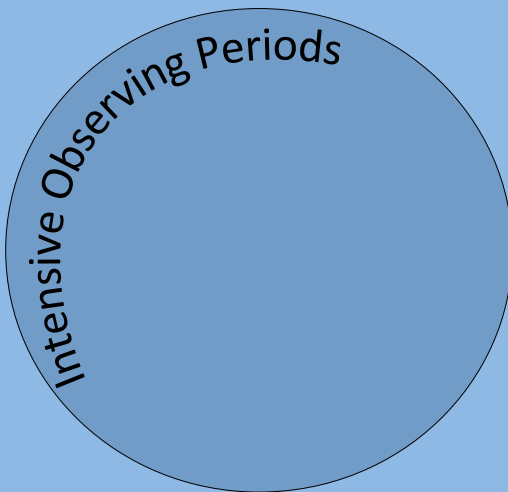


# Update on the Student Climate Research Campaign

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## Intensive Observing Periods



### **Intensive Observing Periods**

Students from around the world will be encouraged to take themed measurements over a short period of time and analyze their data.



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# Intensive Observing Periods ~ IOPs

- Intensive Observing Periods – IOPs ~ focused periods of time where participants are encouraged to collect large amounts of data to be entered in the GLOBE database.
- Climate Scientists will lead IOPs and both students and scientists can use the GLOBE collected data to conduct climate investigations



Two GPO-led IOPs held quarterly

- Climate and Land Cover (CLC)
- Great Global Investigation of Climate (GGIC)



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# Climate and Land Cover ~ CLC

July – October – January – April

- The Climate and Land Cover Project is a research effort between GLOBE schools and climate scientists to improve land cover classifications for climate models.

Using GLOBE land cover protocols, students take photographs and classify representative land cover areas near their schools and upload these data to the GLOBE database. These data can be used by students to compare land cover around the world and will be used by scientists to improve land cover classifications for climate models.

- The Climate and Land Cover (CLC) Project is a joint scientific research effort between GLOBE schools around the world and National Oceanic and Atmospheric Administration (NOAA) climate research scientists.



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# Climate and Land Cover ~ CLC

- First event: October 2010
- Mixed results: challenges and successes
  - 48 land cover sites were entered into the database; 200+ pictures
  - Barriers: multiple sites and log-ins
- Next event, May 2011, has seen vast improvements:
  - Addition of GoogleEarth upload tool to allow photo upload by participants
- The science has been situated, working on learning activities to further deepen student understanding of land cover and its connection to climate



- Protocols covered: land cover



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## Update on the Student Climate Research Campaign: Intensive Observing Periods

Site Code: **ATM**  
Site Id: **ATM-01**  
MUC Code: **Not Entered**  
Date taken: **2004-11-30**  
Longitude= **-3.7135**  
Latitude= **38.8837**

**N**



Site name: **Caseta meteorologica**  
School: **[IES Clavero Fernández de Córdoba](#)**

