

Use of Unidata Software, Tools and Data: The Unidata Gospel according to Mark

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Unidata and me

- Started as a disciple in 1996
 - User Committee member 2001-2004
 - Workshop co-chair 2003
 - Expanding Horizons: Using Environmental Data for Education, Research and Decision Making*
 - Unidata Regional Workshop 2007
 - Member of IDV Steering Committee 2004-present

Philosophy

To create an environment that allows students to experiment and learn, to be creative and resourceful, and to have fun.



SoM Resources

The Server Room

- Apple Xserver and Xraid nearly 3 terabytes user space
- 2 AMD Weather Data servers (LDM)
- Data Archive File server
 - for use of course and research related data sets
 - 5 Terabytes Storage
- Dual Processor process server
- Web server

SoM Resources

Student Classroom/Lab

24 Linux workstation

HP LaserJet 4350





SoM Resources

15 Apple iMacs

HP LaserJet 4350

SoM

Resources

Student Auxiliary Lab

3 Apple Mac Pro

HP Scanner

HP ColorJet 4600

HP LaserJet 2100



In the beginning...

- ✦ METR 2413: Intro to Synoptic Meteorology (2001)
 - ✦ First time computing was integrated into the course curriculum and not just an afterthought

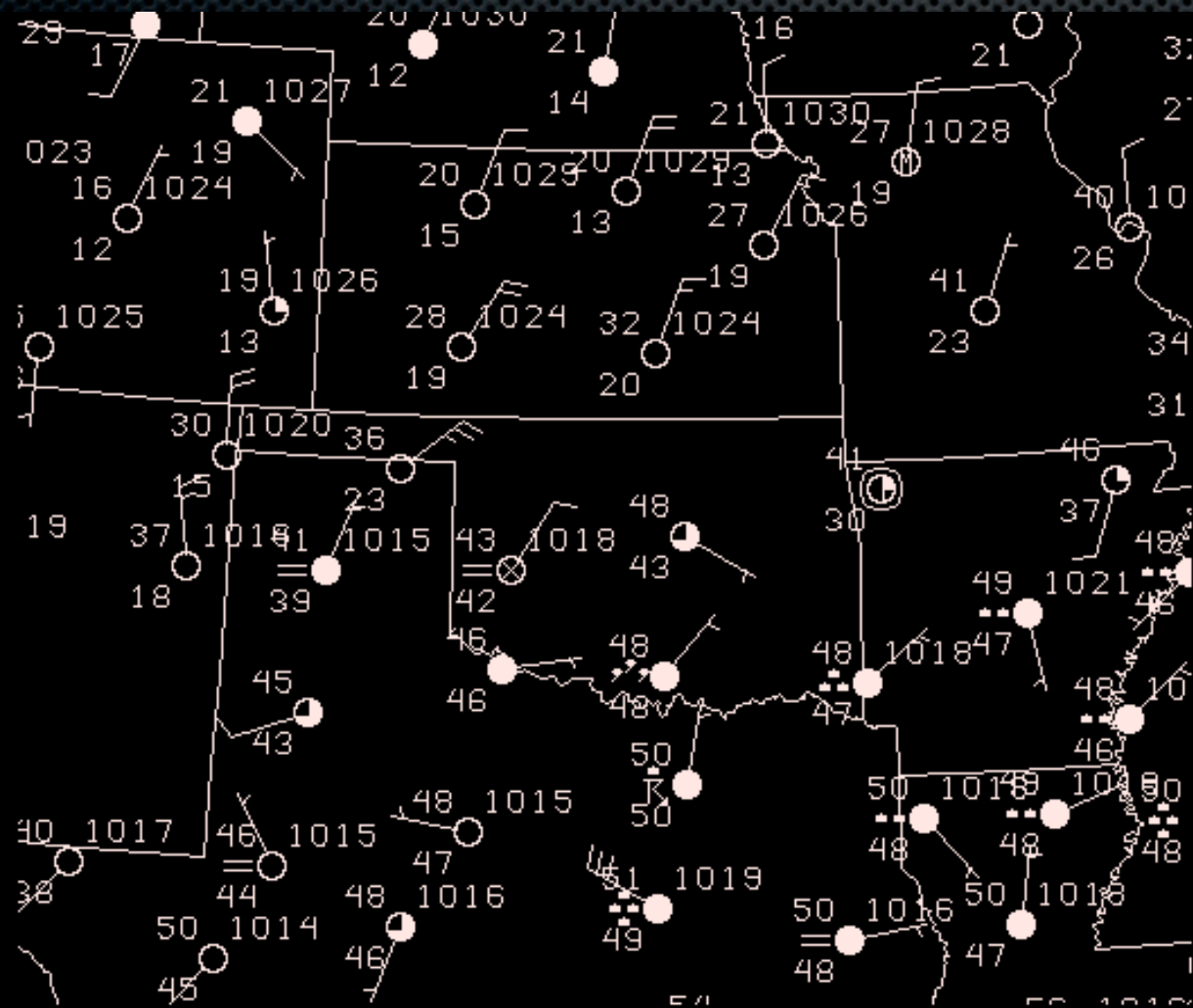
Living on the EDGE

- ✦ Explain
- ✦ Demonstrate
- ✦ Guide
- ✦ Empower

Explain...

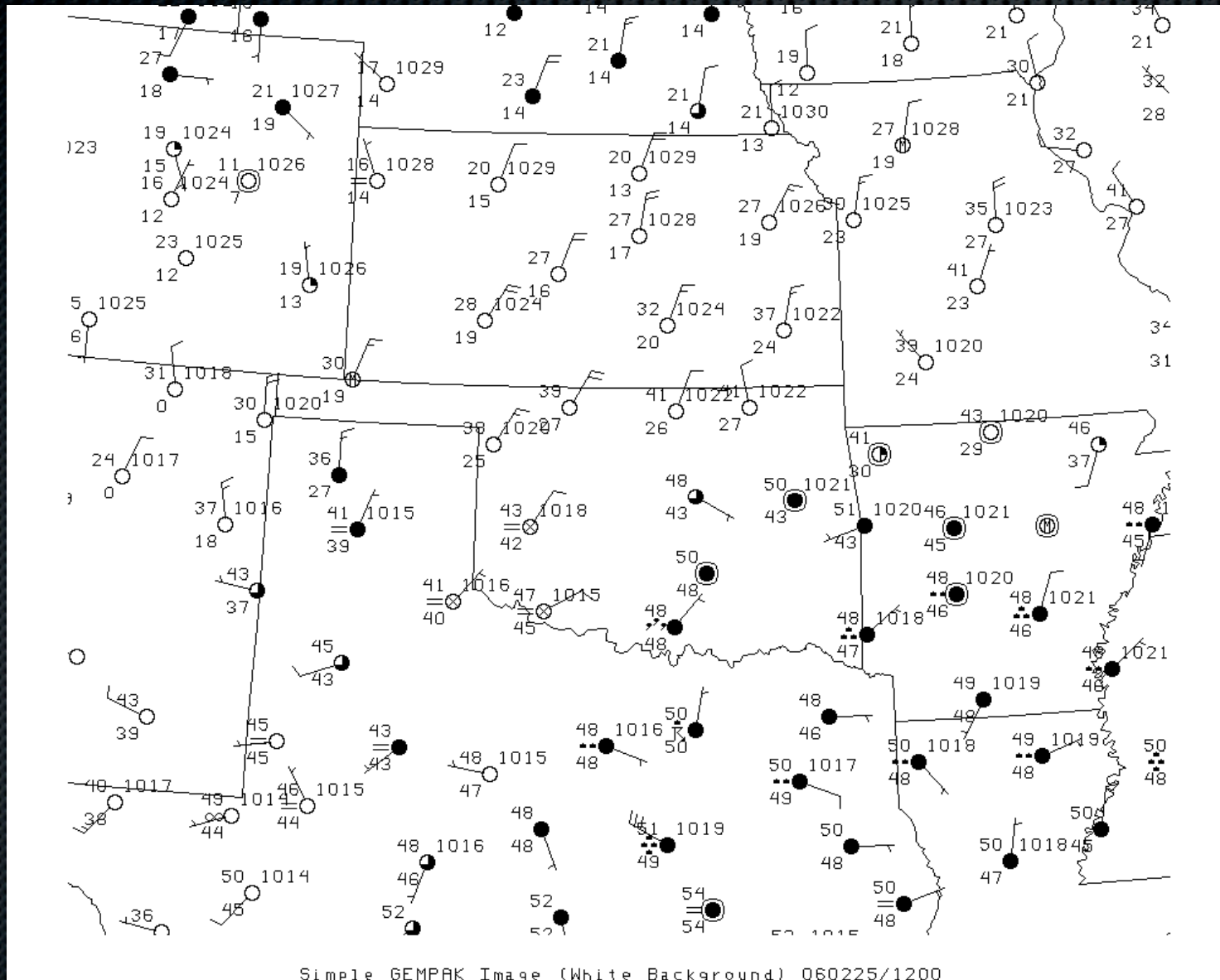
- METR 2413 (2001)
- <http://weather.ou.edu/~metr2413/past/spring2002/ca5.html>
- <http://weather.ou.edu/~metr2413/past/spring2001/ca13.html>

