: By ATC | Trans alt: By ATC

RNP Apch

Final approach track offset 4.7^ from rwy centerline.



Applicable over Austrian territory only



DIST to THRESH	4.0	5.0	6.0	7.0	8.0	9.0	10.0
ALTITUDE	3440'	3820'	4200'	4590'	4980'	5360'	5750'

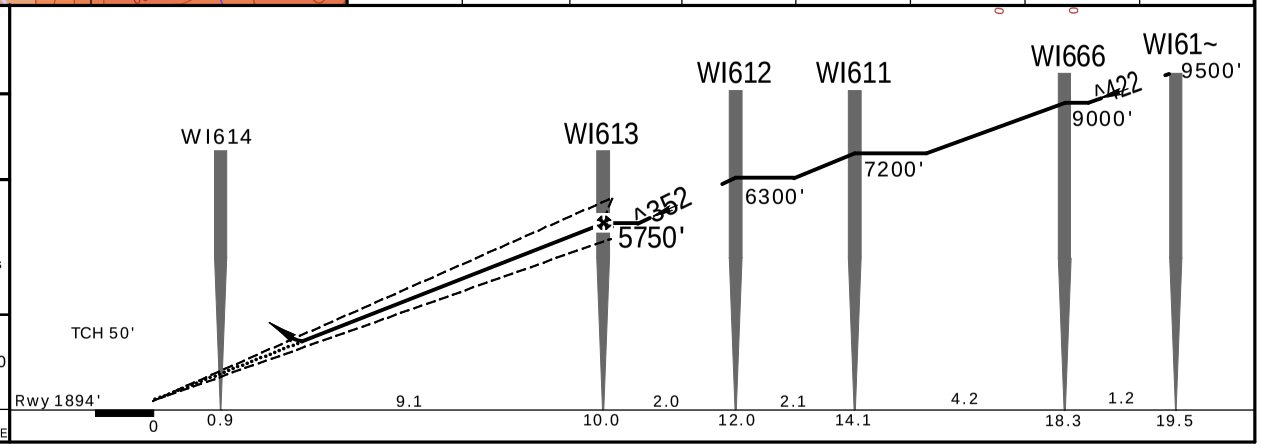
Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.57^	442	569	632	758	885	1011
MAP at DA						

HIALS
REIL
PAPI

Refer to Missed Apch above

.Standard. STRAIGHT-IN LANDING RWY26

	LPV CAT I	LPV CAT I	LPV CAT I	CIRCLE-TO-LAND with prescribed flight tracks
	Missed apch climb gradient mim 7.1%	Missed apch climb gradient mim 5.0%	Missed apch climb gradient mim 2.5%	
	DA(H) 3300' (1406') ALS out	DA(H) 3900' (2006') ALS out	DA(H) 4300' (2406') ALS out	
A	RVR 1500m	RVR 1500m	RVR 1500m	A
B				B SEE 19-10
C	RVR 2400m	RVR 2400m	RVR 2400m	C
D	NOT APPLICABLE			D NOT APPLICABLE



CHANGES: None.

LOWI/INN
INNSBRUCK

JEPPESEN
9 SEP 22 (12-20)

CAT A, B & C

INNSBRUCK, AUSTRIA
RNP Z Rwy 08 (AR)

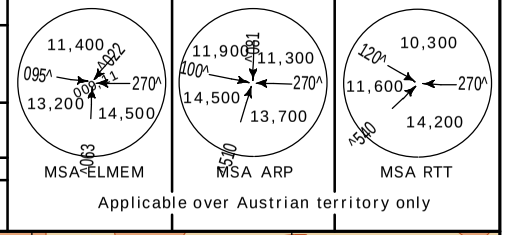
D-ATIS	* INNSBRUCK Radar (APP)	* INNSBRUCK Tower
126.030	128.975	120.1

RNAV	Final Apch Crs	Minimum Alt	RNP 0.3 DA(H)	Apt Elev 1907'
	077^	WI749 13000'(11093')	2900'(993')	Rwy 1907'

