



RTK GPS MEASUREMENT EXPERIMENTS

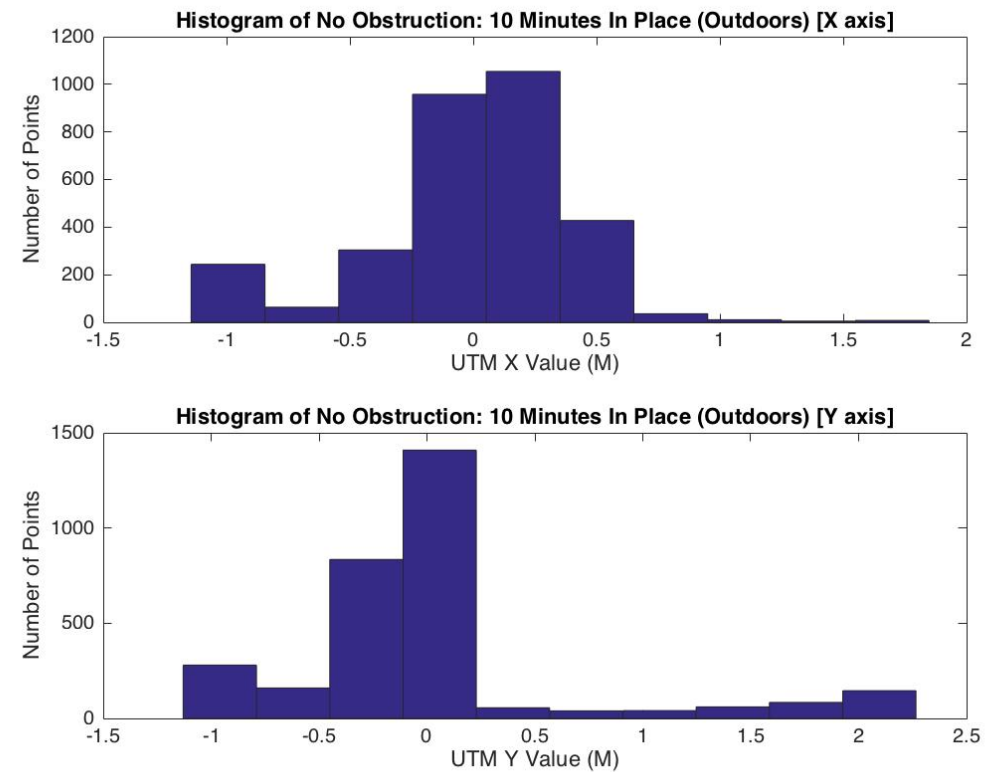
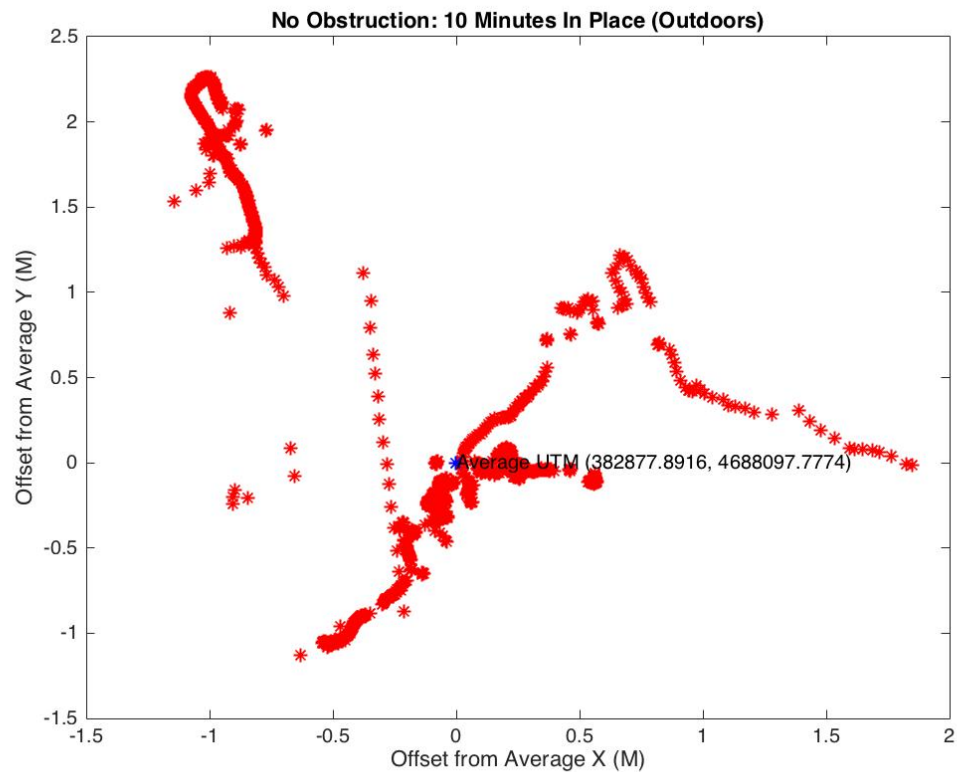
ANDREW TU

