

LETTER OF AGREEMENT

between

Polaris FIR

Sweden FIR

Polaris Control

and

Sweden Control

Version: 1.0 Effective: 05/10/2020



1. General.

1.1 Purpose.

The purpose of this Letter of Agreement is to define the coordination procedures to be applied between Polaris FIR and Sweden FIR when providing ATS to General Air Traffic.

These procedures are supplementary to those specified in IVAO divisional documents.

1.2 Validity.

This Letter of Agreement becomes effective 05/10/2020

Fritz Langhammer
Nordic Region ATC Coordinator

Kjell Andreas Norheim
Polaris FIR Chief

n/a
Sweden FIR Chief

Contents

1. General.	1
1.1 Purpose	1
1.2 Validity	1
2. Areas of Responsibility for the Provision of ATS.	3
2.2 Areas of Responsibility	3
2.2.1 Polaris FIR	3
2.2.2 Sweden FIR	3
3. Procedures.	4
Annex A.	5
A.1 Airspace Sectorization and Classification within the Area of Common Interest	5
A1.1 Polaris FIR	5
A1.2 Sweden FIR	6
A.2 Cross Border Areas (CBA) within the Area of Common Interest	6
A.3 Functional Airspace Block	6
A.4 Delegated Airspace within the Area of Common Interest	7
A.5 Special Areas within the Area of Common Interest	Feil! Bokmerke er ikke definert.
A.5.1 Air Defense Identification Zone	Feil! Bokmerke er ikke definert.
Annex B.	7
B.1 General Conditions for Acceptance of Flights	7
B.2 Means of Communications and their Use	7
B.2.1 Equipment	7
B.2.2 Verbal Coordination	7
B.3 ATS Routes, Coordination Points and Level Allocation	8
B.3.1 Flights from Polaris FIR to Sweden FIR	8
B.3.2 Flights from Sweden FIR to Polaris FIR	9
B.4 Special Procedures for Flight Allocation	11
B.4.1 Flights from Polaris FIR to Sweden FIR	11
B.4.2 Flights from Sweden FIR to Polaris FIR	12
Annex C.	13
C.1 Transfer of Aircraft Identification	13
C.2 Transfer of Communications	13
C.3 Transfer of Control	13
C.4 Reduced Longitudinal Separation	13
Appendix 1 of Annex A.	14

2. Areas of Responsibility for the Provision of ATS.

2.2 Areas of Responsibility.

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

2.2.1 Polaris FIR.

Lateral limits: 630000N 000000E - 630000N 004000E –
 640000N 0050053E - 650800N 0061600E –
 653706N 0065026E - 654500N 0070000E –
 661240N 0074228E - 671500N 0092521E –
 700000N 0150000E - 702832N 0175917E –
 712000N 0250000E - 712000N 0280000E –
 710000N 0300000E - 702200N 0314300E –
 700000N 0310800E - 694741N 0304904E –
 along the border between Norway and Russia to –
 690307N 0285546E - along the border between Finland and Norway to –
 690336N 0203255E - along the border between Norway and Sweden to –
 585332N 0103820E - 584540N 0103532E –
 583000N 0103000E - 580200N 0093130E –
 570000N 0073000E - 570000N 0060000E –
 570000N 0055000E - 570000N 0050000E –
 581640N 0030047E - 590504N 0013916E –
 600000N 0000000E - 630000N 0000000E

Vertical limits: GND-UNL

2.2.2 Sweden FIR.

Lateral limits: 690336N 0203255E Swedish/Finnish border
 southward to - 653148N 0240824E –
 644100N 0225500E - 633700N 0213000E –
 632830N 0204000E - 631000N 0201000E –
 614000N 0193000E - 610000N 0191905E –
 601803N 0190756E - 601130N 0190512E –
 593346N 0195859E - 591524N 0203239E –
 590000N 0210000E - 573410N 0200900E –
 570000N 0195000E - 555100N 0173300E –
 545500N 0155200E - 545500N 0150807E
 clockwise along an arc of 16.2 NM radius
 centered on 550404N 0144448E –
 545500N 0142127E - 545500N 0125100E –
 552012N 0123827E Swedish/Danish border northward
 to - 561253N 0122205E - 583000N 0103000E –
 584540N 0103532E - 585332N 0103820E
 Swedish/Norwegian border northward to - 690336N 0203255E

Vertical limits: GND-UNL

3. Procedures.

3.1 The procedures to be applied by Norway Control and Sweden Control are detailed in the Annexes to this Letter of Agreement:

3.2 These procedures shall be promulgated to the Air Traffic Control Officers of the ATS units concerned.

3.3 **Temporary Deviations.**

When necessary, the Chief of the FIR 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.

