

18 March 2021



COVID 19 IMPACT ON EUROPEAN AVIATION

EUROCONTROL
Comprehensive Assessment



SUPPORTING EUROPEAN AVIATION



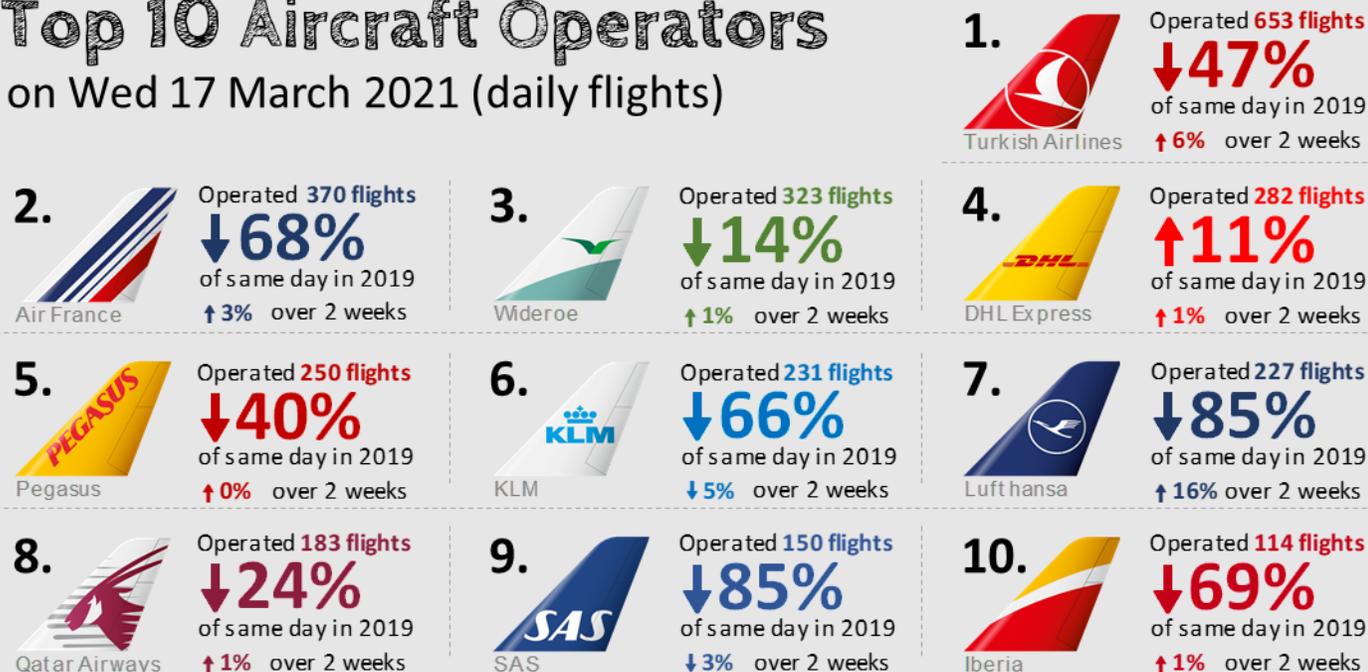
NETWORK
MANAGER



Headlines

- 10,045 flights (35% of 2019 levels) on Wednesday 17 March 2021.
- March traffic slightly increasing within Network over 2 weeks (+3%, +297 flights)...
- ... but slightly decreasing over the last week (7-day average).
- 2-digits increase for Belgium due to TNT International.
- All cargo (+11% vs 2019). DHL Express is 4th. No Low cost carriers in the top 10.
- Domestic traffic: Europe (-67%), US (-35%), China (-3%), Middle East (-45%).
- EUROCONTROL billed 158M€ for en-route services for Feb 2021 flights (-67%).

Top 10 Aircraft Operators on Wed 17 March 2021 (daily flights)



Traffic Situation

Daily flights (including overflights)



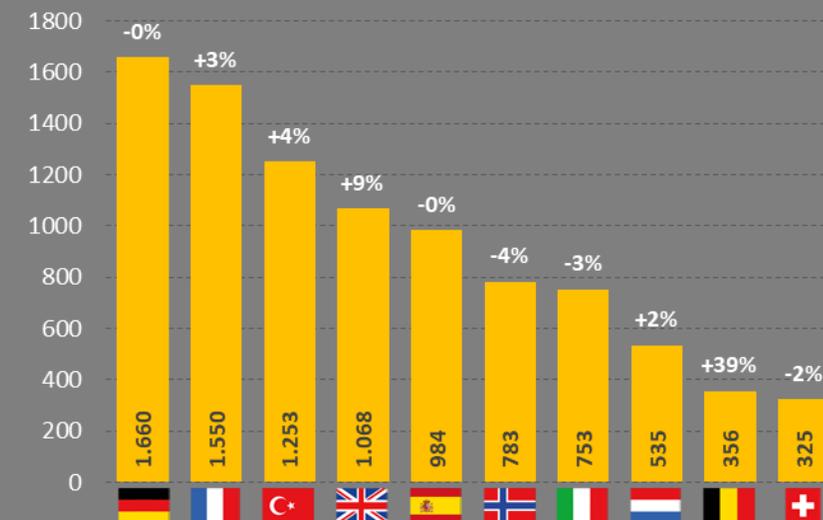
Traffic over the last 7 days is

↓66%

Compared to equivalent days in 2019

Top 10 Busiest States on Wed 17 March 2021

(Dep/Arr flights and variation over 2 weeks)



Top 10 Busiest Airports

7-day average Dep/Arr flights on 11-17 March, compared to 2019

| Top 10 Airports | Average flights per day (week 11-17/3) | Average flights per day (week 11-17/3) vs 2019 |
|-------------------------|--|--|
| IGA Istanbul Airport | 546 | Not yet in operation in early 2019 |
| Paris/Charles-De-Gaulle | 454 | -65% |
| Frankfurt | 424 | -69% |
| Amsterdam | 400 | -70% |
| Istanbul/Sabiha Gokcen | 376 | -36% |
| Madrid/Barajas | 351 | -68% |
| London/Heathrow | 323 | -75% |
| Oslo/Gardermoen | 198 | -71% |
| Athens | 187 | -59% |
| Milan/Malpensa | 184 | -65% |

Traffic Flow

On 17 March, the intra-European traffic flow was

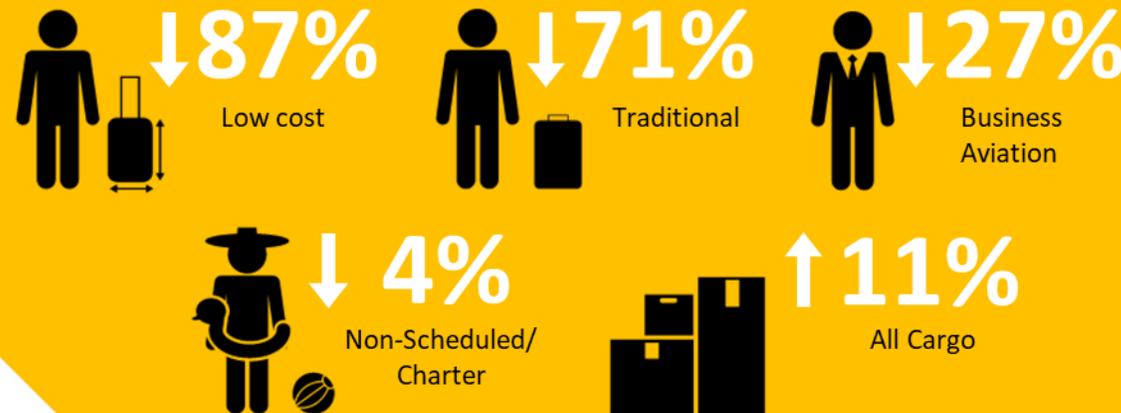
7,290
flights

+2%
over past 2 weeks

-67%
compared to 2019

Market Segments

On 17 Mar, compared to 2019



Economics

(12 March 2021)

Fuel price

↑ 172
Cents/gallon

compared to 170 cents/gallon
on 05 Mar 21

Source: IATA/Platts

Route charges

(February 2021)

Amount billed:

€ 158 million

Jan-Feb 2021 amount billed:

