

FAB CE AIRSPACE PLAN 2023





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3.1	14/01/2020	Initial update for 2020	PSO Admin
3.2	26/02/2020	Draft	PSO Admin
3.3	04/03/2020	Draft	FAPDG drafting group
3.4	12/03/2020	Draft	FAPDG drafting group
3.5	19/03/2020	Draft	FAPDG drafting group
3.6	26/03/2020	Draft	FAPDG drafting group
4.0	31/03/2020	Formal review	PSO Admin
4.1	15/12/2020	Initial update for 2021	PSO Expert
4.2	23/02/2021	Proposed version for 2021	PSO Expert
4.3	15/04/2021	Update to the proposed version	PSO Expert
5.0	20/04/2021	Update to the proposed version	PSO
6.0	28/10/2021	Update to the approved version	PSO
7.0	21/03/2022	First draft of new Airspace Plan structure and updated content	PSO
8.0 (draft)	20/02/2022	Draft for ANSP review	PSO
8.0	15/03/2023	Proposed version for 2023	PSO
9.0	10/05/2023	Incorporation of the comment from CAA Slovenia	PSO

Type of approval	Date of Approval	Approval body/entity	Approval forum
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Approval	10 May 2023	FCC	FCC/29



FOREWORD AND EXECUTIVE SUMMARY

This document constitutes the annual update of the FAB CE Airspace Plan (FASP). In the 2022 edition of the FASP a new structure of the FASP was introduced with the static part of the previous editions (Formerly Part A Guidelines, Principles and Enablers of the FASP) moved to a new companion document titled FAB CE Airspace Strategy and this document retaining the relevant dynamic content of the former FASP Part B Plans and Roadmap as well as relevant content from the discontinued FAB CE Network Operations Plan (FNOP). The reasons for the split into two separate documents is to enable easier maintenance of the relevant and evolving dynamic airspace content as well as to make the document more streamlined for the review and approval process. No relevant content has been discarded in the process. This 2023 edition follows the same structure.

As noted above, this document now contains only the more dynamic content of the previous versions of the FASP focusing on the evolution of FAB CE airspace in accordance with the commonly established FAB CE strategic objectives as well as the network-wide ambitions set by the Network Manager. The FAB CE Airspace Plan aims at supporting conclusions of the European Airspace Architecture Study (EAAS) [1] in the Focus area 1, Airspace and Capacity, by contributing to the solutions referred to in the Study as Optimised airspace organisation and ASM relevant Operational Harmonisation. A dedicated (enlarged) Airspace Task Force (ATF) working in co-operation with the NM and adjacent ANSPs has been tasked with transforming the EAAS 2025 and 2030 Visions to implementable airspace design solutions. The projects highlighted in this FASP are therefore focused on:

- ∇ Design and implementation (and expansion) of Free Route Airspace (FRA) initiatives affecting FAB CE ANSPs and/or States,
- ∇ Design and implementation of cross-border initiatives (routing schemes, airspace volumes) affecting FAB CE ANSPs and/or States,
- ∇ Design and implementation of Special Use Airspace (SUA) which may affect FAB CE interfaces or the network in general, and
- abla Sectorisation projects potentially impacting a FAB CE ANSPs en-route capacity,
- abla Sectorisation projects potentially impacting a FAB CE ANSPs main airport throughput, and
- ∇ System implementation projects which may enable or restrict available capacity.

Projects which are limited in scope and impact insofar as they do not have a significant impact on other ANSPs besides the implementing ANSP are excluded from the FASP and can be monitored through the iterative European Route Network Improvement Plan (ERNIP) Part 2 – ATS Route Network ARN Version 2021 – 2030 Catalogue of Airspace Projects document updates published in accordance with the RNDSG meeting cycle. Catalogue of completed FAB CE airspace projects is included in Section 4.1 and the FAB CE FRA roadmap is contained in Section 4.3 of this document. Sections 5.1 - 5.2 list FAB CE cross-border ATS delegations.

As the FNOP has been discontinued, FASP will also include a brief section on traffic, capacity and delay evolution. However, the NM rolling Network Operations Plan introduced during the COVID-19 crisis management contains the relevant and continuously updated information which is not necessary to duplicate on FAB level and as a result the flow and capacity management section provides an overview only.



This consolidated FASP is subject to the same planning principles and hierarchy as other FAB CE deliverables, as presented in the figure below.



FAB CE Planning hierarchy



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1. AIRSPACE PLAN OBJECTIVES AND PURPOSE

The Airspace Plan is based on the high-level criteria and concepts defined in appropriate FAB CE documentation.

