

# Global Aviation Monitor (GAM)

Analysis and Short Term  
Outlook of Global, European  
and German Air Transport

June 2016



## Main Results of Global Air Transport Supply Analysis and Outlook

### Background:

- Covers about 3,500 airports worldwide
- Covers about 850 airlines worldwide
- Air transport supply of 2015: More than 34 M flights (non-stop) worldwide, new record value
- Busiest month 2015: July with 3.08 M flights; 2016 until now: June with 3.0 M flights
- Air traffic increases slowly since April 2013
- Forecasting methodology: Time series analysis
- The mean absolute forecast error over a twelve month period typically lies in a range of between 0.5 and 1.5 percentage points for a forecast horizon of 1, 2 & 3 months.

### Analysis: July 2015 – June 2016

#### Global

- June 2016: 3,0 M flights supplied (+3.5%)
- About 5% growth per year before financial crisis 2008/2009, then a rapid decline of more than 9% between February 2008 and February 2009, followed by a rather slow recovery until 2011 (7.2% increase between February 2009 and February 2011). Since 2011, the number of flights grows only very slowly; stagnation between September 2012 and March 2013, small growth rates since April 2013; growth rates of around 3% since March 2015, of around 3.5% - 4.0% between November 2015 and June 2016
- Airports: Heterogeneous development of no. of flights offered; strong growth e.g. at Los Angeles, Amsterdam, Guangzhou, San Francisco, Seattle, Mexico and Munich (5% and more)
- Airlines: Heterogeneous development of no. of flights offered; strong growth e.g. of Ryanair, Lion Air and IndiGo; American Airlines merger with US Airways

#### World Regions, Europe

- Overall small increase since April 2013; in Europe, small traffic increase since July 2013; in Asia continued growth; small growth in North America
- Airports: Heterogeneous developments of no. of flights offered; strong increase at Istanbul Sabiha Gokcen, Manchester and Dublin however decline at some airports, e.g. Moscow Domodedovo
- Airlines: Heterogeneous developments of flights, some airlines, e.g. Ryanair Airlines with strong growth, some growth in the low cost segment, e.g. Wizz, Ryanair and easyjet; new: Eurowings (former Lufthansa and germanwings flights in Germany and Europe are now operated by Eurowings except at Frankfurt and Munich; long-haul low cost flights from Cologne), some airlines, e.g. Aeroflot and Air France with decrease

#### Germany

- Airports: Some bigger airports, e.g. Cologne and some small airports e.g. Karlsruhe, with traffic growth; strong growth at Berlin Schoenefeld because of strong growth of Ryanair; some German airports with downward trend, e.g. Hahn and Dortmund
- Airlines: Heterogeneous developments of number of flights offered; strong growth of e.g. Ryanair, flybe and Wizz; some airlines, e.g. KLM and SAS with decreasing traffic

### Outlook: July 2016 – September 2016

#### Global

- For the next few months, a traffic growth of 3-4% is expected

#### World Regions, Europe

- For the next few months, a traffic growth of 3-4% is expected

#### Germany

- For the next few months, a traffic growth of 3-4% is expected

Rank	Airport	06/2016	Growth rate
1	Chicago O'Hare International	37.799	-1,6
2	Atlanta Hartsfield-Jackson Intl	37.786	2,1
3	Dallas/Fort Worth Intl	28.162	-2,6
4	Los Angeles International	28.003	6,6
5	Beijing Capital	24.965	2,3
6	Denver Intl	23.312	4,1
7	Charlotte	21.582	0,0
8	Amsterdam	20.506	5,0
9	London Heathrow	20.256	-0,6
10	Frankfurt International	20.232	-1,3
11	Houston George Bush Intercontinental	19.768	-6,0
12	Paris Charles de Gaulle	19.728	1,2
13	Shanghai Pudong International	19.425	3,1
14	New York J F Kennedy International	19.318	2,8
15	Istanbul Ataturk	19.203	0,2
16	San Francisco International	18.305	6,7
17	Toronto Lester B Pearson Intl	18.261	3,0
18	Seattle/Tacoma International	18.218	8,6
19	Tokyo Haneda	18.056	2,0
20	Guangzhou	17.675	7,2
21	Jakarta Soekarno-Hatta	17.070	-3,4
22	Munich International	16.985	6,7
23	Newark Liberty International	16.919	1,0
24	Mexico City Juarez International	16.707	5,0
25	Minneapolis International	16.454	2,0

