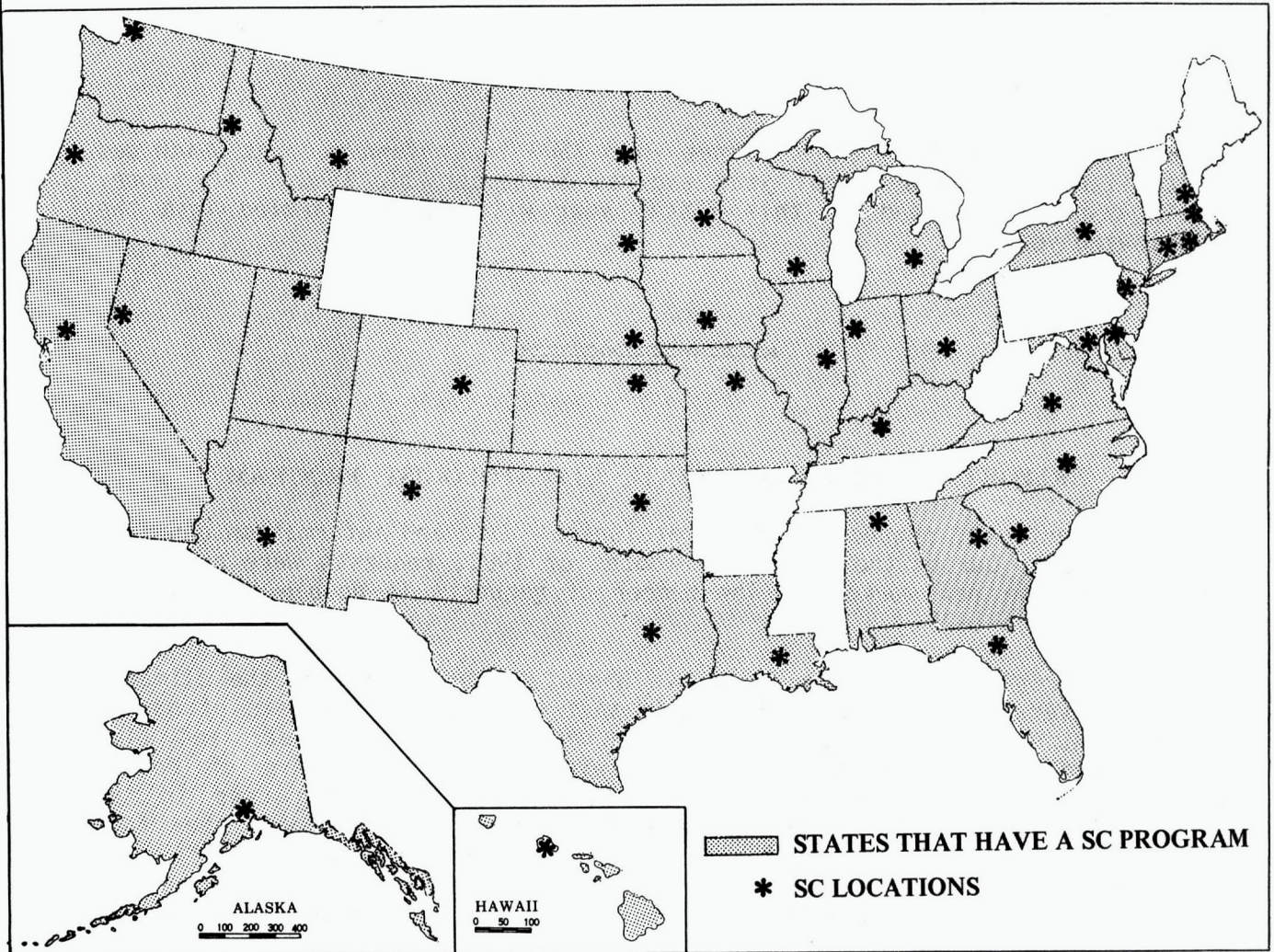


National Oceanic and Atmospheric Administration  
Environmental Data and Information Service  
National Climatic Center

# NEWS LETTER

IN COOPERATION WITH  
THE AMERICAN ASSOCIATION OF STATE CLIMATOLOGISTS



VOLUME 4 NUMBER 2 JUNE 1980

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

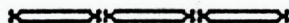
## NCC BRIEFS

The National Climatic Center's (NCC's) Statistical Climatology Branch has developed a magnetic tape containing lightning statistics for the period 1959 - 1979. The tape contains the date/time (year, month, day and hour), location (state and county), number of fatalities, number of injuries and the estimated amount of property damage for each lightning associated report appearing in the NCC's STORM DATA publications. The information contained on this tape is used to develop the tables appearing in the "General Summary of Lightning" that appears in the annual publication of CLIMATOLOGICAL DATA, NATIONAL SUMMARY. There are approximately 14,000 individual reports for the 21-year period.

Contact Mr. Henry Vigansky at 704-258-2850, extension 319 for additional information.

