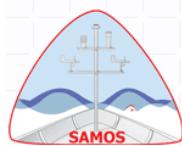


## PART 1: the end user

The SAMOS public website can be entered via the main page at <http://samos.coaps.fsu.edu/html/>

The screenshot shows the SAMOS homepage. At the top, the word "SAMOS" is written in large red letters, with "Shipboard Automated Meteorological and Oceanographic System" in smaller blue text below it. To the left is a graphic of a ship's deck with various meteorological and oceanographic instruments mounted on a mast. The word "SAMOS" is also printed in red at the base of the mast. On the right side, there is a navigation menu with several links: "About", "Accuracy", "Data Access" (which has a grey arrow pointing to it), "Literature", "Ship Recruiting", "Tools & Utilities", "Training", and "Workshops". Below the menu, there is a welcome message: "Welcome. The SAMOS initiative provides routine access to accurate, high-quality marine meteorological and near-surface oceanographic observations from research vessels and select voluntary observing ships." There is also a link for users to contact the team. At the bottom left, there is a footer with links to COAPS, FSU, and the Site map, along with a copyright notice: "Copyright © 2005 COAPS."

By choosing the Data Access link (at grey arrow), the user can access preliminary, intermediate, and research-quality data along with graphical representations of data availability and quality. As an example, consider the user who wants to find 2011 in situ wind and temperature data for the Gulf of Mexico (GoM). The first step would be to identify which ships frequented this area in 2011. To do so, choose View Data Map on the Data Access page:



**SAMOS**

Shipboard Automated Meteorological and Oceanographic System

## Data Access

Please choose a page from the following list:

- [Access Data by Date](#) Search and download data for all SAMOS ship by vessel and date range.
- [Access Data by Cruise](#) Search and download observations by R2R cruise identifiers. This page may take up to 30 seconds to load as there are a lot of cruises to index.
- [Access Data - THREDDS](#) Access preliminary, intermediate, or research-quality SAMOS netCDF files via our THREDDS catalog
- [View Data Map](#)  Plot cruise tracks of each ship on a satellite map over a selected period of time
- [Web Services](#) Web Services
- [Additional RV data](#) Additional RV data
- [SAMOS Parameters](#) View a list of meteorological and oceanographic parameters that the initiative seeks to obtain from vessels
- [Metadata Portal](#) Access ship metadata database
- [User Metadata Tutorial](#) SAMOS Online Metadata System Walk-through tutorial. The document provides instruction on accessing cruise track maps, vessel and instrument metadata, data, and quality control statistics from the SAMOS web interface. [\[pdf\]](#)

The user highlights a set of ships from the available list (16 ships may be chosen at a time):

## Data Map

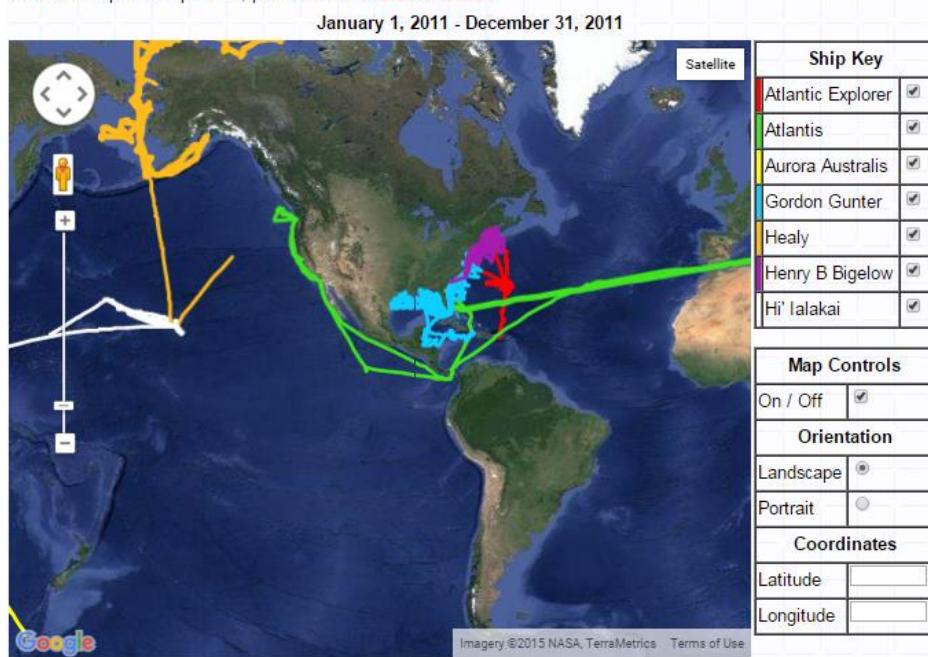
To use the data map, select one or more ships from the menu. Then, using either the calendar or the drop-down menus, select a date range. To access the calendar, click the icon next to the start or end selection menus. Since the data takes 10 days to process, please keep this in mind when selecting your end date range. A maximum of 16 ships can be displayed on the map at a single time. Please [contact us](#) if you have any questions.

