# ANS performance briefing - Germany

 $EUROCONTROL\ Performance\ Review\ Unit\\05/Nov/2019$ 



### Preface

This performance briefing has been prepared by the EUROCONTROL Performance Review Unit (PRU) in the interest of the exchange of information.

If you have any questions related to this document or if we can help with any ANS performance related matter, then please do not hesitate to contact us: pru-support@eurocontrol.int

The information may be copied in whole or in part providing that the copyright notice and disclaimer are included.

The views expressed herein do not necessarily reflect the official views or policy of EUROCONTROL, which makes no warranty, either implied or express, for the information contained in this document, neither does it assume any legal liability or responsibility for the accuracy, completeness or usefulness of this information.

## Key observations

#### TRAFFIC

- Following the high traffic increase already in 2017 ..
- The strong growth ..
- As a result ..

#### SAFETY

• No data available

#### CAPACITY

En-route ATFM delays

• No en-route ATFM delay..

Airport arrival ATFM delays

• No airport arrival ATFM delay..

#### ENVIRONMENT

Horizontal en-route flight efficiency

• In 2008, Finland..

Vertical en-route flight efficiency

Vertical flight efficiency during climb and descent

#### COST-EFFECTIVENESS

- ARMATS represents.. see [1]
- Since ARMATS did not..
- Compared to the..

## Contents

Pı	Preface	2
K	Key observations	3
1	Institutional arrangements	6
2	2 Traffic characteristics	7
3	3 Safety	8
4	- Capacity	9
	4.1 Air traffic flow management (ATFM) delays	9
	4.1.1 En-route ATFM delays	10
	4.1.2 Airport arrival ATFM delays	13
5	5 Environment	15
	5.1 Horizontal en-route flight efficiency	16
	5.2 Vertical en-route flight efficiency	17
	5.3 Vertical flight efficiency during climb & descent	17
6	6 Cost-effectiveness	18
7	Annex 1: Evolution of cost-effectiveness performance (2012-2017)	19
8	3 Annex 2: Network Operations Plan (2018-2019/22)	20
$\mathbf{R}$	References	21

## List of Figures

1	Traffic characteristics (IFR flights)	7
2	Traffic evolution and en-route ATFM delay	10
3	Average en route ATFM delay per flight (EUROCONTROL area)	11
4	Year on year change of average en route ATFM delay per flight (EUROCONTROL area) $$	12
5	Traffic evolution of airport arrival ATFM delays	13
6	Horizontal en-route flight efficiency	16

1 Institutional arrangements

#### 2 Traffic characteristics

Sources: NM; STATFOR[2]; PRU ANS Performance Data Portal [3]; CRCO Service Unit Dashboard [4]

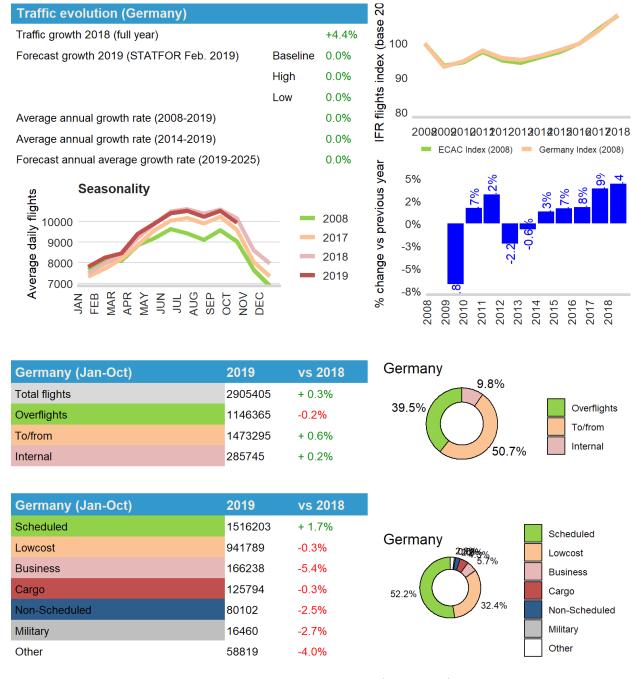


Figure 1: Traffic characteristics (IFR flights)

- In 2018, traffic increased by +4.4%. Between 2013 and 2018, traffic increased by 13.8%.
- In the first 10 months of 2019, traffic in Germany increased by +0.7% compared to the same period in 2018
- The largest traffic segment is traffic from and to Germany (50.7%), followed by overflights (39.5%) and domestic flights (9.8%).

## 3 Safety

## 4 Capacity

## 4.1 Air traffic flow management (ATFM) delays

Source: NM, PRU ANS Performance Data Portal [3] The data in this section is from the PRU ANS performance data portal (data section).

