WEEKLY WEATHER AND CROP BULLETIN

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

U.S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service and World Agricultural Outlook Board

Volume 69, No. 13 WASHINGTON, D.C. Mar. 30, 1982

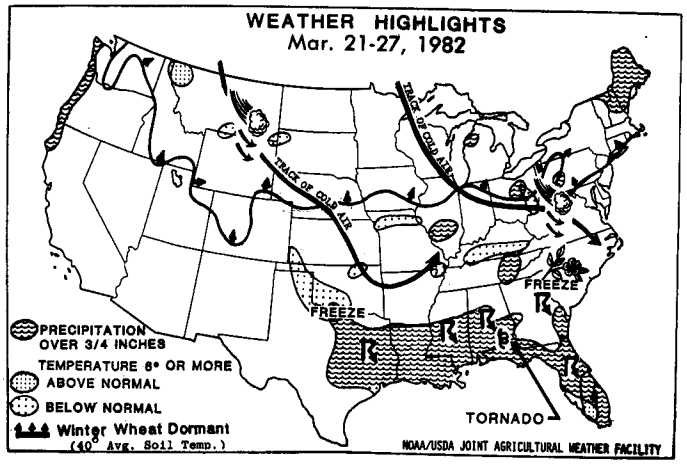
National Weather Summary

March 21-27, 1982

HIGHLIGHTS: Thunderstorms across the South produced heavy rain, hail, and at least one tornado in southern Alabama. Rain through Florida was beneficial but delayed fieldwork throughout the South. Warm weather existed early in the week, but a cold outbreak at midweek caused freezing weather in northern Texas. A second push of cold air at the end of the period brought subfreezing weather to the Southeast and threatened early blooming fruit trees from Virginia to Florida.

SUNDAY...A cold front moved through the east coast and trailed across the South to central Texas. Snow covered northern New England, and rainshowers occurred along and ahead of the front except in southeastern Georgia and Florida. Thunderstorms were scattered from central Texas to central Georgia. Freezing temperatures moved into the northern Plains and spread across the Rockies to the Sierra Nevada mountains and through the northern Cascades to the coast of Washington.

MONDAY...Rainshowers and occasional thunderstorms continued from central Texas through southern Georgia and Florida. Snowshowers remained over northern New England. The continued cold temperatures in the northern Plains spread through the West and across the North, but warmer weather pushed northward into the Plains.



TUESDAY...A low-pressure system along the Texas gulf coast spread showers and thunderstorms throughout the area and into South Carolina. After a short period of light rain, the rivers in Indiana and Ohio receded from flood stages, but the warm, moist flow from the South spread rain or snow from the east-central Plains to the northern Plains, the northern Mississippi Valley, and the western Great Lakes region.

WEDNESDAY...A cold front in the northern Plains met the warmer, moist air from the Gulf and triggered light rain or showers from Michigan to the Ohio Valley and to the northern Plains. Snow spread from

(Continued on back page)

FREE SUBSCRIPTIONS DISCONTINUED

Due to increased cost and budget limitations, free subscriptions of the Weekly Weather and Crop Bulletin will be discontinued on April 27, 1982. If you want to continue receiving the Bulletin, please consider these options:

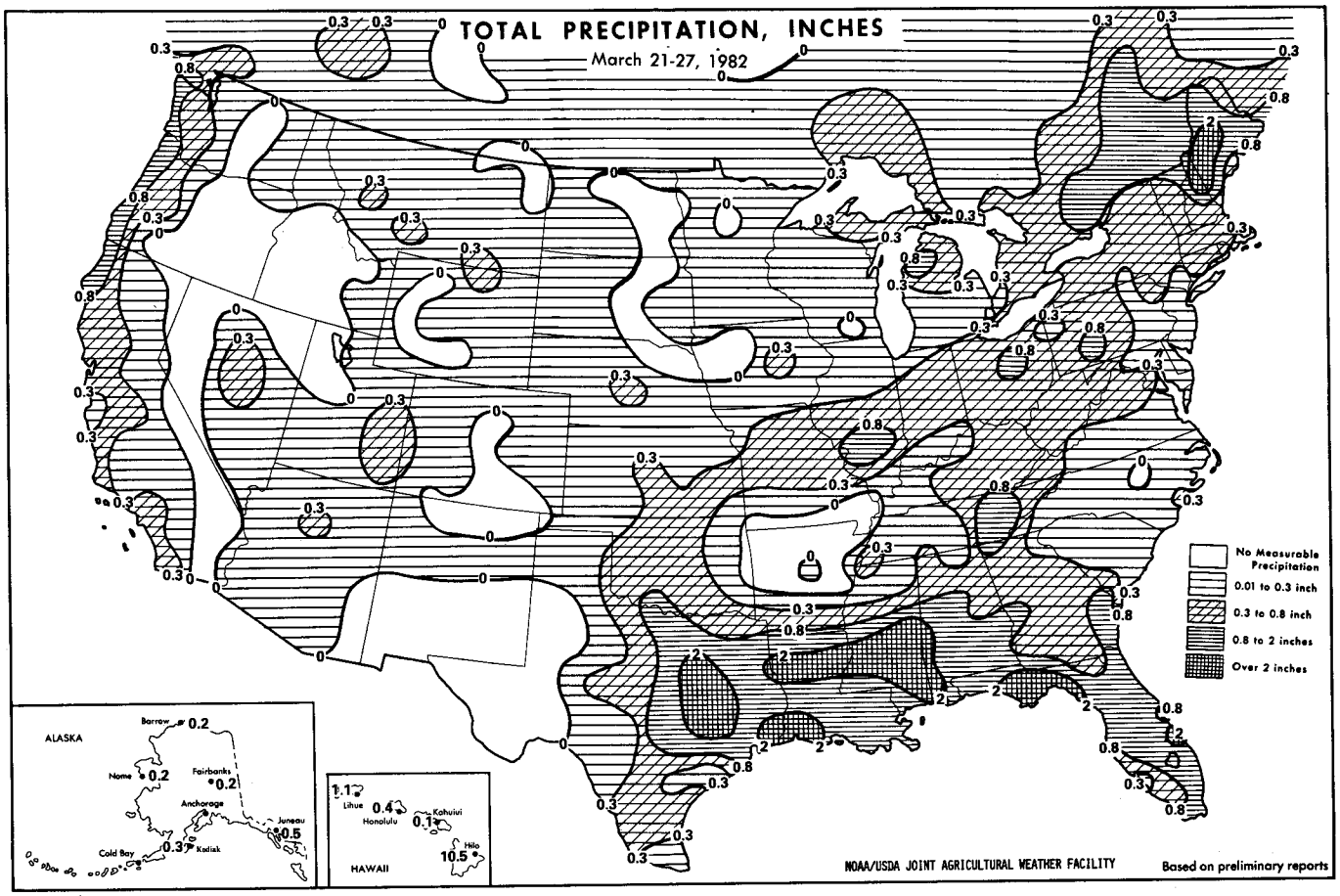
1. Subscriptions for the Bulletin are available at $6.00 covering the 23 weekly publications until September 30, 1982. A new subscription rate will become effective then, based upon the latest printing, drafting and postage costs. Subscriptions for a longer period cannot be accepted now. To order, send a check, payable to Department of Commerce - NOAA, along with your name and address to:
   NOAA/USDA Joint Agricultural Weather Facility
   USDA South Building, Room 5844
   Washington, DC 20250

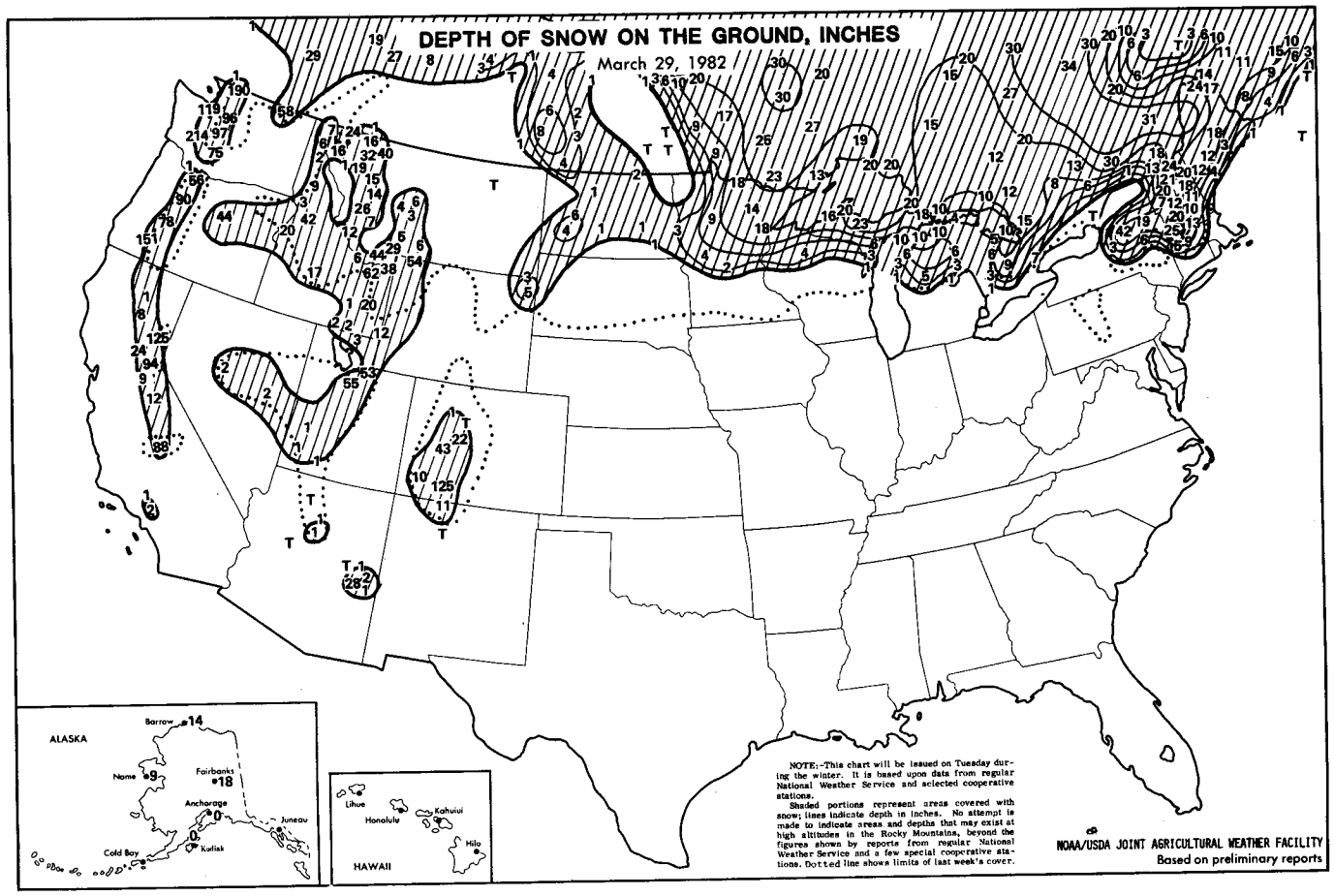
2. NOAA recipients requiring the Bulletin should telephone the subscription clerk at (202) 447-7917 or FTS 447-7917.

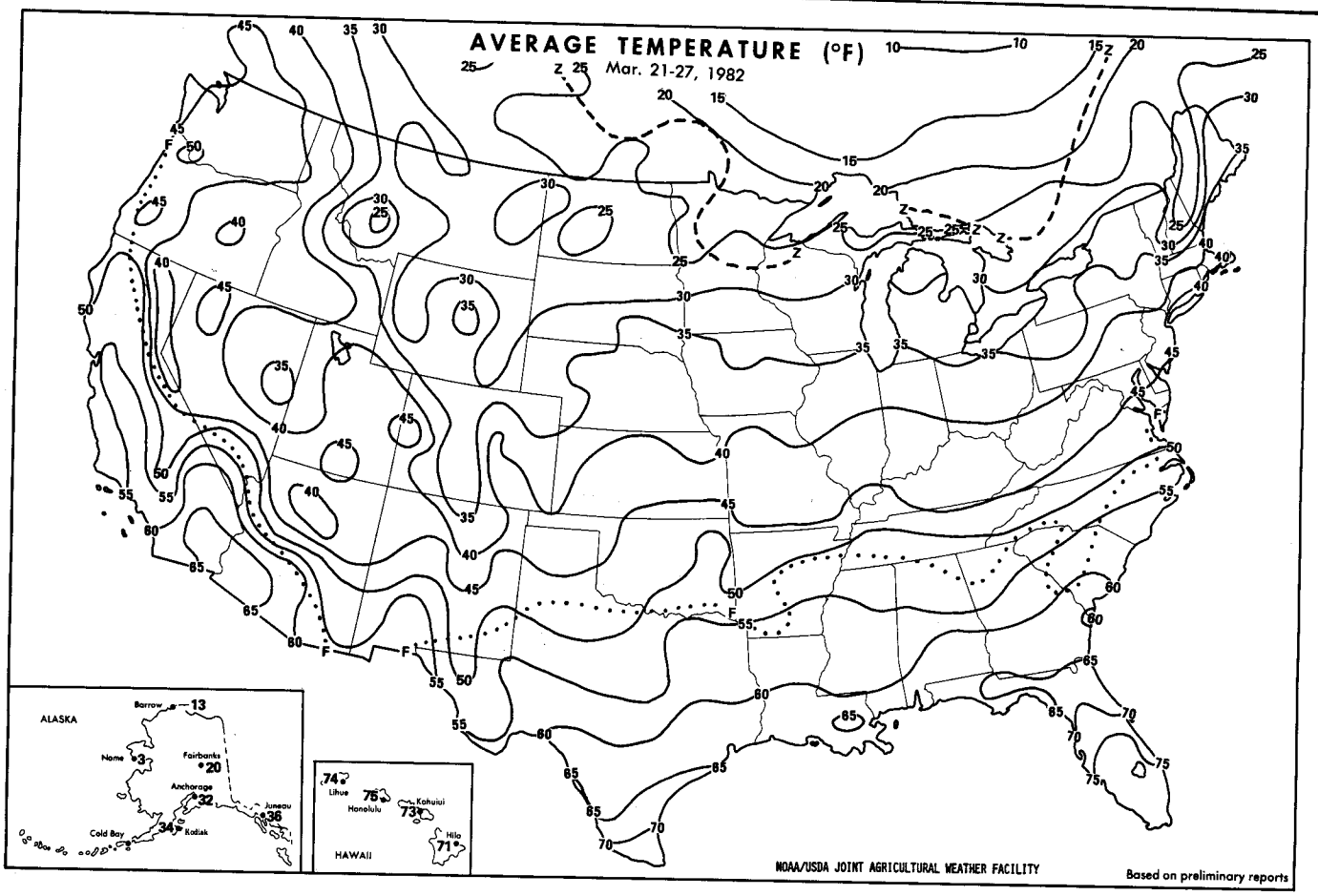
3. If you represent an agency of the U.S. Department of Agriculture, contact your Washington, DC, headquarters. The office of your Administrator has been advised of the above action. It is expected that your needs will be handled through bulk supplies ordered by your Agency.

