

AirFQ

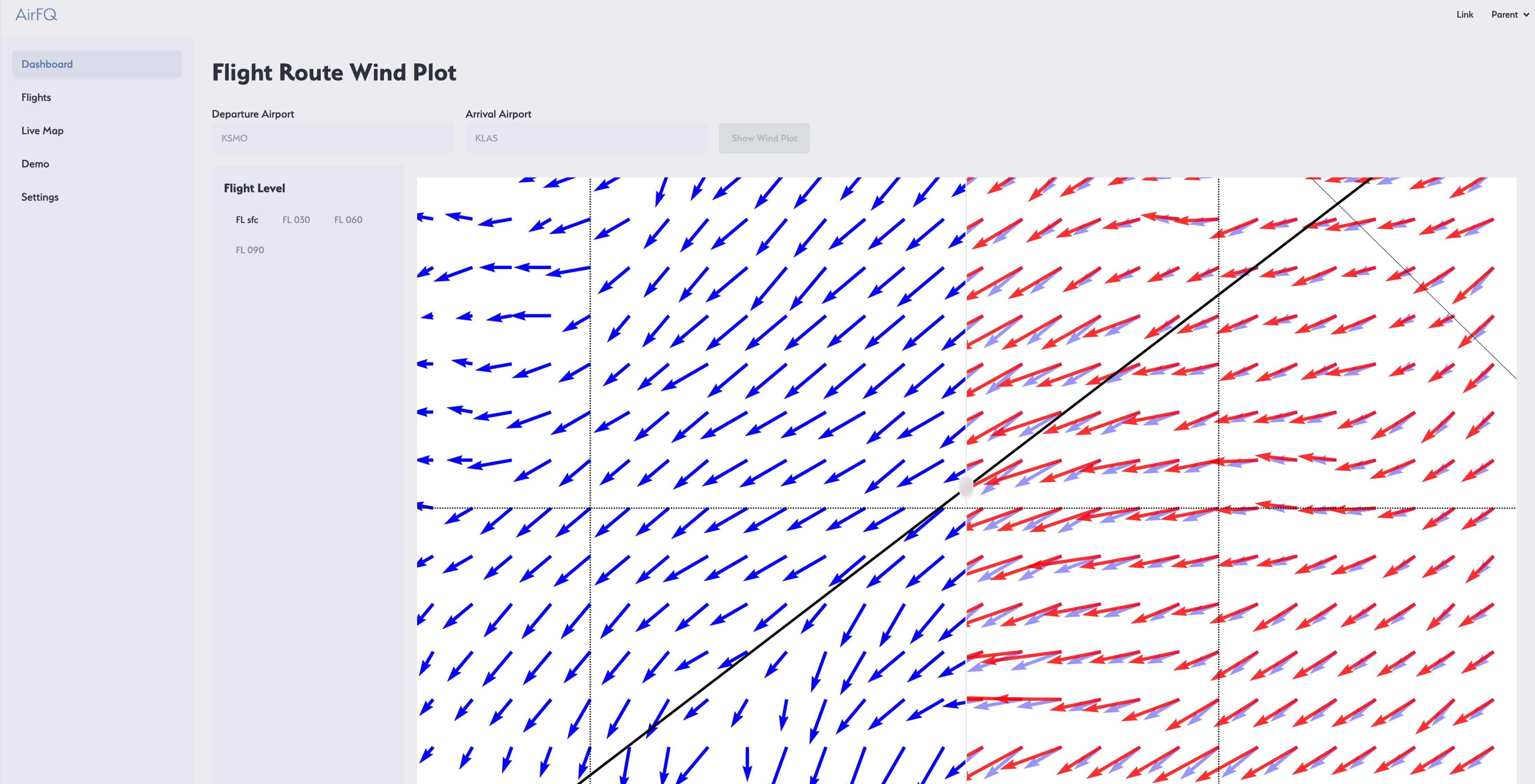
Airborne Information Reporting **Flight Qualified**

