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Chengdu 2016
WORLD ROUTES

NETWORK PLANNING 2016

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Don Wilson

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AIRLINES HIT NEW PEAKS

Airlines and airport network planners arrive in Chengdu for this year's World Routes with the industry showing distinct signs of a split personality.

On the one hand, for the airline sector things have seldom been better. Industry profits have been on the rise since the lows of the 2008 global financial crisis and recession. They reached record highs in 2015 as airline consolidation and restructuring efforts were bolstered by the sudden and welcome fall in fuel costs.

And while those profits have been driven by North American carriers – which have contributed well over half of the total for the last three years – financial performance has steadily improved in other regions and across more carriers.

This has been achieved off the back of unspectacular, and far from uniform, economic growth. Notably, through the cycle airlines have largely put greater focus on securing profitability rather than on chasing market share – something which historically has not necessarily been the case.

But this has not stopped the sector from growing. Passenger traffic has grown at annual rates in excess of 5% since 2010 and by over 7% in 2015.

"Air [passenger] travel volumes have been growing well above trend for the last few years. It's been a very strong market," notes IATA chief economist Brian Pearce.

Airline route development has also been boosted by a range of new aircraft. Lufthansa debuted Airbus's re-engined A320neo earlier this year and Swiss in July begin services with Bombardier's CSeries. With new widebody types – notably the Airbus A350 and Boeing 787 – also available, airlines have plenty of new metal to develop new routes.

But while the profits picture is strong, revenues and yields are falling. Fuel costs will still likely fall faster to keep airlines firmly in the black, but airlines have been striking a much more cautious note on capacity this winter and in summer 2017, especially amid market uncertainly.

And first-half industry traffic figures from IATA show the pace of air travel growth relenting, to 5.4% once the impact of the extra day for the leap year is accounted for.

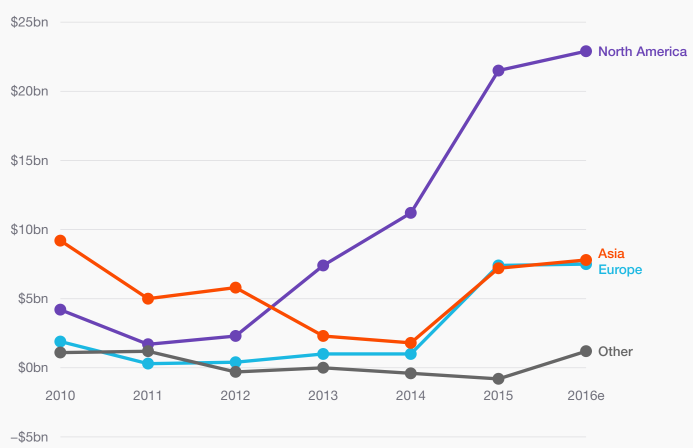
"The demand for travel continues to increase, but at a slower pace," notes IATA director general Tony Tyler. "The fragile and uncertain economic backdrop, political shocks and a wave of terrorist attacks are all contributing to a softer demand environment."

North African leisure traffic continues to struggle to recover from the tragic attacks to hit the region last year, while Europe has been hit by a series of incidents including the devastating attacks at Brussels and Istanbul Ataturk airports this year. Turkey, such a growth engine for the last decade, has faced mounting uncertainty including July's failed coup.

The economic picture has been further hit by fears and uncertainty following the UK's surprise referendum vote this summer in favour of leaving the EU. Prior to the Brexit vote, the IMF was seeing global economic growth in line with its 3.1% projection for this year, with improvements in the struggling Brazilian and Russian economies giving some cause for optimism of an improved picture for 2017. But in its July forecast it concludes that despite a better-than-expected start to the year, the global outlook for 2016 and 2017 has worsened.

But lower fuel costs – which have driven airline profitability and enabled carriers to withstand lower yields and prolong the life expectancy of older fuel-hungry aircraft and borderline-profitable routes – remain and will keep profits high. Airlines too have some insulation, even should the fuel price spike, as the same hedges that prevented many from enjoying the full gains of lower fuel costs until this year will provide a lower fuel-cost cushion for any rise in the oil price.

Industry net profits by region



SOURCE: IATA forecasts, 2016 estimates. Other includes net total for Africa, Latin America, Middle East

TRAFFIC GAINS STEP UP IN 2015

The ever-expanding low-cost carrier sector led the increase in passengers last year as industry growth shifted a gear

Passenger traffic grew sharply again in 2015, rising nearly 7% among the 150 biggest carriers. Data from FlightGlobal's World Airline Rankings shows airline traffic as measured by RPKs among these carriers grew 6.7% last year. This marks a further increase on the already strong 6% growth in 2014.

The developing low-cost carrier segment again drove much of this. Traffic among leading low-cost carriers increased 11.4% in 2015 and accounted for 18% of traffic among the top 150 carriers.

Passenger numbers among the low-cost sector were 10% higher last year, reaching 862 million. This accounted for 27% of passengers carried in 2015 among the top 150 airlines.

Evolving Irish carrier Ryanair was among the fastest-growing airlines in the sector last year, having put its foot on the accelerator since its fresh order of Boeing 737-800s began delivering in the autumn of 2014. Passenger growth had dropped back to single-digit levels in the delivery hiatus – growing only 3% in 2013. But double-digit growth resumed last year as the Irish carrier lifted passengers 17% to pass the 100 million mark for the first time.

Southwest Airlines remains the biggest of the low-cost sector carriers, handling almost 145 million passenger in 2015.

ULTRA-LOW-COST CARRIERS

There was double-digit growth at a number of other budget-sector operators last year, notably US ultra-low-cost carriers such as Allegiant Air and Spirit Airlines, as well as Vueling, Wizz and Pegasus in Europe, and Asian carriers such as Indigo and Spring Airlines.

Traffic growth at mainline carriers in 2015 was a lower, but still improved, rate of 6%.

Middle East carriers, led by the fast-developing big three Gulf operators, grew traffic at the fastest rate of all the regions in 2015, at just under 11%. That growth reflects the relatively large portion of long-haul traffic among the region's operators. In passenger terms, that growth drops down to just under 10%, but is still ahead of the next-fastest-growing region, Asia-Pacific. Operators from Asia among the top 150 airlines grew traffic 9% in 2015, accounting for the largest portion of traffic and passengers.

Top 150 passenger airline statistics by business model

	Pax traffic (RPK)		Load factors		Passenger numbers		Employees
Airline type	Million	Change %	Percent	Pt change	Million	Change (%)	Share (%)
Leisure	219,032	0.4	88.9	0.4	78	0.1	2
Low-cost	1,127,189	11.4	85.1	1.4	862	10.2	12
Mainline	4,852,269	5.9	80.0	0.3	2,169	5.4	85
Regional	104,259	14.5	82.2	1.3	107	6.5	1
TOTAL	6,302,749	6.7	81.2	0.5	3,215	6.5	100

Top 150 passenger airline statistics by region

	Pax traffic (RPK)		Load factors		Passenger numbers		Employees
Region	Million	Change %	Percent	Pt change	Million	Change (%)	Share (%)
Africa	92,818	2.7	68.2	0.2	34	3.5	4
Asia Pacific	1,954,254	8.9	79.6	1.5	1,035	8.4	34
Europe	1,714,827	4.9	83.2	0.8	868	6.2	22
Latin America	273,305	7.8	80.0	0.4	181	4.3	8
Middle East	598,380	10.9	77.1	-1.8	173	9.9	7
North America	1,669,165	4.8	83.7	0.3	924	4.7	25
TOTAL	6,302,749	6.7	81.2	0.5	3,215	6.5	100

Source: FlightGlobal World Airline Rankings

Top 20 airline groups by traffic

Rank	Airline	RPK (m)
1	American Airlines Group	358,823
2	Delta Air Lines	337,264
3	United Continental Holdings	335,728
4	Emirates Airline	255,176
5	Air France-KLM Group	235,715
6	IAG	221,996
7	Lufthansa Group	220,400
8	China Southern Air	189,552
9	Southwest Airlines	189,057
10	Air China Group	171,695
11	China Eastern Airlines	146,291
12	Ryanair	130,588
13	Cathay Pacific Group	122,330
14	Turkish Airlines	119,372
15	Singapore Airlines Group	119,009
16	Qatar Airways	114,464
17	Qantas Group	112,543
18	LATAM Airlines Group	111,510
19	Air Canada	108,680
20	Aeroflot Group	97,636

