

# 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

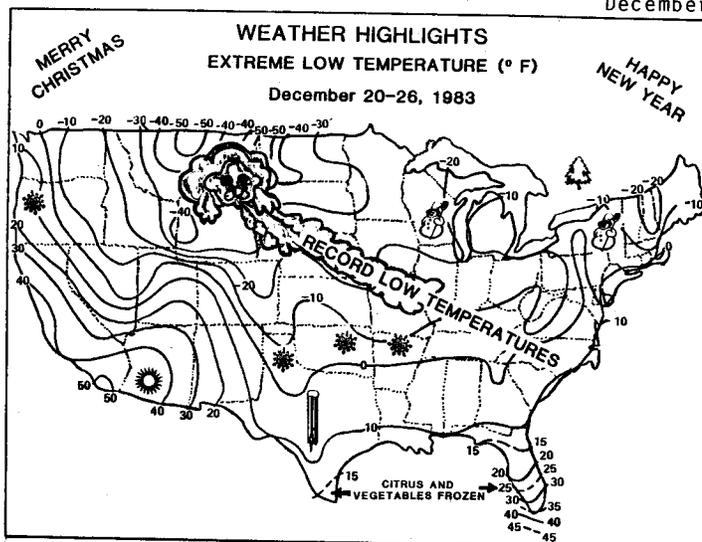
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Dec. 28, 1983

## National Weather Summary

December 18 to 24



**HIGHLIGHTS:** It was one of the coldest weeks in the history of weather records. Average temperatures were as much as 42°F colder than normal in parts of Montana and 36°F colder than normal in most of the central Plains. Subzero temperatures covered the northern two-thirds of the Nation. In sharp contrast, average temperatures in the Southwest were as much as 12°F warmer than normal. At the end of the week, freezing weather reached into the southern Texas citrus area and adjacent parts of Mexico, and then moved over the Florida citrus area. A blanket of snow covered most of the winter grain areas of the Nation, but freezing rain mixed with snow plagued areas from eastern Texas, across the South, and up the east coast.

**SUNDAY...** Frigid arctic air plunged southward through the Plains and brought record-low temperatures as far south as the Texas Panhandle. Light snow fell through the Rockies, parts of western Texas, and northeastward to New England. Freezing rain covered much of central Texas. Some heavy rainshowers fell along the southeast coast.

**MONDAY...** The arctic air pushed deeper into Texas. Early morning temperatures were in the subzero range as far south as Oklahoma City and eastward through Michigan, Indiana, Illinois, and Missouri. Light snow fell in the Northwest, the central Rockies, the central Plains, and the southern Plains into the Texas Panhandle. Freezing rain was mixed with snow from central Texas to northern Alabama, and light rain fell along the eastern gulf coast. Snow also fell from the Tennessee and Ohio Valleys to western New York.

**TUESDAY...** A southerly flow into Texas brought rain to southern Texas, and more snow to northern Texas and throughout the Plains, the Rockies, much of the Northwest, and the Ohio Valley. Warm rain fell over Florida, while snow and ice covered the Tennessee Valley and Arkansas. Record-low temperatures covered the central Plains and lakes area and freezing temperatures pushed into the Southeast to South Carolina.

**WEDNESDAY...** Light snow continued in the central Rockies and Plains and into northern Texas, and rain fell from southern Texas across the South and up the east coast to Virginia. A mixture of snow, sleet, and rain fell from western Tennessee through the Ohio Valley, while snow fell in the Great Lakes region and the Northeast. Another surge of arctic air pushed into the northern Plains through Montana.

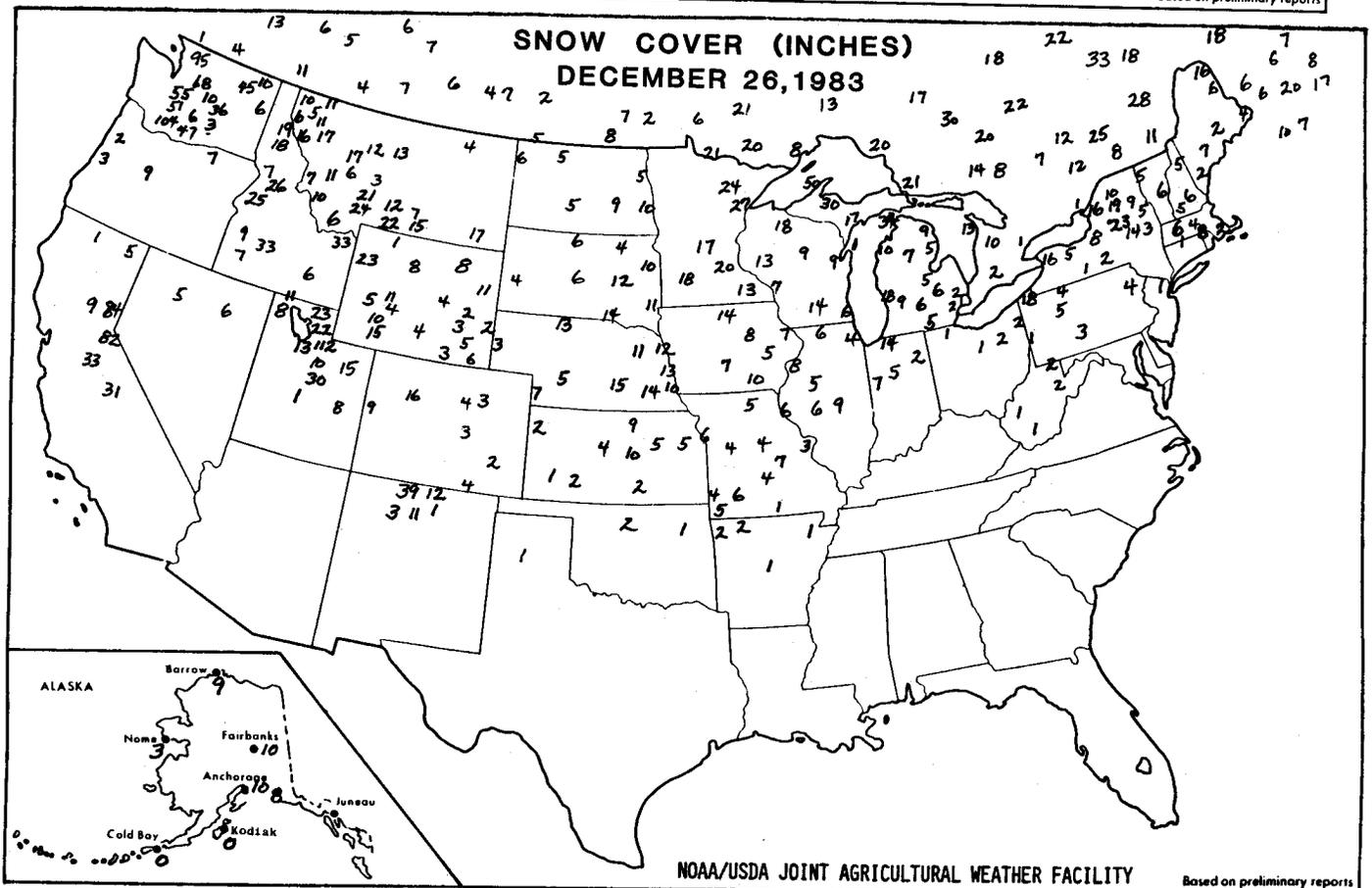
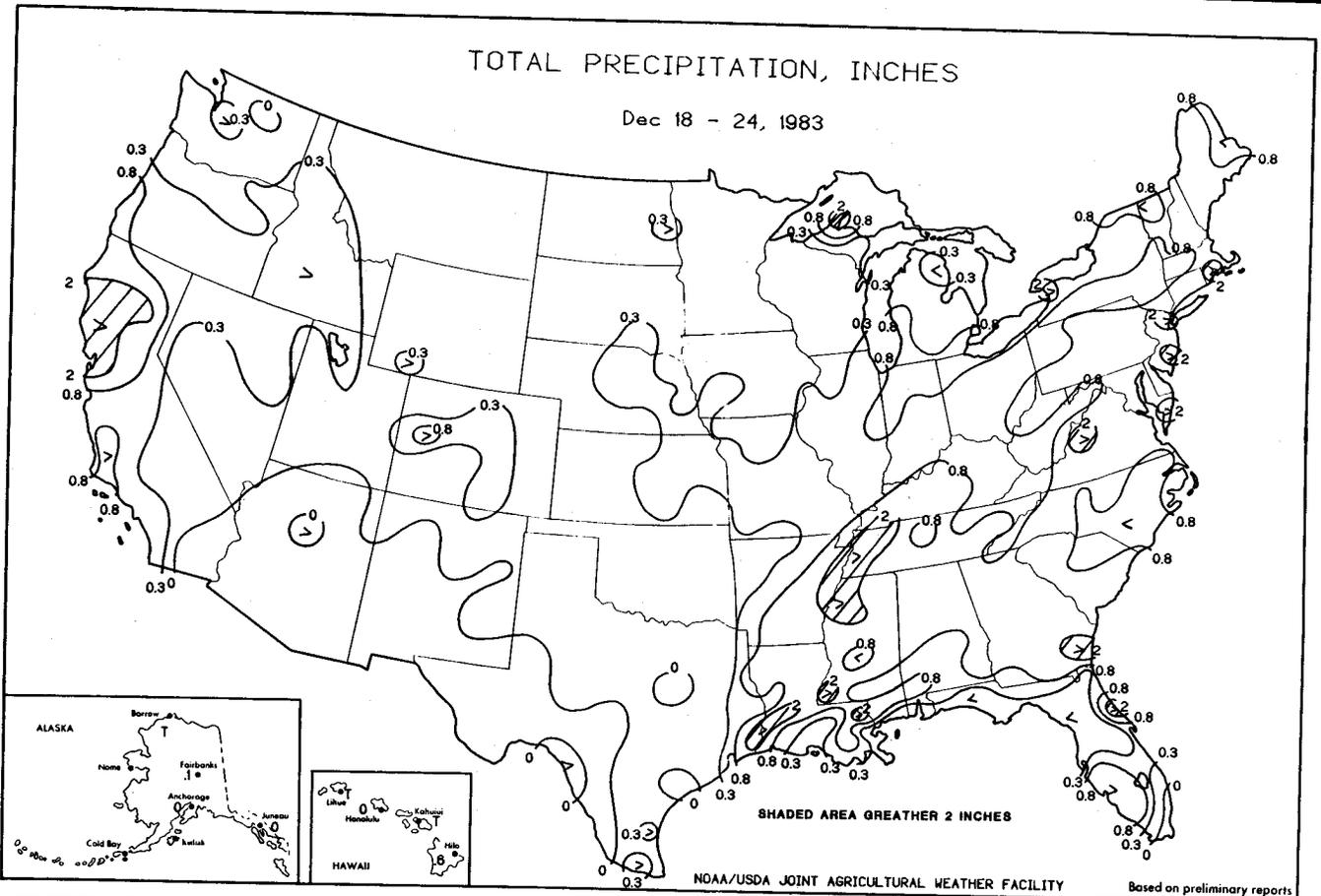
**THURSDAY...** Heavy snow fell across New York and New England with lighter snow covering the Ohio Valley. Freezing rain turned to light rain before ending from eastern Pennsylvania into North Carolina. Light rain covered the Southeast to northern Florida. Early morning temperatures were below freezing through all but the southern tip of Texas and the cold weather was pushing southeastward.

