SSEC/CIMSS
Seminar

INDIRA RANI SUKUMARA PILLAI

National Centre for Medium Range Weather Forecasting (NCMRWF)
Ministry of Earth Science (MoES)
Government of India

Assimilation of MODIS Water Vapor and Clouds over the India Region: The Maiden Kashmir Snowfall of December 2010

The Northern part of India, Jammu and Kashmir experienced the first major snowfall of the 2010-11 winter season on December 30, 2010, which ended a two month long dry spell. Snow which began falling on December 29, 2010, accumulated in sizable amounts throughout the region causing considerable disruption power and transportation services. The India Meteorological Department (IMD) had predicted heavy snowfall for the period through New Year's Day. IMD had also forecasted of the arrival of a western disturbance, likely to hit the Himalayas and result in heavy snowfall in the higher reaches of Himalayas including Kashmir and rainfall in the lower elevations. The accurate prediction of snowfall and rainfall amounts over the Himalaya and adjacent regions is a high priority for IMD.

Satellite remote sensing has proven to be a useful tool for real-time monitoring of the atmosphere over vast, remote areas surrounding India. NCMRWF is interested in using MODIS water vapor and cloud parameters to study major snow events over Jammu and Kashmir during 2010-2011 winter. The NWP model used in this study is the "direct broadcast" version of the CIMSS (Co-operative Institute for Meteorological Satellite Studies) Regional Assimilation System, or DBCRAS. The model was run without and with MODIS data to determine the impact it has on the forecast of precipitation.

Friday, 25 March 2011
11:00 a.m.
Room AOSS 811