

# WEEKLY WEATHER AND CROP BULLETIN

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

U.S. DEPARTMENT OF AGRICULTURE  
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and World Agricultural Outlook Board

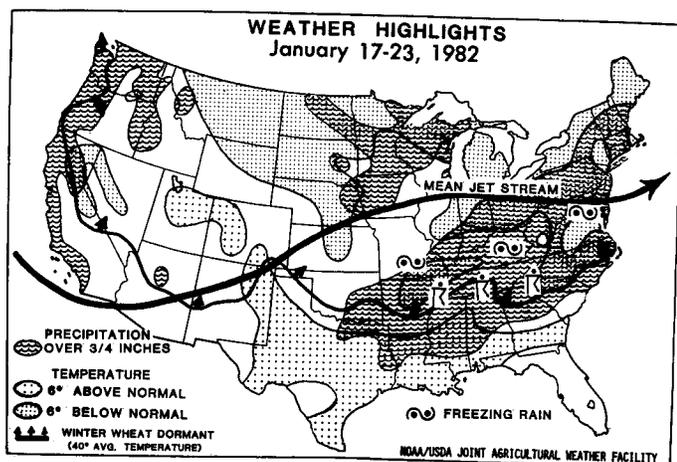
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## National Weather Summary

January 17-23, 1982



**HIGHLIGHTS:** Nearly all of the United States recorded some precipitation during the week. Huge amounts of snow piled up in the northern Mississippi Valley. Lesser amounts increased the protective snow cover over winter grains in the northern Plains and much of the midwest. Warming through the southern States brought average temperatures as much as 12° above normal. But cold persisted in the north with some areas averaging 20-25° below normal.

**SUNDAY...** Arctic air covered the East and the South through northern Florida. Temperatures in the upper teens and twenties reached the gulf coast from Alabama to Texas. Record low temperatures were recorded from the Great Lakes to the Southeast. Light snow fell from the northern Plains to the eastern Great Lakes and northern Ohio Valley. Rapid warming occurred over the western High Plains with high winds accompanying the milder weather. Rainshowers (with snow through the mountains) spread across the Pacific Northwest and into central California.

**MONDAY...** It was still cold in the Northeast but warming continued through the southern and central Plains and began across the South. Light rain spread from the Texas coast eastward to Georgia but the precipitation was in the form of freezing rain or snow from Arkansas through Kentucky and Tennessee to the mid-Atlantic coast. Showers continued along the Pacific coast and snow fell across the northern Plateau and Rockies to the northern Plains.

**TUESDAY...** Rainshowers spread over all the Pacific coast. Snow covered the higher elevations and from northern Nevada through the northern Rockies into the Plains. Warming continued over the southern

Plains and across the South. Light rain or drizzle fell from northeastern Arkansas to northern Georgia and the Carolinas while freezing rain covered the mid-Atlantic States and snow fell over the Northeast.

**WEDNESDAY...** Warm gulf air spread northward across the gulf coast States. Light rain developed from southeastern Texas to northern Mississippi and then to Georgia and the Carolinas. Later, moderate showers covered the area from Arkansas to South Carolina and thunderstorms rolled through the area. A mixture of freezing rain and snow covered the mid-Atlantic states. Heavy snow covered the northern Mississippi Valley and spread through and south of the Great Lakes. Showers covered most of the West. It rained along the West coast and some heavy snow covered the Plateau and extended across the northern Rockies to the Plains.

**THURSDAY...** Nearly all of the Nation had precipitation of some kind. Only Florida, New England, and parts of southwestern Texas remained dry. Light rain from Texas to the Carolinas developed into moderate to heavy showers and thunderstorms. Showers and thunderstorms were heavy from eastern Oklahoma to southern Illinois and through northern Mississippi late in the day. A mixture of rain, sleet, and snow fell over the Ohio Valley and mid-Atlantic States. A winter storm was winding up in the central Rockies. All of the West was affected by the developing storm. Rainshowers covered the coast and lower elevations of the Southwest. Snow fell throughout the Plateau and Rockies.

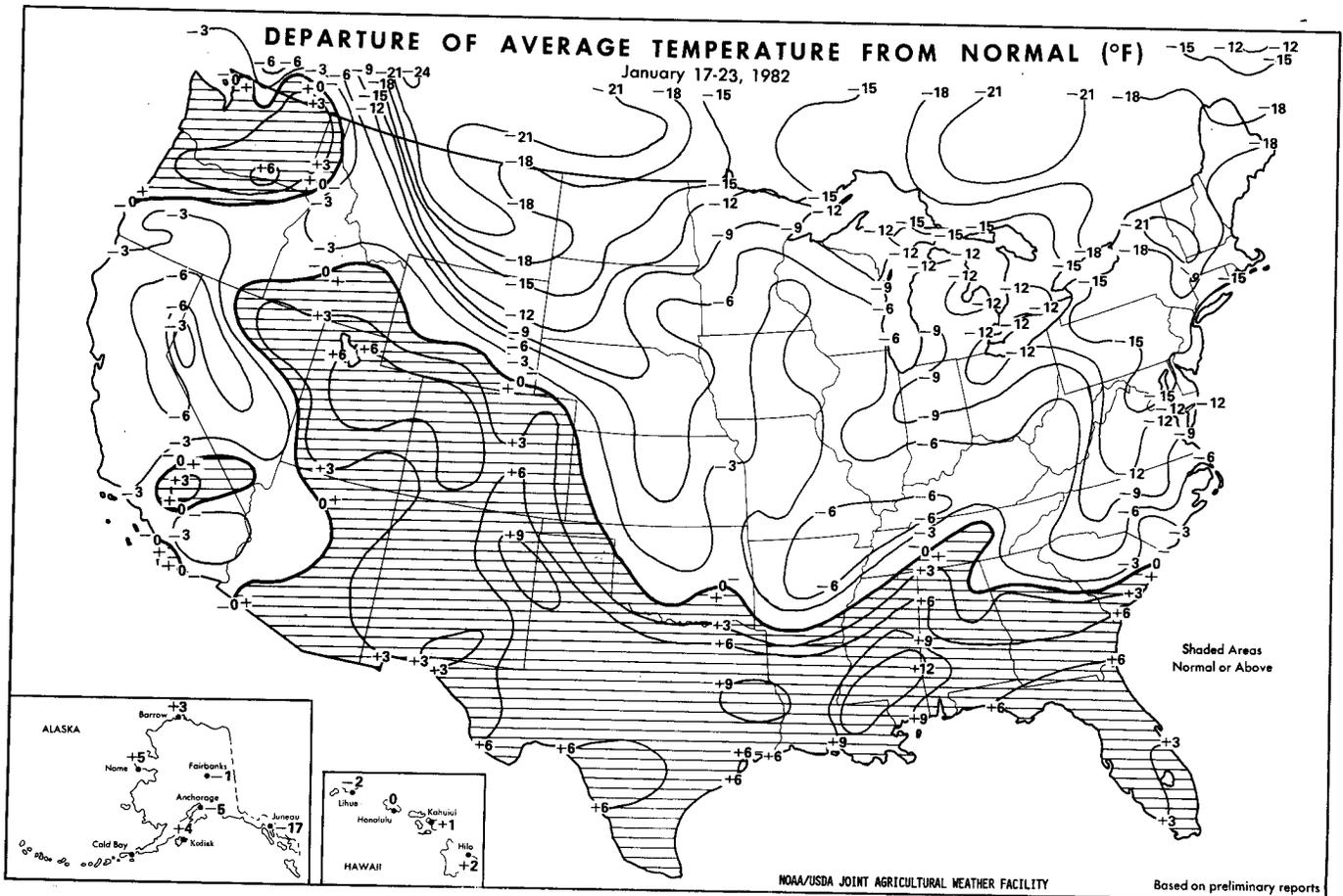
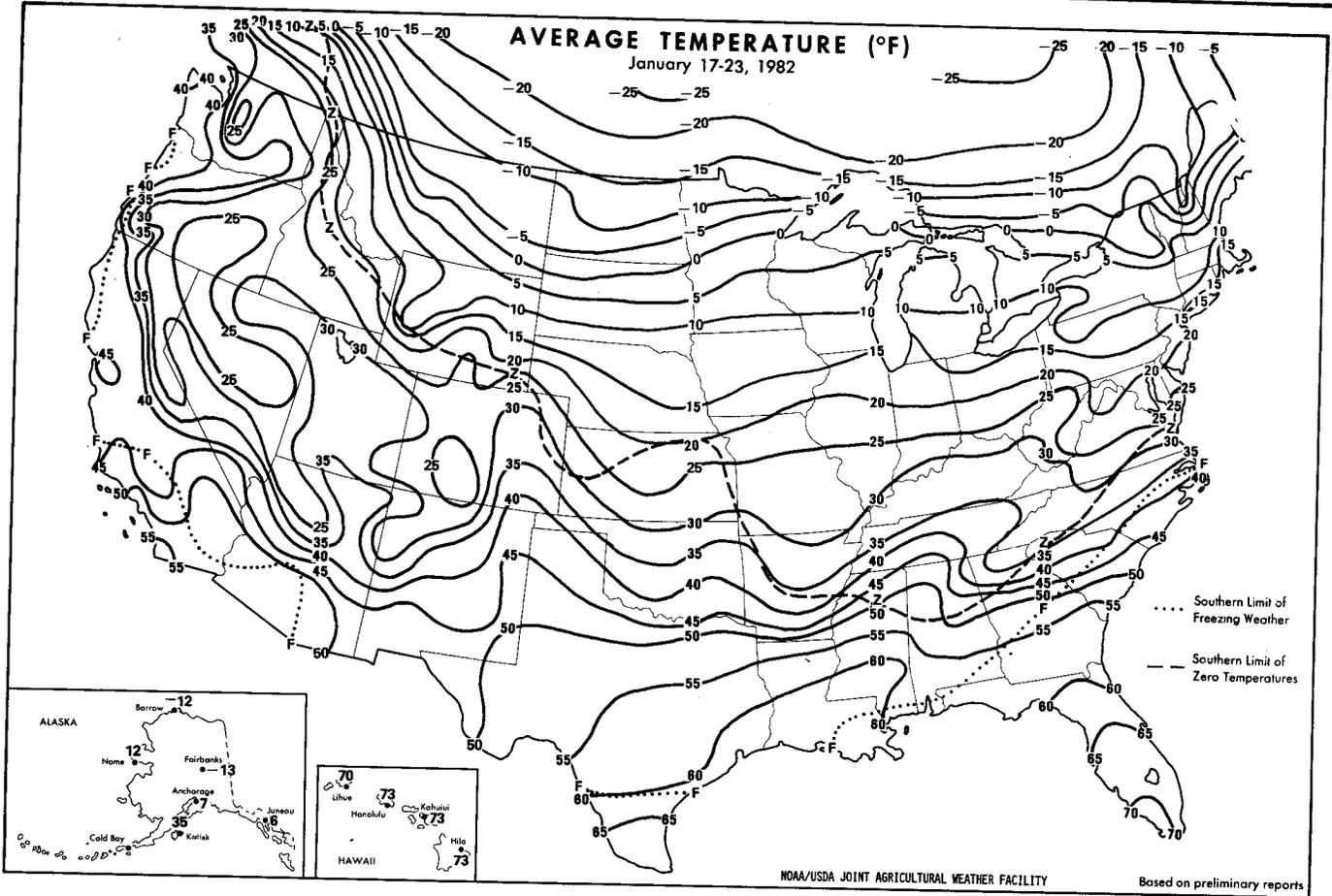
**FRIDAY...** Warm, very moist air streamed northward from the Gulf of Mexico while very cold air pushed southward through the Plains. An intense winter storm moved out of the central Rockies. Freezing rain spread from Kansas and southern Nebraska into southern Iowa and snow covered the area to the north. A warm front through the southern States produced showers, thunderstorms, and a few tornadoes from Arkansas and Missouri through Alabama and Kentucky. Heavy rain spread across the Ohio

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Weather Data for the Week Ending January 23, 1982

