

Q4 2017 BUSINESS AVIATION INDEX



INTRODUCTION

The JSSI Business Aviation Index tracks and reports on the global flight activity and utilization of approximately 2,000 business aircraft, including jets, turboprops and helicopters. The report calculates the average flight hours flown per aircraft on a monthly basis and organizes this data into several key categories.

The JSSI Business Aviation Index is broken into four primary categories: Industry, Aircraft Type, Geographical Region and Aircraft Age. The data presented in this report is subject to the core variables in our business. These variables include, but are not limited to: accurate and timely flight hour reporting; customer addition and attrition; fleet demographic changes, such as fleet size or aircraft class; and any geopolitical events that may inhibit timely or accurate data collection.

The JSSI Business Aviation Index has

been further expanded to include financial ratings of the same segments in which flight hour activity is categorized. This financial rating methodology has been developed by JSSI and leverages a proprietary method of tracking, reporting and analyzing relevant data.

The data evaluates and determines both the Client Performance Score (CPS) and relevant trends. The *CPS* is a metric for each JSSI contract, derived from two components: 1) the average days to report flight hours, and 2) the average days to pay open invoices—both over a rolling 12-month period.

Trending using performance scores looks back by quarter over the last 12 months. A 12-month trend factor is assigned to indicate the number of aging categories in which a particular contract has either improved, or regressed, during the period.



ABOUT

For nearly 30 years, Jet Support Services, Inc. (JSSI), has been the leading independent provider o maintenance programs to the business aviation industry, covering virtually all makes and models of business aircraft, engines, and APUs.

JSSI provides customers with comprehensive, flexible and affordable financial programs and tools for managing the often unpredictable costs of operating and maintaining nearly all types of turbine-powered aircraft, including business and commercial jets, turboprops and helicopters. JSSI serves customers globally and manages maintenance services through its worldwide infrastructure of certified technical advisors.

JSSI has always been deeply committed to providing clients and the industry with the highest standard of service and excellence. The JSSI team adds further value by developing the most innovative products and services and expanding into new markets. JSSI publishes a quarterly Business Aviation Index to track flight hours and financial performance of business and commercial aircraft by region, industry and cabin type.

Flight hour activity provides powerful and unique insights into the state of the global economy. The information provided in this report could include technical or other mistakes or inaccuracies. JSSI makes no representations regarding the quality, accuracy, completeness or suitability of the materials on this or any other report, and disclaims any duty to keep this information current or accurate.



WELCOME MESSAGE

It is my pleasure to introduce the JSSI Business Aviation Index for the fourth quarter of 2017. In summary, this was the strongest Q4 recorded over the last 10 years.

Flight hour utilization is cyclical, with peak hours occurring over the busy summer months in Q3. On average, flight hours dip 4% in Q4; however, in 2017 we saw a decrease of just 0.4 percent during the same period.

Flight hour activity has always been a strong indicator of the overall health of the economy. The increase in average flight hours of 4.5% year to date indicates a continued strengthening of the global economy.

The JSSI Business Aviation Index tracks and reports on the global flight activity and utilization of approximately 2,000 business aircraft. Each report summarizes the average flight hours flown per aircraft on a monthly basis and organizes this data into key categories and nine regions.

We hope that you find the report valuable as you analyze current market conditions and how they impact your business.

Regards,

Neil W. Book
President and CEO

If you would like to discuss any of the data points or results in more detail, or would like to use this data in your reports, please contact the corresponding JSSI employee:

Charlie Rubinowicz

Product Manager crubinowicz@jetsupport.com

Tom Morton

Technical Communications Specialist tmorton@jetsupport.com



5	OVERALL
9	INDUSTRY
21	AIRCRAFT TYPE
24	REGIONAL
34	AIRCRAFT AGE
37	OPERATOR TYPE
40	CPS SCORE AND TRENDING



Q4 2017 Results

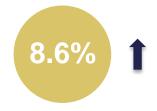
QoQ Change -0.4%

YoY Change 6.1%

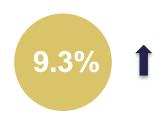
YTD Change 4.5%

Q4 2017 Flight Hour Highlights





QoQ INCREASEAsia-Pacific



QoQ INCREASECentral America



YTD INCREASE
North America







Q4 2017 Average Flight Hours QoQ



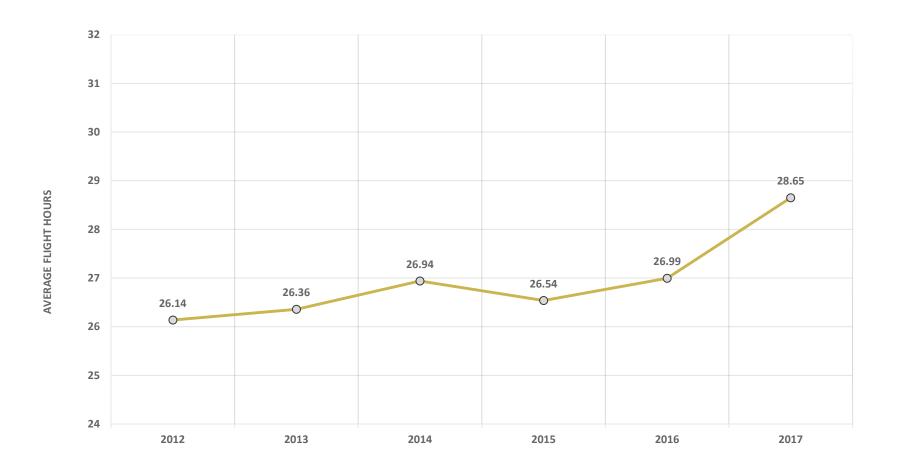
There was a marginal 0.4% decrease in utilization per aircraft from Q3, which represents approximately 0.10 flight hours. While Q4 utilization is often lower than Q3, the 0.4% decrease represents the smallest reduction in utilization at the end of the year since 2009.



Q4 2017 Average Flight Hours YoY



Flight activity has continued to grow year over year (YoY) since 2012. There was a 6.1% increase YoY in Q4 of 2017. With the strong quarter over quarter (QoQ) and YoY numbers, there has been a 4.5% increase year to date (YTD).



Q4 2017 Flight Hour Activity by Industry



The JSSI Business Aviation Index tracks nine major industries. The report defines these industries as follows:

Aviation—Companies in this industry include those with a primary purpose to generate revenue through private charter or aviation-related services. It also includes companies with a core focus in aviation manufacturing, design or development.

Business Services—Companies in this industry include marketing and advertising, consulting, legal services, logistics and shipping, human resources, staffing, leasing, security, outsourcing, and facility management.

Construction—Companies in this industry include residential and commercial construction, bridge and roadway construction, excavations, demolitions, and large-scale services supporting the construction industry.

Consumer Goods—Companies that relate to items purchased by individuals and includes companies involved with food production, packaged goods, clothing, beverages, automobiles and electronics.

Financial Services—Companies that manage money, such as credit unions, banks, credit-card companies, insurance companies, accountancy companies, consumer-finance companies, stock brokerages, and investment funds.

Healthcare—Companies that provide goods and services that are used to treat patients, including hospitals, pharmaceutical companies, rehabilitation companies, or other service providers directly related to the medical system.

Manufacturing—Companies that engage in the mechanical, physical, or chemical transformation of materials, substances, or components that support the production of a final product.

Power & Energy—Companies that produce coal, oil, natural gas or electricity, as well as other service providers directly related to the creation or development of power and energy.

Real Estate—Companies that consist of land and building ownership and companies involved in the buying, selling, or leasing of retail or personal properties.

