

Airport CDM Network Benefits Assessment

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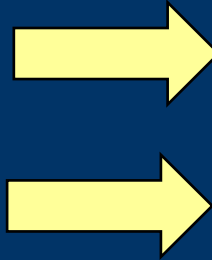
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2nd A-CDM Coordination Group (20 November 2008)

Purpose and Scope

A-CDM:

Accurate Target Take Off Times



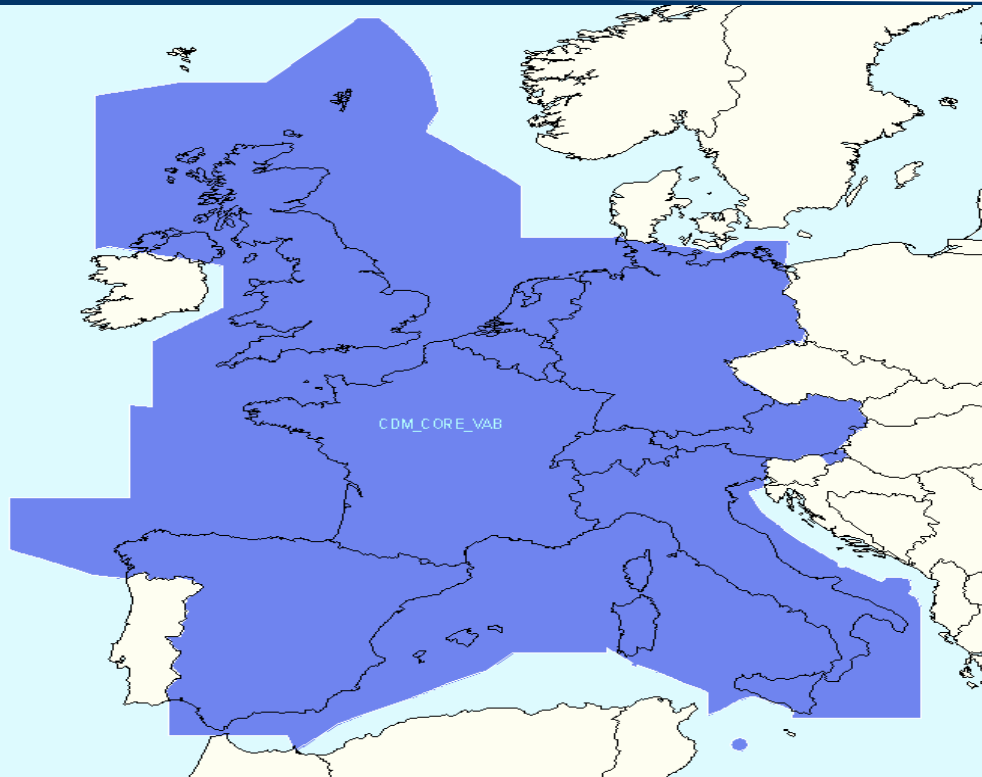
Enhance ground planning

What about en route?

- Initial assessment undertaken by EEC
- Identify network benefits related to airport departure improved predictability (TTOT)
- Munich benefits as a reference
- Benefits if 42 Airports implement DPIs



Scope



SCOPE:

Traffic

Flights in the ECAC area,
including over-flights

ECAC Core Area

- ✓ Belgium (EB),
- ✓ Germany (ED),
- ✓ Maastricht (EDY),
- ✓ United Kingdom (EG)
- ✓ Holland (EH)
- ✓ Luxemburg (ELL)
- ✓ Spain (LE)
- ✓ France (LF)
- ✓ Italy (LI)
- ✓ Austria (LO)
- ✓ Swiss (LS)

*Traffic Sample: CFMU data
21st-27th of July 2007*

References

Departure predictability, key contribution from A-CDM to network

- Distribution of **ATOT-ETOT** (or **CTOT** if defined)
- References:
 - A-CDM: - mean value < 1
- Predictability 7 min.
 - Others: - mean value > 2
- Predictability 11 min.

Sectors Load Analysis

Example German sectors



- Some sectors are NOT saturated
- Uncertainty reduced
- Enables reduction of sector capacity buffers - maintaining safety levels

CONCLUSION: Allows increase in sectors declared capacity



Assessment Conclusions

- Good foundation, but requires further development
 - ✓ Reduce uncertainty
 - ✓ More airports as a reference
- More reliable traffic picture

Less regulations
More efficient ATFCM scenarios

- Significant en route capacity gains (if 42 airports implement A-CDM)

Up to 4% - about 1 or 2 additional aircrafts per sector
OVERALL NETWORK CAPACITY IMPROVEMENT

Full report available by the end of 2008



Other potential benefits

- Increased flight efficiency
- ATFM delays reduction
- Optimization of trajectory planning
- Safety maintained or improved through demand anticipation
- Better traffic distribution
- More freedom of choice

What is needed?

A-CDM Implementation Targets

DMEAN Improvement	Measures	Target 2011 (nr airports)	Current Status (nr airports/ % progress)
Airport integration into network	A-CDM started	50	25 (50%)
	A-CDM implemented locally	20	3 (15%)
	DPI messages provided	16	1 (5%)

More airports = Network benefits = Further Local Benefits

Next steps?

- Identify % traffic (nr airports) needed to start obtaining network benefits (top 20 airports?)
- Evaluate the benefits in terms of ATFM delay reduction
- Assess benefits of predictability earlier (e.g. 40 min before take off)
- Identify local benefits boosted by network benefits
- Assess benefits airport slots compliancy
- Assess environmental benefits
- Assess benefits city pairs / regional

Your ideas are welcome!

THANK YOU!

