
Aviation: A new step towards modernising and greening the European skies

2021/02/05 10:41 στην κατηγορία INTERNATIONAL

The European Commission adopted a regulation that establishes the Common Project One (CP1) in support of the single European sky – a new framework that contributes to making flying in the European skies more sustainable by ensuring a more efficient management of airways.

Following an intense pilot phase of implementing new technological and operational air traffic management (ATM) solutions developed under the SESAR project dealing with Single European Sky ATM Research, CP1 focuses on the most efficient solutions and sets a realistic implementation timeline to be respected by the concerned parties: airlines, airports and air navigation service providers.

These solutions are grouped into six functionalities that introduce a higher degree of digitalisation and interoperability for civil and military airspace users, airports and air navigation service providers. More efficient flight trajectories supported by these innovative technologies will also allow modern aircraft to exploit fully their greener and quieter technologies. The new solutions will ensure more direct and therefore more fuel efficient flight paths.

Commissioner for Transport, Adina Vălean, said: “Modernising Europe’s air traffic management (ATM) is central to meeting our Green Deal objectives and ensuring the long-term resilience of the aviation sector. By speeding up the implementation of the innovative technological solutions, the Common Project One (CP1) will ensure more direct, and therefore, more fuel-efficient flight paths, and allow modern aircraft to fully exploit the benefits of greener and quieter technologies.”

The detailed arrangements for implementing the CP1 will be included into the Deployment Programme that the Commission will adopt in the second half of 2021. The Union will provide funding to support the implementation of the CP1 through the Connected Europe Facility programme. The SESAR Deployment Manager will coordinate the CP1 implementation. .

Background

Air traffic management (ATM) means the aggregation of the airborne and ground-based functions (air traffic services, airspace management and air traffic flow management) required to ensure the safe and efficient movement of aircraft during all phases of operations.

The Single European Sky initiative was launched in 2004 to reduce fragmentation of the airspace over Europe, and to improve the performance of air traffic management in terms of safety, capacity, cost-efficiency and the environment.

The SESAR project aims to modernise Europe's air and ground ATM infrastructure and operational procedures thus contributing to a smarter, more sustainable, better connected and accessible air transport. It is an essential enabler for the broader SES initiative. SESAR defines, develops and deploys interoperable ATM solutions aiming to optimise the management of air traffic enabling airspace users to fly safely the most efficient trajectories and to ensure the safe integration of new flying vehicles (such as drones) in all classes of airspace .

SESAR deployment constitutes an important potential for creating new employment opportunities over the next 10 years, potentially 78.000 new jobs including direct employment on project implementation and indirect and induced opportunities. 85% of the companies working on the PCP are SMEs. The investments needed to implement the CP1 are estimated to be 2,6 billion euro, which will bring estimated benefits from more modern and environmentally friendly ATM network in Europe in an amount of 6,7 billion euro.

Common Project One (CP1) is a regulation that mandates the deployment of essential air traffic management (ATM) functionalities that have been developed in the framework of the SESAR project. The aim of these functionalities is to make the European ATM more efficient, reliable and ready for the digital age.

All the solutions included into the CP1 have passed the test of three criteria:

- they are ready for implementation;
- their implementation requires synchronisation of activities;
- they address the essential operational changes defined in the European ATM Master Plan.

The six ATM functionalities are:

- 'AF1' or 'extended arrival management and integrated arrival management ('AMAN')/ departure management ('DMAN') in the high-density terminal manoeuvring areas' improves the precision of the approach trajectory and facilitates air traffic sequencing at an earlier stage and the optimum utilisation of

runways, integrating the AMAN and DMAN sequences, by deploying specific ATM solutions.

- 'AF2' or 'airport integration and throughput' facilitates the provision of approach and aerodrome control services by improving runway safety and throughput, enhancing taxi integration and safety and reducing hazardous situations on the runway.
- 'AF3' or 'flexible airspace management and free route airspace' combines the operation of flexible airspace management and free route and enables airspace users to fly as closely as possible to their preferred trajectory without being constrained by fixed airspace structures or fixed route networks. It allows operations that require segregation to take place safely and flexibly and with minimum impact on other airspace users.
- 'AF4' or 'network collaborative management' improves the European ATM network performance, notably capacity and flight efficiency, through exchange, modification and management of trajectory information. AF 4 contributes to the implementation of a collaborative network for planning and decision-making, which enables the implementation of flight- and flow-centric operations.
- 'AF5' or 'system wide information management (SWIM)' consists of standards and infrastructure enabling the development, implementation and evolution of services for information exchange between operational stakeholders via interoperable services which are built on SWIM standards and are delivered through an internet protocol.
- 'AF6' or 'initial trajectory information sharing' or 'i4D' improves the use of target times and trajectory information, including where available the use of on-board 4D trajectory data by the ground ATC system and Network Manager systems, implying fewer tactical interventions and improved de-confliction situation.

The CP1 package consists of the regulation, its technical annex, which sets out the details about the ATM functionalities, stakeholders required to implement a specific functionality and implementation timeline. The package also contains a Commission Staff Working Document (SWD 9/2021) which provides an overview of the SESAR project, its deployment phase and the review of the implementation of the PCP, which was in force since 2014. These changes include new definitions such as for maturity or introduce new concepts, like industrialisation target date.

The CP1 regulation will be published in the Official Journal over the coming days and will come into force 20 days after its publication in the Journal.