The purpose of this document is to:

- ∇ Support airspace-related FAB CE strategic objectives (FSOs) [2].
- ∇ Support and reflect the work of FAB CE Airspace Task Force.
- ▽ Provide detailed short-term implementation activities and overview of medium/long-term FAB CE airspace-related plans at the time of last updates of the document; present a plan and catalogue of airspace improvement projects related to the network (fixed and free route) and airport connectivity (main TMAs and SIDs/STARs).
- ∇ Give an overview of the FAB CE-specific traffic forecast and future demand.
- ▽ Foster the Implementation of Seamless Operations between main FAB CE airports (Prague, Bratislava, Budapest, Zagreb, Ljubljana, Vienna and Sarajevo) and the en-route airspace.

1.1. TIME SCOPE

The time scope and the relevant period will focus on:

- a) Agreed airspace implementation activities (see Section 4 and ERNIP database).
- b) Medium/long-term conceptual description of FAB CE airspace considering fulfilment of the PCP/ CP1 Deployment Program (as defined in the FAB CE Airspace Strategy [3].

Within FAB CE projects and SubCommittees, the concepts are developed into concrete FAB CE implementation activities.

1.2. STRUCTURE OF THE AIRSPACE PLAN

- Section 1: Introduction to the document
- Section 2: Network-Wide Targets and FAB CE Contribution
- Section 3: Traffic Forecast and Traffic Flows
- Section 4: FAB CE FRA and airspace improvements roadmap (completed and planned)
- Section 5: FAB CE charts

1.3. DOCUMENT UPDATE PROCESS

The document will go through endorsement/approval process up to state level when significant changes occur.

Section 4 of the document focuses on dynamic changes stemming from RNDSG and Airspace Task Force updates. As the updates occur on continuous basis, relevant information will be incorporated by PSO when final report of relevant RNDSG meeting is available. Incorporated changes will be endorsed by FAPDG by correspondence and approved by OPS SubC during their regular meetings. Following OPS SubC approval the document will be submitted for JCMACC review and endorsement and finally to FAB SC and CEOC for final approvals.



2. NETWORK-WIDE TARGETS AND FAB CE CONTRIBUTION

With regard to the SES performance scheme and RP3 targets, the Key Performance Area ENVIRONMENT is the prime focus to be tackled, specifically through H24 cross-border (FIR) Free Route implementation. The FAB CE-wide, and even going beyond FAB CE-wide **Free Route Implementation** is well on track according to the elaborated FRA Roadmap (Section 4) in order to fulfil the RP3 target for the Key Performance Indicator KEA. Flight-plannable direct routes applied as part of free route airspace operations offer major advantages for both the operators and for the network. Some of the main benefits of free route are lower fuel carriage and consumption, enhanced network and flight predictability, increased flight efficiency, greater cost-effectiveness, reduced environmental impact and better air traffic management performance through more accurate traffic prediction and improved sector workload.

Commission Implementing Decision (EU) 2021/891 of 2 June 2021 setting revised Union-wide performance targets for the air traffic management network for the third reference period (2020-2024) [4] sets down the network-level targets for various performance metrics. Article 2 of the regulation sets the union-wide performance targets in the key performance area of environment expressed as an average horizontal en route flight efficiency of the actual trajectory and measured as average additional distance flown compared to the great circle distance (KEA) and shall not exceed the following percentages: 2.37 % in 2021, 2.37 % in 2022, 2.40 % in 2023 and 2.40 % in 2024.

Reference date:	31 Dec. 2022		Full Year		
FAB level	KEP	KES	KEA [PP tgt. 2022]	KEA	Dif.
SES Area (RP3)	4.54%	4.34%	2.37%	2.96%	
Baltic FAB	8.07%	7.47%		5.53%	
BLUE MED FAB	4.11%	3.72%		2.86%	
DANUBE FAB	3.93%	3.83%		3.33%	
DK-SE FAB	2.75%	2.59%		1.55%	
FAB CE (SES RP2)	2.97%	2.85%		2.20%	
FABEC	5.66%	5.44%		3.17%	
NEFAB	3.47%	3.46%		2.80%	
SW FAB	3.96%	3.84%		2.94%	
UK-Ireland FAB	5.20%	5.21%		3.30%	

 Release date
 18 Jan 2023
 Period End
 31 Dec. 2022
 Contact
 pru-support@eurocontrol.int

Table 1: KEA achievement in 2022 (source EUROCONTROL [5])

As can be noted in Table 1 above, in 2022 so far FAB CE has achieved a better KEA performance on network level than the target specified for the whole SES area (2.20% vs 2.37%). It can be noted that year-on-year KEA performance for FAB CE deteriorated form 1.76% in 2022 to 2.20% in 2023 while the network-level performance remained at 2.37%. This can be hypothesised to be the result of airspace closures in Ukraine and Belarus as DANUBE FAB, BALTIC FAB and NEFAB experienced similar KEA performance deteriorations as the other adjacent areas bordering Ukraine and Belarus.