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State Climatologists - Don't forget your \$500 trust fund account which was established for this fiscal year expires September 30, 1980. Any money left over at the end of this fiscal year will not be carried into the following year.



### REPORT ON KENTUCKY STATE CLIMATOLOGIST PROGRAM

In Kentucky, requests for climatological data and information continue to increase. During the first four months of 1980, requests were averaging more than one per workday. The number of requests is double that of the same period in 1979.

Research is continuing to derive useful information from the climatic data. Several efforts are underway in that regard. An analysis of hourly precipitation data is being undertaken to discern its areal and time distribution. Thirty stations, each with twenty-five years of hourly records and distributed across the Commonwealth are being used in the study. The intent is to compare the distribution among the four climatological divisions during the months of January, April, July, and October. These months were chosen as representative of the seasons in Kentucky. Data collection is completed and the analysis has begun. Results are expected by mid-summer.

Additionally, research has begun using the water budget. Initial work on computer programs which will make the water budget calculations is nearing completion. The intent is to investigate the use of the water budget information in karst areas of Kentucky where primary drainage is underground and where surface runoff is virtually non-existent.

One major achievement of this year, has been the development of a computer mapping program for Kentucky which allows data to be mapped for about ninety stations. Using the SYMAP program to produce contour maps, the presentation of climatological data is now accomplished more rapidly and in a better reproducible form.

\* \* \* \* \*

### REPORT ON LOUISIANA STATE CLIMATOLOGIST PROGRAM

Dr. Robert A. Muller, the State Climatologist for Louisiana, and the Chairman of the Department of Geography and Anthropology at L. S. U., has entered into a cooperative agreement with the Louisiana Department of Natural Resources for selected climatic studies, climatic information services, and a monthly climatic newsletter. At this time the agreement is on a year to year basis, but the hope is to develop the program as a line item within the L. S. U. budget. Mr. Charles Chimento, formerly with the NWS at New Orleans, Jackson, Mississippi, Athens, Georgia, and Fairbanks, has joined the program as a research associate. It is likely that emphasis will be placed on studies of moisture conditions, including both excessive rains and droughts, synoptic climatology, and air and water quality.

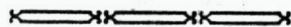
\* \* \* \* \*

The following was taken from the Iowa Department of Agriculture News Release, February 27, 1980.

"The Iowa Department of Agriculture has expanded its soil temperature analysis service, Iowa Agriculture Robert H. Lounsbery said today, and is now monitoring soil frost depths at seven locations in Iowa.

'Knowing when soils thaw out is an important factor in calculating the run off from melting snow and spring rains. Iowa soils normally thaw out during mid and late March or in northernmost counties in early April. Keeping data on rising soil temperatures provides valuable information for setting early garden and crop planting schedules. For example, wheat and grass development begins when top soils are warmed to 40°F, Irish potato development begins at 45°F, corn and sorghum will grow after soils reach 55°F and tender vegetables grow at 65°F,' Lounsberry said.

"The Iowa program is directed by Paul Waite, State Climatologist with the Iowa Department of Agriculture in cooperation with the National Weather Service. Volunteer observers who collect data include radio station personnel at KILR, Estherville, KBUR at Burlington and KOEL at Oelwein. Also, Iowa State University Farm Managers, Ray Nicholson at Ames and Wayne Fruehling at Castana, and the National Weather Service personnel at Dubuque and Earl May Seed personnel at Shenandoah. The information will be made available through regular weather reports from the Iowa Crop and Livestock Reporting Service."



## SEX IN THE GARDEN

by

E. Arlo Richardson

Utah Department of  
Agriculture Climatologist

"From as far back as I can remember I have heard the stories about the birds and the bees relating to an understanding of reproductive activities. With the current emphasis on human and animal procreation we often overlook the fact that plants have similar requirements. Reproduction in plants, however, is much more closely related to environmental weather conditions than man and animals.

"There are two ways in which flowering plants reproduce, sexually and asexually. Sexual plants require mates to reproduce while asexual plants are incapable of producing viable seeds. With both types of reproduction environmental weather conditions are very important, either directly or indirectly.

"Some plants have both male and female organs on the same plant while others have the male organs on one plant and the female on another. Regardless of which situation exists, pollen must be transferred from the male to the female organs in order for reproduction to take place. This transfer is most frequently handled by insects such as bees and butterflies. If weather conditions are poor, that is, if it is cloudy, stormy or if strong winds are blowing the insects will not be active and the flowers which are open during this period will not be pollinated. This situation frequently occurs during the spring with fruit trees and berries in the garden. Cherry trees, for example, usually bloom for only a very short time and if weather conditions are poor at that time then the fruit crop will be very small. The problem is a little less critical with berries which bloom over a long period of time since later blooms will be pollinated if the weather conditions are too poor for the first ones.

