

WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration, National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service and World Agricultural Outlook Board

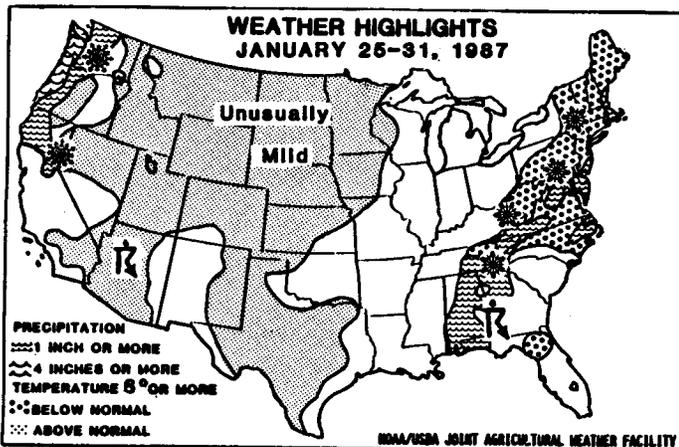
Volume 74, No. 5

Washington, D.C.

Feb. 3, 1987

National Weather Summary

January 25 to 31, 1987



snow inland to the central and northern Rockies. Light snow fell through the Ohio Valley and Great Lakes area as severely cold weather covered the Northeast and parts of the Mid-Atlantic region. Freezing temperatures reached into northern Florida.

WEDNESDAY...The Pacific storm moved into the Rockies, spreading rain along the west coast and snow across the central Plateau and upper Rockies. Light snow also fell from the northern Plains to the central and northern Appalachians. The severely cold area moved through the Northeast, and temperatures again dipped below the freezing mark in northern Florida.

THURSDAY...The Pacific storm redeveloped in the lower Missouri Valley and moved eastward, spreading a mixture of snow, sleet, and freezing rain through the Great Lakes States to the Mid-Atlantic region. Much warmer air moved northward through the Great Plains and across the South. Light rain fell along the west coast to central California.

FRIDAY...The mixture of snow, sleet, and freezing rain continued from the eastern Great Lakes and upper Ohio Valley eastward to New Jersey and southern New England. Heavy snow fell in western New York later in the day. The next Pacific storm approached the Northwest spreading rain along the coast. Thunderstorms developed in the Southwest and the Southeast.

SATURDAY...Snow flurries or light snow fell from the central Appalachians and eastern Great Lakes to New England. Heavy rain fell on the Northwest coast, and snow covered the Cascades and northern Rockies. Rainshowers and mountain snow reached from Arizona and Utah to the southern Rockies. Showers and thunderstorms developed late in the day through Texas and Oklahoma.

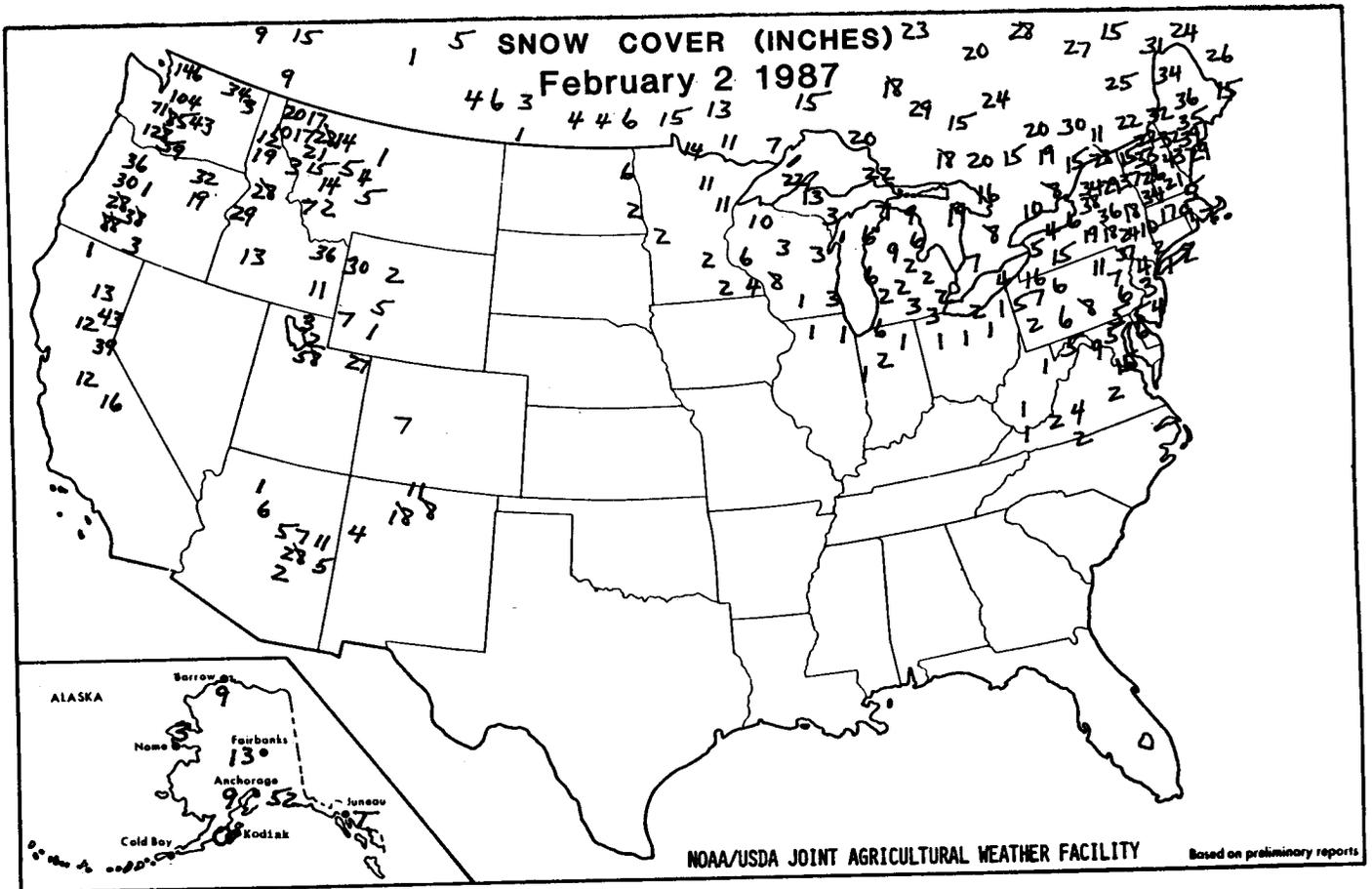
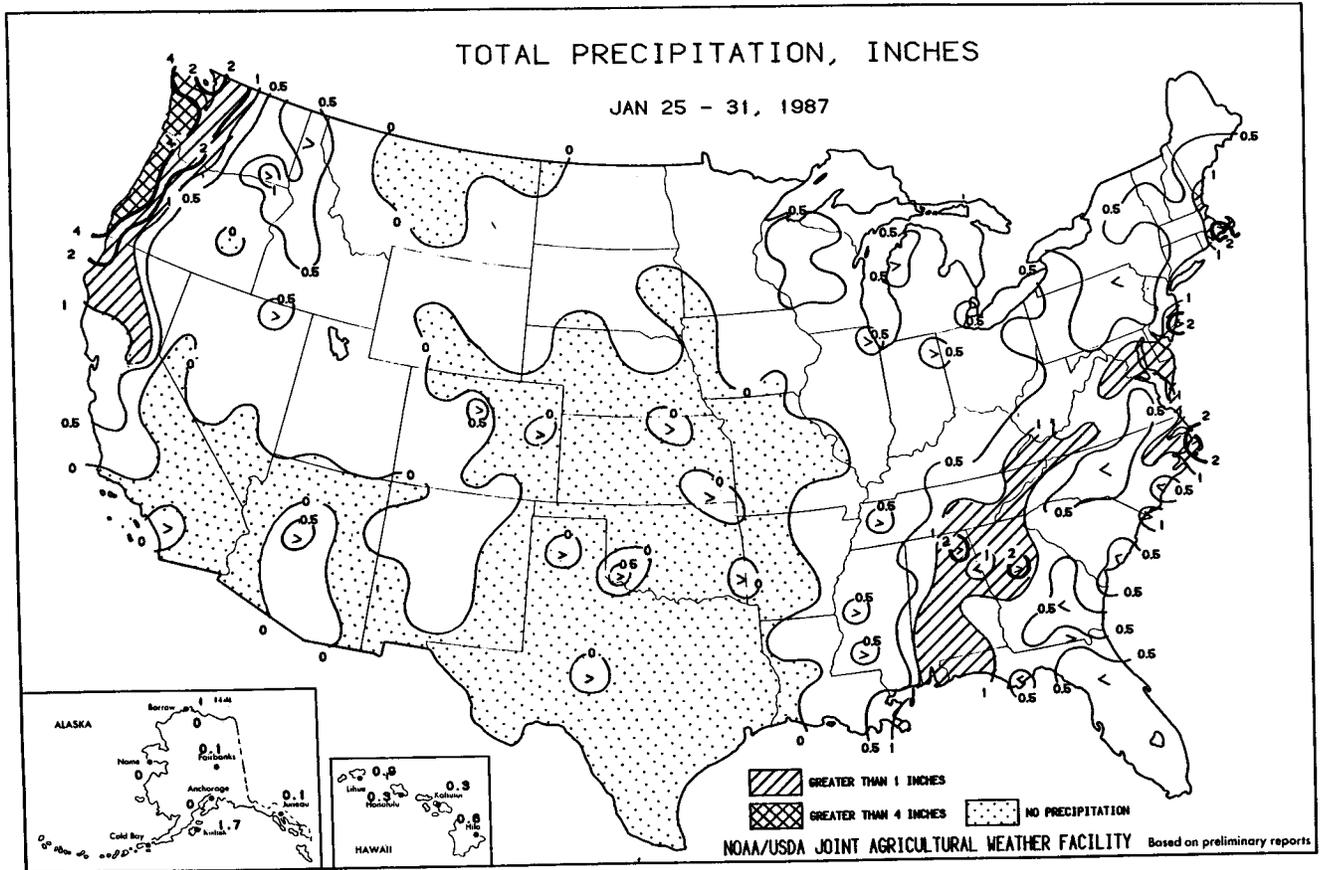
HIGHLIGHTS: A storm moved across the South and up the east coast on the first day of the week. The storm dropped heavy snow over the southern and central Appalachians and from eastern Kentucky through Maryland. The snow fell on an already deep snow cover, leaving some parts of western Virginia and much of Maryland with more than 20 inches of snow. Another Pacific storm moved through the West, redeveloped in the lower Missouri Valley, and moved eastward spreading a mixture of snow, sleet, and freezing rain from the Ohio Valley and eastern Great Lakes to southern New England. Severely cold weather pushed through the Great Lakes region at midweek and moved eastward through the Mid-Atlantic area and Northeast. Freezing temperatures dipped into northern Florida on two mornings during the week.

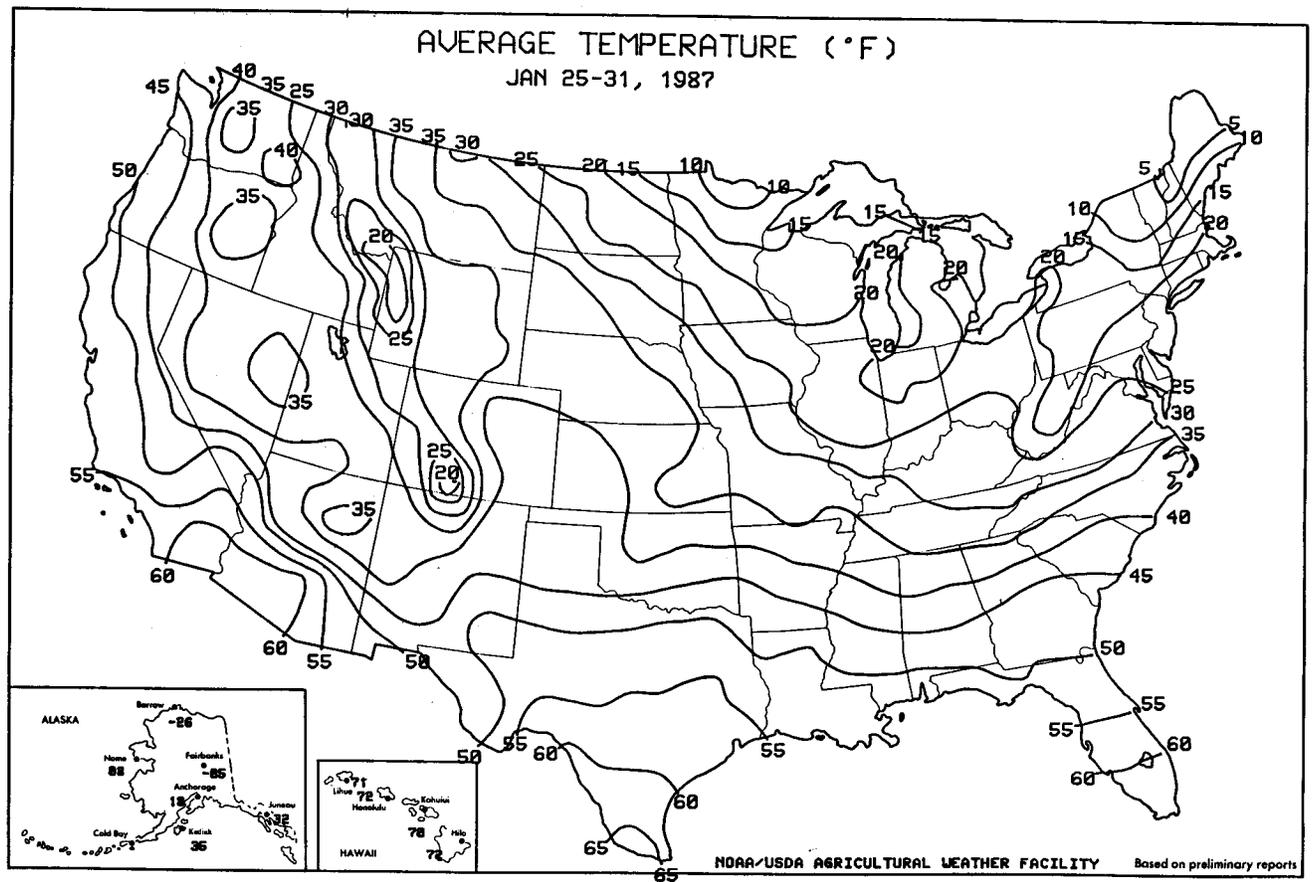
SUNDAY...A storm moved across the South and up the east coast before veering eastward off the New Jersey coast. Heavy snow covered the lower and middle Appalachians and from eastern Kentucky through Virginia and Maryland. Lighter amounts reached to southern New England. Rain fell along the northwest coast and across the Intermountain region to the northern Rockies.

MONDAY...Light snow or snow flurries lingered from North Carolina to southern New England as colder air moved in behind the storm. Light snow also fell in the upper Mississippi Valley, behind still another cold outbreak through the Great Lakes. Moderate rainshowers fell along the northwest coast, and snow was heavy in the Intermountain area.

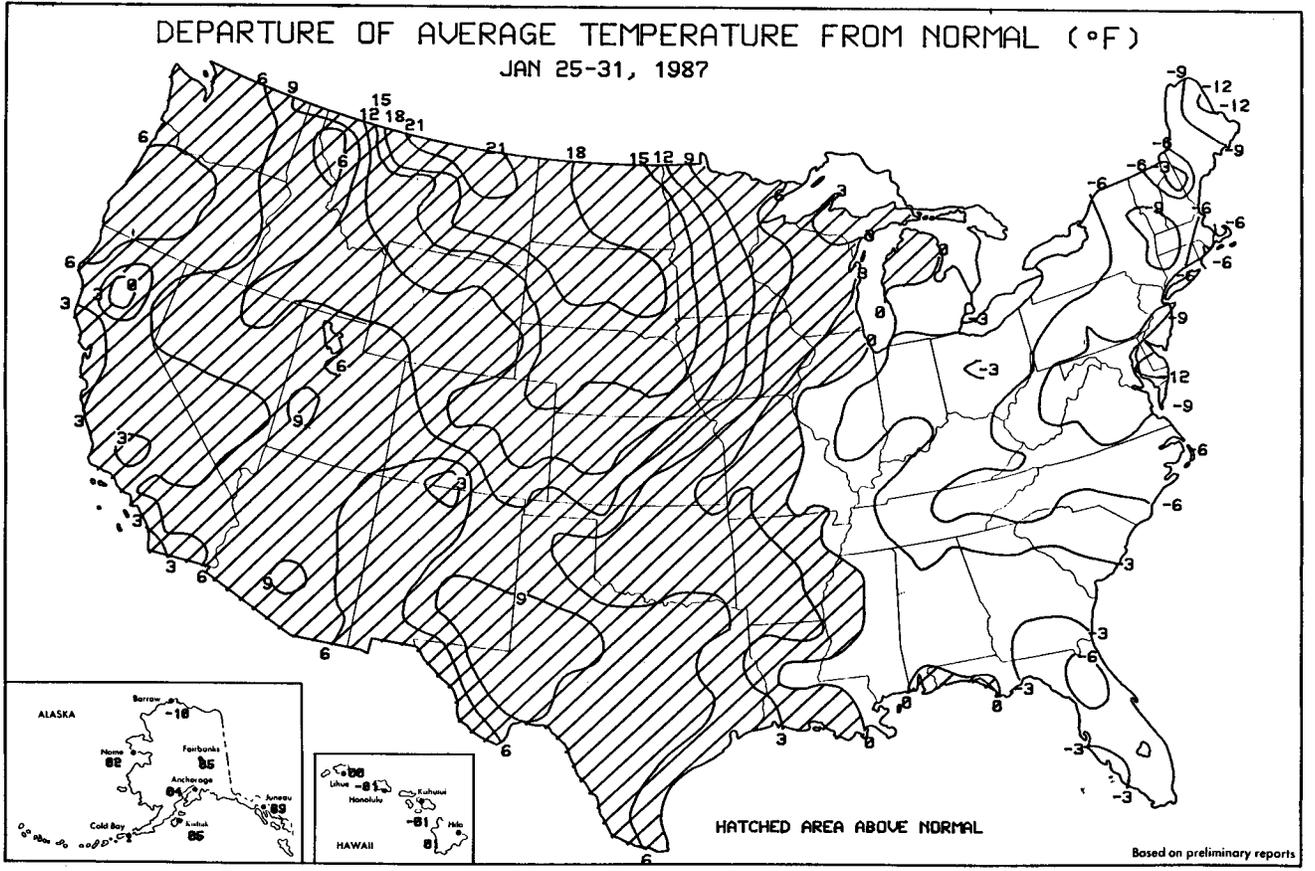
TUESDAY...A Pacific storm off the coast of California spread rain all along the west coast and

