SUPPORTING EUROPEAN AVIATION

Pre-tactical Planning for summer 25 including weather

ANSP Perspective

REIMS ACC FMP

DFS Deutsche Flugsicherung

NATS

CONSORTIUM COORDINATOR sesar DEPLOYMENT MANAGER

FOUNDING MEMBER sesar JOINT UNDERTAKING

NETWORK MANAGER

Introduction - ANSPs

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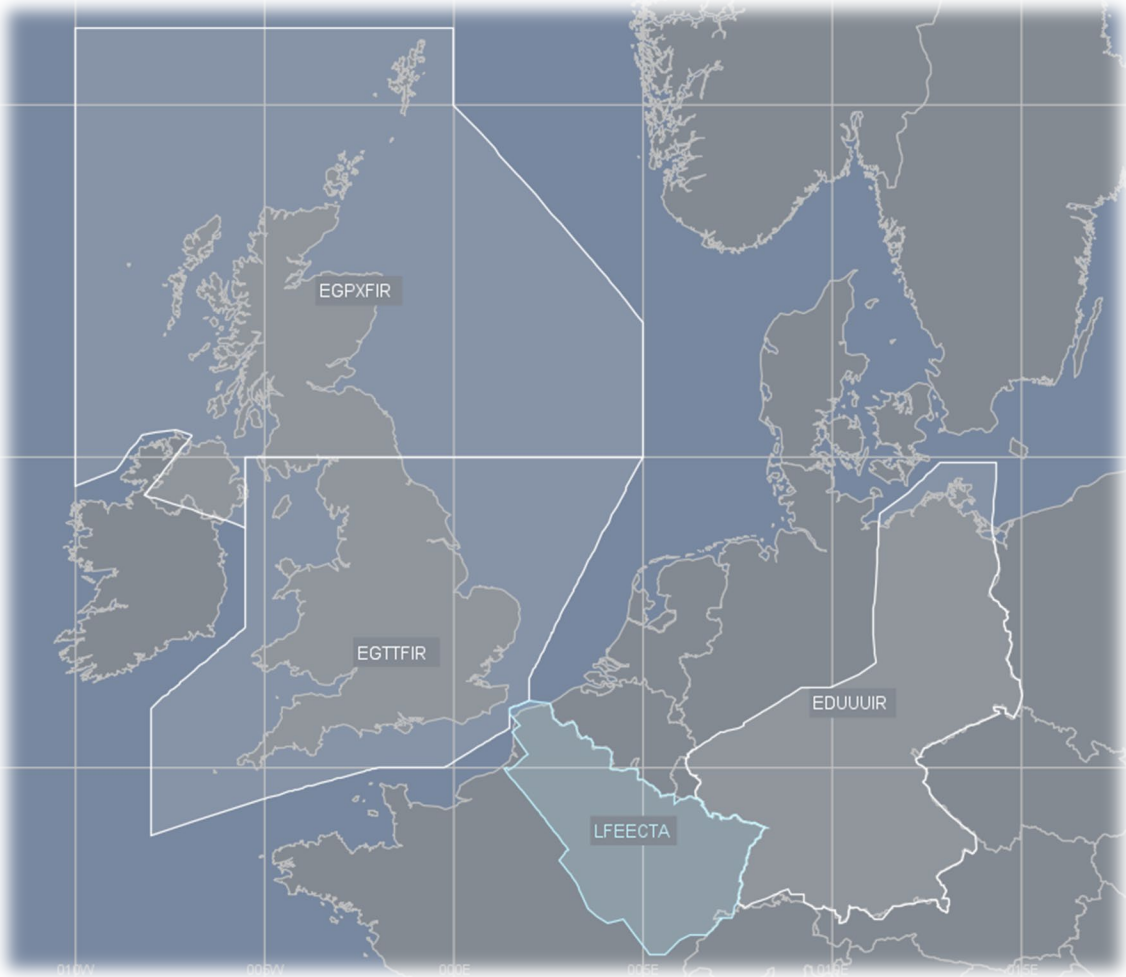
- Improvements



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Overview

Reims, NATS and Karlsruhe were asked to share:

- Expectations for 2025
- What are the objectives of their pre-tactical work
- Provide an overview of their Pre-tactical work
  - Team size
  - Timescales
  - Interactions
  - Actions
- Improvements/suggestions

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Expectations for Summer 2025

With NMs assistance the ANSP would like:

- A stable planning baseline for D0 and greater consistency between the pre-tactical and Tactical traffic picture
  - Limit volatility to have better predictability
- To assist with the stabilisation of the Network by taking early measures and announcing hotspots, allowing stakeholders to proactively adapt
- To adapt sector opening schemes and staffing as accurately as possible to provide required capacity to ensure a safe and efficient operation
- To continue to focus on the **1st wave**
- To balance traffic between sectors/layers
- To proactively approach disruptive Network days (weather/industrial action/significant capacity shortfalls etc)

Ultimately:

Provide a REALISTIC outlook at D-1 for the day of operation (D0)

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Objectives of Pre-tactical Planning

To ensure a safe and efficient operation and provide a Network overview internally for the FMP, operational teams and wider business and externally the Network Manager and AOs.