Demonstrate...

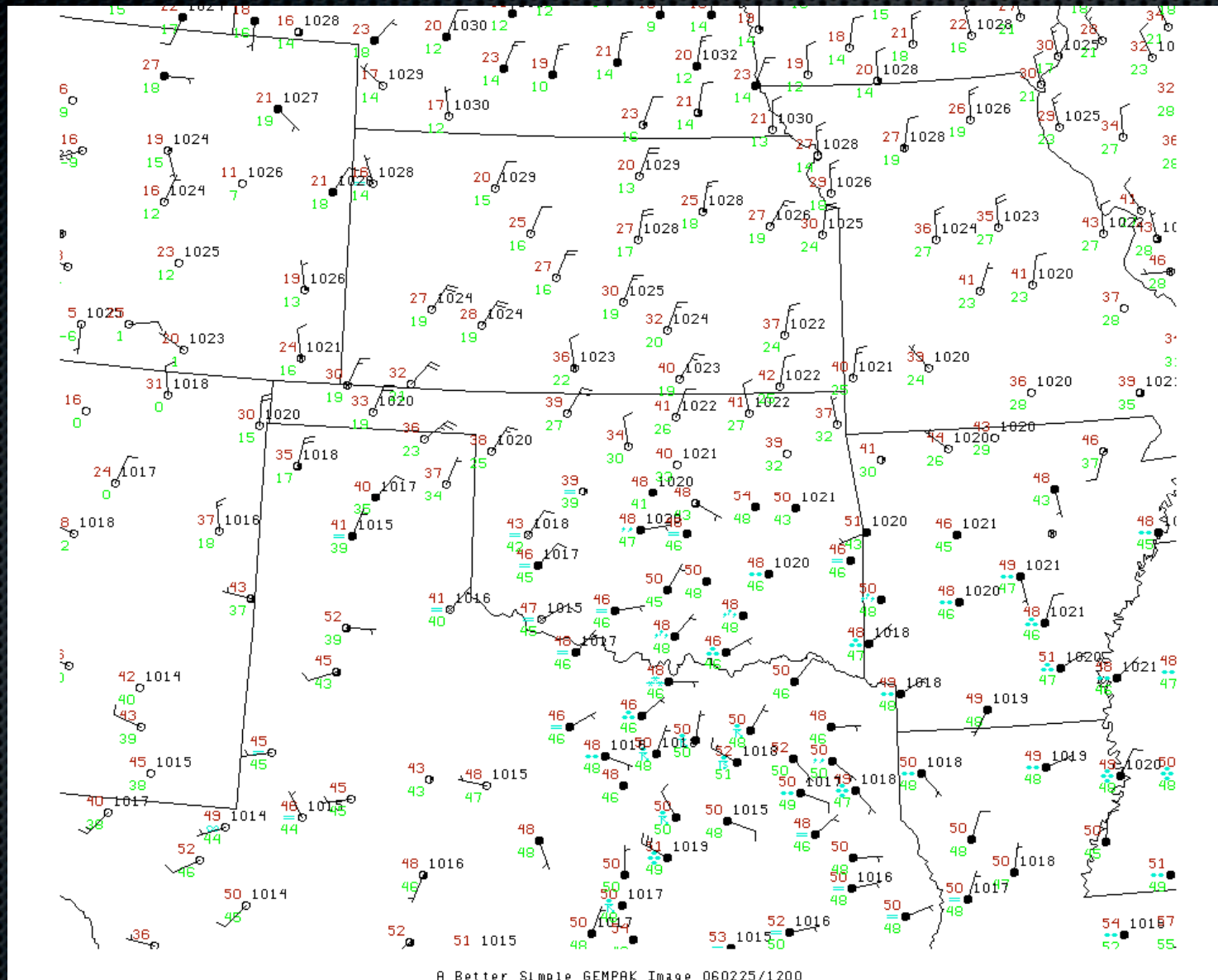