<b>Choose a Ship</b> or Multiple Ships (ctrl-click or apple key-click)	<ul style="list-style-type: none"><li>ATLANTIC EXPLORER (WDC)</li><li>ATLANTIS (KAQP)</li><li>AURORA AUSTRALIS (VNAA)</li><li>BELL M. SHIMADA (WTED)</li><li>DAVID STARR JORDAN (WTDE)</li><li>DELAWARE II (KNBD)</li><li>ENDEAVOR (WCE5063)</li><li>FAIRWEATHER (WTEB)</li><li>FALKOR (ZCYL5)</li><li>FERDINAND HASSSLER (WTEC)</li><li>GORDON GUNTER (WTEO)</li><li>HEALY (NEPP)</li><li>HENRY B. BIGELOW (WTDF)</li><li>HI'IAKAI (WTEY)</li><li>KA'IMIMOANA (WTEU)</li></ul>
<b>Select a Date:</b>	Start: <input type="button" value="January"/> <input type="button" value="1"/> , <input type="button" value="2011"/>
	End: <input type="button" value="December"/> <input type="button" value="31"/> , <input type="button" value="2011"/>
	<input type="button" value="Search"/>

By entering a date range of January 1, 2011 to December 31, 2011 and clicking "search," a map is displayed showing all of the selected ship's tracks for the year 2011:

### Data Map

The purpose of this page is for the user to select ships and date ranges. Then, using Google maps, a track of the ship(s) will be displayed for the selected dates. To view the tracks of other ships or dates, click [here](#). To learn more about the map and ship tracks, please read the [documentation](#).



Now the user can see that the *Gordon Gunter* cruised in the GoM region in 2011. (The process can be repeated to check the remaining ships.) The next step might be to see what parameters are available on each ship. Returning to the Data Access page, the user this time selects the Metadata Portal:

### Data Access

Please choose a page from the following list:

- [Access Data by Date](#) Search and download data for all SAMOS ship by vessel and date range.
- [Access Data by Cruise](#) Search and download observations by R2R cruise identifiers. This page may take up to 30 seconds to load as there are a lot of cruises to index.
- [Access Data - THREDDS](#) Access preliminary, intermediate, or research-quality SAMOS netCDF files via our THREDDS catalog
- [View Data Map](#) Plot cruise tracks of each ship on a satellite map over a selected period of time
- [Web Services](#) Web Services
- [Additional RV data](#) Additional RV data
- [SAMOS Parameters](#) View a list of meteorological and oceanographic parameters that the initiative seeks to obtain from vessels
- [Metadata Portal](#)  Access ship metadata database
- [User Metadata Tutorial](#) SAMOS Online Metadata System Walk-through tutorial. The document provides instruction on accessing cruise track maps, vessel and instrument metadata, data, and quality control statistics from the SAMOS web interface. [\[pdf\]](#)

and first inputs the proper information for the *Gunter*:

<b>Metadata Portal</b>	
The SAMOS Data Assembly Center (DAC) has developed a new metadata specification for SAMOS data. The specification was developed with input from members of the Voluntary Observing Ship Climate project (VOSClim), the Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM), the National Oceanographic Data Center (NODC), and other programs involved with metadata standards for marine observations. Upon recruitment to the SAMOS initiative, each vessel will be required to complete a series of metadata forms and all pertinent metadata will be stored in a ship profile database at the DAC.	
The portal provides access to metadata stored in the database for all ships providing data to the DAC. At present, the vessels listed are participating in the 2005 pilot project. A search tool allows users to select a vessel and whether they are interested in ship-specific, parameter-specific, or digital image metadata. Ship-specific metadata include general information about the vessel, vessel dimensions, and contacts for the original data provider. The parameter-specific metadata lists all measurements being provided by a vessel and allows the user to sub-select information on the variables, units, averaging methods, and instrumentation. Digital imagery includes photos of each vessel and instrument masts and also contains schematics for each vessel.	
Additional search tools will be added in the future and suggestions are welcome. Please <a href="#">contact us</a> if you have any questions.	
Choose a ship	<input type="text" value="GORDON GUNTER (WTEO)"/>
Type of metadata	<input type="text" value="parameter-specific"/>
Type a date	<input type="text" value="1/1/2011-12/31/2011"/> where a valid date is of the form month/day/year, ex: 9/10/04, or a range, 9/10/04 - 9/20/04, you can also enter things like "yesterday"
Click search	<input type="button" value="search"/>

The result, once "search" is clicked, is an exhaustive list of all parameters available from the *Gunter* in 2011:

# Metadata Portal

## GORDON GUNTER

Expand each of the ship's variables for a detailed view

[Show All] [Hide All]

Order: [Alphabetically] [netCDF order]