Contents	Page
National Weather Summary	1
Total Precipitation & Snow Cover Map	2
Average Temperature & Departure	3
Winter Storms Bring Heavy Snow to the East	4
North American Satellite Photos	5
National Water Conditions, December 1986	6
Extreme Minimum Temperature	7
Area Names Commonly Used	8
National Weather Data for Selected Cities	9
Heating Degree Days Table	12
National Agricultural Summary	13
State Summaries of Weather and Agriculture	14
Global Weather Satellite Image	18
International Weather and Crop Summary	
Temperature and Precipitation Tables	19
African Agricultural Weather Summary	23
Subscription and Mailing Permit Information	24

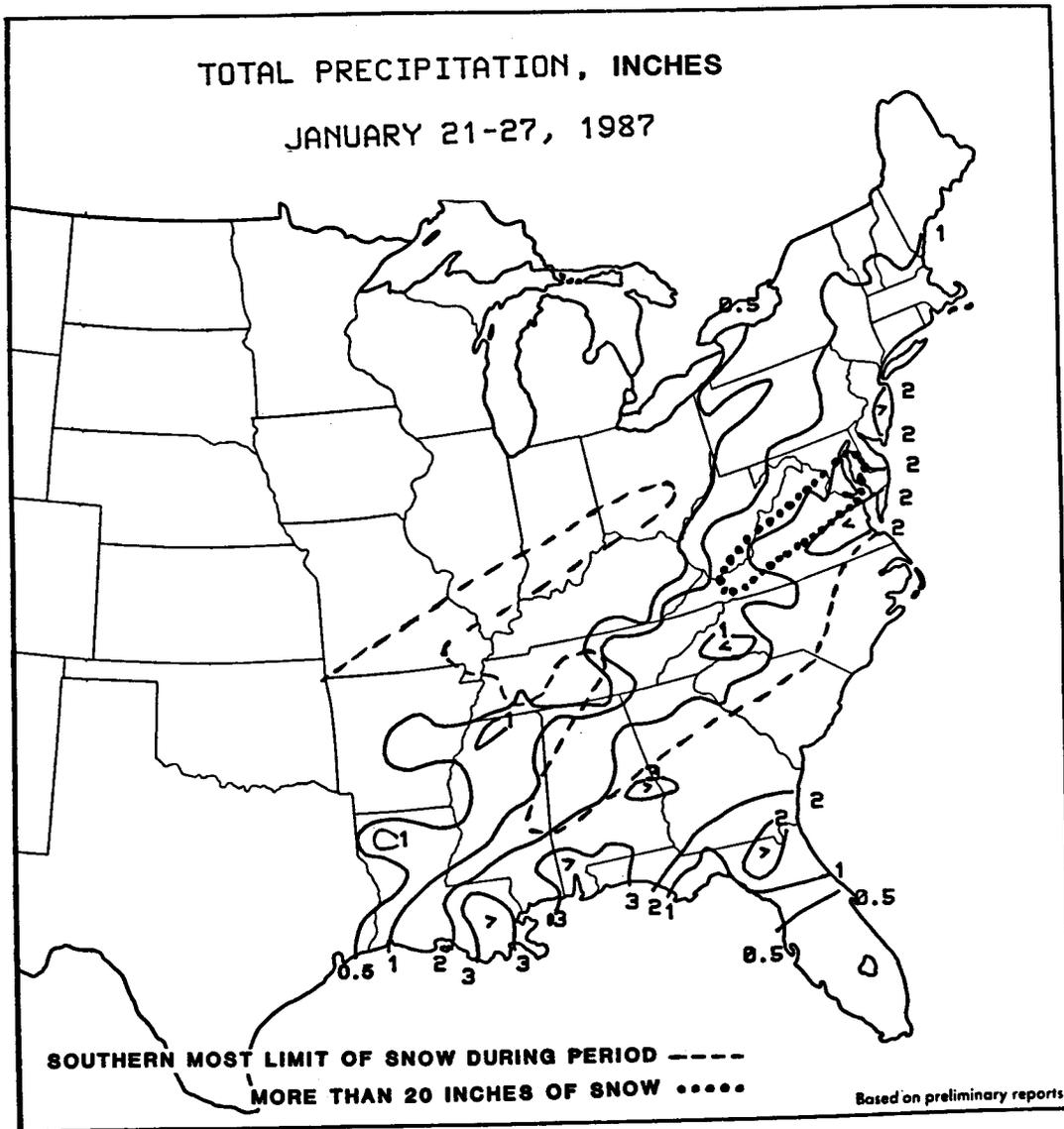




Point values may differ on these computerized maps from the reported values in the tables.

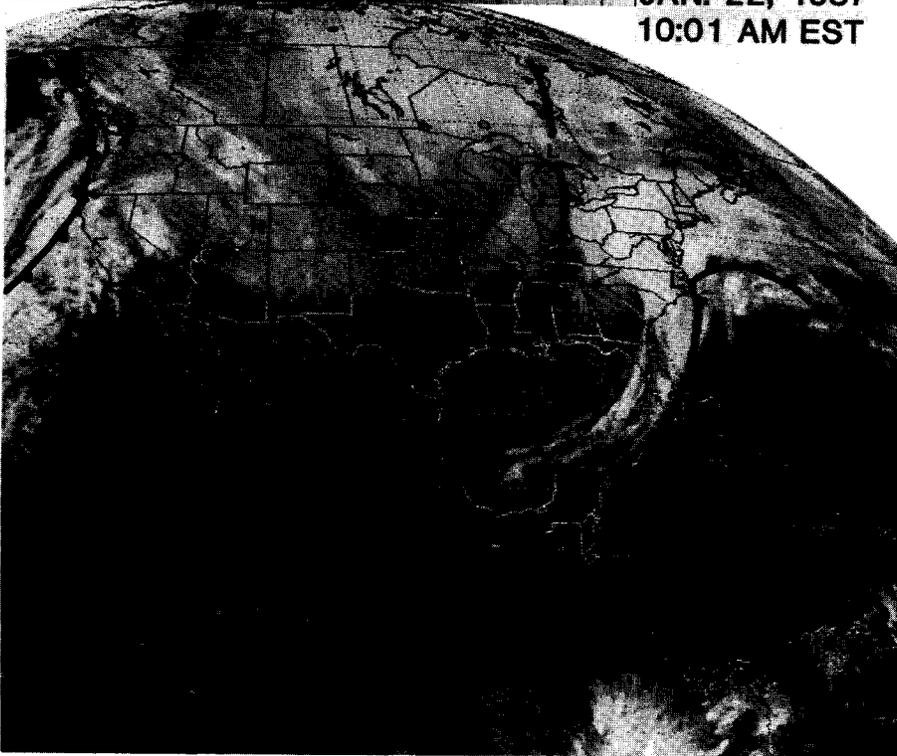


WINTER STORMS BRING HEAVY SNOW TO THE EAST



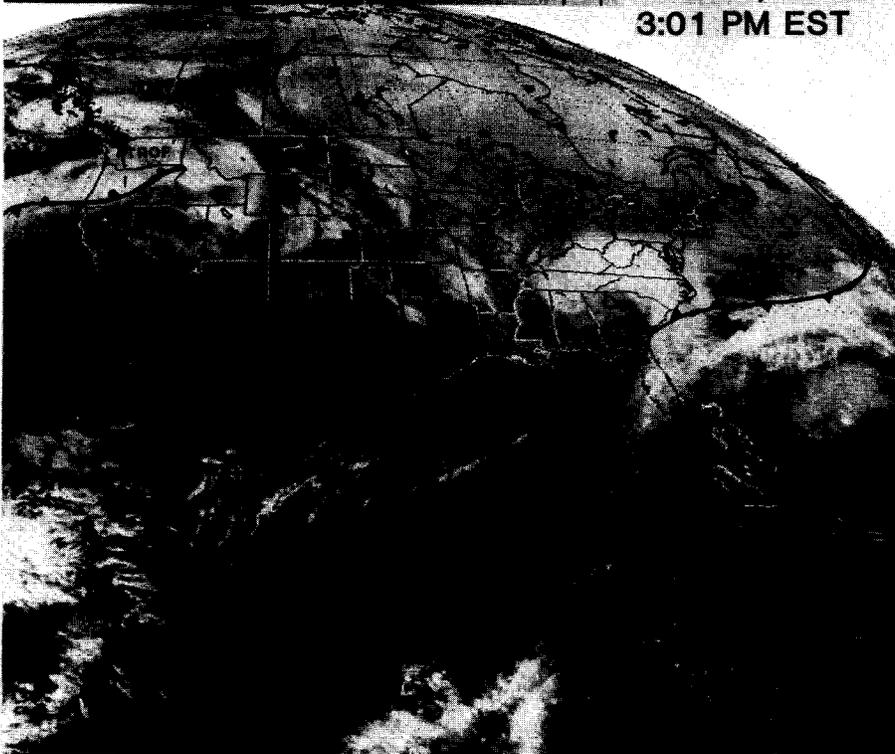
Two winter storms brought heavy snowfall to the Appalachians and eastern seaboard from January 21 to 27. The map indicates the total precipitation that fell over the eastern United States during this period. The area receiving 20 or more inches of snow is indicated by the dotted line. The snow line is denoted by the dashed line.

1501 22JA87 08E-4ZA 00472 22541 UC6 JAN. 22, 1987
10:01 AM EST



A WINTER STORM MOVES UP THE EASTERN SEABOARD, BRINGING RAIN TO THE ATLANTIC COAST FROM FLORIDA TO DELAWARE. THE RAIN CHANGES TO SNOW INLAND AS HEAVY AMOUNTS FALL OVER MUCH OF THE NORTHEAST.

2001 25JA87 18E-4ZA 00501 22561 UC6 JAN. 25, 1987
3:01 PM EST



A SECOND WINTER STORM MOVES ACROSS THE MID-ATLANTIC COAST STATES, CAUSING RAIN IN TENNESSEE AND THE CAROLINAS AND SNOW FROM KENTUCKY TO THE DELAWARE COAST. HEAVY AMOUNTS FALL OVER VIRGINIA.

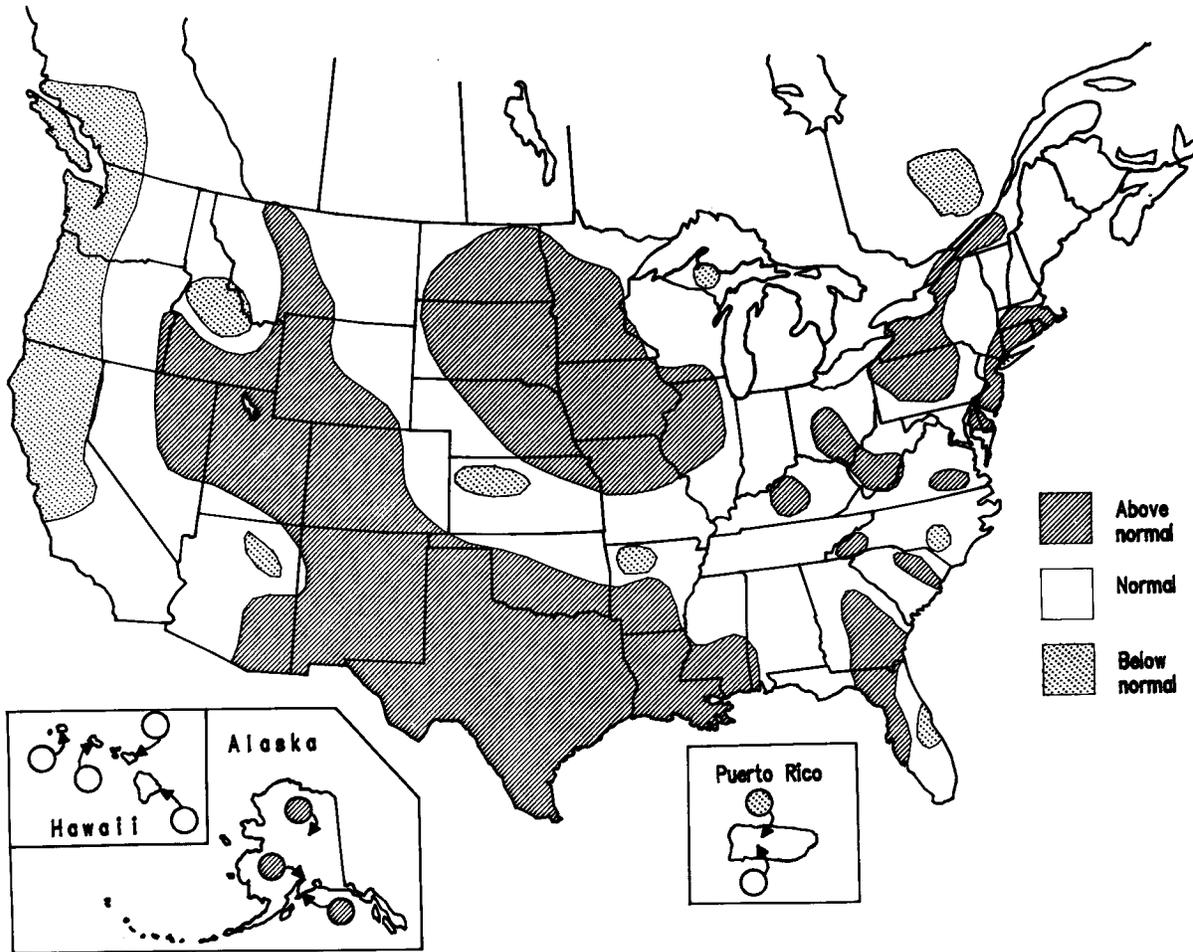
A STATIONARY FRONTAL SYSTEM BRINGS RAIN TO THE PACIFIC NORTHWEST, WITH RAIN CHANGING TO SNOW IN THE HIGHER ELEVATIONS.



Department of the Interior
U.S. Geological Survey
119 National Center
Reston, Virginia 22092



STREAMFLOW DURING DECEMBER 1986



Streamflow During December 1986

Nearly half of the Nation's rivers and streams reported well-above average flows during December, reflecting a wet autumn following an extremely dry period earlier in much of the Mid-Atlantic and Southeast, according to the U.S. Geological Survey.

Reflecting the continued high level of the Great Lakes, outflow through the St. Lawrence River near Massena, New York, set two new records -- the highest December flow and the highest average flow for the calendar year in 126 years of recordkeeping at this site.

Forty-nine percent (85 stations) of the 173 key index streamflow gaging stations in the United States and Puerto Rico had flows within the highest 25 percent of historic record for December. Of the remaining stations, 40 percent (69 stations) were in the normal range and 11 percent (19 stations) had well-below average flows for the month.

As an indication of the generally wet conditions across the Nation in December, the combined flow of the Nation's three largest rivers --Mississippi, St. Lawrence, and Columbia -- was 903 billion gallons per day (bdg), 67 percent above the long-term December average.

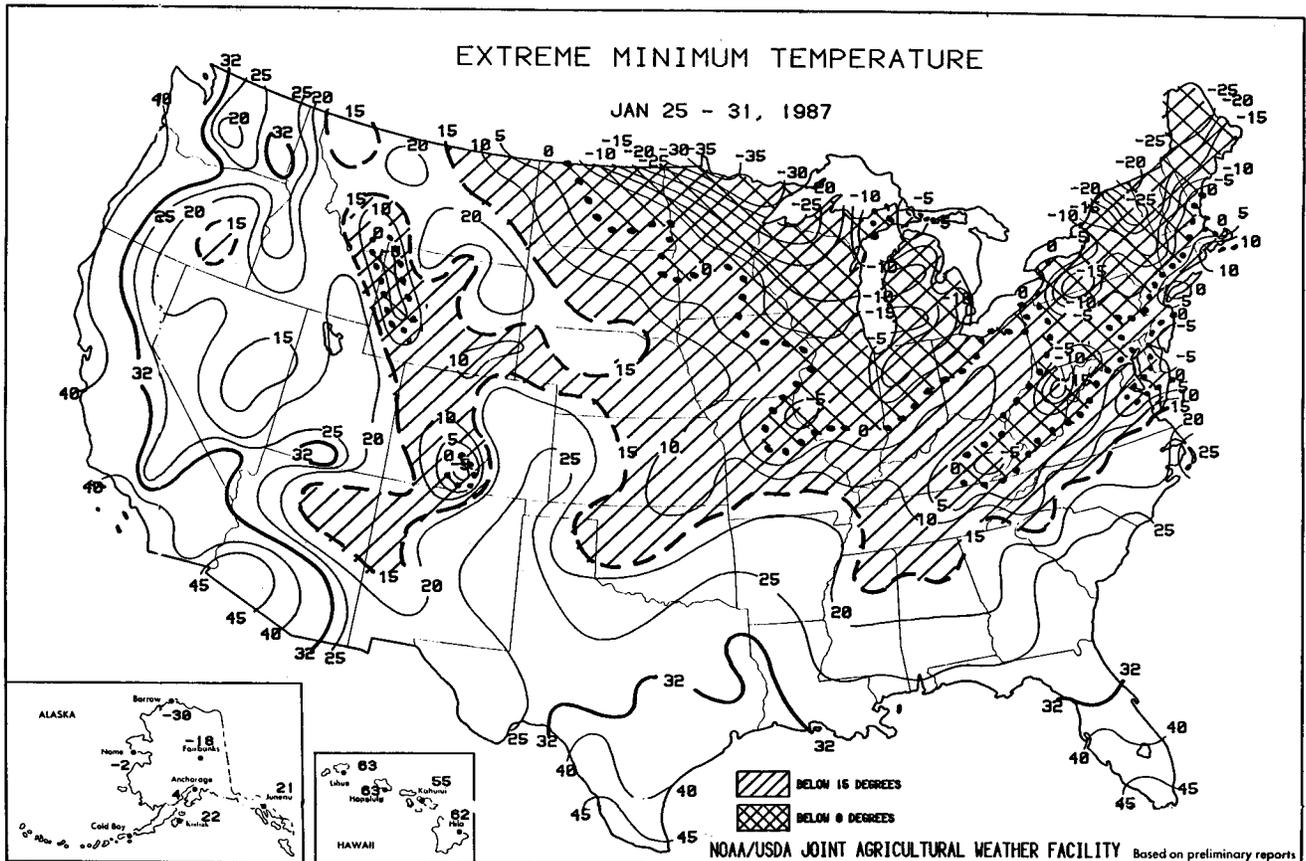
Total flow of the 173 index streams in the United States and Puerto Rico flow for December was 1,620 bdg, 64 percent above the long-term average for the month and 15 percent above last month's total flow for the same streams.

