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1.5 SLR global tracking of Beidou and its needs for SLR

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There are 16 satellites in service since the first Beidou experimental satellite launched in 2007. They are all installed by laser reflector array and tracked by SLR. What can SLR do for Beidou? First of all it is used to provide an evaluation of Beidou orbits based on microwave measurements. On the one hand we can know the GNSS orbit accuracy by SLR observation; on the other hand we can choose better orbit determination method and better models such as solar pressure, phase center models and so on. The second one is GNSS needs TRF and EOP. SLR can make an important role for TRF and EOP. Especially the addition of more good GNSS there are more new sites which needs high accuracy position and velocity. Most of them are determined only based on GNSS. For consistence they should be imported in the 4-technique combined processing and give a better results. Moreover, more good GNSS can provide a better TRF and EOP. The third one is to check system errors between different techniques. This is more important for new GNSS systems. For co-location sites there are some different residuals which show we miss some errors in data analysis. The fourth one is SLR can provide optical orbits. It is useful for orbit cross check with GNSS microwave orbits. Certainly, SLR could provide more products such as gravity information, geocentric motion and so on. They are also important for GNSS and other applications. But we still need pay attention on SLR global tracking on Beidou. There are less SLR observation and tracking which lead to less accuracy and applications.