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 Nov. 29	PCT. NORMAL SINCE Nov. 29	TOTAL, IN., SINCE Jan. 3	PCT. NORMAL SINCE Jan. 3	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	62	41	77	-1	51	7	2.3	1.3	1.3	12.8	144	5.8	187	88	56	0	2	5	2
MOBILE	68	48	77	17	58	7	.2	.8	.2	10.0	103	2.6	84	58	0	1	1	0	
MONTEGOMERY	62	43	72	15	53	5	.6	.3	.5	12.6	156	4.0	154	94	61	0	2	3	0
AK ANCHORAGE	14	0	19	-10	7	-5	T	T	T	.3	18	0	0	88	50	0	7	1	0
BARROW	-4	-19	3	-28	-12	3	T	T	T	.3	50	.2	67	78	63	0	7	0	0
FAIRBANKS	-3	-23	11	-35	-13	-1	T	T	T	1.3	130	.7	233	61	36	0	7	2	0
JUNEAU	14	-1	22	-4	6	-17	T	T	T	4.6	58	1.9	70	61	30	0	7	0	0
KODIAK	40	31	45	29	35	4	T	T	T	14.8	153	7.8	223	84	54	0	6	4	1
NOME	20	4	26	-21	12	5	T	T	T	2.4	171	1.2	200	91	53	0	7	6	0
AZ PHOENIX	63	42	71	35	53	2	.3	.2	.3	1.4	93	.6	120	80	29	0	0	1	0
PRESCOTT	47	26	59	9	36	-1	.5	.1	.5	.7	.7	.7	58	85	43	0	4	1	0
TUCSON	65	38	77	29	51	1	.4	.2	.4	2.1	131	1.6	167	79	19	0	1	1	0
YUMA	64	44	73	38	54	-1	.1	0	.1	.3	.3	.2	100	58	24	0	0	0	0
AR FORT SMITH	45	27	59	6	36	-3	.8	.2	.4	3.3	36	1.6	59	90	54	0	3	2	0
LITTLE ROCK	41	26	68	1	34	-7	1.7	.8	1.0	4.0	55	2.2	79	90	61	0	4	4	2
CA BAKERFIELD	50	36	56	32	43	-5	.4	.2	.3	.6	.6	.4	67	86	56	0	1	3	0
EUREKA	48	41	51	34	44	-3	2.2	.5	.8	13.1	194	2.7	53	93	73	0	0	7	1
PRESNO	47	35	50	30	41	-5	.6	.2	.4	2.8	38	1.7	142	96	61	0	0	3	0
LOS ANGELES	59	46	65	40	52	-2	1.5	.9	1.2	4.3	116	1.8	106	79	51	0	0	2	1
RED BLUFF	44	34	50	27	39	-6	1.0	0	.7	6.2	33	2.3	74	92	70	0	1	5	1
SACRAMENTO	46	36	50	30	41	-5	.6	.4	.4	3.7	109	1.5	107	84	53	0	0	2	1
SAN DIEGO	61	50	64	44	56	0	.9	.5	.6	3.7	109	1.5	107	84	53	0	0	4	1
SAN FRANCISCO	48	40	53	35	44	-4	.9	.1	.5	11.9	153	7.4	247	91	66	0	0	4	1
CO DENVER	45	20	59	10	32	2	T	T	T	1.1	138	.2	67	83	43	0	7	1	0
GRAND JUNCTION	40	22	48	14	31	5	T	T	T	1.0	110	.1	25	85	48	0	7	1	0
PUEBLO	49	22	64	10	36	6	T	T	T	1.0	111	.1	25	85	48	0	7	1	0
CT BRIDGEPORT	24	5	43	-5	15	-15	1.2	.6	1.1	6.6	118	2.5	139	81	39	0	7	3	0
HARTFORD	20	-1	37	-9	9	-15	.8	.1	.7	7.5	110	2.9	132	66	30	0	7	2	1
DC WASHINGTON	28	15	43	-5	21	-15	.7	.2	.4	5.2	102	2.3	135	87	59	0	7	3	0
FL APALACHICOLA	66	51	74	38	59	5	.1	.6	.1	7.8	134	2.2	105	94	73	0	0	1	0
DAYTONA BEACH	75	48	81	40	61	3	0	.5	0	5.6	160	1.4	100	96	46	0	0	0	0
JACKSONVILLE	73	45	83	30	59	4	.3	.3	.3	6.5	138	3.1	163	97	51	0	2	2	0
KEY WEST	79	67	81	58	73	2	T	.4	T	.4	14	.4	33	94	66	0	0	0	0
MIAMI	79	60	81	54	70	3	T	.5	T	.2	6	.1	7	93	53	0	0	0	0
ORLANDO	79	51	83	44	65	5	0	.5	0	3.3	32	.4	27	96	42	0	0	0	0
TALLAHASSEE	71	45	79	28	58	5	.3	.6	.3	8.5	116	3.3	127	97	56	0	2	1	0
TAMPA	76	53	81	44	64	4	0	.6	0	5.3	126	1.6	94	99	52	0	0	0	0
WEST PALM BEACH	78	57	80	51	68	3	0	.6	0	3.8	34	1.1	61	87	49	0	0	0	0
GA ATLANTA	57	36	71	0	47	4	.8	.2	.4	11.9	153	4.1	137	93	61	0	2	2	1
AUGUSTA	55	36	70	17	45	-1	.8	0	.6	11.7	112	2.6	118	98	59	0	2	2	1
MACON	62	41	76	15	52	4	.6	.2	.6	12.5	176	3.4	148	93	60	0	2	2	0
SAVANNAH	68	44	79	27	56	6	.3	.3	.3	6.6	118	3.4	170	88	48	0	2	2	0
HI HILO	78	67	82	64	73	2	5.9	4.0	3.4	27.6	119	6.5	116	92	70	0	0	6	2
HONOLULU	77	68	80	61	73	0	8.1	7.1	3.3	17.6	244	12.5	417	94	68	0	0	6	4
KAHULUI	78	68	81	64	73	1	2.8	1.9	1.8	8.2	139	5.4	216	88	71	0	0	4	2
LHUE	75	64	77	59	70	-2	7.9	6.5	2.6	20.5	178	11.5	274	99	77	0	0	7	3
ID BOISE	36	20	43	6	28	-1	.9	.6	.6	4.0	148	1.1	110	91	67	0	7	6	1
LEWISTON	38	28	52	21	33	2	.7	.4	.4	3.0	130	1.7	189	91	68	0	7	6	0
POCATELLO	31	17	40	0	24	1	.4	.1	.1	3.6	130	1.2	133	93	71	0	7	3	0
IL CHICAGO	27	6	38	-23	17	-6	.6	.2	.3	3.6	107	1.9	146	85	57	0	7	3	0
MOLINE	27	7	38	-15	17	-4	.2	.2	.1	2.2	71	.6	60	86	63	0	7	3	0
PEORIA	30	12	42	-13	21	-2	.4	0	.2	3.4	97	1.3	93	79	59	0	7	2	0
QUINCY	30	13	40	-10	22	--	.5	--	.3	--	--	.8	--	85	68	0	7	2	0
ROCKFORD	26	4	37	-25	15	-5	.5	.1	.2	2.4	73	1.1	85	88	64	0	7	3	0
SPRINGFIELD	30	11	41	-18	20	-6	.5	.2	.3	4.9	158	1.4	140	83	63	0	7	2	0
IN EVANSVILLE	39	21	57	-18	30	-3	3.8	3.1	3.7	8.2	137	4.8	209	90	69	0	3	3	1
FORT WAYNE	24	5	42	-17	15	-10	1.2	.6	1.0	5.8	135	2.4	133	91	63	0	7	4	1
INDIANAPOLIS	33	11	50	-17	22	-6	1.4	.8	1.2	8.0	157	2.6	130	90	66	0	7	4	1
SOUTH BEND	26	6	42	-15	16	-8	.3	.3	.1	3.9	99	1.7	113	85	62	0	7	3	0
DES MOINES	25	9	38	-14	17	-2	.6	.3	.6	3.0	158	1.3	163	83	59	0	7	3	1
SIoux CITY	21	2	34	-12	11	-6	1.2	1.0	1.1	3.2	246	1.6	320	96	70	0	7	5	1
KS WATERLOO	20	5	31	-18	13	-3	.4	.2	.4	2.6	153	.8	114	88	72	0	7	2	0
CONCORDIA	30	10	42	-2	20	-6	.6	.5	.6	1.3	153	.7	233	85	61	0	7	1	0
DODGE CITY	37	16	51	8	27	-4	.2	.1	.2	1.1	138	.2	67	89	58	0	7	1	0
GOODLAND	39	12	65	-4	26	-2	.1	0	.1	1.3	138	.2	100	91	51	0	7	2	0
TOPEKA	36	15	52	3	26	-2	.2	0	.2	1.7	35	.4	57	83	59	0	7	1	0
WICHITA	37	16	51	7	26	-5	.2	.1	.1	--	--	--	50	89	56	0	7	2	0
KY BOWLING GREEN	41	23	59	-15	32	-5	1.8	.6	.7	6.8	37	3.6	79	94	69	0	3	6	2
LEXINGTON	38	22	53	-13	30	-3	1.9	1.0	.9	7.6	115	3.6	133	94	73	0	5	6	2
LOUISVILLE	39	22	55	-10	30	-3	3.0	2.1	2.2	--	--	3.7	148	86	59	0	1	3	0
LA ALEXANDRIA	70	49	80	17	60	--	.2	--	.1	--	--	1.2	80	84	50	0	1	1	0
BATON ROUGE	73	53	81	21	63	12	.1	-.9	.1	5.1	54	2.4	80	84	50	0	1	1	0
LAKE CHARLES	70</																		

Weather Data for the Week Ending January 23, 1982

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 Nov. 29	PCT. NORMAL SINCE Nov. 29	TOTAL, IN., SINCE Jan. 3	PCT. NORMAL SINCE Jan. 3	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
ME SHREVEPORT	66	45	80	13	55	8	1.0	-.1	.4	-.1	-.1	2.2	79	92	55	0	2	3	0
ME CARIBOU	6	-14	18	-28	-4	-14	1.4	-.1	.3	5.9	134	1.2	80	55	35	0	7	3	0
MD PORTLAND	19	-4	33	-14	7	-14	1.3	-.5	1.3	9.5	133	4.6	174	62	25	0	7	3	0
MD BALTIMORE	25	12	40	-7	19	-15	1.0	-.3	.6	5.9	174	2.2	116	84	55	0	7	4	1
MD SALISBURY	32	18	48	-1	25	-13	1.0	-.2	.9	-.1	-.1	3.7	154	90	61	0	7	3	1
MA BOSTON	25	5	38	-2	15	-14	.5	-.4	.4	10.8	146	2.8	108	62	28	0	7	2	0
MA CHATHAM	23	9	41	-2	16	-.1	.5	-.1	.3	12.0	-.1	3.4	75	49	0	7	2	0	
MI ALPENA	17	-3	32	-16	7	-10	.4	-.1	.2	2.9	85	1.6	145	91	54	0	7	4	0
MI DETROIT	23	3	43	-15	13	-11	.8	-.4	.4	4.0	108	1.7	131	92	59	0	7	4	0
MI FLINT	21	4	39	-15	12	-10	.3	-.2	.1	2.1	66	.9	75	92	62	0	7	5	0
MI GRAND RAPIDS	23	6	39	-7	15	-8	.7	-.2	.4	4.0	100	2.6	186	80	60	0	7	6	0
MI HOUGHTON LAKE	16	-2	30	-17	7	-10	.5	-.1	.3	2.9	94	1.8	180	76	48	0	7	4	0
MI LANSING	21	4	40	-10	13	-10	.2	-.2	.1	2.2	-.1	1.1	85	90	64	0	7	5	0
MI MARQUETTE	12	-7	22	-25	2	-10	1.0	-.6	.5	8.0	216	3.1	258	97	76	0	7	6	1
MI MUSKEGON	19	5	28	-9	12	-12	.7	-.2	.4	5.8	132	3.3	206	88	64	0	7	5	0
MI SAULT STE. MARIE	10	-11	25	-24	-1	-15	.6	-.2	.5	6.5	159	3.5	269	82	51	0	7	5	0
MN ALEXANDRIA	11	-8	17	-23	1	-6	1.5	1.4	1.0	-.1	-.1	1.7	567	86	47	0	7	6	1
MN DULUTH	11	-9	19	-38	1	-7	1.6	1.3	1.0	-.1	-.1	1.7	567	82	51	0	7	7	1
MN INT'L FALLS	3	-23	13	-45	-10	-11	.8	-.6	.3	3.0	130	1.7	213	84	51	0	7	7	1
MN MINNEAPOLIS	16	1	23	-22	9	-3	2.0	1.8	.9	3.4	213	2.1	350	87	61	0	7	5	0
MN ROCHESTER	20	2	28	-24	11	-1	1.3	1.1	1.1	2.6	200	1.4	280	92	68	0	7	6	2
MS GREENWOOD	64	43	76	8	53	-.1	2.7	-.1	1.8	-.1	-.1	5.3	-.1	92	64	0	2	3	2
MS JACKSON	71	46	81	12	59	12	2.0	1.1	1.7	10.0	118	3.8	136	93	57	0	2	3	1
MS MERIDIAN	72	47	82	14	60	13	.8	-.1	.6	9.4	102	2.0	71	91	49	0	1	4	1
MO CAPE GIRARDEAU	38	21	58	-13	30	-6	3.9	3.0	3.5	-.1	-.1	4.7	174	95	72	0	5	2	1
MO COLUMBIA	34	19	48	-6	27	-2	.7	-.4	.6	3.5	117	1.4	127	88	62	0	7	2	1
MO KANSAS CITY	32	14	48	-4	23	-4	.3	0	.3	3.6	138	.6	75	75	56	0	7	2	0
MO SAINT LOUIS	34	19	51	-5	26	-5	.6	-.2	.6	5.2	141	1.3	377	88	69	0	7	2	0
MO SPRINGFIELD	38	22	57	-6	30	-4	.7	.3	.6	6.4	158	1.5	150	86	60	0	5	2	1
MT BILLINGS	11	-4	42	-19	3	-18	.2	-.1	.1	1.5	136	1.0	200	79	54	0	7	5	0
MT GLASGOW	2	-18	25	-32	-8	-16	-.1	-.1	.3	1.5	100	.4	400	64	47	0	7	4	0
MT GREAT FALLS	3	-11	37	-32	-4	-24	.4	-.2	.3	1.5	100	1.0	143	78	57	0	7	4	0
MT HAVRE	2	-20	31	-35	-9	-20	.1	-.1	T	.4	40	.4	67	88	52	0	7	3	0
MT HELENA	15	-3	38	-14	6	-12	.4	.3	.2	1.0	125	.7	233	71	47	0	7	7	0
MT KALISPELL	18	3	33	-7	11	-8	.3	-.1	.1	3.5	121	1.3	120	89	64	0	7	4	0
MT MILES CITY	5	-16	34	-29	-5	-20	.3	-.1	-.1	.9	113	.6	167	80	41	0	7	6	0
MT MISSOULA	23	8	36	-1	16	-5	1.0	.7	.7	3.8	190	1.8	225	91	62	0	7	5	1
NE GRAND ISLAND	23	6	40	-5	15	-7	.4	.3	.4	3.2	320	.6	160	89	67	0	7	3	0
NE LINCOLN	25	6	38	-4	15	-7	.7	.5	.7	3.1	221	.8	160	85	63	0	7	2	1
NE NORFOLK	23	3	40	-7	13	-6	1.4	1.2	1.3	3.8	345	1.6	320	86	64	0	7	3	1
NE NORTH PLATTE	29	7	60	-7	18	-5	.1	0	-.1	2.3	329	.7	233	92	62	0	7	3	0
NE OMAHA	23	8	36	-4	15	-5	1.0	.8	.9	3.4	243	1.2	200	83	67	0	7	2	1
NE SCOTTSBLUFF	35	9	58	-12	22	-4	.1	0	-.1	1.6	320	.2	67	84	43	0	7	2	0
NE VALENTINE	17	2	33	-10	10	-10	.1	0	-.1	.6	55	.1	50	89	68	0	7	1	0
NV ELY	37	9	51	-1	23	0	.5	.3	.3	1.1	122	1.1	275	85	47	0	7	2	0
NV LAS VEGAS	55	35	66	28	45	1	1.1	1.1	T	1.3	76	.1	25	63	23	0	2	2	0
NV RENO	40	22	55	7	31	-1	.3	0	.2	-.1	-.1	1.1	122	78	43	0	6	3	0
NV WINNEMUCCA	38	22	53	16	30	2	.1	.1	.1	1.9	106	.2	29	85	49	0	6	3	0
NH CONCORD	16	-11	30	-17	3	-17	.9	.3	.8	7.9	144	2.7	128	72	32	0	7	2	1
NJ ATLANTIC CITY	30	12	47	-6	21	-12	1.0	.2	1.0	8.0	116	3.3	133	92	55	0	7	2	1
NM ALBUQUERQUE	54	24	61	12	39	3	0	.1	0	.4	57	.2	100	78	21	0	7	0	0
NM CLOVIS	59	32	66	18	45	-.1	T	-.1	T	-.1	-.1	-.1	77	26	0	3	0	0	0
NM ROSWELL	57	29	66	13	43	3	0	.1	0	.7	88	.6	200	77	32	0	5	0	0
NY ALBANY	15	-4	33	-11	5	-16	.7	-.2	.7	6.1	133	2.3	154	80	41	0	7	1	1
NY BINGHAMTON	15	-2	36	-12	7	-15	1.1	-.6	1.1	5.2	111	2.3	153	83	46	0	7	3	1
NY BUFFALO	20	3	37	-16	12	-12	.5	-.2	.2	7.8	142	4.7	235	84	54	0	7	5	0
NY NEW YORK	26	10	42	-1	18	-14	1.1	.5	1.1	9.4	159	3.7	195	84	35	0	7	4	1
NY ROCHESTER	17	2	39	-10	9	-15	.9	.4	.8	5.7	136	2.7	127	94	61	0	7	1	0
NY SYRACUSE	17	-4	36	-16	7	-17	.5	-.1	.5	6.0	111	2.6	153	75	47	0	7	2	1
NC ASHEVILLE	45	23	60	-6	34	-4	.9	-.2	.5	8.9	141	3.6	157	98	65	0	6	3	0
NC CHARLOTTE	40	28	46	12	34	-8	1.1	.3	.6	10.5	167	3.8	158	92	70	0	4	4	1
NC GREENSBORO	35	24	40	5	30	-9	.8	0	.2	9.5	154	2.7	123	88	69	0	6	4	0
NC HATTERAS	49	34	60	19	42	-3	2.2	1.2	1.5	13.1	164	5.9	203	97	72	0	2	3	1
NC NEW BERN	49	32	66	18	41	-5	1.2	.3	.7	-.1	-.1	5.5	204	90	63	0	2	3	1
NC RALEIGH	39	26	42	9	32	-9	1.2	.5	.6	8.3	146	3.4	155	89	68	0	6	4	1
NC WILMINGTON	53	34	66	18	43	-3	1.1	.4	.7	10.0	183	5.2	229	91	57	0	2	3	1
ND BISMARCK	3	-13	17	-23	-5	-12	.2	-.1	-.1	1.0	111	-.4	100	85	60	0	7	4	0
ND FARGO	7	-15	14	-25	-4	-9	.9	-.8	.5	2.1	263	1.1	367	86	59	0	7	7	0
ND GRAND FORKS	4	-17	14	-27	-6	-10	.7	-.6	.4	-.1	-.1	1.0	233	84	63	0	7	4	0
ND WILLISTON	1	-18	24	-28	-8	-16	.5	-.3	.2	1.5	150	.9	180	68	49	0	7	5	0
OH AKRON-CANTON	28	7	49	-20	17	-9	.9	.3	.5	5.7	121	2.3	128	82	54	0	7	5	0
OH CINCINNATI	34	15	52	-19	24	-7	3.0	2.3	2.3	6.9	128	3.5	61	82	59	0	7	4	2
OH CLEVELAND	27	5	48	-17	16	-11	.5	-.1	.3	5.3	118	1.8	100	83	54	0	7	4	0
OH COLUMBUS	30	13	48	-16	22	-7	1.6	-.9	.9	5.6	124	2.6	137	88	57	0	7	5	1

