## Virtual ATC Centre of Estonia

# LoA EETT-EFIN

Letter of Agreement between ATCC Tallinn and ATCC Finland

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## 1. General

#### 1.1 Purpose

The purpose of the Letter of Agreement is to define the co-ordination procedures to be applied between **ATCC Tallinn** and **ATCC Finland** when providing ATS to General Air Traffic (IFR/VFR).

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 changed in the operational status of their facilities and navigational aids which may affect the procedures specified in this Letter of Agreement.

#### 1.3 Validity

This letter of agreement becomes effective on <u>02.11.2023</u> and supersedes Letter of Agreement between ATCC Tallinn and ATCC Finland dated <u>26.01.2023</u>.

Mark-Julius Pikat Christian Kovanen

Chief Executive Officer Director

VACC Estonia VATSIM Scandinavia

Tomass Stalgis Richard Weber

Chief Operations Officer Director of Helsinki FIR

VACC Estonia VATSIM Scandinavia

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## 2. Definitions

#### 2.1 General definitions

#### ATS Area of Responsibility

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

#### 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.

#### 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.

#### 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.

#### Third Party

A Third party is an ATS – unit other than transferring or accepting unit of the current flight plan profile.

#### Release

<u>Note</u>: 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.

#### Release for Climb or Descend

An authorisation for the accepting unit to climb or descend specific aircraft before the transfer of control.

#### Release for Turn

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

In case of traffic from EETT FIR inbound EFHK TMA, an authorisation for EFHK APP to turn specific aircraft away from the current flight path to any heading leading into EFHK TMA.

#### Fully released

An authorisation for the accepting unit to climb, descend and/or turn a specific aircraft.



#### 2.2 Free Route Airspace (FRA)

A specified airspace within which users may freely plan a route between a defined entry point and a defined exit point, with the possibility to route via intermediate (published or unpublished) way points, without reference to the ATS route network, subject to airspace availability. Within this airspace, flights remain subject to air traffic control.

#### FRA Arrival Transition Point

A published NAV aid/Significant Point to which FRA operation is allowed for arriving traffic.

#### FRA Departure Transition Point

A published NAV aid/Significant Point from which FRA operation is allowed for departing traffic.

#### FRA Entry Point

A published NAVAID/Significant Point from which FRA operations are allowed.

#### FRA Exit Point

A published NAVAID/Significant Point to which FRA operations are allowed.

#### FRA Intermediate Point

A published NAVAID/Significant Point or unpublished point, defined by geographical coordinates or by bearing and distance via which FRA operations are allowed for all traffic.



## 3. Areas of Responsibility for the Provision of ATS

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

#### 3.1 ATCC Tallinn

Lateral limits: Ref. AIP ESTONIA

Vertical limits: Ref. AIP ESTONIA

ICAO airspace classification for the area of responsibility of ATCC Tallinn along the common boundary of the areas of responsibility of ATCC Tallinn and ATCC Finland, is described in Part 4 to this Letter of Agreement.

#### 3.2 ATCC Finland

Lateral limits: Ref. AIP Finland Vertical limits: Ref. AIP Finland

ICAO airspace classification for the area of responsibility of ATCC Finland along the common boundary of the areas of responsibility of ATCC Finland and ATCC Tallinn, is described in Part 4 to this Letter of Agreement.



## 4. Area of Common Interest

#### 4.1 Airspace Structure within the Area of Common Interest

#### Tallinn FIR

| Area         | Vertical limits  | Airspace Classification |
|--------------|------------------|-------------------------|
|              | FL 660 – UNL     | G                       |
| FIR          | FL 95 – FL 660   | С                       |
|              | GND – FL 95      | G                       |
| INTOR FEEDER | FL 115 – FL 245  | С                       |
| EETN TMA     | 2500 FT – FL 115 | С                       |

