

# WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration, National Weather Service

U.S. DEPARTMENT OF AGRICULTURE  
National Agricultural Statistics Service and World Agricultural Outlook Board

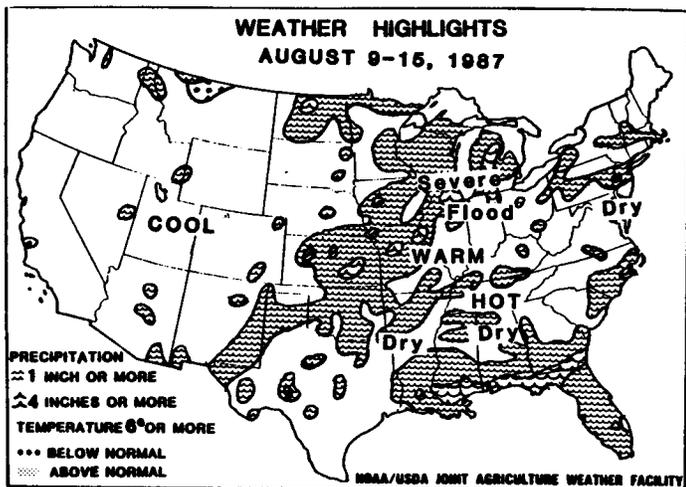
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## National Weather Summary

August 9 to 15, 1987



Plains. Light thunderstorms were widespread from Arizona and New Mexico through the central Rockies and the northern Plains. High temperatures rose to above 95 degrees through the Plains to South Dakota.

WEDNESDAY...Severe thunderstorms developed in the central Plains and continued along the eastern gulf coast. Widespread thunderstorms reached from the Southwest to the western Great Lakes. A few showers fell in the Pacific Northwest. Much cooler air moved into the Rockies and northern and central Plains. Temperatures in Lewistown, Montana dropped to below freezing.

THURSDAY...Thunderstorms were widespread from central Texas to Wisconsin and Michigan and to the Pacific Northwest. Severe storms and heavy downpours also were along the eastern gulf coast. Heavy downpours in the Chicago area caused serious flooding. Heavy downpours also caused flooding in the eastern gulf coast region from Mobile to Jacksonville.

FRIDAY...Heavy thundershowers reached from northern Illinois through Michigan. Rain accumulated over 8 inches in the Chicago area and resulted in catastrophic flooding. Heavy rain continued along the eastern gulf coast. Mild weather continued in most of the Nation, with seasonable temperatures across the South.

SATURDAY...Moderate to heavy thunderstorms reached from western Lake Michigan into southern Michigan, and through most of Minnesota. Moderate showers also fell in the northern Rockies and along the southeastern coast. Hot weather returned to the Plains and above-normal temperatures reached through the Midwest.

HIGHLIGHTS: Widespread thunderstorms covered the Nation. Only the deserts of the Southwest were spared the noisy storms. The heaviest thunderstorms were from southeastern New Mexico to the central Great Lakes, and upper Mississippi Valley and along the eastern coast of the Gulf of Mexico. Catastrophic flooding occurred in the Chicago area after over 8 inches of rain fell in 12 hours. Heavy showers also fell in parts of the Northeast and from eastern North Carolina into southern Virginia. Temperatures were unusually warm through the Great Plains at the beginning of the week and again at week's end. Warm weather spread across the Midwest at week's end.

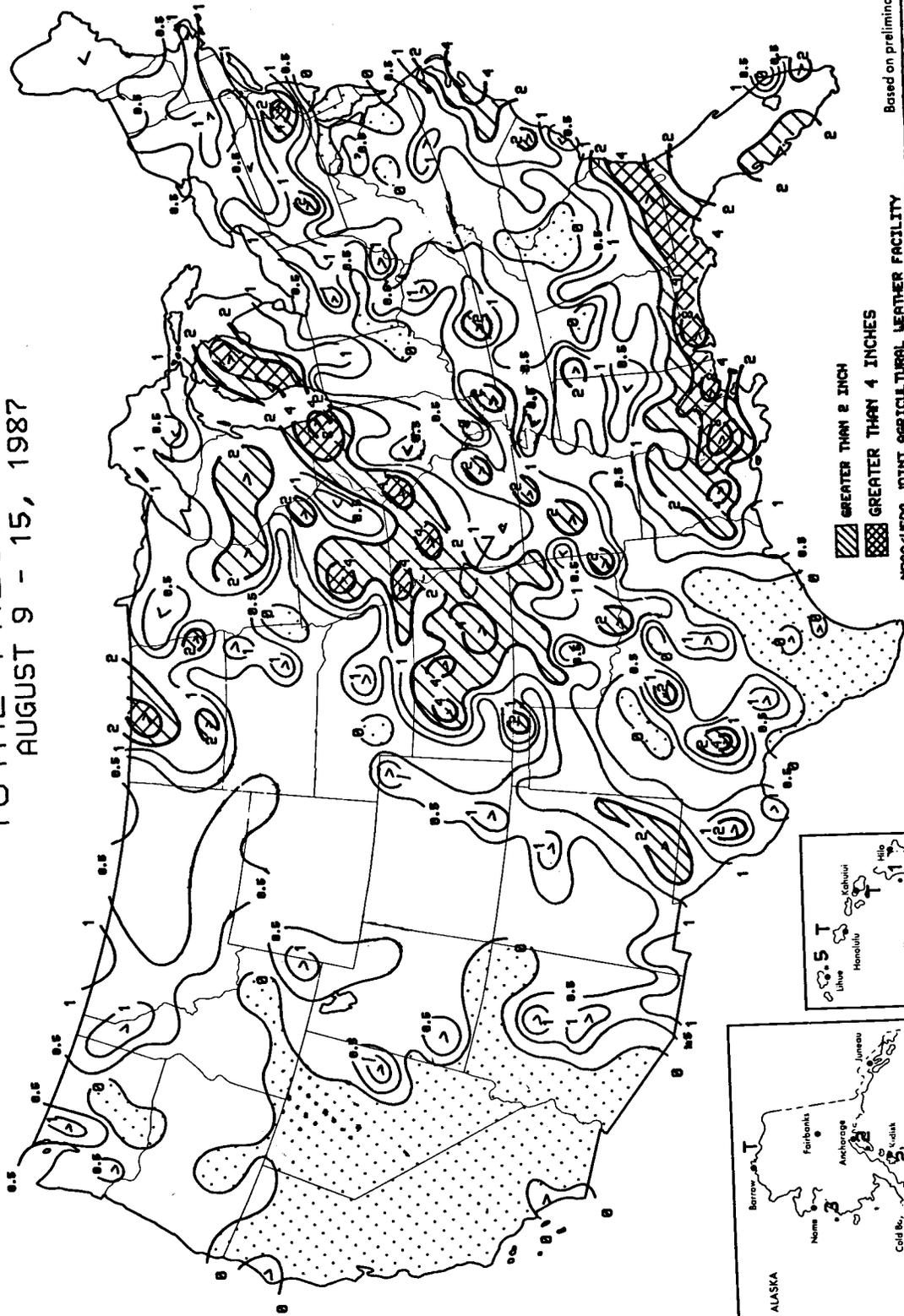
SUNDAY...Widespread thunderstorm activity was along a line from New Mexico to New England. Heavy showers fell from New Mexico to southwestern Oklahoma and from the upper Ohio Valley through New England. A tropical depression formed in the Gulf of Mexico and brought heavy showers to the Louisiana coast. Light to moderate thundershowers were scattered from the Tennessee Valley through the Carolinas and through West Virginia to parts of Maryland.

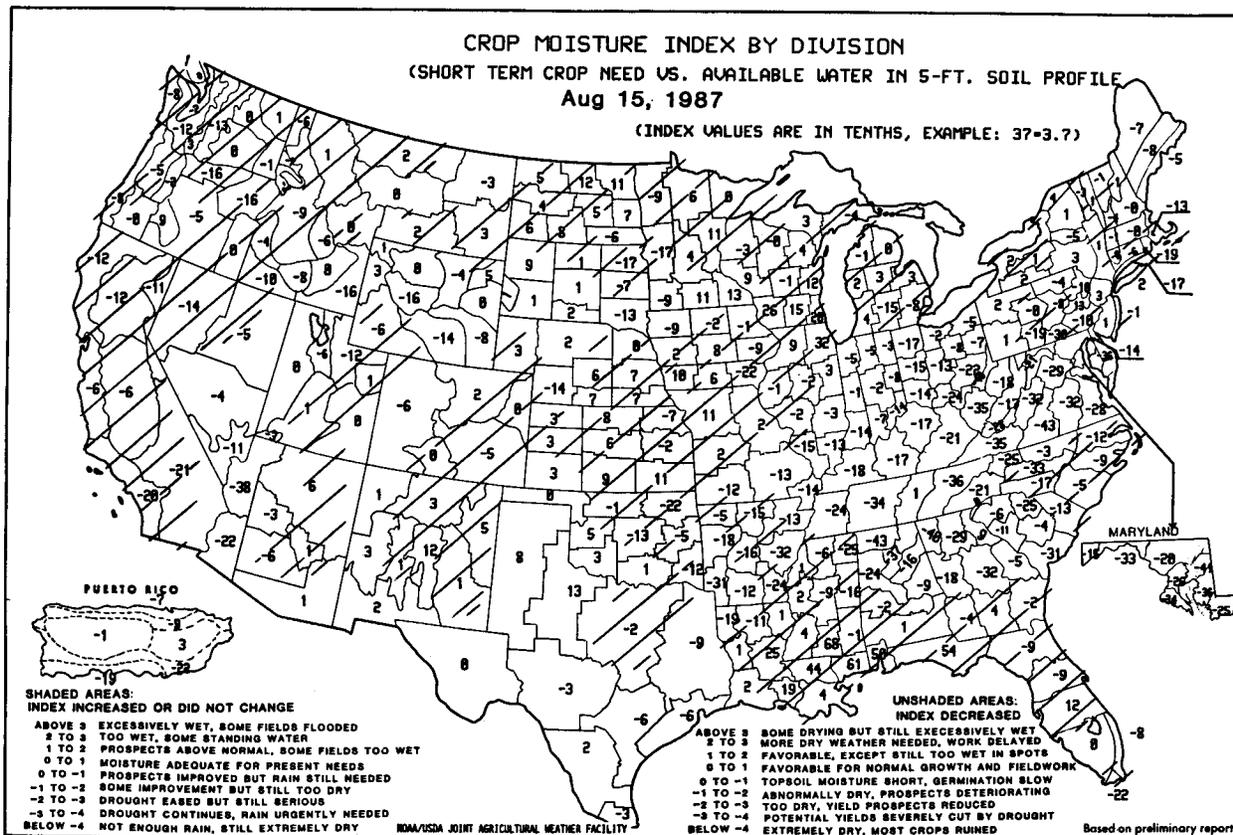
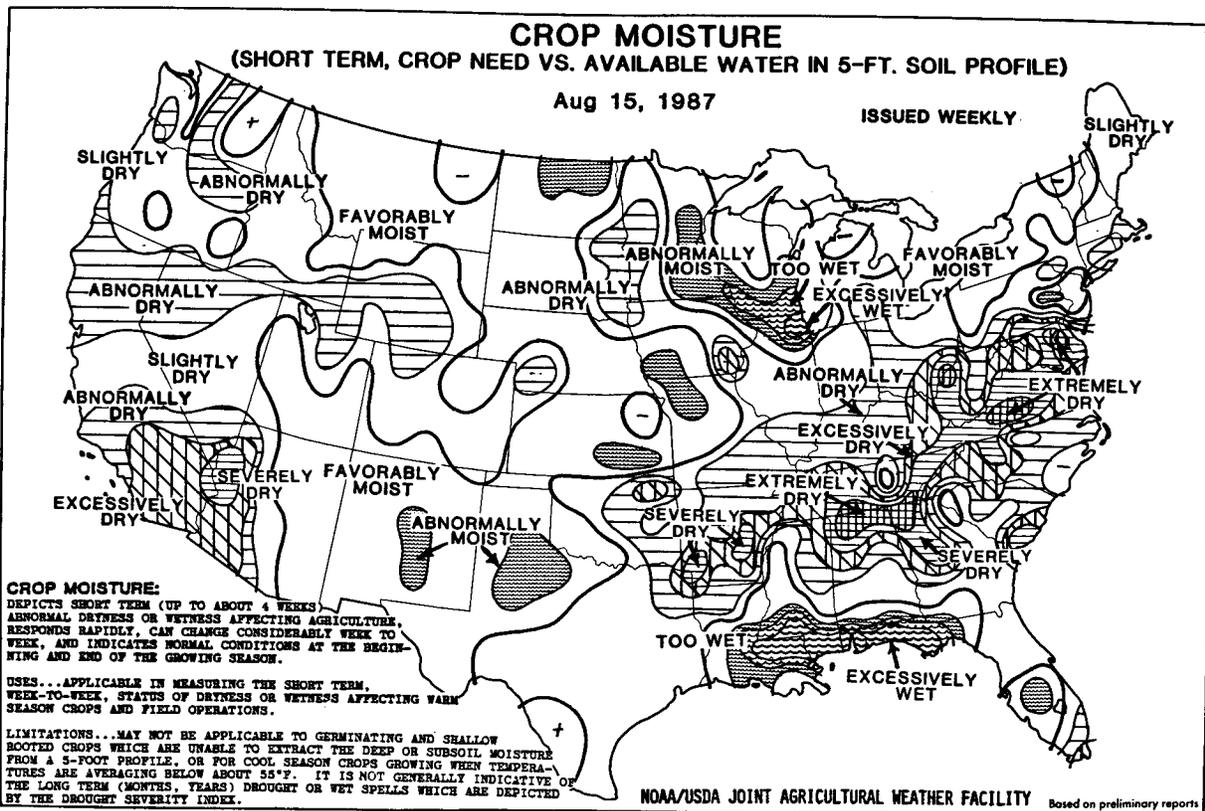
MONDAY...Thunderstorms were widespread from Arizona eastward to Georgia and Florida and up the coast through the Carolinas. Light showers covered the area from the upper Ohio Valley through New England. Mild temperatures covered the Midwest and central Great Plains, but hot weather spread through the Rocky Mountains and onto the northern Plains.