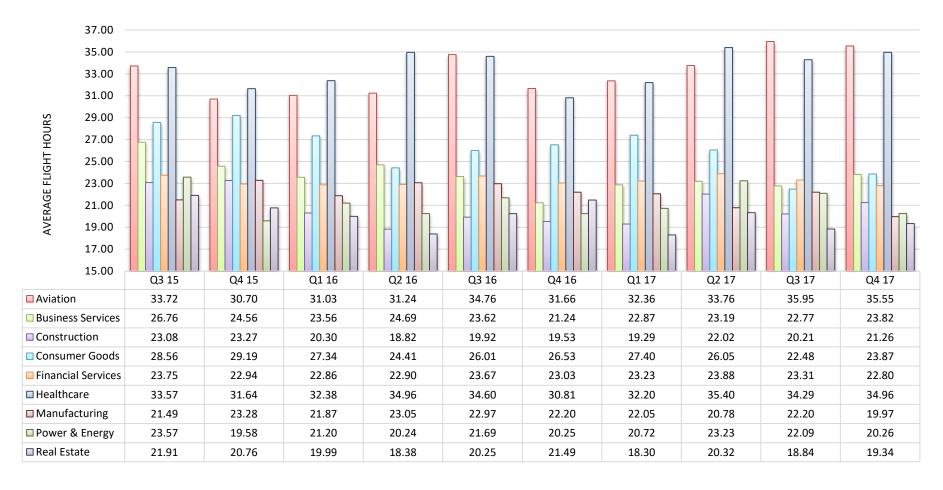


-15.0%	Aviation	Business Services	Construction	Consumer Goods	Financial Services	Healthcare	Manufacturing	Power & Energy	Real Estate
■ QoQ Change	-1.1%	4.6%	5.2%	6.2%	-2.2%	2.0%	-10.1%	-8.3%	2.7%
■ YoY Change	12.3%	12.2%	8.8%	-10.0%	-1.0%	13.5%	-10.1%	0.0%	-10.0%

Q4 2017 Flight Hour Activity by Industry QoQ



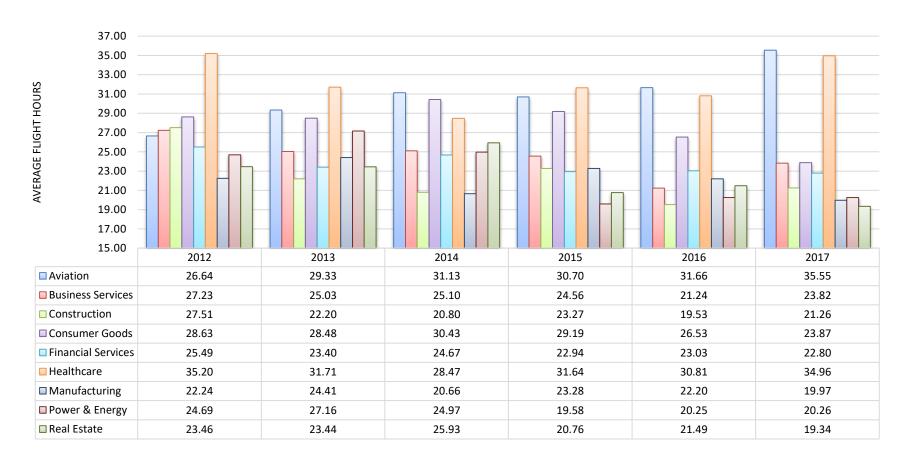
Of the nine industries analyzed within this report, four reported a QoQ decrease in average flight utilization, while five industries reported an increase. The largest QoQ decrease was reported in the Manufacturing industry, with a 10.1% reduction in flight hours. Further decreases were also seen in the Aviation (-1.1%), Financial Services (-2.2%), and Power and Energy (-8.3%) sectors. The greatest increases were seen in the Consumer Goods and Construction sectors, with increases of 6.2% and 5.2% respectively.



Q4 2017 Flight Hour Activity by Industry YoY



Flight utilization by industry reported significant increases in Q4 of 2017 when compared to activity at the same point in 2016. In 2017, only three of the nine industries in this report experienced decreases in utilization YoY. These industries were Consumer Goods, Manufacturing, and Real Estate, each reporting decreases of 10% YoY. Of the remaining industries, the Aviation, Business Services, and Healthcare sectors all reported utilization increases of more than 12% YoY.

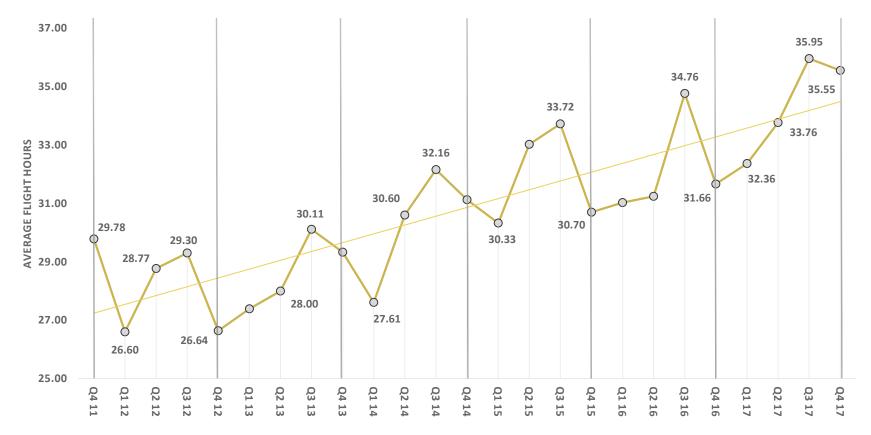


Q4 2017 Flight Hour Activity by Industry—Aviation



In Q3 of 2017, the Aviation industry reported historic highs in average utilization. Q4 followed this peak with a 1.1% decrease in flight hours. This is a minimal reduction in comparison to the previous two years, which both reported a decline in utilization of approximately three flight hours on average between Q3 and Q4. Overall, average flight hours increased 6.9% YTD.



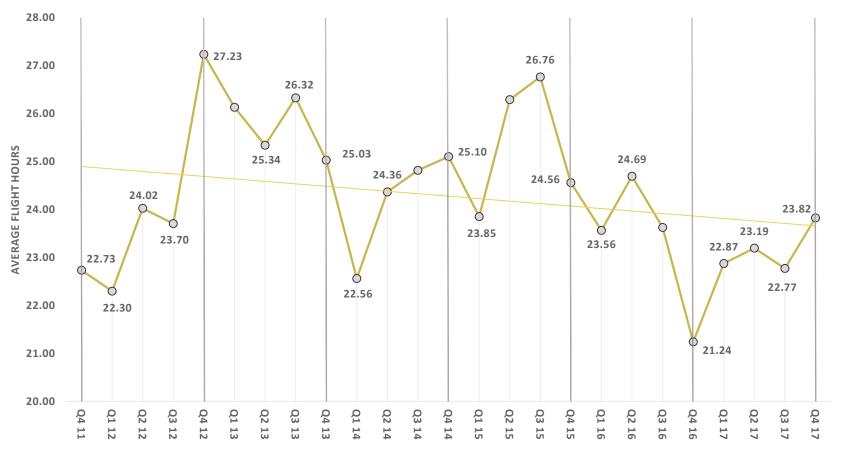


Q4 2017 Flight Hour Activity by Industry—Business Services



The Business Services sector reported a 4.6% increase in utilization QoQ. Additionally, this sector reported a utilization increase of 12.2% YoY and a decrease of 0.5% YTD. Average utilization in this sector has returned to its historical averages following a weak ending to 2016.



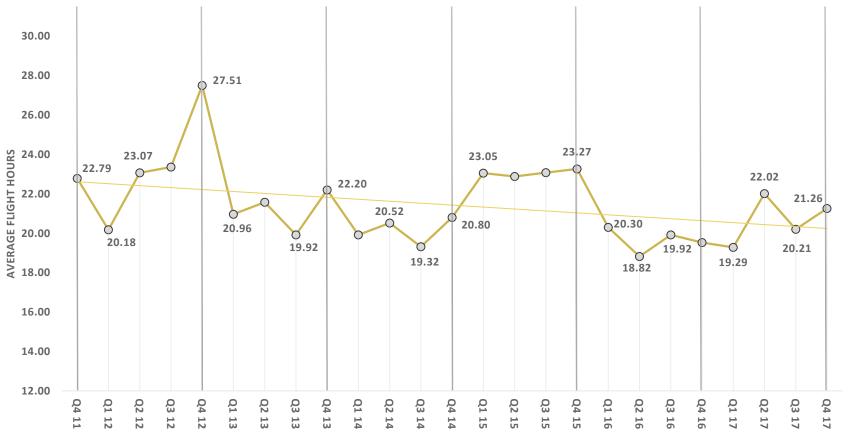


Q4 2017 Flight Hour Activity by Industry—Construction



The Construction industry reported a 5.2% increase in utilization QoQ. Additionally, utilization increased 8.8% YoY and 5.3% YTD.



