Monthly Traffic Results
Frankfurt Airport

with Annual Report

December 2017

Traffic category	December absolute	December Δ%	January to December absolute	January to December Δ%
Passengers (arr.+dep.+transit)	4,569,884	7.3%	64,505,151	6.1%
Airfreight (metric tons) (arr.+dep.+tr.)	170,720	-5.1%	2,143,622	3.7%
Airmail (metric tons) (arr.+dep.+tr.)	9,466	7.3%	85,348	0.2%
Aircraft Movements (arr.+dep.)	35,172	3.6%	475,537	2.7%
MTOWs (metric tons) (arr.)	2,290,902	3.2%	30,072,709	1.3%
Traffic Units (arr.+dep.+tr.)*	6,371,749	3.7%	86,794,859	5.4%
Traffic Units (arr.+dep.)**	6,324,355	3.5%	86,354,959	5.5%
Cargo (metric tons) (arr.+dep.+tr.)	180,186	-4.5%	2,228,971	3.6%

Traffic Units (TU) are the combined annual values of passengers, cargo, and mail expressed in metric tons.
1 TU = 1 Pax (assessed at 100 kg), or 100 kg of freight or 100 kg of mail.
Cargo refers to the sum of airfreight and airmail volumes, all in metric tons.
However, due to measuring airfreight and airmail in kilograms, rounding diffrences may appear.
* Fraport internal definition: arriving+departing+transit
** As per ADV-definition: arriving+departing.

Prepared by UEW-MF, 17.01.2018

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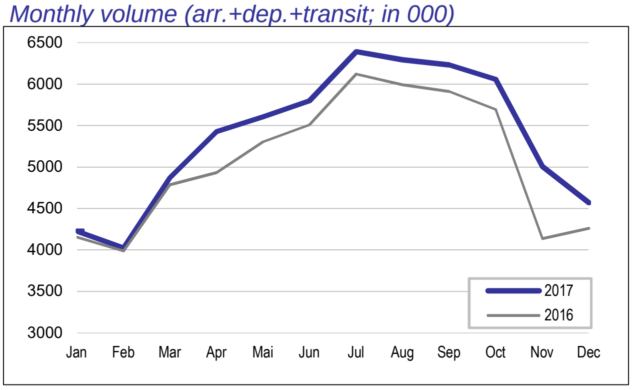
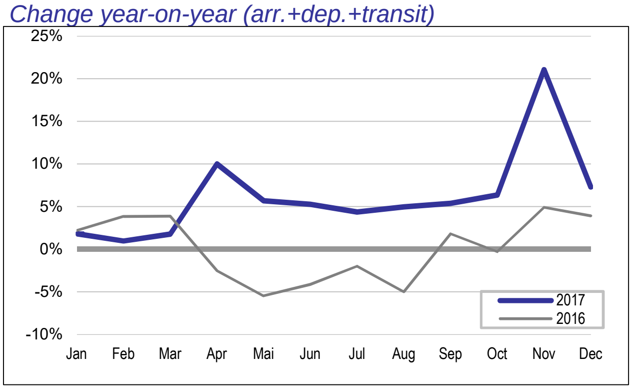
Passengers

December	**4,569,884**	**7.3%**
January to December	**64,505,151**	**6.1%**

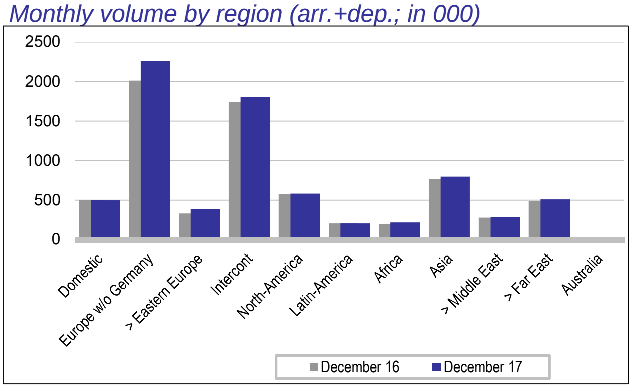
Monthly volume (arr.+dep.+transit; in 000)