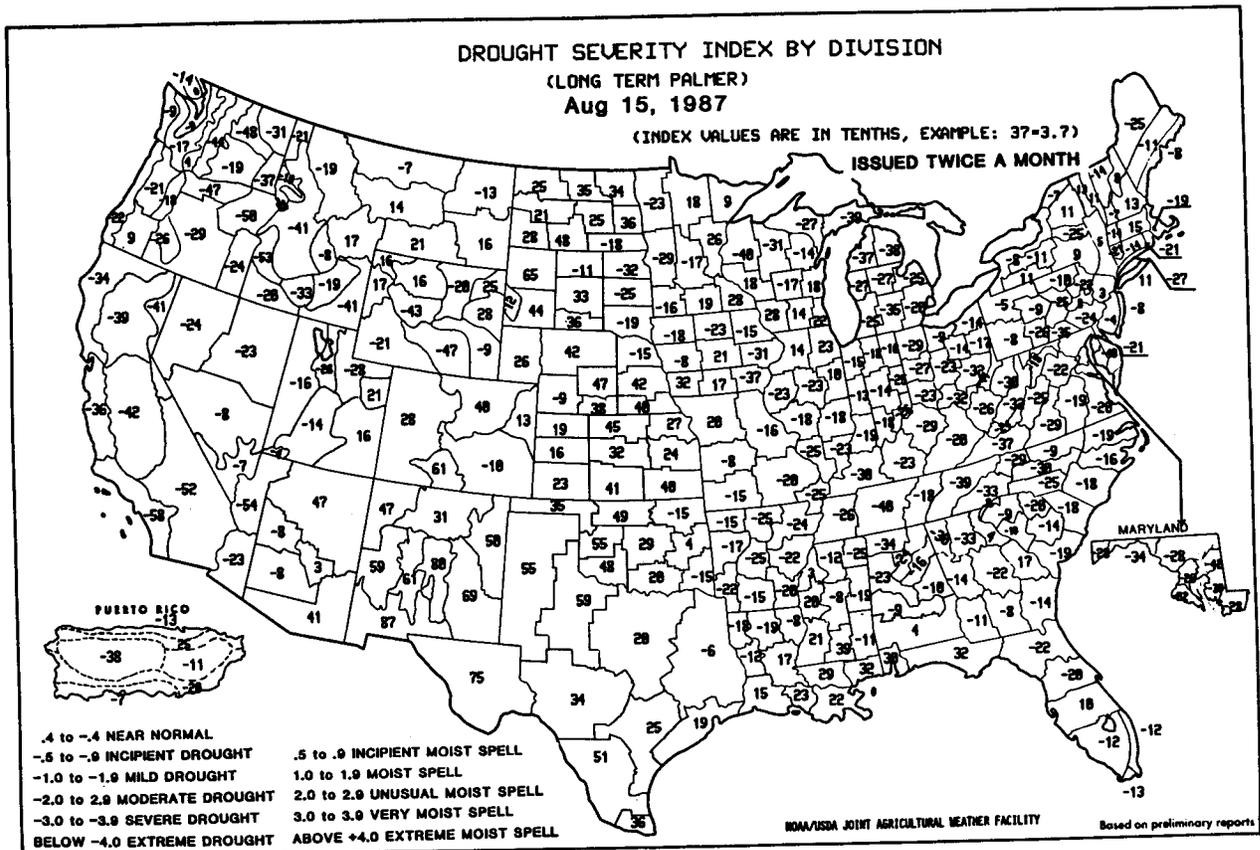
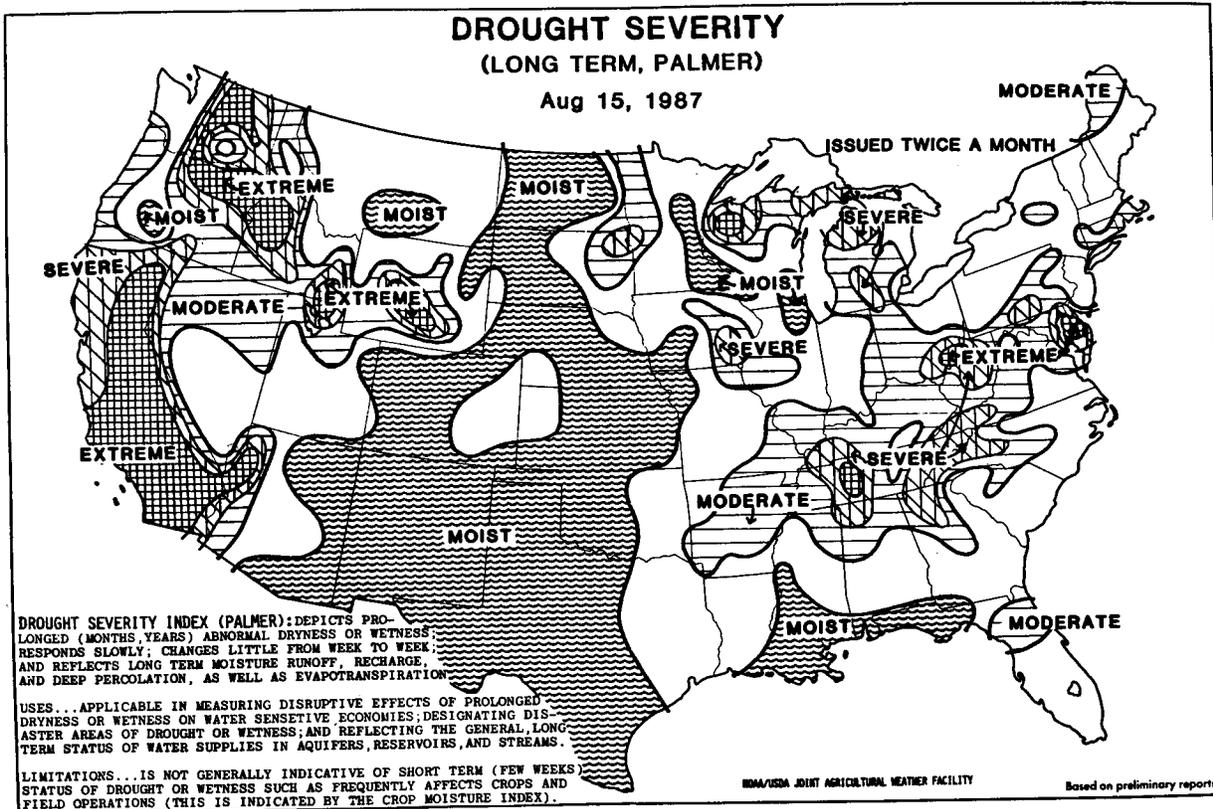
TUESDAY...Heavy thundershowers were limited to the lower Mississippi Valley, the gulf coast from Louisiana to Florida, and in parts of the central

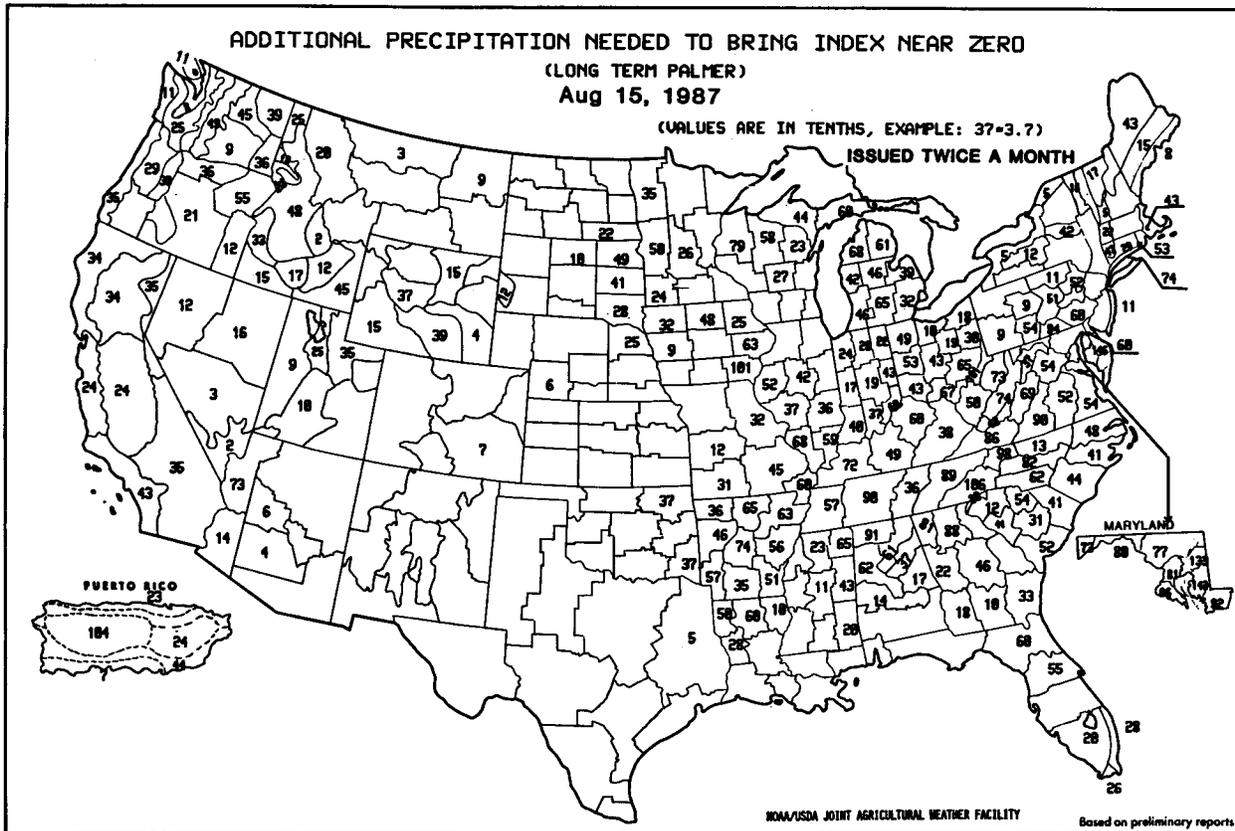
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# TOTAL PRECIPITATION AUGUST 9 - 15, 1987



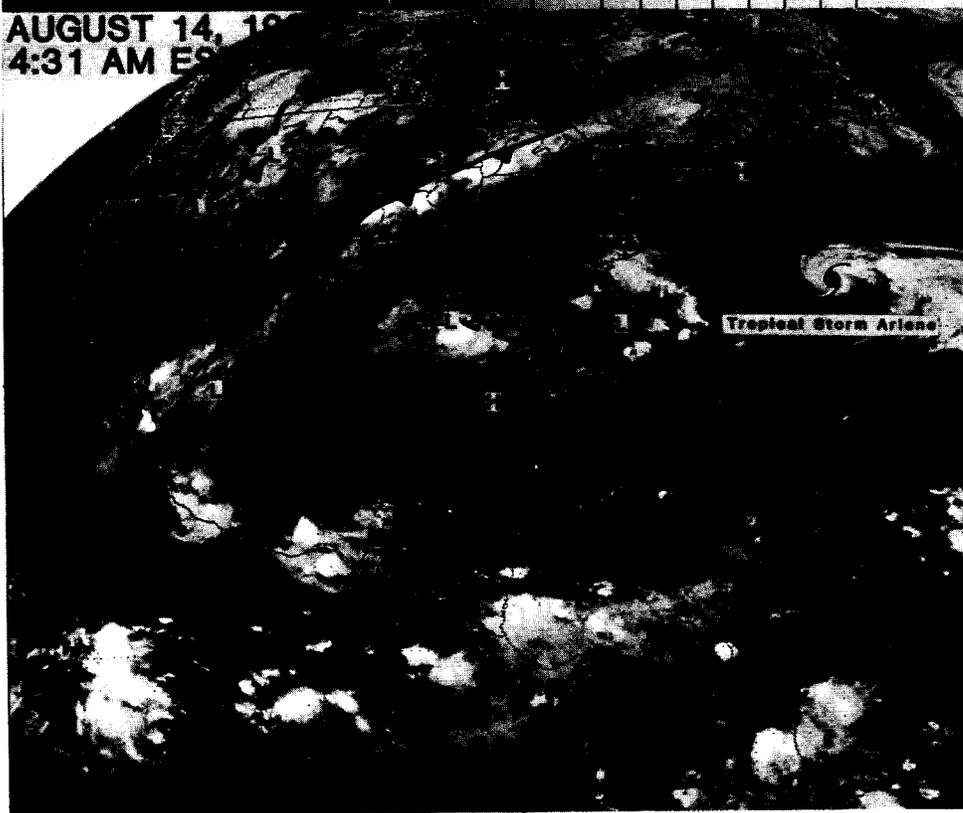






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AUGUST 14, 1987  
4:31 AM EST

