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Airport Information For EDDL

Terminal Charts For EDDL

Revision Letter For Cycle 13-2014

Change Notices

Notebook

General Information

Location: Dusseldorf Deu
IATA Code: DUS
Lat/Long: N51° 16.9' E006° 45.4'
Elevation: 147 ft

Airport Use: Public
Magnetic Variation: 1.2°E

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

Sunrise: 0317 Z
Sunset: 1953 Z,

Runway Information

Runway: 05L
Length x Width: 8858 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 116 ft
Lighting: Edge, ALS, Centerline, REIL
Displaced Threshold: 984 ft

Runway: 05R
Length x Width: 9843 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 121 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ
Displaced Threshold: 985 ft

Runway: 23L
Length x Width: 9843 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 138 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ
Displaced Threshold: 985 ft

Runway: 23R
Length x Width: 8858 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 124 ft

Lighting: Edge, ALS, Centerline, REIL, TDZ
Displaced Threshold: 984 ft

Communication Information

ATIS 123.775
Dusseldorf Tower 118.3
Dusseldorf Tower 37.835 Military
Dusseldorf Ground Control 121.9
Dusseldorf Ground Control 121.6
Dusseldorf De-Icing Ramp/Taxi Control 135.225
Dusseldorf De-Icing Ramp/Taxi Control 122.775
Dusseldorf De-Icing Ramp/Taxi Control 122.125
Dusseldorf De-Icing Ramp/Taxi Control 121.6
Dusseldorf Clearance Delivery 121.775
Dusseldorf Director (Approach Control Radar) 128.65

1. GENERAL

1.1. ATIS

*D-ATIS 115.15 123.77

1.2. NOISE ABATEMENT PROCEDURES

For additional depiction refer to 10-4.

1.2.1. RUNWAY USAGE

Use of RWYs 05L/23R is restricted to MAX 56 hours per week (7 days period, MON - SUN, 0600-2200LT). APT company has to promulgate a weekly schedule of operating hours in advance to permitting ministry and DFS (ATC). Outside these published hours northern RWYs 05L/23R is to be used as alternative RWYs only.

1.2.2. NIGHT FLYING RESTRICTIONS

Turbine-powered ACFT not licensed according to ICAO Annex 16

Take-offs and landings are not permitted between 1900LT(1850LT off blocks)-0800LT.

Turbine-powered ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 2

Take-offs and landings are not permitted between 1900LT(1850LT off blocks)-0800LT.

Turbine-powered ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 3 not included in the Bonus List of the Federal Ministry of Transport, Building and Housing

Scheduled take-offs and landings are not permitted between 2200LT(2150LT off blocks)-0600LT.

Turbine-powered ACFT licensed according to ICAO Annex 16, Volume 1, Chapter 3 included in the Bonus List of the Ministry of Transport, Building and Housing

- Scheduled take-offs are not permitted between 2200LT (2150LT off blocks)-0600LT.
- For delayed take-offs in scheduled air services or scheduled charter services the Aviation Supervision Office may grant exceptional permission in individual cases until 2300LT(2250LT off blocks), if required to maintain the safety of flight operations or to avoid considerable disturbance to the operation of an air carrier.
- Scheduled landings are not permitted between 2300-0600LT.
- Delayed landings in scheduled air services or scheduled charter services are not permitted between 2330-0600LT.
- Delayed landings of ACFT engaged in scheduled air services or scheduled charter services **and** owned by air carriers who have their local maintenance facilities recognized by the approving authority at Dusseldorf APT are not permitted between 2400-0500LT. If a recognized local main maintenance facility becomes vacant, the approving authority may recognize Dusseldorf APT as the local main maintenance facility at the request of another air carrier.

Propeller-driven ACFT

- Take-offs and landings are not permitted between 2200LT(2150LT off blocks) - 0600LT.
- Excepted are take-offs and landings of propeller-driven ACFT with one of the following noise licenses:
ICAO Annex 16, Volume I, Chapter 3, 4, 5, 6 or 10.

The following applies to propeller-driven ACFT exceeding 9t MTOM:

- Scheduled take-offs are not permitted between 2200LT (2150LT off blocks)-0600LT.
- For delayed take-offs in scheduled air services or scheduled charter services, the Aviation Supervision Office may grant exceptional permission in individual cases until 2300LT (2250LT off blocks) if required to maintain the safety of flight operations or to avoid considerable disturbance to the operation of an air carrier.
- Scheduled landings are not permitted between 2300LT-0600LT.
- Delayed landings in scheduled air services or scheduled charter services are not permitted between 2330LT-0600LT.

1. GENERAL

Excluded from the restrictions above are:

- Landings of ACFT provably approaching Dusseldorf APT as alternate aerodrome for meteorological, technical or other safety reasons.
- Take-offs and landings on a mission in disasters or rendering medical assistance as well as in other emergency cases; take-offs, however, only subject to individual permission by the Aviation Supervision Office.
- Flight checks conducted by the DFS (Deutsche Flugsicherung GmbH)

Deviating from the above-mentioned regulations the "Bezirksregierung" Dusseldorf (Aviation Supervision Office at Dusseldorf APT) may grant additional exceptions in justified individual cases, especially if necessary to avoid considerable disturbance of air traffic or in cases of special public interest. If appropriate, applications shall be submitted to:

Luftaufsichtsstelle
Flughafen Dusseldorf
40474 Dusseldorf
Tel: ++49-(0)211-4216364
Fax: ++49-(0)211-4216493.

Clearance for take-offs during closing times issued by ATC do not comprise the necessary exceptional permission of the Aviation Supervision Office at Dusseldorf APT.

Exceptional permission for night landings during the closing times will not generally be granted by ATC via radio telephony. Accordingly, a landing clearance issued by ATC for safety reasons will not necessarily include the decision of the Aviation Supervision Office about the admissibility of a night landing.

In case of a delayed or premature landing (before 0500LT) not approved by the Aviation Supervision Office the pilot shall appear in person at the Aviation Supervision Office immediately after landing in order to justify the admissibility of the night landing.

1.2.3. REVERSE THRUST

Reverse thrust other than idle should not be used between 2200-0600LT except for safety reasons.

1.2.4. RUN-UP TESTS

Run-ups of turbo-powered engines are generally permitted only with the noise suppressor device specified in the airport regulations.

1.3. TAXI PROCEDURES

1.3.1. GENERAL

Apron West MAX wingspan 102' / 31m.
TWY G2 MAX wingspan 94' / 28.5m.

TWY L3 only usable if stand V01 not occupied. Follow-me car required.

Use TWY K with ATC permission only.

RWY 05R exit via TWY L2 not possible.

TWY L2 available for all ACFT except B777 and A340-600.

On TWYs L1 and L2, ACFT with wingspan up to 198' / 60.3m can overtake each other. Wingtip clearance is reduced to 39' / 12m.

On TWY M and on the apron in front of concourse B, there are two holding points named Checkpoints 1 and 2. These mark the boundary between the two sectors of ground control. The holding points are marked and equipped with yellow inset lighting (clearance bars).

If necessary, ACFT are instructed to stop at a clearly specified clearance bar.

Without this instruction, clearance bars may be passed without clearance.

Clearance bars will be replaced by red stop bars in weather conditions lower than CAT I minima. A lighted stop bar shall never be crossed.

1. GENERAL

1.3.2. TAXIING ON APRON

ACFT are permitted to taxi only at the absolute minimum engine speed.

Within apron area between TWY L5 and P1 parallel taxiing for B747-400/B777/A330/A340 not possible.

Within apron area between TWY P3 and P4 parallel taxiing possible for B747, B777, A330 and A340.

Within apron area on taxilanes T, P4, L7, L8, W and Y wingtip clearance reduced to 25'/7.5m for B747-400, B777 and A330/340.

1.4. PARKING INFORMATION

Stands A01 thru A15, B01 thru B11 and C01 thru C08 equipped with SAFEGATE Docking Guidance System.

On stands C02 and C03 wingtip clearance for B747-400 may be reduced to 16'/5m.

Push-back required from all stands except from V01 and V61 thru V74.

Landing ACFT have to switch off Auxiliary Power Unit (APU) immediately after arriving at the parking position.

Departing ACFT may start the APU earliest 30min before TOBT. Exceptions require the approval of the duty traffic manager.

2. ARRIVAL

2.1. CAT II/III OPERATIONS

RWYs 05R, 23L and 23R approved for CAT II/III operations, special aircrew and ACFT certification required.

2.2. TAXI PROCEDURES

Arriving ACFT shall taxi to their assigned parking position in accordance with the instructions given by aerodrome control without further guidance.

If the crew discovers that the technical aid for entering a nose-in parking position is not switched on or not in operation, the ACFT shall be stopped immediately. The malfunction shall be reported to ground control. Taxiing can be continued in accordance with instructions given by ground control.

3. DEPARTURE

3.1. DE-ICING

3.1.1. GENERAL

De-icing areas are established at:

- DA-West (area near parking positions V61 thru V71) for take-off RWY 05L or 05R.
- DA-East (area near parking positions V01 thru V08) for take-off RWY 23L or 23R.

After de-icing has been completed contact DUSSELDORF Ground on last assigned frequency.

3.1.2. COMMUNICATIONS

After parking the ACFT on the de-icing pad, the pilot will report flight number and ACFT type to DUSSELDORF De-icing

Pos.1: 130.6, Pos.2: 122.12, Pos.3: 122.77 or Pos.4: 135.22

for the beginning of de-icing. After de-icing has been completed, the pilot-in-command shall report "ready to taxi" to Ground.

3. DEPARTURE

3.1.3. TAXIING

The ACFT will be guided by a Follow-me car to a vacant de-icing position.

Taxiing manoeuvres shall be carried out with the absolute minimum number of engine revolutions required only.

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

3.2.1. START-UP

Pilots shall request approval for starting the engines on the relevant frequency of DUSSELDORF DELIVERY.

3.2.2. PUSH-BACK

ACFT may leave nose-in positions only with the aid of tow tractors. To obtain instructions to push-back from a nose-in parking position, pilots are instructed to obtain a push-back approval from the relevant frequency of DUSSELDORF Ground. To avoid delays, engines shall be started simultaneously with the push-back process. After push-back is completed, "ready to taxi" shall be reported to ground control.

3.2.3. TAXIING

To obtain instructions to taxi from a taxi-out parking position, pilots are instructed to obtain a taxi clearance from the relevant frequency of DUSSELDORF Ground. Push-back approval or permission to taxi out from a parking position may only be requested when the pilot is able to carry this out without delay. It may become necessary to change the frequency if the TWY leads through two areas of responsibility of ground control.

3.2.4. AIRPORT COLLABORATIVE DECISION MAKING TRIAL OPERATIONS

3.2.4.1. TARGET OFF-BLOCK TIME (TOBT)

TOBT is a reference time used for all ground handling processes except for ACFT push-back and de-icing. This time is used for coordination since it is the best available time for that purpose. TOBT = prediction of "ACFT Ready".

3.2.4.2. AUTOMATED TOBT

90 minutes before Estimated Off Block Time (EOBT) the system automatically generates a TOBT if the ACFT is on the ground. Otherwise it will be generated when the corresponding arriving ACFT is passing 10NM from touchdown. In this case the automated TOBT is calculated on the basis of the Estimated In-Block Time (EBIT), minimum turn-round time (MTTT), and CTOT.

3.2.4.3. PERSON RESPONSIBLE FOR TOBT

Once the TOBT has been generated, the handling agent, the airline (for flights without handling agents) or the pilot-in-command (for general aviation flights without handling agent) is responsible for TOBT correctness and adherence.

If it becomes obvious that the TOBT cannot be respected, it shall be corrected or re-entered by the person responsible for the TOBT. Since the TOBT is used for various ground processes, it shall be updated by the person responsible for TOBT when deviations of more than 5 minutes (+/-) become obvious.

For deviations of 15 minutes or more, it will still be mandatory to send a delay message (DLA) to the Network Manager.

3.2.4.4. TOBT UPDATE/DELETION

Until issue of the TSAT (TOBT minus 40 minutes) updates of the TOBT are not limited in number. After the TSAT has been issued, the TOBT can be updated up to three times. Thereafter, the TOBT shall be deleted and a new TOBT shall be sent. The new TOBT shall be at least 5 minutes later than the current time.

If a flight is to be taken out of the TOBT/TSAT calculation, the TOBT is to be deleted by way of the reporting routines described. The TOBT shall be re-entered by the person responsible for the TOBT.

If the ACFT is changed, a change message (CHG - type/registration) shall be sent. In this case, the TOBT remains in effect and is allocated to the new ACFT.

3. DEPARTURE

3.2.4.5. TOBT REPORTING ROUTINES

The TOBT is reported and/or adjusted in one of the following ways:

- Common Situational Awareness Tool (Web-DUPLO)
- Internal system of the airline/handling agent (via interface)
- By telephone via the Dusseldorf Airport Control Center: Tel.: +49 211 421 51011

For general aviation flights:

- Via the responsible handling agent.

3.2.4.6. TARGET START-UP APPROVAL TIME (TSAT)

The TSAT is the target time for start-up approval according to the A-CDM procedure.

The earliest time for the TSAT calculation is 40 minutes prior to TOBT. The "Pre-Departure Sequence" is a result of the calculated TSATs.

3.2.4.7. TSAT REPORTING ROUTINES

The TSAT is transmitted in one of following ways:

- Common Situational Awareness Tool (Web-DUPLO)
- Interface for e.g. the airlines' or ground handling agents' systems
- Datalink Clearance (DCL)
- Short Message Service (SMS)

For general aviation flights:

- Via the responsible handling agent. When the Datalink procedure (DCL) is used for clearances, the TSAT will additionally be transmitted directly into the cockpit.

3.2.4.8. START-UP AND PUSH-BACK

Start-up approvals and push-back clearances are issued taking into account the TOBT and TSAT only. The sequence of the start-up request is no longer a factor. The following rules apply:

- The ACFT has to be ready for start-up at TOBT.
- The pilot shall request start-up approval and en-route clearance within the time period of TSAT +/- 5 minutes (not DCL).
- Delivery will issue the start-up approval and en-route clearance depending on the TSAT and the current traffic situation.
- The push-back/taxi clearance has to be requested no later than five minutes after the start-up approval has been issued.

In the case of delays, Delivery has to be informed accordingly. Otherwise the TOBT will be deleted and has to be re-entered.

3.2.4.9. DATALINK CLEARANCE - DCL

For data link departure clearances (DCL) the published procedures and time parameters will remain valid. The TSAT is transmitted via CLD (departure clearance uplink message - issue of the start-up approval and en-route clearance by Delivery) ("start-up approved at TSAT hh:mm"). The push-back/taxi clearance shall be requested at TSAT +/- 5 minutes.

3.2.4.10. TERMS AND DEFINITIONS

TOBT: Target off-block time:

The time that an ACFT operator or ground handler estimates that an ACFT will be ready, boarding bridge removed, and ready for start-up immediately upon reception of clearance from the Tower.

TSAT: Target start-up approval time:

Target time for start-up approval according to the A-CDM procedure taking into account TOBT, CTOT and/or the traffic situation.

3. DEPARTURE

3.3. OTHER INFORMATION

3.3.1. DATALINK DEPARTURE CLEARANCE (DCL)

DFS (Deutsche Flugsicherung GmbH) is offering to grant start-up and enroute clearances using Datalink. The procedures are described in a separate AIC.

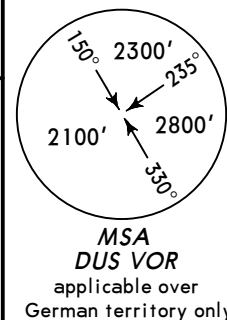
The following temporal parameters apply:

t_i	25 min prior to EOBT for unregulated flights. 30 min prior to CTOT for ATFM regulated flights.
$t_{\uparrow}$	11 min prior to EOBT for unregulated flights 16 min prior to CTOT for ATFM regulated flights.
t_0	1 min
t_1	5 min
t_2	1 min

*D-ATIS
115.15 123.77

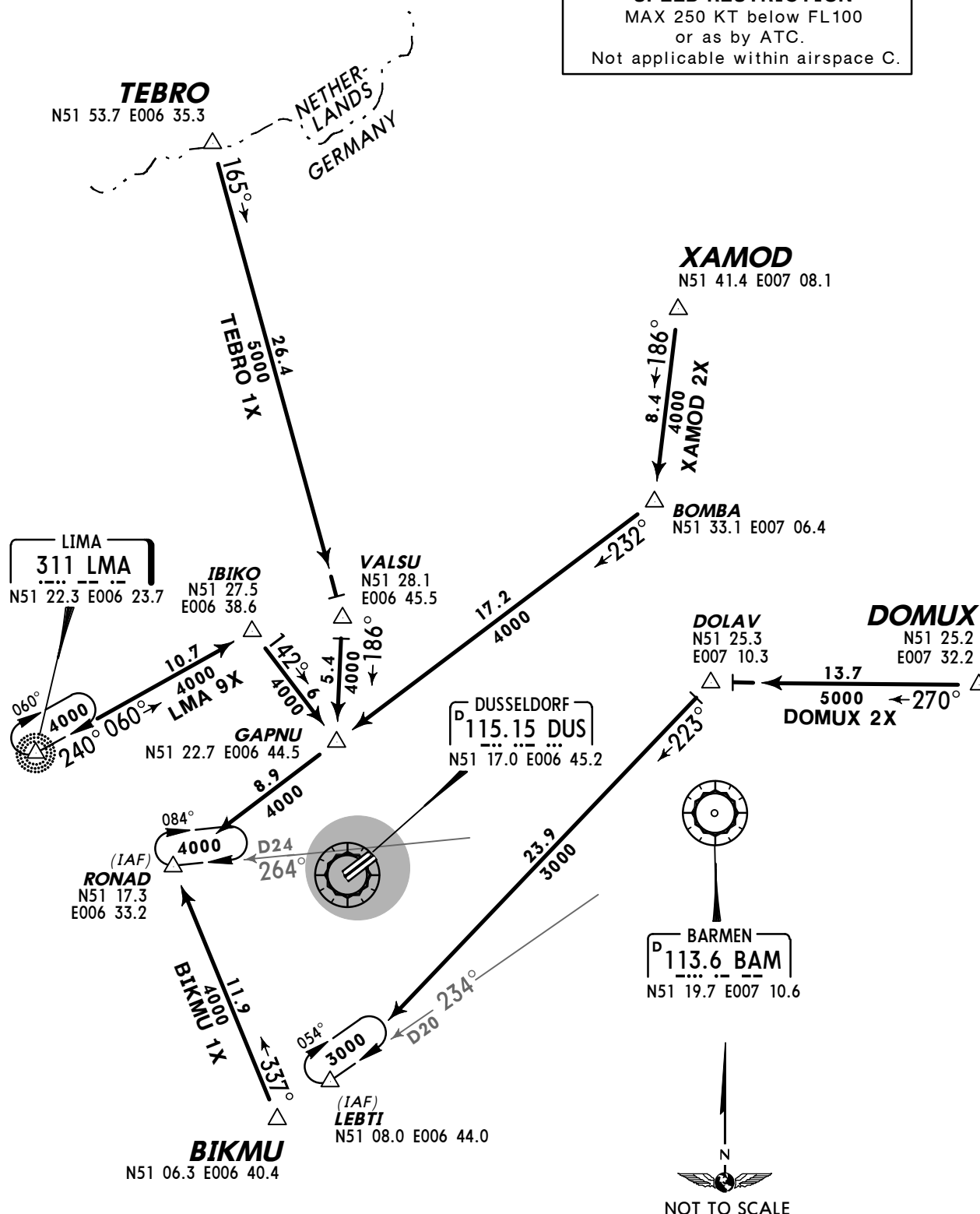
Apt Elev
147'

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



BIKMU ONE X-RAY (BIKMU 1X) [BIKM1X]
DOMUX TWO X-RAY (DOMUX 2X) [DOMU2X]
LIMA NINE X-RAY (LMA 9X)
TEBRO ONE X-RAY (TEBRO 1X) [TEBR1X]
XAMOD TWO X-RAY (XAMOD 2X) [XAMO2X]
RWYS 05L/R ARRIVALS
B-RNAV EQUIPMENT NECESSARY

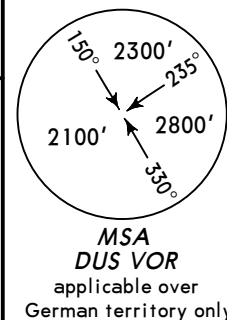
SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



*D-ATIS
115.15 123.77

Apt Elev
147'

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



BIKMU ONE GOLF (BIKMU 1G) [BIKM1G]

TEBRO ONE GOLF (TEBRO 1G) [TEBR1G]

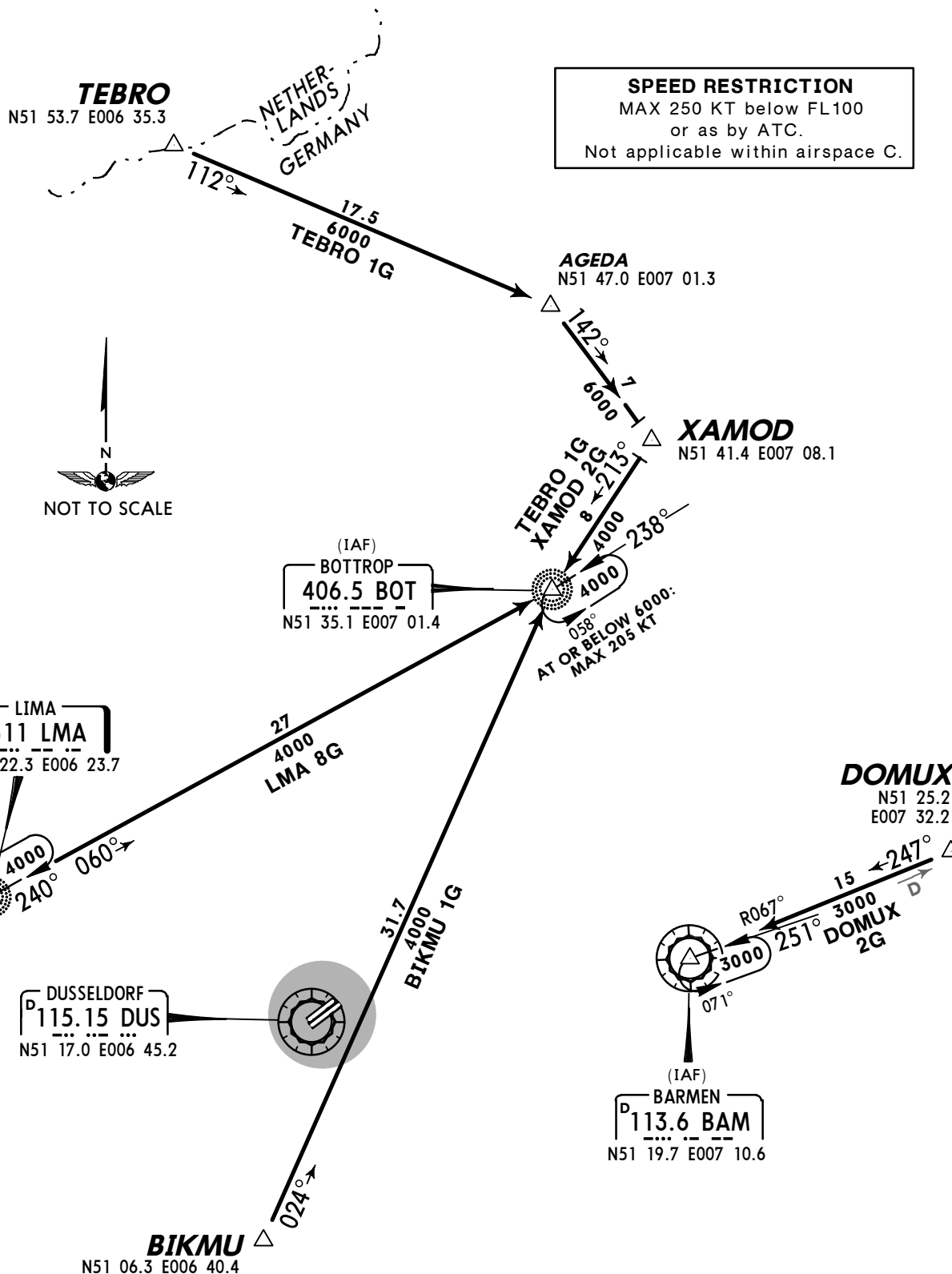
B-RNAV EQUIPMENT NECESSARY

DOMUX TWO GOLF (DOMUX 2G) [DOMU2G]

LIMA EIGHT GOLF (LMA 8G)

XAMOD TWO GOLF (XAMOD 2G) [XAMO2G]

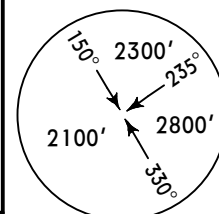
RWYS 23L/R ARRIVALS



*D-ATIS
115.15
123.77

Apt Elev
147'

Alt Set: hPa (IN on request)
Trans level: By ATC Trans alt: 5000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective
waypoint throughout the entire transition route
unless cancelled by ATC.
3. Altitude assignments will be issued by ATC.

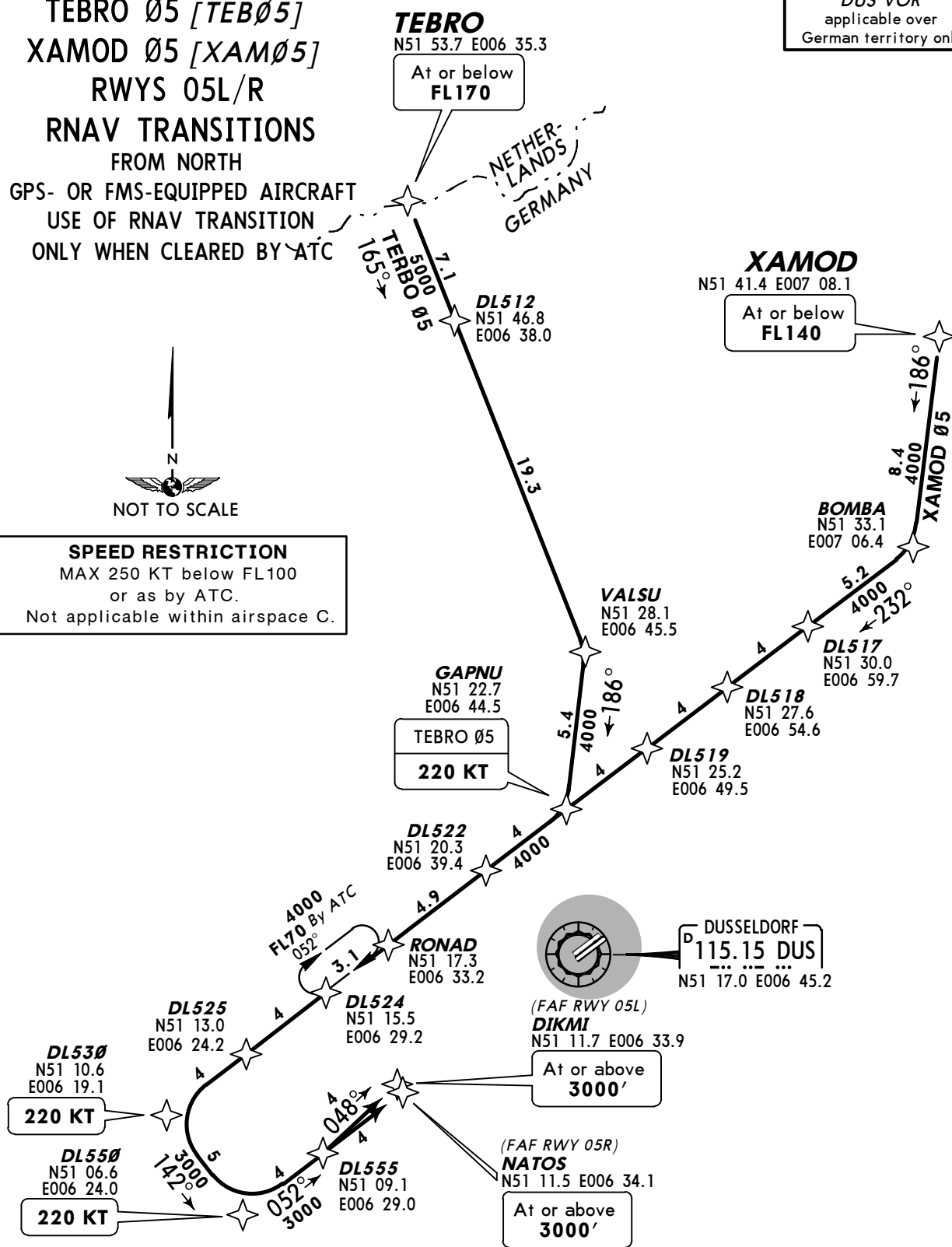


MSA
DUS VOR
applicable over
German territory only

TEBRO 05 [TEB05]
XAMOD 05 [XAM05]
RWYS 05L/R
RNAV TRANSITIONS
FROM NORTH
GPS- OR FMS-EQUIPPED AIRCRAFT
USE OF RNAV TRANSITION
ONLY WHEN CLEARED BY ATC



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

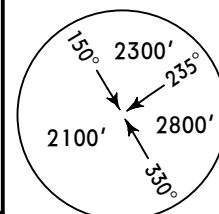


TRANSITION	ROUTING
TEBRO 05	TEBRO (FL170-) - DL512 - VALSU - GAPNU (K220) - DL530 (K220) - DL550 (K220) - DL555 - DIKMI (05L ①; 3000'+)/ NATOS (05R; 3000'+).
XAMOD 05	XAMOD (FL140-) - BOMBA - DL530 (K220) - DL550 (K220) - DL555 - DIKMI (05L ①; 3000'+)/ NATOS (05R; 3000'+).

① Valid for LOST COMM situation.

*D-ATIS
115.15
123.77Apt Elev
147'

Alt Set: hPa (IN on request)
Trans level: By ATC Trans alt: 5000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective
waypoint throughout the entire transition route
unless cancelled by ATC.
3. Altitude assignments will be issued by ATC.

MSA
DUS VOR
applicable over
German territory only

TEBRO 23 [TEB23] XAMOD 23 [XAM23] RWYS 23L/R RNAV TRANSITIONS FROM NORTH

GPS- OR FMS-EQUIPPED AIRCRAFT
USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

TEBRO

N51 53.7 E006 35.3

At or below
FL17017.5
5000
TEBRO 23**AGEDA**

N51 47.0 E007 01.3

XAMOD

N51 41.4 E007 08.1

TEBRO 23

220 KT

XAMOD 23

At or below
FL140**DL430**

N51 37.8 E007 16.4

220 KT

DL450N51 33.8
E007 21.2

220 KT

DL422

N51 34.2 E006 52.7

220 KT

DL426

N51 29.4 E006 58.5

220 KT

(FAF RWY 23R)

REGNO

N51 23.2 E006 57.9

At or above
3000'

(FAF RWY 23L)

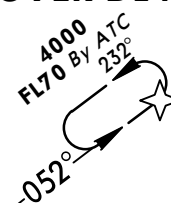
METMA

N51 23.0 E006 58.2

At or above
3000'

NOT TO SCALE

DUSSELDORF
115.15 DUS
N51 17.0 E006 45.2

**HOLDING
OVER DL429****TRANSITION****ROUTING****TEBRO 23**

TEBRO (FL170-) - AGEDA - XAMOD (K220) - DL422 (K220) - DL426 (K220) -
DL430 (K220) - DL450 (K220) - DL455 - METMA (23L; 3000'+)/REGNO (23R ①;
3000'+).

