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The IVS Contribution to JTRF2014

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KALREF, JPL's KALman filter and smoother for REference Frames, has been used to produce JTRF2014, a combined terrestrial reference frame determined from the input SINEX files submitted by the IVS, IGS, ILRS, and IDS for ITRF2014. Using a Kalman filter and smoother allows the reference frame to be determined sequentially as a time series. Incorporating process noise, determined from geophysical fluid loading models, allows the observed station positions to be smoothed between discontinuities caused by earthquakes and equipment changes. Non-linear and non-seasonal changes in station positions, such as postseismic displacements, are automatically included in the smoothed time series. The creation of JTRF2014 will be discussed with an emphasis on the contribution that the VLBI observations made to it.

Primary author: Dr GROSS, Richard (Jet Propulsion Laboratory)

Co-authors: Dr ABBONDANZA, Claudio (Jet Propulsion Laboratory); Dr PARKER, Jay (Jet Propulsion Laboratory); Dr CHIN, Mike (Jet Propulsion Laboratory); Dr HEFLIN, Mike (Jet Propulsion Laboratory); Dr WU, Xiaoping (Jet Propulsion Laboratory)

Presenter: Dr GROSS, Richard (Jet Propulsion Laboratory)

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