#### Helsinki FIR

| Area           | Vertical limits  | Airspace Classification |
|----------------|------------------|-------------------------|
|                | FL 660 – UNL     | G                       |
| FIR            | FL 95 – FL 660   | С                       |
|                | GND – FL 95      | G                       |
| EFHK TMA UPPER | 2500 FT – FL 285 | С                       |
| EFHK CTA WEST  | FL 65 - FL 95    | С                       |

#### 4.2 Special Areas within the Area of Common Interest

Special areas in Helsinki FIR which are situated close to the border to Tallinn FIR:

EF D101, D102, D103, D104, D105, D106, D107, D109;

EF R64A/B, R65, R66, R67, R75, R76, R77, R101, R102, R103, R104, R105, R106, R107.

The lateral and vertical limits are published in the AIP Finland. The planned activation times of the danger areas are published by NOTAM.

#### 4.3 Non-published COPs

HELTN N059.51.00.00 E024.57.57.00

OC1 N059.51.00.000 E024.54.57.00 (EFIN system COP)

SUDAT N059.54.30.000 E025.19.52.000 (EETT system COP)



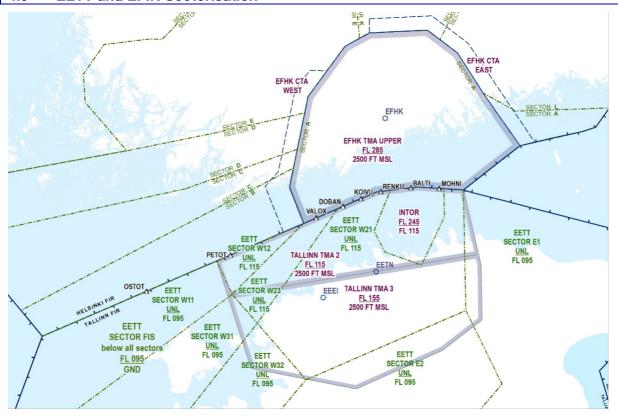
### 4.4 System adaptation files

For system supported coordination both VACC Estonia and VATSIM Scandinavia shall maintain in their system adaptation files at least the following aeronautical data of Tallinn and Helsinki FIRs:

- □ ATS routes,
- ☐ FIXes associated with ATS routes,
- ☐ STARs of EETN and EFHK (only INTOR STARs),
- □ All aerodromes,
- ☐ All ATC sectors including TMAs along the FIR boundary.

TopSky EFIN Manager: Mark-Julius Pikat
TopSky EFIN Manager: Juha Holopainen

#### 4.5 EETT and EFIN Sectorisation





## 5. Procedures for Coordination

Flights shall be considered to be maintaining, climbing or descending towards the coordinated flight level or given "when ready" clearance towards the destination airport according to co-ordinated flight level. If necessary, the accepting unit may specify the entry level conditions electronically or verbally.

#### 5.1 Coordination Points and Flight Level Allocation

COPs to be used and flight level allocation to be applied, unless otherwise described in para 6 <u>Special Procedures</u> are described in the tables below. This also applies for traffic filed as published for Free Route Airspace.

Flights from ACC/APP Tallinn to ACC Helsinki/APP Helsinki

| Routes      | СОР   | FL Allocation                   | Special Conditions      |
|-------------|-------|---------------------------------|-------------------------|
| All ———     |       | Not available ADEP EETN or EEEI |                         |
|             |       | According to the                | Not available ADES EFHK |
|             |       | semi-circle rule                |                         |
|             |       | Mandatory ADES EFHK             |                         |
| TLL DCT HEL | HELTN | ODD                             | See Note 1              |

#### Flights from ACC Helsinki to ACC/APP Tallinn

| Routes | СОР                     | FL Allocation                     | Special Conditions              |
|--------|-------------------------|-----------------------------------|---------------------------------|
|        | DOBAN                   |                                   |                                 |
| All    | BALTI<br>KOIVU<br>VALOX | According to the semi-circle rule | Not available ADES EETN or EEEI |
|        | MOHNI                   |                                   | Not available ADEP EFHK         |
|        | OSTOT                   |                                   |                                 |
|        | PETOT                   |                                   |                                 |



