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Airport Information For EDDK

Terminal Charts For EDDK

Revision Letter For Cycle 01-2014

Change Notices

Notebook

General Information

Location: Cologne-Bonn Deu
IATA Code: CGN
Lat/Long: N50° 52.0' E007° 08.6'
Elevation: 302 ft

Airport Use: Public
Magnetic Variation: 1.3°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: Yes

Sunrise: 0733 Z
Sunset: 1541 Z,

Runway Information

Runway: 06
Length x Width: 8067 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 231 ft
Lighting: Edge, ALS, Centerline

Runway: 14L
Length x Width: 12516 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 230 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ

Runway: 14R
Length x Width: 6112 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 221 ft
Lighting: Edge, ALS, Centerline

Runway: 24
Length x Width: 8067 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 272 ft
Lighting: Edge, ALS, Centerline

Runway: 32L
Length x Width: 6112 ft x 148 ft
Surface Type: concrete
TDZ-Elev: 259 ft
Lighting: Edge, ALS, Centerline

Runway: 32R
Length x Width: 12516 ft x 197 ft
Surface Type: asphalt
TDZ-Elev: 302 ft
Lighting: Edge, ALS, Centerline, REIL, TDZ

Communication Information

ATIS 132.125
ATIS 112.15
Cologne-Bonn Ground Tower 121.725
Cologne-Bonn Delivery Tower 121.85
Cologne-Bonn Tower 124.975
Cologne-Bonn Tower 25.465 Military
Cologne-Bonn Tower 25.302 Military
Cologne-Bonn Military Ground Control 136.25 Military
Cologne-Bonn Military Ground Control 25.465 Military
Cologne-Bonn Apron Ramp/Taxi Control 121.95
Cologne-Bonn Director (Approach Control Radar) 121.05
Cologne-Bonn Director (Approach Control Radar) 38.952 Military

1. GENERAL

1.1. ATIS

D-ATIS 112.15 132.12

1.2. NIGHT FLYING RESTRICTIONS

1. Jet ACFT not licensed in accordance with ICAO Annex 16 and jet ACFT licensed in accordance with ICAO Annex 16, Volume I, Chapter 2:
 - Take-offs and landings are not permitted on all RWYs between 2000LT(1950LT off blocks)-0800LT.
2. Jet ACFT licensed in accordance with ICAO Annex 16, Volume I, Chapter 3 which are not included in the Bonus List published by the Ministry of Transport:
 - Scheduled and delayed take-offs as well as scheduled landings are not permitted on all RWYs between 2200LT(2150LT off blocks)-0600LT.
 - Delayed landings are not permitted on RWYs 14R and 06 between 2200LT-0600LT.
3. Jet ACFT licensed in accordance with ICAO Annex 16, Volume I, Chapter 3 which are included in the Bonus List (in case of a change to the List, jet ACFT which are no longer included may continue to be used until 31 October 2015, insofar as they have already been employed by ACFT operating agencies at Cologne-Bonn APT):
 - Scheduled and delayed take-offs are not permitted on RWYs 14R, 32L and 24 between 2200LT(2150LT off blocks)-0600LT.
 - Landings are not permitted on RWYs 14R and 06 between 2200LT-0600LT.
4. Propeller-driven ACFT not licensed in accordance with ICAO Annex 16 and/or LSL:
 - Take-offs and landings are not permitted on all RWYs between 2200LT(2150LT off block)-0600LT.
5. Propeller-driven ACFT licensed in accordance with ICAO Annex 16, Volume I, Chapters 3, 5, 6 or 10 and/or according to LSL Chapters III, V, VI or X:
 - Scheduled and delayed take-offs are not permitted on RWYs 14R, 32L and 24 between 2200LT(2150LT off blocks)-0600LT.
 - Landings are not permitted on RWYs 14R and 06 between 2200LT-0600LT.

EXCEPTIONS:

Exempt from the restrictions mentioned in para 1 - 5 are: Landings of ACFT provably approaching Cologne-Bonn APT as 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.

Take-offs of all kinds of ACFT are permitted on RWYs 06, 14L and 32R between 2200-0600LT only from THR or from the positions A5 (RWY 14L) and/or A1 (RWY 32R). Air Navigation Services Unit Cologne-Bonn may grant exceptions in individual cases if the traffic situation demands so.

Deviating from the regulations the Bezirksregierung Dusseldorf (Luftaufsicht Cologne-Bonn) may grant additional exceptions in justified individual cases, especially if necessary to avoid considerable disturbances of air traffic or in cases of special public interest. If appropriate, applications shall be submitted to:

Luftaufsicht Cologne-Bonn
Flughafen T1 M503
51147 Koeln
Tel: (02203) 40-2291
(0163) 9750221
Telefax: (02203) 40-2290

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 'Luftaufsicht' about the admissibility of a night landing. In case of a landing or premature landing (before 0600LT) not approved by the 'Luftaufsicht', the pilot shall appear in person at the 'Luftaufsicht' immediately after landing in order to defend admissibility of the night landing.

Clearances for take-offs during closing times issued by ATC do not comprise the necessary exceptional permission by the 'Luftaufsicht'.

1. GENERAL

1.3. REVERSE THRUST

Reverse thrust other than idle shall not be used for landings on RWYs 32R and 14L between 2200-0600LT except for safety reasons.

1.4. RUN-UP TESTS

Engine test-runs without the use of noise suppression facilities are generally not permitted.

1.5. TAXI PROCEDURES

1.5.1. GENERAL

TWY D between TWY A and TWY T MAX wingspan 213'/65m.

TWY B from TWY T up to TWY bridge of TWY B inclusively MAX wingspan 171'/52m.

TWY bridge of TWY B MAX 200 mt AUW.

TWY C between THR 32L and TWY A only for towing up to code C ACFT with wheel base less than 59'/18m.

For ACFT with a wingspan of more than 171'/52m, it is mandatory to use the yellow marked and green/ green lighted taxiing guide line on TWY M.

1.5.2. TAXIING ON THE APRONS

ACFT may taxi on the aprons without guidance by a Follow-me car only if permanent radio contact can be maintained with aerodrome control while taxiing. If a Follow-me car is employed, the pilot shall observe its signals. If the pilot requires the assistance of a Follow-me car when taxiing, he may request this from aerodrome control.

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

On the aprons, ACFT may only taxi on or along the yellow taxiing guide lines and on aprons C and D on or along the orange and blue taxiing guide lines, respectively.

Deviations and shortcuts are not allowed. In exceptional cases, taxiing off the guide lines will be permitted under the guidance of a Follow-me car or in agreement with aerodrome control.

1.5.3. USE OF A380

General:

After leaving the RWY, ACFT shall stop and wait for the Follow-me car. As a rule, ACFT will be guided by a Follow-me car in the areas between the taxi-holding positions and the parking positions.

Taxiing onto and exiting from RWY 14L/32R:

Landing 14L: TWY A

Landing 32R: TWY A4

Take-off 14L: TWY A5

Take-off 32R: TWY A (On request, ACFT can be guided by a Follow-me car to the take-off area.)

Taxi-Holding positions in front of RWY 14L/32R:

Only the CAT II/III taxi-holding positions (pattern B markings) may be used.

Taxi-Holding positions in front of RWY 06/24:

The separate taxi-holding positions marked for A380 shall be used.

Taxiing on TWY A:

Attention is drawn to the reduced TWY width between RWY 06/24 and position area F.

Other:

ACFT with wingspan of 118'/36m or more may no longer taxi on TWY E if A380 is taxiing on TWY A (between RWY 06/24 and TWY A7).

1.6. PARKING INFORMATION

Visual Docking Guidance System APIS available on stands D1 thru D12.

2. ARRIVAL

2.1. SPEED RESTRICTIONS

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

2.2. NOISE ABATEMENT PROCEDURES

2.2.1. CONTINUOUS DESCENT APPROACH (CDA)

CDA noise abatement procedure in progress daily between 2200-0800LT, for MD-11 and B744 at all times.

Depending on the traffic situation, ATC will either use radar vectoring to final approach with distance-to-go (DTG) information or clear ACFT for RNAV "transition and profile".

During radar vectoring pilots shall expect descent below FL70 approx 26 NM to touchdown. Unless otherwise instructed by ATC pilots are expected to reduce speed to MAX 220 KT prior to descent below FL70, aim for a low-noise CDA, maintain at least 190 KT to 12 NM final, extend gear 2000' AGL or later, perform final landing configuration approaching LOM and aim for a low-noise CDA without level flight below FL70.

Clearance for RNAV transition may include clearance to follow vertical profile. When cleared for "transition and profile", pilots shall respect the published levels and speeds and aim for a low-noise CDA below FL 70. They should extend the landing gear only upon reaching 2000' GND or later and perform final landing configuration approaching LOM.

For monitoring purposes, a descent will be considered to be continuous provided that no route segment has a height change of less than 50' over a track distance of 2 NM, as recorded in the Flight Track and Aircraft Noise Monitoring System (FANOMOS).

2.3. CAT II/III OPERATIONS

RWY 14L/32R approved for CAT II/III operations, special aircrew and ACFT certification required.

3. DEPARTURE

3.1. PUSH-BACK PROCEDURE

To receive instructions to push-back from a nose-in position, pilots are requested to establish contact with the driver of the ACFT tractor. The pilot may enquire only when the manoeuvre can be carried out immediately. The driver of the ACFT tractor will carry out the push-back procedure as soon as he has received the necessary clearance from ATC. In order to avoid delays, the engines shall be started during push-back. After push-back has been completed successfully, readiness to taxi shall be reported to aerodrome control.

3.2. NOISE ABATEMENT PROCEDURES

To improve adherence to the prescribed departure routes, the pilot-in-command shall use the autopilot at the earliest opportunity, unless otherwise instructed by ATC.

3.3. OTHER INFORMATION

3.3.1. DATALINK DEPARTURE CLEARANCE (DCL)

The following time parameters apply:

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

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D-ATIS
112.15
132.12

Apt Elev
302'

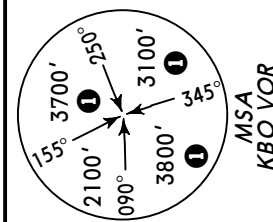
Alt Set: hPa (IN on request) Trans level: By ATC Trans alt: 5000'
When cleared for "transition and profile" aim for a low noise continuous descent approach (CDA) within the constraints as laid down in the procedure description.

GULKO 06 [GUL06], KOPAG 06 [KOP06] RWY 06 RNAV TRANSITIONS

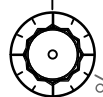
GPS/FMS-EQUIPPED AIRCRAFT

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

1 2800' within 15 NM

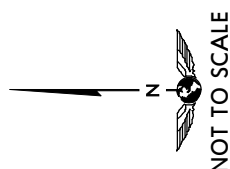


GERMINGHAUSEN
D 115.4 GMH
N51 10.2 E007 53.5

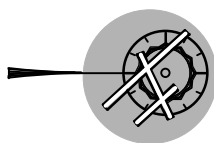


Clearance Limit
KOPAG
N51 03.9 E007 48.6
At or below
FL120

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



COLOGNE-BONN
D 112.15 KBO
N50 51.7 E007 08.7

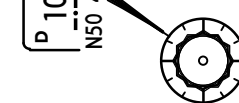


(FAF)
BEBSA
N50 47.9 E006 55.3
At or above
3000'

DK754
N50 46.2
E006 49.6
Minimum
190 KT

Clearance Limit
GULKO
N50 45.3
E007 56.3
At or below
FL140

COLA
D 108.8 COL
N50 47.0 E007 35.7



DK718
N50 48.6
E007 15.8
GULKO 06
MAX 220 KT

DK717
N50 46.9
E007 10.1
At or above
FL70
MAX 220 KT

DK729
N50 42.3 E007 31.4

DK715
N50 41.7 E006 53.0

ROUTING

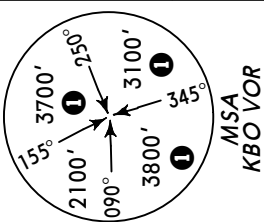
TRANSITION

GULKO 06	GULKO (FL140-) - DK729 - DK718 (K220-) - DK717 (FL70+; K220-) - DK715 - DK754 (K190+) - BEBSA (3000'+).
KOPAG 06	KOPAG (FL120-) - DK719 - DK717 (FL70+; K220-) - DK715 - DK754 (K190+) - BEBSA (3000'+).

D-ATIS
112.15
132.12

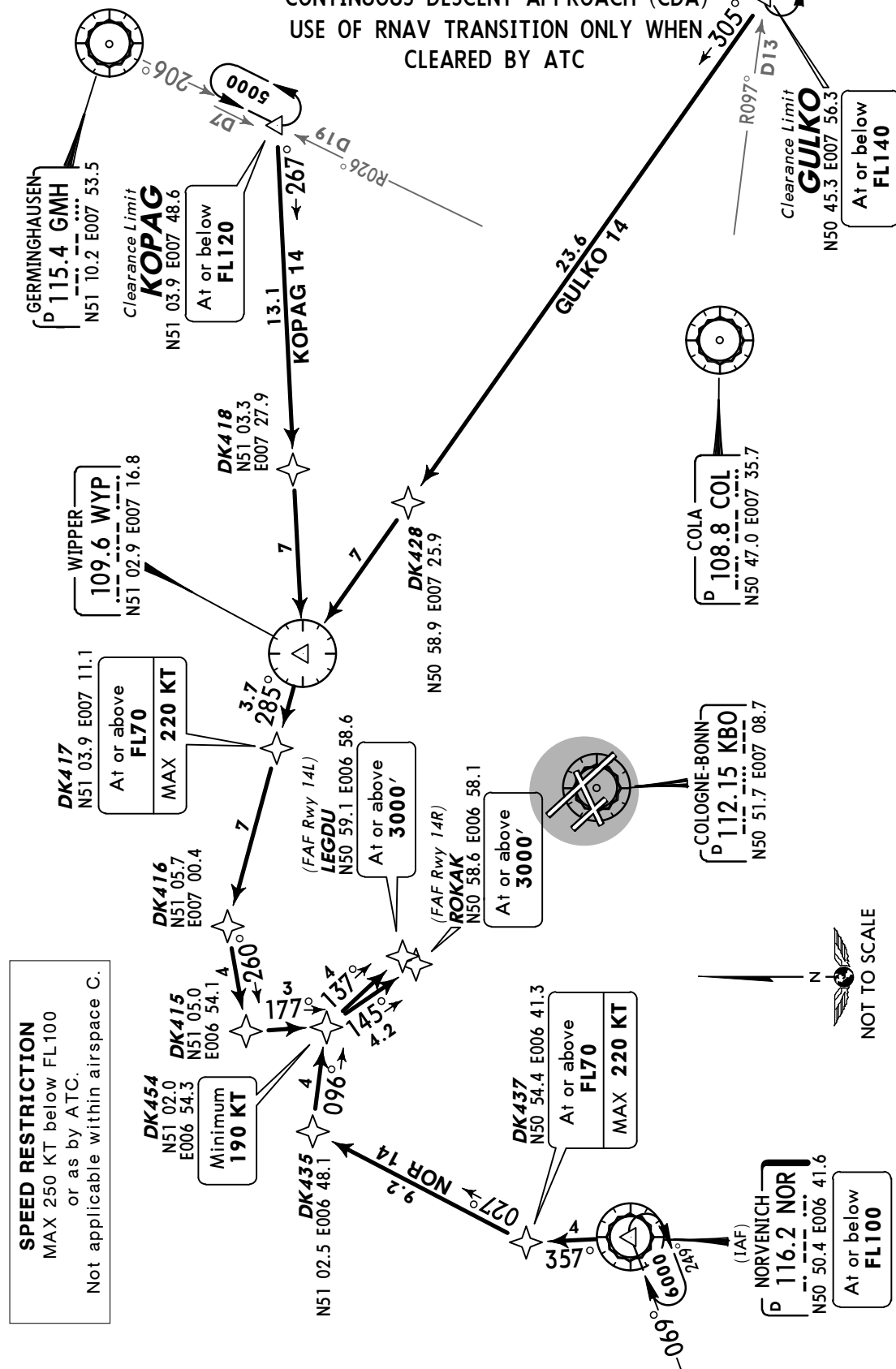
Apt Elev
302'

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



① 2800' within 15 NM

**GULKO 14 [GUL14]
KOPAG 14 [KOP14], NOR 14
RWYS 14L/R RNAV TRANSITIONS**
GPS/FMS-EQUIPPED AIRCRAFT
FLY THE TRANSITIONS AS
CONTINUOUS DESCENT APPROACH (CDA)
USE OF RNAV TRANSITION ONLY WHEN
CLEARED BY ATC



D-ATIS
112.15
132.12

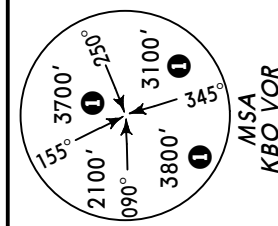
Apt Elev
302'

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



GULKO 24 [GUL24], KOPAG 24 [KOP24] NOR 24A [NO24A], NOR 24B [NO24B] RWY 24 RNAV TRANSITIONS

GPS/FMS-EQUIPPED AIRCRAFT
FLY THE TRANSITIONS AS
CONTINUOUS DESCENT APPROACH (CDA)
USE OF RNAV TRANSITION ONLY
WHEN CLEARED BY ATC



Clearance Limit
KOPAG

N51 03.9 E007 48.6
At or below
FL120
MAX 220 KT

DK537
N50 59.5 E007 11.5
At or above
FL70
MAX 220 KT

DK536
N51 03.8 E007 25.8
At or above
FL70
MAX 220 KT

DK535
N51 00.0 E007 28.7
At or above
FL70
MAX 220 KT

DK534
N50 57.1 E007 25.6
At or above
FL70
MAX 220 KT

DK545
N50 56.9 E007 31.1
At or above
FL70
MAX 220 KT

DK546
N50 52.9 E007 34.0
At or above
FL70
MAX 220 KT

DK547
N50 48.7 E007 19.7
At or above
FL70
MAX 220 KT

DK548
N50 45.3 E007 56.3
At or below
FL110

DK549
N50 47.0 E007 35.7
At or below
FL110

DK550
N50 44.3 E007 44.3
At or above
FL70
MAX 220 KT

DK551
N50 41.6 E007 51.6
At or above
FL70
MAX 220 KT

DK552
N50 38.9 E007 58.9
At or above
FL70
MAX 220 KT

DK553
N50 36.2 E007 66.2
At or above
FL70
MAX 220 KT

DK554
N50 33.5 E007 73.5
At or above
FL70
MAX 220 KT

DK555
N50 30.8 E007 80.8
At or above
FL70
MAX 220 KT

DK556
N50 28.1 E007 88.1
At or above
FL70
MAX 220 KT

DK557
N50 25.4 E007 95.4
At or above
FL70
MAX 220 KT

DK558
N50 22.7 E007 102.7
At or above
FL70
MAX 220 KT

DK559
N50 20.0 E007 110.0
At or above
FL70
MAX 220 KT

DK560
N50 17.3 E007 117.3
At or above
FL70
MAX 220 KT

DK561
N50 14.6 E007 124.6
At or above
FL70
MAX 220 KT

DK562
N50 11.9 E007 131.9
At or above
FL70
MAX 220 KT

DK563
N50 9.2 E007 139.2
At or above
FL70
MAX 220 KT

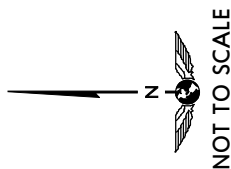
DK564
N50 6.5 E007 146.5
At or above
FL70
MAX 220 KT

DK565
N50 3.8 E007 153.8
At or above
FL70
MAX 220 KT

DK566
N50 1.1 E007 161.1
At or above
FL70
MAX 220 KT

DK567
N50 0.4 E007 168.4
At or above
FL70
MAX 220 KT

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



NOR 24A
21°

NOR 24B
24.2°

COLOGNE-BONN
D 112.15 KBO
N50 51.7 E007 08.7

NORVENICH
D 116.2 NOR
N50 50.4 E006 41.6
At or below
FL140

ROUTING

TRANSITION

TRANSITION	ROUTING
GULKO 24	GULKO (FL110-) - DK527 (FL70+; K220-) - DK515 - DK554 (K190+) - KUKIT (3000'+).
KOPAG 24	KOPAG (FL120-; K220-) - DK554 (K190+) - KUKIT (3000'+).
NOR 24A	NOR (FL140-) - DK537 (FL70+; K220-) - DK536 - DK535 - DK554 (K190+) - KUKIT (3000'+).
NOR 24B	NOR (FL140-) - DK547 (FL70+; K220-) - DK546 - DK545 - DK554 (K190+) - KUKIT (3000'+).

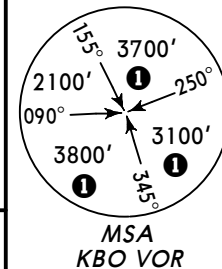
2800' within 15 NM

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LANGEN
Radar
118.75

Apt Elev
302'

Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Rwy 24: EXPECT close-in obstacles.



① 2800' within 15 NM

COLA NINE BRAVO (COL 9B)

COLA FIVE DELTA (COL 5D)

COLA SIX ECHO (COL 6E)

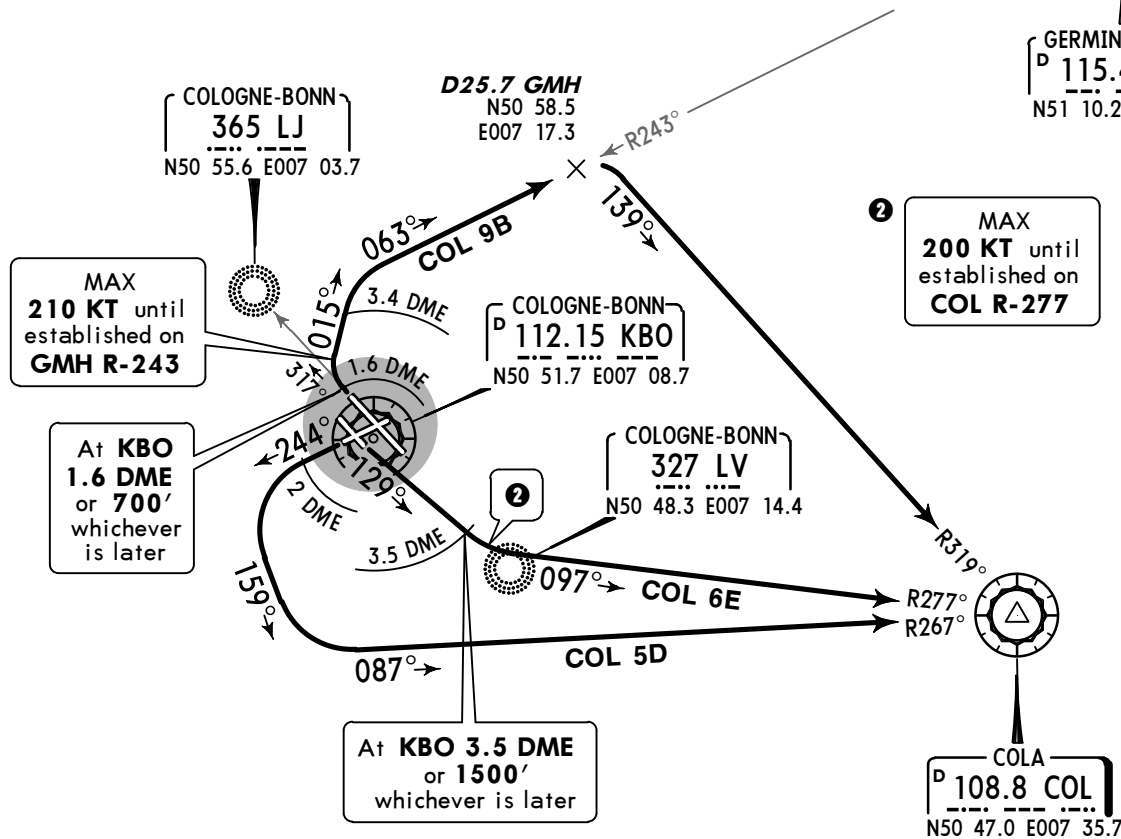
RWYS 32R, 24, 14R DEPARTURES

ONLY FOR LOCAL TRAINING FLIGHTS AND FOR FLIGHTS TO EDDF
FOR SIDS RWYS 14L, 06, 32L REFER TO CHART 10-3A

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



GERMINGHAUSEN
D 115.4 GMH
N51 10.2 E007 53.5



COL 9B (daytime only)

This SID requires a minimum climb gradient of 425' per NM (7%) until passing 5000' due to airspace structure.

