

# 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

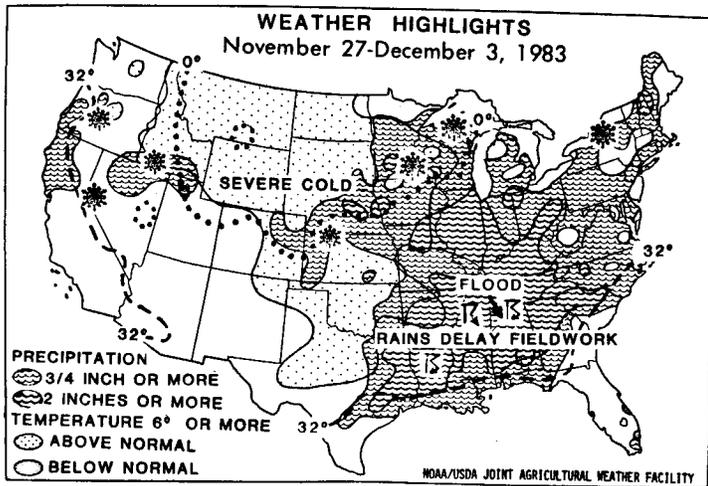
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Dec. 6, 1983

## National Weather Summary

November 27 to December 3



Showers accompanied the cold front through the East Coast States and more snow fell in the northern Appalachians.

**TUESDAY...**Light snow continued from the northern and central Rockies across the northern Great Lakes to the northern Appalachians. Cold rain fell in the rest of the lakes area and through New England. Light showers and thunderstorms developed from southeastern Texas into Arkansas. Temperatures moderated somewhat in the Plains and Rockies but remained below freezing all day in the northern Rockies, Plains, and upper Mississippi Valley.

**WEDNESDAY...**Another outbreak of cold air brought early morning sub-zero temperatures to the northern Rockies and into western Nebraska. Fortunately, a thick blanket of snow protected winter grains from the severe cold. Light snow fell from the northern Plains across the Great Lakes, and cold rain fell in the Northeast. Showers and thunderstorms increased in southeastern Texas and spread through Louisiana to Alabama. Another Pacific storm spread showers along the west coast and onto the central Plateau.

**THURSDAY...**A low pressure center in the Gulf of Mexico spread showers from eastern Texas into Missouri. Freezing rain fell in parts of Missouri and Illinois. Sub-zero temperatures spread over the northern Rockies and Plains--Havre, Montana, measured -140 F and Huron, South Dakota, -80 F. Rainshowers continued over the west coast and spread into the Southwest, while snow moved across to Plateau to the west-central Rockies.

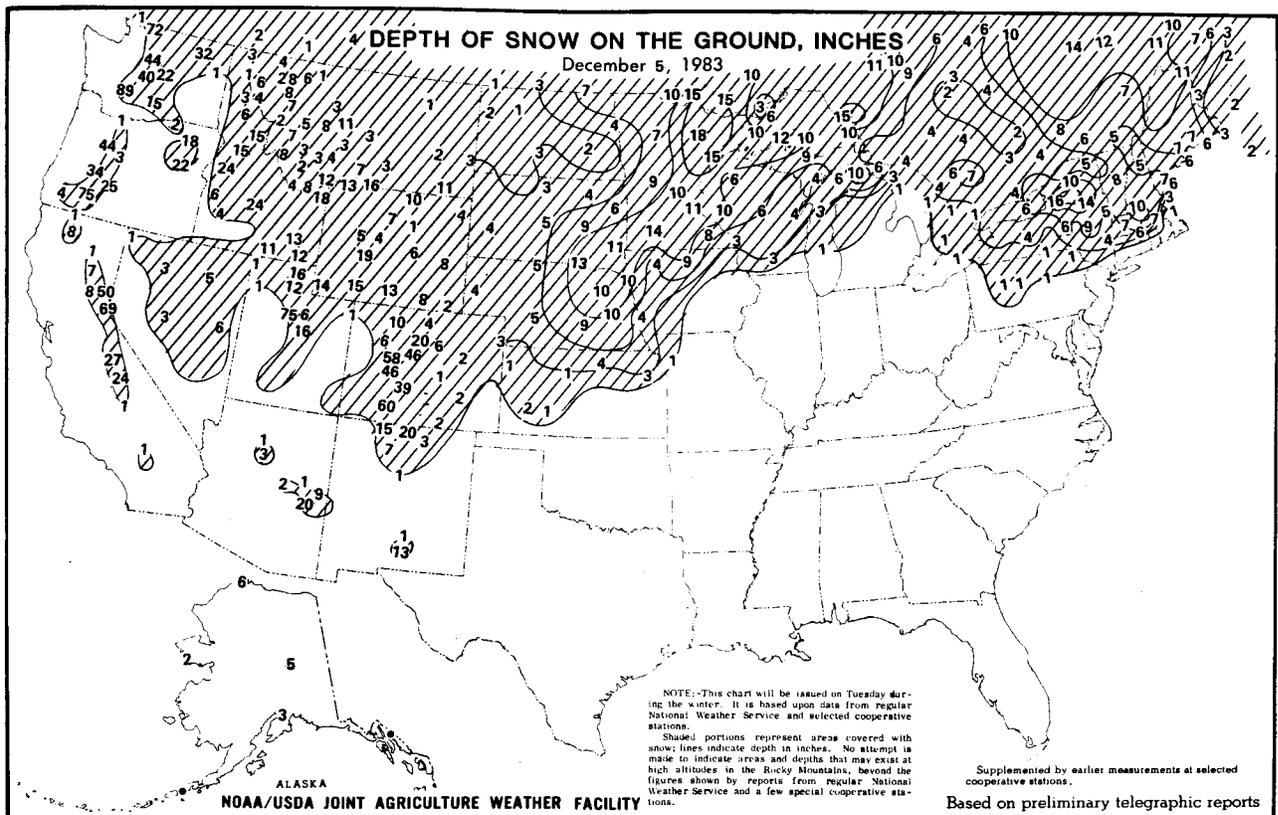
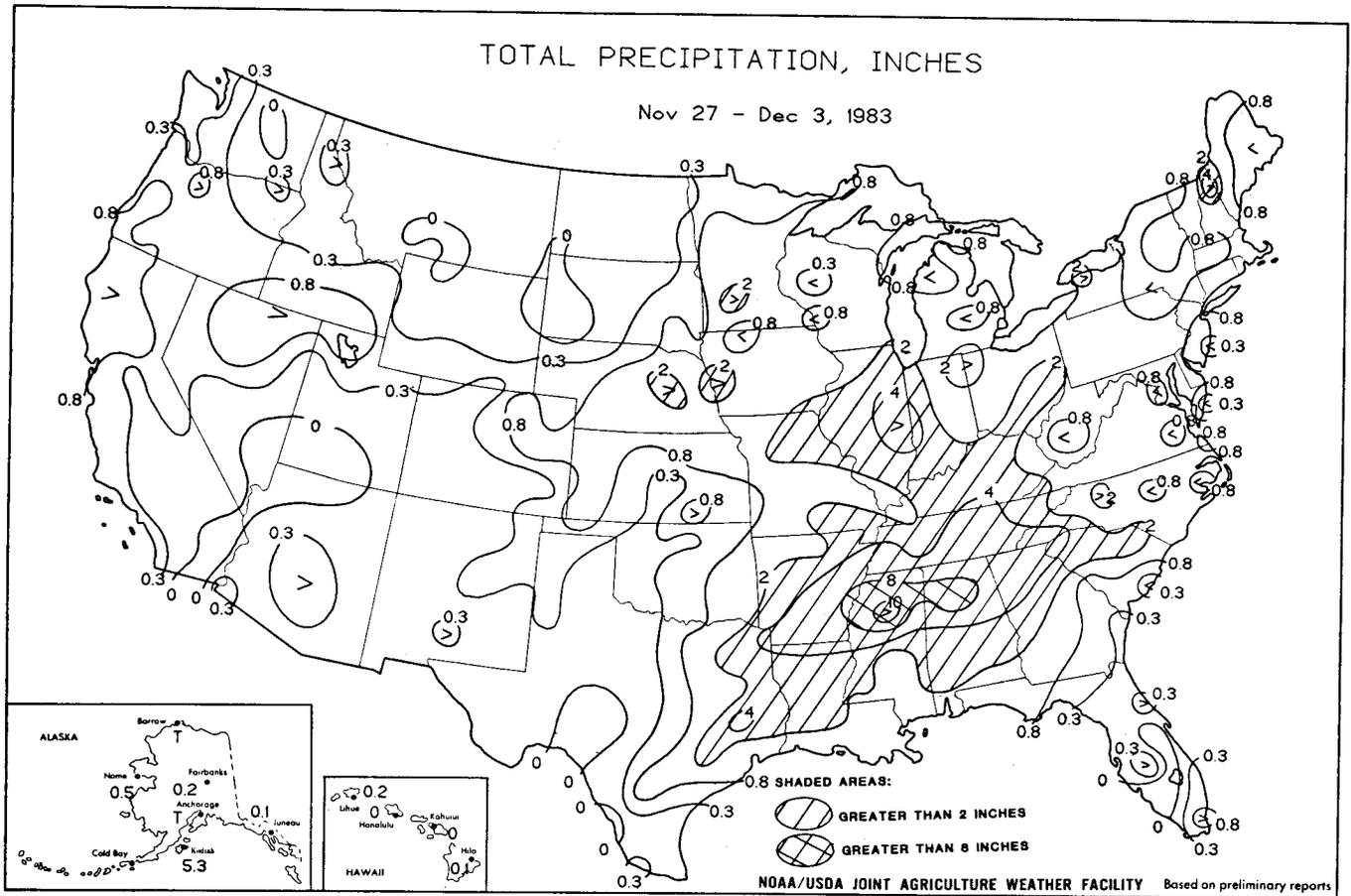
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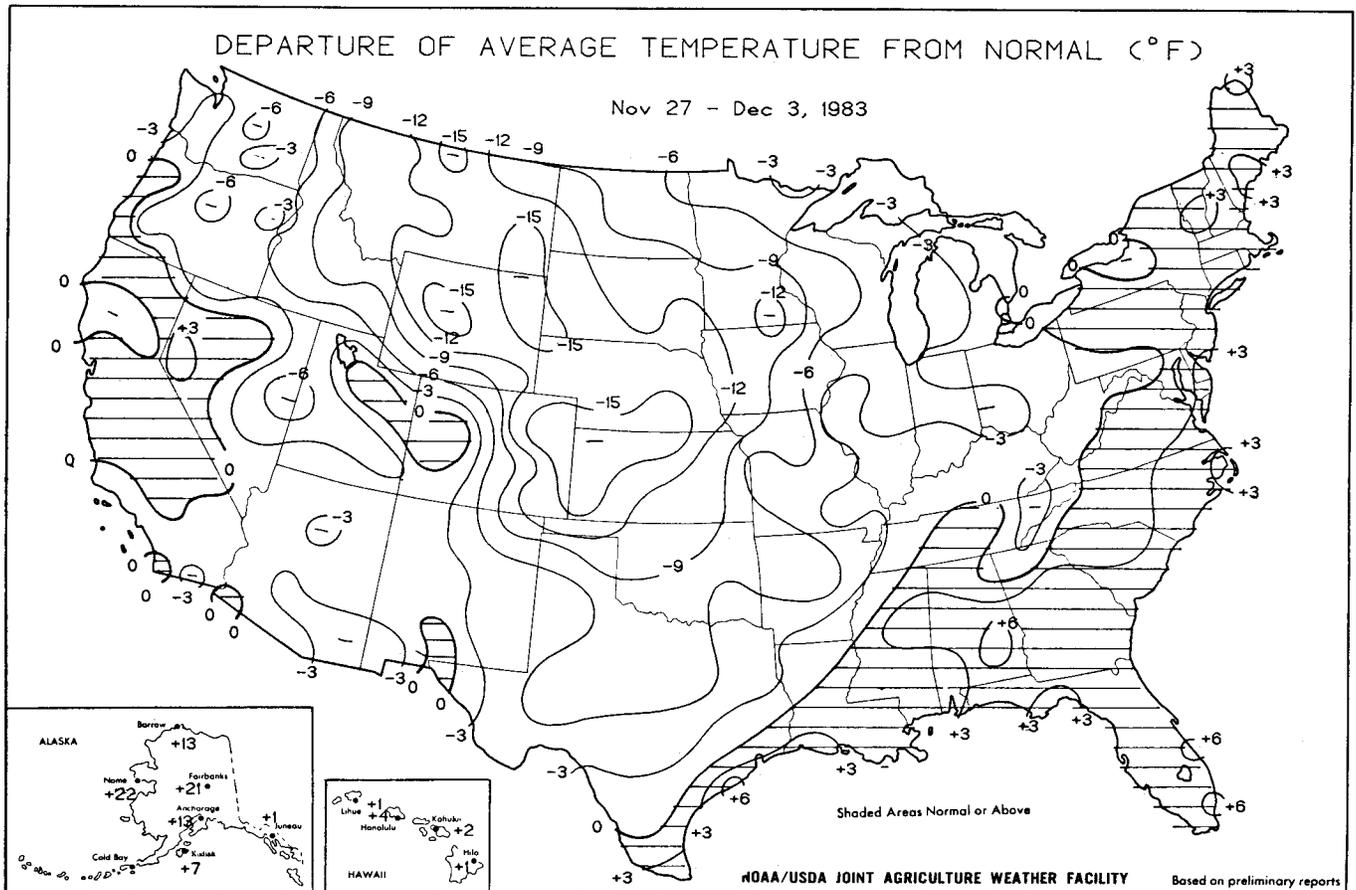
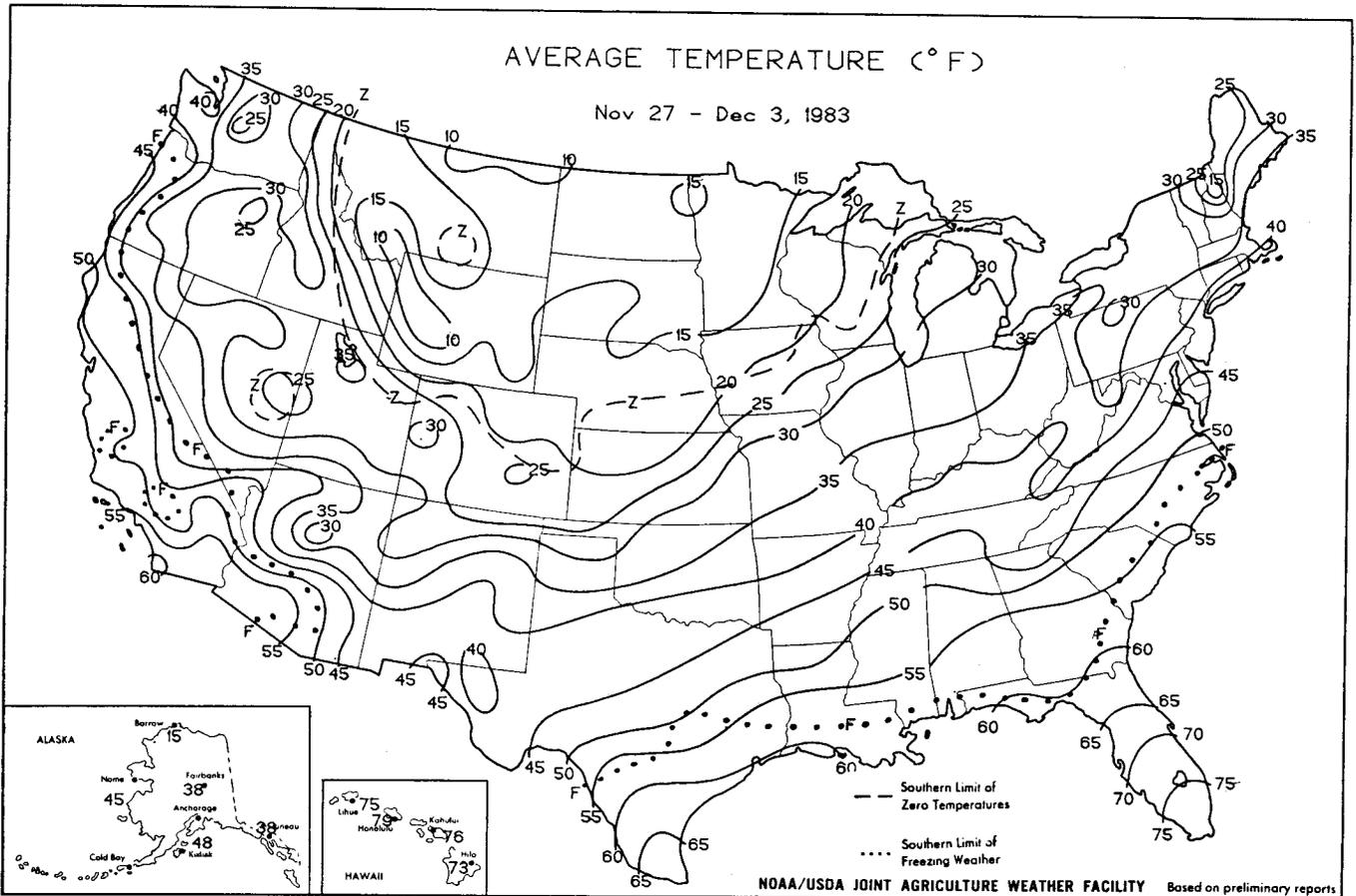
**HIGHLIGHTS:** Pacific storms from the West combined with frigid arctic air from Canada to create blizzard conditions in the Rockies and from Colorado to Minnesota. A blanket of protective snow covered much of the winter grain areas. Thunderstorms triggered tornadoes and heavy rain in the Southeast and caused severe flooding, while cold rain fell in the Ohio Valley, and freezing rain or snow reached to the southern Great Lakes and eastward to the middle and northern Appalachians. Moderate rain fell east of the Appalachians. Sub-zero temperatures covered the northern Plains, while freezing temperatures reached through the Rockies and western Texas into Mexico, nearly to the gulf coast, and into the Florida Panhandle.

**SUNDAY...**An intense winter storm moved from the eastern portion of the central Plains northeastward. A cold front trailed southward through the Mississippi River Valley and moved to the Appalachians. Blizzard conditions moved from eastern Colorado through Nebraska to Minnesota, and lighter snow fell in the northern Plains and the rest of the central Plains. Rain or rainshowers covered the area from Louisiana to Georgia and northward to the snow area and the Appalachians. Heavy showers and thunderstorms were over the Tennessee Valley and the Southeast.

**MONDAY...**Snow lingered in the northern Rockies and Plains, parts of the central Plains, and the upper Mississippi Valley. Very cold air covered the Rockies and Plains. Early morning temperatures were below freezing as far south as western Texas.