Norway Control

Sweden Control

Annex A.

Area of Common Interest.

A.1 Airspace Sectorization and Classification within the Area of Common Interest.

A map of all sectors within the Area of Common Interest are shown in Appendix 1.

These sectors are combinations of sectors used in real operations. The sector names does not necessarily match with real sector names.

A1.1 Polaris FIR.

Area	Vertical limits	Airspace Classification
Norway ACC sector 26	GND-UNL	ABV FL 660: G
Norway ACC sector 24		BTN FL 660 – FL95: C
Norway ACC sector 18		
Norway ACC sector 3		
Norway ACC sector 2		BLW FL95: G
ENDU TMA	4500ft-FL105	C
ENEV TMA	6500ft-FL105	D
ENBO TMA	4500ft-FL195	D
ENVA TMA	4500ft-FL195	C
ENRO TMA	4500ft-FL95	C
ENGM TMA	3500ft-FL215	C

A1.2 **Sweden FIR.**

Area	Vertical limits	Airspace Classification
Sweden Control ESAA	GND-UNL	ABV FL 660: G
ESOS K		BTN FL 95– FL 66: C
ESOS N		
ESOS 3		BLW 5000ft: G
ESMM 4:2	FL245-UNL	C
ESKS TMA	4200ft-FL95	C
ESUT TIA/RMZ	1000ft-FL95	G
ESST TIA/RMZ	1000ft-5000ft	G

*ESKS TMA is inside Norwegian airspace. REF AIP Sweden ENR 6.1-1

A.2 **Cross Border Areas (CBA) within the Area of Common Interest.**

Area	Vertical limits	Time of activity
A.3 Area SILVER, Northern part	FL125-FL660	H24
Area SILVER, Southern part	FL95-FL660	H24
Area BORGE	FL95-FL660	H24
Area NORLI	FL195-FL660	H24
Area NOR2	FL95-FL660	H24
Area FINNSKOGEN 1	FL95-FL660	H24
Area ORJE1	6500ft-FL215	H24
Area ORJE2	FL950-FL215	H24
Area OSLOB	FL285-FL660	H24
Area BOHUS a	FL215-FL285	H24
Area BOHUS b	FL95-FL285	H24
Area BOHUS c	FL115-FL285	H24
Area KOSTER	4500ft-FL115	H24

Functional Airspace Block.

Not applicable

A.4 Delegated Airspace within the Area of Common Interest.

Not applicable

A.5 Special Areas within the Area of Common Interest.

Not applicable

Norway Control

Sweden Control

Annex B.

Procedures for Coordination.

B.1 General Conditions for Acceptance of Flights.

- B.1.1 Flights shall be considered to be maintaining the coordinated level at the transfer of control point unless climb or descent conditions have been clearly stated by the use of Radar label markings or by verbal coordination.
- B.1.2 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.
- B.1.3 For any proposal deviation from the conditions specified in this Annex, the transferring unit shall initiate an Approval Request, and request a new clearance limit.
- B.1.4 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 communications with the aircraft is not established as expected.

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

B.2 Means of Communications and their Use.**B.2.1 Equipment.**

The following lines for communication are available between Norway Control and Sweden Control:

Line Type	Amount	Additional Information
IVAO Nordic Region Discord	1	
IVAC Software COMM Box	1	

B.2.2 Verbal Coordination.

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

B.3 ATS Routes, Coordination Points and Level Allocation.

Available ATS routes, Coordination Points and Flight Allocations to be applied, unless otherwise described in paragraph B.4 of this Annex.

B.3.1 Flights from Polaris FIR to Sweden FIR.

