

# Airport Noise Management Report 1st Quarter 2017

The Airport Noise Management Report is a publication of the Airport Noise Management Office. This report provides a 1st 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.

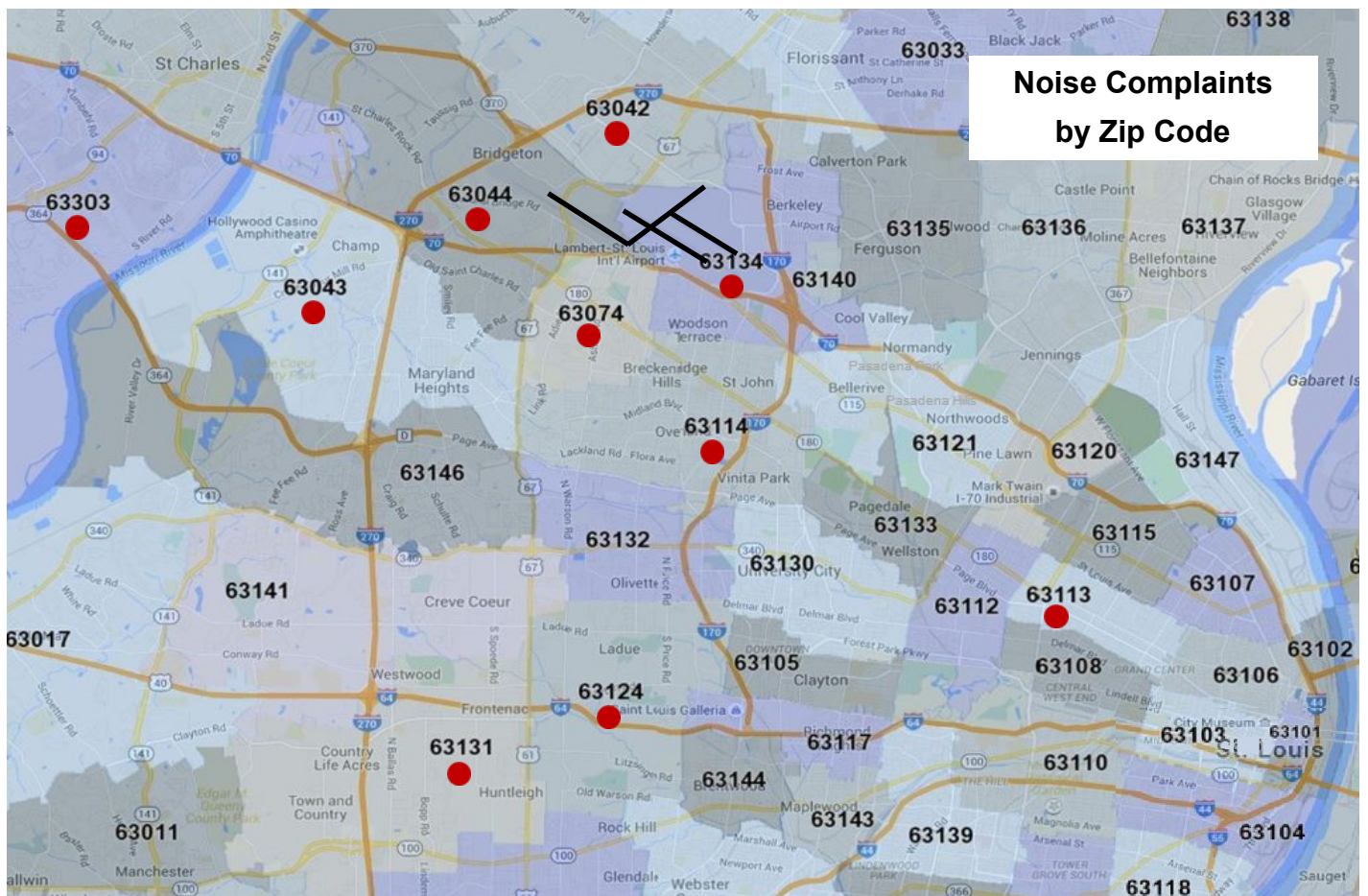


## 1ST QUARTER YEAR 2017

### NOISE COMPLAINTS

There were 22 noise complaints received in the 1st Quarter of 2017 as compared to the 17 noise complaints in the 1st Quarter of 2016, an increase of 29.4%. The 22 complaints were from 13 communities. Six complaints were about a military aircraft from Scott Air Force Base conducting touch and goes on Runway 11/29. The complainants thought the aircraft was too low. Seven complaints were about five F15 aircraft departing St. Louis Lambert International Airport for delivery to customers at 3:30 am on March 27, 2017.

There were nine complaints about night time operations (10:00 p.m. to 7:00 a.m) and 13 complaints 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 88.3% of the operations while 11.7% of the operations occurred during the night time period.

