

# Airport Noise Management Report 2nd Quarter 2017

The Airport Noise Management Report is a publication of the Airport Noise Management Office. This report provides a 2nd quarter summary of St. Louis Lambert International Airport's operations and noise complaints for 2017. Harris, Inc. provides the data for the Noise Management System.

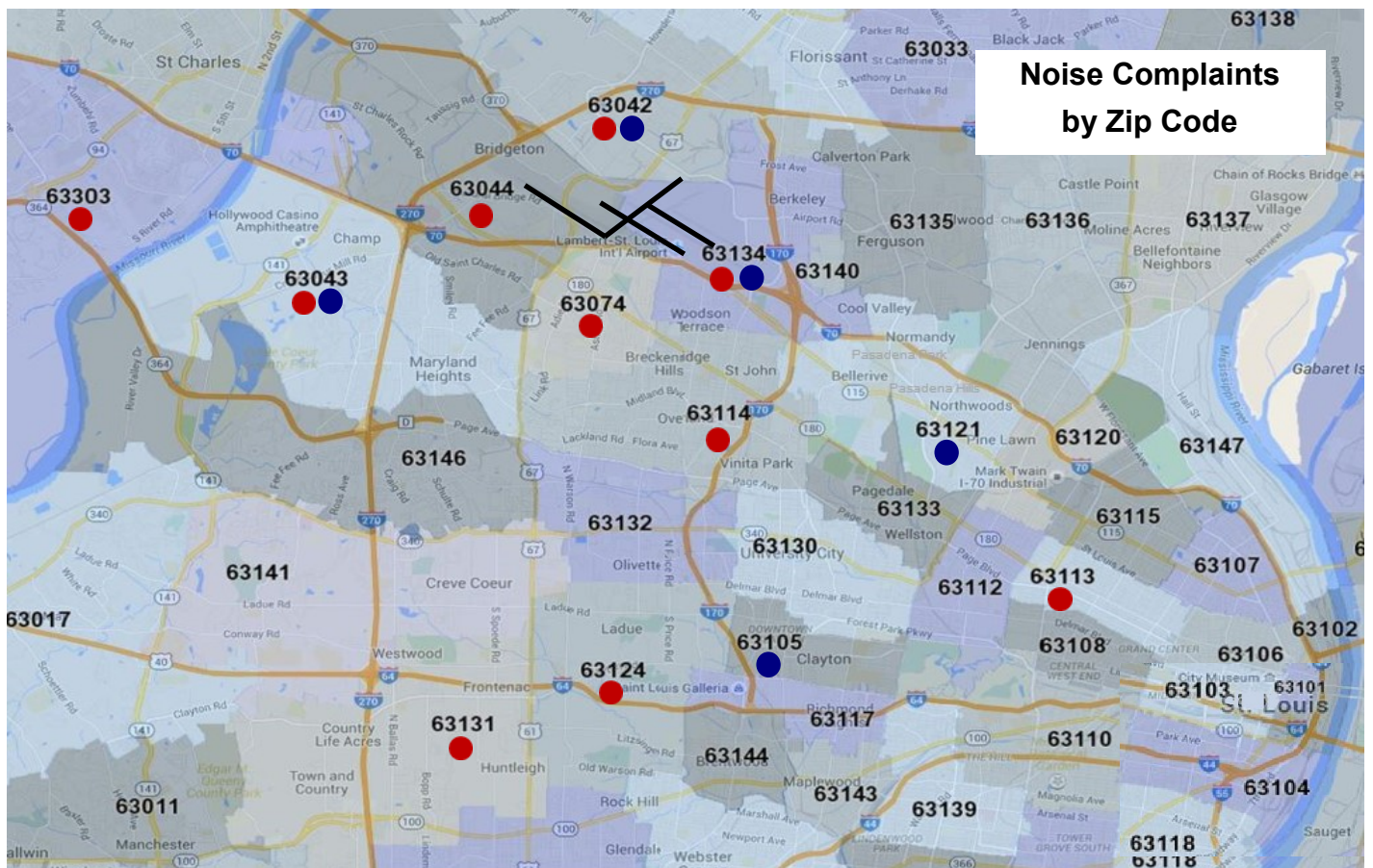


## 2ND QUARTER YEAR 2017

### NOISE COMPLAINTS

There were 7 noise complaints received in the 2nd Quarter of 2017 as compared to the 86 noise complaints in the 2nd Quarter of 2016. The seven complaints were from seven communities. Two of the seven complaints were about numerous low flying F18 aircraft. Further checking found that ten F18 aircraft landed on June 21 and remained overnight before departing. The aircraft were returning from deployment. The remaining complaints were about arriving commercial aircraft being numerous and flying low.

There was one (1) complaint about night time operations (10:00 p.m. to 7:00 a.m) and six (6) 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 86.6% of the operations while 13.4% of the operations occurred during the night time period. Chart below shows number of complaints by zip code by quarter. Two of the complaints were outside the mapping area.



