International Civil Aviation Organization

Middle East Air Navigation Planning and Implementation Regional Group

Fifteenth Meeting (MIDANPIRG/15)
(Bahrain, 8 – 11 June 2015)

Agenda Item 5.2.2: Specific Air Navigation issues

ACC LETTER OF AGREEMENT TEMPLATE

(Presented by the Secretariat)

SUMMARY

This paper presents a draft Letter of Agreement (LoA) Template to be used by the Area Control Centres (ACCs) in the MID Region.

Action by the meeting is at paragraph 3.

REFERENCES

- ANSIG/1 Report
- ATM SG/1 Report
- State Letter Ref. AN 6/21 – 14/200 dated 20 July2014
- State Letter Ref. AN 6/21 – 15/123 dated 22 April 2015

1. INTRODUCTION

1.1 The main purpose of the Letter of Agreement (LOA) Template between the adjacent Air Traffic Services Units (ATSUs) is the achievement of a high level of uniformity in respect of operational requirements throughout the MID Region, which will ensure the harmonization of the coordination procedures to be applied between two Area Control Centres (ACCs). Moreover, The LoA Template will assist MID air traffic service providers in drafting their operational LoAs.

1.2 The LoA Template was developed to meet the ICAO requirements pertaining to coordination and transfer of control of aircraft between ATC units, as promulgated in ICAO Annex 11 and the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444).

1.3 It is to be highlighted that the LoA Template may not cover all aspects of a given situation between two ATSUs. In this regard, the parties to the final agreement retain the right to make adjustments, as necessary for unique operational or administrative requirements.

2. DISCUSSION

2.1 The meeting may wish to note that the ATM SG/1 meeting (Cairo, Egypt, 9-12 June 2014) received with appreciation a proposal by UAE related to the development of a standard Template for the LoA between adjacent ATS units, prepared based on the Eurocontrol guidelines

"Common Format Letter of Agreement between Air Traffic Service Units" *Edition 4, which are* available on EUROCONTROL website*:*
(http://www.eurocontrol.int/sites/default/files/field_tabs/content/documents/nm/airspace/airspace-atmprocedures-common-format-loa-4.0.pdf).

2.2 The ATM SG/1 meeting reviewed the proposed LoA Template and agreed that it needs further improvements such as the addition of an Appendix related to the Search and Rescue (SAR) bilateral arrangement/agreement and the amendment of Appendix (C1) related to AIDC/OLDI. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/4: LETTER OF AGREEMENT TEMPLATE TO BE USED BY ATS UNITS IN THE MID REGION

That, States be urged to provide the ICAO MID Regional Office with their inputs and comments related to the Letter of Agreement Template to be used by ATS Units in the MID Region by 30 July 2014, in order to consolidate the final version of the Template for endorsement by the MSG/4 meeting.

2.3 The meeting may wish to note that the ICAO MID Regional Office issued State Letter Ref. Ref. AN 6/21 – 14/200 dated 20 July 2014, as a follow-up action to the above Draft Conclusion, requesting States to review the Draft LoA Template and provide the MID Office with their comments/inputs, not later than 15 September 2014. It is to be highlighted that Bahrain, Egypt, Jordan and UAE replied to the above mentioned State Letter.

2.4 The meeting may wish to note that the Search and Rescue (SAR) Action Group, established by the ATM SG/1 meeting, developed a simplified Template for the draft SAR bilateral arrangements, to be used by ACCs to ensure effective and efficient coordination of SAR services. The draft SAR Bilateral Arrangements Template is attached to the LoA Template as Appendix I.

2.5 In connection with the above, the Appendix (C1) of the Draft LoA Template related to AIDC/OLDI was consolidated based on the CNS SG/6 (Tehran, Iran, 9-11 September 2014) discussions and in coordination with the AIDC/OLDI focal points.

2.6 The meeting may wish to note that the First meeting of the Air Navigation Systems Implementation Group (ANISG/1) reviewed the revised version of the Draft LoA Template presented by the Secretariat and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/4: LETTER OF AGREEMENT TEMPLATE TO BE USED BY ATS UNITS IN THE MID REGION

That, States be urged to provide the ICAO MID Regional Office with their inputs and comments related to the Draft Letter of Agreement Template at Appendix 4M by 1 April 2015, in order to consolidate the final version of the Template for endorsement by MIDANPIRG/15

2.7 The meeting may wish to note that the ICAO MID Regional Office issued State Letter Ref. Ref. AN 6/21 – 15/123 dated 22 April 2015, as a follow-up action to the above Draft Conclusion, requesting States to review the Draft LoA Template and provide the MID Office with their comments/inputs, not later than 10 May 2015. It is to be highlighted that Bahrain, Egypt, Jordan, Oman and Sudan replied to the above mentioned State Letter. It is to be noted that in order to ensure that the Template remains a generic document, some comments received from States and related to specific operational or administrative requirements, could not be incorporated in the revised version of the template.

2.8 Based on all the above, the Secretariat consolidated the final draft version of the LoA Template, as at **Appendix A**.

3. ACTION BY THE MEETING

3.1 The meeting is invited to review, update, as deemed necessary, and endorse the draft LoA Template at **Appendix A**, and agree to the following Draft Conclusion:

Why	To ensure the harmonization of the coordination procedures between Area Control Centres (ACCs)
What	State Letter/MID Region ACCs Letter of Agreement Template
Who	ICAO
When	July 2015

DRAFT CONCLUSION 15/XX: MID REGION ACCS LETTER OF AGREEMENT TEMPLATE

That, States be encouraged to use the MID Region Area Control Centres (ACCs) Letter of Agreement Template (Edition June 2015) available on the ICAO MID website, to ensure the harmonization of coordination procedures between ACCs.

