European Route Network Improvement Plan/ERNIP

Implementation Monitoring

Monitoring Report: AIRAC 1912
07 November - 04 December 2019

NETWORK MANAGER

EUROCONTROL

European Route Network Improvement Plan (ERNIP) Implementation Monitoring

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1. INTRODUCTION

1.1 SUMMARY

This Report provides an update on the evolution of the environment indicators[1] listed in the *Network Performance Plan* and plots on the progress achieved in improving airspace design and utilisation flight efficiency, in line with the improvement proposals implemented in the relevant AIRAC cycle.

This edition focuses on **AIRAC 1912 (07 November - 04 December 2019)**

The methodology used for assessing flight efficiency is described in WP/9 of RNDSG/64. This document can be found at:
https://ost.eurocontrol.int/sites/RNDSG/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Fsites%2FRNDSG%2FShared%20Documents%2F%21%21%21%20RNDSG%20Meetings%2FRNDSG%20meetings%2051%2D85%2FRNDSG%2D64%20%2820%2D22%20May2008%29

1.2 ACHIEVING THE EUROPEAN TARGET

The Performance Scheme for air navigation services and network functions includes two important key performance areas and associated indicators, related to the operational performance of the European ATM network for the period 2015 - 2019.

- ***Environment***
  - ***average horizontal en-route flight efficiency of the actual trajectory****, defined as follows:*
    - *the indicator is the comparison between the length of the en-route part of the actual trajectory derived from surveillance data and the corresponding portion of the great circle distance, summed over all IFR flights within or traversing the European airspace;*
    - *"en-route" refers to the distance flown outside a circle of 40 NM around the airports;*
    - *where a flight departs from or arrives at a place outside the European airspace, only the part inside the European airspace is considered;*

    This KPI is applicable at both network and Functional Airspace Block level.

  - ***average horizontal en-route flight efficiency of the last filed flight plan trajectory****, defined as follows:*
    - *the difference between the length of the en-route part of the last filed flight plan trajectory and the corresponding portion of the great circle distance, summed over all IFR flights within or traversing the European airspace;*
    - *"en-route" refers to the distance flown outside a circle of 40 NM around the airports;*
    - *where a flight departs from or arrives at a place outside the European airspace, only the part inside the European airspace is considered;*

    This KPI is only applicable at network level.
- ***Capacity***
  - ***minutes of en-route ATFM*** *delay per flight, calculated for the full year and including all IFR flights within European airspace and all ATFM delay causes, excluding exceptional events.*

[1] **FPL**: Flight Plan data provided by NM systems; SAAM analysis carried out by NM.
DES/RAD: Traffic demand provided by NM systems; airspace environment data, profile calculations and SAAM analysis provided by NM.

For the second performance Reference Period starting on 1st January 2015 and ending on 31st December 2019, the European Union-wide performance targets will be as follows:

- ***Environment target***:
  - *Actual trajectory (KEA) - an average of 2.6% route extension by 2019, decreasing from 3.17% in 2012 (based on PRB measurements)*
  - *Last filed flight plan trajectory (KEP) - an average of 4.1% route extension by 2019, decreasing from 5.15% in 2012 (based on PRB measurements)*

- ***Capacity target****: average en route Air Traffic Flow Management (ATFM) delay of 0.5 minutes per flight for each year of the second Reference Period.*

The ERNIP Part 2 - ARN Version 2014 - 2018/19 also responds to the targets included in the Network Performance Plan (NPP) 2015 - 2019 as described below:

- **Route extension - airspace design**
  - **Targets:**
    - **achieve an improvement of the DES indicator by 0.57 percentage points between the baseline year of 2012 and 2019**
- **Route extension - last filed flight plan**
  - **Targets:**
    - **This is a European-wide indicator in RP2 and the NM target for RP2 is to achieve 4.1% value for KEP indicator by 2019 for the entire NM area, fully consistent with the EU-wide target, i.e. a reduction by 1.05 pp (percentage points) between the baseline year of 2012 and 2019**
- **Route extension - actual trajectory**
  - **Targets:**
    - **The NM target for RP2 is to achieve 2.6% value for KEA indicator by 2019 for the SES area, fully consistent with the EU-wide target**
- **NM direct contributions to flight efficiency savings**
    - **The NM objectives is that these FE direct savings will amount to 5% (2015 - 2016) and 7% (2017 - 2019) of the savings required to achieve the annual 0.15 pp reduction (or alternatively 5% of the actual KEP reduction) each year**
- **Increase the CDR1/2 usage**
    - **NM objective is to increase the CDR availability (CD-RAI) and CDR usage (CDR-RAU) by 5% between the baseline year 2012 and 2019**

1.3 AIRSPACE DESIGN DEVELOPMENT AND IMPLEMENTATION MONITORING

The Network Manager coordinates the following activities to achieve the required improvement in flight efficiency:

- Enhancing European en-route airspace design through annual improvements of European ATS route network, high priority being given to:
  - implementation of a coherent package of annual improvements and shorter routes;
  - improving efficiency for the most penalised city pairs;
  - implementation of additional Conditional Routes for main traffic flows;
  - full implementation of Free Route Airspace.
- Improving airspace utilisation and route network availability through:
  - actively supporting and involving aircraft operators and the computer flight plan service providers in flight plan quality improvements;
  - gradually applying route availability restrictions only where and when required;
  - improving the use and availability of civil/military airspace structures.
- Efficient Terminal Manoeuvring Area design and utilisation through:
  - implementing advanced navigation capabilities;
  - implementing Continuous Descent Operations (CDO), improved arrival/departure routes, optimised departure profiles, etc.
- Improving awareness of performance.

1.4 EXTERNAL DOCUMENT RELEASE

The **latest AIRAC report** is available via the EUROCONTROL *Airspace design and utilisation website* (publication/ activity):
https://www.eurocontrol.int/publication/european-route-network-improvement-plan-ernip-monitoring-report-airac-1912

The full list of all monitoring reports is available on the EUROCONTROL *Route network and airspace design* website (function):
https://www.eurocontrol.int/function/route-network-and-airspace-design

A copy of the AIRAC Report of the European Route Network Improvement Plan is available via the restricted EUROCONTROL OneSky Online websites for access by interested members of the RNDSG, ASMSG and NETOPS *(see sub-sections under main section "LIBRARY"):*

https://ost.eurocontrol.int/sites/NETOPS/SitePages/Home.aspx
https://ost.eurocontrol.int/sites/RNDSG/SitePages/Home.aspx
https://ost.eurocontrol.int/sites/ASM-SG/SitePages/Home.aspx

2. LIST OF PROPOSALS IMPLEMENTED AIRAC 1912 (7 NOVEMBER 2019)

2.1 SUMMARY OF MAJOR PROJECTS IMPLEMENTED ON 7 NOVEMBER 2019

During the AIRAC cycle 14 (fourteen) airspace improvement packages co-ordinated at network level were implemented. Apart from ECAC States AIP en-route publication issues, ATS route network or RAD improvements the list below provides an overview of the major enhancements implemented on 7 November 2019:

- Armenia / Georgia
  - FRASC Free Route Airspace South Caucasus.
- Bulgaria / Hungary / Romania
  - SEE FRA Phase 1 (H24 cross-border Free Route Airspace).
- Germany
  - FRA Germany - Step 2a bis.
- Greece
  - Implementation of PBN/SBAS procedures in ATHINAI FIR.
- UK
  - Swanwick Airspace Improvement Programme (SAIP) Airspace Deployment – 5.

A description of the improvement measures implemented 7 November 2019 is attached in Annex A. The list is an extract of the ***European Route Network Improvement Plan database*** accessible for registered users via:

https://ext.eurocontrol.int/ernip_database/Index.action

To register, allowing easy access to all information about approval and implementation of proposals to improve the European Route Network and Airspace Structure, please follow:

https://www.eurocontrol.int/database/european-route-network-improvement-plan-database

A description of the airspace changes and improvements together with an orientation map due for implementation on the relevant AIRAC cycle is provided in the *RNDSG Airspace Improvements Synopsis* (*RAIS)* via the restricted EUROCONTROL OneSky Online website for RNDSG.