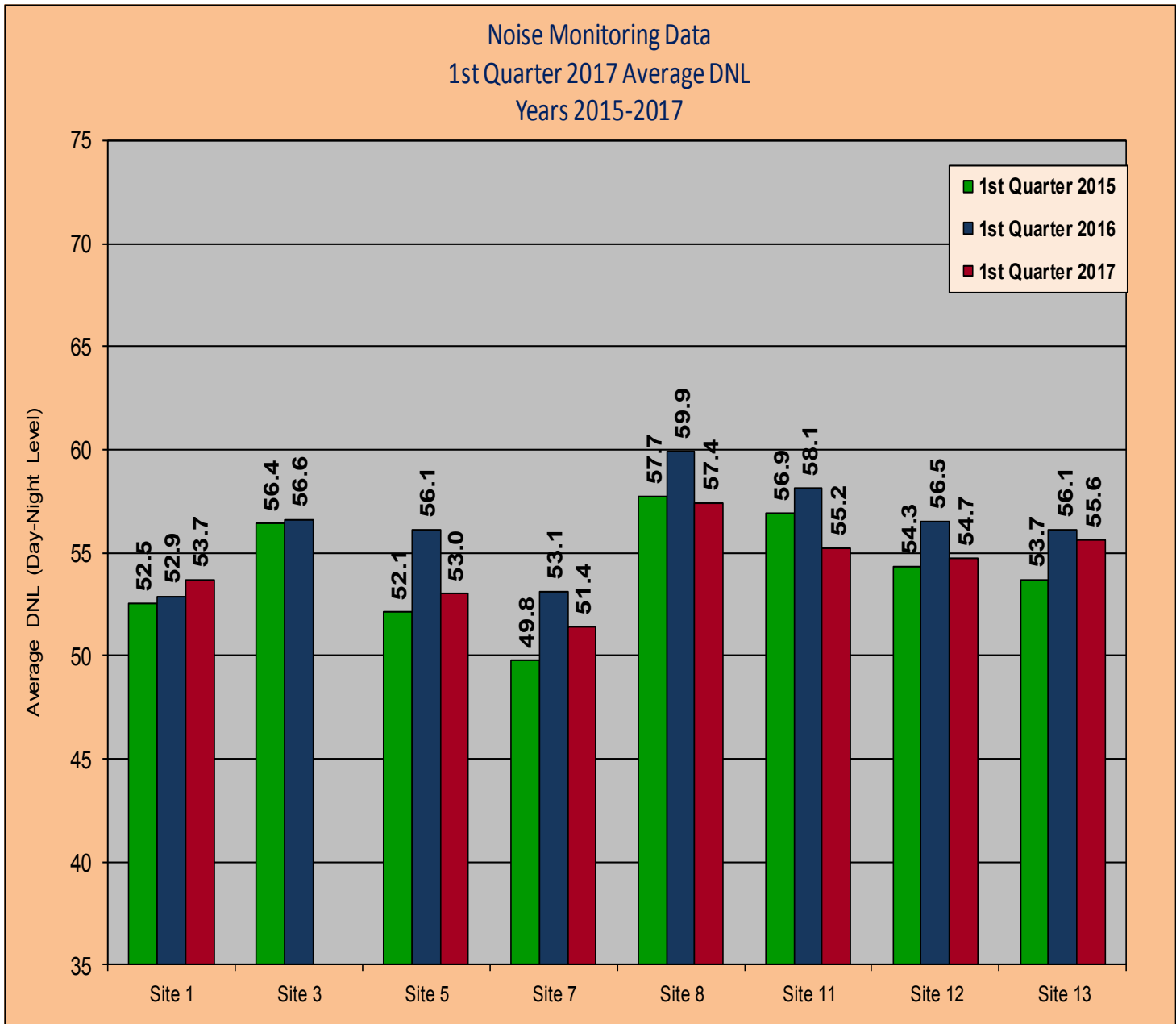


Zip Code	# of Calls	Zip Code	# of Calls
63043	4	63131	1
63303	1	63068	1
63113	1	63074	1
63042	1	63043	1
63114	6	63124	1
63134	1	63044	2
63121	1		

**NOISE MONITORING DATA**

The Average DNL (Day-Night Level) values for the 1st Quarter 2015 to 2017 for the eight permanent noise monitors are shown in the chart below. Six monitors had decreases ranging from -0.5 to -3.1. One monitor had an increase of +0.8. Site 3 was off line, so that site is not included in the overall noise monitoring data. A decrease of 3+ DNL represents a halving of the noise energy.

