# THE AMERICAN ASSOCIATION OF STATE CLIMATOLOGIST NEWS LETTER

THIS IS THE FIRST ISSUE OF THE AMERICAN ASSOCIATION OF STATE CLIMATOLOGIST (AASC) QUARTERLY NEWSLETTER.

THE NEWSLETTER IS A JOINT EFFORT OF EDS (NCC), NWS, AND THE AASC AND IS DESIGNED TO FILL A NEED FOR COMMUNICATION AMONG THESE AGENCIES. NCC HAS AGREED TO PUBLISH THE INFORMAL QUARTERLY NEWSLETTER FOR THE EXCHANGE OF INFORMATION.

INPUTS ON NEW TECHNIQUES TO SOLVE COMMON PROBLEMS OR ANYTHING OF GENERAL INTEREST TO THE AASC PROGRAM ARE SOLICITED FROM THE AASC, THE NOAA AGENCIES LISTED ABOVE AND OTHER INTERESTED PARTIES.

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### UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration Rockville, Md. 20852

January 7, 1977

MEMORANDUM TO: Mr. Daniel B. Mitchell

Director, National Climatic Center

Asheville, N. C.

FROM:

Edward S. Epstein

Associate Administr

Environmental Monitoring

and Prediction

SUBJECT:

American Association of State Climatologists

Word has reached me of the plans for an American Association of State Climatologists. I welcome the news and commend the National Climatic Center for its initiatives in supporting this new organization. Through an Association of State Climatologists it will be possible to make more effective use of climatological information and climatological expertise to the benefit of the American people. I wish to extend my best wishes to the new Association.





### NCC Briefs

A reminder that the dates of the Spring 1978 AMS meeting on Climate and Energy and on Industrial Meteorology are May 8,9 & 10 and May 10, 11, & 12, respectively.

Since the AASC Committee indicated they would like to have their next meeting with this conference, either before or after, we will need to know the exact dates. Please advise Bill Bartlett, NCC, as soon as possible of your preference for the AASC meeting.

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The National Climatic Center (NCC) is processing data for the period 1961-1970 for inclusion in the publication World Weather Records. It is hoped that all stations with long-term climatologically homogeneous records can be included. If you are aware of such stations that were not included in the 1951-1960 publication, the NCC would be glad to consider them at this time. Suggestions and recommendations must be received at NCC, Asheville, N. C., no later than February 25, 1977.

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During the second meeting of the State Climatologists, on October 5 and 6, 1976, at NCC, Tom Prizio, Chief of NCC's Archival Services Branch, announced that all SC's were eligible to receive NCC's manuscript records, for their permanent files, after these records are placed on film by NCC in accordance with specified federal standards. SC's interested in being considered as recipients of records ready for disposal by NCC

ed to write a letter to NCC indicating their interest in in such a program. To date, NCC has received only two however, during the referenced meeting, many others exterest in receiving selected NCC records after being placed

were encourag participating such letters; pressed an in on film.

ing program has accelerated this year due to the acquisih speed camera. We are now developing plans to accelerate
even further. These expanded activities may make it
us to begin disposing of records during the next few years may be for locations in your State. When the time comes
spose of records, pending files will be screened to identhat expressed an interest (in writing) in receiving these
isions will then be made by NCC as to proper disposition of
you wish to be considered in this program, let us know - in
r letter will be placed in our pending file along with any
receive.

Our microfilm tion of a hig this program possible for some of which for NCC to di tify agencies records. Dec records. If writing. You others we may

have federal records which were not sent to NCC when the ogram terminated, it would be in the national interest to NCC so they can be microfilmed. These records would be ou after they have been microfilmed.

