

# Guide to the 'Arctic' Directory in 'The Best CTD/Hydrographic Data' Collection

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*In this document, tasks not yet completed are highlighted in grey.*

This is a guide to the 'Arctic' files in 'The Best CTD/Hydrographic Data' area of the Java OceanAtlas Suite site ([https://joa.ucsd.edu/Data\\_homepage](https://joa.ucsd.edu/Data_homepage)). This area of the site contains cleaned data from the Arctic Ocean and Nordic Seas. Because we are always adding new files, this document may be slightly out of date; the intent is to update this as needed.

Arctic Ocean and Nordic Seas cruises are often not laid out as primarily long vertical sections. There may be numbers of short sections and/or grid-like station patterns. In fact, to date there has not yet been a complete single-ship boundary to boundary vertical section across the Arctic Ocean, although a two-ship occupation of the GO-SHIP "AR01" section can be assembled from subsets of the combined efforts of the USCGC Healy and PFS Polarstern Arctic Geotraces cruises in 2015. There are, however, many other valuable Arctic Ocean sections. For example, a principal repeated vertical section has been along 75°N in the Greenland Sea. Also, there are many non-section-oriented Arctic Ocean and Nordic Seas cruises providing valuable data.

The 'Arctic' directory area of 'The Best CTD/Hydrographic Data' differs from those for the other oceans:

- In addition to vertical sections we present cleaned files from entire cruises.
- In the Arctic/Nordic cruise files especially, we have not always padded the bottle data files with blank columns for parameters in our standard list which were missing in the original file.

All "cleaned" data were downloaded from the CCHDO (<https://cchdo.ucsd.edu>) and then subjected to these procedures: (1) Bottle data columns and headers were rectified to a specified order. (1a) Exception to #1: For most Arctic/Nordic 'cruise' files bottle data columns and headers were rectified to a subset containing the measured parameters, without blank columns for parameters not measured or reported in the original files at the CCHDO, but used in the 'cleaned' data on this site from the other oceans. (2) Duplicate bottles and bottles were discarded. In most cases bottles with little or no data from oxygen titrations or nutrient analyses were discarded. (3) Data which were quality coded bad or uncertain were eliminated. (4) Where there were multiple casts at a single station (or a single location with multiple stations), the ones which comprised the most nearly complete profile were combined into a single vertical profile. (5) Most transects were sorted with south-to-north or west-to-east left-right orientation. (6) Where it took several cruises to cover one long transect, the data were combined. (7) Overlapping or off-transect data were eliminated (from section files, not from cruise files). No measured data values were changed. In a few cases errors in station metadata such as position or depth to bottom were corrected.

We include several general maps showing station distributions for many of the cruises in the Arctic & Nordic data file listings.

Files with suffix "\_hy1.csv" are in Exchange format (see <https://cchdo.ucsd.edu/formats>), which can be read by several data exploration applications (e.g., ODV) and any application which can read ascii .csv files. Files with ".joa" suffix are in Java OceanAtlas binary format, which can be read only by that application. [NOTE: Java OceanAtlas can be used to export an Exchange format (\_hy1.csv) file from any file it can open.]

"WOA" in a file name indicates a data set made from WOA files to as closely as feasible match the track of the WOCE line in question. We will make most of these later.

At this time the focus is on the bottle data files. Only a few cruises now have CTD data on line here. In the fullness of time, we intend that there should be cleaned bottle and cleaned CTD files, each in ascii/Exchange and JOA binary formats.

### **Arctic Ocean sections**

ARC01\_2015\_3\_ship\_bot\_clean\_sorted\_hy1.csv  
ARC01\_2015\_3\_ship\_bot\_clean\_sorted.joa

### **Nordic Seas sections**

(75°N section not yet prepared for site)

### **Arctic Ocean cruise files**

YMER\_1980\_77YM19800811\_bot\_clean\_merged\_hy1.csv  
YMER\_1980\_77YM19800811\_bot\_clean\_merged.joa

ARKTIS\_II/3\_1984\_06AQ19840719\_bot\_clean\_hy1.csv  
ARKTIS\_II/3\_1984\_06AQ19840719\_bot\_clean.joa

ARKTIS\_IV/3\_1987\_06AQ19870704\_cchdo\_bot\_clean\_hy1.csv  
ARKTIS\_IV/3\_1987\_06AQ19870704\_cchdo\_bot\_clean.joa

ODEN\_1991\_77DN19910726\_bot\_clean\_edited\_hy1.csv  
ODEN\_1991\_77DN19910726\_bot\_clean\_edited.joa

Polarstern\_1993\_06AQ19930806\_bot\_clean\_merged\_hy1.csv  
Polarstern\_1993\_06AQ19930806\_bot\_clean\_merged.joa

AOS94\_18SN19940724\_bot\_clean\_merged\_hy1.csv  
AOS94\_18SN19940724\_bot\_clean\_merged.joa

Polarstern\_1995\_06AQ19950707\_bot\_clean\_heavyedit\_hy1.csv  
Polarstern\_1995\_06AQ19950707\_bot\_clean\_heavyedit.joa

Polarstern\_ARKXII\_1996\_06AQ19960712\_bot\_clean\_merged\_hy1.csv  
Polarstern\_ARKXII\_1996\_06AQ19960712\_bot\_clean\_merged.joa