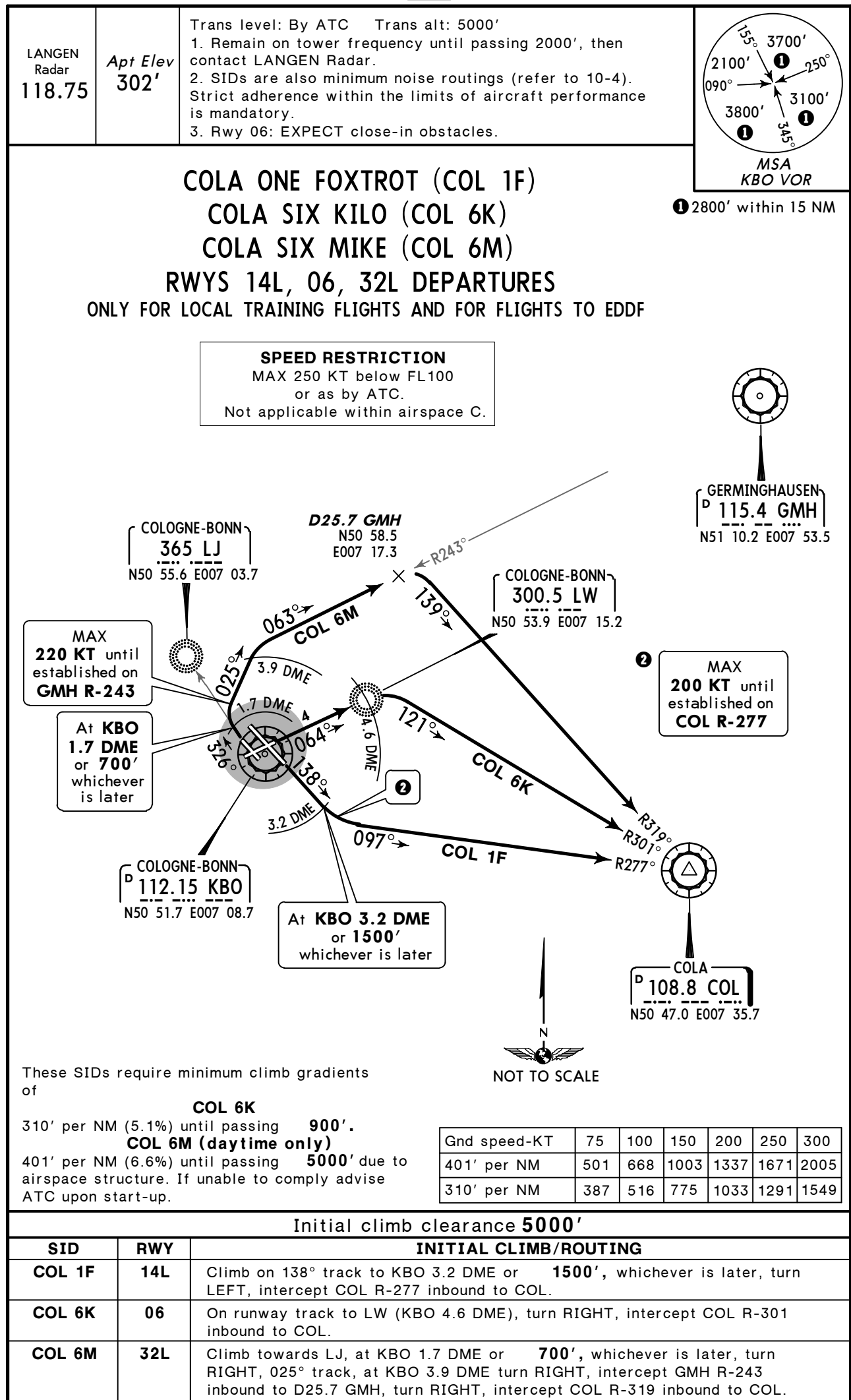
Gnd speed-KT	75	100	150	200	250	300
425' per NM	532	709	1063	1418	1772	2127

If unable to comply advise ATC upon start-up.



Initial climb clearance 5000'

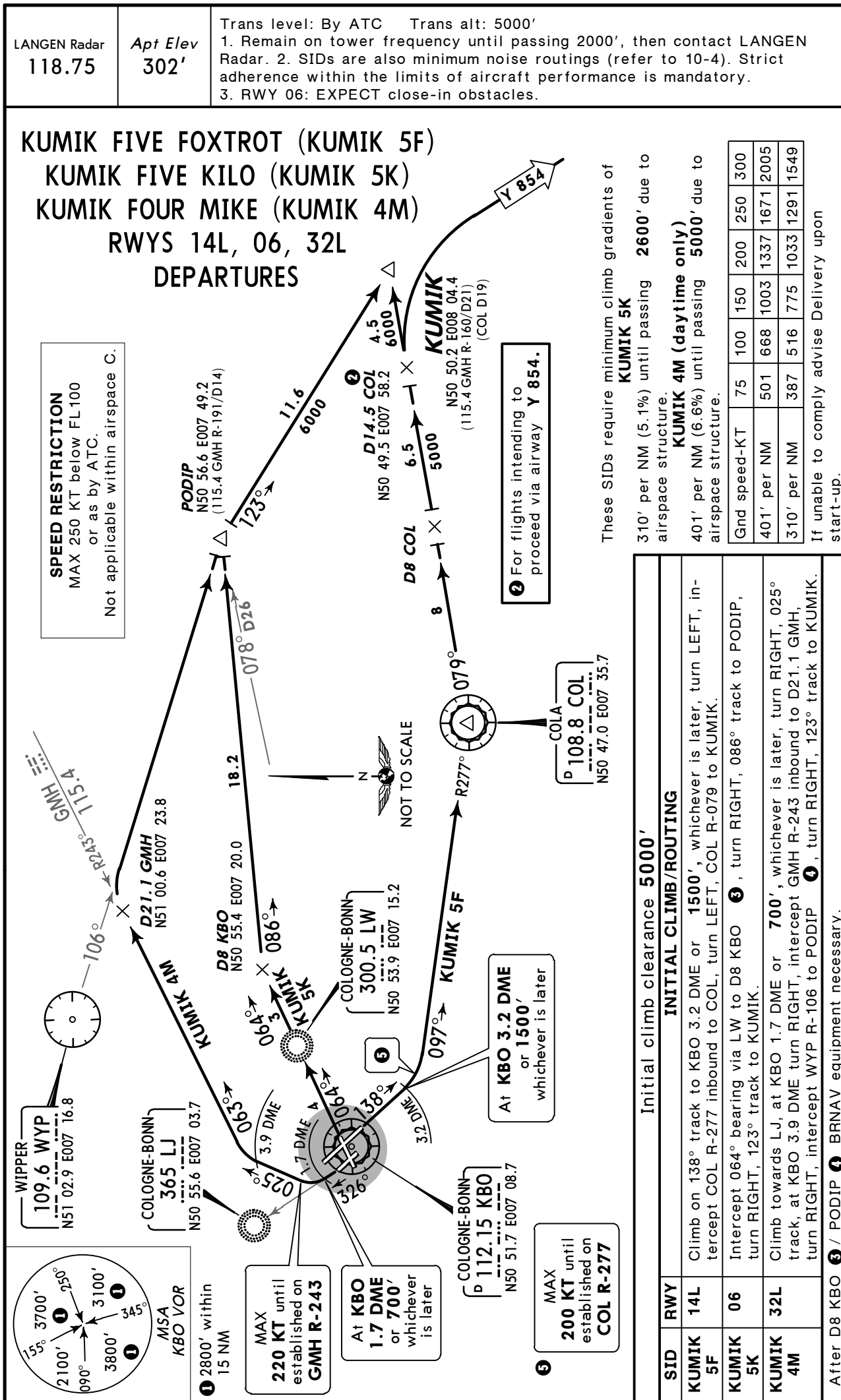
SID	RWY	INITIAL CLIMB/ROUTING
COL 9B	32R	Climb towards LJ, at KBO 1.6 DME or 700', whichever is later, turn RIGHT, 015° track, at KBO 3.4 DME turn RIGHT, intercept GMH R-243 inbound to D25.7 GMH, turn RIGHT, intercept COL R-319 inbound to COL.
COL 5D	24	On runway track to KBO 2 DME, turn LEFT, 159° track, intercept COL R-267 inbound to COL.
COL 6E	14R	Climb towards LV, at KBO 3.5 DME or 1500', whichever is later, turn LEFT, intercept COL R-277 inbound to COL.



1. Remain on tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 24: EXPECT close-in obstacles.

REFER TO CHART 10-3C

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*LANGEN
Radar
135.35

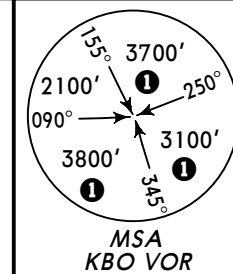
Apt Elev
302'

Trans level: By ATC Trans alt: 5000'

1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 24: EXPECT close-in obstacles.

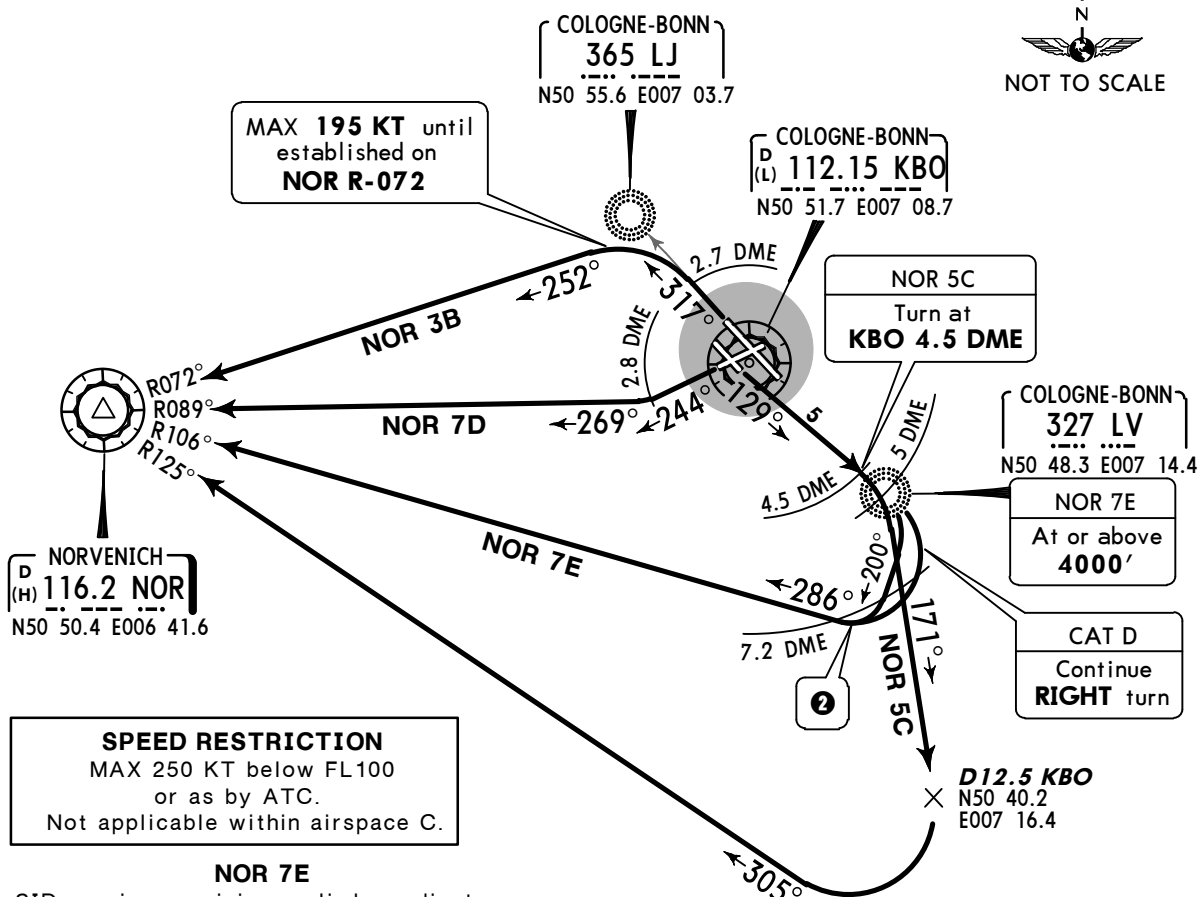
NORVENICH THREE BRAVO (NOR 3B)
NORVENICH FIVE CHARLIE (NOR 5C)
NORVENICH SEVEN DELTA (NOR 7D)
NORVENICH SEVEN ECHO (NOR 7E)
RWYS 32R, 14R, 24 DEPARTURES

FOR SIDS RWYS 14L, 06, 32L REFER TO CHART 10-3E
FOR SIDS RWY 14R/L BY ATC REFER TO CHART 10-3F



① 2800' within 15 NM

Flights intending to proceed above FL190 have to be able to cross FIR/UIR boundary (23 DME NOR) at or above FL200. If unable to comply contact Delivery prior to start-up.



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

NOR 7E

This SID requires a minimum climb gradient of 735' per NM (12.1%) until 4000' due to airspace structure, if unable to comply file SID NOR 5C.

Gnd speed-KT	75	100	150	200	250	300
735' per NM	919	1225	1838	2451	3063	3676

② MAX
220 KT until
established on
NOR R-106

Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB/ROUTING
NOR 3B	32R	Towards LJ, at KBO 2.7 DME turn LEFT, intercept NOR R-072 inbound to NOR.
NOR 5C	14R	Towards LV, at KBO 4.5 DME turn RIGHT, intercept 171° bearing from LV to D12.5 KBO, turn RIGHT, intercept NOR R-125 inbound to NOR.
NOR 7D	24	On runway track to KBO 2.8 DME, turn RIGHT, intercept NOR R-089 inbound to NOR.
NOR 7E	14R	To LV (KBO 5 DME), turn RIGHT, 200° track (CAT D continue RIGHT turn) to KBO 7.2 DME, turn RIGHT, intercept NOR R-106 inbound to NOR.

*LANGEN
Radar
135.35

Apt Elev
302'

Trans level: By ATC Trans alt: 5000'

1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 06: EXPECT close-in obstacles.

NORVENICH EIGHT FOXTROT (NOR 8F)

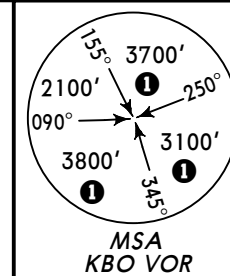
NORVENICH EIGHT KILO (NOR 8K)

NORVENICH SEVEN MIKE (NOR 7M)

NORVENICH SEVEN PAPA (NOR 7P)

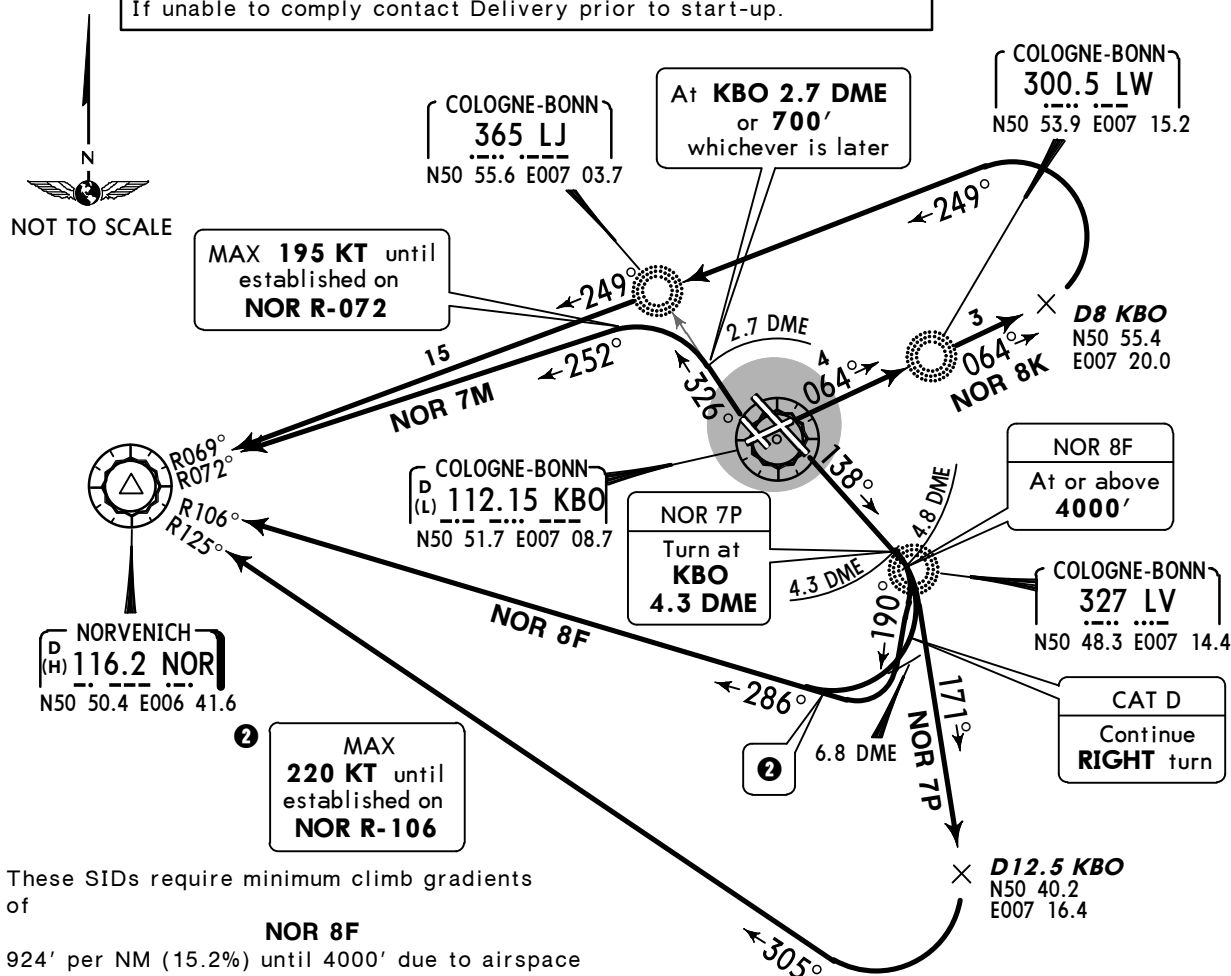
RWYS 14L, 06, 32L DEPARTURES

FOR SIDS RWY 14R/L BY ATC REFER TO CHART 10-3F



① 2800' within 15 NM

Flights intending to proceed above FL190 have to be able to cross FIR/UIR boundary (23 DME NOR) at or above FL200. If unable to comply contact Delivery prior to start-up.



These SIDs require minimum climb gradients of

NOR 8F

924' per NM (15.2%) until 4000' due to airspace structure, if unable to comply file SID NOR 7P.

NOR 8K

310' per NM (5.1%) until passing 900'.

Gnd speed-KT	75	100	150	200	250	300
924' per NM	1154	1539	2309	3079	3848	4618
310' per NM	387	516	775	1033	1291	1549

SPEED RESTRICTION

MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

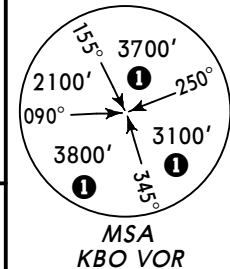
Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB/ROUTING
NOR 8F	14L	On 138° track to KBO 4.8 DME, turn RIGHT, intercept 190° bearing from LV (CAT D continue RIGHT turn) to KBO 6.8 DME, turn RIGHT, intercept NOR R-106 inbound to NOR.
NOR 8K	06	Intercept 064° bearing via LW to D8 KBO, turn LEFT, intercept 249° bearing to LJ, intercept NOR R-069 inbound to NOR.
NOR 7M	32L	Climb towards LJ, at KBO 2.7 DME or 700', whichever is later, turn LEFT, intercept NOR R-072 inbound to NOR.
NOR 7P	14L	On 138° track to KBO 4.3 DME, turn RIGHT, intercept 171° bearing from LV to D12.5 KBO, turn RIGHT, intercept NOR R-125 inbound to NOR.

LANGEN
Radar
118.75

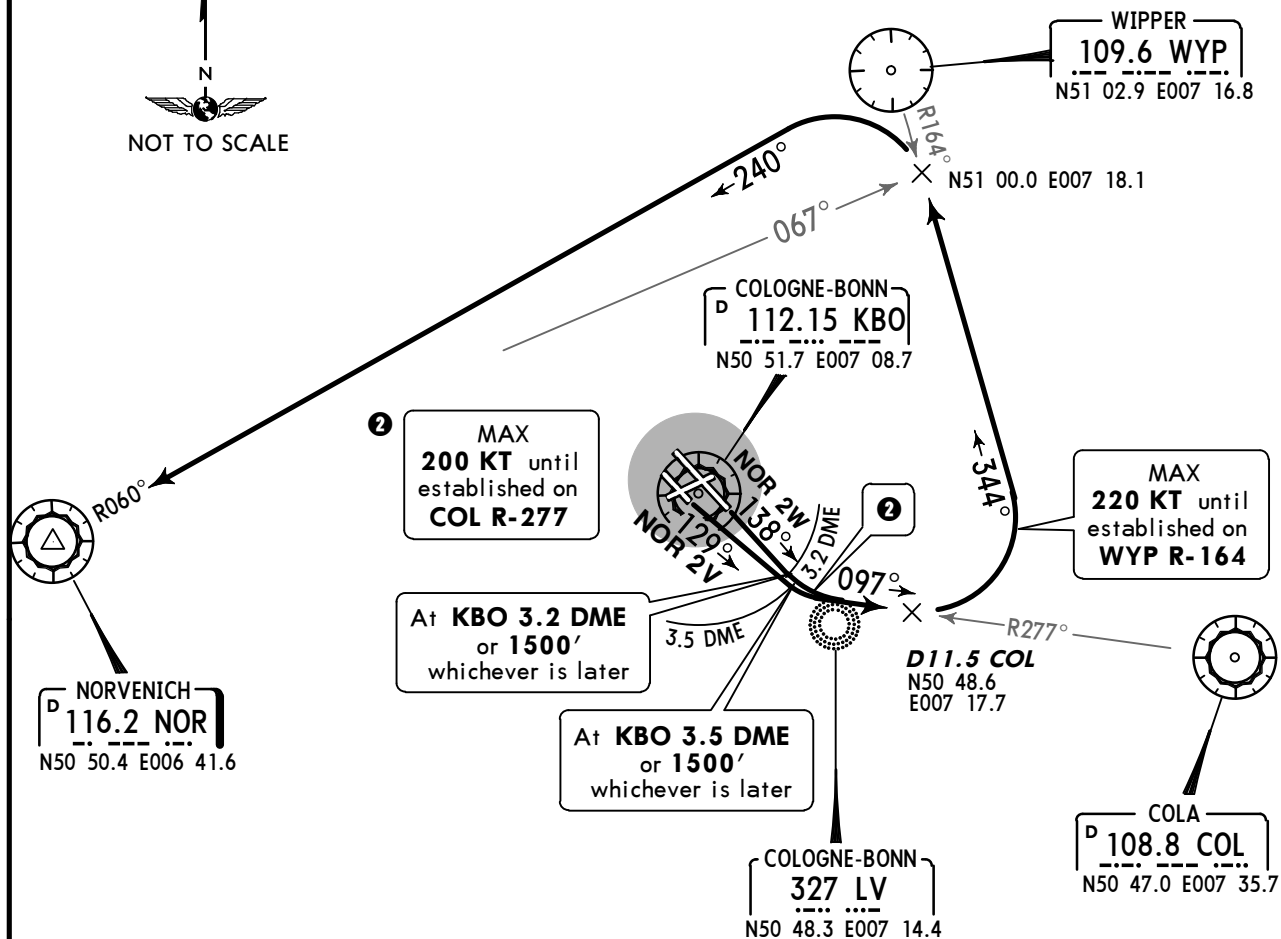
Apt Elev
302'

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



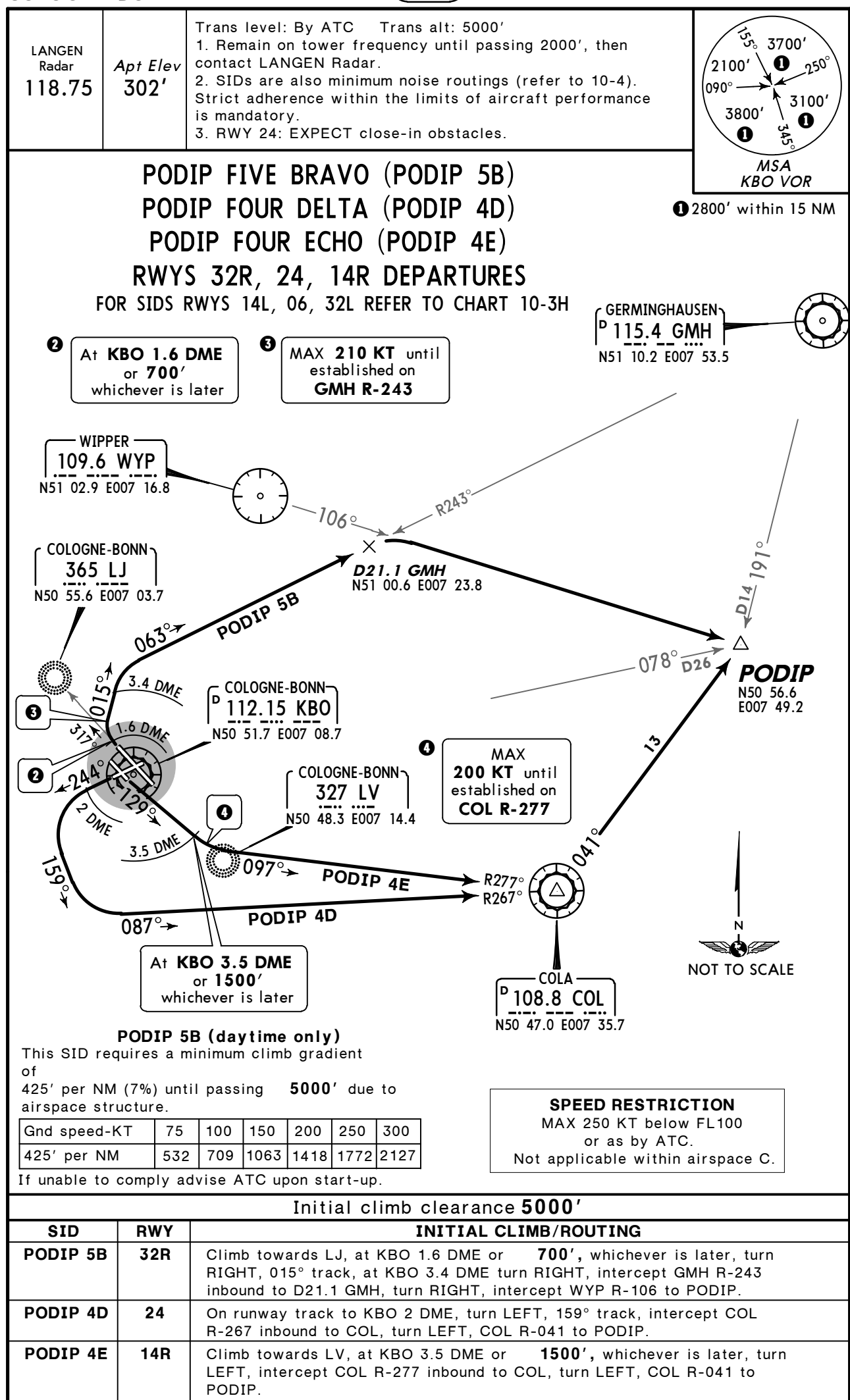
**NORVENICH TWO VICTOR (NOR 2V)
NORVENICH TWO WHISKEY (NOR 2W)
RWYS 14R, 14L DEPARTURES
BY ATC**

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



Initial climb clearance **5000'**

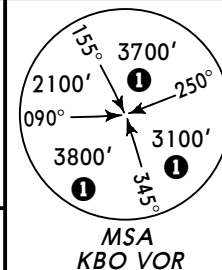
SID	RWY	INITIAL CLIMB/ROUTING
NOR 2V	14R	Climb towards LV, at KBO 3.5 DME or 1500' , whichever is later, turn LEFT, intercept COL R-277 inbound to D11.5 COL, turn LEFT, intercept WYP R-164 inbound, when passing NOR R-067 turn LEFT, intercept NOR R-060 inbound to NOR.
NOR 2W	14L	Climb on 138° track to KBO 3.2 DME or 1500' , whichever is later, turn LEFT, intercept COL R-277 inbound to D11.5 COL, turn LEFT, intercept WYP R-164 inbound, when passing NOR R-067 turn LEFT, intercept NOR R-060 inbound to NOR.



