Introducing the User Guide for GLOBE Data

Report Out

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THANK YOU

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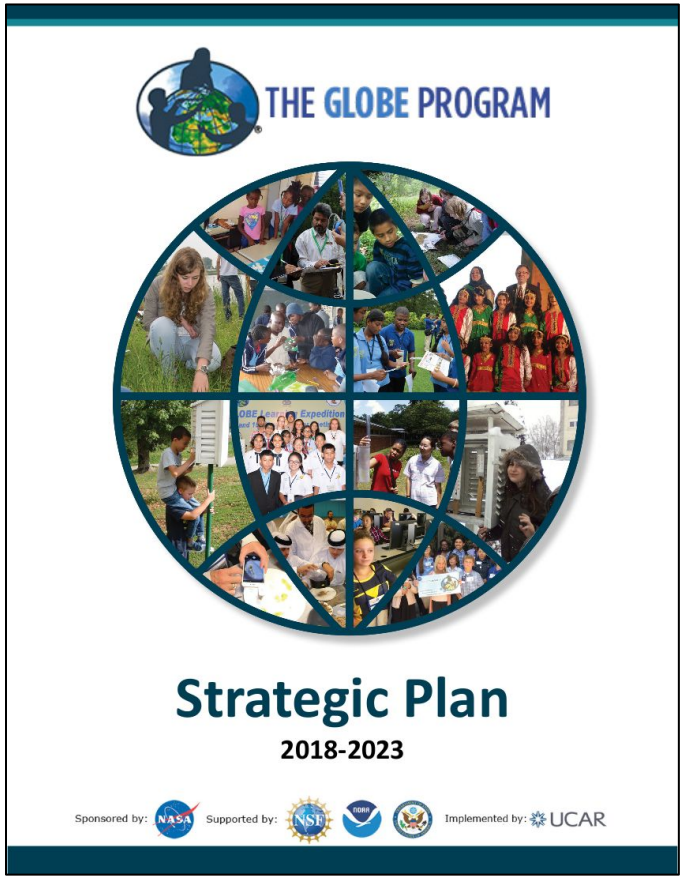
What is it?

Purpose:
The User Guide is a technical document intended to help scientists and researchers understand, access, and use available GLOBE data

Audience:
Scientists and researchers using GLOBE data

Update schedule:
Annually (approximate)

Why?



Science Goal 3
Increase the number of publications and citations using or referencing GLOBE data

https://www.globe.gov/about/strategic-plan

Reactions

"This is AMAZING!!!"

"[This] document is fabulous"

"THANK YOU for your work on this. I'm really pleased to see significant progress on enhancing the ability of the science community to use GLOBE data."

"We need this."

What's in it?

Table of contents

What's in it? Example 1

Table of GLOBE data variables

Variable	Units	Definition
org_name		The name of the reporting school or other institution.
latitude	decimal degrees north	The latitude of the site where data were observed. Range: [-90, 90]
longitude	decimal degrees east	The longitude of the site where date were observed. Range: [-180, 180]
elevation	meters above sea level	The elevation of the site where data were observed
aerosols:aerosol_optical_thickness	unitless	Aerosol optical thickness per wavelength for each time stamp

What's in it?

Example 2

Range & logic checks

Time of Measurement:

Entry	Min	Max	Units	Missing	Data Type	Notes
*Year	1995	Current Year	None	N/A	Date	
*Month	January	December	None	N/A	Date	
*Day	1	31	None	N/A	Date	
*Time Hour Minute Second	 0 0 0	 23 59 59	None	N/A	Date	UT

