

VisionMap Thermal Airborne Imaging System Maps German Pipelines



MIST, the thermal airborne imaging system of VisionMap, a leading provider of aerial survey and mapping systems, was recently used to map and monitor pipeline infrastructure in Herten, Germany. The survey was commissioned by Geocart, a German supplier of photogrammetric products and services. The project was a good opportunity to demonstrate the efficiency, high resolution and high thermal sensitivity of VisionMap's system.

The MIST camera was flown at an altitude of 5,700 feet, capturing 8.6cm GSD imagery at a rate of 170 square kilometres per hour. The highly efficient camera not only covers the area quickly, but also collects vertical and oblique images of the pipelines in the same flight. The camera is able to fly at high altitudes without compromising on resolution thanks

to its long, 300mm focal length; this ability is significant in urban areas, where residents may be disturbed by the noise of low-flying aircraft.

Leaks and damage

The camera's high thermal sensitivity (within 0.02 ° C) was able to detect even the first signs of pipeline leaks and damage. Its thermal sensitivity makes MIST suitable for additional applications such as urban heat-loss/cool-loss mapping.

VisionMap's system automatically processes the captured images producing AT, orthophoto, DSM, 3D models, and georeferenced vertical and oblique images on which measurements can be taken. These products can be easily integrated into municipal GIS. The system's fast turnaround time enables surveying the infrastructure on a regular basis, and keeping the most up-to-date information about the changing environment.