



Unidata Policy Committee

NOAA/NWS Update

October 27, 2011

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Office of Climate, Water, and Weather Services

NOAA's National Weather Service



Outline



-
- NOAA Budget
 - NOAA Climate Service Status
 - GOES status
 - JPSS status
 - Wireless Weather Services
 - WFO AWIPS II status
 - Mesonet Network of networks



NOAA Budget – FY 12



- Year long CR expected in FY 12, if mini-bus not approved, then funding as part of gov-wide omni-bus
- House bill provides about \$4.5B for NOAA
- Senate Bill provides just over \$ 5.0B
- Largest differences are in Climate Services and JPSS
- NWS still dealing with structural deficit by reducing HDQ budgets 5% and increasing lapsed labor from 9 to 11% of positions



NOAA Climate Service



- Future uncertain due to differences between Senate and House
- Senior NOAA Regional Climate Directors in place at each NWS Regional HDQ Office
- NWS Deploying Local Climate Analysis Tool phase 1 in FY 12 to enable NWS field staff to utilize NOAA-coordinated best practices (standardized, scientifically sound methodologies) and NCDC- and NWS-recommended datasets to conduct local climate studies to respond to user requests



NWS Forum on Wireless Weather Services – June 28, 2011



- Goal
 - *Engage weather enterprise (government, private sector, academia) and core partners (e.g., emergency managers) in discussions on how best to provide wireless environmental information services.*
 - *Solicit feedback on most appropriate role for NWS in providing wireless weather services.*
 - *Not a “decision meeting”*



Summary Issues/Conclusions



- Standardization of NWS data/products is critical
- Combination of (1) IPAWS/CMAS (FEMA's Integrated Public Alert Warning System/Commercial Mobile Alert System) for government-sponsored weather alerts to general public and (2) mobile weather services available from commercial providers is a powerful combination in meeting the needs of the general public
- There is general recognition that NWS does have a special interest in serving "core partners," however –
 - *More clarity regarding NWS definition of "core partner" is needed*
 - *NWS commitment to meet needs of core partners is understood, but should recognize that core partners also use commercially available services*
- Issues relating to assuring the quality of mobile weather services deserve attention
- Emerging issues – patents; weather info to cars vs. distracted driving



Current Status- WWS



- NWS undergoing internal discussions to finalize direction for wireless/mobile policy
- Next update at January Partners' meeting



WFO AWIPS Status



- Dual testing at WFO Omaha (collocated with Raytheon development staff) this summer produced long list of showstoppers
- Field forecasters to start in Nov to do parallel operations at WFO Omaha to continue to shake down system
- Goal is to make WFO Omaha “deployed” by end of CY11 – Full deployment phased in during CY 12
- Boulder and other next OT&E sites depend on Omaha results this Fall
- Expect “deployment” to go into FY 13



Joint Polar Satellite System



- JPSS schedule is budget dependent from Congress – both House and Senate markups significantly higher than FY 11 - \$ 382M
- PB request FY 12 - \$ 1070M, House - \$ 901M, Senate \$ 920.8M
- NPP is a bridge from current Polar satellites to JPSS
- NPP launch scheduled for Oct 27
 - *VIIRS - infrared imager*
 - *OMPS - Ozone Mapper Profiler*
 - *CERES – Clouds and Earth Radiant Energy System*
 - *CrIS – Cross-track Infrared Sounder*
 - *ATMS – Advanced Technology Microwave Sounder*



GOES-15 Transition Timeline (launched 03/10)



- 8/22 **Begin GOES-15 execution of GOES-West Schedule**
- 9/01 **GOES-15 Fall Eclipse season begins**
- 10/12 **Conduct GOES-15 Operational Readiness Review**
- 10/15 **GOES-15 Fall Eclipse season ends**
- 10/18 **Start GOES-15 westward drift from 89.5 W to 135 W**
Drift rate ~ 0.78 deg/day
- 12/01 **GOES-15 drift rate adjust maneuver**
- 12/06 **Near 129 W; GOES-15 becomes GOES-West**
Stop GOES-11 GVAR
GOES-15 GVAR relayed through GOES-11
Users do not re-point antenna
- 12/14 **Stop GOES-15 Drift at 135 W**
GOES-15 GVAR relayed through GOES-15
Switch ancillary COMM services from GOES-11 to GOES-15
- 12/15 **GOES-11 decommission and de-orbit maneuvers**