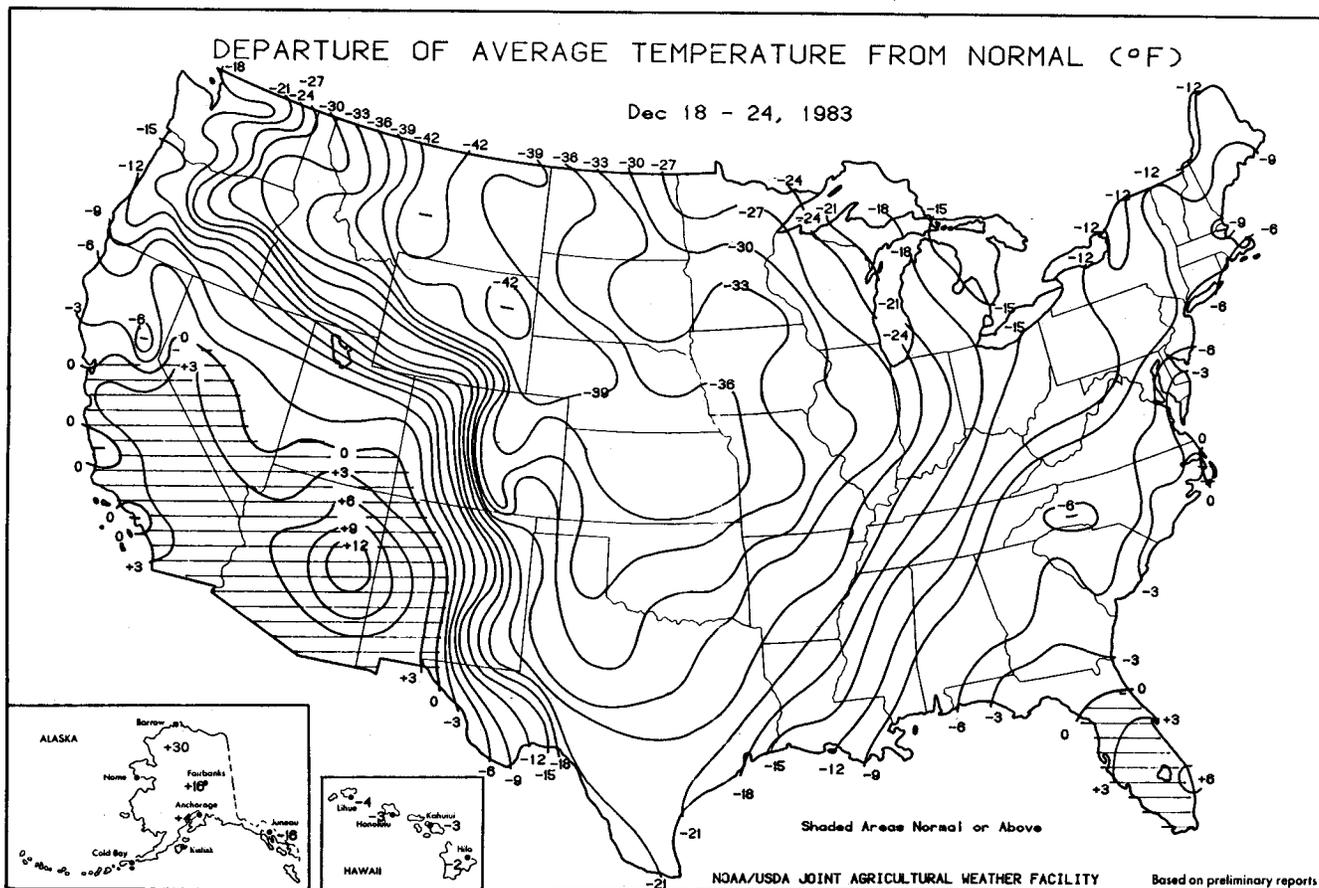
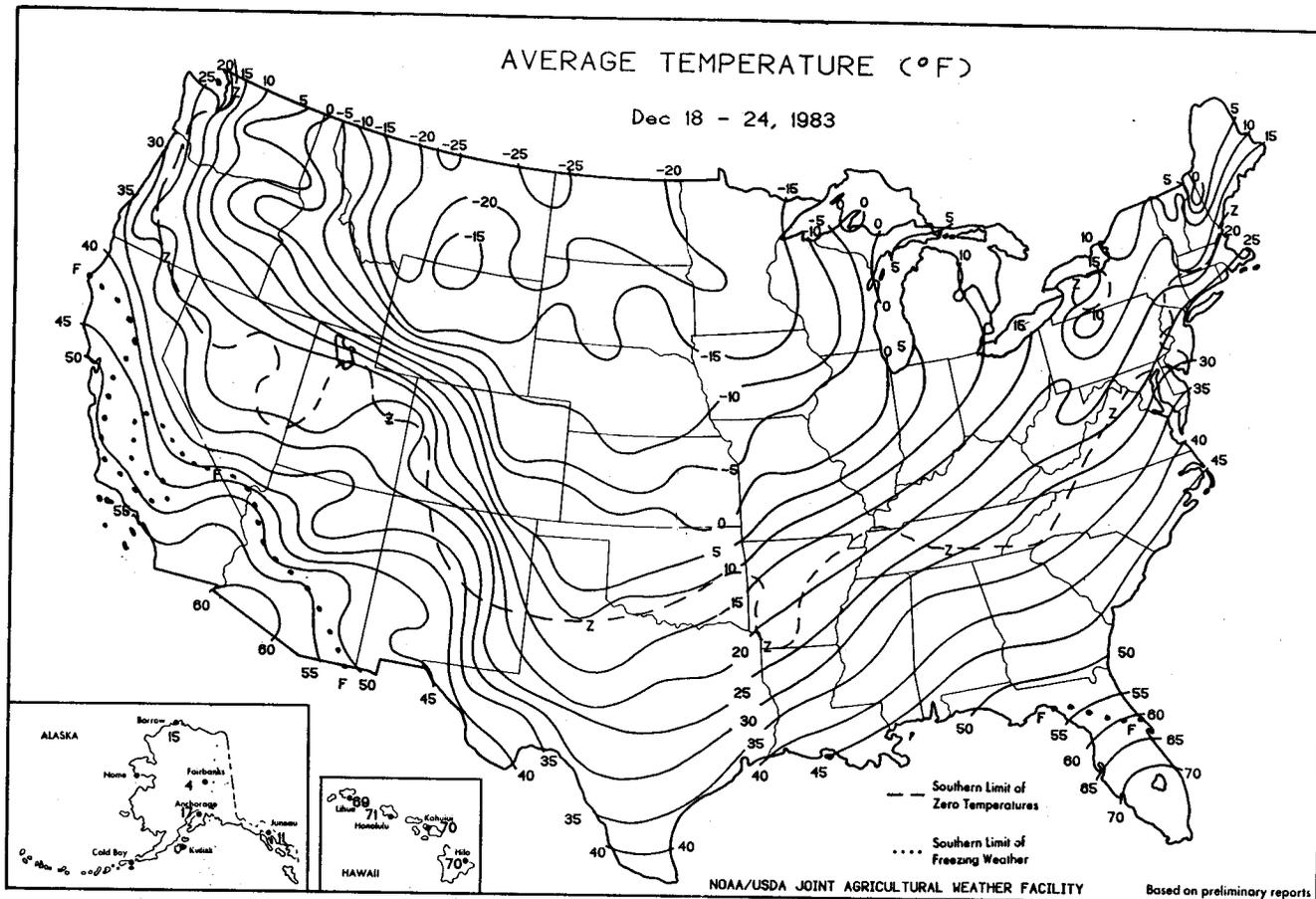
**FRIDAY...** The new surge of arctic air dropped temperatures to 40°F below zero in parts of Wyoming as it moved southward. Freezing temperatures moved into the northern part of the Rio Grande Valley in southern Texas and pushed into Georgia and most of Alabama. Rain covered the central west coast but changed to rain inland across the Plateau and central Rockies. Very light snow fell in much of eastern Texas, through the Plains, the lower and middle Mississippi Valley, the Ohio River Valley, and into Pennsylvania and New York.

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Weather Data for the Week Ending Dec. 24, 1983

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 27	PCT. NORMAL SINCE NOV 27	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	44	27	60	3	36	-9	1.7	-.5	.8	13.3	302	67.8	123	82	50	0	0	5	3	2
MOBILE	51	38	66	13	45	-8	.3	-1.0	.2	6.9	138	81.4	124	82	58	0	2	3	0	0
MONTGOMERY	47	35	60	10	41	-7	.5	-.6	.4	5.2	124	72.5	149	84	56	0	2	3	0	0
AK ANCHORAGE	23	10	29	3	17	4	T	-.2	T	.5	45	12.3	83	90	76	0	7	0	0	0
BARROW	23	8	32	-2	15	30	.1	.1	.1	.1	50	3.1	58	96	76	0	7	1	0	0
FAIRBANKS	12	-4	23	-12	4	16	.1	0	.1	.4	57	10.0	96	77	53	0	7	3	0	0
JUNEAU	18	4	24	1	11	-15	0	-1.0	0	.5	11	40.5	75	100	69	0	7	0	0	0
KODIAK	45	35	53	24	40	11	1.1	-.4	.7	6.8	126	75.7	109	90	70	0	3	3	0	1
NOME	36	26	37	5	31	28	.3	.1	1.6	229	14.3	87	85	73	0	7	5	0	0	0
AZ PHOENIX	68	48	71	45	58	6	T	-.2	T	1.0	143	12.8	178	86	40	0	0	0	0	0
PRESCOTT	52	37	62	29	44	8	0	0	.5	33	19.1	102	87	46	0	2	0	0	0	0
TUCSON	68	42	75	39	55	4	0	0	.2	29	21.7	190	69	26	0	0	0	0	0	0
YUMA	70	50	73	46	60	4	0	0	.5	167	4.8	166	76	40	0	0	0	0	0	0
AR FORT SMITH	21	10	34	0	16	-24	-.1	-.5	-.1	2.3	82	35.1	85	79	57	0	7	4	0	0
LITTLE ROCK	23	11	35	0	17	-25	1.1	.3	1.1	8.5	236	42.8	90	83	71	0	7	4	0	0
CA BAKERSFIELD	55	38	62	35	47	0	.2	.1	.2	.4	67	10.1	191	94	60	0	7	2	1	1
EUREKA	50	39	62	32	44	-4	1.8	.4	.9	11.7	209	64.5	172	93	67	0	2	5	2	2
FRESNO	54	43	57	36	48	4	.6	.2	.6	1.3	100	28.8	253	82	55	0	0	1	1	1
LOS ANGELES	61	50	63	45	55	-1	.6	.2	.4	1.1	73	21.1	213	92	68	0	0	3	0	0
RED BLUFF	46	36	53	32	41	-4	3.1	2.2	2.1	7.8	244	45.1	221	96	62	0	1	2	2	2
SACRAMENTO	50	41	56	34	46	1	1.3	.6	.9	2.7	108	32.4	205	94	71	0	0	3	1	1
SAN DIEGO	64	55	70	52	60	3	.3	0	.3	1.0	83	18.3	213	78	59	0	0	3	1	0
SAN FRANCISCO	54	47	59	42	50	2	2.4	1.6	2.0	5.0	167	37.0	204	86	68	0	0	3	1	0
CO DENVER	2	-11	16	-21	-5	-37	.3	.2	.2	1.2	200	20.2	129	80	53	0	7	4	0	0
GRAND JUNCTION	33	20	44	12	27	0	.5	.4	.2	.8	200	13.9	174	81	52	0	7	3	0	0
PUEBLO	7	-4	17	-15	2	-30	.5	.4	.2	.8	267	12.8	108	88	59	0	7	5	0	0
CT BRIDGEPORT	32	16	51	5	24	-9	1.2	.4	1.2	4.3	126	55.4	136	66	44	0	7	1	1	1
HARTFORD	28	11	36	0	20	-8	1.1	.2	1.0	6.0	154	55.3	125	85	41	0	7	3	1	1
DC WASHINGTON	36	24	44	4	30	-8	1.2	.5	1.1	5.3	183	51.2	131	69	38	0	6	2	1	1
FL APALACHICOLA	59	46	72	20	52	-2	T	.8	T	5.2	168	62.8	112	89	66	0	1	1	0	0
DAYTONA BEACH	67	53	73	28	60	1	3.8	3.3	2.5	10.5	525	71.9	147	93	76	0	1	4	3	3
JACKSONVILLE	58	43	63	17	51	-3	.2	.4	.1	2.4	109	58.2	109	96	75	0	1	3	0	0
KEY WEST	80	70	82	64	75	5	T	.3	T	3.8	224	51.1	126	89	70	0	0	0	0	0
MIAMI	81	64	83	48	72	4	T	.4	T	3.4	200	56.7	96	90	57	0	0	0	0	0
ORLANDO	72	57	81	34	64	3	.2	.2	.2	2.6	163	52.7	108	99	74	0	0	2	0	0
TALLAHASSEE	59	44	66	19	51	-1	.4	.7	.3	5.4	129	64.9	100	96	67	0	1	2	0	0
TAMPA	69	56	77	32	63	2	.1	.4	.1	3.5	175	59.4	123	100	82	0	1	2	0	0
WEST PALM BEACH	80	64	84	45	72	6	T	.5	T	4.7	224	80.4	132	95	65	0	0	1	0	0
GA ATLANTA	41	28	48	2	35	-9	1.2	.2	1.2	8.7	235	49.8	105	81	56	0	4	2	1	1
AUGUSTA	48	32	57	10	40	-6	.9	.2	.6	5.1	196	52.4	124	79	43	0	2	3	1	1
MACON	49	35	60	9	42	-6	1.1	.1	.8	6.0	171	50.4	114	86	55	0	1	3	1	1
SAVANNAH	51	39	57	16	45	-5	1.5	.9	1.2	3.3	138	53.3	105	89	58	0	1	3	1	1
HI HILO	79	60	81	57	70	-2	.6	-2.1	.6	1.1	9	65.8	52	83	53	0	0	1	1	1
HONOLULU	81	61	83	55	71	-3	T	.8	T	0	0	3.9	17	84	47	0	0	0	0	0
KAHULUI	81	59	83	52	70	-3	T	.7	T	.7	28	7.9	44	85	53	0	0	1	0	0
LINOLE	79	59	84	56	69	-3	T	1.2	T	.6	12	16.1	37	81	51	0	0	1	0	0
ID BOISE	16	-1	30	-18	7	-24	.6	.3	.5	3.3	275	17.9	157	96	63	0	7	3	1	1
LEWISTON	12	0	25	-16	6	-28	.4	.1	.2	.8	73	13.0	106	96	66	0	7	3	0	0
POCATELLO	8	-10	24	-25	-1	-27	.5	.3	.2	3.2	400	19.7	188	89	64	0	7	4	0	0
IL CHICAGO	8	-11	23	-25	-1	-27	.3	-.2	.3	5.4	270	49.1	144	72	49	0	7	3	0	0
MOLINE	4	-12	21	-19	-4	-29	.5	.1	.4	3.8	238	36.6	99	72	51	0	7	3	0	0
PEORIA	5	-10	22	-18	-3	-29	.3	-.1	.2	4.2	221	42.1	117	74	52	0	7	3	0	0
QUINCY	5	-9	20	-15	-2	-30	.3	0	.1	4.0	267	34.7	90	74	52	0	7	4	0	0
ROCKFORD	4	-13	22	-24	-5	-28	.3	-.1	.3	3.2	178	34.2	90	73	56	0	7	1	0	0
SPRINGFIELD	6	-10	24	-18	-2	-31	.6	.2	.4	4.8	267	32.4	95	88	56	0	7	4	0	0
IN EVANSVILLE	21	7	41	-6	14	-20	.6	-.1	.6	4.8	150	48.5	114	83	60	0	7	3	1	1
FORT WAYNE	17	-1	35	-16	8	-20	1.3	.7	1.2	5.7	248	32.4	91	76	54	0	7	4	1	1
INDIANAPOLIS	16	-3	34	-17	6	-24	.5	-.1	.5	4.1	152	35.7	91	78	57	0	7	4	1	1
SOUTH BEND	14	-5	30	-15	5	-23	.9	-.3	.6	4.1	152	30.4	79	81	58	0	7	4	1	1
IA DES MOINES	-3	-16	10	-19	-9	-34	.3	.1	.2	2.6	236	41.2	130	66	48	0	7	2	0	0
SIOUX CITY	-6	-18	-1	-21	-12	-33	.2	.1	.2	1.8	300	28.3	110	62	47	0	7	2	0	0
WATERLOO	-4	-21	14	-26	-13	-32	.2	0	.2	1.9	158	36.6	108	67	44	0	7	2	0	0
KS CONCORDIA	-2	-12	3	-16	-7	-36	.3	.1	.3	1.4	175	25.1	91	56	43	0	7	1	0	0
DODGE CITY	0	-6	4	-10	-3	-35	.2	0	.1	.6	100	23.9	114	65	45	0	7	3	0	0
GOODLAND	-1	-11	9	-17	-6	-35	.1	-.1	.1	1.2	400	17.7	106	70	55	0	7	3	0	0
TOPEKA	1	-12	6	-17	-6	-36	.4	-.1	.2	2.1	175	36.7	108	79	55	0	7	4	0	0
WICHITA	1	-7	5	-10	-3	-36	.4	.2	.2	.9	100	36.3	124	60	41	0	7	3	0	0
KY BOWLING GREEN	28	12	44	-4	20	-17	1.3	.2	1.1	7.6	181	53.6	107	96	77	0	7	3	1	1
LEXINGTON	27	12	43	-10	20	-15	.6	-.3	.4	4.7	134	39.9	86	87	62	0	7	3	0	0
LOUISVILLE	26	9	44	-8	17	-18	.8	0	.7	5.1	155	47.1	105	77	54	0	7	2	1	1
LA ALEXANDRIA	41	30	55	16	35	-16	.9	-.2	.9	5.0	114	52.2	97	69	51	0	5	1	1	1
BATON ROUGE	48	33	70	13	40	-12	.1	-1.0	.1	7.5	170	76.4	137	87	63	0	2	1	0	0
LAKE CHARLES	46	33	68	17	40	-13	.4	-.8	.4	3.7	82	56.9	101	82	64	0	3	1	0	0
NEW ORLEANS	53	39	71	17	46	-8	.2	-1.0	.1	3.5	73	79.0	133	81	60	0	2	4	0	0

