



## **Jet Noise Commission**



# **Summary Report of Air Traffic over HB for the Month of November 2020**

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## Overview

The purpose of this report is to give an update on commercial jet traffic over the City of Huntington Beach. This is a very high level summary and does not contain all the underlying data and explanations.

To get more detailed information, a related document entitled "JNC Detailed Report of August, 2020.docx" is available and gives more details on flight paths, frequency, duration and other information.

This report covers air traffic over the City from November 1<sup>st</sup> to November 30<sup>th</sup>, 2020.

## Methodology

The majority of the data in this report is based on collecting data from commercial jet aircraft sent from the airplane's "Automatic Dependent Surveillance - Broadcast" (ADS-B) transmitter. The ADS-B data stream reports items such as position, altitude, speed, heading and more. This data is captured in a database so the flight path across Huntington Beach can be plotted and statistics therefrom can be generated. The data collected is also validated against official reports from both Long Beach and John Wayne reports, but the official reports are usually one or more months delayed.

**\*\*Note:** as a result, the November numbers here are not "official" but the October ones are. The TSA data is as of November 30<sup>th</sup>.

## The Impact of COVID-19 on Air Traffic

The COVID-19 virus has a tremendous impact on air travel worldwide. One major indicator of the impact is shown in Figure 1, the TSA Passenger Throughput<sup>1</sup> from March through November of 2020 vs. 2019. Note the rapid decline starting mid-March and the slow rise starting in mid-July. The same data rolled up into by-month is shown in Figure 2. November showed a slight decrease from October, possibly due to Thanksgiving (see the next section). Between March 1<sup>st</sup> and November 30<sup>th</sup>, the accumulated passenger difference was 478,856,897 which, at an average ticket price of \$400, equates to lost revenues of roughly \$192 Billion.