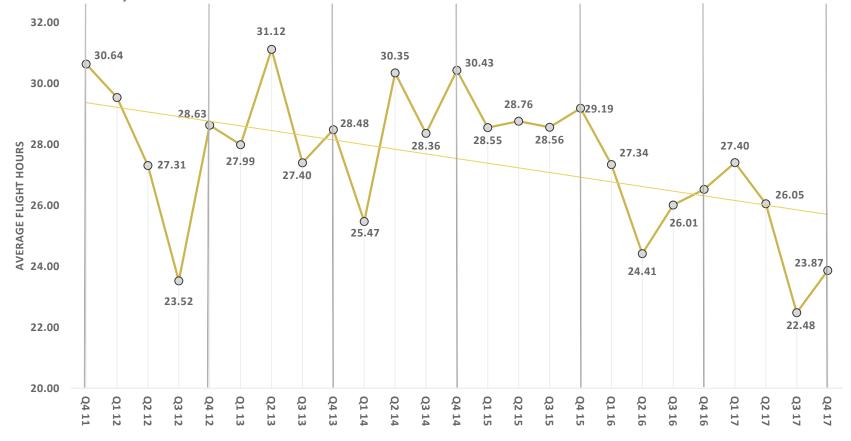


Q4 2017 Flight Hour Activity by Industry—Consumer Goods



The Consumer Goods sector reported a 6.2% QoQ increase in utilization at the end of 2017. Although utilization increased QoQ, there was a 10% YoY and 4.3% YTD decrease in average flight hours. Activity was abnormally low in Q3 of 2017 and, despite levels moving back towards their historical averages in Q4, 2017 saw some of the lowest utilization levels for this industry.





Q4 2017 Flight Hour Activity by Industry—Financial Services



The Financial Services sector reported minimal change in Q4. Although average utilization decreased 2.2% QoQ and 1.0% YoY, but increased 0.8% YTD. Previously, this industry experienced significant variations in flight hour utilization; however, since 2015, utilization in this industry has reported minimal changes. In fact, there has been less than one hour variation in utilization between all quarters.

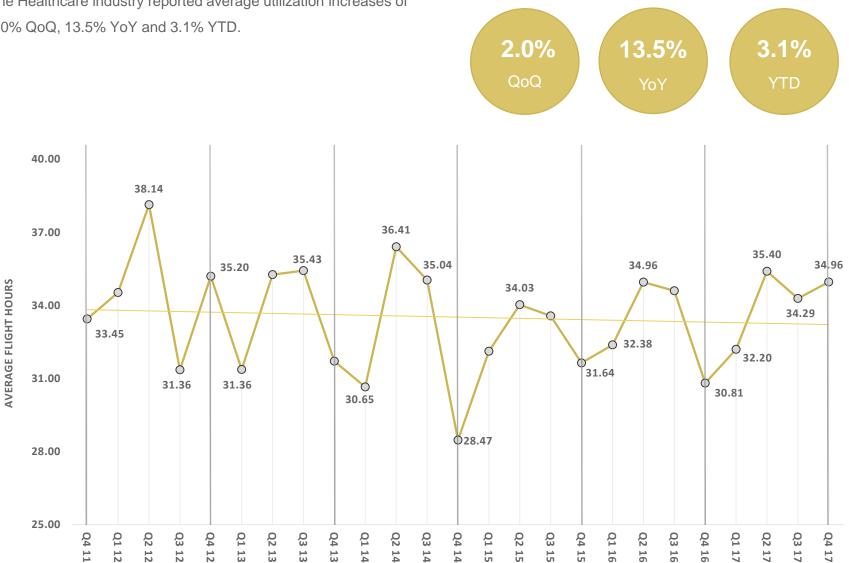




Q4 2017 Flight Hour Activity by Industry—Healthcare



The Healthcare industry reported average utilization increases of 2.0% QoQ, 13.5% YoY and 3.1% YTD.

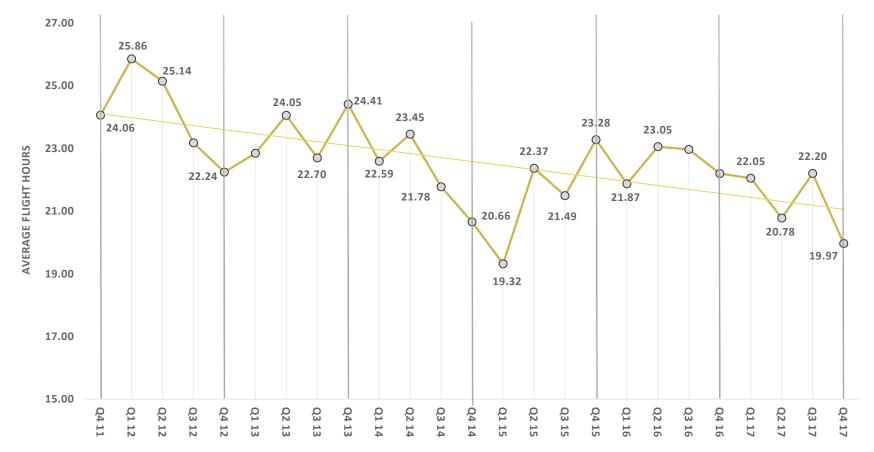


Q4 2017 Flight Hour Activity by Industry—Manufacturing



The Manufacturing sector reported a decrease in utilization in Q4 and continued to report low levels of flight activity overall. Utilization decreased 10.1% QoQ, 10.1% YoY and 5.7% YTD. This was the first year that average flight hours in this industry did not exceed 23 hours in any quarter.



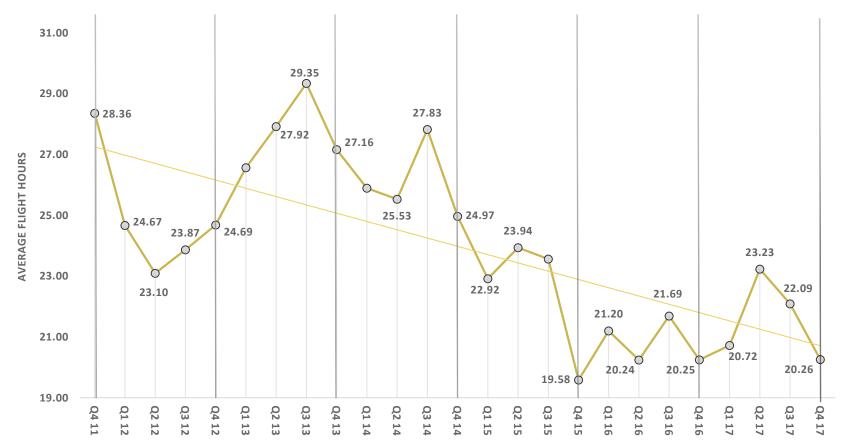


Q4 2017 Flight Hour Activity by Industry—Power & Energy



The Power & Energy sector ended 2017 with an 8.3% QoQ decrease in flight hours. This is the second consecutive quarter to report a significant drop in average flight hours. There was a utilization increase of 3.5% YTD but no change in utilization YoY.