"A different form of weather impact on pollination is related to the pollination of corn. The winds are important in this case. The pollen from the tassels must reach the silk on the ears if seed reproduction is to occur. A little wind to move the pollen is quite important in the case of corn. Some gardeners plant corn in a single row along the edge of their

garden in which case it is difficult for adequate pollen to reach all of the silking ears. Corn does much better when planted in patches to allow a more concentrated distribution of the pollen.

"Pollination to tomatoes is related in a different manner to the weather. Most of the tomato plants require nighttime temperatures between 55 and 65 degrees for the pollen to be effective. If the temperatures are not in this range when the blooms are open the fruit will not develop and the bloom will merely fall off. In the case of the tomato the male and female parts of the plant are in the same bloom and the transfer takes place either by mechanical shaking of the wind or by the activity of insects.

"Another pollination problem which frequently occurs with fruit trees, is the time of bloom of the opposite sexes. Many apples, pears and most cherries, for example, require pollen from a different variety of the same specie in order for the blooms to be pollinated. Under normal Utah conditions, Yellow Delicious apples are frequently used as a pollinator for Red Delicious apples. Under more marginal weather conditions, the Yellow Delicious may not bloom at the same time as the Red Delicious apples and thus pollination cannot take place. In areas of New Mexico this is often the case and another variety of apples is frequently grown to pollinate the Red Delicious.

~~"Weather conditions are also important to the reproduction of asexual plants. If we take a cutting from a plant and try to get it to grow we must make certain that the soil temperature and moisture are adequate for roots to form. A temperature of the soil on the order of 75 degrees is optimum for most asexual plants to develop. If the soil gets too dry the process will not take place and the cutting will die. Thus weather is an important aspect of sex in the garden in more ways than one."~~



## THE REFERENCE CLIMATOLOGICAL STATION (RCS) PROGRAM

### How Did It Start?

The RCS Program was proposed by the NWS in 1954 but remained in a study stage for some years. In 1965-1966 it picked up momentum. Joint meetings between EDIS climatological and NWS operational personnel were held and implementation of the program was actively started. Dr. M. Mitchell was appointed project leader. A network of 25 sites was chosen with a final goal of 50 stations. Subsequently, 14 stations were commissioned and others tentatively selected for activation. However, from 1969 to 1973 the program stayed in a quasi-dormant stage. In 1973, with the close out of the State Climatologist Program, the files pertaining to

the project were transferred from the Division of Climatology (NWS) to the Special Project Office (EDIS). An EDIS decision followed, to proceed with the fulfillment of the program to meet its goal, albeit on a reduced scale. Since then, seven (7) additional stations have been added to the network (see attachment.)

#### What Is It?

The program consists of a network of climatological stations which is required to serve as "anchor points" to stabilize the present network of ordinary and principal climatological stations.

#### Why an RCS Program?

The need exists to gather records which will show whether there are climatic trends which can be identified. Our present network of ordinary and principal climatological stations is influenced by our dynamic, technological and moving society and suffers from frequent changes of location; environment (natural and man-made), and exposure. Consequently climatic series are interrupted and continuity can only be approximated by statistical techniques.

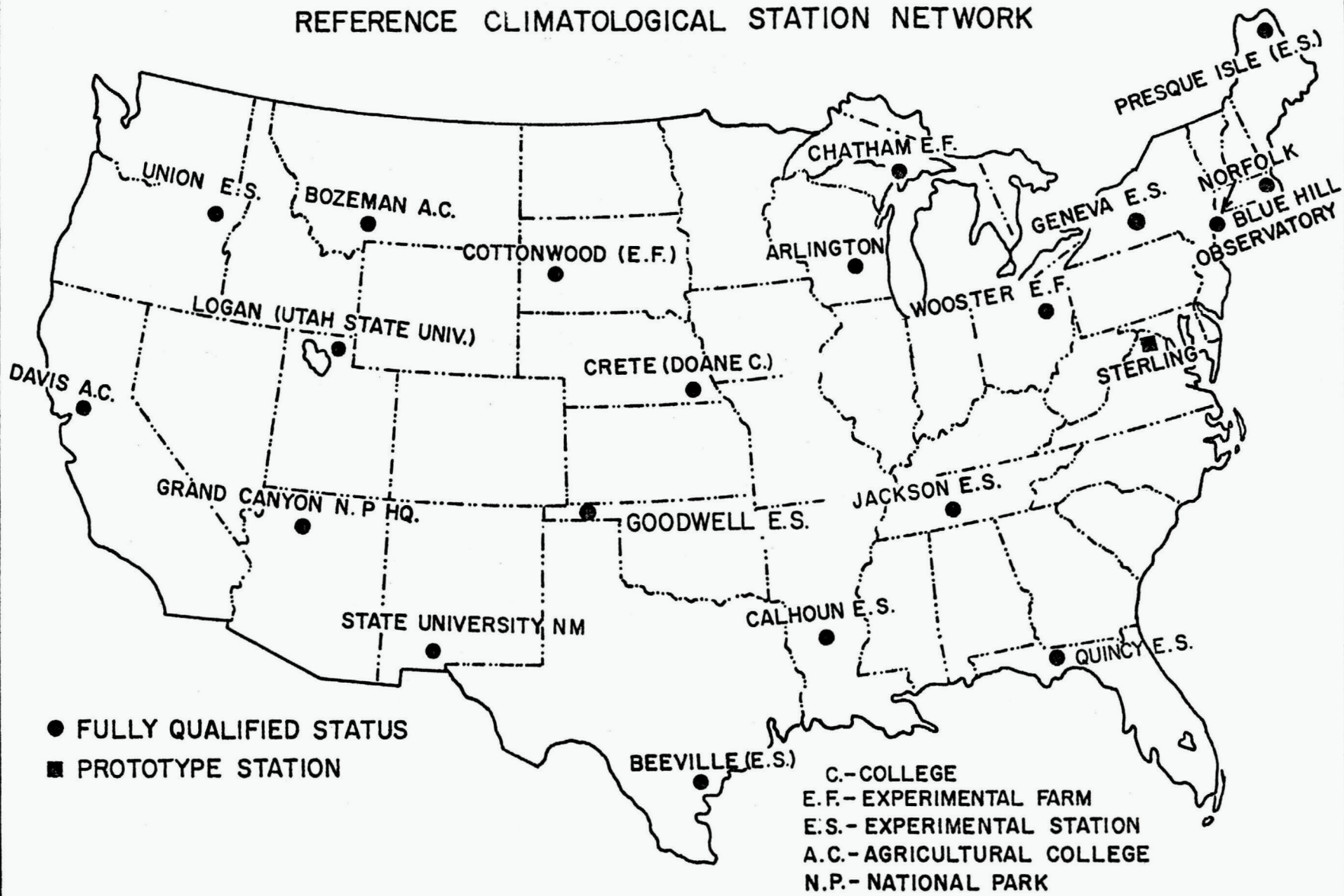
#### What Does It Do?

