

AASC 1990 Meeting at Atlantic City, New Jersey.

The 1990 meeting of the American Association of State Climatologists opened at the Sands Hotel in Atlantic City, New Jersey with a very brief welcome from president Kelly Redmond. President-elect Mark Schulman continued the welcome to 'Las Vegas with relative humidity' and thanked Paul Croft and Mike Miller for their help with meeting arrangements. After Paul Croft had given a few meeting details, Kelly resumed by pointing out the emphasis in this meeting on state roles and then introduced the first speaker, Stan Changnon, as 'emeritus everything'.

Stan Changnon's perspective on 'regional climate centers' emphasized the development process for the centers leading to close ties to and support of NOAA and pointed out that the National Climate Services Plan requires the encouragement of everyone.

Pat Michaels' report on his findings on legislation involving 'greenhouse' effects pointed out that bills can be generally divided into 'research' and 'policy' and developed profiles of the initiatives, finally concluding that a bill incorporating aspects from several authors (H2984/H3332/5169) will likely emerge supporting research.

Roger Tucker (US Forest Service, Weather Program Manager) described an acquisition and access system (WIMS) for application of weather and climate information to forestry using automated weather station data (a cooperative effort involving FS, BLM, NPS) and featuring two-way AFOS links and data archival at regional center(s).

Phil Pasteris (SCS Climatic Data Access Facility) described a system to meet internal data needs (including 'PC capabilities') for SCS models such as concerning water quality and supply, and erosion to all levels of the SCS organization.

(Bruce Parks, USGS, Reston, will try to get an invitation from Interior Secretary to AASC for a representative to 'Water Data Coordination' advisory meetings.)

Mark Schuman describing New Jersey's SC program as academic in approach and not funded by the state. They recently introduced a new 'plant hardiness index' in the Journal of Agricultural and Forest Meteorology. Paul Croft pointed out the service-oriented aspects of NJ's program, that their survey of SCs indicated that for those with funding things are going well, and mentioned several applied climate studies being conducted.

Pam Naber, who officially became Wisconsin's SC (Geologic Survey Specialist) on August 2, 1990, described a data base of monthly precipitation data for Wisconsin and described a 'Climate of Wisconsin' slide set for education. Discussion followed on the fate of data from Wisconsin's automated stations.

Bob Muller, new head of the Southern RCC, mentioned modest budget increases in Louisiana's SC program over the years and pointed out record heat and cold in recent years as well as recent very wet and very dry periods, which have led to an increased interest in climate variability.

Steve Williams, involved in forming the 'Atmospheric Science and Remote Sensing Lab' at U of Alabama, indicated that Auburn, via remote connections in Alabama's supercomputer network to a VAX based CLICOM system, will take over agricultural duties from the SC office. He went on to describe several other research involvements.

Jim Zandlo indicated that digitization of pre-1948 coop precipitation data for Minnesota is nearly complete, and that an 'easy retrieval' PC based form of Oak Ridge's HCN data sets has been formed and is available to anyone (send diskettes).

Jim Wise, who has weathered the prospect of elimination, moves to Fairbanks (never made), and budget reductions, showed examples of recent anomalies of wetness and cold in Alaska and went on to suggest Anchorage for the next AASC meeting.

Second day

Kelly Redmond focused on 'Interagency Coordination and Cooperation with the National Weather Service'. He points out problems that arise because, although NWS is a prime data generator and distributor, it does not archive its own data, and many data-related decisions are made internally, without extensive consultation with affected user groups. Additional issues of interest include the move of regional climate centers into NOAA, new data sets (ASOS, NEXRAD), and a growing need for data for climate change studies.

Steve Doty spoke of progress on the many activities for the Centennial Cooperative Weather Station Program, including a White House Ceremony that is a matter of when, and he reminds SC's to get their TROIKA together.

Roger Tucker, speaking on Federal Plans for Meteorological Information Management (Office of Federal Meteorological Coordinator), indicated that guidelines are now being formulated for data collection and management, and will be subject to extensive review. Interested parties are urged to participate in this process and obtain copies of their final report.

Ken Crawford, Oklahoma SC as of December 1, 1990 after 2-1/2 year gap, explained that OK's program has a broad mission with a strong service component. The program funded by university regents, currently is seeking an assistant SC and 'entry level' climatologist. He described a statewide network of (107) automated weather stations proposed for OK (funding confirmed during time of meeting).

Bill Mork described the geography of water 'supply' and 'demand' in California and presented material depicting the extreme recent dryness in terms of reservoir storage and the Sacramento River Index.