#### Flights from APP Helsinki to ACC/APP Tallinn

| Routes      | СОР              | FL Allocation           | Special Conditions                |
|-------------|------------------|-------------------------|-----------------------------------|
|             | DOBAN            |                         | Not available ADEP EFHK           |
| All         | According to the | Not available ADES EETN |                                   |
|             | semi-circle rule | Not available ADEP EFHK |                                   |
|             | RENKU            |                         | Mandatory ADEP EFHK and ADES EETN |
| HEL DCT TLL | HELTN            | EVEN                    | See Note 1                        |

Note 1: COP HELTN to be used only after text or verbal coordination.

#### 5.2 Third Party Airspace

Flights, which fly closer than the minimum distance specified in 8.2 to the 3rd party airspace, shall be verbally coordinated between relevant ATC units by the transferring ATC – unit.

The ATC – unit requesting a route and/or altitude change is responsible for verbal coordination with the third party. ACC Tallinn, APP Tallinn, ACC Helsinki and APP Helsinki are responsible for coordination with sectors and other ATC – units within their AoR.

#### 5.3 Tactical re-routing

Tactical re-routing shall be handled within the AoR of the relevant ATC unit as far as practicable. If the clearance to re-join the FPL route is considered impracticable, the flight may be cleared without prior coordination DCT to the next waypoint in FPL outside own AoR provided the updated flying time to the AoR boundary is 15 minutes or more.

Note: Not applicable for departing/arriving flights to/from airports below Helsinki or Tallinn TMA.

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## 6. Special Procedures

#### 6.1 **System supported coordination**

The accepting ATC unit may electronically propose:

- 1) a change of the route:
  - a) direct to a fix on the current flight plan, or
  - b) to a fix on an INTOR arrival route at EFHK or
  - c) to a fix on an arrival route at EETN, or
- 2) PEL.

In case 1 (b) and (c) above, the transferring ATC unit shall clear the aircraft to follow the arrival route via direct to the proposed fix.

The transferring ATC unit shall clear the aircraft to follow the electronic proposal made by the accepting ATC unit at the latest before the transfer of control.

The rejection of any electronically proposed change terminates the system supported dialogue. All previously agreed co-ordination remains valid. Following the rejection, verbal coordination shall be initiated, if necessary.

#### 6.2 Flights from ACC/APP Tallinn to ACC/APP Helsinki

#### Traffic departing from EETN or EEEI

Flights departing from EETN and EEEI are given clearance to FL 280, or requested flight level if lower.

Flights departing from EETN or EEEI with destination EFHK, are given clearance to FL 110 or requested flight level if lower.

#### Traffic with destination EFHK

Flights with destination EFHK filed via INTOR and cruising level above FL 120 shall be given clearance to descend to FL 120 by ACC Tallinn, unless otherwise requested.

Traffic with destination EFHK shall not be allowed to cross EFHK TMA boundary above FL 280, unless coordinated with ACC Helsinki.

APP Helsinki shall inform ACC/APP Tallinn the runway in use in EFHK. During parallel operations at EFHK, APP/ACC Tallinn shall clear the aircraft to RWY 04R or 22L.

ACC/APP Tallinn clears P-RNAV-capable aircraft arriving in EFHK via INTOR to follow RNAV STAR route serving the runway in use.

ACC/APP Tallinn clears the Non-P-RNAV-capable aircraft to leave IAF INTOR on heading 015, if not otherwise informed by EFHK APP. If RNAV STAR's are not available due to technical or such reasons, aircraft are cleared as Non-P-RNAV capable aircraft.

In case of holding pattern or linear holding at IAF INTOR and the IAS of the aircraft is below 230 KT, ACC/APP Tallinn shall clear aircraft to leave INTOR with IAS 230 KT, depending on the performance of the aircraft.