The program provides a true "baseline" of climatological records based on many years of observations in an undisturbed environment and leads to a genuine measure of climatic trends. The World Meteorological Organization has endorsed the establishment of reference station networks on a worldwide basis.

#### What Are MLC Responsibilities?

EDIS furnishes the technical leadership, monitors the program, and funds it. NWS operates the stations through its cooperative program and provides inspection and maintenance service.

# REFERENCE CLIMATOLOGICAL STATION NETWORK



- FULLY QUALIFIED STATUS
- PROTOTYPE STATION

- C.-COLLEGE
- E.F.- EXPERIMENTAL FARM
- E.S.- EXPERIMENTAL STATION
- A.C.- AGRICULTURAL COLLEGE
- N.P.- NATIONAL PARK

# NATIONAL WEATHER SERVICE SUBSTATION NETWORK STATISTICS FOR 1979

## Eastern Region

	Networks as of July 1, 1979						Networks as of Jan. 1, 1980						Net Changes						Planned Network (a) Not Implemented
	a	ab	b	c	x	Total	a	ab	b	c	x	Total	a	ab	b	c	x	Total	
Connecticut	7	5	36	0	2	50	7	5	36	0	2	50	0	0	0	0	0	0	1
Delaware	4	2	2	2	1	11	4	2	3	2	1	12	0	0	+1	0	0	+1	0
Maine	28	17	36	0	1	82	30	16	41	0	1	88	+2	-1	+5	0	0	+6	7
Maryland & D.C.	21	7	22	23	7	80	22	7	22	20	6	77	+1	0	0	-3	-1	-3	0
Massachusetts	16	16	68	0	0	100	16	16	68	0	0	100	0	0	0	0	0	0	1
New Hampshire	7	19	52	1	0	79	7	19	53	1	0	80	0	0	+1	0	0	+1	1
New Jersey	7	13	55	8	8	91	7	13	60	12	2	94	0	0	+5	+4	-6	+3	0
New York	33	54	184	8	39	318	35	54	184	9	39	321	+2	0	0	+1	0	+3	10
North Carolina	47	44	103	10	6	210	48	43	102	10	6	209	+1	-1	0	0	0	-1	1
Ohio	15	56	167	13	0	251	15	56	166	16	0	253	0	0	-1	+3	0	+2	0
Pennsylvania	13	71	237	8	8	337	12	72	238	8	8	338	-1	+1	+1	0	0	+1	10
Rhode Island	4	2	2	2	1	11	4	3	3	0	0	7	-3	+1	+1	-2	-1	-4	0
South Carolina	25	34	52	23	0	134	26	33	53	23	0	135	+1	-1	+1	0	0	+1	0
Vermont	6	10	53	3	0	72	6	10	53	3	0	72	0	0	0	0	0	0	0
Virginia	34	42	130	5	6	217	35	39	134	5	6	219	+1	-3	+4	0	0	+2	2
West Virginia	16	45	96	1	2	160	16	45	98	1	2	162	0	0	+2	0	0	+2	0
Totals	283	437	1295	107	81	2203	287	433	1314	110	73	2217	+4	-4	+19	+3	-8	+14	33

