

AVIALLIANCE

4th TAM Symposium „Science2Business“ Network Integration—A Ground Coordinator Perspective

Thomas Brehmer, Director Technology

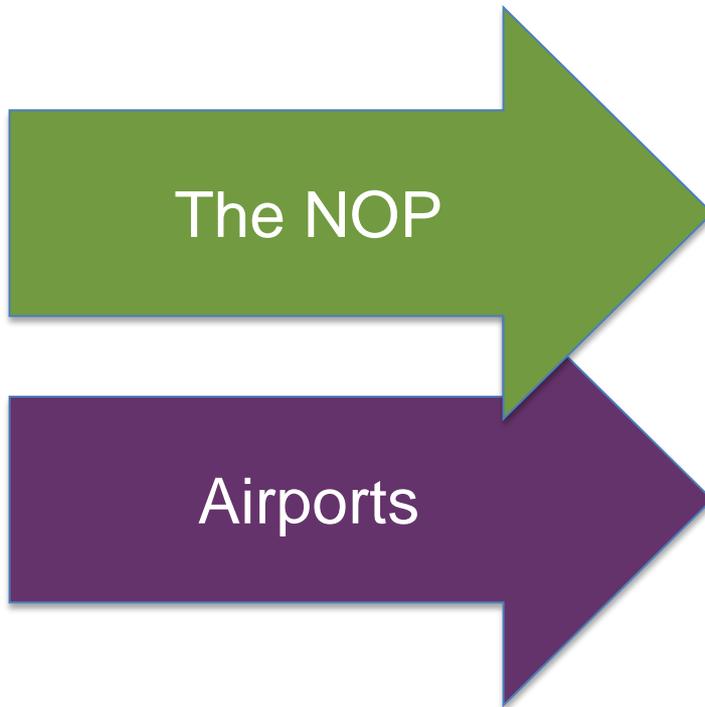
15. October 2013



Introduction

- The European ATM master plan
- The ground coordinator
- Network operations plan
- Airport operations plan
- Interplay scenarios
- Preview of integrated strategies

The European ATM Master Plan 2012



6 Key Features	Essential Operational Changes per Step and Feature		
	Deployment Baseline	Step 1 Time based	Step 2 Trajectory based
Moving from Airspace to 4D Trajectory Management	<ul style="list-style-type: none"> • Civil/Military Airspace & Aeronautical Data Coordination • A/G Datalink • CPDLC 	<ul style="list-style-type: none"> • Traj Mgt & BMT • System Interop with A/G data sharing • Free Routing 	<ul style="list-style-type: none"> • Full 4D • New A/G datalink • Free Routing TMA exit to TMA entry
Traffic Synchronisation	<ul style="list-style-type: none"> • Basic AMAN 	<ul style="list-style-type: none"> • i4D + CTA • Integrated AMAN DMAN & extended AMAN horizon 	<ul style="list-style-type: none"> • Multiple CTAs/CTAs • Mixed mode runway operations
Network Collaborative Management & Dynamic/Capacity Balancing	<ul style="list-style-type: none"> • Basic Network Operations Planning 	<ul style="list-style-type: none"> • Network Operations Planning 	<ul style="list-style-type: none"> • Network Operations Planning using SBTs/RBTs • 4D traj used in ATFCM • UDPP
SWIM	<ul style="list-style-type: none"> • Xchange models • IP based network 	<ul style="list-style-type: none"> • Initial SWIM Services 	<ul style="list-style-type: none"> • Full SWIM Services
Airport Integration & Throughput	<ul style="list-style-type: none"> • Airport CDM • A-SMGCS L1 & L2 	<ul style="list-style-type: none"> • Surface Management Integrated with arrival & departure • Airport Safety Nets 	<ul style="list-style-type: none"> • Further integration of surface & departure management • A-SMGCS L3 & L4
Conflict Management & Automation	<ul style="list-style-type: none"> • Initial Controller Assistance Tools 	<ul style="list-style-type: none"> • Enhanced DST & PBN • Conflict Detection & Resolution 	<ul style="list-style-type: none"> • Advanced Controller Tools to support SBT/RBT • Enhanced trajectory prediction
	Deployment Baseline	Step 1 Time based	Step 2 Trajectory based

Network operations plan

- The NOP serves two main purposes:
 - the monitoring of the real-time status of traffic, airspace and air traffic flow and capacity management measures; and
 - the planning of pan-European operations in a collaborative way from the strategic to the tactical phases, hence optimising the use of available ATM capacity.

Airport operations plan

What could it be?

- A specification, template or a guideline for all airport archetypes

Is only about airports, or rather about all aviation actors at an airport?