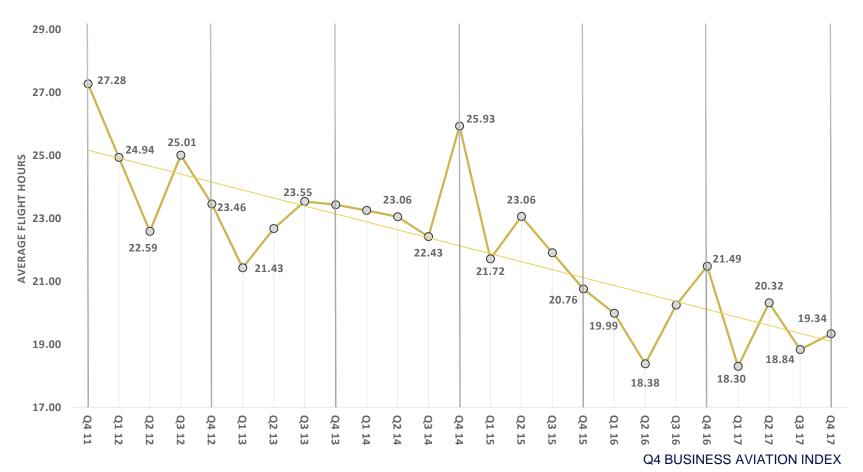


Q4 2017 Flight Hour Activity by Industry—Real Estate



The Real Estate sector reported mixed results for Q4. Although flight hours increased 2.7% QoQ, there was a decrease of 10% YoY and 4.1% YTD.





Q4 2017 Flight Hour Activity by Aircraft Type



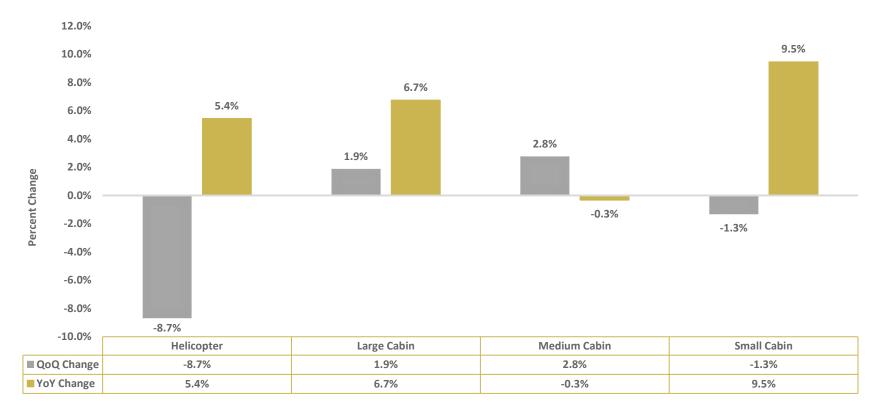
The JSSI Business Aviation Index tracks four major Aircraft Type categories. The report defines these types as follows:

Helicopter—This aircraft type leverages rotors to supply lift and can take off and land vertically. The aircraft's attributes allow it to hover, fly forward and laterally, and operate in areas and regions where fixed-wing aircraft cannot.

Large Cabin—This aircraft type is classified as any aircraft with a maximum take-off weight of 38,000 pounds or greater.

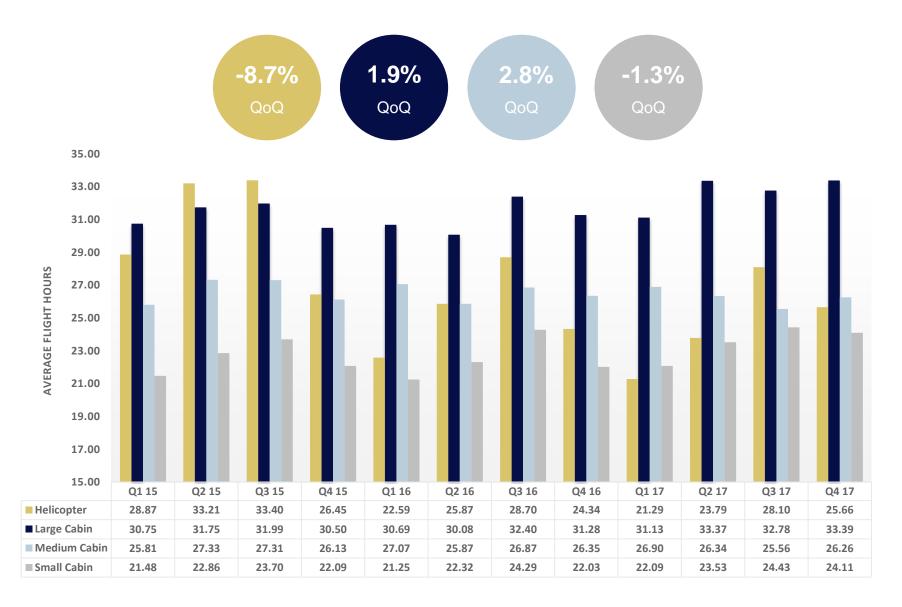
Medium Cabin—This aircraft type is classified as any aircraft with a maximum take-off weight between 20,000–38,000 pounds.

Small Cabin—This aircraft type is classified as any aircraft with a maximum take-off weight below 20,000 pounds.



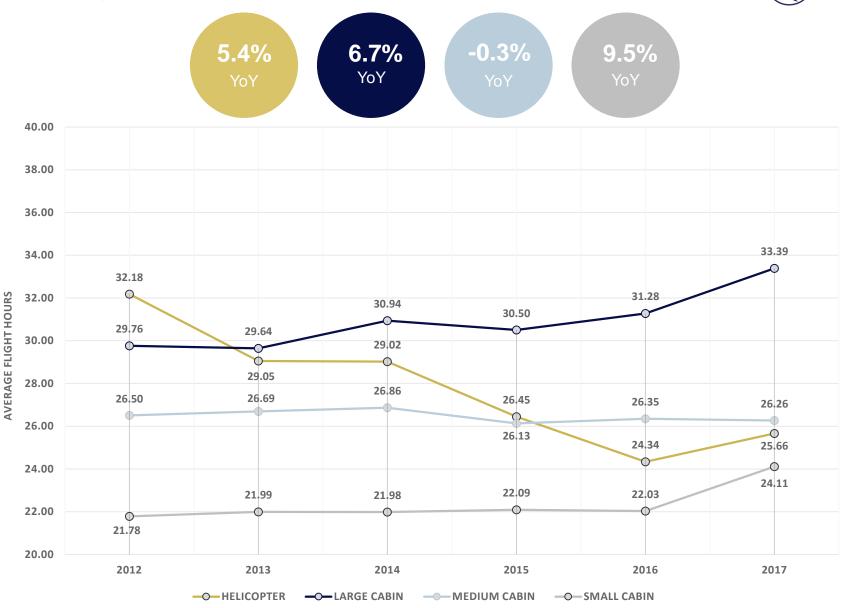
Q4 2017 Flight Hour Activity by Aircraft Type QoQ





Q4 2017 Flight Hour Activity by Aircraft Type YoY





Q4 2017 Flight Hour Activity by Region

YoY Change

44.9%

3.5%



The JSSI Business Aviation Index tracks seven major regions. The report defines these regions in the following manner:

Africa—This category includes all sub-regions of the African continent, including the Northern, Southern, Eastern and Western sub-regions and surrounding islands of the continent.

Asia-Pacific—This category includes all of the ASEAN countries, East Asia, the Pacific Islands, and the SAARC countries.

Central America—This category includes the countries of Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama and Mexico.

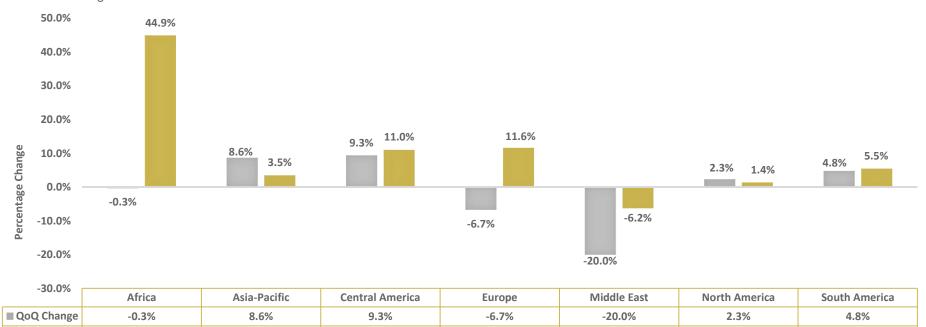
Europe—This category includes Eastern, Western, Northern and Southern regions of Europe.

Middle East—This category includes Iran, Asia Minor, Mesopotamia, the Levant and the Arabian Peninsula.

North America—This category includes the United States of America, Canada and surrounding islands and territories.

