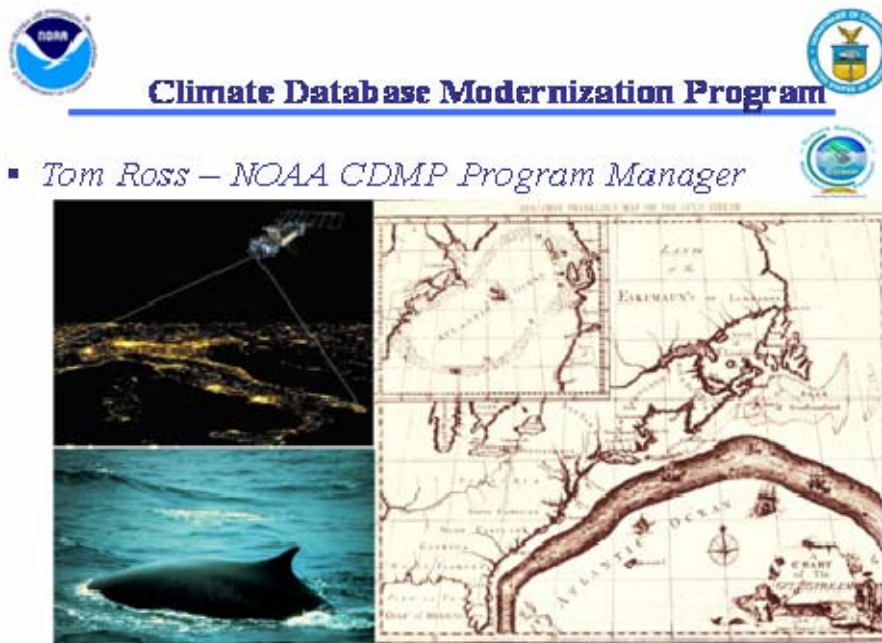


1. The eighth meeting for the 2006-07 season of the American Meteorological Society (AMS), Asheville chapter, was held on Thursday, 14 June 2007, in the Federal Building, Asheville, North Carolina. It was called to order by the chapter president, Maj Paul Roelle. There were approximately 25 people in attendance.
2. The secretary's and treasure's report were read with no corrections. The secretary reported that 2006-07 chapter minutes could be read via the local AMS chapter webpage or the national AMS webpage. Maj Roelle briefed he would appoint a nominating committee for officers for the 2007-08 local chapter year. Elections will be held via e-mail in the fall.
3. Maj Roelle closed the business meeting and introduced the evening's speaker. Mr Tom Ross is the NOAA Climate Database Modernization Program (CDMP) Manager. The CDMP supports NOAA's data stewardship via the goal to preserve and make major climate and environmental data available via the Web.



■ *Tom Ross – NOAA CDMP Program Manager*

Figure 1. A collage image featuring night lights over Italy from a satellite, tracking a whale in the Puget Sound, and Ben Franklin's chart of the Gulf Stream. All are examples of data preserved by CDMP.



Climate Data Base Modernization
Accomplishments: 2000-2006



**Over 7 terabytes of climate and environmental data now
only a mouse click away**

- 50 million weather and environmental images online
- Hundreds of million of records digitized and online
- The Nation's environmental record properly preserved and saved from being lost forever



Figure 2. The number of records in WSSRD continues to expand.

5. The CDMP supports 66 different NOAA climate and environmental data modernization projects. Most of this data and information was previously underutilized and, in some cases in danger of being lost. Also, the NOAA Central Library in Silver Springs, MD is assisting with the digitization of articles from old meteorological periodicals and weather summaries from several foreign countries.



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Figure 3. Oceanographic data is also being digitized.



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Figure 4. Historical weather maps are also being digitized.

6. Several foreign countries have also partnered with NCDC for the services of CDMP to digitize significant climatological data and other historical data, including Uruguay and Mexico. In Mexico 431,000 synoptic and daily records have been imaged from 92 Mexican stations by digital cameras. This daily data when digitized will be used for water supply and drought monitoring activities in all the America's.