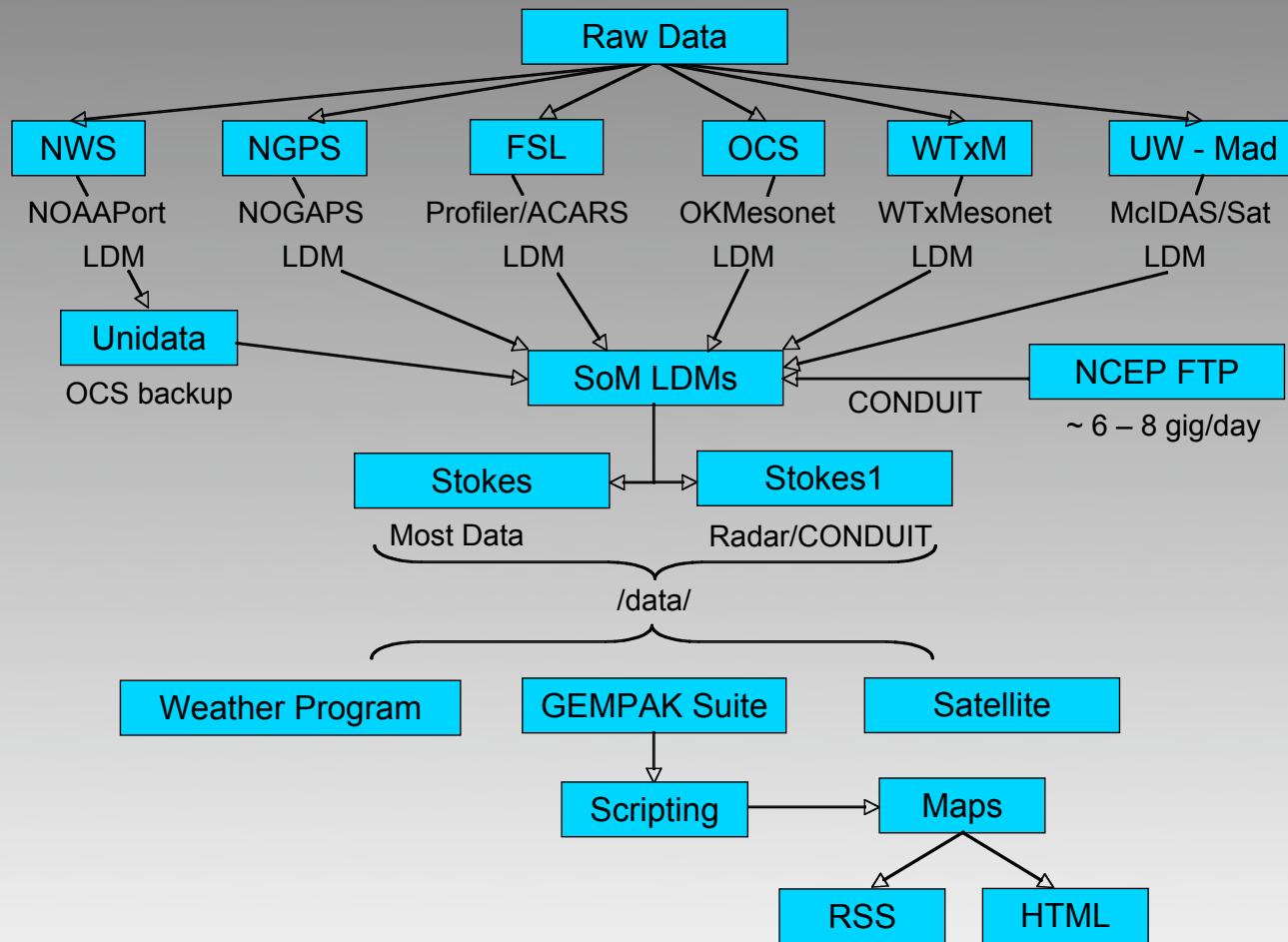
Simple GEMPAK Image (No Frills) 060225/1200