€ 351 million

vs. Jan-Feb 2019



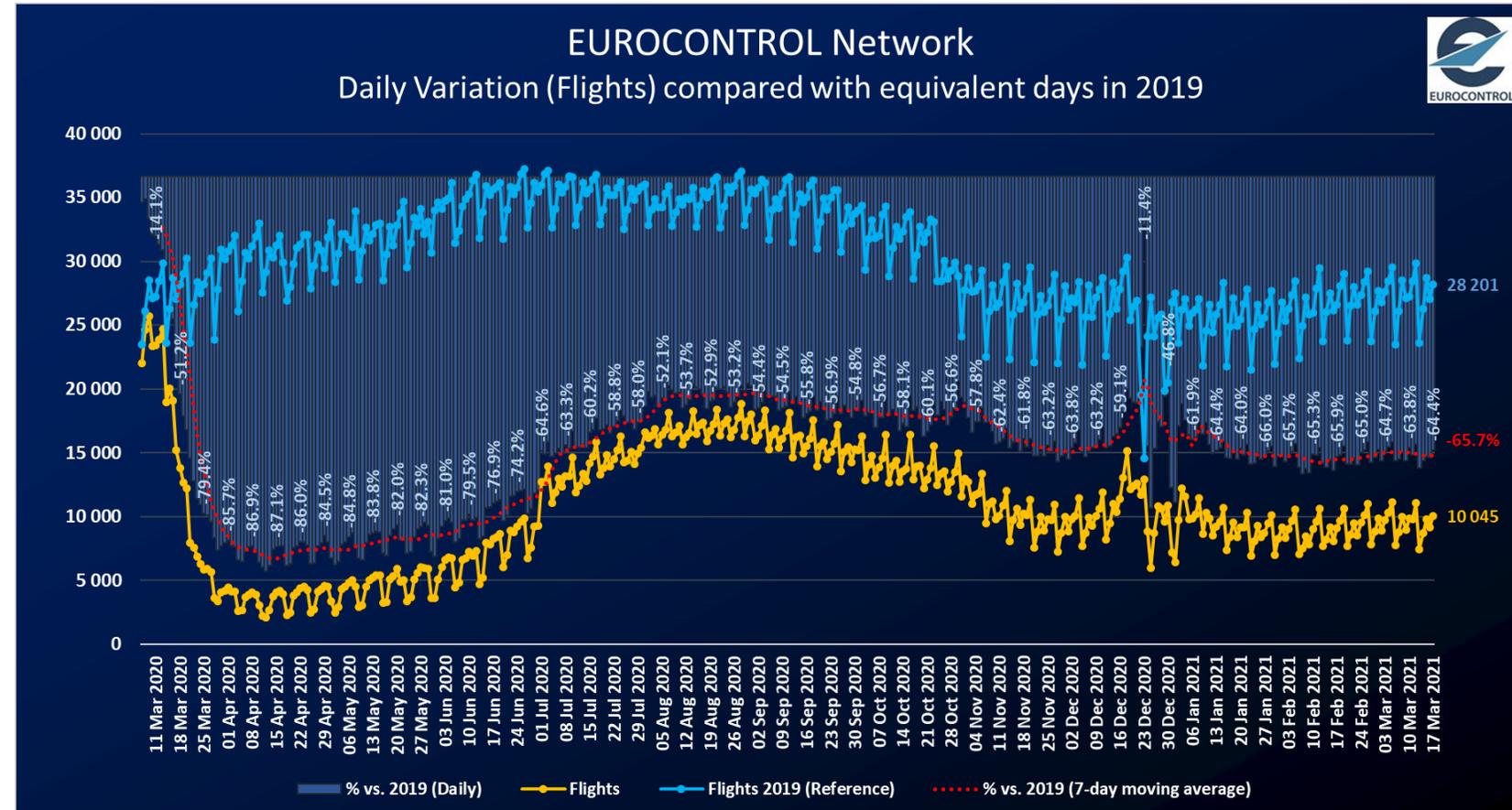
↓ (-69%)

Source: EUROCONTROL

Overall traffic situation at network level



- ✘ **10,045 flights** on Wednesday 17 March .
- ✘ **+3% with +304 flights** over 2 weeks (Wednesday 3 March).
- ✘ **+2% with +189 flights** over 1 week (Wednesday 10 March).
- ✘ **35%** of 2019 traffic levels.



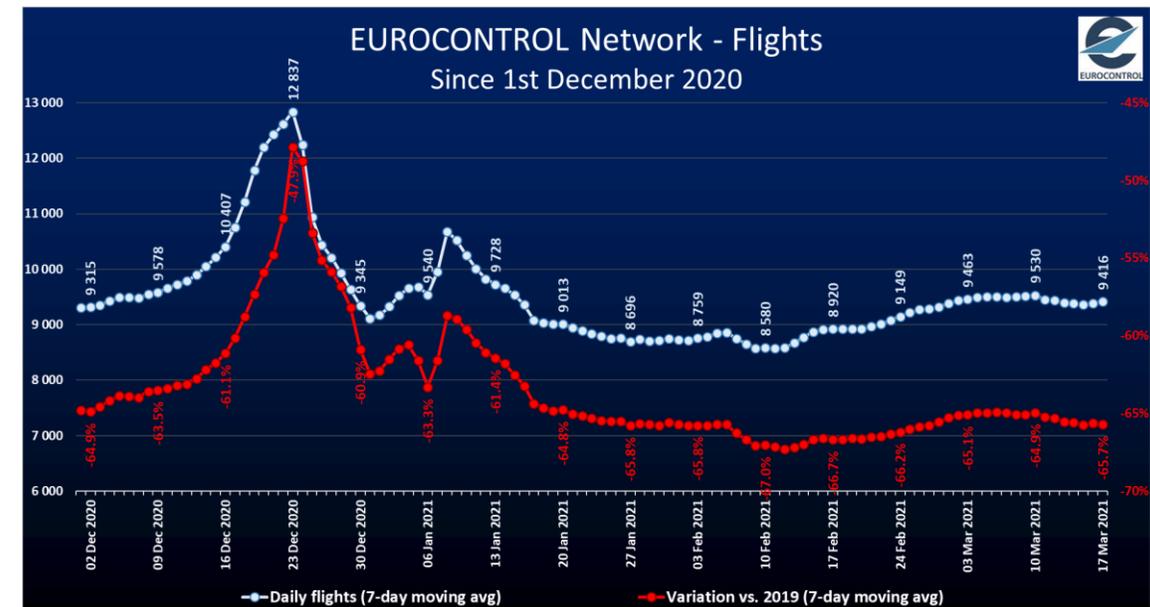
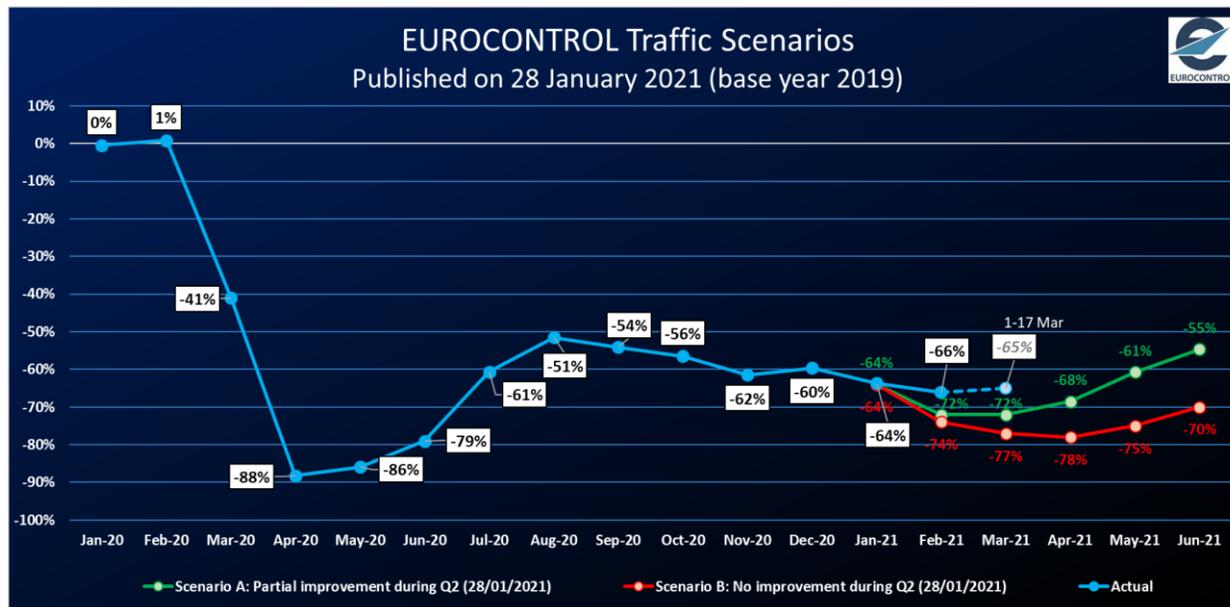
Current situation and scenarios

✘ **Traffic at -65% on the first 17 days of March**, above the latest EUROCONTROL traffic scenarios published on 28 January 2021 mainly due to:

- Very active cargo traffic.
- Higher number of operations for top airlines than anticipated.

Note that a significant proportion of flight operations for some of the largest airlines are actually non-commercial, i.e. training flights and circular flights to maintain pilot ratings.