Tab. 1: Number of monthly Take-offs at the biggest Airports in the World

Rank	Airport	06/2016	Growth rate
1	Frankfurt International	20.232	-1,3
2	Munich International	16.985	6,7
3	Dusseldorf International	9.695	6,3
4	Berlin Tegel	8.122	3,1
5	Hamburg	6.362	0,6
6	Stuttgart	4.711	2,1
7	Cologne/Bonn K.A.	4.359	8,7
8	Berlin Schoenefeld	3.348	37,7
9	Hanover	2.297	1,5
10	Nuremberg	1.701	5,3
11	Bremen	1.161	-0,1
12	Leipzig/Halle	934	-1,7
13	Dresden	923	4,1
14	Frankfurt Hahn	752	-8,3
15	Dortmund	592	-3,3
16	Dusseldorf Niederrhein	582	-1,4
17	Karlsruhe/Baden Baden	491	9,4
18	Munster	482	4,6
19	Friedrichshafen	370	-7,7
20	Saarbrücken/Ensheim	310	-7,2
21	Memmingen	283	-21,2
22	Paderborn	256	-18,5
23	Westerland	155	-20,9
24	Erfurt	97	34,7
25	Rostock-Laage	88	57,1

Tab. 3: Number of monthly Take-offs at the biggest Airports in Germany

Rank	Airport	06/2016	Growth rate
1	Amsterdam	20.506	5,0
2	London Heathrow	20.256	-0,6
3	Frankfurt International	20.232	-1,3
4	Paris Charles de Gaulle	19.728	1,2
5	Istanbul Ataturk	19.203	0,2
6	Munich International	16.985	6,7
7	Madrid Barajas	15.633	0,8
8	Rome Fiumicino	13.935	-4,2
9	Barcelona	13.725	4,2
10	London Gatwick	12.747	5,4
11	Copenhagen	11.295	5,4
12	Moscow Sheremetyevo International	10.822	0,0
13	Paris Orly	10.555	2,0
14	Zurich	10.384	3,2
15	Palma Mallorca	10.205	11,8
16	Vienna	10.109	-0,0
17	Oslo	10.015	0,1
18	Dusseldorf International	9.695	6,3
19	Stockholm Arlanda	9.436	2,7
20	Istanbul Sabiha Gokcen	9.381	6,9
21	Dublin	9.364	7,4
22	Brussels	9.202	-3,9
23	Moscow Domodedovo	9.044	-11,3
24	Manchester International	8.501	10,9
25	Berlin Tegel	8.122	3,1

Tab. 2: Number of monthly Take-offs on the biggest Airports in Europe

Source: OAG 2015/16, DLR 2015/16

Rank	Airline	06/2016	Growth rate
1	American Airlines	201.346	85,2
2	Delta Air Lines	166.750	4,1
3	United Airlines	143.126	-3,8
4	Southwest Airlines	114.552	2,7
5	Ryanair	59.501	9,9
6	China Southern Airlines	56.774	-0,7
7	China Eastern Airlines	55.033	6,2
8	Air Canada	49.761	-0,2
9	easyJet	45.307	4,1
10	Lufthansa German Airlines	44.880	-1,8
11	Turkish Airlines	40.708	2,0
12	Air China	37.769	6,9
13	British Airways	32.398	2,6
14	Alaska Airlines	31.322	6,7
15	All Nippon Airways	30.056	-4,8
16	Air France	29.362	-5,6
17	JetBlue Airways Corporation	28.894	7,0
18	SAS Scandinavian Airlines	26.632	-0,6
19	Aeroflot Russian Airlines	25.254	-3,1
20	IndiGo Air	24.100	28,8
21	Lion Air	23.618	26,8
22	Qantas Airways	22.451	-2,3
23	Japan Airlines International	22.418	1,1
24	AVIANCA	22.045	1,2
25	KLM-Royal Dutch Airlines	20.660	2,7