Print View

- + time
- + latitude
- + longitude
- + platform heading
- + platform course
- + earth relative wind direction
- + platform relative wind direction
- + platform speed over ground
- + earth relative wind speed
- + platform relative wind speed
- + atmospheric pressure
- + air temperature
- + relative humidity
- + sea temperature
- + salinity
- + conductivity

A thorough investigation of the list tells the user the *Gunter* did in fact provide both wind and temperature data in 2011. (Throughout the online SAMOS system, clicking on a "+" will yield further information; in this case the result would be metadata for the individual parameters.) Now the user will want to know the quality of the wind and temperature data. To find that, he returns once again to the Data Access page and this time chooses Access Data by Date:

## Data Access

Please choose a page from the following list:

- [Access Data by Date](#)  Search and download data for all SAMOS ship by vessel and date range.
- [Access Data by Cruise](#) Search and download observations by R2R cruise identifiers. This page may take up to 30 seconds to load as there are a lot of cruises to index.
- [Access Data - THREDDS](#) Access preliminary, intermediate, or research-quality SAMOS netCDF files via our THREDDS catalog
- [View Data Map](#) Plot cruise tracks of each ship on a satellite map over a selected period of time
- [Web Services](#) Web Services
- [Additional RV data](#) Additional RV data
- [SAMOS Parameters](#) View a list of meteorological and oceanographic parameters that the initiative seeks to obtain from vessels
- [Metadata Portal](#) Access ship metadata database
- [User Metadata Tutorial](#) SAMOS Online Metadata System Walk-through tutorial. The document provides instruction on accessing cruise track maps, vessel and instrument metadata, data, and quality control statistics from the SAMOS web interface. [\[pdf\]](#)

After selecting the *Gunter* along with date range, data version (preliminary, intermediate, or research), and the desired parameter(s) (toggle Sort by Variables to bring up available parameter list), noting that the default date range and available parameters will change once a vessel and data version are selected, and then clicking "search":

## Data Availability

August 2010: We are pleased to announce an advanced version of our data availability tool. We have added the option to select data by type, ship, date, and available variables. The data types are preliminary (automated QC only, available within minutes of receipt), intermediate (automated QC, duplicates eliminated, available on 10-day delay), and research (automated and visual QC, 10-day delay, only for select ships and periods).

To use the interface, first select your data type. Select a ship(s), date range, and variable(s) from the dynamically generated lists. Upon selecting one or more ships in the below menu, the date fields will automatically update to provide only the timeframe where data is available. For example, the Atlantis has data available starting in June 2005 while the David Star Jordan joined SAMOS a few years later in March 2008. Multiple ships and variables can be selected by holding down the control (CTRL) key. Please [contact us](#) if you have any questions.

Data Type	<input type="text" value="research"/>
Choose a ship	<input type="text" value="GORDON GUNTER (WTEO)"/> To select multiple ships use ctrl-click or apple key-click. By default, all ships are selected.
Start Date	<input type="text" value="2011"/> <input type="text" value="January"/> <input type="text" value="01"/>
End Date	<input type="text" value="2011"/> <input type="text" value="December"/> <input type="text" value="31"/>
Choose a variable	<input type="text" value="Earth Relative Wind Speed (SPD)"/> To select multiple variables use ctrl-click or apple key-click. By default, all ships are selected.
Table Grouping	<input type="text" value="Sort by Ships"/>
Sort by	<input type="radio"/> Overall <input checked="" type="radio"/> Variables
Click search	<input type="button" value="search"/>

the user arrives at a timeline showing on which days in 2011 the *Gunter* provided data for the chosen parameter(s), as well as the quality of that data for each calendar day (note: image has been truncated):

## Data Availability: Research

The purpose of this page is to allow the user to get a rough idea of the quality of data for a particular day broken down by ship and variable. The color boxes represent the relative quality for each variable as a percentage of the total number of one-minute samples available for that ship and day. To view a breakdown of the quality control for any given day, simply click on the respective colored box. For the preliminary data, multiple files may exist for a single day and ship. The data tables can be expanded or contracted and can be switched from sorting by ship to sorting by variable. At the bottom of the page, you can make selections by data quality, ship, and variable to download the data. Based on your selections, you will receive the entire data file for a given day; however, you can choose to omit files with poor data quality for your chosen variable(s).

