Petermann 2015 Expedition - Meteorological, Oceanographic and Ship Data Collected Onboard Icebreaker Oden during July to September 2015

SND-ID: ecds0198-1. **Version**: 1.0. **DOI**: https://doi.org/10.5879/ecds/2016-07-07.1/1

Is part of collection at SND: Icebreaker Oden

This data description and associated data have been migrated from the ECDS portal to SND's research data catalogue. The level of documentation may therefore differ from other data descriptions in the catalogue. For more information about the migration of data from ECDS to SND click here.

Download data

ECDS0198-001-V1.0.zip *(33 MB)*

Associated documentation

ECDS 0198 Petermann_small.png *(602.83 KB)*

Download all files

ecds0198-1-1.0.zip *(~33.59 MB)*

Citation

(2017) Petermann 2015 Expedition - Meteorological, Oceanographic and Ship Data Collected Onboard Icebreaker Oden during July to September 2015 (Version 1.0) [Data set]. Swedish Polar Research Secretariat. Available at: https://doi.org/10.5879/ecds/2016-07-07.1/1

Creator/Principal investigator(s)

Swedish Polar Research Secretariat

Research principal

Swedish Polar Research Secretariat

Description

Petermann 2015 was an international research expedition to the area around the Petermann glacier in northwestern Greenland. The Swedish icebreaker Oden served as the platform for the research carried out in the sea, on the glacier and on land.

The expedition examined the relatively unexplored outlet end of this large system, by documenting changes in the grounded Petermann Glacier, its buttressing ice shelf, and ocean conditions since the end of the last glacial period. Primary scientific questions included:
How sensitive is Petermann ice shelf extent to documented climate changes within the Holocene?
Is ice-shelf response independent of, or linked to, variations in the grounded Petermann Glacier, ocean thermal conditions, or relative sea level (i.e., sill depth)?
What are the rates of change and variability of these systems in response to early Holocene warming, Neoglacial cooling, and post-Neoglacial (late 19th century to present) warming?

Purpose:

The purpose of the project was to collect multibeam bathymetry and sub-bottom profile information along the western continental shelf of Greenland in order to characterize the shape of the seafloor and uppermost sediment properties. The main goal was to increase our understanding about potential pathways of relative warmer water influx towards Greenland's many outlet glaciers.

This data set contains meteorological, oceanographic and ship data collected during the International expedition Petermann, which was an international research cruise using the icebreaker Oden in the Arctic Ocean.

Data include meteorological variables: Air temperature, Humidity, Wind direction/speed, Atmospheric pressure, Cloud height/cloudiness, Photosynthetic Active Radiation (PAR).

Oceanographic variables: Sea water temperature, Conductivity, Salinity and Sound velocity.

Ship data: Position, Speed, Course, Water depth.

Quality Information:

Obviously erroneous data (e.g. negative air pressure) have been omitted. No other processing or quality check of the data has been undertaken. Users should be aware of this in further data handling and analysis.

Data contains personal data

No

Language

English

Time period(s) investigated

2015-07-28 – 2015-09-23

Data format / data structure

Numeric

Geospatial

Data collection 1

- Description of the mode of collection: Meteorological and oceanographic measurements
- Time period(s) for data collection: 2015-07-28 – 2015-09-03
- Instrument: LoTUS - Bottom Lander for Long Term Underwater Sensing

Geographic spread

Geographic location: Arctic Ocean

Research area

Engineering and technology (Standard för svensk indelning av forskningsämnen 2011)

Environmental sciences (Standard för svensk indelning av forskningsämnen 2011)

Meteorology and atmospheric sciences (Standard för svensk indelning av forskningsämnen 2011)

Oceanography, hydrology and water resources (Standard för svensk indelning av forskningsämnen 2011)

Climatology / meteorology / atmosphere (INSPIRE topic categories)

Oceans (INSPIRE topic categories)

Environment (INSPIRE topic categories)

Keywords

Meteorology, Atmosphere, Atmospheric winds, Surface winds, Atmospheric temperature, Air temperature, Atmospheric water vapor, Humidity, Clouds, Atmospheric pressure, Surface pressure, Salinity, Conductivity, Photosynthetically active radiation, Water temperature, Water depth, Seafloor topography, Bathymetry, Biosphere, Vegetation, The icebreaker oden

Polygon (Lon/Lat)

-74.1, 84.1

-74.1, 79.3

-35.9, 79.3

-35.9, 84.1

-74.1, 84.1

Accessibility level

Access to data through SND
Data are freely accessible

Use of data

Things to consider when using data shared through SND

License

CC BY 4.0

Versions

Version 1.0. 2017-10-03

Homepage

Polarforskningsportalen

Is part of collection at SND

Icebreaker Oden

Download metadata

DataCite

DDI 2.5

DDI 3.3

DCAT-AP-SE 2.0

JSON-LD

PDF

Citation (CSL)

File overview (CSV)

Published: 2017-10-03
Last updated: 2022-12-05