

to	Distribution list				LoA 63
from	S. Borchert, CC/FB-N	phone	0421 5372 180	date	04.05.2011
				DRF until	16.06.2011

Amendment of the LoA between Warszawa ACC and Bremen ACC wef 05.05.2011

1. Essentials

Annex D: Airway (U)T705 renamed into (U)Z491.

2. List of Changes

Date	Parts	Page(s)	add, replace or delete
05.05.2011	amendment	all	replace
	LoA		

Axel Brandt
Chief of Support

Jun Kurokoshi
Chief of Section

Sector families affected:												
	North A	North B	East A	East B	South	FDS	FIS	FMP	DA	SV CC	SV FDA	office
mandatory	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
* only applicable to sector(s):												
This LoA is valid for:												
North A	North B	East A	East B	South	FDS	FIS	FMP	DA	SV CC	SV FDA	office	
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* only applicable to sector(s):												

Distribution list: LoA I

Fr. G. Tröger
Hr. J. Janocha

Hr. U. Voigt (2x)
Hr. T. Teichert

Hr. M. Funke (2x)

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LETTER OF AGREEMENT

between

DFS Deutsche Flugsicherung GmbH
Control Centre Bremen
Bremen ACC

PANSA
and **Polish Air Navigation Services Agency**
Warszawa ACC

Effective: 2009-06-04

1 General.

1.1 Purpose.

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between Bremen ACC and Warszawa ACC when providing ATS to General Air Traffic and/or Operational Air Traffic (IFR/VFR).

These procedures are supplementary to those specified in ICAO, Eurocontrol and/or National documents.

1.2 Operational Status.

Both parties shall keep each other advised of any changes in the operational status of their facilities and navigational aids which may affect the procedures specified in this Letter of Agreement.

2 Areas of Responsibility and Delegation of the Responsibility for the Provision of ATS.

2.1 Areas of Responsibility.

The lateral and vertical limits of the respective areas of responsibility are as follows:

Note: See para 2.2 for the description of the areas where delegation of the responsibility for the provision of ATS is applicable.

2.1.1 Bremen ACC.

Lateral limits: west of the line
N 54 55 00 E 014 21 27 – along FIR / UIR boundary –
N 51 41 55 E 014 42 52

Vertical limits: GND – up to FL285

Bremen ACC is responsible for the provision of ATS to GAT and OAT.

2.1.2 Warszawa ACC.

Lateral limits: east of the line
N 54 55 00 E 014 21 27 – along FIR / UIR boundary –
N 51 41 55 E 014 42 52

Vertical limits: GND – FL460

Warszawa ACC is responsible for the provision of ATS to GAT and OAT.

2.1.3 ICAO airspace classification for the areas of responsibility along the common boundary of the areas of responsibility of Bremen ACC and Warszawa ACC is described in Annex B to this Letter of Agreement.

2.2 **Delegation of the Responsibility for the Provision of ATS.**

2.2.1 Delegation of ATS from Bremen ACC to Warszawa ACC.

Not applicable.

2.2.2 Delegation of ATS from Warszawa ACC to Bremen ACC.

Within the Warszawa FIR the responsibility for the provision of ATS in accordance with the ICAO airspace classification has been delegated from Warszawa ACC to Bremen ACC within the following areas:

2.2.2.1 Heringsdorf Area and Heringsdorf CTR.

2.2.2.1.1 Heringsdorf Area - see Appendix 1.

Lateral limits: N 53 57 45 E 014 14 00 – N 53 55 20 E 014 27 30 -
N 53 53 40 E 014 38 00 – N 53 41 30 E 014 33 40 –
N 53 41 05 E 014 16 50 - polish/german state border – N 53 57 45 E 014 14 00.

Vertical limits: 1000 GND – FL95.

Airspace classification: E

2.2.2.1.2 Heringsdorf CTR - see Appendix 1.

Lateral limits: N 53 55 20 E 014 13 00 - N 53 54 05 E 014 20 25 –
N 53 48 20 E 014 17 40 - N 53 48 40 E 014 15 20 –
polish/german state border – N 53 55 20 E 014 13 00.

Vertical limits: GND – 2500 MSL.

Airspace classification: D

Note: Bremen ACC may delegate this airspace to Heringsdorf TWR.

2.2.2.1.3 Both areas shall be activated H 24.

2.2.2.2 Cottbus Drewitz CTA and Cottbus Drewitz Airspace F.

2.2.2.2.1 Cottbus Drewitz CTA - see Appendix 1.

Lateral limits: N 52 04 09 E 014 45 36 – N 52 04 35 E 014 58 20 –
N 51 50 33 E 015 00 27 – N 51 45 31 E 014 39 47 –
polish/german state border – N 52 04 09 E 014 45 36.

Vertical limits: 2500 GND – FL85.

Airspace classification: E

2.2.2.2.2 Cottbus Drewitz Airspace F – see Appendix 1.

Lateral limits: N 51 55 57 E 014 42 25 – N 51 53 08 E 014 44 13 –
N 51 51 17 E 014 36 38 - polish/german state border –
N 51 55 57 E 014 42 25.

Vertical limits: GND – 1500 GND.

Airspace classification: F

Lateral limits: N 52 00 24 E 014 43 22 – then a circle segment with a radius of 10 NM around
the ARP (N 51 53 22 E 014 31 55) – N 51 50 43 E 014 47 29 –
N 51 48 11 E 014 37 06 - polish/german state border – N 52 00 24 E 014 43 22.

Vertical limits: 1500 GND – 2500 GND.

Airspace classification: F

2.2.2.2.3 These areas shall be activated H 24.

2.2.3 Delegated Services.

The provision of ATS in respect of this LoA means the following services:

- Air traffic control service (ATC),
- Flight information service for controlled flights,
- Alerting Service (ALRS)

2.2.4 Alerting Service within the Airspaces with delegated Responsibility.

The ATS Unit responsible for the provision of ATS, by virtue of delegation, shall provide alerting service and shall notify immediately the Supervisor of the delegating ATS Unit.

The Supervisor of the delegating ATS Unit shall notify the appropriate Rescue Coordination Centre.

2.2.5 Other Areas.

Delegations of ATS to/from other coordinating air traffic services units along the common boundary of the Areas of Responsibility of Bremen ACC and Warszawa ACC are described in Annex B to this Letter of Agreement.

2.3 **Special Provisions.**

Not applicable.

3 Procedures.

The procedures to be applied by Bremen ACC and Warszawa ACC are detailed in the Annexes to this Letter of Agreement:

Annex A:	Definitions and Abbreviations
Annex B:	Area of Common Interest
Annex C:	Exchange of Flight Data
Annex D:	Procedures for Co-ordination
Annex E:	Transfer of Control and Transfer of Communications
Annex F:	Radar Based Co-ordination Procedures
Annex G:	Supplementary Procedures.

4 Revisions and Deviations.

4.1 Revision of the Letter of Agreement.

The revision of the present Letter of Agreement, excluding Annexes, requires the mutual written consent of the parties.

4.2 Revision of the Appendices and Annexes to the Letter of Agreement.

The revision of Appendices and Annexes to the present Letter of Agreement requires the mutual written consent of the parties and the written confirmation of the mutual consent of one of both parties at least.

4.3 Temporary Deviations.

When necessary, the Supervisors of the ATS Units concerned may introduce, by mutual agreement and for a specified time period, temporary modifications to the procedures laid down in the Annexes to the present Letter of Agreement.

Such provisions shall, however, not exceed 3 month duration.

4.4 Incidental Deviations.

Instances may arise where incidental deviations from the procedures specified in the Annexes to this Letter of Agreement may become necessary. Under these circumstances air traffic controllers are expected to exercise their best judgement to ensure the safety and efficiency of air traffic.

5 Cancellation.

5.1 Cancellation of the present Letter of Agreement by mutual written agreement of the respective parties may take place at any time.

5.2 Cancellation of this Letter of Agreement by either party is possible at any time, provided that the cancelling party declares its intention to cancel the Letter of Agreement with a minimum pre-notification time of **3 month** before the date the cancellation is to take effect.

6 Interpretation and Settlement of Disputes.

6.1 Should any doubt or diverging views arise regarding the interpretation of any provision of the present Letter of Agreement or in case of dispute regarding its application, the parties shall endeavour to reach a solution acceptable to both of them.

6.2 Should no agreement be reached, each of the parties shall refer to a higher level of its national aviation administration, to which the dispute shall be submitted for settlement.

7 Validity.

This Letter of Agreement becomes effective 04 June 2009 and supersedes all previous Letters of Agreement between Bremen ACC and Warszawa ACC.