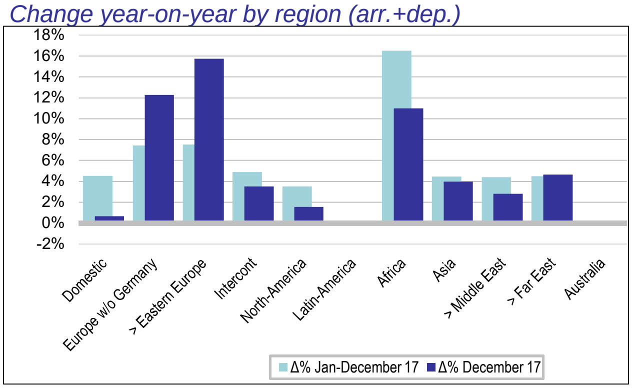
Change year-on-year (arr.+dep.+transit)



Monthly volume by region (arr.+dep.; in 000)



Change year-on-year by region (arr.+dep.)



Regional evaluation by destination; source: BIAF-MAFO

A new record for a December month was set once again at Frankfurt Airport. The passenger count in December 2017 exceeded the amount in 2016 by more than 300,000. Without numerous flight cancellations due to mainly bad weather conditions, which affected almost 100,000 passengers, the growth rate would have been significantly higher. Without these cancellations the growth rate would have been almost at 10 percent.

Consequently, the noticeable growth dynamics seen in November 2017 continued into December. A main reason for this are increased offered passenger services (flights) specifically in the low cost segment. There are both new destinations and higher flight frequencies to existing destinations. Southern Europe benefited substantially from the increased offer. The passenger count connected to this region was up by 20 percent. There is very high demand for travel to and from the Balearic islands. The additional offer of seats effected a 50 percent growth rate in demand and, as result, a longer travel season.

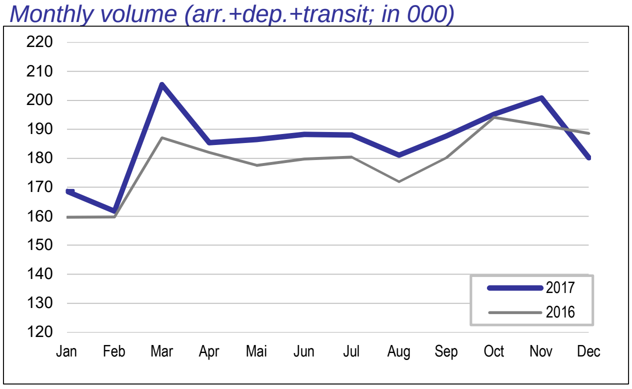
Contrary to latest developments, domestic traffic hardly increased in December. There are two reasons for this. Domestic traffic was affected more heavily by flight cancellations and there were capacity bottlenecks for travel to and from Berlin as result of Air Berlin having left the market. Consequently, there were fewer flights to and from Berlin-Tegel.

Intercontinental traffic was slightly below the growth rate up until December. Traffic to and from America was hardly up. Traffic to and from the Caribbean region was down due to the weakness of Cuba. This is also due to the recovery of demand for tourism travel to and from Egypt and a resulting shift in demand. The passenger count for travel to and from Egypt was up by almost 50 percent.

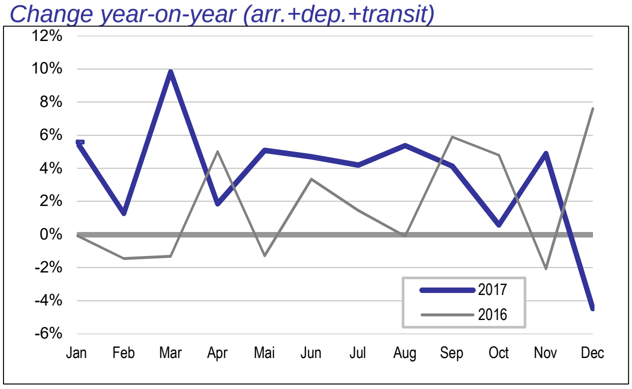
Cargo (t)

