

Getting Your Tempestry Data

We want anyone and everyone who is interested in the Tempestry Project to have the opportunity to make one (or many!) of their own. To that end, we're providing a Google Docs spreadsheet (and these instructions) to make it as simple as possible for individuals to create their own Tempestry Worksheets for free.

DON'T PANIC!

If this process sounds a little overly involved, there's good news! We're happy to curate the data for you using data as close to the location of your choosing as we can find. While the data is sometimes incomplete, we will supplement any missing data with other sources where needed to provide you with the best representation of temperatures for your chosen area.

Requests for custom Tempestry Worksheets can be made through our [Etsy Shop](#).

If you'd rather curate the data for yourself, read on for a thorough walk-through of our process including links to the data sources and our worksheet.

After determining the location and year for which you want to create a Tempestry:

First, download our [Tempestry Project Worksheet](#) template. You can view the Worksheet from this link, but you'll need to save a copy for yourself in order to work with it.

Now you're ready to gather the data. We use data from the National Oceanic and Atmospheric Administration. They provide a free [tool to search and download weather data](#).

That link will take you to the NOAA Climate Data Online Search page which looks like this:

NOAA NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Home Climate Information Data Access Customer Support Contact About Search

Home > Climate Data Online > Search Datasets Search Tool Mapping Tool Data Tools Help

Cart (Free Data) 0 items

Climate Data Online Search

Start searching here to find past weather and climate data. Search within a date range and select specific type of search. All fields are required.

Select Weather Observation Type/Dataset

Select a Dataset...

Select Date Range

Select a Date Range...

Search For

Stations

Enter a Search Term

Enter a location name or identifier here

SEARCH

Search Guide

Select Type/Dataset

Records of observations including details such as precipitation, wind, snowfall, and radar data. Read more about the datasets and view data samples.

Select Date Range

Defaults to the latest available year for the selected dataset or product but can be set to any date range within the available period of record.

Search For

Stations: Enter name, WBAN, GHCND, FAA, ICAO, NWSLI or COOP identifiers.

Locations: Enter name of city, county, state, country or other geographic location. ZIP codes and FIPS identifiers are also valid.

1) Under the first drop down menu, choose “Daily Summaries”

Select Weather Observation Type/Dataset

Select a Dataset...

Select a Dataset...

Daily Summaries

Global Summary of the Month

Global Summary of the Year

Normals Annual/Seasonal

Normals Daily

Normals Hourly

Normals Monthly

Precipitation 15 Minute

Precipitation Hourly

Weather Radar (Level II)

Weather Radar (Level III)

Enter a location name or identifier here

2) In the second section, select the date range that you’re interested in. Note that you need to click the specific day in order for it to recognize the range you want. Then click “Apply”.

Select Date Range

2017-01-01 to 2017-05-01

Start Date: 1969-01-01

End Date: 1969-12-31

1969 Jan

1969 Dec

Select a year and month.
MUST CLICK ON A DAY to select.

CANCEL APPLY

SEARCH

3) The next choice is for the search criteria. While the default choice, “Stations,” will often lead you to useful data, we have found that searching by city works better. The results of a city search will be the specified year’s data from every weather station within a radius around the location.

Search For

Stations

Stations

ZIP Codes

Cities

Counties

States

Countries

Climate Divisions

Climate Regions

Hydrologic Cataloging Units

Hydrologic Accounting Units

Hydrologic Subregions

Hydrologic Region

4) Enter the city or search term to find weather data for your chosen locale.

Enter a Search Term 

Whidbey Island

Once you've put in your criteria (which should look something like the image to the right).

5) Click Search!

Select Weather Observation Type/Dataset 

Daily Summaries 

Select Date Range 

1969-01-01 to 1969-12-31 

Search For 

Cities 

Enter a Search Term 

Oak Harbor, WA

SEARCH

You will be presented with a list of the closest weather stations to your location on the left, and a map showing circles around your location and other cities nearby. The list of stations also gives date ranges of the available data.

Note: You may not find a station in the exact location you search for, but the circles will show you where the closest data is. The larger circles around metropolitan areas will pull data from many weather stations, we recommend choosing the smallest circle that covers your area.

The screenshot shows the NOAA Climate Data Online search results page. The search term is "Oak Harbor, WA". The results list several weather stations with their location IDs and periods of record. The map on the right shows the search area around Oak Harbor, WA, with circles indicating the search area and nearby stations. The search results are as follows:

Station Name	Location ID	Period of Record
Oak Harbor, WA US	CITY:US530013	1891-10-01 to 2017-08-30
Benton Harbor, MI US	CITY:US260003	1892-04-02 to 2017-08-30
Anacortes, WA US	CITY:US530002	1891-07-01 to 2017-08-30
Federal Way, WA US	CITY:US530009	1891-08-01 to 2017-08-31
Pullman, WA US	CITY:US530016	1892-02-01 to 2017-08-30
Spokane, WA US	CITY:US530019	1889-08-01 to 2017-08-31
Everett, WA US		

6) From here, pick the weather station you want data from and click “Add to Cart”.