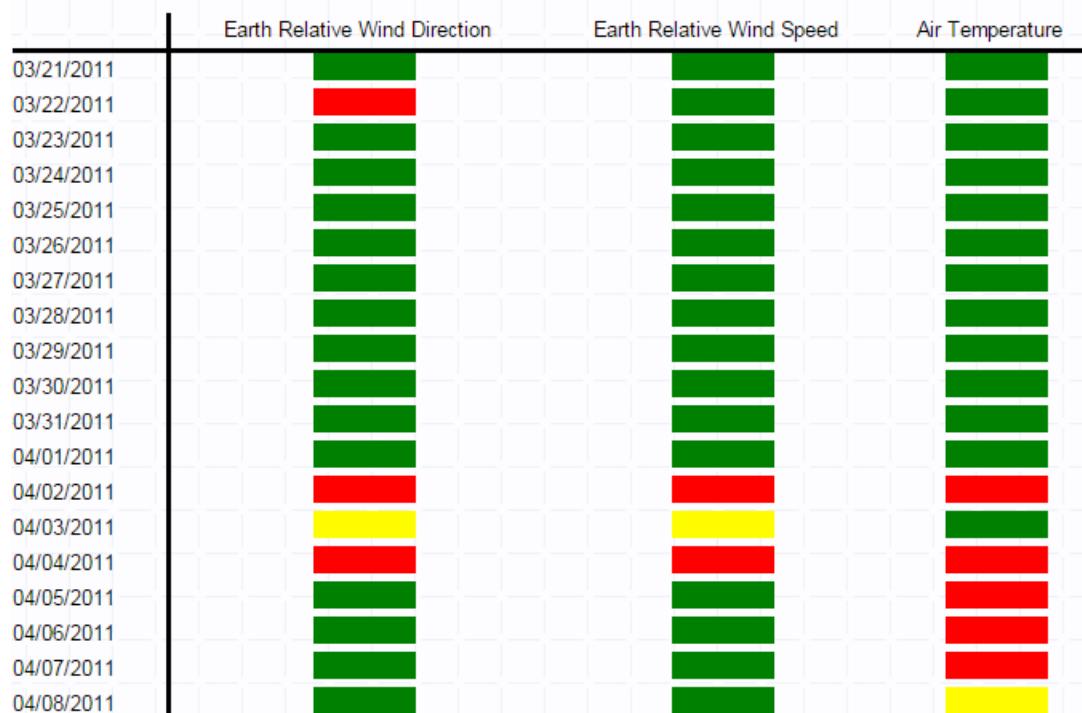


Toggle: Ships | Variables

### Ships

Contract All | Expand All

#### GORDON GUNTER



Color-coding alerts the user to the perceived quality of the data. As explained in the key at the top of the page, green indicates "Good Data" (with 0-5% flagged as suspect), yellow indicates "Use with Caution" (with 5-10% flagged as suspect), and red indicates a more emphatic "Use with Caution" (with >10% flagged as suspect). A grey box indicates that no data exists for that day and variable. In this case, the user can automatically see that on 04/03/11 the *Gunter's*

temperature data are considered "Good Data." More detailed flag information, as well as information pertaining to all other available parameters, can be found by simply clicking on any colored box. As an example, by clicking over the yellow bar for Earth Relative Wind Direction on the date 04/03/11 a user can find out more specific information about data quality to determine whether the wind data might also be useful. When the yellow bar is clicked, the user is first directed to a pie chart showing overall quality:

## Data Download w/ Daily QC Statistics

This page contains interactive graphics which, will not work correctly unless your web browser has [Macromedia Flash Player 6](#) or later installed. These graphics respond to mouse clicks on either the pie chart itself or the legend. In some situations once a chart is "drilled down" the only way to return to that level is to use the chart navigation links. For example, once the intial graph, failed qc vs passed qc, is drilled down the only ways of returning to it is by using the chart navigation or by refreshing the page.

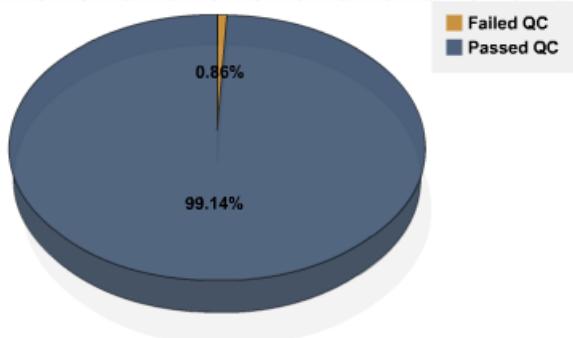
### GORDON GUNTER

04/03/2011

select all

File version # 300 File order #1 [download](#) | [view file](#)

Chart Navigation [failed qc vs passed qc](#) | [flag distribution](#) | [a-y flags](#) | [z flags](#)



Compression: [tar.gz](#) ▾

[Download selected](#)

Clicking on the pie chart yields a more in-depth look:

## Data Download w/ Daily QC Statistics

This page contains interactive graphics which, will not work correctly unless your web browser has **Macromedia Flash Player 6** or later installed. These graphics respond to mouse clicks on either the pie chart itself or the legend. In some situations once a chart is "drilled down" the only way to return to that level is to use the chart navigation links. For example, once the intial graph, failed qc vs passed qc, is drilled down the only ways of returning to it is by using the chart navigation or by refreshing the page.

