OPERATIONAL BENEFITS FROM THE INTEROPERABILITY (IOP)

> IOP ensures a constant view of all traffic flows even if processed by other Flight Data Processing Systems

> IOP reduces ATCO workload thanks to a better anticipation of traffic

> IOP improves safety and increases ATC capacity

> IOP allows extended arrival management horizon

Flight trajectory by Coflight

Guillaume Ramonet
Coflight Programme Director

"The latest version of Coflight integrates the initial IOP concept. Coflight has been cofinanced by INEA and will be deployed in DSNA and ENAV. It is a significant milestone to deliver IOP benefits in terms of safety and capacity."

Iacopo Prissinotti
ENAV / Director of International Strategies

"Next generation's FDP systems will be key enablers for the complete implementation of Pilot Common Project (PCP) ATM functionalities. Coflight, as one of the main contributors to PCP, natively supports the achievement of the SESAR target concept."

> *Coflight, an enhanced-Flight Data Processing system to allow IOP benefits*

Contacts for communication

DSNA
François Richard-Bôle ✉ francois.richard-bole@aviation-civile.gouv.fr

ENAV
Luca Morelli ✉ luca.morelli@enav.it

Coflight

Enhanced - Flight
Data Processing System

NUI133
049 H23

127234
049 F27

IOP, ENSURING INTEROPERABILITY
BETWEEN DIFFERENT
FLIGHT DATA PROCESSING SYSTEMS

Coflight, a new generation e-FDP system, compliant
with initial IOP capabilities and SES implementing rules

DSNA

ENAV

THE IOP BENEFITS
PROVIDED BY COFLIGHT

Coflight is one of the most advanced Flight Data Processing systems in Europe, designed and developed by a Franco-Italian cooperation (DSNA-ENAV & Thales-Selex ES) on e-FDP Eurocontrol specifications. **The European Commission, through INEA and the SESAR Deployment Manager, has cofinanced the implementation of the Coflight project.**

The Interoperability concept (IOP) ensures a consistent exchange of flight data for Terminal and En-route operations between different ATC Flight Data Processing Systems (FDPS). It is based on the "Flight Object" concept: flight plan data are dynamic and thanks to SWIM, shared by all FDP systems. IOP is a key enabler of SESAR operational concepts.

Coflight is designed to support IOP implementation according to Pilot Common Project (PCP) regulation.

Flow Management Position in ACC

OPERATIONAL EXPERT VIEWS

"IOP is all about sharing flight data and trajectory between all concerned centres. It is essential to optimise ATC tools. For example, sharing information about direct routes and clearances will significantly decrease the number of phone coordinations between controllers".

SESAR IOP validation exercise on 3 prototypes platforms in July 2015 (DSNA/DTI)

Upgrade your AMAN tool to Extended-AMAN

AMAN builds and displays the optimal sequence for ATCOs to take into account traffic peaks or runway disruptions.

Today, AMAN allocates arrival times at merging points within its horizon.

With the IOP, arrival times are automatically transmitted to the upstream ATS units to verify the feasibility of delay absorption. Then, IOP provides downstream ATS units the potential delay absorption.
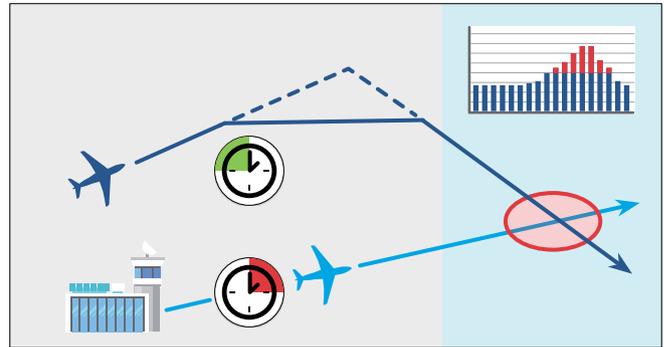
Upgrade your ATFCM and MTCD tools by a better anticipation of traffic peaks and conflict detection

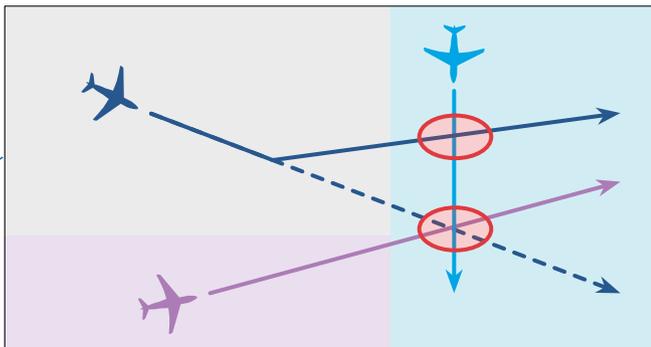Three use cases with control sectors at system boundaries:

A hotspot generated by a rerouting to avoid adverse weather conditions
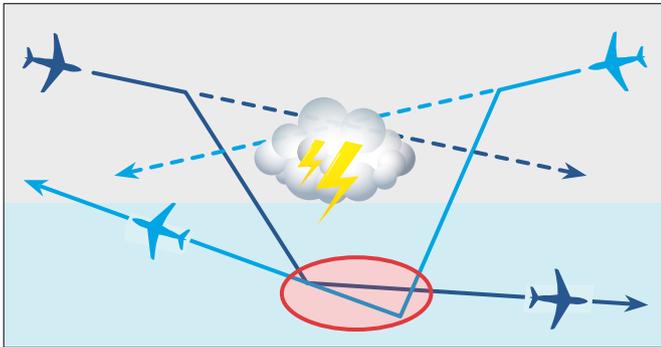
A hotspot generated by a direct route and a late take-off

Conflicts to be detected sufficiently in advance

Today, when the flight trajectory is modified by the controller, flight data are not immediately exchanged with adjacent control sectors. The flight data processing systems, during all the route, might thus re-calculate the new trajectory late before displaying these data. It may lead to hotspots or conflict detection and increase the controller's workload.

With the IOP, the new trajectory is automatically shared with the other FDP systems following a gate-to-gate approach. All controllers are informed sufficiently in advance, thus improving common situation awareness. IOP allows early detection of traffic peaks in order to continuously assess the new situation and to achieve automatic coordination, thus reducing ATCO workload.