

Geometric system correction with orbit determination as an option to produce TM-LANDSAT image maps without control points

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Abstract

The production of TM-LANDSAT image maps from system corrected images presents the problem of dealing with a positioning error due mainly to inaccurate telemetry data broadcasted by the satellite. An option to solve this problem is to perform an orbital element correction through ground control points identified on some scenes of a given orbit. A numerical orbit integrator is then used to generate more accurate ephemeris data over all scenes of the same orbit, which are used for the geometric system correction procedures.