Amendment

Operational Order ATC 12/04
Operational Order FDS 11/04

P1/Air traffic control automation system (ATCAS)

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Number of pages (including amendment):   40

This amendment shall form part of the above-mentioned operational order and shall remain with the operational order until the next amendment.

1.   Essentials

Paragraph 12 list of Maps

- Maps 621 to 648 moved maps 619 to 646

- ED R76 Oberlausitz is split to ED R 76 A and C (maps644/645)

- ED R148 Schleswig added as map 648

2.   List of amendments

Version	Section	Page(s)	add, replace, delete
3.24	Amendment	all	replace
	Operational Order		

_____   _____
Axel Brandt   Hans-Michael Jung
Chief of Support   Chief of Section

Sector families affected by the current amendment:											
	North A	**North B**	**East A**	**East B**	**South**	**FDS**	**FIS**	**FMP**	**DA**	**SV CC**	**SV FDS**	**Office**
Mandatory	☑	☑	☑	☑	☑	☐	☐	☐	☐	☑	☐	☐
Information	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑

*only for sector(s):

This Operational Order shall apply to the following sector families:											
North A*	**North B***	**East A**	**East B**	**South**	**FDS**	**FIS**	**FMP**	**DA**	**SV CC**	**SV FDS**	**Office**
☑	☑	☑	☑	☑	☑	☐	☐	☑	☑	☑	☑

*only for sector(s): ALEL/FRI

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Operational Order FDS 11/04

Wef 31.07.2004

P1 / Air traffic control automation system (ATCAS)

Content

1   Principles

This Operational Order shall act as a supplement to the documents provided in the operations room describing the use of the equipment installed in the P1/ATCAS system.

2   Operations with P1 / ATCAS

2.1   **Working position settings.**

2.1.1   Selection of labels.

As a rule, FULL DATA BLOCK shall be used at all working positions. ALTERNATE DATA BLOCK may be alternatively used at the working positions WWC1/2/3/4/5S, HAMW, HAME, DHAT, HAN, WWCMS, DVAT, FRI, ALEL, DBAD, DBAS, DBAN, DBAS/NT, LAGB.

The flight progress strip is the basic means of documentation.

In order to transfer the working position

- either all elements set by default shall be displayed or

- the accepting air traffic controller shall be notified that the display contains less information.

2.1.2   Setting the altitude bands in P1/ATCAS.

- To ensure that all the information is displayed correctly, altitude band C is set to the values 000-900 and shall not be changed (except for feeder working positions).

- At feeder working positions, altitude band "C" shall be set from GND to a minimum of FL 165 or higher.

2.1.3   P1/ATCAS SDD windows.

The following windows shall be kept open at all times:

Executive and NON-AIRSPACE working positions (excluding FEEDER)	Planner
	FMM window including unacknowledged updates – subwindow und actual strip content subwindow
ERM window including uncoordinated subwindow	**ERM window including** uncoordinated subwindow

2.1.4   Selection of radar processing modes

- The radar data display can be operated in three different modes: System Presentation Mode (SPM), Local Presentation Mode (LPM) and Approach Presentation Mode (APM).

- At the Bremen ACC working positions, System Presentation Mode (SPM) and Approach Presentation Mode (APM) shall be used as a rule.

     Exception:

     For all SRA or for the application of reduced minimum radar separation on the parallel runway system of Hannover Airport, the following modes shall be used:

     - Local Presentation Mode (LPM) with the local radar station [1] [2] or

     - the Approach Presentation Mode (APM), if the local aerodrome radar station is serviceable. [1] [2]

     Note: [1] For SRAs to Berlin/Schönefeld RWY's 07/25 using LPM and APM, both ASR Schönefeld and ASR Tegel may be regarded as local aerodrome radar stations.

     [2] For SRAs to the special-purpose airport of Hamburg-Finkenwerder, ASR Hamburg may be regarded as local aerodrome radar station.

     For SRA the following shall be observed in addition to the regulations of the MO-ATS:

     - In Local Presentation Mode (LPM), an SRA shall not be continued if three or more successive system track symbols (head symbols <u>without</u> the two vertical bars) are displayed.

     - In APP Presentation Mode (APM), an SRA shall not be continued if three or more successive substitute symbols (head symbols, open on top) are displayed.

     - Mode C failure of the transponder is no reason to discontinue an SRA approach.

     - The accuracy of the ASR stations used permits application of MO-ATS 467.7 (SRA may be continued down to the threshold of the runway if the aircraft is in an emergency situation and compelled to land).

When using the Local Presentation Mode (LPM) and the Approach Presentation Mode (APM), special regulations concerning the increase in the radar separation minima from 3 NM to 5 NM shall apply in the 3 NM separation area (see GEN 1-4 "Local specifications concerning radar separation minima").

2.1.5   Non-reception of the current QNH for the QNH area

FDPS provides the RDPS with barometrical data for defined QNH areas (see item 6) so that the flight levels transmitted by mode C can be transformed to altitudes at and below 5900 ft MSL.

Should the QNH no longer be up-to-date for a QNH area (no measurement, failure of services etc.), the ATC sector shall initiate, via the FDS, the manual input of the current QNH value by the FDS supervisor.

2.1.6   Consolidation group plans

In General consolidation or de-consolidation of working positions should be done using the functionality "CONS GROUP". It shall be done by the overtaking/releasing sector. Each time after its completion the PSS-functionality "DEFAULT LAYOUT" shall be used.

In case the hardware is not available the consolidation or de-consolidation has to be done individually using the functionality "SET CONS".

The following hardware-specific consolidation group plans have been defined:

2.1.6.1   Sector family South

Designation	Console (name of hardware)	Roles	
		Master	Slave
All sectors are opened	17 (EMSE)	EMSE	
	18 (EMSP)	EMSP	
	16 (DSTE)	DSTE	
	15 (DSTP)	DSTP	
	25 (HRZE)	HRZE	
	24 (HRZP)	HRZP	
DST + EMS [1]	16 (DSTE)	DSTE	EMSE
	15 (DSTP)	DSTP	EMSP
DST – EMS [2]	16 (DSTE)	DSTE	
	15 (DSTP)	DSTP	
	17 (EMSE)	EMSE	
	18 (EMSP)	EMSP	
DST + HRZ [1]	16 (DSTE)	DSTE	HRZE
	15 (DSTP)	DSTP	HRZP
DST – HRZ [2]	16 (DSTE)	DSTE	
	15 (DSTP)	DSTP	
	25 (HRZE)	HRZE	
	24 (HRZP)	HRZP	
DST + EMS + HRZ [1]	16 (DSTE)	DSTE	EMSE, HRZE
	15 (DSTP)	DSTP	EMSP, HRZP
DST / EMS – HRZ [2]	16 (DSTE)	DSTE	EMSE
	15 (DSTP)	DSTP	EMSP
	25 (HRZE)	HRZE	
	24 (HRZP)	HRZP	
DST / HRZ – EMS [2]	16 (DSTE)	DSTE	HRZE
	15 (DSTP)	DSTP	HRZP
	17 (EMSE)	EMSE	
	18 (EMSP)	EMSP	
HAN + DST / EMS / HRZ [1]	21 (HANB)	HANB	DSTE, EMSE, HRZE
	22 (HANQ)	HANQ	DSTP, EMSP, HRZP
HAN - DST / EMS / HRZ [2]	21 (HANB)	HANB	
	22 (HANQ)	HANQ	
	16 (DSTE)	DSTE	EMSE, HRZE
	15 (DSTP)	DSTP	EMSP, HRZP

Note: 1) Consolidation plan
                   2) Deconsolidation plan

2.1.6.2   Sector family North

Designation	Console (name of hardware)	Roles	
		Master	**Slave**
HEI + ALEH [1]	003 (HEIE)	HEIE	ALEHE
	004 (HEIP)	HEIP	ALEHP
HEI - ALEH [2]	003 (HEIE)	HEIE	
	004 (HEIP)	HEIP	
	011 (ALEHE)	ALEHE	
	010 (ALEHP)	ALEHP	
FRI/ALEL + ALEH [1]	013 (FRIE)	FRIE	ALELB, ALEHE
	012 (FRIP)	FRIP	ALELQ, ALEHP
FRI/ALEL - ALEH [2]	013 (FRIE)	FRIE	ALELB
	012 (FRIP)	FRIP	ALELQ
	011 (ALEHE)	ALEHE	
	010 (ALEHP	ALEHP	
FRI/ALEL + EID [1]	013 (FRIE)	FRIE	ALELB, EIDE
	012 (FRIP)	FRIP	ALELQ, EIDP
	055 (WWC2S)	WWC2S	WC1SP, WWC1S, WC2SP
FRI/ALEL - EID [2]	013 (FRIE)	FRIE	ALELB
	012 (FRIP)	FRIP	ALELQ
	002 (EIDE)	EIDE	
	001 (EIDP)	EIDP	
EID Weekend	013 (FRIE)	FRIE	ALELB
	012 (FRIP)	FRIP	ALELQ
	055 (WWC2S)	EIDE	
	014 (WWC1S)	EIDP	
	002 (EIDE)	WWC1S	WC1SP, WWC2S, WC2SP
HAME + HAMW [1]	006(HAMEB)	HAMEB	HAMWB
	005 (HAMEQ)	HAMEQ	HAMWQ
HAME - HAMW [2]	006 (HAMEB)	HAMEB	
	005 (HAMEQ)	HAMEQ	
	008 (HAMWB)	HAMWB	
	009 (HAMWQ)	HAMWQ	
HAME/HAMW + HEI/ALEH [1]	006 (HAMEB)	HAMEB	HAMWB, HEIE, ALEHE
	005 (HAMEQ)	HAMEQ	HAMWQ, HEIP, ALEHP
HAME/HAMW - HEI/ALEH [2]	006 (HAMEB)	HAMEB	HAMWB
	005 (HAMEQ)	HAMEQ	HAMWQ
	003 (HEIE)	HEIE	ALEHE
	004 (HEIP)	HEIP	ALEHP

Note: 1) Consolidation plan
                     2) Deconsolidation plan

2.1.6.3   Sector family East

Designation	Console (name of hardware)	Roles	
		Master	**Slave**
OST B NIGHT [1]	45 (MARE)	MARE	BORE, MRZE, LAGB
	46 (MARP)	MARP	BORP, MRZP, LAGQ
MAR / MRZ - BOR [2]	45 (MARE)	MARE	MRZE, LAGB
	46 (MARP)	MARP	MRZP, LAGQ
	33 (BORE)	BORE	
	34 (BORP)	BORP	
MAR + MRZ [1]	45 (MARE)	MARE	MRZE, LAGB
	46 (MARP)	MARP	MRZP, LAGQ
MAR - MRZ [2]	45 (MARE)	MARE	
	46 (MARP)	MARP	
	47 (MRZE)	MRZE	LAGB
	48 (MRZP)	MRZP	LAGQ
MRZ + LAG [1]	47 (MRZE)	MRZE	LAGB
	48 (MRZP)	MRZP	LAGQ
MRZ - LAG [2]	47 (MRZE)	MRZE	
	48 (MRZP)	MRZP	
	49 (LAGB)	LAGB	LAGQ
MAR + BOR [1]	45 (MARE)	MARE	BORE
	46 (MARP)	MARP	BORP
MAR - BOR [2]	45 (MARE)	MARE	
	46 (MARP)	MARP	
	33 (BORE)	BORE	
	34 (BORP)	BORP	
MAR + FLG [1]	45 (MARE)	MARE	FLGE
	46 (MARP)	MARP	FLGP
MAR - FLG [2]	45 (MARE)	MARE	
	46 (MARP)	MARP	
	36 (FLGE)	FLGE	
	35 (FLGP)	FLGP	
FLG + BOR [1]	36 (FLGE)	FLGE	BORE
	35 (FLGP)	FLGP	BORP
FLG - BOR [2]	36 (FLGE)	FLGE	
	35 (FLGP)	FLGP	
	33 (BORE)	BORE	
	34 (BORP)	BORP	