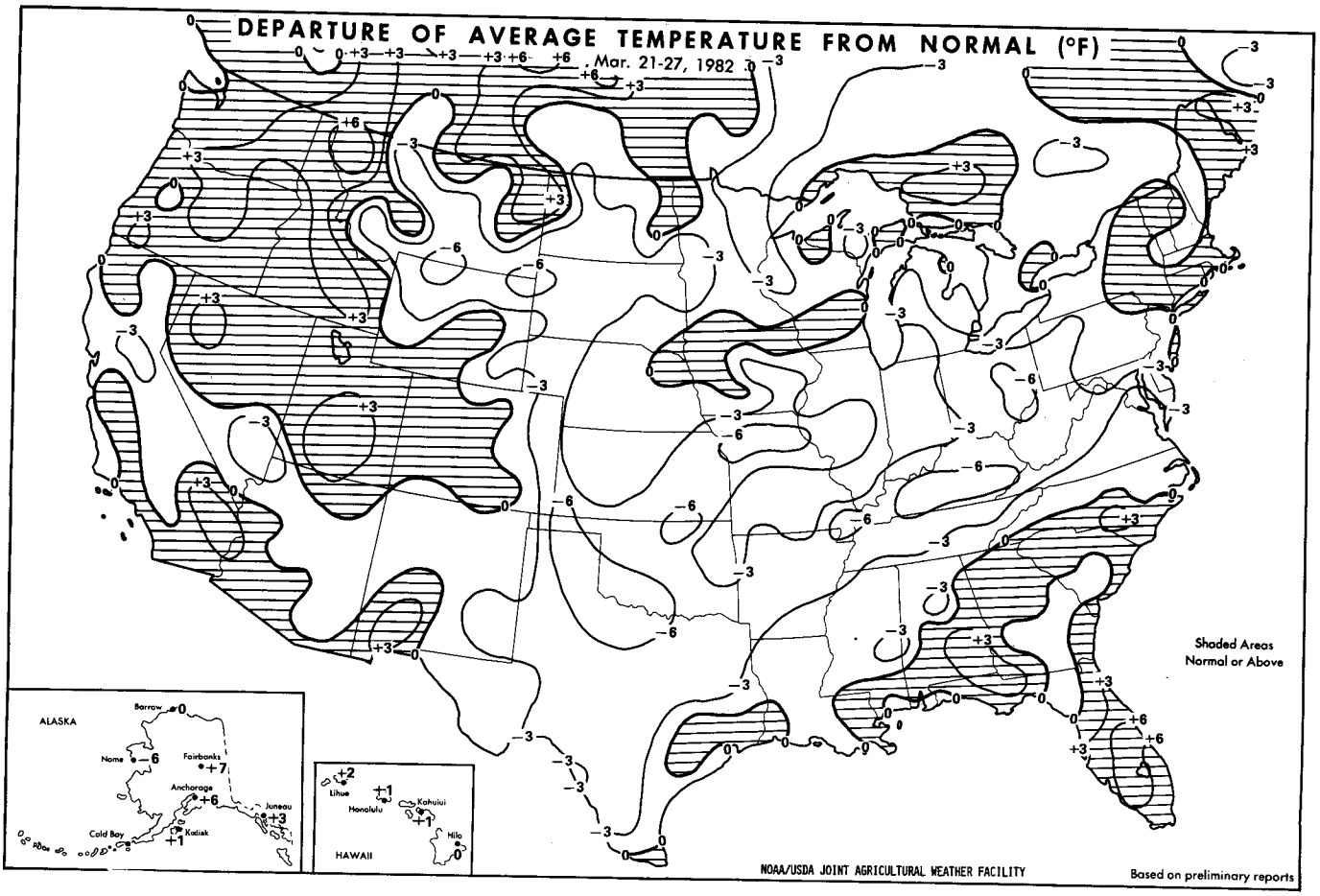
Contents

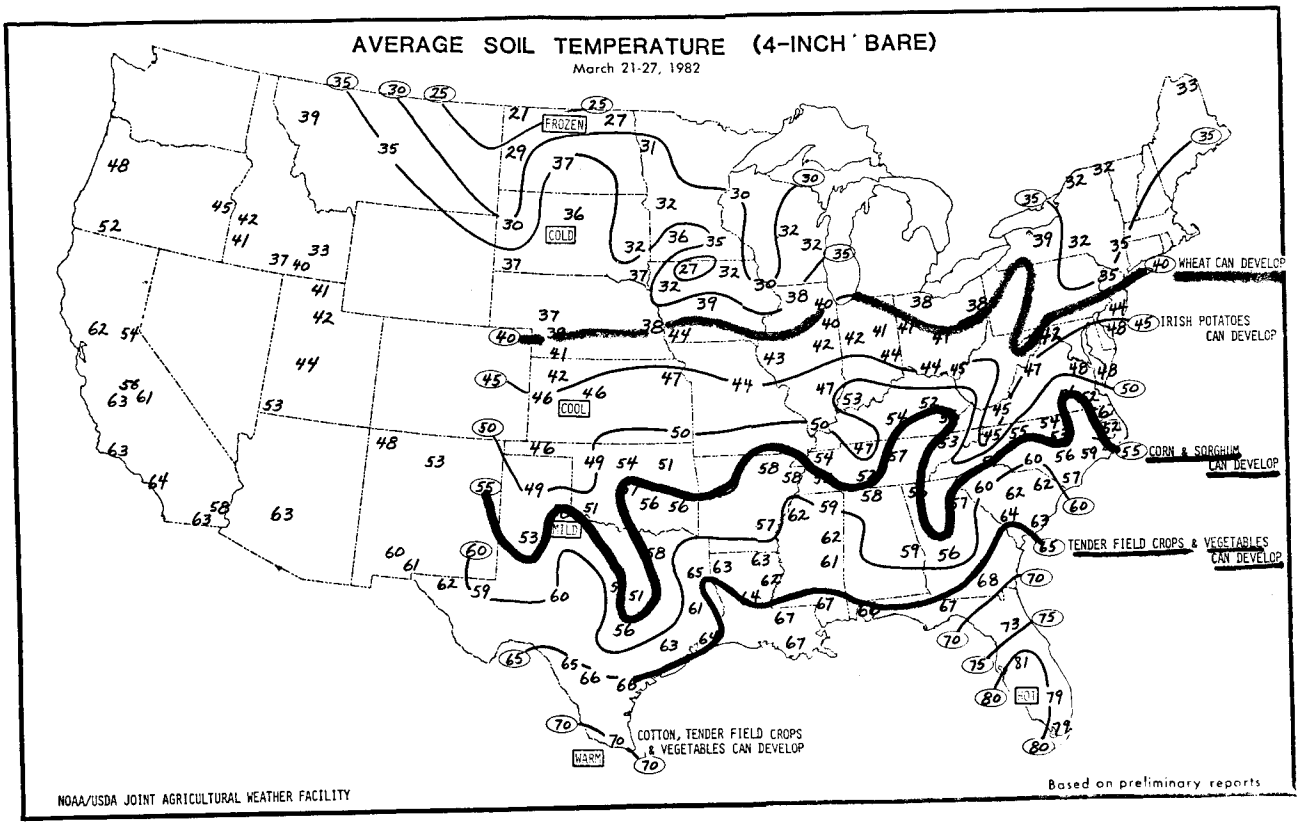
	Page
National Weather Summary	1
Precipitation & Snow	2
Average Temperature & Departure	3
Soil Temperature & U.S. 30-Day Outlook	4
Weather Data for Selected Cities	5
Heating Degree Days	8
U.S. 90-Day Temperature Outlook	9
Satellite Aids Weather Analysis	9
Geographical Areas	10
National Agricultural Summary	11
State Summaries of Weather & Agriculture	12
Cultivated Areas of the World	16
Eurasia 30-Day Outlook	17
International Weather & Crop Summay	17
Subscription Information	20


TOTAL PRECIPITATION, INCHES
March 21-27, 1982
No Measurable Precipitation
0.01 to 0.3 inch
0.3 to 0.8 inch
0.8 to 2 inches
Over 2 inches
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay
Kodiak
HAWAII
Lihue
Honolulu
Kahului
Hilo
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

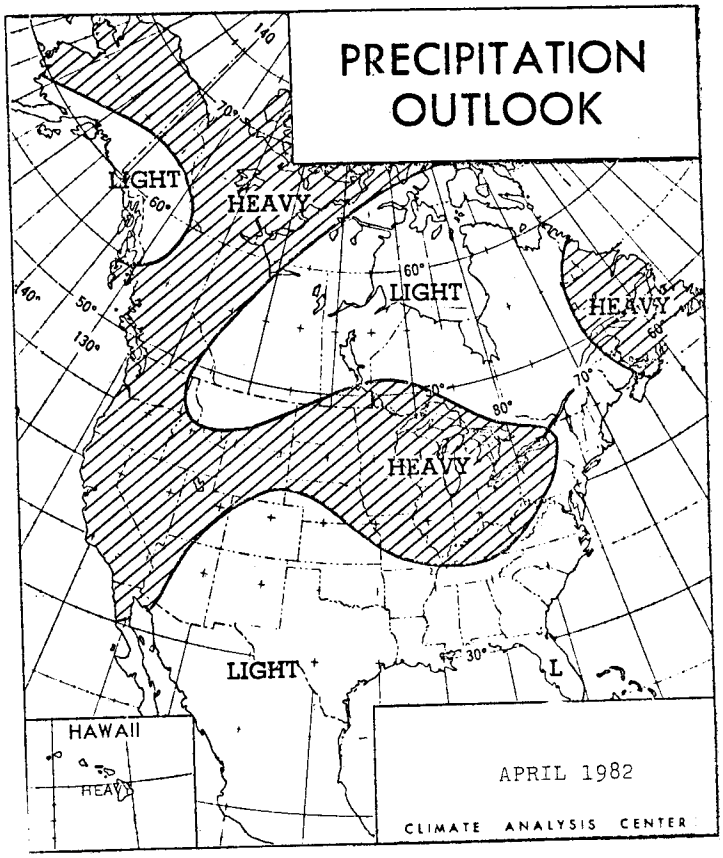

DEPTH OF SNOW ON THE GROUND, INCHES
March 29, 1982
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay
Kodiak
HAWAII
Lihue
Honolulu
Kahului
Hilo
NOTE:-This chart will be issued on Tuesday during the winter. It is based upon data from regular National Weather Service and selected cooperative stations.
Shaded portions represent areas covered with snow; lines indicate depth in inches. No attempt is made to indicate areas and depths that may exist at high altitudes in the Rocky Mountains, beyond the figures shown by reports from regular National Weather Service and a few special cooperative stations. Dotted line shows limits of last week's cover.
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

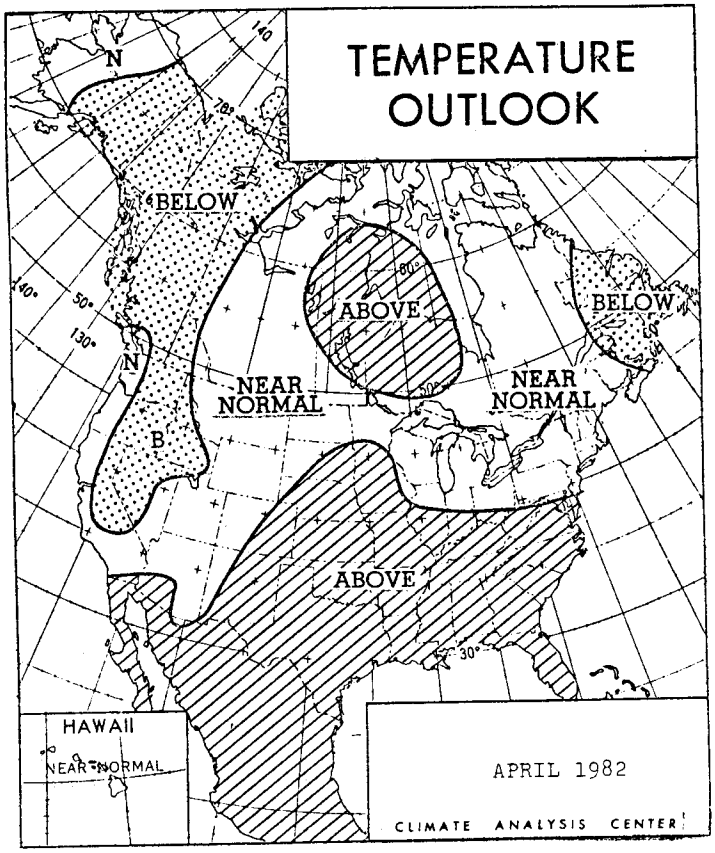

AVERAGE TEMPERATURE (°F)
Mar. 21-27, 1982
ALASKA
Barrow 13
Nome 3
Fairbanks 20
Anchorage 32
Juneau 36
Cold Bay 34
Kodiak
HAWAII
Lihue 74
Honolulu 76
Kahului 73
Hilo 71
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
Mar. 21-27, 1982
Shaded Areas Normal or Above
ALASKA
Barrow 0
Nome -6
Fairbanks +7
Anchorage +6
Juneau +3
Cold Bay +1
Kodiak
HAWAII
Lihue +2
Honolulu +1
Kahului +1
Hilo 0
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports



