SIRGAS Project
WG I Workshop

CPLat processing strategy

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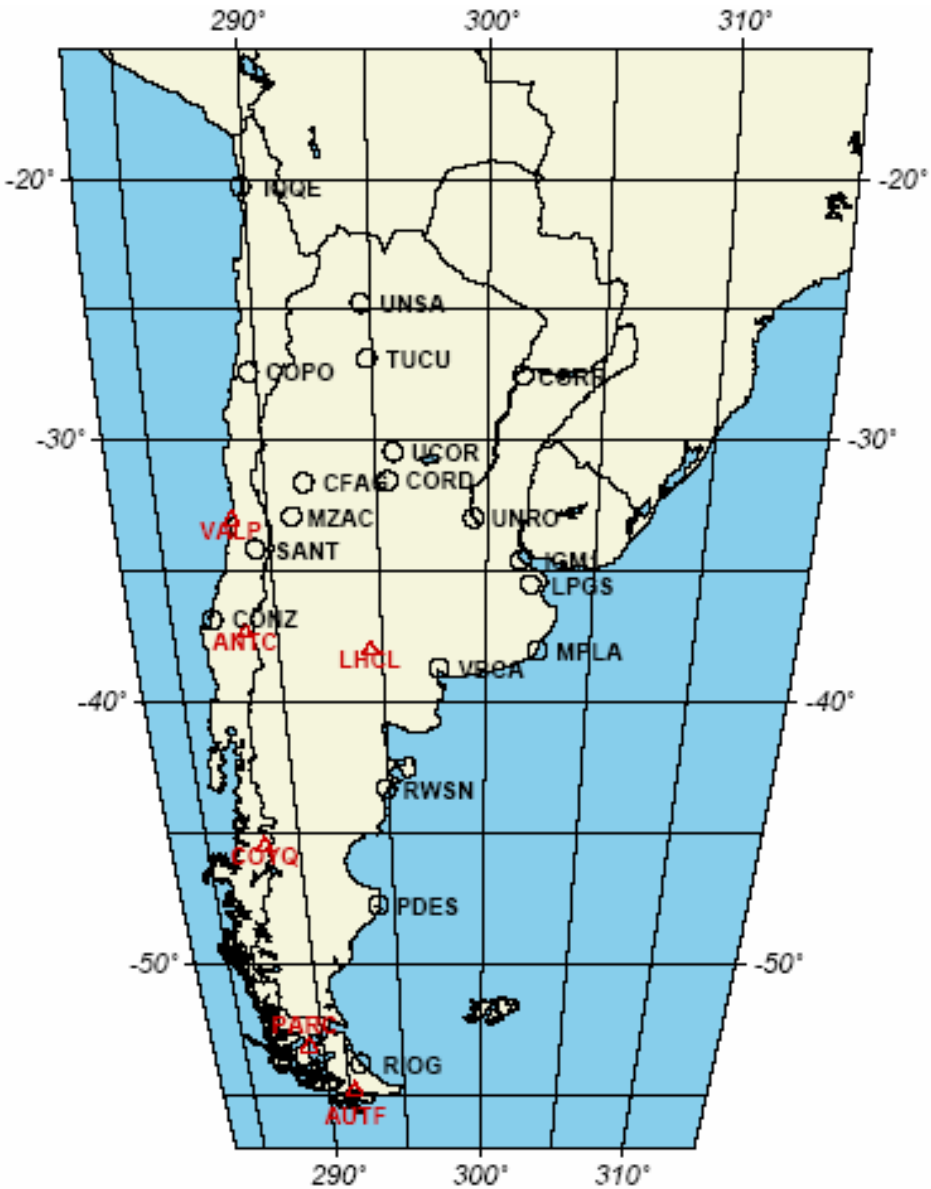
Overview

- Map of CPLat Network processing
- Main characteristics of CPLat processing
- Data processing collection
- Residual analysis
  - CPLat vs. DGFI
  - CPLat vs. IBGE
- Time series

Map of CPLat Network



Processed Stations

NO Available Data

Main characteristics of CPLat processing

- Data processed from July 2004 to April 2006 – 1281 to 1372 GPS Week (1.7 years)
- 21 Stations (Argentina, Chile, Antártica)
- Software: Bernese V5.0 BPE module
- Statistic of data availability

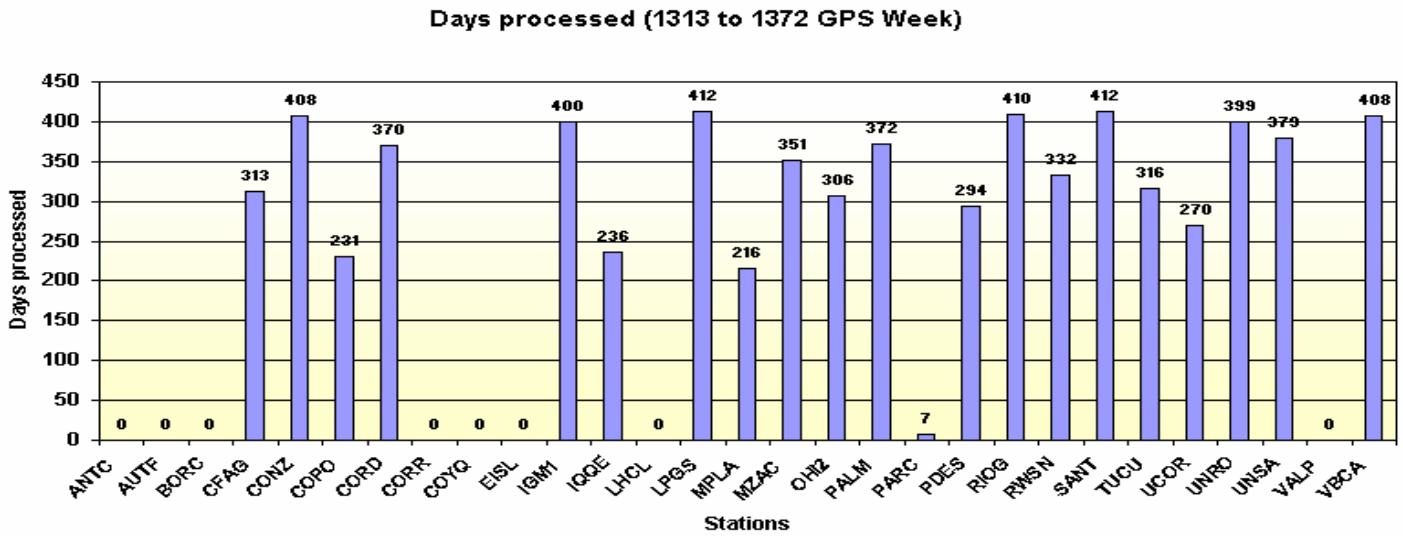
Main characteristics of CPLat processing

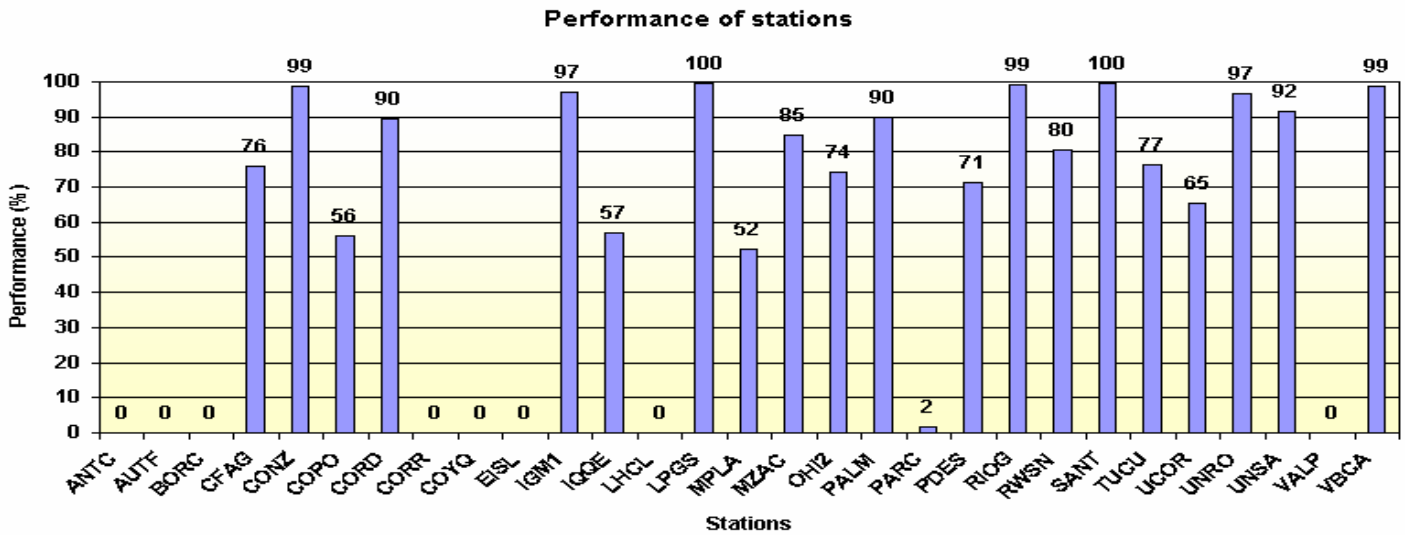
- Start of processing: July 2004
- Sampling Rate: 30 sec for 1 day solution
- Elevation cutoff angle: 5º and 10º
- Baselines strategy: SHORTEST
- Elevation-dependent weighting: NO
- Orbits/EOP: IGS final products (referred to IGb00/ITRF2000)
- A priori troposphere model: Niell
- Troposphere: Zenith delay estimated each 2 hours, a priori sigmas applied with respect to prediction model:
  - first parameter +/- 5m absolute
  - following parameters +/- 10cm relative
- Mapping function: Wet Niell