The screenshot shows the NOAA Climate Data Online search results page with the search term "Whidbey Island". The search results are as follows:

Station Name	Location ID	Period of Record
Whidbey Island		

6a) Then click the cart in the upper right corner of the map and select “View All Items”

Next up you have some options to select for how you receive the data.

■ Cart: Daily Summaries

Step 1: Choose Options

Step 2: Review Order

Step 3: Order Complete

Select Cart Options

Specify the desired formatting options for the data added in the cart. These options allow more refined date selection, selection of the processed format, and the option to remove items from the cart.

Select the Output Format

Choose one option below to choose a type of format for download. Formats are a standard PDF format. Other formats are CSV (Comma Separated Value) and Text format, both of which can be opened with programs such as Microsoft Excel or OpenOffice Calc. Some formats have additional options which can be selected on the next page.



GHCN-Daily PDF

DOC Certification Option
(Does not include all elements)

Include Documentation



Custom GHCN-Daily CSV

(Additional options available on next page)



Custom GHCN-Daily Text

(Additional options available on next page)

7) Select "CUSTOM
GHCN-Daily CSV"



8) Below this, confirm that the date range is correct, and that the item in your cart is from the correct weather station.

Select the Date Range

Click to choose the date range below. Multiple options can be selected by holding CTRL and clicking on multiple items.

1969-01-01 to 1969-12-31



Review the items in your cart

[CLEAR CART]

WHIDBEY ISLAND NAS, WA US

View Full Details

Station ID: GHCND:USW00024255

Period of Record: 1945-04-01 : 2017-04-28

Delete

9) Once you're sure this is the data set you want, click "Continue".

CONTINUE

The next page has some additional options for your data set.

We recommend checking the options as shown here.

9) Check: "Geographic Location" and "Include Data Flags"

10) And be sure to check "Air Temperature," if for some reason this option is not available, you will need to select an alternate weather station.

11) click "Continue"

Almost done (with the data gathering)!

Custom Options: Daily Summaries

Step 1: Choose Options

Step 2: Review Order

Step 3: Order Complete

Data types are grouped by category for easier selection and can be selected as a group or individually. Selected data types will be included in the customized output.

Station Detail & Data Flag Options

Additional output options such as data flags (attributes), station names, and geographic location are also available.

- Station Name
 - Geographic Location
 - Include Data Flags
- Units

Select data types for custom output

The items below are data types that can be added to the output. Expand the data type category headers to view the categorized data type names and descriptions.

Show All / Hide All | Select All / Deselect All

- Precipitation
- Sky cover & clouds
- Air Temperature
- Wind
- Weather Type

BACK

CONTINUE

The final page offers a quick review of the data you are requesting.

REQUESTED DATA REVIEW	
Dataset	Daily Summaries
Order Start Date	1969-01-01 00:00
Order End Date	1969-12-31 23:59
Output Format	Custom GHCN-Daily CSV
Data Types	TMAX, TMIN
Custom Flag(s)	Station Name, Geographic Location, Include Data Flags
Units	Standard
Stations/Locations	WHIDBEY ISLAND NAS, WA US (Station ID: GHCND:USW00024255)

12) And asks for your email address, as this is how you will receive your data.

Once you click “Submit Order” you will receive an email stating that your data request has been submitted, and after a wait (which usually ranges from minutes to hours), you’ll receive an email with a link to download the file.

Enter email address

Please enter your email address. This is the address to which your data links and information regarding this order will be sent. Please read NOAA's Privacy Policy if you have any concerns.

Email Address

Verify Email Address

Remember my email address

[Uncheck to forget]

