



Jet Noise Commission



Summary Report of Air Traffic over HB for the Month of April 2021

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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.

This report covers air traffic over the Huntington Beach from March 1st to April 30, 2021.

Air Traffic Rebound Continues Slowly

Overall air traffic continued at a slow increase in April.

Figure 1 shows the TSA passenger counts from 1/1/2020 to 4/30/2021.

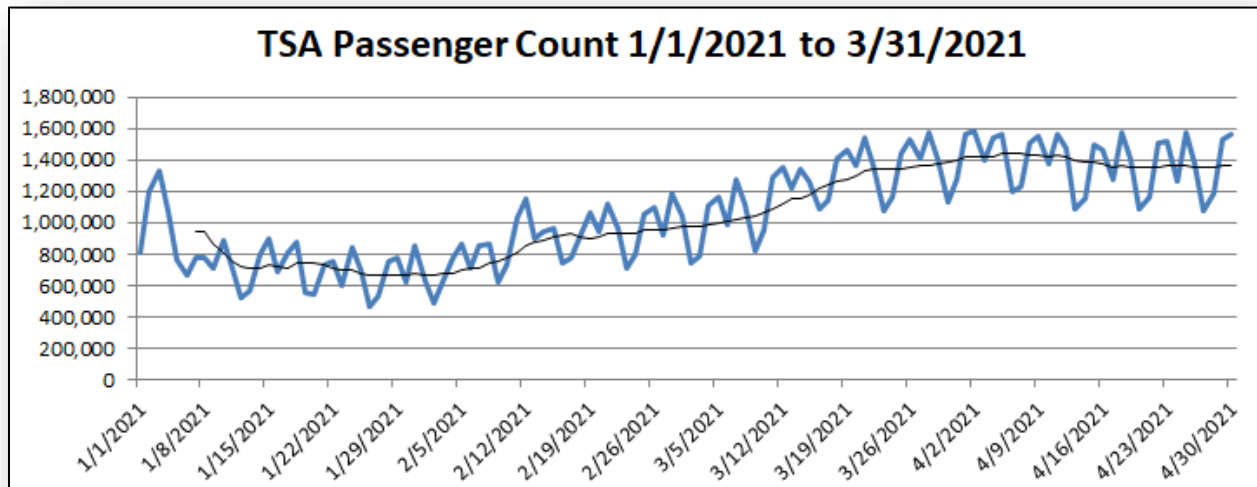


Figure 1 - TSA Weekly Passenger Count Jan through Apr 2021

Air Traffic over Huntington Beach

LGB

Figure 2 shows the LGB arrivals for April. It varies by a few flights per day but averages out at 34 flights per day.

Since the current focus is LGB arrivals and examining the glideslope, what follows are a series of charts that show where planes are in relation to LUCIG (over land) or COASTAL as they come across the coastline. The charts show stats by carriers, origin, and hours trying to see if there is any particular trend.

In the end, there does not seem to be one overlying factor. Some planes just come in lower than others. The only significant note is that the planes coming in from Hawaii seem to cross the coast much lower than the others some 60% of the time. See Figure 9.

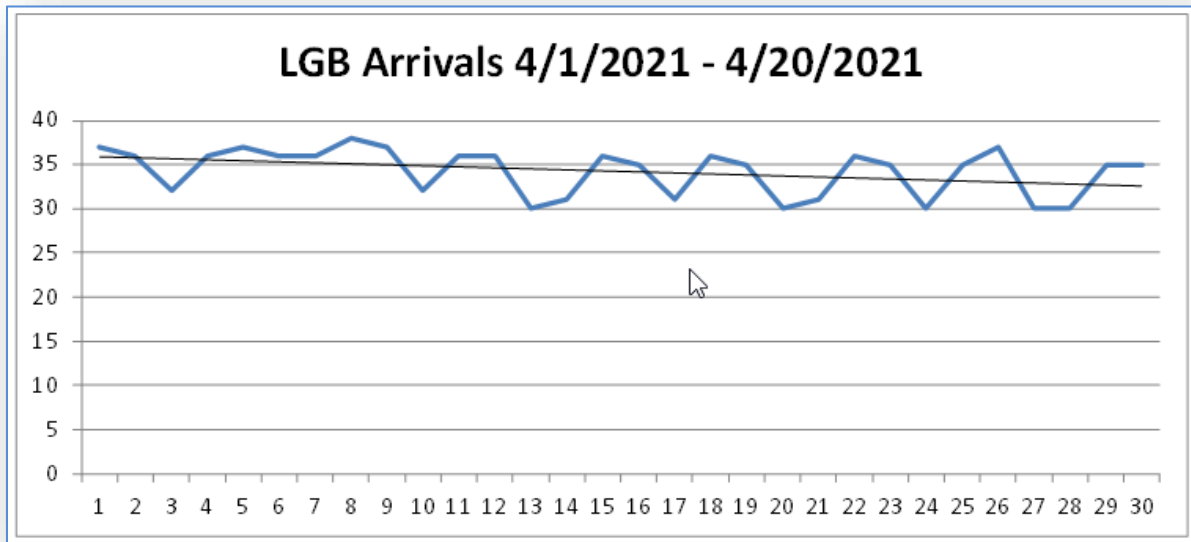


Figure 2 - LGB Arrivals by Day 4/1 to 4/30 2021

Arrivals over Land by Origin

Figure 3 shows the count of planes above or below 2500 feet at LUCIG by Origin. Figure 4 is that same data converted to percent which shows that origins with the most traffic (DEN, LAS, PHX, SLC) seem to be close to the overall 75%-25% split.

Now you would think that 500 feet doesn't make a lot of difference, but a 3-degree glideslope would have LUCIG altitude at 3000 feet. So Figure 5 shows what happens when the threshold is moved to 3000 from 2500 on the graph, and Figure 6 is the same data in percent. Notice how at 2500 Phoenix is 80% good whereas at 3000 it is roughly 50-50.

As a visual, Figure 7 shows the actual scatter graph of arrivals from Phoenix.

Arrivals over Water by Origin

Figure 8 shows the count of planes above or below 2500 feet at the coast by Origin. Figure 9 is that same data converted to percent which shows the recent additional flights in from Hawaii (OGG & PHNL) are below 2500 60% of the time.

Changing the graph threshold from 2500 to 3000 at the coast makes things look worse just like the over land approaches. At 3000 feet the arrivals from Hawaii are below 2500 78% of the time.

The coast approach is a bit tricky though. If you cross where the LUCIG perpendicular crosses the coast, then 3000 feet is the target. However, for the arrivals that take a short-cut and cross closer to RSNAL, the expected altitude adjusts appropriately. So at 5 miles up the coast, a 1600 foot crossing is consistent with the 1600 at expected at GUNEY.

As example, Figure 11 shows the scatter graph for approaches from Oakland which mostly cluster around the LUCIG perpendicular. By contrast, Figure 12 shows that arrivals from Hawaii are less clustered and tend to average a crossing more around the 2000 foot level.

Arrivals over Land by Carrier

Figure 13 shows the count of planes above or below 2500 feet at LUCIG by Carrier. Figure 14 is that same data converted to percent which shows an 80%-20% split from most carriers. UPS is such a small sample that the percentages are misleading.

And again changing the threshold from 2500 to 3000 has the same effect: SWA as example goes from almost 80% good to roughly 50-50.

Arrivals over Water by Carrier

Figure 16 shows the count of planes above or below 2500 feet at the coast by Carrier. Figure 17 is that same data converted to percent which indicates Hawaiian tends to be low across the coast.

Arrivals over Land by Hour of Day

Figure 19 shows the count of planes above or below 2500 feet at LUCIG by hour of the day. Figure 20 is that same data converted to percent which shows that there is no particular time worse than others. The 1300 and 2200 hours have few planes so it appears a little skewed from the rest.