APPENDIX A

TEMPLATE FOR

LETTER OF AGREEMNT

BETWEEN

AREA CONTROL CENTRES

Draft version 2
Date, February 2015

UNIT 1 LOGO UNIT 2 LOGO

LETTER OF AGREEMENT

between

[Authority]	**and**	**[Authority]**
[ATS Unit 1]		**[ATS Unit 2]**

Revision: [Nr.]
Effective: [date]
Revised: [date]

1 General

1.1 Purpose

The purpose of this Letter of Agreement is to define the co-ordination procedures to be applied between [Unit 1] and [Unit 2] when providing ATS to General Air Traffic (IFR/VFR) and/or Operational Air Traffic.

These procedures are supplementary to those specified in ICAO, Community Regulations, inter-State or inter air traffic services provider's agreements and/or National Documents.

1.2 Operational Status

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

2 Areas of 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:

2.1.1 [Unit 1]

Lateral limits:

Vertical limits:

ICAO airspace classification for the area of responsibility of [Unit 1] along the common boundary of the areas of responsibility of [Unit 1] and [Unit 2] is described in Appendix B to this Letter of Agreement.

2.1.2 [Unit 2]

Lateral limits: […….]

Vertical limits: […….]

ICAO airspace classification for the area of responsibility of [Unit 2] along the common boundary of the areas of responsibility of [Unit 1] and [Unit 2] is described in Appendix B to this Letter of Agreement.

2.2 **Areas for Cross Border Provision of ATS**

The areas defined as a result of the:
- An inter-State Level Agreement for the delegation of the responsibility for the provisions of ATS; or
- A direct designation by a Member State of an air traffic service provider holding a valid certificate in the Community; or
- An air traffic service provider availing itself of the services of another service provider that has been certified in the Community

are to be considered areas for cross border provision of ATS.

These areas defined in other agreements as shown above will be described in this section. The description should address physical dimension as well as the rules and regulations applicable to those areas.

3 Procedures

3.1 The procedures to be applied by [Unit 1] and [Unite 2] are detailed in the Appendices to this Letter of Agreement:

Appendix A: Definitions and Abbreviations
Appendix B: Area of Common Interest
Appendix C: Exchange of Flight Data
Appendix D: Procedures for Co-ordination
Appendix E: Transfer of Control and Transfer of Communications
Appendix F: ATS Surveillance Based Co-ordination Procedures
Appendix G: Air Traffic Flow Management
Appendix H: Contingency Procedures
Appendix I: SAR Bilateral Arrangements

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

4 Revisions and Deviations

When deemed necessary by the signatories, the content of the present Letter of Agreement can be reviewed at regular intervals to assess the need for revisions of the Letter of Agreement and its Appendixes.

4.1 **Revision of the Letter of Agreement**

The revision of the present Letter of Agreement, excluding Appendices and their Attachments, requires the mutual written consent of the signatories.

4.2 **Revision of the Appendices to the Letter of Agreement**

The revision of Appendices to the present Letter of Agreement requires mutual consent of the respective authorities as represented by signatories.

4.3 **Temporary Deviations**

Where special situations or unforeseen developments arising at short notice require immediate action, the Supervisors of the two ATS units may, by mutual agreement, effect temporary provisions to meet such requirements.

Such provisions shall, however, not exceed 48 hours in duration unless sanctioned by signatories to this LoA.

4.4 **Incidental Deviations**

4.4.1 Instances may arise where incidental deviations from the procedures specified in the Appendices to this Letter of Agreement may become necessary. Under these circumstances air traffic controllers and operational supervisors 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 may take place by mutual agreement of the respective Approving Authorities.

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 [date]and supersedes previous Letter of agreement between [Unit 1] and [Unit 2].

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Appendix A.

Definitions and Abbreviations.

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
Revised: [date]

A.1 Definitions

The Definitions in this Annex have been developed since there are no corresponding ICAO definitions and, as such, no common interpretation exists. The definitions so defined should result in a common interpretation and application. The definitions may change based on the ATS units requirements

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 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.1.4 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.1.5 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.1.5.1 RVSM Approved Aircraft

Aircraft that have received State approval for RVSM operations.

A.1.6 Release

A.1.6.1 Release for Climb

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

Note: The transferring unit/sector remains responsible within its Area of Responsibility for separation between the transferred aircraft and other aircraft unknown to the accepting unit/sector, unless otherwise agreed.

A.1.6.2 **Release for Descent**

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

Note: The transferring unit/sector remains responsible within its Area of Responsibility for separation between the transferred aircraft and other aircraft unknown to the accepting unit/sector, unless otherwise agreed.

A.1.6.3 **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/sector remains responsible within its Area of Responsibility for separation between the transferred aircraft and other aircraft unknown to the accepting unit/sector, unless otherwise agreed.

A.1.7 **State Aircraft**

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

A.1.8 **Transfer of Control Point (TCP)**

A TCP is a defined point, located along a flight path of an aircraft, at which the responsibility for providing ATS to the aircraft is transferred from one ATC unit of control position of the next.

A.2 Abbreviations. (Should be review at last)

ABI	Advance Boundary Information	ICAO	International Civil Aviation Organization
ACC	Area Control Centre	IFR	Instrument Flight Rules
ACI*	Area of Common Interest	LAM	Logical Acknowledge (Message Type Designator)
ACT	Activation Message	LoA*	Letter of Agreement
ACP	Acceptance	LOF*	Logon Forward Message (OLDI)
AIDC	ATS Inter-Facility Data Communication	MAC*	Message for Abrogation of Coordination
AIP	Aeronautical Information Publication	MFC*	Multi Frequency Coding (telephone system)
AOC	Acceptance of Control	NAN*	Next Authority Notified Message (OLDI)
AoR*	Area of Responsibility	NM	Nautical Mile
APP	Approach Control	OAT	Operational Air Traffic
ATC	Air Traffic Control	OLDI	On Line Data Interchange
ATCA	Air Traffic Control Assistant	PAC	Preliminary Activate
ATCO	Air Traffic Control Officer	RCC	Rescue Coordination Centre
ATS	Air Traffic Services	REV*	Revision Message
CBA*	Cross Border Area	REJ	Rejection
CDN	Coordination Negotiation	RTF	Radio Telephony
CDR*	Conditional Route	RVSM	Reduced Vertical Separation Minimum
COP*	Coordination Point	SAR	Search and Rescue
CPL	Current Flight Plan	SRR	Search and Rescue Region
EST	Coordination Estimate	SID	Standard Instrument Departure
ETO	Estimated Time Over Significant Point	SSR	Secondary Surveillance Radar
FDPS	Flight Data Processing System	STAR	Standard Terminal Arrival Route
FIC	Flight Information Centre	TSA*	Temporary Segregated Airspace
FIR	Flight Information Region	TCP	Transfer of Control Point
FMP*	Flow Management Position	TOC	Transfer of Control
GAT*	General Air Traffic	UIR	Upper flight information region

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

A.3 Validity

This Appendix to the LoA takes effect on [xxx xxxx xxxx] and supersedes previous Appendix to Letter of arrangements between [Unit 1] and [Unit 2].

