Séminaire jeu 23 Sep 2010 14h / Seminar Thu Sep 23rd 2010 14h

Conférencier/Lecturer:	George Isaac (Cloud Physics and Severe Weather, EC)
Sujet/Subject:	Winter Weather Nowcasting
Présentation/Presentation:	Anglais / English
Lieu/Room:	Salle des vents (Dorval)

iweb: http://web-mrb.cmc.ec.gc.ca/mrb/rpn/SEM/
web: http://collaboration.cmc.ec.gc.ca/science/rpn/SEM/index.php

Abstract

The Canadian Airport Nowcasting Project (CAN-Now) and the Science of Nowcasting Winter Weather for Vancouver 2010 (SNOW-V10) scientific teams are beginning to generate conclusions on our ability to Nowcast Winter Weather for periods out to 6 hours. This talk will summarize the status of each project and present some general conclusions. One main focus has been to install standard and specialized equipment at locations to measure important parameters and to archive that data with one minute resolution where possible. The projects have been using numerical models (such as GEM, REG, GEM LAM and RUC) to produce short term forecasts of standard atmospheric variables (temperature, RH, winds) and techniques have been developed to forecast visibility, runway visible range, ceiling, wind gusts, precipitation type, etc. Specific Nowcast techniques developed include:

1. the Adaptive Blending of Models and Observations (ABOM)
2. the Integrated Weighted Model (INTW)
3. extrapolation techniques for lightning and precipitation

Verification on times scales of 1-15 minutes is done using the data from instrumentation located at the main sites. Data will be presented on the verification of the various techniques to Nowcast Winter Weather. Highlights of the current strengths and weaknesses of the Canadian techniques will be summarized and compared to some of the international techniques used during SNOW-V10.