OST A NIGHT [1]	40 (DBASB)	FLGE	DBADB, DBASB, DBANB, DBNWB, DBSWB, DBNEB, DBSEB
	39 (DBASQ)	FLGP	DBADQ, DBASQ, DBANQ, DBNWQ, DBSWQ, DBNEQ, DBSEQ
ARRIVAL / DEPARTURE - FLG [2]	40 (DBASB)	DBASB	DBADB, DBANB, DBNWB, DBSWB, DBNEB, DBSEB
	39 (DBASQ)	DBASQ	DBADQ, DBANQ, DBNWQ, DBSWQ, DBNEQ, DBSEQ
	36 (FLGE)	FLGE	
	35 (FLGP)	FLGP	
ARRIVAL WEST / FLG - DEPARTURE [2]	40 (DBASB)	DBASB	FLGE, DBANB, DBNEB, DBSEB
	39 (DBASQ)	DBASQ	FLGP, DBANQ, DBNEQ, DBSEQ
	38 (DBADB)	DBADB	DBNWB, DBSWB
	37 (DBADQ)	DBADQ	DBNWQ, DBSWQ
ARRIVAL EAST / FLG - DEPARTURE [2]	40 (DBASB)	DBASB	FLGE, DBANB, DBNWB, DBSWB
	39 (DBASQ)	DBASQ	FLGP, DBANQ, DBNWQ, DBSWQ
	38 (DBADB)	DBADB	DBNEB, DBSEB
	37 (DBADQ)	DBADQ	DBNEQ, DBSEQ
RWY CHANGE TO EAST ARRIVAL COMB	40 (DBASB)	DBASB	DBANB, DBNWB, DBSWB
	39 (DBASQ)	DBASQ	DBANQ, DBNWQ, DBSWQ
	38 (DBADB)	DBADB	DBNEB, DBSEB
	37 (DBADQ)	DBADQ	DBNEQ, DBSEQ
RWY CHANGE TO WEST ARRIVAL COMB	40 (DBASB)	DBASB	DBANB, DBNEB, DBSEB
	39 (DBASQ)	DBASQ	DBANQ, DBNEQ, DBSEQ
	38 (DBADB)	DBADB	DBNWB, DBSWB
	37 (DBADQ)	DBADQ	DBNWQ, DBSWQ
RWY CHANGE TO EAST ARRIVAL SPLIT	40 (DBASB)	DBASB	DBSWB
	39 (DBASQ)	DBASQ	DBSWQ
	43 (DBANB)	DBANB	DBNWB
	44 (DBANQ)	DBANQ	DBNWQ
	38 (DBADB)	DBADB	DBNEB, DBSEB
	37 (DBADQ)	DBADQ	DBNEQ, DBSEQ

RWY CHANGE TO WEST ARRIVAL SPLIT	40 (DBASB)	DBASB	DBSEB
	39 (DBASQ)	DBASQ	DBSEQ
	43 (DBANB)	DBANB	DBNEB
	44 (DBANQ)	DBANQ	DBNEQ
	38 (DBADB)	DBADB	DBNWB, DBSWB
	37 (DBADQ)	DBADQ	DBNWQ, DBSWQ
DBAS + DBAN WEST [1]	40 (DBASB)	DBASB	DBANB, DBNEB, DBSEB
	39 (DBASQ)	DBASQ	DBANQ, DBNEQ, DBSEQ
DBAS + DBAN EAST [1]	40 (DBASB)	DBASB	DBANB, DBNWB, DBSWB
	39 (DBASQ)	DBASQ	DBANQ, DBNWQ, DBSWQ
DBAN SPLIT WEST [2]	40 (DBASB)	DBASB	DBSEB
	39 (DBASQ)	DBASQ	DBSEQ
	43 (DBANB)	DBANB	DBNEB
	44 (DBANQ)	DBANQ	DBNEQ
DBAN SPLIT EAST [2]	40 (DBASB)	DBASB	DBSWB
	39 (DBASQ)	DBASQ	DBSWQ
	43 (DBANB)	DBANB	DBNWB
	44 (DBANQ)	DBANQ	DBNWQ
FEEDER COMB [1]	41 (DBAST)	DBAST	DBANT, BASTQ, BANTQ
FEEDER SPLIT [2]	41 (DBAST)	DBAST	BASTQ
	42 (DBANT)	DBANT	BANTQ
DEPARTURE WEST [1]	38 (DBADB)	DBADB	DBNWB, DBSWB
	37 (DBADQ)	DBADQ	DBNWQ, DBSWQ
DEPARTURE EAST [1]	38 (DBADB)	DBADB	DBNEB, DBSEB
	37 (DBADQ)	DBADQ	DBNEQ, DBSEQ
ARRIVAL + DEPARTURE [1]	40 (DBASB)	DBASB	DBADB, DBANB, DBNWB, DBSWB, DBNEB, DBSEB
	39 (DBASQ)	DBASQ	DBADQ, DBANQ, DBNWQ, DBSWQ, DBNEQ, DBSEQ
DEPARTURE WEST + BOR [1]	38 (DBADB)	DBADB	BORE, DBNWB, DBSWB
	37 (DBADQ)	DBADQ	BORP, DBNWQ, DBSWQ
DEPARTURE WEST - BOR [2]	38 (DBADB)	DBADB	DBNWB, DBSWB
	37 (DBADQ)	DBADQ	DBNWQ, DBSWQ
	33 (BORE)	BORE	
	34 (BORP)	BORP	
DEPARTURE EAST + BOR [1]	38 (DBADB)	DBADB	BORE, DBNEB, DBSEB
	37 (DBADQ)	DBADQ	BORP, DBNEQ, DBSEQ

DEPARTURE EAST - BOR [2]	38 (DBADB)	DBADB	DBNEB, DBSEB
	37 (DBADQ)	DBADQ	DBNEQ, DBSEQ
	33 (BORE)	BORE	
	34 (BORP)	BORP	
DEPARTURE WEST + FLG [1]	38 (DBADB)	DBADB	FLGE, DBNWB, DBSWB
	37 (DBADQ)	DBADQ	FLGP, DBNWQ, DBSWQ
DEPARTURE WEST - FLG [2]	38 (DBADB)	DBADB	DBNWB, DBSWB
	37 (DBADQ)	DBADQ	DBNWQ, DBSWQ
	36 (FLGE)	FLGE	
	35 (FLGP)	FLGP	
DEPARTURE EAST + FLG [1]	38 (DBADB)	DBADB	FLGE, DBNEB, DBSEB
	37 (DBADQ)	DBADQ	FLGP, DBNEQ, DBSEQ
DEPARTURE EAST - FLG [2]	38 (DBADB)	DBADB	DBNEB, DBSEB
	37 (DBADQ)	DBADQ	DBNEQ, DBSEQ
	36 (FLGE)	FLGE	
	35 (FLGP)	FLGP	
ARRIVAL WEST + FLG [1]	40 (DBASB)	DBASB	FLGE, DBANB, DBNEB, DBSEB
	39 (DBASQ)	DBASQ	FLGP, DBANQ, DBNEQ, DBSEQ
ARRIVAL WEST - FLG [2]	40 (DBASB)	DBASB	DBANB, DBNEB, DBSEB
	39 (DBASQ)	DBASQ	DBANQ, DBNEQ, DBSEQ
	36 (FLGE)	FLGE	
	35 (FLGP)	FLGP	
ARRIVAL EAST + FLG [1]	40 (DBASB)	DBASB	FLGE, DBANB, DBNWB, DBSWB
	39 (DBASQ)	DBASQ	FLGP, DBANQ, DBNWQ, DBSWQ
ARRIVAL EAST - FLG [2]	40 (DBASB)	DBASB	DBANB, DBNWB, DBSWB
	39 (DBASQ)	DBASQ	DBANQ, DBNWQ, DBSWQ
	36 (FLGE)	FLGE	
	35 (FLGP)	FLGP	

Note: 1) Consolidation plan
             2) Deconsolidation plan

2.2   **Processing flight progress data**

2.2.1   "DIRECT" TID input

Clearances for direct routings deviating from the flight plan require the approval of the accepting sector. If not only a "crossing clearance" is requested, but the sector to be crossed is to have electronic access to the flight plan, the crossing flight shall be added by entering DIRECT in P1/ATCAS.

2.2.2   COFL input (coordinated FL)

As long as for vertical profiles (DEP/ARR Bremen FIR) the exit FL (XFL) does not correspond to RFL, or XFL is not generated by means of an auxiliary flight level, a COFL input is not permitted.

Note: In such cases, a COFL input overwrites the XFL requirements defined in P1/ATCAS for flight profile calculation and, in that way, generates undesired processing steps and displays, or it prevents desired processing steps.

In cases, where a FPL contains a level change in FPL field 15 and the new RFL leads to an entry into a sector, that is below or above the transferring sector, the system will generate an auxiliary FL xx3 (for descents) or xx7 (for climbs) as the XFL. Verbal coordination shall take place.

If such a level change is requested by the pilot in flight, first a COFL input shall take place, in order to provide strips at the new receiving sector. The system will generate an auxiliary FL xx3 (for descents) or xx7 (for climbs) as the XFL. After the appropriate coordination with receiving sector, an XFL input should take place.

2.2.3   RFL changes (requested FL)

If required, the flight data specialist shall be instructed to change the RFL, provided that air traffic flow management measures are not in conflict with it.

2.2.4   SENDACT

Only the exit sector of Bremen ACC shall initiate a premature transmission of an ACT message via the SENDACT function.

2.3   **Further TID functions**

2.3.1   Change of flight rules from IFR to VFR (CNL IFR)

If one or more flight rule changes from IFR to VFR are indicated in the flight plan, the "CNLIFR" function button may be activated on the TID upon change of flight rules. The time and location of the change of flight rules will be stored in the system, the current FPL segment will be closed.

2.3.2   SUSPEND / TO LIVE / TERMSEG

A SUSPEND input shall only be made by the sector in charge of the aircraft (state "on fre-quency").

If flights remain within a defined area for a "longer period of time" (e.g. photographic mission, calibration, local IFR training flights), the FDPS processing shall be interrupted by using the SUSPEND function. The target of the flight will continue to be displayed on all display units.

When the planned flight path is to be continued, automatic FDPS processing shall be resumed by means of TO LIVE.

System flight plans of repeated practice approaches having the SUSPEND status may only be terminated after the full-stop landing (TERMSEG).

Note: This shall apply to repeated practice approaches at aerodromes where the control tower uses TFDPS.

2.3.3   Input of SFPL after an APL input

In order to ensure processing by the LIZ (DFS Situation and Information Centre) and to record aircraft movements in the sectors, it is crucial to enter a system flight plan for an APL. It shall be changed to LIVE status.

2.4   **Special features of flight profile calculation**

2.4.1   Auxiliary points

P1/ATCAS generates a three-dimensional flight profile calculation for each aircraft. In order to calculate the flight profile, sector structures require auxiliary points at certain positions. In this way, only the ATC working positions concerned are provided with flight progress strips and TID entries.

Auxiliary points are not part of the flight plan. They shall not be given to the pilots as route information.