The latest situation of the European route network structure is available and updated at each AIRAC cycle through the publication of Regional Electronic Charts that can be found here: http://www.eurocontrol.int/articles/eurocontrol-regional-charts

3. EVOLUTION OF PERFORMANCE INDICATORS

3.1 AIRSPACE DESIGN INDICATOR EVOLUTION

The graph below shows the yearly evolution of airspace design flight efficiency (RTE-DES[2]) over the period 2007 - 2018 and its evolution until 4 December 2019. *(Note: inclusion of new measurements will be done as soon as all data will become available)*

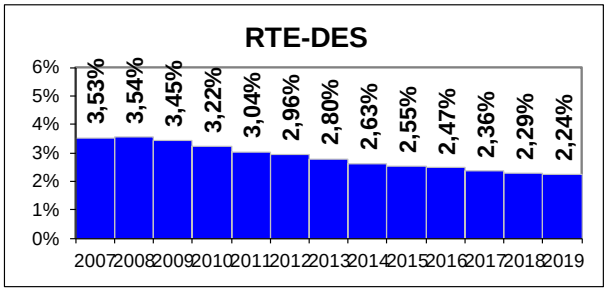


Figure 1 : *Airspace Design indicator evolution*

3.2 FLIGHT PLANNING INDICATOR EVOLUTION

The graph below shows th9e yearly evolution of the last filed flight plan indicator (RTE-FPL[3]) over the period 2007 - 2018 and its evolution until 4 December 2019. *(Note: inclusion of new measurements will be done as soon as all data will become available)*

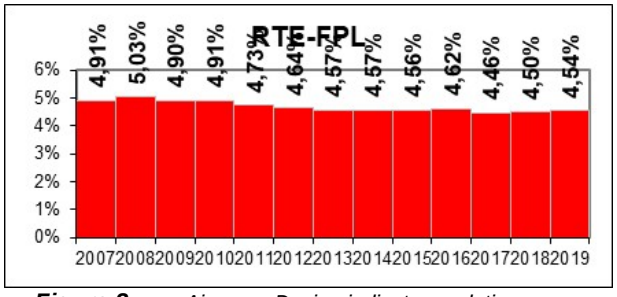


Figure 2 : *Airspace Design indicator evolution*

3.3 ROUTE AVAILABILITY INDICATOR EVOLUTION

The impact of the civil route restrictions included in the Route Availability Document (RAD) is measured through a specific RAD indicator (RTE-RAD[4]). The graph below shows the yearly evolution of the RTE-RAD indicator between January 2012 and 4 December 2019. *(Note: inclusion of new measurements will be done as soon as all data will become available)*

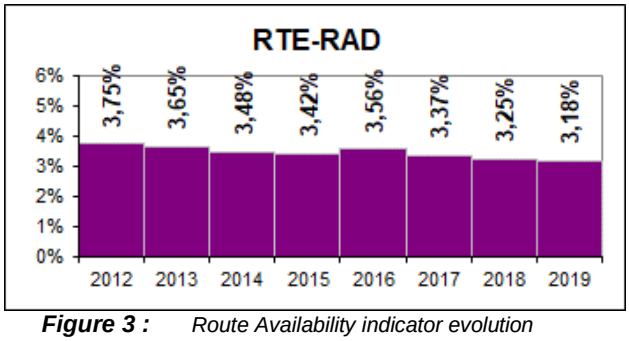


Figure 3 : *Route Availability indicator evolution*

2 **RTE-DES** (Flight Extension due to Route Network Design) This KPI will be calculated by measuring the difference between the shortest route length (from TMA exit and entry points) and the great circle distance. For this KPI the RAD will not be taken into account and all the CDR routes will be considered as open.

3 **RTE-FPL** (Flight Extension due to Route Network Utilisation - last filled FPL) This KPI will be calculated by measuring the difference between the route from the last filed flight plan for each flight (from TMA exit and entry points) and the great circle distance.

4 **RTE-RAD**: (Flight Extension due to Route Network Utilisation - RAD active) This KPI will be calculated by measuring the difference between the shortest plannable route length (from TMA exit and entry points) and the great circle distance. For this KPI the RAD will be taken into account and all the CDR routes will be considered as open.

3.4 FLIGHT EFFICIENCY EVOLUTION PER AIRAC CYCLE

The graph below shows the evolution per AIRAC cycle of the two main flight efficiency indicators RTE-DES and RTE-FPL over the period 2010 - 2018 and the evolution until 4 December 2019. *(Note: inclusion of new measurements will be done as soon as all data will become available)*

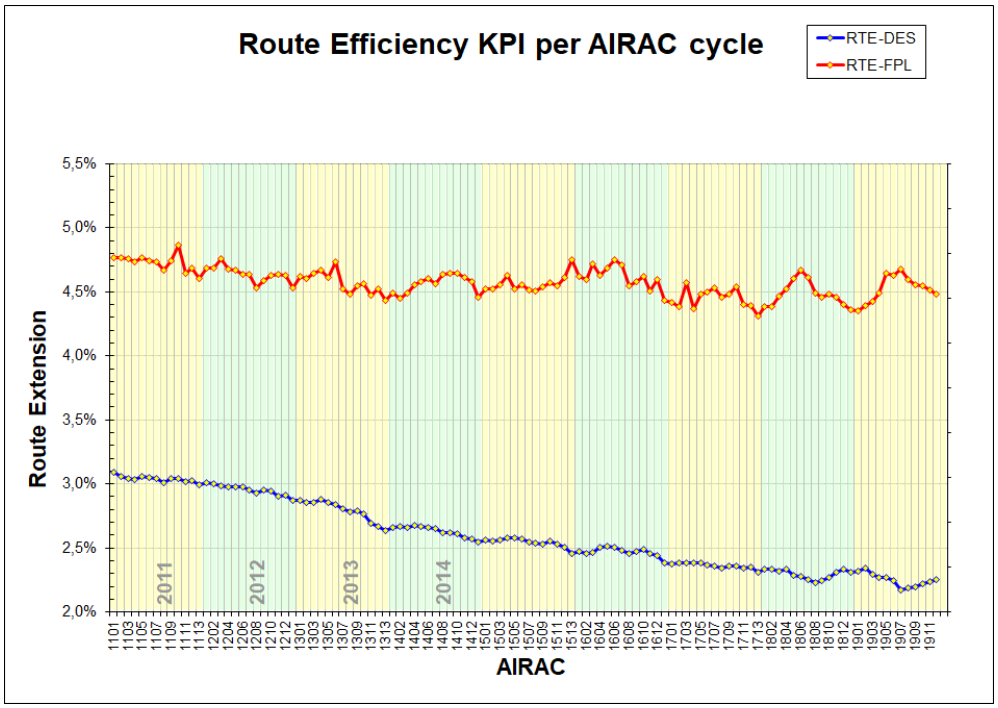


Figure 4 : *Flight efficiency (DES, FPL) evolution per AIRAC cycle*

The graph below shows the evolution per AIRAC cycle of the two main efficiency indicators RTE-DES and RTE-FPL in relation to the RTE-RAD indicator between January 2012 and 4 December 2019. *(Note: inclusion of new measurements will be done as soon as all data will become available)*

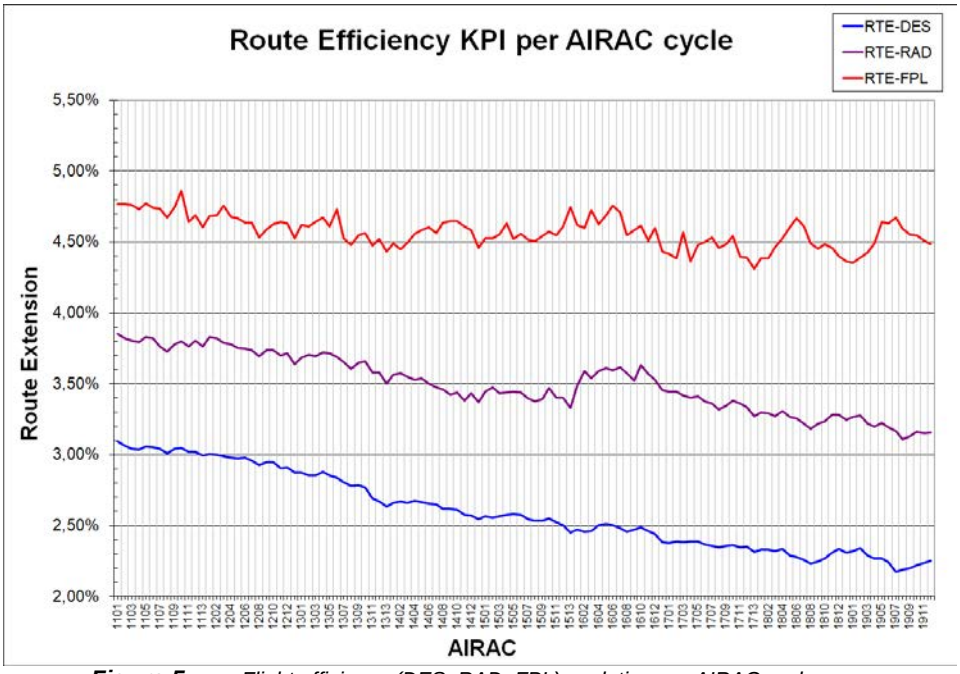


Figure 5 : *Flight efficiency (DES, RAD, FPL) evolution per AIRAC cycle*

The difference between the three indicators (DES, FPL, RAD) clearly indicate that additional efforts must be made to further improve the efficiency of airspace utilisation and to ensure that the indicator based on the latest filed flight plan/ FPL and the RAD indicator follow similar to the airspace design indicator/ DES.

