

Estimation of the laser retro-reflector array center location for GLONASS-M

Vladimir Mitrikas¹, Vladimir Glotov¹, Andrey Pafnutyev¹

¹*TSNIIMASH, Russian Federation*

Radio measurements of the IGS global network of stations and ILRS optic measurements are important for international and Russian information analysis centers for the GLONASS SC ephemeris determination and estimation. Therefore, to interpret phase and laser measurements correctly knowledge of the location of corresponding reference points is necessary. Coordinates of phase centers of the navigational antenna and the laser retro-reflector array for GLONASS-M SC are publicly available and regularly updated by IGS and ILRS. Hereafter we present results of an estimation of the location of the laser retro-reflector arrays center for GLONASS-M SC made in TSNIImash IAC using the ILRS laser ranging data covering the time span from January 2012 to November 2017.