## Southern Region

Alabama	32	46	78	3	0	159	34	47	77	3	0	161	+2	+1	-1	0	0	+2	2
Arkansas	20	67	133	1	0	221	20	67	133	1	0	221	0	0	0	0	0	0	3
Florida	65	35	42	8	0	150	65	35	41	7	0	148	0	0	-1	-1	0	-2	5
Georgia	37	48	131	7	0	223	37	48	130	7	0	222	0	0	-1	0	0	-1	3
Louisiana	27	39	102	3	0	171	27	39	103	3	0	172	0	0	+1	0	0	+1	6
Mississippi	24	55	104	3	0	186	24	55	104	3	0	186	0	0	0	0	0	0	2
New Mexico	65	76	61	6	0	208	65	76	59	5	0	205	0	0	-2	-1	0	-3	50
Oklahoma	14	94	217	1	0	326	13	96	211	1	0	321	-1	+2	-6	0	0	-5	1
Tennessee	42	34	59	5	0	140	42	34	59	5	0	140	0	0	0	0	0	0	0
Texas	97	234	514	17	0	862	101	230	521	27	0	879	+4	-4	+7	+10	0	+17	53
Puerto Rico	4	20	68	1	0	93	4	20	68	1	0	93	0	0	0	0	0	0	0
Virgin Islands	0	6	19	2	0	27	0	6	19	2	0	27	0	0	0	0	0	0	0
Totals	427	755	1527	57	0	2766	432	753	1525	65	0	2775	+5	-2	-2	+8	0	+9	125

## Central Region

Colorado	9	130	132	4	1	276	9	130	132	4	0	275	0	0	0	0	-1	-1	56
Illinois	32	64	165	1	0	262	31	66	164	1	0	262	-1	+2	-1	0	0	0	0
Indiana	23	51	97	14	2	187	24	52	95	14	2	187	+1	+1	-2	0	0	0	2
Iowa	9	95	188	2	0	294	10	95	187	2	0	294	+1	0	-1	0	0	0	0
Kansas	9	107	322	1	0	439	9	107	323	1	0	440	0	0	+1	0	0	+1	0
Kentucky	28	49	125	11	0	213	28	50	128	11	0	217	0	+1	+3	0	0	+4	0
Michigan	48	62	148	32	6	296	51	61	145	31	6	294	+3	-1	-3	-1	0	-2	0
Minnesota	16	114	105	10	2	247	16	114	105	10	2	247	0	0	0	0	0	0	1
Missouri	8	110	184	7	0	309	8	110	187	7	0	312	0	0	+3	0	0	+3	2
Nebraska	5	115	222	3	0	345	5	115	223	3	0	346	0	0	+1	0	0	+1	2
North Dakota	0	105	114	4	1	224	0	105	117	4	1	227	0	0	+3	0	0	+3	1
South Dakota	12	93	70	3	0	178	12	94	71	3	0	180	0	+1	+1	0	0	+2	10
Wisconsin	7	102	101	9	0	219	7	101	101	9	0	218	0	-1	0	0	0	-1	0
Wyoming	20	103	49	4	0	176	19	106	47	4	0	176	-1	+3	-2	0	0	0	50
Totals	226	1300	2022	105	12	3665	229	1306	2025	104	11	3675	+3	+6	+3	-1	-1	+10	124

## Western Region

Arizona	41	120	61	1	1	224	41	115	59	3	1	219	0	-5	-2	+2	0	-5	42
California	134	128	395	16	16	689	135	129	391	16	15	686	+1	+1	-4	0	-1	-3	14
Idaho	35	81	51	9	2	178	35	81	50	9	2	177	0	0	-1	0	0	-1	32
Montana	38	174	157	7	4	380	38	174	157	6	4	379	0	0	0	-1	0	-1	26
Nevada	42	61	12	1	0	116	43	61	12	1	0	117	+1	0	0	0	0	+1	75
Oregon	11	158	177	14	7	367	11	158	177	14	7	367	0	0	0	0	0	0	12
Utah	44	85	65	5	0	199	44	85	68	5	0	202	0	0	+3	0	0	+3	32
Washington	52	73	125	4	2	256	53	72	122	4	2	253	+1	-1	-3	0	0	-3	9
Totals	397	880	1043	57	32	2409	400	875	1036	58	31	2400	+3	-5	-7	+1	-1	-9	242

## Alaska Region

Alaska	120	30	48	2	0	200	118	30	54	2	0	204	-2	0	+6	0	0	+4	33
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## Pacific Region

Hawaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Islands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

GRAND TOTALS 1453 3453 6186 348 125 11565 1466 3448 6207 356 115 11592 +13 -5 +21 +8 -10 +27 557

The figures in parenthesis beside the planned (a) network indicate the number of locations approved for that type of substation which cannot be established at this time due to location in an uninhabited or remote area.

Also included in this table are 571 first- and second-order stations with network designations.

