

# Performance Planning Operations: Environment

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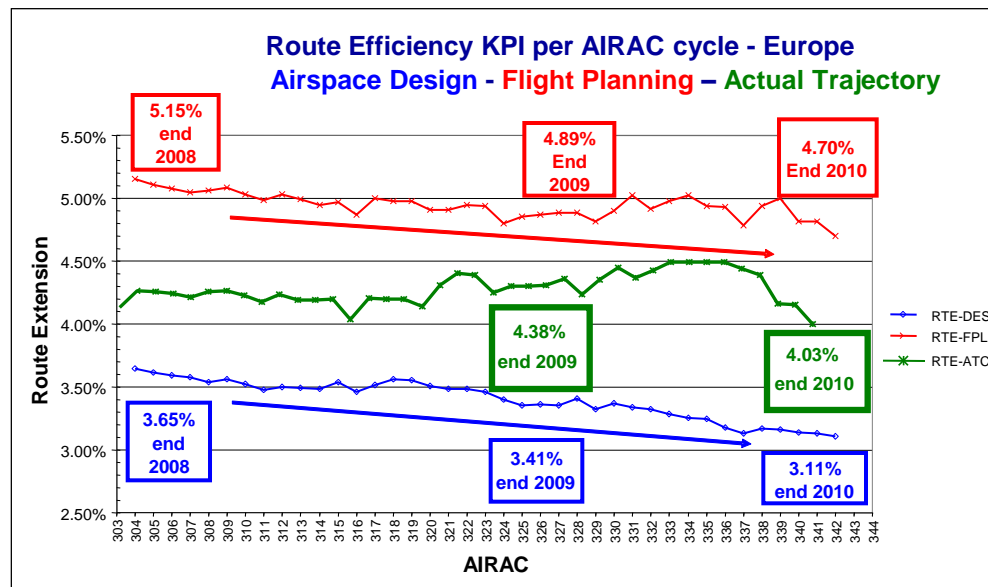
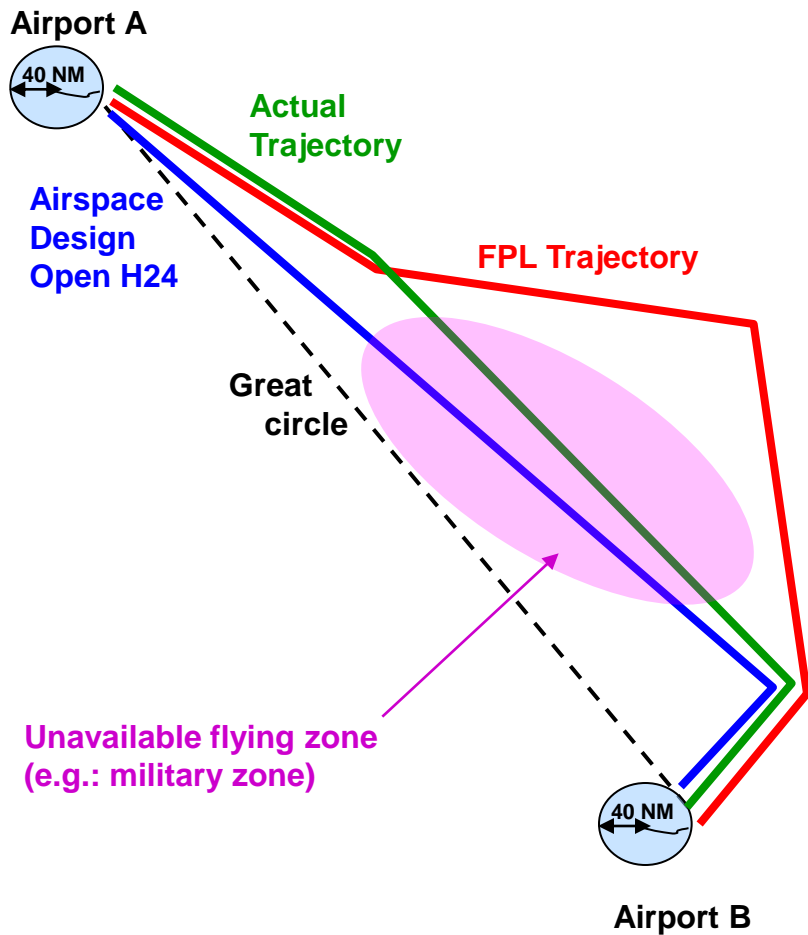


