



# The ENSO Student Research Campaign Phase II

## NASA's Earth Science Missions

Webinar 7: March 14, 2017

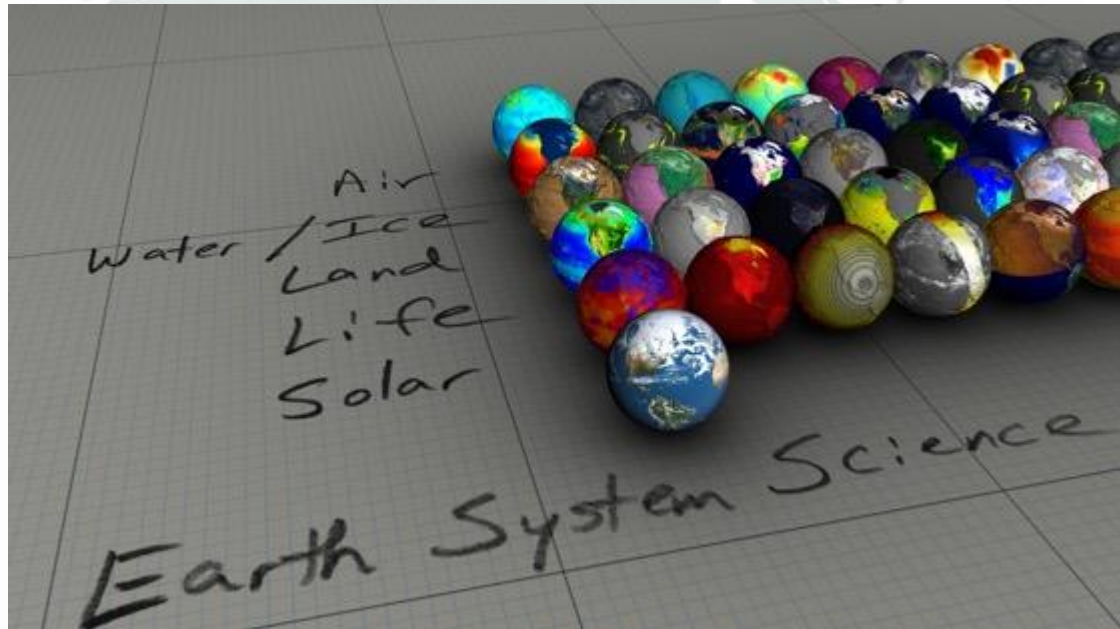


# NASA Earth Science

NASA Earth Science is like pieces of a jigsaw puzzle. Each piece of the puzzle is part of our total understanding of how our planet works and responds to change.

Satellites are such a vital way to learn more about our planet. Satellites allow us to look at the rapidly-changing planet by looking at our planet synoptically.

Research also do in-situ (ground-truthing) research that strengthens the NASA satellite data. Sometimes the data is too coarse and ground-truthing in necessary.



Brian Campbell, ENSO Campaign Lead



Implemented by:  UCAR



# NASA Earth System Science Whiteboard Video



Brian Campbell, ENSO Campaign Lead  
Implemented by:  UCAR



# Science Fairs and International Science Symposia

## REMINDER

Student projects for the **GLOBE International Virtual Science Symposium** are due on 03 April 2017. We are excited to see what GLOBE students from around the world have learned!

To share your project, please click on the "Upload Your Research Report" button on the Science Symposium page. And, if you still need help from a scientist, please view the contact information for the Mentor Scientists. If you have any questions, take a look at the FAQs page. If your question isn't answered there, please send an email to [help@globe.gov](mailto:help@globe.gov).

All students will receive a virtual badge and feedback from scientists on their projects. Additionally, eligible projects will be entered into a drawing to receive a stipend to help defray the costs of attending the 21<sup>st</sup> GLOBE Annual Meeting in New Haven, Connecticut, USA.

**ENSO Student Research Campaign Metrics & Data Counts – Updated in advance of each Phase II Webinar**
**Global Data – Data Entry from Around the World**
**Data Collected by Ann Martin, SSAI**
**Phase II Only: September 21, 2016 – March 10, 2017**

Protocol	Precipitation	Air Temperature (Standard/Noons/ Current/Max)	Surface Temperature (Standard/Noons)	Soil Temperature (Standard/Noons/ Dailies)	SMAP Soil Moisture	Biometry Trees & Vegetation Covers	Total
Sites	398	811	170	242	68	67	1,756
Observations	24,875	880,381	7,045	113,912	1,153	194	1,027,560

**Phase I & Phase II: March 1, 2016 – March 10, 2017**

Protocol	Precipitation	Air Temperature (Standard/Noons/ Current/Max)	Surface Temperature (Standard/Noons)	Soil Temperature (Standard/Noons/ Dailies)	SMAP Soil Moisture	Biometry Trees & Vegetation Covers	Total
Sites	531	1,114	223	311	121	87	2,387
Observations	50,479	1,981,940	10,979	330,051	2,338	302	2,376,089

Notes: The data counts listed above include some observations from automated weather stations, especially for precipitation and temperature protocols.

## 1 year of data = 2.3 million measurements