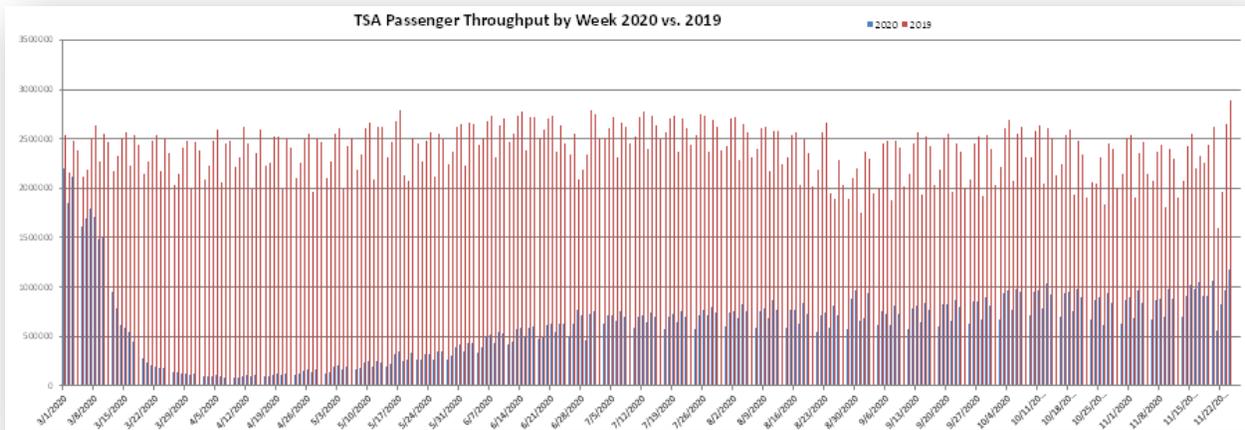


Figure 1 - TSA Weekly Passenger Throughput 2020 vs. 2019

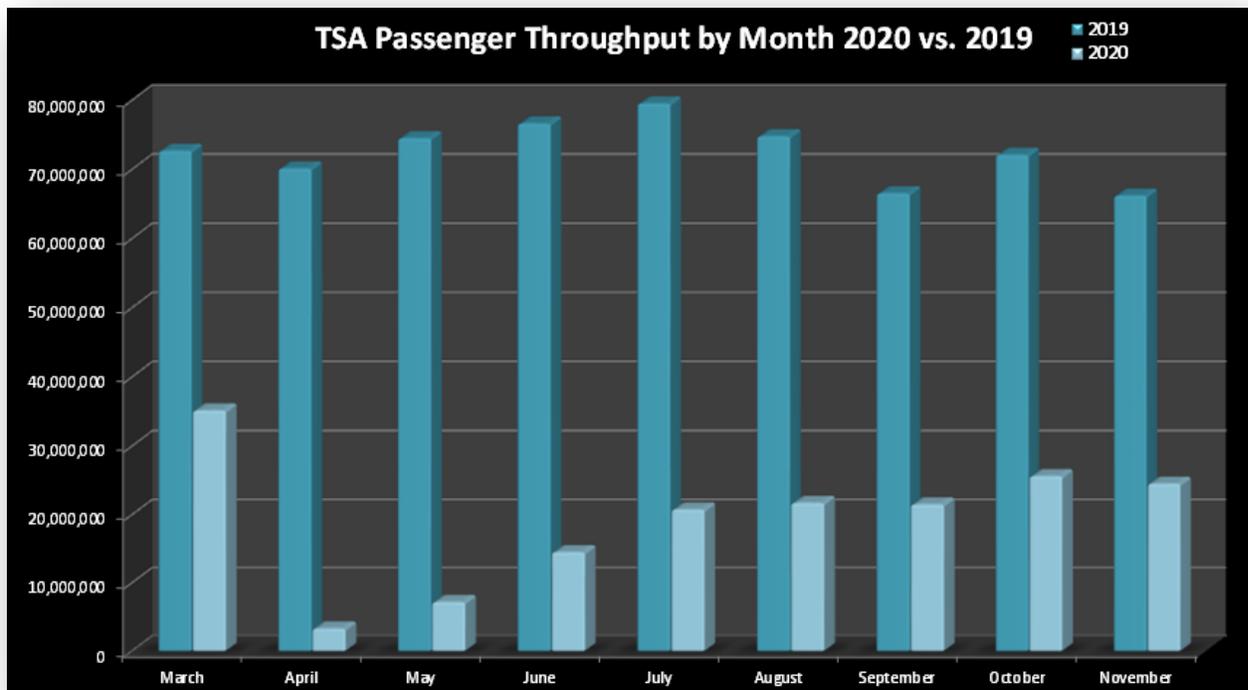


Figure 2 - TSA Monthly Passenger Throughput 2020 vs. 2019

<sup>1</sup> <https://www.tsa.gov/coronavirus/passenger-throughput>

## Thanksgiving Impact

The last week of November was Thanksgiving. How did that compare to 2019? Well, of course the overall passenger count in 2020 is always less, so that doesn't indicate much. To better determine the impact, first take the 4 weeks leading up to Thanksgiving and get the per-weekday average for both 2019 and 2020. Then compare that average to Thanksgiving week for the same weekday and calculate the percent change of Thanksgiving week as compared to a 'normal' week.

Figure 3 shows the percentage change by day as compared to average for both years.

One interesting indicator: the Friday following Thanksgiving had a 35% jump as compared to the average in 2020 and almost no change in 2019. All the other days besides Friday were within 10% of the prior year.

That would tend to indicate that people who went somewhere for Thanksgiving in 2020 decided not to stay there and came back on Friday.

Additionally, Figure 4 shows the arrivals by airport by day for November. Thanksgiving Day shows an obvious drop in travel; note that both LGB and SNA are plotted on the right-hand axis scale while LAX is on the larger left-hand axis scale as it gets so many more flights per day.