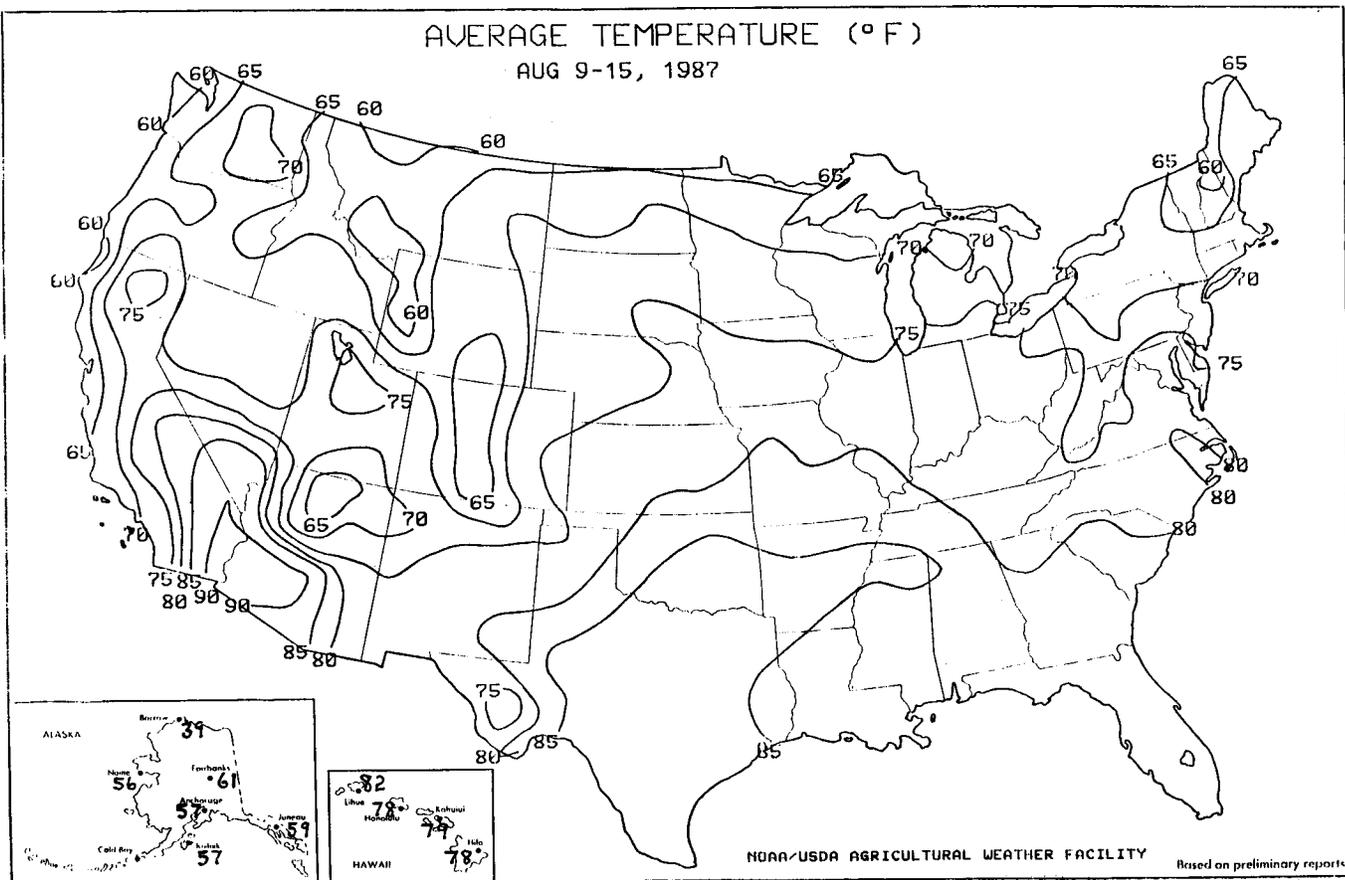


A BAND OF SHOWERS AND THUNDERSTORMS EXTENDS FROM MICHIGAN TO CENTRAL TEXAS, WITH TORRENTIAL RAIN AROUND CHICAGO CAUSING EXTENSIVE FLOODING.

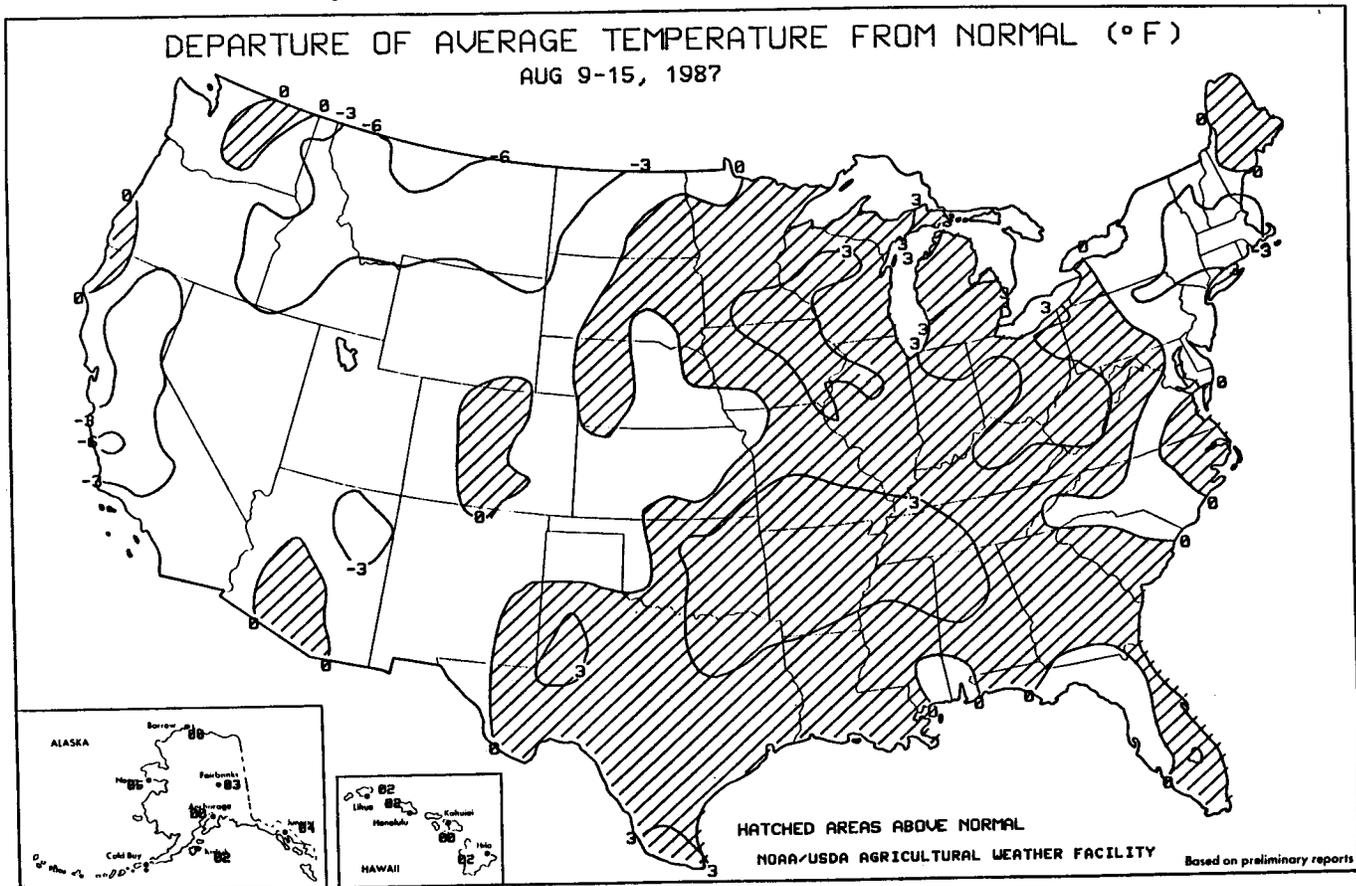
SHOWERS AND THUNDERSTORMS COVER THE EASTERN GULF COAST FROM LOUISIANA TO FLORIDA.

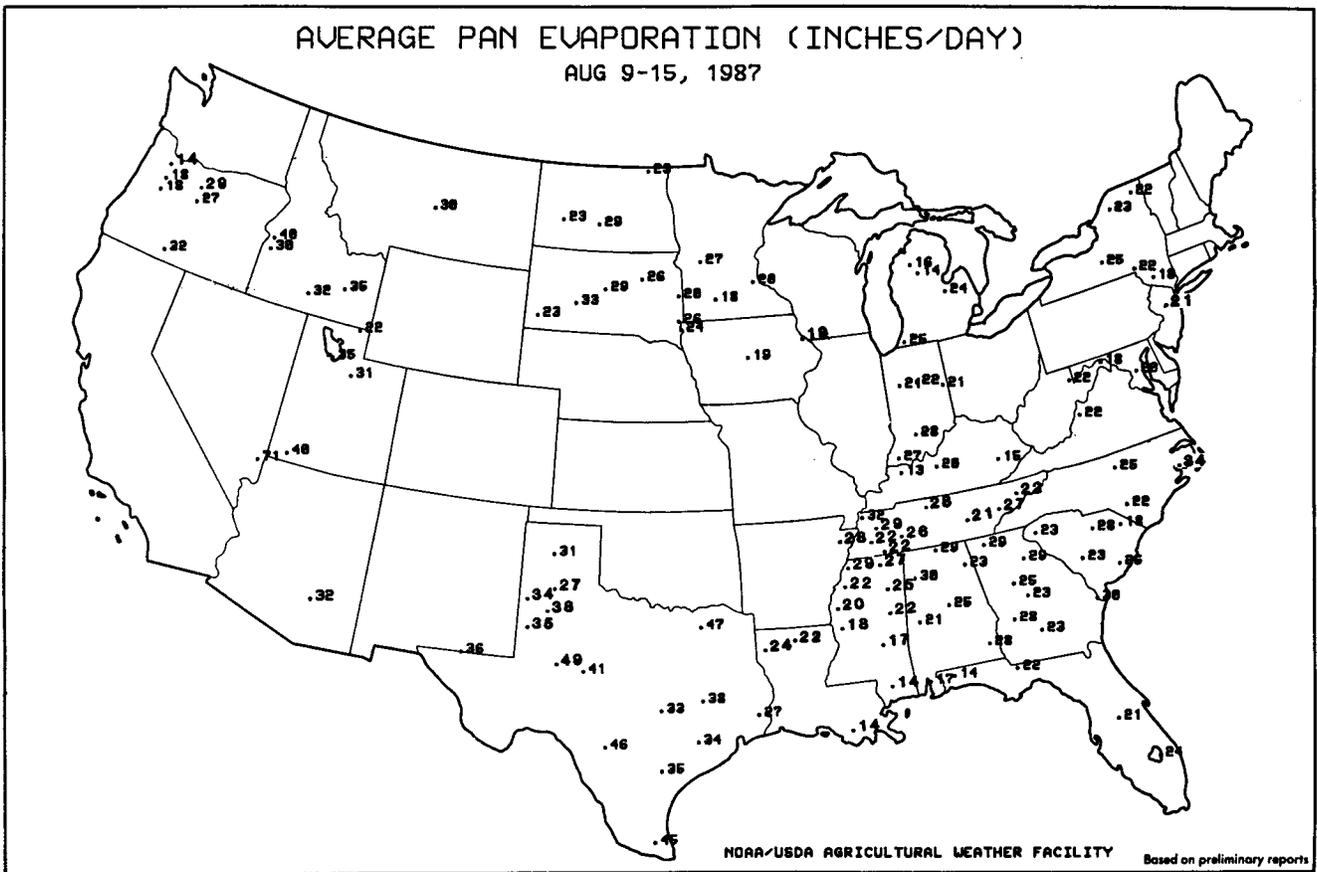
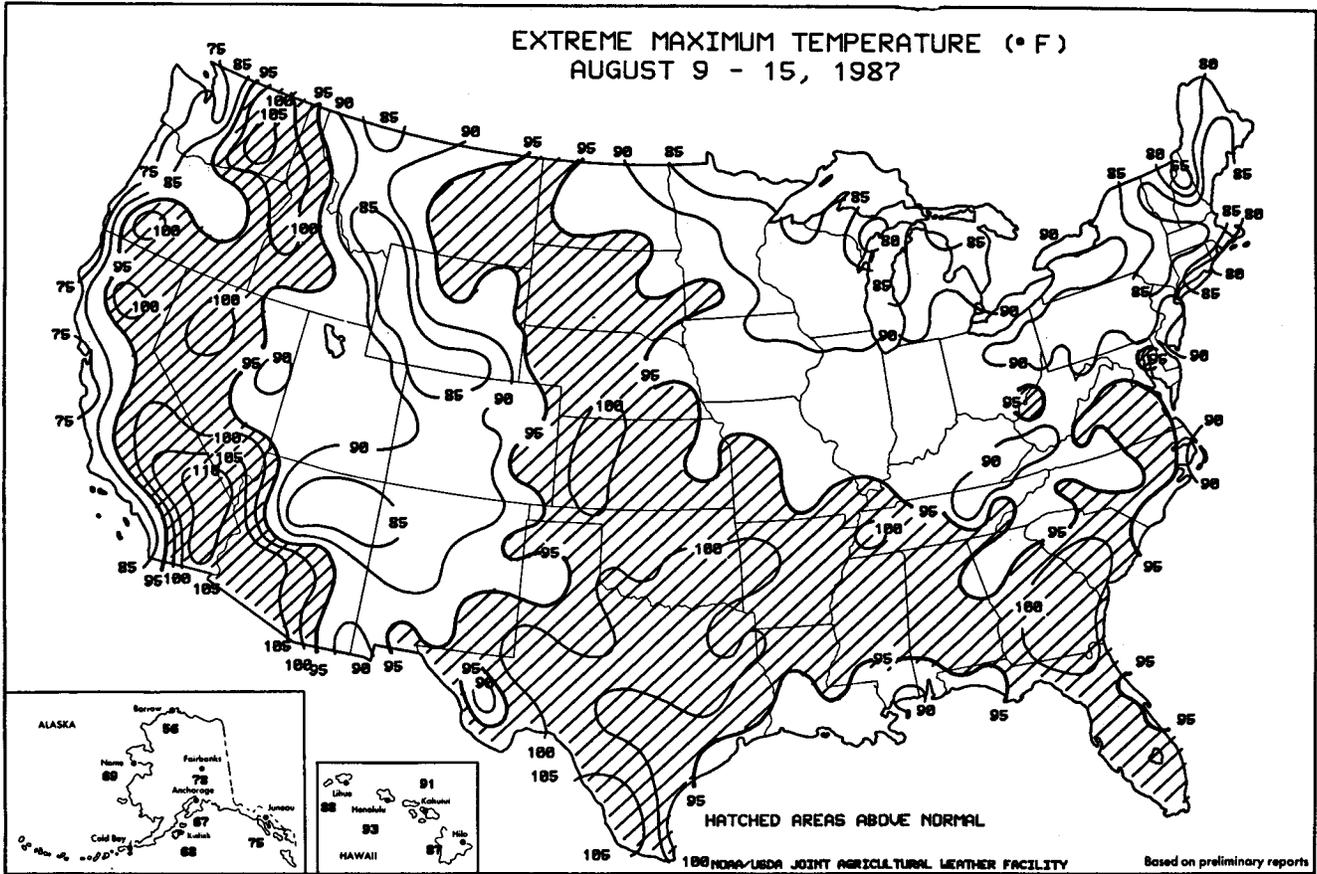
WIDELY SCATTERED SHOWERS FALL IN THE NORTHERN ROCKIES.