Main characteristics of CPLat processing

- **Ambiguities: partly resolved, remaining estimated as real values, no ionosphere model applied (QIF)**
- **Ocean loading: Implemented since GPS Week 1281**
- **Phase center variations: IGS**
- **Daily solutions: NEQ files, a priori station coordinates sigmas of 1m**
- **Weekly solutions: Combination of daily NEQ´s**

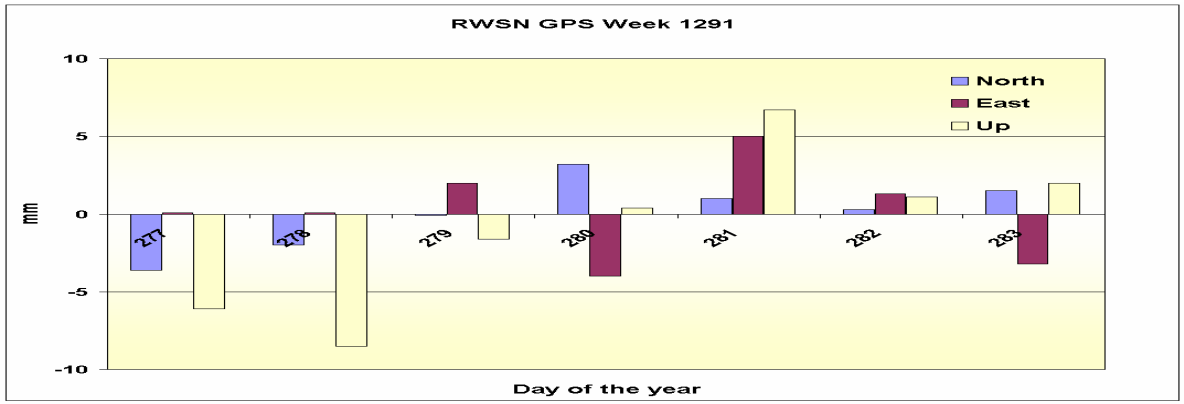
Data processing collection

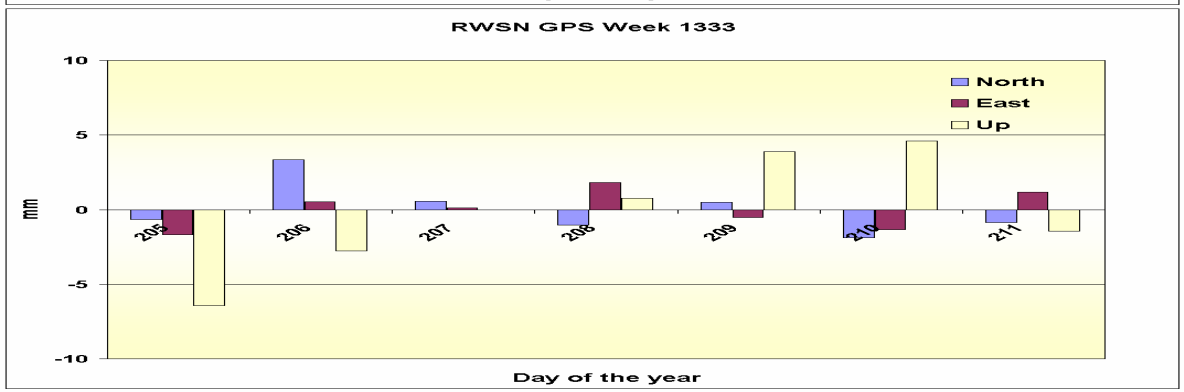


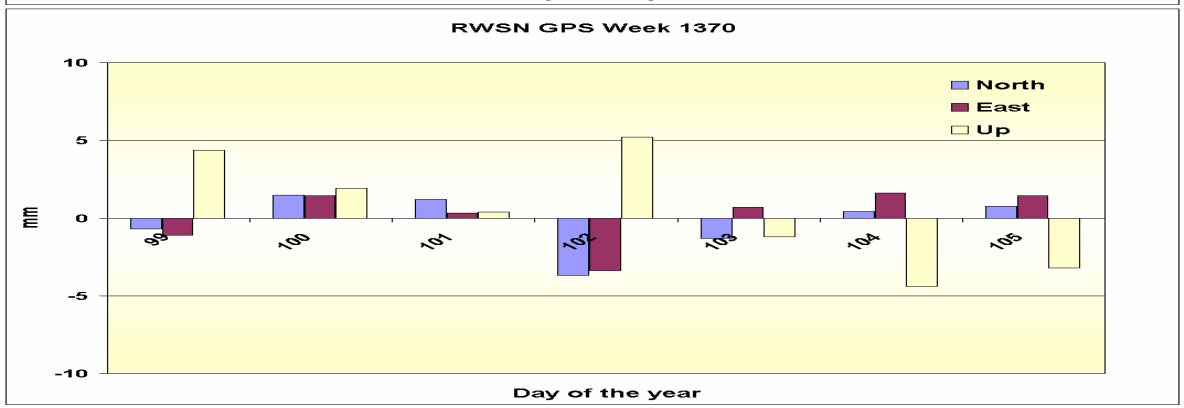


Repeatibility

RWSN (Rawson, Argentina)

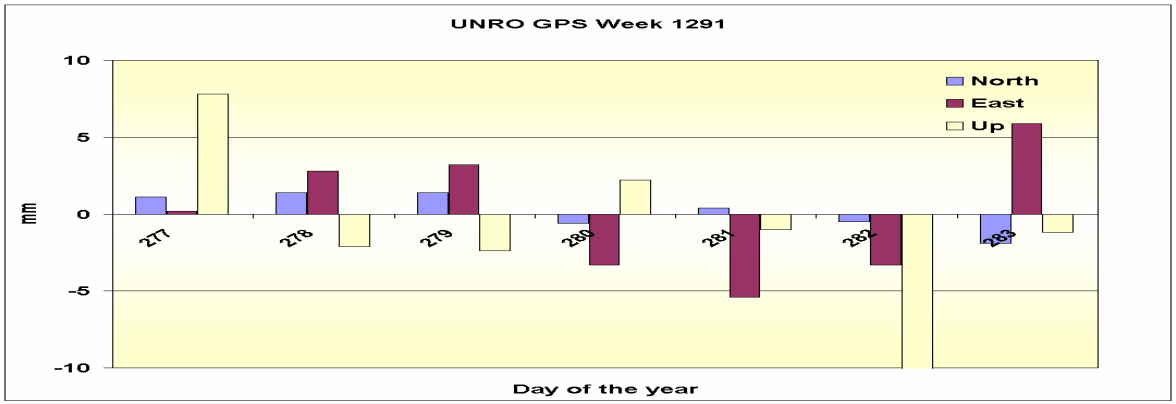


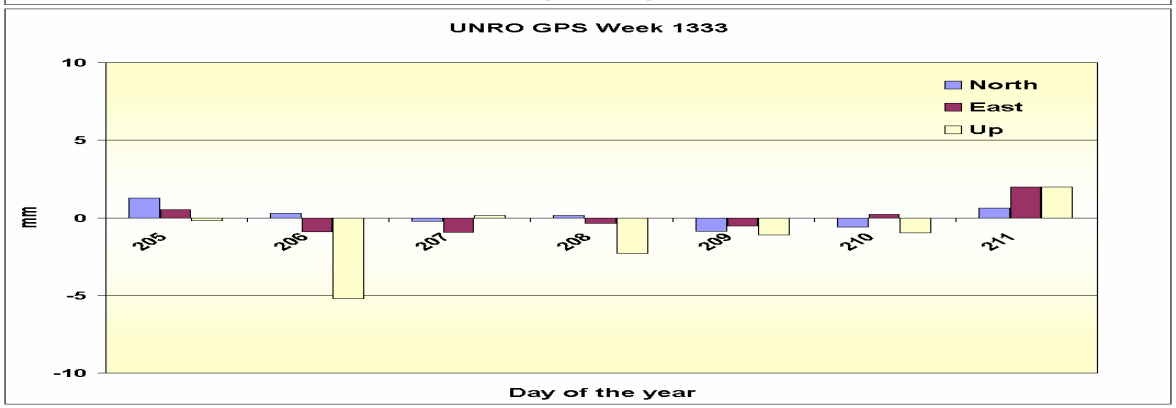


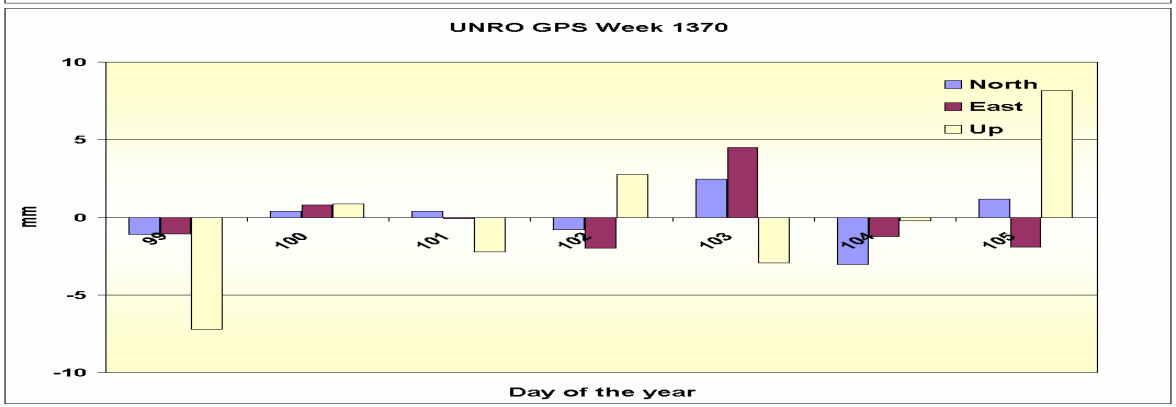


Repeatibility

UNRO (Rosario, Argentina)

