

USING THE IRI DATA LIBRARY TO FIND PRECIPITATION AND TEMPERATURE DATA

By Source

The screenshot shows the IRI/LDEO Climate Data Library homepage. The left sidebar has a dark blue background with white text and several links:

- Data Library
- expert
- Finding Datasets
- Browse Datasets
- Maproom By Category By Source By Search** (this link is highlighted with a red box and a red arrow)
- Help Resources
- Tutorial Statistical Analysis Tutorial Ingrid Documentation Questions and Answers help

The main content area features the title "IRI/LDEO Climate Data Library". Below it is a brief description of the library's capabilities and a "What's New" section. The "What's New" section contains three items:

- CC Monitoring Product Version 4 and Climatology Version 2011 Precipitation Products**: The Global Precipitation Climatology Centre (GPCC) monthly precipitation Monitoring Product Version 4 and the monthly precipitation climatology Normals Version 2011 global gridded precipitation analyses based upon station precipitation data have been added.
Published: Mon, 05 Mar 2012 20:16:26 GMT
- Africa Rainfall Climatology Version 2 (ARC2) Daily Precipitation Estimates**: The CPC/FEWS Africa Rainfall Climatology Version 2 dataset contains daily precipitation estimates over the African continent at 0.1 deg. lat/lon resolution. Version 2 begins in 1983 and is updated in near real-time. The daily estimates are based upon geostationary IR satellite data and quality controlled gauge observations from the GTS.
Published: Mon, 05 Mar 2012 19:45:42 GMT
- NASA GPCP Version 2.2 monthly precipitation dataset**: The latest version (version 2.2) of NASA's Global Precipitation Climatology Project (GPCP) monthly precipitation data set has been added to the Data Library. The product includes multiple estimated precipitation variables and error estimates derived from various combinations of IR and microwave satellite and gauge observations.
Published: Tue, 11 Oct 2011 20:55:59 GMT

On the right side, there is a "Monitoring Global Climate" box with a map and a "Map Room" section. At the bottom of the page, the URL <http://iridl.ideo.columbia.edu/> is shown in the address bar.

<http://iridl.ideo.columbia.edu/>

Datasets and variables

The screenshot shows the 'dataset: SOURCES - Internet Explorer, optimized for Bing and MSN' window. The left sidebar contains the IRI logo and links for Data Library, Finding Data, Tutorial Questions and Answers, Function Documentation, and Help. The main content area has a 'SOURCES' header and a 'Documents' section with a link to 'overview'. The 'Datasets and variables' section lists various datasets with their descriptions. A red arrow points from the 'Datasets and variables' heading to the 'NOAA' link in the list.

SOURCES

SOURCES: the IRI/LDEO collection of climate data.

Documents

[overview](#) an outline showing sub-datasets of this dataset

Datasets and variables

ANEEL	Agência Nacional de Energia Elétrica.
ARCTIC	Oceanic station data for the Arctic Region.
Biosphere	Biosphere 2 Laboratory.
BRF	Black Rock Forest.
CAC	Climatological, smoothed, and raw sea surface temperature.
CARDONE	ECMWF five day average wind stress; Cardone Level 1.
Carton/Giese	CARTON-GIESE[SODA]
CAYAN	Heat flux and irradiance data analysis of COADS from CAYAN.
CCCma	The Canadian Centre for Climate Modelling and Analysis.
CDIAC	Carbon Dioxide Information Analysis Center.
CEREGE	CEREGE[Indonesia_station_precip]

[LEVITUS94](#) World Ocean Atlas 1994, an atlas of objectively analyzed fields of major ocean parameters at the annual, seasonal, and monthly time scales. Superseded by WOA98.

[Lithosphere](#) Datasets describing the lithosphere.

[LSTM](#) Liverpool School of Tropical Medicine.

[MIT](#) MIT: MIT Climate Group.

[MODELRUNS](#) MODELRUNS[MEOSFC]

[Models](#) Models[NMME AMIP]

[Morlere](#) Zonal and meridional wind stress data for the Atlantic and Eastern Pacific Oceans from Alain Morlere's model.

[MPI](#) MPI[]

[NASA](#) National Aeronautics and Space Administration.

[NCAR](#) National Center for Atmospheric Research.

[NMC9195](#) Sea level pressure data from the National Meteorological Center - now known as the National Centers for Environmental Prediction.

[NOAA](#) Wind stress data from the National Meteorological Center - now known as the National Centers for Environmental Prediction.

[OBERHUBE](#) National Oceanic and Atmospheric Administration.

[OOBT](#) Max Planck Institute heat flux and surface radiation climatology over global oceans.

[OSU](#) Global atmospheric circulation statistics/analysis from the Geophysical Fluid Dynamics Laboratory based on weather station, ship, and buoy data.

[OSU/PRISM](#) OSU[PRISM]

[PAGASA](#) Global ocean heat flux and wind stress from Oregon State University Climate Research Institute.

[PALEO](#) Philippine Atmospheric, Geophysical and Astronomical Services Administration.