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

Weather Data for the Week Ending Dec. 24, 1983

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 27	PCT. NORMAL SINCE NOV 27	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
ME SHREVEPORT	31	21	43	8	26	-22	1.1	.3	1.1	7.7	226	49.7	113	87	69	0	6	2	1	
ME CARIBOU	11	-3	24	-15	4	-9	.6	.1	.4	5.0	167	45.5	124	86	57	0	7	4	0	
ME PORTLAND	28	9	39	1	18	-5	1.4	.4	1.4	8.2	195	65.2	152	85	35	0	7	2	1	
MD BALTIMORE	35	20	49	3	27	-8	1.3	.6	1.2	7.0	233	50.3	121	78	36	0	7	2	1	
MD SALISBURY	43	26	63	8	35	-3	1.1	.3	1.1	4.1	124	51.1	111	82	43	0	6	2	1	
MA BOSTON	31	16	46	8	23	-9	.8	.2	.8	5.4	129	53.2	123	67	31	0	7	3	1	
MA CHATHAM	36	22	49	12	29	-5	1.0	.1	.6	4.9	109	55.2	119	83	49	0	7	4	1	
MI ALPENA	16	0	26	-10	8	-14	.2	.2	.2	1.7	100	34.2	117	89	56	0	7	4	1	
MI DETROIT	19	1	36	-9	10	-16	.8	.2	.6	4.3	187	37.5	119	78	46	0	7	4	1	
MI FLINT	18	0	33	-5	9	-16	.4	0	.4	2.1	111	32.2	107	81	49	0	7	3	0	
MI GRAND RAPIDS	17	-2	28	-18	7	-18	.6	.1	.3	3.3	138	36.4	105	81	51	0	7	5	0	
MI HOUGHTON LAKE	14	-4	22	-14	5	-16	.4	0	.2	2.0	111	30.6	109	81	57	0	7	4	0	
MI LANSING	16	-2	29	-10	7	-18	.3	.2	.3	2.1	100	33.6	110	87	61	0	7	3	0	
MI MARQUETTE	9	-16	19	-28	-4	-20	.5	.1	.2	4.8	200	46.7	126	98	68	0	7	3	0	
MI MUSKOGON	16	2	27	-8	9	-18	.9	.4	.4	4.6	192	34.0	106	87	61	0	7	6	0	
MI SAULT STE. MARIE	10	-9	23	-20	1	-17	.6	.1	.2	3.2	133	33.7	100	91	52	0	7	5	0	
MN ALEXANDRIA	-13	-27	-3	-32	-20	-32	-1	0	.1	1.5	214	22.6	90	78	56	0	7	2	0	
MN DULUTH	-6	-24	14	-34	-15	-26	.2	.1	.2	3.0	231	32.0	106	85	62	0	7	2	0	
MN INT'L FALLS	-10	-28	5	-40	-19	-25	.1	.1	.1	1.0	111	25.0	99	75	56	0	7	2	0	
MN MINNEAPOLIS	-7	-23	11	-29	-15	-32	.3	.1	.2	2.6	325	38.8	148	78	49	0	7	2	0	
MN ROCHESTER	-8	-26	13	-33	-17	-34	.1	.1	.1	2.0	222	35.0	121	78	59	0	7	2	0	
MS GREENWOOD	37	25	56	9	31	-15	2.0	.7	1.8	15.1	302	69.5	132	78	48	0	5	2	1	
MS JACKSON	41	27	61	10	34	-14	.5	.8	.5	5.6	117	71.3	136	84	60	0	5	2	1	
MS MERIDIAN	47	30	63	10	39	-9	1.1	.2	1.0	5.7	114	68.6	131	81	57	0	3	2	1	
MO CAPE GIRARDEAU	18	6	32	-6	12	-	.7	.2	.7	4.4	122	44.8	100	91	67	0	7	1	1	
MO COLUMBIA	6	-10	18	-16	-2	-33	.3	.1	.2	3.5	184	46.1	128	72	49	0	7	4	0	
MO KANSAS CITY	0	-15	9	-21	-8	-38	.5	.3	.2	2.1	175	32.5	90	81	54	0	7	4	0	
MO SAINT LOUIS	10	-3	22	-12	3	-30	.5	0	.4	5.5	275	44.6	132	85	59	0	7	3	0	
MO SPRINGFIELD	11	-2	27	-10	5	-30	.6	0	.3	2.6	108	45.1	113	75	49	0	7	3	0	
MT BILLINGS	-8	-20	-4	-32	-14	-40	.2	0	.1	.9	150	12.9	87	73	50	0	7	3	0	
MT GLASGOW	-14	-27	-8	-37	-21	-36	.1	0	T	.4	100	7.6	65	66	50	0	7	3	0	
MT GREAT FALLS	-13	-26	-5	-42	-20	-44	.2	.1	.1	.8	100	15.9	104	74	53	0	7	5	0	
MT HAVRE	-17	-32	-12	-50	-25	-42	.1	.1	T	.2	40	12.0	103	69	55	0	7	1	0	
MT HELENA	-9	-24	7	-37	-17	-39	.1	0	.1	.7	140	13.9	125	68	52	0	7	2	0	
MT KALISPELL	-1	-20	9	-30	-11	-34	T	.3	T	1.0	71	17.5	107	70	42	0	7	1	0	
MT MILES CITY	-13	-24	-1	-37	-18	-38	.1	.1	.1	.3	50	8.0	56	77	38	0	7	1	0	
MT MISSOULA	-1	-14	14	-30	-7	-32	.2	.1	.1	1.3	144	16.1	179	66	44	0	7	2	0	
NE GRAND ISLAND	-6	-17	-1	-23	-12	-37	.3	.1	.2	2.1	263	28.7	120	60	48	0	7	3	0	
NE LINCOLN	-5	-17	-2	-27	-11	-36	.2	0	.2	1.8	257	29.1	108	66	49	0	7	3	0	
NE NORFOLK	-5	-19	0	-22	-12	-34	.3	.1	.3	2.1	350	28.4	116	59	46	0	7	1	0	
NE NORTH PLATTE	-5	-20	0	-34	-13	-37	.3	.2	.2	1.2	300	18.9	97	66	46	0	7	2	0	
NE OMAHA	-5	-19	0	-24	-12	-36	.3	.1	.2	2.9	363	32.1	105	81	69	0	7	3	0	
NE SCOTTSBLUFF	-4	-21	3	-27	-12	-39	.2	.1	.1	1.0	200	15.3	105	67	47	0	7	2	0	
NE VALENTINE	-6	-26	0	-37	-16	-38	.3	.2	.3	.6	150	28.2	152	58	44	0	7	2	0	
NV ELY	34	11	44	-3	23	-2	.3	.1	.3	.9	129	14.1	162	91	55	0	7	4	0	
NV LAS VEGAS	56	37	60	32	47	2	.1	.1	.1	.1	33	4.7	107	67	39	0	1	1	0	
NV RENO	41	26	54	21	34	2	.1	.2	.1	1.1	110	11.9	172	74	44	0	6	2	0	
NV WINNEMUCCA	29	16	48	-1	22	-7	.5	.3	.2	2.5	313	13.4	168	81	54	0	6	5	0	
NH CONCORD	27	3	38	-7	15	-7	1.1	.4	1.1	5.3	166	47.3	129	90	42	0	7	1	1	
NJ ATLANTIC CITY	38	17	57	-1	27	-7	2.2	1.4	2.2	4.9	144	48.0	112	88	48	0	6	2	1	
NM ALBUQUERQUE	49	27	58	17	38	3	0	.1	0	.3	75	7.6	90	73	36	0	5	0	0	
NM CLOVIS	20	8	35	3	14	-25	T	.1	T	.3	75	11.1	62	71	54	0	7	1	0	
NM ROSWELL	29	13	53	7	21	-21	T	0	T	0	0	9.5	95	90	70	0	7	1	0	
NY ALBANY	26	7	43	-3	16	-8	.6	.1	.5	5.3	189	45.8	130	89	48	0	7	4	0	
NY BINGHAMTON	22	7	39	-4	14	-10	.3	.3	.3	6.1	226	42.4	116	83	45	0	7	3	0	
NY BUFFALO	19	2	40	-8	11	-16	2.2	1.4	1.0	8.2	256	38.2	101	97	70	0	7	5	2	
NY NEW YORK	35	19	53	4	27	-8	1.6	.8	1.6	6.1	179	59.9	141	74	43	0	7	3	1	
NY ROCHESTER	23	9	44	2	16	-12	1.0	.4	.5	5.0	200	34.8	109	82	57	0	7	1	1	
NY SYRACUSE	21	2	35	-11	11	-15	.8	.1	.4	5.5	183	35.7	91	96	61	0	7	5	0	
NC ASHEVILLE	43	23	51	-5	33	-6	.6	.2	.6	8.1	253	51.3	108	87	46	0	7	1	1	
NC CHARLOTTE	44	27	56	6	36	-6	1.0	.2	.6	7.2	248	41.1	97	85	39	0	6	3	1	
NC GREENSBORO	39	24	49	4	32	-8	.7	.1	.5	3.9	134	45.8	108	78	44	0	7	2	0	
NC HATTERAS	55	41	67	13	48	0	1.3	.3	.7	4.7	115	62.8	113	88	58	0	1	4	1	
NC NEW BERN	53	33	72	9	43	-2	1.0	.2	.9	4.2	131	53.9	101	91	60	0	2	3	1	
NC RALFIGH	43	25	51	6	34	-7	.9	.2	.4	5.4	193	46.0	110	85	46	0	6	3	0	
NC WILMINGTON	54	35	66	11	45	-2	.5	.3	.3	4.8	155	58.5	108	90	60	0	1	4	0	
ND BISMARCK	-12	-30	-8	-40	-21	-34	.1	0	.1	.6	150	13.3	85	82	57	0	7	2	0	
ND FARGO	-12	-24	-6	-31	-18	-28	.1	.1	T	1.3	217	19.9	98	60	45	0	7	2	0	
ND GRAND FORKS	-10	-22	-4	-28	-16	-25	.2	.1	.2	.8	160	21.6	117	61	43	0	7	2	0	
ND WILLISTON	-16	-35	-9	-50	-25	-38	.1	0	.1	.6	150	9.4	68	70	54	0	7	2	0	
OH AKRON-CANTON	24	6	42	-15	15	-14	.7	.1	.3	3.8	158	38.3	105	78	51	0	7	5	0	
OH CINCINNATI	23	7	42	-12	15	-17	.5	.2	.5	3.2	119	41.9	103	85	58	0	7	2	0	
OH CLEVELAND	21	6	40	-10	14	-16	.8	.2	.5	3.3	127	40.1	111	84	57	0	7	4	0	
OH COLUMBUS	23	7	41	-12	15	-15	.5	.1	.3	3.8	158	37.9	100	78	46	0	7	2	0	

