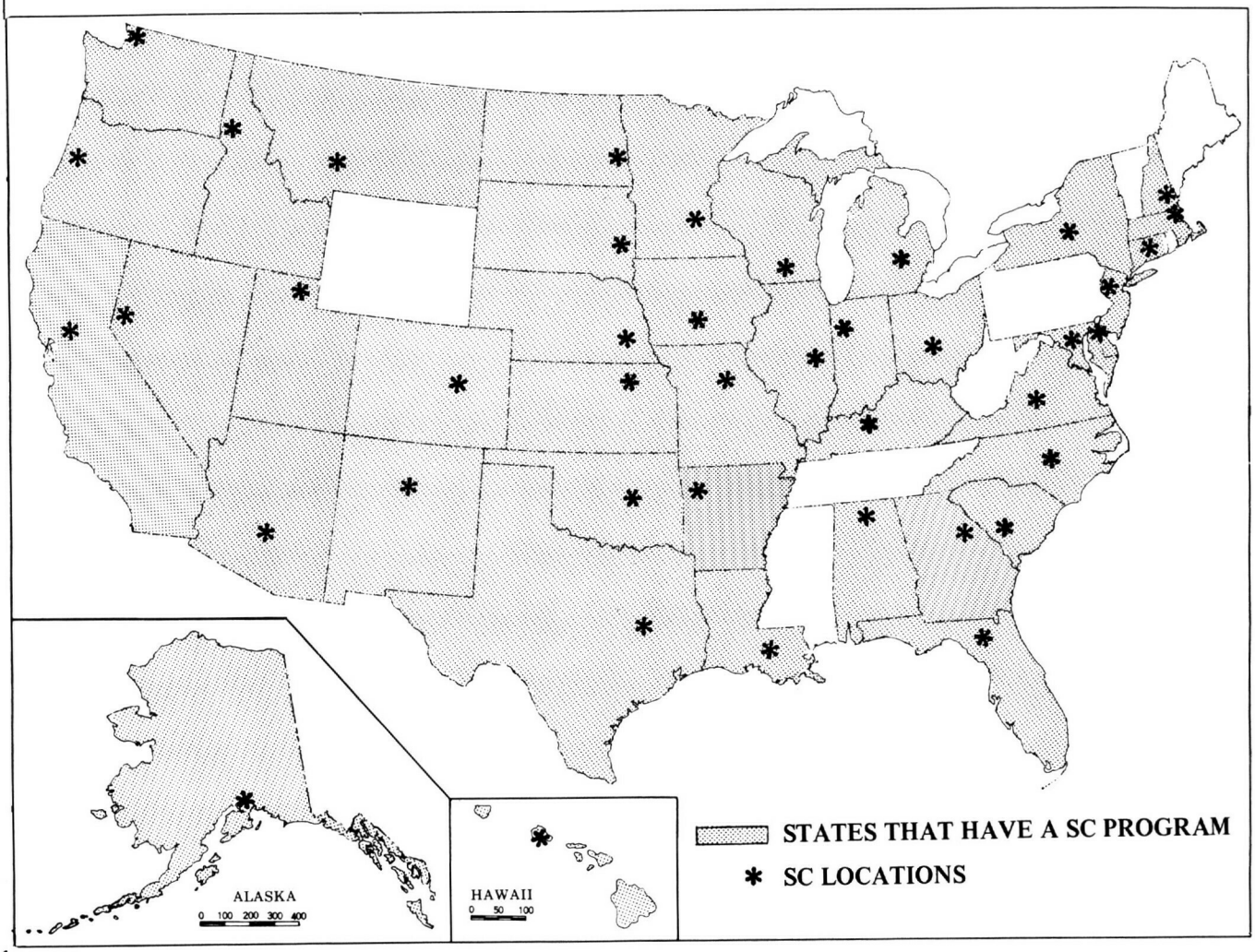
National Oceanic and Atmospheric Administration
Environmental Data and Information Service
National Climatic Center

NEWS LETTER

IN COOPERATION WITH
THE AMERICAN ASSOCIATION OF STATE CLIMATOLOGISTS



VOLUME 5 NUMBER 2 APRIL 1981

PUBLISHED QUARTERLY AT THE NATIONAL CLIMATIC CENTER, ASHEVILLE, N.C.

NCC BRIEFS

The NCC and the AASC are pleased to welcome Professor Allan H. Murphy as the new State Climatologist for the State of Oregon. Professor Murphy's address is the Department of Atmospheric Sciences, Oregon State University, Corvallis, Oregon 97331.

Professor Murphy replaces Dr. W. Lawrence Gates who will retain his position at Oregon State and, in addition, will still provide much appreciated assistance with the State Climatology Program.