[PELTIER](#) Reconstruction of Palmer Drought Index for the United States based on tree ring data.

[Princeton](#) Princeton[VIC]

[RC](#) Ice age paleotopography from a gravitationally self-consistent theory.

[REVERDIN](#) RC[sst0 tauy0 taux0]

[RHN](#) 15 meter tropical Pacific seasonal currents by Reverdin et. al.

[River](#) RHN[aphrodite]

[RSMAS](#) Australian river flow data.

[RSMAS](#) RSMAS[CCSM3.0]

Scroll down to find NOAA

dataset: NOAA - Internet Explorer , optimized for Bing and MSN

http://iridl.ideo.columbia.edu/SOURCES/.NOAA/

File Edit View Favorites Tools Help

Favorites Web Slice Gallery

teddyallen - Yahoo! Mail dataset: NOAA Gmail - Fwd: tethered shooti...

Page Safety Tools

IRI options Help Expert Mode

SOURCES NOAA

served from IRI/LDEO Climate Data Library

NOAA

NOAA: National Oceanic and Atmospheric Administration.

Documents

[overview](#) an outline showing sub-datasets of this dataset

Datasets and variables

[ESRL](#) Earth System Research Laboratory (formerly Climate Diagnostics Center).

[NCDC](#) National Climatic Data Center.

[NCEP](#) National Centers for Environmental Prediction.

[NCEP-DOE](#) NCEP-DOE.

[NCEP-NCAR](#) NCEP/NCAR Reanalysis Project.

[NGDC](#) National Geophysical Data Center.

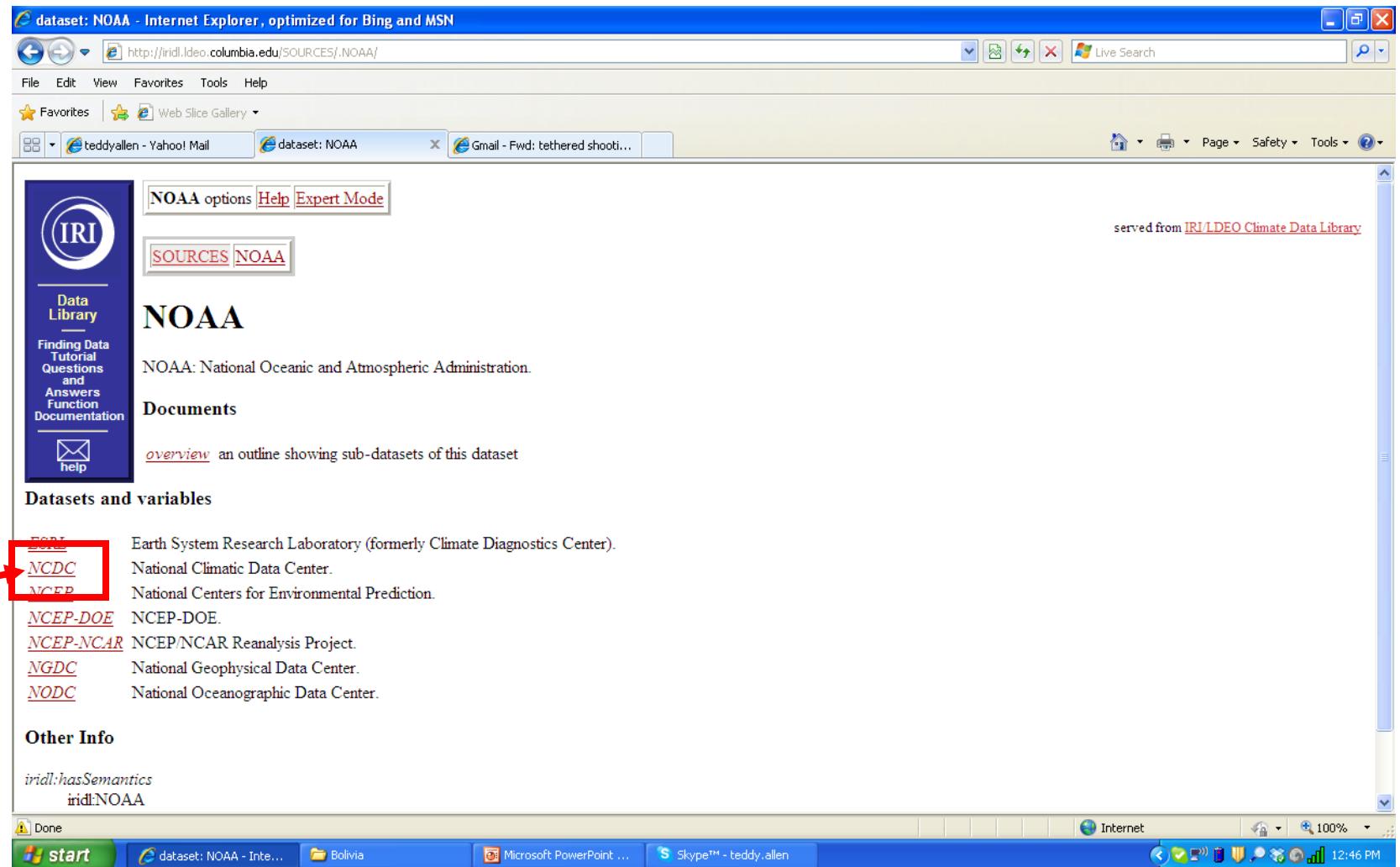
[NODC](#) National Oceanographic Data Center.

