2018

Annual SW FAB Report

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ABSTRACT:

This document contains the yearly report of the SW FAB initiative, as required by the article 10 of the SW FAB State Agreement. It summarizes the main activities developed by the different bodies of the SW FAB in 2018.

This report is elaborated by the SW FAB governing bodies, namely the Supervisory Authorities Committee (SAC), the Operational Board (OB) and the Council, taking into account the contributions and comments provided by all SW FAB experts under the coordination of the SW FAB Standing Secretariat.

The Annual Report is approved by the SW FAB Council and included in the SW FAB web page (www.swfab.eu) for transparency.

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HIGHLIGHTS

Year 2018 has been again, and for the fifth consecutive year, a year characterized by the high increase in air traffic, much higher than forecast (SW FAB has grown above the five busiest FABs from 2015 to 2018).

It is worth noting the excellent collaboration of the SW FAB with the Network Manager working closely with our ANSPs, NAV Portugal and ENAIRE, to mitigate the impact of traffic increase.

In the most purely technical level, we can highlight the progress obtained from the development of the activities planned for 2018, carried out by both the Supervisory Authority Committee (SAC) and the Operational Board (OB). The SW FAB Operational Board Common Plan, one of the most important elements in the SW FAB framework, has advanced as planned and a new edition 2019-2023 has already received the approval of the Council. This last edition was already sent to the European Commission as part of the SES framework.

Regarding the communication aspects with our users and stakeholders, the fourth Stakeholders Consultation Forum (SCF) was held in Madrid last November 2018.

From here, the members of the SW FAB Council want to thank everyone for their participation.

SW FAB: The Europe Gate to the Atlantic

The members of the SW FAB Council in 2018 were:

- ***Raúl Medina Caballero**, Director General of Civil Aviation – DGAC Spain; (SW FAB Council Chairman);*
- ***Luis Miguel Ribeiro**, Chairman of the Board – ANAC Portugal;*
- ***Lieutenant General Francisco Javier Fernández Sánchez**, Deputy Chief of the Air Force Staff – Spanish Air Force;*
- ***Major-General Piloto Aviador José Augusto de Barros Ferreira**, Chief of Office of the National Aviation Authority.*

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1 Introduction

This document contains the yearly report of the SW FAB initiative, as required by the article 10 of the SW FAB State Agreement. It summarizes the main activities developed by the different bodies of the SW FAB in 2018.