✘ After having reached a minimum at network level in the 2nd week of February, the traffic has shown a **positive steady trend since mid February but has started to slightly decrease over the last week.**



Aircraft operators (Daily flights)

Top 10

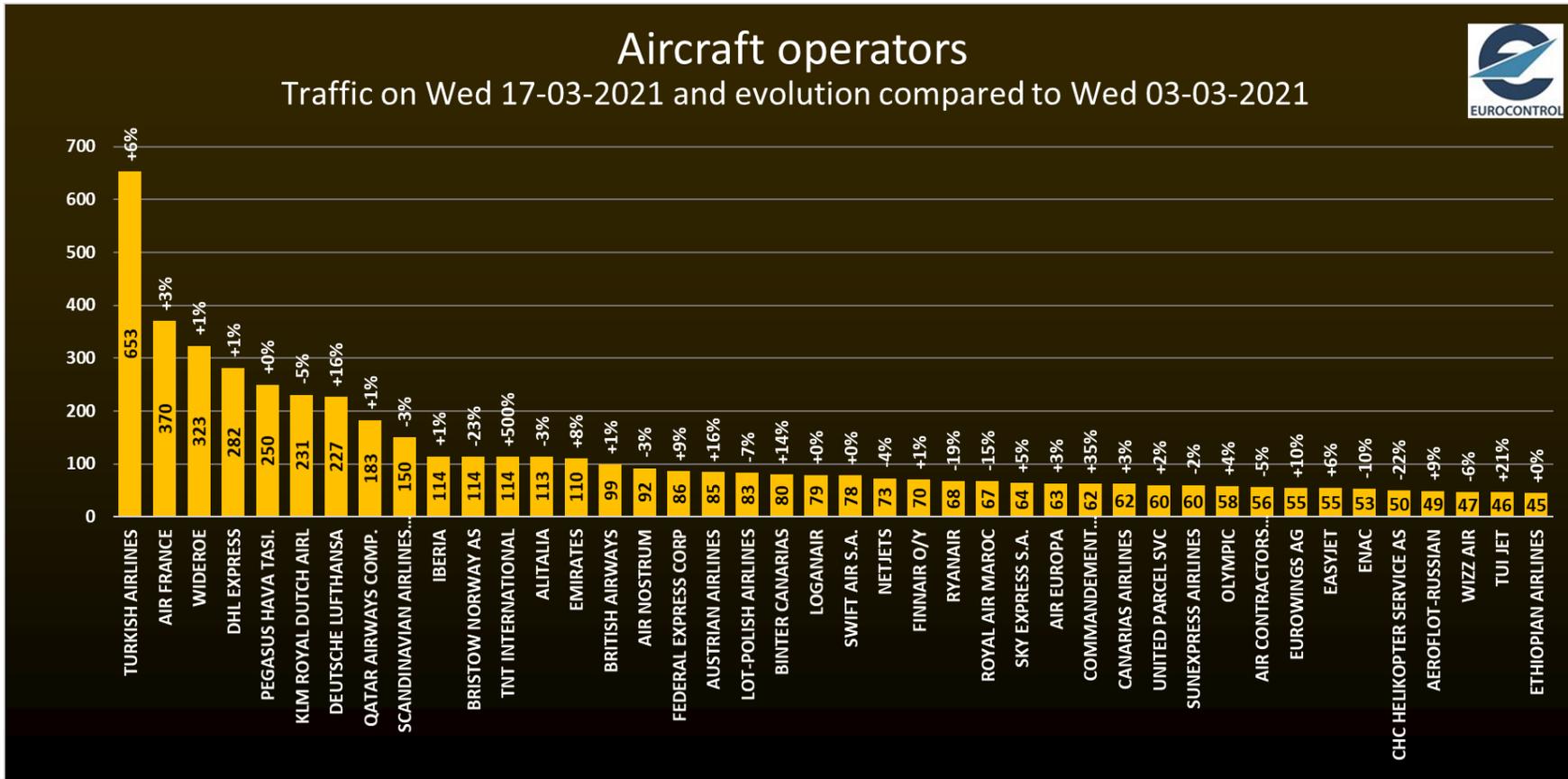


| Rank evolution over 2 weeks | Top 10 Aircraft Operators on Wed 17-03-2021 | | | | |
|-----------------------------|---|---------|----------------|----------------|-----------|
| | Aircraft Operator | Flights | Δ over 2 weeks | % over 2 weeks | % vs 2019 |
| → | TURKISH AIRLINES | 653 | ↗ +38 | +6% | ↘ -47% |
| → | AIR FRANCE | 370 | ↗ +10 | +3% | ↘ -68% |
| → | WIDEROE | 323 | ↗ +4 | +1% | ↘ -14% |
| → | DHL EXPRESS | 282 | ↗ +4 | +1% | ↗ +11% |
| → | PEGASUS HAVA TASI. | 250 | → +1 | +0% | ↘ -40% |
| → | KLM ROYAL DUTCH AIRL | 231 | ↘ -13 | -5% | ↘ -66% |
| → | DEUTSCHE LUFTHANSA | 227 | ↗ +32 | +16% | ↘ -85% |
| → | QATAR AIRWAYS COMP. | 183 | ↗ +2 | +1% | ↘ -24% |
| → | SCANDINAVIAN AIRLINES SYSTEM | 150 | ↘ -5 | -3% | ↘ -85% |
| ↗ | IBERIA | 114 | → +1 | +1% | ↘ -69% |

- ✘ Stability of the ranking.
- ✘ High increase for Turkish Airlines over 2 weeks (+6%) mainly driven by domestic traffic.
- ✘ High increase for Lufthansa (+16%) mainly driven by many flows in Europe and increased operations at Munich airport.
- ✘ Decrease for KLM (-5%) mainly driven by less activity between Netherlands and Germany.

Aircraft operators (Daily flights)

Top 40 - Latest operations



- ✘ 4 freight carriers within the top 30. DHL Express 4th.
- ✘ Spectacular increase for TNT International (+500% over 2 weeks).
- ✘ British Airways 15th, Ryanair 25th, easyJet 36th and Wizz Air 40th.



Aircraft operators

Latest news



European airlines

- ✘ **CSA Czech Airlines** begins bankruptcy proceedings.
- ✘ **Eurowings** adds a fare option to reserve an empty middle seat.
- ✘ **Jet2.com** and **Jet2holidays** report increase in summer bookings from the UK to Turkey, Greece and Cyprus.
- ✘ **Lufthansa/Eurowings** adding significant extra capacity for Mallorca and the Canary Islands over Easter, with strong bookings to these destinations as well as Mexico and Costa Rica.
- ✘ **Lufthansa Cargo** expects around 45% of total vaccine doses will be transported by air, lower than original forecasts. It forecasts it will handle around 10,000 tonnes of the 87,000 tonnes of shipments projected.
- ✘ **Norwegian** submits its final restructuring plan to creditors, with plans for raising capital in April/May subject to court approval.
- ✘ **Turkish Airlines** reports February passenger numbers down 62% year-on-year .
- ✘ **Wizz Air** to expand Tirana base with 4 more aircraft and 6 new routes.
- ✘ **Wideroe** and **Rolls Royce** announce plans to cooperate on the development of a fully electric passenger aircraft for the Norwegian commuter market by 2026.

- ✘ **Ryanair** announces 'its biggest ever Italian domestic schedule' with 100 routes across 28 Italian airports; it also launches its largest ever Spanish domestic schedule with 70 routes and up to 800 weekly frequencies across 21 airports; it extends its £600 million funding under the Bank of England Covid Corporate Financing Facility.

Worldwide airlines

- ✘ **American Airlines** plans to raise \$10 billion through senior secured notes and loans, \$7.5 billion of which will be used to repay US Treasury loans.
- ✘ **Cathay Pacific** chairman stated that stricter HK quarantine requirements have resulted in an increase in cash burn of ~ \$39M to \$51M per month; executive salary reduction to continue throughout 2021; reports net loss of \$2.8Bn for 2020; February passenger numbers were 97.9% down year-on-year.
- ✘ **Emirates** marks the one-year anniversary of its first passenger-aircraft-as-freighter flight; since then, it has operated over 27,000 such flights.
- ✘ **Singapore Airlines** reports February passenger numbers down 95.9% year-on-year.
- ✘ **United Airlines** notes that it has grown its wide body fleet rather than retire parts of it, as other airlines have done.

States (Daily Departure/Arrival flights)