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Appendix B.

Area of Common Interest.

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
Revised: [date]

Controllers are required to be familiar with the airspace structure and restrictions existing immediately beyond the area of responsibility. This airspace has been called the Area of Common Interest (ACI). The extent to which that airspace will be described will be determined at the level of development of a particular Letter of Agreement. The description of the ACI is a mandatory element of a Letter of Agreement. The ACI, as a minimum, shall contain all of the cross-border ATS Routes.

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

B.1.1 [Unit 1] FIR/UIR

Area	Vertical limits	Airspace Classification

B.1.2 [Unit 1] FIR/UIR

Area	Vertical limits	Airspace Classification

B.2 Sectorisation within the Area of Common Interest

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

B.3 Special Areas within the Area of Common Interest

[This section should describe the special areas within the area of common interest]

B.3.1 Areas for Cross-Border Provision of ATS defined with other ATS Units within the ACI

B.3.2 Other Areas

Those areas that can directly influence the exchange of traffic, such as CBAs, TSAs, AMC-manageable Restricted or Danger Areas and Prohibited Areas, shall be depicted here.

B.4 Non-published Co-ordination Points.

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

COP	Coordinate

B.5 Validity

This Appendix to the LoA takes effect on[xxx xxxx xxxx] and supersedes previous Appendix to Letter of arrangements between the [Unit 1] and [Unit 2].

Date: Date:

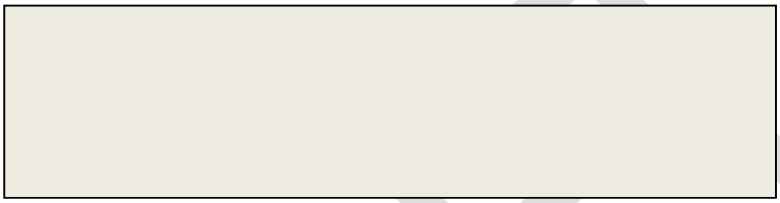
_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Attachment 1 of Appendix B

Sectorisation.



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UNIT 1 LOGO UNIT 2 LOGO

Appendix C (1).

Exchange of Flight Data.
(With automatic data exchange)

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
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

The agreed exchange messages for OLDI [and/or] AIDC between the two ATS units are at Attachment 1 [and/or] Attachment 2 to Appendix C.

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] 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:

Note: Normally, the notification of a SSR code indicates that the selection of that code by the aircraft was verified.

c) ETO for the appropriate COP as laid down in Appendix 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.

Within the context of RVSM, such additional information should include:

a. the RVSM approval status of the aircraft; and
b. whether or not a non-RVSM approved aircraft is a State aircraft.

C.1.4 **Revisions.**

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

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

Any levels which different than describe in Appendix D of this LOA are subject to an Approval Request.

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

Whenever the minimum time of [value] minutes for a verbal estimate, or those prescribed in Attachment 1 to Appendix C 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

UNIT 1 LOGO UNIT 2 LOGO

C.2.1 **Equipment.**

The following lines are available between [Unit 1] and [Unit 2]:

Line Type	Amount	Additional Information
Data Line		
Telephone Lines		

"Additional Information" column should indicate if telephone lines meet the requirements for Direct Controller-Controller Voice Communication (DCCVC) or Instantaneous Direct Controller-Controller Voice Communication (ICCVC)

C.2.2 **Verbal Co-ordination**

All verbal communications between non-physically adjacent controllers should be terminated with the initials of both parties concerned.

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

C.2.2.1 Messages from [Unit 1] to [Unit 2]:

Receiving Sector/COPs	Message	Position
Sector Name COPs	Flight Plan Data and Estimates	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	
	Surveillance Co-ordination	

C.2.2.2 Messages from [Unit 1] to [Unit 2]:

Receiving Sector/COPs	Message	Position
Sector Name COPs	Flight Plan Data and Estimates	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	
	Surveillance Co-ordination	

C.3 Failure of Ground/Ground Voice Communications

C.3.1 Fall-Back Procedures for Co-ordination

To mitigate the effects of failures of direct speech circuits, both parties will establish and maintain dial-up facilities via PABX and ATC Voice Communications Systems (VCS) as follows:

Sector Name Tel Number (For Both Units)

Stand-alone telephones with auto-dial facilities will be maintained as a second level of fall-back to cover the event of failure of PABX or VCS:

Sector Name Tel Number (For Both Units)

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.

C.4 Validity

This Appendix to the LoA takes effect on [xxx xxxx xxxx]and supersedes previous Appendix to Letter of arrangements between the [Unit 1] and [Unit 2].