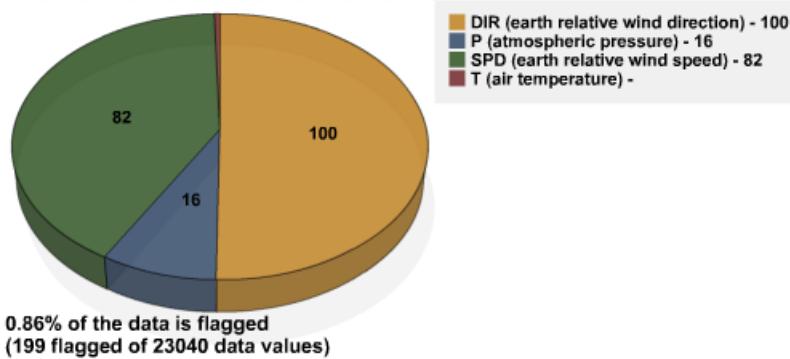
### GORDON GUNTER

04/03/2011

select all

File version # 300 File order #1 [download](#) | [view file](#)

Chart Navigation [failed qc vs passed qc](#) | [flag distribution](#) | [a-y flags](#) | [z flags](#)



Compression: [.tar.gz](#) ▾

[Download selected](#)

The user can now check to see precisely what types of flags were applied to the wind sensor data, as only a portion of the data were flagged and they may still be usable. By clicking on either the yellow pie slice for "DIR" or the "DIR" line in the grey box, he determines that mainly "caution" flags plus a few "spike" flags were applied to a portion of the data:

## Data Download w/ Daily QC Statistics

This page contains interactive graphics which, will not work correctly unless your web browser has Macromedia Flash Player 6 or later installed. These graphics respond to mouse clicks on either the pie chart itself or the legend. In some situations once a chart is "drilled down" the only way to return to that level is to use the chart navigation links. For example, once the intial graph, failed qc vs passed qc, is drilled down the only ways of returning to it is by using the chart navigation or by refreshing the page.

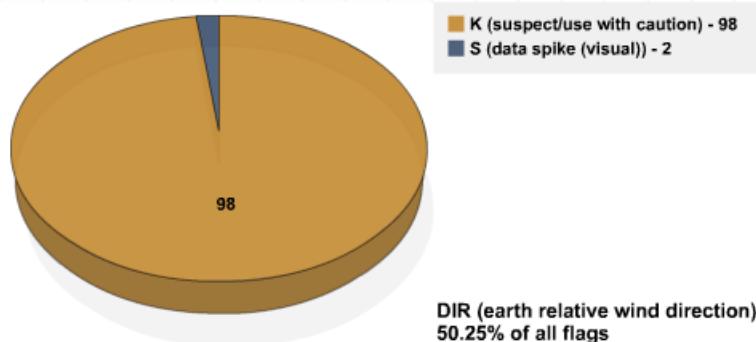
### GORDON GUNTER

04/03/2011

select all

File version # 300 File order #1 [download](#) | [view file](#)

Chart Navigation [failed qc vs passed qc](#) | [flag distribution](#) | [a-y flags](#) | [z flags](#)



Compression: [.zip](#) ▾

[Download selected](#)

In this example, the user might repeat these steps to evaluate the quality of "SPD" for 04/03/11. In the end, perhaps he decides the wind sensor data will also be useful to him and now he would like to download the data. There are several ways to accomplish this: By toggling a check mark in the "File" box (as shown above) and choosing the preferred file compression format ("zip" in this case) on this or any of the pie chart pages, the 04/03/11 file containing all available parameters for that date is downloaded once "Download selected" is clicked. (Note that the entire file must be downloaded; individual parameters are not available for singular download at this time.) Alternatively, the user has an opportunity to download all files in a requested date range at one time. Let us assume that, after careful consideration of the quality of wind and temperature data from the Gunter for the period from 03/23/11 to 04/01/11, the user decides he would like to download all available data from that period. By returning to the Access Data by Date page (under Data Access) and filling in the appropriate information to ultimately arrive back at a color-coded timeline (toggling Sort by Variables is not necessary this time):

## Data Availability

August 2010: We are pleased to announce an advanced version of our data availability tool. We have added the option to select data by type, ship, date, and available variables. The data types are preliminary (automated QC only, available within minutes of receipt), intermediate (automated QC, duplicates eliminated, available on 10-day delay), and research (automated and visual QC, 10-day delay, only for select ships and periods).

