

3.5.5 ITRS Centre

This report summarizes the activities of the IERS ITRS Centre during the year 2007.

ITRF2005 users interface

After the release of the ITRF2005, the ITRS Centre assists the users, especially from the GPS community in the best use of the ITRF2005 products. The dedicated web site that was constructed where all the results of the ITRF2005 are available to the users is continuously updated taking into account the user needs: <http://itrf.ensg.ign.fr/ITRF_solutions/2005/>.

Maintenance of the IERS network

The ITRS Centre assigns DOMES numbers to geodetic tracking stations or markers as unambiguous identifications of points in space, independently from the technique of their tracking instruments. The IERS network database, which contains the descriptions of the sites and points, is continuously updated as DOMES numbers are assigned. Guidelines for requesting DOMES numbers are supplied online via the ITRF web site. Most of the new assigned sites and geodetic markers are related to the IGS/GPS network. Currently, 3233 DOMES numbers have been assigned on 2040 distinct sites.

ITRF web site

The ITRF web site, available at <<http://itrf.ensg.ign.fr>>, provides an interface to consult the IERS network database. Site and point information can be requested on line; it contains approximate coordinates of the sites, the list of their points as well as their descriptions, their DOMES numbers and the list of ITRF versions in which their coordinates have been computed. Subsets of points can be selected and their ITRF coordinates can be requested at any epoch in any ITRF version if their coordinates are provided in the requested ITRF version.

The maps of the ITRF networks can be displayed depending of the measurement techniques and of the ITRF versions using a cartographic server. Velocity vectors can be displayed as well as tectonic plates. Site information is available with simple clicks and site selection may be used to request coordinates. The dynamical map can help users to familiarize with ITRF products and can be used for educational purpose. It can also be an interesting tool to select IERS sub-network depending on the measurement techniques, co-located hosted instruments or ITRF versions.

ITRF94, ITRF96, ITRF97, ITRF2000 and ITRF2005 solutions are available online for download. Additional materials are provided to illustrate and better understand ITRF products. ITRF2005 solution is available as well as ITRF2005 combination coordinate residuals and position residual time series per technique. Local ties informa-

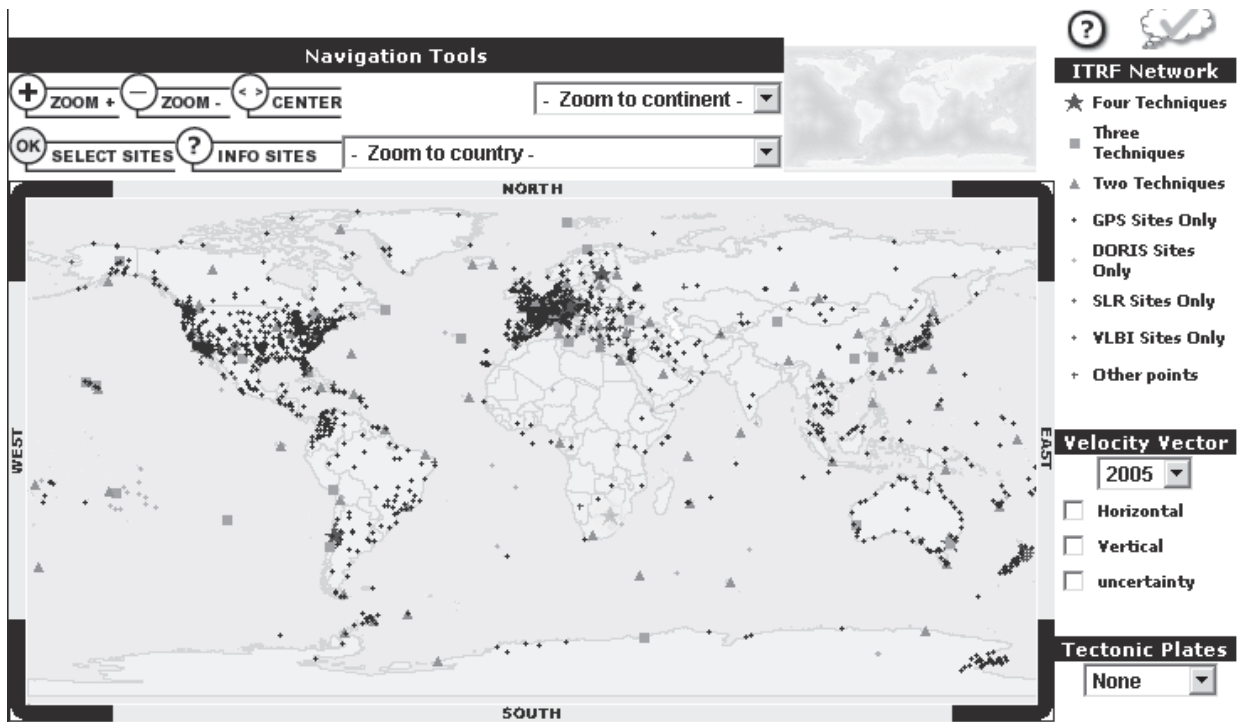


Fig. 1: ITRF web site dynamical map of the IERS network. <<http://itrf.ensg.ign.fr>>

tion has been updated for ITRF2005 processing and is also available for download in SINEX format or tables.

Local ties of ITRF Co-location sites

The ITRS Centre has undertaken the initiative to animate the activity related to the reanalysis of available new and/or old surveys data of the ITRF co-location sites with the aim to generate SINEX files of local ties with full variance-covariance information. Starting with the available survey data at IGN, the ITRS Centre generated full SINEX files for approximately all DORIS co-located sites, using Geolab adjustment software. These SINEX files as well as other files made available by other groups (INA and CGS, Italy; BKG, Germany and Geoscience Australia) are posted at the ITRS Web site. The local ties SINEX files used in the ITRF2005 computation are available at <http://itrf.ensg.ign.fr/local_surveys.php>.

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