As an example of the change in streamflow conditions during December from earlier dry months, a weighted average of streamflows in Virginia was 14 percent above the long-term average for December. This marked the first time in the previous 12 months that streamflows in Virginia have been above average.

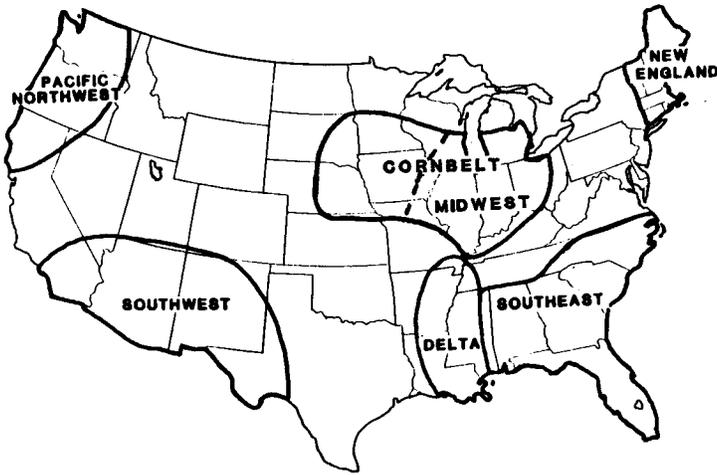
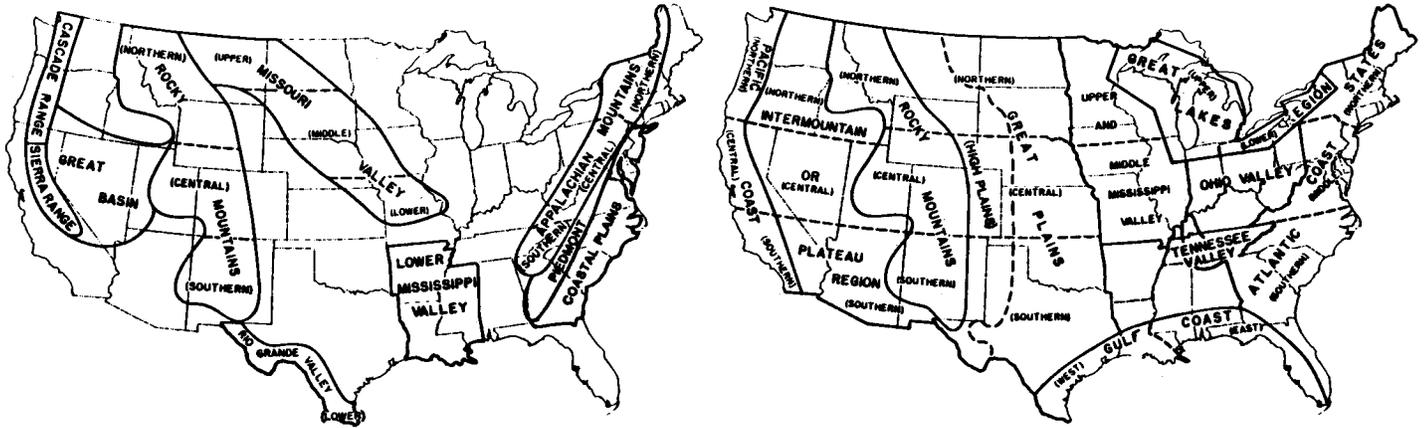
For Mid-Atlantic and Southeast regions for the month, of the 41 stations from Maryland south to Florida and west to Mississippi, 95 percent (39 stations) had average to well-above average streamflows. By contrast, for each month from May through September, the months of prolonged drought throughout these regions, 24 percent of these same stations consistently reported well-below average flows. At many sites, 1986 was the driest year on record for more than 20 years.

December Reservoir Contents

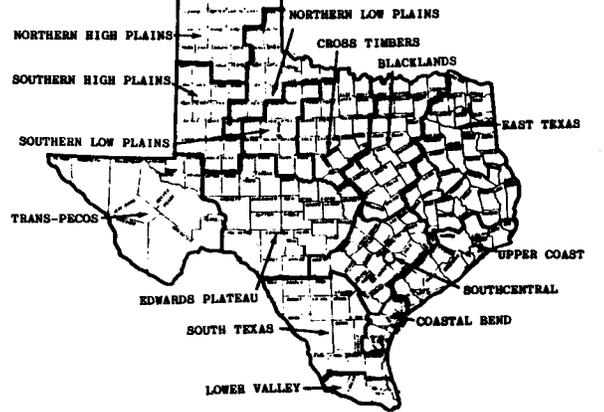
Storage in key reservoirs across the country reflected the wet streamflow conditions for December. Of the 97 reservoirs routinely monitored, 59 percent showed contents more than 5 percent above average. Most reservoirs in the Tennessee Valley, Oklahoma, Texas, Colorado, Nevada, Arizona, and New Mexico reported above average storage. Only Lake Cushman, Washington, Coeur d'Alene Lake, Idaho, and Pymatuning, Pennsylvania had both significantly below-average contents for the end of the month and significant declines in contents from the previous month.



AREA NAMES COMMONLY USED IN WEEKLY WEATHER & CROP BULLETIN



TEXAS



National Weather Data for Selected Cities

Weather Data for the Week Ending January 31, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE DEC. 1	PCT. NORMAL SINCE DEC. 1	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	53	31	70	12	42	-1	5.7	-4	2.7	9.0	88	5.7	110	91	47	0	22	10	3
MOBILE	59	38	75	24	49	-2	5.8	1.2	1.5	9.5	95	5.8	126	94	51	0	10	13	4
MONTGOMERY	56	35	74	19	45	-1	7.8	3.6	2.0	10.8	120	7.8	186	91	48	0	13	14	6
AK ANCHORAGE	29	17	42	-12	23	10	1.5	.7	.8	2.9	154	1.5	188	91	69	0	31	13	1
BARROW	-6	-19	22	-41	-13	2	.1	-1	.1	.2	56	.1	50	81	70	0	31	5	0
FAIRBANKS	9	-8	31	-40	1	15	.6	.1	.2	1.0	77	.6	120	90	74	0	31	11	0
JUNEAU	37	30	44	12	33	12	4.1	.4	1.0	10.7	128	4.1	111	94	70	0	16	17	4
KODIAK	39	29	42	6	34	2	10.2	1.9	1.2	21.6	148	10.2	123	90	65	0	19	24	10
NOME	14	-1	33	-32	6	2	.9	-1	.2	2.1	140	.9	113	84	61	0	31	13	0
AZ PHOENIX	67	43	81	29	55	3	.7	-1	.5	2.1	131	.7	100	64	21	0	3	4	0
PRESCOTT	51	23	66	8	37	1	1.2	-6	.6	2.0	60	1.2	71	84	36	0	29	7	0
TUCSON	66	37	86	19	51	0	.6	-3	.4	1.8	103	.6	75	70	21	0	8	4	0
YUMA	68	45	80	31	56	0	T	-4	T	.2	33	T	0	51	21	0	1	0	0
AR FORT SMITH	50	29	68	18	40	2	2.4	.6	1.1	3.6	77	2.4	126	90	49	0	23	7	1
LITTLE ROCK	48	33	74	22	41	1	1.5	-2.2	.5	4.9	63	1.5	41	79	55	0	18	7	1
CA BAKERSFIELD	54	35	70	26	45	-3	1.4	.5	1.0	2.4	147	1.4	140	93	56	0	9	5	1
EUREKA	57	42	67	32	49	2	6.8	-2	1.1	10.6	80	6.8	97	91	64	0	1	16	4
FRESNO	54	37	68	26	46	0	1.8	-3	.6	4.1	111	1.8	86	92	61	0	8	6	2
LOS ANGELES	64	46	80	33	55	-1	1.3	-1.8	.8	1.6	34	1.3	42	83	39	0	0	4	1
REDDING	53	34	64	25	44	***	.7	***	.7	9.1	***	7.2	***	88	53	0	14	12	6
SACRAMENTO	53	37	67	26	45	0	2.0	-2.0	.7	2.8	40	2.0	50	93	56	0	12	7	1
SAN DIEGO	64	47	78	36	56	-1	1.6	-5	.8	2.6	74	1.6	76	85	43	0	0	4	1
SAN FRANCISCO	56	43	63	35	49	1	2.8	-1.9	1.3	4.5	54	2.8	60	90	56	0	0	9	1
CO DENVER	45	20	66	-11	32	3	.7	.2	.3	1.0	95	.7	140	78	35	0	28	6	0
GRAND JUNCTION	39	16	51	0	28	2	.2	-4	.1	.7	55	.2	33	86	42	0	30	6	0
PUEBLO	46	14	71	-11	30	0	.7	.5	.3	1.2	205	.7	233	93	40	0	31	5	0
CT BRIDGEPORT	36	24	53	7	30	1	4.3	1.1	1.0	8.7	125	4.3	130	81	51	0	26	10	4
HARTFORD	33	16	51	-6	25	0	6.2	2.7	1.7	12.3	160	6.2	177	86	54	0	30	12	6
DC WASHINGTON	41	28	60	7	34	-1	4.9	2.1	1.5	9.9	166	4.9	175	82	46	0	22	11	5
FL APALACHICOLA	62	44	74	29	53	0	6.0	2.5	1.7	15.7	223	6.0	171	94	60	0	3	10	3
DAYTONA BEACH	68	44	84	29	56	-2	2.2	-2	.9	5.0	109	2.2	92	96	54	0	4	7	1
JACKSONVILLE	63	39	78	13	51	-2	4.1	1.0	.8	8.8	155	4.1	132	96	54	0	8	11	3
KEY WEST	75	63	82	52	69	0	.7	-1.1	.5	11.9	342	.7	41	90	60	0	0	2	1
MIAMI	76	56	88	41	66	-1	.9	-1.2	.5	3.1	78	.9	43	92	50	0	0	5	1
ORLANDO	70	48	85	32	59	-1	1.3	-8	.8	4.9	124	1.3	62	94	50	0	1	6	1
TALLAHASSEE	61	37	72	22	49	-3	6.2	1.6	1.8	14.2	153	6.2	132	96	50	0	11	11	6
TAMPA	69	49	79	34	59	-1	3.3	1.1	1.0	5.2	121	3.3	150	94	56	0	0	10	3
WEST PALM BEACH	75	54	86	40	64	-1	1.2	-1.5	.6	11.3	227	1.2	44	92	49	0	0	9	1
GA ATLANTA	50	33	66	16	42	0	5.6	.7	2.1	8.7	95	5.6	114	85	49	0	14	12	3
AUGUSTA	55	34	75	23	44	-1	8.8	4.9	2.2	13.0	181	8.8	220	91	47	0	15	14	6
MACON	59	39	73	29	49	0	6.8	2.6	1.1	10.5	127	6.8	158	89	47	0	14	13	7
SAVANNAH	59	39	73	29	49	0	8.5	5.4	2.0	13.6	233	8.5	274	90	48	0	6	14	6
HI HILO	79	65	83	56	72	1	8.5	-9	2.8	14.3	64	8.5	90	91	60	0	0	15	4
HONOLULU	81	66	87	63	73	1	.4	-3.4	.2	1.0	14	.4	11	84	51	0	0	5	0
KAHULUI	79	64	85	55	72	0	1.7	-2.5	1.0	4.6	65	1.7	40	84	51	0	0	7	1
LIHUE	77	66	84	62	72	0	1.1	-5.2	.6	2.4	20	1.1	18	83	56	0	0	5	1
ID BOISE	36	19	53	0	28	-2	.8	-9	.3	.9	30	.8	50	91	55	0	30	10	0
LEWISTON	38	26	50	6	32	0	.4	-1.0	.2	.9	35	.4	29	85	60	0	21	4	0
POCATELLO	30	9	49	-14	19	-4	1.0	-1	.2	1.2	58	1.0	91	90	60	0	29	-13	0
IL CHICAGO	32	20	48	-5	26	5	1.7	.1	.5	2.8	74	1.7	106	90	61	0	30	11	1
MOLINE	33	18	50	-3	25	6	.9	-7	.3	2.9	81	.9	56	90	59	0	30	6	0
PEORIA	32	18	50	-7	25	4	1.5	-1	.5	4.1	113	1.5	94	93	66	0	30	10	1
QUINCY	34	19	52	-8	27	3	1.5	.2	.7	3.3	108	1.5	107	86	58	0	29	5	1
ROCKFORD	30	16	44	-7	23	5	.9	-6	.4	1.5	44	.9	64	89	64	0	31	6	0
SPRINGFIELD	33	19	54	-10	26	1	1.5	-1	.5	2.9	79	1.5	94	89	63	0	29	9	1
IN EVANSVILLE	39	25	60	-5	32	2	.8	-2.2	.2	3.0	46	.8	27	92	61	0	25	11	0
FORT WAYNE	31	18	49	-9	25	1	2.1	0	.8	3.7	81	2.1	100	92	69	0	29	11	1
INDIANAPOLIS	34	21	54	-3	27	1	1.6	-1.1	.6	3.3	59	1.6	59	89	66	0	28	10	2
SOUTH BEND	32	19	50	-7	25	2	2.3	-2	.5	4.0	73	2.3	92	91	65	0	29	13	1
IA DES MOINES	35	18	62	-10	27	8	.4	-6	.3	1.4	68	.4	40	87	57	0	31	6	0
SIOUX CITY	37	16	64	-9	27	11	.2	-4	-1	.4	31	.2	33	91	53	0	31	5	0
WATERLOO	30	13	45	-10	22	8	.5	-3	.3	1.3	65	.5	63	93	68	0	31	6	0
KS CONCORDIA	42	22	61	4	32	7	.6	-1	.3	2.0	150	.6	100	86	47	0	27	5	0
DODGE CITY	43	22	67	8	33	3	.6	-1	.3	1.5	139	.6	120	87	48	0	28	4	0
GOODLAND	44	20	70	3	32	5	.3	0	.2	.5	57	.3	75	82	42	0	30	4	0
TOPEKA	39	21	58	6	30	4	1.1	.2	.5	2.3	105	1.1	122	90	57	0	28	6	1
WICHITA	39	20	58	1	29	0	1.4	.7	.4	2.6	157	1.4	200	92	61	0	29	-7	0
KY BOWLING GREEN	42	27	58	7	34	0	1.6	-3.0	.5	6.4	70	1.6	35	95	62	0	23	11	1
LEXINGTON	39	24	59	5	32	0	1.3	-2.3	.4	4.6	62	1.3	36	89	57	0	27	12	0
LOUISVILLE	41	27	59	8	34	1	.8	-2.6	.4	3.5	51	.8	24	84	54	0	23	11	0
LA ALEXANDRIA	56	38	75	27	47	-5	4.4	-3	2.3	9.3	97	4.4	94	84	55	0	8	9	2
BATON ROUGE	59	39	77	26	49	-2	7.1	2.5	1.9	13.3	139	7.1	154	92	51	0	6	12	4
LAKE CHARLES	58	40	73	27	49	-2	6.8	2.5	2.9	16.6	178	6.8	158	95	59	0	6	10	4
NEW ORLEANS	59	40	76	26	50	-2	8.8	3.9	1.9	17.8	135	8.8	176	94	56	0	5	12	6

Based on 1951-80 normals.