JOIS4\_1997\_18SN19970924\_section\_bot\_clean\_hy1.csv  
JOIS4\_1997\_18SN19970924\_section\_bot\_clean.joa

CBL\_2002\_32PZ20020819\_bot\_clean\_hy1.csv  
CBL\_2002\_32PZ20020819\_bot\_clean.joa

SBI\_2002\_July\_32H120020718\_bot\_clean\_merged\_hy1.csv  
SBI\_2002\_July\_32H120020718\_bot\_clean\_merged.joa

SBI\_2002\_May\_32H120020505\_bot\_clean\_merged\_hy1.csv  
SBI\_2002\_May\_32H120020505\_bot\_clean\_merged.joa

SBI\_2002\_mooring\_32PZ20020715\_bot\_clean\_noO2\_hy1.csv  
SBI\_2002\_mooring\_32PZ20020715\_bot\_clean\_noO2.joa

SBI\_2003\_survey\_320620030705\_bot\_clean\_merged\_hy1.csv  
SBI\_2003\_survey\_320620030705\_bot\_clean\_merged.joa

SBI\_2004\_July\_32H120040718\_bot\_clean\_merged\_hy1.csv  
SBI\_2004\_July\_32H120040718\_bot\_clean\_merged.joa

SBI\_2004\_May\_32H120040515\_bot\_clean\_merged\_hy1.csv  
SBI\_2004\_May\_32H120040515\_bot\_clean\_merged.joa

Oden\_2005\_77DN20050819\_bot\_clean\_merged\_hy1.csv  
Oden\_2005\_77DN20050819\_bot\_clean\_merged.joa

Oden\_2007\_77DN20070812\_no\_nuts\_bot\_clean\_hy1.csv  
Oden\_2007\_77DN20070812\_no\_nuts\_bot\_clean.joa

Polarstern\_2007\_ARKXXII\_2\_06AQ20070728\_bot\_clean\_merged\_hy1.csv  
Polarstern\_2007\_ARKXXII\_2\_06AQ20070728\_bot\_clean\_merged.joa

ICESCAPE\_2010\_bot\_clean\_06OCT2015\_hy1.csv  
ICESCAPE\_2010\_bot\_clean\_06OCT2015.joa

ICESCAPE\_2011\_clean\_06OCT2015\_hy1.csv  
ICESCAPE\_2011\_clean\_06OCT2015.joa

Polarstern\_2011\_06AQ20110805\_nobotO2orS\_bot\_clean\_merged\_hy1.csv  
Polarstern\_2011\_06AQ20110805\_nobotO2orS\_bot\_clean\_merged.joa

Healy\_2015\_Geotraces\_33HQ20150809\_bot\_clean\_merged\_hy1.csv  
Healy\_2015\_Geotraces\_33HQ20150809\_bot\_clean\_merged.joa

2015\_Arctic\_Geotraces\_3cruise\_GOSHIP\_params\_bot\_clean\_hy1.csv  
2015\_Arctic\_Geotraces\_3cruise\_GOSHIP\_params\_bot\_clean.joa

### **Nordic Seas cruise files**

Hudson\_1982\_Nordic\_18HU19820228\_bot\_clean\_hy1.csv  
Hudson\_1982\_Nordic\_18HU19820228\_bot\_clean.joa

Nordic\_1997\_58JH19970425\_O2only\_bot\_clean\_merged\_hy1.csv

Nordic\_1997\_58JH19970425\_O2only\_bot\_clean\_merged.joa

Nordic\_1999\_58JH19990615\_bot\_clean\_merged\_hy1.csv  
Nordic\_1999\_58JH19990615\_bot\_clean\_merged.joa

Nordic\_2000\_58JH20000527\_bot\_clean\_merged\_hy1.csv  
Nordic\_2000\_58JH20000527\_bot\_clean\_merged.joa

Nordic\_2001\_58AA20010527\_no\_nuts\_bot\_clean\_hy1.csv  
Nordic\_2001\_58AA20010527\_no\_nuts\_bot\_clean.joa

Nordic\_2002\_Knorr\_316N20020530\_bot\_clean\_hy1.csv  
Nordic\_2002\_Knorr\_316N20020530\_bot\_clean.joa

Nordic\_2002\_Oden\_77DN20020420\_bot\_clean\_merged\_hy1.csv  
Nordic\_2002\_Oden\_77DN20020420\_bot\_clean\_merged.joa

Nordic\_2002\_survey\_Knorr\_Oden\_bot\_clean\_hy1.csv  
Nordic\_2002\_survey\_Knorr\_Oden\_bot\_clean.joa

Nordic\_2009\_58GS20090528\_bot\_clean\_hy1.csv  
Nordic\_2009\_58GS20090528\_bot\_clean.joa

### **Bering Sea cruise files**

BEST\_2008\_APR\_33HQ20080329\_bot\_partly\_clean\_hy1.csv  
BEST\_2008\_APR\_33HQ20080329\_bot\_partly\_clean.joa

BEST\_2009\_OCT\_31FN20090924\_bot\_clean\_hy1.csv  
BEST\_2009\_OCT\_31FN20090924\_bot\_clean.joa

BEST\_2010\_JUN\_325020100509\_bot\_clean\_header\_problems\_hy1.csv  
BEST\_2010\_JUN\_325020100509\_bot\_clean\_header\_problems.joa