Further enhancements through FRA expansions (see Section 4.3) and cross-border enhancements may contribute to even better KEA achievement, however it can be assumed that the absolute minimum KEA value achievable taking into consideration 'hard' constraints (weather avoidance, external interfaces, TMA interfaces, SUA utilisation, etc) may not be far and further enhancements to KEA may be minimal.



3. TRAFFIC FORECAST AND TRAFFIC FLOWS

As the separate FAB CE Network Operations Plan (FNOP) publication has been discontinued a brief section concerning traffic forecasts and flows (as forecast by STATFOR) is contained in FASP editions as required. Purpose of this section is the identification of traffic forecast and demand including future evolution and assumptions to facilitate airspace planning and design.

From a strategic airspace design perspective, the evaluation of the traffic flows and airspace intersection follows specific steps:

- ∇ <u>STEP 1</u> Evaluation of the ideal forecast traffic flows (ideal great circle traffic pattern between origin and destination);
- ∇ <u>STEP 2</u> Evaluation of the direct forecast traffic flows (Free Route portions inside FAB CE);
- ∇ <u>STEP 3</u> Military requirements;
- ∇ In order to accommodate military and civil requirements in a common airspace design process the military requirements will have to be considered at the earliest stage of the airspace development.
- ∇ <u>STEP 4</u> Design of the new network structure (FRA with constraints or fixed route network, as appropriate) and optimisation:

Design basic ATS route network architecture based on main traffic flows through the iterative process combining the direct flow structure and the current route network and realign ATS routes without FIR constraints and add direct routes wherever considered operationally possible (current \rightarrow optimised \leftarrow direct);

Optimise the ATS route network structure considering multiple route options, FRA, TMA/en route interfaces and connectivity, compatibility of civil/military airspace structure, upper/lower route network continuity, etc.).

Validation - initial evaluation (traffic pattern, utilisation of CDRs, complexity, capacity, structural constraints, etc.); possible developments.

Following the COVID-19 pandemic and the macro-economic developments, long-term traffic forecasting still faces some challenges compared to nominal industry environmental conditions. 7-year forecast that covers the horizon 2022-2028 was published in October 2022 [6] and the various forecast scenarios contained therein are subject to uncertainties and volatility due largely to the global economic development.







Figure 1 to Figure 8 below indicates the dramatic drop in traffic volumes in 2020 and the gradual recovery initiated in 2021.



Figure 1: Traffic evolution 2018-2022 and traffic and delays in 2022 - Austria (source EUROCONTROL [7])







Figure 2: Traffic evolution 2018-2022 and traffic and delays in 2022 - Bosnia and Herzegovina (source EUROCONTROL [7])



Figure 3: Traffic evolution 2018-2022 and traffic and delays in 2022 – Croatia (source EUROCONTROL [7])





Figure 4: Traffic evolution 2018-2022 and traffic and delays in 2022 – Czech Republic (source EUROCONTROL [7])



Figure 5: Traffic evolution 2018-2022 and traffic and delays in 2022 – Hungary (source EUROCONTROL [7])



Slovenia - traffic evolution 2018-2022

2020

2021

2022



0

2018

2019

Figure 6: Traffic evolution 2018-2022 and traffic and delays in 2022 – Slovakia (source EUROCONTROL [7])



Figure 7: Traffic evolution 2018-2022 and traffic and delays in 2022 – Slovenia (source EUROCONTROL [7])





Figure 8: Traffic evolution 2018-2022 and traffic and delays in 2022 – FAB CE (source EUROCONTROL [7])

Depending on the growth scenario, the network-level traffic is expected to return to 2019 levels in 2023 (high scenario), mid-2024 (base scenario) or beyond 2028 (low scenario) as shown in Figure 9 below. Compared to the 2021-2027 forecast, the recovery rates have therefore been adjusted downward, likely due to the macro-economic developments and the Russian aggression in Ukraine.





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Figure 9: Forecast traffic recovery, high, base and low scenarios (source EUROCONTROL [6])

For FAB CE States, the following traffic evolution is a forecast between 2022-28. Compared to the 2021-27 forecast, the traffic demand evolution has largely improved for all States and scenarios.