XAMOD 23

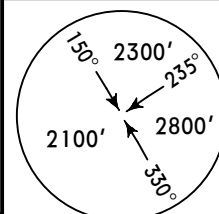
XAMOD (FL140-) - DL422 (K220) - DL426 (K220) - DL430 (K220) - DL450 (K220)
- DL455 - METMA (23L; 3000'+)/REGNO (23R ①; 3000'+).

① Valid for LOST COMM situation.

*D-ATIS
115.15
123.77

Apt Elev
147'

Alt Set: hPa (IN on request)
Trans level: By ATC Trans alt: 5000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective
waypoint throughout the entire transition route
unless cancelled by ATC.
3. Altitude assignments will be issued by ATC.



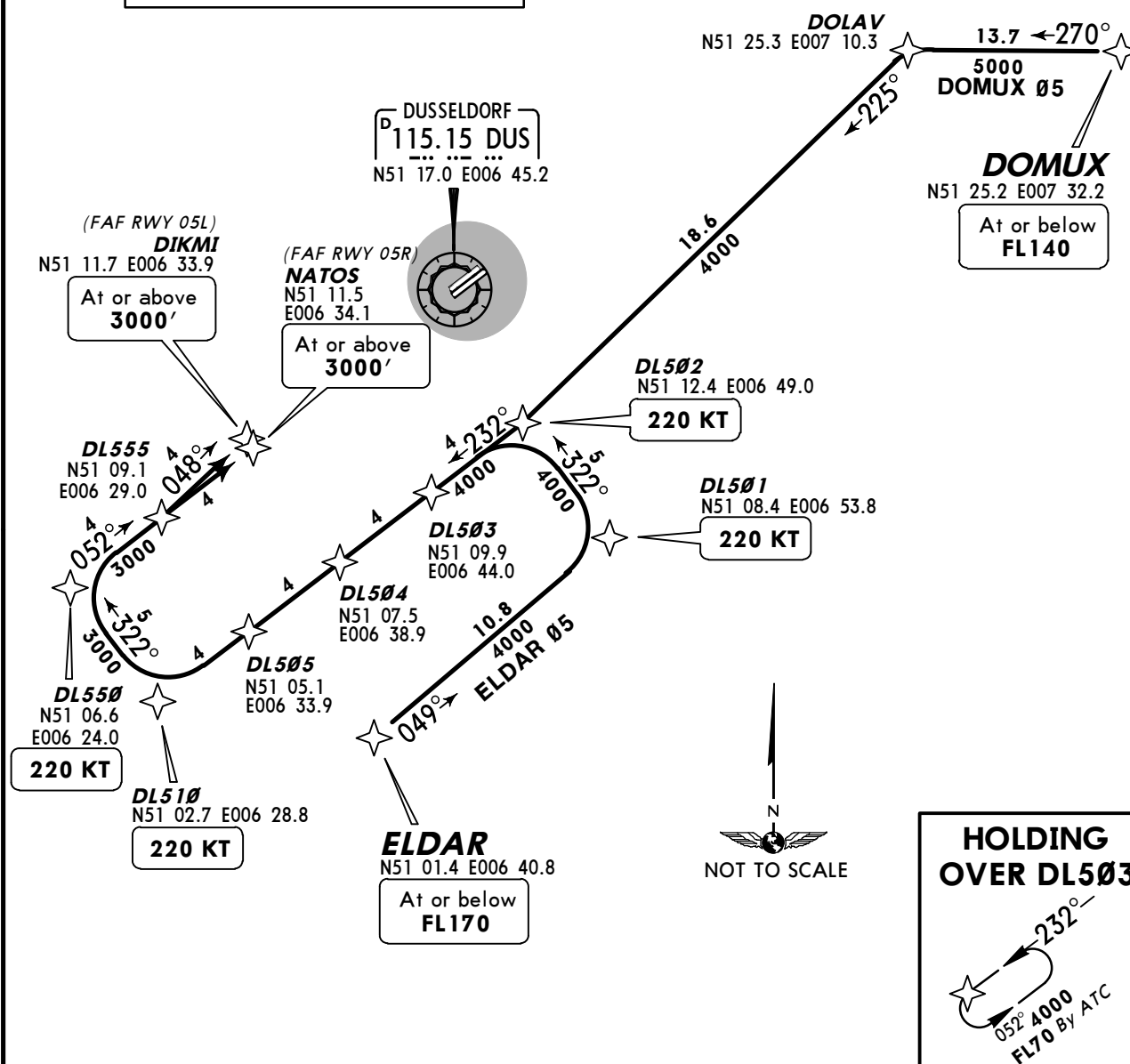
MSA
DUS VOR
applicable over
German territory only

**DOMUX 05 [DOM05]
ELDAR 05 [ELD05]
RWYS 05L/R RNAV TRANSITIONS**

FROM EAST
GPS- OR FMS-EQUIPPED AIRCRAFT
USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

SPEED RESTRICTION

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

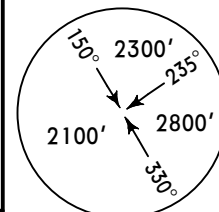


TRANSITION	ROUTING
DOMUX 05	DOMUX (FL140-) - DOLAV - DL502 (K220) - DL510 (K220) - DL550 (K220) - DIKMI (05L; 3000'+)/ NATOS (05R ①; 3000'+).
ELDAR 05	ELDAR (FL170-) - DL501 (K220) - DL502 (K220) - DL510 (K220) - DL550 (K220) - DIKMI (05L; 3000'+)/ NATOS (05R ①; 3000'+).

① Valid for LOST COMM situation.

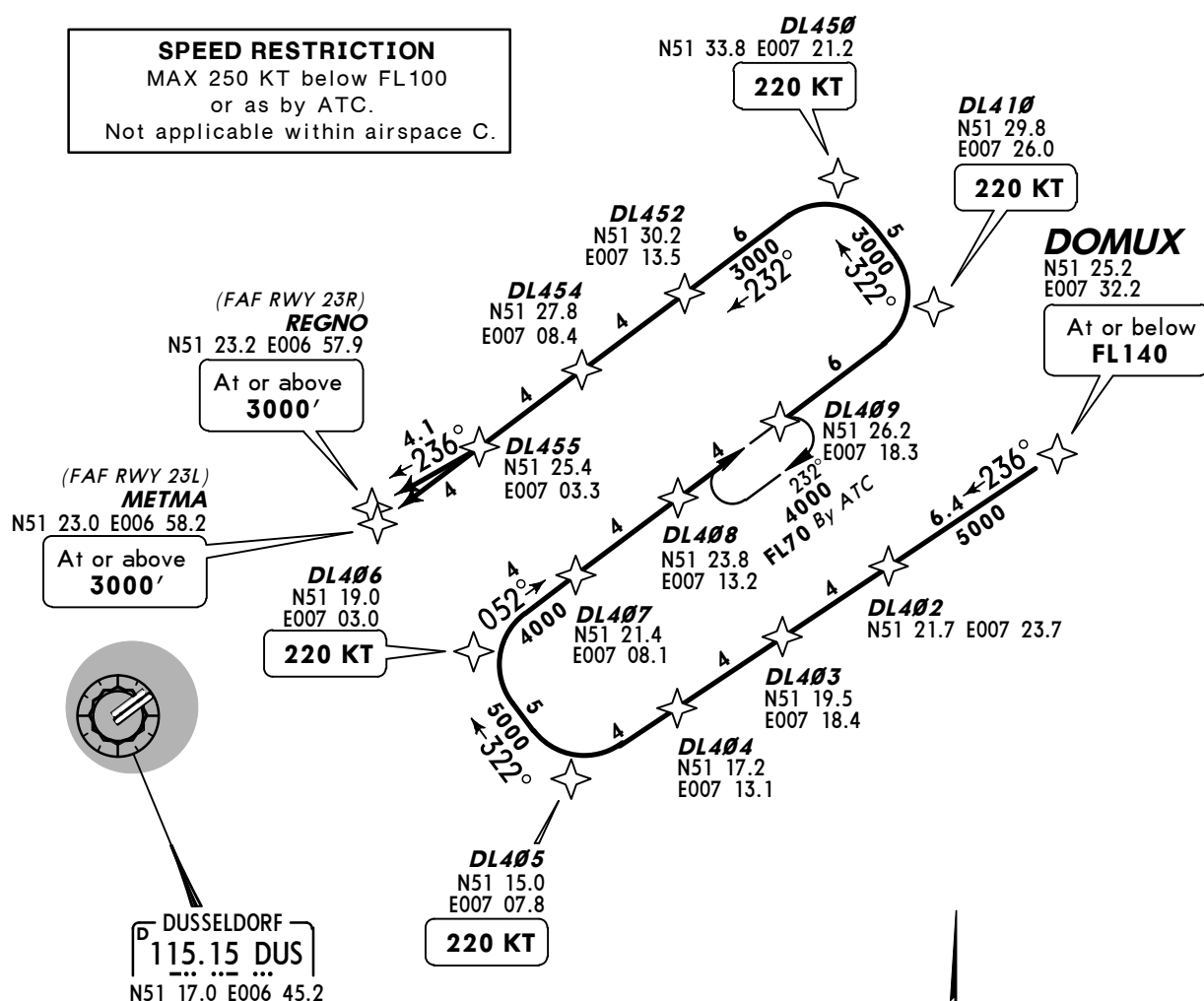
Alt Set: hPa (IN on request)
Trans level: By ATC Trans alt: 5000'

1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective waypoint throughout the entire transition route unless cancelled by ATC.
3. Altitude assignments will be issued by ATC.



MSA
DUS VOR
applicable over
German territory only

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

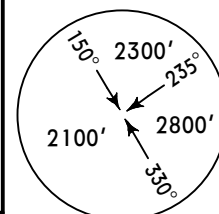


DOMUX (FL140-) - DL405 (K220) - DL406 (K220) - DL410 (K220) - DL450 (K220) - METMA
(23L 1; 3000'+)/ REGNO (23R; 3000'+).

❶ Valid for LOST COMM situation.

*D-ATIS
115.15
123.77Apt Elev
147'

Alt Set: hPa (IN on request)
Trans level: By ATC Trans alt: 5000'
1. On downwind expect vectors to final.
2. Speed limits are mandatory from the respective
waypoint throughout the entire transition route
unless cancelled by ATC.
3. Altitude assignments will be issued by ATC.



MSA
DUS VOR
applicable over
German territory only

BIKMU 05 [BIK05], LMA 05 RWYS 05L/R RNAV TRANSITIONS

FROM WEST

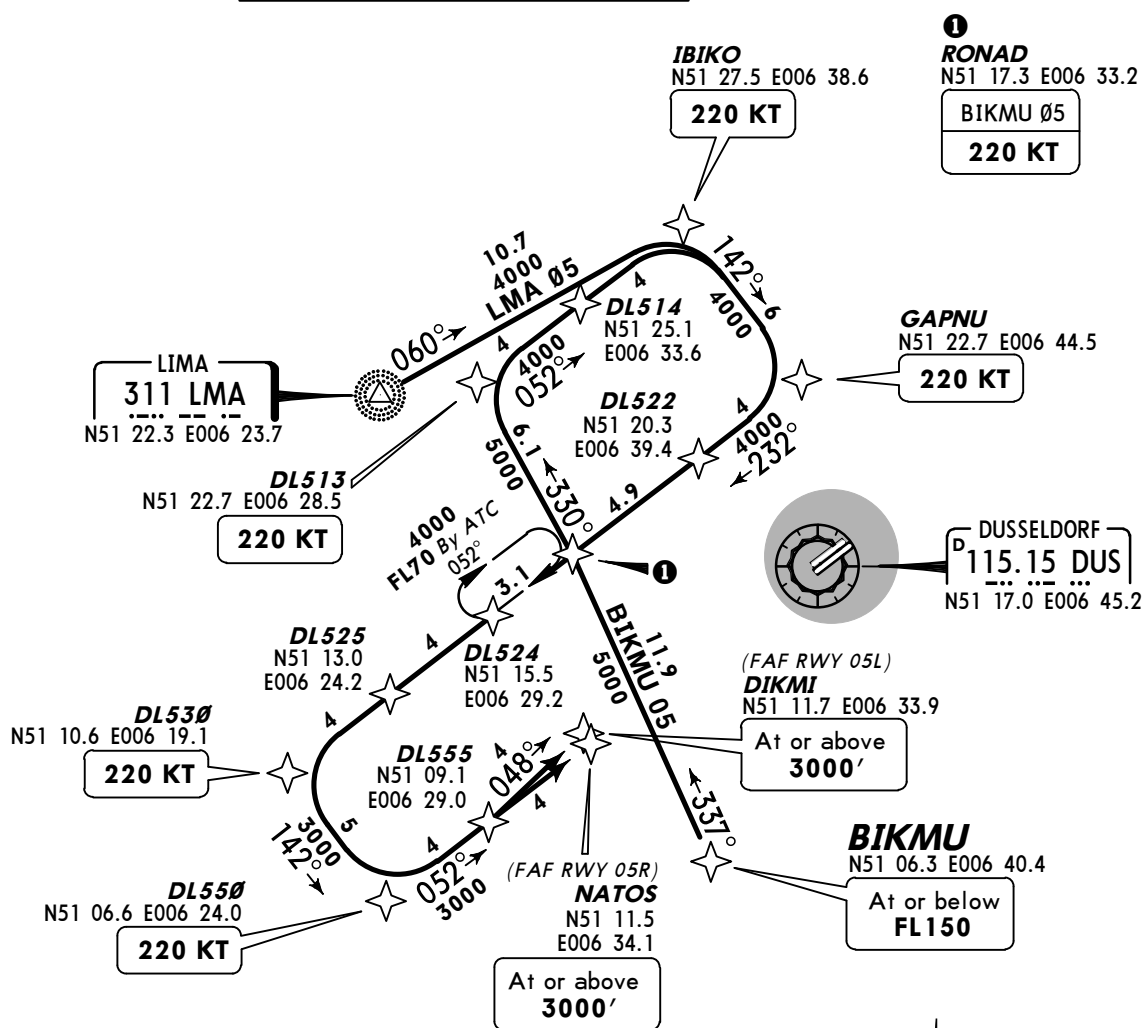
GPS- OR FMS-EQUIPPED AIRCRAFT

USE OF RNAV TRANSITION ONLY WHEN CLEARED BY ATC

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

**TRANSITION****ROUTING****BIKMU 05**

BIKMU (FL150-) - RONAD (K220) - DL513 (K220) - IBIKO (K220) - GAPNU (K220) - DL530 (K220) - DL550 (K220) - DL555 - DIKMI (05L ② ; 3000'+)/ NATOS (05R; 3000'+).

LMA 05

LMA - IBIKO (K220) - GAPNU (K220) - DL530 (K220) - DL550 (K220) - DL555 - DIKMI (05L ② ; 3000'+)/ NATOS (05R; 3000'+).

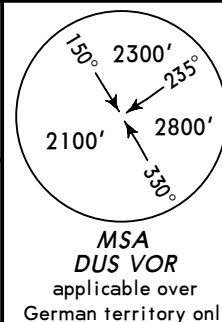
② Valid for LOST COMM situation.

MSA
DUS VOR
applicable over
German territory only

*LANGEN
Radar
133.77

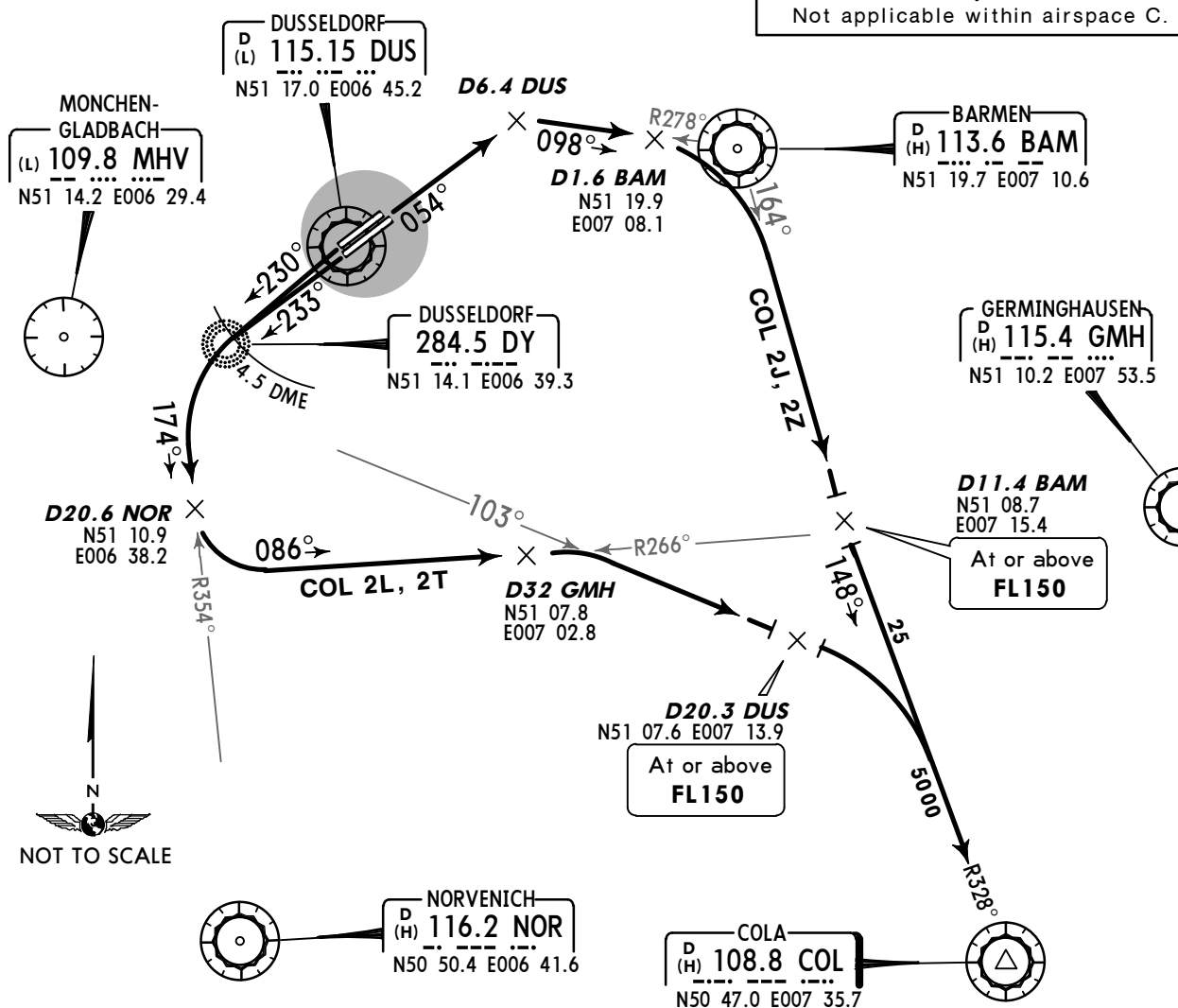
Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



COLA TWO JULIETT (COL 2J) COLA TWO LIMA (COL 2L) COLA TWO TANGO (COL 2T) COLA TWO ZULU (COL 2Z) RWYS 05L, 23R/L, 05R DEPARTURES

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



COL 2L, 2T

These SIDs require a minimum climb gradient of 425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.

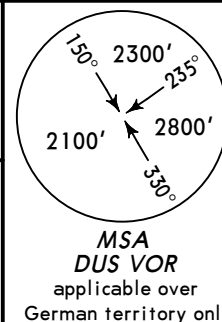
Initial climb clearance 5000'

SID	RWY	ROUTING
COL 2J	05L	Intercept DUS R-054 to D6.4 DUS, turn RIGHT, intercept BAM R-278 inbound to D1.6 BAM, turn RIGHT, intercept BAM R-164 to D11.4 BAM, turn LEFT, intercept COL R-328 inbound to COL.
COL 2Z	05R	
COL 2L	23R	Intercept 230° bearing (Rwy 23R)/233° bearing (Rwy 23L) towards DY, at DUS 4.5 DME turn LEFT, intercept NOR R-354 inbound to D20.6 NOR, turn LEFT, intercept GMH R-266 inbound to D32 GMH, turn RIGHT, intercept MHV R-103 to D20.3 DUS, turn RIGHT, intercept COL R-328 inbound to COL.
COL 2T	23L	

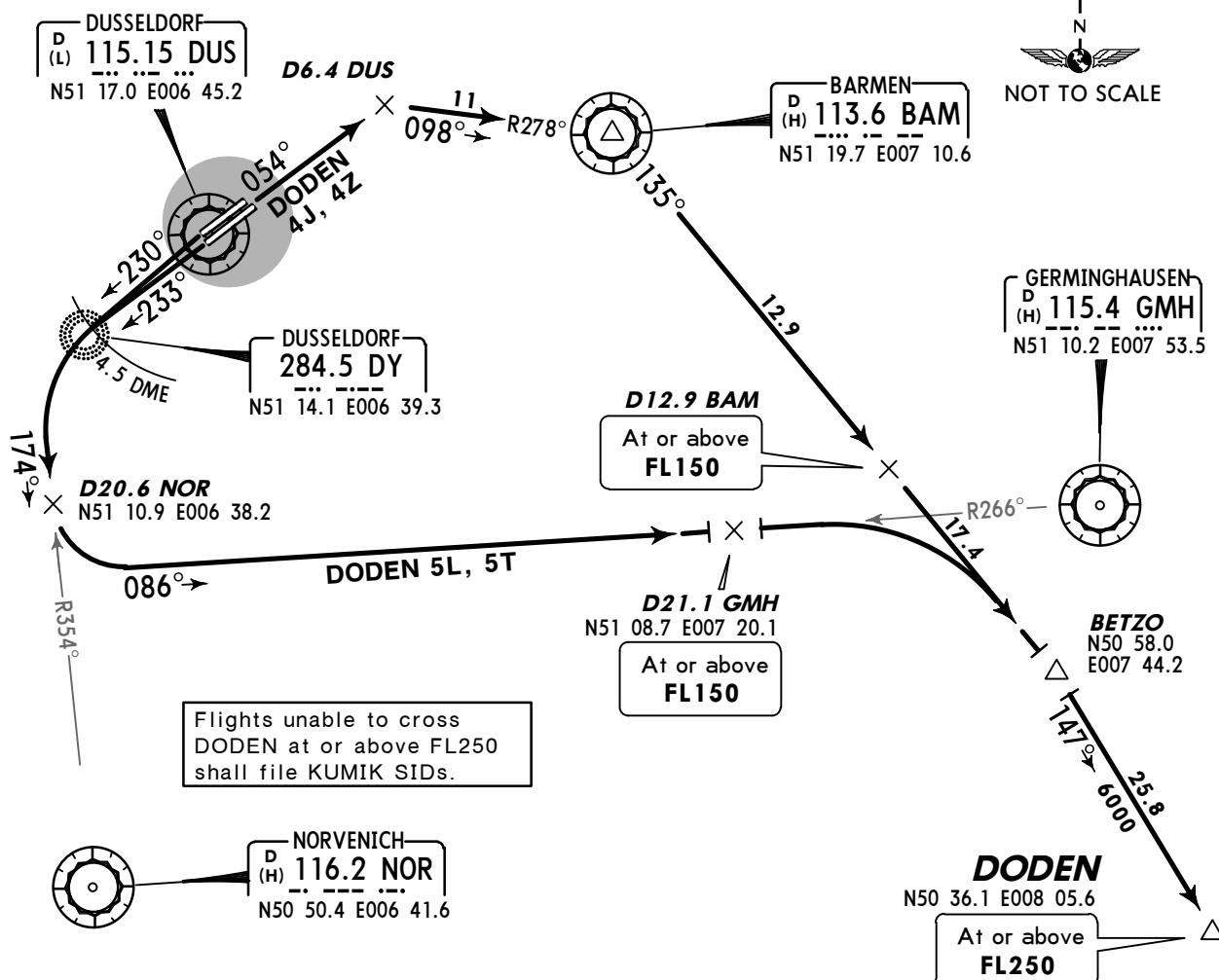
*LANGEN
Radar
133.77

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



DODEN FOUR JULIETT (DODEN 4J) DODEN FIVE LIMA (DODEN 5L) DODEN FIVE TANGO (DODEN 5T) DODEN FOUR ZULU (DODEN 4Z) RWYS 05L, 23R/L, 05R DEPARTURES ONLY FOR JET FLIGHTS WITH REQUESTED FL250 OR ABOVE



DODEN 5L, 5T

These SIDs require a minimum climb gradient of 425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.

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

Initial climb clearance **5000'**

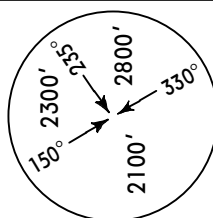
SID	RWY	ROUTING
DODEN 4J	05L	Intercept DUS R-054 to D6.4 DUS, turn RIGHT, intercept BAM R-278 inbound to BAM, BAM R-135 via D12.9 BAM ① to BETZO, turn RIGHT, 147° track to DODEN.
DODEN 4Z	05R	
DODEN 5L	23R	Intercept 230° bearing (Rwy 23R)/233° bearing (Rwy 23L) towards DY, at DUS 4.5 DME turn LEFT, intercept NOR R-354 inbound to D20.6 NOR, turn LEFT, intercept GMH R-266 inbound to D21.1 GMH ②, turn RIGHT, intercept BAM R-135 to BETZO, turn RIGHT, 147° track to DODEN.
DODEN 5T	23L	

After D12.9 BAM ① /D21.1 GMH ② BRNAV equipment necessary.

*LANGEN
Radar
133.77

Apt Elev
147'

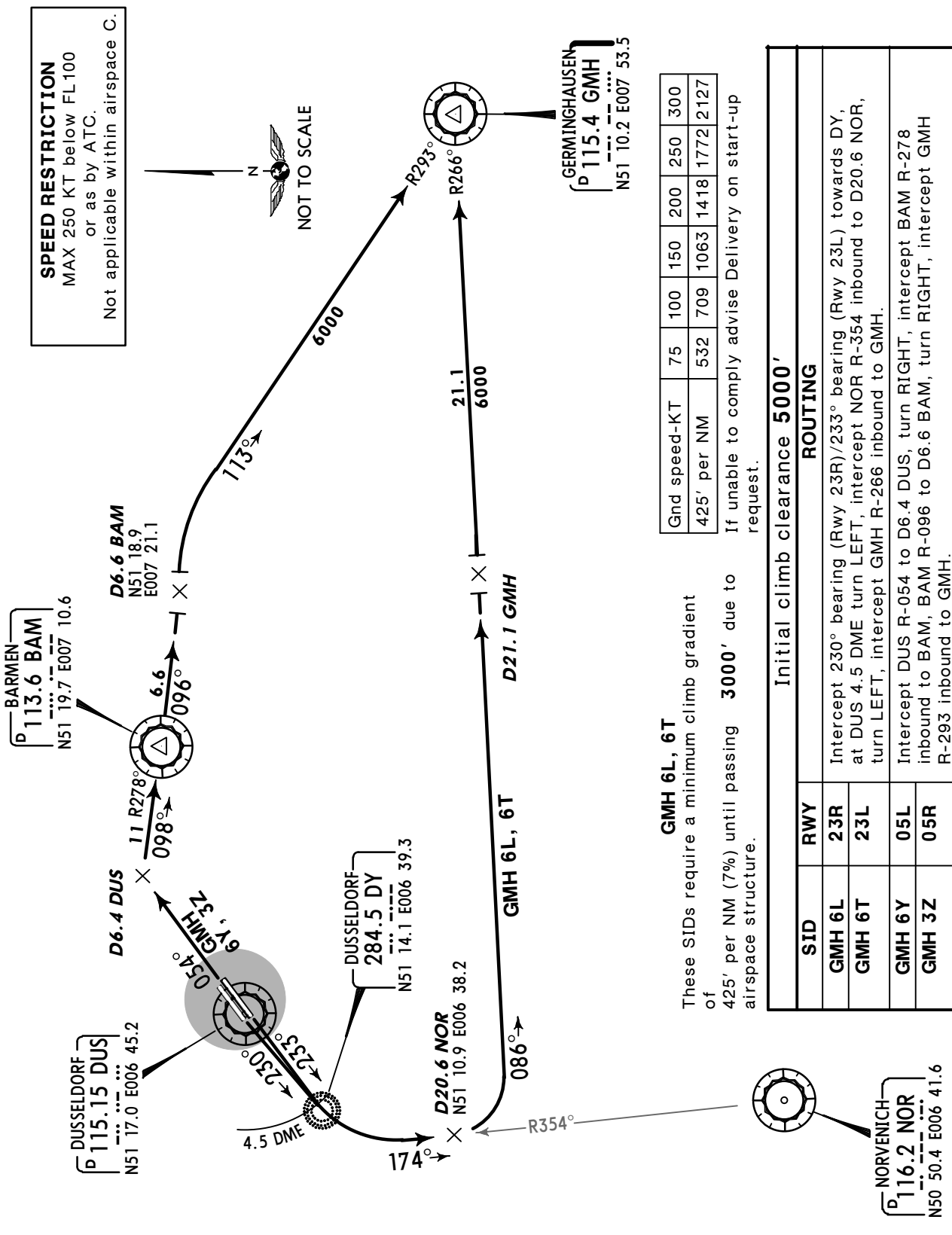
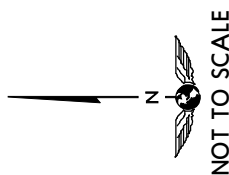
Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



MSA
DUS VOR
applicable over
German territory only

GERMINGHAUSEN SIX LIMA (GMH 6L)
GERMINGHAUSEN SIX TANGO (GMH 6T)
GERMINGHAUSEN SIX YANKEE (GMH 6Y)
GERMINGHAUSEN THREE ZULU (GMH 3Z)
RWYS 23R/L, 05L/R DEPARTURES
ONLY FOR FLIGHTS WITH REQUESTED FL140 OR BELOW

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



GMH 6L, 6T

These SIDs require a minimum climb gradient of 425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

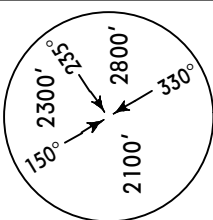
If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'		
SID	RWY	ROUTING
GMH 6L	23R	Intercept 230° bearing (Rwy 23R)/233° bearing (Rwy 23L) towards DY, at DUS 4.5 DME turn LEFT, intercept NOR R-354 inbound to D20.6 NOR, turn LEFT, intercept GMH R-266 inbound to GMH.
GMH 6T	23L	
GMH 6Y	05L	Intercept DUS R-054 to D6.4 DUS, turn RIGHT, intercept BAM R-278 inbound to BAM, BAM R-096 to D6.6 BAM, turn RIGHT, intercept GMH R-293 inbound to GMH.
GMH 3Z	05R	

*LANGEN
Radar
133.77

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



MSA
DUS VOR
applicable over
German territory only

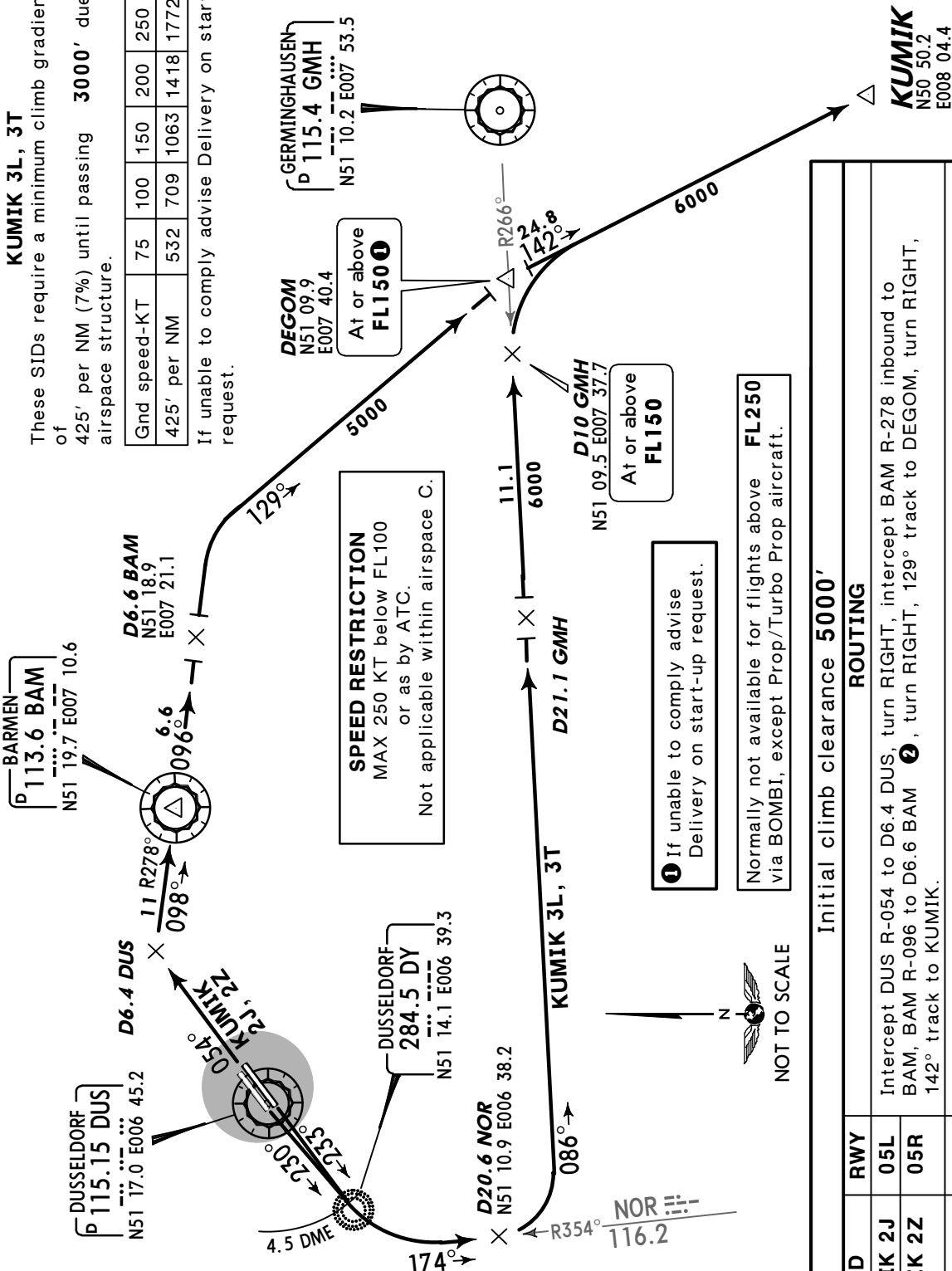
KUMIK TWO JULIETT (KUMIK 2J)
KUMIK THREE LIMA (KUMIK 3L)
KUMIK THREE TANGO (KUMIK 3T)
KUMIK TWO ZULU (KUMIK 2Z)
RWYS 05L, 23R/L, 05R DEPARTURES
ONLY FOR FLIGHTS WITH
REQUESTED FL150 OR ABOVE

KUMIK 3L, 3T

These SIDs require a minimum climb gradient of 425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.