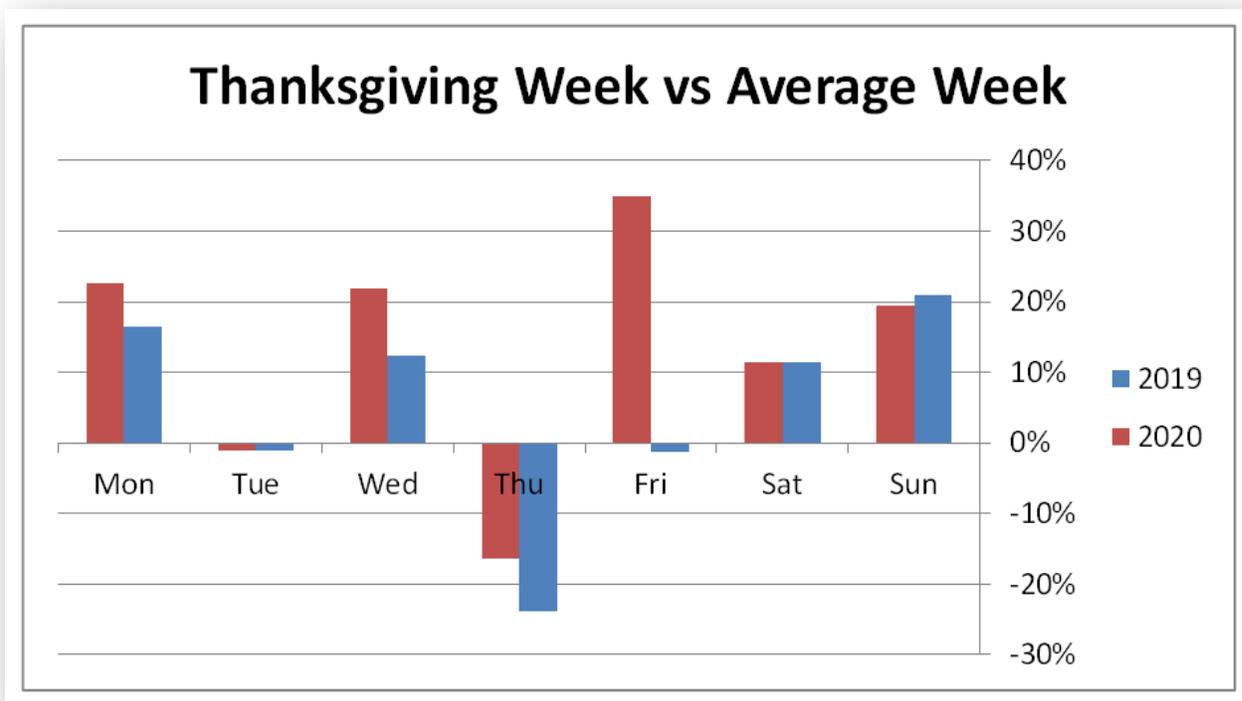


Figure 3 - Thanksgiving Week vs Average Week Percent Change

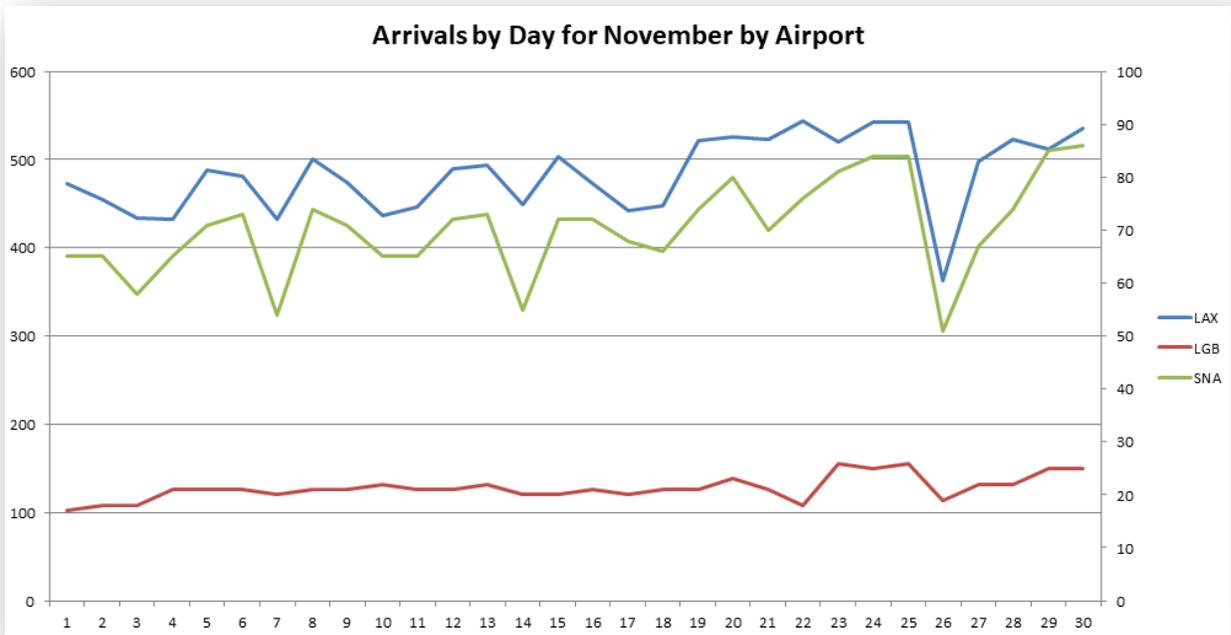


Figure 4 - Arrivals by Airport by Day in November

## Air Traffic over Huntington Beach

November was the first complete month since the departure of Jet Blue from Long Beach. Figure 5 shows LGB arrivals by carrier for November. Southwest continues to be the major player. Almost all LGB arrivals come in over HB.

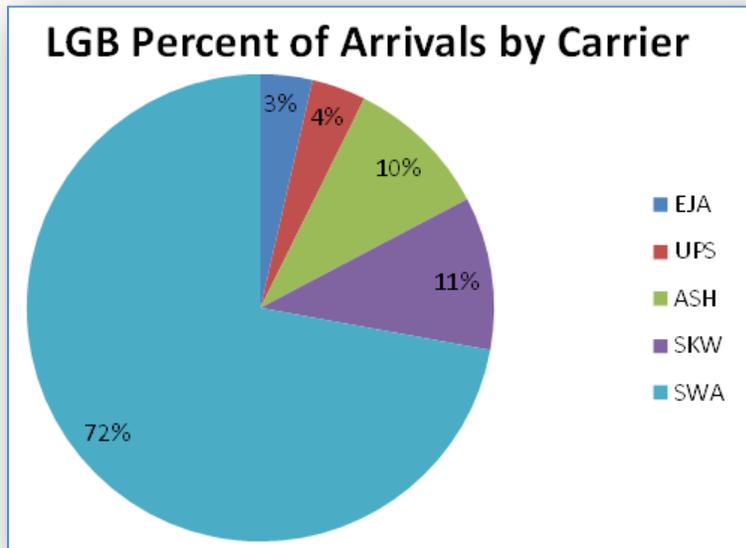


Figure 5 - LGB Arrivals by Carrier

For comparison, Figure 6 shows the data for SNA \*that were arrivals passing over HB\*. Typically a little less than half of all SNA arrivals come over HB (45% in November); the rest have an inland approach. Southwest and SkyWest are the bulk of the over-HB arrivals.