Average Monthly Weather Outlook





Weather Data for the Week Ending Mar. 27, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	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 Feb. 28	PCT. NORMAL SINCE Feb. 28	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
AL BIRMINGHAM	66	41	76	33	53	-2	1.0	- .4	.6	3.0	51	16.7	109	89	42	0	0	3	1
MOBILE	69	53	85	43	61	0	2.9	1.3	2.0	4.2	67	15.2	101	87	50	0	0	4	1
MONTGOMERY	69	53	83	45	61	3	.8	- .6	.4	3.9	71	18.7	142	73	40	0	0	2	0
AK ANCHORAGE	37	27	43	18	32	6	T	- .1	T	.4	67	1.0	48	75	46	0	5	2	0
BARROW	-9	-18	-5	-28	-13	0	.2	.1	.1	.2	200	.8	114	73	59	0	7	2	0
FAIRBANKS	30	11	43	-10	20	7	.2	.1	.1	.4	100	1.1	85	80	51	0	7	4	0
JUNEAU	40	32	44	30	36	3	.5	- .3	.3	6.3	197	10.6	104	94	66	0	5	3	0
KODIAK	39	28	49	23	34	1	.3	- .6	.1	1.8	50	13.1	100	80	52	0	6	2	0
NOME	12	-7	26	-24	3	-6	.2	0	.1	.9	100	4.0	160	71	45	0	7	2	0
AZ PHOENIX	75	51	79	46	63	2	.2	.1	.2	1.3	186	2.8	147	73	20	0	0	1	0
PRESCOTT	61	30	65	22	46	0	.1	- .2	.1	1.7	121	4.7	104	90	32	0	4	1	0
TUCSON	73	43	80	36	58	-1	.2	.1	.2	1.3	186	3.0	130	70	14	0	0	1	0
YUMA	79	55	85	51	67	2	.3	.2	.3	.9	225	1.2	120	46	16	0	0	1	0
AR FORT SMITH	62	38	75	27	50	-3	0	- .9	0	1.8	53	7.3	82	79	30	0	1	0	0
LITTLE ROCK	61	41	72	33	51	-3	T	- 1.2	T	1.9	42	11.7	92	70	33	0	0	1	0
CA BAKERSFIELD	70	49	76	40	59	2	T	- .2	T	1.6	200	2.8	104	76	41	0	0	1	0
EUREKA	56	42	58	36	49	0	1.1	0	.9	4.6	98	14.7	89	91	70	0	0	2	1
FRESNO	65	42	70	35	54	-2	.3	- .1	.3	3.4	227	6.0	128	94	47	0	0	2	0
LOS ANGELES	67	51	71	48	59	2	.3	- .1	.2	3.2	168	6.6	103	81	51	0	0	2	0
RED BLUFF	66	42	78	39	54	0	.1	- .5	.1	3.4	136	8.9	92	88	40	0	0	2	0
SACRAMENTO	62	42	66	36	52	-4	.3	- .3	.3	3.5	130	11.4	123	93	52	0	0	1	0
SAN DIEGO	68	53	70	48	61	1	.5	.1	.3	4.0	308	7.4	157	82	47	0	0	2	0
SAN FRANCISCO	60	44	64	40	52	-1	.3	- .2	.3	3.3	143	15.0	161	86	53	0	0	2	0
CO DENVER	53	24	59	18	39	0	T	- .3	T	.2	22	.6	30	72	22	0	6	0	0
GRAND JUNCTION	57	33	66	26	45	1	.2	0	.1	.9	129	1.7	85	71	25	0	4	2	0
PUEBLO	57	29	72	20	43	1	T	- .2	T	.1	17	.7	54	70	28	0	6	0	0
CT BRIDGEPORT	48	34	55	26	41	1	.2	- .6	.1	1.5	47	8.9	105	77	43	0	3	2	0
HARTFORD	51	30	62	21	41	2	.3	- .6	.2	1.9	58	9.0	97	83	35	0	5	2	0
DC WASHINGTON	55	37	67	28	46	-2	.3	- .5	.1	2.5	78	8.1	101	82	38	0	1	3	0
FL APALACHICOLA	71	58	80	47	64	2	3.8	2.7	3.4	7.5	174	14.3	131	92	62	0	0	4	1
DAYTONA BEACH	78	59	88	46	68	3	1.9	1.1	1.2	4.4	138	8.8	110	89	56	0	0	4	1
JACKSONVILLE	75	56	87	41	66	3	1.4	.6	.7	3.8	115	8.5	89	99	59	0	0	5	2
KEY WEST	84	75	86	68	79	4	.9	.6	.9	3.1	207	5.2	106	79	63	0	0	2	1
MIAMI	85	68	87	67	77	4	1.5	1.0	1.0	3.3	165	4.6	77	93	55	0	0	4	1
ORLANDO	84	62	89	50	73	6	1.1	.3	.8	3.1	97	5.9	73	93	44	0	0	2	1
TALLAHASSEE	74	55	87	39	65	3	2.5	1.2	2.0	4.6	84	13.8	101	97	49	0	0	3	1
TAMPA	80	62	83	50	71	4	.5	- .3	.4	2.1	60	6.1	71	97	56	0	0	3	0
WEST PALM BEACH	84	66	86	65	75	4	1.1	.4	.6	7.5	250	11.1	139	94	56	0	0	3	1
GA ATLANTA	64	43	80	32	53	0	.6	- .8	.3	3.9	71	15.6	112	81	35	0	1	3	0
AUGUSTA	67	46	84	32	56	0	.3	- .7	.3	1.5	33	9.1	81	89	43	0	1	3	0
MACON	68	49	85	39	59	0	.8	- .4	.7	2.1	44	12.2	99	91	42	0	0	3	1
SAVANNAH	71	53	86	41	62	2	.6	- .4	.5	1.7	43	8.2	86	85	41	0	0	3	0
HI HILO	76	65	82	63	71	0	10.5	7.5	7.6	29.4	231	43.7	131	93	65	0	0	6	3
HONOLULU	80	69	83	66	75	1	.4	- .4	.3	3.2	110	18.0	194	75	56	0	0	3	0
KAHULUI	81	66	87	60	73	1	.1	- .5	.1	3.6	133	14.0	163	81	57	0	0	1	0
LIHUE	79	69	82	67	74	2	1.1	.1	.6	6.3	147	25.3	178	86	65	0	0	3	1
ID BOISE	55	32	60	25	44	1	T	- .2	T	1.3	118	4.6	121	82	34	0	4	0	0
LEWISTON	58	36	65	28	47	2	.1	- .1	.1	.4	50	2.7	96	79	40	0	2	2	0
POCATELLO	51	28	59	22	40	3	T	- .2	T	1.5	150	3.9	130	90	45	0	5	1	0
IL CHICAGO	45	29	55	20	37	-2	.1	- .6	.1	3.5	152	6.8	128	80	44	0	5	1	0
MOLINE	46	28	57	20	37	-2	.1	- .6	.1	3.2	152	5.7	124	76	40	0	5	3	0
PEORIA	48	29	57	23	39	-2	T	- .7	T	4.6	192	8.7	153	86	42	0	6	1	0
QUINCY	47	30	56	25	39	-6	.3	- .4	.3	3.1	129	7.6	--	88	47	0	6	1	0
ROCKFORD	44	27	55	17	35	-2	.2	- .5	.1	3.4	142	5.2	98	85	41	0	6	2	0
SPRINGFIELD	49	32	60	24	40	-3	.4	- .3	.3	2.9	132	9.4	174	87	48	0	4	2	0
IN EVANSVILLE	52	33	68	25	43	-5	.1	- 1.0	.1	3.4	83	14.4	136	95	44	0	3	1	0
FORT WAYNE	43	30	56	21	37	-3	.3	- .4	.3	3.9	144	10.8	152	87	58	0	4	1	0
INDIANAPOLIS	48	33	63	23	41	-2	.4	- .5	.4	4.5	141	11.9	145	81	51	0	2	2	0
SOUTH BEND	43	30	55	19	36	-2	.1	- .6	.1	3.6	164	7.9	130	81	46	0	5	2	0
IA DES MOINES	47	27	61	21	37	-1	.1	- .5	.1	3.3	165	6.7	163	77	39	0	7	1	0
SIOUX CITY	47	26	60	19	37	0	T	- .4	T	1.5	125	3.6	120	83	40	0	7	0	0
WATERLOO	43	26	58	17	35	-1	.3	- .3	.3	2.5	147	4.4	126	91	53	0	7	1	0
KS CONCORDIA	51	29	57	24	40	-2	.1	- .3	.1	2.6	200	3.8	141	83	38	0	6	2	0
DODGE CITY	53	30	68	23	42	-2	.2	- .1	.2	.8	89	2.3	128	83	37	0	6	3	0
GOODLAND	52	23	62	18	38	-1	T	- .2	T	.4	50	1.2	86	74	27	0	7	1	0
TOPEKA	51	27	58	22	39	-5	.2	- .4	.1	.9	50	3.3	87	87	38	0	7	2	0
WICHITA	54	30	68	25	42	-4	.3	- .2	.2	1.8	129	4.3	143	87	43	0	6	3	0
KY BOWLING GREEN	55	33	70	24	44	-7	.4	- .8	.4	2.6	55	11.3	79	92	42	0	3	2	0
LEXINGTON	54	30	69	23	42	-4	.5	- .6	.3	2.9	67	10.6	94	86	41	0	5	2	0
LOUISVILLE	52	32	68	26	42	-5	.2	- .9	.2	5.0	109	11.5	100	79	43	0	4	1	0
LA ALEXANDRIA	68	53	81	44	60	2	.5	- .6	.4	1.3	30	10.6	--	86	52	0	0	3	0
BATON ROUGE	70	53	87	40	62	0	.8	- .3	.4	2.5	53	12.7	93	89	51	0	0	4	0
LAKE CHARLES	69	54	83	40	62	-1	2.4	1.6	1.8	2.6	72	7.2	61	92	59	0	0	3	2
NEW ORLEANS	72	58	87	45	65	3	1.3	.1	.4	2.2	43	12.9	91	78	48	0	0	5	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Mar. 27, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	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 Feb. 28	PCT. NORMAL SINCE Feb. 28	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	65	48	75	40	57	-2	2.0	1.0	1.3	2.6	70	9.4	84	87	48	0	0	4	2
ME CARIBOU	42	20	51	1	31	4	.5	.1	.2	2.2	116	7.0	119	86	49	0	6	5	0
PORTLAND	42	27	46	16	35	0	.7	.1	.5	2.7	77	10.4	104	88	54	0	6	3	1
MD BALTIMORE	53	34	60	26	43	-3	.2	.7	.1	2.3	66	9.6	108	82	39	0	4	3	0
SALISBURY	55	35	67	28	45	-3	.1	.8	.1	3.4	94	11.9	119	97	46	0	3	1	0
MA BOSTON	50	35	56	24	42	2	.3	.6	.2	2.0	53	9.4	86	79	44	0	1	2	0
CHATHAM	45	34	48	21	39	--	.1	--	.1	3.0	--	11.1	--	88	60	0	1	2	0
MI ALPENA	37	21	49	10	29	0	.5	0	.3	2.3	135	4.4	100	82	47	0	6	4	0
DETROIT	41	26	50	17	34	-5	.3	.4	.2	2.6	118	7.1	125	87	53	0	6	4	0
FLINT	42	28	50	19	35	-1	.1	.4	.1	1.5	83	3.6	73	84	52	0	5	3	0
GRAND RAPIDS	41	27	52	19	34	-2	.1	.5	.1	2.4	114	5.7	108	81	50	0	6	2	0
HOUGHTON LAKE	36	22	44	12	29	-1	.4	.1	.3	2.2	157	4.9	123	85	53	0	6	3	0
LANSING	41	26	51	17	33	-3	.1	.5	T	1.6	76	3.8	69	93	55	0	6	3	0
MARQUETTE	30	17	46	0	23	-2	.5	0	.2	1.7	100	5.9	120	96	63	0	7	5	0
MUSKEGON	38	26	47	13	32	-4	.1	.5	.1	1.9	90	6.9	117	87	52	0	6	2	0
SAULT STE. MARIE	32	16	41	3	24	-3	.4	0	.4	2.8	175	7.8	159	86	50	0	7	1	0
MN ALEXANDRIA	32	18	42	11	25	-3	T	.3	T	1.9	211	4.3	215	91	62	0	7	1	0
DULUTH	33	15	41	-8	24	-3	T	.4	T	1.8	120	4.2	127	83	45	0	7	1	0
INT'L FALLS	33	10	40	-7	22	-3	.1	.2	.1	1.2	133	2.9	116	93	50	0	7	2	0
MINNEAPOLIS	38	23	46	15	30	-2	.1	.3	.1	1.7	131	4.7	168	81	50	0	7	2	0
ROCHESTER	37	25	49	13	31	-1	T	.4	T	.9	64	2.7	104	87	61	0	7	1	0
MS GREENWOOD	67	46	74	36	56	0	.4	1.0	.3	2.1	38	13.0	--	83	39	0	0	2	0
JACKSON	66	48	76	41	57	-1	3.0	1.7	2.5	4.6	88	14.3	105	86	53	0	0	3	1
MERIDIAN	66	44	76	37	55	-3	2.9	1.5	2.4	3.8	68	13.6	96	88	52	0	0	4	1
MO CAPE GIRARDEAU	55	36	70	31	46	-4	T	.9	T	2.9	88	16.3	168	90	44	0	2	0	0
COLUMBIA	52	31	63	27	42	-3	.5	.1	.3	3.3	157	7.8	150	83	37	0	6	2	0
KANSAS CITY	51	29	62	21	40	-4	.1	.6	.1	1.7	77	5.6	124	81	35	0	7	2	0
SAINT LOUIS	52	33	66	27	43	-3	.8	.1	.6	2.4	89	8.7	134	88	38	0	3	2	1
SPRINGFIELD	56	32	70	25	44	-3	.1	.7	.1	1.8	64	6.6	106	79	33	0	4	1	0
MT BILLINGS	40	20	60	9	30	-5	.2	.1	.1	1.8	164	2.8	122	90	55	0	7	2	0
GLASGOW	36	20	50	11	28	-1	T	.1	T	.6	600	1.9	271	83	60	0	7	1	0
GREAT FALLS	38	20	48	12	29	-3	.2	0	.1	1.7	213	3.8	152	84	53	0	6	2	0
HAVRE	41	23	54	14	32	2	T	.1	T	.3	75	1.6	114	82	53	0	7	2	0
HELENA	45	21	55	13	33	1	.1	0	.1	1.0	200	2.4	185	85	42	0	7	2	0
KALISPELL	50	27	57	21	39	6	T	.2	T	1.1	138	5.3	171	88	36	0	6	1	0
MILES CITY	43	23	62	8	33	0	T	.1	T	.6	120	1.8	129	94	51	0	7	1	0
MISSOULA	49	29	58	24	39	4	.2	0	.1	1.5	250	4.9	213	93	42	0	6	3	0
NE GRAND ISLAND	49	26	62	21	37	-1	.1	.2	.1	2.4	267	3.7	161	82	37	0	7	1	0
LINCOLN	49	25	62	20	37	-2	.2	.2	.2	2.8	215	4.0	129	82	42	0	7	1	0
NORFOLK	48	25	59	17	36	0	T	.4	T	1.6	160	3.6	150	80	32	0	7	0	0
NORTH PLATTE	48	21	57	15	35	-2	.1	.2	.1	1.1	138	1.4	88	87	36	0	7	1	0
OMAHA	48	26	61	23	37	-1	T	.4	T	2.5	192	4.0	133	78	49	0	7	2	0
SCOTTSBLUFF	47	20	56	11	34	-5	.1	.2	.1	.5	83	1.0	71	78	31	0	7	1	0
VALENTINE	42	23	54	17	32	-2	T	.2	T	.8	133	1.3	100	72	42	0	7	1	0
NV ELY	48	19	55	6	34	-1	T	.2	T	1.8	225	3.3	174	86	34	0	7	1	0
LAS VEGAS	68	42	73	36	55	-2	T	.1	T	.3	75	1.5	125	64	19	0	0	1	0
RENO	55	29	60	23	42	1	T	.1	T	.7	100	2.3	85	79	27	0	5	0	0
WINNEMUCCA	53	27	61	23	40	1	T	.1	T	1.1	157	1.6	64	92	37	0	7	1	0
NH CONCORD	43	23	54	14	33	-2	.6	0	.3	2.0	83	9.0	122	87	42	0	7	2	0
NJ ATLANTIC CITY	55	35	64	28	45	1	T	1.0	T	2.1	53	8.1	76	92	44	0	2	1	0
NM ALBUQUERQUE	61	31	68	25	46	-2	.1	0	.1	.8	133	1.3	108	62	19	0	4	1	0
CLOVIS	59	36	74	31	47	-1	T	.1	T	0	0	.7	--	66	29	0	1	0	0
ROSWELL	63	36	75	31	49	-4	T	.1	T	.2	29	1.0	63	62	25	0	1	0	0
NY ALBANY	48	29	66	18	38	2	.6	0	.6	2.9	132	8.1	131	81	40	0	5	2	1
BINGHAMTON	45	27	59	13	36	2	.3	.4	.3	2.0	80	7.7	112	81	43	0	5	3	0
BUFFALO	41	27	53	16	34	-1	.6	.1	.4	2.2	81	10.4	133	92	58	0	6	4	0
NEW YORK	50	37	55	26	44	0	.1	.8	.1	2.0	56	8.8	96	81	40	0	1	2	0
ROCHESTER	44	27	58	14	35	-1	.5	0	.3	1.6	70	6.9	99	93	58	0	5	4	0
SYRACUSE	46	28	56	18	37	1	.3	.4	.2	2.8	100	7.7	95	93	51	0	5	5	0
NC ASHEVILLE	59	39	73	27	49	1	.1	1.0	.1	1.8	42	12.2	111	87	40	0	2	2	0
CHARLOTTE	65	43	80	30	54	1	.1	.9	.1	1.5	38	10.8	98	85	41	0	1	1	0
GREENSBORO	60	38	71	28	49	-1	.1	.8	.1	2.4	73	10.1	104	80	39	0	2	2	0
HATTERAS	57	44	67	36	51	-2	.1	.7	.1	6.0	171	18.8	163	92	62	0	0	1	0
NEW BERN	66	47	82	37	56	0	.1	.8	.1	3.8	106	15.2	138	84	37	0	0	2	0
RALEIGH	62	41	72	29	52	0	T	.8	T	3.1	97	13.3	139	83	36	0	1	0	0
WILMINGTON	66	47	85	36	57	0	.2	.7	.2	1.8	46	14.0	139	87	41	0	0	2	0
ND BISMARCK	34	16	39	1	25	-4	T	.2	T	.8	160	1.8	129	80	55	0	7	1	0
FARGO	32	15	38	6	24	-5	T	.2	T	1.1	157	3.0	200	89	61	0	7	3	0
GRAND FORKS	35	22	41	15	29	1	T	.2	T	.6	86	2.5	167	89	64	0	7	0	0
WILLISTON	41	24	51	15	33	4	.1	.1	.1	1.1	183	2.9	153	88	63	0	6	1	0
OH AKRON-CANTON	44	28	59	12	36	-3	.3	.5	.2	3.3	118	9.3	127	83	52	0	4	3	0
CINCINNATI	50	33	67	21	42	-3	.3	.7	.3	4.0	103	12.1	121	87	53	0	3	2	0
CLEVELAND	44	28	60	12	36	-3	.5	.3	.4	2.9	104	8.3	112	86	51	0	5	2	0
COLUMBUS	48	29	65	19	38	-4	.3	.6	.3	3.7	116	9.8	123	92	51	0	6	2	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Mar. 27, 1982