Other Info

iridl:hasSemantics
iridl:NOAA

Done

start dataset: NOAA - Inte... Bolivia Microsoft PowerPoint ... Skype™ - teddy.allen Internet 100% 12:46 PM



National Climate Data Center

Global Historical Climate Network (GHCN)

dataset: NOAA NCDC - Internet Explorer, optimized for Bing and MSN

File Edit View Favorites Tools Help

Favorites Web Slice Gallery

Gmail - Fwd: tethered shooti...

teddyallen - Yahoo! Mail

dataset: NOAA NCDC

Live Search

NOAA NCDC options Help Expert Mode

SOURCES NOAA NCDC

served from IRI/LDEO Climate Data Library

NOAA NCDC

NOAA NCDC: National Climatic Data Center.

Documents

[overview](#) an outline showing sub-datasets of this dataset
[NCDC Home Page](#)

Datasets and variables

[CIRS](#) Climate Index Reference Sequential.
[DAILY](#) Global daily WMO weather station data.
[ERSST](#) Extended reconstructed global sea surface temperature data based on COADS data.
[GCPS](#) Global Climate Perspectives System.
[Global Daily Climatology Network](#)
[**GHCN**](#)
[**GHCN Daily**](#) Global Historical Climatology Network: monthly weather station temperature and precipitation.
[GISTEMP](#) NOAA NCDC GISTEMP[version1]
[SSMI](#) NOAA NCDC SSMI[version2 version1]
[United States Historical Climatology Network](#) Monthly averaged maximum, minimum, and mean temperature and total monthly precipitation from stations in the United States.

Done

start dataset: NOAA NCDC... Microsoft PowerPoint... Skype™ - teddy.allen Internet