Source: FlightGlobal World Airline Rankings

TOP 100 AIRLINES BY TRAFFIC

Top passenger operations ranked by 2015 traffic: 1 to 50

Ranking		Airline	Country	Pax traffic (RPK)		Seat capacity (ASK)		Load factor		Pax number		Fleet current
2015	2014			Million	Change %	Million	Change %	Percent	Pt change	Million	Change %	
1	(1)	**American Airlines**	USA	358,823	2.4	432,396	1.2	83.0	1.0	201.2	2.0	1,269
2	(3)	**Delta Air Lines**	USA	337,264	3.3	397,034	3.0	84.9	0.3	179.4	4.7	950
3	(2)	**United Airlines**	USA	335,728	1.5	402,342	1.6	83.4	-0.2	140.4	1.7	719
4	(4)	**Emirates Airline**	UAE	255,176	8.4	333,726	12.8	76.5	-3.2	51.9	7.7	251
5	(5)	**Southwest Airlines**	USA	189,057	8.8	226,067	7.2	83.6	1.2	144.6	6.5	702
6	(6)	**Lufthansa**	Germany	162,173	3.4	202,314	2.4	80.2	0.7	79.3	2.3	338
7	(9)	**China Southern Airlines**	China	153,749	13.4	188,740	12.0	81.5	1.0	84.0	7.8	505
8	(10)	**China Eastern Airlines**	China	146,291	14.6	181,792	13.2	80.5	1.0	93.8	11.9	411
9	(7)	**British Airways**	UK	142,016	2.6	174,274	2.0	81.5	0.5	43.3	4.4	269
10	(8)	**Air France**	France	141,207	3.5	167,969	2.6	84.1	0.7	49.5	1.3	226
11	(11)	**Ryanair**	Ireland	130,588	15.4	140,739	9.7	92.9	4.6	106.4	17.4	357
12	(12)	**Air China**	China	124,805	10.9	156,300	7.1	79.8	2.8	58.8	7.6	366
13	(13)	**Turkish Airlines**	Turkey	119,372	11.7	153,209	13.6	77.9	-1.4	61.2	11.8	293
14	(15)	**Qatar Airways**	Qatar	114,464	19.3	151,980	19.9	75.3	-0.4	26.7	19.7	187
15	(14)	**Cathay Pacific**	Hong Kong	108,894	8.8	125,674	6.1	86.6	2.2	24.0	7.6	143
16	(18)	**Air Canada**	Canada	100,167	11.8	118,669	11.7	84.4	0.1	28.4	11.3	165
17	(16)	**Singapore Airlines**	Singapore	94,267	0.1	118,367	-1.4	79.6	1.1	19.0	1.6	103
18	(17)	**KLM**	Netherlands	93,228	1.9	107,850	2.0	86.4	-0.1	28.6	3.0	113
19	(22)	**Etihad Airways**	UAE	83,200	21.3	104,800	21.0	79.4	0.2	17.6	18.9	122
20	(20)	**All Nippon Airways**	Japan	79,093	6.6	114,076	4.0	69.3	1.7	50.8	0.8	193
21	(21)	**EasyJet**	UK	77,619	6.4	83,846	5.4	92.6	0.9	68.6	6.0	253
22	(19)	**Qantas**	Australia	75,479	0.9	95,901	-1.1	78.7	1.6	27.3	-1.2	140
23	(24)	**Aeroflot**	Russia	74,116	10.4	93,471	8.9	79.3	1.1	26.1	10.6	168
24	(23)	**Korean Air**	South Korea	71,647	5.4	93,141	2.4	76.9	2.2	25.0	6.5	167
25	(25)	**JetBlue Airways**	USA	67,112	10.3	79,256	9.5	84.7	0.6	35.1	9.4	219
26	(27)	**Hainan Airlines Group**	China	66,348	14.5	75,201	12.8	88.2	1.3	38.7	9.3	203
27	(26)	**TAM Linhas Aereas**	Brazil	60,690	0.7	73,847	1.6	82.2	-0.7	37.1	-2.3	161
28	(28)	**Thai Airways International**	Thailand	59,106	4.8	80,636	-1.2	73.3	4.3	18.4	3.8	78
29	(29)	**Japan Airlines**	Japan	58,041	9.7	77,896	6.8	74.5	2.0	32.4	15.0	158
30	(30)	**Saudia**	Saudi Arabia	49,491	-4.4	67,785	-0.1	73.0	-3.3	27.3	-1.1	162
31	(33)	**Alaska Airlines**	USA	48,817	9.2	57,782	10.7	84.5	-1.2	22.9	9.0	154
32	(34)	**Iberia**	Spain	48,564	13.8	59,872	10.2	81.1	2.5	16.5	16.0	98
33	(31)	**Air Berlin**	Germany	47,010	-4.6	55,844	-5.4	84.2	0.7	30.2	-4.6	93
34	(37)	**Norwegian**	Norway	42,284	12.4	49,028	5.5	86.2	5.3	25.8	7.4	110
35	(32)	**Malaysia Airlines**	Malaysia	40,369	-13.0	56,441	-9.8	71.5	-2.6	15.0	-11.7	80
36	(38)	**Asiana Airlines**	South Korea	39,678	7.1	49,674	6.2	79.9	0.7	17.7	2.3	83
37	(45)	**Jet Airways**	India	39,174	13.8	47,434	13.6	82.6	0.2	23.4	20.1	104
38	(42)	**Shenzhen Airlines**	China	39,109	11.7	48,054	10.7	81.4	0.7	25.5	10.0	162
39	(36)	**GOL**	Brazil	38,411	0.9	49,744	0.5	77.2	0.3	38.9	-3.1	132
40	(41)	**Air India**	India	38,133	8.6	50,419	5.7	75.6	2.0	18.5	11.1	106
41	(35)	**Virgin Atlantic Airways**	UK	37,157	-3.8	48,385	-0.7	76.8	-2.5	5.9	9.1	39
42	(39)	**China Airlines**	Taiwan	37,079	3.3	46,973	1.7	78.9	1.3	14.7	3.7	81
43	(40)	**Swiss**	Switzerland	35,992	0.8	43,160	1.1	83.4	-0.3	16.3	0.9	74
44	(49)	**Avianca**	Colombia	35,478	8.8	44,513	8.4	79.7	0.3	28.3	7.9	121
45	(51)	**Sichuan Airlines**	China	35,391	12.7	40,897	12.0	86.5	0.5	21.2	10.7	107
46	(52)	**EVA Air**	Taiwan	35,283	15.6	43,645	11.8	80.8	2.7	10.1	13.1	65
47	(46)	**WestJet**	Canada	34,635	3.3	43,285	5.2	80.0	-1.4	20.3	3.2	117
48	(44)	**Alitalia**	Italy	34,397	-0.3	44,431	-0.8	77.4	0.4	22.5	-0.8	104
49	(60)	**IndiGo**	India	34,186	31.2	40,984	22.2	83.4	5.7	31.4	37.1	109
50	(43)	**SAS**	Sweden	33,780	-2.4	44,288	-1.9	76.3	-0.3	28.1	-1.1	162

Top passenger operations ranked by 2015 traffic: 51 to 100

Ranking 2015	2014	Airline	Country	Pax traffic (RPK) Million	Change %	Seat capacity (ASK) Million	Change %	Load factor Percent
51	(50)	**Thomson Airways**	UK	33,395	5.5	35,612	4.7	93.8
52	(48)	**Lion Air** EST	Indonesia	33,000	0.1	37,400	0.2	88.2
53	(47)	**Virgin Australia**	Australia	32,827	-0.8	42,496	0.7	77.2
54	(53)	**Garuda Indonesia**	Indonesia	32,753	8.3	42,734	-0.4	76.6
55	(57)	**Xiamen Airlines**	China	32,520	17.4	42,959	14.9	75.7
56	(64)	**Wizz Air**	Hungary	30,786	21.4	34,844	19.1	88.2
57	(55)	**Jetstar**	Australia	30,503	6.5	37,955	3.1	80.4
58	(58)	**AirAsia**	Malaysia	30,006	10.0	37,408	8.1	80.2
59	(56)	**Air New Zealand**	New Zealand	29,934	6.6	35,601	6.6	84.1
60	(54)	**TAP Portugal**	Portugal	29,552	-1.9	37,599	0.6	78.6
61	(69)	**Spirit Airlines**	USA	28,954	27.1	34,185	30.0	84.7
62	(66)	**Philippine Airlines**	Philippines	28,379	14.3	41,547	19.5	68.3
63	(59)	**Vietnam Airlines**	Vietnam	28,325	7.7	33,791	7.2	83.8
64	(61)	**Condor**	Germany	27,903	7.7	31,020	8.2	90.0
65	(65)	**SkyWest Airlines**	USA	27,314	9.5	32,874	9.9	83.1
66	(63)	**Copa Airlines**	Panama	26,236	2.5	34,870	4.4	75.2
67	(68)	**Aeromexico**	Mexico	25,696	12.4	31,821	12.5	80.7
68	(67)	**Finnair**	Finland	25,592	3.3	31,836	3.1	80.4
69	(71)	**Ethiopian Airlines**	Ethiopia	25,085	12.7	37,509	18.7	66.9
70	(74)	**Vueling Airlines**	Spain	24,775	15.5	30,476	14.2	81.3
71	(70)	**Hawaiian Airlines**	USA	23,270	3.9	28,522	3.8	81.6
72	(72)	**Air Europa**	Spain	22,502	2.4	26,750	2.2	84.1
73	(76)	**Thomas Cook Airlines**	UK	22,460	8.5	24,470	8.1	91.8
74	(84)	**Spring Airlines**	China	22,176	21.4	23,885	21.7	92.8
75	(85)	**Frontier Airlines**	USA	21,822	21.6	25,240	25.1	86.5
76	(86)	**Shandong Airlines**	China	21,413	21.8	28,307	23.7	75.6
77	(83)	**Pegasus**	Turkey	21,223	16.0	27,413	12.4	77.4
78	(73)	**South African Airways**	South Africa	21,170	-3.0	28,576	-5.4	74.1
79	(79)	**LAN Airlines**	Chile	20,571	10.4	24,225	10.0	84.9
80	(62)	**ExpressJet Airlines**	USA	20,411	-20.3	25,296	-19.8	80.7
81	(88)	**Cebu Pacific Air**	Philippines	19,872	22.6	24,898	21.5	79.8
82	(78)	**El Al**	Israel	19,735	4.0	23,882	3.7	82.6
83	(80)	**TUIfly** EST	Germany	19,000	2.7	21,000	2.4	90.5
84	(91)	**Azul**	Brazil	18,636	18.6	23,423	18.9	79.6
85	(93)	**Volaris**	Mexico	18,603	18.9	22,610	18.8	82.3
86	(95)	**Aerolineas Argentinas**	Argentina	18,340	18.1	22,927	10.8	80.0
87	(81)	**Austrian**	Austria	18,190	-1.3	23,316	-0.1	78.0
88	(82)	**Egyptair**	Egypt	17,857	-2.7	27,104	-5.1	65.9
89	(102)	**Juneyao Airlines**	China	17,845	38.9	20,951	36.9	85.2
90	(75)	**AirAsia X**	Malaysia	17,553	-15.7	23,388	-7.8	75.1
91	(90)	**Aer Lingus**	Ireland	17,531	9.0	21,475	5.4	81.6
92	(89)	**Virgin America**	USA	16,792	3.6	20,419	3.7	82.2
93	(97)	**Capital Airlines**	China	16,758	21.2	18,708	20.2	89.6
94	(87)	**Air Transat** EST	Canada	16,400	0.1	18,400	2.4	89.0
95	(94)	**S7 Airlines**	Russia	15,701	0.8	19,553	0.3	80.3
96	(96)	**Air Arabia**	UAE	15,100	8.9	18,800	10.4	79.0
97	(105)	**Thai AirAsia**	Thailand	14,872	19.7	18,116	17.5	81.0
98	(110)	**Oman Air**	Oman	14,709	29.7	20,596	35.2	71.4
99	(104)	**Allegiant Air**	USA	14,392	14.3	16,937	17.7	85.0
100	(107)	**Dragonair**	Hong Kong	13,436	10.1	17,006	4.8	79.0

