

GOES-R Training Plan PG/User Readiness Meeting

OCWWS Training Division
NESDIS GOES-R
COMET
VISIT (CIRA/CIMSS)
CIMMS (Liaison)
Regions



June 3 2014





Performance Goals

- Improved NWS short-term forecast and warning operations by optimally using GOES-R digital data.
- Increased use of Digital GOES-R data into operations to support Decision Support Services (DSS) for WeatherReady Nation (WRN).

GROW – GOES-R Operations & Warning course

Working Together for Satellite Training

**EUMETSAT,
NASA/SPoRT,
Canada, DOD...**



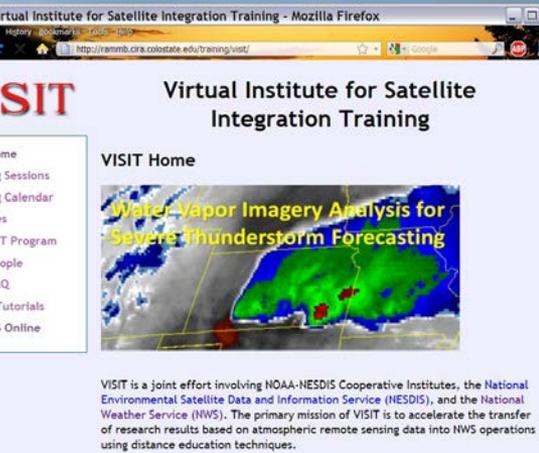
UCAR/COMET

**Satellite &
NWS Proving
Grounds**

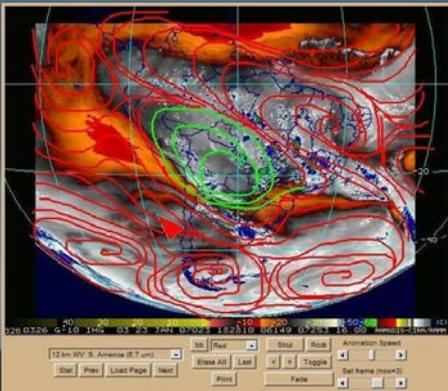


**NWS Training
Division & SOOs**

Users & Developers



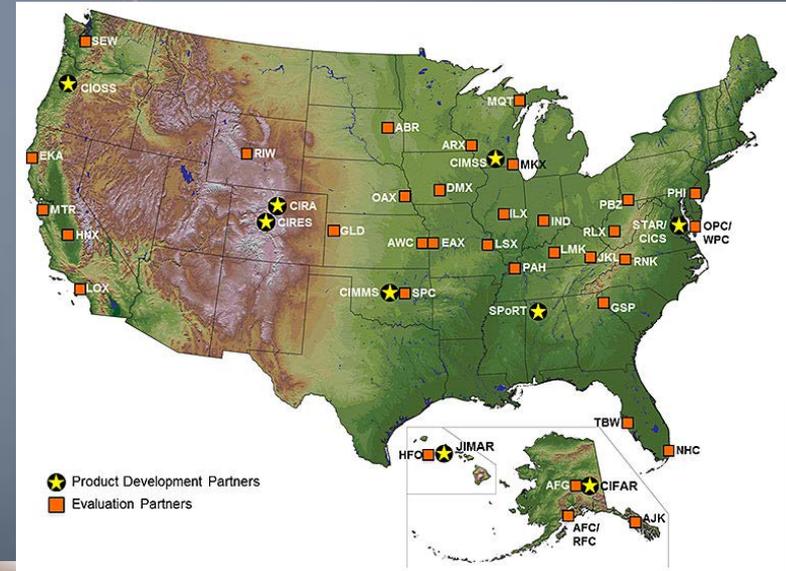
VISIT (CIRA/CIMSS)



