



# The State *Climatologist*

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1993 AASC ANNUAL MEETING  
COEUR D'ALENE, IDAHO  
JULY 22-23, 1993

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Dr. Kenneth Hadeen  
Director, NCDC

Mr. Jim Zandlo  
President, AASC

John P. Hughes  
Editor, The State Climatologist

The American Association of State Climatologists (AASC) held its 1993 Annual Meeting on the campus of North Idaho University with Idaho State Climatologist Myron Molnau serving as the local host. The meeting was attended by 52 members, associate members, and guests. Seventeen spouses also attended. Some of the agenda items below are reported in a different order than they actually occurred for continuity.

President Charles Wax opened the meeting with a report on recent AASC activities. He noted the increased demand for our mailing list and growing use of e-mail and bulletin boards. He reported that Pam Naber-Knox is serving as the AASC representative to the Advisory Committee on Water Data for Public Use, a USGS-sponsored intergovernmental advisory committee which looks at water quality and quantity issues. He mentioned activities concerning a number of State Climatologist pro-

grams which are in peril. Finally, he described some of the problems that climatologists have been wrestling with in recent months, including the flood of 1993, how to deal with inter-annual variability, green-house warming and the ozone hole, and prediction and detection of climatic change.

The first morning was devoted to reports from federal agencies. John Hughes of the National Climatic Data Center reported on what's new at NCDC, including personnel changes, archiving of NEXRAD level II data, ASOS ingest, the development of new global and regional baseline data sets, new CD-ROMS, and the new building. The State Climatologist Exchange program brought 5 SCs to NCDC, working on station histories, daily grid of Microwave Sounding Unit (MSU) temperature data for the U.S. 1989-1990, and evaporation summaries. John also mentioned several new projects underway, including:

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NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER IN COOPERATION WITH  
AMERICAN ASSOCIATION OF STATE CLIMATOLOGISTS

"...National Environmental Watch (NEW) program, which provides for the delivery of science-based policy information about environmental variations to policy makers..."

(1) the National Environmental Watch (NEW) program, which provides for the delivery of science-based policy information about environmental variations to policy makers over Internet. NEW will highlight NOAA activities, provide information on special topics like the flood of 1993, and will also focus on issues of data quality and continuity by providing workshops, articles, and a newsletter on data problems.

(2) the Aerological Information Resource System (AIRS), which will provide rules-based quality control of upper air data similar to that presently used on cooperative data.

(3) OASIS, a system for receiving NCDC datasets on-line through Internet. Several hundred downloads of large datasets have already been made.

Dave Rodenhuis reported on activities at the Climate Analysis Center (CAC). He noted that the focus of CAC is moving toward more long-range prediction of climate, especially as it relates to impacts on society, and interactions with the regional climate centers. This refocus will occur as the National Meteorological Center (NMC) is reorganized in the next year. NMC will become the National Center for Environmental Prediction. Rodenhuis also said one of the initial projects will bring together USDA and NOAA to develop applications for agricultural users using the new and improved coupled ocean-atmosphere model for seasonal prediction.

A new feature of the AASC meeting this year was the "Ask A Fed" panel discussion. Representatives of various federal agencies gave brief descriptions of activities in their areas

and answered SC questions on topics of interest. Participants included Roger Tucker of the US Forest Service, Phil Pasteris of the Soil Conservation Service, Norton Strommen of US Department of Agriculture, Tom Blackburn of NWS Cooperative Observer Program, John Hughes of NCDC, and Dave Rodenhuis of CAC.

In their opening statements, both Tucker and Pasteris noted the ongoing development of data access facilities that include weather data. They hope to provide information on access to these facilities to SCs. Tucker also described the AFFIRMS fire weather data storage system, which is being used by NWS and the Western Regional Climate Center as well as the Forest Service. AFFIRMS will soon be replaced by WIMS (Weather Information Management System).

Strommen described how USDA is using climate data to improve yield forecasts.

Blackburn discussed problems with the modernization of the coop program.

Hughes described the need for coordinated climate services within NOAA. Rodenhuis described an interagency effort, the National Plan for Climate Applications and Services, which should bring NWS sections together to answer questions on data. They will begin by focusing on agriculture.

