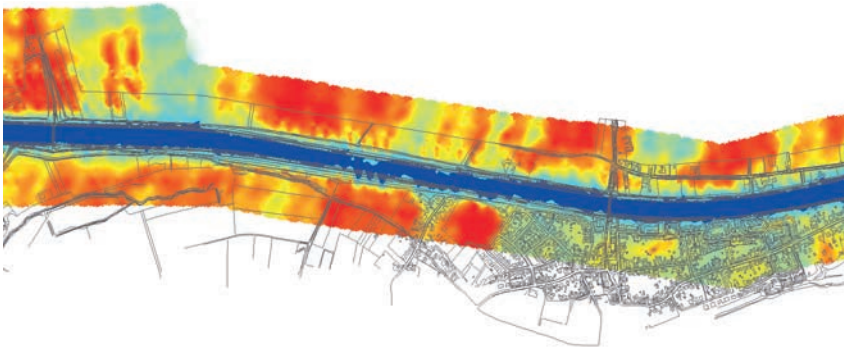


Aerial inspection of levee conditions

What is Leveescan?

Leveescan inspects the conditions inside a levee using aerial 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) or levee saturation at high water levels. In large coastal or river bank areas, Leveescan can detect the 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?



Water seepage detected at the Juliana Canal in the Netherlands, 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 to a depth of one meter below the surface level.

By mounting the scanners vertically in an airplane, data is captured whilst flying along the coast or river bank. The data is then processed in a geo-referenced, area covering map of the levee, at just a few meters resolution.

With Leveescan, several tens of kilometers can be inspected per day. Leveescan is a non-intrusive remote sensing technology.

Contact

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