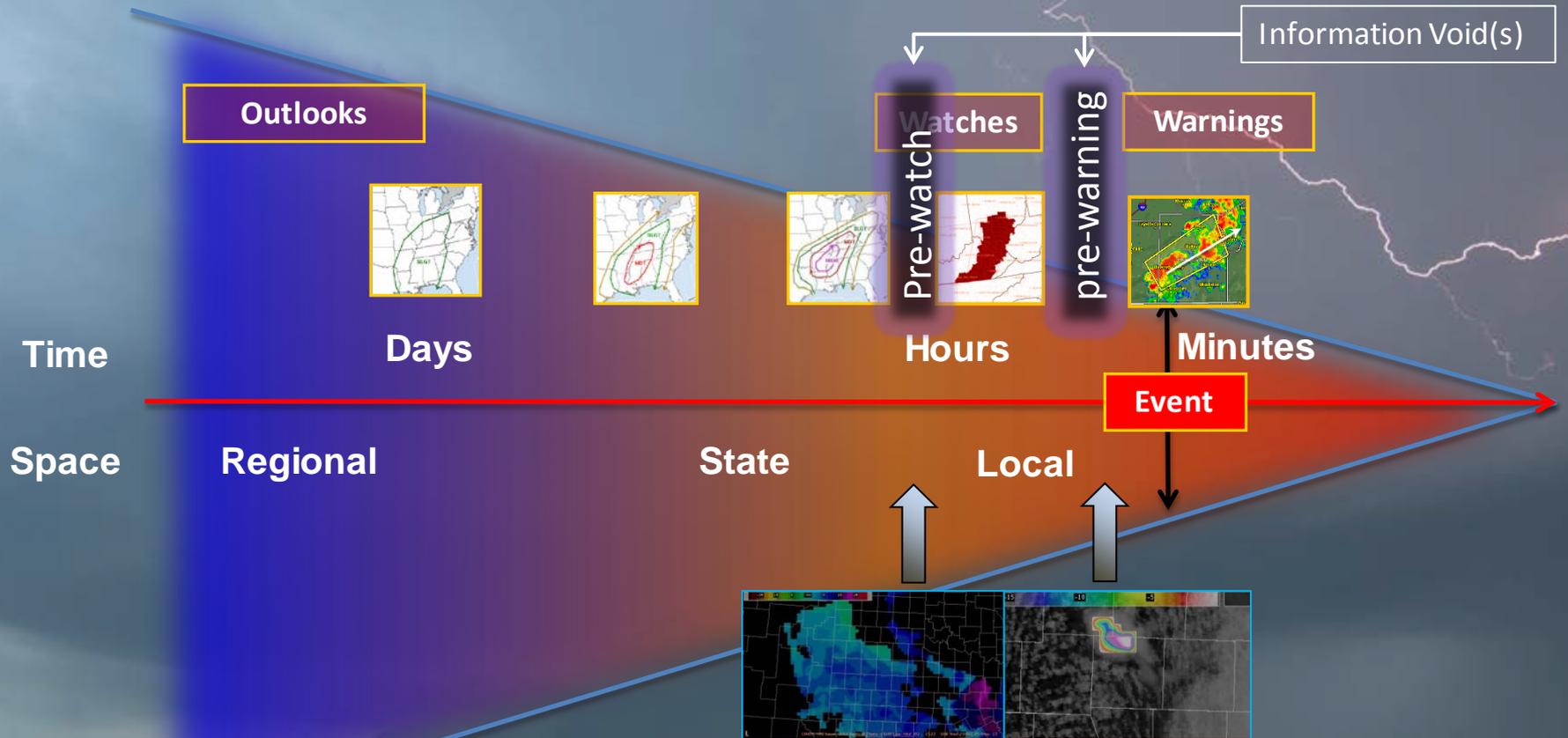
WMO (Virtual Lab)