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

Weather Data for the Week Ending Dec. 24, 1983

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 27	PCT. NORMAL SINCE NOV 27	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F			
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	20	3	39	-15	12	-19	.4	-.2	.4	3.3	143	37.7	106	80	51	0	7	3	0
TOLEDO	16	1	35	-15	9	-18	.9	-.4	.8	4.7	204	35.2	110	82	56	0	7	4	1
YOUNGSTOWN	23	8	42	-12	16	-12	.5	-.1	.2	4.2	168	38.2	101	80	47	0	7	4	0
OK OKLAHOMA CITY	12	2	21	-3	7	-32	.1	-.2	.1	.5	42	38.7	123	81	60	0	7	3	0
TULSA	13	2	25	-2	7	-31	.2	-.2	.1	.9	50	34.8	89	77	51	0	7	3	0
OR ASTORIA	31	21	42	13	26	-17	.1	-2.6	.1	5.9	57	75.4	115	81	50	0	7	1	0
BURNS	16	1	32	-19	9	-18	.4	-.2	.2	3.0	375	17.7	177	80	75	0	7	5	0
MEDFORD	38	29	48	18	33	-4	.5	-.3	.3	6.3	203	29.5	153	96	68	0	7	5	0
PENDLETON	12	-5	25	-19	3	-32	.4	0	.2	2.7	180	15.0	129	97	74	0	7	4	0
PORTLAND	27	20	38	12	24	-17	.1	-1.4	.1	3.4	59	45.2	125	67	45	0	7	4	0
SALEM	31	20	44	11	26	-14	.3	-1.4	.2	4.9	77	53.3	136	70	49	0	7	3	0
PA ALLENTOWN	29	13	39	0	21	-9	1.4	.6	1.4	7.5	227	51.4	117	81	38	0	7	3	0
ERIE	24	9	40	-3	16	-12	.9	.2	.4	4.3	143	45.0	114	76	55	0	7	5	1
HARRISBURG	29	15	36	-1	22	-10	1.4	.7	1.2	6.6	99	46.3	110	81	41	0	7	4	1
PHILADELPHIA	34	18	54	2	26	-8	1.8	1.0	1.8	6.5	210	53.3	130	79	40	0	7	2	1
PITTSBURGH	25	9	43	-11	17	-13	.9	.4	.7	4.7	214	40.8	111	81	47	0	7	4	1
SCRANTON	27	11	41	-1	19	-10	.8	.2	.7	6.0	240	42.6	120	77	48	0	7	5	1
RI PROVIDENCE	33	15	53	5	24	-7	2.0	1.0	2.0	7.5	179	66.6	149	70	35	0	7	3	1
SC CHARLESTON	54	38	65	17	46	-3	.8	.1	.6	2.9	112	52.8	101	94	59	0	7	2	1
COLUMBIA	46	32	53	10	39	-6	.7	-.1	.5	6.4	213	45.0	94	92	47	0	3	3	0
FLORENCE	47	33	52	11	40	-6	.6	-.2	.2	5.7	211	51.0	118	94	50	0	3	4	0
GREENVILLE	42	29	49	7	35	-7	.8	.1	.5	8.3	244	53.6	107	75	40	0	4	2	1
SD ABERDEEN	-11	-26	-7	-34	-18	-32	.2	.1	.2	.6	150	20.9	118	73	56	0	7	2	0
HURON	-4	-21	-2	-28	-14	-31	.2	.1	.2	1.0	250	18.6	98	63	52	0	7	1	0
RAPID CITY	-4	-22	-1	-27	-13	-38	.2	.1	.1	.5	100	15.5	93	57	43	0	7	3	0
SIoux FALLS	-9	-24	-4	-26	-16	-34	.2	0	.1	1.1	157	26.6	106	83	60	0	7	2	0
TN CHATTANOOGA	40	25	51	1	33	-8	.9	-.3	.5	9.2	200	50.3	96	84	54	0	5	2	1
KNOXVILLE	42	24	53	-3	33	-7	1.0	.1	.7	5.3	126	41.1	87	89	54	0	6	2	1
MEMPHIS	29	18	44	3	24	-19	2.5	1.4	2.4	8.4	191	56.8	110	81	62	0	7	2	1
NASHVILLE	32	16	49	-4	24	-16	.6	.4	.4	8.5	207	50.6	104	96	72	0	7	4	0
TX ABILENE	22	9	33	2	16	-30	.1	0	.1	.6	86	19.3	80	85	69	0	7	3	0
AMARILLO	9	-1	22	-7	4	-33	.1	-.1	.1	.6	120	15.2	76	84	64	0	7	2	0
AUSTIN	32	19	41	12	25	-26	.1	-.5	.1	.9	45	34.5	104	80	56	0	7	1	0
BEAUMONT	45	34	68	19	40	-14	2.7	1.7	2.7	7.8	186	78.0	146	87	66	0	3	1	1
BROWNSVILLE	47	35	66	24	41	-21	.2	-.1	.2	.5	42	28.3	107	98	74	0	2	2	0
CORPUS CHRISTI	41	30	51	20	35	-23	.2	-.2	.2	.6	46	37.0	117	90	59	0	4	1	0
DEL RIO	38	24	45	15	31	-21	.1	.1	.1	0	0	14.0	77	75	51	0	7	2	0
EL PASO	62	33	70	16	47	4	0	0	0	0	0	7.9	95	61	26	0	3	0	0
FORT WORTH	23	12	36	5	18	-29	.1	.3	.1	1.1	73	31.3	103	87	65	0	7	1	0
GALVESTON	47	32	72	17	39	-17	.6	-.2	.6	3.2	94	53.4	129	85	67	0	3	2	1
HOUSTON	40	26	53	14	33	-20	.2	-.6	.2	4.8	141	53.2	115	81	56	0	5	1	0
LUBBOCK	16	5	26	0	11	-30	.1	0	.1	.2	67	20.3	109	95	73	0	7	4	0
MIDLAND	27	12	39	6	20	-26	.1	-.1	.1	.1	25	10.0	71	84	66	0	7	0	0
SAN ANGELO	27	11	40	5	19	-28	.1	-.1	.1	0	0	15.2	80	89	68	0	7	2	0
SAN ANTONIO	36	22	42	15	29	-23	.1	-.3	.1	.6	43	26.3	88	82	52	1	7	0	0
VICTORIA	40	25	50	17	33	-23	.1	-.5	.1	.9	45	42.6	112	95	63	0	6	0	0
WACO	29	17	38	10	23	-26	.1	-.4	.1	.9	47	24.2	75	83	59	0	7	0	0
WICHITA FALLS	20	7	33	1	14	-29	.1	-.3	.1	.8	67	25.2	91	83	62	0	7	2	0
UT BLANDING	37	21	46	8	29	1	.1	-.2	.1	.6	55	15.6	138	94	70	0	7	2	0
CEDAR CITY	39	22	48	6	31	1	.1	0	.1	.2	40	14.0	137	80	51	0	6	2	0
SALT LAKE CITY	28	17	44	7	22	-7	.7	.3	.4	3.0	231	23.1	154	84	64	0	7	6	0
VT BURLINGTON	23	4	37	-10	13	-7	.6	-.1	.4	5.1	213	49.7	146	79	48	0	7	4	0
VA NORFOLK	46	31	63	10	39	-4	1.0	.3	.6	5.7	204	49.2	108	84	49	0	4	4	1
RICHMOND	38	24	52	6	31	-7	.9	.1	.7	3.8	123	42.8	98	83	47	0	6	2	1
ROANOKE	38	21	48	0	30	-8	1.4	.7	.8	5.4	200	47.5	120	78	38	0	7	2	2
WA COLVILLE	11	-9	19	-18	1	-26	.1	-.5	.1	1.4	61	27.4	157	77	55	0	7	1	0
QUILLAYUTE	30	20	41	11	25	-16	.1	-.3	.1	5.3	36	117.5	117	80	45	0	7	1	0
SEATTLE-TACOMA	29	19	37	9	24	-17	.3	-1.1	.3	4.1	73	40.2	108	61	29	0	7	2	0
SPOKANE	8	-10	15	-18	-1	-29	.1	-.5	.1	1.8	78	22.1	132	89	57	0	7	1	0
YAKIMA	19	3	27	-13	11	-19	.2	-.1	.1	1.4	117	12.4	168	76	41	0	7	2	0
WV BECKLEY	32	13	46	-11	22	-10	.2	-.6	.1	1.9	66	34.4	82	93	56	0	7	5	0
CHARLESTON	33	16	47	-7	24	-11	.7	0	.4	2.8	100	42.0	99	86	51	0	7	5	0
HUNTINGTON	30	15	45	-8	23	-13	.7	0	.5	3.2	114	36.6	90	70	49	0	7	5	1
PARKERSBURG	31	14	46	-7	22	-11	1.2	.5	.8	4.1	164	46.1	112	97	63	0	7	3	1
WI GREEN BAY	5	-14	25	-27	-4	-23	.1	-.2	.1	2.1	150	30.3	107	78	46	0	7	2	0
LA CROSSE	-5	-23	18	-30	-14	-33	.1	-.2	.1	1.2	120	29.0	93	79	52	0	7	1	0
MADISON	2	-14	20	-25	-6	-26	.2	-.2	.2	3.1	194	31.3	90	82	57	0	7	1	0
MILWAUKEE	6	-9	22	-20	-1	-25	.3	-.1	.3	3.9	205	37.3	121	96	56	0	7	3	0
WAUSAU	2	-19	21	-26	-8	-25	.2	-.1	.2	1.5	115	31.0	94	69	28	0	7	1	0
WY CASPER	-4	-29	7	-39	-17	-41	.2	.1	.1	.5	100	17.9	156	76	52	0	7	3	0
CHEYENNE	-1	-20	17	-28	-10	-39	.2	.1	.1	1.7	240	20.7	154	89	61	0	7	5	0
LANDER	-9	-23	1	-37	-16	-39	.1	-.1	.1	.6	100	15.5	117	74	54	0	7	1	0
SHERIDAN	-7	-25	4	-37	-16	-39	.1	-.1	.1	.4	67	9.6	67	76	44	0	7	1	0
PR SAN JUAN	85	74	90	71	80	2	.7	-.2	.2	2.6	62	40.7	73	90	65	1	0	5	0

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

National Weather Summary (continued from front cover)

SATURDAY...Freezing temperatures pushed into the Rio Grande Valley and adjacent areas of Mexico and covered the Southeast, except the coast and Florida. The cold, arctic air was pushing into the

Northwest as well as spreading southward and eastward. Moderate to heavy rain fell in much of California and southern Oregon. Light snow covered the Plateau and central Rockies and from the Ohio River into New England. Freezing temperatures reached into northern Florida as the day ended.

HEATING DEGREE DAY DATA WEEKLY SUMMARY  
 CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA  
 ASSESSMENT AND INFORMATION SERVICES CENTER-NESDIS-NOAA  
 LAST DATE OF DATA COLLECTION PERIOD IS 12-24-1983  
 ACCUMULATIONS ARE FROM JULY 1  
 \*\* = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