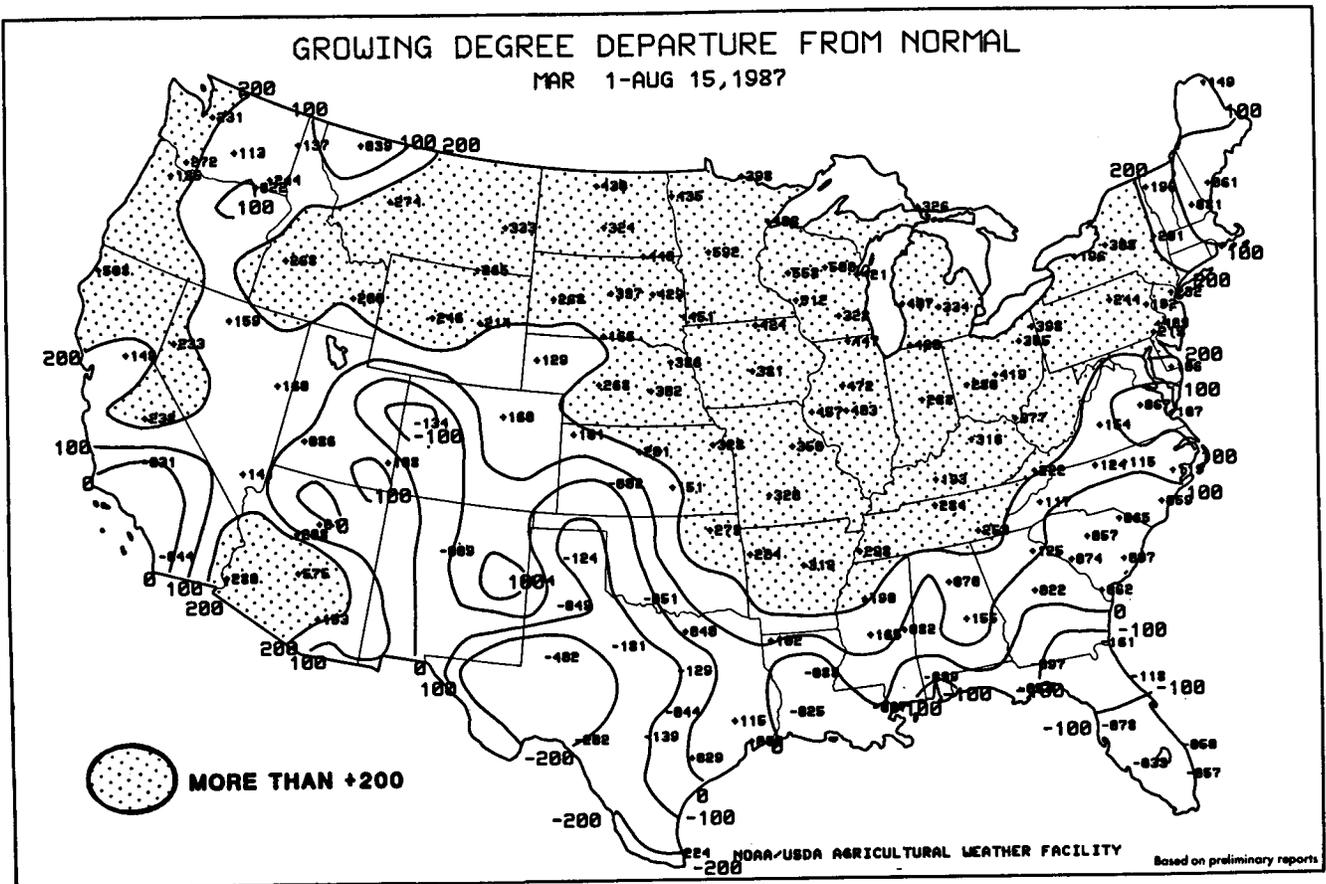
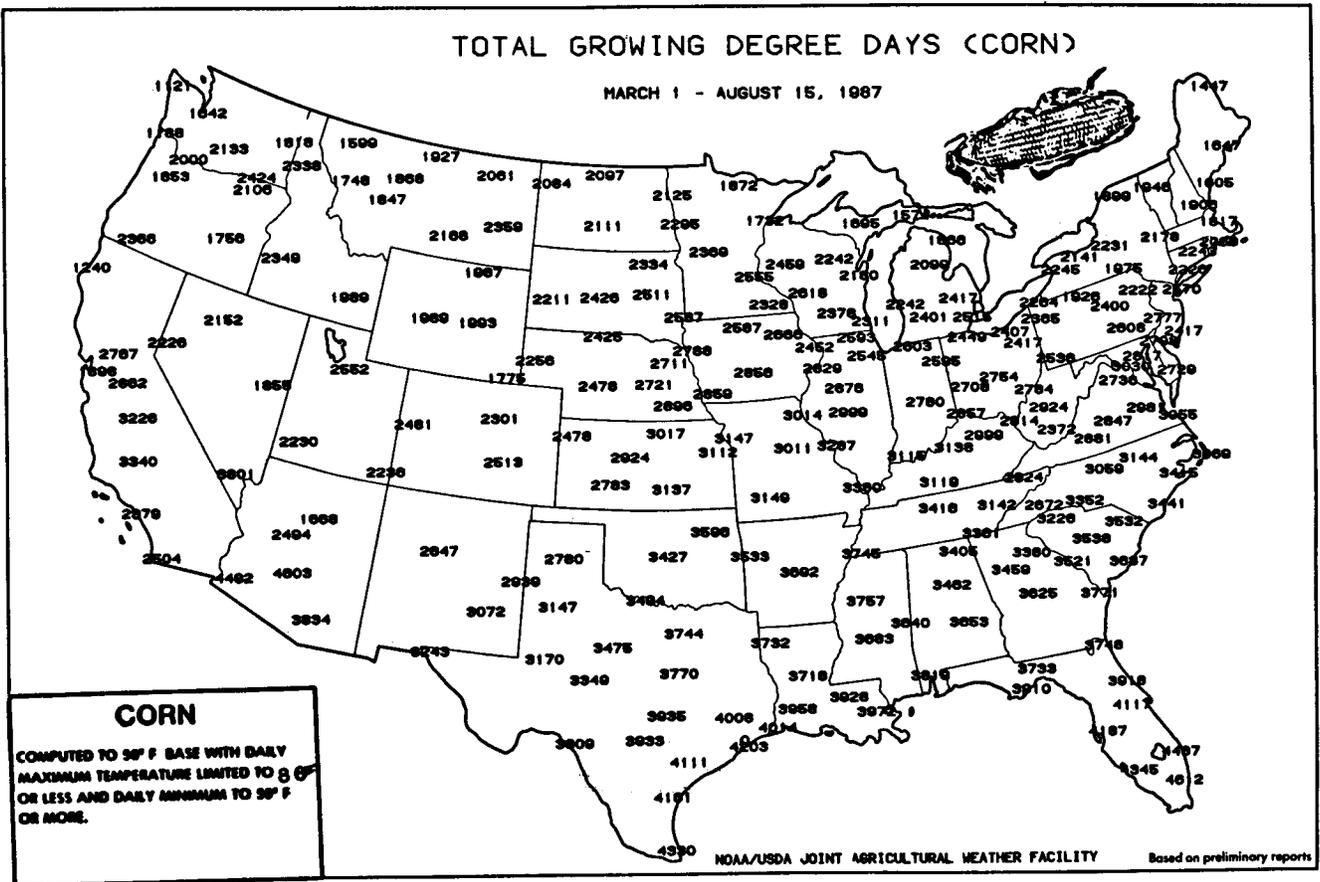
TROPICAL STORM ARLENE CHURNS IN THE ATLANTIC, POSING NO THREAT TO THE U.S. MAINLAND.



Point values may differ on these computerized maps from the reported values in the tables.







Weather Data for the Week Ending August 15, 1987

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 JUNE 6	PCT. NORMAL SINCE JUNE 6	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	92	74	97	69	83	3	T	-.9	T	7.8	71	28.3	77	87	48	6	0	0	0
MOBILE	87	75	94	72	81	-1	4.3	2.8	1.5	18.8	117	51.1	120	100	70	2	0	5	3
MONTGOMERY	93	74	96	71	83	2	1.4	-.7	1.3	12.7	131	40.0	123	95	53	6	0	2	1
AK ANCHORAGE	64	51	67	44	57	0	0	-.3	.2	3.5	87	7.2	96	96	63	0	0	2	0
BARROW	44	34	56	31	39	0	0	-.2	0	2.1	128	2.5	99	100	85	0	3	1	0
FAIRBANKS	70	52	78	48	61	3	.1	-.3	0	3.1	77	4.1	66	80	44	0	0	4	0
JUNEAU	68	50	75	48	59	4	.3	-.8	.2	9.0	96	23.5	89	88	54	2	2	2	0
KODIAK	65	50	68	45	57	2	.3	-.8	3	18.5	188	47.6	142	94	63	0	0	1	0
NOME	61	50	69	42	56	5	.4	-.3	4	3.3	68	5.7	73	94	63	0	3	3	0
AZ PHOENIX	101	80	105	75	91	0	.2	0	.2	1.4	102	4.6	119	57	23	6	0	1	0
PRESCOTT	84	58	88	54	71	0	.1	-.7	-.1	3.5	64	8.1	70	75	29	0	2	2	0
TUCSON	97	73	103	67	85	1	.1	-.4	-.1	2.1	56	6.7	106	70	25	7	0	3	0
YUMA	104	81	106	74	92	-1	T	-.1	T	.2	50	.6	49	55	21	7	0	0	0
AR FORT SMITH	99	74	102	73	87	5	.1	-.6	-.1	6.3	77	23.7	94	94	42	7	0	1	0
LITTLE ROCK	95	75	98	73	85	3	1.8	1.1	1.4	6.3	73	23.6	74	82	56	7	0	3	1
CA BAKERSFIELD	93	63	100	56	78	-5	0	0	0	.3	517	4.0	103	68	30	5	0	0	0
EUREKA	63	55	65	53	59	2	.1	0	-.1	.5	68	17.9	80	89	76	0	0	1	0
FRESNO	92	62	100	56	77	-3	0	0	0	T	14	6.6	95	75	22	5	0	0	0
LOS ANGELES	72	63	75	61	68	-3	0	0	0	.2	340	3.0	36	92	68	0	0	0	0
REDDING	94	68	100	57	77	-5	0	0	-.1	.2	18	19.3	78	70	18	6	0	0	0
SACRAMENTO	85	55	93	52	70	-5	0	0	0	T	23	8.8	83	87	32	2	0	0	0
SAN DIEGO	73	66	77	63	70	-2	T	0	0	T	4	5.1	83	83	66	0	0	1	0
SAN FRANCISCO	72	57	76	53	64	2	T	0	T	T	0	8.5	69	89	55	0	0	0	0
CO DENVER	87	58	93	53	73	0	T	-.3	T	4.3	102	13.3	122	79	26	4	0	2	0
GRAND JUNCTION	88	62	92	59	75	-2	T	-.2	T	2.0	155	7.4	160	61	20	3	0	1	0
PUEBLO	89	59	95	52	74	-1	1.2	-.2	-.1	2.2	55	7.0	92	95	31	4	0	4	0
CT BRIDGEPORT	78	63	85	59	71	-3	1.1	.3	1.0	5.7	70	21.6	85	89	51	0	0	2	1
HARTFORD	80	56	88	51	68	-4	.9	0	.9	8.2	99	26.7	101	97	47	0	0	2	1
DC WASHINGTON	88	69	93	64	79	1	T	-1.0	T	7.7	82	21.0	86	89	44	3	0	1	0
FL APALACHICOLA	89	75	98	71	82	0	5.6	3.9	2.0	13.2	86	36.1	110	98	67	3	0	4	4
DAYTONA BEACH	90	74	94	72	82	1	1.7	.3	.7	10.3	69	30.0	103	98	65	4	0	4	2
JACKSONVILLE	92	73	101	73	83	1	2.3	.5	1.0	10.9	69	28.7	87	98	59	4	0	4	2
KEY WEST	91	77	93	73	84	-1	1.1	-.1	.4	8.7	81	22.4	110	88	59	6	0	3	0
MIAMI	94	75	98	73	84	2	2.2	-.6	.9	13.1	72	25.8	76	92	50	7	0	4	2
ORLANDO	92	75	99	72	84	1	1.2	-.3	.8	16.8	92	33.1	101	94	56	5	0	4	1
TALLAHASSEE	89	73	98	71	81	0	6.7	5.0	2.4	26.5	140	55.0	127	98	62	4	0	4	3
TAMPA	89	74	96	71	82	-1	3.2	1.5	1.5	14.2	87	34.2	114	96	66	3	0	5	3
WEST PALM BEACH	95	75	97	73	85	3	T	-1.2	T	12.3	75	30.7	91	91	46	7	0	0	0
GA ATLANTA	89	72	94	67	81	2	T	-.8	T	14.9	151	36.0	107	89	49	3	0	0	0
AUGUSTA	93	72	100	67	83	2	T	-.9	T	10.2	100	32.9	109	95	46	5	0	0	0
MACON	94	73	101	71	84	2	.4	-.4	.4	7.0	70	28.6	92	96	46	6	0	1	0
SAVANNAH	92	75	100	72	84	2	2.6	1.0	1.9	16.1	98	38.8	113	92	51	5	0	3	2
HI HILO	85	71	87	69	78	2	.8	-1.6	.5	33.0	167	76.2	97	91	60	0	0	4	0
HONOLULU	91	76	93	72	84	3	T	-.1	T	.7	57	3.4	24	80	43	7	0	1	0
KAHULUI	88	70	91	67	79	0	T	-.1	T	.2	28	12.5	104	85	51	1	0	0	0
LIHUE	87	75	88	72	81	2	.2	-.2	.1	3.3	72	14.0	56	88	61	0	0	2	0
ID BOISE	83	52	100	45	68	-5	-.1	0	-.1	1.4	107	6.5	88	70	22	2	0	1	0
LEWISTON	83	59	101	54	71	-2	-.1	-.1	-.1	4.1	179	7.7	94	59	22	2	0	1	0
POCATELLO	83	51	94	46	67	-3	T	-.1	T	2.6	148	7.7	110	72	20	2	0	0	0
IL CHICAGO	84	65	90	62	75	2	10.0	9.2	6.5	16.7	182	25.5	118	99	57	1	0	4	3
MOLINE	86	68	93	62	77	3	2.3	1.4	1.4	7.9	71	17.2	69	98	56	1	0	3	2
PEORIA	86	67	91	60	77	3	.7	0	.5	7.7	81	15.5	68	96	55	1	0	3	1
QUINCY	88	68	92	63	78	3	4.5	3.6	3.4	10.6	103	19.3	79	97	52	3	0	2	2
ROCKFORD	82	66	90	59	74	2	4.5	3.7	3.8	14.7	135	24.1	101	99	65	1	0	2	2
SPRINGFIELD	87	68	92	61	77	3	.1	-.7	0	9.5	109	17.0	76	95	54	2	0	2	0
IN EVANSVILLE	90	67	93	63	79	2	T	-.7	T	9.2	102	21.8	78	95	51	5	0	1	0
FORT WAYNE	86	65	92	59	76	3	1.1	.4	1.1	10.0	115	19.5	86	95	53	2	0	2	1
INDIANAPOLIS	86	66	90	62	76	2	T	-.8	T	13.4	133	22.5	87	92	56	2	0	1	0
SOUTH BEND	86	67	92	61	76	5	.1	-.9	0	8.0	84	19.1	80	94	49	1	0	3	0
IA DES MOINES	86	67	91	62	76	1	3.1	2.2	2.2	12.1	130	23.6	114	95	61	1	0	4	2
SIOUX CITY	86	65	91	58	75	1	.1	-.6	.1	7.6	85	18.9	106	97	57	1	0	2	0
WATERLOO	84	67	90	62	75	4	1.1	.2	.6	12.7	118	21.1	94	98	64	1	0	3	1
KS CONCORDIA	88	67	97	61	78	-1	1.2	.5	.9	8.8	96	27.6	147	92	50	3	0	2	1
DODGE CITY	88	65	100	60	77	-3	.3	-.3	.3	9.9	135	19.7	133	92	44	3	0	1	0
GOODLAND	89	61	98	54	75	0	.1	-.3	-.1	8.5	139	16.3	137	92	32	3	0	1	0
TOPEKA	87	67	94	57	77	-1	1.5	.7	1.0	9.5	86	25.5	115	95	59	3	0	2	2
WICHITA	90	71	95	69	81	0	4.5	3.9	3.8	11.5	128	29.0	154	93	54	4	0	3	2
KY BOWLING GREEN	89	67	94	62	78	0	.6	-.2	.4	12.0	114	27.9	85	97	51	2	0	2	0
LEXINGTON	88	69	93	64	79	3	.2	-.7	.2	13.5	120	25.6	82	88	48	4	0	1	0
LOUISVILLE	90	69	93	65	79	2	.1	-.6	.1	10.3	110	22.5	70	89	48	5	0	4	2
LA ALEXANDRIA	91	75	94	73	83	0	2.3	1.3	1.4	10.1	96	36.7	104	99	64	6	0	4	2
BATON ROUGE	89	76	95	74	82	1	9.5	8.3	7.9	22.4	174	49.1	131	98	71	2	0	4	3
LAKE CHARLES	91	77	93	74	84	2	1.2	0	.8	21.6	181	42.6	131	95	64	5	0	4	1
NEW ORLEANS	89	78	93	76	84	2	1.7	.3	.6	25.0	175	51.3	133	98	65	4	0	7	1