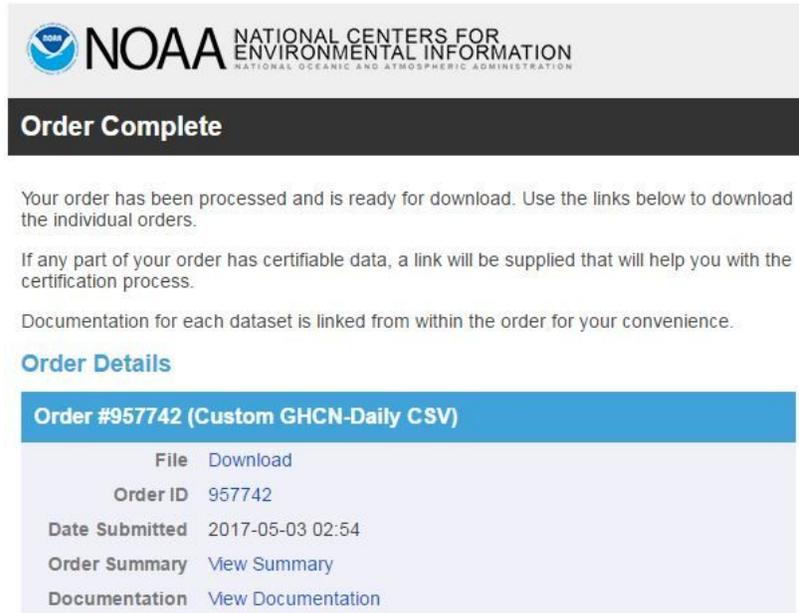
NOAA will not share your email address with anyone. The email address will not be used for any purpose other than communicating the order status.

EDIT ORDER

SUBMIT ORDER

Now it's time to process the data you've gathered!

You will receive an email that looks similar to this:



1) Clicking on “Download” will prompt you to save a CSV file to your hard drive, if you plan to do more than one Tempestry it will be beneficial to rename this CSV to include the location and year the data represents.

Note: Depending on your browser settings your data may open in Excel right away.

We have shared our [Tempestry Worksheet](#) on google drive.



2) Save your own copy of the spreadsheet so that you have editing privileges.

3) Open the .CSV data file that you downloaded above - either in Excel or Google Sheets. Choose the data set you want to use - depending on the city you selected there may be data from more than one weather station - then the data range you want and Copy (CTRL+C).

	A	B	C	D	E	F	G	
1	STATION	STATION_NAME	ELEVATION	LATITUDE	LONGITUDE	DATE	TMAX	Measu
2	GHCND:USW0001	WHIDBEY ISLA	14.3	48.35	-122.66667	19690101	47	
3	GHCND:USW0001	WHIDBEY ISLA	14.3	48.35	-122.66667	19690102	47	
4	GHCND:USW0001	WHIDBEY ISLA	14.3	48.35	-122.66667	19690103	48	
5	GHCND:USW0001	WHIDBEY ISLA	14.3	48.35	-122.66667	19690104	53	
6	GHCND:USW0001	WHIDBEY ISLA	14.3	48.35	-122.66667	19690105	49	
7	GHCND:USW0001	WHIDBEY ISLA	14.3	48.35	-122.66667	19690106	46	

4) Open the “Location YYYY Data” tab in the Example Tempestry Worksheet.



5) Select cell “A1” and Paste (CTRL+V) in the data.*

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	STATION	STATION_NAME	ELEVATION	LATITUDE	LONGITUDE	DATE	TMAX	Meas	Qualif	Sourc	Time (TMIN	Meas	Qualif	Sourc	Time	of	Observation	
2	GHCND:USW000242	WHIDBEY ISLAND NAS WA	14.3	48.35	-122.66667	19690101	47	X	9999	35	X	9999						
3	GHCND:USW000242	WHIDBEY ISLAND NAS WA	14.3	48.35	-122.66667	19690102	47	X	9999	34	X	9999						
4	GHCND:USW000242	WHIDBEY ISLAND NAS WA	14.3	48.35	-122.66667	19690103	48	X	9999	35	X	9999						
5	GHCND:USW000242	WHIDBEY ISLAND NAS WA	14.3	48.35	-122.66667	19690104	53	X	9999	45	X	9999						
6	GHCND:USW000242	WHIDBEY ISLAND NAS WA	14.3	48.35	-122.66667	19690105	49	X	9999	42	X	9999						
7	GHCND:USW000242	WHIDBEY ISLAND NAS WA	14.3	48.35	-122.66667	19690106	46	X	9999	40	X	9999						
8	GHCND:USW000242	WHIDBEY ISLAND NAS WA	14.3	48.35	-122.66667	19690107	44	X	9999	34	X	9999						
9	GHCND:USW000242	WHIDBEY ISLAND NAS WA	14.3	48.35	-122.66667	19690108	40	X	9999	30	X	9999						

6) Switch back to the “Location YYYY Worksheet” tab.

The information should auto-fill the spreadsheet once the data is pasted in.