STATE CITY	CALL	WEEK	WEEK	WEEK	CUM	CUM	CUM	CUM	CUM	STATE CITY	CALL	WEEK	WEEK	WEEK	CUM	CUM	CUM	CUM	CUM
		TOTAL	DEV	DEV	TOTAL	DEV	DEV	DEV	DEV			TOTAL	DEV	DEV	TOTAL	DEV	DEV	DEV	DEV
			FROM	FROM		FROM	FROM	FROM	FROM				FROM	FROM		FROM	FROM	FROM	FROM
			NORM	L YR		NORM	L YR	NORM	NORM				NORM	L YR		NORM	L YR	NORM	NORM
									PRCT										PRCT
AL BIRMINGHAM	BHM	205	63	102	993	9	153	1	18	MT MILES CITY	MLS	578	263	312	3150	372	248	13	9
AL MOBILE	MOB	139	44	73	610	58	119	11	24	MT MISSOULA	MSO	503	216	259	3318	334	323	1	11
AL MONTGOMERY	MGM	164	45	86	685	-83	181	-11	36	NE GRAND ISLAND	GRI	532	253	340	2584	357	367	16	17
AK ANCHORAGE	ANC	337	-27	-14	4259	-189	-402	-4	-9	NE LINCOLN	LNK	528	248	337	2515	380	457	18	22
AK BARROW	BRW	345	-210	-212	8195	102	-351	1	-4	NE NORFOLK	OFK	531	230	340	2746	342	497	14	22
AK FAIRBANKS	FAI	422	-116	-85	5649	-219	56	-4	1	NE NORTH PLATTE	LBF	539	256	331	2740	289	349	12	15
AK JUNEAU	JNU	377	103	99	3823	154	333	4	10	NE OMAHA	ON4	533	255	342	2617	559	510	27	24
AK KODIAK	ADQ	173	-79	-15	2955	-668	-380	-18	-11	NE VALENTINE	VTN	562	265	362	2981	427	397	17	15
AK NOME	OME	237	-197	-147	4907	-751	-128	-13	-3	NV ELY	ELY	296	16	59	2608	-170	-289	-6	-10
AZ FLAGSTAFF	FLG	208	-44	-22	2391	-195	-361	-8	-13	NV LAS VEGAS	LAS	128	-17	4	697	-173	-259	-20	-27
AZ PHOENIX	PHX	47	-41	-11	336	-39	-45	-7	-8	NJ RENO	RNO	219	-14	9	1766	-469	-655	-21	-27
AZ TUCSON	TUS	64	-32	-4	499	-113	-21	-25	7	NJ WINNEBOCCA	WNC	276	17	97	2176	-204	-396	-9	-15
AZ TULSA	TUL	178	-58	25	1454	-254	-86	-36	-30	NH CONCORD	CON	372	59	64	2420	-130	-99	-5	4
AR FORT SMITH	FSM	345	170	255	1314	150	220	13	20	NH ATLANTIC CITY	ACY	263	49	66	1597	8	81	5	5
AR LITTLE ROCK	LMI	333	173	260	1264	203	287	19	29	NM ALBUQUERQUE	ABQ	189	-23	11	1433	-145	-156	-2	-14
CA BAKERSFIELD	BFL	125	0	7	588	-125	-222	-18	-27	NM ROSWELL	ROW	302	141	178	1131	-28	-154	-2	-12
CA EUREKA	EKA	142	23	27	1243	-661	-214	-35	-15	NY ALBANY	ALB	338	55	90	2323	32	181	1	6
CA FRESNO	FAT	113	-32	-9	635	-273	-276	-30	-30	NY BINGHAMTON	BGM	354	70	98	2247	-177	-125	-7	6
CA LOS ANGELES	LAX	67	7	10	327	-116	31	-26	10	NY BUFFALO	BUF	379	114	162	2242	59	316	3	16
CA RED BLUFF	RBL	165	30	35	860	-12	-75	-1	-8	NY NEW YORK	LGA	264	51	65	1456	-33	90	-2	7
CA SAN DIEGO	SAN	34	-22	-2	173	-163	-63	-49	-27	NY ROCHESTER	ROC	342	78	122	2139	-17	241	-1	13
CA SAN FRANCISCO	SFO	100	-15	3	655	-451	-396	-41	-38	NY SYRACUSE	SYR	374	104	118	2369	187	289	9	14
CA STOCKTON	SCK	135	-8	13	727	-158	-242	-18	-25	NC ASHEVILLE	AVL	224	37	49	1426	-79	23	-5	2
CO DENVER	DEN	484	252	307	2419	317	228	15	10	NC CAPE HATTERAS	HAT	119	-4	-20	654	-79	86	-11	15
CO GRAND JUNCTION	GJT	267	-1	63	1689	-325	-167	-16	-9	NC CHARLOTTE	CLT	203	38	30	1144	13	99	1	9
CO PUEBLO	PUB	440	208	273	2064	128	122	7	6	NC GREENSBORO	GSO	234	53	37	1383	75	97	6	8
CT BRIDGEPORT	BDP	286	59	65	1648	11	34	1	2	NC RALEIGH DURHAM	RDU	216	48	35	1180	-4	114	0	11
CT HARTFORD	HFD	316	52	66	1977	-46	127	-2	7	NC WILMINGTON	ILM	140	15	-2	710	-69	4	-9	1
DE WILMINGTON	ILG	287	70	101	1606	17	33	1	11	ND BISMARCK	BIS	576	235	322	3544	381	346	12	11
DC WASHINGTON	DCA	244	52	66	1241	-67	122	-5	11	ND FARGO	FAR	576	194	297	3539	342	400	11	8
FL APALACHICOLA	AGG	86	6	6	414	2	125	0	43	ND WILLISTON	ISN	628	264	309	3374	308	251	9	8
FL DAYTONA BEACH	DAB	34	-15	-49	244	8	74	3	44	OH AKRON-CANTON	CAK	347	92	150	1931	-111	-102	-5	14
FL FORT MEYER	FMY	4	-22	-36	32	-72	-41	-69	-56	OH CLEVELAND	CLE	357	108	169	2046	58	352	3	21
FL JACKSONVILLE	JAX	99	18	-3	423	-14	76	-3	22	OH COLUMBUS	CMH	344	103	153	1927	33	293	2	18
FL KEY WEST	EYW	0	-7	-10	0	-16	-10	**	**	OH CINCINNATI	CVG	346	118	176	1851	104	504	6	37
FL MIAMI	MIA	3	-8	-15	7	-25	-18	**	**	OH DAYTON	DAY	371	129	183	2045	172	361	9	21
FL ORLANDO	MCO	21	-19	-39	132	-32	6	-20	5	OH TOLEDO	TOL	393	123	191	2243	60	284	3	14
FL TALLAHASSEE	TLH	95	1	8	531	-1	185	0	53	OH YOUNGSTOWN	YNG	344	83	152	2120	-46	378	-2	22
FL TAMPA	TPA	25	-17	-30	139	-51	13	-27	10	OK OKLAHOMA CITY	OKC	406	222	315	1454	225	351	18	32
FL WEST PALM BEACH	PBI	6	-8	-31	24	-26	-23	**	**	OK TULSA	TUL	401	215	329	1334	112	290	9	28
GA ATLANTA	ATL	210	59	83	1050	39	158	4	18	OR ASTORIA	AST	272	116	119	2001	57	289	3	17
GA AUGUSTA	AGS	175	42	32	814	-51	102	-6	14	OR BURNS	4BW	378	109	132	2907	322	-97	12	-3
GA MACON	MCN	159	40	48	703	-61	129	-8	22	OR MEDFORD	MFR	220	24	36	1631	-112	-56	-6	-3
GA SAVANNAH	SAV	139	30	30	561	-69	113	-11	25	OR PORTLAND	PDX	428	221	247	2129	188	34	10	2
HI HILO-HAWAII	HIL	0	0	0	0	0	0	**	**	OR PORTLAND	PDX	298	115	137	1562	-120	39	-7	3
HI HONOLULU-OAHU	HNL	0	0	0	0	0	0	**	**	OR SALEM	SLE	272	99	115	1605	-193	-102	-11	-6
HI KAHULUI-HAUI	OGG	0	0	0	0	0	0	**	**	PA ALLENTOWN	ABE	309	63	84	1867	-50	178	-3	11
HI HIUE-KAUAI	LII	0	0	0	0	0	0	**	**	PA ERIE	ERI	340	84	152	1893	-248	147	-12	8
ID BOISE	BOI	401	163	207	2153	52	-13	2	-1	PA HARRISBURG	CXY	305	73	102	1887	135	358	8	23
ID LEWISTON	LWS	409	194	224	2102	87	107	4	5	PA PHILADELPHIA	PHL	270	53	75	1570	0	155	0	11
ID POCAHELLO	PIH	459	183	238	2605	41	-77	2	-3	PA PITTSBURGH	PIT	336	90	133	2017	23	290	1	17
IL CHICAGO	ORD	460	187	272	2369	293	340	14	17	PA SCRANTON	AVP	322	64	79	2028	-87	128	-4	7
IL MOLINE	MLI	482	198	304	2309	182	388	9	20	RI PROVIDENCE	PVD	286	45	48	1671	-208	4	-11	0
IL PEORIA	PIA	471	198	311	2117	64	347	3	20	SC CHARLESTON	CHS	132	20	20	555	-132	58	-19	12
IL ROCKFORD	RFD	484	190	282	2510	204	387	9	18	SC COLUMBIA	CAE	179	44	22	916	27	59	3	7
IL SPRINGFIELD	SPI	464	212	312	2008	169	328	9	20	SC GREENVILLE	GSP	206	48	41	1237	138	221	13	22
IN EVANSVILLE	EVV	354	139	223	1592	13	349	1	28	SD ABERDEEN	ABR	576	222	325	3297	358	478	12	17
IN FORT WAYNE	FWA	395	132	211	1953	-123	205	-6	12	SD HURON	HON	546	210	308	3072	301	520	11	20
IN INDIANAPOLIS	IND	407	162	230	1914	44	266	2	16	SD RAPID CITY	RAP	539	258	333	2950	415	356	16	14
IN SOUTH BEND	SNB	420	157	247	2124	54	327	3	18	SD SIOUX FALLS	SFD	564	233	344	3042	349	389	13	15
IA DES MOINES	DSM	516	229	330	2509	368	517	17	26	TN CHATTANOOGA	CHA	224	52	82	1240	5	141	0	13
IA DUBUQUE	DBQ	210	312	262	2669	266	383	8	17	TN KNOXVILLE	TVS	221	47	48	1312	52	142	4	4
IA SIOUX CITY	SUX	533	227	325	2712	38	411	16	18	TN MEMPHIS	MEM	290	131	216	1100	35	239	3	23
KS CONCORDIA	CNK	495	246	321	2386	531	461	29	24	TN NASHVILLE	BNA	286	109	149	1239	-27	168	-2	16
KS DODGE CITY	DDC	468	242	309	1958	257	387	15											

December 19 to 25

**HIGHLIGHTS:** Freezing temperatures, causing ice and snow, covered most of the Nation and brought record lows in many areas on the 25th. Some winterkill of winter wheat was reported especially in areas where snow cover was light. Final harvest of soybeans and cotton in the Southeast was hampered by the frigid weather. The freezing of fields aided soybeans and corn harvesting in some Corn Belt areas until snow cover became too deep. Cotton harvesting in the southern Plains and Southwest was delayed by cold, wet weather. Ninety-eight percent of the cotton acreage in the 14 major producing States had been harvested ahead of last year's 93% and the average of 94%. Citrus crops in Florida and Texas were extensively damaged by freezing temperatures on the 25th and 26th. Vegetable crops were severely damaged in Texas on the 24th, 25th and 26th and in Florida on the 25th and 26th. The extent of the damage is still being assessed. Livestock stress continued, with some losses reported. Supplemental feeding and water hauling were active in most areas. Calving and lambing continued with cold weather causing some problems.

**SMALL GRAINS:** Snow cover was adequate to protect wheat against winterkill in most areas. However, there is some concern about areas where the snowfall was light. Seeding continued to be delayed in the South because of wet, cold weather. A few areas reported winter wheat stress; some burning of foliage was reported in the Texas Plains. Cold weather halted top growth in all producing areas. Stands were rated mostly fair to good.

**COTTON:** In the 14 major producing States, 98% of the cotton acreage had been picked, ahead of last year's 93% and the average of 94%. Harvesting in the Delta region is virtually complete, with a few fields remaining to be harvested in Arkansas. Cotton harvesting was virtually complete in Arizona and California with stalk shredding and land preparation active. Harvesting in Texas was halted by cold, wet weather. This caused gins to shut down temporarily. In Georgia, harvesting continued as weather and soil conditions permitted.

**OTHER CROPS:** Freezing temperatures aided the harvested of soybeans and corn in some areas of the Corn Belt, but, in many areas, deep snow stopped harvesting by week's end. In some areas of the Southeast soybean harvesting was halted by sleet and freezing rain.

Stripping and marketing of tobacco was active with seedbed preparation underway as weather permitted. In Florida, sugarcane harvesting is in full swing. Freezing temperatures damaged both young and old cane, yield and sucrose content could be affected.

**FRUITS AND NUTS:** Freezing temperatures in Florida and Texas caused severe damage to citrus crops. In Florida hard freezes on December 25th and 26th brought citrus leaf curl and wilt from freeze dehydration. Slush ice to hard ice, depending upon location, was found in fruit in most areas. The lower east coast and south-central areas experienced some slush ice in fruit. Considerable firing and irrigation were used for cold protection. Temperature lows in Northern producing areas on the 25th and 26th ranged from 16-21 degrees with readings below 28 degrees for 12 hours. Central area lows ranged from 19-25 degrees with readings below 28 degrees for 8-12 hours. Lower east coast areas had readings below 32 degrees ranging down to 24 degrees on the 26th.

Freezing temperatures in the Rio Grande Valley caused severe damage to the crops. Reports indicate that of the remaining fresh-market crops virtually all will go to processing. It is too early to evaluate tree damage, but some damage is expected. Cool weather is needed to help preserve damaged fruit so as much as possible can be salvaged. Citrus harvesting continued in Arizona's Central Valley, with trees in good condition and fruit sizing and maturing normally.

**VEGETABLES:** In Florida and Texas the cold weather caused extensive damage to crops. Damage was reported as heavy in central and southwest Florida, light to moderate in the southeast section, and generally light in Dade County. Squash, cucumber, and other tender crop losses were heavy. Light to moderate losses of celery, lettuce, tomatoes, peppers, and other more hardy vegetables were reported. Extensive damage to cabbage occurred in colder areas of north Florida. Supplies of vegetables will be reduced by the cold damage. In Texas, growers were busy evaluating freeze damage. Early reports indicate tomatoes were virtually wiped out. Broccoli was severely damaged and carrots were frozen, but carrots are expected to recover fairly well. Onions and lettuce were damaged extensively, most acreage was not killed but quality and yield will be reduced. Cabbage and most remaining vegetables were severely damaged in the San Antonio-Winter Garden area. Spinach, lettuce, and cabbage were harvested. Quality and yield of cool season vegetables are good. Trans-Pecos fall vegetable harvesting is virtually complete. The lettuce harvest was nearly complete in Arizona's Salt River Valley.

**PASTURES AND RANGES:** Pasture growth continued to be hampered by freezing, wet weather in the South. Reports of stressed livestock were more frequent in northern areas. Supplemental feeding was active in most regions. The frigid temperatures caused watering facilities to freeze which increased the hauling of water to livestock. Lambing and calving continued active with few reports of losses.

## CROP PROGRESS

FOR WEEK ENDING DEC 25

	COTTON		
	% HARVESTED		
	1983	1982	AVG.
ALA	99	99	96
ARIZ	100	85	92
ARK	99	99	99
CALIF	98	98	99
GA	98	100	100
LA	100	97	99
MISS	100	100	100
MO	100	100	100
N MEX	90	93	94
N C	100	100	100
OKLA	95	75	95
S C	100	100	100
TENN	100	100	100
TEX	96	90	88
14 STATES	98	93	94

THESE 14 STATES PRODUCED 99%  
OF THE 1982 COTTON CROP.

## 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 Statistical Offices in cooperation with the National Weather Service.

**ALABAMA:** Record low temperatures Christmas weekend. Scattered light showers 20th and 21st. Soil moisture adequate to surplus. Cotton harvested 99%, 1983 99%, average 96%.

**ARIZONA:** Partly cloudy skies, mild temperatures dominated weather pattern. Scattered light showers occurred higher elevations 20th and 21st. General rain with snow level above 7,000 ft. occurred 24th and 25th. Amounts ranged from traces to 0.25 in. Average temperatures varied 2° to 13° above seasonal normals.

Wheat, barley seeding good progress. More than half acreage seeded. Some stands established, plants in good condition. Growers intend to seed 22% more wheat, 38% more barley for 1984 crop. Cotton 100% acreage picked over once, 85% year ago, average 92%. Harvest neared completion, much of acreage final picked. Stalk shredding, land preparation active. Lettuce, cauliflower, broccoli packing active Yuma. Volumes near seasonal peak, quality mostly good. Small volume of lettuce, broccoli packed in Parker-Poston areas where harvest winding down. Lettuce harvest nearly complete in Marana, Salt River Valley. Broccoli, cauliflower, mixed vegetables harvested in volume Salt River Valley. Vegetable plants in good condition. Citrus picking continued seasonally high levels Central Valley with Navel oranges, tangerines, lemons, grapefruit moving in volume. Lemons, grapefruit, Navel orange harvest active Yuma, volumes normal. Citrus groves, maturing fruit, good condition.

**ARKANSAS:** Bitterly cold throughout State. Precipitation in form of rain, freezing rain, sleet, and snow. Low temperatures and gusty winds produced severe wind chill effect on livestock and people. Most rainfall 1.97 in., least 0.01 in. Temperatures averaged 33° to 25° below normal. Highest temperatures 34°, lowest -9°.

Cotton virtually all harvested. Wheat snow covered and in good condition. Most livestock on supplemental feeding as pastures are snow covered.

**CALIFORNIA:** Weekly mean temperatures narrowly mixed about the seasonal norms. Southeast interior as much as 6° above normal, while the Cascade-Sierra almost 10° below normal. Extreme north-east interior had minimum temperatures below freezing. Precipitation spotty and mostly over the northern half of the State. North coast and the Sierra Nevada reported greatest amounts, close to 2.00 in.

Wet fields and poor weather hampering field activity in many areas of State. Cotton harvest virtually complete 98%, 98% last year and 99% average. Harvested fields are being shredded, disced, and bedded for spring planting. Planting of winter wheat, barley, and oats active in lower half of State. Some water stress problems in Sacramento Valley. Sugarbeets progressing favorably. Normal central valley cultural activities--pruning, dormant sprays, discing of weeds, brush shredding. Lull in navel harvest after holiday rush. Field activity seasonally light. Asparagus fern being cut as weather allows. Broccoli harvest slowed Central Coast, continued light other areas. Carrot harvest moderate. Cauliflower harvest light Central Coast, continued fairly light other areas. Celery harvest increasing South Coast, almost finish Central Coast. Lettuce harvest active Imperial Valley, slowing Palo Verde

Valley. Potato movement seasonally light. Market tomato harvest light South Coast. Ranges need sunny days enhance grass growth. Supplemental feeding active many areas. Sheep continue grazing alfalfa fields. Bee colonies being moved into State preparation almond pollination.

