Alex Fu.  Presenting {May 30 or June 5}

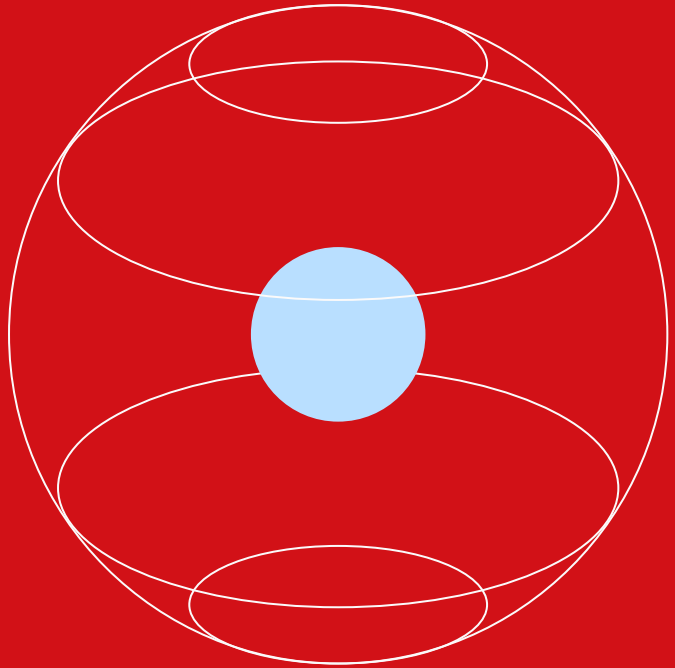
Project title: Local Airplane Locator

Brief description: Locate local airplanes and track flight paths using the RTL-SDR antenna. More specifically, the project would include using the RTL-SDR antenna to receive ADS-B signals from nearby aircraft and decode the signals to determine positioning.

# Local Airplane Locator

Alex Fu

*Where did you come from, where did you go?*
*Where did you come from, random airplane in the sky?*



Goals:

- Locate airplanes
- Track flight paths
- Display airplanes, flights paths, and interesting metadata (altitude, speed, source, dest, etc.)

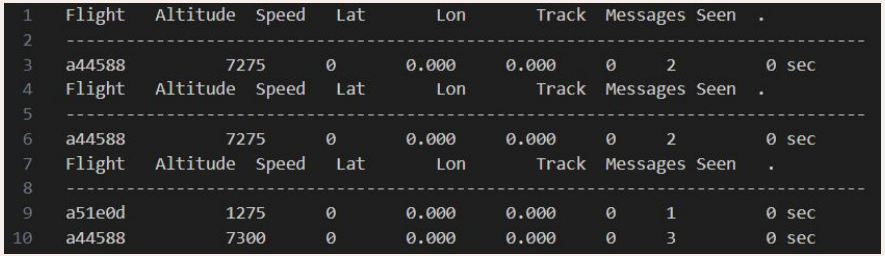
# *How?*

Automatic Dependent Surveillance - Broadcast (ADS-B)

- Latitude
- Longitude
- Altitude
- Speed
- Flight Number

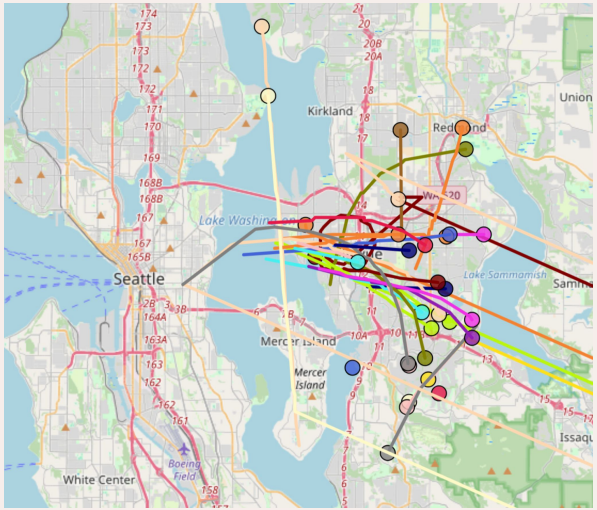
Challenge: multiple versions of ADS-B with different formats