Initial climb clearance 5000'

ROUTING

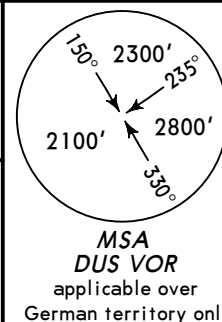
Intercept DUS R-054 to D6.4 DUS, turn RIGHT, intercept BAM R-278 inbound to BAM, BAM R-096 to D6.6 BAM ②, turn RIGHT, 129° track to DEGOM, turn RIGHT, 142° track to KUMIK.
Intercept 230° bearing (Rwy 23R)/233° bearing (Rwy 23L) towards DY, at DUS 4.5 DME turn LEFT, intercept NOR R-354 inbound to D20.6 NOR, turn LEFT, intercept GMH R-266 inbound to D10 GMH ③, turn RIGHT, 142° track to KUMIK.

After D6.6 BAM ② / D10 GMH ③ BRNAV equipment necessary.

*LANGEN
Radar
128.5

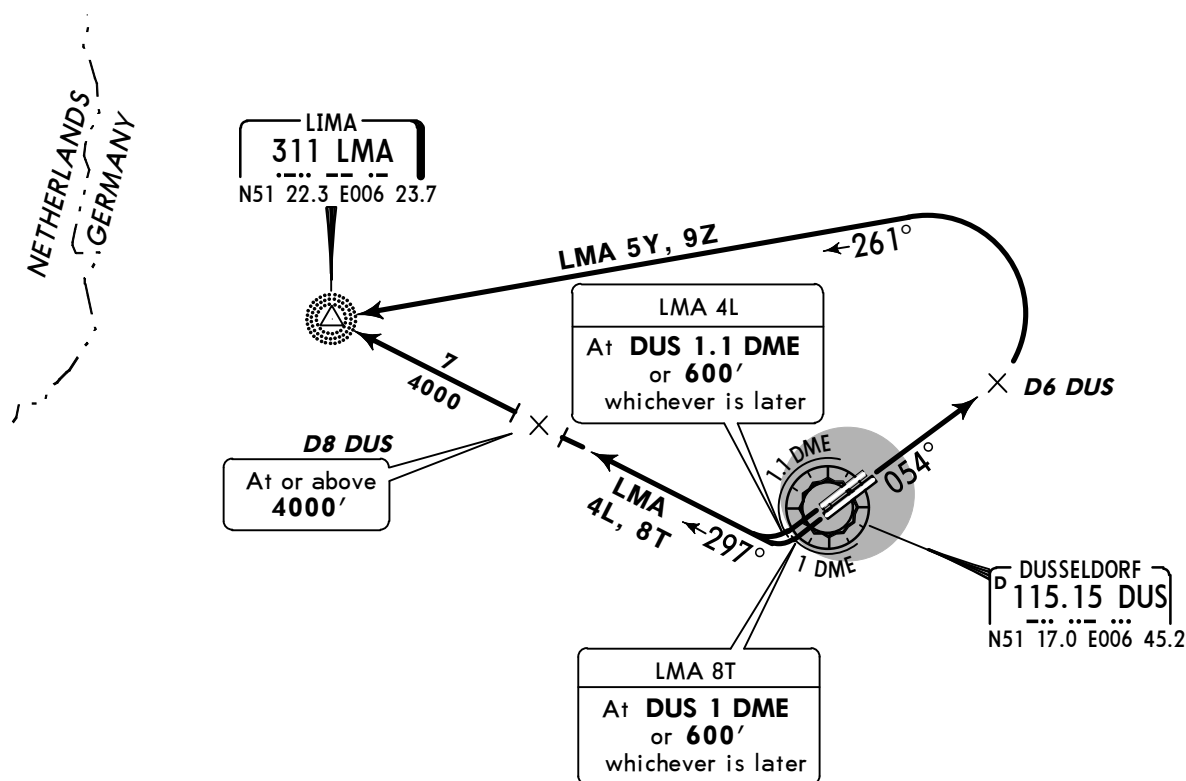
Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



LIMA FOUR LIMA (LMA 4L)
LIMA EIGHT TANGO (LMA 8T)
LIMA FIVE YANKEE (LMA 5Y)
LIMA NINE ZULU (LMA 9Z)
RWYS 23R/L, 05L/R DEPARTURES
ONLY FOR FLIGHTS TO EDLN

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



These SIDs require minimum climb gradients of

LMA 4L, 8T
407' per NM (6.7%) due to airspace structure.

LMA 5Y, 9Z
425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127
407' per NM	509	679	1018	1357	1696	2036

If unable to comply advise Delivery on start-up request.



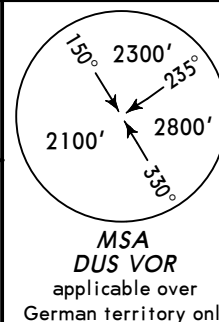
Initial climb clearance **5000'**

SID	RWY	ROUTING
LMA 4L	23R	Climb on runway track to DUS 1.1 DME (Rwy 23R)/DUS 1 DME (Rwy 24L) or 600', whichever is later, turn RIGHT, intercept 297° bearing to LMA.
LMA 8T	23L	
LMA 5Y	05L	Intercept DUS R-054 to D6 DUS, turn LEFT, intercept 261° bearing to LMA.
LMA 9Z	05R	

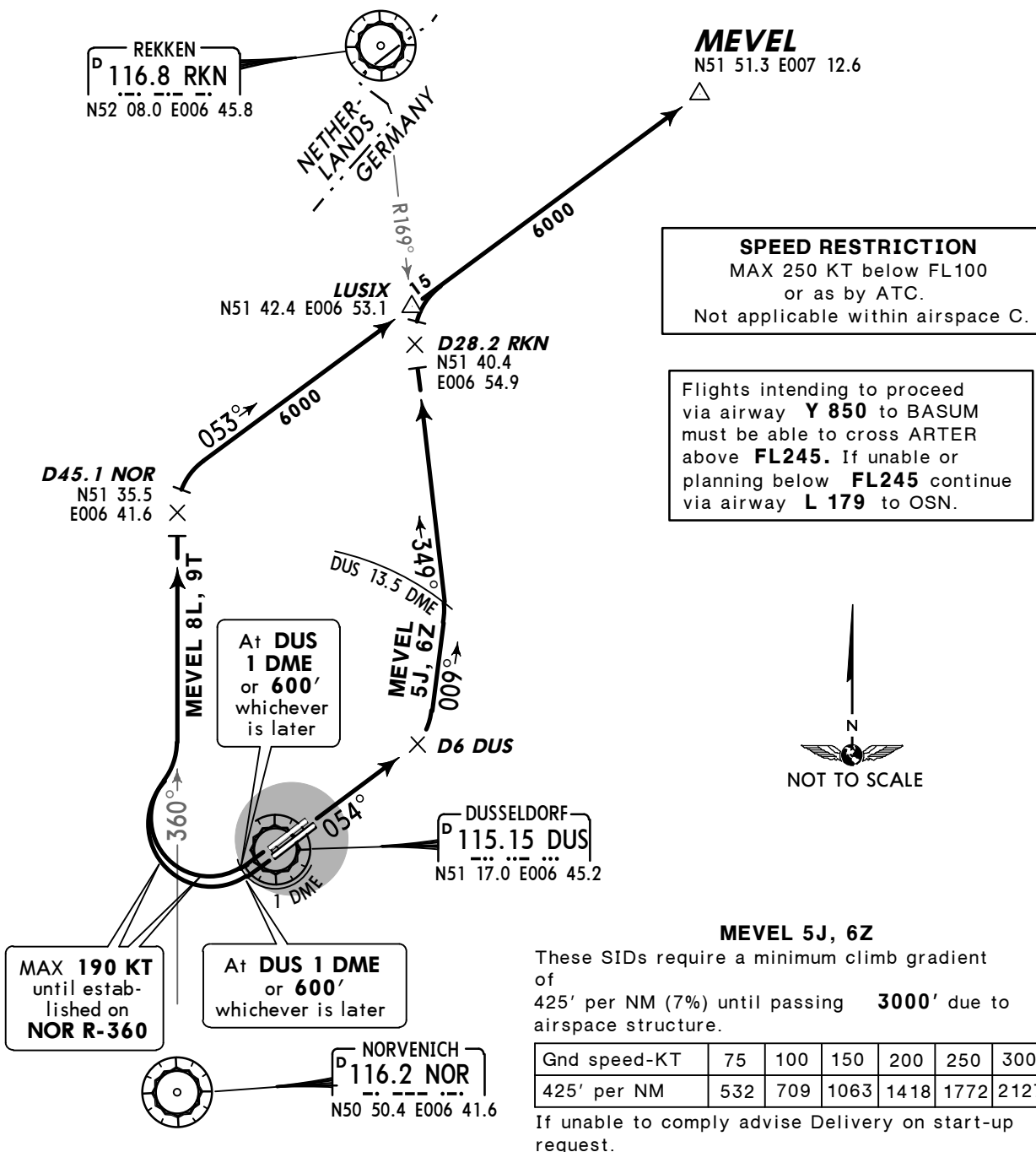
*LANGEN
Radar
128.5

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



**MEVEL FIVE JULIETT (MEVEL 5J)
MEVEL EIGHT LIMA (MEVEL 8L)
MEVEL NINE TANGO (MEVEL 9T)
MEVEL SIX ZULU (MEVEL 6Z)
RWYS 05L, 23R/L, 05R DEPARTURES**



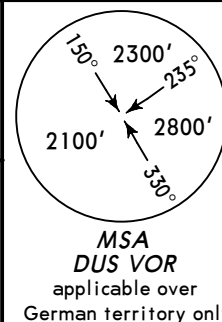
Initial climb clearance **5000'**

SID	RWY	ROUTING
MEVEL 5J	05L	Intercept DUS R-054 to D6 DUS, turn LEFT, 009° track to DUS 13.5 DME, turn LEFT, intercept RKN R-169 inbound to D28.2 RKN ①, turn RIGHT, 053° track to MEVEL.
MEVEL 6Z	05R	
MEVEL 8L	23R	Climb on runway track to DUS 1 DME or 600' , whichever is later, turn RIGHT, intercept NOR R-360 to D45.1 NOR ②, turn RIGHT, 053° track via LUSIX to MEVEL.
MEVEL 9T	23L	

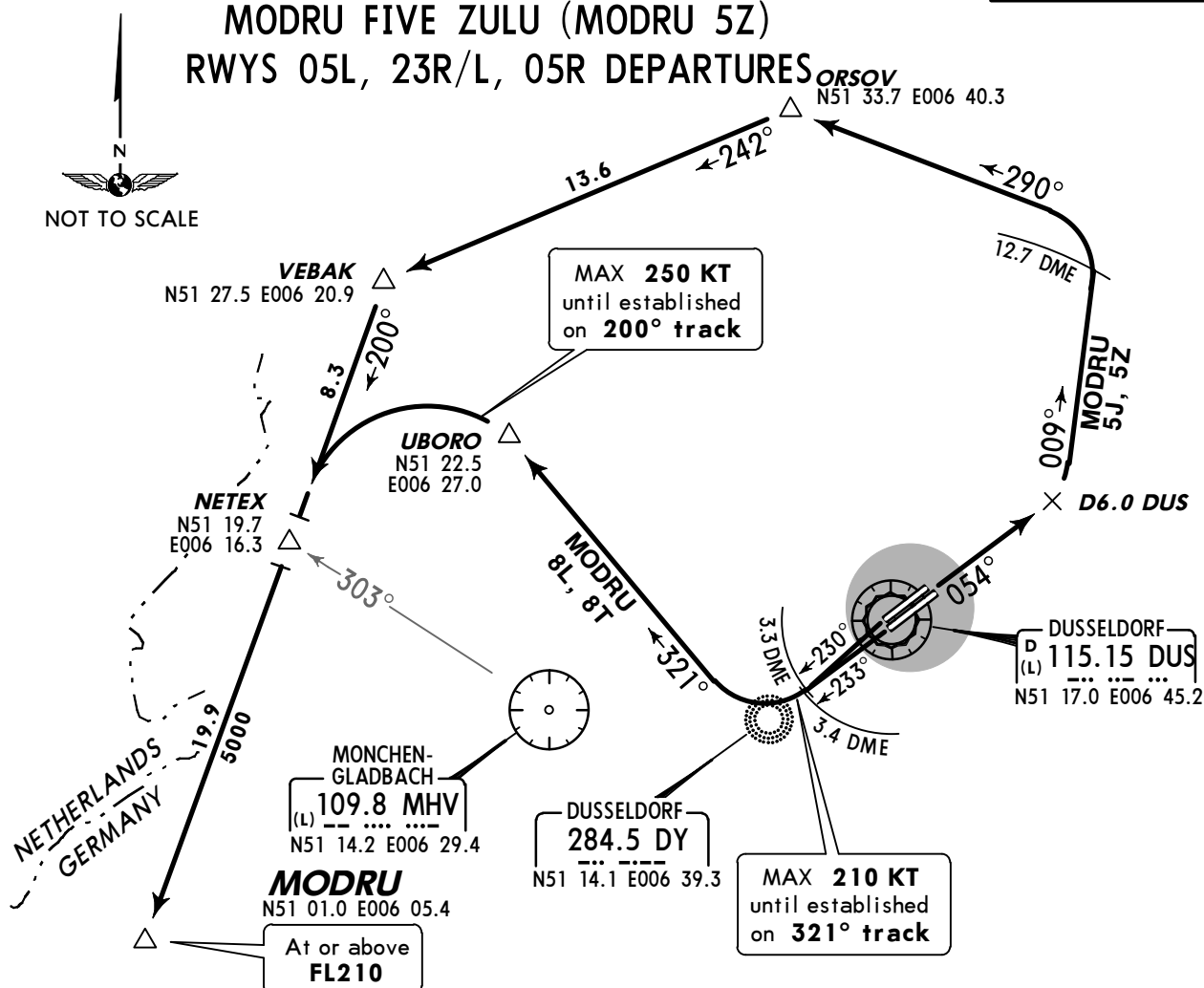
After D28.2 RKN ①/D45.1 NOR ② BRNAV equipment necessary.

*LANGEN
Radar
128.5Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000',
then contact LANGEN Radar. 2. SIDs are also noise
abatement procedures (refer to 10-4). Strict adherence
within the limits of aircraft performance is mandatory.



MODRU FIVE JULIETT (MODRU 5J)
MODRU EIGHT LIMA (MODRU 8L)
MODRU EIGHT TANGO (MODRU 8T)
MODRU FIVE ZULU (MODRU 5Z)
RWYS 05L, 23R/L, 05R DEPARTURES



Flights intending to continue via FAMEN or DELOM shall file SID MODRU - NETEX - DCT - FAMEN/DELOM. These flights may leave SID MODRU at NETEX to proceed NETEX DCT FAMEN/DELOM, also in case of radio comm failure. Flights unable to reach FL110 at NETEX shall advise ATC accordingly.

Only for flights with requested FL210 and above. These flights have to be able to cross MODRU at or above FL210. If unable to comply advise Delivery on start-up request.

SPEED RESTRICTION

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

These SIDs require a minimum climb gradient of 425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

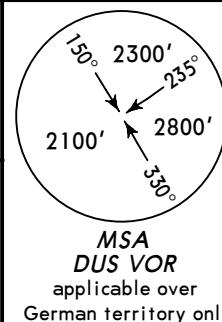
If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

SID	RWY	ROUTING
MODRU 5J	05L	Intercept DUS R-054 to D6.0 DUS, turn LEFT, 009° track to DUS 12.7 DME ①, turn LEFT, 290° track to ORSOV, turn LEFT, 242° track to VEBAK, turn LEFT, 200° track via NETEX to MODRU.
MODRU 5Z	05R	
MODRU 8L	23R	Intercept 230° bearing towards DY, at DUS 3.3 DME ②, turn RIGHT, 321° track to UBORO, turn LEFT, 200° track via NETEX to MODRU.
MODRU 8T	23L	Intercept 233° bearing towards DY, at DUS 3.4 DME ③, turn RIGHT, 321° track to UBORO, turn LEFT, 200° track via NETEX to MODRU.
After DUS 12.7 DME ① / DUS 3.3 DME ② / DUS 3.4 DME ③ BRNAV equipment necessary.		

*LANGEN
Radar
128.5Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000',
then contact LANGEN Radar. 2. SIDs are also noise
abatement procedures (refer to 10-4). Strict adherence
within the limits of aircraft performance is mandatory.



NETEX TWO JULIETT (NETEX 2J)

NETEX TWO LIMA (NETEX 2L)

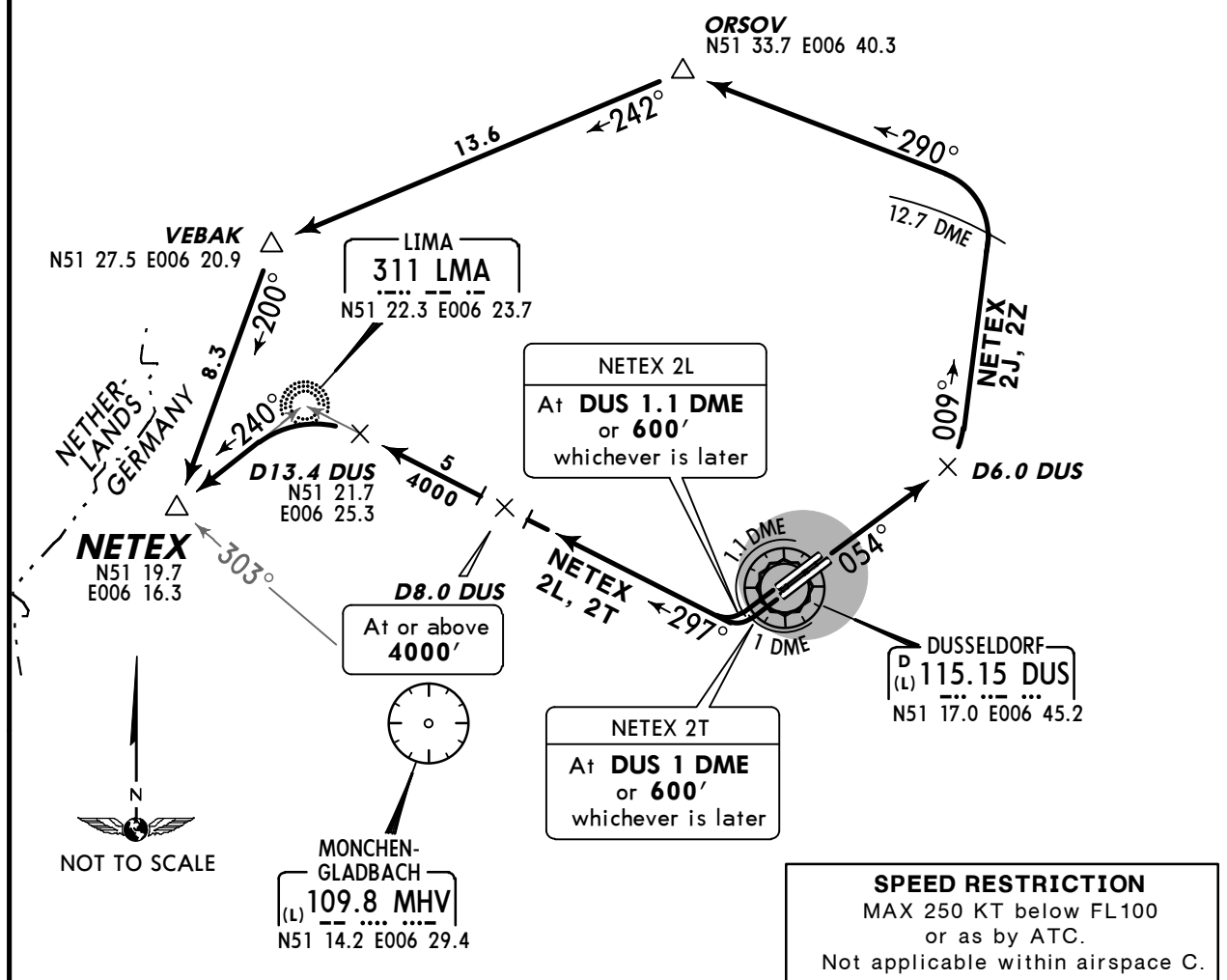
NETEX TWO TANGO (NETEX 2T)

NETEX TWO ZULU (NETEX 2Z)

RWYS 05L, 23R/L, 05R DEPARTURES

FOR FLIGHTS FROM REQUESTED FL100 TO FL200 OR

FOR FLIGHTS VIA AIRWAY Z-282 - DIBIR - AIRWAY L-179 (IF AVAILABLE)



These SIDs require minimum climb gradients
of
NETEX 2J, 2Z: 425' per NM (7%) until passing
3000' due to airspace structure.
NETEX 2L, 2T: 407' per NM (6.7%) until passing
4000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127
407' per NM	509	679	1018	1357	1696	2036

If unable to comply advise Delivery on start-up
request.

Initial climb clearance **5000'**

SID	RWY	ROUTING
NETEX 2J	05L	Intercept DUS R-054 to D6.0 DUS, turn LEFT, 009° track to DUS 12.7 DME ②, turn LEFT, 290° track to ORSOV, turn LEFT, 242° track to VEBAK, turn LEFT, 200° track to NETEX.
NETEX 2Z	05R	
NETEX 2L ①	23R	Climb on runway track to DUS 1.1 DME (Rwy 23R)/DUS 1 DME (Rwy 23L) or 600', whichever is later, turn RIGHT, intercept 297° bearing towards LMA, at D13.4 DUS turn LEFT, intercept 240° bearing from LMA to NETEX.
NETEX 2T ①	23L	

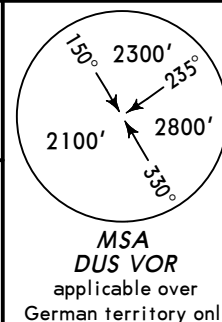
① Not available for flights to continue after NETEX via FAMEN/DELOM.

② After DUS 12.7 DME BRNAV equipment necessary.

*LANGEN
Radar
133.77

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000',
then contact LANGEN Radar. 2. SIDs are also noise
abatement procedures (refer to 10-4). Strict adherence
within the limits of aircraft performance is mandatory.



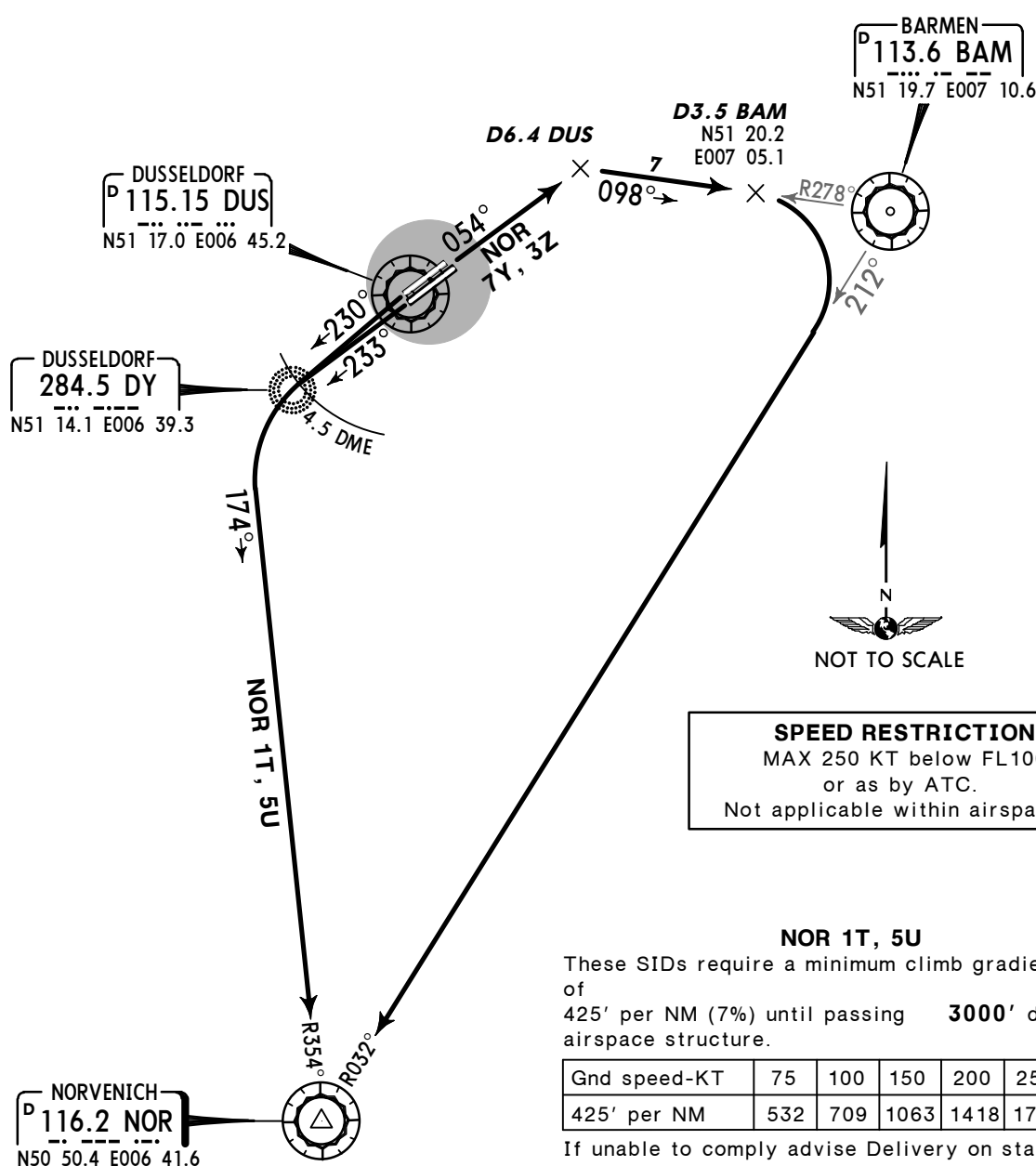
NORVENICH ONE TANGO (NOR 1T)
NORVENICH FIVE UNIFORM (NOR 5U)
NORVENICH SEVEN YANKEE (NOR 7Y)
NORVENICH THREE ZULU (NOR 3Z)

RWYS 23L/R, 05L/R DEPARTURES

FOR FLIGHTS WITH REQUESTED FL90 OR BELOW

FLIGHTS WITH REQUESTED FL100 OR ABOVE SHALL FILE VIA MODRU

ALSO AVAILABLE FOR FLIGHTS VIA AIRWAY Q 760 BETWEEN 0600-0800LT



SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

NOR 1T, 5U

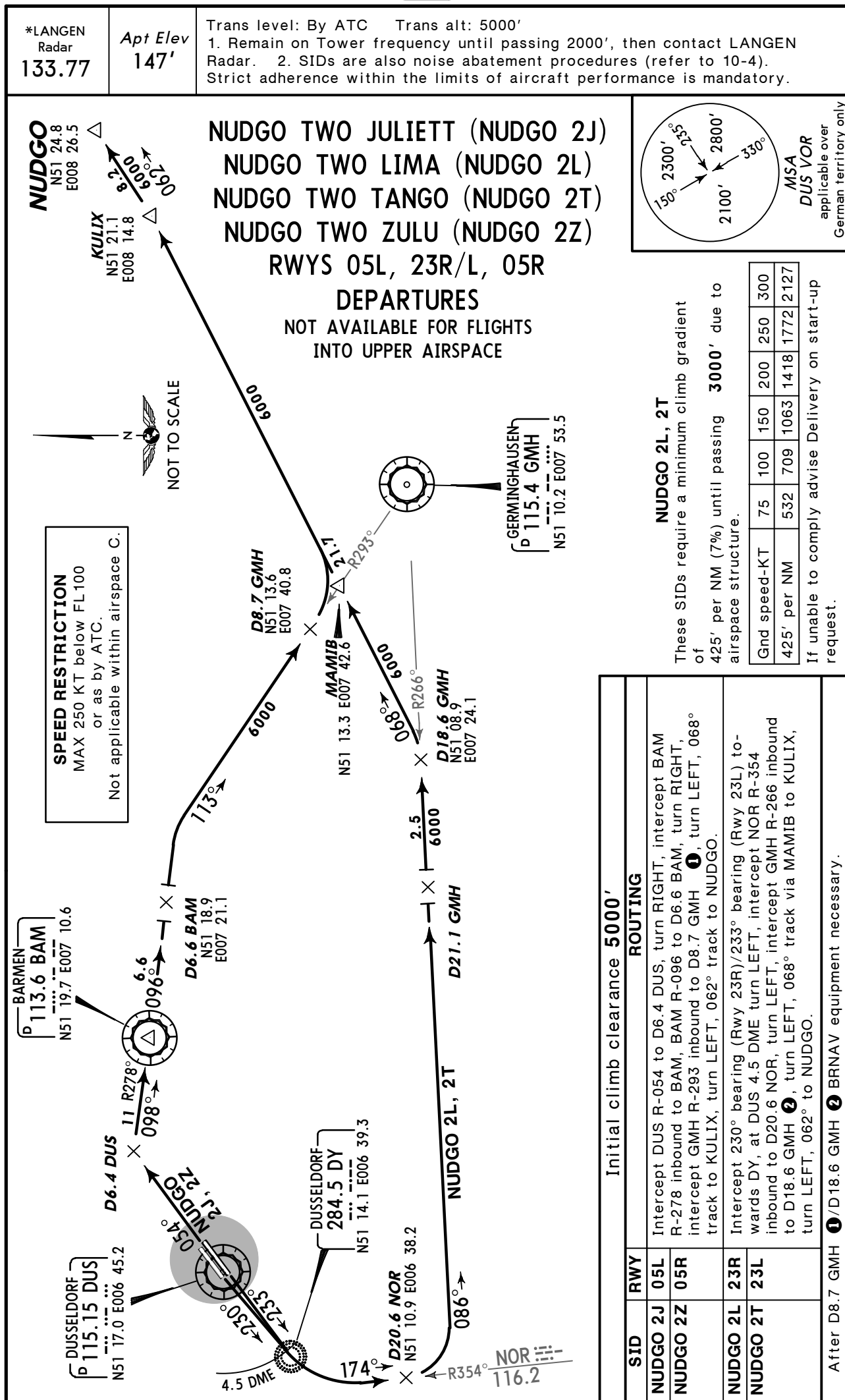
These SIDs require a minimum climb gradient of 425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

SID	RWY	ROUTING
NOR 1T	23L	Intercept 233° bearing (Rwy 23L)/230° bearing (Rwy 23R) towards DY, at DUS 4.5 DME turn LEFT, intercept NOR R-354 inbound to NOR.
NOR 5U	23R	
NOR 7Y	05L	Intercept DUS R-054 to D6.4 DUS, turn RIGHT, intercept BAM R-278 inbound to D3.5 BAM, turn RIGHT, intercept BAM R-212 to NOR.
NOR 3Z	05R	



These SIDs require a minimum climb gradient of 425' per NM (7%) until passing **3000'** due to airspace structure.