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IFR Movements (Growth)		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	AAGR 2022-2028	AAGR 2020-2028	RP3 AAGR 2020-2024
	High									72%	0.25	0.06	0.026	0.025	0.021	0.022	14.0%	3.4%	4.3%
Austria	Base	3%	1%	1%	5%	6%	5%	-57%	25%	70%	0.15	0.072	0.025	0.022	0.019	0.021	12.5%	2.4%	2.6%
	Low									67%	0.086	0.051	0.016	0.014	0.011	0.012	10.5%	0.9%	0.6%
	High									62%	0.2	0.054	0.035	0.035	0.031	0.032	12.9%	4.0%	
Bosnia and Herzegovina	Base	14%	4%	3%	13%	8%	11%	-57%	43%	60%	0.1	0.066	0.029	0.027	0.025	0.027	11.1%	2.7%	
	Low									56%	0.038	0.043	0.019	0.018	0.016	0.017	8.9%	1.1%	
	High									55%	0.19	0.057	0.034	0.034	0.03	0.03	12.0%	4.0%	4.7%
Croatia	Base	6%	3%	1%	9%	10%	10%	-58%	53%	52%	0.099	0.065	0.028	0.026	0.024	0.026	10.2%	2.7%	2.8%
	Low									50%	0.036	0.043	0.018	0.018	0.015	0.016	8.1%	1.2%	0.8%
	High									57%	0.28	0.061	0.031	0.03	0.024	0.024	13.1%	1.1%	-0.1%
Czech Republic	Base	3%	7%	7%	2%	7%	-1%	-61%	19%	54%	0.17	0.075	0.028	0.024	0.021	0.022	11.4%	-0.1%	-2.0%
	Low									51%	0.099	0.052	0.018	0.016	0.012	0.013	9.2%	-1.6%	-4.0%
	High									86%	0.25	0.052	0.033	0.032	0.029	0.029	15.5%	4.7%	6.1%
Hungary	Base	12%	11%	4%	6%	10%	-1%	-57%	29%	83%	0.15	0.066	0.029	0.026	0.025	0.025	13.8%	3.5%	4.2%
	Low									79%	0.079	0.045	0.019	0.018	0.016	0.017	11.7%	2.0%	2.2%
	High									75%	0.24	0.05	0.035	0.033	0.031	0.03	14.6%	2.5%	2.0%
Slovakia	Base	10%	7%	6%	4%	10%	-1%	-64%	35%	72%	0.14	0.063	0.03	0.027	0.026	0.027	12.8%	1.2%	0.1%
	Low									69%	0.066	0.041	0.02	0.018	0.017	0.017	10.5%	-0.3%	-2.0%
	High							******		62%	0.21	0.063	0.031	0.03	0.027	0.027	12.9%	4.0%	4.8%
Slovenia	Base	6%	0%	2%	9%	10%	9%	-58%	43%	59%	0.12	0.074	0.026	0.024	0.022	0.023	11.2%	2.7%	3.0%
	Low									57%	0.053	0.052	0.016	0.016	0.013	0.014	9.1%	1.2%	1.0%

Figure 10: Traffic forecast for FAB CE States, 2022-28 (source: EUROCONTROL [8])



During RP3, most of the FAB CE States (note: AAGR not calculated for BiH) are expected to experience traffic growth (AAGR). In the low scenario only Czech Republic and Slovakia can expect traffic reduction while all other scenarios remain positive for all FAB CE States.

The traffic flows in FAB CE are dominated by the NW-SE axis flows. Due to the Ukraine and Belarus accessibility restrictions, the flows depicted in Figure 11 below are not fully representative of a nominal situation.



Figure 11: Main traffic flows (source EUROCONTROL – ATF)

Following the demand recovery in 2022, also delays have increased in FAB CE. While near-zero delays were recorded in 2021, delays have returned in 2022 with the traffic demand nearing – or occasionally even exceeding – 2019 levels. In 2022, the following en-route ATFM delay (no post-OPS adjustment) values were registered for FAB CE ANSPs:

Data source	EUROCONTROL - PRU	Period Start	1 Jan 2020	Meta data	En route ATFM delay
Release date	18 Jan 2023	Period End	31 Dec. 2022	Contact	pru-support@eurocontrol.int
Period: JAN-DEC	Full Year				
Entity	Plan [2021]	FLTS [TOT]	En-route ATFM delay [min.]	Actual [2021]	[act. vs. plan]
ANS CR		550,194	824,230	1.50	
Austro Control		1,049,628	104,902	0.10	
Croatia Control		712,861	407,715	0.57	
HungaroControl (EC)		892,471	794,061	0.89	
LPS		470,158	13,907	0.03	
Slovenia Control		360,890	156	0.00	

 Table 2: FAB CE ANSPs (excl. BHANSA) en-route ATFM delay 2022 (source EUROCONTROL [5])

When comparing FABs, FAB CE is the third highest delay producing FAB after FABEC and Baltic FAB but still below SES area average and SES RP3 target, as shown in Table 3 below (no post-OPS adjustment).



