

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

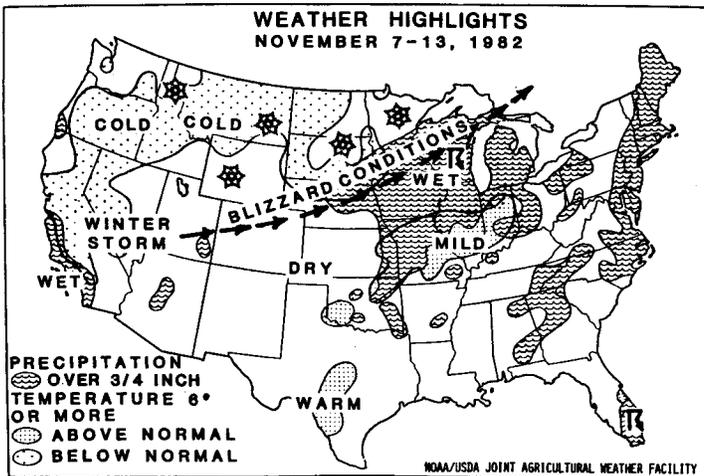
Volume 69, No. 46

WASHINGTON, D.C.

Nov. 16, 1982

National Weather Summary

November 7 to 13



TUESDAY . . .A complex winterlike storm system spread wet, cold weather from California into the northern Plains. Heavy snow covered parts of the Sierras, higher elevations of the Plateau and the northern Rockies, while heavy rain drenched California's south coast. Rain and snow extended into the Great Lakes ahead of a warm front. Fair weather associated with high-pressure dominated the East and South. Unseasonable warmth spread from the southern into the central Plains under brisk southerly winds.

WEDNESDAY . . .Precipitation covered most of the Nation, due to the winter storm in the Southwest and a frontal system extending eastward into the mid-Mississippi Valley. The heaviest rains fell over eastern portions of the central Plains, but even the light rains further west benefited the excessively dry wheatlands. Unseasonal warmth continued in the southern Plains as afternoon readings were in the mideighties in south Texas.

THURSDAY . . .The winter storm finally moved north-eastward into the central Rockies and intensified. It brought severe thunderstorms, snow, and very strong winds into the Central United States. Strong thunderstorms developed in the warm, moist air ahead of the storm center, while blizzard conditions covered the area to its north. Arctic air with temperatures in the teens and twenties rushed southward into the northern Plains, while afternoon highs climbed into the mid to upper eighties over south Texas. Fair, mild weather covered most of the East, the South, and the west coast.

FRIDAY . . .The storm intensified and raced across the Great Lakes, producing severe weather over a large area. Heavy rains and high winds battered the area to the east of the storm, while moderate to heavy snow and blizzard conditions dominated the northwestern Great Lakes region. Very cold air pushed through the Plains behind

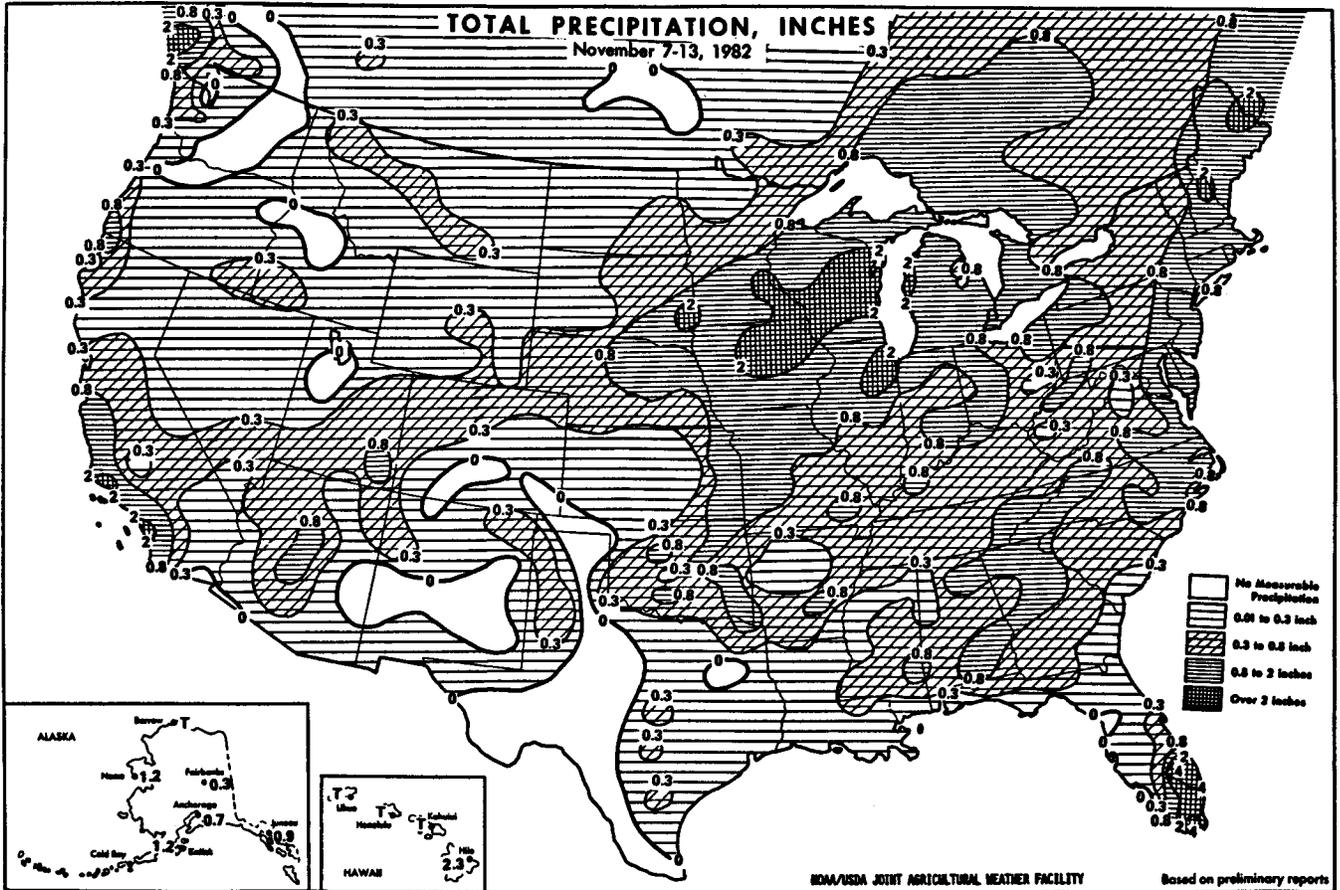
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HIGHLIGHTS: A winter storm, developing slowly over the Southwest, accelerated and intensified through the central Rockies and across the Great Lakes. It dumped heavy precipitation over California's south coast and most of the eastern Great Plains, Corn Belt, and Southeast. Blizzard conditions developed after the storm crossed the central Rockies and continued to the western Great Lakes. The storm, in combination with a large high-pressure, fair-weather system over the East, caused temperatures to average unseasonably cold over the Northwestern third of the Nation and relatively mild to warm over the southern Plains into the Ohio Valley.

SUNDAY . . .Fair weather remained over the Southeastern third of the Nation under a cool, large high-pressure system. Parts of the mid-Atlantic region reported record-low temperatures. A storm off the Pacific Northwest triggered rain from central California into western Washington. Light snow dotted the northern Rockies, while a cold front from the northern Rockies to the Plateau ushered in another round of arctic air.

MONDAY . . .A potential winter storm system began developing over the Southwest, generating precipitation over the Western third of the Nation. Snow fell at some higher elevations. Frigid air pushed across the northern and central Plains behind a rainy cold front. Fair weather remained over the Southeast but with a morning chill in the mid-Atlantic States. Southerly breezes brought unseasonal warmth into the southern Plains, and afternoon highs climbed into the eighties across south Texas.

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STREAMFLOW DURING OCTOBER
U.S. Geological Survey

Streamflow throughout most of the Nation remained normal to above normal during October for the fifth straight month, according to the U. S. Geological Survey (USGS), U. S. Department of the Interior.

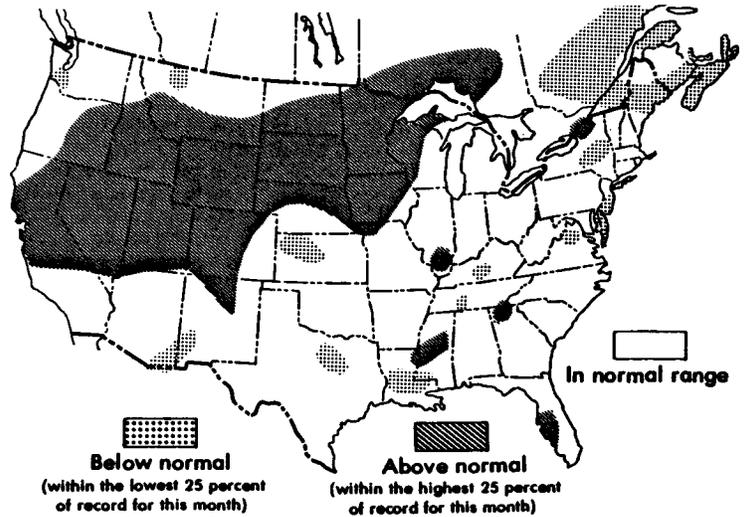
Eighty-six percent of the 188 key index gaging stations across the country reported normal to well-above-normal flows during October, with 10 stations in the West and Midwest reporting record highs.

Combined flow of the Nation's "Big Five" rivers--Mississippi, St. Lawrence, Columbia, Missouri, and Ohio--averaged 508 billion gallons a day (bgd) during the month, 7 percent above normal. Only the Ohio River was running below normal for this time of year, averaging about 17 bgd, 27 percent below normal.

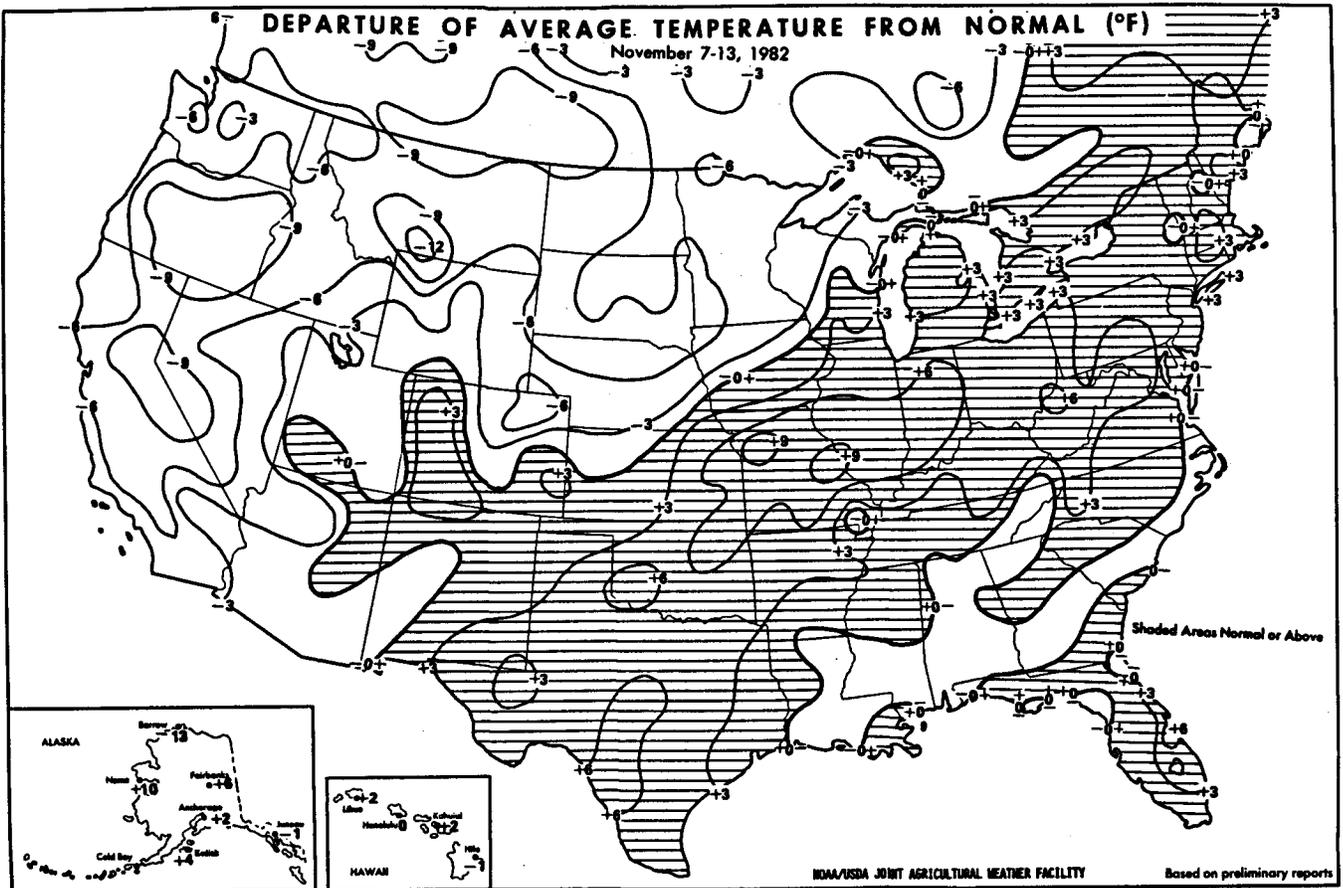
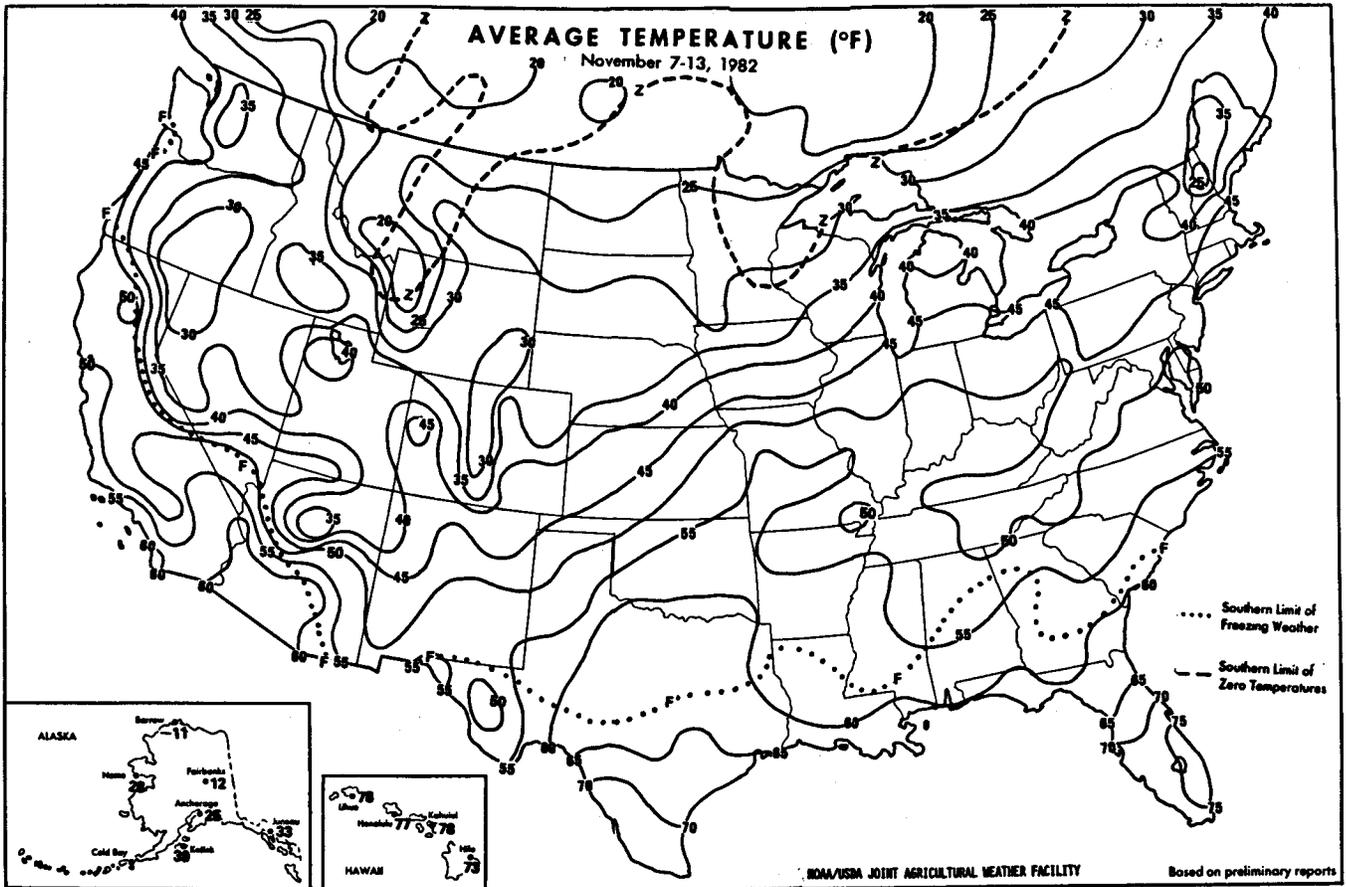
The "Big Five" rivers, which together drain more than one-half of the conterminous United States, provide a quick, useful check on the status of the Nation's water resources.

Two of the five key index gaging stations in Iowa set records during October. Flow of the Des Moines River at Fort Dodge, Iowa, averaged 2.8 bgd, more than 12 times the normal flow for this time of year, and the highest October average flow in 51 years of record.

Several States reported small scattered pockets of low flow, including Maine, New York, Kansas, and Louisiana. Streamflow in New York was especially varied. Flow of the West Branch Oswegatchie River near Harrisville, N.Y., averaged 310 million gallons a day (mgd), 114 percent above normal. However, flow of the Susquehanna River at Conklin, N.Y., averaged only 140 mgd, 77 percent below normal and the second lowest October average in 71 years of record.



USGS, working in cooperation with Federal, State, and local agencies across the country, compiled the following October averages for the "Big Five." Mississippi River near Vicksburg, Miss., 211 bgd, 12 percent above normal but 23 percent below that of September; St. Lawrence River near Massena, N.Y., 172 bgd, 5 percent above normal but 2 percent below that of September; Columbia River at The Dalles, Ore., 5 percent above normal, but 21 percent below September's flow; Missouri River at Hermann, Mo., 47 bgd, 21 percent above normal but 33 percent below that of September; and the Ohio River at Louisville, Ky., 17 bgd, 27 percent below normal and 22 percent below September's flow.