2.4.2   Overview of the auxiliary points provided in P1/ATCAS

NAME	Latitude	N	Longitude	E	RMK
ACEL	522545	N	0100149	E	DEP EDDV, XFL definition
AHAM	535000	N	0100300	E	Output of Flight Progress strips (FPS)
AHH	535100	N	0100200	E	
AHOP	521100	N	0073500	E	Reference for OLDI condition group (EDLL)
APEN	532906	N	0093513	E	ARR EDDV/ETNW and DEP EDDH/EDHI, XFL definition
EDUBU	541100	N	0062827	E	COP Dutch Mil
D100	535500	N	0065000	E	
D101	541000	N	0075000	E	Output of FPS
DEBL	541006	N	0072600	E	
FQ110	510112	N	0084415	E	SIDs EDFQ
FQ290	510251	N	0083804	E	
H7	543030	N	0060210	E	Flight plan processing
JANIN	531010	N	0115030	E	Output of FPS
JULI	525600	N	0070700	E	COP Dutchmil
LABA	513743	N	0094630	E	G95, output of FPS
MVPA	540000	N	0123000	E	Output of FPS

Name	Latitude	N	Longitude	E	RMK
NCEL	523900	N	0102700	E	DEP EDVE, XFL definition
NHLZ	522700	N	0104800	E	
ROSY	524500	N	0075000	E	Output of FPS
SH09	514601	N	0131156	E	Profile calculation DEP ETSH in accordance with
SH27	514602	N	0131156	E	operational requirements
TINA	533742	N	0132020	E	Output of FPS
TOFT	522800	N	0132000	E	
TR201	540000	N	0083500	E	
TR202	524500	N	0073300	E	
TR203	514500	N	0081900	E	
TR206	534000	N	0120000	E	
TR302	534000	N	0084000	E	
TR306	534100	N	0120000	E	
WABA	525541	N	0084902	E	Z78, Output of FPS
WESL	513900	N	0063440	E	Reference for OLDI condition group (department EDGG)
XABA	525521	N	0085713	E	R15, SIDs EDDH, EDHI, Output of FPS
XBAT	523827	N	0110305	E	BKD-STAR EDVE
XBHV	532200	N	0084900	E	DEP EDWB, XFL definition
XBURE	523000	N	0113000	E	Output of FPS
XHIE	533259	N	0095110	E	DEP EDHI XFL definition
XHIW	533302	N	0094743	E	
XHHE	533747	N	0095957	E	DEP EDDH XFL definition
XHHW	533800	N	0095623	E	
XHOD	524850	N	0085443	E	DEP EDDW, profile calculation in accordance with operational requirements
XIND	541200	N	0062813	E	COP Dutchmil
XKLF	515700	N	0133700	E	Profile calculation ARR EDDT/DB in accordance with operational requirements
XLAB	513610	N	0093631	E	Output of FPS
XMCT	521800	N	0065800	E	COP Dutchmil
XNAS	524600	N	0132215	E	Profile calculation ARR EDDT in accordance with operational requirements
XNUK	521000	N	0142000	E	Profile calculation ARR EDDT/DB in accordance with operational requirements
XPEN	522915	N	0123840	E	Output of FPS
XPIR	520000	N	0091427	E	
XTOL	515712	N	0093217	E	Profile calculation in accordance with operational requirements
XTUBI	524000	N	0124200	E	Profile calculation DEP EDDT in accordance with operational requirements
XWER	512845	N	0093452	E	Output of FPS
XWRB	513107	N	0093527	E	
XYKE	535400	N	0062905	E	COP Dutchmil
ZEVN	532100	N	0091901	E	DEP EDDH, EDHI, XFL definition

2.4.3   Auxiliary levels

Auxiliary levels are introduced to calculate flight profiles and to display the profile as accurately as possible in the relevant sectors. Auxiliary levels may not always be displayed.

- For departures from EDAH, EDBC, EDBH, EDBM, EDCD, EDHK, EDOP, EDXW, ETNH, ETNJ, ETNL, ETNS, ETNT, ETNU, ETMK, ETMN, ETSH the auxiliary initial departure altitude of **300 AMSL (A003)** is used

- For departures from ETHB, ETHC, ETHE, ETHS, ETND, ETNW the auxiliary initial departure altitude of **700 AMSL (A007)** is used

- For descents into the Bremen FIR from upper airspace, the auxiliary level **FL244** (division level 245) or **FL284** (division level 285) is used to enforce, for the purpose of flight profile calculations, an entry of an aircraft into the area of responsibility of Bremen ACC.

- For vertical exits from the Bremen FIR to upper airspace, the auxiliary level FL246 (division level 245) or FL286 (division level 285) is used. The exit from the area of responsibility of Bremen ACC will be indicated to P1/ATCAS in this way. The ACT messages contain FL245 (Maastricht UAC) or FL280 (Karlsruhe UAC).

  For vertical exits from the Bremen FIR to upper airspace, the auxiliary flight level **FL248** (division level 245) is used for ACT exchange with Lippe Radar for en-route flights (for differentiation from DEP ACT)

- If auxiliary levels (XFL) are printed in the EXITLEVEL box, they have the following meaning:

FLXX2 + FLXX8	=	due to the airspace structure, a flight level change shall be made in the own area of responsibility*
		* Except for en-route ACT to Lippe Radar: the climb to FL245+ shall be coordinated verbally
FLXX3 + FLXX7	=	the flight shall be coordinated verbally with the next sector
FLXX4 + FLXX6	=	the flight shall be handed over according to specified procedures (see Operational Order COP 1- 1 concerning internal coordination procedures and airspace delegations in the control centre North) without additional coordination*
		* Except for FL154: due to the airspace structure, a level change shall be made in the own area of responsibility
		* Except for Lippe Radar: the climb to FL245+ shall be coordinated verbally

2.5   **Handling of special flight profiles**

2.5.1   IFR / VFR / IFR flights

Example of an air defence training area entry / exit:

Entry:

When transferring a flight to air defence, the transferring sector shall ensure by means of CNLIFR that the first segment changes its status to TERMINATED. The next segment in the flight plan storage will then change its FPL status to PENDING for further editing. SYSTEXT input ensures that the call sign is displayed in the label system-wide.

Exit:

Air defence shall coordinate flights with the ATC sector. The control sector shall ensure that the second segment of the SFPL changes its status to ACTIVE (via ACTIVE input) and shall transmit the new SSR code to air defence.

2.5.2   Flights into TRA201, TRA202, TRA206/306/MVPA and ED-D 100/101

- In order to use the functions for calculating flight route profiles available in the P1 system, it is necessary that users file the flight plans in segments or that they are segmented at the flight data positions.

  The first IFR fix of the segment after using TRA shall always be located in the accepting ATC sector. If required, the flight data specialist shall change the flight plan segment accordingly.

  The TRA201 point is located in the EID sector. If the FRI sector is to take over control of the flight after using TRA, the first fix of the segment concerned to be entered shall be located in the FRI sector.

- Prior to transferring the aircraft to WWC1S/2S, the ATC sector shall close the LIVE segment of the flight plan by using the CNL IFR function.

- Aircraft entering TRA206/306/MVPA are allocated to WWC3S, who may change their status to SUSPEND. For aircraft entering TRA206/306/MVPA under VFR, an APL shall be generated.

- WWC1S/2S will receive the aircraft without code / call sign correlation on its frequency and assign the following codes to the aircraft:

  o A6350 – A6357 when using TRA 202

  o A6340 – A6347 when using TRA 201 and ED-D 100/101A

  o The code / call sign correlation is carried out by generating an APL.

  Additional codes can be obtained from the code pool of the P1/ATCAS.

  In the TRAs 201/202, X shall be placed in front of the call sign in the label of TRA flights and XX shall be placed in front of the call sign in the label of tankers. (Rosy/North Sea)

- The following procedure shall be adhered to when aircraft resume IFR:

  The accepting ATC sector shall

  o assign to the pilot a new P1 system code via ACTIVE INPUT

  o make a TO LIVE entry, changing the next route segment to LIVE status.

  WWC1/2/3S shall cancel the code / call sign correlation of APL by XAPL or transfer the aircraft to TO LIVE status.

2.5.3   Flights in NLFS GE

Monitored by WWC1S and WWC3S

NLFS flights shall be handled according to the following special procedures:

- Departure within the area of responsibility of Bremen ACC, direct entry into the NLFS:

  The ATC sector shall

  o upon notification by the local military air traffic control services, set the flight plan to ACTIVE status but shall not assign the SSR code that is automatically allocated,

  o allocate the flight to WWC1S or WWC3S via ALLOC and

  o after departure, instruct the flight data specialist to change the flight's status to LIVE via ATD.

       Note: Since aircraft emit the SUCode immediately, these aircraft will be not caught by the DEP Filter.

- Exit from the area of responsibility of Bremen

  WWC1S/WWC3S shall observe the ERM window. As soon as the ERM window indicates that the flight is coordinated with the adjacent ACC (changing from the UNCOORDINATED subwindow to the COORDINATED subwindow), the WWC1S/WWC3S shall instruct the flight data specialist to deactivate via CNL FPL the LIVE status of the flight plan segment leading to exit.

- Entry from an adjacent ACC into the area of responsibility of Bremen.

  These FPLs arriving at the Q/KDS (due to the RMK) shall be allocated to WWC1S or WWC3S by the flight data specialist during handling.

- Changing the area of responsibility of WWC1S and WWC3S in NLFS GE

  o WWC1S shall allocate the flight to WWC3S or vice versa.

- Entry into the NLFS from altitudes above the NLFS.

  At the point of entry, the profiles of NLFS GE flights are reduced by XFL to 1000 AMSL and continue to be calculated within the NLFS GE as A1.0.

  NLFS flights handed over to WWC1S or WWC3S, shall be allocated via ALLOC.

- Scheduled exits from the NLFS to flight levels above the NLFS.

  At the point of exit, the profiles of NLFS GE flights are raised by XFL to the RFL and further processed.

  Exception: No raising to the RFL for JH1 if JH1 is the point of exit.

  TRAMON shall assign the NLFS flight an SSR code allocated to the flight plan (ASSR), coordinate the exit with the ATC sector responsible and hand over the FPL to this working position via XALLOC.

- As long as aircraft fly with SUCode, no recalculation of the times over (no automatic update) will be carried out.

- On the route … HH4 - JH1 - JH2 ..., the calculation of entries into the area of responsibility of Langen ACC is suppressed although the route passes through the airspace of sector HMML.
  For this reason, WWC1S shall inform the ALLOCATOR Langen on the use of the above-mentioned route segment in good time.

2.6 **Special tasks to be performed in operations by the SV CC**

For Y flights (landing within the lateral boundaries of the area of responsibility of Bremen ACC), the FDPS monitors the ATA and issues a message at the CMD "ETA according to current RDPS/FDPS calculation plus VSP". These messages cannot be suspended by the system. The supervisor CC shall delete them manually. AIS shall remain responsible for monitoring the ATAs of these flights.

As a rule, changes of VSP values shall not be permitted.

If necessary, the supervisor CC shall switch off <u>ACT exchange</u> in the following manner:

- **either:**

  by initiating the switch-off via Engineer on Duty (EoD): for a defined OLDI partner.
  In this case, ACTs are no longer transmitted to / received by all COPs for which this partner has been defined.

- **or:**

  for **one** COP with a defined partner. Thus, the exchange of messages with this partner via a certain COP will be suspended.
  In this case, the coordination required shall be marked by an ERM input at the controller working position.

The supervisor CC shall check and confirm CMD displays / messages and initiate appropriate measures, as necessary.

In case of alerts, the Supervisor CC shall check whether one of the Special Condition Codes (SPC) A7500, A7600 and A7700 is displayed at the CMD and shall initiate the printout of the position of the aircraft in the form of coordinates, as necessary.

The Supervisor CC shall clear the alert as soon as the destination no longer needs to be displayed at the SDD. In the case of track file overload, the supervisor CC shall deactivate the tracking for SUCodes.

