

# Data services at ArcRCC

An aerial photograph of a winter landscape in Norway. The foreground shows a snow-covered mountain slope with ski tracks. A dark blue fjord winds through the middle ground, surrounded by snow-covered hills and small islands. In the background, a range of snow-capped mountains stretches across the horizon under a clear blue sky.

Lene Østvand  
The Norwegian Meteorological Institute



Arctic Regional  
Climate Centre  
Network

CLIMATE  
MONITORING

LONG-RANGE  
FORECASTING

DATA ACCESS

REGIONAL  
SERVICES

ABOUT US

Photo: Lene Østvand

arctic-rcc.org

## Welcome to the Arctic RCC Network

RCCs are Centres of Excellence that assist WMO Members in a given region to deliver better climate services and products including regional long-range forecasts, and to strengthen their capacity to meet national climate information needs.

ArcRCC-Network is based on the [WMO RCC](#) concept with active contributions from all the Arctic Council member countries through a mutually agreed structure consisting of three sub-regional geographical nodes, namely, (i) North America Node, (ii) Northern Europe and Greenland Node and (iii) Eurasia Node.

### Climate monitoring

Climate monitoring products to be shown here.

### Long-range forecasting

Products like seasonal outlooks.

### Data access

Search datasets for the Arctic.

### Northern Europe and Greenland Node

Collaboration between Norway, Sweden, Denmark, Finland and Iceland.

### North American Node

Collaboration between Canada and USA.

### Northern Eurasia Node

Led by the Russian Federation.

## News

### WMO launches Arctic Regional Climate Centre Network

Submitted by Lene Østvand on Tue, 2018-05-22 09:00

A new Pan-Arctic Climate Outlook Forum has met for the first time to provide predictions for the forthcoming summer season as part of an international drive to improve weather, climate and sea ice forecasts in a region undergoing rapid environmental change.

Read the full [WMO press release](#).

Tags: [news](#) [wmo](#) [parcof](#)

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## Climate monitoring:

- Seasonal reviews

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## Long-range forecasting:

- Seasonal outlooks
- Web map service for sea ice
- Information about previous PARCOF's.

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### Regional services:

- Northern Europe and Greenland Node
- North American Node
- Northern Eurasia Node

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Photo: Lene Østvand

View

Edit

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Forum access requires a registered account.

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Interface for data search. The database already contain some data for the Arctic.

## News

### WMO launches Arctic Regional Climate Centre Network

Submitted by [Lene Østvand](#) on Tue, 2018-05-22 09:25

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Read the [full WMO press release](#).

Tags: [news](#) [wmo](#) [parcof](#)

[Read more](#) [Add new comment](#)