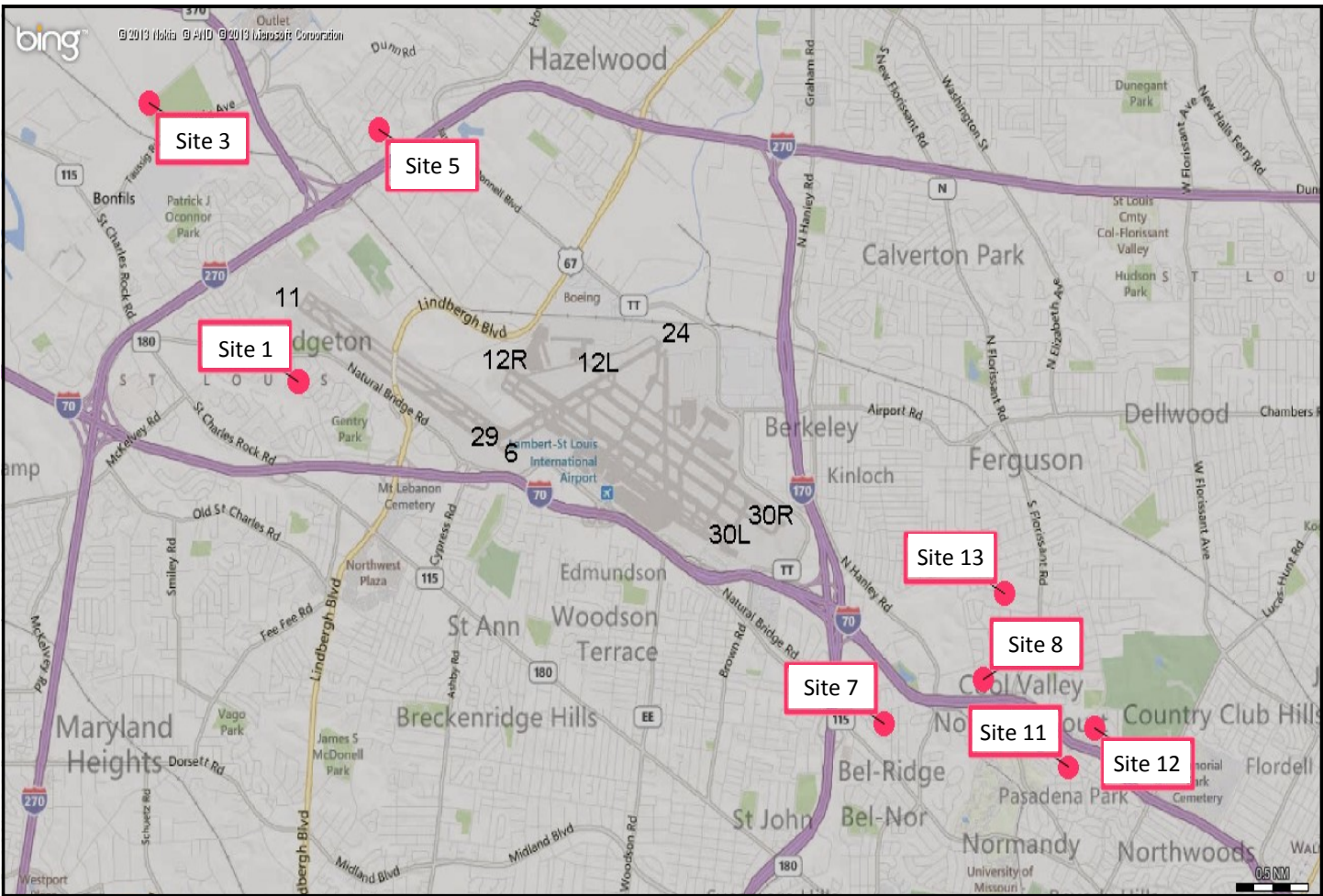
The DNL metric represents noise exposure events over a 24 hour period. The DNL metric approximates the response characteristics of sound to the human ear. The higher the number on the scale, the louder the sound. To account for human sensitivity to noise between the hours of 10 p.m. and 7 a.m., noise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