LANGEN
Radar
118.75

Apt Elev
302'

Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. Rwy 06: EXPECT close-in obstacles.



① 2800' within 15 NM

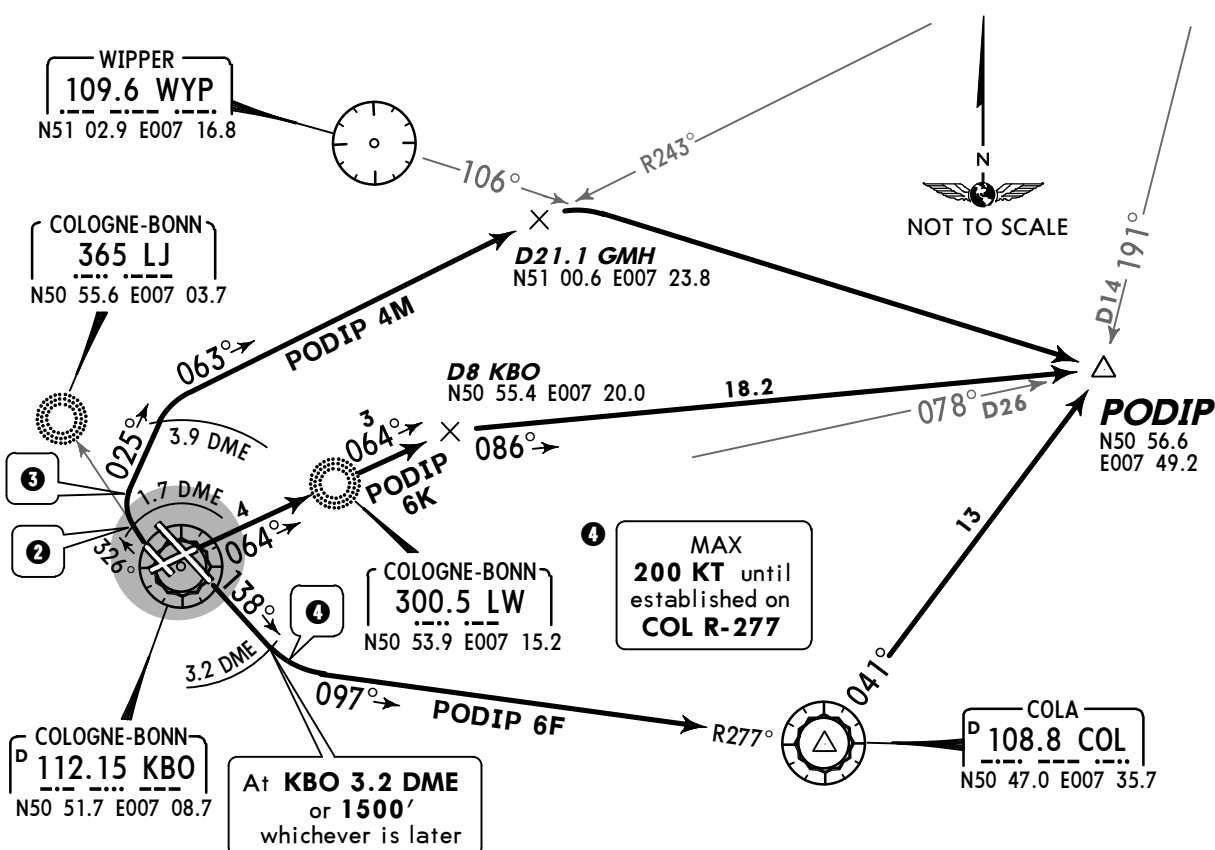
PODIP SIX FOXTROT (PODIP 6F)
PODIP SIX KILO (PODIP 6K)
PODIP FOUR MIKE (PODIP 4M)
RWYS 14L, 06, 32L DEPARTURES

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

② At KBO 1.7 DME
or 700'
whichever is later

③ MAX 220 KT until
established on
GMH R-243

GERMINGHAUSEN
D 115.4 GMH
N51 10.2 E007 53.5



④ MAX
200 KT until
established on
COL R-277

At KBO 3.2 DME
or 1500'
whichever is later

Gnd speed-KT	75	100	150	200	250	300
401' per NM	501	668	1003	1337	1671	2005
310' per NM	387	516	775	1033	1291	1549

If unable to comply advise Delivery upon start-up.

These SIDs require minimum climb gradients of

PODIP 6K

310' per NM (5.1%) until passing 2600' due to airspace structure.

PODIP 4M (daytime only)

401' per NM (6.6%) until passing 5000' due to airspace structure.

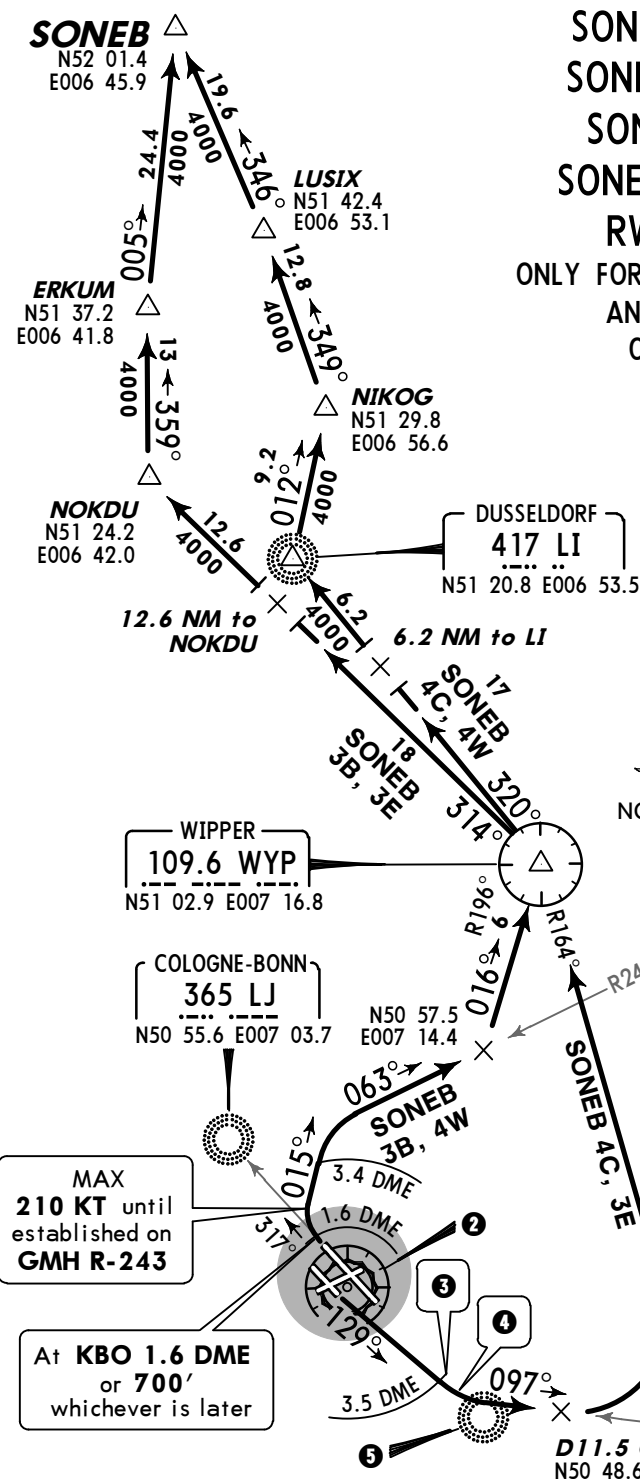
Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB/ROUTING
PODIP 6F	14L	Climb on 138° track to KBO 3.2 DME or 1500', whichever is later, turn LEFT, intercept COL R-277 inbound to COL, turn LEFT, COL R-041 to PODIP.
PODIP 6K	06	Intercept 064° bearing via LW to D8 KBO ⑤, turn RIGHT, 086° track to PODIP.
PODIP 4M	32L	Climb towards LJ, at KBO 1.7 DME or 700', whichever is later, turn RIGHT, 025° track, at KBO 3.9 DME turn RIGHT, intercept GMH R-243 inbound to D21.1 GMH, turn RIGHT, intercept WYP R-106 to PODIP.

⑤ After D8 KBO BRNAV equipment necessary.

Apt Elev
302'

2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.



ONLY FOR FLIGHTS WITH REQUESTED FL140 OR ABOVE
AND FLIGHTS TO EDLE VIA WYP - BAM
OTHER FLIGHTS PROCEED VIA PODIP
FOR SIDS RWYS 06, 14L, 24, 32L
REFER TO CHARTS 10-3K & 10-3L

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

②
COLOGNE-BONN-
112.15 KBO
N50 51.7 E007 08.7

5
[COLOGNE-BONN]
327 LV
N50 48.3 E007 14.4

3 At **KBO 3.5 DME**
or **1500'**
whichever is later

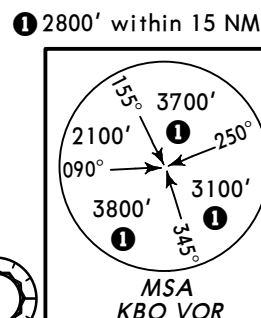
4 MAX
200 KT until
established on
COL R-277

6 MAX
220 KT until
established on
WYP R-164

MAX
210 KT until
established on
GMH R-243

At **KBO 1.6 DME**
or **700'**
whichever is later

COLA
D 108.8 COL
N50 47.0 E007 35.7

Initial climb clearance **5000'**

SID	RWY	INITIAL CLIMB
SONEB 3B	32R	Climb towards LJ, at KBO 1.6 DME or 700' , whichever is later, turn RIGHT, 015° track, at KBO 3.4 DME turn RIGHT, intercept GMH R-243 inbound, intercept WYP R-196 inbound to WYP ⑦ .
SONEB 4W By ATC		
SONEB 4C By ATC	14R	Climb towards LV, at KBO 3.5 DME or 1500' , whichever is later, turn LEFT, intercept COL R-277 inbound to D11.5 COL, turn LEFT, intercept WYP R-164 inbound to WYP ⑦ .
SONEB 3E		
SID	ROUTING	
SONEB 3B, 3E	At WYP turn LEFT, WYP R-314 to NOKDU, turn RIGHT, 359° track to ERKUM, turn RIGHT, 005° track to SONEB.	
SONEB 4C, 4W By ATC	At WYP turn LEFT, WYP R-320 to LI, turn RIGHT, 012° bearing to NIKOG, turn LEFT, 349° track to LUSIX, turn LEFT, 346° track to SONEB.	

After WYP **7** BRNAV equipment necessary.

LANGEN
Radar
118.75Apt Elev
302'

Trans level: By ATC Trans alt: 5000'

1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 24: EXPECT close-in obstacles.

SONEBN52 01.4
E006 45.9**ERKUM**
N51 37.2
E006 41.8**NOKDU**
N51 24.2
E006 42.0**LUSIX**
N51 42.4
E006 53.1**NIKOG**
N51 29.8
E006 56.6

SONEB TWO DELTA (SONEB 2D)
SONEB TWO MIKE (SONEB 2M)
SONEB THREE VICTOR (SONEB 3V)
SONEB THREE X-RAY (SONEB 3X)
RWYS 24, 32L DEPARTURES
ONLY FOR FLIGHTS WITH REQUESTED FL140 OR ABOVE
AND FLIGHTS TO EDLE VIA WYP - BAM
OTHER FLIGHTS PROCEED VIA PODIP
FOR SIDS RWYS 06, 14L
REFER TO CHART 10-3L

DUSSELDORF
417 LI
N51 20.8 E006 53.5**SPEED RESTRICTION**MAX 250 KT below FL100
or as by ATC.

Not applicable within airspace C.

NOT TO SCALE

COLOGNE-BONN
365 LJ
N50 55.6 E007 03.7MAX
220 KT until
established on
GMH R-243At KBO
1.7 DME
or 700'
whichever
is later**COLOGNE-BONN**
112.15 KBO
N50 51.7 E007 08.7**COLA**
108.8 COL
N50 47.0 E007 35.7**D14 COL**
N50 46.2
E007 13.6**WIPPER**
109.6 WYP
N51 02.9 E007 16.8**GERMINGHAUSEN**
115.4 GMH
N51 10.2 E007 53.5

① 2800' within 15 NM

MSA
KBO VOR

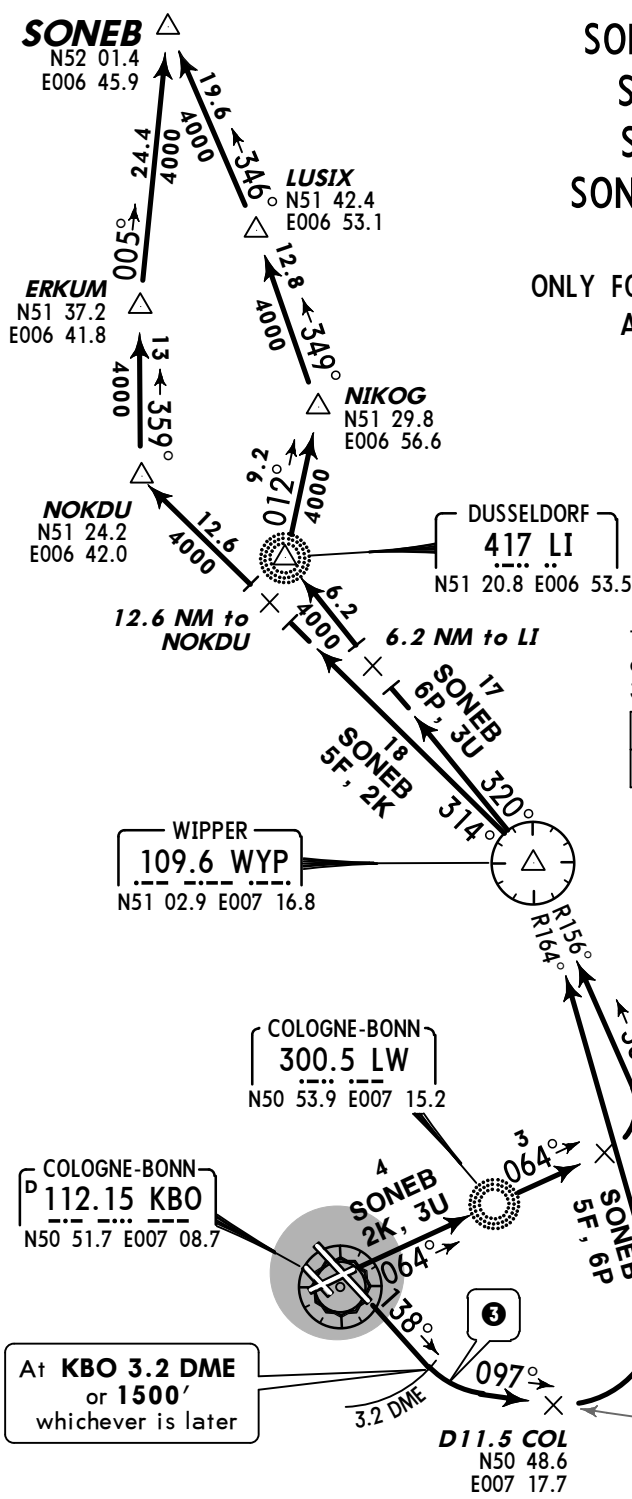
Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB
SONEB 2D	24	On runway track to KBO 2 DME, turn LEFT, 159° track, intercept COL R-267 inbound to D14 COL, turn LEFT, intercept WYP R-179 inbound to WYP ②.
SONEB 3X By ATC		
SONEB 2M	32L	Climb towards LJ, at KBO 1.7 DME or 700', whichever is later, turn RIGHT, 025° track, at KBO 3.9 DME turn RIGHT, intercept GMH R-243 inbound, intercept WYP R-196 inbound to WYP ②.
SONEB 3V By ATC		
SID	ROUTING	
SONEB 2D, 2M	At WYP turn LEFT, WYP R-314 to NOKDU, turn RIGHT, 359° track to ERKUM, turn RIGHT, 005° track to SONEB.	
SONEB 3V, 3X By ATC	At WYP turn LEFT, WYP R-320 to LI, turn RIGHT, 012° bearing to NIKOG, turn LEFT, 349° track to LUSIX, turn LEFT, 346° track to SONEB.	
After WYP ② BRNAV equipment necessary.		

LANGEN
Radar
118.75Apt Elev
302'

Trans level: By ATC Trans alt: 5000'

1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 06: EXPECT close-in obstacles.



SONEB FIVE FOXTROT (SONEB 5F)
SONEB TWO KILO (SONEB 2K)
SONEB SIX PAPA (SONEB 6P)
SONEB THREE UNIFORM (SONEB 3U)
RWYS 14L, 06 DEPARTURES

ONLY FOR FLIGHTS WITH REQUESTED FL140 OR ABOVE
AND FLIGHTS TO EDLE VIA WYP - BAM
OTHER FLIGHTS PROCEED VIA PODIP

SPEED RESTRICTION

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

SONEB 2K, 3U

These SIDs require a minimum climb gradient of
310' per NM (5.1%) until passing **900'**.

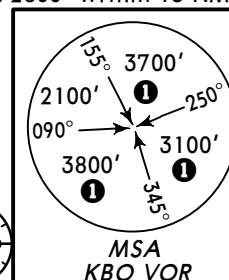
Gnd speed-KT	75	100	150	200	250	300
310' per NM	387	516	775	1033	1291	1549

3 MAX
200 KT until
established on
COL R-277

4 MAX
220 KT until
established on
WYP R-164



1 2800' within 15 NM

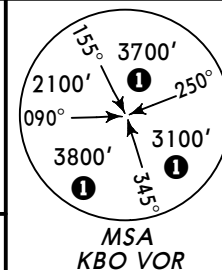


Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB
SONEB 5F	14L	Climb on 138° track to KBO 3.2 DME or 1500' , whichever is later, turn LEFT, intercept COL R-277 inbound to D11.5 COL, turn LEFT, intercept WYP R-164 inbound to WYP 2 .
SONEB 6P By ATC		
SONEB 2K	06	Intercept 064° bearing via LW to D8 KBO, turn LEFT, intercept WYP R-156 inbound to WYP 2 .
SONEB 3U By ATC		
SID	ROUTING	
SONEB 5F, 2K	At WYP turn LEFT, WYP R-314 to NOKDU, turn RIGHT, 359° track to ERKUM, turn RIGHT, 005° track to SONEB.	
SONEB 6P, 3U By ATC	At WYP turn LEFT, WYP R-320 to LI, turn RIGHT, 012° bearing to NIKOG, turn LEFT, 349° track to LUSIX, turn LEFT, 346° track to SONEB.	
After WYP 2 BRNAV equipment necessary.		

LANGEN
Radar
118.75Apt Elev
302'

- Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
 3. RWY 24: EXPECT close-in obstacles.

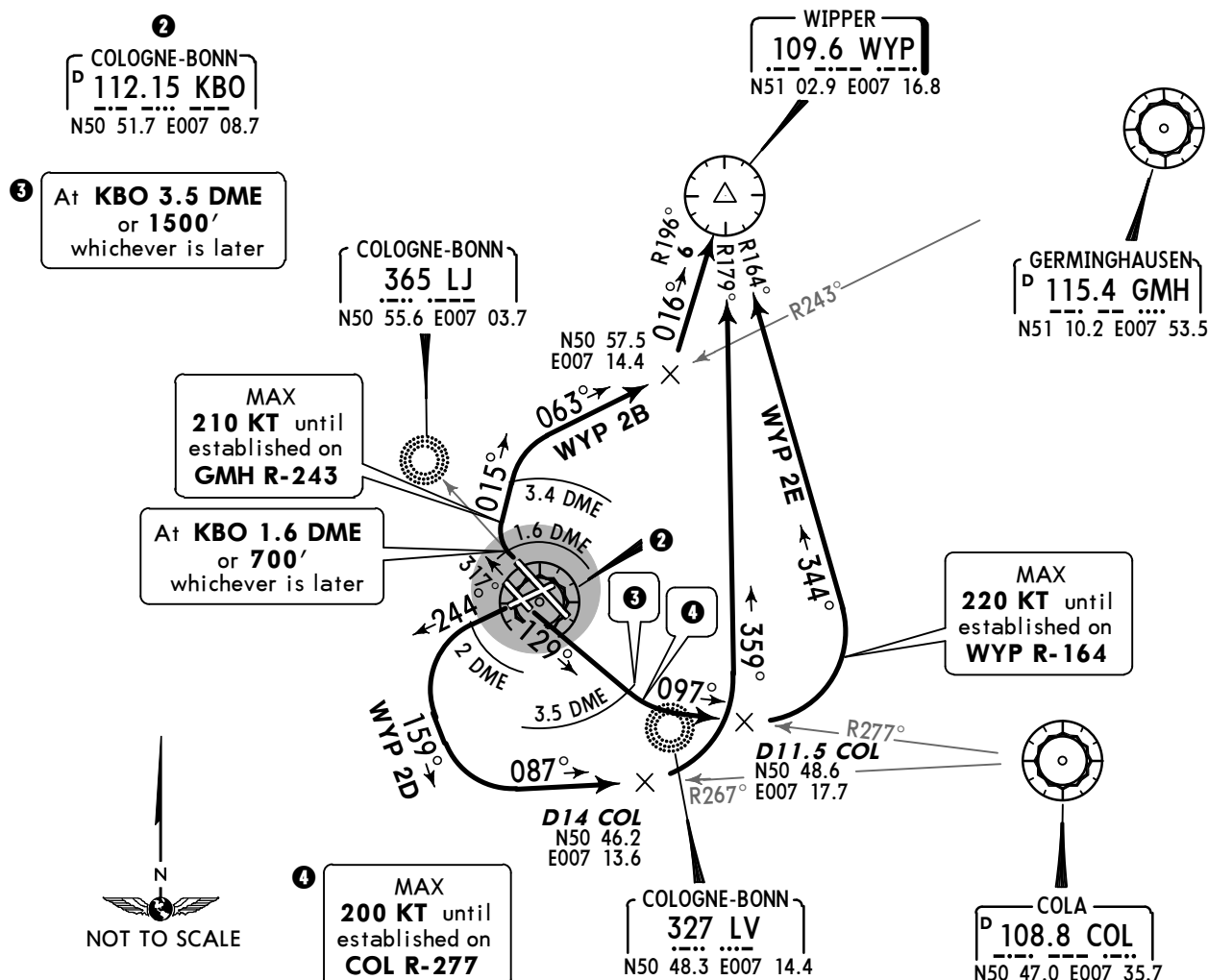


① 2800' within 15 NM

WIPPER TWO BRAVO (WYP 2B)
WIPPER TWO DELTA (WYP 2D)
WIPPER TWO ECHO (WYP 2E)
RWYS 32R, 24, 14R DEPARTURES
BY ATC

FOR SIDS RWYS 14L, 06, 32L REFER TO CHART 10-3N

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

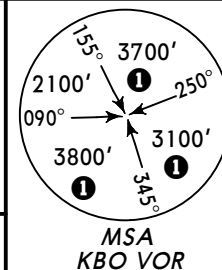
Initial climb clearance **5000'**

SID	RWY	INITIAL CLIMB/ROUTING
WYP 2B	32R	Climb towards LJ, at KBO 1.6 DME or 700' , whichever is later, turn RIGHT, 015° track, at KBO 3.4 DME turn RIGHT, intercept GMH R-243 inbound, intercept WYP R-196 inbound to WYP.
WYP 2D	24	On runway track to KBO 2 DME, turn LEFT, 159° track, intercept COL R-267 inbound to D14 COL, turn LEFT, intercept WYP R-179 inbound to WYP.
WYP 2E	14R	Climb towards LV, at KBO 3.5 DME or 1500' , whichever is later, turn LEFT, intercept COL R-277 inbound to D11.5 COL, turn LEFT, intercept WYP R-164 inbound to WYP.