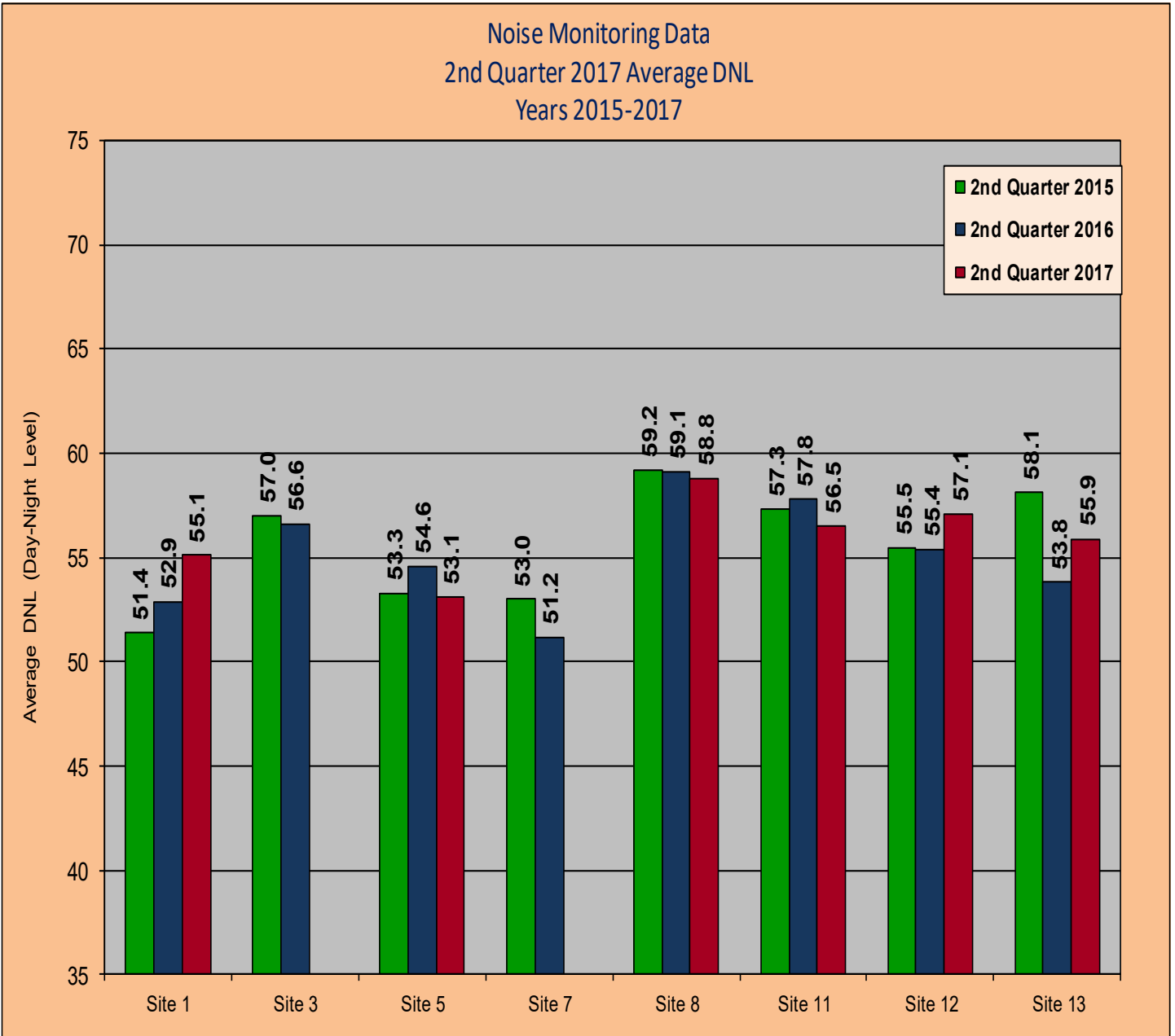
1st Quarter			
Zip Code	# of Calls	Zip Code	# of Calls
63043	4	63131	1
63303	1	63068	1
63113	1	63074	1
63042	1	63043	1
63114	6	63124	1
63134	1	63044	2
63121	1		

2nd Quarter	
Zip Code	# of Calls
63042	1
63105	1
63301	1
63043	1
63134	1
63031	1
63121	1

**NOISE MONITORING DATA**

The Average DNL (Day-Night Level) values for the 2nd Quarter 2015 to 2017 for the eight permanent noise monitors are shown in the chart below. Three monitors had decreases ranging from -0.4 to -1.5. Three monitors had an increases ranging from +1.7 to +2.2. Site 3 and Site 7 are off line, so those sites are not included in the overall noise monitoring data. Annual recalibration of all sites will occur in July 2017. A decrease of 3+ DNL represents a halving of the noise energy.