## Data access

▼ Full text search

Search words

▼ Data collection period

Start date  
1967-01-01

End date  
yyyy-mm-dd

► Bounding box

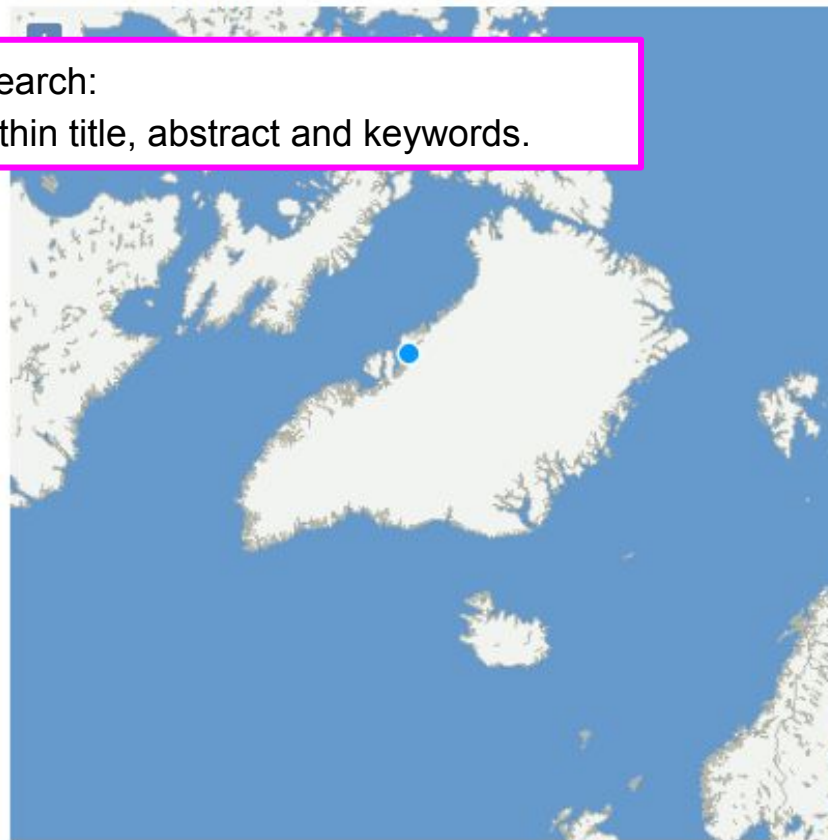
► Institutions

► Investigator

► Topics and variables

Search Reset

## ▼ Geographical search



Full text search:  
Search within title, abstract and keywords.



## Data access

### ▼ Full text search

Search words

### ▼ Data collection period

Start date

1967-01-01

End date

yyyy-mm-dd

### ▶ Bounding box

### ▶ Institutions

### ▶ Investigator

### ▶ Topics and variables

Search

Reset

### ▼ Geographical search



Start date/end date:  
Search within a temporal extent.

▼ Full text search

▼ Data collection period

**Start date**

**End date**

▼ **Bounding box**

**Top left longitude**

**Top left latitude**

**Bottom right longitude**

**Bottom right latitude**

► Institutions

► Investigator

► Topics and variables

▼ Geographical search



Bounding box:  
Search within a spatial extent given by  
longitude and latitude.

▼ Full text search

Search words

Geographical search:  
Click the map to define a geographical search  
area.

▼ Bounding box

**Top left longitude**

Top left longitude

**Top left latitude**

Top left latitude

**Bottom right longitude**

Bottom right longitude

**Bottom right latitude**

Bottom right latitude

► Institutions

► Investigator

► Topics and variables

▼ Geographical search





▼ Full text search

Search words

▼ Data collection period

**Start date**  
1967-01-01

**End date**  
yyyy-mm-dd

► Bounding box

▼ Institutions

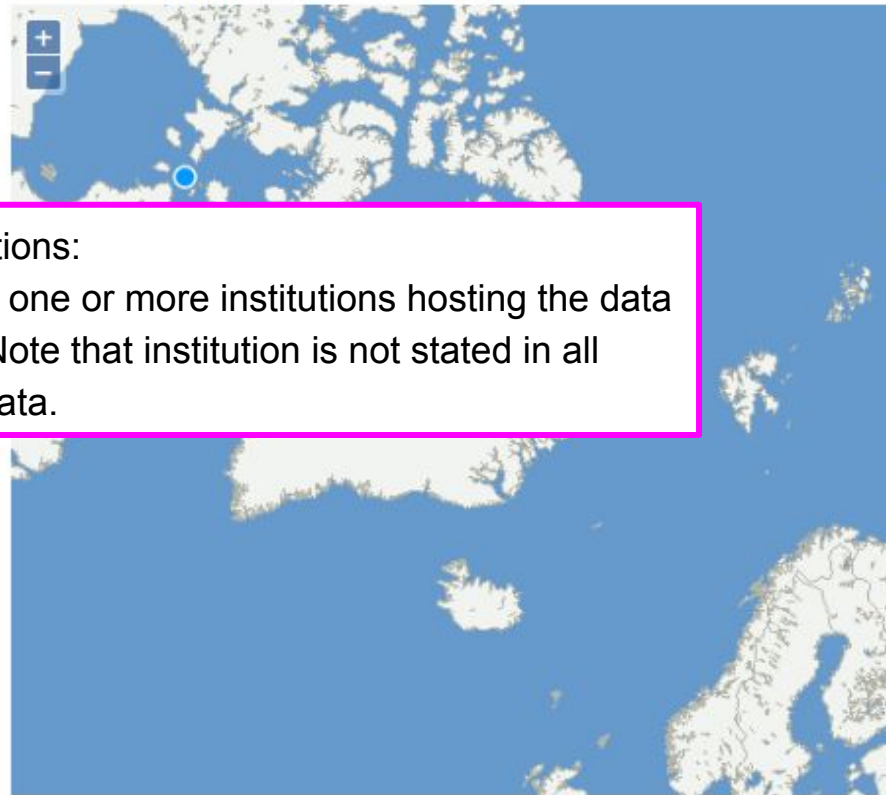
- ☐ European Centre for Medium-Range Weather Forecasts
- ☐ Norwegian Meteorological Institute
- ☐ Norwegian Polar Institute
- ☐ The Arctic University of Norway
- ☐ University of Akron
- ☐ University of Tromso, Norway
- ☐ Northern Research Institute
- ☐ Sysselmannen på Svalbard
- ☐ Naval Research Laboratory, Stennis Space Center