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending January 23, 1982

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 Nov. 29	PCT. NORMAL SINCE Nov. 29	TOTAL, IN., SINCE Jan. 3	PCT. NORMAL SINCE Jan. 3	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	32	10	50	-18	21	-7	1.6	.9	1.0	6.5	141	2.7	135	85	68	0	7	4	1
TOLEDO	23	3	42	-17	13	-12	.4	0	.4	4.4	110	1.4	100	90	63	0	7	3	0
YOUNGSTOWN	24	6	46	-18	15	-11	1.0	.3	.9	4.7	90	1.7	81	73	51	0	7	2	1
OK OKLAHOMA CITY	51	22	70	5	36	0	.3	.1	.3	1.2	55	.5	71	84	42	0	6	2	0
TULSA	45	24	65	8	34	-2	.6	.3	.5	1.6	55	.6	67	90	58	0	5	3	1
OR ASTORIA	48	37	53	29	42	2	7.0	4.9	4.1	25.6	138	11.1	171	92	72	0	1	7	2
BURNS	31	14	43	-3	23	-2	.5	.1	.2	4.4	138	.6	50	89	78	0	7	6	0
MEDFORD	42	30	49	26	36	-1	.5	.3	.2	9.6	148	1.0	40	97	73	0	5	5	0
PENDLETON	44	31	57	25	38	6	.4	0	.2	3.6	124	1.4	127	86	57	0	5	2	0
PORTLAND	47	38	55	33	42	4	2.1	.7	1.1	14.5	133	4.5	113	97	74	0	0	5	2
SALEM	46	37	54	31	42	3	2.2	.6	1.1	14.8	120	4.5	96	93	75	0	1	5	2
PA ALLENTOWN	20	5	33	-8	12	-16	1.0	.3	.9	6.5	103	3.2	152	76	42	0	7	4	1
ERIE	25	2	43	-15	14	-11	.3	.3	.2	4.2	82	1.5	83	77	55	0	7	5	0
HARRISBURG	23	12	36	-6	18	-12	1.3	.7	1.1	5.8	109	3.1	172	80	47	0	7	4	1
PHILADELPHIA	25	11	40	-7	18	-14	1.1	.5	.9	9.3	166	4.6	256	78	44	0	7	5	1
PITTSBURGH	28	11	50	-18	19	-9	1.5	.9	1.1	6.1	127	3.0	167	78	47	0	7	5	1
SCRANTON	21	3	39	-9	12	-14	.8	.4	.6	4.0	98	1.4	117	74	48	0	7	4	1
RI PROVIDENCE	25	1	46	-9	13	-15	1.0	.2	.9	10.4	151	3.2	139	72	37	0	7	2	1
SC CHARLESTON	63	39	74	24	51	2	.4	-.2	.4	7.8	142	1.5	106	87	50	0	2	1	0
COLUMBIA	51	36	61	20	43	-2	.9	1	.6	12.7	292	3.4	142	94	62	0	2	6	1
FLORENCE	47	34	53	20	40	-6	1.9	1.3	1.4	4.2	146	2.4	86	93	69	0	2	3	1
GREENVILLE	41	29	49	9	35	-7	1.3	.4	.6	10.8	146	2.4	86	93	68	0	2	5	1
SD ABERDEEN	7	-6	24	-13	1	-8	-.1	-.1	-.1	-.1	-.1	-.1	-.1	75	54	0	7	1	-.1
HURON	17	-1	30	-10	8	-4	.8	.7	.5	2.6	371	1.0	500	89	61	0	7	5	1
RAPID CITY	17	-1	45	-14	8	-13	.1	0	.1	.7	88	.3	100	82	55	0	7	2	0
SILOUX FALLS	18	1	25	-8	9	-4	.5	.4	.3	1.5	136	.6	150	89	64	0	7	5	0
TN CHATTANOOGA	47	31	65	-2	39	-1	3.0	1.8	1.2	13.9	145	7.4	200	92	62	0	2	6	3
KNOXVILLE	44	28	62	-5	36	-5	1.9	.9	.9	10.4	125	5.2	163	98	64	0	3	6	2
MEMPHIS	48	30	65	0	39	-2	2.7	1.6	1.4	8.1	95	3.6	109	94	72	0	3	4	2
NASHVILLE	47	27	61	-11	37	-1	2.6	1.5	1.0	14.1	170	5.2	158	93	68	0	3	6	2
TX ABILENE	64	38	78	14	51	7	T	-.2	T	1.2	63	.5	71	74	35	0	2	1	0
AMARILLO	63	22	73	9	43	7	T	-.1	T	.2	18	0	0	77	18	0	5	1	0
AUSTIN	67	48	79	18	57	8	T	-.3	T	1.2	32	.6	55	84	57	0	1	1	0
BEAUMONT	68	51	77	21	60	8	T	-.9	T	5.7	70	1.5	56	96	66	0	1	0	0
BROWNSVILLE	77	59	86	34	68	8	T	-.3	T	.7	29	0	0	94	54	0	0	1	0
CORPUS CHRISTI	74	54	87	30	64	8	T	-.4	T	1.4	48	.1	9	95	56	0	1	0	0
DEL RIO	67	42	76	20	54	3	0	-.1	0	.3	30	.2	50	79	49	0	2	0	0
EL PASO	60	33	67	21	46	3	T	-.1	T	.5	63	.3	100	81	23	0	3	1	0
FORT WORTH	64	38	77	11	51	6	.9	.5	.9	1.8	55	1.0	83	87	44	0	3	1	1
GALVESTON	65	51	69	28	58	4	.1	.5	.1	2.9	48	.3	16	99	73	0	1	1	0
HOUSTON	70	52	79	23	61	9	T	-.8	T	6.6	96	.9	38	93	61	0	1	0	0
LUBBOCK	62	32	70	16	47	8	T	-.1	T	.8	80	.1	25	89	29	0	3	0	0
MIDLAND	66	35	77	15	51	7	T	-.1	T	.2	22	.1	33	74	24	0	3	0	0
SAN ANGELO	68	37	81	13	52	6	T	-.2	T	.7	50	.7	100	81	33	0	3	0	0
SAN ANTONIO	66	44	75	17	55	4	.1	.3	.1	1.4	52	.5	45	92	58	0	1	2	0
VICTORIA	69	51	78	23	60	7	T	-.4	T	1.7	50	.3	25	94	61	0	1	0	0
WACO	67	42	79	14	54	7	.2	-.2	.2	1.5	42	.5	38	90	54	0	1	2	0
WICHITA FALLS	60	28	74	7	44	3	.1	-.1	.1	1.1	32	.1	17	81	32	0	4	1	0
UT BLANDING	40	17	48	7	28	1	.1	-.1	.1	.9	43	.4	57	86	55	0	7	1	0
CEDAR CITY	40	25	50	10	33	4	.6	.5	.4	-.1	-.1	1.4	280	62	36	0	6	3	0
SALT LAKE CITY	40	28	54	19	34	6	.1	-.2	.1	2.5	100	.4	44	82	52	0	5	4	0
VT BURLINGTON	13	-11	30	-16	1	-16	.4	0	.3	4.1	111	1.7	155	77	42	0	7	3	0
VA NORFOLK	40	26	57	10	33	-8	1.3	.5	.5	9.3	160	3.7	161	87	60	0	6	4	2
RICHMOND	33	21	45	4	27	-11	.7	.1	.4	7.7	140	2.5	139	87	58	0	7	4	0
ROANOKE	33	19	48	-3	26	-10	1.1	.5	.5	7.4	142	3.6	200	88	60	0	7	4	0
WA COLVILLE	31	19	38	9	25	1	.8	.3	.6	4.9	126	2.0	133	94	89	0	7	6	1
QUILLAYUTE	44	33	50	30	39	0	5.7	2.5	3.1	30.8	112	12.8	131	99	81	0	5	7	3
SEATTLE-TACOMA	45	35	54	30	40	2	1.8	.5	1.0	9.5	89	3.8	93	89	62	0	2	4	2
SPOKANE	34	21	43	16	28	3	.5	0	.4	3.8	86	1.3	81	94	73	0	7	3	0
YAKIMA	40	23	57	17	31	4	.1	-.2	.1	3.3	138	.4	40	90	62	0	7	3	0
WV BECKLEY	37	22	50	-20	29	-2	.7	-.1	.4	5.1	84	1.7	71	91	59	0	5	4	0
CHARLESTON	39	22	57	-13	30	-5	1.2	.5	.5	5.9	100	3.1	135	89	57	0	4	5	1
HUNTINGTON	37	20	56	-14	29	-6	1.9	1.2	.7	6.3	109	3.4	155	87	61	0	6	5	2
PARKERSBURG	33	17	56	-15	25	-5	1.5	.6	.7	4.0	69	2.2	85	79	46	0	7	5	1
WI GREEN BAY	18	0	35	-28	9	-6	.5	.2	.2	2.5	104	1.1	122	94	66	0	7	6	0
LA CROSSE	21	3	33	-25	12	-4	.7	.5	.5	2.3	121	.9	129	92	64	0	7	4	0
MADISON	23	1	36	-26	12	-4	.3	.1	.2	2.3	100	1.2	150	96	75	0	7	4	0
MILWAUKEE	22	5	33	-26	14	-5	.8	.4	.4	4.0	125	2.4	200	93	63	0	7	5	0
WAUSAU	17	-3	25	-31	7	-6	.8	.5	.3	-.1	-.1	1.1	138	89	67	0	7	5	0
WY CASPER	30	7	47	-14	19	-4	.1	0	.1	.7	88	.3	75	82	45	0	7	3	0
CHEYENNE	36	16	50	-4	26	0	.2	-.1	.2	1.0	100	.4	100	84	47	0	7	3	0
LANDER	30	6	45	-8	18	-1	.2	.1	.2	.3	38	.3	100	77	43	0	7	1	0
SHERIDAN	19	-1	44	-20	9	-12	.1	-.1	T	1.0	77	.4	80	76	44	0	7	2	0
PR SAN JUAN	85	72	85	71	79	3	.1	-.7	.1	14.8	132	.8	32	88	62	0	0	3	0

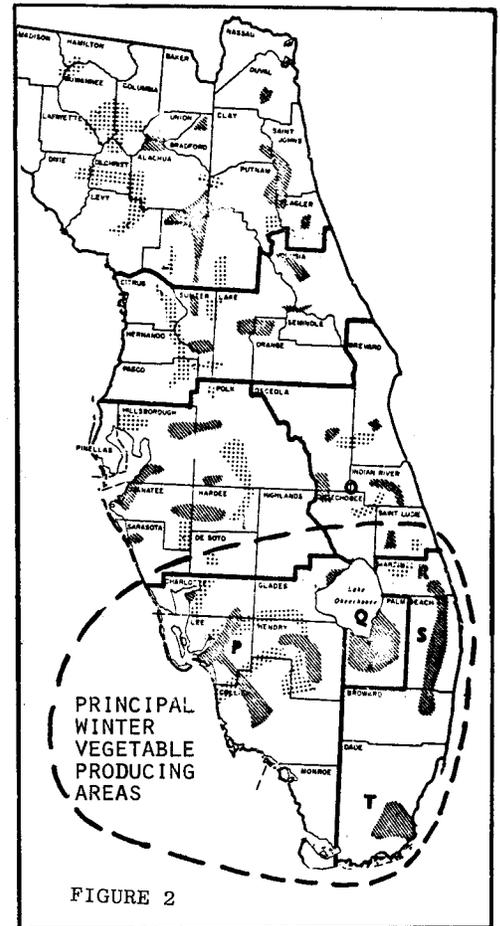
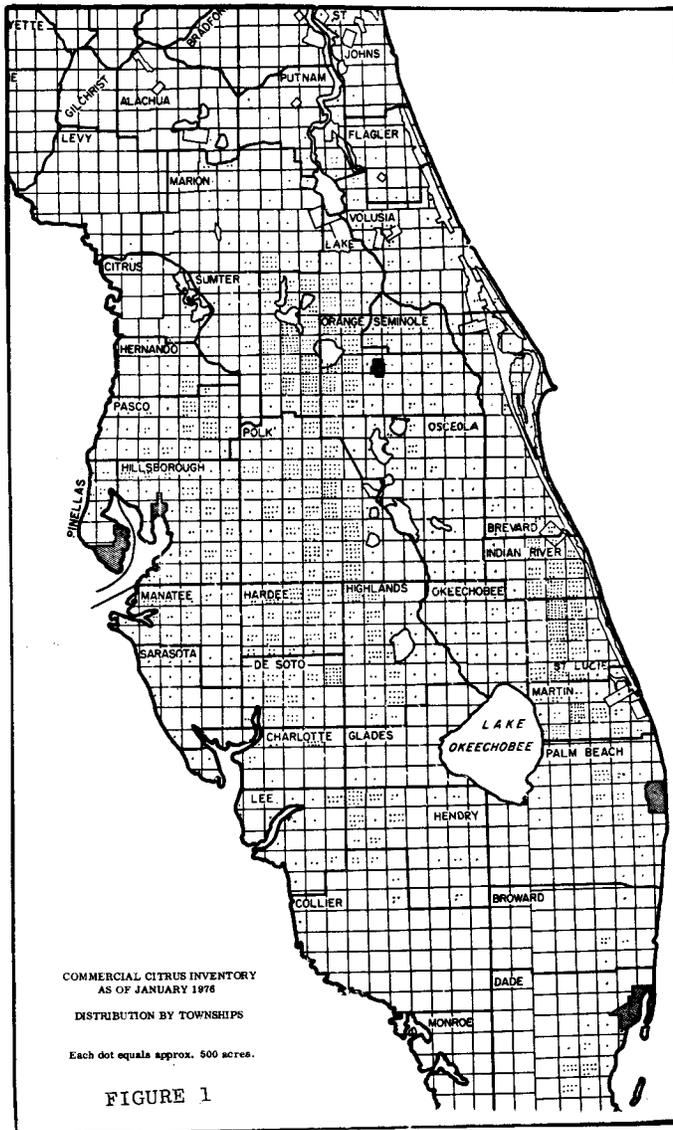
BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

"SIBERIAN EXPRESS" BRINGS SEVERE FREEZE TO FLORIDA'S CITRUS AND VEGETABLES-  
JANUARY 10-12, 1982

Don Haddock, NOAA Chief  
NOAA/USDA Joint Agricultural Weather Facility

Severe freezes, for the second year in a row, delt harshly with Florida's citrus and winter vegetable industries. During the freeze of January 12-14, 1981 (pp. 11-14, Weekly Weather and Crop Bulletin, February 3, 1981), and again in January 10-12, 1982, damage to citrus and vegetables was widespread, generally ranging from moderate to severe. The lower Indian River grapefruit area escaped significant damage in 1981 but was hurt this year with temperatures down to 19° in some orchards.

Fruit can be salvaged by processing into juice concentrate when weather remains cool for several days as occurred through the 19th. However, unseasonably warm afternoon temperatures in the low 80s prevailed from the 20th to the 24th. Tender, fresh vegetable supplies will be reduced for a while since south Florida is the Nation's major winter source. The major citrus and vegetable areas in Florida are depicted in Figures 1 and 2.



- SOUTHWEST**  
P. Ft. Myers-Immokalee - Sweet corn cucumbers, eggplant, peppers, potatoes, squash, tomatoes, watermelons.
- EVERGLADES**  
Q. Bush beans, cabbage, celery, Chinese cabbage, sweet corn, escarole, greens, lettuce, potatoes, radishes.
- SOUTHEAST**  
R. Martin county - Cabbage, potatoes, tomatoes, watermelons.  
S. Pompano - Bush beans, lima beans, sweet corn, cucumbers, eggplant, peppers, squash, tomatoes.  
T. Homestead - Bush and pole beans, cabbage, sweet corn, cucumbers, potatoes, squash, strawberries, tomatoes.

Appreciation is expressed to Fred Crosby, Jim Noffsinger, and the staff of the National Weather Service Office at Ruskin, Florida for supplying the observed temperature reports, and to the Florida Crop and Livestock Reporting Service, Orlando, for acreage and location maps of the citrus and vegetable producing areas.

Details on crop-freeze effects are described in the following report from the Florida Crop and Livestock Reporting Service.

FLORIDA  
SPECIAL FREEZE DAMAGE REPORT  
JANUARY 12, 1982

CITRUS

Results of orange fruit cutting surveys taken the morning of January 12 showed that 84 percent of the oranges in the sampled area had internal ice. The current survey samples of 137 groves did not cover counties south of Hardee and Highlands counties, Manatee and Sarasota counties or the East Coast south of St. Lucie County. The cutting surveys were started with first available morning light, and completed by midmorning. Sample fruit were cut on the cap and at depths of 1/4 inch, 1/2 inch and through the center of the fruit. Percentages of sample fruit found with ice are shown in the table below, which also presents results from the most severe periods the previous severe freeze in January 1977 and January 1981.