Top 10



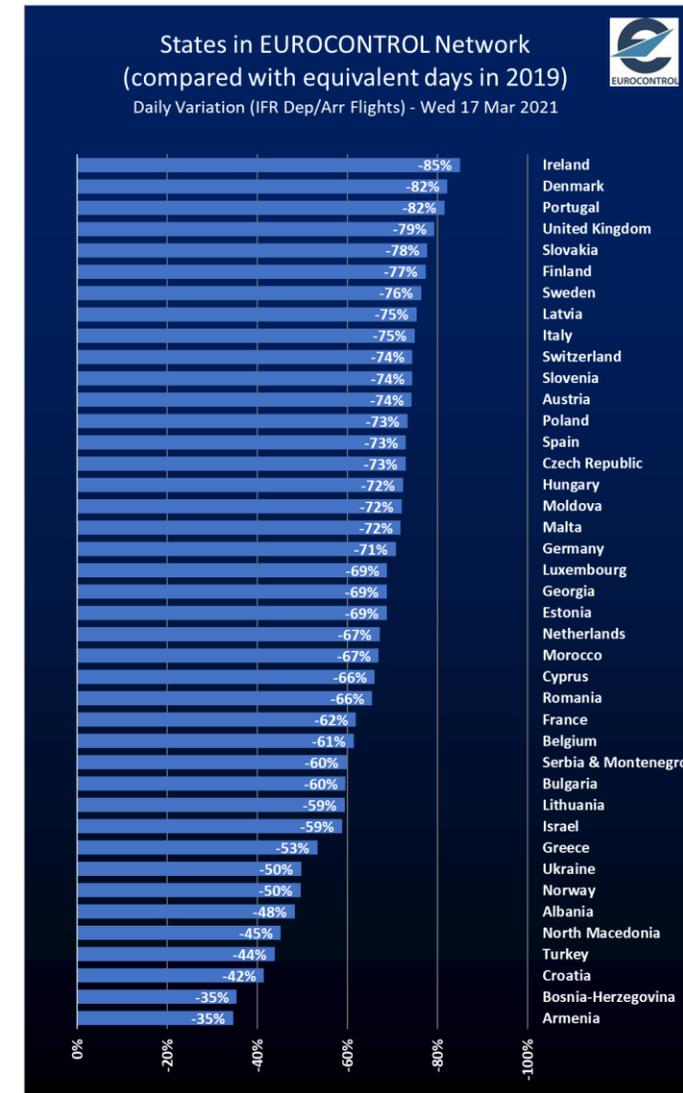
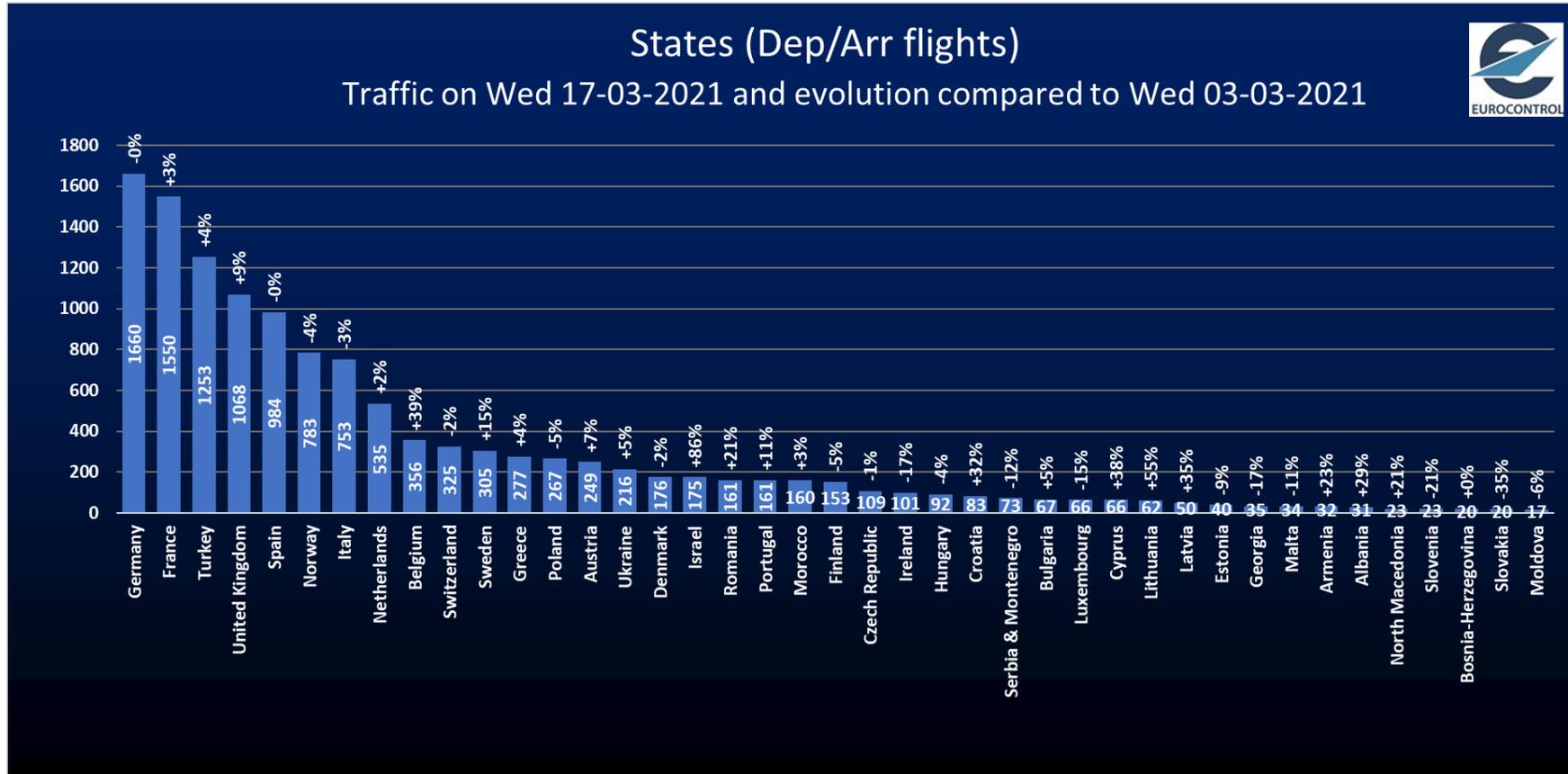
| Rank evolution over 2 weeks | Top 10 States on Wed 17-03-2021 | | | | |
|-----------------------------|---------------------------------|-------------------|----------------|----------------|-----------|
| | State | Flights (Dep/Arr) | Δ over 2 weeks | % over 2 weeks | % vs 2019 |
| → | Germany | 1660 | ↓ -8 | -0% | ↓ -71% |
| → | France | 1550 | ↑ +47 | +3% | ↓ -62% |
| → | Turkey | 1253 | ↑ +48 | +4% | ↓ -44% |
| ↑ | United Kingdom | 1068 | ↑ +91 | +9% | ↓ -79% |
| ↓ | Spain | 984 | → -1 | -0% | ↓ -73% |
| → | Norway | 783 | ↓ -32 | -4% | ↓ -50% |
| → | Italy | 753 | ↓ -20 | -3% | ↓ -75% |
| → | Netherlands | 535 | ↑ +10 | +2% | ↓ -67% |
| ↑ | Belgium | 356 | ↑ +100 | +39% | ↓ -61% |
| ↓ | Switzerland | 325 | ↓ -6 | -2% | ↓ -74% |

- ✘ UK takes the 4th rank and Belgium the 9th.
- ✘ 2-digit increase for Belgium (+39%) driven by the increased operations of TNT over 2 weeks.
- ✘ Increase for UK (+9%), Turkey (+4%) and France (+3%) mainly driven by domestic traffic.
- ✘ Stability for Germany and Spain.
- ✘ Decrease for Norway (-4%) mainly due to less flights from Bristow Norway AS, Norwegian Air Shuttle and CHC Helikopter Service AS.

States (Daily Departure/Arrival flights)



Latest traffic situation



✂ Strong increase for Israel (+86% over 2 weeks).

✂ On 17 March 2021, traffic levels per States record declines ranging from -85% (Ireland) to -35% (Armenia), compared to same day in 2019.

Industry, Associations and Institutions

Latest news



✘ **ICAO** states that CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) is on track with the regulatory framework in place; approves recommendations that air crew should be vaccinated as quickly as possible but that vaccination should not be a prerequisite for international travel.

✘ **DSNA** testing feasibility of round-the-clock Continuous Descent Operations at Paris CDG.

✘ **CAAC** aims to open more than 30 new airports in China by 2025.

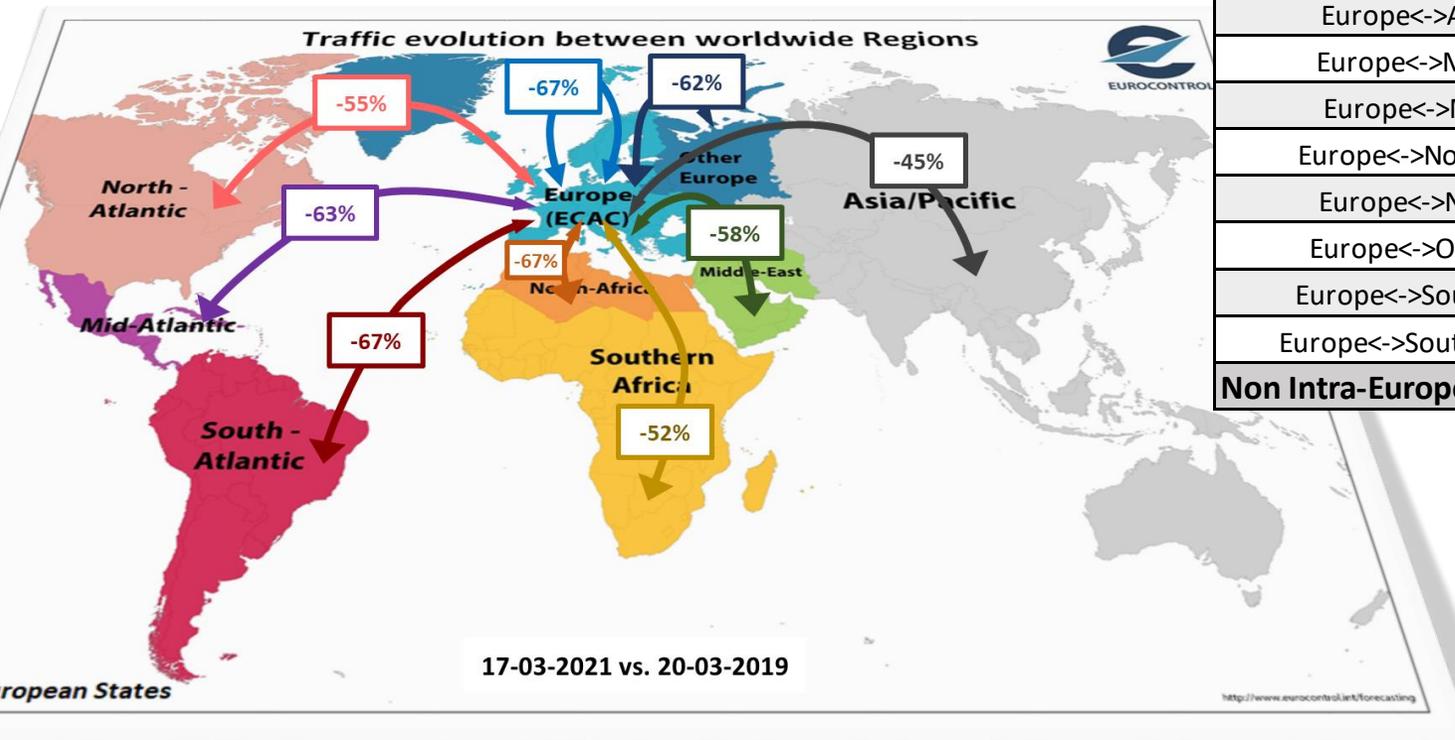
✘ **Japan's** government limiting the number of international passengers arriving in Japan to ensure that quarantine measures are properly carried out.