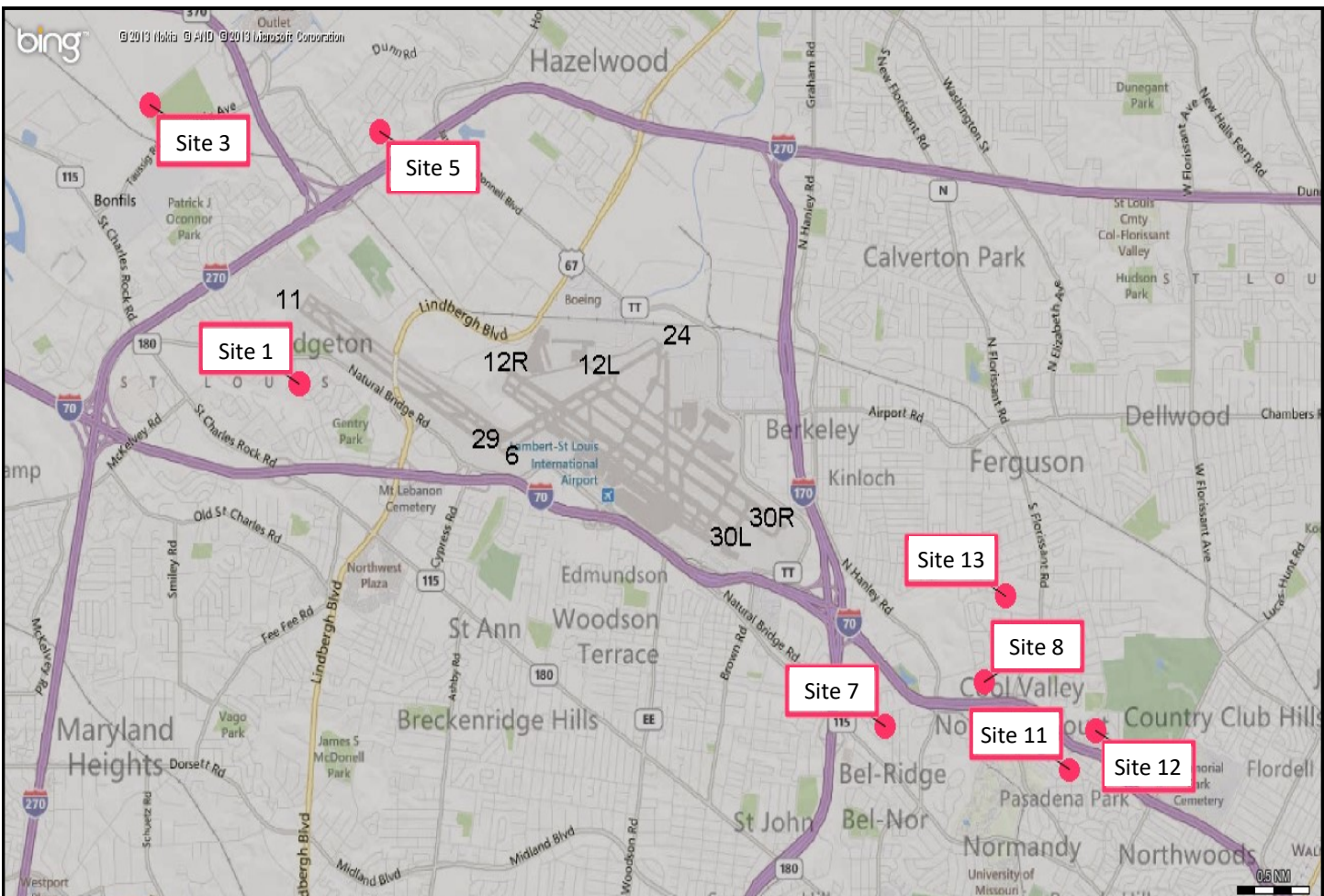
The DNL metric represents noise exposure events over a 24 hour period. The DNL metric approximates the response characteristics of sound to the human ear. The higher the number on the scale, the louder the sound. To account for human sensitivity to noise between the hours of 10 p.m. and 7 a.m., noise 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**

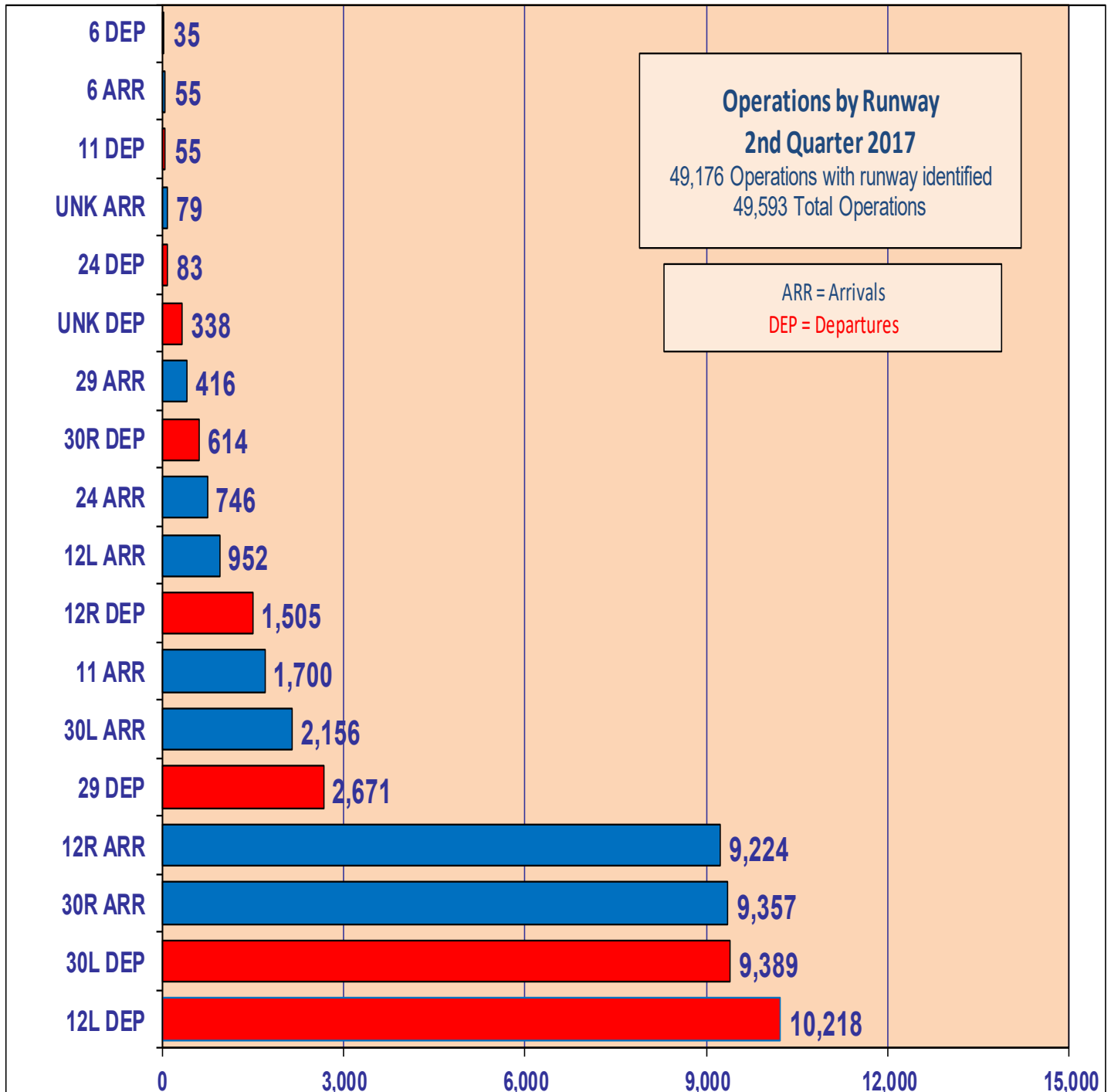
The Permanent Noise Monitoring Sites (NMS) are : Site 1- Benedetta, City of Bridgeton; Site 3- Ferguson Lane, Bridgeton Athletic Complex; Site 5-Villa Rosa & Auriesville, City of Hazelwood; Site 7-Belfore & Loganberry, City of Bel-Ridge; Site 8- Emerling, City of Cool Valley; Site 11-North Hills & Country 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**



