

# NCAR Undergraduate Leadership Workshop

June 16<sup>th</sup> – 20<sup>th</sup>, 2008      Boulder, Colorado



# NCAR and UCAR

- UCAR: University Corporation for Atmospheric Research
  - Consortium of universities (71 in NA; ISU is one of them) and committees
  - Not-for-profit
  - Funded largely by the National Science Foundation
  - Manages NCAR

# NCAR and UCAR

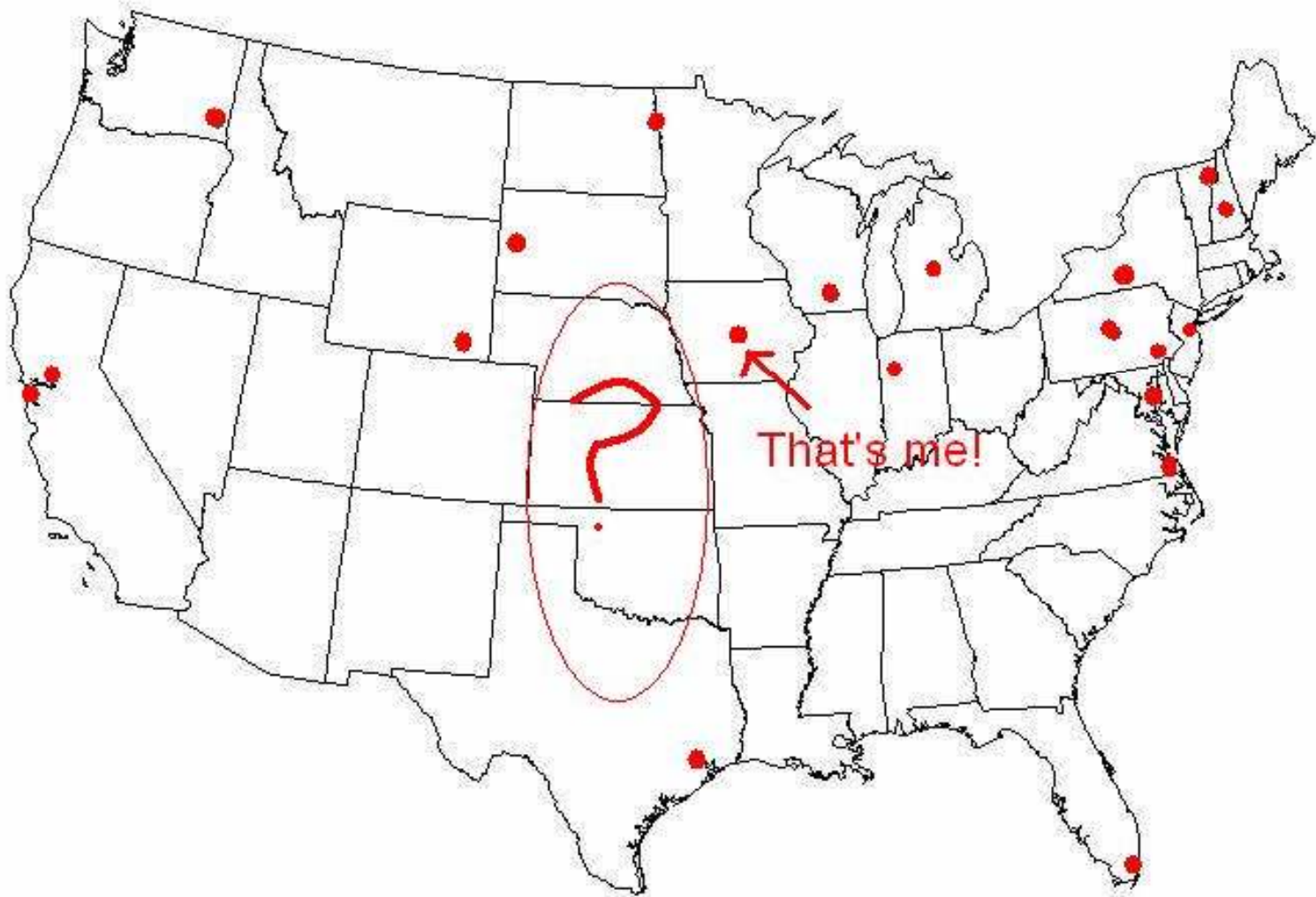
- NCAR: National Center for Atmospheric Research
  - Collection of laboratories in Boulder
  - Atmospheric AND environmental research
  - Acronyms GALORE!
    - CISL, EOL, ESSL, **RAL**, SERE, IMAGE, ACD, CGD, HAO, **MMM**, TIIMES, ASP, CCB, ISSE; Including UCAR Office of Programs: COSMIC, **COMET**, DLESE, GLOBE, JOSS, NSDL, Unidata Program Center, VSP

# NCAR ULW

- Application required
- Program designed for seniors-to-be in atmospheric sciences (grad school? Yes/No)
- Introduction to the many various areas of research that occur at NCAR
- Leadership component (heavily weighted on communicating climate change)
- 2008 edition was eighth annual
- 21 attendees from all across the country
- Most were meteorology majors, but there were oceanography and engineering majors represented, too



# NCAR ULW Representation



# Monday: Mesa Lab



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- Building designed by I.M. Pei (MVNP)
- Introductions: NCAR, UCAR, etc.
- IPCC lead author – Jerry Meehl
- Leadership seminar – Climate change
- Paleoclimate
- Viz Lab
- Tours – megaubercool supercomputers!



# Monday: Mesa Lab

## Systems Activity





# Tuesday: Foothills Lab #4



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- Research meteorology
- Space weather - HAO
- Unidata
- DOWs!
- Machine shop
- Earth System Research Laboratory – NOAA, space weather, atmospheric chemistry, Science on a Sphere!

# Tuesday: Foothills Lab #4

## Doppler on Wheels





# Tuesday: Rocky Mountain NP



# Wednesday

- Technology and transfer – RAL/RAP, Roger Wakimoto
- Biocomplexity & chemistry, atmospheric chemistry and plants
- Societal impacts – WAS\*IS
- Clouds in climate models
- Boulder Reservoir
- Aviation technology!!!

# Wednesday: RAF

- Gulfstream-5: ~\$80 million research aircraft
  - Departed for research flight over northern plains the day we were at RAF
  - Got to watch live data stream while discussing mission with scientists who put instruments on the flight
- C-130 & P-3 research aircraft



# Wednesday: Cool Planes



# Thursday: Education and Outreach

- Career panel – SORS
- Libraries – NSDL & DLESE
- Journalism
- Education and outreach – experiments, partnerships (SORS)
- COMET
- Lab for Atmospheric and Space Physics
- 29<sup>th</sup> St. Mall and “Green” house

# The “Green” House

Complete with its own \$50,000/ct. solar energy panels!





# NCAR ULW Wrap-Up:

Included student presentations (gasp!) – no big deal



# Colorado!















# **Thank you for listening!**

**Questions? Curious?**

**E-mail me at [jdduda@iastate.edu](mailto:jdduda@iastate.edu) or ask me after the meeting**

