

WEEKLY WEATHER AND CROP BULLETIN

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

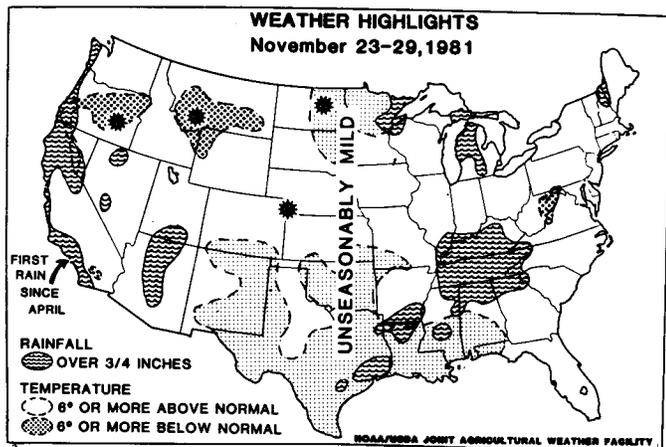
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Dec. 1, 1981

National Weather Summary

November 23-29, 1981



Carolina, Virginia, and Maryland. Record breaking warm temperatures extended through parts of the central Plains from eastern Colorado through Texas.

WEDNESDAY... Snow covered a large area from the northern and central Rockies across the Plains and through the Great Lakes region. Another Pacific storm continued the showers along the Pacific coast from central California through Washington. Some snow also fell in the central and northern Appalachians. The wedge of unusually warm weather moved a little eastward and covered the area from Kansas through Texas.

THURSDAY... A cold front pushed into western United States and triggered showers through most of California, Nevada, and Oregon. Snow fell at elevations above about 4,000 feet. Another frontal system produced snow in the northern Mississippi Valley, the Great Lakes region, and the Northeast. Showers and a few thunderstorms occurred along and ahead of the front from the middle and lower Mississippi Valley through the Ohio Valley to the Northeast coast. Thunderstorms were reported in the middle and lower Mississippi Valley.

FRIDAY... The western cold front pushed onto the Plateau and triggered showers from Montana to Arizona. A low pressure center lingered in the San Francisco area, causing showers throughout California. Some heavy rain fell in the southwestern part of the State and heavy snow fell in the Sierra Nevada Mountains. The cold front in the East crossed the Appalachians and triggered showers of snow or rain from New York through New England and rainshowers from North Carolina to Louisiana and in Arkansas, Oklahoma, and the Texas Panhandle.

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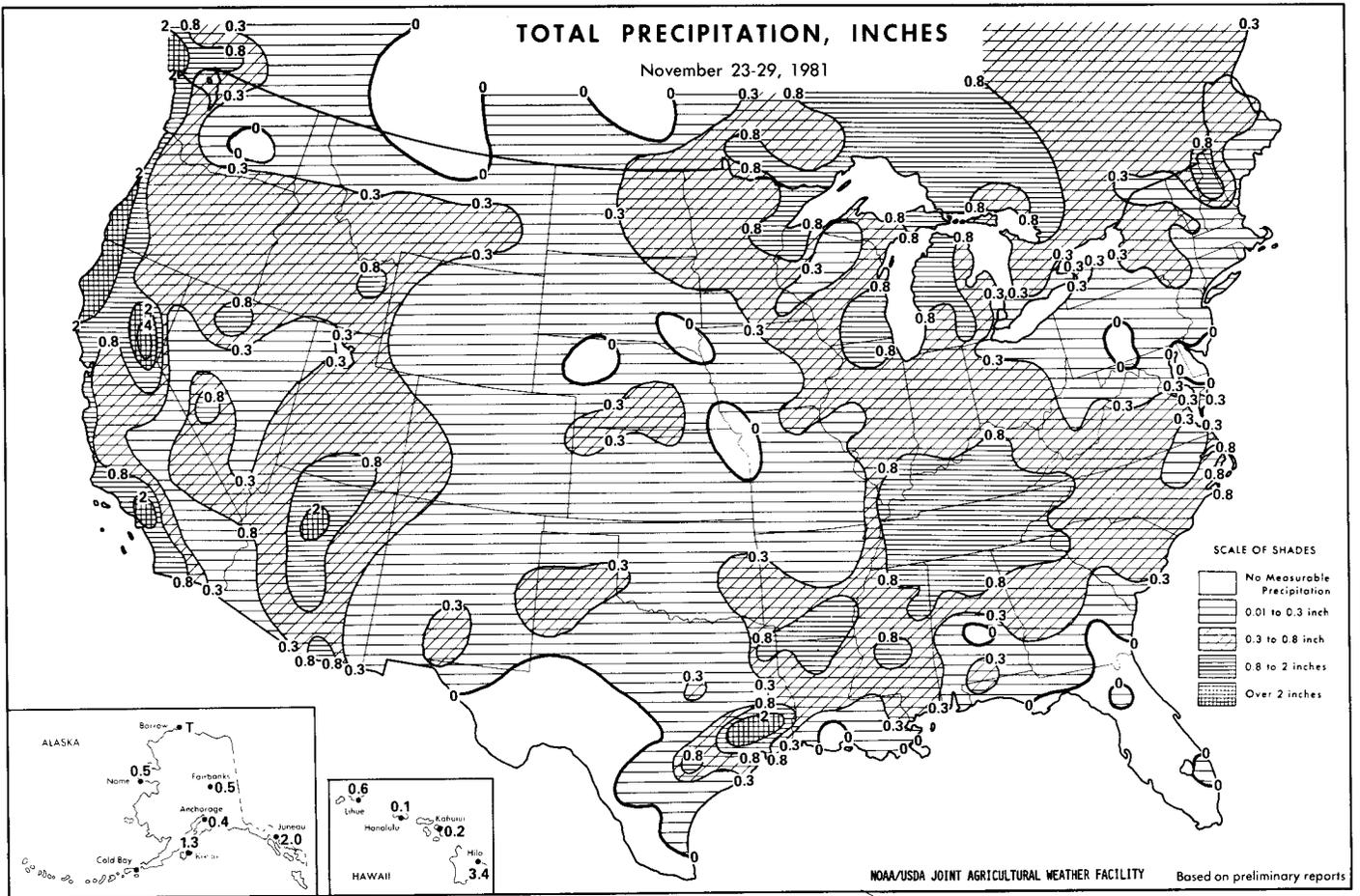
HIGHLIGHTS: A series of Pacific storms brought wind, rain, and snow from the Pacific Coast to the Rockies. Some heavy snow accumulated in the mountains. Lighter snow fell across the northern tier of States and left a snow cover from the Dakotas through the Great Lakes to the northern Appalachians. In the latter part of the week, showers fell from the Southwest through the Southeast. Heavy rains over California's South Coast brought the first moisture since April. Temperatures averaged warmer than normal through the southern and northern Plains and mostly near normal in the East and West. Averages were well below normal in parts of the northern Rockies and Plateau, and in the central Appalachians.

MONDAY... A storm system centered in northern California produced rain and gale force winds from the central through the northern Pacific coast. Showers, with snow in the mountains, extended over the Plateau to the northern Rockies. Freezing rain began the day in the northern Plains and Mississippi River Valley and then changed to snow. A cold front brought widespread showers through the rest of the Mississippi River Valley and to the Appalachians in the north and through the Southeast to the Florida Panhandle.

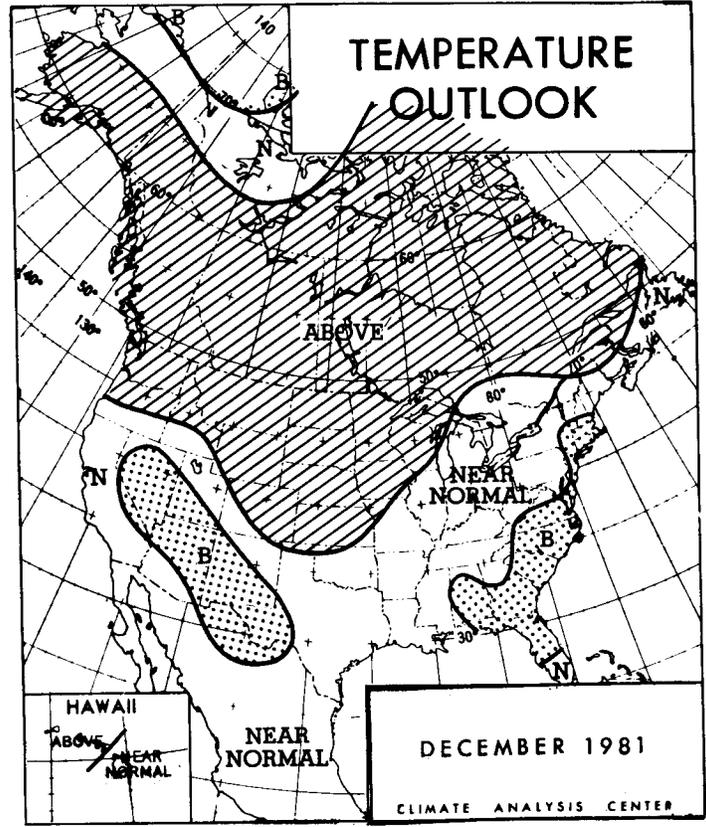
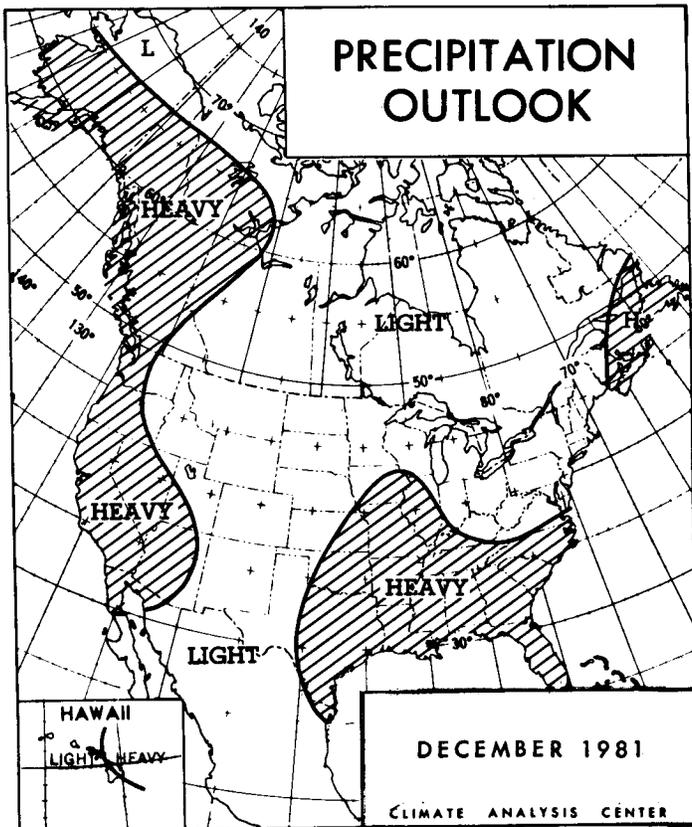
TUESDAY... A winter storm developed in the northern Rockies and dumped heavy snow throughout the mountainous parts of the Northwest. Rainshowers covered the rest of the area from southwestern California through Washington and through the central and northern Plateau. Lighter snow extended across the northern Plains to the western Great Lakes region. In the East, snow fell in the upper Ohio Valley and central Appalachians while rainshowers covered North

