

Environment Agency SurfZone Digital Elevation Model 2014

Background

The SurfZone Digital Elevation Model (DEM) was produced in 2014 to model the coastal zone post the 2013/2014 UK winter storms. Using the best available LIDAR and near-shore multibeam SONAR bathymetry available at the time, it is the best currently available Digital Elevation Model (DEM) covering the inter-tidal zone produced by the Environment Agency.

The SurfZone DEM was produced by using a bespoke feathering technique to smooth the overlaps between LIDAR and Bathymetric surveys to produce a seamless surface. Small gaps between surveys were interpolated to produce a full coverage DEM of the near-shore. For all regions except Anglian Digital Terrain Models (DTM) derived from LIDAR were used. For the Anglian coastline a Digital Surface Models (DSM) were used.

All LIDAR data used in the production of the SurfZone DEM was surveyed by the Environment Agency. Bathymetry Data was supplied by the Environment Agency and the National Network of Regional Coastal Monitoring Programmes of England from the Channel Coastal Observatory (www.channelcoast.org) website.

The National Network of Regional Coastal Monitoring Programmes of England comprises of 6 Regional Programmes. You must use the copyright statements in the licence restrictions section of this document to acknowledge the individual regions.

Data Download

The EA SurfZone DEM 2014 is supplied as a tiled raster dataset in GeoTiff format. Each tile is 5km * 5km and aligned to the Ordnance Survey National Grid. Each pixel represents 2 metres spatial resolution on the ground and elevations are presented in metres to Ordnance Survey Great Britain using the [OSGM'15 and OSTM'15 transformation models](#). Elevations are referenced to Newlyn except for the Isles of Scilly which is referenced to St Marys.

Metadata Layers

The Metadata Index Catalogue layer provides information about the source of the elevation data used, either LIDAR or Bathymetry for any area as well as the surface type, coastal monitoring region, geoidal model and transformation models used. The catalogues are available to download in shapefile, ESRI File Geodatabase and GeoJSON.

Licence Restrictions

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