Inputs to Develop Content

- Himawari Data Sets
- Test Bed experiments
- OPG Operational Readiness Evaluations
- COMET modules
- CIRA/CIMSS/SPORT etc.
- GOES-R Champions/Liaisons
- WMO Virtual Lab
- Satellite O2R Proving Ground/User Readiness Meetings



GOES-R will help address the voids



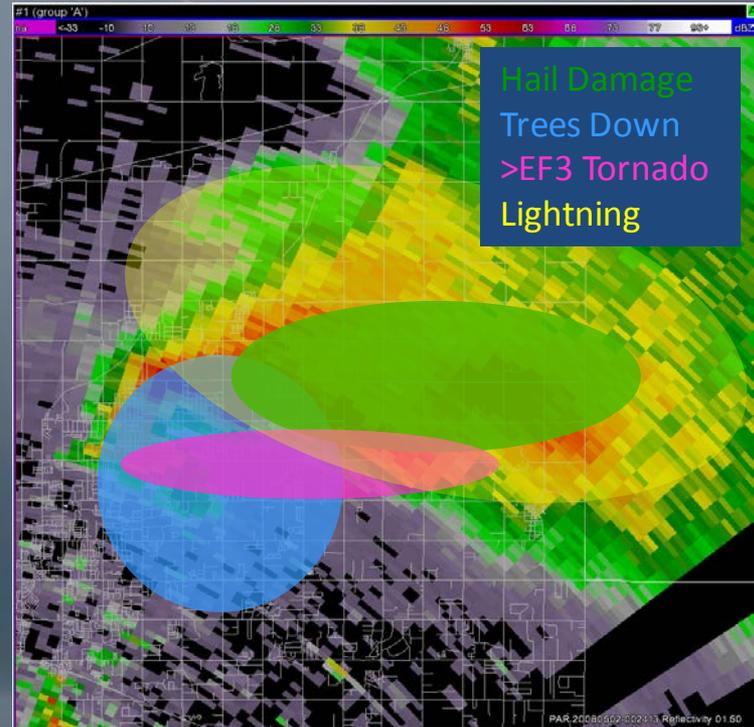
Official products will become gridded and probabilistic, hazard based

- Need to use GOES-R Digitally in Operations

Wind Grid

Hail Grid

Tornado Grid



Impact Grid



Overview

- GOES-R training plan will set management expectations for all NWS forecasters to complete GROW through a signed letter from NWS and NWSEO Directors (like successful Dual-Pol).
- Plan has five phases:
 - Pre-launch info teasers
 - Baseline training = GROW
 - SOO/DOH – Science Infusion Week
 - Ongoing Just-in-Time Training & Resources
 - Integration into Forecast & Warning Operations – AWOCs & Warn-on-Fcst

Pre-launch info teasers

- Start 6 months before launch
- 1-2 min info teasers
- Intro short examples to set baseline understanding
- Youtube type examples on Applications
- Builds upon existing Youtube GOES-R system videos



Baseline Training (GROW)

For all 2000+ Forecasters - Stages

1. “Core” modules to set baseline understanding
 - GOES-R Basics - Focus on new capabilities
 - Focus on interpretation/use of the data – no engineering
 - Introduce operationally relevant baseline products (e.g., RGB, Convective Initiation, etc.)
2. Specific training (including WES cases) to support WRN operations:
 - WFO – Warnings, Grid Production, DSS
 - CWSU – Aviation
 - RFC - Hydro
3. Focus on top 5-10 ways GOES-R can impact forecast operations

NWS Forecasters tracked and issued completion certificates



Science Infusion Week

- SOOs/DOHs 1-week graduate level workshop
- Focus on integrating new data and emerging science to improve scientific quality of WRN message
- Held when GOES-R and new Model data become operationally available est. 4Q FY 16 hosted at COMET
- Focus on evolving forecast and warning process as GOES-R data are used in high resolution rapid refresh models
- Follow up sessions held once per month after workshop on science sharing and operational cases by SOOs/DOHs
- Needs management support from NWS Regions, STI and Chief Learning Office



Just-In-Time Training

- Start once GOES-R data operationally available on AWIPS II.
- VISIT + Partners serve as GOES-R Help Desk function via email/chat/FAQs - ie. Real-time access to an expert – daily (24x7)
- VISIT & Partners host “Storm of the Month” webinars which are hosted and facilitated looking in-depth at a recent case study on a fixed day each month
- Host a collaborative environment involving end users and developers (e.g., consolidated blog)
- Develop searchable on-line library of training modules, blogs, FAQs, and resources

Just-In-Time Training cont.