# Indicators



KPI	PI	To Be Developed
Average horizontal en-route flight efficiency (EC 691/2010)	% of route extension of intra FABEC flights represented by last filed flight plan compared to great circle distance	Effective use of civ/mil airspace structures (EC 691/2010)
% of route extension represented in distance flown compared to great circle distance		KPI addressing the specific airport air navigation services (ANS)-related environment issues (EC 691/2010)
Approach procedures in place supporting CDO operations (ICAO Doc 9931)		Continuous Descend Approach (CDA) conformity

# Flight planning vs actual trajectory



Source: Eurocontrol



# EU-wide level



For RP 1, the EU-wide environment target shall be set by using the **percentage of direct route extension represented in distance flown compared to great circle distance**:

- a) all commercial IFR flights within European airspace
- b) where a flight departs or arrives outside the European airspace only that part inside the European airspace is considered
- c) En-route is defined as the distance flown outside a circle of 40 NM around the airport
- d) circular flights and flights with a great circle distance shorter than 80 NM between terminal areas are excluded
- e) PRB uses the last filed flight plan vs great circle distance?
- f) No mandatory national/FAB environment KPI for RP1



# EU-wide level



## ▪ EU Target:

Improvement by 0.75 of a percentage point of the average horizontal en route flight efficiency indicator in 2014 as compared to the situation in 2009

## ▪ FABEC Target setting process:

- might have negative impact on the network performance
- FABEC performance can be monitored at network level
- contribute to the EU-target by implementation of ARN V-7
- description of the FABEC improvement process on route design as part of the Performance Plan

