



JTRF2014: Status of the Combination

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A Kalman filter and smoother, KALREF, will be used to determine the JTRF2014, a combined terrestrial reference frame (TRF) obtained by analyzing the input SINEX files submitted by the IDS, IGS, ILRS, and IVS for the computation of ITRF2014. KALREF allows the TRF to be determined by combining on a weekly basis time series of station positions and Earth Orientation Parameters (EOPs) along with local ties at co-located sites.

In the JTRF2014 the temporal evolution of the station positions is formulated by accounting for linear and seasonal terms (annual and semi-annual periodic modes). The station position noise processes are characterized by non-zero variances whose values are derived by analysing station displacements induced by temporal changes of planetary fluid masses (atmosphere, oceans and continental surface water).

The JTRF2014 frame will be delivered as a time series of weekly SINEX files containing the filtered and smoothed station positions and EOPs observed from the early 80s through the end of 2014 and predictions of station positions afterwards. Datum specification (origin, scale and orientation) of the resulting frame will be discussed.