December	**180,186**	**-4.5%**
January to December	**2,228,971**	**3.6%**

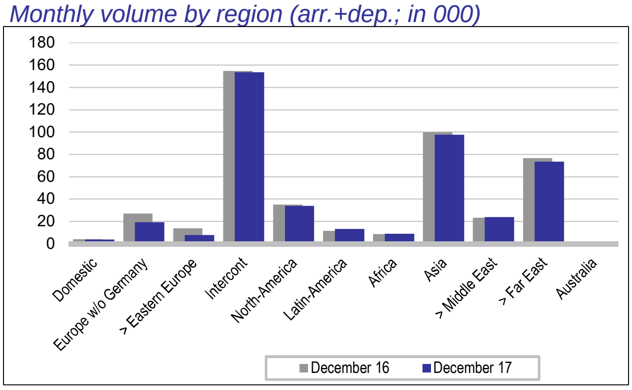
Monthly volume (arr.+dep.+transit; in 000)



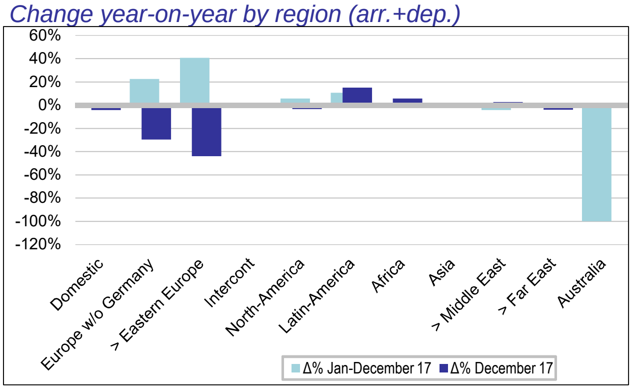
Change year-on-year (arr.+dep.+transit)



Monthly volume by region (arr.+dep.; in 000)



Change year-on-year by region (arr.+dep.)



Regional evaluation by destination; source: BIAF-MAFO

Air cargo traffic in December 2017 was about 180,200 mt and down by 4.5 %. Airmail experienced a growth rate of 7.3 % to about 9,500 mt and continued the positive trend seen in previous months. Airfreight at 170,700 mt was clearly down by 5.1 % and this is contrary to the generally positive economic situation.

The upswing of industry in the euro zone continued in December and there was a new record growth rate. German industrial production increased as much as last seen in early 2011 and the delivery periods for many products have become longer. There are capacity bottlenecks on the part of many suppliers and even many logistics companies are having a hard time keeping pace with the demand to transport goods.

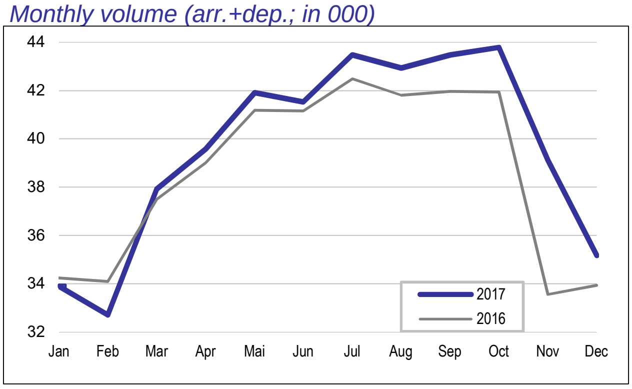
This development is also seen at Frankfurt Airport. The high demand and connected season-related high peaks have effected that some companies handling freight cannot process orders timely. In addition, a strike by the verdi union caused more impairments. Some logistics companies reacted by directing airfreight to other airports and did not consider Frankfurt Airport for airfreight shipments in some cases in December2017.

Looking at the regional distribution one sees that European traffic was down by 8,000 mt or 30 %, respectively. This is contrary to developments from January to November of this year (+28.2 %). There was a noticeable 40 % decline of freighter aircraft flights to and from Moscow. Positive developments in December can be reported for Latin America (+15.1 %), Africa (+5.7 %) and the Middle East (+2.7 %).