Weather Data for the Week Ending Nov. 13, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Aug. 29	PCT. NORMAL SINCE Aug. 29	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
AL BIRMINGHAM	68	39	75	31	53	-1	.7	-.1	.7	5.0	54	55.0	124	84	32	0	2	1	1
MOBILE	71	44	77	36	58	-2	.1	-.6	.1	8.2	65	64.4	113	85	45	0	0	0	0
MONTGOMERY	73	40	80	35	57	0	.7	-.1	.7	6.1	66	51.5	125	84	33	0	0	1	1
AK ANCHORAGE	31	18	40	7	25	2	.7	.5	.7	10.0	182	16.9	128	98	72	0	7	2	1
BARROW	-8	-15	3	-23	-11	-13	T	-.1	T	1.3	65	4.6	96	82	69	0	7	0	0
FAIRBANKS	21	2	35	-11	12	6	.3	.2	.2	3.6	144	11.9	117	85	56	0	7	3	0
JUNEAU	37	29	40	22	33	-1	.9	-.4	.8	14.5	67	41.1	89	98	75	0	6	3	1
KODIAK	45	33	49	23	39	4	1.2	-.1	.9	14.3	79	49.9	105	83	51	0	3	4	1
NOME	31	25	37	13	28	10	1.2	1.0	.5	7.3	135	17.1	113	87	71	0	5	7	1
AZ PHOENIX	70	52	81	44	61	0	.9	.8	.6	1.0	67	6.7	118	80	31	0	0	3	1
PRESCOTT	55	36	66	27	46	-2	.7	.5	.4	1.4	41	11.5	74	73	26	0	2	4	0
TUCSON	69	46	79	34	58	-3	.2	.1	.2	2.4	89	11.1	116	75	25	0	0	2	0
YUMA	70	51	78	42	61	-4	T	0	T	.1	10	2.9	126	53	25	0	0	0	0
AR FORT SMITH	68	43	76	20	55	3	.3	.3	.3	5.6	54	37.7	102	86	41	0	1	2	0
LITTLE ROCK	67	43	76	25	55	2	.2	-.4	.2	5.4	55	46.0	116	73	47	0	2	2	0
CA BAKERSFIELD	59	42	64	35	50	-8	.2	0	.2	1.9	317	6.7	156	97	64	0	0	2	0
EUREKA	58	39	60	36	49	-4	.3	-1.0	.1	5.6	78	30.2	106	89	55	0	0	3	0
FRESNO	56	41	62	36	49	-6	.5	.2	.4	3.2	246	11.8	159	96	65	0	0	2	0
LOS ANGELES	65	51	73	44	58	-3	1.8	1.4	1.0	2.8	255	11.4	133	79	42	0	0	2	2
RED BLUFF	59	41	65	36	50	-5	.1	-.5	.1	3.6	129	16.4	104	89	42	0	0	2	0
SACRAMENTO	52	38	61	34	45	-10	.5	0	.2	4.3	187	22.4	164	95	68	0	0	3	0
SAN DIEGO	67	53	71	47	60	-2	1.2	1.0	.8	1.7	213	10.7	167	81	48	0	0	3	1
SAN FRANCISCO	56	43	58	38	49	-7	.5	0	.3	3.3	165	25.9	198	81	60	0	0	4	0
CO DENVER	43	25	54	21	34	-7	.3	.1	.3	3.3	97	12.0	87	91	55	0	7	3	0
GRAND JUNCTION	54	36	63	28	45	3	.3	.2	.2	3.8	136	7.8	105	90	40	0	2	3	0
PUEBLO	58	25	67	14	42	-1	T	-.1	T	2.1	91	14.8	132	91	33	0	6	0	0
CT BRIDGEPORT	57	40	63	32	49	0	1.2	.3	1.2	4.2	48	39.8	122	79	49	0	1	1	1
HARTFORD	62	34	77	25	48	4	1.8	.8	1.6	8.2	80	46.1	129	75	40	0	3	2	1
DC WASHINGTON	64	42	73	32	53	2	.8	.2	.4	4.8	56	32.4	96	80	41	0	1	2	0
FL APALACHICOLA	72	51	77	43	62	-1	T	-.6	T	23.9	151	65.9	128	84	46	0	0	1	0
DAYTONA BEACH	76	63	80	58	69	3	.1	-.5	.1	8.1	46	46.0	99	93	53	0	0	1	0
JACKSONVILLE	73	50	81	43	62	-1	.2	-.3	.1	13.7	82	47.9	95	97	34	0	0	2	0
KEY WEST	79	71	81	69	75	-1	T	-.7	T	9.5	53	35.9	98	85	64	0	0	1	0
MIAMI	80	70	84	66	75	2	3.1	2.4	2.5	20.6	87	63.9	113	91	60	0	0	5	1
ORLANDO	80	59	83	50	69	2	.1	-.3	.1	8.3	55	50.6	105	96	49	0	0	1	0
TALLAHASSEE	75	45	80	36	60	-1	.2	-.4	.1	9.9	76	55.9	102	92	41	0	0	2	0
TAMPA	79	61	82	53	70	2	T	-.4	T	14.3	120	55.0	121	96	53	0	0	1	0
WEST PALM BEACH	82	72	83	66	77	5	4.9	4.2	4.5	23.0	90	76.3	131	77	57	0	0	5	1
GA ATLANTA	66	41	72	36	54	0	.5	-.3	.5	9.9	114	48.0	116	73	38	0	0	1	1
AUGUSTA	71	37	79	29	54	-1	.6	-.1	.6	7.4	94	35.7	95	91	35	0	4	1	1
MACON	72	39	79	32	56	-1	.4	-.1	.4	5.6	70	39.6	105	97	39	0	1	1	0
SAVANNAH	73	46	79	33	59	1	.1	-.3	.1	4.9	43	48.3	104	83	38	0	0	1	0
HI HILO	80	67	82	65	73	-1	2.3	-.8	.7	24.3	82	161.8	151	89	60	0	0	7	1
HONOLULU	83	70	85	68	77	0	T	-.6	T	7.0	184	29.7	177	83	52	0	0	1	0
KAHULUI	86	70	89	66	78	2	.2	-.4	.2	3.2	123	26.3	193	77	45	0	0	1	0
LIHUE	83	73	84	70	78	2	T	-1.3	T	15.6	164	61.9	188	88	65	0	0	0	0
ID BOISE	44	26	47	22	35	-6	.1	-.2	.1	3.4	162	10.9	114	95	58	0	7	3	0
LEWISTON	44	30	50	25	37	-4	T	-.3	T	2.4	83	10.9	102	90	58	0	5	1	0
POCATELLO	42	27	50	24	34	-3	.1	-.1	.1	4.9	272	15.0	167	90	55	0	7	2	0
IL CHICAGO	54	36	67	20	45	4	2.1	1.6	.9	7.0	88	33.7	118	93	64	0	2	4	2
MOLINE	55	35	65	15	45	3	1.5	1.1	1.4	8.1	87	37.9	120	82	57	0	2	4	1
PEORIA	58	38	70	15	48	6	1.9	1.4	1.5	6.4	71	38.2	121	82	57	0	2	2	1
QUINCY	60	41	70	16	51	7	1.2	.8	1.1	8.6	84	38.8	—	82	51	0	2	2	1
ROCKFORD	54	35	63	19	44	4	1.8	1.2	.8	8.6	88	37.7	115	90	66	.0	3	4	2
SPRINGFIELD	63	41	73	17	52	8	.8	-.3	.5	9.1	99	33.4	109	73	52	0	2	2	0
IN EVANSVILLE	66	39	75	26	53	6	.6	-.2	.6	9.6	116	41.1	114	69	35	0	2	1	1
FORT WAYNE	57	41	69	29	49	6	.6	0	.5	6.2	75	36.3	115	81	56	0	2	4	0
INDIANAPOLIS	61	38	70	23	50	5	.8	.1	.8	4.1	50	33.8	102	80	44	0	3	2	1
SOUTH BEND	54	40	64	25	47	5	.9	.2	.7	6.0	65	35.0	111	85	60	0	2	4	1
IA DES MOINES	52	33	64	11	42	2	1.7	1.4	1.7	10.1	144	40.5	146	87	59	0	2	4	1
SIOUX CITY	43	28	60	12	36	-3	1.5	1.3	.9	9.8	169	27.9	114	92	65	0	3	3	2
WATERLOO	48	27	61	10	38	0	2.6	2.2	1.9	9.1	103	31.2	102	94	73	0	4	3	2
KS CONCORDIA	56	32	72	15	44	0	.1	-.1	.1	3.5	52	35.0	136	89	43	0	3	2	0
DODGE CITY	57	34	67	24	45	0	T	-.1	T	2.1	45	18.0	95	75	37	0	3	2	0
GOODLAND	48	30	56	23	39	-2	.2	0	.1	4.4	122	24.6	157	84	49	0	4	2	0
TOPEKA	.60	42	72	17	51	6	1.1	.8	1.1	3.6	43	33.6	105	89	51	0	2	1	1
WICHITA	62	40	75	18	51	4	T	-.3	T	2.4	28	24.8	89	87	46	0	2	1	0
KY BOWLING GREEN	64	34	74	24	49	0	.3	-.6	.3	9.9	121	41.1	102	92	35	0	4	1	0
LXINGTON	61	39	71	25	50	4	.5	-.2	.5	6.5	93	31.6	85	72	39	0	2	1	1
LOUISVILLE	63	38	72	25	51	3	.5	-.2	.5	6.1	78	35.5	96	70	36	0	2	1	1
LA ALEXANDRIA	73	46	80	38	59	0	.1	-1.0	.1	10.2	93	42.5							

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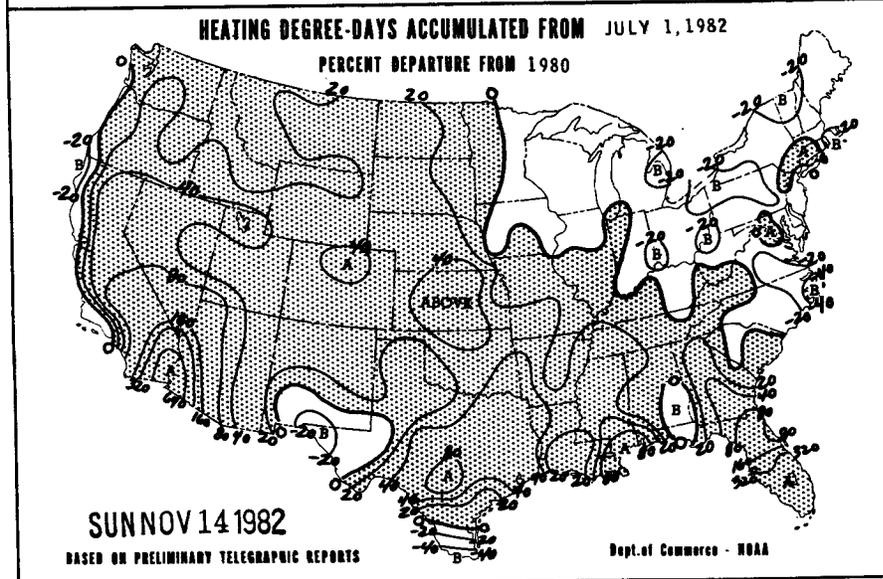
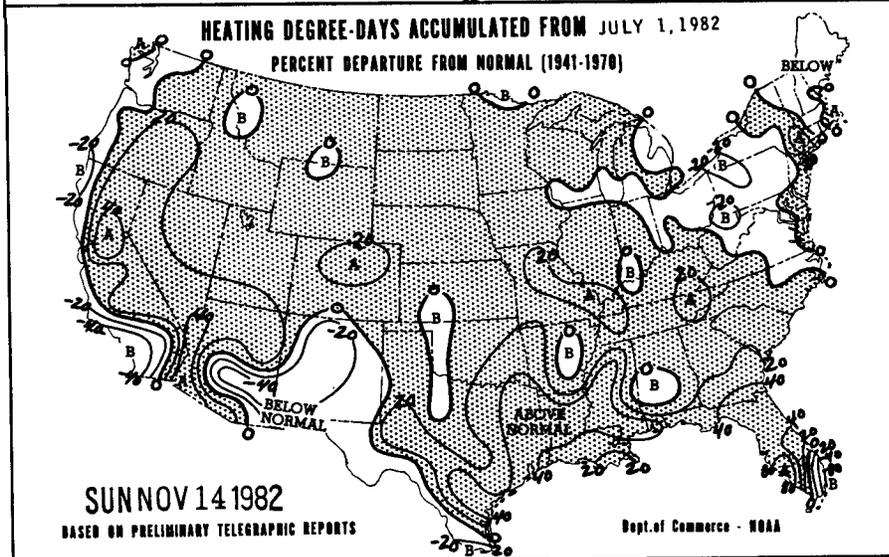
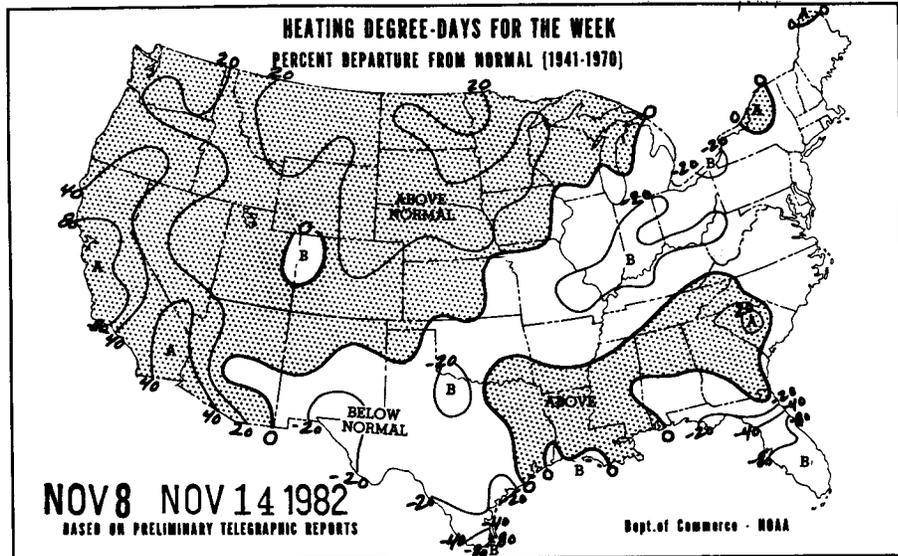
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE AUG. 29	PCT. NORMAL SINCE AUG. 29	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
ME SHREVEPORT	70	47	78	36	59	1	.2	-.7	.1	8.6	96	30.9	83	94	47	0	0	2	0
ME CARIBOU	44	30	55	20	37	2	.8	-.1	.8	8.3	79	32.2	104	85	63	0	4	2	1
ME PORTLAND	55	31	65	21	43	2	1.6	.4	1.5	6.3	64	37.2	113	78	42	0	5	3	1
MD BALTIMORE	61	38	71	27	50	1	1.1	.4	.6	7.9	90	32.6	94	82	39	0	1	2	2
MD SALISBURY	62	36	70	27	49	-1	1.5	.8	1.5	7.2	66	35.4	91	96	46	0	3	1	1
MA BOSTON	58	39	70	32	49	1	1.6	.5	1.6	7.4	73	42.6	120	70	42	0	1	1	1
MA CHATHAM	55	41	62	35	48	-1	.9	-	.9	15.6	-	44.0	-	79	57	0	0	1	1
MI ALPENA	47	32	55	23	40	2	1.3	.8	.9	6.6	86	22.7	96	90	60	0	4	3	1
MI DETROIT	54	38	62	28	46	3	.8	.2	.4	6.7	96	28.3	103	84	55	0	2	4	0
MI FLINT	52	39	59	32	45	5	1.0	.4	.3	6.7	93	24.0	92	88	61	0	1	4	0
MI GRAND RAPIDS	53	37	61	27	45	4	1.7	1.1	.8	7.1	84	28.5	104	81	55	0	3	4	2
MI HOUGHTON LAKE	45	33	53	24	39	2	1.1	.5	.5	7.2	85	27.0	110	93	67	0	4	4	1
MI LANSING	52	35	61	28	43	3	1.0	.5	.5	6.8	94	23.1	88	93	64	0	2	4	0
MI MARQUETTE	36	23	51	9	30	-2	1.7	.9	1.2	11.8	117	34.4	111	95	69	0	7	3	1
MI MUSKEGON	50	36	59	28	43	2	1.5	.8	.7	8.1	93	29.9	113	88	63	0	2	5	2
MI SAULT STE. MARIE	42	24	53	9	33	-2	1.3	.6	.5	11.6	117	31.6	118	93	65	0	5	4	1
MN ALEXANDRIA	33	23	46	5	28	-3	.4	-.1	.2	7.0	127	26.1	113	95	70	0	7	5	0
MN DULUTH	32	21	44	-3	26	-5	.3	-.2	.1	10.3	136	30.6	113	84	62	0	7	3	0
MN INT'L FALLS	31	17	43	-5	24	-4	.2	-.1	.2	8.2	117	23.6	99	93	71	0	7	2	0
MN MINNEAPOLIS	38	26	53	6	32	-4	2.2	2.0	.9	9.2	144	25.3	107	87	64	0	4	5	3
MN ROCHESTER	40	26	53	6	33	-3	1.9	1.6	.9	10.9	165	33.6	131	90	67	0	4	4	2
MS GREENWOOD	71	42	78	31	57	1	.3	.8	.3	9.9	111	45.1	-	79	32	0	1	1	0
MS JACKSON	72	38	79	26	55	-2	.3	.5	.3	8.6	106	51.3	128	97	33	0	3	1	0
MS MERIDIAN	73	40	80	32	56	1	.5	-.2	.5	4.9	62	46.4	110	84	33	0	1	1	1
MO CAPE GIRARDEAU	64	39	71	18	52	4	.5	.4	.5	4.4	42	40.8	109	83	48	0	2	1	0
MO COLUMBIA	64	41	73	16	52	6	.6	.1	.5	8.8	80	41.5	124	84	47	0	2	3	1
MO KANSAS CITY	60	42	72	15	51	6	1.0	.6	1.0	5.8	55	42.1	124	87	53	0	2	2	1
MO SAINT LOUIS	67	43	79	17	55	8	.6	0	.6	8.4	104	43.7	139	84	43	0	2	2	1
MO SPRINGFIELD	65	42	73	15	53	6	.7	.1	.7	5.2	49	35.5	101	71	38	0	2	2	1
MT BILLINGS	37	24	43	10	30	-8	.4	-.2	.2	3.0	100	17.1	135	85	54	0	6	4	0
MT GLASGOW	33	15	44	-3	24	-7	T	-.1	T	2.2	105	11.1	113	85	56	0	7	1	0
MT GREAT FALLS	39	17	47	5	28	-8	.6	.4	.2	3.8	146	16.7	124	74	44	0	7	4	0
MT HAVRE	35	12	47	-7	23	-9	.1	-.1	.1	1.8	67	14.1	129	94	59	0	7	1	0
MT HELENA	33	14	42	4	24	-10	.3	-.1	.2	3.6	157	12.9	129	84	58	0	7	3	0
MT KALISPELL	35	21	43	13	28	-4	.5	.2	.3	3.1	91	16.8	128	90	59	0	7	4	0
MT MILES CITY	35	21	42	7	28	-7	T	-.1	T	3.9	150	14.5	116	89	58	0	7	2	0
MT MISSOULA	34	20	38	16	27	-7	.1	-.1	T	2.8	97	14.2	130	95	63	0	5	2	0
NE GRAND ISLAND	46	28	58	14	37	-3	.8	.7	.6	5.5	112	33.8	155	87	57	0	4	3	1
NE LINCOLN	52	31	73	14	41	0	.7	.5	.7	5.1	81	35.5	139	78	45	0	3	3	1
NE NORFOLK	43	28	58	15	36	-3	1.9	1.7	1.4	8.8	173	28.8	127	90	61	0	3	2	1
NE NORTH PLATTE	41	27	55	16	34	-4	.7	.5	.6	4.5	110	18.8	101	90	61	0	6	2	1
NE OMAHA	50	31	65	13	41	0	1.4	1.2	1.4	7.4	110	32.0	117	90	65	0	2	3	1
NE SCOTTSBLUFF	43	26	53	18	35	-4	.6	.5	.6	3.4	142	21.1	159	78	45	0	7	3	1
NE VALENTINE	38	22	52	10	30	-7	.7	.6	.6	4.5	129	22.9	136	82	60	0	7	2	1
NV ELY	46	20	52	10	33	-3	.1	-.1	.1	6.2	413	14.0	192	83	41	0	7	1	0
NV LAS VEGAS	61	40	65	33	50	-5	T	-.1	T	.1	13	2.7	75	64	25	0	0	1	0
NV RENO	42	26	48	17	34	-8	.2	-.1	.2	4.2	382	8.5	152	95	53	0	7	2	0
NV WINNEMUCCA	45	21	45	13	33	-6	T	-.2	T	2.3	153	7.0	101	84	37	0	7	2	0
NH CONCORD	55	28	65	15	42	1	1.3	.3	1.1	5.2	60	32.7	109	83	42	0	5	3	1
NJ ATLANTIC CITY	59	39	64	31	49	1	1.4	.4	1.3	4.2	42	27.6	72	90	50	0	2	2	1
NM ALBUQUERQUE	59	33	66	24	46	-1	.3	.2	.2	1.8	82	6.2	85	81	83	0	3	3	0
NM CLOVIS	62	38	72	27	50	2	.1	-.1	.1	2.1	42	14.3	-	90	35	0	2	1	0
NM ROSWELL	64	40	76	27	52	3	T	-.1	T	2.1	53	6.5	56	75	29	0	1	0	0
NY ALBANY	54	33	64	24	44	2	.9	.3	.6	5.0	60	29.6	106	87	44	0	4	3	1
NY BINGHAMTON	51	34	63	27	42	2	.4	.4	.2	5.1	57	31.2	98	86	49	0	4	3	0
NY BUFFALO	51	35	68	29	43	1	.9	0	.5	10.5	112	36.1	120	91	50	0	4	2	0
NY NEW YORK	58	42	65	38	50	0	1.6	.7	1.4	4.3	47	31.0	90	73	46	0	0	2	1
NY ROCHESTER	53	35	72	28	44	1	.6	-.1	.4	8.3	108	28.7	106	84	48	0	4	2	0
NY SYRACUSE	52	35	67	23	44	0	.4	.4	.2	7.2	80	30.3	98	85	51	0	2	3	0
NC ASHEVILLE	63	30	70	21	46	-2	.9	.3	.9	7.3	72	44.6	114	93	39	0	5	1	1
NC CHARLOTTE	66	41	72	31	54	0	.5	.2	.5	6.8	76	36.6	101	88	40	0	2	1	0
NC GREENSBORO	64	37	70	27	50	0	.5	0	.5	7.5	82	40.6	114	88	41	0	3	1	1
NC HATTERAS	66	49	75	37	58	0	.8	.3	.8	10.1	66	51.4	108	89	54	0	0	1	1
NC NEW BERN	68	42	76	34	55	-1	.6	0	.6	9.9	77	40.8	83	98	46	0	0	2	1
NC RALEIGH	67	38	74	26	53	1	.6	0	.4	6.9	73	39.4	106	91	37	0	2	2	0
NC WILMINGTON	69	41	76	31	55	-2	.6	-.1	.6	10.9	83	50.6	104	87	40	0	1	1	1
ND BISMARCK	32	20	44	8	26	-5	.2	-.1	.1	5.4	186	17.4	117	95	69	0	7	3	0
ND FARGO	32	20	44	5	26	-5	.5	.3	.3	8.6	205	19.1	103	89	67	0	7	3	0
ND GRAND FORKS	31	21	39	5	26	-3	.3	-.1	.3	6.6	150	20.1	113	92	62	0	6	1	0
ND WILLISTON	32	14	41	1	23	-8	T	-.1	T	4.7	181	15.7	116	95	61	0	7	1	0
OH AKRON-CANTON	56	38	64	27	47	4	.8	.2	.6	6.0	78	28.5	93	78	48	0	2	4	1
OH CINCINNATI	63	39	73	25	51	5	.8	.1	.7	3.8	54	37.0	110	65	36	0	2	2	1
OH CLEVELAND	57	40	66	29	48	4	.8	.1	.3	7.9	103	30.2	100	78	47	0	2	5	0
OH COLUMBUS	58	38	66	28	48	4	.7	-.1	.6	6.6	99	31.6	98	81	47	0	2	2	1