Alaska has no definite number of stations in the planned network due to circumstances peculiar to that area.



U.S. Department of Commerce  
National Oceanic and Atmospheric Administration  
National Weather Service

1/3/80

COUNT OF SUBSTATION AND SERVICES

ALL NETWORKS

SUBSTATIONS

Number of substations by network:										
A	1466	AB	3448	B	6207	C	356	x	115	11,592
Number of stations with paid services										4,100
Number of stations without paid services										7,492
Number of stations having associate services										746
First and second order stations										571

SUBSTATION SERVICES

Number of stations having the following services:		
Both temperature and non-recording precipitation		5,892
Non-recording precipitation without temperature		3,218
Storage gage		36
FC-1 precipitation (recording and/or non-recording) stations		2,874
Hourly precipitation stations (recording precipitation)		3,204
Sponsored by S&E		406
Sponsored by S&E (FC-1)		2,537
Sponsored by other government agencies		127
Associate stations		134
Substations with both daily (or storage) and hourly precipitation services		1,930
Crop reporting stations		512
River and/or rainfall reporting stations		5,492
River stage reports only		970
Rainfall reports only		3,497
River stage and rainfall reports		1,025
Evaporation stations		434
Telemetered stations		1,305
Automated Hydrological Observing System (AHOS)		508
AHOS/T		447
AHOS/S		61
Special reporting stations		213
Miscellaneous (snow density, special meteorological)		388
Number of publishing stations that have these services:		
Temperature		5,732
Daily (or storage) precipitation		8,374
Hourly precipitation		3,106
Evaporation		427
Soil temperature		277

TOTAL NUMBER OF STATIONS PUBLISHED. . . . . 9,608

COUNT OF SUBSTATIONS AND EQUIPMENT  
ALL NETWORKS

Total number of stations. . . . . 11,592

Number of stations with:

Standard max/min thermometers	5,748
Thermographs	274
Hygrothermographs	269
Other types of thermometers	103
Standard rain gages	8,953
Universal rain gages	1,224
Fischer & Porter rain gages	2,079
Tipping Bucket rain gages	250
Storage rain gages	37
Plastic or Wedge rain gages	103
Other types of rain gages	40
NWS-Owned river gages	633
AHOS/T/S -- river and/or rain gages	447
River gages only	148
Rain gages only	242
Both river and rain gages	57
AHOS/S/S -- River and/or rain gages	61
River gages only	10
Rain gages only	32
Both river and rain gages	19
BDT's -- River and/or rain gages	381
River gages only	217
Rain gages only	152
Both river and rain gages	12
Telemarks -- River and/or rain gages	363
River gages only	354
Rain gages only	9
Both river and rain gages	0
VHF -- River and/or rain gages	47
River gages only	16
Rain gages only	18
Both river and rain gages	13
Other types of telemetry -- river and/or rain gages	31
River gages only	10
Rain gages only	21
Both river and rain gages	0
Snow stakes	198
Green (Adirondack) snow density kits	43
Federal (Mount Rose) snow sampler	11
Other snow equipment	125
Palmer soil thermometers	237
Other (or unspecified) soil equipment	102
Evaporation equipment	536
Other miscellaneous equipment	407

## LIST OF PUBLISHED SOIL SURVEYS

The U.S. Department of Agriculture, in cooperation with state agricultural experiment stations and other federal and state agencies, has been making soil surveys and publishing them since 1899. These surveys furnish soil maps and interpretations needed in giving technical assistance to farmers and ranchers, in guiding other decisions about soil selection, use, and management, in planning research and disseminating the results of the research, and they are used in educational programs about soil use and conservation. Sound scientific and technical standards are used in a nationwide system of soil classification, nomenclature, interpretation, and publication.

Soil classification has improved as our knowledge about soils and their potential uses has increased. As agriculture has become more technical, a proper fit between the kind of soil and the combination of practices used has become more critical. Because of this, soils bearing the same names are more narrowly defined in recent surveys than in the older ones.

When soil survey work began in 1899 little was known about the soils of the United States. Since then a great deal has been learned, methods have been improved, and the results of the surveys are more accurate and detailed. For planning farms, engineering structures, parks, urban developments, and other uses of land, the recent published soil surveys are more useful. The older surveys can be of considerable assistance for many users, but their maps are more general than those in recent surveys and some of the interpretations need to be updated.

Published soil surveys contain, in addition to soil maps, general information about the agriculture and climate of the area and descriptions of each kind of soil. They include a discussion of the formation and classification of the soils in the area and also soil laboratory data when available.

Soil surveys published since 1957 contain many different kinds of interpretations for each of the different soils mapped in the area. The kinds of interpretations included in these recent surveys vary with the needs of the area, but the following interpretations are in most of them: Estimated yields of the common agricultural crops under defined levels of management; land-capability interpretations, soil-woodland interpretations, rangeland interpretations, engineering uses of soils, interpretations for community planning, suitability of the soil for drainage and irrigation, suitability of the soil for wildlife and for recreation.

