LETTER OF AGREEMENT

between

VATSIM Germany	**and**	Dutch vACC
Bremen FIR		**Amsterdam FIR**

Effective: TBD

1 General.

1.1 Purpose.

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between Bremen FIR and Amsterdam FIR when providing ATS to air traffic (IFR/VFR) on the VATSIM network.

All information and procedures described in this Letter of Agreement shall not be used for real world purposes .

1.2 Operational Status.

All operational significant information and procedures contained in this Letter of Agreement shall be distributed to all concerned controllers by appropriate means. This Letter of Agreement itself constitutes public information.

1.3 Validity.

This Letter of Agreement becomes effective TBD and supersedes the Letter of Agreement between Bremen FIR and Amsterdam FIR dated 2007-04-12.

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 paragraph 2.2 for the description of the areas where delegation of the responsibility for the provision of ATS is applicable.

2.1.1 Bremen FIR.

Lateral limits: Bremen FIR
Vertical limits: GND – UNL

2.1.2 Amsterdam FIR.

Lateral limits: Amsterdam FIR
Vertical limits: GND – UNL

2.2 Sectorization.

2.2.1 Bremen FIR.

Sector: Eider (EID)
Lateral limits: TBD, see Appendix
Vertical limits: GND – FL245
Responsible ATS unit (in order of precedence):

1. EDWW_E_CTR (Bremen Radar), 120.22
2. EDWW_A_CTR (Bremen Radar), 123.92
3. EDWW_CTR (Bremen Radar), 125.02

Sector: Aller East High (ALEH)
Lateral limits: TBD, see Appendix
Vertical limits: GND – FL245
Responsible ATS unit (in order of precedence):

1. EDWW_A_CTR (Bremen Radar), 123.92
2. EDWW_CTR (Bremen Radar), 125.02

Sector: Deister (DST)
Lateral limits: TBD, see Appendix
Vertical limits: GND – FL245
Responsible ATS unit (in order of precedence):

1. EDWW_D_CTR (Bremen Radar), 128.75
2. EDWW_A_CTR (Bremen Radar), 123.92
3. EDWW_CTR (Bremen Radar), 125.02

Sector: Holstein (HOL)
Lateral limits: TBD, see Appendix
Vertical limits: FL245 – FL660
Responsible ATS unit (in order of precedence):

1. EDYY_C_CTR (Maastricht Radar), 133.95
2. EDWW_A_CTR (Bremen Radar), 123.92
3. EDWW_CTR (Bremen Radar), 125.02
4. *EURM_CTR (Maastricht Radar), 135.45*

Remark: EURM_CTR is an ATS unit of EuroCenter vACC.

Sector: Celle (CEL)
Lateral limits: TBD, see Appendix
Vertical limits: FL245 – FL660
Responsible ATS unit (in order of precedence):

1. EDYY_C_CTR (Maastricht Radar), 133.95
2. EDWW_D_CTR (Bremen Radar), 128.75
3. EDWW_CTR (Bremen Radar), 125.02
4. EDGG_P_CTR (Langen Radar), 135.65
5. EDGG_H_CTR (Langen Radar), 129,17
6. *EURM_CTR (Maastricht Radar), 135.45*

Remark: EURM_CTR is an ATS unit of EuroCenter vACC.

Sector: Jever (JEV)
Lateral limits: TBD, see Appendix
Vertical limits: FL245 – FL660
Responsible ATS unit (in order of precedence):

1. EDYY_J_CTR (Maastricht Radar), 134.70
2. EDYY_D_CTR (Maastricht Radar), 132.07
3. EHAA_W_CTR (Amsterdam Radar), 125.75
4. EDYY_C_CTR (Maastricht Radar), 133.95
5. EDWW_A_CTR (Bremen Radar), 123.92
6. EDWW_CTR (Bremen Radar), 125.02
7. EURM_CTR (Maastricht Radar), 135.45

Remark: Sector Jever is a joint sector of Bremen FIR and Amsterdam FIR and is controlled as a single sector by the responsible ATS unit. EURM_CTR is an ATS unit of EuroCenter vACC.

2.2.2 Amsterdam FIR

Sector:
Lateral limits:
Vertical limits:
Responsible ATS unit (in order of precedence):

1.
2.
3.
4.