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Nov. 13, 1982

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE AUG. 29	PCT. NORMAL SINCE AUG. 29	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	58	38	67	24	48	4	.6	0	.5	3.9	60	36.1	119	81	44	0	3	2	1
TOLEDO	53	38	60	27	46	4	.7	.1	.3	7.4	107	25.4	93	89	62	0	2	4	0
YOUNGSTOWN	55	39	66	29	47	4	1.0	.3	.5	5.1	59	28.2	86	83	52	0	2	2	2
OK OKLAHOMA CITY	65	45	75	19	55	4	.3	-.1	.2	4.3	50	31.8	112	90	53	0	2	2	1
TULSA	67	48	75	26	58	6	.8	.3	.5	5.0	49	28.1	85	77	45	0	2	2	1
OR ASTORIA	53	35	55	30	44	-4	.2	-2.0	.1	13.9	85	55.4	115	83	56	0	2	2	0
BURNS	39	15	44	12	27	-10	T	-.3	T	2.7	142	9.4	106	--	--	0	7	1	0
MEDFORD	49	26	52	22	38	-7	T	-.7	T	2.8	62	11.8	79	99	55	0	7	1	0
PENDLETON	42	29	50	26	36	-7	T	-.3	T	3.8	136	9.7	100	90	57	0	7	2	0
PORTLAND	51	33	56	29	42	-5	T	-1.3	T	9.4	111	32.1	119	96	56	0	3	1	0
SALEM	49	28	53	23	39	-7	T	-1.4	T	5.4	58	26.8	90	93	60	0	6	0	0
PA ALLENTOWN	57	36	67	28	47	2	1.0	.2	.5	5.4	59	40.9	114	75	38	0	2	2	1
ERIE	54	39	65	33	46	4	1.0	-.1	.5	9.3	91	35.4	110	71	44	0	0	4	0
HARRISBURG	58	40	70	28	49	3	.4	-.4	.4	6.8	86	37.1	107	83	47	0	1	2	2
PHILADELPHIA	60	39	68	29	50	1	1.7	1.0	1.2	7.1	82	37.3	111	83	44	0	1	2	2
PITTSBURGH	56	37	69	26	47	3	.3	.3	.2	4.5	58	27.4	88	76	43	0	2	3	0
SCRANTON	54	36	65	29	45	2	.8	-.1	.7	4.2	51	32.7	110	83	55	0	1	3	1
RI PROVIDENCE	58	36	68	26	47	2	1.5	.5	1.5	10.2	101	46.4	134	78	44	0	3	1	1
SC CHARLESTON	71	48	75	37	59	1	.1	-.3	.1	6.9	60	41.9	90	87	44	0	0	2	0
COLUMBIA	71	36	78	28	53	-2	.6	-.1	.5	6.5	66	45.7	111	95	37	0	4	2	1
FLORENCE	69	40	74	31	55	-1	.2	-.3	.2	5.5	60	36.1	93	96	41	0	1	1	0
GREENVILLE	66	40	72	31	53	0	.7	0	.7	6.0	58	48.3	118	82	37	0	2	1	1
SD ABERDEEN	35	23	50	9	29	-4	.5	.3	.3	.3	.3	--	--	87	64	0	7	2	0
HURON	39	26	54	14	32	-3	.5	.3	.4	8.5	181	24.6	135	94	64	0	5	3	0
RAPID CITY	38	22	49	8	30	-7	.1	-.1	.1	6.5	224	25.4	157	83	56	0	7	1	0
SIoux FALLS	38	22	58	5	30	-6	2.3	2.1	1.1	15.5	258	30.7	132	98	72	0	5	3	2
TN CHATTANOOGA	65	34	73	28	49	-1	.5	-.4	.5	5.8	59	44.6	103	92	36	0	4	1	1
KNOXVILLE	65	35	72	27	50	-1	.8	0	.8	8.0	95	47.3	122	92	39	0	3	1	1
MEMPHIS	68	43	76	28	56	3	.4	-.5	.4	7.7	88	49.2	120	72	38	0	1	1	1
NASHVILLE	67	36	76	26	52	2	.5	-.2	.5	6.8	86	40.4	106	83	34	0	2	1	0
TX ABILENE	70	52	80	28	61	5	T	-.3	T	1.9	27	18.4	84	78	37	0	1	1	0
AMARILLO	64	38	75	25	51	3	.1	0	.1	2.2	44	17.1	93	78	32	0	2	1	0
AUSTIN	72	56	77	38	64	3	.2	-.3	.1	6.3	66	22.7	80	87	51	0	0	2	0
BEAUMONT	73	52	81	40	63	1	.1	-.9	.1	7.2	54	48.5	103	92	54	0	0	1	0
BROWNSVILLE	83	62	87	53	72	3	0	-.3	0	6.0	53	21.5	95	92	47	0	0	0	0
CORPUS CHRISTI	78	61	82	48	69	3	.1	-.3	.1	4.1	39	19.3	76	87	50	0	0	1	0
DEL RIO	75	56	80	38	66	4	0	-.2	0	1.4	21	9.6	61	77	33	0	0	0	0
EL PASO	69	44	77	32	57	3	.1	0	.1	5.3	221	8.0	113	62	24	0	1	1	0
FORT WORTH	70	52	78	31	61	4	.1	-.4	.1	6.1	73	35.9	127	82	42	0	1	2	0
GALVESTON	70	61	74	44	66	1	.3	-.4	.3	3.3	28	22.0	62	91	70	0	0	2	0
HOUSTON	74	54	79	38	64	1	.1	-.8	.1	8.8	70	30.1	74	93	52	0	0	2	0
LUBBOCK	66	42	78	29	54	3	.4	.3	.4	2.2	37	18.4	105	86	37	0	2	1	0
MIDLAND	69	47	77	28	58	3	T	-.1	T	2.5	63	12.7	102	83	38	0	1	1	0
SAN ANGELO	72	51	79	24	61	4	T	-.2	T	1.5	23	16.3	99	86	41	0	0	1	0
SAN ANTONIO	74	57	79	40	65	4	.1	-.3	.1	5.4	59	17.8	73	86	45	0	0	1	0
VICTORIA	76	58	83	43	67	3	.1	-.5	.1	6.3	53	24.1	79	92	52	0	0	1	0
WACO	73	54	82	30	64	5	T	-.5	T	3.4	41	25.2	93	87	50	0	1	1	0
WICHITA FALLS	71	49	81	24	60	5	.2	-.2	.2	4.3	54	34.7	142	92	43	0	1	1	0
UT BLANDING	48	28	57	19	38	-2	.9	-.7	.5	4.5	129	13.8	128	91	51	0	5	4	0
CEDAR CITY	52	32	62	21	42	1	.7	-.4	.4	4.5	173	14.6	168	75	30	0	4	4	0
SALT LAKE CITY	48	32	54	27	40	-1	T	-.3	T	9.2	279	20.4	161	81	46	0	5	0	0
VT BURLINGTON	53	35	66	24	44	4	.4	-.3	.3	6.8	78	29.5	103	77	45	0	3	4	0
VA NORFOLK	65	42	73	34	53	-1	.8	-.1	.8	9.9	94	43.5	111	90	46	0	0	1	1
RICHMOND	66	39	74	31	53	2	.4	-.3	.3	6.9	71	41.9	112	93	43	0	1	2	0
ROANOKE	62	35	70	25	49	0	.3	-.2	.3	8.6	91	40.5	120	89	45	0	3	1	0
WA COLVILLE	40	25	44	17	32	-3	0	-.5	0	2.6	72	14.2	108	95	70	0	7	0	0
QUILLAYUTE	50	29	52	23	40	-5	.7	-2.4	.7	22.9	84	89.2	114	99	60	0	6	1	1
SEATTLE-TACOMA	49	34	56	30	42	-4	T	-1.4	T	6.7	69	28.2	99	90	54	0	3	0	0
SPOKANE	37	26	42	15	32	-5	T	-.5	T	3.5	95	12.9	96	94	66	0	7	1	0
YAKIMA	47	25	50	21	36	-4	0	-.2	0	2.7	180	7.9	134	83	50	0	6	0	0
WV BECKLEY	59	34	68	22	47	3	.6	-.1	.5	6.5	74	38.4	104	82	39	0	2	2	1
CHARLESTON	65	36	75	24	50	3	.3	-.4	.2	6.7	81	37.8	106	80	33	0	3	2	0
HUNTINGTON	64	38	72	26	51	3	.4	-.3	.4	6.6	92	37.7	112	67	31	0	2	1	0
PARKERSBURG	63	41	74	31	52	6	1.0	-.4	.6	5.8	78	32.1	88	82	43	0	2	2	1
WI GREEN BAY	44	28	57	19	36	0	3.1	2.7	1.7	6.9	99	25.7	108	89	64	0	5	4	2
LA CROSSE	43	28	61	11	36	-3	2.5	2.1	1.1	8.0	103	22.3	82	87	61	0	3	4	3
MADISON	49	30	62	14	39	2	1.7	1.2	.8	7.6	94	27.3	100	91	68	0	4	5	2
MILWAUKEE	52	35	61	21	44	5	1.9	1.4	.9	7.9	108	31.7	123	88	63	0	2	4	2
WAUSAU	39	28	55	14	33	-1	2.3	1.8	1.1	12.3	137	36.5	125	91	61	0	5	4	2
WY CASPER	41	20	52	4	31	-5	.3	.2	.2	5.1	204	16.8	165	95	56	0	7	4	0
CHEYENNE	40	19	52	7	30	-7	.3	.1	.2	4.1	146	18.0	134	98	56	0	7	4	0
LANDER	40	21	43	5	30	-3	.3	.1	.2	4.5	132	12.1	97	89	53	0	7	4	0
SHERIDAN	41	20	47	3	31	-4	.2	-.1	.1	3.1	86	13.2	92	83	50	0	6	2	0
PR SAN JUAN	87	74	91	70	81	2	.5	-.9	.3	7.3	42	37.2	74	87	64	2	0	4	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS



NO HEATING DEGREE TABLE AVAILABLE

National Agricultural Summary

November 8 to 14

HIGHLIGHTS: Rainfall in the southern Plains benefited winter wheat, but more is needed for good development. Rain, snow, and wet conditions hampered harvest of remaining row crops in northern areas. Farmers in the northern Plains, Iowa, Michigan, and Wisconsin had less than 4 days suitable for fieldwork. In other areas, 4 to 6 days were available. Soil moisture was adequate to surplus in Illinois, Michigan, Wisconsin, Minnesota, Nebraska, and South Dakota. Other regions reported short to adequate supplies. Winter wheat seeding was 94% finished; 82% of the acreage showed emerged plants. Corn harvest advanced to 80% completion, 7 points behind average. Soybeans were 88% harvested, 2 points ahead of usual. Cotton harvest passed the half-way mark, and was about on schedule. Sorghum harvest advanced rapidly to 90%, only 1 point behind average. Vegetable harvests neared completion in the north but increased in the South. Citrus harvests also increased. Livestock rated fair to good condition. Supplemental feeding increased.

SMALL GRAINS: Winter wheat seeding in the 15 major producing States was 94% complete, equal to a year earlier and only 1 point behind average. Seeding neared completion in all States except California where the crop is normally planted later. Wheat had emerged on 82% of the acreage, only slightly behind usual. Winter wheat in Kansas was in good condition, except in the southwest and south-central areas where it rated only fair. Scattered showers improved the Oklahoma crop, but more rain is needed, especially in the moisture depleted northwest area. Dryness stressed many small grains in Texas. Scattered showers on the High Plains helped germination in dryland wheat fields, but more is needed. Replanting was necessary in fields that failed to germinate, but continued dry weather delayed operations in many areas. Recent showers in the Blacklands and south-central Texas benefited many stands. The condition of the crop was only 60% of normal, down from 90% of normal a week ago.

CORN: In the 17 major producing States harvesting slowly moved to the 80% mark, 3 points behind a year earlier and 7 points behind average. Harvest was behind in 7 of the 17 States. Snow and wet conditions hindered fieldwork in the North. This year's harvest was 38 percentage points behind average in South Dakota, 26 points behind in Minnesota, and 20 points in both Nebraska and Wisconsin. Growers tried to harvest as much as possible before another winter storm hit. In Colorado farmers harvested 22% of their acreage during the week, while those in Michigan, Nebraska, and Wisconsin were able to combine 15% of their acreage. Harvest in the eastern Corn Belt and the Southeast was virtually finished.

SOYBEANS: Harvest advanced to 88% in the 18 major producing States, 3 points ahead of last year and 2 points ahead of average. Progress lagged in only 6 States. Combining was finished in Illinois, Indiana, and Ohio and near completion in the western Corn Belt. During the week, growers in Tennessee harvested 22% of their acreage; Arkansas farmers, 18%; and Alabama, Kentucky, and Louisiana growers harvested 15% of each State's crop.

COTTON: In the 14 major producing States, 58% of the acreage had been harvested, 3 points ahead of last year but 4 points behind average. Progress was behind normal in half of the States. Picking was nearly finished in Missouri and Tennessee but was only 10% completed in Oklahoma. Scattered showers interrupted harvest on the Texas Plains. Defoliation was active in many areas, although some producers were waiting for another hard freeze. Green foliage was still evident in some stands in the Cross Timbers area. Rain halted picking in parts of Arizona. Harvest was not expected to get back in full swing until next week.

OTHER CROPS: Sorghum harvest advanced rapidly to reach the 90% mark, ahead of last year's slow pace of 76% and only 1 point behind average. Growers in Nebraska harvested 25% of their acreage during the week, while in Kansas 20% was harvested. The Texas harvest neared completion in the Panhandle region, although light rain slowed combining in some areas.

California's rice harvest was slowed due to continual rains in most areas which caused lodging and poor ground conditions.

Tobacco curing, grading, and marketing continued very active. The burley crop in Kentucky was 35% stripped and the Tennessee burley crop was 65% stripped. Operations were just getting started in Maryland.

FRUITS AND NUTS: Florida's citrus groves rated near excellent condition. Irrigation was necessary as most areas received very little rainfall. Cool temperatures slowed new growth. The orange harvest was increasing slowly. Tangelo and tangerine picking was active. Supplies of citrus continued moving to market in Texas. Most fruit was developing well, despite recent wind damage. Arizona's citrus groves remained in good condition. The Navel orange harvest was in full swing. Tangerine and grapefruit picking were underway on a limited basis. California's Desert grapefruit and lemon harvest continued active. The Navel orange harvest continued as weather permitted.

VEGETABLES: A decreasing volume of hardy vegetables moved to market in the North. Florida's vegetable shipments increased 36% from the previous week. Harvesting gained for snap beans, cabbage, carrots, escarole, lettuce, parsley, peppers, and tomatoes increased. Rains along the mid-to-lower coastal areas caused some flooding and crop damage in Palm Beach and Dade Counties. Other areas were generally dry. Rain slowed field operations in California. Broccoli was harvested in the San Joaquin Valley, but supplies were light from the Salinas Valley where rain delayed harvesting. The fall lettuce harvest got underway in the San Joaquin Valley. Moderate supplies were available from Salinas. The fall potato harvest neared completion in the Tulelake-Butte Valley area. Rains hampered the harvest of the remaining fields.

PASTURES AND LIVESTOCK: Pastures and ranges were generally in fair to good condition, although prolonged dryness in the southern Plains has resulted in limited grazing. Supplemental feeding was heavy in many areas of Texas. Dryland wheat pastures were in poor condition, but irrigated fields provided good grazing. Livestock were in mostly good condition.

harvest full swing. Tangerines picked limited scale. Grapefruit harvest underway limited basis. Lemon activity slow. Citrus groves remained good condition.

ARKANSAS: Temperatures averaged near normal, rainfall below normal. Highest temperature 79°^o, lowest 14°^o. All departures ranged from -3 to +2°^o. Most rainfall 0.55 in., least 0.04 in.

Six days suitable for fieldwork. Soil moisture adequate south, short northwest. Soybeans fair condition, virtually all mature, same as 1981 and average; harvested 81%, 69% 1981, 73% average. Cotton good condition, harvested 93%, 82% 1981, 86% average. Farmers picking second time. Wheat good condition, planted 78%, 63% 1981, 77% average. Oats good condition, virtually planted, 85% 1981, 80% average. Pastures improved, normal. Cattle good condition.

CALIFORNIA: Cold and rainy. Temperatures averaged 6° below normal. Highest temperature was 81°^o at Daggett, lowest was 13°^o at Alturas. Precipitation spread throughout the entire State, with Huntington Lake getting 2.40 in. Many south coast amounts were more than 1.00 in. with Los Angeles receiving 1.93 in. and Corona 2.01 in. Tule fog was common in the Central Valley late in the week.

Most field operations halted due to continual rains in most areas. Remaining rice slowed due to lodging and poor ground conditions. Ground preparation and planting of small grains delayed. Winter wheat 40% planted and 25% emerged, unchanged from previous year. Cotton harvest 75% complete, 85 last year, 79% average. Harvest of grain sorghum, field corn, sugarbeets and dry beans affected by rains. More damage received to beans. Alfalfa cutting limited. Routine irrigating, discing, pruning and fertilizing of orchards and vineyards underway in San Joaquin Valley. Avocado harvest continued San Joaquin Valley. Deglet Noor date picking continued, good quality. Kiwi packing continued. Desert grapefruit light, weakened demand. Desert lemon harvest continued, good quality. Navel orange harvest continued Central District weather permitting. Market demand good. Rain slowed field operations. Artichokes, light supply, variable quality Salinas Valley. Broccoli harvest continues, San Joaquin Valley, good quality. Worm control applied as needed. Supplies light, Salinas Valley, variable quality. Rain slowed harvest. Cantaloup harvest continues, Desert area. Smaller sizes. Harvest slowed by rain. Cauliflower making good progress, San Joaquin Valley. Fall lettuce harvest underway San Joaquin Valley. Quality good, some decay due to rain. Palo Verde harvest getting underway. Salinas in moderate supply, variable quality. Field preparation for San Joaquin spring crop underway. Dehydrating onion harvest 75% complete Tulelake-Butte Valley area. Harvest delayed 3 to 4 days by rain. Bell pepper supply light, Salinas Valley, quality variable. Shippers ending for season. Rain curtailing harvest. Fall potato harvest nearing end, Tulelake-Butte Valley area. Rains hampering harvest of remaining fields. Sweetpotato harvest declining, San Joaquin Valley. Market tomato harvest continues, South Coast. Foothill lowland range conditions improve, additional moisture assured good germination and growth forbs, grasses. Supplemental feeding continues limited scale. Calving, lambing active.

COLORADO: Temperatures were generally normal to above normal across southern areas and mostly below normal in northern portions. Precipitation started in the mountains early in the week, covered most of the State by midweek, and cleared for the weekend.