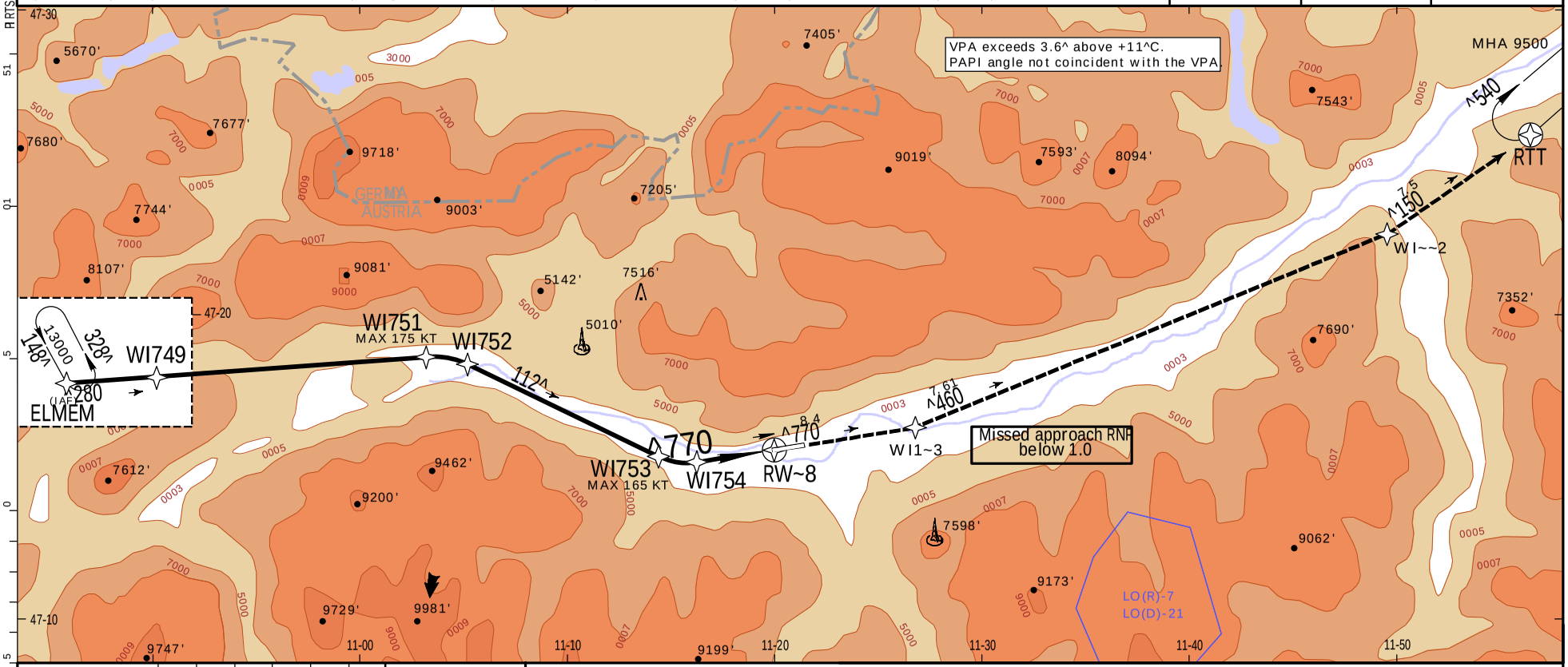
MISSED APCH:Climb to 9500' via RNAV missed approach track to RTT and hold.
Missed apch procedure based on RNP 0.30.

RNP AR Apch | Alt Set: hPa | Rwy Elev: 68 hPa | Trans level: By ATC | Trans alt: By ATC

1. SPECIAL AIRCREW & AIRCRAFT AUTHORIZATION REQUIRED(refer to AIRPORT BRIEFING 10-1P pages).2. Dual GNSS and at least one Inertial Reference Unit or equivalent required (DME/DME, LOC and VOR/DME updating not authorized). 3. For uncompensated Baro-VNAV systems, procedure NA below airport temperature -7^C.



Applicable over Austrian territory only



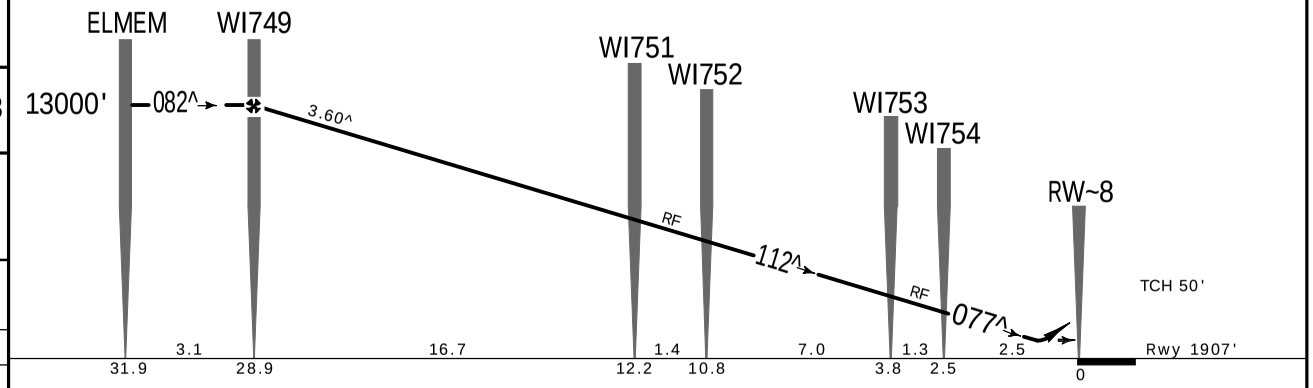
Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.60^	446	573	637	765	892	1019
MAP at DA						

PAPI | 9500' via WI1~3

.Standard. LANDING RWY 08

RNP 0.30
DA(H) 2900'(993')

A	RVR 1500m
B	
C	RVR 2400m
D	NOT APPLICABLE



CHANGES: None.