Most of the soil surveys published since 1957 contain soil maps printed on a photomosaic base. The usual map scale is 1:24,000, 1:20,000 or 1:15,840, depending on the needs of the area.

~~This publication lists those surveys that have been published by the U.S. Department of Agriculture. A few state agencies also publish surveys but, except for nine in Illinois, these are not included in this list.~~

A soil survey published by the U.S. Department of Agriculture that is still in print can be obtained in one of the following ways:

Land users in the area surveyed and professional workers who have use for the survey can obtain a free copy from the state or local office of the Soil Conservation Service, from their county agent, or from their congressman. Many libraries keep published soil surveys on file for reference. Also, soil conservation district offices and county agricultural extension offices have copies of local soil surveys that can be used for reference.

Most published soil surveys cover one or more counties and are so named. Where the survey covers only a part of one or more counties, the word "area" is a part of the name. The date in the list is the year the field work was completed for surveys made from 1899 to 1936; from 1937 on it is the year the publication was issued.

Soil surveys are being completed and published at a rapid rate, so this list is always at least a little out of date. For information on the current status of a soil survey not listed herein, inquiry should be made to the State Conservationist, Soil Conservation Service, in the appropriate state. Addresses of State Conservationists are listed on the back of this page.

Wright Building  
138 South Gay Street  
Auburn, AL 36830

Suite 129, Professional Building  
2221 East Northern Lights  
Boulevard  
Anchorage, AK 99504

230 North 1st Avenue  
3008 Federal Building  
Phoenix, AZ 85025

Room 5029  
Federal Office Building  
700 West Capitol  
Little Rock, AR 72203

2828 Chiles Road  
Davis, CA 95616

2490 West 26th Avenue  
Diamond Hill, Building A  
Denver, CO 80217

Mansfield Professional Park  
Route 44A  
Storrs, CT 06268

Treadway Towers--Suite 2-4  
9 East Loockerman Street  
Dover, DE 19901

Federal Building  
P.O. Box 1208  
Gainesville, FL 32602

Federal Building  
355 East Hancock Avenue  
P.O. Box 832  
Athens, GA 30603

Prince Jonah Kuhio Kolaniana'ola  
Building  
300 Ala Moana Boulevard  
Room 4316  
Honolulu, HI 96850

Room 345  
304 North 8th Street  
Boise, ID 83702

Federal Building  
200 West Church Street  
P.O. Box 678  
Champaign, IL 61820

Atkinson Square-West  
Suite 2200  
5610 Crawfordsville Road  
Indianapolis, IN 46224

693 Federal Building  
210 Walnut Street  
Des Moines, IA 50309

760 South Broadway  
P.O. Box 600  
Salina, KS 67401

333 Waller Avenue  
Lexington, KY 40504

3737 Government Street  
P.O. Box 1630  
Alexandria, LA 71301

USDA Building  
University of Maine  
Orono, ME 04473

Hartwick Building  
Room 522  
4321 Hartwick Road  
College Park, MD 20740

29 Cottage Street  
Amherst, MA 01002

Room 101  
1405 South Harrison Road  
East Lansing, MI 48823

200 Federal Building and  
U.S. Courthouse  
316 North Robert Street  
St. Paul, MN 55101

Federal Building, Suite 1321  
100 West Capitol Street  
P. O. Box 610  
Jackson, MS 39201

555 Vandiver Drive  
Columbia, MO 65201

Federal Building  
P.O. Box 970  
Bozeman, MT 59715

Federal Building-U.S.  
Courthouse, Room 345  
Lincoln, NE 68508

Room 308  
U.S. Post Office Building  
P.O. Box 4850  
Reno, NV 89505

Federal Building  
Durham, NH 03824

1370 Hamilton Street  
P.O. Box 219  
Somerset, NJ 08873

517 Gold Avenue S.W.  
P.O. Box 2007  
Albuquerque, NM 87103

U.S. Courthouse and Federal  
Building  
100 South Clinton Street  
Room 771  
Syracuse, NY 13260

310 New Bern Avenue, Room 544  
Federal Office Building  
P.O. Box 27307  
Raleigh, NC 27611

Federal Building  
P.O. Box 1458  
Bismarck, ND 58501

Federal Building, Room 522  
200 North High Street  
Columbus, OH 43215

Agricultural Center Office  
Building  
Farm Road and Brumley Street  
Stillwater, OK 74074

Federal Building, 16th Floor  
1220 S.W. 3rd Avenue  
Portland, OR 97209

Federal Building and U.S.  
Courthouse  
P.O. Box 985  
Federal Square Station  
Harrisburg, PA 17108