STATES AND STATIONS	TEMPERATURE °F: AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	PRECIPITATION: WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Feb. 28	PCT. NORMAL SINCE Feb. 28	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	RELATIVE HUMIDITY, PERCENT: AVERAGE MAXIMUM	AVERAGE MINIMUM	NUMBER OF DAYS: TEMPERATURE °F: 90 AND ABOVE	32 AND BELOW	PRECIPITATION: .01 INCH OR MORE	.50 INCH OR MORE
DAYTON	45	30	63	20	38	-4	.4	- .4	.3	5.1	176	13.2	167	86	61	0	3	3	0
TOLEDO	42	26	53	16	34	-5	.6	0	.3	3.3	157	8.0	140	93	54	0	6	4	0
YOUNGSTOWN	42	26	56	11	34	-4	.2	- .5	.1	2.4	86	8.0	101	88	56	0	5	4	0
OK OKLAHOMA CITY	59	35	70	31	47	-4	.5	0	.5	1.5	94	6.2	163	75	33	0	1	1	1
TULSA	61	39	73	31	50	-1	T	- .6	T	.9	43	5.2	102	81	33	0	1	1	0
OR ASTORIA	54	36	62	30	45	0	1.2	- .2	.7	6.4	102	31.0	135	90	63	0	3	3	2
BURNS	53	27	58	18	40	2	T	- .2	T	.6	67	3.2	86	87	39	0	5	0	0
MEDFORD	63	33	70	27	48	2	T	- .3	T	1.3	87	6.1	87	89	34	0	4	1	0
PENDLETON	58	34	66	29	46	1	T	- .2	T	1.2	133	3.4	100	77	34	0	4	1	0
PORTLAND	63	39	73	32	51	5	.3	- .4	.3	1.8	53	14.0	110	91	42	0	1	2	0
SALEM	61	33	66	26	47	1	.3	- .6	.3	2.2	52	14.0	92	93	43	0	4	1	0
PA ALLENTOWN	50	30	60	22	40	-1	.2	- .7	.2	1.5	45	7.3	83	87	42	0	5	2	0
ERIE	41	27	56	12	34	-2	.3	- .3	.2	1.9	83	6.9	103	78	51	0	6	4	0
HARRISBURG	50	33	59	26	42	-3	.1	- .6	.1	2.1	70	7.6	97	87	39	0	4	1	0
PHILADELPHIA	55	33	66	27	44	-1	.1	- .8	.1	2.3	70	9.8	120	79	35	0	4	1	0
PITTSBURGH	47	27	62	14	37	-5	.5	- .3	.2	2.8	90	9.1	115	69	38	0	5	5	0
SCRANTON	49	31	63	19	40	1	.4	- .2	.4	1.9	90	7.0	121	72	46	0	4	2	0
RI PROVIDENCE	51	32	63	22	41	2	.3	- .6	.3	3.0	83	12.2	121	81	34	0	3	2	0
SC CHARLESTON	69	50	87	38	60	1	.2	- .8	.2	1.5	6	7.3	74	88	45	0	0	2	0
COLUMBIA	68	46	88	29	57	0	.1	- .9	.1	1.7	40	9.8	88	93	42	0	1	4	0
FLORENCE	67	47	86	33	57	0	.1	- .8	.1	.8	22	10.0	105	88	39	0	0	2	0
GREENVILLE	64	45	78	33	54	1	.2	- 1.0	.2	1.9	38	13.4	102	78	38	0	0	1	0
SD ABERDEEN	34	19	39	8	26	-5	--	--	--	--	--	--	--	85	68	0	7	0	0
HURON	40	22	51	13	31	-2	T	- .3	T	1.4	156	2.9	145	96	68	0	7	1	0
RAPID CITY	43	19	59	10	31	-3	T	- .2	T	1.1	138	1.9	106	83	46	0	7	2	0
SIOUX FALLS	43	24	52	18	34	0	T	- .3	T	1.1	92	2.0	71	88	49	0	7	1	0
TN CHATTANOOGA	63	40	74	31	52	-1	.8	- .5	.4	4.7	90	19.0	123	76	32	0	1	2	0
KNOXVILLE	61	38	70	28	50	-3	.8	- .2	.8	4.8	104	16.4	121	82	43	0	1	2	1
MEMPHIS	60	42	71	36	51	-3	.3	- .9	.3	3.9	85	14.7	107	79	38	0	0	1	0
NASHVILLE	62	34	73	25	48	-3	.2	- .9	.2	2.8	64	14.2	108	86	32	0	3	1	0
TX ABILENE	61	44	83	38	52	-5	.1	- .2	.1	.4	44	2.6	93	80	37	0	0	2	0
AMARILLO	56	28	74	26	42	-6	.1	- .1	.1	.4	80	1.0	71	86	31	0	6	2	0
AUSTIN	65	53	76	42	59	-3	1.2	.8	.6	1.3	72	2.9	45	93	64	0	0	4	1
BEAUMONT	70	56	82	42	63	1	2.8	2.1	1.3	3.1	107	8.5	78	86	57	0	0	4	2
BROWNSVILLE	79	65	88	58	72	3	.1	0	.1	.1	20	.9	28	90	67	0	0	2	0
CORPUS CHRISTI	73	60	87	48	66	0	.4	.2	.4	.4	44	6.7	152	95	69	0	0	2	0
DEL RIO	69	54	81	48	61	-4	.1	- .1	.1	.1	17	2.7	117	72	50	0	0	3	0
EL PASO	72	40	77	34	56	-1	T	- .1	T	0	0	.8	67	50	14	0	0	0	0
FORT WORTH	61	46	69	39	54	-4	1.2	.5	.6	1.7	77	6.1	100	88	47	0	0	3	1
GALVESTON	70	57	79	43	64	1	1.1	.5	.7	1.6	64	9.2	121	89	61	0	0	2	1
HOUSTON	70	55	84	41	63	0	1.2	.6	.7	1.5	60	4.9	53	97	61	0	0	4	1
LUBBOCK	59	36	76	32	48	-4	T	- .2	T	.5	50	1.0	53	72	30	0	1	0	0
MIDLAND	66	42	81	35	54	-3	T	- .1	T	0	0	.6	43	67	24	0	0	0	0
SAN ANGELO	63	46	82	40	55	-5	.4	.2	.4	.4	57	3.1	124	91	45	0	0	2	0
SAN ANTONIO	65	50	77	40	58	-5	.5	.2	.2	.5	38	2.4	50	98	65	0	0	5	0
VICTORIA	72	56	85	43	64	0	.1	- .3	.1	.1	6	5.9	107	92	60	0	0	3	0
WACO	62	49	73	40	56	-4	3.4	2.9	2.6	3.7	176	7.0	113	95	58	0	0	5	2
WICHITA FALLS	60	37	80	32	49	-6	.9	.5	.8	2.1	162	4.3	130	91	43	0	1	2	1
UT BLANDING	53	27	60	23	40	0	.4	.2	.3	--	--	--	--	72	33	0	6	2	0
CEDAR CITY	55	31	62	21	43	3	T	- .3	T	1.3	144	4.9	204	73	30	0	4	1	0
SALT LAKE CITY	54	33	66	25	44	2	.1	- .3	.1	2.0	154	3.7	100	81	32	0	3	1	0
VT BURLINGTON	43	26	55	14	34	2	.7	.3	.5	1.8	113	6.1	122	86	46	0	5	2	1
VA NORFOLK	58	41	64	33	50	-1	T	- .7	T	3.1	100	12.2	130	83	41	0	0	1	0
RICHMOND	60	37	69	30	49	-1	T	- .7	T	3.7	119	11.0	126	86	34	0	1	2	0
ROANOKE	57	32	69	22	45	-3	.2	- .5	.2	2.4	77	11.0	128	80	35	0	4	2	0
WA COLVILLE	56	30	62	26	43	4	T	- .2	T	1.4	127	5.5	122	--	--	0	6	2	0
QUILLAYUTE	53	32	64	25	42	0	1.7	- .6	.7	8.5	83	47.5	134	98	62	0	4	4	2
SEATTLE-TACOMA	56	37	62	33	47	2	.2	- .5	.1	3.1	91	15.5	118	87	40	0	0	2	0
SPOKANE	56	32	60	29	44	5	T	- .3	T	1.0	83	4.3	83	75	36	0	4	1	0
YAKIMA	61	31	70	26	46	2	0	- .1	0	.3	75	2.1	84	78	26	0	6	0	0
WV BECKLEY	51	29	71	15	40	-3	.2	- .8	.1	2.4	62	8.2	77	89	38	0	5	4	0
CHARLESTON	56	31	72	23	43	-4	.6	- .3	.5	4.2	117	11.2	113	86	33	0	4	4	1
HUNTINGTON	53	31	69	23	42	-5	.6	- .4	.5	3.9	105	10.8	114	81	36	0	5	3	0
PARKERSBURG	49	31	65	20	40	-6	.4	- .5	.4	5.9	164	9.9	96	78	42	0	5	2	0
WI GREEN BAY	38	25	47	15	32	-1	.1	- .3	.1	1.6	133	3.1	91	90	53	0	6	4	0
LA CROSSE	41	24	54	12	33	-2	T	- .5	T	1.1	69	2.6	76	91	45	0	6	1	0
MADISON	43	24	52	13	34	0	T	- .5	T	1.9	119	3.5	97	88	47	0	6	0	0
MILWAUKEE	41	27	52	17	34	-1	.1	- .4	.1	2.6	144	5.7	127	79	41	0	6	3	0
WAUSAU	36	20	45	5	28	-2	.2	- .3	.2	1.5	107	3.4	92	91	50	0	7	1	0
WY CASPER	49	20	61	10	35	1	.1	- .1	.1	.4	37	1.6	100	81	30	0	7	1	0
CHEYENNE	46	20	59	6	33	0	T	- .3	T	.1	11	.7	39	81	35	0	7	1	0
LANDER	47	21	59	17	34	1	.1	- .2	.1	.4	44	1.1	52	79	33	0	7	1	0
SHERIDAN	43	14	60	3	29	-5	.4	.1	.4	1.1	122	2.0	87	86	43	0	7	1	0
PR SAN JUAN	86	70	88	69	78	2	.4	0	.3	1.5	88	10.2	134	88	58	0	0	3	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

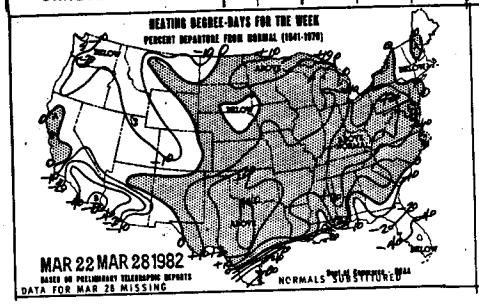
HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING MAR. 28, 1982.

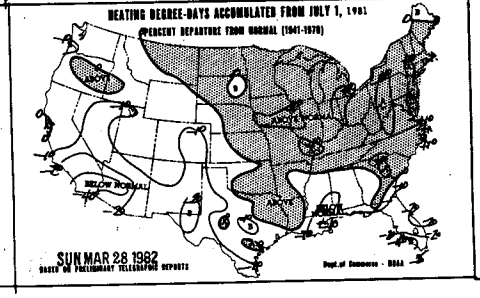
BASED ON 1941-70 NORMALS. + ACCUMULATION FROM JULY 1. 1980

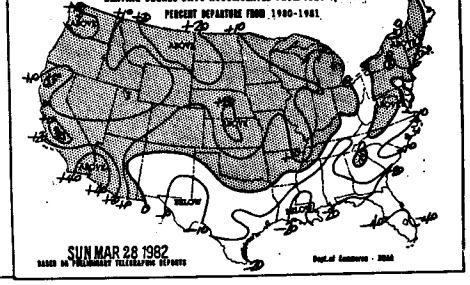
STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL ACCUMULATION + DEPARTURE*	SEASONAL ACCUMULATION + DEPARTURE FROM 1980-81
ALA. BIRMINGHAM	79	9	2599	-84	-290
MOBILE	44	6	1527	-105	-275
MONTGOMERY	39	-14	2047	-120	-380
ARIZ. FLAGSTAFF	207	3	5227	-644	582
PHOENIX	12	-20	845	-635	217
TUCSON	41	4	1376	-279	142
WINSLOW	130	3	3726	-471	-26
YUMA	0	-14	598	-377	220
ARK. FORT SMITH	103	17	3352	196	188
LITTLE ROCK	99	14	3093	-70	59
CALIF. BAKERSFIELD	33	-20	1624	-378	-10
EUREKA	106	-7	3313	-177	222
FRESNO	71	3	2362	-19	253
LOS ANGELES	43	-13	983	-430	218
RED BLUFF	79	5	2298	-70	383
SAN DIEGO	29	-17	680	-534	146
SAN FRANCISCO	86	6	2399	11	238
STOCKTON	74	4	2344	-136	160
COLO. DENVER	174	6	4532	-554	347
GRAND JUNCTION	132	-16	4772	-218	760
PUEBLO	144	-13	4174	-578	185
CONN. BRIDGEPORT	161	-8	5056	409	54
HARTFORD	168	-14	5498	-12	192
DEL. WILMINGTON	150	8	4585	210	-105
D.C. WASHINGTON	131	13	3886	56	321
FLA. APALACHICOLA	19	-10	1114	-208	-540
DAYTONA BEACH	9	0	770	-104	-433
FORT MYERS	0	7	225	-232	-280
JACKSONVILLE	22	-6	1145	-149	-451
KEY WEST	0	0	50	-12	-123
LAKELAND	3	-9	569	-97	-377
MIAMI	0	0	151	-55	-120
ORLANDO	2	-12	552	-164	-317
TALLAHASSEE	29	1	1522	2	-360
TAMPA	3	-11	587	-119	-389
WEST PALM BEACH	0	0	253	-46	-112
GA. ATLANTA	89	7	2867	-27	-12
AUGUSTA	72	11	2813	387	66
MACON	55	3	2090	-60	-63
SAVANNAH	35	-10	1714	-160	-391
IDAHO. BOISE	142	-13	5043	101	447
LEWISTON	118	-26	4424	-226	438
POCATELLO	168	-23	5853	-68	269
ILL. CAIRO	115	14	4026	444	394
CHICAGO	181	2	6158	498	523
MOLINE	189	-12	6301	613	689
PEORIA	176	-10	5628	507	218
ROCKFORD	200	-12	6452	446	538
SPRINGFIELD	166	14	5474	481	589
IND. EVANSVILLE	154	30	4314	94	37
FORT WAYNE	195	21	6060	629	465
INDIANAPOLIS	168	16	5351	389	184
SOUTH BEND	198	15	6041	435	852
IOWA. BURLINGTON	182	12	6080	600	669
DES MOINES	190	1	6125	164	842
DUBUQUE	214	13	6856	477	920
SIOUX CITY	191	-3	6622	439	1007
KANS. CONCORDIA	165	6	5182	172	827
DODGE CITY	152	6	4461	-49	583
GOODLAND	184	2	5000	-288	343
TOPEKA	168	23	4935	207	522
WICHITA	153	24	4592	326	770
KY. LEXINGTON	164	35	4432	168	-90
LOUISVILLE	160	34	4308	106	226
LA. BATON ROUGE	37	3	1448	-178	-488
LAKE CHARLES	38	2	1482	-21	-332
NEW ORLEANS	22	0	1216	-210	-279
SHREVEPORT	56	5	2260	181	-20

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL ACCUMULATION + DEPARTURE*	SEASONAL ACCUMULATION + DEPARTURE FROM 1980-81
MAINE. CARIBOU	243	-20	7951	-82	-41
PORTLAND	208	-2	6343	85	6
MD. BALTIMORE	152	19	4548	320	122
MASS. BOSTON	157	-11	5151	333	-61
MICH. ALPENA	248	1	7210	142	254
DETROIT	216	32	6237	685	242
FLINT	209	8	6570	552	316
GRAND RAPIDS	213	15	6177	322	199
HOUGHTON LAKE	250	10	7196	146	169
LANSING	224	26	6526	580	289
MARQUETTE	279	8	8237	260	387
MUSKEGON	225	24	6340	501	263
S. STE. MARIE	287	26	8292	703	136
MINN. DULUTH	289	28	8645	462	630
INTERNATL FALLS	297	22	8992	13	447
MINNEAPOLIS	241	17	7404	265	941
ROCHESTER	235	7	7555	402	943
ST. CLOUD	264	24	7840	138	814
MISS. JACKSON	55	0	2091	-110	-482
MERIDIAN	69	14	1980	-303	-392
MO. COLUMBIA	155	13	4833	250	196
KANSAS CITY	165	20	5153	329	588
ST. LOUIS	147	17	4755	438	602
SPRINGFIELD	142	14	4216	69	257
MONT. BILLINGS	229	20	6110	4	1245
GLASGOW	240	0	7960	248	1768
GREAT FALLS	237	12	6935	549	1350
HAVRE	214	27	7768	283	1600
HELENA	213	11	6472	-365	569
KALISPELL	182	42	6991	98	959
MILES CITY	207	12	6987	179	1471
MISSOULA	178	26	6497	-121	777
NEBR. GRAND ISLAND	183	1	6112	447	1120
LINCOLN	183	10	5862	318	881
NORFOLK	193	5	6412	253	1034
NORTH PLATTE	204	10	5861	19	652
OMAHA	188	19	6185	759	662
VALENTINE	211	3	6390	95	849
NEV. ELY	204	8	5669	-637	81
LAS VEGAS	57	3	2042	-400	311
RENO	155	6	4537	-399	146
WINNEMUCCA	169	12	4891	-559	75
N.H. CONCORD	217	13	6809	528	85
N.J. ATLANTIC CITY	147	0	4543	194	-639
TRENTON	156	11	4776	404	125
N. MEX. ALBUQUERQUE	120	2	3653	-254	-47
ROSWELL	102	10	2775	-683	-380
N.Y. ALBANY	186	8	6552	569	206
BINGHAMTON	201	9	6439	241	-82
BUFFALO	217	11	6146	286	304
NEW YORK	149	0	4551	244	-161
ROCHESTER	210	12	6238	495	260
SYRACUSE	200	2	6130	406	111
N.C. ASHEVILLE	117	3	3872	72	-55
CHARLOTTE	89	5	3226	217	-165
GREENSBORO	113	11	3766	240	-30
HATTERAS	103	15	2701	238	-357
RALEIGH	97	4	3336	84	-256
WILMINGTON	65	2	2366	59	-573
N.DAK. BISMARCK	262	16	8038	211	1434
FARGO	279	29	8503	441	1128
WILLISTON	219	-32	7957	52	1396
OHIO. AKRON-CANTON	204	27	5504	112	-77
CINCINNATI	168	29	5047	518	11
CLEVELAND	205	27	5675	370	33
COLUMBUS	183	27	5424	390	321
DAYTON	186	28	5375	387	74
TOLEDO	217	37	6345	798	298