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2 SW FAB Council

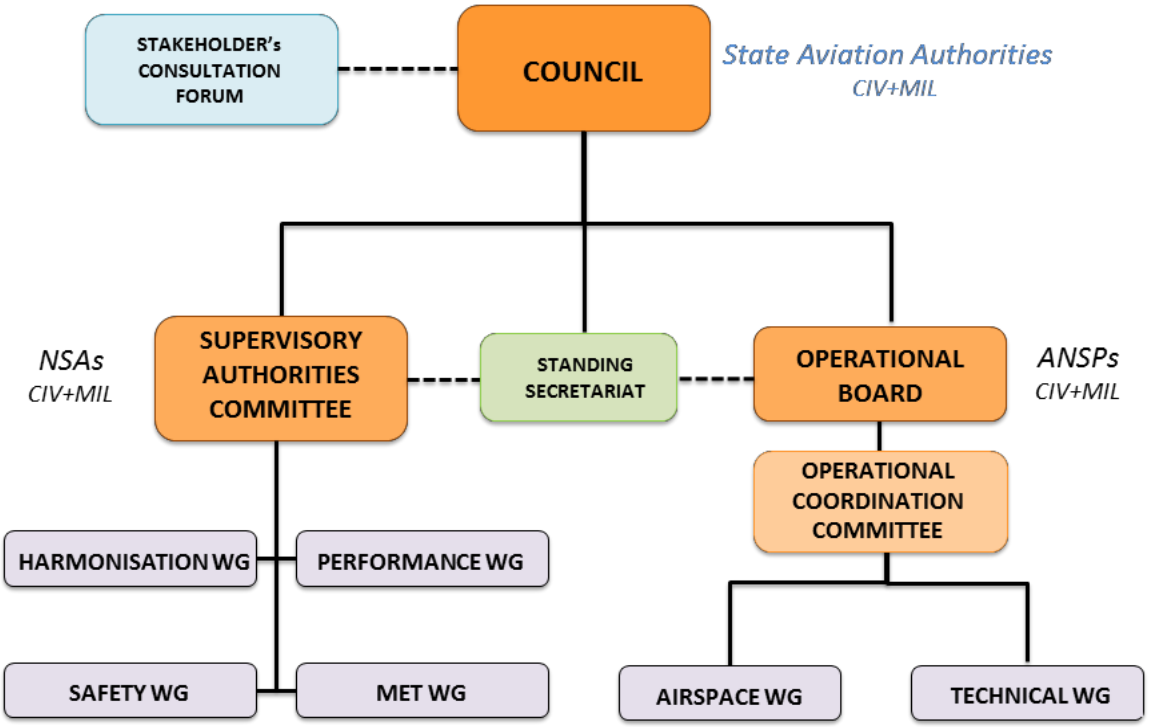
The SW FAB Council (the "Council") is the highest governing body. It was created by Article 9 "Bodies of the SW FAB" of Chapter 3 "Bodies and Operation" of the SW FAB State Agreement signed between the Republic of Portugal and the Kingdom of Spain, on 17th May 2013.

This SW FAB body is established as a joint decision-making body for the purposes of the implementation, operation and further development of the SW FAB State Agreement. It is composed of one representative from the authority responsible for military aviation and one representative from each Civil Aviation Authority (CAA) of each SW FAB State.

By Portugal, the Autoridade Aeronáutica Nacional (**AAN**) and the Autoridade Nacional da Aviação Civil (**ANAC**) and, by Spain, the Estado Mayor del Ejército del Aire (**EMA**) and the Dirección General de Aviación Civil (**DGAC**) are the four members in the Council.

The Council chair rotates annually between the two CAAs. During 2018 it fell to DGAC.

The structure of the SW FAB bodies is shown in the figure:



Main facts and activities at institutional level in 2018

In its role of governing body of the SW FAB, the Council carried out all the required tasks for the steering, coordination and strategic decision-making of the SW FAB development.

SW FAB Performance

As relevant decisions of this year, the Council undertook the review and final approval of the SW FAB OB Common Plan 2019-2023. This document has been sent to the European Commission. Also the Council carried out a review of the Monitoring Report of the previous edition of the Common Plan, the OB Common Plan 2018-2022.

As in the previous year a strong growth at NM area overall has occurred in 2018 while Spain and Portugal have remained as biggest contributors to this network growth. The air traffic in the SW FAB increased by 5.4% in 2018.

To stand out again the excellent collaboration between the Network Manager (NM) and both civil Air Navigation Service Providers (ANSPs), NAV Portugal and ENAIRE, to mitigate the impact in the delay figures caused by the high volume of traffic recorded in the SW FAB airspace by implementing the agreed corrective measures with the NM. It is worth mentioning also the bad weather conditions, especially in summer, which affected the normal functioning of some ACCs and main airports.

With the RP2 Performance Plan Monitoring Report, the Council was also informed by the SAC about the SW FAB behavior regarding the RP2 performance and assessed the targets achieved throughout 2018. Although the capacity Key Performance Indicator (KPI) was not met due to the unexpected strong traffic growth, the other three KPA (safety, environment and cost-efficiency) accomplished their objectives. Therefore, taking into account all the circumstances that occurred, the Council positively assessed the SW FAB performance.

Consultation with users

The fourth edition of the Stakeholders Consultation Forum (SCF) took place in Madrid at the DGAC headquarters on 19th November 2018 with a little participation from the stakeholders even though all the SCF members, the NM and the Commission were duly invited.