Room 633, 6th Floor  
Federal Building  
Chardon Avenue  
Hato Rey, PR 00918

46 Quaker Lane  
West Warwick, RI 02893

Room 950  
1835 Assembly Street  
Columbia, SC 29201

Federal Building  
200 4th Street, S.W.  
Huron, SD 57350

675 U.S. Courthouse  
Nashville, TN 37203

W. R. Poage Federal Building  
101 South Main Street  
P.O. Box 648  
Temple, TX 76501

4012 Federal Building  
125 South State Street  
Salt Lake City, UT 84138

1 Burlington Square  
Suite 205  
Burlington, VT 05401

Federal Building, Room 9201  
400 North 8th Street  
P.O. Box 10026  
Richmond, VA 23240

360 U.S. Courthouse  
West 920 Riverside Avenue  
Spokane, WA 99201

75 High Street  
P.O. Box 865  
Morgantown, WV 26505

4601 Hammersley Road  
Madison, WI 53711

Federal Office Building  
P.O. Box 2440  
Casper, WY 82601



DEPARTMENT OF COMMERCE  
**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**

Washington, D.C. 20230

OFFICE OF THE ADMINISTRATOR

UNIVERSITY AFFAIRS LETTER

Washington, D.C., April 1980

colleague,

pective on NOAA's recruiting needs. . . During the winter of 1980  
greatest number of retirements ever took place within the National  
Weather Service. They occurred at every level with a significant number  
at high level managerial positions; one Regional Director, four Regional  
Directors, Director, National Severe Storms Forecast Center, two  
Bureau of Personnel, four Meteorologist-in-Charge of forecast offices,  
Regional Hydrologists, and a number of top people from Headquarters

Some of the positions have been filled from within; however, the  
National Weather Service welcomes applications from university meteorologists  
hydrologists and others outside of the federal government. Write to  
Young, NWS Personnel Branch, Room 1225, Grammax Building, Silver  
Spring, Md. 20910.

ographer in NOAA. . . having  
Director of the Office of Ocean  
and Atmospheric Science and

government relationships. . .  
January 25, 1980 issue of  
the paper concludes that  
in university-industry relation-  
ship longitudinal and institutional  
look ahead through the 80's

be generated on campus and in  
among government, industry, and  
for academic and industrial  
make determined efforts to

each Awards. . . can be found  
modest new NOAA grants  
See the reverse side

Sincerely yours,

**ANNIVERSARY 1970-1980**  
**National Oceanic and Atmospheric Administration**

Dear Colleague,

A perspective  
the late  
Weather  
at high  
Deputy  
Chief's  
three  
offices

National  
and hydro  
Donna

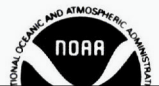
Dr. Norbert Untersteiner is now a senior oceanographer  
accepted an appointment recently as the Director of  
Programs for R&D. He formerly was Professor of  
Oceanography at the University of Washington.

A longer look ahead. . . at university/industry  
is charted in a worth-reading article in the Journal of  
Science. Written by Dennis Prager and Gil Omer  
"The time appears ripe for major improvements in  
relationships in science and engineering." Today's  
barriers are real and must be dealt with as we  
and 90's.

More and more research proposals will  
industry to explore effective R&D cooperation at  
universities. Here is a long-range opportunity  
scientists and engineers to lead the way and make  
plan for the new developments.

An announcement. . . of NOAA Postdoctoral Research  
in the Federal Register for April 16, 1980. A  
program, up to six awards are planned this year  
of this letter for more details.

Sincerely,



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

**10TH**  
**National**

NOAA POSTDOCTORAL RESEARCH AWARDS

in Atmospheric, Fisheries, Oceanic Sciences and Related Fields

Application Deadline: *June 10, 1980*      Award Date: *August 1, 1980*

In 1980 NOAA plans to award up to six Postdoctoral Research Support Grants. NOAA is seeking to fund a few recent postdoctorals having outstanding records and exceptional promise in academic research; those postdoctorals engaged in front-line scientific work on atmospheric, fisheries, and ocean sciences, and related fields that undergird the mission of NOAA. Eligible postdoctorals must be United States citizens and must have received their Ph.D.'s since January 1, 1978, and before June 10, 1980.

Grants would be made to the home university for one or two years, nonrenewable. Successful applicants will receive a stipend of \$20,000 for twelve months with applicable fringe benefits. The grant application will allow as necessary a modest request for equipment, supplies, travel, publication, plus indirect costs. It is estimated that funds up to \$35,000 per year would be available, depending upon the nature of the proposed laboratory or theoretical research.

As a special provision. . .each grantee would be asked to establish a visiting relationship with a suitable NOAA laboratory or other facility and be in residence there a minimum of one month each year to communicate on the postdoctoral research program and results and to learn firsthand about the scientific programs and research needs of NOAA. The objective is a helpful interchange between the campus and NOAA.

Those interested in applying for a postdoctoral research support award can obtain further information and informal guidelines by writing to Dr. Earl G. Droessler, Director of University Affairs, NOAA, Room 5808, Commerce Department, Washington, D.C. 20230.

Since the NOAA grants would be awarded to universities, formal research proposals should be prepared and processed on campus in the usual way through the university administration. Twelve (12) copies of these proposals are required.