Freezing weather also occurred in most of the counties excluded from survey and some icing has been reported in all citrus areas. In the January 1981 freeze the lower Indian River producing area escaped almost without freezing weather of any significant duration and was not surveyed. In both January 1977 and 1982 ice was found all along the East Coast and in 1977 damage did develop in this area.

The extent of damage to fruit resulting in lost production cannot be directly inferred by the survey icing percentages. These conditions will reduce production through fruit dehydration, droppage and rotting. Amount of loss to the early and midseason crop, which is basically mature and ready to harvest, will depend on weather, preferably unvarying and cool. The Valencia crop must attain further fruit size and maturity before much of it becomes usable, with earliest harvest normally scheduled for March.

Cool weather since mid-November placed trees in good condition to withstand the cold. However, unseasonably warm weather during the last two weeks had begun to bring out some new growth. The condition of foliage indicates severe wilt and burning, with some defoliation likely.

SUB-TROPICAL FRUIT

Temperatures in the Homestead area were in the 29-34 degree range, and apparently had very little affect on the Lima and Avocado crops, which are just coming into full bloom. Avocados in the Immokalee area where the temperatures were lower will have some leaf burn but damage is believed to be serious.

VEGETABLES

Central and north Florida - temperatures dropped to 18-20 degrees in farming areas. Some ice was found in cabbage but overall damage is expected to be light.

Plant City-Ruskin area - Most growers used water sprinklers to protect strawberries from the freeze. Some bloom loss is expected. Temperatures dropped to 23 degrees.

Immokalee - Readings were mostly 19-24 degrees. Temperatures were below freezing for up to 9 hours. Severe damage occurred to tomatoes and peppers from bloom stage to maturity. Production will be light during February. Young plants experienced mostly top foliage burn and will survive. Young cukes and melons for the spring crop were destroyed. Temperatures along the southwest coast were 28-29 degrees. Damage was less severe.

Belle Glade - Temperatures dropped to 22 degrees for a long duration. Some damage occurred to most crops. Leaf burn to lettuce, escarole and radishes occurred. Young sugarcane suffered some damage.

Delray-Pompano-Temperatures ranged from 25 to 32 degrees. This was the worst damage since the January 1977 freeze. Corn received top burn. No acreage loss is expected. Snap beans from bloom stage to maturity were hit hard. Yields will be greatly reduced. Salvage harvest is expected this week, then only light volume until mid-February. Green peppers in bloom stage or older were severely damaged. Some salvage will take place during the next two weeks, then a short supply for 4 weeks. Not much acreage was lost. Some fruit was frozen. Young crops received mostly light damage. Older tomato crops received heavy damage. Salvage operations will harvest lower fruit. Some fruit had ice and will be lost. Supplies will be light in February. Young crop received light damages. Damage to old fields of squash was severe. Young fields received light to moderate damage. Older cucumbers were destroyed while some young crops will survive.

Dade County - Temperatures dipped to 29 degrees. Approximately 10 percent of the tomatoes, squash and beans in the south farming area received some top foliage burn. About 20-30 percent of fields in the north farming area received top foliage burn. Overall production loss will be generally light. Sweet corn and potatoes did not receive any significant damage.

ORANGE CUTTING SURVEY - PRESENCE OF ICE - PERCENT

DATE	ICE OBSERVED					TOTAL WITH ICE
	ICE NOT OBSERVED	SLUSH			HARD CENTER	
		1/4 IN.	1/2 IN.	CENTER		
JANUARY 20, 1977	2	2	4	44	48	98
JANUARY 13, 1981	10	3	2	36	49	90
JANUARY 12, 1982	16	5	9	40	30	84

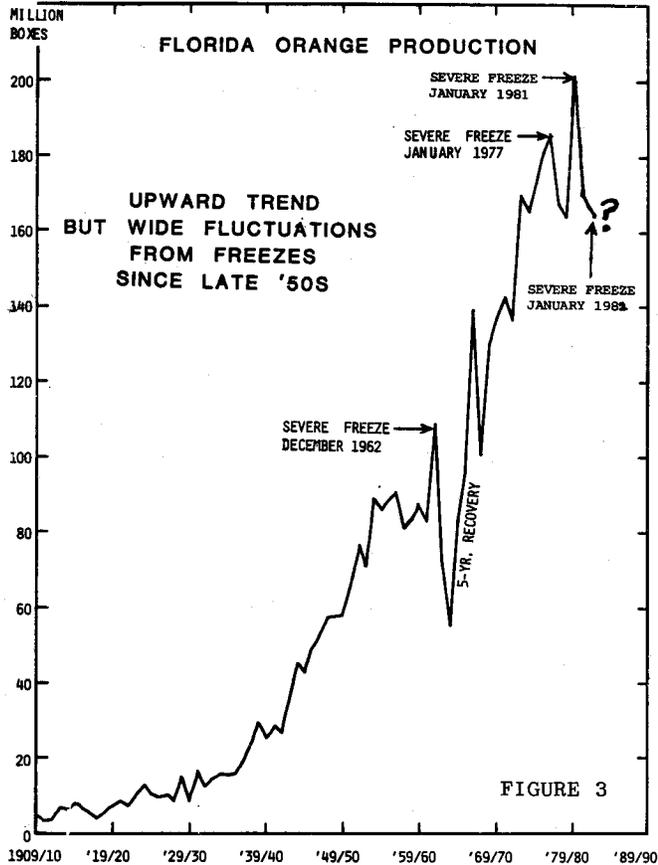


FIGURE 3

FLORIDA ORANGE PRODUCTION HISTORY

Orange production rose rapidly and steadily in Florida since the mid 1930s; however, it fluctuated widely after 1962 because of severe freezes (Fig. 3). Good weather for citrus dominated a long period from the 1930s to the early 1950s, while the need for more frequent cold protection and rapid processing of frozen fruit has been the rule since then.

CITRUS PRODUCTION RECOVERY

The period required for citrus production to climb back to prefreeze levels often varies with the intensity and duration of the freeze. The recovery period was 5 years following the "severe" freeze of 1962, 3 years after the 1977 severe freeze and 1 to 3 years after the hard freezes of the 1950's.

As a general rule, the recovery period for citrus production for the various types of freezes can be summarized as follows:

Freeze types	Minimum temperature (°F)	Citrus recovery (No. of years)
Light	32 - 29	0
Moderate	28 - 25	0
Hard	24 - 21	1-3
Severe	<20	3-7

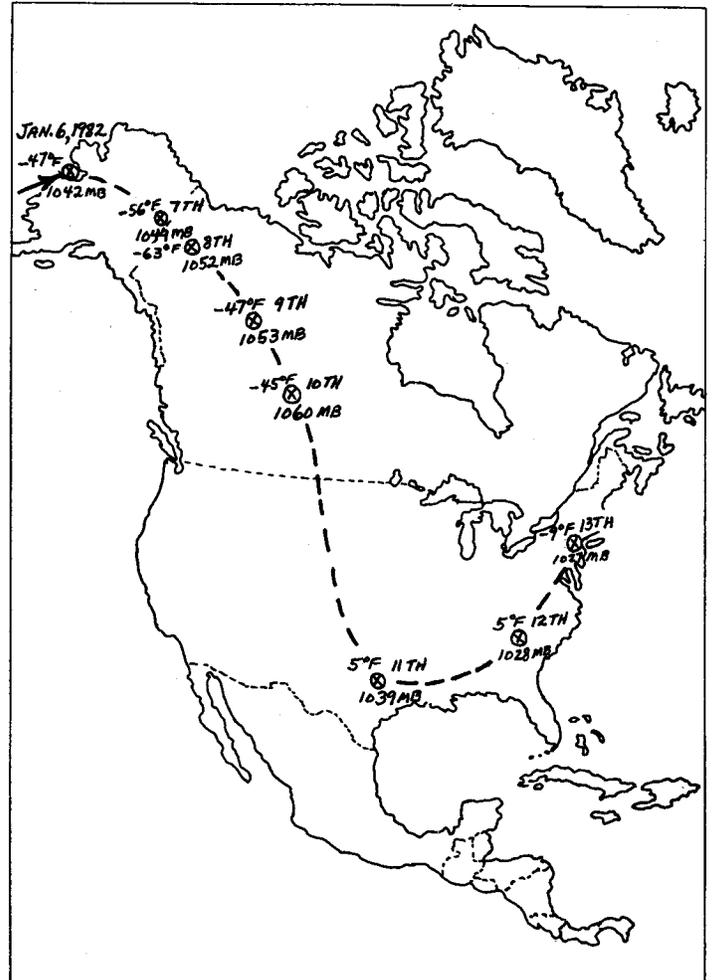
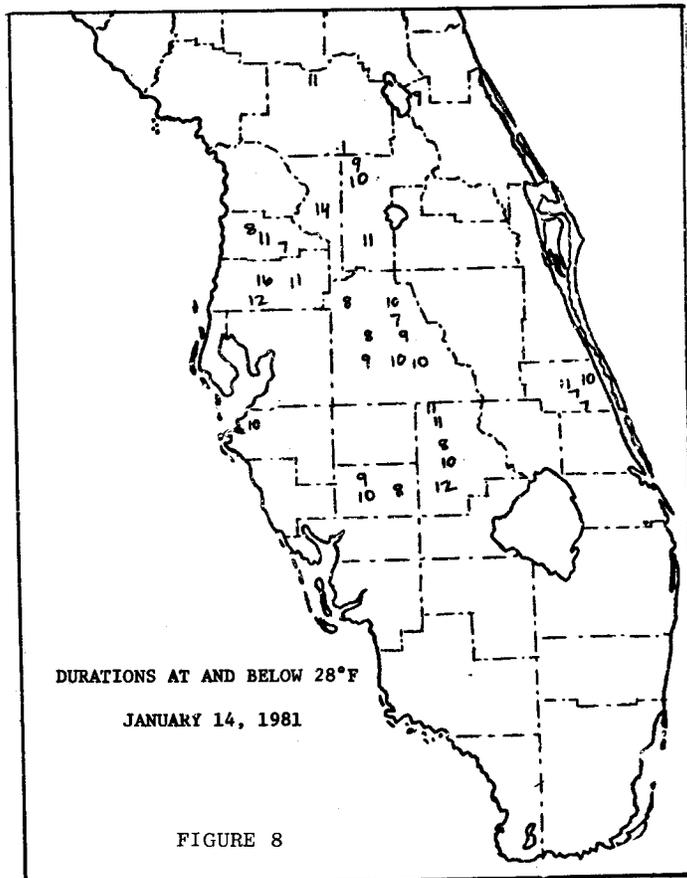
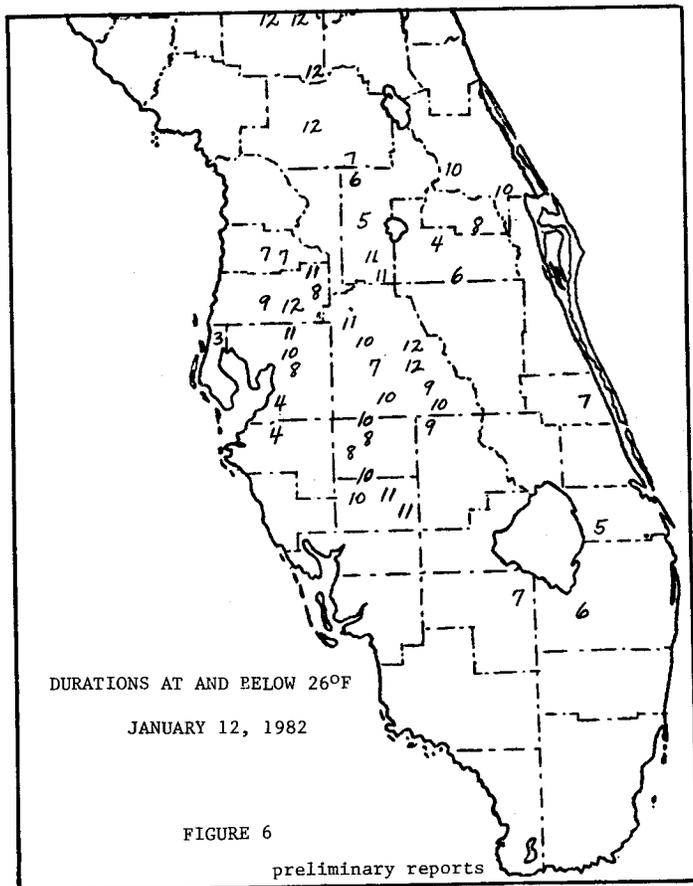
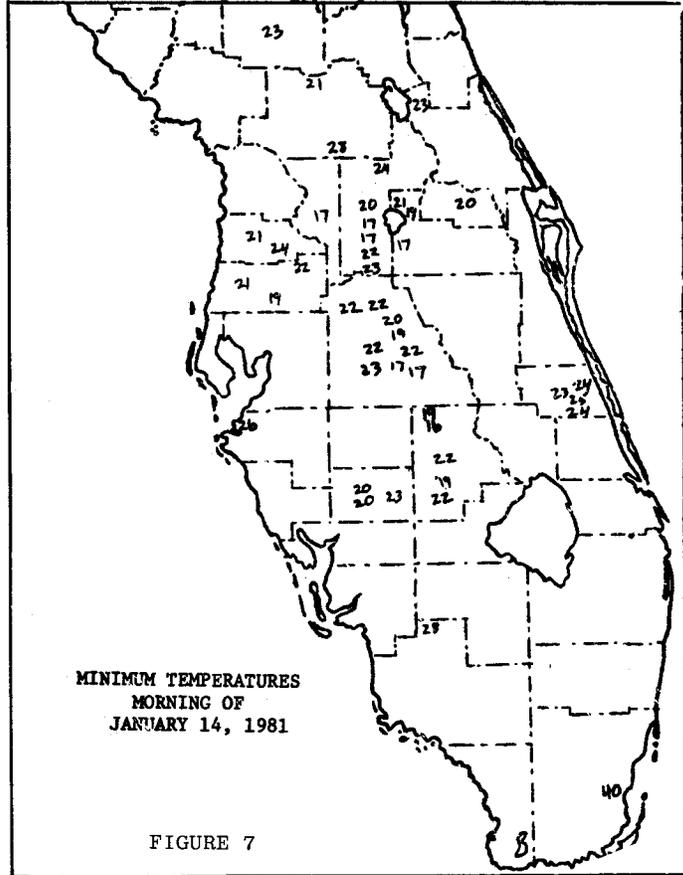
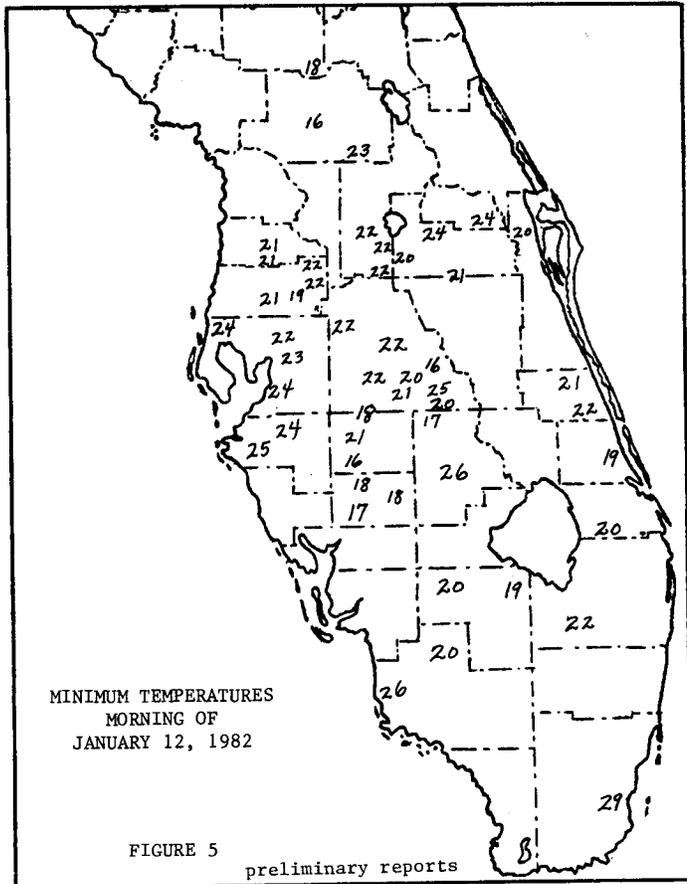


Figure 4. Path of Arctic airmass with associated central pressures and minimum temperatures.

