

Repeatability, reproducibility and accuracy of GPR measurements

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In 1998 a CROW-working group started to collect information and experiences concerning Ground Penetrating Radar (GPR). In the Netherlands several companies use GPR. All companies using GPR in the pavement engineering were member of that working group including representatives of the different road authorities and the contractors. So all parties involved were represented in the working group. With a questionnaire the Dutch road authorities were asked for their experiences with GPR and for their needs.

All the information regarding the GPR-technique and the possibilities of GPR in pavement engineering will be published in a CROW-publication on GPR, to inform potential users (= road authorities, contractors, etc.). This publication (in Dutch) will be ready end September 2000.

Because GPR is relatively new, the road authorities and the contractors want to know how accurate and reliable GPR is. That is why the CROW-working group performed recently repeatability tests, reproducibility tests and accuracy tests.

Different ground coupled and air coupled GPR systems were used during that test. There were measurements at three different test-sections with speeds of respectively of 5, 25 and 80 km/h. (= 3, 15 and 50 miles/hour).

The first results will be available just some days before the 2000 FWD Users Group Meeting and will be presented there.