

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

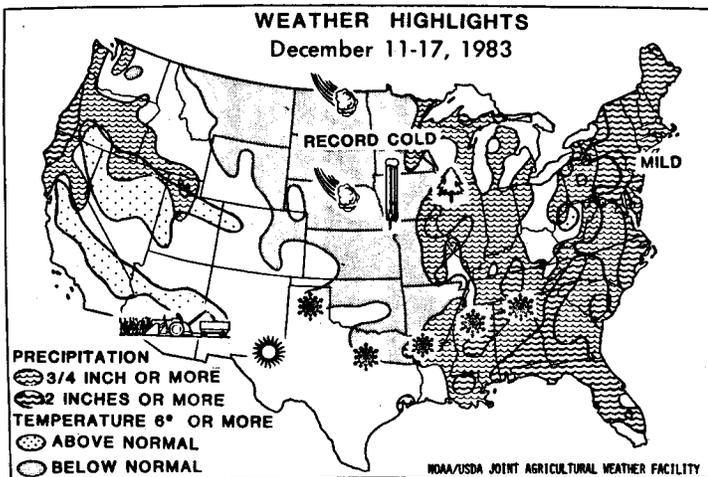
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Dec. 20, 1983

National Weather Summary

December 11 to 17



TUESDAY...Locally heavy rains continued from Maryland and eastern Pennsylvania northward and posed flood problems in some local areas. Showers and thunderstorms formed in the lower Mississippi Valley and spread northward and eastward. Snow fell from the northern Plains through the upper Mississippi Valley and upper lakes area. Rain covered the west coast from central California northward and rain, with snow at the higher elevations, fell over the Plateau to the northern Rockies.

WEDNESDAY...Precipitation fell over most of the Nation, excluding only the part of the Southwest from the lower Mississippi Valley to southern California. Light rain throughout the East accompanied unseasonably warm days. Moderate to heavy snow fell from Missouri northward to the upper Mississippi Valley and lighter snow fell in the central and northern Plains, the Rockies, and eastern Plateau. Rain covered the west coast and western Plateau.

THURSDAY...Light rain fell all along the east coast and from Pennsylvania through New England. Cold weather pushing southward and eastward brought snow to the Rockies, the northern Plains, and eastward into the lower Great Lakes States. Some heavy snow fell in the middle and upper Mississippi Valley and light snow fell in New Mexico and the Texas Panhandle. Early morning freezing temperatures reached through western Texas and to east-central Texas.

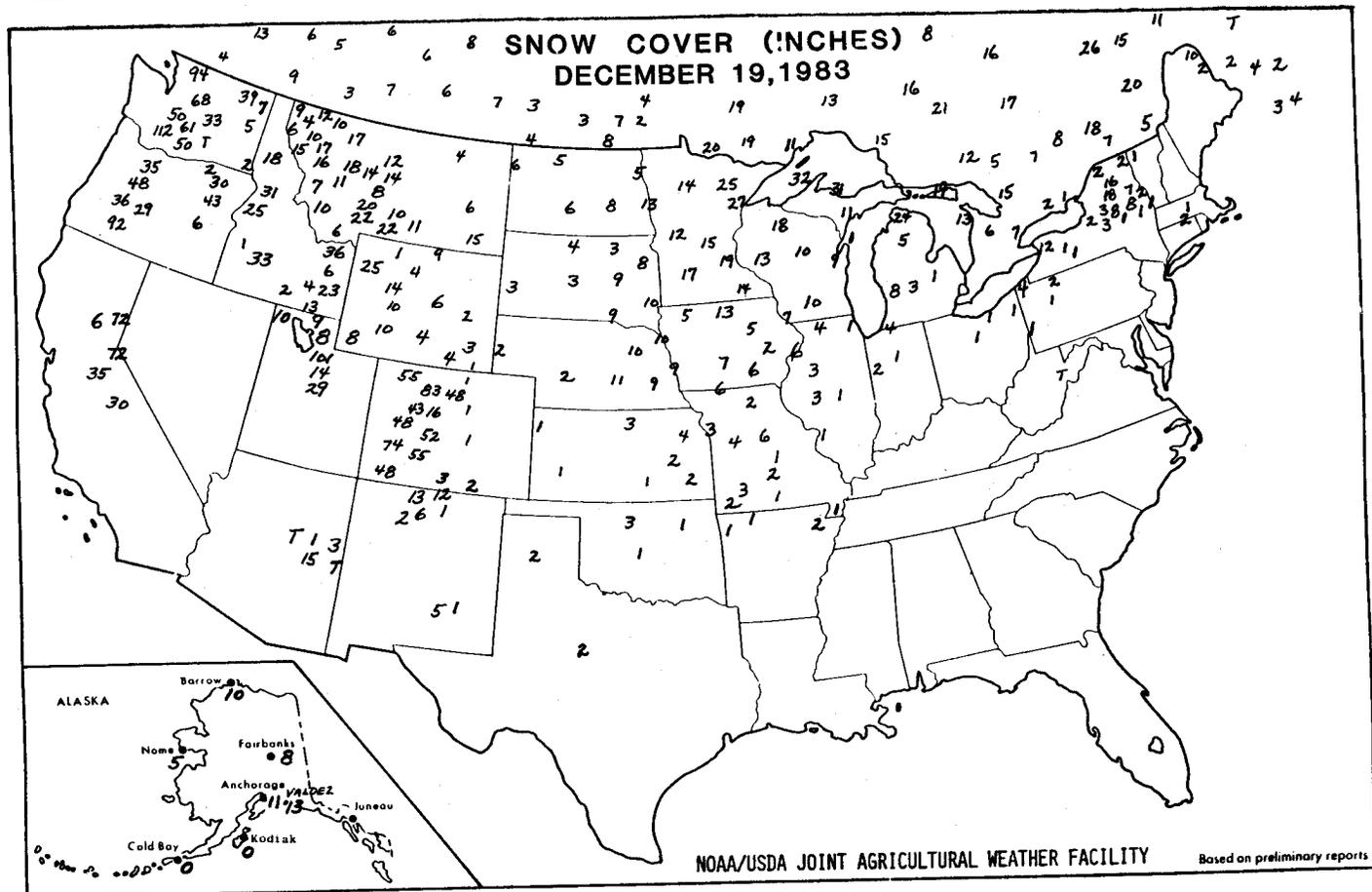
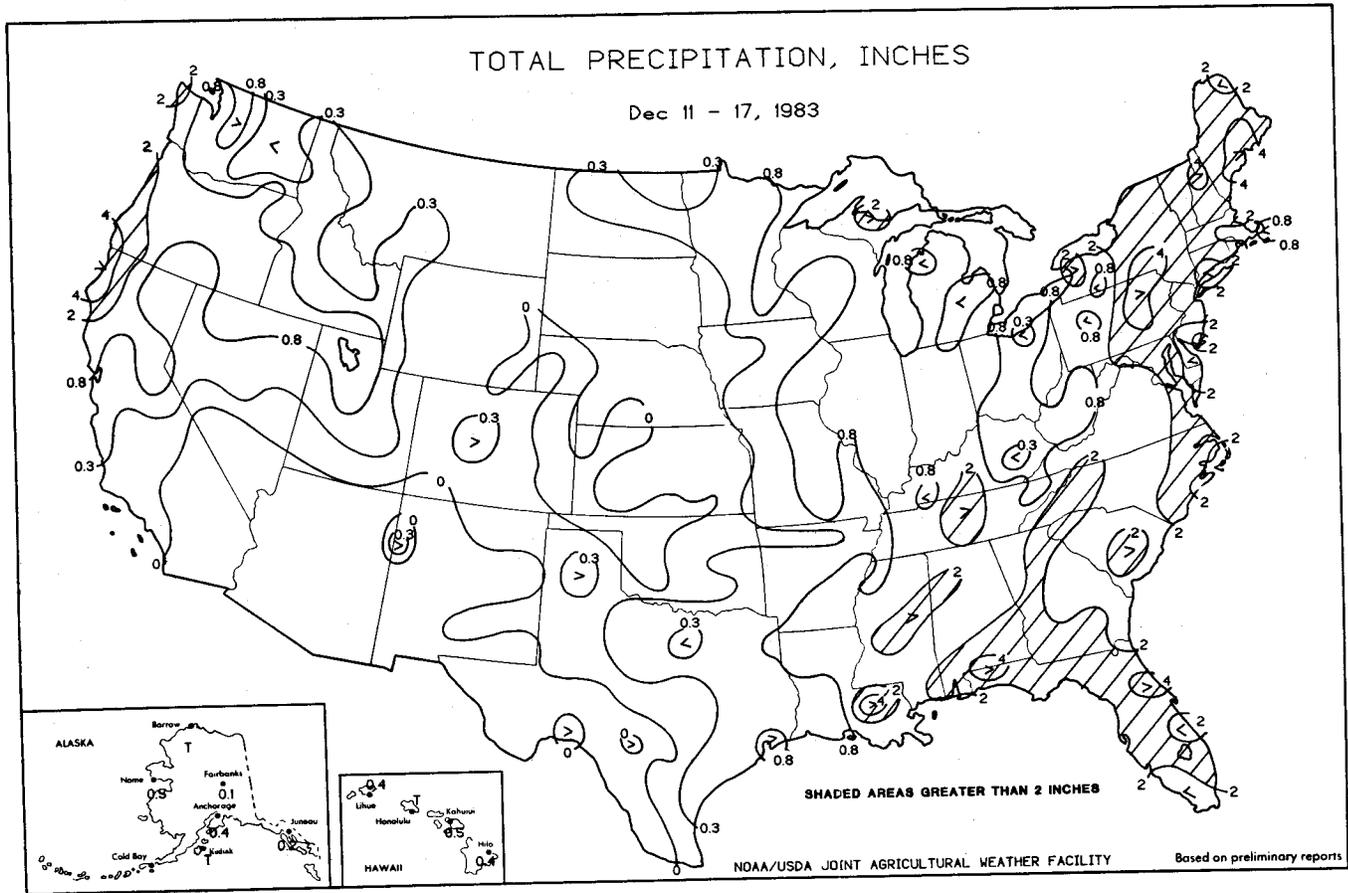
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HIGHLIGHTS: Unseasonably cold weather pushed into the northern Plains and moved southward through Texas. Average temperatures were in the subzero range from the northern Rockies to the western Great Lakes and southward to northern Kansas. Showers and thunderstorms developed in the lower Mississippi Valley and moved across the South, and rain was moderate to heavy in the East Coast States to southern New England. Late in the week, unseasonable snow fell from the Texas Panhandle to northern Alabama. Snow covered the Rockies, the Plains, the Great Lakes region, and western New England.

SUNDAY...Heavy rain and thunderstorms swept across the southeastern corner of the Nation and moderate rain reached northward through the Tennessee and Ohio Valleys to the Great Lakes. Winter weather clung to the upper lakes area as mixtures of snow and ice were scattered from Wisconsin to New York. Another storm moved into northern California bringing high wind, heavy rain, and snow to the mountains. Lighter rain spread over all of the west coast and snow fell to the northern Rockies.

MONDAY...Rain, locally heavy at times, fell from the mid-Atlantic States to southern New England, and freezing rain mixed with snow fell from New York State through most of New England. Light rain covered the Tennessee and Ohio Valleys, while snow fell from the upper Great Lakes across the northern Plains and Rockies. Freezing weather pushed southward into Oklahoma and Texas.

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Weather Data for the Week Ending Dec. 17, 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	90 AND ABOVE	52 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	53	37	64	25	45	-1	1.6	.5	1.0	11.6	363	66.1	123	91	51	0	3	3	2
MOBILE	61	43	72	35	52	-1	3.8	2.5	3.7	6.6	178	81.1	126	80	49	0	0	2	1
MONTGOMERY	59	42	67	28	50	1	1.3	.2	1.3	4.7	152	72.0	151	91	54	0	2	3	1
AK ANCHORAGE	19	9	22	-1	14	0	.4	-.1	.3	.5	56	12.3	84	90	72	0	7	5	0
BARROW	-4	-16	14	-24	-10	4	T	0	T	0	0	3.0	57	75	59	0	7	1	0
FAIRBANKS	-14	-28	4	-32	-21	-11	.1	-.1	.1	.3	50	9.9	96	73	48	0	7	1	0
JUNEAU	22	9	28	0	15	-12	.2	-.9	.2	.5	15	40.5	76	100	79	0	7	2	0
KODIAK	37	27	38	23	32	3	T	1.3	T	5.7	146	74.6	110	85	70	0	7	1	0
NOME	18	10	27	-2	14	10	.5	.3	.4	1.3	260	14.0	66	66	50	0	7	3	0
AZ PHOENIX	70	45	73	43	57	4	0	.2	0	1.0	200	12.8	183	83	31	0	0	0	0
PRESCOTT	58	32	64	28	45	8	0	.4	0	.5	45	19.1	104	85	38	0	0	0	0
TUCSON	68	38	76	35	53	1	0	.2	0	.2	40	21.7	194	75	26	0	0	0	0
YUMA	74	49	77	48	62	5	T	-.1	T	.5	250	4.8	171	65	26	0	0	0	0
AR FORT SMITH	41	29	54	21	35	-7	.3	.3	.3	2.2	100	35.0	86	86	60	0	4	1	0
LITTLE ROCK	42	31	54	19	36	-7	.6	.3	.6	7.4	264	41.7	89	88	66	0	4	1	1
CA BAKERSFIELD	58	42	62	38	50	2	.1	.1	.1	.2	40	9.9	99	93	63	0	0	6	3
EUREKA	57	49	61	43	53	5	4.4	3.1	2.1	9.9	236	62.7	174	98	87	0	0	3	0
FRESNO	59	46	65	38	52	7	.1	.2	.1	.5	45	20.5	216	92	53	0	0	1	0
LOS ANGELES	65	50	71	44	57	0	T	.3	T	.7	78	28.2	256	81	53	0	0	0	0
RED BLUFF	52	46	60	36	49	2	1.0	.2	.4	4.7	204	42.0	215	100	78	0	0	6	0
SACRAMENTO	58	50	61	41	54	8	.3	.3	.3	1.4	78	31.1	206	92	74	0	0	2	0
SAN DIEGO	67	53	72	50	60	3	0	.3	0	.7	78	18.0	217	87	58	0	0	0	0
SAN FRANCISCO	59	49	63	44	54	5	.7	.1	.7	2.6	118	34.6	200	94	77	0	0	3	1
CO DENVER	35	18	47	2	27	-7	-.1	-.1	.1	.9	180	19.9	128	81	44	0	7	2	0
GRAND JUNCTION	42	26	50	16	34	6	.2	.1	.2	.3	100	13.4	170	80	54	0	6	4	0
PUEBLO	40	14	59	0	27	-6	.2	.1	.1	.3	150	12.3	105	91	44	0	2	0	0
CT BRIDGEPORT	48	39	56	30	43	9	.8	0	.4	3.1	119	54.2	136	88	69	0	2	4	2
HARTFORD	44	33	52	23	39	10	2.1	1.1	1.1	4.9	163	54.2	125	90	65	0	4	3	2
DC WASHINGTON	53	41	59	33	47	7	1.9	1.1	1.1	4.1	186	50.0	131	80	61	0	0	2	2
FL APALACHICOLA	63	47	69	41	55	0	3.9	3.1	2.4	5.2	226	62.8	114	90	58	0	0	4	2
DAYTONA BEACH	70	51	80	45	60	1	6.2	5.7	4.1	6.7	447	68.1	140	93	62	0	0	5	3
JACKSONVILLE	65	46	78	38	56	1	1.9	1.4	1.3	2.2	138	58.0	109	95	66	0	0	5	1
KEY WEST	79	70	82	65	75	4	1.0	.6	.7	3.8	271	51.1	126	85	62	0	0	4	2
MIAMI	79	64	82	54	71	3	2.1	1.7	.8	3.4	262	56.7	97	87	56	0	0	4	3
ORLANDO	72	53	81	49	63	1	2.4	2.0	1.0	2.4	200	52.5	108	99	61	0	0	4	3
TALLAHASSEE	63	44	70	30	53	0	3.0	1.9	2.0	5.0	161	64.5	101	97	55	0	1	4	2
TAMPA	68	55	79	47	62	0	2.9	2.4	1.1	3.4	227	59.3	124	100	72	0	0	5	3
WEST PALM BEACH	78	61	82	51	69	2	4.0	3.5	1.5	4.7	294	80.4	133	92	63	0	0	5	4
GA ATLANTA	53	39	58	29	46	1	1.8	.9	1.8	7.5	278	48.6	105	91	56	0	1	3	1
AUGUSTA	62	41	67	34	51	4	.9	.2	.7	4.2	221	51.5	124	82	48	0	0	3	1
MACON	59	44	65	32	52	3	1.4	.5	1.2	4.9	196	49.3	114	90	56	0	0	3	1
SAVANNAH	64	45	75	36	55	4	1.2	.5	.8	1.8	100	51.8	103	88	53	0	0	3	1
HI HILO	82	65	85	61	73	1	.4	-.2	.2	.5	5	65.2	52	89	60	0	0	2	0
HONOLULU	82	68	87	60	75	1	T	.8	T	0	0	3.9	18	77	51	0	0	1	0
KAHULUI	82	64	85	56	73	0	.5	-.1	.3	.7	39	7.9	46	88	65	0	0	3	0
LIHUE	78	62	83	55	70	-3	.4	-.8	.3	.6	16	16.1	38	86	54	0	0	2	0
ID BOISE	39	30	45	22	35	2	1.2	.9	.5	2.7	300	17.3	156	92	68	0	5	4	0
LEWISTON	41	31	47	22	36	1	.3	0	.2	.4	50	12.6	105	93	71	0	3	2	0
POCATELLO	34	23	44	5	29	2	.6	.4	.3	2.7	450	19.2	186	91	67	0	6	5	0
IL CHICAGO	29	20	38	0	25	-4	1.7	1.2	1.0	5.1	340	48.8	145	92	74	0	6	4	2
MOLINE	29	20	36	2	25	-2	1.4	1.0	.7	3.3	275	36.1	98	87	73	0	6	4	2
PEORIA	29	21	40	5	25	-3	1.0	.5	.6	3.9	260	41.8	117	94	80	0	6	5	1
QUINCY	31	22	44	8	27	-4	1.0	.6	.7	3.7	308	34.4	90	89	73	0	6	4	1
ROCKFORD	28	19	37	0	23	-2	1.4	1.0	.7	2.9	207	33.9	90	94	74	0	7	3	2
SPRINGFIELD	30	20	44	5	25	-6	1.0	.5	.7	4.2	300	31.8	94	96	77	0	6	5	1
IN EVANSVILLE	39	29	54	16	34	-2	1.1	.3	.7	4.2	168	47.9	115	89	69	0	4	3	1
FORT WAYNE	38	28	49	14	33	4	1.1	.5	1.0	4.4	259	31.1	89	87	72	0	4	5	1
INDIANAPOLIS	36	26	49	10	31	-1	1.0	.3	.7	3.6	171	35.2	91	91	73	0	4	6	1
SOUTH BEND	33	25	42	10	29	-1	.9	.2	.6	3.2	152	29.5	78	84	68	0	4	5	0
IA DES MOINES	22	11	34	-5	17	-10	.7	.4	.3	2.3	256	40.9	129	84	70	0	7	6	0
STOUX CITY	16	4	29	-11	10	-14	.1	-.1	.1	1.6	320	28.1	109	82	67	0	7	4	0
WATERLOO	21	9	33	-13	15	-7	.6	.3	.3	1.7	170	36.4	108	87	73	0	7	4	0
KS CONCORDIA	27	11	34	3	19	-12	T	0	.1	1.1	183	24.8	91	75	61	0	7	1	0
DODGE CITY	38	20	45	4	29	-5	T	-.1	T	.4	100	23.7	114	88	57	0	7	1	0
GOODLAND	32	18	42	-1	25	-6	T	-.1	T	1.1	17	17.6	105	88	59	0	7	1	0
TOPEKA	27	15	34	4	21	-11	.1	-.1	.1	1.7	189	36.3	108	76	62	0	7	3	0
WICHITA	32	16	40	4	24	-11	T	-.2	T	.5	71	35.9	124	86	61	0	7	0	0
KY BOWLING GREEN	42	33	56	19	38	0	1.9	.8	1.6	6.3	203	52.3	107	97	72	0	3	3	1
LEXINGTON	42	32	56	15	37	0	.3	-.5	.2	4.1	158	39.3	87	93	72	0	3	3	0
LOUISVILLE	42	32	54	17	37	0	1.7	.9	1.6	4.3	172	46.3	105	82	64	0	0	3	1
LA ALEXANDRIA	55	40	69	37	48	-4	.3	-.8	.2	4.1	124	51.3	98	78	47	0	0	3	1
BATON ROUGE	60	41	74	33	51	-3	4.2	3.1	3.7	7.4	224	76.3	139	88	48	0	0	2	0
LAKE CHARLES	64	43	74	38	54	0	.5	-.7	.3	3.3	100	54.5	103	87	44	0	0	2	0
NEW ORLEANS	62	43	77	38	53	-2	1.2	0	.9	3.3	92	78.8	135	82	47	0	0	3	0