2.2.3 Relevant adjacent sectors

Sector: Muenster (MNS)
Lateral limits: TBD, see Appendix
Vertical limits: FL245 – FL660

Remark: Sector Muenster belongs to Langen FIR (EDGG) and is staffed by ATS units from Bremen FIR when no reponsible ATS unit from Langen FIR is online. The list of responsible ATS units shall be described authoritatively in the Letter of Agreement between Langen FIR and Amsterdam FIR.

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

Besides the joint sector Jever (see Section 2.2.1) there is no delegated airspace between Bremen FIR and Amsterdam FIR.

3 Procedures.

Traffic may be cleared direct to the COP without prior coordination.

3.1 **Flights from Bremen FIR to Amsterdam FIR.**

Destination	**ATS Route**	**COP**	**Next Sector**	**Level Allocation**	**Special Conditions**
Amsterdam EHAM	N125	DOBAK	EHAA	RFL (even)	NOTE A
	N872	KUBAT	EHAA	RFL (even)	NOTE A
	P999	SOMPO	EHAA	RFL (even)	NOTE A
	P174	TEMLU	EHAA	RFL (even)	NOTE A

	UN125	DOBAK	EHAA	FL260	NOTE B
	UN872	KUBAT	EHAA	FL260	NOTE B
	UP174	TEMLU	EHAA	FL 260	NOTE B
Groningen EHGG	N125	DOBAK	EHGG	FL80	
Departure	**ATS Route**	**COP**	**Next Sector**	**Level Allocation**	**Special Conditions**
Bremen EDDW	EEL SID	prior AoR	JEV	FL 240	NOTE C
Hamburg EDDH HH-Finkenwerder EDHI Luebeck EDHL	UN125	DOTOB	JEV	FL 240	NOTE D
Kiel EDHK	any routing	prior AoR	JEV	FL 240	NOTE C
Bremerhafen EDWB Emden EDWE Flensburg EDXF Wilhelmshaven EDWI Wittmund ETNT Jever ETNJ Schleswig ETNS Hohn ETNH				Indiv. Coord.	
Overflights	**ATS Route**	**COP**	**Next Sector**	**Level Allocation**	**Special Conditions**
	N873	LABIL	EHAA	RFL (even)	
	P174	TEMLU	EHAA	RFL (even)	
	P999	SOMPO	EHAA	RFL (even)	
	N872	KUBAT	EHAA	RFL (even)	
	N125	DOBAK	EHAA	RFL (even)	
	UN872	GOLEN	JEV	RFL (even)	
	UN125	WSR	JEV	RFL (even)	
	UZ710	Indiv. Coord.	JEV	Indiv. Coord.	

Note A: Unless otherwise coordinated, traffic may be routed direct to EEL. Bremen shall ensure separation of westbound traffic until EEL.
Note B: For informational purposes only. Traffic on these routes is normally not handled by Bremen.
Note C: Transfer of communication shall take place before the Amsterdam FIR boundary.
Note D: Unless otherwise coordinated, traffic may be routed direct to DOTOB.

3.1 **Flights from Amsterdam FIR to Bremen FIR.**

Destination	**ATS Route**	**COP**	**Next Sector**	**Level Allocation**	**Special Conditions**
Bremen EDDW	N125	DOBAK	ALEH	RFL (odd)	NOTE A
	UN125	DOBAK	ALEH	FL 250	NOTE A
Hamburg EDDH HH-Finkenwerder EDHI Luebeck EDHL	N125	DOBAK	ALEH	RFL (odd)	NOTE B
	UN125	DOBAK	ALEH	FL 250	NOTE B
Sylt EDXW	UZ703	DHE	EID	FL 250	NOTE C
	UP729	DHE	EID	FL 250	NOTE C
Kiel EDHK	UN125	WSR	ALEH	FL250	
Bremerhafen EDWB Emden EDWE Flensburg EDXF Wilhelmshaven EDWI Wittmund ETNT Jever ETNJ Schleswig ETNS Hohn ETNH	any routing	N/A	EID	Indiv. Coord.	
Departure	**ATS Route**	**COP**	**Next Sector**	**Level Allocation**	**Special Conditions**
Groningen EHGG	N125	DOBAK	ALEH	FL 70	
Overflights	**ATS Route**	**COP**	**Next Sector**	**Level Allocation**	**Special Conditions**
	N873	LABIL	EID	RFL (odd)	
	P174	TEMLU	EID	RFL (odd)	
	P999	SOMPO	EID	RFL (odd)	
	N125	DOBAK	ALEH	RFL (odd)	