LANGEN
Radar
118.75

Apt Elev
302'

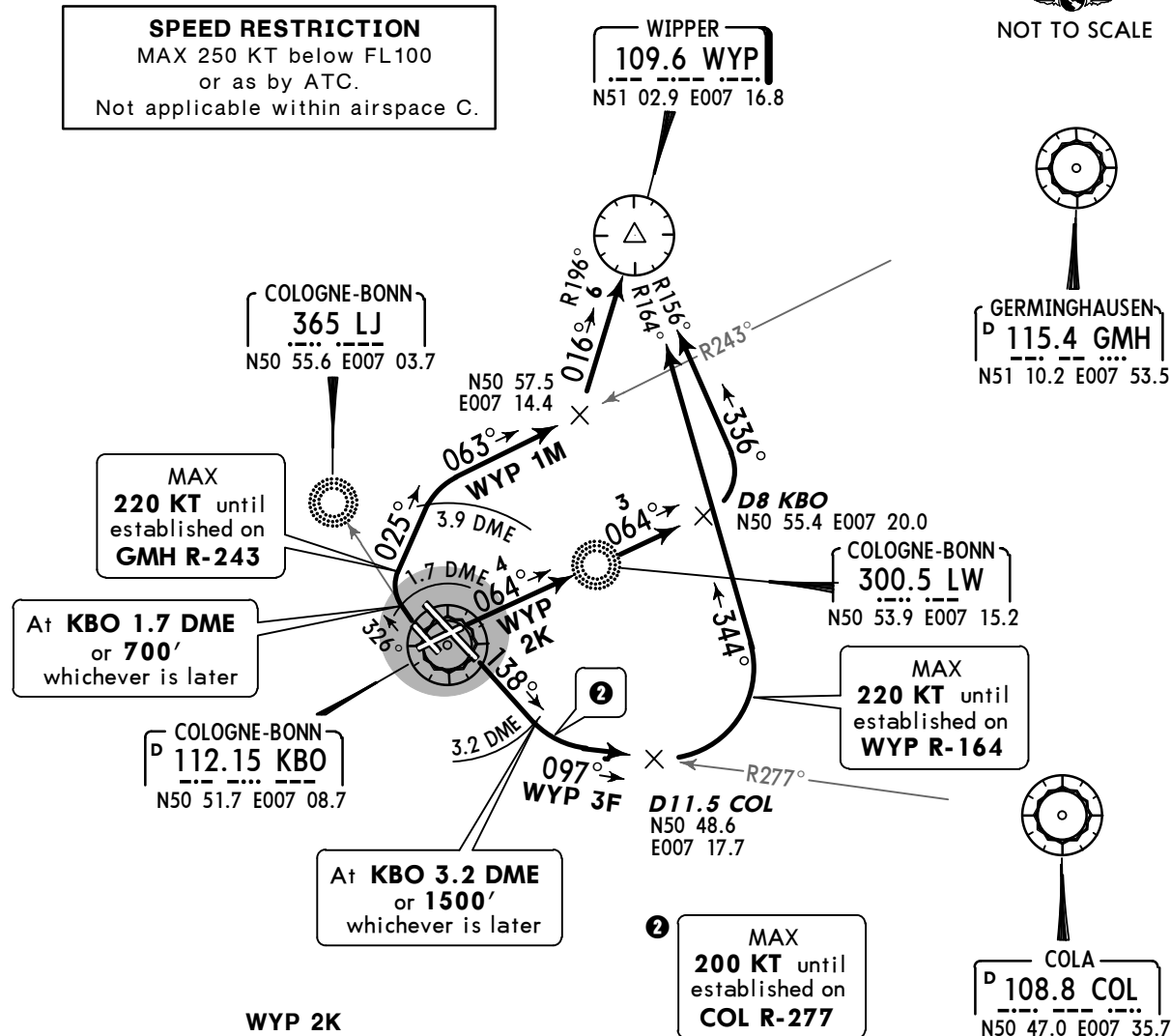
Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 06: EXPECT close-in obstacles.



WIPPER THREE FOXTROT (WYP 3F)
WIPPER TWO KILO (WYP 2K)
WIPPER ONE MIKE (WYP 1M)
RWYS 14L, 06, 32L DEPARTURES
BY ATC

① 2800' within 15 NM

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



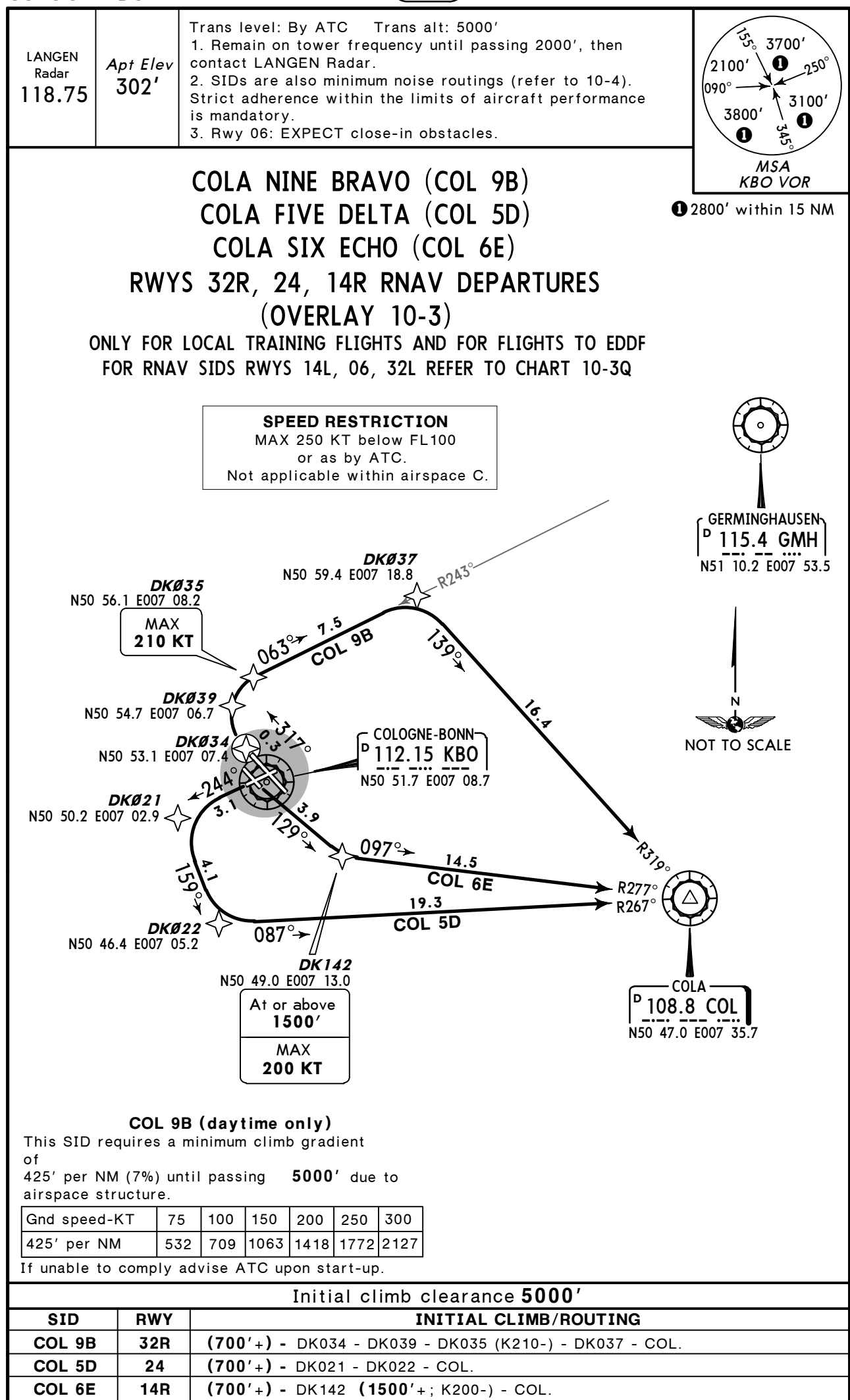
WYP 2K

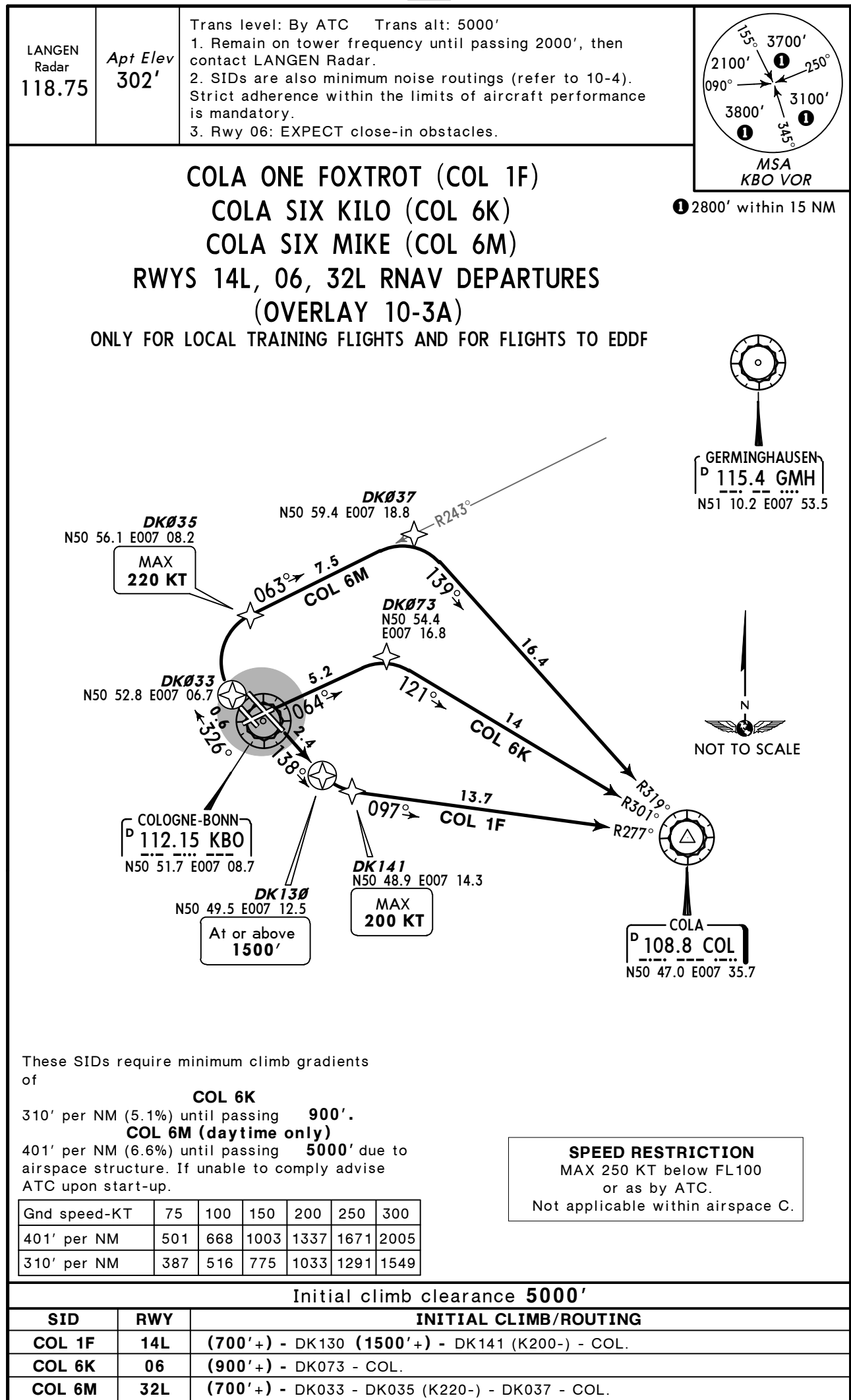
This SID requires a minimum climb gradient of 310' per NM (5.1%) until passing 900'.

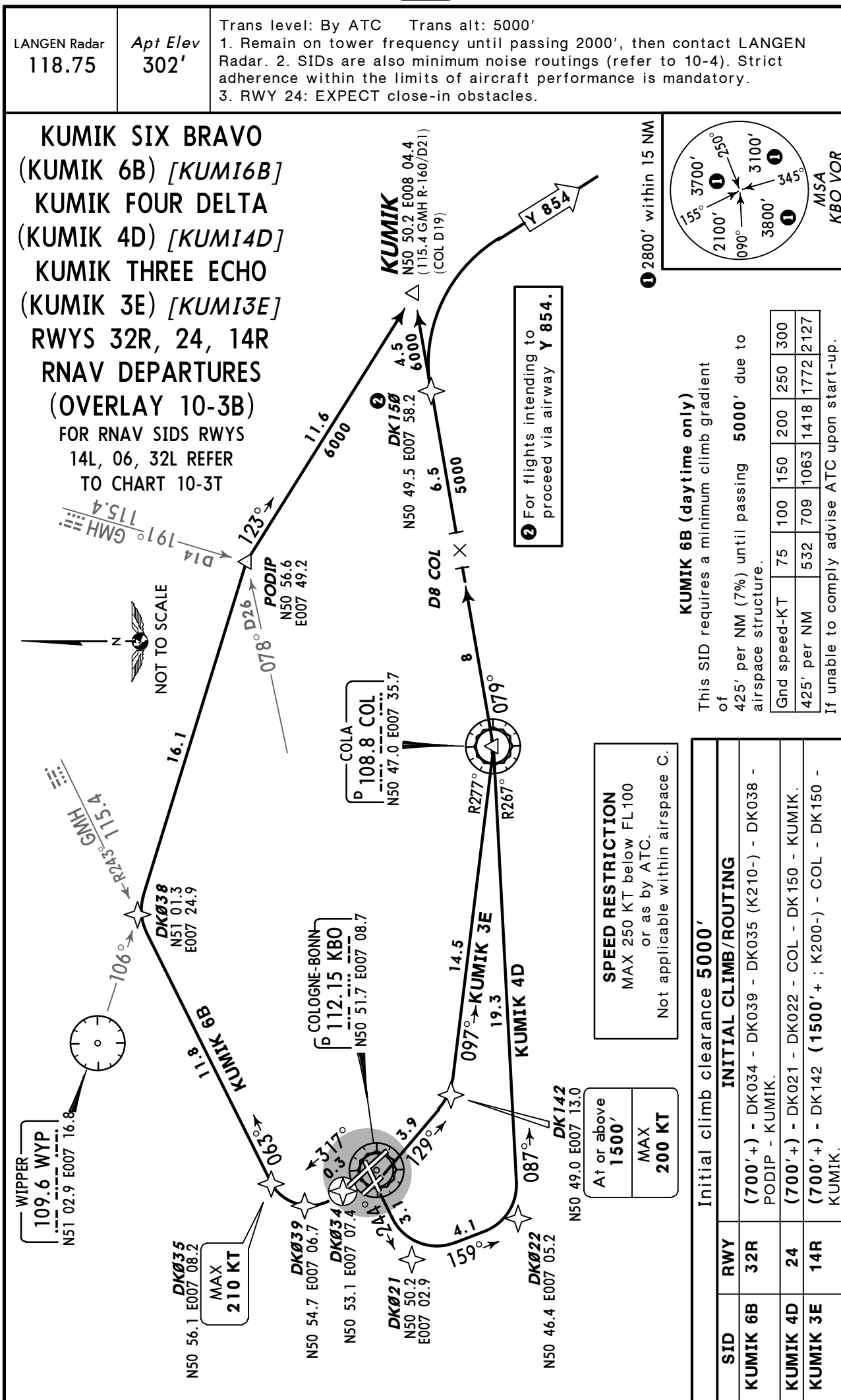
Gnd speed-KT	75	100	150	200	250	300
310' per NM	387	516	775	1033	1291	1549

Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB/ROUTING
WYP 3F	14L	Climb on 138° track to KBO 3.2 DME or 1500', whichever is later, turn LEFT, intercept COL R-277 inbound to D11.5 COL, turn LEFT, intercept WYP R-164 inbound to WYP.
WYP 2K	06	Intercept 064° bearing via LW to D8 KBO, turn LEFT, intercept WYP R-156 inbound to WYP.
WYP 1M	32L	Climb towards LJ, at KBO 1.7 DME or 700', whichever is later, turn RIGHT, 025° track, at KBO 3.9 DME turn RIGHT, intercept GMH R-243 inbound, intercept WYP R-196 inbound to WYP.







Trans level: By ATC Trans alt: 5000'

1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 06: EXPECT close-in obstacles.

KUMIK FIVE FOXTROT
(KUMIK 5F) [KUMI5F]
KUMIK FIVE KILO
(KUMIK 5K) [KUMI5K]
KUMIK FOUR MIKE
(KUMIK 4M) [KUMI4M]
RWYS 14L, 06, 32L
RNAV DEPARTURES
(OVERLAY 10-3C)

N50 50.2 E008 04.4
115.4 GMH R-160/D21)
COL D19)

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

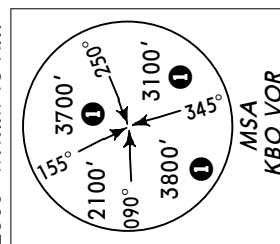
These SIDs require minimum climb gradients

KUMIK 5K
310' per NM (5 1%) until passing 2600', due to 2800' within 15 NM

KUMIK 4M (daytime only)

Gnd speed-KT	75	100	150	200	250	300
401' per NM	501	668	1003	1337	1671	2005
310' per NM	387	516	775	1033	1291	1549

If unable to comply advise ATC upon start-up.



Initial climb clearance 5000'

INITIAL CLIMB/ROUTING

KUMIK 5F	14L	(700' +) - DK130 (1500' +) - DK141 (K200-) - COL - DK150 - KUMIK.
KUMIK 5K	06	(900' +) - LW - DK071 - PODIP - KUMIK.
KUMIK 4M	32L	(700' +) - DK033 - DK035 (K220-) - DK038 - PODIP - KUMIK.

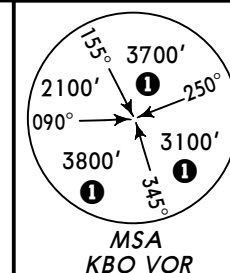
*LANGEN
Radar
135.35

Apt Elev
302'

Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. 3. RWY 24: EXPECT close-in obstacles.

**NORVENICH THREE BRAVO (NOR 3B)
NORVENICH FIVE CHARLIE (NOR 5C)
NORVENICH SEVEN DELTA (NOR 7D)
NORVENICH SEVEN ECHO (NOR 7E)
RWYS 32R, 14R, 24 RNAV DEPARTURES
(OVERLAY 10-3D)**

FOR RNAV SIDS RWYS 14L, 06, 32L REFER TO CHART 10-3V
FOR RNAV SIDS RWY 14R/L BY ATC REFER TO CHART 10-3W

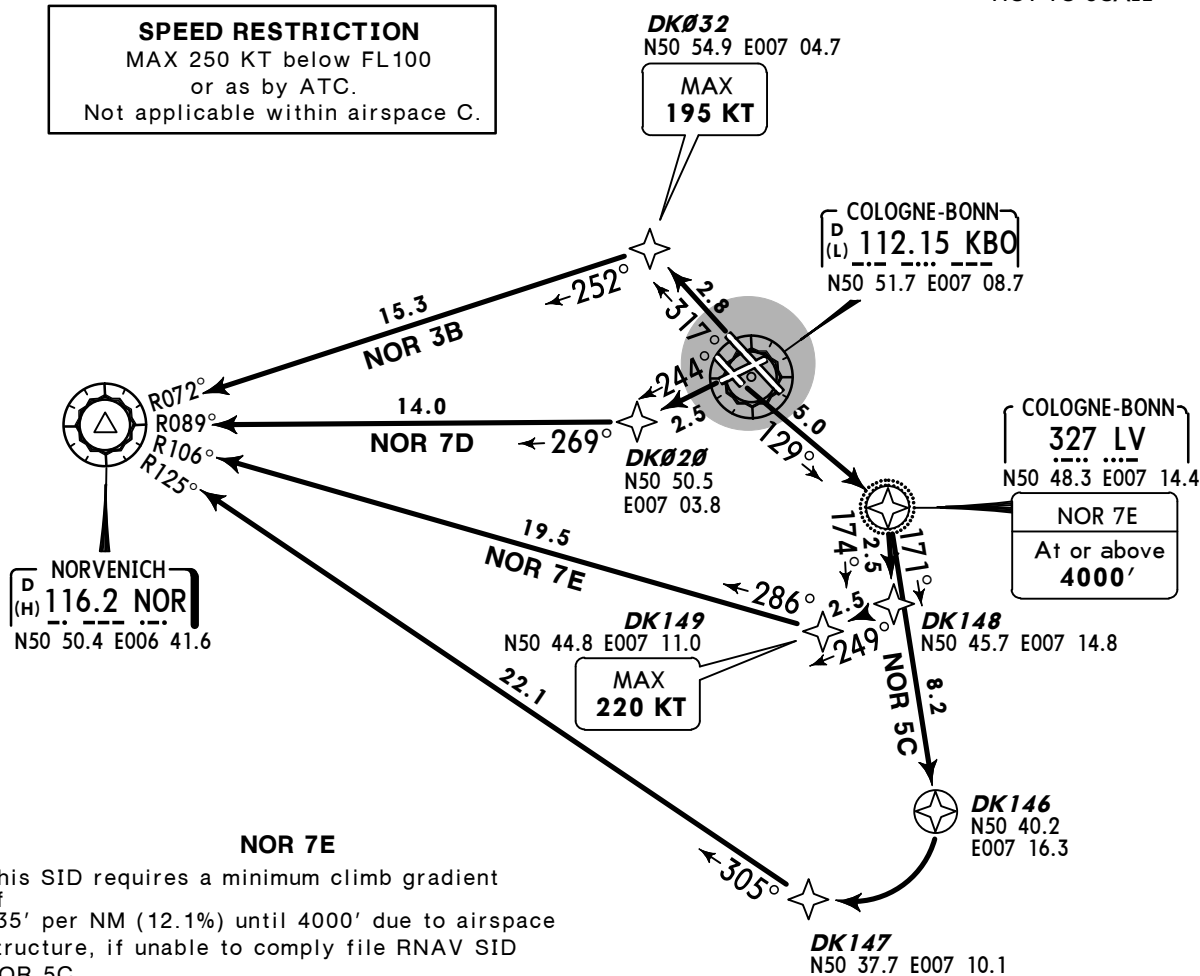


① 2800' within 15 NM

Flights intending to proceed above FL190 have to be able to cross FIR/UIR boundary (23 DME NOR) at or above FL200. If unable to comply contact Delivery prior to start-up.



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



Gnd speed-KT	75	100	150	200	250	300
735' per NM	919	1225	1838	2451	3063	3676

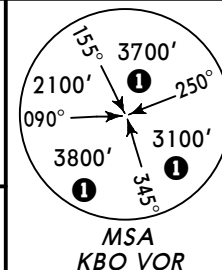
Initial climb clearance **5000'**

SID	RWY	INITIAL CLIMB/ROUTING
NOR 3B	32R	(700'+) - DK032 (K195-) - NOR.
NOR 5C	14R	(700'+) - LV - DK146 - DK147 - NOR.
NOR 7D	24	(700'+) - DK020 - NOR.
NOR 7E	14R	(700'+) - LV (4000'+) - DK148 - DK149 (K220-) - NOR.

LANGEN
Radar
118.75

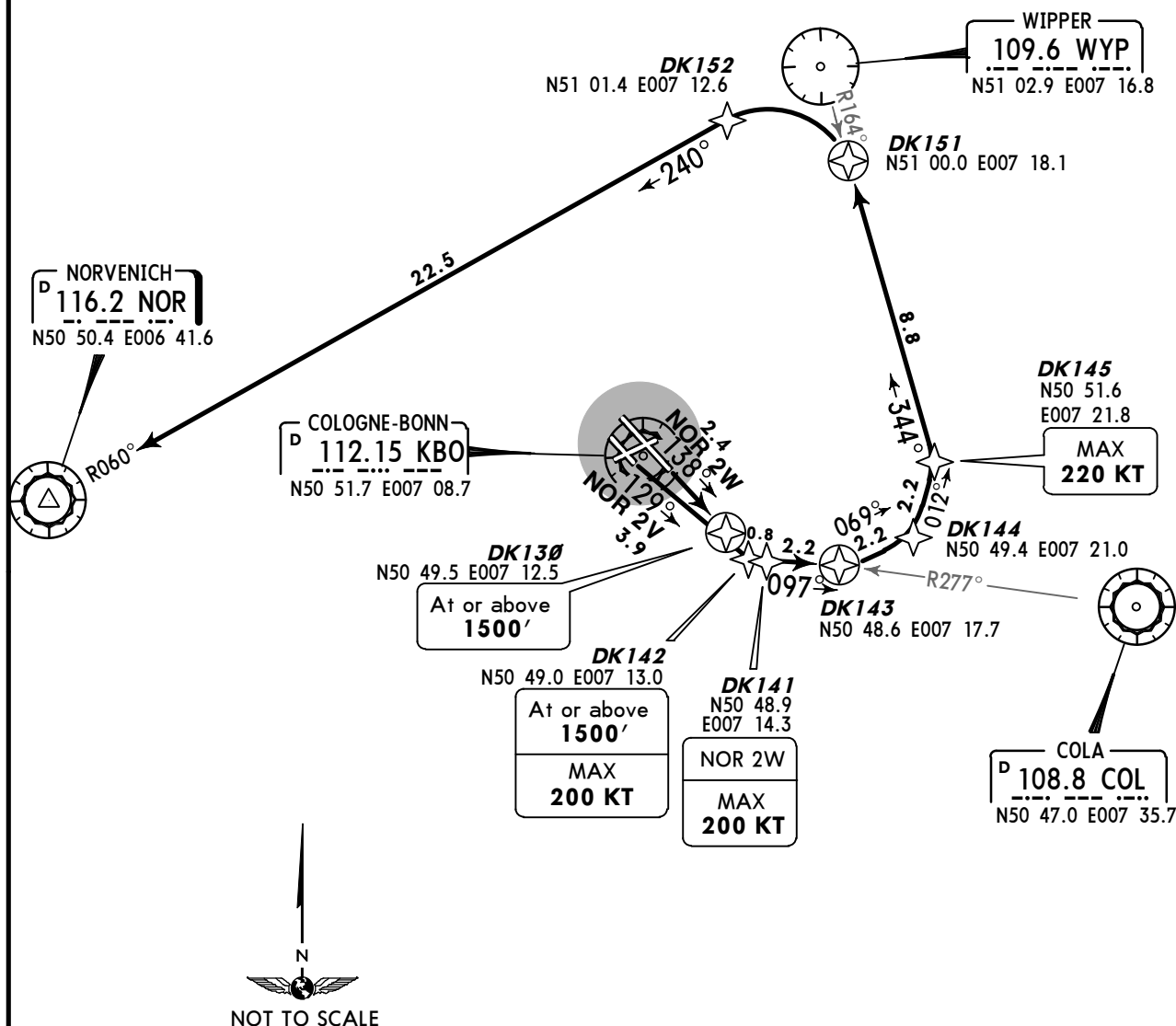
Apt Elev
302'

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



**NORVENICH TWO VICTOR (NOR 2V)
NORVENICH TWO WHISKEY (NOR 2W)
RWYS 14R, 14L RNAV DEPARTURES
(OVERLAY 10-3F)
BY ATC**

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



Initial climb clearance **5000'**

SID	RWY	INITIAL CLIMB/ROUTING
NOR 2V	14R	(700'+) - DK142 (1500'+ ; K200-) - DK143 - DK144 - DK145 (K220-) - DK151 - DK152 - NOR.
NOR 2W	14L	(700'+) - DK130 (1500'+) - DK141 (K200-) - DK143 - DK144 - DK145 (K220-) - DK151 - DK152 - NOR.