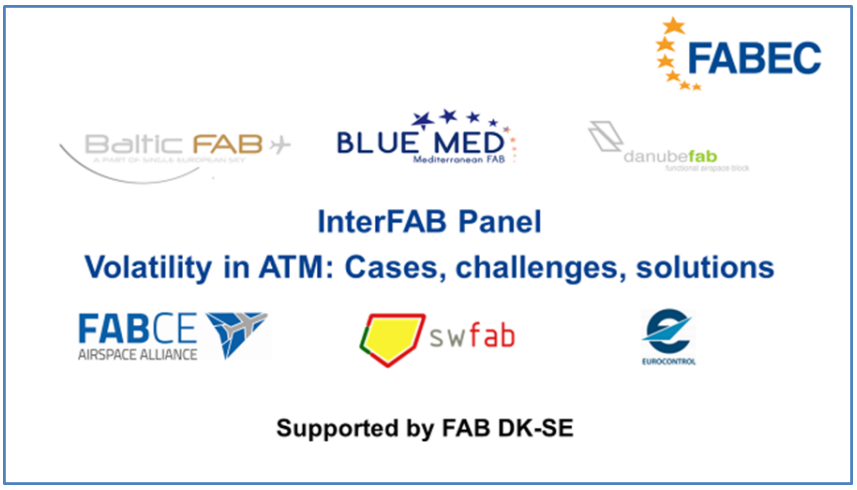
The 4th SCF was only attended by representatives of associations of controllers and SW FAB civil and military experts from SAC and OB.

The meeting mainly focused on Supervisory and Operational/technical matters. The SW FAB performance plan was presented addressing essentially the two main areas of interest of the attending stakeholders: capacity/delay and flight efficiency (environment KPA). Also the SW FAB OB Common Plan 2019-23 was presented giving the attendees the opportunity to discuss about some operational projects of their interest. Special attention to aircraft operators was about the ANSP's investments in CNS infrastructure and avionics systems.

Cooperation with other FABs

The main activity of SW FAB in this field concerns the cooperation with FABEC (mainly France) regarding operational aspects such as the Free Route implementation, cross-border airspace restructuration and a new entry point between, NATPI, positioned between GIROM and OKABI was agreed as result from the discussions involving NM, Spain and France ANSP´s to be operative in 2019. Coordination tasks are mainly being carried out by the respective ANSPs.

Regarding other activities, representatives of SW FAB attended three meetings related to the InterFAB Coordination initiative:



Council meetings

The SW FAB Council met twice in 2018.

Meeting	Date	Location
12th Council meeting	**6th July 2018**	Madrid
13th Council meeting	**20th November 2018**	Madrid

At the Council meetings, issues related to the coordination and implementation of the SW FAB and its progress, the decision-making process or the approval of strategic documents, were discussed.

Besides the aspects mentioned in the preceding points, other FAB related matters or affecting the SW FAB initiative progress were also treated in the Council meetings seeking the greatest possible coordination between Portugal and Spain.

Some of these important subjects treated in the Council meetings were related to the Single European Sky (SES) regulation framework. For example, the main challenges of the new RP3 framework for the FAB performance plans were discussed.

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3 SW FAB Supervisory Authorities Committee

The **SW FAB Supervisory Authorities Committee** (SAC) was created by Article 9 "Bodies of the SW FAB" of Chapter 3 "Bodies and Operation" of the SW FAB State Agreement, between the Republic of Portugal and the Kingdom of Spain, signed on 17th of May 2013.

The SAC, in accordance with the framework of the State Agreement, addresses all matters related to the supervision, performance and harmonisation of rules and procedures within the SW FAB. It is made up of representatives of each NSA and of the military aviation authorities that are not established as NSAs.

As a low level organizational structure for the SAC, four Standing Working Groups (WGs) have been set up to develop the matters that fall under the remit of the SAC: the Safety WG (SAF WG), the Harmonisation WG (HAR WG), the Performance WG (PER WG) and the Meteorological WG (MET WG).