	UZ303	DHE	HOL	RFL (odd)	
	UZ729	?	HOL	RFL(odd)	
	UN125	REVLA	HOL	RFL (odd)	
	UZ170		HOL	Indiv. Coord.	NOTE X

Note A: Traffic is released for descend and right turns. Bremen shall ensure separation from other traffic.
Note B: Traffic is released for descend and left turns direct to SORUN or RIBSO. Bremen shall ensure separation from other traffic.
Note C: Unless otherwise coordinated, Amsterdam shall clear EDXW arrivals to cross 10 NM prior DHE at FL250.
Note X: Direct transfer of traffic on route UZ170 to EKDK is subject to individual coordination.

3.1 The procedures to be applied by Bremen FIR and Amsterdam FIR 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

3.2 These procedures shall be promulgated to the operational staff of the ATS units concerned.

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 signatory authorities.

4.2 Revision of the Annexes to the Letter of Agreement.

The revision of Annexes to the present Letter of Agreement requires the mutual written consent of the authorities designated by the respective signatory approving authorities, normally the Heads of Operations at the respective units.

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.

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 agreement of the respective Approving Authorities may take place at any time.

5.2 Cancellation of this Letter of Agreement by either Approving Authority 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 [time period] 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 TBD, and supersedes the Letter of Agreement between Bremen FIR and Amsterdam FIR dated [date].

[Place, date]

_____
[name]
VATSIM Germany

[Place, date]

_____
[name]
Dutch vACC

[Place, date]

_____
[name of representative of ATS-unit 1]
[ATS-unit 1]

[Place, date]

_____
[name of representative of ATS-unit 2]
[ATS-unit 2]

Appendix [X]
Paragraph 2.2.1.1

Appendix [X+1]
Paragraph 2.2.2.1

Annex A.

Definitions and Abbreviations.

Effective: TBD
Revised: [date]

A.1 Definitions.

A.1.1 **ATS 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 co-ordination 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 pre-notification time, or

≅ an aircraft in flight intending to operate under conditions other than those described in mutually agreed procedures.

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 pre-notification time.

A.1.5 **Division Level (DL).**

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

A.1.6 **General Air Traffic (GAT).**

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 (OAT).**

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 **Reduced Vertical Separation Minimum (RVSM).**

A vertical separation minimum of 300 m (1 000 ft) which is applied between FL 290 and FL 410 inclusive, on the basis of regional air navigation agreements and in accordance with conditions specified therein.

A.1.8.1 RVSM Approved Aircraft.

Aircraft that have received State approval for RVSM operations within the EUR RVSM airspace.

A.1.8.2 RVSM Entry Point.

The first reporting point over which an aircraft passes or is expected to pass immediately before, upon, or immediately after initial entry into EUR RVSM airspace, normally the first reference point for applying a 300 m (1 000 ft) vertical separation minimum between RVSM approved aircraft.

A.1.8.3 RVSM Exit Point.

The last reporting point over which an aircraft passes or is expected to pass immediately before, upon, or immediately after leaving EUR RVSM airspace, normally the last reference point for applying a 300 m (1 000 ft) vertical separation minimum between RVSM approved aircraft.

A.1.9 **Release.**

A.1.9.1 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.1.9.2 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.1.9.3 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.1.10 **State Aircraft.**

For the purposes of EUR RVSM, only aircraft used in military, customs or police services shall qualify as State aircraft.

A.2 Abbreviations.