Notes: EST *Flight Airline Business* estimate has been used for indicative purposes where full-year figures are unavailable.

Top 50 airlines by passengers

Rank	Airline	No. of pax (m)
1	**American Airlines**	201.2
2	**Delta Air Lines**	179.4
3	**Southwest Airlines**	144.6
4	**United Airlines**	140.4
5	**Ryanair**	106.4
6	**China Eastern Airlines**	93.8
7	**China Southern Airlines**	84.0
8	**Lufthansa**	79.3
9	**EasyJet**	68.6
10	**Turkish Airlines**	61.2
11	**Air China**	58.8
12	**Emirates Airline**	51.9
13	**All Nippon Airways**	50.8
14	**Air France**	49.5
15	**British Airways**	43.3
16	**GOL**	38.9
17	**Hainan Airlines Group**	38.7
18	**TAM Linhas Aereas**	37.1
19	**JetBlue Airways**	35.1
20	**Japan Airlines**	32.4
21	**Lion Air**	32.0
22	**IndiGo**	31.4
23	**Air Berlin**	30.2
24	**SkyWest Airlines**	30.1
25	**KLM**	28.6
26	**Air Canada**	28.4
27	**Avianca**	28.3
28	**SAS**	28.1
29	**Qantas**	27.3
30	**Saudia**	27.3
31	**Qatar Airways**	26.7
32	**Aeroflot**	26.1
33	**ExpressJet Airlines**	26.0
34	**Norwegian**	25.8
35	**Shenzhen Airlines**	25.5
36	**Korean Air**	25.0
37	**Vueling Airlines**	24.8
38	**AirAsia**	24.3
39	**Cathay Pacific**	24.0
40	**Garuda Indonesia**	23.6
41	**Jet Airways**	23.4
42	**Alaska Airlines**	22.9
43	**Xiamen Airlines**	22.8
44	**Alitalia**	22.5
45	**Pegasus**	22.3
46	**Sichuan Airlines**	21.2
47	**Azul**	20.6
48	**WestJet**	20.3
49	**Wizz Air**	20.0
50	**Virgin Australia**	19.9

This year's ranking includes the individual passenger airline operations of all mainline, regional and charter carriers. Subsidiary carriers and regionals have been included in their own right where they are identifiable, independent operators from their parent. Group figures have been used where individual airline data is not avialable. Leisure operations have also been included reflecting the blurred line between scheduled and charter activities; TRAFFIC/CAPACITY/LOADS Traffic data generally includes scheduled and charter except for those carriers, such as the US majors, where the scheduled-only figures are more commonly used. All data is in metric units as follows: RPK=revenue passenger km, ASK=available seat km, RTK=revenue tonne km, 1 US ton=1.1 tonnes and 1 mile=1.609km; YEAR Results are for the fiscal year were available, but calendar or nearest full 12 month period available; SOURCEs and estimates Fleet data is provided by FlightGlobal's Fleets Analyzer, and includes the different operating units applicable to the traffif figures. All other figures are primarily sourced from company replies to Airline Business or company reports. Other sources include national regulators, regional airline assocations and ICAO. Estimates based on analysis of historical traffic, regional trends, financial and fleet data have been made for carriers where no figures are available for indicative purposes.

TOP 100 AIRPORTS BY TRAFFIC

Top airports ranked by 2015 traffic: 1 to 50

Ranking 2015	Ranking 2014	City	Airport	Code	Country	Passengers Number (000)	Passengers Change %	Available seats per week Number (000)	Available seats per week Av seats change %
1	(1)	**Atlanta**	Hartsfield-Jackson Int'l	ATL	USA	101,491	5.5	2,541	0.2
2	(2)	**Beijing**	Capital	PEK	China	89,939	4.4	2,432	1.5
3	(6)	**Dubai**	International	DXB	UAE	78,010	10.7	2,349	11.7
4	(7)	**Chicago**	O'Hare International	ORD	USA	76,950	9.9	1,923	-1.6
5	(4)	**Tokyo**	Haneda International	HND	Japan	75,317	3.4	2,106	0.7
6	(3)	**London**	Heathrow	LHR	UK	74,990	2.2	2,091	2.6
7	(5)	**Los Angeles**	International	LAX	USA	74,937	6.0	2,083	4.5
8	(10)	**Hong Kong**	International	HKG	Hong Kong	68,283	8.2	1,725	3.9
9	(8)	**Paris**	Charles de Gaulle	CDG	France	65,767	3.1	1,666	2.8
10	(9)	**Dallas/Fort Worth**	International	DFW	USA	64,072	0.8	1,554	-2.4
11	(13)	**Istanbul**	Ataturk International	IST	Turkey	61,837	9.2	1,701	9.5
12	(11)	**Frankfurt**	International	FRA	Germany	61,032	2.5	1,692	0.2
13	(19)	**Shanghai**	Pudong International	PVG	China	60,053	16.2	1,745	11.2
14	(14)	**Amsterdam**	Schiphol	AMS	Netherlands	58,285	6.0	1,526	8.2
15	(18)	**New York**	JFK	JFK	USA	56,827	6.7	1,499	4.5
16	(16)	**Singapore**	Changi	SIN	Singapore	55,449	2.5	1,562	3.8
17	(15)	**Guangzhou**	Baiyun International	CAN	China	55,202	0.8	1,529	10.4
18	(12)	**Jakarta**	Soekarno Hatta	CGK	Indonesia	54,054	-5.5	1,782	5.7
19	(17)	**Denver**	International	DEN	USA	54,015	1.0	1,521	-1.3
20	(22)	**Bangkok**	Suvarnabhumi	BKK	Thailand	52,902	14.0	1,413	4.8
21	(21)	**San Francisco**	International	SFO	USA	50,058	6.2	1,386	3.1
22	(23)	**Seoul**	Incheon Int'l	ICN	South Korea	49,413	8.2	1,332	8.3
23	(20)	**Kuala Lumpur**	International	KUL	Malaysia	48,934	0.0	1,307	-4.3
24	(27)	**Madrid**	Barajas	MAD	Spain	46,815	11.9	1,208	3.0
25	(31)	**Delhi**	Indira Gandhi Int'l	DEL	India	45,982	15.7	1,439	16.0
26	(25)	**Las Vegas**	McCarran	LAS	USA	45,371	5.8	1,336	-0.2
27	(24)	**Charlotte**	Douglas	CLT	USA	44,877	1.3	1,131	3.4
28	(29)	**Miami**	International	MIA	USA	44,350	8.3	1,056	0.7
29	(26)	**Phoenix**	Sky Harbor	PHX	USA	44,010	4.4	1,201	-3.0
30	(28)	**Houston**	George Bush	IAH	USA	42,962	4.2	1,045	-9.7
31	(40)	**Seattle**	Tacoma International	SEA	USA	42,340	12.9	1,163	8.3
32	(38)	**Chengdu**	Shuangliu Int'l	CTU	China	42,245	12.0	1,138	5.2
33	(34)	**Toronto**	Pearson Int'l	YYZ	Canada	41,031	6.4	1,038	4.7
34	(32)	**Munich**	International	MUC	Germany	40,982	3.2	1,202	10.9
35	(47)	**Mumbai**	International	BOM	India	40,637	16.1	1,156	6.6
36	(35)	**Rome**	Fiumicino	FCO	Italy	40,422	5.0	1,087	-1.7
37	(36)	**London**	Gatwick	LGW	UK	40,271	5.7	1,024	6.6
38	(33)	**Sydney**	Kingsford Smith Int'l	SYD	Australia	39,914	2.7	1,046	4.1
39	(41)	**Shenzhen**	Baoan International	SZX	China	39,722	9.5	1,113	3.8
40	(39)	**Barcelona**	El Prat	BCN	Spain	39,690	5.7	1,100	7.6
41	(30)	**Sao Paulo**	Guarulhos Int'l	GRU	Brazil	39,214	-1.4	878	-9.4
42	(37)	**Shanghai**	Hongqiao Int'l	SHA	China	39,091	2.9	1,045	4.5
43	(43)	**Orlando**	International	MCO	USA	38,728	8.4	1,128	-0.5
44	(42)	**Taipei**	Taoyuan International	TPE	Taiwan	38,473	7.5	1,053	11.9
45	(48)	**Mexico City**	Benito Juarez Int'l	MEX	Mexico	38,433	12.2	999	3.4
46	(52)	**Kunming**	Changshui Int'l	KMG	China	37,523	16.0	1,140	6.3
47	(44)	**Newark**	Liberty International	EWR	USA	37,428	5.1	1,011	-3.2
48	(45)	**Tokyo**	Narita International	NRT	Japan	37,268	4.9	970	2.9
49	(49)	**Manila**	Ninoy Aquino Int'l	MNL	Philippines	36,583	7.3	990	4.8
50	(46)	**Minneapolis-St. Paul**	International	MSP	USA	36,556	4.0	923	1.9