3   Operational Use of the Mode S Conspicuity Code.

3.1   Code assignment.

The MSCC (A1000) will be assigned automatically by P1/ATCAS, only if the intended route of flight is entirely contained within the IFPS-adapted Mode S area. A manual assignment of the MSCC shall not be permissible.

3.2   Use of Mode S.

The MSCC may only be used if the Mode S aircraft ID is identical to the call sign indicated in item 7 of the flight plan (correlation).

3.3   Mode S failure procedures.

3.3.1   Failure, deactivation of Mode S radar stations in the area of responsibility.

In case of a failure or a deactivation of radar stations Deister <u>and</u> Brocken, which leads to a significant loss of Mode S data in the relevant area of responsibility, the SV shall instruct that the use shall be terminated for the entire area of responsibility.
The status of the CMD VSP Mode S MSCC assignment shall be set to "disable" by the SV. As a result, a new discrete code shall be assigned to all aircraft entering the area of responsibility. If Mode S with MSCC may be used again, the SV shall re-set the status of the CMD VSP Mode S MSCC assignment to "enable".

3.3.2   Loss of Mode S Data.

In case of a loss of Mode S data for individual aircraft in the area of responsibility, the following course of action shall be taken:

3.3.2.1   System P1/ATCAS.

The loss of Mode S data is indicated to the controller below the head symbol by the letters "SL". If this is displayed, the controller shall assign a discrete SSR Code Mode 3/A to the aircraft.
The P1/ATCAS will distribute new strips for the flight; coordination with downstream OLDI partners shall be accomplished according to the information contained in the ERM information.

3.3.2.2   System PHOENIX.

The loss of Mode S data is indicated to the controller on the label by the letters "ModeSLoss". If this is displayed, the controller shall assign a discrete SSR Code Mode 3/A to the aircraft. This code change shall be coordinated with downstream sectors/units.

3.4   Requests on the frequency.

If pilots have further questions concerning Mode S, they shall be referred to the relevant AIC IFR 12/2009.

3.5   Documentation.

All irregularities concerning the application of Mode S shall be entered into the daily log system (DLS). Details on aircraft unable to correct an incorrect Mode S flight ID should be recorded and forwarded to Ops Support.

4   List of points displaced within the system.

ABDIM	Intersection	530232	N	0081006	E
ALASA	Intersection	544700	N	0095730	E
AMRAK	Intersection	544830	N	0094200	E
AVENU	Intersection	525555	N	0093822	E
BATEL	Intersection	523329	N	0110840	E
BIKRU	Intersection	545534	N	0141100	E
BUMIL	Intersection	530626	N	0111926	E
BYC	NDB	521745	N	0090510	E
DEMIR	Intersection	544900	N	0094900	E
DETNI	Intersection	545503	N	0142052	E
DOBAK	Intersection	531248	N	0071400	E
GILAS	Intersection	523857	N	0143133	E
KESUR	Intersection	544929	N	0095227	E
KH4	NLL Point	525454	N	0095004	E
KOSEB	Intersection	544648	N	0123453	E
KUBAT	Intersection	532200	N	0070200	E
KUXOD	Intersection	542924	N	0111120	E
LABIL	Intersection	533100	N	0065000	E
MC4	System Point	533400	N	0063450	E
MC5	System Point	523530	N	0070159	E
MCS	System Point	522900	N	0070231	E
MG1	NLL Point	515811	N	0111549	E
MG1A	NLL Point	515811	N	0111550	E
MH1	NLL Point	524237	N	0110204	E
MH1A	NLL Point	524237	N	0110203	E
NEBUN	Intersection	530424	N	0110913	E
NUSGU	Intersection	531918	N	0112000	E
PESEL	Intersection	533028	N	0142119	E
PIBUL	Intersection	542244	N	0112849	E
RANAX	Intersection	510926	N	0090218	E
SONAL	Intersection	545244	N	0124535	E
TEMLU	Intersection	533000	N	0065230	E

5   Overview of the most important VSP values

Name	Parameter	Explanation
Limit of track disassociation ambiguity	6	Number of uncorrelated radar updates after which the association between a radar target and a flight plan is terminated.
Arrival filter termination time	3 min.	Period of time after the entry of an associated track into an arrival filter after which a flight plan switches to TERMINATED status.
RDPS terminate (Exit FIR + V)	5 min.	Period of time after which a flight plan switches to TERMINATED status after the associated track has left the FIR.
Vertical movement for VMI	300 ft	Minimum level change within a specified time in order to display the vertical movement indicator in the label.
Time period for VMI	45 sec.	Maximum period of time during which a level change must have taken place in order to display the vertical movement indicator in the label.
Time prior ETO 1st IFR fix - FP pending	30 min.	Period of time before the ETO for the first IFR fix for a flight plan changing from VFR to IFR after which a flight plan switches from PASSIVE to PENDING status.
Minimum FP terminate (create time plus V)	300 min.	Period of time after which an APL (also APL_PJE) automatically switches to TERMINATED status.
Condition Group Pre-warning Strips in state active	9 min.	If the time until the entry into the sector is less than the value specified, pre-announcement strips will be printed on the basis of the future "LIVE strips."
ETO to sector for print strips	20 min.	Period of time before the entry into a sector after which the flight progress strips are printed and the call sign is displayed on the TID.
Down terminate (ETA + V)	60 min.	Period of time after which a DOWN flight plan automatically switches to TERMINATED status without receiving an ARR message.
Down status (ETA + V)	10 min.	Period of time after which a LIVE flight plan involving change of flight rules from IFR to VFR and a destination aerodrome within the relevant area switches to DOWN status after the pre-calculated ETA.
Pending status (EOBT - V)	60 min.	Period of time before EOBT after which the flight plan switches to PENDING status for the NONPAC departure.
Live terminate (Exit time/ETA + V)	15 min.	Period of time after which a LIVE flight plan automatically switches to TERMINATED status after leaving the FIR or after ETA.
Suspended terminate (Suspend time + V)	360 min.	Period of time after which a SUSPENDED flight plan automatically switches to TERMINATED status.
Delete FP (Terminate time + V)	30 min.	Period of time after switching to TERMINATED status until the flight plan is deleted from the FPL database.
ETO to sector for print strips	15 min.	Period of time after which a strip will be printed or displayed to next sector

6 Overview of HOLD lists

Sectors	HOLD LIST(s)
EID	SCHLE HOHN SYLT WITTJEV NORDHOLZ
FRI	XIBEL
ALEL	WSR__L BMN__L
ALEH	RIBSO_H LBE__H BMN__H WSR__H
DBAS	KLF__L ATGUP_L NUKRO_L FWE__L LERSI_L
DBAN	LANUM_L LWB__L NASAT_L TERDA_L
DBSW	LERSI_A

Sectors	HOLD LIST(s)
HAMW	RIBSO_L LBE__L
HAME	LUB__L HAM__L RARUP_L BOGMU_L NOLGO_L
HEI	LUB__H HAM__H RARUP_H BOGMU_H NOLGO_H
WWCMS	WWCMS
MRZ	HC PI NRG REGIO LAG__H
BOR	MAG LERSI_H
DBSE	FWE__A

Sectors	HOLD LIST(s)
HRZ	DLE__H HLZ__H BRU CEL__H WRB__L
EMS	OSN IBAGU DP NIE__H ROBEG_H
DST	WRB__H ROBEG_M
HAN	NIE_L CEL_L DLE_L ROBEG_L HLZ_L
MAR	LANUM_H LWB__H NASAT_H TERDA_H
FLG	KLF__H ATGUP_H NUKRO_H FWE__H HOZ__H
LAG	LAG__L

7 QNH areas stored in P1/ATCAS.
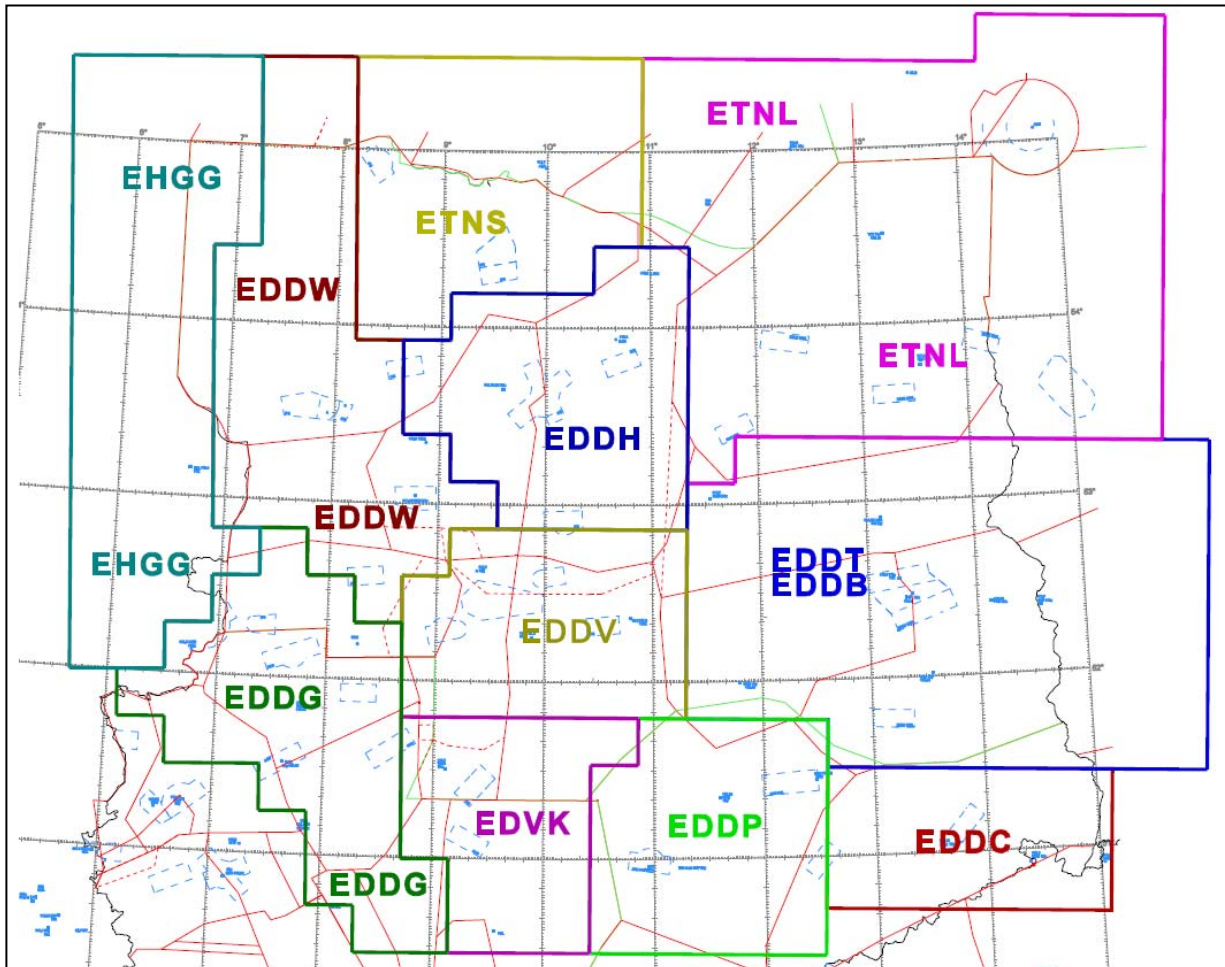
Chart dated 20 NOV 2008

Note: For EDDT/B, the lower QNH value shall be used for both airports.