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

UNIT 1 LOGO UNIT 2 LOGO

Attachment 1 to Appendix C (1)

Automatic Data Exchange related to OLDI

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 Unit 1 To Unit 2	Messages from Unit 1 To Unit 2
ABI			
ACT			
LAM			
REV			
PAC			
MAC			
LOF			
NAN			

Attachment 2 to Appendix C
Automatic Data Exchange related to AIDC

(Guidelines on the implementation of AIDC/OLDI in the MID Region are provided in the MID Region Strategy for the implementation of AIDC/OLDI available on the ICAO MID website: http://www.icao.int/MID/Pages/meetings.aspx)

AIDC messages are exchanged between the two ATS units in accordance with the table below:

Messages	Parameter	Notes
ABI	***ATSU1:*** *[Sends ABI approx. 80 minutes prior to boundary (73 minutes prior to the 50 nm expanded sector boundary).]* ***ATSU2:*** *[Sends ABI approx. 87 minutes prior to boundary (80 minutes prior to the 50 nm expanded sector boundary).* *(Note: An updated ABI will not be sent once a CPL has been sent.)]*	***ATSU1 : ATSU2*** *[Updated ABI's will be sent automatically if there is any change to profile. ABI is sent automatically and is transparent to the controller. ABI automatically updates the receiving unit's flight data record.]*
CPL	***ATSU1 : ATSU2*** *[Send CPL messages approx. 37 minutes prior to the boundary (30 minutes prior to the 50 nm expanded sector boundary).]*	***ATSU1 : ATSU2*** *[CPL messages should be sent by the transferring controller in sufficient time to allow the completion of coordination at least 30 minutes prior to the boundary or 30 minutes prior to the aircraft passing within 50nmof the FIR boundary for information transfers.]*
CDN	***ATSU1 : ATSU2*** *[CDN messages are sent by either the transferring or receiving facility to propose a change once the coordination process has been completed, i.e., CPL sent and ACP received. CDN's must contain all applicable profile restrictions (e.g. weather deviations, speed assignment, block altitude). If the use of a CDN does not support this requirement, then verbal coordination is required.]*	***ATSU1 : ATSU2*** *[The APS will display a flashing "DIA" until receipt of ACP. If ACPJ not received within ten (10) minutes, controller is alerted with a message to the queue.* *CDN messages are not normally used for coordination of reroutes; however, with the receiving facilities approval a CDN may be used to coordinate a reroute on a critical status aircraft such as in an emergency.]*
PAC	***ATSU1 : ATSU2*** *[PAC messages will normally be sent when the time criteria from the departure point to the boundary is less than that stipulated in the CPL.]*	***ATSU1 : ATSU2*** *[Will respond to a PAC message with an ACP. PAC messages should be verbally verified with receiving facility.]*
ACP	***ATSU1 : ATSU2*** *[……..]*	***ATSU1 : ATSU2*** *[The APS will display a flashing "DIA" until receipt of ACP. If ACP not received within ten (10) minutes, controller is alerted with a message to the queue.]*
TOC	***ATSU1 : ATSU2***	
AOC	***ATSU1 : ATSU2***	
MAC	***ATSU1 : ATSU2*** *[MAC messages are sent when a change to the route makes the other facility no longer the "next" responsible unit.]*	***ATSU1 : ATSU2*** *[Receipt of a MAC message must not be interpreted as meaning that the flight plan has been cancelled. Voice coordination must be conducted by the transferring controller to confirm the status of the flight.]*
REJ	***ATSU1 : ATSU2*** *[REJ messages are sent in reply to a CDN message when the request change is unacceptable]*	***ATSU1 : ATSU2*** *[REJ messages are sent only as a response to a CDN message.]*

UNIT 1 LOGO UNIT 2 LOGO

Appendix C (2).
Exchange of Flight Data.
(Without automatic data exchange)

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
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] minutes prior, 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:

Note: Normally, the notification of a SSR code indicates that the selection of that code by the aircraft was verified.

c) ETO for the appropriate COP as laid down in Appendix 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 estimate.

Within the context of RVSM, such additional information should include:

a. the RVSM approval status of the aircraft; and

b. whether or not a non-RVSM approved aircraft is a State aircraft.

C.1.4 **Revisions**

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

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

Any levels which different than describe in Appendix D of this LOA are subject to an Approval Request.

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

Whenever the minimum time of [value] minutes for a verbal estimate, cannot be met, either an expedite clearance request, 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 [Unit 1] and [Unit 2]:

Line Type	Amount	Additional Information
Telephone Lines		

"Additional Information" column should indicate if telephone lines meet the requirements for Direct Controller-Controller Voice Communication (DCCVC) or Instantaneous Direct Controller-Controller Voice Communication (ICCVC)

C.2.2 **Verbal Co-ordination**

All verbal communications between non-physically adjacent controllers should be terminated with the initials of both parties concerned.

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

C.2.2.1 Messages from [Unit 1] to [Unit 2]

Receiving Sector/COPs	Message	Position
Sector Name COPs	Flight Plan Data and Estimates	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	
	Surveillance Co-ordination	

UNIT 1 LOGO UNIT 2 LOGO

C.2.2.2 Messages from [Unit 2] to [Unit 1]

Receiving Sector/COPs	Message	Position
Sector Name COPs	Flight Plan Data and Estimates	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	
	Surveillance Co-ordination	

C.3 Failure of Ground/Ground Voice Communications

C.3.1 Fall-Back Procedures for Co-ordination

To mitigate the effects of failures of direct speech circuits, both parties will establish and maintain dial-up facilities via PABX and ATC Voice Communications Systems (VCS) as follows:

Sector Name […….] Tel Number (For Both Units)

Stand-alone telephones with auto-dial facilities will be maintained as a second level of fall-back to cover the event of failure of PABX or VCS:

Sector Name […….] Tel Number (For Both Units)

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.

C.4 Validity

This Appendix to the LoA takes effect on [xxx xxxx xxxx] and supersedes previous Appendix to Letter of arrangements between the [Unit 1] and [Unit 2].

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Appendix D.

Procedures for Co-ordination.

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
Revised: [date]

D.1 General Conditions for Acceptance of Flights.

D.1.1 Co-ordination of flights shall take place by reference to the coordination point (COP) 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 least (value) prior to transfer of control point unless climb or descent conditions have been clearly stated by use of crossing conditions in the *PAC*/ACT(OLDI) 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 Appendix (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.

Reference to: ICAO Doc 4444, Chapter 10, Paragraph 10.1.2.4.3

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 [Unit 1] to [Unit 2]**

D.2.1.1 **General**

D.2.1.1.1 All information regarding transfer procedures shall be included.