And setting the threshold to 3000 is much like the other charts at 3000 in that things are somewhere around 20% worse.

Arrivals over Water by Hour of Day

Figure 22 shows the count of planes above or below 2500 feet at the coast by hour of the day. Figure 23 is that same data converted to percent. The 2200 hour has only 1 sample so that point is misleading. By far the 2000 hour is the busiest for over water arrivals.

Total Arrivals by Hour of Day

Figure 24 shows the total LGB arrivals by hour of the day and Figure 25 shows that in percent. It does tend to indicate that the early morning and late evening arrivals are higher than the midday arrivals.

But once again, by moving the graph threshold to 3000' as seen in Figure 26, the percentages change considerably.

Total Arrivals by Hour of Day

Finally, when all this gets compressed, there is no one standout as to an obvious reason some planes com in so low.

What was interesting is that at 2500 feet, the split is roughly 70/30 as seen in Figure 27, whereas at 3000 feet the split is more like 60/40 as seen in Figure 28. The video had a little less data so I said 75/25 in there. In any event, whether it is 25%, 30%, or 40% of the planes too low, they're too low.

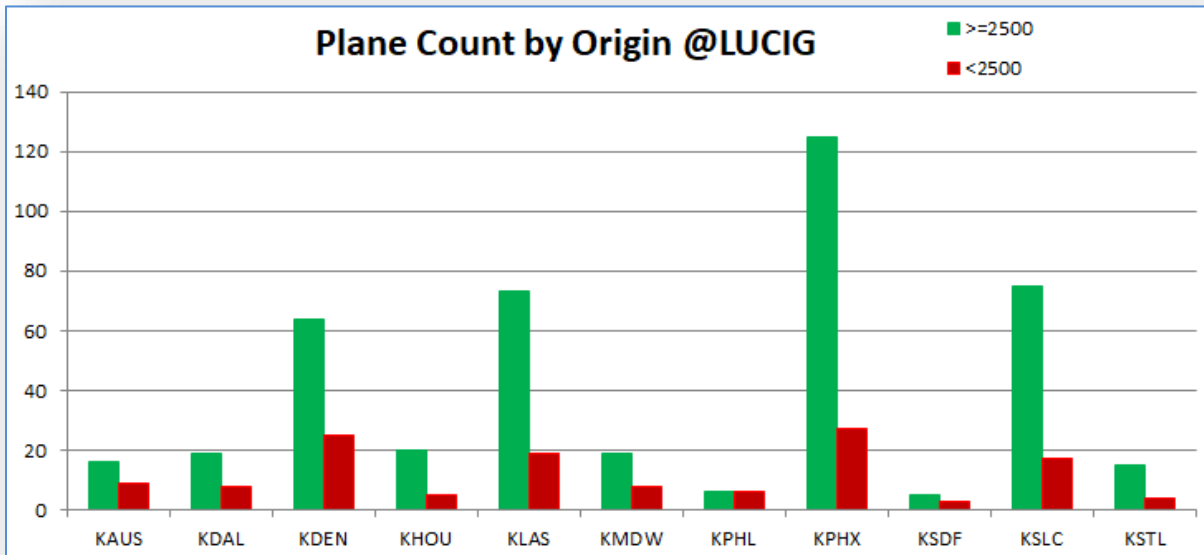


Figure 3 - LGB Arrivals by Origin @LUCIG

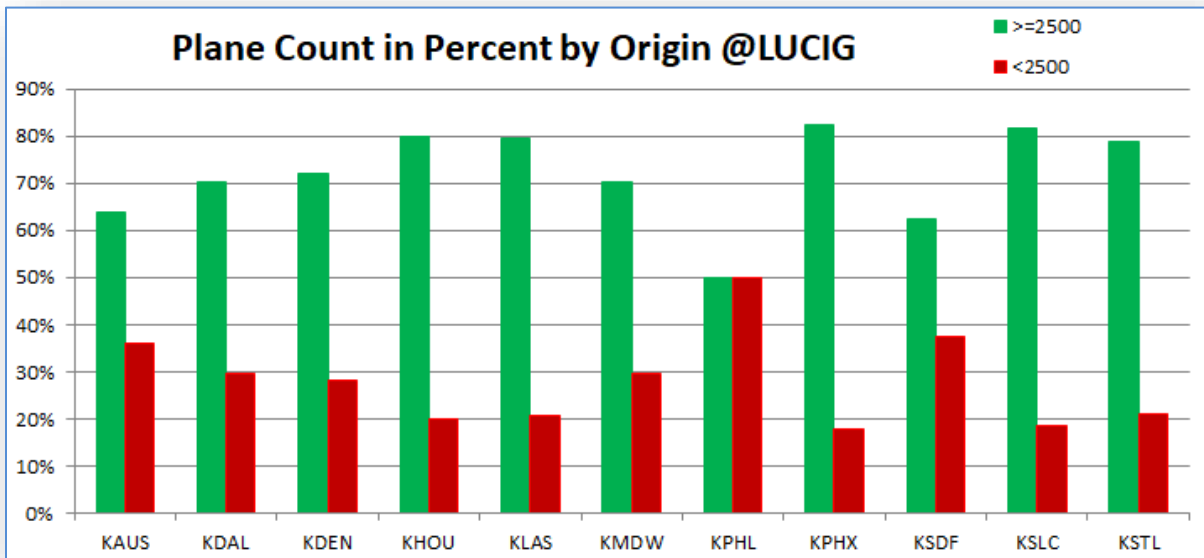


Figure 4 - LGB Arrivals by Origin @LUCIG in Percent

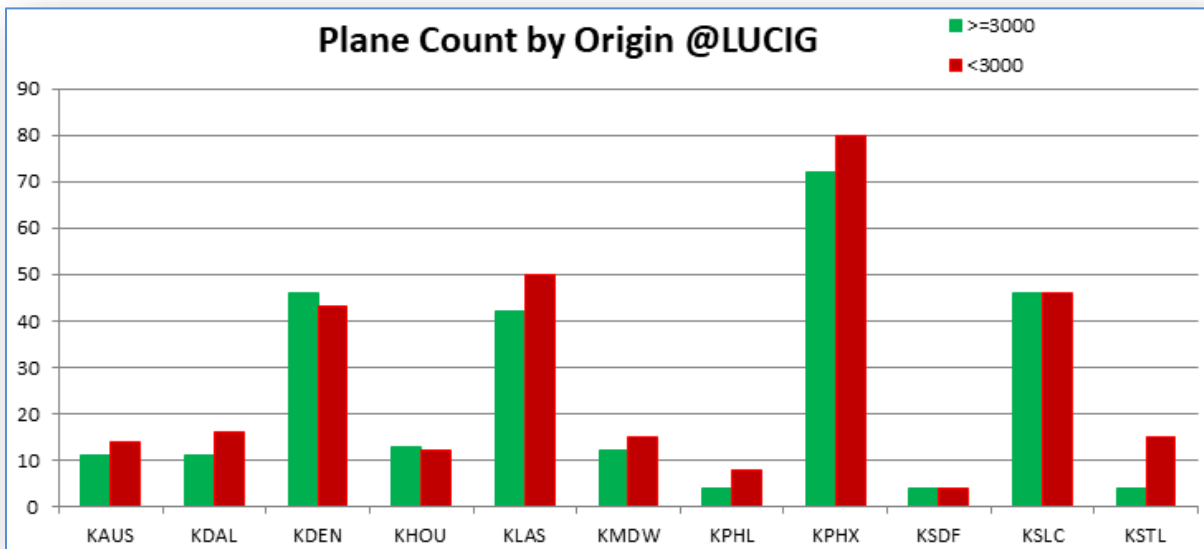


Figure 5 - LGB Arrivals by Origin @LUCIG at 3000'

