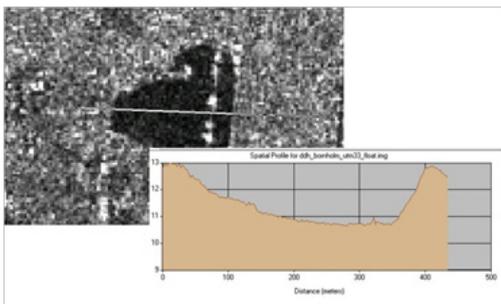




FLOOD EXTENT MAPPING



NEW SATELLITE TECHNOLOGY OFFERS ALL-WEATHER MAPPING OF FLOODS

With new state of the art radar based satellite data, COWI is able to accurately monitor flooding events due to rain fall, tides and melt events. For the first time it is possible to present area covering snapshots documenting the detailed spatial characteristics of floodings. The monitoring can be combined with a proactive retrieval strategy based on weather and storm surge forecasts to minimize satellite data acquisition costs and analysis methods to deliver interpreted data ready for use in the clients GIS system.

LARGE CAPACITY AND KNOWHOW

COWI is among the leading providers of aerial imagery and mapping services in Europe and has a large production capacity ensuring swift turnaround times. The staff at COWI has long experience in product extraction and interpretation of imagery from satellite and aerial sources and is experienced in adapting end products to the customers environment.

THE TECHNOLOGY BEHIND

COWI uses satellite data from the italian COSMO/Skymed Synthetic Aperture Radar (SAR) constellation. The constellation currently consists of 4 satellites, which means that more at least daily coverage is usually possible. The SAR instrument is a radar that uses the Synthetic Aperture principle and recent technology advances have resulted in a breakthrough so that pixel sizes down to 1 m are now possible. Such data can be readily combined with detailed ortho photos for immediate interpretation. However COWI also offers a service to quickly derive vector themes ready for use in the customers GIS environment. Since acquisitions need to be ordered in advance, COWI has developed a framework to guide the time and place of the satellite imagery towards the highest probability of capturing an event. The process takes into account customer priorities and with more or less aggressive acquisition strategies.

USES OF SATELLITE BASED FLOOD MAPPING

The flood mapping service can be applied in numerous areas such as:

- › Management of damages and insurance claims
- › Emergency management
- › Risk assessment and analysis
- › Planning and optimisation of infrastructure and building projects
- › Presentation of flooding information

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