Questions from SCs centered on what methods were being used to make data from this variety of sources useful for the maximum number of people (standardization issues), and

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how data from non-coop sources like ASOS were being documented so that they would be useful in future studies (metadata).

The afternoon of July 22 contained a short primer on how to use the Climate Diagnostics Bulletin presented by Dave Rodenhuis, a number of state reports (included later), and the annual business meeting. Minutes of the business meeting follow this report.

The second morning focused on interactions between CAC, the regional climate centers, and SCs. Bob Bermowitz of CAC moderated a series of presentations on these relationships; participants included: Dave Rodenhuis of CAC, Jim Laver of CAC, Dave Smith of the Southeast Regional Climate Center, Kelly Redmond of the Western Regional Climate Center, and Stan Changnon of the Midwestern Climate Center. Each panelist presented a short report on a different aspect of these interactions.

Bermowitz and Rodenhuis described the history of the regional climate center (RCC) program and steps leading to their funding in the NOAA budget for FY 94. Rodenhuis underlined the importance of studying climate impacts on agriculture, health, business and other aspects of society. Laver emphasized the need for more user-oriented products and applied research. CAC will be renamed the Climate Prediction Center under the reorganization of NMC to highlight its mission to provide more long-lead prediction in the future.

Discussion of these presentations centered on benefits to individual users versus benefits to society at

large and how to mobilize private industry to help finance some of the data collection.

Smith noted four areas of interaction between RCCs and SCs: 1) advisory help on data and techniques for analysis, 2) data exchange and enhancement, 3) fundamental research and service, and 4) special projects. He described the 1978 document, "A Service-Oriented State Climatology Program" and how it still applies to what RCCs and SCs are trying to do today. Redmond discussed computer capabilities at the RCCs and described how they are attempting to promote commonality between RCCs. He also discussed research activities as promoters of service-oriented applied research. All RCCs currently have modest external funding capabilities which allow small projects to be done cooperatively with other research facilities. Changnon closed the discussion by describing elements of climate services, covering data, delivery and users. He pointed out the progress we have made in computing, identifying needs and opportunities for better products and services, and obtaining near-real-time climate information, as well as understanding the climate system. In the future, he believes, national climate services will be part of the NWS, with a regionally focused network of RCCs who, together with SCs, will be better able to provide appropriate climate services to a growing number of public and private users.

Helmut Landsberg award: The Landsberg award was given to Thomas Karl of NCDC for his work in analysis of climate variations. Tom was not able to attend the meeting, so the award was accepted on his behalf by John Hughes of NCDC.

"...Wayne Wendland moderated an open forum in which SCs could bring up problems and concerns for deliberation."

"...Jerry Barton of NESDIS described the Environmental Services Data Directory..."

John read a short statement by Karl accepting the award; this statement was published in the Summer issue of The State Climatologist.

On Friday afternoon, Wayne Wendland moderated an open forum in which SCs could bring up problems and concerns for deliberation. Topics that came up during the discussion are listed below:

(1) The first topic discussed was the MMTS, particularly documentation of when they were installed and when sensors are replaced. Members discussed problems with changes in siting, first-order station documentation, effects of snow cover, and the modernization of the NWS and CPM program. Tom Blackburn of NWS suggested that a letter stressing the importance of documenting changes be sent to the NWS. The Executive Committee and other interested parties will look over the letter before it is sent out.

(2) Another topic was the proliferation of CD-ROMs from private vendors and their value. Several folks pointed out the large number of errors in these databases (which are mostly NCDC databases with front-end software included). Caution should be used in working with the data.

(3) Rolland Hauser suggested that next year's meeting should include a section on how to communicate climate information effectively. He suggested that AASC members send him examples of graphs, brochures, etc. which they think are successful, and he will collect them in a 3-ring binder for display. At next year's meeting we will try to have an expert in communicating technical information speak at the meeting.

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#### NOTE TO AASC MEMBERS

IF YOU WISH TO PARTICIPATE IN THIS PART OF NEXT YEAR'S PROGRAM, PLEASE SEND YOUR CONTRIBUTIONS TO:

DR. ROLLAND HAUSER  
DEPT. OF GEOSCIENCES  
CALIFORNIA STATE  
UNIVERSITY-CHICO  
CHICO, CA 95929-0205

DON'T WAIT UNTIL THE LAST  
MINUTE!