8 Overview and vertical Limits of Filters adapted in P1/ATCAS.

8.1 Upper Limit of the Arrival Filters.

AIRPORT	Altitude ft AMSL
EDDW	400
EDDH, EDHI	400
EDDV	500
EDDT	400
EDDB	200

8.2   **Upper Limit of the Departure Filters.**

AIRPORT	Altitude ft AMSL	AIRPORT	Altitude ft AMSL	AIRPORT	Altitude ft AMSL
EDDW	7000	EDDV	7000	EDAH	4000
EDHK, ETMK	4500	EDVE	2500	EDBC	4000
EDWB	2500	EDVK	4500	EDBH	4000
EDWE	4500	ETHB	2500	EDBM	4000
EDWI	2500	ETHC	2500	EDCD	4000
EDXW	4500	ETHE	4500	EDDB	5000
ETMN	3500	ETHS	2500	EDDT	5000
ETNH	3500	ETND	2500	EDOP	4000
ETNS	5000	ETNW	2500	ETNL	7000
ETNT, ETNJ	4500			ETNU	4500
				ETSH	4500

EDDH	7000
EDHI	2500
EDHL	3500

8.3   **Upper Limit of the Airport Filters.**

AIRPORT	Altitude ft AMSL
EDDB	200
EDDH	300
EDDT	200
EDDV	500
EDDW	300
EDHL	200
EDVE	400
ETHB	400
ETHC	300
ETHS	400
ETNL	200
ETNU	300
ETNW	300

9   List of SUCodes.

SSR – CODE	LABEL	Remarks
A - 0020	RESCU	Helicopter rescue flights
A - 0023	BPO	Mission flights of the Federal Police
A - 0024	TFFN	Terrain-following flights in the night low flying system
A - 0025	PJE	Parachute jump operations
A - 0026	POLNL	Mission flights of the police to the NLFS
A - 0027	ACRO	Acrobatic flights
A - 0030	CAL	General flight inspection
A - 0031	OPSKY	Open Sky flights of the NATO
A - 0032	END	Last aircraft of a formation
A - 0033	VM	VFR flights of the armed forces
A - 0034	SAR	Search and Rescue mission flights
A - 0035	AIRCL	VFR/IFR change procedures
A - 0036	POL	Mission flights of the police (all Federal States)
A - 0037	BIV	Mission flights of the police using residual light amplifiers
A - 0076	VFRCD	Flights in airspace C below FL 100 and in airspace D [not CTR]
A - 0077	SCAL	Special calibration flights
A - 1301-27	QRA	Alert flights of the armed forces for air defence purposes
A - 2000	NLL	Flights in the night low flying system (NLFS)
A - 3701	VG1	
A - 3702	VG2	
A - 3703	VG3	
A - 3704	VG4	FIS Langen
A – 3705	VG5	
A – 3706	VG6	
A – 3707	VG7	
A – 3710	SVFR	Special VFR Flights within Langen FIR
A – 3711	VCT	VFR controlled flights within Langen FIR
A - 4210-17	NW	Wunstorf
A - 4230-37	NS	Schleswig APP
A - 4240-47	MN	Nordholz APP
A - 4250-57	HB	Bückeburg APP
A - 4260-77	GCA	mil APP
A – 4405	LH	VFR Flights of Lufthansa Flight School
A - 4406	SW	S-VFR EDDW
A - 4407	SEE	Non-scheduled helicopter flights over the sea, including special flight information and alerting service
A - 4410-15	HC	Celle APP
A - 4416	WET	Flights in the Wettmar area
A - 4417	HC	Celle APP
A - 4450-57	GCA	Used by military APPs
A - 4471	VDV	VFR Hannover TWR

SSR – CODE	LABEL	Remarks
A - 4472	PJV	SUC Hannover TWR
A - 4473	CHX4	Rescue flights Hannover Christoph 4
A - 4474	BALL	Balloon flights Hannover TWR
A - 4475	NLLHB	VFR night flights Bückeburg
A - 4476	TAXI	Helicopter shuttle for trade fairs
A - 4477	PIRVX	Gifhorn police
A - 4640	LIB	Hamburg police
A - 4642	VDH	VFR flights Hamburg TWR
A - 4643	SSF	Sightseeing flights
A - 4644	SV	S-VFR EDDH
A - 4645	EDHI	Hamburg-Finkenwerder (EDHI)
A - 4646	HK	Kiel-Holtenau (EDHK)
A - 4647	HL	Lübeck-Blankensee (EDHL)
A - 4660	TWR	VFR flights in the CTR Bremen
A - 6220	PNL	Netherlands police
A - 6302-04	TL	Trail departures
A - 6307	TOP	Topping flights ETND
A - 6311	FR1	General flights under FIS
A - 6312	FR2	General flights under FIS
A - 6313	FR3	General flights under FIS
A - 6314	FR4	General flights under FIS
A - 6315	FR5	General flights under FIS
A - 6316	FIS	General flights under FIS
A - 6317	VMR	RAFIS
A - 6375	VM5	
A – 6376	VM6	FIS München
A - 6377	VM7	
A - 6550	DT	VFR flights with Tegel TWR
A - 6551-57		Discrete codes TWR Berlin branch
A - 6560-67		Discrete codes TWR Berlin branch
A - 6570	DB	VFR flights with Schönefeld TWR
A - 6571-77		Discrete codes TWR Berlin branch
A - 7000	V	ICAO code for VFR flights
A - 7001	VOUT	TWR EDDH outbound
A - 7010	VIN	TWR EDDH inbound
A - 7012	HELI	SUC Hamburg TWR
A - 7020-27	HS	Faßberg APP
A - 7040	NL	Laage
A - 7050	NU	Neubrandenburg
A - 7060-67	GCA	Holzdorf APP, Fritzlar APP
A - 7371	TFCD	VFR flights for road traffic reports – Flugservice FSB

A - 7372	TFCE	VFR flights for road traffic reports – Air Service Berlin CFH
A - 7373	PIR	Pirol / Federal Police
A - 7374	DUCK	VFR flights Cessna 206 from/to Spree / Treptower Park landing area
A - 7375	TFCF	VFR flights for road traffic reports – Air Service Berlin CFH
A - 7376	SHUTL	Helicopter shuttle – C/S "Shuttle 1"
A - 7377	SAR	Christoph/ADAC and other flights of the rescue service
A - 7776-77	TT	Test transponder
A - 7500	HIJ	Hijacking
A - 7600	RCF	Radio Communication Failure
A - 7700	EMG	Emergency

10   List of connected radar antennas

Name	Abbreviation	Meteorological data	Type of facilty	Local connection
Auersberg	AUB	yes	SRE-M Modes S	no
Bremen	BRE	yes (60 NM)	ASR	yes
Brocken	BRO	no	MSSR Mode S	yes
Cölpin	YCO	no	RRP117	no
Deister	DEI	yes	SRE-M Mode S	yes
Dresden	DRE	yes (60 NM)	ASR	no
Eelde	EEL	no	MSSR	no
Esbjerg	ESB	no	MSSR	yes
Hamburg	HAM	yes (60 NM)	ASR	yes
Hannover	HAN	yes (60 NM)	ASR	yes
Leipzig	LPZ	yes (60 NM)	ASR	no
Lüdenscheid	LUD	no	MSSR	no
Münster-Osnabrück	MOB	yes (60 NM)	ASR	yes
Neubrandenburg	NBB	no	MSSR	yes
Neunkirchener Höhe	NKH	yes	SRE-M Mode S	no
Nordholz	NHZ	yes	SRE-M Mode S	yes
Putgarten	YPU	no	RRP117	no
Schönefeld	SFD	yes (60 NM)	ASR	yes
Schmooksberg	SMB	yes	SRE-M Mode S	yes
Tegel	TGL	yes (60 NM)	ASR	yes

SRE-M = Long-range radar, primary and secondary radar within 150 NM

MSSR = Long-range radar, only secondary radar within 150 NM

RRP117 = Military radar, primary and secondary radar

ASR = Airport surveillance radar, primary radar within 60 NM – secondary radar within 100 NM

Radar data supply P1 / ATCAS is provided via RMCDE (Radar Message Conversion and Distribution Equipment). In case of a failure of RMCDE, uninterrupted radar data supply will be ensured via ARTE (Automatic Radardata Transmission Equipment).

During switch-back to RMCDE, uninterrupted display is ensured via the locally connected radar stations (see table above). Due to the nature of the system, radar stations not locally connected will be switched in within three minutes.

11 Upper wind sectors

The German Meteorological Service (DWD) makes the upper wind data available to the DFS branches centrally and in a uniform message format. The data are transferred via AFTN and processed automatically in the P1 / ATCAS and updated and processed in ATCISS.
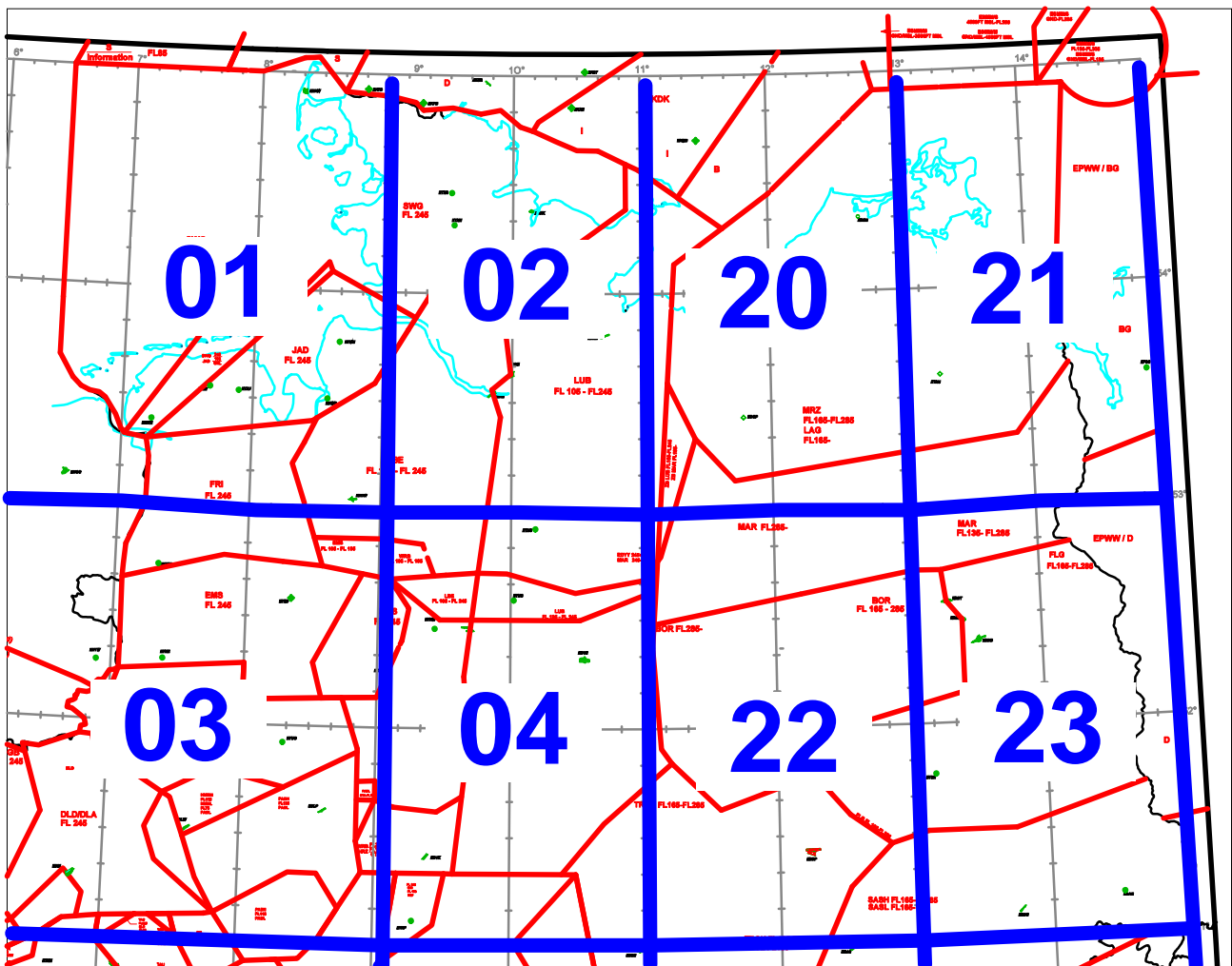
Altitude bands