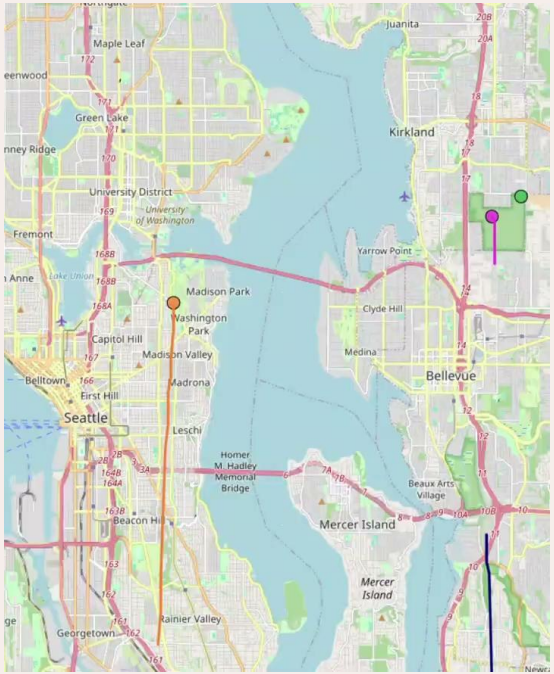
Decoding with Dump 1090

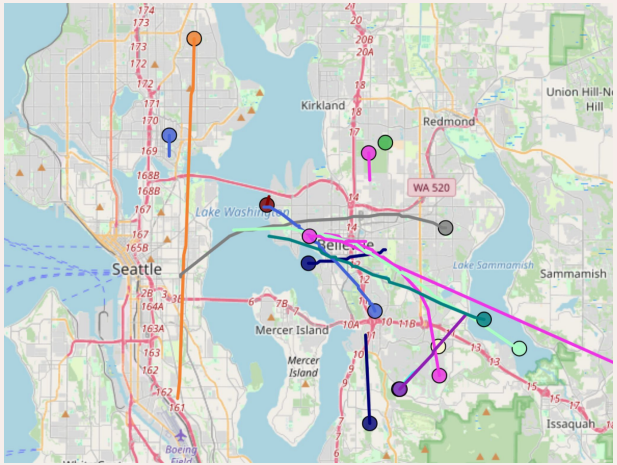



Challenge: lack of windows support

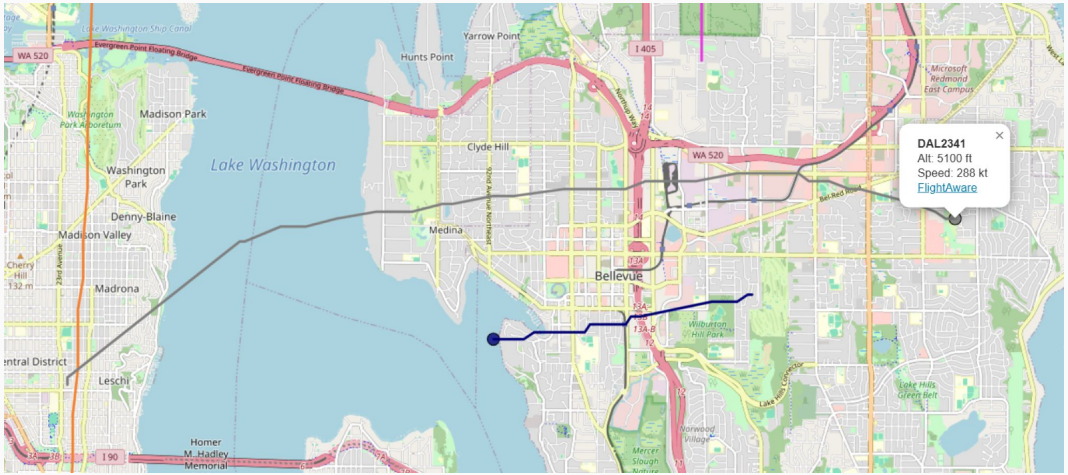
# Results

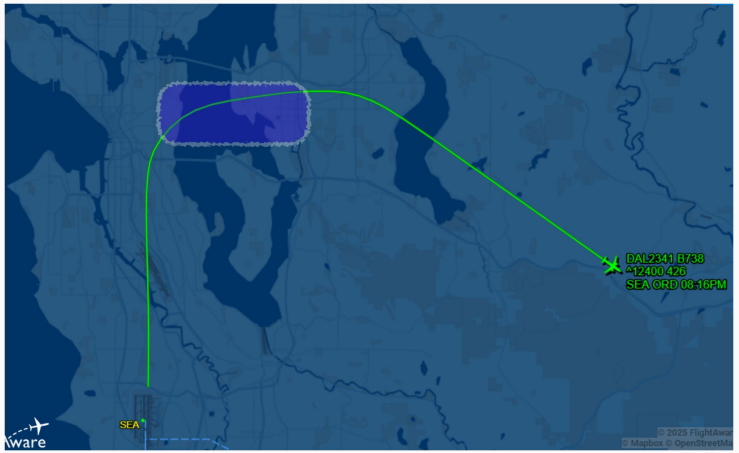

Seattle
Kirkland
Mercer Island
White Center


Maple Leaf
Green Lake
University District
Fremont
Kirkland
Madison Park
Washington Park
Capitol Hill
Madison Valley
Madrona
Belltown
First Hill
Seattle
Leschi
Bellevue
Yarrow Point
Clyde Hill
Medina
Mercer Island
Beacon Hill
Georgetown
Rainier Valley