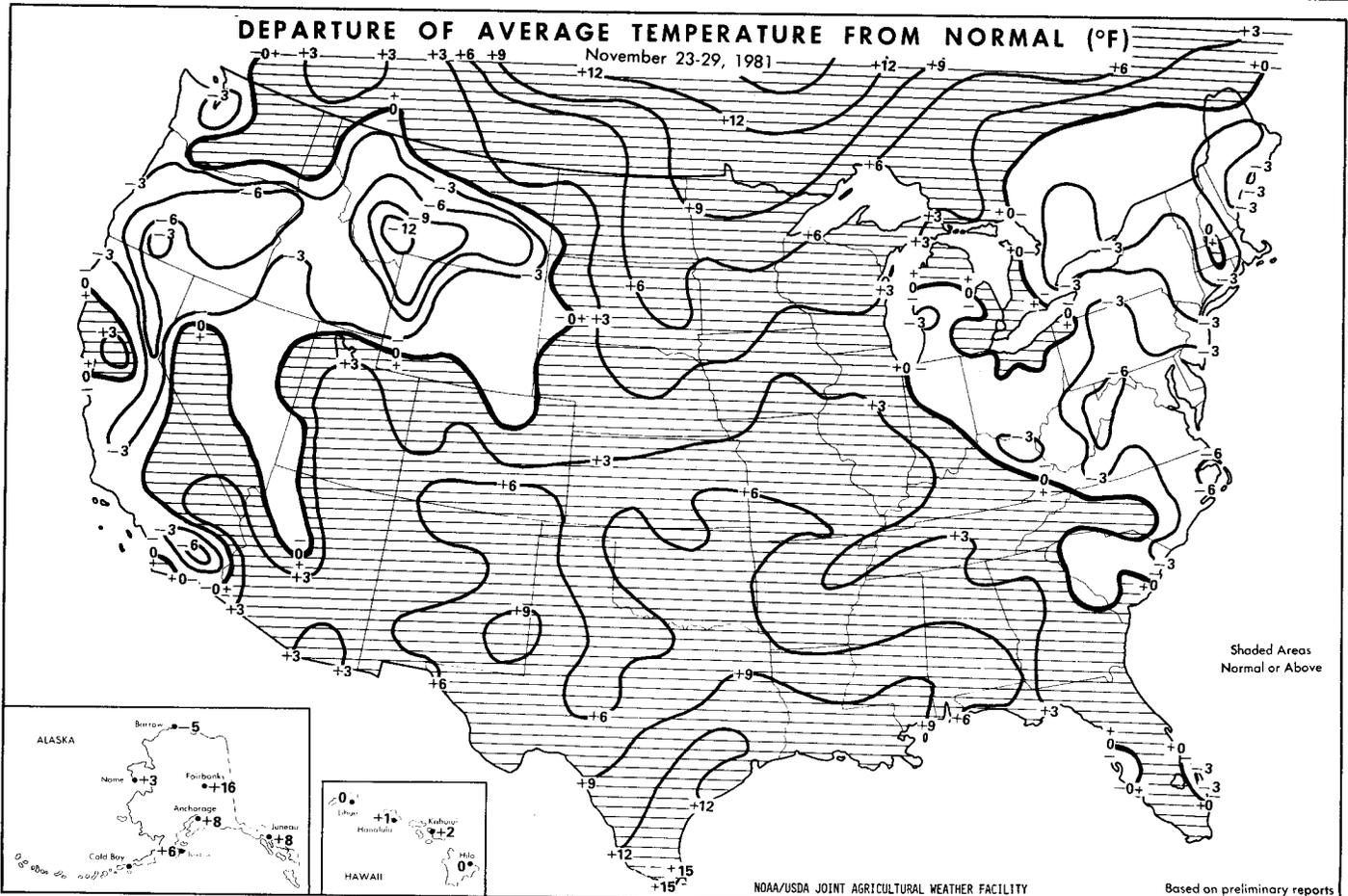
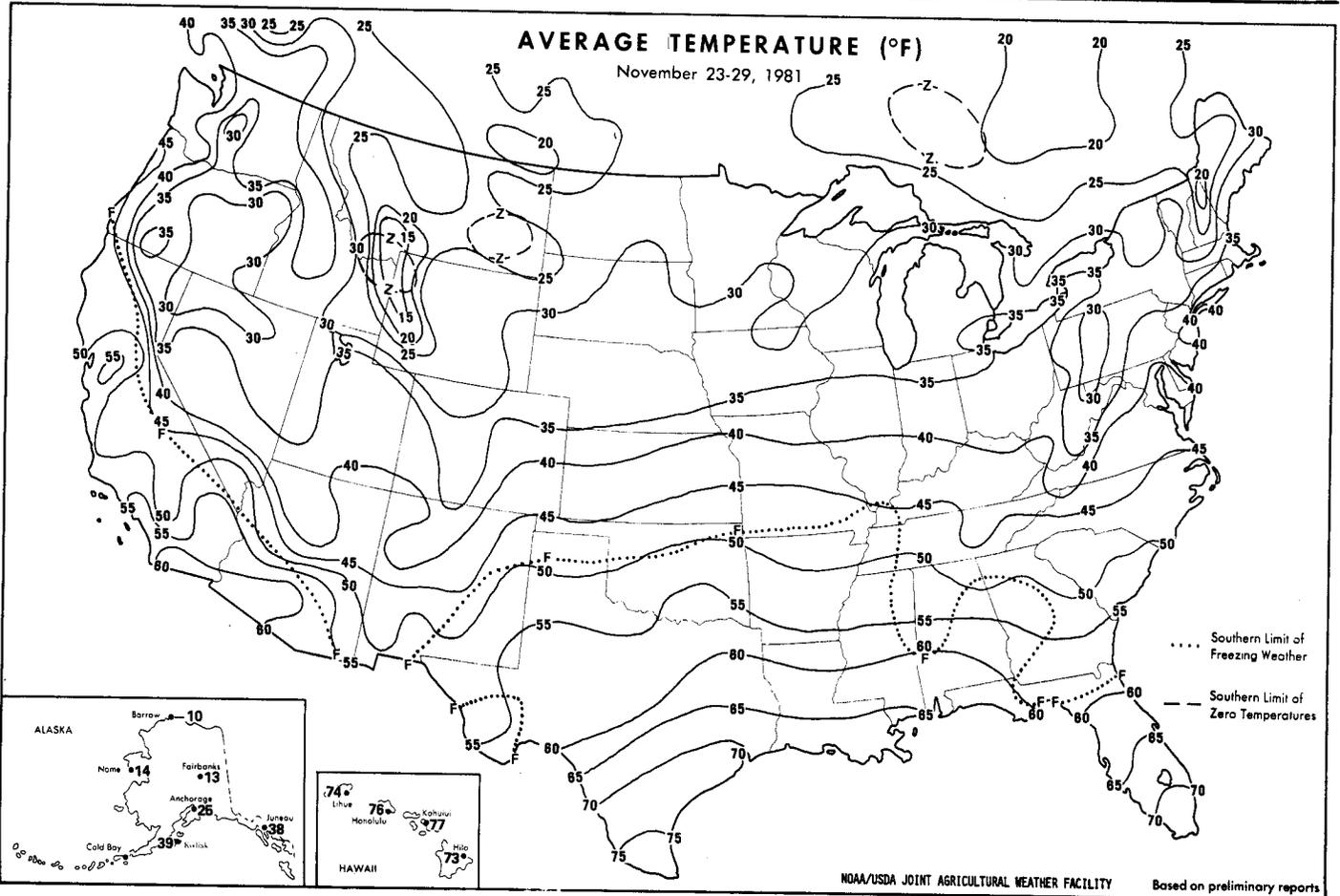
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Average Monthly Weather Outlook





Weather Data for the Week Ending Nov. 29, 1981

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 AUG. 31	PCT. NORMAL SINCE AUG. 31	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE °F		PRECIPIT- TATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	66	41	75	33	54	5	.5	-.5	.4	6.7	68	35.3	74	89	43	0	0	3	0
MOBILE	74	50	80	40	62	7	.2	-.8	.2	6.0	47	50.5	82	97	51	0	0	1	0
MONTGOMERY	71	45	83	35	58	6	T	-.9	T	5.6	56	39.7	89	92	40	0	0	0	0
AK ANCHORAGE	31	18	38	6	25	8	.4	-.1	.2	7.4	148	20.3	149	95	78	0	7	4	0
BARROW	-7	-14	-3	-16	-10	-5	T	0	T	.8	62	--	--	78	67	0	7	2	0
FAIRBANKS	21	5	29	-6	13	16	.5	.3	.1	2.6	108	9.7	95	91	70	0	7	7	0
JUNEAU	42	34	52	32	38	8	2.0	.8	.7	23.1	114	50.5	101	90	67	0	2	7	1
KODIAK	46	33	51	24	39	6	1.3	-.1	.4	17.4	97	62.4	121	85	54	0	3	5	0
NOME	22	6	31	-10	14	3	.5	.3	.2	3.4	68	15.4	102	84	58	0	7	6	0
AZ FLAGSTAFF	46	25	64	8	36	2	2.4	2.0	1.3	5.6	119	22.0	125	80	42	0	7	3	2
PHOENIX	71	49	83	38	60	4	1.0	.8	.5	2.5	156	6.9	113	64	22	0	0	3	0
TUCSON	71	44	86	35	57	2	.6	.4	.6	1.7	68	13.9	140	56	23	0	0	2	1
WINSLOW	59	28	77	15	43	4	.7	.6	.7	2.7	135	8.9	116	--	--	0	5	1	0
YUMA	75	50	86	42	62	2	.1	0	.1	1.1	13	1.5	52	56	21	0	0	2	0
AR FORT SMITH	62	40	76	33	51	4	.5	-.2	.5	9.7	97	39.1	99	85	47	0	0	1	1
LITTLE ROCK	60	42	75	36	51	3	.1	-.9	T	8.5	81	40.4	92	85	53	0	0	2	0
CA BAKERSFIELD	62	45	76	38	54	1	.4	-.2	.2	1.2	120	5.6	112	87	47	0	0	3	0
EUREKA	55	42	63	37	49	-2	2.5	1.0	1.0	14.1	150	33.1	99	93	74	0	0	4	3
FRESNO	55	41	70	34	48	-2	.3	-.1	.1	1.7	94	9.2	106	98	64	0	0	3	0
LOS ANGELES	62	51	68	46	57	-2	2.6	2.2	1.5	3.0	150	9.6	97	81	54	0	0	4	2
RED BLUFF	57	42	62	36	50	-1	1.7	.8	.9	10.4	226	26.7	144	88	54	0	0	4	3
SAN DIEGO	65	56	68	52	60	1	1.8	1.4	.9	1.9	119	10.4	133	95	66	0	0	4	1
SAN FRANCISCO	58	47	63	39	53	-1	.9	-.2	.5	7.7	220	19.9	126	88	59	0	0	4	0
STOCKTON	58	42	69	33	50	1	.4	-.1	.3	5.2	200	14.4	125	97	62	0	0	3	0
CO DENVER	49	23	71	11	36	0	.4	.3	.2	1.6	53	12.3	83	77	34	0	6	4	0
GRAND JUNCTION	45	27	59	19	36	1	.4	-.2	.2	2.9	126	8.0	111	87	51	0	6	4	0
PUEBLO	54	23	77	14	38	1	T	0	T	.7	35	7.1	59	74	36	0	7	1	0
CT BRIDGEPORT	44	30	56	23	37	-5	.1	-.8	.1	10.8	113	28.6	81	74	42	0	5	2	0
HARTFORD	45	29	61	21	37	1	T	-1.0	T	12.2	113	31.2	80	69	39	0	5	1	0
DC WASHINGTON	51	37	71	31	44	0	T	-.7	T	6.4	74	29.0	81	73	44	0	3	1	0
FL APALACHICOLA	73	52	83	39	62	4	T	-.7	T	4.9	33	34.7	64	74	50	0	0	0	0
DAYTONA BEACH	75	46	81	35	61	-2	0	-.4	0	11.4	76	36.7	76	96	47	0	0	0	0
FORT MYERS	81	54	84	46	68	0	0	-.2	0	7.9	54	51.5	98	94	42	0	0	0	0
JACKSONVILLE	76	41	82	32	58	0	T	-.4	T	7.7	54	32.6	63	97	41	0	1	0	0
KEY WEST	78	68	81	65	73	0	0	-.5	0	11.6	73	26.9	70	92	58	0	0	0	0
MIAMI	79	60	81	55	70	0	0	-.4	0	18.7	93	51.0	87	89	44	0	0	0	0
ORLANDO	78	49	82	37	64	-1	0	-.3	0	14.1	108	44.8	90	96	41	0	0	0	0
TALLAHASSEE	73	39	80	30	56	0	T	-.8	T	9.3	75	45.9	80	99	42	0	2	1	0
TAMPA	76	49	80	37	63	-2	0	-.4	0	7.3	68	35.4	75	98	47	0	0	0	0
WEST PALM BEACH	77	53	80	46	65	-4	.1	-.3	.1	15.9	74	47.7	81	98	50	0	1	0	0
GA ATLANTA	64	40	73	33	52	4	.2	-.7	.1	9.2	100	34.9	79	91	38	0	4	1	0
AUGUSTA	65	33	78	24	49	-1	.2	-.4	.2	4.2	56	35.3	90	99	40	0	4	1	0
MACON	68	40	75	32	54	2	.6	-.1	.4	7.2	90	40.0	99	95	40	0	1	2	0
SAVANNAH	69	42	79	32	55	1	.2	-.3	.2	5.8	56	36.9	78	86	40	0	1	2	0
HI HILO	78	68	80	64	73	0	3.4	-.1	1.3	32.8	103	--	--	92	65	0	0	6	3
HONOLULU	81	71	83	70	76	1	.1	-.7	.1	3.1	61	8.7	45	84	58	0	0	3	0
KAHULUI	82	71	84	64	77	2	.2	-.4	.2	3.2	84	--	--	77	55	0	0	2	0
LIHUE	80	69	82	61	74	0	.6	.8	.4	11.5	102	--	--	87	60	0	0	4	0
ID BOISE	41	30	48	22	35	-1	.7	.3	.5	3.4	136	12.4	117	86	54	0	5	3	0
LEWISTON	44	33	47	28	38	0	T	-.3	T	3.9	122	12.8	105	90	60	0	3	1	0
POCATELLO	34	21	43	10	28	-4	.7	.4	.5	3.4	148	12.3	128	91	69	0	5	4	0
IL CAIRO	51	39	72	35	45	1	.8	-.2	.5	5.4	53	37.9	87	--	--	0	0	0	0
CHICAGO	43	25	69	17	34	-1	.7	.3	.6	7.3	97	37.7	126	89	61	0	6	2	1
MOLINE	43	28	58	19	35	1	.6	-.2	.4	12.2	145	35.4	104	89	63	0	6	2	0
PEORIA	46	32	66	22	39	4	.3	-.1	.2	4.4	55	37.7	114	92	69	0	4	2	0
ROCKFORD	39	25	57	16	32	0	1.0	.5	.6	9.7	102	34.0	97	91	70	0	6	2	1
SPRINGFIELD	47	32	65	26	40	2	.2	-.2	.2	5.5	63	45.5	137	86	64	0	3	2	0
EVANSVILLE	51	38	70	30	45	4	1.1	.3	.6	7.0	82	40.4	105	93	68	0	1	3	1
FORT WAYNE	40	28	58	18	34	-2	.5	-.1	.4	8.0	100	34.6	103	91	70	0	4	2	0
IN INDIANAPOLIS	44	30	65	23	37	0	.4	-.3	.3	5.2	61	34.0	95	88	65	0	5	2	0
SOUTH BEND	41	26	60	18	34	-1	.4	-.3	.2	7.3	82	36.3	107	90	62	0	5	2	0
IA BURLINGTON	45	32	61	24	38	4	--	--	--	--	--	--	--	86	64	0	3	--	
DES MOINES	40	30	43	20	35	3	T	-.3	T	6.5	96	29.9	99	88	69	0	4	1	0
DUBUQUE	39	26	43	20	33	2	.6	0	.4	10.5	104	--	--	97	78	0	7	3	
SIoux CITY	39	28	44	21	34	3	T	-.2	T	4.7	87	19.0	76	73	0	4	0	0	
KS CONCORDIA	49	31	59	22	40	3	.3	-.2	.3	5.6	97	32.4	121	85	52	0	5	1	0
DODGE CITY	55	34	76	28	44	6	.1	0	.1	6.8	166	24.4	120	77	41	0	3	1	0
GOODLAND	47	25	61	18	36	2	.4	-.3	.4	2.0	67	21.7	132	84	46	0	6	1	0
TOPEKA	53	31	71	21	42	4	T	-.3	T	9.6	128	39.3	118	89	53	0	4	0	0
WICHITA	56	35	70	27	46	6	.1	-.1	.1	9.5	123	26.8	90	89	48	0	3	1	0
KY LEXINGTON	49	32	66	23	41	0	.9	0	.4	5.9	74	32.8	80	95	61	0	5	4	0
LOUISVILLE	50	36	67	25	43	2	.8	-.1	.5	6.0									