Top airports ranked by 2015 traffic: 51 to 100

Ranking 2015	Ranking 2014	City	Airport	Code	Country	Passengers Number (000)	Passengers Change %	Available seats per week Number (000)	Av seats change %
51	(54)	**Boston**	Logan International	BOS	USA	33,450	5.7	1,041	3.6
52	(51)	**Detroit**	Wayne County	DTW	USA	33,431	2.8	929	6.3
53	(53)	**Melbourne**	Tullamarine	MEL	Australia	33,102	4.3	824	2.5
54	(58)	**Xian**	Xianyang Int'l*	XIY	China	32,970	12.7	1,007	10.6
55	(57)	**Chongqing**	Jianbei Int'l*	CKG	China	32,400	10.7	929	10.3
56	(55)	**Moscow**	Sheremetyevo Int'l	SVO	Russia	31,612	0.1	782	7.5
57	(56)	**Philadelphia**	International	PHL	USA	31,443	2.3	844	-1.7
58	(64)	**Doha**	International	DOH	Qatar	31,009	17.1	1,021	21.1
59	(50)	**Moscow**	Domodedovo Int'l	DME	Russia	30,505	-7.9	648	-7.0
60	(82)	**Bangkok**	Don Mueang Int'l	DMK	Thailand	30,304	40.6	803	12.4
61	(61)	**Bogota**	El Dorado Int'l	BOG	Colombia	29,956	9.0	702	3.8
62	(59)	**Paris**	Orly	ORY	France	29,665	2.8	814	11.7
63	(63)	**Jeddah**	King Abdulaziz Int'l	JED	Saudi Arabia	29,010	9.2	788	11.2
64	(62)	**New York**	LaGuardia	LGA	USA	28,438	5.5	861	-0.3
65	(66)	**Hangzhou**	Xiaoshan Int'l	HGH	China	28,386	11.2	896	17.2
66	(70)	**Istanbul**	Sabiha Gokcen Int'l	SAW	Turkey	28,286	19.7	770	15.4
67	(60)	**Antalya**	International	AYT	Turkey	27,811	-2.4	360	-10.3
68	(68)	**Fort Lauderdale**	Hollywood Int'l	FLL	USA	26,942	9.3	766	5.5
69	(65)	**Copenhagen**	Kastrup	CPH	Denmark	26,578	3.9	760	12.5
70	(67)	**Zurich**	Zurich	ZRH	Switzerland	26,230	3.2	721	5.8
71	(71)	**Jeju**	International	CJU	South Korea	26,041	12.3	573	16.5
72	(80)	**Dublin**	International	DUB	Ireland	25,052	15.4	707	12.3
73	(69)	**Oslo**	Gardermoen	OSL	Norway	24,476	1.7	698	7.9
74	(75)	**Baltimore**	Washington Int'l	BWI	USA	23,817	6.7	803	-1.6
75	(72)	**Palma de Mallorca**	Palma de Mallorca	PMI	Spain	23,740	2.7	689	6.4
76	(78)	**Brussels**	National	BRU	Belgium	23,424	6.9	682	8.6
77	(91)	**Abu Dhabi**	International	AUH	UAE	23,293	17.3	604	5.9
78	(77)	**Manchester**	International	MAN	UK	23,206	5.2	628	13.8
79	(94)	**Osaka**	Kansai International	KIX	Japan	23,193	19.9	652	11.1
80	(74)	**Stockholm**	Arlanda	ARN	Sweden	23,173	3.2	672	12.6
81	(81)	**Seoul**	Gimpo International	GMP	South Korea	23,173	7.4	491	7.6
82	(87)	**Washington**	Reagan National	DCA	USA	23,007	10.7	709	-0.6
83	(73)	**Vienna**	International	VIE	Austria	22,775	1.3	665	4.6
84	(89)	**Riyadh**	King Khalid Int'l	RUH	Saudi Arabia	22,656	10.4	595	10.5
85	(90)	**London**	Stansted	STN	UK	22,504	12.8	559	6.0
86	(79)	**Dusseldorf**	International	DUS	Germany	22,477	2.9	659	11.7
87	(76)	**Brisbane**	International	BNE	Australia	22,392	0.6	561	-1.4
88	(85)	**Chicago**	Midway International	MDW	USA	22,221	5.5	719	-0.9
89	(84)	**Salt Lake City**	International	SLC	USA	22,152	4.8	569	0.7
90	(86)	**Xiamen**	Gaoqi International	XMN	China	21,814	4.6	754	14.7
91	(83)	**Washington**	Dulles International	IAD	USA	21,495	0.4	576	-10.5
92	(88)	**Berlin**	Tegel	TXL	Germany	21,005	1.5	582	9.4
93	(93)	**Fukuoka**	International	FUK	Japan	20,942	8.0	600	6.2
94	(92)	**Vancouver**	International	YVR	Canada	20,484	5.1	538	2.2
95	(95)	**Sapporo**	New Chitose	CTS	Japan	20,452	6.2	570	3.4
96	(100)	**Lisbon**	Portela	LIS	Portugal	20,090	10.7	543	10.7
97	(98)	**San Diego**	International	SAN	USA	20,081	7.0	619	-1.6
98	(96)	**Johannesburg**	International	JNB	South Africa	20,076	4.8	558	1.2
99	(103)	**Cancun**	International	CUN	Mexico	19,699	12.3	445	5.1
100	(99)	**Brasilia**	International	BSB	Brazil	19,504	7.5	470	-10.9

NOTES: The survey is primarily based on preliminary returns to the Airports Council International and Innovata schedule data; Xian and Chongqing sourced from Civil Aviation Administration of China. FlightGlobal schedules data has been used for frequency and available seat statistics and is based on flight schedules files for the week of 10-16 May 2016 compared with the week 11-17 May 2015

TON-UP FOR ATLANTA

Long the biggest airport in the world for passenger numbers, Atlanta Hartsfield became the first in the world to pass the 100 million annual passenger mark in 2015. Passenger numbers increased more than 5% last year to reach a new high of 101.5 million. Beijing remains the second biggest airport in the world with just short of 90 million passengers. While most of the bigger hubs enjoyed stronger growth last year than in 2014, the big climbers in the top 10 were Dubai and Chicago O'Hare, which now rank as the third and fourth largest airports in the world. Passenger numbers grew more than 10% at Dubai in reaching 78 million, continuing its dramatic growth. The figure is more than double the 37.4 million it handled just seven years ago, when it ranked as the 20th biggest airport in the world. The third biggest airport in 2014, London Heathrow increased passenger numbers 2% to reach 75 million last year but slipped to sixth largest in total as Chicago and Tokyo Haneda overhauled it. Continued fast growth at Los Angeles has also closed the gap between it and Heathrow to just under 1 million.