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(4) Station history records received some discussion. Problems with old station histories and assignment of station identification numbers were mentioned, as well as sources of older data.

(5) NEXRAD data storage and access was also discussed. Level II data will be archived, (base reflectivity, base velocity, and spectrum width) but not raw data. After discussion about how SCs and RCCs could get access to these data, Wayne Wendland agreed to draft a letter to NWS urging them to make the data available for a limited time to RCCs and SCs on Internet. This will allow archiving of interesting storms, which could be used in later case studies. (Note: this letter was drafted and circulated as promised in late August).

Following the forum, Jerry Barton of NESDIS described the Environmental Services Data Directory, a menu-driven electronic reference source for locating climate data. He provided information on how to access the

"...a comprehensive list of 1560 NOAA datasets and where they can be obtained."

"Tom also talked about the modernization of the coop program and how it will affect the CPM position."

bulletin board and the format of the directory. No data are available directly from the bulletin board, but it does provide a comprehensive list of 1560 NOAA datasets and where they can be obtained.

Tom Blackburn of NWS spoke on the CRS to MMTS conversion. Comparisons show that in treeless areas the CRS maximum runs .5 degrees higher and the minimum .3 degrees colder than the MMTS. Areas with trees have smaller differences. The variations are linked to snow cover in winter and radiational heating of the CRS shelters in summer. Alcohol separations in minimum thermometers are also a problem. Tom also talked about the modernization of the coop program and how it will affect the CPM position.

#### STATE REPORTS

Tom McKee (Colorado): They are running a comparison of ASOS measurements of temperature and precipitation with records from standard instruments jointly with NWS. The experiment is in two phases: 1) comparing a number of sites with the same climate to learn about instrumental differences; 2) comparing measurements at a number of climatically distinct sites to see how differences in climate affect the measurements. Initial results show that ASOS has systematically 1.1 degree lower max temperatures, with similar mins. ASOS instruments are apparently not precalibrated, which means that each change of sensor can introduce errors into the record. Relative humidity and precipitation also vary.

Norm Canfield for Alan Robock (Maryland): They now have a part-time undergraduate student assistant, and hope to work up to a graduate

student and then an assistant SC, with support from the department. Helmut Lansberg's widow donated some rare meteorology books and his files to the library there.

Bill Mork (California): He introduced Bob Elford, the last federal SC in CA. The financial state of California has hurt his budget. The drought is now officially over, and they are a "water conservation center" again. He noted increases in the coefficient of climate variability over the last century as well as strong increases in warm season minimum temperature.

Dave Robinson (New Jersey): Since last year, they have had three storms with hurricane-force winds, and are now experiencing a 50% precipitation deficit. He described his outreach activities to the media, amateur weather enthusiasts, and to the public. They are also spending a lot of time doing monthly quality control of temperature data. Next year, they hope to become the Rutgers Climate Center for New Jersey. He has two grants with the Northeast RCC for water budget analysis and creation of a temperature database atlas. He has worked with Paul Croft (now at the University of Southern Alabama) on MMTS comparisons. Dave mentioned that AASC member Vaughn Havens passed away last year.

Mat Werner (Nebraska): They receive about 2500-3000 phone contacts per year, and the number of invoiced correspondence is growing. They are currently working on a new graphics system in their office, and are publishing a newsletter on climate trends and economic impacts.

Don Jensen (Utah): Don presented a brief slide show of maps they have

"...the Cooperative Observer Database Association, a group which will advocate for continuation and improvement of the Coop Observers Network."

"The American Library Association picked the Virginia Climate Advisory as one of the world's best government publications."

created, including maps for the Utah Climate Book and precipitation frequencies. They are using a new technique to extrapolate temperatures across variable terrain. He also mentioned a new book on time series analysis which they have produced.

George Taylor (Oregon): The Oregon State Climate office is working on several precipitation projects using the PRISM model. This model helps distribute precipitation in high-relief areas. They have created precip maps at various scales and for different sets of users, and have sold over 900 copies. They also have a contract with the Army COE to produce a US precipitation map for their drought atlas, using HCN stations plus others for their periods of record.

David J. Smith (South Carolina): They are about to become part of the Department of Natural Resources. The drought this year has caused major problems for agriculture and other water users.