	A	B	C	D	E
1	Tempestry Project Worksheet				
2		Location:	WHIDBEY ISLAND NAS WA US		
3		Station:	USW00024255		
4		Hottest Temp (°F/First Date):	81	19690617	
5		Coldest Temp:(°F/First Date):	22	19690127	
6					
7	Day #	Date	High Temp. (°F)	Color Name	Progress
8	1	19690101	47	Peapod	
9	2	19690102	47	Peapod	
10	3	19690103	48	Peapod	
11	4	19690104	53	Green Tea Heather	
12	5	19690105	49	Peapod	
13	6	19690106	46	Peapod	
14	7	19690107	44	Grass	
15	8	19690108	40	Everglade Heather	
16	9	19690109	42	Grass	
17	10	19690110	41	Grass	
18	11	19690111	38	Everglade Heather	
19	12	19690112	40	Everglade Heather	
20	13	19690113	40	Everglade Heather	
21	14	19690114	40	Everglade Heather	
22	15	19690115	38	Everglade Heather	
23	16	19690116	38	Everglade Heather	

*Note: It’s important to make sure that the column labeled “TMAX” falls into column “G” in the spreadsheet. Some data sets (Central Park NYC, for example) will have TMAX in a different column, which will require a modification of the formula on the Tempestry Worksheet tab.

	A	B	C	D	E
1	Tempestry Project Worksheet				
2		Location:	WHIDBEY ISLAND NAS WA US		
3		Station:	USW00024255		
4		Hottest Temp (°F/First Date):	81	19690617	
5		Coldest Temp:(°F/First Date):	22	19690127	
6					
7	Day #	Date	High Temp. (°F)	Color Name	Progress
8	1	19690101	47	Peapod	
9	2	19690102	47	Peapod	
10	3	19690103	48	Peapod	

Simply change the column in the formula from “G2” to whichever column has the “TMAX” header in the data.



Additionally, for data from leap years you will need to drag the formula in columns “B,” “C,” and “D” down to fill in the 366th day.

Your finished worksheet should look something like this:

Tempestry Project Worksheet											
1	Location:		WHIDBEY ISLAND NAS WA US								
2	Station:		USW00024255								
3	Hottest Temp (°F/First Date):		81		19690617						
4	Coldest Temp(°F/First Date):		22		19690127						
5											
6											
7	Day #	Date	High Temp. (°F)	Color Name	Progress	Color	Number of Rows	Yards	Grams	Number of Wraps	
8	1	19690101	47	Peapod		Peapod	48	62.66666667	28.48484848	52	
9	2	19690102	47	Peapod		Green Tea Heather	71	92.69444444	42.13383838	71	
10	3	19690103	48	Peapod		Grass	22	28.72222222	13.05555556	22	
11	4	19690104	53	Green Tea Heather		Everglade Heather	9	11.75	5.340909091	9	
12	5	19690105	49	Peapod		Tranquil	4	5.222222222	2.373737374	4	
13	6	19690106	46	Peapod		Calypso Heather	6	7.833333333	3.560606061	6	
14	7	19690107	44	Grass		Whirlpool	3	3.916666667	1.78030303	3	
15	8	19690108	40	Everglade Heather		Crème Brulee	59	77.02777778	35.01262626	59	
16	9	19690109	42	Grass		Semolina	84	109.6666667	49.84848485	84	
17	10	19690110	41	Grass		Caution	47	61.36111111	27.89141414	47	
18	11	19690111	38	Everglade Heather		Conch	10	13.05555556	5.934343434	10	
19	12	19690112	40	Everglade Heather		Orange	1	1.305555556	0.5934343434	1	
20	13	19690113	40	Everglade Heather		Papaya Heather	1	1.305555556	0.5934343434	1	
21	14	19690114	40	Everglade Heather			0	0	0	0	
22	15	19690115	38	Everglade Heather			0	0	0	0	
23	16	19690116	39	Everglade Heather			0	0	0	0	
24	17	19690117	38	Everglade Heather			0	0	0	0	
25	18	19690118	33	Tranquil			0	0	0	0	
26	19	19690119	35	Tranquil			0	0	0	0	
27	20	19690120	31	Tranquil			0	0	0	0	
28	21	19690121	30	Calypso Heather			0	0	0	0	
29	22	19690122	28	Calypso Heather			0	0	0	0	
30	23	19690123	27	Calypso Heather			0	0	0	0	
31	24	19690124	28	Calypso Heather			0	0	0	0	
32	25	19690125	31	Tranquil			0	0	0	0	
33	26	19690126	25	Whirlpool			0	0	0	0	
34	27	19690127	22	Whirlpool			0	0	0	0	
35	28	19690128	26	Calypso Heather			0	0	0	0	

Columns A through E contain all of the information you'll need to create your Tempestry. Use column E to mark off your progress as you go.

Columns G through K calculate the number of rows of each color and the total amount of yarn used. Column K, "Number of Wraps", is calculated based on a single wrap being 47" and includes the additional yarn required for the cast on and bind off.

Please note: Yarn is KnitPicks Wool of the Andes, which come in 50g skeins. See Column J to determine how many skeins of each color you will need.