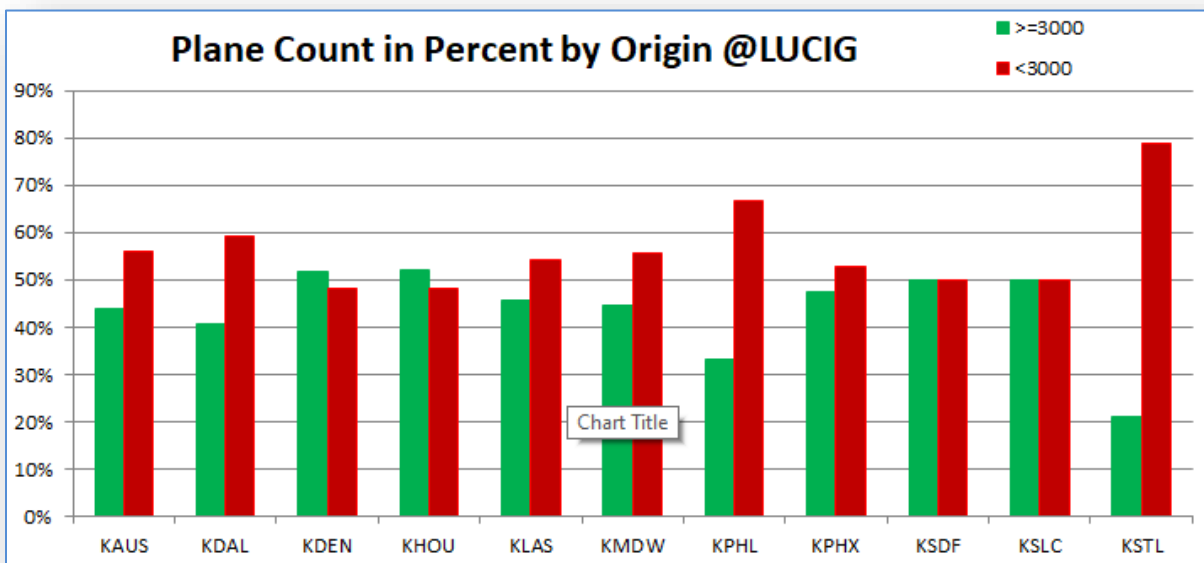


Figure 6 - LGB Arrivals by Origin @LUCIG at 3000' in Percent

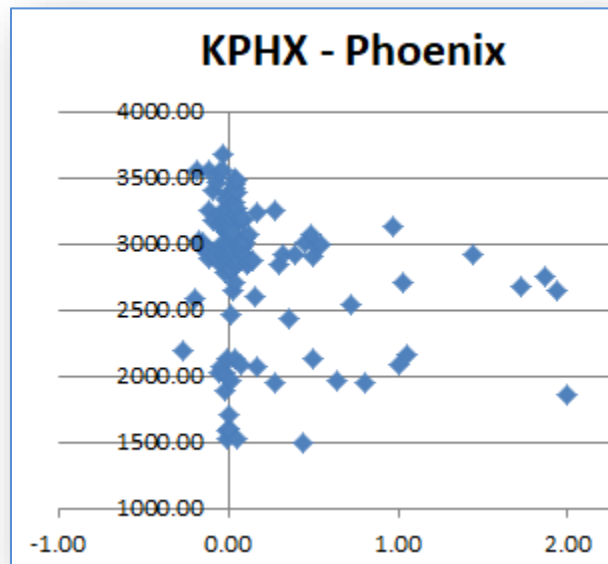


Figure 7 – Scatter graph of LGB Arrivals from Phoenix

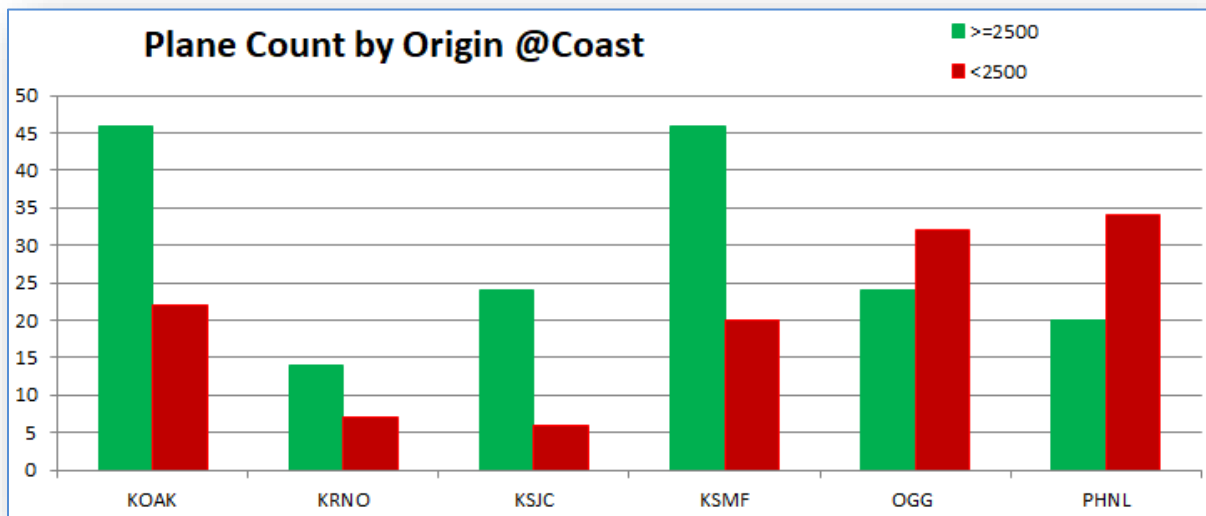


Figure 8 - LGB Arrivals by Origin over the Coast

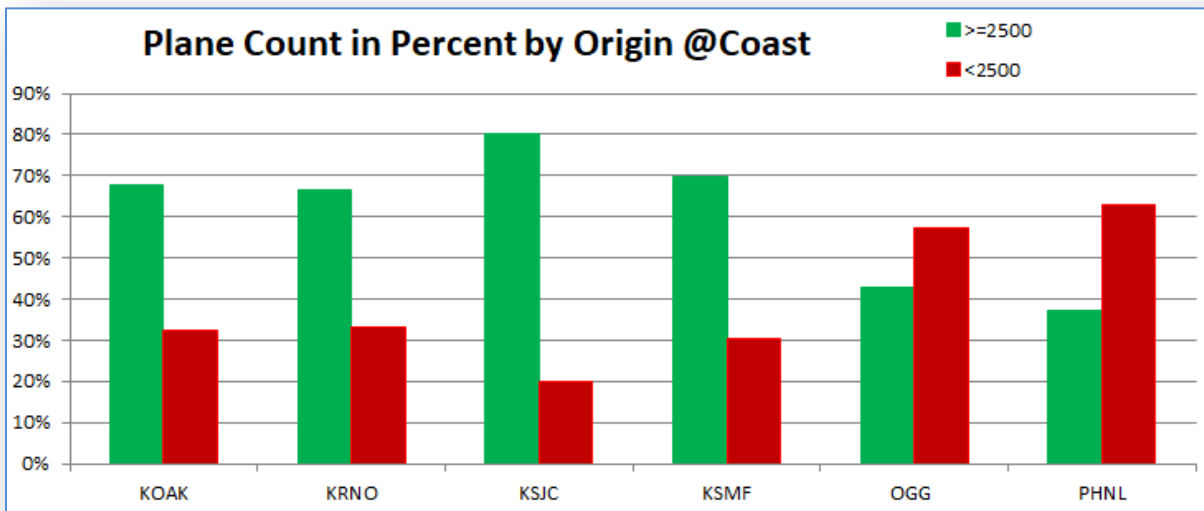


Figure 9 - LGB Arrivals by Origin over the Coast in Percent