3.4.1 EVOLUTION OF RTE-DES AND RTE-FPL INDICATORS

The current data indicates that, the average yearly route extension due to airspace design was reduced between 2009 and 4 December 2019 by 1.21 percentage points (same in AIRAC 1911). The evolution of the airspace design indicator is on the right path and the contributions of the airspace design projects are key for improving flight efficiency.

The current data indicates that, the average yearly route extension based on the last filed flight plan was reduced between 2009 and 4 December 2019 by 0.36 percentage points (same in AIRAC 1911).

The difference between the airspace design indicator and the last filed flight plan indicator was 1.45 percentage points in 2009 and was 2.30 percentage points in December 2019 (same in AIRAC 1911).

The current data indicates that the route extension due to airspace design went up to 2.25% in December 2019 (2.23 in AIRAC 1911).

The current data show that the route extension based on the last filed flight plan went down to 4.48% in December 2019 (4.51 in AIRAC 1911).

3.4.2 EVOLUTION OF RTE-RAD INDICATOR

As shown in Figure 3 above the impact of the RAD decreased by 0,57 percentage points in November 2019 compared with 2012. More actions will be required to further diminish this impact and to ensure that the target set in the Network Manager Performance Plan is reached.

3.4.3 BENEFITS AND ASSESSMENT OF RTE-DES AND RTE-FPL EVOLUTIONS

Caused by the airspace enhancements implemented during AIRAC 1912 as well as the airspace design improvements put in place since AIRAC 1812 in connection with changing traffic patterns and structure, the **additional, potential savings offered** during AIRAC cycle 1912 amount to 228 000 NMs flown less compared with the equivalent AIRAC cycle in 2018. This translates into 1 368 tons of fuel, or 4 560 tons of CO2, or € 1 140 000.

Based on the last filed flight plan indicator and as a result of the airspace design improvements put in place since AIRAC 1812 in connection with changing traffic patterns and the airline choices made, the **actual losses calculated** during the AIRAC cycle 1912 amount to 298 000 NMs flown more compared to the equivalent AIRAC cycle in 2018. This translates into 1 788 tons of fuel, or 5 960 tons of CO2, or € 1 490 000.

While airspace design benefits continue to be implemented the **network performance/ flight efficiency** improves not to the maximum potential, as it is effected by various crisis and closed areas in adjacent airspace(s). The losses recorded on the last filed flight plan data during AIRAC cycle 1912 compared to the equivalent AIRAC cycle in 2018 are mainly because of different flight planning/ airline choices, traffic composition, weather, industrial actions and/or regulations applied due to capacity problems in the network.
The special events recorded for this AIRAC cycle are as follows:

- **Overall crisis situation in Ukraine** that lead a significant number of flights to avoid the entire Ukrainian airspace moving to neighbouring countries (Turkey, Bulgaria, Romania, Poland, Slovakia, etc.); as a result of the Ukrainian crisis adjacent ACCs/ UACs were on-loaded by Far Eastern traffic avoiding the Ukraine airspace leading to increased route extensions.
- **Closure of Libyan airspace** for over flights due to the security situation required procedures with impact on flight efficiency for traffic between Europe and Africa re-routed via Egypt and Tunisia (while traffic to/from Tunisia remains suppressed since the terrorist attack on 26 June 2016.)
- **Avoidance of Syrian airspace** due to the security situation with impact on flight efficiency for traffic between Europe and Middle East and Asia re-routed via Iran and Turkey with additional impacts on the flows from the Ukrainian crisis.

- **Staffing** and **capacity issues** in Karlsruhe UAC and Lisboa ACC required regulations, with impact on flight planning route extension.
- **Staffing issues** in Brussels ACC and Nicosia ACC required regulations, with impact on flight planning route extension.
- **French ATC industrial action** on 4 - 8 December 2019 required regulations in several French ACCs, with impact on flight planning route extension.
- **Italian ATC industrial action** on Monday 25 November 2019 required regulations in several ACC en-route sectors, with impact on flight planning route extension.

Figure 6 below shows the airspace unavailability and closed areas in November 2019.

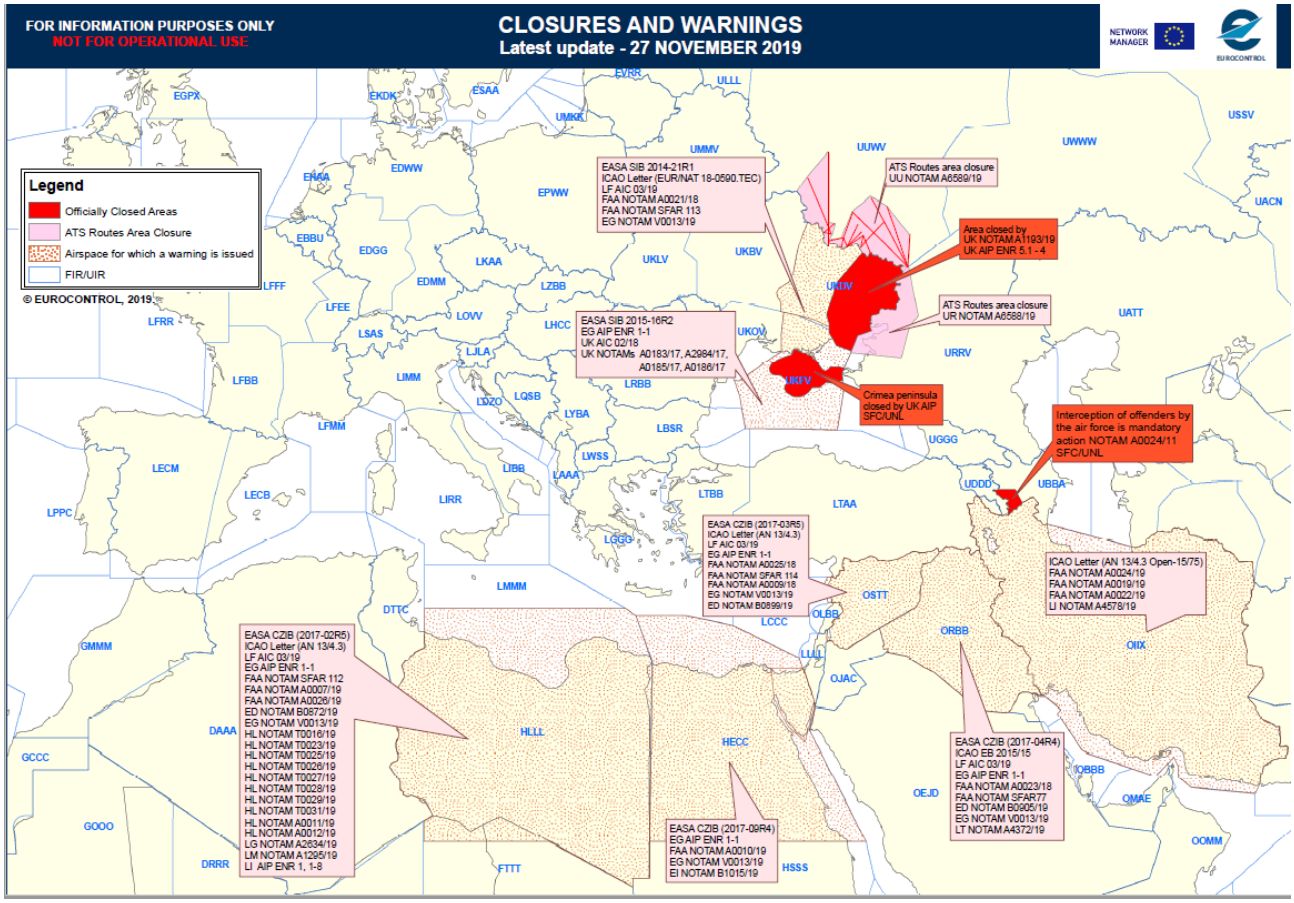


Figure 6 : *Airspace unavailability and closed areas in November 2019*

Figure 7 and Figure 8 below visualise the impact of the mentioned airspace unavailability (see Figure 6 above) by comparing traffic flows in November 2013 and November 2019.