If any of you federal SC proreturn them to returned to you

The publication Climatography of the United States No. 60 has been published in the new format for Alabama, Arizona, Arkansas, Colorado, Connecticut, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Massachusetts, Nebraska, North Carolina, and North Dakota. Present plans call for the completion of an additional 10 to 15 States by October 1977, and the remainder by October 1978. This series is quite different from the earlier version. They contain only the narrative and the means and extremes tables from the LCD Annuals and the Substation Summaries (Climatography of the United States No. 20). The freeze data, normals, etc., that were formerly carried are generally available in other publications and were not duplicated in this series. A map showing the location of each station summarized is also included along with a station list.

The program for summarizing climatic data for the Soil Conservation Service is continuing. The NCC has now completed summaries for over 200 areas throughout the United States.

Delays were encountered in getting the EPA report, "Use of Climatic Data in Estimating Storage Days for Soils Treatment Systems" published. It should be in the mail very soon according to the EPA Project Officer. The NCC continues to get requests from engineers for the processing of daily data using EPA-3 program.

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# THE IOWA STATE CLIMATOLOGY PROGRAM By Paul J. Waite, Iowa State Climatologist

The position of State Climatologist for the Iowa Department of Agriculture was established June 1976. The office, with a staff of two, is located immediately adjacent to the National Weather Service Substation Network Specialist and two floors below the National Weather Service Forecast Office at the Municipal Airport.

The office activities are centered around four activities: (1) Iowa climatological data archival, (2) climatological assessments, (3) public service and (4) applied researches. This office supports Iowa agriculture and other facets of the State economy with climatological assessments and probability outlooks for the very necessary decision making processes that extend beyond the range of weather forecasting.

Due to the long-term continuing precipitation deficiency in Iowa and the passage of the coldest autumn during the 20th Century in Iowa, the pressure for information relating to next season's planning for food production and this season's high rate of energy usage (30-40% above

## U. S. STUDYING MINNESOTA WEATHER REPORTING SYSTEM By Don Muhm

(Reprint from Des Moines Sunday Register, 12/12/76)

Federal weather officials are taking a close look at the Minnesota weather reporting system as a possible means of compiling more accurate and detailed information relating to crop production.

Regional U. S. Weather Bureau specialist Bernard L. Spittler of Kansas City, Mo., a native of Hamburg, said the agency is interested in the Minnesota plan.

Here is how the Minnesota reporting program, called Operation Rain-Snow, works:

In 1971, Minnesota vocational agriculture officials set up a pilot project in which Future Farmers of America (FFA) members in the cropproducing regions of the State (mainly southern and western Minnesota) kept simple weather records.

These unpaid volunteers recorded precipitation totals and then reported the figures monthly to the state climatologist in St. Paul.

In case of severe weather - such as snowstorms, tornadoes or heavy rains which pose flooding problems - the agency called the FFA weather reporters to get updated information on the weather and any problems it might represent.

W. J. Kortesmaki, the Minnesota FFA executive secretary, praised this volunteer reporting program. He said the program uses 2,000 young people from 270 FFA chapters to represent about 628 townships in Minnesota.

#### RAINFALL VARIES

"We have found that there is a wide difference in the same township in how much precipitation has fallen," he said.

"One of the FFA members reported eight to nine inches of rainfall, for example, during a particularly heavy storm. He just kept emptying and emptying a three-inch (rain) gauge.

"Only a few miles away, the FFA weather observer reported only 1.5 inches of rain - out of that same storm which had dumped nearly nine inches in that one neighborhood," he said.

Kortesmaki feels this kind of variable weather needs to be reported, from the standpoint of a public hazard in case of flooding or other weather-related danger, as well as for crop information.

Spittler agrees. "This kind of project helps us in the Weather Bureau and it helps the public," he said. "We encourage all of the midwest States to follow Minnesota's lead."

Regional weather officials are considering the adoption of the Minnesota volunteer weather reporting service in 13 other States, including Iowa, Spittler said.

The other States are Colorado, Wyoming, Kansas, Nebraska, North Dakota, South Dakota, Missouri, Illinois, Wisconsin, Kentucky, Indiana, and Michigan.

