Delay, Cancelled, On Time, Boarding, … Flying in the USA

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The data are provided by Research and Innovation Services, Transportation Research Board (TRB) and Bureau of Transportation Statistics (BTS) of U.S. Department of Transportation. BTS collects and processes more than 100 million commercial flights through the United States and Canada reported between October 1983 and December 2007, representing 29 commercial airlines and 6,976 airports. About 2.3 billion flights were cancelled during the period 1983-2007. Small carriers are defined as those that operate locally.

All three runways in Phoenix are oriented East-West (see above). Due west is off-air traffic.

On the right, arrival delays are plotted against precipitation, wind direction, and seasonal fluctuation. Can you spot which one?

If you can differentiate the true plot from the null plots, we can reject the null hypothesis of crossings being unrelated to arrival delays with a p-value of less than 0.0262 (< 1/5).

Believe it or not??

Crosswinds

Racing Bottoms

Three of American Airlines’ registered vehicles in the database are RAVEN hot air balloons. Based on the data, they cruise at an impressive average speed of 410 miles an hour. Faster than those balloons!

I’m sorry, Sir, but your flight left 12h early.

According to the data, this was said to all passengers of 247 flights. Another 165 flights left at least 2h early.

“Within City Hoppers” - if you’re in a real time crunch, believe it or not? Can you fly an avg speed of 430 mph? For 18 min, you can cover a distance from ghost flights.

Believe it or not??

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Clouds are not there.

Can we see what is not there?


Large changes in airports’ daily flight volume are triggered by different events including strikes, FAA order, and seasonal fluctuations.

Aircrafts’ flight volume is on the increase. 1995 and 2000: 1000 flights in 1000 miles. Delays have been on the increase since 2000.

Airports close at impressive average speed of 430 miles an hour. Believe it or not??