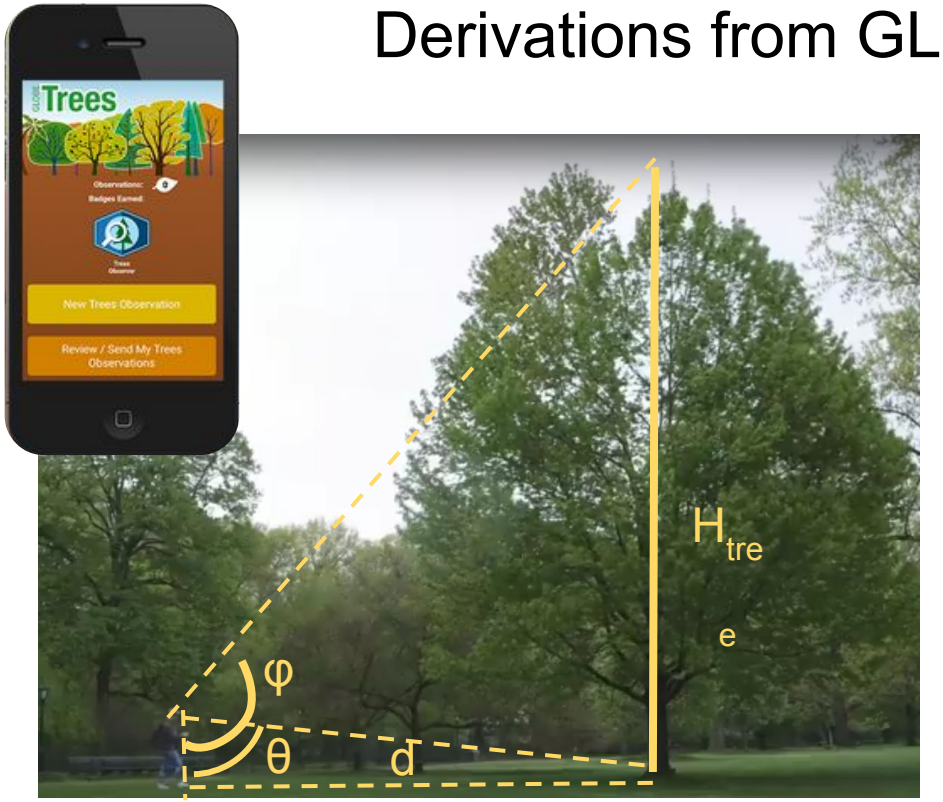
Other Checks:

- Cannot be a future time

https://www.globe.gov/web/guest/do-globe/globe-teachers-guide/data-validations

What's in it? Example 3

Derivations from GLOBE Observer app



$$\varphi = \text{radians}(90 - \beta)$$

$$\theta = \text{radians}(90 - \alpha)$$

$$\lambda = \arctan(h_c/(nL)) - \varphi$$

$$h_1 = \tan(\theta)$$

$$h_2 = \tan(\varphi)$$

$$d = nL\cos(\lambda)$$

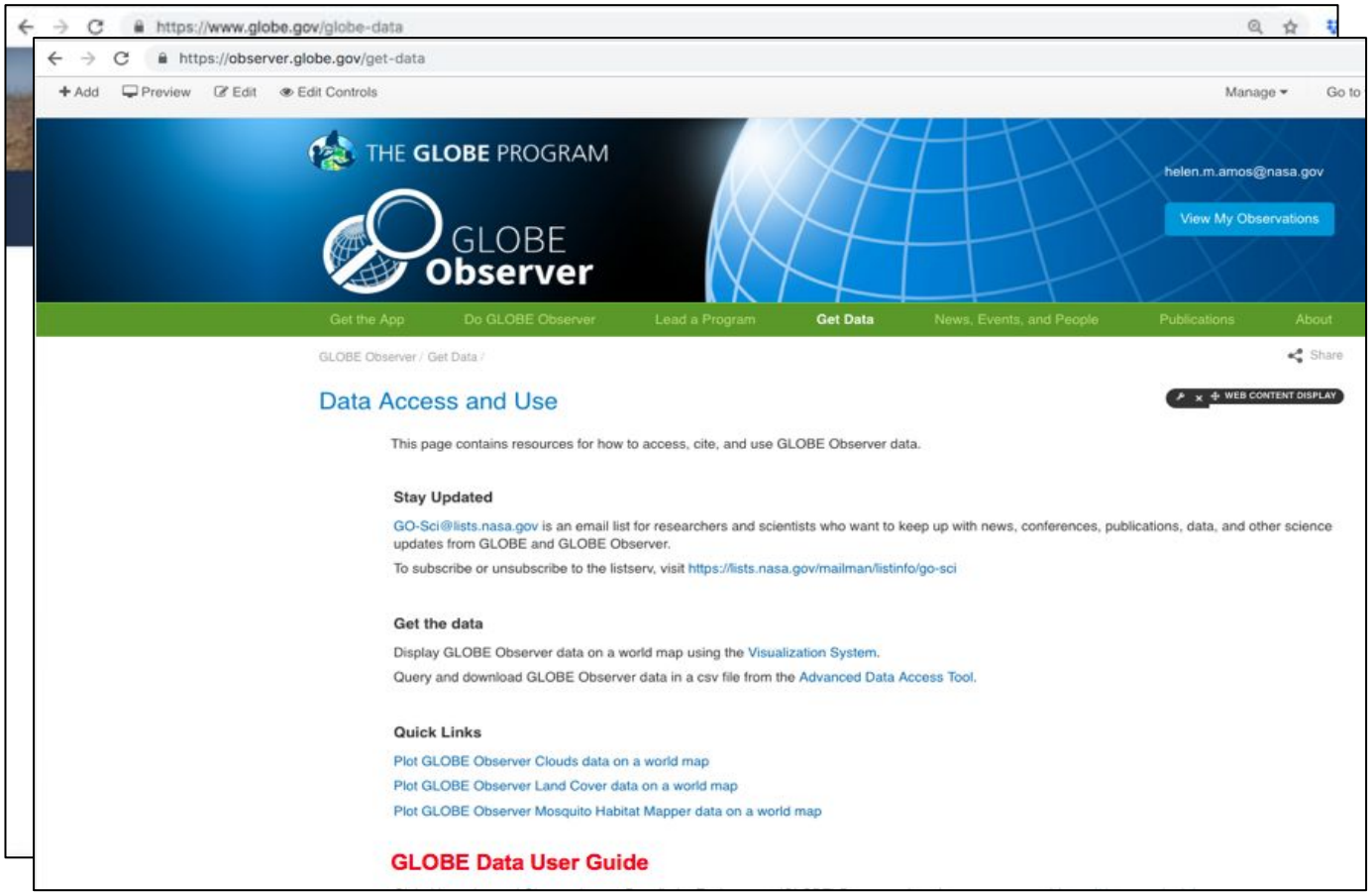
$$H_{tree} = d(h_1 + h_2)$$

Watch full video from *The Verge* [link]

Where is it?


https://www.globe.gov/globe-data
THE GLOBE PROGRAM
A Worldwide Science and Education Program
ENGLISH
About
Get Started
Get Trained
Do GLOBE
GLOBE Data
Community
News & Events
Support
Home > GLOBE Data
Share
GLOBE Data
Data Entry
Visualize Data
Retrieve Data (ADAT)
Science Honor Roll
GLOBE Data User Guide
GLOBE Data

Where is it?