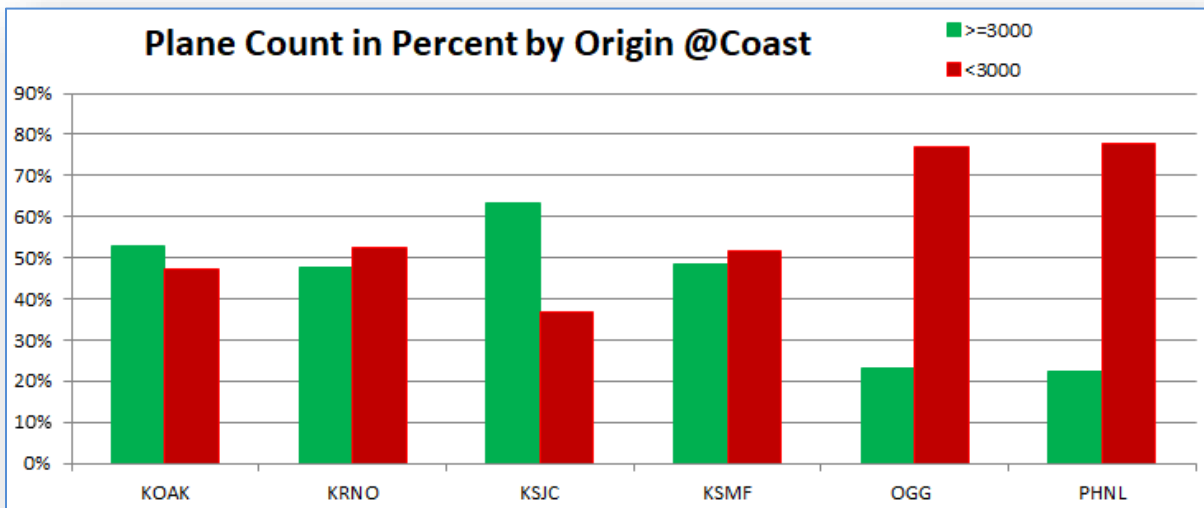


Figure 10 - LGB Arrivals by Origin over the Coast at 3000' in Percent

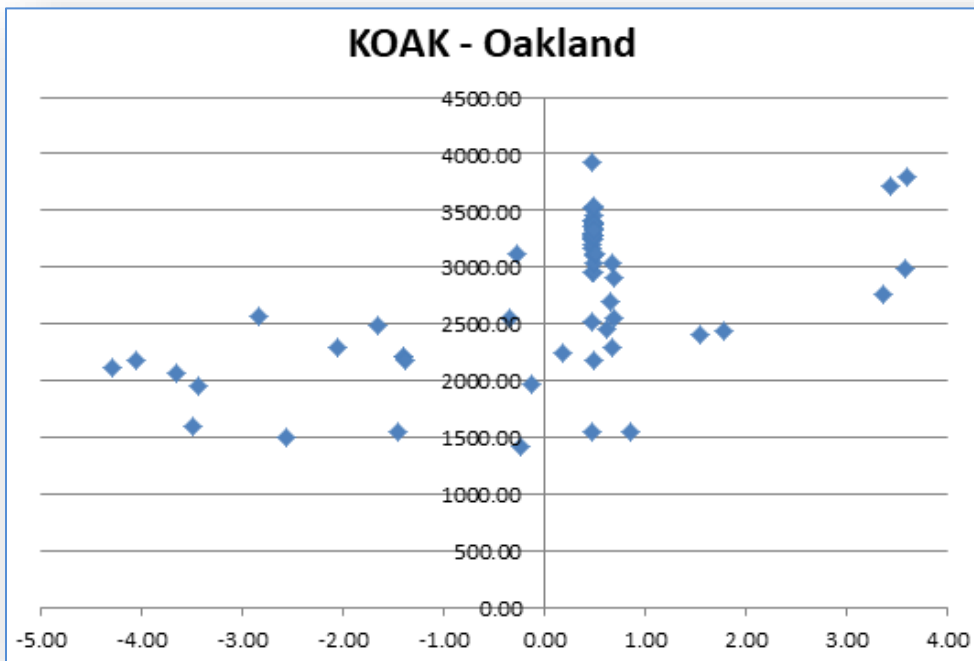


Figure 11 – Scatter graph of LGB Arrivals from Oakland

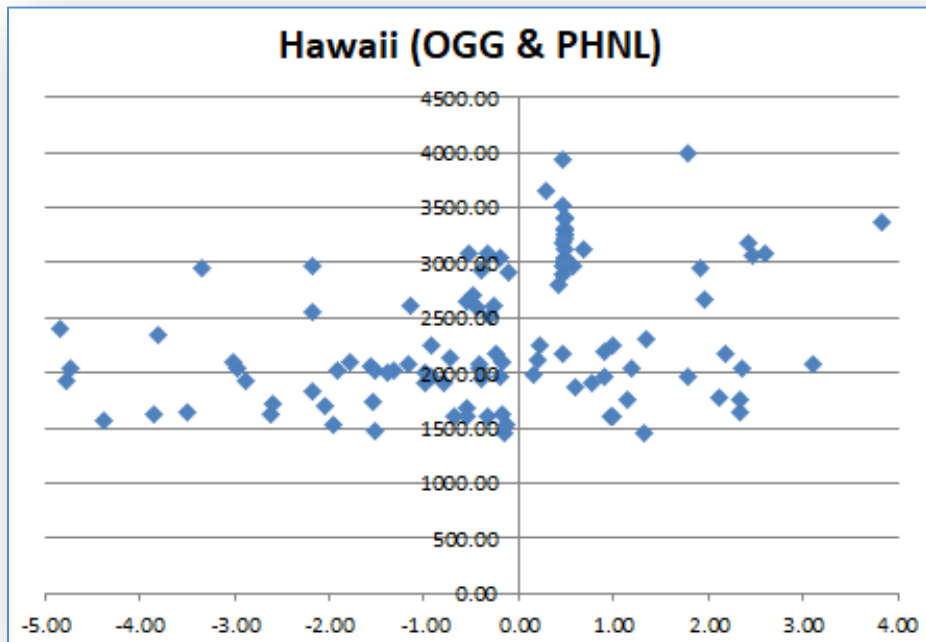


Figure 12 – Scatter graph of LGB Arrivals from Hawaii

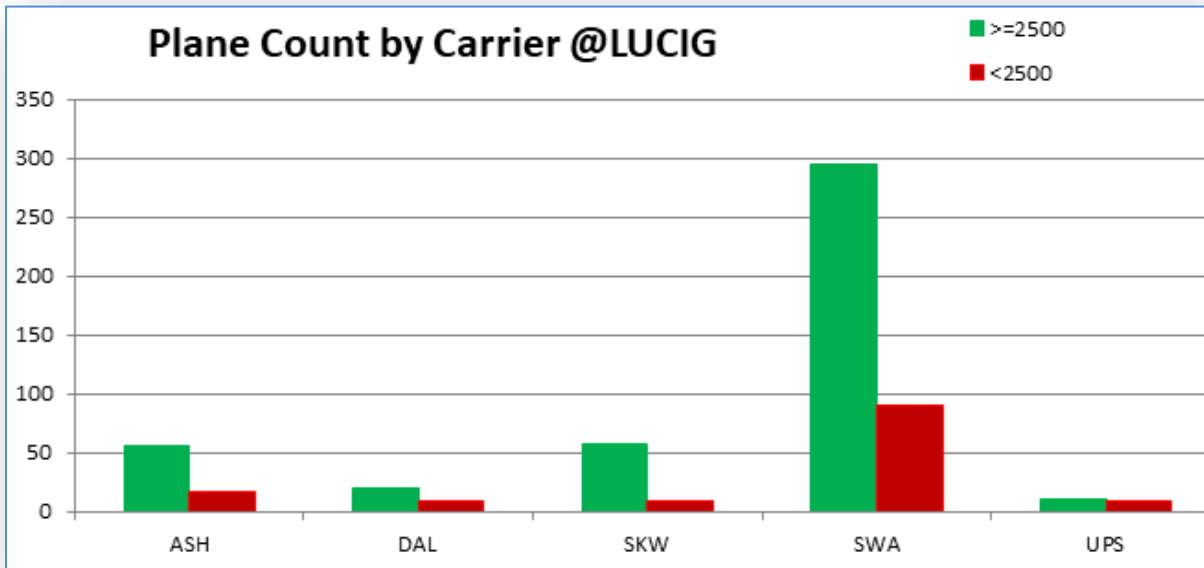