Bremen, [date]

Warszawa, [date]

i. V. _____
Werner Spier
Head of Operations
Bremen ACC

Bartłomiej Bochenek
Head of Warszawa ACC

Langen, [date]

Warszawa, [date]

i. V. _____
Andre Biestmann
Head of ATM Operations and
Strategy
DFS Deutsche Flugsicherung GmbH

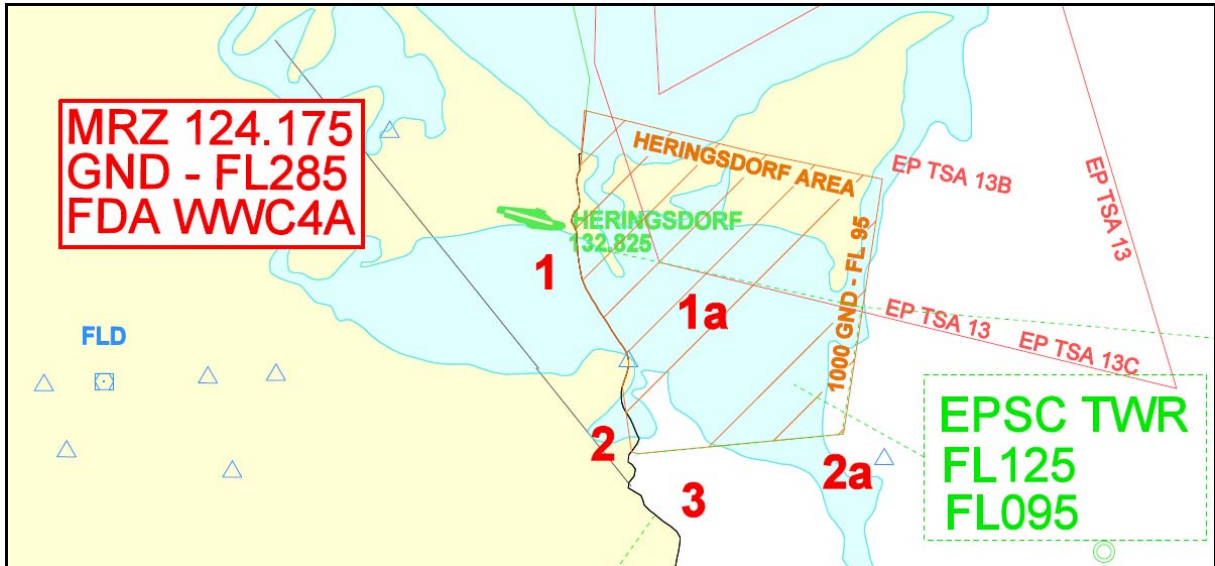
Krzysztof Kalaman
Director of Operations
Polish Air Navigation Services Agency

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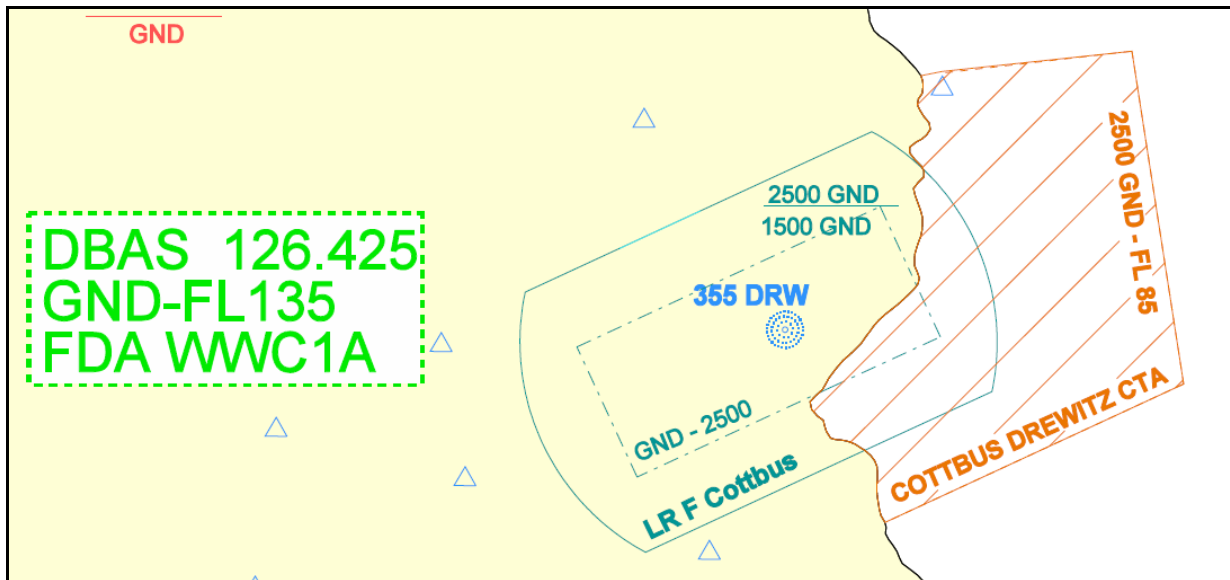
Appendix 1

Para. 2.2.2

Heringsdorf Area/CTR (para 2.2.2.1)



Cottbus Drewitz CTA/Airspace F (para 2.2.2.2)



Appendix 2

RECORD OF AMENDMENTS

AMD No.	DATE	PART	PAGE	add, delete or replace
1	April 08, 2010	LoA Appendix 2	8	replace
		Annex G	G1, G7	replace
2	August 26, 2010	LoA Appendix 2	8	replace
		Annex B	B1, B2, B4	replace
		Annex C	C1, C3	replace
		Annex D	D1 – D4	replace
		Annex E	E1	replace
		Annex G	G1 – G2	replace
3	February 10, 2011	LoA Appendix 2	8	replace
		Annex D	D1, D4	replace
		Annex G	G1, G7	replace
4	March 10, 2011	LoA	8	replace
		Annex D	D1, D2, D4, D5	
5	May 5, 2011	LoA	8	replace
		Annex D	D1, D2	

Annex A.

Definitions and Abbreviations.

Effective: 2009-06-04

Revised:

A.1 Definitions.

A.1.1 Area of Responsibility.

An airspace of defined dimensions where a sole ATS Unit has responsibility for providing air traffic services.

A.1.2 Area of Common Interest.

A volume of airspace as agreed between 2 ATS Units, extending into the adjacent/ subjacent Areas of Responsibility, within which airspace structure and related activities may have an impact on air traffic coordination procedures.

A.1.3 Approval Request.

Request from an ATS Unit to the ATS Unit concerned for an approval of:

- an aircraft not yet airborne, whenever the flying time to the transfer of control point is less than the agreed minimum prenotification time, or
- an aircraft in flight intending to operate under conditions other than those described in mutually agreed procedures.
- a change of the coordinated flight level within 5 minutes of the ETO for the transfer of control point.

A.1.4 Expedite Clearance.

An urgent clearance request from an ATS Unit to the ATS Unit concerned for an aircraft in flight whenever the flying time to the transfer of control point is less than the agreed minimum prenotification time.

A.1.5 Division Level.

The level dividing two super-imposed areas of responsibility for the provision of ATS.

A.1.6 General Air Traffic.

All flights which are conducted in accordance with the rules and procedures of ICAO and/or the national civil aviation regulations and legislation.

A.1.7 Operational Air Traffic.

All flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.

A.1.8 **Release.**

A.1.8.1 Release for Climb.

An authorization for the accepting unit to climb (a) specific aircraft before the transfer of control.

Note: The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

A.1.8.2 Release for Descent.

An authorization for the accepting unit to descend (a) specific aircraft before the transfer of control.

Note: The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

A.1.8.3 Release for Turn.

An authorization for the accepting unit to turn (a) specific aircraft away from the current flight path by not more than 45° before the transfer of control.

Note: The transferring unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

A.1.9 **State Aircraft.**

Only aircraft used in military, customs and police services shall qualify as State Aircraft.

A.2 Abbreviations.

ABI	Advance Boundary Information	ICAO	International Civil Aviation Organization
ACC	Area Control Centre	IFR	Instrument Flight Rules
ACI*	Area of Common Interest		
ACT*	Activation Message	KHz	Kilohertz
AIP	Aeronautical Information Publication		
AoR*	Area of Responsibility	LAM*	Logical Acknowledge Message
ARR	Arrival	LoA*	Letter of Agreement
ATC	Air Traffic Control		
ATCC	Air Traffic Control Centre	MARE/P*	Bremen Mark Executive/Planner
ATFM	Air Traffic Flow Management	MFC*	Multi Frequency Coding (telephone system)
ATS	Air Traffic Services	MHz	Megahertz
AWY	ATS-Route	MRZE/P*	Bremen Mueritz Executive/Planner
		MSL	Mean Sea Level
B*	Warszawa Bravo Sector		
BOR*	Bremen Boerde Sector	NM	Nautical Mile
CA*	Contingency Area	OAT*	Operational Air Traffic
CBE	Center Bremen Contingency Sectors East	OLDI*	On-line Data Interchange
		ORCAM	Originating Region Code Assignment Method
CBEA	CBE Approachj		
CBEN	CBE North	PAC*	Preactivation Message (OLDI)
CBES	CBE South		
CCP	Contingency Contact Point	RFL	Requested Flight Level
CDR*	Conditional Route	RTF	Radio Telephony
CFLAS*	Conting. Flight Level Alloc. Scheme	RVSM	Reduced Vertical Separation Minimum
COP*	Coordination Point		
COS*	Chief of Section	SID	Standard Instrument Departure
CRC*	Control and Reporting Center	SSR	Secondary Surveillance Radar
CTR	Control Zone	STAR	Standard Instrument Arrival
CTA	Control Area		
		TSA*	Temporary Segregated Airspace
DBADB/Q*	Berlin Departure Controller/Planner	TFC	Traffic
DBANB/Q*	Berlin Arrival North Contr./Planner	TFR*	TSA Feeding Routes (Warszawa FIR)
DBASB/Q*	Berlin Arrival South Contr./Planner		
DBAT*	Berlin Feeder	UAC	Upper Area Control Centre
DEP	Departure	UHF	Ultra High Frequency
DL*	Division Level	UIR	Upper Flight Information Region
D*	Warszawa Delta Sector	UNL	Unlimited
		UTC	Coordinated Universal Time
ED-R*	Restricted Areas		
E-RWY*	East-Runway	VFR	Visual Flight Rules
ETO	Estimated Time Over Significant Point	VHF	Very High Frequency
FDA*	Flight Data Assistant	WWC1A*	Bremen Assistant 1
FIR	Flight Information Region	WWC1D*	Bremen Center Data Assistant
FIS	Flight Information Service	WWC1F*	Bremen FMP
FL	Flight Level	WWC1M*	Bremen Center Supervisor
FLGE/P*	Bremen Flaeming Executive/Planner	WWC3I*	Bremen FIS
		WWC4A*	Bremen Assistant 4
FMP*	Flow Management Position	WWCAM*	Bremen Supervisor FDA
FT	Feet	W-RWY*	West-Runway
GAT*	General Air Traffic		
GND	Ground		
G*	Warszawa Golf Sector		

Note: Abbreviations marked with an * are non-ICAO abbreviations.