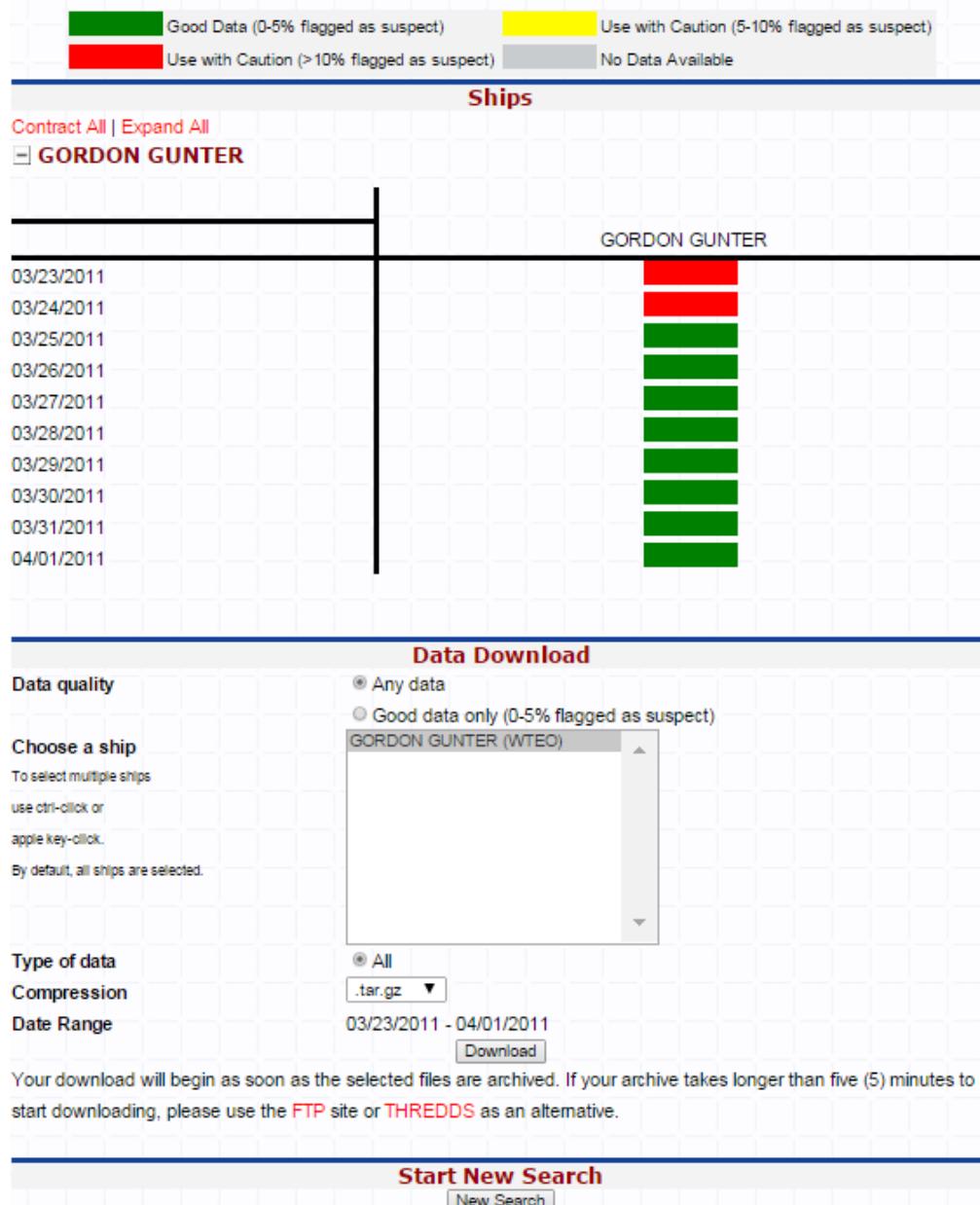
To use the interface, first select your data type. Select a ship(s), date range, and variable(s) from the dynamically generated lists. Upon selecting one or more ships in the below menu, the date fields will automatically update to provide only the timeframe where data is available. For example, the Atlantis has data available starting in June 2005 while the David Star Jordan joined SAMOS a few years later in March 2008. Multiple ships and variables can be selected by holding down the control (CTRL) key. Please [contact us](#) if you have any questions.

Data Type	research
Choose a ship	<ul style="list-style-type: none"><li>KA'IMIMOANA (WTEU)</li><li>HENRY B. BIGELOW (WTDF)</li><li>RON BROWN (WTEC)</li><li>HI'IALAKAI (WTEY)</li><li>GORDON GUNTER (WTEO) <b>(selected)</b></li><li>DAVID STARR JORDAN (WTDK)</li><li>RAINIER (WTEF)</li><li>FAIRWEATHER (WTEB)</li><li>OREGON II (WTDO)</li><li>SOUTHERN SURVEYOR (VLHJ)</li></ul>
To select multiple ships	<small>use ctrl-click or apple key-click.</small>
By default, all ships are selected.	
Start Date	2011 ▾ March ▾ 23 ▾
End Date	2011 ▾ April ▾ 01 ▾
Table Grouping	Sort by Ships
Sort by	<input checked="" type="radio"/> Overall <input type="radio"/> Variables
Click search	<input type="button" value="search"/>

after clicking “search” he can then scroll down to the Data Download section at the bottom of the resulting timeline page, select a file compression type (.tar.gz in this case) and select whether or not to limit the download to days with Good Quality only (all data allowed in this case; note that the red bars for 03/23-03/24/2011 in this case reflect a sum of ALL parameters, not just the wind and temperature data previously checked and verified to be good data, as we did not toggle Sort by Variables this time), and then click Download to begin the download:

## Data Availability: Research

The purpose of this page is to allow the user to get a rough idea of the quality of data for a particular day broken down by ship and variable. The color boxes represent the relative quality for each variable as a percentage of the total number of one-minute samples available for that ship and day. To view a breakdown of the quality control for any given day, simply click on the respective colored box. For the preliminary data, multiple files may exist for a single day and ship. The data tables can be expanded or contracted and can be switched from sorting by ship to sorting by variable. At the bottom of the page, you can make selections by data quality, ship, and variable to download the data. Based on your selections, you will receive the entire data file for a given day; however, you can choose to omit files with poor data quality for your chosen variable(s).



For single file download, a user may also choose to use the Center for Ocean-Atmospheric Prediction Studies (COAPS) THREDDS service, available by clicking Access Data – THREDDS on the Data Access page:

## Data Access

Please choose a page from the following list:

- [Access Data by Date](#) Search and download data for all SAMOS ship by vessel and date range.
- [Access Data by Cruise](#) Search and download observations by R2R cruise identifiers. This page may take up to 30 seconds to load as there are a lot of cruises to index.
- [Access Data - THREDDS](#) Access preliminary, intermediate, or research-quality SAMOS netCDF files via our THREDDS catalog
- [View Data Map](#) Plot cruise tracks of each ship on a satellite map over a selected period of time
- [Web Services](#) Web Services
- [Additional RV data](#) Additional RV data
- [SAMOS Parameters](#) View a list of meteorological and oceanographic parameters that the initiative seeks to obtain from vessels
- [Metadata Portal](#) Access ship metadata database
- [User Metadata Tutorial](#) SAMOS Online Metadata System Walk-through tutorial. The document provides instruction on accessing cruise track maps, vessel and instrument metadata, data, and quality control statistics from the SAMOS web interface. [[pdf](#)]

He then navigates through the ensuing THREDDS catalog to arrive at the desired data. For example, the SAMOS THREDDS catalog begins here, click on links to descend deeper into the catalog:

Catalog /thredds/catalog_samos.html		
Dataset	Size	Last Modified
Shipboard Automated Meteorological and Oceanographic System (SAMOS) Data	--	--
Preliminary_Ship_Data/	--	--
Intermediate_Ship_Data/	--	--
Research_Ship_Data/	--	--

COAPS THREDDS at the Center for Ocean-Atmospheric Prediction Studies  
THREDDS Data Server [Version 4.0.24 - 20090724.2259] Documentation

Finally, if a desired ship is in the Rolling Deck to Repository Program (R2R) and a cruise number is known, data can be downloaded by cruise by choosing Access Data by Cruise on the Data Access page:

## Data Access

Please choose a page from the following list:

- [Access Data by Date](#) Search and download data for all SAMOS ship by vessel and date range.
- [Access Data by Cruise](#)  Search and download observations by R2R cruise identifiers. This page may take up to 30 seconds to load as there are a lot of cruises to index.
- [Access Data - THREDDS](#) Access preliminary, intermediate, or research-quality SAMOS netCDF files via our THREDDS catalog
- [View Data Map](#) Plot cruise tracks of each ship on a satellite map over a selected period of time
- [Web Services](#) Web Services
- [Additional RV data](#) Additional RV data
- [SAMOS Parameters](#) View a list of meteorological and oceanographic parameters that the initiative seeks to obtain from vessels
- [Metadata Portal](#) Access ship metadata database
- [User Metadata Tutorial](#) SAMOS Online Metadata System Walk-through tutorial. The document provides instruction on accessing cruise track maps, vessel and instrument metadata, data, and quality control statistics from the SAMOS web interface. [\[pdf\]](#)

The user selects the Data Type, Ship, and Cruise Number (toggle Sort by Variables to select specific parameters to look for, as before):

## Cruise Data Availability

NOTICE: This page may take up to a minute to load, as the script needs time to gather and populate all the form options.

July 2011: We are pleased to provide this tool to allow data access and downloading by cruise identifier.

The cruise identifiers are from a unique catalog maintained by the [Rolling Deck to Repository Program](#).

NOTE - NOAA and several other vessel are not presently cataloged by R2R and therefore are not downloadable by cruise from this site.

Start by selecting the data type:

Preliminary - only automated QC, multiple files for each day.

Intermediate - only automated QC, merged to a daily file, no duplicates.

Research - automated and visual QC, only available for select vessels and cruises.

Select one or more ships to see a list of available cruises.

Upon selecting one or more cruises in the below menu, you may choose either an overall daily quality or to select specific variables. The variable fields will automatically update to provide only the variables that the selected ships and cruises provide.

