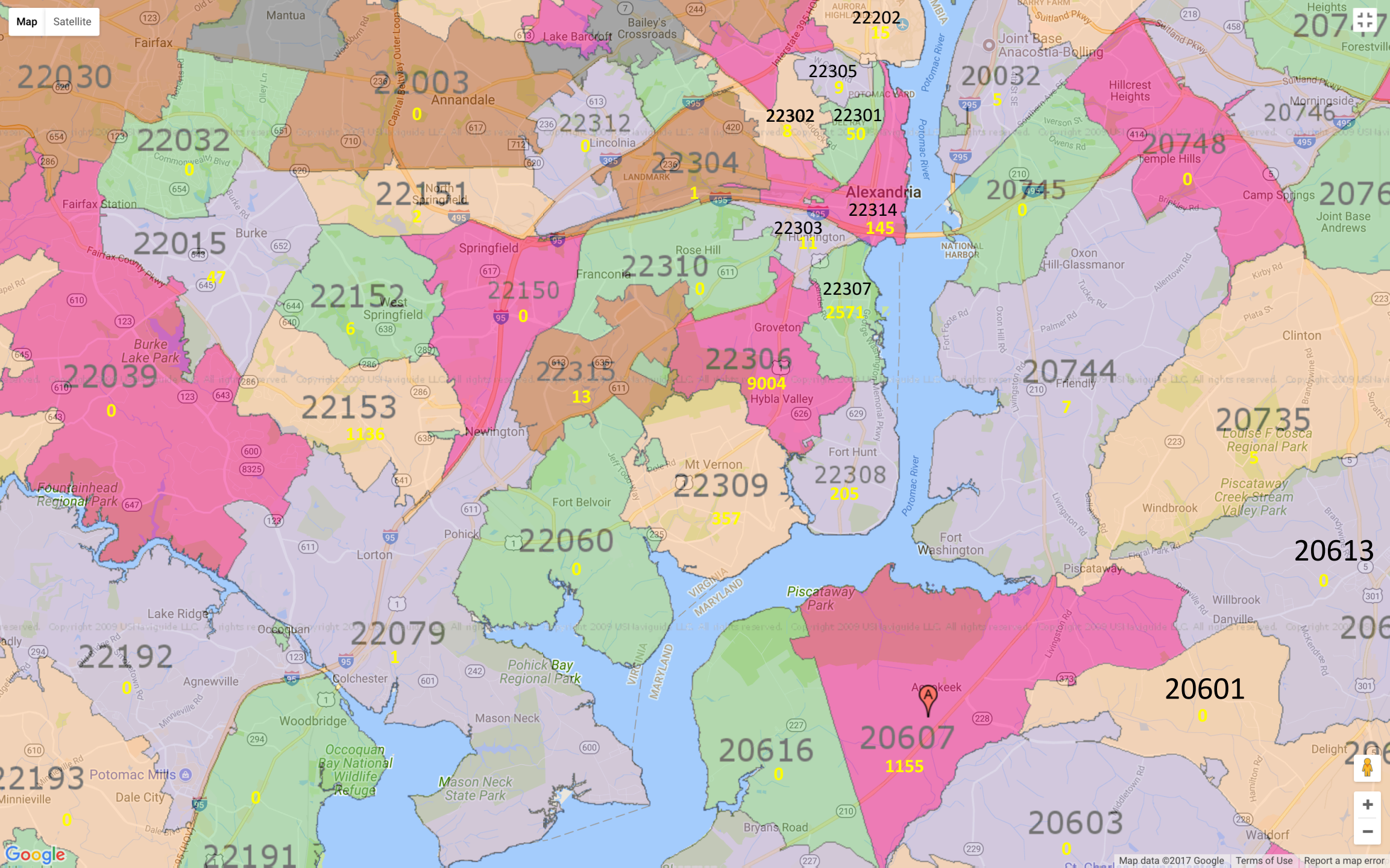


Winds and DCA Noise Complaints from Southern Districts

Bob Meier

SFA Meeting 9/11/17



Map Satellite



Are More Complaints for Arrivals or Departures?