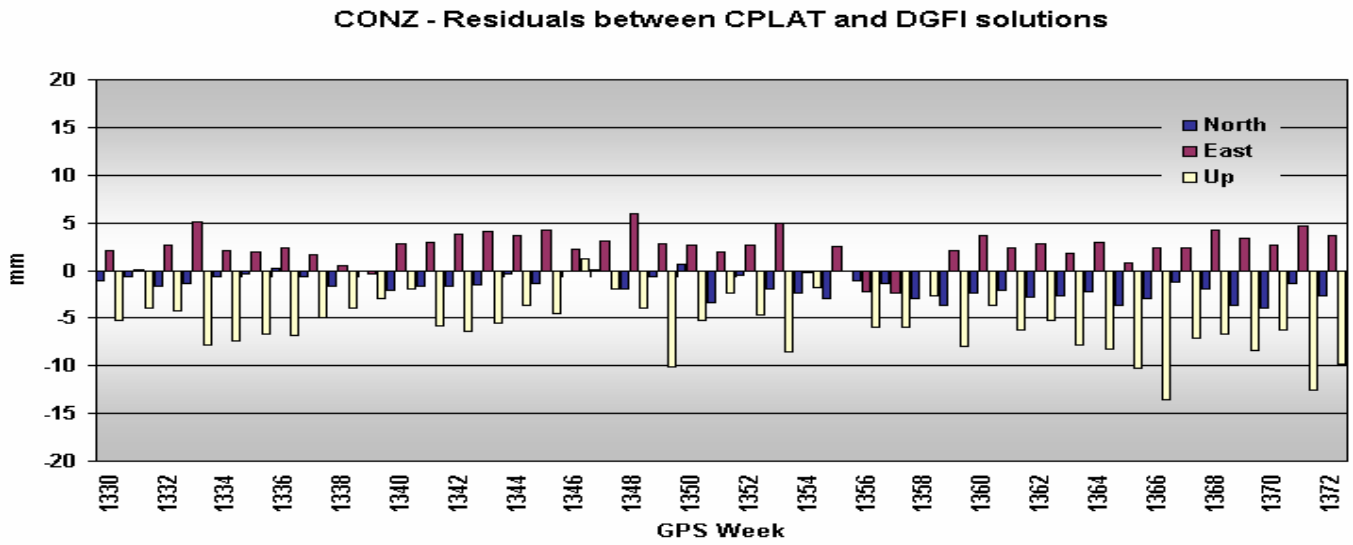


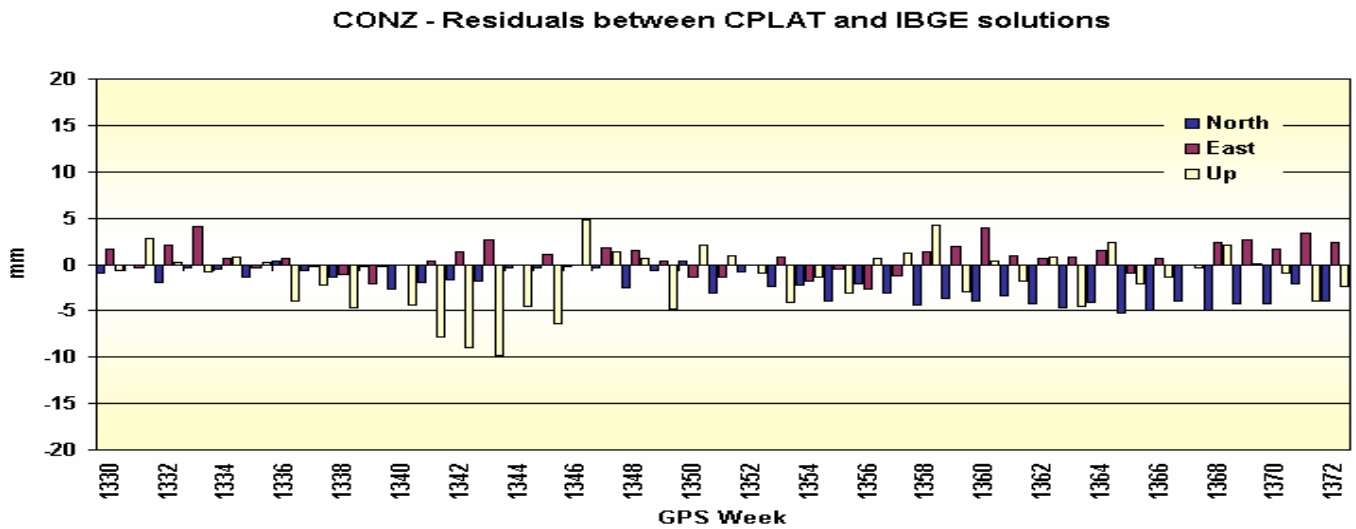




Residual analysis

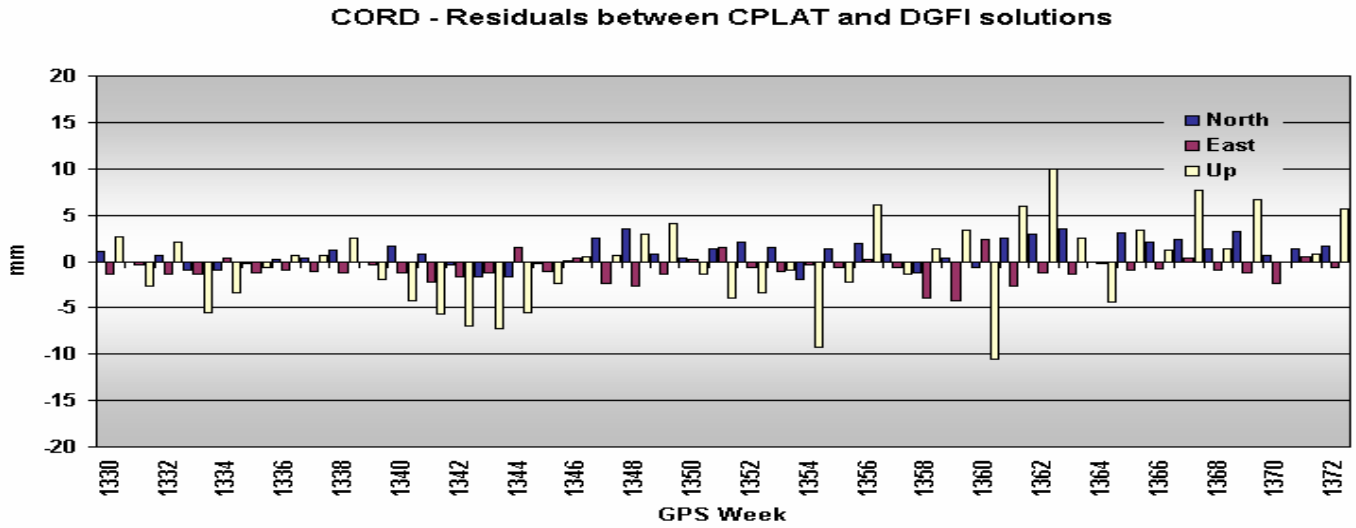
CONZ (Concepción, Chile)