11.0%

South America—This category includes Venezuela, Columbia, Ecuador, Peru, Bolivia, Paraguay, Brazil, Argentina, Chile, Uruguay and surrounding islands.



11.6%

-6.2%

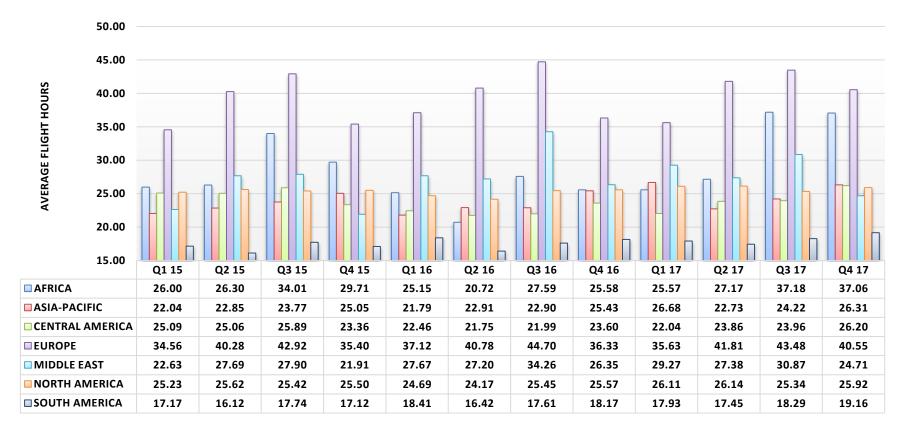
1.4%

5.5%

Q4 2017 Flight Hour Activity by Region QoQ



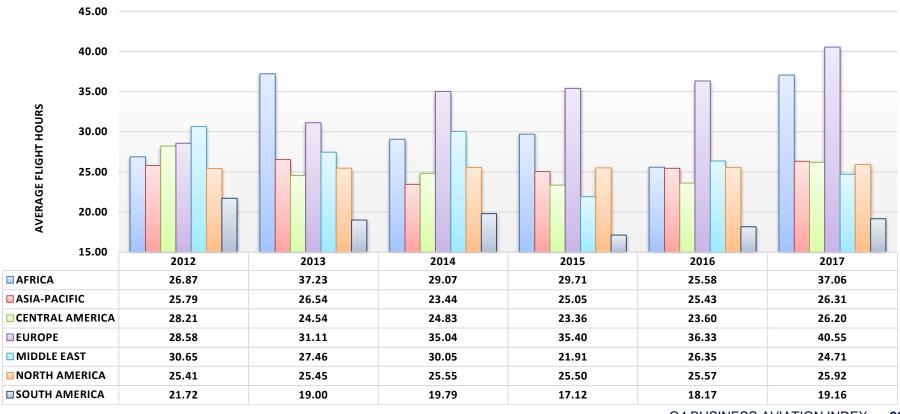
Of the seven regions sampled, three reported a QoQ decrease in utilization and four reported an increase. The largest decrease was reported in the Middle East, with utilization dropping 20% QoQ. Additional decreases were seen in Africa, with a 0.3% QoQ decrease; and Europe, with a 6.7% QoQ decrease. The largest increases were seen in Central America, with a 9.3% QoQ increase; and Asia-Pacific, with an 8.6% QoQ increase.



Q4 2017 Flight Hour Activity by Region YoY



Regional flight hours showed strong YoY utilization increases in Q4. Of the seven regions sampled, only the Middle East reported a decrease in utilization compared to the same period in 2016. Of the other six regions, the largest YoY increases were seen in Europe, with an 11.6% increase; and Central America, with an 11.0% increase.

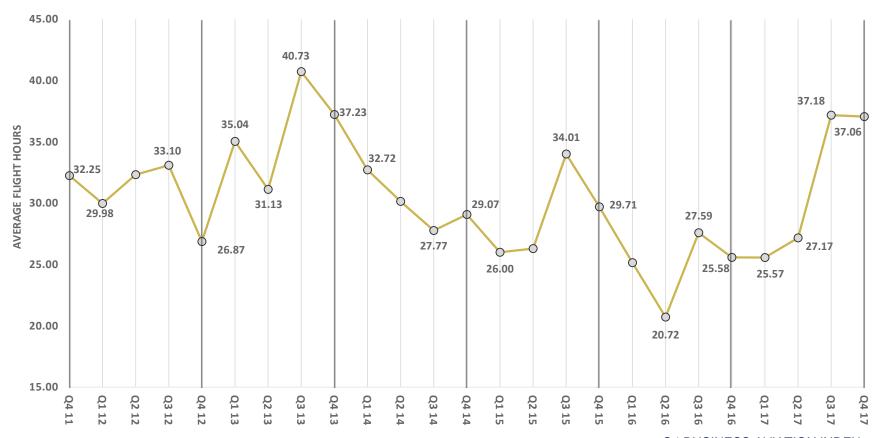


Q4 2017 Flight Hour Activity by Region—Africa



The African region reported minimal changes in utilization in Q4. Flight hours in Q3 were at the highest level since 2013 and remained at this level for Q4. The strong Q3 and Q4 activity contributed to particularly high YoY and YTD numbers.



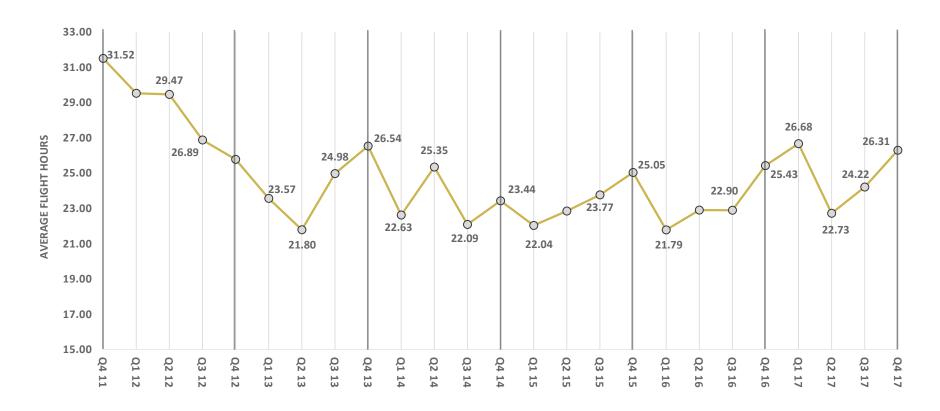


Q4 2017 Flight Hour Activity by Region—Asia-Pacific



The Asia-Pacific region reported another consecutive quarter of growth in flight hours, with an increase of 8.6% QoQ. Additionally, utilization increased 3.5% YoY and 7.4% YTD. Following low utilization in Q2, activity in this region increased by almost four hours on average to close the year with flight hours similar to Q1 of 2017.



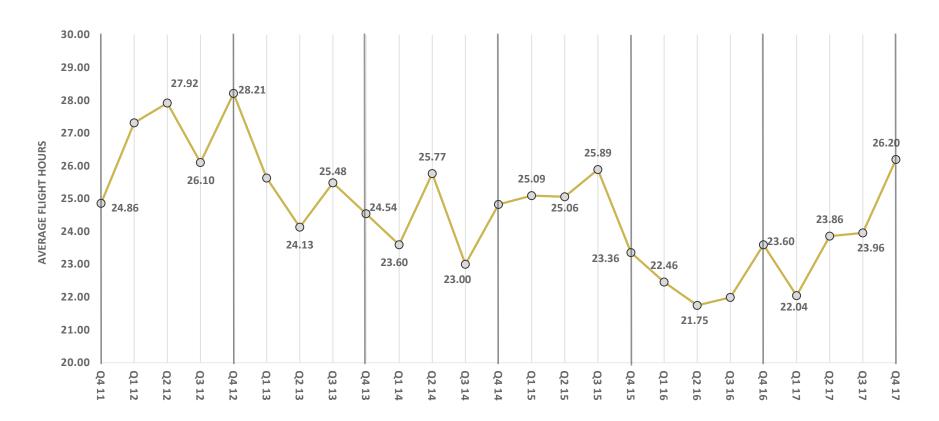


Q4 2017 Flight Hour Activity by Region—Central America



The Central American region reported a flight activity increase of 9.3% QoQ, 11% YoY and 7.0% YTD. In fact, utilization in this region has reached levels not seen since the end of 2012. Average flight hours in Q4 were almost four hours higher than Q1 of 2017.