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL ACCUMULATION + DEPARTURE*	SEASONAL ACCUMULATION + DEPARTURE FROM 1980-81
YOUNGSTOWN	216	33	5901	362	-165
OKLA. OKLAHOMA CITY	117	18	3467	25	298
TULSA	101	2	3429	11	304
OREG. ASTORIA	137	3	3649	-422	373
BURNS	174	15	6381	477	489
MEDFORD	117	16	3880	208	198
PENDLETON	127	10	4332	140	147
PORTLAND	94	34	3416	499	224
SALEM	120	12	3928	14	279
PA. ALLENTOWN	174	9	5442	343	383
ERIE	211	9	5683	-66	220
HARRISBURG	160	16	5001	331	-227
PHILADELPHIA	151	11	4710	389	1
PITTSBURGH	200	37	5648	453	22
SCRANTON	175	3	5738	267	56
R.I. PROVIDENCE	164	11	5364	288	-3
S.C. CHARLESTON	50	2	2141	87	-200
COLUMBIA	68	5	2592	111	-348
GREENVILLE	84	1	3231	271	-80
S.DAK. ABERDEEN	259	28	7502	-5	1045
HURON	228	7	6937	112	778
RAPID CITY	225	8	6272	98	1073
SIOUX FALLS	211	4	6912	48	768
TENN. CHATTANOOGA	99	10	3338	81	-139
KNOXVILLE	112	23	3388	162	-371
MEMPHIS	99	15	3080	35	-409
NASHVILLE	124	27	3532	92	-29
TEXAS. ABILENE	87	22	2252	-220	-118
AMARILLO	151	33	3688	-85	53
AUSTIN	44	6	1425	-255	-246
BEAUMONT	29	-5	1422	-51	-138
BROWNSVILLE	0	-14	547	-102	-130
CORPUS CHRISTI	11	-8	882	-44	-224
DEL RIO	32	6	1342	-156	-115
EL PASO	56	-3	2257	-311	-142
FORT WORTH	76	16	2283	-10	-6
GALVESTON	26	-5	1176	-18	-217
HOUSTON	33	2	1348	-53	-146
LUBBOCK	116	19	2925	-365	-117
MIDLAND	71	8	2262	-238	-521
SAN ANGELO	62	14	2214	-5	-49
SAN ANTONIO	40	17	1542	14	-22
VICTORIA	24	-1	1311	-8	-136
WACO	62	13	1990	-2	-101
WICHITA FALLS	105	30	2859	106	270
UTAH SALT LAKE CITY	140	-21	4585	-535	140
VT. BURLINGTON	210	-12	6947	213	-14
VA. LYNCHBURG	130	15	4220	375	124
NORFOLK	109	8	3360	189	-182
RICHMOND	119	13	3726	117	-219
ROANOKE	145	28	4393	515	251
WASH. QUILLAYUTE	155	6	4504	-77	556
SEATTLE-TACOMA	127	13	3891	267	393
SPOKANE	146	33	3459	266	266
WALLA WALLA	105	18	3843	348	70
YAKIMA	132	18	5047	104	850
W. VA. BECKLEY	179	28	5067	181	-156
CHARLESTON	153	31	4356	222	-200
HUNTINGTON	162	39	4475	317	-7
PARKERSBURG	175	43	4632	313	-161
WIS. GREEN BAY	229	4	7295	350	523
LACROSSE	218	13	6951	404	706
MADISON	217	2	7035	349	696
MILWAUKEE	215	6	6862	547	648
WYO. CASPER	205	-16	5994	-269	562
CHEYENNE	218	-4	5611	-337	527
LANDER	209	-8	6024	-563	423
SHERIDAN	237	18	6116	-320	598

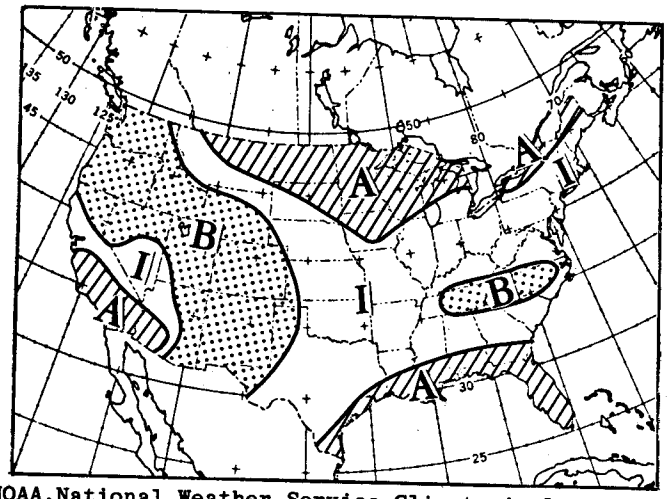






Outlook for 90-Day Average Temperatures

APRIL THROUGH JUNE 1982



NOAA,National Weather Service,Climate Analysis Center

A — ABOVE NORMAL, 60% CHANCE OF OCCURRENCE

B — BELOW NORMAL, 60% CHANCE OF OCCURRENCE

I — INDETERMINATE, 50% CHANCE OF ABOVE NORMAL
50% CHANCE OF BELOW NORMAL

The two categories Above and Below are to be compared to the long-term average or "normal" temperatures of the year 1941-70. Each category has a natural climatic frequency or probability of 50%. Each carries a 60% probability of occurring where forecast (shaded area), based on the verification scores of twenty-three years of experimental seasonal predictions.

SATELLITE AIDS WEATHER ANALYSIS

by
James T. Williams
NOAA/USDA Joint Agricultural Weather Facility

Figure 1

While satellite data are valuable aids to analysis of weather patterns under ordinary circumstances, they frequently become indispensible in areas where conventional data are sparse or nonexistant. Synoptic meteorologists following the weather events in the southern hemisphere find the data from the GOES satellites are nearly all that are available over most of the ocean areas south of the equator. For example, GOES pictures (figure 1) provide the only indication of weather systems approaching South America.

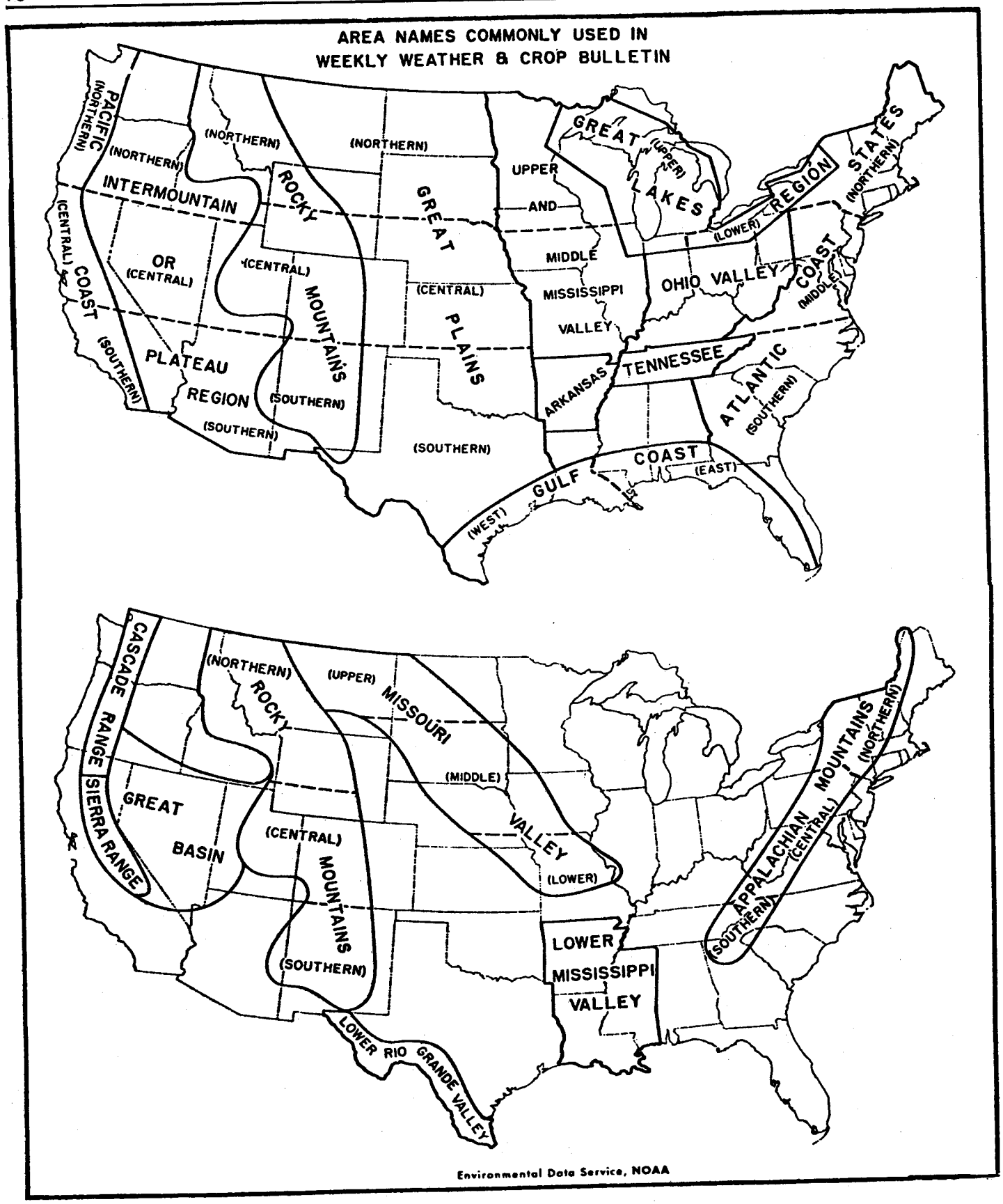
However, satellite pictures can pose questions as well as answers. For example, on February 22, 1982, two parallel dark streaks appeared in a cloud field west of Chili (figure 1). Their appearance gave the impression of large objects moving through the cloud field, leaving long disturbances similar to wakes left by ships.

These clouds are stratocumulus, a cloud type that frequently forms under the descending air of a large high pressure cell situated over a cold body of water. Typically, these clouds have bases at about 2,000 ft. and tops at 4,000 or 5,000 ft. Thus, the objects causing the disturbance had to be quite large. Examination of pictures from the following day revealed that the objects were also stationary. Clearly, islands with elevations exceeding 2,000 ft. were implicated.

In fact, the islands involved were the Juan Fernandez Islands. The western island was Alejandro Selkirk which has a mountain peak of 5,413 ft. The eastern island was Robinson Crusoe, featuring two peaks over 1,800 ft. and one peak 3,002 ft. high.

The direction of the streaks revealed the direction of the winds near the surface--from the south-southeast. As the wind and clouds passed over the islands the same effect was created as if the islands are moving through the clouds--namely, a wake formed to the rear of each island.

Features such as these can provide a meteorologist with information enabling him to make a meaningful analysis of the weather situation where conventional data are sparse or nonexistant.



WHEN OTHER AREAS ARE MENTIONED, SUCH AS STATES OR GROUPS OF STATES, OTHER WELL KNOWN NAMES ARE USED.

National Agricultural Summary

March 22-28

HIGHLIGHTS: Freezing temperatures dipped southward at the end of the week, threatening apple and peach crops from Virginia to Georgia. Favorable temperatures and moisture supplies promoted growth of winter wheat on the Great Plains. Fieldwork continued to lag in the Southeast where rain once again delayed activities. Only 2 to 4 days were suitable for fieldwork in this region. Soil moisture supplies were rated adequate to surplus in the Southeast, the Delta, and in parts of the Corn Belt. Widespread corn planting in the South reached 63% completion in Georgia. Progress generally lagged last year but was above average. Sorghum planting in Texas was 57% finished. Rice planting was underway in Texas, Louisiana, and in parts of Arkansas. Cotton planting centered in Arizona and Texas. Tobacco seeding and transplanting gained momentum; Maryland auctions were open. Vegetable harvest was limited to the South. Planting moved northward. Pastures were in fair to good condition and showed improvement due to mild weather and ample soil moisture.

SMALL GRAINS: Winter wheat was in fair to mostly good condition in all major producing regions. Topdressing and weed control became more widespread. In southern areas, the crop was heading.

Kansas winter wheat showed excellent growth under generally favorable temperature and moisture conditions. Spring seeding of oats and barley approached the halfway mark.

Oklahoma winter wheat made excellent growth and development due to good moisture conditions and mild temperatures. Growers sprayed fields to control weeds. Nearly 35% of the acreage was jointing, 15% more than normal.

Texas small grains responded to warmer temperatures and additional moisture. Weekend rains in central areas of the State provided much-needed moisture for fields in the heading stage. Winter wheat was jointing on the northern High Plains. In Central Texas, cattle were moved from fields intended for grain. Because of poor development, a few fields will be grazed out instead of harvested.

OTHER CROPS: Corn planting gained momentum and moved northward into the extreme southern areas of Virginia. However, most activity centered further south. Progress ranged from 26% completion in Alabama to 63% in Georgia. Emerged plants were in fair to good condition.

Sorghum planting in Texas was 57% finished, compared to 53% last year and the average of 46%. Weekend rains helped stands in the Blacklands and south-central areas. Some stands in the Blacklands developed poorly and will be replanted.

Tobacco transplanting was 50% finished in Georgia and nearing completion in Florida. In other areas, growers seeded and cared for plantbeds. Maryland tobacco auctions completed the second week of sales.

Rice planting centered in Texas and Louisiana and got underway in Arkansas. Planting was 18% complete in Louisiana and 30% complete in Texas. Emerged plants were in fair to good condition.

Cotton planting in Arizona continued as rapidly as conditions allowed. Planting was nearly 40% finished in the warmer western areas of the State. Planting in Texas (8% finished) stretched from the Coastal Bend area to the Upper Coast. Many producers delayed planting until soils become warmer.

Maple sirup production gained momentum in the North.

FRUITS AND NUTS: Freezing temperatures plunged southward at the end of the week, threatening apple and peach crops from Virginia to Georgia. Damage was expected to range from heavy in the northern areas of South Carolina and in North Carolina to a 10 to 20% loss in southern areas of South Carolina. In Virginia, damage was expected to be light. Growers in Georgia expect some loss in the northern part of the State with relatively small losses in other areas. Some damage has also become evident from the extremely cold winter weather.

Rain improved the condition of Florida's citrus groves. New growth continued, but blooming was finished. The early and midseason orange harvest was completed, but Valencia orange picking was slow. Grapefruit movement was still active.

Arizona citrus groves were in very good condition with most trees in or approaching full bloom. Harvesting of lemons, grapefruit, and Valencia oranges continued active. Deciduous fruit thinning was underway.

California apricots were at peak bloom in the San Joaquin Valley. Cherry trees were blossoming, and early varieties of grapes were leafing out. Bloom was nearly complete for nectarines, peaches, and plum trees. The Navel orange harvest was slowed by rain. However, in a few areas harvest was finished. The Valencia orange harvest gained momentum.

The Texas citrus harvest continued in the Rio Grande Valley. Pecan trees were beginning to bud. Peach trees were blooming with no apparent freeze damage.

VEGETABLES: Growers in northern regions prepared land for spring planting and, in some areas, planted early-season crops. Cool weather and wet fields slowed fieldwork in many locations.

Florida's vegetable shipments increased 22% from the previous week. Volume declined for cauliflower, radishes, peas, and strawberries. All other crops registered increases or held steady. Very light harvests of watermelons started in the Immokalee-Belle Glade area.

Arizona's lettuce harvest was active but slow due to poor market conditions. Harvesting of other vegetables made good progress.

In the Rio Grande Valley of Texas, harvesting of cabbage, carrots, and onions remained active. Planting spring vegetables and harvesting carrots and spinach were the main activities in the San Antonio-Winter Garden area. Land preparation for spring planting neared completion in the Coastal Bend area and started in East Texas. On the High Plains, onion and potato planting continued. Moisture is needed for the recently planted crops.

California asparagus production was slowed by cool, wet weather. Carrot harvest was active in Desert areas but light in the San Joaquin Valley. Lettuce harvest was active in the Palo Verde Valley and started in the San Joaquin Valley. The strawberry harvest was light due to rain and cool weather. Tomato planting progressed as field conditions permitted.

PASTURES AND LIVESTOCK: Pastures were in fair to good condition across the South. Conditions were improving due to ample soil moisture supplies and mild weather. As Texas pastures and ranges continued to improve, the demand for supplemental feeding declined. More moisture was needed for continued good growth of grasses. Livestock were in mostly good condition. Calving and lambing continued with no unusual losses reported. Cattle were moved from wheat pastures intended for harvest as grain.