LANGEN Radar
118.75

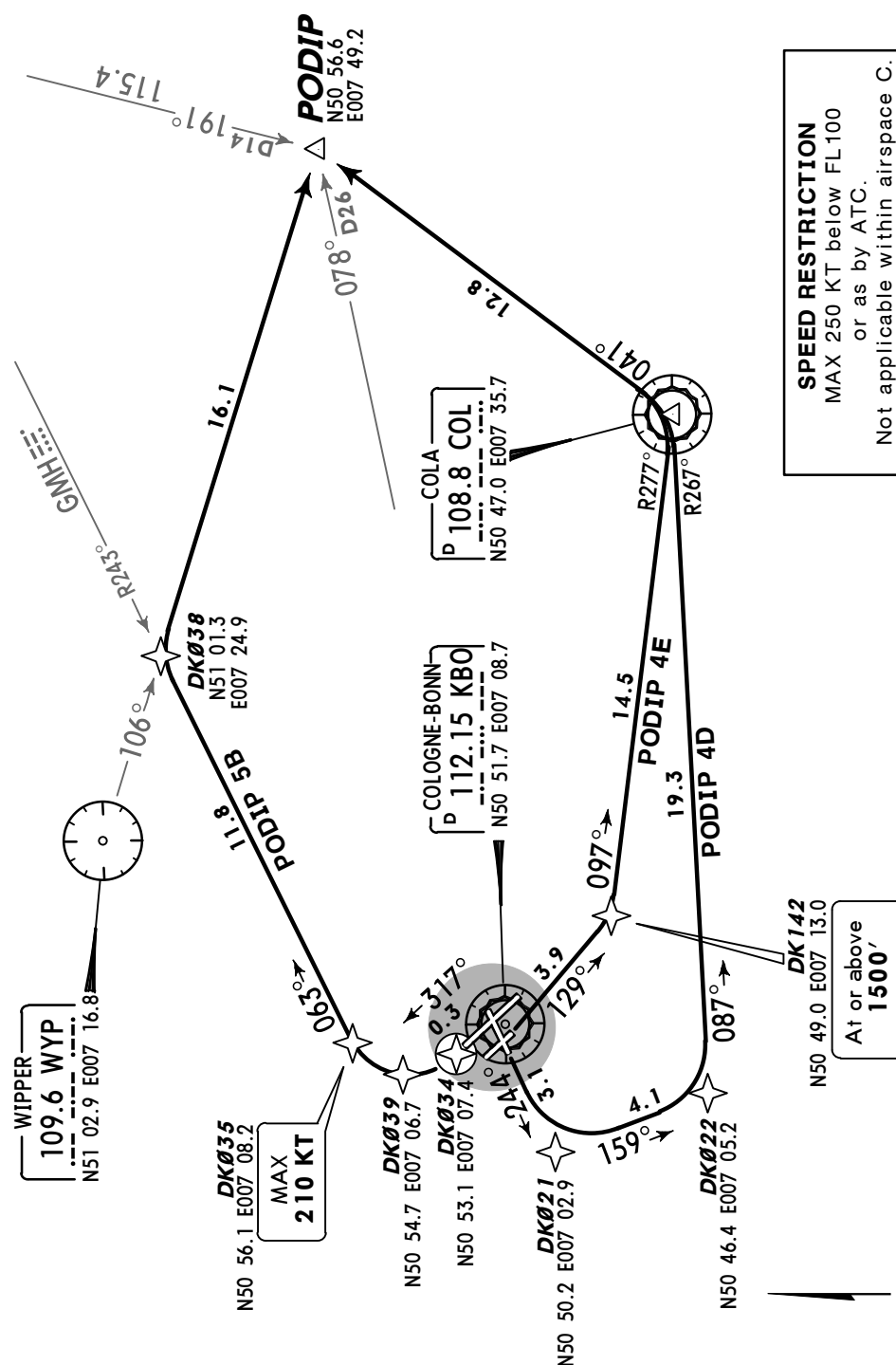
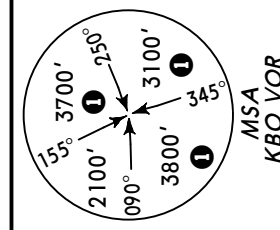
Apt E/lev
302'

Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. 3. RWY 24: EXPECT close-in obstacles.

PODIP FIVE BRAVO (PODIP 5B) [POD15B]
PODIP FOUR DELTA (PODIP 4D) [POD14D]
PODIP FOUR ECHO (PODIP 4E) [POD14E]
RWYS 32R, 24, 14R RNAV DEPARTURES
(OVERLAY 10-3G)

FOR RNAV SIDS RWYS 14L, 06, 32L REFER TO CHART 10-3X1

① 2800' within 15 NM



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

PODIP 5B (daytime only)
This SID requires a minimum climb gradient of 425' per NM (7%) until passing 5000' 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 ATC upon start-up.

Initial climb clearance 5000'

INITIAL CLIMB/ROUTING	
SID	RWY
PODIP 5B	32R
PODIP 4D	24
PODIP 4E	14R

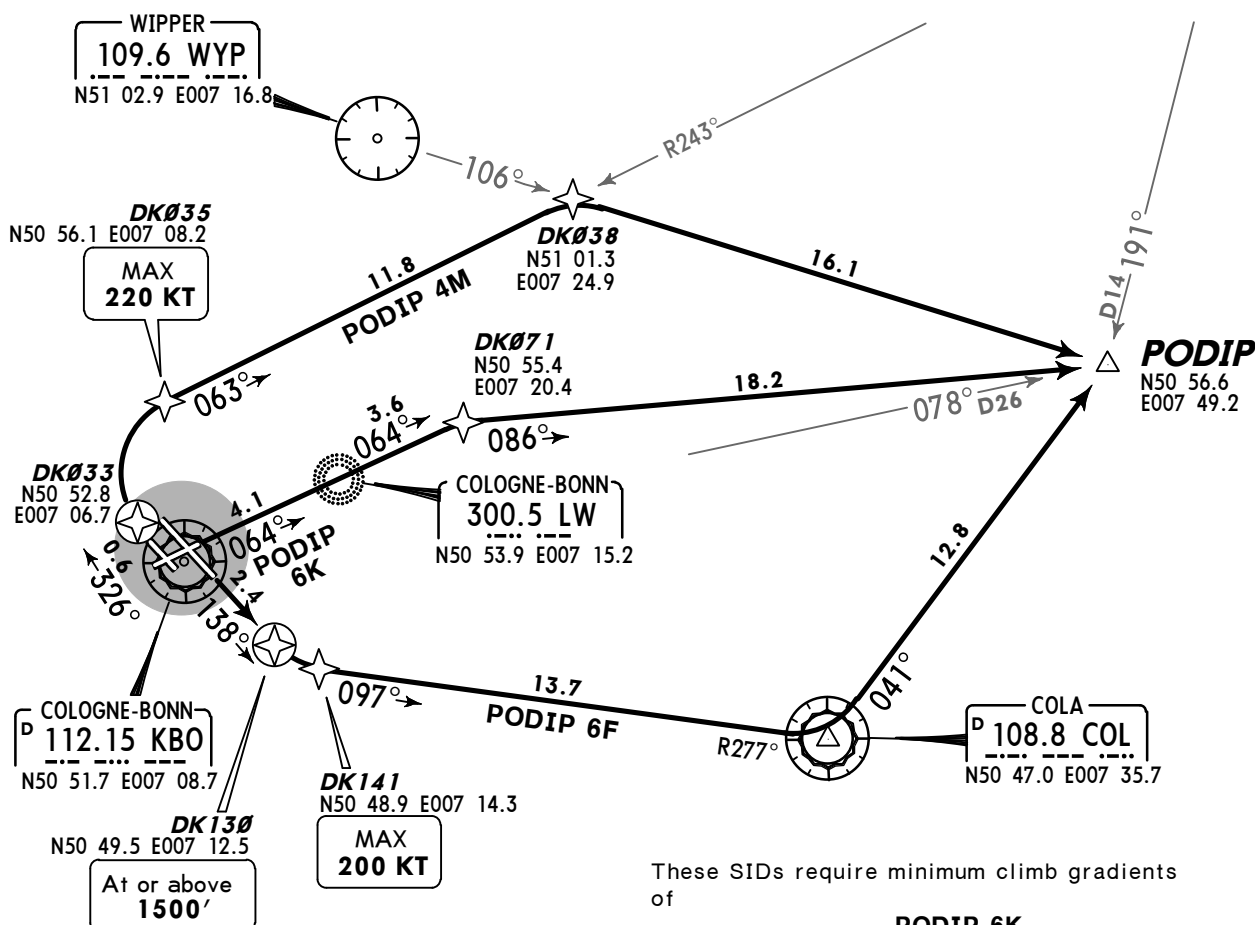
Apt Elev
302'

① 2800' within 15 NM

PODIP SIX FOXTROT (PODIP 6F) [*PODI6F*]
 PODIP SIX KILO (PODIP 6K) [*PODI6K*]
 PODIP FOUR MIKE (PODIP 4M) [*PODI4M*]
 RWYS 14L, 06, 32L RNAV DEPARTURES
 (OVERLAY 10-3H)

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

GERMINGHAUSEN
D 115.4 GMH
N51 10.2 E007 53.5



These SIDs require minimum climb gradients of

PODIP 6K

310' per NM (5.1%) until passing 2600' due to
airspace structure.

PODIP 4M (daytime only)

401' per NM (6.6%) until passing **5000'** due to airspace structure.

Gnd speed-KT	75	100	150	200	250	300
401' per NM	501	668	1003	1337	1671	2005
310' per NM	387	516	775	1033	1291	1549

If unable to comply advise Delivery upon start-up.

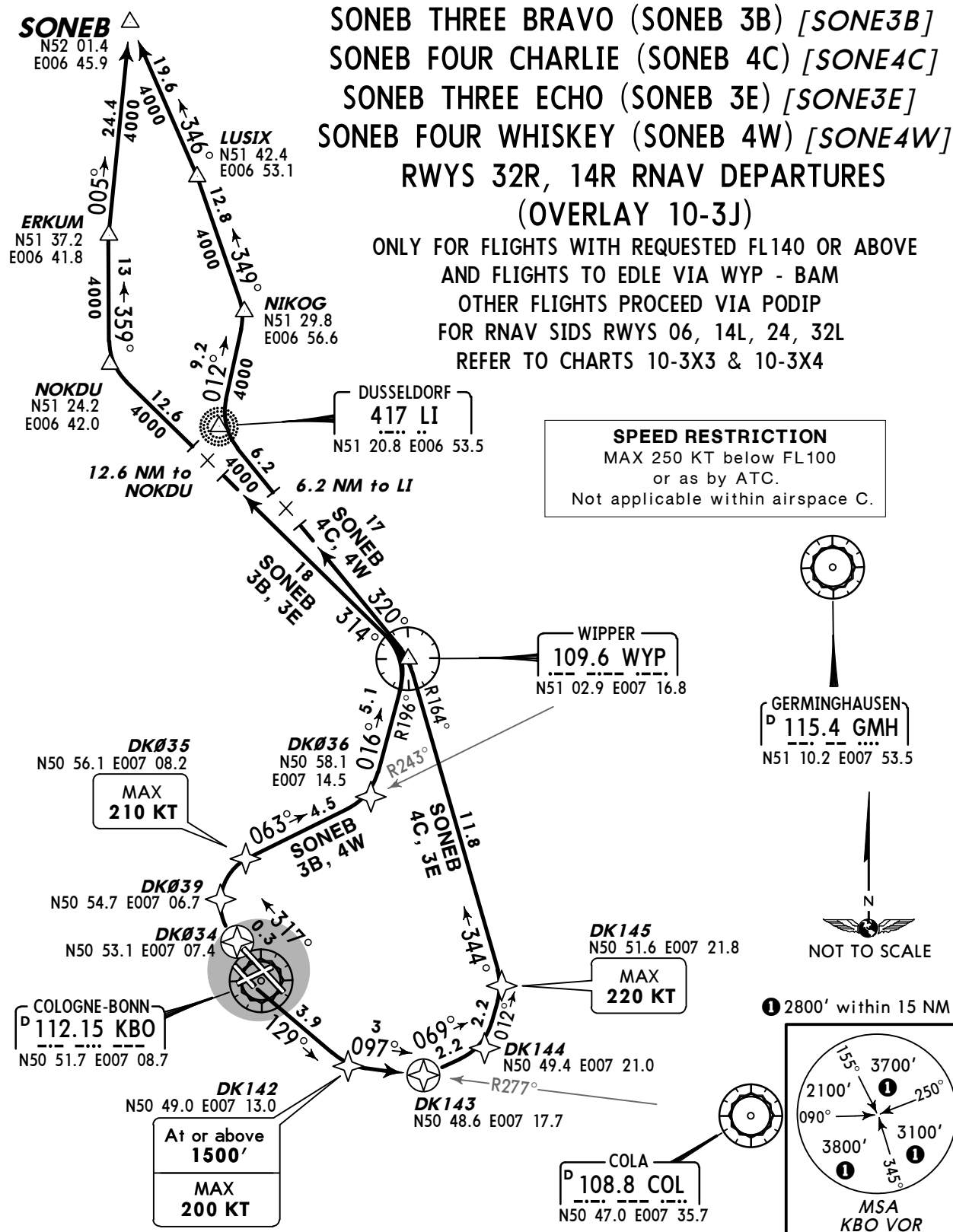
Initial climb clearance **5000'**

SID	RWY	INITIAL CLIMB/ROUTING
PODIP 6F	14L	(700' +) - DK130 (1500' +) - DK141 (K200-) - COL - PODIP.
PODIP 6K	06	(900' +) - LW - DK071 - PODIP.
PODIP 4M	32L	(700' +) - DK033 - DK035 (K220-) - DK038 - PODIP.

LANGEN Radar
118.75Apt Elev
302'

Trans level: By ATC Trans alt: 5000'

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



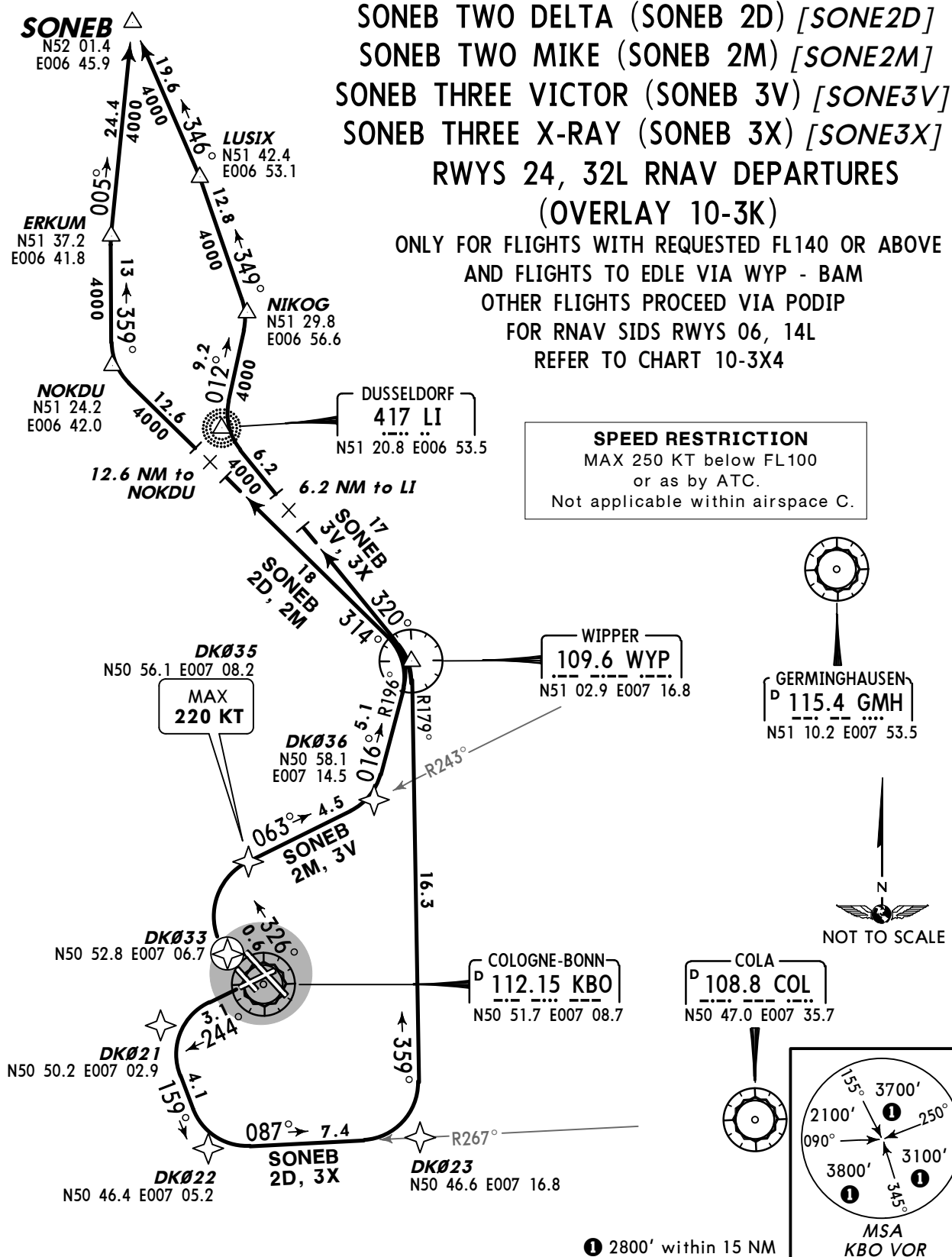
Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB/ROUTING
SONEB 3B	32R	(700'+) - DK034 - DK039 - DK035 (K210-) - DK036 - WYP - NOKDU - ERKUM - SONEB.
SONEB 4C By ATC	14R	(700'+) - DK142 (1500'+; K200-) - DK143 - DK144 - DK145 (K220-) - WYP - LI - NIKOG - LUSIX - SONEB.
SONEB 3E		(700'+) - DK142 (1500'+; K200-) - DK143 - DK144 - DK145 (K220-) - WYP - NOKDU - ERKUM - SONEB.
SONEB 4W By ATC	32R	(700'+) - DK034 - DK039 - DK035 (K210-) - DK036 - WYP - LI - NIKOG - LUSIX - SONEB.

LANGEN
Radar
118.75

Apt Elev
302'

Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar. 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory. 3. RWY 24: EXPECT close-in obstacles.



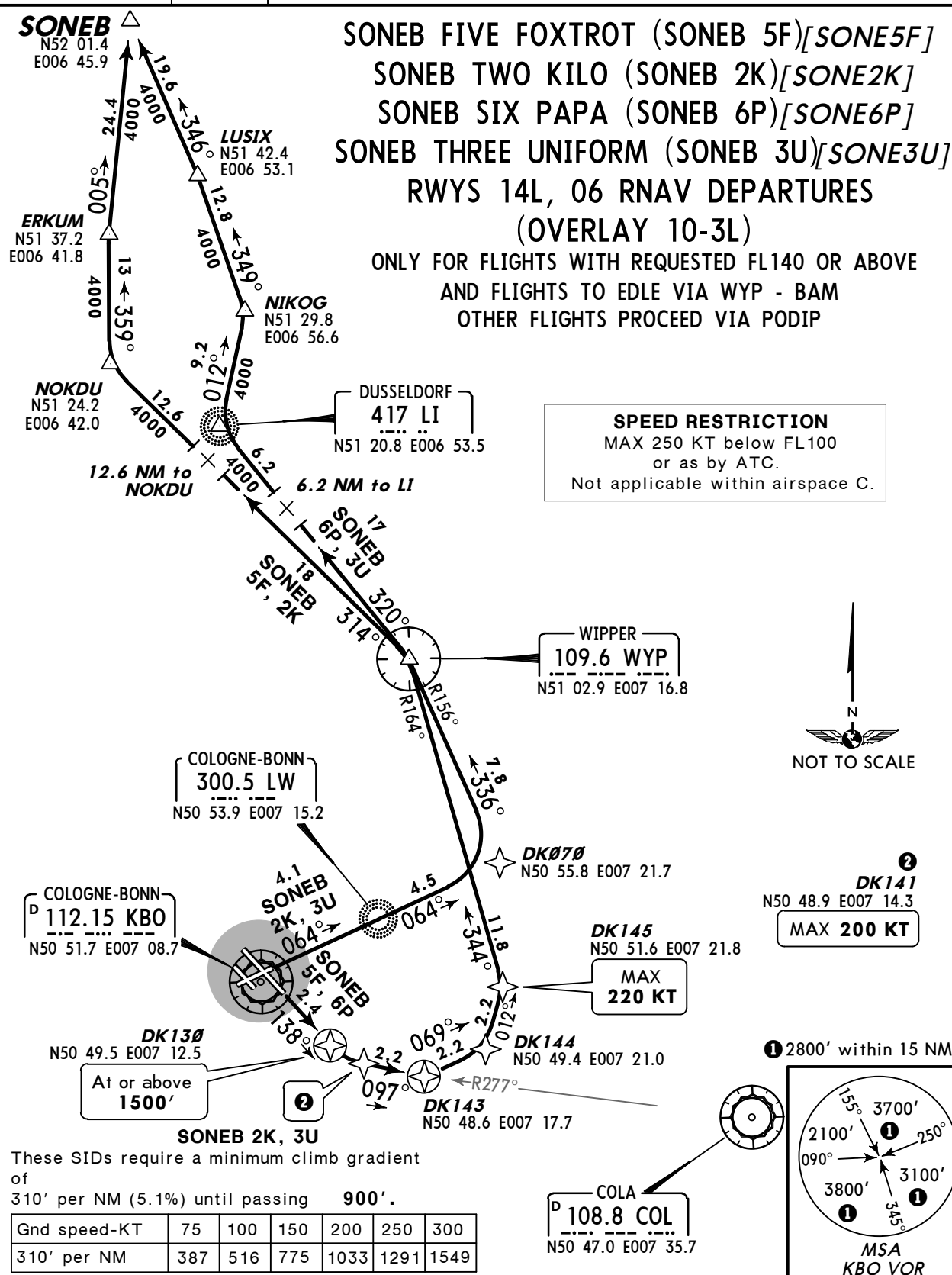
Initial climb clearance **5000'**

SID	RWY	INITIAL CLIMB/ROUTING
SONEB 2D	24	(700' +) - DK021 - DK022 - DK023 - WYP - NOKDU - ERKUM - SONEB.
SONEB 2M	32L	(700' +) - DK033 - DK035 (K220-) - DK036 - WYP - NOKDU - ERKUM - SONEB.
SONEB 3V By ATC		(700' +) - DK033 - DK035 (K220-) - DK036 - WYP - LI - NIKOG - LUSIX - SONEB.
SONEB 3X By ATC	24	(700' +) - DK021 - DK022 - DK023 - WYP - LI - NIKOG - LUSIX - SONEB.

Trans level: By ATC Trans alt: 5000'

LANGEN Radar
118.75Apt Elev
302'

1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 06: EXPECT close-in obstacles.

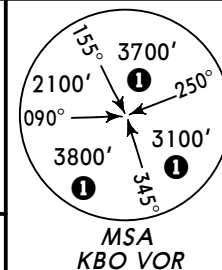


Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB/ROUTING
SONEB 5F	14L	(700' +) - DK130 (1500' +) - DK141 (K200-) - DK143 - DK144 - DK145 (K220-) - WYP - NOKDU - ERKUM - SONEB.
SONEB 2K	06	(900' +) - LW - DK070 - WYP - NOKDU - ERKUM - SONEB.
SONEB 6P By ATC	14L	(700' +) - DK130 (1500' +) - DK141 (K200-) - DK143 - DK144 - DK145 (K220-) - WYP - LI - NIKOG - LUSIX - SONEB.
SONEB 3U By ATC	06	(900' +) - LW - DK070 - WYP - LI - NIKOG - LUSIX - SONEB.

LANGEN
Radar
118.75Apt Elev
302'

- Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
 2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
 3. RWY 24: EXPECT close-in obstacles.