Based on 1951-80 normals.

Weather Data for the Week Ending August 15, 1987

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 JUNE 6	PCT. NORMAL SINCE JUNE 6	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	
SHREVEPORT	95	76	98	75	85	2	T	-5	T	8.9	108	27.5	95	96	50	6	0	1	0	
ME CARIBOU	77	54	82	48	66	2	T	-8	.2	7.6	83	16.4	76	99	51	0	0	1	0	
PORTLAND	77	56	87	50	67	-1	.3	-3	.3	8.3	116	26.9	105	95	50	0	0	2	0	
MD BALTIMORE	87	66	92	59	76	0	T	-1.1	T	8.6	87	23.6	90	95	51	2	0	0	0	
SALISBURY	85	64	91	59	75	-1	.0	-1.3	0	6.6	61	24.9	89	95	51	2	0	0	0	
MA BOSTON	77	60	90	58	69	0	.9	-1	.7	4.9	67	28.4	108	96	51	1	0	0	1	
CHATHAM	73	60	77	58	67	-2	1.2	.3	.7	4.2	55	30.6	110	92	68	0	0	2	2	
MI ALPENA	76	57	83	49	67	1	2.0	1.3	1.1	8.1	105	13.7	77	99	69	0	0	4	2	
DETROIT	87	68	92	62	77	0	.8	-1	.4	11.0	136	20.7	103	94	53	2	0	3	0	
FLINT	85	65	92	56	75	0	1.2	.5	.7	5.1	67	12.3	66	99	59	1	0	2	2	
GRAND RAPIDS	82	64	89	58	73	2	4.6	3.9	3.3	12.0	149	17.6	86	99	60	0	0	4	2	
HOUGHTON LAKE	77	60	81	53	68	2	4.8	4.2	2.4	8.2	111	13.2	77	96	65	0	0	3	3	
LANSING	84	63	91	54	74	4	1.6	.9	1.1	8.8	-112	14.0	76	95	53	1	0	2	2	
MARQUETTE	76	57	85	44	66	0	.3	-4	.2	9.6	129	20.8	114	97	64	0	0	3	3	
MUSKOGON	81	64	85	59	73	3	2.7	2.0	1.5	6.7	105	15.8	85	98	59	0	0	4	3	
SAULT ST. MARIE	75	58	82	51	67	3	.5	-3	.2	8.4	108	15.4	81	99	70	0	0	2	1	
MN ALEXANDRIA	84	60	93	53	72	3	.7	-2	.7	5.7	64	12.4	74	90	44	1	0	3	1	
DULUTH	78	55	87	46	66	2	.8	-2	.6	7.6	77	13.3	70	99	56	0	0	3	1	
INT'L FALLS	78	54	84	42	66	1	1.1	.4	.6	10.3	116	15.3	98	97	48	0	0	2	1	
MINNEAPOLIS	81	65	89	61	73	1	.8	-1	.3	22.9	244	26.3	147	93	61	0	0	3	0	
ROCHESTER	80	64	88	58	72	3	.4	-4	.2	12.3	132	17.6	95	99	68	0	0	3	0	
MS GREENWOOD	92	75	95	74	84	2	T	-6	T	7.6	81	30.1	84	95	57	6	0	1	0	
JACKSON	91	75	96	74	83	2	1.7	.9	1.0	11.0	115	37.5	108	99	63	5	0	5	1	
MERIDIAN	91	73	96	71	82	1	.4	-4	.3	9.7	91	40.4	111	100	59	5	0	2	0	
MO CAPE GIRARDEAU	91	73	96	68	82	1	T	-8	T	13.2	148	25.3	87	89	53	6	0	0	0	
COLUMBIA	89	69	94	63	79	2	1.2	.5	.7	9.0	109	18.5	78	95	53	4	0	4	1	
KANSAS CITY	88	69	96	62	79	0	2.3	1.5	1.9	10.2	97	23.1	99	92	56	4	0	3	1	
SAINT LOUIS	89	73	92	67	81	3	.8	.2	.6	12.6	146	21.9	96	94	47	7	0	2	1	
SPRINGFIELD	94	73	98	67	83	6	.6	0	.6	9.0	94	27.8	111	94	47	4	0	3	1	
MT BILLINGS	80	54	97	45	67	-5	.9	.6	.5	4.1	125	10.2	100	78	31	2	0	3	0	
GLASGOW	78	55	95	44	67	-4	.3	-1	.2	4.2	87	7.9	97	82	31	1	0	2	0	
GREAT FALLS	74	48	93	41	61	-8	.3	0	.2	5.2	117	10.5	96	87	31	2	0	3	0	
HAVRE	74	49	89	36	62	-8	.4	.1	.4	3.8	94	6.5	76	80	35	0	0	2	0	
HELENA	76	50	90	41	63	-4	.2	-1	.1	4.6	128	8.5	104	81	33	1	0	4	0	
KALISPELL	73	50	89	42	62	-3	.8	.5	.6	6.0	159	12.2	121	91	39	0	0	4	1	
MILES CITY	83	58	99	48	70	-4	.5	.2	.4	4.6	93	9.8	95	60	25	2	0	2	0	
MISSOULA	77	48	94	42	62	-4	.6	.4	.3	4.6	149	8.2	95	82	34	2	0	3	0	
NE GRAND ISLAND	86	62	95	57	74	-2	.4	-2	.2	4.8	63	18.5	111	96	53	2	0	2	0	
LINCOLN	88	65	96	59	77	0	.5	-2	.3	9.0	103	22.4	118	98	53	3	0	3	0	
NORFOLK	86	63	93	57	75	0	T	-6	T	5.5	62	20.1	115	94	50	1	0	1	0	
NORTH PLATTE	89	60	97	48	74	1	T	-4	T	6.9	90	14.5	98	93	39	3	0	0	0	
OMAHA	85	67	92	61	76	0	.4	-6	.4	11.4	117	24.8	122	94	69	1	0	2	0	
SCOTTSBLUFF	87	58	95	54	72	0	.3	.1	.3	8.5	156	20.0	177	86	31	3	0	3	0	
VALENTINE	86	61	97	53	74	0	.1	-5	.1	8.5	129	16.8	131	79	38	0	0	1	0	
NV ELY	83	47	87	42	65	-2	1.2	1.0	1.1	4.4	261	9.4	157	80	22	0	0	2	1	
LAS VEGAS	101	76	106	67	88	-1	0	-1	0	.3	34	3.4	138	35	12	7	0	0	0	
RENO	88	49	97	42	68	1	0	-1	0	1.2	168	6.1	128	59	12	4	0	0	0	
WINNEMUCCA	89	47	100	38	68	-2	T	-1	T	.6	51	6.9	139	46	13	4	0	0	0	
NH CONCORD	79	51	89	43	65	-3	.6	-1	.6	10.6	143	22.9	106	100	49	0	0	2	1	
NJ ATLANTIC CITY	82	61	88	52	72	-3	T	-1.1	T	10.7	117	30.7	117	97	58	0	0	0	0	
NM ALBUQUERQUE	88	63	89	60	75	-2	.9	.5	.7	2.6	103	5.5	119	82	27	0	0	4	1	
CLOVIS	89	66	94	63	77	0	1.8	1.2	1.8	8.7	128	14.0	126	91	38	3	0	1	1	
ROSWELL	91	68	98	67	79	0	1.7	1.2	1.1	5.9	159	10.1	169	89	38	4	0	4	2	
NY ALBANY	78	54	85	46	66	-4	.9	.2	.8	7.4	95	19.7	91	100	53	0	0	2	1	
BINGHAMTON	77	56	86	49	66	-2	.5	-3	.5	8.8	102	19.9	88	97	49	0	0	1	0	
BUFFALO	83	60	92	51	71	1	1.1	.2	1.1	13.5	177	25.7	117	87	46	2	0	2	1	
NEW YORK	81	66	87	63	73	-3	1.2	.2	.7	13.5	152	30.1	114	92	55	0	0	2	2	
ROCHESTER	81	58	91	46	69	-1	.9	-2	.9	11.4	167	20.7	108	95	48	2	0	1	1	
SYRACUSE	81	56	91	48	69	-1	.7	-2	.7	8.2	89	18.5	77	93	45	1	0	1	1	
NC ASHEVILLE	82	63	91	56	73	-1	T	-1.0	T	11.6	121	29.8	105	98	56	1	0	0	0	
CHARLOTTE	87	71	95	65	79	0	.1	-8	0	6.7	72	23.9	84	89	48	2	0	0	0	
GREENSBORO	85	68	93	61	76	-1	.1	-9	.1	10.3	101	32.6	119	92	53	2	0	1	0	
HATTERAS	85	74	88	71	79	0	3.3	1.9	1.2	12.7	101	42.9	131	96	70	0	0	5	3	
NEW BERN	88	73	95	71	80	1	3.3	1.9	1.9	16.4	109	37.2	109	94	61	3	0	3	2	
RALEIGH	87	68	95	60	78	0	.5	-6	.4	4.9	47	25.7	94	97	53	2	0	2	0	
WILMINGTON	87	71	92	68	79	-1	3.4	1.8	1.9	17.7	108	35.2	101	96	65	3	0	4	2	
ND BISMARCK	80	58	93	49	69	-1	1.2	.9	1.1	8.5	145	16.0	143	93	47	1	0	3	1	
FARGO	82	59	90	46	71	0	0	1.3	.7	1.0	68	10.5	77	91	47	2	0	3	1	
GRAND FORKS	79	56	88	44	68	0	.3	-3	.3	9.3	132	15.2	123	91	47	0	0	2	0	
WILLISTON	78	54	97	46	66	-4	.3	-1	.2	5.9	115	10.4	107	87	40	1	0	2	0	
OH AKRON-CANTON	83	63	89	57	73	2	.9	-1	.9	7.6	86	19.4	82	90	54	0	0	1	1	
CINCINNATI	87	66	92	63	77	2	0	-7	0	10.7	108	23.4	87	90	51	2	0	0	0	
CLEVELAND	84	65	91	58	75	3	.5	-3	.5	13.5	160	25.2	111	89	56	2	0	1	0	
COLUMBUS	87	65	93	58	76	3	T	-9	T	8.9	91	17.6	78	91	48	3	0	0	0	

Based on 1951-80 normals.