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Annex B.

Area of Common Interest.

Effective: 2009-06-04

Revised: 2010-08-26

B.1 Airspace Structure and Classification within the Area of Common Interest.

B.1.1 Bremen FIR.

Area	Vertical limits	Airspace Classification
FIR	FL100 – FL245 2500 GND – up to FL100 GND – up to 2500 GND	C E G-see note
Deviations below 2500 GND:		
Heringsdorf CTA	1000 GND – up to 2500 GND	E
Heringsdorf CTR	GND – up to 2500 MSL	D
Cottbus-Drewitz	GND/1500 GND – up to 2500 GND	F

Note: IFR-flights are not allowed in airspace classification G.

B.1.2 Rhein UIR.

Area	Vertical limits	Airspace Classification
UIR	FL245 – UNL	C (FL245 – FL660)

B.1.3 Warszawa FIR.

Area	Vertical limits	Airspace Classification
FIR	FL95 – FL460	C
EPSC TMA	BINKA FL095 – FL125 BODLA 5500 AMSL – FL125	C C
FIR	GND – up to FL95	G-see note
Deviations below FL95:		
Heringsdorf CTA	1000 GND – up to FL95	E
Heringsdorf CTR	GND – up to 2500 MSL	D
Cottbus-Drewitz	GND/1500ft GND – up to 2500 GND	F
Cottbus Drewitz CTA	2500 GND – up to FL85	E

Note: IFR-flights are allowed in airspace classification G.

B.2 Sectorisation.

B.2.1 Coordinates of the Sector Boundaries

1	N 53 51 11 E 014 13 40	1a	N 53 50 15 E 014 19 27
2	N 53 41 04 E 014 16 43	2a	N 53 41 29 E 014 33 33
3	N 53 38 06 E 014 18 03	3a	N 53 19 12 E 013 53 00
4	N 53 10 46 E 014 22 40	4a	N 53 18 32 E 014 57 59
5	N 52 48 51 E 014 14 15	5a	N 52 42 13 E 013 15 17
6	N 52 43 43 E 014 23 25	6a	N 53 11 18 E 016 34 37
7	N 52 36 03 E 014 36 30	7a	N 52 30 25 E 013 21 52
8	N 52 17 46 E 014 35 53	8a	N 52 09 13 E 013 29 02
9	N 51 42 14 E 014 43 44	9a	N 51 30 30 E 013 45 00
10	N 51 30 42 E 014 50 00	10a	N 51 38 52 E 016 20 21

The sectorisation within the ACI is shown in Appendix 1 of Annex B

B.3 Special Areas within the Area of Common Interest.

B.3.1 Delegations of the Responsibility for the Provision of ATS to/from other ATS Units.

B.3.1.1 Delegation of ATS from Warszawa ACC to ATCC Malmö.

Within Warszawa FIR the responsibility for the provision of ATS in accordance with the airspace classification has been delegated from Warszawa ACC to ATCC Malmö within the following area:

Rönne South Area - see Appendix 1 to Annex B.

(Bremen ACC will be informed by ATCC Malmö when Rönne South Area is recalled by Warszawa ACC.)

Lateral limits: N 54 55 00 E 014 21 27 –
along Rönne TMA and Malmö/Warszawa FIR-boundary -
N 54 55 00 E 015 52 00 – N 54 41 06 E 015 43 09 -
N 54 23 06 E 015 23 46 – N 54 15 45 E 015 03 21 -
N 54 20 00 E 014 16 50 – N 54 55 00 E 014 21 27.

Vertical limits: FL195 - up to FL460

Airspace classification: C

excluding the airspace between FL195- up to FL245 designated by the following coordinates:

Lateral limits: N 54 45 35 E 014 20 12 – N 54 46 00 E 014 35 30 -
N 54 35 00 E 014 39 45 – N 54 35 00 E 015 14 00 -
N 54 35 09 E 015 26 54 – N 54 31 54 E 015 33 12 -
N 54 23 06 E 015 23 46 – N 54 15 45 E 015 03 21 -
N 54 20 00 E 014 16 50 – N 54 45 35 E 014 20 12.

B.3.1.2 Delegation of ATS from Bremen ACC to ATCC Malmö.

Within the Bremen FIR / Rhein UIR the responsibility for the provision of ATS in accordance with the airspace classification has been delegated from Bremen ACC to ATCC Malmö within the following area:

Rönne SW Area - see Appendix 1 to Annex B.

Type of ATS-delegation: Temporary. **During activation of ED-D 47C the delegation of Rönne SW Area is withdrawn in the activated part of it.**

Lateral limits: N 54 55 00 E 013 45 39 – N 54 55 00 E 014 21 27 -
N 54 40 00 E 014 19 29 – N 54 55 00 E 013 45 39.

Vertical limits: FL155 - up to FL285.

Airspace classification: C

B.3.2 Other Areas.

B.3.2.1 The German ED D 47, ED R 17 and the Polish EP D 57, EP D 27, EP R 22, EP R 30, EP TSA13 (TSA13A, TSA13B, TSA13C, EP-D301), EP TFR13, EP TRA 43 are published in the respective AIPs and are shown in the Appendix 1 and 2 to Annex B.

B.3.2.2 Within the Warszawa FIR Warszawa ACC may issue a BINKA Release west of the BINKA Release Line as described in Annex D to this LoA.

BINKA Release Line: see Appendix 1 to Annex B.

Lateral limits east of the line

N 53 29 57 E 014 21 08 - N 53 45 18 E 014 24 12 – N 54 18 17 E 014 36 01.

Airspace classification: C

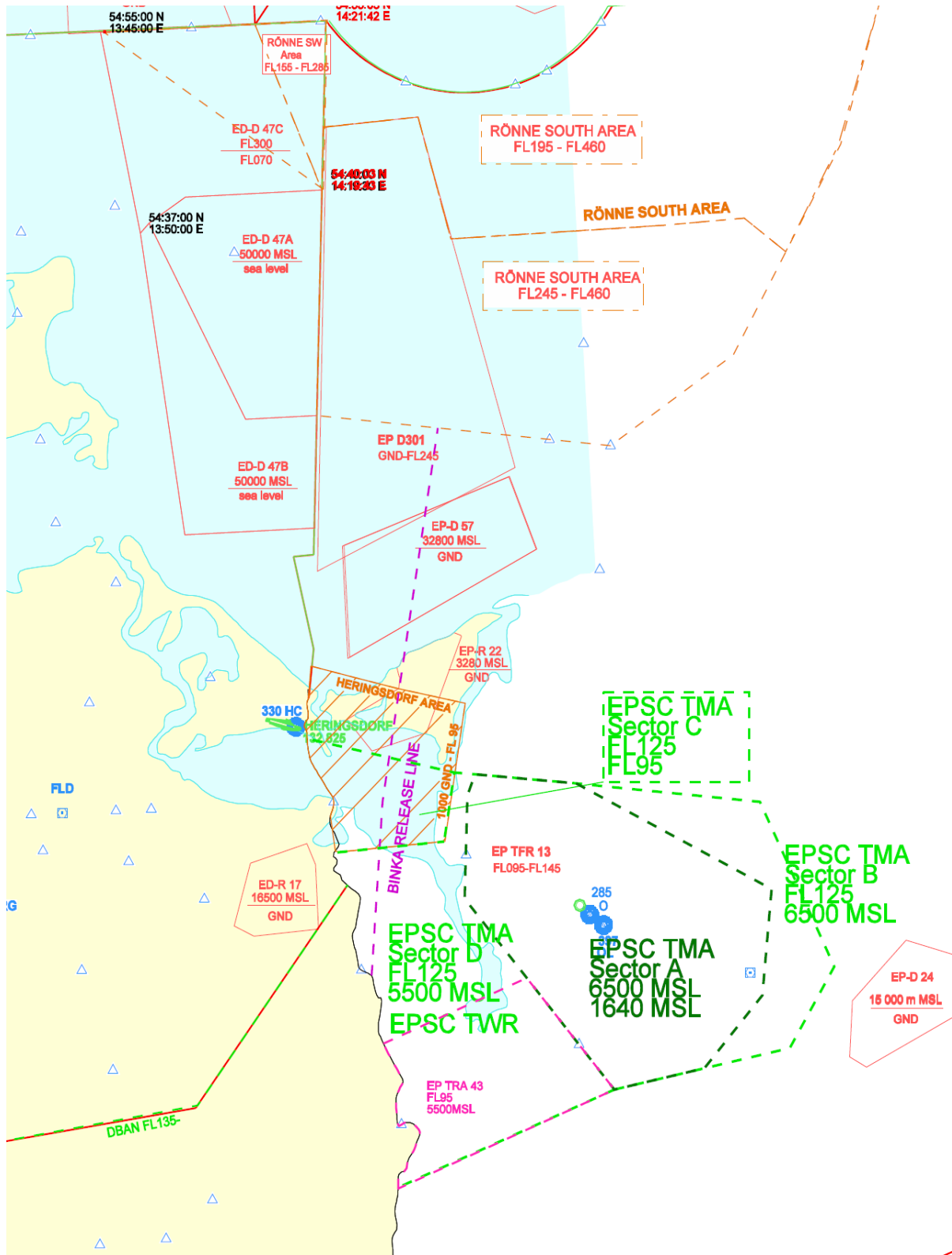
B.4 Non-published Coordination Points.