- **Forecast Traffic and Hotspots (Demand)**
- **Available resource (Capacity)**
- **Expected Weather / Disruption**
- **Impact from planned events (FUA / Special Events / Deployments etc)**
- **Delay / Customer impact**
- **Generate and submit a realistic Sector Opening Scheme and ATFCM plan for NM**

In line with NM the ANSP's priorities are:

- Focus on the first rotation
- Mitigate delay by use of Re-route scenarios and Flight Level caps
- When practicable apply scenarios and regulations at D-1
- Ensure resourcing is optimised across the Network
- Be proactive regarding Weather Risk
- Manage delay in line with regulatory scheme

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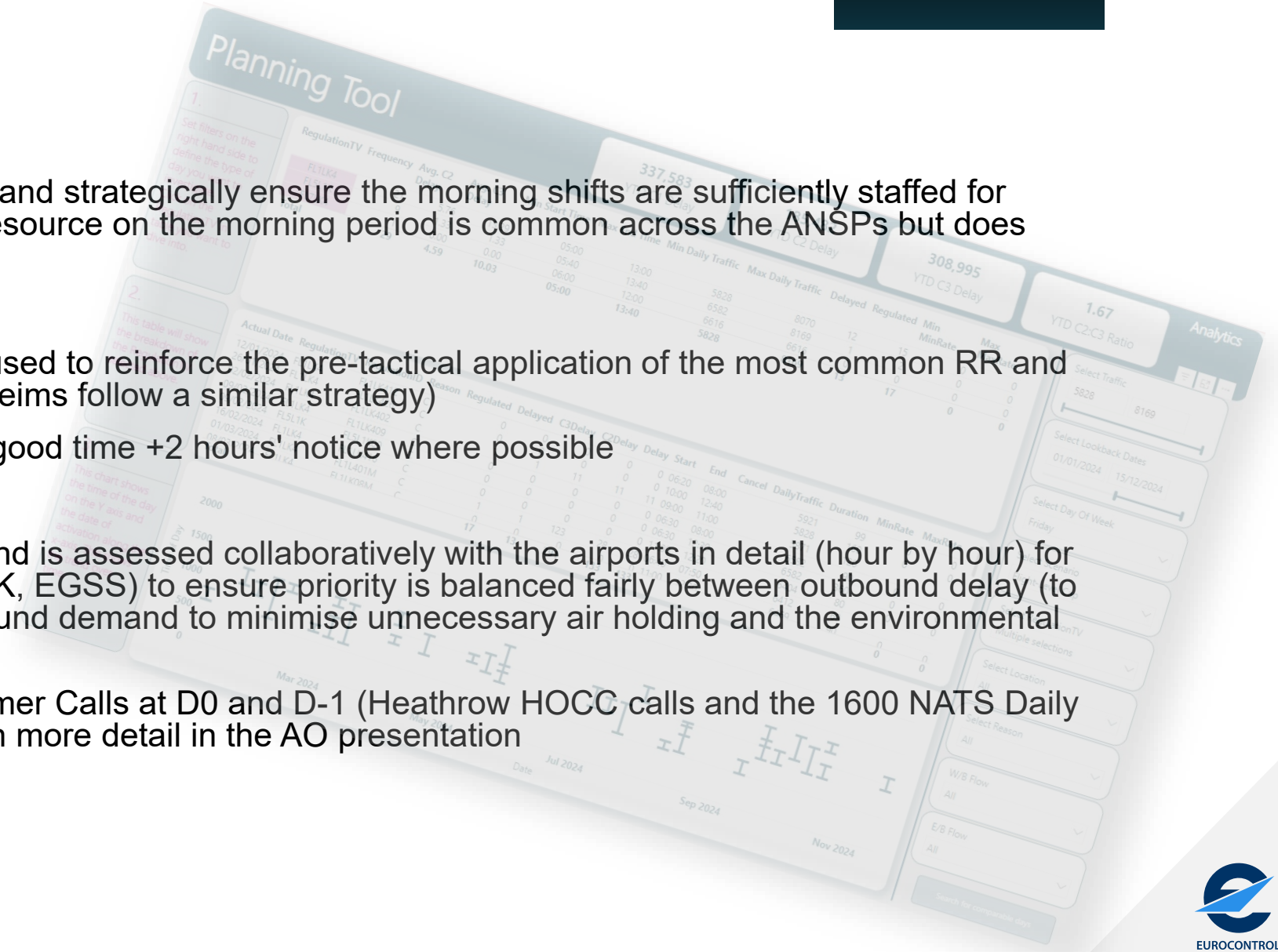
Focus on first rotation – NATS Example