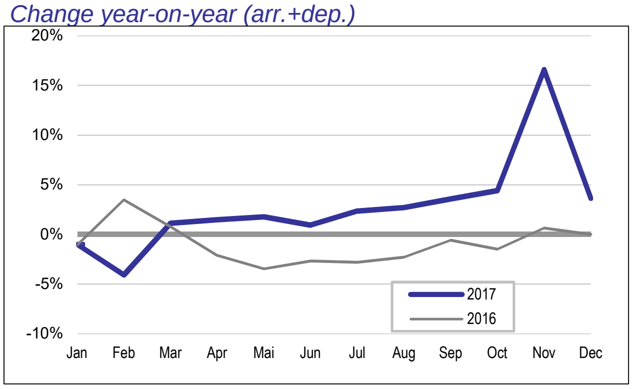
Aircraft Movements

December	**35,172**	**3.6%**
January to December	**475,537**	**2.7%**

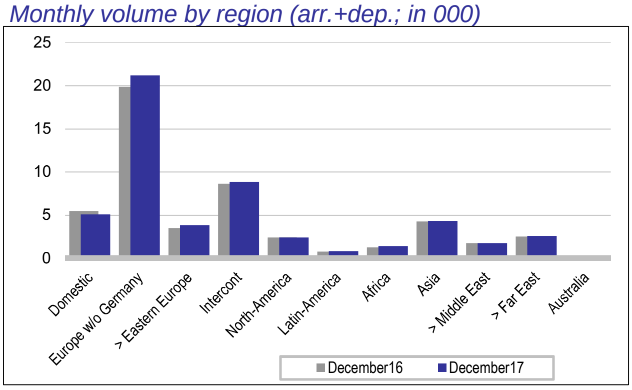
Monthly volume (arr.+dep.; in 000)



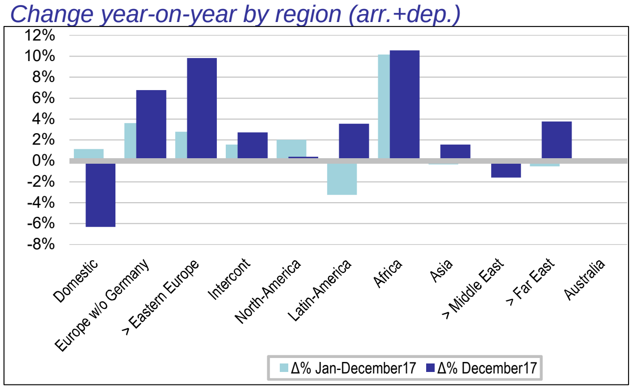
Change year-on-year (arr.+dep.)



Monthly volume by region (arr.+dep.; in 000)



Change year-on-year by region (arr.+dep.)



Regional evaluation by previous/next en-route stop; source: BIAF-MAFO

There were 35,172 aircraft movements at Frankfurt Airport in December 2017 and 3.6 % more than in the same month last year. Without flight cancellations connected to strikes and bad weather conditions there would have been a growth rate of even 6.4 %. Consequently, the growth trend continues in regard to offered services (flights). About 3,000 aircraft movements were missing to reach the record for a December month which was set in 2011.

Domestic passenger flights were down (-7.2 %) and heavily affected by cancellations due to bad weather conditions. Due to Air Berlin having left the market there are fewer passenger services (flights) being offered to and from Berlin. European traffic is up significantly. Both southern and eastern Europe profited enormously by serving new destinations in the low cost segment.

Aircraft movements connected to intercontinental destinations were up slightly (+1.3 %). The growth rate is mainly connected to more passengers services (flights) being offered to and from North Africa. Due to the continued cold weather conditions in North America (-1.3 %) there were some flight cancellations. Concerning Latin America there was minimal growth (+0.3 %) due to two new destinations. Asia stagnated overall because the Far East can compensate the decline due to more passenger services (flights) to and from China and India.

Freighter aircraft flights stagnated in December. The decline of European freighter aircraft connections was well compensated by more services (flights) being offered to and from America and Asia. With a constant offer the utilization rate nonetheless dropped so that freight on freighter aircraft per movement was down by a significant 5.4 percent.