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Weather Data for the Week Ending Dec. 3, 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	TEMPERA- TURE °F		PRECIPI- TATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	61	40	72	27	50	2	8.6	7.6	4.3	8.6	860	63.1	123	90	48	0	0	3	3
MOBILE	68	46	77	34	57	2	1.9	1.7	1.9	1.9	158	76.4	123	86	53	0	0	3	2
AK ANCHORAGE	69	45	82	31	57	6	2.4	1.4	1.9	2.4	240	69.7	153	92	48	0	0	0	0
BARROW	35	24	44	17	30	13	T	T	T	0	0	11.8	84	83	69	0	2	0	0
FAIRBANKS	8	2	15	-4	5	13	T	T	T	0	0	3.0	58	91	74	0	7	0	0
JUNEAU	25	8	38	-7	17	21	.2	0	.1	.2	100	9.8	99	92	73	0	7	2	0
KODIAK	34	28	38	19	31	1	.1	-1.0	.1	.1	9	40.1	79	100	89	0	4	0	0
NOME	44	34	48	25	39	7	5.3	4.0	2.9	5.3	408	74.2	114	96	84	0	4	3	0
AZ PHOENIX	37	26	45	17	31	22	.5	.3	.4	.5	250	13.2	83	89	66	0	4	6	2
PRESCOTT	65	43	70	35	54	-2	.7	.6	.4	.7	700	12.5	189	88	37	0	0	0	0
TUCSON	49	29	54	22	39	-1	.5	.1	.2	.5	125	19.1	108	90	54	0	4	3	0
YUMA	61	38	68	30	50	-5	.2	.1	.2	.2	200	21.7	201	83	39	0	2	1	0
AR FORT SMITH	68	49	73	43	59	-1	.5	.5	.5	.5	+100	4.8	185	69	33	0	0	0	0
LITTLE ROCK	47	30	56	23	39	-6	1.2	.4	.5	1.2	150	34.0	87	90	55	0	4	4	1
CA BAKERSFIELD	64	34	56	26	40	-7	5.2	4.2	2.9	5.2	520	39.5	88	91	65	0	3	4	3
BURKAK	47	39	68	35	51	0	T	.1	T	0	0	8.8	183	97	52	0	0	1	0
FRESNO	60	44	71	37	52	2	1.1	.4	.6	1.1	73	53.9	162	94	69	0	0	4	1
LOS ANGELES	60	41	64	35	50	2	.1	.1	.1	.1	73	53.9	162	94	69	0	0	4	1
RED BLUFF	65	49	66	44	57	-2	.4	.3	.1	.1	25	20.1	228	89	56	0	0	1	0
SACRAMENTO	56	40	68	34	48	-1	1.3	.6	1.3	1.3	133	27.9	268	80	46	0	0	2	0
SAN DIEGO	58	43	63	36	50	2	.2	.4	.2	.2	33	29.9	215	98	64	0	0	2	1
SAN FRANCISCO	67	53	69	46	60	2	.4	.1	.3	.4	133	17.2	223	79	48	0	0	2	0
CO DENVER	58	46	61	40	52	0	.8	.1	.6	.8	114	32.8	208	90	60	0	0	2	0
GRAND JUNCTION	39	27	45	-7	18	-17	.8	.6	.7	.8	400	19.8	129	92	57	0	7	2	1
PIERLO	40	17	55	11	29	-7	.1	.1	.1	.1	100	13.2	171	82	57	0	6	2	0
CT BRIDGEPORT	46	35	52	26	40	1	1.2	.3	.6	1.2	133	50.9	133	84	46	0	1	3	1
HARTFORD	44	28	49	23	36	1	.9	.1	.7	.9	90	50.2	121	87	44	0	6	4	1
DC WASHINGTON	55	37	65	29	46	3	.4	.3	.3	.4	57	46.3	126	78	47	0	2	3	0
FL APALACHICOLA	68	51	75	41	60	2	.9	.2	.9	.9	129	58.5	109	92	60	0	0	1	0
DAYTONA BEACH	74	55	84	46	65	3	.4	.1	.4	.4	80	61.8	130	92	64	0	0	1	0
JACKSONVILLE	74	49	81	36	62	4	T	.5	T	0	0	55.8	108	94	50	0	0	1	0
KEY WEST	82	75	83	73	78	5	.2	.4	.2	.2	37	47.5	120	86	69	0	0	2	0
MIAMI	73	70	85	67	76	6	T	.1	.2	.4	80	53.7	93	90	58	0	0	2	0
ORLANDO	87	58	85	52	68	3	T	.4	T	0	0	50.1	105	96	57	0	0	0	0
TALLAHASSEE	72	45	78	31	59	3	1.2	.2	1.2	1.2	120	60.7	98	95	45	0	1	1	0
TAMPA	77	61	84	57	69	5	.2	.3	.2	.2	40	56.1	120	97	66	0	0	1	0
WEST PALM BEACH	80	69	84	65	74	5	.7	.1	.5	.7	117	75.4	127	91	68	0	0	3	0
CA ATLANTA	62	39	69	30	50	3	4.4	3.5	3.0	4.4	480	45.5	102	85	51	0	2	4	2
AUGUSTA	67	39	78	29	53	4	.4	.2	.4	.4	67	47.7	118	83	42	0	2	2	0
MACON	68	44	76	32	56	4	1.7	1.0	1.1	1.7	243	46.1	111	80	43	0	1	2	2
SAVANNAH	70	46	78	36	58	4	.1	.4	.1	.1	20	50.1	102	86	44	0	0	1	0
HI HILO	81	66	83	63	73	1	.1	.3	.1	.1	3	64.5	54	86	60	0	0	0	0
HONOLULU	87	71	89	68	79	4	0	.8	0	0	0	3.9	19	78	51	0	0	0	0
KAHULUI	87	64	90	62	76	2	0	.6	0	0	0	6.9	43	83	59	1	0	0	0
ID LIHUE	82	69	84	64	75	1	.2	-1.1	.2	.2	15	15.7	39	90	68	0	0	1	0
BOISE	35	21	44	9	28	-7	.7	.4	.2	.7	233	15.3	146	94	67	0	7	5	0
LEWISTON	37	26	46	19	32	-5	T	.3	T	0	0	12.2	106	95	70	0	5	1	0
POCATELLO	30	14	34	-6	22	-8	1.3	1.1	.7	1.3	650	17.8	180	89	72	0	7	6	3
IL CHICAGO	33	24	44	18	29	-5	2.7	2.2	2.5	2.7	540	46.4	142	87	70	0	6	3	1
MOLINE	35	23	44	15	29	-3	1.5	1.1	1.3	1.5	375	34.3	96	85	64	0	6	3	1
PEORIA	39	29	52	18	34	1	2.2	1.7	1.4	2.2	440	40.1	116	80	64	0	5	4	1
QUINCY	38	27	53	18	33	-3	2.1	1.7	1.6	2.1	525	32.8	88	84	62	0	6	3	1
ROCKFORD	33	22	43	16	28	-3	1.1	.6	.9	1.1	220	32.1	87	88	67	0	6	4	1
SPRINGFIELD	38	28	52	18	33	-3	2.2	1.7	1.4	2.2	440	29.8	91	87	62	0	6	4	1
IN EVANSVILLE	46	32	61	24	39	0	2.5	1.7	1.7	2.5	313	46.2	116	84	59	0	3	3	1
FORT WAYNE	39	30	55	20	34	0	1.5	1.0	1.1	1.5	300	28.2	83	85	64	0	5	5	1
INDIANAPOLIS	38	28	49	21	33	-3	1.5	.8	.9	1.5	214	33.1	89	89	60	0	5	3	1
SOUTH BEND	36	27	51	21	32	-3	1.1	.4	1.0	1.1	157	27.4	75	81	59	0	5	6	1
IA DES MOINES	30	17	39	8	24	-8	1.1	.8	1.0	1.1	157	27.4	75	81	59	0	5	6	1
STOUIX CITY	25	9	28	-4	17	-13	1.4	1.3	1.4	1.4	1400	27.9	110	85	70	0	7	2	1
WATERLOO	27	13	33	1	20	-8	.9	.5	.8	.9	225	35.6	107	88	75	0	7	3	1
KS CONCORDIA	25	13	29	4	19	-16	.9	.6	.8	.9	300	24.6	91	87	71	0	7	2	1
DODGE CITY	30	18	40	13	24	-13	.4	.2	.2	.4	200	23.7	115	84	67	0	7	3	0
GOODLAND	24	10	30	-1	17	-16	1.1	1.0	1.0	1.1	1100	17.6	107	92	74	0	7	2	1
TOPEKA	36	24	43	17	30	-7	1.5	1.2	.8	1.5	500	36.1	109	78	58	0	7	4	1
WICHITA	35	22	38	17	28	-10	.5	.3	.4	.5	250	35.9	126	92	68	0	6	4	2
KY BOWLING GREEN	50	31	60	25	40	-1	3.6	2.6	1.4	3.6	360	49.6	106	92	62	0	7	3	0
LEXINGTON	47	30	59	23	39	-2	3.0	2.1	1.7	3.0	333	38.2	87	92	62	0	4	3	3
LOUISVILLE	47	33	58	25	40	-2	2.3	1.4	1.4	2.3	256	44.3	104	80	54	0	3	4	2
LA ALEXANDRIA	64	46	74	31	55	2	2.1	1.0	1.1	2.1	191	49.3	98	83	64	0	1	4	2
BATON ROUGE	68	47	78	32	57	2	1.4	.3	1.4	1.4	127	70.3	134	92	55	0	1	2	2
LAKE CHARLES	69	48	78	34	59	2	1.9	.9	.6	1.9	190	53.1	105	92	58	0	0	4	2
NEW ORLEANS	69	48	78	33	59	2	1.6	.4	.9	1.6	133	77.1	138	89	55	0	0	2	2

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

Weather Data for the Week Ending Dec. 3, 1983

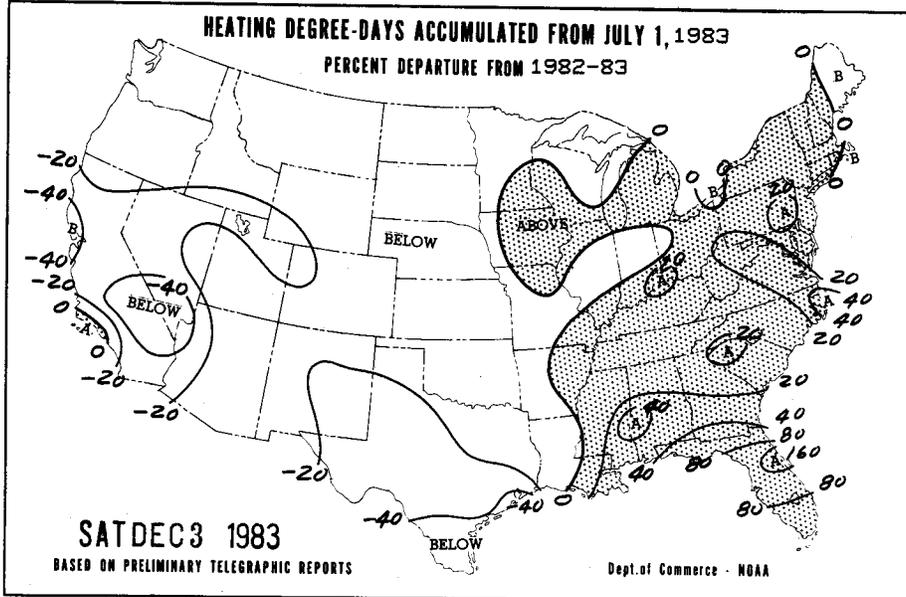
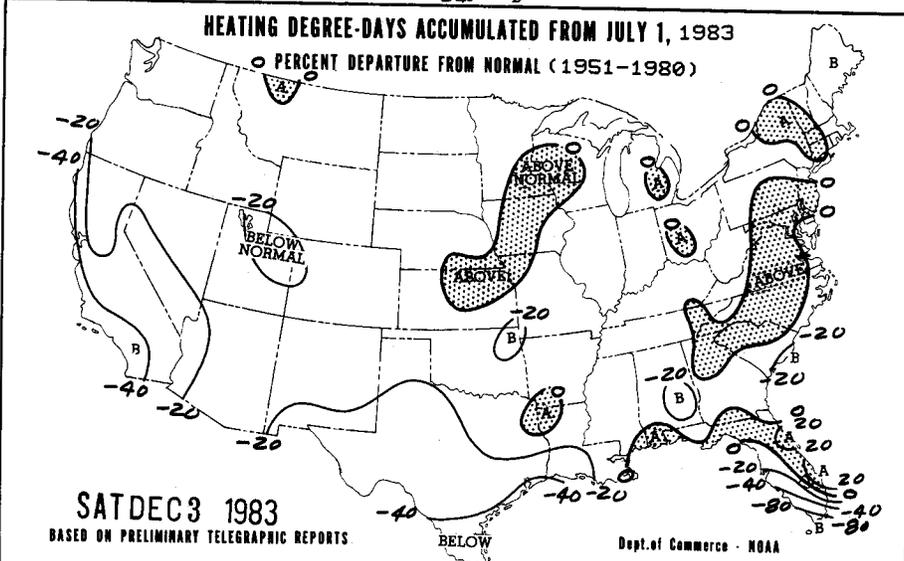
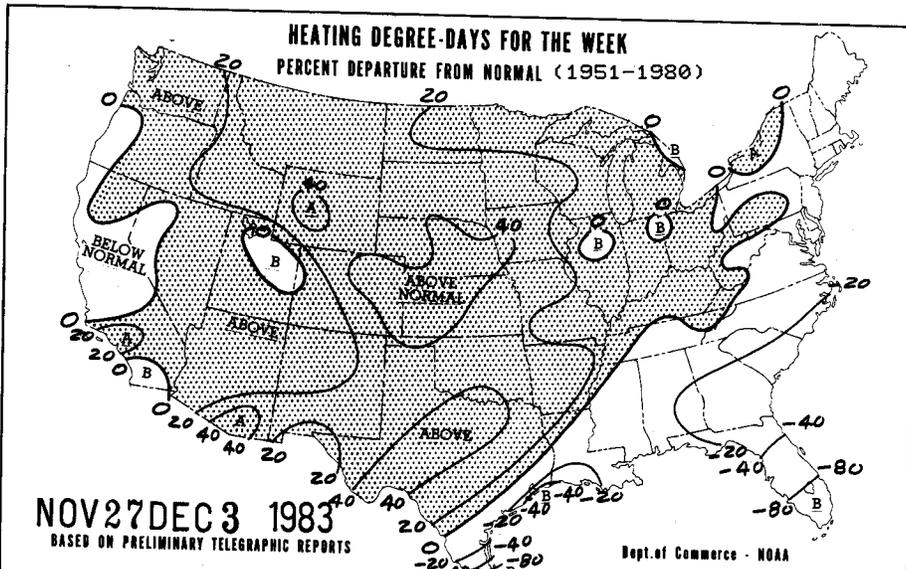
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE NOV 27	PCT. NORMAL SINCE 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	57	39	67	23	48	-3	2.8	1.9	1.8	2.8	311	44.8	108	94	50	0	2	4	?
ME CARIBOU	31	21	35	9	26	3	.8	0	.7	.8	100	41.3	120	91	69	0	7	4	1
ME PORTLAND	42	28	46	20	35	3	.7	-.4	.5	.7	64	57.7	145	84	51	0	6	3	3
MD BALTIMORE	52	33	62	23	43	2	1.0	.2	1.0	1.0	125	44.3	112	84	48	0	3	3	1
MD SALISBURY	59	35	69	25	47	4	.1	-.7	.1	.1	13	47.1	109	97	50	0	3	1	0
MA BOSTON	45	33	52	28	39	-1	1.0	-.1	.6	1.0	91	48.1	120	79	43	0	4	4	1
MA CHATHAM	46	36	55	32	41	1	1.1	0	.8	1.1	100	51.4	120	83	56	0	2	4	1
MI ALPENA	33	24	40	12	29	0	.4	-.1	.3	.4	80	32.9	118	93	70	0	7	3	0
MI DETROIT	37	28	55	22	32	-2	.9	.4	.5	.9	180	34.1	115	82	57	0	5	5	0
MI FLINT	36	28	53	16	32	-1	.5	0	.3	.5	100	30.6	106	85	59	0	5	4	0
MI GRAND RAPIDS	34	25	52	13	30	-3	1.0	.3	.4	1.0	143	34.1	103	82	61	0	7	6	0
MI HOUGHTON LAKE	31	22	37	7	27	-2	.6	-.1	.3	.6	120	29.2	109	90	76	0	7	6	0
MI LANSING	34	25	51	14	30	-3	.6	0	.4	.6	100	32.1	111	93	71	0	5	5	0
MI MARQUETTE	27	13	31	-9	20	-4	1.4	.8	1.3	1.4	233	43.3	122	95	71	0	7	5	1
MI MUSKEGON	33	26	42	13	30	-4	1.2	.6	.6	1.2	200	30.6	101	84	65	0	5	5	1
MI SAULT STE. MARIE	30	18	34	9	24	-2	.6	-.1	.3	.6	86	31.8	99	92	64	0	7	5	0
MN ALEXANDRIA	18	7	24	-7	13	-8	.9	.7	.8	.9	450	22.0	89	90	74	0	7	3	1
MN DULUTH	24	10	33	-8	17	-4	1.1	.7	1.0	1.1	275	29.4	100	85	68	0	7	3	1
MN INT'L FALLS	18	7	22	-9	13	-3	.4	-.1	.1	.4	133	24.4	99	93	73	0	7	6	0
MN MINNEAPOLIS	23	9	31	-9	16	-10	1.1	.9	.6	1.1	550	37.3	145	94	74	0	7	4	1
MN ROCHESTER	23	6	30	-12	15	-11	1.0	.8	.5	1.0	500	34.0	120	93	82	0	7	3	1
MS GREENWOOD	60	44	74	31	52	2	9.9	8.7	6.2	9.9	825	64.3	131	83	54	0	1	4	2
MS JACKSON	64	43	80	26	54	2	1.9	.7	1.1	1.9	158	67.6	138	92	53	0	2	4	2
MS MERIDIAN	63	42	80	28	53	2	2.0	.9	1.1	2.0	182	64.9	134	97	51	0	3	2	2
MO CAPE GIRARDEAU	46	33	62	25	39	-	1.8	.9	.9	1.8	200	42.2	100	95	63	0	4	3	2
MO COLUMBIA	37	27	50	18	32	-6	1.7	1.2	.8	1.7	340	44.3	128	96	67	0	6	6	2
MO KANSAS CITY	36	23	48	14	30	-8	1.2	.9	.8	1.2	400	31.6	90	92	68	0	6	6	2
MO SAINT LOUIS	40	30	53	19	35	-4	2.9	2.4	1.9	2.9	580	42.0	130	98	67	0	6	4	2
MO SPRINGFIELD	44	27	55	16	36	-4	1.0	.4	.6	1.0	167	43.5	114	85	59	0	4	4	1
MT BILLINGS	26	9	37	1	18	-13	.1	-.1	.1	.1	0	12.0	83	94	65	0	7	0	0
MT GLASGOW	20	5	30	-7	13	-10	.1	0	.1	.1	100	7.3	64	81	58	0	7	2	0
MT GREAT FALLS	25	7	37	-11	16	-14	.2	0	.1	.2	100	15.3	104	90	63	0	7	2	0
MT HAVRE	19	-3	34	-15	8	-16	.1	-.1	.1	.1	0	11.8	104	97	67	0	7	1	0
MT HELENA	25	7	36	-5	16	-11	.1	-.1	.1	.1	0	13.2	123	84	55	0	7	2	0
MT KALISPELL	25	6	35	-3	16	-12	.1	-.3	.1	.1	25	16.6	108	90	68	0	7	3	0
MT MILES CITY	21	2	32	-10	11	-15	.1	-.1	.1	.1	50	7.8	57	93	70	0	7	1	0
MT MISSOULA	24	11	39	-4	18	-10	.1	-.1	.1	.1	50	14.9	126	97	71	0	7	4	0
NE GRAND ISLAND	25	10	30	3	17	-14	1.4	1.2	1.3	1.4	700	28.0	120	83	65	0	7	2	1
NE LINCOLN	26	11	31	2	19	-14	1.3	1.1	1.2	1.3	650	28.6	108	91	72	0	7	2	1
NE NORFOLK	24	9	28	-3	17	-13	1.5	1.4	1.4	1.5	1500	27.8	116	82	66	0	7	2	1
NE NORTH PLATTE	24	8	32	-3	16	-14	.9	.8	.9	.9	900	18.6	97	87	60	0	7	2	1
NE OMAHA	26	12	32	5	19	-13	2.3	2.1	2.2	2.3	1150	31.5	105	89	80	0	7	2	1
NE SCOTTSBLUFF	26	8	39	-7	17	-14	.7	.6	.7	.7	700	15.0	106	86	58	0	7	1	1
NE VALENTINE	24	3	35	-8	14	-15	.3	.2	.3	.3	300	27.9	153	78	61	0	7	1	0
NV ELY	37	10	42	-5	23	-6	.1	0	.1	.1	100	13.3	164	91	63	0	7	1	0
NV LAS VEGAS	57	39	63	32	48	0	.6	-.1	.6	.6	0	4.6	110	62	35	0	1	1	0
NV RENO	48	28	54	20	38	2	.7	.4	.6	.6	300	12.3	202	89	48	0	4	1	1
NV WINNEMUCCA	40	27	45	19	33	0	1.0	.8	.7	1.0	500	11.9	161	87	61	0	5	4	1
NH CONCORD	41	26	44	15	33	3	.8	0	.4	.8	100	42.8	124	86	49	0	6	4	0
NJ ATLANTIC CITY	50	31	61	21	41	0	.1	-.8	.1	.1	11	43.2	107	95	55	0	4	2	0
NM ALBUQUERQUE	47	27	53	19	37	-2	.3	.2	.3	.3	300	7.6	94	84	40	0	5	1	0
NM CLOVIS	47	27	56	22	37	-5	.3	.2	.2	.3	300	11.1	63	70	40	0	5	2	0
NM ROSWELL	51	28	64	21	40	-5	.7	0	.7	0	+100	9.5	96	83	47	0	4	1	0
NY ALBANY	39	27	44	21	33	1	.8	-.1	.6	.8	114	41.3	124	87	52	0	6	5	1
NY BINGHAMTON	36	28	42	22	32	0	.6	-.1	.4	.6	86	36.9	107	90	54	0	7	5	0
NY BUFFALO	38	28	50	24	33	-2	1.9	1.1	.9	1.9	238	31.9	90	83	57	0	6	5	2
NY NEW YORK	47	37	54	32	42	0	.9	0	.4	.9	100	54.7	137	80	46	0	1	4	0
NY ROCHESTER	38	28	48	24	33	-1	1.1	.5	.5	1.1	183	30.9	103	85	59	0	6	4	1
NY SYRACUSE	37	27	42	18	32	-2	.7	-.1	.4	.7	88	30.9	84	97	59	0	6	6	0
NC ASHEVILLE	57	32	68	26	44	2	4.0	3.2	2.4	4.0	500	47.2	104	92	52	0	5	4	2
NC CHARLOTTE	59	36	70	28	48	1	1.6	.9	1.4	1.6	229	35.5	88	83	43	0	3	2	1
NC GREENSBORO	56	35	67	27	46	2	1.3	.7	1.2	1.3	217	43.2	107	81	45	0	4	3	1
NC HATTERAS	63	44	72	34	54	1	1.8	.7	1.0	1.8	164	59.9	114	92	57	0	0	2	2
NC NEW BERN	66	40	76	32	53	3	.5	-.3	.2	.5	63	50.2	99	97	52	0	1	2	0
NC RALEIGH	60	37	73	29	49	3	.8	-.1	.6	.8	114	41.4	104	85	42	0	3	2	1
NC WILMINGTON	67	43	78	36	55	3	1.3	.6	1.2	1.3	186	55.0	106	93	55	0	0	2	1
ND BISMARCK	22	6	36	-9	14	-8	.1	0	.1	.1	100	12.8	83	89	64	0	7	3	0
ND FARGO	19	8	25	-5	14	-6	.4	.2	.2	.4	200	19.0	95	77	61	0	7	4	0
ND GRAND FORKS	19	9	27	-1	14	-4	.3	-.1	.2	.3	150	21.1	117	81	66	0	7	3	0
ND WILLISTON	18	1	27	-12	10	-11	.1	0	.1	.1	100	8.9	66	89	68	0	7	2	0
OH AKRON-CANTON	43	31	66	23	37	1	1.1	.5	.6	1.1	183	35.6	103	77	54	0	4	4	1
OH CINCINNATI	42	28	55	20	35	-3	1.6	.9	.9	1.6	229	40.3	104	88	62	0	5	4	1
OH CLEVELAND	41	30	62	23	35	-1	.9	.3	.4	.9	150	37.7	111	85	55	0	5	4	0
OH COLUMBUS	41	29	58	23	35	-2	1.8	1.2	.9	1.8	300	35.9	100	83	59	0	5	4	1

