

EARTH OBSERVATION SYMPOSIUM (B1)  
International Cooperation in Earth Observation Missions (1)

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EMPLOYING SPACE-BASED DATA AND OBSERVATIONS FOR UNDERSTANDING CLIMATE  
CHANGE AND SUSTAINABLE DEVELOPMENT IN LATIN AMERICA AND THE CARIBBEAN –  
RESEARCH AND RESULTS FROM THE CATHALAC/UAHUNTSVILLE 2010 INTERNATIONAL  
PROGRAM

**Abstract**

In the summer of 2010, the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC) and the University of Alabama in Huntsville (UAHuntsville) conducted an intensive, international, 8-week research and study program for graduate and undergraduate students in Panama. In this program, the products of Earth Observation missions – space-based data and observations, coupled with regional models – were employed to perform research into improving understanding of climate change and sustainable development in Latin America and the Caribbean. Specific research topics included: Human Impacts on Modern and Ancient Environments; Air Quality and Public Health; Forest Fires; Population and Disease; Agriculture; Hydrology; Erosion and Land-Management within Tropical Watersheds; Energy and Sustainability; Biodiversity; and Population and Disease impacts. This program offered an exceptional opportunity for students and researchers, from developed and developing countries, to interact in the employment of space-based/derived information to address pressing and relevant problems in this region of the world, and to integrate them with ongoing research projects being performed at CATHALAC and UAHuntsville. In addition to a brief overview of the program, this paper summarizes the research activities and results generated from the application of space-based data and observations in exploring these important questions of sustainability and climate change in this developing part of the world.