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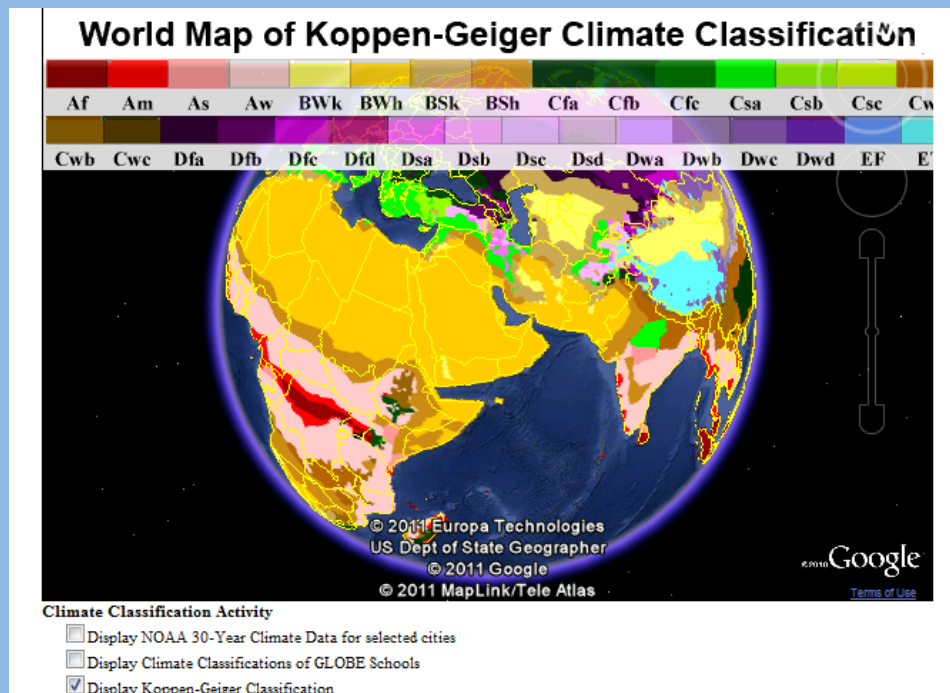


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# Great Global Investigation of Climate~ GGIC

September – December – March – June

•Students will explore the role of precipitation and temperature in defining climate by using GLOBE protocols to collect temperature and precipitation data, as well as cloud data. Schools with an automatic weather station are encouraged to collect soil temperature data.



•The Great Global Investigation of Climate (GGIC) is a joint scientific research effort between GLOBE schools around the world and GLOBE staff scientists – looking to expand to NASA/NOAA/NSF/internationally.



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# Great Global Investigation of Climate~ GGIC

- Pilot event: March 2011
- Mixed results: challenges and successes
  - Successes: 28 schools participated; 24 entered data into the GLOBE database; GoogleEarth was available to provide data to schools world-wide
  - Barriers: GoogleEarth plug-in not available for classification upload; lack of teacher participation in online collaboration
- Next event, September 2011, will see vast improvements:
  - Addition of GoogleEarth upload tool to allow schools to upload their climate classification (tested in a workshop in Texas from 6-11 June 2011)
- The learning activities to further deepen student understanding of weather and climate have been situated; working to focus science
- Protocols covered: air temperature, precipitation



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## Update on the Student Climate Research Campaign: Intensive Observing Periods



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**Manila, Philippines**

**Climate Classification : (Am)  
Equatorial monsoon**

**Notes/Additional Comments :**

The annual temperature is recorded at 28.34C and the accumulated annual precipitation is 1458.19mm.

[GLOBE Student Climate Research Campaign](#)

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Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google  
2010  
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**Climate Classification Activity**

- ☐ Display NOAA 30-Year Climate Data for selected cities
- ☒ Display Climate Classifications of GLOBE Schools
- ☐ Display Koppen-Geiger Classification



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# Your feedback needed to improved IOPs!

1. How do we best recruit schools across the globe to participate in IOPS and encourage participation on a regular basis?
2. Are there any regional IOPs that are being planned? Would you be interested in planning a regional IOP and what would it be?
3. What areas of climate are of interest to you locally, nationally, and/or regionally?
4. What training materials do you need to support training of teachers for IOP participation (data, science summaries, online tutorials, workshop agendas, etc.)?

Feel free to email [jmackaro@globe.gov](mailto:jmackaro@globe.gov) with any additional feedback



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# Announcements

- Poster Session – Ballroom 18:30
- Wednesday
  - Carbon Cycle workshop [9:00 Insight]
  - Film 10:00 *and* 14:00 [Ballroom]
  - Social Media guest presentation 15:30 [Ballroom]
- Thursday
  - Bring water bottle
  - Breakfast OZ restaurant (6:00 – 6:45)
  - Board busses 6:45
- Shuttle Reservations – information available Wednesday morning at GLOBE Registration desk