

Séminaire 10 Mai 2011 11h / Seminar May 10th 2011 11h

Conférencier/Lecturer: Jason Milbrandt

Sujet/Subject: Towards a National 2.5-km Deterministic NWP System:
Proposal for an Operational West Domain

Présentation/Presentation: Anglais / English

Lieu/Room: Salle des vents (Dorval)

wiki: https://wiki.cmc.ec.gc.ca/wiki/RPN_Seminars

iweb: <http://web-mrb.cmc.ec.gc.ca/mrb/rpn/SEM/>

web: <http://collaboration.cmc.ec.gc.ca/science/rpn/SEM/index.php>

Abstract

For the last several years, Environment Canada has been running an experimental 2.5-km GEM-LAM system over various regions of Canada. The experimental system is now used routinely by operational EC meteorologists. Given the added value that can come from convective-scale prediction systems, the development of an operational 2.5-km deterministic NWP system – with full national coverage and a high-resolution data assimilation cycle – is currently under way. Completion and implementation is expected within the next few years. As a step towards this, it is proposed that the current HRDPS be upgraded and that the west domain be given formal operational status. This will include a switch to two 36-h integrations per day for the west domain.

Results will be presented for comparisons between the current experimental HRDPS, driven from the RDPS-15 km and using GEM4.2.2 (for an intermediate LAM-15 km grid as well as the 2.5-km grid for each domain), and the proposed configuration, driven from the new RDPS-10 km and using GEM4.4.0 (for new intermediate LAM-10 km grids plus the existing 2.5-km grids). It will be shown that objective skill scores for near surface temperature, humidity, and winds are modestly but systematically improved, and with no obvious change to 6-h precipitation scores. Plans for the new national system will also be presented.