

Communication

<u>Station</u>	<u>Callsign</u>	<u>Frequency</u>
EDDH_ATIS	Hamburg ATIS	123.120
EDDH_DEL	Hamburg Ground	121.800
EDDH_GND	Hamburg Apron	121.700
EDDH_TWR	Hamburg Tower	126.850
EDDH_F_APP	Hamburg Director	118.200
EDDH_E_APP	Bremen Radar	127.670
EDDH_W_APP	Bremen Radar	134.250

Nav aids

<u>VOR/DME</u>			<u>NDB</u>	
ALF (DME)	115.80		HOS	339.0
HAM (DVORTAC)	113.10		FU	350.0
LBE (DVOR)	115.10		GT	323.0

<u>TYPE</u>	<u>ID</u>	<u>Freq.</u>	<u>Course</u>
ILS/LOC 05	IHHE	110.50	049°
ILS/LOC 15	IHHS	111.35	151°
ILS/LOC 23	IHHW	111.50	229°
LOC 33	IHHN	109.90	331°

Standard Operation Procedures

Initial climb altitude 5000 ft - when passing 2000ft contact Bremen Radar!

Departure on runway 15 and arrival on runway 33 is only admissible during special weather or runway conditions (for example very strong winds from the northwest or southeast). Refer to page 2.

Jet aircrafts shall only use intersections A-EAST or A-WEST for departure on runway 23. Turboprop aircrafts may additionally use B-EAST for departure.

Aircraft with MTOW > 136t and freighters shall only use intersection R for departure on runway 33. All other jet aircraft should use I-NORTH.

Taxiing aircraft on Apron 1, especially Line 1 and Line 3, should expect taxi instructions as follows:

<i>clockwise</i>	<i>counter clockwise</i>
05 dep / 05 arr	15 dep / 15 arr
05 dep / 15 arr	23 dep / 15 arr
33 dep / 05 arr	23 dep / 23 arr
33 dep / 33 arr	33 dep / 23 arr

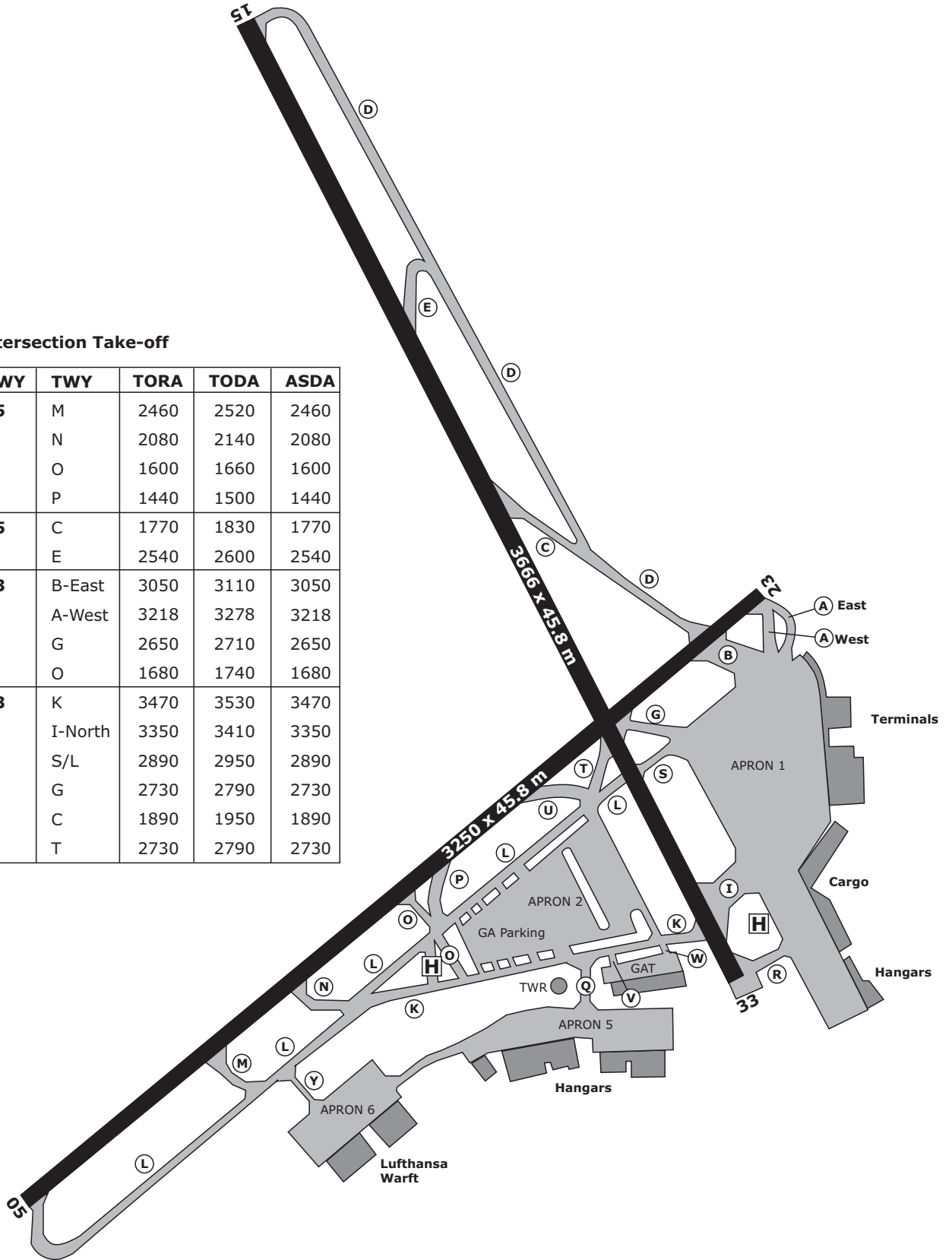
ATC may deviate from standard procedures depending on traffic situation.

Do not use for real life navigation

Do not use for real life navigation

Intersection Take-off

RWY	TWY	TORA	TODA	ASDA
05	M	2460	2520	2460
	N	2080	2140	2080
	O	1600	1660	1600
	P	1440	1500	1440
15	C	1770	1830	1770
	E	2540	2600	2540
23	B-East	3050	3110	3050
	A-West	3218	3278	3218
	G	2650	2710	2650
	O	1680	1740	1680
33	K	3470	3530	3470
	I-North	3350	3410	3350
	S/L	2890	2950	2890
	G	2730	2790	2730
	C	1890	1950	1890
	T	2730	2790	2730

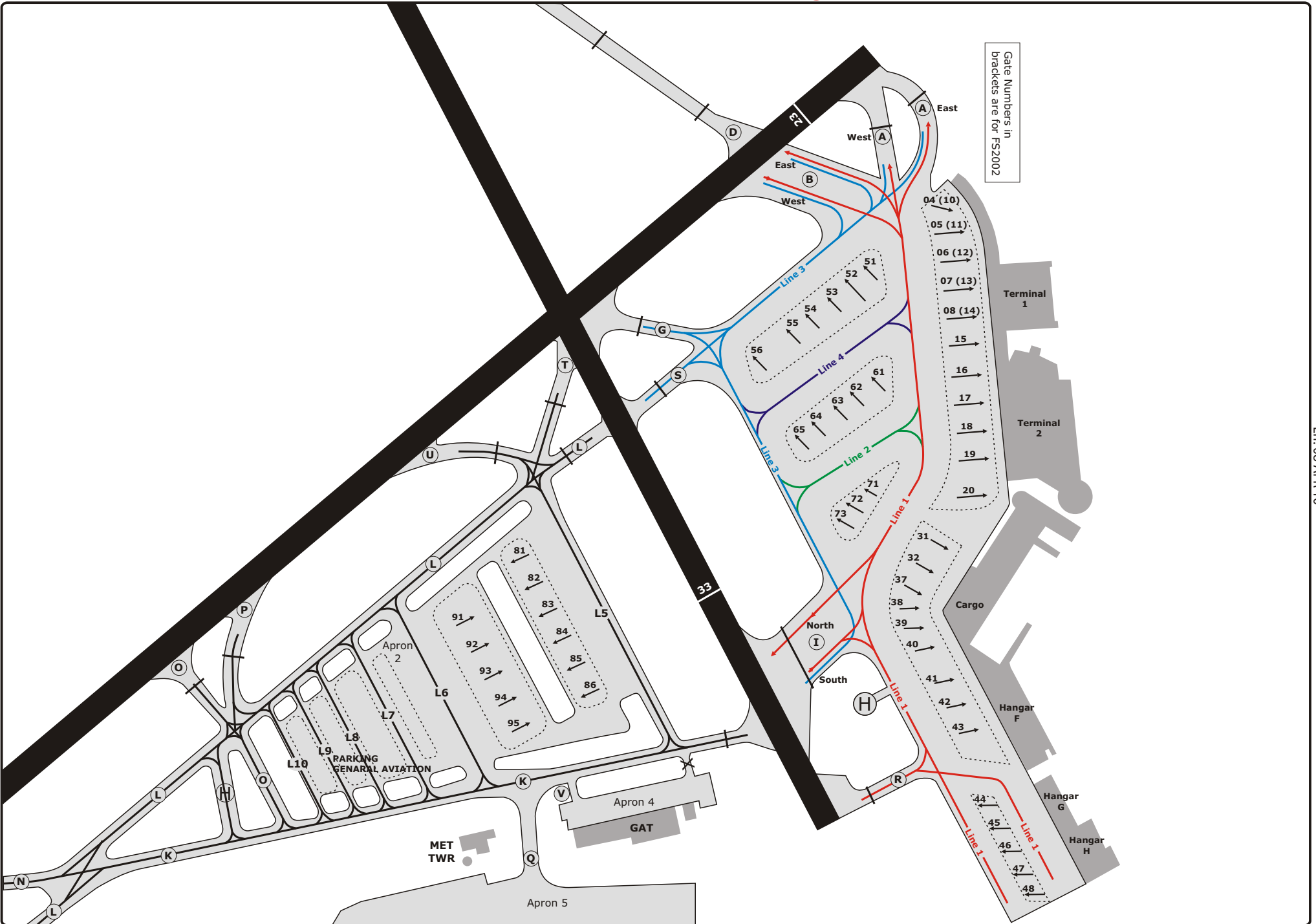


Do not use for real life navigation

Revision: 2010-04-08 - CHANGES: Layout

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Hamburg, GERMANY
Hamburg



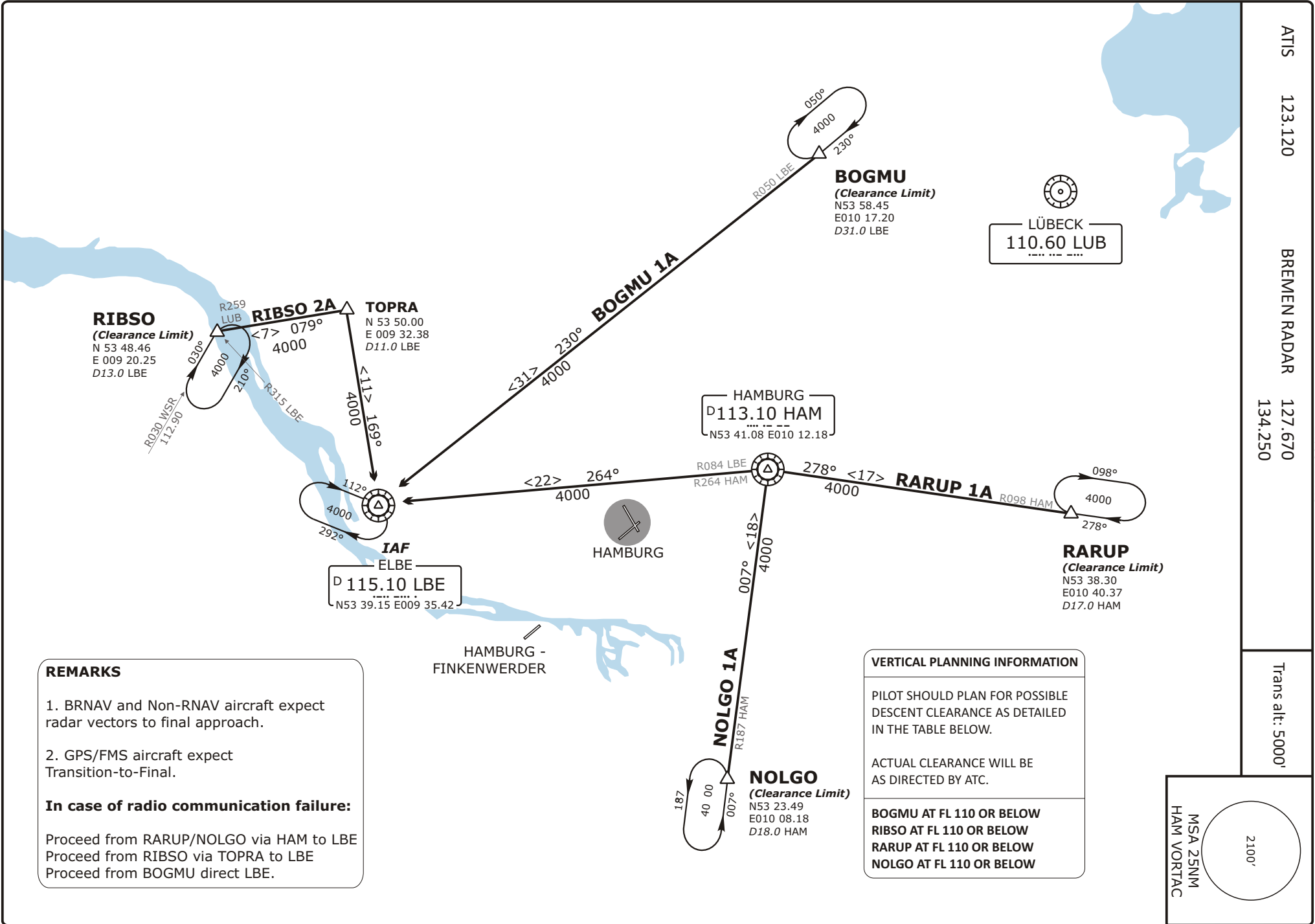
Eff: 08 APR 10

PARKING / GROUND MOVEMENT
HAM/EDDH

Do not use for real life navigation

Revision: 2010-04-09 - CHANGES: Rwy designator.

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REMARKS

1. BRNAV and Non-RNAV aircraft expect radar vectors to final approach.
2. GPS/FMS aircraft expect Transition-to-Final.

In case of radio communication failure:

Proceed from RARUP/NOLGO via HAM to LBE
 Proceed from RIBSO via TOPRA to LBE
 Proceed from BOGMU direct LBE.