Weather Data for the Week Ending January 31, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE DEC. 1	PCT. NORMAL SINCE DEC. 1	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	56	34	78	22	45	-1	2.3	-1.8	.8	7.0	88	2.3	58	94	49	0	16	6	3
ME CARIBOU	18	2	33	-25	10	-1	2.2	-2	.6	3.9	70	2.2	92	90	64	0	31	11	2
PORTLAND	31	12	40	-6	21	0	5.2	1.4	1.5	11.1	134	5.2	137	89	53	0	31	12	4
MD BALTIMORE	40	25	62	-2	32	0	6.1	3.1	1.8	11.6	181	6.1	203	82	47	0	23	11	6
SALISBURY	42	25	59	-6	34	-1	7.7	4.3	2.5	14.5	205	7.7	226	91	51	0	22	11	7
MA BOSTON	36	22	50	8	29	-1	7.3	3.4	2.3	13.7	162	7.3	183	83	52	0	29	13	6
CHATAM	39	26	49	13	33	1	6.1	1.7	1.9	13.6	146	6.1	142	89	62	0	29	14	4
MI ALPENA	31	15	45	-3	23	6	.9	-.8	.3	1.8	50	.9	53	92	61	0	31	7	0
DETROIT	32	20	47	-7	26	3	2.4	-.5	.4	4.6	106	2.4	126	92	64	0	29	13	0
FLINT	31	18	44	-7	25	3	1.2	-1.2	.2	2.9	81	1.2	75	90	64	0	31	16	0
GRAND RAPIDS	31	19	48	-5	25	3	.7	-1.4	.1	1.7	38	.7	37	87	59	0	30	12	0
HOUGHTON LAKE	29	14	46	-12	22	5	.8	-.7	.2	1.6	47	.8	53	90	63	0	31	12	0
LANSING	31	18	48	-9	25	3	1.0	-.7	.2	2.1	53	1.0	59	91	62	0	30	10	0
MARQUETTE	27	9	43	-16	18	6	1.4	-.6	.3	2.0	44	1.4	70	96	68	0	31	14	0
MUSKOGON	32	20	45	-9	26	3	1.5	-.9	.4	2.9	57	1.5	63	92	65	0	30	11	0
MN SAULT STE. MARIE	28	12	40	-21	20	7	1.8	-.4	.3	4.0	83	1.8	82	91	63	0	31	16	0
ALEXANDRIA	27	9	47	-24	18	13	.7	-.1	.3	.8	51	.7	88	91	66	0	31	5	0
DULUTH	23	7	45	-27	15	9	.7	-.6	.4	1.1	44	.7	58	89	61	0	31	5	0
INT'L FALLS	21	1	42	-35	11	11	.3	-.6	.2	.6	34	.3	33	91	64	0	31	3	0
MINNEAPOLIS	29	13	48	-14	21	10	.6	-.2	.4	.9	56	.6	75	90	62	0	31	6	0
ROCHESTER	27	12	45	-17	19	8	.6	-.1	.3	1.0	60	.6	86	92	69	0	31	7	0
MS GREENWOOD	52	33	72	19	43	-1	3.3	-1.8	1.1	5.9	56	3.3	63	93	54	0	16	7	2
JACKSON	55	34	75	21	44	-1	4.7	-.3	1.4	9.7	93	4.7	94	95	54	0	15	11	3
MERIDIAN	55	33	74	21	44	-1	8.8	3.8	4.5	12.9	121	8.8	176	94	49	0	18	12	3
MO CAPE GIRARDEAU	42	25	72	13	34	-	.7	-2.2	.2	3.1	46	.7	24	93	62	0	26	7	0
COLUMBIA	37	22	57	-3	30	2	2.1	.5	.8	4.1	117	2.1	131	94	64	0	28	8	2
KANSAS CITY	38	21	60	5	30	4	.8	-.3	.4	2.0	83	.8	73	88	56	0	28	7	0
SAINT LOUIS	38	24	61	2	31	2	2.0	.3	.9	3.0	77	2.0	118	86	56	0	26	8	1
SPRINGFIELD	41	24	66	8	33	1	2.1	.5	.8	3.4	81	2.1	131	90	55	0	27	9	1
WT BILLINGS	40	21	58	-4	30	10	.1	-.9	.1	.2	10	.1	10	70	38	0	28	1	0
GLASGOW	33	15	48	-11	24	16	.1	-.4	0	.2	22	.1	20	89	59	0	31	4	0
GREAT FALLS	42	23	61	-8	32	14	.1	-1.0	0	.3	16	.1	10	64	31	0	30	2	0
HAVRE	40	14	56	-18	27	16	.1	-.5	0	.1	6	.1	17	80	40	0	31	0	0
HELENA	35	12	50	-12	23	5	T	-.7	T	.4	30	T	0	85	47	0	31	0	0
KALISPELL	29	12	39	-4	21	2	.6	-1.1	.2	1.1	34	.6	38	98	74	0	31	8	0
MILES CITY	38	17	55	-5	28	14	T	-.5	T	.2	16	0	0	81	46	0	31	2	0
MISSOULA	29	12	41	-11	21	-1	.3	-1.1	.1	.8	30	.3	21	93	65	0	31	7	0
NE GRAND ISLAND	42	18	68	4	30	10	.1	-.5	0	.3	29	.1	20	86	41	0	31	3	0
LINCOLN	42	17	66	3	30	10	T	-.6	T	1.4	105	0	0	85	42	0	31	2	0
NORFOLK	39	16	63	-2	27	10	.3	-.2	.1	.7	57	.3	60	88	47	0	30	6	0
NORTH PLATTE	43	16	67	4	30	8	.2	-.2	.1	.4	52	.2	50	88	40	0	31	4	0
OHARA	38	20	63	-5	29	10	T	-.7	T	.7	49	0	0	76	54	0	27	3	0
SCOTTSBLUFF	43	15	66	1	29	5	.3	-.1	.2	.6	62	.3	75	84	37	0	31	5	0
VALENTINE	43	15	72	-3	29	10	.1	-.2	0	.1	10	.1	33	76	35	0	31	3	0
NV ELY	36	6	58	-17	21	-3	.8	0	.4	.8	56	.8	114	85	49	0	31	4	0
LAS VEGAS	55	34	67	26	45	0	1.2	.7	.7	1.6	199	1.2	240	68	27	0	30	4	0
RENO	44	20	67	5	32	0	.5	-.7	.4	.7	29	.5	42	87	41	0	30	4	0
WINNEMUCCA	39	15	58	-6	27	-3	.5	-.4	.2	.6	33	.5	56	88	48	0	31	8	0
NH CONCORD	31	9	46	-16	20	0	3.0	.2	.6	7.5	120	3.0	107	87	52	0	31	10	2
NJ ATLANTIC CITY	40	23	58	-8	32	0	6.3	2.8	1.7	11.1	157	6.3	180	90	52	0	26	9	6
NM ALBUQUERQUE	44	21	58	0	32	-2	.7	-.3	.2	1.1	118	.7	175	79	36	0	30	5	0
CLOVIS	49	26	69	12	38	0	.4	-.1	.2	1.8	158	.4	80	76	38	0	27	4	0
ROSWELL	55	25	74	8	40	-2	.3	0	.1	1.1	210	.3	150	82	33	0	27	3	0
NY ALBANY	31	12	47	-15	22	0	4.2	1.8	1.2	8.2	151	4.2	175	95	60	0	31	11	3
BINGHAMTON	29	17	48	-3	23	2	3.3	.8	.9	5.8	106	3.3	132	88	61	0	30	18	2
BUFFALO	32	20	46	-2	26	3	2.9	-.1	.5	6.9	107	2.9	97	92	61	0	30	20	1
NEW YORK	37	28	55	11	33	1	4.6	1.5	1.4	9.8	144	4.6	148	79	50	0	23	10	4
ROCHESTER	32	18	47	-2	25	1	1.9	-.5	.4	5.4	111	1.9	83	92	58	0	31	12	0
SYRACUSE	31	16	47	-7	24	1	2.8	.2	.8	6.2	106	2.8	108	108	59	0	30	17	1
NC ASHEVILLE	45	25	62	6	35	-2	3.5	0	1.5	7.8	111	3.5	100	93	50	0	27	12	3
CHARLOTTE	49	31	65	19	40	-1	4.2	.4	1.5	7.4	103	4.2	111	85	44	0	21	10	4
GREENSBORO	46	27	63	10	36	-1	3.8	.3	1.1	7.4	108	3.8	109	84	47	0	24	9	3
HATTERAS	53	39	74	26	46	1	9.9	5.2	4.1	16.6	180	9.9	211	90	54	0	10	10	5
NEW BERN	54	33	73	18	43	-1	7.0	3.0	2.3	10.5	136	7.0	175	95	52	0	14	10	5
RALEIGH	47	29	66	15	38	-2	6.5	3.0	1.7	9.4	141	6.5	181	85	45	0	20	11	4
WILMINGTON	56	34	73	23	45	-1	6.3	2.6	2.4	12.5	177	6.3	175	93	48	0	12	9	3
ND BISMARCK	32	12	50	-10	22	15	.1	-.4	0	.2	16	.1	20	90	64	0	31	6	0
FARGO	27	9	49	-22	18	14	.3	-.3	.2	.6	47	.3	50	88	64	0	31	5	0
GRAND FORKS	24	6	40	-20	15	13	.5	-.3	.3	.8	59	.5	63	89	71	0	31	2	0
WILLISTON	31	11	45	-10	21	14	.5	-.1	.2	.6	54	.5	83	92	66	0	31	5	0
OH AKRON-CANTON	32	21	46	-2	27	2	1.9	-.6	.4	4.7	91	1.9	73	92	66	0	30	14	0
CINCINNATI	38	23	56	-1	30	1	.9	-.2	.2	3.5	57	.9	29	83	57	0	28	8	0
CLEVELAND	34	21	52	-2	27	2	2.0	-.5	.5	4.8	92	2.0	80	89	62	0	29	16	0
COLUMBUS	36	23	52	2	30	3	1.1	-1.6	.4	4.0	74	1.1	39	88	58	0	29	11	0

Based on 1951-80 normals.

Weather Data for the Week Ending January 31, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE DEC. 1	PCT. NORMAL SINCE DEC. 1	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
DAYTON	34	22	53	-2	28	1	1.1	-1.5	.4	3.9	77	1.1	42	92	66	0	29	12	0	
TOLEDO	32	19	50	-7	26	3	2.0	.5	3.9	86	2.0	100	91	65	0	29	12	0		
YOUNGSTOWN	32	20	50	-4	26	2	1.8	.4	5.3	97	1.8	67	93	65	0	30	15	0		
OK OKLAHOMA CITY	44	27	66	6	35	-1	2.5	1.6	1.2	3.7	170	2.5	250	89	56	0	22	7	2	
TULSA	44	28	65	13	36	1	2.2	.9	.8	3.2	100	2.2	157	91	54	0	23	7	2	
OR ASTORIA	50	38	57	24	44	3	10.0	-1.3	2.5	17.3	76	10.0	88	93	64	0	8	18	6	
BURNS	31	9	48	-8	20	-7	1.2	.7	.6	1.4	101	1.2	240	62	54	0	30	5	1	
MEDFORD	48	29	67	15	38	1	2.9	-.5	.8	3.6	52	2.9	85	97	57	0	19	11	2	
PENDLETON	37	24	54	2	30	-2	1.5	-1.3	.5	2.3	68	1.5	88	93	67	0	25	11	0	
PORTLAND	46	34	55	23	40	1	6.5	.3	2.2	10.8	86	6.5	105	92	64	0	13	16	3	
SALEM	47	32	56	19	40	0	7.6	.6	1.6	11.5	81	7.6	107	97	66	0	16	17	7	
PA ALLENTOWN	35	21	49	-3	28	1	3.9	-.5	1.1	8.3	117	3.9	115	86	53	0	30	9	4	
ERIE	34	22	53	1	28	3	2.0	.7	.4	6.0	105	2.0	80	90	62	0	30	19	0	
HARRISBURG	38	25	57	4	32	1	4.6	1.4	1.0	10.6	160	4.6	144	85	50	0	26	10	3	
PHILADELPHIA	35	22	53	-2	28	1	2.4	-.4	.6	5.9	108	2.4	83	78	50	0	30	15	2	
PITTSBURGH	31	18	46	-5	25	-1	2.6	.3	.8	4.6	96	2.6	113	88	55	0	30	12	3	
SCRANTON	36	21	51	4	29	0	4.7	.7	1.1	12.8	150	4.7	115	84	51	0	29	11	4	
RI PROVIDENCE	57	38	71	28	47	-1	7.2	3.9	1.6	12.4	193	7.2	218	90	47	0	9	12	5	
SC CHARLESTON	53	33	72	22	43	-1	8.3	4.0	1.7	10.9	138	8.3	189	87	42	0	17	12	7	
COLUMBIA	53	34	71	23	44	-1	5.7	2.2	1.9	9.0	138	5.7	163	92	43	0	15	12	4	
FLORENCE	49	30	67	13	39	-2	4.6	.4	1.6	8.8	108	4.6	110	91	49	0	20	12	3	
GREENVILLE	SD ABERDEEN	34	11	58	-16	23	14	-.1	-.4	0	.1	9	.1	20	91	56	0	31	4	0
HURON	37	13	62	-16	25	14	12	-.3	-.1	.2	18	.2	50	89	50	0	31	2	0	
RAPID CITY	44	18	76	-4	31	10	T	-.4	T	.1	6	0	77	32	0	0	30	2	0	
SIoux FALLS	35	12	60	-18	24	12	2	-.4	.1	.2	12	.2	40	88	52	0	31	5	0	
TN CHATTANOOGA	48	30	64	15	39	0	6.4	1.2	3.4	11.2	108	6.4	123	91	51	0	21	15	2	
KNOXVILLE	45	28	62	9	37	-2	5.0	.3	1.6	9.1	98	5.0	106	93	56	0	23	16	4	
MEMPHIS	48	32	70	19	40	0	1.8	-2.9	.5	5.7	60	1.8	39	93	57	0	20	7	0	
NASHVILLE	45	28	61	6	36	-1	1.2	-3.3	.8	4.5	50	1.2	27	89	54	0	22	10	1	
TX ABILENE	55	32	80	18	44	0	.5	-.4	.2	2.6	142	.5	50	82	41	0	16	5	0	
AMARILLO	45	23	66	8	34	-1	1.5	1.0	.5	2.1	223	1.5	300	86	46	0	28	8	0	
AUSTIN	61	41	79	28	51	2	.9	-.7	.7	6.7	183	.9	56	87	45	0	5	3	1	
BEAUMONT	60	41	76	25	51	-1	7.8	3.6	4.0	17.4	199	7.8	186	93	54	0	6	9	4	
BROWNSVILLE	69	49	80	34	59	-1	2.5	1.2	1.1	4.9	203	2.5	192	97	56	0	0	8	3	
CORPUS CHRISTI	65	46	81	32	55	-1	2.2	.6	.8	6.8	223	2.2	138	96	55	0	1	8	2	
DEL RIO	63	40	80	24	52	1	.2	-.4	-.1	2.5	237	.2	40	88	68	0	5	5	0	
EL PASO	57	25	72	9	41	-3	.3	-.1	-.3	1.7	223	.3	75	81	27	0	25	2	0	
FORT WORTH	55	33	76	22	44	0	1.1	-.5	.5	3.5	107	1.1	65	89	46	0	16	5	0	
GALVESTON	60	47	74	35	53	0	1.1	-1.9	.4	5.2	79	1.1	37	90	58	0	0	8	0	
HOUSTON	61	41	78	26	51	0	2.3	-.9	1.2	8.0	116	2.3	72	93	50	0	6	8	2	
LUBBOCK	51	26	76	5	38	-1	.5	.2	.3	1.8	227	.5	125	85	41	0	24	3	0	
MIDLAND	56	29	79	12	43	-1	.1	-.3	.1	3.4	385	.1	25	84	35	0	21	1	0	
SAN ANGELO	59	31	81	19	45	-1	.7	0	.3	3.1	245	.7	117	88	38	0	17	3	0	
SAN ANTONIO	62	39	83	23	51	0	1.1	-.4	.7	8.2	278	1.1	69	90	44	0	8	4	1	
VICTORIA	64	43	78	31	53	0	2.4	.6	.9	6.7	167	2.4	126	95	52	0	2	6	2	
WACO	57	35	78	25	46	0	1.3	-.4	.9	4.8	132	1.3	76	95	49	0	14	5	1	
WICHITA FALLS	50	29	75	13	39	-1	1.8	.8	.7	2.7	125	1.8	200	91	52	0	22	7	2	
UT BLANDING	40	17	52	3	29	1	1.2	-.2	.4	1.9	71	1.2	92	86	57	0	30	7	0	
CEDAR CITY	39	14	58	-5	27	-3	.4	-.2	.2	.9	71	.4	67	85	46	0	29	5	0	
SALT LAKE CITY	35	17	50	0	26	-2	1.5	.1	.8	1.6	59	1.5	107	86	51	0	30	8	1	
VT BURLINGTON	27	9	37	-19	18	1	1.9	.1	.5	3.2	76	1.9	100	89	58	0	31	15	1	
VA NORFOLK	46	33	67	18	40	0	9.9	6.2	2.4	13.7	199	9.9	268	87	52	0	11	11	6	
RICHMOND	44	25	69	-1	35	-2	5.5	2.2	1.5	10.6	160	5.5	172	88	46	0	24	11	4	
ROANOKE	42	26	58	2	34	-2	4.5	1.7	1.2	10.0	174	4.5	161	81	48	0	25	11	5	
WA COLVILLE	34	24	41	8	29	4	1.6	-.7	.4	3.0	65	1.6	73	95	85	0	28	9	0	
QUILLAYUTE	48	36	53	23	42	3	14.0	-1.0	2.4	26.5	84	14.0	93	99	73	0	12	22	11	
SEATTLE-TACOMA	46	35	59	23	41	2	5.4	-.6	1.5	9.1	73	5.4	90	92	64	0	10	18	3	
SPOKANE	33	20	42	1	27	1	1.4	-1.1	.4	2.3	47	1.4	56	97	74	0	29	12	0	
YAKIMA	35	21	47	5	28	0	1.3	-.1	.3	2.2	80	1.3	93	95	69	0	29	10	0	
WV BECKLEY	37	22	56	-3	29	-1	3.2	-.2	1.0	6.0	90	3.2	94	91	61	0	29	21	3	
CHARLESTON	40	26	58	-2	33	0	3.2	-.3	1.1	7.1	105	3.2	91	91	56	0	24	16	1	
BUNTINGTON	40	26	59	0	33	0	2.5	-.8	.9	6.0	95	2.5	78	87	55	0	25	15	1	
PARKERSBURG	37	24	54	1	31	0	1.5	-2.2	.6	5.5	85	1.5	41	87	55	0	26	10	1	
WI GREEN BAY	29	14	44	-14	22	8	.5	-.7	.2	1.0	36	.5	42	93	65	0	31	7	0	
LA CROSSE	29	13	46	-15	21	7	1.1	.2	.5	1.5	73	1.1	122	89	60	0	31	7	1	
MADISON	30	15	44	-12	23	7	.6	-.5	.2	1.3	48	.6	55	90	61	0	31	10	0	
MILWAUKEE	31	18	45	-7	25	6	1.2	-.4	.4	2.3	63	1.2	75	87	60	0	31	11	0	
WAUSAU	28	12	45	-19	20	9	.6	-.3	.4	1.1	48	.6	67	85	56	0	31	6	0	
WY CASPER	32	14	46	-11	23	1	1.4	-.9	.5	1.7	169	1.4	280	80	52	0	30	10	0	
CHEYENNE	40	19	65	-4	29	3	.1	-.3	.1	.3	35	.1	25	71	34	0	29	3	0	
LANDER	27	6	50	-16	17	-3	.7	-.2	.2	.9	90	.7	140	79	51	0	30	4	0	
SHERIDAN	37	16	58	-8	27	7	.5	-.3	.2	.6	43	.5	71	85	51	0	31	5	0	
PR SAN JUAN	84	69	88	67	77	0	1.2	-1.8	.4	4.2	57	1.2	40	94	65	0	0	11	0	

Based on 1951-80 normals.