Weather Data for the Week Ending Nov. 29, 1981

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 Aug. 31	PCT. NORMAL SINCE Aug. 31	TOTAL, IN., SINCE Jan. 1	PCT. NORMAL SINCE Jan. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPI-TATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
LAKE CHARLES	77	57	80	52	67	10	.2	.9	.2	7.7	66	47.4	95	98	61	0	0	2	0
NEW ORLEANS	79	57	85	41	68	10	.1	1.0	.1	7.9	67	49.2	96	97	56	0	0	1	0
SHREVEPORT	70	49	79	40	59	6	.8	.2	.8	10.4	109	40.4	100	90	54	0	0	1	0
ME CARIBOU	29	22	30	20	26	-1	.3	.5	.2	10.8	106	43.0	126	82	64	0	0	7	1
PORTLAND	39	25	43	20	32	-2	.1	1.1	.1	13.8	121	42.1	113	81	48	0	7	1	0
MD BALTIMORE	47	28	64	22	38	-4	T	.8	T	6.2	68	28.0	76	75	44	0	5	1	0
MA BOSTON	43	31	52	26	37	-4	T	1.0	T	10.9	103	29.5	78	72	42	0	4	1	0
CHATHAM	42	33	51	28	38	-1	T	.1	T	11.8	-	38.0	-	72	52	0	3	1	0
MI ALPENA	37	25	41	10	31	1	.6	.1	.6	6.5	86	20.2	78	91	58	0	5	1	0
DETROIT	42	30	60	24	36	1	.3	.2	.3	10.7	149	31.2	105	85	57	0	4	1	0
FLINT	39	27	54	20	33	-1	.3	.2	.3	12.1	168	33.1	118	95	71	0	5	1	0
GRAND RAPIDS	40	27	57	20	34	-1	.7	.1	.7	14.8	166	44.0	144	82	60	0	5	1	1
HOUGHTON LAKE	35	24	38	12	30	0	.8	.2	.7	6.7	78	29.4	108	89	69	0	6	2	1
LANSING	40	28	56	21	34	-1	.4	.1	.4	10.8	152	30.6	109	94	67	0	5	1	0
MARQUETTE	32	20	36	-1	26	1	.3	.4	.2	8.7	84	30.2	89	96	64	0	7	4	0
MUSKEGON	38	26	48	16	32	-3	1.6	.9	1.6	11.2	126	30.9	106	85	64	0	5	1	1
SAULT STE. MARIE	34	22	39	11	28	0	1.5	.8	.8	8.6	85	26.2	88	94	64	0	7	3	2
MN DULUTH	31	26	33	20	29	6	.9	.6	.6	6.9	96	27.2	95	90	77	0	7	4	1
INT'L FALLS	31	25	34	21	28	10	.4	.2	.3	8.4	131	21.4	86	97	85	0	7	3	0
MINNEAPOLIS	34	27	37	22	31	4	.3	0	.2	5.6	95	26.4	105	88	73	0	7	3	0
ROCHESTER	32	23	35	11	27	0	.2	0	.2	5.8	92	32.2	120	95	80	0	7	3	0
SAINT CLOUD	33	27	35	24	30	6	.4	.2	.2	6.1	107	24.3	93	95	80	0	7	3	0
MS JACKSON	73	46	82	33	60	7	1.2	.1	.7	10.1	110	41.5	93	96	47	0	0	4	1
MO MERIDIAN	74	44	83	33	59	8	.6	.4	.3	6.3	72	36.6	80	87	39	0	0	4	1
COLUMBIA	51	33	65	27	42	2	.1	.2	.1	7.7	79	46.6	129	94	63	0	4	1	0
KANSAS CITY	51	31	65	24	41	4	T	.3	T	8.4	91	40.4	113	83	53	0	5	0	0
SAINT LOUIS	51	36	74	31	44	3	.3	.3	.2	7.9	96	42.6	126	91	62	0	2	2	0
SPRINGFIELD	57	37	72	28	47	5	.2	.4	.2	9.9	97	40.7	108	85	52	0	1	3	0
MT BILLINGS	30	15	39	5	23	-9	.3	.2	.2	1.9	59	15.6	115	94	71	0	7	3	0
GLASGOW	33	21	42	15	27	3	.1	0	.1	1.9	112	8.6	79	86	66	0	7	3	0
GREAT FALLS	34	18	43	7	26	-5	.1	.1	T	1.9	73	14.0	99	85	47	0	7	3	0
HAVRE	35	18	49	11	27	2	T	.1	T	2.0	87	9.5	84	93	56	0	7	0	0
HELENA	30	14	35	5	22	-6	.3	.2	.3	2.2	110	13.4	129	86	61	0	7	2	0
KALISPELL	32	16	36	7	24	-3	.1	.2	.1	1.9	49	16.8	108	97	73	0	7	2	0
MILES CITY	29	14	44	0	22	-6	.3	.2	.2	2.9	126	10.5	79	99	70	0	7	2	0
MISSOULA	31	19	34	12	25	-4	.1	.1	.1	2.7	96	15.3	126	97	72	0	7	2	0
NE GRAND ISLAND	43	25	54	15	34	1	.5	.3	.5	4.1	103	21.6	95	91	56	0	7	2	0
LINCOLN	46	25	56	17	35	1	.1	.1	T	5.8	107	22.2	86	96	61	0	6	1	0
NORFOLK	42	26	49	16	34	3	T	.1	T	2.7	63	19.5	83	95	61	0	6	1	0
NORTH PLATTE	44	22	54	14	33	1	.2	.1	.2	1.7	47	22.5	115	95	54	0	7	1	0
OMAHA	42	30	51	25	36	3	T	.2	T	4.3	70	26.5	92	92	70	0	3	2	0
VALENTINE	44	20	56	10	32	2	T	.1	T	3.0	107	17.4	99	89	54	0	6	0	0
NV ELY	43	19	60	5	31	1	.2	0	.1	4.2	263	10.1	142	89	41	0	7	5	0
LAS VEGAS	61	40	77	29	51	1	.3	.2	.3	.7	64	3.1	79	62	26	0	1	2	0
RENO	46	29	63	16	37	0	.3	.1	.1	2.8	215	5.6	90	89	48	0	5	4	0
WINNEMUCCA	39	24	52	13	32	-3	.9	.6	.8	2.8	133	6.9	91	92	61	0	6	4	1
NH CONCORD	39	22	43	11	30	-3	.1	.8	.1	14.7	150	41.9	129	86	44	0	7	1	0
NJ ATLANTIC CITY	48	26	69	16	37	-5	T	1.0	T	6.0	56	-	-	92	49	0	6	0	0
TRENTON	48	32	60	24	40	-2	T	.7	T	8.3	91	35.9	97	69	38	1	4	0	0
NM ALBUQUERQUE	56	32	71	19	44	3	.3	.2	.2	2.2	116	7.7	103	67	32	0	2	2	0
ROSWELL	65	41	79	33	53	9	.2	.1	.2	4.0	125	24.5	231	63	29	0	0	2	0
NY ALBANY	37	26	48	17	32	-3	.2	.6	.1	8.7	100	27.0	88	80	51	0	6	3	0
BINGHAMTON	36	26	47	20	31	-2	.2	.5	.1	10.0	110	28.0	82	89	58	0	6	3	0
BUFFALO	42	30	56	24	36	1	.3	.6	.2	9.9	99	33.6	101	90	57	0	5	2	0
NEW YORK	45	35	60	29	40	-3	T	.9	T	8.0	80	29.9	78	63	41	0	2	1	0
ROCHESTER	39	29	51	25	34	-1	.1	.5	.1	11.0	138	32.6	112	89	69	0	5	2	0
NC SYRACUSE	36	27	49	18	32	-5	.5	.3	.2	15.4	169	32.4	97	90	66	0	5	5	0
ASHEVILLE	55	35	64	23	45	2	.4	.3	.2	4.3	43	29.3	70	90	43	0	2	3	0
CHARLOTTE	57	37	63	28	47	-1	.5	.2	.4	8.1	92	31.4	80	84	42	0	1	2	0
GREENSBORO	55	33	66	19	44	-1	.3	.4	.3	10.4	114	35.6	93	89	43	0	3	1	0
HATTERAS	53	39	67	31	46	-6	.9	.2	.8	7.0	46	44.7	87	90	56	0	2	2	1
RALEIGH	56	35	73	24	45	-1	.4	.3	.4	8.3	87	31.5	80	92	40	0	3	2	0
WILMINGTON	59	34	75	25	47	-6	.5	.2	.5	3.1	26	38.5	77	90	42	0	3	2	1
ND BISMARCK	33	26	37	19	29	6	.1	0	.1	3.2	123	13.9	89	86	70	0	6	1	0
FARGO	31	26	34	20	29	6	.3	.1	.1	4.4	116	17.0	88	95	81	0	7	3	0
WILLISTON	31	19	36	6	25	2	.1	0	.1	1.7	71	10.9	80	94	75	0	7	3	0
OH AKRON-CANTON	44	30	62	27	37	1	T	.5	T	6.7	89	37.7	115	70	50	0	6	1	0
CINCINNATI	47	29	65	20	38	-2	.6	.1	.3	5.9	75	31.8	88	87	54	0	5	2	0
CLEVELAND	43	32	60	26	38	0	.1	.5	.1	11.1	135	35.8	107	69	52	0	5	1	0
COLUMBUS	45	26	63	14	36	-2	.5	.1	.3	5.3	77	35.0	102	82	54	0	5	3	0
DAYTON	45	27	64	18	36	-1	.6	0	.4	10.6	154	40.1	125	92	69	0	5	2	0
TOLEDO	41	27	59	16	34	-1	.1	.5	T	11.8	164	35.6	120	89	63	0	5	3	0
YOUNGSTOWN	42	29	57	25	35	0	T	.7	T	8.0	94	32.3	92	82	63	0	5	1	0
OK OKLAHOMA CITY	62	39	76	35	51	5	.2	.1	.1	10.9	143	38.2	125	92	47	0	0	2	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Nov. 29, 1981