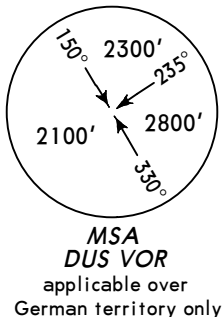
Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.

NUDGO 2L, 2T

Initial climb clearance **5000'**

SID	RWY	ROUTING
NUDGO 2J	05L	Intercept DUS R-054 to D6.4 DUS, turn RIGHT, intercept BAM R-278 inbound to BAM, BAM R-096 to D6.6 BAM, turn RIGHT, intercept GMH R-293 inbound to D8.7 GMH ①, turn LEFT, 068° track to KULIX, turn LEFT, 062° track to NUDGO.
NUDGO 2Z	05R	Intercept 230° bearing (Rwy 23R)/233° bearing (Rwy 23L) towards DY, at DUS 4.5 DME turn LEFT, intercept NOR R-354 inbound to D20.6 NOR, turn LEFT, intercept GMH R-266 inbound to D18.6 GMH ②, turn LEFT, 068° track via MAMIB to KULIX, turn LEFT, 062° to NUDGO.
NUDGO 2L	23R	
NUDGO 2T	23L	
After D8.7 GMH ①/D18.6 GMH ② BRNAV equipment necessary.		



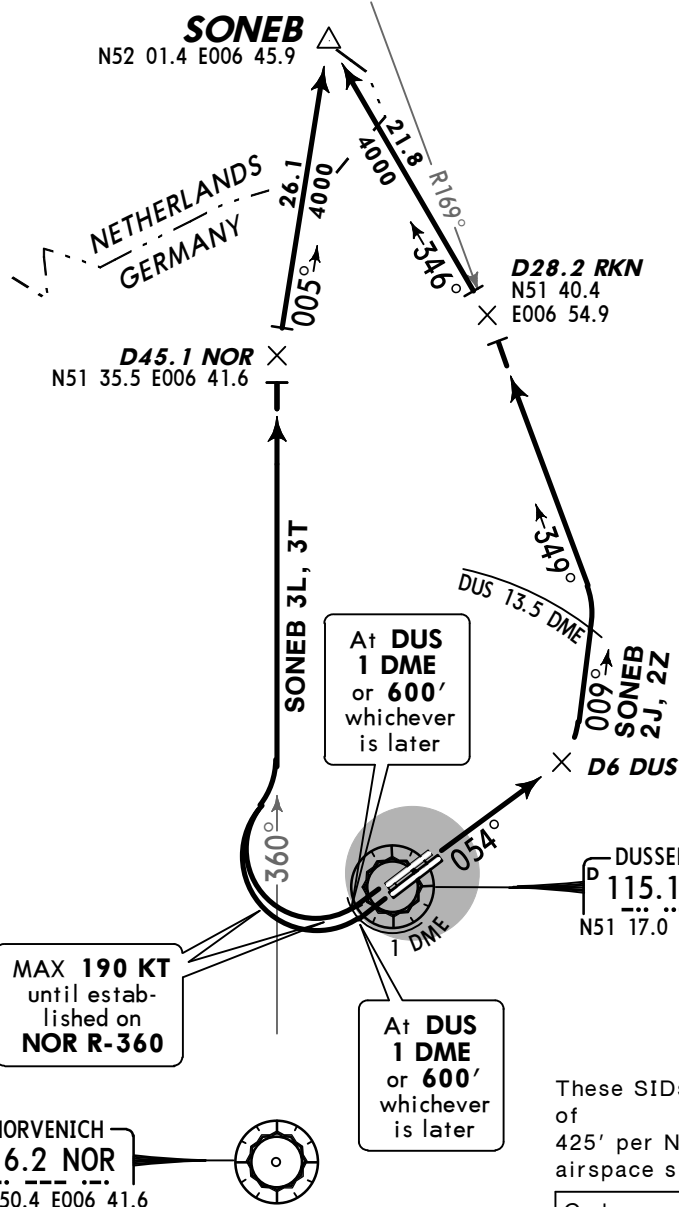
*LANGEN
Radar
128.5

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.

SONEB TWO JULIETT (SONEB 2J)
SONEB THREE LIMA (SONEB 3L)
SONEB THREE TANGO (SONEB 3T)
SONEB TWO ZULU (SONEB 2Z)
RWYS 05L, 23R/L, 05R DEPARTURES

REKKEN
D 116.8 RKN
N52 08.0 E006 45.8



Only for flights with requested **FL140** or above via RKN/TENLI. Other flights proceed via MEVEL. Expect clearance to cross 10 NM prior SONEB at or above **FL140**. If unable to comply advise Delivery on start-up request.

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



SONEB 2J, 2Z

These SIDs require a minimum climb gradient of 425' per NM (7%) until passing **3000'** due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.

Initial climb clearance **5000'**

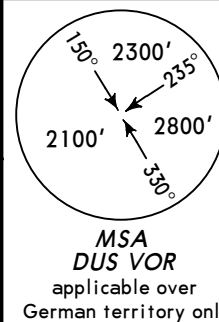
SID	RWY	ROUTING
SONEB 2J	05L	Intercept DUS R-054 to D6 DUS turn LEFT, 009° track to DUS 13.5 DME, turn LEFT, intercept RKN R-169 inbound to D28.2 RKN ①, turn LEFT, 346° track to SONEB.
SONEB 2Z	05R	
SONEB 3L	23R	Climb on runway track to DUS 1 DME or 600' , whichever is later, turn RIGHT, intercept NOR R-360 to D45.1 NOR ②, turn RIGHT, 005° track to SONEB.
SONEB 3T	23L	

After D28.2 RKN ①/D45.1 NOR ② BRNAV equipment necessary.

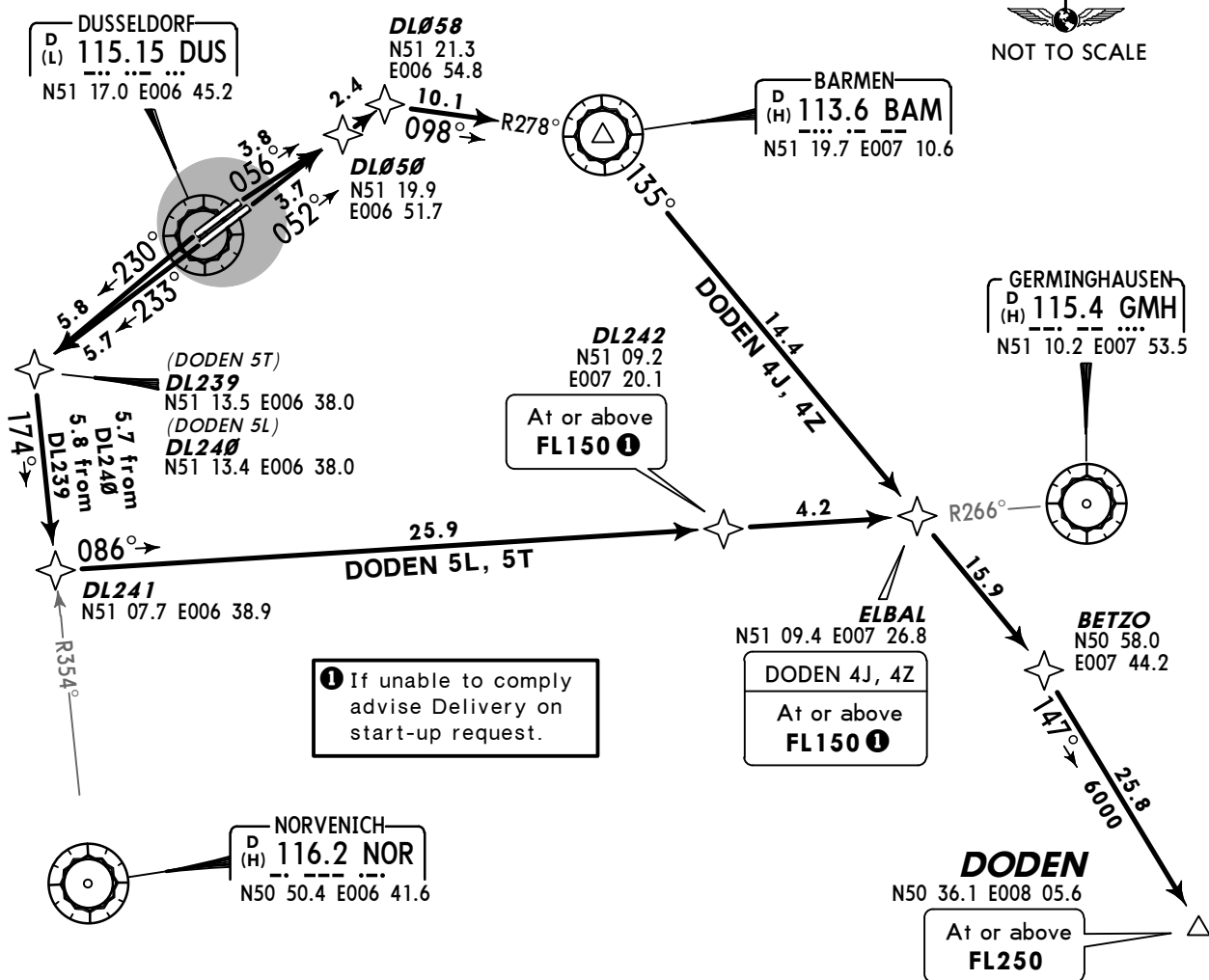
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Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



ONLY FOR JET FLIGHTS WITH REQUESTED FL250 OR ABOVE



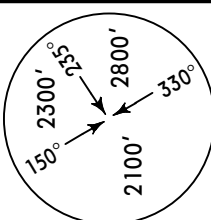
Not applicable within airspace C.

*LANGEN
Radar
133.77

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'

1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



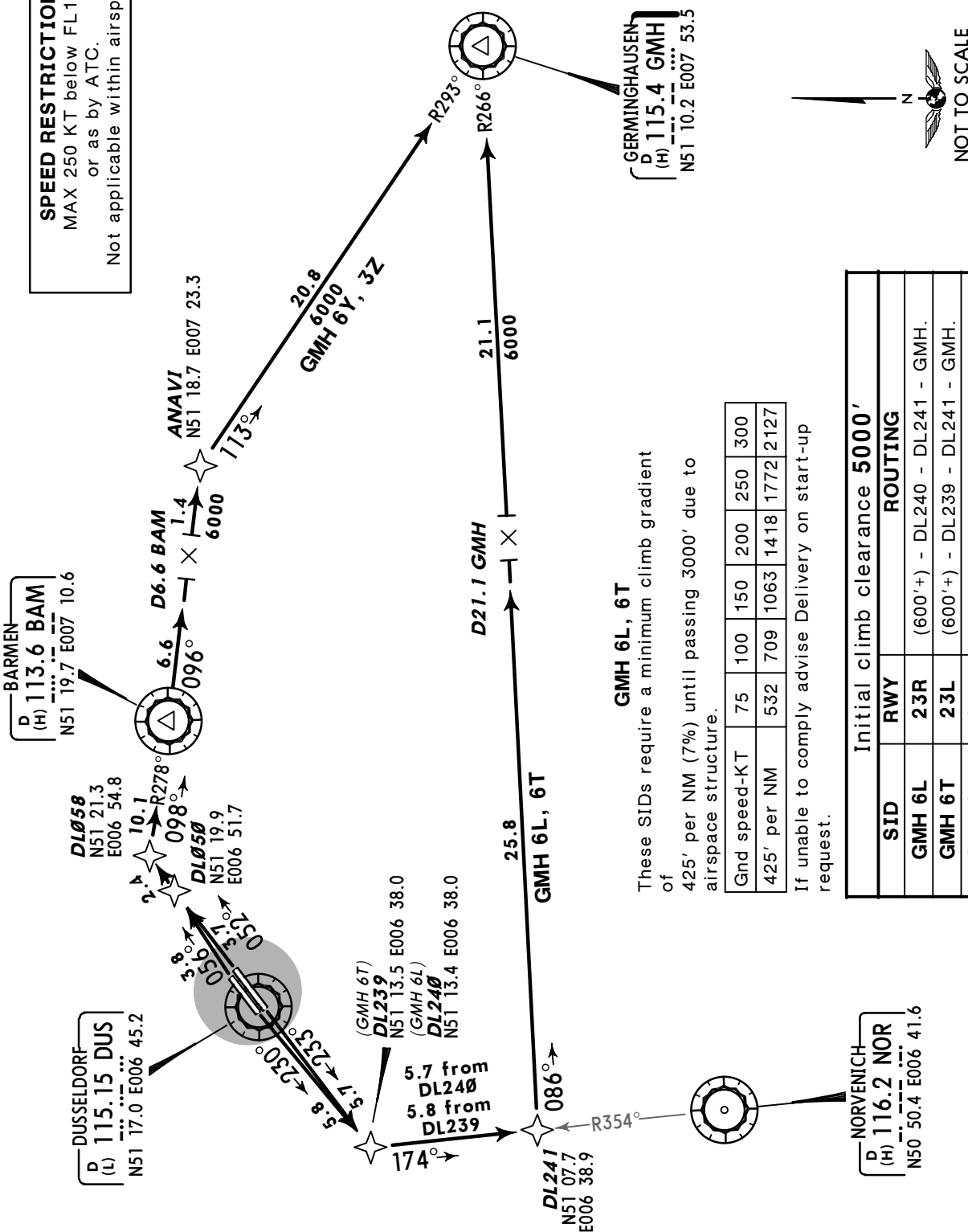
GERMINGHAUSEN SIX LIMA (GMH 6L)
GERMINGHAUSEN SIX TANGO (GMH 6T)
GERMINGHAUSEN SIX YANKEE (GMH 6Y)
GERMINGHAUSEN THREE ZULU (GMH 3Z)

RWYS 23R/L, 05L/R

RNAV DEPARTURES (OVERLAY 10-3B)

ONLY FOR FLIGHTS WITH REQUESTED FL140 OR BELOW

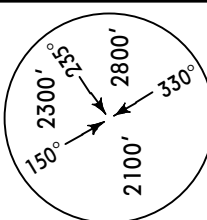
SPEED RESTRICTION
MAX 250 KT below FL100
or as by ATC.
Not applicable within airspace C.



*LANGEN
Radar
133.77

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4).
Strict adherence within the limits of aircraft performance is mandatory.



MSA
DUS VOR
applicable over
German territory only

KUMIK TWO JULIETT (KUMIK 2J) [KUMI2J]
KUMIK THREE LIMA (KUMIK 3L) [KUMI3L]
KUMIK THREE TANGO (KUMIK 3T) [KUMI3T]
KUMIK TWO ZULU (KUMIK 2Z) [KUMI2Z]

RWYS 05L, 23R/L, 05R

RNAV DEPARTURES (OVERLAY 10-3C)

ONLY FOR FLIGHTS WITH
REQUESTED FL150 OR ABOVE

Normally not available for flights above FL250
via BOMBI, except Prop/Turbo Prop aircraft.

❶ If unable to comply advise
Delivery on start-up request.

GERMINGHAUSEN
P 115.4 GMH
N51 10.2 E007 53.5

DEGOM
N51 09.9
E007 40.4

At or above
FL150

KUMIK 2J, 2Z

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

D21.1 GMH

4.2

6000

ELBAL

N51 09.4
E007 26.8

8.6

6000

142°

R266°

24.8

6000

KUMIK

N50 50.2
E008 04.4

NOT TO SCALE

N

Initial climb clearance 5000'

ROUTING

(600' +) - DL240 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL058 - BAM - ANAVI - DEGOM (FL150+) - KUMIK.

KUMIK.

KUMIK 3L, 3T

These SIDs require a minimum climb gradient

of

425' per NM (7%) until passing 3000' due to

airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

ROUTING

(600' +) - DL240 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL058 - BAM - ANAVI - DEGOM (FL150+) - KUMIK.

KUMIK.

KUMIK 3L, 3T

These SIDs require a minimum climb gradient

of

425' per NM (7%) until passing 3000' due to

airspace structure.

If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

BARMEN

113.6 BAM

N51 19.7 E007 10.6

DL058

N51 21.3
E006 54.8

10.1 R278°

098°

DL0050

N51 19.9
E006 51.7

6.6

096°

D6.6 BAM

1.4

5000

129°

ANAVI

N51 18.7 E007 23.3

14

5000

KUMIK 2J, 2Z

142°

R266°

24.8

6000

KUMIK

N50 50.2
E008 04.4

NOT TO SCALE

N

Initial climb clearance 5000'

ROUTING

(600' +) - DL240 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL058 - BAM - ANAVI - DEGOM (FL150+) - KUMIK.

KUMIK.

KUMIK 3L, 3T

These SIDs require a minimum climb gradient

of

425' per NM (7%) until passing 3000' due to

airspace structure.

If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

ROUTING

(600' +) - DL240 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL058 - BAM - ANAVI - DEGOM (FL150+) - KUMIK.

KUMIK.

KUMIK 3L, 3T

These SIDs require a minimum climb gradient

DUSSELDORF

115.15 DUS

N51 17.0 E006 45.2

DL239

N51 13.5 E006 38.0

5.7 from DL240

5.8 from DL239

174°

R354°

DL241

N51 07.7
E006 38.9

25.8

086°

KUMIK 3L, 3T

These SIDs require a minimum climb gradient

of

425' per NM (7%) until passing 3000' due to

airspace structure.

If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

ROUTING

(600' +) - DL240 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL058 - BAM - ANAVI - DEGOM (FL150+) - KUMIK.

KUMIK.

KUMIK 3L, 3T

These SIDs require a minimum climb gradient

of

425' per NM (7%) until passing 3000' due to

airspace structure.

If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

ROUTING

(600' +) - DL240 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL058 - BAM - ANAVI - DEGOM (FL150+) - KUMIK.

KUMIK.

KUMIK 3L, 3T

These SIDs require a minimum climb gradient

of

425' per NM (7%) until passing 3000' due to

airspace structure.

If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

ROUTING

(600' +) - DL240 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

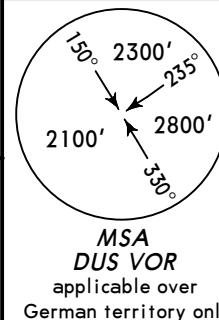
(600' +) - DL239 - DL241 - ELBAL - DEGOM (FL150+) - KUMIK.

(600' +) - DL058 - BAM - ANAVI - DEGOM (FL150+) - KUMIK.

*LANGEN
Radar
128.5

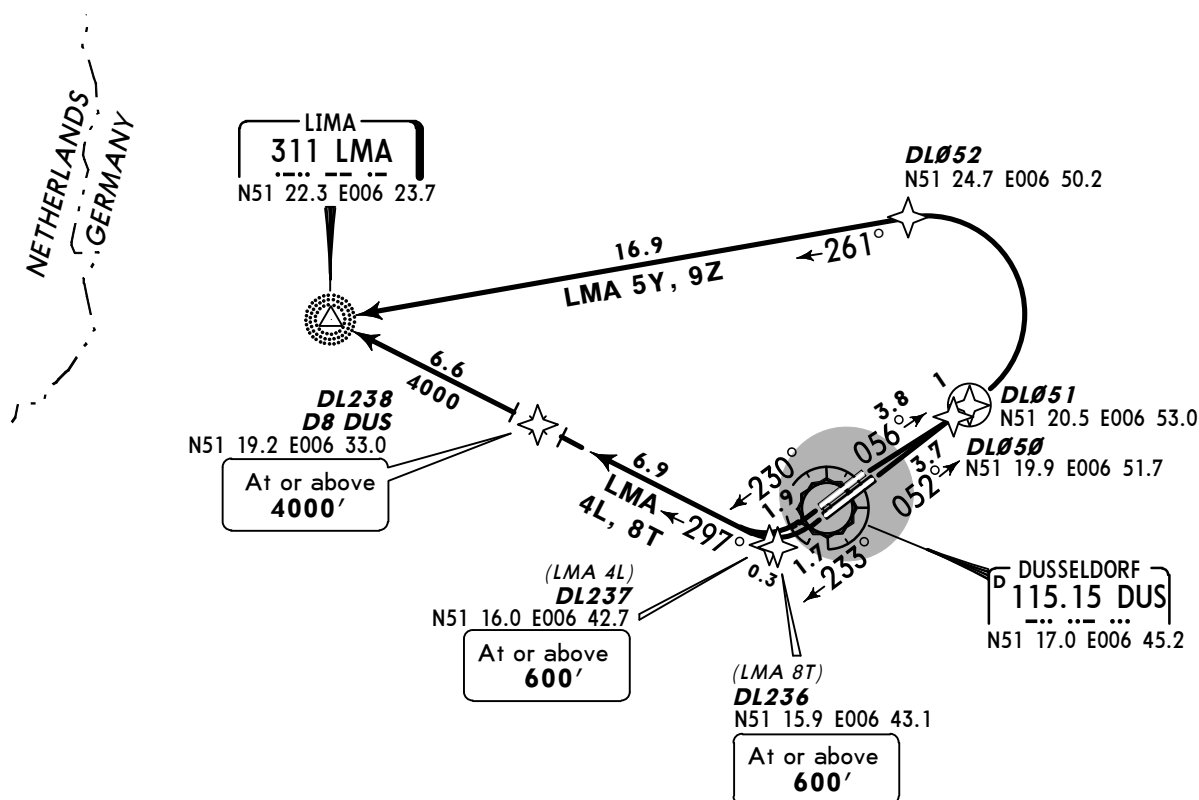
Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



LIMA FOUR LIMA (LMA 4L) LIMA EIGHT TANGO (LMA 8T) LIMA FIVE YANKEE (LMA 5Y) LIMA NINE ZULU (LMA 9Z) RWYS 23R/L, 05L/R RNAV DEPARTURES (OVERLAY 10-3D) ONLY FOR FLIGHTS TO EDLN

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



These SIDs require minimum climb gradients of

LMA 4L, 8T

407' per NM (6.7%) due to airspace structure.

LMA 5Y, 9Z

425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
407' per NM	509	679	1018	1357	1696	2036
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise Delivery on start-up request.



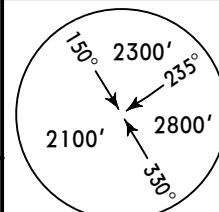
Initial climb clearance 5000'

SID	RWY	ROUTING
LMA 4L	23R	DL237 (600'+) - DL238 (4000'+) - LMA.
LMA 8T	23L	DL236 (600'+) - DL238 (4000'+) - LMA.
LMA 5Y	05L	(600'+) - DL050 - DL051 - DL052 - LMA.
LMA 9Z	05R	

*LANGEN
Radar
128.5

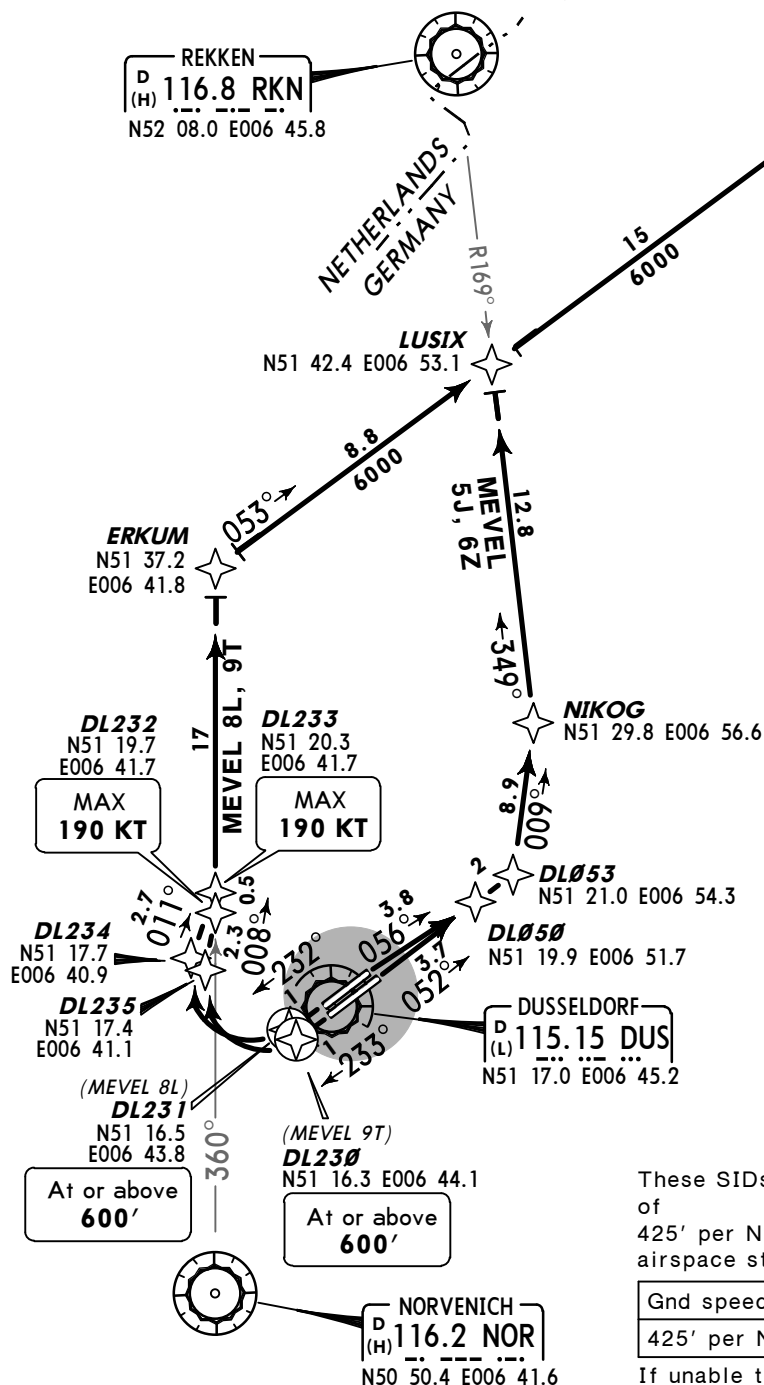
Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



MSA
DUS VOR
applicable over
German territory only

MEVEL FIVE JULIETT (MEVEL 5J) [MEVE5J]
MEVEL EIGHT LIMA (MEVEL 8L) [MEVE8L]
MEVEL NINE TANGO (MEVEL 9T) [MEVE9T]
MEVEL SIX ZULU (MEVEL 6Z) [MEVE6Z]
RWYS 05L, 23R/L, 05R
RNAV DEPARTURES (OVERLAY 10-3E)



MEVEL
N51 51.3 E007 12.6

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

Flights intending to proceed
via airway Y-850 to BASUM
must be able to cross ARTER
above FL245. If unable or
planning below FL245 continue
via airway L-179 to OSN.



MEVEL 5J, 6Z

These SIDs require a minimum climb gradient
of
425' per NM (7%) until passing 3000' due to
airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

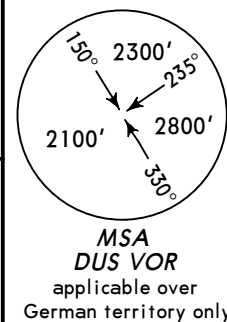
If unable to comply advise Delivery on start-up
request.

Initial climb clearance **5000'**

SID	RWY	ROUTING
MEVEL 5J	05L	(600'+) - DL050 - DL053 - NIKOG - LUSIX - MEVEL.
MEVEL 8L	23R	DL231 (600'+) - DL234 - DL233 (K190-) - ERKUM - LUSIX - MEVEL.
MEVEL 9T	23L	DL230 (600'+) - DL235 - DL232 (K190-) - ERKUM - LUSIX - MEVEL.
MEVEL 6Z	05R	(600'+) - DL050 - DL053 - NIKOG - LUSIX - MEVEL.

*LANGEN
Radar
128.5Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.

