

Measurements of occurrence of solar conjunction with the orbits of Asian QZSS/IGSO satellites

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On the space PNT in the 20th century, the MEO satellite system represented by GPS space segment of USA has played a major role. In the 21st century, Japan's QZSS (Michibiki) satellite system and IGSO space segment of China and India are now appearing. The feature of the MEO satellite system is a scheme that the positioning accuracy is determined by randomly selecting MEO satellites above the elevation limit and by the satellites combination of smaller DOP. This is one of the stochastic based on the group of the randomly selected satellites, rather than the orbital theory of the satellite. Meanwhile the orbital motions of QZSS/IGSO of new 21st century are very slow over the respective earth regions. The more theoretical methods using satellite orbit models are available and the more reproducible analytic methods are possible. The author will report the measuring results of the orbital motion and the solar conjunctions of Asian QZSS/IGSO satellites over more than a year.

Keywords: QZSS, IGSO, PNT