- VISIT + Partners leads “Real-time Satellite Brief” Visitview sessions
 - (10-15min, fixed time) open to all offices – using real-time satellite data and model projected synthetic imagery to examine problem area of the day.
 - Expert points out situations where GOES-R data verifies model analysis & builds interpretation skills for nowcasts and Warn-on-forecast
 - Frequency depends on Resources available

Integration into Fcst & Warning Operations

- WDTB offers 4 Advanced Warning Operations Courses
 - Core
 - Severe
 - Flash Flood
 - Winter

Plans to update these classes in FY 17 & FY 18 to include relevant GOES-R data

Resources/Subject Matter Experts

- Program Manager (GOES-R funded, CICS 50% time, Oct 2014) – Leading Training Effort & Coordination with Satellite Champions and Liaisons
- NWS
 - FDTB (lead-NWS), WDTB, NWSTC-OPG
 - Regional HQs, NCEP, AFS & STI programs
 - Testbeds, Pilot Projects
 - Regions – Establish Cadre of Satellite Focal Points for O2R, R2O
- NESDIS
 - GOES-R Liaisons & Champions as SMEs at OPG, AWC, NHC, SPC, WDTB, WPC, OCONUS
 - Satellite PG Scientists and Collaborators
 - JPSS data
- CIMSS & CIRA (VISIT), CIMMS
- COMET (GOES-R & JPSS)
- NASA – SPoRT





Timeline: Pre-launch

- FY 2015
 - Obtain senior leadership buy-in at NWS & NESDIS
 - Leverage knowledge about Himawari data sets
 - Obtain resource commitments for FY 16-FY 19
 - Outline GOES-R product lessons – repurpose existing materials
 - Develop basic satellite training prerequisites
 - Utilize simulated GOES-R data
 - Incorporate case simulations from HWT
 - Outline SOO/DOH Science Infusion Week agenda



Timeline: Launch Year

- FY 2016 Launch through Checkout
 - Build on pre-launch materials using real data
 - Update materials during satellite checkout period
 - Evolve Training Plan as resources/needs dictate
 - Set Management Expectations for training
 - Develop and offer first SOO/DOH science infusion week in 4Q
 - Educate Offices on available GROW materials
 - Develop searchable on-line database of resources
 - Regions develop cadre of satellite focal points

Timeline: Operational Use

- FY 2017-2019
 - Extend Training for GOES-S (multi-sat composite)
 - Begin “Real-Time Satellite Briefs”
 - Begin 24x7 Just-in-time support (blogs, chat, email)
 - Begin “Storm of the Month” case study webinars
 - Complete SOO/DOH Science Infusion Weeks
 - Continue post-Infusion learning events
 - Develop job aids for AWIPS2

Summary/Issues

- Build off Himawari data sets
- Leverage Test Bed accomplishments
- How engaged can Satellite Liaisons/Champions be in Just-in-time training?
- How do we best demonstrate value-added of GOES-R in WFO forecast & warning operations?

Background





Background COMET modules

- GOES-R Benefits of Next Generation Environmental monitoring (1.0 hr)
- GOES-R 101 (1.5 hr)
- Pseudo Geo lightning mapper (0.5 hr)
- Multispectral Satellite Applications: RGB products (2.0 hr)
- GOES-R Advanced Baseline Imager (1.25 hr)