Geophysical Research Abstracts, Vol. 7, 09147, 2005
SRef-ID: 1607-7962/gra/EGU05-A-09147

Near real-time GPS data processing: influence of ambiguity fixing on ZTD estimates

E. J. Orliac, R. M. Bingley, A. H. Dodson and F. N. Teferle
Institute of Engineering Surveying and Space Geodesy (isxejo@nottingham.ac.uk)

The paper will look at the influence of solving for ambiguities when processing GPS data in a near real-time (NRT) mode. Two main problems are addressed. First, ambiguities can be solved but in an unreliable way, what might bias the results. Secondly, solving for ambiguities is rather time consuming and consequently increases the latency of the results, which is of critical importance for meteorological applications like now-casting.

Data from the operational UK NRT network are processed according to different strategies investigating sliding window length, data rate, baseline length in order to assess the quality of ambiguity fixing and its impact on ZTD estimates.