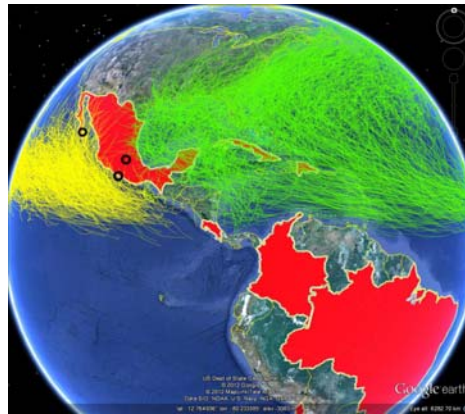


1. Introduction

Tropical cyclones are important weather systems that develop over several regions of the globe. Their occurrence has the potential to affect the environment and populated regions in Central and North America.

In comparison to developed countries, in Latin America there is a lack of meteorology and climatology professionals with adequate knowledge of tropical cyclones. Therefore, major efforts are required to build capacity in these disciplines. As part of a research project, we designed a series of short courses based on the current understanding of tropical cyclones.



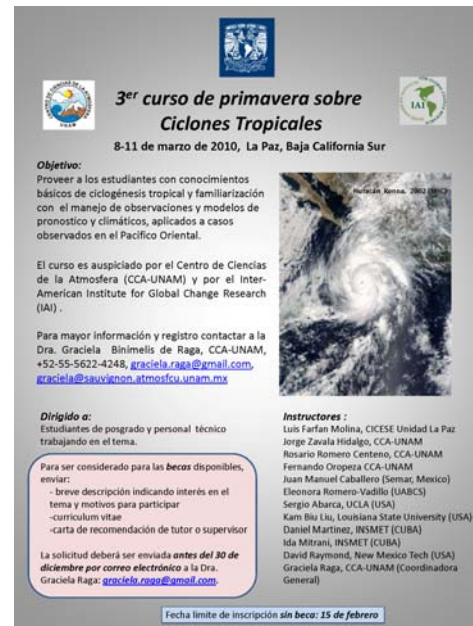
Tracks of tropical cyclones that developed in the eastern North Pacific (yellow) and Atlantic (green) basins. Data are, for the base period 1949-2010, from historical records at the United States National Hurricane Center. In red, the students country of origin. Black circles are course locations: La Paz, Baja California Sur, Acapulco, Guerrero, and Mexico City, Distrito Federal.

2. Goal and methodology

Our goal is to train students from higher-education institutions and public agencies in Mexico, the Caribbean, Central and South America, where capacity building is in the early stages.

Our approach includes a brief review of climatological features on formation and dissipation as well as advanced topics on thermodynamic and dynamical aspects of storm intensification, air-sea interaction, oceanic response, long-term variability, climate-related predictions, and geology-related techniques to study coastal impacts upon landfall.

Additionally, practical sessions are offered to analyze recent case studies of approach and landfall over western Mexico. These sessions apply computer-based software that is available to display the best-track dataset from the National Hurricane Center, satellite data (GOES and TRMM) and gridded output from global- (GFS) and regional-scale (WRF) models for short-term predictions.



3er curso de primavera sobre Ciclones Tropicales
 8-11 de marzo de 2010, La Paz, Baja California Sur

Objetivo:
 Proveer a los estudiantes con conocimientos básicos de ciclología tropical y familiarización con el manejo de observaciones y modelos de pronóstico y climáticos, aplicados a casos observados en el Pacífico Oriental.

El curso es auspiciado por el Centro de Ciencias de la Atmósfera (CCA-UNAM) y por el Inter-American Institute for Global Change Research (IAI).

Para mayor información y registro contactar a la Dra. Graciela Binimelis de Raga, CCA-UNAM, +52-55-5622-4248, graciela.raga@gmail.com, graciela@sauvignon.atmosfera.unam.mx

Dirigido a:
 Estudiantes de posgrado y personal técnico trabajando en el tema.

Para ser considerado para las becas disponibles, enviar:
 - breve descripción indicando interés en el tema y motivos para participar
 - currículum vitae
 - carta de recomendación de tutor o supervisor

La solicitud deberá ser enviada antes del 30 de diciembre por correo electrónico a la Dra. Graciela Raga: graciela.raga@gmail.com.

Fecha límite de inscripción sin beca: 15 de febrero

Announcement for the third training course held in La Paz.

3. General information

Between 2008 and 2010, we offered more than 75 hours of lectures on tropical meteorology for graduate and undergraduate students from Mexico, Costa Rica, Cuba, Dominican Republic, Colombia, Brazil, Chile and Argentina. Most of these students were from Mexico. Instructors were from four countries including the United States.

In addition to the courses, we have convened symposia, to discuss social and economic issues associated with the landfall of tropical cyclones. Topics include coastal impacts and flooding, the link between cyclones and water resources, flow of weather and climate information from scientists to policy-makers, the role of emergency managers, and impacts on public health. Discussions included flow of information from scientists to society and the key role that scientists should play. Speakers on human dimensions represent educational institutions and public and private agencies, including emergency managers from regions with frequent storm activity throughout the Mexican coasts.



Participants from the training courses held in La Paz (2008, top), Acapulco (2009, left center), La Paz (2010, right center) and Mexico City (2012, bottom).

4. Mexico City, March 26-30 2012

A 32-hour course was held at the Mexican Academy of Sciences, in Mexico City, focused on training personnel from the Mexican Meteorological Service. A total of 20 students participated, some of them with operational responsibilities. Other participants were from the Civil Defense, the Federal Communications and Transportations Agency and the Mexican Air Force. One session was dedicated to learn basic aspects of the Integrated Data Viewer, a multiplatform tool from the Unidata Program Center and used to display specific datasets from the most recent landfalls affecting Mexico: Jova and Rina in 2011.

Another part of the course was devoted to a forum in which students discussed their views on the links between tropical cyclones and climate change, based on a review of the recent literature on the topic.



Field trip to a coastal lake near La Paz from which sediment cores were taken to be analyzed, at Louisiana State University, for evidence of storm impacts during the last 5,000 years.

Acknowledgments

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