Heating Degree Day Summary Table

CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NESDIS-NOAA

LAST DATE OF DATA COLLECTION PERIOD IS 1-31-1987
ACCUMULATIONS ARE FROM JULY 1
** = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

Table with columns: STATE CITY, CALL, WEEK TOTAL, WEEK DEV, WEEK FROM, WEEK FROM, CUM TOTAL, CUM DEV, CUM FROM, CUM FROM, CUM FROM, CUM FROM, CUM FROM. Rows list various cities and their corresponding weather data.

National Agricultural Summary

January 26 to February 1, 1987

HIGHLIGHTS: Below-freezing temperatures again pushed into Florida, causing vegetable leaf burn but left citrus crops unharmed. The cold weather slowed tree growth. Unusually warm temperatures melted snow cover across the northern and central Great Plains, the northern Rockies, as well as western and southern Corn Belt, leaving wheat and small grains vulnerable to freeze damage. Cotton harvest slowly crept toward completion in Texas, but snow and soggy fields kept cotton pickers idle in Oklahoma. Land preparation and herbicide application were underway in California for planting 1987 cotton. A few acres of soybeans were harvested in the Corn Belt. Livestock was mostly good.

SMALL GRAINS: Winter wheat was mostly good to fair. Snow cover virtually vanished across the central and northern Great Plains and northern Rocky Mountain States. Most of the wheat and small grains in the western and southernmost Corn Belt lacked proper snow protection from cold temperatures. Growers were concerned about freeze damage, especially when temperatures fell to single digits in some areas. In Arkansas, warm weather increased rust disease. Colorado and Georgia's wheat was mostly good. Montana's wheat sustained increased damage from wind and blowing soil. Low topsoil moisture and wind erosion damage concerned Nebraska's wheat growers. Crop condition declined to good to fair since the first of the year. Snow cover was sufficient to protect only about 34 percent of North Dakota's winter wheat. Extreme cold temperatures may have caused freeze damage early in the week. Oklahoma's wheat was good to fair. Growth rebounded following cold weather and the lack of sunshine, but weed growth increased. Snow covered small grains in Oregon's eastern high country, but small grains grew well in the Willamette Valley. In Texas, small grains benefited from milder weather. Melting snow provided good moisture in the Plains. Greening increased, but growth was slow. Growers applied topdressing in the Blackland and in central Texas. Arizona's wheat seedings were 94 percent (%) finished and 85% emerged. Most stands were excellent, except for blackbird damage in the southeast. Cool, dry weather slowed small grain growth in California.

COTTON: Open weather and dry conditions pushed cotton harvest to 93% completion in Texas. Soggy fields and snow cover kept cotton pickers idle in Oklahoma. Harvest was unchanged from the previous week at 70% completion. Some acreage is unfit for harvest because of poor quality. A few acres of cotton remain to be harvested in Georgia and New Mexico. California growers applied herbicides and pre-irrigated for the 1987 cotton crop. Cotton stalk shredding and plowdown continued in Arizona.

OTHER CROPS: Farmers continued spreading fertilizer and manure in the Corn Belt. Soybean harvest reached 95% completion in Missouri, but some areas still need frozen ground and dry weather to finish harvest. Spring crop land preparation was active in central and western Arizona. Early corn planting was underway in

western areas of the State. Sugarcane harvest was active in Florida. Sugarcane harvest continued in the Rio Grande Valley, but most operations were behind normal because of wet weather. Sugarbeet harvest progressed well in California.

Tobacco bed preparation was finished in Georgia but continued in other Southeastern States. Burley tobacco markets were virtually closed in Kentucky and Tennessee. A few clean-up sales may be held later in Kentucky.

FRUIT AND NUTS: Florida's citrus escaped serious harm, but the cold, windy weather slowed tree growth. Harvest was active in all areas for fresh and processed use. Caretakers hedged and topped picked groves. Early variety citrus harvest was nearing completion, but valencia orange harvest was just beginning in Texas. Grapefruit harvest continued. In California, citrus freeze damage became more apparent, as harvest progressed; however, the total effects were still uncertain. Date harvest slowed and bees were placed in almond orchards. Avocado growers continued assessing the freeze damage. Arizona's valencia orange harvest gained momentum, but volume was light. Damage to all citrus from the winter storm January 15 was much lighter than anticipated. Apple orchards were pruned. Oregon's fruit growers pruned fruit trees and caneberrries. Some caneberry training was underway.

VEGETABLES: Frost and high winds caused leaf burn in Florida's vegetable producing areas. The cold weather slowed early planted spring vegetable growth. Winter vegetable harvest was active. Volume leaders were tomatoes, cabbage, celery, and carrots. Good quantities of lettuce, squash, radishes, snap beans, sweet corn, eggplant, and escarole-endives were available. The first winter season potatoes were dug. Broccoli harvest increased in the Rio Grande Valley. Carrot, lettuce, and celery volumes were up slightly. Dry conditions allowed spinach, broccoli, carrot, and cabbage harvests to increase in the San Antonio-Winter Garden area. California asparagus harvest slowed in the desert. Broccoli, cauliflower, and carrot harvests were active in the desert. Lettuce volume was lower in the desert. The cold weather caused wide differences in weight and appearance. Strawberry fields were stripped because of frost, which reduced volume. Winter potatoes were dug in west Riverside. Arizona's vegetable harvest was active including lettuce, cauliflower, broccoli, asparagus, and mixed vegetables. Spring lettuce and watermelons were planted. Established lettuce was cultivated and side-dressed.

PASTURES AND LIVESTOCK: Low temperatures restricted pasture growth in the Southeast. Dryness hampered growth in the Southwest. Livestock continued grazing crop residue in the northern and central Plains. The cold weather increased supplemental feeding and caused weight loss in some areas. However, above-normal temperatures eased stress and supplemental feeding in the northern and central Plains. Livestock was mostly good overall.

State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service.

ALABAMA: Precipitation totals between 0.50 to 1.00 in. Some light snow across north. Temperatures averaged 2° below normal.

Wheat fair to good. Livestock mostly good. Farm activities include general care of livestock, poultry; repairing equipment; pruning fruit trees; soil testing; planting pine trees; planning for 1987. Fieldwork limited due to wet conditions.

ARIZONA: Mostly sunny skies 26th; afternoon readings 50s and lower 60s high country, 60s and lower 70s intermediate levels, low 80s deserts. Weak weather disturbance 28th produced isolated snow flurries, sprinkles north; had little effect on temperatures. Mild temperatures continued through 30th. Much colder, stronger low pressure system moved into State late 30th. Precipitation concentrated over Grand Canyon, Mogollon Rim, White Mountain region. New snowfall 1 to 8 in., moisture content of 0.50 to 1.00 in. Elsewhere, precipitation mostly 0.50 in., except very little or none extreme west. Average temperatures 2 to 9° above normal.

Wheat, barley 94% planted; 95% 1986, 95% avg. Stands established 85%. Both crops good to excellent except blackbirds damaging established stands southeast. Spring crop land preparation active west, just beginning central. Cotton stalk shredding, plowdown continued. Light alfalfa cutting performed, green chopping continued. Sheep grazing moderate. Established hay stands good condition. Early corn planting underway west. Valencia orange harvest gained momentum, volume light. Other citrus picked. Damage to all citrus from winter storm 15th much lighter than anticipated. Pecan shipping continued. Apple pruning performed. Vegetable harvests active, including lettuce, cauliflower, broccoli, asparagus, mixed vegetables. Spring vegetable planting moved ahead, including lettuce, watermelons. Established lettuce stands cultivated, side-dressed. Below normal temperatures during January set back winter feed growth on pastures, ranges. Cattle, calves 43% fair, 57% good north. Sheep, lambs 30% poor, 65% fair, 5% good. Livestock fair to good south. Stock water 89% adequate, 11% surplus. Soil moisture 5% short, 78% adequate, 17% surplus.

ARKANSAS: Quiet week for weather as high pressure dominated State. Temperatures above normal, rainfall light and very sparse. Temperature extremes 16°; 79°. Rainfall none to 0.20 in.

Warm weather increased rust pressure. Some cattle grazing pastures, some on full feed. Fruit pruning active parts of State.

CALIFORNIA: High pressure broke down to allow weather systems to drop rain, snow across northern two-third of State. Rainfall exceeded 1.00 in. over northern area, barely totaled 0.50 in. over most of central. Little rain over southern area. Temperatures averaged 2 to 6° above normal statewide.

Slight rainfall received; more needed. Small grain growth slowed by cool, dry weather. Herbicide applications, pre-irrigation underway for cotton. Alfalfa fields treated for weeds. Sugarbeet harvest continued. Avocado freeze damage 15th to 18th reports continued. Date harvest slowed. Bees placed in almond orchards. Citrus harvested; freeze damage apparent. Total effects uncertain. Artichokes moderate supply, some

frosted. Asparagus harvest slow desert. Broccoli harvest active desert, slow other areas. Carrot harvest active desert, San Joaquin Valley. Cauliflower harvest active desert, light Santa Maria, San Joaquin Valley. Lettuce volume lower desert, wide range weight and appearance due to cold weather. Packing fall potatoes active Tulalake-Butte Valley. Digging winter potatoes west Riverside. Strawberry fields being stripped due to frost, volume slowed. Planting processing tomatoes San Joaquin Valley. Conditions continued poor for ranges, pastures. Rains received northern, north central areas beneficial, however, soil moisture condition remained poor. Supplemental feeding remained heavy most districts. Stock ponds extremely low or empty. Calving, lambing continued northern areas.

COLORADO: Temperatures above normal over most of State. West slope 4 to 6° higher, while eastern plains 8 to 17° above normal. Precipitation amounts small; mostly 0.10 to 0.20 in. west, trace east.

Mild temperatures melting snow cover, giving livestock a breather from cold temperatures. Mud caused problems for some operations. Livestock mostly good. Winter wheat good.

FLORIDA: Coldest week of season. Temperatures averaged 4 to 8° below normal. Freezing north, near freezing central with frost colder locations south 28th. Near freezing north, frost central again, 31st. Rainfall less than 0.50 in.

Soil moisture mostly adequate; surplus some northern, western counties. Cold, wet conditions delayed fieldwork. Small grain growth good. Sugarcane harvest active. Many western Panhandle, northern, central Peninsula pastures poor to fair; elsewhere good. Cattle fair to good. Freeze forecast failed to materialize citrus areas. Cold, windy weather slowed tree growth. Harvest active all areas both fresh, processed usage. Caretakers hedging, topping picked groves. Below normal temperatures hovered over vegetable producing areas all week. Some leaf burn from accompanying frost, high winds. Growth early planted spring crops slowed. Harvest winter crops active. Volume leaders: Tomatoes, cabbage, celery, carrots. Also available in good quantities: Lettuce, squash, radishes, snap beans, sweet corn, eggplant, escarole-endive. Lighter supplies cauliflower, Chinese cabbage, strawberries available. First winter potatoes dug.

GEORGIA: Temperatures below normal early, warmed to above normal by end of period. Lows below freezing statewide on morning of 27th with 70 at Blairsville. Highs low to mid 70s over southern counties. Rain 0.50 to 1.00 in. extreme north; remainder less than 0.33 in.

Soil moisture adequate north; surplus other areas. Main activities: Harvesting cotton, pecans, soybeans; application of topdressing; land preparation, tobacco bed preparation complete. Purple blotch in sweet onions, control hampered by frequent rains. Small grains poor to mostly good. Pastures fair to mostly good. Cattle poor to mostly good. Hogs good.

IDAHO: Precipitation north, east below normal. southwest, south central precipitation above normal. Average temperatures 3 to 16° above normal statewide.

Farm activity consists of livestock management, pruning fruit trees, onion processing, some lambing, calving. Livestock good. Hay, roughage supplies adequate to surplus.

ILLINOIS: Temperatures averaged 3 to 7° above normal north, normal to 2° above normal south. Precipitation none to 0.70 in.

Winter wheat mostly good to fair. Livestock mostly good.

INDIANA: Temperatures averaged above normal. Lows averaged mid teens north, mid 20s south. Highs averaged near 30° north, near 40° south. Precipitation less than 0.25 in. most areas. Snow cover dwindling north, none south.

Outside activities limited by snow cover. Where conditions permitted spreading fertilizer, manure. Other activities included buying seed and chemicals, attending meetings, making plans, working on taxes, maintaining equipment, cutting wood and caring for livestock. Hay supplies adequate. Livestock good.

IOWA: Warm, dry week. Temperatures averaged 6° above normal east to 14° above normal west. Temperatures ranged from subzero northeast beginning, to record highs, Spencer 54°, Sioux City 57° 31st. Precipitation little south, west, to 0.20 in. northeast. Snow cover ranged from little east, north to none elsewhere.

Some farmer concern over effect no snow cover 1987 crops. Livestock mostly good, little weather stress.

KANSAS: Temperatures 40 to 45°, ranging 7 to 16° above normal. Precipitation zero to trace, except 0.01 in. northwest.

Virtually all snow cover melted. Wheat subjected to possible freeze damage. Warmer temperatures favor calving, lambing. Livestock making good gains.

KENTUCKY: Coldest weather of winter gripped State early week, warming trend 2nd half brought readings well above normal 1st. Temperatures dropped below zero some locations early in week, while most areas registered lows in single numbers. Warming resulted in mild 50s, lower 60s by 1st. Temperatures averaged above normal to 7° below normal. Precipitation spotty, averaging 0.50 to 0.75 in. below normal. Most areas registered 0.25 to 0.50 in.

Hay feeding active. Two burley markets had sales last week. Only Lexington will have sales week of 2nd with possible clean-up sales later.

LOUISIANA: Temperature slightly above normal. Temperature extremes 22°; 80°. Only traces of rain reported.

Activities: Winter chores, caring for livestock.

MARYLAND & DELAWARE: Maryland: Average temperature 20°, normal 32°; highest temperature 53°; lowest temperature -18° in mountains, -3° elsewhere. Precipitation mostly in form of snow averaged 1.02 in. Entire State covered with snow.

Main farm activity caring for livestock.

Delaware: Average temperature 19°, normal 33°. Precipitation mostly in form of snow averaged 0.98 in. Entire State covered with snow.

Main farm activity caring for livestock.

MICHIGAN: Temperature ranged 5° above to 2° below normal. Temperature extremes -15°; 41°. Precipitation 0.11 to 0.56 in. across State. State snow covered.

Forage, small grains protected by snow. Activities: Spreading manure, plowing snow, preparing taxes, signing up for Federal and State

crop disaster relief, general farm and equipment maintenance, attending meetings, pruning fruit trees, marketing grain and livestock. Livestock remained good. Lambing, calving, farrowing continued. Feed supplies adequate.

MINNESOTA: Temperatures averaged 10 to 18° above normal for State. Temperature extremes -35°; 54°. Precipitation averaged near normal to 0.19 in. above normal for State. Snow fall averaged 5 to 9 in. north central, northeast; 2 to 4 in. elsewhere. Snow depth weeks end 10 to 15 in. north central, northeast; none to 4 in. elsewhere.

Livestock good with above average temperatures. Fall planted grains, alfalfa should be protected in most areas with this week's snowfall.

MISSISSIPPI: Temperatures near normal; extremes 14°; 79°. First part of week cold with few snow flurries, midweek slightly warmer. Weak cold front moved in to State on 30th. North received 0.20 in., south very little.

Days suitable for fieldwork 1.0, 5.8 1986, 2.1 avg. Soil moisture surplus. Wheat fair.

MISSOURI: Temperatures averaged about 4° above normal, cooler temperatures along eastern edge. Precipitation nearly non-existent.

Soybeans 95% harvested, some areas still needing frozen ground, dry weather to finish. Topsoil moisture 1% short, 49% adequate, 50% surplus. Wheat 20% poor, 48% fair, 30% good, 2% excellent. General condition livestock 17% poor, 77% fair, 6% good. Livestock losses normal. Supply hay, roughage 3% short, 86% adequate, 11% surplus.

MONTANA: Temperatures above normal across entire State, ranged from 6° above normal northwest to 23° above northeast. Moisture from Pacific reached western third of State bringing from 0.10 in. lower elevations to 1.00 in. mountains. Central divisions dry, while eastern divisions light amounts.

Winter wheat mostly fair. Snow cover protection poor; considerable soil blowing. Wind damage to winter wheat increased. Livestock good to excellent, grazing open. Feed supplies adequate. Calving, lambing increased.

NEBRASKA: Very mild, dry weather continued across State. Light scattered snowfall early week with only trace amounts. Average temperatures ranged from 11 to 19° above normal. Several record high temperatures recorded during week. Temperature extremes 4°; 63°.

Winter wheat 2% poor, 42% fair, 56% good. Concern focuses on low topsoil moisture levels, some wind erosion damage. Conditions favorable for livestock producers. Feed grain, hay, forage supplies mostly surplus. Pasture, range supplies mostly adequate. Crop residue continued to be good source of feed.

NEVADA: Frontal systems crossed or threatened to cross State during week. Despite activity, precipitation generally light, temperatures well above normal most areas. Storm systems produced gusty winds with light precipitation in form of snow north, central areas. Skies partly cloudy throughout period.

Warming trend favorable calving, lambing operations. Livestock feeding requirements eased somewhat by above normal temperatures, lack snow cover. Good progress marketing potatoes.

NEW ENGLAND: Precipitation averaged 0.25 to 0.50 in. Maine, New Hampshire, Vermont, western Massachusetts northwest and coastal Connecticut, 0.50 to 0.75 in. central Massachusetts, Connecticut, 0.75 to 1.00 in. coastal Massachusetts, Rhode Island. Temperature averaged

below normal ranging from near zero north to low 20s along south coast.

Major farm activities machinery repair, cleaning snow, tending livestock, moving crops from storage.

NEW JERSEY: Temperatures below normal, averaged 21° north, 23° south, 27° coastal. Extremes -15°; 44°. Precipitation below normal north, south; near normal coastal; averaged 0.31 in. north, 0.36 in. south, 0.79 in. coastal. Heaviest 24-hour total 0.92 in. on 26th, 27th. Heaviest 24-hour snowfall 8 in. on 26th, 27th. Depth of snow on ground 2nd ranged 10 to 14 in. north, 2 to 8 in. south.

