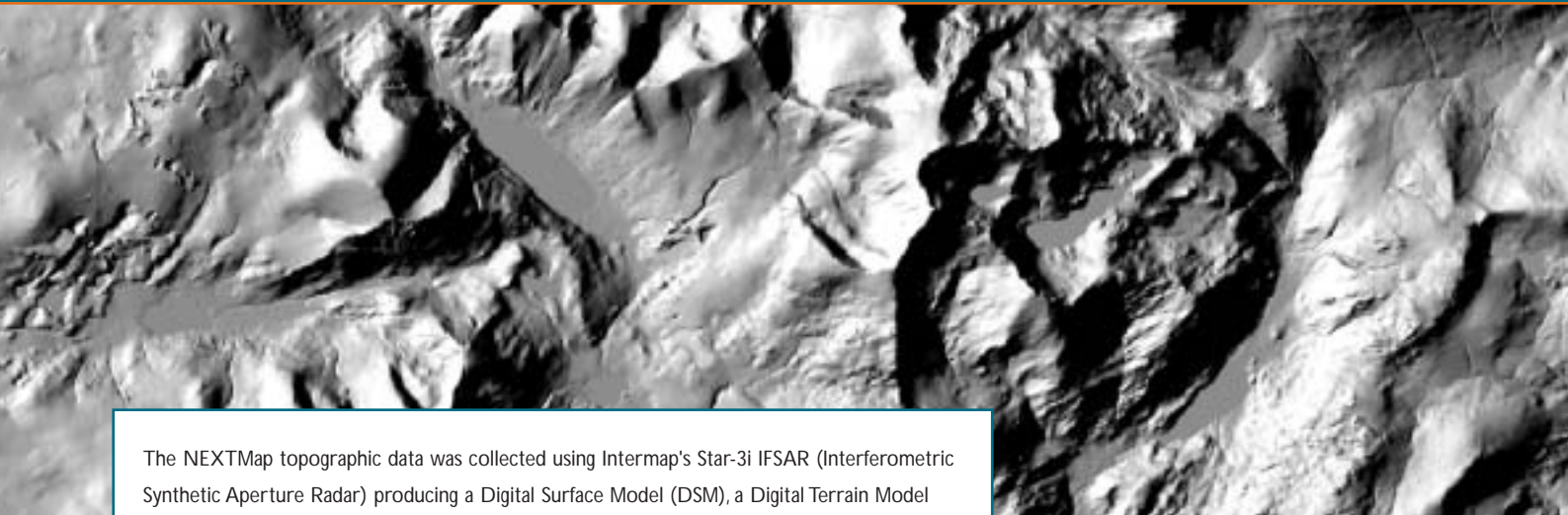


Geosense as a Supplier and Reseller of NEXTMap Britain has produced several complimentary and value-added products to enhance this unique, accurate digital surface and terrain database of Great Britain.

NEXTMap Britain



The NEXTMap topographic data was collected using Intermap's Star-3i IFSAR (Interferometric Synthetic Aperture Radar) producing a Digital Surface Model (DSM), a Digital Terrain Model (DTM) and orthorectified radar imagery (ORI) for the whole of the England, Scotland and Wales. All data has been processed to the OSGB National Grid and Newlyn Datum.

Intermap and Geosense have produced a wide variety of products, which are ready to buy off-the-shelf and offline from Geosense in a wide variety of GIS and CAD ready formats.

DIGITAL TERRAIN MODEL

NEXTMap Digital Terrain Model is available with postings at 5m, 10m and 50m intervals. The DTM is devoid of vegetation, buildings and other features, leaving a bald earth model.

Formats available from Geosense include ArcGrid, ASCII, DXF, NTF, DGN and DWG.

DIGITAL SURFACE MODEL

The NEXTMap Digital Surface Model contain heights derived from the first surface the radar signals strike with postings every 5m. The DSM is a representation of any object large enough to be resolved on the earth's surface.

Formats available from Geosense include ArcGrid, ASCII, DXF, NTF, DGN and DWG.

DIFFERENCE LAYER

The NEXTMap Difference Layer shows the height difference between the NEXTMap DSM and DTM. Non-terrain features such as tree canopy and building heights are more obvious. Formats from Geosense include ArcGrid, ASCII, DXF, DGN and DWG.

OTHOECTIFIED RADAR IMAGE

The NEXTMap Orthorectified Radar Image (ORI) is a greyscale image formed from the return of the radar pulse. The image produced is a representation of surface texture and as the radar looks at a angle it can give a better indication of the height of features than is possible with aerial photography.