Figure 13 - LGB Arrivals by Carrier @LUCIG

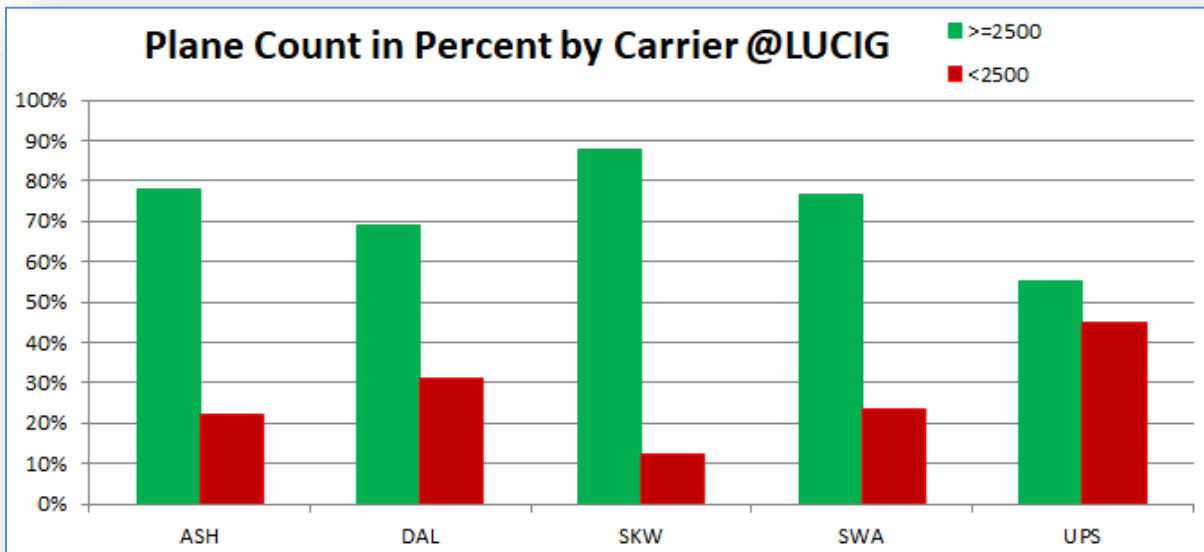


Figure 14 - LGB Arrivals by Carrier @LUCIG in Percent

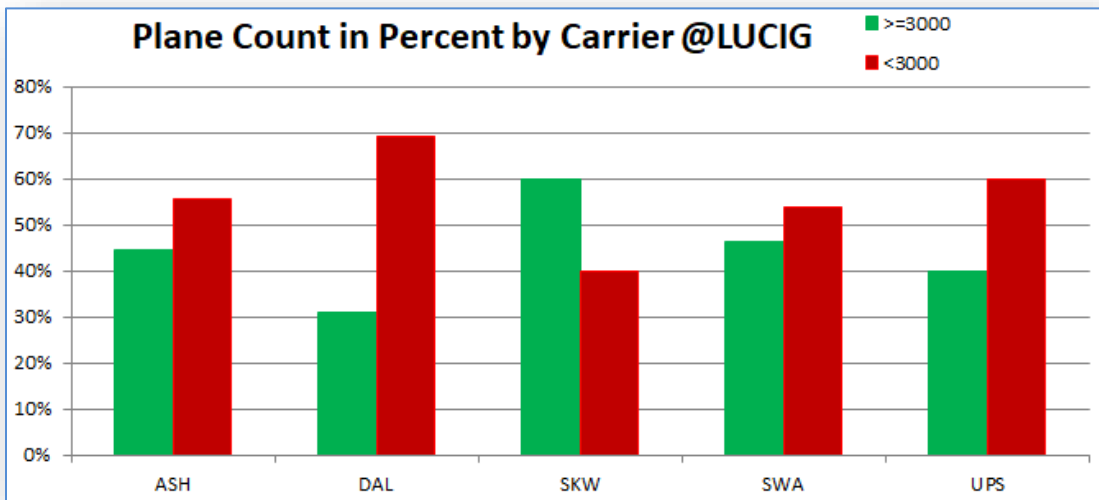


Figure 15 - LGB Arrivals by Carrier @LUCIG at 3000' in Percent

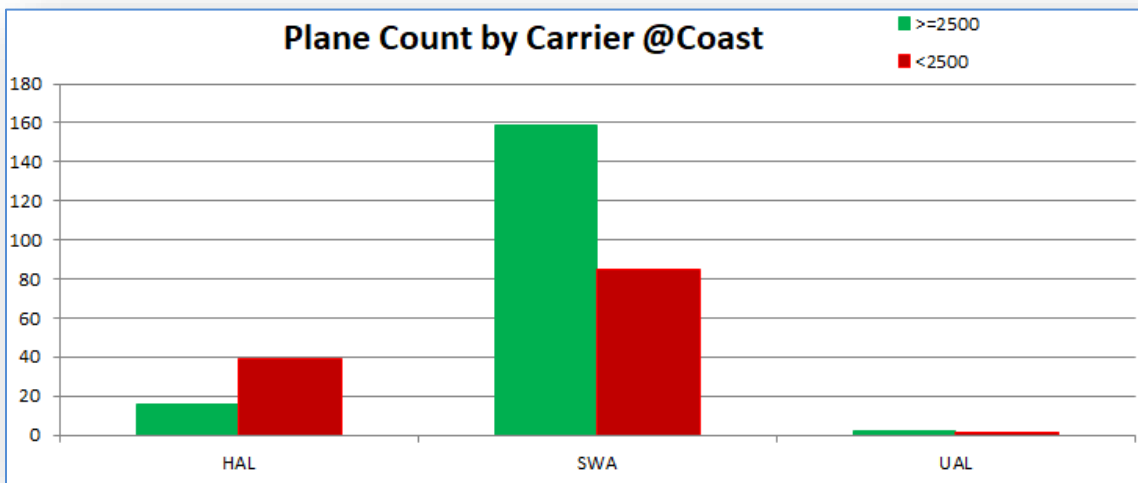


Figure 16 - LGB Arrivals by Carrier over the Coast