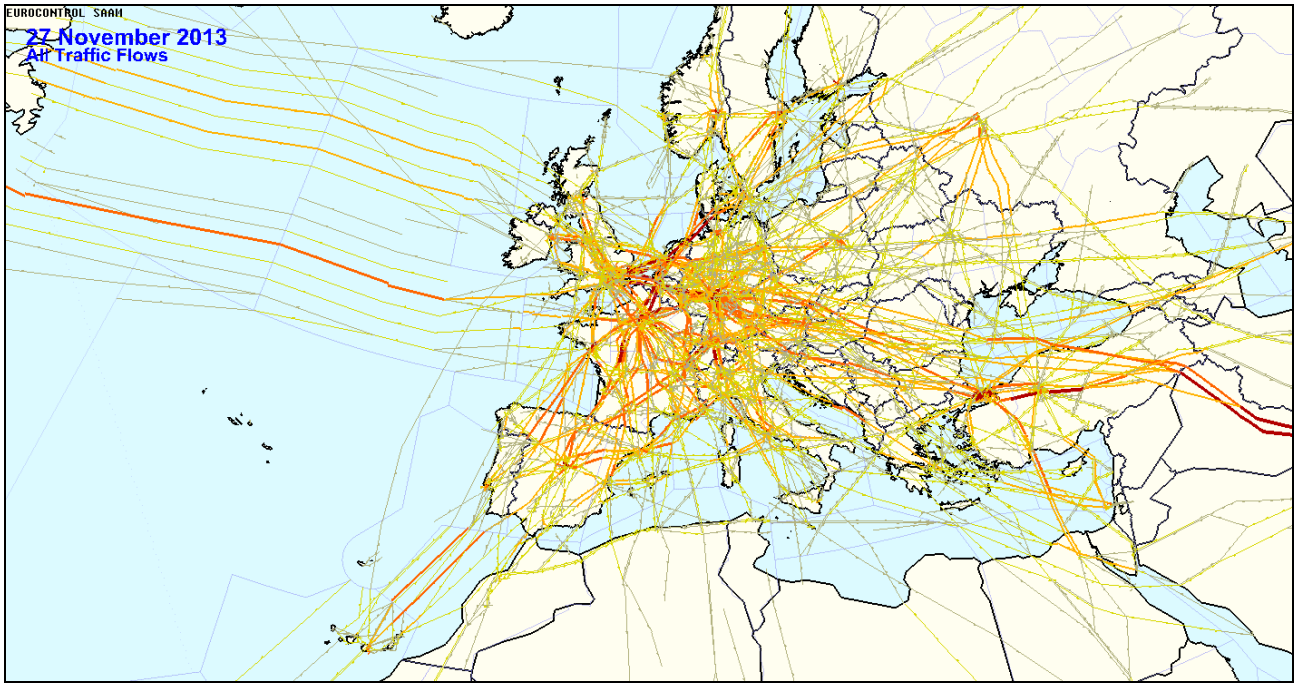


Figure 7 : *24h traffic situation Wednesday, 27 November 2013 (flight planned)*

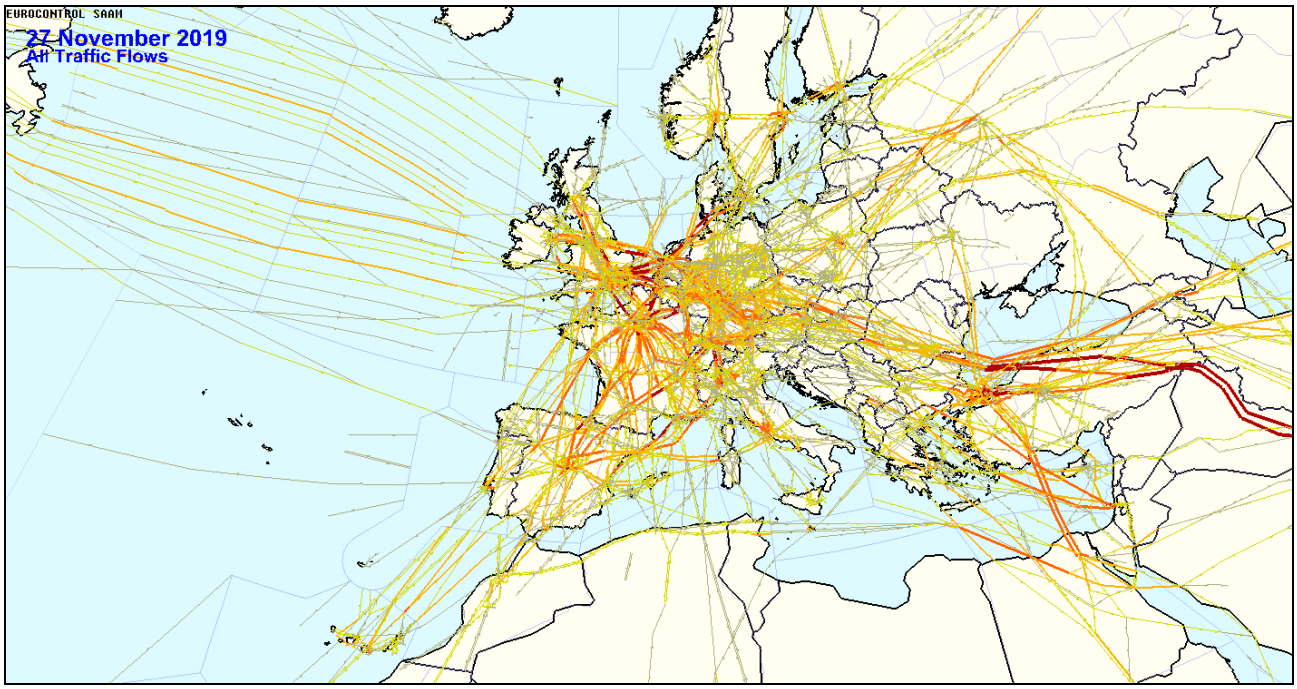


Figure 8 : *24h traffic situation Wednesday, 27 November 2019 (flight planned)*

The comparison between the potential (RTE-DES) and actual (RTE-FPL) savings/ losses related to the different parameters is depicted in the graphs below (see Figure 9 to Figure 12).