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

+100 = NORMAL & ACTUAL NEAR THE AVE

Weather Data for the Week Ending Dec. 17, 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	90 AND ABOVE	52 AND BELOW	TEMPERATURE		PRECIPITATION	
																		°F	°F	.01 INCH OR MORE	.50 INCH OR MORE
ME SHREVEPORT	50	34	65	31	42	-7	1.2	.4	.9	6.6	254	48.6	113	95	60	0	4	2	1		
ME CARIBOU	28	16	38	-7	22	6	1.5	.8	.9	4.4	191	44.9	125	91	72	0	7	5	2		
ME PORTLAND	40	28	49	15	34	8	3.9	2.9	3.0	6.8	213	63.8	152	88	62	0	5	3	2		
MD BALTIMORE	51	38	60	27	44	8	2.8	2.1	1.5	5.7	248	49.0	120	86	63	0	2	2	2		
MD SALISBURY	59	43	68	28	51	17	1.7	.8	1.0	3.0	170	50.0	111	95	68	0	1	3	2		
MA BOSTON	49	37	57	25	43	9	2.1	1.1	1.2	4.6	144	52.4	124	84	60	0	3	4	2		
MA CHATHAM	48	39	56	30	42	7	.6	.6	.5	3.9	115	54.2	120	86	66	0	2	2	1		
MI ALPENA	32	22	38	11	27	3	.8	.4	.2	1.5	115	34.0	118	97	77	0	7	4	0		
MI DETROIT	37	29	45	18	33	4	.9	.3	.7	3.5	206	36.7	119	88	63	0	4	5	1		
MI FLINT	36	28	43	16	32	4	.4	.1	.2	1.7	113	31.8	107	85	66	0	4	3	0		
MI GRAND RAPIDS	33	26	39	14	29	2	1.2	.6	.5	2.7	142	35.8	105	84	69	0	6	6	1		
MI HOUGHTON LAKE	28	22	34	11	25	1	.8	.4	.3	1.6	114	30.2	109	93	79	0	7	6	0		
MI LANSING	33	25	41	14	29	2	.5	.1	.3	1.8	113	33.3	111	93	76	0	6	4	0		
MI MARQUETTE	23	11	29	-11	17	-2	2.7	2.1	1.2	4.3	239	46.2	126	98	82	0	7	5	3		
MI MUSKEGON	33	27	37	15	30	1	1.6	1.0	.6	3.7	195	33.1	104	90	74	0	6	6	2		
MI SAULT STE. MARIE	21	4	34	-7	13	-7	1.4	.8	.4	2.6	137	33.1	99	94	66	0	7	6	0		
MN ALEXANDRIA	11	-4	25	-24	4	-12	.3	.2	.2	1.4	233	22.5	90	87	70	0	7	5	0		
MN DULUTH	15	1	30	-21	8	-6	1.5	1.2	.7	2.8	280	31.8	106	92	74	0	7	4	1		
MN INT'L FALLS	7	-9	21	-35	-1	-10	.4	.2	.2	.9	129	24.9	100	87	66	0	7	5	0		
MN MINNEAPOLIS	18	4	30	-17	11	-9	1.1	.9	.4	2.3	383	38.5	148	92	70	0	7	4	0		
MN ROCHESTER	18	6	31	-22	12	-7	.7	.5	.3	1.9	271	34.9	121	91	78	0	7	4	0		
MS GREENWOOD	50	40	66	32	45	-2	.9	.4	.7	13.1	354	67.5	131	86	56	0	1	2	1		
MS JACKSON	52	38	72	28	45	-4	2.0	.8	1.4	5.1	146	70.8	138	93	56	0	2	4	2		
MS MERIDIAN	58	40	75	29	49	1	1.1	.3	.8	4.6	124	67.5	132	93	51	0	1	3	1		
MO CAPE GIRARDEAU	40	30	57	18	35	--	.7	.2	.5	3.7	137	44.1	100	95	72	0	4	3	1		
MO COLUMBIA	30	21	42	8	25	-8	.9	.4	.6	3.2	213	45.8	128	92	77	0	6	4	1		
MO KANSAS CITY	24	12	33	1	18	-14	.3	0	.2	1.6	160	32.0	89	93	74	0	7	4	0		
MO SAINT LOUIS	34	24	51	12	29	-5	.8	.3	.5	5.0	333	44.1	132	99	81	0	4	4	0		
MO SPRINGFIELD	35	21	48	11	28	-8	.7	.1	.4	2.0	111	44.5	114	86	70	0	6	3	0		
MT BILLINGS	26	5	41	-19	16	-12	.3	.1	.1	.7	175	12.7	86	97	66	0	7	4	0		
MT GLASGOW	9	-6	24	-26	1	-16	.1	0	.1	.3	100	7.5	65	82	65	0	7	2	0		
MT GREAT FALLS	19	1	39	-27	10	-16	.3	.1	.2	.6	120	15.7	105	85	61	0	7	4	0		
MT HAVRE	11	-7	28	-33	2	-18	.1	0	.1	.1	33	11.9	103	85	58	0	7	1	0		
MT HELENA	28	8	39	-19	18	-6	.2	0	.1	.6	150	13.8	125	84	54	0	7	4	0		
MT KALISPELL	27	12	34	-12	19	-6	.1	.3	T	1.0	91	17.5	109	93	75	0	7	3	0		
MT MILES CITY	15	2	29	-21	9	-14	T	.1	T	.2	50	7.9	56	86	67	0	7	1	0		
MT MISSOULA	32	21	38	-5	26	1	.5	.3	.2	1.1	183	15.9	130	93	67	0	7	5	0		
NE GRAND ISLAND	20	6	28	-5	13	-15	.3	.1	.2	1.8	300	28.4	120	82	64	0	7	2	0		
NE LINCOLN	20	6	31	-6	13	-14	.2	.1	.1	1.6	320	28.9	108	88	63	0	7	3	0		
NE NORFOLK	18	4	29	-8	11	-14	.2	.1	.1	1.8	450	28.1	116	80	65	0	7	5	0		
NE NORTH PLATTE	25	5	38	-8	15	-11	T	.1	T	.9	300	18.6	96	83	62	0	7	1	0		
NE OMAHA	19	6	29	-9	12	-14	.2	0	.1	2.6	433	31.8	104	91	79	0	7	4	0		
NE SCOTTSBLUFF	33	14	46	-15	24	-5	.1	.1	.1	.8	200	15.1	104	81	50	0	7	1	0		
NE VALENTINE	18	1	32	-20	9	-15	T	.1	T	.3	100	27.9	152	79	59	0	7	1	0		
NV ELY	41	23	44	12	32	6	.3	.1	.2	.6	120	13.8	162	90	56	0	7	4	0		
NV LAS VEGAS	62	40	73	37	51	6	0	.1	0	0	0	4.6	105	59	26	0	0	0	0		
NV RENO	52	33	61	26	43	10	.4	.1	.2	1.0	143	11.8	179	84	47	0	3	3	0		
NV WINNEMUCCA	46	31	54	26	39	8	.8	.6	.3	2.0	333	12.9	165	90	51	0	4	6	0		
NH CONCORD	41	28	50	16	35	10	2.2	1.4	1.2	4.2	168	46.2	128	93	66	0	4	3	2		
NJ ATLANTIC CITY	53	39	60	21	46	10	1.1	.2	.6	2.7	104	45.8	109	93	66	0	3	3	1		
NM ALBUQUERQUE	50	27	56	18	38	2	T	.1	T	.3	100	7.6	92	78	32	0	6	0	0		
NM CLOVIS	49	27	64	15	38	-1	T	.1	T	.3	100	11.1	63	68	30	0	5	0	0		
NM ROSWELL	58	33	71	24	45	3	T	0	T	0	0	9.5	95	60	37	0	4	1	0		
NY ALBANY	40	28	48	18	34	7	2.5	1.8	1.8	4.7	224	45.2	131	91	69	0	5	4	2		
NY BINGHAMTON	40	29	48	21	34	8	4.2	3.5	2.8	5.8	276	42.1	117	88	66	0	4	3	2		
NY BUFFALO	36	28	43	20	32	3	2.5	1.7	1.0	6.0	250	36.0	97	95	75	0	6	6	2		
NY NEW YORK	52	41	62	30	47	10	2.2	1.4	1.1	4.5	173	58.3	140	83	62	0	1	4	2		
NY ROCHESTER	39	30	46	23	35	5	1.7	1.1	.8	4.0	211	33.8	108	91	71	0	3	7	2		
NY SYRACUSE	37	28	49	17	32	3	2.9	2.1	1.4	4.7	204	34.9	91	94	70	0	6	4	2		
NC ASHEVILLE	52	33	60	25	42	3	2.2	1.4	2.1	7.5	313	50.7	108	97	57	0	3	3	1		
NC CHARLOTTE	56	40	63	33	48	6	1.6	.9	1.4	6.2	295	40.1	96	86	48	0	0	3	1		
NC GREENSBORO	54	35	61	26	45	4	.8	0	.7	3.2	152	45.1	108	87	53	0	3	3	1		
NC HATTERAS	64	47	71	37	55	6	1.3	.3	.7	3.4	110	61.5	113	91	60	0	0	3	1		
NC NEW BERN	65	43	72	34	54	7	2.1	1.3	1.6	3.2	133	52.9	101	97	59	0	0	2	2		
NC RALEIGH	58	39	64	31	49	7	1.1	.4	1.1	4.5	214	45.1	110	90	53	0	1	2	1		
NC WILMINGTON	66	44	72	35	55	7	2.6	1.8	2.1	4.3	187	58.0	109	95	61	0	0	4	1		
ND BISMARCK	7	-11	15	-24	-2	-18	.3	.2	.2	.5	167	13.2	85	93	62	0	7	3	0		
ND FARGO	9	-6	22	-22	1	-12	.7	.6	.4	1.2	300	19.8	99	74	55	0	7	3	0		
ND GRAND FORKS	7	-7	18	-16	0	-12	.2	.1	.1	.6	150	21.4	117	74	57	0	7	4	0		
ND WILLISTON	6	-11	15	-28	-2	-18	.3	.2	.2	.5	167	9.3	68	85	61	0	7	3	0		
OH AKRON-CANTON	41	31	50	18	36	6	.5	-.1	.2	3.1	172	37.6	105	82	64	0	2	5	0		
OH CINCINNATI	40	30	50	15	35	1	.6	0	.5	2.7	135	41.4	104	91	73	0	4	4	1		
OH CLEVELAND	39	29	49	16	34	3	.1	-.6	T	2.5	125	29.3	111	88	68	0	4	3	0		
OH COLUMBUS	41	30	53	16	36	3	.4	-.2	.3	3.3	183	37.4	101	82	63	0	3	4	0		

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

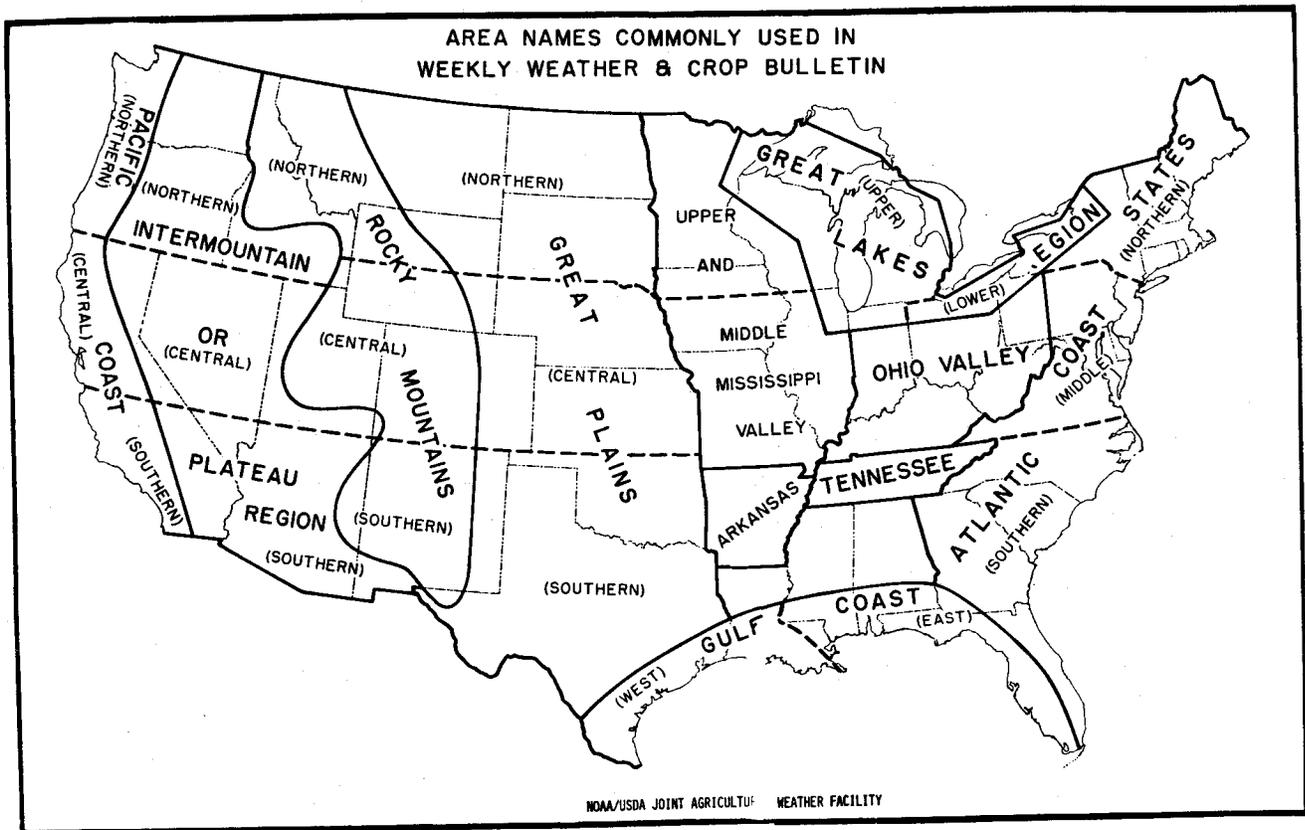
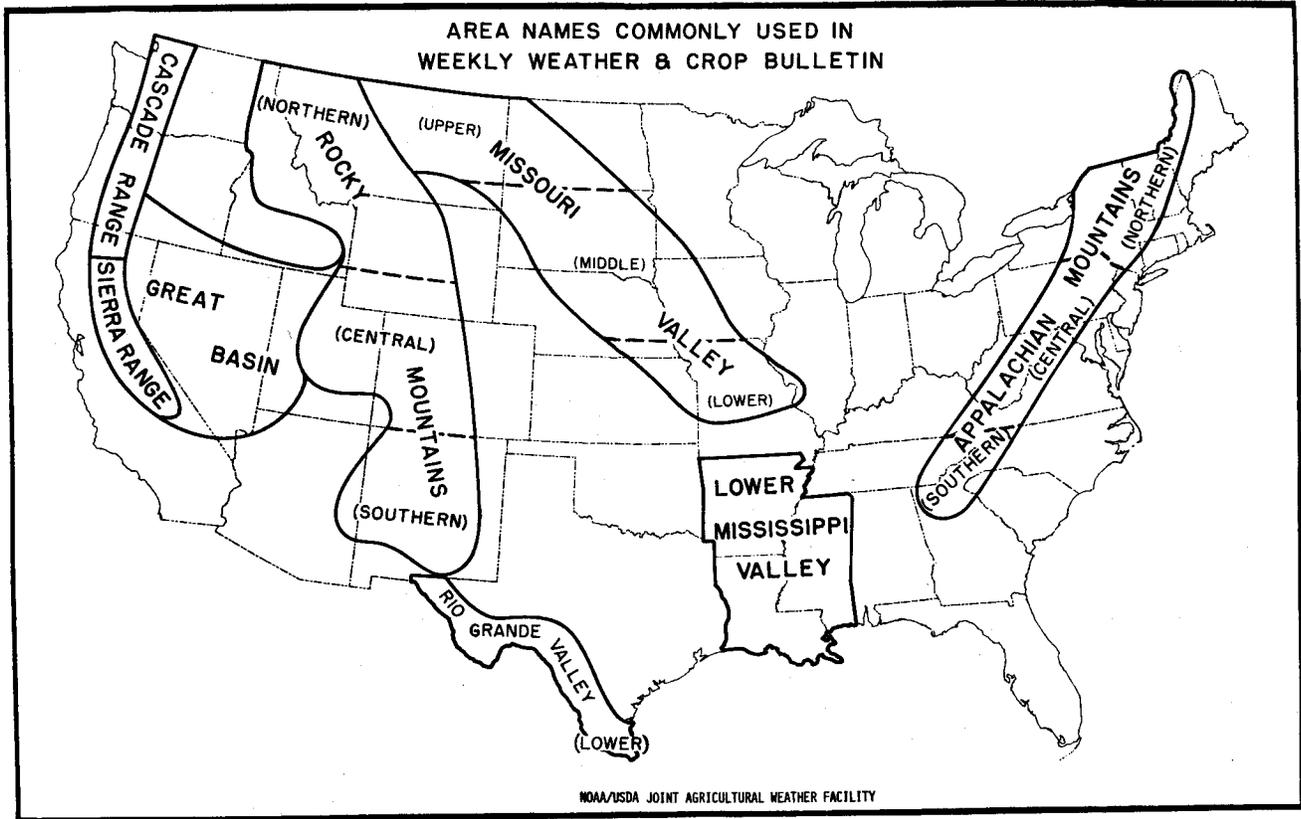
Weather Data for the Week Ending Dec. 17, 1983