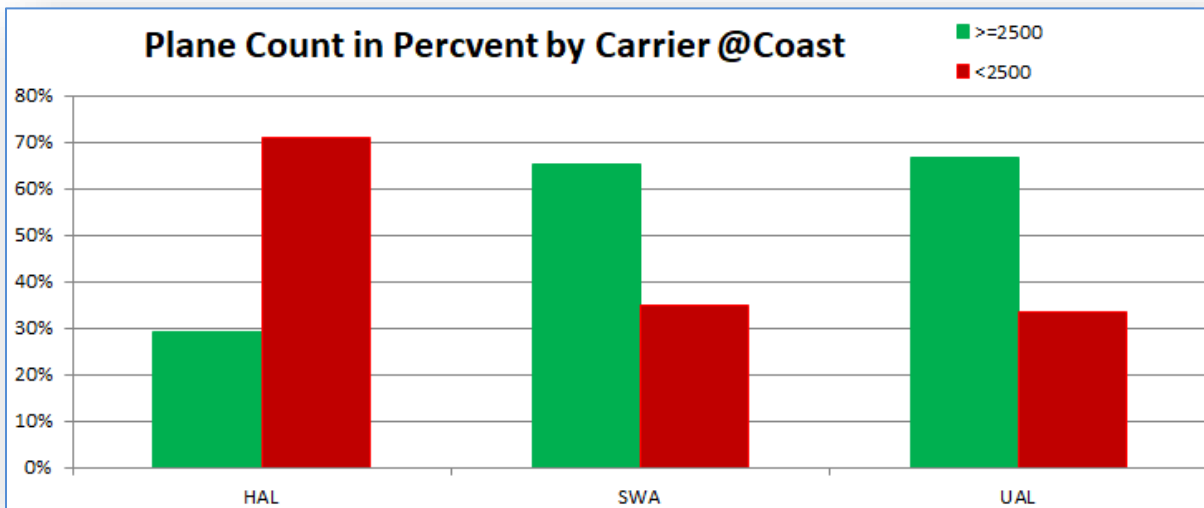


Figure 17 - LGB Arrivals by Carrier over the Coast in Percent

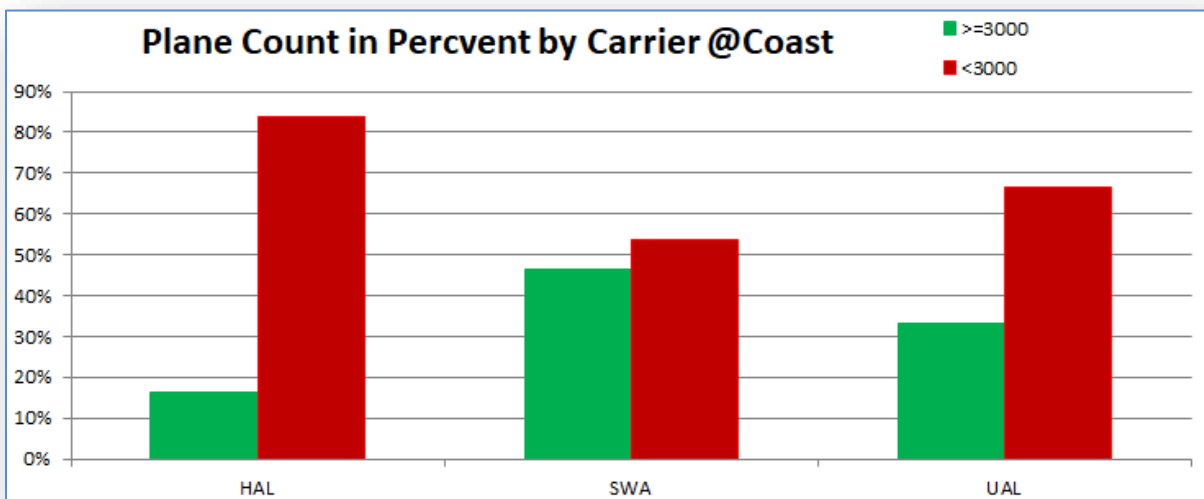


Figure 18 - LGB Arrivals by Carrier over the Coast at 3000' in Percent

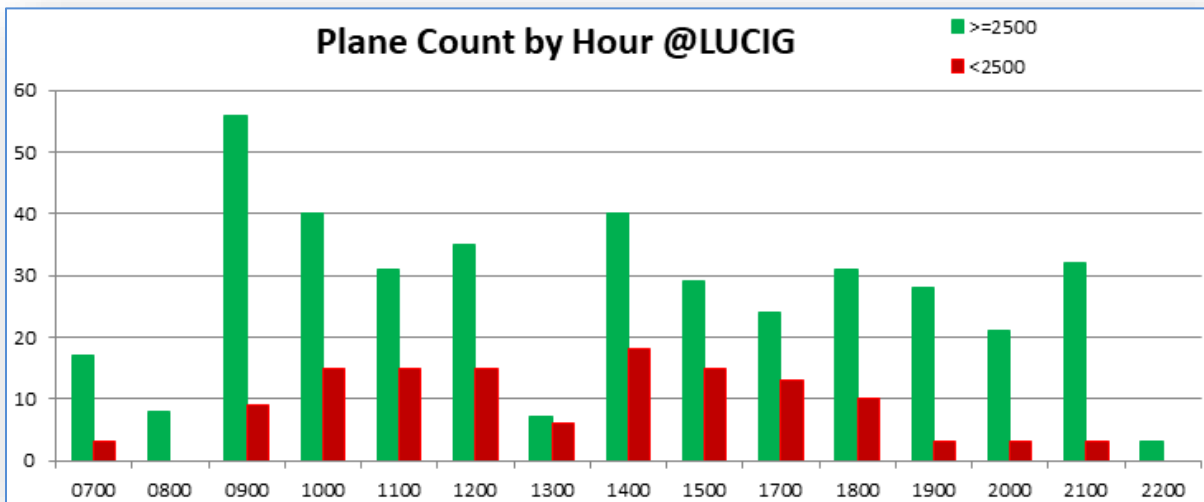


Figure 19 - LGB Arrivals by Hour @LUCIG

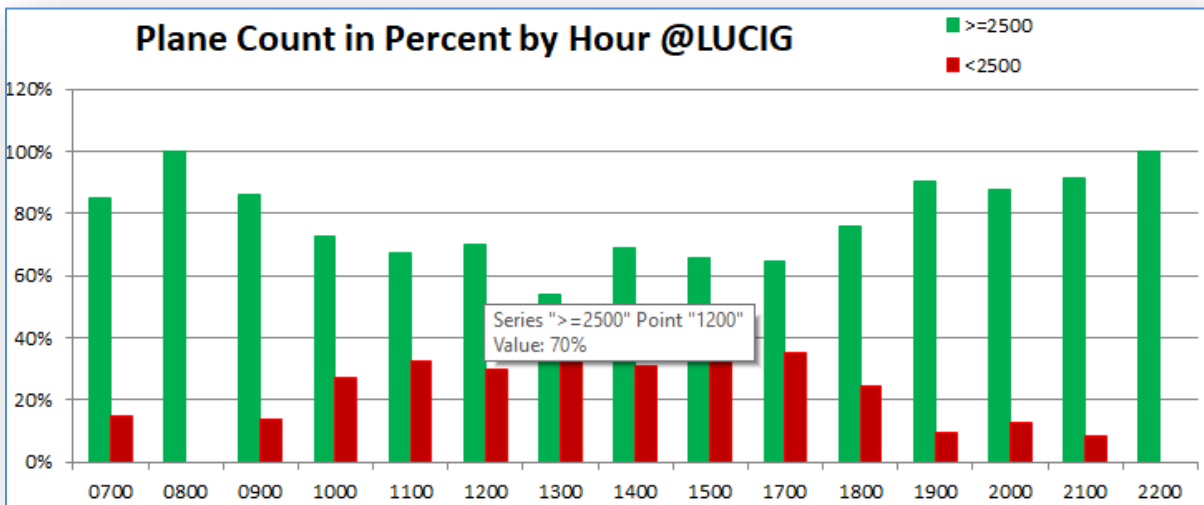


Figure 20 - LGB Arrivals by Hour @LUCIG in Percent