ATS-Route	COP	Receiving Sector	Level Allocation	Special Conditions

D.2.2 **Flights from [Unit 2] to [Unit** 1]

D.2.2.1. **General**

D.2.2.1.1 Same shall be applied

ATS-Route	COP	Receiving Sector	Level Allocation	Special Conditions

D.3 Special Procedures

All special procedures which cannot be accommodated in the "Special Conditions" column of paragraph D.2 shall be outlined in this section

D.3.1 **Flights from [Unit 1] to [Unit 2]**

D.3.2 **Flights from [Unit 2] to [Unit 1]**

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 and of activation times for the following CBAs, TSAs and AMC-manageable restricted or danger areas:

D.4.1 [Unit 1] shall inform [Unit 2] about changes for the following areas:

D.4.2 [Unit 2] shall inform [Unit 1] about changes for the following areas:

D.5 VFR flights

D.5.1 **Flights from [Unit 1] to [Unit 2]**

D.5.2 **Flights from [Unit 2] to [Unit 1]**

D.6 Validity

This Appendix to the LoA takes effect on [xxx xxxx xxxx] and supersedes previous Appendix to Letter of arrangements between the [Unit 1] and [Unit 2].

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Appendix E

Transfer of Control and Transfer of Communications.

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
Revised: [date]

In order to optimize the provision of ATS, it is recommended that the Transfer of Communication takes place before the Transfer of Control, at a point/time/distance as agreed upon between the transferring and accepting ATS Units.

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

E.2.1 The transfer of communications shall take place not later than [*(time, distance or level parameter)*], and not sooner than [*(time, distance or level parameter)*] before the transfer of control and as specified in paragraph E.3, unless otherwise co-ordinated.

A parameter (time, distance or level) should be specified for the transfer of communications, whenever it is operationally significant. (e.g. for protection of a communication channel).

E.2.2 **Frequencies**

E.2.2.1 [Unit 1]

Sectors	Frequencies	
	Primary	Secondary

E.2.2.2 [Unit 2]

Sectors	Frequencies	
	Primary	Secondary

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

ATS Route	Transfer of Control Point	Transfer of Communications
	Unit 1 to Unit 2	Unit 2 to Unit 1

E.4 Validity

This Appendix to the LoA takes effect on [xxx xxxx xxxx] and supersedes previous Appendix to Letter of arrangements between the [Unit 1] and [Unit 2].

Date:

Date:

_____

Name
Title
Authority 1

_____

Name
Title
Authority 2

Appendix F.

ATS Surveillance Based Co-ordination Procedures.

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
Revised: [date]

F.1 General

F.1.1. Transfer of identification and transfer of control between [Unit 1] and [Unit 2] will be subject to the serviceability of the respective surveillance systems and two-way direct speech facilities between the controller working positions.

F1.2 In case of any doubt about the identity of an aircraft, nothing in the provisions of this Appendix, prevents the use of others methods for the identification of an aircraft

F.2 Transfer of Aircraft Identification

Subject to the surveillance technology available to both units concerned, the transfer of identification should be effected preferably by one of the methods described below:

- *Designation of the position indication by automated means, provided that only one position indication is thereby indicated and there is no possible doubt of correct identification;*
- *Notification of the aircraft discrete SSR code;*
- *Notification that the aircraft identification transmitted by a Mode S equipped aircraft has been verified;*
- *Notification that the aircraft identification transmitted by an ADS B equipped aircraft has been verified.*

F.2.1 Transfer of aircraft identification between [Unit 1] and [Unit 2] is normally performed by [*one or more methods for the transfer of identification*].

It is recommended that in cases when multiple surveillance technologies are available to both ATS units concerned, paragraph F2.1 should illustrate one or more preferred methods for the transfer of aircraft identification, the conditions in which those apply and the alternatives to be used when the conditions are not met.

For example, at an interface between two ATS units using radar Mode S and MSSR the transfer of identification should normally be performed:

- *by notification of A1000 indicating that the Mode S aircraft identification feature transmitted by the transponder has been verified;*
- *or, in case that the aircraft identification is not correct or has not been verified or the aircraft is not Mode S equipped:*
- *by notification of the aircraft discrete SSR code.*

F.2.2 When discrete SSR codes are used for transfer of identification, they shall be assigned in accordance with ORCAM.

F.2.3 Any change of SSR code by the accepting ATS Unit may only take place after the transfer of control point.

F.2.4 The accepting ATS Unit shall be notified of any observed irregularity in the operation of SSR transponders or ADS-B transmitters.

Such irregularities should cover at least the following cases:

- *transponders transmitting erroneous aircraft identification;*
- *transponders transmitting SSR codes different then the selection of which have been confirmed by the pilots;*
- *transponders transmitting erroneous Mode C information.*

F.3 Transfer of Control.

F.3.1 All traffic must be transferred "clean" – i.e. clear of all conflicting traffic under control of the transferring unit.

F.3.2 Where separation is based on the use of surveillance as per ICAO DOC 4444, a minimum of 5NM shall be used during transfer.

F.3.3 Transfer of identification of IFR flights shall be accomplished in accordance with ICAO DOC 4444.

F.3.4 If it becomes necessary to reduce or suspend transfers of control, a value prior notification shall be observed, except in emergency situations.

F.3.5 A minimum distance of **value** NM to the boundary line of responsibility shall be observed when vectoring aircraft, except when a transfer of radar control has previously been coordinated.

F.3.6 **Transfer of Control without systematic use of the bi-directional speech facilities (*Silent Transfer of Control)***

F.3.6.1 Transfer of control of IFR flights without voice coordination will be in accordance with ICAO DOC 4444 Chapter 8 provided that:

a) [Value] surveillance in trail spacing exists, and is constant or increasing.

b) [Value] minutes notice, when possible, is required for an increase in in-trail spacing.