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 Aug. 31	PCT. NORMAL SINCE Aug. 31	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	
OR TULSA	62	40	76	33	51	.5	.1	-.3	-.1	11.3	120	36.1	102	95	56	0	0	2	0	
OR ASTORIA	51	34	55	29	43	-.2	.8	-1.6	-.5	20.9	115	55.1	100	93	61	0	3	4	0	
OR BURNS	33	17	40	5	25	-.8	.8	-.4	-.4	4.4	157	11.7	116	98	86	0	7	4	0	
OR MEDFORD	45	33	48	26	39	-.2	1.1	-.3	-.6	7.7	133	14.0	81	97	71	0	4	3	1	
OR PENDLETON	42	31	51	25	37	-.2	.4	-.1	-.2	4.0	118	13.0	115	90	60	0	4	3	0	
OR PORTLAND	50	37	56	26	44	0	.4	-1.0	-.2	10.3	95	25.8	82	97	61	0	1	4	0	
OR SALEM	47	29	52	17	38	-.5	.3	-1.2	-.1	14.7	129	31.4	92	98	65	0	4	4	0	
PA ALLENTOWN	43	29	57	24	36	-.2	T	-.9	T	7.2	72	31.6	82	74	47	0	5	1	0	
PA ERIE	44	32	59	24	38	-.2	.1	-.7	-.1	11.5	111	39.3	112	69	50	0	4	1	0	
PA HARRISBURG	44	30	60	24	37	-.2	.1	-.7	-.1	7.5	87	32.5	97	72	44	0	4	1	0	
PA PHILADELPHIA	46	29	62	25	38	-.4	T	-.8	T	6.5	72	32.8	90	80	45	0	5	1	0	
PA PITTSBURGH	43	27	61	21	35	-.2	T	-.5	T	7.3	95	34.0	101	74	53	0	5	1	0	
PA SCRANTON	40	30	52	22	35	-.1	T	-.7	T	8.2	98	33.5	104	71	54	0	5	1	0	
RI PROVIDENCE	42	29	56	24	36	-.3	.1	-1.0	-.1	9.4	84	30.2	78	75	44	0	5	1	0	
SC CHARLESTON	67	38	77	29	53	-.1	.3	-.2	-.3	4.2	40	44.7	91	93	41	0	1	1	0	
SC COLUMBIA	64	36	76	25	50	0	.6	0	-.3	3.1	33	30.8	71	95	34	0	4	2	0	
SC GREENVILLE	57	36	61	29	47	-.1	.6	-.2	-.3	7.4	73	27.7	64	87	43	0	2	3	0	
SD ABERDEEN	33	27	38	23	30	5	T	-.1	T	3.0	77	14.4	76	94	74	0	4	1	0	
SD HURON	39	31	45	24	35	5	T	-.1	T	2.4	92	14.1	82	89	57	0	7	2	0	
SD RAPID CITY	38	21	51	9	30	-.2	.1	0	-.1	2.4	92	14.1	82	89	57	0	7	2	0	
SD SIOUX FALLS	37	29	47	25	33	6	T	-.2	T	3.6	69	17.2	71	92	72	0	4	0	0	
TN CHATTANOOGA	57	37	67	27	47	1	1.7	-.7	1.2	9.2	87	39.7	87	90	44	0	3	4	1	
TN KNOXVILLE	57	36	69	24	47	1	1.0	-.1	-.7	12.7	144	39.2	94	86	48	0	2	3	1	
TN MEMPHIS	58	43	77	35	51	3	.5	-.5	-.4	9.5	98	36.6	82	86	53	0	0	4	0	
TN NASHVILLE	55	39	67	31	47	2	1.5	-.6	-.7	6.2	70	37.6	90	91	56	0	1	3	2	
TX ABILENE	68	47	84	39	57	7	.1	-.1	-.1	12.6	203	27.1	118	77	40	0	0	1	0	
TX AMARILLO	60	35	78	31	48	5	.3	-.2	-.1	6.7	156	21.2	112	74	36	0	2	2	0	
TX AUSTIN	76	58	84	51	67	11	T	-.5	T	10.5	119	45.6	150	86	49	0	0	1	0	
TX BAUMONT	77	61	81	60	69	11	.2	-.8	-.1	11.1	83	46.5	92	98	62	0	0	3	0	
TX BROWNSVILLE	86	67	87	62	76	11	0	-.3	0	7.9	78	29.5	122	96	55	0	0	0	0	
TX CORPUS CHRISTI	83	66	88	62	75	12	.1	-.2	-.1	11.8	126	43.1	159	98	59	0	0	2	0	
TX DEL RIO	77	52	85	43	65	9	T	-.1	T	7.0	117	27.3	164	85	46	0	0	0	0	
TX EL PASO	67	41	77	32	54	6	.3	-.2	-.2	1.3	54	12.6	168	66	34	0	1	3	0	
TX FORT WORTH	68	49	79	40	58	6	.2	-.3	-.2	17.9	221	44.4	145	87	45	0	0	1	0	
TX GALVESTON	74	66	79	62	70	9	.8	0	-.4	7.3	63	33.8	88	100	78	0	0	3	0	
TX HOUSTON	78	63	84	58	70	12	3.4	2.4	3.4	20.9	165	53.7	121	94	59	0	0	1	1	
TX LUBBOCK	63	43	82	38	53	7	.6	-.5	-.4	7.8	156	22.8	128	75	41	0	0	2	0	
TX MIDLAND	70	43	84	35	56	6	T	-.1	T	6.2	168	17.4	135	78	36	0	0	0	0	
TX SAN ANGELO	70	45	83	34	57	5	T	-.1	T	11.3	198	30.0	178	83	40	0	0	0	0	
TX SAN ANTONIO	77	56	83	50	67	10	.1	-.3	-.1	10.8	127	36.8	138	88	49	0	0	1	0	
TX VICTORIA	80	62	83	53	71	11	T	-.5	T	11.4	108	43.7	135	96	56	0	0	1	0	
TX WACO	72	51	81	40	62	7	.3	-.2	-.3	12.9	159	33.1	113	92	46	0	0	1	0	
TX WICHITA FALLS	66	42	82	34	54	5	.1	-.1	-.1	9.5	134	30.6	115	90	42	0	0	1	0	
UT BLANDING	46	24	60	14	35	0	.7	-.5	-.7	3.6	116	12.0	114	81	53	0	7	4	0	
UT SALT LAKE CITY	46	30	64	23	38	2	.4	0	-.3	5.4	174	14.7	106	90	54	0	5	3	0	
VT BURLINGTON	35	28	44	24	31	-1	.1	-.5	-.1	13.7	157	39.8	134	74	54	0	7	3	0	
VA LYNCHBURG	49	33	63	19	41	-2	.6	-.1	-.6	7.4	85	32.0	91	85	48	0	4	1	1	
VA NORFOLK	52	36	71	28	44	-4	.2	-.5	-.2	8.3	78	35.4	85	78	45	0	2	1	0	
VA RICHMOND	51	30	69	23	40	-5	.3	-.5	-.3	5.8	58	31.2	79	89	45	0	6	1	0	
VA ROANOKE	50	28	63	18	39	-4	.7	-.1	-.6	9.1	98	27.6	77	86	48	0	6	2	1	
WA COLVILLE	36	28	42	24	32	1	.1	-.4	-.1	5.9	137	22.4	153	96	81	0	6	1	0	
WA OMAK	43	29	49	21	36	--	.2	--	-.2	5.2	--	11.7	--	--	--	0	5	1	0	
WA QUILLAYUTE	47	34	52	26	41	-2	1.8	-1.5	-.7	33.3	111	88.4	95	98	74	0	2	5	3	
WA SEATTLE-TACOMA	46	34	49	28	40	-3	.3	-1.1	-.3	13.9	119	30.0	91	88	60	0	3	1	0	
WA SPOKANE	38	27	44	21	33	0	T	-.5	T	3.0	70	12.5	81	93	67	0	6	1	0	
WA WALLA-WALLA	44	33	52	29	39	-1	.3	-.2	-.2	5.6	133	19.6	133	92	61	0	5	3	0	
WA YAKIMA	45	26	50	20	35	0	0	-.3	0	3.2	160	6.5	98	92	63	0	7	0	0	
WV BECKLEY	46	28	66	14	37	-1	.4	-.3	-.3	9.7	110	34.0	86	77	40	0	4	3	0	
WV CHARLESTON	50	28	71	16	39	-2	.4	-.3	-.3	6.2	76	33.4	88	94	53	0	5	3	0	
WV HUNTINGTON	50	28	69	18	39	-2	.4	-.3	-.2	5.5	70	35.2	97	84	48	0	5	4	0	
WV PARKERSBURG	46	28	66	18	37	-3	.2	-.5	-.1	6.0	81	29.6	83	97	60	0	5	2	0	
WI GREEN BAY	37	26	41	15	32	3	.7	-.3	-.7	7.8	111	22.5	87	92	67	0	6	2	1	
WI LA CROSSE	35	26	38	20	31	1	.4	-.1	-.2	4.9	69	33.5	119	96	78	0	6	3	0	
WI MADISON	37	25	45	15	31	1	1.1	-.7	-.9	8.9	120	31.2	108	93	71	0	6	3	1	
WI MILWAUKEE	38	26	47	15	32	0	1.0	-.5	-.9	10.3	147	32.3	119	87	62	0	6	3	1	
WY CASPER	38	17	48	8	28	-2	.1	-.1	T	1.8	75	10.7	103	90	51	0	7	2	0	
WY CHEYENNE	42	19	55	10	30	-2	.1	-.1	-.1	1.2	46	16.1	111	84	40	0	7	1	0	
WY LANDER	36	16	44	9	26	-1	T	-.1	T	1.2	38	10.1	77	82	41	0	7	1	0	
WY SHERIDAN	42	16	49	8	29	-1	T	-.2	T	1.7	52	13.4	86	81	40	0	7	1	0	
PR SAN JUAN	88	76	93	74	82	4	.1	-1.1	-.1	17.1	99	56.7	105	86	61	2	0	2	0	

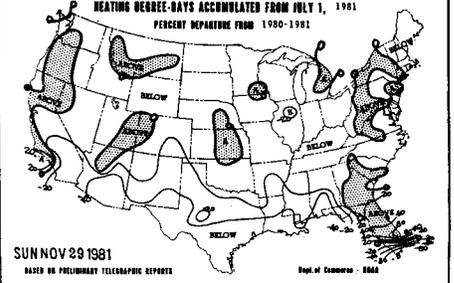
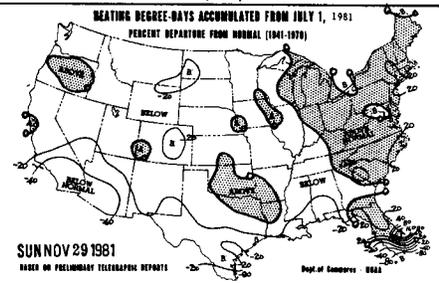
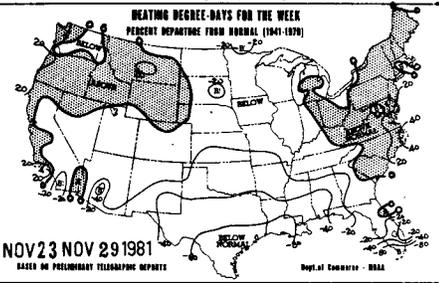
BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING NOV. 29, 1981.

BASED ON 1941-70 NORMALS.

+ ACCUMULATION FROM JULY 1, 1981.

Table with columns for STATES AND STATIONS, WEEKLY (TOTAL, DEPARTURE*), SEASONAL ACCUMULATION + (TOTAL, DEPARTURE*, DEPARTURE FROM 1980-81), and similar columns for the second set of stations. Lists cities across various states like ALA., ARIZ., ARK., CALIF., CONN., DEL., D.C., FLA., GA., IDAHO, ILL., IND., IOWA, KANS., KY., LA., MAINE, MD., MASS., MICH., MINN., MISS., MO., MONT., NEBR., NEV., N.H., N.J., N.MEX., N.Y., N.C., N.DAK., OHIO, OKLA., OREG., PA., R.I., S.C., S.DAK., TENN., TEXAS., UTAH, VT., VA., WASH., W.VA., WIS., WYO.



NOV 29 1981

SUN NOV 29 1981

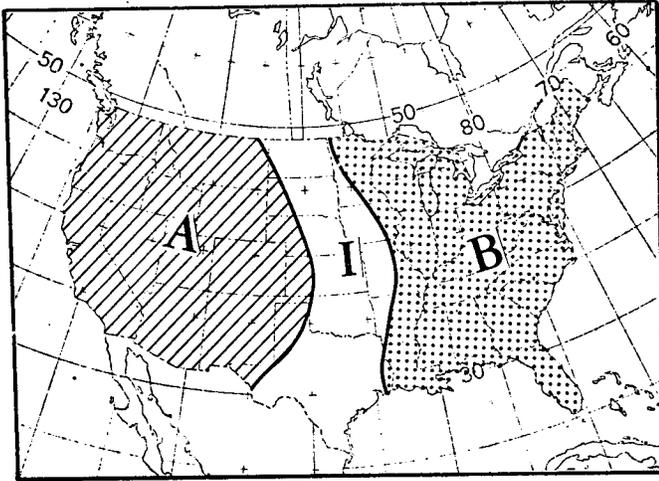
SUN NOV 29 1981

BASED ON PRELIMINARY TELEGRAPHIC REPORTS

BASED ON PRELIMINARY TELEGRAPHIC REPORTS

BASED ON PRELIMINARY TELEGRAPHIC REPORTS

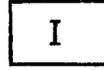
OUTLOOK FOR WINTER AVERAGE TEMPERATURES
DECEMBER 1981 THROUGH FEBRUARY 1982



ABOVE NORMAL, 60% CHANCE OF OCCURRENCE



BELOW NORMAL, 60% CHANCE OF OCCURRENCE

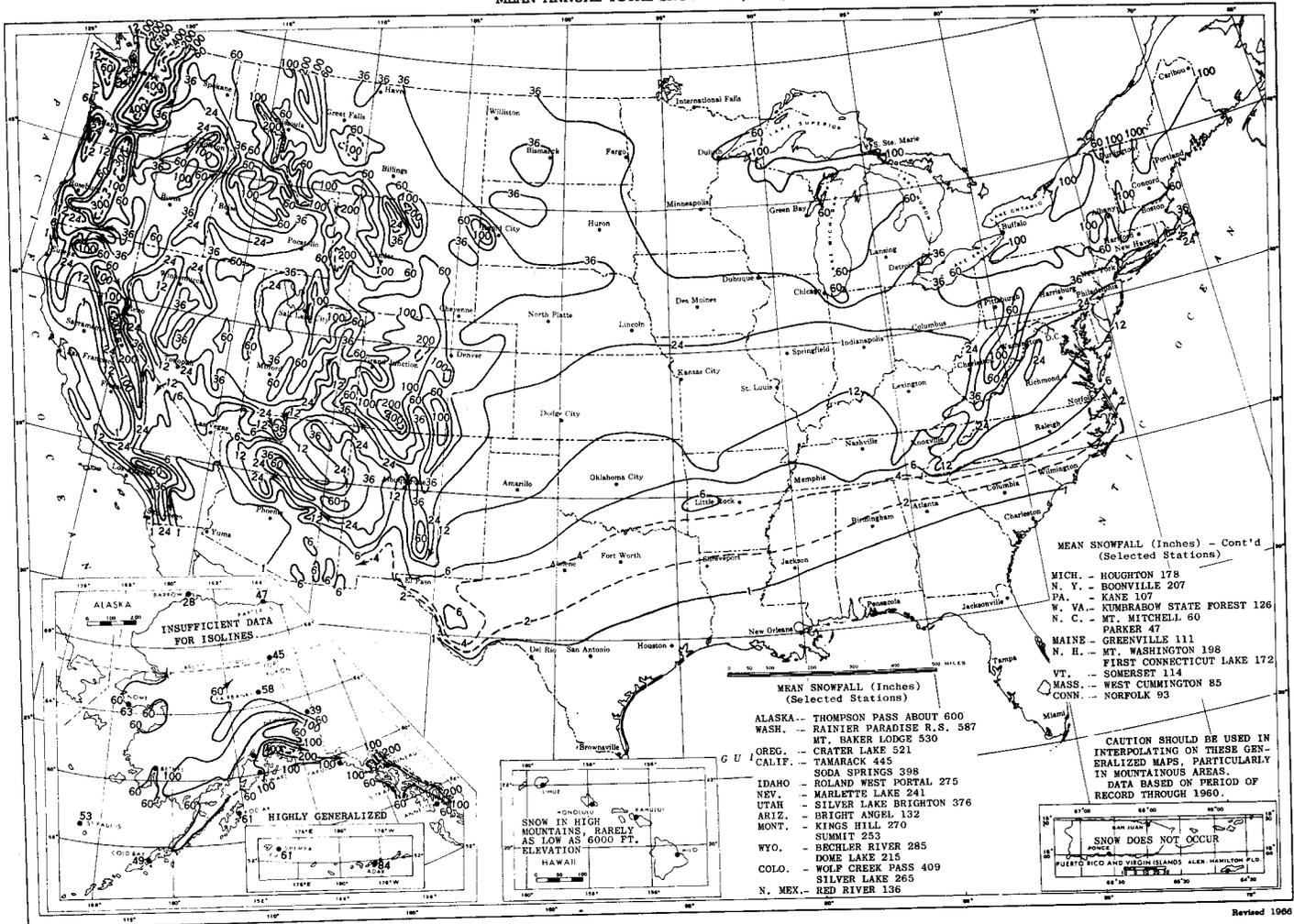


INDETERMINATE, 50% CHANCE OF ABOVE NORMAL
50% CHANCE OF BELOW NORMAL

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

NOAA, National Weather Service, Climate Analysis Center

MEAN ANNUAL TOTAL SNOWFALL (Inches)



National Agricultural Summary

November 23-29, 1981

HIGHLIGHTS: Row crop harvests were nearly finished in most areas although wet fields delayed completion in northern regions. In Indiana and Illinois, farmers had only 2 to 4 days suitable for fieldwork. Up to 6 days were available in most other areas. Soil moisture supplies were very short to short in parts of the Delta and Southeast, adequate to surplus in Illinois, and short to mostly adequate elsewhere. Corn harvest advanced to 96% complete, catching up to the normal progress for this date. Soybean combining was 96% finished, 2 points ahead of average. The sorghum harvest reached 95% complete, only 3 points behind average. Seventy-one percent of the cotton acreage had been picked, 9 points less than average. Winter wheat seeding was virtually finished, except in California. Plants had emerged on 95% of the acreage and stands were in mostly good condition. Cattle were being moved to winter wheat pastures.