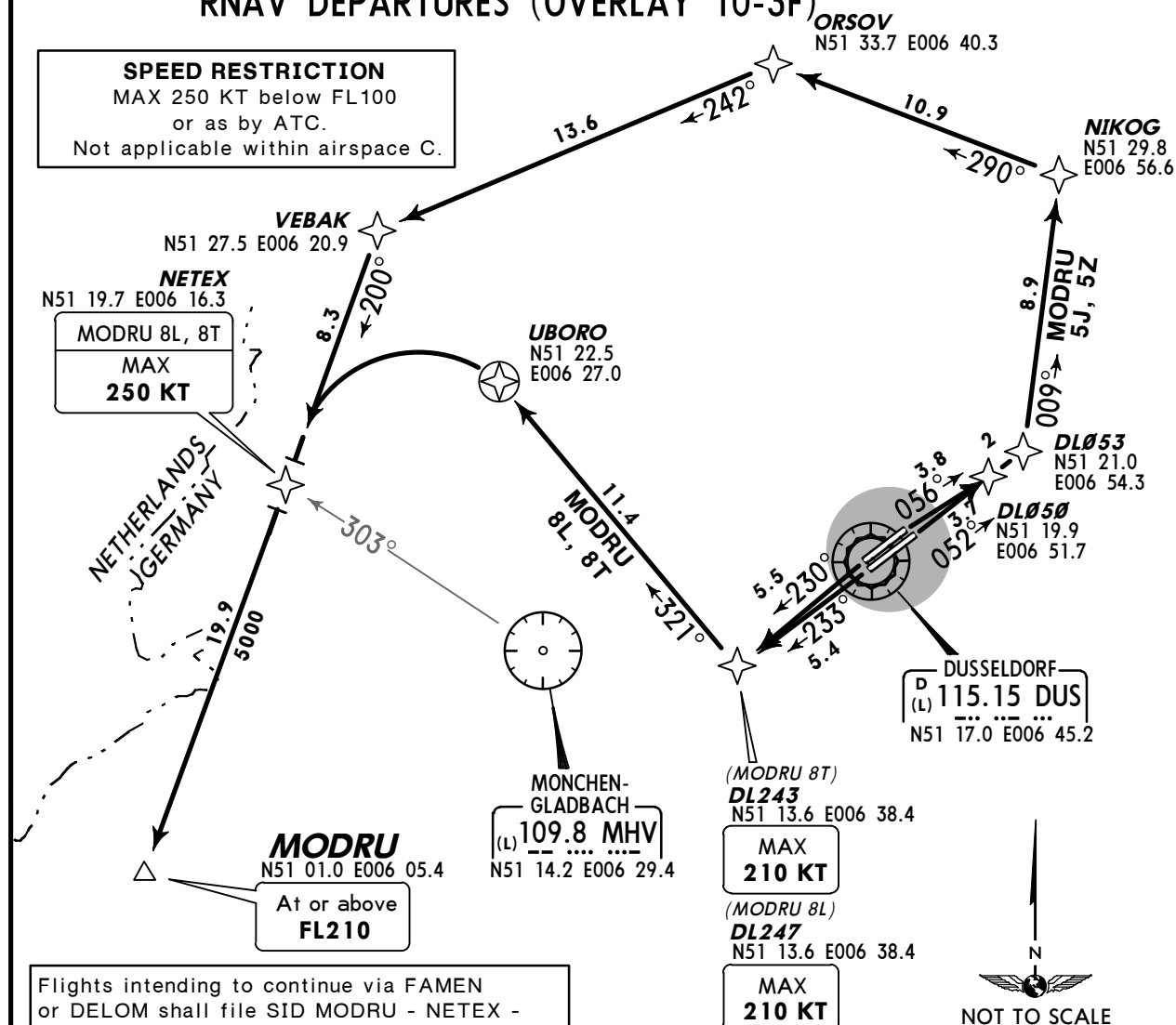


MODRU FIVE JULIETT (MODRU 5J) [MODR5J]
MODRU EIGHT LIMA (MODRU 8L) [MODR8L]
MODRU EIGHT TANGO (MODRU 8T) [MODR8T]
MODRU FIVE ZULU (MODRU 5Z) [MODR5Z]
RWYS 05L, 23R/L, 05R
RNAV DEPARTURES (OVERLAY 10-3F)

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.



Flights intending to continue via FAMEN or DELOM shall file SID MODRU - NETEX - DCT - FAMEN/DELOM. These flights may leave SID MODRU at NETEX to proceed NETEX DCT FAMEN/DELOM, also in case of radio comm failure.
Flights unable to reach FL110 at NETEX shall advise ATC accordingly.

Only for flights with requested FL210 and above. These flights have to be able to cross MODRU at or above FL210. If unable to comply advise Delivery on start-up request.

These SIDs require a minimum climb gradient of 425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

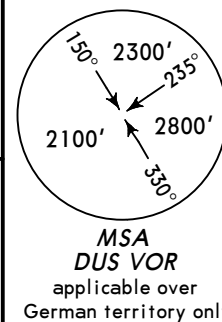
If unable to comply advise Delivery on start-up request.

Initial climb clearance **5000'**

SID	RWY	ROUTING
MODRU 5J	05L	(600'+) - DL050 - DL053 - NIKOG - ORSOV - VEBAK - NETEX - MODRU (FL210+).
MODRU 5Z	05R	
MODRU 8L	23R	(600'+) - DL247 (K210-) - UBORO - NETEX (K250-) - MODRU (FL210+).
MODRU 8T	23L	(600'+) - DL243 (K210-) - UBORO - NETEX (K250-) - MODRU (FL210+).

*LANGEN
Radar
128.5Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000',
then contact LANGEN Radar. 2. SIDs are also noise
abatement procedures (refer to 10-4). Strict adherence
within the limits of aircraft performance is mandatory.

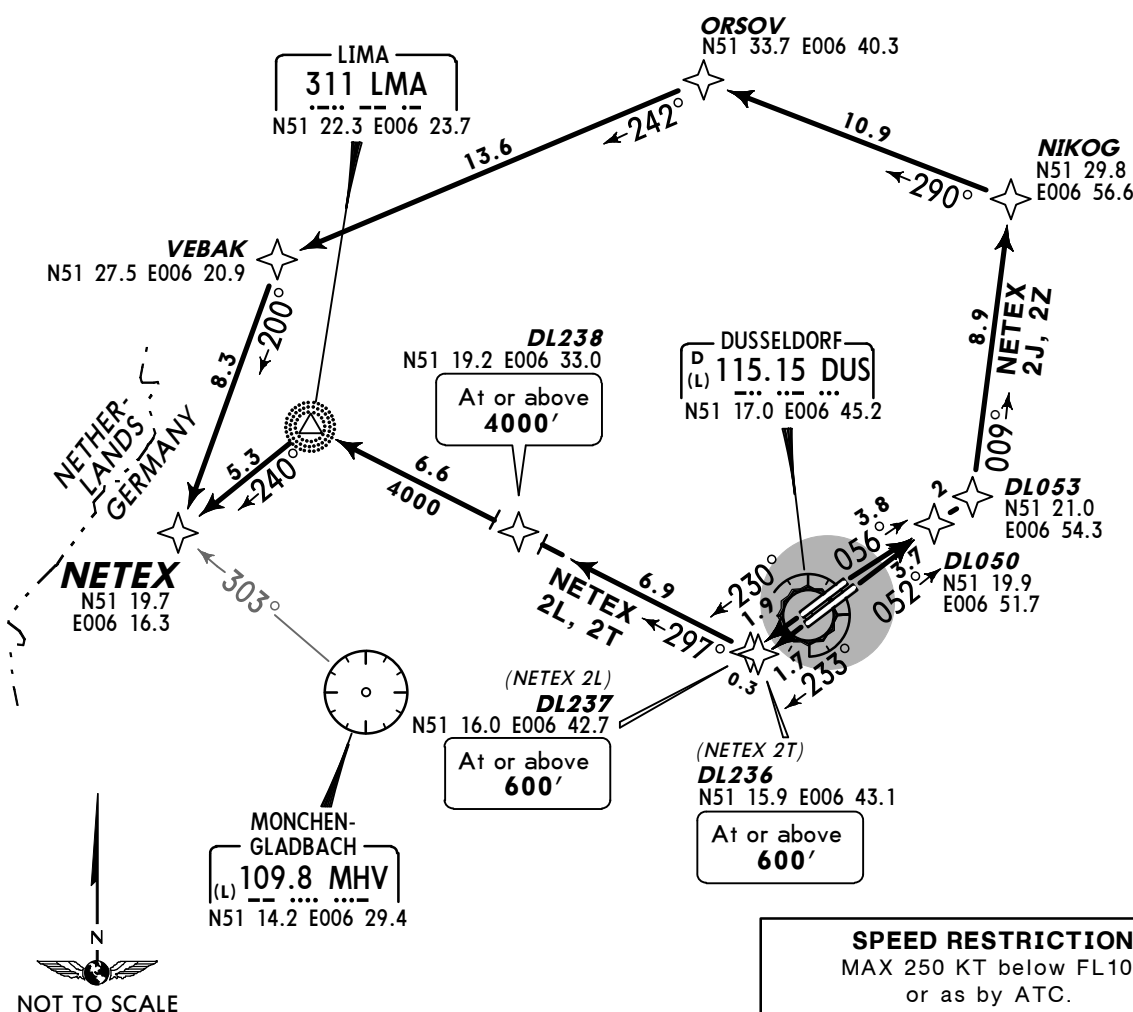


NETEX TWO JULIETT (NETEX 2J) [NETE2J]
NETEX TWO LIMA (NETEX 2L) [NETE2L]
NETEX TWO TANGO (NETEX 2T) [NETE2T]
NETEX TWO ZULU (NETEX 2Z) [NETE2Z]

RWYS 05L, 23R/L, 05R

RNAV DEPARTURES (OVERLAY 10-3G)

FOR FLIGHTS FROM REQUESTED FL100 TO FL200 OR
FOR FLIGHTS VIA AIRWAY Z-282 - DIBIR - AIRWAY L-179 (IF AVAILABLE)



These SIDs require minimum climb gradients
of

NETEX 2J, 2Z: 425' per NM (7%) until passing
3000' due to airspace structure.

NETEX 2L, 2T: 407' per NM (6.7%) until passing
4000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127
407' per NM	509	679	1018	1357	1696	2036

If unable to comply advise Delivery on start-up
request.

Initial climb clearance **5000'**

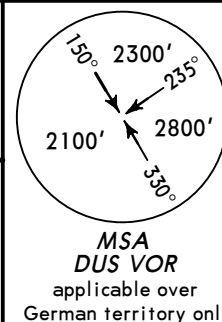
SID	RWY	ROUTING
NETEX 2J	05L	(600'+) - DL050 - DL053 - NIKOG - ORSOV - VEBAK - NETEX.
NETEX 2L ①	23R	DL237 (600'+) - DL238 (4000'+) - LMA - NETEX.
NETEX 2T ①	23L	DL236 (600'+) - DL238 (4000'+) - LMA - NETEX.
NETEX 2Z	05R	(600'+) - DL050 - DL053 - NIKOG - ORSOV - VEBAK - NETEX.

① Not available for flights to continue after NETEX via FAMEN/DELOM.

*LANGEN
Radar
133.77

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



NORVENICH ONE TANGO (NOR 1T)
NORVENICH FIVE UNIFORM (NOR 5U)
NORVENICH SEVEN YANKEE (NOR 7Y)
NORVENICH THREE ZULU (NOR 3Z)

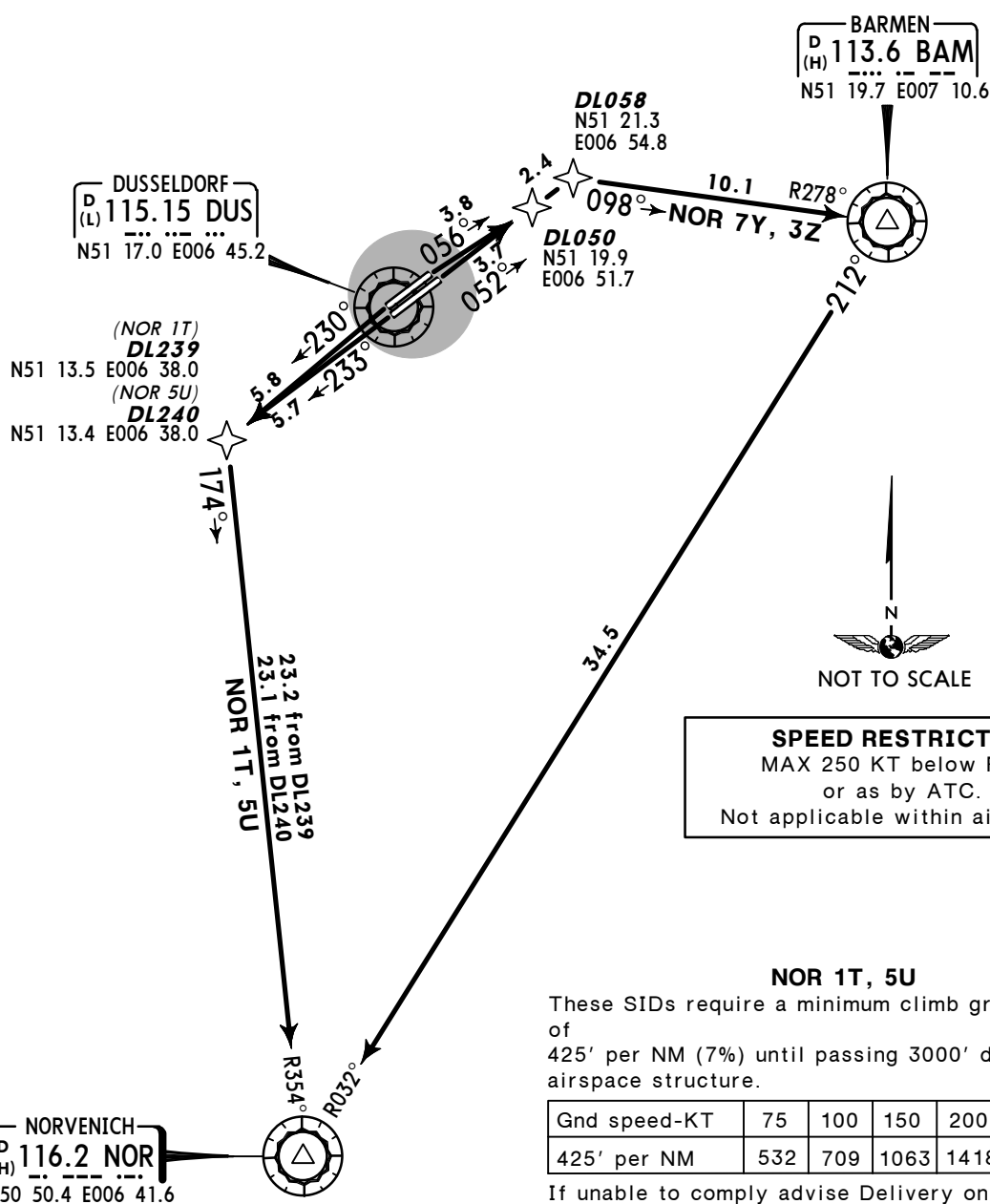
RWYS 23L/R, 05L/R

RNAV DEPARTURES (OVERLAY 10-3H)

FOR FLIGHTS WITH REQUESTED FL90 OR BELOW

FLIGHTS WITH REQUESTED FL100 OR ABOVE SHALL FILE VIA MODRU

ALSO AVAILABLE FOR FLIGHTS VIA AIRWAY Q-760 BETWEEN 0600-0800LT



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

Initial climb clearance **5000'**

SID	RWY	ROUTING
NOR 1T	23L	(600'+) - DL239 - NOR.
NOR 5U	23R	(600'+) - DL240 - NOR.
NOR 7Y	05L	(600'+) - DL050 - DL058 - BAM - NOR.
NOR 3Z	05R	

*LANGEN
Radar
133.77

Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also noise abatement procedures (refer to 10-4).
Strict adherence within the limits of aircraft performance is mandatory.

NUDGO
N51 24.8 E008 26.5

KULIX
N51 21.1 E008 14.8

NUDGO TWO JULIETT (NUDGO 2J) [NUDG2J]
NUDGO TWO LIMA (NUDGO 2L) [NUDG2L]
NUDGO TWO TANGO (NUDGO 2T) [NUDG2T]
NUDGO TWO ZULU (NUDGO 2Z) [NUDG2Z]

RWYS 05L, 23R/L, 05R

RNAV DEPARTURES (OVERLAY 10-3J)

**NOT AVAILABLE FOR FLIGHTS
INTO UPPER AIRSPACE**

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

BARMEN
D 113.6 BAM
N51 19.7 E007 10.6

DL058
N51 21.3
E006 54.8

DL050
N51 19.9
E006 51.7

DUSSELDORF
D 115.15 DUS
N51 17.0 E006 45.2

(NUDGO 2T)
DL239
N51 13.5 E006 38.0

(NUDGO 2L)
DL240
N51 13.4 E006 38.0

NORVENICH
D 116.2 NOR
N50 50.4 E006 41.6

NUDGO 2L, 2T

These SIDs require a minimum climb gradient of 425' per NM (7%) until passing 3000' due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

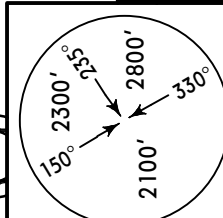
If unable to comply advise Delivery on start-up request.

Initial climb clearance 5000'

ROUTING

SID	RWY	ROUTING
NUDGO 2J	05L	(600'+) - DL050 - DL058 - BAM - ANAVI - MAMIB - KULIX - NUDGO.
NUDGO 2L	23R	(600'+) - DL240 - DL241 - ELBAL - MAMIB - KULIX - NUDGO.
NUDGO 2T	23L	(600'+) - DL239 - DL241 - ELBAL - MAMIB - KULIX - NUDGO.
NUDGO 2Z	05R	(600'+) - DL050 - DL058 - BAM - ANAVI - MAMIB - KULIX - NUDGO.

MSA
DUS VOR
applicable over
German territory only



NOT TO SCALE



GERMINGHAUSEN
D 115.4 GMH
N51 10.2 E007 53.5

ELBAL
N51 09.4
E007 26.8

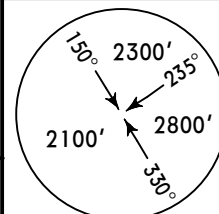
D21.1 GMH

NUDGO 2L, 2T

DL241
N51 07.7
E006 38.9

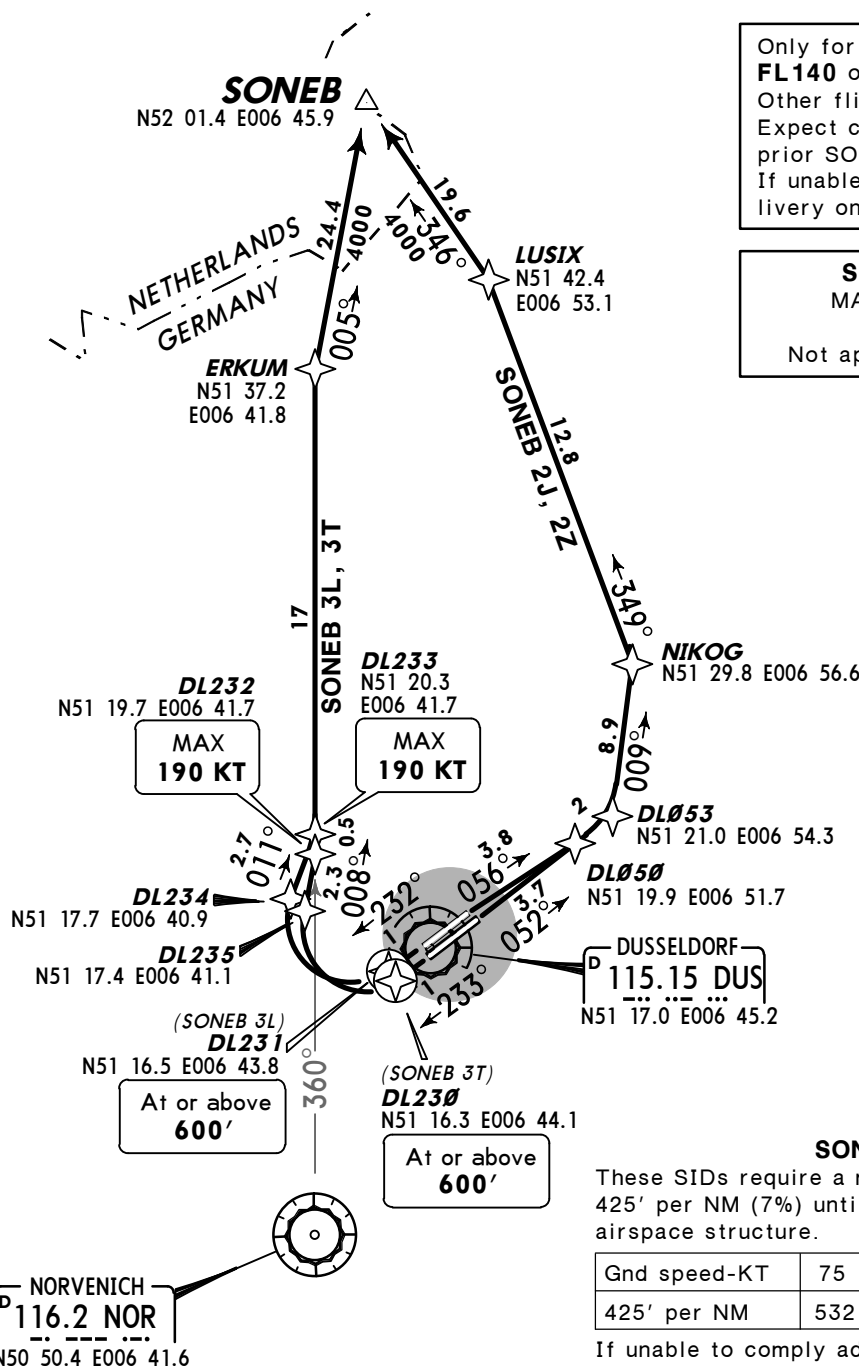
*LANGEN
Radar
128.5Apt Elev
147'

Trans level: By ATC Trans alt: 5000'
1. Remain on Tower frequency until passing 2000',
then contact LANGEN Radar. 2. SIDs are also noise
abatement procedures (refer to 10-4). Strict adherence
within the limits of aircraft performance is mandatory.



MSA
DUS VOR
applicable over
German territory only

SONEB TWO JULIETT (SONEB 2J) [SONE2J]
SONEB THREE LIMA (SONEB 3L) [SONE3L]
SONEB THREE TANGO (SONEB 3T) [SONE3T]
SONEB TWO ZULU (SONEB 2Z) [SONE2Z]
RWYS 05L, 23R/L, 05R
RNAV DEPARTURES (OVERLAY 10-3K)



Only for flights with requested
FL140 or above via RKN/TENLI.
Other flights proceed via MEVEL.
Expect clearance to cross 10 NM
prior SONEB at or above **FL140**.
If unable to comply advise De-
livery on start-up request.

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

**SONEB 2J, 2Z**

These SIDs require a minimum climb gradient of
425' per NM (7%) until passing **3000'** due to
airspace structure.

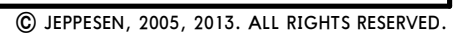
Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

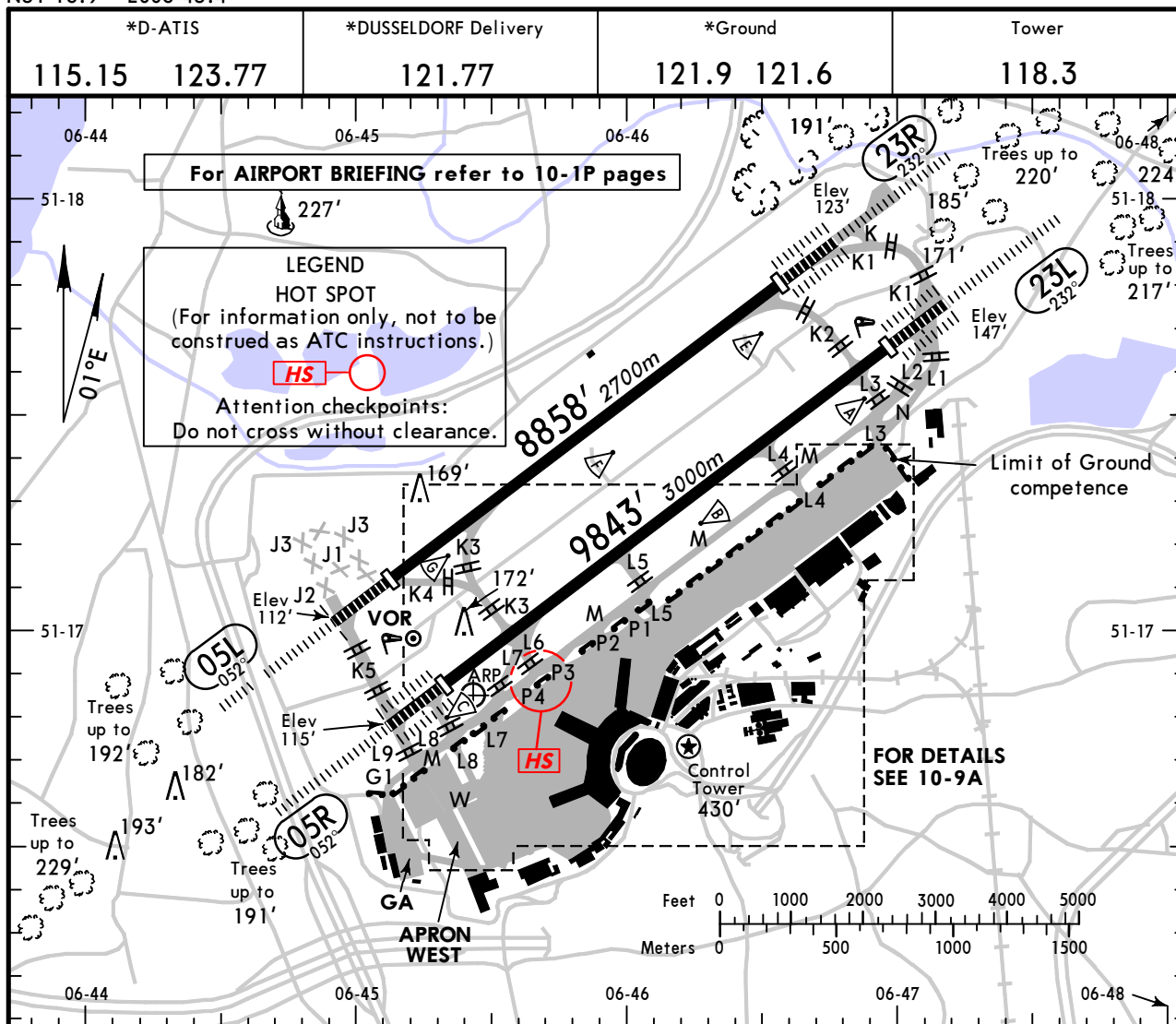
If unable to comply advise Delivery on start-up
request.

Initial climb clearance **5000'**

SID	RWY	ROUTING
SONEB 2J	05L	(600' +) - DL050 - DL053 - NIKOG - LUSIX - SONEB.
SONEB 3L	23R	DL231 (600' +) - DL234 - DL233 (K190-) - ERKUM - SONEB.
SONEB 3T	23L	DL230 (600' +) - DL235 - DL232 (K190-) - ERKUM - SONEB.
SONEB 2Z	05R	(600' +) - DL050 - DL053 - NIKOG - LUSIX - SONEB.

NOISE





ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS			WIDTH
		Threshold	Landing Beyond	TAKE-OFF	
05L	HIRL ① CL ② HIALS SFL PAPI-L(3.0°) REIL RVR		6923' 2110m	③ ④	148' 45m
23R	HIRL ① CL ② ALSF-II TDZ PAPI-L(3.0°) REIL RVR	7874' 2400m	6659' 2030m		

① spacing 60m

② spacing 15m

③ TAKE-OFF RUN AVAILABLE

RWY 05L: From rwy head 7874' (2400m)
 twy K4 int 6775' (2065m)
 twy K3 int 5643' (1720m)

RWY 23R: From rwy head 7874' (2400m)
 twy K1 int 7480' (2280m)
 twy K2 int 6765' (2062m)
 (PPR only) 8530' (2600m)

④ Additional 984'/300m available as stopway.

with paved strip
in front of rwy

05R	HIRL CL(15m) ALSF-II TDZ PAPI-L(3.0°) REIL RVR	8858' 2700m	7844' 2391m	⑤ ⑥	148' 45m
23L			7632' 2326m		

⑤ TAKE-OFF RUN AVAILABLE

RWY 05R: From rwy head 8858' (2700m)
 twy L8 int 8120' (2475m)
 twy L6 int 6663' (2031m)

RWY 23L: From rwy head 8858' (2700m)
 twy L1 int 8678' (2645m)
 twy L2 int 8202' (2500m)
 twy L3 int 7333' (2235m)

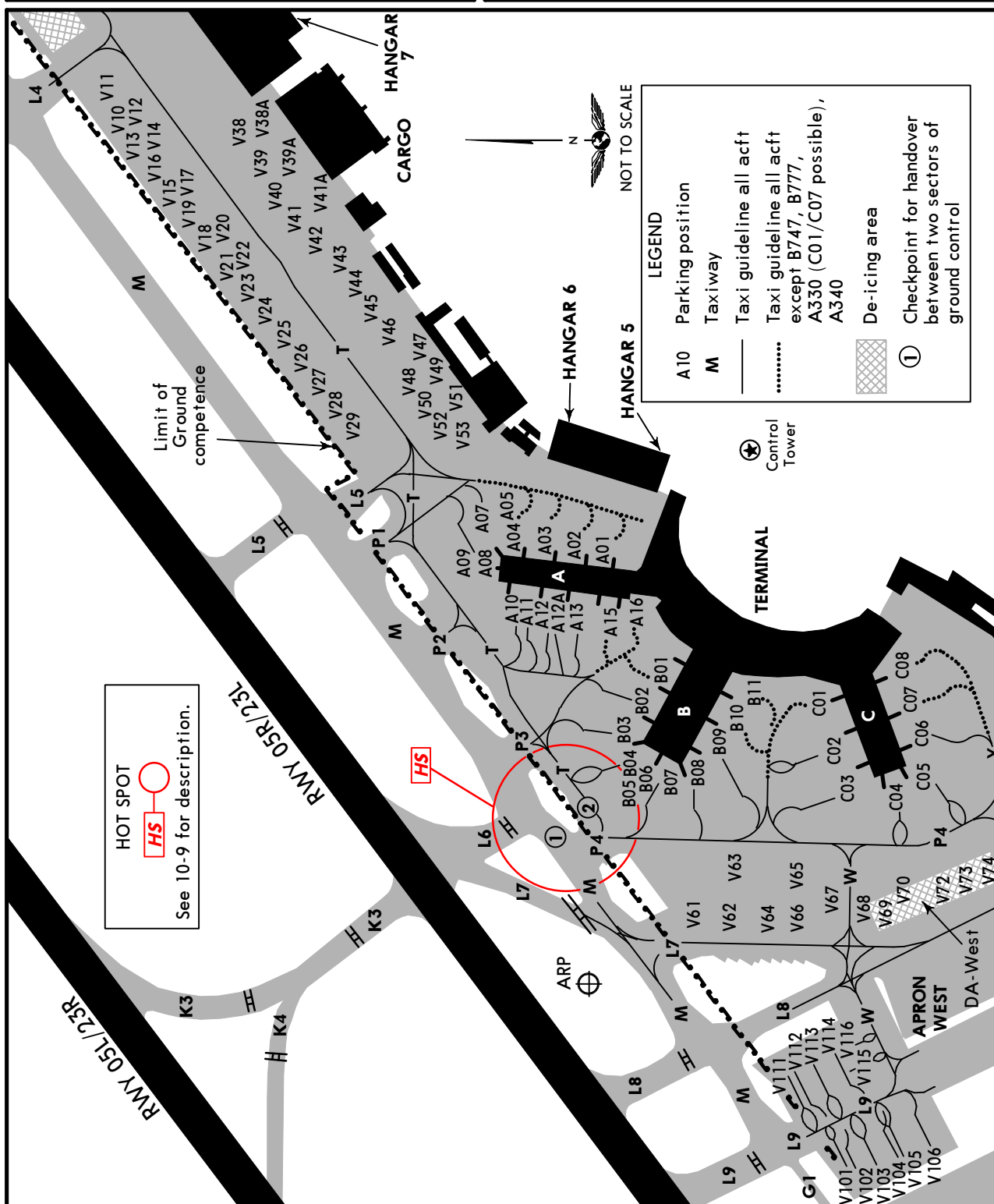
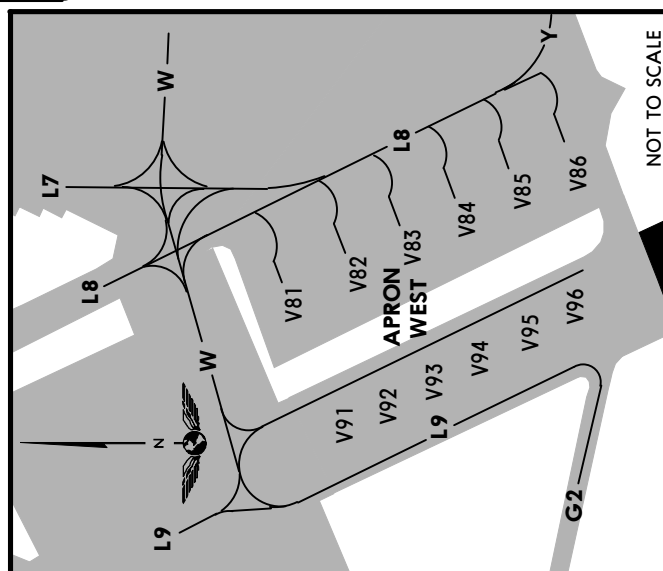
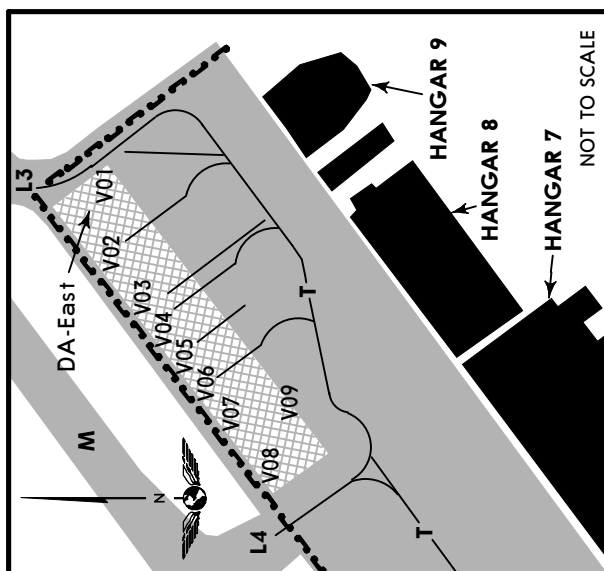
⑥ Additional 984'/300m available as stopway.