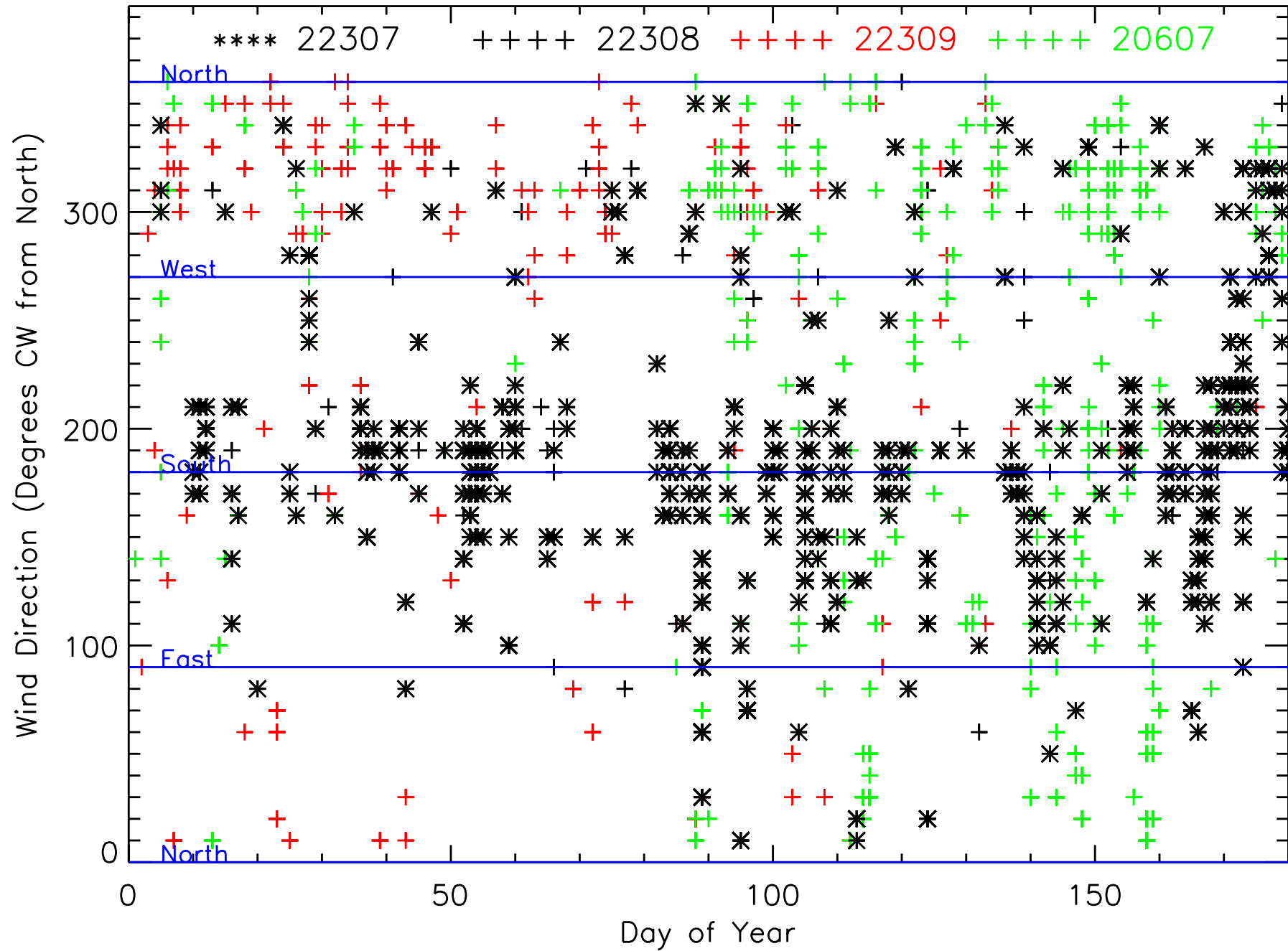
- Complaint period: January through June, 2017
- Look at Zip codes:
 - **22307 (Northern Mt Vernon)**
 - 2571 Complaints
 - **22308 (Ft. Hunt)**
 - 205 Complaints
 - **22309 (Southern Mt Vernon)**
 - 357 Complaints
 - **20607 (Southern PG)**
 - 1155 Complaints

Analysis Procedure

- MWAA complaint tables provided by Mike
 - Sorted according to zip code
- Download weather conditions for zip code closest to DCA
 - from NNDC (NOAA National Data Center)
- Match dates and times of complaint and weather tables
- Check wind directions
 - I defined north* arrivals as winds from West-North-East quadrants
 - I defined south departures as winds from East-South-West quadrants
- Breakdown complaints according to Arrivals (North Winds) and Departures (South Winds)