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 SRS State Offices in cooperation with the National Weather Service.

ALABAMA: Temperatures below normal. Rainfall scattered, little north to over 1.00 in. south.

Fieldwork: 3.2 days. Soil moisture mostly adequate. Activities: Corn planted 26%, 1981 38%. Routine farm chores, planning for this year's crops, spraying and pruning fruit trees and pecan trees. Planting of corn and some vegetables. Applying nitrogen and herbicides to wheat. Conditions: Livestock, pastures fair; pasture feed, stored feed mostly adequate; wheat fair to good; plowing 47%; fieldwork behind. Some hail damage to corn, wheat, and tomatoes 25th in south.

ARIZONA: Mostly sunny skies through midweek. Rain and snow 26th, 27th spreading moisture all areas. Amounts around 0.10 in. western, southern sections, between 0.25 and 0.75 in. central basins, central mountains. Snow level dropped to 6500 ft. with 1 to 6 in. higher elevations. Another storm system 28th, snow level dropped to 4500 ft. Average temperatures varied 2° below normal to 2° above.

Small grains very good progress, heading increasing accelerating rate. Preparations, planting cotton continued rapidly as conditions allowed, planting warmer western areas nearly 40% complete, progress most other areas land preparations, pre-irrigation. Alfalfa good progress, some cut, baled hay received moderate to heavy rain damage toward week's end. Sugarbeets very good growth, preliminary tests indicated good yield, sugar prospects. Safflower, sorghum, corn reasonably good progress, planting corn, safflower mostly complete central areas, land preparations still active, corn planting southeast. Lettuce harvest active but relatively slow due poor market conditions. Harvest mixed vegetables reasonably good progress conditions allowed. Watermelons, cantaloups emerging, developing stands, rains, cooler temperatures slowed germination later plantings. Harvest lemons, grapefruit, Valencia oranges, tangerines reasonably good progress, new growth well advanced most groves, trees appeared very good condition, most groves in, approaching full bloom. Grape shoot thinning continued. Deciduous fruit, making very good progress, thinning underway. Ranges mostly fair condition. Livestock remained fair, good condition. Adequate water supplies. Range browse made excellent progress.

ARKANSAS: Cold, dry week with very light rainfall first part of week in extreme south. Highest temperature 79°, lowest 19°. All departures from normal ranged from -2 to -8°. Most rainfall 0.44 in., least zero.

The major field activity was land preparation. Farmers were applying herbicides and fertilizers to fields. Wheat remained in good condition and was heading in the southern part of the State. Several fields of rice and sorghum were planted in southern counties. Pastures were progressing well and livestock remained in good condition. Fruits and vegetables were not damaged by the cold weather.

CALIFORNIA: Temperatures again below normal and precipitation over all divisions. Rainfall amounts were largest over the South Coast. A cold upper level storm moved to the coast bringing the much colder air and precipitation. Early morning temperatures again dipped to or below the freezing mark at many localities. Warm, dry weather prevailed.

Field preparations active on dryer soils. Some lodging on grain fields. Small grains progressing well, earlier fields beginning to head out. Some green chopping of oats. Rice fields burning active with more expected as conditions improve. Alfalfa developing well with first cutting beginning in San Joaquin Valley. Sugarbeets, excellent condition, with limited harvest on coastal areas. Cool, damp weather limited activities. Apricot bloom at its peak, San Joaquin Valley. Cherry trees blossoming. Early grapes leafing out, most areas, frost protection needed in North Coast. Pears flowering. Bloom nearly complete in nectarines, peaches, and plums. Navel orange harvest slowed by rain, completed in some areas. Valencia harvest accelerating. Catkins appearing on walnut trees. Artichoke harvest moderate. Asparagus production held back by cool, wet weather. Broccoli harvest moderate Central Coast. Carrot harvest active Desert, light San Joaquin Valley. Cauliflower light supply Central Coast. Celery harvest active South Coast. Lettuce harvest active Palo Verde Valley, started San Joaquin Valley. Green peas blooming San Joaquin Valley. Strawberry harvest light due rain, cold weather. Planting tomatoes continues as field conditions permit. Ample moisture and sunny days contributed excellent range. Calving continues. Sheep graze alfalfa, native pastures.

COLORADO: Light precipitation 24th in east with most stations getting less than 0.10 in. of new moisture. Moist air 26th caused widespread precipitation but amounts averaged only 0.10 to 0.20 in. Temperatures averaged 2 to 4° below normal.

Seeding of spring grains making excellent progress. Barley at 27% seeded, oats at 25% seeded, and spring wheat at 5% seeded all ahead of last year and average. Sugarbeet seeding just underway with 9% in the ground. Also ahead of last year and average. Winter wheat in good condition with 12% of the acreage being pastured. Subsoil and topsoil moisture rated as short to adequate. There were 5.5 days suitable for fieldwork. Livestock in good condition with minimum death losses reported.

FLORIDA: Partly cloudy, unseasonably mild temperatures most of week. A cold front moved down the Peninsula on the 26th, stalling out over south at weekend. This brought colder, rainy weather, most of State. Rainfall averaged 2.00 to 4.00 in. most areas.

Soil moisture mostly adequate. Corn planting nearing completion. Tobacco transplanting continues. Land being prepared for planting peanuts, soybeans. Young sugarcane good growth. Wheat heading rapidly. Other small grains good progress. Most pastures in or nearly good to excellent condition. General rain on 28th very beneficial. Cattle fair to good condition. Rains on the 25th and at weekend improved citrus tree condition. New growth continues, bloom over. Early-mid orange harvest completed. Valencia picking slow. Grapefruit movement continues active. Partly cloudy skies, very warm days, mild nights most of week in vegetable areas. A cold front late in the week brought general rains, much cooler temperatures. Winds mostly light to moderate. Total shipments increased 22% from previous week. Harvest gained carrots, sweet corn, cucumbers, eggplant, okra, parsley, peppers, potatoes, tomatoes. Volume about steady snap beans, cabbage, celery, Chinese cabbage, escarole, lettuce, squash. Volume declined cauliflower, radishes, southern peas, straw-

berries. Strawberry harvest past peak and declining. Very light harvest of watermelons underway Immokalee-Belle Glade area. Crop growth, progress generally good, other areas.

GEORGIA: Temperatures much above normal. Average from 15° above at Macon to 21° above at Athens. Precipitation light until end of week when showers and thundershowers brought light to moderate rain to go along with unseasonably low temperatures. On 27th and 28th, temperatures averaged 8 to 12° below normal. Rainfall averaged 0.05 to 0.10 in. south, spotty trace amounts elsewhere.

Soil moisture 73% adequate, 20% surplus, 7% short. Four days suitable for fieldwork. Corn 63% planted, last year 59%, average 30%. Condition of emerged crop 65% good, 29% fair. Tobacco 50% transplanted, last year 23%, average 15%. Condition 79% good, 17% fair. Watermelons 57% planted, last year 50%, average 36%. Condition 59% good, 38% fair. Wheat 53% good, 34% fair, powdery mildew problems increasing. Other small grains 56% good, 38% fair. Some freeze damage to peach and apple crop in northern quarter of State on 27th and 28th, but too early to fully assess. Pastures 69% good, 25% fair. Cattle and hogs fair to mostly good.

HAWAII: Weather unfavorable. Heavy rains. Soil washouts to orchard and vegetable fields in low-lying areas. Farm activities curtailed. Taro fields, Island of Kauai, affected by silting caused by overflowing streams and irrigation ditches. Diseases prevalent to some leafy crops, lowering yields. Vegetables: Supplies generally adequate. Bananas: Supplies light. Soil washouts in some orchards from gushing waters. Papayas: Declining period in harvest. Production also affected by Pytophthora disease. Pineapples: Light harvest. Sugar: After two weeks shutdown, some mills back grinding. Pastures: Flooding of lowland pastures occurred from the heavy rains. Necessitated moving livestock to higher grounds.

IDAHO: Temperatures averaged from 2° above normal in portions of the Panhandle to 4° below at Dubois. Extremes: 66° at Hagerman to a low of 3° at Stanley. Precipitation was below normal. Totals ranged from only traces at a few stations up to a maximum of 0.25 at Grangeville which was still 0.25 in. below normal.

Most areas received at least three good days of spring weather. Growers in the southwest continued field preparations and plantings. Reports from the rest of the State show that fields still too wet for most crop activities. Potato seed movement very active in east. Some minor winterkill has been experienced in winter wheat in north. As calving and lambing continue, ranchers assessing the damage of the harsh winter on livestock. Losses of last fall's calves and lambs looks to be high, along with cattle and sheep that went into the winter months in poor condition. Most areas indicate feed supplies to be adequate.

ILLINOIS: Temperatures 3 to 7° below normal. Precipitation trace to 0.40 in.

Activities: Livestock feeding and care, general farmwork, ordering supplies, preparing machinery for fieldwork, some fieldwork.

INDIANA: Cool week. Flooding rivers receding slowly. Precipitation 0.20 to 0.40 in., some as snow in north which melted. Air temperatures 5° below normal and ranged from 16 to 68°. Soil temperatures high 30's north to near 50's south. Sunshine 63% of possible.

Wet soils limiting fieldwork. Activities: Topdressing wheat and pastures, hauling manure, some seeding and treating tobacco plant beds, seeding clover, moving grain, caring for livestock and usual chores.

IOWA: A mild, dry week. Light precipitation fell the 23rd, 24th and 25th southeast two-thirds. Temperatures were mildest 24th and 28th reaching upper 40's and lower 50's.

KANSAS: Precipitation 0.10 to 0.25 in. with local amounts southeast and south central to 0.50 in. Temperatures averaged 39° northwest to 47° southeast, normal to slightly below normal north to about 2° below normal south.

Spring seeding oats and barley satisfactory progress, approaching halfway point. Wheat, excellent growth under generally favorable temperature and moisture conditions. Symptoms of soil-borne wheat mosaic becoming more apparent and widespread. Some winterkill locally severe in eastern areas. Soil moisture adequate to surplus except west central and southwest areas.

KENTUCKY: Temperatures averaged 5 to 9° below normal with near to average temperatures first half of week and much below normal readings at end. Precipitation averaged less than 0.25 in. on 25th and 26th which was 0.50 to 1.00 in. below normal.

Suitable for fieldwork: 3.0 days. Soil moisture 1% short, 55% adequate, 44% surplus. Some flooding of river bottoms and lowlands but not serious at this date. Plowing about 40% complete, pessimism of producers have slowed activity. Tobacco beds 50% seeded, last year 75%, 1980 only 20%. Winterkill light to moderate on wheat, damage more severe on barley and oats. Pastures looking good with cattle receiving 33% of roughage from pasture feed. Winter hay supply adequate all areas with 18% still on hand. Extreme cold of January 10th and 17th evidently killed peach buds in many counties and those trees will have little or no 1982 crop. Apples and cherries believed to be okay.

LOUISIANA: Rainfall averaged 0.40 to 2.00 in. Temperatures normal to 3° below.

Soil moisture adequate. Days suitable: 3.6. Spring plowing 48%, 68% 1981, 36% 1980. Corn planted 50%, 44% 1981, 30% average; emerged 25%, 19% 1980, condition fair to good. Rice planted 18%, 26% 1981, 21% average; emerged 8%, 13% 1981; condition fair to good. Winter wheat headed 10%, 7% 1981; condition fair to good. Sugarcane rated fair to good. Strawberry harvest continues, some disease problems noted in Livingston Parish. Vegetables rated fair to good. Both pasture and livestock rated fair to good.

MARYLAND AND DELAWARE: Temperatures in western Maryland averaged 3° above normal but elsewhere averaged 3° below normal. Highs averaged mid 50's to low 60's and lows averaged mid to upper 30's. Greatest amount of precipitation was reported at Oakland; 1.43 in. Least reported was at Georgetown, Maryland and Newark, Delaware at 0.14 in. The average of the remaining 14 States reporting was 0.41 in.

Net sales for the second week of the tobacco auction amounted to 4,312,920 pounds with a net value of $7,516,979. The weighted average price for the second week was $176.14 per hundredweight, an increase of $.82 from the first week weighted average price of $175.32 per hundredweight. Total net sales for the two weeks were 7,526,444 pounds with a net value of $13,152,091.

MICHIGAN: Temperatures averaged 2 to 5° below normal. High temperatures generally in the mid-50's in the Lower Peninsula and mid-40's Upper Peninsula. Precipitation was light. Average accumulation of 0.10 to 0.30 in.

MINNESOTA: Temperatures averaged normal to 6° below normal. Averages ranged from 21° in International Falls to 33° Redwood Falls. Highest

temperature was 50° at Lamberton and lowest was -8° in Duluth. Precipitation totals generally less than 0.15 in. except locally to 0.29 in. south central. Precipitation averaged 0.25 to 0.48 in. below normal. Snowfall ranged from zero to trace except up to 2 in. west central through south central and east central. Snowdepth at weeks end ranged from zero south to 20 in. extreme north central and northeast.

MISSISSIPPI: A cold front with thundershowers moved through the State on the 21st with 2.00 in. rain totals common. Greatest 24-hour total 2.44 in. Cold front on 25th brought below normal temperatures. Extremes: 23 and 88°.

Soil moisture adequate to surplus. Fieldwork: 3.1 days suitable. Land preparation for spring planting, equipment maintenance, and feeding livestock were main farm activities. Plowing 38% completed, 66% last year, 45% average. Corn 29% planted, 34% last year. Winter wheat 60% jointing, 60% last year, 55% average; condition good. Watermelons 38% planted, 41% last year. Hay and roughage and grain supplies adequate. Pasture condition good to fair. Livestock condition fair to good.

MISSOURI: Temperatures averaged 2 to 4° below normal in the northern half of the State, while normal temperatures covered the southern half. Precipitation was light and totaled less than 0.25 in., except in northeastern areas where the average was around 0.50 in.

Little spring fieldwork has been done due to wet soils and cool temperatures.

MONTANA: Cool first of week but warming by weekend. Maximum temperatures 60's in a few areas west of Divide and in south central and southeast. Clear skies 25th brought subzero temperatures to some snow covered areas of southwest and south central. Temperatures averaged 5° above normal in west to 4° below normal in southeast. Most areas received some precipitation, mostly light.

Winter wheat condition fair to good, wind damage light. Mild temperatures favored calving and lambing but wet snow and rain were troublesome in some areas.

NEBRAKSA: Temperatures: Near normal. Precipitation: Widespread with amounts ranging from a few hundredths up to 0.75 in.

NEVADA: Winter continues reluctant to release grip. Week started out with remnants of previous weeks storm and from 5 to 10° below normal. Skies cleared as week progressed and temperatures moderated near midweek. A series of cold fronts end of period lowered temperatures and brought rain to valleys and snow at higher elevations.

Inclement weather delayed seedbed preparations third consecutive week. Calving, lambing continued.

NEW ENGLAND: Temperatures mild 22nd through 26th. Overnight lows normal. Cold outbreak 26th to 28th kept afternoon highs below freezing over much of north, and in the low to mid 30's over the south. Precipitation fell mainly as rain on 22nd and 23rd. Amounts averaged around 0.50 in. south and 0.30 in. north.

NEW JERSEY: Temperatures averaged below normal. Extremes 13° at Newton and Charlotteburg on 29th and 67° at Pemberton on 26th. Rainfall averaged 0.21 north, 0.02 in. central and 0.01 in. south. Heaviest 24-hour total was 0.36 in. at Newton on 26th.

Colder weather slowing crop progress. Soil moisture levels good. Soil preparation, liming, fertilizing and planting early crops progressing at a normal pace.

NEW MEXICO: Temperatures were near to a few degrees below normal.

Soil moisture adequate in most areas except the east side of the State. High winds and scattered precipitation continue to limit outdoor activities. Irrigated wheat and barley remain in good condition with the dryland crop in poor to fair condition. Cattle have been moved off most fields for grain. Alfalfa fields continue to show good growth. Lettuce and onions in good condition and progressing well in Mesilla Valley. Chili planting beginning to wind down in the Mesilla Valley. Calving and lambing continuing with no unusual death losses reported.

NEW YORK: Light to moderate precipitation 25th and 26th, week generally light. Early week temperatures normal, warm on 25th, unusually cold 27th and 28th.

Maple syrup season in progress.

NORTH CAROLINA: Temperatures: 2 to 3° below normal over the northern Piedmont and mountains to near normal over the rest of the State. Precipitation: Very light to 0.79 in. at Mt. Airy.