Kush Agarwal | LA Hacks 2025

the worsening general aviation crisis

**simple
preventable
accidents**

better forecast viewing solution



**critical
new
problem**

**forecasts
never match
reality**

augment forecasts with data

Let \hat{x}_t denote the initial forecast for variable x (wind speed, temperature, humidity) at time t , and let y_t be the real-time observational measurement from an aircraft at the same location and time. The augmented forecast x'_t can be formulated as:

$$x'_t = \hat{x}_t + K_t(y_t - \hat{x}_t) \quad (1)$$

where K_t is the Kalman gain, determined dynamically by:

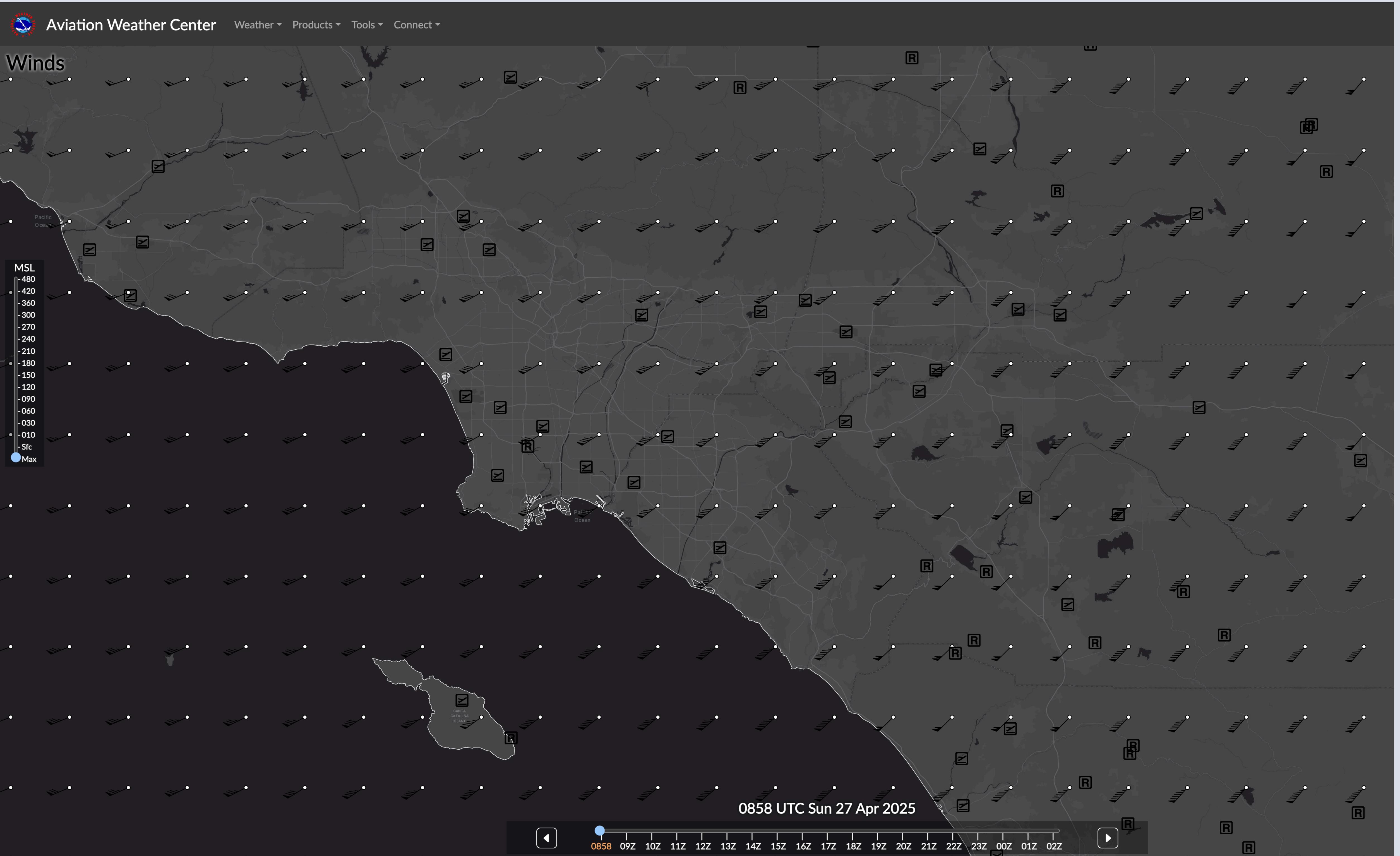
$$K_t = \frac{P_t}{P_t + R} \quad (2)$$

Here, P_t represents the forecast error covariance, and R represents the observational error covariance.

