Update on NAWIPS/GEMPAK Migration to AWIPS-II

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TOPICS

- Background
- Raytheon Code issues
- Schedule
- Major Tasks for NCEP
- GEMPAK 6.0
- Suggested Hardware for AWIPS2 at NCEP
- Training resources
- Unidata Involvement

Background

- NCEP has ceased all development of its NAWIPS software system
  - Bug and emergency fixes being the exception
- Full NAWIPS system to be ported to AWIPS-II
- Software ready for Operational Testing and Evaluation by Q1FY11
- No changes to forecaster workflow
  - Some visual differences may be unavoidable
- Capitalize on new technology

Background

- AWIPS-II represents a merging of two software systems - NAWIPS and AWIPS
  - Will allow for better collaboration between NCEP and NWS forecasters
  - Economic benefits as well.
- The combined system will contain components from AWIPS and NAWIPS
  - NMAP, NCEP Product Generation, GEMPAK, Data decoders/encoders, D2D, GFE, Hydro Apps, etc.

Background

- N-AWIPS migration will leverage Raytheon baseline functionality wherever possible
  - Some functionality implemented directly
    - Animation, image manipulation
  - Some functionality enhanced
    - NCEP decoders, Grid diagnostics
- NCEP views this as a software and hardware consolidation
- No NCEP functionality is going away!
  - No forecaster workflow changes

Raytheon Code Issues

- Both NCEP and Unidata are waiting for the NWS and Raytheon to reach agreement on AWIPS-II proprietary code issue
- Late March deadline for resolution of this issue has now passed
- Both Raytheon and NWS have traded their positions on this.
  - Raytheon provided its response on April 1.
- Issue now “with the lawyers”
- Feedback so far remains positive that Unidata will be able to provide NCEP AWIPS-II codes to its users.