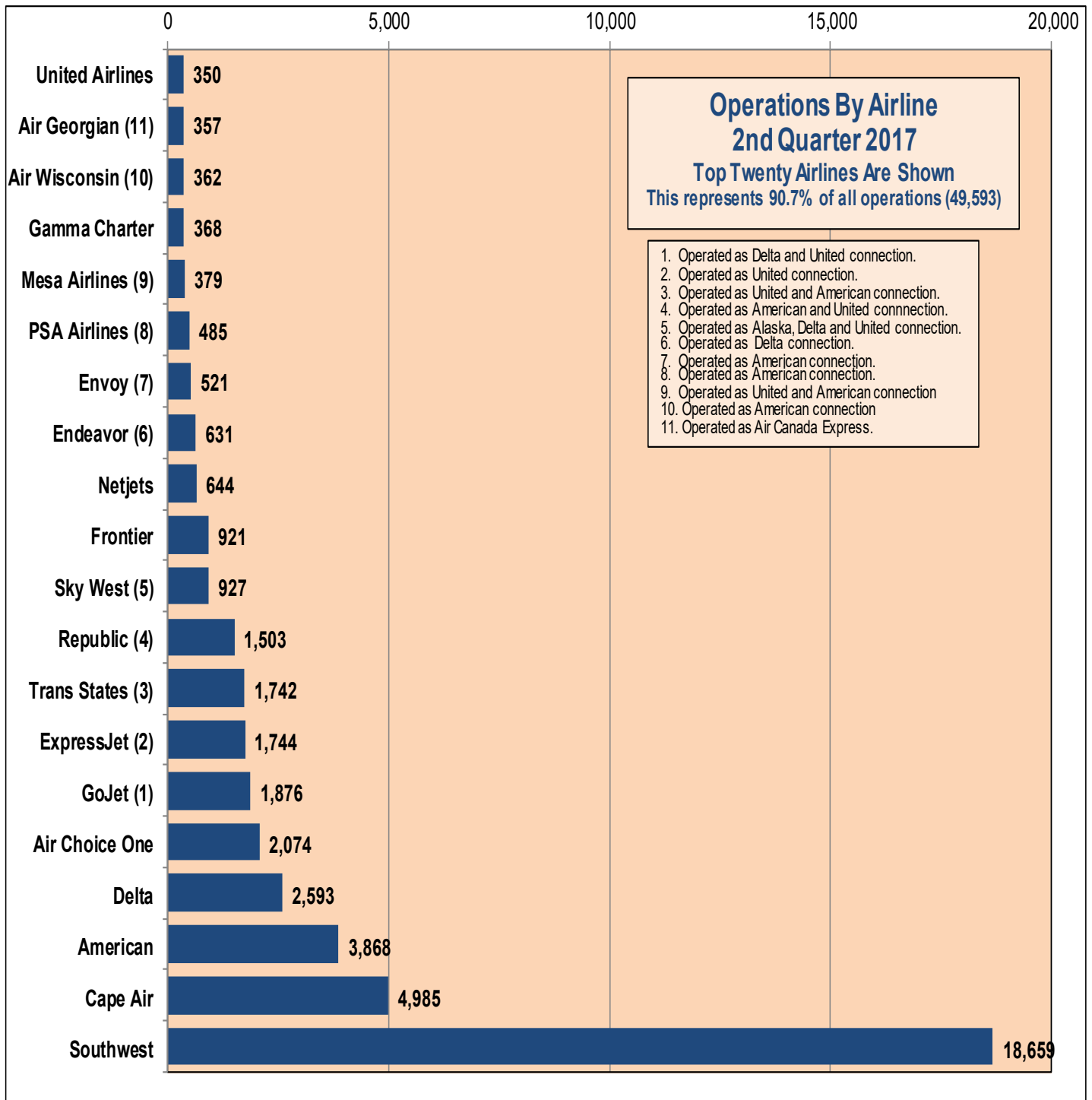
**OPERATIONS BY RUNWAY**

There were 49,593 operations recorded in the 2nd Quarter of 2017 as compared to 48,123 operations in the 2nd Quarter of 2016, an increase of +3.1%. The most utilized runway for known arrivals was Runway 30R (9,357) with 18.9% all operations. The most utilized runway for known departures was Runway 12L (10,218) with 20.6% of all operations. There were 49,176 (99.2%) operations in which the runway was identified and 417 operations (0.8%) where the runways were not identified.