ABI Advance Boundary Information

ACI* Area of Common Interest

ACT Activation Message

AIP Aeronautical Information Publication

AMC* Airspace Management Cell

AoR* Area of Responsibility

ATC Air Traffic Control

ATS Air Traffic Services

CBA* Cross Border Area

CDR* Conditional Route

COP* Co-ordination Point

CRAM* Conditional Route Availability Message

DL* Division Level

ETO Estimated Time Over Significant Point

FDPS Flight Data Processing System

FIC Flight Information Centre

FIR Flight Information Region

FMP* Flow Management Position

GAT* General Air Traffic

ICAO International Civil Aviation Organization

IFR Instrument Flight Rules

LAM Logical Acknowledge (Message Type Designator)

LoA* Letter of Agreement

MAC* Message for Abrogation of Co-ordination (OLDI)

MFC* Multi Frequency Coding (telephone system)

NM Nautical Mile

OAT* Operational Air Traffic

OLDI On-line Data Interchange

ORCAM Originating Region Code Assignment Method

PAC* Pre-activation Message (OLDI)

REV Revision Message

RTF Radio Telephony

RVSM Reduced Vertical Separation Minimum

SSR Secondary Surveillance Radar

TSA* Temporary Segregated Airspace

UIR Upper Flight Information Region

VFR Visual Flight Rules

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

Annex B.

Area of Common Interest.

Effective: TBD
Revised: [date]

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

B.1.1 **[YYYY FIR/UIR].**

Area	Vertical limits	Airspace Classification

[Special regulations relevant to the provision of ATS in the ACI].

B.1.2 **[ZZZZ FIR/UIR].**

Area	Vertical limits	Airspace Classification

[Special regulations relevant to the provision of ATS in the ACI].

B.2 Sectorisation.

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 within the ACI.**

[description of delegation of ATS along the common AoR-boundary to/from other ATS units, if applicable - reference to Appendix 2 of Annex B. (map)]

B.3.2 **Other Areas.**

nnex B (map)]

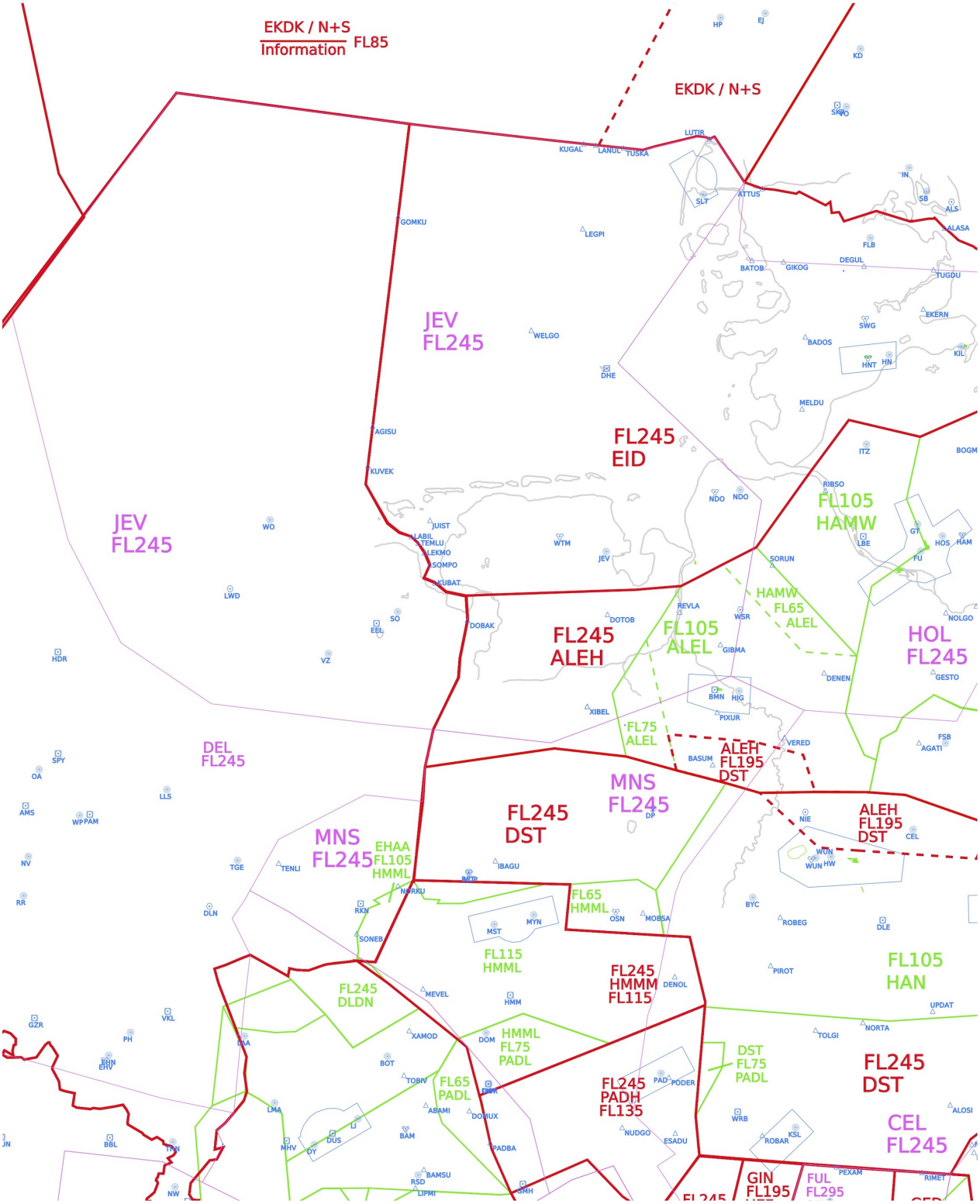
B.4 Non-published Co-ordination Points.

