Overview of the Network Manager activities

ATFM TF/1

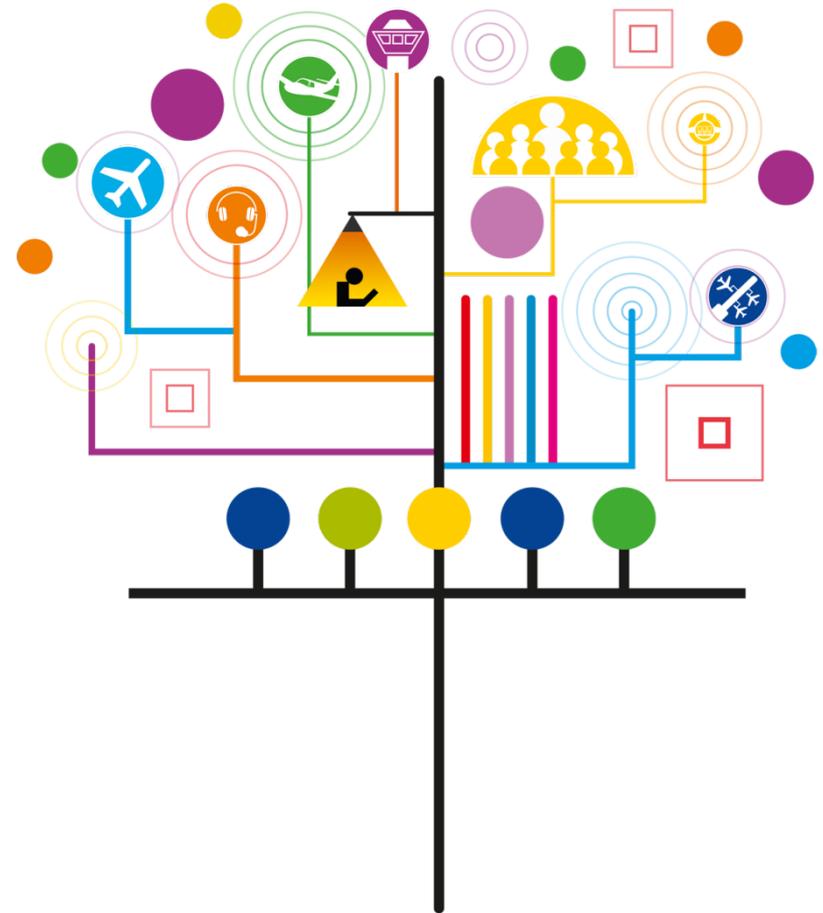Director Network Management

September 2018

The Network Manager

EUROCONTROL nominated Single European Sky Network Manager July 2011

Main role:

- optimise European ATM Network's operations with ANSPs and airports;

- ensure that European ATM meets the performance targets set by EC for SES

- provide a consolidated and coordinated approach to all planning and operational activities of the Network

- enable and deliver added operational performance (capacity, delay reduction, environment, flight efficiency, minimum emissions, ops safety, cost-effectiveness)

Connecting the network for improved performance

Network Management and Network Manager

- Network Management involves:
    - ~2000 airspace users
    - ~ 500 airports
    - 9FABs, 40 European ANSPs, ~70 ACCs, ~700 ATC enroute sectors, ~29000 flights/day
    - Global/interregional operational links
    - Network Manager

- The Network Manager (NM) has:
    - Key role in Flow management (coordinating & applying ATFM measures)
    - Influence on capacity planning and management (CDM)
    - Key role in airspace design, planning and use (including military)
    - Formal role in scarce resources management (R/F spectrum, SSR codes)
    - Key role in crisis management

- The NM
    - is designated by the EC
    - reports to and works under industry-led NMB governance

The Eurocontrol Network Manager is the operational pillar of the Single European Sky

Network Manager
nominated by
the European Commission

The Network Manager Factsheet

EUROCONTROL

Legal Basis

- EUROCONTROL nominated since July 2011
- NM defined by EC regulation N°677/2011
- Amended by EC regulation N°970/2014
- Other regulations: Performance Scheme (390/2013) Flight Planning (1033/2006) ATFM (255/2010) …
- Until end 2019, Seeking re-designation for RP3 & RP4

Organisation

- **Staff**: 437 FTE
  Operations: 154
  Systems: 130
  Planning: 66
- **Annual budget:**
  €164 million
  + €35 million costs from past
  (e.g. pensions)
- **Sites:**
  Brussels &
  Brétigny-sur-Orge

