Challenging Forecasts for a Challenging Environment: An Educational Module for Antarctic Weather and Forecasting

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“Antarctica: Challenging Forecasts for a Challenging Environment”

- “Scripted Webcast”: Web-based instructional units on Antarctic meteorology, forecasting, and climate

- Location: [www.meted.ucar.edu](http://www.meted.ucar.edu)

- Purposes
  - *Education and training*
  - *Promote interest and awareness of polar regions*
  - *Complement IPY outreach efforts*
• Audience
  – Weather forecasters
  – Scientists & students
  – General public

• Funding: U.S. National Science Foundation

• Producer
  – Cooperative Program for Operational Meteorology Education and Training (COMET)

(University Corporation for Atmospheric Research Office of Programs)
• Composition
  – Narrative audio
  
  Material prepared by experts (SMEs)
  
  – Audio/video interviews with SMEs
  
  – Varied graphics
    Animations
    Imagery and published figures
    Numerical model output
Antarctica:
Challenging Forecasts for a Challenging Environment

Begin Overview (10 min.)
Begin In-Depth (50 min.)
• Organization: Layered approach
  – Users select the level of detail matching their interest

• Outline

  1. Overview Layer
     a. Lands to the South
     b. More than Just an Interesting Scientific Exercise
     c. At the Mercy of the Elements
     d. Harsh Observations
     e. A Different Kind of Super-Model
     f. Driving Global Climate

  2. In-Depth Layer
     a. The Frozen Continent
     b. Antarctica’s Weather
     c. Forecasting
     d. Antarctica and Global Climate
     e. Conclusion
Observational systems— AWS

NWP— AMPS Sfc winds

Climate— Annual Sfc Temp

Mesoscale/ Synoptic Met— Ross Ice Shelf Air Stream (RAS)
• Consultants

  – Observational efforts:
    Matthew A. Lazzara* (Univ. of Wisconsin)

  – Synoptic and mesoscale meteorology:
    Dr. John J. Cassano* (Univ. of Colorado)
    Dr. David H. Bromwich (The Ohio State Univ.)
    Dr. Thomas R. Parish (Univ. of Wyoming)

  – Forecasting
    Rolf Hennig* (SPAWAR)
    Chester Clogston (SPAWAR)

  – NWP
    Dr. Jordan G. Powers* (NCAR)

* = Video interviews
Webcast Excerpt:

Antarctica’s Weather, Dr. John Cassano
Antarctica: Challenging Forecasts for a Challenging Environment

- Webcast on Antarctic weather and forecasting
- On-line in August 2007
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