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE NOV 27	PCT. NORMAL SINCE NOV 27	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	38	28	48	15	33	0	.9	.4	.6	2.9	171	37.3	107	85	66	0	4	4	1
TOLEDO	36	27	47	13	32	3	.9	.3	.7	3.8	211	34.3	109	92	74	0	5	6	1
YOUNGSTOWN	39	30	46	20	35	5	1.2	.5	.5	3.7	195	37.7	101	88	68	0	4	4	1
OK OKLAHOMA CITY	41	25	52	18	33	-7	T	.3	T	.4	44	38.6	124	85	49	0	7	1	0
TULSA	41	28	52	22	34	-6	.1	.3	.1	.7	50	34.6	89	87	58	0	5	1	0
OR ASTORIA	48	36	54	31	42	-1	1.4	-1.2	.8	5.9	76	75.4	120	97	79	0	2	4	1
BURNS	35	22	39	17	30	2	1.4	1.2	.6	2.6	433	17.3	177	87	76	0	7	5	1
MEDFORD	49	39	57	32	44	6	3.1	2.3	1.4	5.8	252	29.0	157	100	84	0	1	6	2
PENDLETON	40	31	49	21	36	-1	.8	.4	.4	2.3	209	14.6	130	96	77	0	5	3	0
PORTLAND	47	40	55	35	44	3	.7	.8	.4	3.3	77	45.1	130	92	73	0	0	4	0
SALEM	49	39	55	32	44	3	1.0	.6	.7	4.6	98	53.0	142	86	72	0	1	3	1
PA ALLENTOWN	45	34	52	22	39	8	3.4	2.6	2.1	6.1	244	50.0	116	89	68	0	3	3	2
ERIE	40	32	47	22	36	6	.7	0	.3	3.4	148	44.1	114	81	61	0	3	4	0
HARRISBURG	44	34	51	22	39	6	3.7	.7	2.7	5.2	87	44.9	108	88	65	0	3	3	2
PHILADELPHIA	51	37	61	24	44	8	2.5	1.8	1.5	4.7	204	51.5	128	93	69	0	1	2	2
PITTSBURGH	41	31	48	21	36	4	1.1	.6	.7	3.8	224	39.9	111	86	60	0	4	5	1
SCRANTON	42	32	50	22	37	7	3.7	3.1	2.2	5.2	274	41.8	120	88	69	0	4	3	2
RI PROVIDENCE	51	37	63	28	44	12	2.6	1.6	1.1	5.5	172	64.6	148	83	59	0	4	4	2
SC CHARLESTON	64	47	71	38	56	6	1.4	.7	1.0	2.1	111	52.0	101	96	56	0	0	3	1
COLUMBIA	61	41	65	30	51	4	1.6	.8	1.6	5.7	259	44.3	94	94	52	0	1	3	1
FLORENCE	62	45	67	35	53	6	1.8	1.2	.8	5.1	268	50.4	119	97	63	0	0	4	2
GREENVILLE	54	38	62	30	46	2	2.0	1.1	1.8	7.5	300	52.8	107	87	51	0	1	2	1
SD ABERDEEN	10	-6	22	-22	2	-15	.1	0	.1	.4	133	20.7	118	88	70	0	7	5	0
HURON	14	-2	28	-15	6	-14	.1	0	T	.8	267	18.4	98	82	64	0	7	4	0
RAPID CITY	23	7	37	-19	15	-12	T	.1	T	.3	75	15.3	93	78	58	0	7	1	0
TN STIOUX FALLS	14	-1	27	-21	6	-14	.1	0	.1	.9	180	26.4	106	91	74	0	7	4	0
CHATTANOOGA	50	37	59	25	43	1	1.4	.2	.9	8.3	244	49.4	96	93	58	0	3	4	1
KNOXVILLE	51	36	64	27	44	2	.7	.4	.4	4.3	139	40.1	87	91	58	0	2	4	0
MEMPHIS	45	35	62	22	40	-4	.9	.2	.6	5.9	179	54.3	107	86	63	0	3	3	1
NASHVILLE	47	36	65	22	42	0	2.3	1.3	2.0	7.9	255	50.0	105	96	70	0	2	3	1
TX ABILENE	54	33	70	27	43	-3	.3	.1	.3	.5	83	19.2	80	77	40	0	4	2	0
AMARILLO	43	19	58	-1	31	-8	.5	.3	.4	.6	150	15.2	77	88	47	0	5	2	0
AUSTIN	61	41	75	33	51	-2	.1	.4	.1	.9	60	34.5	106	78	38	0	0	1	0
BEAUMONT	63	45	72	40	54	-1	.8	.3	.6	5.1	159	75.3	143	94	51	0	0	2	1
BROWNSVILLE	77	48	88	45	63	0	.3	0	.3	.3	33	28.1	107	92	39	0	0	1	0
CORPUS CHRISTI	68	45	83	37	56	-3	.4	.1	.4	.4	44	36.8	118	84	43	0	0	1	0
DEL RIO	65	39	77	30	52	-1	0	.1	0	0	0	14.0	78	66	27	0	1	0	0
EL PASO	64	32	71	27	48	4	0	.1	0	0	0	7.9	96	62	22	0	5	0	0
FORT WORTH	50	33	67	26	41	-7	.2	.2	.7	1.1	92	31.3	104	87	50	0	3	1	0
GALVESTON	65	47	73	39	56	-1	1.1	.2	.8	2.6	100	52.8	130	84	48	0	0	2	1
HOUSTON	63	42	73	37	52	-2	.4	.5	.4	4.6	177	53.0	117	87	44	0	0	1	0
LUBBOCK	51	28	65	16	40	-2	T	.1	T	.1	50	20.2	109	84	38	0	4	1	0
MIDLAND	59	32	71	24	46	-1	T	.1	T	.1	33	10.0	71	34	0	4	1	0	0
SAN ANGELO	59	30	69	21	44	-4	T	.1	T	0	0	15.2	81	78	32	0	5	0	0
SAN ANTONIO	64	38	78	32	51	-2	T	.3	T	.6	55	26.3	89	77	35	0	2	0	0
VICTORIA	65	42	77	38	54	-3	.4	.1	.4	.9	60	42.6	114	97	47	0	0	1	0
WACO	56	34	75	29	45	-4	.3	.2	.3	.9	60	24.2	76	87	44	0	3	1	0
WICHITA FALLS	48	28	65	18	38	-6	.6	.3	.5	.8	89	25.2	92	88	46	0	4	2	0
UT BLANDING	41	25	47	18	33	3	T	.2	T	.5	63	15.5	141	85	56	0	7	1	0
CEDAR CITY	48	27	60	17	37	6	.1	0	.1	.1	25	13.9	138	81	44	0	6	2	0
SALT LAKE CITY	42	33	53	29	37	7	1.0	.7	.4	2.3	256	22.4	153	86	59	0	3	5	0
VT BURLINGTON	38	25	51	3	31	8	2.4	1.8	1.4	4.5	237	49.1	146	85	60	0	4	5	2
VA NORFOLK	58	43	67	33	50	7	3.3	2.6	2.5	4.7	224	48.2	108	87	59	0	0	3	1
RICHMOND	54	37	60	30	46	6	1.3	.6	1.2	2.9	126	41.9	98	89	61	0	1	3	1
ROANOKE	50	37	57	27	43	5	1.5	.8	1.3	4.0	200	46.1	119	88	58	0	1	2	1
WA COLVILLE	31	25	36	0	27	-1	.4	.2	.2	1.4	78	27.4	162	96	89	0	7	4	0
QUILLAYUTE	46	34	50	25	40	-1	2.0	-1.7	.9	5.2	48	117.4	171	97	74	0	3	4	2
SEATTLE-TACOMA	45	37	51	31	41	0	.6	.8	.3	3.8	90	39.9	112	93	68	0	2	3	0
SPOKANE	31	20	36	-2	25	-4	.2	.4	.1	1.7	100	22.0	136	100	91	0	7	3	0
WV YAKIMA	32	21	39	14	27	-5	.1	.2	.1	1.2	133	12.2	172	93	81	0	7	1	0
BECKLEY	43	32	56	17	38	4	.8	.1	.4	1.7	81	34.2	83	98	66	0	3	2	0
CHARLESTON	49	37	62	24	43	6	.5	.2	.2	2.1	100	41.3	99	87	54	0	2	5	0
HUNTINGTON	46	35	57	19	40	3	.5	.2	.3	2.5	119	35.9	90	85	61	0	2	5	0
PARKERSBURG	47	35	60	21	41	6	1.0	.4	.6	2.9	161	44.9	111	99	69	0	2	3	1
WI GREEN BAY	27	17	34	-11	22	0	1.0	.6	.6	2.0	182	30.2	108	94	72	0	7	3	1
LA CROSSE	22	11	33	-18	16	-6	.3	.1	.2	1.2	150	29.0	94	98	78	0	7	2	0
MADISON	27	17	36	-8	22	-1	1.4	1.0	.6	2.9	242	31.1	100	97	79	0	7	3	2
MILWAUKEE	29	20	37	-1	24	-1	1.7	1.2	.9	3.6	240	37.0	122	98	76	0	6	5	2
WAUSAU	24	13	31	-16	18	0	.6	.3	.4	1.3	130	30.8	94	91	64	0	7	4	0
WY CASPER	28	9	42	-18	19	-8	.1	.1	T	.3	75	17.7	155	89	56	0	7	4	0
CHEYENNE	30	14	41	-6	22	-8	.1	0	.1	1.0	250	20.5	154	89	58	0	7	1	0
LANDER	28	8	46	-8	18	-5	.1	.1	.1	.5	125	15.4	118	85	51	0	7	2	0
SHERIDAN	27	8	42	-20	17	-8	T	.1	T	.4	80	9.6	63	87	56	0	7	1	0
PR SAN JUAN	85	73	86	71	79	1	.4	.6	.3	1.9	58	40.0	73	86	63	0	0	3	0

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 12-17-1983
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, CUM DEV FROM L YR, 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, CUM DEV FROM L YR. Lists cities like Birmingham, Mobile, Montgomery, etc., with their respective weather data.



NOVEMBER STREAMFLOW

Department of the Interior Geological Survey

November was exceptionally wet across most of the Nation, especially in some States in the West and Midwest, according to monthend checks by the U.S. Geological Survey (USGS) of groundwater and surface-water conditions across the country.

Of 171 key USGS streamflow stations surveyed, 81 had flows in the normal range during November and another 81 had well above-average flows, while only nine were below long-term averages, said Carol Saboe, a hydrologist at the USGS National Center in Reston, Va.

In the West, record-high or near record-high November flows were recorded at 16 stations; four were in California, three in Utah, three in Idaho, two in Montana, and one each in Arizona, Colorado, Nevada, and Wyoming. Record-high or near record-high flows also were reported in Illinois, Iowa, Minnesota, Missouri, Nebraska, Ohio, Vermont, and Wisconsin.

In contrast, a monthly record-low flow was recorded on the Saline River near Russell, Kan., for the fourth consecutive month, and a near record-low flow for November was reported in central Texas.

The nation's three largest rivers--the Mississippi, St. Lawrence, and Columbia--reflected the wet conditions during November. Their combined average flow during the month was 527 billion gallons per day (bgd), which was 22 percent more than the long-term average for November and 34 percent more than the average flow during the previous month. These three rivers drain more than half of the conterminous 48 States and provide a useful check on the status of the Nation's water resources.

Saboe said groundwater levels generally were higher during November as a result of precipitation. Record-high November groundwater levels were recorded in Connecticut, Iowa, and Nevada, while Louisiana and Texas reported record-low November water levels. Maine had both record-high and record-low water levels for November.

Working in cooperation with Federal, State, and local agencies, the USGS routinely gathers data on the quantity and quality of the Nation's surface- and groundwater resources at more than 45,000 stations across the country. Some highlights of November water-resource conditions include:

***"BIG FIVE" RIVERS**--Flows of the so-called "big five" rivers for November were: Mississippi River at Vicksburg, Miss., 268 bgd, 29 percent above the long-term November average and 61 percent more than in October; St. Lawrence River near Massena, N.Y., 174 bgd, a decrease of 1 percent from October but still 9 percent above the November average; Columbia River at The Dalles, Ore., 85 bgd, up 65 percent from October and 50 percent above the November average; Ohio River at Louisville, Ky., 66 bgd, which was 51 percent more than in October and 63 percent above average; and Missouri River at Hermann, Mo., 67 bgd, which was 67 percent above the previous month and 89 percent more than the long-term November average.

***UTAH**--Streamflows continued at about twice the long-term average, with the combined flows of the seven index stations averaging 92 percent more than the long-term average. Record-high flows for November were reported on the Colorado River near Cisco and the Beaver River near Beaver, and flow of the Green River at Green River was the second highest on record for November. The Great

Salt Lake continued to rise and at 4,205.3 feet above sea level was at its highest point since July 1, 1888, and four feet two inches higher than at the same time in 1982. Groundwater levels generally rose throughout the State.

***IOWA**--Streams flowed at average or well above-average amounts, with rain and melting snow pushing some flows into unusually high ranges. An average flow of 616 million gallons per day on the Big Sioux River near Akron, Iowa, was the second highest on record for November. The water level in a well near Harcourt was measured at 2.37 feet below land surface, which was a new high for November and was 3.47 feet above the November average.

***CALIFORNIA**--Streamflows at all index stations in the State were above normal. Near record-high flows were reported on the Merced River at Happy Isles Beidge near Yosemite, the West Walker River near Coleville, the Sacramento River at Verona, and the North Fork American River at North Fork Dam.

***KANSAS**--Late in the month, heavy snow in the west and rain in the east resulted in increased streamflows. Despite this, however, flow of the Saline River near Russell had a record-low flow of 1.2 million gallons per day.

***ARIZONA**--Streamflows were above average at all six index stations. Flow of the Gila River near Solomon averaged 287 million gallons per day, the third highest November flow on record. There was little change in contents of seven major reservoirs, with Lakes Mead and Mohave being 36 percent above long-term November averages at 94 percent of capacity. The Salt and Verde River Reservoir system remained at 80 percent of capacity, which is more than twice the average for that time of year. San Carlos Reservoir was 87 percent of capacity at the end of the month, which was six times its long-term average for November.

***MINNESOTA**--Streamflows were above average for the fifth consecutive month. The heaviest November snowfall in more than a century (30 inches) occurred in the Minneapolis-St. Paul area. Near record-high streamflows were reported on the Chipewewa River near Milan and the Crow River at Rockford.

***IDAHO**--Record-high November flows were recorded on the Snake River at Heise and Weiser and on the Salmon River at White Bird. Reservoir storage for irrigation was well above average at the end of the month.

***NEW YORK**--Streamflows were average to well above average in the north, due partly to intermittent snow and rain. In the southeast, flows were average to below average; in the west they were near average except for the Upper Genesee Basin, where they were well below average, and in the Tonawanda Creek basin, where they were well above average; and in the western Catskills they were well below average. Groundwater levels rose throughout the State late in the month, and were above average in the west and north, but average to below average in the central and southeastern counties. Limitations remained in effect on the amount of water New York City could withdraw from its three reservoirs in the Delaware River basin and the amount of water New Jersey communities withdraw from the Delaware River. Near the end of the month, the three New York City reservoirs were at about 50 percent of capacity, while the long-term average for November was 73 percent of capacity.

National Agricultural Summary

December 12 to 18

HIGHLIGHTS: Abnormally low temperatures across the northern and central Plains into the Corn Belt could cause some winterkill of winter wheat. However, most areas had sufficient snow cover to protect the crop. Wetness in the Southeast delayed soybean combining early in the week but harvesting made good progress as fields dried. Cotton picking continued active in the Southwest. Wet fields and stormy weather across the South held the number of days available for fieldwork in this region to less than 3. Soil moisture in the South was rated adequate to mostly surplus. Cotton harvesting centered on the southern Plains and in the Southwest. Ninety-six percent of the cotton acreage in the 14 major producing States had been harvested, well ahead of last year's 87% and the average of 89%. Heavy rain slowed vegetable harvesting in Florida but open weather allowed good progress in the other major producing areas. Livestock were stressed by adverse weather in most regions but continued in generally good condition. Supplemental feeding increased in all areas. Calving and lambing continued active.

SMALL GRAINS: Abnormally cold weather pushed into the central Plains threatening winter wheat. However, most areas had sufficient snow cover to prevent possible winterkill. Wetness continued to delay the completion of seeding in the South. Winter wheat was in mostly good condition in Kansas. Cold temperatures halted top growth across the State. Oklahoma winter wheat continued in good condition. However, cold weather caused slight damage to stands that had made above-normal growth in north-central areas. In the Northern areas of Texas, small grains made little progress as cold temperatures pushed southward. Late week snows provided little moisture to the Texas Plains. Stands were rated mostly fair to good. Winter wheat continued in good condition in Montana under protective snow cover.

COTTON: In the 14 major producing States, 96% of the cotton acreage had been picked, well ahead of last year's 87% and the average of 89%. Harvesting centered on the southern Plains and in the Southwest. Cotton picking neared completion in Arizona, stalk shredding and tillage operations were active on harvested acreage. Picking was 86% complete in New Mexico and 90% finished in Oklahoma. Harvesting in Texas reached 94%, 13 points ahead of last year and the average. Snow halted picking late in the week and could cause quality deterioration of remaining cotton. Gins were keeping up with harvesting operations. California growers had picked 97% of their acreage, equal to last year. Cotton picking reached 97% completion in Georgia despite earlier rains.

OTHER CROPS: Wet conditions continued to delay the soybean harvest in the Southeast. Double-cropped soybeans remained for harvest throughout the region as rains early in the week prolonged wetness. Combining advanced to 85% finished in North Carolina, 87% in Virginia, 96% in Mississippi, and

97% complete in Alabama. Harvesting was halted by rain in South Carolina but neared completion in Georgia despite showers early in the week.

Tobacco plant bed preparation became more widespread in the Southeast. The Kentucky burley market closed for the holidays and will reopen on January 9. Tennessee producers had stripped 84% of their burley crop, 5 points behind the normal pace. Marketing continued active in Virginia.

Peanut digging was virtually finished in Texas.

FRUITS AND NUTS: Deciduous fruit producers pruned trees as weather conditions permitted in northern areas. Citrus groves were in near excellent condition in Florida. Moisture was adequate and trees had very little new growth. Fruit sizes were small and droppage was slightly above normal. Orange picking was active for both processing and fresh markets. The Texas citrus harvest was slow but continued steady. Shipments of gift fruit increased for the holidays. Large volumes of Navel oranges, tangerines, lemons, and grapefruit were picked in Arizona's Central Valley. Lemon and grapefruit harvesting continued steady from the Yuma area. Trees were in good condition and the fruit was sizing and maturing normally. California Navel orange producers were busy filling holiday orders. Central Valley growers pruned their orchards and vineyards.

Pecan harvesting was 83% complete in Mississippi, 88% in Louisiana, and 86% finished in Texas. The Georgia harvest showed some progress but still lagged normal.

VEGETABLES: Locally heavy rains slowed fieldwork in Florida's vegetable areas. Shipments declined 8% from the previous week. Volumes of cabbage, lettuce, carrots, celery, parsley, and radishes held steady or increased. Strawberry supplies increased from the Plant City area. Supplies of peppers, tomatoes, and cabbage were available from the lower Rio Grande Valley of Texas. Cool season vegetables continued to be harvested in the San Antonio-Winter Garden area, while frost and snow ended the remaining vegetables in the Trans-Pecos region. Lettuce harvesting was near peak volumes in Arizona's Yuma area but declined in the Salt River Valley and Marana region. Broccoli and cauliflower cutting continued active in the Yuma area and Salt River Valley. In California, broccoli harvesting was active along the central coast while cauliflower and celery cutting declined seasonally. Carrot harvesting was moderate in central areas but was light in the Desert. Lettuce harvesting slowed in the Palo Verde Valley but increased in the Imperial Valley. Tomato picking declined on the south coast.

PASTURES AND RANGES: Cold temperatures halted pasture growth across the South and stressed livestock in northern areas. Supplemental feeding continued in most regions. Hay was in short supply in a few areas, but feed supplies were generally adequate. Livestock were in generally good condition throughout the Nation. Lambing and calving were active.

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 averaged below normal. Rainfall less than 0.50 in. at most stations with over 1.00 in. extreme north.

Fieldwork: 3.0 days. Soybeans harvested 97%; wheat seeded 94%. Conditions: Livestock and pastures fair; wheat fair to good.

ARIZONA: Strong high pressure area kept State under fair skies. Weak upper disturbance brought some light showers to northeast quarter at weekend. Temperatures ranged normal Casa Grande to 8° above normal Prescott, Winslow.