Guide...



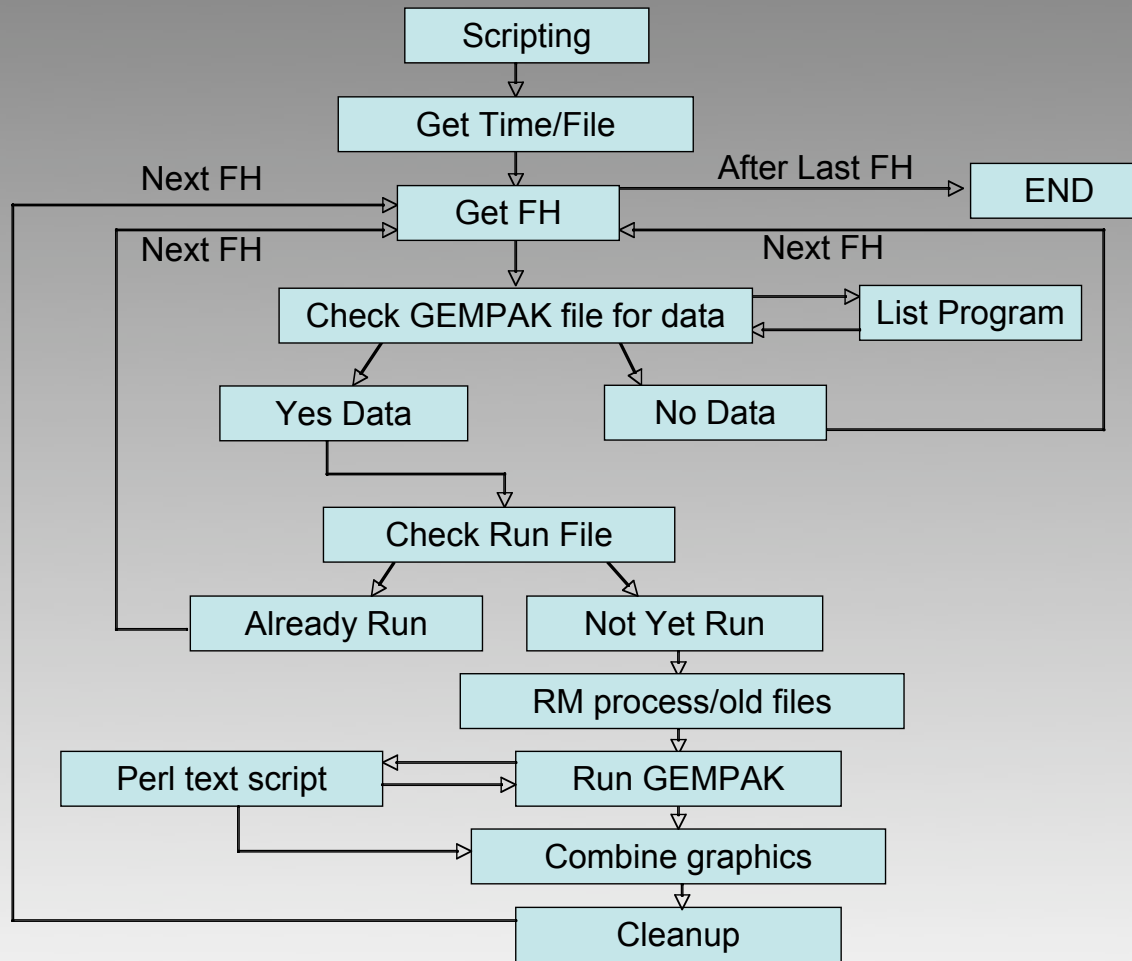
Guide...