Not applicable.

Appendix 1 of Annex B

Sectorization of Bremen ACC and Warszawa ACC
close to the boundary of responsibility, northern part

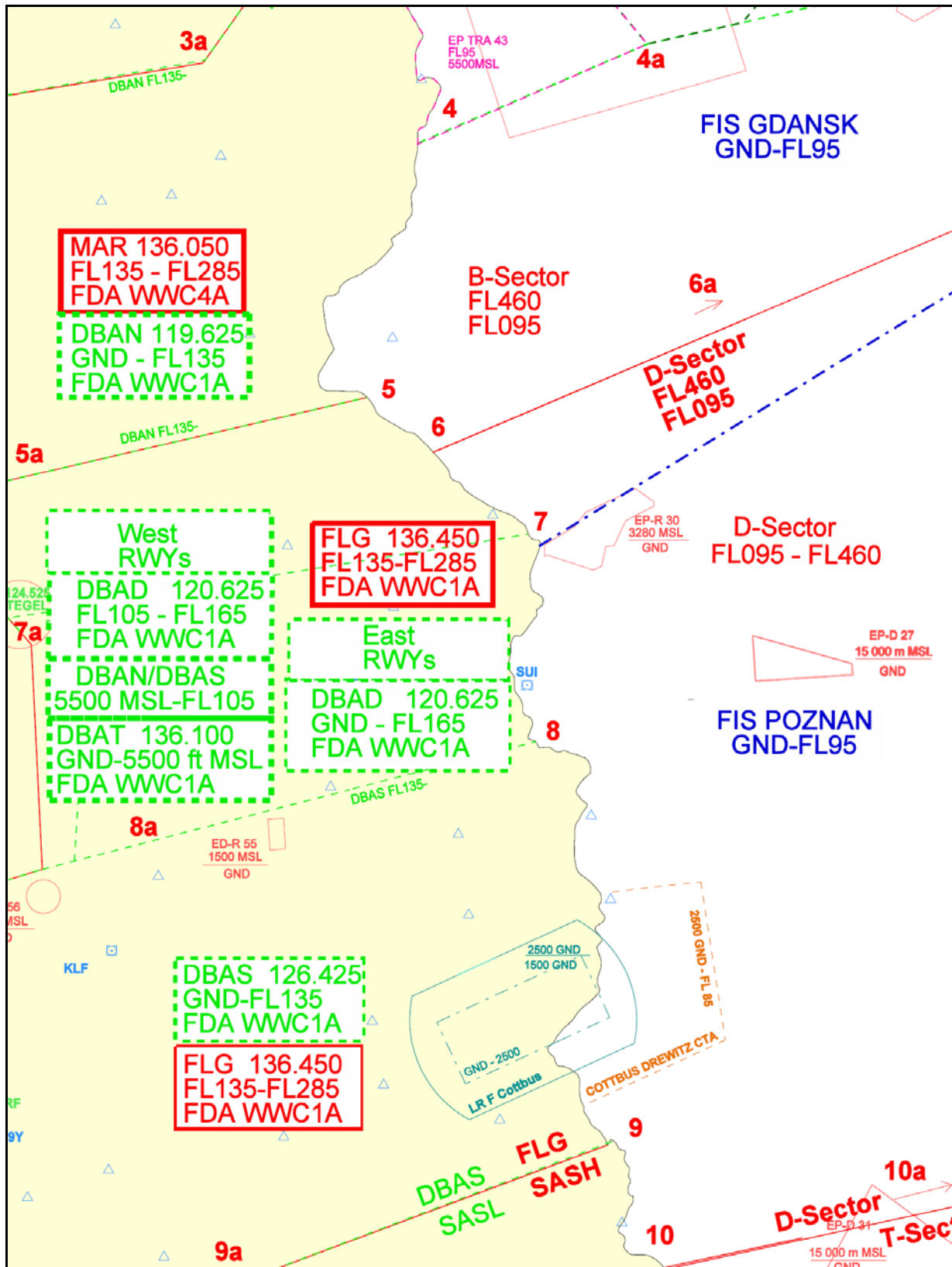
GND - up to FL285



Appendix 2 of Annex B

Sectorization of Bremen ACC and Warszawa ACC
close to the boundary of responsibility, southern part

GND - up to FL285



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Annex C.

Exchange of Flight Data.

Effective: 2009-06-04

Revised: 2010-08-26

C.1 General.

C.1.1 Basic Flight Plans.

Basic flight plan data should normally be available at both units by means of IFPS and/or AFTN.

C.1.2 Current Flight Plan Data.

C.1.2.1 General

Messages, including current flight plan data shall be forwarded by the transferring unit to the accepting unit either by automatic data exchange or by telephone to the appropriate sector/position for

- IFR-flights within controlled airspace,
- VFR-flights within airspace class C or
- VFR-flights at night within controlled airspace.

C.1.2.2 Flights into/out of Warszawa FIR - Airspace G.

For VFR-flights at night and IFR-flights entering Warszawa FIR below FL95 neither an ACT-message, nor a verbal estimate shall be forwarded to Warszawa ACC or FIS positions. Exception: DEP EDAH with RFL100 or above via BINKA (see D.2.1).

For VFR-flights at night and IFR-flights leaving Warszawa FIR below FL95 a verbal estimate shall be passed by either FIS Gdansk or FIS Poznan to the relevant Bremen ACC sector. When necessary for identification reasons the Bremen ACC entry-sector will pass an individual SSR-code to FIS Gdansk or Poznan, which shall be assigned to the flight before transfer of communication.

C.1.2.3 Automatic Data Exchange.

ABI/ACT/LAM messages are exchanged between the two units in accordance with Appendix 1 to Annex C.

C.1.2.4 Verbal Estimates.

For conditions that are not supported by the automatic data exchange, verbal estimates shall be exchanged.

A verbal estimate shall be passed to the appropriate sector at the accepting unit at least **10** minutes (Departures from Berlin airports **8** minutes) minutes prior, but not earlier than **30** minutes before the aircraft is estimated to pass the transfer of control point, and shall contain:

- a) **Callsign**
Note: To indicate that the flight plan is available, the accepting unit should state aircraft type and destination after having received the callsign.
- b) **SSR code.**
- c) **ETO for the appropriate COP as laid down in Annex D to this LoA.**
- d) **Cleared flight level, specifying climb or descent conditions if applicable, at the transfer of control point.**
Requested flight level if different from cleared flight level.
- e) **Other information, if applicable.**

Normally, verbal estimates will not be passed in parallel with ACT messages.

In all cases, verbally passed data shall take precedence over data exchanged automatically.

C.1.2.5 Failure of Automatic Data Exchange.

In the event of a failure which prevents the automatic transfer of data, the Supervisors shall immediately decide to revert to the verbal exchange of estimates.

After recovery from a system failure, the Supervisors shall agree as to when they will revert to automatic data exchange.

C.1.3 **Non-availability of Basic Flight Plan Data.**

If the accepting unit does not have basic flight plan data available, additional information may be requested from the transferring unit to supplement the ACT message or a verbal estimate.

C.1.4 **Revisions.**

Any significant revisions to the flight data transferred according paragraph C.1.2 are to be transmitted to the accepting unit.

Note : Within the context of RVSM any changes in aircraft's ability to continue to meet the vertical navigation accuracy or any in-flight contingency which has an impact on RVSM operations are considered as significant revisions.

Time differences of **5** minutes or more are to be exchanged.

Changes to the coordinated flight levels within **5** minutes of the ETO for the transfer of control point are subject to an Approval Request.

C.1.5 **Expedite Clearance and Approval Requests.**

Whenever the minimum time of **10** minutes (Departures from Berlin airports **8** minutes) prior to the transfer of control point cannot be met, either an expedite clearance request or an approval request, as appropriate, shall be initiated.

C.2 Means of Communications and their Use.

C.2.1 Equipment.

The following lines are available between Bremen ACC and Warszawa ACC:

- 1 data link (*OLDI*) between Warszawa and Bremen,
- 2 telephone lines (*MFC*) between Warszawa and Bremen,

C.2.2 Telephone Coordination.

All telephone communications **shall** be terminated with the initials of both parties concerned.

Exchange of flight plan data, estimates and control messages by telephone shall be carried out in accordance with the tables below:

C.2.2.1 Messages from Bremen ACC to Warszawa ACC.

