

WMO GURME Training Course on Air Quality Modeling for Latin American Cities Project

A training course on air quality modeling was jointly organized by WMO and the Molina Center as a part of the capacity building for government officials and university researchers in Latin American cities. The course was held on August 10-14, 2009 in Mexico City, and offered to 50 people, which included technical staff from SEMARNAT, GDF-SMA, SNM, CFE, IMP, investigators and students from UNAM, and participants from Guadalajara, Jalisco and Leon, Guanajuato and from Santiago, Chile and Sao Paolo, Brazil.

The course started with the inaugural session presided by Luisa Molina (MCE2). Adrian Fernandez (INE), Ana Maria Contreras, Liisa Jalkanen (WMO) and Valentina Davidova (SNM) gave the welcoming and opening remarks; followed with three overview talks on GURME (by Liisa Jalkanen), the importance of AQ modeling (by Gregory Carmichael) and the Mexican perspective on AQ Management (by Ramiro Barrios of SEMARNAT). The afternoon session consisted of presentations on the fundamentals of air quality modeling, which include meteorology, emissions inventory, ambient air quality monitoring, photochemistry, urban growth and land use changes given by Mexican and international experts. The participants watched the MILAGRO documentary prior to a reception hosted by SEMARNAT and the Molina Center. The WRF tutorial was given by Cindy Bruyere and David Gill on day 2, while the WRF-Chem Tutorial was given by George Grell and Stephen Peckhan from NOAA and Rainer Schmitz from Chile on day 3 and day 4. The final day was devoted to applications of Air Quality (AQ) modeling, including AQ forecasting, evaluation of emissions control strategies, emissions improvement using satellite observation, evaluation of model performance, and AQ impacts on health and agriculture. The AQ fundamentals and applications were presented by Gregory Carmichael (University of Iowa), Liisa Jalkanen (WMO), Victor Hugo Paramo, Armando Retama, Saul Rodriguez from GDF-SMA; Ernesto Caetano, Agustin Garcia and Manuel Suarez from UNAM, Gustavo Sosa (IMP), Sasha Madronich (NCAR), Marcelo Mena (UNAB, Chile).

This is the first time that WMO returned to Mexico since a meeting of experts in air quality forecasting was convened by WMO and organized by the MIT Integrated Program on Urban, Regional and Global Air Pollution in October 2002 in Cuernavaca. The workshop led to the GURME pilot project "Improvement of AQ Forecasting in Latin American Cities" and the first GURME Air Quality Forecasting workshop held in Santiago, Chile in October 2003 and a WRF-Chem workshop for Latin American hosted in Sao Paolo, Brazil. It is hope that this training workshop will establish a discussion forum with a network of Latin American GURME scientists on the website to share and exchange information on air quality modeling and forecasting,

Many people contributed to the success of the course: Victor Almanza and Abraham Ortinez who worked long hours in getting the computers set up prior to the course, with the support from the staff at the SEMARNAT Centro de Calidad (CECAL), especially Esteban Luna López. Henry Wöhrnschimmel, Hugo Barrera, Chantal Renaudot (WMO) and the staff at SEMARNAT provided logistical support.