EECE 5698 ROBOTICS SENSING AND NAVIGATION

NORTHEASTERN UNIVERSITY

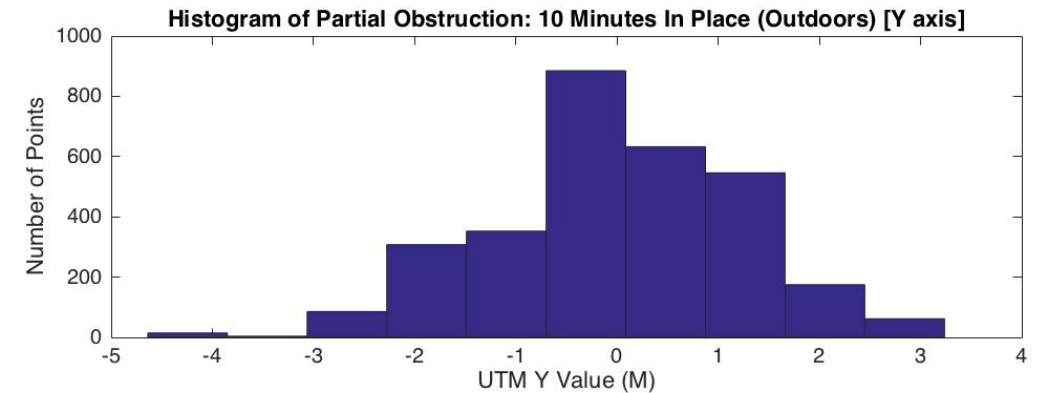