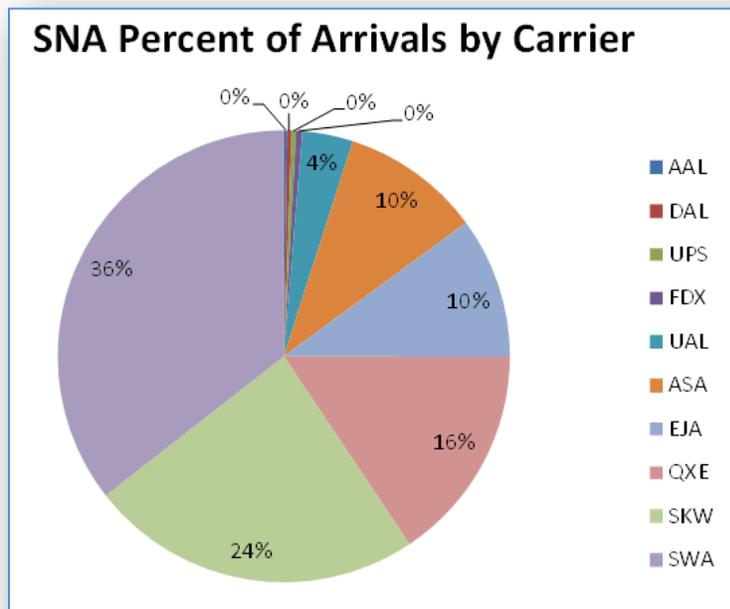


Figure 6 - SNA Arrivals by Carrier (that came over HB)

Then to complete the comparisons, Figure 7 shows the LAX arrivals that came over HB. Only about 8% of all LAX arrivals traversed HB in November. Over half of all are the summation of American, United, Alaskan, and Delta airlines.