Death Knell for Climatological Bulletins: Budget reductions for Fiscal Year 1982 necessitate termination of several climatological bulletins published by the National Climatic Center. These bulletins and last expected issue are:

Publication	Last Issue
Climatological Data - World	December 1980
Climatological Data National Summary	1980 Annual
Northern Hemisphere Maps	June 1971
River Forecasts	1980
Coop News	Winter 1980-81
Storm Data	June 1981

AMERICAN ASSOCIATION OF STATE CLIMATOLOGISTS

The American Association of State Climatologists is composed of state climatologists (one per state) and associate members who are persons interested in the goals and activities of the Association. State Climatologists are individuals who have been identified by a state entity as the state's climatologist and who are also recognized by the Director of the National Climatic Center of NOAA as the state climatologist of a particular state. State Climatologists (SC) currently exist in 42 states, and they typically are either employees of state agencies or are staff members of state-supported universities. Figure 1 indicates the states and the current state climatologist in each.

The major activity of these non-federal state climatologist programs involves services involving the provision of climate data and information to a variety of in-state users. In certain states it also includes the performance of research, typically dealing with applied climatology and the impacts of climate on various activities. A third major activity performed by many SC's is one of data collection and management. Copies of all in-state records are maintained in written and often in computer formats, along with all relevant state climate type publications printed by the Environmental Data and Information Service (EDIS). In certain circumstances, state climatologists serve as a clearinghouse and/or source of climate data derived from state weather networks. A fourth SC activity concerns acting as a state's focal point for climate data and services for interactions with the federal government (principally EDIS), and other states. EDIS actively supports state climatologists with data, publications, and computer assistance at the National Climatic Center.

The Association is a non-profit organization with three objectives:

- to promote cooperation between state climatologists and governmental and private agencies whose functions include collection, analysis, and dissemination of climatic information;
- to facilitate exchange of information among the state climatologists; and
- to provide mutual assistance in the development of effective state climatologist programs throughout the nation.

Background

The initial program of "state climatologists" was established in the mid-1950's as a new effort of the U. S. Weather Bureau. Dr. Helmut Landsberg, then Head of the Climatology Program of the Weather Bureau, created the program. It led to the establishment of a climatologist in each state, typically located at a major state university. The mission was to serve in a climate data and information role within the state. The state climatologist was a federal employee who typically developed a variety of modes of operation, often closely interacting with university scientists. Unfortunately, programs in most states were insufficiently supported to allow development of a major service-oriented effort.

In 1973, NOAA chose to dissolve the state climatologist program as a part of a NWS program revision (Hull, 1974). The disappearance of this small but valuable in-state data management and service activity left a serious gap in the chain which made climatic data available to many users.

The disappearance of the federal program led several states to initiate similar activites. The state-supported climatological activities were encouraged by the Environmental Data Service (now EDIS) of NOAA who developed arrangements to assist and cooperate with the new state-supported climatologists. Copies of NOAA data and publications were provided at no cost, and varying degrees of cooperation were developed, depending upon the state effort. In a few states, persons who had served as federally employed state climatologists actually resigned as NOAA employees and became state employees.

By 1974, there were 32 states supporting a state climatologist. There was a growing awareness within EDS (now EDIS) that it was beneficial to have state climatologists as a vital link in a national data and information dissemination program. The NCC sponsored informational meetings in Asheville, NC in 1975 and 1976 for these state-supported climatologists, and EDS initiated a quarterly publication to aid the communication between SC's and between SC's and EDS.

At the 1976 meeting in Asheville, the concept of the AASC was developed. The 16 state climatologists at the meeting recognized that a scientific association would provide a more structured mechanism for interaction between state climatologists. Arlo Richardson, State Climatologist of Utah, was selected as president for 1976 - 1977.

The second annual meeting of the Association was also convened in Asheville in October 1977 and a Constitution and By-Laws were established. Mr. Paul Waite of Iowa became the second president of the Association for 1977 - 1978. The third annual meeting (October 1978) was at College Park, Maryland. Robert W. Durrenberger of Arizona was elected as president for 1978 - 1979, and Howard J. Critchfield of Washington became president in January 1979 when Durrenberger resigned as the Arizona State Climatologist. Thomas B. McKee of Colorado was elected president for 1979 - 1980 at the annual meeting in Asheville (October 1979). Stanley A. Changnon of Illinois was elected president at the 1980 annual meeting in Milwaukee (August 1980).

In the first four years of its existence, the Association has conducted annual meetings, appointed committees, and urged the enlargement of the state climatologist programs and a stronger Intergovernmental Climate Program, as proposed in the National Climate Program Act of 1978. Association members have served on advisory committees and panels of the Climate Board of the National Academy of Sciences and of the National Climate Program Office.