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Data source	EUROCONTROL - PRU	Period Start	1 Jan 2020	Meta data	En route ATFM delay
Release date	18 Jan 2023	Period End	31 Dec. 2022	Contact	pru-support@eurocontrol.int
Period: JAN-DEC	Full Year	FAB_ANSB			
FAB (based on ANSP)	Plan [2022]	FLTS [TOT]	En-route ATFM delay [min.]	Actual [2022]	[act. vs. plan]
SES Area (RP3)	0.50	8,302,587	14,411,911	1.74	1.24
Baltic FAB		662,296	809,805	1.22	
BLUE MED FAB		2,424,903	501,136	0.21	
DANUBE FAB		974,231	50	0.00	
DK-SE FAB		823,594	22,909	0.03	
FAB CE (SES RP2)		1,943,729	2,144,971	1.10	
FABEC		5,232,079	9,869,073	1.89	
NEFAB		825,188	3,346	0.00	
SW FAB		2,047,921	1,060,018	0.52	
UK-Ireland FAB		2,158,259	602,743	0.28	

Table 3: FABs en-route ATFM delay in 2022



4. FAB CE FRA ROADMAP

4.1. COMPLETED AIRSPACE IMPLEMENTATIONS - INCLUDING ACTUAL FRA SITUATION

Enabling /enhancing projects (sectorisation, system upgrades) included.

Date	FRA Implementation	Applicability	Vertical boundaries	Coverage	ERNIP / ARP ref.
Feb. 2015	HUFRA	H24/7	9500 MSL – FL660	HCL	-
Nov. 2016	SAXFRA	H24/7	GND – FL660	ACG, SCL	-
Dec. 2016	SEAFRA	H24/7	FL325 – FL660 -> FL205 – FL660	CCL, BHANSA, SMATSA	-
Mar. 2017	SEENFRA	23:00 - 05:00 (22:00 - 04:00)	Budapest CTA: 9500ft - FL660 Bucharest CTA: FL105 - FL660 Sofia CTA: FL245 - FL660	HCL, ROMATSA, BULATSA	-
Feb. 2018	SECSI FRA	H24/7	GND/FL205 – Upper State Border/FL660	ACG, SCL, CCL, BHANSA, SMATSA	-
Dec. 2018	FRABRA	01:00 – 04:00	Night Cross-Border FRA FL245+ via border of Hungary as participant of SEEN FRA	LPS, HCL, ROMATSA, BULATSA	-
28 March 2019	BRAFRA FL245+ in FIR	H24		LPS SR	90.033
23 May 2019	Minor sector adaptations within AoR Wien			ACG	
23 May 2019	Implementation of cross-border BUDEX STAR inbound LOWW			ACG, LPS SR	
7 November 2019	SEE FRA Together with ROMATSA/BULATSA (in the SEENFRA area) H24 Cross- Border FRA	H24		HCL	
5 December 2019	Changes in AoR between Zagreb ACC and BH ACC (BHANSA Phase II)			CCL, BiH	
30 January 2020	Budapest TMA re-				
27 February 2020	ATS route improvement Praha FIR			ANS CR	



Date	FRA Implementation	Applicability	Vertical boundaries	Coverage	ERNIP / ARP ref.
27 February 2020	Central sector Zagreb Phase 2b			CCL	
23 April 2020	Bratislava ACC re- sectorisation - Step 1			LPS SR	
28 January 2021	SEE FRA Phase 2 (FRA within Bratislava FIR)	H24		LPS SR	98.016
25 February 2021	Free Route Airspace in Praha FIR FL095 - FL660	H24		ANS CR	89.063 <i>,</i> 100.004
25 February 2021	Airspace Re- Structuring Project AoR LOVV 2021			ACG	98.056
Spring 2021	DCT Praha FIR			ANS CR	95.009
02 December 2021	SECSI FRA - FRALB cross-border FRA	H24	As current SECSI FRA	ACG, CCL, SCL, BHANSA	99.030b / ARP001F
02 December 2021	SECSI FRA - M-FRA cross-border FRA	H24	As current SECSI FRA	ACG, CCL, BHANSA, SCL	99.030c / ARP001F
24 February 2022	New ATM-system Praha ACC			ANS CR	95.025
24 February 2022	Expand SEE FRA by merging with FRA Moldova		As current SEE FRA	HCL, LPS SR	91.014 / 26.010
24 February 2022	X-border FRA operations between Warszawa FIR and Bratislava FIR	H24		LPS SR, HCL	101.026
Summer 2022					