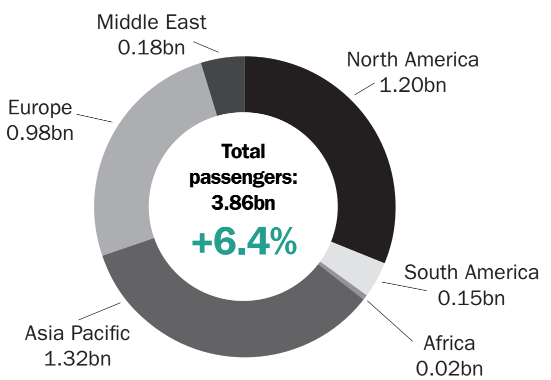
HIGH RISE

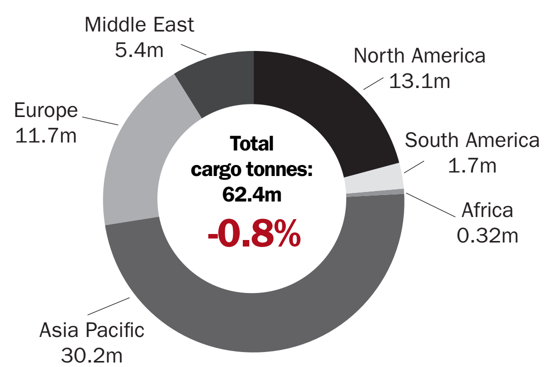
Indian and Chinese airports were among those to enjoy the biggest jump in traffic in 2015. Passenger numbers were up 16% at Shanghai Pudong airport, to 60 million, putting it just outside the top 10 largest.

There was also double-digit growth at Chinese airports Chengdu and Kunming – both of which feature among the top 50. Passenger numbers were up around 16% at the big Indian hubs of Delhi and Mumbai.

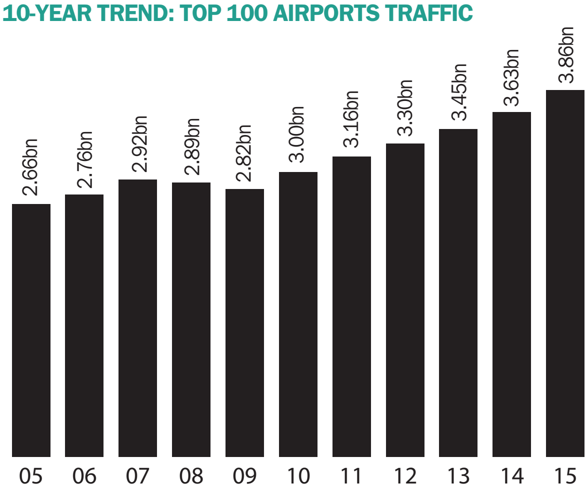
The return to expansion at Iberia also filtered through to its Madrid Barajas base. After falling traffic in five out of six years, it returned to growth in 2014 and more than doubled its rate of passenger growth to 12% last year, to reach 46.8 million. The Spanish airport still has some ground to make up though, to get back to its pre-global financial crisis peak of 52 million passengers.

REGIONAL SPLIT – TOP 100 AIRPORTS





10-YEAR TREND: TOP 100 AIRPORTS TRAFFIC



Passenger growth among top 100: 2015 leaders

Rank	Airline	Airport	Change	Survey ranking
1	**Bangkok**	Don Mueang	40.6%	60
2	**Osaka**	Kansai	19.9%	79
3	**Istanbul**	Sabiha Gokcen	19.7%	66
4	**Abu Dhabi**	International	17.3%	77
5	**Doha**	International	17.1%	58
6	**Shanghai**	Pudong	16.2%	13
7	**Mumbai**	International	16.1%	35
8	**Kunming**	Changshui	16.0%	46
9	**Delhi**	Indira Gandhi	15.7%	25
10	**Dublin**	International	15.4%	72

NOTES: Rankings based on year-on-year change in passenger traffic for the Top 100 airports. Based on preliminary ACI World data for 2015.

AIRLINE START-UPS AND FAILURES

After last autumn's high-profile collapse of Russian carrier Transaero – one of the biggest operators to cease operations in recent years – it has been a relatively quiet year so far in 2016 for airline start-ups and failures.

Transaero's troubles were rooted in Russia's economic challenges, especially the sharp weakening in the Russian Rouble and financing challenges.

Geopolitical and terrorist incidents, exchange rate volatility and the hit on yields from intense competition have created its share of challenges over the year so far. But the wider economic picture has been steady if unspectacular, while lower fuel costs have built in a cushion for airlines. As a result, there have been relatively few airline failures so far during 2016.

Belgian regional carrier VLM became one of the most established European airline names to cease operations, when it filed for bankruptcy in June.

Established over 20 years ago, Antwerp-based VLM shut down just over two years after the airline and its former parent, Irish regional carrier CityJet, were acquired from Air France-KLM by German turnaround specialist Intro Aviation. Six months after the acquisition, VLM became an independent airline through a management buyout. But the Fokker 50 operator was unable to establish a profitable business with ACMI and charter operations and its own scheduled routes, having previously concentrated on services for CityJet.

French carrier Air Mediterranee was another casualty. A court ordered its liquidation in February, ending the airline's fruitless hunt for an investor. Tarbes-based Air Mediterranee had operated charter and scheduled flights to European and North African destinations.

James Mellon/FlightGlobal

VLM Airlines operated Fokker 50 aircraft

Other airlines have been grounded at the hands of regulators. In April, Estonia's civil aviation authority grounded Avies – a regional carrier and air taxi firm – over safety concerns, giving it six months to restructure its business. Local reports at the end of August cite Avies owners as targeting a resumption in the coming weeks.

Italy's civil aviation authority ENAC suspended Air Vallee's AOC in June. But likewise, the Fokker 50 operator's website indicates plans for a return to service. Meanwhile, Kyrgyzstan's regulator imposed a temporary suspension of Air Bishkek's licence. Flight Fleets Analyzer shows that the carrier had been operating a single Airbus A320 on domestic and international routes.

Snapshot: airlines ceasing or suspending flights for at least one month

Airline	Country	Business model	Suspended date
Air Bishkek	Kyrgyzstan	Mainline	16/02/2016
Air Mediterranee	France	Leisure	15/02/2016
Air Vallee	Italy	Regional	01/06/2016
Avies	Estonia	Regional	01/04/2016
Fly Caminter	Cameroon	Regional	09/04/2016
Rayani Air	Malaysia	Mainline	13/06/2016
Senegal Airlines	Senegal	Mainline	12/04/2016
Sol Lineas Aereas	Argentina	Mainline	31/03/2016
VLM Airlines	Belgium	Regional	22/06/2016

Source: FlightGlobal; list comprises prominent airline failures or carriers suspending flights for one month or more as of 1 September 2016; some carriers may have plans to resume flights. Does not include smaller failures

The Malaysian Aviation Commission revoked start-up carrier Rayani Air's AOC in June, two months after imposing a temporary suspension. The airline had positioned itself as a Sharia-compliant carrier and operated two Boeing 737s after receiving its licence in December 2015. Local reports suggest it too is working on a potential restart of operations.

Elsewhere, Senegal Airlines' operating certificate expired in April, the flag carrier having been grounded earlier in the year as a result of accumulated financial losses. Local media outlets report the government intends to establish a follow-up carrier, with operational launch targeted for 2017.

In South America, Argentinian regional operator Sol stopped flying in January when Aerolineas Argentinas cancelled a four-month-old feeder partnership – after a management change at the flag carrier. Bolivian regional carrier Amaszonas later emerged as a potential buyer for Sol. But the Rosario-based airline's fleet – which comprised four Saab 340 turboprops – was offered for sale in May.

NEW KIDS ON THE BLOCK

But new carriers emerged in Latin America too – one of which has already run into trouble. Montevideo-based start-up Alas Uruguay launched operations with 737s in January, but ticket sales were suspended in July; the airline's call centre suggested that flights were halted as a result of a "restructuring".

In Chile, meanwhile, Latin American Wings began seasonal charter flights to Punta Cana in the Dominican Republic earlier this year. The airline wet-leased a 737 from ChileJet, but the aircraft was operated with LAW's livery, and the carrier plans to expand its fleet and network.

UK carrier CargoLogicAir launched operations with a 747-400 Freighter in January. Since then, the London Stansted-based subsidiary of Russian freight specialist Volga-Dnepr Group has added a 747-8F to its operations, and it plans to operate five aircraft by April 2018. Despite a trend toward belly freight on passenger aircraft, CargoLogicAir chief executive Dmitry Grishin says: "We believe the that the all-cargo airline business model has its place on the market and that we can achieve sustainable growth by specialising in outsize and flexible solutions for our customers."

Lithuanian-based Small Planet Airlines started scheduled operations of its newly established German arm with two leased A320s in May. Flights are being operated in partnership with tour operators TUI and Thomas Cook from Bremen and Paderborn. Andreas Wobig, chief executive of Berlin-based Small Planet Germany, told FlightGlobal in March that the airline intended to operate four A320-family aircraft in 2017.

Lufthansa low-cost subsidiary Eurowings launched the operations of its Vienna-based European division with a single A320 in June. Two further aircraft are to be added by October to the operation, which represents Eurowings' first base outside Germany. Lufthansa plans to build up Eurowings as a pan-European low-cost carrier with different operating units – both group-owned and external – flying under a single brand.

In Moldova, FlyOne started charter flights from its Chisinau base in April and, in June, added scheduled services to Moscow. The carrier has a pair of A320s and plans to add further destinations in Russia and western Europe.

