

# Airport Noise Management 2017 Annual Report



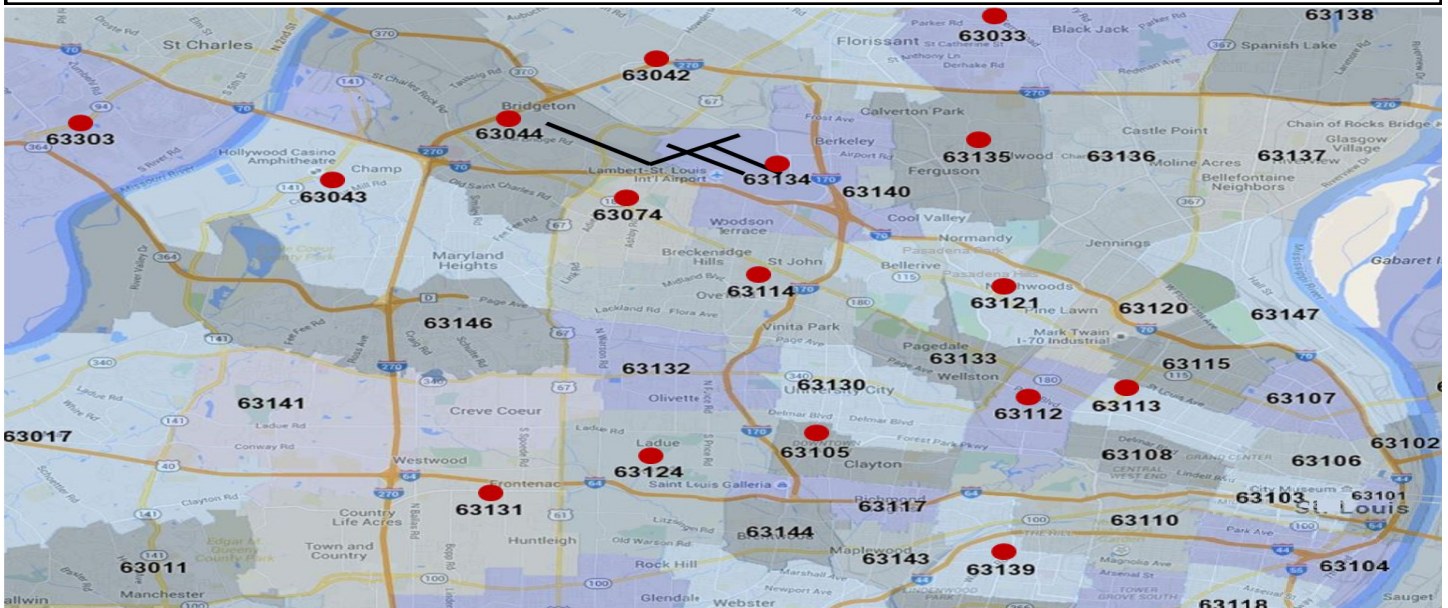
The Airport Noise Management Report provides a yearly summary of St. Louis Lambert International Airport's operations and noise complaints. The NAS (National Airspace System) data in this report is from Harris, Inc. and not from FAA official records of operations. This report is illustrative of trends and distribution and should not be construed as official traffic counts.

## 2017 ANNUAL REPORT

### NOISE COMPLAINTS

There were 45 noise complaints from fourteen communities received in 2017. There were several noise events which precipitated many of the noise complaints. In March, STL began receiving complaints about loud military aircraft departing in the early morning hours. After contacting Boeing, STL learned that the Air Force was beginning to take delivery of F15s that left in the early morning hours. This would continue over several months. There was a second noise event about numerous low flying F18 aircraft in the late afternoon. Further checking found that ten F18 aircraft landed on June 21 and remained overnight before departing. The aircraft were returning from deployment. Another event was the V-40 Bravo from Scott Air Force Base conducting the touch and goes for IFR training on Runway 29. The plane, which is used to transport the Vice President and other dignitaries, caused alarm to residents who even contacted the TV stations about the low flying aircraft. The complainants stated that they had never seen a large aircraft repeatedly landing and flying over their homes. Other complaints to the noise hotline included complaints about police and TV station helicopters continuously circling and loud and low commercial aircraft waking them up.

There were 31 complaints about night time operations (10:00 p.m. to 7:00 a.m.) and 14 complaints were about day time operations (7:00 a.m. to 10:00 p.m.). Landings and take-offs (operations) during the day time hours accounted for 87.0% of the operations while 13.0% of the operations occurred during the night time period. Chart below shows complaints by zip code. Three complainants are not shown because they lived in zip codes outside the map boundaries.