► Investigator

► Topics and variables

Search Reset

▼ Geographical search



### Institutions:

Check one or more institutions hosting the data sets. Note that institution is not stated in all metadata.

▼ Full text search

Search words

▼ Data collection period

Start date

1967-01-01

End date

yyyy-mm-dd

► Bounding box

► Institutions

▼ Investigator

Investigator's name

► Topics and variables

Search

Reset

▼ Geographical search



Investigator:  
Search the personnel responsible for the data set.

▼ Full text search

Search words

▼ Data collection period

Start date  
1967-01-01

End date  
yyyy-mm-dd

► Bounding box

► Institutions

► Investigator

▼ Topics and variables

ice

Search Reset

OCEANS > SEA ICE

ICE

N-ICE2015

seaice

Topics and variables:  
Search a pre-defined keyword. A list of suggestions appear when you start typing.





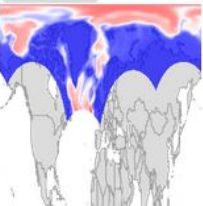


Number of datasets found: 8

## Search results



<input type="checkbox"/>	Dataset name	Institutions	Project	Abstract	Collection period
<input type="checkbox"/>	<b>N-ICE2015 surface meteorology</b> <a href="#">Download data</a> <a href="#">Metadata</a>	Norwegian Polar Institute		Meteorological data from 10m weather mast during the N-ICE2015 expedition: wind speed, wind direction, air temperature, air pressure, and relative humidity. Please read the Readme files for detailed information on processing and quality control. Variables: 'humidity_10m' 'relative_humidity_2m' 'relative_humidity_4m' 'second' 'unix_time' 'wind_s'	2015-01-01T12:00:00Z to 2015-06-27T12:00:00Z
<input type="checkbox"/>	<b>Helicopter-borne sea-ice thickness measurements from the 2014 IRO2/ESA SMOSice campaign cruise in the Barents Sea region</b> <a href="#">Download data</a> <a href="#">Metadata</a>	Norwegian Polar Institute		Helicopter-borne sea-ice thickness measurements were conducted during this campaign. The thickness produced by this sensor is 'total thickness', that is ice + snow, but is normally referred to as 'sea-ice thickness'. This work was supported by the European Space Agency SMOSice project (ESA contract 4000110477/14/NL/FF/II). We would like to thank the crews of Airlift helicopter and RV Lance for their assistance with the collection of this dataset.	2014-03-18T12:00:00Z to 2014-03-26T12:00:00Z
<input type="checkbox"/>	<b>ROMS Arctic20km forecast</b> <a href="#">Metadata</a> <a href="#">Transform</a>	Norwegian Meteorological Institute		THIS MODEL IS DISCONTINUED AND NO FORECAST DATA IS AVAILABLE ONLINE. This ocean model is operated at 20km resolution covering the Nordic Seas and the Arctic Ocean. This specific dataset provides the hourly forecast fields from the operational model. For historical purposes, the daily analysis is provided as another dataset. If for some reason the historical forecast is required, please use the contact information provided to receive this (manual task). A numerical model is applied to describe the dynamics of the oceans, such as sea level variations (tides and storm surge), movements in the water column (currents) and the salinity and temperature. To simulate the ocean, a 3-D grid is applied with different sizes, i.e., small grids for fine scale or detailed calculations, and larger or coarser grids to cover larger areas (and depth). The model runs on a supercomputer, and provides forecasts of sea level, currents, salinity and temperature for a time-range between 66 (2.75 days) and 240 hours (10 days). The model is run operationally, i.e., in a "24/7/365" environment to provide a 99.5% stability on a yearly basis. Currents from the model is further applied in emergency-models that simulates pathways of oil slicks and drifting objects (Search And Rescue). The ocean model used is the Regional Ocean Modeling System (ROMS). This is a three-dimensional, free-surface, terrain-following numerical model that solve the Reynolds-averaged Navier-Stokes equations using the hydrostatic and Boussinesq assumptions (Haidvogel et al., 2008). Haidvogel, D. B., H. Arango, W. P. Budgell, B. D. Cornuelle, E. Curchitser, E. Di Lorenzo, K. Fennel, W. R. Geyer, A. J. Hermann, L. Lanerolle, J. Levin, J. C. McWilliams, A. J. Miller, A. M. Moore, T. M. Powell, A. F. Shchepetkin, C. R. Sherwood, R. P. Signell, J. C. Warner, and J. Wilkin, Ocean forecasting in terrain-following coordinates: Formulation and skill assessment of the Regional Ocean Modeling System, JOURNAL OF COMPUTATIONAL PHYSICS, 227, 3595-3624, 2008.	2012-11-05T12:00:00Z to 2017-05-17T12:00:00Z



