

Flood Modelling with **SAR**

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Founded in 2002, Geospatial Intelligence Pty Ltd (GI) is a specialist provider of geospatial data, big data analytics and analysis. We provide high quality geospatial products and services to all levels of government within Australia, the private sector and international organisations. We employ specialists from a range of backgrounds with domain expertise in earth observation systems, big data analytics and software development.

We turn geospatial data into valuable information.



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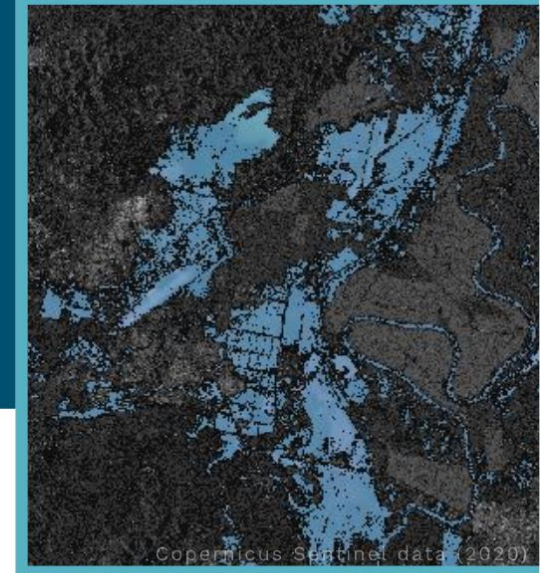


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Satellite Remote Sensing

One of the many potential applications of remotely-sensed data from commercial satellites is that of change detection; whether this change is from construction, environmental disasters, or temporal factors. Very high-resolution satellites have been used for many years to monitor changes on the earth's surface and commercial satellite capability is developing rapidly.

Satellite data provides continuous earth observation over a landscape with consistent spatial and temporal resolutions, and also provides the ability to apply repetitive analytical techniques. By taking advantage of these sensor characteristics, we are able to consistently monitor an area of interest for flood monitoring.



Synthetic Aperture Radar

Synthetic Aperture Radar (SAR) remote sensing is able to capture high-resolution imagery independent of weather conditions and time of day, making it a robust earth observation technique. SAR is an effective solution for identifying areas of change. By repetitively capturing SAR imagery over an area, Coherent Change Detection techniques can be used to detect change pixel by pixel.

Artificial Intelligence

Our in-house Artificial Intelligence algorithms allow us to process large amounts of satellite imagery to identify relationships within the data, and filter out areas which have been affected by flood. It is not only a computationally efficient choice of technology, but it is also a highly effective way of applying algorithms to a wide and diverse range of environments.