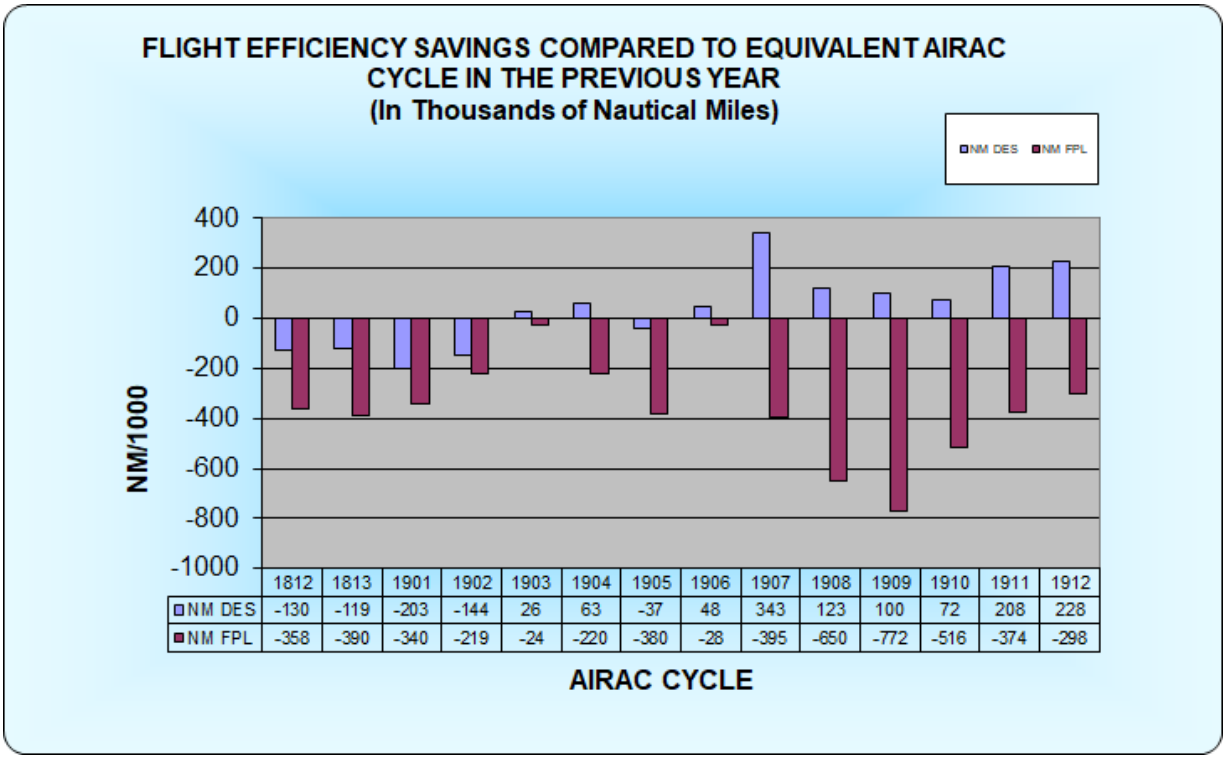


Figure 9 : *Flight Efficiency savings/ losses in Thousands of Nautical Miles*

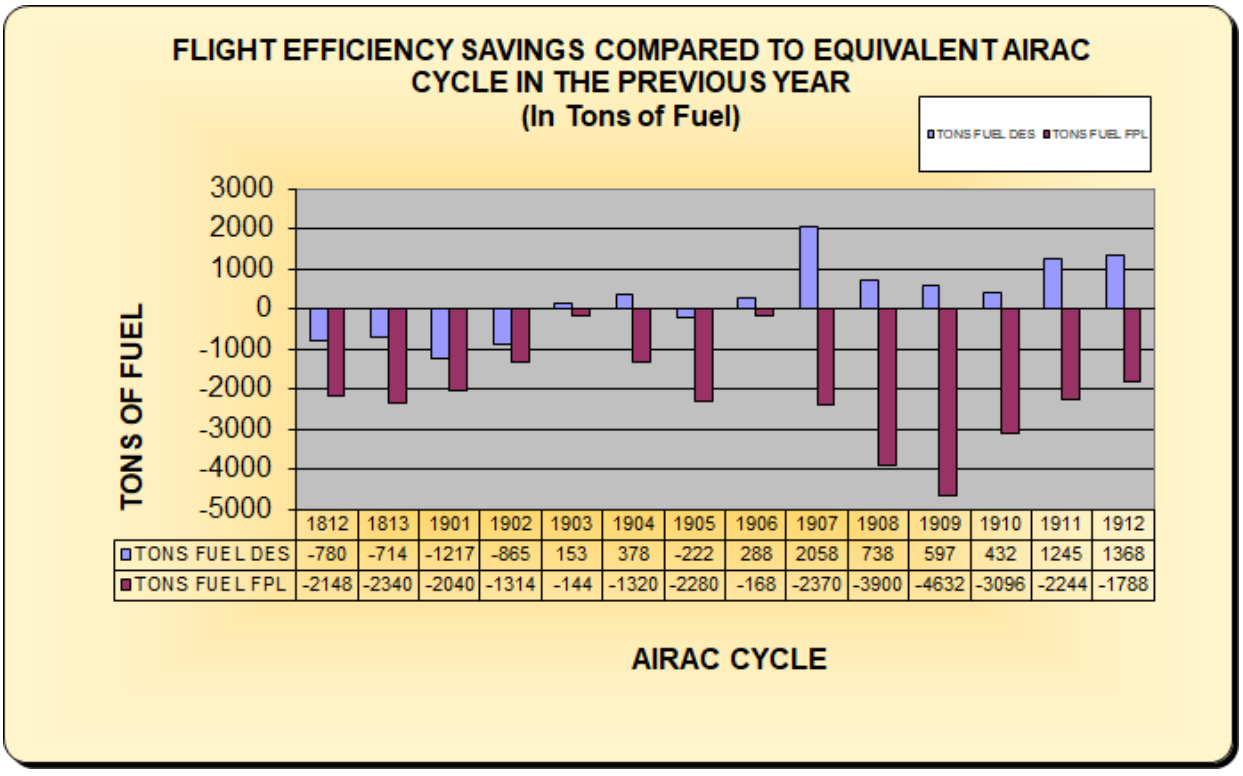
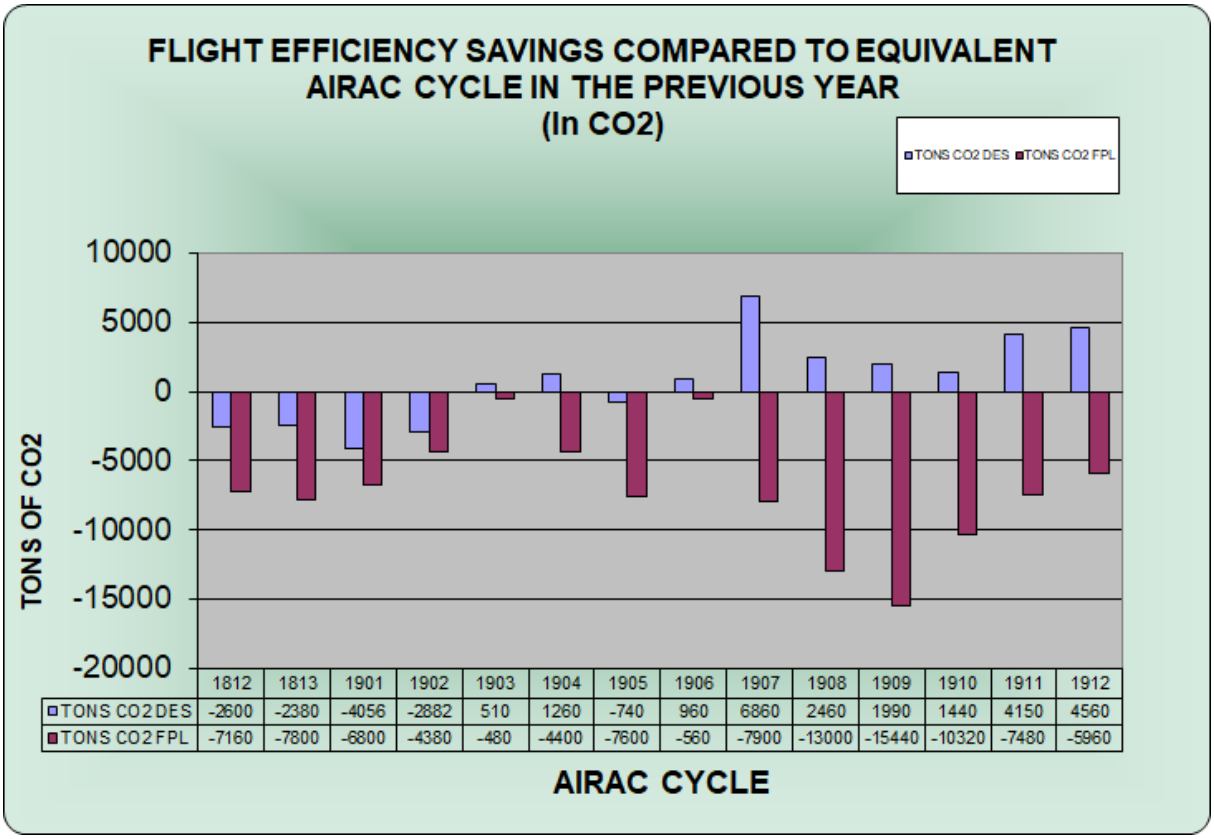
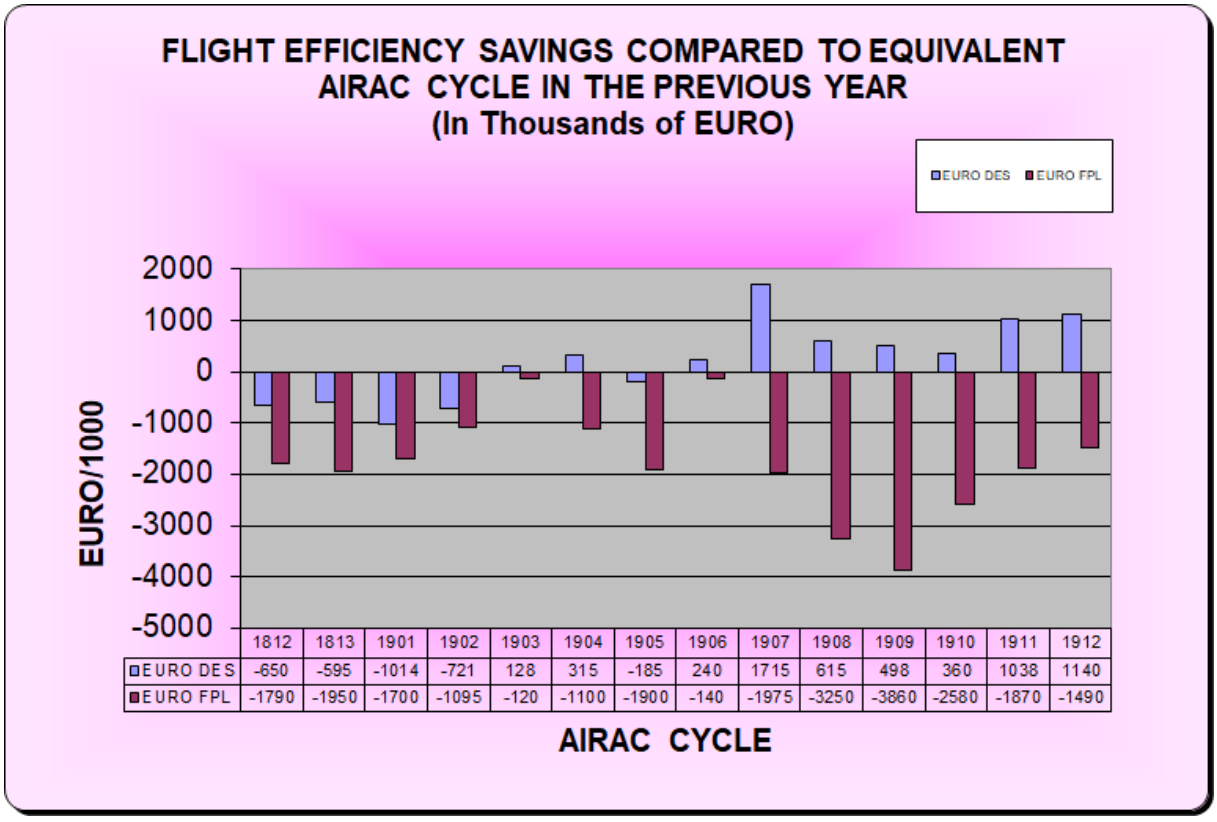