NATS

Resource

- Resource decisions both pre-tactically and strategically ensure the morning shifts are sufficiently staffed for optimum Sector Opening (Increased resource on the morning period is common across the ANSPs but does pose a risk for afternoon periods)

Post Ops

- Post Ops analysis (Trend analysis) is used to reinforce the pre-tactical application of the most common RR and FL scenarios for the morning period (Reims follow a similar strategy)
- Proactive application of regulations in good time +2 hours' notice where possible

Airport and Customer Focus

- Both the inbound and Outbound demand is assessed collaboratively with the airports in detail (hour by hour) for the largest LTMA airports (EGLL, EGKK, EGSS) to ensure priority is balanced fairly between outbound delay (to get the day started optimally) and inbound demand to minimise unnecessary air holding and the environmental impact.
- Information is shared on regular customer Calls at D0 and D-1 (Heathrow HOCC calls and the 1600 NATS Daily Lookahead Call) This will be covered in more detail in the AO presentation

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Similarities – 3 ANSPs

- In discussion the 3 ANSPs established that fundamentally they were all approaching Pre-tactical Planning in a similar manner.
- The experts used and Planning day were all very similar and the factors considered followed a similar timeline.

Traffic Assessment
Hotspots (Demand)
Staffing (Capacity)

Events
FUA / Military

Weather

Communication of the Plan
Internally
NM / INP

Reims ACC	Karlsruhe UAC	NATS
0800-1800 (L)	0730-1400 (L)	0830-1630 (L)
Mainly done by a Flow Controller (part of their shift) Team of 18 experts Still licenced ATCO	About 20 pre-tactical SV of 40 total	The Pre-tactical team (15 Specialists) are part of the wider Network Operations Team. All are valid in the FMP and rotate through the 3 operational positions Onsite metrological team

Please Note – all timing are approximate and outside of the core hours responsibility rests with the relevant tactical FMP teams

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Strategic Planning – up to 18 months

It was recognised that Planning starts significantly before the pre-tactical stage and up to 18 months in advance of D0.

Resourcing vs Traffic and Demand

- Resourcing plans are constructed at a seasonal level for both Winter and Summer.
- Many in-season actions are taken to ensure available resource will meet expected demand.
- STATFOR and internal forecasts, and the most recent sector opening data is used to inform these requirements.
- The Rolling NOP also provides 8-week outlook at a very granular level down to specific sectors/hours of the day.

Events Planning

- All major events that have an impact on either available capacity or expected demand are reviewed and factored into the eventual day of operation.
- Engagement with all impacted internal and external stakeholders is achieved at the earliest opportunity to ensure all mitigations can be considered.
- This allows for impact assessment, NEST simulation and ENV changes to be made prior to the pre-tactical phase.

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Similarities – What do we Do

Identifying Hotspots and declaring Sector Opening Schemes to NM

- All 3 ANSPs are using Predict to identify Demand / Capacity Imbalances and define Sector Configurations by 1200.

- Pre-tactically applying Regulations/Scenarios:
  - Karlsruhe UAC Early morning ending 0800UTC
  - Reims ACC Early morning ending 0800UTC some regulations could be implemented after 0800 UTC if there is a high discrepancy between the demand and the capacity
  - NATS until 1200UTC

Network Events

- Information is investigated strategically or identified on the NOP Portal at D-1.
- The INP is not proactively used due to its publication time.

AUP

- Preliminary draft plan considered, **BEFORE** actual AUP is published.
- When disruptive weather expected Coordination can take place with military planning unit in both the UK and Karlsruhe.
- Reims update capacities / configurations after the publication of AUP.

Similarities

Resourcing decisions

- Reims ACC has no flexibility with staffing however in 2025 shift movements may be possible (Morning to morning/afternoon-afternoon).
- Karlsruhe UAC responds actively to staffing shortfalls (financial incentives offered).
- NATS staffing is increased proactively where demand exceeds expected capacity and as a result of any staffing shortfalls (financial incentives offered).