Receiving Sector/COPs	Message	Position	Extension
<u>B Sector</u> BINKA, BODLA FL125 - FL460 ALUKA FL95 - FL460	Flight Plan Data and Estimates	Flight Data FD	36 8058
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Planning Controller PC	36 8039
	Radar Coordination	Radar Controller RC	36 8019
<u>TWR Szczecin</u> BINKA FL 95 – FL 125 BODLA 5500 AMSL – FL125	Control Messages, Expedite Clearances, Approval Requests and Revisions	Controller	36 8401
	Flight Plan Data and Estimates ¹⁾	Flight Data	36 8402 (36 8403)
<u>D Sector</u> GILAS SUI GOVEN FL95 - FL460	Flight Plan Data and Estimates	Flight Data FD	36 8058
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Planning Controller PC	36 8036
	Radar Coordination	Radar Controller RC	36 8017
FIS Gdansk IFR- and VFR-flights entering EPWW FIR, airspace class G north of Kostrzyn (523500N 0143800E) GND - up to FL95	Flight Plan Data and other Coordination	FIS	<u>Public network:</u> 0048 22- 574 7485
FIS Poznan IFR- and VFR-flights entering EPWW FIR, airspace class G south of Kostrzyn (523500N 0143800E) GND - up to FL95		FIS	Public network: 0048 22- 574 7385

Supervisor ATC: 36 8000 or 36 8001

Military: 36 8080

FMP: 36 8002

Techn. Supervisor: 36 8090

Note: 1) ABI/ACT shall be sent to Warszawa ACC in accordance with appendix 1 to this Annex. Warszawa ACC shall be responsible to deliver the estimate to TWR Szczecin.

C.2.2.2 Messages from Warszawa ACC to Bremen ACC.

Receiving Sector/COPs	Message	Position	Ext.
<u>MUERITZ (MRZ)</u> BINKA FL280 and below	Flight Plan Data and Estimates	FDA WWC4A	34 2127 (0049 421 51499 87*)
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Planner MRZP	34 2037 (0049 421 51499 80*)
	Radar Coordination	Executive MRZE	34 2027
<u>MARK (MAR)</u> PESEL FL250 - FL280 BODLA ALUKA FL140 - FL280	Flight Plan Data and Estimates	FDA WWC4A	34 2127 (0049 421 51499 87*)
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Planner MARP	34 2036 (0049 421 51499 76*)
	Radar Coordination	Executive MARE	34 2026
<u>BERLIN ARRIVAL NORTH (DBAN)</u> BODLA ALUKA FL130 and below	Flight Plan Data and Estimates	FDA WWC1A	34 2109 (0049 421 51499 86*)
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Planner DBANQ	34 2112 (0049 421 51499 74*)
	Radar Coordination	Controller DBANB	34 2111
<u>FLAEMING (FLG)</u> GILAS FL250 - FL280 SUI FL170 - FL280 GOVEN FL140 - FL280	Flight Plan Data and Estimates	FDA WWC1A	34 2109 (0049 421 51499 86*)
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Planner FLGP	34 2073 (0049 421 51499 68*)
	Radar Coordination	Executive FLGE	34 2063
<u>BERLIN DEPARTURE (DBAD)</u> SUI FL110 - FL160 (West RWYs in Berlin) FL160 and below (East RWYs in Berlin)	Flight Plan Data and Estimates	FDA WWC1A	34 2109 (0049 421 51499 86*)
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Planner DBADQ	34 2116 (0049 421 51499 65*)
	Radar Coordination	Executive DBADB	34 2115

* only to be used by FIS Gdansk or Poznan, or in case of MFC failure

<u>BERLIN ARRIVAL SOUTH (DBAS)</u> SUI 5500 MSL - FL100 (West RWYs in Berlin) GOVEN FL130 and below	Flight Plan Data and Estimates	FDA WWC1A	34 2109 (0049 421 51499 86*)
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Planner DBASQ	34 2114 (0049 421 51499 69*)
	Radar Coordination	Executive DBASB	34 2113
<u>BERLIN FEEDER (DBAT)</u> SUI below 5500 MSL (West RWYs in Berlin)	Flight Plan Data and Estimates	FDA WWC1A	34 2109 (0049 421 51499 86*)
	Control Messages, Expedite Clearances, Approval Requests, Revisions and Radar Coordination	Plann./Exec. DBAT	34 2107
<u>Bremen FIS 3</u>	VFR Flight Plan Data and other Coordination	WWC3I	34 2013 (0049 421 51499 64*)

* only to be used by FIS Gdansk or Poznan, or in case of MFC failure

WWC1M	34 2199	WWC1F	34 2099
WWCAM	34 2120	WWC1D	34 2119
Mail	bremen.supervisor@dfs.de		

C.3 Failure of Ground/Ground Voice Communications.

C.3.1 Fall-Back Procedures for Coordination.

In the event of failure of the direct lines between the coordinating partners, coordination may be effected via:

- direct speech lines to ATCC Malmö or
- Public telephone numbers:

Bremen ACC:

WWC1M	0049 421 51499 00
WWCAM	0049 421 51499 02
WWC1D	0049 421 51499 03
WWC1F	0049 421 51499 06

Fax +49 421 535 533

Warszawa ACC:

Supervisor ATC	+48 22 574 5542 or +48 22 574 5543 or +48 22 846 0733	Fax +48 22 574 5539
FD/PC/RC	+48 22 574 5544 (to use the phrase: “Bremen here, give me Flight Data / Planning / Radar”) or	
FD	+48 22 650 3932	
PC Sector D or BD	+48 22 650 3933	
PC Sector B	+48 22 650 3939	
PC Sector BG	+48 22 650 3934	
TWR Szczecin	+48 91 469 7955 (Controller) +48 91 469 7956 (Flight Data)	
FIS Gdansk	+48 58 340 7485	Fax +48 58 340 7486
FIS Poznan	+48 61 896 7385	Fax +48 61 896 7586
FMP	+48 22 574 5532 or	Fax +48 22 574 5539

C.3.2 Alternate Fall-Back Procedures for Coordination.

In case of communications failure where the alternatives described in para. C.3.1 are not available or practicable, pilots shall be instructed, at least **5 minutes** prior to the transfer of control point, to pass flight data on the appropriate frequency of the accepting unit for the purpose of obtaining an ATC entry clearance from the accepting unit.

If the accepting unit cannot issue an entry clearance to the pilot upon his initial contact, the pilot shall be instructed to inform the transferring unit accordingly via RTF.

The transferring unit shall hold the aircraft within its AoR and after a minimum of 10 minutes instruct the pilot to re-establish RTF contact with the accepting unit.

This procedure shall be repeated until an onward clearance has been obtained from the accepting unit.

Appendix 1 to Annex C

Automatic Data Exchange.

ABI/ACT/LAM messages are exchanged between the two units in accordance with the table below:

Messages	COPs	Time and/or Distance Parameters	
		Messages from Bremen ACC to Warszawa ACC	Messages from Warszawa ACC to Bremen ACC
ABI 3 a+b 7 a+b+c 13 a 14 a+b+c 16 a 22 (9 a+b+c, 15 a+b+c, 80 and 81)	ALL COPs	Bremen ACC will transmit ABI as soon as the FPL is activated No ABI shall be transmitted when less than 120 sec. to the ACT-transmission	Warszawa ACC will transmit ABI not earlier than 25 minutes prior ETO COP. No ABI shall be transmitted when less than 120 sec. to the ACT-transmission.
ACT 3 a+b 7 a+b+c 13 a 14 a+b+c+d+e 16 a 22 (9 a+b+c, 15 a+b+c, 80 and 81)		15 minutes prior ETO COP or 30 NM prior to COP, whichever comes first	20 minutes prior ETO COP
If less than the above time parameters, ACT shall be transmitted as soon as possible, but not later than ETO COP.			
LAM	-	If a LAM is not received at Warszawa ACC within 25 seconds after the ACT-transmission, a warning shall be displayed at the appropriate sector.	If a LAM is not received at Bremen ACC within 45 seconds after the ACT-transmission, a warning shall be displayed at the appropriate sector.

The exchange of ABI/ACT/LAM messages shall follow the OLDI standard, version 2.2 and include the following optional elements:

ABI/ACT field 22 shall include FPL-field type's 9 a+b+c and 15 a+b+c data with following route information as a minimum:

- Flights via ATS-routes: COP + one route element after COP

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Annex D.

Procedures for Coordination.

Effective: 2009-06-04

Revised: 2011-05-05

D.1 General Conditions for Acceptance of Flights.

- D.1.1 Coordination of flights shall take place by reference to the COP for the relevant route and in accordance with the appropriate flight levels specified for the relevant route (see paras D.2 and D.3).
- D.1.2 Flights shall be considered to be maintaining the coordinated flight level at least **5 NM** prior to the transfer of control point unless climb or descent conditions have been clearly stated by verbal coordination – except if otherwise described in para D.2 or D.3.
- D.1.3 For special regulations concerning flights into/out of Warszawa FIR - airspace G see Annexes C, E and F.
- D.1.4 Aircraft not equipped with 8.33 KHz channel spacing capability shall not be coordinated above FL 195 except for UHF-equipped exempted state aircraft.
- D.1.5 If the accepting ATS Unit cannot accept a flight offered in accordance with the conditions specified above, it shall clearly indicate its inability and specify the conditions under which the flight will be accepted.
- D.1.6 For any proposed deviation from the conditions specified in this Annex (eg. COP, route or flight level) the transferring unit shall initiate an Approval Request.
- D.1.7 The accepting ATS Unit shall not notify the transferring unit that it has established ground-to-air communications with the transferred aircraft unless specifically requested to do so.