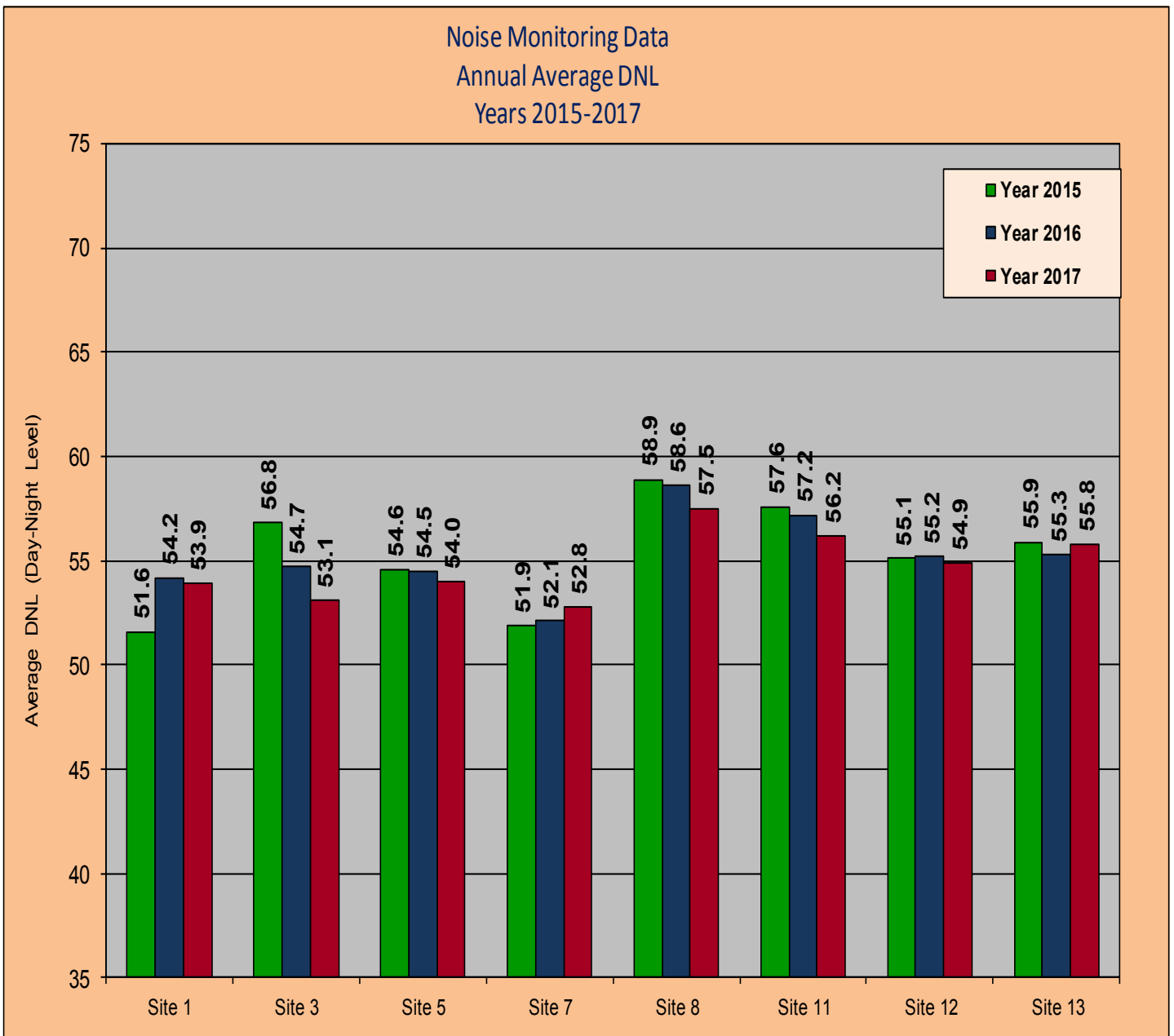


Zip Code	# of Calls	Zip Code	# of Calls	Zip Code	# of Calls
63031	1	63105	1	63131	1
63042	5	63112	1	63134	3
63043	7	63113	1	63135	1
63044	6	63114	7	63139	2
63068	1	63121	2	63301	1
63074	1	63124	1	63303	3

**NOISE MONITORING DATA**

The Average DNL (Day-Night Level) values for the years 2015 to 2017 for the eight permanent noise monitors are shown in the chart below. Six monitors had decreases ranging from -0.3 to -1.6. Two monitors had an increases of +0.5 and +0.7. Site 7 was included in the annual average for 2017 although over one month of daily data was missing in the 4th Quarter of 2017. A decrease of 3+ DNL represents a halving of the noise energy.

