



## 4-FLIGHT, A KEY ENABLER TO DELIVER CP1 BENEFITS

In operational use in Reims and Marseille ACCs  
Speaker: Patrick Souchu - DSNA

# SESAR 2020 SHOWCASE



# CP1 – General improvements

## ⦿ A synchronized deployment

- ⦿ Intensified interactions with other stakeholders
- ⦿ Consultations and sharing of knowledge and experiences

## ⦿ Impact on Safety & Cyber Security

- ⦿ Increased situation awareness and better traffic forecast models
- ⦿ Preparation on SWIM governance, infrastructure and security

## ⦿ Automation & Digitalization

- ⦿ Data integrity
- ⦿ Replacement of legacy technologies
- ⦿ Reduced workload and clearly defined interfaces



# CP1 - General Overview

- ⦿ **A powerful tool to accelerate SESAR Solutions deployment and Digital European Sky**

- ⦿ Financial support thanks to CINEA (eg 4-FLIGHT)
- ⦿ Highlight Single European Sky priorities

- ⦿ **Impact on internal investment prioritisation**

- ⦿ Technical baseline (eg 4-FLIGHT) to support new CP1 AFs
- ⦿ Implementation of CP1 AFs according to target dates

- ⦿ **Monitoring**

- ⦿ Internal monitoring in coordination with all contributing DSN projects/programmes
- ⦿ Particular attention to the 5 Sub AFs with target date 31/12/2022
- ⦿ Support to LSSIP/CP1 annual monitoring managed by the regulatory directorate in DGAC

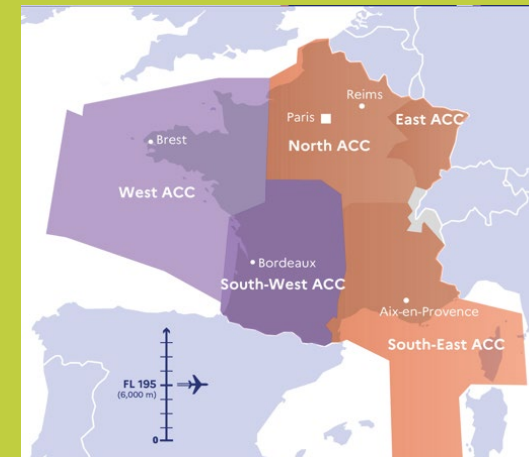




# 4-FLIGHT General Overview



Demonstration available  
at DSNA stand #F25



Design to meet the new expectations of customers and airspace users, and to new ATM standards of Single European Sky



**THALES**  
Building a future we can all trust

#SESARShowcase

#EuropeForAviation



# 4-FLIGHT development supported by SDM and CINEA

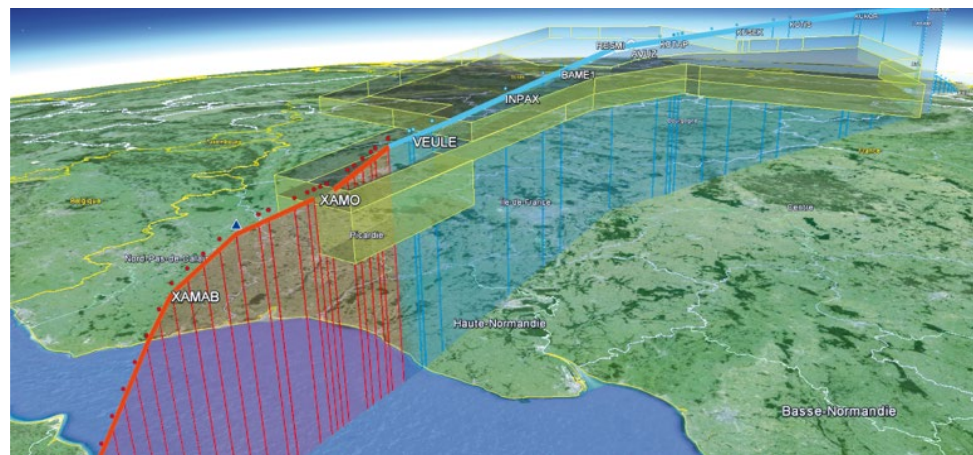


Co-funded by  
the European Union



**4-FLIGHT**  
The Innovative ATM Solution

- Reims ACC and Marseille ACC, the two pilot-control centres, have moved into full operation in 2022 supported by CEF 2014 Implementation project IP #053 AF3
- The commissioning of 4-FLIGHT in Paris ACC is scheduled on January 9<sup>th</sup>, 2024 supported by CEF 2015 Implementation project IP #062 AF3



Powered by  
**Coflight eFDP**  
enhanced-Flight Data Processing

- 4-FLIGHT is embedding Coflight also supported by CEF Funding in cooperation with ENAV, the Italian ANSP :
  - Version V3R1 supported by CEF 2014 Implementation project IP #067 AF5
  - Version V3R3 supported by CEF 2017 Implementation Project IP #043 AF3



# CP1 Benefits with 4-FLIGHT

- ⊙ **A system designed to be interoperable** with other European air navigation systems
- ⊙ **CP1 AF3 (Cross-border Free Routing Airspace):** 4D trajectories flight data management in 4-FLIGHT/Coflight
- ⊙ **CP1 AF5 SWIM evolutions**
- ⊙ **CP1 AF6 (Initial trajectory Information sharing, ADS-C EPP):** functionalities hosted by 4-FLIGHT

**Fully compliant to  
SESAR Standards!**





# Estimated benefits

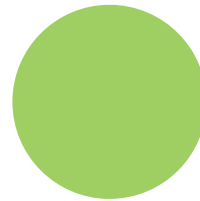
## IDENTIFIED BENEFITS CUMULATED UNTIL 2030

- Expected **increase of 20% in overall capacity** to offer higher quality and more competitive services to all aircraft operators
  - ▶ Reims ACC : + 10% capacity in winter 2022/2023 on some sectors
- **Free Route** and more widely the **‘User Preferred Route’** implemented in a complex, high density airspace
- Guaranteeing **interoperability (IOP)** between civil and military ATM systems



**KPI**

En Route  
ATFM delay  
reduction



**UNITS**

41.7M  
minutes

**Savings of  
€1.58B**

*Source: Network Manager (EUROCONTROL)*





# CP1 – Additional savings expectations

## AF 1

### *Extended AMAN*

- reduction of **holding and delays**
  - increased predictability
- reduced noise CO<sub>2</sub> emissions

## AF 2

### *Airport Integration and Throughput*

- reduced **queueing and turnaround times**
- safer and **more resilient ground operations**
- **better use of runways, taxiways and apron**
- improved **door-to-door experience** for passengers

## AF 3

### *Flexible Airspace Management and Free Route Airspace*

- more efficient use of airspace
- **shorter flight paths** for passengers
  - **fuel savings** for airlines
- reduction of CO<sub>2</sub> emissions



Significant  
fuel savings  
&  
CO<sub>2</sub> reductions





[patrick.souchu@aviation-civile.gouv.fr](mailto:patrick.souchu@aviation-civile.gouv.fr)  
[veronique.melet@aviation-civile.gouv.fr](mailto:veronique.melet@aviation-civile.gouv.fr)

Demonstration available at DSNA stand #F25



# SESAR 2020 SHOWCASE