Multiple ships, cruises and variables can be selected by holding down the control (CTRL) key.

Please [contact us](#) if you have any questions.

Data Type	<input type="text" value="research"/> <input type="button" value="▼"/>
Choose a ship	<input type="text" value="KNORR (KCEJ)"/> <input type="text" value="ATLANTIS (KAQP)"/> <input type="text" value="OCEANUS (WXAQ)"/> <input type="text" value="NATHANIEL B. PALMER (WBP3210)"/> <input type="text" value="LAURENCE M. GOULD (WCX7445)"/> <input type="text" value="HEALY (NEPP)"/> <input type="text" value="RON BROWN (WTEC)"/> <input type="text" value="OKEANOS EXPLORER (WTDH)"/> <input type="text" value="FALKOR (ZCYL5)"/>
To select multiple ships	<input type="checkbox"/> use ctrl-click or <input type="checkbox"/> apple key-click
Choose a cruise	<input type="text" value="FK141015 (ZCYL5)"/> <input type="text" value="FK140204 (ZCYL5)"/> <input type="text" value="FK141109 (ZCYL5)"/> <input type="text" value="FK140216 (ZCYL5)"/> <input type="text" value="FK140420 (ZCYL5)"/> <input type="text" value="FK140502 (ZCYL5)"/> <input type="text" value="FK140307 (ZCYL5)"/> <input type="text" value="FK140418 (ZCYL5)"/> <input type="text" value="FK141215 (ZCYL5)"/> <input type="text" value="FK150117 (ZCYL5)"/>
To select multiple cruises	<input type="checkbox"/> use ctrl-click or <input type="checkbox"/> apple key-click
Sort by	<input type="radio"/> Overall <input checked="" type="radio"/> Variables
Choose a variable	<input type="text" value="Air Temperature (T)"/> <input type="text" value="Air Temperature 2 (T2)"/> <input type="text" value="Atmospheric Pressure (P)"/> <input type="text" value="Atmospheric Pressure 2 (P2)"/> <input type="text" value="Conductivity (CNDC)"/> <input type="text" value="Earth Relative Wind Direction (DIR)"/> <input type="text" value="Earth Relative Wind Direction 2 (DIR2)"/> <input type="text" value="Earth Relative Wind Direction 3 (DIR3)"/> <input type="text" value="Earth Relative Wind Speed (SPD)"/> <input type="text" value="Earth Relative Wind Speed 2 (SPD2)"/>
To select multiple variables	<input type="checkbox"/> use ctrl-click or <input type="checkbox"/> apple key-click
Click search	<input type="button" value="search"/>

and click "search" to arrive at a timeline page with the familiar options to 1) click on color bars to get data quality information and 2) use the Data Download section to download cruise data:

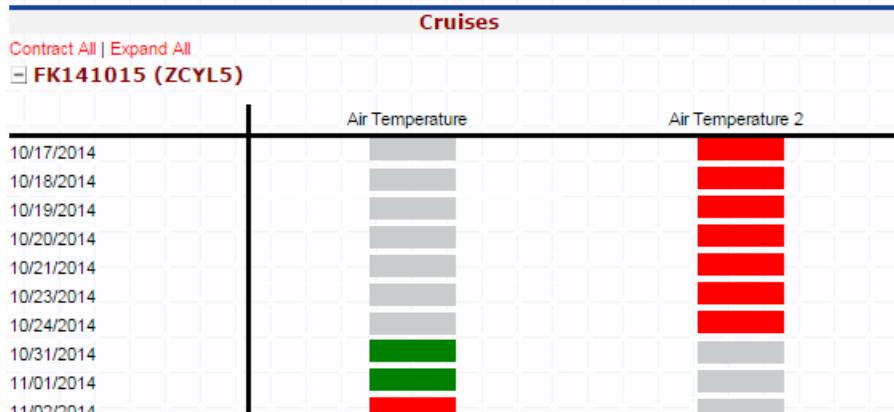
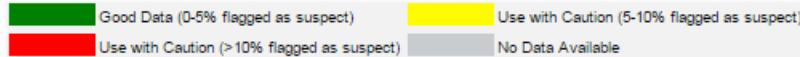
## Cruise Data Availability: Research

NOTICE: This page may take up to a minute to load, as the script needs time to gather and populate all the form options.

The purpose of this page is to allow the user to get a rough idea of the quality of data for over a date range of a given cruise for a particular ship. In some cases multiple files may exist for a single day and ship. In these cases quality is calculated for the overall day, meaning an overall quality for the pieces as a whole are calculated. To see the quality of each piece individually click on the colored box aligning the ship and day desired.

For more information on the cruises you can visit the Rolling Deck to Repository at the following link(s):

FK141015 at R2R 



### Data Download

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Choose a cruise  
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FK141015 (ZCYL5)

Type of data  All  Variables

Compression .tar.gz ▾

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