difficult?
maybe
impossible?
nope.

need
2 things

**first
forecast data**



second
live data

????????????
iiiiiiiiiiii

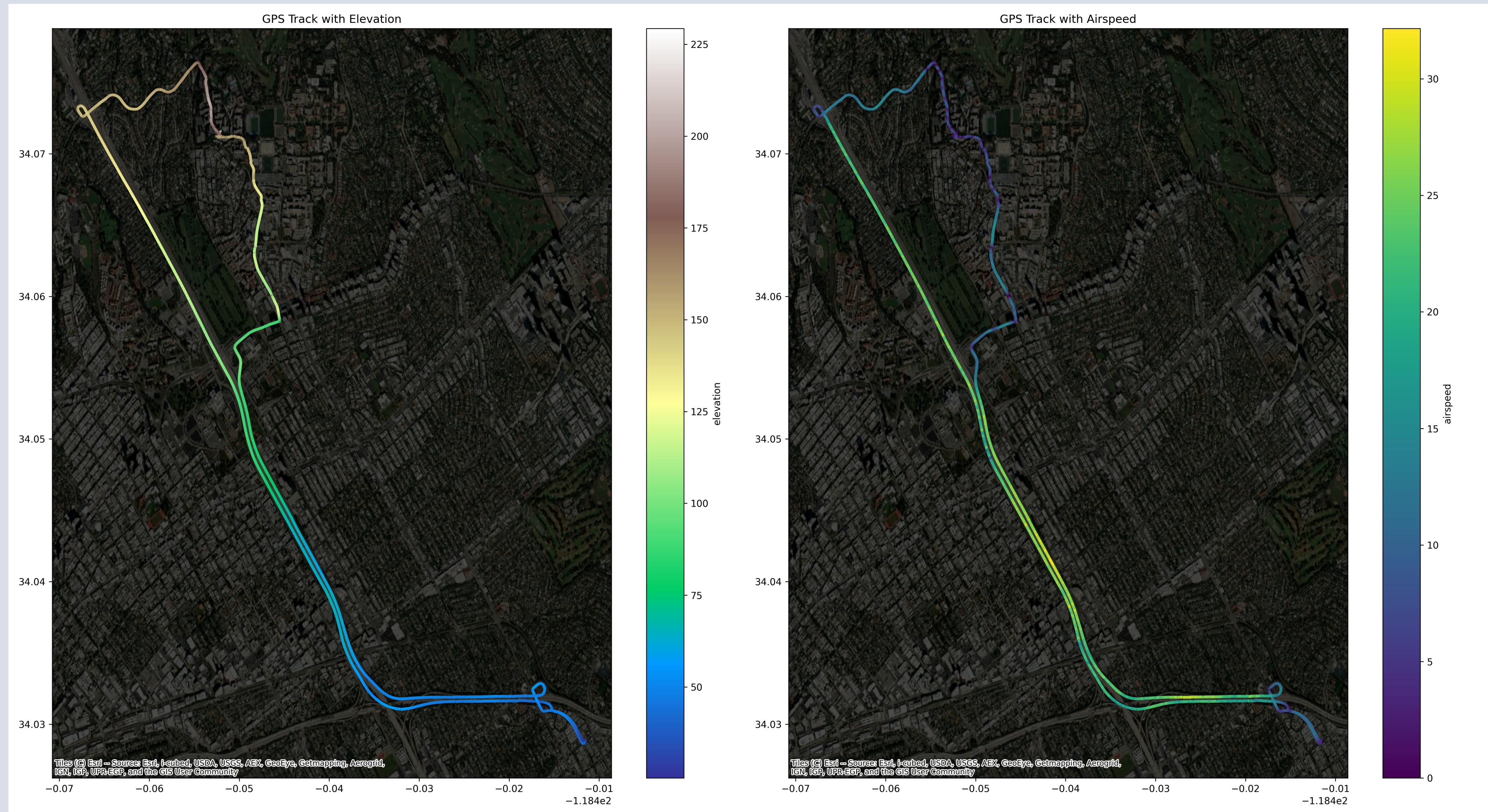
introducing
AirFQ

AirFQ

**a test is worth
a 1000 simulations**



AirFQ



**what's worth a
1000 drives?**

a