COPs that are not related to significant points published in relevant AIPs

[COP] [co-ordinates]

Appendix 1 of Annex B

Sectorisation.



Appendix 2 of Annex B

Designated special areas.

Annex C[1].

Exchange of Flight Data.

(**with** automatic data exchange)

Effective: TBD
Revised: [date]

C.1 General.

C.1.1 Basic Flight Plans.

Basic flight plan data should normally be available at both ATS Units.

C.1.2 Current Flight Plan Data.

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

C.1.2.1 Automatic Data Exchange.

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

C.1.2.2 Verbal Estimates.

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

A verbal estimate shall be passed to the appropriate sector at the accepting ATS unit at least [value to be decided] minutes prior, but not earlier than 30 minutes before the aircraft is estimated to pass the transfer of control point.

A verbal estimate shall contain:

a) Callsign.

Note: To indicate that the flight plan is available, the accepting ATS unit should state aircraft type and destination after having received the callsign.

b) SSR code:
- ≅ Notification of the discrete code of aircraft; or
- ≅ Notification of the Mode S conspicuity code 1000.

c) ETO for the appropriate COP as laid down in Annex D to this LoA.

d) Cleared level, specifying climb or descent conditions if applicable, at the transfer of control point.

Requested level if different from cleared 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.1.2.3 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 ATS unit does not have basic flight plan data available, additional information may be requested from the transferring ATS unit to supplement the ACT message or a verbal estimate.

C.1.4 **Revisions.**

Any significant revisions to the flight data are to be transmitted to the accepting ATS unit.

Time differences of [value to be decided] minutes or more are to be exchanged.

Changes to the co-ordinated levels within [value to be decided] 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 [value to be decided] minutes for a verbal estimate, or those prescribed in Appendix 1 to Annex C[1] for ACT messages, cannot be met, either an expedite clearance request, an approval request, *or a PAC*, as appropriate, shall be initiated.

C.2 Means of Communications and their Use.

C.2.1 **Equipment.**

The following lines are available between Bremen FIR and Amsterdam FIR:

- ≅ [X] data line(s)
- ≅ [X] telephone line(s) *(MFC)*

C.2.2 **Telephone Co-ordination.**

All telephone communications should 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 following tables:

C.2.2.1 Messages from Bremen FIR to Amsterdam FIR.

Receiving Sector/COPs	Message	Position	Extension
[name of sector]	Flight Plan Data and Estimates		
[COPs]	Control Messages, Expedite Clearances, Approval Requests and Revisions		
	Radar Co-ordination		
FIC	Flight Plan Data and other Co-ordination		

Supervisor: FMP:
Switchboard: AMC:
Telefax:

Degraded mode operations:

C.2.2.2 Messages from Amsterdam FIR to Bremen FIR..

Receiving Sector/COPs	Message	Position	Extension
[name of sector]	Flight Plan Data and Estimates		
[COPs]	Control Messages, Expedite Clearances, Approval Requests and Revisions		
	Radar Co-ordination		
FIC	Flight Plan Data and other Co-ordination		

Supervisor: FMP:
Switchboard: AMC:
Telefax:

Degraded mode operations:

C.3 Failure of Ground/Ground Voice Communications.