CORN: Corn harvest in the 17 major producing States reached 96% complete, equal to the normal progress. However, last year at this time, producers had finished harvesting the crop. Indiana and Ohio harvesting only 90% finished; producers were waiting for the grain to dry in the fields to avoid high drying costs. In northern areas, the completion of harvest was delayed by wet fields.

SOYBEANS: In the 18 major producing States, soybean combining was 96% finished, 1 point ahead of last year and 2 points ahead of average. Combining centered in the Delta, the Southeast, and in Kansas. Harvest was finished in Illinois, Iowa, and Nebraska.

COTTON: The 14 major producing States showed 71% of the cotton acreage harvested, only 9 points behind last year. Progress was behind normal in Missouri, Oklahoma, and Texas. Stripping progressed rapidly on the High and Low Plains of Texas with backlogs reported at some gins. Warm, open weather was favorable for harvest and clean-up operations.

SORGHUM: Sorghum harvest in the seven major producing States reached 95% complete, 3 points behind average. Producers were finished by this date last year. Progress lagged behind normal in all States except Oklahoma, South Dakota, and Texas.

SMALL GRAINS: Minor acreages of winter wheat remained to be seeded across the South. Seeding was virtually completed in other States, except California where planting normally is done later. In the 15 major producing States, plants had emerged on 95% of the seeded acreage. Stands were in mostly good condition. In some areas of northern Texas, fields have not emerged due to dry conditions. Cattle were being pastured on 10% of the acreage in Kansas, 5%

more than normal. Montana wheat rated fair to good; wind damage proved light.

OTHER CROPS: The Texas, peanut harvest was 87% finished, 7 points behind schedule. Harvesting moved rapidly under dry, open weather.

Tobacco growers concentrated on stripping and marketing their crops. Georgia producers prepared seedbeds.

The sugarcane harvest gained momentum in Florida and was 67% complete in Louisiana, 1 point behind average. Conditions were reported to be good.

The sunflower harvest neared completion in all producing areas.

FRUITS AND NUTS: Growers pruned and cleaned up deciduous orchards. The pecan harvest from 48% complete in Louisiana and 65% in Texas to 70% finished in Georgia and Mississippi.

Florida's citrus groves were in good condition, although many areas were dry and irrigation continued active. Cool nights helped color the fruit. Harvesting was slow, but war expected to pick up momentum this week as processing plants open. Arizona's citrus groves remained in mostly good condition. Freezing temperatures dipped into the State, but there were no reports of damage to fruit. In central Arizona, harvesting of oranges, lemons, tangerines, and tangelos was in full swing. Growers in western areas picked lemons, grapefruit, tangerines, and tangelos. Inclement weather halted harvests toward the end of the week. In the Rio Grande Valley of Texas, harvesting of grapefruit and oranges became more active. California growers harvested avocados, grapefruit, lemons, and Navel oranges. The Emperor table grape harvest was finished.

VEGETABLES: A cold front brought scattered frost to some of Florida's vegetable growing areas, but damage was limited to light leaf burn on tender crops. Total shipments decreased 24% from the previous week. Only cabbage, chinese cabbage, lettuce, and radishes showed an increase. Growers in the Rio Grande Valley of Texas continued harvesting cucumbers, cauliflower, broccoli, and peppers. In the San Antonio-Winter Garden area, harvesting of cabbage and carrots was active and the spinach harvest was getting underway. Growers harvested broccoli and cauliflower on the central coast of California. The sweet corn harvest neared completion in the Coachella Valley. The market tomato harvest slowed seasonally on the south coast.

PASTURES AND LIVESTOCK: Pastures declined seasonally, but were rated fair to good except in parts of the Southeast where poor to fair conditions persisted due to dry weather. Supplemental feeding increased. Warm temperatures in Texas promoted the growth of grasses and small grains. Movement of cattle to wheat pastures continued.

CROP PROGRESS

FOR WEEK ENDING NOV 29, 1981

	CORN % HARVESTED		
	1981	1980	AVG.
COLO	96	99	99
GA	99	99	98
ILL	98	100	98
IND	90	100	95
IOWA	99	100	99
KANS	95	100	99
KY	98	100	96
MICH	97	95	92
MINN	98	99	95
MO	92	100	96
NEBR	92	100	90
N C	98	98	97
OHIO	90	100	96
PA	95	100	91
S DAK	100	100	100
VA	96	95	92
WIS	92	100	96
17 STATES	96	100	96
THESE 17 STATES PRODUCED	93% OF THE 1980 CORN CROP.		

	SORGHUM % HARVESTED		
	1981	1980	AVG.
COLO	93	100	98
KANS	90	99	98
MO	90	100	94
NEBR	97	100	100
OKLA	95	100	90
S DAK	100	100	100
TEX	100	100	98
7 STATES	95	100	98
THESE 7 STATES PRODUCED	92% OF THE 1980 SORGHUM CROP.		

	SOYBEAN % HARVESTED		
	1981	1980	AVG.
ALA	94	90	86
ARK	96	85	90
GA	86	77	76
ILL	100	100	99
IND	99	100	100
IOWA	100	100	100
KANS	85	100	97
KY	96	100	98
LA	95	98	97
MICH	98	97	97
MINN	99	99	99
MISS	98	91	92
MO	93	100	93
NEBR	100	100	100
N C	83	64	67
OHIO	99	100	100
S C	85	51	66
TENN	98	100	85
18 STATES	96	95	94
THESE 18 STATES PRODUCED	95% OF THE 1980 SOYBEAN CROP.		

NA - NOT AVAILABLE

	COTTON % HARVESTED		
	1981	1980	AVG.
ALA	97	97	81
ARIZ	85	75	70
ARK	95	99	95
CALIF	92	90	NA
GA	95	97	87
LA	98	100	98
MISS	99	99	96
MO	91	100	96
N MEX	80	65	70
N C	94	97	88
OKLA	25	70	50
S C	99	100	92
TENN	90	100	83
TEX	55	69	62
14 STATES	71	80	NA
EXCL. STATES WITH NA	68	78	71
THESE 14 STATES PRODUCED	99% OF THE 1980 COTTON CROP.		

	WINTER WHEAT % EMERGED		
	1981	1980	AVG.
CALIF	35	15	NA
COLO	99	99	100
IDAHO	100	100	100
ILL	93	100	NA
IND	95	98	93
KANS	99	95	NA
MO	92	99	92
MONT	100	100	100
NEBR	100	100	100
OHIO	95	100	99
OKLA	95	95	90
OREG	96	95	NA
S DAK	100	100	100
TEX	89	89	NA
WASH	95	99	NA
15 STATES	95	94	NA
EXCL. STATES WITH NA	97	98	95
THESE 15 STATES PRODUCED	88% OF THE 1980 WINTER WHEAT 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 Offices in cooperation with the National Weather Service.

ALABAMA: Temperatures above normal. Highs in low 80's over holiday period. Rainfall light south, heavy north; 2.34 in. Belle Mina.
Fieldwork: 5.2 days. Soil moisture short.
Activities: Row crop harvest, wheat seeding, pecan harvest, livestock and poultry care. Soybeans 94% harvested, 90% 1980, 86% average. Cotton 97% harvested, 97% 1980, 81% average. Sorghum 96% harvested. Wheat seeding 86%, 93% 1980.
Condition: Wheat, livestock fair to good; pastures very poor southwest, fair northern valley.

ARIZONA: Fair, mild weather 1st part week followed by cooling trend. Very cold, winter storm spread rain, snow over much of State. Amounts generally between 0.50 to 2.00 in. Snow level dropped to around 5,000 to 6,000 feet, 1 to 5 in. below 7,000 feet, 5 to 15 in. above 7,000 feet. Average temperatures varied 3° below normal to 6° above.
Cotton harvest excellent progress until late week when high winds, sometimes heavy rains dropped temperatures. Wet, muddy conditions halted all fieldwork. Approximately 85% acreage some stage harvest activity, this compares 75%, 70% for last year, respectively. Late season sorghum harvest continued, virtually all remaining crop at maturity. Alfalfa haying winding down, lower than normal temperatures slowed growth. Renovation old, planting new fields remained active until rain, muddy fields halted operations. Sugarbeets continued good top, tap root growth. Weeding, thinning, pesticide applications active

as needed. Land preparation, planting small grains made reasonably good progress. Earlier planted fields up to stand made favorable response to recent rainfall. Lettuce harvest central, western areas full swing until halted late in week by wet, muddy conditions. Harvest mixed vegetables, seasonal progress as conditions allowed. Other lettuce, mixed vegetables for winter harvest mostly up to stand, growing well. Central harvest Navel, miscellaneous oranges, lemons, early tangerines, tangelos full swing, halted by inclement weather. Western areas lemons, early season grapefruit, tangerines, tangelos, being picked before weather slowed, stopped harvest. Fruit responded favorably recent colder weather, colors much brighter. Groves appear mostly good condition, no reports received of fruit damage freezing temperatures. Range fair higher elevations, mid-to-lower deserts poor. Soil moisture, water supplies adequate to surplus. Livestock fair to good.

ARKANSAS: Another week of slightly above normal temperatures. Little rainfall. Highest temperature 79°, lowest 26°. All departures from normal +5 to 0°. Most rainfall 0.82 in., least zero.
Ideal harvesting weather. Six days for fieldwork. Soil moisture getting short, except southwest and northeast where adequate. Soybeans harvested 96%, 85% 1980, 90% average. Cotton picking 95%, 99% 1980, 95% average. Wheat and oat seedings need rain. Wheat seeded 95%, 94% average.

Cattle good condition. Pastures deteriorating, but hay abundant.

CALIFORNIA: Warm rains early in the week provided above normal precipitation and temperatures for the northern two-thirds of State. Rain turned to snow by Thanksgiving and 14 in. of snow were recorded at Norden on Highway 80. Most reporting stations well above normal for this time of year.

Rainfall continues to hamper fieldwork. Rice harvest complete. Stubble burning delayed due to rain. Wheat emerged at 35% compared with 15% last year. Cotton harvested 92% compared to 90% a year ago. Dry bean losses due to weather expected. Avocado harvest includes Zutano, Fuerte and Bacon varieties. Limited picking Desert grapefruit and lemons. Navel orange harvest active. Emperor table grape harvest completed. Artichoke harvest very light. Broccoli, cauliflower harvest active Central Coast, light other districts. Cantaloup, honeydew harvest nearly complete Desert. Carrot harvest moderate Kern district, Salinas Valley. Sweet corn harvest nearly complete Coachella Valley. Lettuce volume increasing Palo Verde Valley; slow Santa Maria, San Joaquin Valley. Planting processing peas underway. Movement fall potatoes from storage ahead of last year. Market tomato harvest slowing seasonally South Coast. Rains improved soil moisture southern range areas. Cattle grazing foothill areas. Sheep continue graze alfalfa, stubble fields, stock water supplies more than adequate. Calving, lambing active.

COLORADO: Scattered precipitation but amounts generally below 0.10 in. Heavy snow mountains and west; light snow east on weekend. Temperatures averaged 3 to 6° above normal for the period most locations.

FLORIDA: Fair weather prevailed, 23rd with near freezing temperatures north, 40's south. Highs mostly in 70's. A cool front moved through beginning on the 24th, bringing showers mainly in the Panhandle, north. Lows 25th, 26th ranged from the 30's north to 50's south with highs mostly in 70's. Fair skies prevailed most of week with warmer temperatures returning by 27th and continuing through weekend except for a little cooler north, 28th.

Soil moisture generally short. Soybean harvest advanced to completion, some areas, nearing completion elsewhere. Recent winter grain plantings becoming established; some late plantings continue after delays due to dry soils. Cotton harvesting continues active. Sugarcane harvest gaining. Many permanent pastures browned by frost over some lower central Peninsula areas northward; supplemental feeding active many of these areas where progress of winter annual grazing delayed due to dry soils. Grazing good, few upper east coast areas, also lower southern Peninsula, but only poor to fair elsewhere. Cattle condition mostly fair to good. Citrus groves good condition. Rain needed, irrigation continues very active. Cool nights helping fruit color. Very little fruit splitting. Harvest slow last week, expected to increase with processing plant openings. Clear to partly cloudy skies, very little to no rainfall prevailed in vegetable areas. A cold front first of week brought morning temperatures in low 30's, scattered frosts some areas. Damage limited to light leaf burn some tender crops. Winds light to moderate. Total vegetable shipments down 24% from previous week. Harvest gained cabbage, Chinese cabbage, lettuce, radishes. Supplies about steady celery, squash. Volume declined snap beans, carrots, sweet corn, cucumbers, eggplant, escarole, okra, parsley, peppers, southern peas, tomatoes. Cauliflower harvest underway. Strawberry plant growth continues very good Hillsborough-Manatee area; bloom and fruit set showing in older planting.