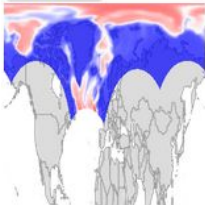
Click data set title to go to the website where the data set is located.



Number of datasets found: 8

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	Download data				
	Metadata				
<input type="checkbox"/>	Helicopter-borne sea-ice thickness measurements from the 2014 IRO2 /ESA SMOSice campaign cruise in the Barents Sea region	Norwegian Polar Institute		Helicopter-borne e this sensor is tota thank the crews o	2014-03-18T12:00:00Z to 2014-03-26T12:00:00Z
	Download data				
	Metadata				
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	Metadata				
	Transform				
					

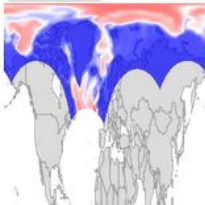
Viewing metadata may be useful for, e.g., finding contact information, or viewing key words for future searches.



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	<a href="#">Download data</a>				
	<a href="#">Metadata</a>				
<input type="checkbox"/>	Helicopter-borne sea-ice thickness measurements from the 2014 IRO2 /ESA SMOSice campaign cruise in the Barents Sea region	Norwegian Polar Institute		Helicopter-borne sea-ice thickness measurements from the 2014 IRO2 /ESA SMOSice campaign cruise in the Barents Sea region. This sensor is total ice thickness. The data was collected during this campaign. The thickness produced by the sensor is in meters. Project (ESA contract 4000110477/14/NL/FF/II). We would like to...	2014-03-18T12:00:00Z to 2014-03-26T12:00:00Z
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	<a href="#">Metadata</a>				
	<a href="#">Transform</a>				
					

Transform means that you can choose a spatial and temporal extent, select variables, etc, before downloading the data set. An e-mail will be sent to you with a link for download.



<input type="checkbox"/>	<b>Arctic Sea Ice Svalbard</b>	Norwegian Meteorological Institute	Sea ice concentration charts based on a manual interpretation of different satellite data. The main satellite sensor used are the SAR sensor (Synthetic Aperture Radar) supplemented by visual and infrared sensors and data from passive microwave sensors. As part of the Copernicus project the sea ice concentration product is gridded to a 1km spatial resolution and converted to a NetCDF format. The concentration intervals follow the World Meteorological Organization (WMO) total concentration standard. A new product is delivered every weekday around 1500 UTC.	2010-01-04T12:00:00Z to
	Download data			
	Metadata			
	Transform			



Some data sets provides visualization through a web map service.

<input type="checkbox"/>	<b>Zeppelin Webcamera Time Series</b>	Norwegian Polar Institute	At the [Zeppelin O] Alesund. All archiv named L- [zeppPa zeppelin/camera/t /zeppCam2.jpg]	2000-09-17T12:00:00Z to
	Download data			
	Metadata			
<input type="checkbox"/>	<b>Sea Ice Extent</b>	Norwegian Meteorological Institute	Arctic Sea Ice Ext	1978-11-16T12:00:00Z to 2013-09-16T12:00:00Z
	Download data			
	Metadata			
	Visualize			
	ASCII			

Others allow visualization of a time series.

Could be useful to see if this is the data you are looking for before downloading.

Data search can be done without an account.

Some features requires login.

The database will be populated with more data services from the collaborating institutions.

Questions and comments about the website?

Use the forum <https://arctic-rcc.org/forum>  
or the contact form <https://arctic-rcc.org/about-us>.