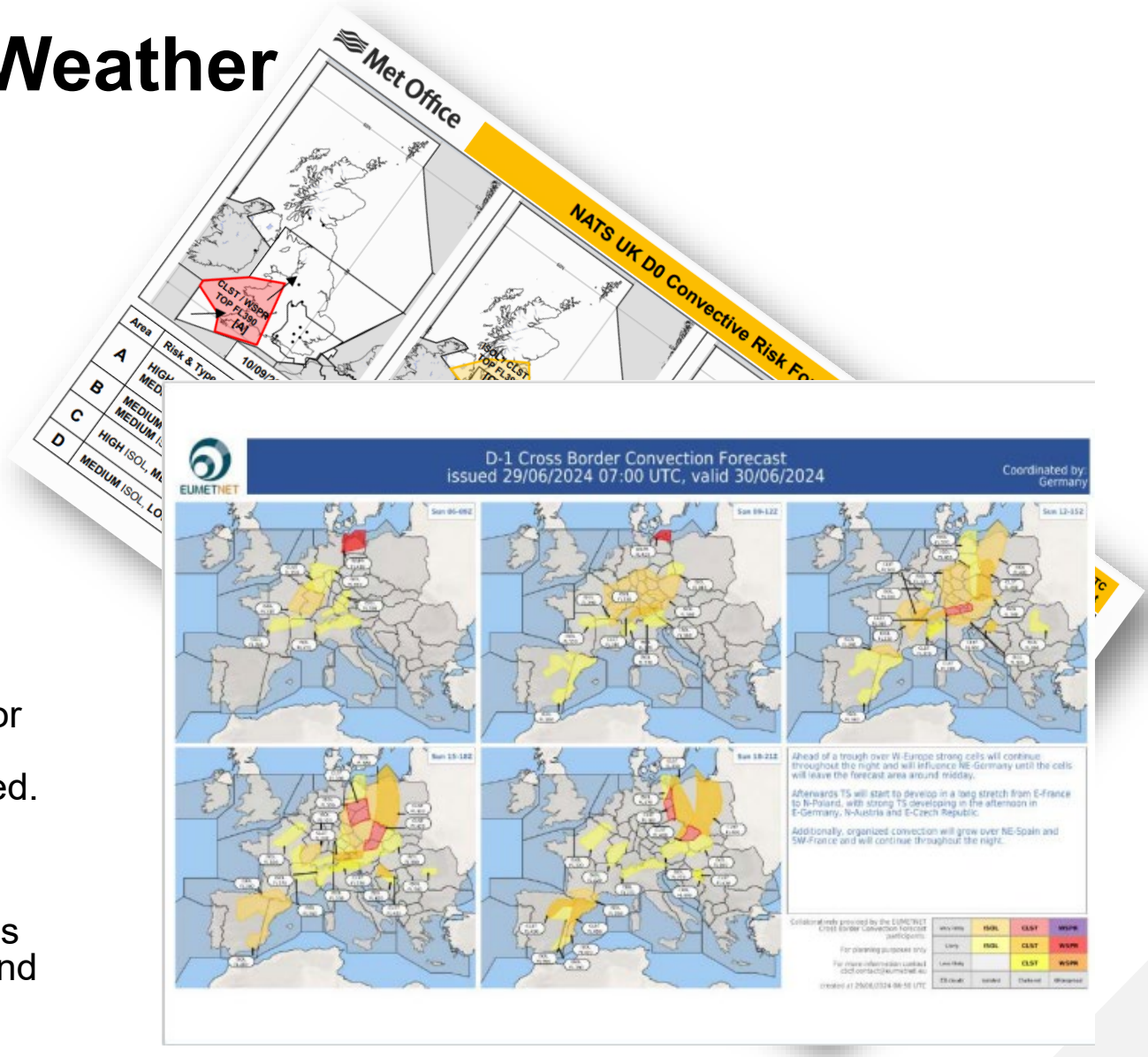
Internal uses

- NATS and Reims ACC share their D-1 Plan with Senior Management including Delay statistics and expectations at D-1 for certain events/weekends.
- D-1 delay forecasting is achieved using Archive data and PowerBi referencing historic performance and criteria. This is approached more strategically by Karlsruhe UAC.

Similarities – Cross Border Weather

Cross Border Convective Forecast:

- **Karlsruhe UAC**
  - Use the forecast tactically and pre-tactically and increase staffing for the forecast impacted areas responding to **AMBER**, **RED** and **PURPLE** areas. Information about adverse weather is distributed internally to the operations room.
- **Reims ACC**
  - May implement early morning weather regulations 0600-0800(L).When the colour of the matrix is **RED** or **PURPLE** information is shared with Tactical highlighting some RAD measures which could be lifted.
- **NATS**
  - Use their own local forecast created by the onsite Meteorological Team which are aligned with the Cross Border but offer greater detail and respond to **RED** and **PURPLE** areas.