**OPERATIONS BY AIRLINE**

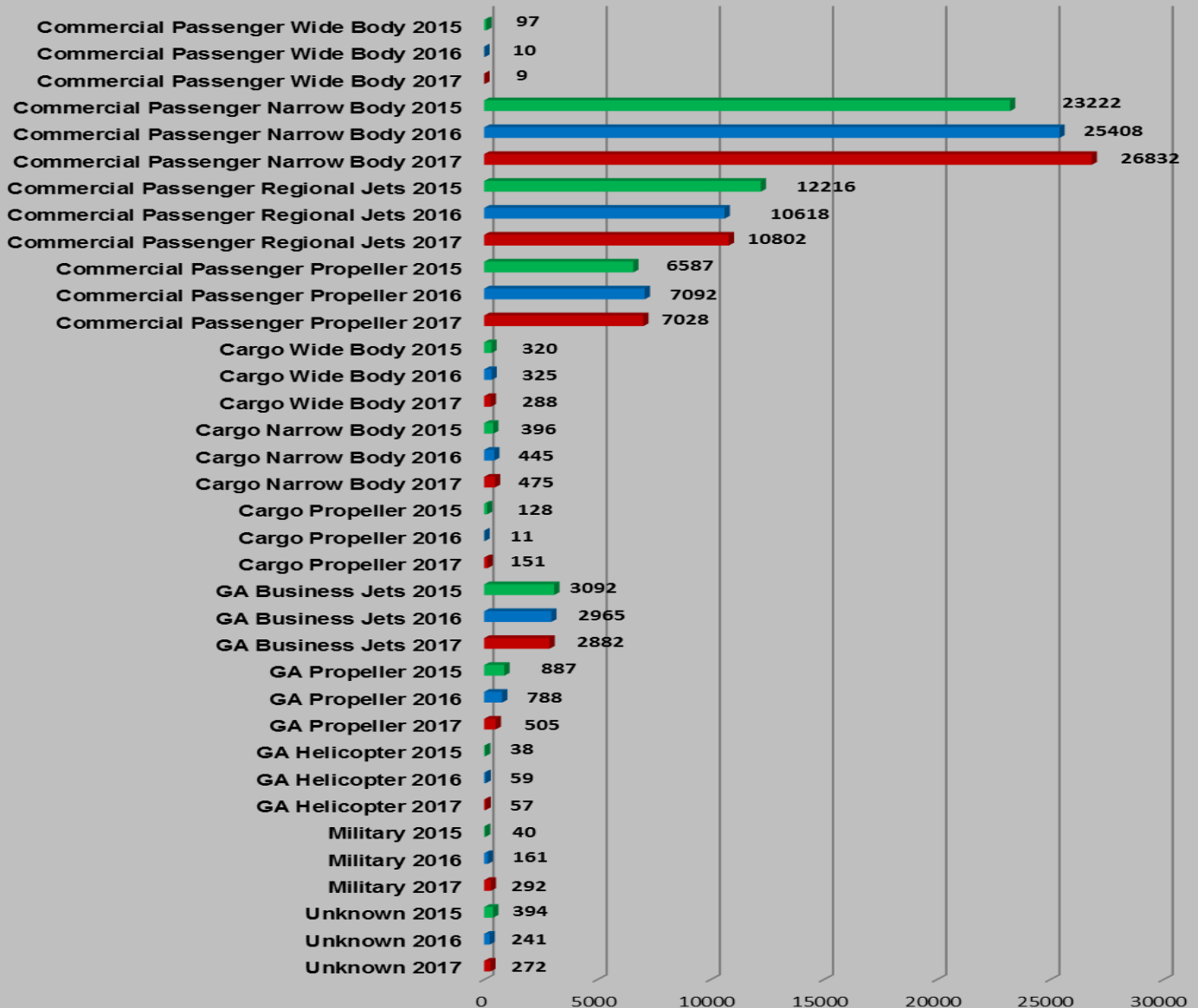
The top twenty airlines accounted for 90.7% of all operations. The top three airlines were Southwest Airlines with 37.6% of all operations, followed by Cape Air (10.1%), and American (7.8%). Eleven regional commercial passenger jet airlines that serve St. Louis Lambert International Airport were in the top twenty airlines and accounted for 21.2% of the 2nd Quarter operations. There were 70 Part 121 and Part 135 airlines that utilized 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**

In the 2nd Quarter of 2017, commercial passenger narrow body operations increased +5.6% from the same period in 2016. Commercial passenger regional jets increased +1.7% from the same period in 2016. Commercial passenger propeller operations decreased -0.9%. Cargo narrow body operations increased +6.7%. General aviation business jets were down -2.8% from 2016. Military operations are filtered so most operations are not reported. Overall, operations from the 2nd Quarter 2017 were up +3.1% from the 2nd Quarter in 2016.