**Conclusion => no FABEC target**



# FABEC level

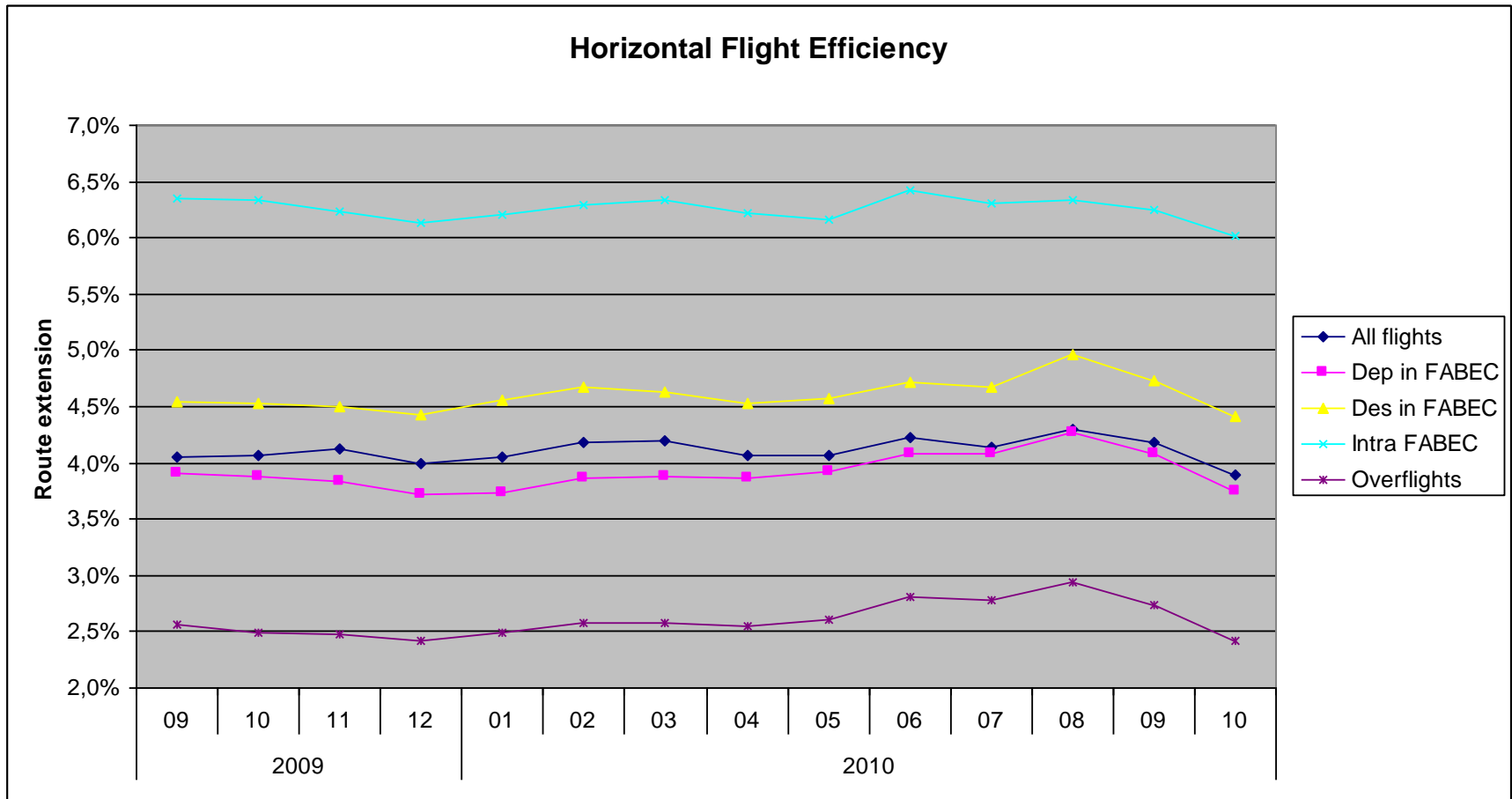


For RP 1, a FABEC target shall be set by using the **difference between the length of the en route part of the actual trajectory and the great circle distance**:

- a) reflects the current FABEC operational performance better than last filed flight plan or network design
- b) tactical improvements included
- c) mitigates insufficient flight planning
- d) provides a better picture on environmental benefits



# FABEC level



making the difference ...



# FABEC level



- EU Target:

no

- FABEC Target setting process:

- baseline by consideration of data 2010 and 2011
- take network improvements into account
- take AO flight planning into account

Conclusion => FABEC target

except negative impact on the network has been demonstrated





# FABEC level / intra FABEC flights FABEC

For RP 1, a FABEC indicator shall monitor the **percentage of direct route extension of intra FABEC flights represented by the last filed flight plan compared to great circle distance:**

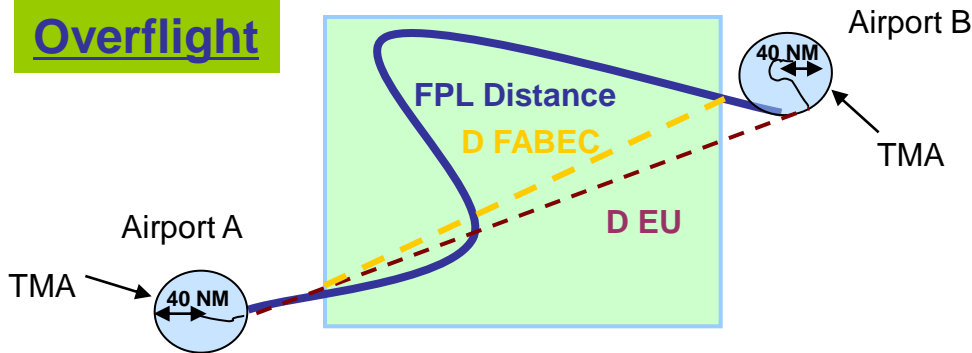
- a) Intra-FABEC flights could be considered as a field for improvement
- b) currently relatively weak performance data requires attention
- c) FABEC target might have some negative impact on the network performance
- d) Most 50 penalised city pairs already undergoing a optimisation process (e.g. Paris – Munich)



