

Status and prospects of SLR of Compass

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Compass constellation, Chinese regional satellite navigation system, consists of MEO, GEO and IGSO satellites, with the orbital altitudes of from 21,500 to 36,000km at the first stage. Compass-M1, the first experimental satellite of Compass constellation, started being tracked by ILRS stations since December, 2008 and was also the first Chinese satellite admitted into the ILRS priority satellite list. In June 2012 Compass-G1,-I3,-I5 and-M3 successfully became the ILRS tracking satellites and Compass-M1 stopped being tracked. The data processing and analyzing departments from the Compass host have normally collected the global SLR data of the above satellites for the precise orbit determination (POD) and calibration of radio measuring techniques. At the second stage of Compass system in next decade years, more MEO/IGSO satellites will be launched. SLR measurement will be considered as one of the important and indispensable ways of POD. For support of laser tracking to Compass satellites, the large-scale SLR systems with the characteristics of small type, automatism, flexibility, stability will be designed and developed to meet the requirements of POD of Compass satellites within the domestic stations