It is available at: http://ansperformance.eu/data/performancearea/

#### 4.1.1 En-route ATFM delays

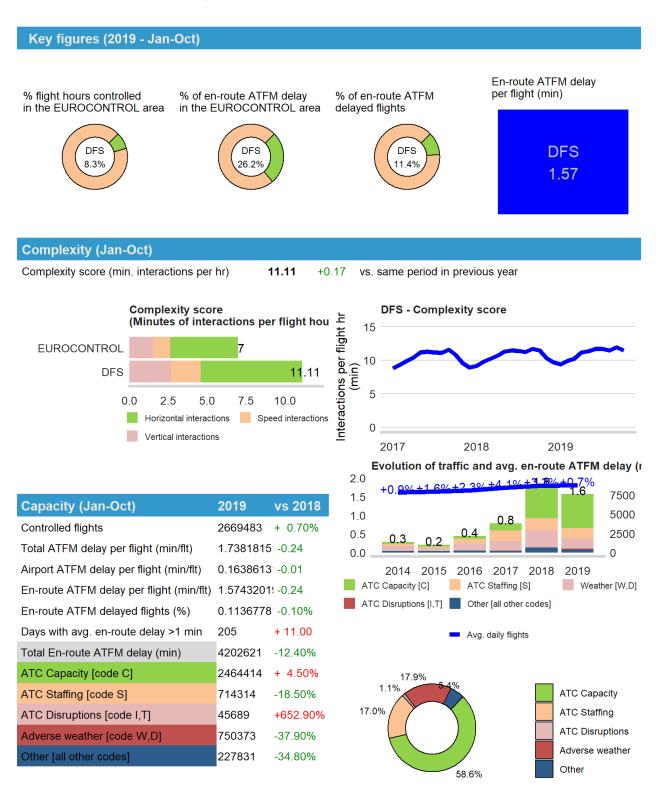


Figure 2: Traffic evolution and en-route ATFM delay

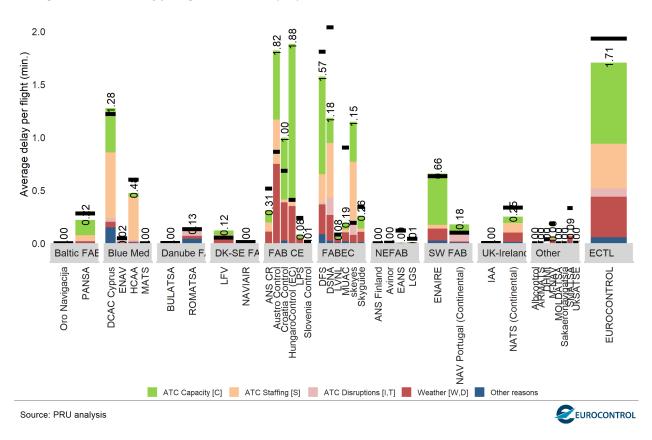


Figure 3: Average en route ATFM delay per flight (EUROCONTROL area)

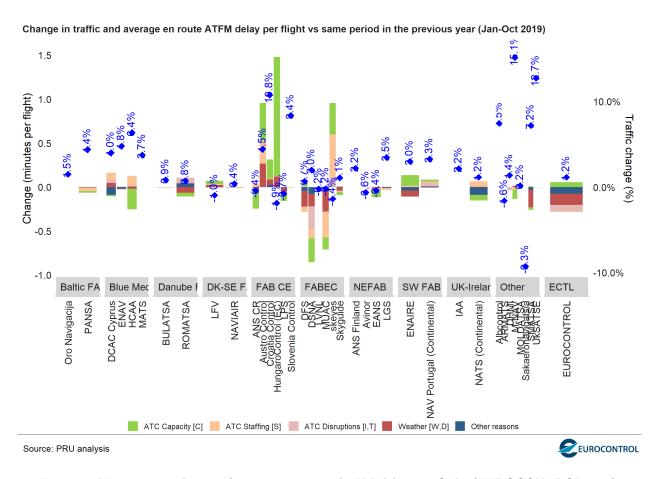


Figure 4: Year on year change of average en route ATFM delay per flight (EUROCONTROL area)

- In the first 10 months of 2019, Germany accounted for 8.3% of total controlled flight hours and generated 26.2% of total en-route ATFM delays in the EUROCONTROL area. Overall, 11.4% of the controlled flights in the respective airspace were delayed by en-route ATFM delays (Jan-Oct 2019).
- Delays decreased in 2019 (-12.4% vs. Jan-Oct 2018) to reach 1.57 minutes per flight.