flight

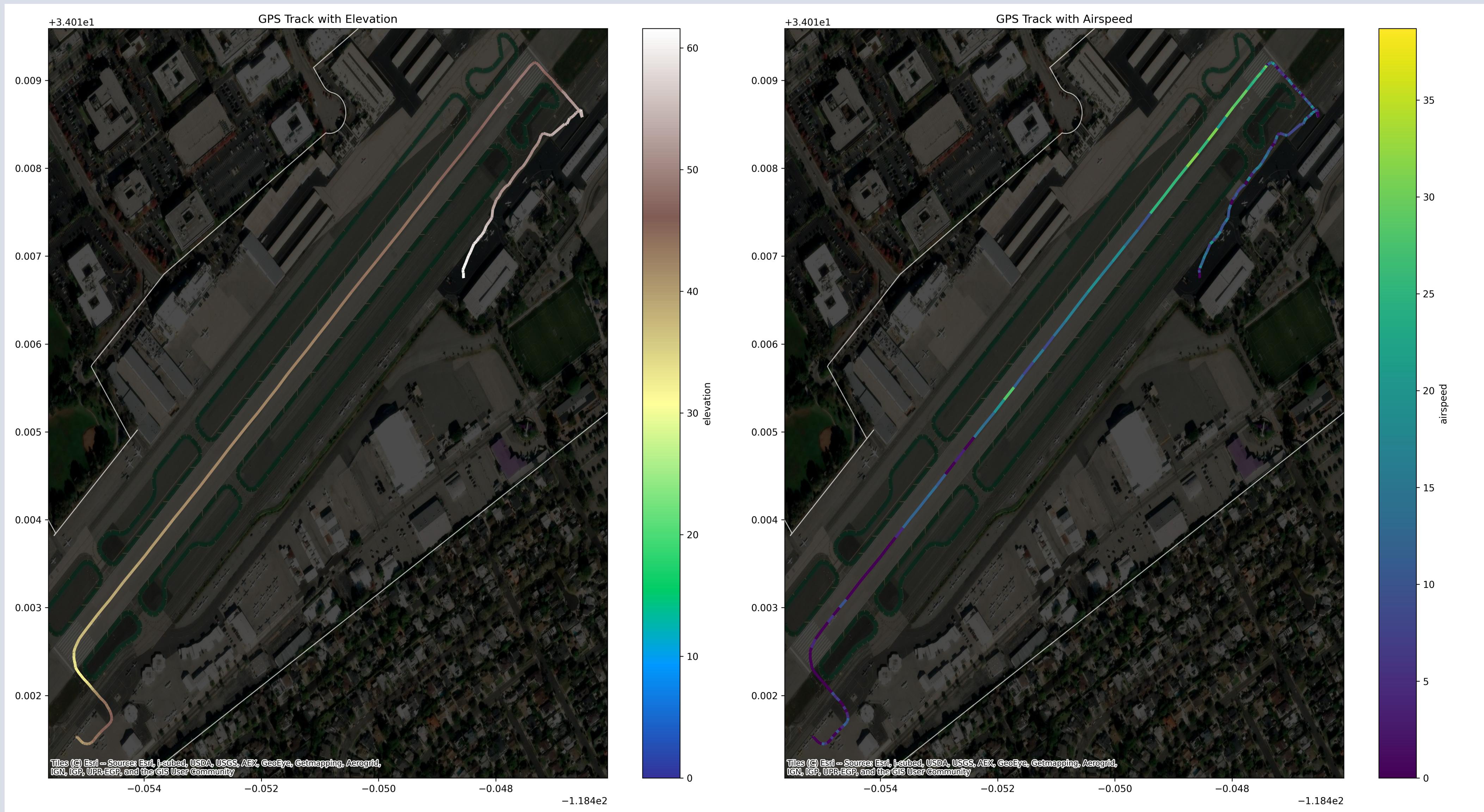


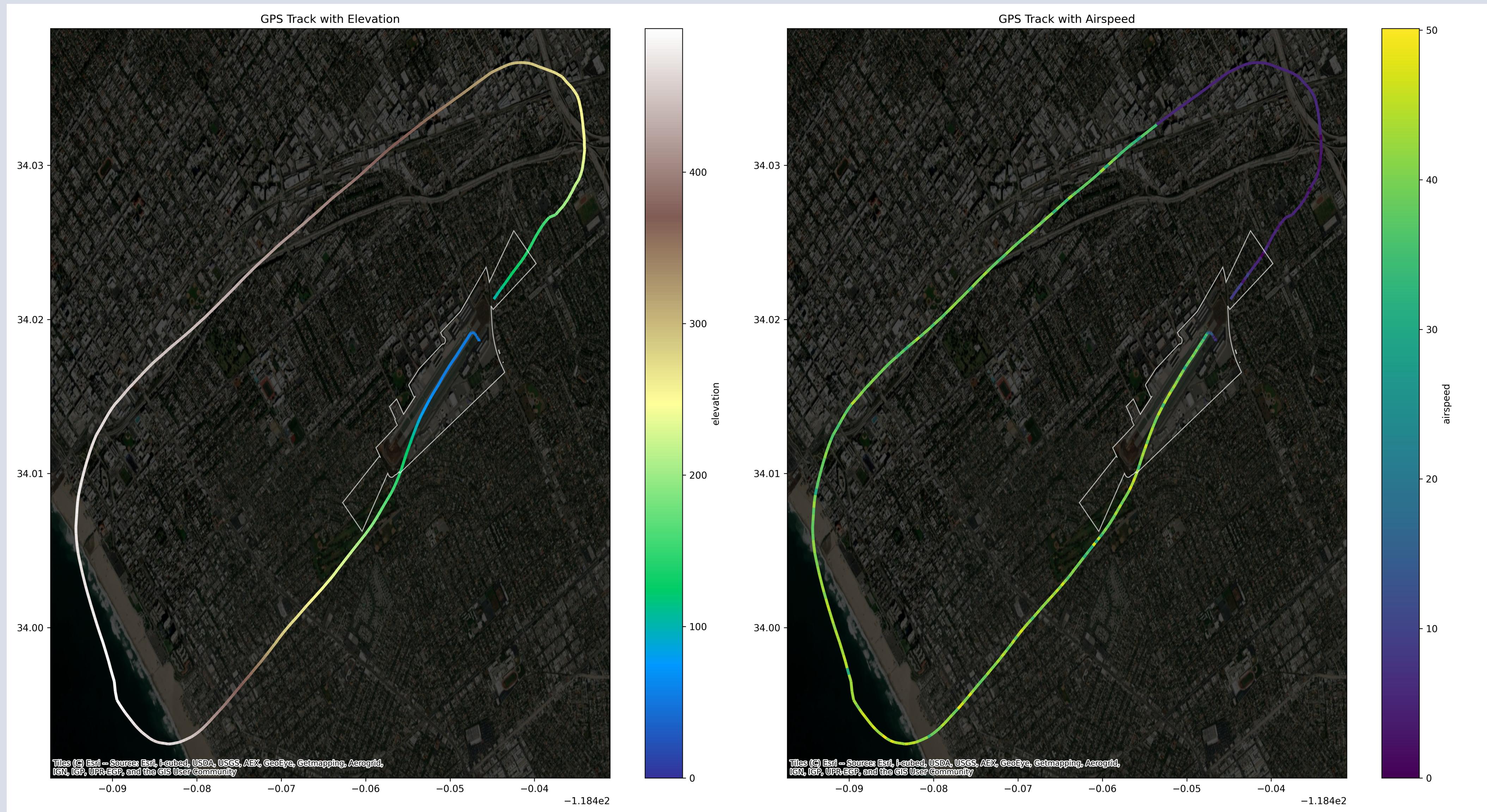
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