100% 12:49 PM

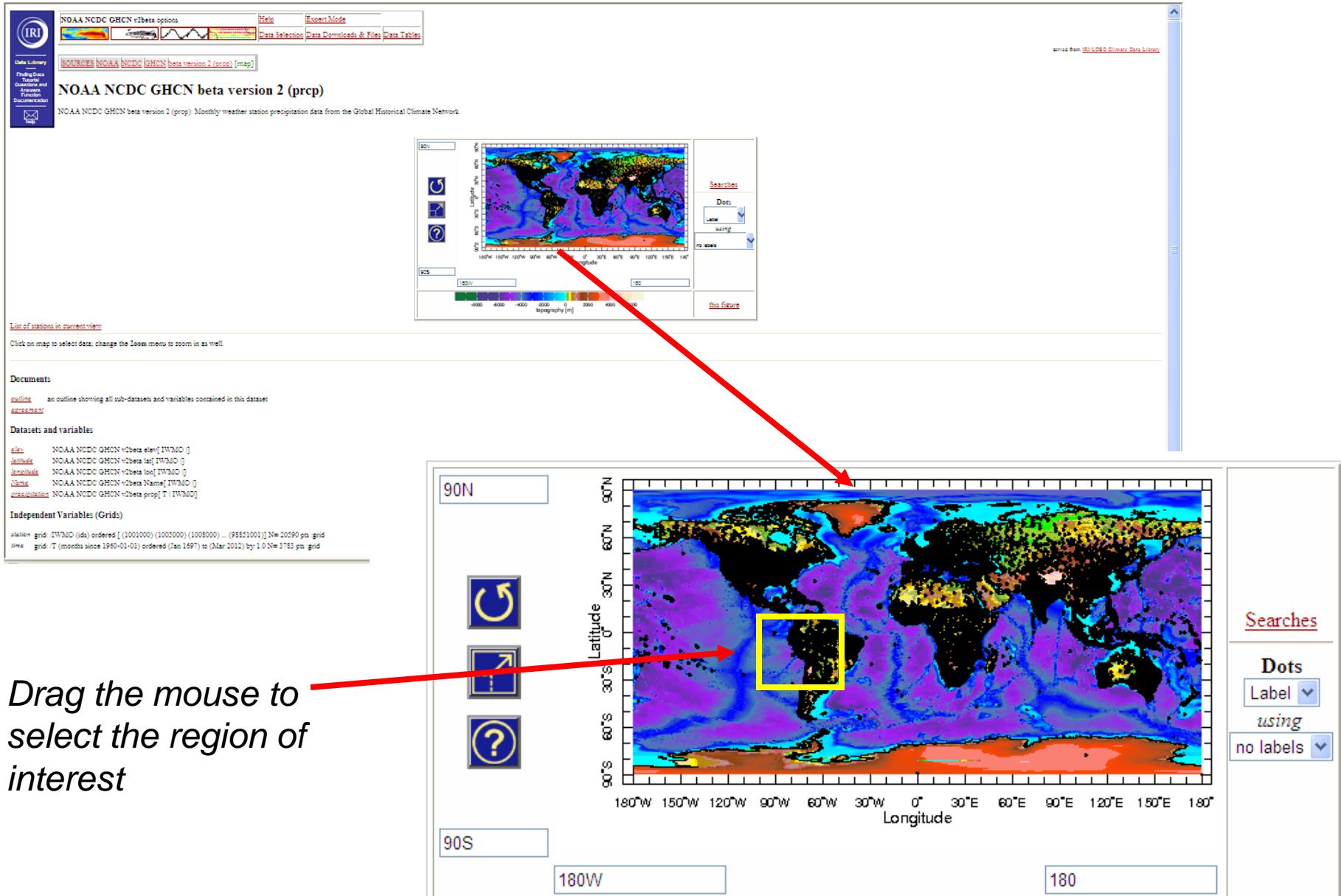
GHCN : monthly data for rainfall

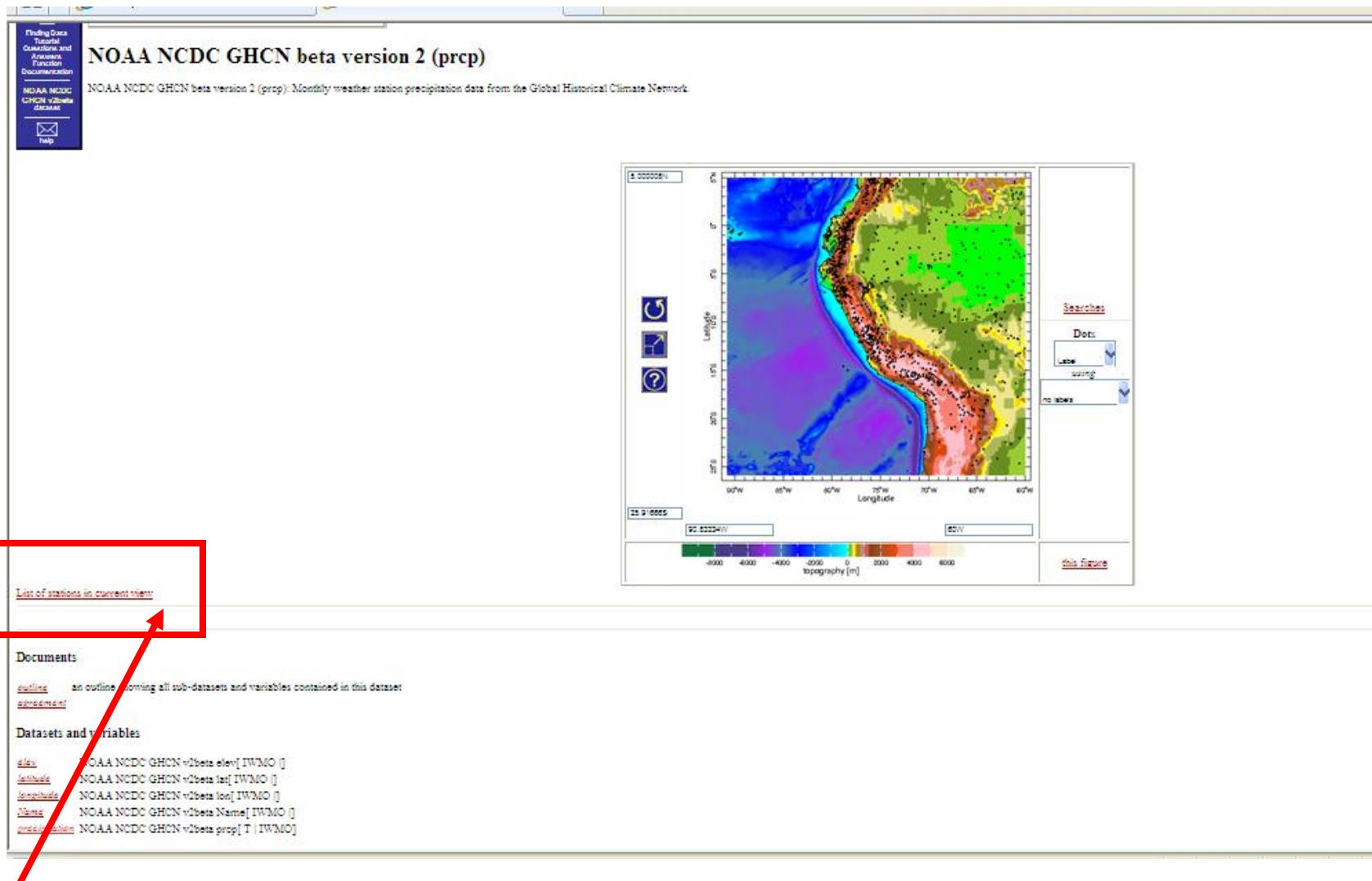
GHCN Daily : daily data for rainfall and temperature