Standard

TAKE-OFF ①

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

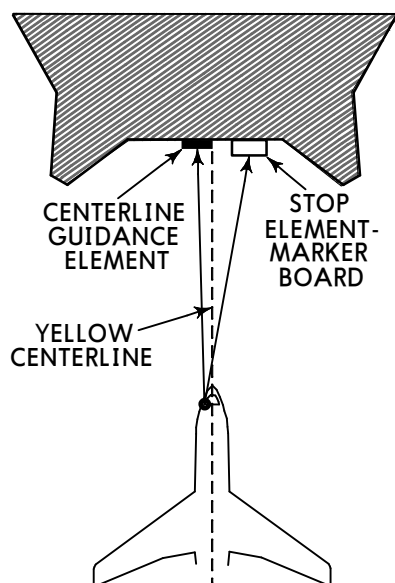
① Operators applying U.S. Ops Specs: CL required below 300m; approved HUD required below 150m.



INS COORDINATES

STAND No.	COORDINATES	STAND No.	COORDINATES
A01, A02	N51 16.9 E006 46.1	V28	N51 17.2 E006 46.2
A03 thru A08	N51 17.0 E006 46.1	V29	N51 17.1 E006 46.2
A09	N51 16.9 E006 46.1	V38 thru V39A	N51 17.2 E006 46.6
A10 thru A12	N51 17.0 E006 46.0	V40	N51 17.2 E006 46.5
A12A thru A16	N51 16.9 E006 46.0	V41 thru V43	N51 17.1 E006 46.5
B01, B02	N51 16.9 E006 45.9	V44 thru V46	N51 17.1 E006 46.4
B03 thru B06	N51 16.9 E006 45.8	V47 thru V52	N51 17.1 E006 46.3
B07	N51 16.9 E006 45.7	V53	N51 17.0 E006 46.2
B08, B09	N51 16.8 E006 45.8	V61 thru V66	N51 16.8 E006 45.6
B10, B11	N51 16.8 E006 45.9	V67 thru V71	N51 16.7 E006 45.6
C01	N51 16.7 E006 45.9	V72, V73	N51 16.6 E006 45.6
C02	N51 16.7 E006 45.8	V74	N51 16.6 E006 45.4
C03, C04	N51 16.7 E006 45.7	V81	N51 16.7 E006 45.4
C05	N51 16.6 E006 45.8	V82 thru V86	N51 16.6 E006 45.5
C06	N51 16.7 E006 45.8	V91 thru V95	N51 16.6 E006 45.4
C07, C08	N51 16.7 E006 45.9	V96	N51 16.5 E006 45.5
V01	N51 17.5 E006 47.0	V101 thru 104	N51 16.7 E006 45.2
V02 thru V04	N51 17.5 E006 46.9	V105	N51 16.7 E006 45.3
V05 thru V09	N51 17.4 E006 46.8	V106	N51 16.6 E006 45.3
V10, V11	N51 17.4 E006 46.7	V111, V112	N51 16.8 E006 45.4
V12 thru V16	N51 17.3 E006 46.6	V113 thru 116	N51 16.7 E006 45.4
V17 thru V20	N51 17.3 E006 46.5		
V21	N51 17.3 E006 46.4		
V22 thru V24	N51 17.2 E006 46.4		
V25 thru V27	N51 17.2 E006 46.3		

AGNIS DOCKING GUIDANCE SYSTEM



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

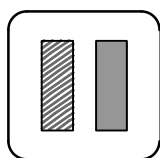
CAUTION

The system is aligned with the LEFT hand pilot's seat only. In case of AGNIS failure, nose-in positioning will be guided by marshaller.

CENTERLINE GUIDANCE ELEMENT

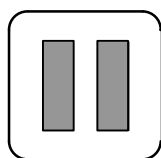
Approach the parking position along the yellow centerline so that both vertical slots in the Centerline Guidance Element show GREEN. Adjustments to the left or right shall always be made towards the GREEN.

RED GREEN



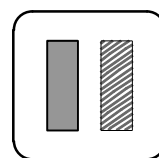
LEFT of centerline.
Turn towards GREEN.
(RIGHT)

GREEN GREEN



Aircraft on centerline.

GREEN RED



RIGHT of centerline.
Turn towards GREEN.
(LEFT)

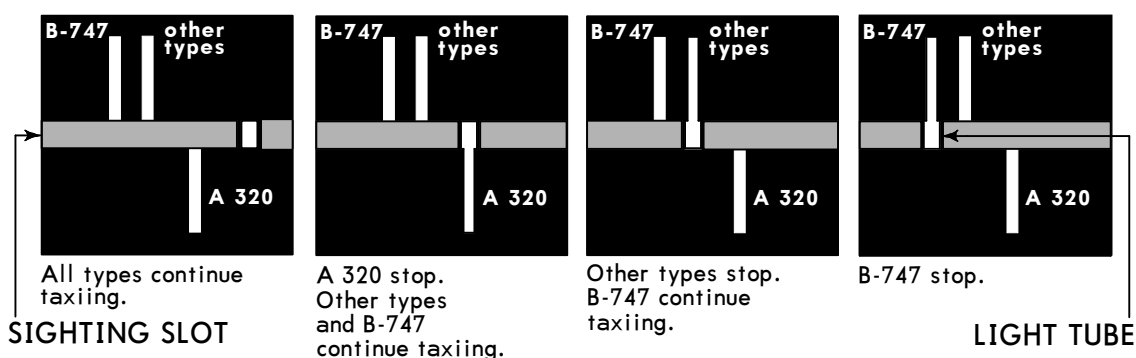
STOP ELEMENT - MARKER BOARD

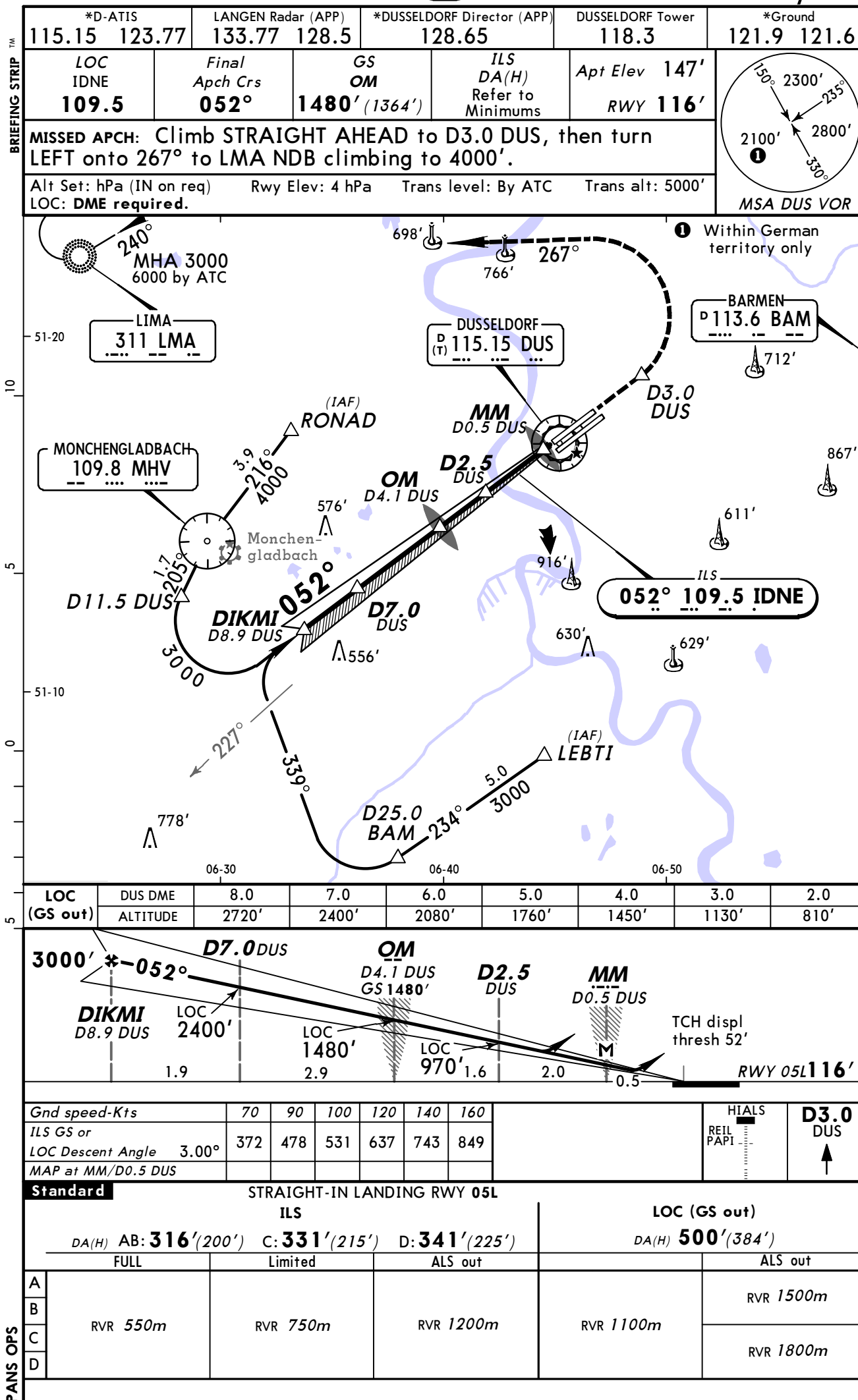
The aircraft is stopped at the correct position by means of the Stop Element. When the tubular light, visible through the horizontal slot in the marker board, registers in line with the appropriate vertical reference mark, the aircraft has reached the correct stopping position.

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.

TYPICAL EXAMPLE OF STOP ELEMENT - MARKER BOARD



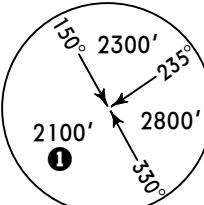


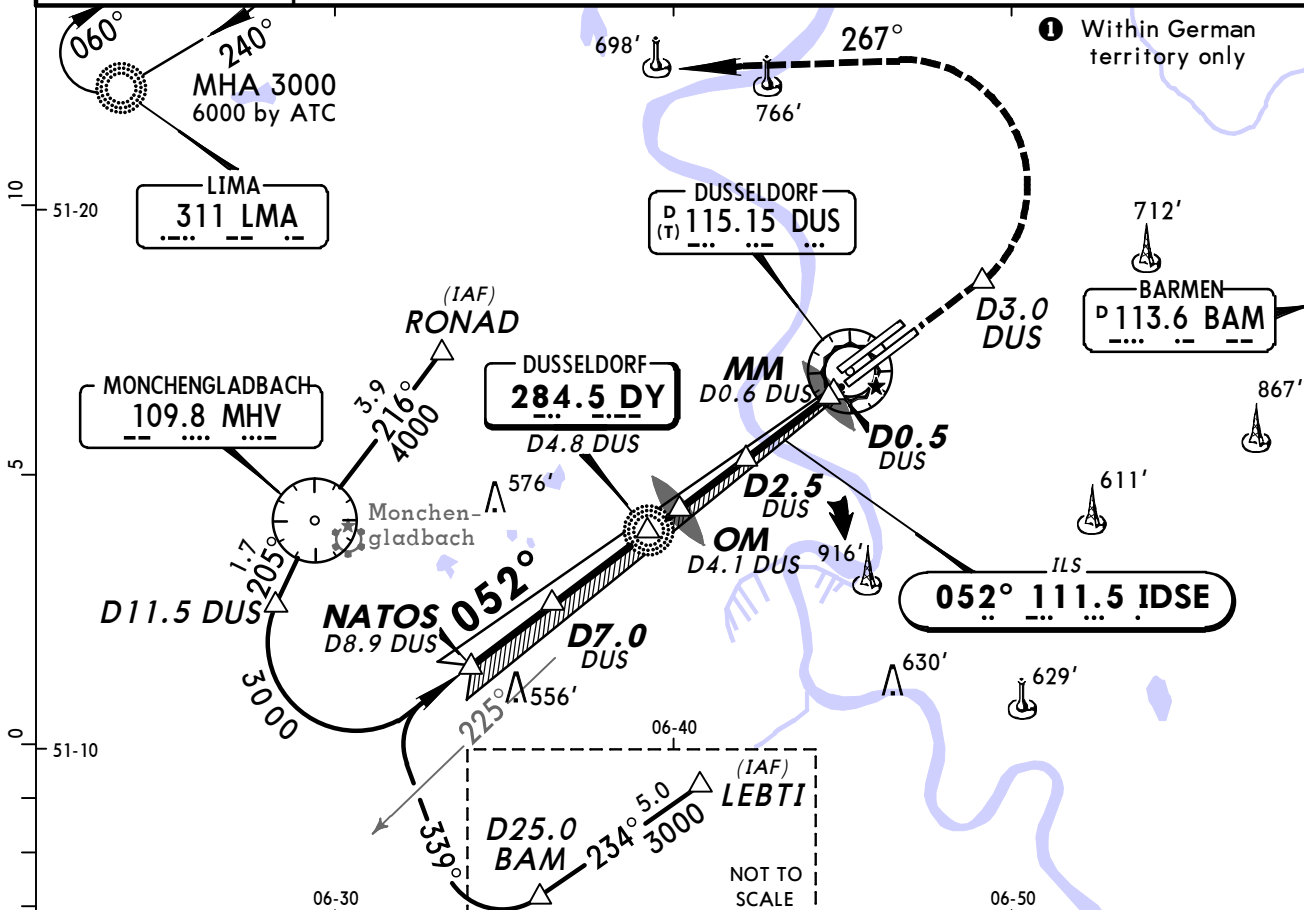
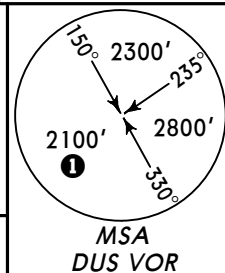
EDDL/DUS
DUSSELDORF

1 FEB 13
Eff 7 Feb

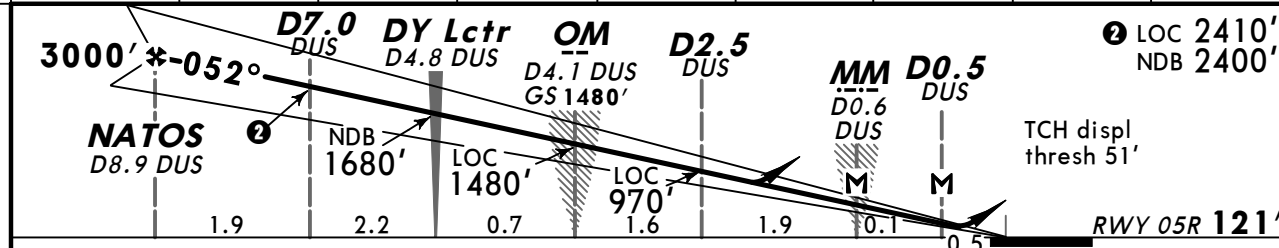
(11-2)

JEPPESEN DUSSELDORF, GERMANY
ILS or LOC or NDB Rwy 05R

*D-ATIS 115.15 123.77		LANGEN Radar (APP) 133.77 128.5		*DUSSELDORF Director (APP) 128.65		DUSSELDORF Tower 118.3		*Ground 121.9 121.6		
LOC IDSE 111.5		Final Apch Crs 052°		GS OM 1480' (1359')		ILS DA(H) 321' (200')		Apt Elev 147' RWY 121'		
NDB DY 284.5				Minimum Alt NATOS 3000' (2879')		NDB DA(H) Refer to Minimums				
MISSED APCH: Climb STRAIGHT AHEAD to D3.0 DUS, then turn LEFT onto 267° to LMA NDB climbing to 4000'.										
Alt Set: hPa (IN on req) LOC or NDB: DME required.									MSA DUS VOR	
Rwy Elev: 4 hPa			Trans level: By ATC			Trans alt: 5000'				



LOC (GS out)	DUS DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE		2720'	2410'	2090'	1770'	1450'	1130'	810'
NDB	ALTITUDE	2720'	2400'	2080'	1760'	1440'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160	
ILS GS or	372	478	531	637	743	849	
LOC or NDB Desc Angle 3.00°							
LOC: MAP at MM/D0.6 DUS							NDB: MAP at D0.5 DUS

Standard			STRAIGHT-IN LANDING RWY 05R		
ILS			LOC (GS out)		
DA(H) 321' (200')			A: 500' (379')		
			BCD: 570' (449')		
FULL	Limited	ALS out	ALS out	ALS out	ALS out
A	RVR 550m	RVR 750m	RVR 1000m	RVR 1500m	RVR 1500m
B					
C			RVR 1400m	CMV 2100m	RVR 1800m
D					CMV 2400m

CHANGES: Bearings. Holding.

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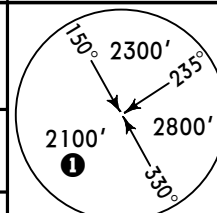
EDDL/DUS
DUSSELDORF

1 FEB 13
Eff 7 Feb

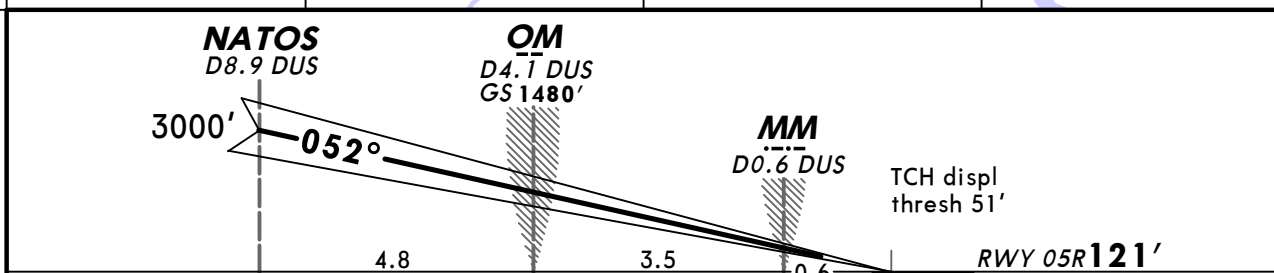
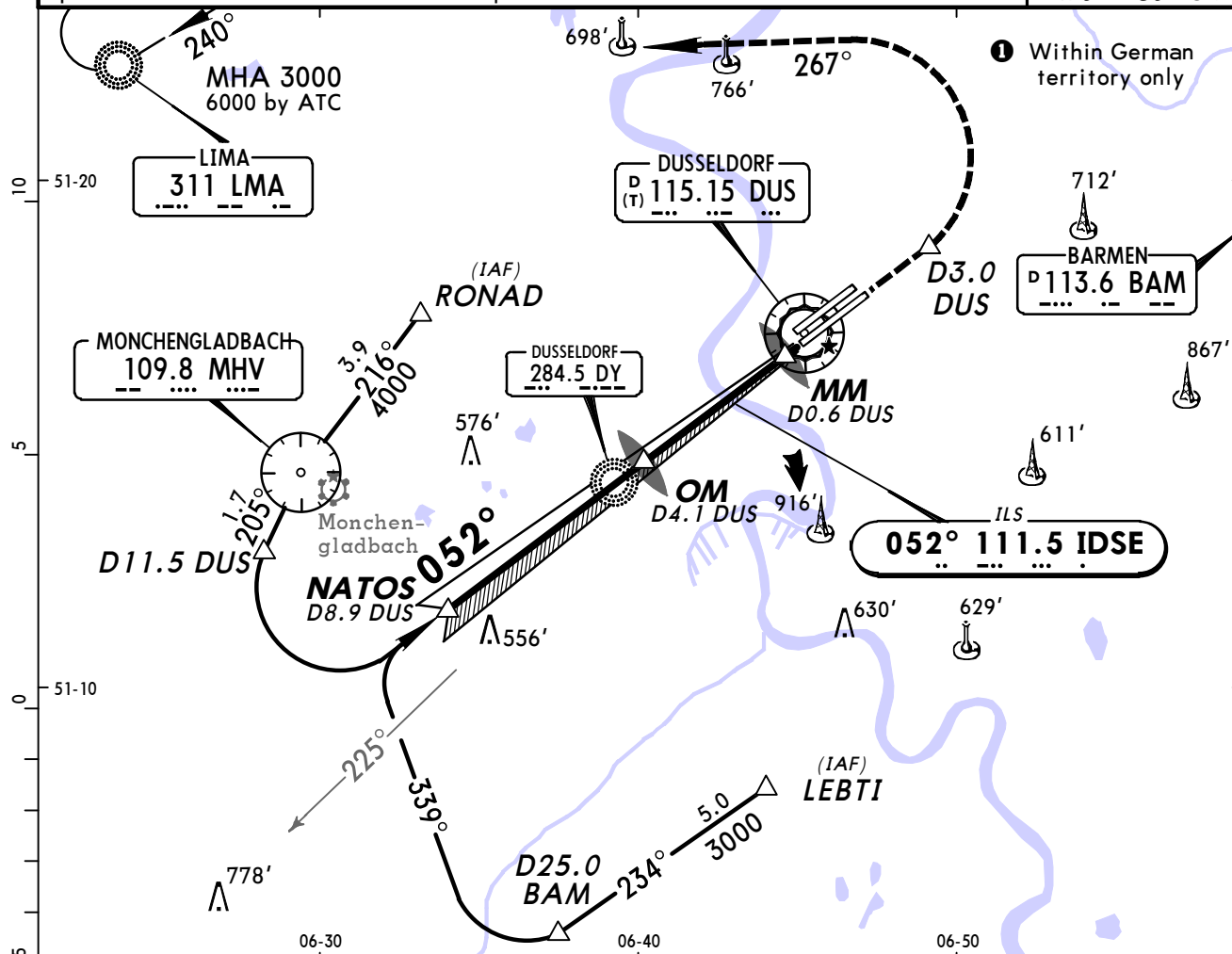
11-2A

DUSSELDORF, GERMANY
CAT II/III ILS Rwy 05R

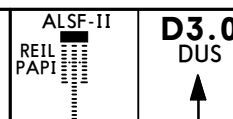
*D-ATIS 115.15 123.77	LANGEN Radar (APP) 133.77 128.5	*DUSSELDORF Director (APP) 128.65	DUSSELDORF Tower 118.3	*Ground 121.9 121.6
LOC IDSE 111.5	Final Apch Crs 052°	GS OM 1480' (1359')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 147' RWY 121'
MISSED APCH: Climb STRAIGHT AHEAD to D3.0 DUS, then turn LEFT onto 267° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000' Special Aircrew & Acft Certification Required.				



MSA DUS VOR



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



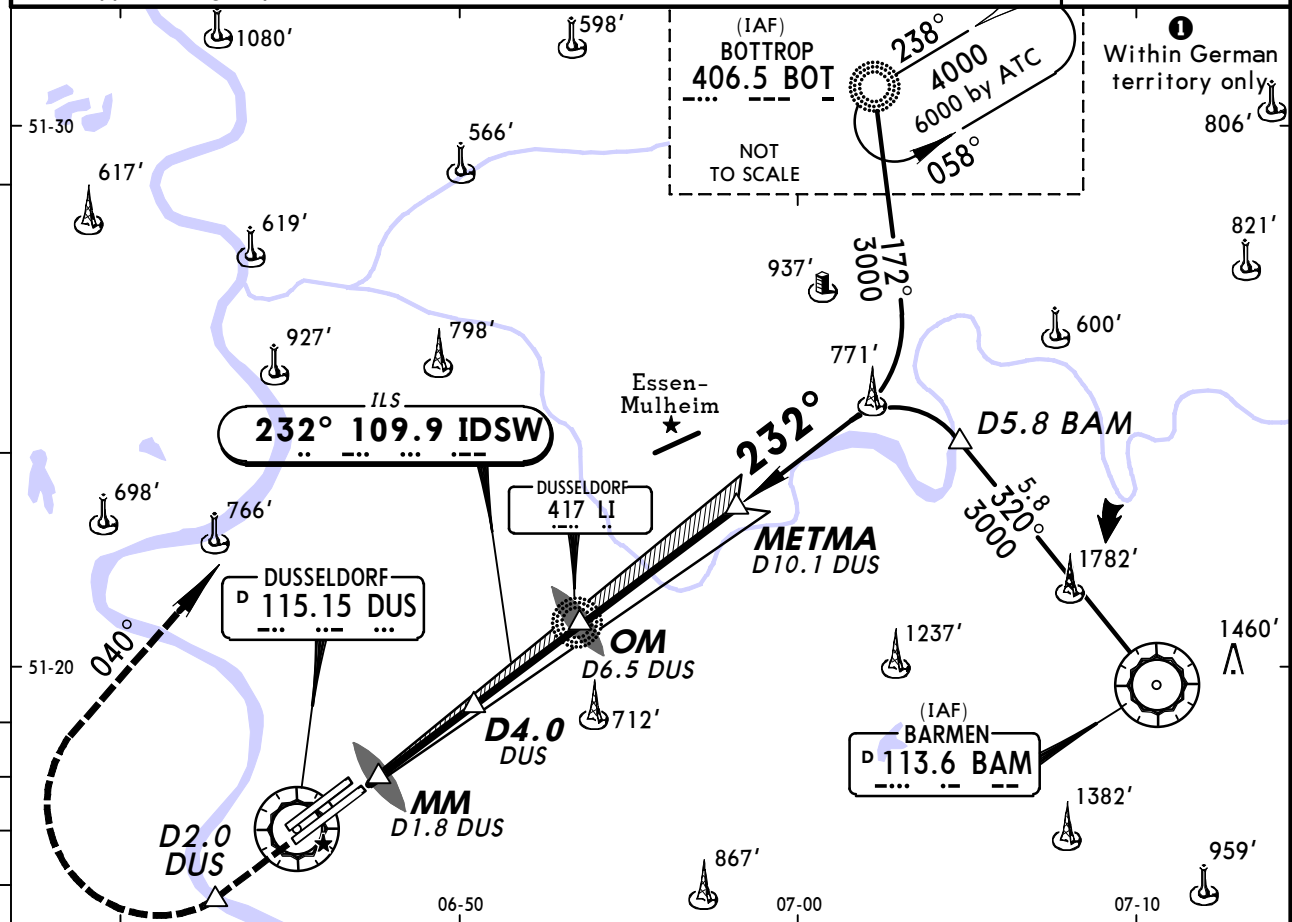
Standard		STRAIGHT-IN LANDING RWY 05R	
CAT IIIA ILS		CAT II ILS	
DH 50'		RA 105'	
		DA(H) 221' (100')	
RVR 200m		RVR 300m	

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

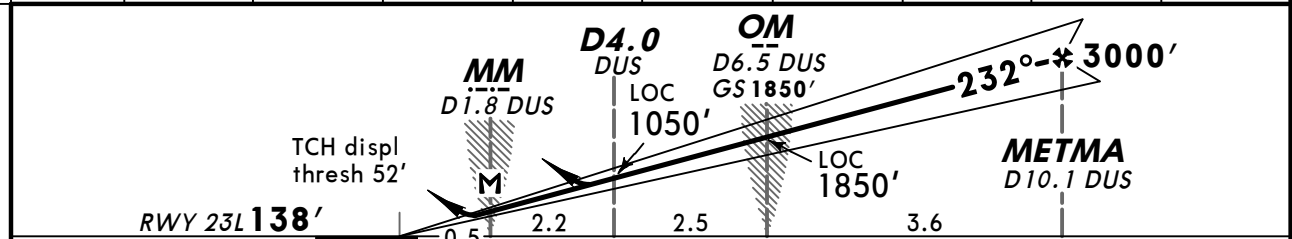
CHANGES: Bearings. Holding.