ATS Route	COP	Flight Allocation	Special Conditions
P853	REXIM	According to Semi-circular rules: Odd	
P35			
P600	GILEN		
T65	TIPEL		
T320	MIMKI		
T65	ABAXI		
P854	PENAX		
T63	USIKI		
N3	NEBUR		
Z108	NOGBO		
T65			
L80	GIKAV		
T65			
P855	SOLKA		
Z277	TIGBA		
Z265			
Z256	OLGUV		
SUVAR			
Z255	OSKOK		
T65			
T400	EGAGO		
T311			
M125			
Z362	SUVAR		
M996			

ATS Route	COP	Flight Allocation	Special Conditions
Z267	ROVPA	According to Semi-circular rules: Odd	
P996			
Z418			
M82			
P607	ROGED		
P850			
Z183	MASEV		
Z260			
L24			
Z266			
Z258	ESEBA		
N623			
Z259			
Z372	XIDMI		
P609	VATEX		
L727	MOGLU		
Z132	BOMGU		
L617	REPKU		

B.3.2 Flights from Sweden FIR to Polaris FIR.

ATS Route	COP	Flight Allocation	Special Conditions
P35	REXIM	According to Semi-circular rules: Even	
P853			
P600	GILEN		
T65			
T65	TIPEL		
T65	ABAXI		
P854	PENAX		

ATS Route	COP	Flight Allocation	Special Conditions	
T65	LIDNA	According to Semi-circular rules: Even		
T65	USIKI			
T63				
N3	NEBUR			
T65	NOGBO			
T519				
T65	GIKAV			
L80				
L870				
T64	SOLKA			
T401				
P855				
Y96				
Z265	TIGBA			
Z11				
Z155	OLGUV			
Z255	OSKOK			
Z371				
N150	EGAGO			
T311				
T400				
P600	XELVI			
T70				
M996	SUVAR			ESAA airspace delegated to ENOR
M82	ROVPA			
Z418				
Z15				
P850	ROGED			
L24	MASEV			
Z183				

ATS Route	COP	Flight Allocation	Special Conditions
Z259	ESEBA	According to Semi-circular rules: Even	
N623			
L996	TUMGU		
Z372	XIDMI		
Z166	VATEX		
P609			
L727	MOGLU		
L997	REGMA		
Z132	BOMGU		
Y440			
Y41	REPKU		
L617			

B.4 Special Procedures for Flight Allocation.

Flights arriving/departing to/from aerodromes close to the boundary between NEFAB and DK-SE FAB are allowed to cross the border on a DCT route, regardless of altitude at the boundary if their requested level is above FL285. If the requested level is below FL285, a point is required on the boundary between NEFAB and DK-SE FAB.

In case the requested level is below FL95, or if the requested level is not available when reaching the transfer of control point, prior verbal coordination is required.

B.4.1 Flights from Polaris FIR to Sweden FIR.

ENVA	Flights departing ENVA via SOLKA shall be considered climbing to FL285 at the transfer of control point.
ENGM	Flights departing ENGM via MASEV and OKSAT shall be considered climbing to FL290 at the transfer of control point. Departing via RIBBE has to be coordinated.
ENRY	Flights departing ENRY via ROGED, XIDMI, VATEX OKSAT and MOGLU shall be considered climbing to FL285 at the transfer of control point.
ENTO	Flights departing ENTO via ROGED, VATEX and BOMGU shall be considered climbing to FL285 at the transfer of control point.

B.4.1.2 Flights departing from **Polaris FIR** with requested level at or above FL290:

Flights unable to reach above FL290 at least 5 minutes before the transfer of control point shall be coordinated between Norway Control and Sweden Control.

B.4.1.3 Other actions requiring special procedures for Flight Allocation shall be coordinated verbally between the both parties concerned.

B.4.2 Flights from Sweden FIR to Polaris FIR.

B.4.2.1 Flights departing from **Sweden FIR** with requested level at or above FL245:

Flights unable to reach above FL245 at least 5 minutes before the transfer of control point shall be coordinated between Sweden Control and Norway Control.

B.4.2.2 Other actions requiring special procedures for Flight Allocation shall be coordinated verbally between the both parties concerned.

Norway Control

Sweden Control

Annex C. ATS Surveillance Based Coordination Procedures.

C.1 Transfer of Aircraft Identification.

- C.1.1 When discrete SSR codes are used for transfer of identification, they shall be assigned in accordance with the IVAO divisional documents.
- C.1.2 Any change of SSR code by the accepting ATS Unit may only take place after the AoR boundary.
- C.1.3 The SSR codes given in **Polaris FIR** and **Sweden FIR** are not protected. A new SSR code is expected when crossing the transfer of control point.

C.2 Transfer of Communications.

