

Magnetic component measurements with the DIDD

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A b s t r a c t: The ability of the DIDD to provide accurate variometer base lines has been investigated by means of the processing of synthetic data. The proposed algorithm takes into account the field variations occurring during the measurement sequence. It proves to work well provided that the DIDD reference frame fullfills the asumptions of D-coil axis horizontality, D- and I-coils orthogonality and knowledge of the variometer orientation. The investigation of the influence of departures from these underlying assumptions shows that non-horizontality is the most sensitive factor.

Key words: DIDD, magnetic component, reference frame, accuracy

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