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Analysis of GR2 IGS REPRO₂ product errors

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The CNES-CLS IGS Analysis Center has contributed to the IGS "REPRO₂" preprocessing campaign with the goal to contribute to the realization of the ITRF2014. However, the evaluation of the corresponding products (called GR2) by the Analysis Centers Coordinators through a spectral analysis has shown various anomalies. The Up and North station coordinate series show substantially larger WRMS errors at 2.2, 3.65 and 13.2 days period. In addition to station coordinates, geo-center coordinates and frame scale also include erroneous annual signals. This poster investigates the various possible sources of these artifacts in the GR2 REPRO₂ solutions including the use of different dynamic models (like time variable gravity field) or parameterization (like data weighting). The steady errors state is also evaluated.