

# AWI CryoSat-2 Sea Ice Product

Arctic sea ice freeboard and thickness from data of the European radar altimeter CryoSat-2 is generated by the Alfred Wegener Institute (AWI) in the winter month (October-April). The resulting data products are publicly available under a Creative Commons Attribution 4.0 International (CC BY 4.0) license. Please read the documentation below for data access and formats.

Sea ice thickness information from CryoSat-2 is available from two data streams

1. near-real time (nrt) data with a delay of 2 days
2. reprocessed data with a delay of 31 days

## How to cite

Hendricks, S. and Ricker, R. (2019): Product User Guide & Algorithm Specification: AWI CryoSat-2 Sea Ice Thickness (version 2.1), Technical Report, hdl:10013/epic.7dacf2fe-bead-4a1b-a266-c4fdd022877f, <https://epic.awi.de/id/eprint/49542/>

## Disclaimer

This service does not intend to be an operational data dissemination service. Interruptions of data provision might occur at any time. We stress the fact that the interpretation of CryoSat-2 radar signals over sea ice and the uncertainties of freeboard retrieval and conversion into sea ice thickness are still an active field of research. This product shall therefore be used as a tool for the scientific community to enable further development of sea ice thickness retrieval algorithms from radar altimetry.

It is however our aim, to regularly revise and improve the sea-ice processing chain for CryoSat-2 data and provide incremental update at the start of each Arctic winter season in October.

We encourage users to give feedback at [info\(at\)meereisportal.de](mailto:info(at)meereisportal.de) for further improvements of the AWI CryoSat-2 sea ice product.

## Data Access

Access options for the AWI CryoSat-2 sea ice thickness product.

[ [FTP Server](#) ] [ [meereisportal.de](http://meereisportal.de) ]

## Data Content & Format

Distributed data processing levels are the daily trajectory summary (l2p) and weekly/monthly gridded data (l3c). The content of products based on the near-real time and reprocessed input version are identical and marked by the timeliness tag in the filename and global attributes of the netCDF files.

[ [NetCDF File Format](#) ] [ [L2P Trajectory](#) ] [ [L3C Grid](#) ]

## Whats New

Changelog of the CryoSat-2 sea ice algorithm.

[ [Version 2.1](#) ]

## Version History

Sea ice products are continuously updated to include scientific and technical improvements. The following versions have been released:

[ [Version 1.2](#) ] [ [Version 2.0](#) ] [ [Version 2.1](#) ]

## Acknowledgements

Cryosat-2 Level-1 data is courtesy of the European Space Agency  
[ESA CryoSat website](#)  
[ESA CryoSat-2 Wiki](#)



Sea ice concentration and type data is courtesy of the [Ocean and Sea Ice Satellite Application Facility \(OSI-SAF\)](#)



Global mean sea surface products (DTU15/DTU18) is courtesy of the [Danish National Space Institute \(DTU Space\)](#)



Snow depth from AMSR2 is courtesy of the [Institute for Environmental Physics of the University Bremen](#)