Note: *"Transfer" is defined as transfer of communications <u>and</u> control.*

F.3.6.2 The transferring controller shall inform the accepting controller of any level, speed or vectoring instructions given to aircraft prior to its transfer and which modify its anticipated flight progress at the point of transfer.

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.3.6.3 The accepting controller may terminate the silent transfer of control at any time, normally with an advance notice of [value] minutes.

F.3.7 **Transfer of Control with use of the bi-directional speech facilities.**

Transfer of control may be effected with the use of bi-directional speech facilities, provided the minimum distance between the aircraft does not reduce to less than [*value to be specified*] NM, and:

- identification has been transferred to or has been established directly by the accepting controller;
- the accepting controller is informed of any level, speed or vectoring instructions applicable to the aircraft at the point of transfer;
- communication with the aircraft is retained by the transferring controller until the accepting controller has agreed to assume responsibility for providing ATS surveillance service to the aircraft. Thereafter, the aircraft should be instructed to change over to the appropriate frequency and from that point is the responsibility of the accepting controller.

F.4 Validity

This Appendix to the LoA takes effect on [xxx xxxx xxxx] and supersedes previous Appendix to Letter of arrangements between the [Unit 1] and [Unit 2].

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Appendix G.

Air Traffic Flow Management

Unit 1 **Unit 2**

Revision: [Nr.]
Effective: [date]
Revised: [date]

G.1 General

G.1.1 This Appendix to the Letter of Agreement (LOA) between the [Unit 1] and [Unit 2] sets out the details of tactical Air Traffic Flow Management (ATFM) measures for application at times of traffic congestion.

G.1.2 Only tactical ATFM operations will be implemented.

G.1.3 The accepting unit determines the flow rate for transfer.

G.1.4 The general provisions contained in ICAO Appendix 11 and Doc 4444 shall apply to handling of traffic subject to flow control.

G.2 ATFM Procedures

G.2.1 Flow control measures shall, when possible, be implemented in such a manner as to avoid affecting flights already airborne.

G.2.2 **Notification**

The [Unit 1] shall notify [Unit 2] not less than [value] minutes prior to the time ATFM measures will affect departing aircraft.

[Unit 2] shall inform the [Unit 1] about flights which have already started and flight planned on affected ATS Routes.

The notification shall detail the ATS Routes and levels being subject to ATFM as well as the expected duration.

G.2.3 **Implementation**

The accepting unit shall, to the widest possible extent, address limitations in capacity for given routes or destinations by specifying restrictions on available levels and longitudinal separation to enable the transferring unit to forecast delays and plan traffic flows accordingly.

G.3 Reporting

Flow reporting is required for all ATFM measures.

G.4 Validity

This Appendix to the LoA takes effect on [xxx xxxx xxxx] and supersedes previous Appendix to Letter of arrangements between the [Unit 1] and [Unit 2].

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Appendix H.

Contingency Procedures

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
Revised: [date]

H. 1 General

H.1.2 In case of technical or catastrophic outage resulting in the disruption of the provision of ATS at [Unit 1] or at [Unit 2], 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.

H.1.3 In case of contingency the regulations of this chapter take precedence over the respective provisions of Appendices A to G to this LoA.

H.1.4 In case of activation of contingency plans ATSU's should send the associated Contingency NOTAM.

H.2 Contingency Contact Points:

[Unit 1]

....

[Unit 2]
...

H.3 Definition of Contingency phases

H.3.1 Phase 1 - Immediate Action (30 min)

A dangerous situation has been identified. Focuses on the safe handling of aircraft in the airspace of failing unit, using all technical means still operationally available. During this phase all traffic will be evacuated and failing unit AoR will be No-Fly Zone until phase 2 is activated.

H.3.2 Phase 2 - Short/ Medium Term Actions (< 48 hours)

Focused on stabilising the situation and, if necessary, preparing for longer term contingency agreements. During this phase AoR of failing unit will be delegated to appropriate units and simplified route structure may be used.

H.3.3 Phase 3 - Initiation of the option

This phase may start when staff of failing unit arrives to emergency facility and focused on recovery from contingency.

The following will be applied during phase 3:
- Termination of delegation of airspace
- Flow control measurements
- Increased separation minimum

The following may be applied during phase 3:

- *Combining ATC sectors or creating new contingency sector*
- *Simplified route structure*

H.3.4 Phase 4 – Optimisation

The aim of Phase 4 is to optimize capacity gradually up to maximum potential within published or ICAO route and sectorisation structure in line with previously agreed end-user and regulator expectation. During this phase minimum separation and flow control measurements may still be in force.

H.3.5 Phase 5 - Recovery

The aim of Phase 5 is to revert back to the original unit and working position in a safe and orderly manner. Appropriate Flow control measurement will be cancelled and separation will be reverted to standard minimums.

H.3.6 Phase 1 lasts approximately 30 minutes. Immediate Action can overlap with Phase 2.

H.3.7 The passage from one phase to another is possible directly from any Contingency Phase.

H.4 Disruption of the provision of ATS at [Unit 1]

H.4.1 Contingency Phase 1- Immediate Action

H.4.1.1 When the operational status of Unit 1 becomes impaired to such an extent, that ATS can no longer be provided, the Unit 1 Supervisor shall initiate the immediate actions to be taken in Phase 1.

H.4.1.2 Evacuation of Unit 1 AoR

H.4.1.2.1 When Phase 1 is active the AoR of Unit 1 shall be called the Contingency Area (CA) until full serviceability of Unit 1 is recovered.

H.4.1.2.2 All traffic in Unit 1 AoR will be evacuated and CA will be No-Fly-Zone, entry is prohibited until contingency Phase 2 is activated.

H.4.1.2.3 Phraseology to be used: *Unit 1* ***is out of service; stop ALL entries into the Contingency Area (CA), start evacuation of the CA.***

H.4.2 Contingency Phase 2- Short/Medium term actions

H.4.2.1 When the operations of Unit 1 have ceased and all traffic has been transferred to the appropriate agency, the Supervisor in charge of operations may declare Contingency Phase 2 for Unit 1.