- C.2.1 The transfer of communications shall take place not later than 1 minute and not sooner than 5 minutes before the transfer of control, unless otherwise coordinated.

C.3 Transfer of Control.

- C.3.1 If it becomes necessary to reduce or suspend transfers of control, a 10 minutes prior notification shall be observed, except in emergency situations.
- C.3.2 Any vectoring along the common AoR-boundary needs to be coordinated between the ACC-Units.
- C.3.3 Silent Transfer of Control may be affected provided the minimum distance between successive aircraft about to be transferred above FL95 is 10 NM and constant or increasing.
 - C.3.3.1 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.

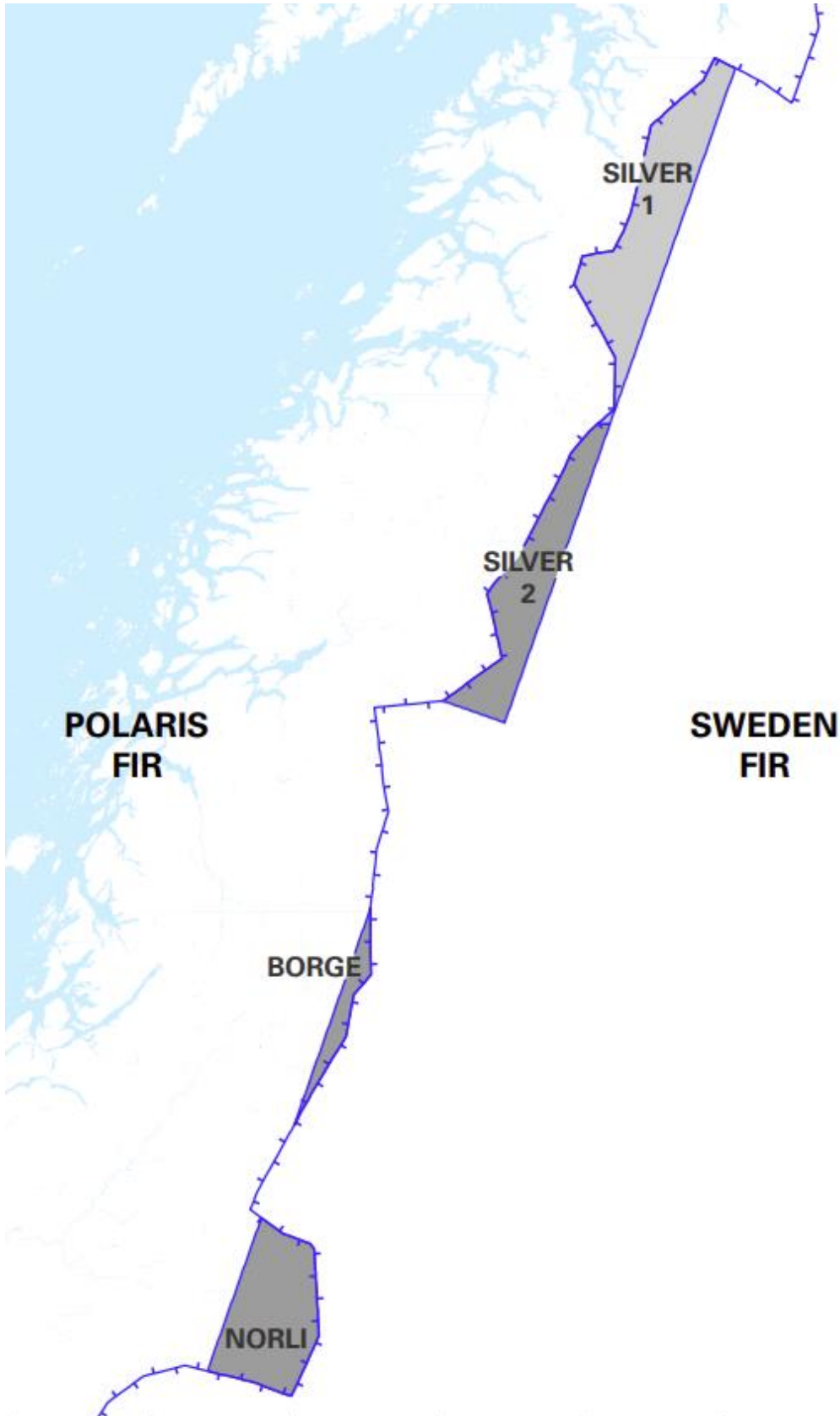
- C.3.3.2 The accepting controller may terminate the silent transfer of control at any time, normally with an advance notice of 5 minutes.