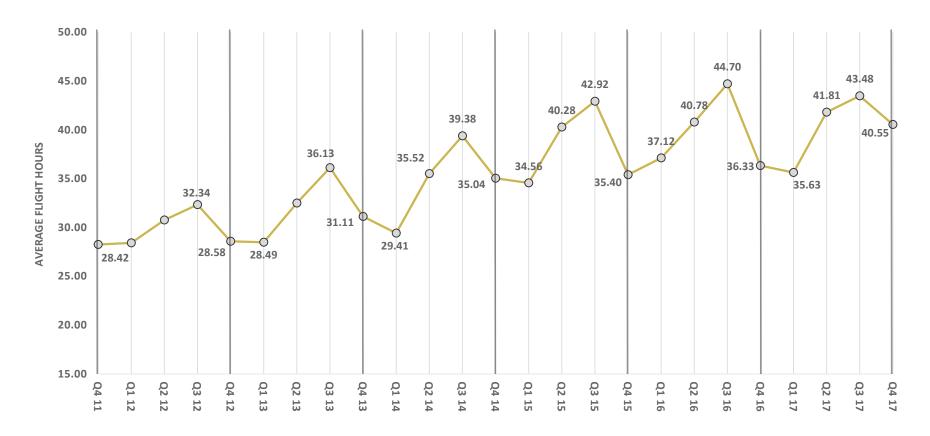


Q4 2017 Flight Hour Activity by Region—Europe



Flight hour activity in Europe historically records a fall in utilization in Q4 and 2017 was no different, with a decrease of 6.7% QoQ. However, utilization increased 11.6% YoY and 1.6% YTD. Furthermore, average flight hours in Europe broke the 40-hour threshold in Q4 for the first time.



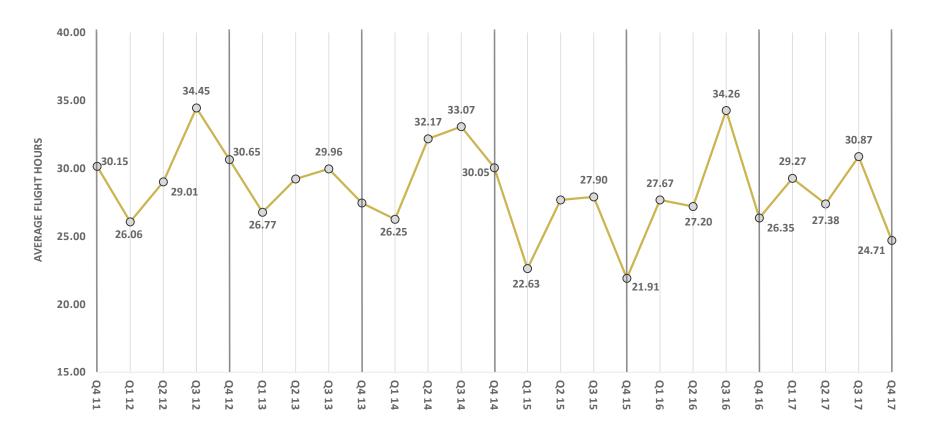


Q4 2017 Flight Hour Activity by Region—Middle East



The Middle East reported a utilization decrease of 20% QoQ and 6.2% YoY. Overall, the region reported a drop in average utilization in 2017, with a decrease of 2.8% YTD.



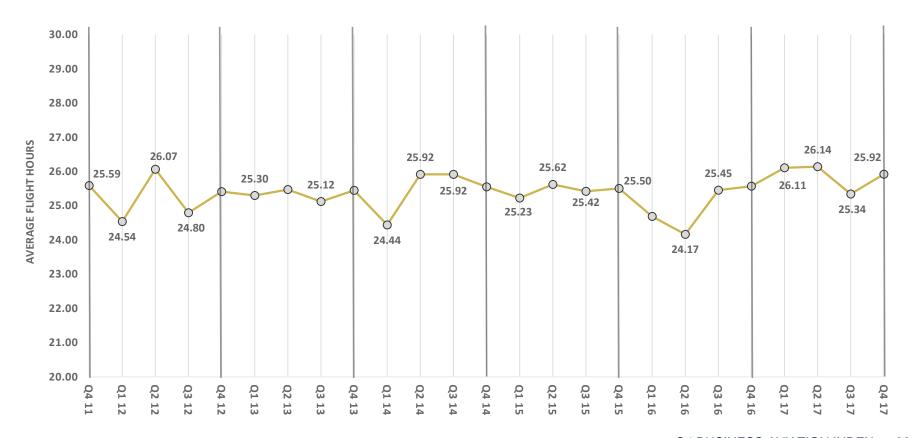


Q4 2017 Flight Hour Activity by Region—North America



North America ended 2017 with flight hour increases of 2.3% QoQ and 1.4% YoY. This region has seen a normalization in average utilization, with QoQ fluctuations of no more than one flight hour. The North American market remains strong, with annual average utilization increasing 3.6% YTD.

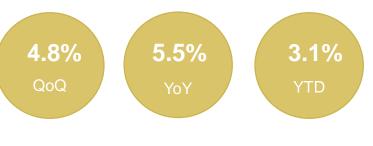


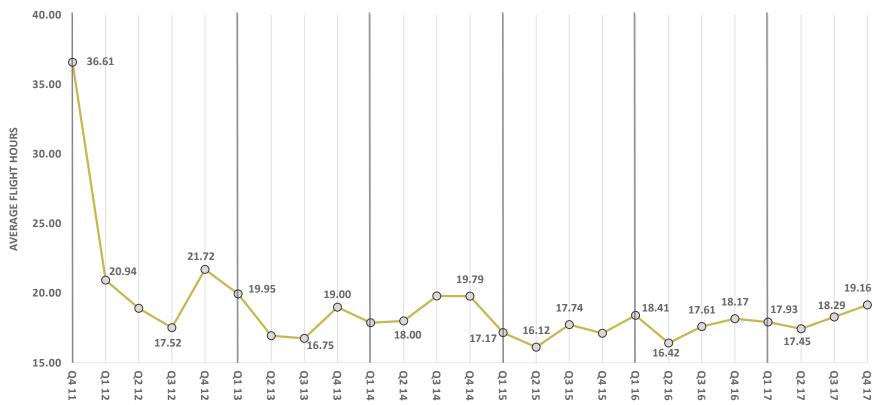


Q4 2017 Flight Hour Activity by Region—South America



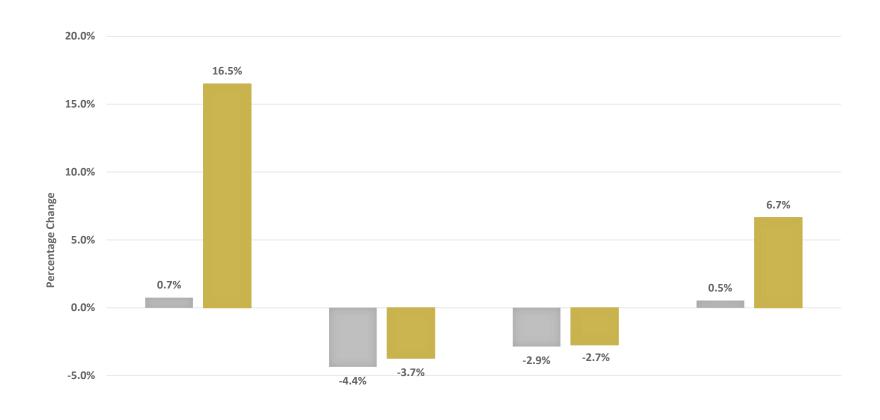
South America reported a modest quarter to end 2017, with increases of 4.8% QoQ and 5.5% YoY. These results contributed to average utilization in 2017 increasing 3.1% compared to 2016.