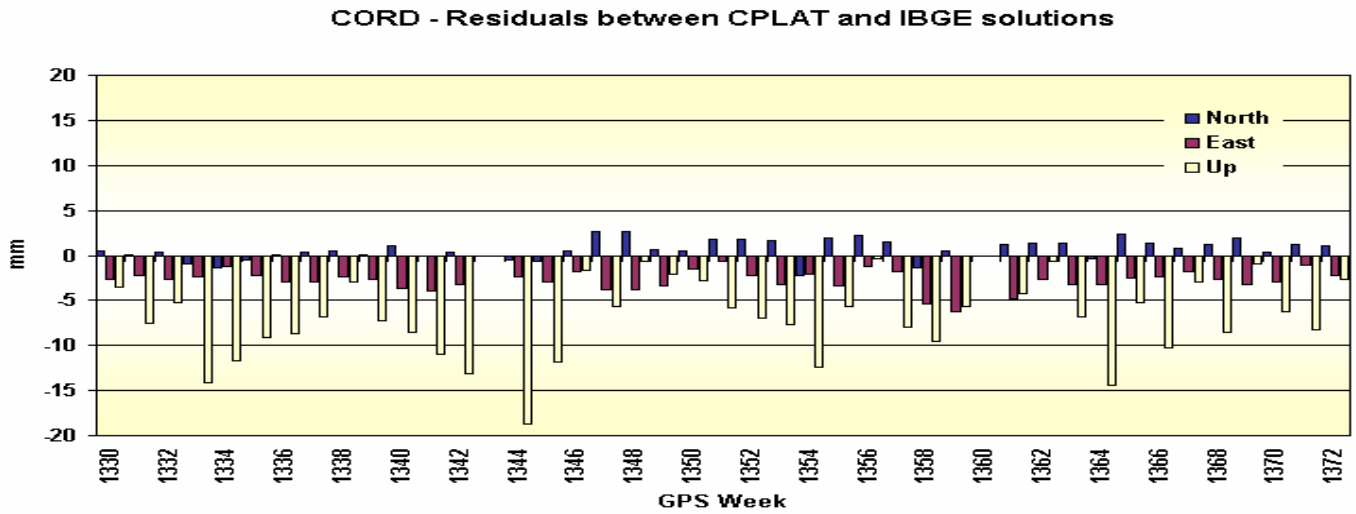




Residual analysis

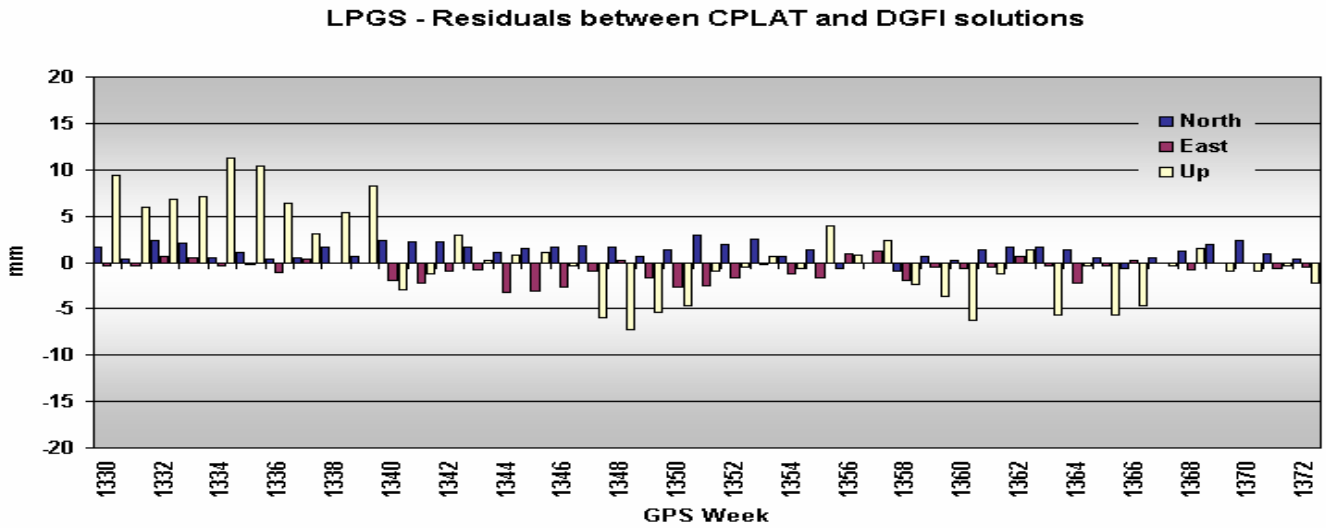
CORD (Córdoba, Argentina)

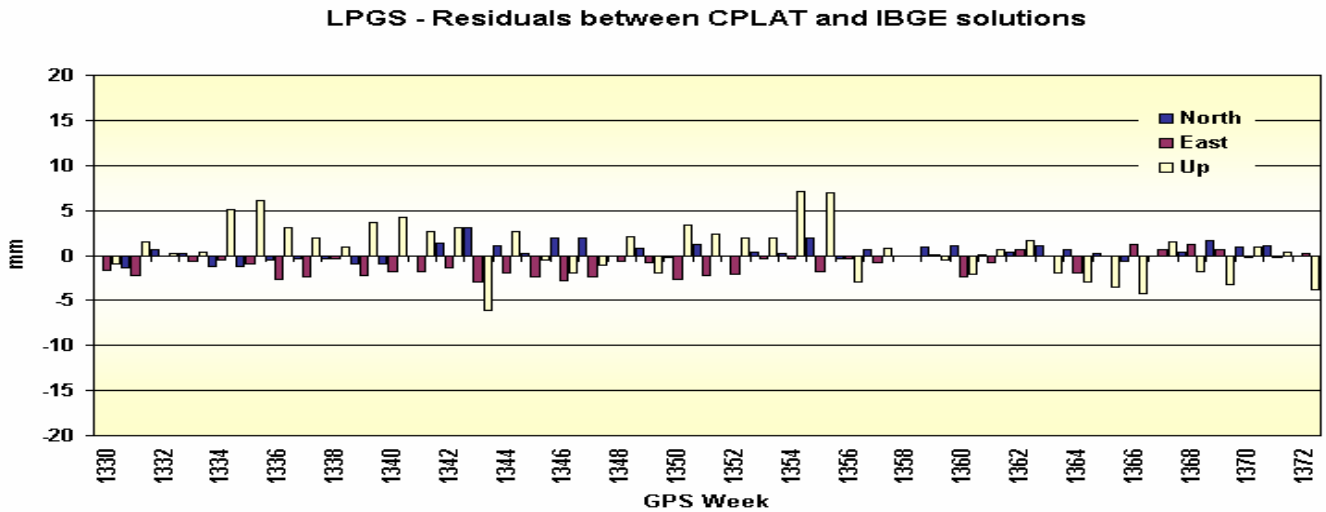




Residual analysis

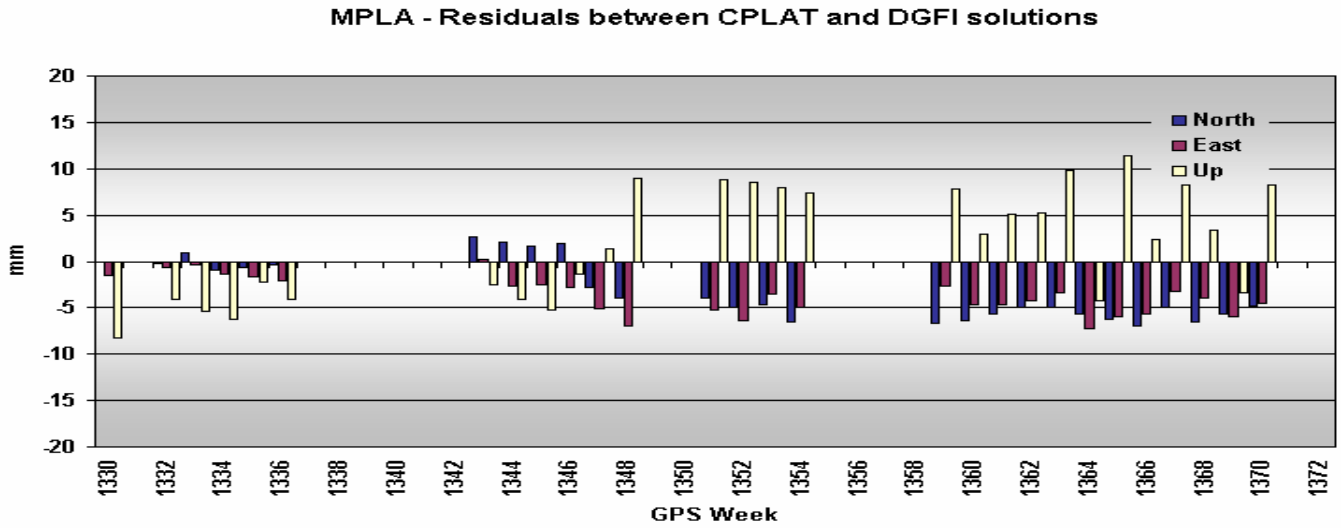
LPGS (La Plata, Argentina)