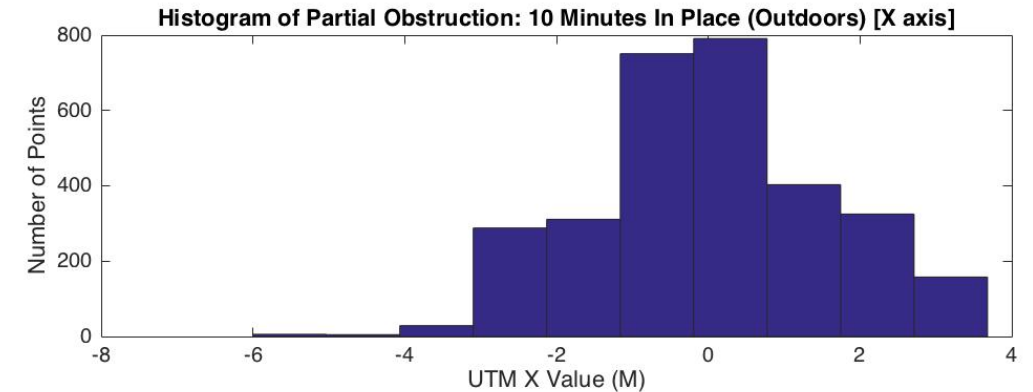
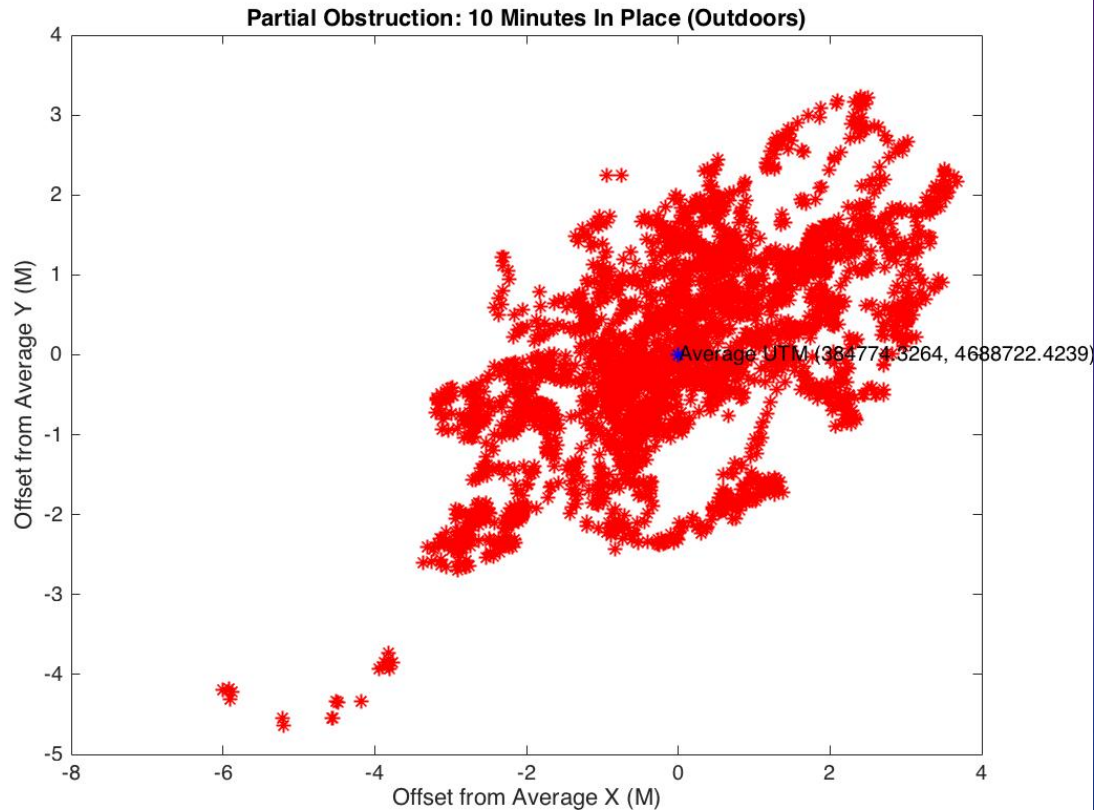
NO OBSTRUCTION: 10 MIN IN PLACE