GHCN(monthly)

A screenshot of an Internet Explorer window displaying the NOAA NCDC GHCN dataset. The title bar reads "dataset: NOAA NCDC GHCN - Internet Explorer, optimized for Bing and MSN". The address bar shows the URL "http://iridl.ideo.columbia.edu/SOURCES/NOAA/NCDC/GHCN/". The page content includes the IRI Data Library logo, navigation links for "NOAA NCDC GHCN options", "Help", and "Expert Mode". A red box highlights the link "beta version 2 (prcp)". A red arrow points from the bottom of the image towards this highlighted link. The page also features a sidebar with links for "SOURCES", "NOAA", "NCDC", and "GHCN". The main content area is titled "NOAA NCDC GHCN" and describes the Global Historical Climatology Network. It lists datasets like "version 2 (temp)" and "beta version 2 (prcp)". A footer at the bottom of the page indicates it was last updated on "Mon, 18 Nov 2002 17:10:44 GMT". The taskbar at the bottom of the screen shows other open applications like Microsoft PowerPoint and Skype.

beta version 2 (prcp)





List of current stations in view

Searches in NOAA NCDC GHCN beta version 2 (prcp)

Specify station
You can specify a single station here, otherwise use the searches below.

Get IWMO

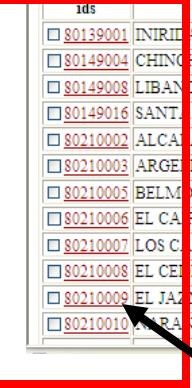
Searches
Specify ranges and the words or (sub)strings you would like to match: anything left blank will not restrict the search. In particular, you can specify a lower limit without specifying an upper limit (and vice versa).

Name	longitude	latitude	elev	
	269.1667	to 300.0	-25.91666	to 5.000008

[Dataset \(and map\) with all data found in search](#)

Page 1

station	Name	longitude	latitude	elev
ids	ids	degree_east	degree_north	m
<input type="checkbox"/> 80139001	INIRIDA COLOMBIA	67.60001W	3.5N	100.
<input type="checkbox"/> 80149004	CHINCHINA (CENI)	75.58002W	4.98N	1310.
<input type="checkbox"/> 80149008	LIBANO	75.04999W	4.93N	1495.
<input type="checkbox"/> 80149016	SANTANA	75.64999W	5N	1250.
<input type="checkbox"/> 80210002	ALCANTA	75.79999W	4.67N	1320.
<input type="checkbox"/> 80210003	ARGELIA (LA)	76.16998W	4.72N	1550.
<input type="checkbox"/> 80210005	BELMONTE	75.76999W	4.8N	1340.
<input type="checkbox"/> 80210006	EL CARO	76.22W	4.77N	1400.
<input type="checkbox"/> 80210007	LOS CUMBULOS	75.83002W	4.82N	1240.
<input type="checkbox"/> 80210008	EL CENTRAL	75.53W	4.78N	2120.
<input type="checkbox"/> 80210009	EL JAZMIN	75.63W	4.92N	1600.
<input type="checkbox"/> 80210010	KARAQUAL	75.67999W	4.95N	1400.






Actual lists of stations in view

SELECT ONE

dataset: NOAA NCDC GHCN v2beta - Internet Explorer, optimized for Bing and MSN

http://iridl.ldeo.columbia.edu/SOURCES/.NOAA/.NCDC/.GHCN/.v2beta/IWMO+80211007+VALUE/

File Edit View Favorites Tools Help

Favorites Web Slice Gallery

teddyallen - Yahoo! Mail dataset: NOAA NCDC GH...

NOAA NCDC GHCN v2beta options Help Expert Mode Data Selection Data Downloads & Files Data Tables

SOURCES NOAA NCDC GHCN beta version 2 (prcp) [map] IWMO 80211007 VALUE served from IRI/LDEO Climate Data Library

NOAA NCDC GHCN beta version 2 (prcp)

NOAA NCDC GHCN beta version 2 (prcp): Monthly weather station precipitation data from the Global Historical Climate Network.

Documents

[outline](#) an outline showing all sub-datasets and variables contained in this dataset
[agreement](#)

Datasets and variables

elev 1540 m
latitude 4.27N
longitude 75.92W
Name SEVILLA
precipitation NOAA NCDC GHCN v2beta prcp 80211007[T | IWMO]

Independent Variables (Grids)

station grid: IWMO (ids) ordered [(80211007)] :grid

Error on page.