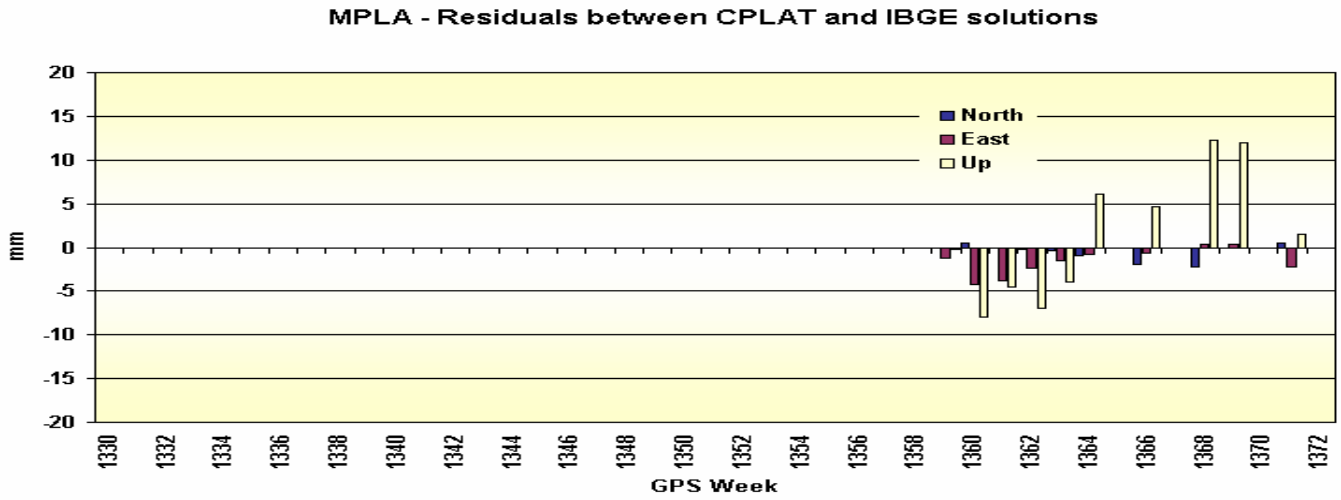




Residual analysis

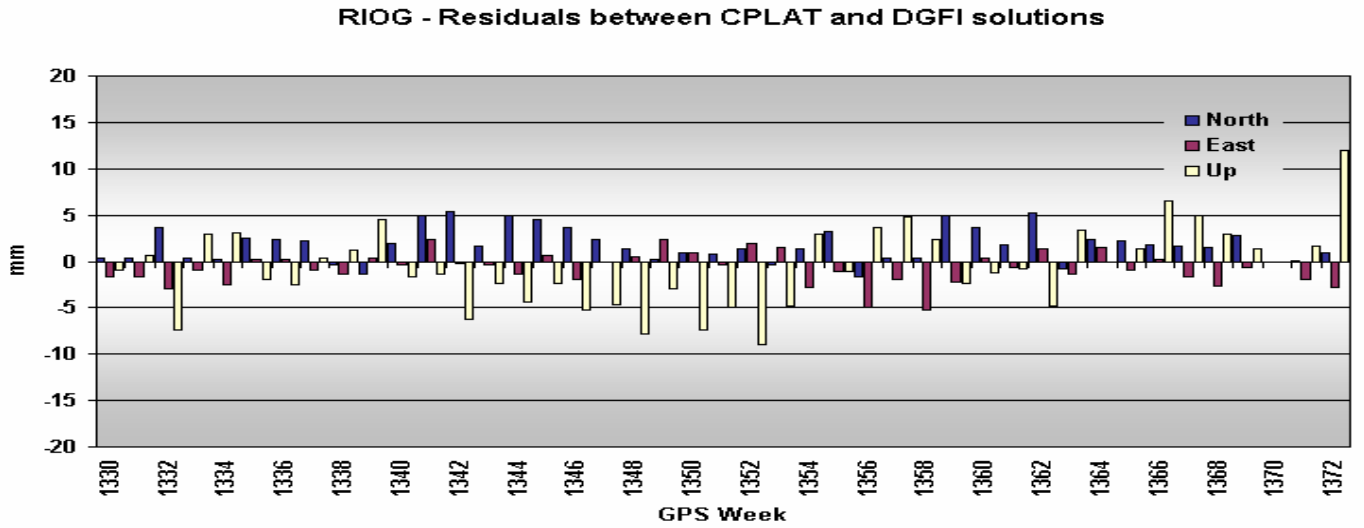
MPLA (Mar del Plata, Argentina)

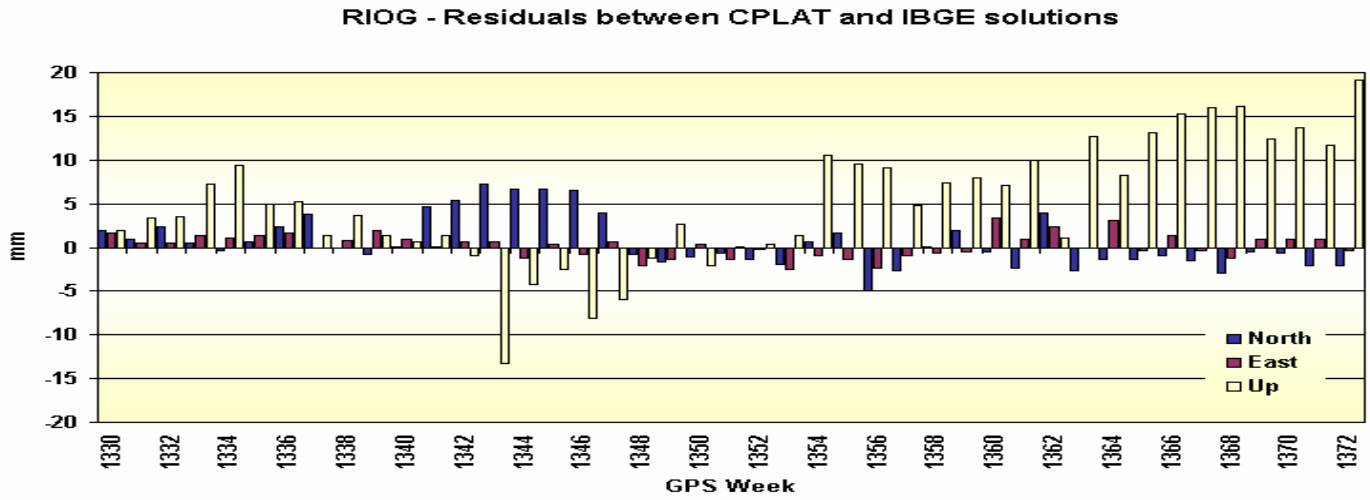




Residual analysis

RIOG (Río Grande, Argentina)





