IVS2016















Contribution ID: 69

Type: Oral Presentation

First Local Ties from Data of the Wettzell Triple Radiotelescope Array

Tuesday, 15 March 2016 11:25 (15 minutes)

The Geodetic Observatory Wettzell features a 20 m radiotelescope (RTW) as well as two new 13.2 m TWIN telescopes. Whilst RTW performs routine operations since 1984, the first of the TWIN telescopes, TTW1, has entered its productive phase in mid 2014, and TTW2 has just been equipped with an Elevenfeed broadband receiving system.

The triple telescope array at Wettzell establishes a geodetic very short baseline interferometry network. Local correlation yields group delay observations for baseline estimation from VLBI data alone without any immediate augmentation by terrestrial measurements. Apart from relative positioning of the telescopes, these are versatile capabilities for an end-to-end quality control of the VLBI data.

Results from local VLBI data analysis will be portrayed in this contribution and compared to the latest local ties from precision terrestrial surveying. Moreover, monitoring results of the TTW2 reference point will be presented and an initial concept for continuous surveillance of the TWIN reference points is discussed.

Primary author: Prof. SCHÜLER, Torben (Geodetic Observatory Wettzell - BKG)

Co-authors: Dr BERTARINI, Alessandra (Bonn Correlator - IGG/MPIfR); Dr NOTHNAGEL, Axel (University of Bonn - IGG); Mr PLÖTZ, Christian (Geodetic Observatory Wettzell - BKG); Prof. ESCHELBACH, Cornelia (Frankfurt University of Applied Sciences); Mr LÖSLER, Michael (Frankfurt University of Applied Sciences); Mr HALSIG, Sebastian (University of Bonn - IGG); Mrs MÄHLER, Swetlana (Geodetic Observatory Wettzell - BKG); Dr KLÜGEL, Thomas (Geodetic Observatory Wettzell - BKG)

Presenter: Prof. SCHÜLER, Torben (Geodetic Observatory Wettzell - BKG)

Session Classification: Oral3: Stations, Correlators and Operations Centres

Track Classification: 3: Stations, Correlators, and Operations Centers