Scope

- NM delivers ATM performance to the pan-European network in the areas of safety, capacity, environment, flight efficiency and cost-effectiveness
- Functions:
  ATFM - European Network Route Design - Scarce resources (TCF & RFF)
  Airports - Operational safety – new systems

Governance & Oversight

- **Governance**:
  NMB
  SSC
- EASA has oversight on behalf of the EC:
  3-year cycle; annual report
- EASA common requirements regulation:
  NM is a pan-European ANSP obliged to obtain certification by January 2020

Figures

- NM area EU/non-EU average daily flights +/-29.000
- Max Nb of flights yearly 36.000
- Delay average 0,88 min
- Minutes saved yearly 1.5 mil

Network Manager
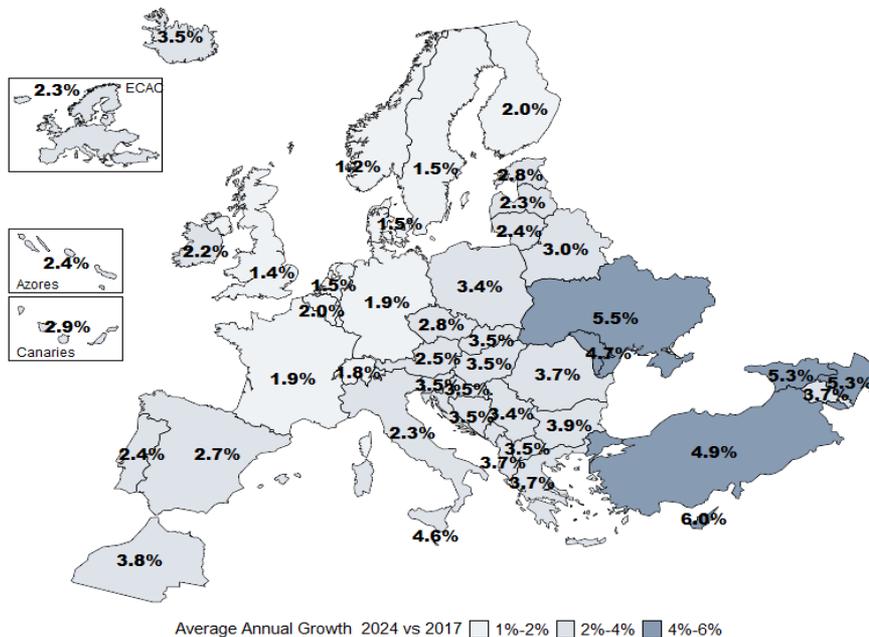nominated by
the European Commission

Accommodating the growth

Network efficiency to deliver the growth

Airport integration for Network benefit

FLIGHT FORECAST BY 2024

Average Annual Growth 2024 vs 2017 — 1%-2% — 2%-4% — 4%-6%

Network planning to anticipate the growth

Safety Network knowledge to sustain the growth through - Safety System Focus

Manage optimally the Network disruptions and crisis

Pan-European Dimension

Ensuring that it meets its mission and priorities, the Network Manager relies on working closely with ANSPs, airports, civil and military airspace users **across the airspace of 43 States.**

Its Pan-European global view:
- Promotes the EU aviation strategy to the widest possible European scope
- Exports SES standards to non-EU states which have not yet signed agreements with the EU
- Ensures global consistency and interoperability
- Establishes a common cooperation framework
- Achieves international reach to ICAO, FAA and others

The Eurocontrol Network Manager has global reach through a concrete policy of concluding agreements with 3rd country Air Navigation Service Providers - **providing a concrete platform for global ATM cooperation**

The vision for Global ATFM
A set of interlinked operational ATM regions

Agreements with 3rd country ANSProviders

The EUROCONTROL Network Manager currently <u>has agreements with 19 non-EU non-EUROCONTROL States</u>