LOWI/INN
INNSBRUCK

JEPPESEN
9 SEP 22
12-21

INNSBRUCK, AUSTRIA
RNP Z Rwy 26 (AR)

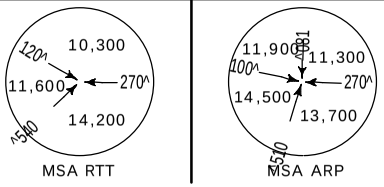
D-ATIS	* INNSBRUCK Radar (APP)	* INNSBRUCK Tower
126.030	128.975	120.1

RNAV	Final Apch Crs	Minimum Alt	RNP 0.15 DA(H)	Apt Elev / Rwy
	258^	WI~~2 9500' (7606')	2500' (606')	Apt Elev 1907' / Rwy 1894'

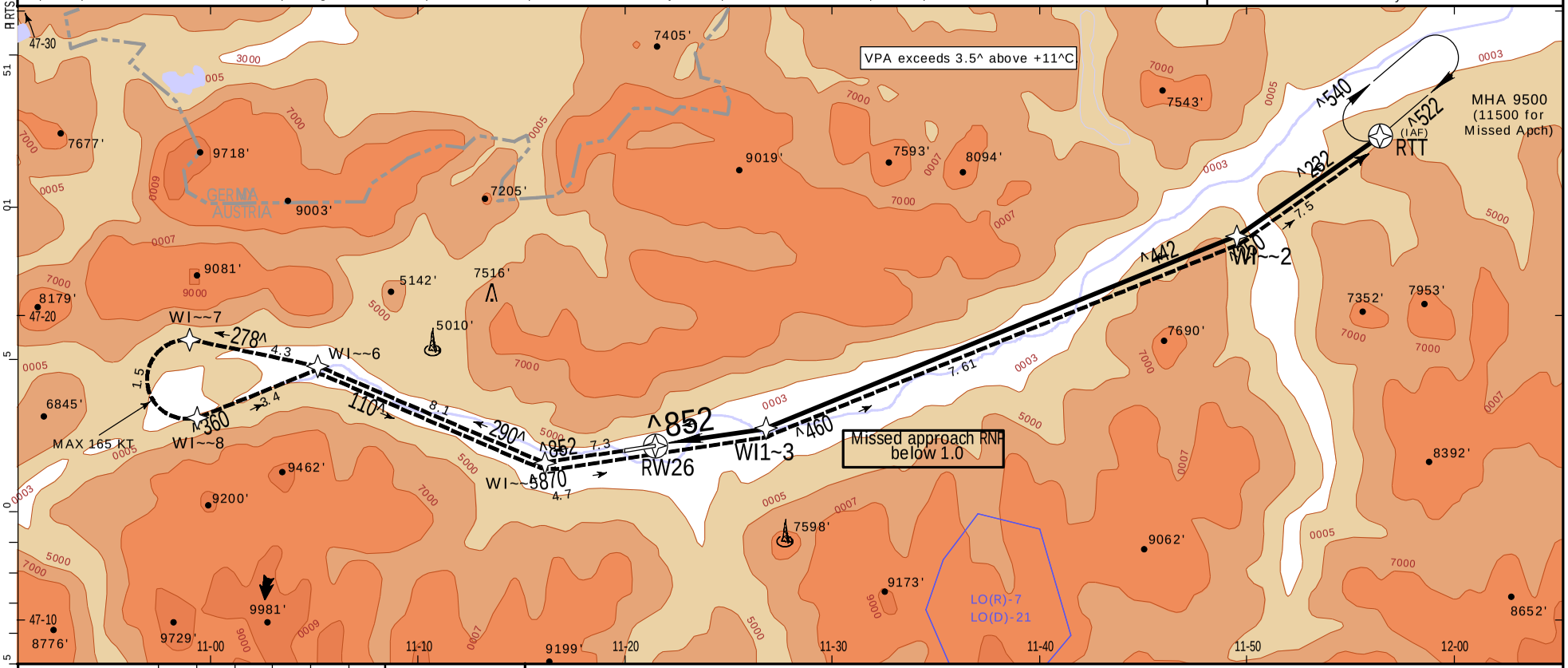
MISSED APCH: Climb to 11500' via RNAV missed approach track to RTT and hold.
Missed apch procedure based on RNP 0.30.

RNP AR Apch | Alt Set: hPa | Rwy Elev: 67 hPa | Trans level: By ATC | Trans alt: By ATC

1. SPECIAL AIRCREW & AIRCRAFT AUTHORIZATION REQUIRED(refer to AIRPORT BRIEFING 10-1P pages). 2. Dual GNSS and at least one Inertial Reference Unit or equivalent required (DME/DME, LOC and VOR/DME updating not authorized). 3. For uncompensated Baro-VNAV systems, procedure NA below airport temperature -7^C.