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In case the arriving aircraft has been assigned IAS 200 – 250 KT, it is not necessary to coordinate the assigned speed with EFHK APP. When using speed control, the assigned speed shall be transferred via ASP in the label. A transferring controller should not cancel assigned speed if applied.

#### Use of MAESTRO

APP/ACC Tallinn shall clear aircraft to leave IAF INTOR at the time indicated by MAESTRO. Time differences more than 2 minutes shall be coordinated with EFHK APP.

A DCT-, ASP- or AHDG- proposal or a ROF-function by EFHK APP cancels any EAT and potential holding at IAF. ATCC Tallinn shall clear the aircraft to continue according to inbound clearance.

#### 6.3 Flights from ACC/APP Helsinki to ACC/APP Tallinn

Flights departing from EFHK filed via VALOX or KOIVU are given clearance to FL 280 or requested flight level if lower.

#### Traffic with destination EETN or EEEI

Flights with destination EETN or EEEI cruising level above FL100 shall be given clearance to descend to FL100.

#### Traffic from EFHK TMA

Flights with destination EETN or EEEI shall not be allowed to cross Tallinn/Helsinki FIR boundary above FL110, unless coordinated with ACC Tallinn.

APP Tallinn shall inform EFHK APP the runway in use in Tallinn.

APP Helsinki clears P-RNAV capable aircraft arriving in EETN to follow RNAV STAR route serving the runway in use.

If RNAV STAR's are not available due to technical or such reasons, aircraft are cleared as Non-P-RNAV capable aircraft. EFHK APP shall clear without coordination Non-P-RNAV capable aircraft with destination EETN to leave:

☐ DOBAN: heading 180, if RWY 08 is in use, heading 120, if RWY 26 is in use, **RENKU:** heading 180,

if not otherwise instructed by EETN APP.

Flights departing from EFHK with destination EETN or EEEI are given clearance to FL100, or requested flight level if lower.

Flights departing from EFHK with destination not EETN or EEEI, shall not be allowed to cross Tallinn/Helsinki FIR boundary below FL120, except the traffic with requested Flight Level FL110 or below, unless verbally coordinated with APP Tallinn.

Flights departing from EFHK shall not be allowed to cross Tallinn/Helsinki FIR boundary above FL280, unless coordinated with ACC Helsinki.



### 6.4 Special Areas in the Area of Common Interest

APP Helsinki shall inform ATCC Tallinn the actual activation times of areas:

EF D101, D102, D103, D104, D105, D106, D107, EF R67, R75, R76, R77, R101, R102, R103, R104, R105, R106, R107.

ACC Helsinki shall inform ATCC Tallinn about the <u>activation and de-activation</u> of areas:

EF D109



## 7. Transfer of Control and Communications

#### 7.1 Transfer of Control

The transfer of control takes place at the AoR-boundary, unless otherwise specified in para 7.3 Special conditions for Transfer of Control and Transfer of Communications.

A release may be affected before the AoR boundary with the TRANSFER function.

After the TRANSFER function, the traffic is fully released, except as stated in para 7.3 Special conditions for Transfer of Control and Transfer of Communications including speed adjustments with regard to third party and traffic for which coordination data has been exchanged.

The accepting ATS unit may request the release of aircraft before the AoR boundary with ROF-function.

After a ROF function the flight will be transferred with the possibly assigned AHDG and/or ASP even without prior coordination. The use of ARC function shall be coordinated verbally.

If the air traffic has not yet reached the AoR boundary, the accepting ATS unit shall not make the ASSUME function before the transferring ATS unit has made the TRANSFER function.

#### 7.2 Transfer of Communications

The transfer of communications shall take place not later than the transfer of control and as specified in para 7.3 <u>Special conditions for Transfer of Control and Transfer of Communications</u>, unless otherwise coordinated.

