



Impact of Dynamics Orbit Parameters of Different Reference Epoch on Predicted Orbit Accuracy

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The dynamics orbit parameters of any epoch in the observed arc can be calculated by the observed orbit. Then the orbit outside the observed arc can be calculated by the dynamics orbit parameters of this epoch. Because of the impact of the observed orbit solving strategies and the orbit integration error, the dynamics orbit parameters in different epoch directly affects the accuracy of predicted orbit. In this paper, the different schemes that whether to join the velocity breaks parameters were used to calculate the observed orbit of GPS, GLONASS, BDS and GALILEO. And in the observed arc, the dynamics orbit parameters of every 6 hours were used to calculate the 24-hour predicted orbit outside the observed arc. The results show that when the velocity breaks parameters are calculated in the observed orbit, the dynamics orbit parameters of different epoch directly affects the accuracy of predicted orbit.