Weather Data for the Week Ending August 15, 1987

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 JUNE 6	PCT. NORMAL SINCE JUNE 6	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMPERATURE		PRECIPITATION	
																		°F	°F	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	86	64	92	55	75	1	-.7	-.7	7.7	89	17.9	76	93	49	3	0	0	0	0		
TOLEDO	86	64	92	58	75	4	-.5	-.3	8.3	101	16.6	81	100	51	3	0	0	1	0		
YOUNGSTOWN	82	61	89	52	72	2	1.0	1.0	13.0	141	24.2	100	94	54	0	0	1	1			
OK OKLAHOMA CITY	95	74	98	72	85	3	-.3	-.2	9.8	122	30.9	150	85	44	7	0	2	0			
TULSA	95	76	98	73	86	3	-.2	-.2	7.1	75	27.1	109	85	44	7	0	2	1			
OR ASTORIA	65	55	69	54	60	-1	-.2	-.2	1.9	45	32.7	87	95	75	0	0	2	0			
BURNS	80	51	94	39	65	-2	-.2	-.1	2.0	153	7.1	104	***	***	1	1	0	0			
MEDFORD	88	54	100	49	71	-1	-.1	-.1	1.5	134	9.4	88	76	21	4	0	0	0			
PENDELTON	82	57	98	54	69	-3	-.1	-.1	.8	64	5.6	79	61	24	1	1	1	0			
PORTLAND	75	59	85	56	67	-1	-.4	-.1	1.5	65	19.5	96	84	48	0	0	2	0			
SALEM	75	55	80	49	65	-2	-.2	-.1	2.9	160	21.9	99	91	43	0	0	2	0			
PA ALLENTOWN	81	60	86	54	71	-2	3.6	2.6	3.6	13.1	135	26.9	98	98	53	0	0	1	1		
ERIE	82	65	91	59	74	4	-.9	-.9	12.7	138	23.8	103	85	50	2	0	2	1			
HARRISBURG	85	62	91	58	74	-1	-.1	-.7	6.7	78	20.0	81	95	45	1	0	1	0			
PHILADELPHIA	87	65	91	60	76	0	1.2	-.2	1.2	8.8	90	22.5	86	96	50	1	0	1	1		
PITTSBURGH	85	64	90	58	75	3	-.3	-.4	13.5	151	26.6	109	88	48	1	0	2	0			
SCRANTON	78	57	85	52	68	-3	-.4	-.4	11.0	129	22.0	103	94	48	0	0	1	0			
RI PROVIDENCE	79	59	89	54	69	-3	-.6	-.3	5.4	41	23.6	87	98	49	0	0	2	0			
SC CHARLESTON	91	73	99	70	82	1	-.5	-.5	9.2	54	30.2	86	95	59	4	0	2	0			
COLUMBIA	91	72	100	68	82	1	-.1	-.1	16.8	134	37.4	112	94	49	3	0	2	0			
FLORENCE	87	72	97	66	79	-1	1.2	-.1	8.3	65	25.0	83	96	59	2	0	4	1			
GREENVILLE	85	69	93	64	77	-1	-.1	-.8	13.0	121	33.7	100	96	56	2	0	1	0			
SD ABERDEEN	88	61	96	50	74	3	-.6	-.1	4.4	67	9.7	74	91	37	3	0	2	0			
HURON	87	62	94	56	74	1	-.1	-.4	6.2	94	15.1	111	93	47	2	0	2	0			
RAPID CITY	87	58	99	54	72	0	-.5	-.1	4.1	67	10.3	82	85	30	4	0	2	0			
SIoux FALLS	87	63	95	55	75	2	-.7	-.7	5.6	71	12.4	76	95	48	1	0	0	0			
TN CHATTANOOGA	90	70	96	63	80	1	0	-.8	9.1	95	34.4	100	92	46	4	0	0	0			
KNOXVILLE	92	67	98	62	80	2	-.1	-.6	7.5	77	26.6	84	97	44	7	0	2	0			
MEMPHIS	94	77	98	74	85	4	1.1	-.2	6.8	73	24.5	71	88	52	7	0	1	1			
NASHVILLE	92	71	95	68	82	3	-.3	-.5	5.6	61	18.6	58	89	46	5	0	1	0			
TX ABILENE	98	73	100	72	86	2	2.4	1.9	6.1	107	17.2	120	80	36	7	0	3	2			
AMARILLO	87	66	95	64	76	-2	1.7	1.0	6.3	82	14.1	106	95	47	3	0	3	1			
AUSTIN	98	77	99	76	87	2	0	-.5	14.3	245	26.7	142	93	41	7	0	0	0			
BEAUMONT	92	76	95	74	84	0	-.5	-.8	17.3	128	38.7	114	100	61	5	0	2	0			
BROWNSVILLE	96	78	97	76	87	3	0	-.6	6.4	123	14.6	120	94	50	7	0	0	0			
CORPUS CHRISTI	94	76	96	73	85	1	0	-.7	8.1	106	22.1	132	95	53	7	0	0	0			
DEL RIO	98	77	101	75	88	2	0	-.3	7.7	189	18.1	182	75	32	7	0	0	0			
EL PASO	90	69	95	66	79	-2	-.9	-.6	4.0	148	5.6	132	79	33	4	0	1	1			
FORT WORTH	100	78	102	75	89	3	-.4	-.4	5.2	97	17.8	91	82	34	7	0	0	0			
GALVESTON	91	80	93	76	86	2	-.6	-.4	12.2	132	25.4	112	84	58	6	0	1	1			
HOUSTON	97	77	99	74	87	4	-.3	-.6	14.4	147	27.9	101	93	42	6	0	2	0			
LUBBOCK	95	69	100	66	82	3	-.5	-.5	6.8	110	12.6	109	93	38	7	0	0	0			
MIDLAND	100	71	104	68	86	4	-.3	-.3	3.4	88	11.4	141	77	25	7	0	1	0			
SAN ANGELO	99	72	101	69	85	2	-.2	-.2	3.7	97	23.1	225	89	32	7	0	3	0			
SAN ANTONIO	98	77	99	76	88	3	-.6	-.6	8.9	147	30.2	177	91	34	7	0	0	0			
VICTORIA	96	76	99	74	86	2	-.7	-.7	16.7	199	28.7	137	96	47	7	0	0	0			
WACO	102	77	104	76	90	3	-.2	-.2	7.5	146	19.9	103	87	34	7	0	2	0			
WICHITA FALLS	99	75	102	71	87	2	-.7	-.3	5.9	103	24.2	145	89	35	7	0	3	1			
UT BLANDING	84	57	88	52	70	-1	-.1	-.3	3.4	158	8.4	128	72	34	0	0	2	0			
CEDAR CITY	86	58	90	55	72	-1	-.6	-.3	2.2	103	7.0	108	76	25	1	0	3	0			
SALT LAKE CITY	87	64	94	57	75	-1	-.3	-.1	1.2	58	8.9	88	61	22	4	0	4	0			
VT BURLINGTON	78	56	87	47	67	-1	-.5	-.4	8.2	92	16.0	79	92	45	2	0	2	0			
VA NORFOLK	86	73	94	69	80	1	-.1	-.2	7.2	64	29.1	102	88	57	2	0	2	0			
RICHMOND	89	66	98	59	78	0	-.2	-.2	7.6	67	27.6	100	94	44	2	0	0	0			
ROANOKE	88	67	96	59	78	2	-.9	-.9	4.3	49	31.5	127	89	40	2	0	1	0			
WA COLVILLE	77	56	99	52	67	-1	-.7	-.4	4.2	148	12.5	121	73	46	1	0	3	0			
QUILLAYUTE	63	52	70	49	57	-2	-.5	-.1	3.7	55	54.8	95	99	77	0	0	5	0			
SEATTLE-TACOMA	70	56	81	53	63	-2	-.3	-.1	2	33	19.4	95	96	59	0	0	3	0			
SPOKANE	76	54	96	45	65	-4	1.5	1.3	4.3	214	10.9	110	81	40	1	0	3	1			
YAKIMA	84	54	98	44	69	0	-.1	-.1	5	52	4.3	94	75	27	1	0	0	0			
WV BECYLEY	84	63	89	58	73	4	-.8	-.8	8.3	79	27.1	97	86	42	0	0	1	0			
CHARLESTON	91	67	95	60	79	5	-.4	-.6	8.1	75	22.5	79	85	38	5	0	1	0			
HUNTINGTON	91	68	94	62	79	4	-.2	-.7	6.0	59	22.6	82	92	44	5	0	1	0			
PARKERSBURG	90	68	95	62	79	5	-.8	-.8	4.8	49	15.3	60	86	42	5	0	1	0			
WI GREEN BAY	80	62	86	57	71	3	1.6	-.9	6.6	83	13.9	78	99	67	0	0	4	2			
LACROSSE	82	67	90	64	74	2	1.1	-.2	14.0	145	24.5	123	97	65	1	0	4	1			
MADISON	81	63	89	57	72	2	1.1	-.3	7.5	79	17.1	85	97	66	0	0	1	1			
MILWAUKEE	80	65	89	60	73	2	3.3	2.6	11.5	133	23.7	118	98	67	0	0	4	2			
WAUSAU	80	63	86	60	72	3	2.3	1.4	9.9	101	15.8	78	95	59	0	0	4	2			
WY CASPER	85	52	93	46	69	-1	-.1	-.1	3.0	118	9.1	111	78	22	2	0	2	0			
CHEYENNE	82	53	88	51	68	0	-.1	-.2	4.5	99	11.9	119	87	31	0	0	3	0			
LANDER	83	53	91	48	68	-2	-.3	-.2	2.4	103	11.0	116	67	20	2	0	2	0			
SHERIDAN	82	53	96	48	68	-2	-.1	-.1	4.6	126	10.3	97	88	32	2	0	2	0			
PR SAN JUAN	90	77	91	76	83	1	-.4	-.1	11.5	92	40.9	140	92	75	4	0	2	0			

Based on 1951-80 normals.

Cooling Degree Days Summary

LAST DATE OF DATA COLLECTION PERIOD IS 8-15-1987
ACCUMULATIONS ARE FROM JANUARY
\*\* = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

CLIMATE ANALYSIS CENTER-NMC-MNS-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NESDIS-NOAA

Table with columns for STATE CITY, CALL WEEK, WEEK WEEK, CUM CUM, CUM CUM, CUM CUM, CUM CUM, CUM CUM. It lists cooling degree days for various cities across the United States, including Birmingham, Mobile, Montgomery, Anchorage, Barrow, Fairbanks, Juneau, Kodiak, Nome, Flagstaff, Phoenix, Prescott, Tucson, Inham, Yuma, Fort Smith, Little Rock, Bakersfield, Eureka, Fresno, Los Angeles, Sacramento, San Diego, San Francisco, Stockton, Denver, Grand Junction, Pueblo, Bridgeport, Hartford, Wilmington, Washington, Apalachicola, Daytona Beach, Fort Meyer, Jacksonville, Key West, Miami, Orlando, Tallahassee, Tampa, West Palm Beach, Atlanta, Augusta, Macon, Savannah, Hilo-Hawaii, Honolulu-Oahu, Kahului-Maui, Lihue-Kauai, Boise, Burlington, Pocatello, Chicago, Moline, Peoria, Quincy, Rockford, Springfield, Evansville, Fort Wayne, Indianapolis, South Bend, Des Moines, Dubuque, Sioux City, Waterloo, Concordia, Dodge City, Goodland, Topeka, Wichita, Bowling Green, Lexington, Louisville, Alexandria, Baton Rouge, Lake Charles, New Orleans, Shreveport, Caribou, Portland, Baltimore, Salisbury, Boston, Chatham, Alpena, Detroit, Flint, Grand Rapids, Houghton Lake, Lansing, Marquette, Muskegon, Sault Ste Marie, Alexandria, Duluth, Int'l Falls, Minneapolis, Rochester, Saint Cloud, Greenwood, Jackson, Meridian, Cape Girardeau, Columbia, Kansas City, Saint Louis, Springfield, Billings, Glasgow, Great Falls, Havre, Helena, Kalispell, Miles City, Missoula, Grand Island, Lincoln, Norfolk, North Platte, Omaha, Scottsbluff, Valentine, Las Vegas, Reno, Winnemucca, Concord, Atlantic City, Albuquerque, Clovis, Roswell, Albany, Binghamton, Buffalo, New York, Rochester, Syracuse, Asheville, Cape Hatteras, Charlotte, Greensboro, New Bern, Raleigh Durham, Wilmington, Bismarck, Fargo, Grand Forks, Williston, Akron-Canton, Cleveland, Columbus, Cincinnati, Dayton, Toledo, Youngstown, Oklahoma City, Tulsa, Astoria, Burns, Medford, Pendleton, Portland, Salem, N. Lenton, Erie, Harrisburg, Philadelphia, Pittsburgh, Scranton, Providence, Charleston, Columbia, Florence, Greenville, Aberdeen, Huron, Rapid City, Sioux Falls, Chattanooga, Knoxville, Memphis, Nashville, Abilene, Amarillo, Austin, Brownsville, Del Rio, El Paso, Fort Worth, Galveston, Houston, Lubbock, Midland-Odessa, Beaumont, San Angelo, San Antonio, Victoria, Waco, Wichita Falls, Blanding, Cedar City, Salt Lake City, Burlington, Lynchburg, Norfolk, Richmond, Roanoke, Coville, Quillayute, Seattle-Tacoma, Spokane, Walla Walla, Yakima, Berkeley, Charleston, Huntington, Parkersburg, Green Bay, Lacrosse, Madison, Milwaukee, Muskegon, Casper, Cheyenne, Lander, Sheridan.

## National Agricultural Summary

August 10 to 16, 1987

**HIGHLIGHTS:** Rain improved crop condition in the central Great Plains and western Corn Belt. Inadequate, but much needed, moisture eased crop stress in the Delta and Southeast. Fieldwork averaged 5-6 days in most areas. Soil moisture remained mostly short in the eastern half of the Nation. Moisture supplies improved slightly in the Southeast.

Winter wheat was 97 percent (%) harvested, slightly ahead of the 5-year average. Harvest increased significantly from the previous week in the Pacific Northwest. Spring wheat harvest climbed 23 percentage points ahead of the previous week to 62% completion, 19 points above normal. Nine percent of the corn acreage reached maturity, compared with the 4% average. Corn in the dent stage was 31 points above normal and 21 points above 1986. Soybeans setting pods reached 83%, 16 points above the average. Most acreage had reached the bloom stage. Soybeans began turning yellow in Iowa, Illinois, Louisiana, Minnesota, and South Carolina. Sorghum reaching maturity was 7 points ahead of normal at 27% completion. Thirty-five percent of the acreage turned color. Heading was nearly finished except in Oklahoma. Cotton opening bolls was 11% finished, 2 points above normal. Harvest was underway in Texas and Arkansas. Rice was 11% harvested compared with 13% normally. Heading was 16 points above normal. Harvest was restricted mostly to Louisiana and Texas, but a few fields were harvested in Arkansas. Livestock was mostly good.

**SMALL GRAINS:** Winter wheat was 97% harvested, compared with 96% in 1986 and 95% normally. Harvest was finished except in California, Colorado, Idaho, Montana, Oregon, and Washington. Idaho's harvest doubled from the previous week and was 38 points above the 42% average. Harvest was 78% finished in Montana, up 23 points from the previous week and 3 points above normal. Washington wheat was 88% combined, 22 points greater than the previous week and 16 points greater than the average. Wheatland plowing for the 1988 wheat crop was underway in Indiana. Wheat seeding began in New Mexico but on a very limited scale.