SAC activities

Two meetings of the Committee were held along 2018; the tenth meeting was celebrated on the 5th of July and the eleventh meeting took place on the 19th of November, both in AESA´s premises in Madrid.

During 2018 the RP2 SOWEPP Monitoring Process was used to follow up the FAB level targets of the Performance Plan as part of the continuous monitoring and to prepare the Annual Monitoring Report to be submitted to the Commission.

In this sense, the following points were highlighted during the last SAC:

- Actual traffic was higher than forecasted and it was a reason why some targets were not met. In general terms, the traffic in 2018was 5.4% higher than in 2017 and IFR flights in 2017 were 20% above SOWEPP forecast. KEA Target was met by the end of the year, but capacity, on the other hand, was an identified problem. En-route delay (ERD) target was not met by the end of the year, and it was highlighted that despite the efforts made to improve the capacity performance during 2018, the results were worse than in 2017. Considering the incentive schemes, it was noted that they will probably have to be applied for the calculation of 2020 Unit Rate, but they will only affect ENAIRE. It was stressed that, this performance situation was mostly due to Spain. Therefore, AESA submitted a report to the European Commission in October advancing that Spanish targets weren´t met in 2018.

- The new incoming regulation for RP3 was introduced during these meetings, highlighting that during the third reference period (RP3), the new Performance Plan would be developed at National level. Also, Spain remarked that was trying to coordinate with PRB a new meeting in January 2019 with the challenge to treat local issues, regarding this task.

In addition, during SAC, the joint inspections between Authorities were presented, following the agreement by both parties, to participate in cooperative inspections to the ANSPs. AESA participated in the inspection conducted by ANAC in April. ANAC joined AESA's audit in Málaga in September 2018. Two additional joint inspections were conducted in Spain and Portugal for the MET domain: in July, Spain participated in an inspection in Funchal, and in December, Portugal participated in an inspection in Madrid-Cuatro Vientos.

Also, ANAC added that they met during this year with EASA in relation with this issue, with the objective to go so far, and try to integrate inspectors in EASA.

The SAC was used as a forum to exchange practices and foster the convergence and harmonization of procedures. Regarding this topic, AESA, GAMA and MITECO-NSA MET participants presented during the SAC the training and integration requirements the organizations have for the inspectors, to perform their duties.

SAC Civil Members coordinated the tasks associated to the NSA Coordination Platform and other international groups involving FABs.

The SAC also participated in the 4th Stakeholders Consultation Forum (SCF) that took place on the 19th of November in Madrid. The SAC presentation provided a follow up of the activities of the SAC as well as an insight to the results of the oversight in the Performance Scheme context at FAB level and the challenges for RP3.

Finally, during the 10th SAC meeting, AESA made a brief description of the new Regulation 2017/373 of Air Traffic Management/Air Navigation Services and other Air Navigation Services and other Air Traffic Management Network functions and their oversight.

In this sense, it was highlighted that with the entry into force of this Regulation, from 2 January of 2020, the agreements established between authorities should be reviewed. In this sense the agreement set between Spain and Portugal should be revised.

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4 SW FAB Operational Board

The SW FAB Operational Board (OB) was created by Article 9 "Bodies of the SW FAB" of Chapter 3 "Bodies and Operation" of the SW FAB State Agreement, between the Republic of Portugal and the Kingdom of Spain, signed on May 17th, 2013.

The OB is the body established in the framework of the State Agreement to address all matters related to the technical and operational functioning of the SW FAB. It is made up of representatives of each SW FAB ANSP (NAV Portugal, ENAIRE, EMFA, EA-ANSP, AEMET and IPMA).