Membership

There are two classes of members in the AASC. The voting members include the official state climatologist of each state. Associate members are those nominated by one or more voting members and elected by a majority of the voting members. The current voting membership of the Association is 42 (all state climatologists), and there are 18 associate members.

The officers of the Association for the 1980 - 1981 period include Stanley A. Changnon of Illinois as President, Dr. Bernard Dethier of New York (Cornell University) as President-Elect, and Professor Glen Connors of Western Kentucky University as Secretary-Treasurer. Currently, the Association has six committees. These committees and their chairmen for 1980 - 1981 include Nominating (Howard Critchfield, Washington), State Climate Programs (Dean Bark, Kansas), Constitution and By-laws (Pat Michaels, Virginia), Relations with EDIS and NWS (Larry Schaal, Indiana), Computer Usage (Myron Molnau, Montana), and Severe Storms Information (Paul Waite, Iowa).

Current Activities

A principal AASC activity involves efforts to obtain a fully implemented Intergovernmental Climate Program (ICP), considered to be an integral part of a well functioning National Climate Program. The transfer of climate data and information, coupled with applied climate impact studies, are seen as key functions of a meaningful national climate effort. These are the types of activities in which state climatologists have experience and deep interest. The AASC in 1979 took a position of supporting a phased development of the ICP, but AASC is now deeply concerned by the low level of funding to date and by the lack of a definitive implementation plan within the newly adopted National Climate Program 5-year Plan (NCPO, 1980).

A second ongoing activity relates to the lack of state climatologist programs in the eight states. Officers of the AASC are currently contacting and working with representatives in several states to provide information about the benefits and the dimensions of a state-supported climatologist program. The National Climate Program Office has helped fund a program for the state climatologist effort in Connecticut.

A third activity relates to an assessment of the publications of the 42 existing state climatologists. Many state climatologists routinely issue monthly and annual weather-climate summaries for their states, typically shaped to address the specific in-state needs for climate information. Such an assessment will be available to those desiring copies.

A fourth ongoing activity involves work with Environmental Data and Information Service to assist in their publication, Storm Data. This valuable publication could be potentially improved with the stronger involvement of the state climatologists in gathering data on severe weather events and climate aberrations. A committee of AASC is working on this problem.

A fifth activity of great importance to the AASC relates to computer systems and software development. The potential of computer systems and interactive terminals for data communication between (a) state climatologists, (b) state climatologists and their frequent users, and (c) between state climatologists and the major data archives of NCC in Asheville, NC is seen as a high priority by state climatologists. Amos Eddy, State Climatologist of Oklahoma, provided a major display of various computer systems at the AASC meeting in Milwaukee during August 1980. The AASC seeks standardization in communicative computer systems and related software so as to evolve an optimal system in the future. EDIS has been funding some demonstration work in this area.

Association Information

Those who wish further information about the Association should contact the President. The 1980 - 1981 address is Box 5050, Station A, Champaign, Illinois 61820. Information on the membership and the publications of state climatologists can be obtained. The Association also maintains a file on state climate programs throughout the nation. The next annual meeting of the Association will be held in August 1981 at Fort Collins, Colorado.

References

Hull, A. R., 1974: Status of State Climatological Series. Bull. Amer. Meteor. Soc., 55, 20-21.

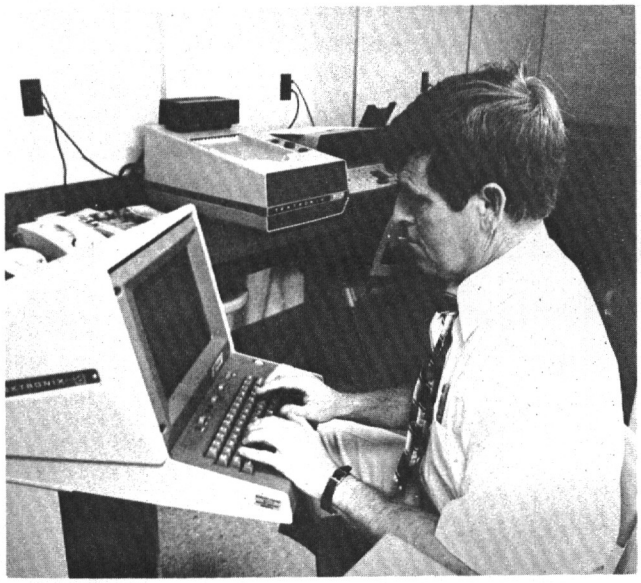
National Climate Program Office, 1980: National Climate Program Five-Year Plan. NOAA, Washington, DC.