Internet 100% 1:20 PM

start dataset: NOAA NCDC... Bolivia Microsoft PowerPoint ... Skype™ - teddy.allen alyon venti

precipitation

meta-data

data: NOAA NCDC GHCN v2beta prcp - Internet Explorer, optimized for Bing and MSN

http://iridl.ldeo.columbia.edu/SOURCES/.NOAA/.NCDC/.GHCN/.v2beta/IWMO+80211007+VALUE/,prcp/

File Edit View Favorites Tools Help

Favorites Web Slice Gallery

teddallen - Yahoo! Mail data: NOAA NCDC GHCN ...

Home Page Safety Tools ?

NOAA NCDC GHCN v2beta prcp options

NEW Views **Help** **Expert Mode**

Data Selection **Filters** **Data Files** **Tables**

old Viewer

SOURCES NOAA NCDC GHCN beta version 2 (prcp) [map] IWMO 80211007 VALUE precipitation

served from IRI/LDEO Climate Data Library

NOAA NCDC GHCN v2beta prep: precipitation data

precipitation from NOAA NCDC GHCN v2beta: Monthly weather station precipitation data from the Global Historical Climate Network.

Independent Variables (Grids)

station
grid: /IWMO (ids) ordered [(80211007)] :grid

time
grid: /T (months since 1960-01-01) ordered (Jan 1697) to (Mar 2012) by 1.0 N= 3783 pts :grid

Other Info

datatype
integer arraytype

missing_value
[-9999. -8888.]

scale_factor
0.1

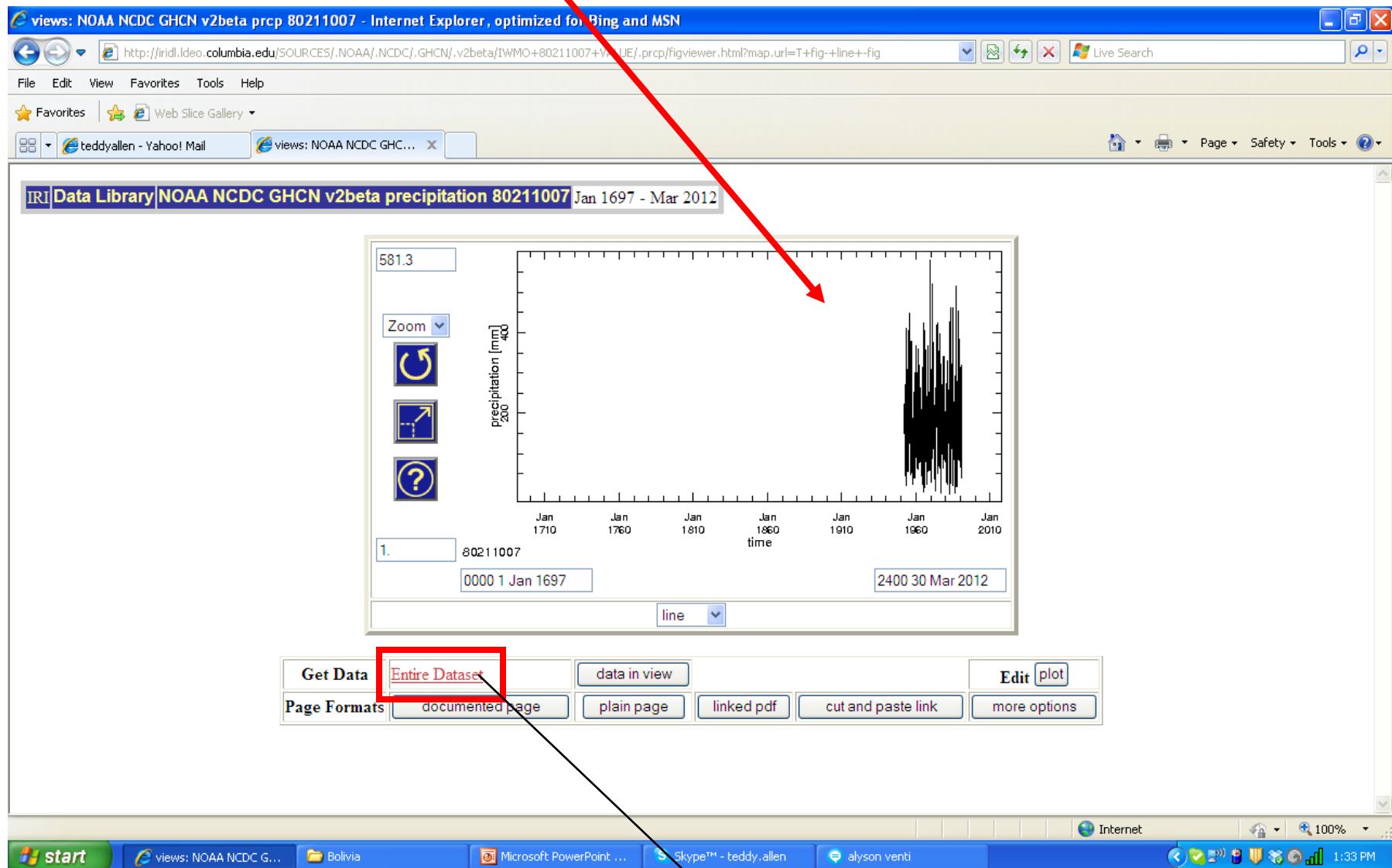
units
mm

Done Internet 100% 1:27 PM

star data: NOAA NCDC G... Bolivia Microsoft PowerPoint ... Skype™ - teddy.allen alyson venti

Views

Monthly precipitation data timeline....



