

“Precision Policing” Using Operations Dashboard

An Operational Use-case for Dynamic Mapping

Introduction

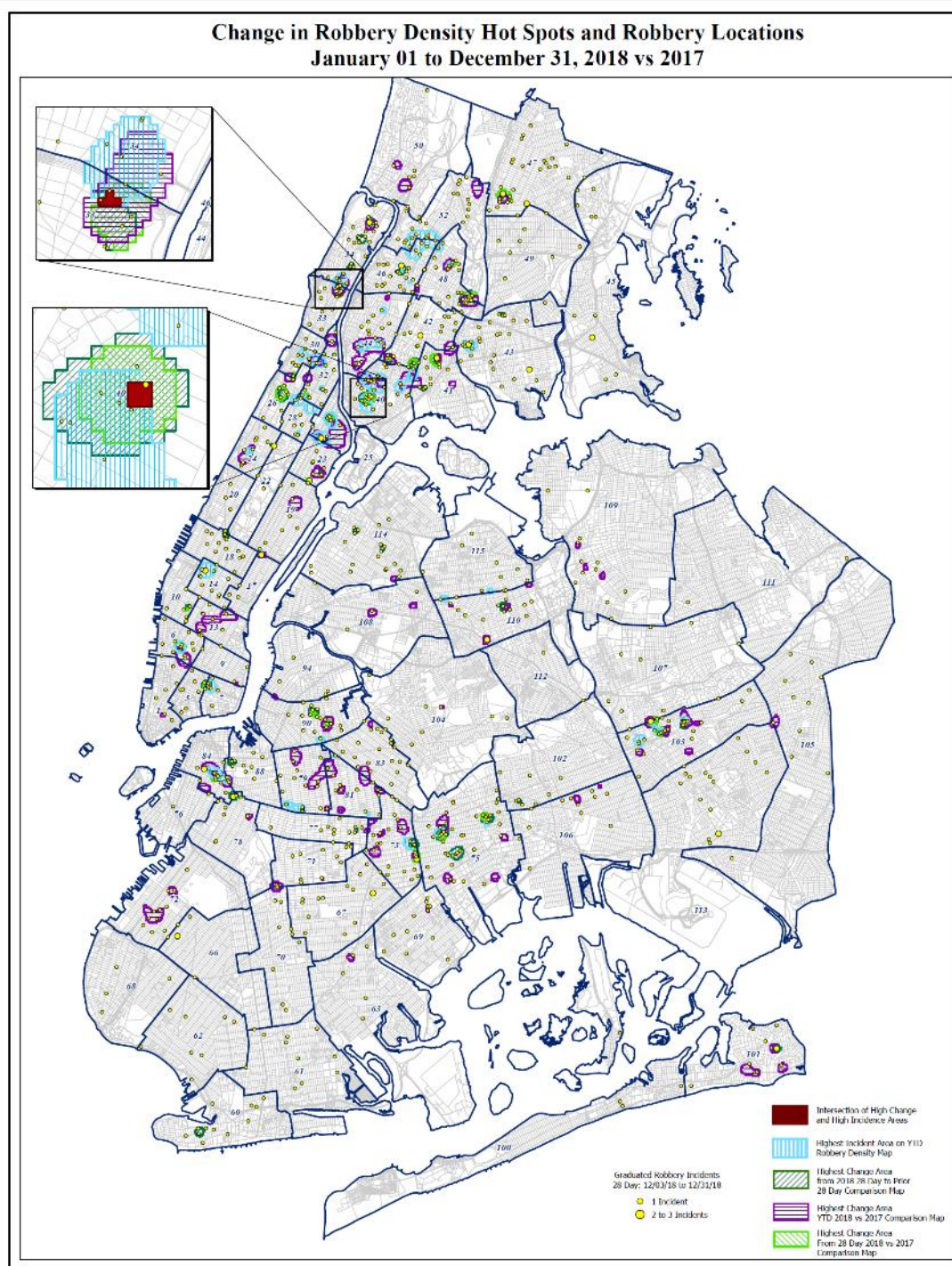
- Frank Cabibbo – GIS Analyst
- Chief of Strategic Initiatives – Office of Management Analysis & Planning
 - Operations Research Section – Geospatial Analysis Unit

Weekly Crime Meeting

- Briefing tool used by executive staff for insightful decision making/resource allocation
- CompStat cases, summary of city-wide statistics, patterns, data visualizations, charts & graphs, etc.