Hamburg, GERMANY
Hamburg



Eff: 08 APR 10

HAM/EDDH
STAR RWY 05/23, 15/33

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Eff: 21 OCT 10

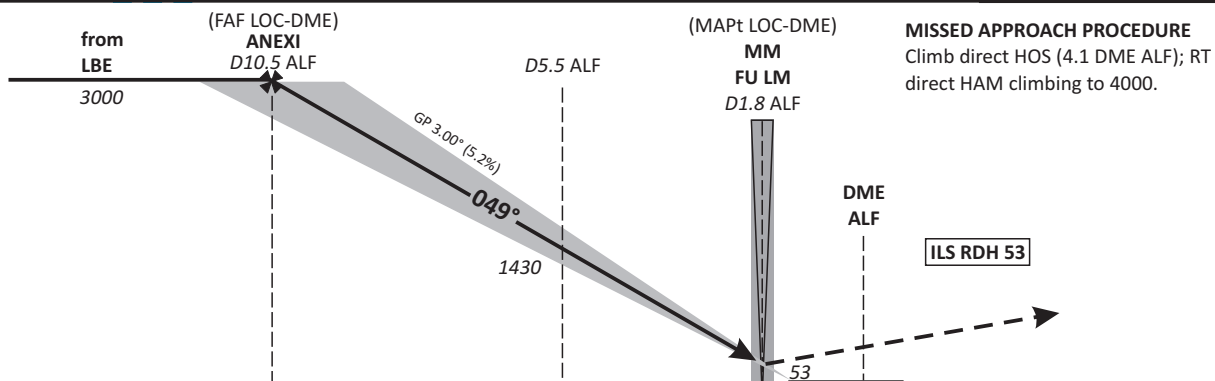
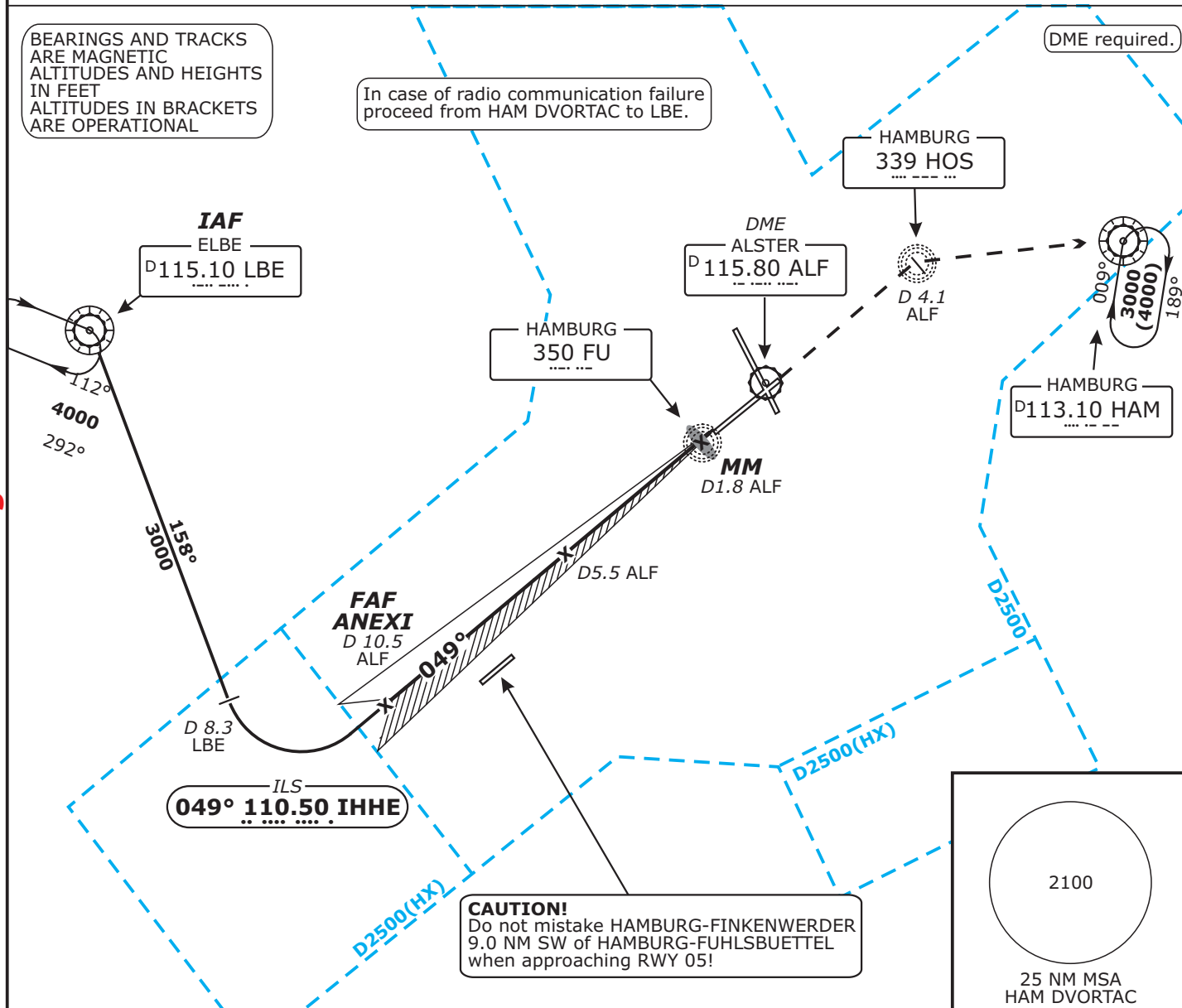
ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

BEARINGS AND TRACKS ARE MAGNETIC
ALTITUDES AND HEIGHTS IN FEET
ALTITUDES IN BRACKETS ARE OPERATIONAL

In case of radio communication failure proceed from HAM DVORTAC to LBE.

DME required.

Do not use for real life navigation



MISSED APPROACH PROCEDURE
Climb direct HOS (4.1 DME ALF); RT direct HAM climbing to 4000.

Revision: 2010-10-21 - CHANGES: Tracks.

OCA (OCH)	A	B	C	D	D _t
ILS-DME CAT I	243 (190)	2531 (200)	2701 (217)	280 (227)	
LOC-DME	580 (530)	580 (530)	580 (530)	580 (530)	

DME ALF	10	9	8	7	6	5	4	3
DIST THR	8.7	7.7	6.7	5.7	4.7	3.7	2.7	1.7
ALTITUDE	2860	2540	2220	1900	1590	1270	950	630

Timing not authorized for defining the MAPt.

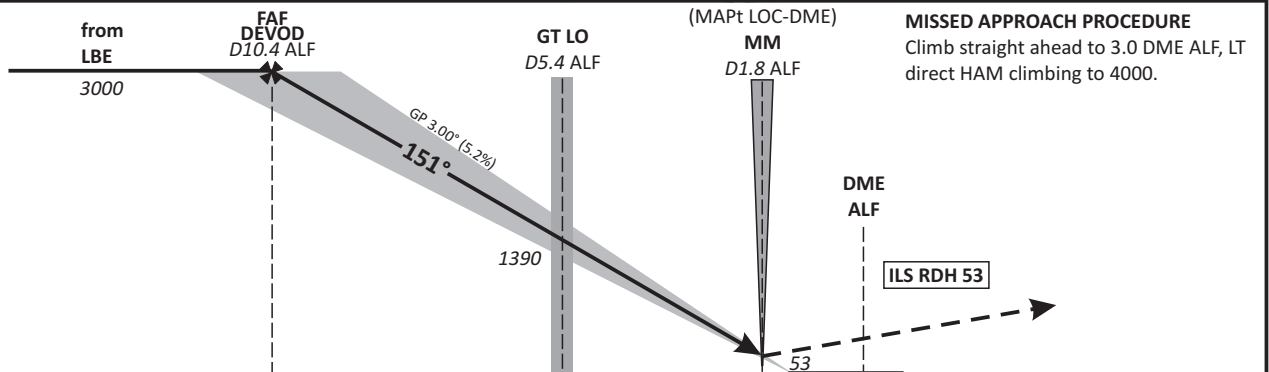
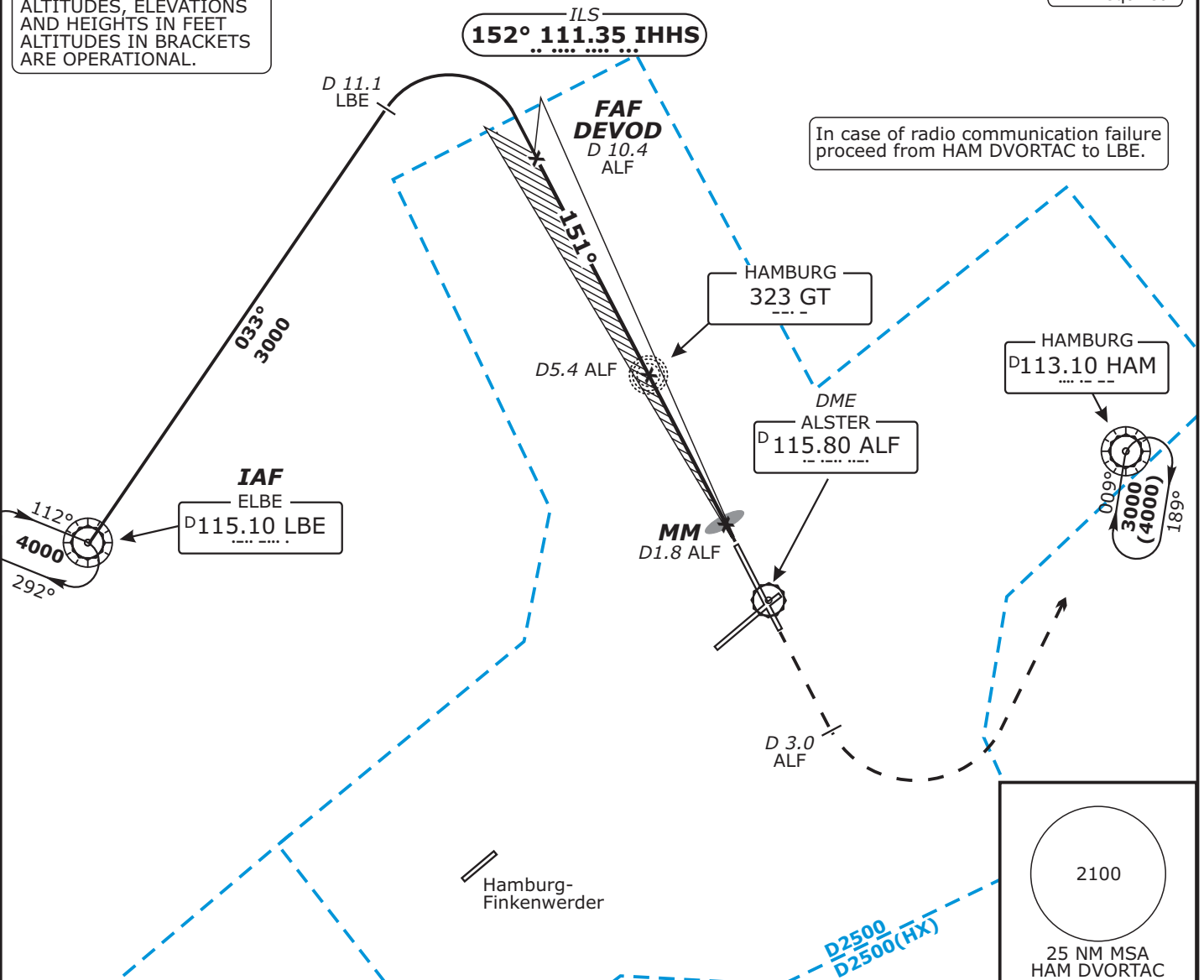
GS	KT	80	100	120	140	160	180
5.5 DM ALF - THR (4.2 NM)	MIN:SEC	3:09	2:31	2:06	1:48	1:35	1:24
Rate of descent (5.2%)	FT / MIN	420	530	640	740	850	960

ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

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OCA (OCH)	A	B	C	D	D _t
ILS-DME CAT I	231 (178)	241 (188)	250 (197)	260 (207)	
LOC-DME	500 (450)	500 (450)	500 (450)	500 (450)	

DME ALF	10	9	8	7	6	5	4	3
DIST THR	8.7	7.7	6.7	5.7	4.7	3.7	2.7	1.7
ALTITUDE	2880	2560	2240	1930	1610	1290	970	650

Timing not authorized for defining the MAPt.

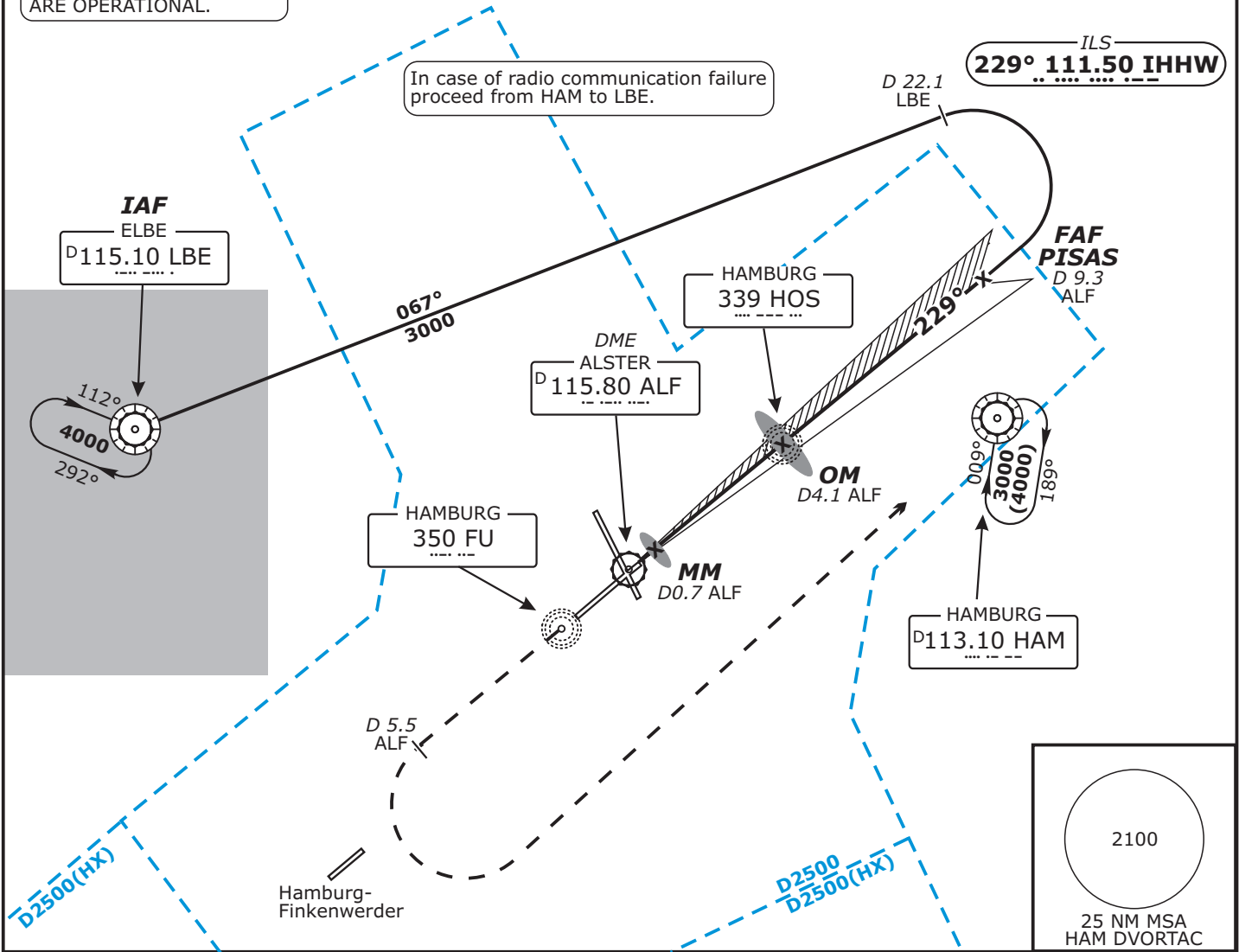
GS	KT	80	100	120	140	160	180
GT LO - THR (4.0 NM)	MIN:SEC	3:00	2:24	2:00	1:43	1:30	1:20
Rate of descent (5.2%)	FT / MIN	420	530	640	740	850	960

ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

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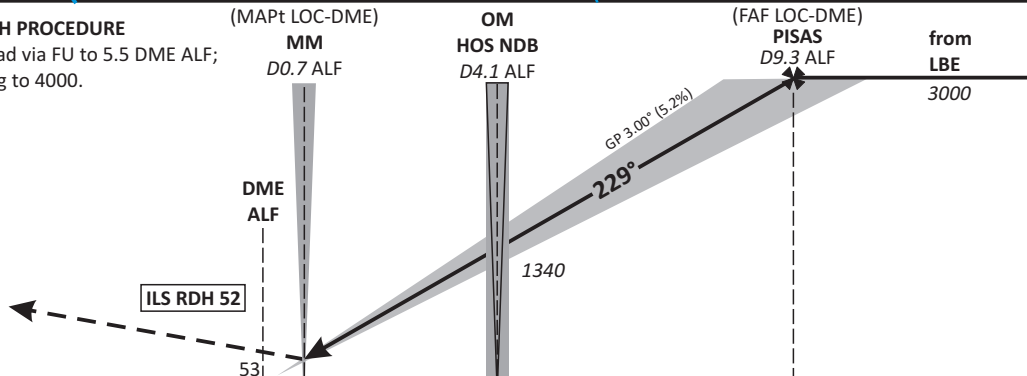
LOC: DME required.