When Controller-Pilot Data Link Communications (CPDLC) is used in both ATS units, the transfer of CPDLC shall commence concurrently with the transfer of voice communications.

| Unit        | Sector |                   | Callsign   | Frequency       |
|-------------|--------|-------------------|------------|-----------------|
|             | W11    | Bandbox           | EETT_W_CTR | 134.325         |
| ACC Tallinn | W      | 112<br>121<br>123 | EETT_N_CTR | 127.175         |
|             |        | Feeder            | EETT_H_APP | 126.70 <u>5</u> |
|             | F      | IS                | EETT_I_CTR | 128.9 <u>80</u> |
| APP 1       | allinn |                   | EETN_APP   | 127.90 <u>5</u> |



| Unit         | Sector |                    | Callsign   | Frequency |
|--------------|--------|--------------------|------------|-----------|
|              | ,      | A                  | EFIN_A_CTR | 127.425   |
| ACC Helsinki | В      |                    | EFIN_B_CTR | 125.225   |
|              | С      | Bandbox<br>w/o H+J | EFIN_C_CTR | 132.675   |
|              | D      | Bandbox            | EFIN_D_CTR | 121.300   |
| APP Helsinki |        | EFHK_E_APP         | 119.100    |           |

#### 7.3 Special conditions for Transfer of Control and Transfer of Communications

Flights with destination EETN or EEEI crossing the lateral EFIN FIR / EETN TMA boundary shall be transferred to EETN APP frequency regardless of the actual altitude, unless otherwise requested.

Flights departing from EETN or EEEI crossing the lateral EETT FIR / EFHK TMA boundary shall be transferred to EFHK APP frequency regardless of the actual altitude, unless otherwise requested.

#### Traffic from Tallinn FIR to EFHK TMA

After the TRANSFER function the traffic with destination inside EFHK TMA is not released for descend below FL 80 within Tallinn TMA.

#### Traffic from EFHK TMA to EETN TMA

After the TRANSFER function the traffic is not released for climb within Helsinki TMA.



## Annex 1 to Transfer of Control and Communications

Sector ownership AIRAC 2311

|      | FIS < FL 95                                 | FIS < FL 95                                 |  |  |
|------|---|---|--|--|
|      | W11   | W12 W21 W23                                 | <b>W22 FED</b> INTOR Feeder                            | EETN APP   |
|      | EURN > FL 245                               | EURN > FL 245                               |  |  |
| EETT | EETT_W_CTR EETT_N_CTR EETT_E_CTR EETT_S_CTR | EETT_N_CTR EETT_W_CTR EETT_E_CTR EETT_S_CTR | EETT_H_APP EETT_N_CTR EETT_W_CTR EETT_E_CTR EETT_S_CTR | EETN_APP EETT_N_CTR EETT_W_CTR EETT_E_CTR EETT_S_CTR |
|      |   |   |  |  |
|      | Sect A                                      | Sect B                                      | Sect C   | EEHK ADD   |
|      | Sect A                                      | Sect B  EURN > FL 245                       | Sect C   | ЕГНК АРР   |

## Radar Based Coordination Procedures

#### 8.1 **SSR Code Assignment**

Both Centres shall transfer aircraft on verified discrete SSR codes. Any change of SSR code by the accepting Centre may only take place after the transfer of control point.

#### 8.2 **Transfer of Control**

If it becomes necessary to reduce or suspend radar transfers, a 5 minutes prior notification will be observed, except in emergency situations.

Vectoring may take place without coordination between the ATS units, provided the distance to the boundary of the AoR is never less than 2,5 NM, except:

| Aircraft inside INTOR Feeder sector can use airspace to the boundary and APP |
|--|
| Helsinki shall keep 5 NM distance to the boundary;                           |

☐ Aircraft flying on route segment VALOX-DANKA may be closer than 2,5 NM to EFIN ACC AoR boundary.

APP Helsinki shall apply 5NM radar separation minima between aircraft if one or both are physically in Tallinn FIR.