The Network Management Board has already provided in principle approval for agreements with :
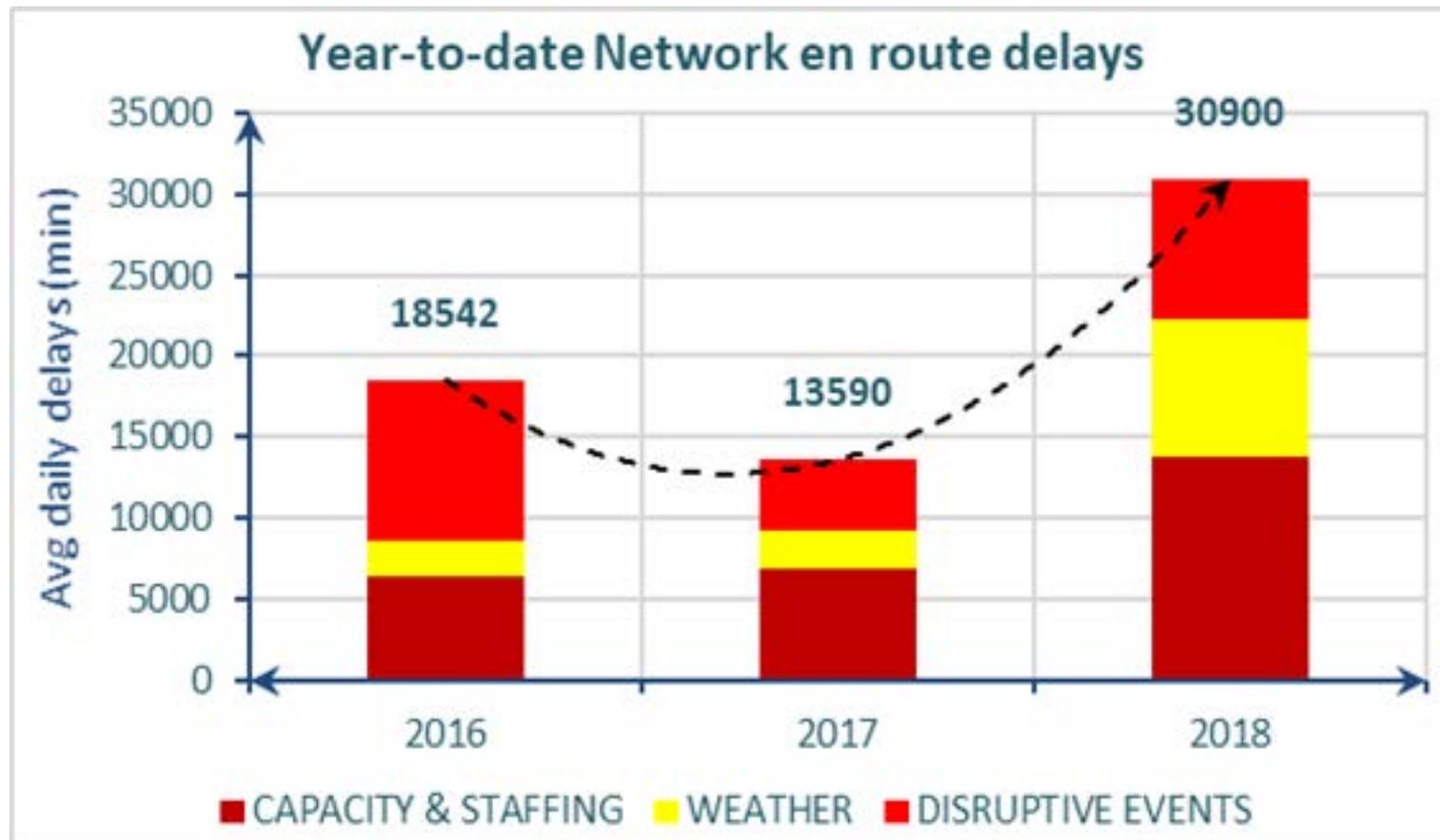- USA (FAA)
- Algeria (ENNA)
- Tunisia (OACA)

The Network Manager has also been invited by the EC to initiate dialogue for a future cooperation with Azerbaijan (AZANS)"

Current topical issues

- Summer lack of capacity; Karlsruhe, strikes, weather

- Full implementation of Free Route airspace across Europe

- SJU Airspace study - Q4 /18

- EASA findings following NM system outage: complete stop on development/testing impacting operations, CAPs discussed with EASA - end May

- NMD reorganisation following new Network Functions and increase in scope for NM

- Ectl response to renomination proposal

Network Manager
nominated by
the European Commission

Network enroute delays

Year-to-date Network en route delays

Avg daily delays (min)

18542 — 13590 — 30900

2016 — 2017 — 2018

■ CAPACITY & STAFFING ■ WEATHER ■ DISRUPTIVE EVENTS

Enroute delays Jan – May: 2016 – 2017 - 2018

NM Strategic issues

- Update of Network Functions Regulation in 2018

- Needs more teeth to drive Network ops concepts/ capacity improvements; local measures without assessment of network effects counterproductive