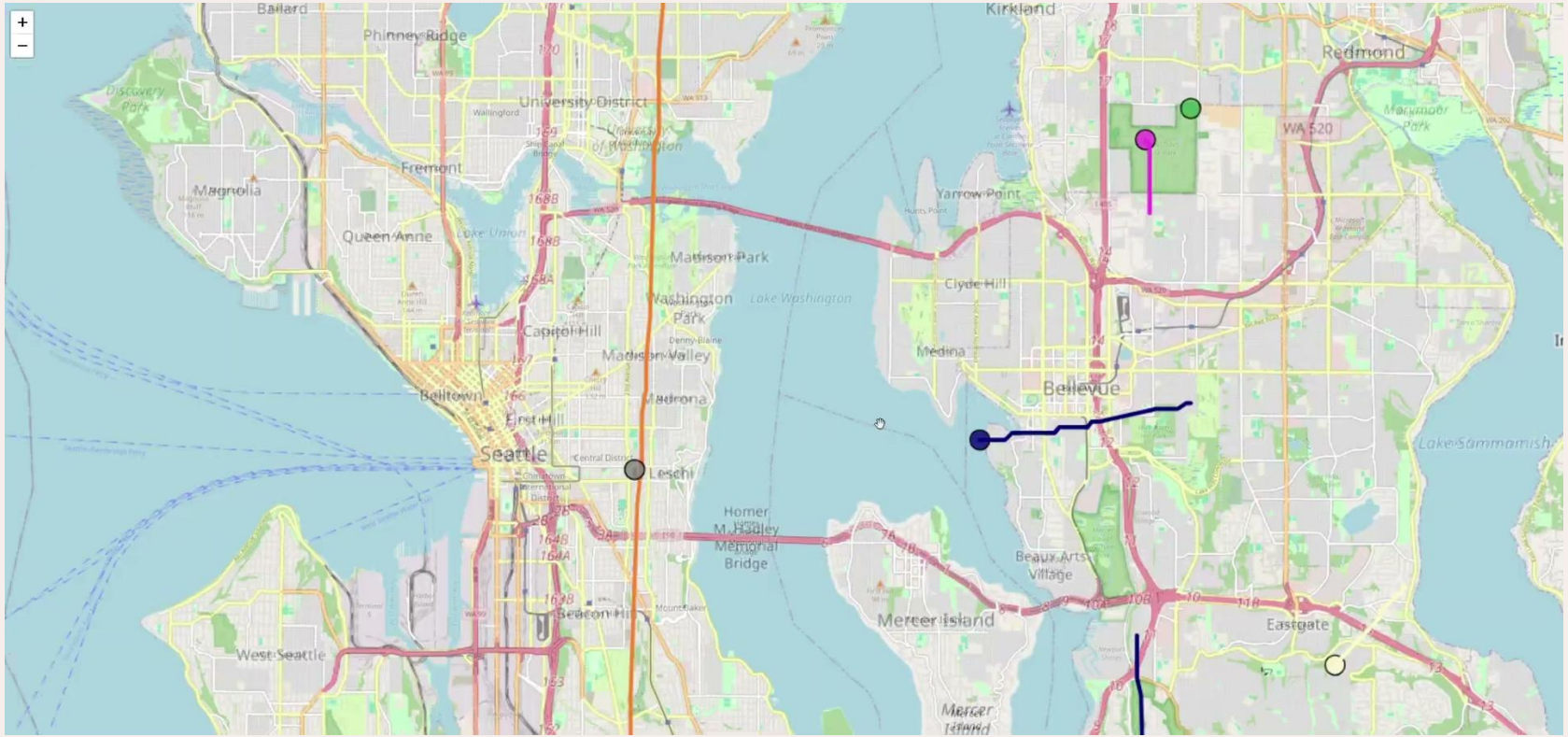

Kirkland
Redmond
WA 520
Seattle
Mercer Island
Sammamish
Issaquah

# Accuracy

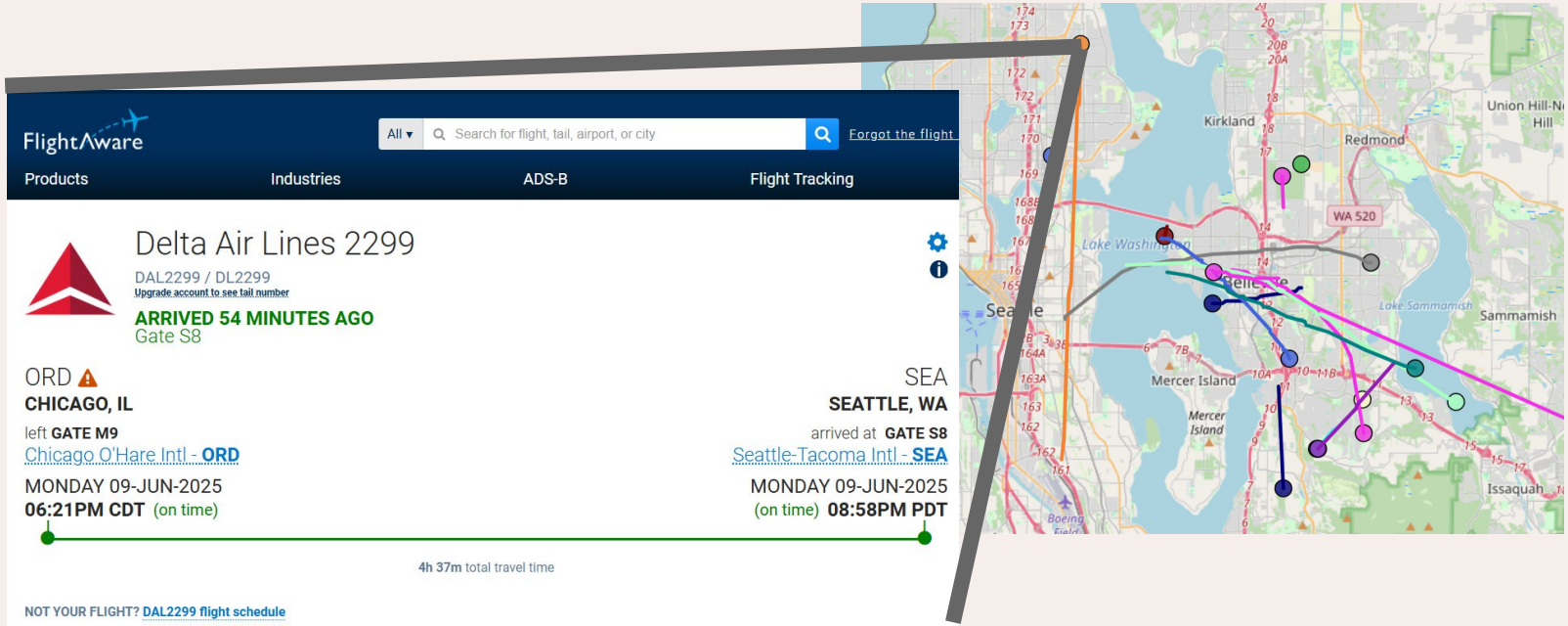

DAL2341
Alt: 5100 ft
Speed: 288 kt
FlightAware
Lake Washington
Bellevue
Yarrow Point
Hunts Point
Clyde Hill
Medina
Madison Park
Washington Park
Denny-Blaine
Madison Valley
Madrona
Leschi
Homer M. Hadley Memorial
WA 520
I 405
I 90