Lettuce packing near normal volume Yuma, yields lighter than normal. Some problems with whiteflies, seed stems, bottom rot, hot weather contributed to lighter yield. Strong market also incentive to harvest lettuce on light side. Lettuce picking winding down Salt River Valley, Marana. Broccoli, cauliflower harvests near peak Yuma. Broccoli, cauliflower, mixed vegetables moving in volume Salt River Valley. Citrus harvest active Central Valley where Navels, tangerines, lemons, grapefruit moving in volume. Lemon, grapefruit harvest progressed steady pace Yuma. Groves good condition, fruit maturing, sizing normally. Cotton picking neared completion, 99% picked over once, 80% last year, 91% average. Stalk shredding, tillage operations active on cotton acreage final picked. Land preparation for small grains neared completion most areas, seeding active. Nearly half acreage planted Statewide, some stands established all areas. Seeding progress ahead of normal most areas, established stands good condition. Yuma County localized problems with aphids. Alfalfa activities primarily sheepling-off, some green chop, hay harvest seasonal low.

ARKANSAS: Cold most of week, precipitation approximately 0.50 in. of rain in most of the State. Total near 1.50 in. in south central and southeast. Temperatures averaged 8 to 13° below normal. Highest temperature 52°, lowest 9°. Most rainfall 2.64 in. least rainfall, none. Snowfall last of week in southern one-half of State and ranged from 1 to 9 in.

Soil moisture adequate to surplus for most of the State. Soybeans virtually all harvested. Cotton virtually harvested. Wheat looks good, some flooded in low parts. Livestock feed still in good condition, but approximately 20% of producers will need to buy hay.

CALIFORNIA: Precipitation was scattered throughout the period, but the bulk was confined to the northern half of the State and the first part of the weekly period. North coast precipitation ranged about 2.00 to 5.00 in. for the greatest in the State. Sierra Nevada and northern mountains had around 2.00 in. Southern desert region was again essentially dry. Weekly mean temperatures Statewide were warmer than normal; first week since early November. Although morning temperatures were again seasonally below freezing for most regions, a trend towards warmer readings was noted.

Desert alfalfa harvested, wheat planting continues strong. Planting oats near completion, sorghum harvest almost done. Cotton 97% harvested. Good pink bollworm quarantine compliance progress. Planted sugarbeets look good. Navel orange Christmas orders filled. New avocados now moving. Central Valley growers pruned their orchards and vineyards. Broccoli harvest active, most supplies Central Coast. Brussels sprouts harvest active Central Coast. Carrot harvest moderate Central California, light Desert. Cauliflower and celery harvest declining seasonally Central Coast, increasing other districts. Lettuce harvest slowing Palo Verde Valley increasing Imperial Valley with quality problem early fields. Good movement fall potatoes Tulelake-Butte Valley; shipments above last year. Tomato harvest declining South Coast. Grass growth improved valley foothill districts with warmer weather. Supplemental feeding continues necessary many areas. Sheep grazing alfalfa fields.

COLORADO: The week started with mild weather, then on 15th a strong and very cold arctic air mass moved into the east dropping temperatures from 20 to 30° causing scattered snow showers. Cooling was also seen on the west slope with temperatures dropping 5 to 10°. Average temperatures were well below normal Statewide.

FLORIDA: Frequent showers, generally mild seasonal temperatures continued Statewide. Nighttime temperatures were mostly above normal. Freezing air temperatures extreme north 16th. Patchy frost reported in north. Temperatures averaged 2 to 3° above normal. Rainfall locally heavy, averaged 2.00 to 3.00 in. Statewide. Warm afternoon temperatures upper 70's to mid 80's occurred central and south over weekend.

Soil moisture adequate to excessive, wet along east coast, scattered areas in north and west, mostly adequate elsewhere. Soybean, cotton harvest nearly complete, wet conditions delaying harvest some areas. Sugarcane harvest full swing. Winter wheat planting about finished, excessive moisture kept some farmers out of fields. Tobacco plant beds being fumigated. Grazing of permanent pastures has ended over most north and Panhandle due to heavy frosts. Permanent pastures still in use in the southern Peninsula. Winter pastures continue in excellent condition. Cattle condition varies from fair to good in the north and Panhandle, but generally good in the south. Citrus near excellent condition, moisture adequate, very little new growth, some fruit droppage above normal, fruit sizes smaller than average. Harvest oranges for processing increasing, fresh movement active holiday trade. Weak cold front moved through vegetable growing area midweek. Locally heavy rains, especially southeast area accompanied front. Nighttime temperatures dipped into the 40's west central area. Other areas had higher temperatures. Daytime highs mostly 70's and 80's. Overall shipments declined 8% from previous week. Cauliflower, sweet corn declined. Crops steady to down were snap beans, Chinese cabbage, cucumbers, eggplant, escarole, okra, peppers, squash, tomatoes.

Crops steady to up were cabbage, lettuce. Crops gaining in volume were carrots, celery, parsley, radishes. Light but increasing supply strawberries available Plant City area. Watermelon supply continues light.

GEORGIA: Quite mild and wet during first part of period. Temperatures more seasonal and precipitation tapered off by end of period. Rainfall of 1.00 to 2.00 in. varied around State. However, Valdosta measured only 0.05 in. Cold 17th and 18th with temperatures close to normals. Dry in northwest but rain elsewhere averaged near 1.00 in., especially south.

Soil moisture adequate to surplus southern half of State, adequate to mostly surplus northern half. Main activities harvesting soybeans, cotton, pecans and seeding small grain. Cotton and soybean harvest nearing completion in spite of rains early in period. Progress continues to lag last year and average. Pecan harvest showed some progress but still lags last year and average. Tobacco bed preparation getting underway in tobacco growing areas. Small grains in mostly good condition. Cattle and hogs in good condition.

HAWAII: Variable weather prevailed. Days were mostly sunny with overcast conditions occasionally occurring.

Light to moderate rainfall at midweek proved beneficial to crops. Much more rainfall is needed to relieve the overall dry condition. A cold front passed through the State producing relatively cool daily temperatures. Supplies of head cabbage, Chinese cabbage, and tomatoes remain heavy. Banana supplies expected to remain steady and may increase in coming weeks. Papaya production still heavy and declining slowly.

IDAHO: A westerly flow of air from the Pacific brought mild, wet weather. All reporting stations had above normal precipitation. Weekly totals averaged about 0.25 in. above normal in the north, nearly 1.00 in. above normal in the southwest, and about 0.50 in. above normal in the southeast. Emmett reported the greatest weekly precipitation with 1.55 in. All mountain areas picked up several inches of new snow. Temperatures were mild for the time of year, and averaged about 5° above normal Statewide.

Wet weather has limited farming activities. Holiday preparations were underway as farmers continued with their routine winter chores. Feedlots were in poor condition due to the moisture. Hay was in short supply in a few spots, but feed supplies were generally adequate.

ILLINOIS: Temperatures 6 to 12° below normal. Precipitation mostly 0.50 in.

Soil moisture 3% short, 52% adequate, 45% surplus. Wheat condition 12% excellent, 64% good, 22% fair, 2% poor. Fall plowing 64% complete, 1982 65%, average 71%. Pasture condition 2% excellent, 45% good, 43% fair, 10% poor. Livestock condition mostly good, some stress from adverse weather.

INDIANA: Precipitation totals generally less than 0.50 in. Snow cover 1 to 2 in. across north and central sections except 4 to 5 in. in northwest. Rain in southwest. High temperatures upper 20's to lower 30's with lows generally in teens to low 20's. Near zero southwest and 10 below zero in north early 19th.

Soil temperatures averaged in the low to mid 30's with minimums dropping to the freezing mark at the 4 in. depth over the weekend. Saturated soils stopped all field activities. Activities included caring for livestock, watching grain market, cutting wood, buying next year's seed; attending meetings and usual chores. Stripping of tobacco almost complete in south.

IOWA: An extremely cold week with scattered snowfall or freezing rain reported on most days. The temperatures ranged from 20° below normal in the west central to 10° below normal in the east central. Minimums as low as -33° on the 19th at Atlantic were reported with many records broken. Snow covers the entire State with over a foot at many northern locations.

KANSAS: Temperatures averaged 12 to 15° below normal eastern two-thirds, 9 to 11° below normal western third. Averages ranged 20 to 24° southern and western thirds and 16 to 19° elsewhere. Precipitation averaged less than 0.02 in. except east. Thunder-showers left 0.50 to 1.00 in. rain east central and extreme southeast. Averages in east ranged 0.16 to 0.24 in.

No field activity. Farmers clearing snow and hauling feed to livestock. Feed demands heavy because of extreme cold.

KENTUCKY: Temperatures averaged 5 to 10° above normal first half of period, below normal during last half. Mean temperatures averaged in 30's. Precipitation amounts averaged from 0.70 in. in west downwards to 0.30 in. in east.

Agricultural activity minimal. Burley markets closed for holiday recess on December 15, will not reopen until January 9. Burley co-op has received 38.8% sales across belt. Livestock stressed by cold, damp conditions.

LOUISIANA: Rainfall none to 1.24 in. Temperatures ranged 3 to 6° below normal. High 72°, low 29°.

Soil moisture adequate to surplus. Days suitable 2.0. Cotton harvest complete, 96% 1982, 99% average. Wheat seeded 99%, 89% 1982. Wheat emerged 98%, 80% 1982. Condition fair. Pecan harvest 88%, 76% 1982. Sugarcane harvest 95%, 90% 1982. Vegetables rated fair. Pastures rated fair. Livestock fair to good.

MARYLAND AND DELAWARE: Maryland: Temperatures averaged 6 to 10° above normal and rain fall was heavy. High temperatures were in the mid 50's to low 60's and low temperatures were in the upper 20's in west and mid 30's to low 40's elsewhere. Temperatures averaged 6° above normal west to 7 to 10° above normal elsewhere. Rainfall ranged from 0.67 in. at Oakland to 4.99 in. at Cambridge. The 17th was sunny with highs in the mid 40's and lows around 30. The 18th was cloudy and a little cooler with highs in the low 40's and lows around 20.

Delaware: Weather was 11 to 13° above normal and rainfall averaging just over 2.00 in. Maximum temperatures were in the mid 60's Statewide and minimum temperatures were in the high 20's to mid 30's. Total precipitation ranged from 1.69 in. at Milford to 2.92 in. at Wilmington. Weekend weather was sunny on 17th with highs in the upper 40's to low 50's and lows in the low to mid 30's. The 18th was cloudy and cooler with highs near 40 and lows in the mid 20's.

MICHIGAN: There was a tremendous contrast between weather in the upper Peninsula and the lower Peninsula. Most of the lower Peninsula was just beginning to feel the effects of winter, while the upper Peninsula was already deep in the throes of a hard winter. Temperatures averaged 5° below normal over the upper Peninsula, while they averaged 2.5° above normal in the lower Peninsula. Snow depths ranged to over 48 in. in the upper Peninsula, while the lower Peninsula had 6 to 12 in. over northern sections. Only traces of snow in other areas of the State.

MINNESOTA: Temperatures averaged 9 to 17° below normal. High: 34°. Low: -36°. Precipitation averaged near normal for the western third of the State and northeast, and 0.19 to 0.55 in. above normal elsewhere. Greatest reported weekly total: 1.08 in. Snowfall averaged 9 to 13 in. for the southeast, south central, and east central; and 3 to 7 in. elsewhere. Snow depth at week's end averaged 9 to 12 in. for the western third of State and 14 to 27 in. elsewhere.

MISSISSIPPI: Snow and sleet in the northern and central areas of the State on the 16th. Temperatures normal to 7° below normal. Greatest 1 day rainfall 1.35 in.; greatest 1 day snowfall 3 in.

Soil moisture surplus; fieldwork 1.3 days suitable, 1.5 1982, 2.6 average. Soybeans 96% harvested, 92% 1982, 98% average. Pecans 83% harvested, 91% 1982, 89% average. Cotton 100% harvested, 97% 1982, 99% average. Wheat condition good to fair; 97% planted, 94% 1982. Pasture condition and livestock condition fair to good. Hay supplies adequate in the southern one-half of the State and short to adequate in the northern one-half. Feed supply adequate to short Statewide.

MISSOURI: Cold air covered the State as temperatures ranged from 2 to 14° below normal with coldest temperatures in west central. Precipitation was widespread, ranging from 0.25 in. in the northwest to just over 1.00 in. in the southeast. Snow covered the State late in the week with central portions receiving up to 6 in. of snow.

MONTANA: Very cold week as temperatures averaged 2° below normal over west and southwest and 13 to 17° below normal over the Plains. Coldest temperatures occurred at end of week. Light to moderate precipitation occurred over all areas. Snow covered all areas of the State at end of week.

Cold weather increasing livestock feed requirements. Snow cover protecting winter wheat. Rural roads mostly open.

NEBRASKA: Temperatures over Panhandle 12° below normal with remainder of State between 16 to 20° below normal.

Precipitation averaged from a trace to 0.10 in. across the State.

NEVADA: Series of storm fronts moved across State dropping considerable amounts precipitation north in the form of both rain and snow. No precipitation noted in south. Temperatures were well above normal all areas because of extensive cloud cover. Temperatures in north averaged 8 to 11° above normal and in south 5 to 7° warmer.

Rain and temperatures above freezing greater muddy conditions most areas north and made feeding operations difficult. Grading and marketing on upswing.

NEW ENGLAND: Warmest temperatures occurred the first four days, then began to cool. Highest was 63° along the Massachusetts Coast, the lowest, 6° below zero early 17th at Fort Kent, Maine.

Precipitation amounts ranged from 0.59 in. at Nantucket, Mass. to 5.28 in. at Bangor, Maine. Central and southern Maine, coastal New Hampshire, westernmost Massachusetts, and southwestern Vermont received the most. Some snow fell 12th, then flurries midweek and over the weekend. Extreme eastern Maine received the most, 5.00 in. at Eastport, Maine.

NEW JERSEY: Temperatures were well above normal, averaging 36° north, 42° south and 44° coastal. Extremes 13 and 64°. Precipitation well above normal north and south and near normal coastal, averaging 4.11 in. north, 2.38 in. south and 0.91 in. coastal. The heaviest 24-hour total reported 2.95 in. on 12th to 13th.

Fieldwork: heavy rains in most areas prevented harvest of late fall crops. Farmers caring for livestock, pruning fruit, selling Christmas trees and tending to farm maintenance chores.

NEW MEXICO: Average temperatures between 3 to 5° below normal most locations north and east. Readings northeast cover 10° below normal. Minimum temperature: -3°, northern mountains. Maximum temperature: 75°, southeastern Plains. Scattered, light snow showers north by midweek. Cold, arctic airmass over eastern part 17th and 18th with snow.

Soil moisture supplies fair. Cotton % harvested: current, 86%, previous year, 92%; historic average, 90%. Irrigated small grains rated good, heavy grazing. Dryland fields fair, need moisture. Irrigated grain sorghum harvested, dryland nearing completion. Peanuts threshed. Pecans 60% or more picked, Mesilla Valley. Livestock feeding prevalent, most areas, some late calving continues.

NEW YORK: Heavy precipitation, 2 in. or more, over eastern and northern areas on 13 and 14th. Up to 4.00 in. of rain in extreme southeast. Temperatures averaged near normal. Snow to lee of lakes in west on 17th.

NORTH CAROLINA: Temperatures generally normal with chilly nights. Precipitation mostly above normal.

Soil moisture 42% adequate, 58% surplus. Days suitable for fieldwork: 1.8. Condition: Wheat: 15% fair, 83% good, 2% excellent. Oats: 16% fair, 80% good, 4% excellent. Barley: 12% fair, 82% good, 6% excellent. Rye: 1% poor, 18% fair, 78% good, 3% excellent. Harvests: Soybeans: 85%, 1982 83%, average 89%. Cotton: 100%, 1982 94%, average 100%. Farm feed supplies: Hay and roughage: 26% short, 73% adequate, 1% surplus. Feed grains: 34% short, 66% adequate. Major farm activities: Soybean harvest, grading and marketing burley tobacco, cutting Christmas trees and firewood, preparing tobacco plant beds, tending livestock, and general farm maintenance.

NORTH DAKOTA: Bitter cold followed an early week's snowfall. Snow occurred on the 12th and 13th and generally left 2 to 5 in. of new snow over the State. Gusty north winds and frigid arctic air followed. Daytime highs were well below zero by the weekend. Weekly temperature averages ranged from 13° below normal east central to 18° below normal southwest. Extremes ranged from 29° on the 11th to -34° on the 17th. Precipitation was above normal in all districts.

Livestock warnings have been issued Statewide due to bitter cold. Extra care, feed and shelter from winds needed. Additional snowfall should provide more protection for fall planted crops.

OHIO: Temperatures 1 to 2° below normal. Mild early week then cold. Extremes from less than 10 to near 50°. Soil temperatures freezing at most locations. Precipitation light; most totals less than 0.25 in. Wheat condition stable.

OKLAHOMA: Temperatures averaged from 4° below normal Panhandle to 10° below normal northeast. Precipitation totaled 0.30 in. northeast and east central with lesser amounts elsewhere.

Bitter cold weather this weekend caused slight damage to wheat that has made greater than normal growth in north central areas but crop remains in generally good condition. Cattle in good to fair condition but making slow gains. Cotton still in fair to poor condition. Cotton harvested: 85%, 50% 1982, 75% average.

OREGON: Precipitation in interior valleys of 1.00 to 3.00 in. The southern coast had almost 10.00 in. East of Cascades, precipitation measured 1.00 to 1.50 in. except for extreme northeastern areas which had 0.30 in. Warm daytime temperatures negated very cold minimums so average temperatures were slightly above normal Statewide. Enterprize was the cold spot with -5° on the 16th.

Condition of 1984 winter wheat crop is good to very good. Fruit growers now pruning trees and spraying for insect and disease control. Some late root crops being harvested for fresh vegetable market. Soil moisture supplies adequate to surplus. Winter range and pasture in good condition, but dry weather is needed to improve muddy areas. Livestock condition good.

PENNSYLVANIA: Extremely wet week with flooding in the eastern one half of the State. Rainfall amounts ranged from around 0.30 in. in the west to 3.00 to 4.00 in. in the east. State average precipitation was 2.40 in. Temperatures were rather mild with the State average being 36° which was 6° above the normal.

PUERTO RICO: Island average rainfall 0.28 in. or 0.76 in. below normal. Highest weekly total 1.56 in. Highest 24-hour total 0.54 in. Temperature averaged about 77° on coasts and 68 to 67° Interior Divisions. Mean station temperature ranged from 79.5 to 64.9°. Extremes 90 and 50°.

SOUTH CAROLINA: Wetter than usual with several rains totaling from 1.00 to more than 2.00 in. First part of week was mild, weekend more normal temperatures.

Cotton harvested 100%. Rainy conditions stopped soybean harvesting and seeding small grains. Farmers repaired equipment, developed marketing strategy, and planned next season's planting possibilities.

SOUTH DAKOTA: Average temperatures 10 to 15° below normal. Extremes: 48 and -23°. Entire State snow covered. Snow depth ranges from 1.00 in. southwest to 27.00 in. east central. Precipitation was light and scattered. Melted precipitation amounts exceeded 0.25 in. only in the extreme northeast.

TENNESSEE: Light snow fell in portions of the State as the first surge of cold, winter weather pushed into the State. Temperatures averaged near normal; however, weekly means well below normal across the west.

Corn harvested 100%, 1982 100%, average 99%. Cotton harvested 100%, 1982 100%, average 98%. Soybeans harvested 98%, 1982 100%, average 95%. Burley tobacco stripped 84%, 1982 99%, average 89%. Wheat sown 99%, 1982 100%, average 95%. Pastures good.