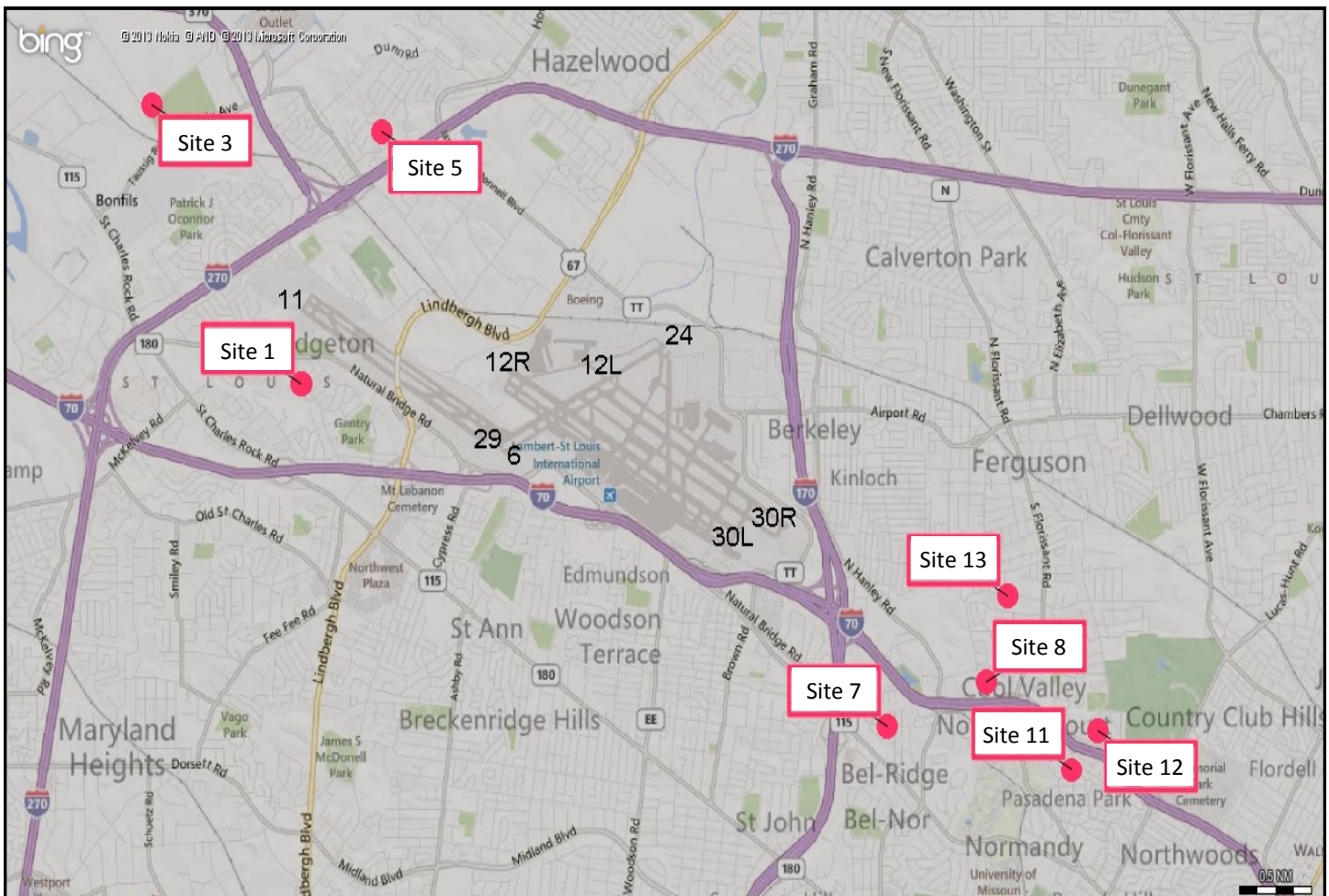
The DNL metric represents noise exposure events over a 24 hour period. The DNL metric approximates the response characteristics of sound to the human ear. The higher the number on the scale, the louder the sound. To account for human sensitivity to noise between the hours of 10 p.m. and 7 a.m., noise events occurring during these hours receive a “penalty” when the DNL is calculated. Each night time event is measured as if ten daytime events occurred.



**NOISE MONITORING LOCATIONS AND RUNWAY IDENTIFICATION**

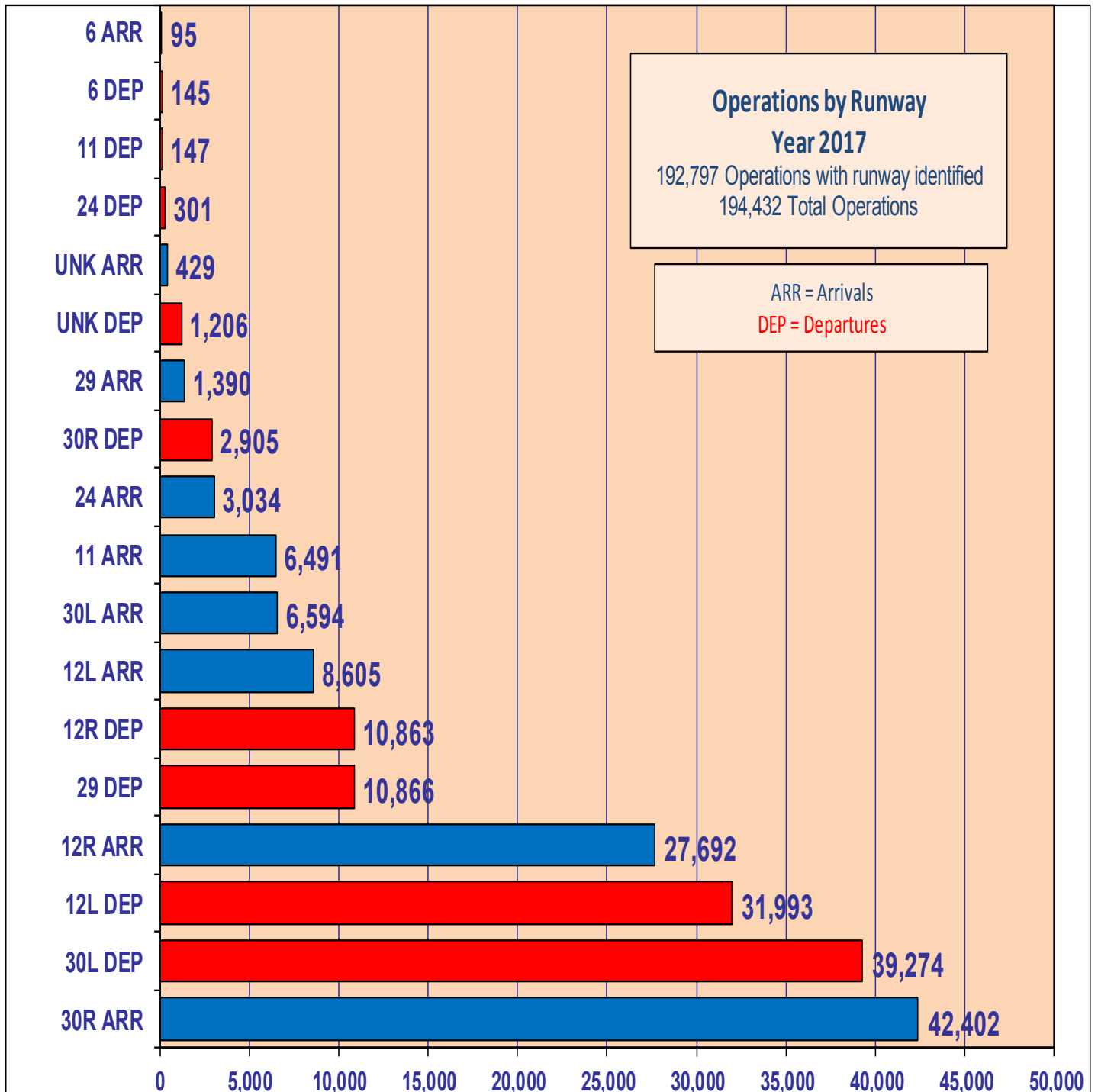
The Permanent Noise Monitoring Sites (NMS) are : Site 1- Benedetta, City of Bridgeton; Site 3- Ferguson Lane, Bridgeton Athletic Complex; Site 5-Villa Rosa & Auriesville, City of Hazelwood; Site 7-Belfore & Loganberry, City of Bel-Ridge; Site 8- Emerling, City of Cool Valley; Site 11-North Hills & Country Club, Village of Pasadena Park; Site 12-Belwood & Kirkland, City of Normandy; and, Site 13-North Hills & Brotherton, City of Ferguson. The runways at St. Louis Lambert International Airport are: 12R/30L (11,019'x200'), 12L/30R (9,003'x150'), 11/29 (9,001'x150'), and 6/24 (7,607'x150').

