



2018
World ATM Congress

SESAR
walking
tours





NATS



10 ANSPs



4 Industrials



Over 15 Partners
in total

From more
than 10
Countries



Improved Separation Provision & Management

Members & Partners



Air Navigation Services
of the Czech Republic



POLSKA AGENCJA ŻEGLUGI POWIETRZNEJ
POLISH AIR NAVIGATION SERVICES AGENCY

DFS Deutsche Flugsicherung



indra



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Improved Separation Provision & Management

In a Nutshell

TMA & En-Route

Improved Separation Provision with
enhanced CD/R* tools

Enriched Features,
e.g. what-if, what-
else,

Automation
Mechanisms

Enriched Trajectory Prediction with
additional data, e.g : aircraft derived data

Advanced Separation Management

In various operational environments

With new controller team organisations,
e.g. : SPO*, MSP*

*CD/R : Conflict Detection & Resolution
SPO : Single Person Operations
MSP : Multi Sector Planning



Capacity improved in
TMA & En-Route

Cost efficiency optimized for
flight navigation services

Safety Maintained





Improved Separation Provision

Benefits & Examples – CD/R tools enrichment

Vertical Rate deviation
on Monitoring Adherence tool



Improved Conflict
Separation Task

Improved ATCO
workload and
situation
awareness

Enriched
Features



What else level
on Tactical Controller Tool



13 Simulations



3 Tools &
Services

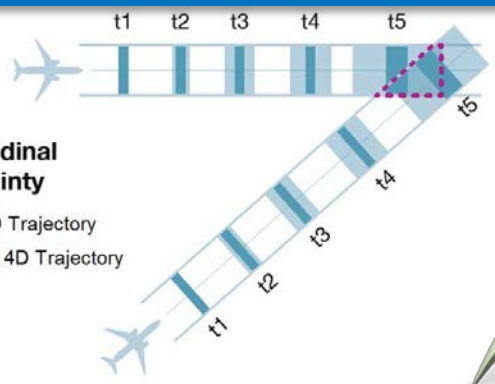


Improved Separation Provision

Benefits & Examples – Trajectory Prediction enrichment



4D Trajectory expected effect on uncertainty reduction and conflict detection accuracy

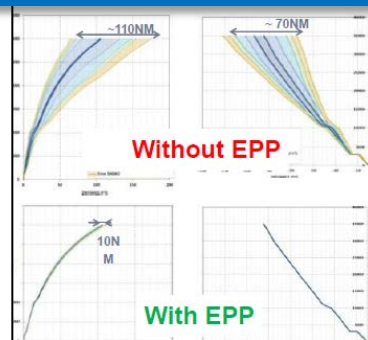


Improved Accuracy
of the trajectory

More Efficiency
&
Better Performance
of the CD/R tools

Trajectory with
additional data

EPP (Extended Projected Profile) expected
benefits to assist ATCO resolution strategy



Increase Vertical Trajectory Accuracy
(Top of Descent and Top of Climb)



4 Simulations



Additional data :

- Speed Schedule
- Predicted Trajectory (EPP)
- Weather Information

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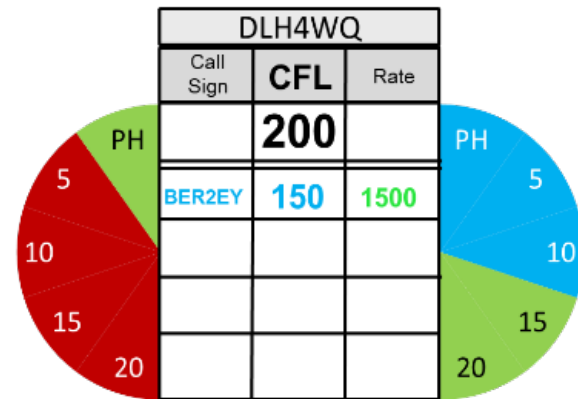
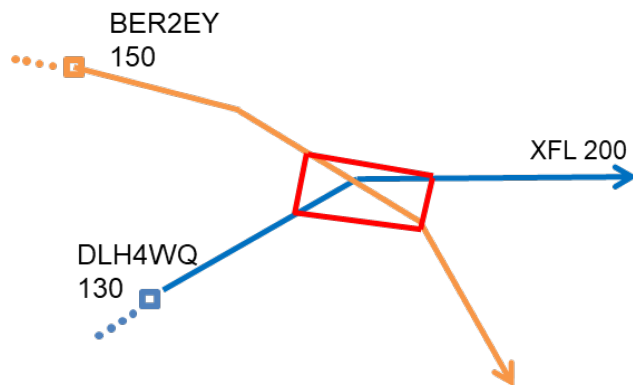
Advanced Separation Management

Example

→ Tools/functionalities providing an enhanced level of automation

Enhanced tactical window to represent most of the relevant information on a single click.

→ ATCO Workload Reduction, in particular during high peak traffic situations.



Advanced Separation Management

Expected Benefits



Increased Capacity

Reduction of controller workload enables increased traffic.



Maintain Safety

Conflict detection and conformance monitoring gives **early and accurate results**, thus **reducing the need for tactical interventions**.



Cost Efficiency

Part of the **capacity gains** can also increase **ATCO productivity**.