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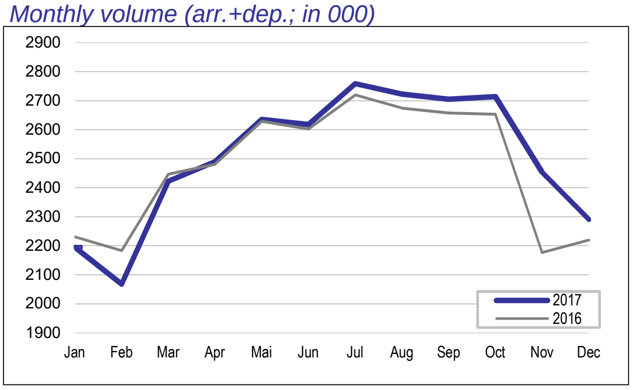
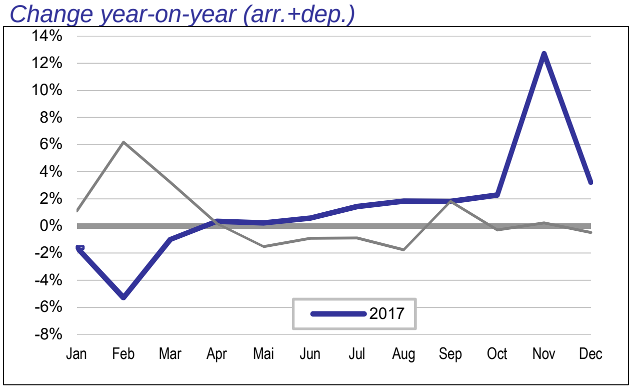
Maximum Take Off Weights / MTOW (t)

December	**2,290,902**	**3.2%**
January to December	**30,072,709**	**1.3%**

Monthly volume (arr.+dep.; in 000)



Change year-on-year (arr.+dep.)



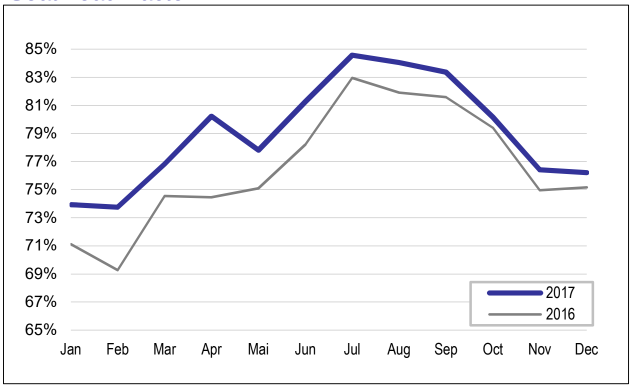
MTOWs in December 2017 were 3.2 % higher than in December 2016 at 2.3 million tons. This count is only 1,600 tons below the record for a December month set in 2011. Without strike- and weather-related flight cancellations the MTOW result would have been 4.8 % higher. The average MTOW per aircraft landing fell slightly to 129.9 tons (DEC 2016: 130.4 t).

Despite substantial growth of the number of aircraft movements the additional offer of seats cannot quite keep up with the demand. As result, the highest seat utilization rate for a December month was achieved (76.2 %). The previous record was 75.2 % in December 2016. A new record was also established for the quotient passengers per passenger flight in December 2017 at 140.6 (previous record set in December 2016 at 136.0).

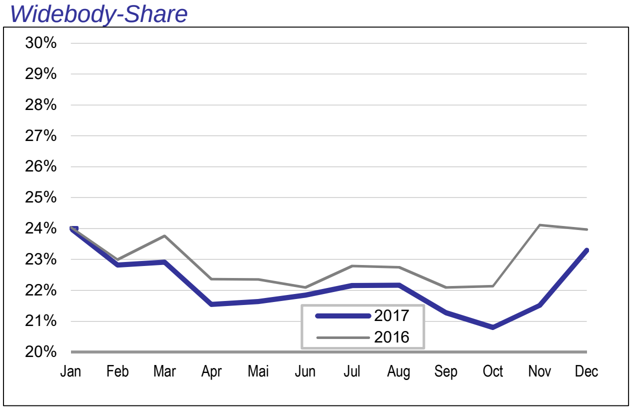
Special Information

The seat load factor in December 2017 was at 76.2% versus 75.2% in the same month last year.
The share of widebody aircraft was at 23.3% (December 16: 24.0%).
The ratio 'passengers per passengerflight (sheduled & charter)' was at 140.6 vs. 136.0 in the same month last year.
Compared to the same month last year the flight punctuality rate decreased by 9.0%-points and was at 66.0%.

