YORK UNIVERSITY GEOIDE RESEARCH: GNSS SOFTWARE SIMULATOR

- Work has begun to develop a GNSS software simulator to generate GNSS observable data

- Simulator will be able to create realistic multi-GNSS datasets for:

  - development and testing of future user algorithms

  - prediction of positioning performance

- GNSSs that will be simulated:

  - Modernized GPS

  - GLONASS

  - Galileo

  - Compass

YORK UNIVERSITY GEOIDE RESEARCH: PPP AMBIGUITY RESOLUTION

- In collaboration with NRCan

- Rigorous modelling of satellite and receiver fractional cycle ambiguities with novel "decoupled clock model"

- Additional bias terms estimated along with orbit and clock products from global network solution, with no assumptions as to bias characteristics

- Initial tests indicate that correct ambiguity resolution possible

- PPP ambiguity resolution could potentially improve positioning accuracy and reduce filter convergence time

YORK UNIVERSITY GEOIDE RESEARCH: PLANNED ACTIVITIES

- Develop integrity measures for PPP

- Further integrate contemporary atmospheric models into long-range RTK and PPP

- Investigate methodologies for and benefits of combining PPP and network RTK