Title	NSW Marine LiDAR Topo-Bathy 2018 Geotif
Alternative title(s)	Coastal marine topographic and bathymetric surveys and imagery
Abstract	Remotely sensed topographic (elevation) and bathymetric (depth) information were acquired for the NSW coast (Point Danger to Cape Howe) and southern Queensland (Palm Beach to Point Danger) using Airborne LiDAR Bathymetry (ALB - a combination of Light Detection And Ranging (LiDAR) and Laser Airborne Depth Sounding (LADS) sensors) during July – December 2018. Data were acquired by Fugro Pty Ltd on behalf of NSW Office of Environment and Heritage using a Riegl VQ-820-G ALB (LiDAR) and Fugro LADS High-Definition sensors aboard sub-contracted Corporate Air Cessna C441 (VH-VEH). Funding was provided through the NSW Coastal Reforms package. The objective of the project was to provide high-resolution data better than 3-5 m spaced soundings (0.5 m spot spacing terrestrial; 3.4 m spot spacing marine) from the mean high-water mark to ~200m inland, and from the shore, seaward (LADS - bathymetry) to the point of laser extinction (~20-40m water depth depending on in-water conditions). Positioning data were collected on the ellipsoid ITRF 2014 GRS80 in UTM Z56 and post-processed using local base stations (CORSnet NSW) to provide a Post Processed Kinematic GNSS solution for final aircraft trajectory before being applied to all data. The final data Geotif products are provided on the *Geosciences Australia ELVIS website* *.They are combined gridded terrestrial (elevation) and subtidal marine (bathymetry) data at 5 x 5 m (horizontal resolution) Geotifs exported using ESRI ArcMap from rasters (weighted average of clean soundings) in GDA 2020 (horizontal datum) to Australian Height Datum (vertical datum) and vertical precision to International Hydrographic Order (IHO) 1B. Data covers an area of 6862 km2 provided in 48 sub-datasets the extents of which are generally defined in their alongshore extent by the boundaries of NSW Secondary Sediment Compartments (Geosciences Australia). Other data outputs will include raw and classified LAS format files, aerial imagery and raw seabed reflectance data to be made available shortly on the ELVIS website. Data packages containing Arc Grids (topo-bathy, contours), XYZ, KMZ, tif, pdf maps and Fledermaus SD files will be made publicly available via the AODN (*Australian Ocean Data network). Metadata, data quality statements and a geographical data coverage ArcGIS shapefile are available via SEED. The data are intended to inform coastal and marine management and should not be used for navigation without additional processing.

Resource locator

Show on SEED Web Map	Name: Show on SEED Web Map Protocol: WWW:DOWNLOAD-1.0-http--download Description: Display dataset on SEED's map Function: download
Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for Marine LiDAR Function: download
Download Package	Name: Download Package Protocol: WWW:DOWNLOAD-1.0-http--download Description: Zipped folder including an ArcGIS shapefile of the spatial extent of the NSW Marine LiDAR Topo-Bathy 2018 Dataset (including Geotif extents) Function: download
REST Service	Name: REST Service Protocol: WWW:DOWNLOAD-1.0-http--download Description:

	NSW Marine LiDAR Topo-Bathy 2018 Geotif - REST Function: download

Unique resource identifier

Code	45089194-912d-4ecf-8200-969e0796afee

Presentation form	Multimedia digital
Edition	v1.1
Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016

Dataset URI	https://datasets.seed.nsw.gov.au/dataset/45089194-912d-4ecf-8200-969e0796afee
Purpose	Baseline data for coastal hazard management by state and local governments for Coastal Reforms. The data are intended to inform coastal and marine management including modelling of coastal and marine processes. The data should not be used for navigation without additional processing.
Status	Completed
Spatial representation type	grid

Spatial reference system

Code identifying the spatial reference system	4283

Spatial resolution	5 m
Additional information source	Extent along Australia's east coast if from Palm Beach in southeast Queensland to Cape Howe at the NSW/Victorian border from a minimum of 200m inland from the shore to point of LADS extinction (nominally 20-40m water depth) offshore.

Topic category

Keyword set

keyword value	GEOSCIENCES-Geomorphology MARINE-Coasts MARINE-Geology-and-Geophysics MARINE-Reefs LAND-Topography PHOTOGRAPHY-AND-IMAGERY-Remote-Sensing

Originating controlled vocabulary

Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	149.414062
East bounding longitude	154.423828
North bounding latitude	-37.801968
South bounding latitude	-27.465385
NSW Place Name	NSW coast

Vertical extent information

Minimum value	-100
Maximum value	2228
Coordinate reference system	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711

Temporal extent

Begin position	2018-07-01
End position	N/A

Dataset reference date

Resource maintenance

Maintenance and update frequency	Unknown
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew
Responsible party role	pointOfContact

Lineage

Generally, the 2019 dataset is a ‘one-off’ collection but future collections may be added a later date, funding permitting. Some earlier LiDAR/LADS surveys collected 2008 and 2011 are also to be provided. Additional details on the systems, aircraft, specifications of sensors used, auxiliary data, processing, classification etc are provided in Report of Survey and associated reports. The final Report of Survey can be accessed via the OEH Offshore Mapping webpage and/or OEH IAR, ELVIS or AusSeabed websites or upon request. System installation occurred at Goulburn airport 3-10 July 2018 followed by verification flights with surveys commencing from Ballina airport 11 July 2018. A total of 93 flights were conducted from 11 July 2018 to 20 October 2018 followed by demobilisation 21-24 October 2018 in Goulburn. Data are processed by Fugro (Adelaide) and provided to OEH Jan-Jun 2019.

Limitations on public access

Scope dataset

DQ Completeness Commission

Effective date 2019-08-20

Explanation Some additional datasets from earlier Marine LiDAR surveys (2008, 2011) are to be included; this survey (2018) contains some data from southern Queensland.

DQ Absolute External Positional Accuracy

Effective date 2019-06-20

Explanation 1m

Responsible party

Contact position Data Broker

Organisation name NSW Department of Climate Change, Energy, the Environment and Water

Telephone number 131555

Email address data.broker@environment.nsw.gov.au

Web address https://www.nsw.gov.au/departments-and-agencies/dcceew

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Responsible party role pointOfContact

Metadata date

2024-09-16T23:42:18.498934

Metadata language