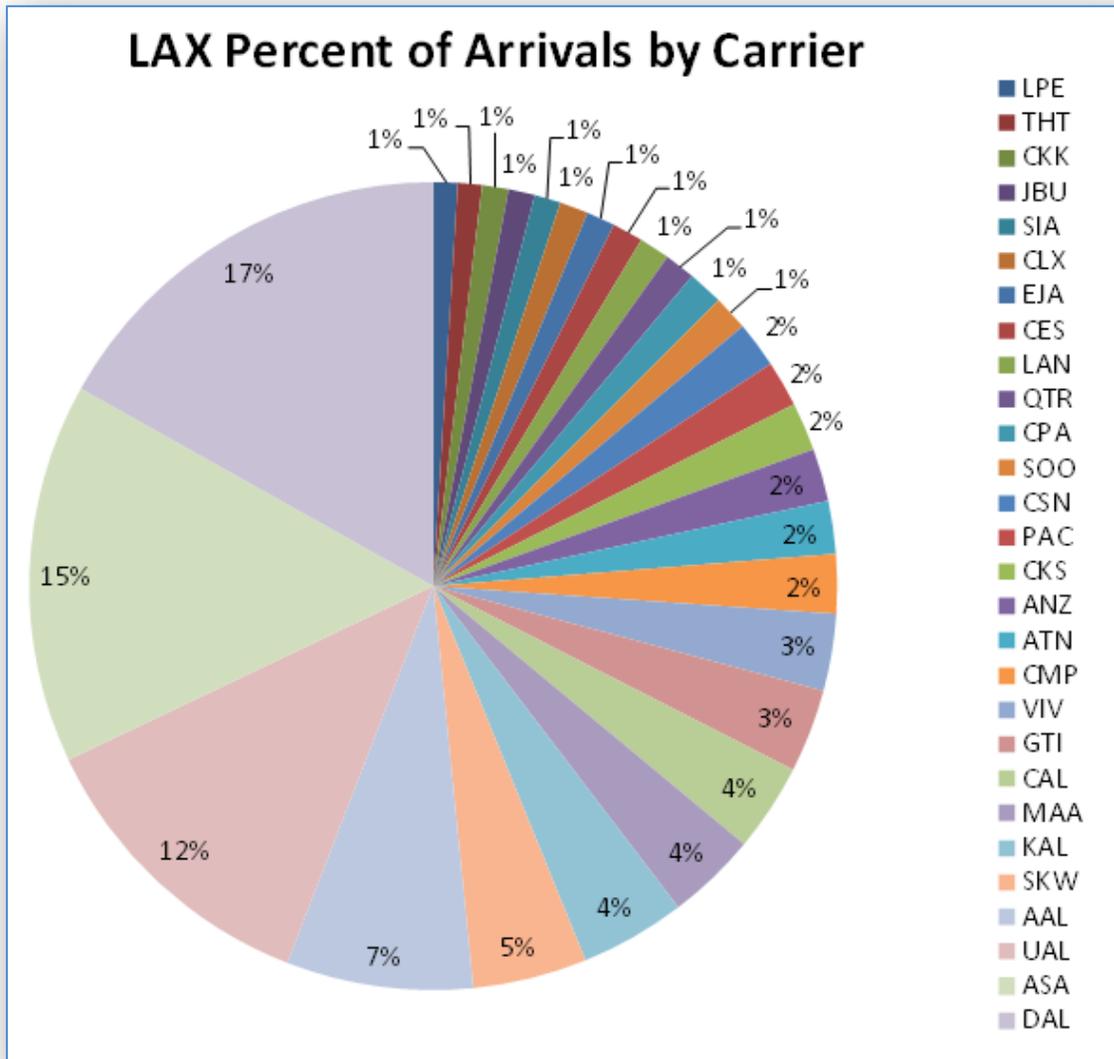


Figure 7 - LAX Arrivals by Carrier (that came over HB)

Figure 8 shows the LGB arrivals by month compared to 2019. November was just over 50 more arrivals than in October. (November 2020 numbers are an estimate as official report not out).

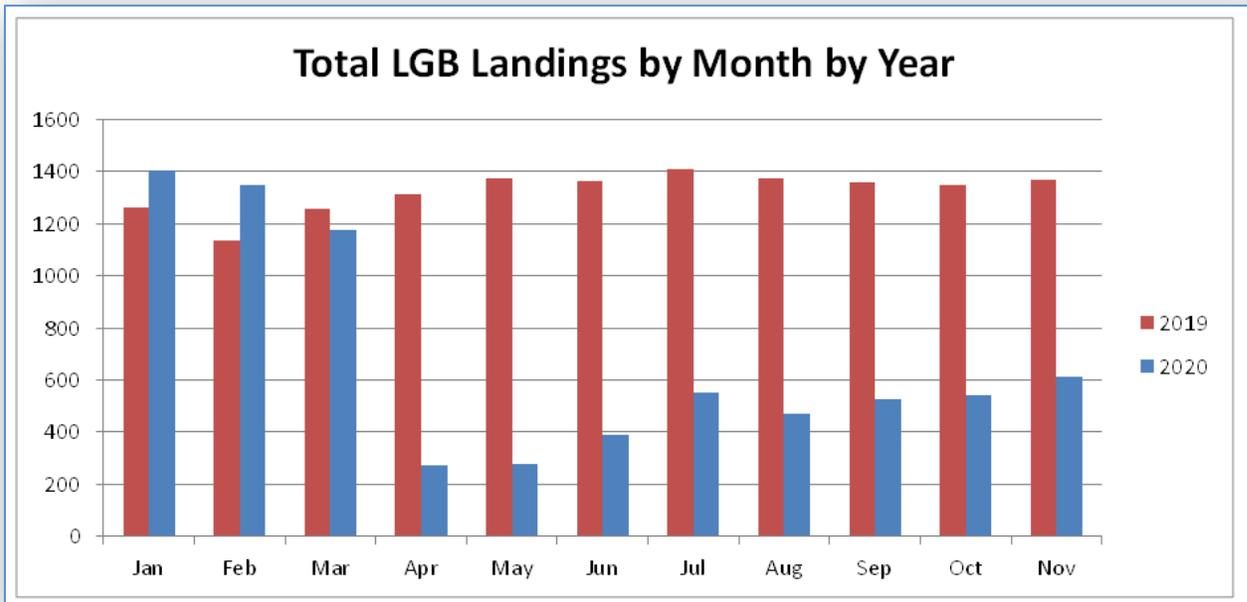


Figure 8 - LGB Arrivals by Month by Year

Figure 9 shows the SNA arrivals by month compared to 2019. (November 2020 number is an estimate as official report not out). And about 45% of these actually went over HB.