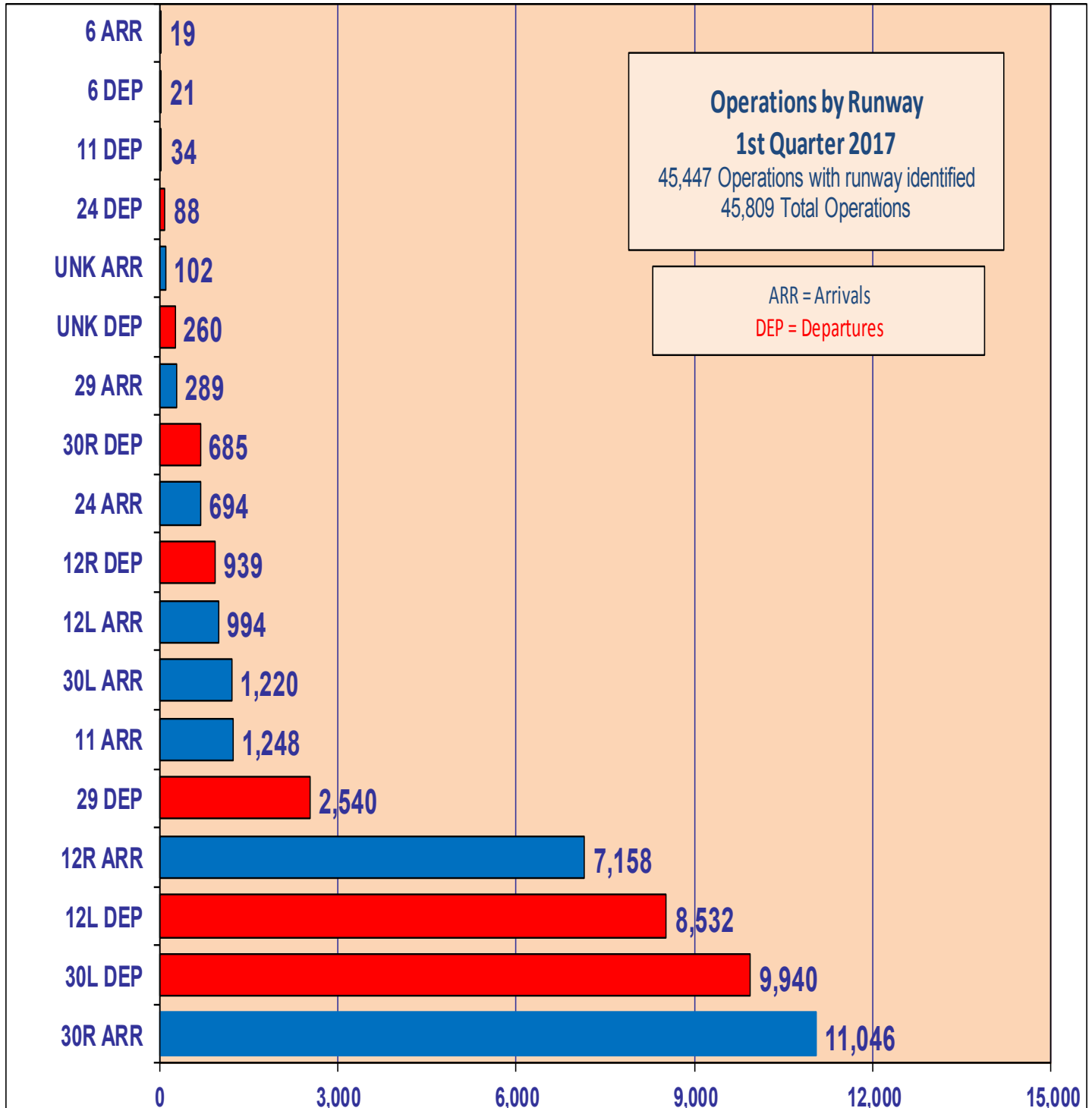
**NOISE MONITORING SITES**





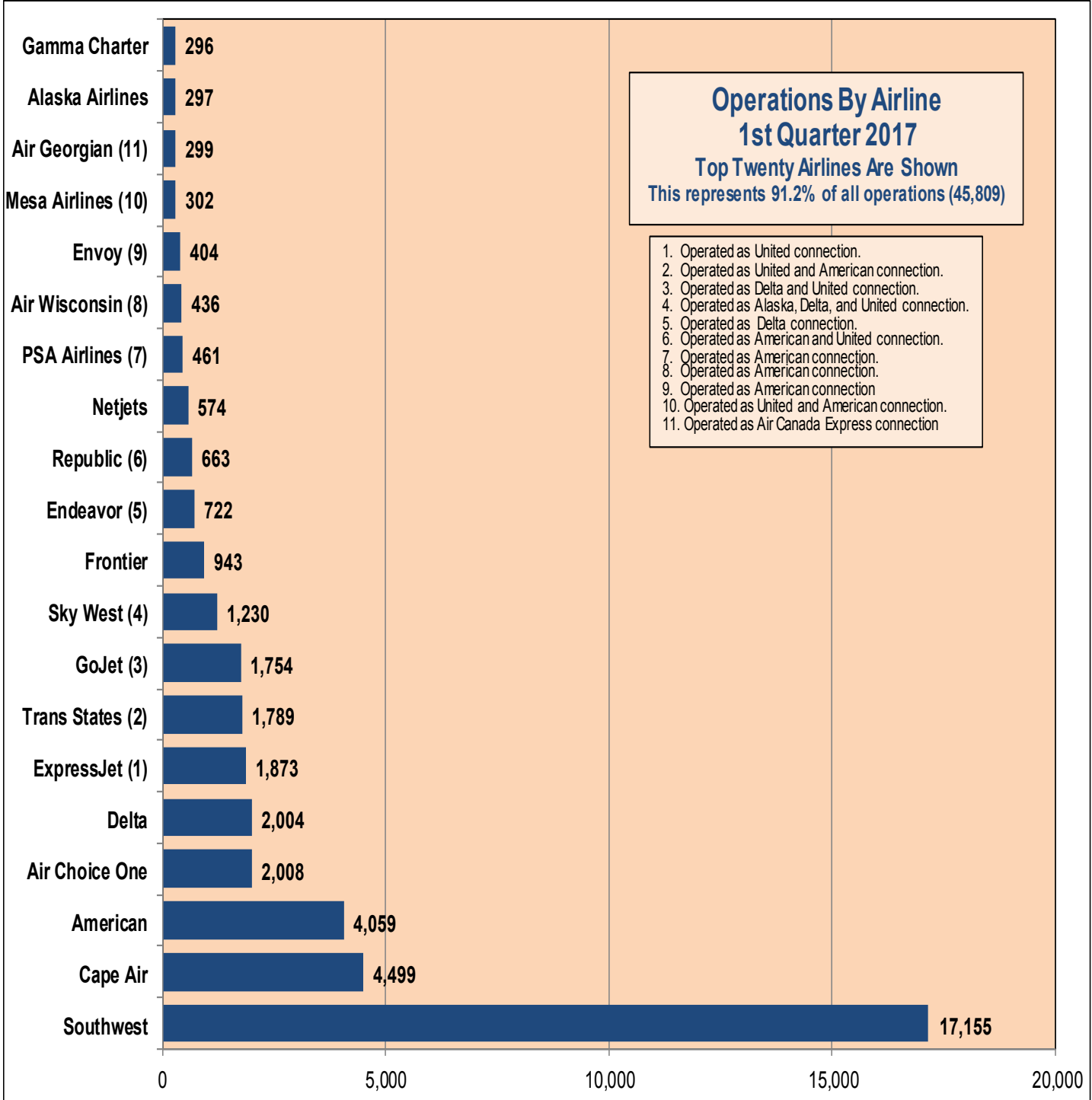
**OPERATIONS BY RUNWAY**

There were 45,809 operations recorded in the 1st Quarter of 2017 as compared to 44,709 operations in the 1st Quarter of 2016, an increase of +2.5%. The most utilized runway for known arrivals was Runway 30R (11,046) with 24.1% all operations. The most utilized runway for known departures was Runway 30L (9,940) with 21.7% of all operations. There were 45,447 (99.2%) operations in which the runway was identified and 362 operations (0.8%) where the runways were not identified.



