2015 ILRS Technical Workshop

5 System Biases session A: Analytic Results

Chairs: C. Luceri, T. Otsubo, H. Mueller

5.1 Systematic range error 2014-2015

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Post-fit residuals from one-year, multi-satellite precise orbit determination are utilized to identify various error sources in satellite laser ranging. The following parameters are used to reveal systematic error sources: (1) number of single-shot returns per NP bin, (2) single-shot scatter RMS of the NP bin, (3) local time of day, (4) range rate, (5) applied system delay and (6) time to the nearest calibration ranging. This study will help improve the quality of laser ranging only if stations are collaborative, and therefore interactive discussion with station representatives is preferred at the workshop.