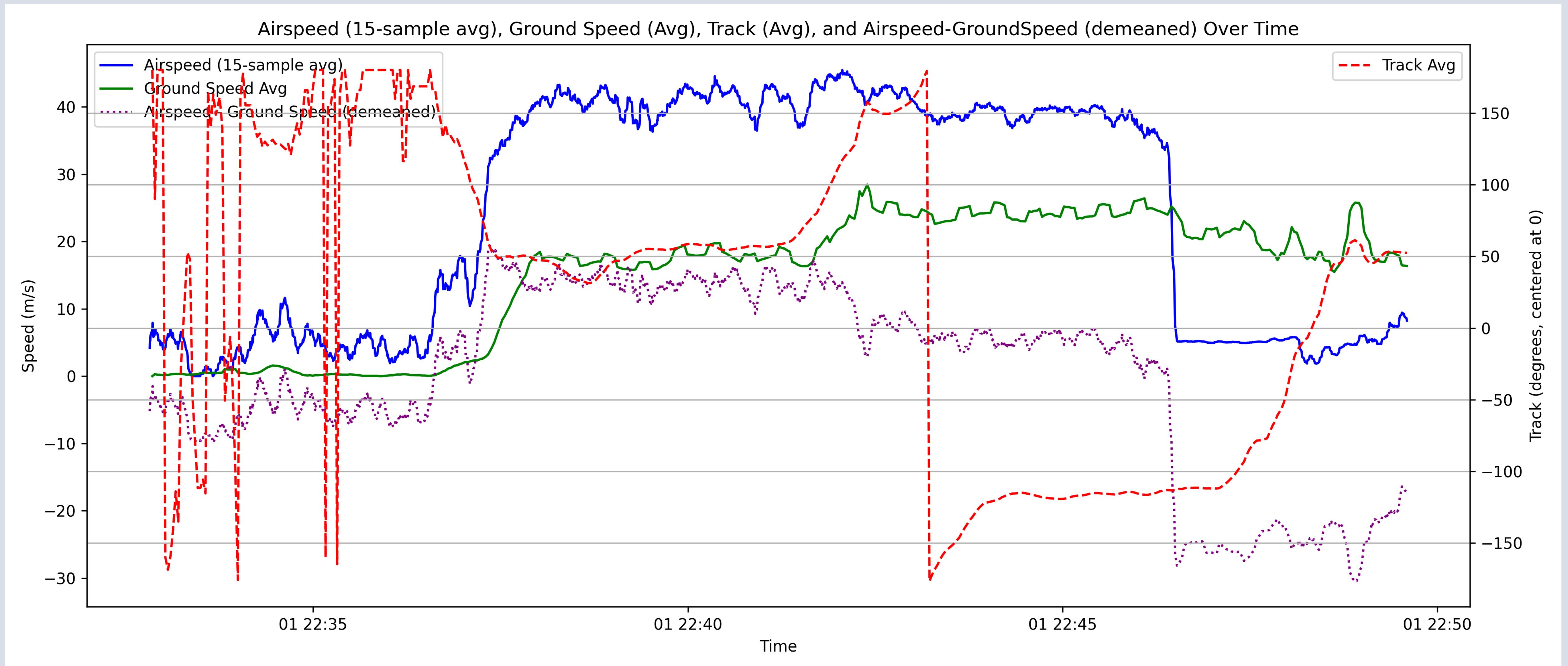
**just
kidding**











**but wait
there's more**



AirFQ

**not a project,
it's a product**