**NOISE MONITORING SITES**



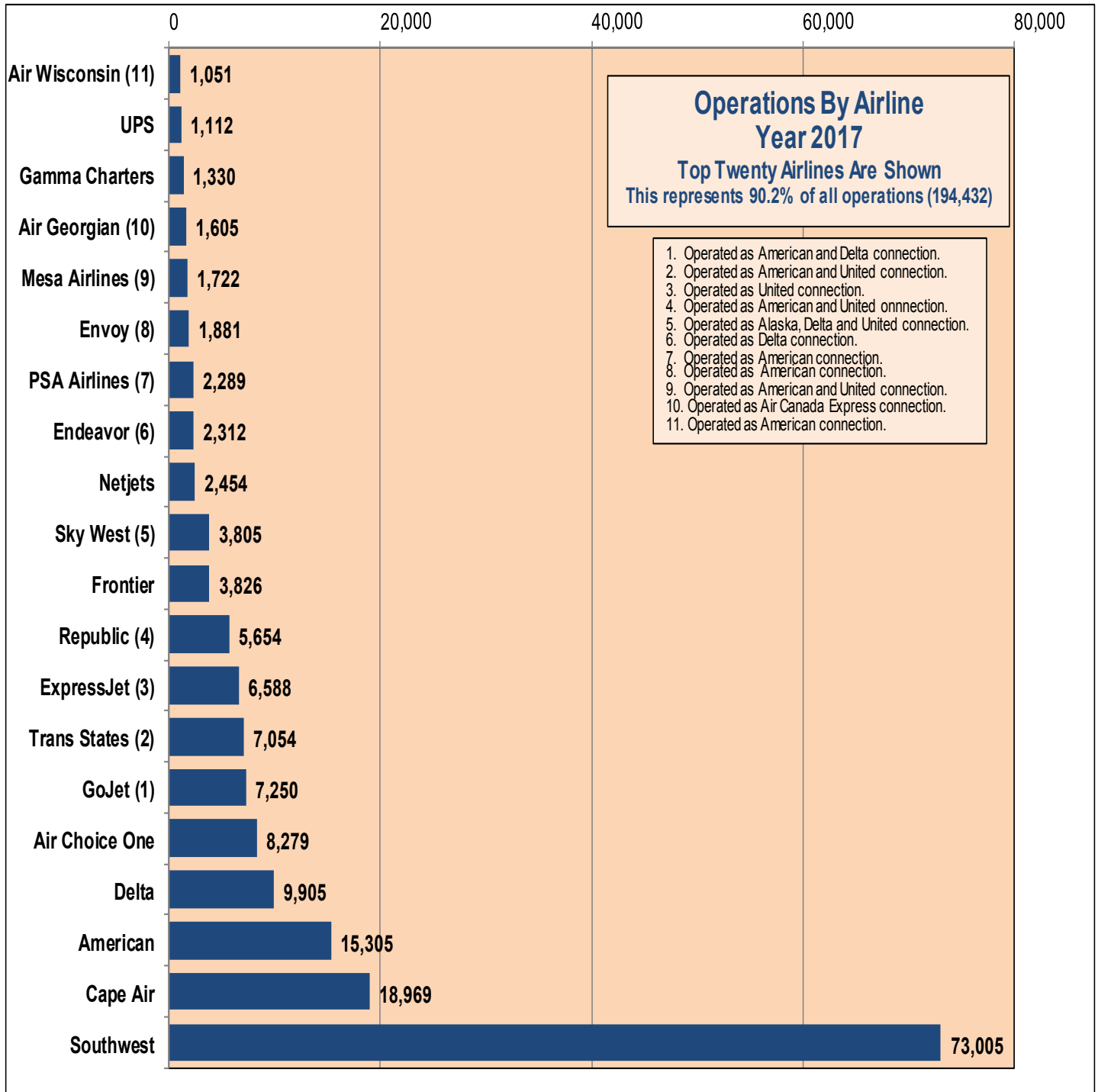
**OPERATIONS BY RUNWAY**

There were 194,432 operations recorded in 2017 as compared to 189,146 operations in 2016, an increase of +2.8%. The most utilized runway for known arrivals was Runway 30R (42,402) with 21.9% all operations. The most utilized runway for known departures was Runway 30L (39,274) with 20.4% of all operations. There were 192,797 (99.2%) operations in which the runway was identified and 1,635 operations (0.8%) where the runways were not identified.