Weekly Crime Meeting

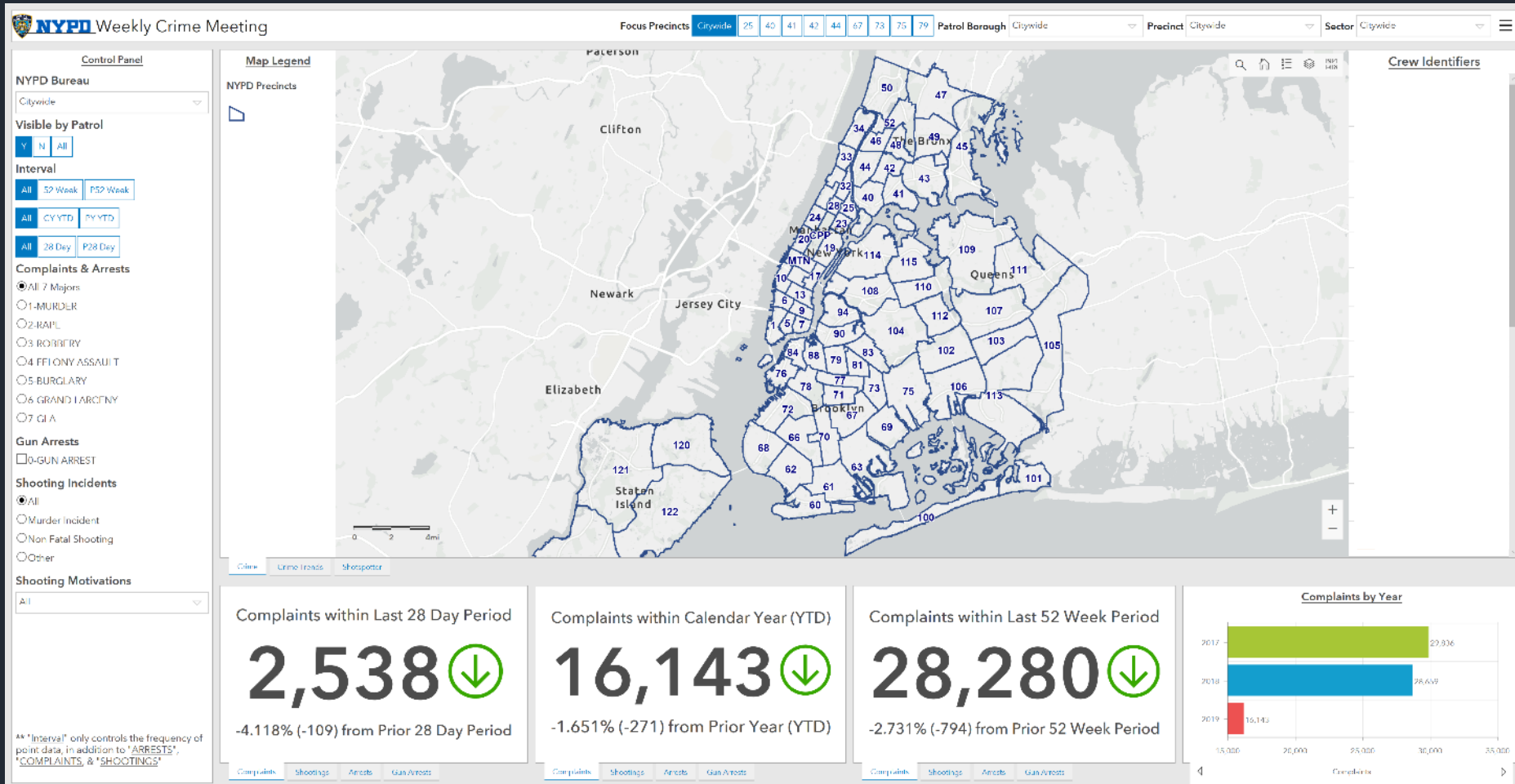
- Static maps produced beforehand
- Areas of focus derived from statistical analysis
- Obvious limitations on amount of data and layers that could be displayed