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

Weather Data for the Week Ending Dec. 3, 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	
DAYTON	38	27	53	20	33	-4	1.4	.7	.7	1.4	200	35.8	106	84	60	0	5	4	1	
TOLEDO	37	28	56	19	32	-1	1.2	.6	.9	1.2	200	31.7	105	90	61	0	5	4	1	
YOUNGSTOWN	39	30	58	24	35	0	1.1	.5	.9	1.1	183	35.1	98	84	59	0	4	3	1	
OK OKLAHOMA CITY	43	28	52	21	35	-8	.4	.1	.4	.4	133	38.6	126	84	54	0	4	3	1	
TULSA	45	30	51	23	38	-7	.6	.1	.4	.6	120	34.5	91	89	58	0	6	6	0	
OR ASTORIA	48	34	53	29	41	-4	.7	-1.9	.6	.7	27	70.2	121	93	67	0	4	4	1	
BURNS	31	21	43	12	26	-5	.5	.3	.2	.5	250	15.2	162	84	75	0	7	4	1	
MEDFORD	46	35	51	28	40	0	1.0	.3	.6	1.0	143	24.2	143	97	75	0	1	4	1	
PENDLETON	37	29	51	21	33	-5	.3	-1.1	.2	.3	75	12.6	120	97	75	0	5	4	1	
PORTLAND	47	38	53	29	42	0	.3	-1.1	.2	.3	21	42.1	132	86	58	0	1	4	0	
SALEM	49	39	55	34	44	2	.4	-1.1	.2	.4	27	48.8	143	88	62	0	0	3	0	
PA ALLENTOWN	43	30	51	21	37	0	1.4	.5	1.1	1.4	156	44.7	108	83	49	0	4	3	1	
ERIE	41	32	58	27	37	-2	1.2	-.4	1.0	1.2	150	41.9	112	76	51	0	4	4	1	
HARRISBURG	44	31	56	21	38	-1	.6	-.8	.7	.6	75	47.4	123	81	48	0	4	0	0	
PHILADELPHIA	51	34	63	25	42	2	.6	-.2	.3	.6	75	47.4	123	88	45	0	2	3	0	
PITTSBURGH	41	30	60	20	35	-1	1.6	1.0	.9	1.6	267	37.7	108	82	54	0	5	4	1	
SCRANTON	40	32	45	26	36	1	.5	-.2	.4	.5	71	37.1	110	81	59	0	3	3	0	
RI PROVIDENCE	45	33	51	30	39	1	1.0	-.1	.5	1.0	91	60.1	144	79	43	0	5	3	0	
SC CHARLESTON	68	46	78	35	57	4	.1	-.5	.1	.1	17	50.0	99	91	48	0	0	3	0	
COLUMBIA	66	37	76	27	51	2	1.7	1.0	1.4	1.7	243	40.3	88	96	47	0	3	2	1	
FLORENCE	65	41	72	30	53	2	1.8	1.2	1.4	1.8	300	47.1	115	99	54	0	1	2	1	
GREENVILLE	59	36	67	26	47	1	3.1	2.3	2.5	3.1	388	48.4	101	82	43	0	2	2	2	
ABFDFEEN	20	4	24	-10	12	-11	-.2	.1	-.1	-.1	2	200	20.5	118	89	71	0	7	3	0
HURON	21	5	26	-8	13	-12	.6	.5	.3	.6	600	18.2	98	87	70	0	7	3	0	
RAPID CITY	26	8	43	0	17	-13	.7	-.1	.7	.7	0	15.0	93	77	51	0	7	0	0	
SIoux FALLS	22	6	26	-8	14	-12	.5	.3	.4	.5	250	26.0	105	97	76	0	7	3	0	
TN CHATTANOOGA	57	33	63	25	45	0	6.4	5.3	2.9	6.4	582	47.5	97	94	55	0	4	4	3	
KNOXVILLE	52	30	62	22	41	-4	3.0	2.1	1.4	3.0	333	38.8	88	94	57	0	5	4	3	
MEMPHIS	54	38	65	31	46	-1	4.5	3.4	2.1	4.5	409	52.9	109	85	57	0	1	3	3	
NASHVILLE	55	35	64	28	45	1	5.3	4.3	1.9	5.3	530	46.9	103	94	55	0	4	3	3	
TX ABILENE	52	33	64	27	43	-7	.2	0	.2	.2	100	18.9	80	81	53	0	4	2	0	
AMARILLO	42	23	52	16	33	-8	.1	0	.1	.1	100	14.7	75	84	46	0	7	2	0	
AUSTIN	61	41	74	33	51	-4	.7	.2	.3	.7	140	34.3	108	90	53	0	0	4	0	
BEADMONT	69	50	77	35	59	2	2.0	.9	.8	2.0	182	72.2	143	98	60	0	0	3	3	
BROWNSVILLE	80	58	88	46	69	4	.7	.3	.7	0	0	27.8	109	92	51	0	0	3	3	
CORPUS CHRISTI	72	52	84	40	62	0	.7	.3	.7	0	0	36.4	119	86	52	0	0	1	0	
DEL RIO	61	42	77	31	52	-4	0	.1	0	0	0	14.0	79	82	46	0	1	0	0	
EL PASO	59	34	63	24	47	0	.7	.1	.7	0	0	7.9	99	75	33	0	3	1	0	
FORT WORTH	54	36	57	28	45	-6	.9	.5	.9	.9	225	31.1	107	83	52	0	2	4	1	
GALVESTON	70	55	79	45	62	3	1.2	.4	.6	1.2	150	51.4	132	89	62	0	0	4	1	
HOUSTON	67	47	78	33	57	0	2.1	1.4	1.1	2.3	256	50.7	116	93	55	0	0	4	2	
LUBBOCK	51	28	62	20	40	-5	.1	.1	.1	.1	100	20.2	110	84	44	0	5	1	0	
MIDLAND	53	32	65	25	42	-6	.7	.1	.1	.1	100	10.0	72	85	43	0	5	1	0	
SAN ANGELO	55	32	68	25	43	-7	.7	.2	.7	0	0	15.2	82	91	49	0	4	0	0	
SAN ANTONIO	64	42	77	34	53	-3	.6	.1	.3	.6	120	26.3	91	90	49	0	0	4	0	
VICTORIA	69	49	80	37	59	0	.5	0	.4	.5	100	42.2	116	96	57	0	0	3	0	
WACO	57	38	65	29	47	-5	.6	.1	.4	.6	120	23.3	76	93	55	0	1	3	0	
WICHITA FALLS	50	30	64	26	40	-8	.2	-.1	.1	.2	67	24.6	91	85	48	0	6	2	0	
UT BLANDING	40	20	43	14	30	-3	.2	-.1	.1	.2	67	15.2	145	90	67	0	6	2	0	
CEDAR CITY	41	22	45	9	32	-2	.7	-.2	.7	0	0	13.8	139	80	51	0	7	3	0	
SALT LAKE CITY	40	30	47	24	35	1	.7	.4	.3	.7	233	20.8	149	85	63	0	4	5	0	
VT BURLINGTON	36	28	40	14	32	2	.7	0	.4	.7	100	45.3	140	80	53	0	6	3	0	
VA NORFOLK	60	40	70	31	50	2	.4	-.3	.4	.4	57	43.9	101	81	46	0	1	3	0	
RICHMOND	56	34	67	25	45	1	.4	-.4	.4	.4	50	39.4	95	85	44	0	4	3	0	
ROANOKE	52	34	59	28	43	1	1.4	.9	.9	1.4	233	43.5	116	85	47	0	5	4	1	
WA COLVILLE	32	21	40	12	26	-4	.1	-.5	.7	.1	17	26.1	166	93	80	0	6	2	0	
OULLAYUTE	44	30	51	22	37	-5	.3	-3.3	.1	.3	8	112.5	125	96	66	0	5	4	0	
SEATTLE-TACOMA	46	36	52	28	41	-2	.2	-1.2	1.4	.2	14	36.3	110	82	49	0	1	3	0	
SPOKANE	31	18	39	11	25	-6	.1	-.4	.1	.1	20	20.4	136	97	73	0	7	2	0	
YAKIMA	39	25	54	15	32	-2	.1	-.2	.1	.1	33	11.1	171	81	55	0	7	1	0	
WV BECKLEY	46	27	66	20	36	-2	.4	-.3	.3	.4	57	32.9	82	98	49	0	5	4	0	
CHARLESTON	51	32	76	23	41	0	.7	0	.3	.7	100	39.9	99	82	50	0	5	4	0	
HUNTINGTON	47	31	65	23	39	-2	1.2	.5	.6	1.2	171	36.6	90	87	55	0	4	4	2	
PARKERSBURG	47	32	70	23	39	0	1.0	.4	.6	1.0	167	43.0	109	94	64	0	3	4	1	
WI GREEN BAY	28	17	38	0	22	-5	.9	.6	.8	.9	300	29.1	107	93	71	0	7	4	1	
LA CROSSE	26	13	34	0	20	-9	.8	.5	.4	.8	267	28.6	94	96	72	0	7	2	0	
MADISON	30	16	40	0	23	-6	1.1	-.7	.6	1.1	275	20.3	97	90	74	0	7	5	1	
MILWAUKEE	33	21	46	11	27	-4	1.3	.8	.8	1.3	240	34.7	118	96	69	0	6	5	1	
WAUSAU	25	13	31	-9	19	-6	.7	.3	.6	.7	175	30.7	94	90	64	0	7	3	1	
WY CASPER	28	2	36	-7	15	-14	.7	-.3	.6	.7	0	17.4	157	94	66	0	7	1	0	
CHEYENNE	29	9	43	-14	19	-12	.8	.7	.6	.8	800	20.3	156	94	65	0	7	3	1	
LANDER	17	-2	21	-7	8	-18	.1	0	.1	.1	100	15.0	117	86	63	0	7	3	0	
SHRIFRAN	24	3	32	-4	14	-14	.7	-.2	.7	0	0	8.8	59	85	58	0	7	0	0	
PR SAN JUAN	86	75	87	73	80	1	1.3	.1	.8	1.3	108	39.4	75	87	62	0	0	6	1	

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS



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- 3-1983
ACCUMULATIONS ARE FROM JULY 1
\*\* = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

Table with columns: STATE CITY, CALL WEEK TOTAL, WEEK DEV FROM NORM, WEEK DEV FROM L YR, CUM TOTAL, CUM DEV FROM NORM, CUM DEV FROM L YR, CUM DEV FROM NORM PRCT, CUM DEV FROM L YR PRCT. The table lists weather data for numerous cities across the United States, including Birmingham, Los Angeles, New York, and many others.

## November Weather and Crop Summary

### WEATHER SUMMARY

**HIGHLIGHTS:** Precipitation covered all of the Nation, except some small areas in the desert Southwest. Most areas measured above-normal precipitation. Exceptions were the desert Southwest, parts of the central and southern Plains, and the upper Missouri Valley. In the West, snow began to accumulate in the Sierras and Cascades, early in the month. By the end of the month snow was the dominant precipitation type over the Plateau, the Rockies, and from the western portion of the central Plains through the northern Plains and upper Great Lakes. Snow fell in the Appalachians from West Virginia northward in the first week of the month, and the first fall freeze reached into northern Mississippi and Alabama and most of North Carolina. Later in the month, freezing weather reached to northern Florida. During the last ten days of the month, very cold air settled over the central Plains and Rockies and freezing temperatures reached through New Mexico and western Texas into Mexico.

**FIRST WEEK...**The month began on Tuesday and rain covered Washington, Oregon, and most of California before spreading across the Plateau to the northern Rockies. Snow fell in the higher elevations of the Cascades, Sierras, and Rockies. Later, showers and thunderstorms broke out in the lower Missouri Valley and spread eastward to the Tennessee Valley and then across the South. Showers over western Texas helped green pastures. Warm weather dominated most of the Nation, except the Northeast. A cold outbreak late in the week brought freezing temperatures to the middle Mississippi Valley, the Tennessee Valley, and into North Carolina.

**SECOND WEEK...**Precipitation fell in nearly all of the Nation, except the southern part of the Southwest including southwestern Texas. A storm system in the Gulf of Mexico spread showers and thunderstorms from eastern Texas to Georgia early in the week. By midweek, another storm had developed in the central Plains and moved to the mid-Atlantic States and then into New England. Snow covered the central Rockies and parts of the northern Plains, the northern and eastern Great Lakes region, and most of the central and northern Appalachians. Rain, showers, or thunderstorms covered the rest of the area from the Plains eastward. Late in the week, another Pacific storm brought moderate to heavy showers to the west coast and the Pacific Northwest. The first freeze of the season reached to northern Louisiana, central Mississippi and Alabama, northern Georgia, and throughout South Carolina.