* Following the FAA definitions : north arrivals means arrivals from the south towards the north

DCA Complaints from Southern Zip Codes

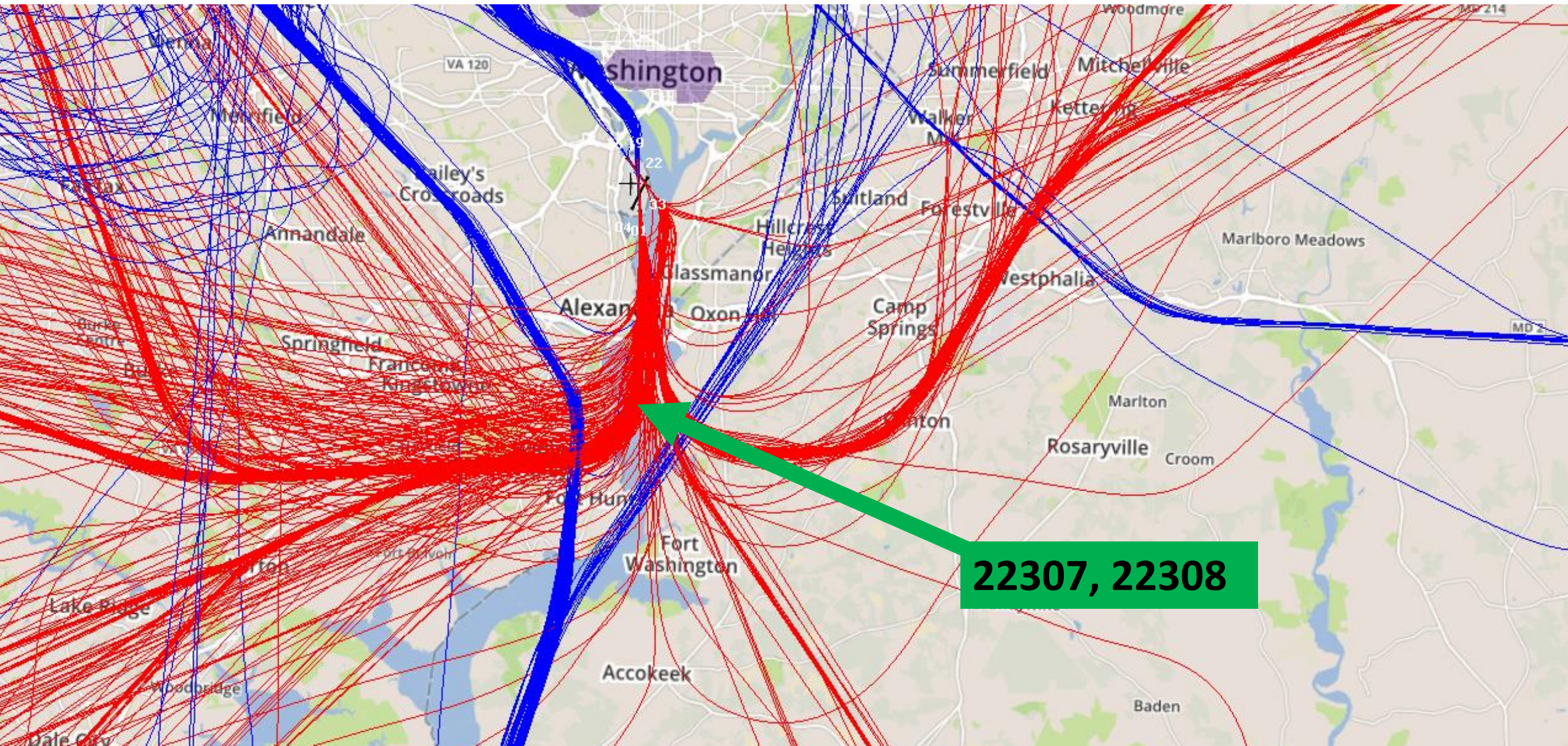


Dependence on Arrivals & Departures?