Soil moisture: 67% adequate and 33% surplus. Fieldwork: 4.2 days suitable. Conditions: All small grains fair to mostly good; tobacco beds mostly good; Irish potatoes fair to mostly good. Plantings: Irish potatoes 54%, 1981 80%, 56% average. Supplies: Hay and roughage and feed grains mostly adequate. Major farm activities: Land preparation, Irish potato planting, topdressing small grains.

NORTH DAKOTA: Above normal temperatures across the north and below normal elsewhere. Average temperatures from 24° east central to 28° northwest. Departures from normal ranged from 5° below normal south central and southeast to 3° above normal northwest. Precipitation well below normal ranging from a trace west central and central, which was 0.20 and 0.22 in. below normal, respectively, to 0.07 in. north central which was 0.14 in. below normal.

Cold, wet conditions continued to prevent any fieldwork. Melting has been slow thus far leaving many areas with significant snow cover. The gradual thaw has helped to reduce potential flooding and replenish topsoil moisture which was adequate to surplus in all areas. Last year, 44% of the State was short of topsoil moisture. Start of fieldwork will be later than the early beginning dates of the past 2 years. Estimated starting dates for fieldwork ranged from mid-April to May 1. State average is April 19. Last year's average for the start of fieldwork was April 6 and two years earlier it was April 16. Spring planting could still be ahead of the slow 1979 pace when the start of fieldwork was delayed until May 13. Calves and lambs in generally good condition. Some problems with weak calves and scours. Lambing 52% completed, calving 38%. All livestock still receiving supplemental feed. Some feed shortages particularly in northwest.

OHIO: Temperatures averaged 6 to 9° below normal. Lows fell to 10° northeast on 28th. Highs averaged 40° north to near 50° south. Precipitation under 0.33 in. Some fell as snow leaving some accumulation northeast. Soil temperatures, 4 in. under bare ground, reached the upper 40's to low 50's. Northeast has snow cover, most other areas soils still frozen or too wet to work.

Farm activities included limited land preparations, spreading fertilizer, hauling manure, seeding clover and grasses, seeding tobacco beds, setting cabbage plants Ohio River counties, moving bedding plants to market, mostly into southern States.

OKLAHOMA: Precipitation varied from 0.01 in. northeast to 0.63 in. southwest. Temperatures averaged from 2° below normal northeast to 7° below normal south central.

Wheat excellent growth and development due good moisture conditions and cool temperatures. Cheat, mustards, wild buckwheat and other weeds reported in several fields but generally under control due to spraying. Wheat jointing: 35%, 30% 1981, 20% average. Days suitable for fieldwork: 5.6.

OREGON: Near normal temperatures prevailed with daytime temperatures reaching in the 60's in most areas. Nighttime lows dipped into the teens in far eastern areas, and in the 30's and 40's elsewhere. Slight precipitation was reported from all areas with accumulations of less than 0.10 in. common. Heavier rains moved into the State over the weekend.

Soil moisture supplies adequate to surplus. Winter wheat condition fair to good in Willamette Valley; good to excellent elsewhere. Fertilizing and spraying grain and grass seed fields continues. Some spring grain going in, alfalfa fields being sprayed. Plowing underway. Peaches in bloom in Willamette Valley. Delayed dormant fruit sprays being applied. Some late training of caneberries. Onion and sugarbeet plantings started in Malheur County, but soils still very wet. Seedbed preparation underway for peas, radish seed crops, and early broccoli. Livestock generally in good condition. Range and pastures continue to improve. Feed supplies adequate.

PENNSYLVANIA: It was a colder than normal week, as the State average was around 4° below the normal. Scattered record-breaking low temperatures were noted during latter part of week. Extremes: 65 and 0°. Precipitation in the form of rain and snow was relatively light in the southeast with heavier amounts in the central mountains which totaled nearly 0.75 in. State average was around 0.40 in. below normal.

PUERTO RICO: Island average rainfall 0.25 in. or 0.24 in. below normal. Highest weekly total 1.19 in. Temperatures averaged about 77 to 75° on Coasts and 72 to 70° Interior Divisions. Extremes: 92 and 51°.

SOUTH CAROLINA: Cold front late 25th was followed by much colder weather, but average only 2 to 4° below normal. Lows ranged from 19° at Walhalla to low 30's in south on 28th. Light, scattered rainfall.

Soil moisture adequate, some wet conditions delaying nitrogen or fertilizer topdressing for small grains. Corn 34% planted, 49% 1981. Tobacco 3% transplanted, plant supplies only adequate, 3% 1981. Tomatoes 77% transplanted, 68 year ago. Scattered, locally heavy infestation of powdery mildew on wheat. Piedmont apple, peach blooms extensively freeze-damaged, preliminary assessment at 90% loss. Ridge peach damage seems much less severe, 10 to 20% kill, assessment unfinished.

SOUTH DAKOTA: Average temperatures below normal. Southeast temperatures averaged only 1 to 2° below normal, remainder of State generally 2 to 8° below normal. Extremes: 69 and -8°. Very dry with most areas well below normal weekly precipitation. Largest amount was 0.40 in. Precipitation amounts in most areas running above normal since first of year.

TENNESSEE: High pressure dominated the early week resulting in cool temperatures and fair skies. Cold front 25th brought scattered thundershowers mainly to the east. Cooler and dryer air followed the front. Temperatures averaged 5° below normal. Mean low's in the 30's with mean high's in the middle 50's and low 60's. Precipitation was confined to the east with amounts averaging 0.25 in. or less.

Land preparation, topdressing wheat, renewing pastures, and preparing tobacco seedbeds continued to dominate spring farming activity.

TEXAS: Weather: Springtime weather. Scattered showers, thundershowers 26th, 27th, 28th. Much precipitation. Temperatures much below past week. Rain above normal eastern half, below normal western half, Lower Valley.

Crops: Land preparation, spring planting active. Highs winds, warmer temperatures, deplete soil moisture across High Plains; dryland wheat remains moisture-stressed. Preplant irrigation active many areas Panhandle. Widespread weekend showers help crop prospects Central, South Central Texas. Along coast low-lying areas too wet for planting. Cotton planting active, many fields Coastal Bend very good condition. Planting underway along Upper Coast, but at much slower rate. Many producers waiting warmer soil temperatures. Corn planting good progress. Some replanting necessary Blacklands because poor stands. Cutworms problem fields along coast. Good weekend rains help many sorghum stands Blacklands, South Central Texas. Some stands Blacklands developed poorly; will be replanted. Birds damaging some stands Lower Valley. Small grains respond warmer temperatures, additional moisture. Weekend rains Central Texas provide much-needed moisture small grain fields which heading out. Weeds becoming problem Cross-Timbers fields. Wheat jointing Northern High Plains. Rains provide adequate moisture Central Texas wheat fields beginning to head out. Cattle move off fields harvested for grain. Because poor development some areas fields grazed out instead of harvested. Reported condition across State 78% of normal with 9% excellent; 48% good; 40% fair; and 3% poor. Rice planting some progress along coast. However, rain delayed seeding some areas. Sugarbeet planting good progress High Plains. Cotton planted 8%, 7% 1981, 9% average. Rice planted 30%, 34% 1981, 24% average. Sorghum planted 57%, 53% 1981, 45% average. Corn planted 39%, 37% 1981, 29% average.

Commercial vegetables: In Rio Grande Valley harvest cabbage, carrots, onions active. Potatoes, tomatoes, watermelons continue to show good growth. Citrus harvesting continued. In San Antonio-Winter Garden area, planting spring vegetables continued. Irrigation continued. Harvest of carrots, spinach active. In Coastal Bend land preparation neared completion. In East Texas, land preparation underway. In North Texas, planting of potatoes continues, planting of onions nearing completion. Moisture needed. In Trans-Pecos region, potato planting active. Chili peppers planting underway. On High Plains, planting of onions, potatoes continues. Peach trees continued to bloom. No apparent freeze damage. Pecan trees beginning to bud.

Range and livestock: Range, pasture conditions continue to improve, demand for supplemental feeding declined. Moisture needed to continue pasture growth, replenish topsoil moisture. Livestock mostly good condition.

UTAH: Few isolated showers forepart period. Recurring periods rain changing to snow weekend. Accumulated amounts moisture generally light to moderate. Rising trend temperatures but averages ranged between 2° above normal and 9° below.

Land preparation slowed in southern areas, not yet begun elsewhere. Water supply situation continues to improve. Livestock in good condition. Calf and lamb crop appears normal.

VIRGINIA: Temperatures averaged a few degrees above normal before turning sharply colder during the weekend. Temperature extremes: 73 and 14°.

Precipitation amounts ranged from 0.50 to 2.50 in.

Clear skies and mild weather during most of the week reduced some of the surplus water in fields. Topsoil moisture rated 65% adequate, 35% surplus. Days suitable for fieldwork: 2.7. Pastures, barley and wheat continued good growth and were rated excellent condition. Some weeds and nitrogen shortages showing up in wheat. Apples and peaches were rated in excellent condition prior to the weekend. Some damage had occurred during extremely cold winter weather; cold over weekend caused some damage to peaches as bloom was just beginning but expected to be slight. Tobacco plant beds 80% seeded and in good to excellent condition except in southeast where they were poor. Small acreages of corn have been planted in southeast. Potatoes 20 to 25% planted on the Eastern Shore and 40% elsewhere. Late calving and lambing proceeding well and livestock continue in good condition. Farmers were able to increase land preparation activities for corn and tobacco and topdress small grains.

WASHINGTON: Weather: An extension of a high pressure system in the Gulf of Alaska dominated the weather. The associated weather was dry with warm days and cool nights through 25th. The high diminished late in the week, and the Pacific front that moved on shore late 25th brought warm wet weather on 26th.

West: Some early vegetables being planted. Field rhubarb progressing. Raspberry and blueberry buds have broken. Cabbage seed fields showing water damage. Daffodil harvest continued. Pastures green up. Limited amounts of cattle were put on pastures. Feed supplies adequate. Christmas tree planting winding up.

East: Planting activities included spring wheat, barley, potatoes, dry peas, and green peas. Herbicide application was also done. Tree fruit spraying progressing while apples in green tip stage. Lambing and calving continues. Winter wheat and barley in average condition.

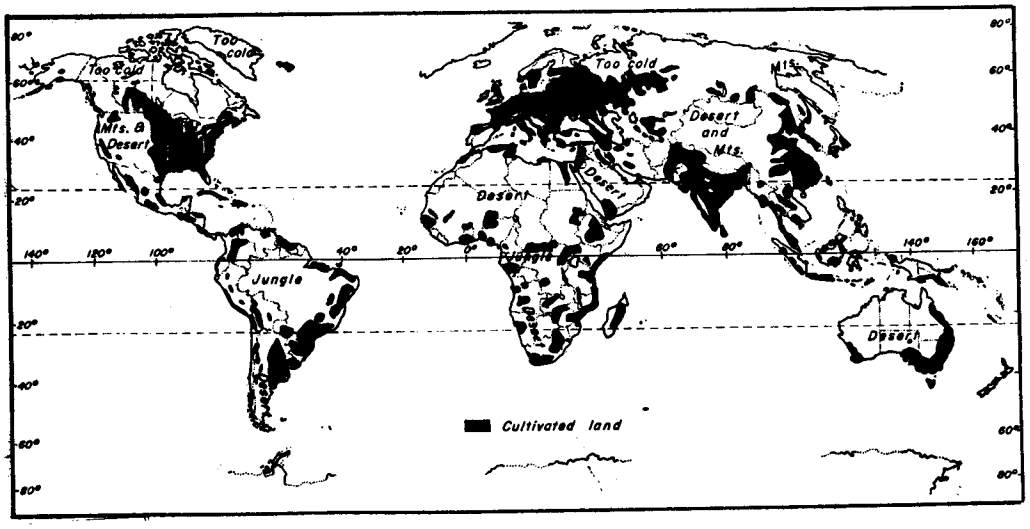
WEST VIRGINIA: Temperatures averaged near normal except in the northwest where they were below normal. High 72°, low 13°. Precipitation above normal except in the northeast. Some flooding in east central areas.

Soil moisture adequate to surplus. Days worked averaged: 2.9. Hay short to adequate. Grain and other feed supplies adequate.

WISCONSIN: No significant weather events occurred. Precipitation was light. Scattered rain and snow fell from the afternoon of the 23rd to the afternoon of the 24th and again on the 25th and 26th. Precipitation totals were less than 0.20 in. Colder temperatures occurred on the 26th and 27th with overnight lows plunging below zero on the 26th. The weekly high temperature of 55° was recorded in Oak Creek on the 23rd while Morse reported the coldest reading, -18, on the 27th.

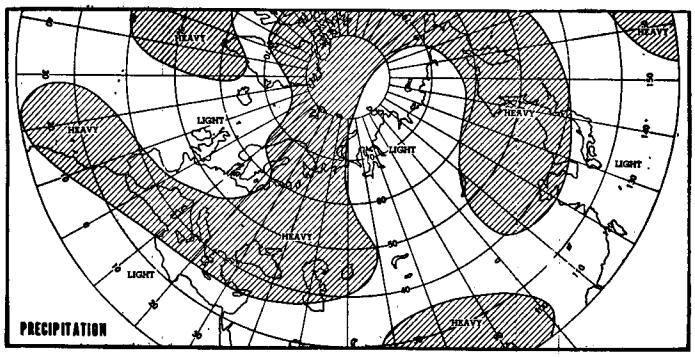
WYOMING: Mild temperatures averaged slightly below normal. Highest 61°, coldest -8°. Precipitation amounts below normal central and southeast, above normal north and northeast, below to near normal west. Greatest amount of moisture, 0.62 in.

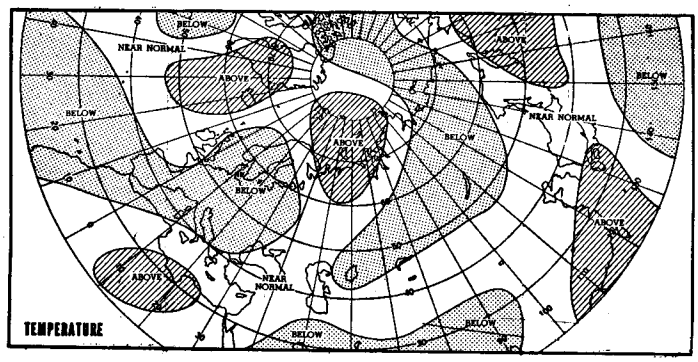
Topsoil moisture adequate 69% State. Subsoil moisture short 58% State. Small amount oats, spring wheat planted. Barley planted: 10%; last year 35%; normal 12%. Winter wheat mostly good condition. Livestock mostly good condition. Spring calves born: 45%; last year 40%; normal 42%. Farm flock: Ewes lambed 55%; shorn 50%. Range sheep: Ewes lambed 25%; shorn 20%. Death losses normal. Range, pasture condition mostly fair.



Approximate cultivated land area of the world. (Courtesy U. S. Department of Agriculture, Foreign Agricultural Service.)

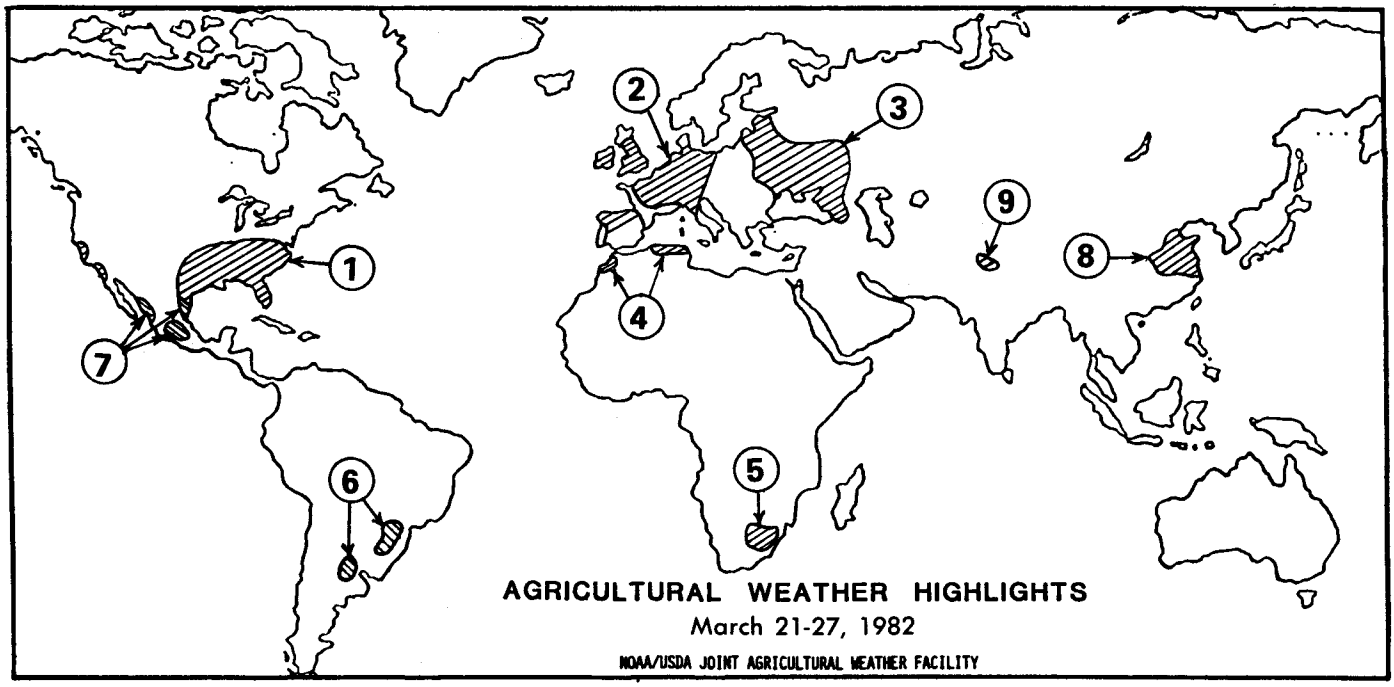
Eurasia Outlook for April





International Weather and Crop Summary

March 21-27, 1982



1. UNITED STATES: Cold outbreak east of Rockies freezes peaches and apples in western Carolinas, and slows southeastern vegetables and Texas coastal cotton. Heavy rains over Southeast further delays fieldwork but improves Florida's soil moisture. Cool, wet weather continues to hamper California vegetables.

