

Intermap Technologies® advanced interferometric synthetic aperture radar (IFSAR) data collection services are ideal if you need cost-effective, large-area geospatial solutions that are more accurate than available satellite-acquired data. Our IFSAR products provide accurate digital elevation models (DEMs), high-resolution .625m images, and supplementary thematic layers that are best suited for mapping projects with scales from 1:10K to 1:50K. All of our products are accurately geo-referenced to provide a foundation for your spatial data infrastructure requirements. When supplemented with our satellite and LiDAR / optical products, we can provide you with an integrated 3D mapping solution that spans the full range of end-user applications.

With our proven airborne IFSAR technology, Intermap can reliably acquire IFSAR-generated data products over vast areas in a very short time period –at night or in cloudy conditions. Intermap’s flexibility to deploy the IFSAR technology worldwide, combined with our high volume production capacity, means you can count on rapid turnaround of your project.

PROVEN SOLUTIONS FOR SPATIAL DATA INFRASTRUCTURE

Intermap’s® airborne IFSAR-generated elevation and image products are ideal for national and regional spatial data infrastructure programs. The definition and contrast available in our high-resolution .625m radar images make our IFSAR products optimal for automatic and semiautomatic feature extraction of roads, manmade features, hydrology, and structures – all the elements necessary for quality topographic maps. In addition, the images are geo-referenced to provide positional accuracy of all extracted topographic elements. If you need support for topographic mapping, our team will provide comprehensive technical and end-user training programs.

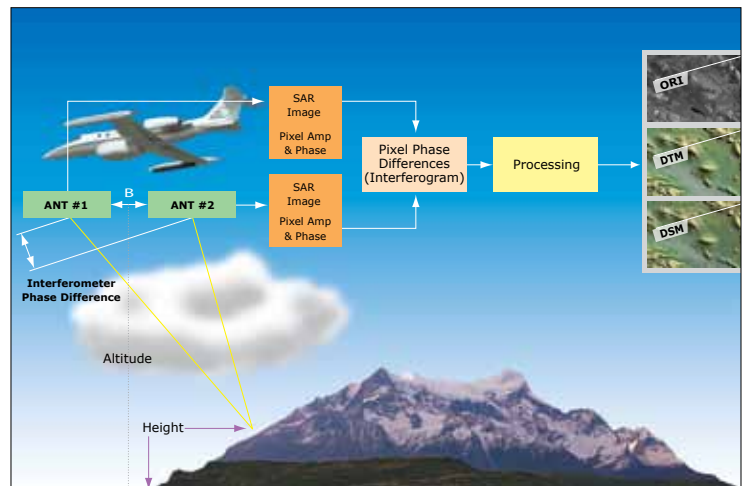
APPLICATIONS FOR A WIDE RANGE OF MARKETS

The high-quality 3D digital mapping data created with our IFSAR technology meets the demanding needs of a wide range of markets, such as:

- Natural resource exploration, development, and management
- Defense and national security
- Emergency response
- Water management
- Risk management
- Engineering and infrastructure
- Aviation
- Telecommunications

Our IFSAR products include:

- **Digital surface model (DSM):** a topographic model of the earth’s surface that includes natural terrain features as well as vegetation and cultural features such as buildings and roads. The key benefit of the DSM is that it provides the accurate elevation needed for geo-referencing all subsequent layers.
- **Digital terrain model (DTM):** a topographic model of the bare earth that has had vegetation, buildings, and other cultural features digitally removed, enabling users to infer terrain characteristics possibly hidden in the DSM.
- **Orthorectified radar image (ORI):** the .625m ORI created with our IFSAR provides the highest-resolution images available from either airborne or satellite platforms. The high resolution images are ideally suited for interpretation and feature extraction, enabling more accurate topographic line mapping and GIS data compilation.



IFSAR data collection and processing.

Enabling mapping scales from 1:10K to 1:50K, Intermap's IFSAR products are available in three different levels:

ACQUISITION ACCURACY	ORI		DSM*		DTM*	
	Pixel size (m)	Planimetric RMSE (m)	Posting (m)	Vertical RMSE (m)	Posting (m)	Vertical RMSE (m)
IFSAR Type I	0.62	2	5	0.7	5	0.7
IFSAR Type II	0.62	2	5	1	5	1
IFSAR Type III	0.62	2	5	3	n/a	n/a

* Specification is for slopes less than 10 degrees in open, unobstructed areas

3D MAPPING BUNDLES

We offer 3D mapping bundles that allow you to select the most appropriate solution that aligns with your internal resources and workflow:

- **3D Data Bundle:** is ideal if your organization has in-house processing capabilities or you simply require accurate DSM data.
- **3D Foundation Data Bundle:** provides a seamless foundation layer for applications such as water management, forest management, and infrastructure projects. The 3D Foundation Data Bundle provides an integrated solution that includes the components of the 3D Data Bundle plus a DTM, an enhanced image (choice of colorized ORI, elevation shaded image, or color shaded relief), contours, and our DEM characterization mask.
- **3D Topo Bundle:** adds thematic layers and other customer-specific layers to the 3D Foundation Data Bundle to provide a comprehensive mapping solution. Recognizing that your organization has specific requirements for your topographic mapping programs, we tailor the 3D Topo Bundle to meet your needs.



1:25K topographic map generation from IFSAR data – Puerto Rico.

LEARN MORE

Let us know how we can put our expertise to work for you. For more information about how you can benefit from Intermap's IFSAR data collections services, please contact your Intermap representative or visit www.intermap.com/mapping-services.



Americas Headquarters
Denver, CO, USA
+1 303-708-0955

Europe, Middle East, Africa Headquarters
Munich, Germany
+49 (0) 89 30 90 799-0

Asia, Pacific Headquarters
Jakarta, Indonesia
+62 21 719 3808

www.intermap.com
info@intermap.com