Howard J. Critchfield
Allan H. Murphy
Myron Molnau
Joseph M. Caprio
John W. Enz
Earl L. Kuehnast
William Lytle
Val L. Mitchell
Fred V. Nurnberger
B. E. Dethier
Gerard Pregent
R. E. Lautzenheiser
David R. Miller
A. V. Havens
John R. Mather
W. J. Moyer
John N. Rayner
Lawrence A. Schaal
Richard O. Gifford
N. J. Rosenberg
Paul Waite
Arlo Richardson
James Goodridge
Thomas McKee
L. Dean Bark
Stanley A. Changnon
Wayne L. Decker
Glen Conner
Pat Michales
Jerry M. Davis
Anthony J. Brazel
William P. Stephens
Amos Eddy
John Hehr
Mark W. Perry
Gayther L. Plummer
Eugene A. Carter
John F. Griffiths
Robert A. Muller
Clark I. Cross
ALASKA
Jim Wise
HAWAII
Saul Price
STATES THAT HAVE A SC PROGRAM
SC LOCATIONS

FIGURE 1.

THE KENTUCKY CLIMATE CENTER

The Kentucky Climate Center resulted from a 1978 agreement among Western Kentucky University, the National Climatic Center, and the National Weather Service which designated the State Climatologist for Kentucky. The purpose of the Kentucky Climate Center is to maintain Kentucky climate records and, upon request, to provide data and information from those records to the public.



CLIMATE EXTREMES FOR KENTUCKY:

Highest temperature, 114F, was at Greensburg, Green County, on July 28, 1930.

Bonnieville in Hart County had -34F on January 24, 1963 and Cynthiana tied that mark on January 28 of that year.

Some of the heaviest rains fell in Hopkins County in January 1937. Earlington recorded 22.97 inches that month; 13.99 inches of which fell in just four days.

Steady winds in excess of 60 m.p.h. have been recorded over the entire state. Instantaneous gusts to 92 m.p.h. have been observed.

Facilities

The Kentucky Climate Center is a function of the Department of Geography and Geology, and is located in the Environmental Science and Technology Building in the Ogden College of Science and Technology complex. The Center uses a PDP-11 computer, a Tektronics 4010 graphics terminal, a Hewlitt-Packard 9815A plotter, a Bruning 4020 fiche reader, an Alden 9271H Facsimile printer, an Alden 9290 Remote Radar Recorder, and a weather teletypewriter. These resources provide the capability for responding to the public with a usable product.

Climatological Data

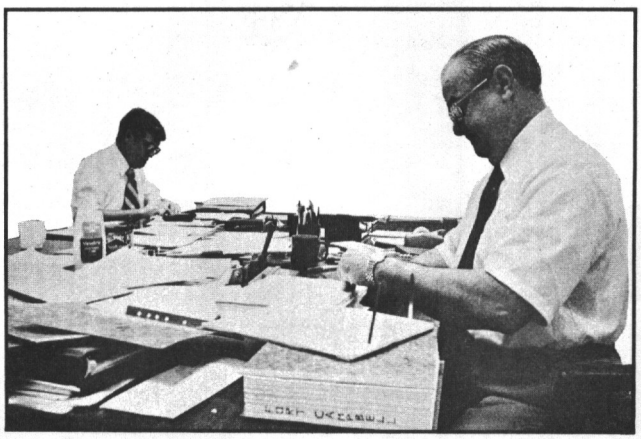
The Kentucky Climate Center has the climate records of Kentucky on file from beginning of record through the most recent month. These records exist for 226 different locations in Kentucky and vary in length from a few years to eighty years or more. More than 50,000 pages of climate data are on file. The records contain temperature, precipitation, and other climatic elements. Most records are daily entries but hourly data are available for some locations. All data are available on magnetic tape and microfiche and are readily retrievable.

Climatological Information

Much of Kentucky's climate data have been summarized, compiled, or analyzed. As a result, summaries are available for several cities within the Commonwealth. Special tabulations exist on a variety of climate elements and several studies have been made on aspects of Kentucky climate. Comparative data with cities in other parts of the United States are available. Summaries of tornado, severe storm, and heating degree days are some of the many types of information that are on file.

Uses of Climate Data

Climatological data and information are useful in many ways. The general usage is in planning of some type. The construction industry is concerned with the minimum temperatures, the farmer with growing season length, the business man with snowfall, the utility company with storm data, the disaster preparedness planner with floods and tornadoes, the energy planner with heating degree days, the tourism industry with hours of sunshine; each user has a different need based on a specific problem which he faces. When a problem is suspected to involve climate, consultation with the Kentucky Climate Center may offer the key to the solution.