Climate Database Modernization Program

NOAA & the Uruguayan Meteorological Service have entered into a cooperative project on data rescue in coordination with the U.S. Embassy.

The U.S. National Oceanic and Atmospheric Administration (NOAA) donated digital equipment for the project.

International Activities-Uruguay and Chile 2004-2008

72,000 images received from the Uruguayan Meteorological Service and the Uruguayan Navy

7 synoptic stations (4 civilian and 3 military) keyed with observations as early as the 1930's up to 2005 for a total of 9 million keys total.

Total imaging/keying for on-going project involves data from over 30 stations totaling nearly 7,000,000 records

Keying data for Punta Arenas, Chile data record begins in 1936

Integrate data into NCDC global database

United States Embassy

Uruguay

24

Figure 5. Efforts in Uruguay, using the CDMP.

Climate Database Modernization Program

International Activities

Typical Camera and Imaging Setup for International Projects

High tech digital camera and camera stand set up in a well lit room next to a computer by a CDMP member

Technicians are trained to image the records using the camera equipment they will use for quality, exposure and composition

Digital jpeg images are stored in the camera's hard drive then transferred to the computer

Images on the computer are then written to CD-RW or DVD and sent to NCDC for storage and keying

Keying format developed at NCDC is used on data captured from hardcopy

Data must be keyed in U.S. by CDMP contractors

Enrichment process takes 1-3 years depending on complexity and amount of data to be imaged/keyed

A technical leader responsible for each step in the process at each international location is critical!

25

Figure 6. The imagings of the hardcopy, followed by data entry are critical steps in converting data in foreign countries into formats suitable for electronic retrieval.



Climate Database Modernization Program



International Activities

- WWII Royal Navy Ship logs from 1938-1947 were microfilmed and scanned at the British National Archives. The records have been keyed by CDMP and will be QA/QC'd then merged into the International Comprehensive Ocean Atmosphere Data Set (ICOADS).
- Roughly 250,000 images -31 Million Keystrokes



Figure 7. Data from the British government is included in the CDMP.

7. African countries are also involved. 194,333 images of upper air records since the 1960's have been received from Kenya, Malawi, and Senegal have been digitized, but not yet quality controlled, other African countries may be included in 2008 in the CDMP. Additional unique international data useful in climate research are also being rescued.



Climate Database Modernization Program



International Activities

Imaging and keying lightship logbook data from Finland and Sweden covering the period from the 1860's to the 1930's. The meteorological and subsurface profile data will be added to NOAA's global databases.



Processing Canadian volunteer observing ship (forms via VOS) NCDC's incoming records system. These marine data from the period are added to international marine databases.



Additional international unique foreign climatological data are being preserved and made accessible from historical sources at NOAA's Central Library. Period of record covers 1830s through the 1970s with most data being from the period prior to 1960. Each series typically includes observations for a number of meteorological and other geophysical parameters. These involve documents from over 14 countries in Africa, 8 in Asia, 6 in Europe, 10 in North America, 1 Pacific Island and 8 in South America.

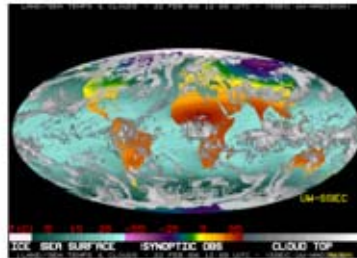


Figure 8. Data from around the world is being incorporated into CDMP.

8. Mr Ross stated the CDMP's goal is to finish each project once started. In most years 25% of the CDMP budget is reserved for other NOAA agency's projects. Each July/August the CDMP issues a call for proposal papers for projects to be incorporated into the CDMP in the upcoming budget year. A data-access workshop is held in November. As the program gains more visibility additional projects will be incorporated into the program, pending funding constraints. Mr Ross stated another goal was to distribute an annual DVD reports to as wide an audience as possible to get the CDMP story publicized.

9. Mr Ross concluded the presentation with a professionally produced short film illustrating the CDMP dimensions. Several questions followed. Maj Rolle presented Mr Ross with an AMS coffee mug in appreciation for his talk to our Asheville AMS chapter.

John D. Gray
Secretary, Asheville AMS