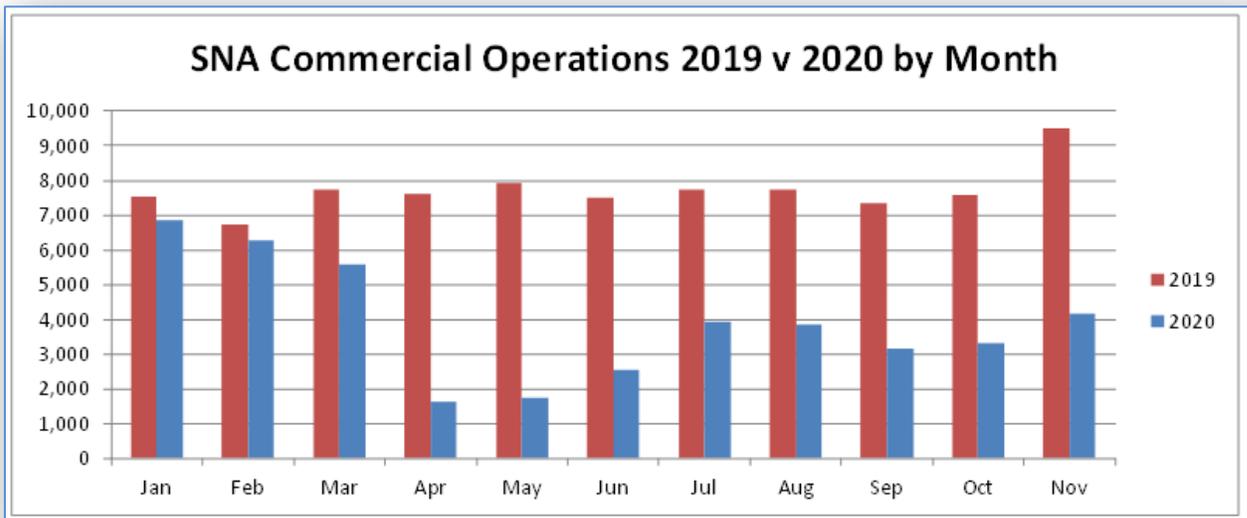


Figure 9 - SNA Arrivals by Month by Year

## Addendum to November Report

Hours of Traffic over HB:

Figure 10 shows the total planes over HB by hour whereas Figure 11 shows the same data only with departures in the lower half and arrivals in the upper half.