The Organizational Structure for the Operational Board is as follows:

- **Operational Board Coordination Committee (OCC):** mainly responsible for preparing conclusions, recommendations and giving advice to the Operational Board as well as direct the development of the working groups under its umbrella, by validating and approving the recommendations made, as well as monitoring the work done;

- **Airspace Working Group (AWG):** mainly responsible for identification, harmonization and development of airspace structure taking into account civil and military air traffic flows, European route network, Network Manager (NM) and Performance Plan at FAB level (SOWEPP), ensuring optimum airspace utilization and military mission effectiveness in the application of the FUA concept;

- **Technical Working Group (TWG):** mainly responsible for proposing activities or plans towards harmonized and interoperable technical systems for the provision of air traffic management, communication, navigation, surveillance and meteorological services by the civil and military air navigation service providers,

providing high level of safety operations and making optimal use of technical resources.

The work is carried out ensuring technical coordination between ANSPs of the SW FAB, as well as between SW FAB ANSP(s) and ANSP(s) of neighboring States, including the elaboration of technical written agreements of relevance for the provision of ANS.

OB/OCC activities.

During 2018 the OB/OCC held two coordination meetings on 20th June and 5th November. The work of the OB/OCC was mainly oriented to produce the new edition of the SW FAB Operational Board Common Plan, SW FAB OB CP 2019-2023. This rolling annual plan contains an overview of those technical and operational activities planned to be implemented by the SW FAB ANSPs, and the monitoring of the implementation of the projects included in the SW FAB Operational Board (OB) Common Plan 2018-2022, aiming to improve the performance of the airspace under its responsibility as part of the whole European Network. The OB/OCC monitors the developments of these projects and, likewise, provides periodically reports to the SW FAB Council regarding the status of the SW FAB OB CP, to be afterwards released to the EC.

Along 2018, the SW FAB OB CP in force covered the period 2018-2022, and the OB developed the new edition of this plan, the SW FAB OB CP 2019-2023, covering the period 2019-2023. This new edition was agreed by the bodies that compose the SW FAB (the OB, the SAC and the Council), and is already in force during this year 2019.

From an institutional point of view it is recognized the success of the AEFMP regional cooperation where the members of the SW FAB, Spain and Portugal, have a long- lasting history of inter-FAB/regional collaboration, since the 90's, well before the SES legislation.

In this framework of collaboration that can be considered the precursor of the FAB concept, Spain and Portugal (ENAIRE, NAV Portugal, ANAC and the Spanish DGAC), work with Algeria, Morocco, France, and, more recently, Tunisia (welcomed during the World ATM Congress, in Madrid, on March 9th 2018). AEFMP aims to the harmonization of procedures, improvement of interoperability and management of implementation of new systems.

Furthermore, among the several activities carried out by the OB/OCC during 2018, it is important to mention the participation in the elaboration of the LSSIP (end of the 2017 cycle and beginning of 2018 cycle).

In this year, the 2017 LSSIP cycle has been successfully completed by agreeing a joint report on 14 out of 51 objectives included in the European ATM Master Plan (MP) Level 3 Implementation Plan, edition 2017[1]. In addition, the texts summarising the deployment progress and the analysis of the main KPAs at FAB level were also jointly coordinated and included in the ATM MP Level 3 Report 2016.

Moreover, in the last quarter of 2018, as foreseen in the SW FAB OB Common Plan, the coordination of civil ANSPs contribution to national LSSIP for cycle 2018 was initiated between ENAIRE and NAV Portugal. Both, a detailed working schedule for the 2018 cycle and a list containing the proposed FAB dimension objectives for common reporting, were elaborated as the starting point for the LSSIP 2018 cycle.

This is an ongoing project that is yearly updated to be aligned with the ATM MP level 3 report and national LSSIPs elaboration processes.

[1] Note that this project was modified in the SW FAB Operational Board Common Plan 2017-2021, limiting its scope only to the civil ANSPs

❑ *AWG activities*

The Airspace Working Group (AWG) projects defined in the Operational Board Common Plan 2018-2022 edition 1.0 (November 2017) comprise 14 projects, distributed into 5 sub-areas of work, to be developed and implemented up to the end of 2022.