Spring wheat harvest reached 62% completion, compared with 33% in 1986 and 43% normally. Harvest climbed 23 points ahead of the previous week. Montana's harvest lagged 3 points behind normal but was up 26 points from the previous week to 37% completion. Harvest was finished in South Dakota and neared completion in Minnesota. Idaho's harvest progressed slowly but ended the week 4 points above the 25% average.

**CORN:** Corn was mostly good in the Corn Belt and central and northern Great Plains. Corn progressed well in Kansas. Moisture and cooler temperatures improved condition in Nebraska. Ohio's corn developed rapidly, but condition declined. In the 17 major producing States, 87% of the acreage reached the dough stage, 21 points above 1986 and 31 points above normal. Fifty-one percent had ears in the dent stage while 9% was mature. Normally, 20% would have reached the dent stage and 4% would be mature.

**SOYBEANS:** Rain improved soybeans in the central Plains and portions of the Corn Belt. Extremely high temperatures continued plaguing soybeans in the Delta and Southeast, but crop condition remained stable to improving in some areas. Inadequate but timely precipitation curtailed plant stress. The eastern Corn Belt remained dry, and plants lacked adequate moisture to properly

fill pods. Acreage with pods reached 83%, compared with 75% in 1986 and 67% normally. Ninety-four percent had reached the blooming stage. Soybeans turned yellow in Iowa, Illinois, Louisiana, Minnesota, and South Carolina.

**SORGHUM:** In the 11 major producing States, sorghum was mostly good to fair. Heading was 91% finished, 12 points above the 5-year average. Sorghum turning color was slightly ahead of 1986 and 7 points greater than the 20% average. Sorghum was 14% harvested in Alabama, twice the average. Harvest was underway in Arkansas. Sorghum harvest was proceeding nearly 3 times slower than normal in Louisiana. The hot, dry weather stressed dryland sorghum in Oklahoma. Texas harvest progress was slightly behind normal. Some producers completed harvest at Coastal Bend and in the Rio Grande Valley.

**COTTON:** Cotton was mostly good in the Delta, the Southwest, and southern Great Plains. The crop was fair to good in the Southeast. Nearly all acreage was setting bolls except in Oklahoma. In Oklahoma, setting bolls was 65% finished, equaling the average but trailing the other States by as much as 26 to 35 points. Boll opening reached 11% completion, 2 points above normal but 2 points behind 1986. Bolls were opening slower than normal in Georgia, Louisiana, and Mississippi. Rain was beneficial to dryland cotton in Texas. Bolls opened rapidly in the Blacklands and in the east along the Upper Coast. Harvest was in full swing at Coastal Bend and in the Rio Grande Valley. Cotton progressed well in California. Most of the cotton had dropped bottom leaves in southern California. Cotton matured rapidly in Arkansas, and the first bale was picked.

**OTHER CROPS:** Rice was 82% headed, equaling 1986 but 16 points above average. Heading was finished in Texas and nearing completion in Louisiana and Mississippi. Harvest was 11% finished compared with 16% in 1986 and 13% normally. Over half the acreage in Texas was combined. In Louisiana, harvest was progressing nearly 2 times slower than in 1986 and was 10 points below the 32% average. A few fields of rice were harvested in Arkansas.

Dryland peanuts need moisture in Texas. Peanuts progressed well in most areas, and early harvest continued in southern Texas. Harvest was 12% finished in Mississippi and just beginning in South Carolina. Georgia peanuts were mostly good.

Flue-cured tobacco harvest continued lagging behind normal in the Southeast. Burley tobacco had a 20% cut in both Kentucky and Tennessee, 13 and 18 points ahead of normal, respectively.

**FRUIT AND NUTS:** Peach harvest was drawing to a close in the Southeast but increased in northern producing areas. Heavy rain reduced the need for irrigation in Florida's citrus groves. Fruit size varied, depending on fruit set. Grapefruit producers started testing to establish harvest dates. Citrus sized well in Texas. Valencia oranges, grapefruit, peaches, apples, and lemons were harvested in California. Nectarines and bartlett pear harvests were 85 and 80% finished, respectively. Almond harvest was underway. Citrus groves were good in Arizona. New crop fruit sized and developed satisfactorily.

**VEGETABLES:** Preparation for planting fall vegetables was active in Florida. Land preparation continued in the Rio Grande Valley. Snap beans, carrots, lettuce, celery, cauliflower, sweet corn, and broccoli was harvested in California. (continued to back cover)

### Crop Progress

FOR WEEK ENDING AUGUST 16, 1987

#### GRAIN SORGHUM % COLORING

	1987	1986	AVG.
ARK	77	72	NA
ILL	40	28	NA
KANS	10	10	4
LA	69	94	82
MISS	77	77	NA
MO	61	47	41
NEBR	25	13	3
OKLA	30	30	20
S DAK	18	15	12
TENN	60	70	40
TEX	61	65	68

11 STATES 38 37 NA

EXCL. STATES WITH NA 35 34 30

THESE 11 STATES PRODUCED 96% OF THE 1986 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

#### SOYBEANS % BLOOM

	1987	1986	AVG.
ALA	75	82	81
ARK	82	71	67
GA	89	78	83
ILL	100	100	98
IND	100	98	97
IOWA	100	100	98
KANS	90	97	75
KY	92	82	74
LA	89	92	86
MICH	100	96	95
MINN	100	98	97
MISS	76	77	82
MO	96	93	83
NEBR	99	100	96
N C	66	65	66
OHIO	100	100	98
S C	72	59	69
S DAK	100	90	92
TENN	85	80	85

19 STATES 94 92 90

THESE 19 STATES PRODUCED 96% OF THE 1986 SOYBEANS CROP.

#### SOYBEANS % SETTING PODS

	1987	1986	AVG.
ALA	43	57	54
ARK	52	42	37
GA	55	38	53
ILL	98	94	84
IND	98	73	63
IOWA	98	91	85
KANS	75	75	45
KY	53	39	32
LA	67	72	65
MICH	85	50	60
MINN	98	85	81
MISS	50	49	43
MO	84	79	61
NEBR	85	91	76
N C	32	29	34
OHIO	97	95	82
S C	40	29	33
S DAK	96	75	73
TENN	60	50	40

19 STATES 83 75 67

THESE 19 STATES PRODUCED 96% OF THE 1986 SOYBEANS CROP.

#### SPRING WHEAT % HARVESTED

	1987	1986	AVG.
IDAHO	29	34	25
MINN	92	30	43
MONT	37	30	40
N DAK	51	23	34
S DAK	100	74	80

5 STATES 62 33 43

THESE 5 STATES PRODUCED 94% OF THE 1986 SPRING WHEAT CROP.

#### WINTER WHEAT % HARVESTED

	1987	1986	AVG.
ARK	100	100	100
CALIF	99	99	99
COLO	98	98	95
GA	100	100	100
IDAHO	70	58	42
ILL	100	100	100
IND	100	100	100
KANS	100	100	100
MICH	100	100	98
MO	100	100	100
MONT	78	78	75
NEBR	100	100	100
N MEX	100	100	NA
N C	100	100	100
OHIO	100	100	100
OKLA	100	100	100
OREG	83	88	78
S DAK	100	99	99
TEX	100	100	100
WASH	88	76	72

20 STATES 97 96 NA

EXCL. STATES WITH NA 97 96 95

THESE 20 STATES PRODUCED 91% OF THE 1986 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

#### COTTON % SETTING BOLLS

	1987	1986	AVG.
ALA	100	100	98
ARIZ	99	100	99
ARK	100	100	99
CALIF	100	100	90
GA	99	98	98
LA	100	100	97
MISS	100	100	95
MO	100	100	97
N MEX	94	86	94
N C	97	93	90
OKLA	65	70	65
S C	95	94	98
TENN	100	95	95
TEX	91	85	81

14 STATES 94 91 87

THESE 14 STATES PRODUCED 100% OF THE 1986 COTTON CROP.

#### COTTON % BOLLS OPENING

	1987	1986	AVG.
ALA	10	6	5
ARIZ	30	20	25
ARK	10	24	9
CALIF	15	5	2
GA	7	12	9
LA	6	39	12
MISS	2	23	11
MO	15	3	3
N MEX	15	5	20
N C	40	0	0
OKLA	0	0	0
S C	0	0	0
TENN	5	3	3
TEX	12	12	11

14 STATES 11 13 9

THESE 14 STATES PRODUCED 100% OF THE 1986 COTTON CROP.

#### RICE % HEADED

	1987	1986	AVG.
ARK	88	88	61
CALIF	35	25	26
LA	92	97	87
MISS	93	100	76
TEX	100	100	100

5 STATES 82 82 66

THESE 5 STATES PRODUCED 97% OF THE 1986 RICE CROP.

#### RICE % HARVESTED

	1987	1986	AVG.
ARK	0	0	0
CALIF	0	0	0
LA	22	43	32
MISS	0	1	NA
TEX	51	54	51

5 STATES 10 15 NA

EXCL. STATES WITH NA 11 16 13

THESE 5 STATES PRODUCED 97% OF THE 1986 RICE CROP.

NA - NOT AVAILABLE.

CORN % DOUGH				CORN % DENT				CORN % MATURE				GRAIN SORGHUM % HEADED			
	1987	1986	AVG.		1987	1986	AVG.		1987	1986	AVG.		1987	1986	AVG.
COLO	47	42	45	COLO	13	4	8	COLO	0	0	0	ARK	98	91	NA
GA	100	100	99	GA	99	99	95	GA	86	98	86	ILL	98	86	NA
ILL	95	87	78	ILL	72	53	33	ILL	13	7	2	KANS	90	97	75
IND	99	86	65	IND	65	30	13	IND	9	2	1	LA	97	100	97
IOWA	90	57	43	IOWA	60	22	11	IOWA	5	0	0	MISS	99	98	91
KANS	90	80	60	KANS	45	35	15	KANS	25	10	3	MO	96	90	80
KY	93	89	71	KY	62	62	38	KY	13	22	5	NEBR	94	89	72
MICH	85	20	35	MICH	20	1	2	MICH	0	0	0	OKLA	70	60	70
MINN	90	30	26	MINN	39	6	4	MINN	0	0	0	S DAK	88	70	68
MO	97	91	78	MO	82	74	50	MO	24	18	7	TENN	95	95	93
NEBR	75	70	53	NEBR	30	21	9	NEBR	0	0	0	TEX	90	86	85
N C	89	97	90	N C	77	86	77	N C	46	50	45	11 STATES	91	90	NA
OHIO	95	89	72	OHIO	50	28	24	OHIO	3	0	0	EXCL. STATES			
PA	63	57	43	PA	13	13	7	PA	0	0	0	WITH NA	91	90	79
S DAK	77	35	35	S DAK	28	7	7	S DAK	1	0	0	THESE 11 STATES PRODUCED 96% OF THE 1986 GRAIN SORGHUM CROP.			
TEX	97	96	92	TEX	77	83	75	TEX	62	67	61	NA - NOT AVAILABLE.			
WIS	62	49	38	WIS	15	8	6	WIS	0	0	0				
17 STATES	87	66	56	17 STATES	51	30	20	17 STATES	9	7	4				
THESE 17 STATES PRODUCED 94% OF THE 1986 CORN CROP.				THESE 17 STATES PRODUCED 94% OF THE 1986 CORN CROP.				THESE 17 STATES PRODUCED 94% OF THE 1986 CORN CROP.							

**Crop Condition**

FOR WEEK ENDING AUGUST 16, 1987

CORN

STATE	VP	P	F	G	EX
COLO	0	0	17	67	16
GA	1	2	27	65	5
ILL	0	0	14	71	15
IND	0	1	14	58	27
IOWA	0	3	11	66	20
KANS	0	0	4	55	41
KY	2	1	25	65	7
MICH	5	15	30	35	15
MINN	1	4	23	51	21
MO	1	1	27	64	7
NEBR	0	5	18	59	18
N C	12	24	43	19	2
OHIO	1	4	19	58	18
PA	3	9	23	38	27
S DAK	0	4	16	65	15
TEX	0	1	15	64	20
WISC	0	0	9	52	39

RICE

STATE	VP	P	F	G	EX
ARK	0	0	24	76	0
CALIF	0	0	0	75	25
LA	0	0	23	65	12
MISS	0	15	20	63	2

SPRING WHEAT

STATE	VP	P	F	G	EX
IDAHO	0	1	11	66	22
MONT	2	4	13	72	9
N DAK	0	0	24	76	0
S DAK	3	4	38	53	2

COTTON

STATE	VP	P	F	G	EX
ALA	0	3	28	69	0
ARIZ	0	0	0	90	10
ARK	0	0	9	86	5
CALIF	0	0	0	40	60
GA	0	24	25	50	1
LA	0	0	19	79	2
MISS	0	11	15	74	0
MO	0	0	0	100	0
N MEX	0	0	33	67	0
N C	0	0	75	25	0
OKLA	0	0	45	55	0
S C	1	1	90	8	0
TENN	0	0	23	63	14
TEX	0	2	32	54	12

GRAIN SORGHUM

STATE	VP	P	F	G	EX
ARK	0	0	32	52	16
ILL	0	0	14	63	23
KANS	0	0	2	55	43
LA	0	3	39	58	0
MISS	0	1	22	76	1
MO	0	3	24	67	6
NEBR	0	0	13	83	4
OKLA	0	1	14	85	0
S DAK	0	1	15	67	17
TENN	0	3	36	61	0
TEX	0	1	18	63	18

GRAIN SORGHUM % MATURE

	1987	1986	AVG.
ARK	38	38	NA
ILL	0	NA	NA
KANS	2	0	0
LA	34	73	47
MISS	24	41	28
MO	14	14	8
NEBR	0	0	0
OKLA	3	3	2
S DAK	0	0	0
TENN	15	25	13
TEX	51	60	57
11 STATES	19	NA	NA
EXCL. STATES WITH NA	19	22	19
THESE 11 STATES PRODUCED 96% OF THE 1986 GRAIN SORGHUM CROP.			
NA - NOT AVAILABLE.			