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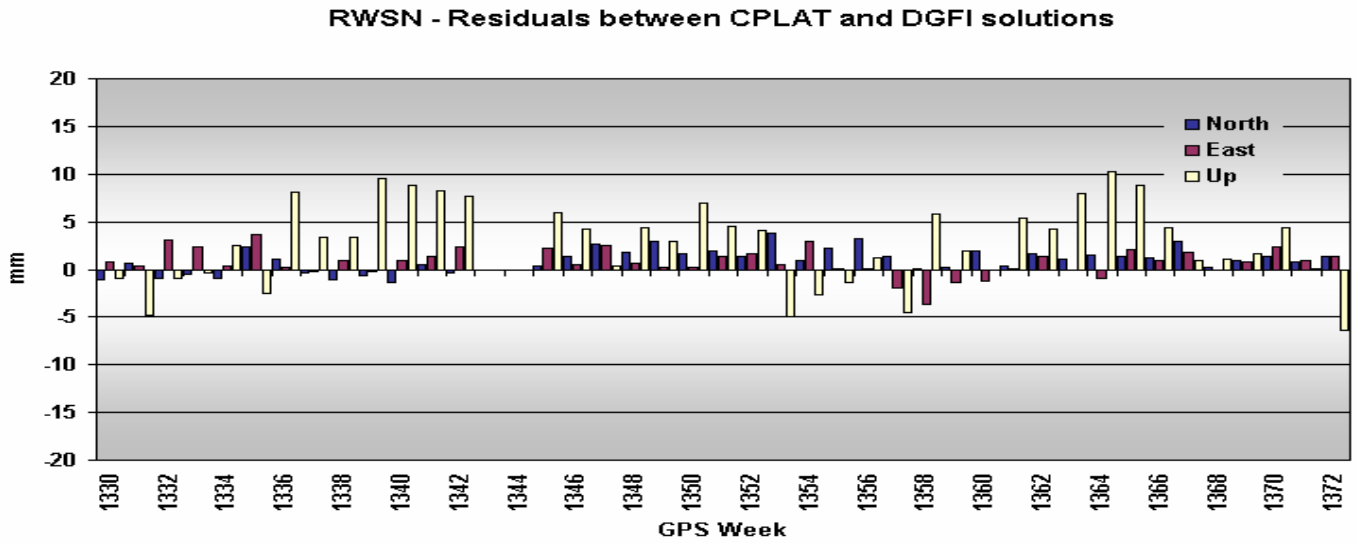
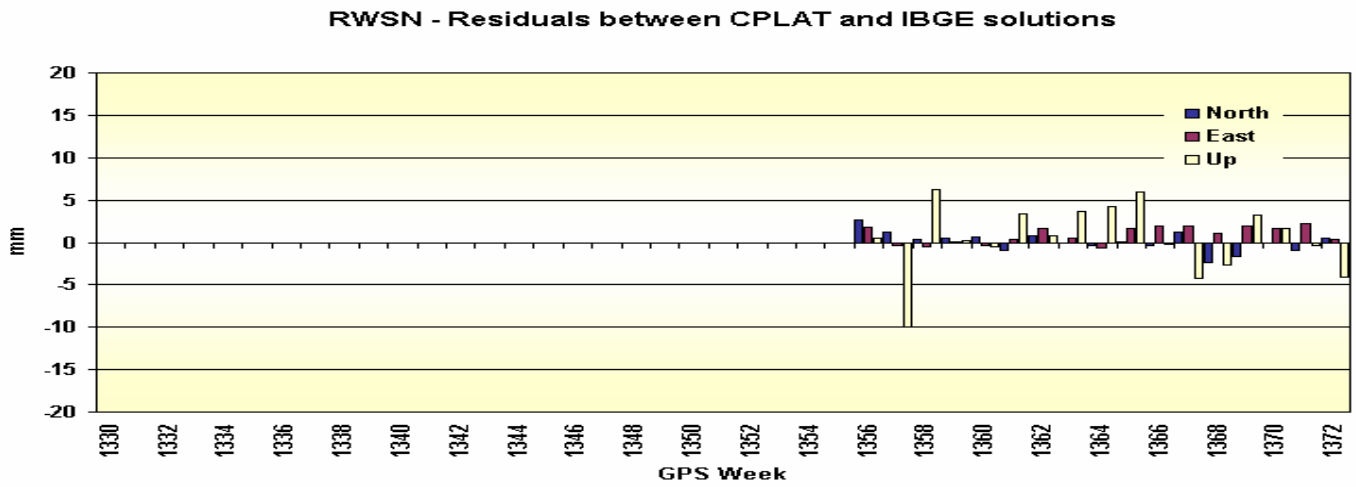
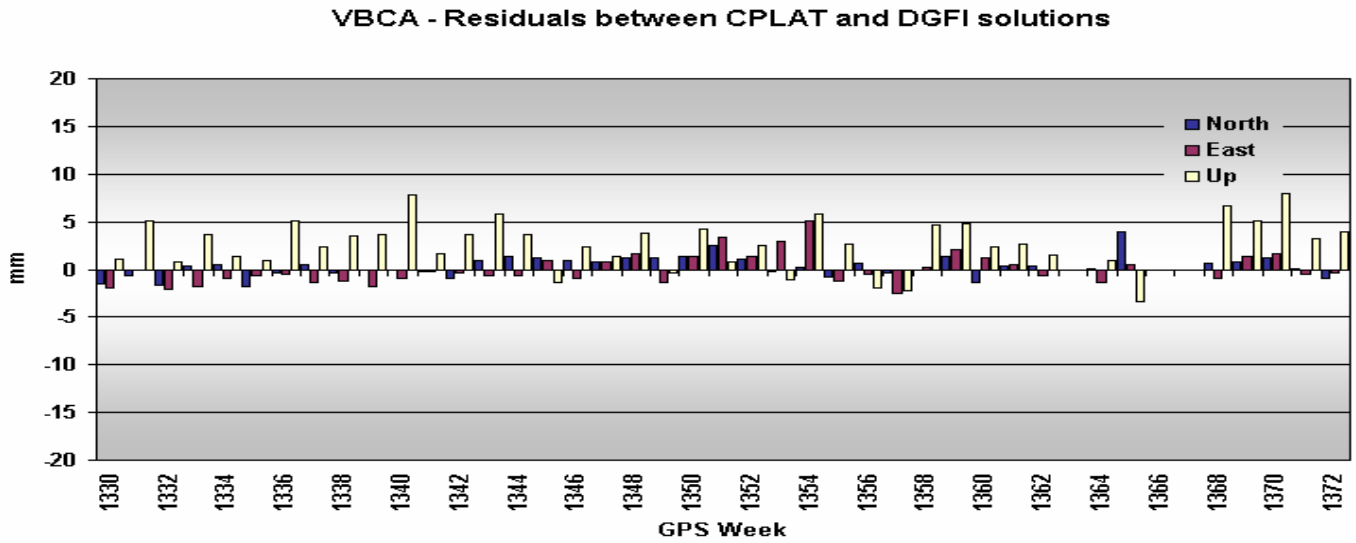
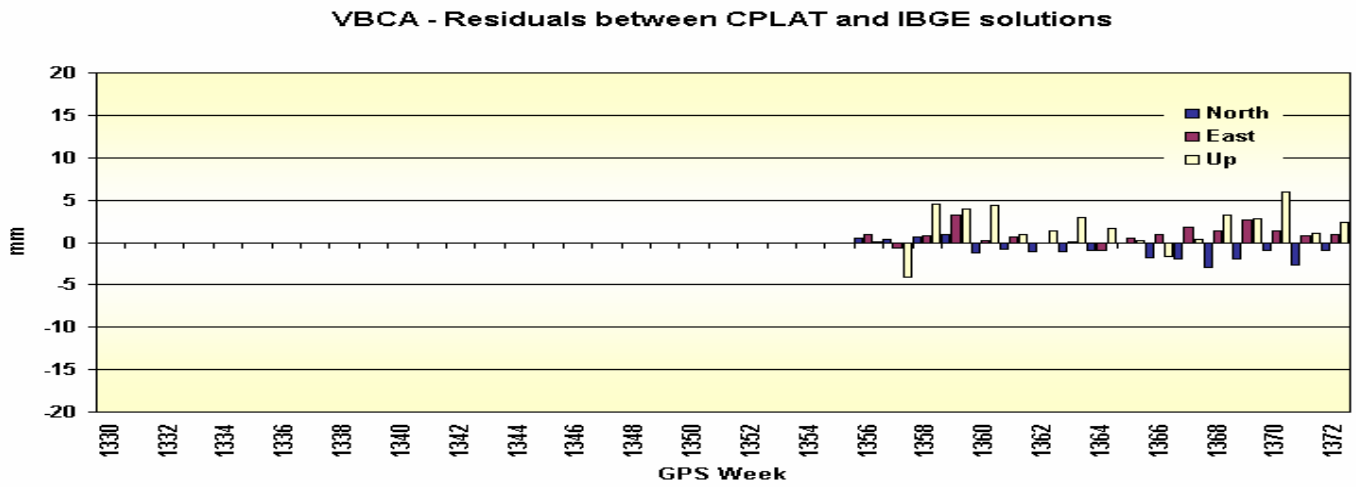




Residual analysis

VBCA (Bahía Blanca, Argentina)





Time Series

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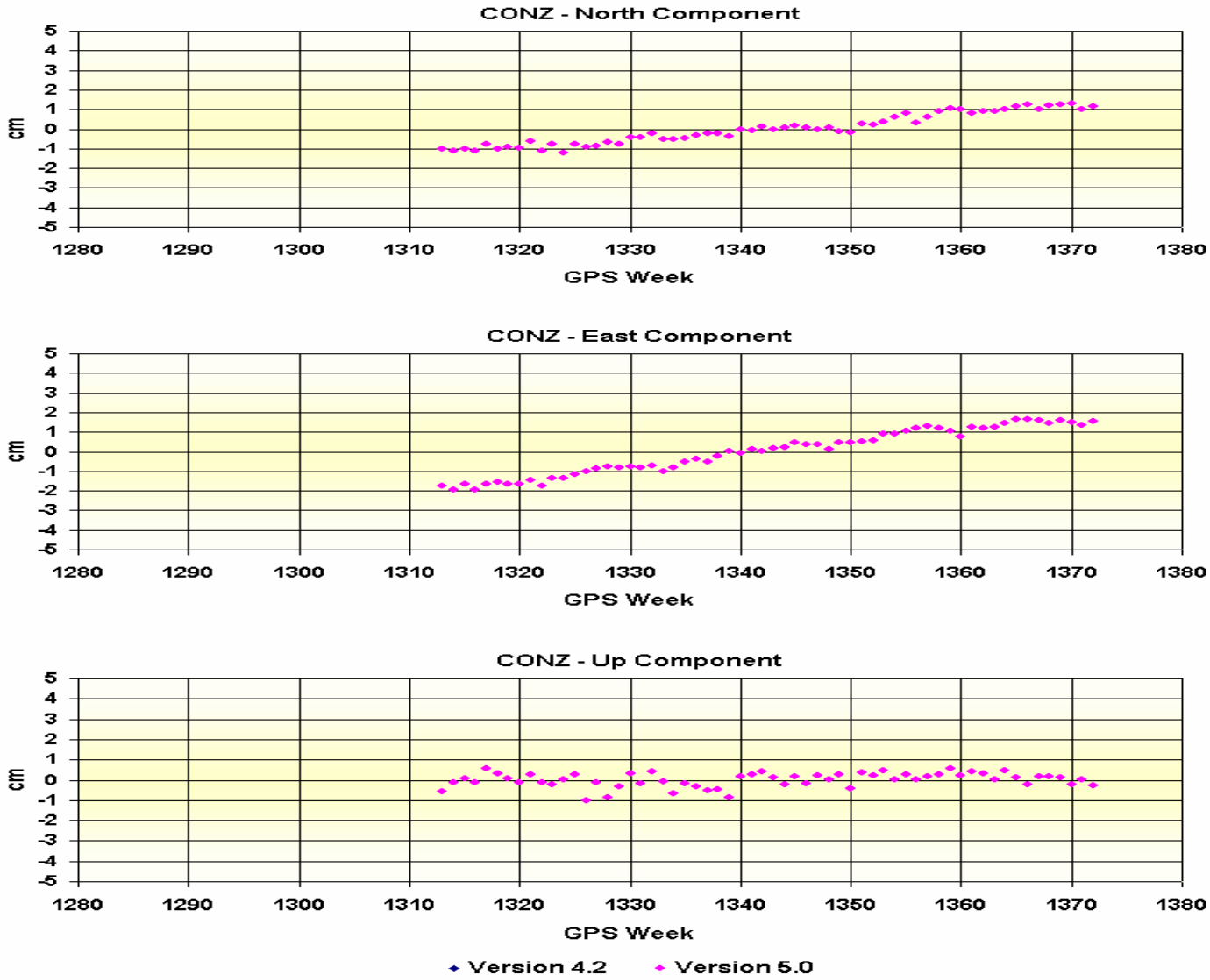