Light harvest expected by late December. Light supply fall watermelons available; quality, size good.

GEORGIA: Light rain around midweek averaged 0.25 to 0.50 in. north and central, but only 0.10 in. elsewhere. Temperatures ranged between 1 and 5° below normal most sections. Coolest early in week, with slow moderating trend. Weekend quite mild. Temperatures averaged 5 to 10° above normal. Rainfall averaged 1.25 in. northwest to less than 0.25 central and scarcely any south.

Soil moisture very short to adequate northern two-thirds, short to adequate southern third. Five days suitable for fieldwork. Main activities were harvesting late crops and seeding small grains. Tobacco seedbeds being prepared. Soybeans poor to fair, 86% harvested, last year 77%, average 76%. Cotton fair to good, 95% harvested, last year 97%, average 87%. Pecans fair to good, 70% harvested, last year 61%, average 62%. Corn harvest virtually complete. Wheat 73% planted, last year 76%, average 77%. Rye 89% seeded, equal last year, average 84%. Other small grains 88% planted, last year 86%, and average 82%. Pastures poor to fair, cattle and hogs fair to good.

HAWAII: Weather variable. Strong, gusty winds affected crop and orchard progress, Island of Oahu. Weather other Islands reported to be favorable. Rainfall generally light to moderate. Vegetables: Winds caused light damage to vine and leafy crops exposed areas. Supplies generally adequate. Bananas: Winds toppled some plants, already weakened by the root borer on Island of Oahu. Damage isolated. Papayas: Seasonally declining. Pineapples: Harvesting light. Sugar: More mills closing for repairs. Report indicates 80% of the mills will be closed within the next two weeks. Pastures: Rains beneficial. Improving.

IDAHO: A series of Pacific storms moved across the State to bring an abundance of rain and snow. Precipitation ranged from 0.14 to 1.73 in. Temperatures ranged from 2° below to 7° above normal. High of 60° in Caldwell, low of -10° in Stanley.

With most fall work completed the main activity was marketing farm commodities. The rains were very much needed for soil condition.

ILLINOIS: Temperatures 2° below normal to 2° above normal. Precipitation 0.25 to 0.75 in. Isolated areas up to 1.00 in.

Corn 98% harvested, 100% 1980, 98% average. Winter wheat 98% seeded, 100% 1980, and 100% average; 93% emerged, 100% 1980; condition 7% excellent, 80% good, and 13% fair. Corn and soybean acreage 62% tilled, 68% 1980, and 62% average. Pastures 5% excellent, 66% good, 24% fair, 5% poor. Soil moisture 3% short, 74% adequate, 23% surplus. Fieldwork: 3.5 days suitable.

INDIANA: Near normal temperature and precipitation. Temperatures ranged from 15 to 70°. Precipitation averaged 0.50 to 0.80 in. coming early and at midweek. Four week totals 0.80 to 1.60 in. below normal. Sunshine past week 16 to 32% of possible.

Fieldwork averaged 2 days. Topsoil moisture adequate to surplus. Subsoil moisture mostly adequate. Corn 90% harvested, 1980 100%, average 95%. Soybeans 99% combined, 1980 100%, average 100%. Moisture content: Corn 25%, soybeans 15%. Winter wheat 95% emerged, 1980 98%, average 93%. Wheat condition good. Spring cropland 45% plowed, 1980 70%.

IOWA: A mild week with temperatures averaging a few degrees above normal. Precipitation was negligible west to near the normal 0.40 in. in

the east central and northeast. Early week snowcover across north melted during the week. Small hail fell the 26th at Grinnell and Vinton.

Corn acreage harvested: 99%, 1980 100%, normal 99%.

KANSAS: Little or no precipitation. Temperatures averaged 40° northwest and north central, 48° southeast, mid 40's elsewhere. These were 3 to 5° above normal northern third, 6 to 7° above normal elsewhere.

Corn 95% harvested, 100% last year, 99% average. Soybeans 85% harvested, 100% last year, 97% average. Sorghum 90% harvested, 99% last year, 98% average. Wheat 98% planted, 100% last year and average; 99% emerged, 95% last year; 10% pastured, 10% last year, 5% average. Pasture and range continue good to excellent, except fair west central. Soil moisture generally adequate, subsoil moisture becoming short west central and southwest. Feed grain, hay, forage supplies adequate. Fieldwork: 5.5 days suitable.

KENTUCKY: Temperatures averaged about 2° above normal. Precipitation amounts averaged between 0.50 and 1.00 in.

Corn 98% harvested, 100% last year, average 96%. Soybeans 96% harvested, 100% last year, average 98%. First week of burley sales totaled 97.6 million pounds with an average price of \$179.90 per cwt. Very little burley has gone to government pool.

LOUISIANA: Rainfall 0.50 to 1.00 in. north, 0 to 0.40 in south. Temperatures 7 to 11° above normal.

Soil moisture short. Days suitable: 6.0. Cotton harvested 98%, 100% 1980, 98% average. Soybeans harvested 95%, 98% 1980, 97% average. Sugarcane harvested 67%, 64% 1980, 68% average; condition good. Pecans harvested 48%, 65% 1980, 74% average. Winter wheat seeded 77%, 95% 1980, 96% average; emerged 59%, 85% 1980; condition fair to good. Vegetables rated fair to good. Pastures rated fair, livestock rated fair to good.

MARYLAND AND DELAWARE: Temperatures averaged 5° below normal. Highs averaged in the upper 40's to low 50's while lows averaged in the upper 20's to mid 30's. Precipitation was minimal with Oakland in western Maryland reporting the most at 0.46 in. Southern districts in both States received lightest amounts ranging from none to 0.03 in.

MICHIGAN: The week began cold but warm temperatures moved across the State about midweek. Temperatures averaged near normal to 2° above normal. Precipitation limited first part of week. Rain fell across most of the State after midweek. Eastern Upper and west central Lower averaged almost 1.50 in. Remainder of State averaged less than 1.00 in.

Completion of harvest delayed by rain and wet fields. Corn 97% harvested. Soybeans 98% harvested. Fall tillage operations limited. Most farm activity centered on preparing buildings and machinery for winter.

MISSISSIPPI: Frontal systems brought rainfall mainly to the northern third of State. Greatest 24-hour rainfall 2.00 in. Temperatures ranged from seasonal in northern area of State to 5 to 10° above normal in south. Extremes: 23 and 83°.

Soil moisture short to very short. Days suitable for fieldwork: 5.0. Cotton 99% harvested, 99% last year, 96% average. Soybeans 98% harvested, 91% last year, 92% average. Pecans 70% harvested. Winter wheat 93% seeded; condition

fair. Roughage and grain supplies adequate. Pasture condition fair. Livestock condition fair to good.

MISSOURI: Temperatures ranged from near normal to 7° above normal. Precipitation averaged less than 0.25 in., except in the Bootheel where an average of 0.75 in. fell.

Fieldwork: 4.3 days suitable. Corn 92% harvested, last year 100%, normal 96%. Grain sorghum 90% harvested, last year 100%, normal 94%. Soybeans 93% harvested, last year 100%, normal 93%. Winter wheat 92% seeded, last year 100%, normal 93%. Fall plowing 55% completed. Cotton 91% harvested, last year 100%, normal 96%.

MONTANA: Moderate to heavy precipitation over most of southwest and south central and parts of central and southeast areas. Most north central and northeast remained dry. Temperatures averaged 1 to 2° below normal west, central and southeast and about 7° below southwest and south central. Dry areas of north central and northeast temperatures were a 1 to 2° above normal. Sub-zero temperatures most of southwest and parts of south central and southeast.

Topsoil and subsoil moisture short to adequate. Winter wheat condition fair to good. Wind damage light northeast, mostly none elsewhere. Livestock on supplemental feed: Cattle 80%, sheep 70%. Livestock condition good, stock water supplies short to adequate.

NEBRASKA: Precipitation: Trace amounts over most of State. Temperatures: Averaged 2° above normal.

Corn harvest 92%, 100% last year and 90% normal. Sorghum 97% combined compared to 100% last year and normal. Winter wheat good. Pasture and range feed supplies mostly adequate. Topsoil moisture adequate. Subsoil supplies short to mostly adequate. Days suitable: 5.9.

NEVADA: Week started mild and wet in north, sagged southward bringing much cooler temperatures by midweek, some precipitation to extreme south late in period. Rain turned to snow end of week. Mild, windy weather early in period resulted in above normal temperatures for entire period. Extremes: 77 and 3° below zero.

Grading and marketing potatoes full swing. Feeding requirements livestock increased sharply with inclement weather.

NEW ENGLAND: Temperatures averaged near or a little below normal, except above normal on the 27th. Precipitation light and occurred during latter part of week. Amounts of less than 0.25 in. in southern New England and 0.25 to 0.50 in. in north. Majority of precipitation was light snow or flurries on the 26th in the higher elevations.

NEW JERSEY: Temperatures were 5 to 7° below normal, averaging 34° north, 38° south and 39° coastal. Extremes: 16° at Neshanic Station and 67° at Cape May Court House. There was no significant rainfall.

Soybean harvest nearing completion. Fruit pruning continues. Apples and sweetpotatoes moving from storages. Cider making active.

NEW MEXICO: Warm temperatures prevailed through midweek when cold, wet weather moved in.

Soil moisture adequate in most areas. Open weather through 26th with most areas receiving precipitation from 27th to 29th. Farm activities included harvest of cotton, grain sorghum, red chile, and pecans. Cotton harvest continued active through 26th but brought to a halt in most southern areas due to rainfall for the rest of

the week. Wheat and barley fields in good condition with grazing active in most areas. Grain sorghum in good condition with harvest about 80% complete. Peanut harvest complete. Red chile harvest continuing and pecan harvest continued to increase in activity. Ranges in good condition with most areas receiving a much needed rain. Livestock in good condition.

NEW YORK: Temperatures slightly colder than normal in central and eastern sections. Temperatures normal in west. Precipitation light, less than 0.25 in. Most precipitation fell as rain. Snow flurries 28th and 29th.

NORTH CAROLINA: Temperatures: Near normal in all areas of the State. Precipitation: Two-tenths in. in most areas to .86 at Marshall. Soil moisture: 5% very short, 65% short, 30% adequate. Fieldwork: 5.2 days suitable. Harvest: Cotton 94%, 1980 97%, 88% average; sorghum grain 95%, 1980 93%, 94% average; soybeans 83%, 1980 64%, 67% average. Corn for grain 98%, 1980 98%, 97% average. Plantings: Wheat 89%, 1980 91%, 89% average; oats 97%, 1980 94%; barley 96%, 1980 95%; rye 88%, 1980 92%. Fuel supplies mostly adequate. Major farm activities: Harvesting soybeans and planting fall corn crops.

NORTH DAKOTA: Temperature and precipitation totals were above normal. Almost all precipitation occurred as snow. East central reported the highest precipitation total of 0.70 in. Temperatures averaged 1 to 7° above normal, extremes ranged from a high of 43° southwest on 23rd to a low of -2° on 27th, also southwest. Snow depth averages 2.8 in.

Excellent harvesting conditions during the first 3 weeks of November allowed farmers and ranchers to virtually complete harvest and fall fieldwork. The grazing of cattle extended with supplemental feeding as pastures partially covered with snow. By the end of November, sunflower and corn for grain were 99% harvested, slightly ahead of last year for sunflower but the same as a year ago for corn. Winter wheat was rated 2% excellent, 29% good, 68% fair and 1% poor. Rye was 53% good and 47% fair. Half of the pastures open for grazing with 22% of them rated good, 59% fair and 19% poor.

OHIO: Much corn remains unharvested as farmers wait for it to dry down to avoid high drying costs. Some fields with moldy corn will be plowed under. Emerged wheat stands good to excellent. Wheat emerged 90%, 100% 1980, 99% average. Corn for grain harvested 90%, 100% 1980, 96% average. Soybeans harvested 99%, 100% 1980, 100% average.

OKLAHOMA: Precipitation ranged from an average of 0.04 in. in the Panhandle division to an average of 1.26 in. in the east central, occurring mostly on 29th. Temperatures averaged from 3 to 6° above normal.

Warm, dry weather enabled good harvesting progress. Weather good to excellent for growth and development wheat. Rust and nitrogen leaching wheat still problem. Wheat up to stand: 95%, 95% 1980, 90% average. Wheat grazed: 25%, 10% 1980, 15% average. Sorghum harvested: 95%, 100% 1980, 90% average. Cotton harvested: 25%, 70% 1980, 50% average. Days suitable fieldwork: 6.2.

OREGON: Coastal temperatures near normal. Precipitation varied 2.20 to 5.30 in. Inland valleys west of the Cascades received amounts varying from 1.10 to 2.80 in.; amounts of 0.30 in. in northern areas east of the Cascades; amounts up to 1.50 in. where measured in southern areas. Temperatures ranged from normal to 5° above normal.

Soil moisture supplies adequate to surplus in west; adequate east. Snow fell in many eastern areas. Most fall seeding complete; winter wheat 96% emerged; 95% last year. Spraying for weeds above normal in wheat fields; growers concerned. Considerable crownborer damage reported in strawberries. Grape harvest complete. Fall and winter spraying programs underway in fruit orchards; some pruning. Some liming in filbert orchards; light to moderate tree damage from wind storm two weeks ago. Fall vegetable harvest continues. Livestock fair to mostly good condition. Range and pasture condition varies fair to mostly good. Feed supply adequate to surplus.

PENNSYLVANIA: Cloudy to partly sunny and cold. Temperatures 3 to 6° below normal all except northwest where near normal. Coldest week State-wide since early March. Extremes: 62 and 10°. Light dusting of snow flurries several days with up to 1.50 in. Lower Susquehanna 24th. Precipitation 0.10 in. or less most sections.