Crop year activities rapidly approaching completion. Winter wheat 96% emerged; last year 93%,

average 95%. Corn harvest remains behind normal due to high moisture, but 98% was mature. Corn 75% harvested, last year 58%, average 80%. Threshing of dry bean crop complete. Sorghum, poor to good condition depending on growing season moisture received, 85% harvested, last year 48%, average 76%. Sugarbeets 99% harvested; last year 94%. Topsoil and subsoil moisture adequate. Four and one-half days suitable for fieldwork. Livestock in good to very good condition.

FLORIDA: Breezy, dry week until a cold front swept through early weekend. Strong northeasterly winds continued to bring showers along lower East Coast early week with local rains of 1.00 in. or more. Rain accompanying the frontal system was very light, mostly under 0.25 in. Some amounts of 0.50 in. or more fell along lower East Coast. Near to above normal temperatures prevailed until a turn to colder readings with the frontal passage. Temperatures dropped to middle 30's extreme north morning of 14th with 50's, south to southwest.

Soil moisture adequate most of State. A little dry few areas, Panhandle; wet along lower southeast coast. Soybean harvest good progress. Yields down on late plantings. Hay cutting continues in south when weather suitable. Sugarcane harvest full swing, yields very good. Seeding small grains for winter grazing continues. Gathering pecans active. Yield, quality reported poor some northern counties. Pasture conditions good to excellent throughout the south-northeast Peninsula, poor to fair, west coast, North Peninsula and Panhandle. Cattle conditions mostly good across the Peninsula, fair in Panhandle. Citrus groves in near excellent condition. Very little rain, irrigation most areas. New growth slowed due to cool temperatures. Fruit splitting slowed. Orange harvest slowing increasing. Tangelo and tangerine movement active. Warm days, mild nights prevailed in vegetable areas. Rainfall concentrated along mid-to-lower East Coast. Some flooding, crop damage reported Palm Beach, Dade Counties. Other areas generally dry. Winds brisk, gusty during showers. Volume increased majority of crops. Total vegetable shipments up 36% from previous week. Harvest gained snap beans, cabbage, carrots, escarole, lettuce, parsley, peppers and tomatoes. Supplies about steady sweet corn, eggplant and southern peas. Volume declined cucumbers, okra, radishes and squash. Shipments underway cauliflower, celery and Chinese cabbage. Limited supply fall watermelons continues. Quality, size good.

GEORGIA: Colder than normal. Temperatures averaged 1 to 2° below normal over northern third, and west central portions. Remainder of State averaged 2 to 4° below normal. Week was very dry, with no measurable rain. Weekend of 13th and 14th was cold. Average temperatures about 5° below normal. Rainfall 12th averaged 0.50 in.

Soil moisture: 3% very short, 41% short, 56% adequate. Six days suitable for fieldwork. Major activities: Harvesting cotton, soybeans and pecans. Planting small grains. Conditions: Cotton 34% fair, 58% good, 4% excellent; soybeans 37% fair, 55% good; pecans 6% poor, 54% fair, 35% good; wheat 46% fair, 48% good; rye 45% fair, 52% good; other small grains 46% fair, 51% good; hay 16% poor, 48% fair, 35% good; pastures 11% poor, 46% fair, 42% good; cattle and hogs fair to mostly good. Crop progress: Cotton 98% bolls opened, 98% last year, 98% average; cotton 74% harvested, 86% last year, 82% average; corn 99% harvested, 99% last year, 96% average; soybeans 99% leaves dropped, 99% last year; soybeans 63% harvested, 62% last year, 59% average; wheat 37% harvested, 45% last year, 53% average; rye 78% planted, 76% last year, 71% average; other small grains 66% planted, 68% last year, 68% average; pecans 47% harvested, 42% last year, 41% average.

HAWAII: Weather favorable. Showers light and occasional. Skies generally clear with few overcast skies. Few gusty winds but no effect on crop progress. Irrigation necessary in most major crop areas. Vegetables: Snap beans, leafy lettuce continues light in supply. Others generally adequate. Bananas: Orchards active harvest. Papayas: Majority of orchards producing heavily. Orchards battered by the storm two weeks ago remain in poor condition. Pineapples: Light harvest. Sugar: Steady harvest. Pastures: Generally fair to good.

IDAHO: Two storm systems affected area last week with the first bringing light to moderate precipitation to the entire State while the second dropped light amounts in the north and southeast. Totals ranged from 0.10 to 0.50 in. Temperatures ranged from 1 to 6° below normal. The high was 60° at Malad, the low was -3° at Stanley.

Untimely precipitation continued to hamper the corn and sugarbeet harvests. Fall fieldwork, including some fertilizer and herbicide applications, moved along, weather permitting. Most livestock have been moved to their winter grazing areas. Calf weaning underway. Ranges reported to be in good shape. Feed supplies adequate.

ILLINOIS: Temperatures normal to 5° above normal. Precipitation moderate to heavy, most sections 0.50 to 2.00 in., lesser amounts in south.

Corn 95% harvested, 88% 1981, 91% average. Winter wheat crop 99% seeded, 93% 1981, 98% average; 90% emerged, 82% 1981, 92% average; condition 13% excellent, 71% good, and 16% fair. Sorghum 95% harvested. Intended corn and soybeans ground 53% tilled (plowed or chiseled), 44% 1981, average 56%. Pastures 6% excellent, 65% good, 21% fair, 8% poor; supplying 45% of livestock roughage, 39% average. Soil moisture 4% short, 75% adequate, 21% surplus. Days suitable fieldwork: 4.8.

INDIANA: Fieldwork averaged 5 days. Topsoil and subsoil moisture adequate. Corn 94% harvested, 1981 70%, average 85%. Corn 18% moisture, 1981 25%. Soybeans 100% combined, 1981 90%, average 94%. Wheat 100% seeded, 1981 95%, average 97%. Wheat 94% emerged, 1981 85%, average 85%. Wheat stands fair to mostly good. Spring planted crop land 42% tilled, 1981 30%, normal 42%. Tobacco 20% stripped or baled.

IOWA: A cold, wet week. Most of precipitation fell the 9th to 11th. Snow fell northwestern most counties. Precipitation total averaged around 1.50 in. south to 3.00 in. or more northeastern most counties.

Topsoil moisture: 69% surplus, 31% adequate. Subsoil moisture: 39% surplus, 61% adequate. Corn harvested: 78%, last year 89%, normal 89%. Soybeans harvested: 96%, last year 99%, normal 97%. Sorghum harvested: 80%, last year 90%, normal 93%. Fertilizer application complete: 22%, last year 33%. Total plowing completed: 24%, last year 33%. Fieldwork: 3.7 days suitable. Livestock in good condition.

KANSAS: Precipitation little or none west increasing to 0.75 to 1.50 in. east. Temperatures 39 to 44° northwest quarter to 49 to 51° east and south central, 1 to 2° below normal northwest and north central to 3 to 5° above normal east.

Winter wheat 99% seeded, 97% last year, 98% average; 96% emerged, 97% last year. Condition good, except fair southwest and south central. Sorghum 90% harvested, 60% last year, 90% normal. Corn 95% harvested, 85% last year, 95% average. Soybeans 97% harvested, 70% last year, 90% average. Fieldwork: 6.0 days suitable.

KENTUCKY: Temperatures averaged 2 to 4° above normal with cooler temperatures end of week. Rainfall 0.33 to 0.75 in. Most rain late week as cold front pushed through.

Soil moisture 63% short, 37% adequate. Fieldwork: 5.2 days available. Burley tobacco 34% stripped, 46% last year. Houseburn damage generally more than average. Corn harvest 92% complete, same as last year and average. Soybean harvest 85% complete, same as average, 81% last year. Wheat seeding 85% complete, same as year ago and average.

LOUISIANA: Rainfall generally below 0.25 in. The temperatures normal to 3° below.

Soil moisture short to adequate. Days suitable: 5.7. Cotton harvested 86%, 92% 1981, 91% average. Soybeans harvested 83%, 76% 1981, 88% average. Sweetpotatoes harvested 98% 1982 and 1981, 96% average. Sugarcane harvested 51%, 50% 1981, 46% average. Wheat seeded 50%, 46% 1981, 77% average; emerged 31% 1982 and 1981; condition fair to good. Pecans harvested 52%, 29% 1981, 45% average. Vegetables rated fair to good. Pastures fair. Livestock fair to good.

MARYLAND AND DELAWARE: Temperatures averaged 3 to 4° above normal in northern and western Maryland to near normal elsewhere. High temperatures averaged near 70° while lows ranged from 17° at Oakland to the high 20's to 30° on the Shore. Rainfall ranged from zero to 1.55 in. at Newark, Delaware, coming as scattered showers on the 12th and 13th.

Farmers made good harvest progress during the week. Rain on the night of the 21th was the only recorded precipitation. Topsoil moisture remained adequate. Subsoil moisture still surplus in northern and western Maryland, adequate in southern Maryland west of the Bay and short to adequate on the Shore. Six days were suitable for fieldwork.

Maryland: Corn harvest 90% complete, 95% last year, 85% last week. Soybean harvest continued in full swing. By the 14th, 75% of Maryland beans were combined, last year 70% were combined. Tobacco growers had stripped 10% of their tobacco, equal to last year. Wheat seedings stood at 90% complete, 95% last year, 80% the previous week. Rye seedings were 95% complete, equal to last year, and 5% above last week's.

Delaware: Corn harvest complete, equal to last year. Soybean harvest 90% complete, year earlier 75% combined. Farmers had sown all of their wheat and rye, last year 90% of the wheat and 75% of the rye had been seeded.

MICHIGAN: Temperatures were in contrast from north to south. Average temperatures were 1 to 6° below normal in the northern Lower and the Upper Peninsula. Precipitation was moderate across the State. All areas reported from near an inch to 1.70 in. Moderate to heavy amounts of snow fell across the Upper Peninsula. Light snow fell elsewhere.

Statewide about 3 days were suitable for field activity. Soil moisture supplies averaged from adequate to surplus. Corn harvested 85%, 80% last year and 76% average. The average moisture of harvested grain was 21%. Soybeans thrashed 99%, 85% in 1981 and 89% average. Winter wheat is rated normal to above normal in most areas.

MINNESOTA: Cold, wet weather prevailed. Temperatures were from the low 20's north to the low 30's south and were from 4 to 8° below normal. Highest reported temperature was 60° at Winona and the lowest was -8° at International Falls. Precipitation averaged less than 0.50 in. northwest and north central but was heavier the remainder of the State. A band of heavy snow of 6 to 12 in. fell from the southwest through east central and heavy rain fell the remainder of the State. The southwest, south

central and southeast averaged 2.00 in. precipitation. Largest total precipitation was 3.51 in. at Caledonia.

Weather conditions poor for fieldwork. Rain widespread. Snow following rain locally heavy. Ground remaining soft under heavy snow cover. Where snow thinner, ground froze allowing resumption of some harvesting. Moisture content still high in some row crops, especially late planted corn. Topsoil moisture: 22% adequate, 78% surplus. Harvested: Corn 61%, 1981 87%, normal 87%; soybeans 94%, 1981 97%, normal 97%; sunflowers 74%, 1981 93%, normal 93%.

MISSISSIPPI: Warm weather early in the week was followed by a cold front late in the week. The front brought some scattered showers. Greatest 24-hour rainfall 0.53 in. Temperature extremes 22 and 80°.

Soil moisture adequate over most of State, short in south. Fieldwork: 4.8 days suitable. Cotton 91% harvested, 95% last year, 89% average. Soybeans 78% harvested, 80% last year, 78% average. Sweetpotatoes 95% harvested. Pecans 54% harvested. Winter wheat 60% seeded, 73% last year, 77% average; condition fair to good. Livestock good to fair condition. Pastures fair to good condition.

MISSOURI: Very warm temperatures most of the week made average 4 to 10° above normal. Widespread rain averaged 0.75 to 1.00 in. across most of State, with the Bootheel and southeast receiving 0.25 to 0.50 in. in rain.

Fieldwork was 4.5 days suitable. Corn 87% harvested, last year 83%, normal 82%. Grain sorghum 85% harvested, last year 75%, normal 89%. Soybeans 88% harvested, last year 80%, normal 84%. Winter wheat seeding 89% completed, last year 83%, normal 83%. Winter wheat condition 1% excellent, 52% good and 47% fair. Fall plowing 47% completed, last year 44%, normal 48%. Pasture condition 4% excellent, 51% good, 43% fair and 2% poor. Topsoil moisture supply 27% surplus, 51% adequate and 22% short.

MONTANA: Temperatures averaged 9° below normal in central and southwest, 3° below West of Divide. In northeast and southeast temperatures 6° below. Warmest temperatures first of week, significant cooling by end of week. Many areas reported sub-zero readings. Highest 49° at Broadus, lowest 15 below zero at West Yellowstone. Precipitation mostly light to moderate except for favored areas along east slopes of mountains and in most mountains where totals for week were heavy.

Soil moisture adequate. Winter wheat condition mostly good, wind damage none to light. About 25% of livestock receiving supplemental feed, winter ranges mostly good.

NEBRASKA: Precipitation: Rain in east. Snow in north and west. Moisture accumulations of 1.00 to 2.00 in. common. Temperatures: 2 to 8° below normal.

Corn harvested 65%, 75% last year and 85% normal. Sorghum 85% combined, ahead of 80% last year and just behind 90% normal. Soybeans 98% harvested, same as last year and 100% normal. Winter wheat mostly good to excellent. Pasture and range feed supplies adequate. Topsoil moisture mostly adequate to surplus. Subsoil moisture adequate. Days suitable: 4.3.

NEVADA: Early part of week continued dry. Weather trend of previous week. Midweek, however, brought taste of winter. Snow blanketed northern areas, rain remainder of State. Gusty winds occurred south. Temperatures slightly below normal early, cold midweek, cool and dry end of period.

Movement cattle from high elevations to winter areas about completed. Livestock condition good to excellent reflecting outstanding grazing season. Supplemental feeding livestock light so far. Other ranching and farming activities light.

NEW ENGLAND: A cold front moved through on the 8th. A more intense one with strong, gusty southwest winds went through during the evening of the 12th and daytime of the 13th. Each front brought colder air resulting in traces of snow in northern areas early in the week, rain on the evening of the 12th and daytime of the 13th in north and central sections, snow mostly at higher elevations. Temperatures see-sawed during the week but averaged near normal. Low and mid 30's extreme north to around 50° near south coast.

NEW JERSEY: Temperatures were below normal, averaging 46° north, 46° south, and 46° coastal areas. Extremes were 22° at Toms River and 70° at Glassboro and Hammonton. Precipitation was above normal, averaging 1.47 in. north, 1.78 in. south, and 1.85 in. coastal sections. The heaviest 24-hour total was reported 2.08 in. on 12th to 13th at Hammonton.

Soil moisture adequate. Light volumes of hardy vegetables moving to market. Fall crops moving from storages. Cider making active. Field corn and soybean combining active as weather conditions permit.

NEW MEXICO: Average temperatures were a few degrees below normal. Precipitation was scattered. Northwestern and north central areas received the heaviest amounts.

Soil moisture adequate in north, short in east and south. Cotton harvest 55% complete. Alfalfa hay harvest virtually complete. Grain sorghum harvest 70% complete. Corn harvest 95% complete. Small grains in good condition, most fields show acceptable stands. Peanut harvest nearing completion. Red chile and lettuce harvest continuing. Pecan harvest just getting underway. Ranges fair to good condition. Livestock generally in good condition. Cotton harvested 55%, 58% 1981, 46% average.

NEW YORK: Mild temperatures and little rainfall through midweek. Scattered showers end of week, 0.25 to 1.50 in. Sharply colder on 13th. Average temperatures from mid 30's in north to mid 40's in south. Weekly low: 8° at Newcomb.

NORTH CAROLINA: Temperatures: Near normal west, 2 to 3° above normal in the Piedmont and coastal regions. Precipitation: Spotty.

Fieldwork: 5.3 days suitable. Soil moisture: 1% very short, 7% short, 83% adequate, and 9% surplus. Conditions: Soybeans and sweetpotatoes fair to mostly good. Harvest: Cotton 75%, 1981 79%, average 74%; sweetpotatoes 95%, 1981 97%, average 100%; sorghum 89%, 1981 90%, average 86%; soybeans 35%, 1981 52%, average 40%; corn for grain 98%, 1981 98%, average 96%; peanuts dug 100%, 1981 100%, average 100%; peanuts threshed 98%, 1981 100%, average 100%. Phenological stages: Soybeans shedding leaves 95%, 1981 100%, average 99%. Major farm activities: Soybean and cotton harvest, seeding of small grains, land preparation for small grain seeding, cutting of fire wood, and preparing plant beds for gasing.

NORTH DAKOTA: Temperatures 3 to 8° below normal. Averages ranged from 23 to 28°. Extremes: 55° central to -2° west central. Precipitation averaged above normal in all but north central, northwest and southwest districts. Most precipitation in

southeast which averaged 0.54 in. Precipitation occurred mostly on the 9th and 10th.

Farmers continued to battle inclement conditions as sunflower and corn harvests progressed slowly. Producers worked on frozen fields, sometimes with snow cover, in an effort to complete harvest before another winter storm. Artificial drying was generally necessary. Below normal temperatures led to increased supplemental feeding of livestock.

OHIO: Temperatures variable; highs averaged 2 to 4° above normal. Average highs in 50's. Lows averaged upper 30's to 40°. Widespread cloudiness kept lows 4 to 8° above normal. Rainfall almost daily until weekend. Totals above 0.50 in.; ranged from 0.35 to 1.37 in. Soil temperatures, 4 in. under bare ground averaged in mid to upper 40's but fell into 30's on weekend.

Rain in various areas made fall plowing easier and aided winter wheat germination. High winds caused some corn stalks to break. Activities included corn harvesting, tobacco stripping, fall plowing, fertilizer and lime spreading, hauling manure, moving grain, disking corn stalks and general farm maintenance. Corn harvested 95%, 70% 1981, 85% average. Soybeans harvested 100%, 90% 1981, 95% average. Winter wheat planted 100%, 100% 1981, 100% average. Winter wheat emerged 98%, 80% 1981, 85% average. Tobacco stripped 15%. Days favorable 5. Pasture condition fair. Soil moisture 30% short, 55% adequate, 15% surplus.

OKLAHOMA: Temperatures ranged from 1° above normal Panhandle to 7° above normal northeast. Precipitation ranged from 0.10 in. Panhandle to over 1.00 in. northeast.

Scattered showers improved wheat in most areas. Rains needed throughout State but particularly in moisture-depleted northwest. Wheat planted: 85%, 95% 1981, 95% average. Wheat emerged: 50%, 85% 1981, 80% average. Sorghum harvested: 65%, 55% 1981, 80% average. Cotton harvested: 10%, 10% 1981, 35% average. Days suitable for fieldwork: 6.2.

OREGON: Week began wet with normal temperatures and precipitation reported from all areas. End of week brought drier and much colder air. Almost 1.00 in. of rain fell along coast and northern Cascades. Western valleys received less than 0.40 in.; east of Cascades had less than 0.20 in. Western areas averaged 4° below normal temperatures and eastern areas averaged 6° below normal.

Soil moisture supplies generally adequate with some locally surplus conditions. Winter wheat condition good; 96% seeded, 98% last year, 96% average. Winter wheat emerged 80%, 92% last year, 83% average. Nut harvest complete. Pruning of canes in berry fields underway. Fall vegetable harvest continuing on root and cole crops. Livestock condition good. Fall ranges and pastures good to excellent shape.

PENNSYLVANIA: Week began mild and dry and ended with much colder temperatures and light to moderate amounts of rain. Some light snow was reported over northern counties during latter part of week. Average temperature was 2° above normal while average precipitation was near normal. Heaviest amounts of precipitation occurred in the southeast. Extremes: 71 and 11°.

Five days suitable. Moisture adequate to short. Activities: Spreading lime and fertilizer; making hay; and harvesting grain corn and soybeans. Soybeans 75% harvested, last year 77%. Corn 70% harvested, last year 76%, average 75%. Fourth crop alfalfa 92% harvested, last year 93%. Quality of hay made mostly fair. Feed from pastures below average to average.

PUERTO RICO: Island average rainfall 1.47 in. or 0.14 in. below normal. Highest weekly total 5.35 in. Temperatures averaged about 81 to 80° on Coasts and 75 to 73° Interior Divisions. Extremes: 93 and 51°.

SOUTH CAROLINA: Temperatures averaged a few degrees below normal. General showers 13th and overnight ranged from 1.00 in. in mountains to traces along south coast.

