

3.6.2.10 Jet Propulsion Laboratory (JPL)

JPL supports tracking and navigation of interplanetary spacecraft by using a Kalman filter to operationally combine and predict Earth orientation parameters twice-per-week. The EOP measurements used in the combination are taken by both in-house and extramural measurement programs. The resulting combined and predicted EOP series can be obtained by anonymous ftp to
<ftp://euler.jpl.nasa.gov/keof/predictions>.

As part of this operational program, reference series of Earth orientation parameters are produced annually. The latest such reference series, SPACE2001, COMB2001, and POLE2001, can be obtained by anonymous ftp to

<ftp://euler.jpl.nasa.gov/keof/combinations/2001>.

A report describing their generation can also be downloaded from this same ftp site.

Research activities during the past year were largely concerned with exploring methods of improving the accuracy of the combined and predicted values. The stochastic model of the errors in the GPS LOD measurements used by the Kalman filter was updated, Earth orientation measurements from alternate sources were evaluated, and methods to improve the prediction of the EOPs were explored.

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