COVID-19 effects on European Aviation

NEXTOR - webinar

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Wo we are

EUROCONTROL is a pan-European, civil-military organisation dedicated to supporting European aviation (41 Member States)
https://www.eurocontrol.int/

Performance Review Unit (PRU) is part of EUROCONTROL’s Aviation Intelligence Unit (AIU)
- ensure that relevant high quality and unbiased information on ANS performance is available to support decision making and to stimulate an informed dialogue among stakeholders
- further develop the ANS performance analysis framework

Performance related data and dashboards publically available at:
http://ansperformance.eu

11.1 million Flights in 2019
63 Area control centers (ACCs)
11.5 million Geo. area km²
Aviation and tourism hit particularly bad due to travel bans and restrictions

Biggest crisis in aviation history (ICAO estimates up to 61% drop in pax)

In Europe from capacity crisis in 2018/19 to existential crisis in 2020
COVID-19 – The situation now in the EURCONTROL area

- 4.5 million
Less flights (vs. Jan.-Sep. 2019)

6 million
Jobs at risk (Airlines, airports, ground handlers, etc.)

- 1 billion
Loss of passengers (vs Jan-Aug 2019)

up to 60%
Less passengers expected for 2020

4.4 million
Reported confirmed cases (Mar.-Sep. 2020)

1 billion
Loss of passengers (vs Jan-Aug 2019)

60%
Less flights (vs Jan-Sep 2019)

- 54.0%
Less flights (vs Jan-Sep 2019)

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Reported confirmed cases (Mar.-Sep. 2020)

1 billion
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1 billion
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Less flights (vs Jan-Sep 2019)

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Less flights (vs Jan-Sep 2019)
COVID-19 – Situation by Member State to date

- Notable variation across States
- Norway maintains domestic services to remote destinations
- Funding mechanism for ANS: route charges

<table>
<thead>
<tr>
<th>Country</th>
<th>Change vs 2019 (%)</th>
<th>Change vs 2019 (flights)</th>
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<tbody>
<tr>
<td>Norway</td>
<td>-40.6%</td>
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<tr>
<td>Georgia</td>
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<td>Lithuania</td>
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<td>Netherlands</td>
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<td>EUROC (EUROCONTROL)</td>
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<td>North Macedonia</td>
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<td>UK (Continental)</td>
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<td>Ukraine</td>
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<td>Armenia</td>
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<tr>
<td>Israel</td>
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Norway maintains domestic services to remote destinations.

Period: January to September
COVID-19 – Impact on ATFM delay and flight efficiency

**Traffic**
- **Period:** 01-Jan - 30 Sep
- **Geographical area:** EUROCONTROL Member States
- **Daily flights:** Seven day moving average
- **Total flights in 2020:** 3.89M (Year to date)
- **Change vs 2019 (%)** (Year to date): -54.0%
- **Change vs 2019 (flights):** -4.58M

**Delays**
- **Period:** 01-Jan - 30 Sep
- **Geographical area:** EUROCONTROL Member States
- **En-route ATFM delay (min):** Monthly evolution
- **En-route ATFM delay in 2020:** 1.60M
- **Change vs 2019 (%):** -87.9%
- **Change vs 2019 (min):** -11.63M

**Charges**
- **Period:** 01-Jan - 30 Sep
- **Geographical area:** EUROCONTROL States except Ukraine, Israel & Morocco
- **Revenues from en-route charges (€):** Monthly evolution
- **Actual revenue (€):** 2.64B (Year to date)
- **Actual vs. planned (TSU):** -57.9%
- **Estimated gain/loss (€):** -3.65B

**Environment**
- **Period:** 01-Jan - 30 Sep
- **Geographical area:** EUROCONTROL Member States
- **Horizontal flight inefficiency (%)** - Monthly evolution
- **Inefficiency in 2020 (%):** 2.63%
- **Change:** -0.27%
EUROCONTROL collects route charges on behalf of its Member States through its Central Route Charges Office (CRCO).

The rate differs by State and is based on distance flown and aircraft mass.

Compared to 2019 (Jan-Sep), the estimated revenue loss is 3.65 billion Euro (-57.9%).

COVID-19 – Estimated revenue losses from en-route charges
COVID-19 – financial situation

- Massive revenue losses for airlines, airports and ANSPs but continued (high) fixed costs combined with an expected slow recovery
  - need to preserve liquidity to stay afloat
  - Immediate cost containment measures

EUROCONTROL support to industry

- Support to Airlines: In April, EUROCONTROL member states agreed to help airlines operating in Europe by deferring their payments of air traffic control fees worth €1.1 billion ($1.2 billion) for periods between seven and thirteen months
- Support to ANSPs: EUROCONTROL authorized by member states to take a loan of up to €1.27 billion to ensure ANSP cash flow if needed (10 of the 41 Member States indicated that they wish opt in)
COVID-19 – The latest trends......

- Traffic and COVID-19 cases vary notably by State in Europe
- Patterns dependent on rules and regulations put in place by national governments
- Continuous recovery in Summer 2020, particularly in typical holiday destinations
- Strong increase in COVID-19 cases over past two months
COVID-19 – The situation now in the EURCONTROL area

- Traffic recovery depends on type (domestic/ int.) and segment (scheduled, business, cargo, etc.)
- Faster recovery observed for domestic traffic (China back to 90% in August 20) but slower recovery of international and long-haul traffic
- High share of international traffic in Europe (74%)
- Travel restrictions are organised by state and might change at short notice which adds to uncertainties for travellers
COVID-19 – The situation by traffic flows

- Main traffic flow is traffic within Europe including domestic (-57% vs. 2019)

- Flights to/from Europe are down by 68% overall but with notable variations by world region
COVID-19 – Recovery scenarios for the EURCONTROL area

➔ All previous outbreaks were regional and had V-shapes

➔ COVID-19 is different - following the deep, global demand shock due to travel bans and restrictions (-88% in EUROCONTROL area in April 2020) there is still uncertainty about the recovery (shape, length)

➔ Back to pre-COVID-19 or will there be a “New normal”?

➔ Recovery rate (length and shape) will depend on:
  ▪ effective measures against the virus (preventive measures, vaccine, medication) and
  ▪ policy response and intervention (travel bans and restrictions, state aid, etc.)
COVID-19 – Recovery scenarios for the EURCONTROL area

- EUROCONTROL April traffic scenario in line with recovery rate until August
- COVID-19 resurgence in European States after summer
- Uncoordinated travel rules at short notice result in low passenger confidence
- Scenario update in September expects to reach only 45% of 2019 traffic (-6 M flights)

New scenario corresponds to traffic level 30 years ago (1988/89) in 2020
European aviation – then vs now

Pre COVID-19
- Forecast substantial traffic growth
- Fragmented airspace
- Environmental expectations/ CO₂
- Digitalisation

Post COVID-19
- Recovery unclear
  - New normal?
- Unchanged
- Unchanged
- Unchanged

AAS & NM
SESAR & Deployment
What’s next?

➡ Back to pre-COVID-19 or “new normal”?
➡ **Short term**: Address immediate challenges
  • Ensure service provision and financial stability
  • Network coordination and recovery planning to ensure capacity availability when required
➡ **Medium term**: Improve processes and focus on relevant areas
  • How to reduce CO2 footprint? Flight efficiency (CCO, CDO, horizontal)
  • Advance/keep relevant investments (digitalization, capacity, scalability, flexibility)
➡ **Longer term**: Structural changes
  • Defragmentation
  • Network centric approach