Traffic flows (Daily Departure/Arrival flights)



- ✘ The main traffic flow is the intra-Europe flow with 7,290 flights on Wednesday 17 March, which is increasing (+2%) over 2 weeks.
- ✘ Intra-Europe flights are at -67% compared to 2019 while intercontinental flows are at -58%.

| REGION | 03-03-2021 | 17-03-2021 | % | vs. 2019 |
|--------------------------|--------------|--------------|------------|-------------|
| Intra-Europe | 7 174 | 7 290 | +2% | -67% |
| Europe<->Asia/Pacific | 411 | 418 | +2% | -45% |
| Europe<->Mid-Atlantic | 68 | 65 | -4% | -63% |
| Europe<->Middle-East | 511 | 562 | +10% | -58% |
| Europe<->North Atlantic | 410 | 420 | +2% | -55% |
| Europe<->North-Africa | 268 | 276 | +3% | -67% |
| Europe<->Other Europe | 271 | 301 | +11% | -62% |
| Europe<->South-Atlantic | 53 | 55 | +4% | -67% |
| Europe<->Southern Africa | 153 | 154 | +1% | -52% |
| Non Intra-Europe | 2 145 | 2 251 | +5% | -58% |



Country pairs (Daily Departure/Arrival flights)

Top 10

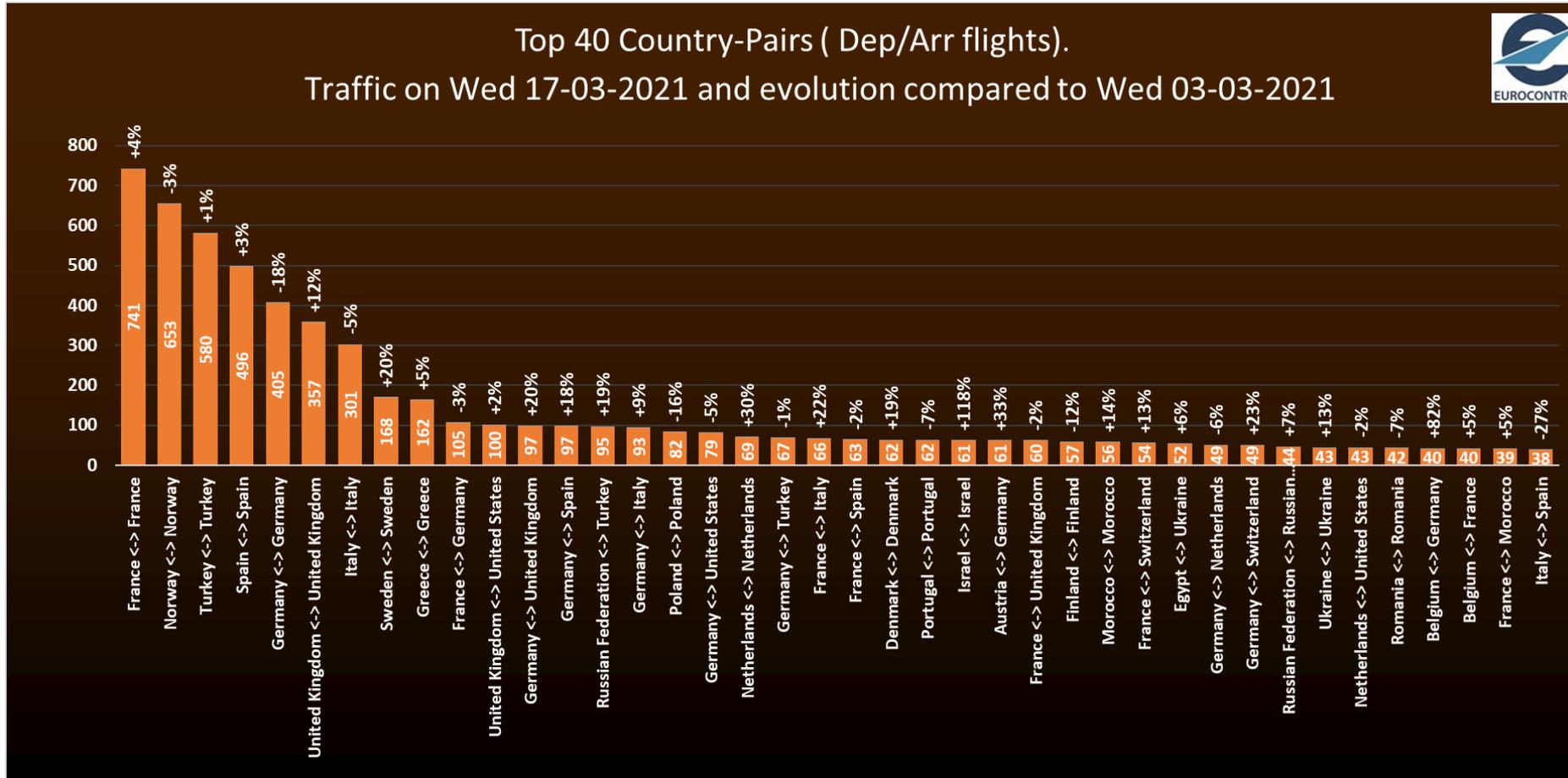


| Rank evolution over 2 weeks | Top 10 Country-Pair on Wed 17-03-2021 | | | | |
|-----------------------------|---------------------------------------|-----------------|---------------|---------------|-----------|
| | Country-Pair | Dep/Arr Flights | Δ over 2 week | % over 2 week | % vs 2019 |
| → | France <-> France | 741 | ↗ +27 | +4% | ↘ -45% |
| → | Norway <-> Norway | 653 | ↘ -19 | -3% | ↘ -31% |
| → | Turkey <-> Turkey | 580 | ↗ +6 | +1% | ↘ -36% |
| ↗ | Spain <-> Spain | 496 | ↗ +16 | +3% | ↘ -57% |
| ↘ | Germany <-> Germany | 405 | ↘ -87 | -18% | ↘ -67% |
| → | United Kingdom <-> United Kingdo | 357 | ↗ +38 | +12% | ↘ -66% |
| → | Italy <-> Italy | 301 | ↘ -16 | -5% | ↘ -62% |
| ↗ | Sweden <-> Sweden | 168 | ↗ +28 | +20% | ↘ -66% |
| ↘ | Greece <-> Greece | 162 | ↗ +8 | +5% | ↘ -34% |
| → | France <-> Germany | 105 | ↘ -3 | -3% | ↘ -71% |

- ✈ 9 of the top 10 flows are domestic.
- ✈ Increase for the flows within UK (+12%) mainly due to small aircraft.
- ✈ Increase for the flows within Sweden (+20%) mainly due to small aircraft.
- ✈ Decrease for the flows within Germany (-18%) mainly driven by flying school and leisure aircraft.

Country pairs (Daily Departure/Arrival flights)

Latest traffic situation



✖ The busiest non-domestic flows were **France-Germany** (105 flights, -3% over 2 weeks), **UK-US** (100, +2%), **Germany-UK** (97, +20%) and **Germany-Spain** (97, +18%).

