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Assessment of PISTACH data in monitoring temporal level variations over non-ocean areas in Greece

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The ability of the experimental PISTACH data is examined in two specific inland water areas in Greece: the closed gulf (lagoon) 'Amvrakikos' in the West Greece and the reservoir 'Polyfytos' in the Central Greece. The ascending track 211 passes over the above-mentioned areas. Data from 201 cycles are used, covering the period from July 2008 to January 2014. In the case of Amvrakikos are used coastal data, while for Polyfytos hydro data. In both cases a 20-Hz along-track sampling rate is used. The investigation focuses on the distortion of the shape of the waveforms due to reflections of the radar signal over surrounding topography, as well as on the selection criteria. The results showed that the coastal data are very noisy. Thus, to study the variation of the water surface is necessary filtering of the raw data. The investigation in Polyfytos resulted in an over 8 m annual variation of the water surface, with maximum in July and minimum in November.