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# DORIS orbit determination and validation at CNES/CLS Analysis Center

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The CNES/CLS Analysis Center routinely processes the DORIS data for orbit determination and tracking station coordinate estimation, and delivers the derived products to the IDS. Hence, the orbits of Spot-2,-3,-4,-5, Topex, Envisat and Jason2 are available at the IDS Data Centers in sp1 or sp3c format over the whole period of each mission.
Overlappings between successive arcs are systematically performed to monitor the intrinsic quality of the orbits. Comparisons with orbits from other DORIS POD groups are also performed for validation. The objective of this presentation is to show the results we obtained in term of post-fit orbit residuals, orbit overlapping and external comparison.
Recent developments in the GINS software give now the possibility to use the measured values of Jason's attitude quaternions, and to output orbits at the POD instrument Phase Centers. These new capabilities allowed us to correct Topex/Jason's nominal attitude law implemented in GINS, and so to eliminate a small discrepancy of a few millimeters on the radial component seen in the comparison between orbits determined on one hand with the attitude model, and on the other hand with the quaternions. We think that this correction will reduce the periodic signal at the beta-prime related period observed in the Z-component of our time series of the geocenter. That's what we will try also to show in this presentation.