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*D-ATIS	LANGEN Radar (APP)	*DUSSELDORF Director (APP)	DUSSELDORF Tower	*Ground
115.15 123.77	133.77 128.5	128.65	118.3	121.9 121.6
LOC IDSW 109.9	Final Aptch Crs 232°	GS OM 1850' (1712')	ILS DA(H) 338' (200')	Apt Elev 147' RWY 138'
MISSED APCH: Climb STRAIGHT AHEAD to D2.0 DUS, then turn RIGHT onto 040° to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. LOC: DME required. 2. Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23L.				
				 MSA DUS VOR

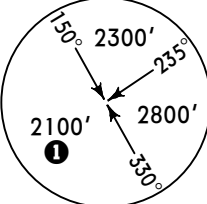


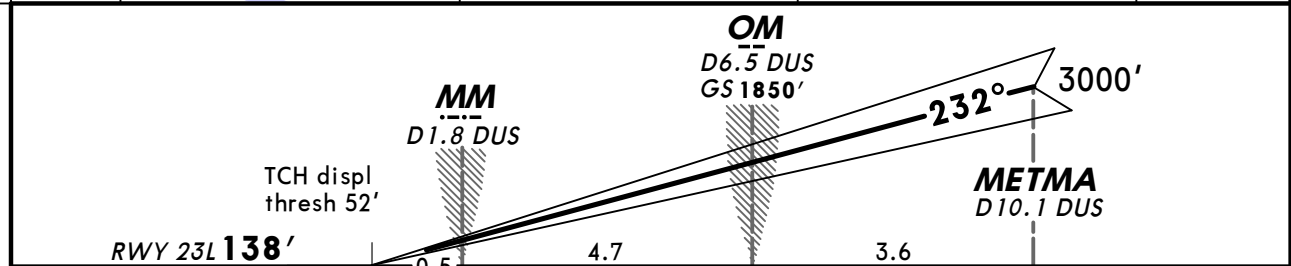
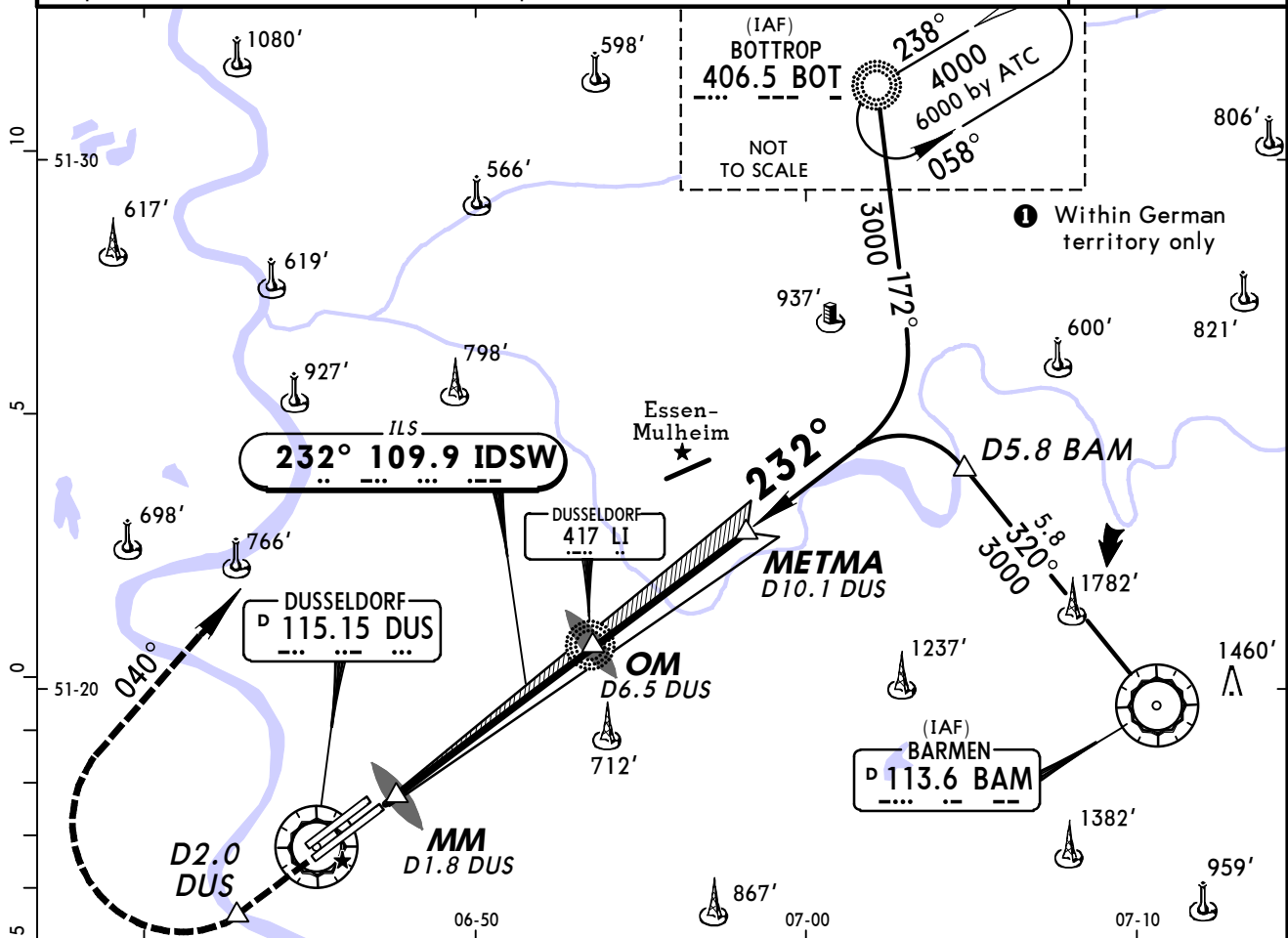
LOC (GS out)	DUS DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
	ALTITUDE	740'	1050'	1370'	1690'	2010'	2330'	2650'	2960'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.0 DUS ↑
ILS GS or LOC Descent Angle 3.00°	372	478	531	637	743	849		
MAP at MM/D1.8 DUS								

Standard					STRAIGHT-IN LANDING RWY 23L				
ILS DA(H) 338' (200')					LOC (GS out) DA(H) 520' (382')				
FULL		Limited		ALS out		ALS out			
A	RVR 550m	RVR 750m	RVR 1200m	RVR 1100m		RVR 1500m			
B									
C									
D						RVR 1800m			

*D-ATIS 115.15 123.77	LANGEN Radar (APP) 133.77 128.5	*DUSSELDORF Director (APP) 128.65	DUSSELDORF Tower 118.3	*Ground 121.9 121.6
LOC IDSW 109.9	Final Aptch Crs 232°	GS OM 1850' (1712')	CAT II & IIIA ILS Refer to Minimums Apt Elev 147' RWY 138'	 MSA DUS VOR
MISSED APCH: Climb STRAIGHT AHEAD to D2.0 DUS, then turn RIGHT onto 040° to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23L. 2. Special Aircrew & Acft Certification Required.				



Gnd speed-Kts	70	90	100	120	140	160	ALSIF-II REIL PAPI	D2.0 DUS ↑
GS	3.00°	372	478	531	637	743		

Standard		STRAIGHT-IN LANDING RWY 23L	
CAT IIIA ILS		CAT II ILS	
DH 50'		RA 92' DA(H) 238' (100')	
RVR 200m		RVR 300m I	

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

EDDL/DUS DUSSELDORF

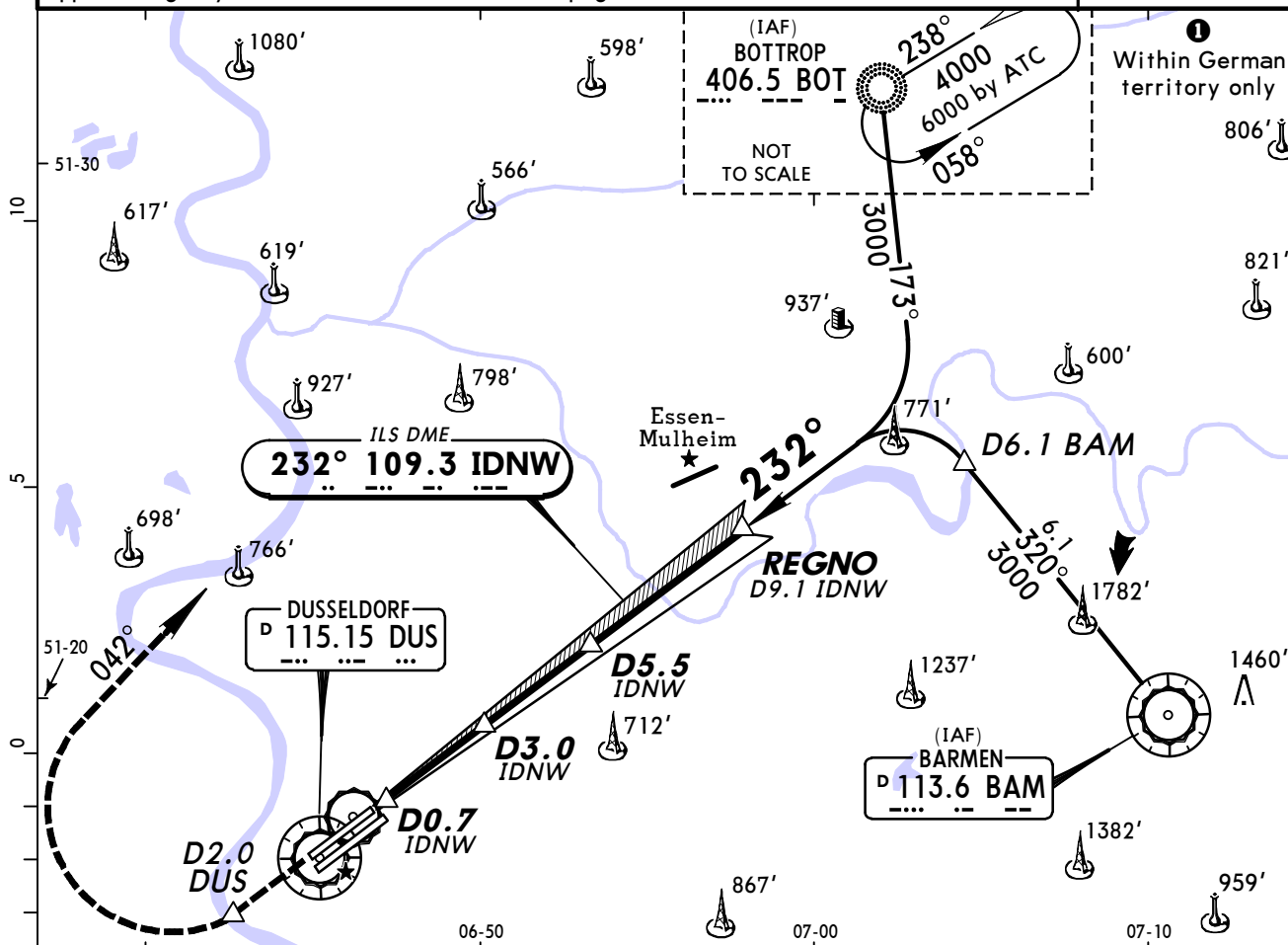
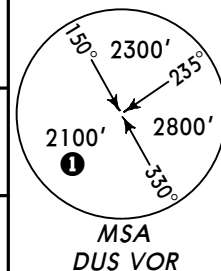
1 FEB 13

(11-4)

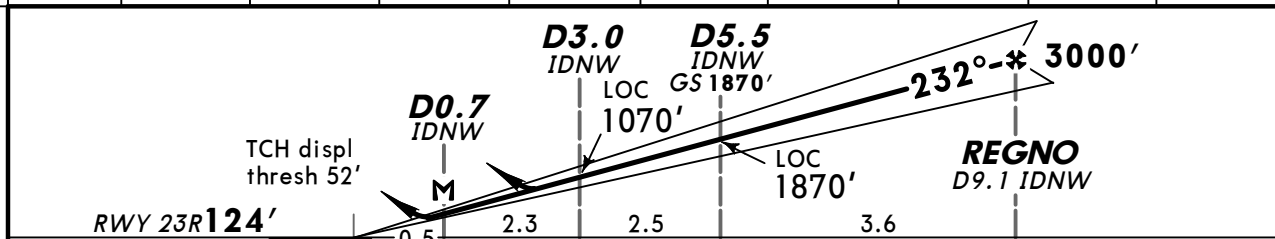
Eff 7 Feb

DUSSELDORF, GERMANY ILS or LOC Rwy 23R

*D-ATIS 115.15 123.77	LANGEN Radar (APP) 133.77 128.5	*DUSSELDORF Director (APP) 128.65	DUSSELDORF Tower 118.3	*Ground 121.9 121.6
LOC IDNW 109.3	Final Aptch Crs 232°	GS D5.5 IDNW 1870' (1746')	ILS DA(H) Refer to Minimums	Apt Elev 147' RWY 124'
MISSED APCH: Climb STRAIGHT AHEAD to D2.0 DUS, then turn RIGHT onto 042° to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23R. 3. LACFT: See ATC State pages.				



LOC (GS out)	IDNW DME	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
ALTITUDE		750'	1070'	1390'	1710'	2030'	2350'	2660'	2980'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI D2.0 DUS
ILS GS or	372	478	531	637	743	849	
LOC Descent Angle	3.00°						
MAP at D0.7 IDNW							

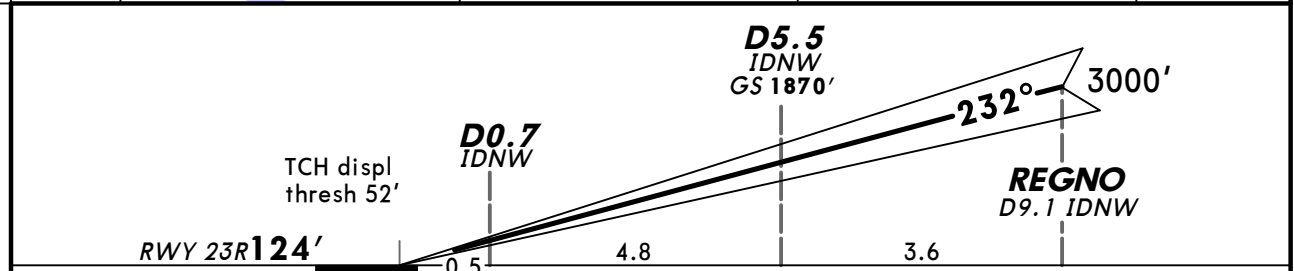
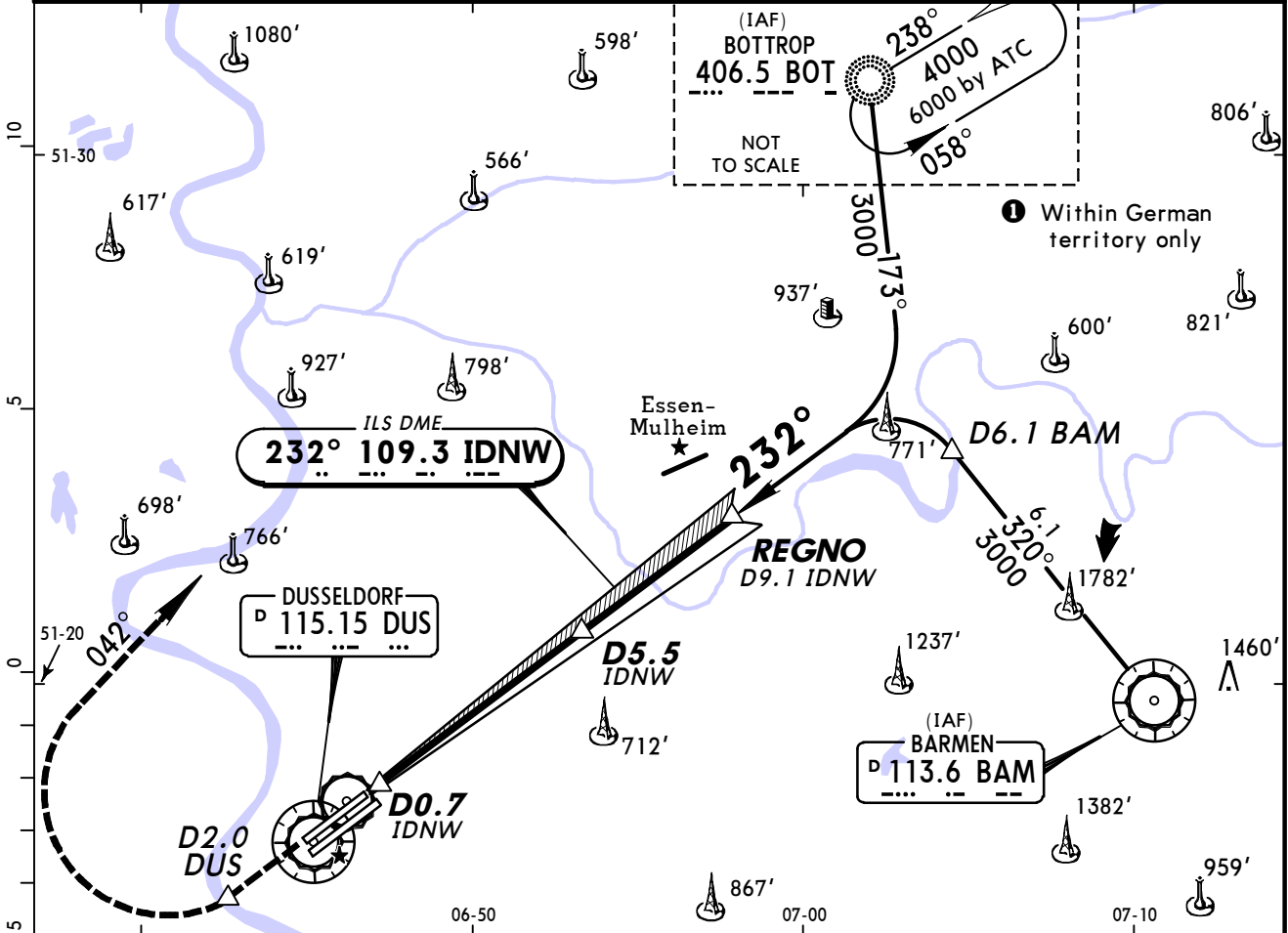
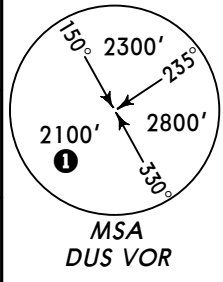
STRAIGHT-IN LANDING RWY 23R					LOC (GS out)	
ILS 1 DA(H) A: 324'(200') C: 354'(230') B: 331'(207') D: 364'(240')					DA(H) 510'(386')	
FULL		Limited	ALS out		ALS out	
A	RVR 550m		RVR 1200m		RVR 1100m	
B						
C						
D						

1 LACFT: DA(H) 367'(243'), ALS out RVR 1300m.

CHANGES: Bearings.

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*D-ATIS 115.15 123.77	LANGEN Radar (APP) 133.77 128.5	*DUSSELDORF Director (APP) 128.65	DUSSELDORF Tower 118.3	*Ground 121.9 121.6
LOC IDNW 109.3	Final Aptch Crs 232°	GS D5.5 IDNW 1870' (1746')	CAT II & IIIA ILS Refer to Minimums	Apt Elev 147' RWY 124'
MISSED APCH: Climb STRAIGHT AHEAD to D2.0 DUS, then turn RIGHT onto 042° to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000'				
1. DME required. 2. Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23R. 3. Special Aircrew & Acft Certification Required.				



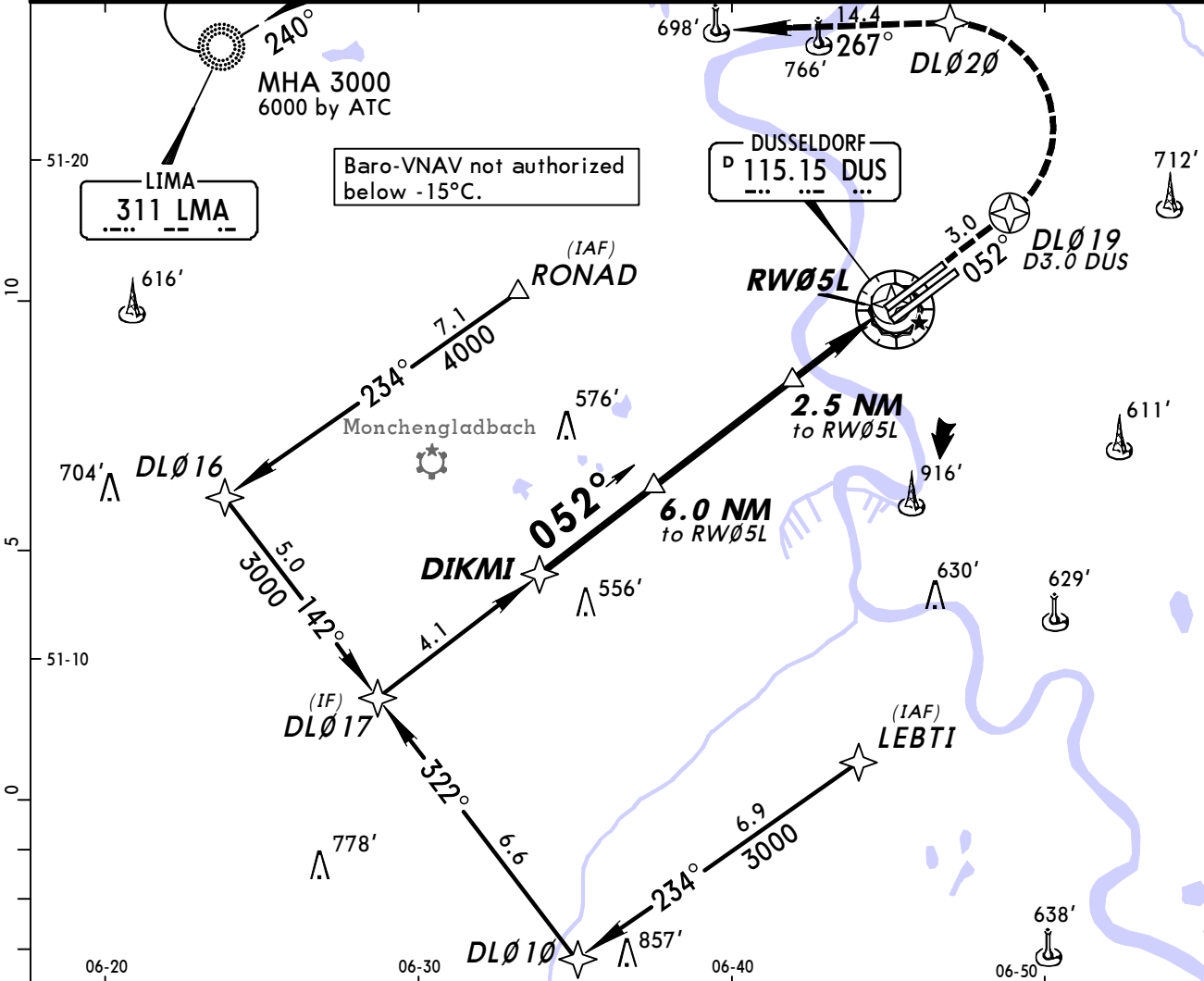
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D2.0 DUS ↑
GS	3.00°	372	478	531	637	743		

Standard		STRAIGHT-IN LANDING RWY 23R	
CAT IIIA ILS		CAT II ILS	
DH 50'		RA 100' DA(H) 224' (100')	
RVR 200m		RVR 300m 1	

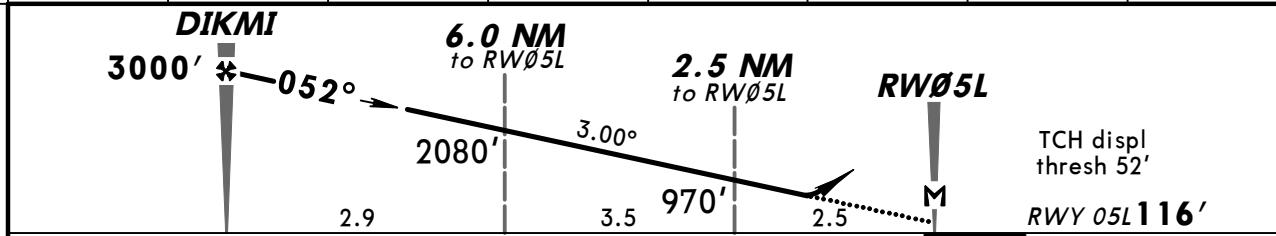
EDDL/DUS
DUSSELDORF

JEPPESEN DUSSELDORF, GERMANY
1 FEB 13 (12-1) Eff 7 Feb RNAV (GPS) Rwy 05L

*D-ATIS 115.15 123.77	LANGEN Radar (APP) 133.77 128.5	*DUSSELDORF Director (APP) 128.65	DUSSELDORF Tower 118.3	*Ground 121.9 121.6
RNAV	Final Apch Crs 052°	Minimum Alt DIKMI 3000' (2884')	LNAV/VNAV DA(H) 480' (364')	Apt Elev 147' RWY 116'
MISSED APCH: Climb on 052° to DLØ19, then turn LEFT via DLØ2Ø onto 267° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000'				



DIST to RWØ5L	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2400'	2080'	1760'	1450'	1130'	810'



Gnd speed-Kts	70	90	100	120	140	160	HIALS REIL PAPI DLØ19 ↑
Descent Angle	3.00°	372	478	531	637	743	
MAP at RWØ5L							

Standard				STRAIGHT-IN LANDING RWY 05L			
LNAV/VNAV		LNAV		LNAV		LNAV	
DA(H) 480' (364')		DA(H) 600' (484')		DA(H) 600' (484')		DA(H) 600' (484')	
ALS out		ALS out		ALS out		ALS out	
PANS OPS	A	RVR 1000m		RVR 1500m		RVR 1500m	
	B	RVR 1500m		RVR 1500m		RVR 1500m	
	C	RVR 1700m		RVR 1500m		CMV 2300m	

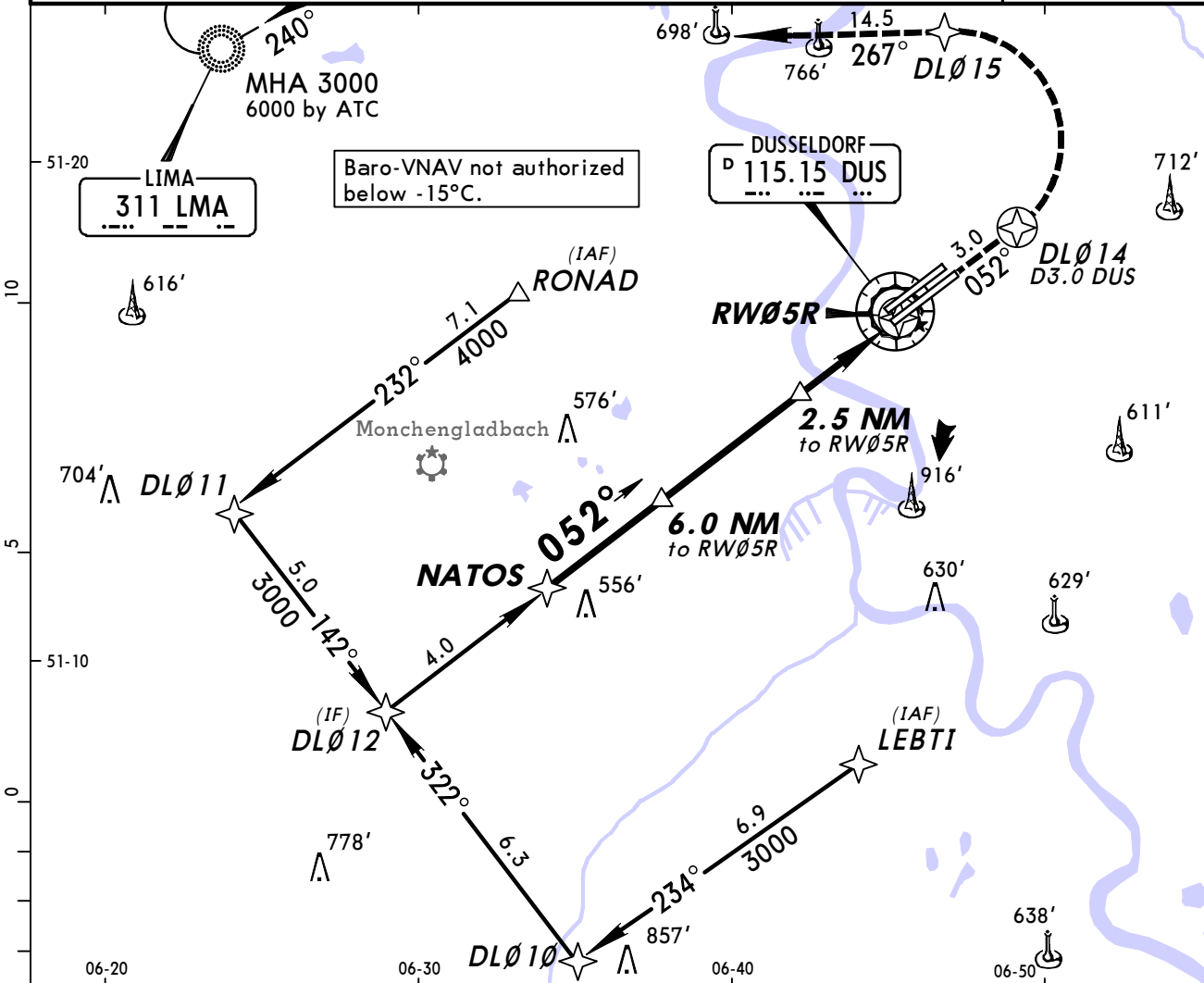
CHANGES: Missed approach. Holding.

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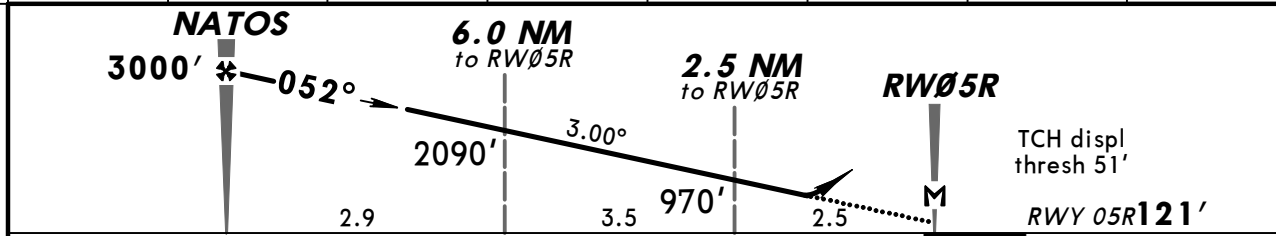
EDDL/DUS
DUSSELDORF

JEPPESEN DUSSELDORF, GERMANY
1 FEB 13 (12-2) Eff 7 Feb RNAV (GPS) Rwy 05R

*D-ATIS 115.15 123.77	LANGEN Radar (APP) 133.77 128.5	*DUSSELDORF Director (APP) 128.65	DUSSELDORF Tower 118.3	*Ground 121.9 121.6
RNAV	Final Apch Crs 052°	Minimum Alt NATOS 3000' (2879')	LNAV/VNAV DA(H) 540' (419')	Apt Elev 147' RWY 121'
MISSED APCH: Climb on 052° to DLØ14, then turn LEFT via DLØ15 onto 267° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000'				



DIST to RWØ5R	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2410'	2090'	1770'	1450'	1130'	810'



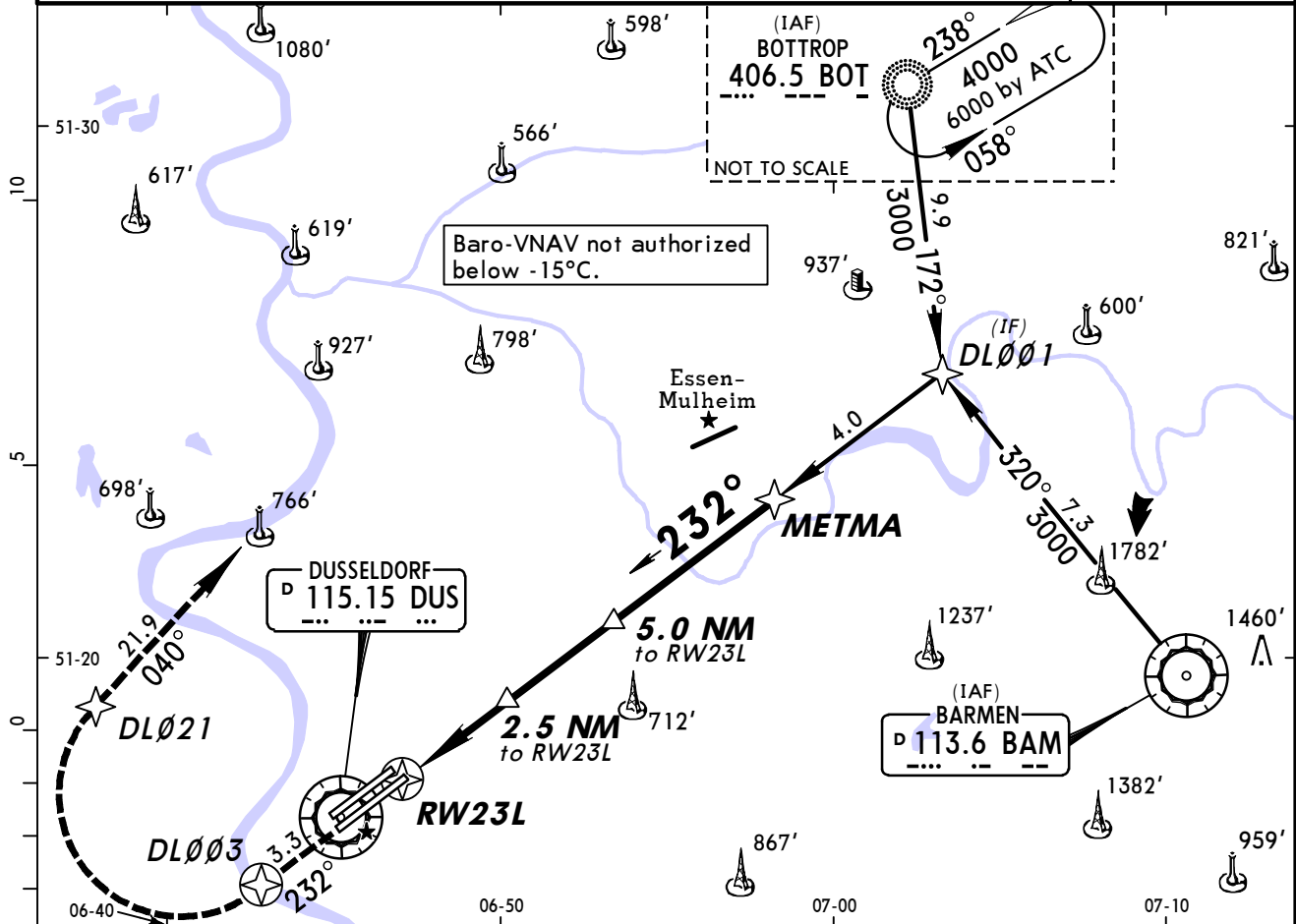
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI DLØ14 ↑
Descent Angle	3.00°	372	478	531	637	743	
MAP at RWØ5R							

Standard				STRAIGHT-IN LANDING RWY 05R			
LNAV/VNAV DA(H) 540' (419')				LNAV DA(H) 680' (559')			
ALS out				ALS out			
RVR 1200m				RVR 1500m			
RVR 1900m				RVR 1800m			
RVR 1500m				CMV 2400m			

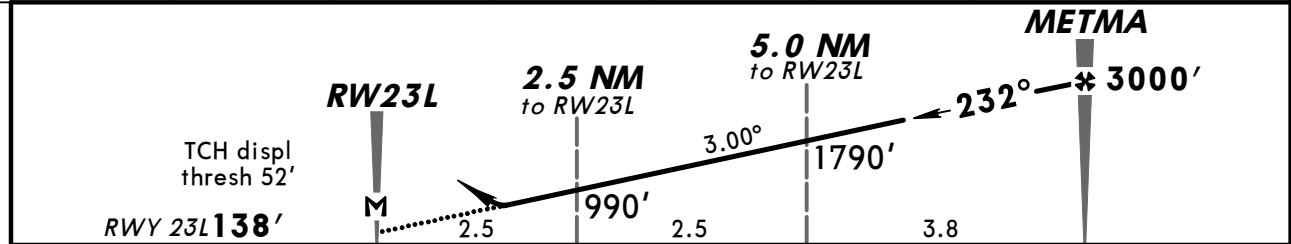
CHANGES: Missed approach. Holding.