To capture raw data

Data Files

A red arrow points from the title "Data Files" to the "Expert Mode" button in the top navigation bar of the web page.

data: NOAA NCDC GHCN v2beta prcp - Internet Explorer, optimized for Bing and MSN

http://iridl.ldeo.columbia.edu/SOURCES/.NOAA/.NCDC/.GHCN/v2beta/IWMO+80211007+VALUE/.prcp/

File Edit View Favorites Tools Help

Favorites Web Slice Gallery

teddyallen - Yahoo! Mail data: NOAA NCDC GHCN ...

NOAA NCDC GHCN v2beta prcp options

Help Expert Mode

NEW Views old Viewer Data Selection Filters Data Files Tables

SOURCES NOAA NCDC GHCN beta version 2 (prcp) [map] IWMO 80211007 VALUE precipitation served from IRI/LDEO Climate Data Library

NOAA NCDC GHCN v2beta prcp: precipitation data

precipitation from NOAA NCDC GHCN v2beta: Monthly weather station precipitation data from the Global Historical Climate Network.

Independent Variables (Grids)

station
grid: /IWMO (ids) ordered [(80211007)] :grid

time
grid: /T (months since 1960-01-01) ordered (Jan 1697) to (Mar 2012) by 1.0 N= 3783 pts :grid

Other Info

datatype
integerarraytype

missing_value
[-9999. -8888.]

scale_factor
0.1

units
mm

Done Internet 100% 1:36 PM

start data: NOAA NCDC G... Bolivia Microsoft PowerPoint ... Skype™ - teddy.allen alyson venti

NOAA NCDC GHCN v2beta prcp 80211007 data files - Internet Explorer, optimized for Bing and MSN

File Edit View Favorites Tools Help

Favorites Web Slice Gallery

teddyallen - Yahoo! Mail NOAA NCDC GHCN v2bet... X

Page Safety Tools ?

NOAA NCDC GHCN v2beta prcp 80211007 Data Files

This dataset has bytes (15132 0.014431MB) of data in it, which should give you a rough idea of the size of any file that you ask for. WMO

Data restricted by WMO Resolution 40

The following data and products may have conditions placed on their international commercial use. They can be used within the U.S. or for non-commercial international activities without restriction. Re-distribution of these data by others must provide this same notification. A log of IP addresses accessing these data and products will be maintained and may be made available to data providers.

For details, please consult:

<http://www.wmo.ch/web/pla/Res40Cg-XII.doc>

Done, but with errors on page.

NOAA NCDC GHCN v2beta prcp 80211007 data files - Internet Explorer, optimized for Bing and MSN

File Edit View Favorites Tools Help

Favorites Web Slice Gallery

teddyallen - Yahoo! Mail NOAA NCDC GHCN v2beta prcp 80211007 Data Files

Page Safety Tools

NOAA NCDC GHCN v2beta prcp 80211007 Data Files

This dataset has bytes (15112 0.014421MB) of data in it, which should give you a rough idea of the size of any file that you ask for.

Download Data To Specific Software

gridid	The Postscript-based software on which the Data Library is built.
CP1	Climate Predictability Tool More information
ferret	Interactive computer visualization and analysis software. More information
GrADS	Grid Analysis and Display System More information
matlab	Data analysis and visualization software. More information
NCCL	NCAR Command Language More information
WinDap	A public domain software package for the display and analysis of satellite images, maps and associated databases, with an emphasis on early warning for food security. More information

Other Available File Formats

Full Information Formats
These files contain all of the available metadata.

OPeNDAP	A system which downloads data directly to software, such as matlab, Ferret, GrADS, etc. Specific instructions are available in the table above. Note: OPeNDAP was formerly known as DODS (Distributed Oceanographic Data System). More information
netCDF (Network Common Data Form)	A commonly supported self-describing data format. More information

Partial Information Formats
These files contain only some of the available metadata.

For the remaining data formats, the following information may be helpful: the `scale_factor` is 1, and the `add_offset` is 0, i.e. the data is already properly scaled. The `missing_value` (flag for missing data) is NaN

Columnar Table	A table with separate columns of numbers for each independent variable (i.e., grids) and for the data. This columnar table is available in a variety of file and column formats here . Note: By setting the helper for mime-type <code>text-delimited-values</code> , you can have this loaded directly into your favorite spreadsheet. This file will be approximately 30244 bytes, with 2 columns of 1783 numbers.
2-Dimensional Tab-Separated Tables	Tab-separated-values (tsv) file with information about the independent variables (i.e., grids). The list to the left allows you to specify the format of the table. Note: The variable running across the top of the table (identifying columns) is listed first and the variable running down the side of the table (identifying rows) is listed second.
GIS-Compatible Formats	There are three GIS-compatible formats available.
GDAL Image	A 2-dimensional ascii file that includes an ArcInfo Header.
ERDAS LAN Image	File(s) in the Image Display and Analysis format. Typically used with WinDap.
GeoTIFF Image	File in GeoTIFF format. Typically used with various GIS programs, including ArcView and HealthMapper.