Outside Europe

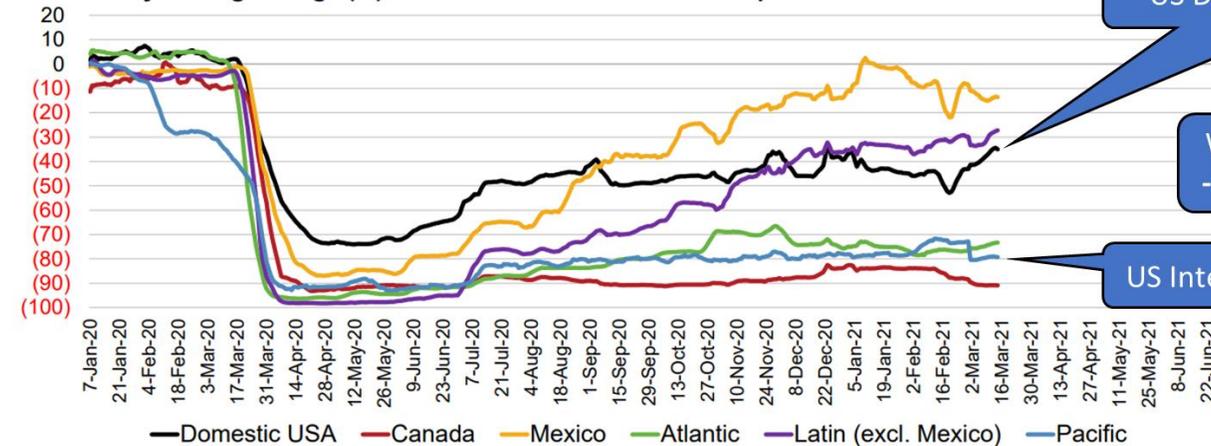


USA

- ✘ Peak in COVID-19 cases was reached early January in the US but declined steadily since. Number of new cases in Brazil is now exceeding the USA values.
- ✘ US domestic recorded a decline of 35% (vs 2019) and international traffic recorded a decline of 44% (vs 2019) on 17 March. Domestic traffic levels shows signs of increase over the last three weeks.
- ✘ On 17 March, US airline passenger volumes were 53% below 2019 levels with domestic down 50% and international down 68%.
- ✘ The domestic US load factor averaged at 64.5% on 17 March vs 82% a year earlier.

In Most Recent Week, U.S. Passenger Airline Departures Were 36% Below Pre-Pandemic Levels
 Domestic Flights Operated Down 35%, International Flights Operated Down 44%

7-Day Rolling Change (%) vs. Pre-Pandemic* in Aircraft Departures



Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)

* "Pre-pandemic" precedes March 1, 2020

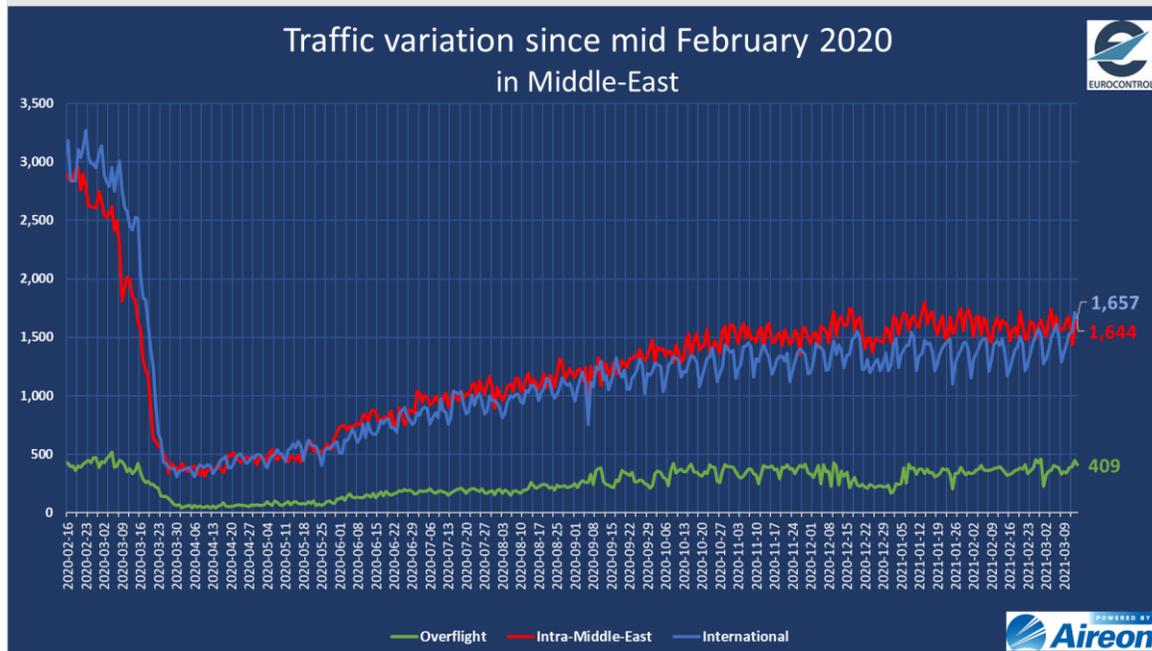


Outside Europe



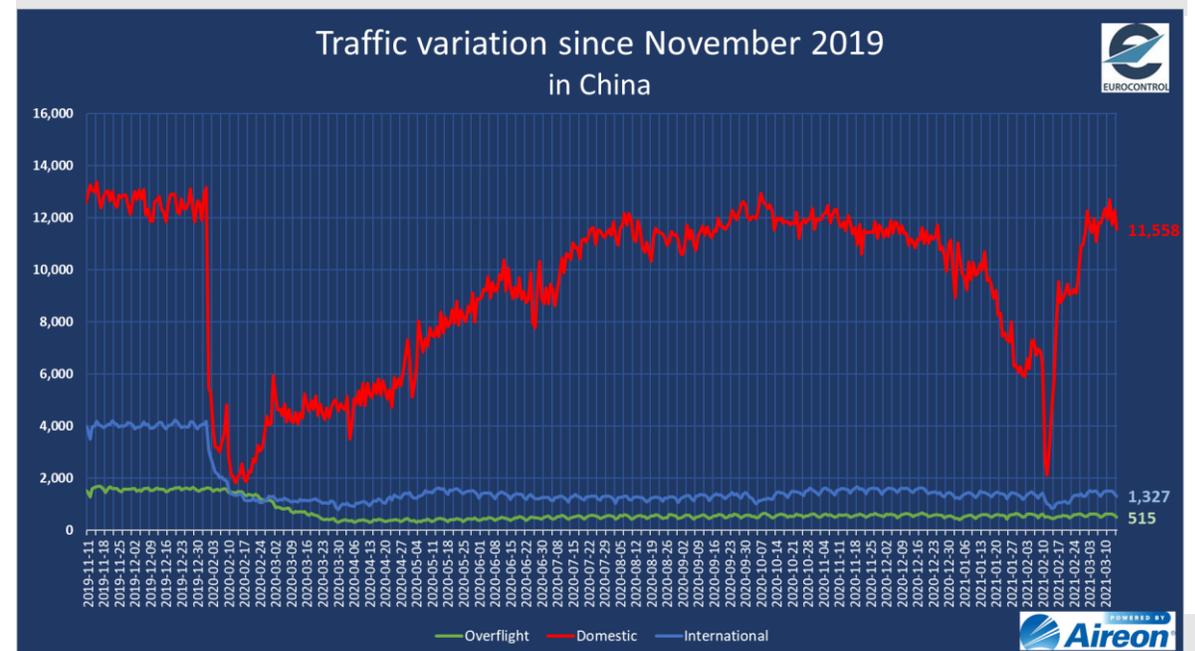
Middle East

- ✘ Intra-Middle-East traffic stabilised around 1,644 daily flights on 14 March (-45% compared to Feb 2020).
- ✘ On 14 March, international traffic jumped to 1,657 flights (-41% compared to Feb 2020), levels higher than domestic traffic. The international flow now seems to become dominant (compared to domestic), reverting to the established order, pre-COVID.
- ✘ Overflights are stable around 409 flights (-4% compared to Feb 2019).



China

- ✘ After the huge drop on Chinese New Year (12 Feb), Chinese domestic resumed to “normal” volumes with 11,558 flights on 15 March. Recent domestic levels are catching up with the pre-COVID levels (only 3% below the early January 2020 levels).
- ✘ International flights and overflights were stable on previous weeks with 1,327 and 515 flights respectively (-67% and -68% vs 1 Jan 2020).
- ✘ China reported a 72.9% load factor in 2020, corresponding to a 10.2 pp decrease on 2019 (source: CAAC).



Airports (Daily Departure/Arrival flights)

Top 10 and latest news



| Rank evolution over 2 weeks | Top 10 Airports on Wed 17-03-2021 | | | | |
|-----------------------------|-----------------------------------|-----------------|----------------|----------------|-----------|
| | Airport | Dep/Arr Flights | Δ over 2 weeks | % over 2 weeks | % vs 2019 |
| → | IGA Istanbul Airport | 550 | ↗ +24 | +5% | Not appl |
| → | Paris/Charles-De-Gaulle | 460 | ↗ +10 | +2% | ↘ -65% |
| ↗ | Frankfurt | 401 | ↗ +12 | +3% | ↘ -71% |
| ↘ | Amsterdam | 394 | ↘ -15 | -4% | ↘ -71% |
| ↗ | Istanbul/Sabiha Gokcen | 346 | ↗ +8 | +2% | ↘ -39% |
| ↘ | Madrid/Barajas | 342 | ↘ -6 | -2% | ↘ -70% |
| → | London/Heathrow | 308 | ↗ +3 | +1% | ↘ -76% |
| ↗ | Leipzig/Halle | 221 | ↗ +7 | +3% | ↘ -14% |
| ↗ | Oslo/Gardermoen | 197 | ↘ -13 | -6% | ↘ -73% |
| ↗ | Bergen/Flesland | 197 | ↗ +2 | +1% | ↘ -29% |

- ✘ Most top 10 airports showed an increase over 2 weeks except Oslo, Amsterdam and Madrid.
- ✘ Increase for IGA Istanbul Airport (+5%) mainly due to Turkish Airlines.
- ✘ Decrease for Oslo (-6%) mainly due to domestic (Norwegian Air Shuttle and SAS).
- ✘ Decrease for Amsterdam (-4%).