Roughly +2.5/-1 m N/S variation
Roughly +2/-1.5 m W/E variation
Gaussian N/S error

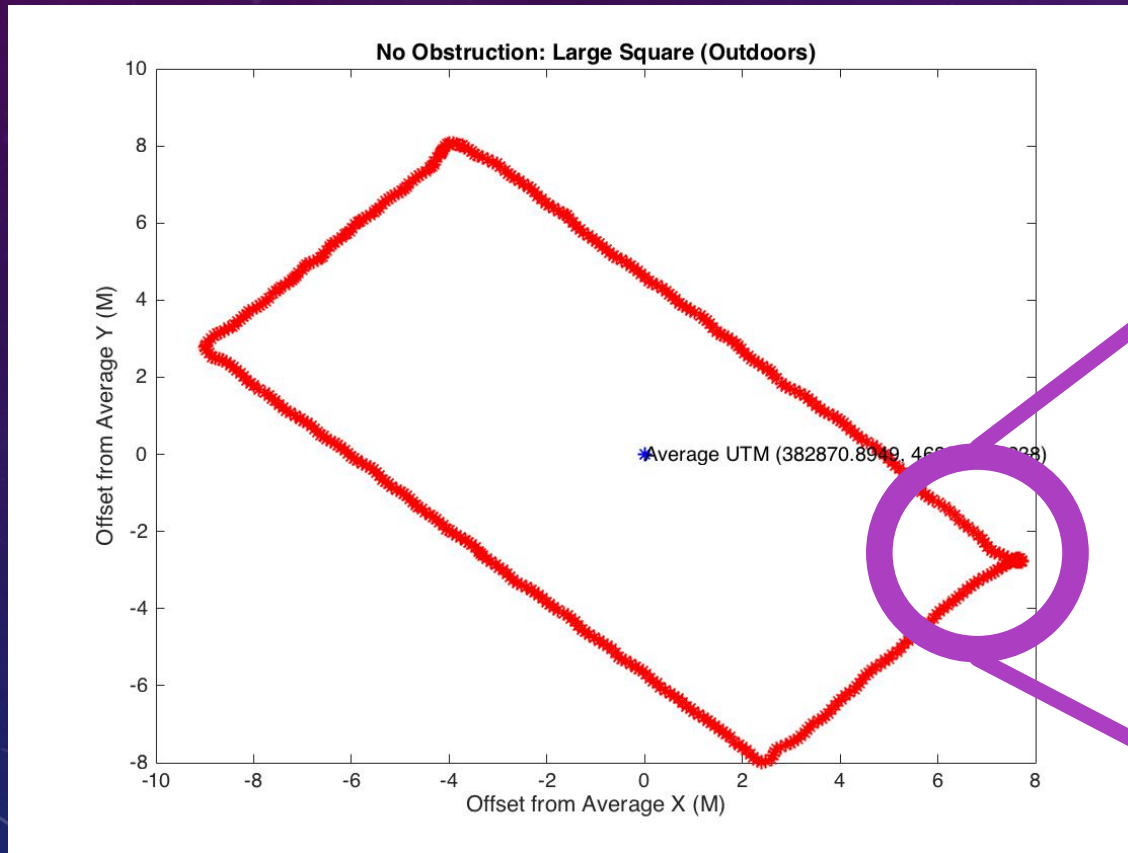


PARTIAL OBSTRUCTION: 10 MIN IN PLACE

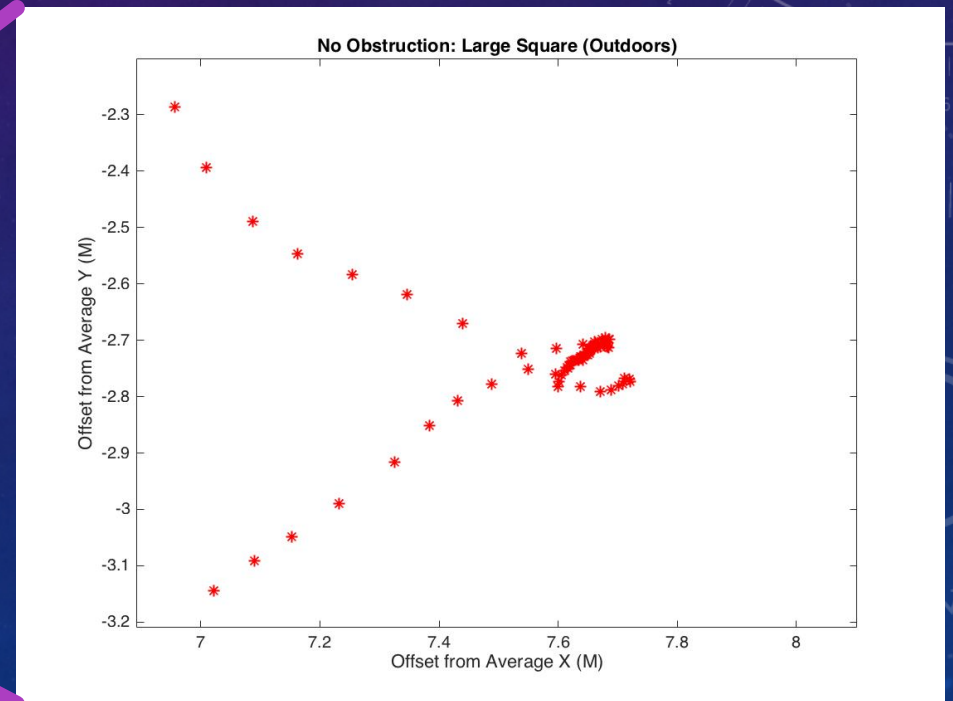
Roughly +3/-5 M N/S variation
Roughly +4/-6 M N/S variation
Gaussian Error