#### 4.1.2 Airport arrival ATFM delays

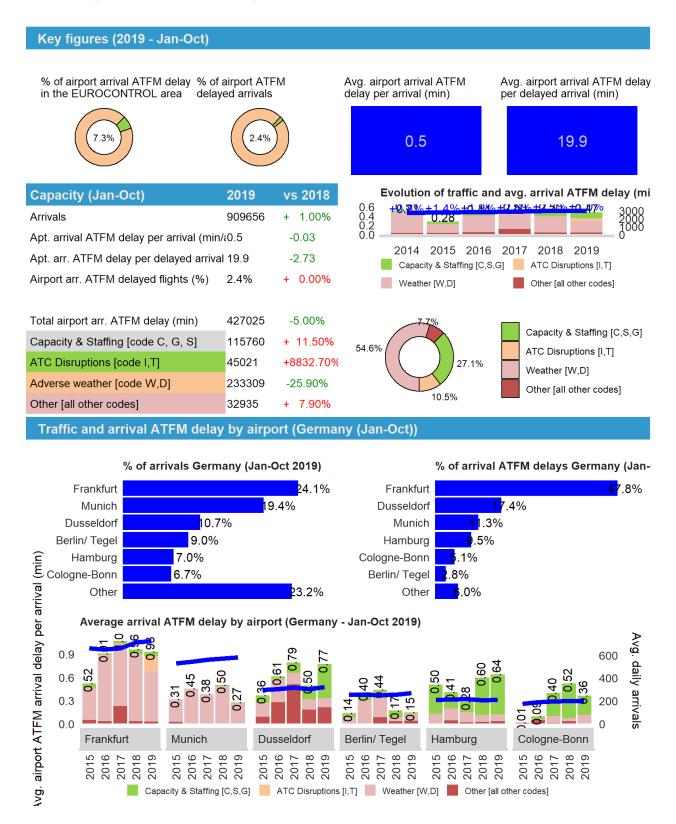


Figure 5: Traffic evolution of airport arrival ATFM delays

- $\bullet$  Germany accounted for 7.3% of all arrival ATFM delay in the EUROCONTROL area (Jan-Oct 2019).
- Overall, 2.4% of the flights arriving at airports in Germany were delayed by arrival ATFM regulations (Jan-Oct 2019). Total arrival ATFM delay decreased by -5.0% vs. Jan-Oct 2018.
- The main share (47.8%) was generated by Frankfurt, closely followed by Dusseldorf accounting for 17.4% of all airport ATFM delay in Germany during the first 10 months of 2019.

### 5 Environment

Source: PRU ANS Performance Data Portal The data in this section is from the PRU ANS performance

data portal (data section).

It is available at: http://ansperformance.eu/data/performancearea/

#### 5.1 Horizontal en-route flight efficiency

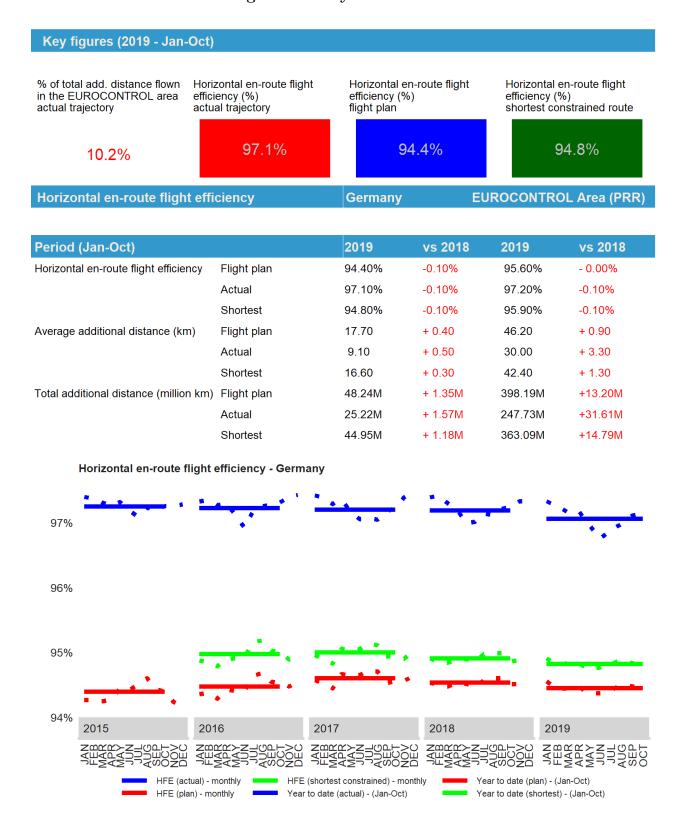


Figure 6: Horizontal en-route flight efficiency

- 5.2 Vertical en-route flight efficiency
- 5.3 Vertical flight efficiency during climb & descent

6 Cost-effectiveness

7 Annex 1: Evolution of cost-effectiveness performance (2012-2017)

8 Annex 2: Network Operations Plan (2018-2019/22)

### References

- [1] Performance Review Unit, "ATM cost-effectiveness (ace) 2015 benchmarking report with 2016-2020 outlook," EUROCONTROL/PRU, Report, May 2017.
- [2] STATFOR, "EUROCONTROL seven-year forecast february 2019," EUROCONTROL/STATFOR, Report, 2017.
- [3] Performance Review Unit, "ANS performance data portal," 2019. [Online]. Available: http://ansperformance.eu/.
- [4] CRCO, "Service unit dashboard," 2019. [Online]. Available: http://www.eurocontrol.int/ServiceUnits/Dashboard/LongTermEvolution.html.