C.3.1 **Fall-Back Procedures for Co-ordination.**

In the event of failure of the direct lines between the co-ordinating partners, co-ordination may be effected via:

a) switchboard, or
b) [other common co-ordination partner], or
c) public telephone:

Bremen FIR: [additional listing of available public telephone numbers to the operations room and the relevant working positions, if available]

Amsterdam FIR: [additional listing of available public telephone numbers to the operations room and the relevant working positions, if available]

C.3.2 **Alternate Fall-Back Procedures for Co-ordination.**

In case of communications failure where the alternatives described in paragraph C.3.1 above 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 ATS unit for the purpose of obtaining an ATC entry clearance from the accepting ATS unit.

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

The transferring ATS 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 ATS unit.

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

Appendix 1 to Annex C[1]

Automatic Data Exchange.

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

Messages	COPs	Time and/or Distance Parameters	
		Messages from Bremen FIR to Amsterdam FIR	Messages from Amsterdam FIR to Bremen FIR
ABI			
ACT			
LAM			

Annex C².

Exchange of Flight Data.

(**without** automatic data exchange)

Effective: TBD
Revised: [date]

C.1 General.

C.1.1 Basic Flight Plans.

Basic flight plan data should normally be available at both ATS units.

C.1.2 Current Flight Plan Data.

Messages, including current flight plan data, shall be forwarded by the transferring ATS unit to the accepting ATS unit by telephone to the appropriate sector/position.

C.1.2.1 Verbal Estimates.

A verbal estimate shall be passed to the appropriate sector at the accepting ATS unit at least [value to be decided] minutes prior, but not earlier than 30 minutes before the aircraft is estimated to pass the transfer of control point.

A verbal estimate shall contain:

a) Callsign.

Note: To indicate that the flight plan is available, the accepting ATS unit should state the aircraft type and the destination after having received its callsign.

b) SSR code:
- ≅ Notification of the discrete code of aircraft; or
- ≅ Notification of the Mode S conspicuity code 1000.

c) ETO for the appropriate COP as laid down in Annex D to this LoA.

d) Cleared level, specifying climb or descent conditions if applicable, at the transfer of control point.

Requested level if different from cleared level.

e) Other information, if applicable.

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

If the accepting ATS unit does not have basic flight plan data available, additional information may be requested from the transferring ATS unit to supplement verbal estimates.

C.1.4 Revisions.

Any significant revisions to the flight data are to be transmitted to the accepting ATS unit.

Time differences of [value to be decided] minutes or more are to be exchanged.

Changes of co-ordinated levels within [value to be decided] 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 for verbal estimate of [value to be decided] minutes cannot be met, 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 FIR and Amsterdam FIR:

≅ [X] telephone line(s) *(MFC)*

C.2.2 **Telephone Co-ordination.**

All telephone communications should 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 following tables:

C.2.2.1 <u>From Amsterdam FIR to Bremen FIR.</u>

Receiving Sector/COPs	Message	Position	Extension
[name of sector]	Flight Plan Data and Estimates		
[COPs]	Control Messages, Expedite Clearances, Approval Requests and Revisions		
	Radar Co-ordination		
FIC	Flight Plan Data and other Co-ordination		

Supervisor: FMP:
Switchboard: AMC:
Telefax:

Degraded mode operations:

C.2.2.2 From Amsterdam FIR to Bremen FIR.

Receiving Sector/COPs	Message	Position	Extension
[name of sector]	Flight Plan Data and Estimates		
[COPs]	Control Messages, Expedite Clearances, Approval Requests and Revisions		
	Radar Co-ordination		
FIC	Flight Plan Data and other Co-ordination		

Supervisor: FMP:
Switchboard: AMC:
Telefax:

Degraded mode operations:

C.3 Failure of Ground/Ground Voice Communications.

C.3.1 **Fall-Back Procedures for Co-ordination.**

In case of failure of the direct lines between the co-ordinating partners, co-ordination may be effected via:

a) switchboard, or
b) [other common co-ordination partner], or
c) public telephone:

Bremen FIR: [additional listing of available public telephone numbers to the operations room and the relevant working positions, if available]

Amsterdam FIR: [additional listing of available public telephone numbers to the operations room and the relevant working positions, if available]

C.3.2 **Alternate Fall-Back Procedures for Co-ordination.**

In case of communications failure where the alternatives described in paragraph C.3.1 above 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 ATS unit for the purpose of obtaining an ATC entry clearance from the accepting ATS unit.