The forecast is made for the following altitude bands:

FL 060, FL 100, FL 140, FL 180, FL 240, FL 300, FL 350, FL 400

Upper wind sectors

Eight upper wind sectors are defined for the area of responsibility of Bremen:

Assignment of sectors, upper wind sectors EDWW

12   List of RADAR Maps.

Map-ID	Content	Mnemonic	Name
1	FIR- and Sector boundaries	FIR_SEC	FIR AND SECTOR BOUNDARIES
2	QNH Areas	QNH_ARE	P1_QNH_AREAS
3	All Intersections	INTER	INTERSECTIONS ALL
4	Navigational Aids	NAV_AID	NAVIGATIONAL AIDS
5	TACAN Facilities	TAC	TACAN
6	Runways	RWY	RUNWAYS
7	Extended Centrelines	EX_CENT	EXTENDED CENTERLINES
8	Airways Low	AWY245-	AIRWAYS LOW
9	Airways High	AWY245+	AIRWAYS HIGH
10	MRVA Blue	MRVA_B	MRVA BLAU
11	Q-,T-,Y-routes without UQ	QTYAWYS	Q_T_Y ROUTES WITHOUT UQ
12	Night Network	NITE_NW	NIGHT NETWORK
13	TACAN-Routes	TACAN	TACAN ROUTES
14	Radar facilities	RADAR	RADAR SITES
15	Aerodromes	AD	AERODROMES
16	Heliports incl. Hospitals	HELI	HELIPORTS
17	Highways	HWY	HIGHWAYS
18	Coastlines	COAST	COASTLINE
19	River and Lakes	WATERS	WATERS
20	MRVA Green	MRVA_G	MRVA GRUEN
21	NLFS - GE	NLFS	NLFS - GE
22	TRA Lower Airspace (TRA 201, 202, 203, 206)	TRA_LOW	TRA LOWER AIRSPACE
23	TRA 202A	TRA202A	TRA 202A
24	LORI Area	LORI	LORI AREA
25	TRA Upper Airspace	TRA_UPP	TRA UPPER AIRSPACE
26	TRA 203	TRA_203	TRA 203
27	LANIA 1	LANIA_1	LANIA 1
28	LANIA 2	LANIA_2	LANIA 2
29	LANIA 8	LANIA_8	LANIA 8
30	TRA 208	TRA_208	TRA 208
31	CBA Sea	CBA_SEA	CBA SEA
32	Obstacles 500ft+ above GND	OBST500	OBSTACLES 500FT+ GND
33	Obstacles 300-500ft above GND	OBST300	OBSTACLES 300FT+ GND
34	all 24h-ED-R's	EDR_24H	24H_EDRS
36	Maastricht + Karlsruhe Sector boundaries	UPPER	UPPER SECTOR BOUNDARIES
37	Lippe Sector boundaries	LIPPE	LIPPE SECTOR BOUNDARIES
38	Acrobatic Areas	ACRO_AR	ACROBATIC AREAS
39	German terr. Boundary North sea and Baltic Sea	TERBDRY	TERR. BNDRY NORTHSEA + BALTIC

Map-ID	Content	Mnemonic	Name
40	Parachute Areas	PJE	PARACHUTE AREA
41	Facilities of High Danger, Restricted Areas, Nuclear Power Plant	KKW	ED-Rs KKW
42	GEOREF	GEOREF	GEOREF
45	AVESA Area	AV_AREA	AVESA AREA
46	DA GLX Routing	GLX_ROU	GLX ROUTING
47	Test - Area	TEST	TEST AREA
49	TRA202 NRW Holiday	TRA202H	TRA202 NRW HOLIDAY
50	Title	SOUTH	_____ADD MAPS SOUTH_____
51	Collector Map for HAN/DVAT	EDDV	_____MAP SET EDDV_____
52	Centreline EDDV 10 - 20 NM	DV10_20	EDDV CENTERLINE 10-20NM
53	POVEL-SIDs RWYs 27L/R	PVL_SID	POVEL-SID RWY 27L/R
54	Airfield in Sector HAN + Centrelines (short)	AF_HAN	AIRFIELDS HAN + RWY DIRECTION
55	Transition to Final RWY27 EDDV	TRANS27	TRANSITION TO FINAL RWY 27
56	Transition to Final RWY09 EDDV	TRANS09	TRANSITION TO FINAL RWY 09
57	MEF Net Hannover	MEF	MEF HANNOVER
58	Glider Area Hanover NO / SO	GL_HA	GLIDER AREA HANNOVER NO/SO
59	Glider Area Loccum NORTH / SOUTH	GL_LOCC	GLIDER AREA LOCCUM N/S
60	AoR Wunstorf for Procedure WEST	ZB_NW_W	ZB ETNW PROCEDURE WEST
61	AoR Wunstorf for Procedure EAST	ZB_NW_E	ZB ETNW PROCEDURE EAST
62	AoR Bückeburg	ZB_HB	AOR ETHB
63	AoR Rheine-Bentlage	ZB_HE	AOR ETHE
64	AoR Celle	ZB_HC	AOR ETHC
65	AoR Faßberg	ZB_HS	AOR ETHS
66	CTR Twenthe	CTREHTW	CTR TWENTHE
67	CTR Bückeburg incl. RWY Centrelines	ETHB	CTR ETHB INCL RWY CENTERLINE
68	CTR Celle incl. RWY Centrelines	ETHC	CTR ETHC INCL RWY CENTERLINE
69	CTR Faßberg incl. RWY Centerlines	ETHS	CTR ETHS INCL RWY CENTERLINE
70	CTR Rheine-Bentlage incl. RWY Centerlines	ETHE	CTR ETHE INCL RWY CENTERLINE
71	CTR Braunschweig, RWY's, GPS IAFs, IAWPs	EDVE	_____MAP SET EDVE_____
72	Wellensegelfluggebiet Harz	WSF_HA	WELLENSEGELFLUG HARZ
73	Wellensegelfluggebiet Hoher Meißner	WSF_HM	WELLENSEGELFLUG H MEISSNER
74	Wellensegelfluggebiet Süntel	WSF_SU	WELLENSEGELFLUG SUENTEL
75	Inhabited Area Hannover and adjacent Area	CITY_H	CITY OF HANNOVER
79	AoR Fritzlar	AOR_HF	AOR ETHF
81	Collector Map Kassel IFR	EDVK	_____MAP SET EDVK_____
82	ETHB RNAV Waypoints RWY 08	HBRNAVE	ETHB RNAV 08
83	ETHB RNAV Waypoints RWY 26	HBRNAVW	ETHB RNAV 26

Map-ID	Content	Mnemonic	Name
85	EDLP TMZ	EDLPTMZ	EDLP TMZ
90	Title	NORTH_B	_____ADD MAPS NORTH_B_____
91	Glider Area Lemwerder	GL_LEM	GLIDER AREA LEMWERDER
92	Glider Area Osterholz-Scharmbeck	GL_OHZ	GLIDER AREA OSTERHOLZ
93	Glider Area Große Höhe 09	GL_GH09	GLIDER AREA GROSSE HOEHE 09
94	Glider Area Große Höhe 27	GL_GH27	GLIDER AREA GROSSE HOEHE 27
95	Transition to Final RWY09 EDDW	TTFDW09	TRANSITION TO FINAL DW RWY09
96	Collector Map for BMN	EDDW	_____MAP SET EDDW_____
97	Transition to Final RWY27 EDDW	TTFDW27	TRANSITION TO FINAL DW RWY27
98	Parachute Area Ganderkesee	PJE_WQ	PARACHUTE AREA EDWQ
99	Airspace F Nordwest	LR_F_NW	LUFTRAUM F NORDWEST
100	AoR Nordholz	ZB_ETMN	AOR ETMN
101	AoR Wittmund	ZB_ETNT	AOR WITTMUND
102	CTR Münster, AoR Mellum	DG_MELL	CTR EDDG + ZB MELLUM
103	CTR Diepholz	ETND	CTR ETND
104	Airspace D Münster	D_MUENS	AIRSPACE D EDDG
105	Airspace F Emden	EDWE	MAP SET EDWE
106	Airspace F Wilhelmshaven	EDWI	MAP SET EDWI
107	Airspace F Bremerhaven	EDWB	MAP SET EDWB
108	Anchor points ROSY	AP_ROSY	ANCHORPOINTS ROSY
109	Anchor points NORTHSEA, Additional RNAV Waypoints EDDW	RNAV_NS	ANCHORPOINTS NORTHSEA + RNAV
110	AoR Wingst	WINGST	AOR WINGST
111	ALEL Western Part	ALEL_C	ALEL C
113	AoR North Sea	ZB_NSEA	AOR NORTHSEA
114	AoR Schleswig, Hohn	ZB_S_H	AOR ETNS ETNH
116	AoR Baltic Sea	ZB_OSEA	AOR BALTIC SEA
117	CTR Westerland + VFR Entry points	CTR_XW	CTR EDXW + VFR ENTRY POINTS
118	Sylt Area	XW_AREA	SYLT AREA
119	ALS Area (upper airspace)	ALS_UPP	ALS AREA (UPPER AIRSPACE)
120	Collector Map Kiel	EDHK	_____MAP SET EDHK_____
121	Todendorf Area 1+2	TOD_1_2	TODENDORF AREA 1 AND 2
123	Reporting Point Target Display GFD	RP_GFD	REPORTING POINTS GFD
125	EDWE Block clearance area	EDWE_BC	EDWE BLOCK CLEARANCE AREA
127	PJE Freefallweek Ahlhorn	PJEWEEK	FREEFALLWEEK AHLHORN
129	Title	NORTH_A	_____ADD MAPS NORTH_A_____