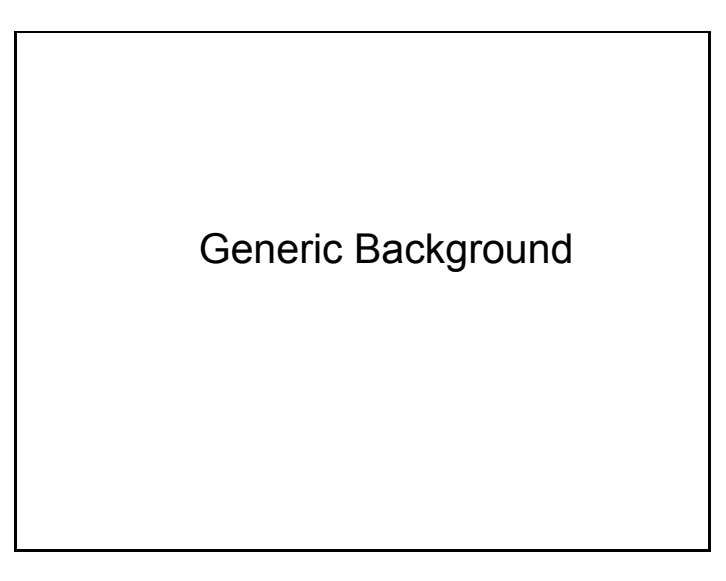




Empower....

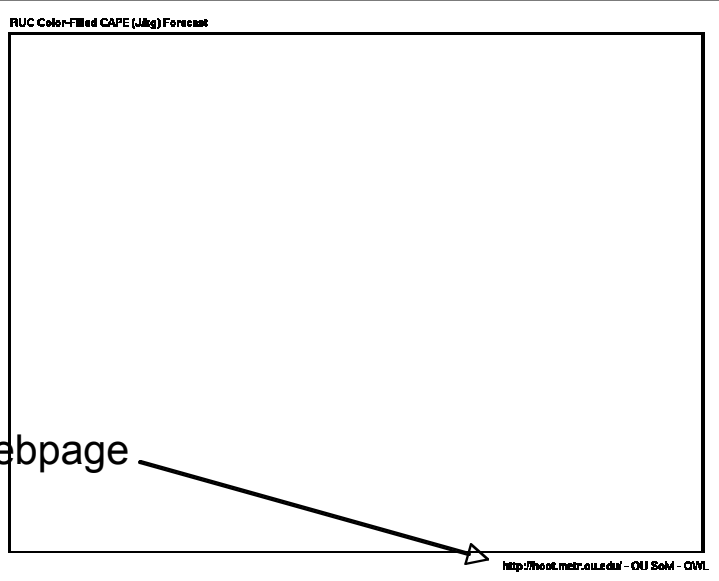
- ✦ Oklahoma Weather Lab
 - ✦ Student lead and operated
 - ✦ Provide weather forecasts to the university community
 - ✦ Opportunity for students to gain forecasting experience
 - ✦ <http://owl.metr.ou.edu>