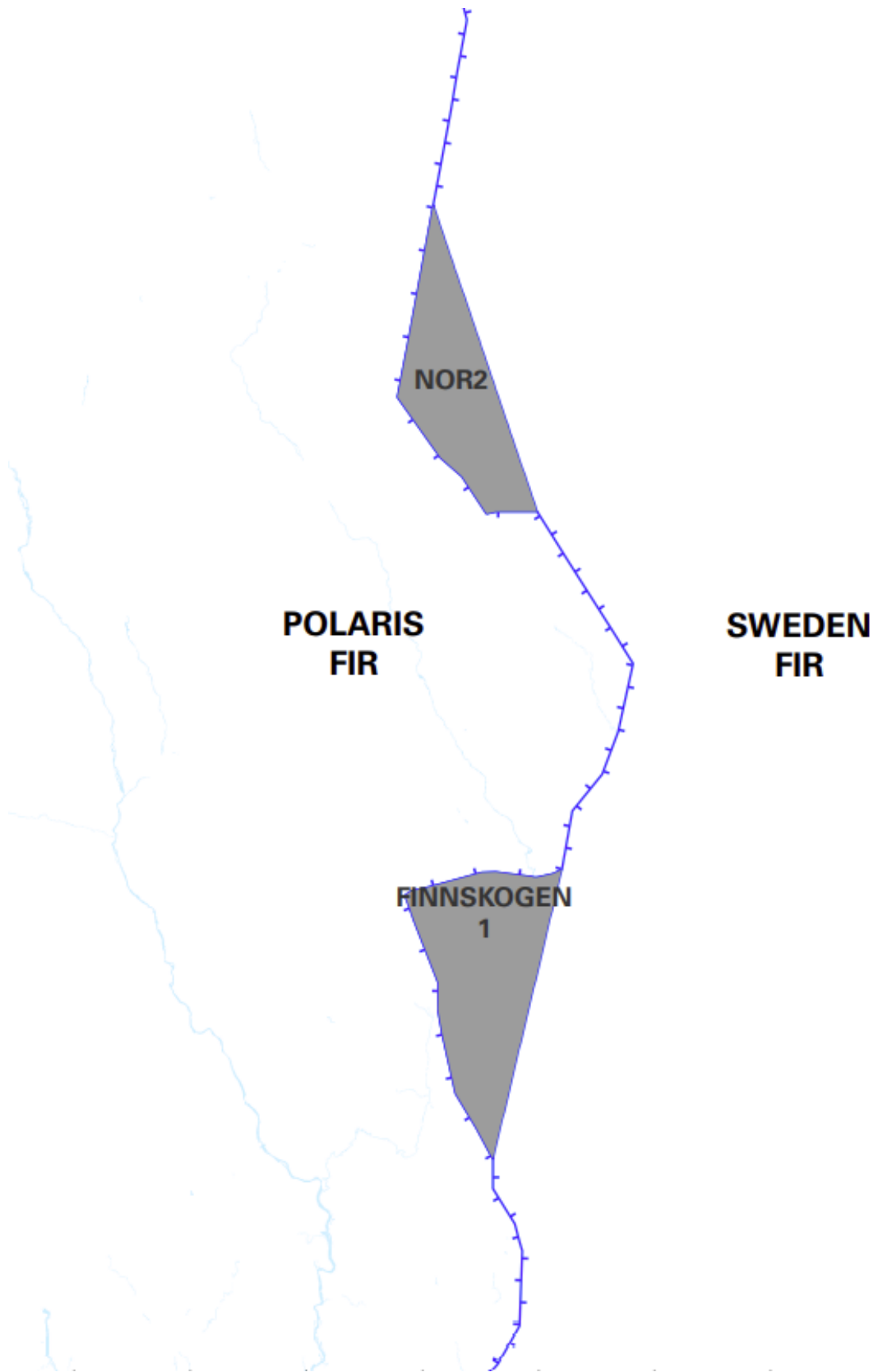
C.4 Reduced Longitudinal Separation.