GOES-15 features

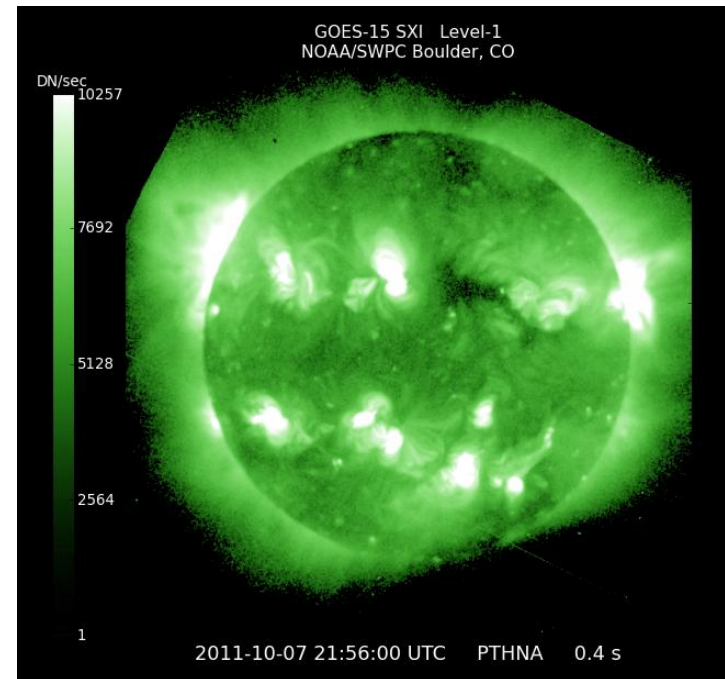


- GOES-15 improvements
 - *Improved 4km Water Vapor Channel*
 - *New 13 micron channel (also 4 km)*
 - *Improved Navigation*
 - *Better batteries - can operate through eclipse*
 - *Solar X-ray imager*
- Lose 12.2 micron channel for Volcano monitoring - loss being alleviated through improved use of fleet of Polar satellites (NOAA, NASA, METOP, etc. and soon NPP)



Solar X-ray Imager

- Provides forecaster situational awareness
- Earliest possible location of geo-effective events and phenomena:
 - *Flares*
 - *Coronal holes*
 - *Coronal Mass Ejections*
 - *Over-the-limb activity*
- SWPC has been using GOES-15 SXI for operations since October 2010





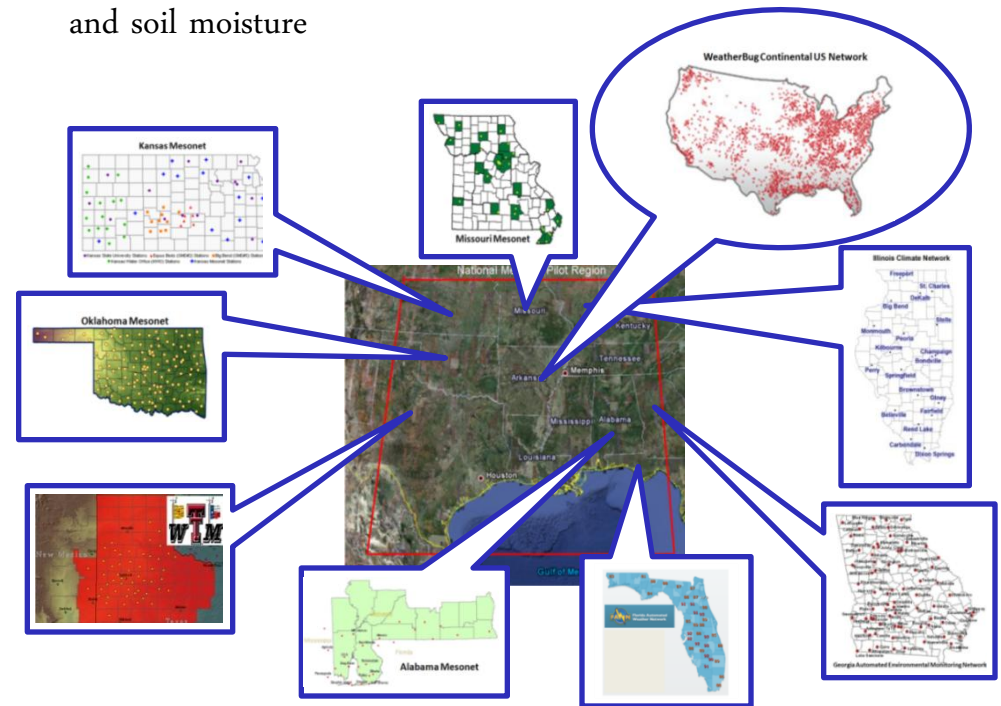
Network of Networks



- Global Science and Technology (GST) awarded contract for “National Mesonet Pilot Project”
 - Develop prototype capability (‘plumbing’) to provide surface atmospheric and soil moisture/temperature data with focus on enhanced metadata tool
 - Support metadata exchange between data providers and applications developers, operate central archive
 - Focus on documenting metadata for wind, temperature, and soil moisture

NATIONAL MESONET CONSORTIUM

Oklahoma	Illinois	Missouri
Texas	Georgia	Alabama
Kansas	Indiana	Florida



Data Utilization & Development



- NOAA Development Team:
 - *NWS NCEP (Data Assimilation/NWP)*
 - *NWS MDL (Statistical Forecasting)*
 - *OAR ESRL (Mesoscale Analysis)*
 - *OAR ARL (Dispersion modeling)*

- Purpose: Integrate enhanced metadata into the operational application environment

- Understand and document the benefits (service outcomes) of enhanced metadata

- NWS goal is to execute very high resolution mesoscale models on very fast high performance computing platforms for forecasting short-term, high-impact weather

- Meeting this goal will require the types of observations provided by a National Mesonet

Future Network of Networks



- *Continue to execute FY10 expansion contract*
 - Provide data and metadata to MADIS
 - Contract ends April 2012
- *Execute a bridge contract to continue access to data/metadata through end of FY12*
- *FY12 Senate Language provides \$16M to*
 - Maintain existing agreements
 - Expand to new networks
 - Program Office/Data Utilization