Q4 2017 Flight Hour Activity by Age



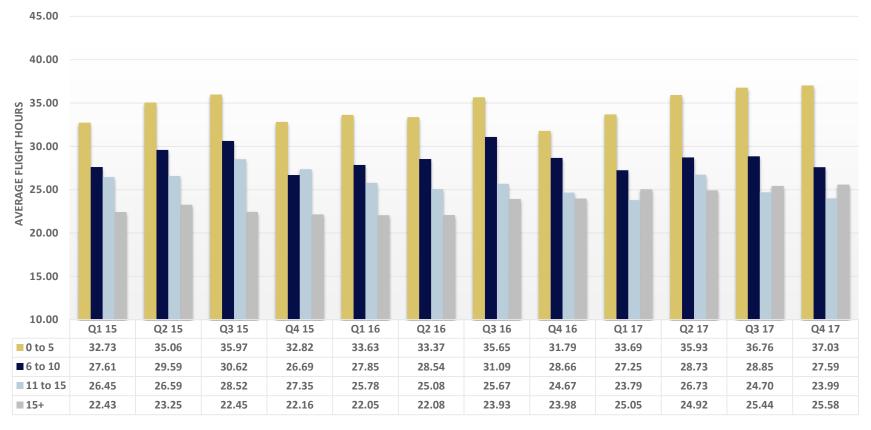


-10.0%	0 to 5	6 to 10	11 to 15	15+
■ QoQ Change	0.7%	-4.4%	-2.9%	0.5%
■ YoY Change	16.5%	-3.7%	-2.7%	6.7%

Q4 2017 Flight Hour Activity by Age QoQ



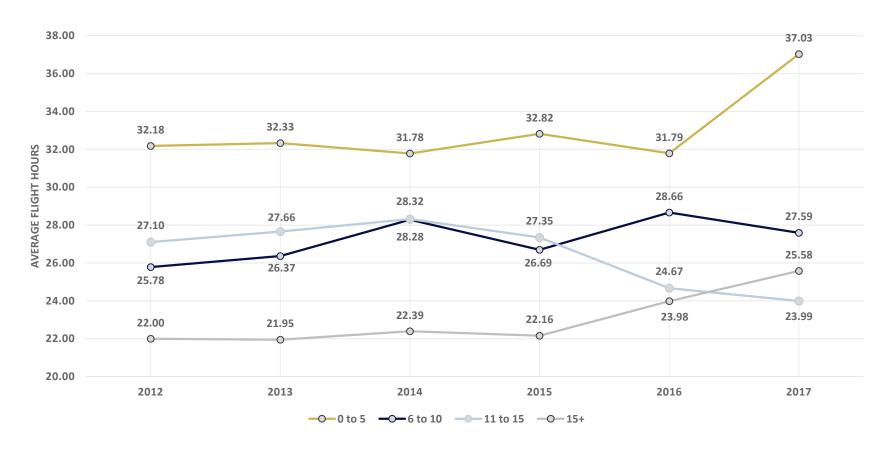




Q4 2017 Flight Hour Activity by Age YoY



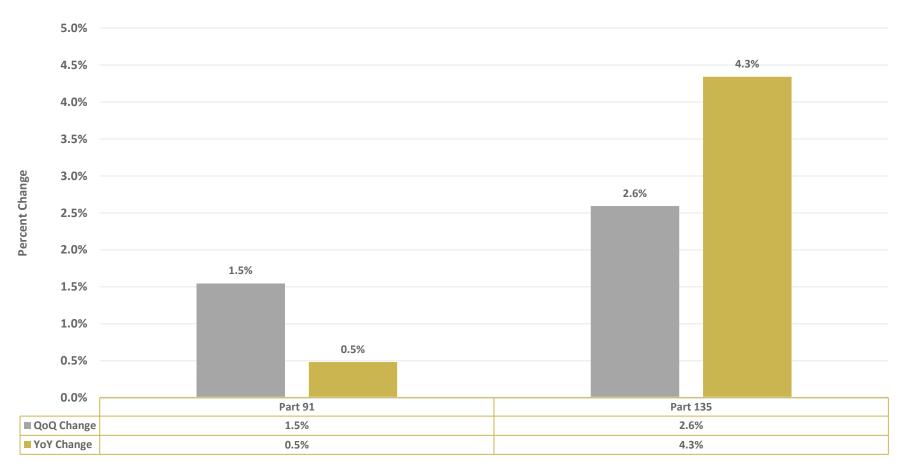




Q4 2017 Flight Hour Activity by Operator Type

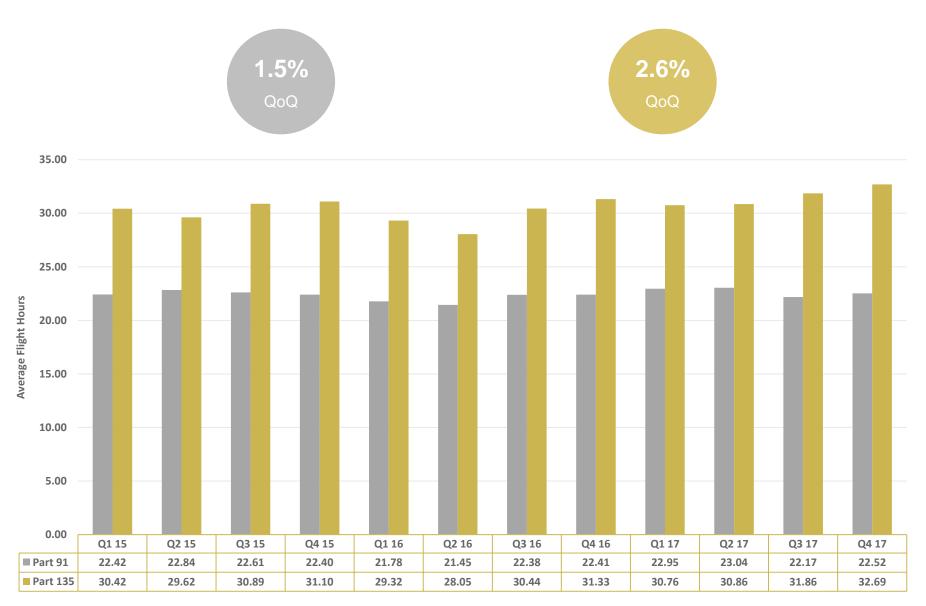


FAR Part 91 operators and FAR Part 135 operators follow regulations defined by the U.S. Federal Aviation Administration (FAA) for operation of aircraft. FAR Part 91 governs the operation of non-commercial aircraft. FAR Part 135 governs certain types of commercial aircraft, such as non-scheduled charter and air-taxi operations.



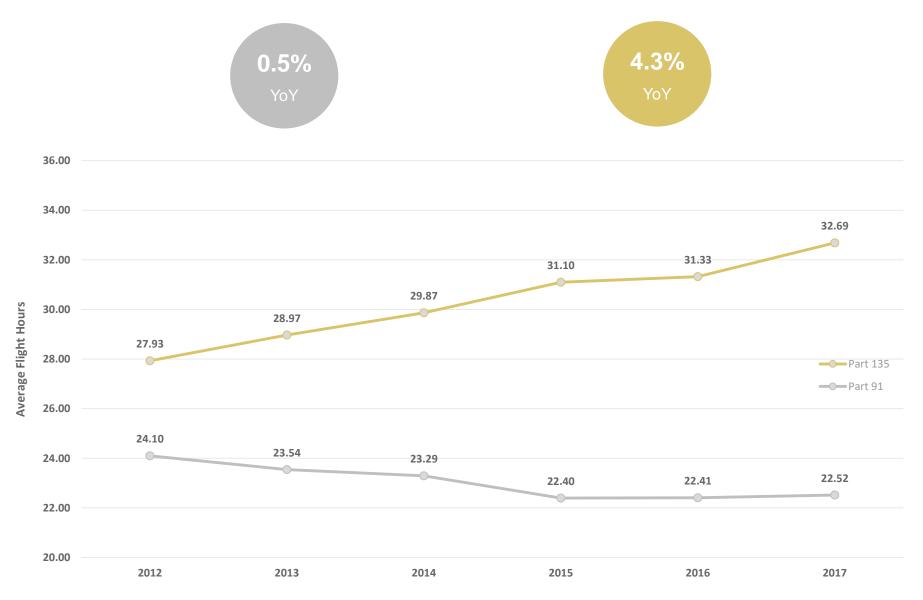
Q4 2017 Flight Hour Activity by Operator Type QoQ





