SMART SURVEYORS FOR LAND AND WATER MANAGEMENT CHALLENGES IN A NEW REALITY



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Johannes Kröger, Yannick Breva, Tobias Kersten, Steffen Schön

ID 10909

Are Phase Center Corrections identical for identical frequencies from different GNSS?









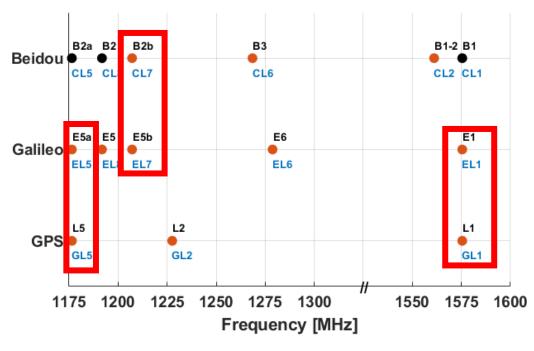


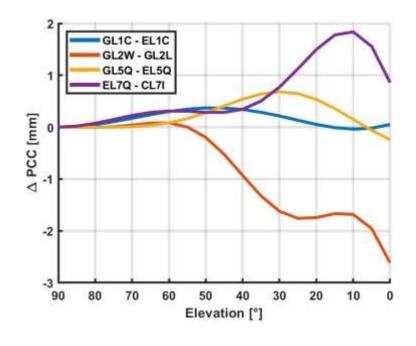




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- Theoretically, PCC are frequency-dependent \rightarrow Provision of one set of PCC for identical frequencies
- Higher differences due to different number of observations and receiver settings









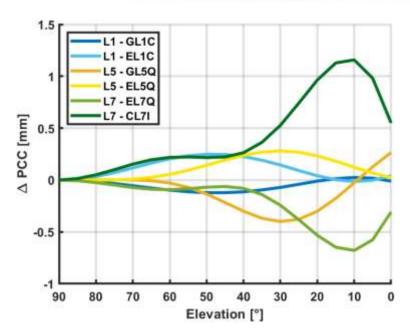


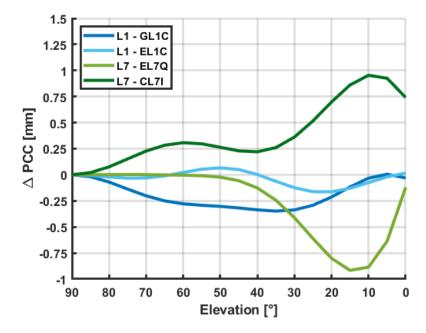




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• Joint estimation approach: observations of identical frequencies added on normal equation level

Maximum differences are highly comparable, if number of observations per 5° elevation bin are

adapted

| Scenario | Δ(L1 – GL1C) | Δ(L1 – EL1C) | Δ(L7 – EL7Q) | Δ(L7 – CL7I) |
|-----------------------------|--------------|--------------|--------------|--------------|
| All observations | 0.36 mm | 0.62 mm | 0.90 mm | 1.41 mm |
| Adapted no. of observations | 0.54 mm | 0.52 mm | 1.12 mm | 1.25 mm |