**THIRD WEEK...**Pacific storms moved onto the west coast in rapid succession and spread heavy rain over the western slopes of the Cascades and the Sierras and heavy snow over the higher elevations. Snow fell on the Plateau and in the Rockies as the storms moved eastward, and after regenerating in the central Plains, spread rain northeastward, and then over all of the area east of the Mississippi River. Showers, thunderstorms, and a few tornadoes covered the South from Arkansas and Louisiana to Georgia. The Pacific storms brought relatively warm air into the West--averaging as much as 12° F warmer than normal in parts of the Northern Plains. After midweek, cold polar air plunged southward in the East and pushed freezing temperatures southward to northern Florida.

**FOURTH WEEK...**The succession of Pacific storms continued and brought more heavy rain to the west coast and piled more heavy snow in the Cascades and Sierras. Very cold air from Canada pushed over the Plateau, the Rockies and the Plains. The cold air continued with the Pacific storms to create blizzard conditions in Utah, Colorado, Wyoming, and from Nebraska to the western Great Lakes. A mantle of snow covered the winter grain areas in Colorado, western Kansas, and Nebraska before the severely cold weather covered the area. The very cold air did not spread all the way to the east coast. Rain fell frequently from the eastern portion of the central and southern Plains to the east coast and into New England. Average temperatures were much below normal in the northern Plains, the central Rockies, and the central Plateau, but warmer than normal in the East.

The last four days of the month began with a large area of precipitation from the lower Missouri Valley through the Mississippi Valley which moved on through the East. More snow fell in the central and northern Plains and moved over the northern Mississippi Valley and Great Lakes. Temperatures remained below freezing throughout this period in the central and northern Plains and in the Rockies.

### ROW CROP HARVEST

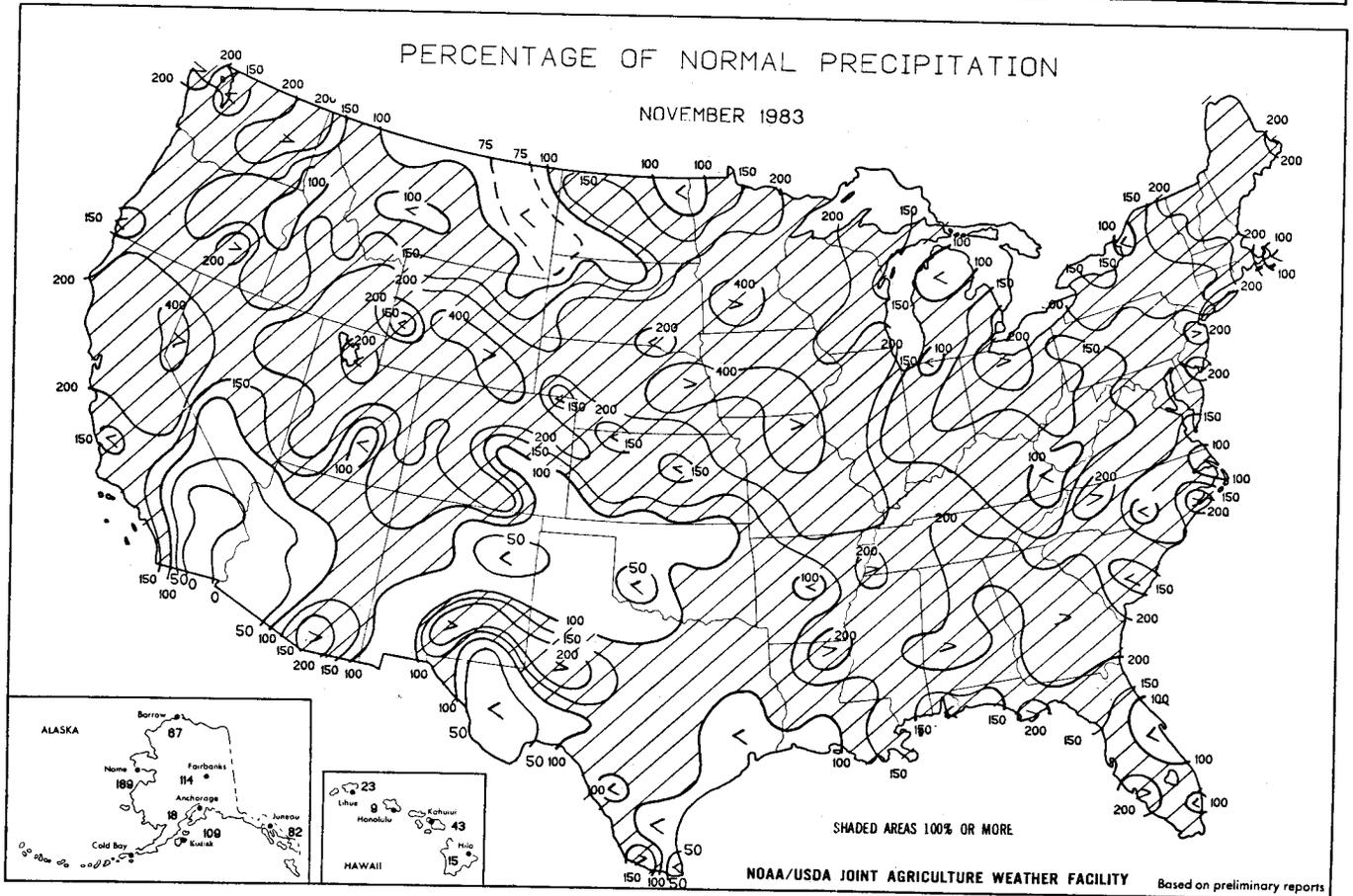
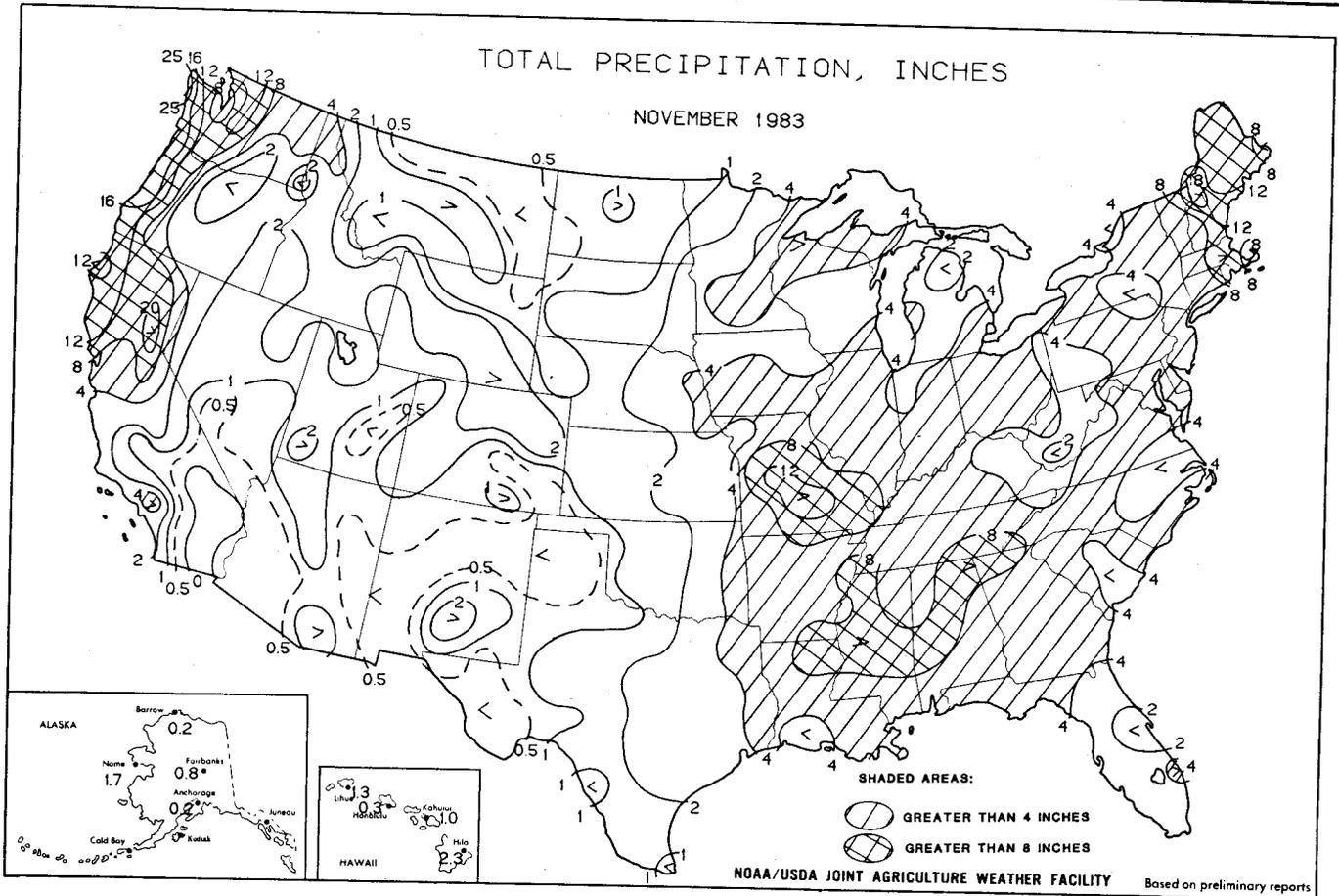
Harvests of corn, grain sorghum, and cotton were ahead of schedule at the beginning of November. However, soybean combining was behind schedule in all regions except the Corn Belt. Growers made good harvesting progress early in the month, but precipitation in late November delayed completion of fieldwork across the eastern half of the Nation and in California.

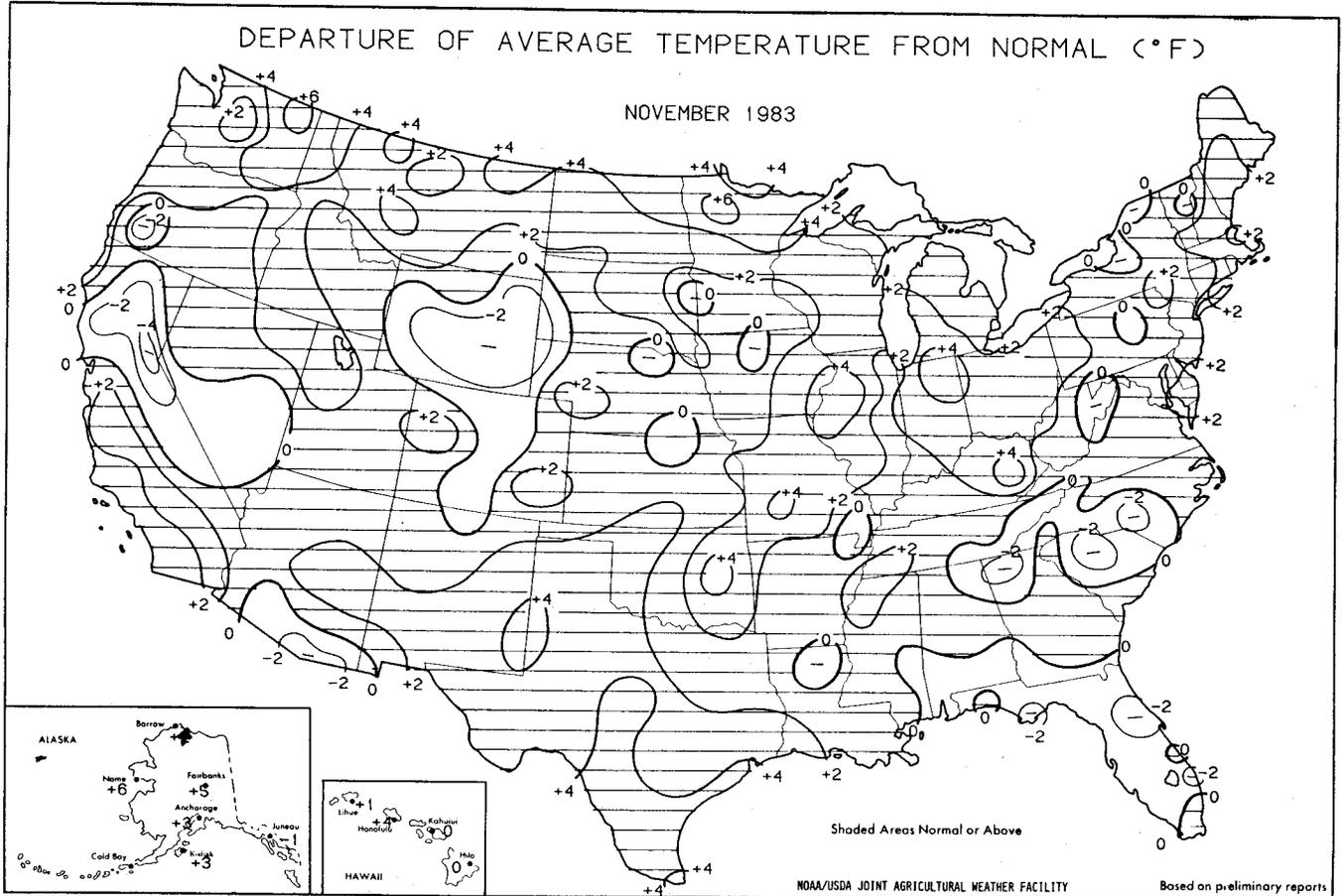
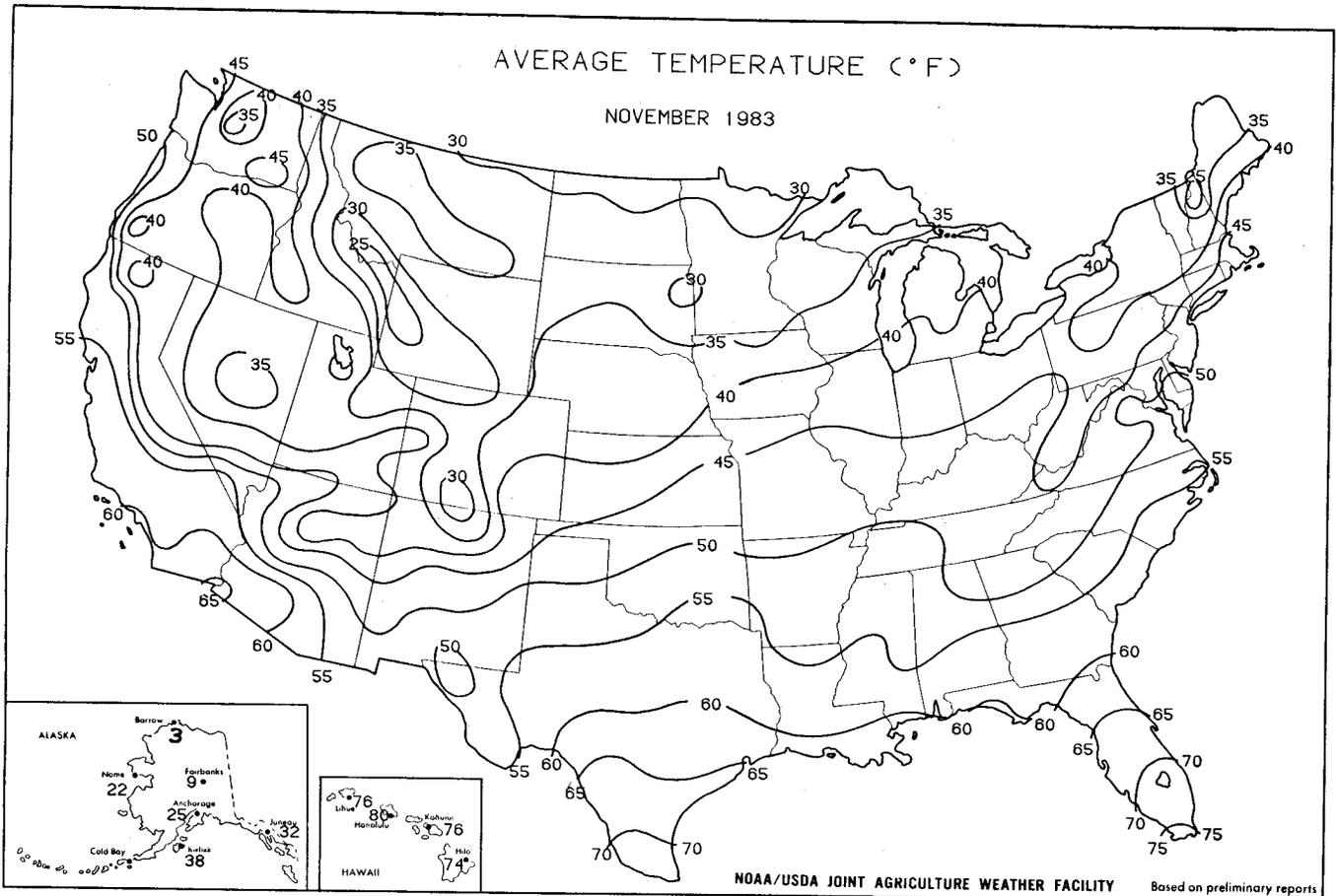
Corn combining was 82 percent finished in the 17 major producing States at the beginning of November, well ahead of last year's 52 percent and the average of 63 percent. Progress was equal to or ahead of the average in all States except Kentucky and Virginia. Harvesting was ahead of the average by 35 percentage points in Nebraska, 34 points in Minnesota, 30 points in Colorado and 29 points in Iowa. Hot, dry summer weather caused early maturity and resulted in rapid harvesting. Wet conditions slowed final completion of the harvest late in the month, but by the end of November, combining was virtually complete in all producing areas.

Grain sorghum harvesting was 83 percent complete in the 7 major producing States as November began, 24 points ahead of last year and 9 points ahead of the average. Progress was equal to or ahead of the average in all States. Combining was 48 points ahead of the average in Colorado, 25 points in Nebraska and 16 points ahead in Missouri. The Texas harvest was about on schedule. Harvesting was virtually complete by the end of the month. Only Kansas, Missouri, and Oklahoma had minimal acreages left to be harvested.

Soybean harvesting was 69 percent complete in the 18 major producing States at the beginning of November, equal to last year but 2 points behind the average. Harvesting progressed rapidly during early November but rain and wet fields delayed progress late in the month. As November ended, combining was nearly complete in the Corn Belt and 94 percent finished in the South-central States. However, producers were only 71 percent finished in the Southeast, 11 percentage points behind schedule. Remaining acreage in this area was generally double-cropped soybeans.

