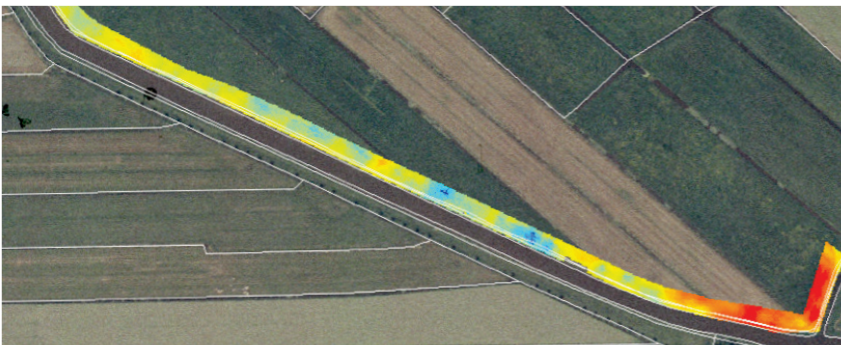


Mobile inspection of levee conditions

What is Leveescan?

Leveescan inspects the conditions inside a levee using mobile remote sensing technology. Leveescan maps the first meter of soil below the levee surface, thereby giving critical insight into the presence of dangerous water seepage (piping), levee saturation at high water levels, but also into air pockets beneath the top layer or internal erosion. In coastal or river bank areas, Leveescan can detect weak spots in and around levees that require further inspection. Leveescan is a powerful tool that can be used to predict levee failures along rivers, as well as in coastal areas.

What does Leveescan look like?



Wet and dry areas detected on a Dutch peat levee, by Leveescan

How reliable is Leveescan?

Leveescan has been developed within the ESA Business Incubator by Miramap, the Dutch expert on levee and flood barrier inspection and monitoring. Leveescan has been tested and validated by Rijkswaterstaat and several Dutch waterboards and has, for several years, been used successfully to inspect levees in the Netherlands.

How does Leveescan work?

Leveescan employs MIRA scanners, a space based technology using passive microwave radiometry. These scanners can accurately detect water and subsurface anomalies to a depth of one meter below the surface level. By mounting the scanners on a quadbike, data is captured whilst riding back and forth along the coast or river bank. In combination with RTK-GPS positioning and other captured sensor information, the data is then processed in a geo-referenced, area covering map of the levee, at one meter resolution. With Leveescan, an area of several kilometers can be inspected per day. Leveescan is a non-intrusive remote sensing technology.

Contact

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