Farmers cleared snow, cared for livestock, tended normal winter chores.

NEW MEXICO: Warmer days returned to State; temperatures soared to above normal range. Temperatures from near normal central valleys to 5 to 10° above normal most other areas. Late-week storm brought rain or snow to all areas except southeast plains.

Days suitable for fieldwork 6.0. Soil moisture 64% adequate, 36% surplus. Cotton 14% poor, 57% fair, 29% good. Cotton 98% harvested, virtually complete. Barley 40% fair, 60% good. Irrigated wheat 20% poor, 20% fair, 60% good. Dryland wheat 25% poor, 25% fair, 50% good. Pecans 25% fair, 75% good, harvest nearly complete. Cattle, sheep 30% fair, 70% good. Range 20% fair, 80% good.

NEW YORK: Well below normal temperatures held for good part of week. Several record nighttime lows broken in this spell of arctic air with minimums ranging generally from 5 to 30° below zero upstate area. Temperatures moderated by weekend. Temperatures averaged 5 to 15° below normal.

General winter chores continued.

NORTH CAROLINA: Temperatures 7 to 10° below normal across State. Temperature extremes -30; 73°. Precipitation ranged from 0.15 to 2.22 in. across State.

Days suitable for fieldwork 0.7. Soil moisture 2% short, 48% adequate, 50% surplus. Small grains fair to mostly good. Pasture 12% very poor, 20% poor, 44% fair, 24% good. Hay, roughage supplies 32% short, 67% adequate, 1% surplus. Feed grain supplies 22% short, 76% adequate, 2% surplus. Major farm activities: Tending livestock; cutting firewood; repairing equipment; tax preparation; preparing tobacco plantbeds; snow removal; attending meetings; pruning fruit trees; soil sampling; general farm maintenance.

NORTH DAKOTA: January ended with mild weather. Temperatures rebounded as arctic air moved out of State. Several small fronts moved across State, resulting in light precipitation. Temperatures averaged 12 to 17° above normal. Temperature extremes ranged from -37° on 25th to 51° on 31st. Temperatures highest in west. Light precipitation reported over most of State, heaviest northeast and east central; most snow but some areas received rain, freezing drizzle. Petersburg reported most precipitation with 0.35 in.

Statewide average snow depth 2 in. versus 6 in. last year. Snow cover sufficient to protect only 34% of winter wheat, compared to 30% last month. Extreme cold early in week caused concern for wintering crops without cover. Livestock continued mostly good to excellent. Weight gains favorable due to mild temperatures, ample feed supplies. Calving 2% complete. Lambs 7% born, shearing 14% complete.

OHIO: Temperatures ranged single digits above and below zero midweek to high 40s weekend. Precipitation frequent as rain and snow; 0.33 to 0.50 in. water equivalent.

Wheat protected by snow during harsh weather. Higher temperatures, rain washed away most snow cover from winter wheat by end of period.

OKLAHOMA: Temperatures averaged normal central, northeast to 7° above normal Panhandle. Precipitation averaged none Panhandle to 0.37 in. south central.

Topsoil moisture 2% short, 30% adequate, 68% surplus. Subsoil moisture 2% short, 98% adequate. Wheat 5% poor, 40% fair, 55% good; 45% grazed. Growth rebounded after cold weather, lack of sunshine. Wet, icy wheat pastures trampled by cattle. Weeds increased. Cotton 70% harvested, 100% 1986, 100% avg. Soggy fields, snow cover caused delays. Some acreage not harvested because quality poor. Pastures mostly dormant; hay supplies ample. Cattle good; marketings average.

OREGON: Above normal temperatures entire State; 5 to 7° above normal west; 4 to 9° above normal central, northeast; 2 to 4° above normal remainder of east. Precipitation of 4.00 to 5.00 in. coast; up to 8.00 in. coast range; 3.00 to 4.00 in. Willamette Valley; 1.00 to 2.00 in. southwest valleys; over 1.50 in. most central areas; 0.50 to 1.00 in. north central region; less than 0.50 in. remainder of east.

Soil moisture supply adequate to mostly surplus west, short to adequate east except surplus in mountains of northeast. Winter wheat snow covered eastern high country. Open weather has grain, grass seed fields growing well Willamette Valley. Pruning fruit trees, caneberries. Some caneberry training started. Livestock mostly good to excellent. Western pastures fair to good, growth stopped. Eastern winter range good. Higher elevations hay feeding continued. Abundant hay supplies available. Lambing well underway. Calving getting started.

PENNSYLVANIA: Week cold, dry. Snowfall 1 to 6 in. across State later in week. Average temperature 19°, 8° below normal. Temperature extremes -16°; 41°. Average precipitation 0.32 in., 0.30 in. below normal.

Activities: Grading potatoes; hauling manure; cutting firewood; machinery maintenance; caring for livestock.

PUERTO RICO: Island average rainfall 0.23 in., 0.40 in. below normal. Highest weekly total rainfall 2.23 in. Pico Del Este-Luquillo followed by 0.81 in. San Lorenzo, 0.51 in. Rio Blanco LWR. Highest 24-hour total 1.15 in. Pico Del Este-Luquillo. Accumulated total rainfall 2.15 in., 22% below normal. Divisional temperature averaged about 77 to 78° on coasts, 70° interior, with mean station temperature ranging from 67° Adjuntas to 79° Roosevelt. Lowest minimum temperature 47° Adjuntas, highest maximum temperature 90° several areas.

SOUTH CAROLINA: Weather varied from unseasonably cold at beginning of period to mild at end. Precipitation 25th, 26th western, northern half of State. Rainfall averaged 0.50 to 0.75 in. Lowest temperatures on 27th averaged 15 to 18° below normal. Highest on 30th averaged 10 to 17° above normal.

Farm activities include pruning fruit trees as weather permits, caring for livestock and poultry, equipment maintenance, preparing tax records, attending farm meetings.

SOUTH DAKOTA: Average temperatures 10 to 20° above normal. Extremes -30; 58°. Melted precipitation 0.47 in. Black Hills, 0.21 in. plains. Precipitation below normal for week, year to date.

Winter grains good. No snow cover. Some blowing occurred. Livestock good; grazing open fields. Main agricultural activities; feeding, tending livestock, producer meetings.

TENNESSEE: Temperatures 3 to 8° below normal, middle, east; 2° above normal west. Averaged mid 30s middle, east; low 40s west. Some rain, snow statewide. Precipitation averaged 0.33 to 1.00 in. below normal.

Burley tobacco marketing completed. Livestock chores, machinery repairs, tending greenhouse tomatoes, soil sampling, bookkeeping, main activities.

TEXAS: Weak pressure patterns brought mild temperatures under fair to partly cloudy skies early week. Midweek trough west caused strong south to southwest winds, brought warm temperatures to State. Cooler air accompanied dry Pacific cold front dropped temperatures back to near seasonal levels late week. Temperatures above normal. Rainfall near normal Low Plains, below normal elsewhere.

Crops: Cotton harvest continued many fields, plains. Remaining cotton low quality, grade. Cotton 93% harvested, 100% 1985, 99%. Small grains benefited from milder weather all areas. Melting snow Plains supplied good soil moisture. Growth slow, but should increase. Greening increased. Grazing limited by slow growth, should also increase. Some topdressing Blacklands, central. Little or no insect, disease problems. Growth wheat, oats stimulated by warmer weather. Grazing increased as drying conditions occurred east. Sugarcane harvest continued Rio Grande Valley, operations behind because wet weather. Recent drying conditions help progress. Pecans 100% harvested, 100% 1985, 100% avg.

Commercial Vegetables: Broccoli increased harvest Rio Grande Valley. Cabbage, carrots, lettuce, celery harvest increased slightly. Some carrots damaged may result in harvest delays. Onions good progress. Valencia orange harvest underway, most early varieties over. Grapefruit harvest continued. Spinach, broccoli, carrots, cabbage harvest increased San Antonio-Winter Garden with drying conditions. Onions good progress.

Range and Pasture: Range, pasture conditions benefited warmer weather. Native grasses some growth. Small grains limited grazing, with improved weather grazing should increase. Feeding

Plains slowed with melting snow. Some livestock weight loss occurred during recent cold weather. Marketing remained steady, favorable prices.

UTAH: Precipitation light to moderate. Temperature 1 to 8° above normal.

Livestock feed adequate. Livestock generally good. Major farm activities: Care of livestock, building repair, tax records. Marketing livestock.

VIRGINIA: Heavy snow began early period, followed by record cold. Warming trend, light rain end period. Average temperatures 23°, 14° below normal.

Days suitable for fieldwork 0.3. Topsoil moisture 10% adequate, 90% surplus. Snow cover limited farm work to livestock care, equipment maintenance, snow removal. Feed use way up, feed supplies tight. Snow cover protected small grains from cold temperatures. Small grains good to excellent.

WASHINGTON: Scattered rain showers, snow higher elevations. Temperatures above normal statewide. Lows in 30s, highs in 40s and 50s.

Range, pasture 35% surplus, 65% adequate. Hay 10% surplus, 90% adequate. Winter wheat 10% excellent, 85% good, 5% fair. Snow cover inadequate most areas. No winter wheat damage reported. Orchard pruning continued. Preparation for calving, lambing underway. Farmers busy doing tax returns.

WEST VIRGINIA: Temperatures averaged 2 to 7° below normal. Extremes -24° Greenbank; 60° Creston. Precipitation averaged 0.50 in.

Soil moisture 8% short, 50% adequate, 42% surplus. Feed supplies 4% very short, 12% short, 84% adequate.

WISCONSIN: Above normal temperatures, low -25°; high 48°. Snowfall 1 to 8 in., average snow depth 4 in. Frost depth averaged 10.2 in., less than 14.2 in. average.

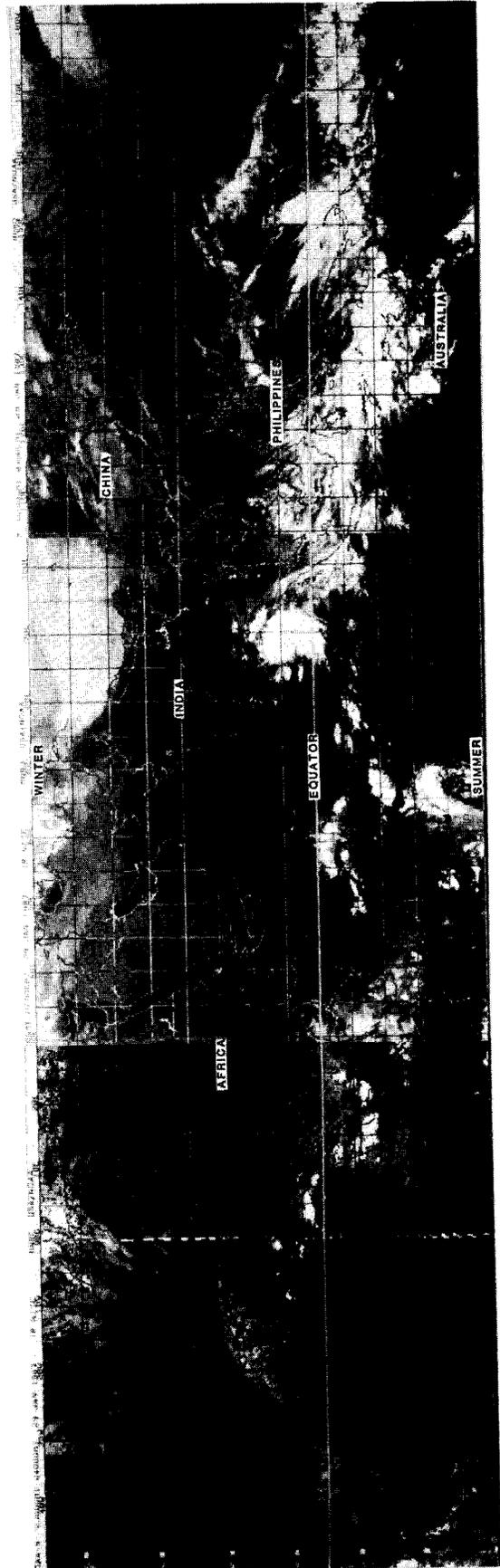
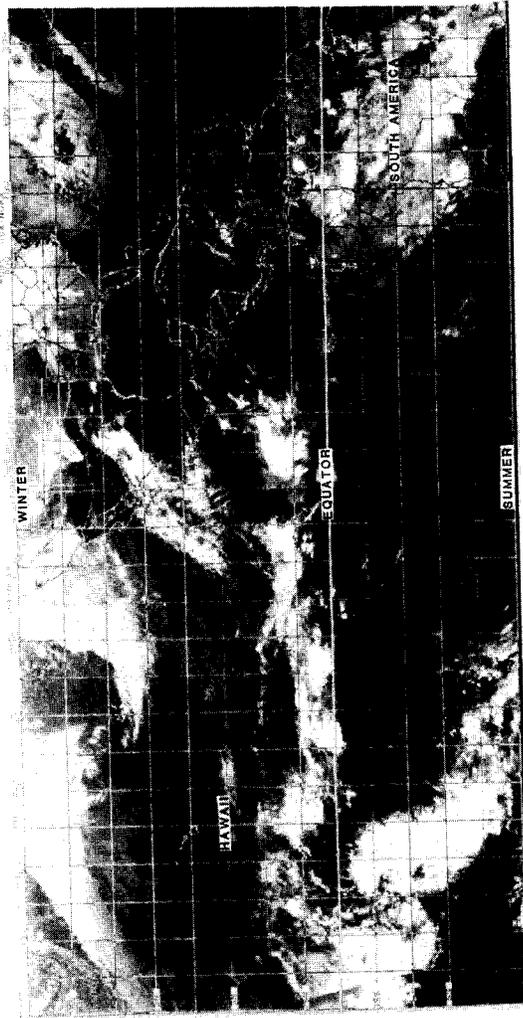
Soil moisture decreased.

WYOMING: Temperatures above seasonal normals. Precipitation below seasonal normals.

Winter wheat fair to good; some wind damage, low moisture. Livestock good, supplemental feeding continued. Hay supplies adequate.

Global Weather Satellite Image

JANUARY 29, 1987



International Weather and Crop Summary

January 25-31, 1987

JANUARY 1987

MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
*** = DATA NOT AVAILABLE

HIGHLIGHTS:

UNITED STATES ... Below-freezing temperatures push into Florida, causing vegetable leaf burn but leaving citrus crops unharmed. Unusually warm temperatures melt snow across the northern and central Great Plains, the northern Rockies, as well as the western and southern Corn Belt, leaving wheat and small grains vulnerable to freeze damage.

WESTERN U.S.S.R. ... In southern crop areas, moderate rain turns to heavy snow. Temperatures continue well below normal.

EUROPE ... Widespread showers in Spain improve moisture conditions for winter grains.

SOUTH ASIA ... Dry weather in southern India promotes cotton harvesting and summer rice planting.

EASTERN ASIA ... Mild, dry weather continues over winter wheat in the North China Plain. The mild weather may have generated some growth in southern crop areas.

SOUTH AMERICA ... Heavy rain falls over Brazil's northern soybeans, but hot weather and light rain increase the stress potential in southern Brazil and Argentina's major summer crop areas.

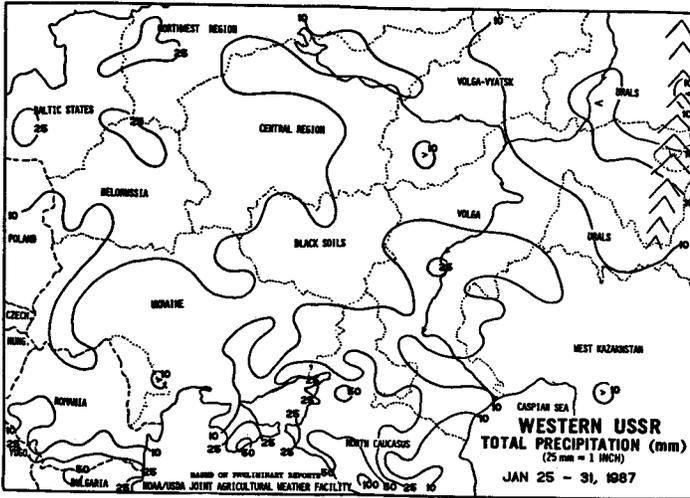
AUSTRALIA ... Heavy showers cover Queensland's summer crop region, but unseasonable, light rain returns to the coastal sugarcane areas. Lingering light rain occurs in southeastern wheat areas.

SOUTH AFRICA ... Showers benefit reproductive corn in the eastern Maize Triangle, but hot, dry weather persists in the western fringe of the primary corn area.

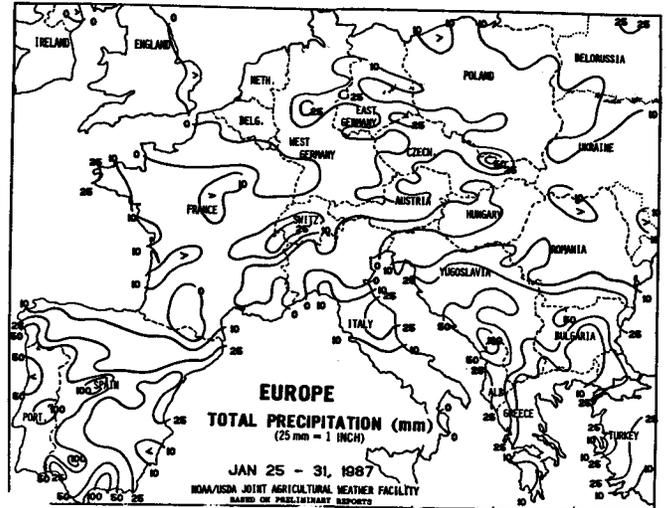
NORTHWESTERN AFRICA ... Widespread showers cover Moroccan winter grain areas, improving moisture conditions for vegetative growth. Dry weather covers eastern Algeria and Tunisia, but soil moisture was adequate to meet crop-moisture requirements.

COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG MAX	AVG MIN	HI	LO	DPART	F/NRM	DPART F/NRM	
NORWAY OSLO	-12	-18	5	-28	-15	-7.6	25.0	-32.8
SWEDEN STOCKHOLM	-10	-16	3	-26	-13	-10.3	22.7	-16.7
FINLND HELSINKI	-15	-21	0	-36	-18	-12.0	15.7	-28.5
U KING GLASGOW	3	-1	10	-9	1	-2.5	54.6	-77.7
EDINBURGH	4	-1	10	-9	1	-1.8	49.3	0.3
BIRMINGHAM	3	-2	10	-13	0	-3.0	28.6	-29.9
LONDON	3	-1	11	-11	1	-2.9	41.8	-33.9
IRELND DUBLIN	6	2	11	-5	4	-0.7	35.4	-32.2
ICELND REYKJAVIK	4	2	8	-4	3	3.1	53.0	-21.9
DENMRK COPENHAGEN	-3	-8	5	-18	-6	-5.8	11.9	-37.1
LUXEMB LUXEMBOURG	-3	-6	10	-17	-5	-5.1	41.5	-23.3
SWITZL ZURICH	-2	-5	9	-21	-4	-3.6	47.6	-20.9
GENEVA	0	-3	8	-14	-2	-2.6	43.2	-33.2
FRANCE PARIS	0	-4	14	-13	-2	-5.2	26.2	-24.2
STRASBOURG	-2	-6	12	-19	-4	-4.8	29.2	-6.1
BORGES	-1	-4	14	-13	-2	-5.5	31.5	-28.9
BORDEAUX	4	-2	17	-15	1	-4.2	38.0	-61.8
TOULOUSE	4	-2	19	-14	1	-3.5	22.8	-33.7
MARSEILLE	7	-1	16	-10	3	-3.1	84.8	40.1
SPAIN VALLADOLID	8	0	13	-8	4	-0.4	73.8	25.4
MADRID	9	-1	14	-6	4	-1.0	81.1	30.5
SEVILLE	15	7	20	0	11	0.2	200.3	114.6
E GRMY LEIPZIG	-5	-10	6	-28	-7	-6.9	68.2	34.4
DRESDEN	-5	-10	6	-25	-8	-6.4	95.3	57.3
W GRMY HAMBURG	-3	-8	9	-18	-5	-5.7	58.6	3.0
BERLIN	-5	-9	6	-21	-7	-6.6	64.0	23.4
DUSSELDORF	-1	-5	8	-16	-3	-4.8	59.7	-3.3
STUTTGART	-3	-7	10	-26	-5	-4.4	30.2	-18.6
NURNBERG	-3	-7	8	-21	-5	-4.4	45.3	2.4
MUNICH	-3	-7	9	-26	-5	-3.7	62.2	10.0
AUSTRI VIENNA	-3	-7	11	-22	-5	-3.8	87.5	59.6
INNSBRUCK	-2	-9	7	-22	-6	-3.7	41.1	-10.3
CZECH PRAGUE	-5	-10	8	-23	-8	-5.6	42.3	20.2
POLAND WARSAW	-8	-15	2	-31	-12	-8.5	14.8	-8.0
LODZ	-8	-14	3	-30	-11	-9.0	36.0	-2.1
KATOWICE	-7	-14	4	-27	-10	-7.8	76.5	34.6
HUNGAR PRZEMYSL	-8	-13	3	-25	-11	-7.3	33.5	1.2
BUDAPEST	-2	-7	10	-22	-4	-2.4	58.0	26.4
YUGOSL SARAJEVO	1	-5	12	-23	-2	-0.2	113.1	42.0
ROMANI BUCHAREST	-1	-7	10	-22	-4	-1.6	45.1	-1.5
BULGAR SOFIA	1	-4	10	-15	-2	0.5	91.4	64.2
ITALY MELAN	3	-4	14	-10	0	-1.4	43.4	-21.3
VERONA	3	-3	9	-9	0	-1.2	97.4	45.8
VENICE	4	-2	8	-9	1	-1.9	60.9	6.1
GENOA	10	5	18	-3	8	-0.2	72.4	-16.8
ROME	12	5	18	-5	8	0.4	129.0	50.3
NAPLES	12	5	20	-5	9	0.7	105.7	-7.2
GREECE THESSALONIKA	9	2	21	-9	6	0.3	38.7	-7.5
LARISSA	10	2	22	-7	6	1.0	31.1	-8.9
ATHENS	14	8	21	0	11	0.9	18.5	-32.4
TURKEY ISTANBUL	8	4	17	-5	6	0.4	123.0	37.0
ANKARA	4	-4	11	-15	0	-0.4	101.7	69.7
CYPRUS LARNACA	17	9	20	2	13	1.0	45.4	-48.6
USSR TALLINN	-11	-16	1	-31	-14	-8.7	37.4	0.2
LENINGRAD	-16	-20	-1	-35	-18	-10.3	23.2	-13.5
KAUNAS	-12	-18	1	-28	-15	-10.2	23.8	-10.4
MINSK	-13	-18	-2	-30	-16	-8.6	35.9	1.5
KAZAN	-17	-24	-4	-37	-20	-6.9	28.9	1.6
MOSCOW	-15	-20	-3	-33	-18	-8.3	37.8	-3.7
SVYERDLOVSK	-16	-23	-1	-35	-19	-3.9	46.1	23.6
OMSK	-14	-22	-1	-34	-18	0.6	26.3	10.4
KUSTANAY	-14	-22	-2	-34	-18	0.0	36.0	22.0
KRASNOYARSK	-14	-22	3	-41	-18	-2.1	16.3	0.1
NOVOSIBIRSK	-13	-19	0	-34	-16	3.4	22.2	1.9
BARNAUL	-10	-17	0	-31	-14	2.4	24.8	1.2
KHABAROVSK	-18	-27	-6	-35	-22	-0.9	19.0	9.0
VLADIVOSTOK	-11	-17	2	-28	-14	-0.8	19.4	4.5
KIEV	-11	-18	-2	-32	-15	-9.2	56.1	12.8
LVOV	-8	-14	2	-28	-11	-6.5	50.2	12.4
KIROVOGRAD	-10	-17	1	-26	-13	-8.0	49.9	15.0

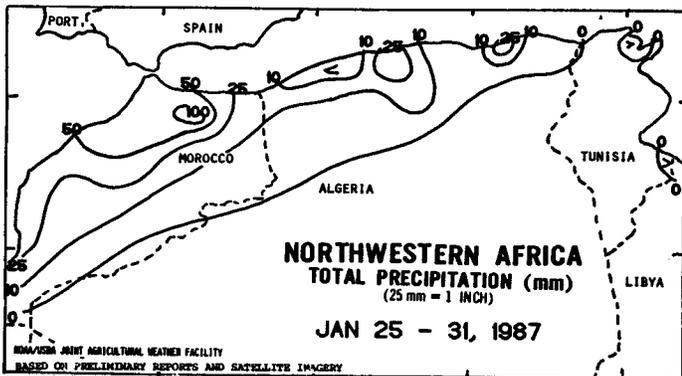
COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)				
	AVG	AVG	HI	LO	DPART	DPART	TOTAL	DPART		AVG	AVG	HI	LO	DPART	TOTAL	DPART			
	MAX	MIN	MAX	MIN	AVG	F/NRM	F/NRM	F/NRM	MAX	MIN	MAX	MIN	AVG	F/NRM	TOTAL	F/NRM			
USSR	ODESSA	-4	-10	5	-20	-7	-5.9	38.0	-5.5	TANZAN	DAR ES SALAAM	32	25	34	21	28	1.0	24.7	-42.8
	YALTA	5	1	14	-7	3	-0.6	170.6	104.6	GABON	LIBREVILLE	30	24	31	21	27	0.3	106.3	-180.7
	VORONEZH	-13	-21	-3	-36	-17	-8.1	48.1	11.6	TOGO	LOME	32	24	33	21	28	1.2	2.1	-12.1
	SARATOV	-14	-19	-2	-29	-16	-5.0	81.8	47.2	B FASO	OUAGADOUGOU	34	18	39	14	26	0.7	1.1	1.1
	KHARKOV	-11	-18	-2	-28	-14	-7.2	48.8	7.1	IVRY C	ABIDJAN	31	25	33	23	28	1.4	0.8	-21.1
	VOLGOGRAD	-10	-17	2	-30	-13	-5.1	48.2	12.8	MOZAMB	MAPUTO	31	23	36	20	27	0.8	88.9	-83.9
	ROSTOV	-5	-11	3	-19	-8	-3.4	103.1	56.0	ZAMBIA	KABWE	26	18	29	16	22	1.1	284.4	44.4
	ASTRAKHAN	-3	-9	5	-17	-6	0.3	20.8	6.7	ZIMBAB	HARARE	27	17	30	13	22	1.3	167.1	-31.8
	KRASNOGAR	-1	-5	11	-22	-2	-2.0	140.9	74.9	S AFRI	PRETORIA	29	18	33	14	23	1.7	81.5	-67.0
	ORENBURG	-13	-20	0	-34	-16	-1.9	41.6	17.2	KROONSTAD		30	16	35	11	23	0.6	67.0	-26.0
	TSELINOGRAD	-11	-18	2	-36	-15	2.7	34.3	27.3	JOHANNESBURG		27	15	30	11	21	1.8	135.3	7.9
	KARAGANDA	-9	-17	3	-33	-13	1.5	27.1	10.3	DURBAN		26	14	30	10	20	0.7	205.0	70.9
	TBILISI	6	0	12	-3	3	1.5	20.4	0.4	CAPE TOWN		28	22	31	18	25	0.9	106.1	-20.2
	TASHKENT	10	2	21	-14	6	5.0	15.3	-35.3	CANADA	TORONTO	-1	-8	8	-21	-5	2.0	55.9	5.5
	ASHKHABAD	14	1	26	-7	7	5.3	3.6	-21.4	MONTREAL		-5	-13	1	-27	-9	1.0	59.4	-12.7
SYRIA	DAMASCUS	15	1	22	-4	8	0.9	31.7	-12.4	WINNIPEG		-7	-17	6	-36	-12	7.2	10.9	-10.5
ISRAEL	JERUSALEM	14	5	22	0	9	0.3	124.3	2.4	REGINA		-3	-15	8	-25	-9	8.8	12.0	-4.7
PAKIST	KARACHI	27	10	37	3	19	0.7	0.0	-8.2	SASKATOON		-4	-15	5	-26	-9	8.2	10.7	-7.6
INDIA	AMRITSAR	20	4	23	0	12	0.2	21.3	-6.7	LETHBRIDGE		5	-7	14	-26	-1	9.3	8.8	-14.8
	NEW DELHI	22	8	25	5	15	0.6	31.9	12.2	CALGARY		5	-7	17	-18	-1	10.6	1.6	-14.6
	AHMEDABAD	29	14	33	9	21	1.1	0.2	-2.3	EDMONTON		0	-9	9	-17	-5	10.2	5.4	-19.1
	INDORE	27	11	32	6	19	1.0	5.6	-3.5	VANCOUVER		7	2	12	-4	4	1.9	146.2	-7.6
	CALCUTTA	26	13	28	10	19	-0.4	3.4	-8.0	MEXICO	GUADALAJARA	24	6	28	-1	15	-0.3	4.9	-7.1
	VERAVAL	29	16	32	13	22	1.0	5.0	4.4	MEXICO CITY		23	7	28	2	15	3.0	0.0	-5.3
	BOMBAY	31	18	36	11	25	1.1	0.0	-0.2	ACAPULCO		32	22	32	21	27	0.4	5.7	-4.2
	POONA	30	13	34	9	22	0.8	5.0	5.0	BERMUD	ST. GEORGES	20	16	24	12	18	0.7	156.3	31.8
	BEGAMPET	29	17	31	12	23	1.1	8.5	5.5	BAHAMA	NASSAU	26	16	30	10	21	0.2	16.0	-27.8
	MADRAS	29	21	30	19	25	0.8	5.5	-15.2	CUBA	HAVANA	26	19	32	15	23	0.8	4.7	-57.3
	MANGALORE	34	21	36	19	27	0.8	0.0	-5.1	JAMAIC	KINGSTON	31	22	32	18	26	0.6	13.8	-4.6
H KONG	HONG KONG	20	15	24	10	18	2.0	12.5	-14.5	P RICO	SAN JUAN	28	21	31	21	25	0.0	11.3	-65.2
N KREA	PYONGYANG	-2	-15	11	-27	-9	0.3	32.3	23.4	GUADEL	RAIZET	29	20	30	17	24	0.9	24.9	-43.3
S KREA	SEOUL	1	-6	9	-15	-3	2.4	44.0	27.0	MARTINQ	LAMENTIN	28	22	30	17	25	1.3	25.9	-88.6
JAPAN	SAPORO	-2	-8	7	-14	-5	0.1	120.5	6.7	BARBAD	BRIDGETOWN	28	24	29	22	26	0.5	5.7	-55.4
	NAGOYA	9	1	16	-4	5	1.3	58.8	8.7	TRINID	PORT OF SPAIN	31	21	32	19	26	1.5	3.8	-69.7
	TOKYO	10	2	18	0	6	1.3	41.0	-12.9	COLOMB	BOGOTA	20	6	22	-1	13	0.4	59.9	26.1
	YOKOHAMA	10	2	17	-1	6	1.0	44.5	-16.7	VENEZU	CARACAS	29	21	31	20	25	0.6	1.4	-51.4
	KYOTO	9	2	15	-2	6	1.6	66.4	9.2	F GUIA	CAYENNE	29	25	30	23	27	1.4	220.3	-202.8
	OSAKA	10	3	16	-2	7	1.0	52.0	0.6	BRAZIL	FORTALEZA	31	24	32	22	28	0.2	56.6	-81.9
THAILN	PHETCHABUN	33	18	36	13	25	2.4	0.0	-9.1	RECIFE		30	23	31	20	26	-0.5	50.3	-17.1
	BANGKOK	32	22	34	19	27	0.6	0.7	-9.6	BELO HORIZONTE		29	20	34	16	25	2.0	227.2	-57.3
MALAYS	KUALA LUMPUR	31	23	33	21	27	0.4	181.2	13.3	CAMPO GRANDE		30	21	33	18	25	1.0	458.5	229.4
VIETNM	HANOI	23	17	30	10	20	3.5	26.0	8.2	FRANCA		27	19	30	17	23	1.3	223.0	-26.9
CHINA	HARBIN	-14	-26	-3	-36	-20	0.2	9.9	6.2	RIO DE JANEIRO		30	25	37	22	27	0.9	138.6	-8.3
	HAMI	-7	-18	1	-25	-12	-0.7	3.9	2.0	LONDRINA		30	21	34	18	25	1.6	200.3	-14.7
	LANGHOU	4	-9	10	-14	-2	4.5	0.0	-1.3	SANTA MARIA		30	20	35	14	25	0.0	162.0	21.0
	BEIJING	1	-8	11	-16	-4	1.0	4.8	1.8	PORTO ALEGRE		30	21	34	18	25	0.7	166.8	47.7
	TIENTSIN	1	-7	9	-16	-3	0.8	2.9	-0.3	PERU	LIMA	28	21	32	20	24	2.7	0.0	0.0
	LHASA	7	-10	12	-14	-2	0.1	1.0	1.0	BOLIVI	LA PAZ	11	5	15	3	8	-1.4	201.5	58.3
	KUNMING	15	3	20	-2	9	1.5	28.5	16.8	CHILE	SANTIAGO	30	13	34	10	21	0.3	0.0	-0.6
	CHEUNGCHOW	7	-4	17	-9	2	1.1	7.2	-1.5	ARGENT	IGUAZU	31	20	35	14	25	***	137.0	***
	YEHCHANG	10	4	19	0	7	2.2	26.7	6.6	FORMOSA		32	23	35	20	28	-0.1	203.4	79.4
	HANKOW	9	2	17	-3	6	2.8	53.9	18.9	CERES		31	20	37	13	26	-0.2	166.0	39.7
	CHUNGKING	12	10	13	9	11	1.3	1.4	-18.7	CORDOBA		29	19	34	14	24	0.5	155.7	38.6
	CHIHKIANG	11	5	20	-1	8	3.0	84.2	46.9	RIO CUARTO		29	19	35	12	24	0.7	123.0	8.9
	SHANGHAI	9	2	16	-7	5	1.7	33.1	-10.9	ROSARIO		30	19	38	11	25	0.7	98.2	-29.9
	NANCHANG	11	5	17	0	8	2.9	61.7	3.4	BUENOS AIRES		30	18	38	8	24	0.8	65.1	-46.1
	TAIPEI	19	14	26	5	17	3.6	0.1	-37.0	SANTA ROSA		30	18	39	14	24	0.3	150.9	83.7
	CANTON	20	13	26	0	17	3.8	10.4	-27.6	TRES ARROYOS		28	15	38	6	22	0.1	24.5	-27.4
	NANNING	22	15	25	10	18	0.9	6.7	-12.9	MIDW I	MIDWAY ISLAND	22	18	25	14	20	1.2	72.6	-111.4
CNRY I	LAS PALMAS	22	15	25	10	18	0.9	6.7	-12.9	N CALD	NOUMEA	28	22	31	20	25	-0.3	25.4	-88.5
MOROCC	CASABLANCA	18	10	25	1	14	1.3	73.2	-0.6	FIJI	NAUSORI	29	23	32	21	26	-0.1	176.2	-159.8
	MARRAKECH	21	8	29	2	14	2.6	22.1	-6.6	SAMOA	PAGO PAGO	30	25	32	22	28	0.6	408.2	84.0
ALGERI	ALGER	16	6	22	-3	11	0.2	78.6	-19.1	TAHITI	PAPETE	31	25	33	23	28	1.2	182.3	-160.4
	BATNA	10	0	19	-5	5	-0.1	17.5	-22.4	N ZEAL	AUCKLAND	24	17	26	12	20	1.0	59.4	-1.9
TUNISI	TUNIS	15	7	22	1	11	-0.2	61.5	-1.9	WELLINGTON		22	15	25	11	18	1.9	17.0	-69.2
NIGER	NIAMEY	34	18	38	14	26	1.0	0.0	0.0	PA N G	PORT MORESBY	30	25	34	23	28	0.2	230.0	26.0
MALI	TIMBUKTU	31	13	37	8	22	0.0	0.0	0.0	AUSTRAL	DARWIN	31	26	34	23	28	0.0	650.4	240.6
	BAMAKO	34	20	38	11	27	2.1	1.1	1.1	MORE		33	23	39	19	28	1.4	91.5	9.1
MAURIT	NOUAKHOTT	30	14	38	11	22	0.7	0.0	-1.1	BRISBANE		30	24	35	21				



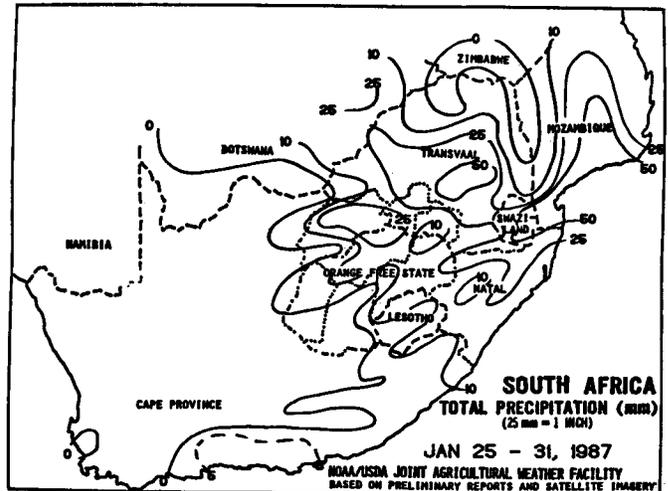
WESTERN U.S.S.R. ... Moderate precipitation (23 to 59mm) covered winter grains in the Crimea, North Caucasus, and parts of the northwest. In the south, fluctuating temperatures continued, with early-week moderate rain followed by heavy snow. In addition, strong winds accompanied the precipitation, causing blowing and drifting snow. Temperatures continued below normal over the region, but a deep snow cover, in central and northern areas, lessened the potential for significant crop damage from extreme cold. Weekly average temperatures were 6 to 8 degrees C below normal in central and northern crop areas and 3 to 5 degrees C below normal in the south.



