Contribution ID: **110** Type: **Oral Presentation**

INVITED TALK: Activities of the IERS Working Group on Site Survey and Co-location

Tuesday, 15 March 2016 11:00 (25 minutes)

The combination of space geodetic solutions is critically reliant on the availability of local tie vectors, which are the relative positions of the reference points of co-located space geodetic
instruments determined by some survey technique. Tie vectors enter the combination of space geodetic solutions effectively as a fifth technique and are not only necessary for rigorous terrestrial reference frame realization but also serve to highlight the presence of technique- and/or site-specific biases.
With the ultimate objective of improving the accuracy of tie vectors as well as the consistency of space geodetic solutions, the Working Group (WG) provides an authoritative source of surveying methodology advice, promotes technical discussion, provides a forum for the evaluation of existing and new procedures and analysis strategies, and supports the exchange of relevant information across GGOS and between the IAG technique services.
The working group also acts as an entity of the GGOS Bureau of Networks and Observations under the IERS name, as well as of the IAG Subcommision 1.2 as WG 1.2.1.

In the presentation, we give examples of recent and current work on
• adequate terminology when discussing site surveying and local ties
• automatic reference point determination
• telescope deformation
• observations of common baseline components
• insights to DORIS, GNSS, and SLR work related to local ties

Primary author: BERGSTRAND, Sten (SP Technical Research Institute of Sweden)

Co-authors: PAVLIS, Erricos C. (University of Maryland, Baltimore County); SAUNIER, Jerome (IGN France); LONG, Jim (NASA); SCHMID, Ralf (Technische Universität München); HAAS, Rüdiger (Chalmers University of Technology)

Presenter: BERGSTRAND, Sten (SP Technical Research Institute of Sweden)

Session Classification: Oral3: Stations, Correlators and Operations Centres

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