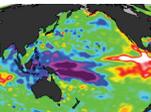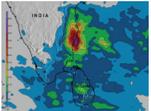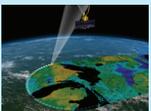# THE **GLOBE** PROGRAM

GLOBE Measurement Campaigns

The Global Learning and Observations to Benefit the Environment (GLOBE) Program is an international science and education program that provides students and the public worldwide with the opportunity to participate in data collection and the scientific process, and contribute meaningfully to our understanding of the Earth system and global environment. GLOBE Measurement Campaigns are regional and worldwide projects that provide students with hands-on opportunities to learn about the Earth. GLOBE Field Campaigns are grounded in real science embedded in an inquiry-based, collaborative approach. The following are some of our Field Campaigns:

	Campaign	Purpose	Timing of Data Collection	Science Protocol
	Climate and Land Cover	To improve ground cover classifications for climate models.	Quarterly; data collected once in each of the following months: October, January, April, July	Land Cover Sample Site
	Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations (CALIPSO)	To foster an understanding of clouds and aerosols and to demonstrate how satellite technology allows us to better understand our world.	No specific timeline for data collection	Cloud, Contrail, and Aerosol
	CloudSat	To expand our understanding of clouds and to enhance understanding of the role clouds play in climate and weather.	No specific timeline for data collection	Cloud
	ENSO	To develop an understanding of El Niño Southern Oscillation (ENSO) patterns that impact global climate and seasonal weather.	Data collected 21 days per quarter	Precipitation, Air temperature, Surface Temperature, Soil Temperature, Soil Moisture, or Biometry
	Geostationary Operational Environmental Satellites R Series (GOES-R)	To serve as ground verification in comparison to satellite imagery and to allow students to investigate extreme weather in their area.	Data collected as extreme events occur	Precipitation and Cloud
	Global Precipitation Measurement (GPM)	To foster an understanding of precipitation patterns and to compare ground based measurements of precipitation to satellite rainfall estimates.	Daily measurement within one hour of solar noon	Precipitation
	Great Global Investigation of Climate (GGIC)	For students to develop an understanding of their own climate and how it has changed.	Quarterly; data collected daily during each of the following months: Sept, Dec, March, June	Air Temperature and Precipitation
	Phenology and Climate	To involve students in studies focused on the relationship between climate and the biosphere.	Twice per week for a specified Intensive Observing Period (~10 months)	Green-up and Green-down and optional Air Temperature, Soil Temperature, Precipitation, and Soil Moisture
	Soil Moisture Active Passive (SMAP)	To determine how soil moisture content varies within a locality and to collect data that can serve as a calibration for SMAP satellite data collection.	Every 3 days in conjunction with the SMAP satellite passing overhead (6 hour window) or collect data daily during the fourth week in April and first two weeks in October	Block Pattern Soil Moisture
	Surface Temperature	To understand how surface cover affects surface temperature.	Data collection occurs in the month of December	Surface Temperature