**OPERATIONS BY AIRLINE**

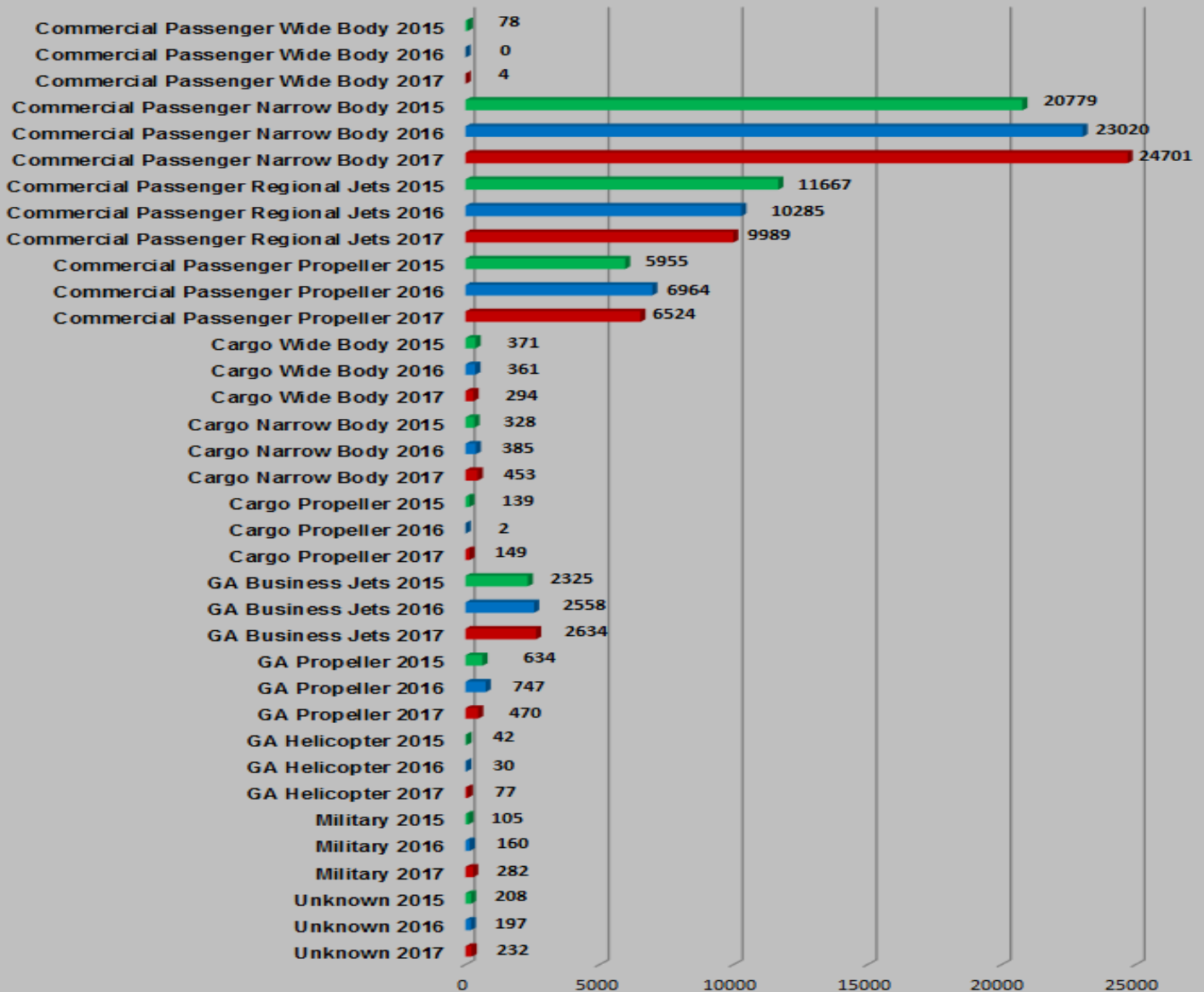
The top twenty airlines accounted for 91.2% of all operations. The top three airlines were Southwest Airlines with 37.4% of all operations, followed by Cape Air (9.8%), and American (8.9%). Eleven regional commercial passenger jet airlines that serve St. Louis Lambert International Airport were in the top twenty airlines and accounted for 21.7% of the 1st Quarter operations. There were 59 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 1st Quarter of 2017, commercial passenger narrow body operations increased +7.3% from the same period in 2016. Commercial passenger regional jets decreased -2.9% from the same period in 2016. Commercial passenger propeller operations decreased -6.7%. Cargo narrow body operations increased +17.7%. General aviation business jets were up +2.9% from 2016. Military operations are filtered so most operations are not reported. Overall, operations from the 1st Quarter 2017 were up +2.5% from the 1st Quarter in 2016.