Tab. 4: Number of monthly Take-offs by the biggest Airlines in the World

Rank	Airline	06/2016	Growth rate
1	Lufthansa German Airlines	27.440	-0,4
2	Air Berlin	11.983	5,5
3	germanwings	7.454	-22,9
4	Ryanair	3.692	36,7
5	Eurowings	2.729	---
6	easyJet	2.342	0,3
7	Condor Flugdienst	1.713	-12,9
8	TUIfly	1.516	1,6
9	British Airways	1.400	2,8
10	KLM-Royal Dutch Airlines	1.386	-2,1
11	Turkish Airlines	1.373	3,9
12	Austrian Airlines AG	1.270	47,2
13	Air France	1.262	1,5
14	Swiss	1.167	13,5
15	SAS Scandinavian Airlines	1.040	-12,0
16	Germania	993	3,2
17	SunExpress	863	-2,8
18	Aeroflot Russian Airlines	698	-2,2
19	Wizz Air	697	23,8
20	British Midland Regional	612	42,3
21	Air Dolomiti	570	3,1
22	Flybe	464	41,0
23	Vueling Airlines	461	-15,4
24	SunExpress Deutschland	460	-5,9
25	Transavia.com	446	1684,0

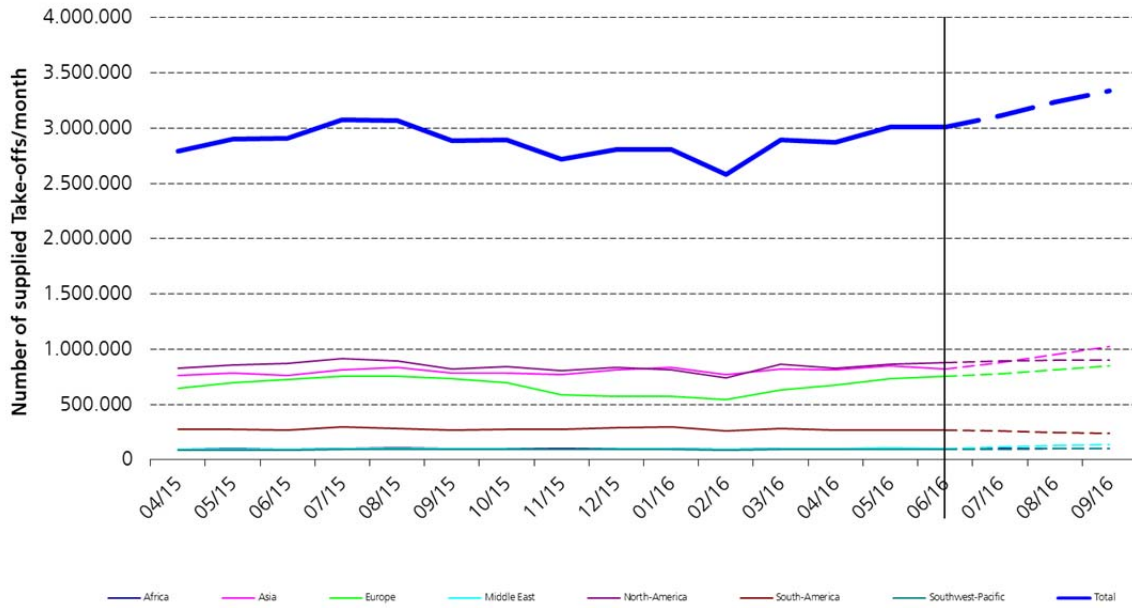
Tab. 6: Number of monthly Take-offs by the biggest Airlines in Germany from German airports

Rank	Airline	06/2016	Growth rate
1	Ryanair	58.826	10,0
2	easyJet	44.917	4,7
3	Lufthansa German Airlines	41.186	-1,2
4	Turkish Airlines	35.703	1,1
5	British Airways	27.087	3,2
6	SAS Scandinavian Airlines	26.231	-0,9
7	Air France	25.936	-6,0
8	Aeroflot Russian Airlines	21.188	-3,9
9	KLM-Royal Dutch Airlines	18.647	2,9
10	Air Berlin	18.565	2,5
11	Vueling Airlines	18.462	7,5
12	Alitalia	17.064	-2,1
13	Iberia	16.624	2,4
14	Flybe	16.606	9,1
15	Pegasus Airlines	12.803	3,1
16	Wizz Air	11.879	13,7
17	Swiss	11.869	1,7
18	germanwings	11.468	-25,0
19	Norwegian Air Shuttle	11.354	-26,2
20	Austrian Airlines AG	10.750	5,9
21	Wideroe's Flyveselskap	10.718	-7,1
22	Aer Lingus	9.458	5,6
23	TAP Air Portugal	9.081	-0,3
24	Finnair	8.723	-2,4
25	HOP!	7.831	4,1