FLORIDA WEATHER SITUATION - 1982

Super frigid surface air steered by the upper jet stream (which has been called the "Siberian Express"), began moving northeastward out of Siberia on January 1. As the large, high-pressure airmass moved through west central Siberia on the next couple of days, minimum temperatures dropped to -76°F which is only 14° above the Asian extreme low temperature, set at Oymykon, USSR, in 1933. The Arctic airmass steered across Alaska and western Canada where the high pressure center intensified to a whopping 1060 millibars, and into the southern and eastern U.S. (Fig. 4).

The cold air began moving into Florida on the 10th, sending temperatures to near freezing in northernmost citrus orchards during the first night of the cold invasion. Strong radiation conditions caused exposed fruit and leaves to be a few degrees colder than the air over all Florida crop areas during the following night as the center of the airmass came closer and winds calmed. By sunrise on the 12th, temperatures ranged from 16° to 22° over most principal citrus areas and from 19° to 29° over the tender, fresh vegetable region. Minimum temperatures and durations below 26° are shown in Figures 5 and 6. For comparison, temperature minimums of the 1981 severe freeze are shown in Figures 7 and 8.



## National Agricultural Summary

January 18-24, 1982

**HIGHLIGHTS:** Above-normal temperatures across the southern third of the Nation, removed ice and snowcover, leaving winter wheat and other small grains vulnerable to winterkill. Heavy snow from the northern Plains through the Great Lakes provided small grains ample protection from the elements, but stressed livestock and brought farm activities to a standstill. Frequent rains in the southeast kept farmers from plowing. Less than 1 day was suitable for fieldwork. The wheat crop remained generally in fair to good condition across the Nation. Kansas and Texas wheat producers expect some winterkill in late-planted fields, as a result of subfreezing temperatures.

Clean-up operations continued in scattered cotton fields in Texas and Arizona; ginning remained active.

Citrus harvesting remained active in all major producing areas, except California where rains delayed picking.

Shipments of Florida's vegetables declined 14% from the previous week, but volumes remained steady from the other major producing areas. Dry conditions persisted in the Southwest, limiting regrowth of grasses and small grains. Livestock remained on the fields. Grazing was limited.

Supplemental feeding increased across the Nation, with adequate supplies available in nearly all areas. Calving and lambing increased.

**SMALL GRAINS:** Winter wheat generally rated fair to good in the major production areas. Warm temperatures melted most of the snowcover in the Lower Plains, leaving stands vulnerable to winterkill. Heavy snow fell from the northern Plains through the Great Lakes, providing small grains protection from below-normal temperatures and strong winds.

Kansas wheat was in good condition, although some winterkill was suspected in late-planted fields. Light wind damage was reported. Short soil moisture supplies limited growth in Oklahoma, with the wheat crop in generally good condition. Texas grain producers began assessing the damage from lack of moisture, subfreezing temperatures, and snow. Late-planted wheat was destroyed in the Blacklands by cold temperatures and snow. Fields in the High Plains responded to warmer weather despite short moisture supplies. Planting of wheat and barley continued in Arizona and California. Early seedings made good progress. Growers fertilized the new crop.

**OTHER CROPS:** Clean-up operations continued in many cotton fields across the High Plains of Texas. Ginning cotton from modules remained active. Cotton picking was virtually complete in Arizona, with only a few fields remaining to be cleaned.

Tobacco plants were in good condition in Georgia; growers had nearly completed tobacco bed preparations. Many Burley tobacco markets closed for the year in Kentucky; nearly 97% of the crop has been sold.

The Florida sugarcane harvest was active. Some young cane was killed by the previous freeze but most of the acreage is expected to recover. Damage to mature cane might cause slight yield reductions. Arizona sugarbeet stands were in excellent condition; tap root

development was well advanced and stands made good progress.

**FRUITS AND NUTS:** Texas producers completed the pecan harvest slightly ahead of normal. Yields were mostly good to excellent. Pruning of pecan trees remained active in New Mexico.

Harvest of oranges for processing was very active in Florida. Citrus trees were shedding some leaves and badly frozen oranges started dropping. Growers increased irrigation activities.

Citrus harvesting remained active in Texas with picking of early oranges nearing completion. Arizona groves were mostly in good condition. Growers continued harvesting citrus at a steady pace, except lemons which were tapering off. Valencia oranges made satisfactory progress.

Rains slowed the Navel orange harvest in California. South Coast lemons survived below-freezing temperatures and showed no damage. Lifting of the embargo was expected to help the market, but was too late for most of the Central Valley lemons.

**VEGETABLES:** Ideal weather prevailed over most of Florida's vegetable areas. Scattered showers were supplemented with active irrigation. Harvests increased for Chinese cabbage and strawberries, remained steady for cabbage, celery, parsley, and southern peas but declined for most other crops. Total shipments decreased 14% from the previous week. Potato harvesting got underway and strawberry picking remained active.

In the Rio Grande Valley of Texas, harvest of cabbage, carrots, broccoli, spinach, and celery resumed with good volumes being shipped. Onion stands progressed well. Some losses were expected, due to freezing temperatures in the San Antonio-Winter Garden area. Harvests of cabbage, carrots, lettuce, and spinach resumed. Onion planting picked up in the Trans-Pecos region and cabbage harvesting continued.

The Arizona lettuce harvest continued in volume in the Yuma area. Harvesting of mixed vegetables made good progress.

The lettuce harvest was active in the Imperial Valley of California with a wide range of weight and quality. Artichoke supplies were light from the Central Coast, with most showing extensive frosted appearance. Asparagus harvesting remained light while broccoli increased in the Imperial-Coachella Valleys. Supplies remained light in the Salinas Valley with variable quality. Carrot, cauliflower and celery harvests remained mostly moderate.

**PASTURES AND LIVESTOCK:** Pastures generally rated poor to fair across the South. Dry conditions persisted in the Southwest, limiting regrowth of grasses and small grains. Livestock remained on the fields. Grazing was limited. Herdsmen were forced to feed large amounts of hay, forage, and grain across the northern half of the Nation as heavy snows limited access to pastures. Adequate supplies of stored roughage were available throughout the Nation, although some local shortages of hay were reported. Calving and lambing gained momentum throughout the Nation. Below-normal temperatures across the north stressed livestock and slowed weight gains.

## 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 above normal. Rainfall 3 to 5 days with accumulations of up to 3.00 in. Fieldwork: 1.3 days. Soil moisture adequate to surplus. Activities: Routine farm chores, winter maintenance, and repairs to damage by last weeks ice storm. Plowing ranged from over 50% in north to less than 10% in the south with fieldwork behind schedule. Conditions: Livestock, wheat fair; pasture feed short to adequate; stored feed mostly adequate; pastures poor to fair.

**ARIZONA:** Major winter storm moved across State 21st, early 22nd. Snow level down to 3,000 ft. elevation. Snow amounts from 2 to 10 in. Central Basin, 5 to 15 in. Grand Canyon, Mogollon Rim, White Mountains. Moisture amounts western, southern sections between 0.10 in. and 0.33 in. Elsewhere 0.50 in. and 1.50 in. Morning of 23rd temperatures down to 20's and 30's Lower Deserts, below 0 above 7,000 ft. level. Average temperatures 2° below normal to 5° above.

Cotton harvest virtually complete, few fields to be cleared. Land preparation, planting wheat, barley continued. Planting will continue into late February. All planting making good growth, early plantings stem elongation stage. Alfalfa haying limited. Stands in good condition, growth seasonally slow. Sheep on many alfalfa fields for winter pasture. Sugarbeets good progress. Stands excellent condition, tap root development well advanced. Lettuce harvest continued in volume Yuma area, complete Salt River Valley. Mixed vegetable harvest, mostly Romaine and Leaf lettuce, broccoli, cabbage, carrots, cauliflower, greens, green onions good progress. Citrus groves good condition. Harvest Navels, sweet oranges, tangerines, grapefruit continued steady rate. Lemon harvest tapering off. Valencia oranges developing satisfactorily. Ranges fair to good most areas. Southwestern deserts poor. Livestock fair to good; water supplies, soil moisture adequate.

**ARKANSAS:** Cold and wet week with slightly below normal temperatures and slightly above precipitation. Highest normal 46°, lowest 37°. Highest mean 51°, lowest 31°. Highest temperature 79°, lowest -1°. All departures from normal ranged from -8 to 6°. Most rainfall 3.14 in., least 0.53 in.

Soil moisture improved with general rainfall across State. Wheat in good condition. Snow cover gone. Cattle good condition.

**CALIFORNIA:** A very cold and strong upper level disturbance moved onshore about midweek and spread rain and snow throughout the State. Snow was observed as low as 500 ft. in north. With polar origins as opposed to the tropics of a couple weeks ago, precipitation amounts were limited to about a 4.00 or 5.00 in. total in high mountain areas. The very cold air produced a light and fluffy snow that rapidly accumulated in depths measured in feet. Weekly mean temperatures were almost uniformly well below normal.

Excessive moisture in northern areas hampered field activity. Grain farmers expect to plant additional wheat and barley. Most small grains progressing well. Fertilizing of grain is active. Weed control, alfalfa fields. Rain slowed Navel orange picking until last part of week. Lifting of embargo too late to be of major help to Central Valley lemons. South Coast lemons survived slightly below freezing weather. Lemon bloom resetting after high winds two weeks ago. Rain reported

most areas. Cool temperatures dominating crop activities. Artichokes light supply Central Coast. Most showing extensive frosted appearance. Asparagus harvest light, broccoli harvest active, Imperial, Coachella Valleys, quality good. Supplies remain light Salinas Valley, variable quality. Carrot harvest active Coachella Valley but light Imperial Valley. Cauliflower harvest continues South Coast, South Bay area. Celery harvest moderate South Coast. Lettuce harvest active in Imperial with wide range weight and quality. Grass growth continued slow due to low temperatures. Supplemental feeding necessary many areas result of reduced range feed available. Calving and lambing active.

**COLORADO:** Snow showers on 18th, 19th, 21st, and 22nd were confined mostly to the mountains. At lower elevations a few stations in the eastern plains and western valleys reported up to 0.33 in. of new precipitation. In general, however, precipitation amounts were 0.10 in. or less for the week. Strong winds during much of the period helped keep temperatures east of the Continental Divide 2 to 4° above normal for the week. While the remainder of the State had temperatures mostly 3 to 6° below normal.

**FLORIDA:** Mild and dry, 18th through 23rd except a cold front brought brief showers, Panhandle, north on 23rd, and central and south, early 24th. Turning cooler on 24th except south, rainfall amounts generally less than 0.25 in. except only trace amounts south. Temperatures averaged 5° above normal with no frost.

Soil moisture adequate north, west, short south. Sugarcane harvest very active. Some damage to mature cane could reduce yields slightly. Some young cane killed by freeze but most acreage expected to recover. Some damage and kill back showing in small grains, mostly oats, rye. Land preparation for spring planting increasing in north and west. Production of forage continues to be reduced due to freeze of 12th. Some winter pastures, particularly in northern areas, damaged or killed. Mild temperatures, much of week, provided reprieve for livestock stressed by earlier cold. Cattle, calves generally fair condition. Supplemental feeding active. Citrus trees recovering from January 12 freeze, some leaf drop. Badly frozen oranges and temples starting to drop. Caretakers increasing irrigation, harvest of oranges for processing very active. Near ideal weather prevailed in vegetable areas. Daytime highs in 70's and 80's; nighttime lows 50's and 60's. Skies clear to partly cloudy with a few light scattered showers. No rain most areas. Winds light to moderate. Irrigation active. Total shipments decreased 14% from previous week. Harvest gained Chinese cabbage and strawberries. Supplies about steady cabbage, celery, parsley and southern peas. Volume declined snap beans, carrots, cauliflower, sweet corn, cucumbers, eggplant, escarole, lettuce, peppers, radishes, squash and tomatoes. Potato harvest underway. Strawberry harvest remains active.

**GEORGIA:** Abnormally warm temperatures end of week pushed average temperatures 1 to 6° above normal in spite of very cold beginning. Averages in 30's in mountains and low 50's over central and southern parts of State. Rainfall heavy in mountains, 1.00 to 2.00 in., mostly on 20th. Central and south received less than 0.10 in. The weekend of the 23rd and 24th mild with a cold front spreading rain

Statewide on 23rd. Amounts were 0.25 to 0.50 in.

Soil moisture mostly surplus. Field activity continued limited due to wet weather. Small grains in fair to mostly good condition, top dressing beginning few areas. Tobacco plants in good condition as tobacco bed preparation nears completion. Cold weather causing problems in onions. Cattle mostly fair to good, hogs fair to mostly good.

**HAWAII:** Weather unfavorable. Second storm of the month, passed through the Island Chain. Flooding and washouts occurred in some sections. Farm activities temporarily halted. Harvesting difficult because of muddy conditions. Spoilage losses expected. Leafy crops, especially lettuce, heavily damaged. However, Chinese cabbage harvest will continue heavy. Others generally light to moderate. Storm damaged banana orchards making gradual recovery. Production generally light. Rains not favorable for good papaya orchard development. Continuous wet conditions increased phytophthora disease. Few severely affected fields destroyed. Production light. Pineapple harvest for fresh market only. Very few sugar mills grinding. Rains beneficial to pastures. However, some low-lying pastures soggy from the rains.

**IDAHO:** Temperatures throughout State averaged 6° below normal last week. Most areas of the State reported precipitation. Amounts varied from a trace in Rexburg to 0.83 in. in Grangeville.

Most farm activities were at a standstill. Time was spent planning this spring's planting. Livestock was stressed somewhat from the cold and snow, but feed supplies remained adequate. Lambing proceeded normally and a few operations have begun calving.

**ILLINOIS:** Temperatures 1 to 5° below normal throughout State. Precipitation 0.25 to 0.85 in. over north and central sections of the State, 4.00 in. south. Precipitation occurred as snow in north and central and freezing rain in central and south.

Activities: Livestock feeding and care, general farmwork.

**INDIANA:** Cold and wet. Temperatures below normal and ranged from zero to 57°. Averaged 19° north to 35° south. Heavy rains of 2.90 in. in south caused flooding. Severe icing central and north on 22nd closed many roads. Snow cover 1 to 3 in. central and northeast, 11 in. extreme northwest.

Outside activities generally limited to removing snow, thawing water lines, fixing burst pipes and marketing grain. Otherwise preparing for 1982 crop season, attending meetings, and usual chores.

**IOWA:** A cold week with a variety of precipitation. Temperatures were subnormal Statewide. Average temperatures were 4 to 6° below normal in the west and 2 to 3° below normal in the east. The coldest morning was the 24th when temperatures dipped to 25° below zero at Waterloo. Precipitation fell in the form of snow pellets, drizzle, freezing rain and snow. The greatest snowfalls were across the north and west. Snow depths ranged from 4 in. over the extreme southeast to 29 in. over north central. In addition to the different types of precipitation, a thunderstorm occurred evening of 21st.

**KANSAS:** Precipitation ranged 0.25 in. to over 0.50 in. central and east, less than 0.10 in. west. Temperatures averaged 20° north central to 32° southeast, 23 to 28° elsewhere. These were 1° above normal southeast to 6° below normal north central.

Cold weather dictated outdoor activities, feeding livestock, providing water. Lambing, calving becoming active, heaviest schedule to come. Few losses to date. Wheat condition good, third week below normal temperatures. Some winterkill sus-

pected late planted fields, light wind damage central, eastern areas. More snow cover desirable, provide insulation from cold and protection from wind damage.

**KENTUCKY:** Record cold temperatures at beginning of week with low temperatures 10 to 15° below zero. First part of week, temperatures averaged more than 10° below seasonable normals. However, by midweek, temperatures rebounded to above normal levels. Rainfall was extremely heavy with over 3.00 in. common across northwest, 2.00 in. central and southwest and up to 1.00 in. elsewhere. At week end, temperatures were again below normal.