**OPERATIONS BY AIRLINE**

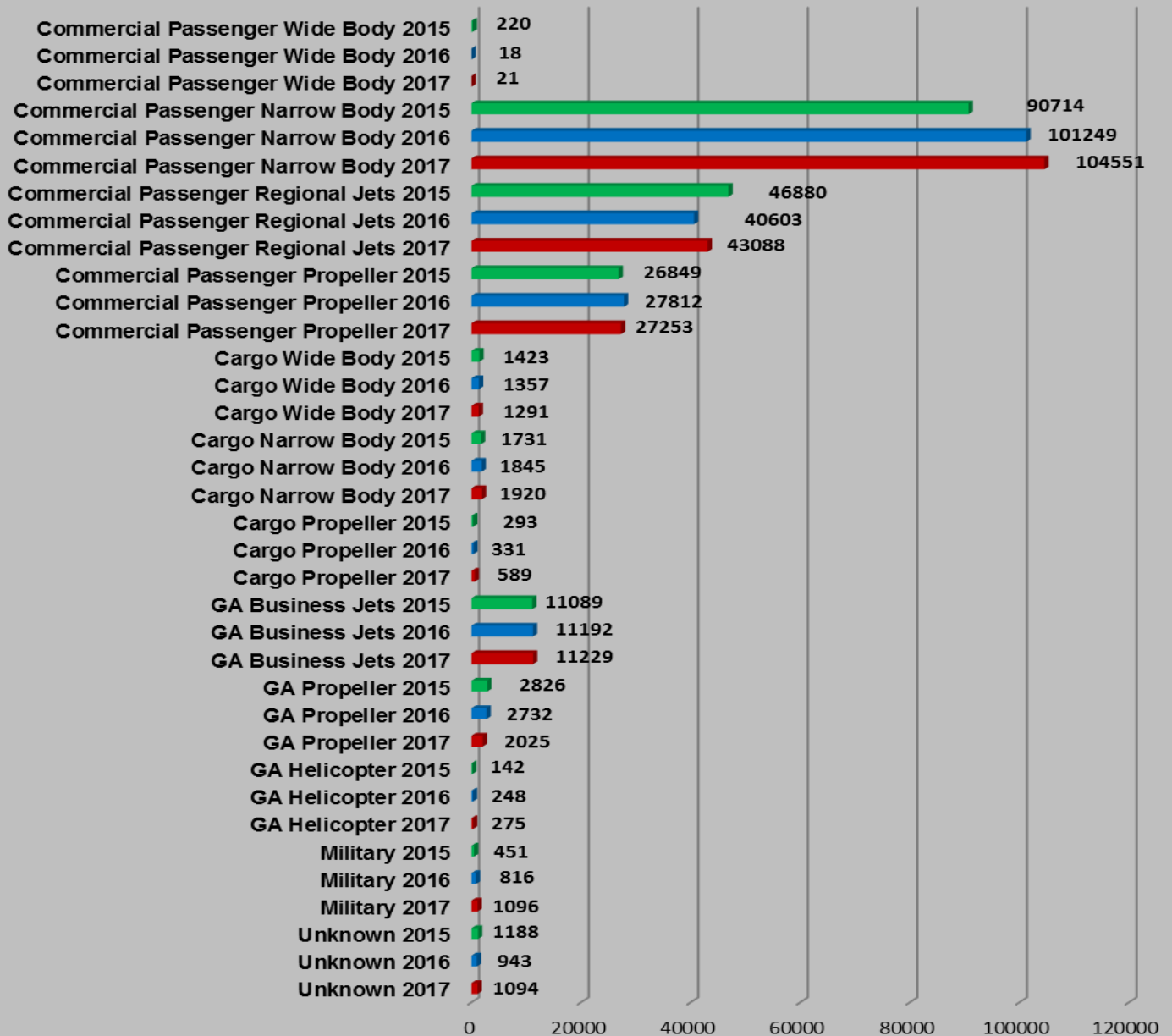
The top twenty airlines accounted for 90.2% of all operations. The top three airlines were Southwest Airlines with 37.5% of all operations, followed by Cape Air (9.8%), and American (7.9%). Eleven regional commercial passenger jet airlines that serve St. Louis Lambert International Airport were in the top twenty airlines and accounted for 21.2% of 2017's operations. There were 94 Part 121 and Part 135 airlines that arrived and departed from St. Louis Lambert International Airport during this period. Part 121 airlines are commercial scheduled airlines and Part 135 airlines are charter and air taxi.



**OPERATIONS BY TYPE OF SERVICE**

From 2016 to 2017, commercial passenger narrow body operations increased +3.3% and commercial passenger regional jets increased +6.1% while commercial passenger propeller had a decrease of -2.1% in 2017. Cargo wide body decreased -5.1% while narrow body operations increased +4.1%. Propeller Cargo operations were up in 2017 because staff collected data differently. A better comparison of how propeller cargo is performing will be assessed in the 1st Quarter of 2018. General aviation business jets increased +0.3% from 2016 to 2017. Military operations are filtered so most operations are not reported. Overall, operations in 2017 were up 2.8%..