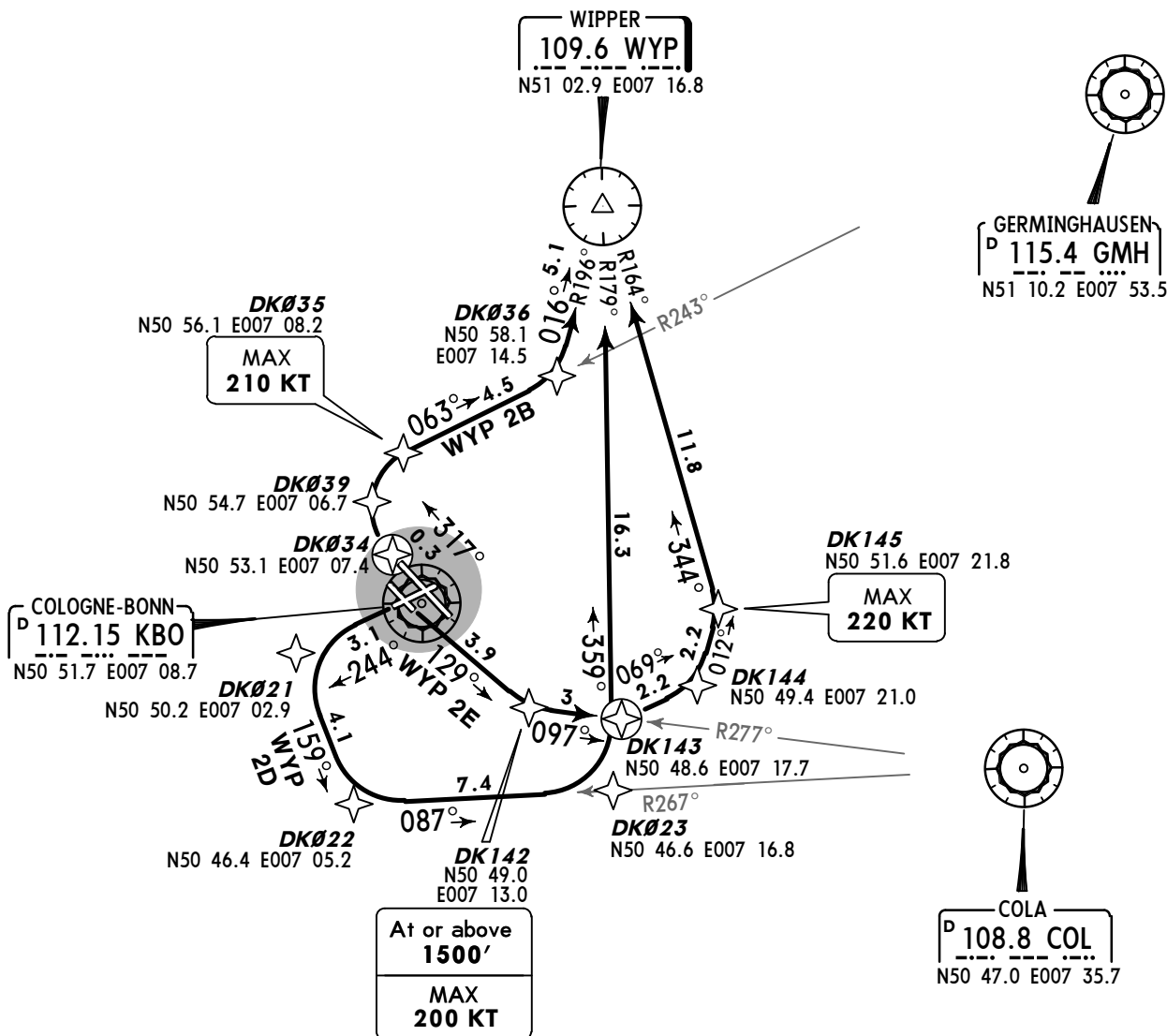


① 2800' within 15 NM

WIPPER TWO BRAVO (WYP 2B)
WIPPER TWO DELTA (WYP 2D)
WIPPER TWO ECHO (WYP 2E)
RWYS 32R, 24, 14R RNAV DEPARTURES
(OVERLAY 10-3M)

BY ATC
FOR SIDS RWYS 14L, 06, 32L REFER TO CHART 10-3X6

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

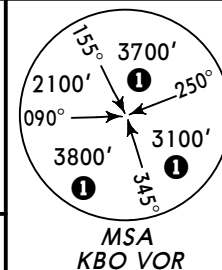
Initial climb clearance **5000'**

SID	RWY	INITIAL CLIMB/ROUTING
WYP 2B	32R	(700' +) - DK034 - DK039 - DK035 (K210-) - DK036 - WYP.
WYP 2D	24	(700' +) - DK021 - DK022 - DK023 - WYP.
WYP 2E	14R	(700' +) - DK142 (1500' +; K200-) - DK143 - DK144 - DK145 (K220-) - WYP.

LANGEN
Radar
118.75

Apt Elev
302'

Trans level: By ATC Trans alt: 5000'
1. Remain on tower frequency until passing 2000', then contact LANGEN Radar.
2. SIDs are also minimum noise routings (refer to 10-4). Strict adherence within the limits of aircraft performance is mandatory.
3. RWY 06: EXPECT close-in obstacles.



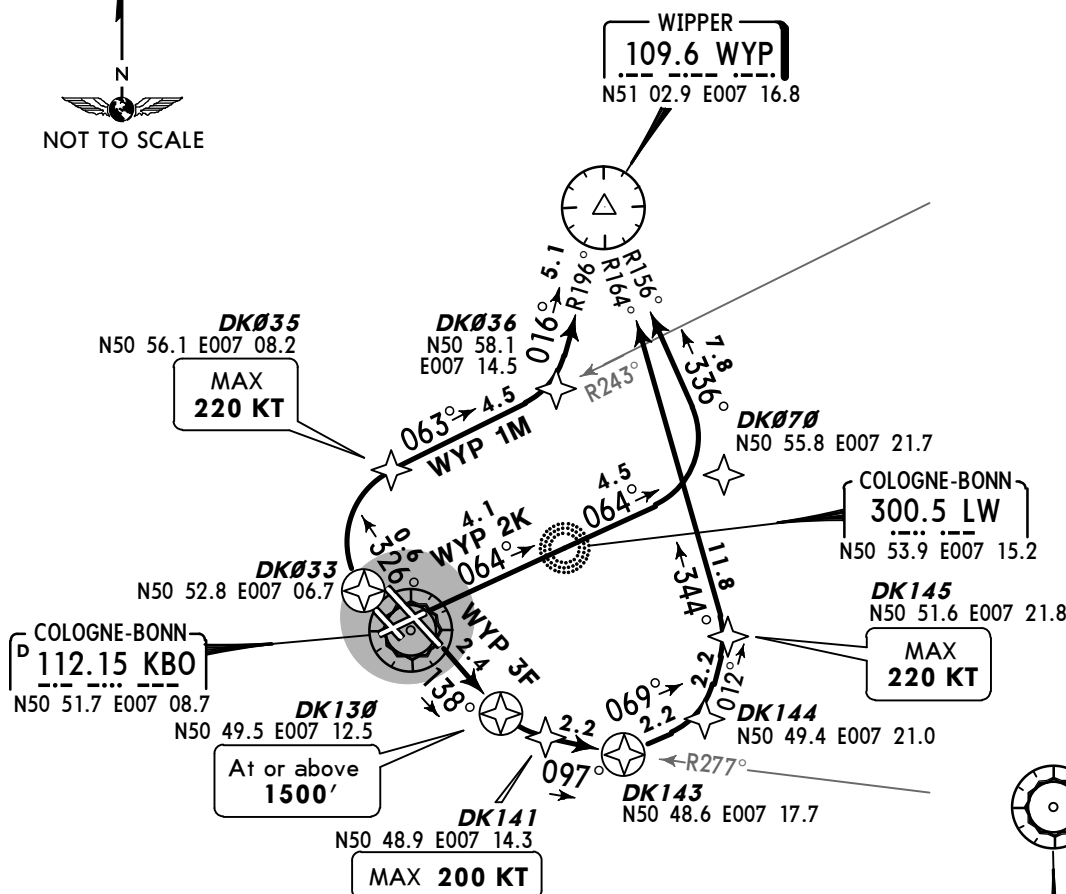
2800' within 15 NM

WIPPER THREE FOXTROT (WYP 3F)
WIPPER TWO KILO (WYP 2K)
WIPPER ONE MIKE (WYP 1M)
RWYS 14L, 06, 32L RNAV DEPARTURES
(OVERLAY 10-3N)
BY ATC

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



GERMINGHAUSEN
D 115.4 GMH
N51 10.2 E007 53.5



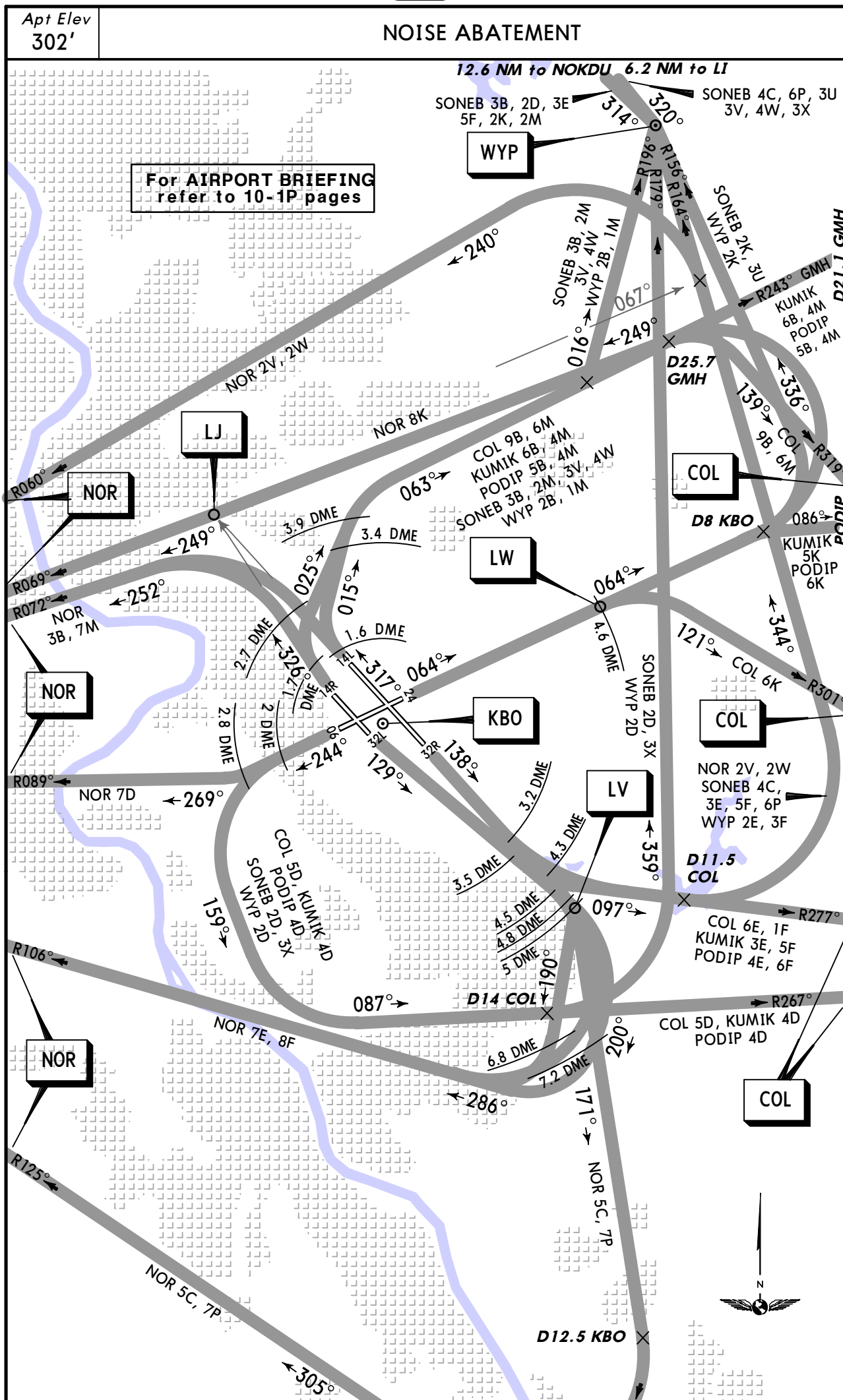
WYP 2K

This SID requires a minimum climb gradient of 310' per NM (5.1%) until passing 900'.

Gnd speed-KT	75	100	150	200	250	300
310' per NM	387	516	775	1033	1291	1549

Initial climb clearance 5000'

SID	RWY	INITIAL CLIMB/ROUTING
WYP 3F	14L	(700'+) - DK130 (1500'+) - DK141 (K200-) - DK143 - DK144 - DK145 (K220-) - WYP.
WYP 2K	06	(900'+) - LW - DK070 - WYP.
WYP 1M	32L	(700'+) - DK033 - DK035 (K220-) - DK036 - WYP.



ADDITIONAL RUNWAY INFORMATION

ADDITIONAL RUNWAY INFORMATION						USABLE LENGTHS		TAKE-OFF	WIDTH
RWY						LANDING BEYOND			
						Threshold	Glide Slope		
06 ① 24	HIRL CL (30m) HIALS PAPI-L (3.0°) RVR							②	148' 45m
	HIRL CL (30m) HIALS SFL REIL PAPI-L (3.0°) RVR						7050' 2149m		

① Rwy partly grooved.

② TAKE OFF RUN AVAILABLE

RWY 06:

From rwy head 8067' (2459m)

twy T int 5282' (1610m)

RWY 24:

From rwy head 8067' (2459m)

twy E int 5381' (1640m)

twy A int 4954' (1510m)

14L	HIRL CL (15m) ALSF-II TDZ REIL ③ HST-A2 RVR		11,565' 3525m	⑤	197' 60m
32R	HIRL CL (15m) ALSF-II TDZ REIL ③ ④ RVR		11,240' 3426m		

③ PAPI-L (3.0°)

④ HST-A3 & A4

⑤ TAKE OFF RUN AVAILABLE

RWY 14L:

From rwy head 12,516' (3815m)

twy A5 int 11,680' (3560m)

twy A4 int 8990' (2740m)

twy A3 int 6791' (2070m)

RWY 32R:

From rwy head 12,516' (3815m)

twy A1 int 11,713' (3570m)

twy A2 int 8350' (2545m)

twy A3 int 5840' (1780m)

14R	HIRL CL (30m) HIALS PAPI-L (3.0°)			⑥	148' 45m
32L					

⑥ TAKE OFF RUN AVAILABLE

RWY 14R:

From rwy head 6112' (1863m)

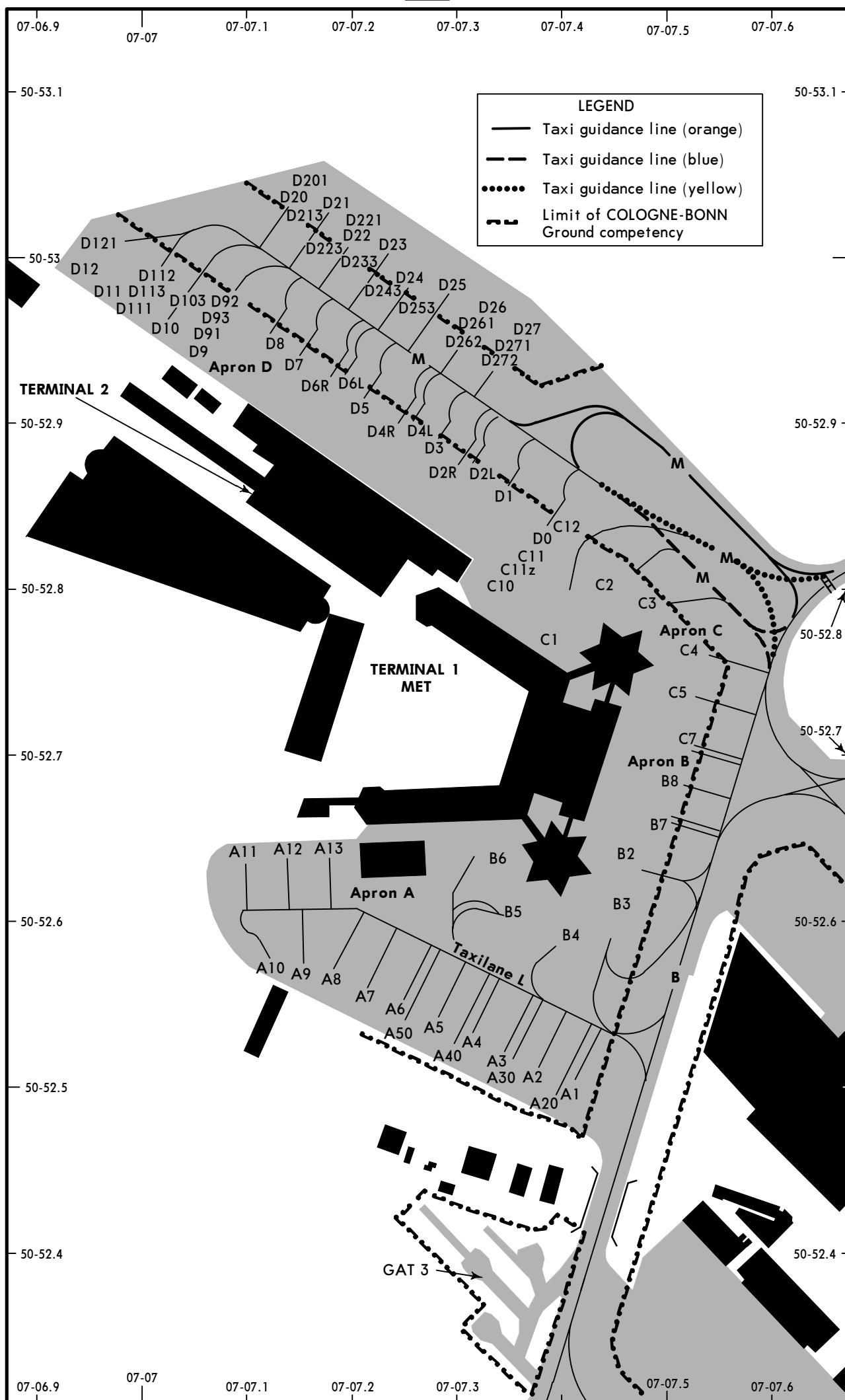
twy T2 int 4364' (1330m)

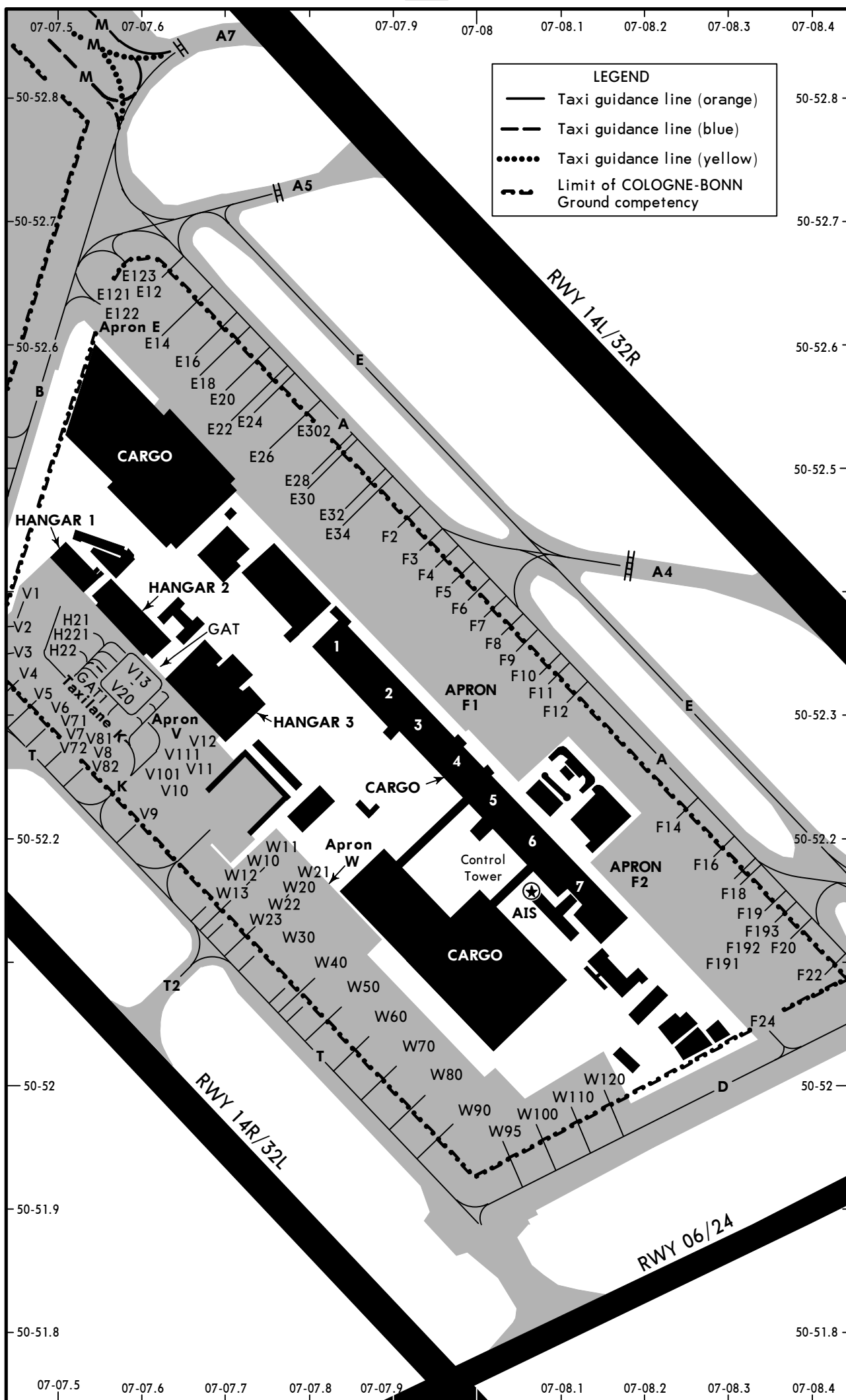
Standard

TAKE-OFF ①

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

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





INS COORDINATES			
STAND No.	COORDINATES	STAND No.	COORDINATES
A1	N50 52.5 E007 07.4	V2	N50 52.4 E007 07.4
A2 thru A4	N50 52.5 E007 07.3	V3	N50 52.3 E007 07.4
A5, A6	N50 52.5 E007 07.2	V4 thru V8	N50 52.3 E007 07.5
A7, A8	N50 52.6 E007 07.2	V9, V10	N50 52.2 E007 07.6
A9 thru A12	N50 52.6 E007 07.1	V11	N50 52.3 E007 07.6
A13	N50 52.6 E007 07.2	V12	N50 52.3 E007 07.7
A20	N50 52.5 E007 07.4	V13 thru V19	N50 52.3 E007 07.6
A30, A40	N50 52.5 E007 07.3	V20 thru V82	N50 52.3 E007 07.5
A50	N50 52.5 E007 07.2	V101	N50 52.2 E007 07.6
B2 thru B4	N50 52.6 E007 07.4	V111 thru V191	N50 52.3 E007 07.6
B5, B6	N50 52.6 E007 07.3	W10, W11, W12	N50 52.2 E007 07.7
B7, B8	N50 52.7 E007 07.4	W13	N50 52.1 E007 07.7
C1, C2, C3	N50 52.8 E007 07.4	W20, W21	N50 52.2 E007 07.8
C4	N50 52.8 E007 07.5	W22	N50 52.1 E007 07.8
C5, C7	N50 52.7 E007 07.5	W23	N50 52.1 E007 07.7
C10	N50 52.8 E007 07.3	W30, W40	N50 52.1 E007 07.8
C11, C11z, C12	N50 52.8 E007 07.4	W50, W60	N50 52.1 E007 07.9
D0 thru D2R	N50 52.8 E007 07.3	W70	N50 52.0 E007 07.9
D3 thru D6L	N50 52.9 E007 07.2	W80 thru W100	N50 52.0 E007 08.0
D6R thru D8	N50 52.9 E007 07.1	W110, W120	N50 52.0 E007 08.1
D9	N50 52.9 E007 07.0		
D10 thru D12	N50 53.0 E007 07.0		
D20 thru D23	N50 53.0 E007 07.2		
D24 thru D26	N50 53.0 E007 07.3		
D27	N50 53.0 E007 07.4		
D91	N50 52.9 E007 07.1		
D92, D93	N50 53.0 E007 07.1		
D103 thru D121	N50 53.0 E007 07.0		
D201	N50 53.0 E007 07.2		
D213	N50 53.0 E007 07.1		
D221 thru D243	N50 53.0 E007 07.2		
D253, D261, D262	N50 53.0 E007 07.3		
D271, D272	N50 52.9 E007 07.4		
E12, E14	N50 52.6 E007 07.6		
E16, E18	N50 52.6 E007 07.7		
E20 thru E26	N50 52.5 E007 07.7		
E28, E30	N50 52.5 E007 07.8		
E32, E34	N50 52.4 E007 07.8		
E121 thru E123	N50 52.6 E007 07.6		
E302	N50 52.5 E007 07.8		
F2 thru F5	N50 52.4 E007 07.9		
F6	N50 52.3 E007 07.9		
F7 thru F11	N50 52.3 E007 08.0		
F12	N50 52.3 E007 08.1		
F14, F16	N50 52.2 E007 08.2		
F18, F20	N50 52.1 E007 08.3		
F22	N50 52.1 E007 08.4		
F24	N50 52.0 E007 08.3		
F191 thru F193	N50 52.1 E007 08.3		
H21, H22, H221, V1	N50 52.4 E007 07.5		