Using the Kentucky Climate Center

If you have a problem which you believe may be climate induced or related, call or write the Kentucky Climate Center. The State Climatologist will describe the data or information most applicable to your need. He will advise you of its availability and the time required to provide it to you. Most requests for specific data can be fulfilled by telephone. Phone (502) 745-4555, or write to the Kentucky Climate Center, Department of Geography and Geology, Western Kentucky University, Bowling Green, Kentucky 42101.

OUR DEDICATED WEATHERMEN

E. Arlo Richardson
Utah Department of Agriculture
State Climatologist

As you look at the weather report in your local paper or observe the weather information reported on your favorite television station and note the many areas from which the weather reports originate and who supplies the information we fail to realize that input comes from a wide variety of people. Every day for example in the "The Herald Journal" are reports from 12 to 15 areas in Cache Valley. In the Salt Lake City papers similar information is found for various locations in the Salt Lake Valley and along the Wasatch Front. There are actually over 14,000 men and women in the United States who take routine weather observations for their community with no pay except the appreciation of those who utilize the information. Most of the weather reports in the paper are there through the efforts of dedicated volunteer men and women who tirelessly, day after day, week after week, month after month and year after year record this weather information for the benefit of their neighbors, friends and fellow countrymen. Almost none of these observers ever receive a single penny of remuneration. At Heber City, Utah, for example, the same family has recorded the weather since their great grandfather first moved into the valley in 1859 with very few periods of missing record. In Fillmore, a father and son team maintained the weather station for over 80 years and even published a summary of the weather conditions in their community at their own expense. Another father and son team in Manti have maintained the weather observational program in their community office since June 1908.

Many weather observations have been taken at the risk of life and limb. I can recall visiting our weather observer at Woodruff, Utah after his community, along with several others, had been isolated for several days by one of the worst blizzards to ever hit northern Utah. I found the fences completely covered with snow. The snow had been packed so hard that the cattle in the fields had walked directly out of the fields on the snow across the fences which were completely hidden. Tractors, out buildings, pigpens, garages and sheds were completely buried; yet not a single weather observation was missing. Our weather observer had strung a rope from his back door to the weather station; and during the height of the blizzard when the winds were blowing 60 miles an hour and the visibility was so poor that you could not even see your hand in front of your face, he had braved wind-chill temperatures colder than 60 degrees below zero to complete his weather observations. Without the rope he could have been lost in the storm and perished.

Another weather observer in Nevada also worked for the highway department. This observer was trying to maintain open highways up the eastern slopes of the Sierra Nevada mountains in a storm which deposited over nine inches of moisture in 24 hours. The snow was accumulating so rapidly that the precipitation gage was filled with snow in just a few hours. This observer routed his plowing of the highway so that he could return to the weather station every two hours to empty the snow from the gage into a dish pan to melt. The melted snow was then accumulated to determine the total water content from the storm which was a new record 24 hour precipitation total for the state of Nevada.

It is the efforts of such men and women as those described which enable us to supply the information which is requested so many times by so many of our users. These men and women supply the information which supports requests for settling insurance claims, accidents, design of homes and business buildings, planning of vacations, moves, business ventures and the multitude of other applications of weather information which control our activities.

THE WEATHER OBSERVER IN YOUR COMMUNITY

The phenomenon known as the Cooperative Observer Program of the NOAA - National Weather Service never ceases to amaze meteorologists, hydrologists and climatologists. The program and its success have, on occasion, aroused the envy of other countries. All too often, those of us working with the program routinely are lulled into complacency, as, year after year, valuable data from 12,000 to 13,000 observers flows into the National Climatic Center. Every once in a while, though, the full significance of the contribution of cooperative observers to NOAA and, in turn, the national economy penetrates the vail of daily routine and one ponders "why" the program works. The following is one such reflection from a National Weather Service State Climatologist in Idaho.

Why? 1. Why do we have a program of climatological observations?

2. Why do thousands of people in the United States serve as cooperative observers?

3. Why is it important the observations be accurate and that they be recorded accurately?

Here's Why!

1. Without such observations at thousands of places we could not begin to know the details of the climate of the United States. Buildings would be designed by guesswork and might fall far short of the needed protection against the elements. Highways might be built on too shallow a base to withstand extreme temperatures, alternate periods of freezing and thawing, and the ravages of heavy runoff. Crops might be planted in areas of unsuitable climate - too short a growing season, too much or too little rain, etc. Dams might be built that would not be large enough to hold back an extreme flood or they might be too big and the cost would be excessive. Years of records from cooperative observers provide information on which to plan.