Cypriot start-up Cobalt Air in July began scheduled flights

Snapshot: airlines that launched operation

Airline	Country	Business model	Launch date
Air Guilin	China	Regional	25/06/2016
Alas Uruguay	Uruguay	Mainline	21/01/2016
CargoLogicAir	UK	Cargo	25/01/2016
Cobalt Air	Cyprus	Mainline	01/06/2016
Eurowings Europe	Austria	Low-cost	23/06/2016
FlyOne	Moldova	Leisure	30/04/2016
Himalaya Airlines	Nepal	Leisure	12/04/2016
Hongtu Airlines	China	Mainline	21/05/2016
Jiangxi Airlines	China	Regional	29/01/2016
Latin American Wings	Chile	Regional	28/01/2016
Small Planet Airlines	Germany	Leisure	13/05/2016

Source: FlightGlobal; list shows prominent airline start-ups as of 1 September 2016. Does not include smaller start-ups to London and Manchester in the UK and to Irish capital Dublin.

Three airlines have launched operations in China. Nanchang-based Jiangxi Airlines conducted its first services in January to Xian and Urumqui, and has meanwhile added other domestic routes. The carrier is a joint venture between Xiamen Airlines – which holds a 60% shareholding – and Jiangxi Aviation Investment. It operates 737-800s that have been transferred from Xiamen. That carrier's chief operating officer Zhao Dong told FlightGlobal in May that Jiangxi could adopt a low-cost model in future in order to differentiate itself from its parent.

Hongtu Airlines operating its inaugural flight in May, from its Kunming base to Nanchang. The airline, which Flight Fleets Analyzer shows operates A321s, is a joint venture between seven investors, with Kunming Evergreen Financing holding the largest share.

At the end of June, Air Guilin started operations to Zhengzhou with an A319. Further domestic destinations have been added to the Guilin-based carrier's network. It plans to serve airports in Japan, Korean and other Southeast Asian countries from 2018 and, from 2020, operate intercontinental flights too. It is a 60:40 joint venture between Guilin Tourism Development and another corporation, Guilin Aviation Tourism, which is a partnership between the city's municipal government and HNA Group.

Another planned Chinese start-up Longjiang Airlines (LJ Air) has applied to the Civil Aviation Administration of China for an air operator's certificate.

The carrier will operate domestic passenger and cargo services out of Harbin Taiping International airport. It has also been approved to acquire two Airbus A321s and take another A320 on operating lease.

On its website, the carrier says it also plans to acquire 20 A320 family jets direct from Airbus, to be delivered before 2020. The carrier will start operations with domestic services to destinations such as Beijing, Shanghai, Guangzhou and Shenzhen, before launching international services to points in Japan, Korea and Russia. The carrier is 100% owned by Harbin Xiangyu Products.

Nepalese start-up Himalaya Airlines conducted its inaugural flight from its Kathmandu base to Qatari capital Doha in May, using a leased single A320 and plans to acquire 15 of the type by 2021. The airline says it will serve Bangkok, Beijing, Dammam, Delhi, Chengdu, Colombo, Hong Kong and Lhasa in the "near future".

Meanwhile, Armenia's new flag carrier started revenue passenger services at the end of July. Following a maiden charter flight from Yerevan to Larnaca on 5 July, the start-up – named simply Armenia – began scheduled services to Mineralniye Vody in Russia.

James Mellon/FlightGlobal

This Boeing 747-400F of CargoLogicAir has since been joined by a 747-8F Freighter

CHINA FOCUS

NEW INTERNATIONAL ROUTES PLANNED

China Eastern Airlines, China Southern Airlines, Sichuan Airlines and Tibet Airlines have filed applications with the Civil Aviation Administration of China (CAAC) seeking to operate new international services.

China Southern hopes to begin a thrice-weekly routing from Guangzhou through Urumqi to the Austrian capital Vienna in December.

Sichuan Airlines is seeking authority to begin twice-weekly services from Chengdu to Dubai, and Guangzhou to Kalibo using Airbus narrowbodies.

Tibet Airlines meanwhile is planning a daily link to Khathmandu from Chengdu – three rotations a week of which would operate through Lhasa.

China Eastern seeks to add a Ningbo stop on its Shanghai-Prague service. From October onwards, it plans to operate a once-weekly Shanghai Pudong-Ningbo-Prague service, using Airbus A330s.

CHINESE CARRIERS AIR NEW NORTH AMERICAN ROUTES

Chinese carriers have several new routes to the USA and Canada lined up for launch, as they continue to expand their international operations.

That includes Xiamen Airlines's first services to the USA, which begin on 26 September when it launches a Xiamen-Shenzhen-Seattle service. The airline, which is 51% owned by China Southern Air Holdings, will deploy Boeing 787 aircraft on the route.

Seattle marks Xiamen's fourth long-haul route. It already operates Fuzhou-Sydney, Xiamen-Amsterdam, and Xiamen-Sydney services.

Port of Seattle

Xiamen Airlines's first services to the USA begins with a Xiamen-Shenzhen-Seattle service

FlightGlobal schedules data shows that Xiamen Airlines will be the only operator on the Shenzhen-Seattle route. It marks a new destination in mainland China from Seattle Tacoma airport, which already has daily flights to Beijing operated by Delta Air Lines and Hainan Airlines, as well as flights to Shanghai Pudong operated by the same airlines.

Three days later on 29 September China Eastern Airlines will launch a direct service between Qingdao and San Francisco. The carrier will operate the thrice weekly service using Airbus A330s. This will be the first direct service to the USA from Qingdao.

Airbus

China Eastern Airlines currently operates more than 40 A330s

FlightGlobal schedules data shows that there are already direct services from seven points in China, including Beijing, Shanghai and Chengdu, to San Francisco.

Hainan Airlines plans to launch services between Beijing and Las Vegas on 2 December. The carrier has applied to the US Department of Transport for a thrice-weekly service using Boeing 787-9s. This will make Las Vegas the eighth point in its North American network.

Hainan Airlines will provide services between Beijing and Las Vegas from December

FlightGlobal schedules data shows that there are currently no services between China and Las Vegas.

China Southern Airlines meanwhile plans to launch a Guangzhou-Toronto service on 7 December. The carrier will operate the route on a thrice-weekly basis using Boeing 777-300ERs. FlightGlobal schedules data shows that the airline will be the only operator on the route.

CHINESE CARRIERS BRANCH OUT

China's Hebei Airlines has applied to expand the scope of its business, to go beyond domestic operations.

Besides its current domestic passenger and cargo services, the carrier wants to start operating services to Macau and Taiwan, as well as other regional destinations.

FlightGlobal schedules data shows that Hebei Airlines operates domestic services out of Shijiazhuang Zhengding airport, largely within eastern China. It has a fleet of 11 Boeing 737s and six Embraer 190s in service, according to Flight Fleets Analyzer.

Kunming Airlines has filed an application with the Chinese regulator to launch international services.

Currently, it is allowed to operate passenger and cargo services within the Greater China region. Kunming Airlines began operations in 2009, operating services out of Kunming to destinations such as Shanghai, Shenzhen, Taiyuan, and Wuhan.

Flight Fleets Analyzer shows that the airline operates 19 Boeing 737s. It also has signed a letter of intent to order 16 737 Max aircraft.

Tibet Airlines meanwhile is seeking rights to launch a long-haul service to Sochi from November, which will mark its first international route.

The carrier plans to operate a daily Sanya-Chengdu-Sochi service, using Airbus A330s. FlightGlobal schedules data shows that Tibet Airlines will be the only operator to Sochi from China.

Lucky Air in June applied for authority to begin international services, and has become a new member of IATA in a move to become more active on the international stage. The membership status comes after the Kunming-based low-cost carrier passed the IATA operational safety audit in March.

Being an IATA member will increase opportunities for collaborations with foreign carriers, as well as provide support in such situations, says the HNA subsidiary. It will also help in its international expansion, it adds.

In an interview with FlightGlobal in May, Lucky Air said it will focus on expanding its international network this year, with plans to launch intercontinental services next year. The carrier was also in the process of transforming into a low-cost operation.

It said then that it was also mulling a widebody order, likely for the 787, and that there are plans to put the aircraft on services to Europe, North America, Africa and Australia.

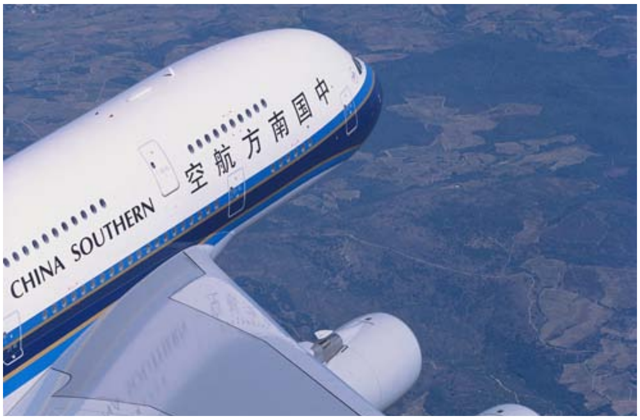
FlightGlobal schedules data shows that Lucky Air operates mostly domestic services, and that its only international links are to Thailand, Cambodia, Vietnam, Malaysia, Korea and Japan.