Data Only Formats
These files contain just the data without any of the available metadata.

Binary direct access	A big-endian, ieee single-precision file in floating-point format. Also known as a binary random access file. This is a random-access file; it is purely data with no record-structuring information. The data is structured to correspond to the independent variables (i.e., grids) in T order, with the first grid varying the fastest.
DEC ALPHA direct access	Same as the binary random direct access format above except that it is byte-swapped for DEC ALPHA's and PC's (little-endian).
Binary FORTRAN sequential access	A big-endian, ieee single-precision file in floating-point format. This is a sequential-access file with each record containing all the T points. It must be read using FORTRAN sequential access. There is only one record for the data you have selected.
DEC ALPHA sequential access	Same as the binary sequential access format above except that it is byte-swapped for DEC ALPHA's and PC's (little-endian).
Text separated-values	Text file where data values corresponding to different T are separated by tabs and data values corresponding to different are on different lines. This is readable by most programs, including spreadsheets, but will be about four times larger than the binary or netCDF/HDF files noted above.
Text	An alternative, you can access a tab-separated file with the following independent variables (i.e., grids) grouped on each line. I
Text	Text file where data is arranged in chunks of T. There are five values per line and each chunk starts on a new line. This will be about four times larger than the binary or netCDF/HDF files.

Done

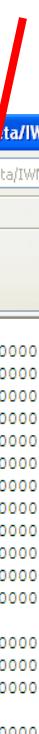
start NOAA NCDC GHCN v... Bolivia Microsoft PowerPoint ... Skype™ - teddy.allen alyson venti

Internet 50% 1:40 PM

Text – returns raw data. You MUST know the start and end dates

1. Right Click and SAVE -- or --
2. Left Click and VIEW

RAW precipitation data from the LEFT CLICK option



http://iridl.ideo.columbia.edu/SOURCES/.NOAA/.NCDC/.GHCN/.v2beta/IWMO+80398000+VALUE/.prcp/T/33/.543./RANGEEDGES/data.ch

605.0000	394.0000	163.0000	329.0000	454.0000
160.0000	71.00000	70.00000	161.0000	264.0000
338.0000	389.0000	414.0000	339.0000	397.0000
358.0000	233.0000	330.0000	138.0000	289.0000
168.0000	382.0000	297.0000	196.0000	344.0000
336.0000	413.0000	376.0000	324.0000	176.0000
179.0000	257.0000	179.0000	260.0000	372.0000
426.0000	310.0000	421.0000	366.0000	516.0000
326.0000	246.0000	89.00000	154.0000	282.0000
169.0000	282.0000	307.0000	419.0000	NaN
439.0000	284.0000	220.0000	264.0000	95.00000
176.0000	232.0000	89.00000	370.0000	442.0000
281.0000	281.0000	NaN	NaN	19.00000
18.00000	19.00000	NaN	351.0000	312.0000
422.0000	370.0000	398.000	431.0000	361.0000
301.0000	315.0000	378.0000	127.0000	181.0000
359.0000	142.0000	393.0000	NaN	367.0000
323.0000	519.0000	301.0000	159.0000	169.0000
106.0000	125.0000	198.0000	243.0000	366.0000
287.0000	313.0000	395.0000	385.0000	228.0000
303.0000	273.0000	98.00000	228.0000	195.0000
251.0000	185.0000	214.0000	241.0000	437.0000
345.0000	391.0000	350.0000	108.0000	95.00000
95.00000	316.0000	121.0000	193.0000	430.0000
395.0000	NaN	328.0000	447.0000	363.0000
127.0000	169.0000	121.0000	147.0000	NaN
231.0000	568.0000	381.0000	253.0000	216.0000
285.0000	512.0000	184.0000	233.0000	174.0000
170.0000	212.0000	300.0000	251.0000	166.0000
391.0000	188.0000	410.0000	545.0000	184.0000
159.0000	148.0000	407.0000	209.0000	416.0000
251.0000	565.0000	377.0000	299.0000	361.0000
432.0000	199.0000	253.0000	45.00000	158.0000
134.0000	123.0000	263.0000	454.0000	355.0000
261.0000	444.0000	213.0000	198.0000	317.0000
153.0000	113.0000	325.0000	404.0000	331.0000
200.0000	515.0000	275.0000	207.0000	270.0000

**THERE IS A LOT THAT THIS
SYSTEM CAN DO! Please be sure
to read the tutorials....**

**Also, I can always help. Please
email me any questions at:**

T.Allen@iedro.org

GRACIAS y Mucha Suerte