

3.5.5 ITRS Centre

This report summarizes the activities of the IERS ITRS Centre during the year 2015.

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. DOMES number request form can be found on the ITRF web site <<http://itrf.ign.fr>>, and should be sent to domes@ign.fr. An updated list of all available DOMES numbers is available at <http://itrf.ign.fr/doc_ITRF/iers_sta_list.txt>. The IERS site information is available to the users through the ITRF website interface (see below).

At the occasion of the ITRF2014 analysis, several new stations, mainly GNSS permanent stations were added to the ITRF network and database.

ITRF web site

The ITRF web site, available at <<http://itrf.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 they 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 realization. Velocity vectors can be displayed as well as tectonic plates. 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, ITRF2005 and ITRF2008 solutions are available for download.

Preparation for a new ITRF web site

The ITRS Centre has started in 2011 the initial study analysis and preparation for a new design of the ITRF web site. It will be designed to provide more ITRF-related information to the users using more user-friendly interfaces. The specification document is finalized and the development started in 2013. The new web site which was expected to be operational beginning 2016 ex-

perienced some delay, unfortunately, and will be open hopefully around mid-2017.

Local ties of ITRF co-location sites

The ITRS Centre collects all new surveys operated by either IGN or the hosting agencies of ITRF co-location sites. The reports of these surveys are posted at the ITRF web site and available to users at http://itrf.ign.fr/local_surveys.php. The local ties SINEX files used in the ITRF combinations are also available on that web site.

At the occasion of the ITRF2014 analysis, several new local tie SINEX files and corresponding reports were submitted to the ITRS Centre. These new survey results will be made available via the ITRF web site after the release of the ITRF2014.

The operational entity of the ITRS Centre at the IGN Survey department has prepared a document describing the IGN current practice of local survey that could help surveyors who do not know how to proceed and are not used with mm precision. The document is in its final stage and will be published in a dedicated IERS Technical Note.

Other activities

- Participation in most meetings of the analysis working groups of the Technique Centres (in 2014: IDS, IGS, ILRS);
- Convening and organizing EGU and AGU sessions on reference frames and ITRF;
- Contribution to the text of the UN GA resolution on the Global Geodetic Reference Frame for Sustainable Development adopted February 26, 2015;
- Participation in the UN-GGIM related meetings, August, 2015.

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