(continued on p. 20)





Temperature and Precipitation Data for November 1983

States and Stations				States and Stations				States and Stations						
Temperature OF		Precipitation Inches		Temperature OF		Precipitation Inches		Temperature OF		Precipitation Inches				
Average	Departure	Total	Departure	Average	Departure	Total	Departure	Average	Departure	Total	Departure			
AL BIRMINGHAM	53	1	9.7	6.1	LA BATON ROUGE	59	0	4.3	-.3	TOLEDO	41	2	5.6	3.2
MOBILE	58	-1	5.3	1.6	LAKE CHARLES	63	3	3.6	-.2	YOUNGSTOWN	43	3	3.9	1.1
MONTGOMERY	56	1	7.3	4.3	NEW ORLEANS	60	0	6.3	2.2	OK OKLAHOMA CITY	50	1	1.9	-.4
AK ANCHORAGE	25	3	.2	-.9	SHREVEPORT	56	0	4.9	1.1	TULSA	53	4	2.1	-.5
BARROW	3	4	.2	-.1	ME CARIBOU	32	1	8.1	4.9	OR ASTORIA	49	2	16.7	6.8
FAIRBANKS	9	5	.8	.1	PORTLAND	40	2	13.5	8.8	BURNS	36	0	2.4	1.5
JUNEAU	-	-	-	-	MD BALTIMORE	47	1	5.0	1.9	MEDFORD	44	0	5.0	2.1
KODIAK	-	-	-	-	MA BOSTON	46	1	8.9	4.7	PENDLETON	46	5	1.7	-.2
NOME	22	6	1.7	-.8	CHATHAM	47	2	4.4	-.1	PORTLAND	49	3	8.7	3.5
AZ FLAGSTAFF	37	1	1.5	-.2	MI ALPENA	35	0	1.7	-.5	PA ALLENTOWN	44	1	6.3	2.6
PHOENIX	62	1	.4	-.1	DETROIT	41	1	4.3	2.0	ERIE	45	4	6.1	2.4
TUCSON	57	-2	1.7	1.1	FLINT	41	2	3.5	1.2	HARRISBURG	44	0	5.3	2.1
WINSLOW	45	2	.4	.0	GRAND RAPIDS	41	2	3.2	-.7	PHILADELPHIA	47	1	5.7	2.4
YUMA	66	2	0	-.2	HOUGHTON LAKE	37	1	1.6	-.1	PITTSBURGH	44	2	3.9	1.6
AR FORT SMITH	51	1	4.8	1.3	LANING	40	1	3.2	.9	SCRANTON	43	2	3.7	.7
LITTLE ROCK	51	0	4.3	-.1	MARQUETTE	32	2	5.7	2.8	RI PROVIDENCE	46	3	11.0	6.8
CA BAKERSFIELD	57	1	1.3	.6	MUSKOGON	41	2	4.5	1.6	SC CHARLESTON	58	1	3.1	.9
EUREKA	54	3	10.4	4.5	MN DULUTH	32	4	5.0	3.3	COLUMBIA	52	-2	3.6	1.1
FRESNO	55	2	2.5	1.3	INT'L FALLS	28	3	2.0	.7	GREENVILLE	49	-2	5.3	2.1
LOS ANGELES	61	0	2.7	1.2	MINNEAPOLIS	34	1	4.9	3.6	SD ABERDEEN	32	2	.6	.0
RED BLUFF	51	-2	6.9	3.8	ROCHESTER	34	1	3.9	-2.5	HURON	34	2	1.8	1.1
SAN DIEGO	64	2	1.9	.8	SAINT CLOUD	32	2	3.1	1.8	RAPID CITY	35	0	1.1	.6
SAN FRANCISCO	56	1	6.0	3.6	MS JACKSON	55	0	8.1	3.9	SIoux FALLS	35	2	3.0	2.1
STOCKTON	53	0	4.2	2.4	MERIDIAN	53	-1	8.7	5.2	TN CHATTANOOGA	49	0	9.6	5.4
CO DENVER	37	-2	2.6	1.8	KANSAS CITY	44	2	8.9	6.9	KNOXVILLE	47	-2	4.4	.6
GRAND JUNCTION	42	2	2.0	1.4	SAINT LOUIS	48	3	7.8	5.3	MEMPHIS	53	2	9.6	5.4
PUEBLO	42	2	.5	.0	SPRINGFIELD	49	4	5.1	2.2	NASHVILLE	50	1	7.0	3.5
CT BRIDGEPORT	46	0	6.6	2.8	MT BILLINGS	37	2	.9	.0	TX ABILENE	57	4	1.8	.5
HARTFORD	43	1	6.1	2.0	CLASGOW	33	4	.2	-.1	AMARILLO	47	2	.3	-.3
DC WASHINGTON	50	1	5.1	2.3	GREAT FALLS	35	1	1.3	.6	AUSTIN	62	3	2.7	.5
FL APALACHICOLA	59	-2	6.7	3.9	HAVRE	31	1	.4	.0	BEAUMONT	64	3	4.2	-.1
DAYTONA BEACH	63	-2	2.0	-.6	HELENA	35	4	.3	-.2	BROWNSVILLE	71	3	.5	-.9
FORT MYERS	69	-1	3.7	2.3	KALISPELL	34	3	1.6	.4	CORPUS CHRISTI	68	3	1.5	-.1
JACKSONVILLE	60	-1	3.3	1.4	MILES CITY	34	1	.4	-.2	DEL RIO	62	3	1.4	.6
KEY WEST	76	0	.9	2.3	MISSOULA	34	2	1.2	-.3	EL PASO	54	3	.3	.0
MIAMI	73	0	2.0	-.7	NE GRAND ISLAND	38	0	3.8	3.0	FORT WORTH	57	1	2.2	-.4
ORLANDO	66	-2	1.4	-.4	LINCOLN	39	0	3.6	2.6	HOUSTON	63	3	3.2	-.2
TALAHASSEE	58	-1	6.4	3.1	NORFOLK	37	1	4.0	3.3	LUBBOCK	52	3	.5	-.1
TAMPA	66	-1	2.3	.4	NORTH PLATTE	37	2	1.6	1.0	MIDLAND	55	3	1.6	1.0
WEST PALM BEACH	70	-2	4.2	.8	OMAHA	39	1	5.2	4.0	SAN ANGELO	58	3	1.8	.8
GA ATLANTA	51	-1	7.4	4.0	VALENTINE	35	1	1.2	.8	SAN ANTONIO	63	3	3.1	.8
AUGUSTA	54	0	4.7	2.6	NV ELY	33	-1	1.0	.4	VICTORIA	65	3	3.2	1.0
MACON	56	1	7.0	4.7	LAS VEGAS	55	1	1.1	-.3	WACO	59	2	2.9	.7
SAVANNAH	58	0	4.2	2.1	RENO	41	1	3.1	2.5	WICHITA FALLS	54	2	.9	-.5
HI HILO	74	0	2.3	-12.6	WINNEMICCA	39	1	1.3	.5	UT BLANDING	38	0	1.6	.7
HONOLULU	80	3	.3	-2.9	NH CONCORD	39	2	7.4	3.7	SALT LAKE CITY	43	3	2.2	1.0
KAHULUI	76	0	1.0	-1.3	NJ ATLANTIC CITY	47	1	6.7	3.0	VT BURLINGTON	38	1	6.9	4.1
LIIHUE	76	1	1.3	-4.3	TRENTON	--	--	--	--	VA LYNCHBURG	48	1	5.1	2.2
ID BOISE	42	2	1.9	-.6	NM ALBUQUERQUE	45	1	.4	.0	NORFOLK	53	1	3.2	.3
LEWISTON	44	4	1.0	-.2	ROSWELL	--	--	--	--	RICHMOND	49	0	5.6	2.3
POCATELLO	36	1	2.8	1.9	NY ALBANY	39	0	4.7	1.7	ROANOKE	47	0	4.3	1.7
IL CAIRO	50	1	8.1	4.1	BINGHAMTON	40	2	3.6	.6	WA COLVILLE	40	6	5.7	3.6
CHICAGO	41	1	5.9	3.8	BUFFALO	41	1	5.2	1.6	OMAK	41	6	4.1	2.7
MOLINE	43	4	5.8	3.8	NEW YORK	48	1	4.8	1.0	QUILLAYUTE	46	2	29.1	14.2
PEORIA	45	5	5.6	3.6	ROCHESTER	41	0	4.9	2.2	SEATTLE-TACOMA	48	3	8.0	3.4
ROCKFORD	40	2	4.7	2.4	SYRACUSE	39	-2	4.0	.5	SPOKANE	39	4	4.8	2.7
SPRINGFIELD	46	4	4.7	2.8	NC ASHEVILLE	47	1	4.8	1.5	WALLA-WALLA	48	5	3.4	1.5
EVANSVILLE	48	1	5.6	2.7	CHARLOTTE	50	-1	4.1	1.2	YAKIMA	42	4	2.8	1.8
FORT WAYNE	45	5	4.2	1.6	GREENSBORO	49	0	5.4	2.8	WV BECKLEY	42	0	1.9	-.9
INDIANAPOLIS	44	2	4.6	1.6	HATTERAS	56	-1	4.6	-.2	CHARLESTON	47	2	4.8	1.9
SOUTH BEND	44	4	2.6	-.2	RALEIGH	51	1	3.9	1.0	HUNTINGTON	47	1	2.9	.1
IA BURLINGTON	--	--	--	--	WILMINGTON	55	0	4.5	1.3	PARKERSBURG	--	--	--	--
DES MOINES	41	2	6.5	5.0	ND BISMARCK	31	2	.7	.2	WI GREEN BAY	37	3	2.6	.8
DUBUIQUE	39	3	3.9	1.4	FARGO	31	3	1.0	.2	LA CROSSE	36	1	3.7	1.2
SIoux CITY	38	2	3.1	2.2	WILLISTON	30	2	.8	.3	MADISON	37	2	3.2	1.4
KS CONCORDIA	40	-1	1.9	.8	OH AKRON-CANTON	44	3	4.2	1.7	MILWAUKEE	40	3	4.1	2.1
DODGE CITY	44	1	1.2	.4	CINCINNATI	45	2	4.2	1.1	CASPER	31	-2	2.7	2.0
GOODLAND	38	0	1.8	1.2	CLEVELAND	44	2	5.9	3.1	CHEYENNE	33	-2	2.3	1.8
TOPEKA	46	3	3.6	1.8	COLUMBUS	44	2	5.0	2.4	LANDER	28	-3	3.4	2.6
WICHITA	46	2	2.4	.9	DAYTON	44	0	4.2	1.6	SHERIDAN	34	1	1.1	.3
KY LEXINGTON	47	2	3.6	.3					PR SAN JUAN	81	1	3.3	-2.2	
LOUISVILLE	48	2	5.0	1.5										

Based on 1941-70 normals

Heating Degree Days (Base 65° F.)

November 1983

ALA. Birmingham . . .	359	MAINE, Caribou . . .	979	OKLA. Okla. City . . .	439
Mobile . . . . .	243	Portland . . . . .	738	Tulsa . . . . .	378
Montgomery . . . . .	273	MD. Baltimore . . . . .	530	OREG. Astoria . . . . .	485
ALASKA, Anchorage . . . . .	1194	MASS. Boston . . . . .	561	Burns . . . . .	872
Barrow . . . . .	1907	Chatham . . . . .	536	Medford . . . . .	632
Fairbanks . . . . .	1688	MICH. Alpena . . . . .	893	Pendleton . . . . .	569
Nome . . . . .	-	Detroit . . . . .	708	Portland . . . . .	463
ARIZ. Flagstaff . . . . .	837	Flint . . . . .	711	Salem . . . . .	463
Phoenix . . . . .	154	Grand Rapids . . . . .	721	PA. Allentown . . . . .	639
Tucson . . . . .	232	Houghton Lake . . . . .	846	Erie . . . . .	591
Winslow . . . . .	606	Lansing . . . . .	756	Harrisburg . . . . .	628
Yuma . . . . .	88	Marquette . . . . .	989	Philadelphia . . . . .	540
ARK. Fort Smith . . . . .	419	S. Ste. Marie . . . . .	951	Pittsburgh . . . . .	639
Little Rock . . . . .	410	MINN. Duluth . . . . .	996	Scranton . . . . .	659
CALIF. Bakersfield . . . . .	230	Internatl Falls . . . . .	1116	R.I. Providence . . . . .	563
Eureka . . . . .	335	Minneapolis . . . . .	923	S.C. Charleston . . . . .	228
Fresno . . . . .	304	Rochester . . . . .	938	Columbia . . . . .	373
Los Angeles . . . . .	129	St. Cloud . . . . .	987	Greenville . . . . .	467
Red Bluff . . . . .	407	MISS. Jackson . . . . .	315	S. DAK. Aberdeen . . . . .	975
Stockton . . . . .	365	Meridian . . . . .	350	Huron . . . . .	924
San Diego . . . . .	66	MO. Columbia . . . . .	575	Rapid City . . . . .	896
San Francisco . . . . .	281	Kansas City . . . . .	617	Sioux Falls . . . . .	894
COLO. Denver . . . . .	833	St. Louis . . . . .	498	TENN. Chattanooga . . . . .	487
Grand Junction . . . . .	678	Springfield . . . . .	489	Knoxville . . . . .	523
Pueblo . . . . .	689	MONT. Billings . . . . .	811	Memphis . . . . .	368
CONN. Bridgeport . . . . .	551	Glasgow . . . . .	956	Nashville . . . . .	447
Hartford . . . . .	661	Great Falls . . . . .	891	TEX. Abilene . . . . .	261
D.C. Washington . . . . .	433	Havre . . . . .	1006	Amarillo . . . . .	506
FLA. Apalachicola . . . . .	187	Helena . . . . .	901	Austin . . . . .	154
Ft. Myers . . . . .	15	Kalispell . . . . .	926	Beaumont . . . . .	122
Jacksonville . . . . .	181	Miles City . . . . .	912	Brownsville . . . . .	22
Key West . . . . .	0	Missoula . . . . .	913	Corpus Christi . . . . .	66
Miami . . . . .	4	NEBR. Grand Island . . . . .	793	Del Rio . . . . .	-
Orlando . . . . .	63	Lincoln . . . . .	763	El Paso . . . . .	317
W. Palm Beach . . . . .	14	Norfolk . . . . .	838	Fort Worth . . . . .	269
Tallahassee . . . . .	231	North Platte . . . . .	840	Galveston . . . . .	56
Tampa . . . . .	57	Omaha . . . . .	782	Houston . . . . .	138
GA. Atlanta . . . . .	400	Valentine . . . . .	895	Lubbock . . . . .	371
Augusta . . . . .	326	NEV. Ely . . . . .	948	Midland . . . . .	304
Macon . . . . .	284	Las Vegas . . . . .	297	San Angelo . . . . .	245
Savannah . . . . .	232	Reno . . . . .	708	San Antonio . . . . .	154
IDAHO, Boise . . . . .	682	Winnemucca . . . . .	785	Victoria . . . . .	102
Lewiston . . . . .	630	N.H. Concord . . . . .	760	Waco . . . . .	220
Pocatello . . . . .	854	N.J. Atlantic City . . . . .	548	Wichita Falls . . . . .	341
ILL. Cairo . . . . .	432	N. MEX. Albuquerque . . . . .	-	UTAH, Milford . . . . .	813
Chicago . . . . .	714	N.Y. Albany . . . . .	766	Salt Lake City . . . . .	650
Moline . . . . .	654	Binghamton . . . . .	750	VT. Burlington . . . . .	803
Peoria . . . . .	595	Buffalo . . . . .	722	VA. Lynchburg . . . . .	502
Rockford . . . . .	742	New York . . . . .	505	Norfolk . . . . .	370
Springfield . . . . .	574	Rochester . . . . .	723	Richmond . . . . .	475
IND. Evansville . . . . .	514	Syracuse . . . . .	769	Roanoke . . . . .	531
Fort Wayne . . . . .	596	N.C. Asheville . . . . .	527	WASH. Colville . . . . .	-
Indianapolis . . . . .	619	Charlotte . . . . .	445	Quillayute . . . . .	570
South Bend . . . . .	628	Greensboro . . . . .	482	Seattle-Tacoma . . . . .	511
IOWA, Des Moines . . . . .	720	Hatteras . . . . .	272	Spokane . . . . .	765
Dubuque . . . . .	773	Raleigh . . . . .	417	Walla Walla . . . . .	506
Souix City . . . . .	799	Wilmington . . . . .	299	Yakima . . . . .	672
KANS. Concordia . . . . .	734	N. DAK. Bismarck . . . . .	1015	W. VA. Beckley . . . . .	698
Dodge City . . . . .	617	Fargo . . . . .	1004	Charleston . . . . .	521
Goodland . . . . .	807	Williston . . . . .	1031	Huntington . . . . .	537
Topeka . . . . .	570	OHIO. Akron-Canton . . . . .	608	WIS. Green Bay . . . . .	847
Wichita . . . . .	582	Cincinnati . . . . .	600	Madison . . . . .	823
KY. Lexington . . . . .	550	Cleveland . . . . .	628	Milwaukee . . . . .	748
Louisville . . . . .	509	Columbus . . . . .	626	WYO. Casper . . . . .	1009
LA. Baton Rouge . . . . .	216	Dayton . . . . .	649	Cheyenne . . . . .	474
Lake Charles . . . . .	140	Toledo . . . . .	705	Lander . . . . .	1096
New Orleans . . . . .	131	Youngstown . . . . .	662	Sheridan . . . . .	908
Shreveport . . . . .	305				

Based on 1951-80 normals.

November 28 to December 4

**HIGHLIGHTS:** Winter wheat across the central and northern Plains and into the Lake States was protected from freezing temperatures by a blanket of snow. Muddy fields slowed completion of the corn and soybean harvests across the Corn Belt. Heavy rains saturated soils in the Delta States and the Southeast, delaying soybean harvesting and limiting field activities. Fieldwork was generally limited to less than 4 days in all regions, except in the Southwest where more than 5 days were available. Heavy rain or snow left soil moisture mostly adequate to surplus from the Rocky Mountains eastward. Soybean harvesting crept to 92% completion, trailing the 96% average for both last year and the average. Cotton was 87% picked, 8 percentage points ahead of normal. Winter wheat had emerged on 93% of the acreage, slightly behind the average for this date. Cooler than normal temperatures slowed pasture growth except in the Southeast. Pastures were rated fair to good across the South. Livestock were in fair to mostly good condition. Producers continued supplemental feeding in nearly all regions.

**SMALL GRAINS:** Winter wheat seeding in the 15 major producing States was finished in most areas, with 93% of the acreage emerged. Ninety-two percent had emerged a year earlier and the average is 95%. Progress lagged normal only in parts of Colorado and Kansas where dry soils had delayed seedings. Kansas winter wheat received beneficial moisture in the form of rain and snow, but cold temperatures slowed emergence and top growth. Wheat had emerged on 90% of the acreage, compared with the 99% average. In Oklahoma, cold temperatures slowed wheat emergence and growth. Ninety-five percent of the acreage had emerged, equaling the normal pace. Montana's and Nebraska's winter wheat was reported in mostly good condition, and was protected by adequate snow cover in most areas. In Texas, winter wheat continued to improve in central areas because of additional moisture, but more moisture is needed on the Plains for germination and continued growth. In the Blacklands, wheat growth was good but growth was slow on the Plains. In California, emergence reached the half-way mark, compared with the average of 45%.