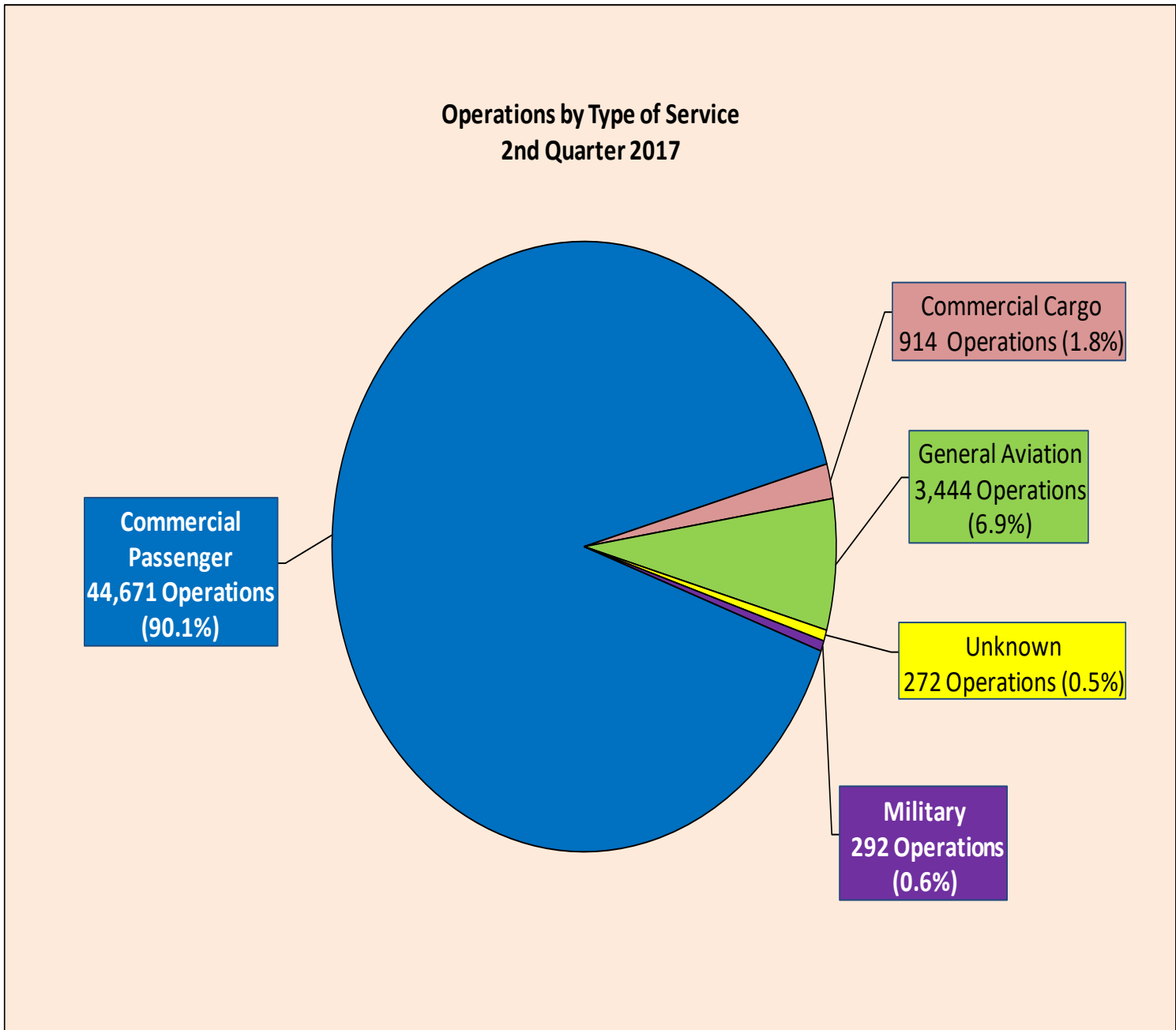
**Comparison 2nd Quarters 2015-2017 Fleet**