Do not use for real life navigation



MISSED APPROACH PROCEDURE

Climb straight ahead via FU to 5.5 DME ALF; LT to HAM climbing to 4000.



OCA (OCH)	A	B	C	D	D _t
ILS CAT I	272 (219)	281 (228)	291 (238)	301 (248)	324 (271)
ILS CAT II	101 (48)	118 (65)	131 (78)	144 (91)	
LOC-DME	500 (450)	500 (450)	500 (450)	500 (450)	

DME ALF	2	3	4	5	6	7	8	9
DIST THR	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8
ALTITUDE	670	990	1310	1630	1950	2270	2580	2900

LOC-DME: Timing not authorized for defining the MAPt.

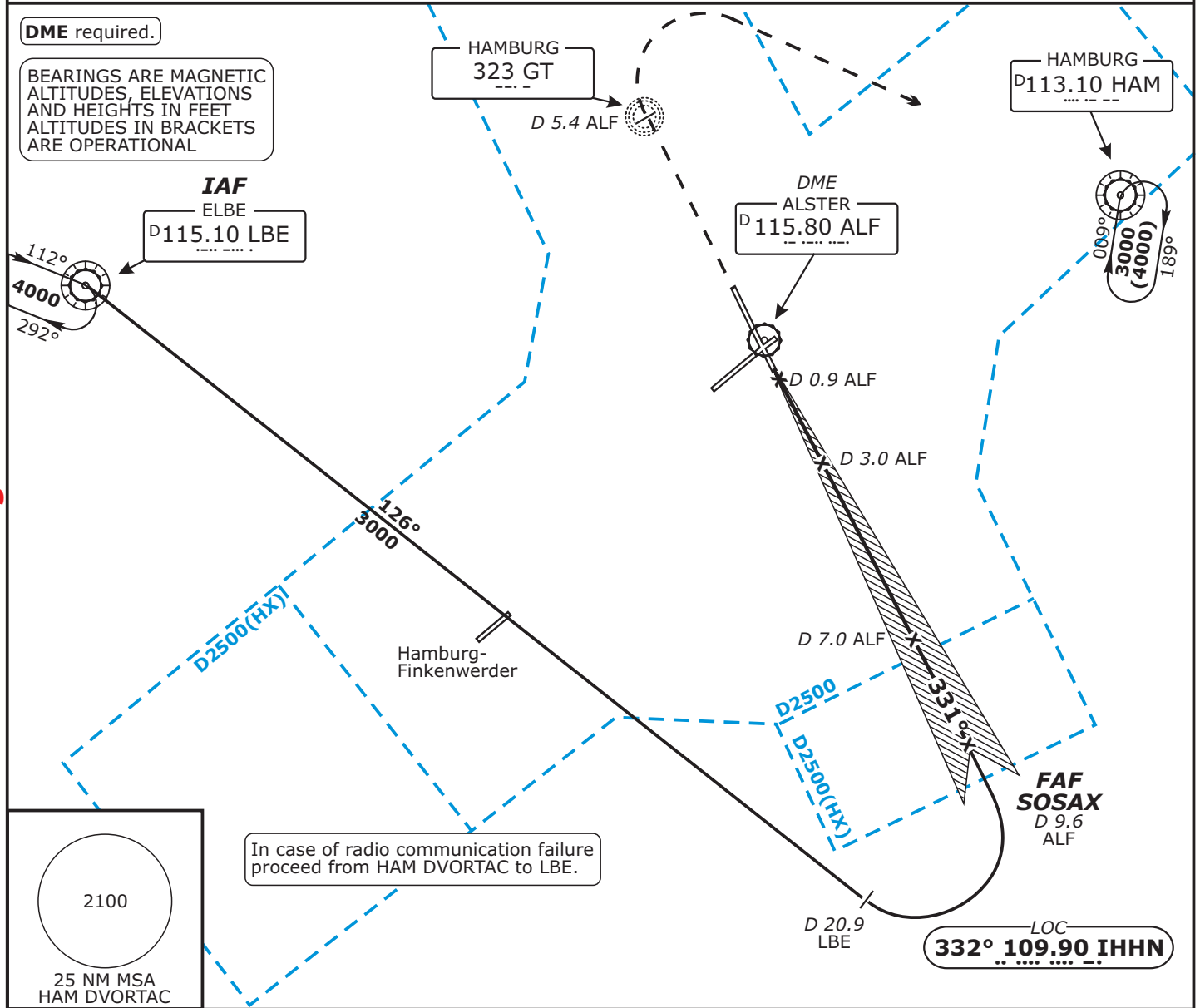
GS	KT	80	100	120	140	160	180
OM - THR (3.9 NM)	MIN:SEC	2:56	2:20	1:57	1:40	1:28	1:18
Rate of descent (5.2%)	FT / MIN	420	530	640	740	850	960

ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

DME required.

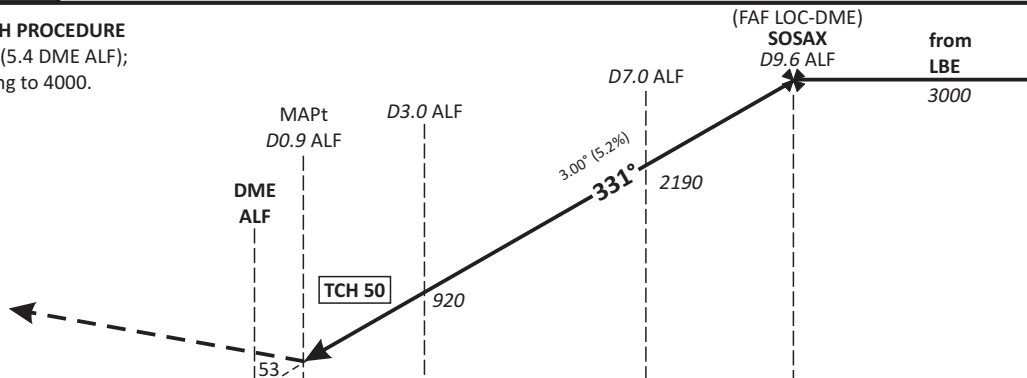
BEARINGS ARE MAGNETIC
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Do not use for real life navigation



MISSED APPROACH PROCEDURE

Climb direct to GT (5.4 DME ALF);
RT to HAM climbing to 4000.



OCA (OCH)	A	B	C	D	D _t
LOC-DME	500 (440)	500 (440)	500 (440)	500 (440)	

DME ALF	2	3	4	5	6	7	8	9
DIST THR	1.6	2.6	3.6	4.6	5.6	6.6	7.6	8.6
ALTITUDE	600	920	1240	1550	1870	2190	2510	2830

Timing not authorized for defining the MAPt.

GS	KT	80	100	120	140	160	180
7.0 DME ALF - MAPt (6.1 NM)	MIN:SEC	4:35	3:40	3:03	2:37	2:17	2:02
Rate of descent (5.2%)	FT / MIN	420	530	640	740	850	960

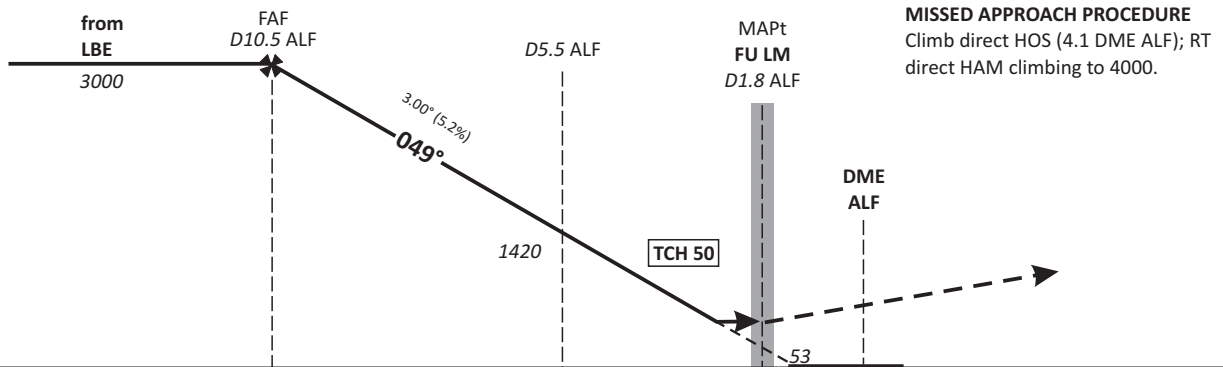
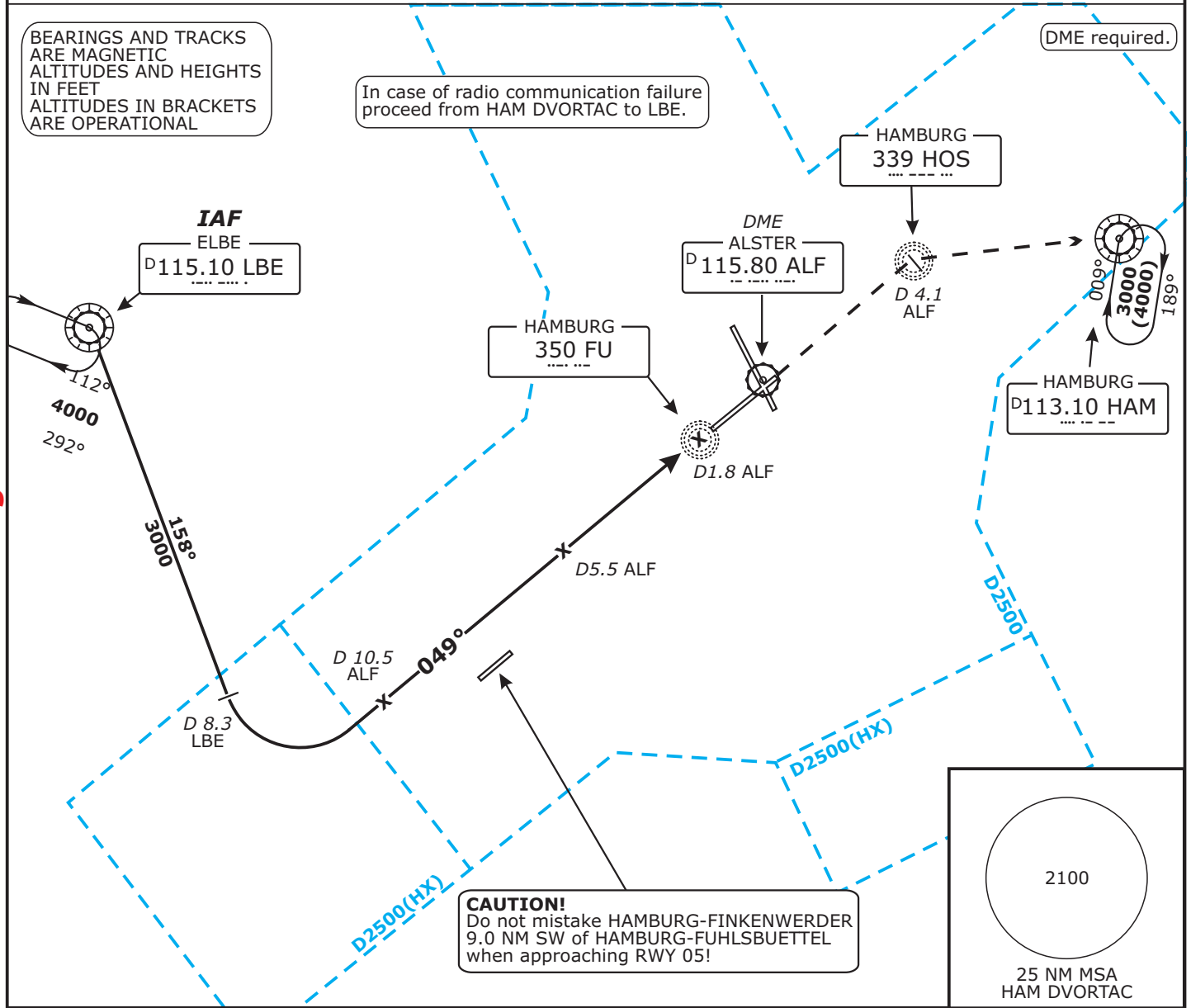
ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

BEARINGS AND TRACKS ARE MAGNETIC
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In case of radio communication failure proceed from HAM DVORTAC to LBE.

DME required.

