

MITRE Air Traffic Update: Future Flight Schedules, Revisited

June 2021



Have Published Airline Schedules Stabilized Since Last Year?

In November of 2020, even as the number of travelers remained well below normal levels due to the ongoing pandemic, airlines published planned (and optimistic) departure schedules several months in advance. However, as the departure dates got closer, airlines would revise those schedules downwards, presumably based on actual passenger bookings.

Thus, it appears that airline schedules published months in advance were less a projection of future demand, and more of an “opening bid” by the airlines, who knew it was easier to trim flights from their schedule than to add them afterwards. Much has changed in the last 6 to 8 months, however, and more people in the U.S. are starting to fly again.

We investigated if airline scheduling practices have changed as well.

Figure 1 shows the average number of daily scheduled U.S. domestic departures for the month of May between 2019 – 2021 at various schedule lead times (e.g., “M-3” in label at the bottom of the figure denotes flight schedules published three months ahead of time).

Last year, MITRE observed that airline schedules published three months before a flight tended to be optimistic, only to be substantially reduced as the departure date drew closer.

Here, we check to see if this is still the case.

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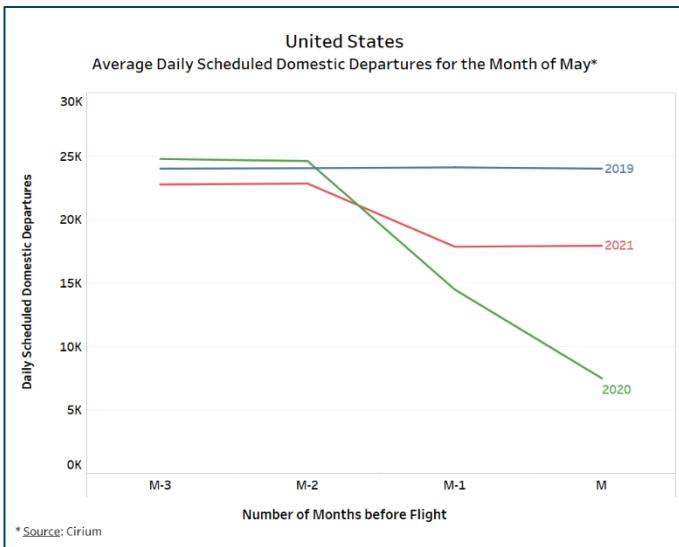


Figure 1

Two key traits are evident.

First, May 2021 traffic ("M") is well above where it was at the same time last year, although it still has farther to go before reaching 2019 levels.

Second, like last year, the chart shows that schedules published two or three months ahead of time are still not a good predictor of what will actually be flown. Instead, the airlines started with their usual May schedule – with some slight reductions this year – and later adjusted it downwards as the departure date got closer, presumably based on what they were seeing with actual bookings. Nevertheless, the 2021 schedules were adjusted downwards by less than they were in 2020.

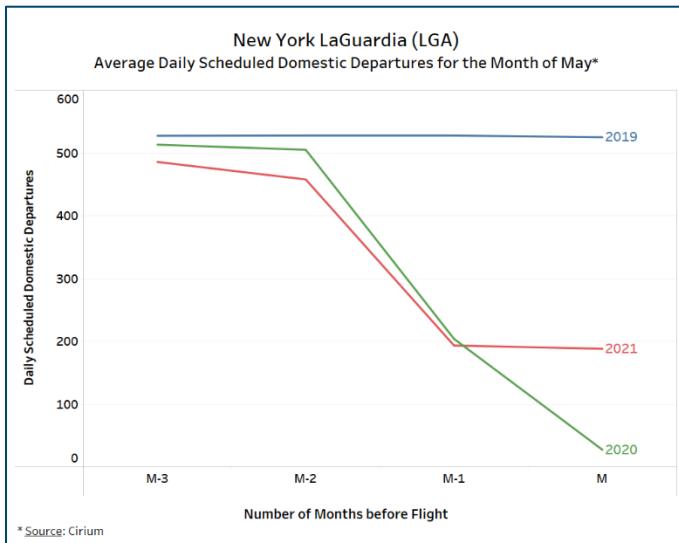


Figure 2

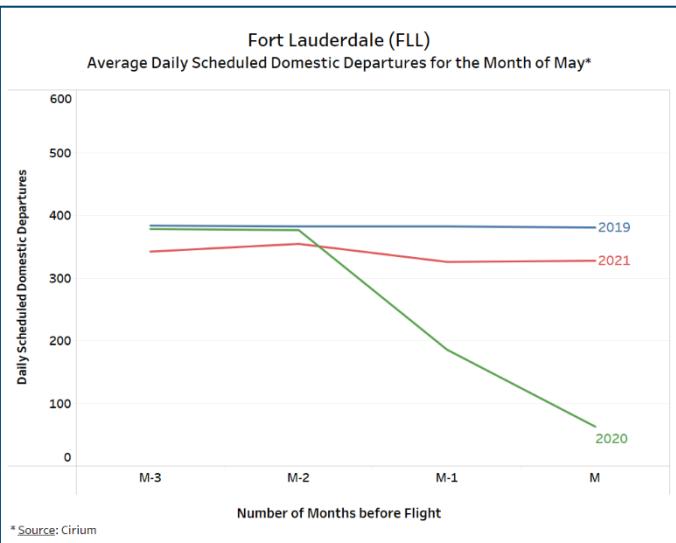


Figure 3

We also investigated this trend for individual airports.

Similar charts for New York LaGuardia (LGA) and Fort Lauderdale International (FLL) airports (Figures 2 and 3, respectively) show that initial schedules for May 2021 for both airports, published three months prior, were very near pre-pandemic scheduled demand. This trend is similar to the trend present when we examined the whole country (recall Figure 1). But LGA's actual scheduled traffic (time "M" in Figure 2) is still quite low; so, while the number of departures scheduled from LGA start at more optimistic levels, over half of those flights were removed from the schedule by the time May arrived. FLL's scheduled departures, however, remained largely unchanged up through day of departure, presumably because FLL's traffic is now close to its pre-pandemic levels.

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