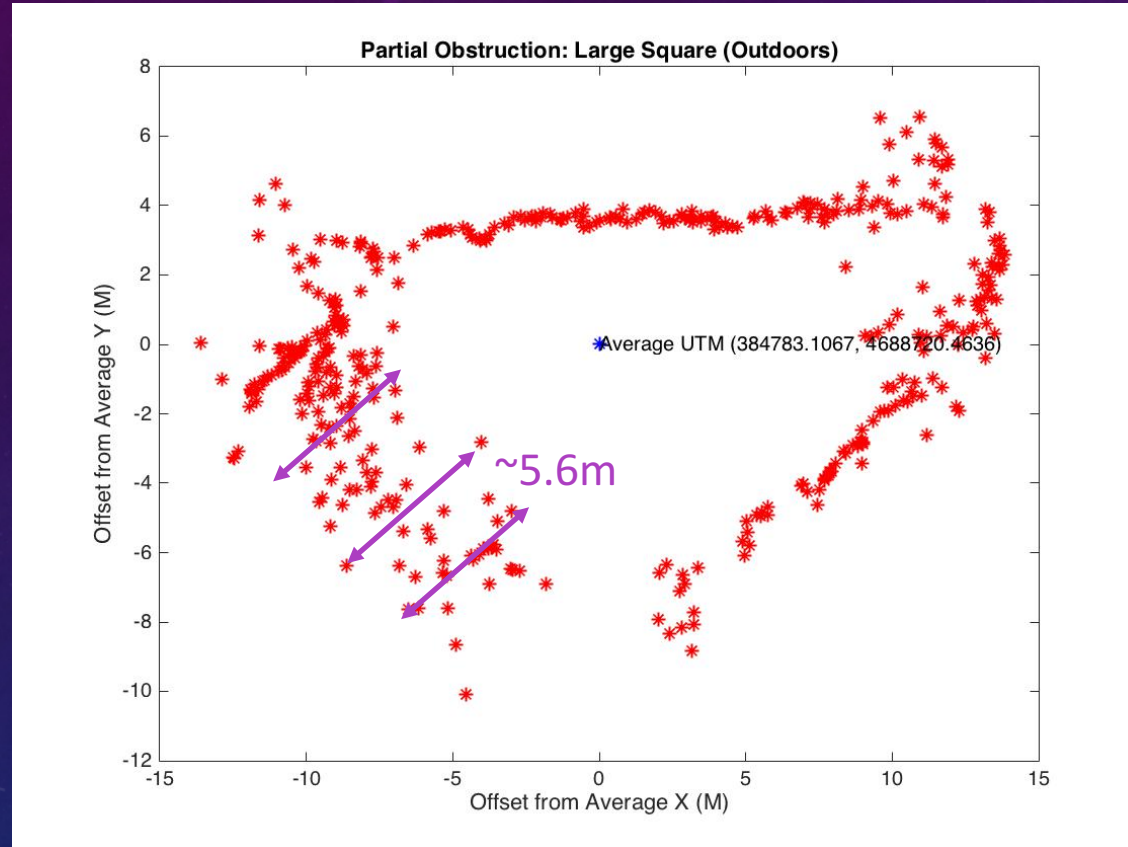
NO OBSTRUCTION: LARGE SQUARE



Very clean lines, very little variation.
Start/end position is within .05 m



PARTIAL OBSTRUCTION: LARGE SQUARE



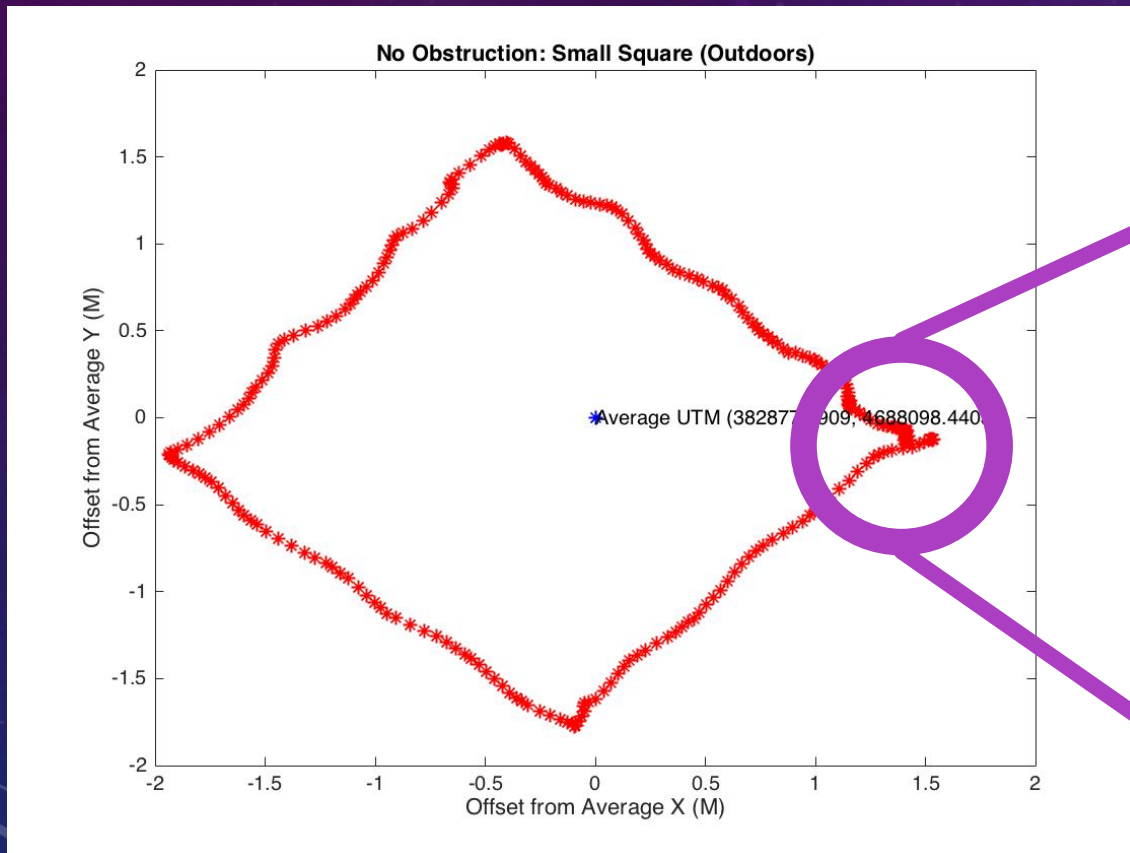
Large error readings to the west :