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*D-ATIS	LANGEN Radar (APP)	*DUSSELDORF Director (APP)	DUSSELDORF Tower	*Ground
115.15 123.77	133.77 128.5	128.65	118.3	121.9 121.6
RNAV	Final Aptch Crs 232°	Minimum Alt METMA 3000' (2862')	LNAV/VNAV DA(H) 600' (462')	Apt Elev 147' RWY 138'
MISSED APCH: Climb on 232° to DL003, then turn RIGHT via DL021 onto 040° to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23L.				2800' MSA Airport (Within German territory only)



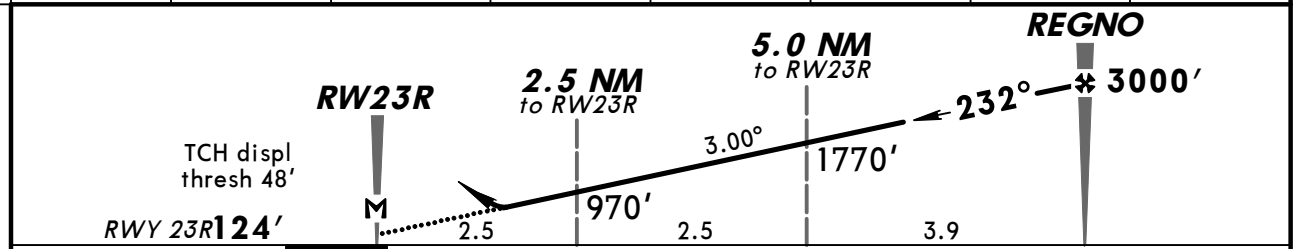
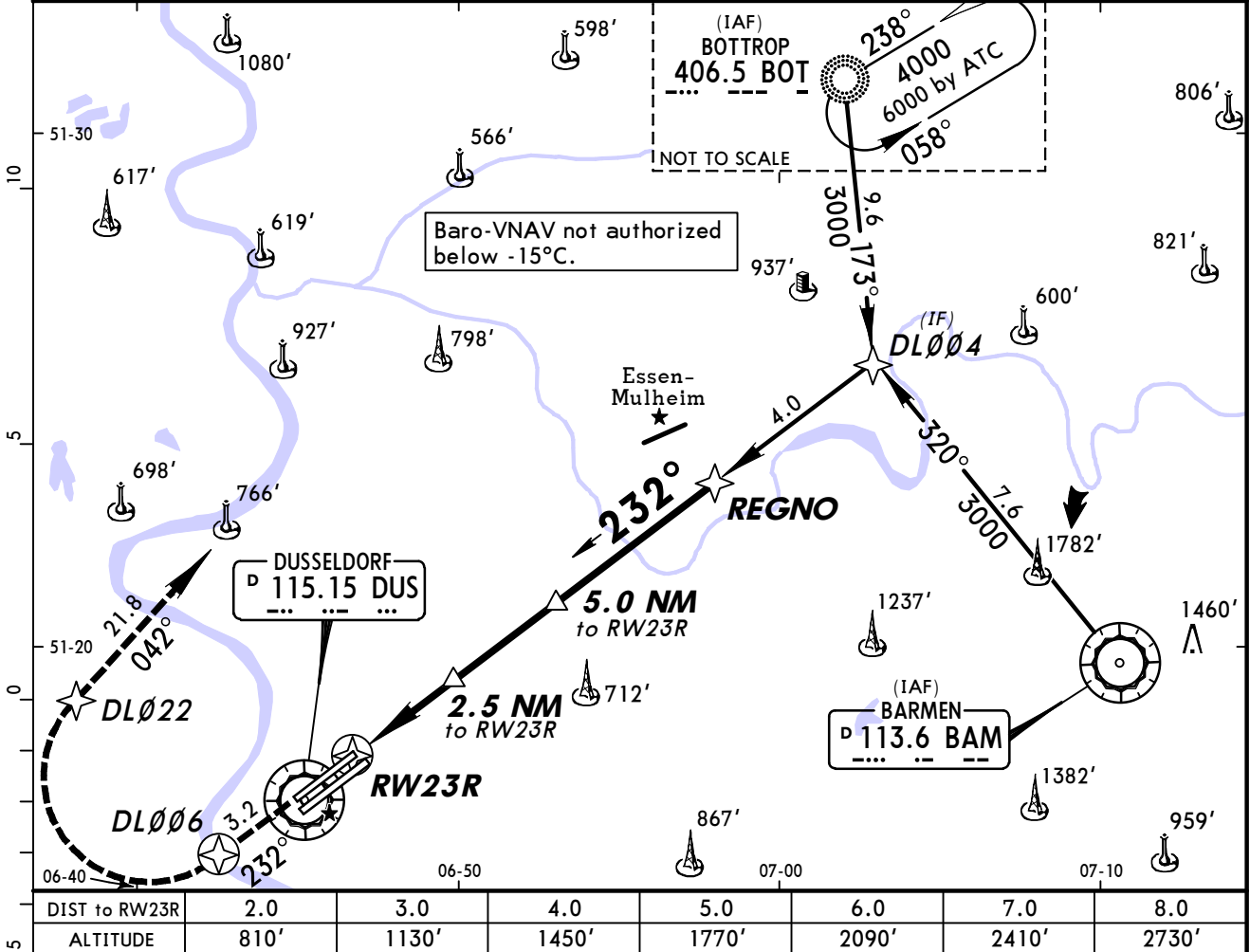
DIST to RW23L	2.0	3.0	4.0	5.0	6.0	7.0	8.0
ALTITUDE	830'	1150'	1470'	1790'	2110'	2420'	2740'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI DL003 ↑
Descent Angle	3.00°	372	478	531	637	743	
MAP at RW23L							

Standard		STRAIGHT-IN LANDING RWY 23L			
		LNAV/VNAV		LNAV	
		DA(H) 600' (462')		DA(H) A: 610' (472') BCD: 680' (542')	
		ALS out		ALS out	
A	RVR 1500m			RVR 1500m	
B					
C	RVR 1500m	CMV 2200m	RVR 1800m	CMV 2400m	
D					

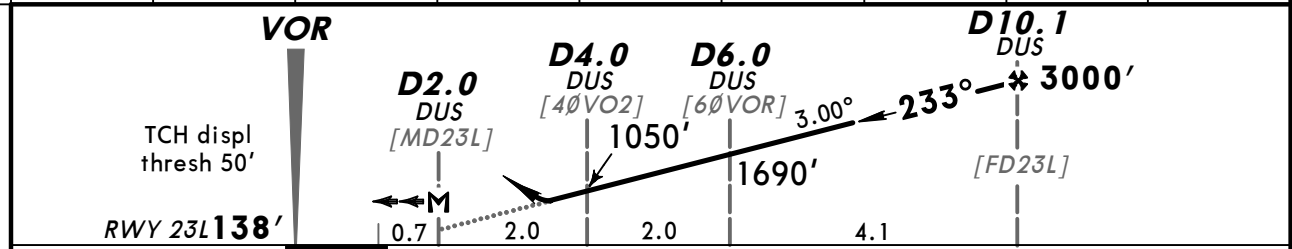
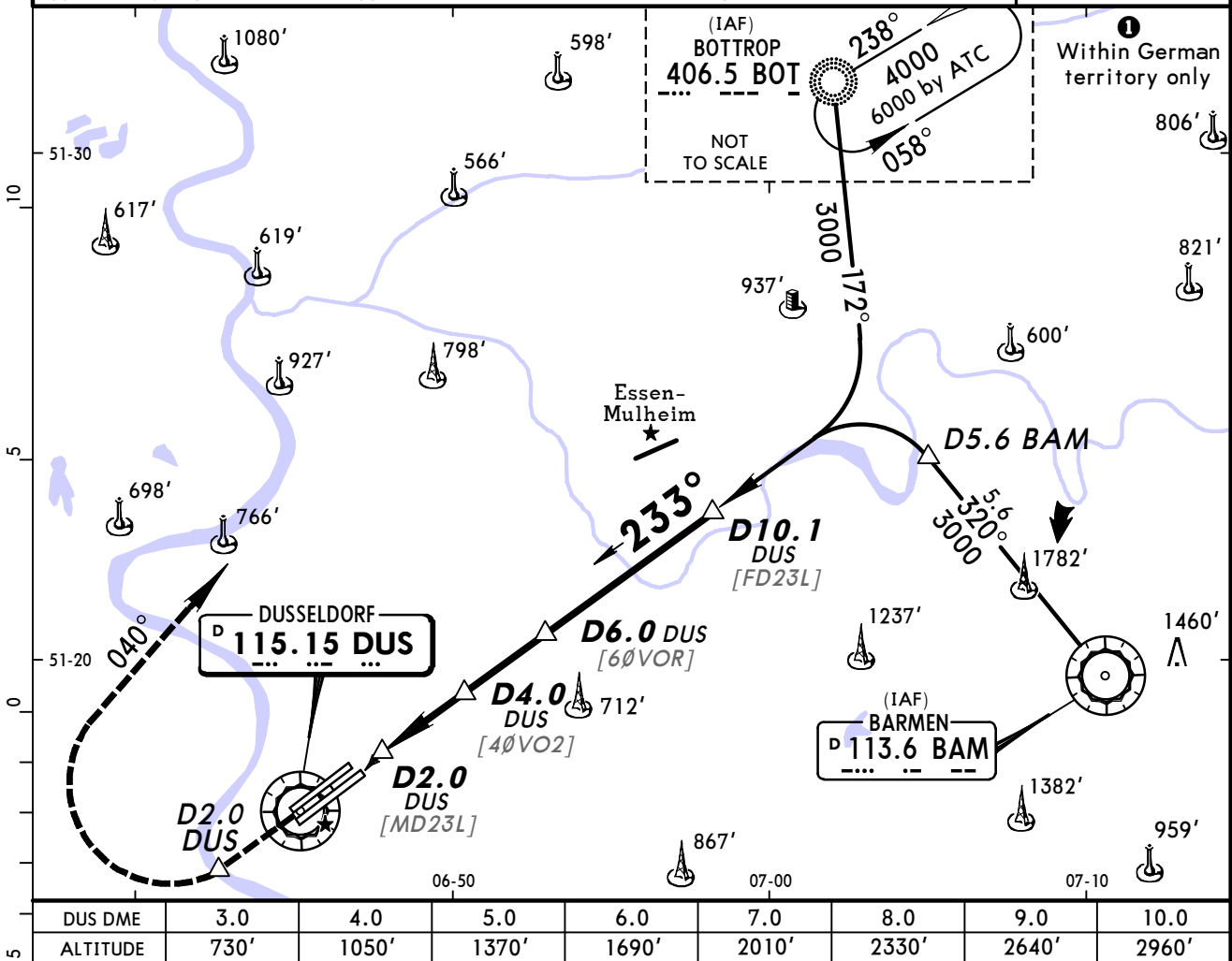
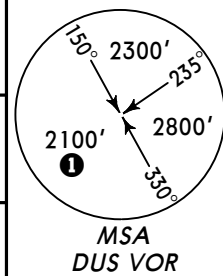
*D-ATIS	LANGEN Radar (APP)	*DUSSELDORF Director (APP)	DUSSELDORF Tower	*Ground
115.15 123.77	133.77 128.5	128.65	118.3	121.9 121.6
RNAV	Final Aptch Crs 232°	Minimum Alt REGNO 3000' (2876')	LNAV/VNAV DA(H) 620' (496')	Apt Elev 147' RWY 124'
MISSED APCH: Climb on 232° to DL006, then turn RIGHT via DL022 onto 042° to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23R.				2800' MSA Airport (Within German territory only)



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI DL006
Descent Angle	3.00°	372	478	531	637	743	
MAP at RW23R							

Standard		STRAIGHT-IN LANDING RWY 23R			
LNAV/VNAV		LNAV		LNAV	
DA(H) 620' (496')		DA(H) 640' (516')		DA(H) 640' (516')	
ALS out		ALS out		ALS out	
A	RVR 1500m		RVR 1500m		
B	RVR 1500m		RVR 1500m		
C	RVR 1500m	CMV 2300m	RVR 1600m	CMV 2400m	
D					

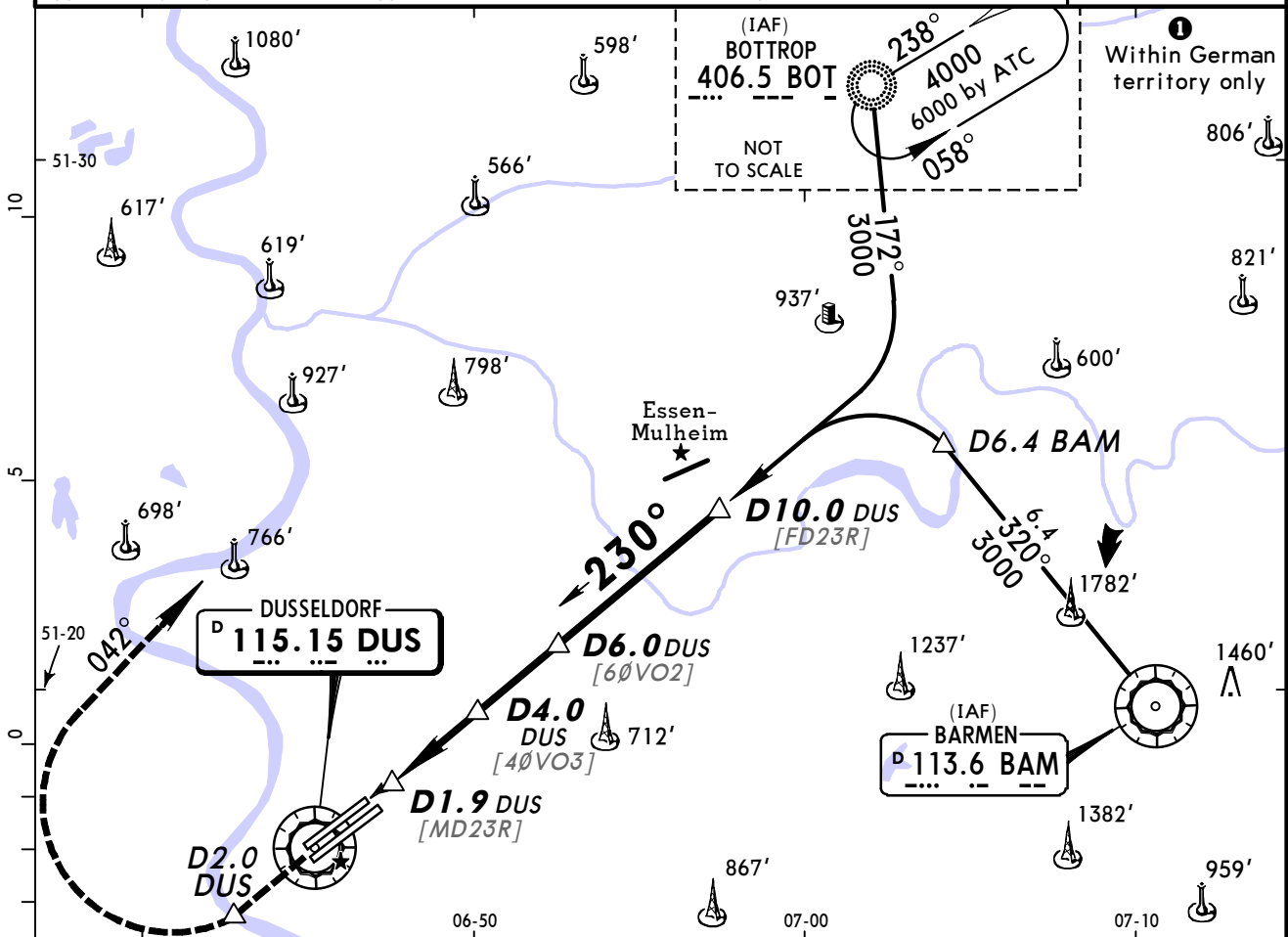
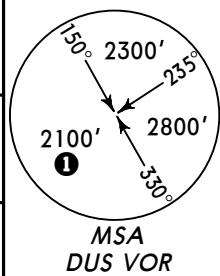
*D-ATIS	LANGEN Radar (APP)	*DUSSELDORF Director (APP)	DUSSELDORF Tower	*Ground
115.15 123.77	133.77 128.5	128.65	118.3	121.9 121.6
VOR DUS 115.15	Final Apch Crs 233°	Minimum Alt D10.1 DUS 3000' (2862')	DA(H) 700' (562')	Apt Elev 147' RWY 138'
MISSED APCH: Climb STRAIGHT AHEAD to D2.0 DUS, then turn RIGHT onto 040° to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23L. 3. Final approach track offset 1° from runway centerline.				



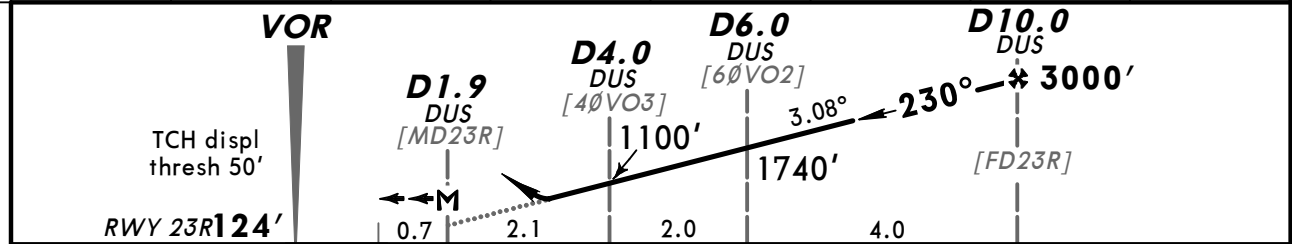
Gnd speed-Kts	70	90	100	120	140	160
Descent Angle	3.00°	372	478	531	637	743
MAP at D2.0 DUS						

Standard		STRAIGHT-IN LANDING RWY 23L	
		DA(H) 700' (562')	
		ALS out	
A	RVR 1500m		
B			
C	RVR 1900m	CMV 2400m	
D			

*D-ATIS	LANGEN Radar (APP)	*DUSSELDORF Director (APP)	DUSSELDORF Tower	*Ground
115.15 123.77	133.77 128.5	128.65	118.3	121.9 121.6
VOR DUS 115.15	Final Apch Crs 230°	Minimum Alt D10.0 DUS 3000' (2876')	DA(H) 700' (576')	Apt Elev 147' RWY 124'
MISSED APCH: Climb STRAIGHT AHEAD to D2.0 DUS, then turn RIGHT onto 042° to BOT NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 5 hPa Trans level: By ATC Trans alt: 5000'				
1. DME required. 2. Do not mistake ESSEN-MULHEIM 9.0 NM NE of DUSSELDORF when approaching rwy 23R. 3. Final approach track offset 2° from runway centerline.				



DUS DME	3.0	4.0	5.0	6.0	7.0	8.0	9.0
ALTITUDE	780'	1100'	1420'	1740'	2060'	2380'	2690'



Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI D2.0 DUS
Descent Angle	3.08°	381	490	545	654	763	
MAP at D1.9 DUS							

Standard		STRAIGHT-IN LANDING RWY 23R	
		DA(H) 700' (576')	
		ALS out	
A	RVR 1500m		
B			
C	RVR 1900m	CMV 2400m	
D			

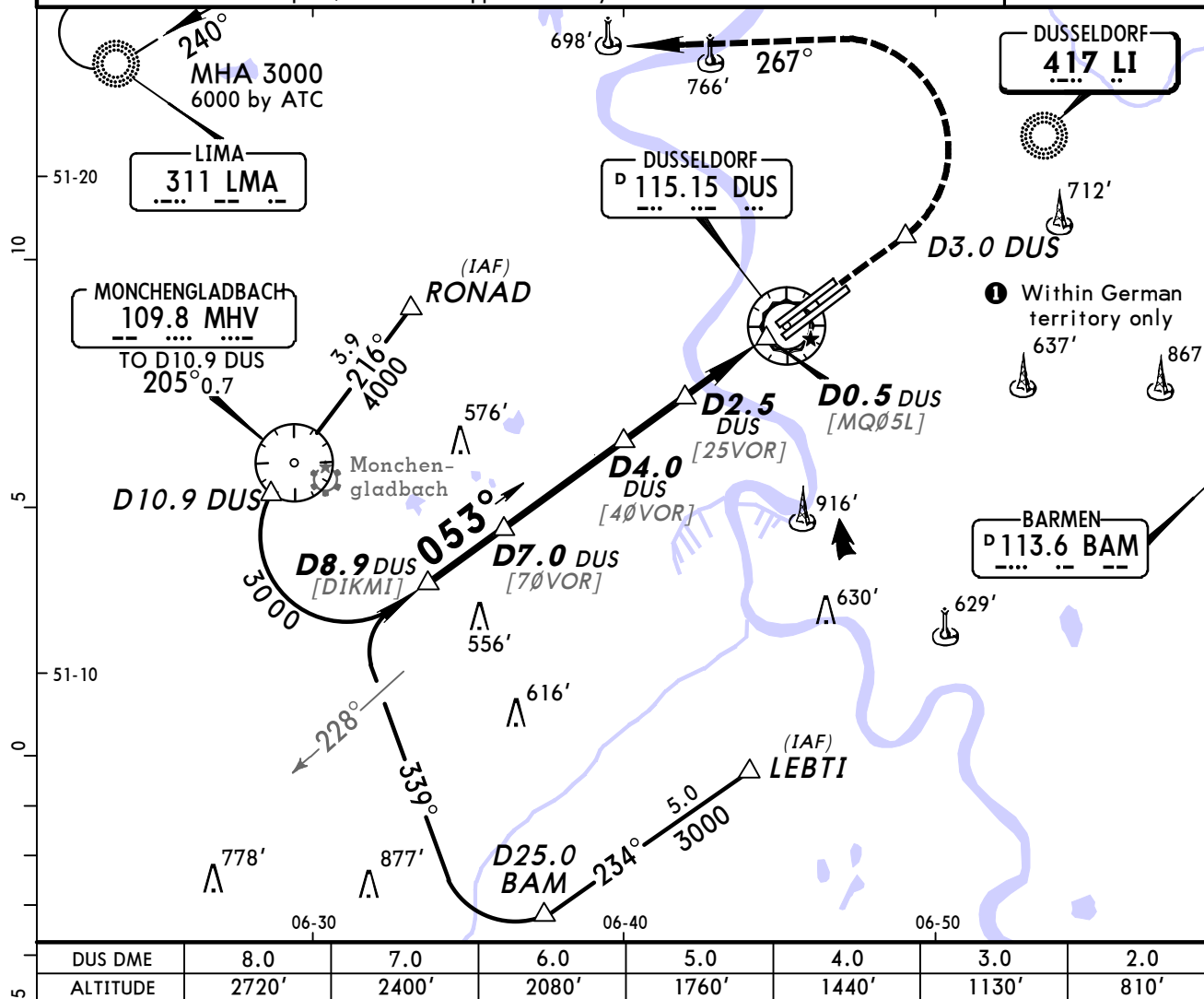
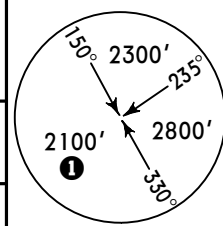
EDDL/DUS
DUSSELDORF

6 JUN 14 (16-1)

DUSSELDORF, GERMANY
NDB Rwy 05L

BRIEFING STRIP™

*D-ATIS 115.15 123.77	LANGEN Radar (APP) 133.77 128.5	*DUSSELDORF Director (APP) 128.65	DUSSELDORF Tower 118.3	*Ground 121.9 121.6
Lctr LI 417	Final Apch Crs 053°	Minimum Alt D8.9 DUS 3000' (2884')	DA(H) 680' (564')	Apt Elev 147' RWY 116'
MISSED APCH: Climb STRAIGHT AHEAD to D3.0 DUS, then turn LEFT onto 267° to LMA NDB climbing to 4000'.				
Alt Set: hPa (IN on req) Rwy Elev: 4 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Final approach track offset 1° from runway centerline. 3. Course fluctuations plus/minus 10° approximately 1.5 NM in front of threshold.				



DUS DME	8.0	7.0	6.0	5.0	4.0	3.0	2.0
ALTITUDE	2720'	2400'	2080'	1760'	1440'	1130'	810'

3000' * -053°	D7.0 DUS	D4.0 DUS [40VOR]	D2.5 DUS [25VOR]	D0.5 DUS [MQ05L]	LI Lctr
D8.9 DUS [DIKMI]	2400'	1440'	970'		
1.9	3.0	1.5	2.0	0.5	

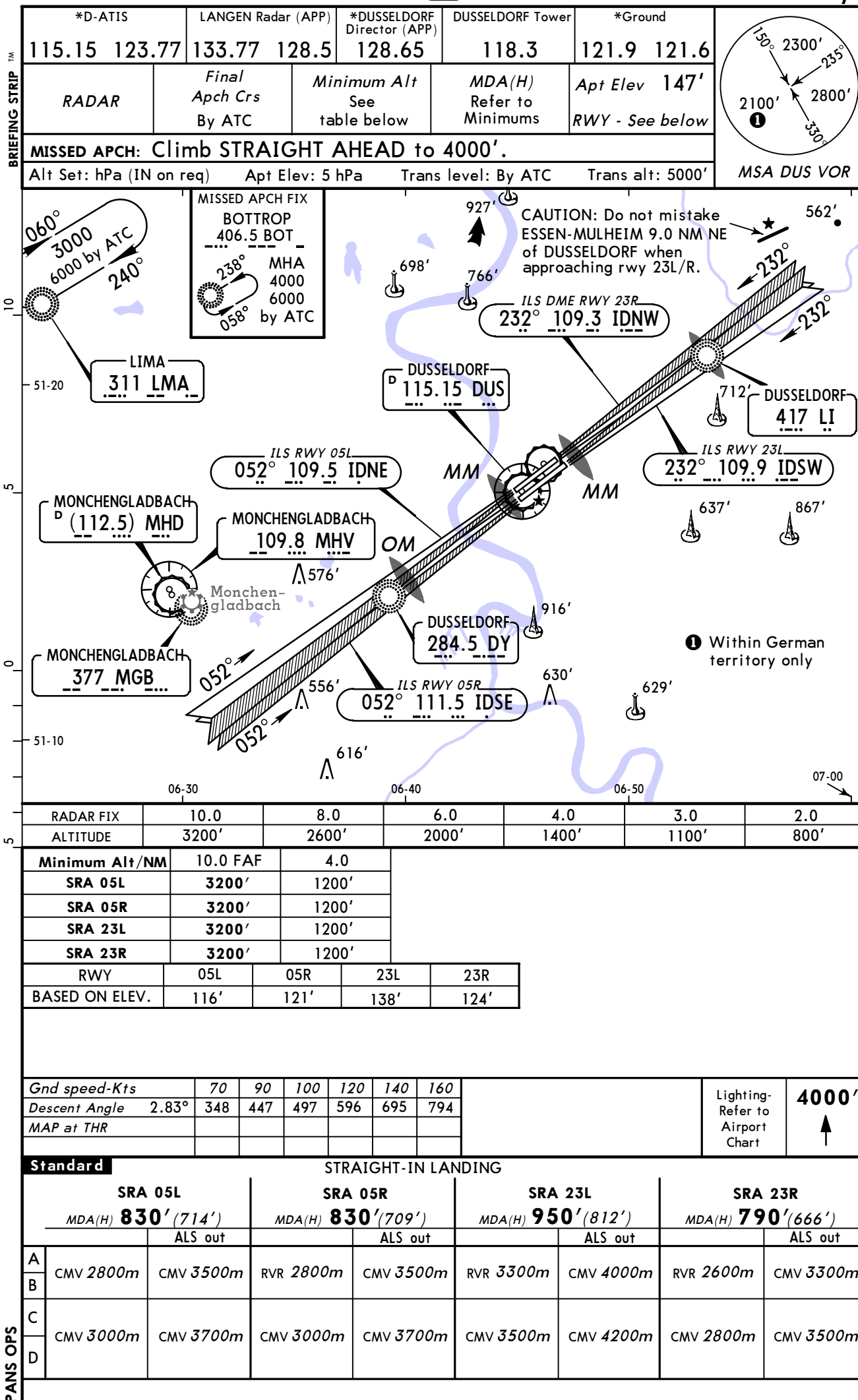
Gnd speed-Kts	70	90	100	120	140	160		HIALS	D3.0 DUS
Descent Angle	3.00°	372	478	531	637	743	849	REIL PAPI	
MAP at D0.5 DUS									

Standard STRAIGHT-IN LANDING RWY 05L									
DA(H) 680' (564')									
ALS out									
A	RVR 1500m								
B									
C									
D	RVR 1900m CMV 2400m								

PANS OPS

CHANGES: None.

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DUSSELDORF, (DUSSELDORF - EDDL)

TERMINAL CHART CHANGE NOTICES

No Chart Change Notices for Airport EDDL