● 2015 Totals 47,417     
 ● 2016 Totals 48,123     
 ● 2017 Totals 49,593

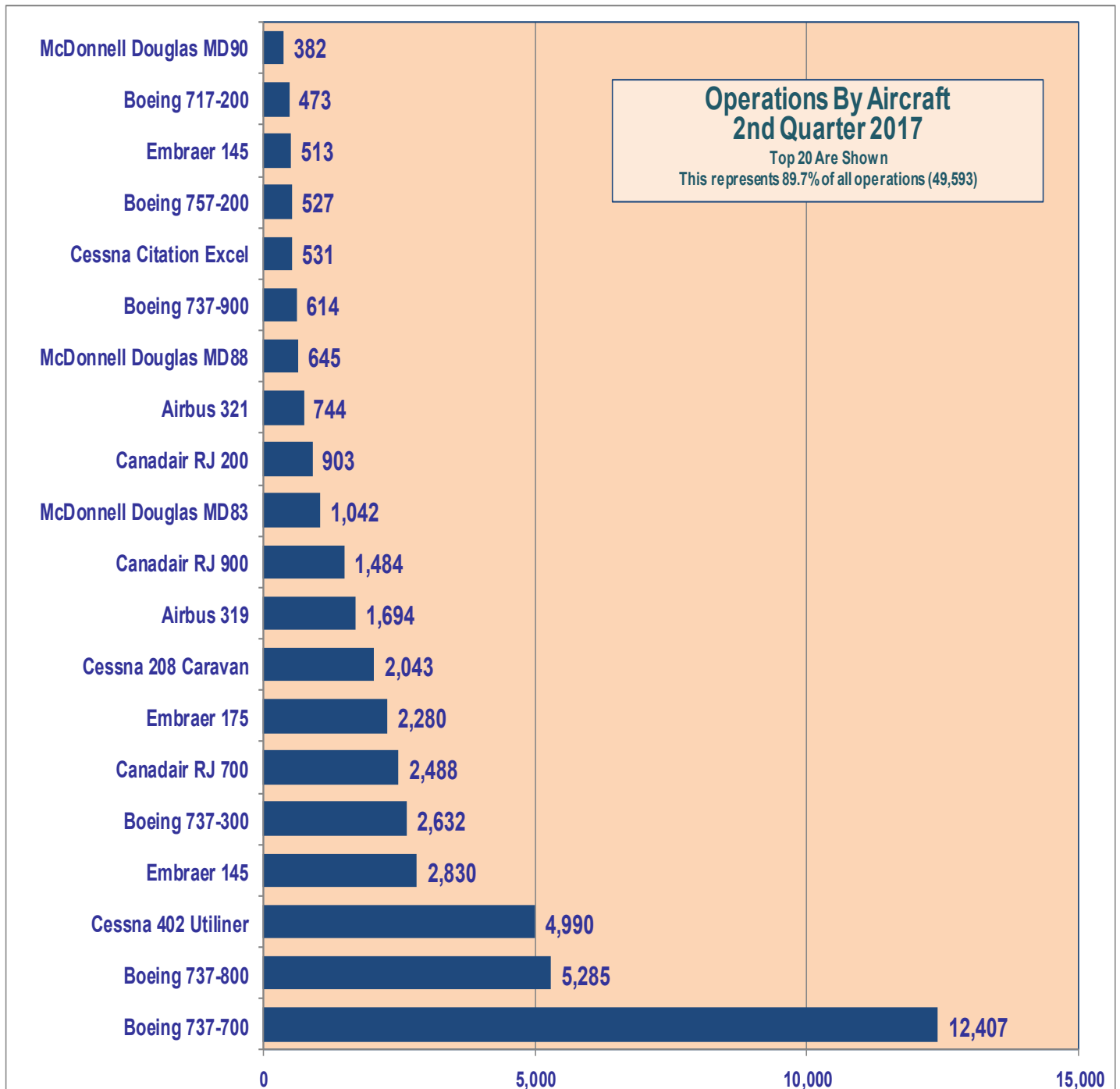
**OPERATIONS BY TYPE OF SERVICE**

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 largest number of operations was Commercial Passengers with 90.1% . General Aviation was at 6.9%, Commercial Cargo had 1.8%, and the Unknown category represented 0.5% 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**

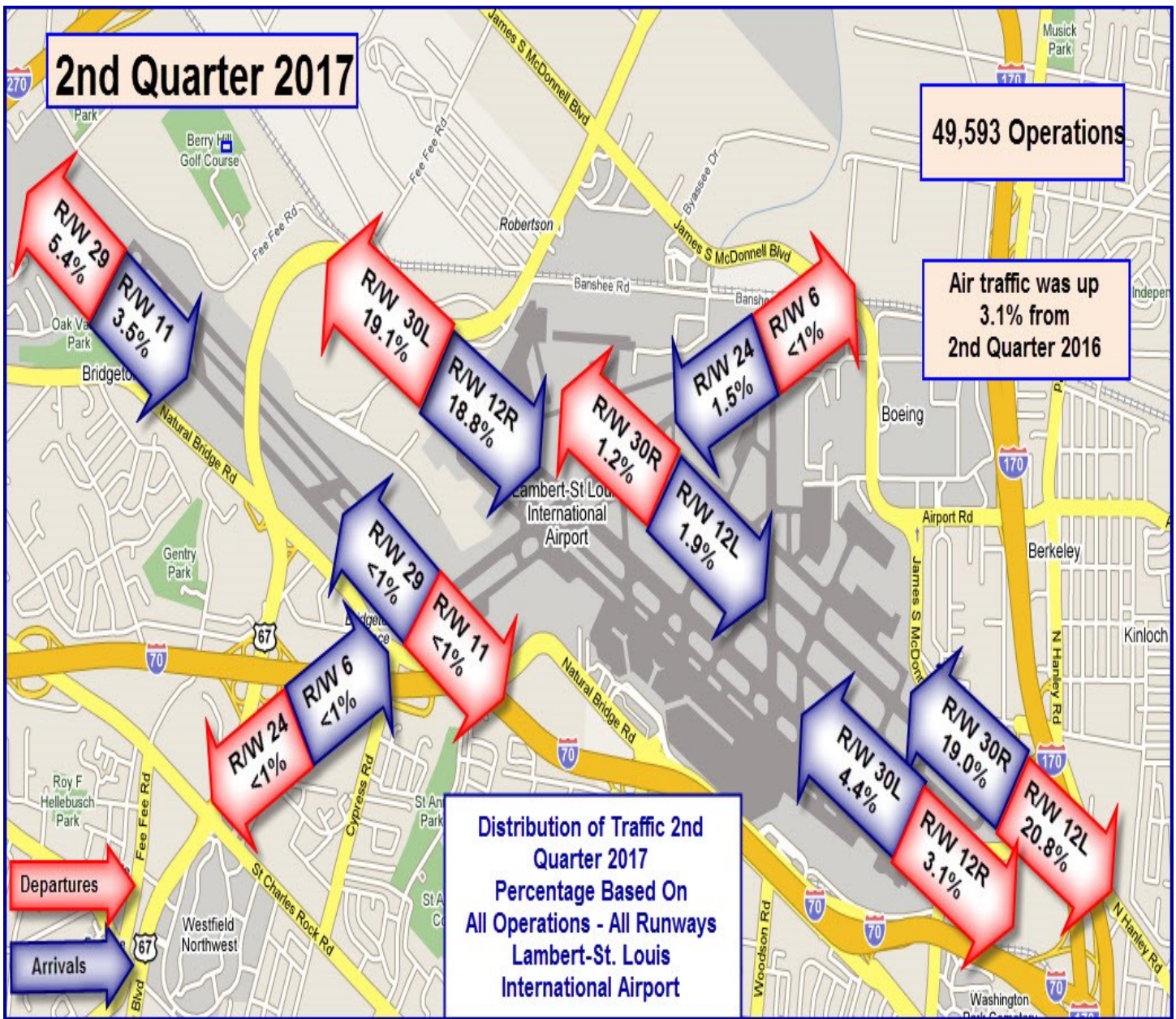
The top three aircraft operating at St. Louis Lambert International Airport were the Boeing 737-700 model with 12,407 operations (25.0%), the Boeing 737-800 with 5,285 operations (10.7%) and the Cessna 402 Utiliner with 4,990 operations (10.1%). The top ten aircraft in the 2nd Quarter 2016 and 2017 remained the same except that the Embraer 170 was replaced in the top ten by the Embraer 175 in 2017. There were 167 different types of aircraft that landed at St. Louis Lambert International Airport during this period according to Harris data.