Table 4: Completed Airspace and FRA implementations



4.2. ATS ROUTE NETWORK STATUS

Current status:

- ✓ Austria: ATS route network has been eliminated except for Non RNAV ATS routes below FL95 (east of ROCKY-Line); West of ROCKY-Line all ATS routes remain unchanged. However, following FRA implementation West of ROCKY-line (subject to coordination with FABEC) the ATS-route structure in this area is expected to change.
- ∇ **Czech Republic**: ATS-routes above FL95 are eliminated.
- ∇ **Croatia:** ATS routes up to FL205 remain, ATS route network above FL205 has been eliminated. ATS-routes in areas where ATS is delegated to Brindisi ACC remain.
- ∇ **Bosnia and Herzegovina:** ATS route network below FL205 is maintained, the one above has been eliminated.
- ∇ **Slovenia**: ATS routes network has been eliminated except for ATS routes in TMA Maribor (up to FL125) and TMA Portoroz (up to FL135).
- ∇ Slovak Republic: ATS route network below FL245 will be maintained, the route network above has been eliminated.
- ∇ Hungary: ATS route network has been eliminated.

4.3. FAB CE FRA ROADMAP - AGREED PLANNED ACTIVITIES

The table below summarises planned DCT/FRA and sectorisation / interface improvement initiatives within FAB CE and adjacent areas as applicable. Based on previous experiences of FRA applications in terms of capacity and performance, a stepwise increase of FAB CE-wide cross-border FRA applications is conceived. Also included are projects enabling FRA implementation and/or expansion (sectorisation, system updates). Projects in adjacent ANSP AoRs which have no cross-border application have been omitted. The table is updated based on information provided in the ERNIP pt. 2 catalogue as presented in RNDSG/108 AP5 and confirmed with national focal points following the RNDSG meeting [9]. The next formal publication of the ERNIP route catalogue is expected in Sumer 2023. Main changes compared to the previous edition are the geographical extension proposals increasing the size of the common FRA areas and the various Czech FRA proposals which have been brought forward schedule-wise.

2023	23 FEB 2023 – CB FRA operations between SEE FRA and FRACZECH		
	(ERNIP Proposal ID: 102.017, ARP catalogue reference: ARP004F)		
	► 23 MAR 2023 – ACG ACC Wien project (6 th vertical layer sector)		
	(ERNIP Proposal ID: 98.067)		
	► 18 MAY 2023 – Adaptation of North Macedonian AIP ENR publication to reflect the merge of M- FRA and SECSI FRA and publication of SECSI FRA lower limit of FL205		
	(ERNIP proposal 105.020b)		
2024	25 JAN 2024 – CB FRA operations between FRA-IT and SECSI FRA		
	(ERNIP Proposal ID: 105.024)		
	22 FEB 2024 – CB FRA operations between BALTIC FRA and FRACZECH		



	(ERNIP Proposal ID: 102.018, ARP catalogue reference: ARP005F)
	Winter 2023/24 – LOVV Re-Structuring
	(ERNIP Proposal ID: 98.045)
	► Full FAB CE FRA, shall be provided and operated in the airspace for which the Member States are responsible at and above flight level 310, in accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 716/2014 of 27 June 2014.
	Proposed autumn 2024 - CB FRA operations between SECSI FRA and FRACZECH
	(ERNIP proposal ID: 102.016)
2025	Proposed winter 2024/25 – New Sectorisation Praha FIR
	(ERNIP Proposal ID: 89.070)
	Proposed winter 2024/25 – Improve sectorisation at the interface between CZE and POL
	(ERNIP Proposal ID: 102.041, ARP catalogue reference: ARP004S)
	Proposed winter 2024/25 – Improve sectorisation at the interface between HUN and SVK
	(ERNIP Proposal ID: 102.042, ARP catalogue reference: ARP005S)
	 Proposed spring 2025 – FRA West-Central Europe, cross-border FRA operations between DFS FRA FRA CZECH
	(ERNIP Proposal ID: 105.014)
	Proposed summer 2025 - Vienna TMA/ ACC re-design
	(ERNIP Proposal ID: 98.019)
	Proposed 2025 – Adaptation of the airspace organization and sectorisation at the interface between GER, AUT and ITA
	(ERNIP Proposal ID: 102.067, ARP catalogue reference: ARP035S)
	Proposed 2025 – Improve sectorisation at the interface between CZE and GER
	(ERNIP Proposal ID: 102.050, ARP catalogue reference: ARP013S)
	Proposed 2025 – re-design of interface POL-SVK-CZE
	(ERNIP Proposal ID: 102.043, ARP catalogue reference: ARP006S)
2026	Proposed winter 2025/26 - Improve sectorisation and implement x-border FRA operations at the interface between AUT and GER
	(ERNIP Proposal ID: 102.038b, ARP catalogue reference: ARP029F, ARP001S)
	Proposed winter 2025/26 - Improve sectorisation at the interface between CZE and AUT
	(ERNIP Proposal ID: 102.039, ARP catalogue reference: ARP002S)
	Proposed winter 2025/26 - Improve sectorisation at the interface between HRV, HUN and SRB