2. A group of observers would undoubtedly respond with many answers. For some, the motive is simply a real interest in weather and its vagaries. Others accept the responsibility as a civic duty. A few, at points where observations are entrusted to an institution or an organization, would probably say "I do it because the boss says so". The best observers are those who realize the importance of the program and conscientiously and carefully observe, read, measure, and record the data whether the boss says so or not. (Incidentally, if the boss says so, you can bet he is convinced of the importance of the records.) As in all human endeavors, self discipline is the key to good performance.

3. Accuracy is of prime importance because nearly all of our knowledge of climate is based on the records of cooperative climatological observers. If we are ever to learn anything about climatic changes through long periods of time, we must have consistently good records, not just for a month, not just for a year, but for decades, or maybe centuries.

So take a new look at the weather observer for your community. Your weather records are important; they are not just a set of figures mailed to a National Weather Service Office to satisfy the whims or the curiosity of people employed by that agency. Your records are public property, used currently, used time and time again through the next few months or years, and reused countless times many years after the observations are made and recorded. Your records are a permanent part of the archives of the nation.

THE COOPERATIVE WEATHER OBSERVER

Cooperative weather observers are selected to take observations at predetermined locations in order to define the climate of an area. While cooperative observers may take several different kinds of observations, they usually make daily readings of maximum and minimum temperatures and precipitation.

Observers are usually selected from permanent residents in a community who have an interest in observing weather, so that a long record can be assured. Observations must be taken seven days a week throughout the year. The value of data is enhanced to a great extent by the records extending over a number of years. Most cooperative observers have served from 25 to 50 years.

A cooperative station represents an area of approximately 600 square miles. This distribution of stations varies somewhat in accordance with the topographic features of the country.

Where a cooperative station is needed, the Weather Service provides the shelter, thermometers, and rain gage. The observer takes one observation daily, preferably near sunset, and records the data on forms provided for this purpose. These records are forwarded to a processing center at the end of each month where the data are verified and published in a Climatological Data bulletin for each state or area.

This network of cooperative stations has become rather stable in recent years and practically no new installations are being made at the present time.

While the age has not been stressed, observers must be able to assume the responsibility of recording official observations.

THE GARDENING JOURNAL

by
E. Arlo Richardson
Utah Department of Agriculture
State Climatologist

One of the most vital activities of the home gardener is record keeping. Such records cover a wide range of entries.

One portion of the gardening journal should record the results of the microclimate survey. This portion of the journal should record in both words and drawings sufficient information about the home microclimate to enable the gardener to review the information each year as he plans his plantings and have a clear picture of his gardening area. In selecting sites for each species being planted the environmental needs of each species must be considered if optimum production of each plant is to be obtained.

This section should be reviewed annually to make certain that new construction and the growth of older plants and shrubs have not modified the garden center sufficiently to modify appreciably the microclimate of any area. If any modifications have taken place, notes to that effect should be entered.

This requirement for additional entries indicates the need for dividing the journal into sections and leaving enough space in between for additional entries each year as required. The amount of space required for each subdivision will be difficult to determine; but as experience is gained in gardening-record keeping, space requirements will become evident.

A second subdivision in the gardening journal should contain a planting diagram of all perennial plants such as bulbs and flowers that will be coming up again each year. There is nothing more disturbing than to find that new bulb plantings have been made on top of old plantings or that spring annuals have been planted in the same area as last fall's new bulb or annual plantings. This record usually does not require as much space for additions as later divisions, but there will be requirements for additional information each time new plantings are made.

Included in this gardening inventory may be ideas regarding the strong points of the current plantings along with the areas which one may wish to change at the approriate season. These proposed changes will undoubtedly be related to the results of the microclimate survey. In the survey the gardener may have observed that a row of lilacs, for example, is shading too much of the area where a planting requiring full sun is to be made. A note to prune the lilac bushes during the coming spring or possibly even remove them will remind the gardener of the problem when he begins planning spring plantings. Another important thing to note in this area is the response of plants to the microclimate of each particular area. For several years I tried to grow Euonymus along the walk in my front yeard in North Logan. My home faces north and each winter the ground freezes several inches to a foot deep before the snowfall covers the area. As the snow melts in the spring under the influence of warming temperatures, these same warm temperatures tell the Euonymus plants that they should begin to grow. At the same time the soil is frozen and the roots are unable to supply needed moisutre and nutrients to the plants. The end result is that all of the shrubs above the level of the snow became desiccated and the leaves fall off and the upper portions of the shrub are killed. After five years we finally gave up.

A third section of the journal should include some pictures of the garden area. Pictures which show the strong points and the weak points are very important. In addition, these same pictures help the gardener to revise his plans for the coming spring's activities besides giving a lot of joy and pleasure as fond memories are refreshed during the cold, foggy, snowy (you name it) winter season.