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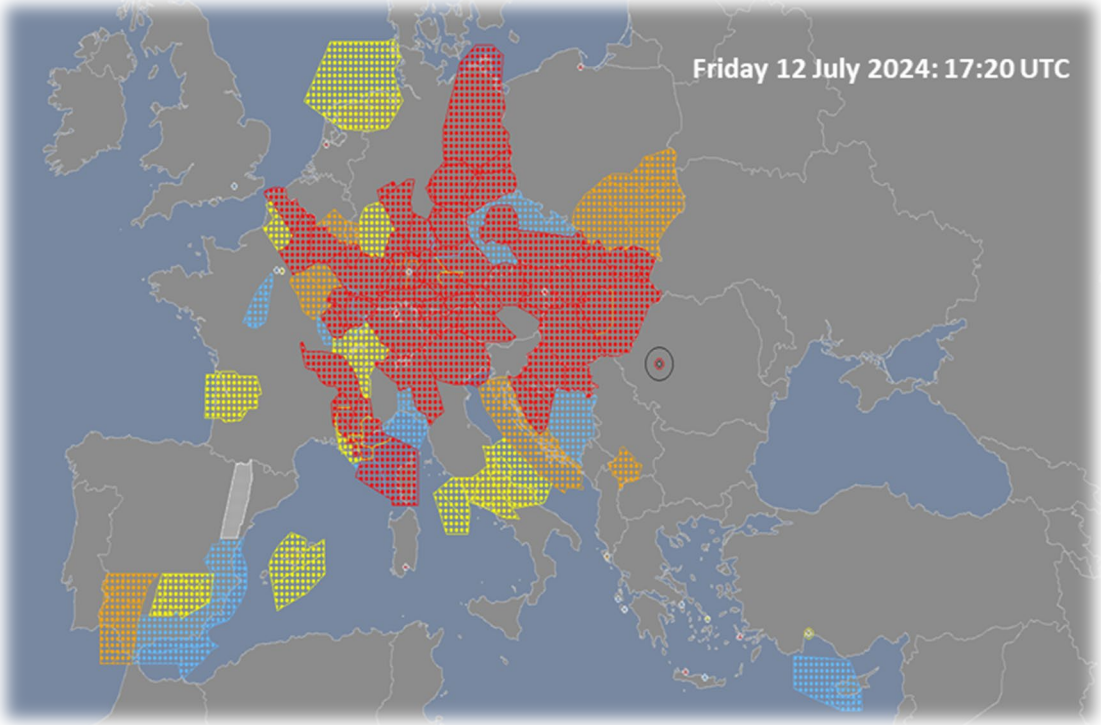
Improvements

- How can we manage the Network on days like this?
- How can we improve stability and reduce volatility?
- How can we better prepare a Network Plan to mitigate the impact?



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Improvements - Suggestions

Cross Border Weather

- Prescribe actions associated to **AMBER**/ **RED**/ **PURPLE** status of risk areas.

Can NM be more proactive and responsible for managing the Network and assessing impact and selecting mitigations ahead of D0?

Network Plan

Consider the potential for **D-2** submission of draft plans for the day of operation:

- Hotspots and cold-spots (spare capacity) identified
- Potential Scenarios and measures identified
- Notification of any adverse impacts to the Network (weather/capacity shortfalls/events)
- **Regulations** and **Scenarios** applied/uploaded into **Predict** for review and consideration by all FMPs at D-1.

Benefits:

- All ANSPs would have visibility of the adjacent Network Issues and hotspots/measure in place
- NM would be able to gain an overview of the network and offer network solutions for capacity shortfalls
- D-1 would become a refinement of the plan rather than the beginning of the plan for D0

Improvements - Suggestions

Network Plan continued

How do we encourage/ensure FMPs to share this info with NMOC

This is supported by NATS/Reims and Karlsruhe assuming the proforma of requested information is supported by most FMPs and the need/benefits agreed with, an initial trial period could ensure FMPs contribute. Ultimately any shared information **MUST** end up in **PREDICT.**

In response to the question about the planning day:

- Shifting the whole process to a later time would just shift the problem, additionally reducing the flexibility of adjusting staff shifts (difficulty in reaching staff to announce shift changes the later the time of day).

Weather

The continued focus on the impact of disruptive weather in both forecasting impacted areas and the mitigations used to off load impacted sectors would continue to benefit the Network. The use of local met services would also enhance this capability both at NM and at a local ANSP level.

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Thank you!

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