Soil moisture adequate. Outside work: 5 days suitable. Cotton 85% harvested, 92 last year, 88 average; average yield expected at record level. Soybeans 87% mature, 97 last year, 88 average; 27% harvested behind 52 year ago, 56 average. Condition fair with yields depressed due to September drought. Winter grazing 94% planted, ahead of 85 last year, 89 average; 82% emerged in good condition, 70% emergence 1981, 78 average. Wheat 40% planted, 53 year ago, 57 average; condition of small grains good. Wheat 28% emerged, 38 year ago, 42 average.

SOUTH DAKOTA: Temperatures averaged 5 to 15° below normal. Extremes: 53 and -4°.

Up to 9 in. of snow fell in east, halting row crop harvest. Topsoil moisture surplus in southeast and east central and much of northeast, central, south central and west central. Remainder adequate except small area in west central. Reports: 2% short, 50% adequate, 48% surplus. Three days suitable. Soybeans damaged most by snow. Current conditions suggest more corn than normal will be left until spring. Corn harvest 23 days late, soybeans 13 days, grain sorghum and sunflowers 17 days. Cattle marketings increasing. Ranchers want to sell before bad weather hits. Some cattle being held from stubble fields because farmers could not harvest entire field. Corn for grain harvested 52%, 1981 93%, average 90%. Soybeans harvested 93%, 1981 100%, average 99%. Sorghum for grain harvested 74%, 1981 97%, average 93%. Sunflowers harvested 77%, 1981 96%, average 97%.

TENNESSEE: Fieldwork: 5.5 days available. Soil moisture 37% short, 61% adequate, 2% surplus. Corn harvested 91%, 1981 91%, average 83%. Cotton picked 96%, 1981 81%, average 75%. Soybeans harvested 87%, 1981 74%, average 74%. Burley tobacco stripped 65%, 1981 73%, average 62%. Oats sown 96%, 1981 96%, average 94%. Wheat sown 84%, 1981 82%, average 84%. Pastures fair. Livestock good.

TEXAS: Cold front moved western sections Texas 10th bringing brief, heavy rains moved across State and off coast 12th. A fast moving cold front moved through 13th, no precipitation accompanied system. Temperatures mostly 5 to 7° above normal, except Trans-Pecos where temperatures 3° above normal. Precipitation 0.66 in. below normal Northeast Texas and Upper Coast, and 0.33 in. below normal North Central and South Central Texas and the Edwards Plateau.

Crops: Short moisture supplies problem many small grain fields. However, dry weather ideal harvesting operations. Although some rain delays encountered, harvest field crops ahead last year. Scattered showers Plains interrupted cotton harvest. Defoliation operations active many areas, some producers waiting another hard freeze. Most fields not dry enough, some green bolls harvested Low Plains. Green foliage some stands Cross-Timbers. Defoliation activities accelerated Trans-Pecos following recent frost. Statewide condition was 60% of normal with 2% excellent; 22% good; 57% fair; and 19% poor. This compares with 80% of normal last year. Sorghum harvest winding down Panhandle. Light rain slowed combining operations some areas, high moisture content grain problem

scattered counties. Good yields reported many areas. Many small grain stands stressed from lack of available moisture. Scattered showers High Plains help germination many dryland wheat stands, producers welcome good, soaking rain. Replanting necessary for many small grain fields that failed to germinate, continued dry weather delayed reseeding operations many areas. Dryland wheat pastures limited grazing Panhandle. Recent showers Blacklands and South Central Texas benefit many wheat and oat fields. Armyworms problem Central Texas southward. Wheat condition across the State was 60% of normal with 3% excellent; 28% good; 44% fair; and 25% poor. Condition down from last week and compares with 90% of normal last year. Peanut harvest progress South Texas under dry, open weather. Harvest fast pace Edwards Plateau. Damp, cloudy weather slowed harvest Cross-Timbers, frost damage reported some fields. Dryland fields low, growers bale many fields for hay. Soybean harvest winding down High Plains, low yields some areas. Harvest active East Texas, although scattered showers slowed operations across area. Along coast wet fields delayed harvesting activities. Some late-planted fields maturing slowly under cooler weather. Sugarbeet harvest progressing well High Plains. Sugarcane harvest slow progress Lower Valley. Sunflower harvest good progress, although lodging problem Panhandle.

Commercial vegetables: Lower Rio Grande Valley, most vegetables good progress. Cucumber, squash and bell pepper harvest active. Supplies citrus continue move to market. Most fruit developing well, despite recent wind damage. San Antonio-Winter Garden, carrot, cabbage and bell pepper harvest active. Onion and carrot planting good progress. East Texas, few sweetpotatoes remain harvest. Trans-Pecos, frost stopped bell pepper harvest Pecos County. Onions good growth. Plains, some carrots moving to market. Continued cool weather accelerate penan harvest. Both yield and quality below normal many orchards. Heavy webworm damage Edwards Plateau. High-moisture nuts problem Trans-Pecos.

Range and pasture: Ranges and pastures limited grazing many areas. High winds depleting available topsoil moisture, short moisture supplies slowed forage growth some areas. Supplemental feeding heavy many areas. Dryland wheat pastures poor condition High Plains, stockers moving onto fields at slow rate. Irrigated wheat pastures good grazing. Extensive culling operations underway many herds, auction markets active. Stock water tanks low most areas, most ranchers welcome good washing rain.

Cotton open bolls 92%, 89% 1981, 93% average. Cotton harvested 41%, 34% 1981, 49% average. Sorghum mature 100%, 100% 1981, 100% average. Sorghum harvested for grain 98%, 92% 1981, 96% average. Wheat planted all purposes 89%, 88% 1981, 92% average. Wheat emerged 65%, 79% 1981, 78% average. Peanuts harvested 73%, 62% 1981, 82% average. Pecans harvested 34%, 31% 1981, 28% average. Soybeans harvested 71%, 65% 1981, 75% average. Sugarbeets harvested 75%, 67% 1981, 63% average. Sunflowers harvested 91%, 74% 1981, 88% average. Oats planted 82%, 85% 1981, 90% average.

UTAH: Precipitation over most of State during forepart of week. Accumulated amounts generally moderate to heavy except for few areas of none to light. Average temperatures ranged from 10° below normal to 1° below.

Corn for grain harvest continues. Some fall plowing remains to be done. Turkey processing continues. Breeding of range ewes on western ranges in progress.

VIRGINIA: High pressure moved off the coast first part of week bringing a warming trend. On 12th a

cold front moved across the State bringing widespread rains and cold temperatures for the weekend. Some scattered snow flurry activity in west and south-west mountains but no measurable amounts were reported. Temperature extremes: Upper teens to mid 70's. Rainfall totals for 12th and 13th were around 0.50 to 1.00 in.

Light showers have increased topsoil moisture to 8% short and 92% adequate and enabled farmers to spend 5.4 days in fields. Temperatures were variable. Major activities were small grain and cover crop seeding, harvest of corn, beans and sorghum, fence and building repair, cutting wood, grading and preparing tobacco for market, preparing livestock for winter, calving and record keeping. Corn 90% harvested, 92% last year and 88% average. Yields still reported excellent. Soybeans 66% harvested, 64% last year and 53% average. Yields reported good for full season and fair for double-crop. Cotton harvest nearing completion with 90% picked, 60% last year and 75% average. Small grain seeding going well with wheat 80% seeded, 79% last year and 71% average. Barley 95% seeded, 98% in 1981 and 92% average. Grain sorghum 58% harvested, 68% last year and 56% average. Winter grains and grazing crops in excellent condition while pastures doing almost as well. Soil sampling, liming and tobacco bed fumigating continues as preparations for hunting.

WASHINGTON: A moderately strong front crossed the State on 6th and coupled with showers that occurred in the unstable air on 7th, deposited nearly all of the precipitation recorded for the week. By 9th, high pressure to the north and low pressure to the south set up a cold easterly flow over the State. This pattern dominated the weather through the remainder of the week and as a result, total rainfall and average temperatures were well below normals.

West: Harvest included corn, silage, carrots, celery, broccoli, and lettuce. Dairymen continue to green chop. Cattle on winter rations. Berry growers continue to prune and tie caneberrries. Hay supplies adequate. Christmas tree growers readying themselves for holiday season.

East: Fall grains in average condition. Soil moisture good. Field corn, potato, and carrot harvests continue. Fruit growers began pruning operations. Fertilization and rodent control continue. Wine grape harvest about over. Cattle in good condition. Hay supplies adequate.

WEST VIRGINIA: Temperatures averaged 4° above normal. High 75° at Charleston, low 14° at Green Bank. Precipitation below normal, except in southern portion where it was near normal.

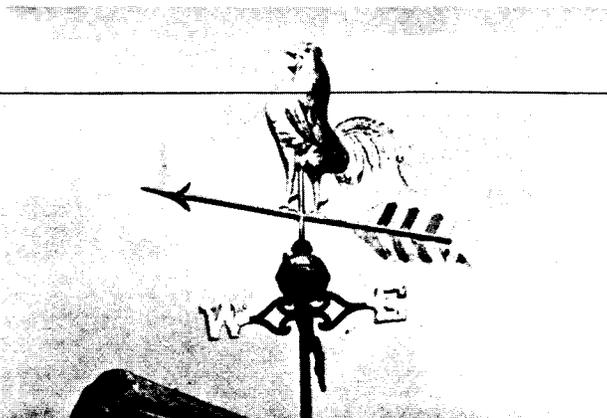
Soil moisture adequate to short. Days worked averaged 5.3. Pasture condition fair. Corn 89% harvested.

WISCONSIN: Week started with light rain south and near normal temperatures. The week became wetter 9th and 10th as rain fell south and snow north. Water equivalent amounts in excess of 0.75 in. Major storm traversed region 11th to 13th, dropping 4 to 10 in. of snow in northwest while thunderstorms central and south dropped 1.00 to 3.00 in. of rain. High temperatures were generally earlier in the week with readings around 40° northwest and 50's elsewhere. A few readings around 60° occurred 8th along the Illinois border. Low temperatures for the week occurred 13th ranging to slightly below zero northwest to the teens southeast.

Fieldwork: 3 days suitable. Fall plowing 28% finished. Corn harvest 55% complete. Soybean harvest 85% complete. Topsoil moisture supplies rated 15% adequate and 85% surplus.

(continued on back cover)

AMATEUR WEATHER FORECASTING



There is no set of rules for forecasting from local indications which will hold good for all areas. Indications along the Pacific Coast differ materially from those along the Atlantic Coast, the Gulf Coast, or the interior of the continent. In the interior there is a great difference between indications in the Rocky Mountain region and the Great Plains or the Great Lakes. Many signs which might be considered reliable in the Ohio Valley would be valueless in the drier regions of the far Southwest.

Weather proverbs will not be found to be generally applicable, and only those which are found to be based upon scientific fact and principles will be worth considering.

Proverbs pertaining to the condition of the atmosphere, the appearance of the sky, the character and movements of the clouds, and the direction and force of the winds are, for the most part, all that are worth testing out for any particular locality.

Proverbs pertaining to the actions of birds and animals are of little value. Changes in the atmospheric conditions may be responsible for their peculiar actions, but they are affected by the weather which is taking place and not by weather to come.

Sayings pertaining to forecasts for coming seasons are entirely without foundation. For example, peculiar growths and developments in vegetation are the results of weather conditions that have passed and have no connection with those to come. The character of the muskrat's house or the beaver's dam is the direct result of the stage of the water at the time the structure was made.

Everything savoring of astrology, or the mysterious in general, should be entirely rejected.

Here are some general statements of wind-barometer indications that are generally applicable to all parts of the country:

"When the wind sets in from points between south and southeast and the barometer falls steadily, a storm is approaching from the west or northwest, and its center will pass near or north of the observer within 12 to 24 hours, with wind shifting to the northwest by way of south and southwest.

"When the wind sets in from points between east and northeast and the barometer falls steadily, a storm is approaching from the south or southwest, and its center will pass near or to the south of the observer within 12 to 24 hours, with winds shifting to northwest by way of north. The rapidity of the storm's approach and its intensity will be indicated by the rate and amount of the fall in the barometer.

"As a rule, winds from the east quadrants and falling barometric pressure indicate foul weather; and winds shifting to the west quadrants indicate clearing and fair weather, but again there are exceptions and in some parts of

the country these rules do not apply."

The following table generally summarizes wind and barometer indications in the United

States. The amateur forecaster should modify the table in accordance with his or her own observations.

Wind direction	Barometer reduced to sea level	Character of weather indicated
SW. to NW	30.10 to 30.20 and steady	Fair, with slight temperature changes for 1 to 2 days.
SW. to NW	30.10 to 30.20 and rising rapidly	Fair, followed within 2 days by rain.
SW. to NW	30.20 and above and stationary	Continued fair, with no decided temperature change.
SW. to NW	30.20 and above and falling slowly	Slowly rising temperature and fair for 2 days.
S. to SE	30.10 to 30.20 and falling slowly	Rain within 24 hours.
S. to SE	30.10 to 30.20 and falling rapidly	Wind increasing in force, with rain within 12 to 24 hours.
SE. to NE	30.10 to 30.20 and falling slowly	Rain in 12 to 18 hours.
SE. to NE	30.10 to 30.20 and falling rapidly	Increasing wind, and rain within 12 hours.
E. to NE	30.10 and above and falling slowly	In summer, with light winds, rain may not fall for several days. In winter, rain within 24 hours.
E. to NE	30.10 and above and falling rapidly	In summer, rain probable within 12 to 24 hours. In winter, rain or snow, with increasing winds, will often set in when the barometer begins to fall and the wind sets in from the NE.
SE. to NE	30.00 or below and falling slowly	Rain will continue 1 to 2 days.
SE. to NE	30.00 or below and falling rapidly	Rain, with high wind, followed, within 36 hours, by clearing, and in winter by colder.
S. to SW	30.00 or below and rising slowly	Clearing within a few hours, and fair for several days.
S. to E	29.80 or below and falling rapidly	Severe storm imminent, followed within 24 hours, by clearing, and in winter by colder.
E. to N	29.80 or below and falling rapidly	Severe northeast gale and heavy precipitation; in winter, heavy snow, followed by a cold wave.
Going to W	29.80 or below and rising rapidly	Clearing and colder.

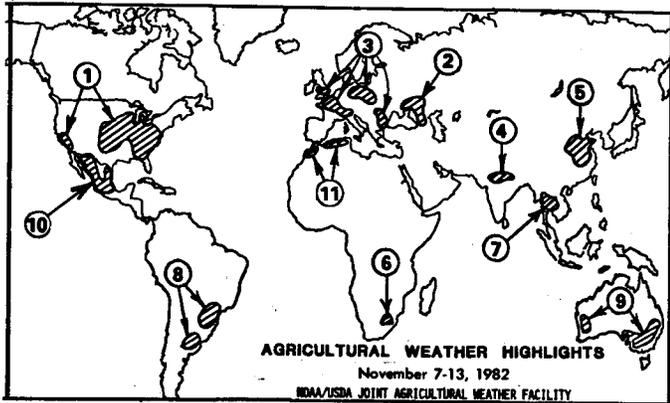
Estimating Wind Speeds

This table is based roughly on a scale for estimating wind speeds devised in 1805 by Admiral Sir Francis Beaufort of the British Royal Navy. The original "Beaufort Scale" was based on the amount of canvas that a full-rigged frigate of the period could carry. The scale has since been modified and modernized.

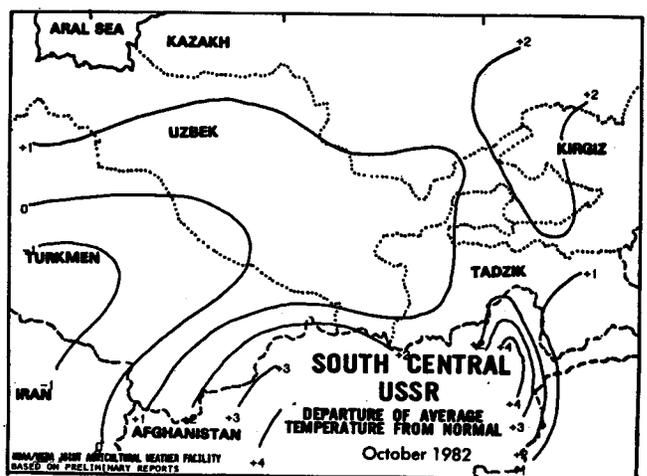
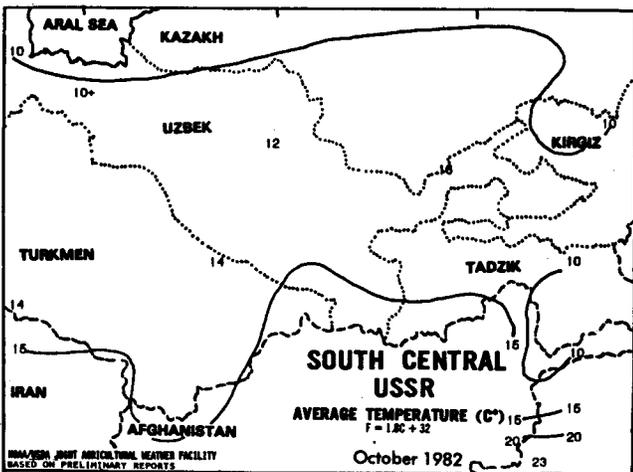
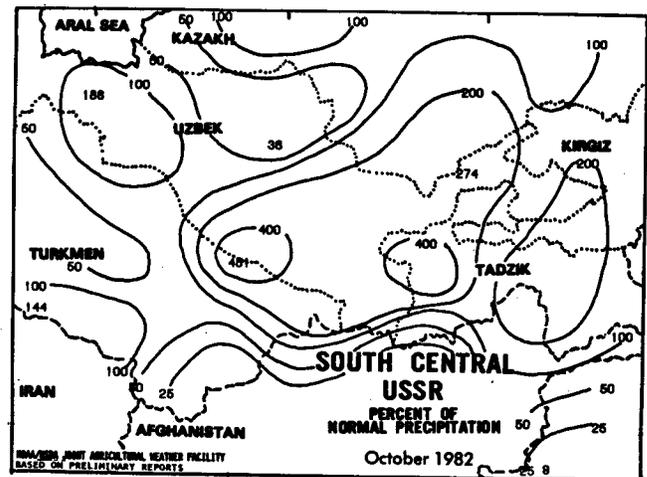
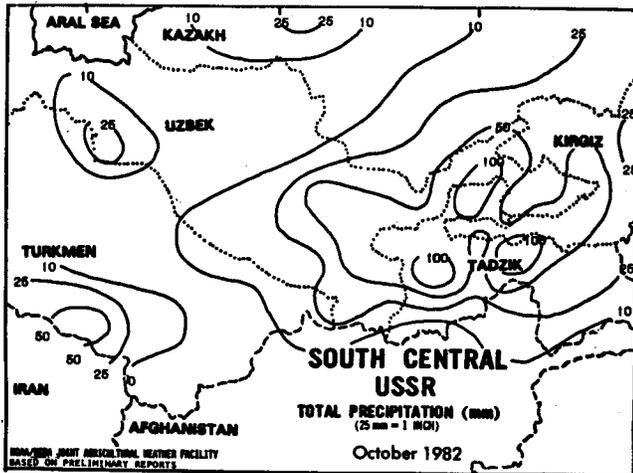
Beaufort number	Miles per hour	Knots	International description	Specifications
0	Less than 1	Less than 1	Calm	Calm; smoke rises vertically.
1	1-3	1-3	Light air	Direction of wind shown by smoke drift but not by wind vane.
2	4-7	4-6	Light breeze	Wind felt on face; leaves rustle; ordinary vane moved by wind.
3	8-12	7-10	Gentle breeze	Leaves and small twigs in constant motion; wind extends light flag.
4	13-18	11-16	Moderate	Raises dust, loose paper; small branches are moved.
5	19-24	17-21	Fresh	Small trees in leaf begin to sway; crested wavelets form on inland waters.
6	25-31	22-27	Strong	Large branches in motion; whistling heard in telegraph wires; umbrellas used with difficulty.
7	32-38	28-33	Near gale	Whole trees in motion; inconvenience felt walking against wind.
8	39-46	34-40	Gale	Breaks twigs off trees; generally impedes progress.
9	47-54	41-47	Strong gale	Slight structural damage occurs: (chimney pots, slates, removed).
10	55-63	48-56	Storm	Seldom experienced inland; trees uprooted; considerable structural damage occurs.
11	64-72	56-63	Violent storm	Very rarely experienced; accompanied by widespread damage.
12	73-82	64-71	Hurricane	