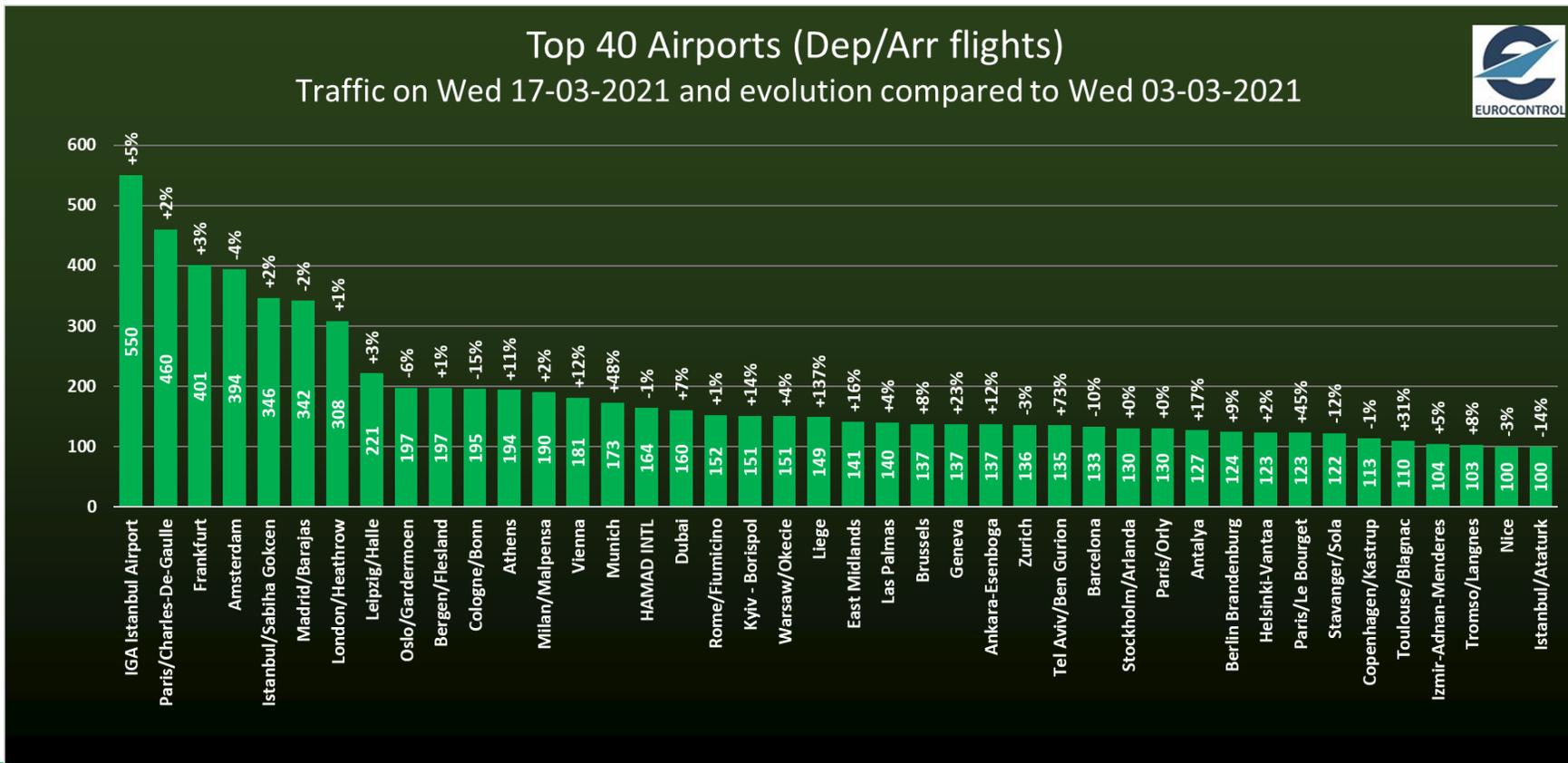
Airports

Latest news

- ✘ **Groupe ADP** reports February passenger numbers across the Paris airports down 82.7% year-on-year (domestic -66.4%, Europe -87.9%, other international -83.5%).
- ✘ **Copenhagen Airport** February passenger numbers down 94.7% year-on-year (domestic -74.9%, international -95.7%).
- ✘ **Liege Airport** certified as an 'Advanced ATC Tower', exchanging flight data with the EUROCONTROL Network Manager Operations Centre.
- ✘ **Munich Airport** February passenger numbers down 95.4% year-on-year (domestic -91.3%, international -96.5%).
- ✘ **Oslo Airport** February passenger numbers down 89.2% year-on-year (domestic -80.7%, international -95.9%).
- ✘ **Zurich Airport** February passenger numbers down 90.4% year-on-year (Europe -90.6%, intercontinental -90.2%).

Airports (Daily Departure/Arrival flights)

Latest operations



- ✘ Large increase for **Liège** (+137%) mainly due to the activity of TNT International.
- ✘ Large increase for **Munich airport** over 2 weeks (+48%) mainly due to Lufthansa over several flows to Austria, Spain, UK, ...
- ✘ Large increase for **Tel Aviv** (+73%) and **Paris/Le Bourget** (+45%).



En-Route Air Navigation charges



En-route air navigation charges

At EUROCONTROL Network level

Amounts billed + Monthly and Year-to-Date variations (2021 vs 2019)

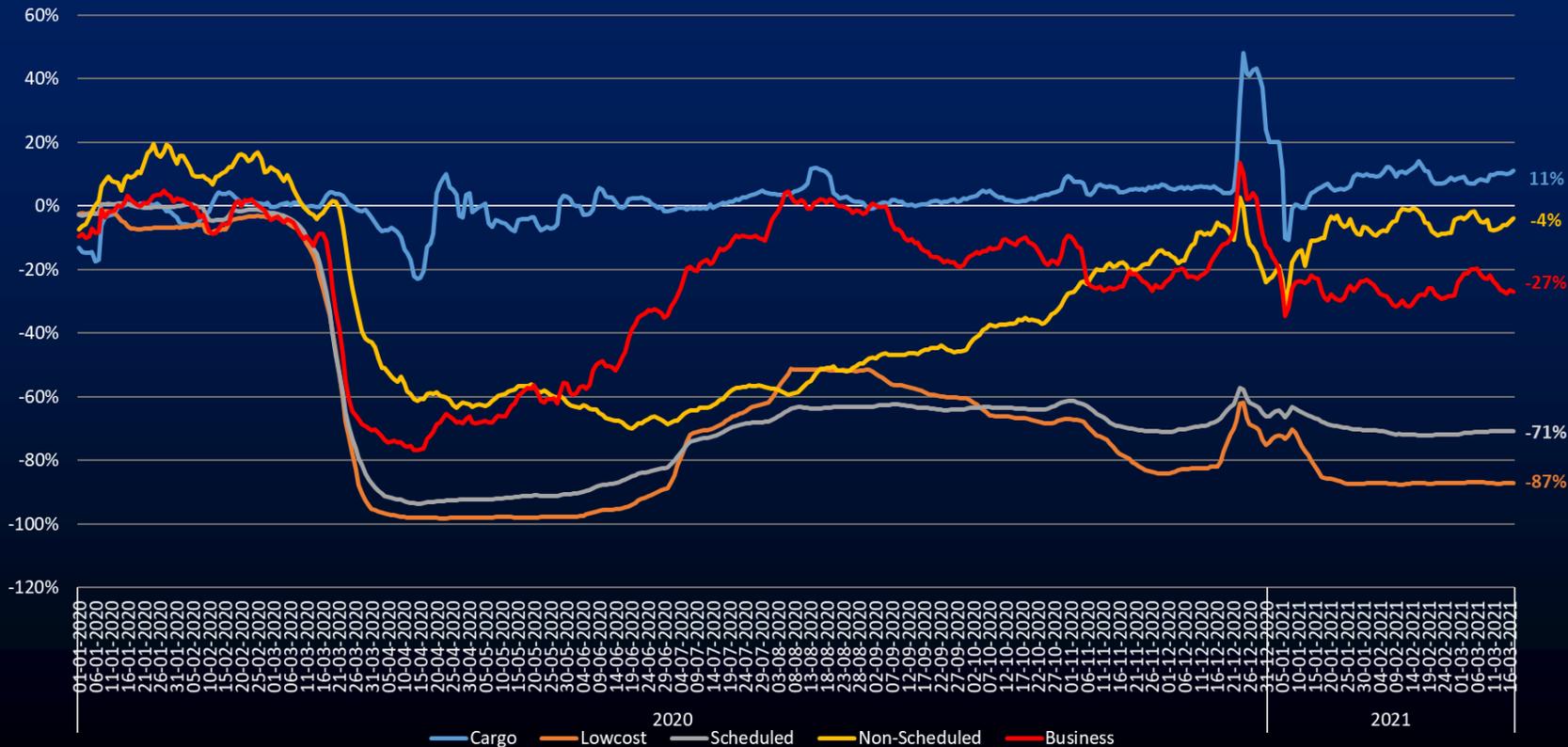


- ✘ **EUROCONTROL** has just billed **158M€** of en-route charges for February flights.
- ✘ This is **-67%** below the amount billed for the February 2019 flights.
- ✘ On a year-to-date basis, we are at **-69% vs 2019**