Agricultural activity minimal although temperature extremes increased need for care of livestock. Many burley tobacco markets closing, approximately 97% of estimated crop for the belt has been sold. Heavy rains caused some flooding and erosion.

**LOUISIANA:** Rainfall averaged 0.25 to 1.00 in. Heaviest 24-hour total 1.71 in. in the northwest. Temperatures: 7 to 10° above normal. Extremes: 13 and 82°.

Activities: Routine chores and caring for livestock.

**MARYLAND AND DELAWARE:** Temperatures averaged 15° below normal Statewide. Highs averaged in the upper 20's to low 30's and lows averaged in the teens. The greatest amount of precipitation was recorded at Federick with 0.55 in. The least amount reported was 0.08 in. at Patuxent. Average of the remaining stations was 0.26 in. High temperatures averaged in the low 30's with lows in the teens on 23rd. Cloudy skies prevailed with mixed rain and snow throughout the day. Highs were in the mid 30's on 24th with lows in the teens. Skies were mostly sunny with a good freeze with some scattered snow showers.

**MICHIGAN:** Temperatures around the State averaged 6 to 12° below normals. The cold spot in the State was Sault Ste. Marie where temperatures were 13° below normal. On 23rd temperatures climbed above freezing as warm air associated with a large winter storm from the west rushed northward, carrying strong winds, ice and snow in its path and leaving cold air in its wake. Amounts from this winter storm were the largest part of last weeks precipitation totals. Summarizing the States totals, 0.25 in. amounts from the very southwest corner into south central lower; 0.50 in. to the central lower, the Thumb and northeast lower and in the southern half of the upper Peninsula. Nearly 1.00 in. along the western side of the lower Peninsula.

**MINNESOTA:** A very stormy week with record snowfall at many locations. Temperatures for the week averaged 12° above zero southeast to 9° below zero extreme north. Temperatures were generally 2 to 6° below normal south, and 6 to 12° below normal north. Extremes: 28° Rochester and -33° at International Falls.

Precipitation very heavy Statewide with weekly totals 0.50 in. southwest and portions of north central and northeast, and generally 0.60 to 1.30 in. elsewhere, except up to 2.40 in. east central. Snowfall at weeks end ranged from 13 in. southwest generally 14 to 24 in. elsewhere, except 40 in. east central. Snow depth on ground at weeks end ranged from 18 in. southwest and northwest to generally 20 to 30 in. elsewhere except 35 in. east central and 39 in. north central.

**MISSISSIPPI:** Precipitation was above normal for most of the State with several locations receiving over 4 in., but tapering off to less than 1.00 in. in the south central, southeast and coastal areas. Hail was reported at Yazoo City and D'lo

on the 23rd. Temperatures were above normal except for the upper Delta which was from 1 to 5° below normal. Jackson recorded 81° on the 19th and 80° on the 20th. Temperature extremes -3 to 82°.

Soil moisture adequate. Days suitable for fieldwork 1.2. Hay and roughage and grain supplies adequate. Wheat condition fair. Pasture condition poor. Livestock condition fair.

MISSOURI: State averaged 2 to 3° below normal, except in the Bootheel where temperatures averaged 8 to 9° above normal.

Snow fell over the northern half of the State and rain fell in the southern half. The northern two-thirds of the State averaged less than 0.50 in. of precipitation while the southern third averaged over 1.00 in. Thunderstorms in the Bootheel brought average precipitation levels to over 3.00 in.

MONTANA: Arctic air covered the Plains most of week, holding temperatures below zero. Some areas had temperatures for the week as much as 25° below normal. Southwest temperatures averaged 4° below normal and west 6° below normal. Highest 46° at Livingston, lowest 40° below zero at Jordan. Precipitation was moderate to heavy. Heavy snow fell over the west on 23rd with up to 2 ft. of new snow in some valleys. Precipitation over the west ranged from 1.00 in. to as much as 2.50 in. on 23rd.

Winter wheat condition fair to good. Snow cover fair to good, wind damage light. Livestock condition good. Grazing conditions difficult, most livestock receiving supplemental feed.

NEBRASKA: Temperatures 5 to 10° below normal with exception of Panhandle where temperatures averaged 3° below normal. Freezing rain, sleet, and snow ranged from 0.10 to 0.20 in. Panhandle to nearly 1.50 in. northeast.

NEVADA: Storm conditions brought colder weather and significant precipitation. Snow widespread north and central midweek, rain extreme south. Warm overrunning airmass brought additional snow to north end of week. Average temperatures mixed for period with northeast slightly above normal and elsewhere slightly below. Extremes: 66 and -10°. Inclement weather hard on livestock. Feeding requirements maximum, made difficult by deep snow. Stock water mostly frozen. Chopping ice and thawing frozen water pipes common.

NEW ENGLAND: Melted (or liquid) precipitation ran between 0.50 to 1.25 in. south and central portions of eastern New England, elsewhere, mostly between 0.25 and 0.50 in. Precipitation occurred mostly as flurries 19th and 20th, and as snow 23rd except turning to rain south and southeast sections. New snow for the week averaged around 4 or 5 in. for the region, largest amounts were 10 in. at Wilmington, VT and 8 in. at Portland, ME, Concord and Portsmouth, NH. Temperatures averaged between 10 and 20° below normal. Warmest days: The 21st, mostly in 30's central and south and the 24th with 30's north and central, and 40's south. Coldest days: The 18th and 19th with -29 at Houlton, ME and -22 at Westfield, CT and the 22nd and 23rd with -27 at Newport, VT and -22 at Wilmington, VT.

NEW JERSEY: Temperatures were 10 to 14° below normal averaging 15° north, 22° south and 24° coastal. Extremes -8° at Charlotteburg, Newton and Neshanic Station, and 47° at Pomona. Precipitation this period was above normal averaging 1.00 in. north, 1.20 in. south and 1.90 in. coastal. Heaviest 24-hour total reported was: 1.25 in. at Newark.

Farmers caring for livestock and tending to other normal winter chores.

NEW MEXICO: Weekly average temperatures were 5 to 10° above normal. Mountain areas received precipitation around midweek.

Outside activities limited to precipitation and cold temperatures. Soil moisture in short to adequate supply. The main activities included field preparation for spring planting, calving and lambing, and supplemental feeding of livestock. Winter wheat and barley fields in fair to good condition with grazing active. Dryland fields still in need of moisture and showing limited growth. Pruning of pecan trees remained in progress. Spring onions in good condition. Ranges in fair to good condition. Livestock in good condition with supplemental feeding becoming more widespread.

NEW YORK: Very cold air settled over the State with average temperatures from zero to 5° above in the north, 5 to 15° in the west and central areas and near 20° in New York City. Northwest winds kept light snow and flurries in the area with locally heavy snow squalls near the Great Lakes. A strong storm late in the week moving through the eastern Great Lakes deposited up to 15 in. of snow in some areas. Some sections also reported sleet and freezing rain. Melted precipitation ranged from 0.25 to around 1.00 in. over the State.

NORTH CAROLINA: Temperatures 2° above normal to 12° below normal in the northern Piedmont. Precipitation above normal in all areas of the State to 2.16 in. at Cape Hatteras.

Soil moisture: 53% adequate and 47% surplus. Fieldwork: 0.4 days suitable. Conditions: All small grains fair to mostly good; pasture mostly fair. Supplies: Hay roughage and feed grains mostly adequate. Major farm activities: Tending livestock, cutting firewood, and repairing equipment

NORTH DAKOTA: A bitter cold week. Temperatures averaged 10 to 20° below normal with the greatest departures in the northwest and the smallest in the southern Red River Valley and the extreme southwest corner. Extremes for the week ranged from 36° above at Bowman on the 18th to -36° at Taylor on the 21st. It was a snowy week with a major blizzard, especially in the east portion on the 22nd and 23rd. Precipitation averaged 2 to 5 times the normal. The central district averaged 0.85 in. for the greatest amount and the south central district had the least amount with 0.23 in. Snow cover increased substantially during the week by an average of 10 in. over the State. The greatest increase was 20 in. at Fargo, which reported a snow depth of 27 in. on the 25th. Just 45 miles to the south, the reported snow cover increased only 4 in. to a total of 6 in. on the ground on the 25th.

Feeding and caring for livestock difficult with blowing and drifted snow. Livestock in generally good condition. Hay supplies are short in a few areas, and grain is being fed as a supplement. Snow cover more than adequate now for fall seeded crops, very little crop marketing.

OHIO: Temperatures averaged well below normal. Highs ranged from 3 to 5° below normal. Lows were 5 to 8° below normal north, while south averaged 1 to 3° below normal. Precipitation ranged from 0.50 to 1.00 in. northwest to just over 3.00 in. south. Light precipitation fell on most days; heavy rains 22nd, 23rd. Temperatures cool prior to heavy showers, readings fell back to single digits by 23rd.

Heavy showers washed away much of insulating snow cover, exposing winter wheat to subnormal temperatures. Marketing and livestock care difficult.

OKLAHOMA: Temperatures averaged 2° below normal north to 5° above normal south. Precipitation

ranged from 0.02 in. Panhandle to 1.40 in. south-east.

Wheat in good condition. Topsoil moisture in short supply. Cattle in good condition.

OREGON: Weekly temperatures fell 2 to 5° below normal over State, except for the Willamette Valley, where it was 1 to 3° above normal. Up to 7.00 in. of precipitation fell along the coast; the Willamette Valley had up to 2.00 in. of precipitation; south central and southeastern sections received minimal amounts from 0.10 to 0.50 in.

Soil moisture supply mostly surplus to adequate. Winter wheat condition fair to mostly good. Field spraying continuing as weather permits; slugs still a problem in some areas. Pruning and training underway in caneberries; pesticide control to start soon. Pruning of fruit trees continuing. Most vegetable activity complete. Livestock condition good. Range and pasture condition fair to good. Feed supply availability adequate to surplus.

PENNSYLVANIA: Frequent and fast-moving weather systems kept skies mostly cloudy and temperatures much below normal except on 23rd with brief warming west and extreme southeast sent temperatures into the 40's. Temperatures in teens and 20's most of week averaging 5 to 13° below normal. Extremes 50 and -13°. Light snow almost daily through 22nd with heavier snowfall of up to 10 in. 23rd along with freezing rain and sleet eastern two-thirds of State. Storm rainfall 1.00 to 1.50 in. southwest along with snow melt produced noticeable runoff southwestern counties. Much colder again 24th.

PUERTO RICO: Island average rainfall 0.18 in. or 0.59 in. below normal. Highest weekly total 1.31 in. Highest 24-hour total 0.35 in. Temperatures averaged about 76 to 75° on Coasts and 72 to 69° Interior Divisions. Mean station temperatures ranged from 79.9° to 62.4°. Extremes 95 and 44°. Total rainfall 0.21 in.

SOUTH CAROLINA: Temperatures reached near normal in most sections except for the cooler rains in the northern and warm ones in the southern zones. A warm front south of the State caused above normal rainfall in most areas except near normal in the western and southern areas.

Soil moisture adequate. Farmers continue with regular routine chores; pruning trees, caring for livestock and repairing equipment.

SOUTH DAKOTA: Windy and lots of snow. Southeast received over 1.00 in. of precipitation as 14 to 18 in. of snow. Between 10 and 15 in. fell in east and central areas and 3 to 5 in. in west. High winds caused considerable drifting which closed many roads. Precipitation for the year is above normal for most of the State. Temperatures below normal for third week in a row. Average temperatures ranged 8 to 13° below normal. Extremes -35 and 52°.

TENNESSEE: Weather was cool and wet until 22nd when warmer air moved into the State. A new cold front moved across the State on 22nd and 23rd bringing additional rain. Between 2.00 and 4.00 in. rainfall totals for the week were common. Temperatures averaged near normal for this time of year.

Farm activities consisted of caring for livestock and necessary farm chores.

TEXAS: Weather: Cloudy skies, rain, fog covered eastern half of State first half of week. Fair skies remainder of State behind cold front. Temperatures 8 to 11° above normal Statewide. Rainfall 0.33 in. below normal South Texas, 0.10 to 0.25 in. below normal West Texas; near normal elsewhere.

Commercial vegetables: Rio Grande Valley harvest of cabbage, carrots, broccoli, spinach, celery resumed, good volumes being shipped. Onions progressing well, harvest expected early February. Cauliflower harvest winding down. Citrus harvest continued, early oranges nearing completion. Valley escaped significant damage from last week's freeze. San Antonio-Winter Garden area harvest of cabbage, carrots, lettuce, spinach resumed, some losses expected due to freezing temperatures. Trans-Pecos region onion planting picked up, some cabbage harvest continued. Pecan harvest virtually complete. Quality fair, yields good to excellent. Pecans harvested 100%, 95% 1981, 99% average.

Range and livestock: Growth of grasses, small grains slow as dry conditions prevailed. Light showers received but did little to alleviate moisture stress. Livestock remain on small grain fields with limited grazing. Supplemental feeding continues. Livestock in good condition.

Crops: Warmer temperatures provided good conditions most field operations. Lack of surface moisture problem many areas High and Low Plains. Land preparation full swing South Texas; ahead of schedule many areas. Clean-up operations continue many High Plains cotton fields. Ginning modules remains active. Many small grain producers beginning to assess damage from snow, subfreezing temperatures; results not good. Lack of moisture combination with cold temperatures, sleet, snow damaged many small grain fields central portion of State. Cross-Timbers some oat fields severe leaf burn, possibly root damage. Edwards Plateau some oat, wheat fields heavily damaged. Wheat fields High Plains responding to warmer weather; moisture supplies continue short despite recent snow. Low Plains 3° temperatures burnt wheat; producers believe subsoil moisture sufficient to prevent winter kill. Grazing limited Cross-Timbers because little regrowth; producers taking cattle off wheat pastures. Blacklands late-planted wheat destroyed by cold temperatures, snow. Greenbugs problem South Central Texas. Wheat condition across State was 68% of normal with 3% excellent; 35% good; 52% fair; 10% poor. Statewide, condition dropped 10 points since first week January, which reflects severe cold weather.

UTAH: Recurring periods precipitation latter part last week. Accumulated amounts moisture generally light to moderate but locally heavy few localities. Cooling trend temperatures forepart period but warming over weekend. Average temperatures generally much above normal ranging from 2° below to 10° above.

Most farm and ranch activities include feed and caring of livestock, grading and marketing of potatoes, onions, and apples as needs require.

VIRGINIA: Precipitation and very cold temperatures continued for the second straight week. Precipitation steady north and west all week, steady second half of week rest of State. Average 0.80 in. snow Statewide. Original depths from trace to 8 in. Statewide average temperatures 25° or 11° below normal.

Snowfall and freezing temperatures virtually stopped farm activity with less than one day suitable for fieldwork. Despite bad weather, few livestock problems reported, except for a few calf and lamb losses and general stress on calving and lambing operations. Feed supply adequate with hay and roughage condition rated 93% of normal, 94% feed grains. Feed rated short one southwest locality. Statewide concern on feed supply if bad weather continues. Winter grain and grazing crops 85% of normal, virtually unchanged from last week's 86% of normal. Major farm activities: Feeding and caring for livestock; snow and ice removal; unthawing pipes; tax preparation; attending farm

production meetings; selling tobacco; farm supply inventory, and ordering feed and fertilizer.

WASHINGTON: West: Average temperatures were slightly above normals but rainfall was well above normal. Coastal areas were 1.00 to 1.50 in. above; the Interior was 0.50 to 1.00 in. above normal. Weekend weather was wet and mild over most areas. Pruning and tying of canberries continued. Harvest of forced rhubarb progressed. Hay and roughage feeds in adequate supply.

East: Temperatures ranged from 2 to 4° above normal. Precipitation totals were above normal in the Blue Mountains-Walla Walla area, where 1.41 in. fell last week. Rainfall was near normal over other areas in east. Weekend temperatures were in the upper 30's. Soil moisture conditions good, while wheat and barley stands were in average condition. Pruning of tree fruits continue. Lambing activities have picked up as well as some calving. Hay and roughage feed supply is adequate.

WEST VIRGINIA: Temperatures averaged well below normal across the State. Temperatures very cold on 18th moderated into the 50's by 23rd. Extremes: Low -28°, high 57°. Precipitation averaged well above normal across the State. Terra Alta received 2.32 in.

