

## 1. DATA AND INFORMATION TYPES

### A. Provide a contextual description of the data stream.

This site includes the Nimbus-7 SMMR and DMSP SSM/I-SSMIS Passive Microwave Data, which provides high-quality sea ice concentrations every other day from October 26, 1978 to July 9, 1987 and daily from July 10 to December 31, 2010. This data set is generated from brightness temperature data and is designed to provide a consistent time series of sea ice concentrations spanning the coverage of several passive microwave instruments. The data are provided in the polar stereographic projection at a grid cell size of 25 x 25 km. Also included is the Near-Real-Time DMSP SSM/I-SSMIS data, which provides best-estimate daily sea ice concentrations from January 1, 2011 to the present.

Website URL:

<http://portal.aaos.org/#module-metadata/391183ee-827e-11e1-a4f3-00219bfe5678/c4d14166-cae8-4bb0-8cd5-fc876f07d63c>

Multisensor Analyzed Sea Ice Extend (MASIE):

<http://portal.aaos.org/#module-metadata/05113e8c-ea25-11e0-a998-0019b9dae22b/ba74f14c-ea25-11e0-986a-0019b9dae22b>

### B. How many station locations are there for this data stream?

N/A

### C. What are the specific parameters of the data.

The parameters of this data include date, time, and sea ice concentration.

### D. Provide information about the sampling platform or instrumentation.

The sampling platforms are DMSP 5D-2/F11, DMSP 5D-2/F13, DMSP 5D-2/F8, DMSP 5D-3/F17, NIMBUS-7, which include the SMMR, SSM/I, SSMIS sensors.

## 2. DATA PATHWAY

### A. Is a data sharing agreement required?

Data are available publically.

### B. In which format(s) were data received by AOOS?

Data were received as flat binary files (1-byte scaled, unsigned integers) in polar stereographic projections.

### C. How can the information be accessed?

The data are available through the AOOS data portal, where it can be downloaded or explored through interactive visualizations. Specifically the data are available from four

unique access points:

- Web Mapping Service (WMS)
- THREDDS
- OPeNDAP
- File Downloads (CSV)

**D. What file formats will be used for sharing data, if different from original?**

Data are shared as CSV and NetCDF. Data are also available for exploration in the AOOS portals via interactive, graphical visualizations.

**E. Describe how the data are ingested(e.g. the flow of data from source to AOOS data portals) and any transformations or modifications made to share data in the AOOS data portal.**

Data are downloaded daily in its original format from the NSIDC site. AOOS converts these files to NetCDF files using custom Java and Scala scripts, and stores the converted data on servers within the AOOS data management system. Data are made available in the AOOS portals through the access points and via graphic display. Graphical map displays are generated through internal data requests from the sensor service in JSON format. Program code handles the connection of data from the server to graphic display in the portal. A time series extraction tool uses a JSON request to pull values out of the netCDF files for multiple times at a specific location. Extracted data are provided as CSV. Gridded data files may be downloaded by the user from the AOOS data portal. A user request for a WMS file will provide a georeferenced image tile for use with common web mapping services. A user request for THREDDS or OPeNDAP uses that respective service to request full or partial data files in netCDF format.

**F. What metadata or contextual information is provided with the data?**

Metadata are shared in the AOOS portals with descriptive narratives describing the data and linking back to the originator's site.

**G. Are there ethical restrictions to data sharing?**

No

**a. If so, how will these be resolved?**

N/A

**H. Who holds intellectual property rights (IPR) to the data?**

National Snow and Ice Data Center (NSIDC)

**I. Describe any effect of IPR on data access.**

None

### **3. DATA SOURCE AND QUALITY CONTROL**

#### **A. Indicate the data source type (i.e. Federal, Non-Federal, University, State Agency, Local Municipality, Military Establishment (branch), private industry, NGO, non-Profit, Citizen Science, Private individual)**

Federal

##### **a. If Federal data source, were changes applied to the data?**

Yes

##### **b. If Yes, describe any changes to the data that require documentation?**

The file format of the original data was changed.

#### **B. Indicate the data reporting type (e.g. real-time, historical).**

Historical

#### **C. If real-time, list the QARTOD procedures that are currently applied.**

Not Required

#### **D. If real-time, list the QARTOD procedures that are planned for implementation.**

#### **E. What is the status of the reported data? (e.g. raw, some QC, incomplete, delayed mode processed but not QC'd)**

QC by originator

#### **F. Describe the data control procedures that were applied by the originator.**

Federal source

##### **a. Provide a link to any documented procedures.**

N/A

#### **G. Describe the data control procedures that were applied by AOOS.**

No applied AOOS QC. This is a synthesis product made from existing data sources.

##### **a. Provide a link to any documented procedures.**

N/A

#### **H. List the procedures taken for data that could not be QC'd as directed.**

N/A

### **4. STEWARDSHIP AND PRESERVATION POLICIES**

#### **A. Who is responsible for long-term data archiving?**

NSIDC already archives these data.

This is a synthesis product made from existing data sources. Data are aggregated for visualization and exploration with other layers in the AOOS data portal. AOOS stores the real-time and historical data internally using the AOOS data servers.

**B. Which long-term data storage facility will be used for preservation?**

N/A

**C. Describe any transformation necessary for data preservation.**

N/A

**D. List the metadata or other documentation that will be archived with the data.**

N/A