Along 2018, it should be noted that several achievements, concerning operational projects of the SW FAB OB CP 18-22, have been reached.

- FRA 2 SW FAB FRA PHASE II PROJECT

  With the publication in the AIP of new flight planning and Oceanic clearance procedures, as well as the elaboration of the pertinent safety assessment, the Free Route operations in Santa Maria FIR, have been successfully improved on December 6th, 2018.

- NMP 2 BORDEAUX INTERFACE PROJECT

  BAMBI project completed last April 1st, 2018 with some improvements in the interface between Bordeaux and Madrid FIR by enlarging TSA34 in response to future French military needs. Good example of civil/military cross-border cooperation considering civil as well as French military airspace requirements.

- NMP 3 ATS NETWORK IMPROVEMENTS PROJECT

  Through the airport connectivity and ATS Network improvements made during 2018, like Madrid Departures via BARDI, the project was closed on July 12th 2018, as partially completed.

- TMA 3 BARCELONA TMA PROJECT

  Implementation of RNAV of north and south transitions from all IAF for approach to the three main runway configurations on May 24th, 2018.

- TMA 6 SW FAB RNP APCH Implementation Plan

  RNP APCH for Valencia (RWY 12/30) and Fuerteventura (RWY 01/19) were published in February 2018.

- TMA 7 PALMA TMA Project

  New PBN procedures for Palma de Mallorca were finally published in AIP on January 18th, 2018, with effect from March 1st, 2018.

The AWG actively participated in the preparation of the operational component of the new 2019-2023 edition of the SW FAB Common Plan, within five main operational areas:

- Free route airspace (FRA) concept
- ATM procedures (PRO)
- Network management (NMP)
- Civil-military coordination (CMC)
- Terminal area management (TMA)

❑ *TWG activities.*

The Technical Working Group (TWG) projects defined in the Operational Board Common Plan 2018-2022 edition 1.0 (November 2017) comprise 10 projects, distributed into 2 sub-areas of work, to be developed and implemented until the mid of 2022.

Along 2018, it should be noted that several achievements, concerning technical projects of the SW FAB OB CP 18-22, have been reached.

- CNS1 DATALINK PHASE I

  Regarding datalink infrastructure, ENAIRE was ready to provide ATN over VDLm2 to SITA's customers over all Spanish airspace in February 2018 and to ARINC's customers on October 1st 2018. NAV Portugal's ATN over VDLm2 SITA infrastructure was ready in February 2018 and to ARINC's customer on December 1st 2018.

  Regarding datalink FDPS application, ENAIRE's FDPS application was updated to incorporate ATN functionality in Canarias FIR and Barcelona FIR in January 2018, and in Madrid FIR on May 31st 2018.

- CNS 4 Surveillance IP

  The agreed solution for the migration of surveillance data exchange between Portugal and Spain from X.25 to IP has been tested and successfully operationally deployed on March 7th, 2018. Thus, the objectives of this project have been fulfilled and it is considered as closed.

- CNS 5 NEW RADARS SHARING

  Finalised on October 31st 2018.
  The agreement on the SLA's between NAV Portugal and ENAIRE to be compliant with the regulation 1207/2011 had been reached.

- CNS 9 NEW SURVEILLANCE SENSORS (PHASE II)

  This project was successfully closed on March 22nd, 2018 through the operational deployment of a new WAM system in the south of Portugal.

- CNS 10 CIVIL/MIL GROUND COMMUNICATIONS (PHASE III)

  The Civil-Civil voice communications improvements (Phase III) were completed after putting into operation three new voice link over current AEFMP TDM.

  Therefore, the project was successfully finished on July 3rd 2018.

- CNS 11 IR CONFORMITY (PHASE II)

  During 2018, some activities have been done and finished like analysis and identification of communalities or, on the other hand, the searching of technical solutions for the implementation of common solutions and strategies for the conformity with implementing rules related with the systems.

