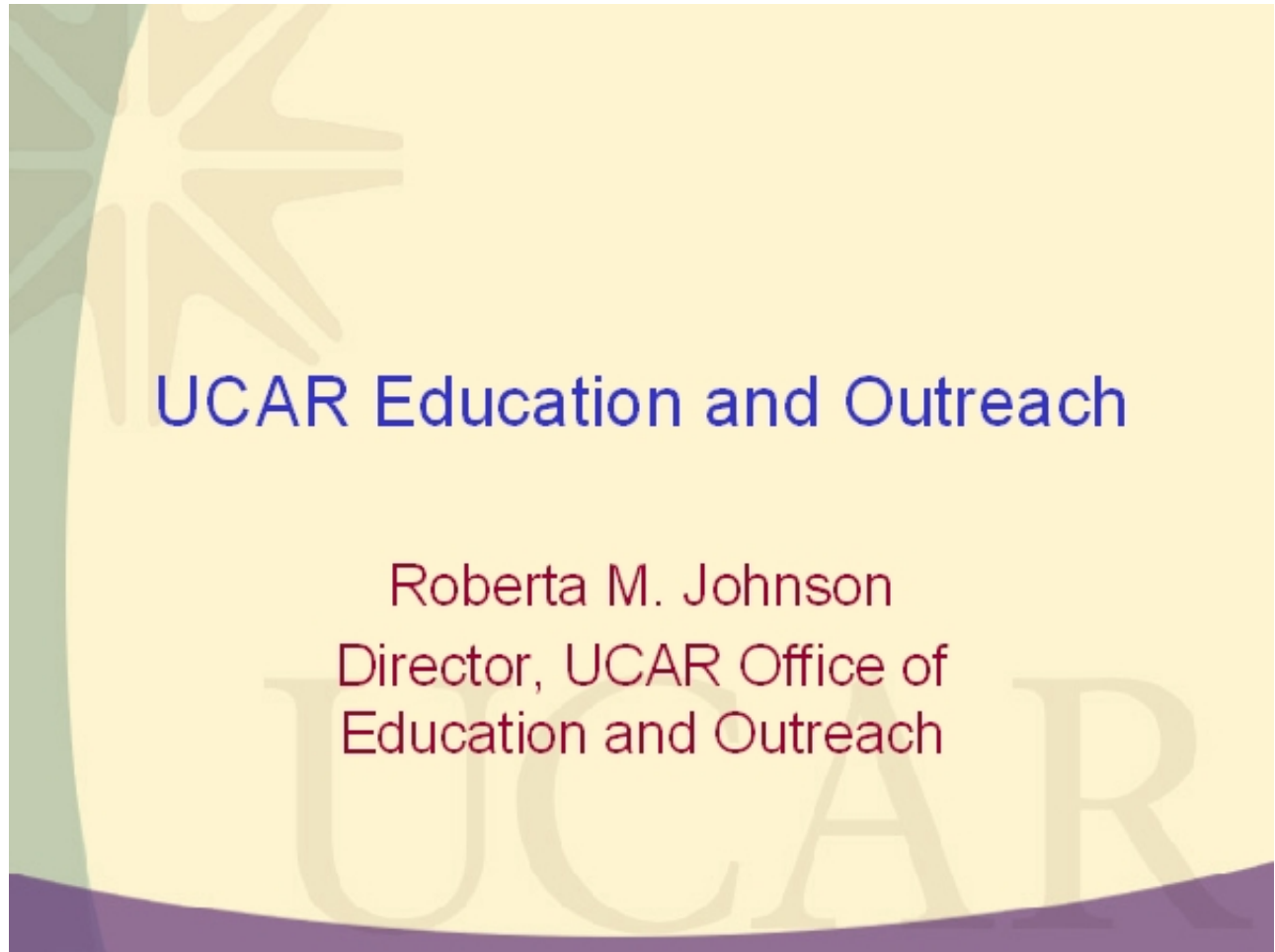


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Current UCAR Education and Outreach Program

- High quality education and public outreach projects exist within different offices of UCAR, NCAR, and UOP
- New opportunity to address issues of
 - coordination
 - leveraging
 - optimization of program management
 - scope and priorities
- UCAR needs a unified vision for its role in education and outreach.