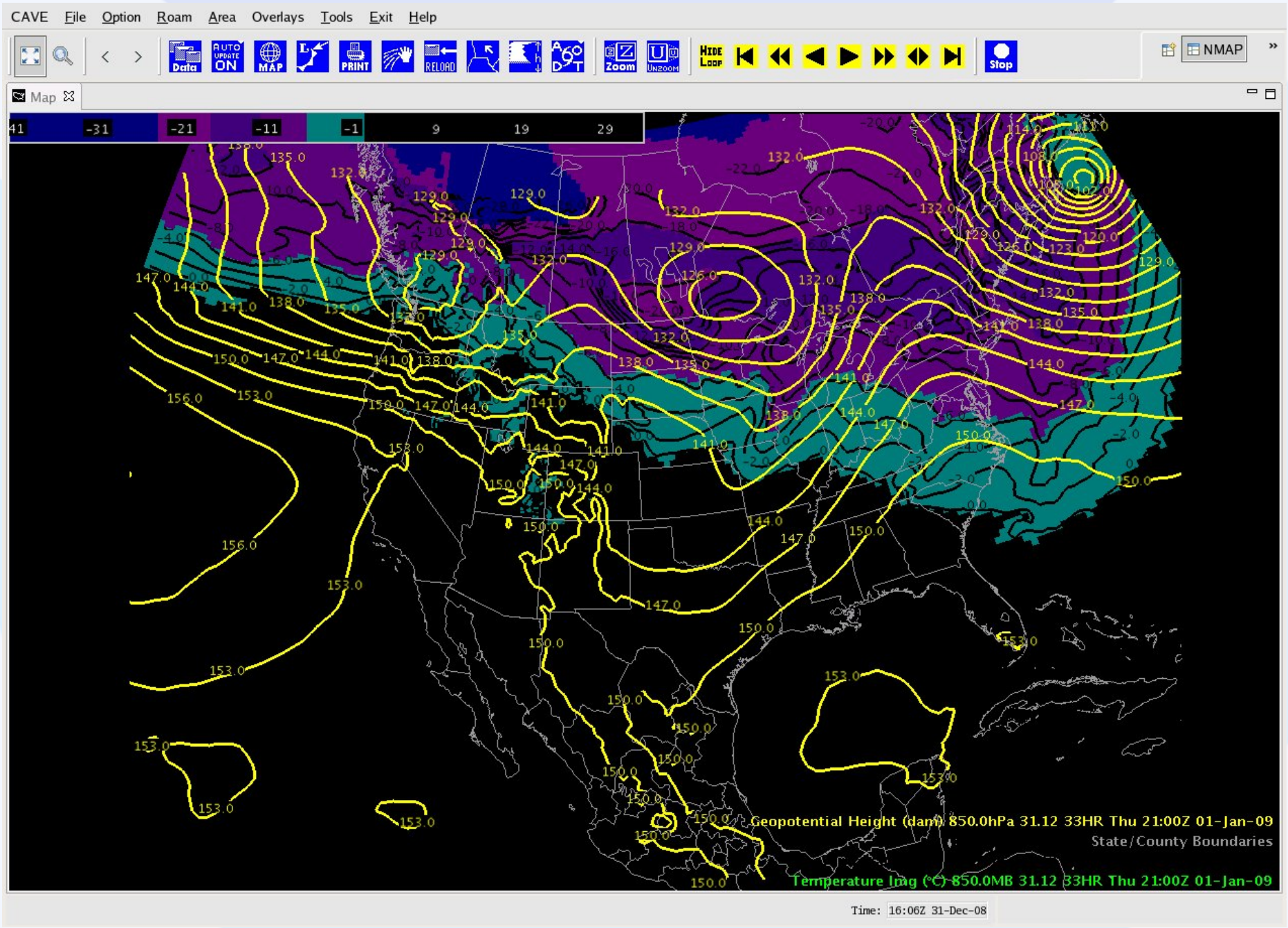
Schedule

Transition efforts are on schedule

- First Major Release to NCEP Centers and Unidata – April 1, 2009
- Additional releases to occur every six months
  - May increase to every three months after October 2009 release
- All NAWIPS systems to be ported by October 1, 2010
  - Operational Test & Evaluation to begin at that time
  - National Centers and Unidata involvement

FY09 Activities
NAWIPS Transition

- NAWIPS software migration is broken into four major activities
  - NMAP – Display capabilities
  - Data decoders
  - Product generation
  - GEMPAK (legacy command line interface)
    - Working on a forward capability for this one
- Planning three incremental releases for our customers to evaluate our progress
  - Full IV&V process
  - First release milestone was met – April 1, 2009
- Version 1 of NAWIPS in AWIPS-II is targeted for October 2010.
  - Full OTE with NCEP customers planned
  - Delivery to NCEP customers via national baseline release
    - No longer a direct release from NCO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Geopotential Height (dam) 850.0hPa 31.12 33HR Thu 21:00Z 01-Jan-09
State/County Boundaries
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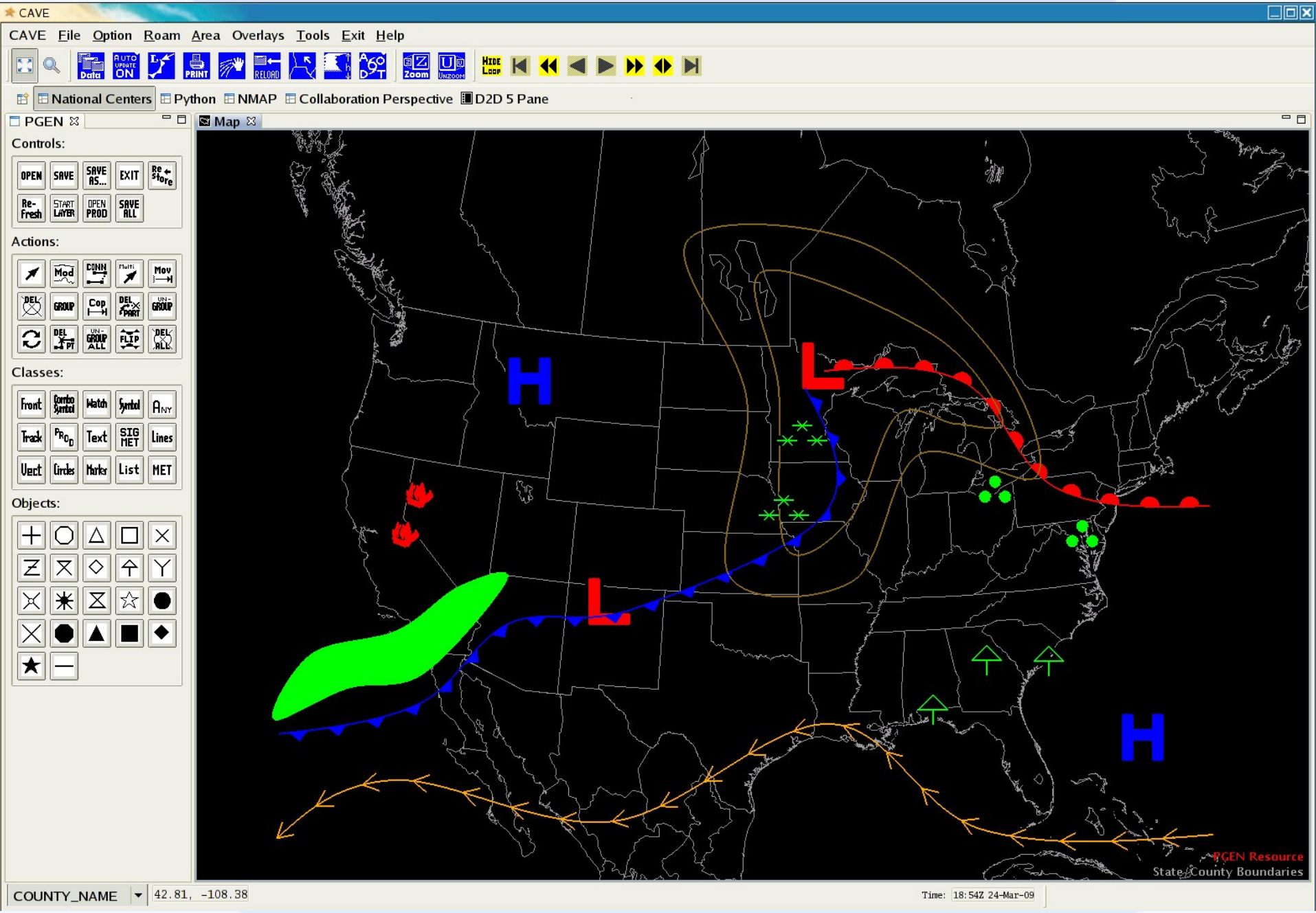
CAVE
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National Centers Python NMAP Collaboration Perspective D2D 5 Pane
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FY09 Activities
NAWIPS Transition