International Weather and Crop Summary

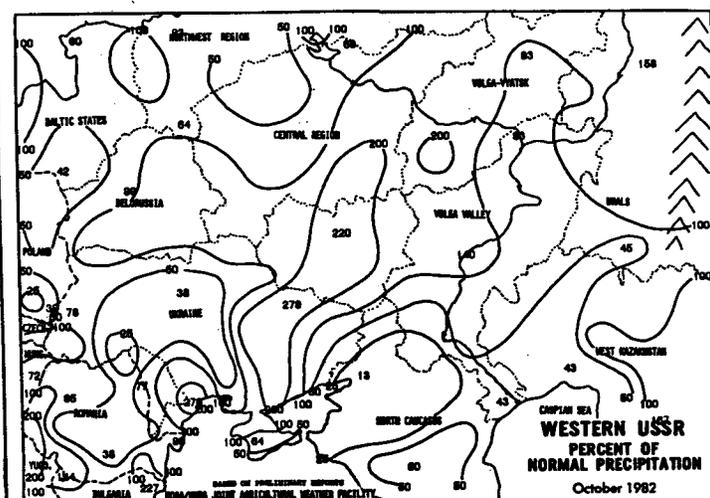
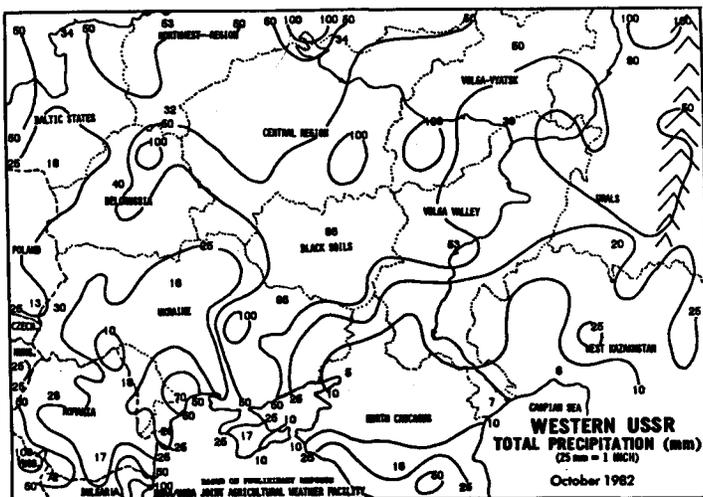
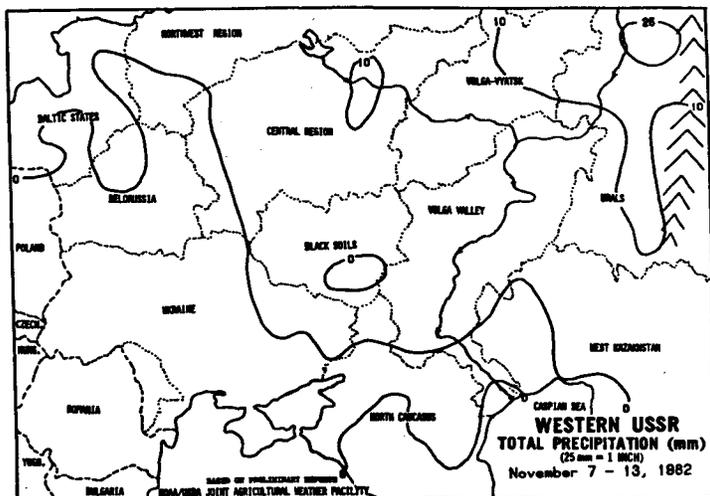
November 7 to 13

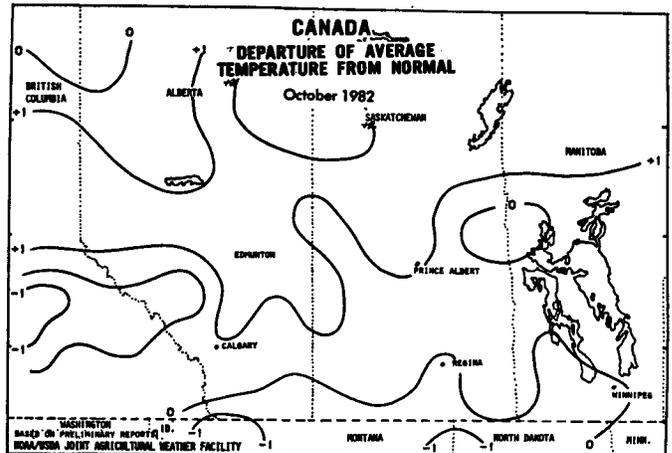
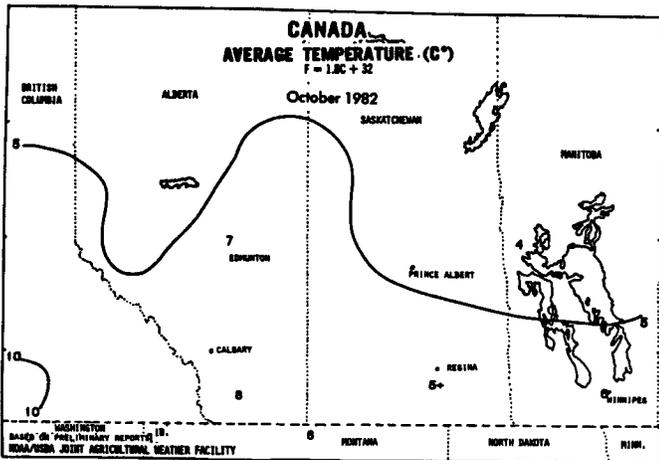
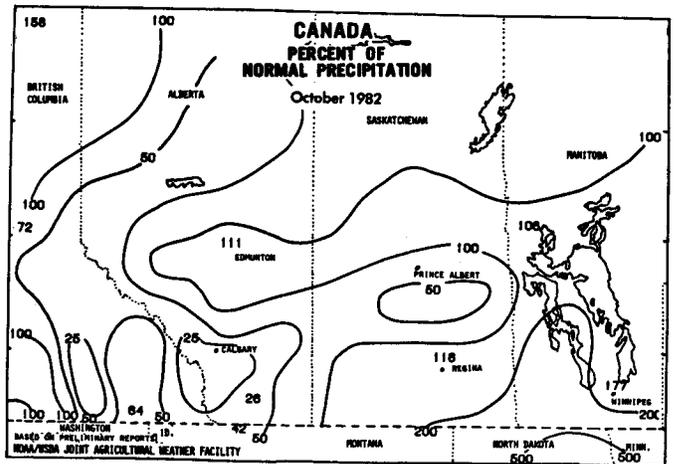
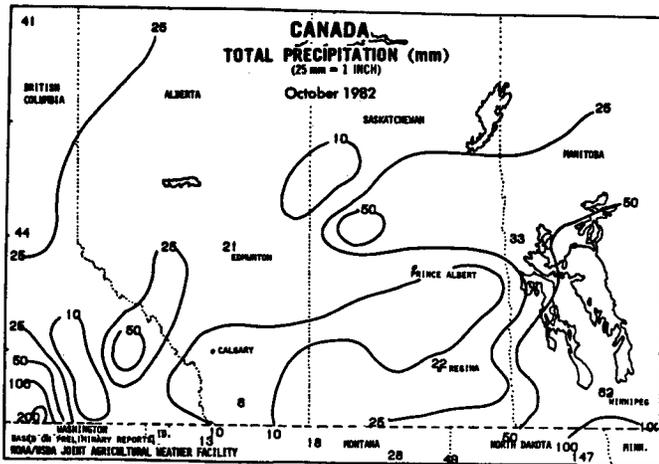
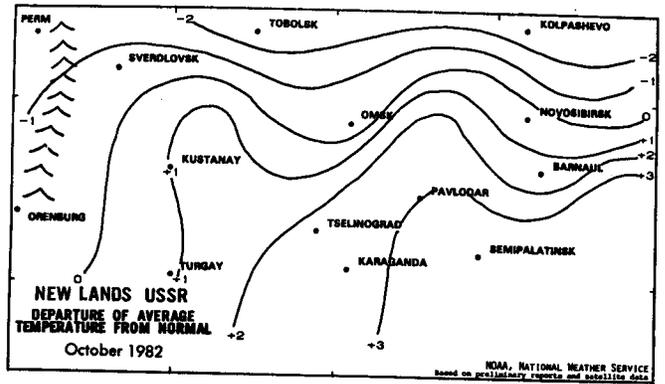
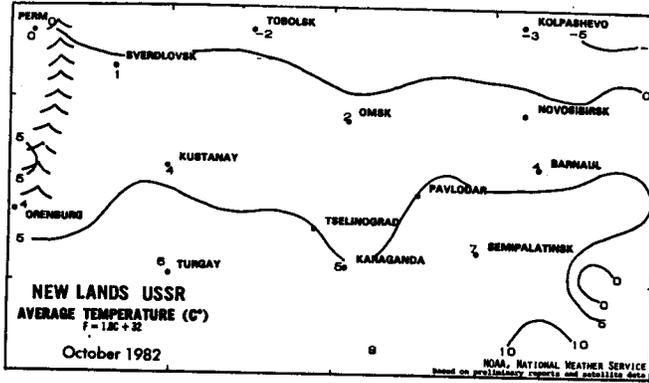
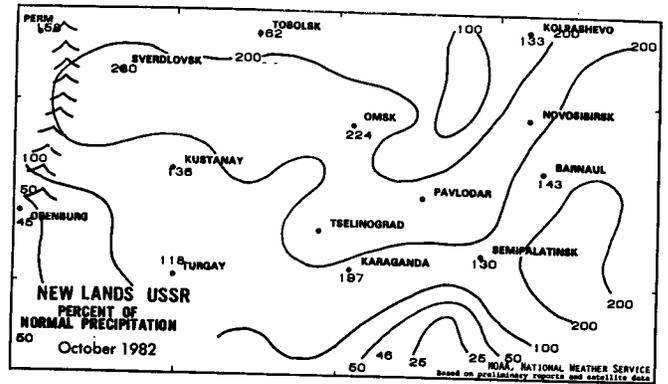
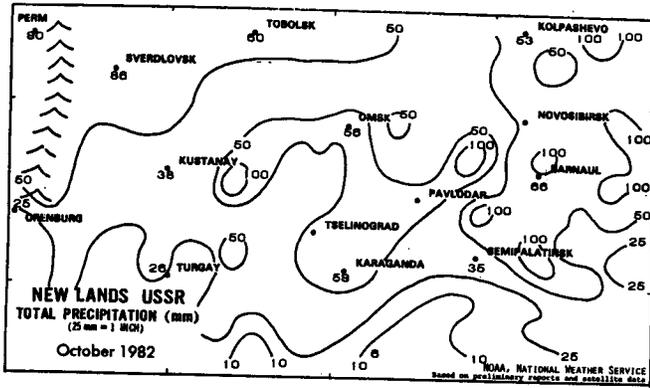


- UNITED STATES:** Winter storm's heavy precipitation delays harvest in Southern California, and most of eastern Great Plains, Corn Belt and Southeast. Light rains benefit dry wheatlands in western parts of Texas to Kansas.
- USSR:** Mostly dry weather continues over the major winter grain areas.
- EUROPE:** Wet weather returns to winter grain areas of England, France, and northern Italy. Still too dry in East Germany, Poland, and parts of the southeast.
- SOUTH ASIA:** Showers improve winter grain planting prospects in eastern Rajasthan, Madhya Pradesh, and the eastern half of Uttar Pradesh.
- EASTERN ASIA:** Showers benefit some winter grains in the North China Plain.
- SOUTH AFRICA:** Scattered showers in eastern corn areas and mostly dry in west--adequate for corn planting.
- SOUTHEAST ASIA:** Generally dry weather in Thailand's main rice areas, but showers aid crop growth in peninsula.
- SOUTH AMERICA:** Wet weather hampers wheat harvest and soybean planting in southern Brazil. Favorable conditions for early crop growth in Argentina.
- AUSTRALIA:** Dry weather speeds harvest of high-quality wheat but rain needed for planting and early growth of sorghum and cotton in east.
- MEXICO:** Light rain over parts of northwest helps rangelands while dry weather aids harvest in major crop areas.
- NORTHWESTERN AFRICA:** Favorable moisture in most areas for winter grain planting.

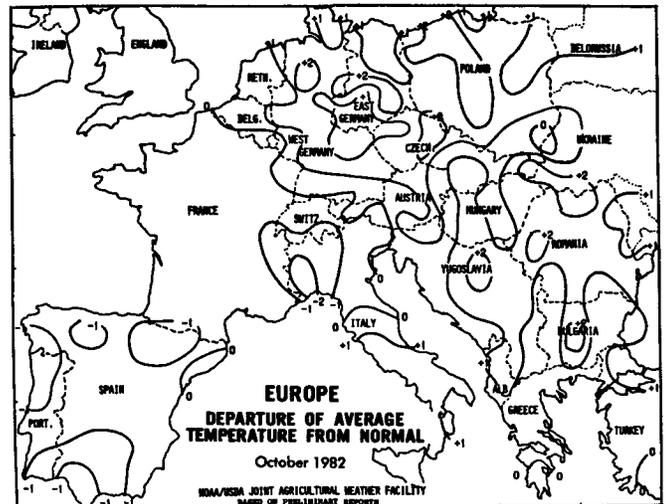
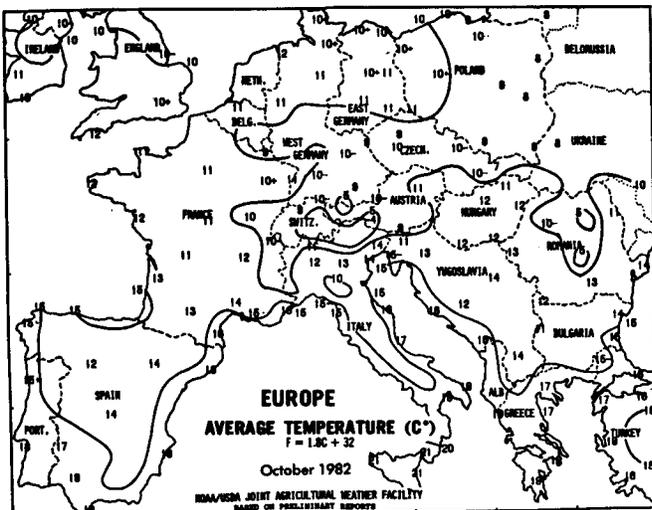
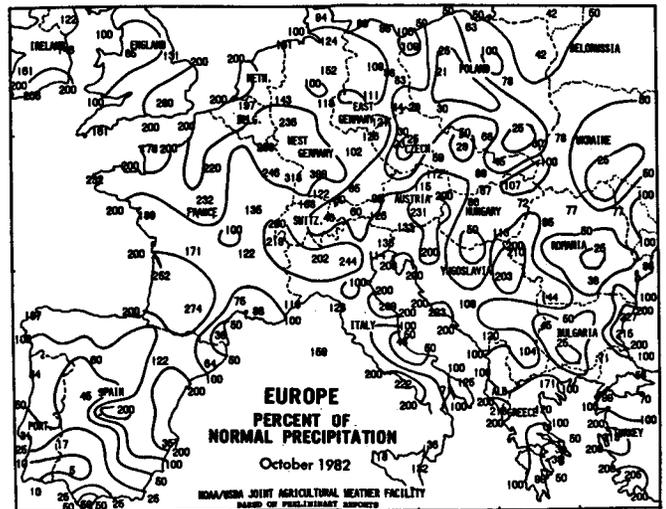
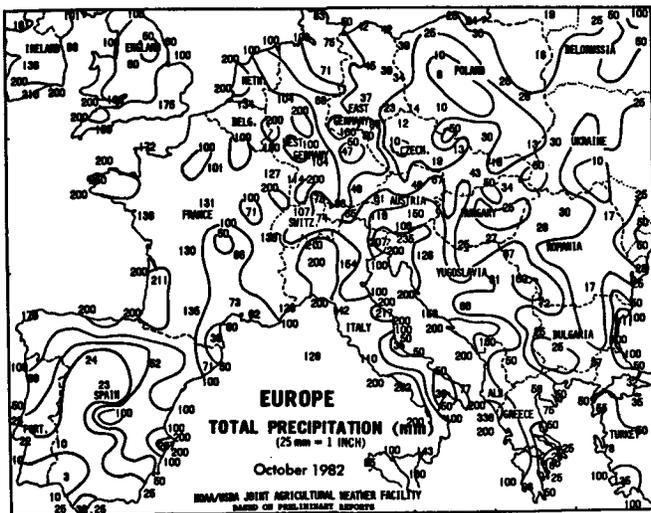
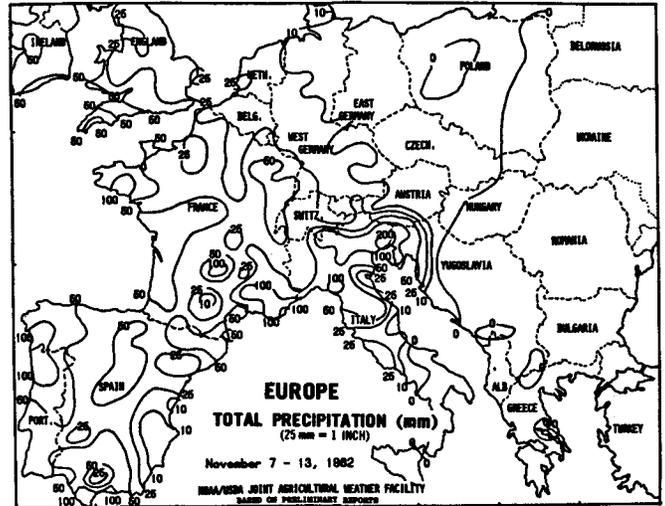


USSR...Dry weather caused by a cold high-pressure system covered most winter grain areas of European USSR. In October, most of the eastern Ukraine, Black Soils, and Volga Vyatsk regions received above-normal precipitation. However, the precipitation in the eastern Ukraine fell around the middle of the month, following a period of prolonged dryness. Chronic dryness has covered winter grains in the North Caucasus and southern Volga Valley since early August, adversely affecting their early establishment. The crop needs above-normal temperatures and significant precipitation to ensure adequate plant growth before dormancy; otherwise, it will be more susceptible to winterkill. Above-normal precipitation in the New Lands during October aided soil moisture recharge for next year's grain crops. In South Central USSR, above-normal precipitation and cold weather both in October and this past week created unfavorable harvest conditions and caused some reductions in the quantity and the quality of the cotton crop.