Generic Background

Map Title

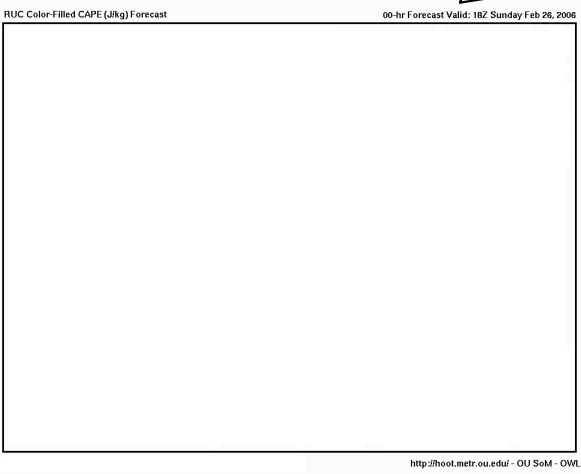


RUC Color-Filled CAPE (J/kg) Forecast

Copyright and Webpage

<http://hoot.met.rutgers.edu/> - OU SoM - OWL

Valid Time



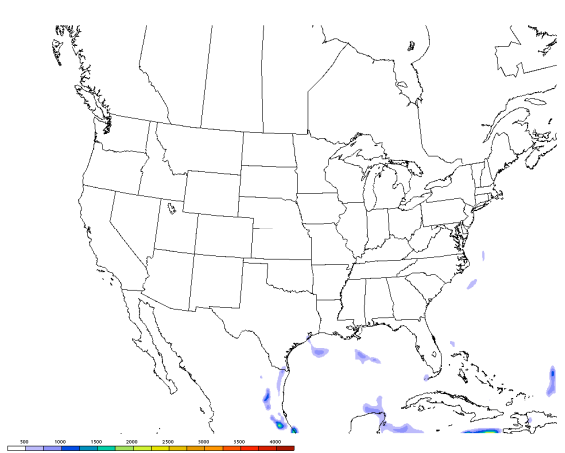
RUC Color-Filled CAPE (J/kg) Forecast

00-hr Forecast Valid: 18Z Sunday Feb 26, 2006

<http://hoot.met.rutgers.edu/> - OU SoM - OWL

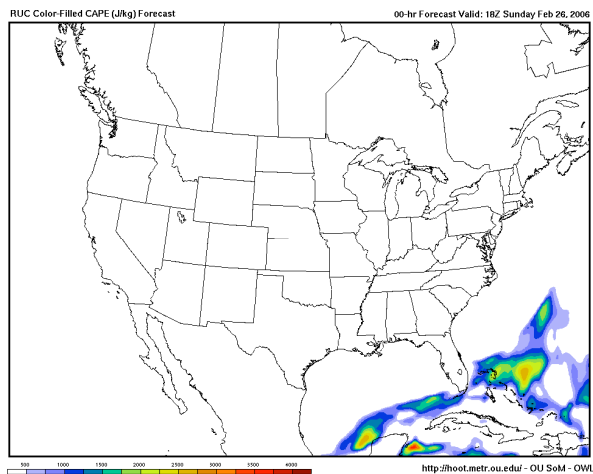
Background

+



Map

=



Final Product

Empower...

- ✦ <http://hoot.metr.ou.edu>
- ✦ This version of the Hoot website created by a sophomore Joe Young in 2 weeks over the winter break.
- ✦ Hoot is the development side for OWL.
- ✦ Provides web development support.
- ✦ Provides product support.

Have Faith and be Rewarded

- ✦ Hoot started on a small desktop computer, which served as a process machine and web site.
- ✦ Once production was running and demonstrated they could sustain the project, the group received new hardware
 - ✦ One dual core/dual proc process machine
 - ✦ One stand alone web server

Have Faith and be Rewarded

- ✦ Current carrots:
 - ✦ Podcast weather
- ✦ Reward:
 - ✦ Two new microphones
 - ✦ One HD video camera for video podcasts