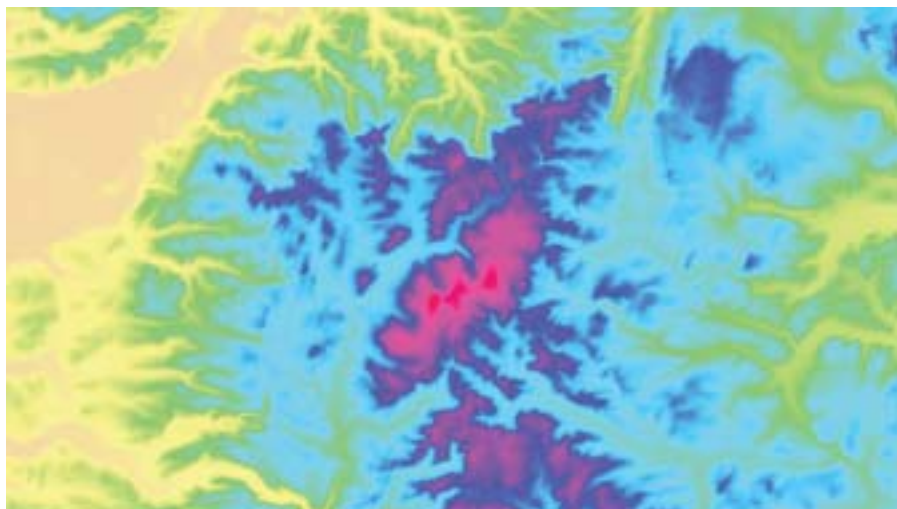
The NEXTMap ORI has a 1.25m resolution and is available from Geosense in geotiff, jpg, ecw and MrSid formats.

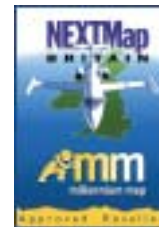
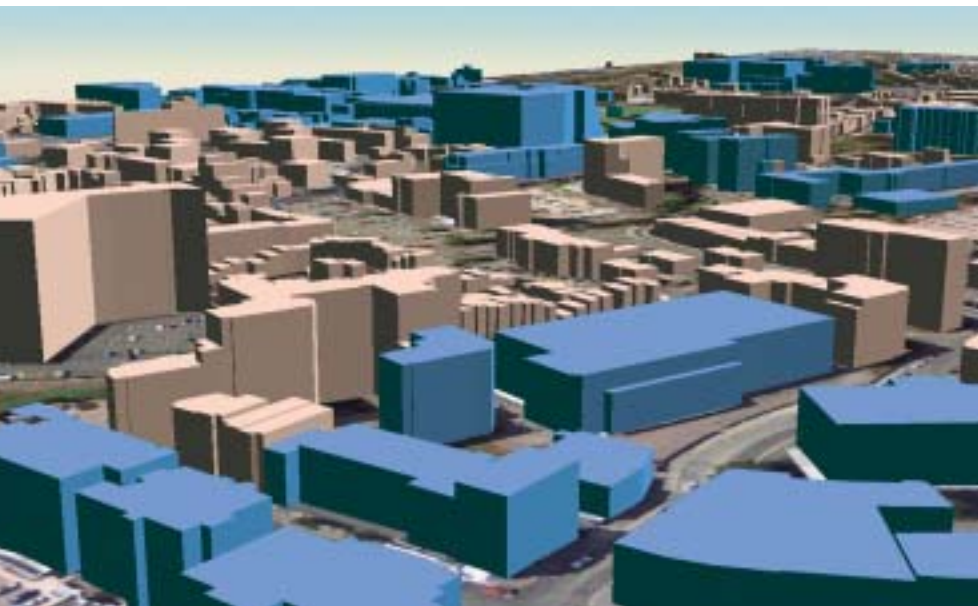
CONTOURS

Geosense has generated cartographic contours at 5m and 2m intervals from the NEXTMap Britain DTM5 for the whole of the UK. These highly accurate contours are supplied with spotheights at regular intervals, and provide a more detailed alternative to existing national datasets.

The NEXTMap Contours are aimed at those users who prefer to use contours instead of a regular gridded DTM, or for those working in 2D who require contours to represent slope and aspect on drawings and maps.

Formats available from Geosense include DXF, NTF, DGN and DWG.





BUILDINGS

Geosense has devised semi-automatic routines to enhance the NEXTMap Britain product by using photogrammetrically derived heights of buildings from Getmapping stereo aerial photography. The building models are accurate up to 50cm and are either embedded into the NEXTMap terrain models or as 3D outlines to be placed on top.

Formats include 3D shapefiles and DXF.

SHADED RELIEF

NEXTMap Britain shaded relief (or hillshade) of the UK is an invaluable tool, especially in education, for showing how rivers and glaciers have sculptured the land. This dataset produced by Geosense can be merged in with other imagery such as satellite data to give a better indication of relief.

Formats include geotiff, pg, ecw and MrSid.

SLOPE MAPS

Slope maps derived from the NEXTMap Britain DTM show the change in height or elevation over a specified distance, and are essential for road planning, slope stability and are used to identify wildlife habitats or classify vegetation species that are terrain-sensitive.

TOPOGRAPHIC NORMALISATION

Remotely sensed imagery, such as satellite data, with known solar elevation and azimuth are combined with the NEXTMap terrain models to remove the variation in image brightness caused by topographic effects. This process is known as topographic normalisation. Geosense as a reseller of all commercial satellite data can use the NEXTMap models to remove these topographic effects.

Contact Geosense for prices on all NEXTMap Britain and Other NEXTMap datasets from around the world including USA and Indonesia.

Product	Area	Vertical Accuracy (RMSE)	Posting
DSM	Southeast England	0.5m	5m
DTM5	Southeast England	0.7m	5m or 10m
DSM	Rest of England, Wales and Scotland	1.0m	5m
DTM5	Rest of England, Wales and Scotland	1.0m	5m or 10m
ORI	Countrywide	2.0m (horiz)	1.25m pixel size

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