Market Segments



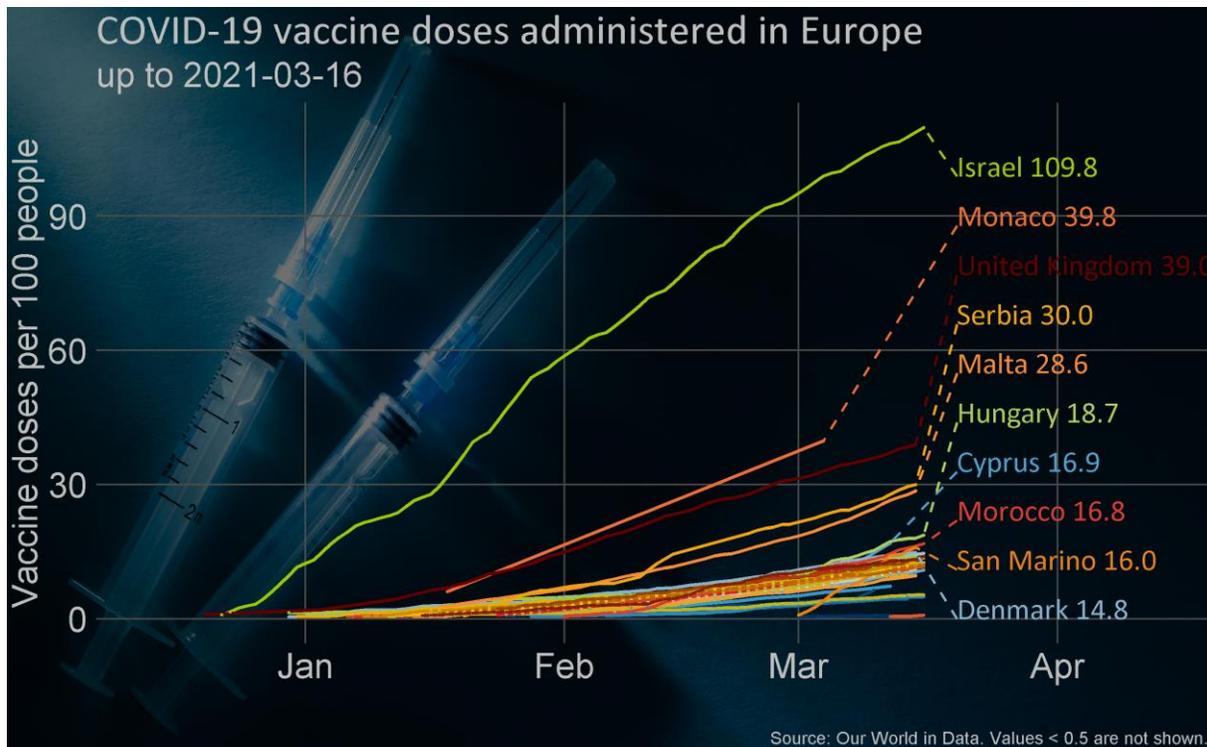
Market segments in EUROCONTROL Network
(compared with equivalent days in 2019)
Daily Variation (Flights)



On 17 March 2021, all segments showed unchanged trends since mid-January 2021 (vs 2019):

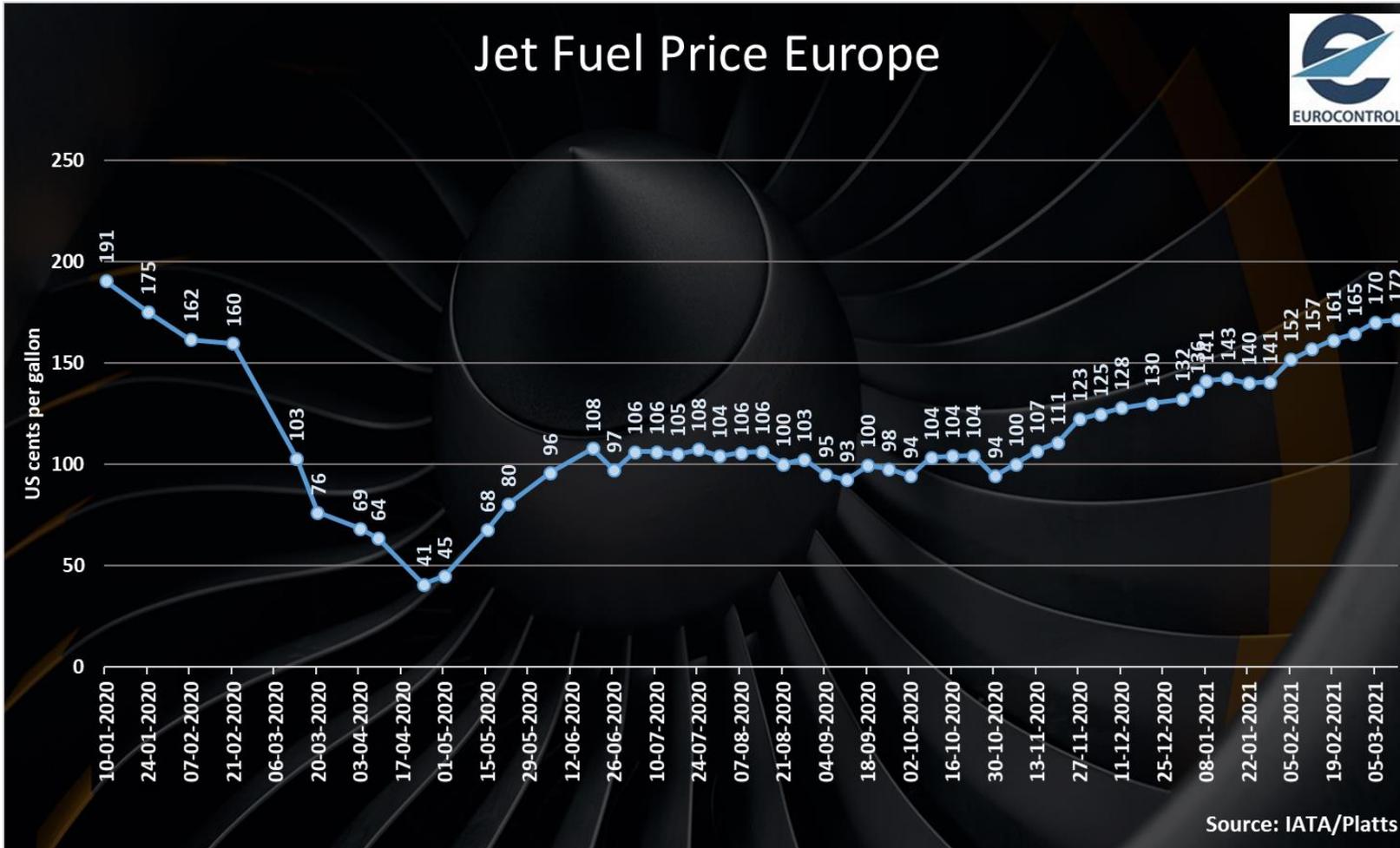
- ✘ **All-cargo** is the only segment consistently growing, posting a **+11%** increase. **Charter** (-4%) is getting closer to the 2019 levels.
- ✘ **Business Aviation** recorded a decrease of **-27%**.
- ✘ **Traditional and Low-Cost**, while accounting the majority of flights, recorded (stable) declines at **-71%** and **-87%** respectively.

Vaccination updates



- ✘ Inoculations against COVID-19 have started at the end of 2020 as shown with the daily number of COVID-19 vaccination doses administered per 100 people on the left graph.
- ✘ On the right one: only Israel, Monaco, UK, Serbia and Malta have reported that more than 25 doses per hundred people mid-March.

Graphs are showing data for the 41 Member and 2 Comprehensive Agreement States of EUROCONTROL.



- ✘ **Jet fuel prices** have started to rise since last Autumn, from around 100 cts/gal in October 2021 to 172 cts/gal on 12 March 2021.
- ✘ Underlying reason is the **oil prices** rise which is explained by constraints in supply (OPEC+ extended the existing oil production cuts through April 2021), combined with supply disruptions in the United States, and an attack of an oil terminal in Saudi Arabia.
- ✘ Current **fuel prices** are comparable to pre-COVID-19 levels.

To further assist you in your analysis, EUROCONTROL provides the following additional information on a daily basis (daily updates at approximately 7:00 CET for the first item and 12:00 CET for the second) and every Friday for the last item:

1. EUROCONTROL Daily Traffic Variation dashboard:

www.eurocontrol.int/Economics/DailyTrafficVariation (or via the COVID-19 button on the top of our homepage www.eurocontrol.int)

- This dashboard provides traffic for Day+1 for all European States; for the largest airports; for each Area Control Centre (ACC); and for the largest airline operators.



2. COVID Related-NOTAMS with Network Impact (i.e. summary of airspace restrictions):

<https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html>

- The Network Operations Portal (NOP) under “Latest News” is updated daily with a summary table of the most significant COVID-19 NOTAMs applicable at 12.00 UTC.



3. NOP Recovery Plan.

<https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html>

- This report, updated every Friday, is a special version of the Network operation Plan supporting aviation response to the COVID-19 Crisis. It is developed in cooperation with the operational stakeholders ensuring a rolling outlook.



For more information please contact aviation.intelligence@eurocontrol.int



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