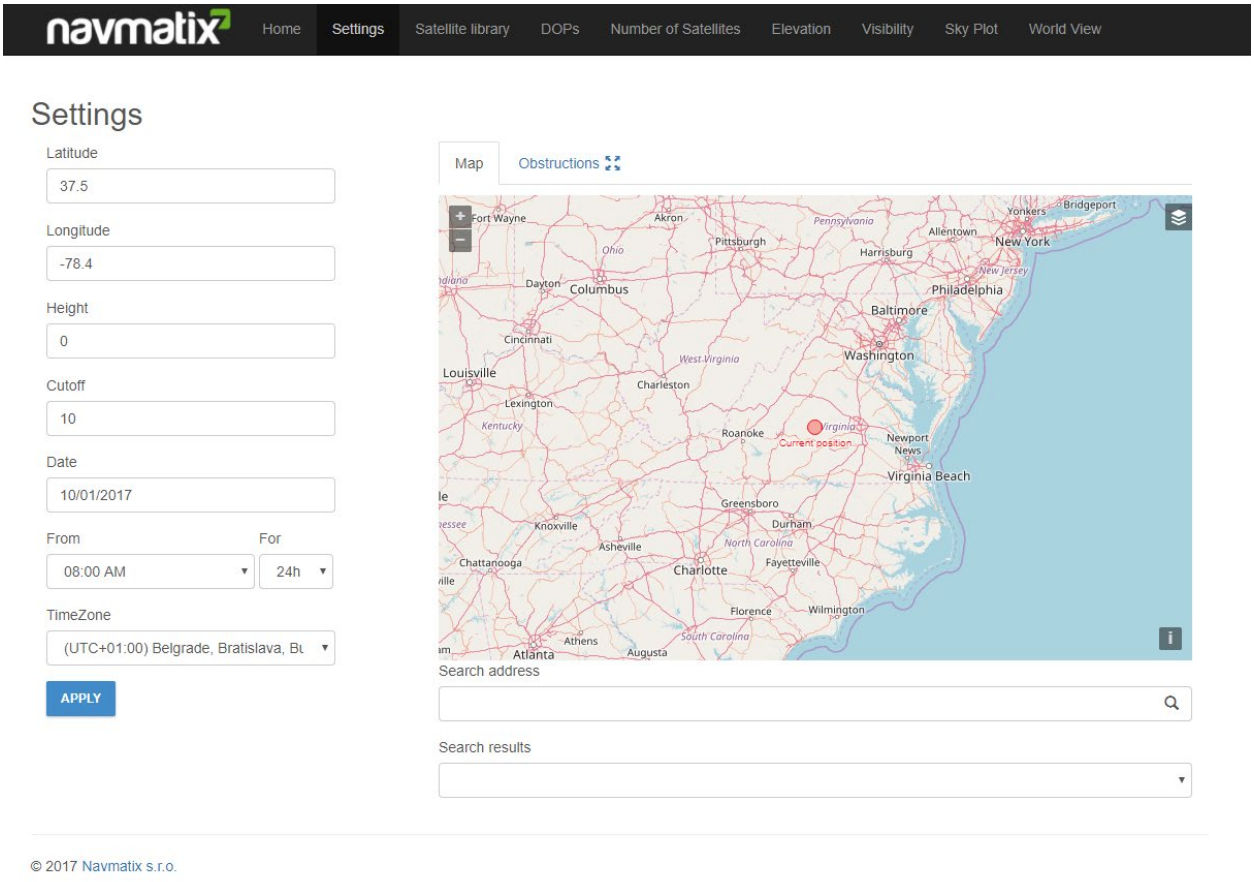
GPS Collection Planning using Navmatrix GPS Mission Planning

This assignment will require you to use the Navmatrix GPS Mission Planning website: http://gnssmissionplanning.com/.

Navigate to the Settings Tab. You will plan for a GNSS collection on 10/15/2019 at Latitude 39.5° N (entered as 39.5) and Longitude 77.3° W (entered as -77.3) between 8:00 AM and 8:00 PM. Set the cutoff value to 10° and the height to 0 meters. Set the time to UTC-5:00 Eastern Time (US & Canada). Make sure to click Apply to accept your settings.

In the Satellite Library Tab, turn off all of the constellations except GPS.



Type up a short report that addresses the following.

1. Are there any GPS satellites in the NAVSTAR constellation that are currently considered “unhealthy”? (2 Points)
2. Are there any GLONOASS satellites that are currently considered “unhealthy”? (2 Points)
3. Are there any Galileo satellites that are currently considered “unhealthy”? (2 Points)
4. Copy the Number of Satellites graph to your report. (3 Points)
5. What is the maximum number of NAVSTAR (labeled as GPS) satellites that are predicted to be detected during this time period? (2 Points)
6. What is the minimum number of NAVSTAR (labeled as GPS) satellites that are predicted to be detected during this time period? (2 Points)

7. Copy the DOPs graph to your document. (3 Points)
8. At what time, roughly, is the largest PDOP (positional) spike? (3 Points)
9. Make a copy of the Visibility graph to your document. (3 Points)
10. On this day and at this location, when will satellite G15 be observable? (3 Points)