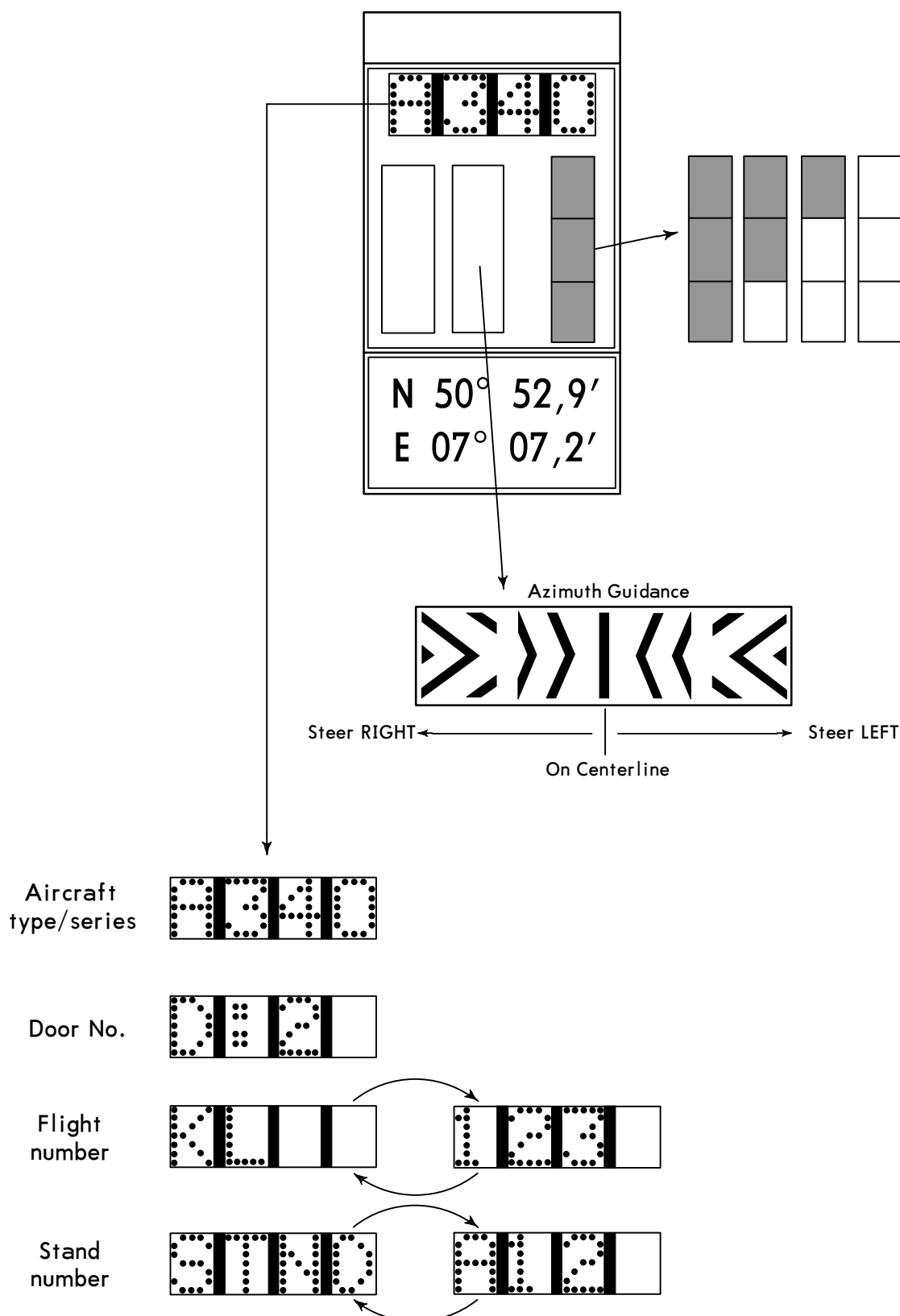
VISUAL DOCKING GUIDANCE SYSTEM "APIS"

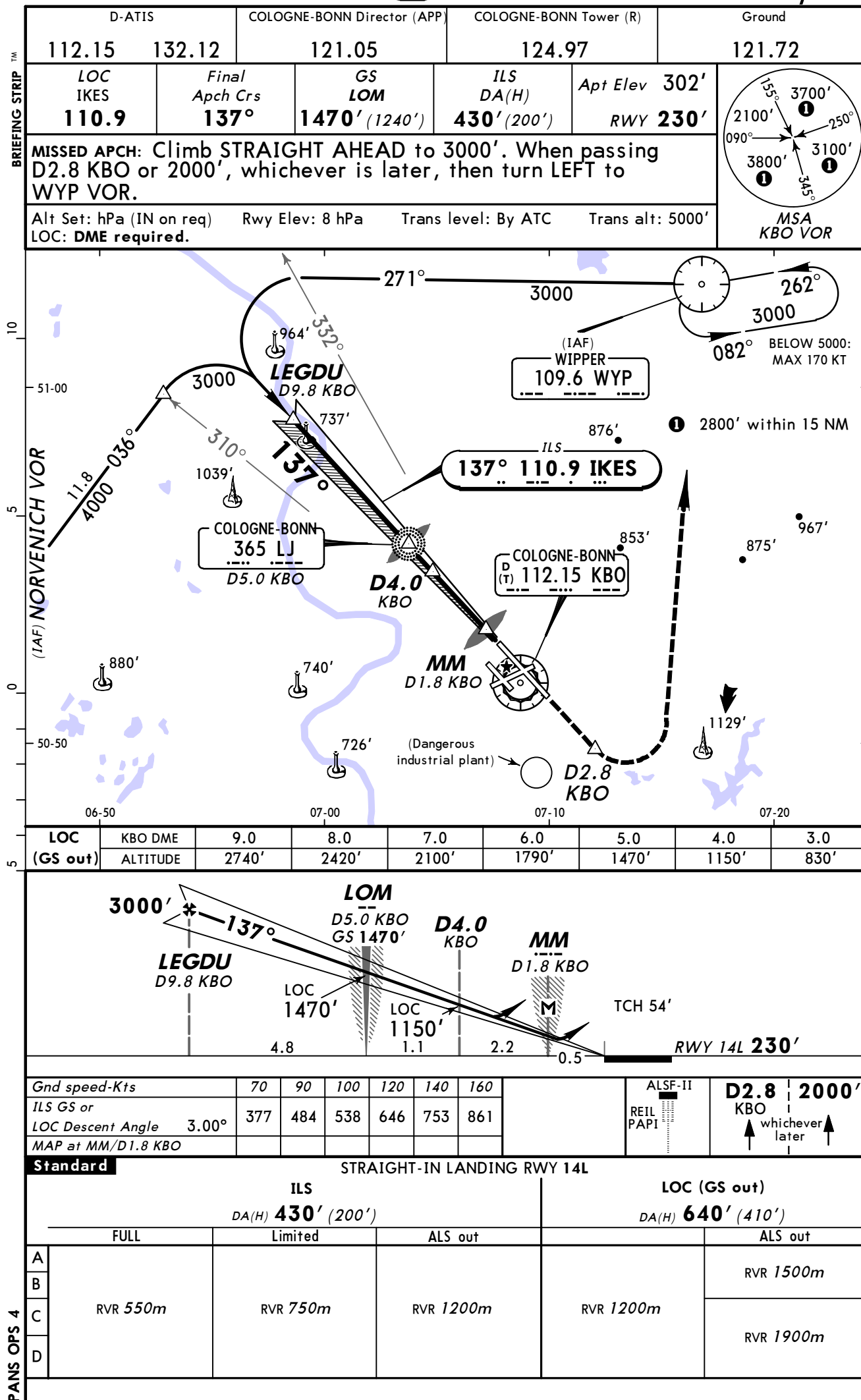
(Aircraft Parking and Information System)

Pilot Instructions

Centerline and stopping guidance are provided from a display unit mounted at the extension of the stand centerline.

- Intercept the centerline and watch the azimuth guidance display.
- Check that the correct aircraft type/series is displayed on the APIS display unit.
- Do not enter the stand if display shows STOP or wrong aircraft type/series.





BRIEFING STRIP™

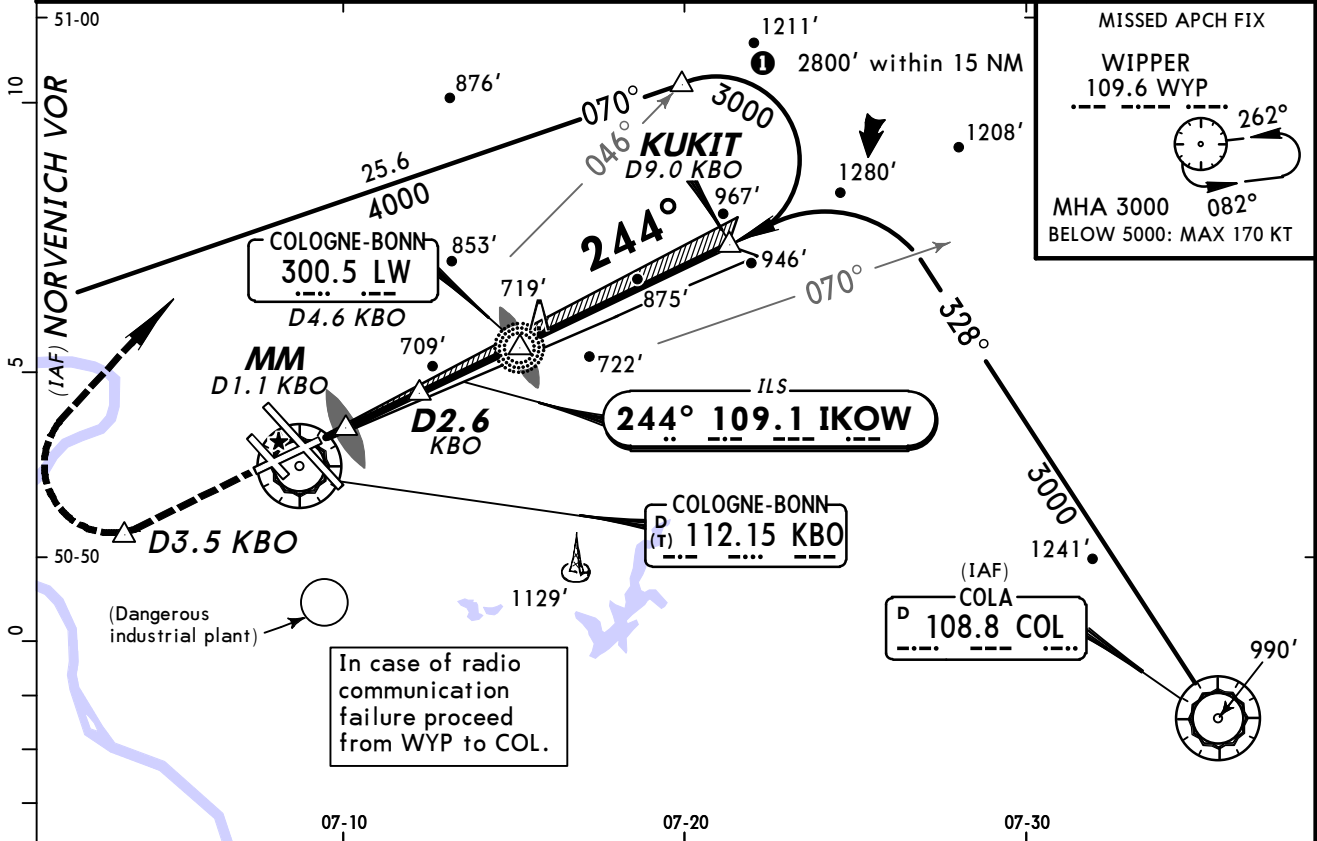


PANS OPS 4

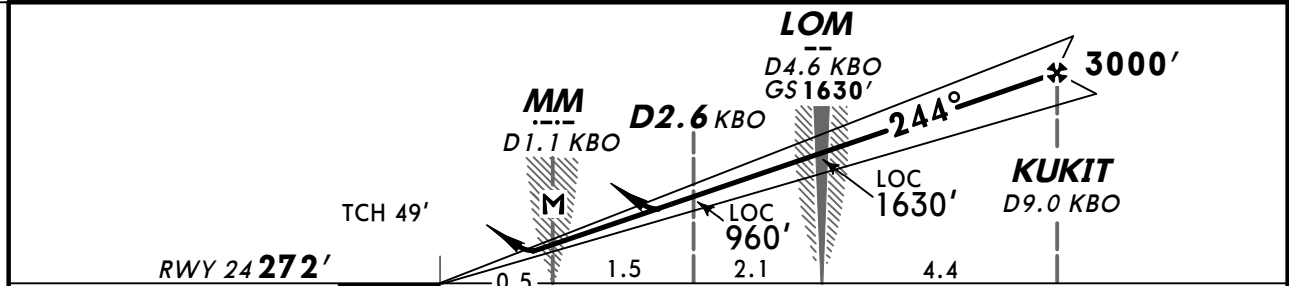
PANS OPS 4

CHANGES: Director frequency.

D-ATIS		COLOGNE-BONN Director (APP)		COLOGNE-BONN Tower (R)		Ground
112.15	132.12	121.05		124.97		121.72
LOC IKOW 109.1	Final Aptch Crs 244°	GS LOM 1630' (1358')	ILS DA(H) Refer to Minimums	Apt Elev	302'	
						RWY 272'
MISSED APCH: Climb STRAIGHT AHEAD to 5000'. When passing D3.5 KBO or 2000', whichever is later, turn RIGHT to WYP VOR.						
Alt Set: hPa (IN on req) Rwy Elev: 10 hPa Trans level: By ATC Trans alt: 5000'						MSA KBO VOR
1. LOC: DME required. 2. LACFT: See ATC State pages.						



LOC	KBO DME	3.0	4.0	5.0	6.0	7.0	8.0
(GS out)	ALTITUDE	1090'	1410'	1730'	2050'	2360'	2680'

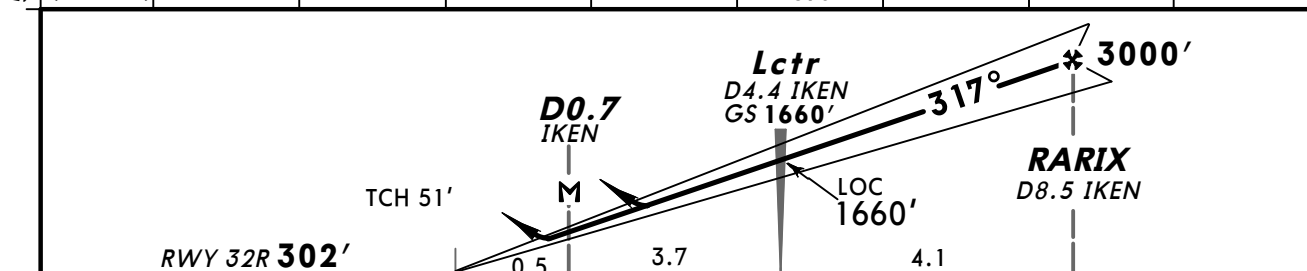


Gnd speed-Kts	70	90	100	120	140	160		
ILS GS or LOC Descent Angle 3.00°	377	484	538	646	753	861		
MAP at MM/D1.1 KBO								

Standard				STRAIGHT-IN LANDING RWY 24			
ILS 1 DA(H) 472' (200')				LOC (GS out) DA(H) 870' (598')			
FULL		Limited		ALS out		ALS out	
A	RVR 550m		RVR 750m		RVR 1200m		1500m 2
B							
C							
D							

1 LACFT: DA(H) 591'(319'), FULL: RVR 700m.

2 Flight visibility and ground visibility are required.



Standard		STRAIGHT-IN LANDING RWY 32R			
		ILS DA(H) 502' (200')		LOC (GS out) DA(H) 740' (438')	
FULL		Limited	ALS out		ALS out
A	RVR 550m	RVR 750m	RVR 1200m	RVR 1300m	RVR 1500m
B					
C					
D					RVR 2000m

EDDK/CGN
COLOGNE-BONN

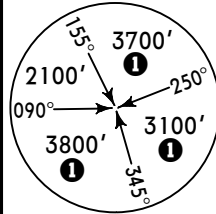
11 OCT 13
Eff 17 Oct

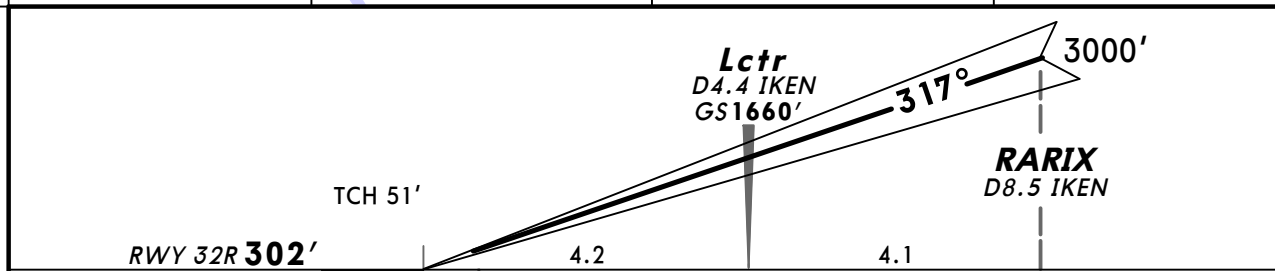
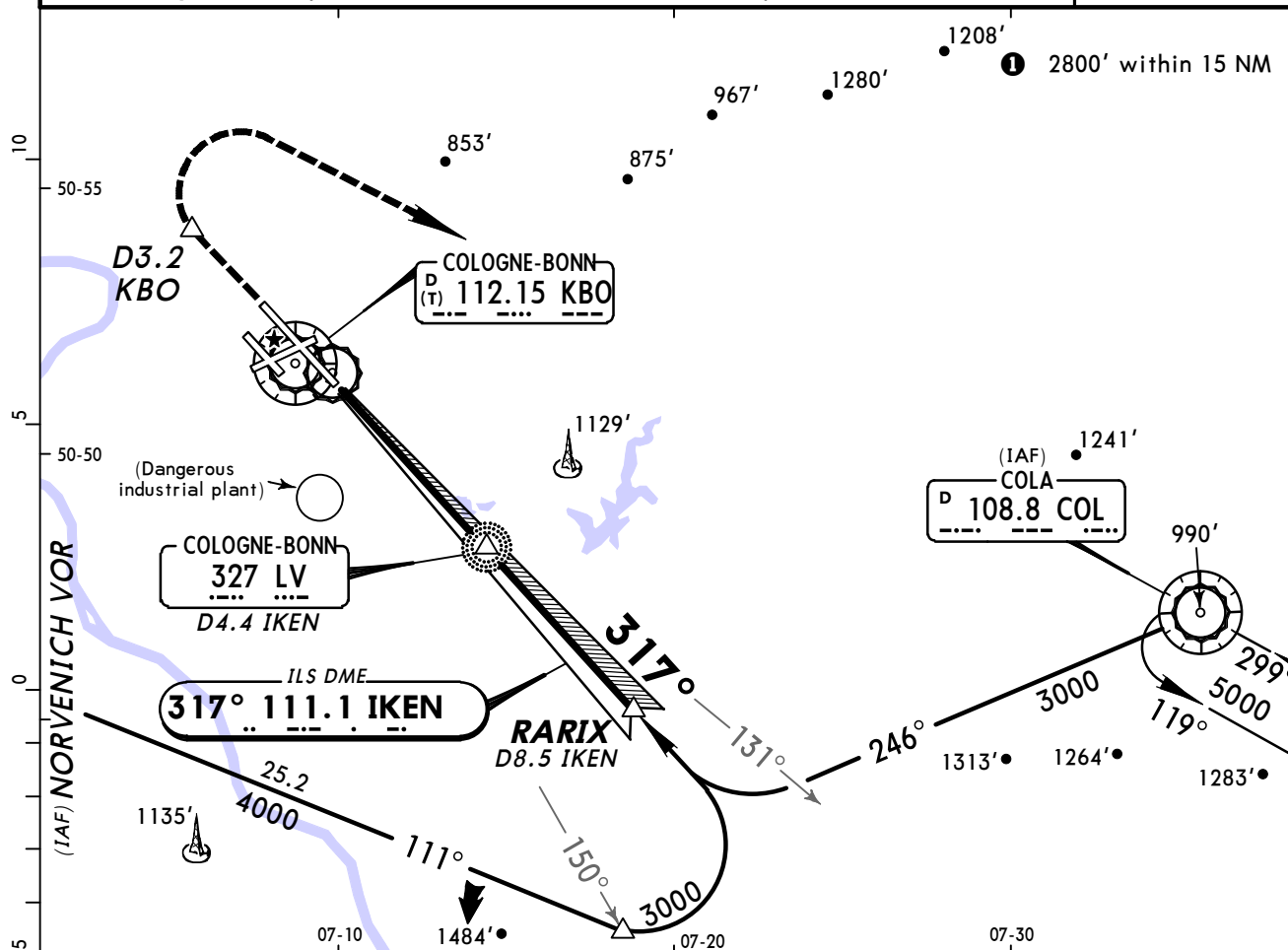
11-3A

COLOGNE-BONN, GERMANY
CAT II/III ILS Rwy 32R

BRIEFING STRIP

TM

D-ATIS		COLOGNE-BONN Director (APP)		COLOGNE-BONN Tower (R)		Ground			
112.15 132.12		121.05		124.97		121.72			
LOC IKEN 111.1		Final Apch Crs 317°		GS LV Lctr 1660' (1358')		CAT II & IIIA ILS Refer to Minimums		Apt Elev 302' RWY 302'	
MISSED APCH: Climb STRAIGHT AHEAD to 5000'. When passing D3.2 KBO or 2000', whichever is later, turn RIGHT to COL VOR.								 MSA KBO VOR	
Alt Set: hPa (IN on req) Rwy Elev: 11 hPa Trans level: By ATC Trans alt: 5000' 1. DME required. 2. Special Aircrew & Acft Certification Required.									



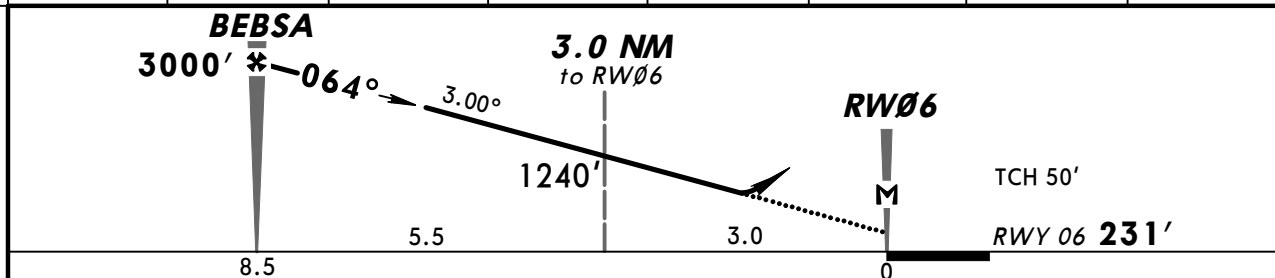
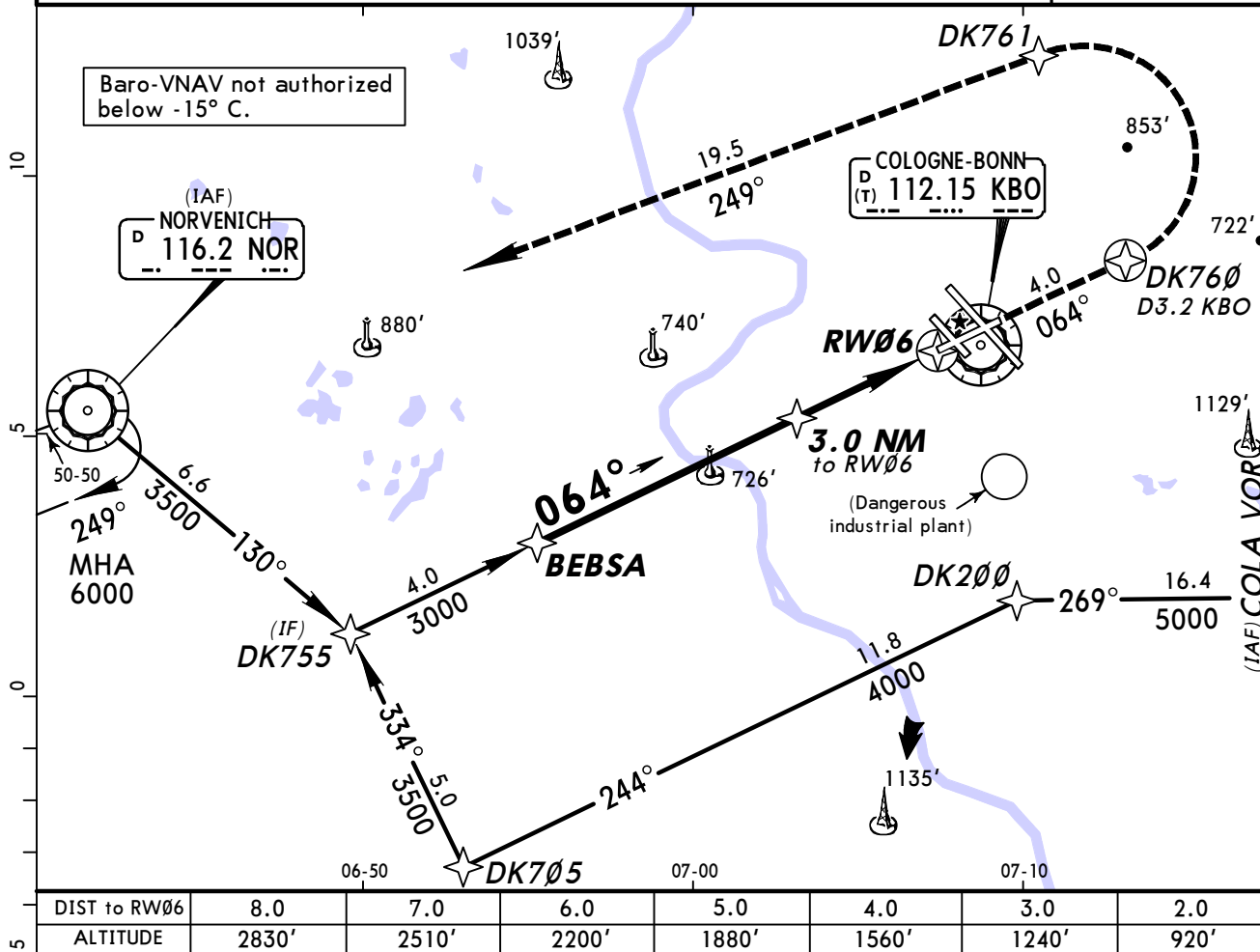
Gnd speed-Kts	70	90	100	120	140	160	ALSF-II REIL PAPI	D3.2 2000' KBO ↑ whichever later ↑
GS	3.00°	377	484	538	646	753		

