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Modelling Troposphere and PCVs in Regional GPS Networks

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Position of phase centre of GPS antenna varies with elevation and azimuth of incoming signal ray. To eliminate this effect, phase centre variation (PCV) models are introduced into GPS processing. Experiments with introducing of new (2004), 'absolute' model of phase centre variations proposed by IGS were proceeded under Bernese 4.2. Testing permanent network is composed from sites belonging to EUREF, IGS and regional Austrian permanent GPS networks. The results of experiments point to differences from older solutions in site coordinates, heights and estimated ZTD, depending strong on used antenna type.