**Comparison 1st Quarters 2015-2017 Fleet**



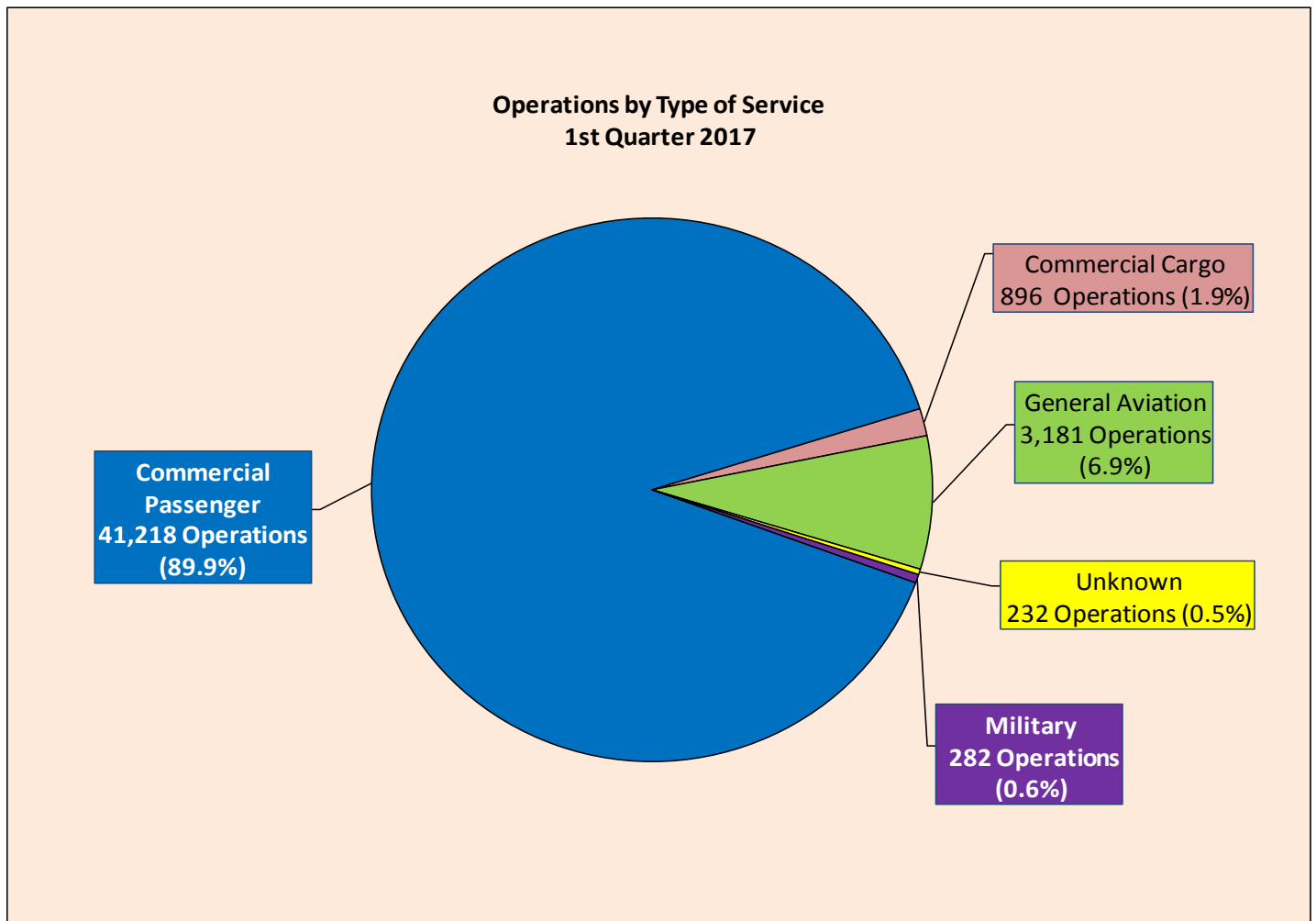
● 2015 Totals 42,631

● 2016 Totals 44,709

● 2017 Totals 45,809

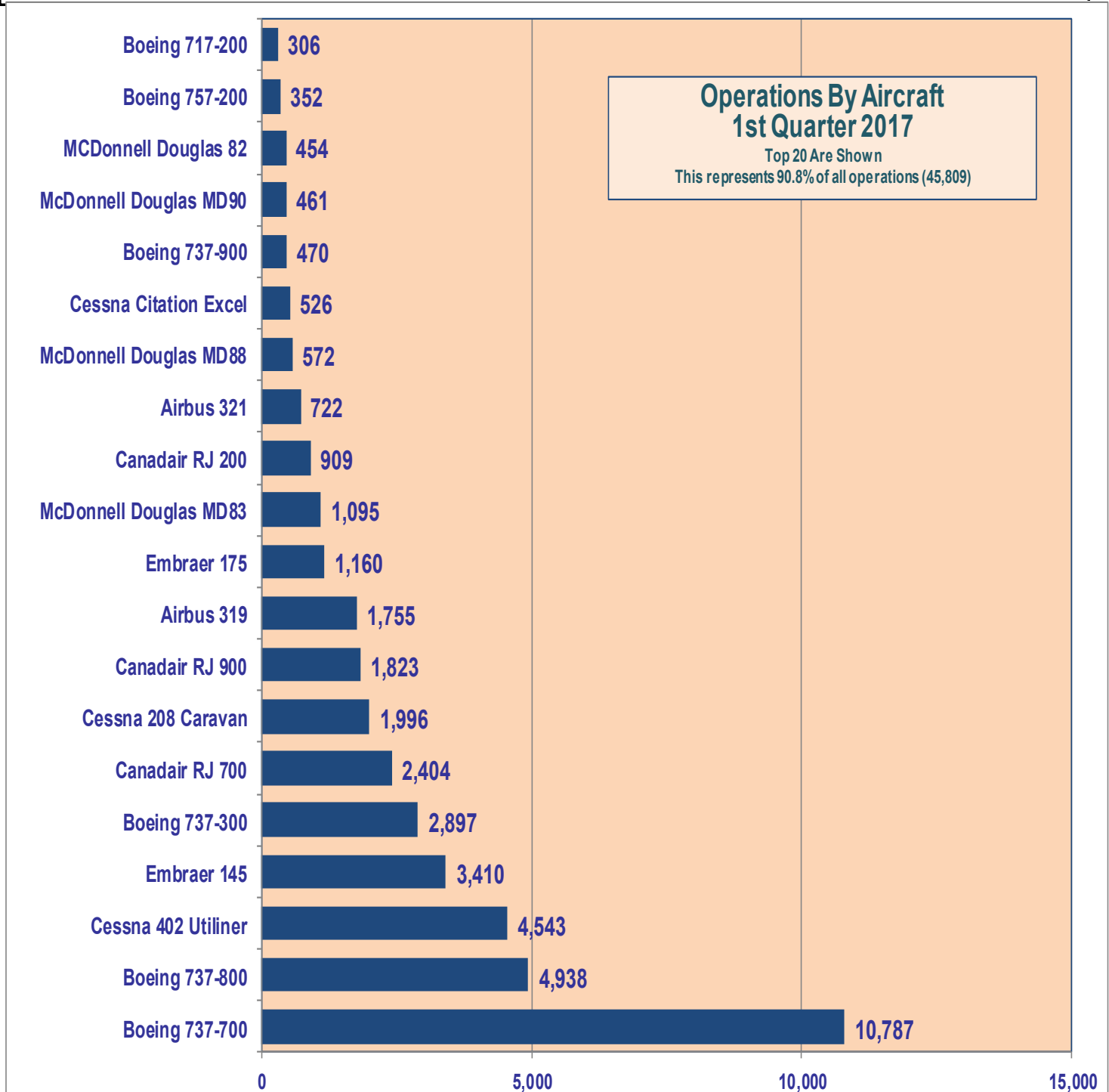
**OPERATIONS BY TYPE OF SERVICE**

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 89.9% . General Aviation was at 6.9%, Commercial Cargo had 1.9%, 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**

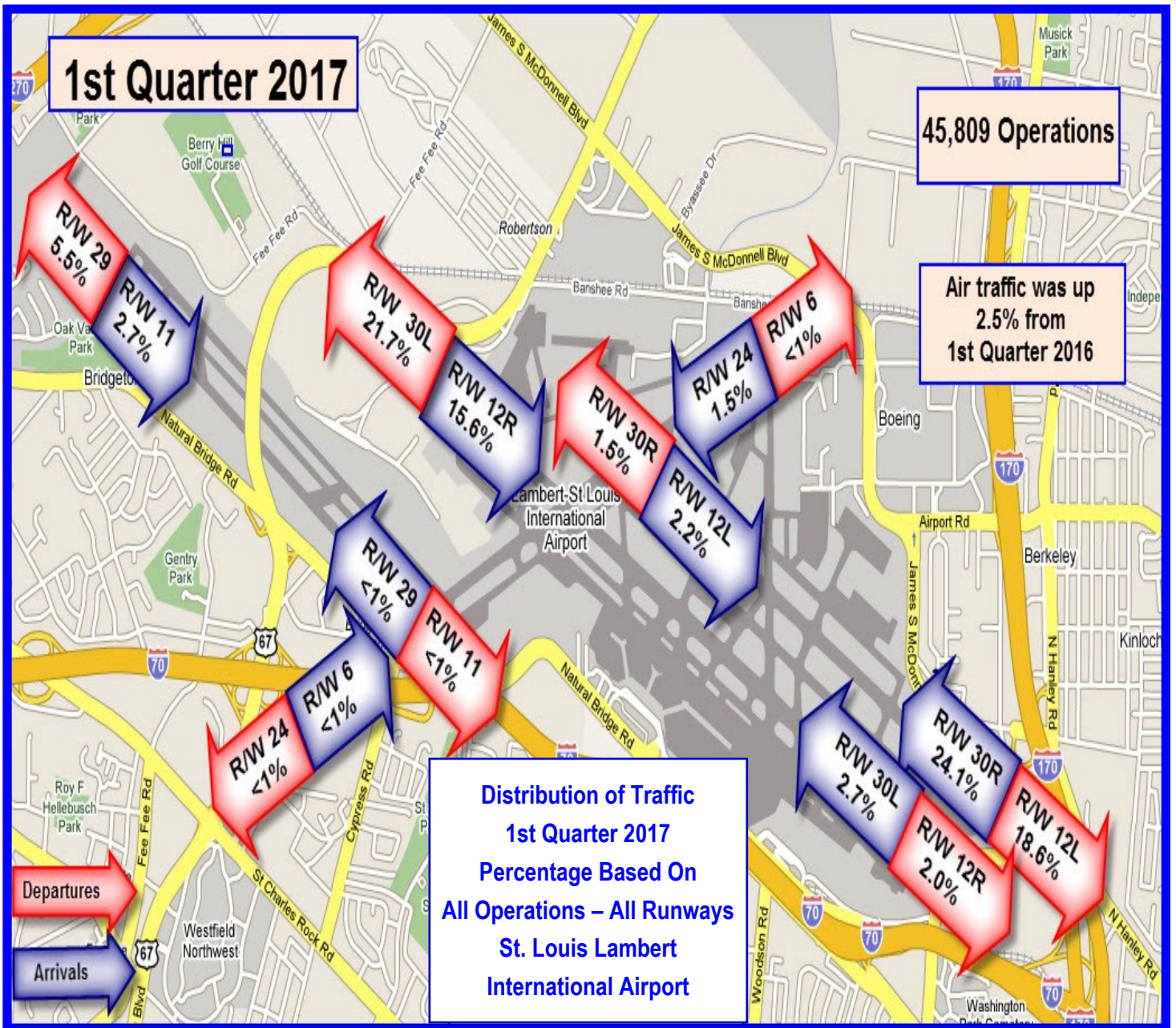
The top three aircraft operating at St. Louis Lambert International Airport were the Boeing 737-700 model with 10,787 operations (23.5%), the Boeing 737-800 with 4,938 operations (10.8%) and the Cessna 402 Utiliner with 4,543 operations (9.9%). The top ten aircraft in the 1st Quarter 2016 and 2017 remained the same except that the Embraer 170 was replaced in the top ten by the Embraer 175 in 2017. There were 156 different types of aircraft that landed at St. Louis Lambert International Airport during this period according to Harris data.