2. EUROPE: Drier weather with some slow growth of winter grains.

3. WESTERN USSR: Warming trend by week's end over most winter grains as dry weather continues.

4. NORTHWESTERN AFRICA: Rainfall benefits winter grains in Algeria and Tunisia; Moroccan crops too dry.

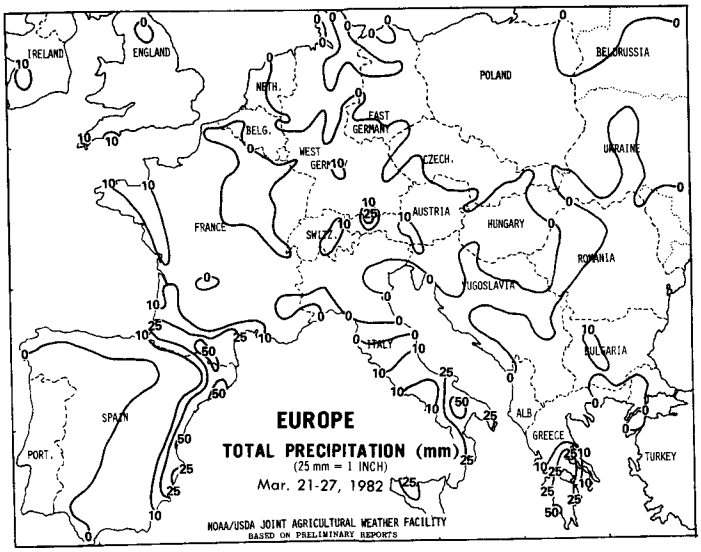
5. SOUTH AFRICA: Widespread abundant rainfall comes too late to help corn.

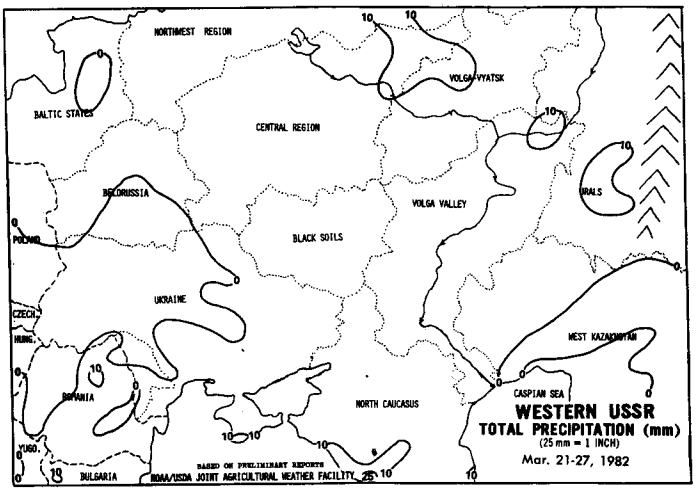
6. SOUTH AMERICA: Unsettled weather slows crop harvests; cooler weather in Argentina.

7. MEXICO: Rains over the northeast bring relief to some citrus, corn, grain sorghum, and sugarcane. Dryness favors irrigated vegetables and cotton over the northwest while plaguing the corn program of the southern Plateau.

8. EASTERN ASIA: China winter grains dry in the north with widely varying temperatures; wetter in the south.

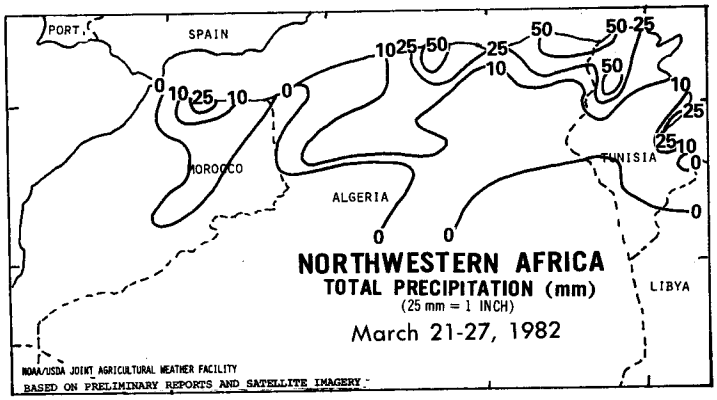
9. SOUTH ASIA: Brief, heavy rainfall detrimental to winter grains in the Punjab areas of India and Pakistan.

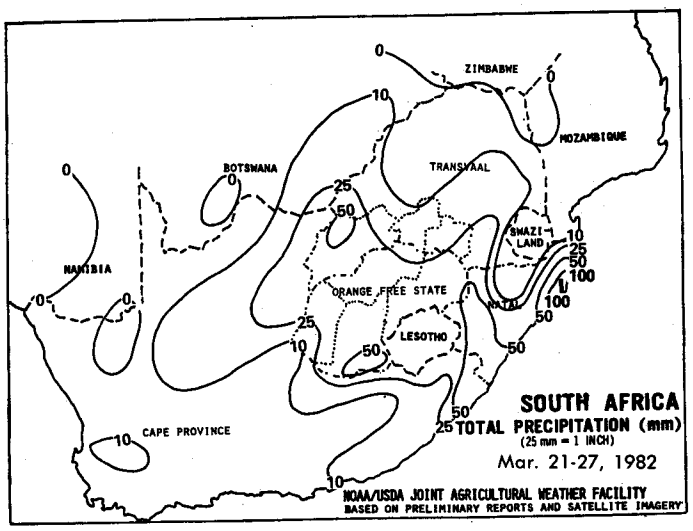




EUROPE: High pressure prevailed over the continent during the week, inducing a drier weather pattern. Some wet weather, however, was able to penetrate into Mediterranean coastal locations producing 25 to 50 mm of rainfall. The precipitation which fell on the southeastern coastal areas of Spain benefited almond trees which are in the flowering stage. In contrast, unfavorably dry weather continued over Spanish winter grain areas. Average temperatures for the week allowed some slow growth of winter grains west of a line slanting southwestward from central Poland into central Italy. Winter grain growth is most advanced in southern Spain but is still in the vegetative stage.

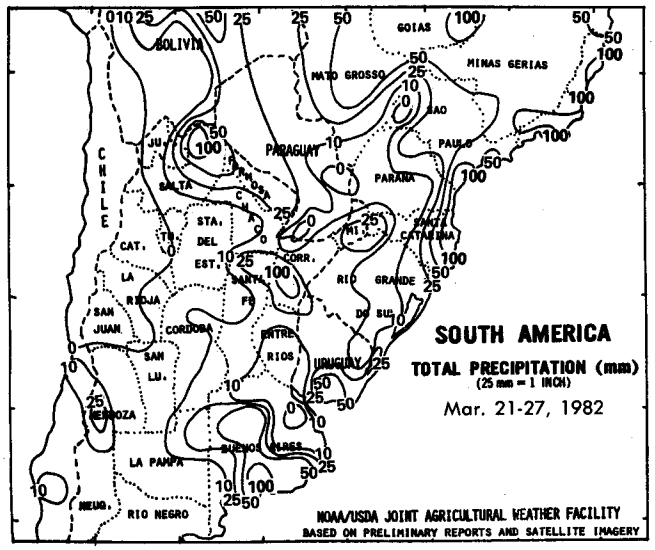
WESTERN USSR: The below-normal precipitation pattern continued over the region. The weather became more like spring as large daily fluctuations in temperature were reported. In addition, a brief cold spell occurred over winter grain areas in the southern half of the Volga Valley and North Caucasus by late-week. Minimum temperatures, around -12°C approached those which are critical for grains beginning to break dormancy in more southern areas. Temperatures moderated at week's end as a rapid warming trend moved eastward through the region.





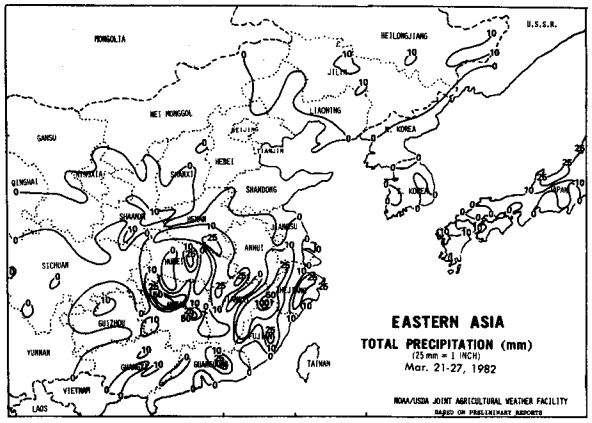
NORTHWESTERN AFRICA: Timely rainfall benefited winter grains in central Algeria and areas to the east. Prospects remained good as the crop advanced into the grain-filling stage, with temperatures staying somewhat below normal. Moroccan winter grain areas became detrimentally drier because of lack of rain. The crop came under increasing stress as it continued in the heading stage, and yield prospects are declining below normal. Temperatures remained slightly above normal.

SOUTH AFRICA: Widespread above-normal rain fell over much of the Maize Triangle. The moisture came too late to improve corn crop prospects much, although it may have helped fill kernels of late-planted varieties. Because of the rain, the outlook for winter grains improved substantially. Temperatures dropped to near normal.

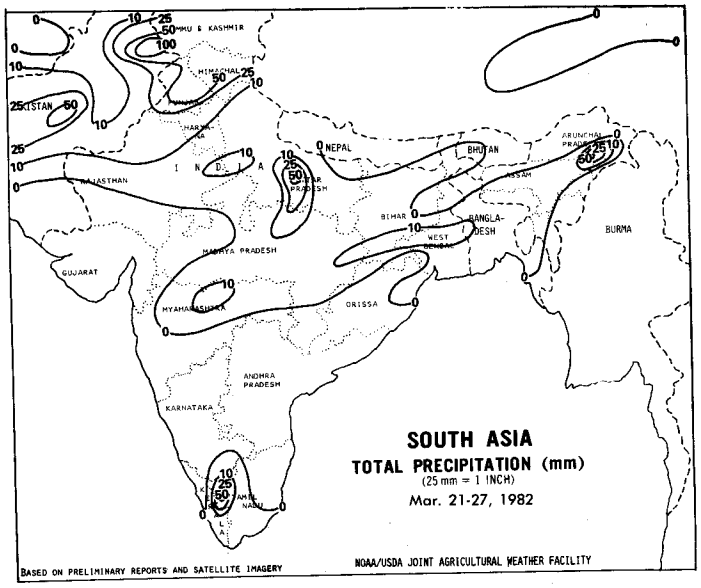


SOUTH AMERICA: A frontal system passed through the crop areas of Argentina and southern Brazil, and by the weekend, produced unsettled weather over much of the region. Heavy showers and thunderstorms likely interfered with the sunflower harvest in Buenos Aires. Light rain fell over Argentina's major coarse grain/soybean area where crops are nearing maturity. Early crop harvests should have encountered only minor delays in this area. Minimum temperatures fell into the single digits (°C) throughout Buenos Aires after the frontal system passed. In Brazil's soybean area where the crop harvest is nearly 20 percent complete, showers late in the week came after several days of favorable harvest weather in southern crop areas. Heavy rain occurred along coastal areas from Santa Catarina northward into Sao Paulo and across Minas Gerais, Goias, and Mato Grosso causing harvest delays in northern soybean areas.

MEXICO: Light showers over the northeast brought temporary relief to some citrus and young corn and grain sorghum that were suffering from prolonged dryness. Further south, moderate to heavy rains from Valles to Jalapa benefited orchards, immature sugarcane, and young crops. Dryness continued to plague corn planting and germination over most of the southern Plateau. In contrast, the sunny, dry pattern favored the irrigated vegetable and cotton programs over the northwest.



EASTERN ASIA: No rain fell on China's winter grain areas, and irrigation water remained in short supply. The temperature pattern in the dry areas was similiar to the previous week's. Daytime temperatures ranging much above normal early in the week were followed by cooler-than-normal weather during midweek and unfavorably warm weather again on Saturday. The warm spells stressed winter grains in the vegetative growth stage, and light frost at midweek likely caused superficial burning of leaves. These abnormal temperature fluctuations are due, in part, to the dry condition of the ground. In Henan, the rain of the previous week dampened the surface enough to prevent a sharp rise in temperature. Continued showers in southern winter grain areas and to the south were beneficial, but some early rice areas may be a little too dry. In South Korea, lower, near normal temperatures allowed only slow winter grain growth, and although very little precipitation fell, soil moisture remained quite adequate.



SOUTH ASIA: A slow-moving westerly storm system dumped abnormally heavy rain over winter grain areas of northern Pakistan and northern India. Widespread thunderstorms likely produced lodging of mature grain. The quality of this year's crop should be below par. To the east, rain in Bangladesh and eastern India slackened in general, but some parts of Bihar and West Bengal had above-normal rains. Early season showers began in the southern tip of India as the tropical weather belt moved slowly northward.

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

IMMEDIATE - U. S. Weather Report

This Report Will be Treated in All Respects as Letter Mail

FIRST CLASS MAIL

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF COMMERCE
210-A

U.S.MAIL

(Continued from page 1)

the northern Rockies eastward through Montana. Cold air moved into the northern Plains. Showers and thunderstorms continued in the South from Mississippi eastward and into North Carolina.

THURSDAY...Thunderstorms dominated the weather over the Southeast. Large hail fell at several locations. A tornado touched down in southern Alabama. Further north, rain or showers covered the area east of the Mississippi River, and heavy snow fell through the Great Lakes region. A cold front pushed rain into southern California and, later, into the Pacific Northwest and across the southern Plateau.

FRIDAY...Cold air pushed southward to northern Texas, from Arkansas to northern Georgia, and into the Carolinas. Light snow fell through the Ohio Valley, becoming heavy in the western portion of the northeastern States. Later, heavy rain covered the northeastern coastal area. A mixture of rain and snow fell in the western portion of the central Plains, with rainshowers becoming heavy in Oklahoma, eastern Texas, and Louisiana. Rain, with snow at higher elevations, fell throughout the West and moved across the central and southern Rockies to the high Plains.

SATURDAY...Light rain fell through the central and southern Plains, along the gulf coast, and into Florida. Heavy showers fell in southern Louisiana and southeastern Texas. Freezing weather covered the East as far south as Georgia, threatening some of the early blooming fruit trees in the Southeast. Rain fell from northern California to Washington and over the northern Plateau to the Rockies.

The Weekly Weather and Crop Bulletin is 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 Weather Chronicle. It is issued under general authority of the Act of January 12, 1895 (44 USC 213), 53rd Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the Bulletin. The contents may be reprinted freely, with proper credit.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service/Climate Analysis Center
Managing Editor . . . . . Don Haddock
Meteorologists . . . . . Jim Williams
Ray McInturff Wes Byrd
Lyle Denny Karen Brown

Subscriptions (202) 447-7917 . . . . Tamara Bibber

U.S. DEPARTMENT OF AGRICULTURE
Economic Management Service
Editor . . . . . Linda Hatcher
Statistical Reporting Service
Agricultural Statistician . . . . . Bill Blackson
World Agricultural Outlook Board
Agricultural Weather Analysts . . . . Laras Lambert
Ray Motha Tom Puterbaugh