Soil moisture was reported as adequate. Days worked averaged less than one day due to cold, snow, and heavy rain. Activities were feeding and some calving. Hay, grain, and other feed supplies remained adequate with some counties reporting hay becoming short.

WISCONSIN: Severe winter weather pounded State on the 17th. Light snow fell across north early in the week. Moderating temperatures prevailed on 18th and 19th. Snow returned on 20th with 6 to 12 in. falling in the north and 2 to 5 in. falling

in the south. Baldwin reported 17 in. on 20th. A powerful storm engulfed the State on the 22nd with heavy snow and strong winds common in the north and snow, sleet and freezing rain reported in the south. Storm on 22nd dumped 16 to 20 in. in the Sawyer, Washburn and Asland County area. The week's warm temperature, 38°, was reported in Racine and Palmyra on the 22nd while the Duluth-Superior area recorded the coolest temperature, -18°, on the 24th.

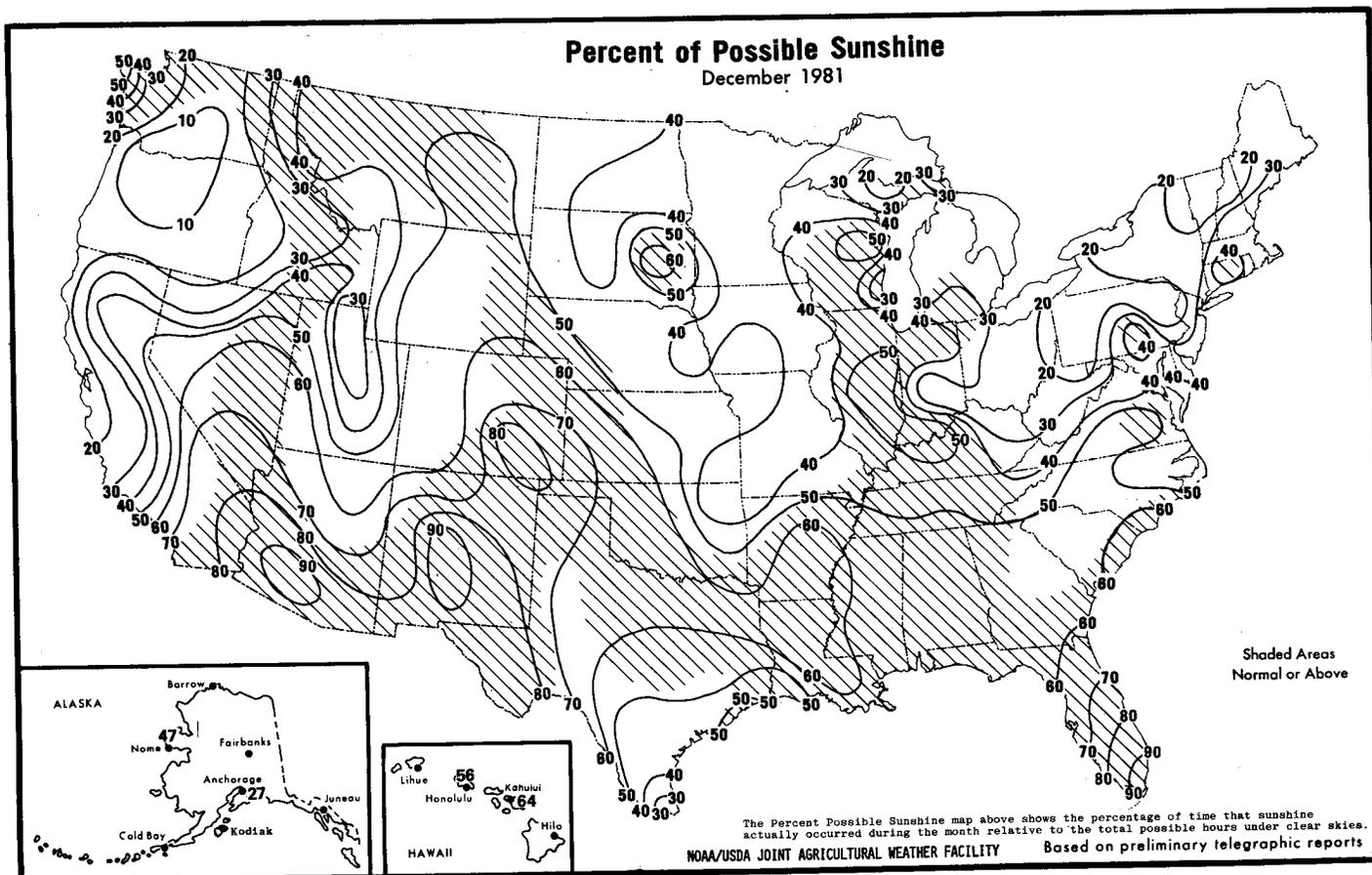
WYOMING: For most of week a front was somewhere across State dividing a very cold arctic air mass from a more moderate Pacific air mass. Movement of the front back and forth caused large variations in temperatures and generated some snow. Highest temperature 55°. Coldest 18° below zero. West part above average temperatures while most of east below normal. Precipitation greatest amount 1.23 in. Winter wheat mostly good condition. Below normal temperatures, snow cover increased need for supplemental feeding. Livestock mostly good condition.

**National Weather Summary**

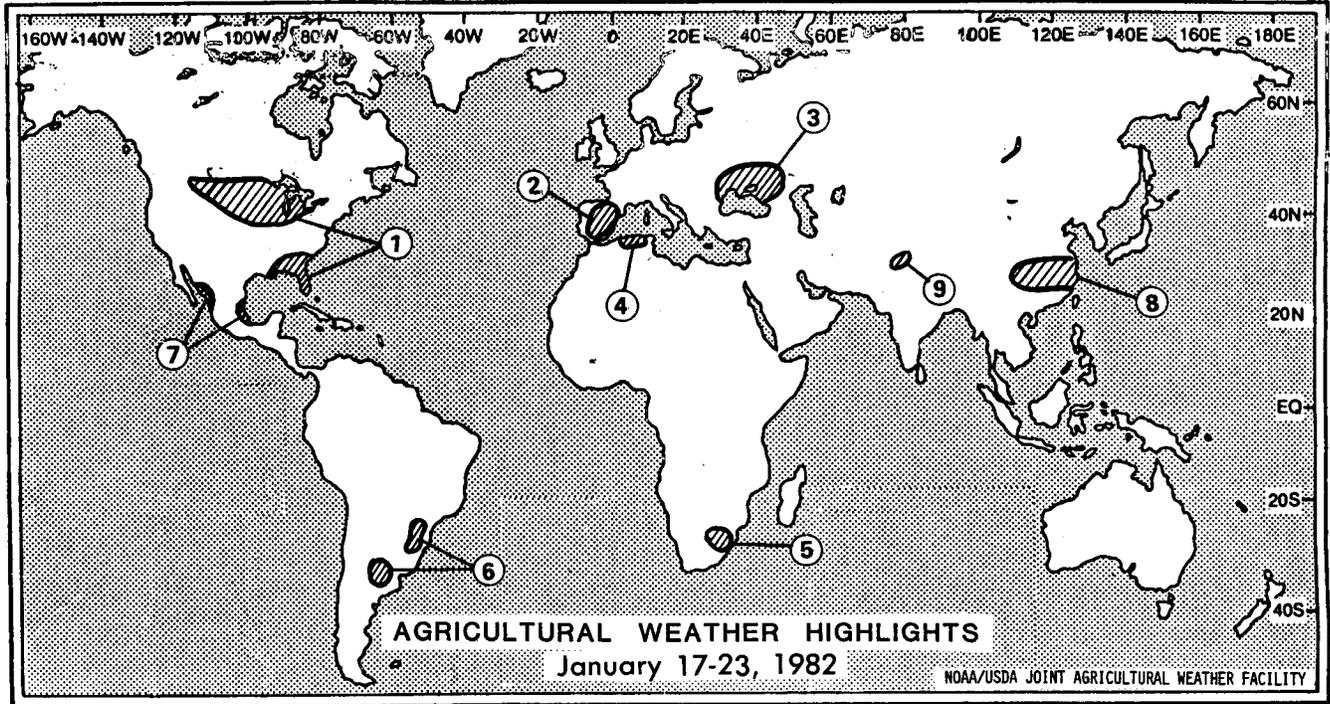
(Continued from page 1.)

Valley. Snow covered the Great Lakes areas. Freezing rain or snow continued over the mid-Atlantic States. It rained along the coasts of Washington and Oregon and snowed from the Cascades through the northern Rockies.

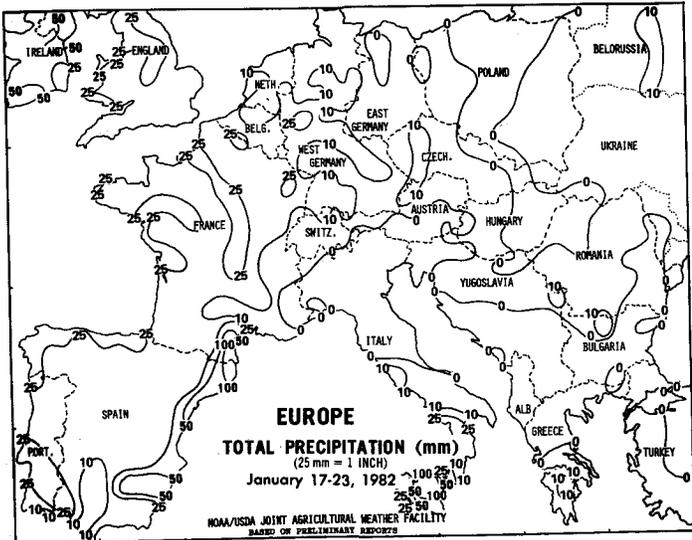
SATURDAY...The major winter storm moved through the Great Lakes. A cold front reaching southward from the storm moved through the East. Rainshowers ahead of the front reached from southern Mississippi to Virginia where it became freezing rain. Snow covered the Great Lakes region and the Northeast. Rainshowers covered the Pacific Northwest coast and it snowed from the Cascades through the northern Rockies.



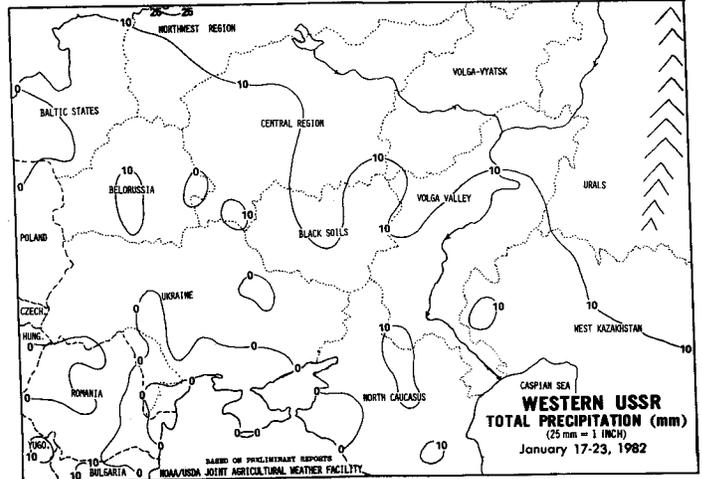
## International Weather and Crop Summary



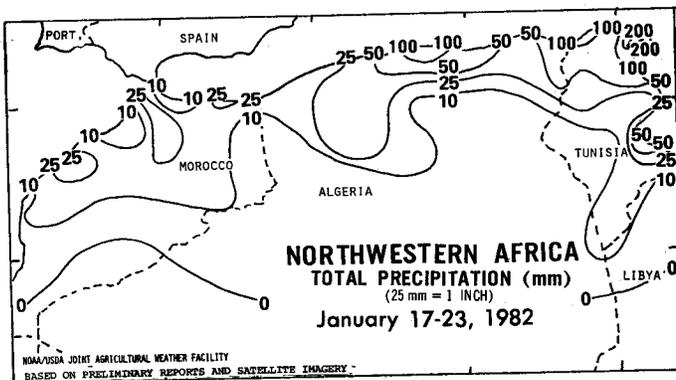
1. UNITED STATES: Snow cover increases in northern Plains and north central states, giving protection to wheat. Mild temperature returns to Southeast, helping vegetable recovery but shortening salvage time for freeze-damaged citrus.
2. EUROPE: Timely rains benefit winter grain areas in Spain.
3. WESTERN USSR: Drier weather occurs over winter grain areas; winter grain areas in the Western Ukraine continue to lack significant snow cover.
4. NORTHWESTERN AFRICA: Renewed rainfall in central and eastern Algeria improves winter grain prospects.
5. SOUTH AFRICA: Widespread showers and cooler temperatures improve corn growing conditions.
6. SOUTH AMERICA: Lack of widespread rains hampers crop development as corn, sorghum, and soybeans advance into reproductive and early filling periods.
7. MEXICO: Sunny weather enhances harvesting of winter vegetables along the West Coast and sugarcane and coffee in the east.
8. EASTERN ASIA: Continued precipitation benefits winter grains in southern China and western South Korea.
9. SOUTH ASIA: Precipitation benefits winter grains in Kashmir and northeastern Pakistan.



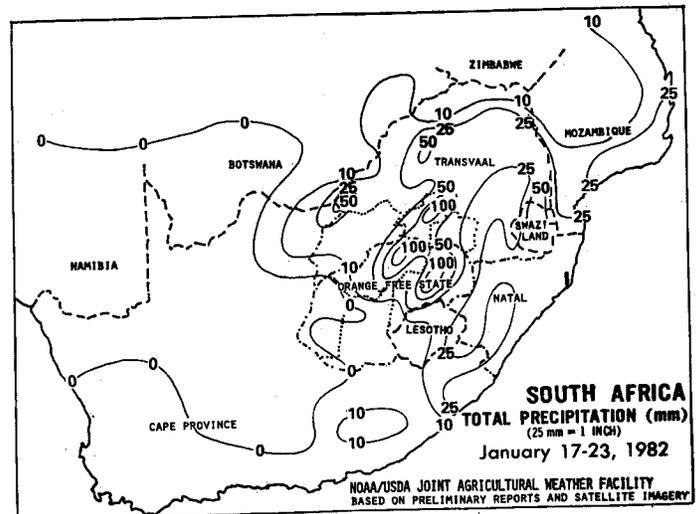
**EUROPE:** From 10 to 25 mm of precipitation fell on crop areas in England, France and Spain. The precipitation was especially welcomed in Spain, since timely rains during the remainder of the growing season are extremely important to ensure favorable winter grain yields. Only light precipitation fell on the remaining countries in Europe as high pressure kept moist maritime air from entering the region. Temperatures were above normal in the western one-third of Europe and below-normal in the eastern two-thirds of the region. Although coldest temperatures, around -15°C, were reported at many eastern locations on some days, winter wheat resistance to winterkill at these temperatures is high, reducing the likelihood that any winterkill has occurred.



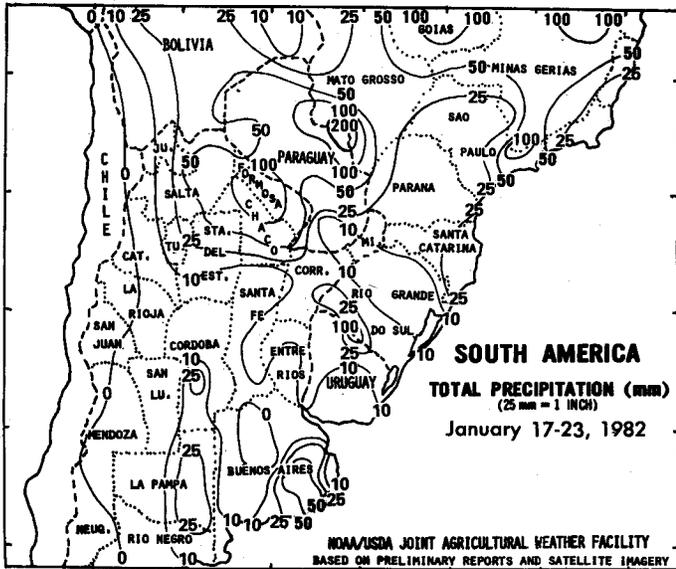
**WESTERN USSR:** A large high pressure system remained over the region, producing drier weather and generally below-normal temperatures. As a result, snowcover remained patchy over winter grain areas of the western Ukraine. No potential winterkill conditions were reported over the region.