UCAR seeks to work with universities to establish a collective vision of the unique role UCAR should have in education and outreach

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UCAR Education and Outreach Strategic Planning

Charge to the Committee:

- mission, vision and values
- solicit input from universities and other clientele groups on needs
- prioritized goals and specific objectives
- integrate into the NCAR strategic plan
- scope and function of the overall UCAR Education and Outreach Program

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Draft Mission and Goals

- **Draft Mission Statement**
 - To advance and support education and training at all levels and to promote scientific literacy in all areas that relate to the Earth's atmosphere
- **Draft Goals**
 - Develop infrastructure to support an effective coordinated education program
 - Support students and professionals: from pre-K through post graduate
 - Foster an informed public through science literacy
 - Build diversity in the geosciences

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Overview of Existing Program

- Programs supporting formal education - middle school through post graduate
- Informal science education programs
- Diversity in the atmospheric and related sciences

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Project LEARN

(Laboratory Experience in Atmospheric Research at NCAR)

- Training and resources for middle school science teachers
 - science content
 - pedagogy
 - diversity
 - science standards
 - educational technology
 - leadership skills
- Scientist participation
- Teachers and scientists joint modules and activities
- Web-based teaching materials through collaboration with COMET



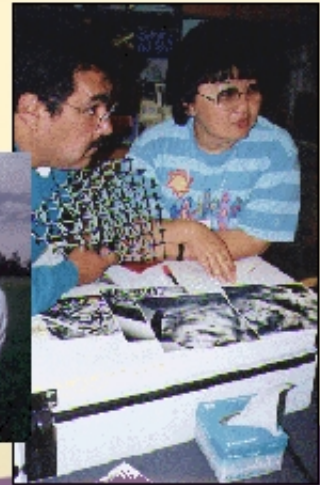
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CLIMATE:

Collaboration Linking Mentors in Atmospheric Science for Teacher Enhancement

- A proposal to establish regional atmospheric science education centers based on LEARN model
- Involves NCAR scientists, science and education faculty, and middle school teachers
 - Black Hills State University & South Dakota School of Mines and Technology
 - Jackson State University
 - University of Charleston
 - University of Louisiana at
 - West Chester University

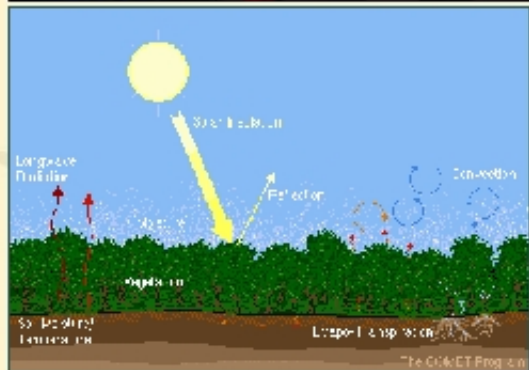


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COMET

- Education and Training
 - Courses, symposia, workshops and teletraining for professionals
 - new skills and concepts related to mesoscale meteorology
 - Nationally and internationally recognized visiting instructors
- Distance Learning
 - On-the-job professional development
 - Targets Forecasters and Emergency Managers
 - Via Web and CD-based modules



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Digital Library for Earth System Education (DLESE)

- Community owned and governed digital library
- Technical and social infrastructure development centered at UCAR (DPC)
- Response to community calls for a portal to quality, peer-reviewed materials
- Community governance model
- Operational prototype available 8/01



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Touching Minds: Informal Education

People of all ages need to appreciate the atmosphere as part of the earth system, understand their relationship to it, and make informed choices about careers, lifestyles and public policies

- Collaborations with museums & science centers
- Science Saturdays
- Environmental Stewardship Awards
- Earth Day Events
- Career Days
- Web-Based Outreach



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Discovery Begins Here: Mesa Lab Visitor Center

- **Visitor Center**
 - 74,000 visitors annually
 - Stimulates curiosity and inquiry with hands-on, interactive exhibits
 - Recent additions:
 - Walter Orr Roberts Weather Trail
 - Atmospheric Odyssey Exhibit
 - Theater
 - Science Store
 - Roberts Forum



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Web Weather for Kids!!

Predict weather!
Join the Public Science Day fun.

AAAS Public Science Day 2011
"The Science of Every Day Things"

Home	Thunderclouds	Lightning	Hearing thunder	Tornadoes
<p>"Here in your school I'll be with you as you try these simple 'cost-home' experiments to learn what thunderstorms are all about."</p>  <p>You teachers might want to check out the Public Science Day the end of each of the activities on our Teacher Tips page.</p>	<p>Make a thunderstorm!! 1</p>  <p><u>How do thunderstorms build?</u></p>	<p>Make lightning!! 2</p>  <p><u>How does lightning suddenly zap down out of a cloud?</u></p>	<p>Measuring distance 3</p>  <p><u>How can you tell how far away a thunderstorm is?</u></p>	<p>Make a tornadoll 4</p>  <p><u>How is a tornado formed?</u></p>