TEXAS: Series upper level disturbance variety weather for State. Snow showers, rain showers dampened Plains, upper coast early week, midweek arctic blast cold air 3 to 8 in. snow over northern third Texas. Temperatures behind front in teens, single digits West, North Texas readings 30's, 40's ahead of arctic air mass, moved southward South Texas week's end. Precipitation restricted light rain south, freezing drizzle north, light snow Panhandle on 18th. Temperatures Statewide single digits Panhandle lower 50's coast. Temperatures 5 to 10° below normal, precipitation 0.50 to 0.25 in. above normal amounts West Texas, extreme South Texas.

Crops: Cold front late week brought snow, freezing temperatures North, North Central Texas, cold temperatures, little moisture prevailed throughout remainder of State. Small grains made little progress, northern areas of State, continue to provide adequate grazing many areas. Winter pasture growth slowed, grazing remains short most western regions. Cotton harvest continued progress rapidly first part week, virtually complete couple weeks. Snow halted operation late week, may deteriorate quality remaining cotton. Gins able keep pace harvest operating around clock. Small grains continue, need moisture to provide adequate grazing. Late week snows provided little moisture to Plains. Irrigated grain remains good condition. Small grains providing good grazing Central Texas, minimal damage greenbugs, mites. Wheat condition rated 75% normal, 66% last year. Current conditions 7% excellent; 39% good; 53% fair; 1% poor. Soybean harvest virtually complete, yields reported below normal. Sugarcane harvest Valley nearly complete, good yields expected.

Cotton harvested 94%, 81% 1982, 81% average. Wheat planted all purposes 100%, 100% 1982, 99% average; emerged 98%, 96% 1982, 95% average. Peanuts harvested 99%, 100% 1982, 99% average. Soybeans harvested 100%, 98% 1982, 98% average. Sugarbeets harvested 99%, 100% 1982, 98% average. Pecans harvested 86%, 87% 1982, 79% average.

Commercial vegetables: Lower Rio Grande Valley, fall vegetable harvest active. Supplies peppers, tomatoes, cabbage good. Cauliflower doing well. Citrus harvest steady, but slow. Market shown slight improvement over

previous weeks. Shipments gift fruit increasing upcoming holidays. San Antonio-Winter Garden area, harvesting cool season vegetables continues. Broccoli, cabbage good. Land preparation for spring planting. Trans-Pecos region, frost, some snow ended remaining fall vegetables. North, East Texas, fall harvesting virtually ended. Pecan harvest active, cooler temperatures. Quality in north, west portions State poor, however production remainder State good. Supplies up, prices low.

Range and livestock: Livestock in good condition, supplemental feeding increased. Wheat, oats continue provide good grazing. Central Texas, growth short Plains region. Heavy grazing grain stubble continues Plains. Moisture still needed many areas provide adequate grazing. Local market prices continue improve Statewide.

UTAH: Precipitation 1.33 in. north central and northern mountains, 0.33 in. rest of State. Temperatures generally 2° below normal except 5° below Dixie and Uintah Basin and 2° above western and northern mountains.

As the need arises, potato pits opened for sorting and shipping. Apple and onion sorting and marketing continues. Livestock on open ranges remain in good condition.

VIRGINIA: Temperatures and precipitation for majority of period were above normal. Cooling during latter period brought temperatures back to or just below season normals by the 16th. Temperatures averaged around 6° above normal and precipitation averaged near 1.50 in.

Temperatures were cool throughout the State. Precipitation was abundant and pushed topsoil moisture up to 29% adequate and 71% surplus with only 1.3 days suitable for fieldwork. Soybean harvest slowly advanced to 87% complete compared with 92% last year and average. Sorghum advanced 8 points to 98% combined compared with 93% last year and 91% average. Burley, dark-fire and sun-cured tobacco marketing continued active. Livestock were in good condition with mud the only problem during calving and lambing.

WASHINGTON: Week began with strong low pressure system off Vancouver Island and moderate west to southwest flow. Fronts associated with low moved through Pacific Northwest 12th and 14th producing rain west of Cascades and snow to east. High pressure developed over western Canada 15th and on 16th intensified covering most of western Canada and eastern Gulf of Alaska. This significant change in weather patten was beginning of very cold spell that will probably last through Christmas.

All fall seeded crops in average to above average condition throughout eastern half of State. Soil moisture above average and snow cover present most areas. Western areas, choose and cut Christmas tree farms continue to report brisk business. Most fields very wet and some with surface water accumulation. Blueberry pruning and raspberry canning continue. All livestock receiving supplemental feed.

WEST VIRGINIA: Temperatures averaged well above normal, ranging from 5 to 8° above normal. Low 16° at Terra Alta; high 63° at Belington. Precipitation averaged near to a little above normal with heaviest in the

northeastern section. Largest rainfall 2.21 in. in Charles Town; the least 0.42 in. in Elkins.

Soil moisture surplus to adequate. Days suitable for fieldwork averaged 1.6. Main activities were: General maintenance and livestock feeding. Feed supplies adequate to short.

WISCONSIN: Seasonal temperatures and wintry weather early in the week gave way to a frigid weekend. Cloudy skies blanketed the State on 12th with some lighth snow falling over the north and central portions. The 13th saw from 1 to 8 in. of snow deposited over northwest, while little or no precipitation occurred in the southeast. A fairly continuous fall of snow dumped another 2 to 7 in. across the State on 14th. However, along the shores of Lake Michigan the precipitation fell as rain. Occasional light snow gradually ended the 15th and skies cleared as cold air invaded the region. Throughout the weekend a frigid arctic air mass settled over the State. Partly to mostly sunny skies during the day failed to warm the mercury much above the zero mark, while clear skies at night dropped the temperature well below 0°. The highest temperatures of the week was 39° at Racine on 13th. The lowest reading was -31° at Lake Thompson on morning of the 18th.

WYOMING: Average temperatures below normal except for far west. Cold arctic air turned temperatures sharply colder by weeks end. Moderate snow brought above normal precipitation to northwest. Elsewhere below normal amounts.

Winter wheat mostly good condition. Livestock mostly good condition. Cold weather, snow cover increasing need for supplemental feeding. Hay supplies adequate most areas. Other activities include marketing livestock, general maintenance.

CROP PROGRESS

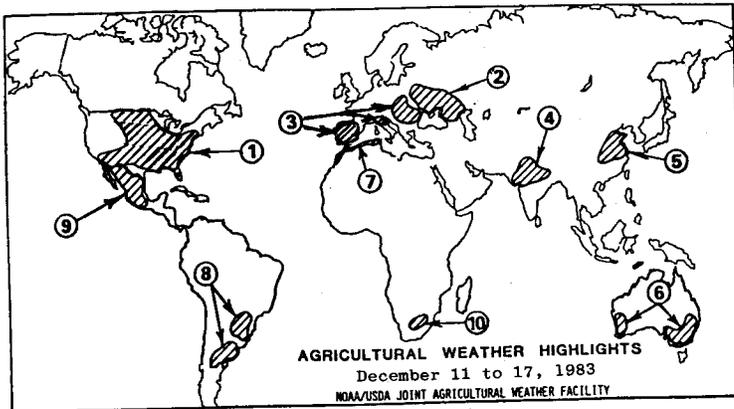
FOR WEEK ENDING DEC 18, 1983

	COTTON		
	% HARVESTED		
	1983	1982	AVG.
ALA	99	99	95
ARIZ	99	80	91
ARK	99	98	99
CALIF	97	97	98
GA	96	98	99
LA	100	96	99
MISS	100	97	99
MO	100	100	100
N MEX	86	92	90
N C	100	94	100
OKLA	90	50	75
S C	100	100	100
TENN	100	100	98
TEX	94	81	81
14 STATES	96	87	89

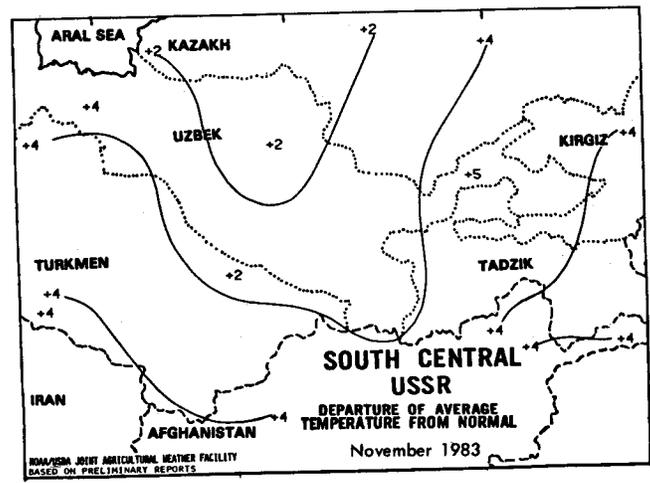
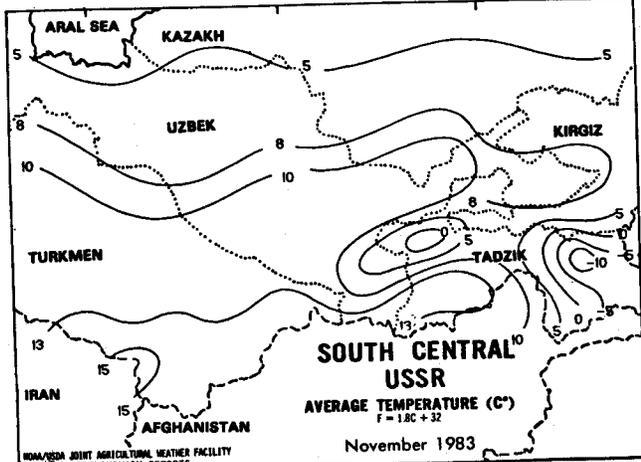
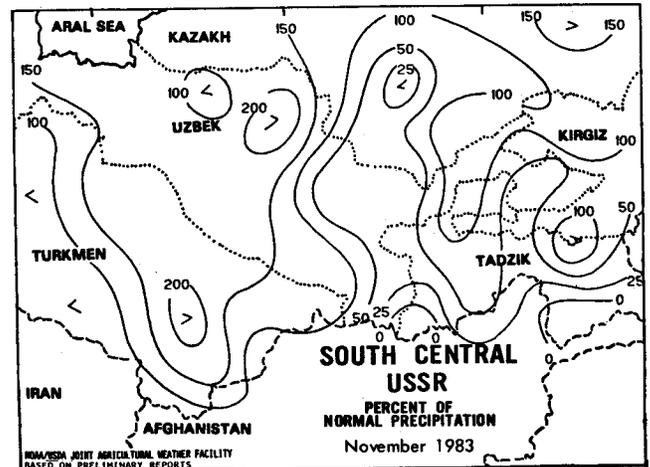
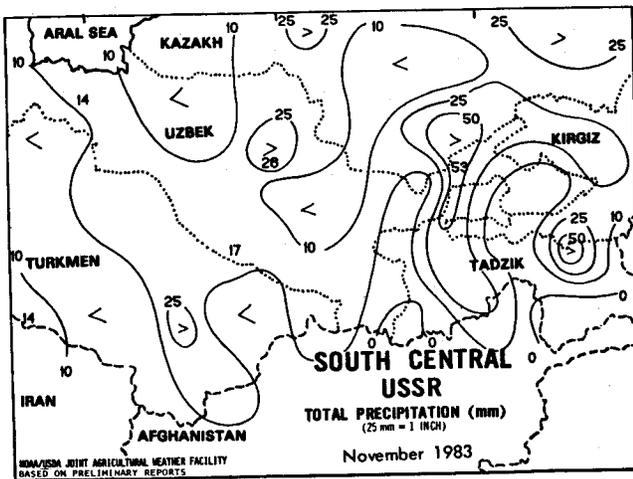
THESE 14 STATES PRODUCED 99% OF THE 1982 COTTON CROP.

International Weather and Crop Summary

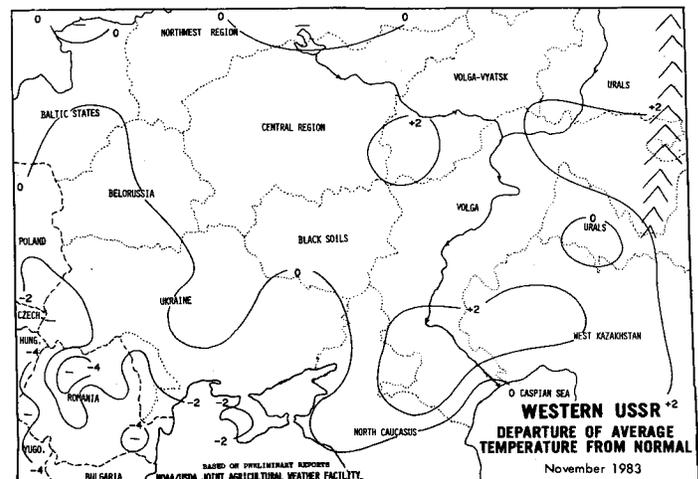
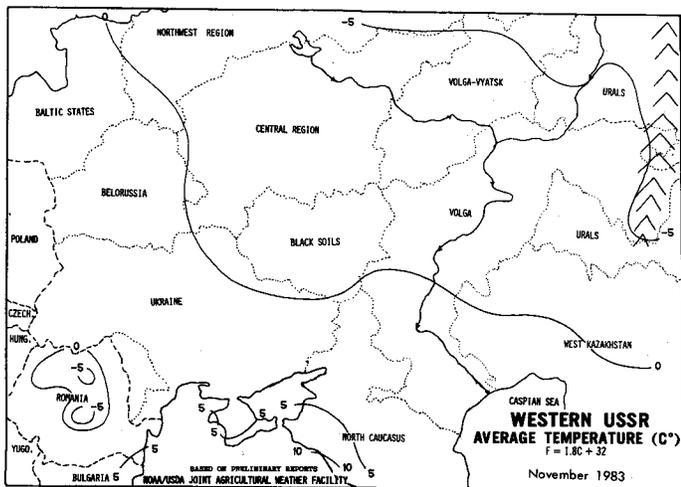
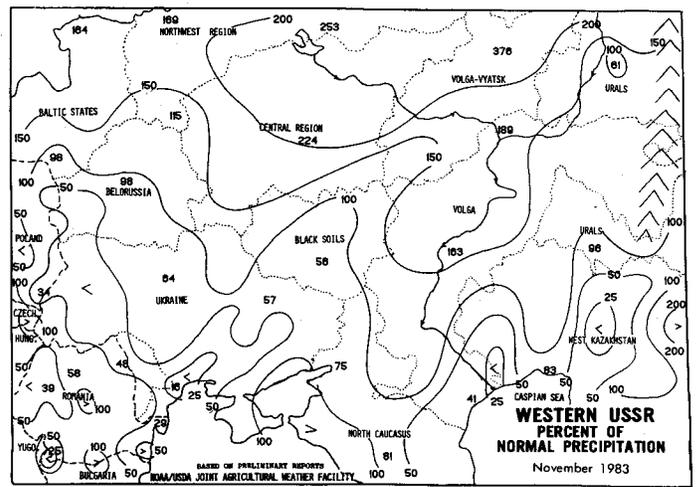
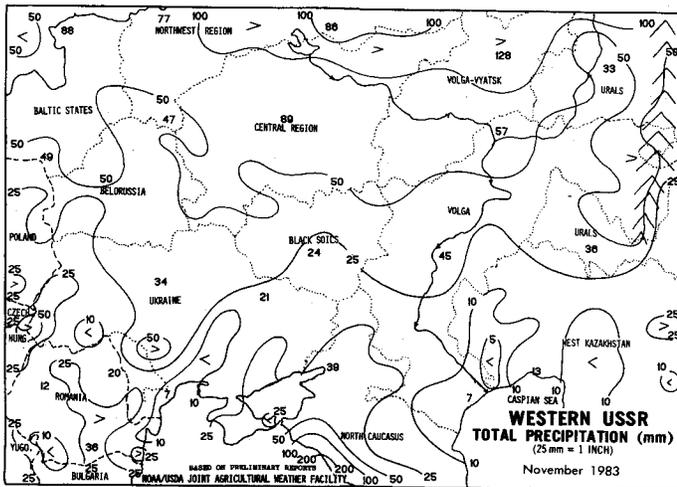
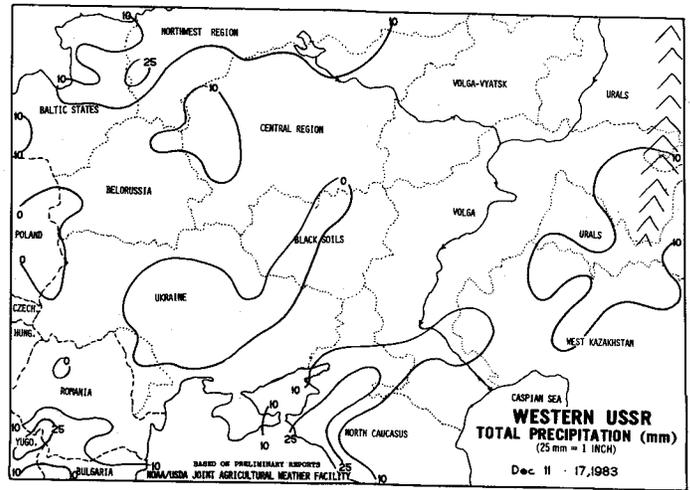
December 11 to 17