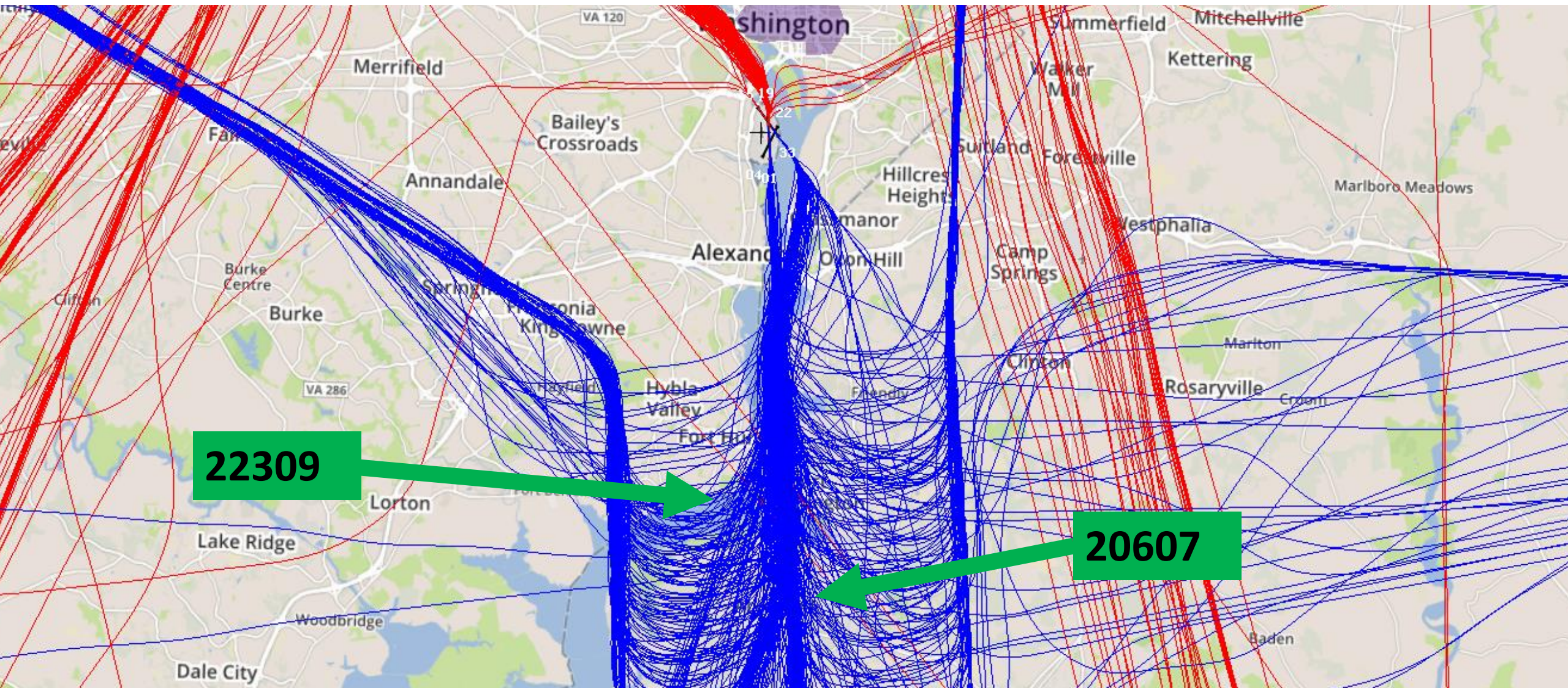
- **22307 (Northern Mt Vernon)**
 - **2571 Complaints: 89% for south departures, 11% for north* arrivals**
- **22308 (Ft. Hunt)**
 - **205 Complaints : 77% for south departures, 23% for north arrivals**
- **22309 (Southern Mt Vernon)**
 - **357 Complaints : 24% for south departures, 76% for north arrivals**
- **20607 (Southern PG)**
 - **1155 Complaints : 37% for south departures, 63% for north arrivals**

***Following the FAA definitions: north arrivals means arrivals from the south towards the north**

Explanation of South **Departure (red)** Percentages



Explanation of South Arrival (blue) Percentages



Conclusions

- Northern Mt Vernon (22307) and Northern Ft. Hunt (22308) are seriously impacted by departures to the south
 - Complaints are 3:1 for south departures vs south arrivals
- Southern Mt Vernon (22309) is seriously impacted by arrivals from the south (north arrivals)
 - Complaints are 3:1 for north arrivals vs south departures
- Southern Prince Georges (20607) complains much more about arrivals from the south (north arrivals)
 - Complaints are 2:1 for north arrivals vs south departures
- A more precise analysis requires actual flight tracks
 - I plan to request these using FOIA