Map-ID	Content	Mnemonic	Name
130	Collector Map HAMW/HAME/DHAT	EDDH	_____MAP SET EDDH_____
131	Centrelines EDDH 20 - 24 NM	DH20_24	RWY CENTERLINES EDDH 20-24 NM
132	Centrelines EDHI	EDHI	RWY CENTERLINES EDHI
133	Centrelines EDHI 10 - 16 NM	HI10_16	RWY CENTERLINES EDHI 10-16NM
134	RNAV waypoints EDDH	DH_RNAV	RNAV EDDH WAYPOINTS
135	Transition to Final RWY05 EDDH	TRANS05	TRANSITION TO FINAL DH RWY05
136	Transition to Final RWY15 EDDH	TRANS15	TRANSITION TO FINAL DH RWY15
137	Transition to Final RWY23 EDDH	TRANS23	TRANSITION TO FINAL DH RWY23
138	Transition to Final RWY33 EDDH	TRANS33	TRANSITION TO FINAL DH RWY33
139	EDHI Airspace D (HX)	EDHI_HX	EDHI LUFTRAUM D (HX)
140	CTR Lübeck, Centrelines, RWY's, VFR Entry Points	EDHL	_____MAP SET EDHL_____
141	Trans to Final RWY07+25 EDHL	TRANSHL	TRANSITION 07+25 EDHL
142	Glider Area Uetersen NORTH	GL_UE_N	GLIDER AREA UETERSEN NORD
143	Glider Area Uetersen MID	GL_UE_M	GLIDER AREA UETERSEN MITTE
144	Glider Area Uetersen SOUTH	GL_UE_S	GLIDER AREA UETERSEN SUED
145	Glider Area Boberg NORTH	GL_BO_N	GLIDER AREA BOBERG NORD
146	Glider Area Boberg SOUTH	GL_BO_S	GLIDER AREA BOBERG SUED
147	Glider Area Fischbek	GL_FI	GLIDER AREA FISCHBEK
149	Harbor Birthday HH	HAFENGB	HARBOR BIRTHDAY HH
150	Centreline Airfield Civ	CL_SMAL	CENTERLINE AIRFIELD
151	Title	FIS	_____ADD MAPS FIS_____
152	Civil CTRs	CTR_CIV	CTRS CIVIL
153	Mil CTRs	CTR_MIL	CTRS MIL
154	FIS Sector Boundaries	FIS_SEC	FIS SEKTORGRENZEN
155	CTR Wittmund + VFR-Entry Points	ETNT	CTR ETNT
156	CTR Jever + VFR-Entry Points	ETNJ	CTR ETNJ
157	CTR Nordholz + VFR-Entry Points	ETMN	CTR ETMN
158	CTR Schleswig + VFR-Entry Points	ETNS	CTR ETNS
159	CTR Hohn + VFR-Entry Points	ETNH	CTR ETNH
160	CTR Wunstorf + VFR-Entry Points	ETNW	CTR ETNW
161	AoR Schleswig	ZB_ETNS	AOR SCHLESWIG
162	AoR Hohn	ZB_ETNH	AOR HOHN
163	Special FIS Alarm Service Reporting Points	SPFISAL	SPECIAL FIS ALARM
170	Title	BERLIN	_____ADD MAPS BERLIN_____
171	CTR Berlin , VFR points	BB_CTR	BERLIN CTR
172	Centrelines TXL North, SXF	CLBRLN	TXL SXF CENTERLINES 1
173	Centrelines TXL South, SXF	CLBRLS	TXL SXF CENTERLINES 2

Map-ID	Content	Mnemonic	Name
174	Airspace C Berlin	C_BERLN	LR C BERLIN
175	Airspace F EDCD + Centreline	F_EDCD	LR F EDCD
176	City of Berlin and suburbs	CITIES	CITY OF BERLIN
177	Sector Boundaries APP Berlin West traffic	WESTTFC	APP WESTTRAFFIC
178	Sector Boundaries APP Berlin East traffic	EASTTFC	APP EASTTRAFFIC
179	Berlin VFR points	VFR_REP	VFR MELDEPUNKTE BERLIN CTR
181	STAR's Berlin West traffic	W_STAR	WEST STARS
182	STAR's Berlin East traffic	E_STAR	EAST STARS
184	Glider Area Friedersdorf	FRIEDER	FRIEDERSDORF
185	Glider Area Schönhagen	SCHOEN	SCHOENHAGEN
186	LR D Leipzig + Dresden	D_DP_DC	LR D EDDP + EDDC
187	Glider Area Altes Lager	ALT_LAG	ALTES LAGER
189	TORGAU Area	TORGAU	TORGAU AREA
190	Transition RWY 25+26	TRAN_WT	TRANSITION RWY 25 + 26
191	MULDE Area	MULDE_A	MULDE AREA
193	FAF's 26R, 25 + 90er WP	FAF_1	FAF 26R,25 + 90ER WP
194	FAF's 26L + 91er WP	FAF_2	FAF 26L + 91ER WP
195	FAF's 08L, 07 + 90er WP	FAF_3	FAF 08L,07 + 90ER WP
196	FAF's 08R + 91er WP	FAF_4	FAF 08R + 91ER WP
197	Transition RWY 07+08	TRAN_ET	TRANSITION RWY 07 + 08
198	RNAV GPS DT 08L	RNV_08L	RNAV GPS EDDT 08L
199	RNAV GPS DT 08R	RNV_08R	RNAV GPS EDDT 08R
200	RNAV GPS DT 26L	RNV_26L	RNAV GPS EDDT 26L
201	RNAV GPS DT 26R	RNV_26R	RNAV GPS EDDT 26R
202	RNAV GPS DB 07	RNV_07	RNAV GPS EDDB 07
203	RNAV GPS DB 25	RNV_25	RNAV GPS EDDB 25
204	DEP WP all Berlin Airports WT	DEPWP_W	DEP WP BERLIN WTFC
205	DEP WP all Berlin Airports ET	DEPWP_E	DEP WP BERLIN ETFC
208	AoR ETSH	AORETSH	AOR ETSH
209	E1000 + E1700 ETSH	E_ETSH	E1000+1700 ETSH
210	CTR ETSH, Centrelines, IP's	CTRETSH	CTR ETSH+CL
215	Transit. Waypoints EDDP West+EDDC West	L+DD_WT	DP+DC WESTTFC
216	Transit. Waypoints EDDP East+EDDC East	L+DD_ET	DP+DC EASTTFC
217	LR F EDBH, EDBM, EDCD	F_EAST	LR F EDBH,EDBM,EDCD
218	CTR EDBC + CL + E1000, VFR-Entry Points	D+E_BC	CTR EDBC
219	BINKA Release Line	BINKARL	BINKA RELEASE LINE
220	Title	EAST	_____ADD MAPS EAST_____
221	CTR ETNL + VFR-Entry Points	D_ETNL	CTR ETNL
222	CTR ETNU + VFR-Entry Points	D_ETNU	CTR ETNU

Map-ID	Content	Mnemonic	Name
223	CTR EDAH + CL + E1000, VFR-Entry Points	D+E_AH	CTR EDAH
224	CTR EDOP + CL + E1000, VFR-Entry Points	D+E_OP	CTR EDOP
225	LR F EDBH + CL + FAF	F_EDBH	LR F EDBH
226	LR F EDBM + CL + FAF	F_EDBM	LR F EDBM
227	Coordination Line	COLINE	COORDINATION LINE
228	ETNU OPEVAL Intersections	OPEVAL	ETNU VD AND HOLDING 09 OPEVAL
229	AoR ETNL	AORETNL	AOR ETNL
230	AoR ETNU	AORETNU	AOR ETNU
231	Rönne South Area	ROE_S	ROENNE SOUTH AREA
232	Rönne South West Area	ROE_SW	ROENNE SW AREA
233	Rostock Release Line	RR_LINE	ROSTOCK RELEASE LINE
234	Pollution Control (D +DK +S)	POLCONT	POLUTION CONTROL ED_EK_ES
236	Maggie Anchor incl. Turning points AP1 +AP2	MAGGIE	MAGGIE ANCHOR
240	Overview MVPA and name of modules	OVMVPA	OVERVIEW MVPA
241	Basic 1	B1	BASIC 1
242	BASIC 1A	B_1A	BASIC 1A
243	BASIC 1AB	B_1AB	BASIC 1AB
244	BASIC 1ABC	B_1ABC	BASIC 1ABC
245	BASIC 1ABCD	B_1ABCD	BASIC 1ABCD
246	BASIC 1B	B_1B	BASIC 1B
247	BASIC 1BC	B_1BC	BASIC 1BC
248	BASIC 1BCD	B_1BCD	BASIC 1BCD
249	BASIC 1BCDE	B_1BCDE	BASIC 1BCDE
250	BASIC 1C	B_1C	BASIC 1C
251	BASIC 1CD	B_1CD	BASIC 1CD
252	BASIC 1CDE	B_1CDE	BASIC 1CDE
253	BASIC 1D	B_1D	BASIC 1D
254	BASIC 1DE	B_1DE	BASIC 1DE
255	BASIC 1E	B_1E	BASIC 1E
256	Basic 2	B2	BASIC 2
257	BASIC 2A	B_2A	BASIC 2A
258	BASIC 2AB	B_2AB	BASIC 2AB
259	BASIC 2ABC	B_2ABC	BASIC 2ABC
260	BASIC 2ABCD	B_2ABCD	BASIC 2ABCD
261	BASIC 2B	B_2B	BASIC 2B
262	BASIC 2BC	B_2BC	BASIC 2BC
263	BASIC 2BCD	B_2BCD	BASIC 2BCD
264	BASIC 2BCDE	B_2BCD	BASIC 2BCDE
265	BASIC 2C	B_2C	BASIC 2C
266	BASIC 2CD	B_2CD	BASIC 2CD
267	BASIC 2CDE	B_2CDE	BASIC 2CDE

Map-ID	Content	Mnemonic	Name
268	BASIC 2D	B_2D	BASIC 2D
269	BASIC 2DE	B_2DE	BASIC 2DE
270	BASIC 2E	B_2E	BASIC 2E
271	MORE 10	MORE_10	MORE_10
272	MORE 11	MORE_11	MORE_11
273	JANIN Anchor incl. Turning points AP1+AP2	JANIN	JANIN ANCHOR
274	TINA Anchor incl. Turning points AP1+AP2	TINA	TINA ANCHOR
280	ETNL RNAV Waypoints RWY 10	NLRNAVE	ETNL RNAV 10
281	ETNL RNAV Waypoints RWY 28	NLRNAVW	ETNL RNAV 28
300	Title	LABELS	_____LABELS_____
303	Labels (OT)	L_INTER	LABEL_INTERSECTIONS ALL
304	Labels(OT)	LNAVAID	LABEL_NAVIGATIONAL AIDS
305	Labels (OT)	LTACIAG	LABEL_TACAN AND IAF
306	Labels (OT)	L_RWY	LABEL_RUNWAYS
315	Labels (OT)	L_AD	LABEL_AERODROMES
316	Labels (OT)	L_HELI	LABEL_HELIPORTS
321	Labels (OT)	L_NLFS	LABEL_NLFS TURNING POINTS
311	Labels (OT)	LOB500	LABEL_OBSTACLES 500+ ABOVE GND
312	Labels (OT)	LOB300	LABEL_OBSTACLES 300+ ABOVE GND
338	Labels (OT)	LACROAR	LABEL_ACROBATIC AREAS
351	Labels (OT)	L_EDDV	LABEL_MAP SET EDDV
355	Labels (OT)	LTRAN27	LABEL_TRANSITION TO RWY27
356	Labels (OT)	LTRAN09	LABEL_TRANSITION TO RWY09
365	Labels (OT)	L_ZB_HS	LABEL_ZB ETHS
370	Labels (OT)	L_ETHE	LABEL_MAP SET ETHE
371	Labels (OT)	L_EDVE	LABEL_MAP SET EDVE
381	Labels (OT)	L_EDVK	LABEL_MAP SET EDVK
382	Labels (OT)	L_HBRNE	LABEL_ETHB RNAV 08
383	Labels (OT)	L_HBRNW	LABEL_ETHB RNAV 26
385	Labels (OT)	L_LPTMZ	LABEL_EDLP TMZ
395	Labels (OT)	L_DW09	LABEL_TRANSITION TO DW RWY09
396	Labels (OT)	L_EDDW	LABEL_MAP SET EDDW
397	Labels (OT)	L_DW27	LABEL_TRANSITION TO DW RWY27
399	Labels (OT)	L_LRFNW	LABEL_LUFTRAUM F NORDWEST
403	Labels (OT)	LCTR_ND	LABEL_CTR ETND
405	Labels (OT)	L_EDWE	LABEL_LUFTRAUM F EDWE
406	Labels (OT)	L_EDWI	LABEL_LUFTRAUM F EDWI
407	Labels (OT)	L_EDWB	LABEL_LUFTRAUM F EDWB
408	Labels (OT)	LAPROSY	LABEL_ANCHORPOINTS ROS