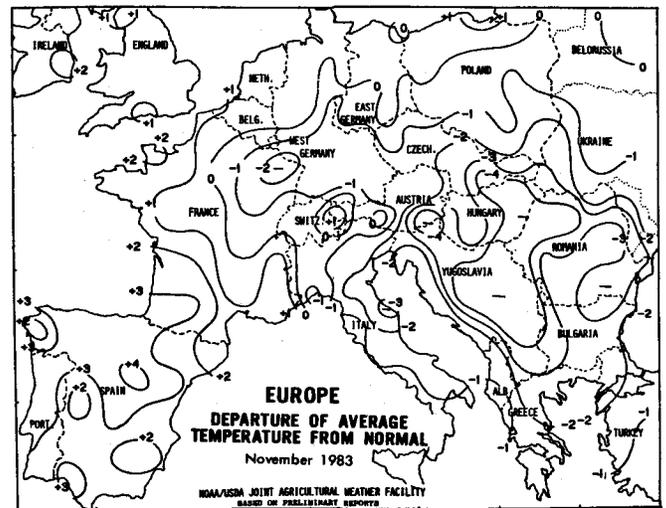
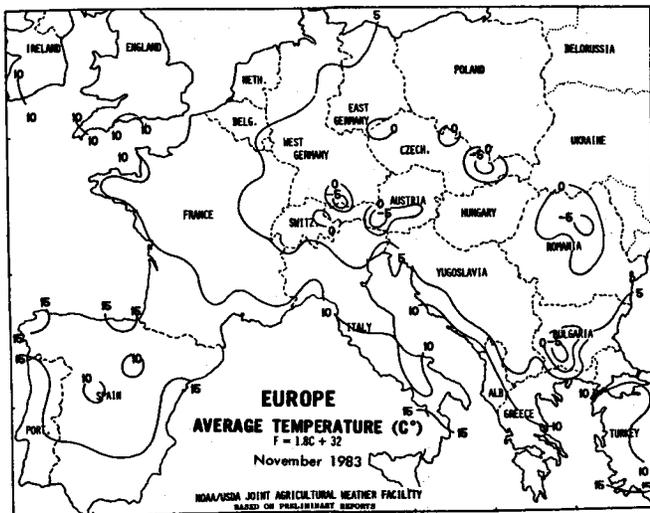
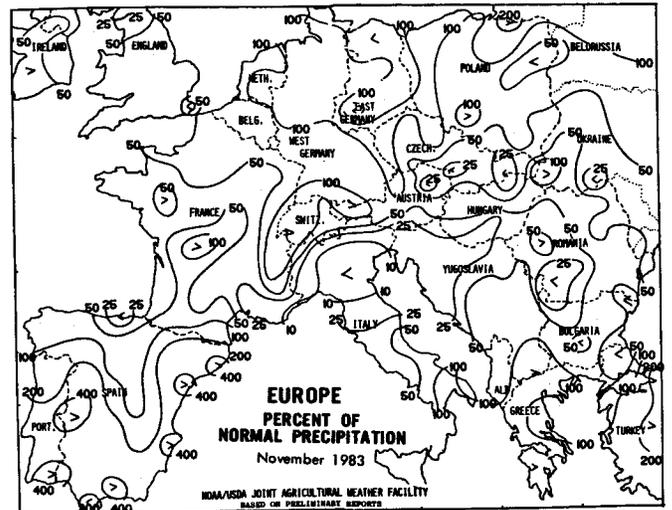
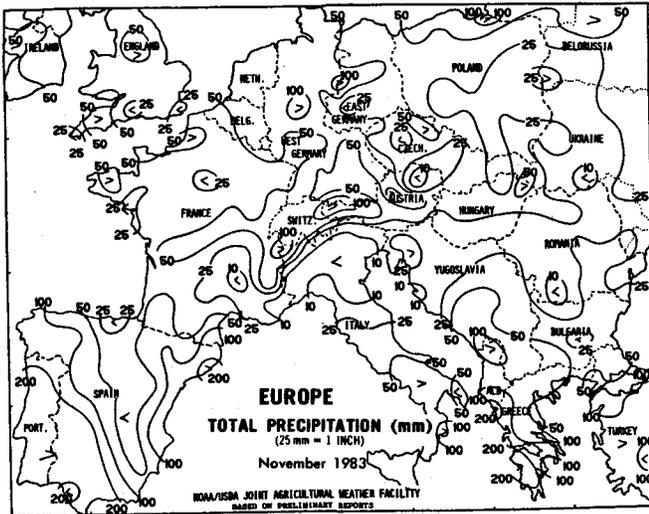
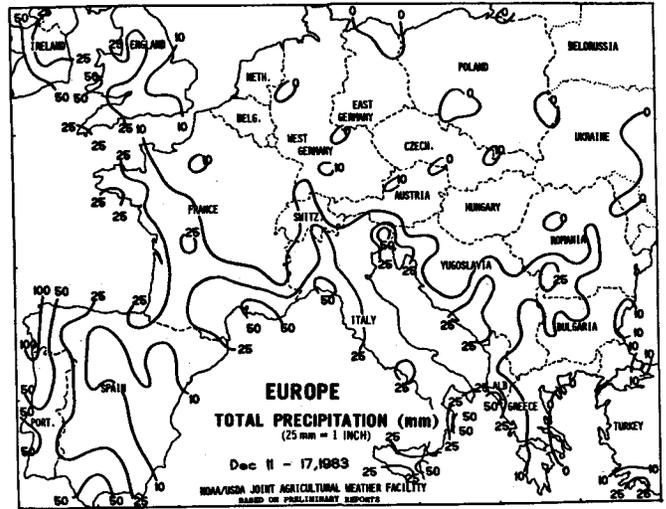
1. UNITED STATES ... Record bitter cold temperatures and strong winds continue over the Great Plains, stressing livestock and increasing feed requirements. Most winter wheat has some protective snow cover. Wetness over the eastern third of the Nation continues to delay field activities, while abundant sunshine in the Southwest favors harvesting.
2. WESTERN USSR ... Cold weather returns, and mostly dry weather continues to cover dormant winter wheat areas in the south.
3. EUROPE ... Showers maintain favorable moisture conditions for winter grain planting in the Iberian Peninsula. Light precipitation improves the low-moisture situation in parts of the southeast.
4. SOUTH ASIA ... Dry weather continues to benefit harvesting activities. Wheat is entering heading in the southern most areas.
5. EASTERN ASIA ... Precipitation is confined to central China but amounts are mostly light. Northern winter wheat is in the dormancy period.
6. AUSTRALIA ... Favorable harvest weather prevails throughout the wheat belt as the wheat harvest is in full swing. Summer crops in the east have adequate moisture for vegetative growth.
7. NORTHWESTERN AFRICA ... Soaking rains in winter grain areas of Morocco and western Algeria provide excellent planting moisture.
8. SOUTH AMERICA ... Beneficial showers bring some relief to Argentina's summer crops but additional rain is needed for corn, entering the reproductive phase, and for soybeans still to be planted after the wheat harvest. It is still too dry in western Rio Grande do Sul for soybean planting. The optimum soybean planting period is ending but planting is not complete. Hot, dry weather also stresses vegetative growth of soybeans in Parana.
9. MEXICO ... Sunny, dry weather allows harvesting and fieldwork.
10. SOUTH AFRICA ... Mostly dry weather in the west is unfavorable for corn which is approaching the reproductive stage. Showers in the east aid crop development.

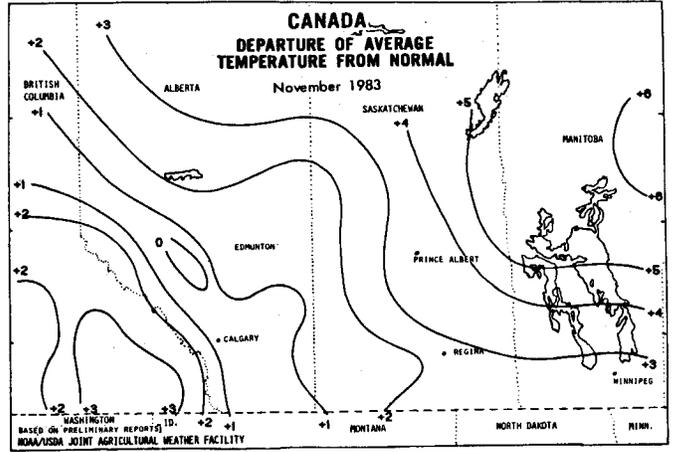
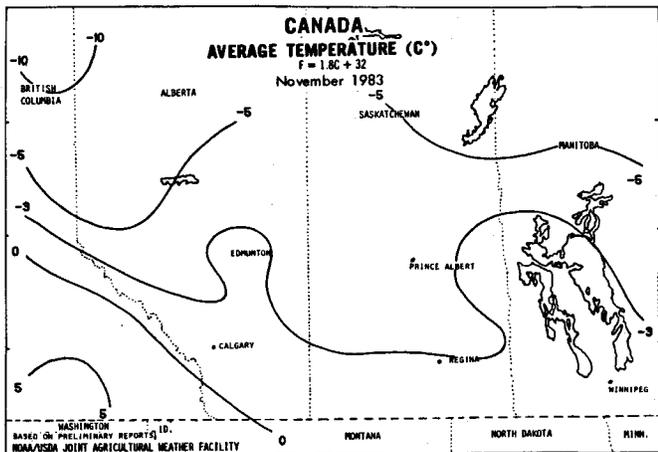
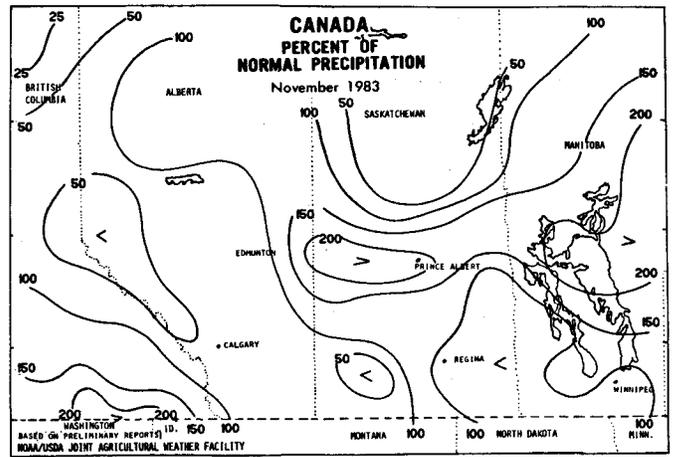
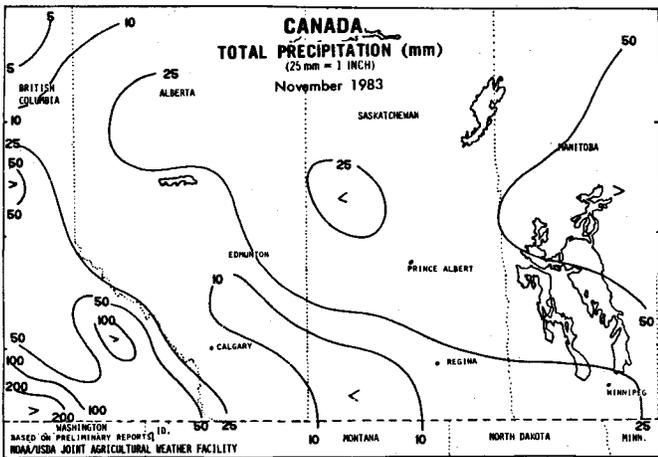
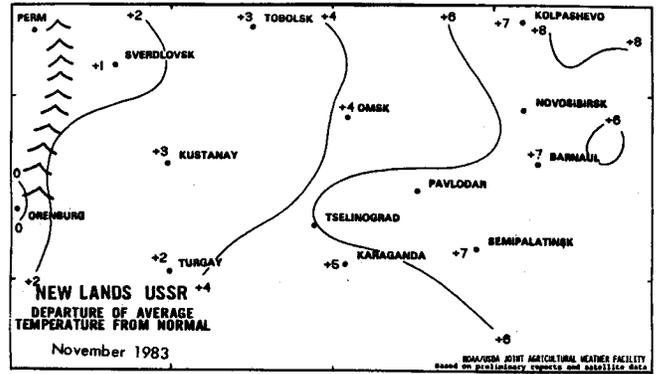
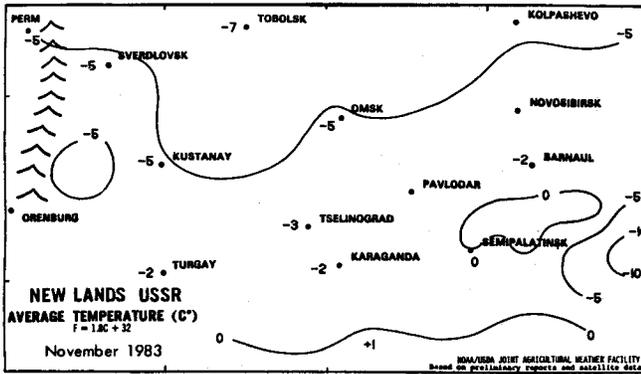
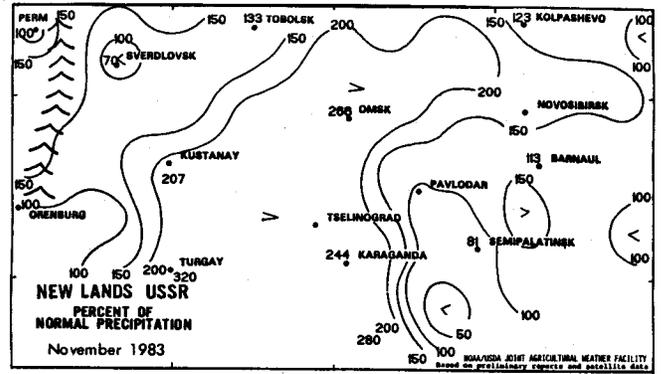
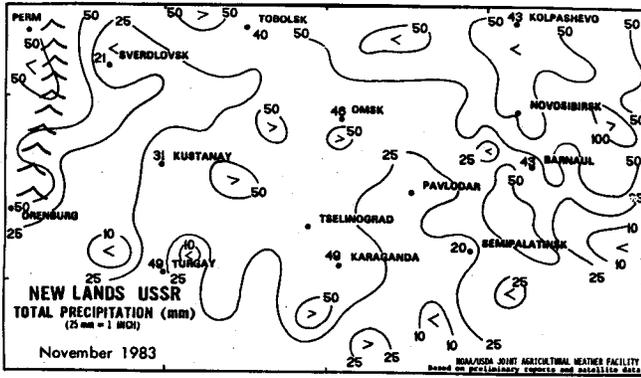


WESTERN USSR... Cold weather returned to the region and mostly dry weather continued to cover major winter wheat growing areas in the south. In November, unseasonably cold air pushed southward into southern wheat areas, reversing a warmer than normal temperature pattern. As a result, top growth was likely burned over a large area of the south, and most plants were forced into dormancy with minimal hardening, making the crop more susceptible to winterkill. In late November, warmer weather and rain improved the low-moisture situation across the south but snowcover was diminished. The return of unseasonably cold weather across the south this week continued the freeze-thaw conditions. In cotton growing areas of South-Central USSR, cold weather, accompanied by snow and freezing rain, likely delayed final harvest activity.

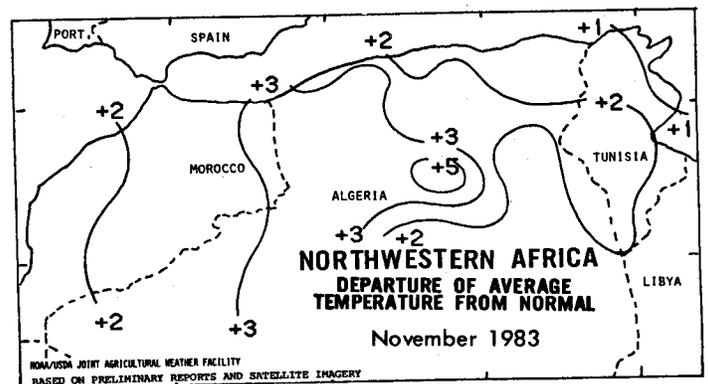
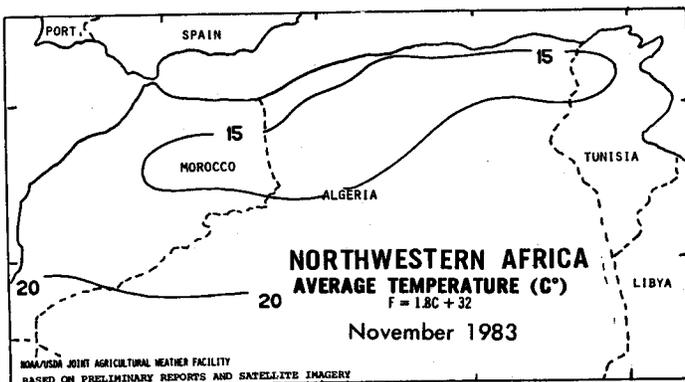
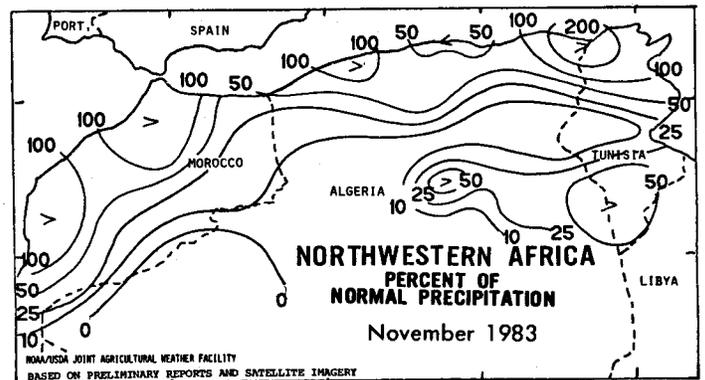
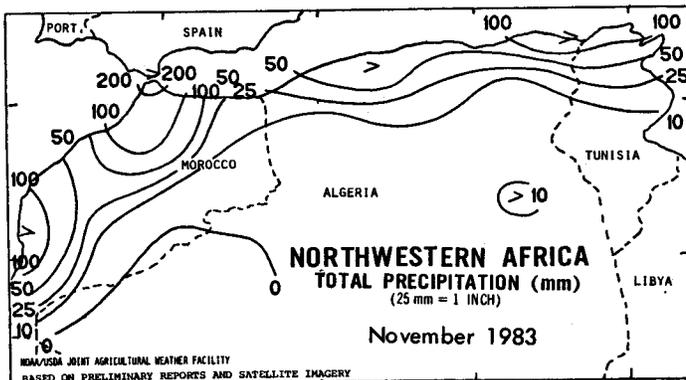
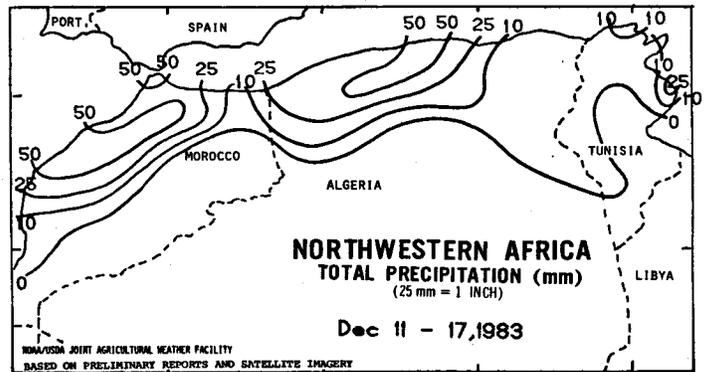


EUROPE...Showers returned to winter grain areas of the Iberian Peninsula, continuing November's above-normal rainfall pattern. Topsoil moisture is very good for winter grain planting in these areas; however, the recent cold weather in Spain will slow emergence and early plant growth. Light precipitation covered winter grains over much of northern Europe, continuing the generally favorable moisture pattern over the area. Crops in northwestern Europe eased into dormancy in good condition. In southeastern Europe and northern Italy unfavorable dryness, along with sharp cold snaps during November, caused minimal fall hardening, making the crop more susceptible to winterkill. Light precipitation fell on these areas this week, improving the low-moisture situation. Elsewhere, wet weather continued November's above-normal rainfall pattern in the eastern Mediterranean.