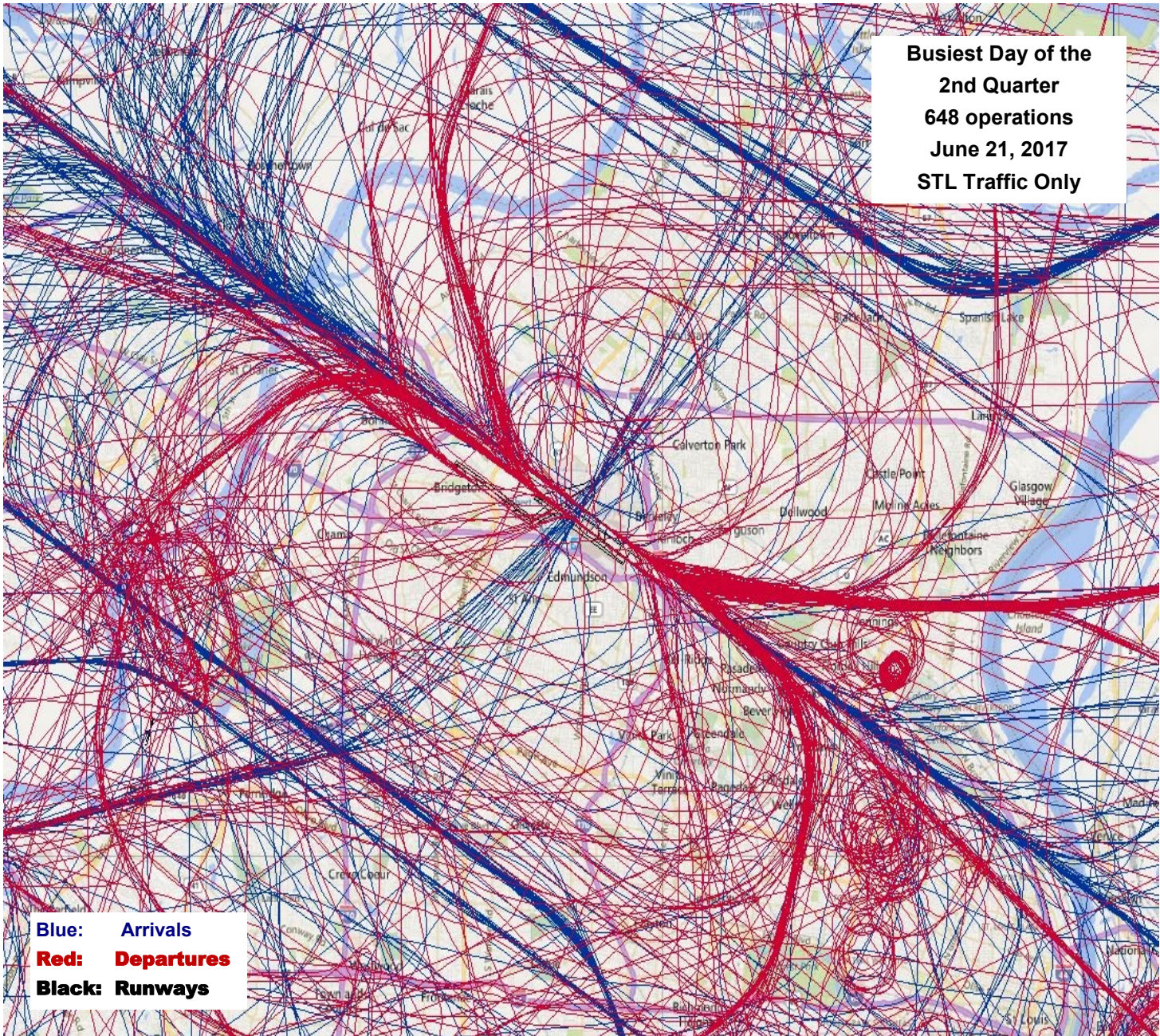


**DISTRIBUTION OF TRAFFIC**

There were 49,593 operations recorded in the 2nd Quarter of 2017 compared to 48,123 operations in the 2nd Quarter of 2016, an increase of +3.1%. The chart below shows the total percentages of use for known runways for this period. The most utilized runway for departures was Runway 12L (20.8%). The most utilized runway for arrivals was Runway 30R (19.0%). The crosswind runway 6-24 was the least used runway for this period. The Distribution of Traffic (Eastbound vs. Westbound ) for the 2nd Quarter 2017 was 48.2% eastbound and 51.8% westbound operations.



HIGHEST DAILY NUMBER OF OPERATIONS  
2nd QUARTER 2017



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