Seat Load Factor



Widebody-Share



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Passengers

January to December **64,505,151** **6.1%**

A new passenger count record was set again in 2017 with 64.5 million passengers. There were 3.7 million passengers more than in 2016. The growth rate for a single year was never as high as in 2017 in the history of Frankfurt Airport. Considering the already high number of passengers in 2016 this growth is quite remarkable.

This record year in the air traffic sector also impacted Frankfurt Airport. Numerous new records were set during the entire year. There were new records for a single month in ten months. The highest passenger count for any single month in airport history was achieved in July. Frankfurt Airport handled 6.4 million passengers in July 2017 and 82,000 more than in the old record month. There were only 4 months in which the airport handled less than 5 million passengers.

There were also new records concerning the daily passenger count. For the first time in airport history more than 220,000 passengers were counted for two days in September. The new record for a single day was set on September 29th with 225,801 passengers. This was 8,300 passengers more than on the date of the old record. The "formerly magic level" of 200,000 passengers on a single day was exceeded on 97 days in 2017. This happened on only 30 days in 2016.

The growth rate would have even been 0.4 percentage points higher had it not been for mainly weather-related flight cancellations which affected about 250,000 passengers. Taking the leap day in 2016 into consideration, there would have been a significant growth rate of 6.8 %.

The growth dynamics were mainly based on more traffic to and from tourism destinations. The highest growth rates are connected to the traffic regions North Africa and South Europe. South Europe profited from the weakness of Turkey and the increased offer of passenger services (flights) in the low cost sector. Spain, Portugal, Malta (cruise ship tourism) and Italy (package tours) experienced substantial growth rates. Travelers visiting friends and relatives generated more growth than the higher volume of vacation travelers.

After the declines connected to Turkey started to level off during the year one noticed that the passenger count for traffic to and from Southeast Europe started to increase again. Greece, Cyprus and Croatia (all alternatives to Turkey) experienced enormous growth rates. At the same time the demand for vacation travel to and from North Africa recovered and there were double-digit growth rates. In the tourism sector only the Caribbean region could not report growth rates due to the limited number of beds.

European traffic was the main growth generator (+7.4 %) followed by intercontinental traffic (+4.9 %) and domestic traffic (+4.5 %). Inside Germany there was more growth of traffic with medium-sized and small airports. At the end of the year there was declining traffic to and from Berlin due to Air Berlin having dropped out of the market. Flight cancellations affected domestic traffic a lot more than traffic to all other regions.

Concerning intercontinental traffic there was remarkable growth connected to Africa, Middle East and Far East. In the Middle East specific mention is made of Israel, Qatar and Dubai. Contrary to 2016, China, India, Japan and South Korea contributed again to the higher passenger count. Thailand, as a major tourism destination, continued its growth rate at a high level to begin with. The discontinuation of the connection to and from Sri Lanka had a negative impact on the passenger count.

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Cargo

January to December	**2,228,971**	**3.6%**

Air cargo traffic in 2017 achieved a growth rate of 3.6 % at about 2.23 million mt. The level of 2.2 million mt was surpassed for the first time again in six years. Airfreight achieved a growth rate of 3.7 % or 76,400 mt to about 2.14 million mt. Airmail with about 85,300 mt slightly surpassed the volume in 2016 (+0.2 %).

Without the negative effects as result of handling problems at some cargo handling agents in December a higher growth rate of about 4 % would have been possible. During the fourth quarter air cargo only achieved plus 0.4 % compared to far better growth rates during the first three quarters of 2017. Dynamics slowed down noticeably at the end of the year. This, however, does not reflect the very good economic situation at the moment.

Many economic key figures (e.g. manufacturing) reached record levels in 2017 and supported the big demand to move freight by air. However, the enormous growth was accompanied by longer delivery times. This was mainly due to capacity bottlenecks on the part of suppliers and more and more also on the part of logistics companies. This was clearly seen when looking at the development of air cargo in December. The generally high demand to move cargo by air and connected season-related peaks could only be handled or processed with limitations.