**COLORADO:** Much colder than normal Statewide. Average temperatures about 30° below normal east and 5 to 10° below remainder of the State. Precipitation much above normal Statewide.

**FLORIDA:** From the 19th-24th temperatures were near normal, north with above normal readings central; springlike temperatures, south. On the night of the 24th, and 25th, bitter cold air moved into the State. Temperatures in teens, north, 20's central, and 30's south. Afternoon of 25th, highs failed to reach freezing north; 30's central; 40's south. Rainfall averaged 0.25 to 0.75 in. with a few scattered showers during the week.

Soil moisture mostly adequate Statewide. A surplus exists some central areas, upper east coast. Sugarcane harvest full swing. Freezing temperatures have caused undetermined damage to both young and old cane. Yield and sucrose content could be affected. Soybean harvest practically complete. Winter wheat mostly planted. Little fieldwork during week due to wet soils and holiday. Permanent pasture grazing non-existent. Winter pasture grazing reduced. Supplemental feeding active. Cattle mainly fair condition. Hard freeze 25th and 26th brought citrus leaf curl and wilt from freeze dehydration. Slush ice to hard ice depending on location found in fruit in most areas. Lower east coast, south central citrus belt experienced some slush ice in fruit. Considerable firing and use of irrigation for cold protection. Temperature lows, northern producing areas on 25th and 26th ranged from 16 to 21° with readings below 28° for 12 hours. Central area lows ranged from mostly 19 to 25° with readings below 28° from 8-12 hours. Lower east coast area had readings below 32° ranging down to 24° on the 26th. A massive cold front moved through vegetable area Christmas weekend causing extensive damage to crops. Crop loss heavy central and south-west, light to moderate southeast, generally light Dade County. Squash, cucumber, other tender crop loss heavy. Light to moderate loss celery, lettuce, tomatoes, peppers and other more hardy vegetables. Extensive damage occurred cabbage colder areas of State. Supplies will be reduced by cold damage. Shipments gained 8% over previous week. Crops gaining were cabbage, cauliflower, celery, parsley, strawberries, tomatoes. Crops remain steady were snap beans, escarole, lettuce, peppers, squash. Crops declining in volume were sweet corn, cucumbers, radishes. Current crop strawberries heavy loss. Second crop expected in six weeks. More complete damage appraisal later.

**GEORGIA:** Precipitation mostly south early in week and Statewide late in week. Rainfall amounts 0.75 to 1.25 in. higher southeast; greatest total 4.40 in. Alga. Temperatures generally normal to about 3° below normal Statewide. Very cold over the 24th and 25th. Temperatures well below normal. Zero or below zero degree temperatures at Atlanta, Clayton and Cornelia on 25th and 26th. Little or no precipitation fell over the weekend.

Soil moisture adequate to surplus southern half of State, adequate to mostly surplus northern half. Main activities farmers harvesting soybeans, cotton, pecans and seeding small grains as soil conditions and weather conditions permit. Cotton, soybean and pecan harvest some progress but weather continues to cause progress to lag last year and average. Tobacco bed preparation continues but record low weekend temperatures will slow. Small grains apparently in good condition following record low temperatures. Chickens, cattle and hogs stressed some from record low temperatures, more feed and care required over weekend.

**HAWAII:** Weather conditions were cool and dry for most of the week. Record low daily temperatures were recorded in some parts of the State. A low-pressure area moved through the Islands on the 25th producing heavy showers, and occasional thundershowers. Some areas reported receiving over 7.00 in. of rain in a 24-hour period. Damage to agricultural crops was light. In fact, most areas welcomed the rain as it will help to alleviate the dry conditions that have persisted most of this year. Crops are in good condition but the cool temperatures have slowed crop development. Supplies of head cabbage, Chinese cabbage, and tomatoes remain heavy. Banana supplies are steady but papaya production is decreasing.

**IDAHO:** Extreme cold and heavy snows considerably slowed farm activities. Activities during the week included onion marketing, cattle marketing, income tax preparation, calving and lambing and hauling feed to livestock. Most operators spent the week trying to keep watering facilities open and equipment running. Feed supplies are adequate at the present time, but concern is being expressed for the long run. Early week precipitations gave way to a strong northwest flow which ushered in cold arctic air across the gem State. Bitter cold temperatures gripped the middle and latter parts of the week with numerous record low temperatures reported across the State. Lows plummeted to the -30 to -50° range with some central and eastern locations finding it tough to break above 0 for daytime highs. Departure for the week ranged from 15 to 30° below normal. Precipitation amounts were running a little shy the past week. Departures were generally under 0.20 in. below normal with spot locations in the north more than 1.00 in. below normal.

**ILLINOIS:** Temperatures 20 to 32° below normal. Precipitation 0.30 to 0.70 in., 1 in. snow south, 2 to 6 in. snow north.

Wheat condition fair to good. Livestock condition mostly fair, some stress from adverse weather.

**INDIANA:** Storm system dumped 6 to 8 in. snow northwest and north central before blast of arctic air brought weekend temperatures to record breaking lows. Blowing and drifting snow closed roads, disrupted holiday travel. Maximum temperatures low 30's to around 40 early in 7 day period. Minimums between 15 and 20 below zero in most north and central areas. Low as 7 below extreme southwest. Precipitation totals mostly between 0.50 to 0.75 in. and close to normal except in heavy snowfall areas of northwest and north central State. Winter weather limited most outside activity.

Freezing of soils permitted some harvesting of few remaining fields of corn and soybeans in the southeast. Major activities: caring for livestock, stripping and marketing tobacco, buying fertilizer and chemicals, moving hay,

planning for 1984, working on taxes, removing snow, and usual chores. Little grain moving at this time.

**IOWA:** Temperatures averaged 31° below normal for one of the coldest weeks of record. At Des Moines, the past week was the coldest since January 1912 extreme cold. Precipitation falling in snow early week averaged near normal. A ground blizzard December 24th closed many highways and produced wind chills -80° to lower than 80°. Snow depth at end of week varied from 5 to 14 in.

**KANSAS:** Temperatures averaged 1° above 0 southeast to 6° below 0 north central, 33 to 35° below normal. Precipitation averaged 0.10 in. west, 0.25 in. south central and southeast and 0.50 in. in the northeast quarter.

Some soybeans were harvested in southeastern counties. Harvesting stopped by end of week due to snow depth. Most activity was feeding cattle and providing water.

**KENTUCKY:** Temperatures drastically below seasonable normals as coldest air mass in decades moved into State. Most areas reported temperatures well below zero several mornings. Temperatures averaged 15° or more below normal with some days as much as 30° below normal. Precipitation light.

Main activities care and feeding livestock. Many stock ponds frozen.

**LOUISIANA:** Rainfall 0.25 in. to 2.79 in. Temperatures ranged 5 to 74°, with record lows and freezing temperatures throughout the State.

Main activities: feeding and caring for livestock, and celebrating Christmas. Virtually no fieldwork due to frigid temperatures.

**MARYLAND AND DELAWARE:** **Maryland:** The week was cold and wet. Temperatures averaged 3 to 7° below normal with 7° below normal temperatures in northern and western Maryland and mostly 3 to 5° below normal elsewhere. Maximum temperatures were mostly in the mid 40's to mid 50's. Minimum temperatures were in the mid teens west to no higher than mid 20's in the remainder of the State. Precipitation for the week averaged 0.80 in. in west to 1.12 in. in the rest of the State with most of the rain falling on the 22nd. A cold front moved in on the 23rd with record setting cold temperatures recorded on 24th and 25th.

**Delaware:** Weather was cold and wet. Maximum temperatures were in the mid 30's at Wilmington to near 60 elsewhere. Minimum temperatures were in the mid to high teens. Departures from normal ranged from 6° below normal at Wilmington to 2° below elsewhere. Rainfall for the period averaged just over 1.00 in. Weekend weather, resulting from a cold front moving in on the 24th set record lows for these dates. Low temperatures dipped to 1° and 2° at Dover and Milford on 25th.

**MICHIGAN:** Winter took hold with icy winds. Temperatures averaged 18° below normal. Low temperatures were below zero most of the week. High temperatures were mainly in the teens and 20's. Extreme temperatures were 41° below zero and 33° above zero. Precipitation averaged 0.68 in.

**MINNESOTA:** Temperatures averaged 21° to 34° below normal, breaking many long-standing temperature records. High: 25°, low: -41°. Precipitation averaged near normal. Greatest reported weekly total: 0.27 in.

Snowfall for the week averaged 1.00 in. to 3.00 in. across the State except for the

northeast which averaged 1.00 in. to 5.00 in. Snow depth at week's end averaged 5.00 in. to 14 in. for western thirds of State and southeast; and 18 to 31 in. elsewhere.

MISSISSIPPI: Snow, sleet and freezing rain in northern and central Mississippi. Temperatures set record lows in many areas of the State 24th through 26th. Extremes  $-4^{\circ}$  and  $67^{\circ}$ . Greatest daily precipitation 2.40 in.

Soil moisture adequate to surplus. Fieldwork 1.7 days suitable, 2.0 days 1982, 2.0 days average. Cotton 100% harvested 1983, 1982 and average. Hay and roughage supply adequate. Feed supply adequate. Livestock condition and wheat condition fair to good. Pasture condition fair.

MISSOURI: Record breaking cold prevailed especially over the north and west central portions of the State. Weekly mean temperatures ranged from 15 to around  $30^{\circ}$  below normal as an arctic air mass held the State firmly in its grip. Most significant precipitation came at midweek when a cold front pushed across the State, adding to the snow cover in the north and west while producing freezing rain in the southeast.

MONTANA: A bitterly cold week. Temperatures averaged 30 to  $45^{\circ}$  below normal. Most areas had subzero temperatures and all areas of the State had minimum temperatures of 40 to  $50^{\circ}$  below zero. Many new minimum temperature records were set. Precipitation about normal overall except in west which had below normal precipitation. Snow fell early in week with dry conditions after midweek.

Winter wheat condition good, snow cover generally good over whole State. Livestock generally withstanding extreme cold fairly well. Feeding has been intensified to help maintain body heat. There will undoubtedly be some after effects of the extreme cold as reports of frozen nostrils and mouths have been received. Wind chill factors were down to  $100^{\circ}$  below zero in some eastern areas of the State.

NEBRASKA: Coldest temperatures on record for half century recorded during past week averaging  $35^{\circ}$  colder than normal over entire State. Precipitation averaged 0.25 in. west to 0.33 in. east.

NEVADA: Numerous Pacific storm fronts swept across State dumping above normal amounts snow early in period changing to rain by end of week. Temperatures well below normal early part of week. Above normal remainder of period.

Inclement weather hampered movement of potatoes to market and feeding operation of livestock.

NEW ENGLAND: The week was well below normal, with the coldest temperatures on 20th, with  $15^{\circ}$  below readings at Caribou and Houlton, Maine, and  $20^{\circ}$  below at Newport, Vermont.

Precipitation amounts for the week ranged around 1.00 in. across southern New England and between 0.50 and 1.00 in. in northern New England. Most of this total occurred 21st and 22nd as snow changed to rain in southern New England, and became mixed with sleet and freezing rain in the north.

NEW JERSEY: Temperatures were well below normal, averaging  $16^{\circ}$  north,  $21^{\circ}$  south and  $24^{\circ}$  coastal. Extremes minus 18 and  $57^{\circ}$ . Precipitation above normal, averaging 1.46 in. north, 1.25 in. south and 0.82 in. coastal. The heaviest 24-hour total reported 1.65 in. on 21st to 22nd. Heaviest 24-hour snowfall was 3.00 in. on 23rd to 24th.

Fieldwork: farmers tending to winter chores and caring for livestock. As weather allows farmers are spreading ground cover in fruit crops. Orchard pruning has been slowed by severely cold weather.

NEW MEXICO: Temperatures averaged much below normal eastern half of State, Clayton averaging  $31^{\circ}$  below normal. Western half averaged above normal. Warming increased sharply 23rd as Carlsbad recorded  $73^{\circ}$ , while 22nd recording was  $25^{\circ}$ , 24th  $14^{\circ}$  (highs). Minimum temperature:  $-16^{\circ}$ , northern mountains, maximum temperature  $73^{\circ}$ , southeastern Plains. Northern 1/4 of State recorded measurable precipitation.

Soil moisture supplies varied short, eastern 1/3 of State; adequate elsewhere. Cotton harvest: current, 90% complete, last year 93%; average, 94%. Irrigated wheat, barley rated good. Early planted fields grazed heavily. Dryland fields fair condition, less grazing activity. Much of small grain crop dormant. Pecan, red chile harvest active. Christmas tree harvest above average this year. Supplemental livestock feeding picked up. Cattle, sheep continue fair, good condition. Grazing on ranges limited to adequate moisture areas.

NEW YORK: Temperatures were near normal on the 19th and 22nd but below normal for the remainder of the week. They ranged from 5 to  $15^{\circ}$  below normal. On the average readings were coldest over western New York. Snow squalls in western New York kept precipitation above normal, totaling from just less than 1.00 in. to over 2.00 in. Several areas receiving one to two feet of snow in the squalls. The New York City and Long Island areas were also above normal, receiving about 1.50 in. of precipitation. The rest of eastern New York averaged below normal. Except for 22nd when temperatures rose above the freezing mark. Most precipitation was in the form of snow.

NORTH CAROLINA: Soil moisture 44% adequate, 56% surplus. Days suitable for fieldwork: 2.0. Condition: Wheat: 10% fair, 85% good, 5% excellent. Oats: 8% fair, 91% good, 1% excellent. Barley: 9% fair, 90% good, 1% excellent. Rye: 12% fair, 87% good, 1% excellent. Harvests: Soybeans: 92%, 1982 90%, average 95%. Cotton: 100%, 1982 100%, average 100%. Farm feed supplies: Hay and roughage: 25% short, 75% adequate. Feed grains: 18% short, 82% adequate. Major farm activities: Soybean harvest, grading and marketing burley tobacco, cutting firewood, preparing tobacco plant beds, tending livestock, and general farm maintenance.