**SOYBEANS:** Harvesting in the 18 major producing States was 94% complete, 2 points behind both last year and the average. Harvesting continued to lag in 12 of the major producing States -- as much as 22 points less than the average in South Carolina and 8 points less in Georgia. Wet fields and flooding in localized area of the Delta States hampered harvesting. Growers were finished harvesting in the eastern Corn Belt and nearly finished in the western Corn Belt. In the South-central States, producers had combined 94% of their acreage, but were only 71% finished in the Southeast.

**COTTON:** Picking was 87% complete in the 14 major producing States, compared with 78% in 1982 and the average of 79%. Progress was behind normal in California, Georgia, and New Mexico. California picking was 90% finished, many fields had been picked twice. Growers continued shredding and discing harvested fields. Rain interrupted harvesting in most areas of Arizona late in the week. Growers shredded stalks and prepared the

land for another crop. Cold temperatures accelerated harvesting in Oklahoma, producers had picked 55% of their acreage. In Texas, cotton harvesting advanced on the High Plains, but showers slowed picking on the Low Plains. Harvesting was virtually complete in the Delta States and 96% finished in the Southeast.

**OTHER CROPS:** Sorghum harvesting was nearly complete. Kansas producers had combined 97% of their acreage, while growers in Nebraska and Texas were virtually finished.

Tobacco growers continued marketing, stripping, and preparing plant beds. Tennessee producers stripped 72% of the burley crop. In Kentucky, burley tobacco prices and the volume marketed were below a year earlier. The Virginia flue-cured market closed while burley sales continued active.

Peanut threshing was virtually complete in the Southeast. Texas producers had dug 94% of their acreage, 1 point ahead of normal.

**FRUITS AND NUTS:** Florida's citrus groves were reported in very good to excellent condition. Excellent natural fruit color was evident as harvesting increased for both fresh and processed markets. The citrus harvest increased in the lower Rio Grande Valley of Texas and good quality was reported. Navel orange and tangerine picking was near peak volume in the Central Valley of Arizona. Lemon and grapefruit harvesting continued steady. Navel oranges, sweet oranges, and tangerines were sizing and maturing normally in the Yuma area. California producers continued caring for orchards. Avocado picking increased while grapefruit, lemon, and Navel orange harvesting continued at a steady pace.

The percentage of pecans harvested was: Georgia--62%, Mississippi--66%, Louisiana--55% and, Texas--64%.

**VEGETABLES:** Some growers irrigated vegetable fields in Florida. Shipments increased 39% over the previous holiday week. All vegetables gained in volume, except okra which continued steady and southern peas which registered a decline. Strawberry plants were in good condition. Harvesting of peppers, broccoli, and cabbage continued in the lower Rio Grande Valley of Texas. Light rain slowed cabbage and broccoli cutting in the San Antonio-Winter Garden area. Lettuce harvesting neared completion in the Trans-Pecos region. Lettuce packing neared peak volume in the Yuma, Arizona area, but was past the peak in the Central Valley and Parker areas. Cauliflower and broccoli cutting was active in the Salt River Valley. In California, broccolil and cauliflower harvesting was moderate with most supplies from the central coast. Cantaloup harvesting was finishing in the Imperial Valley. Lettuce harvesting was active in the Palo Verde Valley but just got underway in the Imperial Valley.

**PASTURES AND LIVESTOCKS:** Pastures continued in fair to good condition across the South. However, colder temperatures slowed the growth of grasses. Livestock received supplemental feed in most regions and were reported in fair to mostly good condition. Feed supplies were mostly adequate but some areas reported limited shortages.

## CROP PROGRESS

FOR WEEK ENDING DEC 4, 1983

WINTER WHEAT % EMERGED				SOYBEANS % HARVESTED				COTTON % HARVESTED			
	1983	1982	AVG.		1983	1982	AVG.		1983	1982	AVG.
CALIF	50	50	45	ALA	90	90	91	ALA	97	97	92
COLO	88	99	98	ARK	92	95	93	ARIZ	96	70	85
IDAHO	100	100	100	GA	79	84	87	ARK	99	95	96
ILL	100	100	100	ILL	100	100	100	CALIF	90	93	94
IND	100	100	100	IND	100	100	100	GA	89	93	95
KANS	90	100	99	IOWA	100	100	100	LA	99	94	98
MO	88	87	88	KANS	90	100	97	MISS	98	94	97
MONT	100	100	100	KY	97	98	98	MO	100	100	100
NEBR	100	100	100	LA	98	92	97	N MEX	64	85	80
OHIO	100	100	100	MICH	100	100	100	N C	100	84	96
OKLA	95	70	95	MINN	98	98	99	OKLA	55	25	50
OREG	97	95	96	MISS	93	88	95	S C	100	100	98
S DAK	100	100	100	MO	93	98	98	TENN	99	100	90
TEX	90	86	89	NEBR	98	100	100	TEX	80	68	64
WASH	100	100	100	N C	74	70	78				
				OHIO	100	100	100				
15 STATES	93	92	95	S C	58	80	80	14 STATES	87	78	79
				TENN	94	99	89				

THESE 15 STATES PRODUCED 80%  
OF THE 1982 WINTER WHEAT CROP.

18 STATES 94 96 96

THESE 18 STATES PRODUCED 94%  
OF THE 1982 SOYBEAN CROP.

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:** Temperatures above normal. Rainfall under 1.00 in. south, 4.00 to 6.00 in. north.

Fieldwork 3.8 days. Soil moisture adequate to surplus. Soybeans harvested 90%, 1982 90%, average 91%. Cotton harvested 97%, 1982 97%, average 92%. Wheat seeded 86%, 1982 86%. Conditions: Pasture and livestock fair, wheat fair to good.

**ARIZONA:** Mild storm with moderate amounts moisture moved across State on 1st, 2nd, snow level lowering from 9,000 to 6,000 ft. Another storm with less precipitation moved very rapidly through State late 3rd and 4th. Snowfall amounts mostly 1 to 4 in. higher elevations. Weekly amounts between 0.50 and 1.00 in. Average temperatures 1 to 7° below seasonal normals.

Lettuce packing near peak volume Yuma area. Packing slower Central Valley, Parker areas after reaching peak volume previous week. Mixed vegetables harvest steady, good volumes, Salt River Valley. Showers slowed harvest two days Central Valley, one day Yuma. Cauliflower, broccoli cutting active in Salt River Valley, Yuma. Vegetable plants in good condition, making normal growth. Navel orange, tangerine picking; packing in Central Valley at near peak levels. Lemons, grapefruit picking steady, volumes normal. Navel, sweet oranges, tangerines sizing, maturing normally Yuma. Citrus groves good condition all producing areas. Cotton 96% picked once, 70% year ago, average 85%. Rain interrupted harvest most areas near weekend. Much of cotton acreage final picked. Growers shredding stalks, preparing land for another crop. Seedbed preparation for small grains active. Seedbed beginning in Central

Valley, nearing completion Santa Cruz county, 25% of Yuma acreage seeded. Plants emerging, some stands established Cochise, Santa Cruz, Yuma counties. Alfalfa hay harvest winding down most areas. Some alfalfa green chopped Maricopa County. Sheep grazing alfalfa fields most areas. Cooler temperatures slowed growth range grasses, conditions remained above average. Higher elevations good amounts grass feed, recent snowfall, freezing rains reduced nutritional value. Mid-elevations ranges, pastures good feed, adequate stock water. Lower elevation range feed supplies above average, soil moisture, stock water levels adequate or better. Cattle, sheep good to excellent condition. Calf weights very good.

**ARKANSAS:** Moderate to heavy over southeastern half of State late in week. Temperatures averaged 2 to 8° below normal. Highest temperature 72°, lowest 17°. Most recorded rainfall 5.95 in., least 0.95 in.

Days suitable for fieldwork 3.5. Soil moisture mostly adequate, surplus southwest. Rate of crop growth moderate to slow. Soybeans harvested 92%, 95% 1982, 93% average. Cotton virtually harvested, 95% 1982, 96% average. Wheat good condition; planted 96%, 92% 1982, 94% average. Oats good condition; virtually all planted, 96% 1982 and average. Pastures below average but improving. Cattle fair to good condition.

**CALIFORNIA:** All of the districts averaged near to slightly below normal for temperatures except for the Cascade-Sierra district which was 5° below normal. Precipitation amounts were not very significant as weak, high pressure protected the State from Pacific storms.

The amounts of precipitation were generally confined to the latter half of the period.

Fieldwork between showers. Cotton harvest 90% complete. Many fields finished second pick. Shredding, discing continue. Late planting small grains. Barley emergence slow. Winter seeded wheat 50% emerged. Alfalfa growers applying herbicides. Corn, sorghum, sugarbeet harvests continuing. Desert oats good growth, color. Pruning and application of pesticide and nutrient sprays were the main activities. Avocados picking up, grapefruit, lemons, and navel oranges continue. Broccoli, cauliflower harvests moderate, most supplies from central coast. Cantaloup harvest winding down Imperial Valley. Carrot harvest fairly light Central California, very light Desert. Honeydew harvest slowing Imperial Valley. Lettuce harvest active Palo Verde Valley, quality improving. Harvest Imperial Valley lettuce started. Digging winter potatoes continued West Riverside, slight frost damage Anza area. Harvest Kern district started. Movement fall storage potatoes moderate Tulelake-Butte Valley. Market tomato harvest continued South Coast. Range soil moisture conditions good to excellent. However, warmer temperatures needed for grass growth. Livestock good condition. Stock water supplies generally adequate.

**COLORADO:** There were locally heavy snow showers during this period, with some locations reporting up to 1.00 in. of precipitation. However, the average in the various river basins ranged from 0.50 in. in the northern half of the State to 0.25 in. in the southern half. Temperatures were colder than normal throughout the State. West of the Continental Divide temperatures averaged 2 to 5° below normal while east of the Divide were 10 to 15° below normal.

**FLORIDA:** A high pressure system was predominant most of week with warm temperatures, only isolated showers. On the 3rd, a weak cold front moved into Panhandle, becoming stationary the next day across northern areas; producing isolated showers. Remainder of State had warm temperatures, sunshine.

Soil moisture mostly adequate. Soybean, hay, cotton harvest about complete. Sugarcane harvest in full swing. Yields good to excellent. Seeding of winter wheat continues, nearing completion. Other fieldwork limited. Permanent pastures mostly dormant, northern areas where winter annuals growing well but some not yet ready for grazing. Pastures rated mostly fair to good, south; fair Panhandle, north except lower in a few dry northern areas. Condition of cattle, calves continues to vary widely; mostly good, lower Peninsula, fair to good elsewhere. Citrus grove condition very good to excellent. Afternoon rains several areas. Very little new growth. Excellent early natural fruit color. Harvest increasing for both fresh and processed markets. Warm days, mild nights prevailed vegetable area. Daytime highs mostly high 70's to 80's. Night-time lows mostly 60's and 70's. Scattered showers most areas midweek. Winds light to moderate. Some irrigation necessary to maintain adequate soil moisture. Vegetable shipments gained 39% over previous holiday week. Crops gaining in volume snap beans, cabbage, carrots, cauliflower, celery, Chinese cabbage, sweet corn, cucumbers, eggplant, escarole-endive, lettuce, parsley, green peppers, radishes, squash and tomatoes. Okra shipments registered no change. Shipments Southern peas declined. Light harvest watermelons continues primarily for local use. Strawberry plants in good condition.

Light harvest getting underway this weekend. Fair volume around mid-December.

**GEORGIA:** Rainfall early in week, but otherwise fair to dry. Average amounts near 2.50 in. northwest, but progressively less to southeast, with less than 0.25 in. extreme southeast. Temperatures near normal Statewide. Rain northern one-third of the State the 2nd, and Statewide the 3rd, until early 4th produced additional amounts averaging near 3.00 in. extreme northwest to barely 0.10 in. extreme southeast.

Soil moisture: 3% short, 68% adequate, 29% surplus. Average days suitable for fieldwork 3.5. Major activities: Harvesting soybeans, pecans and cotton and planting small grains. Conditions: Cotton 22% poor, 53% fair, 20% good, 4% excellent; soybeans 14% poor, 67% fair, 15% good; pecans 14% poor, 51% fair, 31% good; wheat 34% fair, 63% good; rye 31% fair, 65% good; other small grains 29% fair, 67% good; pastures 16% poor, 45% fair, 38% good. Crop progress: Cotton 89% harvested, 93% last year, 95% average; soybeans 79% harvested, 84% last year, 87% average; wheat 74% planted, 79% last year, 80% average; rye 96% planted, 92% last year, 89% average; other small grains 91% planted, 89% last year, 87% average; pecans 62% harvested, 80% last year, 74% average.

**HAWAII:** Weather was warm and dry for most of the week. Isolated, and occasionally heavy, showers fell over the weekend at the higher elevations.

Crops in irrigated areas made good progress while more rainfall is needed in other areas. The southeast district of Hawaii Island remains particularly dry. Production of crops grown at higher elevations such as head cabbage, head lettuce, and Chinese cabbage continue at heavy levels. Papaya production on a seasonal decline but output remains relatively high.

**IDAHO:** A cold northwesterly air flow brought below normal temperatures to the entire State. Northern areas were generally dry with the exception of some light showers early in the week. The southern two-thirds of the State experienced widespread snows in both the mountains and the valleys. By week's end, the valleys had 3 to 6 in. of snow on the ground with greater totals in the central and southern mountains. Temperatures ranged from 2 to 9° below normal with most locations in the east at 6 to 9° below normal. Precipitation was well below normal in the north ranging from 0.15 in. below normal at Grangeville to 0.96 in. below normal at Sandpoint. The remainder of the State was 0.10 to 0.75 in. above normal. Malad received the most precipitation with 1.10 in. and 13 in. of snow on the ground.

Snow and cold kept field activities at minimal levels. Some late calf weaning was reported. Livestock and feed supplies were in good condition. Milking cows and feeding livestock were the major activities.

**ILLINOIS:** Temperatures 1 to 7° below normal. Precipitation 0.02 to 1.49 in.

Soybean harvest virtually complete. Wheat emerged 100%, 1982 100%, average 100%; condition fair to good. Livestock condition good.

**INDIANA:** Wet, cloudy and first measurable snowfall. Daytime temperatures 4 to 8° subnormal, nights generally normal to above. Precipitation 0.20 to 0.50 in. north, 0.50 to 0.80 in. central and 0.70 to 0.80 in. in south. Slight soil surface freezing.

Muddy fields limited outside activities most of period. Some tilling and harvesting of few remaining corn and soybean field was accomplished when conditions permitted. Otherwise mostly making preparations for winter, getting tobacco ready for sale, cutting firewood, working on fences, hauling manure, caring for livestock, and usual chores.

IOWA: A cold, cloudy week. Precipitation was light, generally less than 0.50 in. The cold temperatures kept much of the snow received the previous week from melting. As much as 12 in. remains on the ground in northwest. Temperatures ranged from 11° below normal in the northwest to 5° below normal in the east central portion of the State.

Soybeans harvested 100%; 100% last year; 100% normal.

KANSAS: Wet, cold week with precipitation averaging 0.50 in. southwest, 1.25 to 1.40 in. north and east central, 0.75 to 1.00 in. elsewhere. Temperatures averaged 21° northwest and north central, 29 to 33° east, 24 to 28° elsewhere. These readings were 7 to 9° below normal east and 11 to 14° below normal central and west.

Wheat emerged 90%, last year 100%, average 99%. Moisture received in form of rain and snow but cold temperatures slowed emergence and top growth. Soybean harvest at virtual standstill. Harvest 90% complete, last year 100%, average 97%. Sorghum grain harvest 97% complete, last year finished by this date.

KENTUCKY: Pattern of past several weeks continued as series of low pressure centers and frontal systems brought drenching rain. Precipitation widespread and locally heavy. Rainfall ranged from 1.00 in. to well over 3.00 in. Temperatures fluctuated markedly with averages 5 to 6° below normal in north to west to about 4° above normal in south.

Soybean harvest 47% complete, 98% last year and average. Burley tobacco prices and volume marketed below year ago.

LOUISIANA: Rainfall 0.10 to 4.73 in. Temperatures ranged 1° below to 3° above normal. High 80°, low 23°.

Soil moisture supplies adequate to surplus. Cotton harvest virtually complete, 94% 1982, 98% average. Soybean harvest 98%, 92% 1982, 97% average. Sweetpotato harvest 98%, 98% 1982. Sugarcane harvest 80%, 72% 1982. Wheat seeded 95%, 79% 1982; wheat emerged 88%, 70% 1982. Condition fair to good. Pecan harvest 55%, 66% 1982, 71% average. Vegetables rated fair to good. Pastures rated fair. Cool, wet weather slowing growth. Livestock fair to good; supplemental feeding active.

MARYLAND AND DELAWARE: Maryland: Temperatures averaged 1 to 3° above normal and precipitation was under 0.50 over most of the State. Maximum temperatures were in the mid 50's in extreme west but in the low to mid 60's elsewhere. Minimum temperatures were in the teen's in extreme west to upper 20's elsewhere. Precipitation averaged 0.50 in. Totals ranged from 0.02 in. at Salisbury to 1.34 in. at Woodstock, smaller amounts averaging under 0.25 in. fell in south on both sides of the Bay and 0.75 in. in west and north. Weekend weather was mostly cloudy with rain late 3rd and 4th. Highs for 3rd were in the mid 40's and lows in the mid 30's. The 4th was warmer with heavier rains early. Highs were near 40 west to upper 40's east and lows were again in the mid 30's.

Delaware: Temperatures averaged 1° above normal north to 3° above normal central and south. High temperatures were low to mid 60's north and central to high 60 south. Lows were near 20 north to mostly mid 20's elsewhere. Precipitation averaged just over 0.10 in. and ranged from 0.01 in. at Millford to 0.38 in. at Wilmington. Weekend weather was cloudy with light precipitation on 3rd and heavy showers late 3rd and early 4th. Temperature highs were low to mid 40's 3rd and high 40's on 4th, while lows for 3rd and 4th were in the mid to upper 30's.

MICHIGAN: Temperatures of 1 to 3° below normal were the general rule across the State. The only exception was the northeast section of the lower Peninsula, where temperatures averaged 2° above normal. Moderate amounts of precipitation fell over the State with snow being the rule in the northern lower Peninsula and the upper Peninsula.

Farmers made an attempt to harvest their final corn fields. However, snow and rain slowed progress. Soybeans all combined on schedule with last year and average.

MINNESOTA: Temperatures averaged 5 to 13° below normal. High: 35°. Low: -20°. Precipitation averaged 0.03 to 0.25 in. above normal for northern third of State and 0.44 to 1.05 in. above normal elsewhere. Greatest amount reported was 1.81 in. Snowfall ranged from 7 to 18 in. except for the extreme northwest, northeast, and southeast which received only a trace to 3 in. Snow depth at weeks end ranged from 10 to 18 in. for the State except again for the extreme northwest, northeast, and southeast where depths reported ranged from 3 to 4 in.

MISSISSIPPI: Widespread rainfall throughout the State. Wind, tornado damage and flooding reported.