Another important section in the journal is a listing of the plants and seeds purchased each year and where they were purchased. This listing should also include the varieties which were purchased along with notes on the production of each species. Such a record will give the gardener the desired information on which varieties do best in what areas of the garden when he combines this information with his species evaluation section. This may be part of a daily activities section or log or may be part of a record of the individual species responses which can be part of another separate section in the garden journal.

Weather information combined with such items as planting dates of each species, maturity dates each season, soil temperatures, dates and amounts of irrigation applied, temperatures and rainfall amounts are all important current environmental factors which should be recorded in some portion of the journal. The journal can be as complete as one desires or if you are not that interested, minimal records only can be retained.

Regardless of the amount of journal entires made, the successful gardener will have some form of record similar to the one we have just described. RECORDS IN GARDENING ARE THE MOST IMPORTANT PART OF ANY GARDENING PROGRAM.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Washington, D.C. 20230
OFFICE OF THE ADMINISTRATOR

UNIVERSITY AFFAIRS LETTER

Washington, D.C., February 1981

Dear Colleague,

*Two of the top leaders. . .have left NOAA. . .*Administrator Richard A. Frank and Associate Administrator Dr. George S. Benton. Mr. Frank has taken a position with a law firm, while Dr. Benton has returned to his professorship in Earth and Planetary Sciences at Johns Hopkins University. NOAA's Office of University Affairs was established during Mr. Frank's administration, with Dr. Benton providing major initiative, backing and steady support.

*Current year funds. . .of about $2.million. . .*are available to support university R&D from NOAA's Office of Marine Pollution Assessment (OMPA). Deadline date for proposals is March 31, 1981. OMPA is responsible for assessing the short term and long term pollution resulting from the use of the marine environment. It's a big and complex task that includes fates and effects of: synthetic organics, petroleum products, municipal sewage; the development of risk analysis methods, etc.

. . .A guidance package for applications is available from Robert Burns, Office of Marine Pollution Assessment, NOAA, Bldg. 264, 7600 Sand Point Way, NE, Seattle, Washington 98115, (206) 525-0651.

*Ocean services through the 80's. . .*is a theme of the new report by the National Advisory Committee on Oceans and Atmosphere (NACOA) -- a Presidential advisory body. Presented is NACOA's view of national goals and objectives for services to support ocean operations in the coming decade. It's a report worth reviewing. Ocean science is a research area worth watching as it is likely to receive increased funding from NOAA for the support of university R&D, beginning next fiscal year.

. . .A copy of the report is available through Steven N. Anastasian, Executive Director of NACOA, c/o NOAA, Department of Commerce, Washington, DC 20230.

*Not much can be pinpointed. . .for university R&D support. . .*in the FY '81 NOAA budget at this time. The new administration is making an intensive examination of each Federal agency budget for FY '81, '82 and '83. Congress will make final determinations on the current budget, hopefully within the next month. The outlook suggests 3 lean budget years.

*Many people have asked. . .*what is an IPA term appointment? The attached IPA Fact Sheet is an attempt to provide a helpful answer.

10TH ANNIVERSARY 1970-1980
National Oceanic and Atmospheric Administration
A young agency with an historic
tradition of service to the Nation

*Almost everyone knows. . .what R&D grants and contracts are. . .*but what are R&D cooperative agreements? In early 1978, Public Law (P.L.) 95-224 became effective. The law's objective is to distinguish Federal grant and cooperative agreement relationships from Federal contract procurement.

*The cooperative agreement. . .*is a legal instrument, similar to a grant, for the award of Federal dollars. It has not received adequate study and use by either the university community faculty and research administrators or by the Federal Government program scientists and grants officers. Yet I believe it is the award instrument of the future for mission agencies like NOAA.

*A successful mission agency. . .*should seek ways to enhance cooperative research with universities. . .and this is NOAA policy.

*In P.L. 95-224. . .the Federal Government and Cooperative Act of 1977 . . .*The following statement of purpose and definitions are found:

Purpose: To distinguish Federal grant and cooperative agreement relationships from contract procurement.

(Sec. 4) A contract shall be used whenever the principal purpose is the acquisition of the services for direct benefit of the Federal Government.

A grant shall be used whenever the principal purpose is for the recipient to accomplish a public purpose authorized by statute, and where no substantial involvement is anticipated between the Federal Government and the recipient during the course of the contemplated activity.

A cooperative agreement shall be used whenever the principal purpose is for the recipient to accomplish a public purpose authorized by statute, and where substantial involvement is anticipated between the Federal Government and the recipient during the course of the contemplated activity.