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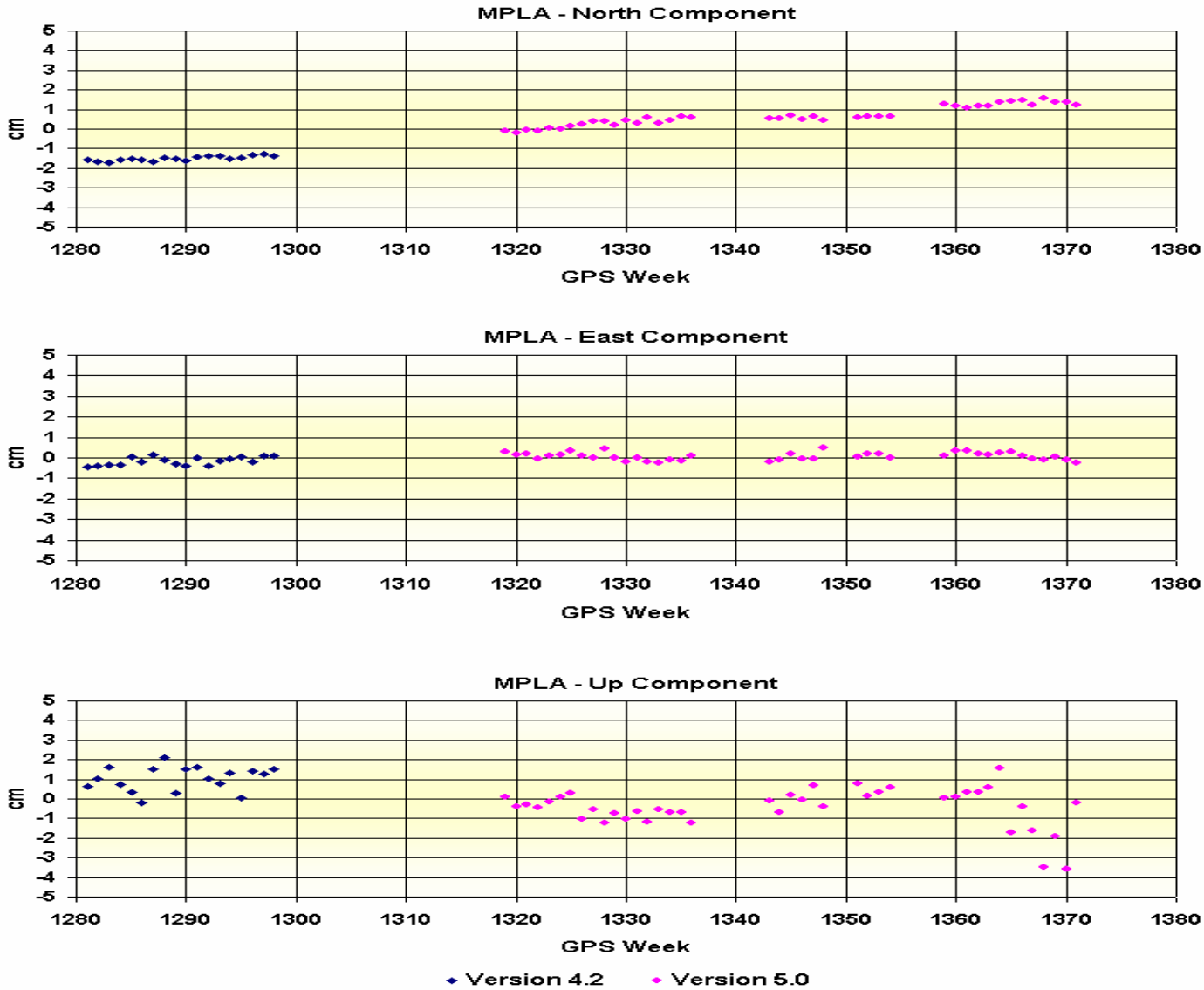
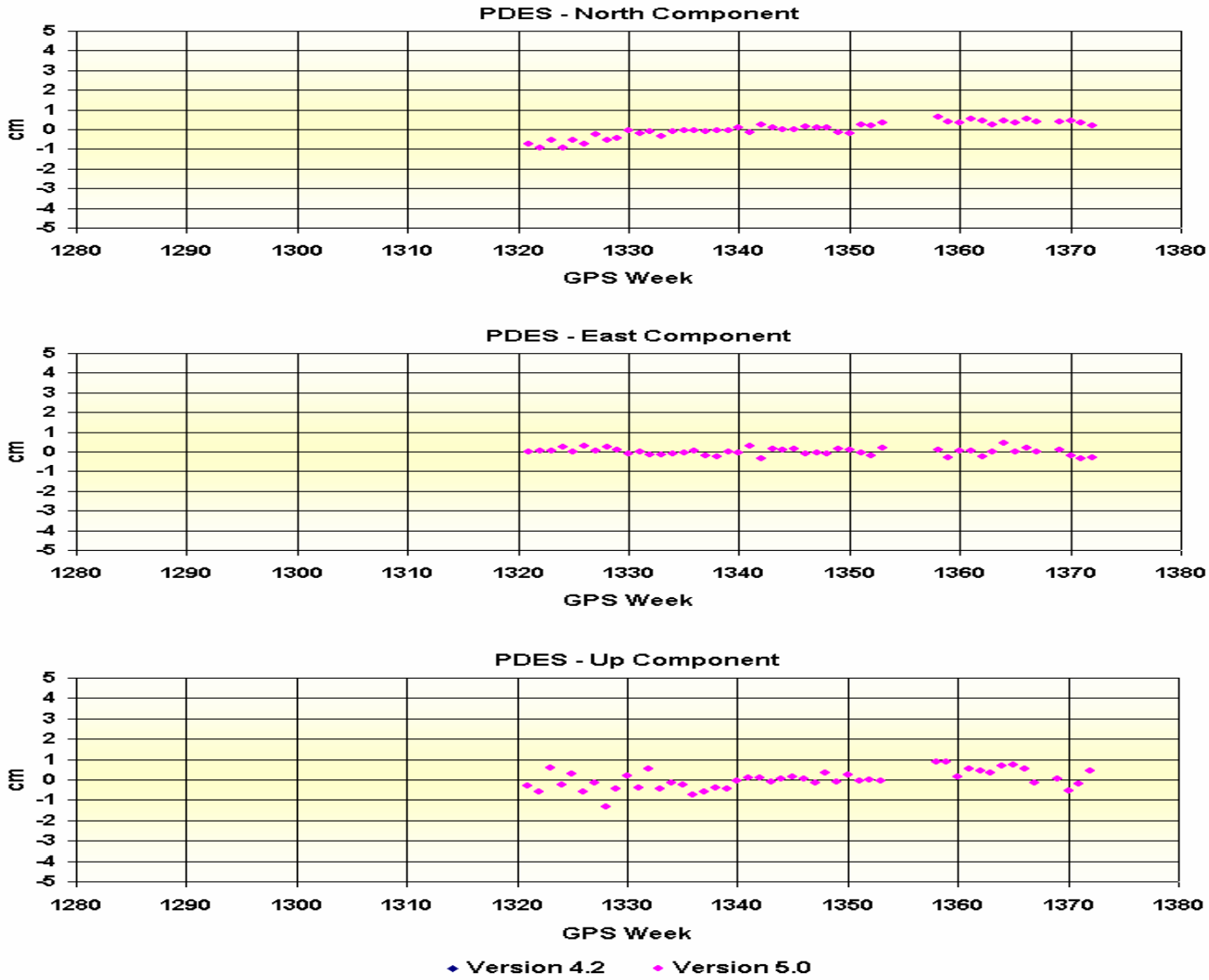


Time Series

PDES (Puerto Deseado, Argentina)



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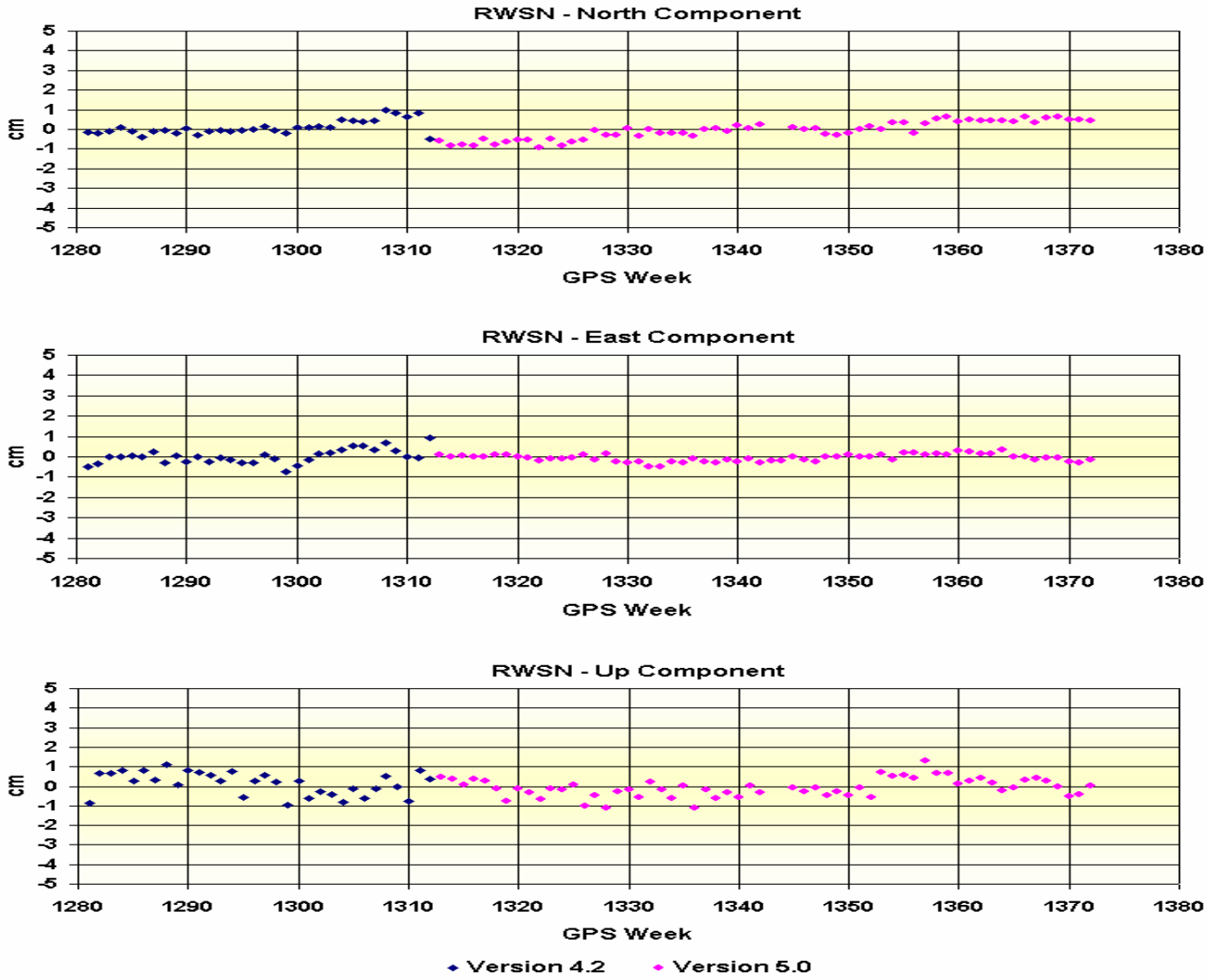