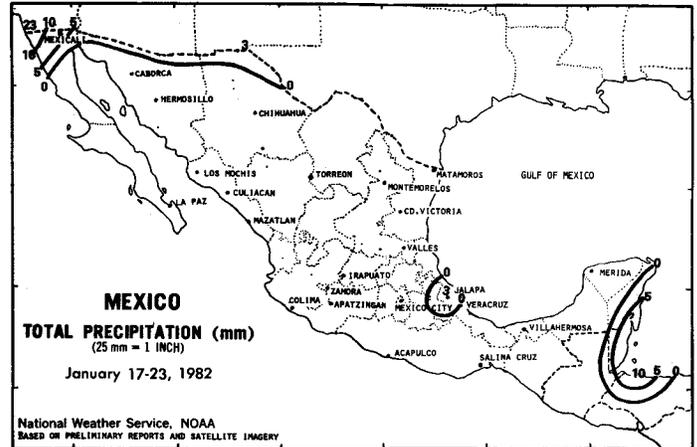
**NORTHWESTERN AFRICA:** Central and eastern Algeria received beneficial rainfall as a slow-moving storm intensified off the coast of Tunisia. The moisture substantially improved growing conditions for winter grains in these areas, where little rainfall had occurred during the previous three weeks. Light to moderate rains in western Algeria were probably too late to allow sowing of a winter grain crop. Abundant rainfall in Tunisia maintained mostly favorable conditions, although some localized flooding may have occurred in the Tunis area. Growing conditions in Morocco remained favorable, with moderate rain in the south and light rain in the north. Temperatures throughout the region stayed near normal.



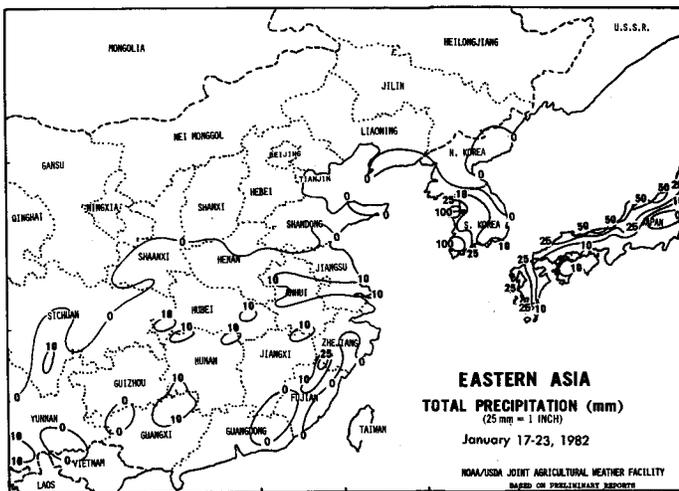
**SOUTH AFRICA:** Widespread showers alleviated dryness over all but the southwestern corn-growing areas. Heavy rainfall was reported in the important crop areas of eastern Orange Free State and Rand. Moderate, near-normal rains continued in other northern and eastern crop areas, and overall yield prospects improved substantially. Dry conditions persisted only in the southwest as corn advanced into the flowering stage. Detrimentially hot weather in these southwestern areas moderated at midweek as a cold front moved through. Average temperatures for the week were near normal throughout the corn-growing area.



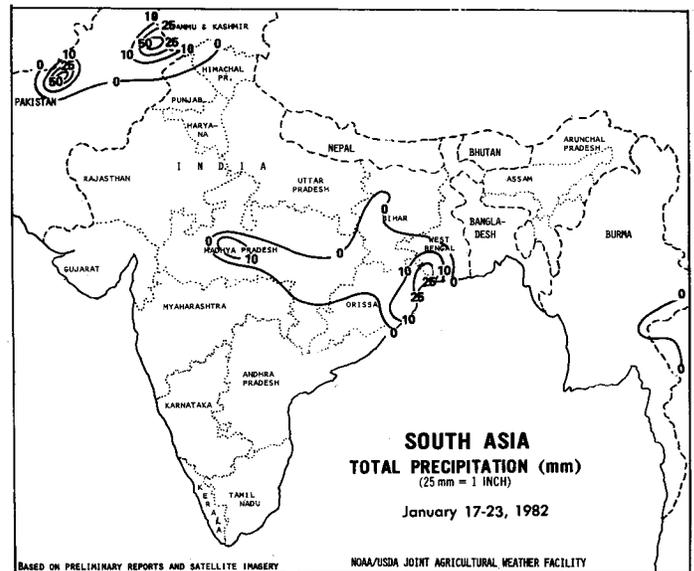
**SOUTH AMERICA:** Showers brought some beneficial moisture to localized areas throughout southern Brazil and crop areas of Argentina. However, many areas received little or no rainfall, forcing crops to draw from available moisture reserves during crucial development periods. Dry weather tends to hasten crop development and, if moisture reserves are diminished, the potential increases for reduced crop yields. Thus, timely rains will be needed within the next week--particularly in southern Parana, northern Rio Grande do Sul, and northern Buenos Aires--to alleviate potential stress conditions for flowering soybeans and for corn in silking to early filling periods. Recent showers in northern Argentina benefited the cotton crop. Early corn in Brazil and sunflowers in northern Argentina have reached maturity.



**MEXICO:** Sunny, mild weather favored development of winter crops and field activities over most of the country. Abundant sunshine and seasonal temperatures were ideal for harvesting tomatoes, cucumbers, peppers, and other tender vegetables along the West Coast. The non-irrigated winter wheatlands were slowly becoming drier; however, the dry pattern extending into the east coast was helpful for cutting sugarcane and picking and drying coffee beans.



**EASTERN ASIA:** Light precipitation continued in China's southernmost winter grain areas and shifted northward into central areas. However, amounts remained below normal, and no precipitation fell in northern winter grain areas. Near-normal temperatures kept the crop dormant north of the Yangtze River, except in the Sichuan Valley to the west. In South Korea, above-normal precipitation fell over the western half of the country--as rain along the west coast and probably as snow inland. Near-normal temperatures kept winter grains dormant.



**SOUTH ASIA:** A weak storm spread light precipitation across Pakistan and extreme northern India. Some heavier amounts in Kashmir and northeastern Pakistan substantially benefited winter grains. Growth continued in all major areas as temperatures averaged near normal. Rainfall occurred in a band across central and eastern India, with little impact on agriculture. Seasonably dry weather continued in other parts of the region.



FIRST CLASS MAIL

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HEATING DEGREE DAYS (BASE 65) FOR WEEK ENDING JAN. 24, 1982.

CITY	WKLY DEP.	CUM.	DEP.	LSTYR	CITY	WKLY DEP.	CUM.	DEP.	LSTYR	CITY	WKLY DEP.	CUM.	DEP.	LSTYR			
BIRMINGHAM	70	-77	1729	72	-153	CARIBOU	485	100	4953	-62	-589	YOUNGSTOWN	324	49	3658	321	-265
MOBILE	45	-58	1000	12	-238	PORTLAND	390	82	3897	71	-374	OKLAHOMA CITY	184	-12	2222	130	181
MONTGOMERY	68	-58	1326	-7	-243	BALTIMORE	301	84	2848	322	50	TULSA	202	4	2225	135	209
FLAGSTAFF	258	-11	3212	-565	400	BOSTON	341	89	3144	315	-249	ASTORIA	154	-17	2418	-309	269
PHOENIX	87	-11	525	-398	174	ALBANY	386	80	4397	78	-87	MEDFORD	207	19	4214	349	336
TUCSON	104	6	789	-209	102	DETROIT	354	67	3768	419	-2	PENDLETON	203	-29	2844	-76	139
WINSLON	219	-5	2334	-349	36	FLINT	349	48	4058	420	-2	PORTLAND	153	-36	2250	-318	245
YUMA	76	6	379	-249	200	GRAND RAPIDS	336	42	3731	216	-115	SALEM	160	-23	2588	28	228
YUKON	189	7	2170	237	158	HOUGHTON LAKE	382	46	4416	104	-169	ALLENTOWN	344	85	3378	311	171
LITTLE ROCK	198	22	1842	50	34	LANSTING	417	46	5158	198	-36	ERIE	328	48	3370	-65	-328
BAKERSFIELD	144	24	1984	-209	59	MUSKEGON	358	71	3815	322	-53	HARRISBURG	309	63	3051	227	-308
EUREKA	150	26	2309	-127	117	JACKSON	447	46	3915	483	-243	PHILADELPHIA	307	76	2934	376	-56
FRESNO	167	32	1474	-39	156	S. STE. MARTE	446	89	5149	483	-137	PITTSBURGH	294	77	3575	408	-164
LOS ANGELES	83	6	564	-264	198	DULUTH	439	40	5401	278	-160	SCRANTON	350	77	3576	243	-157
RED BLUFF	170	34	1397	-87	200	INTERNATL FALLS	524	79	5551	-123	358	PROVIDENCE	347	88	3397	378	-164
SAN DIEGO	58	-12	376	-330	103	MINNEAPOLIS	401	28	4571	210	468	CHARLESTON	86	-33	1446	206	-51
SAN FRANCISCO	141	24	1556	5	124	ROCHESTER	382	14	4743	364	468	COLUMBIA	139	4	1775	258	-104
STOCKTON	160	-19	1474	-76	44	ST. CLOUD	431	33	4799	55	-331	GREENVILLE	190	31	2196	387	114
DENVER	223	-22	2737	-409	245	JACKSON	437	47	4342	45	-452	ABILENE	461	67	4610	-32	461
RAND JUNCTION	236	-33	3168	-5	691	MERIDIAN	46	-80	1362	-79	152	HURON	473	67	4320	-15	370
PUEBLO	191	-54	2565	-389	21	COLUMBIA	255	4	3073	290	335	RAPID CITY	391	88	3964	-148	734
BRIDGEPORT	330	85	3129	455	33	KANSAS CITY	284	18	3211	260	306	SIOUX FALLS	401	44	4331	58	340
HARTFORD	307	88	3382	62	-417	ST. LOUIS	254	16	2915	300	810	CHATTANOOGA	159	-16	2217	205	3
WILMINGTON	307	76	2848	292	-126	SPRINGFIELD	230	6	2721	190	277	KNOXVILLE	175	7	2258	282	-127
WASHINGTON	284	8	2322	-94	-330	BILLINGS	439	135	3929	95	825	MEMPHIS	159	-11	1974	118	242
APALACHICOLA	45	-39	754	-87	-187	AVON	526	107	4869	315	783	NASHVILLE	171	-16	2269	172	-16
DAYTONA BEACH	17	-39	581	-57	-190	GREAT FALLS	505	126	4821	132	325	ABILENE	155	-48	1325	-61	-139
FORT MYERS	0	-28	195	-74	-178	HELENA	402	71	4218	-217	591	AMARILLO	44	-66	860	-141	-325
JACKSONVILLE	41	-36	842	24	-89	KALISPELL	366	43	4693	17	874	BEAUMONT	47	-49	834	-56	-222
KEY WEST	0	-7	50	24	-205	MILES CITY	490	140	4383	126	498	BROWNSVILLE	7	-45	323	-40	-195
MIAMI	14	-28	457	31	-89	MISSOULA	331	20	4359	-1	695	CORPUS CHRISTI	18	-52	527	-18	-252
ORLANDO	0	-14	139	61	-161	GRAND ISLAND	352	35	3819	335	450	DEL RIO	49	-51	850	-117	-167
TALLAHASSEE	42	-49	1086	158	-165	LINGOLN	336	33	3596	200	512	EL PASO	127	-21	1463	-152	-203
TAMPA	16	-33	471	77	-205	NORFOLK	367	43	3984	216	581	FORT WORTH	127	-62	1414	47	-34
WEST PALM BEACH	1	-20	240	78	-43	NORTH PLATTE	336	43	3740	91	644	GALVESTON	34	-50	640	-22	-273
ATLANTA	119	-37	1980	213	133	OMAHA	345	46	3832	534	581	HOUSTON	34	-61	815	-23	-207
AUGUSTA	140	-38	1969	476	193	VALENTINE	370	56	4074	185	581	LUBBOCK	116	-66	1834	-181	-101
WACO	85	-51	1467	139	-50	ELY	293	4	3655	-467	254	MIDLAND	86	-63	1416	-133	-439
SAVANNAH	85	-51	1467	139	-131	RENO	242	-2	1268	-286	207	SAN ANGELO	76	-54	1406	64	-40
BOISE	256	5	3178	-16	308	WINNEMUCCA	242	-14	3144	-420	327	SAN ANTONIO	57	-37	528	-10	-97
LEWISTON	229	-8	2910	-135	40	CONCORD	428	113	4220	370	-327	VICTORIA	57	-37	528	-10	-97
POCAHONTO	285	-8	3672	-129	166	ATLANTIC CITY	289	63	2898	334	-353	WACO	58	-68	1257	58	-54
CAIRO	218	16	2474	308	263	TRENTON	307	76	2965	391	-9	WICHITA FALLS	128	-36	1760	82	78
CHICAGO	333	33	3788	349	300	ALBUQUERQUE	181	-26	2284	-174	-82	SALT LAKE CITY	223	-35	2852	-411	-80
MOBILE	333	33	3788	349	300	ALBUQUERQUE	181	-26	2284	-174	-374	BURLINGTON	410	68	4285	218	-525
PEORIA	294	6	3846	127	178	ROSWELL	149	-59	1737	-470	252	WINCHBURG	232	36	4268	428	167
ROCKFORD	352	37	3916	255	208	BINGHAMTON	381	80	4656	304	-252	RICHMOND	243	41	5098	528	-37
SPRINGFIELD	306	38	3330	307	-15	BUFFALO	367	76	3752	261	-257	ROANOKE	244	46	2865	52	314
EVANSVILLE	217	-8	2675	101	161	NEW YORK	312	81	2782	297	-14	QUILLAYUTE	179	-44	3031	-66	353
FORT WAYNE	341	61	3662	370	60	ROCHESTER	371	84	3846	433	-228	SEATTLE-TACOMA	166	-23	2545	-207	221
INDIANAPOLIS	280	21	3349	332	392	SYRACUSE	380	87	3774	384	136	SPokane	256	-22	3659	-101	214
SOUTH BEND	331	44	3684	387	290	ASHEVILLE	193	4	2594	248	21	WALLA WALLA	203	-21	2561	-173	90
BURLINGTON	331	33	3846	127	354	CLACKAMAS	394	38	4280	361	-83	BECKLEY	254	-41	3371	36	68
JES MCHINES	335	13	3736	282	406	GREENSBORO	229	47	2455	350	-10	CHARLESTON	215	5	2821	251	-40
DUBUQUE	355	22	4190	322	507	HATTERAS	147	71	1700	272	-215	HUNTINGTON	223	8	2837	300	14
SIOUX CITY	376	46	4105	322	483	RALEIGH	214	46	2250	272	-235	PARKERSBURG	250	26	2914	302	-143
CONCORDIA	318	48	3207	141	394	WILMINGTON	135	21	1602	235	579	GREEN BAY	379	29	4470	231	69
DODGE CITY	318	48	3207	141	278	BISMARCK	501	99	4826	-235	662	LACROSSE	366	23	4260	288	204
GOODYEAR	256	18	2724	-39	256	FARGO	493	75	5241	279	-143	MADISON	363	73	4374	281	204
TOPA	275	14	3071	173	256	FARGO	493	75	5241	279	-143	MILWAUKEE	346	24	4258	410	305
WICHITA	264	26	2844	259	406	GREENSBORO	229	47	2455	350	-83	CASPER	324	30	3870	-69	426
LIXINGTON	214	-10	2848	157	507	HATTERAS	147	71	1700	272	-215	CHEYENNE	271	2	3533	-155	401
LOUISVILLE	216	-77	2710	157	483	RALEIGH	214	46	2250	272	-235	LANDER	319	0	3849	-369	273
BATEN ROUGE	30	-73	904	-92	394	WILMINGTON	135	21	1602	235	579	SHERIDAN	386	77	3829	-244	309
LAKE CHARLES	35	-60	937	62	278	BISMARCK	501	99	4826	-235	386						
NEW ORLEANS	28	-67	789	-62	287	FARGO	493	75	5241	279	386						
SHREVEPORT	60	-66	1453	183	-265	DAYTON	287	27	3332	314	-12						
					-42	CLEDO	355	74	3873	502							