Kelly Redmond (for Montana): Joe Caprio retired July 1. He has been replaced by John Wraith.

Jerry Stenger (Virginia): Their financial difficulties have been solved by the State Legislature, who provided a separate state budget for them. The American Library Association picked the Virginia Climate Advisory as one of the world's best government publications.

Mark Schafer (Oklahoma): Sixty-one of 108 planned mesonet stations are now working. Requests for data are

up 12%. They now send out 300 monthly summaries.

Harold Klieforth (Nevada): SC John James, a professor of geography at Reno, couldn't come. Their 2-year budget was reduced to zero, but restored by the state legislature. He described a number of networks available for their state, as well as work on the Nevada Climate Summary.

Pam Naber-Knox (Wisconsin): She served as the AASC representative to the USGS Advisory Committee on Water Data for Public Use at their meeting in Washington, DC, on July 14-15. Her summary of the meeting will appear in the State Climatologist. She has been cooperating on several flood and disaster projects with state agencies, and the number of requests continue to go up. She also announced the formation of CODA, the Cooperative Observer Database Association, a group which will advocate for continuation and improvement of the Coop Observers Network.

Jim Zandlo (Minnesota): Many heavy rainfall events in Minnesota this year have fallen right in the Minnesota River basin, contributing to the flooding. They are very wet compared to normal.

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#### **BUSINESS MEETING**

The meeting was called to order at 3:30 pm on July 22. The reading of last year's minutes was waived; it was moved and seconded that they be accepted with several minor corrections provided to the secretary. The motion carried.

"Knox moved that next year's meeting be held in Madison, Wisconsin."

"Two new associates were nominated: Bob Elford was nominated by Molnau, and Bill Bland by Knox."

It was announced that the Helmut Landsberg award would be presented to Thomas Karl during the meeting on the 23rd.

**TREASURER'S REPORT!!!** We forgot it in the meeting.

Under old business, several amendments and bylaws from last year needed ratification by a second vote this year. Wendland moved and Conner seconded that the changes be ratified. The motion passed.

New business:

(1) Redmond reported on the status of the two position papers presented last year, one on the modernization of the coop program, and other on concerns with ASOS data. Last year these two papers were presented as "strawman" statements and were discussed at the meeting. Since then some comments have been received but the papers have not been published, other than in the State Climatologist. In this year's meeting, discussion centered on whether the statements were still appropriate. Eventually, it was moved and seconded that the paper on the coop program be accepted and published in the Bulletin of the American Meteorological Society as our official statement on the program. The motion carried. Further discussion on the ASOS statement considered whether the statement was still valid in the light of recent ASOS changes. Most SCs agreed that it is still important to voice our concerns about ASOS. It was moved and seconded that the ASOS statement be submitted in tandem with the coop paper after appropriate revisions were made. The Executive Committee and "interested" parties will review before submission.

This should be finished by September 1. The motion carried.

(2) Knox moved and Molnau seconded that a committee be established to review our policy toward honorary members and consider adding some new honorary members to our group. After discussion about the history of honorary members, the motion carried. Knox will chair the committee. Klieforth will also serve. Other interested AASC members should contact Knox.

(3) D.J. Smith asked AASC to consider forming a committee to respond to the concept paper on the "National Plan for Climate Applications Services." Wax asked that the discussion be tabled until after the paper was introduced in the next day's meeting. No action was taken on this request.

(4) Wendland reported for the Nominating Committee. They recommended D. J. Smith as president elect, with Knox continuing as Secretary-Treasurer for a second year. Molnau moved that a unanimous ballot be cast in favor. This was seconded and the motion carried.

(5) Knox moved that next year's meeting be held in Madison, Wisconsin. This was seconded and approved.

(6) Two new associates were nominated: Bob Elford was nominated by Molnau, and Bill Bland by Knox. Both nominees were accepted. Zandlo will write letters of welcome to both candidates.

(7) Redmond asked that the current mailing list be published in the State Climatologist. The members agreed, and Knox will provide the list to John Hughes.

Meeting adjourned 4:45 pm.

Lake Coeur  
D'Alene was the  
picturesque site of  
a moonlight boat  
ride for attendees  
of the AASC  
Annual Meeting.



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