Soil moisture adequate to surplus. Fieldwork 2.4 days suitable, 0.5 1982, 3.0 average. Pecans 66% harvested, 80% 1982, 76% average. Sweetpotatoes 96% harvested. Cotton 98% harvested, 94% 1982, 97% average. Soybeans 93% harvested, 88% 1982, 95% average. Wheat condition good; 92% planted, 84% 1982, 92% average. Pasture condition good to fair; livestock condition good.

MISSOURI: Cold air covered the State with temperatures averaging 4° below normal except in the Bootheel where temperatures averaged 1° above normal. Precipitation was widespread, ranging from 1.25 in. in northwestern part of State to 2.50 in. in east central part. Some minor flooding occurred.

Winter wheat 88% emerged, 87% last year and 88% normal. Soybeans 93% harvested, 98% last year and 98% normal. Cotton 100% harvested, 100% last year and 100% normal.

MONTANA: A very cold week as temperatures continued below normal. Temperatures averaged 9 to 15° below normal. Nearly all areas had sub-zero temperatures during the week. Precipitation was light everywhere. Heaviest fell over the mountains in the south.

Winter wheat condition good. Snow cover protecting crop most areas. Most livestock on supplemental feed except in some eastern areas.

NEBRASKA: Cold week, entire State snow covered. Temperatures 12 to 14° below normal. Snowfall light. Water equivalents 0.10 to 0.20 in.

Soybean harvest 98%, 100% last year and average. Harvest 1% downward revision due to limited mail response following last weekend's

storm. Winter wheat 12% poor, 25% fair, 52% good and 11% excellent. Pasture and range feed mostly adequate to short. Topsoil moisture mostly adequate to surplus. Subsoil moisture mostly adequate to short. Lest than 1/2 day suitable for fieldwork.

NEVADA: Beginning of period mostly dry. Heaviest precipitation occurred last half of week. Most rain and snow northeast. South central and extreme south little to none. Snow heavy in Sierras end of period. Temperatures near normal northwest, slightly below elsewhere. Extremes: 63 and 5° below zero.

Lettuce harvest completed extreme south. Feeding livestock, grading and marketing only other major activities. Livestock mostly good condition.

NEW ENGLAND: Most of New England received over 1.00 in. of melted precipitation. Extremes southern New England received the most, with 2.95 in. recorded at Falmouth, Mass. Ayer, Mass. received 11 in. of snow on 4th.

Average temperatures ranged from the low 20° in extreme northern New Hampshire and Maine, to the upper 30° to low 40° over extreme southern New England, a high of 57° was recorded along the Mass. Coast. Lowest was 9° below zero at Ft. Kent, Maine overnight 3rd.

NEW JERSEY: Temperatures were below normal, averaging 35° north, 39° south and 43° coastal. Extremes 19 and 64°. Precipitation was well above normal, averaging 2.11 in. north, 1.73 in. south and 1.44 in. coastal. The heaviest 24-hour total 1.50 in. on 28th to 29th. Heaviest 24-hour snowfall 3 in. on 2nd to 3rd.

Fieldwork: 3.5 days suitable. Topsoil moisture adequate. Some soybean harvest continues as weather permits. Fruit pruning active.

NEW MEXICO: Average temperatures slightly below normal most locations. Minimum temperature 14°, northern mountains. Maximum temperature 70°, southeastern Plains. Total precipitation amounts generally from 0.25 to 0.80 in. north and west. Amounts of 0.10 in. or less southeastern Plains.

Soil moisture supplies adequate. Cotton harvest: current, 64%; previous year, 85%; average, 80%. Irrigated wheat, barley rated good, acceptable stands. Dryland fields fair to good condition. Feed grain harvest mainly clean-up activities. Peanuts 99% harvested; large percentage discolored, otherwise good quality. Mesilla Valley pecans 15% harvested, chile 60% harvested. Ranges fair to good higher elevations. Cattle, sheep rated good. Cattle marketings continue.

NEW YORK: Several storms brought rain and snow to many areas, especially near the lake areas. Precipitation totals ranged from 0.70 to 1.30 in. of water.

NORTH CAROLINA: Temperatures 3 to 7° above normal Statewide. Precipitation varied Statewide, heaviest over the western portion of State.

Soil moisture: 3% short, 87% adequate, 10% surplus. Days suitable for fieldwork: 3.9. Condition: Wheat: 16% fair, 80% good, 4% excellent; oats: 16% fair, 80% good, 4% excellent; barley: 16% fair, 82% good, 2% excellent; rye: 19% fair, 81% good. Harvests: Sorghum harvest: 100%, 1982 100%, average 97%. Soybeans: 74%, 1982 70%, average 78%. Cotton: 100%, 1982 84%, average 96%. Farm feed supplies: Hay and roughage: 22% short, 78%

adequate. Feed grains: 18% short, 80% adequate, 2% surplus. Major farm activities: Soybean harvest, seeding small grains, cutting Christmas trees and firewood, preparing tobacco plant beds, tending livestock, and general farm maintenance.

NORTH DAKOTA: Below normal temperatures highlighted the weather. Temperatures averaged 6 to 12° below normal. Temperature extremes ranged from 36° on 3rd to -18° on 1st. Precipitation averaged less than 0.10 in. The east central and northeast sections of the State were the exceptions where 0.25 and 0.50 in. of precipitation was reported. The precipitation fell as snow. Snow cover varied across the State from 2 to 6 in.

Additional snow cover needed to adequately protect fall seeded crops which are in mostly good condition. Livestock wintering in good condition, as they benefitted from the relatively mild November weather and light snow cover. Most livestock receiving supplemental feed. Supplies of feed adequate to plentiful.

OHIO: Daytime temperatures 3 to 7° below normal, nighttime near normal. Averages from mid-20's to low 40's. Precipitation from 0.40 to 2.00 in. mostly rain. Soil temperatures mid to upper 30's.

Winter wheat emerged 100%, 100% 1982, 100% average. Soybeans harvested 100%, 100% 1982, 100% average.

OKLAHOMA: Temperatures ranged from 4° below normal east central to 11° below normal Panhandle. Precipitation averages ranged from 0.20 in. southwest and west central to 1.80 in. southeast.

Cold temperatures slowed wheat pasture growth but accelerated cotton harvest. Pastures and ranges mostly dormant. More livestock moved on wheat pasture but supplemental feeding necessary due to freezes. Pastures and ranges in fair condition. Livestock in good condition. Wheat emerged: 95%, 70% 1982, 95% average. Cotton harvested: 50%, 25% 1982, 55% average.

OREGON: Rainfall during the week left almost 1.00 in. of precipitation west of the Cascades. Areas east of the Cascades recorded less than 0.50 in. of precipitation for the week. Up to 7 in. of snow fell in extreme eastern areas. Temperatures were 1 to 5° cooler than normal east of Cascades. Westward temperatures were average.

Winter wheat 97% emerged, about normal for this date. Fall seeded crops in very good condition. Weather delayed herbicide application. Fruit trees going dormant. Late vegetable harvest as weather permits. Soil moisture supplies adequate to surplus. Range and pasture condition good. Livestock condition good.

PENNSYLVANIA: Much cooler week than last, but continued wet. Temperatures were normal. Light snowfall covered much of the State late 2nd. Beginning and ending of week showed moderate to heavy rainfall. State average precipitation was 1.50 in., which was nearly 0.80 in. above the normal.

PUERTO RICO: Island average rainfall 0.92 in. or 0.23 in. below normal. Highest weekly total 3.80 in. Highest 24-hour total 3.70 in. Temperature averaged about 79 to 77° on coasts and 75 to 71° Interior Divisions. Mean station temperature ranged from 80.1 to 64.6°. Extremes 91 and 54°.

**SOUTH CAROLINA:** The weather during week changeable with rain at beginning and end. Heavy thunderstorms late 3rd caused localized flooding. Some wind damage reported. Temperatures varied from much above normal early to cooler than usual middle of week back to warmer near weekend.

Soil moisture mostly adequate, 4.3 days available for outdoor activity. Cotton harvest complete. Soybean harvest slowed by rains; only 58% harvested, 80% year ago and average. Combining slow due to weeds and short stalks. Pastures and small grains responding to adequate moisture and mild temperatures. Wheat seeding at 70%, behind last year's 80% and 83% average. Tobacco plant bed preparation final stages.

**SOUTH DAKOTA:** Average temperature 7 to 13° below normal. Extremes: 43 and -13°. Snow over entire State, 1 to 4 in. northwest and north central, 3 to 6 in. west central and southwest. Rest of State from 6 to 18 in.

Fall harvest virtually complete. Winter wheat emerged 100%, 1982 100%, average 100%.

**TENNESSEE:** Temperatures averaged near normal Statewide. Extremes ranged from near 20 to mid 60's. Rainfall was heavy Statewide. Totals averaged between 3.00 to 4.00 in. across middle and west with the east averaging between 2.00 to 3.00 in.

Corn harvested 96%, 1982 97%, average 94%. Cotton harvested 99%, 1982 100%, average 90%. Soybeans harvested 94%, 1982 99%, average 89%. Burley tobacco stripped 72%, 1982 88%, average 80%. Wheat sown 93%, 1982 95%, average 88%. Pastures and livestock good.

**TEXAS:** Strond cold front pushed into State middle of week, triggering showers, thunderstorms across State. Heaviest activity reported East, Southeast Texas. Front stalled off Upper Coast, return flow Gulf air brought low clouds, fog, light rain to State on 1st. Another front entered State late week, bringing heavy thunderstorms Upper Coast, eastern sections States. Temperatures near to slightly below normal North, West Texas, while southern, eastern portions States averaged 3 to 5° above normal. Precipitation averaged slightly less normal Statewide, except East Texas, Upper Coast rainfall amounts averaged 0.25 to 1.00 in. above normal.

**Crops:** Early fronts brought cold, dry air High Plains, cool, wet conditions Low Plains, Central, South Texas. Moisture greatly benefitted small grains some areas. Cotton harvest slowed Low Plains. Winter pastures greening up, grazing remains short most western areas. Cotton harvest advanced High Plains, slowed Low Plains due to the small amounts rainfall. Harvesting activity should gain momentum with advent of freezing temperatures, drying conditions. Irrigated cotton yields continue look good, while dryland cotton in poor condition. Statewide condition of unharvested cotton was 44% normal compared with 61% last year. Current reported conditions 1% good; 60% fair; 34% poor; and 5% failure. Small grains continued improve across Central Texas additional moisture. The High, Low Plains, more moisture needed for germination, growth to proceed. Some replanting occurring Central Texas due to erosion from early season rainfall. Oats, wheat making good growth throughout Blackland region, slow growth experienced Plains region. Wheat pasture continue provide good grazing conditions Central Texas. Greenbugs, mites

beginning show up Central Texas. Early soybeans harvested, late beans delayed due light rain. Early frost hurt yields Plains, fair yields being reported throughout remainder of State. Peanut harvesting active, good yields being reported. Sugarcane harvest in full swing Lower Valley, good crop expected.

Cotton harvested 80%, 68% 1982, 64% average. Sorghum harvested for grain 100%, 100% 1982, 99% average. Wheat planted for all purposes 98%, 98% 1982, 98% average; emerged 90%, 86% 1982, 89% average. Peanuts harvested 94%, 93% 1982, 93% average. Soybeans harvested 91%, 91% 1982, 93% average. Sugarbeets harvested 94%, 95% 1982, 92% average. Pecans harvested 64%, 73% 1982, 60% average. Sunflowers harvested 100%, 98% 1982, 96% average. Oats planted for all purposes 98%, 94% 1982, 96% average.

**Commercial vegetables:** Lower Rio Grande Valley, harvest peppers, broccoli, cabbage remains active. Citrus harvest increasing, good quality fruit picked. San Antonio-Winter Garden area, cabbage, broccoli, onions doing well. Recent light rain slowed harvesting activities. Trans-Pecos region, lettuce harvest nearing completion, chili pepper harvest completed. Pecan harvest in full swing, Blackland crop looking good. Remainder of State, expected to have fair yields, quality.

**Range and livestock:** Light rains aided greening up pastures; more rainfall needed to improve short pastures. Hay cutting virtually complete, good yields reported. Livestock remain good shape, slightly higher prices increasing movement cattle. Supplemental feeding continuing.

**UTAH:** Precipitation heavy north central and northern mountains, moderate rest of State. Maximums averaged 9° below normal. Minimums 7° above normal northern mountains, 7° below Uintah Basin, 4° below Dixie, normal rest of State.

Major farm activity limited to livestock care, equipment repair and sorting and shipping of apples, onions, and potatoes.

**VIRGINIA:** Temperatures cool second half of period with averages near or little above normal. Spotty precipitation in the beginning and widespread heavy rain in end. Many locations Statewide received 1.00 to 1.50 in.

Topsoil moisture increased to 75% adequate, 25% surplus. Days suitable for fieldwork 3.4. Corn harvest virtually complete. Soybean harvest speeding up, 78% complete, 86% last year and normal. Flue-cured tobacco markets closed, burley sales active. Fire and sun-cured being prepared for market. Wheat seeding 95% complete, 96% last year, 91% average. Small grains in good condition. Sorghum grain harvest 84% done, 88% last year, 80% average. Livestock in good condition. Calving and lambing going well. Grazing good to excellent for this time of year.

**WASHINGTON:** High pressure over western Canada and low pressure over eastern Pacific produced mostly offshore, easterly flow across State most of week. Cool, but not dry, air covered State and average temperatures mostly below normal. Although amounts lighter than normal, all stations reported precipitation during week as high and low pressure system oscillated about State.

Nighttime temperatures in teens and lower twenties eastern Washington caused some concern of winter kill in areas lacking snow cover. Frost heaving verified in higher elevations Garfield County. Grain corn harvest-

ing still in progress. Christmas tree harvest in full swing west. Blueberry pruning and raspberry canning and tying continue. Pruning grapes and fruit trees continue in central part of State. Carrot harvest continues. Livestock in good condition. Most now off pasture and on winter feed. Fall calving about complete Whitman County. Large number of feeder cattle still being marketed Spokane County. Winter wheat emerged 100%, 100% 1982, 100% average.

**WEST VIRGINIA:** Temperatures averaged slightly above normal across the State. Low 14° at Elkins, high 76° Charleston. Precipitation well above normal. Range 0.67 in. at Webster Springs, 2.16 in. at Terra Alta. Soil moisture adequate to short. Days worked averaged 4.2. Main activity was general maintenance. Feed supplies adequate to short.

**WISCONSIN:** The second winter storm of the season wound down on 28th and 27th snow in the north, early tapered off to light snow. Storm accumulations ranged from 1 to 2 in. in the southeast to 6 to 12 in. in the northwest. The southeast also received over 1.00 in. of rain before it turned to snow late 28th afternoon. The rest of the week was characterized by generally cloudy skies with some flurries. Some sunshine was finally seen on 26th. The only other significant precipitation was a 1 in. snowfall over the south central and southeast sections on 1st and 0.50 to 1.00 in. over parts of the south and west central late 4th. Highs were in the 30's and 40's with the warmest of 49° at West Allis on 28th. For the rest of the week highs were generally in the teens and 20's northwest and 20's and 30's southeast. Lows were in the 20's and 30's on 28th and 29th and then mostly in the teens and single digits the rest of the week. Readings were well below 0° in the northwest 3rd morning with the coldest a -18° at Minong and Phillips.

**WYOMING:** Average temperatures 7 to 20° below normal. Precipitation above normal all areas except Big Horn Basin. Major winter storm brought heavy snows to many locations in south half.

Major winter snowstorm slowed outside activities. Winter wheat mostly good condition. Corn harvest continues as weather permits. Livestock mostly good condition. Supplemental feeding increasing with additional snow cover. Hay supplies adequate most areas. Other activities include marketing livestock, weaning, general fall maintenance.

### National Weather Summary (continued from front cover)

**FRIDAY...** Showers and thunderstorms spread from eastern Texas across the lower Mississippi Valley to the Tennessee Valley. Lighter showers were in the Ohio Valley, while a mixture of snow, sleet, or freezing rain covered the area to the Great Lakes and to central Pennsylvania and New York. Lighter rain showers spread across the Appalachians to the mid-Atlantic States and southern New England. Heavy rain in northern Mississippi and Alabama caused flooding.

**SATURDAY...** Major winter storms pounded much of the Nation with tornadoes, flooding, or ice and snow. Tornadoes and flooding rains continued over much of the Southeast, while a new winter storm triggered heavy snow in the mountains of the far West. Cold rain in the Ohio Valley gave way to freezing rain or snow south of the lakes and in central Pennsylvania and New York. Light to moderate rain also covered the mid-Atlantic States. Rain fell through California and snow covered the Plateau and the central Rockies.

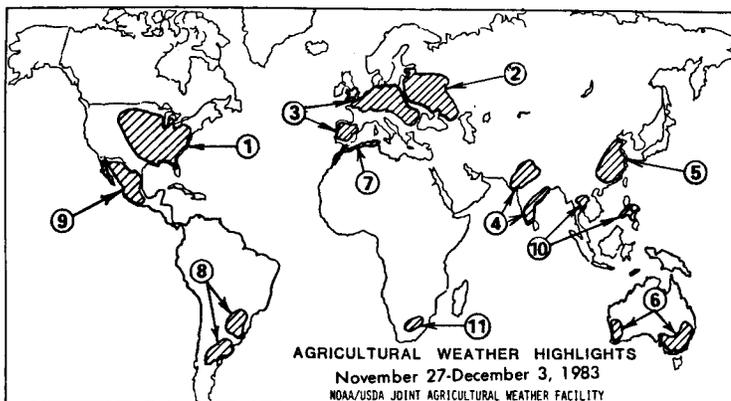
(continued from p. 9)

Cotton picking was 47 percent complete, only 1 point ahead of schedule at the end of October. Picking was ahead of schedule from Texas eastward to South Carolina. Freezing temperatures on the Plains helped reduce foliage at mid-month. Harvesting was delayed by wet conditions in Texas until mid-November but picking was active late in the month. By the month's end, 87 percent of the acreage was harvested, ahead of the 79 percent average. Picking was virtually complete in the Delta States, and 96 percent finished in the Southeast. Progress was behind normal in California, Georgia, and New Mexico as the month ended.