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

The transferring ATS 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 ATS unit.

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

Annex D.

Procedures for Co-ordination.

Effective: TBD
Revised: [date]

D.1 General Conditions for Acceptance of Flights.

D.1.1 Co-ordination of flights shall take place by reference to the COP for the relevant route and in accordance with the appropriate levels specified for the relevant route (see paragraphs D.2 and D.3).

D.1.2 Flights shall be considered to be maintaining the co-ordinated level at the transfer of control point unless climb or descent conditions have been clearly stated by use of crossing conditions in the *PAC*/ACT or by verbal co-ordination, except if otherwise described in paragraphs D.2 or D.3.

D.1.3 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.1.4 For any proposed deviation from the conditions specified in this Annex (e.g. COP, route or level) the transferring unit shall initiate an Approval Request.

D.1.5 The accepting ATS unit shall not notify the transferring ATS unit that it has established ground-air communications with the transferred aircraft unless specifically requested to do so. The Accepting Unit shall notify the transferring Unit in the event that communication with the aircraft is not established as expected.

D.2 ATS-Routes, Co-ordination Points and Level Allocation.

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

D.2.1 **Flights from Bremen FIR to Amsterdam FIR.**

ATS-Route	COP	Level Allocation	Special Conditions
			[see para D.3.....]

D.2.2 **Flights from from Amsterdam FIR to Bremen FIR.**

ATS-Route	COP	Level Allocation	Special Conditions
			[see para D.3.....]

D.3 Special Procedures.

D.3.1 **Flights from Bremen FIR to Amsterdam FIR.**

D.3.2 **Flights from Amsterdam FIR to Bremen FIR.**

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

Both ATS units shall keep each other advised on any changes of the activation times of CDRs as promulgated in the CRAM and of activation times for the following CBAs, TSAs and AMC-manageable restricted or danger areas:

D.4.1 Bremen FIR shall inform Amsterdam FIR about changes for the following areas:

D.4.2 Amsterdam FIR shall inform Bremen FIR about changes for the following areas:

D.5 VFR flights.

D.5.1 ***Flights from Bremen FIR to Amsterdam FIR.***

D.5.2 ***Flights from Amsterdam FIR to Bremen FIR.***

Annex E.

Transfer of Control and Transfer of Communications.

Effective: TBD
Revised: [date]

E.1 Transfer of Control.

The transfer of control takes place at the AoR-boundary, unless otherwise specified in paragraph E.3.

E.2 Transfer of Communications.

The transfer of communications shall take place not later than the transfer of control and as specified in paragraph E.3, unless otherwise co-ordinated.

NOTE:

Frequencies:

Bremen FIR: (Sector and FIC frequencies)

Amsterdam FIR: (Sector and FIC frequencies)

E.3 Specific Points for Transfer of Control and Transfer of Communications.

ATS-Route	Transfer of Control Point	Transfer of Communications	
		Bremen FIR to Amsterdam FIR	Amsterdam FIR to Bremen FIR

Annex F.

Radar Based Co-ordination Procedures.

Effective: TBD
Revised: [date]

F.1 SSR Code Assignment.

F.1.1 Both ATS Units shall transfer aircraft on verified discrete codes, or on verified code 1000, assigned in accordance with ORCAM.

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

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

F.2 Radar Co-ordination Procedures.

F.2.1 **General.**

F.2.1.1 Transfer of radar identification and transfer of radar control between Bremen FIR and Amsterdam FIR will 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 [value to be decided] minutes prior notification will be observed, except in emergency situations.

F.2.1.3 [Description of radar vectoring procedures along common AoR-boundary].

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

Transfer of radar control may be effected after prior co-ordination provided the minimum distance between the aircraft does not fall below [value to be decided] NM.

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

Transfer of radar control may be effected without prior co-ordination provided the minimum distance between successive aircraft about to be transferred is [value to be decided] NM. and constant or increasing.

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

F.3 Reduced Longitudinal Separation.

F.3.1 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 ATS unit has ensured that the actual distance between the aircraft does not fall below 20 NM.

Annex G.

Supplementary Procedures

Effective: TBD
Revised: [date]