Applicable over Austrian territory only



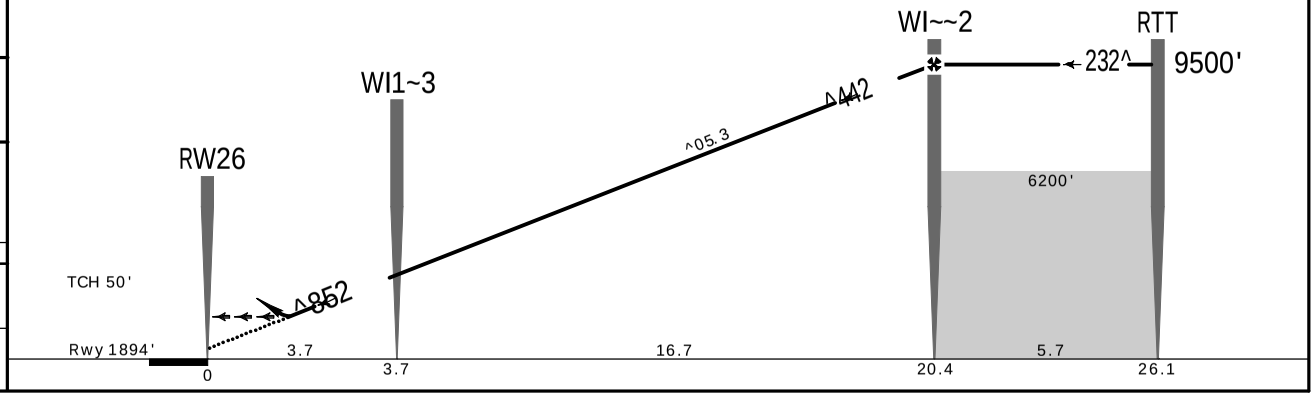
Gnd speed-Kts	70	90	100	120	140	160
Descent Angle 3.50^	434	557	619	743	867	991
MAP at DA						

HIALS
REIL
PAPI

11500' via WI~~5

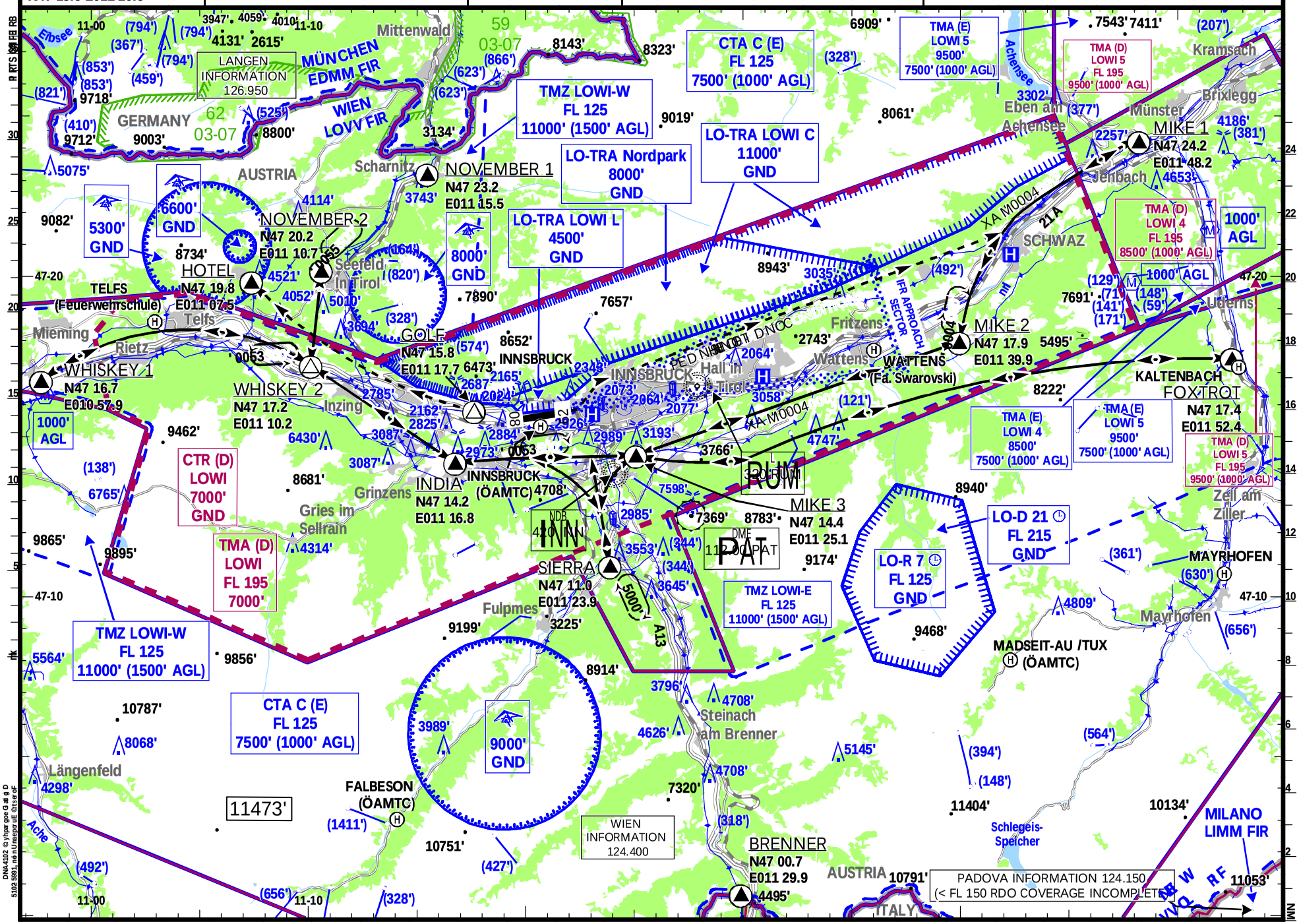
.Standard. STRAIGHT-IN LANDING RWY26

	RNP 0.15 DA(H) 2500' (606')		RNP 0.30 DA(H) 2670' (776')	
		ALS out		ALS out
A	RVR 1500m		RVR 1500m	
B				
C	RVR 2400m		RVR 2400m	
D				



CHANGES: Minimums heading revised.