PUERTO RICO: Island average rainfall 0.89 in. or 0.2c in. above normal. Temperatures averaged 81 to 80° on Coasts and 77 to 75° Interior Divisions. Extremes: 94 and 54°.

SOUTH CAROLINA: Temperatures above normal except on 23rd and midweek when morning temperatures averaged near or below freezing. Brief periods of rainfall at the beginning and latter part of the period.

Soil moisture short. Five days suited for fieldwork. Cotton gins winding down; 99% harvested, complete last year, 92 average. Soybean yields poor to excellent; 85% harvested ahead of 51% 1980, 66 average. Winter grazing, fair condition with 94% planted, complete year ago; 85% emergence, behind 91% last year, 90 average. Increase reported in wheat acreage planted, 82% seeded compared to 82% 1980, 79 average; emergence slowed by minimal moisture, 69% emerged, 71 last year, 67 average. Small grain condition fair to good. Pasture condition poor to fair. Fall snap bean harvest complete.

SOUTH DAKOTA: Above normal temperatures. Departures ranged from 8° above to 3° below normal. Extremes: 55 and -4°. Most of the State received precipitation in the form of snow or rain mixed with snow. The largest amounts fell in the north (up to 0.71 in.) while the southeast received only traces. Yearly precipitation totals remained above normal central portions and below normal elsewhere. Departures from normal ranged from +2.99 in. in the north central to -7.85 in. in the southeast.

TENNESSEE: Cold fronts moved through 23rd and 26th. Precipitation followed each system and amounts ranged from 0.50 to 1.50 in. with the heaviest amounts in the middle part of the State and over the Cumberland Plateau. Averages were near normal, in the mid to upper 40's, except for the western region which averaged 2 to 4° above normal.

Tobacco stripping and marketing the main farm activity. Wheat seeding and fall plowing nearing completion. Pastures and cattle in good condition. Cotton picking 90% complete, 1980 100%, and average 73%. Soybeans combining 97% complete, 100% 1980, average 85%.

TEXAS: Weather: Series Pacific cold fronts moved through State. Showers developed along fronts primarily eastern half of State. Temperatures 1° above normal East Texas to 17° above normal Edwards Plateau. Rainfall generally above normal: East Texas, Edwards Plateau, Lower Valley.

Crops: Warm, open weather favorable most fieldwork. Grain sorghum harvest virtually completed. Cotton stripping progressing rapidly High

and Low Plains; backlogs reported some gins. Scattered areas Low Plains green bolls found harvested cotton. Warm open weather favorable harvest favorable harvest and clean up operations. Reported condition Statewide 5% excellent; 69% good; 23% fair; and 3% poor. Small grains making good progress across State. Many oat, wheat fields providing good grazing. Planting wheat, oats nearing completion under warm open weather. Some wheat stands northern part State need additional moisture; some areas fields not emerged because dry conditions. Greenbugs, winter mites problem Central Texas. Reported wheat condition across the State 17% excellent; 66% good; 14% fair; and 3% poor. Peanut harvest active under dry, open weather. Harvest making good progress Cross-Timbers where yields and grades good. Soybean harvest gaining momentum, although slow drying fields along coast have delayed harvest. Sugarbeet harvest nearing completion High Plains. Cotton open bolls 96%, 100% 1980. Cotton harvested 55%, 69% 1980, 62% average. Sorghum harvested for grain 100%, 100% 1980, 98% average. Wheat planted all purposes 94%, 95% 1980, 96% average. Wheat emerged 89%, 89% 1980. Peanuts harvested 87%, 83% 1980, 94% average. Pecans harvested 55%, 39% 1980, 54% average. Soybeans harvested 87%, 85% 1980, 93% average. Sugarbeets harvested 97%, 58% 1980, 85% average. Sunflowers harvested 97%, 82% 1980, 94% average. Oats planted 96%, 94% 1980, 95% average.

Commercial vegetables: Rio Grande Valley, conditions remain good harvest of cucumbers, cauliflower, broccoli, peppers continued. Cabbage making excellent growth. Spinach progressing well, harvest getting underway. Harvesting of grapefruit, early oranges picked up. Coastal Bend, fall vegetables fair condition. Moisture levels good, temperatures mild. Harvest of cucumbers winding down. San Antonio-Winter Garden area, harvest of cabbage, carrots active, spinach harvest beginning. Trans-Pecos Region, cabbage making good progress. Harvest of lettuce, chili peppers continued. Pecan harvest continued. Yields good, quality of later varieties also good.

Range and livestock: Ranges, pastures benefited from mild temperatures. Continuance of warm weather promoted growth of native grasses, small grains. Livestock in good to excellent condition. Plains, movement of cattle to wheat pastures continued. Supplemental feeding continues South Texas, Rio Grande Valley.

UTAH: Recurring periods of rain or snow, accumulated moisture generally light to moderate but locally heavy few localities. Cooling trend with temperatures ranging from 3° below normal to 7° above. Soil moisture deficit lower levels continues serious.

Major farm activities limited to daily chores and care of livestock. Processing and marketing of apples, onions and potatoes continues.

VIRGINIA: Heavy snowfall first of period fell over parts of State. Ten in. fell in Giles County in the southwest. Lesser amounts of 2 to 8 in. fell over western, central and northern divisions. Temperature extremes: 75° at Holland in the southeast and a low of 13° at Elkwood in the northern division. Temperature through the period was mostly below normal.

Snow limited the number of days in some areas but Statewide there were 4.1 days suitable for fieldwork. The cold weather was well suited for butchering hogs and cattle. Topsoil moisture improved and rated 48% short, 52% adequate. Corn harvest 96% complete, 95% last year, 92% average. Soybean harvest 82% complete, 70% 1980, 74% average. Grain sorghum 79% harvested, 70% 1980, 77% average. Wheat crop 89% seeded, 86% last year, 85% average. Pastures rated in fair to good condition, while winter grains and grazing crops rate good to excellent. Cooler weather has slowed pasture growth and more supplemental feed being utilized for range stock. Good quality burley and fire-cured tobacco now being marketed by growers.

WASHINGTON: West: Average temperatures 1 to 2° above normal. Precipitation varied widely ranging from 0.2 in. below normal to as much as 0.6 in. above normal. Harvest of carrots, broccoli, and Christmas trees continued. Flower bulb planting is virtually complete, and pruning and tying of bushberries was done as weather permitted. Most cattle are on feed. Local hay supplies are adequate.

East: Temperatures were above normal east of the Cascades. Rainfall generally averaged slightly below expected normals, except northern mountain areas which were near normal and southeast which was 0.3 in. above normal. Some late field corn harvesting was accomplished, as well as orchard and vineyard pruning. Winter grains are in good shape although some cheatgrass infestations have been reported. Hay and forage supplies are adequate.

WEST VIRGINIA: Temperatures averaged well below normal; 2 to 8° Statewide. Precipitation averaged well below normal, less than 1.00 in.

Soil moisture adequate. Days suitable for fieldwork: 3.5. Hay, grain and other feed supplies adequate.

WYOMING: Temperatures above normal. Warmest 62° coldest 7° below zero. Precipitation for most part below normal; 2.13 in. largest amount reported.

Winter wheat mostly good condition, additional moisture needed for good development. Corn harvest continues. Livestock mostly good condition. Limited supplemental feeding in areas with snow cover or poor pasture conditions.

(continued from first page)

SATURDAY...A low pressure system moved southward along the California coast and spread showers of rain or snow throughout the Southwest. Heavy snow covered some of the mountain areas. A cold front reaching from Oklahoma through Texas caused showers from New Mexico through the Texas Panhandle to Arkansas and over southeastern Texas. A few showers fell in the Carolinas and light snow extended from the Dakotas to the Northeast.

SUNDAY...A strong low pressure system moved out of the southern Rockies, picking up moisture from both the Pacific Ocean and the Gulf of Mexico. Showers of rain or snow spread from eastern Arizona and Utah eastward through the central and southern Plains to the Tennessee Valley and South Carolina. Heavy snow covered much of the central and southern Rockies. Another cold front spread showers over the Northwest from Washington and Oregon to the northern Rockies. Snow showers lingered over the northern Appalachians.

WESTERN USSR Wintering Conditions *

Winter crops in the USSR are especially vulnerable when snow cover is lacking or is thin. Winterkill--caused largely by intense cold, icing, thawing and refreezing, heaving, or drought--is a frequent hazard to winter grain. Tree crops, berries, and other hibernating crops can also be damaged by severe winter conditions. On the other hand, deep snow on the fields provides protection from wind and cold and assures better soil moisture reserves in the spring.

The character of winter in the USSR varies from unrelenting and bitter cold in Siberia to changeable and warm in the Caucasus; for most of the country it is a long, cold season with a persistent snow cover. The severest conditions prevail in the Yakut ASSR, where winter lasts 7 to 9 months, snow cover remains all winter from the first snowfall, and temperatures as low as -71°C have been recorded. Wintering conditions moderate westward and southward. In northern European USSR the season is a month or two shorter and less severe, but the snow cover is deeper (in some lowland areas more than 1 meter) and more compact.

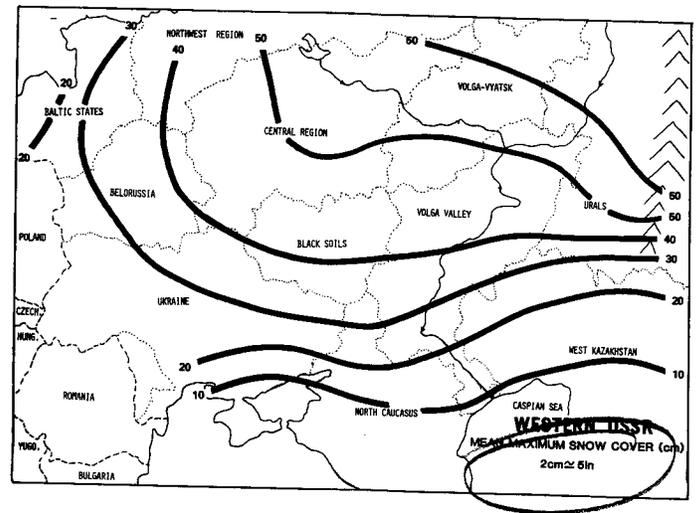
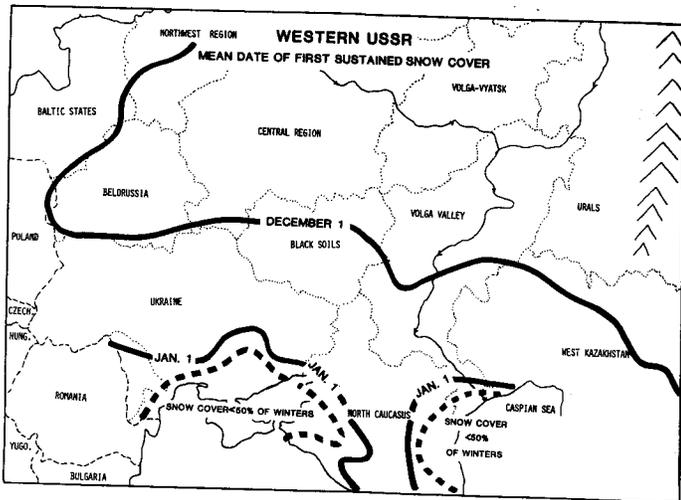
In central and southern European USSR, where winter grain is an important crop, winter generally lasts about 4 or 5 months, but its severity changes from year to year. When intrusions of cold air from the Arctic or Siberia prevail, winters are cold and snowy, and temperatures can drop to levels that damage winter crops and fruit trees. When westerly marine air masses dominate, winter weather is warmer and overcast, with wet snow, sometimes even rain. Intermittent freezing and thawing makes the snow

cover irregular in depth and density and can result in the formation of damaging ice crusts.

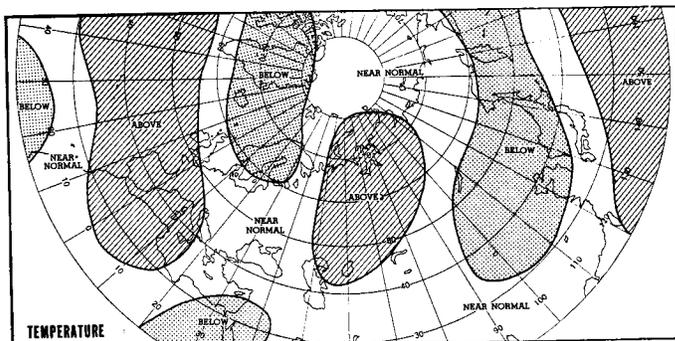
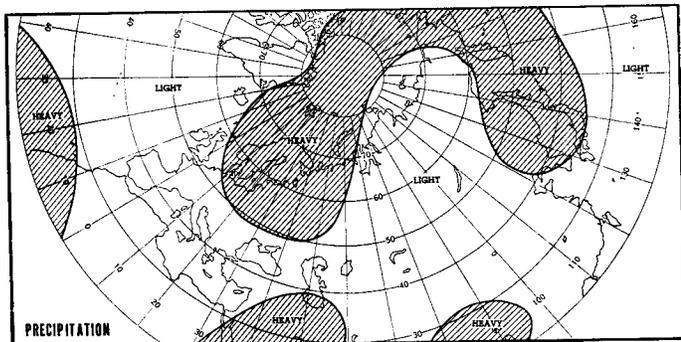
The Caucasus coast of the Black Sea is the warmest part of the USSR in winter. Only January and February can be considered winter months, and even then temperatures average above freezing. There is usually no snow, but occasional cold waves from the north or east bring snow and frost that damage citrus and other subtropical plants.