https://www.globe.gov/globe-data
https://observer.globe.gov/get-data
+ Add
Preview
Edit
Edit Controls
Manage
Go to
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GLOBE Observer
helen.m.amos@nasa.gov
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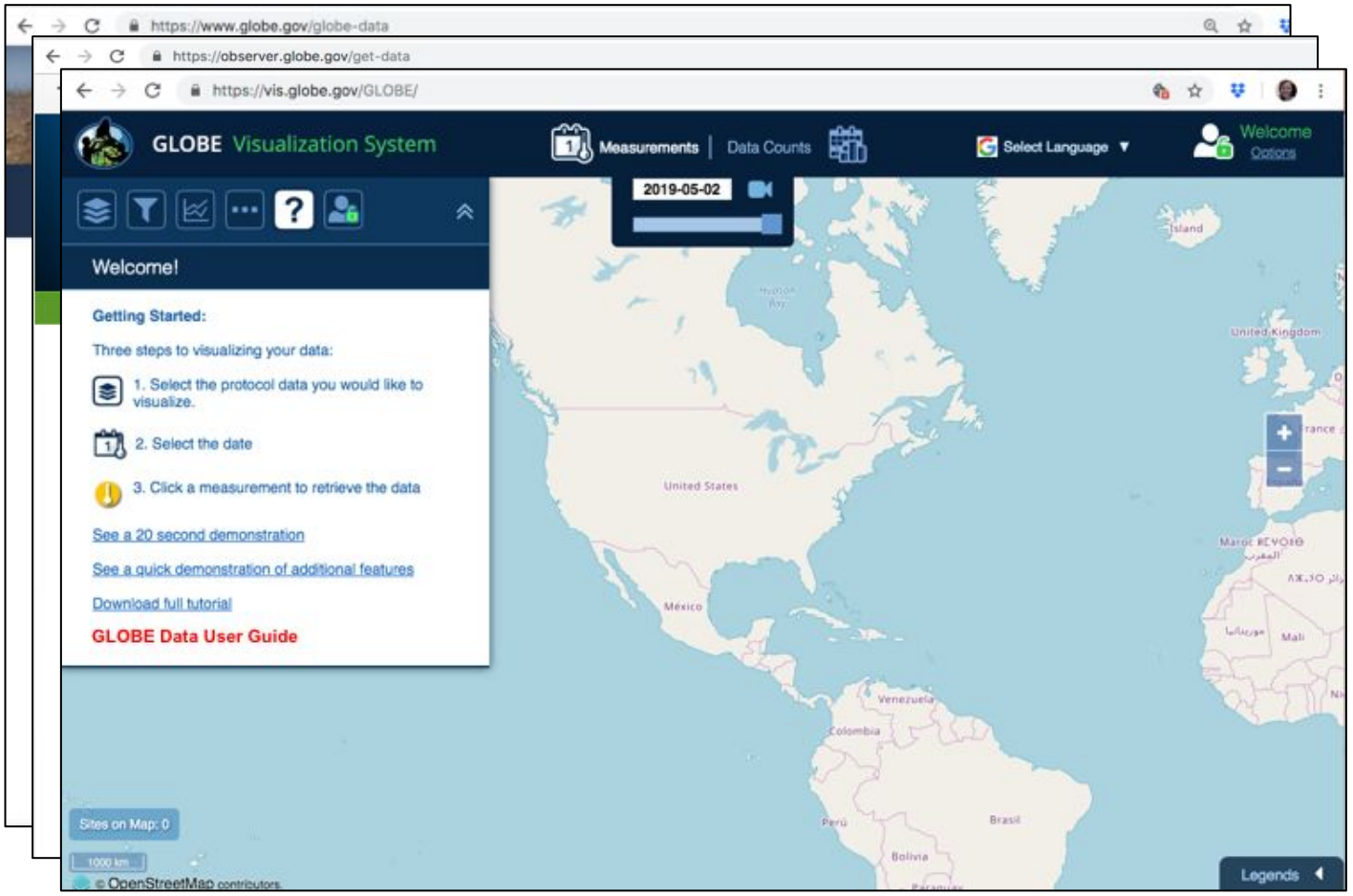
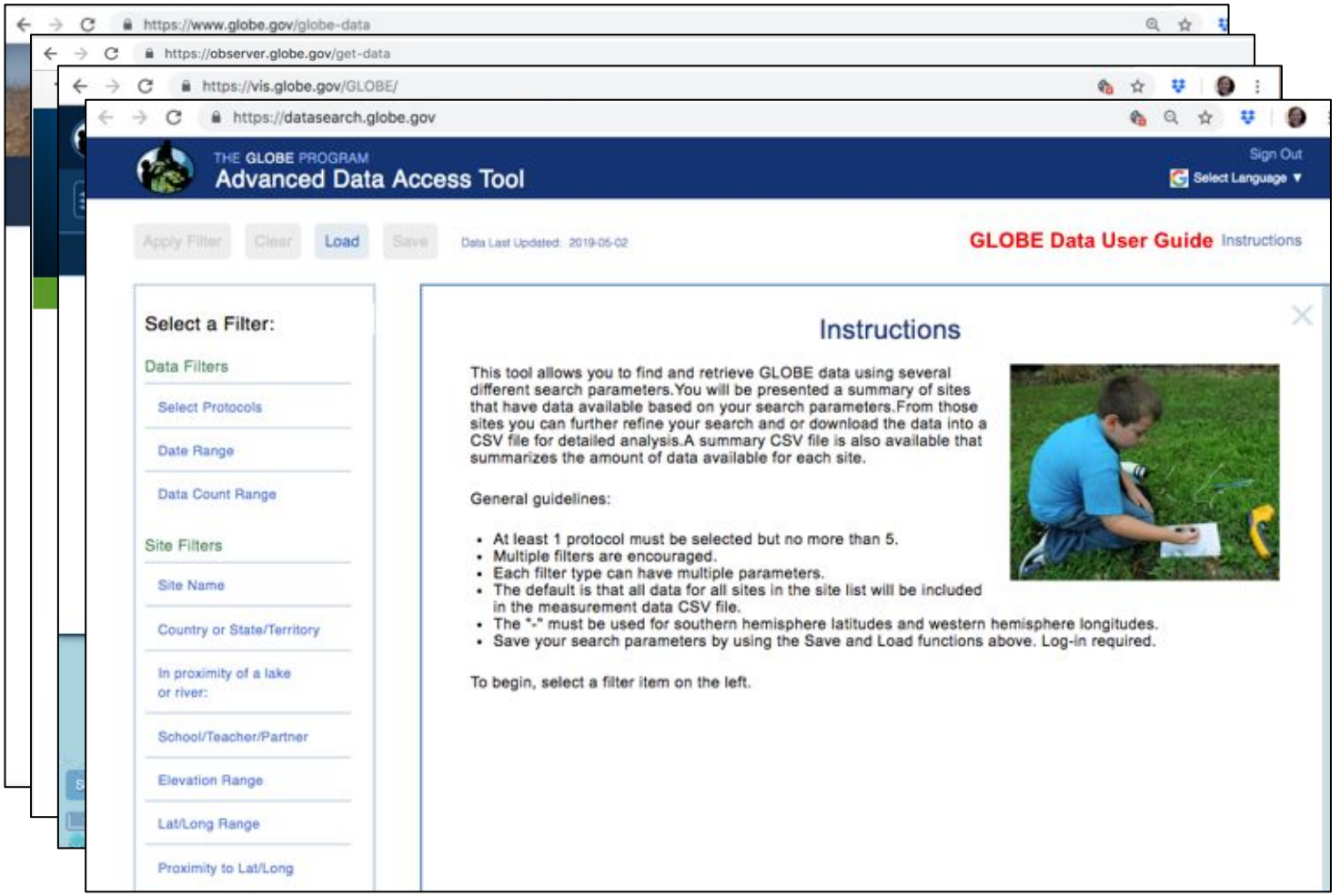
To subscribe or unsubscribe to the listserv, visit https://lists.nasa.gov/mailman/listinfo/go-sci
Get the data
Display GLOBE Observer data on a world map using the Visualization System.
Query and download GLOBE Observer data in a csv file from the Advanced Data Access Tool.
Quick Links
Plot GLOBE Observer Clouds data on a world map
Plot GLOBE Observer Land Cover data on a world map
Plot GLOBE Observer Mosquito Habitat Mapper data on a world map
GLOBE Data User Guide