**Comparison of Years 2015 - 2017**



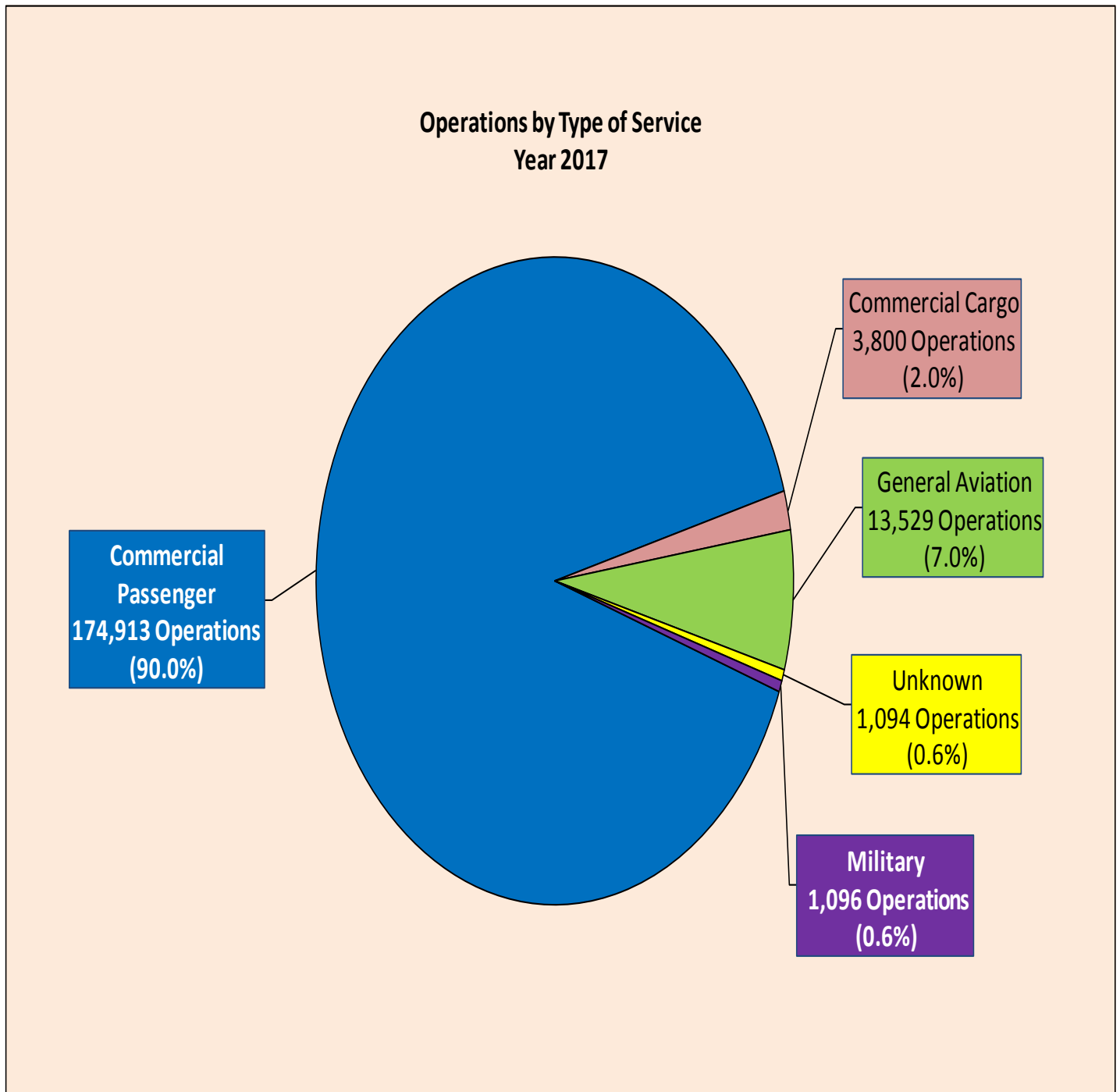
● 2015 Totals 183,806

● 2016 Totals 189,146

● 2017 Totals 194,432

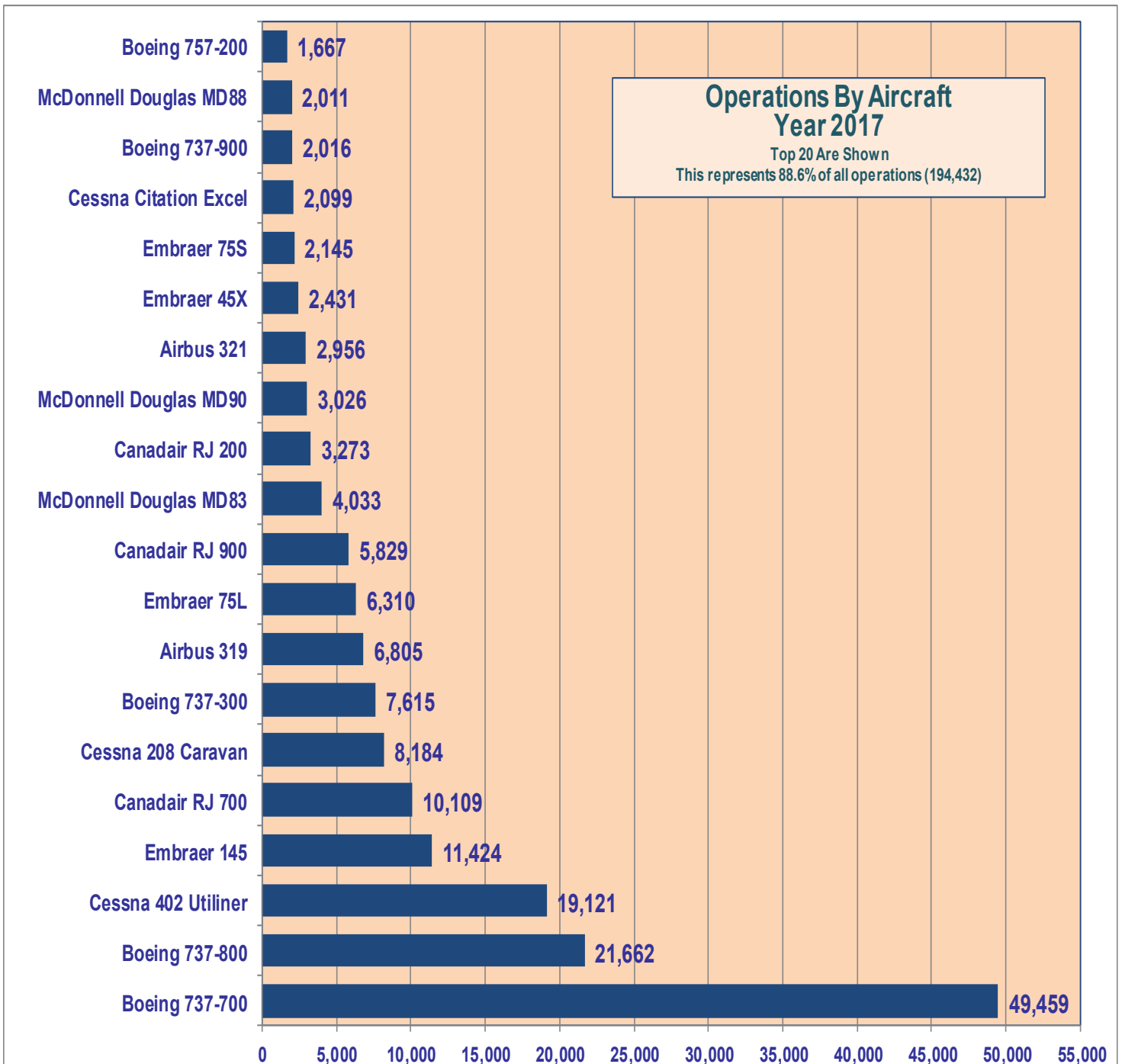
OPERATIONS BY TYPE OF SERVICE

Commercial Passenger, Commercial Cargo, General Aviation, Military, and Unknown Operations are the five categories of operations. The Unknown Operations category include aircraft that were not identified by either the airline or aircraft equipment type, or both. The category of Commercial Passengers reported 90.0% of all operations. The categories of General Aviation, Commercial Cargo, and the Unknown category reported 9.6% of the total operations. Reported Military operations were at 0.6%, however, military operations are filtered and not all military operations are reported in the data.