Nearly all of the USSR is covered by snow in winter, but depth and duration vary from region to region and from year to year. Soviet experts note that the snow depth should be at least 30 cm in European USSR and 40 cm in Siberia to protect winter plantings from the very low temperatures. Snow retention measures to protect fields and to enhance moisture reserves are carried out over an area of 50 to 60 million hectares, mostly in Kazakhstan and Siberia. The principal technique is to accumulate and hold the snow by placing obstructions on the fields at right angles to the prevailing winds. Commonly used obstructions include removable fences, high stubble, rows of corn, sunflower or mustard stalks, snow ridges, straw mulch, brush piles, and plowed earth ridges. Forest strips are also effective for snow retention over large areas. Excessively deep snow is removed by plows or is compacted on the fields. To hasten snow melting, darkening materials such as soot, peat dust, or ashes are sprinkled on the surface.

*Reprinted from: USSR Agriculture Atlas, Central Intelligence Agency, Dec. 1974, pp. 10-11.



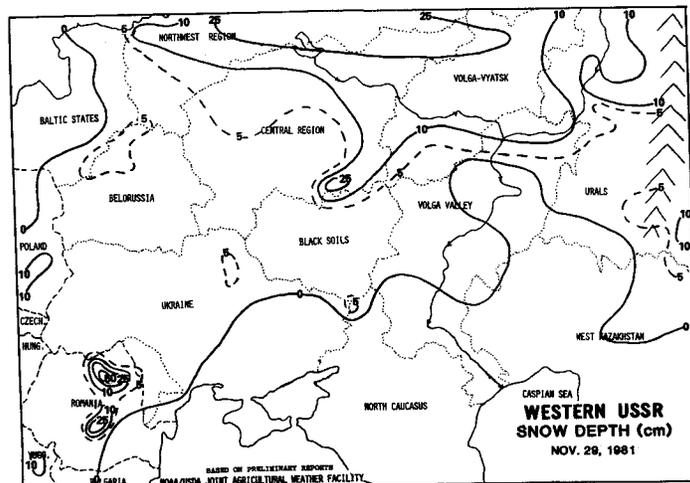
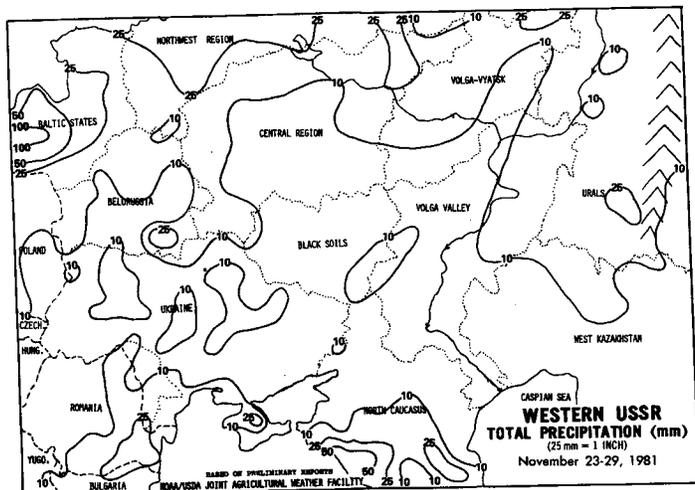
EURASIA OUTLOOK FOR DECEMBER



International Weather and Crop Summary

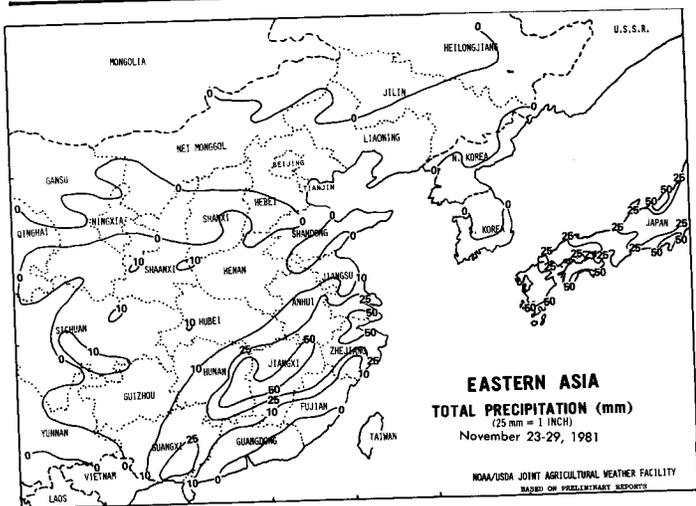
HIGHLIGHTS
November 23-29, 1981

- USSR:** Snow cover increases in the north but unseasonably warm temperatures in the west reduce it; some wheat growth in the North Caucasus.
- EUROPE:** Cold, wet weather in the north; still too dry for winter grain sowing in Spain.
- MEXICO:** Seasonal dryness and sunshine favor crop development and harvesting.
- NORTHWESTERN AFRICA:** Rains benefit grain areas of northeast Algeria and northern Tunisia but dry weather continues planting delays in Morocco and western Algeria.
- SOUTH AFRICA:** Rains benefit corn planting.
- EASTERN ASIA:** Winter wheat enters dormancy in north, but some growth in south; late rice harvest in southern coastal areas.
- AUSTRALIA:** Dry weather aids wheat harvest.
- SOUTHEAST ASIA:** Dry weather in Thailand; Typhoon Irma hits Philippines.
- SOUTH ASIA:** Dry weather over most crop areas.
- SOUTH AMERICA:** Dry weather aids Buenos Aires' wheat harvest but wet weather in Rio Grande do Sul delays it; widespread showers elsewhere.

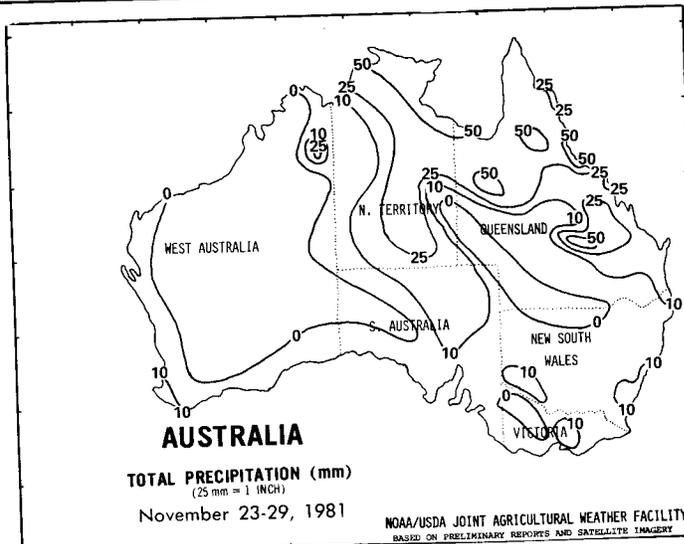


WESTERN USSR: Light precipitation in the form of rain and snow occurred throughout most of European USSR. Heavier amounts of precipitation, ranging from 25 to 50 mm, fell on the Baltic States and North Caucasus. Drier weather occurred in previously wet areas of northeast Romania and the Ukraine. Light precipitation in the Volga-Vyatsk and Urals increased the snow cover there. Overall, winter wheat is in the dormant to

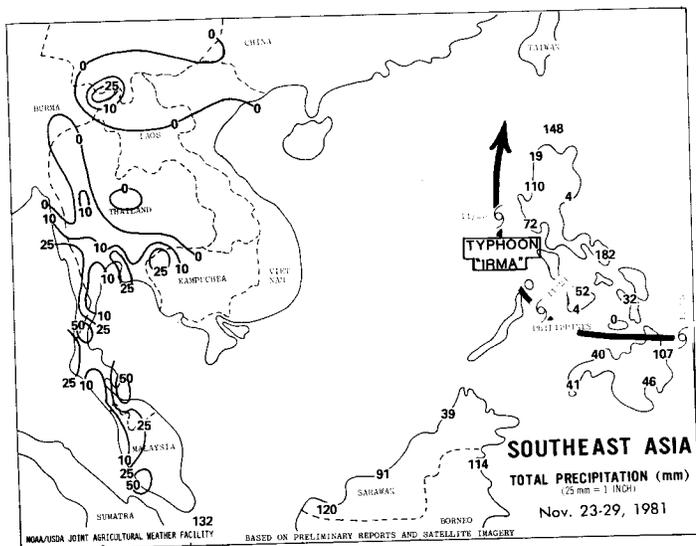
semi-dormant state with some growth in areas adjacent to the Black Sea and North Caucasus. Daily maximum temperatures around 10°C in most of the western winter grain area substantially reduced the snow cover. In South Central USSR, wet weather slowed cotton harvest somewhat in northern areas but only light precipitation fell on cotton areas elsewhere.



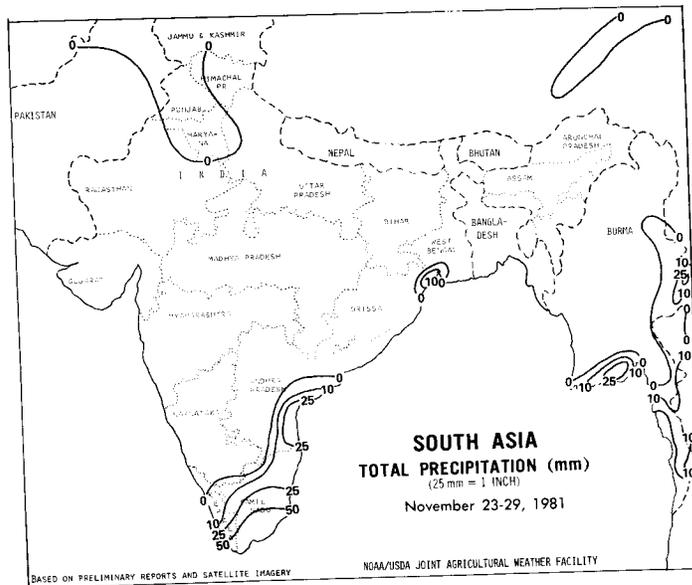
EASTERN ASIA: Light precipitation occurred over most of China, with the exception of the southeast interior where heavier rain occurred. The dry weather in northern crop areas allowed final cotton harvest activity to progress with little delay but dimmed sowing prospects for unirrigated winter grain areas of Hebei and surrounding locations. Cold temperatures in crop areas north of a line from central Gansu through central Shaanxi, southern Henan, and extending into Shandong and South Korea have induced winter grains to enter dormancy. South of this line, wet weather in Hunan, Jiangxi, southern Anhui, and Zhejiang benefited the early growth of winter grains. Modest precipitation in southern coastal areas caused no significant delays in the late rice harvest. South Korea crop areas remained dry this week.



AUSTRALIA: The primary effect of weather on the wheat harvest is in the quality of the crop. Warm, dry weather tends to increase the protein content of wheat, while cool, moist weather often leads to a more starchy grain. The wheat harvest is nearly complete in much of Queensland and well underway in northern New South Wales. The harvest season is just beginning in other major wheat producing areas. While showers produced significant rainfall in the Northern Territory and much of Queensland, scattered showers caused no major delays in the early wheat harvest over the southern portion of the country. The additional moisture in Queensland was beneficial for spring-sown crops, pastures, and sugar cane.



SOUTHEAST ASIA: Dry weather prevailed over much of Thailand and vicinity except for a few isolated light showers. Some heavier rain fell in an area surrounding Bangkok but most of the shower activity occurred further south over peninsular Thailand, Malaysia, and Indonesia. In general, weekly rainfall amounts in these areas were somewhat below average. Typhoon Irma crossed through the center of the Philippines, producing high winds and heavy rain along its path. Rice and sugar cane crops were damaged by the intense storm as it moved west over Camarines Sur Province, passing to the south of Manila before turning north into the South China Sea.



INDIA: A relatively dry weather pattern continued over most of India except extreme southeast coastal areas. Winter grain planting should be well underway in Punjab, Haryana, Uttar Pradesh, and Bihar. Timely rains during the first 2 weeks of November in these areas provided favorable topsoil moisture conditions for emergence and early growth of the winter grain crop. Dry weather during the past 2 weeks has reduced topsoil moisture somewhat, but the overall outlook remains favorable at this time. In addition, the dry weather enabled the harvest of cotton, groundnuts, and autumn rice to progress with few delays. In Burma, dry weather returned to most crop areas this week.

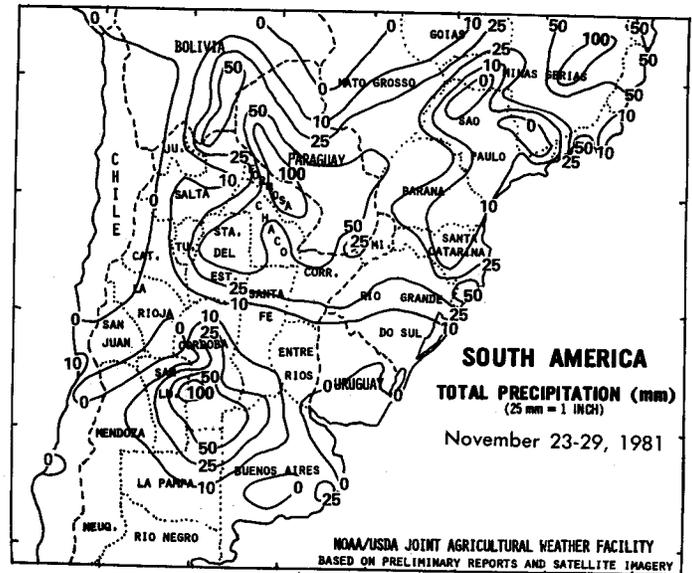


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SOUTH AMERICA: In Argentina, mostly dry weather in wheat areas of southern Buenos Aires and La Pampa Provinces aided ripening of wheat to be harvested in coming weeks. Showers produced locally heavy rain, disrupting planting of sorghum and other crops in southern Cordoba and extreme northeastern La Pampa. A band of locally heavy rain also fell in cotton areas of Formosa and Chaco where the crop is in its early growth stages. In Brazil, weekly rainfall totals were greatest in northern Rio Grande do Sul, likely interfering with the late wheat harvest. Scattered showers in most soybean and corn areas kept topsoils moist, aiding emergence and early growth of soybeans and late vegetative growth of corn. Adequate soil moisture is available in Sao Paulo where warm, dry weather coincided with the beginning of the reproductive period for early seeded corn.



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