Do not use for real life navigation



OCA (OCH)	A	B	C	D	D _L
NDB-DME	640 (580)	640 (580)	640 (580)	640 (580)	

DME ALF	10	9	8	7	6	5	4	3
DIST THR	8.7	7.7	6.7	5.7	4.7	3.7	2.7	1.7
ALTITUDE	2860	2540	2220	1900	1580	1260	950	630
Timing not authorized for defining the MAPt.								
GS	KT	80	100	120	140	160	180	
5.5 DM ALF - MAPt (3.7 NM)	MIN:SEC	2:47	2:13	1:51	1:35	1:23	1:14	
Rate of descent (5.2%)	FT / MIN	420	530	640	740	850	960	

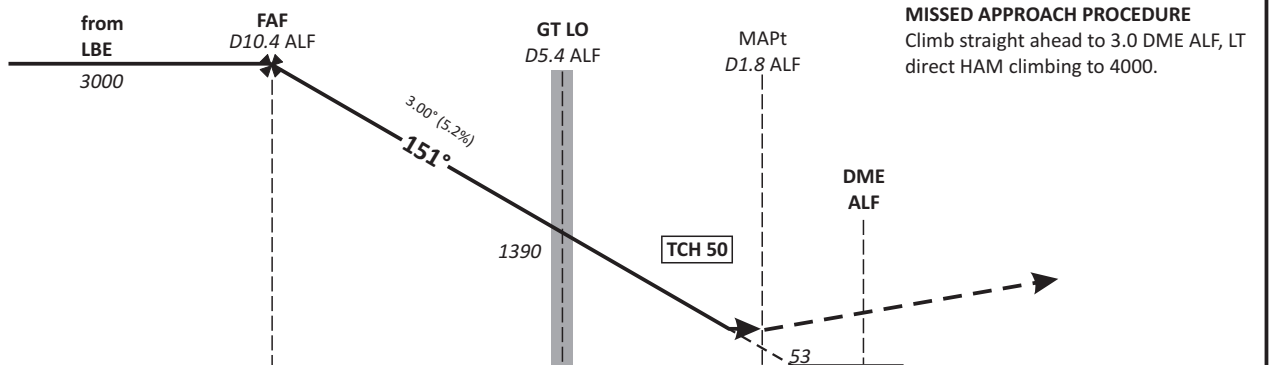
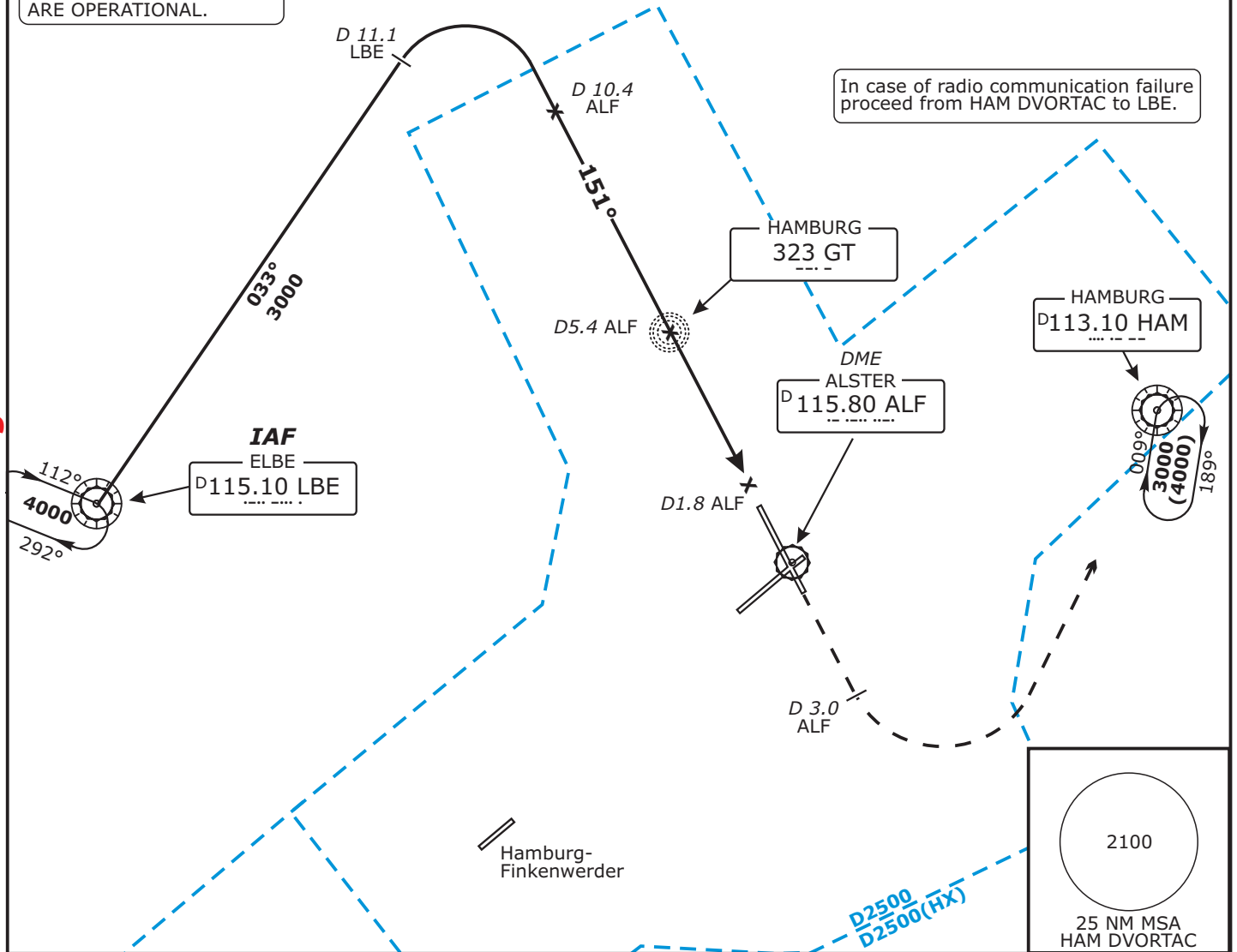
ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

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DME required.

In case of radio communication failure
proceed from HAM DVORTAC to LBE.

Do not use for real life navigation



Revision: 2010-10-21 - CHANGES: Tracks, OCA(H).

OCA (OCH)	A	B	C	D	D _t
NDB-DME	620 (560)	620 (560)	620 (560)	620 (560)	

DME ALF	10	9	8	7	6	5	4	3
DIST THR	8.7	7.7	6.7	5.7	4.7	3.7	2.7	1.7
ALTITUDE	2880	2560	2240	1920	1610	1290	970	650

Timing not authorized for defining the MAPt.

GS	KT	80	100	120	140	160	180
GT LO - MAPt (3.6 NM)	MIN:SEC	2:42	2:10	1:48	1:33	1:21	1:12
Rate of descent (5.2%)	FT / MIN	420	530	640	740	850	960

Eff: 21 OCT 10

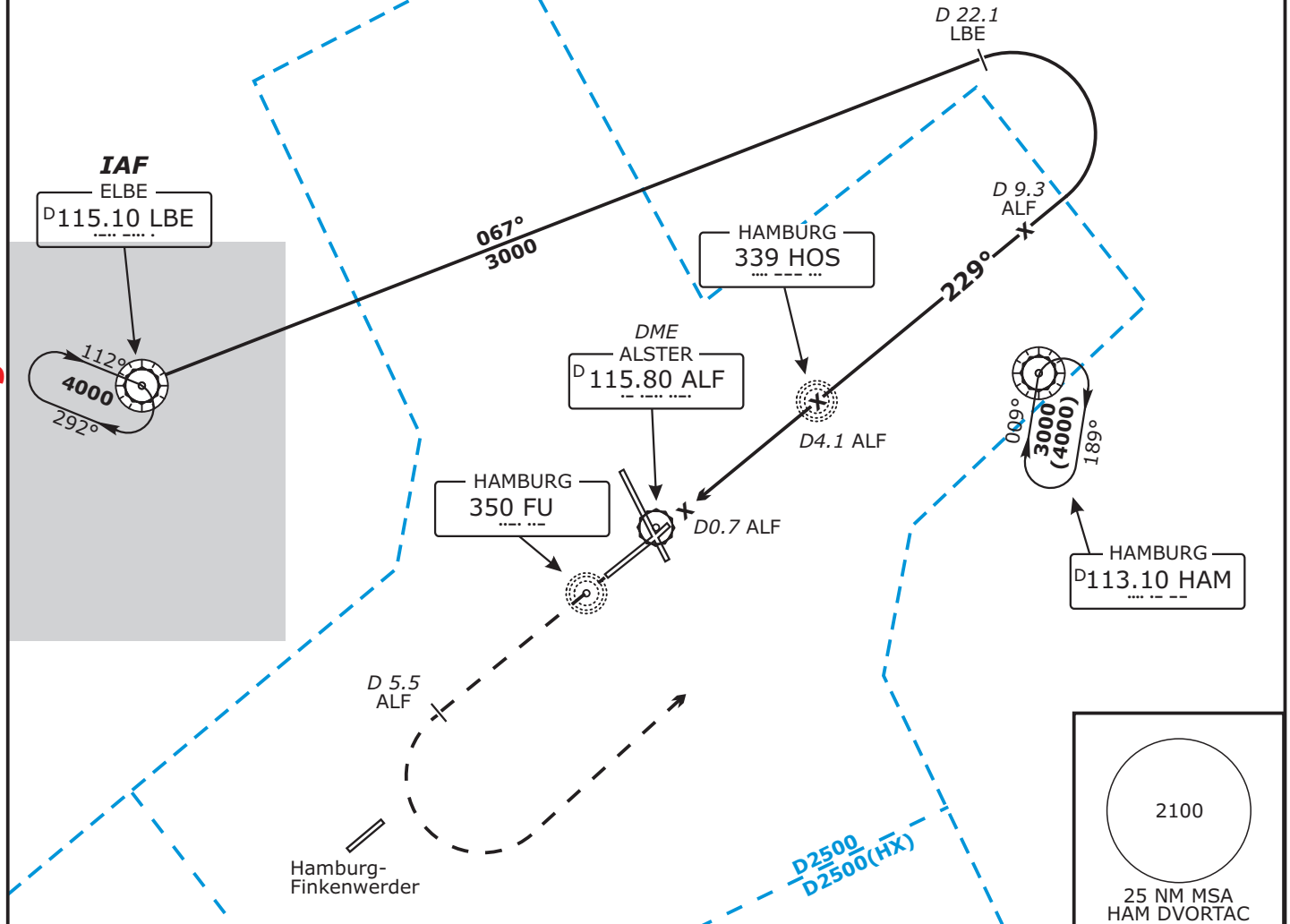
ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

BEARINGS ARE MAGNETIC
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DME required.

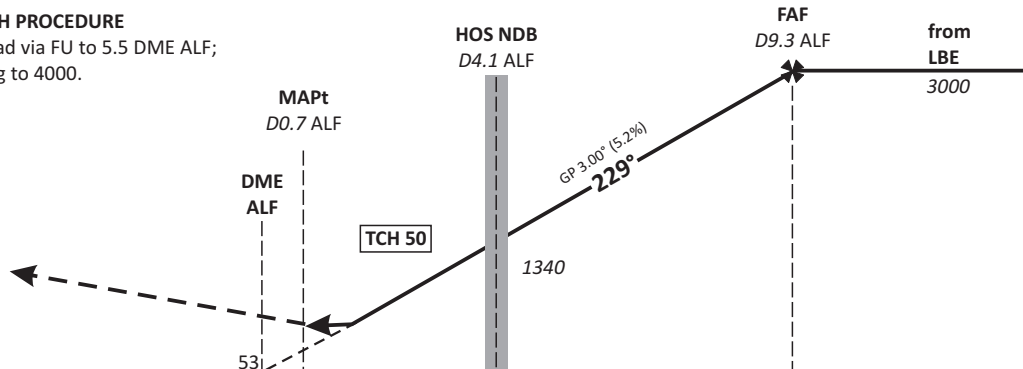
In case of radio communication failure
proceed from HAM DVORTAC to LBE.

Do not use for real life navigation



MISSED APPROACH PROCEDURE

Climb straight ahead via FU to 5.5 DME ALF;
LT to HAM climbing to 4000.



OCA (OCH)	A	B	C	D	D _t
NDB-DME	610 (550)	610 (550)	610 (550)	610 (550)	

DME ALF	2	3	4	5	6	7	8	9
DIST THR	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8
ALTITUDE	670	990	1310	1630	1950	2270	2580	2900

LOC-DME: Timing not authorized for defining the MAPt.

GS	KT	80	100	120	140	160	180
HOS NDB - MAPt (3.4 NM)	MIN:SEC	2:33	2:02	1:42	1:27	1:17	1:08
Rate of descent (5.2%)	FT / MIN	420	530	640	740	850	960

Revision: 2010-10_21 - CHANGES: Tracks, OCA(H).

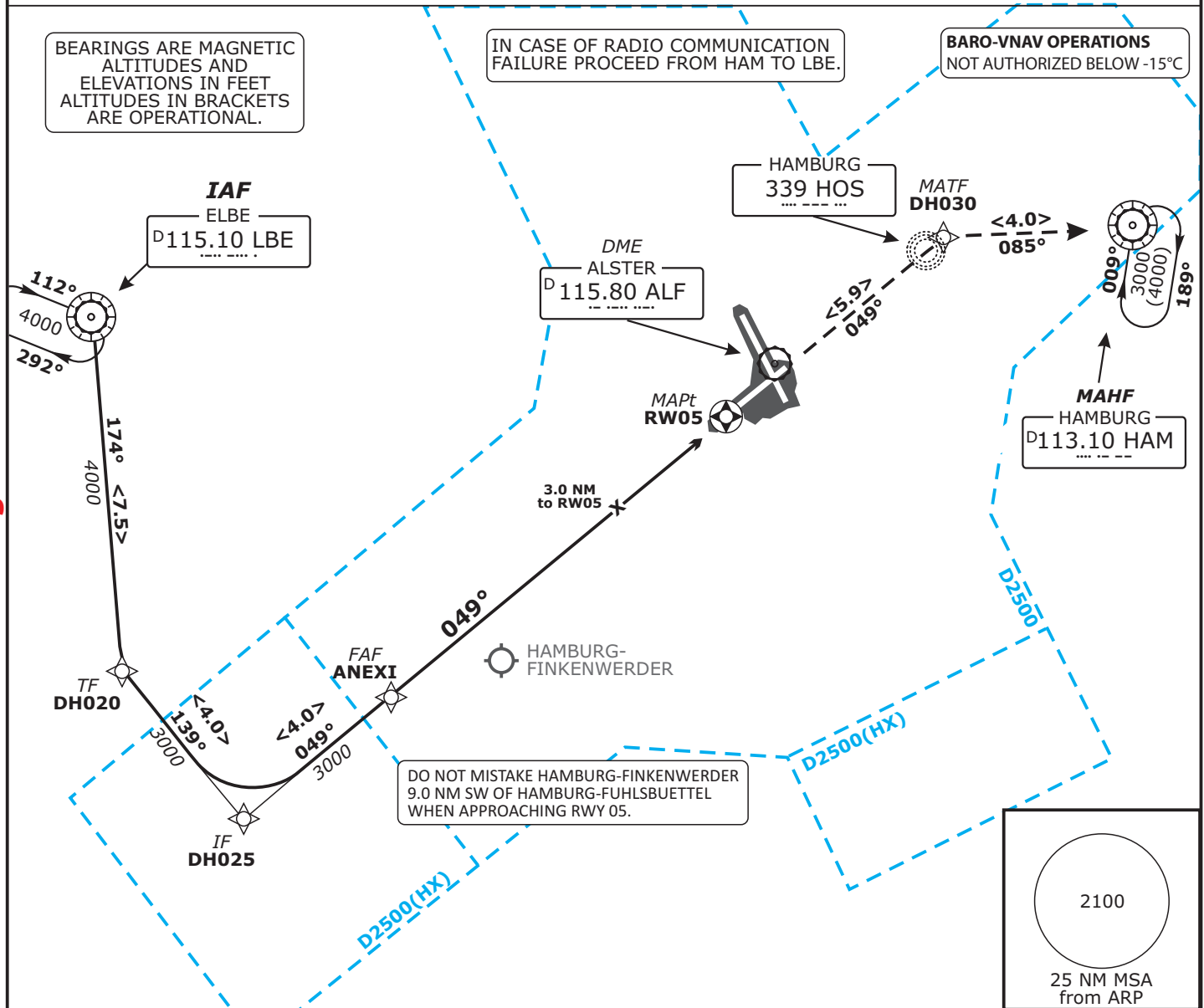
ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
DIRECTOR	134.250	GROUND	121.800
	118.200		

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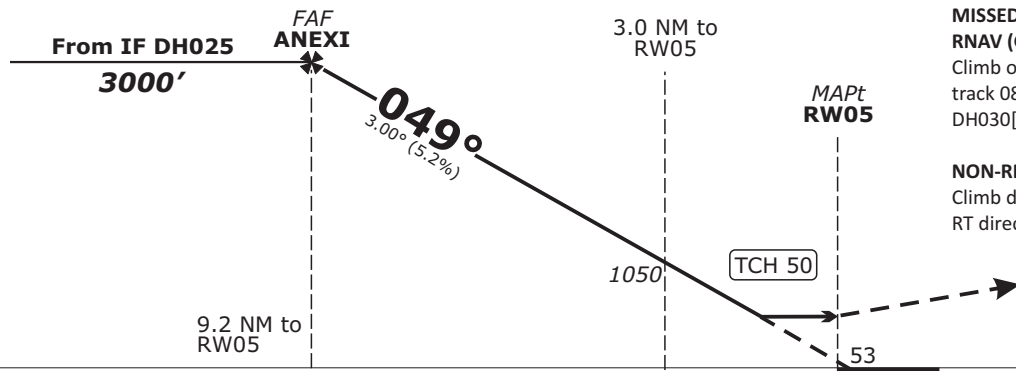
IN CASE OF RADIO COMMUNICATION
FAILURE PROCEED FROM HAM TO LBE.