CHINA SOUTHERN HUB STRATEGY

China Southern Airlines is continuing its effort to build a hub and spoke network centred on the four hubs of Guangzhou, Beijing, Urumqi, and Chongqing.

The carrier argues that Guangzhou is now the key hub to connect mainland China with Australia, New Zealand, southeast Asia, and south Asia. The carrier made the remarks in its first half financial results for the six months ended 30 June.

It notes that the volume of international transit passengers at the Guangzhou, Beijing and Urumqi hubs grew 10% compared with the first half of 2015. International transit growth at Guangzhou saw especially strong growth of 18%.



Airbus

China Southern Airlines considers Guangzhou the key hub to connect mainland China with Australia, New Zealand, southeast Asia, and south Asia

It notes 17% growth in domestic passengers transferring to international flights, and 18% in passengers transferring from international flights to domestic flights.

The carrier's overall passenger revenue for the first half of 2016 was CNY48.7 billion ($7.29 billion), up 1% from a year earlier, with passenger traffic growing 7.7%.

AIR CHINA MAKES CONNECTIONS POINT

Air China says that its international-to-international connecting traffic grew strongly in the first half of 2016.

"The global network structure has further been enhanced with a 57% increase in international to international connecting passengers, as our efforts in focussing on the hub network strategy and expansion of the route network have attended with pleasing results," says Air China in its interim results announcement.

To help build Beijing as an international hub, it has boosted frequency on several routes, such as Manila, Bangkok, Fuzhou, Guiyang, and others.

In addition, it has added routes to several Asian cities under the auspices of the government's "One Belt, One Road" initiative, which is aimed at increasing China's links within the region.

"We continued to build Shanghai into an international gateway through expansion of our domestic network connecting to Shanghai, and providing international connecting flights to passengers of our existing international routes," it adds.

"In our continuous efforts to develop Chengdu as a regional hub, we increased the frequency of a number of domestic routes to Ningbo, Korla and other destinations, thereby strengthening our competitive position in western region."

In addition, the carrier has launched international services from Shenzhen to Frankfurt, as well as a Shenzhen-Beijing-Los Angeles route.

CHENGDU LAYS OUT GROWTH AMBITIONS

With strong passenger growth and a second airport on the way, Chengdu wants to join the ranks of China's top three cities: Beijing, Shanghai and Guangzhou.

Last year, Chengdu Shuangliu International airport handled 42.2 million passengers, a 12% increase from 2014. This year, it expects passenger numbers to hit 47 million, close to its 50 million capacity. It forecasts throughput of 63 million by 2020 – precisely why the city needs a second airport.

Sichuan Province Airport Group board chairman Li Wei tells FlightGlobal that construction of the city's second airport, to be called Chengdu TianFu International, started in May, and that the target is for it to be operational by 2020. The airport operator is responsible for both airports.

The upcoming airport will initially have three runways and a capacity to handle 40 million passengers, with longer term plans to expand into a six-runway system. Once up and running, Chengdu will become the third city, after Shanghai and Beijing, to have two commercial airports.

Li says it is still not clear how traffic will be divided between the two gateways, but that the new airport will accommodate the majority of low-cost airlines. This is since the facility is about 50km from the city centre, and thus better suited for travelers who are not in a hurry.

The existing airport, which is about a 20-minute drive from town, will meanwhile develop more domestic point to point services, focusing on business as well as premium tourist traffic. He would not say whether both airports will handle international services.

"Chengdu will become an international gateway into Europe, Southeast Asia, North Asia, Central Asia and Middle East, as an important transit point," says Li.

Chengdu Shuangliu International airport handled 42.2 million passengers in 2015

New Chinese airline flights beyond Asia-Pacific

Airline	Origin	Destinations	Flights	Seats	ASKs
Air China	Chengdu	Paris CDG	18	4,518	37,358,481
Air China	Chongqing	Dubai	13	3,263	16,405,028
Air China	Beijing	Newark	28	8,708	95,744,793
Air China	Shenzhen	Frankfurt	13	3,263	29,848,329
Air China	Beijing	Montreal	13	4,043	42,351,315
Beijing Capital Airlines	Hangzhou	Madrid	4	884	9,063,768
Beijing Capital Airlines	Beijing	Male	13	2,873	16,848,564
China Eastern Airlines	Shanghai Pudong	Amsterdam	18	4,338	38,739,424
China Eastern Airlines	Shanghai Pudong	St Petersburg	13	2,782	19,892,177
China Eastern Airlines	Shanghai Pudong	Madrid	29	6,989	71,917,827
China Eastern Airlines	Shanghai Pudong	Chicago O'Hare	31	9,796	111,254,550
China Eastern Airlines	Shanghai Pudong	Prague	13	3,133	26,753,249
China Southern	Wuhan	Dubai	13	2,821	16,253,055
China Southern	Wuhan	Rome Fiumicino	13	3,367	29,309,539
China Southern	Guangzhou	Moscow Sheremetyevo	18	5,328	37,470,936
Hainan Airlines	Xi'an	Rome Fiumicino	14	3,108	24,984,197
Hainan Airlines	Changsha	Los Angeles	9	2,331	26,214,650
Hainan Airlines	Beijing	Manchester	18	5,184	42,072,939
Hainan Airlines	Beijing	Prague	14	3,514	26,291,187
Hainan Airlines	Beijing	Tel Aviv	13	2,886	20,659,033
Hainan Airlines	Beijing	Calgary	13	3,256	28,563,371
Shanghai Airlines	Shanghai Pudong	Male	13	3,146	18,429,306
Sichuan Airlines	Chengdu	Prague	6	1,470	10,948,625
Sichuan Airlines	Yinchuan	Dubai	9	2,205	10,975,831
TianJin Airlines	Chongqing	London Gatwick	9	2,331	19,957,346
TianJin Airlines	Tianjin	Moscow Sheremetyevo	5	1,295	7,681,994
Xiamen Airlines	Xiamen	Vancouver	13	3,068	30,217,301

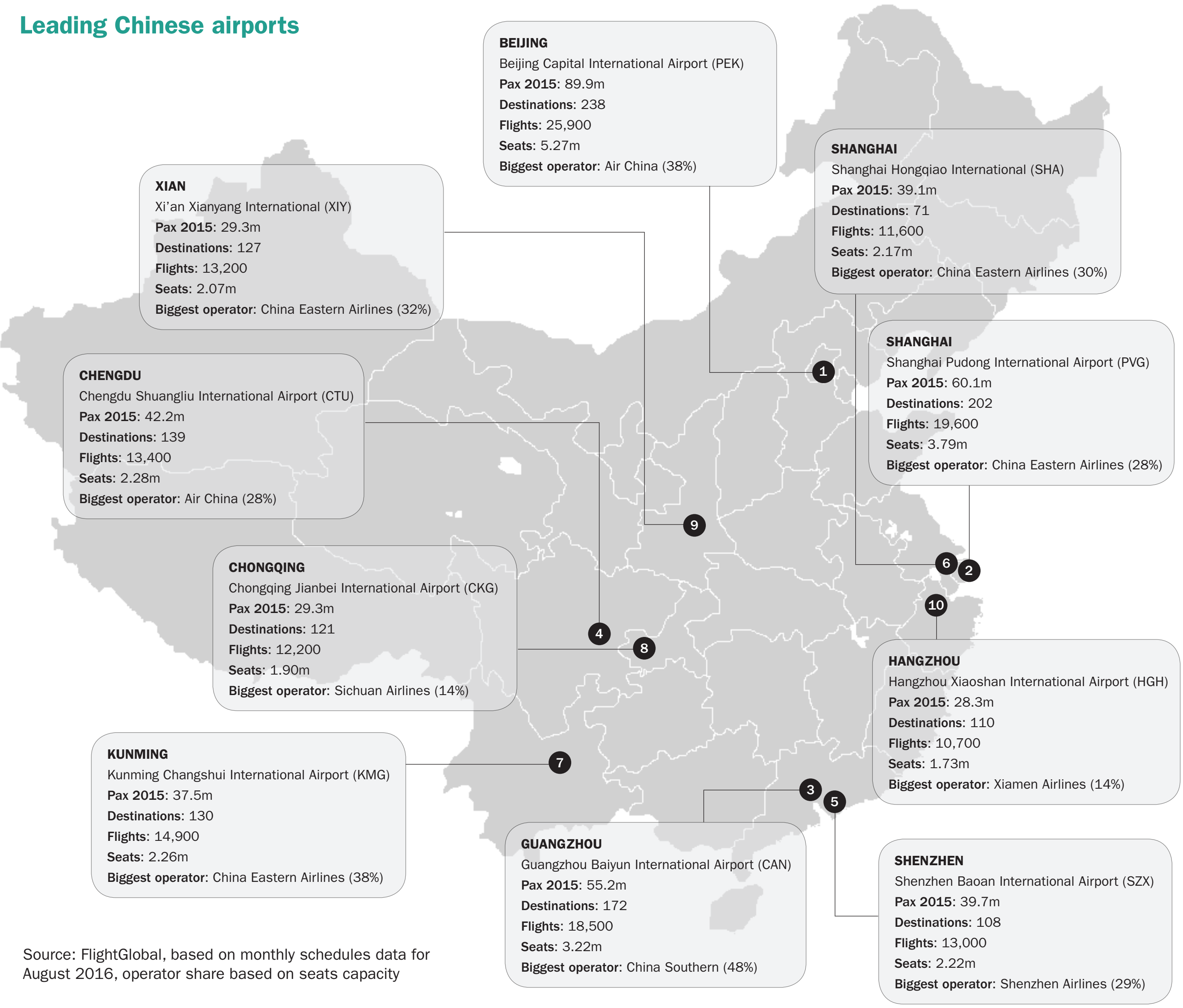
Source: FlightGlobal, based on China routes beyond Asia-Pacific flown in August 2016, but not August 2015

