On the Systematic Behaviour of the Digital Levelling System Zeiss DiNi12

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ABSTRACT

In this paper we describe the tests of the Zeiss DiNi12 digital levelling system in the Metsähovi test field in 2000-2001 and experiences during the field season 2001 of the Third Levelling of Finland in Lapland. The behaviour of the Zeiss DiNi12 can be characterized by instrument dependent bias between fore and back measurements. The mean of the fore and back levellings seems to be unbiased. We also studied the sights to the lower and to the upper end of the bar code rod. We discovered that when the sighting distance is from 10 to 40 metres the extreme rod readings are only slightly erroneous.

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