H.4.2.2 Delegation of Unit 1 AoR

(*As appropriate)*
The delegation of Unit 1 AoR is shown in Attachment 1 of Appendix H.

H.4.2.3 Simplified route structure

(*As appropriate)*

H.4.2.4 Contingency Flight Level Allocation System - CFLAS

(*As appropriate)*

H.4.3 **Contingency Phase 3 – Initiation of the option**

H.4.3.1 In Contingency Phase 3 Unit 1 re-establishes the provision of ATS within its AoR by combining ATC sectors *(or new contingency sectors may be created)*. These Contingency sectors will be re-located to Unit 1 emergency sector.

H.4.3.2 Contingency sectors

H.4.3.2.1The Contingency Sectors will correspond to existing sectors at Unit 1 ACC:

(As appropriate)	*To*	*Unit 1 Contingency Sector 1*

H.4.3.2.2 Activation / Deactivation

Unit 1 operational Supervisor shall inform Unit 2 about the activation and deactivation of the Contingency Sectors.

H.4.3.2.3 Contingency sectors and communications

Unit 1 Contingency Sectors	**Message**	**Position**	**Phone/ Frequency**
	Flight Plan Data and Estimates		
	Control Messages, Expedite Clearances, Approval Requests and Revisions		
	Surveillance Co-ordination		

H.4.3.2.4 Voice Communication Systems

All coordination partners of Unit 1 shall make sure that they are able to reach the Unit 1 contingency working positions via prescribed phone lines, taking into consideration that Unit 1 is completely off, including the technical systems. Public Phone shall be used as back up system.

H.4.3.2.5 Callsign

Telephone call sign for Unit 1 in case of contingency: Unit 1 + *name of working position* (e.g. Contingency 1)

H.4.3.3 ATFM Procedures

Necessary ATFM-measures to be applied during Contingency Phase 3 will be initiated by the Unit 1 Supervisor.

H.4.3.4 Exchange of Flight Data

(*As appropriate)*

H.4.3.5 Control Procedures

H.4.3.5.1 Deviations from published ATS-routes shall be coordinated only to prevent dangerous situations or in case of emergencies.

H.4.3.5.2 Separation minima between succeeding aircraft on transfer shall be a minimum of value constant or increasing.

H.4.3.6 SSR Code Assignment

During contingency, Unit 1 may not be able to transfer aircraft on discrete SSR codes, or on code 1000, assigned in accordance with ORCAM.

H.4.4 **Contingency Phase 4 – Optimisation**

Appropriate associated Phase 3 actions to take place.

H.4.5 **Contingency Phase 5 – Long-term Response and Recovery**

H.4.5.1 Unit 1 will inform Unit 2 of intention to "Normal" operations and will co-ordinate the time at which normal operation will be resumed.

H.4.5.2 Once Unit 1 notifies Unit 2 the end of contingency:

- Unit 1 and Unit 2 will cancel any operational restrictions and will resume the standard ATS.
- Both units will apply the standard operational procedures stated in Appendices A to G of this LoA.

H.5 Disruption of the provision of ATS at Unit 2

H.5.1 **Contingency Phase 1- Immediate Action**

H.5.1.1 When the operational status of Unit 2 becomes impaired to such an extent, that ATS can no longer be provided, the Unit 2 Supervisor shall initiate the immediate actions to be taken in Phase 1.

H.5.1.2 Evacuation of Unit 2 AoR

H.5.1.2.1 When Phase 1 is active the AoR of Unit 2 shall be called the Contingency Area (CA) until full serviceability of Unit 2 is recovered.

H.5.1.2.2 All traffic in Unit 2 AoR will be evacuated and CA will be No-Fly-Zone, entry is prohibited until contingency Phase 2 is activated.

H.5.1.2.3 Phraseology to be used: *Unit 2* ***is out of service; stop ALL entries into the Contingency Area (CA), start evacuation of the CA.***

H.5.1.2.4 Contingency Flight Level Allocation System - CFLAS

(*As appropriate)*

H.5.2 **Contingency Phase 2- Short/Medium term actions**

H.5.2.1 When the operations of Unit 2 have ceased and all traffic has been transferred to the appropriate agency, the Supervisor in charge of operations may declare Contingency Phase 2 for Unit 2.

H.5.2.2 Delegation of Unit 2 AoR

(*As appropriate)*

The delegation of Unit 2 AoR is shown in Attachment 1 of Appendix H.

H.5.2.3 Simplified route structure
(*As appropriate)*

H.5.3 **Contingency Phase 3 – Initiation of the option**

H.5.3.1 In Contingency Phase 3 Unit 2 re-establishes the provision of ATS within its AoR by combining ATC sectors *(or new contingency sectors may be created)*. These Contingency sectors will be re-located to Unit 2 emergency sector.

H.5.3.2 Contingency sectors

H.5.3.2.1The Contingency Sectors will correspond to existing sectors at Unit 2 ACC:

(*As appropriate)*	*To*	*Unit 2 Contingency Sector 1*

H.5.3.2.2 Activation / Deactivation

Unit 2 operational Supervisor shall inform Unit 1 about the activation and deactivation of the Contingency Sectors.

H.5.3.2.3 Contingency sectors and communications

Unit 2 Contingency Sectors	**Message**	**Position**	**Phone/ Frequency**
	Flight Plan Data and Estimates		
	Control Messages, Expedite Clearances, Approval Requests and Revisions		
	Surveillance Co-ordination		

H.5.3.2.4 Voice Communication Systems

All coordination partners of Unit 2 shall make sure that they are able to reach the Unit 2 contingency working positions via prescribed phone lines, taking into consideration that Unit 2 is completely off, including the technical systems. Public Phone shall be used as back up system.

H.5.3.2.5 Callsign

Telephone call sign for Unit 2 in case of contingency: Unit 2 + *name of working position* (e.g. Contingency 1)

H.5.3.3 ATFM Procedures

Necessary ATFM-measures to be applied during Contingency Phase 3 will be initiated by the Unit 2 Supervisor.