LOCATION	FIS	ATIS	APPROACH	TOWER
Elev 1907' /581m N47 15.6 E011 20.6	**WIEN INFORMATION** 124.400	**ATIS** 126.030	**INNSBRUCK RADAR** 128.975 (ge, en)	**INNSBRUCK TOWER** 120.100 (ge, en)



CHANGES: COM - VAR - OBST.

JEPPESEN

LOWI
INNSBRUCK

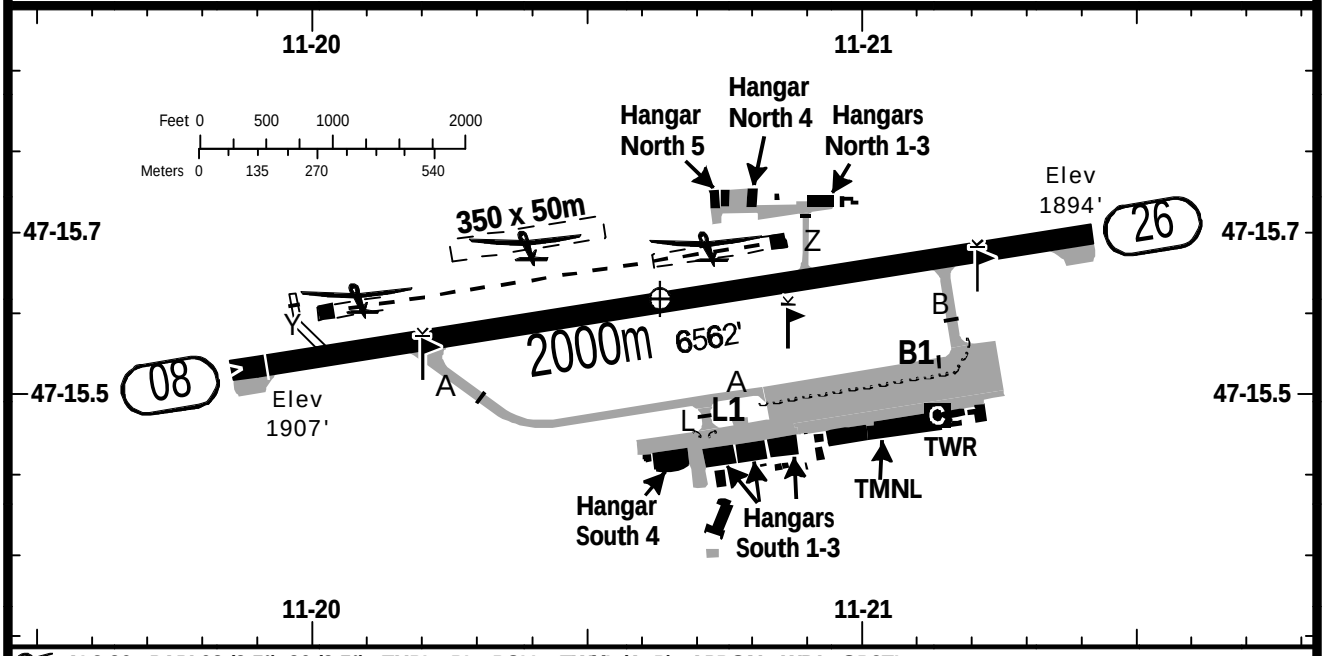
INNSBRUCK
AUSTRIA

BRIEFING STRIP™

LOCATION	ATIS	TOWER
Elev 1907' **/581m** **N47 15.6 E011 20.6**	**ATIS** 126.030	**INNSBRUCK TOWER** 120.100 **(ge, en)**

ADMITTED AIRCRAFT

(Cable)



ALS 26 - PAPI 08 (3.5°), 26 (3.5°) - THRL - RL - RCLL - TWYL (A, B) - APRON - WDI - OBSTL.

RWY No	Dimension (m) - Surface	TORA (m)	LDA (m)	Strength	Lights
08 (077°) 26 (257°)	2000 x 45 Asphalt	2000 1940	1940	PCN 75/F/A/W/T	

Intersection TKOF

RWY	TWY	TORA (m)
08	Y	1806
	A	1586
	Z	671
26	B	1602
	Z	1282

CAUTION: Extreme caution should be exercised when flying in valleys due to numerous high tension lines and cableways.

Intense glider activity within TRAs LOWI L & LOWI C; other ACFT in opposite direction.

Also glider-, para- and hangglideractivity in the vicinity of entry points into CTR.

NOTE: Emergency phone in case of COM Failure +43 (0) 5 1703-6612.

General

For all flights within CTR/TMA LOWI a functioning transponder (Mode C) is strongly recommended.

Outside op hr of Innsbruck ATC contact Wien FIC for clearance.

Simultaneous flight operations on paved RWY 08/26 and winch launchings are not executed.