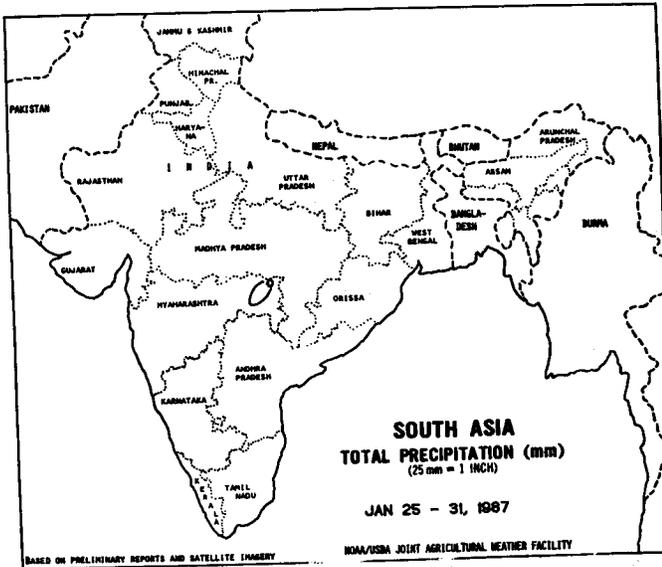
EUROPE ... Widespread showers covered winter grains in Spain, improving moisture conditions. Rainfall in northern Spain, where winter grains are semi-dormant, ranged from 14 to 44mm. In southern Spain, precipitation amounts from 25 to 116mm benefited winter grains in the vegetative stage. Dry weather covered dormant winter grains in England, France, northern Italy, and Hungary. An early-week storm brought light to moderate snow and strong winds to crop areas in the Netherlands, Belgium, West Germany, East Germany, and Poland. Moderate to heavy snow fell over eastern Yugoslavia, southern Romania, and northern Bulgaria. Weekly average temperatures were below normal over much of the region, except in Mediterranean areas, where temperatures were near to above normal.



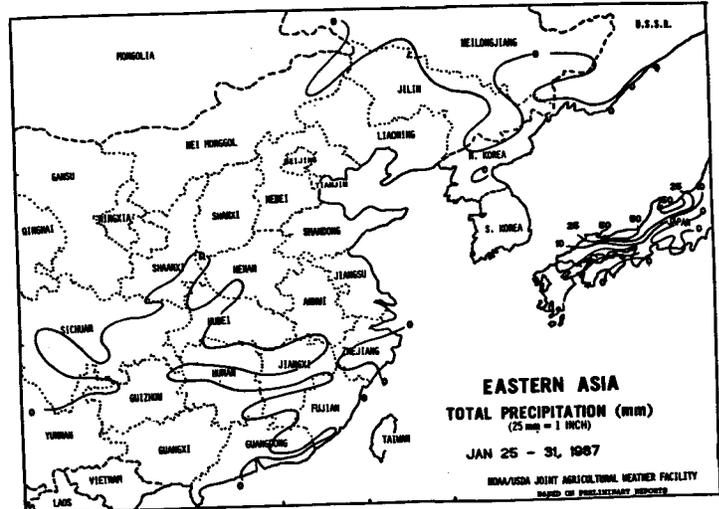
NORTHWESTERN AFRICA ... Widespread showers covered Moroccan winter grain areas, improving moisture conditions for vegetative growth. Rainfall in northern Morocco ranged from 50 to 74mm, while further south rainfall ranged from 25 to 50mm. Light showers (7 to 23mm) benefited winter grains in northwestern Algeria. Generally, dry weather covered winter grains in eastern Algeria and northern Tunisia. Soil moisture in these areas was adequate to meet crop-moisture requirements.



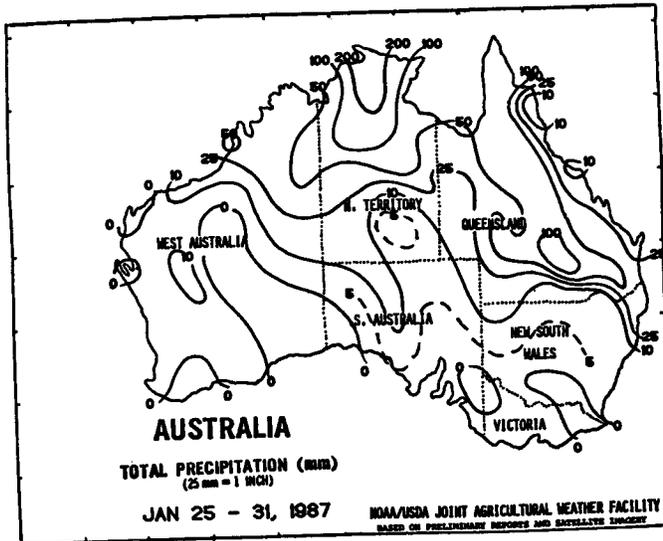
SOUTH AFRICA ... Substantial showers (20 to 48mm) continued in the southern Transvaal and northern Orange Free State, benefiting reproductive corn and maintaining the favorable moisture conditions which have existed since the early-October planting. Extreme maximum temperatures reached 35 to 40 degrees C in parts of the northern Transvaal, where rain diminished to only light, scattered showers, increasing the moisture demand of corn in weather-sensitive growth stages. Hot weather and minimal rainfall (less than 10mm) persisted in the western Orange Free State, stressing corn as it advances through reproduction. Soil moisture remains limited in the western Maize Triangle but adequate to abundant in the primary corn areas to the east. Weekly temperatures averaged 1 to 2 degrees above normal in the major growing areas of the Maize Triangle.



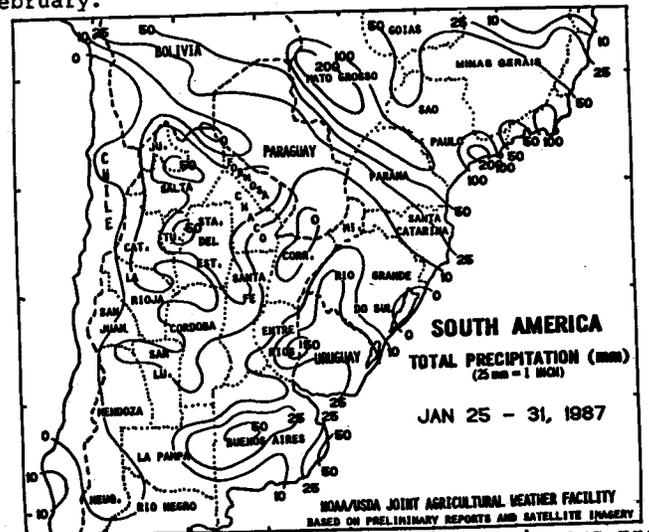
SOUTH ASIA ... Dry weather covered most winter grain areas of Pakistan and India. Wheat is normally grain-filling in central India and in or nearing the heading stage further north. Dry weather in southern India promoted summer rice planting and cotton harvesting, which usually lasts through February in central India.



EASTERN ASIA ... Mild, dry weather continued over winter wheat in the North China Plain. Weekly average temperatures were 2 to 4 degrees C above normal over most winter wheat areas, reducing crop hardiness. Furthermore, the mild weather may have generated some growth in southern crop areas of Sichuan, Hubei, and Anhui. Dry weather covered southern China, where additional precipitation is needed to build moisture reserves for early rice planting which usually begins in late February.



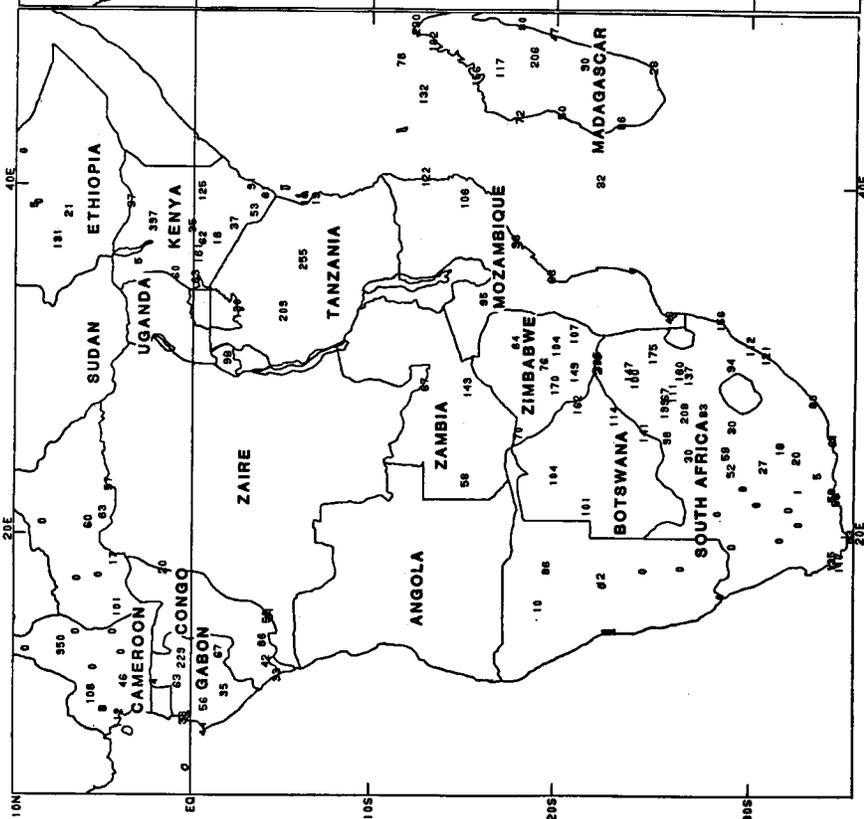
AUSTRALIA ... Heavy showers (25 to over 75mm) in Queensland's summer crop areas provided abundant moisture for reproductive grains and cotton but may have caused some lodging. Lighter rain (1 to 10mm) extended into the grain areas of New South Wales. Unseasonable, light rain (mostly less than 25mm) returned to coastal Queensland. Soil moisture along Queensland's coast since early December has been inadequate for the normal vegetative development of sugarcane. Mostly dry weather promoted wheat harvesting in Western Australia, and only light showers lingered in South Australia and Victoria, following last week's heavy rain. Wheat harvesting is normally completed by late January throughout Australia, but late-season rainfall likely has caused harvest delays. Weekly temperatures generally averaged 1 to 3 degrees above normal in eastern summer crop areas.



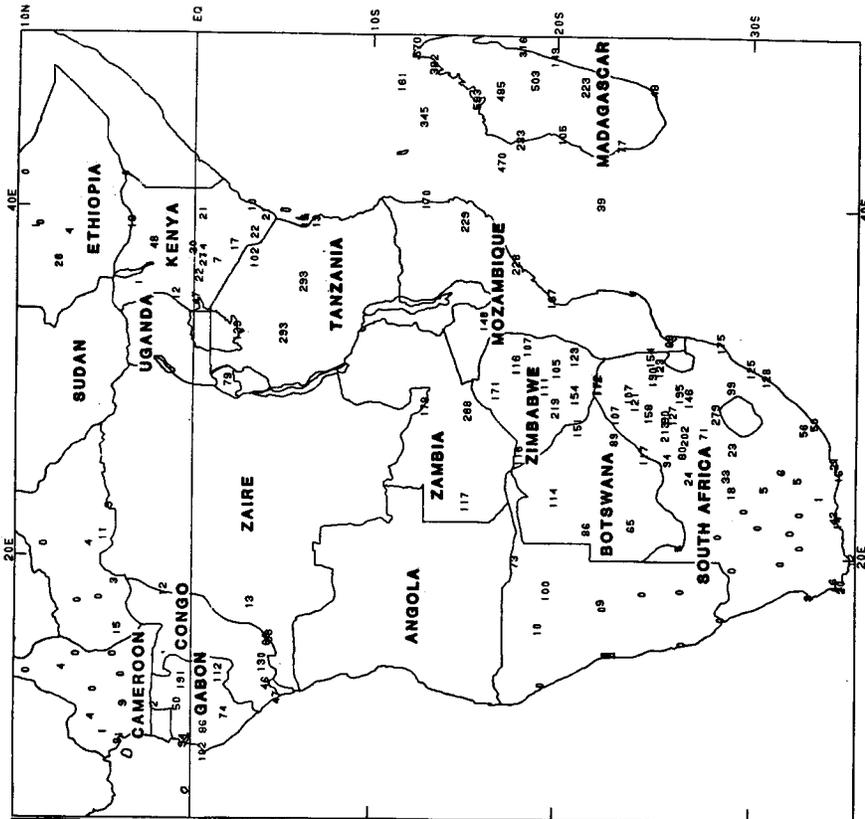
SOUTH AMERICA ... In Brazil, heavy showers produced 80 to over 200mm of rainfall in Mato Grosso do Sul, northern Parana, and Sao Paulo, and 50 to 80mm in southern Minas Gerais. Localized down-pours likely caused flooding and some early pod-shedding, but any topsoil moisture deficiencies were alleviated in northern soybean areas. The soybean crop is flowering to pod-setting throughout the region. In Rio Grande do Sul, the second week of mostly dry weather, except for some beneficial showers in the southwest, and recent high temperatures have reduced crop moisture and increased the stress potential. Hot weather covered Argentina's major summer crops which are mostly flowering and grain-filling, with weekly temperatures averaging 2 to 3 degrees C above normal and extreme maximum temperatures reaching 35 to 39 degrees C. Some rain (10 to over 25mm) benefited summer crops in central Buenos Aires, Entre Rios, and northwestern fringe areas. Weekly rainfall averaged less than 10mm in southern Cordoba, southern Santa Fe, and northwestern Buenos Aires.

African Agricultural Weather Summary

PERCENT OF NORMAL PRECIPITATION DECEMBER 26, 1986 TO JANUARY 24, 1987



TOTAL PRECIPITATION (mm) DECEMBER 26, 1986 TO JANUARY 24, 1987



In Tanzania, December rainfall ranked in the wet category, based upon historical comparisons. Rankings above the 85th percentile in the north-central and north coastal regions favored crop development. Some isolated pockets of dryness occurred along the central Tanzanian coast, but earlier rains helped crop establishment. In Kenya, January rainfall averaged below normal in the south and west. In Mozambique, December rainfall increased with percentile rankings in the near-normal range. These rains were especially beneficial for crop establishment in central and northern portions of the country, following earlier season dryness. Due to sporadic rains, moisture reserves were marginal in southern Mozambique. December rainfall was generally near-normal in Zambia, Zimbabwe, and Botswana, prompting early crop growth. Moisture conditions remain favorable in northern Mozambique, northern Zambia, and Tanzania, due to an active Intertropical Convergence Zone during January. Periodic showers occurred over southern Zambia, southern Mozambique, Zimbabwe, and Botswana, but total rainfall trended slightly below average. Presently, moisture is generally adequate in these southern areas, but crops are advancing into the critical reproductive and grain formation stages when they are most susceptible to moisture deficiencies and heat stress.

The Weekly Weather and Crop Bulletin (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Chronicle. It is issued under general authority of the Act of January 12, 1895 (44-usc 213), 53d Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the bulletin. The contents may be reprinted freely, with proper credit.

Annual subscriptions: domestic \$25, foreign \$33 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service/Climate Analysis Center
Managing Editor (Acting) Lyle Denny
Meteorologists Tom Heddinghaus,
Ray McInturff, Jim Williams, Wes Byrd, and
Randall Taylor

Subscriptions (202) 447-7917 . .

U.S. DEPARTMENT OF AGRICULTURE
Economics Management Staff
Editor Sharon Lee
National Agricultural Statistics Service
Agricultural Statistician Clif James
World Agricultural Outlook Board
Agricultural Weather Analysts . . Ray Motha,
Tom Puterbaugh, and Mark Brusberg

NOAA/USDA Joint Agricultural
Weather Facility
Room 5844 USDA South Building
Washington, D.C. 20250

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

WEEKLY NEWS BULLETIN
SECOND CLASS

SECOND CLASS MAIL
POSTAGE AND FEES PAID
NOAA PERMIT NO.
ISSN 0043 1974