BARO-VNAV OPERATIONS
NOT AUTHORIZED BELOW -15°C

Do not use for real life navigation



DO NOT MISTAKE HAMBURG-FINKENWERDER
9.0 NM SW OF HAMBURG-FUHLBUETTEL
WHEN APPROACHING RWY 05.



OCA (OCH)	A	B	C	D
LNAV	550 (500)	550 (500)	550 (500)	550 (500)
LNAV / VNAV	520 (470)	520 (470)	520 (470)	520 (470)

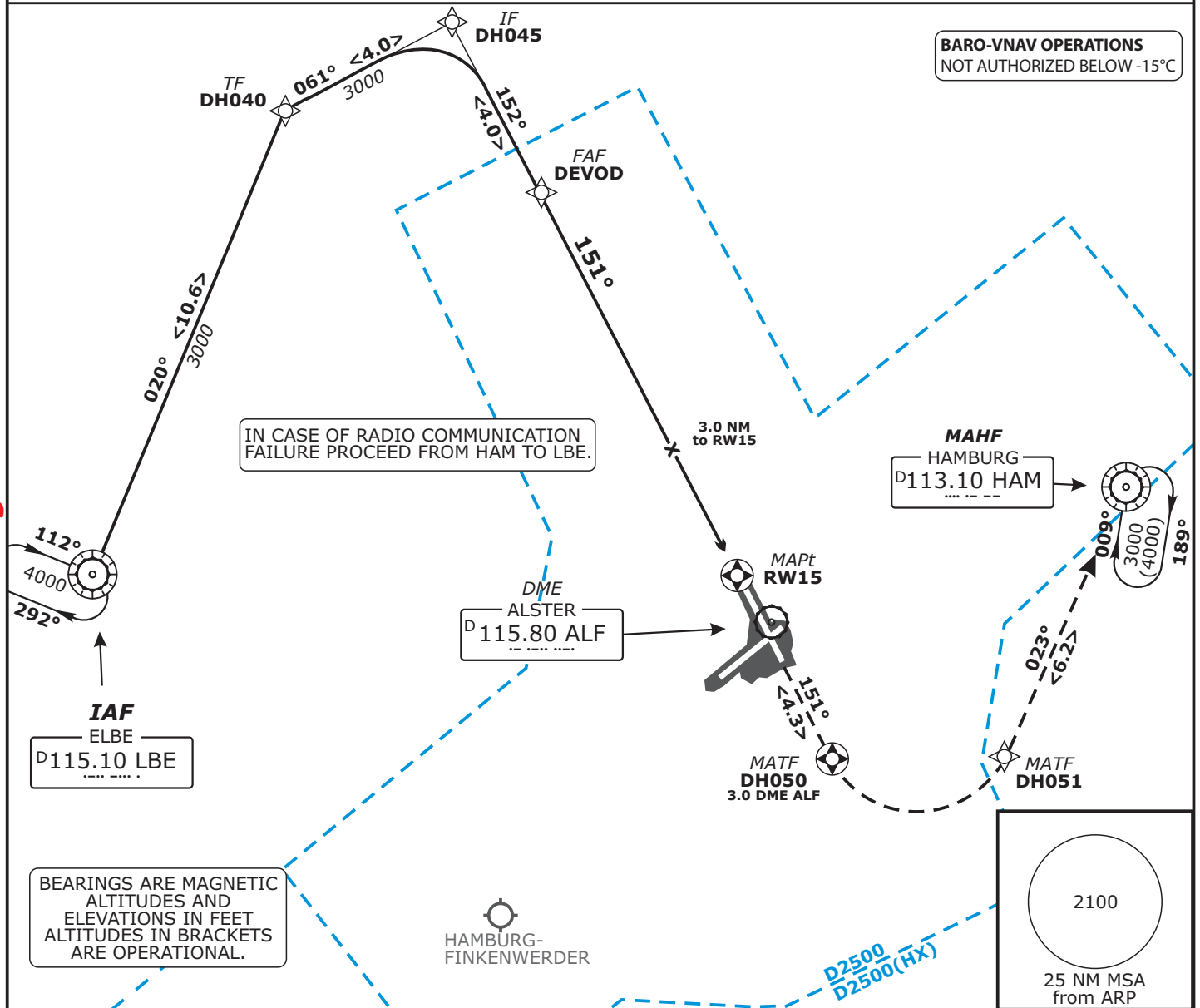
DIST THR / RW05	9	8	7	6	5	4	3	2
ALTITUDE	2960	2640	2320	2000	1680	1360	1050	730

Timing not authorized for defining the MAPt.

GS	kt	80	100	120	140	160	180
ANEXI - RW05 (9.2 NM)	MIN:SEC	6:54	5:31	4:36	3:57	3:27	3:04
Rate of descent (5.2%)	ft / MIN	420	530	640	740	850	960

ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

Do not use for real life navigation



BARO-VNAV OPERATIONS
NOT AUTHORIZED BELOW -15°C

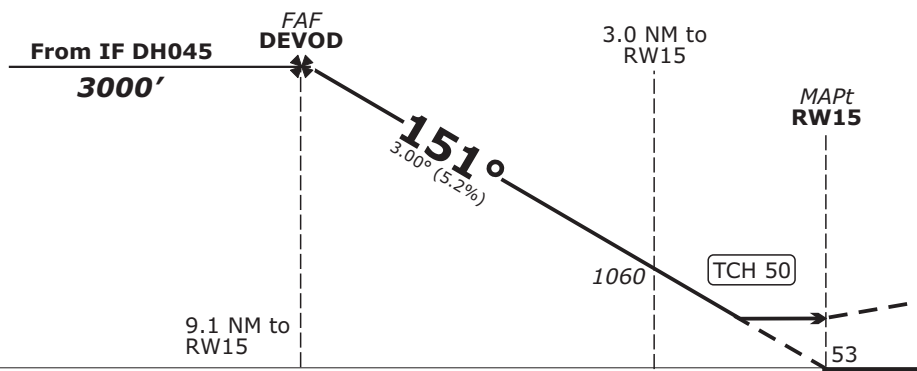
IN CASE OF RADIO COMMUNICATION FAILURE PROCEED FROM HAM TO LBE.

BEARINGS ARE MAGNETIC ALTITUDES AND ELEVATIONS IN FEET ALTITUDES IN BRACKETS ARE OPERATIONAL.

MAHF
HAMBURG
D113.10 HAM

DME ALSTER
D115.80 ALF

2100
25 NM MSA from ARP



MISSED APPROACH PROCEDURE
RNAV (GPS)
Climb on track 151° to DH050; LT via DH051 on track 023° to HAM to 4000.

DH050[L] - DH051 - HAM[A4000]

NON-RNAV
Climb straight ahead to 3.0 DME ALF; LT direct HAM to 4000.

OCA (OCH)	A	B	C	D
LNAV	590 (530)	590 (530)	590 (530)	590 (530)
LNAV / VNAV	580 (530)	580 (530)	580 (530)	580 (530)

DIST THR / RW15	9	8	7	6	5	4	3	2
ALTITUDE	2970	2660	2340	2020	1700	1380	1060	740

Timing not authorized for defining the MAPt.

GS	kt	80	100	120	140	160	180
DEVOD - RW15 (9.1 NM)	MIN:SEC	6:50	5:28	4:33	3:54	3:25	3:02
Rate of descent (5.2%)	ft / MIN	420	530	640	740	850	960

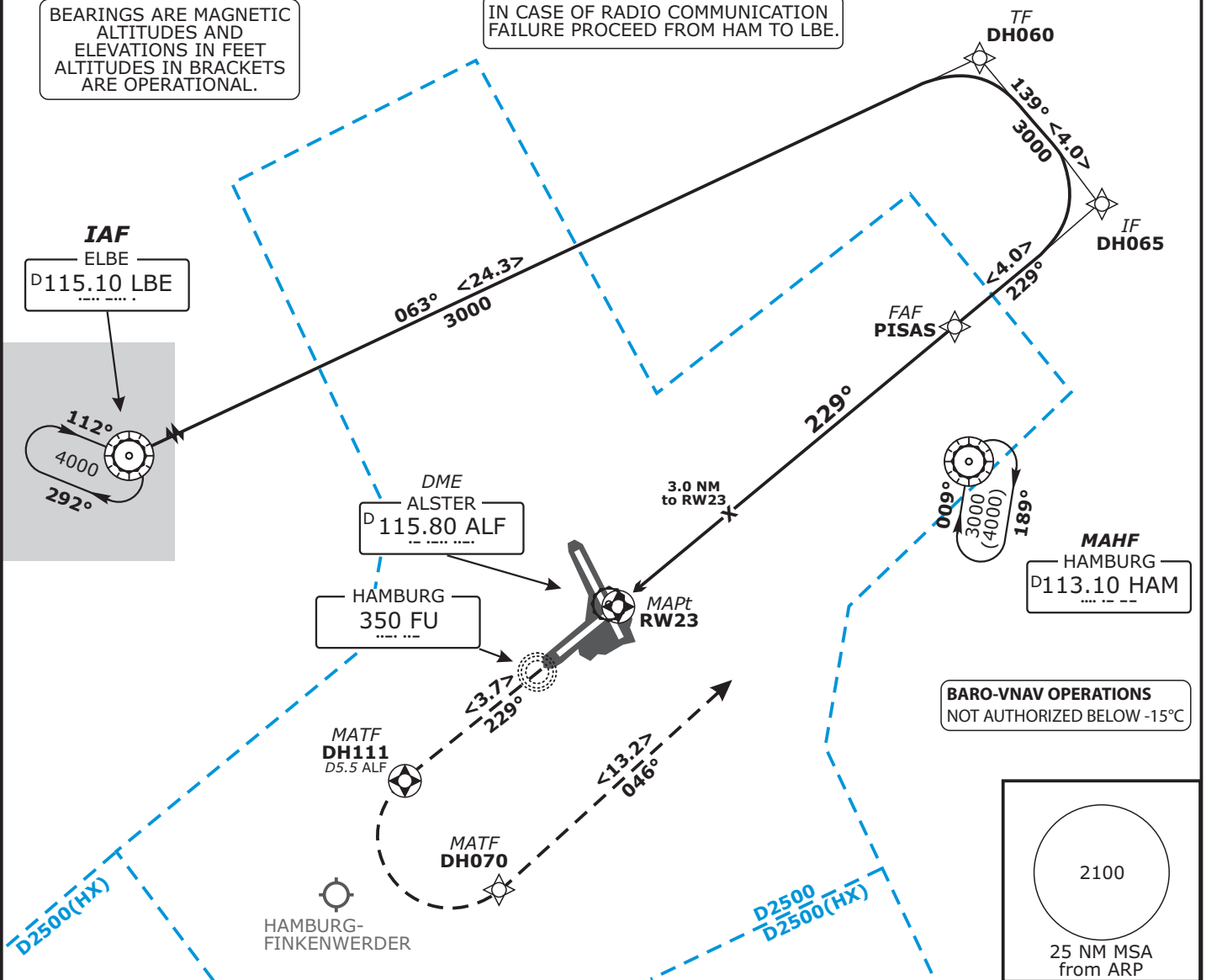
Revision: 2010-10-21 - CHANGES: Tracks, OCA(H), m/a.

ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
	134.250	GROUND	121.800
DIRECTOR	118.200		

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IN CASE OF RADIO COMMUNICATION
FAILURE PROCEED FROM HAM TO LBE.

Do not use for real life navigation



MISSED APPROACH PROCEDURE

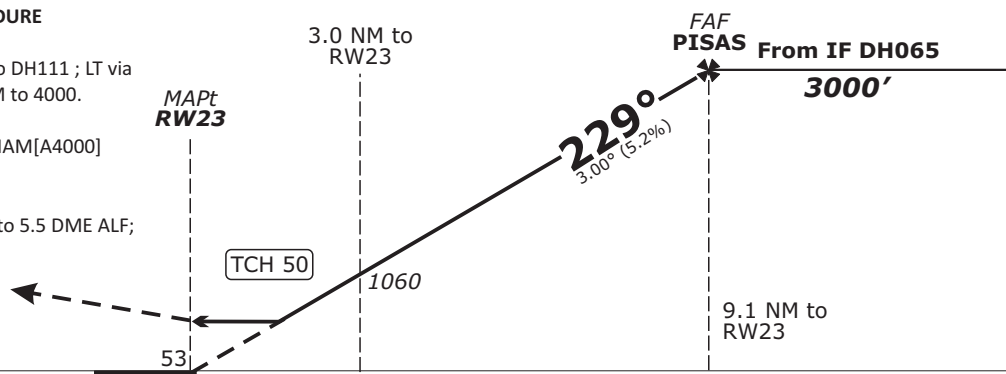
RNAV (GPS)

Climb on track 229° via FU to DH111 ; LT via DH070 on track 046° to HAM to 4000.

FU[L] - DH111[L] - DH070 - HAM[A4000]

NON-RNAV

Climb straight ahead via FU to 5.5 DME ALF; LT to HAM to 4000.



OCA (OCH)	A	B	C	D
LNAV	500 (440)	500 (440)	500 (440)	500 (440)
LNAV / VNAV	410 (360)	470 (420)	470 (420)	470 (420)

DIST THR / RW23	2	3	4	5	6	7	8	9
ALTITUDE	740	1060	1370	1690	2010	2330	2850	2970

Timing not authorized for defining the MAPt.