D.2 ATS-Routes, Coordination Points and Flight Level Allocation.

Available ATS-routes, COPs to be used and flight level allocation to be applied, unless otherwise described in para D.3, are described in the tables below.

D.2.1 Flights from Bremen ACC to Warszawa ACC.

Except if a cruising level is lower, the following flights shall be coordinated and transferred as described in the table below.

Note: If more than one transfer condition is applicable to a specific flight, **the transfer condition with the lowest allocated flight level applies.**

Transfer Conditions	COP	ATS-Route and FL Allocation within Warszawa FIR	
- enroute TFC odd FL - DEP ETNL, EDBH, EDOP at FL270 - DEP EDAH at FL90 ¹⁾ - DEP ETNU at FL130 - ARR EPSC at FL110	BINKA	(U)N746	FL195 - FL460
		(U)L23	FL245 - FL460
		(U)M602 (CDR - see para D.4)	FL95 - FL460
- enroute TFC odd FL - DEP EDDT, EDDB: <u>W-RWYs:</u> at FL270 <u>E-RWYs:</u> FL230 or above climbing FL270 - ARR EPSC at FL110	BODLA	(U)L132	FL195 - FL460
		(U)Z491	FL95 - FL460
- enroute TFC odd FL - DEP ETNL, ETNU, EDBH at FL270 - ARR EPPO, EPZG at FL250	ALUKA	(U)L29 (CDR - see para D.4)	FL195 - FL460
		(U)L619 (CDR - see para D.4)	FL95 - FL460
- enroute TFC odd FL - DEP EDDT, EDDB: <u>W-RWYs:</u> FL230 or above climbing FL270 <u>E-RWYs:</u> FL170 or above climbing FL230	GILAS	(U)M994	FL95 - FL460
- enroute TFC odd FL - ARR EPPO, EPZG at FL250 - DEP EDDT, EDDB: <u>W-RWYs:</u> FL230 or above climbing FL270* *ARR to EPPO, EPZG FL 230 or above climbing FL250 <u>E-RWYs:</u> FL170 or above climbing FL230 - DEP EDAC, EDDC, EDAB, EDBM, EDBC at FL270 - DEP EDCD at FL150	SUI	(U)N858, (U)L980 (CDR - see para D.4), (U)T710(CDR - see para D.4)	FL95 - FL460
		(U)L867	FL245 - FL460
- enroute TFC odd FL - DEP EDDC, EDAB, EDDP at FL270 - ARR EPPO, EPZG at FL250 - DEP EDCD at FL110	GOVEN	(U)L979	FL95 - FL285

¹⁾ For DEP EDAH with RFL100 or above TWR EPSC shall ensure that the aircraft will leave the Heringsdorf CTA clear of airspace G.

D.2.2 **Flights from Warszawa ACC to Bremen ACC.**

Except if a cruising level is lower, the following flights shall be coordinated and transferred as described in the table below.

Note: If more than one transfer condition is applicable to a specific flight, **the transfer condition with the lowest allocated flight level applies.**

ATS-Route and FL Allocation within Bremen FIR / Rhein UIR		COP	Transfer Conditions
4000 MSL – FL660	(U)M602, (U)Z102(west of FLD CDR - see para D.4)	BINKA	- enroute TFC even FL - ARR ETNL, EDOP at FL280 - ARR ETNU at FL 140 - DEP EPSC at FL100 - ARR EDAH at FL100
FL250 – FL660	UL87	PESEL	- enroute TFC even FL
4000 MSL – FL660	(U)Z717, BODLA- STARs	BODLA	- enroute TFC even FL - ARR ETNL, ETNU, EDOP at FL280 - ARR EDDT, EDDB: <u>W-RWYs:</u> FL180 <u>E-RWYs:</u> FL280 - DEP EPSC at FL140
4000 MSL – FL660	(U)L619	ALUKA	- enroute TFC even FL - ARR ETNL, ETNU, EDOP at FL280 - ARR EDDT, EDDB: <u>W-RWYs:</u> FL120 <u>E-RWYs:</u> FL240
4000 MSL – FL660	(U)Z20	SUI	- enroute TFC even FL - ARR ETNL, ETNU, EDOP, EDDP, EDAC, EDVE, EDBM, EDBC, EDDC, EDAB at FL280 - ARR EDCD at FL160
4000 MSL – FL280	T205 (Only for DEST EDDT, EDDB and Y-FPLs)	GOVEN	- enroute TFC even FL - ARR EDDP, EDDE at FL260 - ARR EDDC, EDAB, EDAC at FL220
4000 MSL – FL280	Q200		- ARR EDDT: <u>W-RWYs:</u> FL180 <u>E-RWYs:</u> FL220
4000 MSL – FL660	(U)P31 (Only for DEST EDDC and EDAB)		- ARR EDDB: <u>W- + E-RWYs:</u> FL180
FL280 – FL 660	UL735		- ARR EDCD at FL120

D.3 Special Procedures.

D.3.1 Flights from Bremen ACC to Warszawa ACC.

Traffic via BODLA 5500AMSL – FL125 and BINKA FL095 - FL125 (TMA EPSC) shall be transferred to TWR Szczecin with NON RADAR separation applying the following longitudinal separation minima based on time:

When an aircraft is at the level of another aircraft, the following minimum separation shall be applied:

- 10 minutes, if navigation aids permit frequent determination of position and speed;
- 5 minutes between en-route aircraft that have reported over the same significant point, provided that the preceding aircraft is maintaining a true airspeed of 20 KT or more faster than the succeeding aircraft;
- 3 minutes between en-route aircraft that have reported over the same significant point provided that the preceding aircraft is maintaining a true airspeed of 40 KT or more faster than the succeeding aircraft

D.3.2 Flights from Warszawa ACC to Bremen ACC.

D.3.2.1 Westbound Flights

Unless otherwise coordinated westbound flights via ALUKA or GOVEN are released for turn and descend to FL100 (provided the traffic does not enter the TMA EPSC) when passing the position 15 NM in front of the common AoR boundary.

D.3.2.2 Arrivals to EDDT, EDDB.

D.3.2.2.1 Arrivals to EDDT, EDDB shall be routed via BODLA, ALUKA or GOVEN only.

D.3.2.2.2 MARP shall inform B-Sector about the actual runway direction in use at Berlin airports and the respective Standard Arrival Routes to be assigned to Arrivals via BODLA by Warszawa ACC. FLGP shall inform D Sector about the actual runway direction in use at Berlin airports.

D.3.3 BINKA Release Line.

D.3.3.1 The BINKA Release Line is established to reduce the release requests by Karlsruhe UAC and Bremen ACC for traversing traffic through Warszawa ACC sector B in the area of BINKA. The release line enables Karlsruhe UAC and Bremen ACC to circumnavigate activated military training areas (variable modules) along the Polish German border without further coordination with ACC Warszawa.

D.3.3.2 Traffic planned via UN33, UZ131 or UM725 on direct tracks at least 3,5 NM west of the BINKA Release Line at **FL250** or above shall be released by Warszawa ACC sector B to Karlsruhe UAC sector OSEH or Bremen ACC sector MRZ and MAR.

D.3.3.3 Bremen ACC sector MRZ and MAR, respectively Karlsruhe UAC sector OSEH shall be responsible for separation between the released traffic listed in D.3.3.2 and the known traffic planned to proceed via BINKA ((U)N746, (U)L23 or (U)M602) or PESEL ((U)L87).

Traffic planned via UN746-BINKA-UN746-DEMUR may be cleared direct DEMUR if the FIR boundary will be passed between PESEL and BINKA.

D.3.3.4 Warszawa ACC sector B shall coordinate traffic, e.g. military traffic, unknown to Bremen ACC sector MRZ or MAR, respectively Karlsruhe UAC sector OSEH coming closer than 3,5 NM east of the BINKA Release Line.

With the activation of the EP D57 above FL245 the BINKA Release Line shall be temporarily withdrawn.

The use of the BINKA Release Line may be terminated anytime by Warszawa ACC on short notice.

D.4 Co-ordination of Status of Special Areas in the Area of Common Interest.

D.4.1 With a minimum prenotification time of **15 minutes** Warszawa ACC shall keep Bremen ACC advised on periods the ATS-routes **L29, L619, M602, L980, T710** or parts of them are **closed for civil traffic**.

In case the CDR (U)Z102 between FLD and HAM is not available, an alternate routing shall be coordinated between the ATC sectors concerned.

D.4.2 Bremen Sector MUERITZ shall notify Warszawa ACC sector B of the activation and deactivation of ED D47 or parts of them. The activation messages will be given with a minimum pre-notification time of 15 minutes and includes proposed activation time and lowest / highest useable flight level above / below the area or parts of them.

D.5 VFR-flights.

D.5.1 For VFR-flights at FL 100 and above coordination transfer of control and transfer of communication shall take place as for IFR-flights.

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Annex E.

Transfer of Control and Transfer of Communications.

Effective: 2009-06-04
 Revised: 2010-08-26

E.1 Transfer of Control.

E.1.1 General.

The transfer of control shall take place at the common AoR-boundary.

E.1.2 Flights into/out of Warszawa FIR - Airspace G.