Roughly 5.6 meter spread
Side corresponds to the location of the building

3.8 meter difference from start and end point.

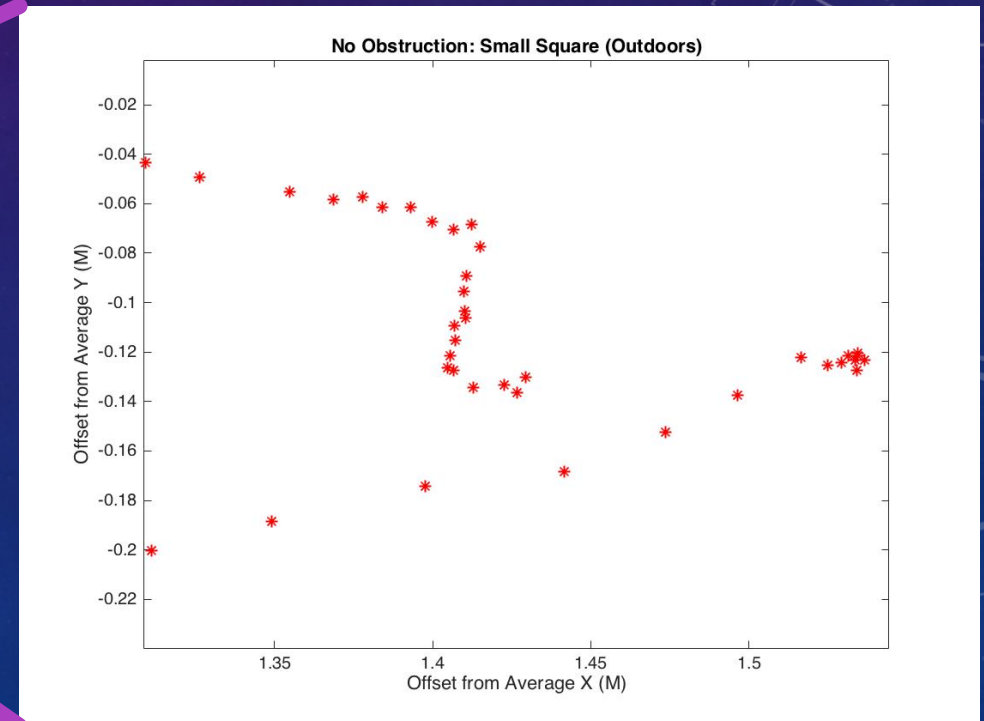
** Note: Because of the shape of the parking lot, actual path walked was a triangle, not a square.