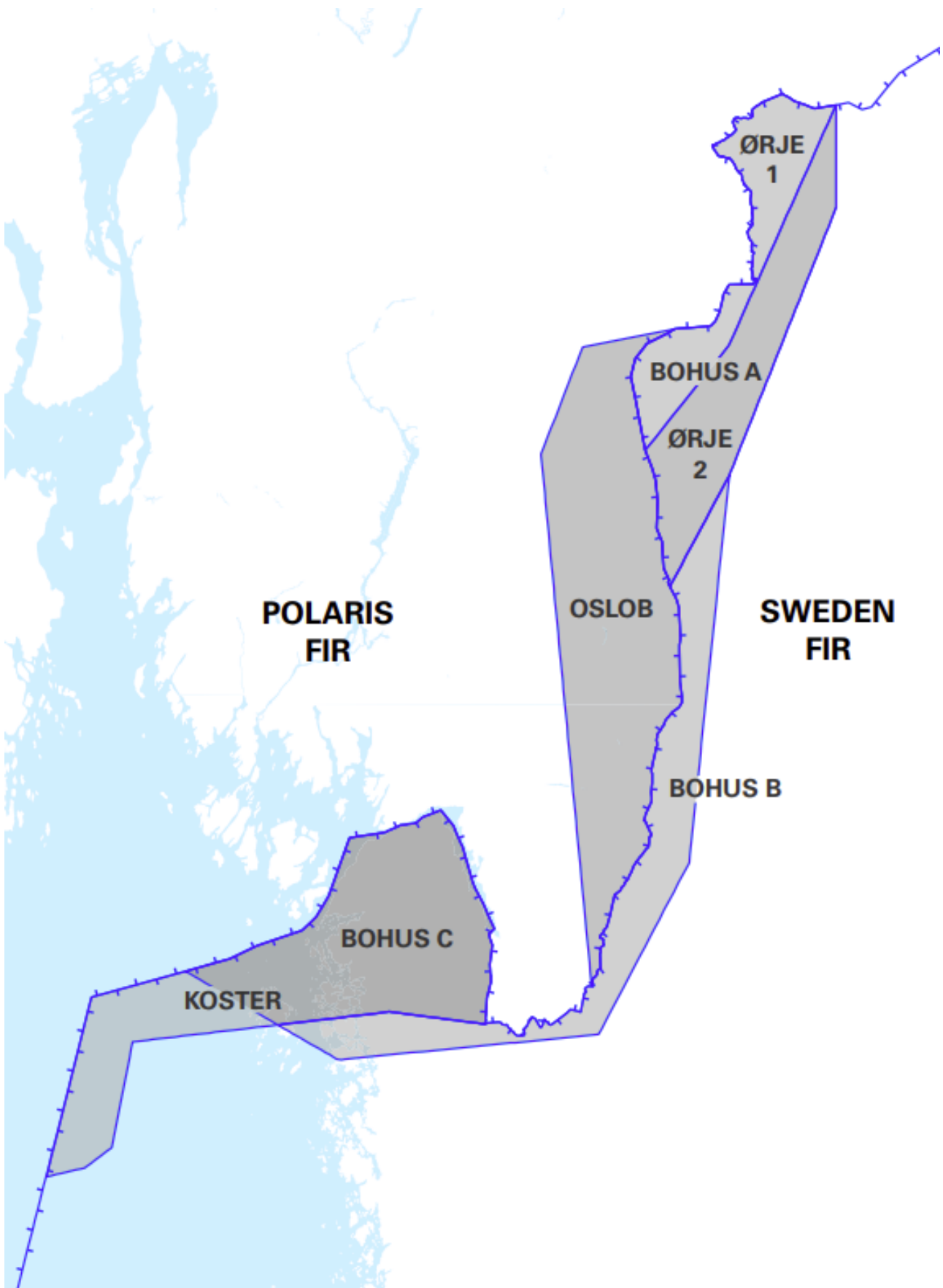
- C.4.1 Transfer of control of the aircraft on the same track or crossing tracks, whether at the same level, climbing or descending, may be affected provided that a minimum longitudinal separation of 3 minutes exists between aircraft, the relevant aircraft are continuously flight path monitored and the transferring ATS Unit has ensured that **the actual distance between the aircraft does not reduce to less than 20 NM.**

Appendix 1 of Annex A.

Airspace Sectorization within the Area of Common Interest.







THIS PAGE INTENTIONALLY LEFT BLANK