Two-antenna orbit solution of FORMOSAT-3/COSMIC satellite
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Abstract
The FORMOSAT-3/COSMIC (F3C) satellite is equipped with two precise orbit determination (POD) antennas: one is the default antenna for the GPS positioning purpose and the other is for the estimation of total electron content (TEC) of ionosphere. The F3C two antennas are not mounted on the zenith direction. The antenna design results in a narrow field of view (FOV) and a reduction in the number of GPS observations. To strengthen the GPS geometry, GPS data from two POD antennas of F3C are used to estimate its orbits.

Keywords: FORMOSAT-3/COSMIC, GPS, precise orbit determination