NORTH DAKOTA: Bitter cold continued throughout the week. Midweek snowfall slightly below to near normal amounts. Coldest temperature was  $-50^{\circ}$  northwest on the 23rd. Highest temperature was  $-1^{\circ}$  southeast on the 22nd. Departure from normal ranged from  $28^{\circ}$  below normal northeast to  $36^{\circ}$  below normal southwest. Precipitation amounts ranged from 0.05 in. north central to 0.12 in. northeast and central. Normal precipitation for State is 0.11 in.

Considerable concern for livestock exposed to additional sub-zero weather. Nearly 100% supplemental feeding required in all areas of State. Fall seeded crops in danger of winter kill where snow covered light.

OHIO: Record-breaking cold. Average temperatures to  $20^{\circ}$  below normal. Highs to low 40's early week, lows to teens below zero late week. Extremes from  $+46$  to  $-18$ . Average highs in the teens, average lows in teens or

below zero. Precipitation rain and light snow minimal. Totals averaged 0.25 to 0.60 in. Mean bare soil temperatures at 4 in. low 20's. Frost penetration beyond 4 inches. Bursted water pipes common.

Extreme cold stressed livestock. Low temperatures sufficient to result in possible winter wheat damage. Damage would not be evident until temperatures reached 10 to 15°.

OKLAHOMA: Temperatures averaged from 26° below normal southeast to 37° below normal north central. Precipitation totaled less than 0.25 in. in all districts.

Snow and record low temperatures virtually eliminated fieldwork. Wheat pasture in good to fair condition. Cattle slow in making gains. Supplemental feeding active due to snow cover. Cotton harvest halted by weather. Cotton harvested: 95%, 75% 1982, 95% average.

OREGON: Very cold weather prevailed over all of State beginning on 16th. Snowfall amounts varied but generally were heaviest in southern portions of the State. Many daily temperatures set record lows Statewide. Scattered stations east of the Cascades broke all time December records for cold.

Winter wheat crop remains in good to very good condition. Vegetable harvest now complete. Soil moisture supplies are adequate in the east, surplus in the west. Snow cover in east has increased hay feeding. Wet fields in west have limited cattle and sheep grazing. Statewide livestock are in generally good condition.

PENNSYLVANIA: Cool beginning of week, turning extremely cold latter part. Daytime highs reaching only a few degrees below and above zero. State average temperature approximately 12° below the normal of 29°. Moderate to heavy precipitation fell during midweek in the form of liquid and frozen. Amounts ranged from 0.50 to 0.75 in. in the north central to around 2.00 in. State average precipitation was 1.20 in. which was approximately 0.50 in. above normal.

PUERTO RICO: Island average rainfall 0.67 in. or 0.33 in. below normal. Highest weekly total 3.03 in. Highest 24-hour total 1.04 in. Temperature averaged about 78° on coasts and 74 to 71° Interior Divisions. Mean station temperature ranged from 79.6 to 64.9°. Extremes 91 and 60°.

SOUTH CAROLINA: Severe cold overspread State 25th and 26th with many new low temperature records, 8 cold fatalities. Precipitation totaled 0.50 to 1.00 in. northwest as sleet and freezing rain.

Cotton harvested 100%. Livestock care, farm chores performed. Soybean harvest interrupted.

SOUTH DAKOTA: Average temperatures 28 to 41° below normal. Extremes: 6 and -47°. Entire State snow covered. Snow depth ranges from 5.00 in. west central to 20.00 in. southeast. Precipitation was light and scattered. Melted precipitation amounts were at 0.25 in. only in the extreme south.

TENNESSEE: High pressure prevailed most of the week but a cold front moved through the State midweek bringing rain and light snow. Temperatures were far below normal with lows 24th and 25th below 0°, and average temperatures in the 20's. Cotton harvested 100%, 1982 100%, average 100%. Corn and soybean harvest and wheat seedings are complete.

TEXAS: Arctic air mass covered State much week. Light precipitation sections State, Golden

Triangle receiving 2.50 in. rain 21st. Scattered amounts less than 0.25 in. east, southeast. Temperatures were below normal, several record breaking lows set 23rd and 24th. Only areas significant precipitation east, southeast, upper coast.

Crops: Fieldwork nearly standstill severe cold front snow, rain, freezing temperatures most State week. Panhandle snow, ice halted remainder cotton harvest, slowed development small grains, North, Central Texas, fields wet, frozen, halted fieldwork. Freezing temperatures far south Rio Grande Valley, severely damaging citrus crop. Cotton harvest completion, front early week halted operations. Ginning operations shut down result cold weather. Gins wait remaining cotton harvested before resuming operations. With open weather, cotton harvest complete week. Small grains stressed passage cold front. High, Low Plains, oat, wheat foliage burned. Wheat pastures continue stressed regions. Cold weather helped reduce insect populations. Central Texas, minimal damage reported small grains cold weather. Pastures remain good condition Central Texas. Wheat condition 69% of normal, 67% last year. Current conditions 4% excellent; 32% good, 58% fair, 6% failure.

Cotton harvested 96%, 90% 1982, 88% average. Wheat emerged 99%, 98% 1982, 97% average. Peanuts harvested 100%, 100% 1982, 99% average. Pecans harvested 89%, 92% 1982, 86% average. Sugarbeets harvested 100%, 100% 1982, 99% average.

Commercial vegetables: Freezing temperatures entire Rio Grande Valley severe damage 1983-84 citrus crop. Remaining fresh-market fruit harvest virtually lost. Most fruit left trees probably utilized processing, not be harvested. Too early evaluate extent tree damage, some damage surely result. Cool weather needed help preserve damaged fruit so salvage much remaining fruit as possible. Vegetable growers evaluating freeze damage. Early reports indicate; tomatoes virtually wiped out; broccoli severely damaged; carrots frozen but expected recover fairly well. Onions, lettuce damaged extensively, most acreage probably not killed, quality, yield reduced. Cabbage severely damaged, outcome unknown. San Antonio-Winter Garden, freezing weather damaged most remaining vegetables. Spinach, lettuce, cabbage harvested. Quality, yield cool season vegetables good; demand poor. Trans-Pecos, fall vegetable harvest virtually complete.

Range and livestock: Progress ranges, pastures slowed freezing temperatures, snow covered much State. Snow, ice covered pastures Panhandle. Wheat pastures area very short. Central Texas pastures provide short grazing, wheat needs moisture. Cold front slowed pasture growth North, Central Texas. South Texas pastures moisture stressed. Tanks frozen State, breaking ice was necessary. Heavy supplemental feeding continues. Cattle beginning show stress cold weather. Few cattle losses show due cold weather.

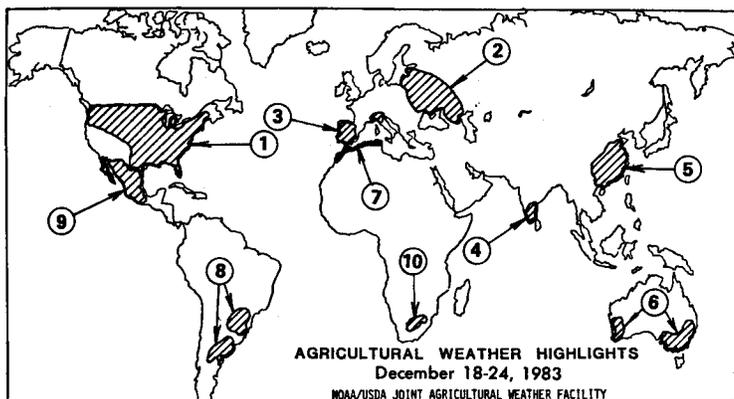
UTAH: Recurring precipitation deposited 0.63 in. north central 0.42 in. northern mountains 0.10 in. rest of State. Temperatures 8° below normal northeastern half -3° below normal southwestern half.

Ranchers and stockmen digging out from heavy snowfall. Taking steps to protect cattle and sheep on western rangelands. Hauling feed and water. Sorting and marketing of apples and onions continued. Potato pits opened for marketing activities as the need arises.

(continued on p. 15)

# International Weather and Crop Summary

December 18 to 24



1. UNITED STATES ... One of the coldest weeks on record for much of the Nation. Bitterly frigid air stressing livestock and plants over northern and central sections moves through the South and East by week's end, severely damaging vegetables and citrus fruits from Texas through much of Florida.

2. WESTERN USSR ... Above-normal temperatures diminish snow cover over much of the region as the freeze-thaw pattern continues.

3. EUROPE ... Warm weather benefits early wheat growth in Spain. Wet weather improves the low-moisture situation in northern Italy.

4. SOUTH ASIA ... A tropical storm damages a small portion of winter rice awaiting harvest. Seasonally dry weather continues in the wheat region.

5. EASTERN ASIA ... Showers in southern China aid soil moisture recharge. Winter wheat in central China is entering dormancy.

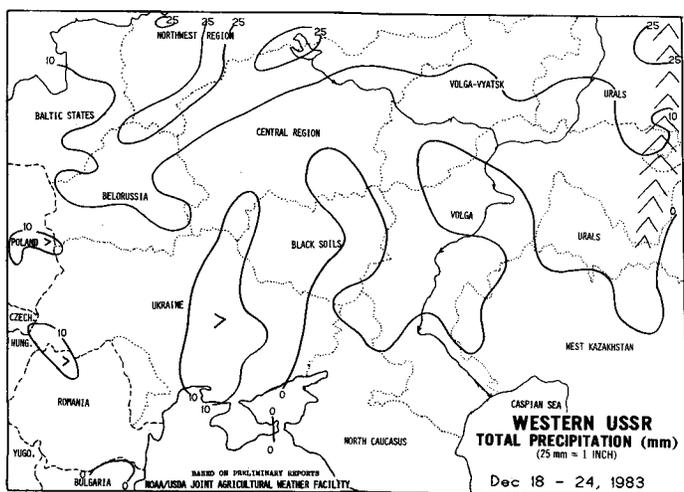
6. AUSTRALIA ... Mostly dry weather aids harvesting throughout the wheat belt. Adequate moisture is available for summer crop growth in the east.

7. NORTHERN AFRICA ... Showers continue to benefit winter grains over much of the region.

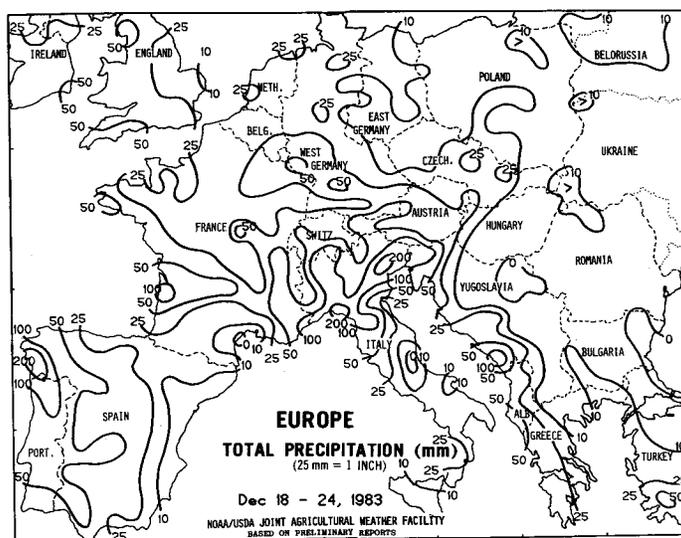
8. SOUTH AMERICA ... Needed rain aids planting of late soybeans in southern Brazil but moisture is still limited. Mostly dry weather in Argentina aids second-crop soybean planting and wheat harvesting. More rain is needed for summer crops.

9. MEXICO ... Severely cold air moves into the northeast late in the week damaging vegetables and some citrus around Montemorelos. Good harvest weather continues over most other areas.

10. SOUTH AFRICA ... Mostly light rain aids corn areas. The driest conditions are in the west. Continued rains will be needed as the crop progresses through the reproductive cycle.

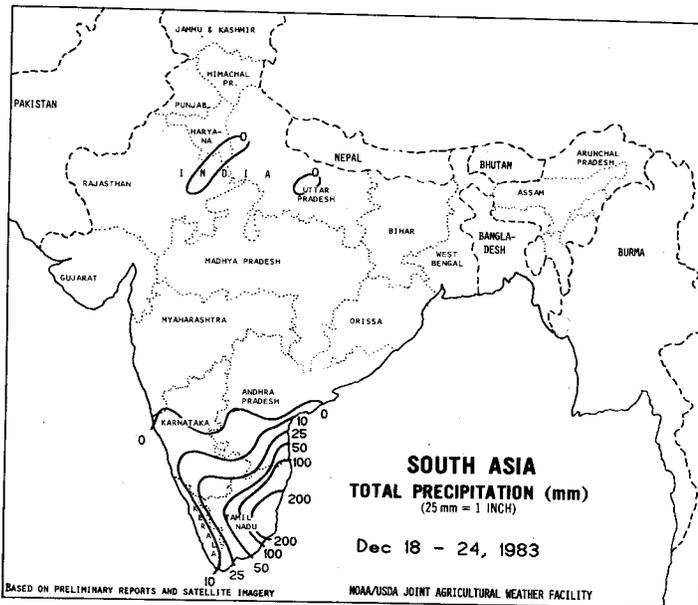


**WESTERN USSR...**Temperatures warmed to above normal over much of the region as the freeze-thaw pattern continued. Light rain fell over the Baltic States, Belocussia, and the central Ukraine, while freezing rain and freezing drizzle were reported over winter grain areas in the central and eastern Ukraine, the Black Soils, and the northern North Caucasus. Elsewhere, light snows continued to increase snow cover over the Central and Volga Vyatsk regions. At present, most winter grain areas in the region lack significant snow cover, making the crop highly vulnerable to winterkill in the event of a cold outbreak.