DAL2341 B738
412400 426
SEA ORD 08:16PM
SEA

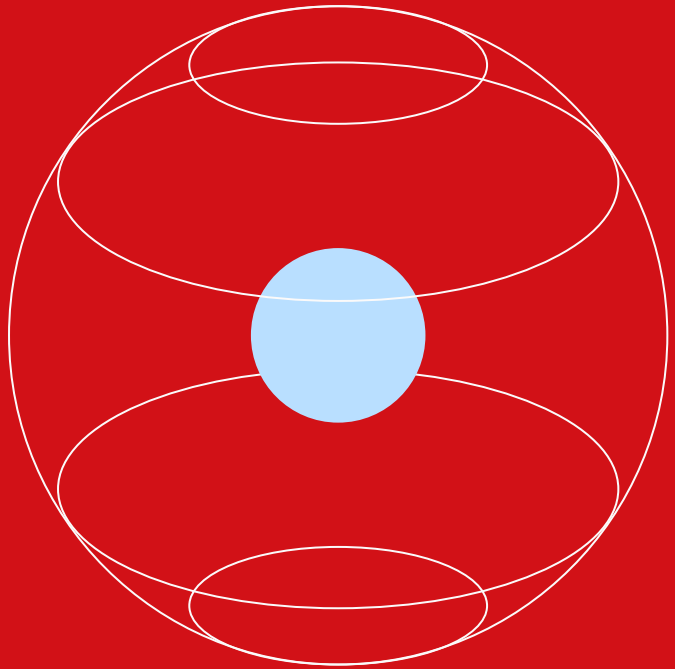
# *Demonstration - Interactive Map*



# Demonstration - FlightAware Integration

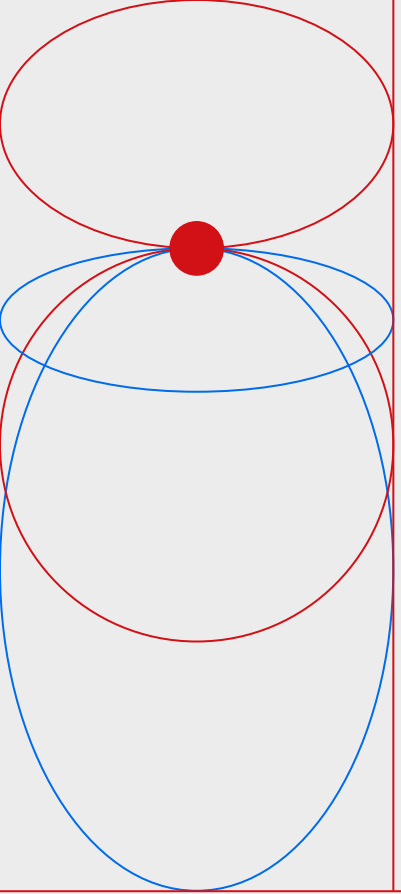


# *Where do we go?*

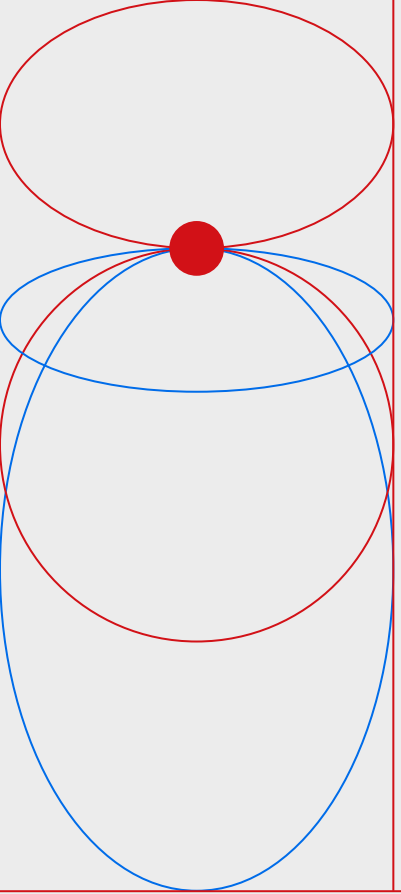


Goals:

- Smooth flight paths
- Intelligently disregard artifacts
- Scrape website for source, dest data
- Timelapse



# Questions?



# *Thank you*