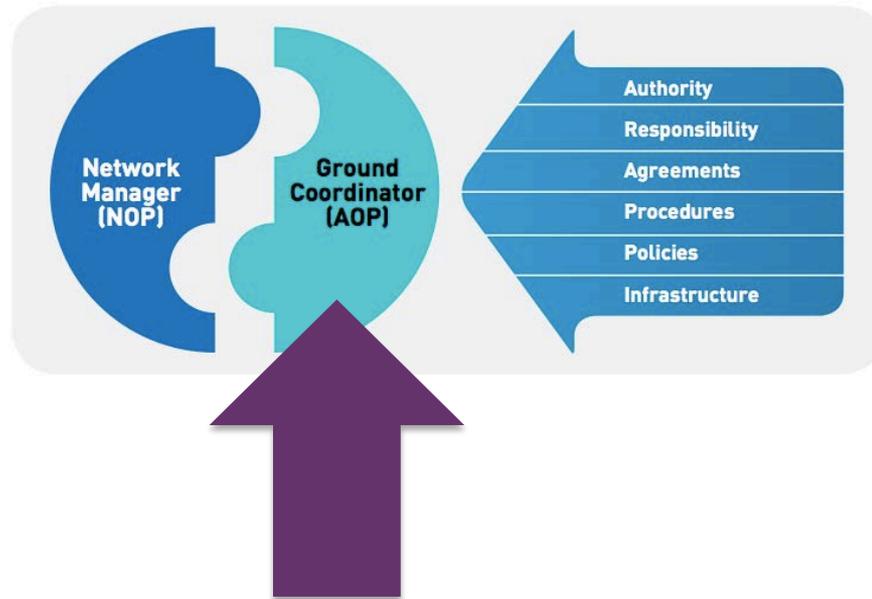
- A sensible plan would be to have all aviation actors involved in the production of an AOP

Who could produce such a facility?

Interplay scenarios

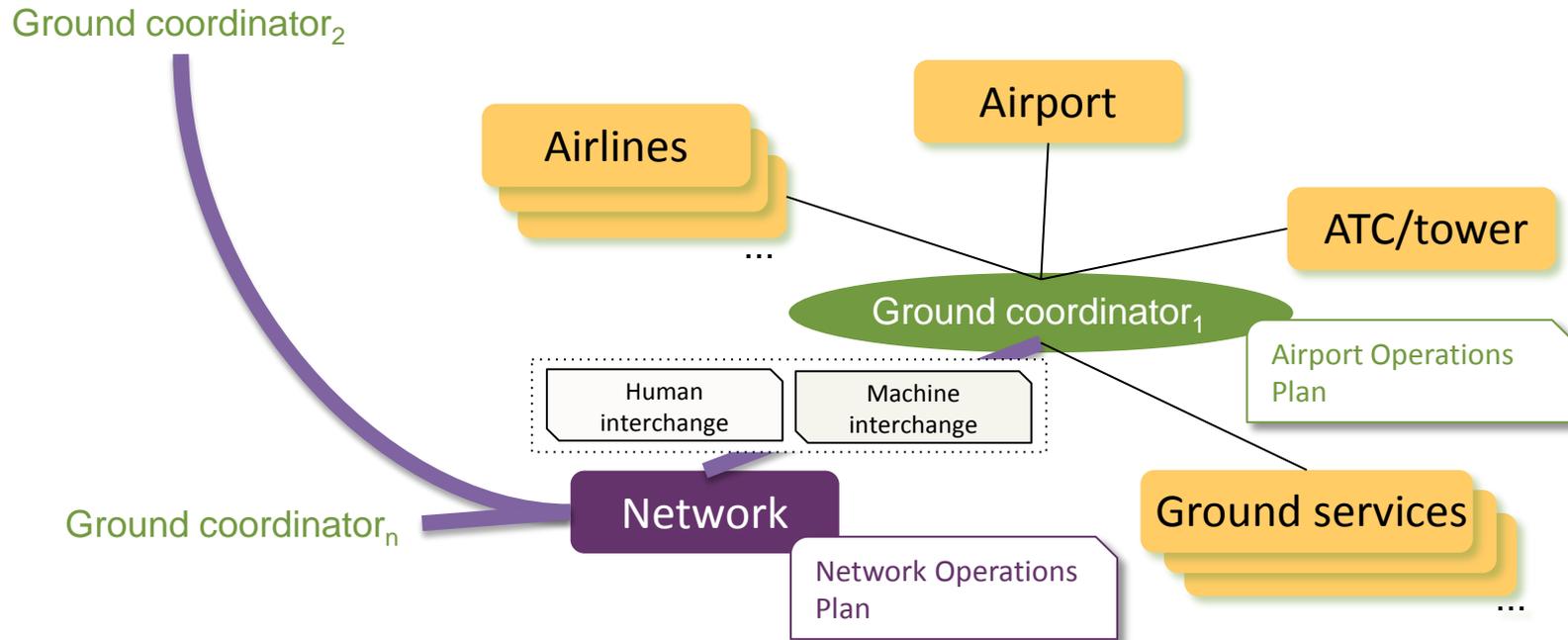
Logically, the NOP and AOPs should be integrated

AOP-NOP integration



The airport section of the masterplan foresees this

Interplay scenarios



Preview of integrated strategies

- airport use agreement
- standards reference library
- interactive performance indicator
- integrated aviation database for operations
- main communication switching centre linking all appropriate stakeholders.
- risk management system
- nomenclatures reference list
- airport infrastructure database
- permanent and dynamic service providers list
- permanent and dynamic services catalogue
- contracts and agreements compendium
- analytics and reporting processor
- operations predictor
- applications clearing centre...

Aviation actors under TAM: from tactical cooperation to revenue sharing