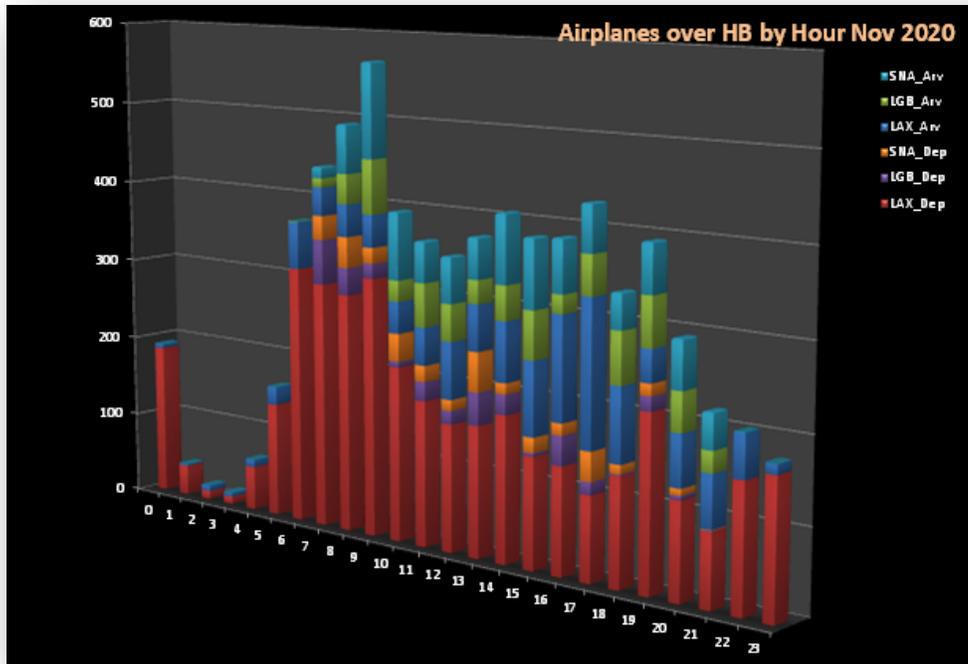


Figure 10 - Airplanes over HB by Hour

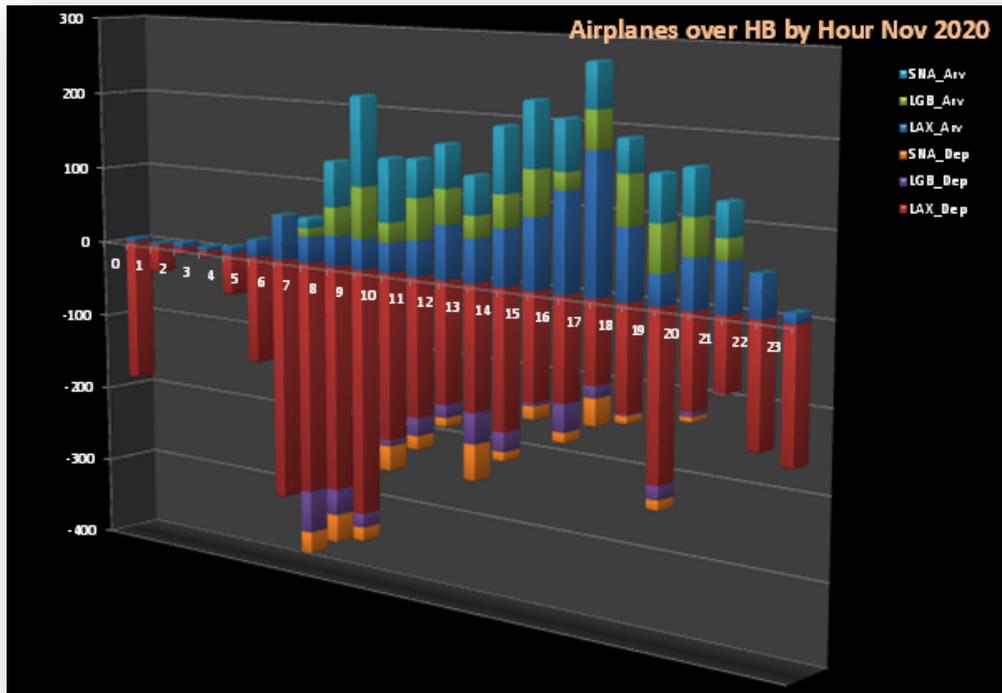


Figure 11 - Airplanes over HB by Hour by Arrival v Departure

In previous reports, the TSA chart of passenger throughput was incorrectly labeled as by Week; it is really by Day (which is why it is so dense) so a corrected chart is shown in Figure 12. Figure 13 shows the same data by Week including a rolling 2-week average trend line. Then Figure 14 shows the same data by Month.

