

GOES-R Proving Ground Demonstration Proposal

- (1) Project Title:** 2012 GOES-R Proving Ground Aviation Weather Center Experiment
- (2) Organization:**
 - a. Aviation Weather Center, Kansas City, MO
- (3) Products to be Demonstrated (list the GOES-R Products you would like to demonstrate as a GOES-R Proving Ground activity at the Aviation Weather Testbed):**
 - a. Simulated Cloud and Moisture Imagery (Schmit, Lindsey)
 - b. UW Convective Initiation (Sieglaff)
 - c. Low Cloud and Fog (Pavolonis)
 - d. Aircraft Icing Threat (Smith Jr.)
 - e. Nearcasting Model (Peterson)
 - f. WRF and HRRR Lightning Threat Forecast (McCaul)
 - g. Pseudo-GLM (Stano)
 - h. Enhanced V/Overshooting Top Detection (Bedka)
 - i. Volcanic Ash Detection and Height (Pavolonis)
 - j. SO₂ (Pavolonis)
- (4) Demonstration Project Summary:**
 - a. Purpose: Demonstrate and evaluate the identified GOES-R Proving Ground products within 2012 AWC Summer Testbed and AWC Forecast Operations.
 - b. Scope:
 - i. GOES-R Proving Ground convection and low cloud/fog products will be evaluated in the N-AWIPS environment for usefulness in supporting the experimental AWC Testbed Aviation Weather Statement.
 - ii. GOES-R Proving Ground low cloud/fog, aircraft icing threat, volcanic ash detection/height, and SO₂ products will be evaluated in the N-AWIPS/AWIPS environments for usefulness in supporting AWC Forecast Operations.
- (5) Participants (Centers) Involved:**
 - a. Providers
 - i. Simulated Cloud and Moisture Imagery (Schmit – NOAA/NESDIS/STAR, Lindsey – CIRA)
 - ii. UW Convective Initiation (Sieglaff – CIMSS)
 - iii. Low Cloud and Fog (Pavolonis – NOAA/NESDIS/STAR)
 - iv. Aircraft Icing Threat (Smith Jr. – NASA)
 - v. Nearcasting Model (Peterson – CIMSS)
 - vi. WRF and HRRR Lightning Threat Forecast (McCaul – NASA SPoRT)
 - vii. Pseudo-GLM (Stano – NASA SPoRT)
 - viii. Enhanced V/Overshooting Top Detection (Bedka – CIMSS)
 - ix. Volcanic Ash Detection and Height (Pavolonis – NOAA/NESDIS)
 - x. SO₂ (Pavolonis – NOAA/NESDIS)
 - b. Consumers
 - i. Aviation Weather Center

(6) Project Schedule/Duration (timeline):

- a. AWC Testbed Schedule: 4-15 June 2012
- b. First products into AWC Testbed: 1 May 2012
- c. AWC Forecast Operations Schedule: 15 July 2012 – 31 December 2012
- d. First products into AWC Forecast Operations: 15 July 2012
- e. Midterm Report: September 2012
- f. Final Evaluation Report: February 2013

GOES-R Proving Ground Product	Acquisition into Testbed/Forecast Operations Due Date	Training	Initial Evaluation Campaign Dates
Simulated Cloud and Moisture Imagery*	4 May 2012	21-31 May 2012	4-15 June 2012
UW Convective Initiation*	4 May 2012	21-31 May 2012	4-15 June 2012
Low Cloud and Fog*#	4 May 2012	21-31 May 2012* 2-13 July 2012#	4-15 June 2012* 15 July - 31 December 2012#
Nearcasting Model*	4 May 2012	21-31 May 2012	4-15 June 2012
WRF and HRRR Lightning Threat Forecast*	4 May 2012	21-31 May 2012	4-15 June 2012
Pseudo-GLM*	4 May 2012	21-31 May 2012	4-15 June 2012
Enhanced V/Overshooting Top Detection*	4 May 2012	21-31 May 2012	4-15 June 2012
Volcanic Ash Detection/Height and SO ₂ #	17 August 2012	20-31 August 2012	1 September 2012 - 1 September 2013
Aircraft Icing Threat#	28 September 2012	1-12 October 2012	15 October - 31 March 2013

*: Aviation Weather Center Testbed Experiment

#: Aviation Weather Center Forecast Operations

(7) Project Decision Points and Deliverables

- a. Proving Ground Operations Plan: 13 April 2012
- b. Proving Ground Mid-Term Report: September 2012
- c. Proving Ground Final Report: February 2013

(8) Responsibilities and Coordination

- a. Bruce Entwistle, NOAA/NCEP/AWC – AWC PG Lead
- b. Jason Levit, NOAA/NCEP/AWC – AWC Testbed Coordinator
- c. Ken Pryor & Wayne Feltz, UW-CIMSS – Aviation Application Team co-leads
- d. Bonnie Reed, NOAA/NWS/OST – NWS PG Lead
- e. Chad Gravelle, NWSTC – Satellite Liaison
- f. TBD, NOAA/NCEP/AWC – Satellite Liaison

(9) Budget and Resource Estimate

- a. N/A