

CUSTOMER PROFILE: STATE POLICE OF LOWER SAXONY, GERMANY

Lower Saxony, along with Germany's 15 other states, will participate in one of the largest national technology projects. Known as DIGITALFUNK BOS, the project will replace the country's obsolete analogue radio system for emergency and security services by 2012. Police forces, fire brigade, rescue services, customs authorities, and intelligence services will soon have a modern digital voice and data communications system to ensure this technical lifeline maintains safe, reliable and uniform functionality across the country.

Located in northwest Germany, the state of Lower Saxony comprises nearly 50 square kilometers with a population of 8 million. Lower Saxony, just like its sister states, has operated and used separate, independent and outdated analogue radio networks for decades. Although a national effort, each German state must complete the DIGITALFUNK BOS project autonomously.

"Lower Saxony chose microwave technology to set up the access network for network base stations using the digital network standard TETRA, or terrestrial trunked radio," said Frank Wernicke, Lower Saxony's Head of Accessnet Planning and Safety. "We needed more reliable geographical data to complete this important three-year project."

THE CHALLENGE

Lower Saxony required up to 400 lines at a distance of 1 to 25 kilometers apart to create the communications network. According to Wernicke, the state wanted to lower costs for on-site surveying usually priced at €693, or approximately US\$1,000, per transmission line. "We also aimed to reduce our use of existing antenna locations leased by other large network providers," he added.

In the past, Lower Saxony used Pathloss, a path design tool for radio links, and decade-old Shuttle Radar Topography Mission (SRTM) elevation data to decide on critical transmission corridors. "As a result, many transmission lines need to be checked by on-site surveyors," Wernicke said. "We depended too much on good weather and contractor performance to give us the survey results we needed before moving forward with additional or alternative planning."

Lower Saxony required an alternative geographical data solution that would help address the state's limited budget, increasing costs for line-of-site (LOS) microwave radio system analysis, and costly fixed-antenna locations.

"We've seen great improvement in the planning process of this extensive project and we know we will save a lot of time and money."

Frank Wernicke, Projektgruppe
"DIGITALFUNK BOS Niedersachsen,"
Head of Accessnet Planning & Safety

SUMMARY

CHALLENGE

Lower Saxony, along with Germany's 15 other states, will participate in one of the largest national technology projects. Known as DIGITALFUNK BOS, the project will replace the country's obsolete analogue radio system for emergency and security services with a modern digital voice and data communications system by 2012.

SOLUTION

The state now uses NEXTMap® products, including digital surface models (DSMs), for the national DIGITALFUNK BOS project.

RESULTS

Lower Saxony selected Intermap's superior-quality and digital elevation datasets, saving considerable time and more than €70,000, or approximately US\$100,800.

THE SOLUTION

One of Wernicke's business partners heard about the challenges Lower Saxony faced and told him about Intermap Technologies®. "I was very excited to learn Intermap datasets would help us work more efficiently on this project," he said. "We can check the system much faster with a computer ourselves to help us design the best, most reliable network."

Ultimately, Lower Saxony purchased digital elevation models created by the company's proprietary interferometric synthetic aperture radar (IFSAR) technology. The state now uses NEXTMap® 3D elevation datasets, including digital surface models (DSMs), for the national DIGITALFUNK BOS project.

IMPLEMENTING THE SOLUTION

Lower Saxony started using Intermap's datasets in early 2009 and expects positive results in the fall when the state begins to build microwave point-to-point transmission locations. The datasets will help the planning team check up to 2,000 locations for optimal network design. "Intermap supplied high-quality data in the format we wanted," Wernicke commented, "and we've also had a positive experience working with everyone on the Intermap team."

THE RESULTS

Lower Saxony now knows how Intermap's data enables states to quickly and affordably meet their geospatial needs. "We've seen great improvement in the planning process of this extensive project and we know we will save a lot of time and money," Wernicke said.

Wernicke estimates an overall project savings of more than €70,000, or approximately US\$100,800. "We can act much faster now, experience limited interruption to our work, and use fewer antennas," he added. "We would definitely recommend Intermap to other states and business partners."

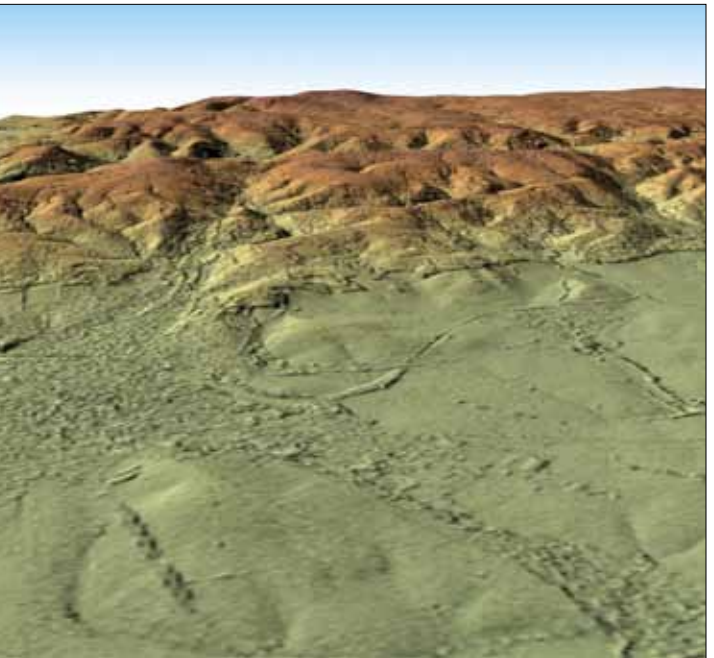
THE INTERMAP ADVANTAGE

ACCURACY

"Intermap supplied high-quality data in the format we wanted."

AFFORDABILITY

The state of Lower Saxony relies on Intermap to quickly and affordably meet its geospatial needs, while significantly reducing project planning expenses.



NEXTMap digital surface model (DSM).

AVAILABILITY

"We can check the system much faster with a computer ourselves to help us design the best, most reliable network."

USABILITY

The datasets helped Lower Saxony's planning team "work more efficiently on this project."



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