DORIS WORKSHOP 2010

Improvements in DORIS Processing at the GSFC Analysis Center in light of ITRF2008

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The GSFC Analysis Center processed DORIS data from 1993 to 2008 and submitted SINEX files for inclusion in the DORIS submission to ITRF2008 (Le Bail et al., 2010). During the processing for ITRF2008, a number of issues were identified with respect to the modeling of the DORIS data. We assess improvements to the DORIS processing including the application of updated troposphere mapping functions such as GMF, the application of DORIS time-bias estimated from joint SLR/DORIS processing for TOPEX, Envisat and Jason-2. We also evaluate improvements to the radiation pressure modeling for the DORIS satellites and identify other strategies for estimation of arc parameters that may yield processing improvements, for example in the strategies for opr estimation. Finally, we evaluate the contribution of Jason-2 to the station + EOP solutions, and report on the extension of the DORIS SINEX series through 2010.