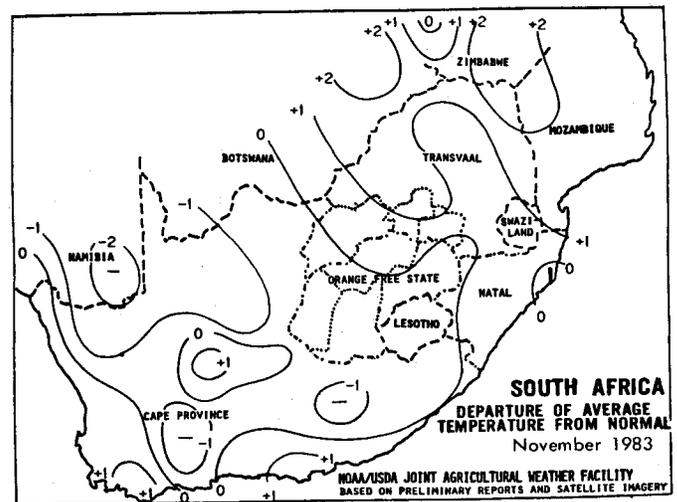
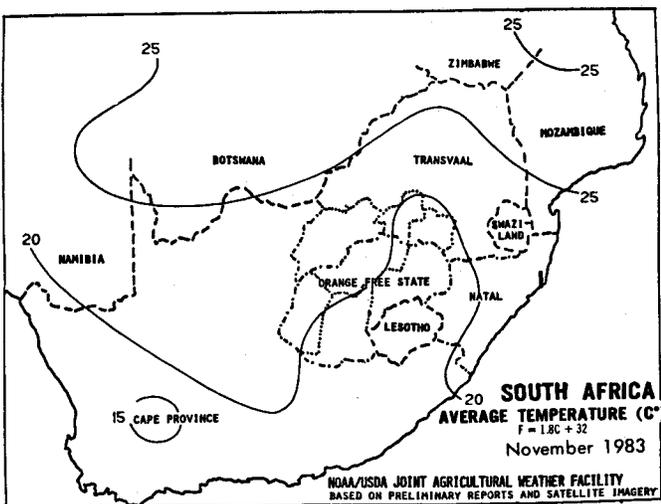
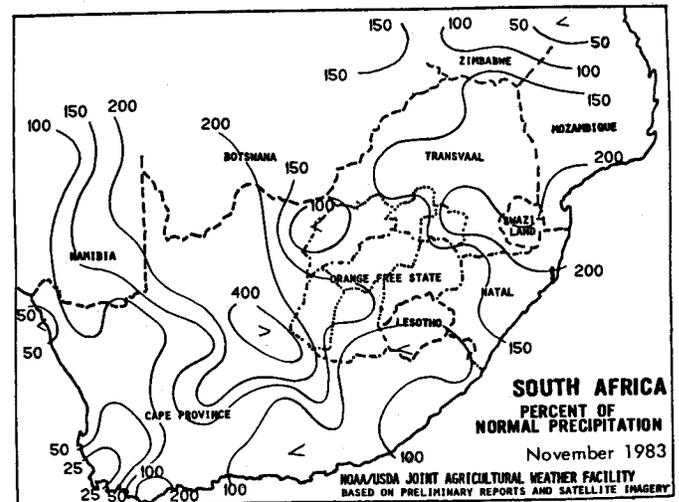
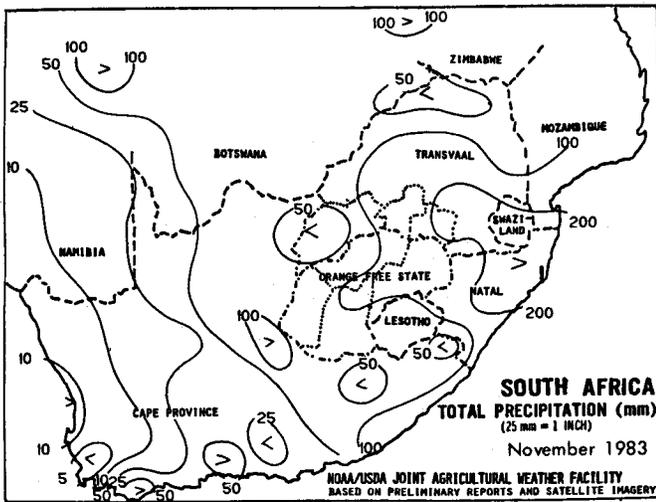
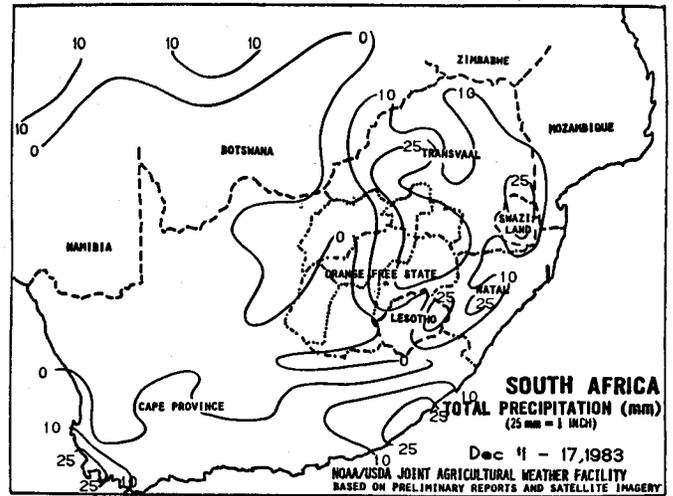




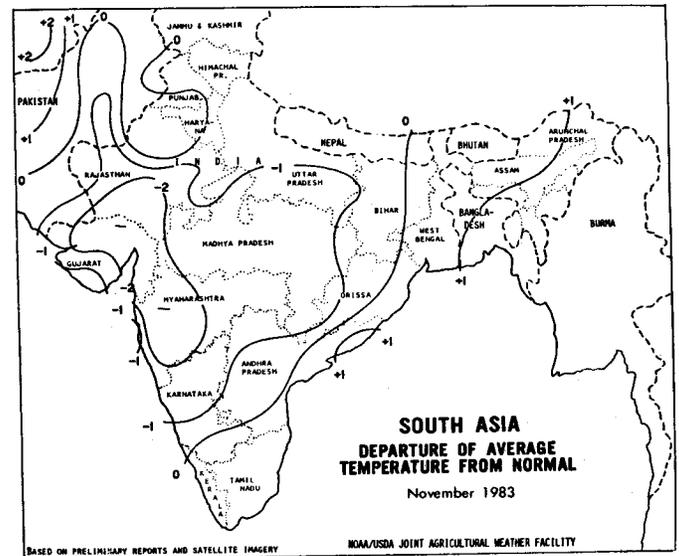
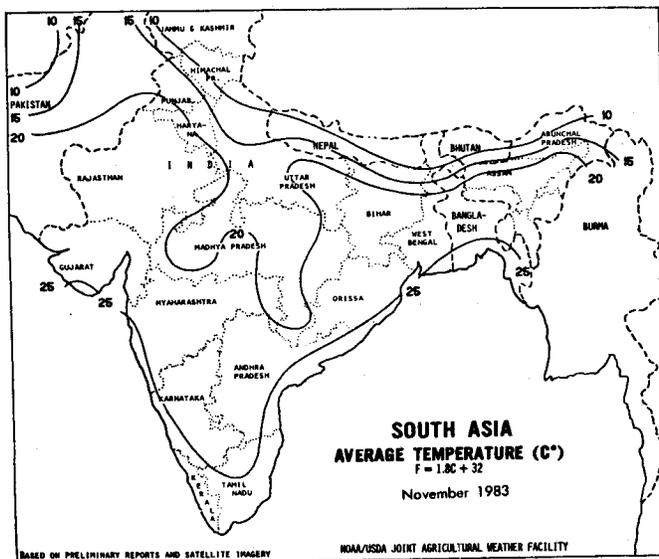
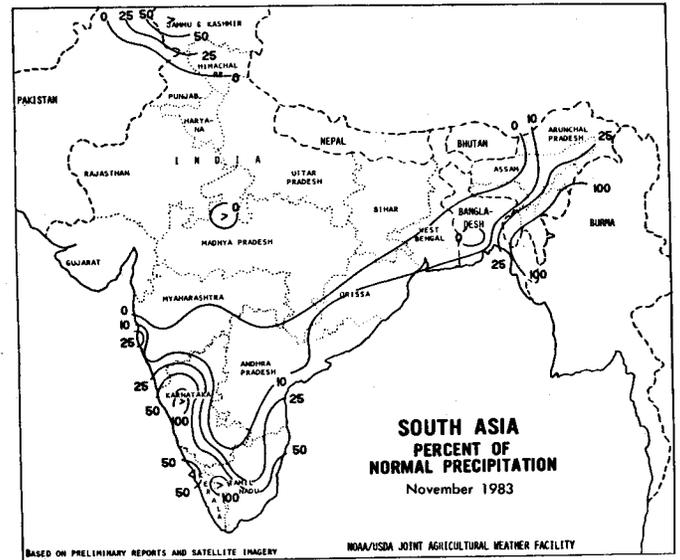
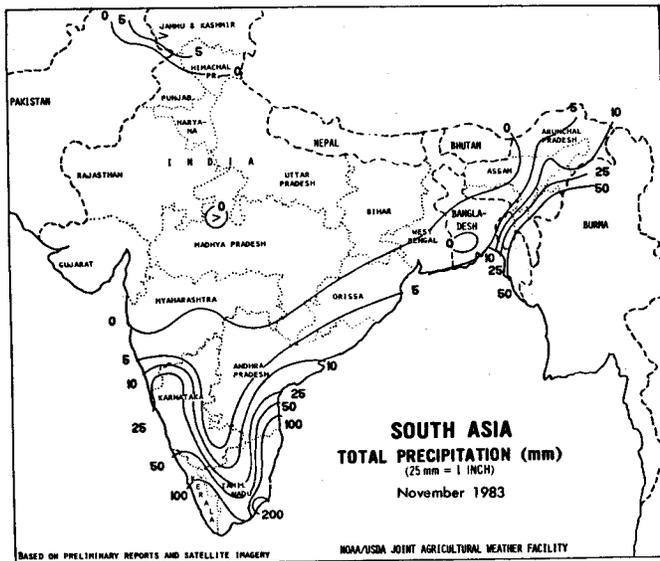
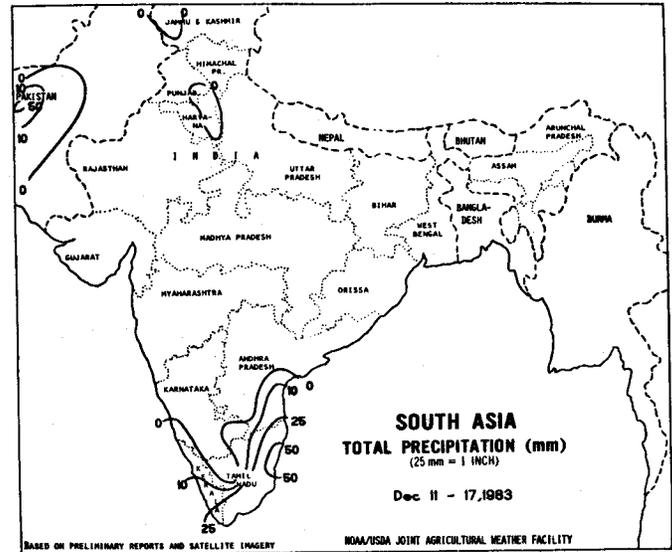
NORTHWESTERN AFRICA... Soaking rains covered winter grain areas in Morocco and northwestern Algeria, providing excellent topsoil moisture for seed emergence and early growth. Early in November, above-normal rains in these areas moistened topsoils, and the dry weather which followed allowed planting to progress with few delays. Persistent light showers during November in northeastern Algeria and northern Tunisia produced above-normal rainfall amounts, providing good planting moisture. Drier weather this week in these areas allowed planting to continue. At present, moisture conditions are good over most of the region and yield prospects remain favorable.



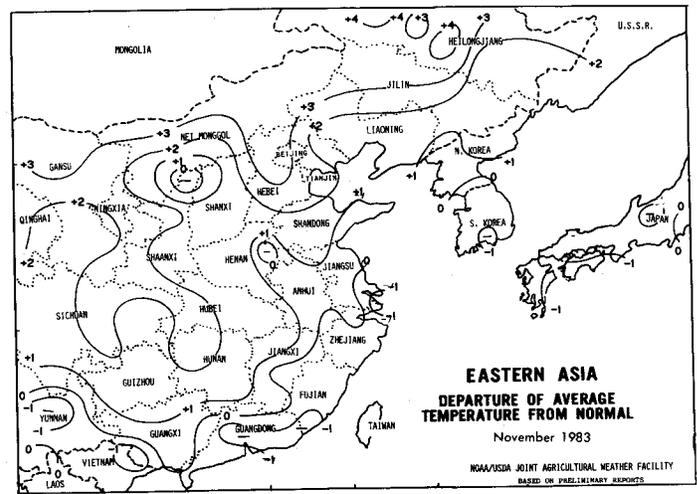
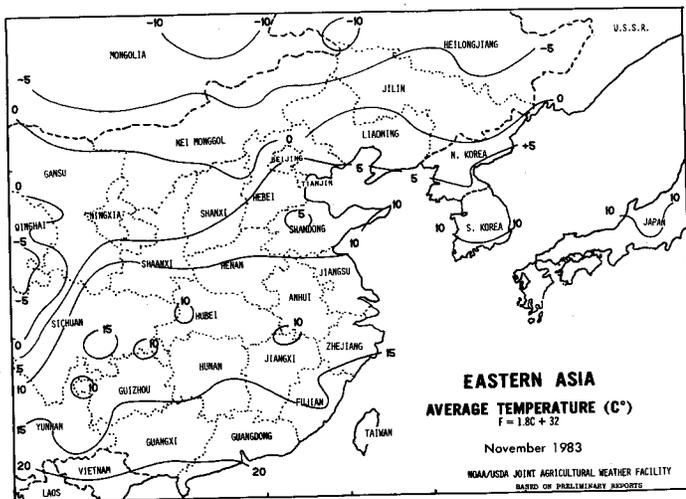
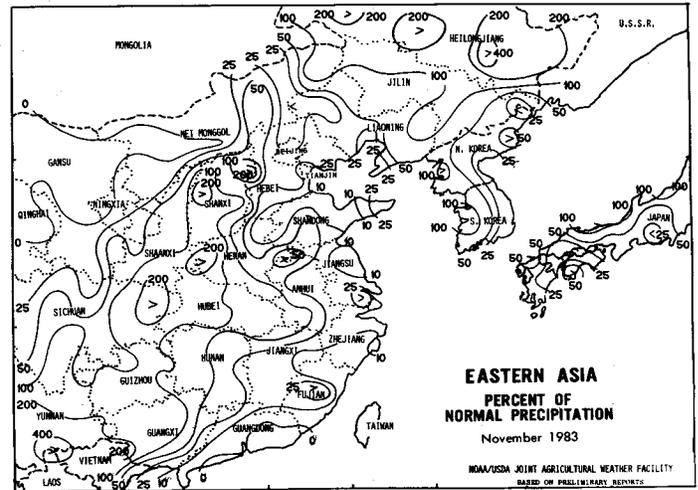
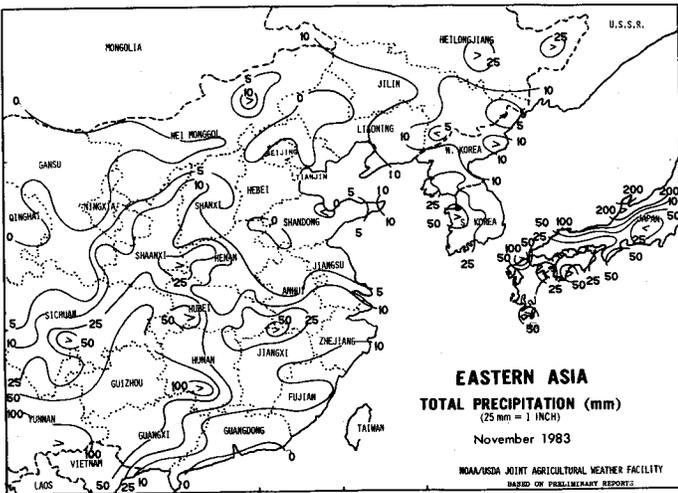
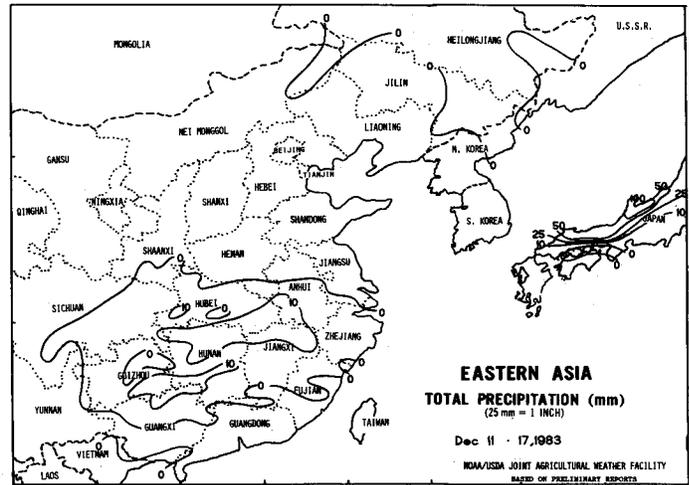
SOUTH AFRICA...Dry weather covered the western half of the Maize Triangle during the week, while substantial showers moistened soils in the northeast. Showers were more widely scattered and much lighter in the southeastern Maize Triangle. Moisture conditions remain favorable for corn growth in the east because of above-normal rain in November and timely showers in early December. The crop is now entering the reproductive phase of development. In the western Triangle, warm and dry weather has prevailed recently, following near to slightly above-average rainfall during November and the first week of December. Topsoils have likely become dry and more rain is needed in this climatically drier region. During November, temperatures were generally favorable for early vegetative growth of corn throughout the Maize Triangle.

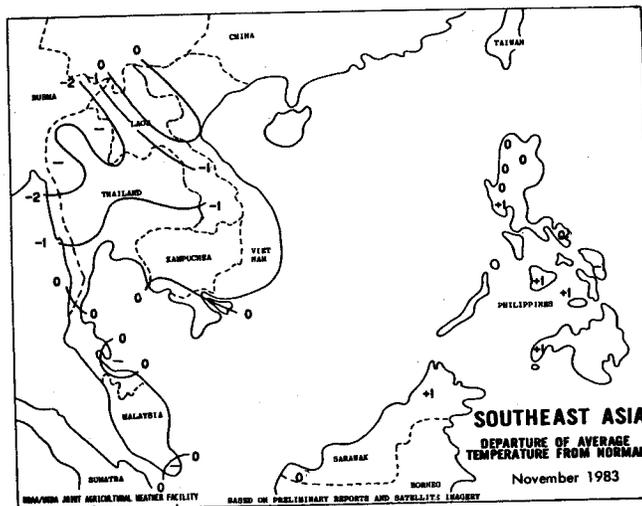
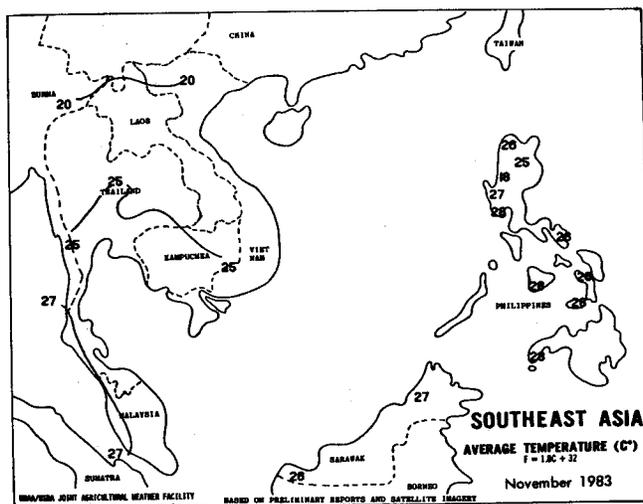
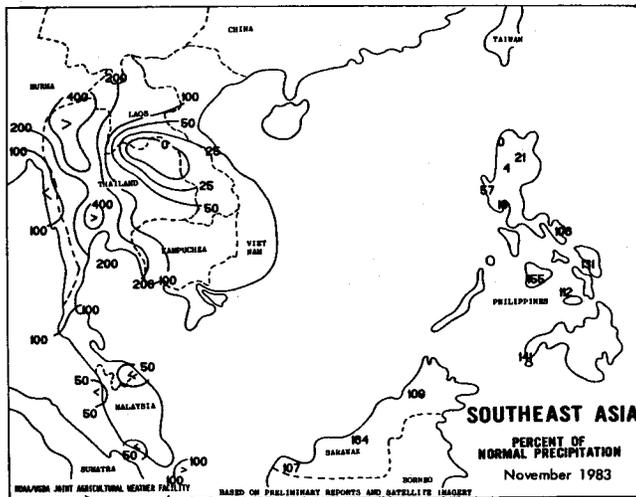
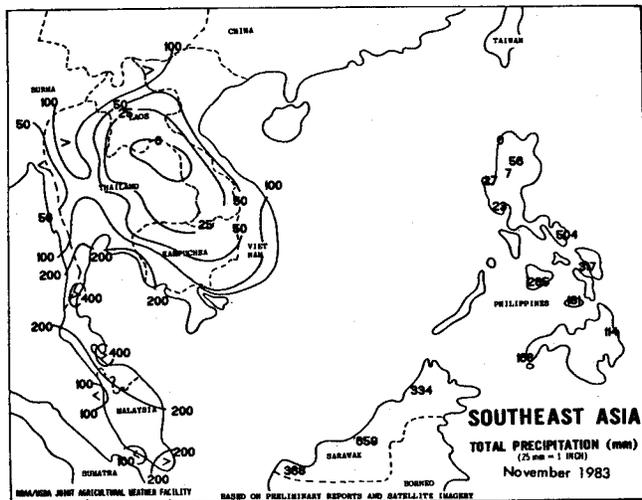


SOUTH ASIA...Seasonally dry conditions prevailed in most of India. During the week rainfall was confined to extreme southern peninsular India. The continuing dry weather, which began in November, has been very beneficial for harvesting of summer crops and winter rice. Slightly below-average November temperatures have somewhat slowed wheat development, but have also decreased the crop's moisture demand. Virtually no precipitation has fallen in the irrigated wheat region since mid-October. The crop is entering the moisture-critical heading stage in the south. Precipitation would be beneficial but irrigation will supply most of the crop's moisture needs.