This is reflected in our graph.

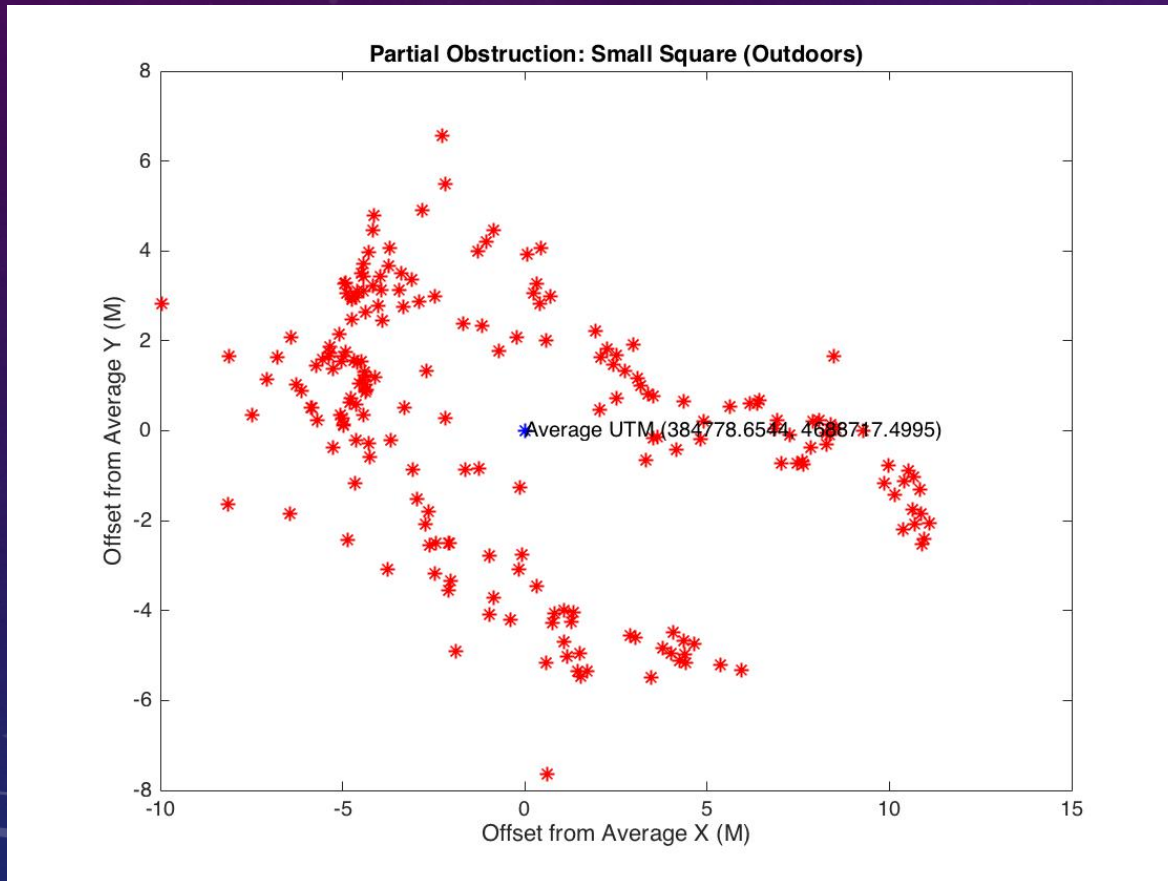
NO OBSTRUCTION: SMALL SQUARE



Very clean lines, very little variation.
Start/end position is within .1 m



PARTIAL OBSTRUCTION: SMALL SQUARE



Large error readings to the west

Roughly 5.6 meter difference from start to end position