GS	kt	80	100	120	140	160	180
PISAS - RW23 (9.1 NM)	MIN:SEC	6:50	5:28	4:33	3:54	3:25	3:02
Rate of descent (5.2%)	ft / MIN	420	530	640	740	850	960

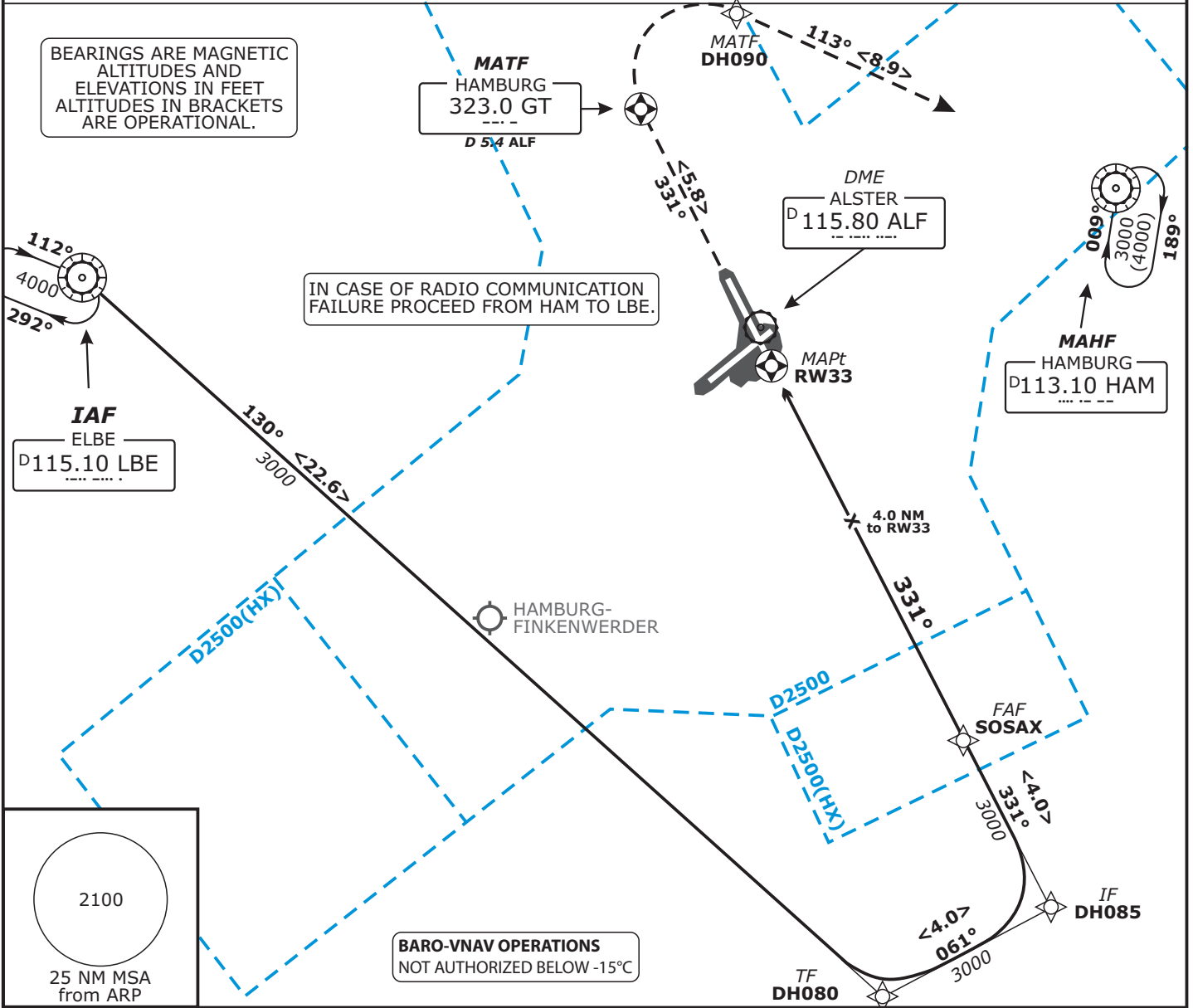
ATIS	123.120	TOWER	126.850
BREMEN RADAR	127.670	APRON	121.700
DIRECTOR	118.200	GROUND	121.800

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IN CASE OF RADIO COMMUNICATION
FAILURE PROCEED FROM HAM TO LBE.

BARO-VNAV OPERATIONS
NOT AUTHORIZED BELOW -15°C

Do not use for real life navigation



MISSED APPROACH PROCEDURE

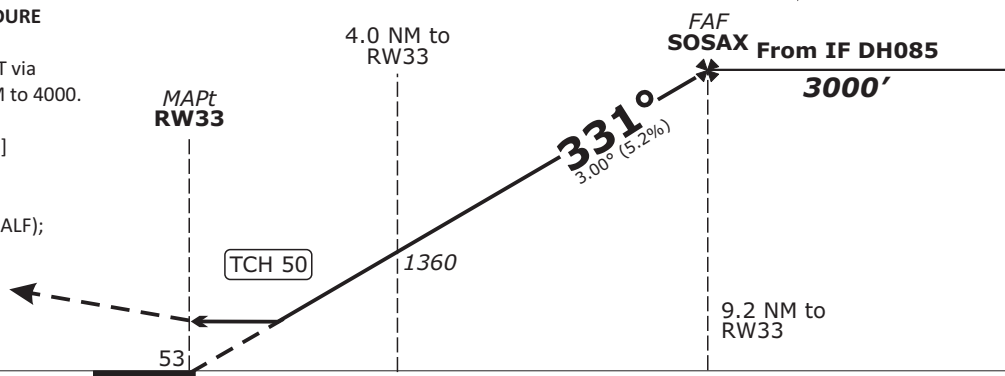
RNAV (GPS)

Climb on track 332° to GT; RT via
DH090 on track 114° to HAM to 4000.

GT[R] - DH090 - HAM[A4000]

NON-RNAV

Climb direct to GT (5.4 DME ALF);
RT to HAM to 4000.



OCA (OCH)	A	B	C	D
LNAV	550 (510)	55 (510)	550 (510)	550 (510)
LNAV / VNAV	590 (540)	590 (540)	590 (540)	590 (540)

DIST THR / RW23	2	3	4	5	6	7	8	9
ALTITUDE	730	1050	1360	1680	2000	2320	2640	2960

Timing not authorized for defining the MAPt.

GS	kt	80	100	120	140	160	180
SOSAX - RW33 (9.2 NM)	MIN:SEC	6:54	5:31	4:36	3:57	3:27	3:04
Rate of descent (5.2%)	ft / MIN	420	530	640	740	850	960

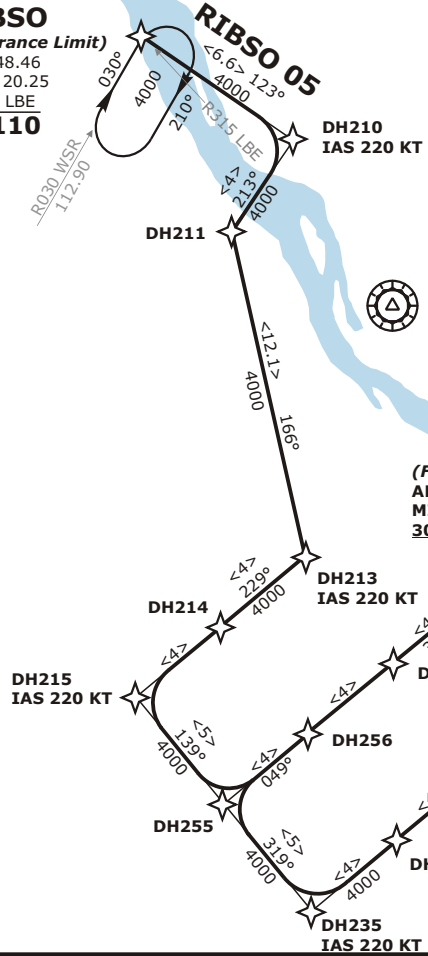
Do not use for real life navigation

Revision: 2010-04-08 - CHANGES: Layout

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- REMARKS**
1. USE OF TRANSITION ONLY WHEN CLEARED BY ATC.
 2. ON DOWNWIND EXPECT VECTORS TO FINAL.
 3. SPEED RESTRICTIONS ON TRANSITION ALWAYS MANDATORY UNLESS CANCELLED BY ATC.

RIBSO
(Clearance Limit)
N 53 48.46
E 009 20.25
D13.0 LBE
FL 110



RIBSO 05
D315 LBE
D315 LBE
D315 LBE

DH210
IAS 220 KT

HAMBURG
D113.10 HAM
N53 41.08 E010 12.18

ELBE
D115.10 LBE
N53 39.15 E009 35.42



BOGMU
(Clearance Limit)
N53 58.45
E010 17.20
D31.0 LBE
FL 110

BOGMU 05
R050 LBE
R050 LBE

DH225
IAS 220 KT

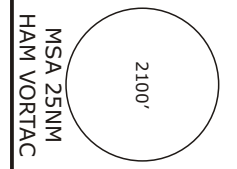
RARUP 05
R098 HAM
R098 HAM

RARUP
(Clearance Limit)
N53 38.30
E010 40.37
D17.0 HAM
FL 110

NOLGO 05
R187 HAM
R187 HAM

NOLGO
(Clearance Limit)
N53 23.49
E010 08.18
D18.0 HAM
FL 110

- „CLEARED XXX TRANSITION“
Permission to fly the lateral part of a GPS/FMS routing, including assigned speeds. Altitudes will be assigned separately.
- „CLEARED XXX TRANSITION AND PROFILE“
Permission to fly a GPS/FMS routing including assigned speeds and altitudes.
- „CLEARED DIRECT WAYPOINT XXX“ and/or „CLEARED VIA WAYPOINTS XXX, ... AND ZZZ“
Permission to fly from the present position direct to one waypoint and/or via a combination of waypoints, including the continuation of the flight on the lateral part of a GPS/FMS routing adjoining the last waypoint, including assigned speeds. Altitudes will be assigned separately.



MSA 25NM
HAM VORTAC

Trans alt: 5000'

HAM/EDDH
TRANSITION TO FINAL RWY 05

Hamburg, GERMANY
Hamburg



Eff: 08 APR 10

ATIS 123.120
BREMEN RADAR 127.670
134.250

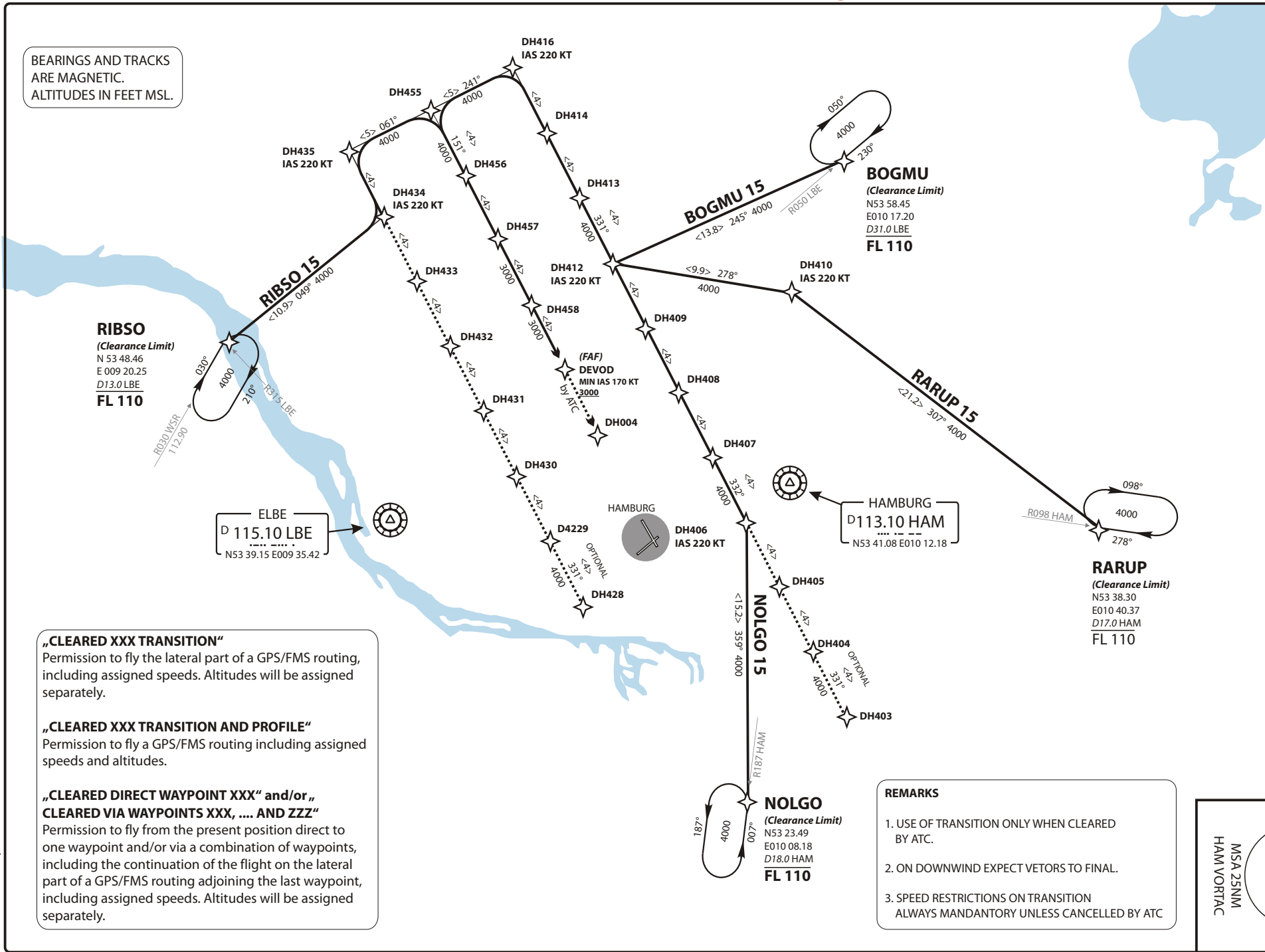
www.vatsim-germany.org

Do not use for real life navigation

Revision: 2010-04-08 - CHANGES: Layout, procedure.

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BEARINGS AND TRACKS
ARE MAGNETIC.
ALTITUDES IN FEET MSL.



RIBSO
(Clearance Limit)
N 53 48.46
E 009 20.25
D13.0 LBE
FL 110

ELBE
D 115.10 LBE
N53 39.15 E009 35.42

BOGMU
(Clearance Limit)
N53 58.45
E010 17.20
D31.0 LBE
FL 110

RARUP
(Clearance Limit)
N53 38.30
E010 40.37
D17.0 HAM
FL 110

NOLGO
(Clearance Limit)
N53 23.49
E010 08.18
D18.0 HAM
FL 110

- „CLEARED XXX TRANSITION“**
Permission to fly the lateral part of a GPS/FMS routing, including assigned speeds. Altitudes will be assigned separately.
- „CLEARED XXX TRANSITION AND PROFILE“**
Permission to fly a GPS/FMS routing including assigned speeds and altitudes.
- „CLEARED DIRECT WAYPOINT XXX“ and/or „CLEARED VIA WAYPOINTS XXX, AND ZZZ“**
Permission to fly from the present position direct to one waypoint and/or via a combination of waypoints, including the continuation of the flight on the lateral part of a GPS/FMS routing adjoining the last waypoint, including assigned speeds. Altitudes will be assigned separately.

- REMARKS**
1. USE OF TRANSITION ONLY WHEN CLEARED BY ATC.
 2. ON DOWNWIND EXPECT VECTORS TO FINAL.
 3. SPEED RESTRICTIONS ON TRANSITION ALWAYS MANDATORY UNLESS CANCELLED BY ATC

MSA 25NM
HAM VORTAC
2100'

Hamburg, GERMANY Hamburg Fuhlsbüttel	ATIS 123.120 BREMEN RADAR 127.670 134.250	Trans alt: 5000' HAM/EDDH TRANSITION TO FINAL RWY 15
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VATSIM Germany
 EFF: 08 APR 10

www.vatsim-germany.org

BEARINGS AND TRACKS ARE MAGNETIC.
ALTITUDES IN FEET MSL.

RIBSO
(Clearance Limit)
N 53 48.46
E 009 20.25
D13.0 LBE
FL 110

BOGMU
(Clearance Limit)
N53 58.45
E010 17.20
D31.0 LBE
FL 110

BOGMU 23
<4.3> 139° 4000

HAMBURG
D113.10 HAM
N53 41.08 E010 12.18

ELBE
D115.10 LBE
N53 39.15 E009 35.42

RARUP
(Clearance Limit)
N53 38.30
E010 40.37
D17.0 HAM
FL 110

NOLGO
(Clearance Limit)
N53 23.49
E010 08.18
D18.0 HAM
FL 110

REMARKS

1. USE OF TRANSITION ONLY WHEN CLEARED BY ATC.
2. ON DOWNWIND EXPECT VECTORS TO FINAL.
3. SPEED RESTRICTIONS ON TRANSITION ALWAYS MANDATORY UNLESS CANCELLED BY ATC

„CLEARED XXX TRANSITION“
Permission to fly the lateral part of a GPS/FMS routing, including assigned speeds. Altitudes will be assigned separately.

„CLEARED XXX TRANSITION AND PROFILE“
Permission to fly a GPS/FMS routing including assigned speeds and altitudes.

„CLEARED DIRECT WAYPOINT XXX“ and/or „CLEARED VIA WAYPOINTS XXX, AND ZZZ“
Permission to fly from the present position direct to one waypoint and/or via a combination of waypoints, including the continuation of the flight on the lateral part of a GPS/FMS routing adjoining the last waypoint, including assigned speeds. Altitudes will be assigned separately.