New non-Asian airline flights to China

Airline	Origin	Destinations	Flights	Seats	ASKs
Air Seychelles	Seychelles	Beijing	5	1,255	9,977,450
Alitalia	Rome Fiumicino	Beijing	16	3,584	29,283,572
Austrian Airlines	Vienna	Shanghai Pudong	31	8,618	73,396,477
Emirates	Dubai	Yinchuan	17	4,522	22,509,164
Finnair	Helsinki	Guangzhou	18	4,878	37,595,470
Iberia	Madrid	Shanghai Pudong	14	3,514	36,159,572
Iraqi Airways	Baghdad	Guangzhou	4	1,244	8,366,458
Iraqi Airways	Basrah	Beijing	5	1,555	9,627,233
Lufthansa	Frankfurt	Qingdao	13	3,211	26,799,192
S7 Airlines	Novosibirsk	Shanghai Pudong	9	1,440	5,844,622
United Airlines	San Francisco	Hangzhou	14	3,528	35,497,391
United Airlines	San Francisco	Xi'an	13	2,847	29,758,806
VIM Airlines	Moscow Domodedovo	Guangzhou	8	2,496	17,485,664
VIM Airlines	St Petersburg	Beijing	9	2,808	17,054,849

Source: FlightGlobal, based on China routes beyond Asia-Pacific flown in August 2016, but not August 2015

Leading Chinese airports



Source: FlightGlobal, based on monthly schedules data for August 2016, operator share based on seats capacity

CHINESE AIRPORTS GROWTH STORY

Airports in mainland China continue to grow apace as the country's aviation market expands. Beijing Capital airport is by a distance the second largest airport in the world in handling just under 90 million passengers in 2015. This put it behind only Atlanta in terms of passenger numbers last year.

But passenger growth has been strong across Chinese airports. Shanghai Pudong and Guangzhou both feature, alongside Hong Kong, among the 20 biggest airports in the world by passenger numbers in 2015. Mainland China has 10 airports featuring among the 65 biggest in the world, and between them handled over 450 million passengers in 2015.

That has more than doubled from the 220 million passengers the 10 biggest Chinese airports handled in 2008. This underlines the growth not just of the big Chinese mainland hubs, but also airports across the country.

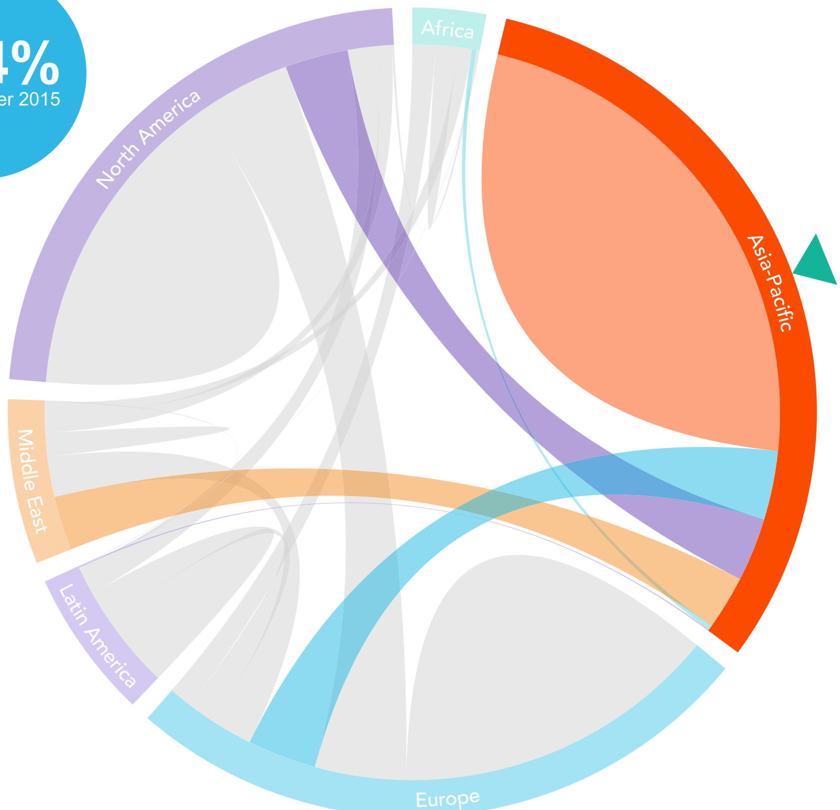
Nine years ago only Beijing – alongside Hong Kong – featured among the 30 biggest airports and only seven mainland Chinese airports feature among the 100 biggest in the world.

Beijing was itself only the eighth biggest airport in the world in 2008, with just over 55 million passengers using the Chinese hub that year.

CAPACITY SNAPSHOT

September capacity:
172.8bn ASKs/wk

▲7.4%
vs September 2015

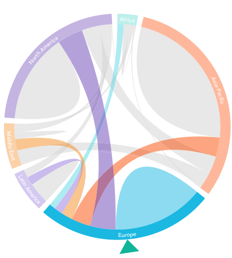


Focus on: Asia-Pacific

56.9bn ASKs/wk
▲ 9.2% YoY

	Weekly capacity ASK		
Region	Millions		Change
Intra-region	41,640	▲	10%
Europe	5,489	▲	4%
North America	5,036	▲	9%
Middle East	4,306	▲	10%
Africa	349	▲	5%
Latin America	88	▲	22%

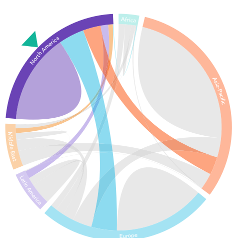
Europe



46.2bn ASKs/wk
▲ 7.4% YoY

	Weekly capacity ASK		
Region	Millions		Change
Intra-region	28,314	▲	8%
North America	7,748	▲	10%
Asia-Pacific	5,287	▲	4%
Middle East	2,794	▲	12%
Latin America	1,326	▲	7%
Africa	245	▼	3%

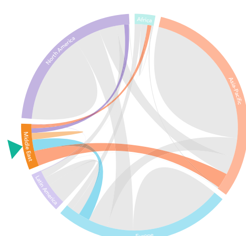
North America



41.6bn ASKs/wk
▲ 6.0% YoY

	Weekly capacity ASK		
Region	Millions		Change
Intra-region	25,564	▲	4%
Europe	7,267	▲	10%
Asia-Pacific	5,052	▲	9%
Latin America	2,165	▼	<¼%
Middle East	1,329	▲	15%
Africa	218	▼	2%

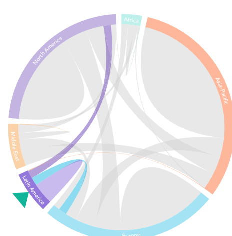
Middle East



12.0bn ASKs/wk
▲ 11.5% YoY

	Weekly capacity ASK		
Region	Millions		Change
Asia-Pacific	4,326	▲	10%
Europe	3,185	▲	12%
Intra-region	1,905	▲	13%
North America	1,316	▲	14%
Africa	1,115	▲	12%
Latin America	115	▼	5%

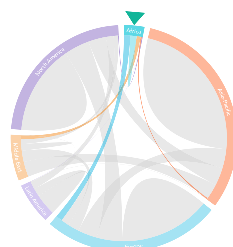
Latin America



10.9bn ASKs/wk
▲ 2.9% YoY

	Weekly capacity ASK		
Region	Millions		Change
Intra-region	6,101	▲	3%
Europe	2,340	▲	7%
North America	2,167	▲	< ¼%
Middle East	113	▼	7%
Asia-Pacific	88	▲	23%
Africa	43	▲	1%

Africa



5.3bn ASKs/wk
▲ 2.7% YoY

	Weekly capacity ASK		
Region	Millions		Change
Europe	1,840	▼	3%
Intra-region	1,767	▲	5%
Middle East	1,103	▲	9%
Asia-Pacific	349	▲	5%
North America	183	▲	<½%
Latin America	43	▲	2%

Notes: Data based on one week of schedules data, September 2016 against September 2015
Figures reflect airlines operating nonstop unrestricted scheduled passenger services

SEATTLE-TACOMA INTERNATIONAL AIRPORT

Port of Seattle®

North America's Fastest-Growing Airport

Seattle-Tacoma International Airport has been North America's fastest-growing major airport for the past two years, offering 22 intercontinental services connecting to over 100 destinations in North America.

Located exactly halfway between Tokyo and London, Seattle-Tacoma is the U.S. West Coast's closest gateway to both Europe and Asia.

Passenger growth as reported by Airports Council International