These activities are made possible by

The Unisys Prize for
Online Science Education
Winner






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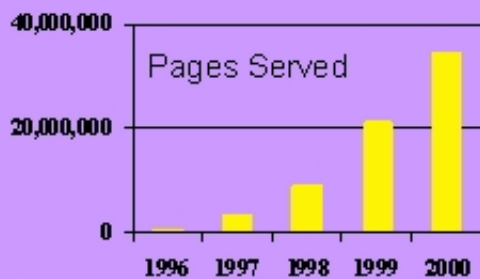
Windows to the Universe

www.windows.ucar.edu

- Initiated at the University of Michigan
- Transitioned to UCAR in Summer 2000



- over 50 Web Awards to date
 - nearly 6000 web pages
- over 50 K-12 classroom activities
- for 2000, estimate 4 million users and over 30 million pages served



- Earth and space sciences with extensive humanities content
- Rich in images, activities, and tools
- Supplementary Internet CD
- Three levels of content - upper elementary to high school
- 45% users K-12, 30% undergraduates and graduates

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SOARS[®] Program

Creates a direct pipeline to bring ethnically diverse students into careers in the atmospheric and related sciences including engineering, mathematics and social sciences.

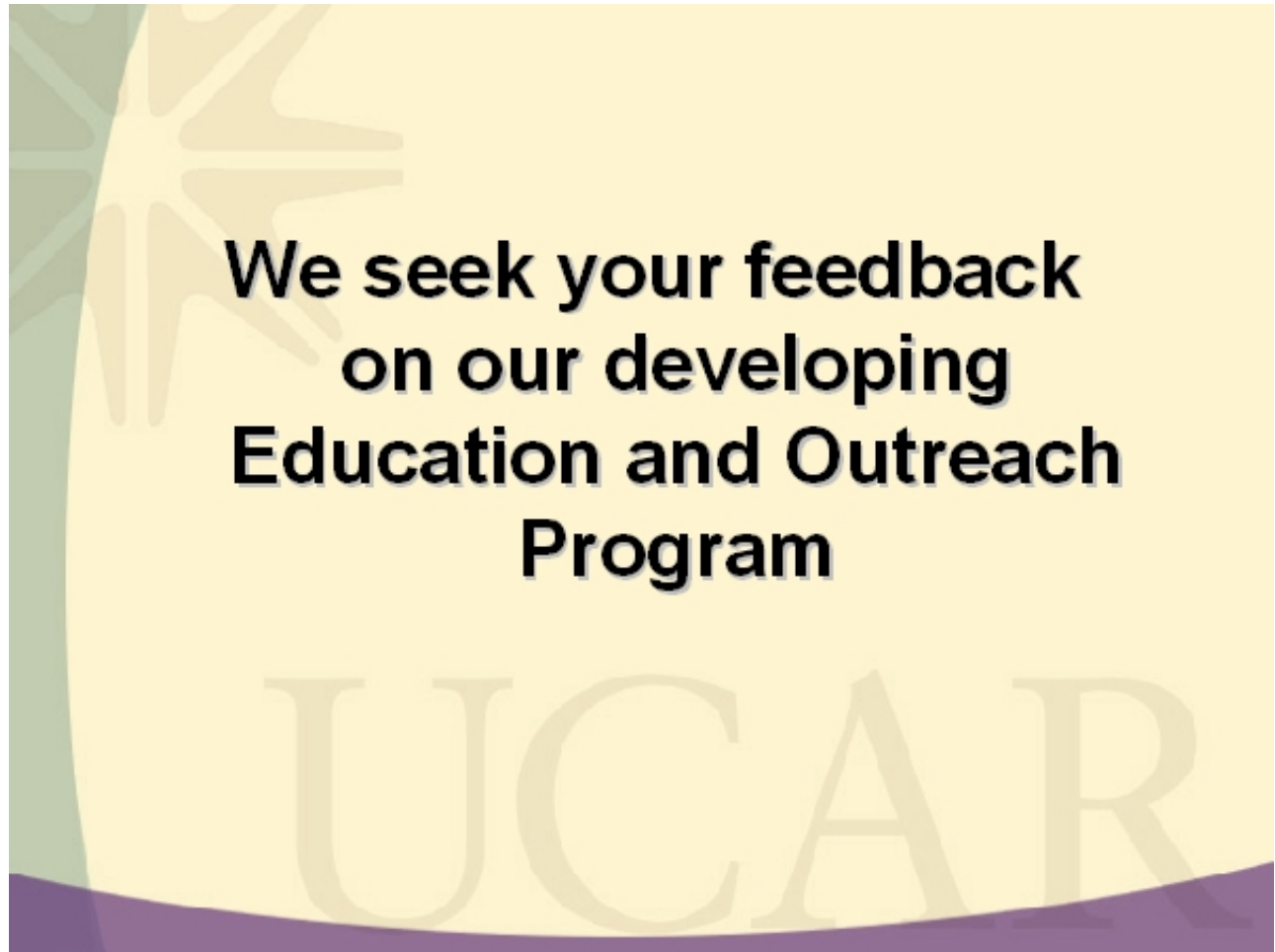


Funding Agencies - NSF,
DOE, NOAA, NASA, UCAR

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