Tactical proposals (RTI, TIP) can be used to coordinate AHDG, ASP or ARC (ARC is not used in EFHK APP) between transferring and accepting ATS units. The transferring ATS unit shall clear the aircraft according to accepted tactical proposal without delay. The rejection of any electronically proposed coordination terminates the system supported dialogue. All previously agreed co-ordination remains valid. Following the rejection, verbal coordination shall be initiated, if necessary.

#### 8.3 Transfer of Control without systematic use of the bi-directional speech facilities or agreed tactical ASP (Silent Transfer of Control)

Transfer of control may be effected without systematic use of bi-directional speech facilities or agreed tactical ASP (silent transfer of control), provided the minimum distance between successive aircraft about to be transferred is:

#### Aircraft from APP/ACC Tallinn to APP Helsinki:

| 6 NM between aircraft and the ground speed (GS) of the succeeding aircraft is no |
|--|
| more than 30 kts faster than the ground speed of the preceding aircraft, or      |

| 10 NM between aircraft and the ground speed of the succeeding aircraft is more |
|--|
| than 30 kts faster than the ground speed of the preceding aircraft.            |

#### Airc

| crat | ft from APP Helsinki to APP/ACC Tallinn:   |
|------|--|
|      | 7 NM between aircraft and is constant or increasing, or  |
|      | 10 NM between aircraft and the ground speed (GS) of the succeeding aircraft is no more than 30 kts faster than the ground speed of the preceeding aircraft, or |
|      | 15 NM between aircraft and the ground speed of the succeeding aircraft is more than 30 kts faster than the ground speed of the preceding aircraft.             |

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### Aircraft between ACC Tallinn and ACC Helsinki:

|                 | 7 NM between aircraft and is constant or increasing, or   |
|-----------------|---|
|                 | 10 NM between aircraft and the ground speed (GS) of the succeeding aircraft is no more than 30 kts faster than the ground speed of the preceding aircraft.  |
|                 | when the ground speed (GS) of the succeeding aircraft is over 30 knots faster than the ground speed of the preceding aircraft, transfer of control of the aircraft may be effected provided that a minimum longitudinal separation of 3 minutes exists between aircraft and the transferring ATS Unit has ensured that the actual distance between the aircraft does not reduce to less than 20 NM. |
| Aircraft        | t from APP Tallinn to ACC Helsinki:   |
|                 | 7 NM between aircraft and is constant or increasing, or   |
|                 | 10 NM between aircraft and the ground speed (GS) of the succeeding aircraft is no more than 30 kts faster than the ground speed of the preceeding aircraft.   |
|                 | 15 NM between aircraft and the ground speed of the succeeding aircraft is more than 30 kts faster than the ground speed of the preceding aircraft.  |
| Aircraft        | t from ACC Helsinki to APP Tallinn:   |
|                 | 6 NM between aircraft and the ground speed (GS) of the succeeding aircraft is no more than 30 kts faster than the ground speed of the preceeding aircraft, or   |
|                 | 10 NM between aircraft and the ground speed of the succeeding aircraft is more than 30 kts faster than the ground speed of the preceding aircraft.  |
| NOTE!<br>label. | When using speed control, the assigned speed will be transferred via ASP in the   |

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



# 8.4 Transfer of Control with use of the bi-directional speech facilities, ROF function or agreed tactical AHDG and/or ASP

Transfer of control may be effected with the use of bi-directional speech facilities, ROF function or agreed tactical AHDG and/or ASP, provided minimum distance between the aircraft does not reduce to less than 5 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. |

*NOTE!* ROF function or agreed tactical proposals mean the same as "assume responsibility for providing ATS surveillance service".

### 8.5 Transfer of Control with aircraft flying (near) parallel tracks

Transfer of control may be affected between Helsinki APP and Tallinn APP/ACC without specific coordination provided that the minimum distance between the aircraft at the FIR boundary does not fall below 5 NM.

#### 8.6 Reduced longitudinal separation

Transfer of control of the aircraft on the same track or crossing tracks, whether at the same level, climbing or descending, may be effected 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.

NOTE! The distance between aircraft can be decreasing.