Q4 2017 Flight Hour Activity by Operator Type YoY





CPS Trending Guide



SCORING LEGEND

Performance History	Score Range
Both Report & Pay W/I Terms	800
Report and/or Pay 1–30 Days Late	600–799
Report and/or Pay 31–60 Days Late	450–599
Report and/or Pay 61–90 Days Late	400–449
Report and/or Pay >90 Days Late	51–399
Too New or Incomplete Data	0–4

*12-MONTH TREND LEGEND

+4	Improved by four aging periods	-1	Worse by one aging period
+3	Improved by three aging periods	-2	Worse by two aging periods
+2	Improved by two aging periods	-3	Worse by three aging periods
+1	Improved by one aging period	-4	Worse by four aging periods
FLAT	No significant change	NEW	New rating (<12-month history)

CPS Trending by Industry



	CPS TREND BY INDUSTRY — Q4 2017							
	Q4 2017	Trend*	Q3 2017	3-MONTH	H CHANGE	Q4 2016	12-MONTI	H CHANGE
	Score	Henu	Score	Points	%	Score	Points	%
Industry Average	575	-1	603	(28)	-4.7%	600	(25)	-4.1%
Advertising	664	FLAT	674	(10)	-1.5%	678	(13)	-2.0%
Agriculture	667	FLAT	621	46	7.4%	679	(12)	-1.7%
Automotive	576	FLAT	591	(15)	-2.5%	591	(15)	-2.6%
Aviation	642	FLAT	659	(18)	-2.7%	607	35	5.7%
Business Services	668	FLAT	641	27	4.2%	668	(0)	-0.1%
Construction	672	FLAT	656	16	2.5%	711	(38)	-5.4%
Consumer Goods	565	-1	502	63	12.6%	633	(69)	-10.8%
Education	701	FLAT	716	(15)	-2.1%	646	56	8.6%
Entertainment, Recreation, and Hobbies	629	FLAT	671	(42)	-6.3%	657	(29)	-4.4%
Financial Services	700	FLAT	694	6	0.9%	684	16	2.4%
Food Manufacturing / Distribution / Services	608	FLAT	617	(9)	-1.5%	612	(3)	-0.5%
General	626	FLAT	649	(23)	-3.6%	743	(117)	-15.8%
Government	621	FLAT	626	(4)	-0.7%	642	(20)	-3.2%
Healthcare	640	FLAT	637	4	0.5%	645	(5)	-0.7%
Law	665	FLAT	668	(3)	-0.4%	648	17	2.6%
Manufacturing	695	FLAT	700	(5)	-0.8%	740	(45)	-6.1%
Membership and Non-Profit Organizations	663	FLAT	663	(0)	-0.1%	654	9	1.4%
Power & Energy	600	NEW	600	0	0.0%			
Property Management and Administration	606	FLAT	645	(39)	-6.0%	631	(24)	-3.9%
Real Estate	652	FLAT	717	(65)	-9.1%	688	(36)	-5.3%
Security, Investigative Services & Products	586	-1	641	(55)	-8.6%	636	(51)	-8.0%
Technology	717	FLAT	712	5	0.7%	636	81	12.7%
Transportation	631	FLAT	692	(62)	-8.9%	740	(109)	-14.7%
Travel and Tourism								
COMPANY Average	611	FLAT	621	1	0.2%	610	1	0.2%

CPS Trending by Selected Countries



	CPS TREND BY COUNTRY BY QUARTER - Q4 2017							
	Q4 2017 Trend*		Q3 2017 3-MONTH CHANGE		Q4 2016 12-MONTH		H CHANGE	
Country	Score	Hellu	Score	Points	%	Score	Points	%
Argentina Average	592	FLAT	606	(14)	-2.3%	586	6	1.1%
Australia Average	601	FLAT	576	25	4.3%	474	127	26.8%
Austria Average	612	FLAT	619	(7)	-1.1%	558	54	9.7%
Belgium Average	744	FLAT	744	1	0.1%	699	45	6.4%
Brazil Average	584	FLAT	582	2	0.3%	547	36	6.7%
Canada Average	639	FLAT	623	16	2.6%	629	10	1.6%
Chile Average	640	FLAT	622	19	3.0%	620	20	3.3%
China Average	637	FLAT	632	5	0.8%	684	(46)	-6.8%
France Average	707	FLAT	612	94	15.4%	601	106	17.7%
Germany Average	611	FLAT	654	(43)	-6.5%	643	(32)	-5.0%
Greece Average	807	FLAT	807	0	0.0%	707	100	14.1%
Guatemala Average	754	FLAT	399	355	88.8%	579	175	30.3%
Hong Kong Average	581	FLAT	657	(76)	-11.5%	609	(27)	-4.5%
Hungary Average	707	FLAT	389	318	81.6%	555	152	27.5%
India Average	566	FLAT	478	88	18.4%	400	166	41.5%
Indonesia Average	395	FLAT	292	103	35.3%	95	300	315.8%
Ireland Average	497	FLAT	529	(32)	-6.0%	621	(125)	-20.1%
Italy Average	531	FLAT	376	155	41.1%	312	218	69.9%
Luxembourg Average	608	FLAT	571	37	6.4%	554	53	9.6%
Mexico Average	576	FLAT	585	(9)	-1.6%	563	13	2.2%
Morocco Average	700	FLAT	700	0	0.0%	362	338	93.2%
Netherlands Average	535	FLAT	700	(165)	-23.6%	667	(132)	-19.8%
New Zealand Average	600	FLAT	252	348	138.1%	198	403	203.8%
Poland Average	700	FLAT	700	0	0.0%	700	0	0.0%
Portugal Average	500	FLAT	451	49	10.9%	451	49	10.9%
Puerto Rico Average	600	FLAT	600	0	0.0%	700	(100)	-14.3%
Qatar Average	600	FLAT	250	350	140.0%	700	(100)	-14.3%
Saudi Arabia Average	564	FLAT	664	(100)	-15.0%	536	28	5.2%
South Africa Average	596	FLAT	659	(63)	-9.6%	454	142	31.4%
South Korea Average	636	FLAT	750	(114)	-15.2%	650	(14)	-2.1%
Spain Average	202	FLAT	600	(398)	-66.3%	627	(425)	-67.8%
Switzerland Average	520	FLAT	550	(30)	-5.4%	610	(90)	-14.7%
Thailand Average	704	FLAT	654	50	7.7%	399	305	76.3%
Uganda Average	700	FLAT	700	0	0.0%	700	0	0.0%
Ukraine Average	500	FLAT	500	0	0.0%	450	50	11.1%
United Arab Emirates Average	608	FLAT	645	(36)	-5.6%	637	(29)	-4.5%
United Kingdom Average	659	FLAT	635	24	3.8%	648	11	1.7%
United States Average	633	FLAT	640	(7)	-1.0%	639	(5)	-0.9%
Venezuela Average	544	FLAT	523	21	4.0%	531	13	2.5%

CPS Trending by Cabin Size



	CPS 12-MONTH TREND BY CABIN SIZE — Q4 2017								
	Q4 2017	Trend*	Q3 2017 3-MONTH C		I CHANGE	Q4 2016	12-MONTH CHANGE		
	Score	rrena*	Score	Points	%	Score	Points	%	
Cabin Size Average	631	FLAT	608	23	3.8%	633	(2)	-0.3%	
Large Cabin	628	FLAT	629	(1)	-0.2%	617	11	1.8%	
Medium Cabin	633	FLAT	617	16	2.7%	620	13	2.1%	
Small Cabin	558	FLAT	578	(20)	-3.5%	542	15	2.8%	
Helicopter									
COMPANY Average	611	FLAT	621	1	0.2%	610	1	0.2%	



FOR MORE INFORMATION

Charlie Rubinowicz | Product Manager crubinowicz@jetsupport.com | +1 312.291.5371









JETSUPPORT.COM