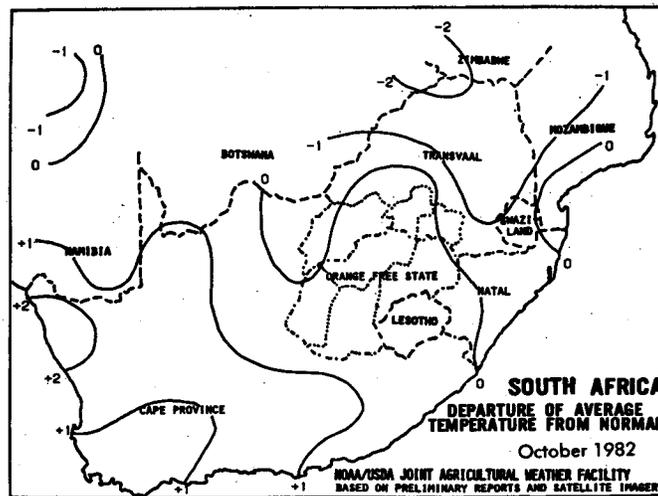
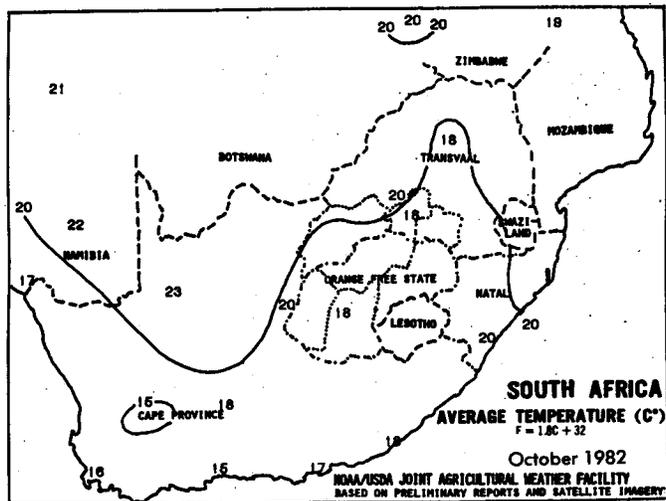
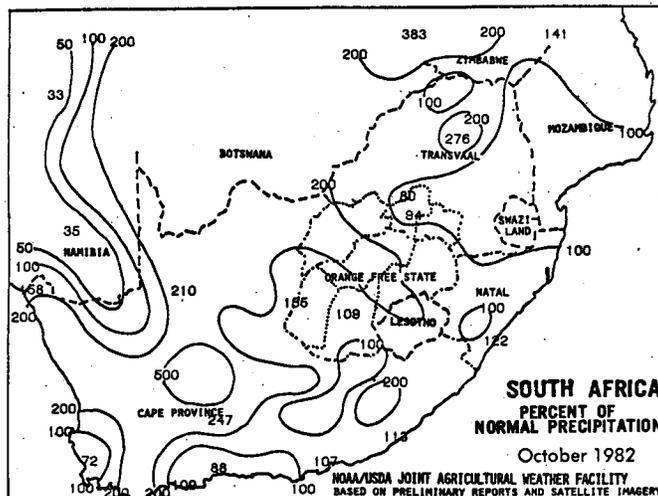
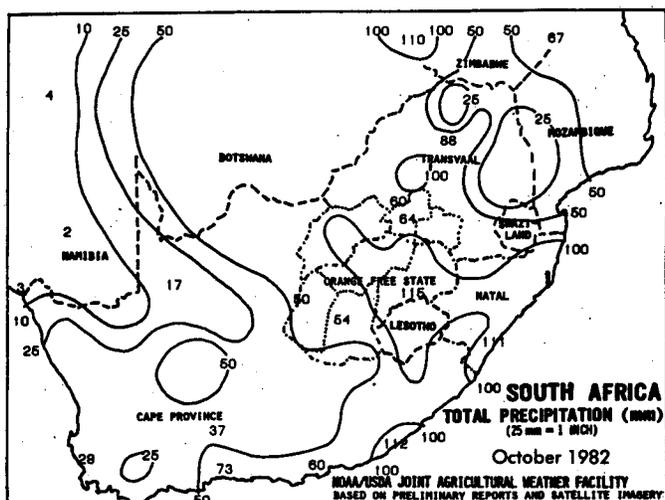
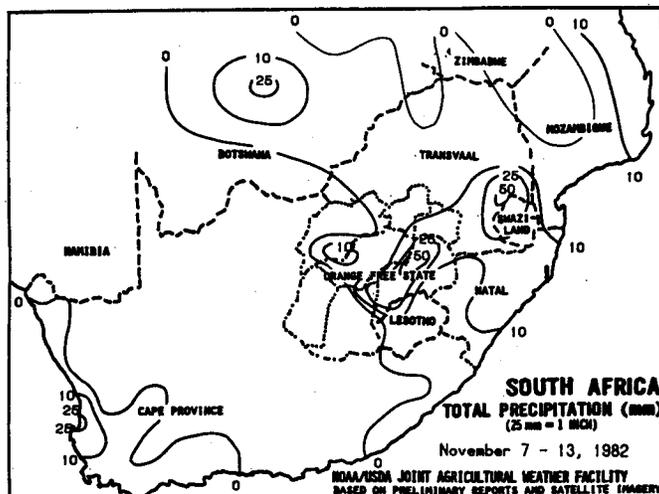




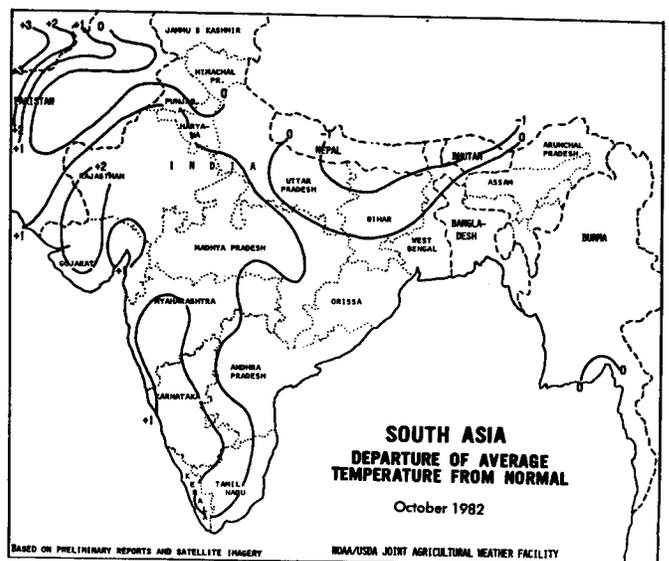
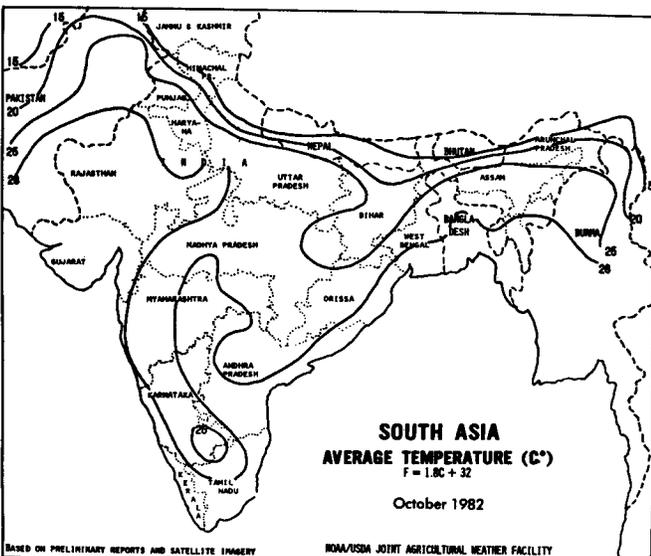
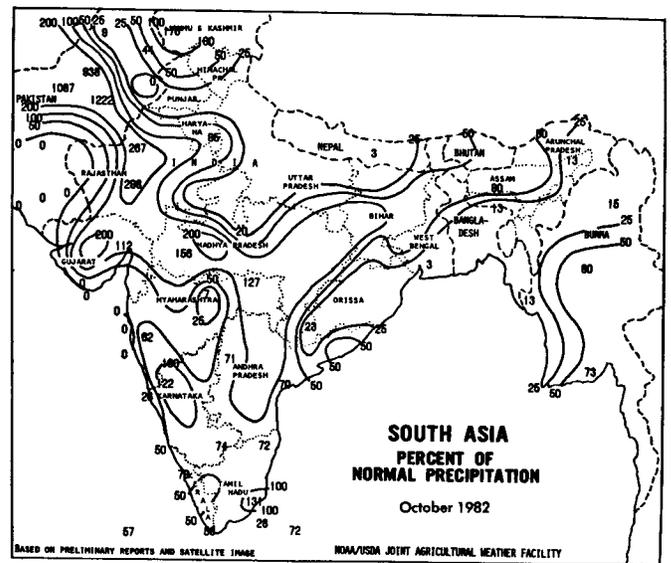
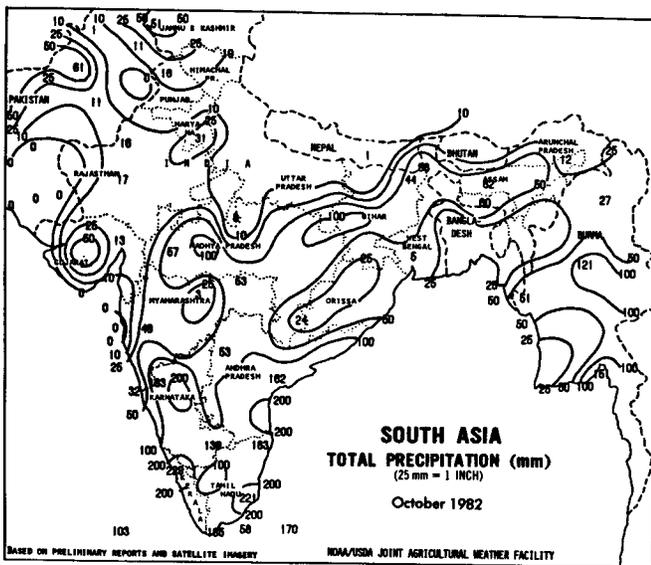
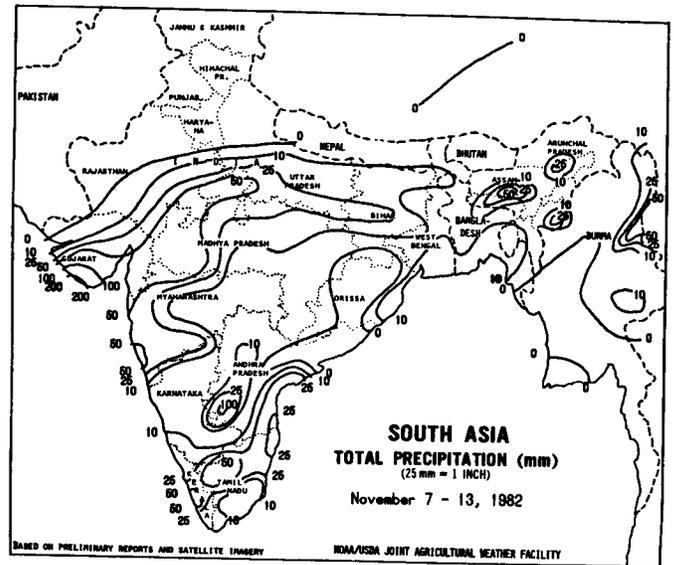
EUROPE...Wet weather returned to England, France, northern Italy, and Spain. Well-above-normal precipitation fell on England, northern France, and parts of northern Italy in October delaying final harvest efforts. Soil conditions may have been too wet for winter grains in some areas. Generous rains in Spain provided ideal topsoil moisture for winter grain planting, while unfavorably dry weather continued October's pattern in East Germany and Poland. Dry weather covered most of the southeast this past week, and in October, below-normal precipitation in Romania produced spotty germination in some areas. The region needs additional rain.



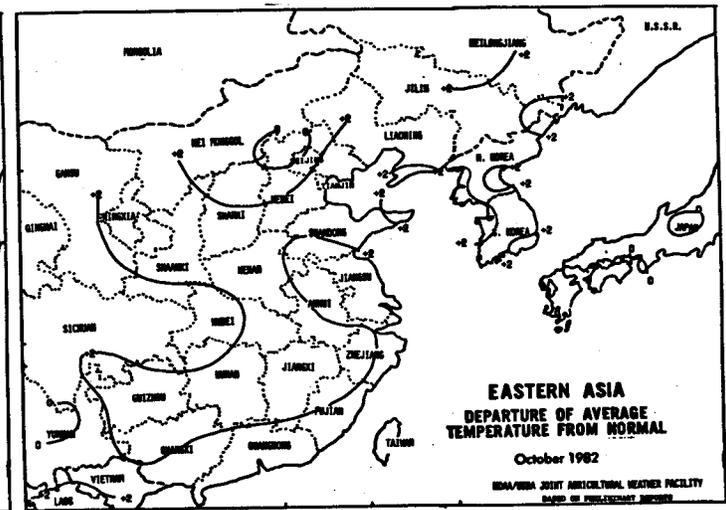
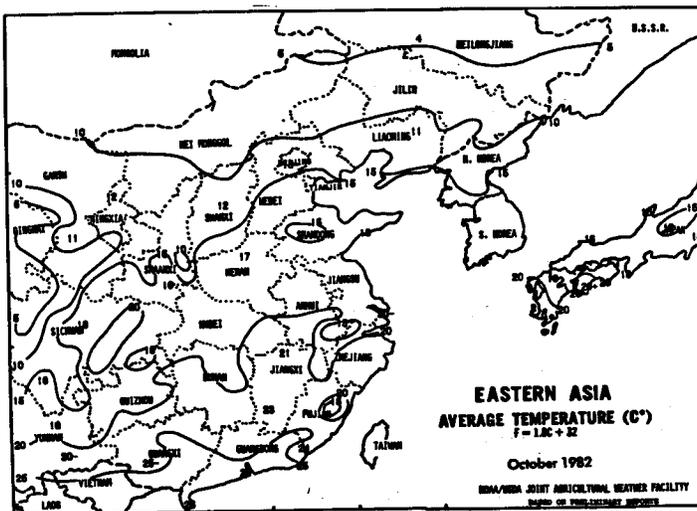
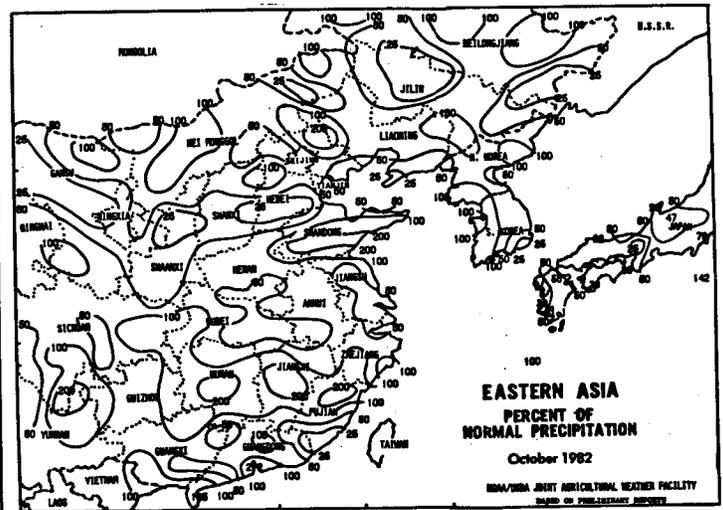
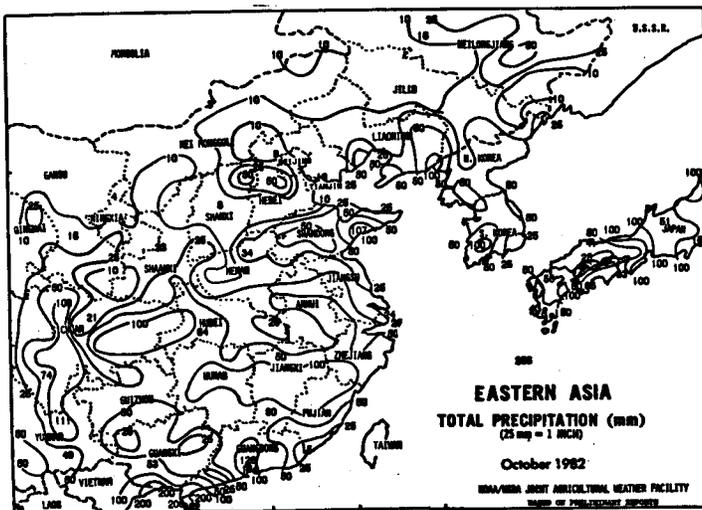
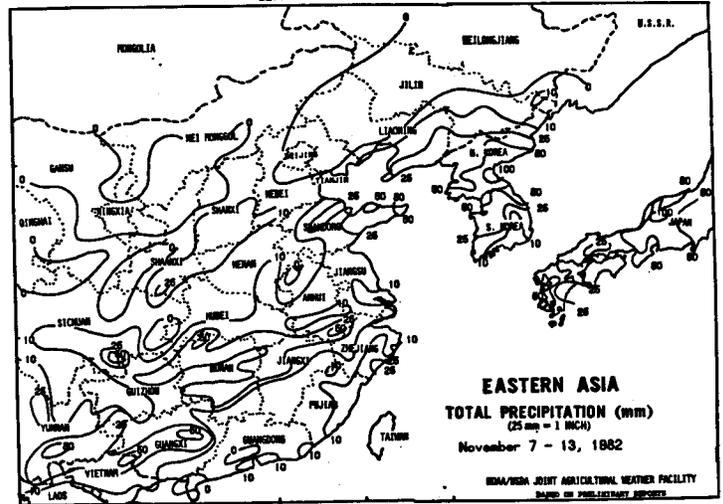
SOUTH AFRICA... Scattered showers fell mostly in eastern corn areas during the week with locally heavy rain concentrated in eastern Orange Free State. Western crop areas were generally dry as the corn planting season progressed throughout the Maize Triangle. Planting conditions have improved considerably since mid-October when significant rains marked the onset of the wet season. October rainfall was, in fact, above the monthly average in all but the extreme northeastern portion of the major corn producing area comprising the Orange Free State, the Transvaal, and Natal. Monthly temperatures averaged slightly above normal in most areas. Adequate moisture is available for planting and emergence. Timely rains will be needed to maintain favorable growth conditions, however.



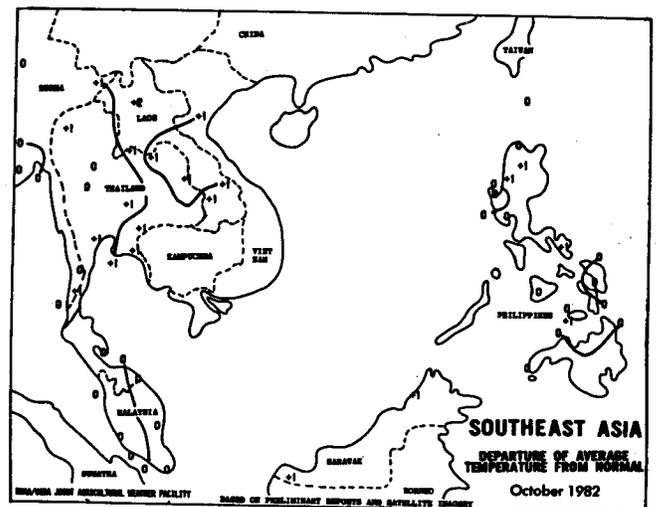
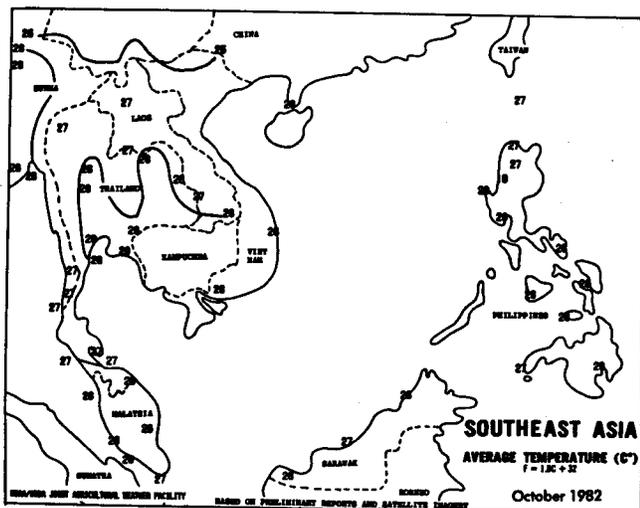
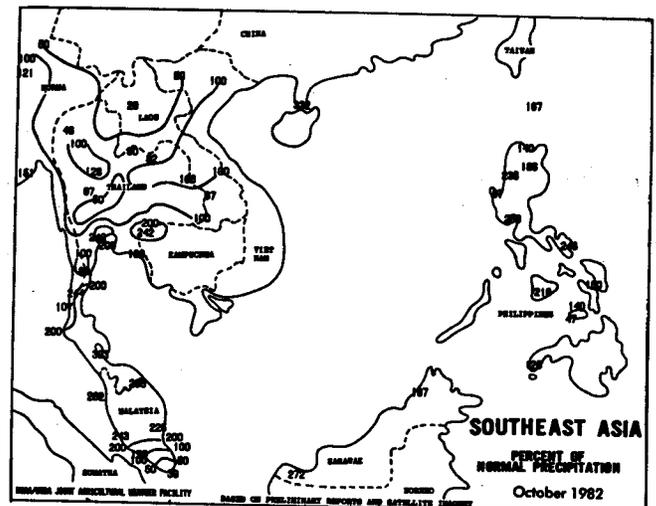
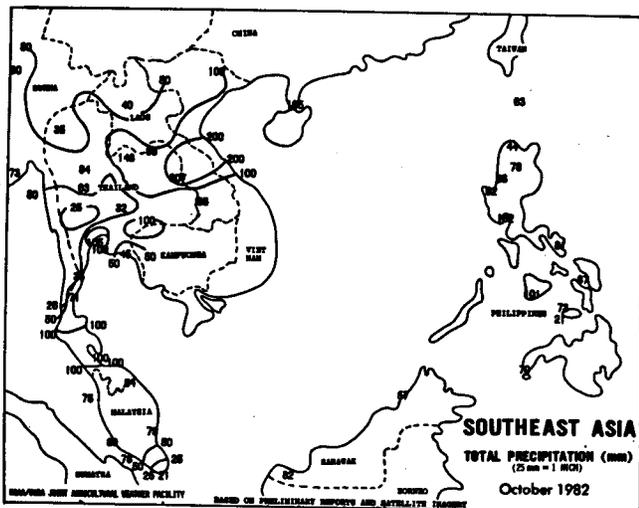
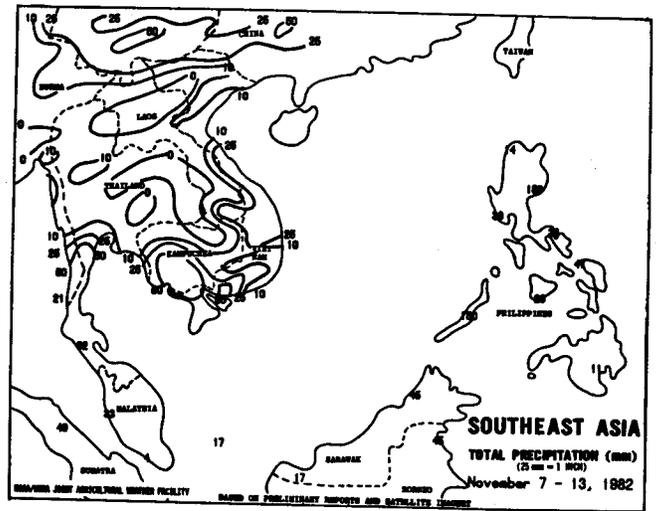
SOUTH ASIA... A tropical storm traveled eastward from the Arabian Sea through Gujarat and into eastern Uttar Pradesh early in the week. As a result, heavy rains fell along the coast of Gujarat, producing localized flooding. However, rainfall declined further inland as the intensity of the storm decreased. The rain likely delayed the groundnut harvest but improved winter grain planting prospects in eastern Rajasthan, Madhya Pradesh, and the eastern half of Uttar Pradesh. These areas received below-normal rains in October. Winter grain areas further north in Punjab and Haryana continued October's dry pattern. Showers in central and south Peninsular India continued the favorable pattern of October, benefiting cotton and winter rice. In Orissa, below-normal rains since October provided unfavorable moisture conditions for winter rice in the reproductive stage of development.