John Purvis, SE RCC head, pointed out that the South Carolina SC function is state funded and recommended that other SCs find state funding. Scott Sidlow went on to describe service aspect of SC State Climatology Office, a MAPSO to CLICOM (VAX version) ingest procedure, and a Contel weather wire to PC connection.

Ken Hubbard reported that Nebraska is looking for an Ag Climatologist. He suggested that AASC needs a 'sampler' of SC products. He went on to mention that NE is using CLICOM for Centennial data, that 35 automatic stations are still being operated in NE, and described water use and available water models.

Nolan Doesken talked of recent Colorado extremes including the costliest hailstorm ever in CO, coldest annual temperatures in the plains rather than high mountains, and a 100-year event (3.6 inches in 24 hours) which came down in a frozen form. Also, Governor decreed that the State Climatology Office will compute the Palmer Drought Index for each state division. MMTS vs. CRS studies are in their 6th year.

(At this point, the attendees introduced themselves.)

Steve Doty reported that as of Oct. 1, 1990 NCDC is reorganized and reported on a number of activities, some division specific, including the PC-based Geographic Edit and Analysis of Coop data. Also they are gearing up for new NWS data sets and reformatting old ('square tapes'). He needs responses to and articles for the 'State Climatologist'.

Jim Laver, noting that CAC goes beyond the NWS 'life and property' mission, talked of the integration of SC's RCC's NCDC and CAC and of CAC product dissemination. Dave Rodenhuis said that it was useful to hear of range of SC activity as a model for CAC activities and spoke of the need for research and methods to assess community sensitivity to climate variability/change.

Gene Willecke (Corps of Engineers) presented plans for a National Drought Atlas, expected to be finished in 1992, which would concentrate heavily on frequency depictions, areal extent, and duration. The atlas will not use traditional climate divisions. It will be available in a two volume paper format with an accompanying diskette for about \$30. He welcomes comments of contents, methods, etc.

panel: Climate Monitoring Network (Muller, Blackburn, Doesken) Bob Muller described networks in Britain and West Germany which tend to serve meteorology rather than climatology but which were typically of a higher density than found in the U.S. A hierarchy of station types from climate referenced (21 in Britain) to 'precip only' (thousands) exist.

Tom Blackburn (Office of Hydrology) indicated that the U.S. would need 154000 stations to match Britain's precipitation gauge density (we have 11000). He indicated that the coop instrumentation will move to 'off-the-shelf' technology, that new internal support for climate (change) related programs exists, and that density of gages will/should be adjusted to population, local spatial variability, and frequency of events. He went on to suggest that automation should be done, with overlap with current instruments when possible, by 1995. Tom is looking for cost-benefit studies relative to coop data. Tom also presented material comparing MMTS to glass thermometers: MMTS/cotton shelter differences seem to dominate observed temperature differences.

Nolan Doesken stated that the Colorado study shows MMTS reads consistently cooler than glass, but with an annual cycle of average differences. He is impressed by the fact that 'the most mis-reads occur with glass! (re)Siting of MMTS close to buildings was a concern.

Jim McNitt (NWS, ASOS Program Office) described with much detail the progress in the implementation of ASOS, some of its limitations and strong points, and described some efforts to automate some observations not now available on ASOS to meet a basic NWS target of no augmentations. Concerns of 'consistency vs. accuracy' were expressed by members which were followed by Norm Canfield's call to the members to express concerns (letters) to AASC's Williams to pass on to the ASOS Climate Working Group.

Mike Uhart (NWS, Climatology Program Leader) spoke of his coordinating responsibility, and oversight of the operation of field offices in matters concerning fire and ag weather and climatology (data). He pointed out opportunities of modernization including new data types and more meteorologists. As usual, USDA Ag Weather initiatives are not in budget but are expected to be 'restored'.

Bud Door (Chief of Meteorological Services, Eastern Region) asked that although modernization will be traumatic, 'modernize with us'. He pointed out advantages such as more observation sites and objective observations but also problems such as 'how much' should be archived.

At the banquet (evening of August 8) Schulman as NJ SC made presentations of certificates honoring long term records to 3 NJ Centennial Cooperative stations. One observer gave a very entertaining short speech.

Bob Landis (NWS, Deputy Director for Operations), banquet speaker, talked on 'Modernization and Restructuring of NWS and Climate Services'. He described the history of climatology/meteorology in the U.S. up to the modern goals to improve processing and communication of data. He went on to mention many of the technological and personnel changes that will be a part of modernization.

Last meeting day, 8-9-90

John Vogel (Office of Hydrology) pointed out that modernization will mean that RFC's will be colocated with WFOs and that forecasts will include area average precipitation for basins. John also talked of testing distributions and fitting methods and exploring the use of topography for the modern (computer based) version of TP No. 40, now being produced.