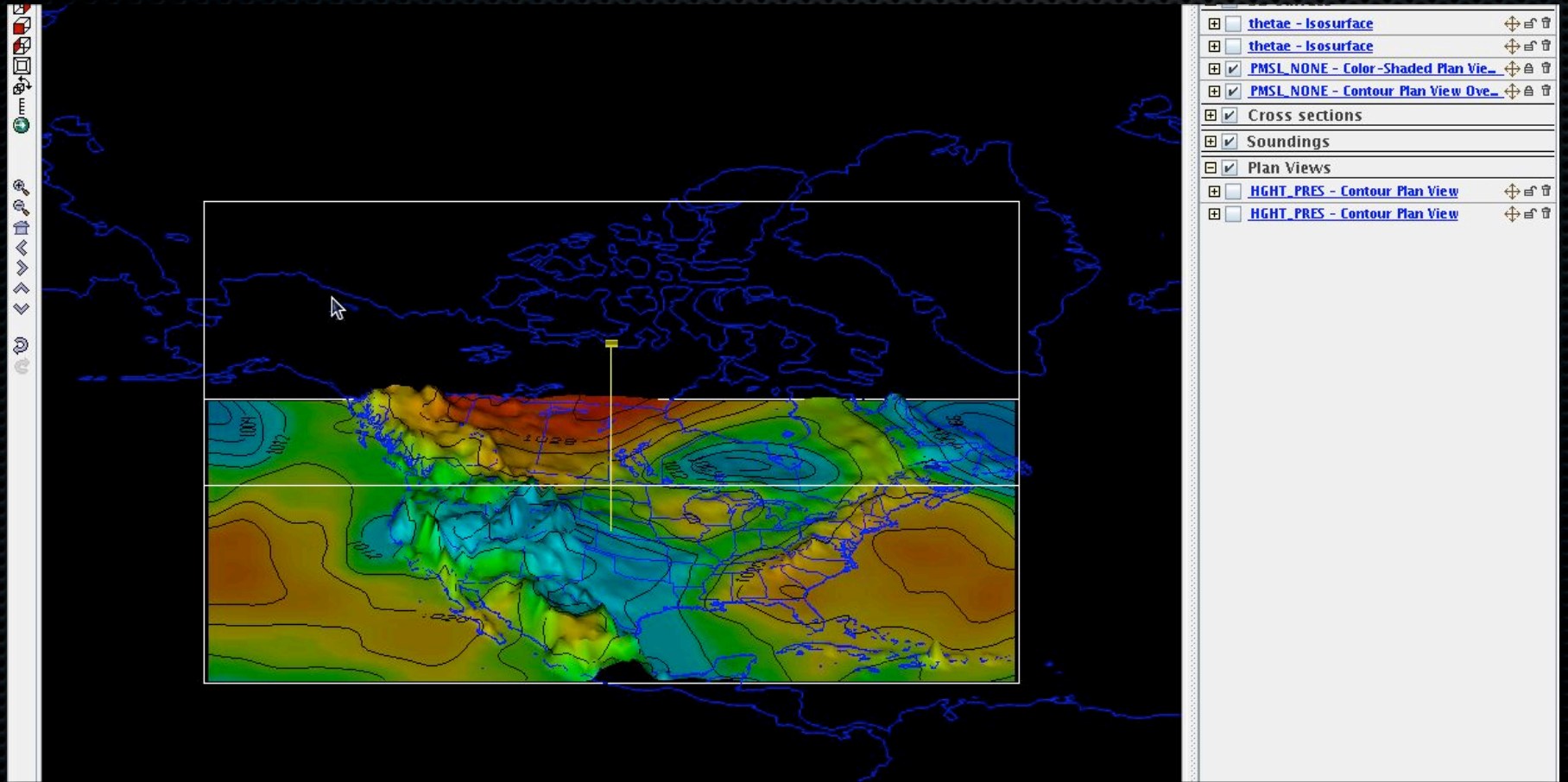
Latest prayer from the converted...

- ✦ Satellite
 - ✦ OU SoM, radar is what comes to mind for remote sensing and not satellite.
 - ✦ McIDAS
 - ✦ Summer 2008 will be made available to the brethren
 - ✦ Reward...
 - ✦ A new machine dedicated to McIDAS

What about other paths to enlightenment?

- ✦ IDV
 - ✦ Regional workshop to help those not convinced
 - ✦ Dynamics III now uses IDV and bundles developed by others in the community
- ✦ Capstone: Senior Thesis
 - ✦ Developed an IDV bundle for use in Intro Meteorology Lab

Empower...



What about other paths to enlightenment?

- ✦ THREDDDS
 - ✦ Micronet data internally available
 - ✦ SoM server internally available
 - ✦ Goal for this summer: make it public

Bumps in the Road...

New networking environments

New technologies

Lack of computing skills of the masses

Old dogs and new tricks