Figure 10 : *Flight Efficiency savings/ losses in Tons of Fuel*



	1812	1813	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
TONS CO2 DES	-2600	-2380	-4056	-2882	510	1260	-740	960	6860	2460	1990	1440	4150	4560
TONS CO2 FPL	-7160	-7800	-6800	-4380	-480	-4400	-7600	-560	-7900	-13000	-15440	-10320	-7480	-5960

Figure 11 : *Flight Efficiency savings/ losses in CO2*



	1812	1813	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
EURO DES	-650	-595	-1014	-721	128	315	-185	240	1715	615	498	360	1038	1140
EURO FPL	-1790	-1950	-1700	-1095	-120	-1100	-1900	-140	-1975	-3250	-3860	-2580	-1870	-1490

Figure 12 : *Flight Efficiency savings/ losses in Thousands of EURO*

Note: For additional information on ATFM delay that could impact on network efficiency consult the NM Monthly Network Operations Reports, accessible via:
https://www.eurocontrol.int/library?f%5B0%5D=product%3A807

3.4.4 BENEFITS AND ASSESSMENT OF RTE-RAD EVOLUTIONS

The decrease of the RAD indicator is due to improvements in airspace design and the removal of RAD restrictions. More actions will be required to ensure that the KPI based on the RAD indicator follows trends similar to the airspace design indicator/ DES as well as to ensure that the target set in the Network Manager Performance Plan is reached.

3.5 FREE ROUTE AIRSPACE/ FRA EVOLUTION

FRA implementation leads to improved flight efficiency and has an economic impact in terms of fuel savings as well as notable environmental impact on climate in terms of reduced CO2 emissions.

Full Free Route Airspace implementation has taken place in Armenia, Austria, Bosnia & Herzegovina, Bulgaria, Croatia, Georgia, Hungary, Ireland, Italy, L'viv ACC, Malta, Moldova, Portugal, Serbia/ Montenegro, Slovenia, Slovakia, Sofia ACC, The former Yugoslav Republic of Macedonia, Warsaw ACC and all Scandinavian States (Denmark, Finland, Norway, Sweden) & Baltic States (Estonia, Latvia, Lithuania).

Partial implementation during night, weekend or based on permission to flight plan direct/ DCT between a defined set of points has already been provided in a large number of European states (see Figure 13 below).

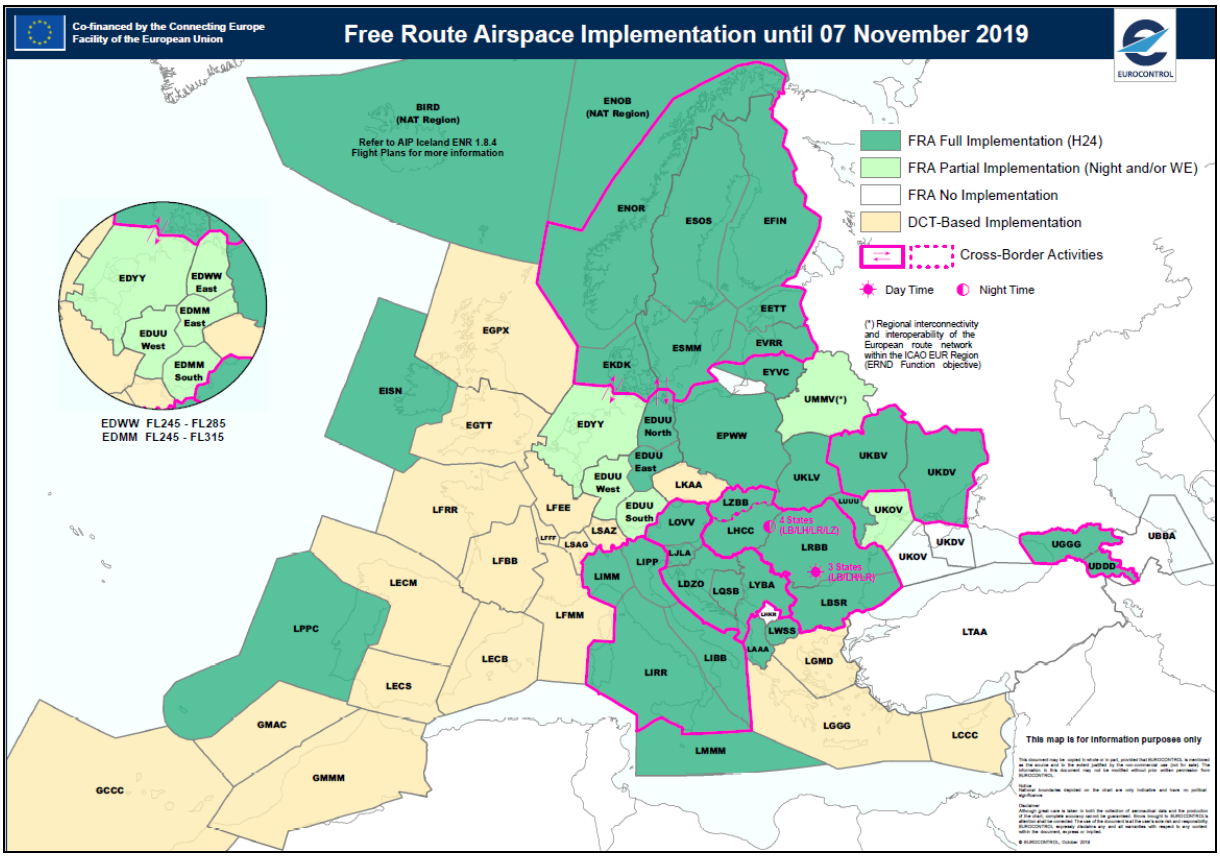


Figure 13 : *Airspace implementation towards Free Route Airspace*

The following Area Control Centres/ ACCs in Europe have already progressed with partially Free Route Airspace Implementation: Athinai ACC, Beograd ACC, Brest ACC, Bremen ACC, Brindisi ACC, Bodo ACC, Bordeaux ACC, Bucuresti ACC, Budapest ACC, Chisinau ACC, Finland ACC, Geneva ACC, Karlsruhe UAC, Kobenhavn ACC, Kyiv ACC, Lisboa ACC, Ljubljana ACC, London ACC, L'viv ACC, Maastricht UAC, Madrid ACC (SAN and ASI sectors), Makedonia ACC, Malmo ACC, Malta ACC, Marseille ACC, Milano ACC, Minsk ACC, Munich ACC, Nicosia ACC, Nipro ACC (excl. Sector DVB), Norway ACC, Padova ACC, Praha ACC, Prestwick ACC, Reykjavik ACC, Reims ACC, Riga ACC, Roma ACC, Shannon ACC, Skopje ACC, Stockholm ACC, Tallinn ACC, Tbilisi ACC, Tirana ACC, Vilnius ACC, Wien ACC, Zagreb ACC and Zurich ACC (see Figure 13 above).