	(ERNIP Proposal ID: 102.046, ARP catalogue reference: ARP009S)
	Proposed winter 2025/26 - Improve sectorisation at the interface between SVK and AUT
	(ERNIP Proposal ID: 102.045, ARP catalogue reference: ARP008S)
	Proposed winter 2025/26 - CB FRA operations between SECSI FRA/FRALB/M-FRA and Hellas FRA
	(ERNIP Proposal ID: 102.015, ARP catalogue reference: ARP002F)
	Proposed winter 2025/26 – X-border FRA operations between SEE FRA, FRA Poland (BALTIC FRA) and FRA Ukraine
	(ERNIP Proposal ID: 102.037/31.027, ARP catalogue reference: ARP032F)
	Proposed winter 2025/26 – Improve sectorisation at the interface between HRV, HUN and SRB
	(ERNIP Proposal ID: 102.046, ARP catalogue reference: ARP009S)
	Proposed 2026 – Improve sectorisation at the interface between CZE and SVK
	(ERNIP Proposal ID: 102.040, ARP catalogue reference: ARP003S)
2027	-
2028	
2029	Proposed 2029 - X-border FRA operations between SECSI FRA and SEE FRA
	(ERNIP Proposal ID: 102.019a)
2030	Proposed winter 2029/30 - X-border FRA operations between SECSI FRA and SEE FRA
	(ERNIP Proposal ID: 102.019b, ARP catalogue reference: ARP007F)
	Proposed winter 2029/30 - improve sectorisation at the interface between AUT and HUN
	(ERNIP Proposal ID: 102.051, ARP catalogue reference: ARP015S)





4.4. STATUS OF FABCE AIRSPACE TASK FORCE ACTIVITIES (ATF)

The enlarged FAB CE Airspace Task Force, in cooperation with EUROCONTROL/NM, is further elaborating several possible scenarios for an ECAC wide FRA deployment. The development of the FAB CE and adjacent airspace is effectively divided into two scenarios, Scenario 2D, aiming for the year 2025 and Scenario 2C, aiming for 2030. The main difference between the scenarios is the stepwise merger of the existing FRA areas with Scenario 2C representing the more ambitious airspace configuration. Additional sub-scenarios are being investigated regarding the impact of geopolitical events on the network as well as the long-term scenario of joining SEE FRA and SECSI FRA. The figures below are draft proposals subject to change, taking into consideration the evolution of the projects presented in Table 5. With regard to the Czech Republic and its assignment to the FRA areas depicted below, it should be noted that a tentative decision by the Czech Republic to join SEEFRA was made in early 2022.



Figure 12: Draft Scenario 2D





Figure 13: Draft Scenario 2C



5. FAB CE CHARTS

5.1. FAB CE CROSS-BORDER APPLICATIONS UPPER AIRSPACE TO DATE



Figure 14: FAB CE Cross-border applications upper airspace to date

<u>Attention</u>: This map is **symbolic** and **not** for operational use and **not** to scale. Updates might occur during the year and can be retrieved from National AIPs or Network Manager respectively.





5.2. FAB CE CROSS-BORDER APPLICATIONS LOWER AIRSPACE TO DATE

Figure 15: FAB CE Cross-border applications lower airspace to date

<u>Attention</u>: This map is **symbolic** and **not** for operational use and **not** to scale. Updates might occur during the year and can be retrieved from National AIPs or Network Manager respectively.