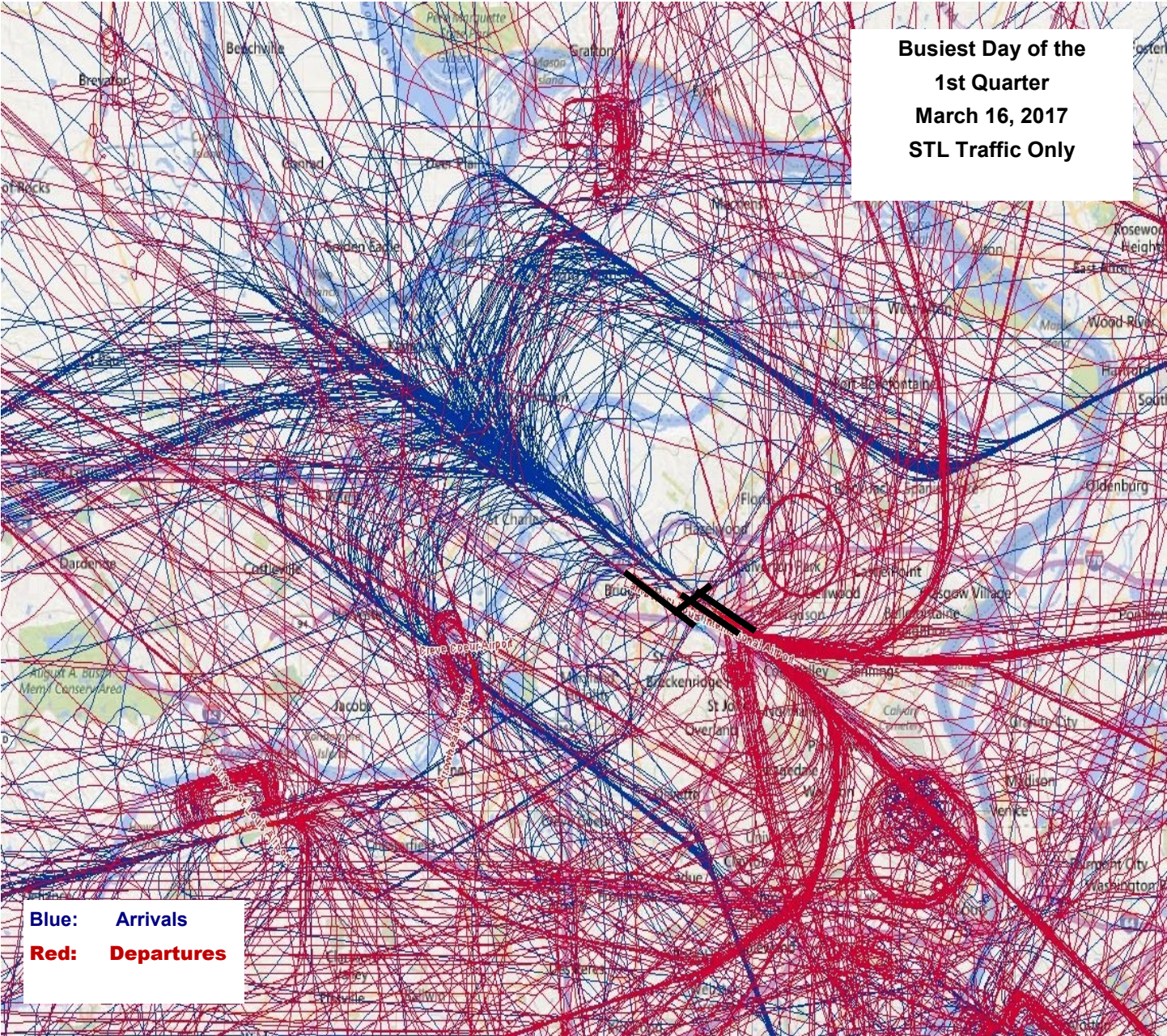
**DISTRIBUTION OF TRAFFIC**

There were 45,809 operations recorded in the 1st Quarter of 2017 compared to 44,709 operations in the 1st Quarter of 2016, an increase of +2.5%. The chart below shows the total percentages of use for known runways for this period. The most utilized runway for departures was Runway 30L (21.7%). The most utilized runway for arrivals was Runway 30R (24.1%). The crosswind runway 6-24 was the least used runway for this period. The Distribution of Traffic (Eastbound vs. Westbound ) for the 1st Quarter 2017 was 41.9% eastbound and 58.1% westbound operations.





**HIGHEST DAILY NUMBER OF OPERATIONS  
1st QUARTER 2017**



**Busiest Day of the  
1st Quarter  
March 16, 2017  
STL Traffic Only**

**Blue: Arrivals**  
**Red: Departures**

 **ST. LOUIS LAMBERT  
INTERNATIONAL AIRPORT™**

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