3.6 ASM PERFORMANCE ASSESSMENT

*Note: The ASM Performance Assessment for **Q1 2019** is included for AIRAC 1904. The ASM Performance Assessment for **Q2 and Q3 2019** is included for AIRAC 1910.*

*The **ASM Performance Assessment for 2019**, providing a full picture of the whole year 2019 as well as the performance (behaviour of the aircraft operators and the efficiency of the ANSPs managing the airspace) in the first, second, third and fourth quarter/ **Q1 - Q4 2019** (AIRAC 1901 – AIRAC 1913) will be included in the ERNIP Implementation Monitoring Report for AIRAC 1913.*

ANNEX A: DETAILED LIST OF PROJECTS IMPLEMENTED 7 NOVEMBER 2019

The following table presents detailed information about each of the improvement proposals developed within the RNDSG and implemented during the relevant AIRAC cycle. The description of the proposals is based on the information available from different sources (e.g. AOs, ANSPs and EUROCONTROL). The table includes:

- Proposal ID number:
  A reference number to identify each proposal allowing tracing at which RNDSG it was initiated.
- Project Name:
  Dedicated Name and Phase/ Step of the improvement project.
- Description:
  A detailed description of the planned improvement proposal.
- Objective:
  A brief description of the purpose of the enhancement measure.
- Implementation Status:
  The implementation status defined as Proposed, Planned, Confirmed or Implemented.
- Project Group:
  The Functional Airspace Block Group (FAB), Regional Focus Group (RFG), Sub-Group (SG) or any other Project Group(s) involved directly or indirectly by the proposed enhancement measure.
- Project Category:
  The nature of the proposed enhancement measure defined through Project Categories (e.g. Airspace Structure, ATC Sectors, ATS Routes, Free Route Airspace, TMA etc.).
- States and Organisations:
  The States and/or Organisations involved directly or indirectly by the proposed enhancement measure.
- Originator(s):
  The States and/or Organisations who have originated the proposal.
- Comments:
  The conditions and/or pre-requisites, which have to be met in order to implement the proposal or any other relevant comment(s).

***Note:** The list of implemented changes for this AIRAC cycle does not claim to be complete. For the correctness and verification of the relevant aeronautical information consult official State AIP publications.*
The data from this document should not be used for operational purpose

	Proposal ID: 91.004 / 26.008	Status:	Contributor:	Comments:
1. EVENT	**Project Name: FRASC Free Route Airspace South Caucasus** **Description:** To merge ARMFRA Phase 2 and FRAG Phase 2 into a common **H24 cross-border South Caucasus FRA** area **FL195 - FL660**. **Objective:** To further improve flight planning options and expand the local FRA areas.	**Implementation:** Implemented 07 NOV 2019 **Serial Number:** EUR/NAT 19/08-HS-ARM **Circulation Letter:** EUR/NAT 19-0353.TEC of 9 August 2019 **Approval Letter:** EUR/NAT 19-0403.TEC of 17 September 2019	**State(s) and Org:** ARM GEO **Originator(s):** ARM GEO EUROCONTROL **Project Group:** SG BLACK **Project Category:** Free Route Airspace	1. **'Double AIRAC procedure'** for AIRAC AIP AMDT publication required for implementation (ICAO Annex 15 refers). 2. ARM: **ATS Route Network** available. 3. GEO: **ATS Route Network** available. 4. High Seas Coordination (Serial no: EUR/NAT 19/08-HS-ARM-GEO) ◦ Circulation letter ref: EUR/NAT 19-0353.TEC of 9 August 2019 - deadline on 9 September 2019 ◦ Approval letter ref: EUR/NAT 19-0403.TEC of 17 September 2019 **Related proposals:** 1. 83.030a / 21.003a a. 83.030b / 21.003b • 85.009a / 21.023a
	Proposal ID: 95.031 / 28.006	**Status:**	**Contributor:**	**Comments:**
2.	**Project Name: ATS Route Improvement Azerbaijan - Turkmenistan** **Description:** To implement bidirectional ATS routes: a. **L88** RASAM - METKA; b. **B476** METKA - BEGLI - NEBIT - DARVA - OGOLI. **Objective:** To further improve the ATS route network at the interface between Azerbaijan, Uzbekistan and Turkmenistan.	**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** AZE TKM UZB **Originator(s):** UZB **Project Group:** SG MIDASIA **Project Category:** ATS Routes	5. AZE: Ready to implement RASAM – METKA in AIRAC 07 NOV 2019. 6. TKM: Ready to implement. Currently in final approval phase. May be implemented by end 2019. 7. UZB: Implemented DARVA-OGOLI on 28 FEB 2019.
	Proposal ID: 98.012 / 31.002	**Status:**	**Contributor:**	**Comments:**
3.	**Project Name: ATS Route Network Improvement Baku FIR / Tbilisi FIR** **Description:** To change the lower limit of ATS route segment **M737** DISKA - VERCA from FL145 to FL055 or 5500 FT. **Objective:** To further improve the ATS route network between Baku FIR and Tbilisi FIR while optimizing the climbing profile for DEP UGTB.	**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** AZE GEO **Originator(s):** GEO **Project Group:** SG BLACK **Project Category:** ATS Routes	

	Proposal ID :	**82.033**	**Status:**	**Contributor:**	**Comments:**
4. EVENT	**Project Name: SEE FRA Phase 1** **Description:** To implement **H24 Cross-Border Free Route Airspace** within Hungary, Romania and Bulgaria (9500FT/ FL105/ FL175 - FL660). **Objective:** To allow more efficient flight planning.		**Implementation:** Implemented 07 NOV 2019 **Serial Number:** EUR/NAT 19/04-HS-BGR **Circulation Letter:** EUR/NAT 19-0381.TEC of 3 September 2019 **Approval Letter:** EUR/NAT 19-0381.TEC of 3 September 2019	**State(s) and Org:** BGR ROU HUN **Originator(s):** FAB DANUBE **Project Group:** FAB DANUBE RFG SE **Project Category:** Free Route Airspace High Seas	8. **'Double AIRAC procedure'** for AIRAC AIP AMDT publication **required** for implementation (ICAO Annex 15 refers). 9. HUN: **ATS Route Network** removed. 10. ROU: **ATS Route Network** available. 11. BGR: **ATS Route Network** available. 12. High Seas Coordination (Serial no: EUR/NAT 19/04-HS-BGR/ROU) circulation letter ref: EUR/NAT 19-0319 of 29 July 2019 circulated with deadline on 29 August 2019, approval letter ref: EUR/NAT 19-0381.TEC of 3 September 2019. **Related proposals:** • 69.052 • 81.001 • 90.034 • 98.016 • 98.022
	Proposal ID :	**97.035 / 30.024**	**Status:**	**Contributor:**	**Comments:**
5.	**Project Name: ATS Route Improvement Belarus** **Description:** To implement new ATS route segments: a. b. **Objective:** To further improve the ATS route network while providing two new connecting segments for Minsk arrivals.		**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** BLR **Originator(s):** BLR **Project Group:** SG BALTIC **Project Category:** ATS Routes	
	Proposal ID :	**95.033**	**Status:**	**Contributor:**	**Comments:**
6.	**Project Name: NDBs replaced by 5LNC Praha FIR** **Description:** 1. To withdraw NAVAIDs designator **HLV, RAK** and **TBV** (NDBs). 2. To replace in all affected ATS routes and SIDs/STARs the three letter designators/ NDBs with the following 5LNCs (same coordinates): a. HLV by 5LNC **UPLAV**; b. RAK by 5LNC **EROKA**;		**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** CZE **Originator(s):** CZE **Project Category:** Airspace Structure	

	c. TBV by 5LNC **TIBLA**. **Objective:** To enhance the airspace structure within Praha FIR in line with the NAV strategy.			
	Proposal ID: 95.018b	**Status:**	**Contributor:**	**Comments:**
7.	**Project Name: FRA Germany - Step 2a bis** **Description:** To permit additional RAD APPENDIX 4 DCTs and implement ATS route changes. **Objective:** To prepare the H24 Full FRA implemention - according to PCP requirements - and improve flight efficiency within Karlsruhe UAC/ FAB EC.	**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** DEU **Originator(s):** DEU **Project Category:** DCTs Free Route Airspace	13. It is a continuous process 14. The proposal is linked to phase 2b which is pending management decision **Related proposals:** • 87.005f • 87.037c • 95.018a
	Proposal ID: 89.061	**Status:**	**Contributor:**	**Comments:**
8. EVENT	**Project Name: Swanwick Airspace Improvement Programme (SAIP) Airspace Deployment - 5** **Description:** 1. To establish an ATS routes as follows: a. Y125 LIPGO - BERUL - RETSI - FITBO (new point)as CDR3 for EGLL arrivals; b. STAR FITBO (new point) - SOPIT - WCO - BNN for EGLL arrivals; c. new RNAV1 ATS Routes N91 (arrivals) and N92 (departures) for EGBB traffic routeing to/from the south-west; 2. Class C Controlled Airspace to enable traffic arriving EGLL to descend blow FL195 before current controlled airspace boundary for TC Midlands and to protect routes N91 and N92. 3. To extend P155 east from HON to MORAG for Eastbound traffic FL370+; 4. To remove U prefix from a number of routes in the West End Sector Group. **Objective:** To provide an offload route for EGLL arrivals, ATS routes for traffic into and out of EGBB and an additional route for transiting the London FIR above FL350.	**Implementation:** Implemented 07 NOV 2019 **Serial Number:** EUR/NAT 19/09-HS-GBR **Circulation Letter:** EUR/NAT 19-0368.TEC of 22 August 2019 **Approval Letter:** EUR/NAT 19-0434.TEC of 7 October 2019	**State(s) and Org:** GBR **Originator(s):** GBR **Project Category:** Airspace Structure ATS Routes High Seas	Subject to CAA approval. High Seas Coordination (Serial no: EUR/NAT 19/09-HS-GBR) Circulation letter ref: EUR/NAT 19-0368.TEC of 22 August 2019 - deadline on 23 September 2019 Approval letter ref: EUR/NAT 19-0434.TEC of 7 October 2019.
	Proposal ID: 97.002	**Status:**	**Contributor:**	**Comments:**
9.	**Project Name: DVOR Removal Project**	**Implementation:**	**State(s) and Org:**	not included to be re-lettered:

EVENT	**Description:** 1. To remove the en-route dependency from BIG DVOR will result in the BIG Hold becoming RNAV'd and some STARs into those holds being made RNAV5 and designated by their start fix - other STARs will also be amended as follows: a. GODLU 1X will become BEDEK 1C; b. GODLU 1C will become KONAN 1C; c. GODLU 1D will become SOVAT 1C; d. GODLU 1F will become NEVIL 1C; e. GODLU 1J will become AVANT 1C; f. WILLO 2H will become BEDEK 1G; g. BIG 4B will become ALESO 1H; h. BIG 3D will become LAM 1X; i. BIG 1E will become TANET 1Z; j. TIMBA 2B will become NEVIL 1G; k. TIMBA 4G will become KUNAV 1G; l. ASTRA 1F, ASTRA 2H, WILLO 1F, WEALD 4B, WEALD 3D, WEALD 1E are all removed. 2. To remove U designator prefix from ATS routes UL6, **UL10, UL15, UL607, UL613, UM140, UQ70, UT421, UY311** and **UY312**. 3. To re-designate ATS route **M140** MID - VABIK as **L18**. **Objective:** To remove the en-route dependency on the BIG DVOR.	Implemented 07 NOV 2019 **Serial Number:** EUR/NAT 19/09-HS-GBR **Circulation Letter:** EUR/NAT 19-0368.TEC of 22 August 2019 **Approval Letter:** EUR/NAT 19-0434.TEC of 7 October 2019	GBR FRA BEL **Originator(s):** GBR **Project Category:** ATS Routes High Seas	15. GROVE 1C will become WELIN 1B; 16. WILLO 3B will become KIDLI 1G; High Seas Coordination (Serial no: EUR/NAT 19/09-HS-GBR) Circulation letter ref: EUR/NAT 19-0368.TEC of 22 August 2019 - deadline on 23 September 2019 Approval letter ref: EUR/NAT 19-0434.TEC of 7 October 2019.
	Proposal ID : 90.024	**Status:**	**Contributor:**	**Comments:**
10.	**Project Name: Implementation of PBN/SBAS procedures in ATHINAI FIR.** **Description:** To implement **PBN/SBAS** procedures for Kos (**LGKO**) aerodrome. **Objective:** To further improve the airspace structure within Athinai FIR.	**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** GRC **Originator(s):** GRC **Project Group:** RFG SE **Project Category:** Airspace Structure PBN	
	Proposal ID : 92.032	**Status:**	**Contributor:**	**Comments:**
11.	**Project Name: ATS Route Improvement Amsterdam FIR** **Description:** To implement RNAV Terminal Connecting Routes **T602 - T610** for flights to/from **EHLE** airport.	**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** NLD **Originator(s):** NLD	T602, T603, T604, T606, T607.

	Objective: To further improve airspace organisation within Amsterdam FIR.		**Project Category:** ATS Routes	
	Proposal ID: **96.019 / 30.001**	**Status:**	**Contributor:**	**Comments:**
12.	**Project Name: ATS Route deletion Norway** **Description:** To remove ATS route **M185** in Norway. **Objective:** To further improve the airspace organisation within Norway and harmonize with Free Route operations.	**Implementation:** Implemented 07 NOV 2019 **Serial Number:** EUR/NAT 19/03-HS-NOR	**State(s) and Org:** NOR DNK GBR ICAO FAB NEFAB **Originator(s):** NOR **Project Group:** SG BALTIC **Project Category:** ATS Routes High Seas	17. Linked to the ATS route deletions within NEFAB States. 18. Points will be kept. 19. High Seas Coordination (Serial No.:EUR/NAT 19/03-HS-NOR) Circulation Letter 19-0247 of 12 June 2019, Approval Letter 19-0318 of 25 July 2019 **Related proposals:** • 96.021 / 29.030 • 97.023 • 97.030
	Proposal ID: **97.044**	**Status:**	**Contributor:**	**Comments:**
13.	**Project Name: ATS Route Improvement Norway** **Description:** To realign ATS routes P615 and Z125 with adjusted SID procedures from ENGM as follows: a. **P615** ARTOR - 5LNCD - TOR - ...; b. **Z125** NUVSA - 5LNCB - GIGNI - SOMUB. **Objective:** To harmonize ATS routes with adjusted SID procedures from ENGM.	**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** NOR DNK ICAO **Originator(s):** NOR **Project Group:** FAB NEFAB **Project Category:** ATS Routes High Seas	20. ENGM SIDs adjusted for operational reasons. 21. 5LNCD: 585633N 0101343E. 22. 5LNCB: 612228.37N 0112858.99E
	Proposal ID: **85.030**	**Status:**	**Contributor:**	**Comments:**
14.	**Project Name: ATS Route Improvement Bucuresti FIR Kyiv UIR** **Description:** 1. To implement the following ATS routes: a. **T/UT490** TUREC - OSTOV southbound (EVEN FLs above FL275); b. **T/UT491** LOMOS - EROMO northbound (ODD FLs above FL275).	**Implementation:** Implemented 07 NOV 2019	**State(s) and Org:** UKR ROU **Originator(s):** UKR **Project Category:** ATS Routes	23. TUREC - will be new boundary point between Bucuresti FIR and L'viv FIR/Kyiv UIR. 24. Sections of ATS routes expected to be CDR in Bucuresti FIR, with alternative routing along existing ATS routes via RUMUK.

	2. To implement new FRA inidirectional boundary point **TUREC** - Bucuresti FIR (**E**) and L'viv FIR/Kyiv UIR (**X**). **Objective:** To further improve the ATS route network between Kyiv UIR and Bucuresti FIR.			

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ANNEX B: ACRONYMS AND TERMINOLOGY

1. The following ISO-3 coding of States is used in the column *States and Organisation*:

ALB	Albania		IRN	Iran, Islamic Republic of
ARM	Armenia		IRQ	Iraq
AUT	Austria		ITA	Italy
AZE	Azerbaijan		LBY	Libyan Arab Jamahiriya
BEL	Belgium		LTU	Lithuania
BGR	Bulgaria		LUX	Luxembourg
BIH	Bosnia and Herzegovina		LVA	Latvia
BLR	Belarus		MAR	Morocco
CHE	Switzerland		MDA	Moldova, Republic of
CYP	Cyprus		MKD	North Macedonia
CZE	Czech Republic		MLT	Malta
DEU	Germany		MNE	Montenegro
DNK	Denmark		NLD	Netherlands
DZA	Algeria		NOR	Norway
EGY	Egypt		POL	Poland
ESP	Spain		PRT	Portugal
EST	Estonia		ROU	Romania
FIN	Finland		RUS	Russian Federation
FRA	France		SRB	Serbia
GBR	United Kingdom		SVK	Slovakia
GEO	Georgia		SVN	Slovenia
GRC	Greece		SWE	Sweden
HRV	Croatia		SYR	Syrian Arab Republic
HUN	Hungary		TUN	Tunisia
ISL	Iceland		TUR	Turkey
IRL	Ireland		UKR	Ukraine

MUAC	Maastricht UAC			

2. *BLUMED FAB, DANUBE FAB and FAB CE proposals referenced in proposal number box are coded with a unique identification number abbreviated as BM or DN or CE, respectively, following by four digits (XXXX) (example BM0001 or DN0001 or CE0001).*

3. *The content of each proposal is an indication of State's intention to implement the relevant airspace improvement but don't represent a copy of any official publication. For the correctness and verification of the relevant aeronautical information consult official State AIP publication. The data from this document should not be used for operational purposes.*

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