Keeping Commercial Air Travel and Airspace Safe

European problems are global issues

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Future:
Capacity remains a challenge

2000: 8 million  2007: 10 million  2030: 17 million
37,101 flights on Friday 7th September

YTD delay 2.04 minute per flight

General presentation of NMD
All-time record 37,101 flights on Friday, 7th of September 2018
DELAYS MAY BE DELAYED DUE TO SECURITY DELAYS
TRAFFIC

**General presentation of NMD**

**Traffic Increase**
- 3.7% (summer and YTD)

**Average daily traffic**

- JAN: 24720
- FEB: 25653
- MAR: 26583
- APR: 28562
- MAY: 31491
- JUN: 34159
- JUL: 34857
- AUG: 34721
- SEP: 33688

**Top contributors:**
- Turkey
- Greece
- Germany

**18 days with traffic above 36,000 flights**
- Traffic: +3.7% (summer and YTD).
- Close to 11 million flights at the end of the year – 8% more than 2008
- Strong growth in Central and Eastern European states
- Moderate growth in SW axis. Decrease in traffic from UK and Sweden
- Russian and Middle-east recovery
Biggest changes in 2017 (in absolute number of flights added vs 2016)

1. Flows between the Russian Federation and Turkey recovered

2. Additional traffic leading to strong growth on the West axis continued

3. Flows from/to Egypt recovered

Note: schematic routing only
Increasing importance of external traffic flows
2015 - Daily Flights in European NM Area

- Improved connectivity & interoperability required
- Predictability & capacity optimisation
- Disruption planning & management

Very significant growth expected
- Gulf
- SE Asia
- China
- Russia

NM area internal traffic
25862

NAM/SAM 1533
Far East 285
Russian Fed & *STAN 1383
Middle East 151
Southern MED 843
Africa 334
Gulf 652
Asia 292
Airspace Management

- SOMETHING IS ALWAYS HAPPENING SOMEWHERE

- **Meteo** problems
- **Human** resources problems
- **Technical** problems
- **Airport** problems
WEATHER

CLIMATE CHANGE HAS BEEN HAPPENING!

28.5% of ATFM delay in AUGUST

Maastricht Karlsruhe Vienna the most affected areas
PASSENGERS STILL GONNA ASK...

"WHY ARE WE DELAYED?"
INDUSTRIAL ACTIONS

The most impacted - Marseille ACC

19 strikes days with severe ATFM impact during the Summer

Year-to-date en route Industrial Action delays

Average daily delays (min)

0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000

2017 2018

1751 4749
STAFFING AND CAPACITY

Year-to-date Network en route delays

- **2017**
  - CAPACITY & STAFFING: 29,977
  - WEATHER: 6,183
  - DISRUPTIVE EVENTS: 35557

- **2018**
  - CAPACITY & STAFFING: 6,183
  - WEATHER: 2,977
  - DISRUPTIVE EVENTS: 17,125

**MORE CAPACITY NEEDED!**
General presentation of NMD
### Year-to-date airport regulation Jan - end August

<table>
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<th>Category</th>
<th>AD CAPACITY (ATC)</th>
<th>AD DISRUPTIONS (ATC)</th>
<th>AD STAFFING (ATC)</th>
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- **Weather delay:** 50% of total delay
- **27% decrease of Airport Capacity**
- **0.58 min/flight ATFM airport delay**
- **Amsterdam/ Schipol AD**, **Barcelona AD**, **Lisbon AD**

*General presentation of NMD*
...OK - NOW EVERYBODY INCH UP A LITTLE BIT AND MAKE ROOM FOR FLIGHT 623... FLIGHT 78 BACK UP JUST A SMIDGE AND LET 43 SCOOCH BEHIND 625'S LEFT WING SO 172 CAN SHIMMY UP BETWEEN 33 AND THAT SMALL LUGGAGE CART......
• **Weather**: More than double of last year, 30% of en-route delays

• **Capacity and Staffing**: 112% more than 2017

• **Disruptions and Events**: Highest increase, 150% more than 2017
ATM Structure in Europe

One single Flow Management System over Europe

- 43 States
- 68 En-route centres = 1750 Sectors
- 1940 Aircraft Operators
- 500 Airports
- 60 FMPs
- 4500 airspace users
- Peaks 36 825 flights a day
- ~11 000 000 flights a year
Capacity

Supply

Demand
Network Operations Services

Partners

Flight Plan Processing

Air Traffic Flow & Capacity Management (ATFCM)

Airspace Data Management

EAD & Aeronautical Information (EAB)
Imbalance

Supply/Capacity

Demand

Network Manager
nominated by
the European Commission
2 HOUR DELAY!

YOU GET A 2 HOUR DELAY, YOU GET A 2 HOUR DELAY, YOU GET A 2 HOUR DELAY, EVERYONE GETS A 2 HOUR DELAY!!!
Rerouting

Imbalanced ATC sector
Level Capping

Imbalanced ATC sector

24,500 ft

Ground
Level Capping

Ground 24,500 ft Imbalanced ATC sector

24,500 ft Ground
"Regulation"

RE-BALANCE between capacity and demand
Delays
YEAH, WE WON!
AND IT'S A GOOD ONE... WE FLY IN ABOUT TWO HOURS!

GREAT!!
PULL...
PULL AGAIN

DEPARTURES

SLOT MACHINE
Challenges for the future
The vision for Global ATFM – A set of interlinked operational ATFM regions
European Coordination based on FABs
2019 EU FORECAST

Total IFR Movements Increase: 2.6%
**Issues to be addressed**

- Staffing situation and opening schemes
- Weather impact in areas with limited capacity delivery
- Airspace saturation in some parts of the core area
- High number of un-necessary “regulations”
  - A new network-orientated approach required
- Commitment to deliver the Network Operational Plans
- More commitment to the Single European Sky (SES) Network targets: we will not be below 1 min/flight delay in next 5 years!
No commitment as to how many/enough orchestra members turn up on the day
Each member has own ideas as to what to play, how loud, what tempo
Conductor still has to guarantee performance is delivered each and every day

2018: audience has started to complain!
PATIENCE
Will Get You Nowhere