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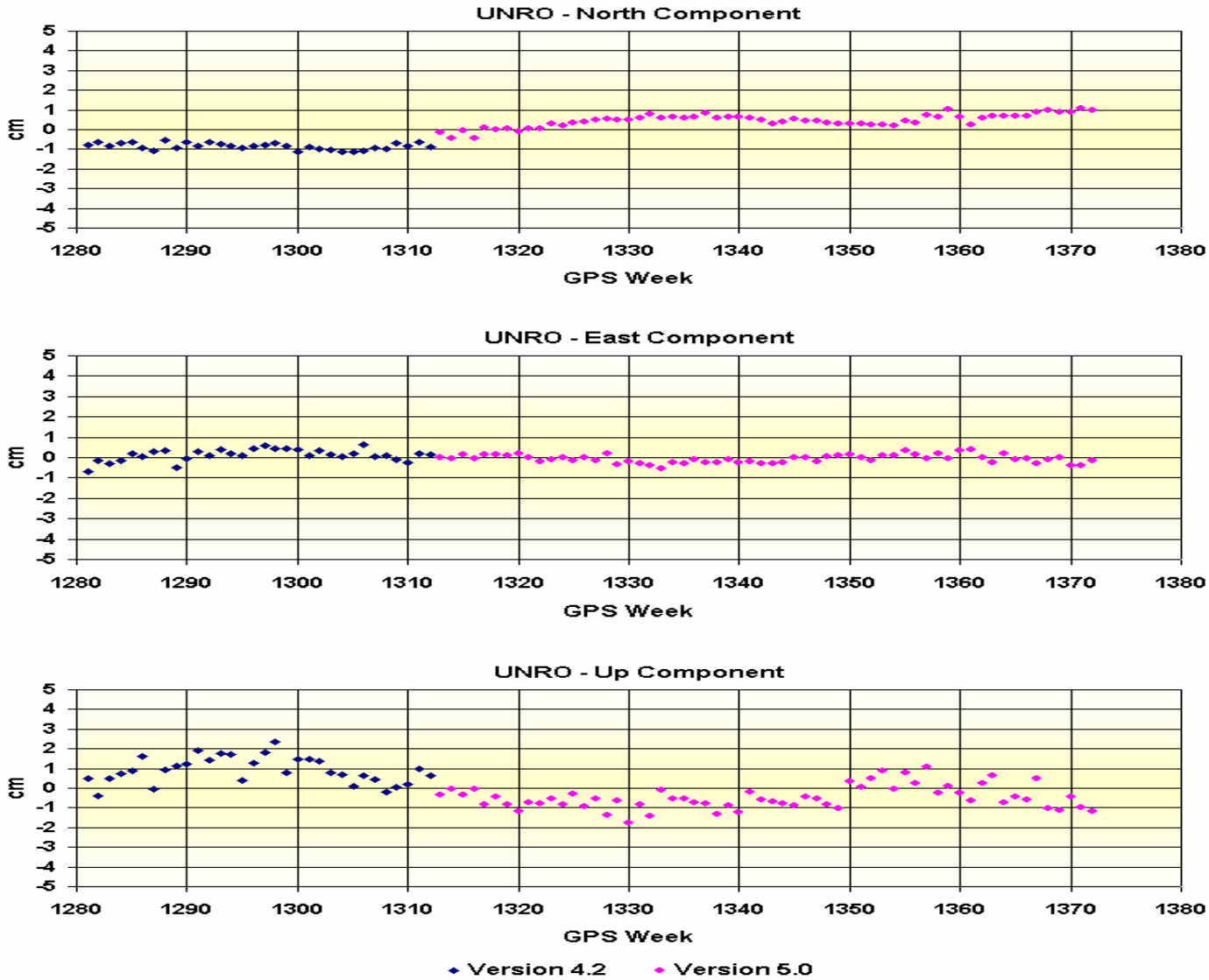

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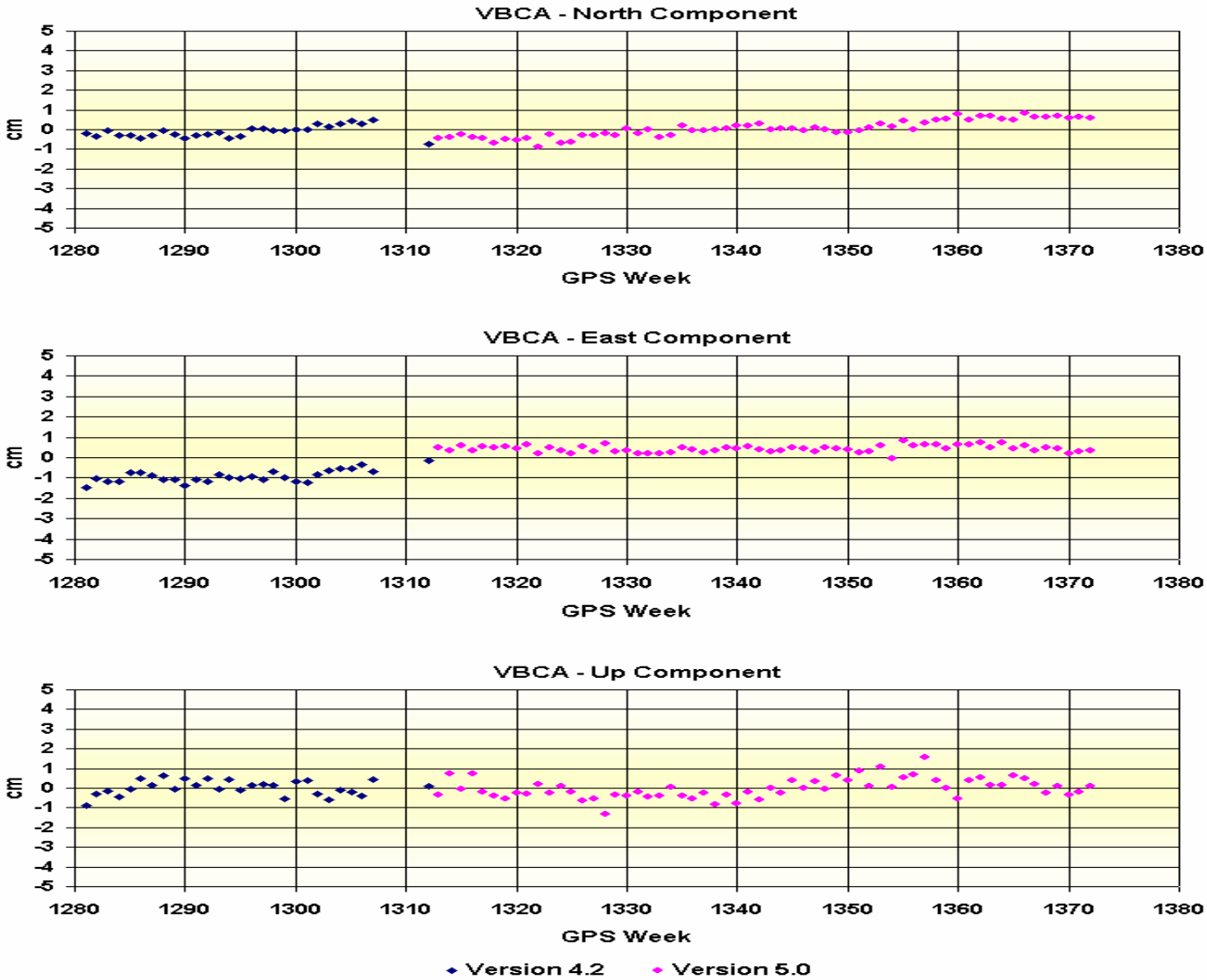

Conclusions

- For satisfactory processing results, data should be available no later than fifteen days before observations.
- Production of weekly free solutions should be available after fifteen days before data collection to allows comparisons and combination of solutions.
- Keeps up-to-date statistics on data availability and solution computation.

GESA
Georreferenciación Satelitaria

Thank you for your attention!!!

Questions?...