

An aerial Synthetic Aperture Radar (SAR) image of a city at night. The image shows a dense urban area with various structures and roads. The ground is rendered in shades of gray, while the lights from buildings and streets are highlighted in vibrant colors like red, green, blue, and yellow. The overall scene is dark, emphasizing the precision and detail of the radar technology.

Intelligence

TerraSAR-X Services

Radar Satellite Services of Unique
Precision, Quality and Reliability

Focus on the Essentials: Weather-Independent and in Near Real Time

TerraSAR-X reliably acquires high-resolution and wide-area radar images, independent of the weather conditions. The satellite features a unique geometric accuracy that is unmatched by any other commercial spaceborne sensor.

TerraSAR-X is specifically optimised to meet the requirements of commercial users around the globe who require readily available, high-quality and precise Earth observation data.

TerraSAR-X benefits:

- Flexible coverage and resolution: high resolution for specific target areas, medium resolution for large area coverage
- Excellent geometric and radiometric accuracy
- Comprehensive network of ground stations and Direct Access Services ensure data delivery in near real time

TerraSAR-X / PAZ Radar Satellite Constellation

The identical Spanish satellite PAZ (owner and operator: Hisdesat) will be expected to be launched in the same orbit as TerraSAR-X in 2016. Together, the satellites form a constellation with significantly optimised coverage and capacity. The new constellation supports numerous data-intensive and time-critical applications in the areas of crisis management, defence and security.

TerraSAR-X & TanDEM-X for a Global Elevation Model

Together with its almost identical twin TanDEM-X, TerraSAR-X acquires the data basis for the WorldDEM™, a global Digital Elevation Model with unrivalled quality, accuracy and coverage.

Wide ScanSAR for Large Area Maritime Surveillance

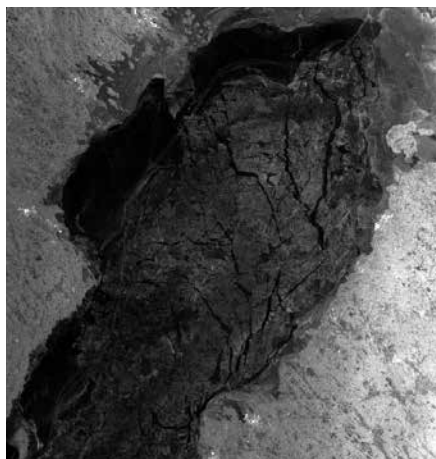
With a scene size of up to 405,000km² the new Wide ScanSAR mode has been specifically optimised for maritime monitoring applications.

Wide ScanSAR data enables continuous large-area surveillance of shipping traffic, monitoring of sea ice and timely detection of oil spills.

Staring SpotLight for Crucial Detailing

The new Staring SpotLight mode is now available for applications requiring highly detailed object information.

With a resolution of down to 0.25m, improved radiometric quality and outstanding geometric sensor accuracy, Staring SpotLight data provides precise information for image intelligence (IMINT) and GEOINT applications.



*Acquisition length extendable to 1,500km
 ** Scene size dependent on incidence angle
 (small incidence angle: wide footprint at short length,
 increasing incidence angle:
 tendency towards equal proportions).
 Possible range:
 incidence angle 20°: 7.5 x 2.5km²
 incidence angle 60°: 4 x 3.7km²

Imaging Mode	Resolution	Scene Size
NEW: Staring SpotLight	down to 0.25m	4 x 3.7km ² **
High Resolution SpotLight	1m	10 x 5km ²
SpotLight	2m	10 x 10km ²
StripMap	3m	30 x 50km ² *
ScanSAR	18.5m	100 x 150km ² *
NEW: Wide ScanSAR	40m	up to 270 x 200km ² *