TWY Z to be used by ACFT up to 2t.

Foehn Conditions

During "Foehn" (surface wind 100°-180°, wind speed 15-25 KT, gusts 30 up to 50 KT) expect severe turbulence with horizontal wind shears and severe downdraughts at all altitudes. To avoid strong turbulence, it is recommended to execute APCH/DEP at high altitude and along the N side of the Inn valley.

Approaches from the E and the S should overfly the AD not below 5000'. On final for RWY 08 severe downdraughts have to be expected over the Inn river.

Approach

Altitudes along the routes are instructed by ATC.

Arrival routes terminate in a holding. For further approach wait for clearance, if not already cleared for approach or landing.

For entry via FOXTROT proceed via MIKE 3 into the holding pattern S of the AD and wait for further clearance unless an APCH, LDG or other clearance has been already received previously.

NORDO PPR by TEL TWR. The time of entry into the CTR shall be stated with the request. Do not exceed the indicated CTR entry time by more than 10 MIN, otherwise the clearance expires.

During "Foehn" conditions it is dissuaded to execute a NORDO approach.

Radio Communication Failure

Failure prior to CTR entry clearance: Do not enter! Divert

CHANGES: QFU - Boundary of Jurisdiction - Declared Distances.

to an uncontrolled AD.

Failure after CTR entry clearance: Squawk A 7600 and continue as cleared.

If the clearance was issued only until holding MIKE 2, SIERRA, WHISKEY 2 or NOVEMBER 2 the pilot shall in case of holding:

- At MIKE 2 and SIERRA descend without delay to 3000' in compliance with the minimum flight altitude and proceed along the highway to a position S of Tower and await light signals.
- At WHISKEY 2 and NOVEMBER 2 descend without delay to 3000' in compliance with the minimum flight altitude and proceed along the mountainside in the northern part of the Inn valley (proceeding in direction AD on the left side of the Inn valley) to a position N of the AD and await light signals.

In case of radio communication failure after having received an entry clearance via HOTEL ACFT shall set the transponder to A7600 and without delay but in compliance with the minimum flight altitude descend to 3000' and proceed along the mountain slope in the northern part of the Inn Valley (proceeding in direction AD on the left side of the Inn Valley) to a position N of the AD and await light signals.

In case of radio communication failure after having received an entry clearance via FOXTROT ACFT shall set the transponder to A7600 and after MIKE 3 without delay but in compliance with the minimum flight altitude descend to 3000' and proceed along the high-way to a position S of TWR and await light signals.

CAUTION: Possible glider traffic N of the AD.

Departure

During Foehn circumnavigate city of Innsbruck in the N because of severe downdraughts S of city.

DEP RWY 26

Unless otherwise instructed, after passing the Inn river turn right inbound to GOLF to join the cleared VFR route.

- DEP to SIERRA or BRENNER follow GOLF, INDIA, SIERRA and BRENNER;
- DEP to MIKE 1 follow GOLF, INDIA, MIKE 3, MIKE 2 and MIKE 1. The city Schwaz should be circumnavigated in the N between MIKE 2 and MIKE 1;
- DEP to FOXTROT follow GOLF, INDIA, MIKE 3 and FOXTROT;
- DEP to WHISKEY 1 follow GOLF, WHISKEY 2 and WHISKEY 1;
- DEP to NOVEMBER 2 or NOVEMBER 1 follow GOLF, NOVEMBER 2 and NOVEMBER 1;
- DEP to HOTEL follow GOLF on the N side of the valley to HOTEL.

DEP RWY 08

Unless otherwise instructed, after reaching a safe flight altitude turn right to join the cleared VFR route.

- DEP to SIERRA or BRENNER follow SIERRA and BRENNER;
- DEP to MIKE 1 follow MIKE 3, MIKE 2 and MIKE 1; The city Schwaz should be circumnavigated in the N between MIKE 2 and MIKE 1;
- DEP to FOXTROT follow MIKE 3 and FOXTROT;
- DEP to WHISKEY 1 follow INDIA, WHISKEY 2 and WHISKEY 1;
- DEP to NOVEMBER 2 or NOVEMBER 1 follow INDIA, NOVEMBER 2 and NOVEMBER 1;
- DEP to HOTEL follow INDIA and HOTEL.

Transit

Flights crossing or proceeding along the Inn valley in the area of CTR or TMA LOWI are subject to a clearance from INNSBRUCK RADAR or TOWER.

In the interest of safety also all other transit flights crossing the Inn valley outside the CTR or below the TMA LOWI should contact INNSBRUCK RADAR or TOWER.

Transit flights will normally be cleared directly to a published reporting point and thereafter along the published routes. Depending on traffic situation RADAR (TMA) or TOWER (CTR) may, however, advise deviations aloof from published VFR routes or give an approval to such requests from pilots, respectively (e.g. direct routes NOVEMBER 1 - BRENNER and vice versa, MIKE 1 - NOVEMBER 1 and vice versa etc.).

Transit flights within TMA LOWI without transponder have to expect delays.

NORDO transits not permitted.

Noise Abatement

Flights shall proceed strictly along published routes as far as ATC instructions do not require other routes.