*The longer term prospects. . .for increased NOAA support of university R&D. . .*will hold strong even with a few lean years in immediate prospect. The emphasis will be on cooperative research, with responsibility for the course of the research shared by university and NOAA scientists. Shared responsibility translates into substantial involvement of NOAA scientists; therefore, I foresee the increased use of the cooperative agreement award in the years ahead.

Sincerely yours,

Earl G. Droessler
Director of University Affairs

Attachment

The NOAA Story

10TH ANNIVERSARY 1970-1980

National Oceanic and Atmospheric Administration

A young agency with an historic tradition of service to the Nation

The National Oceanic and Atmospheric Administration (NOAA) is a young agency with an historic tradition of service to the Nation. Established only a decade ago as a self-contained agency under the Department of Commerce, it is made up of some of the oldest components in the government. NOAA's National Ocean Survey can trace its origins to the Survey of the Coast organized in 1807, while the National Marine Fisheries Service was formed as the Office of the Commissioner of Fish and Fisheries in 1871.

Today, under Richard A. Frank, an Administrator appointed by the President, there are more than 13,000 NOAA employees -- 27 percent of the Department of Commerce workforce -- whose activities account for an annual budget of approximately $800 million. NOAA personnel are stationed around the globe in laboratories, ships, planes, offices, underwater habitats, and hundreds of weather stations.

NOAA operates a vast array of equipment -- as complex as earth-orbiting satellite systems, ocean-going research vessels, atmospheric research aircraft, and some of the world's largest computers -- and as simple as tide and river gauges and weather balloons.

Activities are organized into five major areas -- Fisheries, Oceanic and Atmospheric Services, Satellite Services, Coastal Zone Management, and Research and Development. Program functions are supported by many staff offices.

* NOAA's Office of Fisheries (National Marine Fisheries Service) manages and conserves the fishery resources within 200 miles of the U.S. coast; protects vital habitats and whales and other marine mammals; oversees programs to assist the U.S. fishing industry; and conducts research.

* NOAA's Office of Oceanic and Atmospheric Services (National Weather Service, National Ocean Survey, Environmental Data and Information Service) reports and forecasts the weather; provides warnings of hurricanes, tornadoes, and other severe weather phenomena; manages the country's Federal oceanographic fleet; prepares nautical and aeronautical charts and other navigational aids; and operates the largest environmental data storage and retrieval system in the world.

* NOAA's Office of Earth Satellite Services (National Earth Satellite Service) manages the Nation's civil operational land remote sensing satellite systems; and jointly with NASA and the Department of Defense is developing an ocean remote sensing demonstration program. (Organizational change pending final approval)

* NOAA's Office of Coastal Zone Management establishes our country's policies for coastal areas. It provides funds to states to develop and carry out programs to manage their coastal resources, to protect natural areas of wetlands and beaches, and to preserve unique estuarine and coastal areas through its sanctuaries program.

* NOAA's Office of Research and Development (Environmental Research Laboratories, Office of Marine Pollution Assessment, Sea Grant, Ocean Engineering) conducts research programs through NOAA laboratories around the country and through cooperative arrangements with universities in the Sea Grant program. In a number of important areas, such as ocean pollution, climate, and weather modification, NOAA is charged with providing leadership and direction for large multi-agency research efforts.

Legislation enacted in 1980 gives NOAA, through its Office of Ocean Minerals and Energy, responsibility for development, regulation, and research on the Nation's new programs in marine mining of deepsea nodules and ocean thermal energy conversion.

NOAA plays an international role by negotiating, and then participating in, a wide variety of international living marine agreements. These protect the great whales and the North Pacific fur seals, manage such fish stocks as salmon and tuna, and conserve Antarctic living marine resources. The agency conducts research under the auspices of the World Meteorological Organization and the Intergovernmental Oceanographic Commission, and is involved with the multi-national Global Atmospheric Research Program -- the largest program of its kind -- and negotiations for a Law of the Sea Treaty.

The agency operates the NOAA Corps -- 400 officer-scientists -- which makes up the Nation's seventh uniformed branch of service. These men and women work in every environmental discipline, including oceanography, meteorology, biology, and physics. In addition to working in laboratories and offices, they serve on shipboard, and also fly NOAA's research aircraft and helicopters.

The role of NOAA in government is to explore, develop, and protect the earth's resources. It also serves as an interpreter of these functions for the public through films, publications, and other educational activities.

For additional information about NOAA, write:

Office of Public Affairs
National Oceanic and Atmospheric Administration
Rockville, MD 20852

9/80

USCOMM - NOAA - ASHEVILLE, N.C. - 4/81/350