"This is the nation's bread basket, really," added Spittler.

John Graff, the meteorologist in charge of the Weather Service in Minnesota, said the FFA volunteer reporting system in that State "has helped us establish a new bank of knowledge of moisture patterns and storm tracks."

#### TOO FEW STATIONS

"Great strides have been made in recent times to record the weather, but our reporting stations are still too few and too widespread," he said.

The data can be used, Graff added, to help predict such things as floods, droughts, severe weather, pollution patterns, and other weather developments, as well as to alert farmers, the public, and others to prepare for such things.

Kortesmaki noted that if the central regional reporting system is developed for the 14-State area, there is a potential of nearly 150,000 FAA members to handle the chores.

But the FFA official noted that senior citizens might be used as well.

"These old-timers are usually more interested in the weather, and they have the time and interest to keep the records," he said.

Five years of collecting such localized weather information has convinced Kortesmaki that rainfall can be "very spotty."

"This is why we feel it is most important to have more reporters monitoring the weather," he said. "This could give us better information about crop yield potential, too."

Officials are aware of the scarcity of reporters and the shortcomings of the current weather monitoring system, Kortesmaki said.

In Iowa, for example, this year was an example of just how "spotty" weather can be. Crop yield estimates were elevated in November because the harvest of corn had turned out much better than earlier anticipated in several States, including Iowa and Illinois.

In Iowa, the U. S. Department of Agriculture in its November 1 crop estimates boosted the average yield for corn by four bushels per acre. In Illinois, the boost was seven bushels over USDA estimates made one month earlier.

But, while localized weather reporting may be important from the crop and public standpoints, there is another significant aspect - hail damage. "We have found our local records are quite useful in the case of hail damage for use by the farmer-customer as well as by the hail insurance company." Kortesmaki said.

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ARIZONA WEATHER WATCHERS

By Dr. Robert W. Durrenberger, Arizona State Climatologist

"Arizona Weather Watchers" is the name of an organization which was formed to allow amateur weather observers and all interested citizens to communicate with each other and share their observations of unusual atmospheric phenomena in the State. It is a program of the Office of the State Climatologist for Arizona. Its objective is to gather first-hand visual observations of unusual weather events as well as standard daily meteorological observations. Although in its early days of existence the "Arizona Weather Watchers" concentrated its efforts primarily in the metropolitan area of Phoenix, it is the goal of this organization to establish a network of observers in all regions of the Grand Canyon State. Meteorological data recorded by the Weather Watcher network is compiled and archived monthly by the State Climatologist for use in climatological research and as a data base for public inquiries.

All unusual atmospheric phenomena merit the consideration of the Weather Watcher. Some examples are rain and hail storms, lightning, wind and its effects, tornadoes, duststorms, dust devils, optical displays such as rainbows, haloes, and sun pillars. The organization is also interest in obtaining information on the effects of man on the environment; therefore, observations of pollution, fires, contrails, etc., will also be reported.

At present, "Arizona Weather Watchers" is interested in identifying all individuals and agencies that are concerned with any of these phenomena and who would like to participate in the program. Degree of involvement will be essentially up to each individual. Minimum efforts would probably entail the monthly reporting of rainfall for those with rain gauges or the accounts, or bursual observations via photographs, by written accounts, or by telephone. The measurement of daily maximum and minimum temperatures particularly in agricultural areas would be significantly useful. The State Climatologist has made arrangements for discounts to be offered on the cost of necessary meteorological instruments and equipment.

Participating observers come together for a monthly meeting of the "Arizona Weather Watchers' on the third Wednesday evening of each month This meeting is held in conjunction with the Central Arizona Chapter of

the American Meteorological Society at a designated location in the Phoenix metropolitan area. Weather Watchers may call the Laboratory of Climatology at 965-6265 for specific information on the time and location of each meeting. This forum provides an opportunity for all