The GPS Laser Retroreflector Array Project

Stephen M. Merkowitz

Systematic co-location in space through the precision orbit determination of GPS satellites via satellite laser ranging will contribute significantly towards improving the accuracy and stability of the international terrestrial reference frame. NASA recently formed the GPS Laser Retroreflector Array Project to develop and deliver retroreflectors for integration on the next generation of GPS satellites. These retroreflectors will be an important contributor to achieving a global accuracy of 1.0 mm and 0.1mm/year stability in the international terrestrial reference frame. We report here the current status of the GPS Laser Retroreflector Array Project.