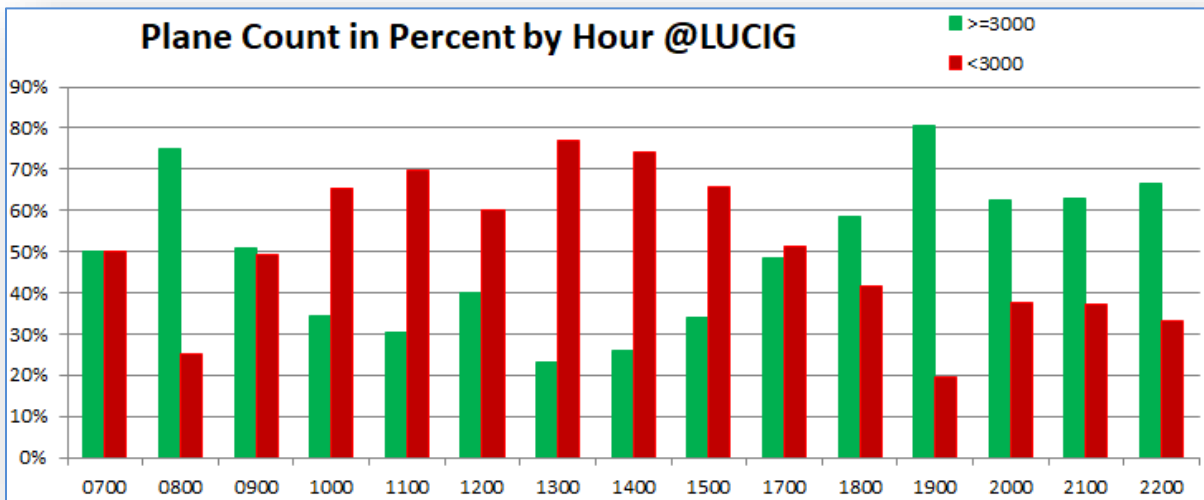


Figure 21 - LGB Arrivals by Hour @LUCIG at 3000' in Percent

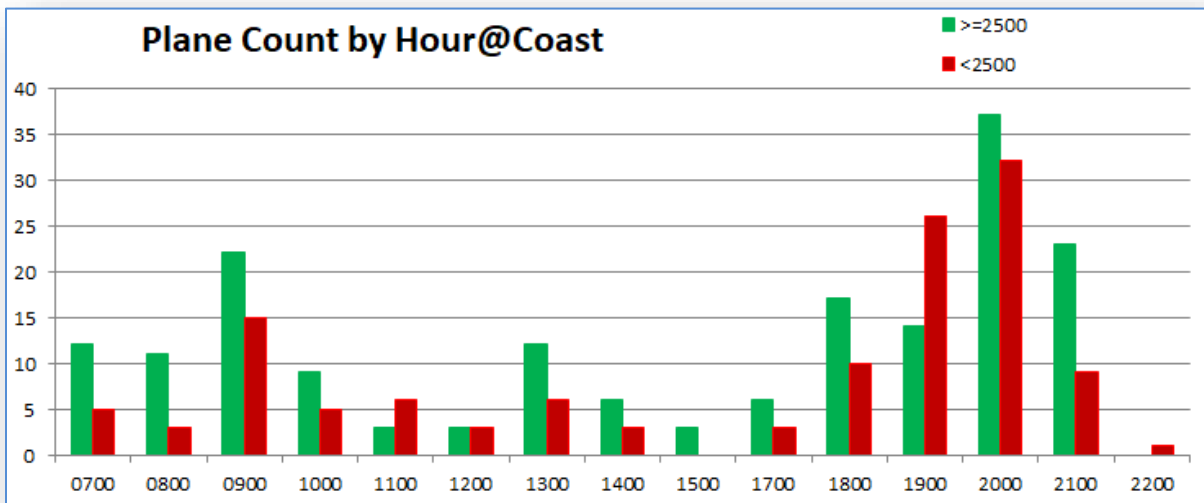


Figure 22 - LGB Arrivals by Hour over the Coast

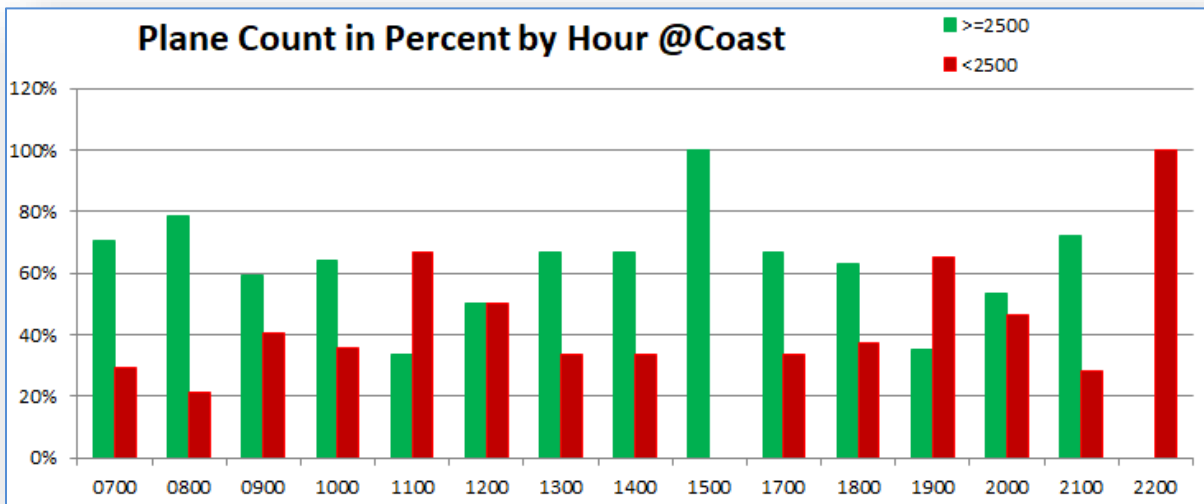


Figure 23 - LGB Arrivals by Hour over the Coast in Percent

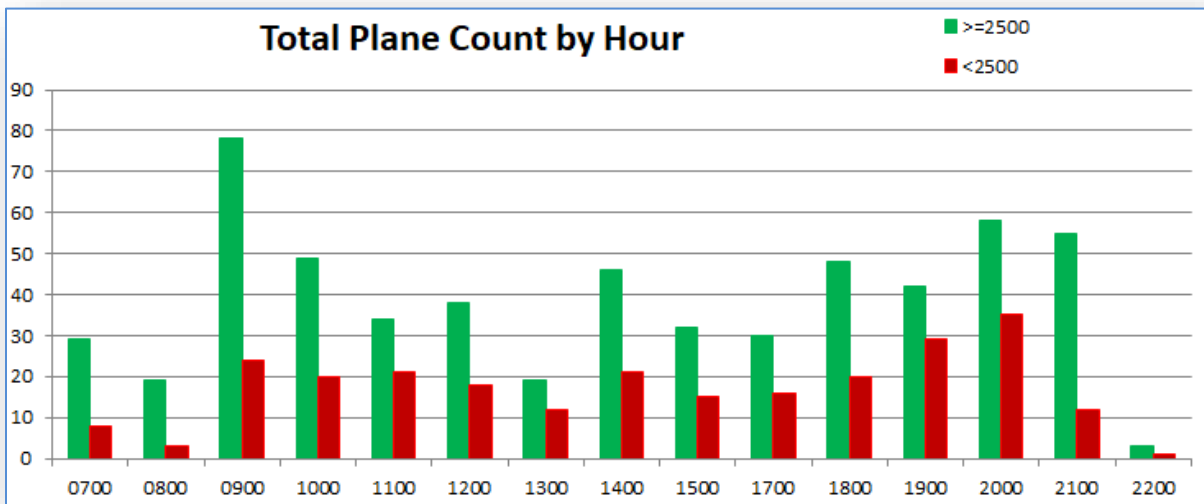


Figure 24 - LGB Arrivals by Hour