- Continue to work closely with the NWS AWIPS Program Office
- One-on-one TIMs with Raytheon have been extremely helpful
  - Validated NCEP's approach to conversion
  - NCEP received commitment from RTS for incremental code delivery
  - RTS agreed to consider "Sample Code" from NCEP for inclusion into TO11 baseline
    - Allows for NCEP codes to be incorporated into national baseline ahead of Oct 2010 milestone

GEMPAK Update

- GEMPAK
  - All current applications to be available in AWIPS-II era
  - Will no longer require GEMPAK file format
- Forward compatibility - DM library access to AWIPS-II Database
- Provides a stop-gap capability for users migrating to AWIPS-II who run stand-alone GEMPAK applications
- Development starting now
  - SF-type db requests complete
  - SN-type db requests next
- Capability will become available with GEMPAK 6.0 release
  - Expected around 1 Oct 09
- Still planning to move all GEMPAK applications into AWIPS-II

Hardware Configuration

- Minimum configuration
  - EDEX (server) requires 2G RAM
  - CAVE (workstation) requires a video card that supports OPEN GL w/ 256M video RAM
    - nVidia: GeForce 7600GT, GeForce FX 5200, Quadro FX 5500, Quadro FX 3450, Quadro Nvs 285
    - ATI: Radeon X1400 (untested)
- Our experience
  - 4G RAM to run both

Training

- **Training Portals:**
  http://www.nwstc.noaa.gov/AWIPS/ADE/ADE_resources.html

- **Links to AWIPS Migration training and resources:**
  http://www.nwstc.noaa.gov/nwstrn/awips.htm
  - Includes new AWIPS2 SOA module

- **Suggested**
  - Java, Advanced Java (best practices)
  - Please note that Java allows “wrapping” of C
    - Best implemented when performance is an issue

Unidata Involvement

- Monthly migration telcons
- IV&V, OT&E (baseline + NAWIPS extensions)
  - Test plans, cases and execution
- User training (limited) – web based
- Developers conference scheduled late FY09
- Design and development collaboration
- Liaison with University community
- **NCEP continues to view Unidata as a very important partner for NCEP's total mission.**

Questions?

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