

## **Proving Ground Operations Plan Proposal**

Please fill out and return to the GOES-R Program Office ([richard.reynolds@noaa.gov](mailto:richard.reynolds@noaa.gov) and [bonnie.reed@noaa.gov](mailto:bonnie.reed@noaa.gov)).

### **(1) Project Title:**

- a. Precipitation Forecasting and Ocean Applications with GOES-R Products.

### **(2) Organization:**

- a. NWS/NCEP Hydrometeorological Prediction Center (HPC)
- b. NWS/NCEP Oceanic Prediction Center (HPC)
- c. NESDIS/Satellite Analysis Branch (SAB)
- d. NWS/NCEP/NHC Tropical Analysis and Forecast Branch (TAFB)

### **(3) Products to be demonstrated (list the GOES-R Products you would like to demonstrate as a GOES-R Proving Ground activity):**

- a. Cloud/Moisture Imagery
- b. Cloud Top Height
- c. Cloud Top Temperature
- d. Cloud Top Phase
- e. Convective Initiation
- f. Derived Motion Winds
- g. Overshooting Top Detection (OTD)
- h. Lightning Detection
- i. Rainfall Rate/QPE
- j. RGB Air Mass
- k. RGB Dust
- l. Volcanic Ash, Detection and Height

### **(4) Demonstration Project Summary:**

- a. Purpose: Precipitation and QPF type products will be demonstrated and evaluated within the HPC and TAFB, offshore thunderstorm and convective type products will be demonstrated and evaluated within the OPC and TAFB, and hazardous weather related products will be demonstrated and evaluated within the SAB and TAFB. These products will be provided real-time to the HPC, OPC, TAFB, and SAB forecasters/analysts can use, get familiar with, and evaluate the products and provide valuable feedback to the GOES-R Program Office (GPO).
- b. Scope: The products will be evaluated for use in short range forecasting, with an emphasis on precipitation forecasting.

### **(5) Participants (Centers) involved:**

#### **a. Providers**

- i. CIRA & SPoRT (joint)
  1. RGB Air Mass (John Knaff, Gary Jedlovec)
  2. RGB Dust Product (John Knaff, Gary Jedlovec)

- ii. NOAA/NESDIS/STAR
  - 1. Derived Motion Winds (Jamie Daniels)
  - 2. Rainfall Rate/QPE (Bob Kuligowski)
  - 3. Volcanic Ash (Mike Pavolonis)
  - 4. Cloud Top Temperature, Height (Andy Heidinger)
  - 5. Cloud Phase ( Mike Pavolonis)
- iii. CIMSS & CIRA (joint)
  - 1. Cloud and Moisture Imagery (Jordan Gerth & Dan Lindsay)
- iv. CIMSS
  - 1. Convective Initiation (Wayne Feltz)
  - 2. Overshooting Top Detection (Kris Bedka)
- v. UAH
  - 1. Convective Initiation (SATCAST)
- vi. NSSL and SPoRT
  - 1. Lightning Detection

**b. Consumers**

- i. Forecasters at the HPC, SAB, OPC, and TAFB

**(6) Project schedule/duration (timeline):**

- a. Begin: July 1, 2011
  - b. End: June 30, 2013
- Note: Products would follow a rolling schedule.

**(7) Project decision points and deliverables**

- a. Proving Ground Operations Plan
- b. Proving Ground Mid-term Report
- c. Proving Ground Final Report which includes recommendations for future improvements, additional products, or combinations of products.

**(8) Responsibilities and Coordination**

- a. The contractor (“CICS Research Associate, working within the HPC, OPC, SAB, and TAFB will take the lead in the evaluation of new GOES-R products. Products will be initially tested by the Research Associate, and then evaluated by forecasters preparing operational HPC, OPC, SAB and TAFB forecast products.
- b. Overall management will be provided by the HPC Development and Training Branch Chief, the OPC Ocean Applications Branch Chief, the TAFB Branch Chief, and the SAB Senior Analyst. The HPC Science Operations Officer (SOO) will provide guidance on scientific issues. The Research Associate will work with NCEP Central Operations to set up data flow, provide system administration support, and ensure data is available to HPC, OPC, TAFB, and SAB meteorologists on the N-AWIPS/AWIPS II workstations. Final evaluation will be provided by a group consisting of the HPC Development and Training Branch Chief, the

HPC SOO, the OAB Branch Chief and participating forecasters from each center.

- c. Products will also be demonstrated and evaluated within NESDIS Satellite Analysis Branch with Jamie Kibler as the Lead.

**(9) Budget and resource estimate**

- a. REMOVED in this version.