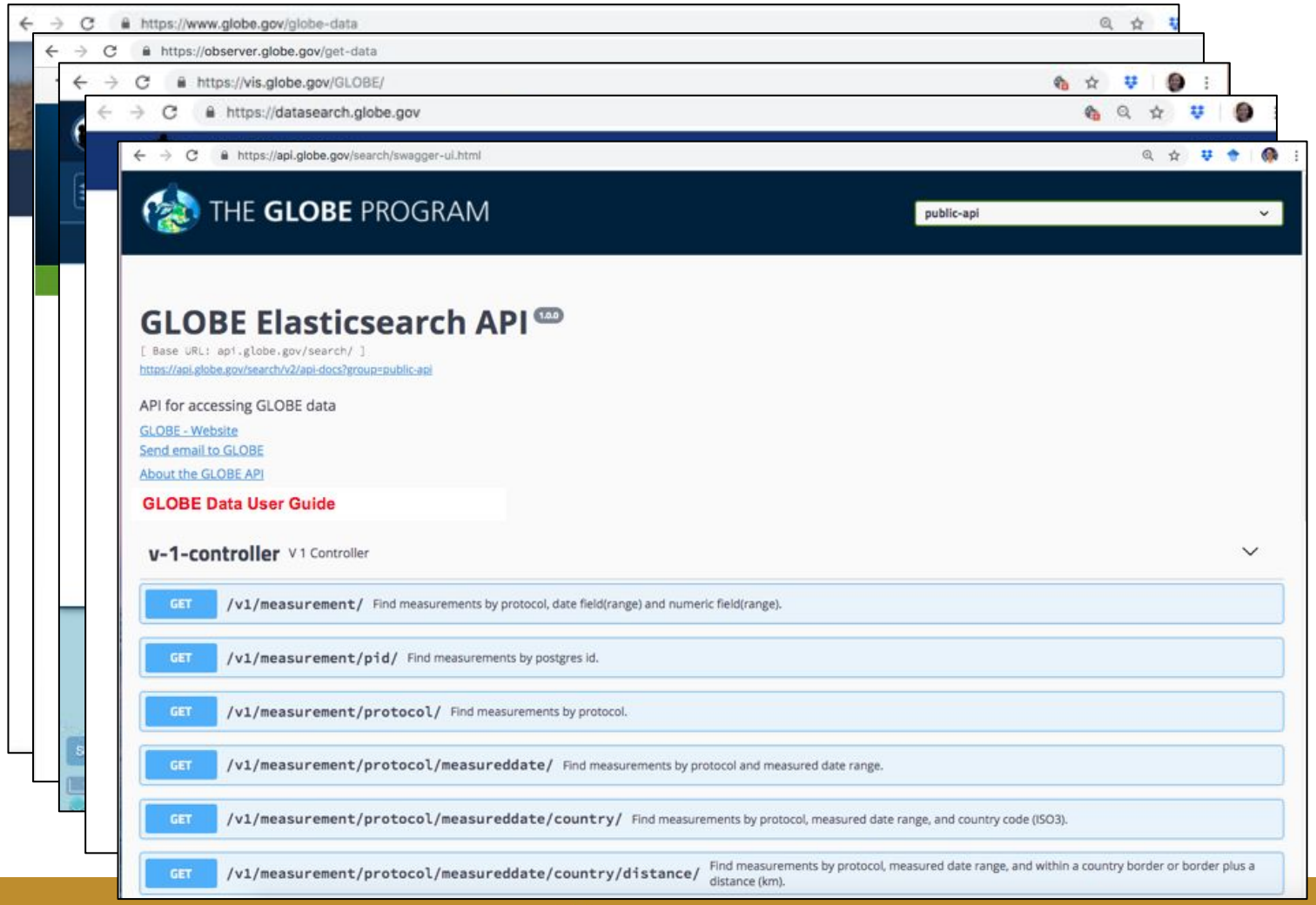
Where is it?