Methodology

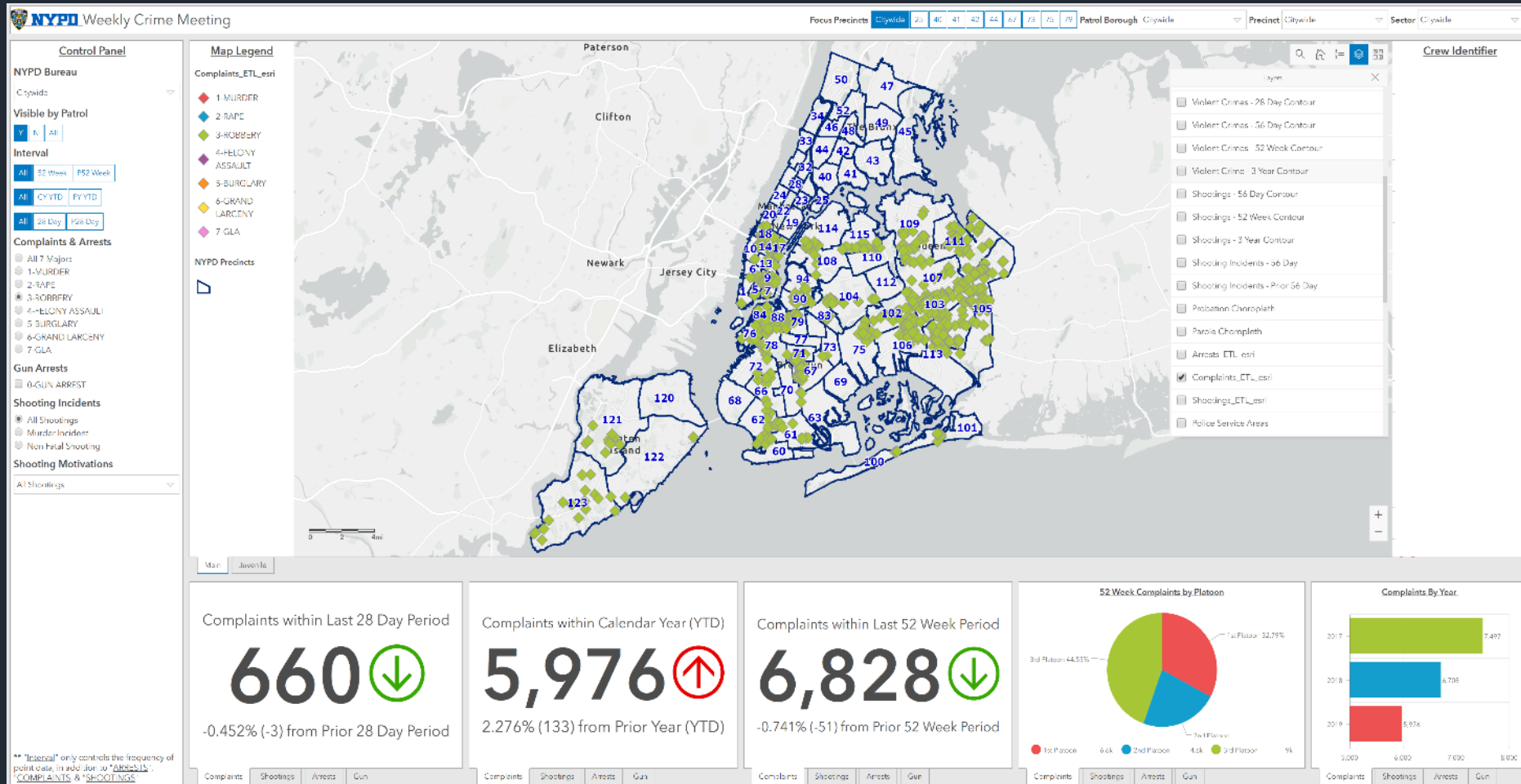
- Complaints, Arrests, Shootings
 - Queried & filtered for specific time-period indicators, charts & graphics on Dashboard
- Analysis and Visualizations
 - Kernel Density Estimation, contours, density change, dot density
- Multiple web-maps brought in to supplement main datasets
- Automation of workflow
 - Python programming language and various APIs