H.5.3.4 Exchange of Flight Data

(*As appropriate)*

H.5.3.5 Control Procedures

H.5.3.5.1 Deviations from published ATS-routes shall be coordinated only to prevent dangerous situations or in case of emergencies.

H.5.3.5.2 Separation minima between succeeding aircraft on transfer shall be a minimum of value constant or increasing.

H.5.3.6 SSR Code Assignment

During contingency, Unit 2 may not be able to transfer aircraft on discrete SSR codes, or on code 1000, assigned in accordance with ORCAM.

H.5.4 **Contingency Phase 4 – Optimisation**

Appropriate associated Phase 3 actions to take place.

H.5.5 **Contingency Phase 5 – Long-term Response and Recovery**

H.5.5.1 Unit 2 will inform Unit 1 of intention to "Normal" operations and will co-ordinate the time at which normal operation will be resumed.

H.5.5.2 Once Unit 2 notifies Unit 1 the end of contingency:

- Unit 2 and Unit 1 will cancel any operational restrictions and will resume the standard ATS.

Both units will apply the standard operational procedures stated in Appendices A to G of this LoA.

H.4 Validity

This Appendix to the LoA takes effect on [xxx xxxx xxxx] and supersedes previous Appendix to Letter of arrangements between the [Unit 1] and [Unit 2].

Date: Date:

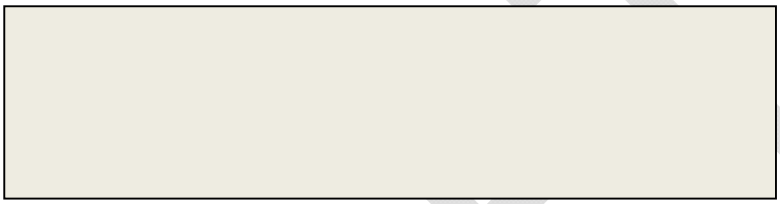
_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

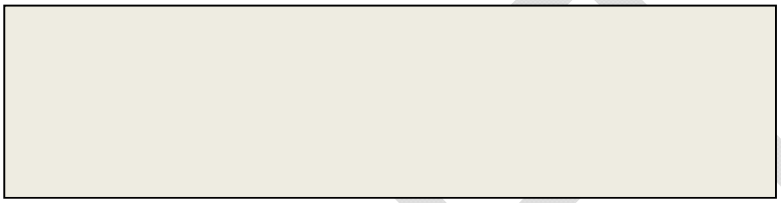
Attachment 1 of Appendix H

[Unit 1] Contingency Delegation Map



Attachment 2 of Appendix H

[Unit 2] Contingency Delegation Map



APPENDIX I

SEARCH AND RESCUE
BILATERAL ARRANGEMENTS

[Unit 1] **[Unit 2]**

Revision: [Nr.]
Effective: [date]
Revised: [date]

I.1. AREA OF RESPONSIBILITY FOR SAR PROVISION

I.1.1. [UNIT1] Search and Rescue Regions (SRRs) Description:

I.1.2. [UNIT2] Search and Rescue Regions (SRRs) Description:

I.1.3. Each State's Rescue Coordination Centre RCC is responsible for its respective SRR.

I.2. AGREEMENT

I.2.1. Pursuant to the Standards and Recommended Practices of Annex 12 to the Convention on International Civil Aviation, supplemented by the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, (Doc 9731) for the coordination of Search and rescue operations, in particular when an alert phase is declared related to an aircraft on emergency situation; the two Units agree to mutually coordinate and assist each other in the provision of SAR services in their respective Search and Rescue Regions (SRRs).

I.2.2. This operational Bilateral Arrangements supplements the relevant ICAO documents and shall apply equally on both parties.

I.2.3. The two Units recognized the importance of co-operation within [……] SRR and […….] SRR, for the provision of expeditious and effective SAR services, through the use of available resources**.**

I.3. SCOPE OF AGREEMENT

Both Air Navigation Service Providers (ANSPs)/ACCs hereby agree that they shall:

I.3.1. Promptly exchange SAR alerting information concerning a distress situation or a potential distress situation.

I.3.2. Coordinate with and assist national SAR agencies to the extent possible.

I.3.3. Assist each other, to the extent possible, in coordinating SAR Operations in their respective SRRs.

I.3.4. Coordinate with their respective national RCC for participation in SAR activities when requested by other States.

I.4. STANDARD OPERATING PROCEDURES FOR THE ACCs

The following procedures are agreed upon:

I.4.1. The responsibility for declaring an emergency phase and initiating local action rests with the ATS Units (ATSUs) in coordination with their respective RCCs.

I.4.2. ATSUs shall coordinate with their RCC:

a) When the accident position is known, action shall be initiated by the RCC in whose SRR the accident is located.

b) When the accident position is not known, SAR alerting action shall be initiated by:
   i. The ATSU first becoming aware of an aircraft needing assistance;
   ii. The ATSU in whose area of responsibility the aircraft was operating when the last radio contact was made; or
   iii. The ATSU in whose area of responsibility the aircraft was proceeding to if the last radio contact was made on the common SRR boundary.

I.4.3. The two ACCs should ensure appropriate coordination in the event of joint SAR operations.

I.5. LIAISON DURING A SAR MISSION

During the course of a SAR mission, the ANSP/ACC concerned shall maintain close liaison in order to ensure the smooth and successful execution of the SAR mission. If required, the RCC in charge of the mission should periodically keep the ANSP/ACC informed of the number of SAR Units engaged in the SAR mission, areas to be searched, actions taken and the decision to suspend or terminate the SAR mission.

I.6. POINT OF CONTACT

	UNIT 1	UNIT 2
Name:	XXXXX centre…..	YYYYY
AFTN		
Phone(s)		
Fax		
Email(s)		
Other		

I.7. VALIDITY

This Appendix to the LoA takes effect on [xx xxxxxx xxxx] and supersedes previous Appendix to the Letter of Agreement between [Unit 1] and [Unit 2].

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

- END -