https://www.globe.gov/globe-data
https://observer.globe.gov/get-data
https://vis.globe.gov/GLOBE/
GLOBE Visualization System
Measurements | Data Counts
Select Language
Welcome
Options
2019-05-02
Welcome!
Getting Started:
Three steps to visualizing your data:
1. Select the protocol data you would like to visualize.
2. Select the date
3. Click a measurement to retrieve the data
See a 20 second demonstration
See a quick demonstration of additional features
Download full tutorial
GLOBE Data User Guide
Sites on Map: 0
Legends

Where is it?


https://www.globe.gov/globe-data
https://observer.globe.gov/get-data
https://vis.globe.gov/GLOBE/
https://datasearch.globe.gov
THE GLOBE PROGRAM
Advanced Data Access Tool
Sign Out
Select Language
Apply Filter
Clear
Load
Save
Data Last Updated: 2019-05-02
GLOBE Data User Guide
Instructions
Select a Filter:
Data Filters
Select Protocols
Date Range
Data Count Range
Site Filters
Site Name
Country or State/Territory
In proximity of a lake or river:
School/Teacher/Partner
Elevation Range
Lat/Long Range
Proximity to Lat/Long
Instructions
This tool allows you to find and retrieve GLOBE data using several different search parameters.You will be presented a summary of sites that have data available based on your search parameters.From those sites you can further refine your search and or download the data into a CSV file for detailed analysis.A summary CSV file is also available that summarizes the amount of data available for each site.
General guidelines:
At least 1 protocol must be selected but no more than 5.
Multiple filters are encouraged.
Each filter type can have multiple parameters.
The default is that all data for all sites in the site list will be included in the measurement data CSV file.
The "-" must be used for southern hemisphere latitudes and western hemisphere longitudes.
Save your search parameters by using the Save and Load functions above. Log-in required.
To begin, select a filter item on the left.

Where is it?


https://www.globe.gov/globe-data
https://observer.globe.gov/get-data
https://vis.globe.gov/GLOBE/
https://datasearch.globe.gov
https://api.globe.gov/search/swagger-ui.html
THE GLOBE PROGRAM
public-api
GLOBE Elasticsearch API
1.0.0
[Base URL: api.globe.gov/search/]
https://api.globe.gov/search/v2/api-docs?group=public-api
API for accessing GLOBE data
GLOBE - Website
Send email to GLOBE
About the GLOBE API
GLOBE Data User Guide
v-1-controller V 1 Controller
GET /v1/measurement/ Find measurements by protocol, date field(range) and numeric field(range).
GET /v1/measurement/pid/ Find measurements by postgres id.
GET /v1/measurement/protocol/ Find measurements by protocol.
GET /v1/measurement/protocol/measureddate/ Find measurements by protocol and measured date range.
GET /v1/measurement/protocol/measureddate/country/ Find measurements by protocol, measured date range, and country code (ISO3).
GET /v1/measurement/protocol/measureddate/country/distance/ Find measurements by protocol, measured date range, and within a country border or border plus a distance (km).

How can you contribute?

Suggested updates, additions, edits, and corrections are welcome. Email help@globe.gov with:

- Suggested change (please be as specific as possible)
- Rationale
- Version number
- Section
- Page number
- Your name
- Email address
- Date
- How are you using GLOBE data?

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www.globe.gov


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Observer
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