Tab. 5: Number of monthly Take-offs by the biggest Airlines in Europe from European airports

Source: OAG 2015/16, DLR 2015/16

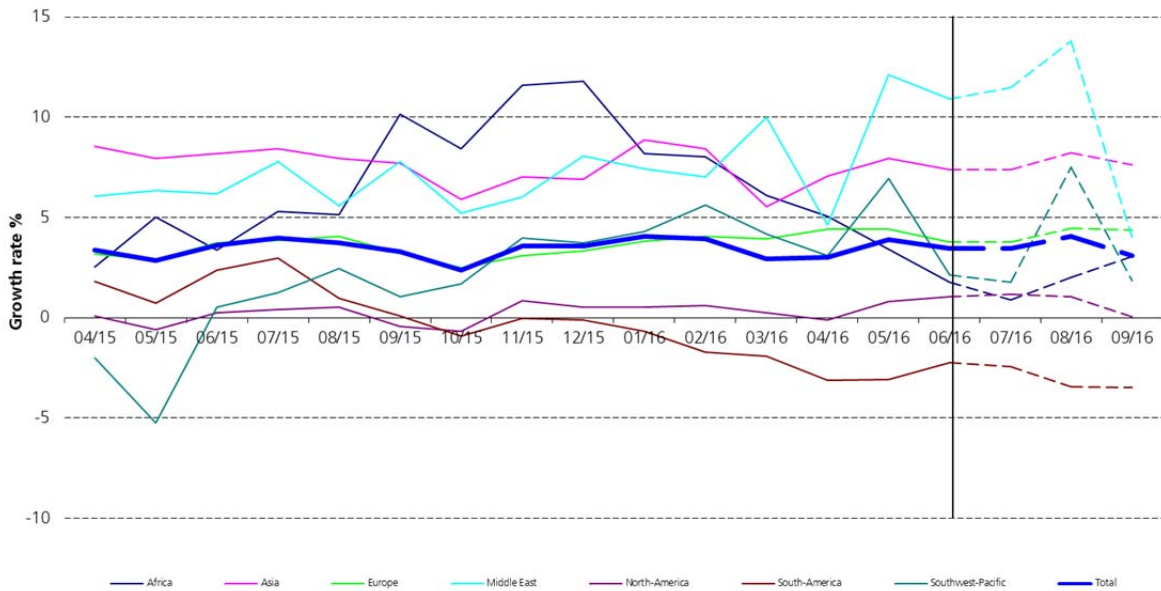
Development of the Global Air Transport Supply



Source: OAG 2014/2016, DLR 2014/2016

Fig. 1: Development of the Global Air Transport Supply

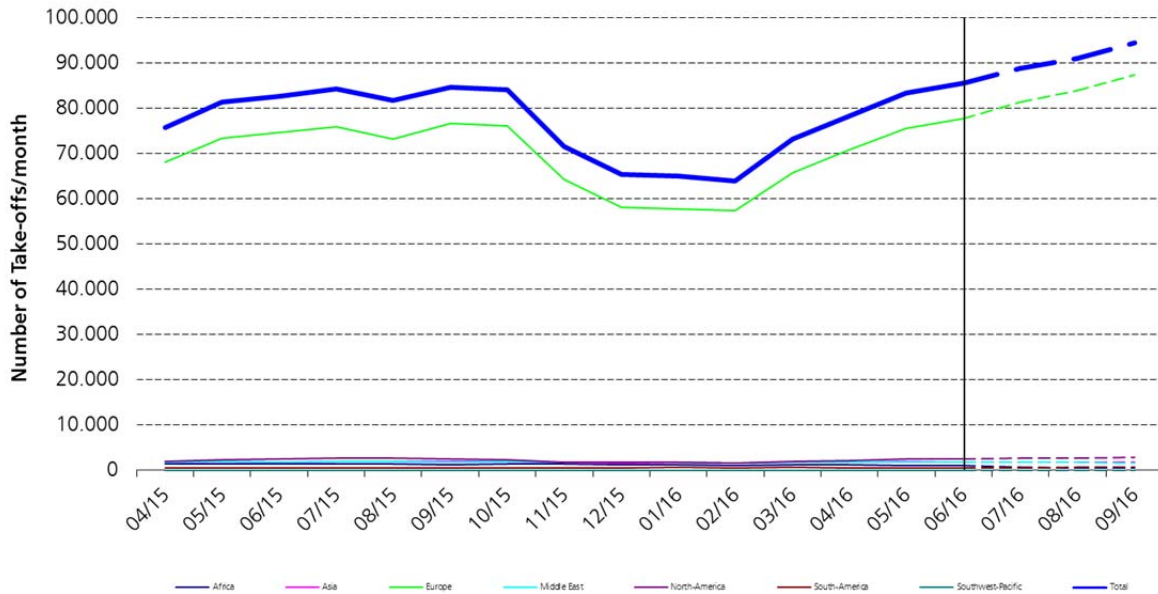
Changes in the Global Air Transport Supply