Higher demand with declining capacities effected a substantially higher utilization of freight space on aircraft. The cargo amounts on passenger aircraft flights developed with more dynamics in comparison to those on freighter aircraft flights. Special mention is made of high growth rates connected to belly-load freight in the otherwise down season during the summer vacation period.

Looking at the distribution by regions one can see that all regions recorded growth rates except for the Middle East and Far East. Moscow was the growth generator for air cargo traffic in 2017. Consequently, European traffic was up dynamically by 22.4 % or approximately 60,400 mt, respectively.

The region with the highest cargo share in Frankfurt (Far East) was slightly down by 0.5 %. Whereas South Korea (+3.9 %), Vietnam (+29.7 %) and India (+4.6 %) experienced growth, the cargo amounts connected to routes to and from China were down by 2.8 %. Due to capacity reductions there was no more cargo on routes to and from Bangladesh and Sri Lanka.

The second biggest market (North America) experienced over-proportional growth of 5.6 %. The plus was mainly based on more tonnage flown from Frankfurt to destinations in the USA. One reason for this was certainly the increase of the value of the US $ over against the euro. In addition, there was 11.8 % more cargo transported on routes connected to Canada.

The Latin American region recorded a growth rate of 10.6 %. The markets Mexico (+14.9 %) and Brazil (+17.9 %) were the most important growth generators. The cargo amount connected to Africa stagnated. However, there was a significant plus for Kenia. In contrast, Namibia recorded a substantial decline. Regarding the Middle East the declining amount of cargo connected to Qatar and Saudi-Arabia was responsible for the minus of 4.2 %.

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Aircraft Movements	**January to December**	**475,537**	**2.7%**
Maximum Take Off Weights / MTOW (t)	**January to December**	**30,072,709**	**1.3%**

In 2017, there was a turning point at Frankfurt Airport in regard to the development of aircraft movements. After years of a declining count a noticeable increase was recorded again. This was also due to far fewer strikes in 2017 despite a missing leap day compared to 2016. The airlines generally reacted to the higher demand for air travel by offering more passenger services (flights). Additional growth in Frankfurt was possible due to low cost carriers coming to Frankfurt Airport.

MTOWs were also up. However, they could not keep pace with the development of aircraft movements. Home base carriers did not add big aircraft to their fleets and many airlines tend to rely more on lighter aircraft (however, with more seats). Consequently, the average MTOW per aircraft landing was down by somewhat more than one percent in 2017.

The year started slow with a 1.2 % decline of aircraft movements by the end of the first quarter. This was also due to the missing leap day compared to 2016. The airlines started to offer more passenger services (flights) in April and quarter 2 had an increase of 1.2 % aircraft movements and quarter 3 even a plus of 2.9 %. With the winter timetable at the end of the year the dynamics increased even more so that the fourth quarter 2017 had a plus of 7.9 % compared to 2016.

There were slightly more domestic flights in 2017. The decline of flights connected to Berlin in the second half of the year was compensated by more flights to and from Friedrichshafen, Paderborn and Düsseldorf. In regard to Europe the airlines forged their network according to tourism streams. The offer of flights to and from Turkey was down due to the weak demand for travel to Turkish vacation spots. On the other hand, there were more flights to and from the western Mediterranean countries thus leading to an overall plus of 3.8 % connected to European passenger aircraft flights.

The increase of intercontinental passenger aircraft flights was based on growing demand for tourism travel. North Africa recorded a strong comeback. The high volume market North America experienced growth due to more flights being offered and new destinations. In contrast to this, the flights connected to Latin America decreased (Venezuela discontinued, fewer flights to and from Brazil). Asia stagnated overall because more flights on highly frequented routes were offset by discontinuation of flights to other destinations (Colombo, Shenyang).

The consolidation efforts of airlines to improve efficiency, which were required due to the tough competition in the European aviation sector, effected a substantial increase of payload connected to passenger aircraft flights. The count of passengers per passenger aircraft flight accomplished a new record of 145.4 in 2017 compared to 141.0 in 2016. The seat load factor achieved a new record, too. It increased by 2.5 percentage points to 79.4 %.