# FABEC level / intra FABEC flights



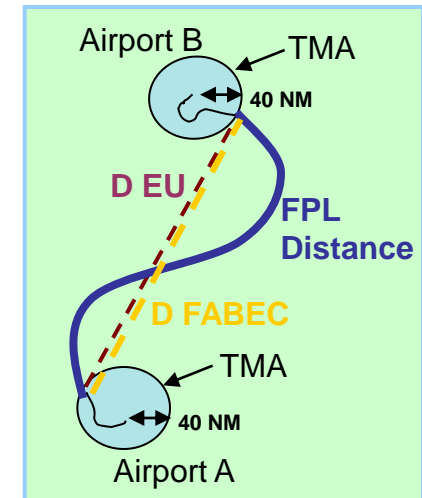
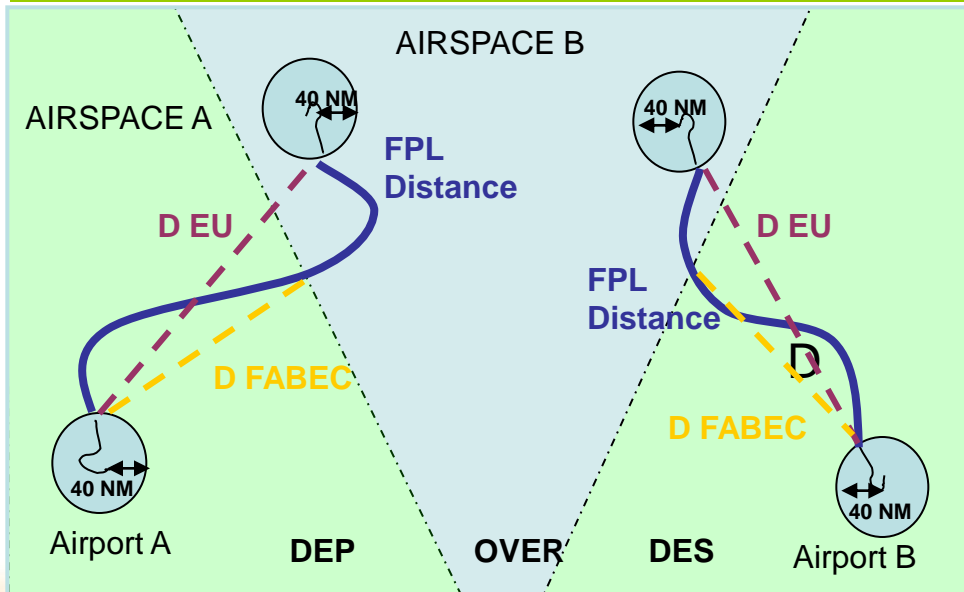
## Overflight



Can be managed by FABEC

## Departure and Arrival inside FABEC area

## Departure or Arrival inside FABEC area



...making the difference ...

# FABEC level / intra FABEC flights



## Last Flight Plan trajectory inside FABEC

	Flights	Direct distance (km)	FPL distance (km)	Extra-distance per flight	Efficiency indicator
Overflight	1 465 584	1 051 423 305	1 083 753 234	22,06	3,1 %
Dep or Arr	3 886 752	1 819 788 658	1 909 590 982	23,10	4,9 %
Dep & Arr	1 622 703	610 170 133	654 440 801	27,28	7,3 %

*Historical data from September 2009 to December 2010*



# FABEC level / intra FABEC flights



- EU Target:  
no
- FABEC Target setting process:  
no

Conclusion => Monitoring at FABEC level



## FABEC level / CDO



For RP 1, a FABEC target shall be set by using the **share of FABEC airports that offer approach procedures in place supporting Continuous Descent Operations (CDO) in accordance with ICAO Doc. 9931:**

- a) share of relevant FABEC airports that offer Continuous Descent Operations
- b) to support the reduction of aircraft noise, fuel burn and emissions
- c) priority requirement of SESAR Master plan
- d) airports in FABEC region with more than 50.000 movements per year considered
- e) airports CDO/CDA implementation status of EUROCONTROL might be used
- f) taking into account interdependencies with capacity and safety



# FABEC level / CDO



- **EU Target:**  
**no**
- **FABEC Target setting process:**
  - baseline by consideration of number of airports till May 2011
  - support continuous implementation by ANSP and States

**Conclusion => FABEC target**



# Other performance indicators to be monitored or developed during RP1



## ▪ EU level

- The effective use of the civil/military airspace structures monitored by the Commission in RP 1.
- Development of a KPI addressing the specific airport air navigation services (ANS)-related environment issues.

## ▪ FABEC level

- Continuous Descend Approach (CDA) conformity as a share of arrivals using CDA procedures. Feasibility will be investigated further.



# Incentives



**Incentive** (when the FABEC target is exceeded)

More work to be done on financial incentives, e.g. :

- economic value of improved flight profiles,
  - “sharing” acceptability to all parties
- Proposal to set non-financial incentives for RP1
  - Incentives = Corrective action plans with timelines on identified local and FAB-level problems: NSAs trigger ANSPs and agree on the action plan.
  - ANSPs collectively accountable : entitled – answerable ANSP focal point vs. Finance and Performance Committee.





- END -

