Tropospheric parameters from DORIS in comparison to other techniques during CONT campaigns

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Since 2002 continuous campaigns of Very Long Baseline Interferometry (VLBI) observations over two weeks have been carried out every third year (CONT02, CONT05, CONT08, CONT11) to acquire the best possible state-of-the-art VLBI data. Thus, these campaigns are perfectly suited for comparing tropospheric parameters with other microwave-based space geodetic techniques like Doppler Orbitography by Radiopositioning Integrated on Satellite (DORIS) or Global Navigation Satellite Systems (GNSS) at co-located sites. We compare estimates of zenith total (wet) delays and horizontal gradients from these space geodetic techniques and with parameters derived from Numerical Weather Models (NWM) like the global operational analysis data of the European Centre for Medium-Range Weather Forecasts (ECMWF), or Water Vapor Radiometry (WVR) at specific sites. In this presentation, we focus on tropospheric estimates from DORIS, and we investigate the effect of using different approaches for the estimation of the parameters. For example, we compare solutions with different descriptions of the stochastic behavior or different geophysical background models like mapping functions. The assessment is carried out per station as well as for the different CONT campaigns which took place in different seasons and with different availabilities of observable satellites. Consequently we find a dependency on latitude as well as season. We will also discuss the estimation of tropospheric gradients with DORIS, which is quite difficult due to the partly non-uniform distribution of satellites in the sky.