- E.1.2.1 For VFR-flights at night and IFR-flights entering Warszawa FIR airspace class G ATC shall be terminated, when passing the common AoR-boundary.
- E.1.2.2 For VFR-flights at night and IFR-flights leaving Warszawa FIR airspace class G ATC shall commence, when passing the common AoR-boundary.

E.2 Transfer of Communications.

E.2.1 General.

Unless otherwise coordinated the transfer of communications shall take place

- for westbound flights **via ALUKA or GOVEN** not later than 15 NM in front of the common AoR boundary,
- for all other flights not later than the transfer of control.

E.2.2 Flights into/out of Warszawa FIR - Airspace G.

- E.2.2.1 For VFR flights at night and IFR-flights entering Warszawa FIR - airspace class G communication shall be transferred to FIS Gdansk or FIS Poznan respectively when passing the AoR-boundary at the latest.
- E.2.2.2 For VFR flights at night and IFR-flights leaving Warszawa FIR - airspace class G communication shall be transferred from FIS Gdansk or FIS Poznan respectively to the appropriate Bremen ATC sector not later than 5 minutes flying time to the common boundary of responsibility, in order to obtain the entry clearance by Bremen ACC.
- E.2.2.3 For traffic via BODLA 5500AMSL – FL125 and BINKA FL095 - FL125 (TMA EPSC, airspace class C) Bremen ACC shall transfer communication to TWR EPSC

Note 1: Frequencies:

Bremen ACC:	Frequencies	
	VHF	UHF
MRZE:	124.175 MHz	363.575 MHz
MARE:	136.050 MHz	396.975 MHz
FLGE:	136.450 MHz	369.300 MHz
DBANB:	119.625 MHz	398.575 MHz
DBASB:	126.425 MHz	398.575 MHz
DBAT:	136.100 MHz	398.575 MHz
DBADB:	120.625 MHz	313.500 MHz
WWC3I:	132.650 MHz	251.375 MHz

· Warszawa ACC:	Sector B:	124.925 MHz	(Backup 132.700 MHz, 134.925 MHz)
	Sector D:	134.225 MHz	(Backup 132.700 MHz, 134.925 MHz)
	TWR Szczecin:	121.250 MHz	
	FIS Gdansk:	127.150 MHz	
	FIS Poznan:	126.300 MHz	

Note 2: For **UHF-equipped State aircraft** an approval request shall be initiated 5 minutes prior to transfer of communication at the latest.

Note 3: ACC Bremen shall transfer **UHF-equipped state aircraft** to the VHF frequencies listed in Note 1, if VHF equipped. Otherwise the transfer shall be made to the UHF frequency determined by ACC Warszawa during the telephone coordination.

E.2.3 **Contingency.**

Should an aircraft be discovered to be non-8.33-equipped at the moment of the transfer of communication, the transferring unit shall advise the accepting unit immediately.

In close cooperation all necessary coordination to allow for a safe transition below FL195 shall be achieved.

Annex F.

Radar Based Coordination Procedures.

Effective: 2009-06-04

Revised:

F.1 SSR Code Assignment.

F.1.1 Both units shall transfer aircraft on verified discrete SSR codes assigned in accordance with ORCAM.

Exception: If not otherwise coordinated flights from uncontrolled airports within Warszawa FIR with RFL below FL95 shall use the SSR codes A2000 (IFR-flights) or A7000 (VFR-flights).

F.1.2 Any change of SSR code by the accepting unit may only take place after the transfer of control point.

F.1.3 The accepting unit shall be notified of any observed irregularity in the operation of SSR transponders.

F.2 Radar Coordination Procedures.

F.2.1 General.

F.2.1.1 Transfer of radar identification and transfer of radar control between Bremen ACC and Warszawa ACC shall be subject to the serviceability of the respective radar systems and two-way direct speech facilities between the radar positions.

F.2.1.2 If it becomes necessary to reduce or suspend radar transfers, a **5 minutes** prior notification shall be observed, except in emergency situations, such as loss of radar etc.

F.2.1.3 For flights into/out of Warszawa FIR - airspace G transfer of radar identification and transfer of radar control is not applicable.

F.2.1.4 Relevant instructions to the aircraft concerned (e.g. level, speed or vectoring instructions) shall be passed from the transferring radar controller to the accepting radar controller prior to the transfer of radar control.

F.2.1.5 Vectoring within the respective AoRs may take place without coordination between the units, provided the distance to the AoR-boundary is never less than **half the value of the radar separation minimum** according para F.2.2.

F.2.1.6 A radar monitored climb or descent shall be so conducted that the coordinated flight level (or the minimum/maximum flight level in case climb or descend conditions have been coordinated) will be reached **half the value of the radar separation minimum** according para F.2.2 prior to the transfer of control point.

F.2.2 **Transfer of Radar Control.**

Transfer of radar control may be effected after prior verbal coordination provided the minimum distance between the aircraft does not fall below **7 NM**.

Note: Between flights of aircraft type Airbus A380 (A388) at FL 100 or below and **medium** aircraft operating directly behind, a separation of less than **8 NM** shall not be accepted by Bremen ACC.
Between flights of aircraft type Airbus A380 (A388) at FL 100 or below and **light** aircraft operating directly behind, a separation of less than **10 NM** shall not be accepted by Bremen ACC.

F.2.3 **Silent Transfer of Radar Control.**

Transfer of radar control may be effected without prior verbal coordination provided the minimum distance between successive aircraft about to be transferred is **15 NM** constant or increasing.

Note: When using mach-number speed control, pilots concerned shall be instructed to report their assigned mach-number to the accepting Unit upon initial contact.

F.3 **Reduced Longitudinal Separation.**

F.3.1 In case the two-way direct speech facilities between the respective radar positions of ACC Warszawa and ACC Bemen are not servicable (see para F.2.1.1) a minimum longitudinal separation of **3 minutes** may be applied between aircraft on the same track or crossing tracks, whether at the same level, climbing or descending, provided that the relevant aircraft are continuously radar monitored and the transferring Unit has ensured that the actual distance between the aircraft does not fall below **20 NM**.

Annex G.

Supplementary Procedures.

Effective: 2009-06-04

Revised: 2011-02-10

G.1 Flight Procedures to/from Heringsdorf.

G.1.1 Separation.

G.1.1.1 Bremen ACC shall ensure

- a minimum lateral distance of half the value of the radar separation minimum according Annex F, para F.2.2 or a minimum vertical distance of 500 ft between IFR flights or VFR flights at night, operating within Heringsdorf CTA, and the lateral/vertical Area-boundaries.

G.1.1.2 Warszawa ACC shall ensure

- a minimum lateral distance of half the value of the radar separation minimum according Annex F, para F.2.2 or a minimum vertical distance of 500 ft between flights outside Heringsdorf Area, which are to be separated, and the lateral/vertical Area-boundaries.

G.1.2 EP-R 22.

Inside Heringsdorf Area/Heringsdorf CTR

- flights on published instrument flight procedures may penetrate EPR 22 without further coordination with ACC Warszawa,

- aircraft on vectors outside published instrument procedures shall not be permitted to enter EPR 22, separation to the lateral or vertical boundaries of EPR 22 is not required.

G.2 Flight Procedures to/from Cottbus Drewitz.

G.2.1 Separation.

G.2.1.1 Bremen ACC shall ensure

- a minimum lateral distance of half the value of the radar separation minimum according Annex F, para F.2.2 or a minimum vertical distance of 500 ft between IFR flights or VFR flights at night, operating within Cottbus Drewitz Area, and the lateral/vertical Area-boundaries.

G.2.1.2 Warszawa ACC shall ensure

- a minimum lateral distance of half the value of the radar separation minimum according Annex F, para F.2.2 or a minimum vertical distance of 500 ft between flights outside Cottbus Drewitz CTA, which are to be separated, and the lateral/vertical Area-boundaries.

G.2.2 Resuming of ATS.

In case of execution of TANGO missions in the Cottbus Drewitz CTA Poland can resume ATS within Cottbus Drewitz CTA. It shall be coordinated between the Supervisors.

G.3 Contingency Arrangements.

G.3.1 General.

G.3.1.1 In case of technical or catastrophic outage resulting in the disruption of ATS at Bremen ACC or at Warszawa ACC, the adjacent coordinating partners are expected to assist the failing ATS Unit as far as possible in order to ensure the safe evacuation of air traffic from the AoR of the failing ATS Unit.

G.3.1.2 The CCP of Warszawa ACC or the Supervisor of Bremen ACC will decide about the required contingency measures and coordinate the subsequent execution of the contingency plan/measures.

G.4 Contingency Plan for Warszawa ACC.

G.4.1 VERSION A (ALPHA) CLOSURE OF WARSZAWA FIR.

CIRCUMSTANCES

- Evacuation of ACC Warszawa (fire, bomb attack, Ops room destroyed etc.)

ACTION REQUIRED

- a) TFC departing EPWW FIR -grounded,
- b) TFC destination EPWW FIR -grounded or diverted to A/Ds in other FIRs,
- c) TFC overflying EPWW FIR -re-routed via other FIRs.

G.4.2 VERSION B (BRAVO) CLOSURE OF WARSZAWA FIR (EMERGENCY AND HOSPITAL FLIGHTS EXEMPTED).

CIRCUMSTANCES

- Unavailability of radio contact with aircraft or
- Unavailability of any communication with adjacent FIRs.