Whereas the count of passenger aircraft flights increased, the offer of freighter aircraft flights was down. The number of freighter aircraft flights was down by 1.5 % in 2017. Just as was the case for passenger flights, one noticed efficiency improvements. The count of airfreight per freighter aircraft flight was 63.0 mt and 4.3 % above the count in 2016. A slight decline was only noticed at the end of the year.

The offer of freighter aircraft flights to and from Russia declined because a stopover (for technical reasons) in Krasnojarsk is no longer required due to the long range of the 777 freighter aircraft. On the other hand, there were more direct freighter aircraft flights to and from China, South Korea and Japan.

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Tables

Month

Type of traffic		Aircraft Movements abs.	Δ%	Passengers abs.	Δ%	Air Freight (t) abs.	Δ%	Air Mail (t) abs.	Δ%
Total (civil aviation traffic)	arr.+dep.+tr.	35,172	3.6%	4,569,884	7.3%	170,720	-5.1%	9,466	7.3%
	arriving	17,635	3.7%	2,244,907	7.1%	79,782	-6.3%	4,767	23.1%
	departing	17,537	3.6%	2,317,219	7.5%	87,004	-5.4%	4,671	-3.7%
	arr.+dep.	35,172	3.6%	4,562,126	7.3%	166,786	-5.8%	9,437	8.2%
	transit			7,758	-11.0%	3,935	42.1%	29	-72.9%
Commercial traffic	arr.+dep.	34,666	3.5%	4,561,659	7.3%	166,784	-5.8%		
Scheduled/Charter	arr.+dep.	34,304	3.5%	4,560,843	7.3%	166,784	-5.8%		
	transit			7,758	-11.0%	3,935	42.1%		
Passenger flights	arr.+dep.	32,487	3.7%	4,560,843	7.3%	60,212	-4.5%		
Freighter flights	arr.+dep.	1,817	0.1%			106,572	-6.5%		
Mail flights	arr.+dep.	0	n.def.					0	n.def.
Other traffic	arr.+dep.	362	2.0%	816	9.5%				
Non-comercial traffic	arr.+dep.	506	11.0%	467	-48.1%	1	>100%		
Ferry flights	arr.+dep.	404	15.1%						

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	Air Cargo (t) abs.	Δ%
arr.+dep.+tr.	180,186	-4.5%
arr.+dep. (acc. to ACI-definition)	176,223	-5.1%

Year-to-date

Type of traffic		Aircraft Movements abs.	Δ%	Passengers abs.	Δ%	Air Freight (t) abs.	Δ%	Air Mail (t) abs.	Δ%
Total (civil aviation traffic)	arr.+dep.+tr.	475,537	2.7%	64,505,151	6.1%	2,143,622	3.7%	85,348	0.2%
	arriving	237,763	2.7%	32,385,716	6.2%	1,015,549	3.8%	37,337	5.3%
	departing	237,774	2.7%	32,028,682	6.1%	1,093,525	4.0%	47,645	-2.9%
	arr.+dep.	475,537	2.7%	64,414,398	6.1%	2,109,075	3.9%	84,981	0.5%
	transit			90,753	-10.1%	34,548	-9.6%	367	-46.3%
Commercial traffic	arr.+dep.	469,289	2.7%	64,409,703	6.1%	2,108,917	3.9%		
Scheduled/Charter	arr.+dep.	464,790	2.7%	64,398,509	6.1%	2,108,917	3.9%		
	transit			90,683	-10.1%	34,548	-9.6%		
Passenger flights	arr.+dep.	443,645	2.9%	64,398,509	6.1%	806,303	5.4%		
Freighter flights	arr.+dep.	21,145	-1.5%			1,302,614	3.1%		
Mail flights	arr.+dep.	0	n.def.					0	n.def.
Other traffic	arr.+dep.	4,499	4.4%	11,194	9.3%				
Non-comercial traffic	arr.+dep.	6,248	3.2%	4,695	-11.5%	158	>100%		
Ferry flights	arr.+dep.	4,692	1.6%						

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	Air Cargo (t) abs.	Δ%
arr.+dep.+tr.	2,228,971	3.6%
arr.+dep. (acc. to ACI-definition)	2,194,056	3.8%

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