Map-ID	Content	Mnemonic	Name
409	Labels (OT)	LRNA_NS	LABEL_ANCHOR NORDSEE + RNAV
417	Labels (OT)	LCTR_XW	LABEL_CTR EDXW + ENTRY POINTS
423	Labels (OT)	LRP_GFD	LABEL_REPORTING POINTS GFD
430	Labels (OT)	L_EDDH	LABEL_MAP SET EDDH
434	Labels (OT)	DH_RNAV	LABEL_RNAV EDDH NAV POINTS
435	Labels (OT)	LTRAN05	LABEL_TRANS TO FINAL DH RWY05
436	Labels (OT)	LTRAN15	LABEL_TRANS TO FINAL DH RWY15
437	Labels (OT)	LTRAN23	LABEL_TRANS TO FINAL DH RWY23
438	Labels (OT)	LTRAN33	LABEL_TRANS TO FINAL DH RWY33
440	Labels (OT)	L_EDHL	LABEL_MAP SET EDHL
441	Labels (OT)	LTRANHL	LABEL_TRANS 07+25HL T904/5/6
455	Labels (OT)	L_ETNT	LABEL_CTR ETNT
457	Labels (OT)	L_ETMN	LABEL_CTR ETMN
463	Labels (OT)	L_SPFIS	LABEL_SPECIAL FIS ALARM
475	Labels (OT)	LFDRWTZ	LABEL_LR F EDCD
479	Labels (OT)	LBB_VFR	LABEL_BERLIN VFR POINTS
490	Labels (OT)	L_TR_WT	LABEL_TRANSITION WESTTFC
493	Labels (OT)	L_FAF_1	LABEL_FAF 26R-27L_25L
494	Labels (OT)	L_FAF_2	LABEL_FAF 26L-27R_25R
495	Labels (OT)	L_FAF_3	LABEL_FAF 08L-09R_07R
496	Labels (OT)	L_FAF_4	LABEL_FAF 08R-09L_07L
497	Labels (OT)	L_TR_ET	LABEL_TRANSITION EASTTFC
498	Labels (OT)	L_R_08L	LABEL_RNAV GPS EDDT 08L
499	Labels (OT)	L_R_08R	LABEL_RNAV GPS EDDT 08R
500	Labels (OT)	L_R_26L	LABEL_RNAV GPS EDDT 26L
501	Labels (OT)	L_R_26R	LABEL_RNAV GPS EDDT 26R
502	Labels (OT)	L_R_07	LABEL_RNAV GPS EDDB 07
503	Labels (OT)	L_R_25	LABEL_RNAV GPS EDDB 25
504	Labels (OT)	LDEPWPB	LABEL_DEP WP BERLIN WTFC
505	Labels (OT)	LDEPWPB	LABEL_DEP WP BERLIN ETFC
510	Labels (OT)	L_CTRSH	LABEL_CTR ETSH+CL
515	Labels (OT)	L_L+DD	LABEL_DP 26 + DC 22
516	Labels (OT)	L_L+DD	LABEL_DP 08 + DC 04
517	Labels (OT)	L_FEAST	LABEL_LR F EDBH,EDBM,EDCD
518	Labels (OT)	L_DE_BC	LABEL_CTR EDBC
521	Labels (OT)	L_CTRNL	LABEL_CTR LAAGE
522	Labels (OT)	L_CTRNU	LABEL_CTR NEUBRANDENBURG
523	Labels (OT)	L_CTRAH	LABEL_CTR HERINGSDORF

Map-ID	Content	Mnemonic	Name
524	Labels (OT)	L_CTROP	LABEL_CTR SCHWERIN-PARCHIM
525	Labels (OT)	L_LRFBH	LABEL_LR F EDBH
526	Labels (OT)	L_LRFBM	LABEL_LR F EDBM
528	Labels (OT)	L_OPEVL	LABEL_ETNU OPEVAL INTERSEC
534	Labels (OT)	L_POCON	LABEL_PCONTROL ED_EK_ES
536	Labels (OT)	L_MAGGI	LABEL_MAGGIE ANCHOR
540	Labels (OT)	L_OMVPA	LABEL_OVERVIEW MVPA
573	Labels (OT)	L_JANIN	LABEL_JANIN ANCHOR
574	Labels (OT)	L_TINA	LABEL_TINA ANCHOR
580	Labels (OT)	L_NL_E	LABEL_ETNL RNAV 10
581	Labels (OT)	L_NL_W	LABEL_ETNL RNAV 28
601	Title	ED_R_D	__RESTRICTED + DANGER AREAS__
602	EDR4	EDR4	ED R4
603	EDR10A	EDR10A	ED R10A
604	EDR10B	EDR10B	ED R10B
605	EDR10C	EDR10C	ED R10C
606	EDR10D	EDR10D	ED R10D
607	EDR10E	EDR10E	ED R10E
608	EDR11A	EDR11A	ED R11A
609	EDR11B	EDR11B	ED R11B
610	EDR12A	EDR12A	ED R12A
611	EDR12B	EDR12B	ED R12B
612	EDR13A	EDR13A	ED R13A
613	EDR13B	EDR13B	ED R13B
614	EDR14	EDR14	ED R14
615	EDR15	EDR15	ED R15
616	EDR17	EDR17	ED R17
617	EDR18A	EDR18A	ED R18A
618	EDR18B	EDR18B	ED R18B
619	EDR22	EDR22	ED R22
620	EDR30	EDR30	ED R30
621	EDR31	EDR31	ED R31
622	EDR32A	EDR32A	ED R32A
623	EDR32B	EDR32B	ED R32B
624	EDR33A	EDR33A	ED R33A
625	EDR33B	EDR33B	ED R33B
626	EDR34A	EDR34A	ED R34A
627	EDR34B	EDR34B	ED R34B
628	EDR34C	EDR34C	ED R34C
629	EDR37A	EDR37A	ED R37A
630	EDR37B	EDR37B	ED R37B
631	EDR51A	EDR51A	ED R51A

Map-ID	7	Mnemonic	Name
632	EDR51B	EDR51B	ED R51B
633	EDR51C	EDR51C	ED R51C
634	EDR53	EDR53	ED R53
635	EDR54	EDR54	ED R54
636	EDR55	EDR55	ED R55
637	EDR56	EDR56	ED R56
638	EDR70	EDR70	ED R70
639	EDR71	EDR71	ED R71
640	EDR73A	EDR73A	ED R73A
641	EDR73B	EDR73B	ED R73B
642	EDR73C	EDR73C	ED R73C
643	EDR74	EDR74	ED R74
644	EDR76A	EDR76A	ED R76A
645	EDR76C	EDR76C	ED R76C
646	EDR112A	EDR112A	ED R112A
647	EDR112B	EDR112B	ED R112B
648	EDR148	EDR148	ED R148
649	EPR22	EPR22	EP R22
650	EPR30	EPR30	EP R30
651	EDD19A	EDD19A	ED D19A
652	EDD19B	EDD19B	ED D19B
653	EDD28	EDD28	ED D28
654	EDD41A	EDD41A	ED D41A
655	EDD41B	EDD41B	ED D41B
656	EDD44	EDD44	ED D44
657	EDD46	EDD46	ED D46
658	EDD47A	EDD47A	ED D47A
659	EDD47B	EDD47B	ED D47B
660	EDD47C	EDD47C	ED D47C
661	EDD100	EDD100	ED D100
662	EDD101A	EDD101A	ED D101A
663	EKR38	EKR38	EKR38
664	EKD371	EKD371	EK D371
665	EKD373	EKD373	EK D373
666	ESD140	ESD140	ES D140
667	EPD57	EPD57	EP D57
668	EP TSA13	PTSA13	EP TSA13
669	EP TSA 13A	PTSA13A	EP TSA13A
670	EP TSA 13B	PTSA13B	EP TSA13B
671	EP TSA 13C	PTSA13C	EP TSA13C
672	EP D 301	EPD301	EP D301
673	EP TFR 13	EPTHR13	EP TFR13
674	EP TRA 43	EPTRA43	EP TRA 43

Map-ID	Content	Mnemonic	Name
675	HIRTA Nauen	NAUEN	NAUEN
681	ED R10 complete	EDR10_G	ED R10 GESAMT
700	Title	MIN_SEP	___MINIMUM SEPARATION MAPS___
701	No Breakdown	NOFAULT	NO BREAKDOWN EDWW
702	Breakdown of HAM	HAM	BREAKDOWN HAM
703	Breakdown of BRE	BRE	BREAKDOWN BRE
704	Breakdown of HAN	HAN	BREAKDOWN HAN
705	Breakdown of MOB	MOB	BREAKDOWN MOB
706	Breakdown of BRO	BRO	BREAKDOWN BRO
707	Breakdown of SFD	SFD	BREAKDOWN SFD
708	Breakdown of LPZ	LPZ	BREAKDOWN LPZ
709	Breakdown of DRE	DRE	BREAKDOWN DRE
710	Breakdown of NBB	NBB	BREAKDOWN NBB
711	Breakdown of TGL	TGL	BREAKDOWN TGL
712	Breakdown of HAM+BRE	HAM+BRE	BREAKDOWN HAM+BRE
713	Breakdown of HAN+HAM	HAN+HAM	BREAKDOWN HAN+HAM
714	Breakdown of HAM+MOB	HAM+MOB	BREAKDOWN HAM+MOB
715	Breakdown of BRE+HAN	BRE+HAN	BREAKDOWN BRE+HAN
716	Breakdown of BRE+MOB	BRE+MOB	BREAKDOWN BRE+MOB
717	Breakdown of HAN+MOB	HAN+MOB	BREAKDOWN HAN+MOB
718	Breakdown of HAN+BRO	HAN+BRO	BREAKDOWN HAN+BRO
719	Breakdown of BRO+SFD	BRO+SFD	BREAKDOWN BRO+SFD
720	Breakdown of BRO+LPZ	BRO+LPZ	BREAKDOWN BRO+LPZ
721	Breakdown of BRO+DRE	BRO+DRE	BREAKDOWN BRO+DRE
722	Breakdown of BRO+TGL	BRO+TGL	BREAKDOWN BRO+TGL
723	Breakdown of SFD+LPZ	SFD+LPZ	BREAKDOWN SFD+LPZ
724	Breakdown of SFD+DRE	SFD+DRE	BREAKDOWN SFD+DRE
725	Breakdown of SFD+NBB	SFD+NBB	BREAKDOWN SFD+NBB
726	Breakdown of SFD+TGL	SFD+TGL	BREAKDOWN SFD+TGL
727	Breakdown of LPZ+DRE	LPZ+DRE	BREAKDOWN LPZ+DRE
728	Breakdown of LPZ+TGL	LPZ+TGL	BREAKDOWN LPZ+TGL
729	Breakdown of DRE+TGL	DRE+TGL	BREAKDOWN DRE+TGL
730	Breakdown of NBB+TGL	NBB+TGL	BREAKDOWN NBB+TGL
751	Tile set Adaption Mode S+DEI	TILEADP	TILESET_ADAPTATION
777	Version	VERSION	HBB_[*AIRAC-Date*]_[*version number*]
800	BGS-Background	BGS	BGS-Background
801	all departure filters	DEP	DEP Filter
802	departure filter text	DEP_TXT	DEP Filter Text
803	DF stations	PEIL	Peiler Standorte
804	Software release and adaption nr. in operation	BUILD	BRE_ATCAS_LIVE_REL(*Nr.*)_(*Build-Nr*).

Map-ID	Content	Mnemonic	Name
805	arrival filter	ARR	ARR Filter
806	Wind Zones	WIND	Wind Zones
807	Airport Filter	AIRP	Airport Filter
808	Total Filter	TOTAL	Total Filter
820	Tile set	TILESET	Tileset
888	Special use of airspace	BNL	BNL
980 - 984	content, inserted at the supervisor CWP	MoTD01 – MotD15	Map of the day 1 – 15
995 – 999	content, inserted at each individual CWP	PRV1 – PRV5	Private Map Text 1 – 5

END