To minimise noise, VFR flights with single piston engine ACFT (up to 5.7t MTOW) shall preferably land on RWY 08 and take off from RWY 26.

Between 1230-1400LT (Mon-Sat) or 1230-1500LT (Sun & Hol) and on 01 NOV no local/aero-tow/parajumping/ instruction/training FLTs.

Departures avoid built-up areas of city and the hospital; if possible proceed S of city along the highway.

TRA LOWI L and TRA LOWI C

Initiation of glider operation in Innsbruck is subject to approval from the aerodrome operator. Prior entering TRA LOWI C approval from TWR has to be received.

Glider towing is permitted only with radio communication and using the paved RWY.

TRA LOWI L is available only for DEP and LDG at the glider site Innsbruck. The local procedures and regulations have to be strictly observed.

As long as the activation of TRA LOWI C is transmitted via ATIS no separate approval by Innsbruck TWR for entering, leaving or crossing of TRA LOWI C is necessary.

Hang- and Paragliding

Hang- and paragliding within CTR LOWI is not permitted.

Parachute Jumping

Initiation of parachute jumping operation on the premises of Innsbruck airport is subject to approval from the aerodrome operator.

LOWI/INN

Apt Elev 1907'

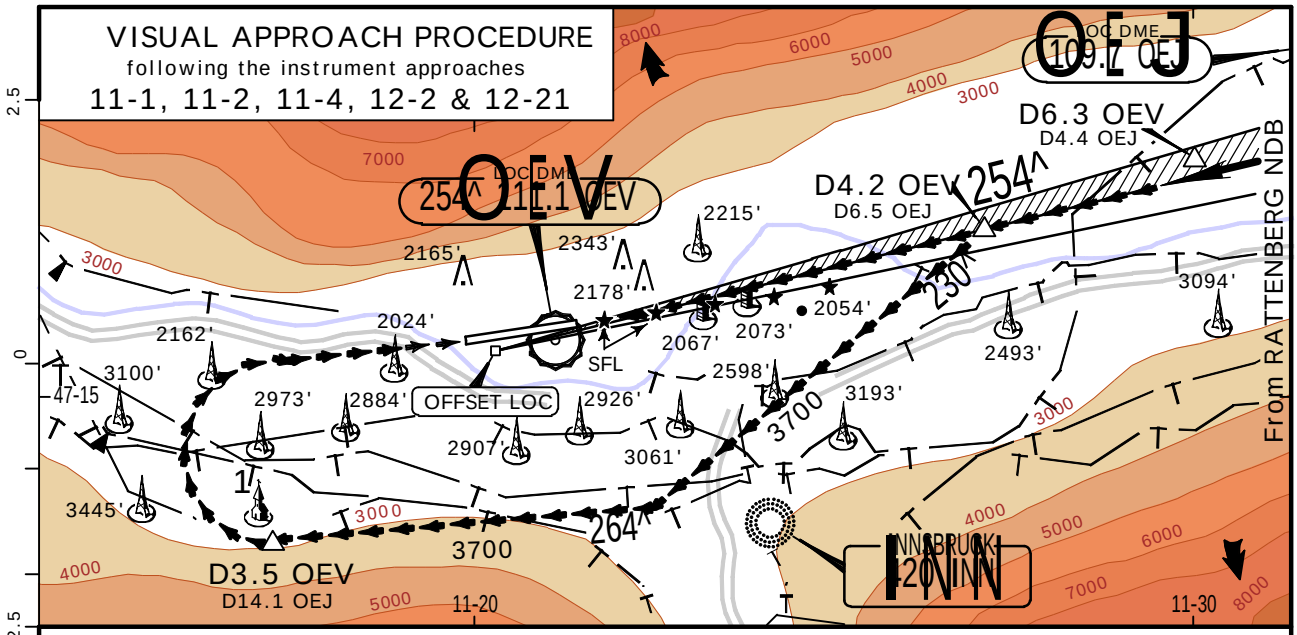
JEPPESEN

6 AUG 21 (19-10) .Eff.12.Aug.

INNSBRUCK, AUSTRIA

INNSBRUCK

SPECIAL CIRCLING PROCEDURES



VISUAL APCH AFTER 11-1:

Having established effective external VISUAL reference between D6.3 OEV/D4.4 OEJ and MAP the flight shall be continued with visual reference either straight-in to RWY 26 (distance depending on MAP versus missed apch climb performance) or on to a Right-hand circuit to RWY 08.
The prescribed minimum flight visibility shall be observed during the visual part of the procedure.

VISUAL APCH AFTER 11-2:

Having established effective external VISUAL reference (between D6.3 OEV/D4.4 OEJ and MAP) the flight shall be continued with visual reference either straight-in to RWY 26 or on to a Right-hand circuit to RWY 08.

1 Visual Cue: Church Axams for start of Right base.

.Standard.

CIRCLE-TO-LAND
WITH PRESCRIBED FLIGHT TRACKS
After apch 11-1
Missed apch climb gradient mim

5.0%	4.0%	3.0%	2.5%
MDA(H) 3700' (1793')	MDA(H) 3700' (1793')	MDA(H) 4400' (2493')	MDA(H) 4900' (2993')

FLIGHT VISIBILITY

A	5000m
B	
C	
D	

.Standard.