  Those activities were finished on June 8th, the first one, and in November 2nd, the second one.

- CNS 12 DATALINK (PHASE II)

  On March 31st 2018, the assessment of the concept of service area at SW-FAB level was finished.

  Additionally, ENAIRE and NAV Portugal were participating during 2018, in the INEA Call 2017 Path 2 Pre Implementation Project, which aims to manage the transitional activities towards target solution mainly pre-implementation project.

- CNS 13 NEW SURVEILLANCE SENSORS (PHASE III)

  The communication requirements for WAM/LAM and ADS-B have been defined and the verification of the feasibility of the communication architecture was finished on March 30th, 2018.

- CNS 14 CIVIL/MIL ATC Network

  Three activities of the project have been successfully finished. Those activities includes the definition of the technical solution to implement in REDAN, the deployment of the new network infrastructure in ACCs and the user integration into new infrastructure in ACC´s.

- CNS 15 IPv6 SERVICES

  The architecture for the IPv6 interconnection based on the available IP network interconnection was successfully identified on December 31st, 2018.

The TWG actively participated in the preparation of the operational component of the new 2019-2023 edition of the SW FAB Common Plan, within two main technical areas:

- ATM systems sub-area of work
- CNS sub-area of work

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5 List of Abbreviations/Acronyms

AAN - Autoridade Aeronáutica Nacional
AEFMP – Algeria España France Morocco Portugal
AEMET – Agencia Estatal de Meteorología
AESA – Agencia Estatal de Seguridad Aérea
AMHS – Aeronautical Messaging Handling System
ANAC – Autoridade Nacional da Aviação Civil
ANMA – Autoridade Nacional para a Meteorologia Aeronáutica
ANSP –Air Navigation Service Provider
ATC – Air Traffic Control
ATM – Air Traffic Management
AWG – Airspace Working Group
CAA– Civil Aviation Authority
CP – Common Plan
DSNA – Direction des Services de la Navigation Aérienne
EA-ANSP – Ejército del Aire, Air Navigation Service Provider
EASA –European Aviation Safety Agency
EC – European Commission
EMA – Estado Mayor del Ejército del Aire
EMFA – Estado-Maior da Força Aérea
EU – European Union
FAB –Functional Airspace Block
FABEC– FAB Europe Central
FIR – Flight Information Region
FRA – Free Route Airspace
FUA – Flexible Use of Airspace
HAR WG – Harmonisation Working Group
IFCW - Inter-FAB Coordination Workshop
IP – Internet Protocol
IPMA – Instituto Português do Mar e da Atmosfera
KOM – Kick Off Meeting
LFN – Letter of Formal Notice
LSSIP – Local Single Sky ImPlementation

MP – Master Plan

MET WG –Meteorological Working Group

MITECO-NSA MET - Ministry for the ecological transition NSA MET

NDOP – Network Directors of Operations

NM – Network Manager / Nautical Miles

NMB Network Management Board

NOP – Network Operations Plan

NSA– National Supervisory Authorities

OB – Operational Board

OCC– Operational Coordination Committee

PER WG – Performance Working Group

P-RNAV –Precision Area Navigation

RNAV –Area Navigation

RP1 – Reference Period 1

RP2 – Reference Period 2

RP3 – Reference Period 3

SAC – Supervisory Authorities Committee

SAF WG – Safety Working Group

SCF – Stakeholder Consultation Forum

SERA – Standardised European Rules of the Air

SES – Single European Sky

SESAR– Single European Sky ATM Research

SJU– SESAR Joint Undertaking

SOWEPP – SW FAB Performance Plan

SSP – State Safety Programme

SW – South West SW FAB – South West FAB

TMA – Terminal Movement Area

ToRs – Terms of Reference

TTF– Tripartite Task Force

TWG – Technical Working Group

UPEA – Unidad Permanente de Espacio Aéreo

VDLm2 - VHF Data Link mode 2WG – Working Group