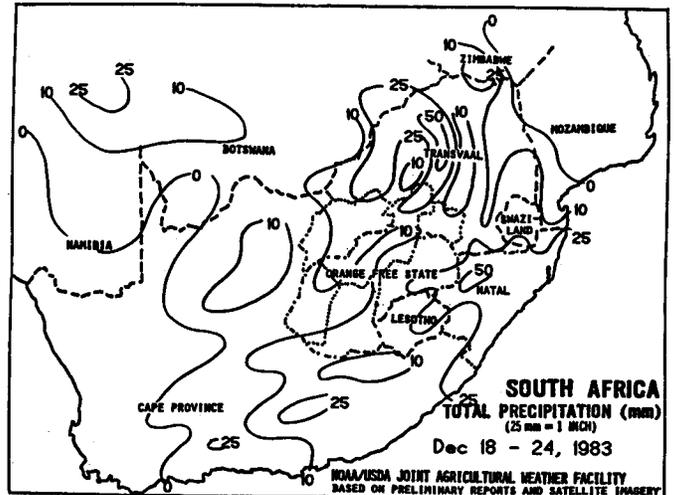


**EUROPE...**Most of the precipitation which covered the region occurred as rain, except at higher elevations where the moisture occurred mainly as snow. In the Iberian Peninsula, light rain moistened topsoils early in the week, and dry weather returned by week's end, which aided emergence and allowed continued planting. In Italy, wet weather eased dryness in the north, but more rain is needed to improve low subsoil moisture. Elsewhere, a favorable moisture pattern

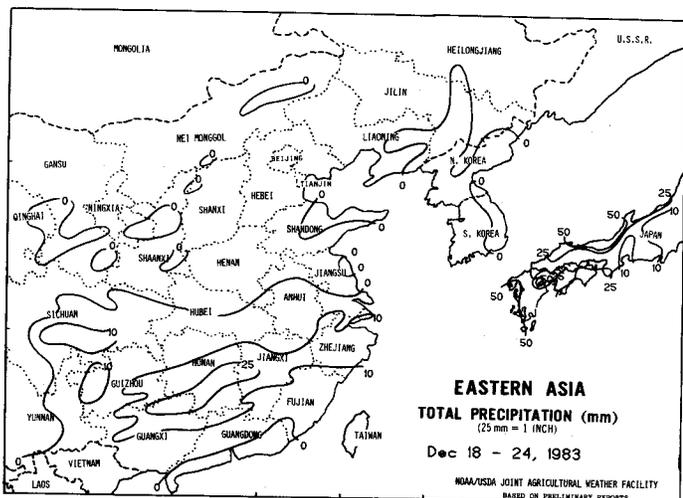
continued in the northwest winter grain areas but little, if any, precipitation covered eastern Europe, and additional moisture is needed to replenish low subsoil moisture.



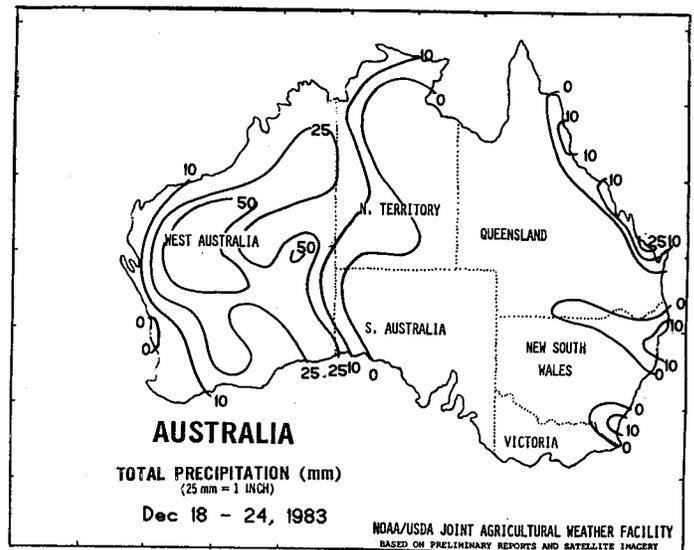
**SOUTH ASIA...**Inundative rains, up to 250 mm, fell in southern peninsular India during the middle of the week. The heavy precipitation, associated with a tropical storm, likely damaged a small portion of the remaining unharvested winter rice in Tamil Nadu and southern coastal Andhra Pradesh. Lighter accumulations extended westward into Kerala and Karnataka. The remainder of India was essentially dry, favoring cotton harvesting. The winter wheat area continued dry with adequate moisture supplies for irrigation.



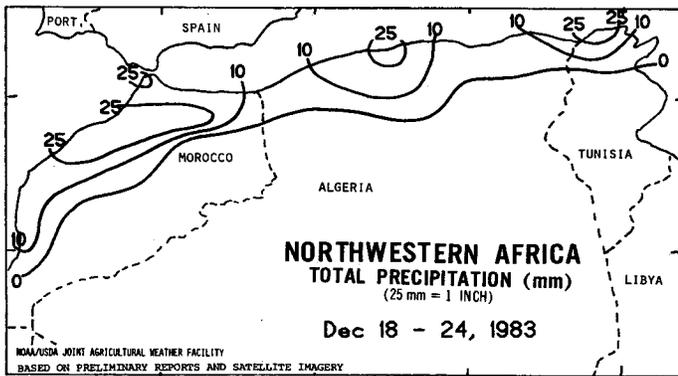
**SOUTH AFRICA...**Light to moderate rain covered most of the Maize Triangle by the latter part of the week. The driest areas were the western half of the West Transvaal and the southern Orange Free State. However, these two regions are normally drier than the eastern corn area. Moisture conditions are generally favorable for the Maize Triangle as the crop is now in the early reproductive phase of development. Continued rains would benefit the crop during this moisture-sensitive period, especially in western West Transvaal.



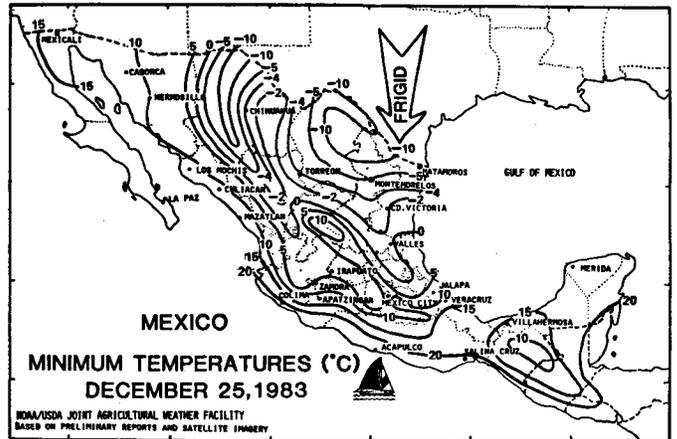
**EASTERN ASIA...**Light to moderate rain fell in southern China during the second half of the week. The moisture was beneficial for minor winter wheat areas and also aided subsoil supplies. The showers extended northward into Hubei, Anhui, and Jiangsu with most of the northern wheat area remaining dry. Temperatures were cooler this week in eastern China. The recent colder air in Henan, northern Anhui, and northern Jiangsu forced some wheat into dormancy. Wheat in the southern region continues some slow growth.



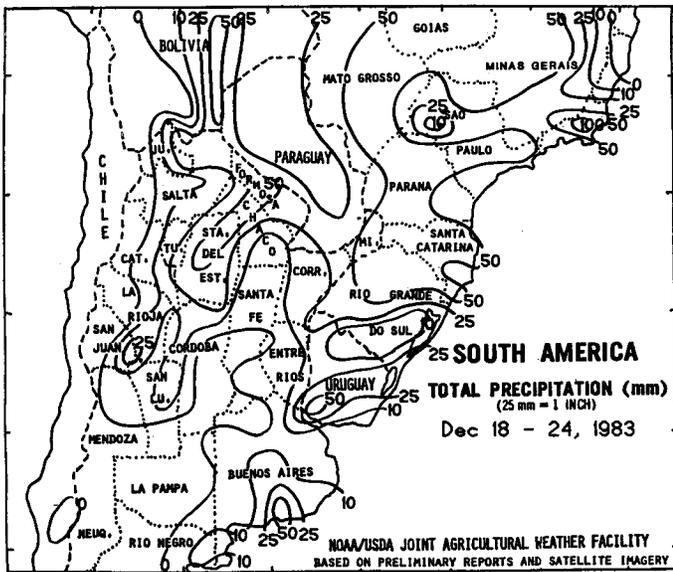
**AUSTRALIA...**Mostly light showers occurred throughout Australia. Moderate rain fell in West Australia, but north of the wheat area. Weekly rainfall totals in the wheat belt were minimal. Thus, wheat harvesting made rapid progress. In the east, the harvest is normally complete by early December but, because of persistent wetness harvesting was delayed. Adequate moisture is available for growth of cotton, sorghum, and other summer crops in southeastern Queensland and northern New South Wales. Elsewhere in the wheat belt, generally favorable weather continues for maturing grain and crop harvesting.



**NORTHWESTERN AFRICA...** Showers continued to benefit winter grain emergence and early growth in western Morocco and northern Algeria, but rainfall amounts were lighter this week than last. Light rain returned to winter grain areas in Tunisia by week's end, maintaining favorable moisture conditions. Normally, winter grain planting is complete in Tunisia by the end of December, while planting is nearing completion in Algeria and Morocco.



**MEXICO...** Frigid, arctic air pushed into the northeast late in the week. Minimum temperatures dipped to freezing as far south as Ciudad Victoria, damaging tender vegetables. Temperatures were cold enough to damage some citrus around Montemorelos, while citrus fruit further south probably escaped damage. Most other major agricultural areas generally had sunny, mild weather favorable for harvesting and field activities.



**SOUTH AMERICA...** Significant showers occurred over southern Brazil bringing some relief from the recent hot, dry weather. The moisture stimulated planting of the remaining 10-15 percent of the soybean crop and rejuvenated vegetative growth of earlier planted soybeans. Brazil's corn crop, some of which had advanced into the reproductive stage during the adverse weather conditions, likely suffered from the dryness and hot weather. In Argentina, the previous week's much needed rain aided planting of second-crop soybeans, which follows the wheat harvest. Conditions also improved for the growth of corn and sorghum advancing into the weather-sensitive reproductive cycle. Some showers also fell over northern cotton and sorghum areas of Chaco and Formosa but amounts were quite variable. Crop conditions could deteriorate rapidly if prolonged hot, dry weather occurs during the next several weeks. Localized showers in southern Buenos Aires caused some delays in the wheat harvest.

(continued from p. 12)

**VIRGINIA:** A mixed bag of weather events occurred through the period. Cool, dry weather marked the 19th and 20th with a mixture of snow and sleet (west and central) and rain (in the east) for the night of the 21st and morning of the 22nd. The 23rd through 25th brought extremely cold temperatures with many areas recording the lowest temperatures ever for the 25th. Temperatures ranging from as much as 20° below in the west and only 10 to 15° above in the east coupled with winds in excess of 45 mph brought wind chill temperatures down into the 60 to 70° below range. Precipitation amounts for the 21st and 22nd ranged from 0.33 to 1.50 in. Statewide.

**WASHINGTON:** Massive, very cold high pressure system dominated weather pattern over Pacific Northwest. High extended from Central Alaska to southern Plains, from Central Canada to Gulf of Alaska. True arctic air flowing around system brought record breaking temperatures to State with both minimum and maximum readings setting daily all-time lows many sites. Air mass also very dry with most stations reporting less than 0.25 in. total precipitation during week.

Temperatures during week both sides of Cascades well below normal setting new records many locations. Adequate snow cover exists most eastern area counties to protect winter wheat and barley crops from sub-zero temperatures. Cold weather stopped pruning activities all fruit orchards, and been hard on young lambs and calves. Stockmen providing more feed to livestock to help survival.

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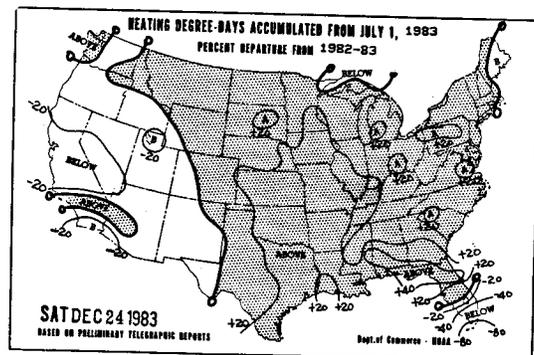
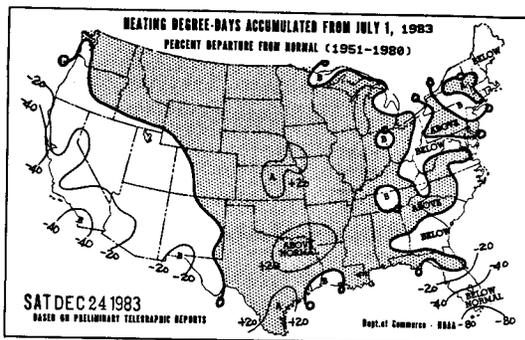
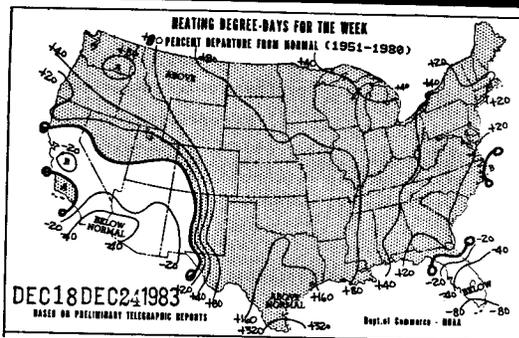
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## WEEKLY NEWS BULLETIN SECOND CLASS



(continued from p. 15)

**WEST VIRGINIA:** Temperatures averaged well below normal for the entire State. The southwest sections of the State were the coldest, averaging 12° below normal. The high temperature for the State was 48° at Webster Springs and the low -7° at Greenbank. Precipitation averaged well above normal for the entire State.

Soil moisture adequate to surplus. Days suitable for fieldwork averaged 2.0. Main activities were: Feeding livestock, marketing potatoes and general maintenance. Feed supplies adequate to short.

**WISCONSIN:** The week was typified by bitterly cold arctic temperatures and extreme wind chill indices. The lowest reading for the week was -44° at Harrison the 19th. The warmest reading for the week was 30° recorded

at Two Rivers, on the 21st. Scattered light snow occurred throughout the week with 1 to 4 in. falling across the State the 20th and 21st. Heavier amounts of Lake Michigan snow from 6 to 8 in. occurred at Two Rivers, Wind Point and Racine also on 20th and 21st.

**WYOMING:** Cold arctic air caused record setting temperatures. Departures 20 to 40° below normal. Precipitation, all snow, near normal. Moran in northwest had 23 in. snow depth.

Snow cover protecting winter wheat from bitter cold most areas. Cold weather, snow cover increasing livestock feed requirements.