Arctic Summer Cloud Ocean Study (ASCOS) - Meteorological, Oceanographic and Ship Data Collected Onboard Icebreaker Oden during 31 July to 12 September 2008

SND-ID: ecds0200-1. **Version**: 1.0. **DOI**: https://doi.org/10.5879/ecds/2016-07-05.1/1

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

ECDS 0200-001-V1.0.zip *(15.37 MB)*

Citation

(2017) Arctic Summer Cloud Ocean Study (ASCOS) - Meteorological, Oceanographic and Ship Data Collected Onboard Icebreaker Oden during 31 July to 12 September 2008 (Version 1.0) [Data set]. Swedish Polar Research Secretariat. Available at: https://doi.org/10.5879/ecds/2016-07-05.1/1

Creator/Principal investigator(s)

Swedish Polar Research Secretariat

Research principal

Swedish Polar Research Secretariat

Description

The project Arctic Summer Cloud Ocean Study (ASCOS) was an international research expedition to the Arctic ocean. The Swedish icebreaker Oden served as the platform for the research carried out in the sea, on the glacier and on land.
ASCOS left Longyearbyen on Svalbard in early August 2008 on the Swedish icebreaker Oden, heading for the central Arctic Ocean. To understand cloud formation a number of scientific specialties are needed, therefore ASCOS is genuinely interdisciplinary.The observations in ASCOS covered a column from 400 meters into the ocean, up through the troposphere; the lowest 8-12 km of the atmosphere where clouds and weather occurs.
The plan was to spend as much time as possible in the central Arctic pack ice. Therefore Oden anchored in the pack ice to the ice floe, drifting with the ice for almost three weeks while taking detailed observations of processes determining the formation and life-cycle of clouds.

Purpose:

The goal of ASCOS was to increase our knowledge of clouds over the central Arctic Ocean by studying processes that are important to their formation and occurrence. This was achieved through interdisciplinary studies in which cloud formation was linked to the microbiological life in the ocean and ice, by means of detailed observations made from several hundred metres below the ocean’s

surface to many kilometres up in the atmosphere.

This data set contains meteorological, oceanographic and ship data collected during the expedition Arctic Summer Cloud Ocean Study (ASCOS), which was an international research cruise using the icebreaker Oden in the Arctic Ocean. The data were measured during the 40 days that Oden was cruising in the Arctic Ocean close to the north pole.Data includes meteorological variables: Air temperature, Humidity, Wind direction/speed, Atmospheric pressure.Oceanographic variables: Sea water temperature, Conductivity, Salinity and Sound velocity.Ship data: Position, Speed, Course.

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

2008-07-31 – 2008-09-12

Data format / data structure

Geospatial

Data collection 1

- Mode of collection: Field observation
- Description of the mode of collection: Meteorological and oceanographic measurements
- Time period(s) for data collection: 2008-07-31 – 2008-09-12

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, Atmospheric

water vapor, Humidity, Atmospheric pressure, Surface pressure, Oceans, Salinity, Conductivity, Ocean temperature, Sea surface temperature, The icebreaker oden

Publications

Link to publication list:
More information about the cruise, links to publications

If you have published anything based on these data, please notify us with a reference to your publication(s). If you are responsible for the catalogue entry, you can update the metadata/data description in DORIS.

Polygon (Lon/Lat)

7.4, 81.3

7.4, 74.8

80.5, 74.8

80.5, 81.3

7.4, 81.3

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. 2017-09-12

Homepage

Bolin Centre Database - Weather and navigation data from the high-Arctic ASCOS expedition 2008

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)

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