CIRCLE-TO-LAND
WITH PRESCRIBED FLIGHT TRACKS
After apch 12-2
Missed apch climb gradient mim

7.1%	5.0%	2.5%	After apch 11-2 & 12-21
MDA(H) 3700' (1793')	MDA(H) 3900' (1993')	MDA(H) 4300' (2393')	MDA(H) 3700' (1793')

FLIGHT VISIBILITY

A	3000m	3000m
B		
C	5000m	5000m
D	NOT APPLICABLE	

.Standard.

CIRCLE-TO-LAND
WITH PRESCRIBED FLIGHT TRACKS
After apch 11-4
Missed apch climb gradient mim

5.0%	4.0%	3.0%	2.5%
MDA(H) 3700' (1793')	MDA(H) 3700' (1793')	MDA(H) 4400' (2493')	MDA(H) 4900' (2993')

FLIGHT VISIBILITY

A	3000m
B	
C	5000m
D	NOT APPLICABLE

For ground visibility & ceiling requirement see 10-1P pages.
For SPECIAL NOTES see 10-1P pages.

PANS OPS

CHANGES: LOC bearing.

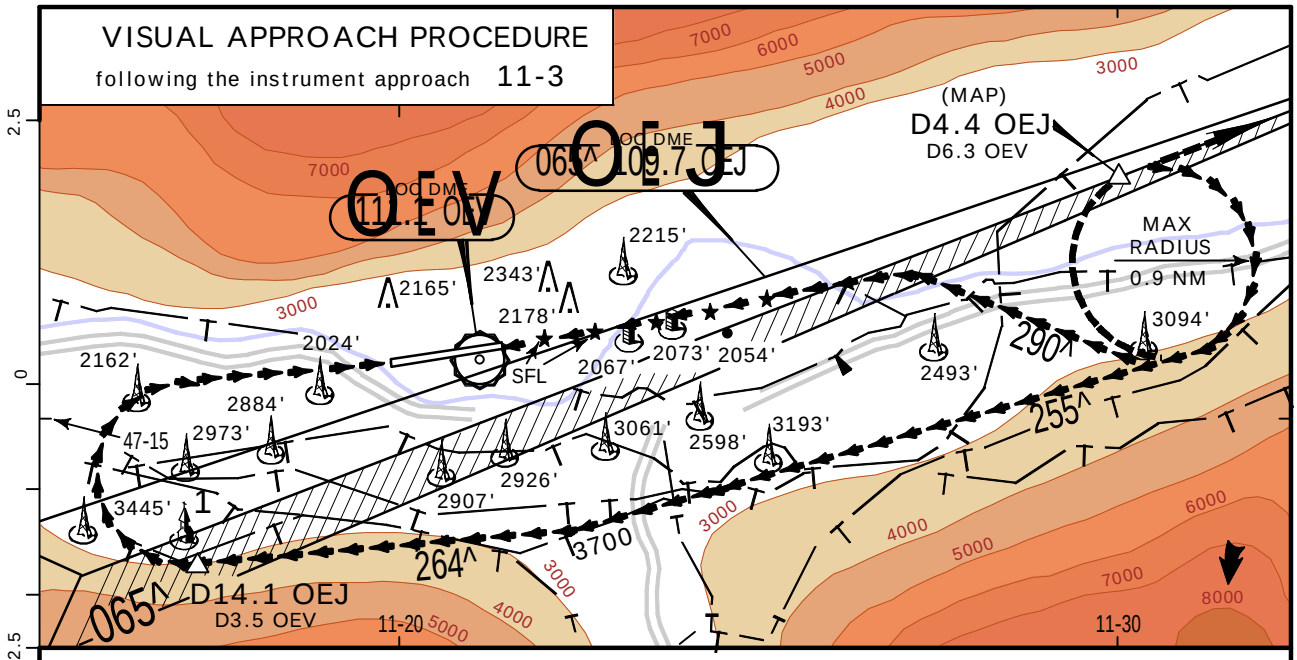
LOWI/INN
Apt Elev 1907'

JEPPESEN

INNSBRUCK, AUSTRIA
INNSBRUCK

6 AUG 21 (19-11) .Eff.12.Aug.

SPECIAL CIRCLING PROCEDURES



Having established effective external visual reference at decision point, make a Right turn in level flight (maximum turn radius 0.9 NM/1700m).
When reaching westerly heading, ensure that approach to the APT can be accomplished visually.
If found impossible to maintain visual conditions on approach to APT, Right turn to rejoin OEJ LOC via D4.4 OEJ/D6.3 OEV and follow the MISSED APCH as described on 11-3.
If meteorological conditions guarantee a safe approach and landing, continue VISUALLY either straight-in to final for RWY 26 or on a Right-hand circuit to RWY 08.

1 Visual Cue: Church Axams for start of Right base.

.Standard.

CIRCLE-TO-LAND
WITH PRESCRIBED FLIGHT TRACKS

MDA(H) 5000' (3093')

	FLIGHT VISIBILITY
A B	3000m
C D	5000m

For ground visibility & ceiling requirement see 10-1P pages.
For SPECIAL NOTES see 10-1P pages.

PANS OPS

CHANGES: LOC bearing.