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IDS evaluation of the DORIS versions of the DGFI, IGN and JPL ITRF2014 solutions

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In the context of the 2014 realization of the International Terrestrial Reference Frame, the three IERS Production Centers (DGFI, IGN and JPL) delivered three independent solutions from the contributions of the four space geodetic techniques (DORIS, GNSS, SLR and VLBI). Even if these three ITRF2014 realizations are based on the same input, they differ on several points such as the space geodetic techniques weighting, the estimation of station velocities or the modelization of post-seismic deformation.
The primary objective of this study is to analyze the DORIS part of these three realizations of ITRF2014 in terms of (1) position and velocity discontinuities; (2) geocenter and scale; (3) stations position residuals; (4) DORIS tie-vectors. This analyze will be based on the solution files of the IDS contribution to ITRF2014 as well as on its extension to 2015. Furthermore, we will estimate the impact of these three ITRF2014 solutions on DORIS orbit determination.
Then, we will address recommendations to the DORIS community of the use of these three ITRF2014 solutions.