ACTION REQUIRED

- a) TFC departing EPWW FIR -grounded,
- b) TFC destination EPWW FIR -grounded or diverted to A/Ds in other FIRs,
- c) TFC overflying EPWW FIR -re-routed via other FIRs,
- d) Only Emergency and Hospital flights accepted after prior coordination.

G.4.3 VERSION C (CHARLIE) REDUCED CAPACITY AND FLIGHT LEVEL RESTRICTIONS.

CIRCUMSTANCES

- Radar system failure.

ACTION REQUIRED

- a) Only following sectors can be opened and their capacity is reduced:

	Sectors	Capacity ACFT/hour
EPWW	D, BG, SE, JR, TC	10

- b) Only following ATS-Routes will be opened:

B 41, B 45

- c) Only following RNAV Routes will be opened:

(U)M 994 (GILAS – DRE and KMI – GOMED), (U)N 858, (U)L 980 (SUI – LDZ only), (U)N 869, (U)L 617 (CZE – REGLI only), (U)L 618, (U)L 619 (DRE – CZE only), (U)L 621, (U)L 727, (U)L 981 (JED – DIBED only), (U)L 996, (U)M 985, (U)M 857 (SIE – BOKSU only), (U)N 871 (LDZ – SUW only), (U)T 703.

- d) TFC destination EPWW FIR – accepted below FL265,
- e) Minimum 10 minutes separation between 2 ACFT at the same FL applied.

G.4.4 **VERSION D (DELTA) CLOSURE OF ACC SECTORS.**

CIRCUMSTANCES

- Lack of operational personnel (strike, epidemic disease, etc.).

ACTION REQUIRED

- a) Capacity of each sector reduced to 20 ACFT / hour (may be changed by ACC SUP according to the situation),
- b) Actual sector configuration announced by ACC SUP according to the situation.

G.4.5 **VERSION E (ECHO) REDUCED CAPACITY.**

CIRCUMSTANCES

- Flight Data Processing System Failure,
- Other technical equipment failures.

ACTION REQUIRED

- a) Capacity of each sector reduced to 20 ACFT / hour (may be changed by ACC SUP according to the situation),
- b) TFC destination EPWW FIR – accepted below FL 265,
- c) Departures from EPWA with minimum 10 minutes separation between 2 ACFT at the same route.

G.4.6 **CONTINGENCY CONTACT POINT.**

G.4.6.1 Purpose.

To have a central decision-making body in case of contingency located in different building than ACC, APP and TWR.

CCP is located in ATS Reporting Office at EPWA.

CCP is activated in case of evacuation of ACC (otherwise CCP is the Supervisor of ACC Warszawa). CCP in ATS Reporting Office at EPWA is staffed by AIS Officers and is responsible for issuing of Contingency Messages and informing other ATS Units about Contingency situation.

After evacuation of the ACC, the Supervisor of ACC and other ATCOs staffs the CCP.

G.4.7 **INFORMATION ON POSSIBLE ACTIONS IN CASE OF CLOSURE OR REDUCTION OF CAPACITY IN ADJACENT FIRs.**

CIRCUMSTANCES

- Adjacent FIR closed,
- Capacity of adjacent FIR unexpectedly reduced.

ACTION REQUIRED

- a) Supervisor of Warszawa ACC is able to increase the capacity of Warszawa FIR in short term notice along the AWY where the expected demand will increase, using the following methods:
1. Open 1(2) extra sector using ATCOs being off and bring other ATCOs to duty (maximum of 6 sectors available at ACC Warszawa)
 2. Change of the configuration – open more sectors along the AWY where the expected demand will increase.
- b) Capacity of Warszawa ACC will be increased and the possible bottlenecks will be the entry and exit points according to the situation in the adjacent FIRs.

Example of a Contingency Message

PLAN A (G.6.1 REFERS)

ATTN – ATTN CONTINGENCY MESSAGE
ACC WARSZAWA CLOSED AND EVACUATED UFN
NO TFC ACCEPTED
CONTINGENCY PLAN VERSION ALPHA APPLIED
CONTINGENCY CONTACT POINT IS AVAILABLE IN ATS REPORTING OFFICE AT EPWA
TEL.: + 48 22 650 2557
FAX.: +48 22 650 2854
AFTN: EPWAZPZX; EPWWYNYX
ACC WARSZAWA SUPERVISOR

G.5 Contingency Plan for Bremen ACC.

In case of contingency the regulations of this chapter take precedence over the respective provisions of Annexes A to F to this LoA.

G.5.1 Contingency Phase 0.

- G.5.1.1 In the event of an incident which requires the cessation of Operations or causes a sudden loss of Bremen ACC, the Bremen Supervisor shall notify and brief the Supervisor of Warszawa ACC as far as possible.

If necessary and possible, measures shall be agreed in order to ensure the safe evacuation of all controlled air traffic from the AoR of Bremen ACC. When the Operations of Bremen ACC have ceased and its AoR is clear of controlled traffic, the Supervisor in charge of Operations shall declare contingency phase 0 for Bremen ACC.

From this time on

- the AoR of Bremen ACC shall be called the Contingency Area (CA) until full serviceability of Bremen ACC is recovered,
- the CA is a No-Fly-Zone, entry is prohibited until contingency phase 2 is activated.

G.5.1.2 Contingency Contact Point (CCP) Bremen ACC – Communications.

Supervisor ATC - 0049 421 59 634 89 or 0049 173 340 1129

G.5.2 Contingency Phase 1.

Not applicable.

G.5.3 **Contingency Phase 2.**

In contingency phase 2 Bremen ACC re-establishes the provision of ATS within its AoR by opening contingency sectors at aiding units. The Bremen ATC-sectors adjacent to Warszawa ACC will be combined to the contingency sectors CBE1/2 - relocated to CRC Schoenewalde and CBEA - relocated to EDDB TWR.

G.5.3.1 Activation / Deactivation.

Bremen chief of CCP shall inform the Supervisor Warszawa ACC about the activation and deactivation of the contingency sectors.

G.5.3.2 ATFM Procedures.

Necessary ATFM-measures to be applied during contingency phase 2 will be initiated by the Supervisor Bremen ACC.

G.5.3.3 Exchange of Flight Data.

G.5.3.3.1 Basic flight plan data are available at the contingency working positions only to some extent.

G.5.3.3.2 Since OLDI-data exchange with the contingency working positions is not possible, all estimates shall be coordinated by telephone. The pre notification time of estimates shall be 30 - 15 minutes before the aircraft is estimated to pass the common boundary.

G.5.3.3.3 An expedite clearance shall be obtained by the transferring ATS Unit when

- the estimate cannot be passed at least 15 minutes before the aircraft is estimated to pass the common boundary.
- a change of coordinated flight level has to be executed within 5 minutes prior to crossing the common boundary.

G.5.3.4 Control Procedures.

G.5.3.4.1 General

Deviations from published ATS-routes shall be coordinated only to prevent dangerous situations or in case of emergencies.

G.5.3.4.2 Separation minima between succeeding aircraft on transfer

- with verbal coordination 15 NM constant or increasing.

G.5.3.5 Voice Communication Systems.

All coordination partners of Bremen ACC shall make sure that they are able to reach the Bremen ACC contingency working positions via MFC numbers, taking into consideration that Bremen ACC is completely off, including the technical systems. Public Phone shall be used as back up system. During exercises all systems at Bremen keep on running, beside OLDI-data exchange.

G.5.3.6 Callsign.

Telephone callsign for Bremen ACC in case of contingency shall be: Bremen Contingency + name of working position (e. g. East 1).

G.5.3.7 SSR Code Assignment.

During contingency Bremen ACC may not be able to transfer aircraft on discrete SSR codes assigned in accordance with ORCAM.

G.5.3.8 Contingency Sectors and Communications.

Bremen ACC Contingency sectors (Aiding Unit) Combined sectors	Type of message	Position	Communications
CBE1/2 (CRC Schoenewalde) CBE1: MRZ, MAR CBE2: FLG, (BOR)	Control Messages, Expedite Clearances, Approval Requests, Revisions, Passing Estimates	CBE1P Planner	MFC: 34 7793 Public network: +49 35389 8633 798
		CBE2P Planner	MFC: 34 7791 Public network: Via CBE1P
	Radar Coordination	CBE1E Executive	MFC: 34 7794 Public network: (via CBE1P) Frequ. MRZ, MAR: VHF 134.650 / UHF 373.975
		CBE2E Executive	MFC: 34 7792 Public network: (via CBE1P) Frequ. FLG, (BOR): VHF 126.075 / UHF 396.975
	Flight Plan Data and Receiving Estimates	CBEB Assistant	MFC: 34 7795 Public network: +49 35389 8633 797
	CBEA (EDDB TWR) DBAN, DBAS, DBAT, DBAD	Control Messages, Expedite Clearances, Approval Requests, Revisions, Passing Estimates	CBEAP Planner
Radar Coordination		CBEA Executive	MFC: 34 2702 Public network: (via CBEAP) VHF 125.300 / UHF 240.975
Flight Plan Data and Receiving Estimates		CBEAA Assistant	MFC: 34 2706 Public network: (via CBEAP)
Supervisor CBNSM (UAC Maastricht)	Procedures Capacity, Emergency	Supervisor Bremen for all contin- gency working positions	MFC: 34 4923 Public network: +31 43366 2522

Note: Bremen ACC contingency working positions will call the working positions of Warszawa ACC on the extensions agreed in this LoA.

END