Weekly Crime Meeting

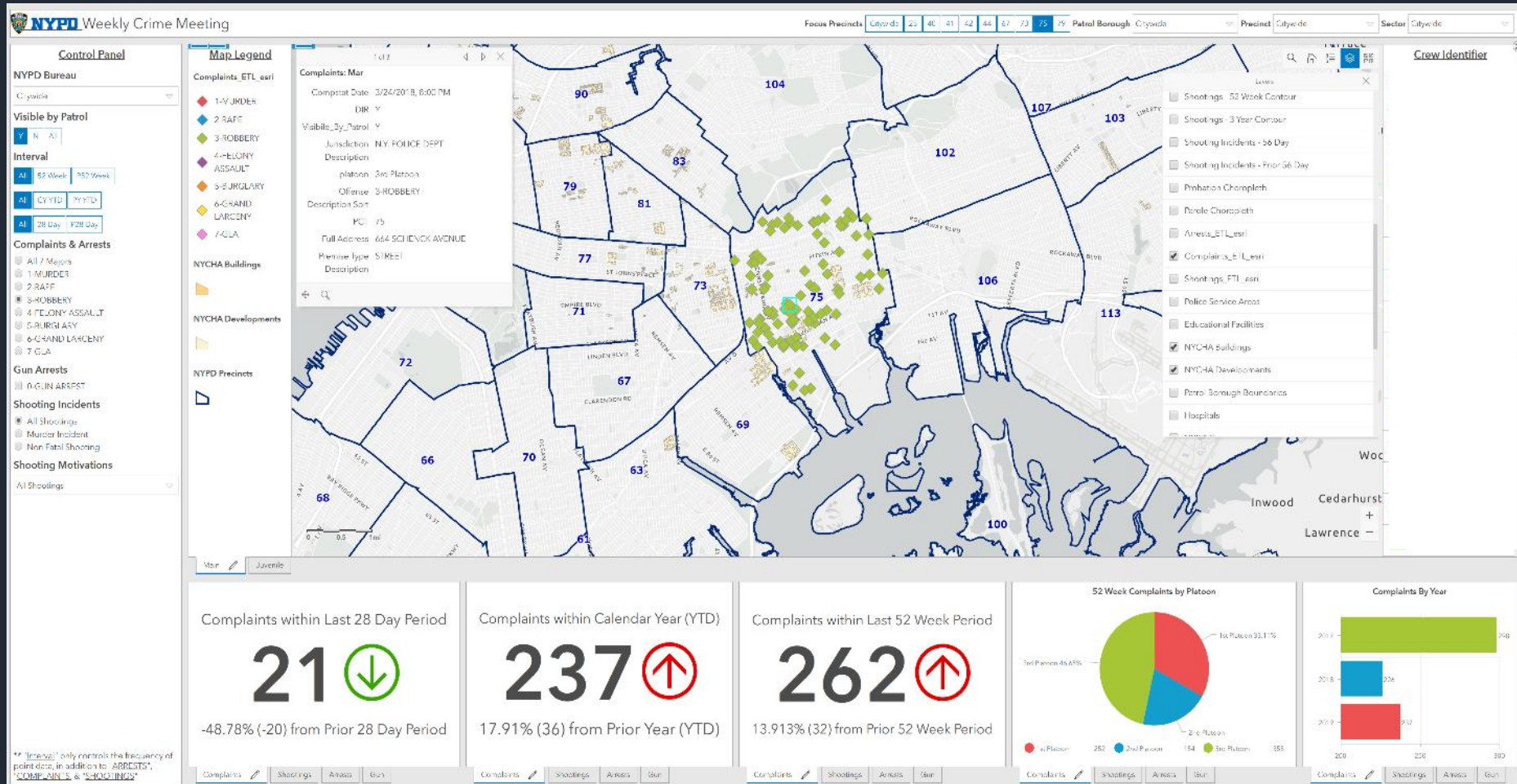


AK "Interval" only controls the frequency of point data, in addition to "ARRESTS", "COMPLAINTS", & "SHOOTINGS"

Weekly Crime Meeting



Weekly Crime Meeting



Further Considerations

- Development of other dashboards to be used operational, not just analytically
- Live updates & live fed data
 - Direct connection to multiple databases to drive the attributes on dashboard & maps
- Further development of Department-wide Enterprise system

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Contact

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