MSA 25NM
HAM VORTAC

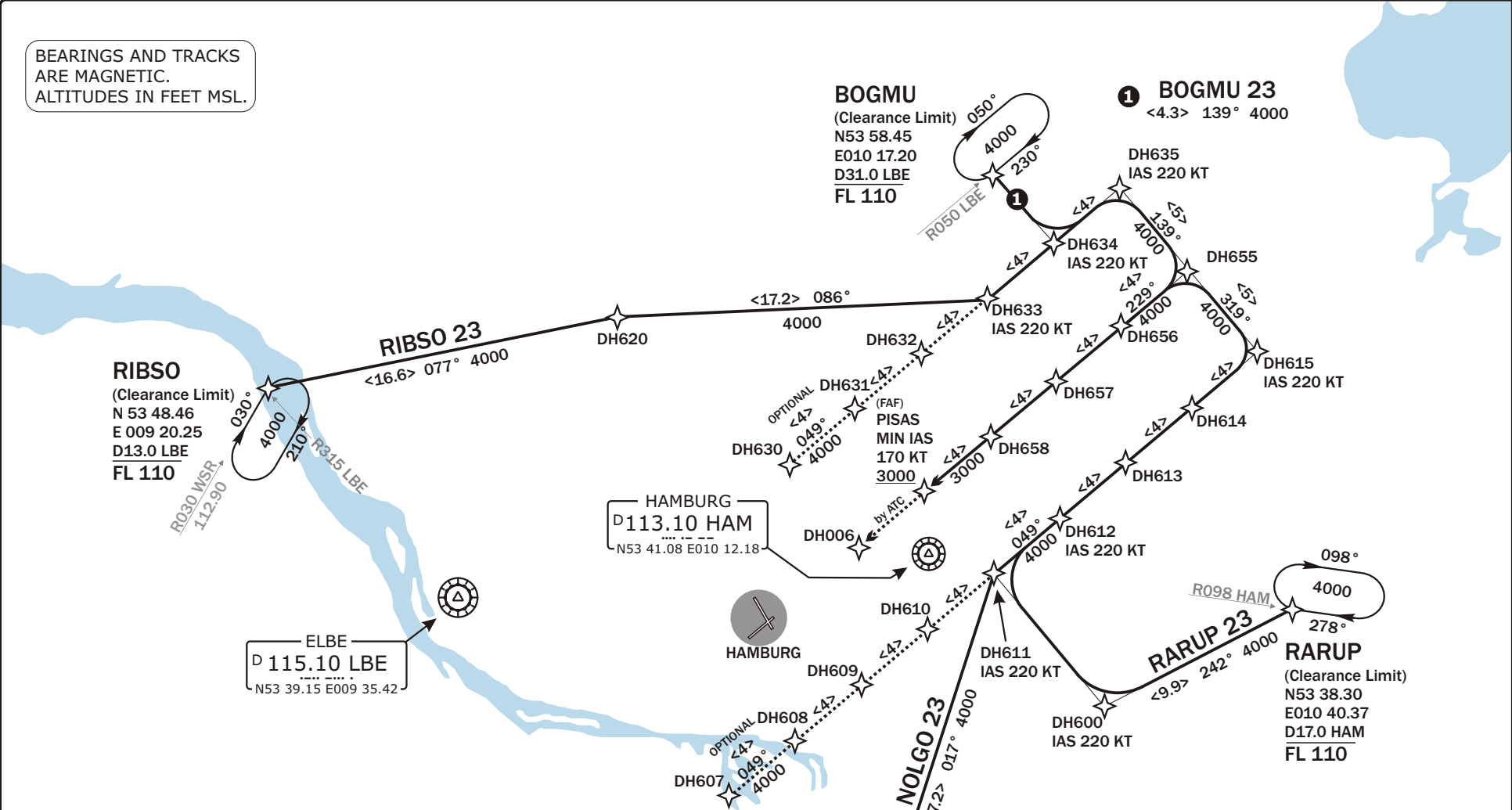
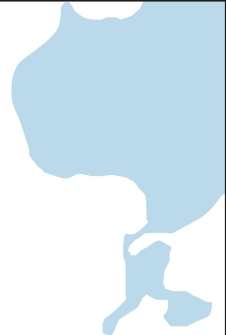
Trans alt: 5000'

ATIS 123.120
BREMEN RADAR 127.670
134.250

HAM/EDDH
TRANSITION TO FINAL RWY 23

VATSIM Germany
Eff: 19 NOV 09

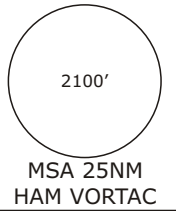
Hamburg, GERMANY
Hamburg Fuhlsbüttel



ATIS 123.120

BREMEN RADAR 127.670
134.250

Trans alt: 5000'



REMARKS

1. USE OF TRANSITION ONLY WHEN CLEARED BY ATC.
2. ON DOWNWIND EXPECT VECTORS TO FINAL.
3. SPEED RESTRICTIONS ON TRANSITION ALWAYS MANDATORY UNLESS CANCELLED BY ATC

BEARINGS AND TRACKS ARE MAGNETIC.
ALTITUDES IN FEET MSL.

RIBSO
(Clearance Limit)
N 53 48.46
E 009 20.25
D13.0 LBE
FL 110

3 RIBSO 33
<11.8> 086° 4000

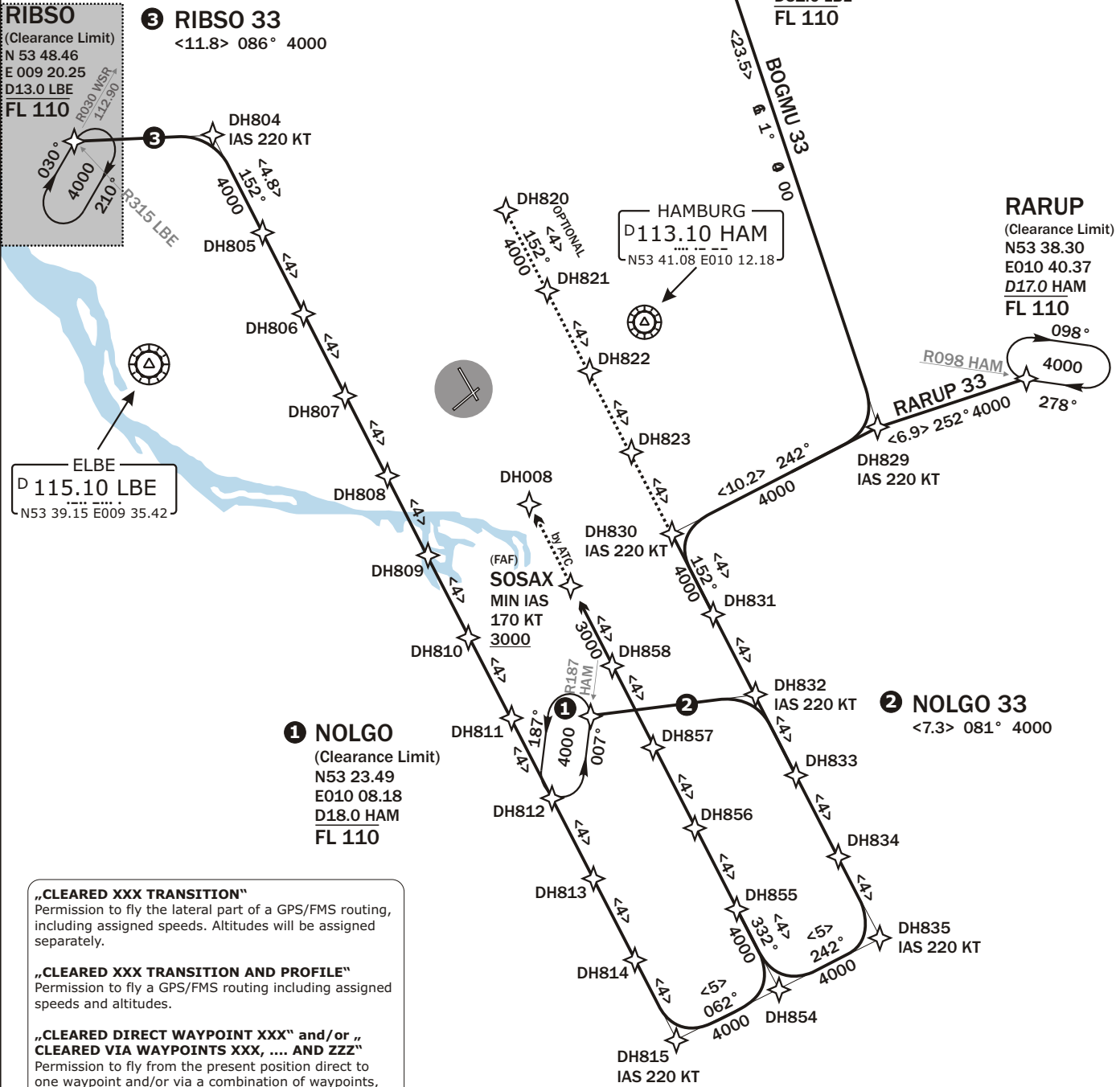
BOGMU
(Clearance Limit)
N53 58.45
E010 17.20
D31.0 LBE
FL 110

RARUP
(Clearance Limit)
N53 38.30
E010 40.37
D17.0 HAM
FL 110

1 NOLGO
(Clearance Limit)
N53 23.49
E010 08.18
D18.0 HAM
FL 110

2 NOLGO 33
<7.3> 081° 4000

Do not use for real life navigation



„CLEARED XXX TRANSITION“
Permission to fly the lateral part of a GPS/FMS routing, including assigned speeds. Altitudes will be assigned separately.

„CLEARED XXX TRANSITION AND PROFILE“
Permission to fly a GPS/FMS routing including assigned speeds and altitudes.

„CLEARED DIRECT WAYPOINT XXX“ and/or „CLEARED VIA WAYPOINTS XXX, AND ZZZ“
Permission to fly from the present position direct to one waypoint and/or via a combination of waypoints, including the continuation of the flight on the lateral part of a GPS/FMS routing adjoining the last waypoint, including assigned speeds. Altitudes will be assigned separately.

Revision: 2010-04-09 - CHANGES: Rwy designator.

Do not use for real life navigation

DESIGNATOR	ROUTE	After Take-Off		Remarks
		climb to	contact	
EKERN 7C	EKERN SEVEN CHARLIE Direct HOS (4.1 DME ALF); on track 049° HOS to 7.2 DME ALF; LT, on R345 HAM to EKERN GPS/FMS RNAV: [A500+] - HOS - DH152[L] - EKERN.	5000 ft	Bremen Radar 127.670	
LUB 8C	LÜBECK EIGHT CHARLIE Direct HOS (4.1 DME ALF); on R231 LUB to LUB. GPS/FMS RNAV: [A500+] - HOS[R] - LUB.			
AMLUH 7C	AMLUH SEVEN CHARLIE Direct to HOS (4.1 DME ALF); on track 049° HOS to 5.2 DME ALF; RT, on R163 HAM to AMLUH. GPS/FMS RNAV: [A500+] - HOS[R] - DH151[R] - AMLUH.			
RAMAR 2C	RAMAR TWO CHARLIE Direct HOS (4.1 DME ALF); RT, on R231 LUB to 7.2 DME ALF; RT, on track 073° LYE to LYE; RT, on track 120° LYE to RAMAR. GPS/FMS RNAV: [A500+] - HOS[R] - DH154[R] - LYE[R] - RAMAR.			
IDEKO 4C	IDEKO FOUR CHARLIE On track 049° inbound HOS to 3.8 DME ALF; LT, on R295 HAM to intercept R065 LBE; on R065 LBE to LBE; LT, on R186 LBE to IDEKO. GPS/FMS RNAV: [A500+] - DH150[L] - DH153[L] - LBE[L] - IDEKO.		Bremen Radar 134.250	
BASUM 9C	BASUM NINE CHARLIE On track 049° inbound HOS to 3.8 DME ALF; LT, on R259 HAM to intercept R065 LBE; on R065 LBE to LBE; LT, on R208 LBE to BASUM. GPS/FMS RNAV: [A500+] - DH150[L] - DH153[L] - LBE[L] - BASUM.			
WSR 9C	WESER NINE CHARLIE On track 049° inbound HOS to 3.8 DME ALF; LT, on R259 HAM to intercept R065 LBE; on R065 LBE to LBE; LT, on R233 LBE to WSR. GPS/FMS RNAV: [A500+] - DH150[L] - DH153[L] - LBE[L] - WSR.			
LBE 9C	ELBE NINE CHARLIE On track 049° inbound HOS to 3.8 DME ALF; LT, on R259 HAM to intercept R065 LBE; on R065 LBE to LBE GPS/FMS RNAV: [A500+] - DH150[L] - DH153[L] - LBE.			

Remain on TWR frequency until passing 2000ft,
then contact Bremen Radar!

ATIS	123.120	TOWER	126.850	APT ELEV. 53 ft	Trans. Alt 5000'	<p>MSA 25NM HAM VORTAC</p>
BREMEN RADAR	127.670	APRON	121.700			
	134.250	GROUND	121.800			

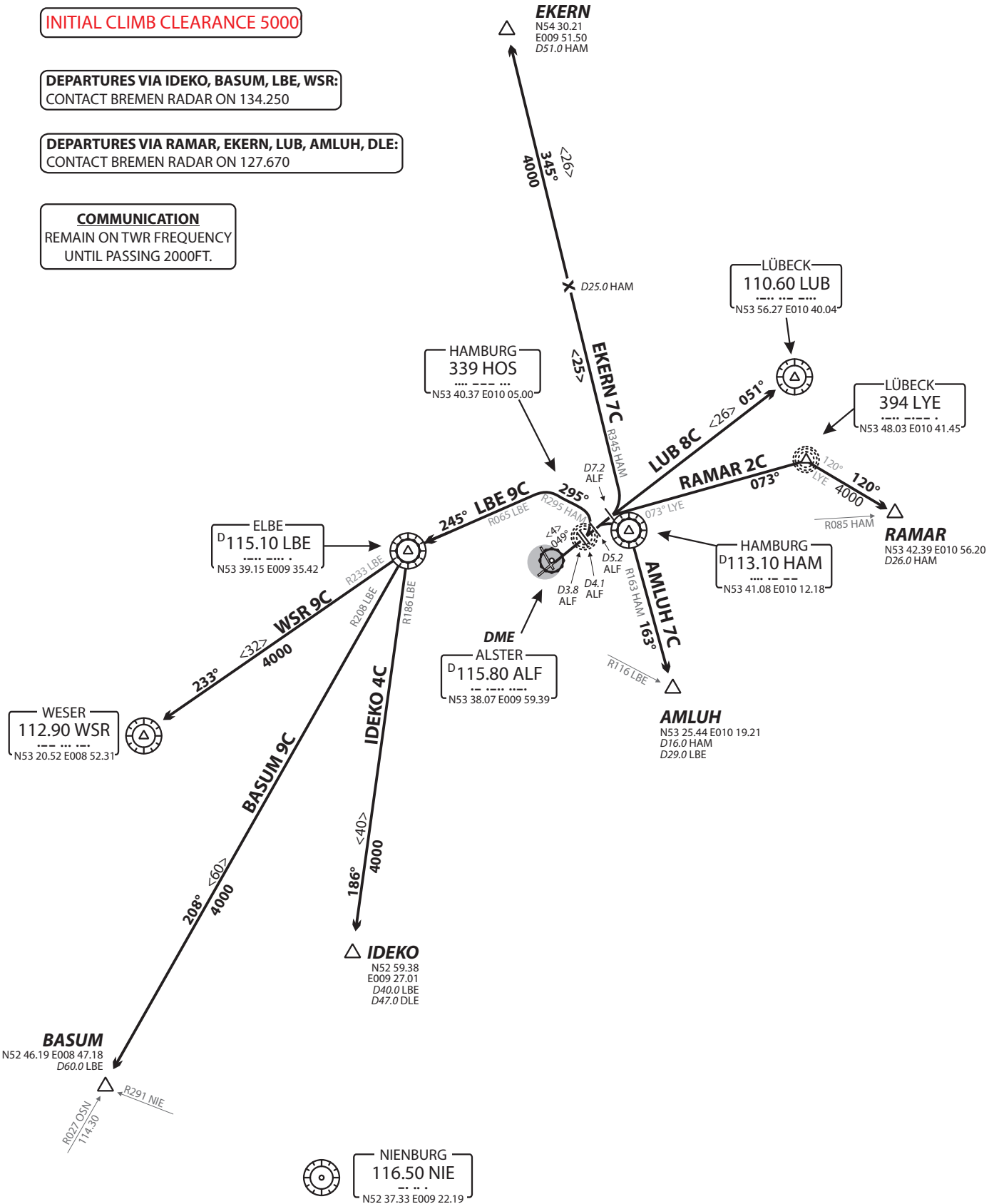
INITIAL CLIMB CLEARANCE 5000

DEPARTURES VIA IDEKO, BASUM, LBE, WSR:
CONTACT BREMEN RADAR ON 134.250

DEPARTURES VIA RAMAR, EKERN, LUB, AMLUH, DLE:
CONTACT BREMEN RADAR ON 127.670

COMMUNICATION
REMAIN ON TWR FREQUENCY
UNTIL PASSING 2000FT.