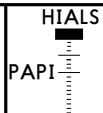
Standard		STRAIGHT-IN LANDING RWY 32R	
CAT IIIA ILS		CAT II ILS	
DH 50'		RA 89' DA(H) 402' (100')	
RVR 200m		RVR 300m	

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

BRIEFING STRIP™

D-ATIS 112.15 132.12		COLOGNE-BONN Director (APP) 121.05		COLOGNE-BONN Tower (R) 124.97		Ground 121.72
RNAV	Final Apch Crs 064°	Minimum Alt BEBSA 3000' (2769')	LNAV/VNAV DA(H) 690' (459')	Apt Elev 302' RWY 231'	3800' MSA ARP	
MISSED APCH: Climb on 064° to 6000'. When passing DK760 or 2000', whichever is later, turn LEFT via DK761 onto 249° to NOR VOR. NON-RNAV: Climb STRAIGHT AHEAD to 6000'. When passing D3.2 KBO or 2000', whichever is later, turn LEFT to NOR VOR.						
Alt Set: hPa (IN on req)		Rwy Elev: 8 hPa	Trans level: By ATC Trans alt: 5000'			

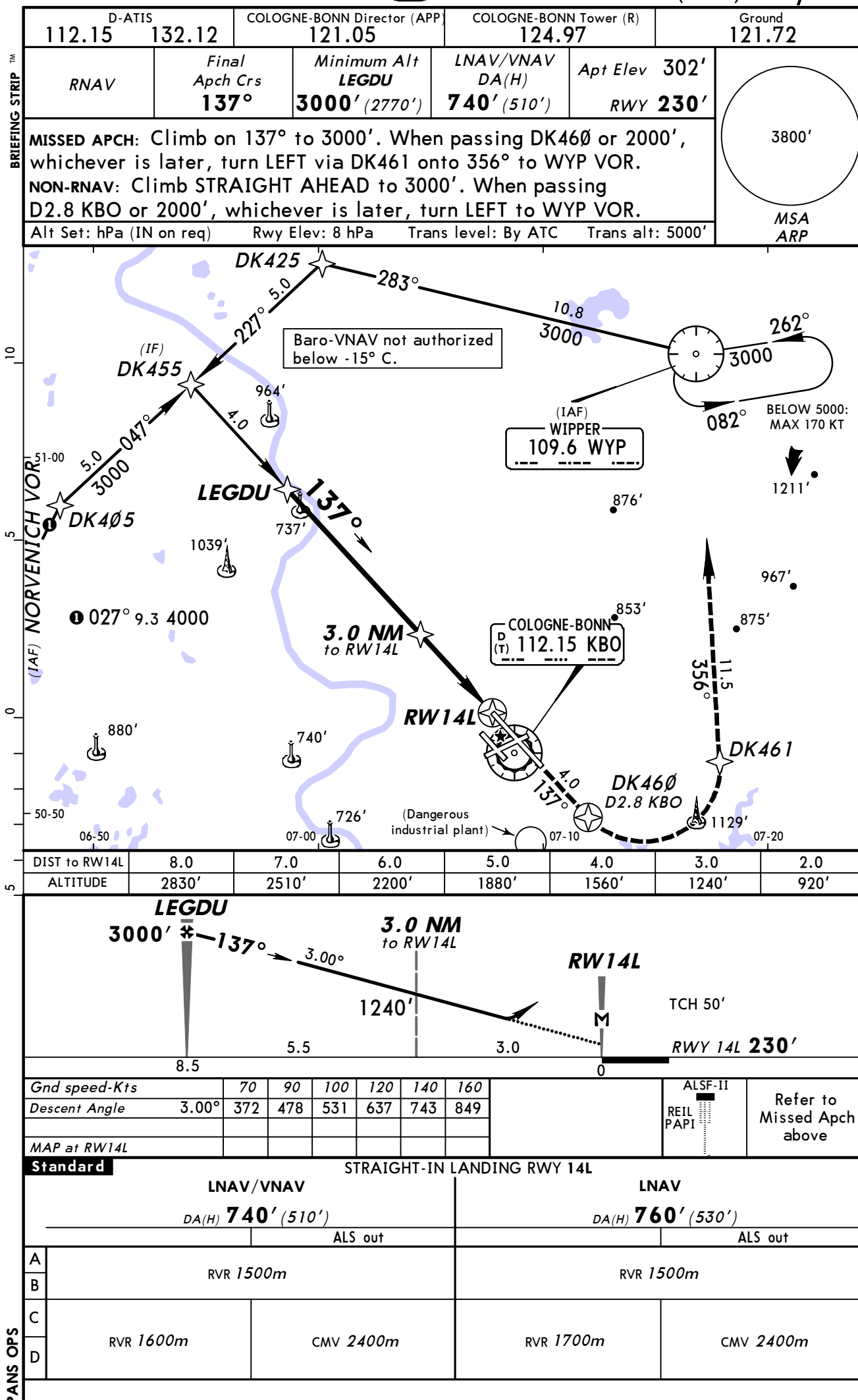


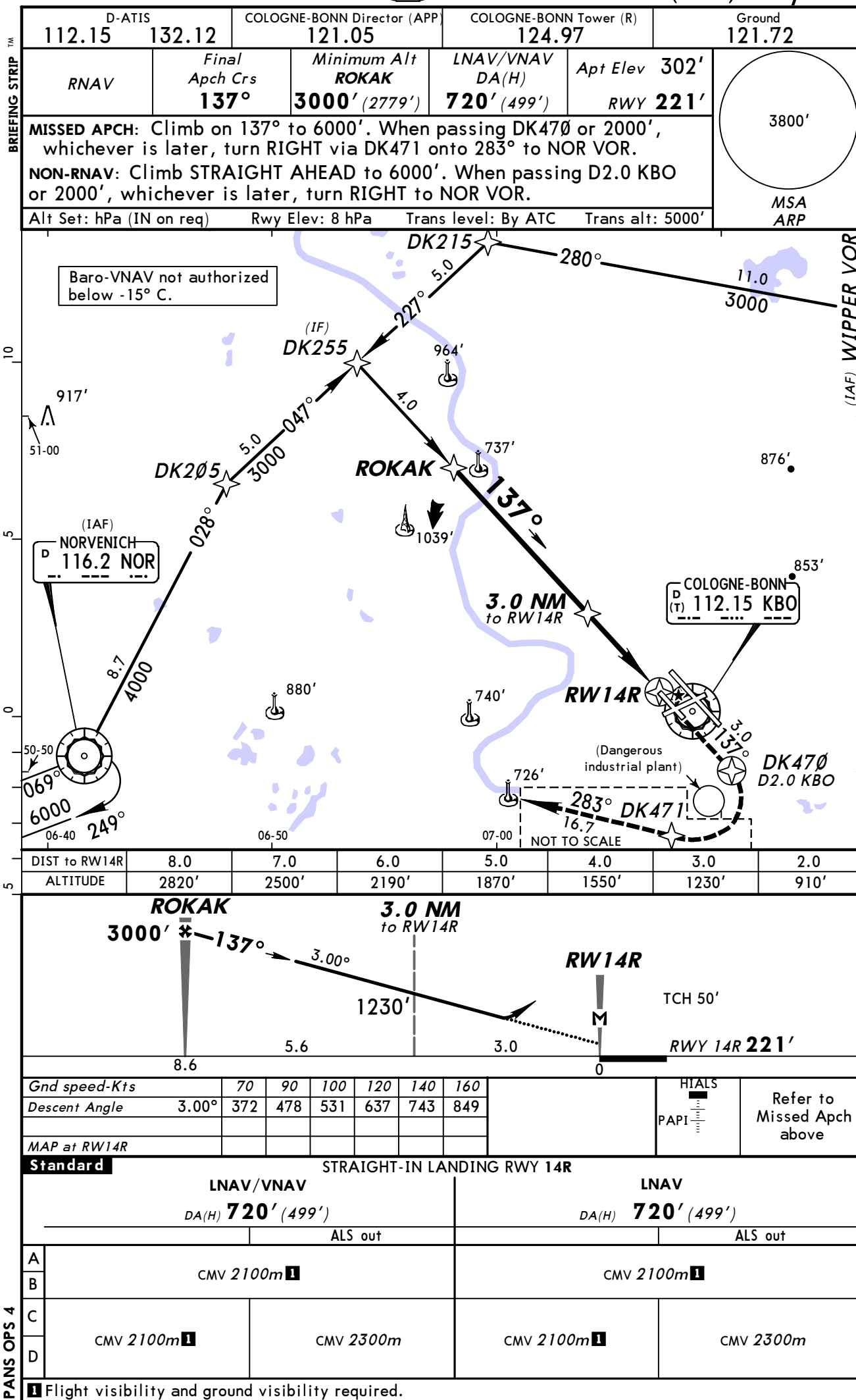
Gnd speed-Kts	70	90	100	120	140	160		Refer to Missed Apch above
Descent Angle	3.00°	372	478	531	637	743		
MAP at RW06								

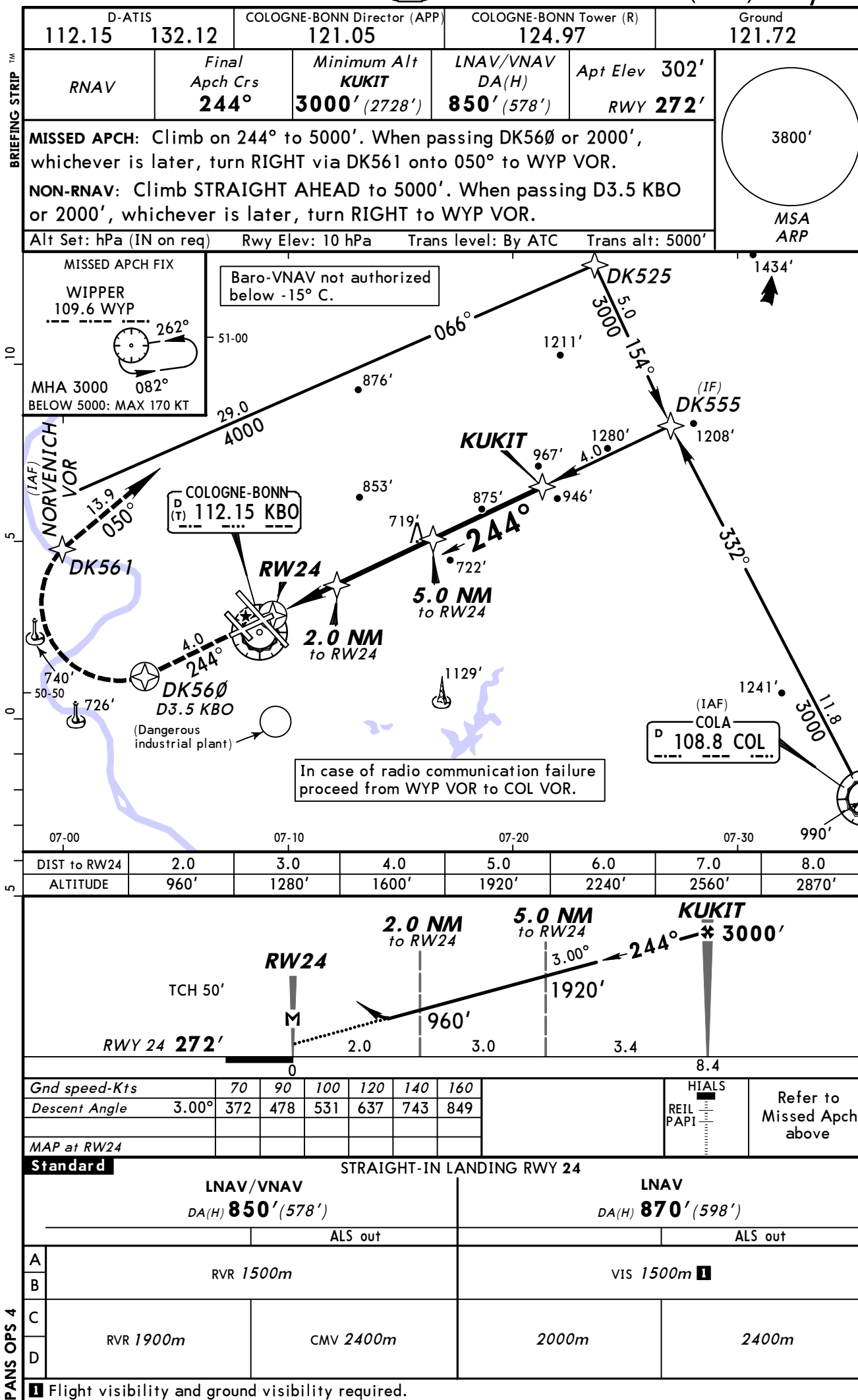
STRAIGHT-IN LANDING RWY 06			
RNAV/VNAV		RNAV	
DA(H) 690' (459')		DA(H) 690' (459')	
ALS out		ALS out	
A	1500m 	1500m 	
		CMV 2100m	
B	1500m 	1500m 	
C	1500m 	1500m 	
D	1500m 	1500m 	

 Flight visibility and ground visibility are required.

CHANGES: Minimums.







BRIEFING STRIP™



Standard		STRAIGHT-IN LANDING RWY 32L			
		LNAV/VNAV		LNAV	
		DA(H) 770' (511')		DA(H) 780' (521')	
		ALS out		ALS out	
A	2100m I		2100m I		
B					
C	2100m I	CMV 2400m	2100m I	CMV 2400m	
D					

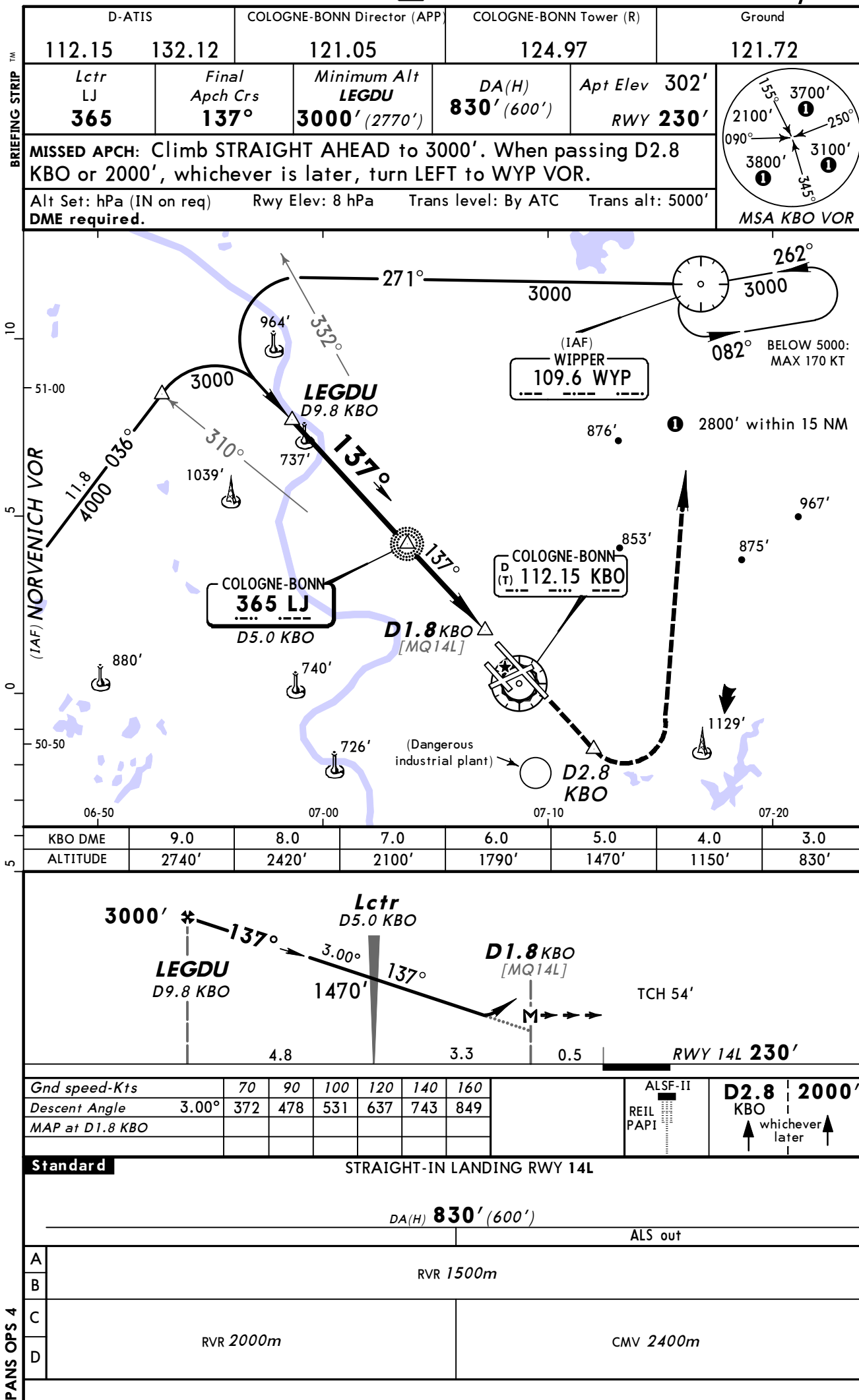
CHANGES: Minimums.

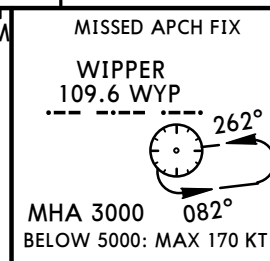
BRIEFING STRIP™

5

PANS OPS

PANS OPS





Profile view of runway 24. The horizontal axis represents distance in miles (0.4, 1.6, 2.1, 4.4) and the vertical axis represents altitude in feet (1090', 1410', 1730', 2050', 2360', 2680', 3000'). The runway is labeled RWY 24 272'. A threshold marker (TCH) is shown at 49' elevation. A profile line starts at 960' elevation and rises to 3000' elevation. Key points on the profile include:

- D1.0 KBO** [MQ24] at 0.4 miles, 960' elevation.
- D2.6 KBO** at 1.6 miles, 1630' elevation.
- Lctr** D4.6 KBO at 2.1 miles, 2360' elevation.
- KUKIT** D9.0 KBO at 4.4 miles, 3000' elevation.

The profile line has a 244° heading and a 3.00° slope. A dashed line indicates the 3000' elevation contour.

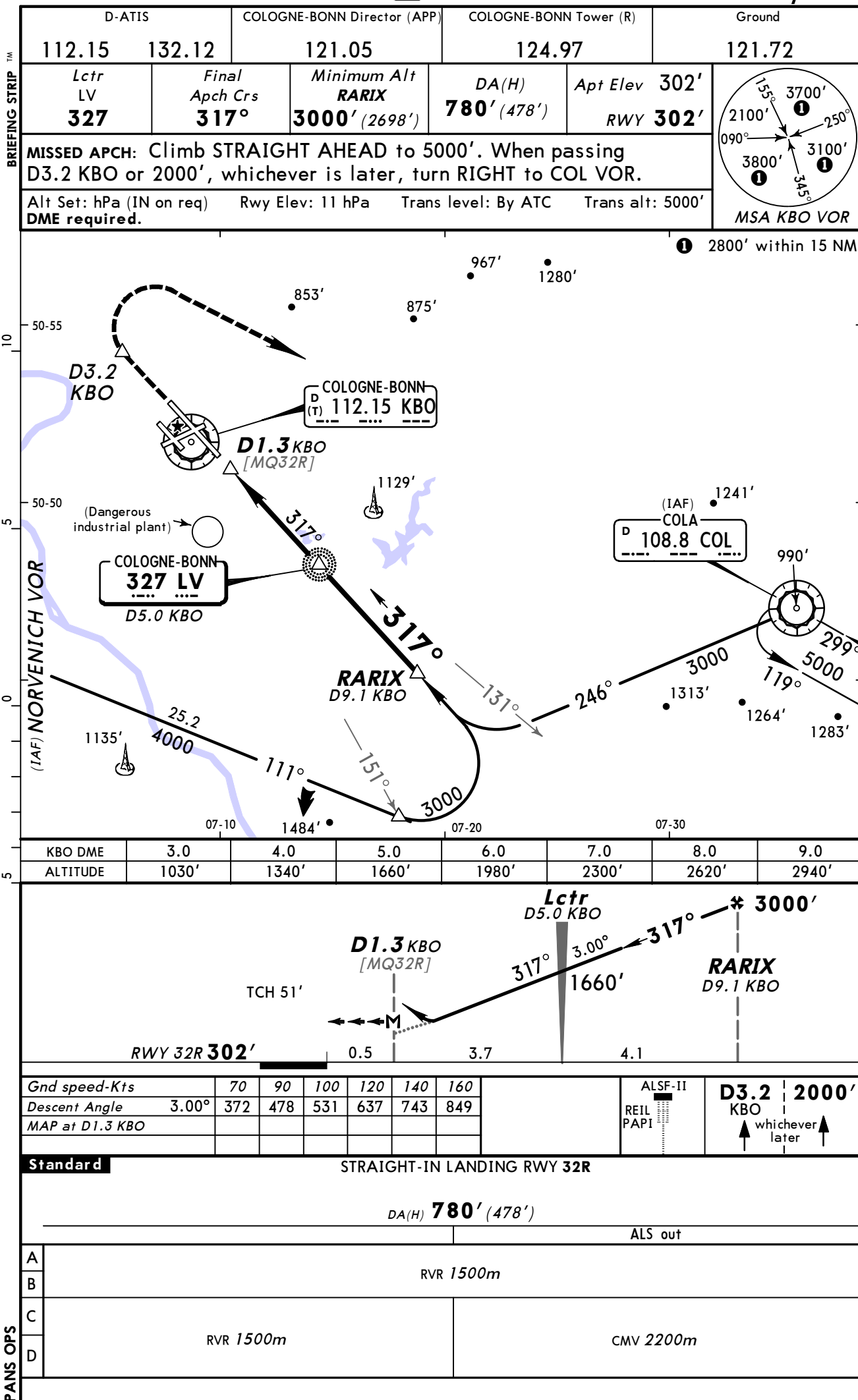
HIALS
REIL
PAPI

STRAIGHT-IN LANDING RWY 24

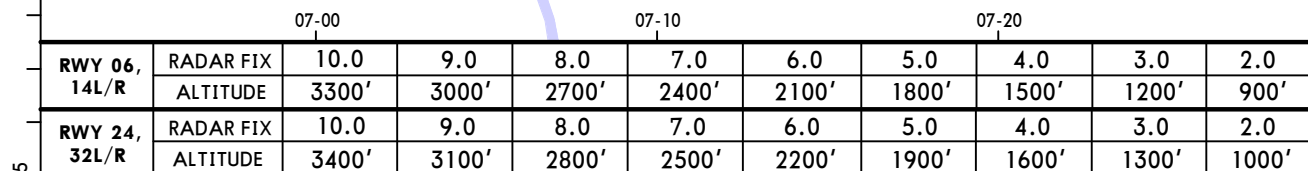
ALS out

PANS OPS 4

CHANGES: Director frequency.



Alt Set: hPa (IN on req)	Apt Elev: 11 hPa	Trans level: By ATC	Trans alt: 5000'
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RWY	06	14L	14R	24	32L	32R
BASED ON ELEV.	231'	230'	221'	272'	259'	302'

Standard		STRAIGHT-IN LANDING											
SRE 06			SRE 14L		SRE 14R		SRE 24		SRE 32L		SRE 32R		
MDA(H)			MDA(H)		MDA(H)		MDA(H)		MDA(H)		MDA(H)		
980' (749')			830' (600')		950' (729')		1130' (858')		970' (711')		980' (678')		
ALS out			ALS out		ALS out		ALS out		ALS out		ALS out		
A	CMV	CMV	CMV	CMV	CMV	CMV	3500m	4200m	CMV	CMV	CMV	CMV	
B	2900m	3700m	2200m	2900m	3200m	3600m			2800m	3500m	2600m	3300m	
C	CMV	CMV	CMV	CMV	CMV	CMV	3700m	4400m	CMV	CMV	CMV	CMV	
D	3100m	3900m	2400m	3100m	3400m	3800m			3000m	3700m	2800m	3500m	

Chart changes since cycle 26-2013

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

ACT	PROCEDURE IDENT	INDEX	REV DATE	EFF DATE
COLOGNE-BONN, (COLOGNE-BONN - EDDK)				
REV	NDB RWY 32R	16-3	06 Dec 2013	
REV	SRE ALL RWYS	18-1	06 Dec 2013	

TERMINAL CHART CHANGE NOTICES

Chart Change Notices for Airport EDDK

Type: Terminal

Effectivity: Permanent

Begin Date: Immediately

End Date: No end date

(12-5) LNAV/VNAV and LNAV RVR 1500m, LNAV/VNAV RVR 1600m and LNAV RVR 1700m raised to VIS 2100m.

Type: Terminal

Effectivity: Temporary

Begin Date: Immediately

End Date: Until Further Notice

From NOV 09 due to construction works intersection of twy A and rwy 06/24 closed.

Type: Terminal

Effectivity: Permanent

Begin Date: Immediately

End Date: No end date

(12-1) MNMS changed from RVR 1400m (ALS out RVR 1500m) to flight and ground VIS 1500m.