



IGS Reprocessing and Consequences for EPN

Heinz Habrich

Federal Agency for Cartography and
Geodesy, Frankfurt, Germany

IGS Reprocessing Initiative

- IGS is running a test analysis for first quarter of 2000 to evaluate a strategy for analysis and combination
- Hidden (un-announced) website launched
- It's time to develop an EPN reprocessing strategy



International GNSS Service

Data Reprocessing Campaign

a full reanalysis of all IGS GPS data collected since 1994



OBJECTIVE

The Analysis Centers (ACs) of the [International GNSS Service](#) have decided to reanalyze the full history of GPS data collected by the IGS global network since 1994 in a fully consistent way using the latest models and methodology.

SUMMARY OF PRODUCTS

The expected Analysis Center and combined IGS products include:

- daily GPS orbits & satellite clocks
 - 15-minute intervals (SP3c format)
 - satellite clocks in IGS timescale (loosely aligned to GPS time)
- daily satellite & tracking station clocks
 - 5-minute intervals (clock RINEX format)
 - in IGS timescale (loosely aligned to GPS time)
- daily Earth rotation parameters (ERPs)
 - from SINEX & classic orbit combinations (IGS erp format)
 - x & y coordinates of pole
 - rate-of-change of x & y pole coordinates
 - excess length-of-day (LOD)
- weekly terrestrial coordinate frames with ERPs
 - with full variance-covariance matrix (SINEX format)
- possible other products ?
 - ionosphere maps, tropospheric zenith path delays, etc
 - not yet decided

ANALYSIS CENTERS

The participating Analysis Centers contributing to this effort are:

- [ESA](#) — European Space Operations Centre (ESOC), ESA, Germany
 - an [updated test solution](#) was submitted on 07 Nov. 2007 (but not yet used)
- [GFZ](#) — GeoForschungsZentrum/Potsdam, Germany
 - not contributing solutions yet
- [MIT](#) — Massachusetts Institute of Technology, USA
- [NGS](#) — National Geodetic Survey, NOAA, USA
- [PDR](#) — GeoForschungsZentrum/Potsdam & Technical University of Dresden, Germany
- [SIO](#) — Scripps Institution of Oceanography, USA

The following schedule is suggested:

- **immediately** — seek additional ACs to participate, especially for clock solutions
 - verify all necessary metadata files
- **10 Dec. 2007** — discuss available test phase results at AGU splinter meeting & adjust plans
 - 16:00 - 20:00 — Commonwealth Room, Westin Hotel, 50 Third St., San Francisco, CA
- **by 31 Dec. 2007** — ACs invited to submit new solutions for year 2000 test period (GPS weeks 1042-1055)
 - all ACs please notify Gerd Gendt & Remi Ferland of any new solutions
- **by 31 Jan. 2008** — ACs invited to submit test solutions for 3 recent weeks of data (GPS weeks 1448-1450)
 - to test consistency of reprocessed combination versus operational Final products
- **Feb. 2008** — begin 1994 trial phase
 - evaluate progress for at least first 6 months of 1994 at IGS workshop (02-06 June 2008)

■ EPN actions:

- General decision on doing the reprocessing?
- Development of strategy in parallel with IGS?
- Establishment of new reprocessing facility? Call for participation?
- Others?

Thank you