Do not use for real life navigation



Do not use for real life navigation

DESIGNATOR	ROUTE	After Take-Off		Remarks
		climb to	contact	
EKERN 8D	EKERN EIGHTDELTA On track 151° GT to 2.5 DME ALF or 1500 ft, whichever is later; LT, on R208 HAM to HAM; LT, on R345 HAM to EKERN. GPS/FMS RNAV: [A500+] - DH200[L] - [A1500+; L] - DH201- HAM[L] - EKERN.	5000 ft	Bremen Radar 127.670	
LUB 9D	LÜBECK NINE DELTA On track 151° GT to 2.5 DME ALF or 1500 ft, whichever is later; LT, on R208 HAM to HAM; RT, on R045 HAM to LUB. GPS/FMS RNAV: [A500+] - DH200[L] - [A1500+; L] - DH201 - HAM[R] - LUB.			
AMLUH 7D	AMLUH SEVEN DELTA On track 151° GT to 8.6 DME ALF; LT, on R116 LBE to AMLUH. Cross 8.6 DME ALF at 2800 or above. GPS/FMS RNAV: [A500+] - DH204[A2800+, L] - AMLUH.			
RAMAR 2D	RAMAR TWO DELTA On track 151° GT to 7.1 DME ALF; LT, on R212 LUB until crossing R094 HAM; RT, on track 058° LYE to LYE; RT, on track 120° LYE to RAMAR. Cross 7.1 DME ALF at 2300 or above. GPS/FMS RNAV: [A500+] - <u>DH208</u> [A2300+; L] - DH209 - DH212[R] - LYE[R] - RAMAR.			
IDEKO 3D	IDEKO THREE DELTA On track 151° GT to 5.0 DME ALF; RT, on R075 WSR to 25.0 DME HAM; LT, on R186 LBE to IDEKO. GPS/FMS RNAV: [A500+] - <u>DH202</u> [R] - DH203 - DH206[L] - IDEKO.		Bremen Radar 134.250	
BASUM 1D	BASUM ONE DELTA On track 151° GT to 5.0 DME ALF; RT, on R075 WSR to 32.0 DME HAM; LT, on R208 LBE to BASUM. GPS/FMS RNAV: [A500+] - <u>DH202</u> [R] - DH203 - DH207[L] - BASUM.			
WSR 1D	WESER ONE DELTA On track 151° GT to 5.0 DME ALF; RT, on R075 WSR to WSR. GPS/FMS RNAV: [A500+] - <u>DH202</u> [R] - DH203 - WSR.			
LBE 9D	ELBE NINE DELTA On track 151° GT to 5.0 DME ALF; RT, on R075 WSR to 17.0 DME HAM; RT, on R141 LBE to LBE. GPS/FMS RNAV: [A500+] - <u>DH202</u> [R] - DH203 - DH205[R] - LBE.			

(Sample: DH200 fly-over way point.)

**Remain on TWR frequency until passing 2000ft,
then contact Bremen Radar!**

ATIS	123.120	TOWER	126.850	APT ELEV. 53 ft	Trans. alt 5000'	 MSA 25NM HAM VORTAC
BREMEN RADAR	127.670	APRON	121.700			
	134.250	GROUND	121.800			

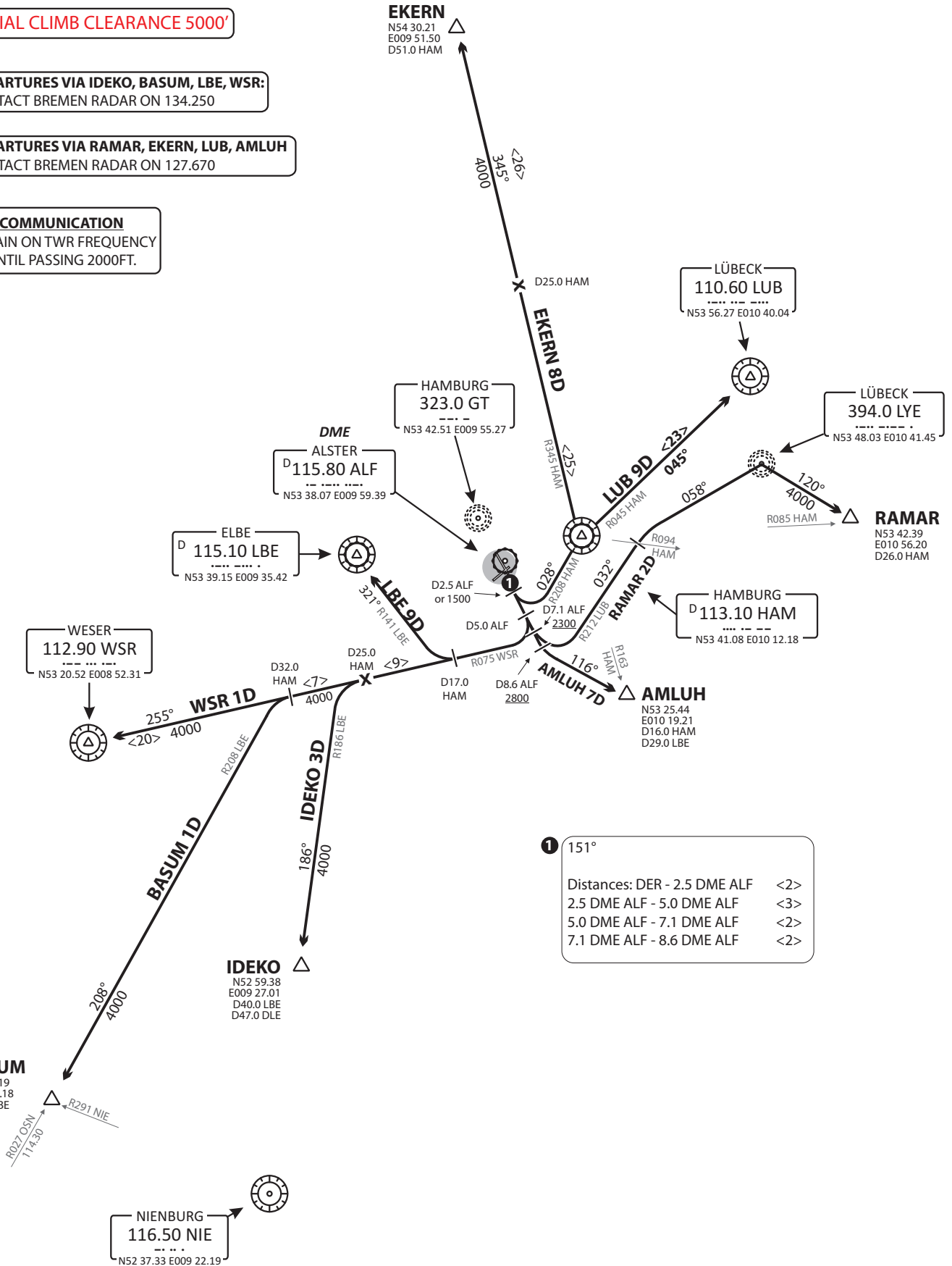
INITIAL CLIMB CLEARANCE 5000'

DEPARTURES VIA IDEKO, BASUM, LBE, WSR:
CONTACT BREMEN RADAR ON 134.250

DEPARTURES VIA RAMAR, EKERN, LUB, AMLUH
CONTACT BREMEN RADAR ON 127.670

COMMUNICATION
REMAIN ON TWR FREQUENCY
UNTIL PASSING 2000FT.

Do not use for real life navigation



Do not use for real life navigation

DESIGNATOR	ROUTE	After Take-Off		Remarks
		climb to	contact	
EKERN 7B	EKERN SEVEN BRAVO Climb straight ahead via FU to 5.5 DME ALF; RT, on track 039° GT to GT; on track 031° GT to intercept R345 HAM to EKERN. GPS/FMS RNAV: [A500+] - FU - <u>DH111[R]</u> - DH102 - GT[L] - DH103[L] - EKERN.	5000 ft	Bremen Radar 127.670	
LUB 9B	LÜBECK NINE BRAVO Climb straight ahead via FU to 5.5 DME ALF; RT, on track 039° GT to GT; on track 047° GT to intercept R244 LUB to LUB. GPS/FMS RNAV: [A500+] - FU - <u>DH111[R]</u> - DH102 - GT[R] - DH104[R] - LUB.			
AMLUH 8B	AMLUH EIGHT BRAVO Climb straight ahead via FU to 5.5 DME ALF; LT, on track 090° to intercept R116 LBE to AMLUH. GPS/FMS RNAV: [A500+] - FU - <u>DH111[L]</u> - DH108 - DH109[R] - AMLUH.			
RAMAR 2B	RAMAR TWO BRAVO Climb straight ahead via FU to 5.5 DME ALF; RT, on Track 039° GT to GT; on track 047° GT to intercept R244 LUB to 27.7 DME LBE; RT, on track 101° LYE to LYE; RT, on track 120° LYE to RAMAR. GPS/FMS RNAV: [A500+] - FU - DH111[R] - DH102 - GT[R] - DH104[R] - DH110[R] - LYE[R] - RAMAR.			
IDEKO 4B	IDEKO FOUR BRAVO Climb straight ahead via FU on track 229° FU to 20.0 DME ALF; LT, on R186 LBE to IDEKO. GPS/FMS RNAV: [A500+] - FU - DH106[L] - IDEKO.		Bremen Radar 134.250	
BASUM 2B	BASUM TWO BRAVO Climb straight ahead via FU on track 229° FU to intercept R235 HAM; on R235 HAM to 38.0 DME HAM; LT, on R208 LBE to BASUM. GPS/FMS RNAV: [A500+] - FU - DH105[R] - DH107[L] - BASUM.			
WSR 9B	WESER NINE BRAVO Climb straight ahead via FU to 5.5 DME ALF; RT, on track 248° to WSR. GPS/FMS RNAV: [A500+] - FU - DH100[R] - WSR.			After FU NDB or passing 2000, whichever is later, B-RNAV equipment necessary
LBE 9B	ELBE NINE BRAVO Climb straight ahead via FU to 5.5 DME ALF; RT, on R121 LBE to LBE. GPS/FMS RNAV: [A500+] - FU - <u>DH111[R]</u> - DH101 - LBE			No access to R15, UM170, (U)N125, N850 and UL126

(Sample: DH111 fly-over way point.)

Remain on TWR frequency until passing 2000ft,
then contact Bremen Radar!

Do not use for real life navigation

DESIGNATOR	ROUTE	After Take-Off		Remarks
		climb to	contact	
EKERN 7G	EKERN SEVEN GOLF On track 331° inbound GT, at 3.0 DME ALF; RT, on track 358° to 5.6 DME ALF; RT, on track 031° GT to intercept R345 HAM; on R345 HAM to EKERN. GPS/FMS RNAV: [A500+] - DH250[R] - DH253[R] - DH103[L] - EKERN.	5000 ft	Bremen Radar 127.670	
LUB 9G	LÜBECK NINE GOLF On track 331° inbound GT, at 3.0 DME ALF; RT, on track 358° to 5.0 DME ALF; RT, on R242 LUB to LUB. GPS/FMS RNAV: [A500+] - DH250[R] - DH253[R] - LUB.			
AMLUH 7G	AMLUH SEVEN GOLF On track 331° inbound GT, at 3.0 DME ALF; RT, on track 358° to 5.0 DME ALF; RT, on R298 HAM to HAM; RT, on R163 HAM to AMLUH. GPS/FMS RNAV: [A500+] - DH250[R] - DH251[R] - DH252 - HAM[R] - AMLUH.			
RAMAR 2G	RAMAR TWO GOLF On track 331° inbound GT, at 3.0 DME ALF; RT, on track 358° to 5.0 DME ALF; RT, on R242 LUB to 28.3 DME LBE; RT, on track 101° LYE to LYE; RT, on track 120° LYE to RAMAR. GPS/FMS RNAV: [A500+] - DH250[R] - DH253[R] - DH259[R] - LYE[R] - RAMAR.			
IDEKO 3G	IDEKO THREE GOLF On track 331° inbound GT, at 4.0 DME ALF; LT, on R070 LBE to LBE; LT, on R186 LBE to IDEKO. GPS/FMS RNAV: [A500+] - DH254[L] - LBE[L] - IDEKO.		Bremen Radar 134.250	
BASUM 9G	BASUM NINE GOLF On track 331° inbound GT, at 4.0 DME ALF; LT, on R070 LBE to LBE; LT, on R208 LBE to BASUM. GPS/FMS RNAV: [A500+] - DH254[L] - LBE[L] - BASUM.			
WSR 9G	WESER NINE GOLF On track 331° inbound GT, at 4.0 DME ALF; LT, on R070 LBE to LBE; LT, on R233 LBE to WSR. GPS/FMS RNAV: [A500+] - DH254[L] - LBE[L] - WSR.			
LBE 8G	ELBE EIGHT GOLF On track 331° inbound GT, at 4.0 DME ALF; LT, on R070 LBE to LBE. GPS/FMS RNAV: [A500+] - DH254[L] - LBE.			

(Sample: DH251 fly-over way point.)

Remain on TWR frequency until passing 2000ft,
then contact Bremen Radar!

ATIS	123.120	TOWER	126.850	APT ELEV. 53 ft	Trans. alt 5000'	<p>MSA 25NM HAM VORTAC</p>
BREMEN RADAR	127.670	APRON	121.700			
	134.250	GROUND	121.800			

INITIAL CLIMB CLEARANCE 5000'

DEPARTURES VIA IDEKO, BASUM, LBE, WSR:
CONTACT BREMEN RADAR ON 134.250

DEPARTURES VIA RAMAR, EKERN, LUB, AMLUH:
CONTACT BREMEN RADAR ON 127.670

COMMUNICATION
REMAIN ON TWR FREQUENCY
UNTIL PASSING 2000FT.

Do not use for real life navigation