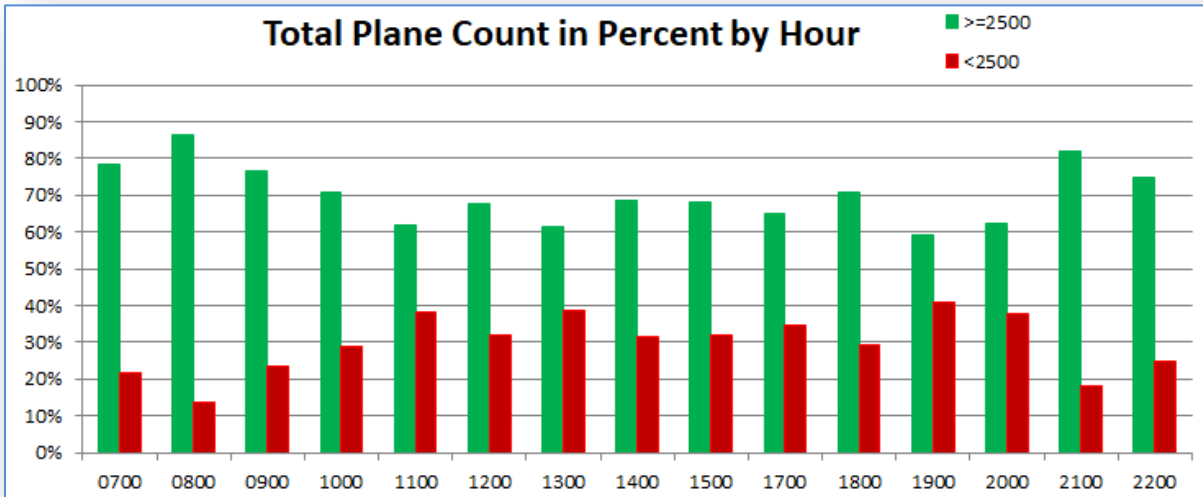


Figure 25 - LGB Arrivals by Hour in Percent

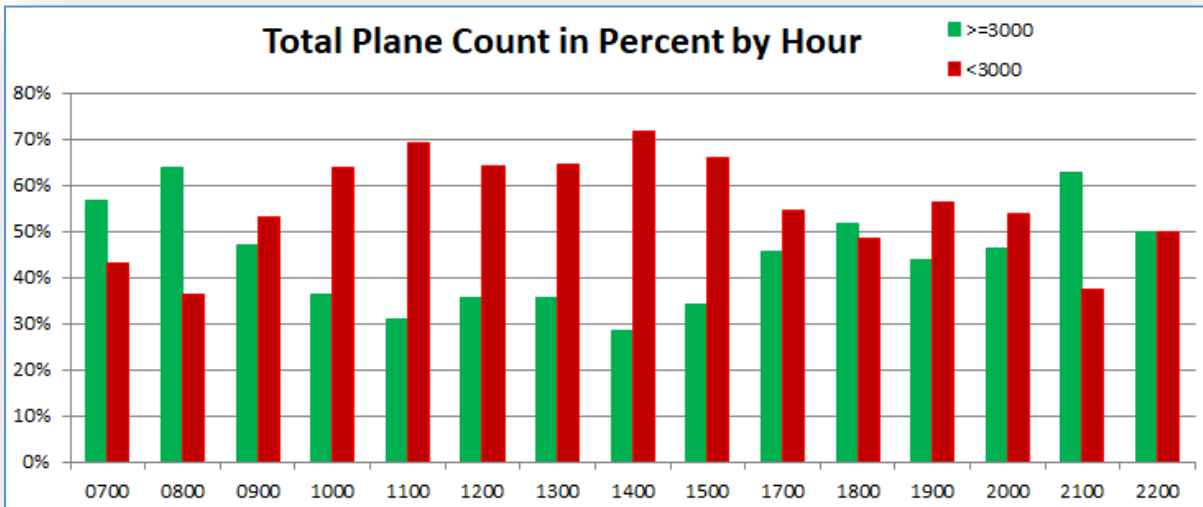


Figure 26 - LGB Arrivals by Hour at 3000' in Percent

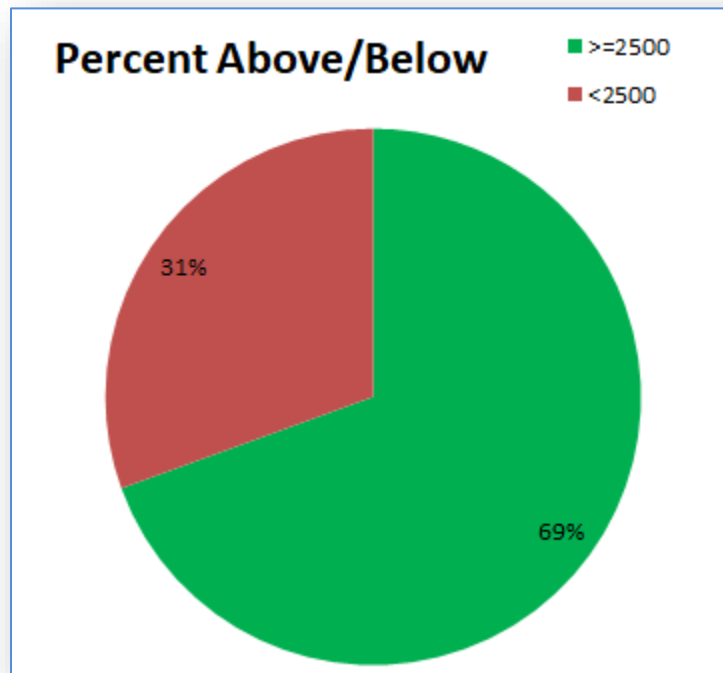


Figure 27 - LGB Arrivals at 2500' in Percent

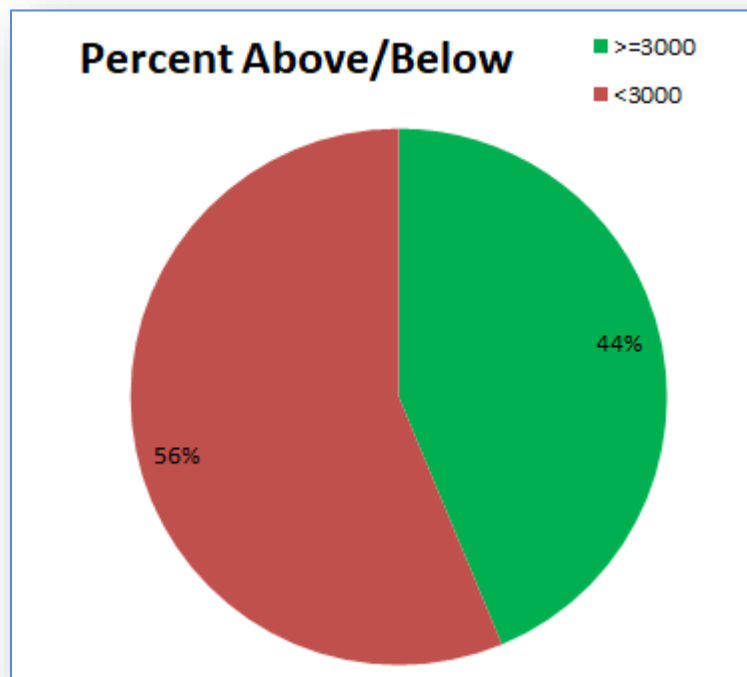


Figure 28 - LGB Arrivals at 3000' in Percent