Note:

FAB CE cross border operations lower airspace related to BiH green marked bottom one is delegated from 9500 and also in one part from 1500 ft (part close to the sea)



5.3. SECTORISATION AUSTRIA

Lower airspace



Figure 16: Austria lower airspace



Figure 17: Austria upper airspace

Upper airspace



5.4. SECTORISATION BOSNIA AND HERZEGOVINA



Figure 18: Bosnia and Herzegovina from 9500 ft to FL660



Figure 19: Croatia lower and upper airspace



5.6. SECTORISATION CZECH REPUBLIC

Lower airspace



Figure 20: Czech Republic lower airspace



Figure 21: Czech Republic upper airspace



5.7. SECTORISATION HUNGARY

Lower airspace



Figure 22: Hungary lower airspace

Upper airspace



Figure 23: Hungary upper airspace

Notes:

- 1. In LESMO area, the ATS provision is delegated to Vienna APP (5500 feet AMSL FL245);
- 2. West of the simplified sector border between Austria and Hungary, the ATS provision is delegated to ACC Vienna, but east of it to Budapest ACC. (FL115 FL660);
- 3. In KOSICE TMA2, the ATS provision is delegated to Kosice APP (1000 feet AGL 9500 feet);
- 4. We intentionally do not display on the map the **RUTOL-box (9000ft FL195**) where the ATS provision is delegated to Budapest APP because it is reasonable to depict on LZBB chart.



5.8. SECTORISATION SLOVAK REPUBLIC

Lower airspace



Figure 24: Slovak Republic lower airspace



Figure 25: Slovak Republic upper airspace



5.9. SECTORISATION SLOVENIA

Lower Airspace



Figure 26: Slovenia lower airspace

<u>Note</u>: ATS in MURA Sector in volume of airspace from FL125 to FL660 is under Area of Responsibility of the Austro Control.

Upper Airspace



Figure 27: Slovenia upper airspace

6. CATALOGUE OF FAB CE-RELATED PLANNED AIRSPACE CHANGES PROPOSALS (EXTRACT FROM ERNIP)

<u>Note 1</u>:

In addition to the data presented in Table 4 and Table 5, additional information regarding the various implementation projects can be found in various studies (e.g. the ATF deliverables) and the ERNIP. Each proposal contains additionally a map containing the FAB CE delta load. It was considered not to integrate these maps into the Airspace Plan itself as they are used for working purposes and moreover to reduce the size of the document. In case of interest, please contact:

nm.rndsg@eurocontrol.int

<u>Note 2</u>:

<u>IMPLEMENTED</u> Airspace changes proposals can be found in ERNIP application (database). For details contact:

nm.rndsg@eurocontrol.int



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LIST OF ABBREVIATIONS

ACC	Area Control Centre
AGL	Above Ground Level
AIP	Aeronautical Information Publication
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
AoR	Area of Responsibility
ARN	ATS Route Network
ARR	Arrival
ASM	Airspace Management
ATC	Air Traffic Control
ATF	FAB CE Airspace Task Force
ATM	Air Traffic Management
ATS	Air Traffic Services
AU	Air Navigation Unit
BHANSA	Bosnia and Herzegovina Air Navigation Services Agency
BIH	Bosnia and Herzegovina
CCL	Croatia Control
CDR	Conditional ATS Route
CEO	Chief Executive Officer
CEOC	ANSPs CEO Committee
CIV	Civil
CNS	Communication Navigation Surveillance
CP1	Common Project Nr 1 (or "Next Common Project")
DCT	Direct Route
DEP	Departure
DME	Distance Measuring Equipment
DP	Deployment Programme
EAAS	European Airspace Architecture Study
EC	European Commission
ECAC	European Civil Aviation Conference
ERNIP	European Route Network Improvement Plan
EU	European Union
EUROCONTROL	European Organisation for the Safety of Air Navigation
FAB	Functional Airspace Block
FAB SC	FAB Steering Committee



FAPDG	FAB CE Airspace Planning and Design Group
FASP	FAB CE Airspace Plan
FIN SubC	Financial Sub Committee
FIR	Flight Information Region
FL	Flight Level
FMP	Flow Management Position
FNOP	FAB CE Network Operations Plan
FPL	Flight Plan
FRA	Free Route Airspace
FUA	Flexible Use of Airspace
GND	Ground
H24	Hours 24, Availability 24 hours/day, 7 days/week
HLP	FAB CE High-level Plan
JCMACC	Joint Civil-Military Airspace Coordination Committee
KEA	Average horizontal en route flight efficiency of the actual trajectory
LoA	Letter of Agreement
NAV	Navigation
NAVAIDS	Navigation aids
NM	Network Manager
РСР	Pilot Common Project
PSO	Programme Support Office
RNAV	Area Navigation
RNDSG	Route Network Development Sub-Group
RNP	Required Navigation Performance
RP3	Reference Period 3
SES	Single European Sky
SID	Standard Instrument Departure
SJU	SESAR Joint Undertaking
STAR	Standard Instrument Arrival
ТМА	Terminal Control Area/Terminal Manoeuvring Area
TRA	Temporary Reserved Area
TSA	Temporary Segregated Area