**OPERATIONS BY AIRCRAFT**

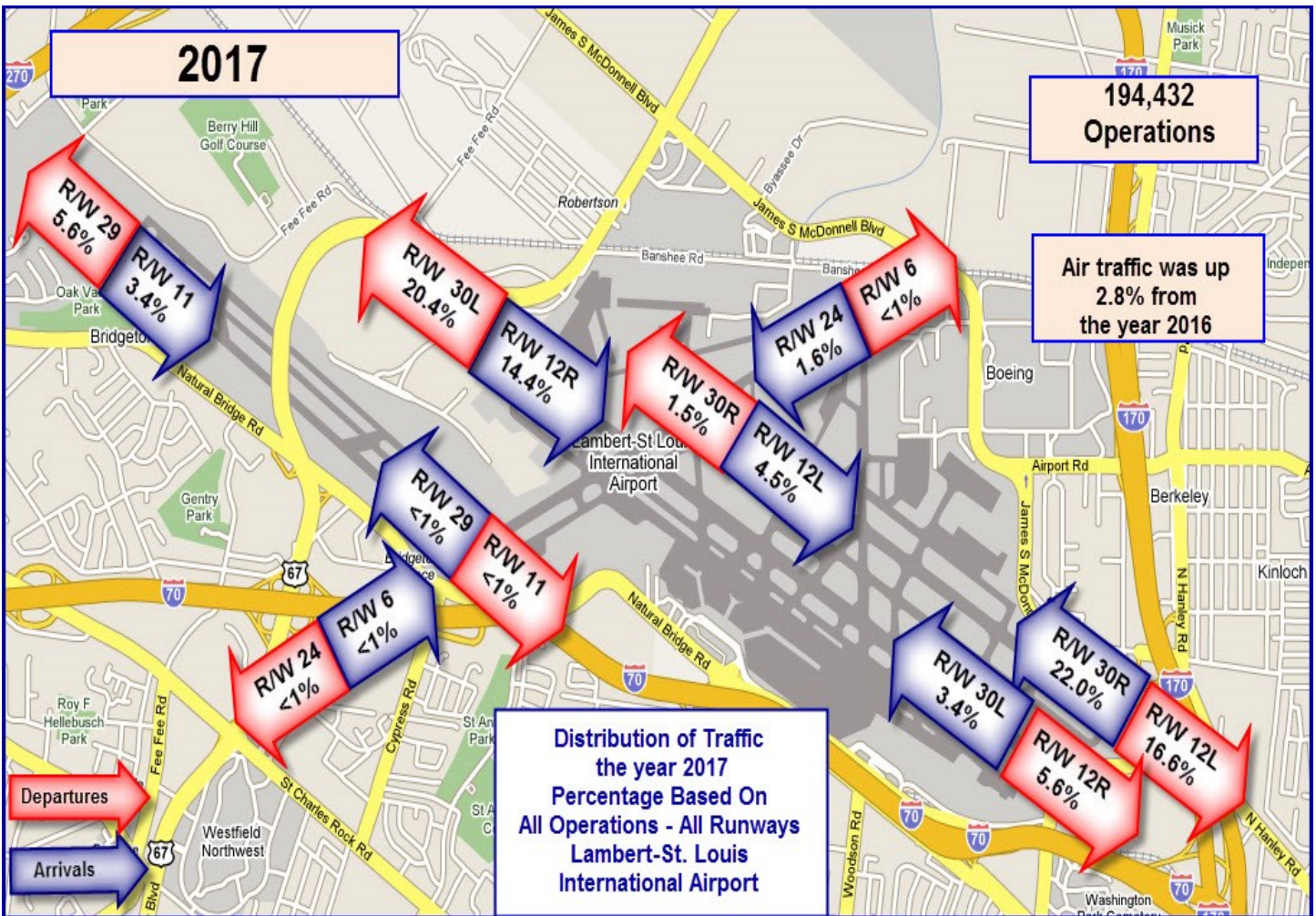
Shown below are top twenty aircraft with the most operations for 2017. The top three aircraft for 2017 were the Boeing 737-700, the Boeing 737-800, and the Cessna 402 Utiliner. In 2017, the Boeing 737-700 operations were up 1.1% from 2016 (48,924). The Boeing 737-800 was up 84.2% from 2016 (11,761) and the Cessna 402 Utiliner was up 2.8% from 2016 (18,608). The Embraer 145, which was in the top three aircraft in 2016, was down -17.1% from its operations in 2016 (13,379). The Boeing 737-300 had the largest decrease in the number of operations with -54.4% from 2016 (11,761). There were 245 different types of aircraft that landed at St. Louis Lambert International Airport during this period according to Harris data.