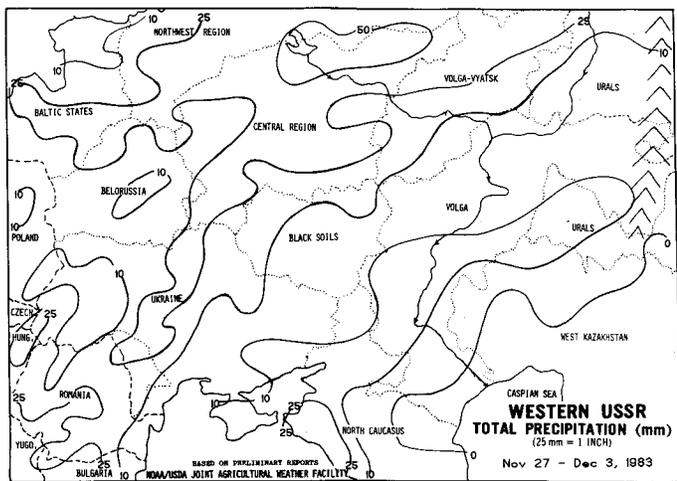
**WINTER WHEAT SEEDINGS VIRTUALLY COMPLETE:** Only minor acreages of winter wheat remained to be seeded across the South by the end of November. California plantings were ahead of normal and half the acreage had emerged at the end of the month. Most of the Great Plains and Corn Belt crop had germinated and emerged. However, progress was behind normal in portions of Kansas and Colorado because of continued dry conditions during the month. More moisture was needed to sustain good growth in western portions of the central and southern Plains at the month's end. Kansas wheat was in fair condition in the western counties but was rated good to excellent elsewhere. Some replanting occurred in central Texas because of erosion from heavy rains in late October. At the end of the month, wheat was protected from cold temperatures by snow cover across the central and northern Plains into the Lake States. Stands were rated fair to mostly good in the major producing areas.

# International Weather and Crop Summary

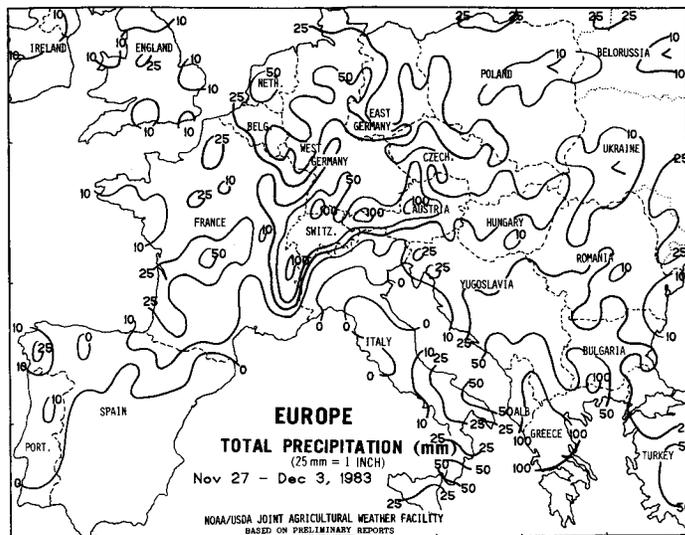
November 27 to December 3



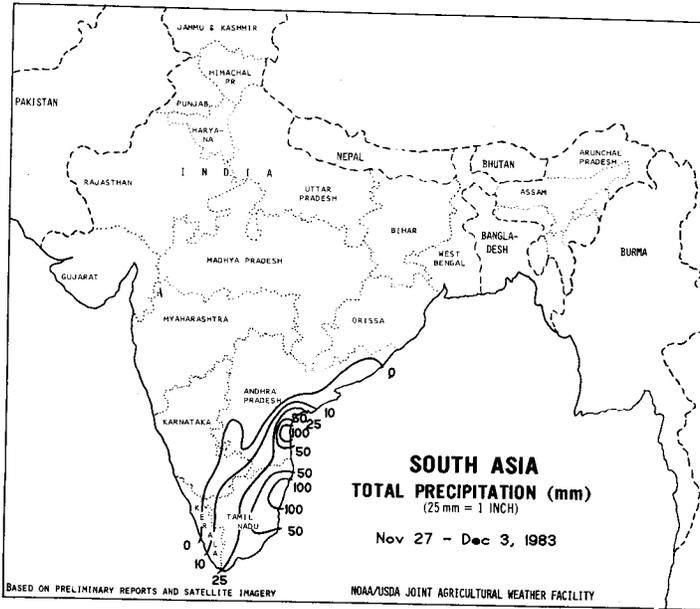
1. UNITED STATES ... Rains and wet fields continue to hamper completion of the harvest and other field activities. Severe cold weather pushes into the central Plains, but snow cover protects winter wheat.
2. WESTERN USSR ... Unseasonably cold weather returns to winter grain areas following a period of warm, rainy weather.
3. EUROPE .. Winter grain planting progresses in the Iberian Peninsula under mostly dry weather. Rain covers semi-dormant winter grains in northwestern Europe. Rain followed by snow covers dormant winter grain areas further east.
4. SOUTH ASIA ... Showers return to southern peninsular India, with some locally heavy amounts affecting the late winter rice harvest. Wheat prospects remain favorable.
5. EASTERN ASIA ... Continued dry weather benefits final harvesting efforts. Winter wheat is entering dormancy in the north.
6. AUSTRALIA ... Unusually soaking rains continue to delay the eastern wheat harvest causing some crop quality to decline. Drier weather in the south aids crop ripening while showers slow early harvesting in the west.
7. NORTHWESTERN AFRICA ... Mostly favorable moisture conditions exist for winter grain planting and emergence.
8. SOUTH AMERICA ... Some rain falls in southern Brazil but more is needed to complete soybean planting. Warm weather and mostly light showers help early wheat harvesting in Argentina.
9. MEXICO ... Rains over the west coast interfere with some harvesting while sunny weather prevails over the northeastern citrus area and the southern Plateau corn belt.
10. SOUTHEAST ASIA ... Clear weather favors rice harvesting in Thailand. Rains continue in the central Philippines.
11. SOUTH AFRICA ... Showers continue to benefit early corn growth in eastern areas. Recent rain aids planting in the west.



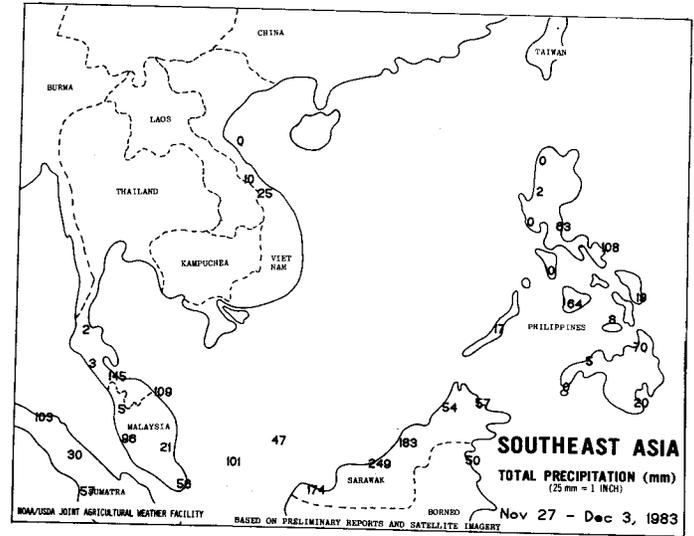
**WESTERN USSR...** Warm weather and rain early in the week were followed by unseasonably cold conditions and light snow. As a result, most of the moisture which fell on the Baltic States, Belorussia, the Ukraine, Black Soils, and North Caucasus occurred as rain. A light snowcover existed over many of these winter grain areas by week's end. Minimum temperatures dropped to  $-10^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  by the end of the week and continued freeze-thaw conditions in these areas would increase the likelihood for frost heaving and subsequent winterkill. Winter grains remain dormant over much of the region.



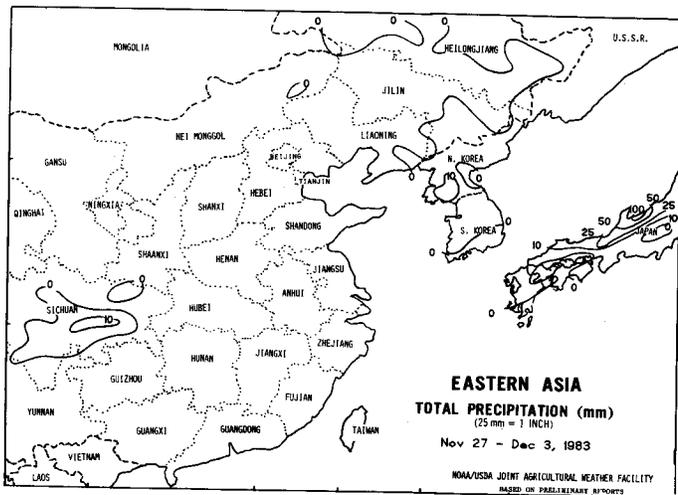
**EUROPE...** Generally dry weather covered the Iberian Peninsula, allowing winter grain planting to progress with few delays. Early in the week rain covered crop areas in England, France, the Netherlands, Belgium, and West Germany, while rain followed by snow covered much of eastern Europe. Unseasonably cold air plunged southward into parts of eastern Europe by week's end, with nighttime lows ranging from  $-10^{\circ}\text{C}$  to  $-15^{\circ}\text{C}$  in East Germany, Poland, Austria, Czechoslovakia, Hungary, and northern Romania. However, a light snowcover likely protected winter grains from potential winterkill. Winter grains were semi-dormant in western Europe and dormant in eastern Europe.



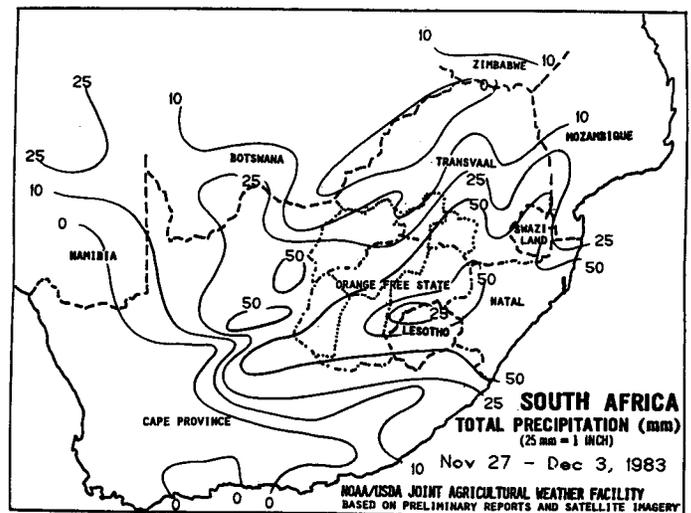
**SOUTH ASIA...**Late season showers fell in southern India. Some locally heavy rain in coastal areas of Andhra Pradesh and Tamil Nadu may have damaged a small portion of winter rice awaiting harvest. Dry weather elsewhere provided excellent conditions for summer crop harvesting. The irrigated wheat region remained seasonably dry. Moisture supplies should be good in nearly all areas. The southernmost wheat normally enters the heading stage in mid-December and northern areas reach heading in early January.



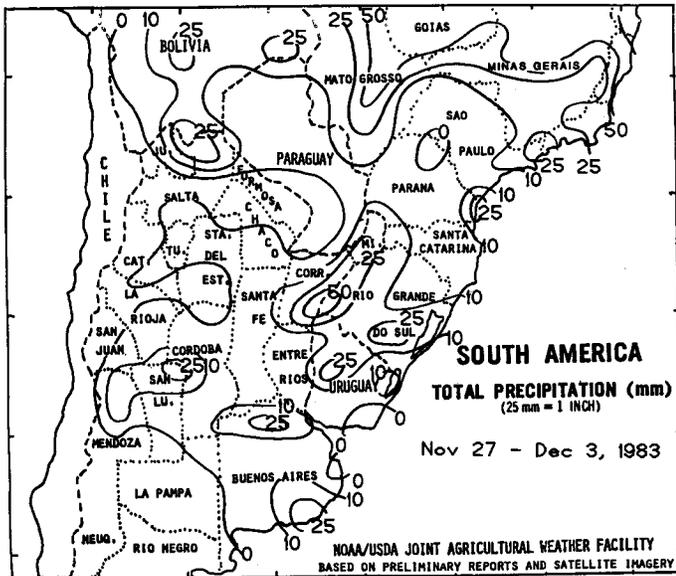
**SOUTHEAST ASIA...**Seasonally dry weather continued in most of Indochina this week as the northwest monsoon dominates the overall flow pattern at this time of year. The clear weather benefited harvesting of the main season rice crop, which will continue into early February. Moderate to heavy rain continued in the central Philippines, while dry weather favored the rice harvest in central Luzon. Weekly weather summaries for Southeast Asia will be discontinued until next spring's planting season in Thailand. Monthly precipitation and temperature charts will be presented throughout the winter.



**EASTERN ASIA...**Nearly all of China's crop areas remained dry this week. Light showers fell in Sichuan and Guizhou, continuing the pattern of the past few weeks. Clear weather in southern China the last two weeks should have allowed the late double-cropped rice harvest to be nearly complete. Harvesting was extended later than usual because of earlier season planting delays. A large region of high pressure in the northwest pushed freezing temperatures southward along the eastern coast into Jiangxi and Fujian. The cold weather had little affect on the remaining mature rice crop. Winter wheat in Hebei and Shandong is entering dormancy, and cool temperatures slowed growth in the rest of the wheat region.

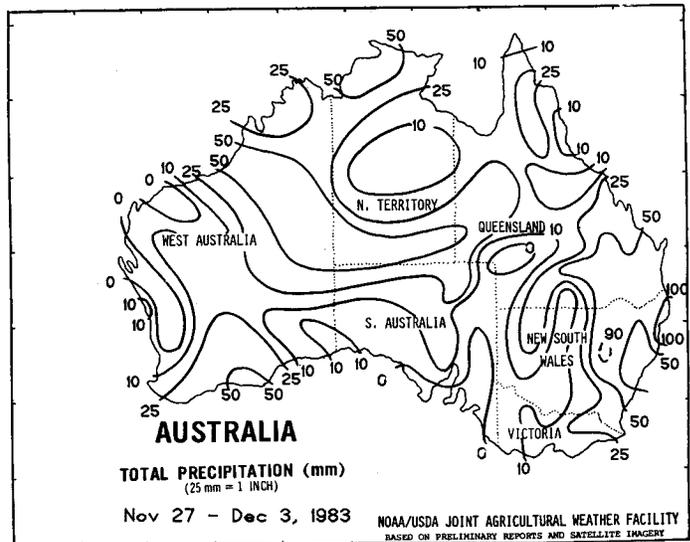


**SOUTH AFRICA...**Early in the week moderate showers fell in South Africa from Natal westward through the Orange Free State. The precipitation was especially beneficial to the southwestern Maize Triangle where planting continued. Light showers in the northwestern Triangle have kept topsoils moist but significant rains are needed to replenish subsoil moisture. Moisture conditions in the eastern corn region remain favorable for early growth and good yield prospects. By the end of the week, warm and dry air had returned to the westernmost corn areas, increasing the moisture demand of the emerging crop.

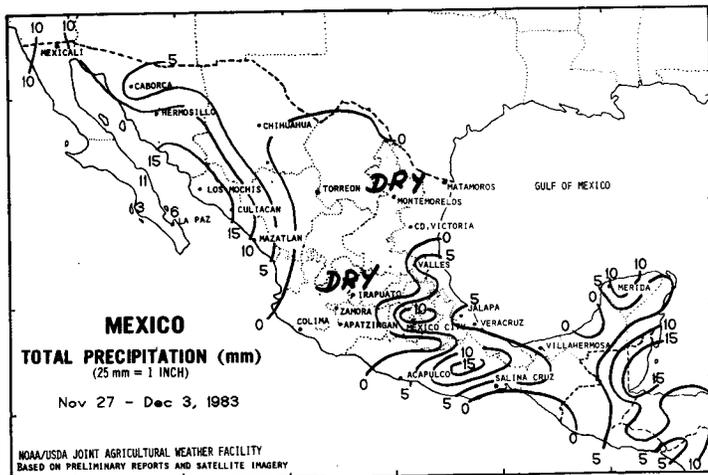


**SOUTH AMERICA**...Substantial rain fell along Brazil's borders with Argentina and Uruguay, but the rains diminished over the major soybean areas of Rio Grande do Sul and Parana. The southern and western portions of Rio Grande do Sul's soybean area, which were completely dry during the previous week, received some beneficial moisture for planting and emergence of the crop. The recent drying trend has slowed crop planting and additional rains are needed to sufficiently moisten topsoils for good early establishment in the south. Drier weather in Sao Paulo aided citrus harvesting. In Argentina, showers were mostly light (less than 10 mm), except for a narrow band across northern Buenos Aires. Several days of higher-than-average temperatures helped wheat ripening, but the warm weather also increased the moisture lost by evapotranspiration. However, soil moisture has been adequate for summer crop planting and early plant growth thus far in the young season. The wheat harvest is well underway in Santa Fe and Cordoba, while the crop is reaching maturity in southern Buenos Aires.

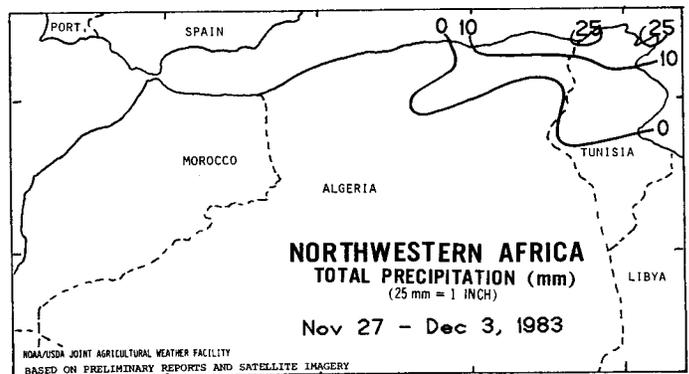
dotted parts of the southeast but amounts were generally light, likely causing interference with sugarcane and coffee harvesting rather than significantly improving soil moisture. Dry, excellent harvest weather continued over the northeastern citrus area and extended into the southern Plateau corn belt. Cold settled over the north-central region and minimum temperatures dipped below freezing, especially at the higher elevations.



**AUSTRALIA**...Persistent heavy rain continued to saturate crop areas of southeastern Queensland and northern New South Wales. Excessive wetness in the prime eastern wheat growing areas of Australia has not only delayed wheat harvesting but has also caused some deterioration in crop quality. Wet weather during the ripening period tends to produce a more starchy, decreasing the protein content. The recent soaking rains have also slowed planting of cotton, sorghum, and sunflowers in the region. Drier weather in southern New South Wales, Victoria, and South Australia aided wheat maturation. In Western Australia, locally heavy showers caused minor delays in the early wheat harvest, but the major portion of the western crop is just maturing. Tropical Storm Quenton produced unusually heavy rain over the interior of the continent before dissipating over South Australia.



**MEXICO**...Rains slowed harvest and field activities over parts of the west coast farming area. About 15 mm of rain fell, delaying outdoor work and making conditions more favorable for diseases and weeds. However, it generally improved soil moisture over the area, which will help rangeland vegetation and irrigation supplies. Rains also



**NORTHWESTERN AFRICA**...Mostly dry weather covered winter grain areas in Morocco and northwestern Algeria, allowing planting to progress with few delays. In eastern Algeria and northern Tunisia, scattered showers during the week moistened topsoils, which will benefit emergence and early plant growth. In general, moisture supplies are adequate for winter grain emergence and early plant establishment over much of the region.

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