

## 1. DATA AND INFORMATION TYPES

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

The Aquarius instrument uses three L-band radiometers (each centered at 1.413 GHz), which measure brightness temperature of the ocean. The brightness temperature of the ocean surface is affected by surface temperature, conductivity of the water (salinity), and the roughness of the surface (which is corrected using an onboard scatterometer). Aquarius sea surface salinity (SSS) and wind speed data are produced as daily, weekly and monthly aggregates. Daily data will have sparse spatial coverage as it takes seven days for Aquarius to provide complete coverage of the Earth.

Website URLs:

Salinity:

<http://portal.aos.org/#module-metadata/282a9756-9929-41d4-a957-5d49dc6f5f38/1089f5f9-48cc-4df2-ba7e-4afccb668d62>

Wind Speed:

<http://portal.aos.org/#module-metadata/466dc3dc-4a93-4d62-980c-8c1be3bd6b90/5991fce3-6800-4aad-8602-fc3abef47ae4>

### 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 these data include: date, time, sea surface salinity, and sea surface wind speed. Locational values can be ascertained from the visualizations.

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

This sampling platform is the NASA Aquarius/SAC-D satellite.

## 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 HDF files from the originator.

### 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 monthly in its original format from the NASA PO.DAAC 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. The source data parameters and units are converted to comply with CF standard units, if those same units are not already utilized in the source data. Refer to Appendix I for CF standards. The time series extraction tool produces a CSV file from the original netCDF files. Summary statistics may be displayed in the graphical displays through interactive user requests. These statistics use temporal binning on daily, weekly, monthly, seasonally and yearly scales and may include minimum, maximum and mean values. However, these statistics are purely for graphical exploration and may not be downloaded.

**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?**

NASA

**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, Federal Source.

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

N/A

**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

See source page for details: <http://podaac.jpl.nasa.gov/aquarius>

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

Federal source, not required

**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?**

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.

Data are already being archived by originator. See source page for details:

<http://podaac.jpl.nasa.gov/aquarius>

**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