Kelly Redmond described the nature of errors which still exist in 'stored' SOD data at NCDC and suggested that the new interactive NCDC quality control techniques be used to re-QC ALL old SOD data. The process could take perhaps several years and \$500000+ (?) to complete but would result in a 'research quality' data base.

Steve Doty next spoke about a CD-ROM based Living Climate Atlas, which could

contain time series of quantities such as divisional temperature, precipitation, and Palmer index for 1895-1989, maps, video presentations, etc. He also discussed future possibilities for CD-ROM products since NCDC now has mastering capabilities.

Wayne Wendland reviewed a number of methods used to depict drought during Illinois recent past. He pointed out that because of differing times of response for various hydrologic features, some methods do better than others for specific uses. Wayne also proposes a 100+ station study of temperatures measured in collocated MMTS and cotton region shelters.

Tom Stoffel (Solar Energy Research Institute) indicated that he operates local networks especially for radiation. He added that while only 26 'real data' stations exist in the NOAA solar radiation network, much data has been estimated from cloud cover data. He will be sending information to attendees.

Glen Connor pointed out that hardiness zones have moved one zone southward into Kentucky recently. He noted the occurrence of a record setting 38F in July 1988 and -24F in December 1989. The Kentucky program is funded by the university and includes a graduate and undergraduate students and a computer programmer. Glen described some particular programs including drought and economic development planning.

Oregon report (Kelly Redmond): consulting climatologist George Taylor, recently relocated from Santa Barbara to Cornwallis, has taken some (at least) of Oregon's SC needs. George operates under the with proviso that he not call himself 'SC'.

New Mexico: CPM there very interested in program. Friend of probable next governor - plans to approach him after next election. Wants support.

Pennsylvania: (letter from Paul Knight) calls for establishment of SC at Penn State.

Nevada: (letter from John James, Reno) speaks of 1989 legislative support for the SC office (first since end of federal program), which will pay for a half time assistant, 1/4 SC contract, mailing costs, etc. User fees support other costs. John is enhancing observer networks.

Business Meeting

First order of business: Kelly states "To quote Richard Nixon: 'I quit' ".

Mark Schulman (as new president) takes over and announces that he has resigned as Dean but will resume as department chair. Mark continued with a few brief meeting-related comments, press coverage, weather, etc. Mark noted that AASC has only one standing committee, nominations, (others are ad-hoc) and asked Wayne Wendland to be on it. Wayne accepted. Mark asked if the AASC wants to take formal positions on issues (a la Pat Michaels). (no formal response) Mark stated that AASC members should support Steve Doty's activities. Mark asked if AASC relationship to ASOS working group is adequate. He asked how we can better support RCC activities. He stated that

quality and accuracy and the availability of data are of interest to AASC. He continued to ask: what are effects of automation, should AASC have a position paper on climatic trends, regional or global focus, and finally should perceived climate change be used to

Schulman opened the discussion for next year's meeting. Wise offered Anchorage and went on to describe facility options. No other suggestions were offered. A voice vote unanimously resulted in a 1991 meeting in Anchorage. Much unstructured and detailed discussion ensued. The University of Alaska was informally decided on for location (student housing \$30/night, can come or go up to two days before or after meeting) but alternative lodging lists were recommended. Some other unstructured discussion ensued on the possibilities for field trips and on cheap(er) airfares.

Glen Connor got the last topic: 'come to Kentucky during its bicentennial year, in 1992 - new convention center, new hotels, new golf course'.

Schulman declared the meeting closed.

(oops. Addendum: In all the excitement about ASOS and Alaska, the treasury's report was never made. In brief: the balance at 1989 meeting time was estimated to be \$6879.22 based on actual prior deposits, withdrawals, and 'committed funds' for meetings costs including the Bay Lady Harbor cruise and lobsters. The intervening year brought in \$2300.50 in dues and additional 'committed funds' plus interest estimated (since no June statement was available) at \$343.89. \$525 was paid to Bay Lady Cruises, \$1548 to Bar Harbor Lobster Bakes, \$104.94 for newsletter copying and envelopes, and \$420 for Kunkel and Court 'climatic normals' paper in BAMS. Thus, as of the meeting time in 1990, the balance was estimated at \$7602, a \$723 increase in 'base' funds of the AASC. The July 1990 statement has since arrived showing a balance of \$7477.48, but does not include \$125 in new dues payments.

As of meeting time, the AASC had collected about \$885 less than that collected for the same period of the previous year. However, dues collected at the 1990 meeting have narrowed the gap. Note that the increase in 'base' funds occurs because expenditures were rather subdued last year, and perhaps to a lesser extent because the 1989 meeting registration fees more than covered 1989 meeting expenses.)