- Integrate/host common network support services

- Redesign NM technical platform - ready for SESAR deployments

- Long term investment programme (2020 - 2029) financed through loans

In 3 years time

- With stronger mandate for RP3, NM taking leadership of definition/implementation capacity/delay network solutions, flight efficiency

- Start of new network technical system development

- New enhanced EAD

- Global model for regional NM role

- Full CNS infrastructure monitoring

- Common network support services operational

- Staff regeneration in full swing

- Efficiencies to repay investment loan

SES and the Network Manager

- NM the heartbeat of the SES

- Evolving network ops concepts, network connectivity systems

- Delivering cost efficiencies to the users

- Impartial and transparent activities in the interest of network efficiency

- NM – delivering its responsibilities to the Single European Sky, to date and in the future

THE NETWORK MANAGER IN 2017
CONNECTING THE NETWORK TO DELIVER **IMPROVED PERFORMANCE**

ATFM EN-ROUTE DELAY TARGET SET FOR REFERENCE PERIOD (RP)2:

0.5 MINUTE
PER FLIGHT

2017
0.88 MINUTE
PER FLIGHT

AIRSPACE DESIGN & CAPACITY PLANNING
WE WORK WITH ALL OUR STAKEHOLDERS TO TACKLE BOTTLENECKS, CREATE AN EFFICIENT, FLEXIBLE AND DYNAMIC AIRSPACE STRUCTURE AND TO EXTRACT MAXIMUM CAPACITY FROM THE NETWORK

OPERATIONS CENTRE
· KEEPING THE NETWORK RUNNING 24/7
· REDUCING DELAYS
· CIVIL-MILITARY COORDINATION
· WORKING TO REDUCE WEATHER IMPACT
  (WEATHER IS A MAJOR CONTRIBUTOR TO ATFM DELAYS)

2017: ANOTHER RECORD YEAR WITH 10.6 MIOS FLIGHTS (A 4.4% INCREASE COMPARED WITH 2016)

THE NETWORK

3.49 MILLION PASSENGERS PER DAY

29,057 FLIGHTS PER DAY

4,500 AIRSPACE USERS

530 AIRPORTS

68 CONTROL CENTERS

43 EU / NON-EU STATES

ENVIRONMENT
MINIMISING FUEL BURN AND EMISSIONS

AIRPORTS IN THE NETWORK
AIRPORT COLLABORATIVE DECISION MAKING
AIRPORTS WORK BETTER WHEN ALL SERVICES, FROM ATC TO BAGGAGE-HANDLING, ARE CONNECTED WITH EACH OTHER AND THE NETWORK

AIR TRAFFIC FLOW MANAGEMENT
WE BALANCE DEMAND AND AVAILABLE CAPACITY, AVOIDING INFLIGHT HOLDING AND OVERLOADED SECTORS

NETWORK PLANNING
· NETWORK STRATEGIC PLAN
· NETWORK PERFORMANCE PLAN
· NETWORK OPERATIONS PLAN

DATA SHARING
AERONAUTICAL SERVICES
· PROVIDING INFORMATION FOR THE FLIGHT: FROM AIRSPACE CLOSURES TO WEATHER

MANAGE SCARCE RESOURCES
ENHANCED FREQUENCY MANAGEMENT PROCEDURES & TOOLS TO REDUCE THE TIME & COST OF SATISFYING NEW FREQUENCY REQUESTS

SAFETY
· MITIGATING THE TOP 5 OPERATIONAL SAFETY ISSUES IN THE NETWORK
· SUPPORTING SAFE OPERATIONS ACROSS EUROPE

CRISIS MANAGEMENT
WE COORDINATE THE MANAGEMENT OF RESPONSES TO ANY CRISIS WHICH IMPACTS ON AVIATION IN EUROPE

THE NETWORK MANAGER CARRIES OUT AIR TRAFFIC MANAGEMENT NETWORK FUNCTIONS FOR THE EUROPEAN COMMISSION, ON BEHALF OF EUROCONTROL WHICH WAS NOMINATED FOR THIS TASK. WORKING WITH ITS STAKEHOLDERS, THE NETWORK MANAGER DEVELOPS AND RUNS THE EUROPEAN ATM NETWORK (COVERING 43 COUNTRIES), WITH THE AIM OF MEETING THE SINGLE EUROPEAN SKY'S PERFORMANCE TARGETS.

EUROCONTROL