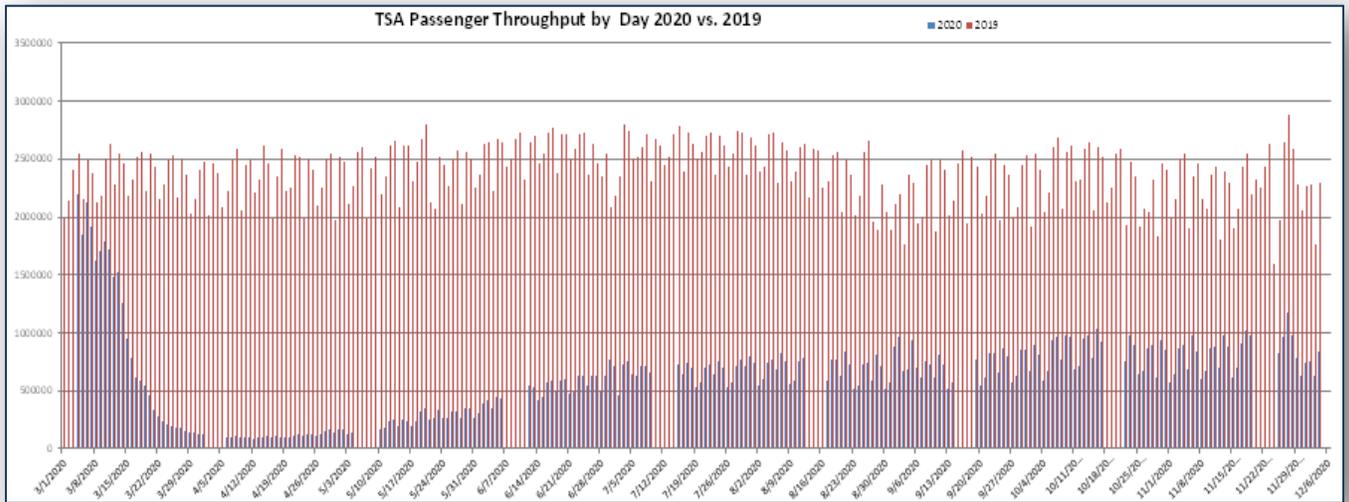


Figure 12 - TSA Passenger Throughput by Day 2020 v 2019

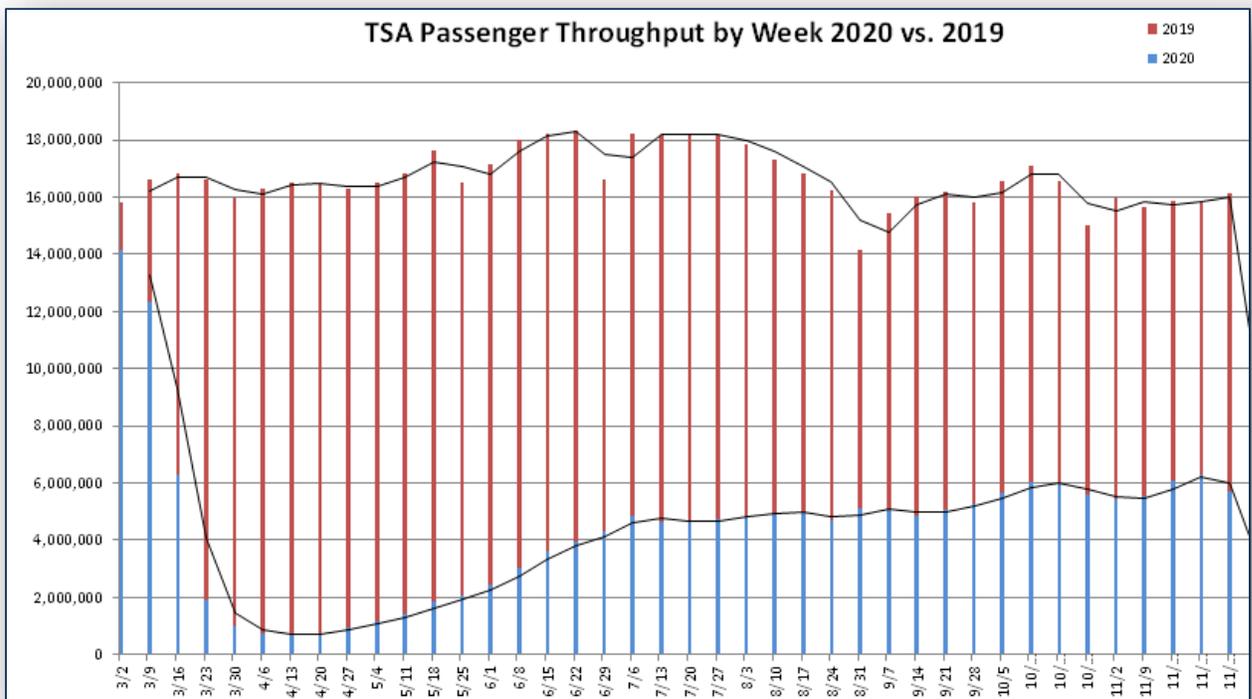


Figure 13 - TSA Passenger Throughput by Week 2020 v 2019

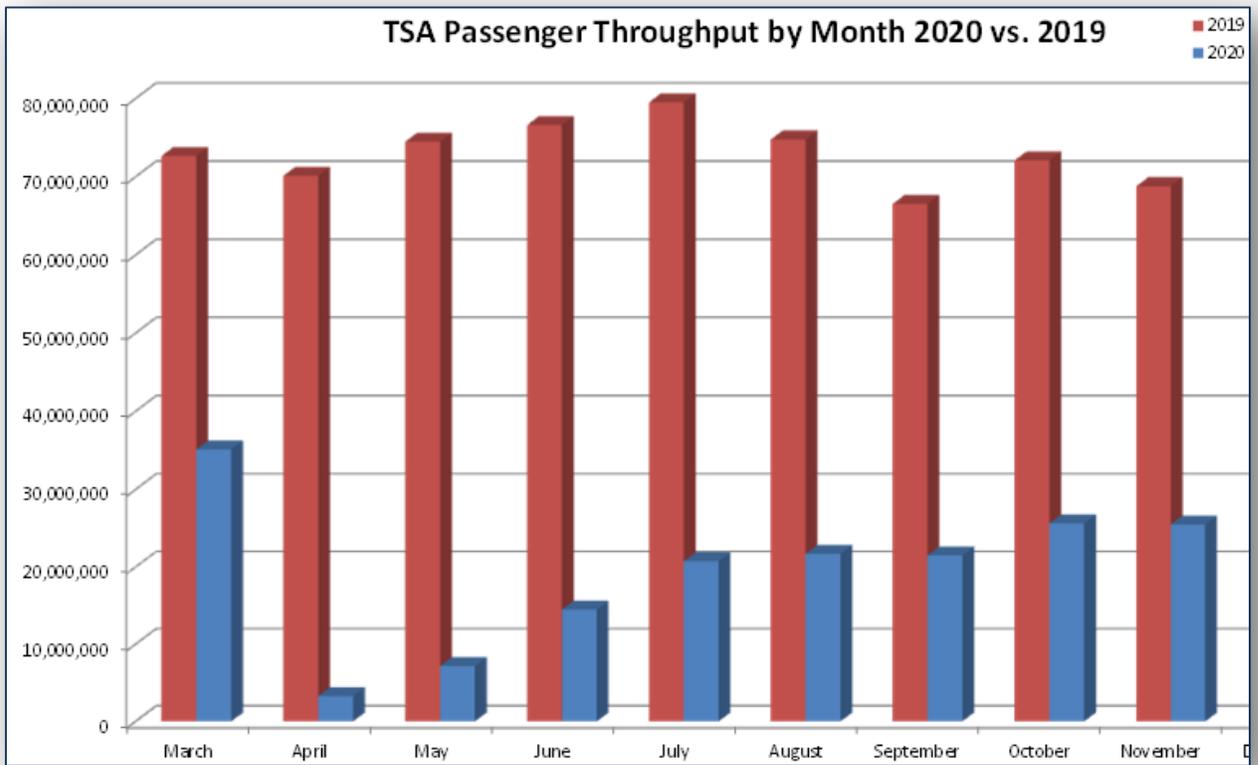


Figure 14 - TSA Passenger Throughput by Month 2020 v 2019