Source: OAG 2014/2016, DLR 2014/2016

Fig. 2: Changes in the Global Air Transport Supply

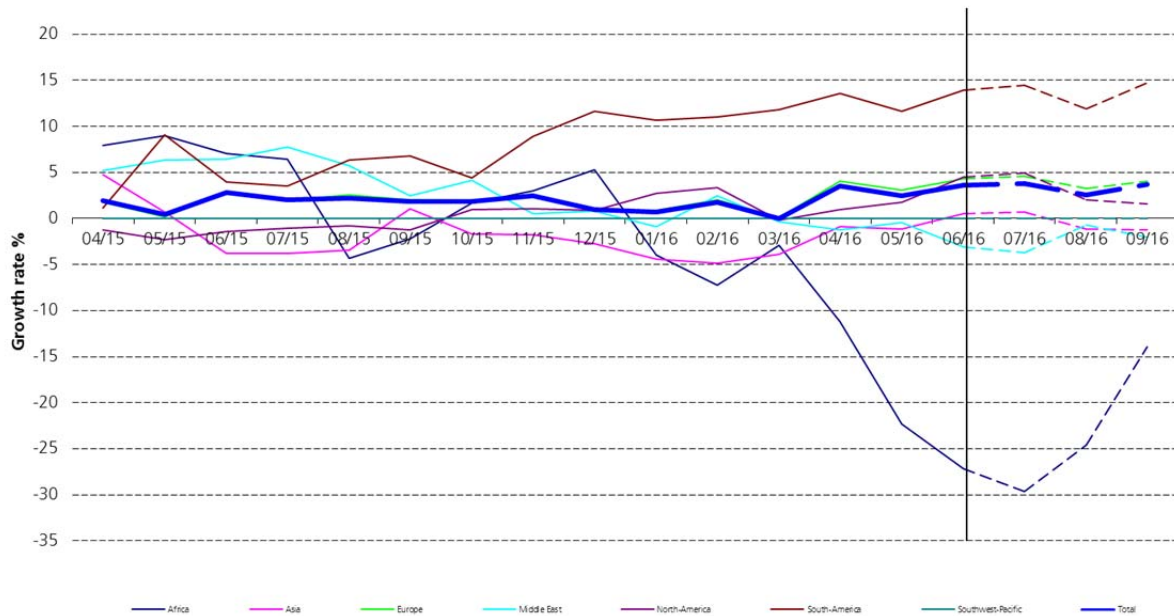
Development of the German Air Transport Supply



Source: OAG 2014/2016, DLR 2014/2016

Fig. 3: Development of the German Air Transport Supply

Changes in the German Air Transport Supply



Source: OAG 2014/2016, DLR 2014/2016

Fig. 4: Changes in the German Air Transport Supply

Authors:

Dr. Peter Berster  
DLR  
Flughafenwesen und Luftverkehr  
D-51147 Köln  
E-Mail: [peter.berster@dlr.de](mailto:peter.berster@dlr.de)

Dr. Marc Gelhausen  
DLR  
Flughafenwesen und Luftverkehr  
D-51147 Köln  
E-Mail: [marc.gelhausen@dlr.de](mailto:marc.gelhausen@dlr.de)

Holger Pabst  
DLR  
Flughafenwesen und Luftverkehr  
D-51147 Köln  
E-Mail: [holger.pabst@dlr.de](mailto:holger.pabst@dlr.de)

Dieter Wilken  
DLR  
Flughafenwesen und Luftverkehr  
D-51147 Köln  
E-Mail: [dieter.wilken@dlr.de](mailto:dieter.wilken@dlr.de)