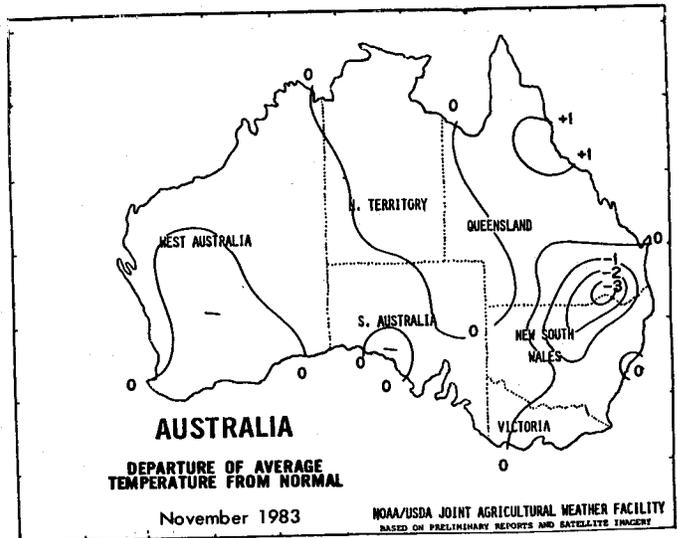
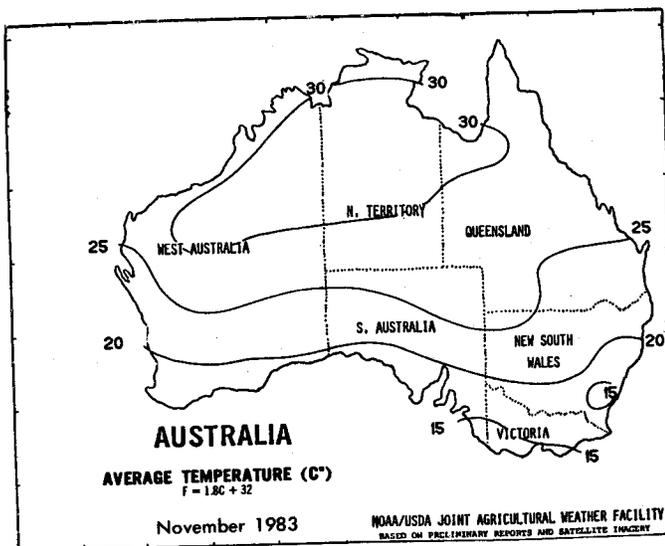
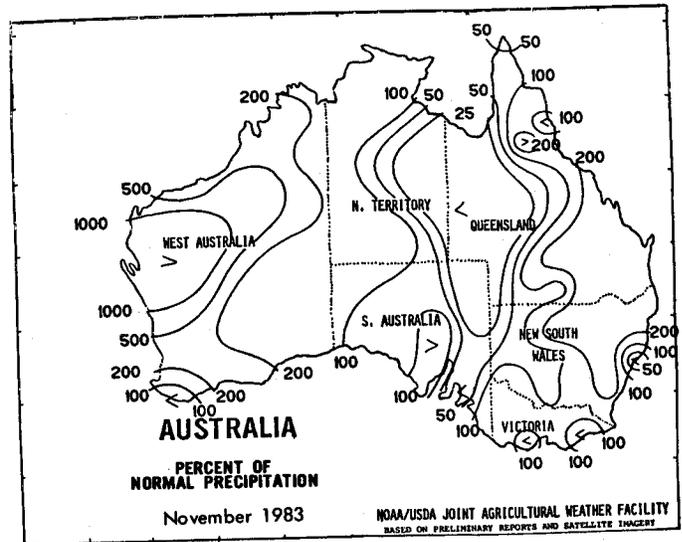
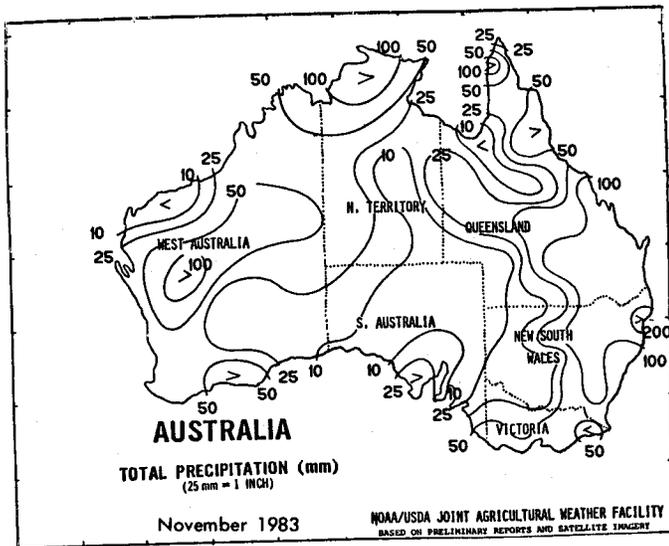
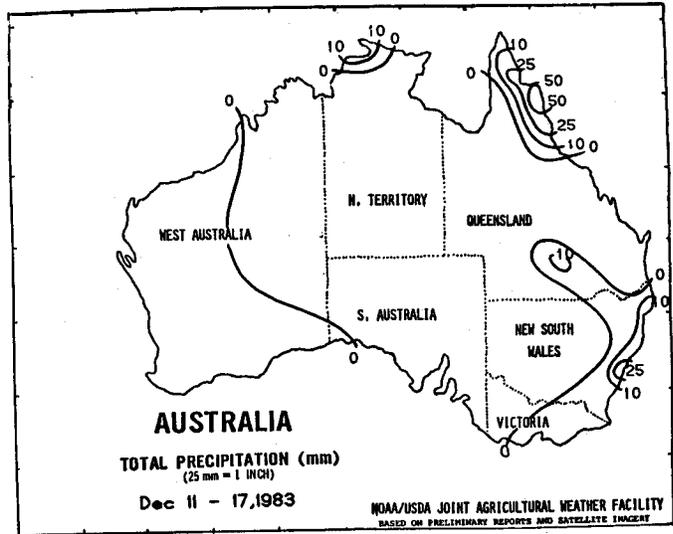


EASTERN ASIA... Most of China was dry this week, but generally light showers fell along the Yangtze Valley. In November, very little rain fell in the winter wheat areas, with the driest conditions found in the northeast section. Most of the crop is irrigated and soil moisture conditions are generally adequate. Above-normal temperatures during November and early December helped establish the wheat crop prior to the onset of cold, wintry weather. The northern wheat crop has entered dormancy, while growth of the southern crop is slowing. Generally favorable weather in the rice areas further south has allowed the late double-cropped rice to mature and to be harvested.

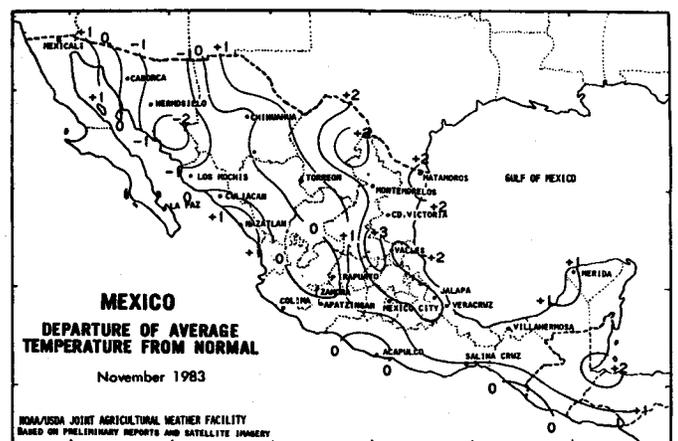
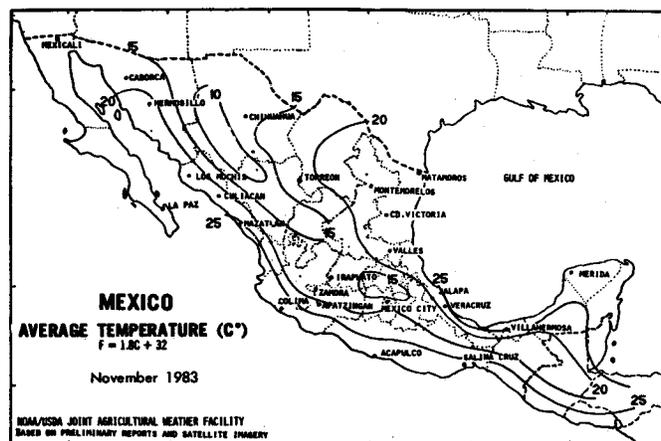
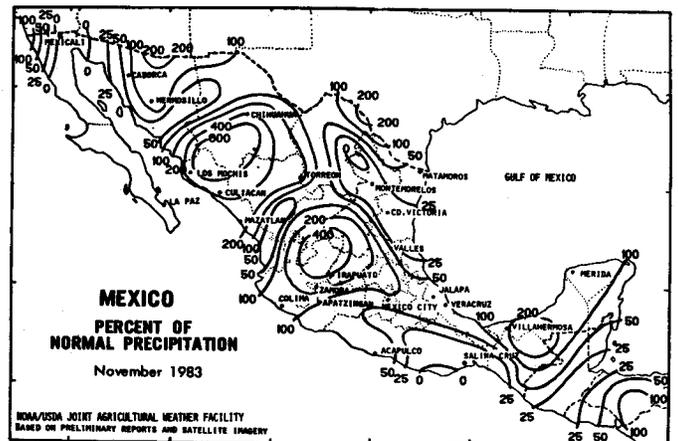
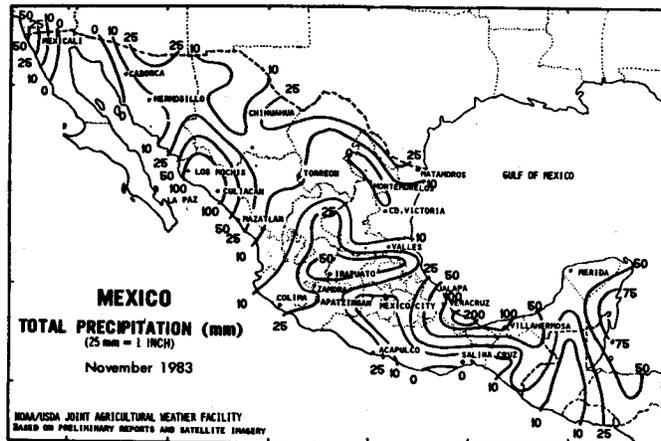




AUSTRALIA...Favorable harvest weather prevailed over most of the wheat belt as only scattered, light showers dotted the continent. Two consecutive weeks of dry weather over the wheat areas of Queensland and northern New South Wales allowed resumption of harvesting, following the persistent November rains which produced much above-average monthly totals in the area. The cool, wet weather lowered the quality of mature wheat. Elsewhere in the wheat belt, November rainfall was somewhat above average, except for a highly variable rainfall pattern in South Australia. The moisture generally benefited late grain filling throughout the south and west, as frequent periods of sunny skies aided grain maturation. Summer crop planting and early development were hampered by the earlier wetness in the east, but recent weather has improved growing conditions. Summer crops should generally be in the vegetative growth stage, while early planted crops are advancing into the reproductive phase.



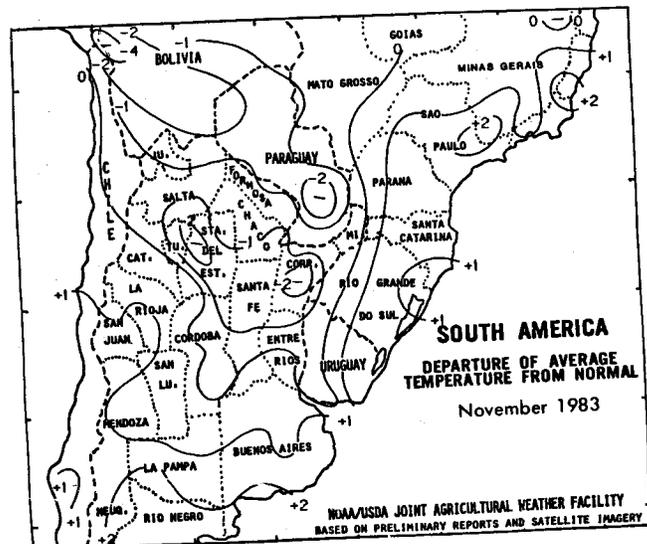
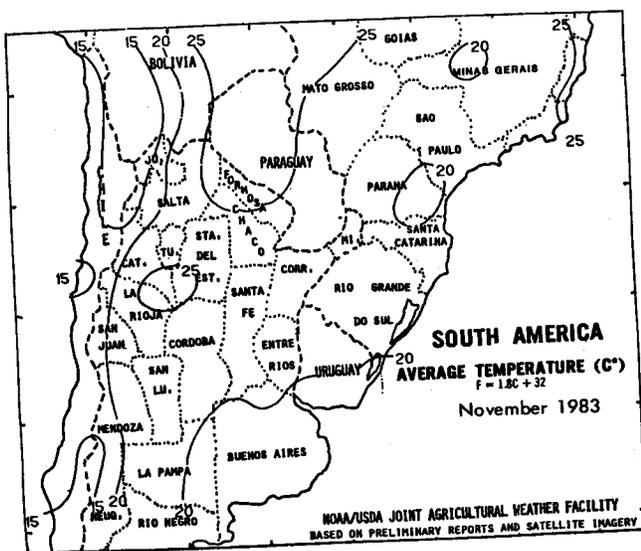
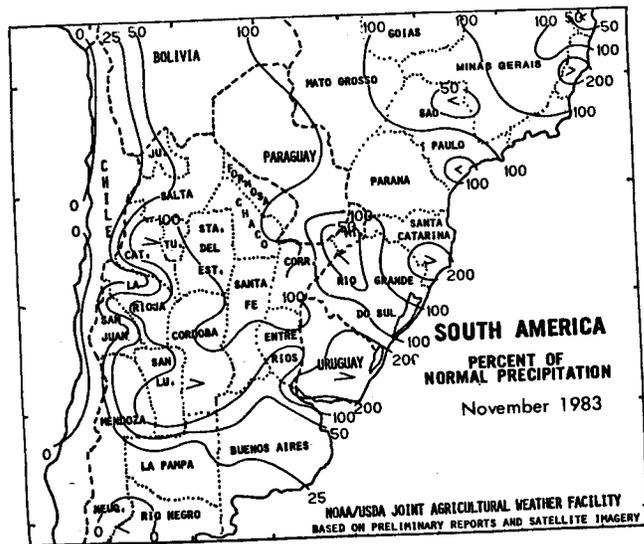
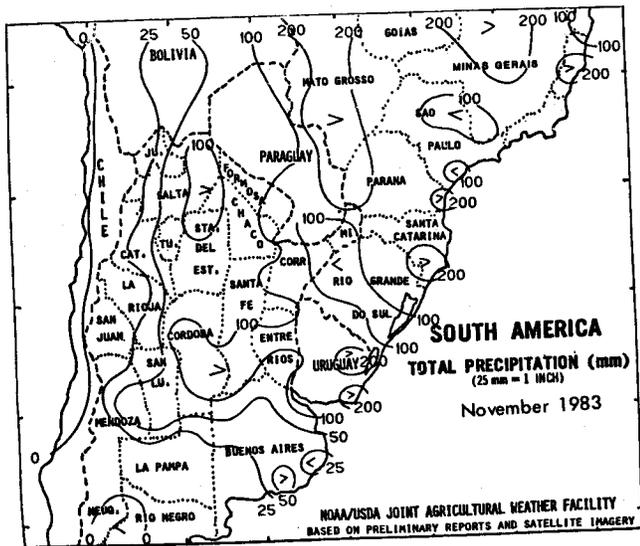
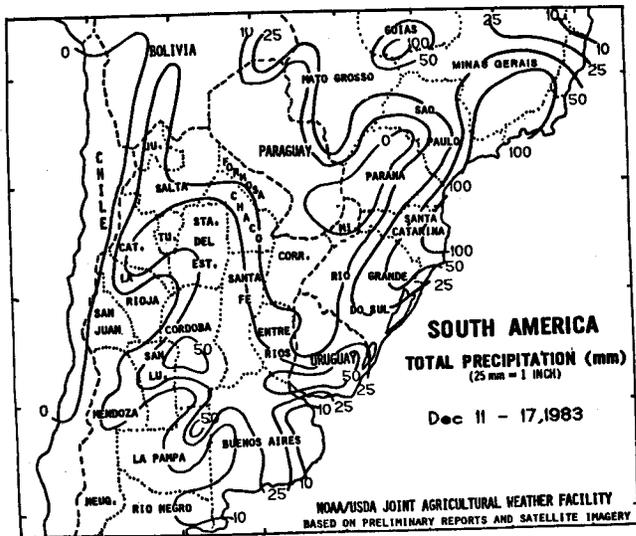
MEXICO...Sunny, mild weather prevailed over most of the country and favored harvesting and other field activities. A few light rains dotted the State of Veracruz. In November rains caused some interference to harvesting along parts of the west coast and in the southern Plateau corn belt. Unusually dry weather continued across the northeastern citrus and sugarcane districts, along the southern coast, and through northern sections of Central America.



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SOUTH AMERICA...Substantial rain (25-50 mm) covered much of Argentina's major summer crop area, bringing some relief to crops stressed by the recent hot, dry spell. Above-average November rains aided summer crop planting in Cordoba and southern Santa Fe, but below-average monthly rainfall in Buenos Aires and La Pampa hurt late grain filling of wheat. Temperature extremes during November also stressed wheat. Cotton areas of Chaco and Formosa, which had been drying since mid-November, received some rain recently. Corn is rapidly advancing into the reproductive stage. Second-crop soybeans need to be planted after wheat harvesting, thus, more rain is needed. In Brazil, light rain fell over stressed soybeans in western Rio Grande do Sul and Parana, but amounts were mostly insufficient to benefit plant growth or to finish soybean planting. The optimum planting period ends by mid-December but the dryness, which began in November in the south, has delayed planting of up to 25 percent of the crop in localized areas of Rio Grande do Sul. Crop conditions will deteriorate rapidly unless substantial rains come very soon.



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**WEEKLY NEWS BULLETIN
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National Weather Summary (continued from front cover)

FRIDAY...Subzero temperatures in the teens and twenties covered the northern Plains and part of the central Plains, while freezing weather pushed deep into the South and almost to the east coast. Unseasonable snow fell from northeastern Texas and southern Arkansas to northern Alabama. Rainshowers fell from southeastern Texas to Florida. Light snow fell from the northern Rockies to New York. Rain fell in northern California and western Oregon.

SATURDAY...Bitter cold weather continued through the Plains with single-digit temperatures reaching to western Kansas and teens and twenties into the Texas Panhandle and Oklahoma. More snow fell in western Texas and remained on the ground in the northern Panhandle. Light to moderate snow accumulated in the central Plains and lighter amounts fell eastward through the lower Great Lakes States and into the Northeast.

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