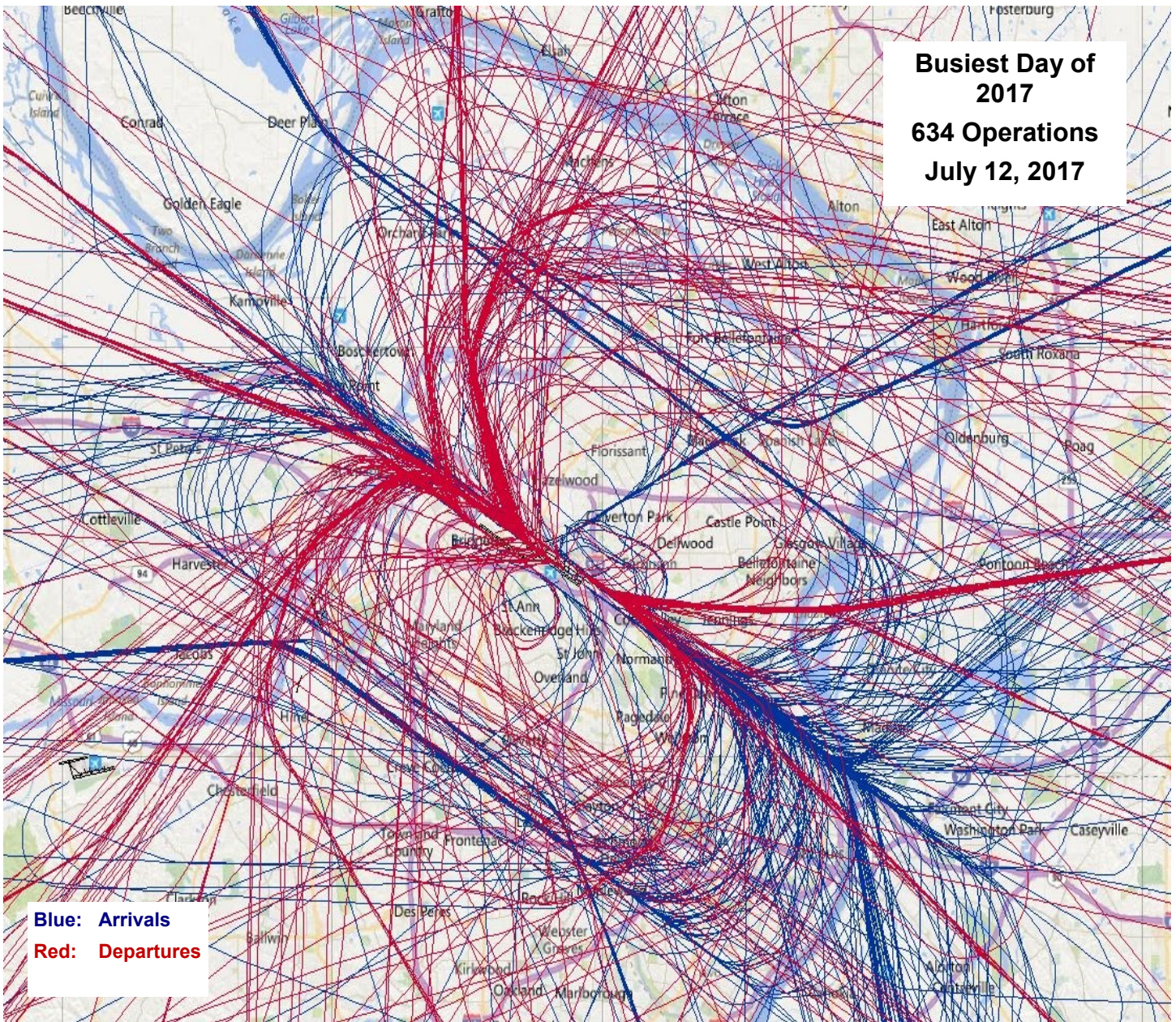


**DISTRIBUTION OF TRAFFIC**

There were 194,432 operations recorded in the year 2017 compared to 189,146 operations in 2016, an increase of +2.8. The chart below shows the total percentages of use for known runways for this period. The most utilized runway for departures was Runway 30L (20.4%). The most utilized runway for arrivals was Runway 30R (22.0%). The crosswind runway 6-24 was the least used runway for this period. The Distribution of Traffic (Eastbound vs. Westbound ) for the year 2017 was 44.8% eastbound and 55.2% westbound operations.



**DAY WITH HIGHEST NUMBER OF OPERATIONS  
YEAR 2017**



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