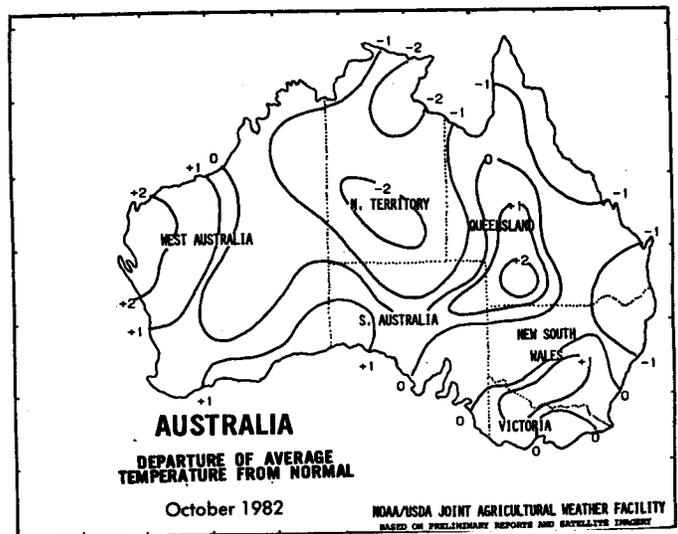
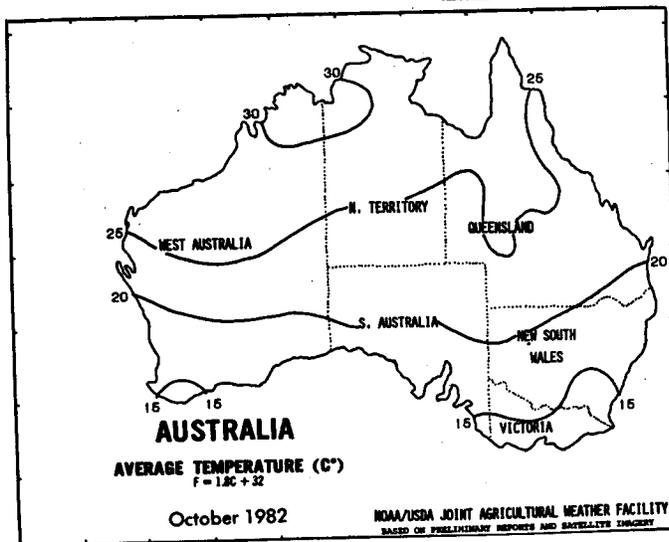
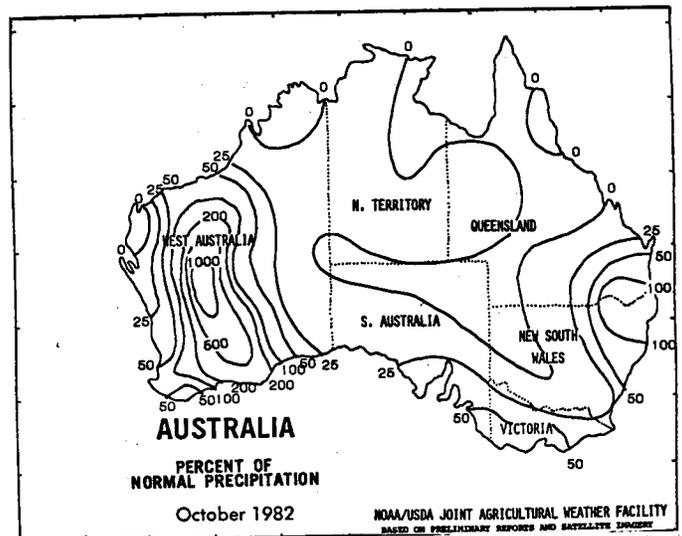
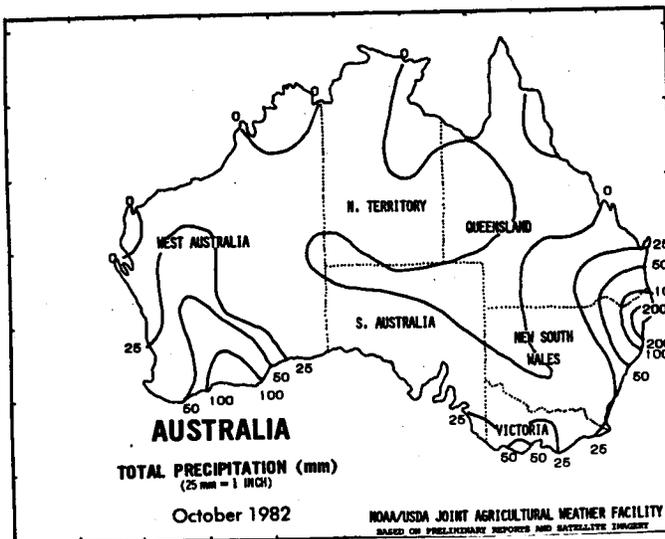
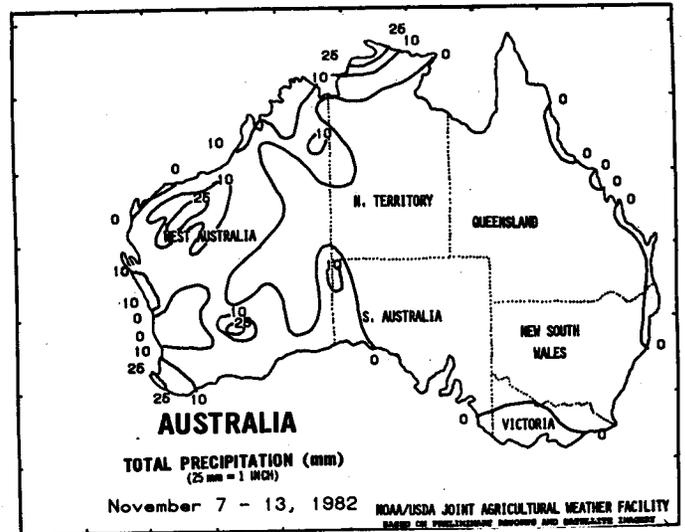
EASTERN ASIA...Wet weather continued to cover some crop areas south of the Yangtze River--a pattern which persisted through much of October. The late rice harvest may have been delayed in the wettest areas. In contrast, a below-normal precipitation pattern in October covered winter grain areas in the North China Plain, with topsoil moisture supplies becoming short in driest areas. Showers this past week benefited winter grains in the North China Plain which continued to add more growth before entering dormancy, normally in mid-December. Wet weather continued to benefit South Korea, reversing October's below-normal rainfall pattern.



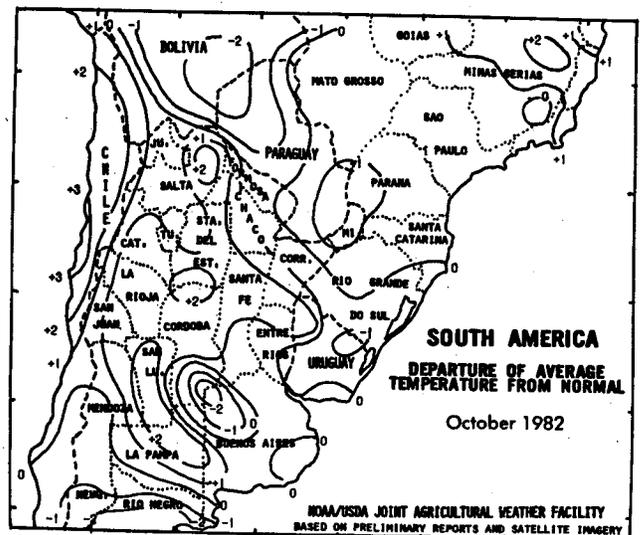
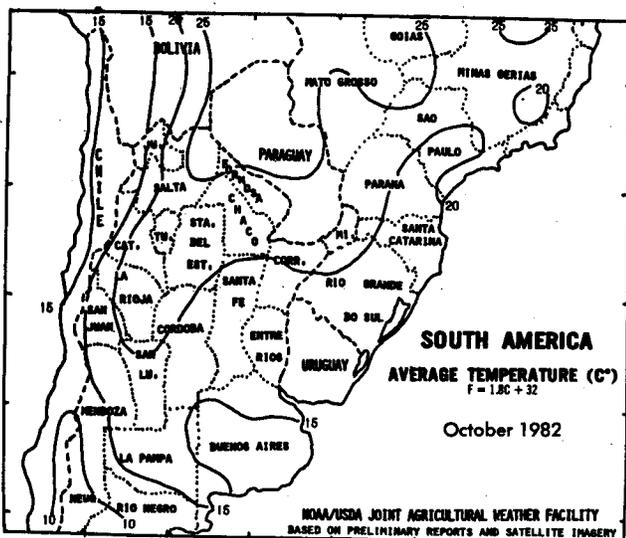
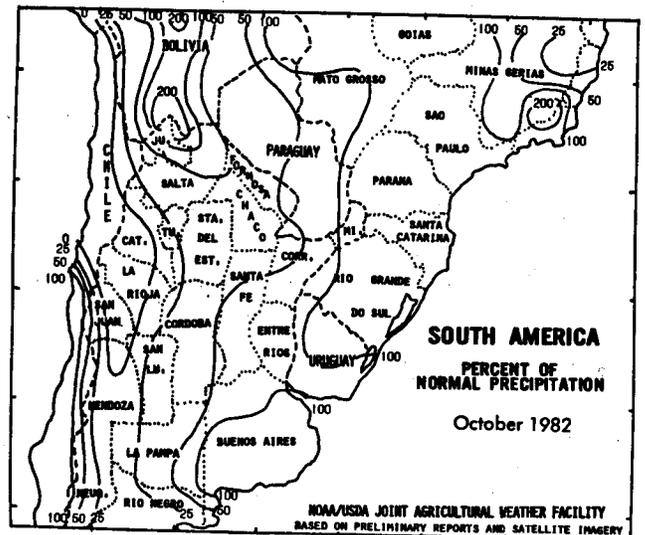
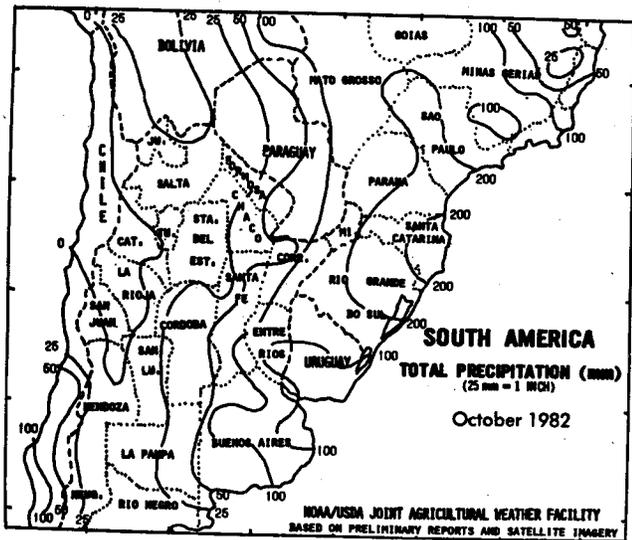
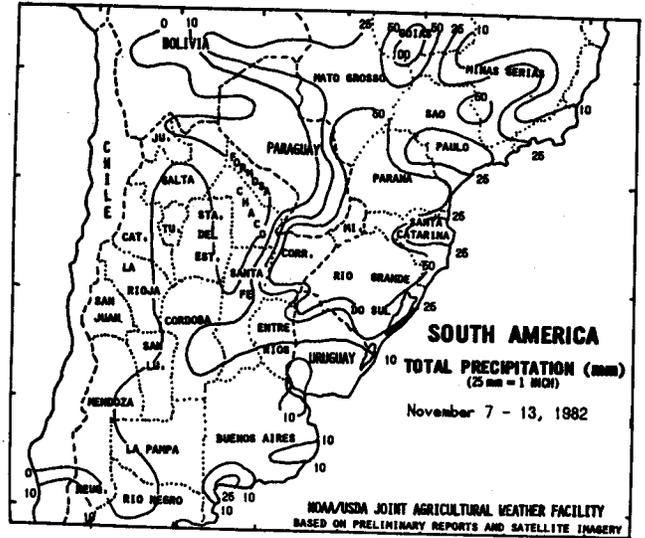
SOUTHEAST ASIA...Most of Thailand remained relatively dry again this week with only scattered, light showers covering the rice areas. Rainfall increased over peninsula Thailand, Malaysia, and northern portions of Indonesia, but weekly totals were mostly below the long-term average for this time of year. Scattered showers fell throughout the remainder of southeast Asia with the most significant rainfall benefiting southern portions of Kampuchea and Vietnam. The region's rice crop should be in the grain-filling stage except in southern areas where rice is mostly in early vegetative growth. October monthly rainfall in Thailand was mostly below average except in northeastern rice areas. Western crop areas were notably deficient of monthly rainfall for the second consecutive month.



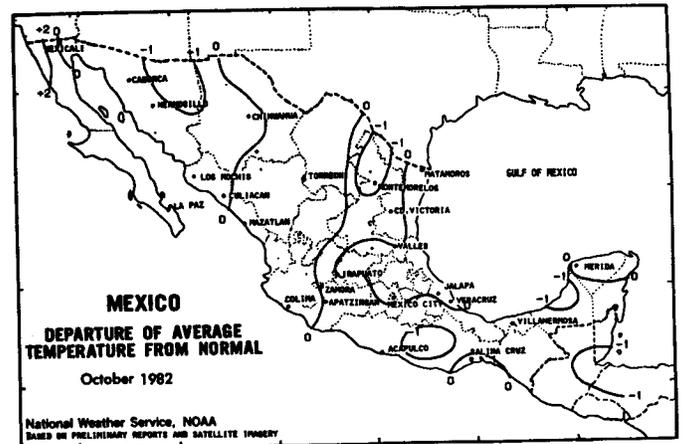
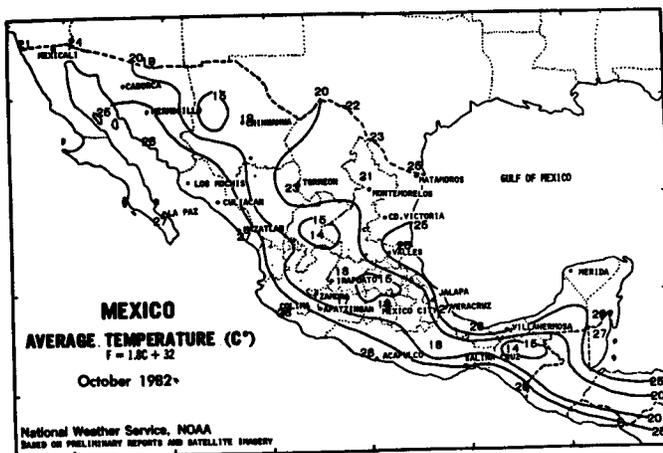
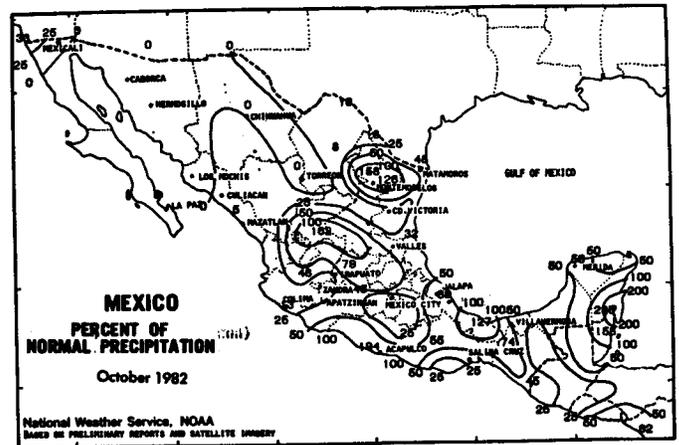
AUSTRALIA... Dry weather continued over eastern and southern crop areas, providing favorable harvest conditions for the severely stressed wheat. Scattered showers throughout the western half of Australia posed no problem for maturing wheat in the south and, perhaps, indicated an increase in tropical activity in the north. October rainfall was again well below average in all drought-stricken areas except in extreme southeastern Queensland and northeastern New South Wales which benefited from locally heavy showers in mid-October. Rains on the east coast also aided some irrigation supplies, but rainfall is desperately needed for sorghum and cotton currently being planted or in early growth stages. Western Australia is expected to produce about 70 percent of Australia's winter wheat crop. Harvesting is underway in all areas with grain quality rated good due to the high protein content.



SOUTH AMERICA...Wetness again hampered fieldwork in southern Brazil as another storm system intensified rapidly after passing through Argentina and Uruguay. The excessive moisture delayed the wheat harvest and early soybean planting, especially in Rio Grande do Sul where heavy rains continued throughout the month of October and into November. Almost all crop areas of Brazil received above-average monthly rainfall, but persistent wetness in southern crop areas has adversely affected agriculture. Some scattered showers fell in Argentine crop areas where wheat is maturing in the north and filling in the south, and corn, sorghum, and other summer crops have been planted. October rainfall was below average in northern cotton areas, slightly below average in the central corn area, and above average in the southern wheat area. Unseasonably cold air settled over Buenos Aires province early last week, following the passage of the frontal system.



MEXICO...Seasonal rains in October over parts of the northeast improved some citrus orchards and rangelands which had been stressed by drought since late spring. Dryness continued over most other northern, central, and south-central regions, favoring harvesting of summer crops but hurting rangeland and some fall crops. Sunny weather along the West Coast was helpful for replanting young vegetables destroyed by Hurricane Paul in the late summer. Southeastern and extreme southern areas generally received adequate rains for crops and livestock.





National Weather Summary (continued from front cover)

a cold front extending southward from the storm and temperatures dropped to subzero readings over central Montana. In contrast, unseasonal warmth blanketed the East. Light showers were scattered across the Pacific Northwest.

SATURDAY . . .The storm center moved into southeastern Canada, while the trailing cold front swept into the Atlantic. Very heavy rains fell in frequent squalls ahead of the front. Frigid air settled over the South, sending freezing temperatures into the Gulf States, while subzero readings covered northern Minnesota. A minor low-pressure storm system developed in the central Rockies, producing light rain and snow.

State Summaries (continued from p. 14)

WYOMING: Cold, wet southeast. Temperatures about normal in west half and below normal in east. Precipitation above normal in northeast and below normal in western half.

Corn for grain harvest continues as weather permits. Dry weather needed; moisture averaging 16 to 22%. Some late small grains, hay may be lost or of poor quality due to earlier snows. Winter wheat mostly good condition. Fall plowing active. Livestock generally good condition; pregnancy testing, vaccinating, and insecticide application underway.

The Weekly Weather and Crop Bulletin (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Weather Chronicle. It is issued under general authority of the Act of January 12, 1895 (44- USC 213), 53d Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the Bulletin. The contents may be reprinted freely, with proper credit.

Annual subscription: domestic \$25, foreign \$33 (in U.S. funds by international money order or check drawn on U.S. bank), payable to U.S. Department of Commerce, NOAA. **POSTMASTER:** Send address changes to NOAA/USDA Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

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