Numerical Weather Prediction (NWP)

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Task WEO6-O5: Numerical Weather Prediction (NWP)

Objectives:

• Co-organize regional workshops with NWP training centers to help developing countries improve forecasts

• Build on World Meteorological Organization (WMO) programs aimed at developing countries to improve extreme event forecasting

Background:

• US National Weather Service (NWS) conducted global survey in 2006 to determine gaps in NWP training activities

• NWS worked with WMO Education and Training office to organize 2 NWP trainings: one for sub-Saharan Africa, one for the Americas in Argentina.
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Milestones achieved

- In January 2007, NWS/NCEP led a one-day hands on workshop on at the Annual American Meteorological Meeting with an international audience. In October 2007, conducted severe weather workshop in South Africa with participants from 15 countries.

- Distance learning materials developed for NWP training, derived from NCEP trainings in South America and from the South Africa workshop are available on COMET http://www.meted.ucar.edu/ - other self guided material also available at this site.

- In November 2007, NOAA sponsored a GEOSS Americas partners meeting in Brazil, conducted training in use of satellite data from the GOES-10.

- Since 2005, more than 60 workshops, seminars, meetings, trainings sponsored by WMO and meteorological services of Germany, France, Korea, UK, Peru, Chile, Argentina, US.
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- NWP distance learning modules produced by the program for Cooperation in Meteorology, Education, & Training (COMET) [www.comet.ucar.edu](http://www.comet.ucar.edu)

- NWP models most-accessed modules – users from 182 countries and all WMO member countries have accessed the training materials.
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Recommendations for additional participants: Expand languages available through Met-Ed trainings, add French capability to reach new audiences in Africa.

Coordination with other GEO tasks: Future Coordination with GEONETCast Training channel, disseminating COMET materials through GEO web portal, etc. Coordination between NWP task leads, SERVIR, and regional Meteorolgy programs in training and dissemination.

Barriers to completion of task: None

Gaps to be addressed independently: None - conducted original gap analysis to determine needs for using NWP to inform how to carry out task.

Contributions to CB & GEO portal: CB portal can link to COMET website www.comet.ucar.edu for download of distance learning modules. Modules can be carried on other CB instruments, i.e. GEONETCast, RA-NET, etc.
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**Expected products:** Distance learning modules – Completed 2008

**Expected completion date:** 2008

**Expectations of task lead from CBC:** New NWP task will be **WE-09-01.** The new task will capitalize on connections and training infrastructure developed through WE-06-05. US NWS will continue to support training and capacity building opportunities in NWP through GEO, international offices and WMO World Weather Watch trainings.
WE-09-01: Capacity Building for High-Impact Weather Prediction

• GEO 2009-2011 workplan. Task to be led by Korea
• Develop capability for numerical weather prediction in developing countries, focusing on high-impact weather events and foster rapid progress through enhanced infrastructure and training.
• Develop improved system infrastructure for NWP in developing countries, building on WMO developing country programs.
• Identify needs and facilitate technical, hardware, software, and expertise exchanges.
• Co-organize a series of regional capacity building workshops with major NWP centers to assist developing countries in their use of existing forecasts.