SOYBEANS

STATE	VP	P	F	G	EX
ALA	0	6	44	50	0
ARK	0	2	38	60	0
GA	0	14	39	45	2
ILL	0	2	17	73	8
IND	0	4	20	60	16
IOWA	1	1	14	67	17
KANS	0	0	4	74	22
KY	0	5	42	50	3
LA	0	10	33	57	0
MICH	3	12	30	40	15
MINN	2	2	22	59	15
MISS	0	14	40	46	0
MO	0	7	37	53	3
NEBR	0	0	40	58	2
N C	3	20	57	19	1
OHIO	1	5	29	51	14
S C	0	0	64	36	0
S DAK	1	2	15	62	20
TENN	0	5	56	39	0

VP - VERY POOR    P - POOR    F - FAIR    G - GOOD    EX - EXCELLENT

## State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service.

**ALABAMA:** Rainfall totals ranged under 1.00 in. north; 1.00 in. central; 2.00 to 10.00 in. south. Temperatures averaged 3° above normal.

Days suitable for fieldwork 5.3. Soil moisture 50% short, 42% adequate, 5% surplus. Corn 99% dented, 99% 1986, 94% avg.; 82% mature, 84% 1986, 71% avg.; 34% harvested, 40% 1986, 27% avg.; 30% fair, 68% good, 2% excellent. Sorghum 14% harvested, 15% 1986, 7% avg.; 6% poor, 42% fair, 52% good. Cotton 100% setting bolls, 100% 1986, 98% avg.; 10% bolls opened, 6% 1986, 5% avg.; 3% poor, 28% fair, 69% good. Soybeans 75% blooming, 82% 1986, 81% avg.; 43% setting pods, 57% 1986, 54% avg.; 10% turning color, 12% 1986, 3% avg.; 6% poor, 44% fair, 50% good. Pastures mostly fair; livestock mostly good. Primary activities: Harvesting corn, sorghum, vegetables; applying fungicides to peanuts; spraying for insects on cotton, peanuts, vegetables; repairing harvest equipment; routine care of livestock, poultry.

**ALASKA:** Cooler temperatures with scattered, light frost, showers, intermittent sunshine. Temperature lows ranged from 2 to 6° above normal. Highs 3° above normal to 5° below normal. Seasonal precipitation totals ranged from 1.81 in. drier than normal to 3.39 in. wetter than normal.

Days suitable for baling hay 2.0. Topsoil moisture 2% short, 95% adequate, 3% surplus. Subsoil moisture adequate. First cutting hay harvest neared 90% with sporadic showers hampering harvest completion. Second cutting hay underway weather permitted but less than 5% baled. Barley for grain 32% poor, 35% fair, 28% good, 4% excellent. Early barley fields 90% turning color, small percent ripe. Last year 45% turned, maturity delayed by cool, wet weather. Potatoes 95% bloomed, early harvest underway. Harvest of commercial vegetables continued.

**ARIZONA:** Weak disturbance southeast produced locally heavy rains central portions 10th to 11th. Weak southwesterly winds aloft 11th brought slight drying trend southwestern deserts 12th. Thunderstorms confined to Mogollon Rim, White Mountains; heaviest Flagstaff. West of Flagstaff, 0.75 in. hail covered ground to 2.00 in. Low pressure trough developed 13th, bringing dry air. Trough deepened 14th, rain nonexistent. Sunny, breezy 14th to 15th. Precipitation for period very little or none extreme west, 0.25 to 1.00 in. elsewhere, except locally over 4.00 in. Flagstaff. Temperatures 3° below normal to 1° above.

Cotton bolls opened at good pace; many growers west applied final irrigation. Insects active Yuma County; Pima County infestations remarkably light. Treatments for pink bollworms, tobacco budworms, spider mites, whiteflies applied as needed. Boll set good. Irrigation continued. Alfalfa hay good, harvest active. Growers into 6th cutting west, hay stacked for later sale due to poor market conditions. Few new stands established. Alfalfa armyworms, leafhopper controls applied La Paz County. Sudan grass harvest advanced, continuing through August. Sorghum heading out good, some acreage turning color; none harvested. Crop good. Corn harvest complete Pima County. Ground preparations for fall vegetables west; planting began some western areas. Carrots dug central area, completion expected 31st. Carrots for processing harvested. Green chili harvest continued. Small acreage wine grapes expected to be harvested in 2 weeks. Watermelon movement

central area winding down; shipments commenced Cochise County, movement expected to advance 23rd. Cantaloups shipped Aguila. Citrus groves good; new crop sizing, developing satisfactorily. Apple deal gained momentum, harvesting accelerated.

**ARKANSAS:** Hot, humid. Temperatures above normal. Scattered thundershowers statewide. Temperature extremes 61°; 104°. Rainfall none to 3.54 in.

Days suitable for fieldwork 7.0. Soil moisture 87% short, 13% adequate. Main activities: Irrigating crops; fertilization, weed control; applying fungicides, insecticides; scouting for pests; harvesting corn, sorghum. Corn 16% fair, 77% good, 7% excellent. Alfalfa hay 6% poor, 59% fair, 35% good. Other hay 26% poor, 52% fair, 22% good. Cotton maturity progressed rapidly. First bale picked. Few fields rice harvested. Soybean irrigation continued. Desiccants applied sorghum. Watermelon harvest continued southwest portion. Apple harvest northwest. Dry conditions, hot temperatures slowed pasture, forage growth. Livestock fair to good.

**CALIFORNIA:** Early week, ridge over west coast replaced by trough bringing light precipitation coastal locations 14th. Temperatures around normal most week, cooled end week as trough deepened. Overall, most stations near or below normal temperatures.

Summer crops continued good progress with open weather. Harvest earliest rice fields expected 1 to 2 weeks. Cotton continued good progress. Much of southern crop bottom defoliated. Blackeyed bean, sugarbeet, alfalfa and clover seed, safflower, sunflower, corn silage, alfalfa hay, greenchop harvests good progress. Irrigation, pest control, other field activities normal. Red and golden delicious apples harvested, good quality. Avocado harvest continued. Dates bagged. Table grape, wine grape harvest progressed. Nectarines 85% harvested. Peach picking continued. Bartlett pear harvest 80% complete. Plum harvest nearly complete. Valencia oranges, summer grapefruit, lemons being harvested. Almond harvest underway. Snap bean packing continued, good quality south coast. Broccoli moderate Salinas area; fairly heavy but declining Santa Maria; good quality. Fall fields still being planted Westside. Carrot volume moderate Salinas, good quality. Production Kern-Tulare moderate and steady, pulling continued from Cuyama Valley, good quality. Cauliflower moderate Salinas; fairly light Santa Maria, good quality. Fall planting continued Westside. Celery moderate Salinas-Watsonville; fairly heavy Santa Maria-Oceano good quality. Light harvesting continued, good quality south coast. Sweet corn good supply most producing areas. Light harvesting south coast, good quality. Cucumber packing active Westside, south coast, good quality. Lettuce moderate Salinas; fairly heavy Santa Maria; variable weight, quality. Growers busy with fall planting Westside. Watermelon, cantaloup, honeydew, mixed melon harvests continued statewide. Watermelon harvest continued Hemet District, demand continued to improve. Dehydrator onion harvest continued Westside. Pepper very light but increased Salinas, good quality. Production active central valley, south coast good quality. Planted fields Tulare County, looked very good. Summer potato digging continued Hemet-San Jacinto. Fall fields, Tulelake-Butte Valley, continued to grow

well. Vines, early variety, being defoliated. Sweetpotatoes harvested Selma District, Merced-Atwater. Pumpkin fields, desert, progressed, some insect problems. Tomatoes processing, fresh market continued full production, statewide. Range conditions continued to deteriorate. Fire danger remained high over most State. Supplemental feeding increased as range feed declines. Stockwater supplies continued to dry up.

**COLORADO:** Temperatures 3° below to 1° above normal. Some shower activity eastern portion of State, little rain western portion, trace to 3.62 in. precipitation.

Days suitable for fieldwork 6.0. Soil moisture short. Winter wheat harvest complete except west slope. Other small grains good. Non-irrigated crops need moisture. Barley 66% harvested. Oats 43% harvested. Spring wheat 13% harvested. Corn 96% silked. Onions 7% harvested. Dry beans 98% flowered. Livestock good, pastures fair.

**FLORIDA:** Increasing tropical humidities caused widespread cloudiness, periods of showers, thunderstorms most areas 11th through 14th. Drying occurred southern half of State, 15th; statewide by 16th. Some excessive rains 6.00 to 12.00 in. over portions of Panhandle; otherwise, rains totaled mostly 1.00 to 3.00 in. Above normal temperatures early week followed by below normal readings late week, with average near normal.

Soil moisture generally adequate with heavy afternoon, evening showers many areas. Some Panhandle, northern sections received heavy late week rains. Tobacco harvest active, remaining crop. Corn, hay harvest active, weather permitting. Soybeans, peanuts, cotton good progress. Sugarcane progressed normally. Pastures fair to excellent; mostly good. Armyworms active some areas. Some central, upper Peninsula areas need rain. Cattle generally good, except lower southern Peninsula mostly excellent. Heavy rains many citrus groves. Abundant new foliage. Fruit sizes vary depending on fruit set. Grapefruit testing started to plot harvest dates. Caretakers ditching to move standing water. Cultivation continued; some fertilization, spraying all areas. Frequent, heavy showers 4.00 to 6.00 in. occurred over southern vegetable producing areas, somewhat lowering temperatures by midweek. Daytime highs upper 90s, nighttime minimums mostly low 70s. Tomato transplanting very active Palmetto-Ruskin area with mostly good plant availability; early fields started to grow. Light, increased tomato transplanting southwest; few peppers also transplanted. Preparation for planting fall crops continued active all areas.

**GEORGIA:** Rain totals mostly under 1.00 in. northern two-thirds; 1.00 to 3.00 in. southern third, several locations 4.00 to 5.00 in. Greatest weekly total 9.59 in. Brunswick. Temperatures 1 to 2° above normal. Extremes 56° Blairsville on 15th to 101° at 5 locations on 10th, 11th.

Days suitable for fieldwork 5.7. Soil moisture 8% very short, 52% short, 35% adequate, 5% surplus. Sorghum grain 4% poor, 29% fair, 67% good. Peanuts 11% poor, 22% fair, 67% good; 100% pegging, 98% 1986, 99% avg. Tobacco 18% fair, 76% good, 6% excellent; 70% harvested, 72% 1986, 79% avg. Watermelons 97% harvested, 99% 1986, 96% avg. Apples 21% fair; 79% good; 17% harvested, 32% 1986, 38% avg. Peaches 99% harvested, 100% 1986, 100% avg. Pecans 4% poor, 18% fair, 78% good. Pasture 1% very poor, 5% poor, 39% fair, 53% good, 2% excellent. Hay 10% poor, 29% fair, 59% good, 2% excellent. Cattle 1% poor, 15% fair, 79% good, 5% excellent. Hogs 2% poor, 13% fair, 74% good, 11% excellent. Main activities: Spraying for disease, insect control. Harvesting tobacco, corn, fruit. Irrigating where needed, available.

**HAWAII:** Mostly sunny, light nocturnal showers. Light winds contributed to 90° weather. Irrigation heavy. Crops generally fair to good. Disease, pests controlled by heavy spraying. Temperature mid 70s to low 90s. Rainfall ranged none to 2.70 in.

Days suitable for fieldwork 7.0. Banana, papaya production moderate to heavy. Chinese, head cabbage production moderate. Head lettuce light, disease lowered yields. Watermelon output heavy.

**IDAHO:** Average temperatures 1 to 6° below normal. Precipitation below normal east, south central, above normal north, southwest.

Days suitable for fieldwork 6.0. Winter wheat 70% harvested, 58% 1986, 42% avg. Potatoes maturing rapidly 37% turning, good to excellent. Dry pea 84% harvested, 79% 1986, 48% avg. Second cutting alfalfa 80%, 3rd cutting underway. Livestock good. Range, pastures provided limited grazing. Irrigation water short some areas.

**ILLINOIS:** Temperatures averaged 3 to 5° above normal. Precipitation very heavy northeast, north; but very little much of south.

Days suitable for fieldwork 5.5. Soil moisture 51% short, 46% adequate, 3% surplus. Soybeans 10% turning yellow, 4% 1986, 2% avg. Alfalfa hay 3rd crop 60% cut, 47% 1986, 45% avg.; 5% poor, 44% fair, 49% good, 2% excellent. Pasture 8% very poor, 11% poor, 44% fair, 34% good, 3% excellent.

**INDIANA:** Temperatures 2 to 4° above normal. Lows mid 50s, highs mid 90s. Precipitation light, spotty. Totals from 0.65 in. central to none several locations.

Days suitable for fieldwork 6.4. Topsoil moisture 61% short, 39% adequate. Subsoil moisture 39% short, 60% adequate, 1% surplus. Corn, soybeans mostly good to excellent. Alfalfa 100% cut twice, 96% 1986, 97% avg. Pastures 17% poor, 53% fair, 27% good, 3% excellent. Wheat land 16% plowed, 18% 1986, 14% avg. Hot, dry conditions caused stress to crops, pastures.

**IOWA:** Warm week. Temperatures 4° above normal; 57° Ames, Marshalltown 11th; 95° Iowa City 15th, 16th. Precipitation slightly above normal; 3.87 in. Lamoni, 3.28 in. Marshalltown.

Days suitable for fieldwork 3.7. Topsoil moisture 15% short, 73% adequate, 12% surplus; subsoil moisture 26% short, 67% adequate, 7% surplus. Hay 3% very poor, 6% poor, 22% fair, 58% good, 11% excellent. Third crop alfalfa 45% harvested, 16% 1986, 17% avg. Second crop clover 90% harvested, 85% 1986, 85% avg. Soybeans 4% leaves turning, none 1986, none avg. Livestock mostly good, some slow gains. Pastures 6% very poor, 9% poor, 25% fair, 52% good, 8% excellent.

**KANSAS:** Temperatures averaged 76° northwest to 81° south central, within 1° of normal, except northeast 2° below normal. Moderate to heavy rain most areas. Southeast averaged 3.18 in. Band from Wichita to Iola totals 5.00 to 5.50 in. Elsewhere 1.00 to 2.00 in. common except 0.50 in. northwest, southwest.

Days suitable for fieldwork 5.0. Soil moisture 33% short, 58% adequate, 9% surplus. Cool front lowered temperatures, brought much needed rain. Most crops little or no stress noted, development generally ahead schedule. Corn excellent progress, only scattered corn borer infestations present, control measures underway where necessary. Sorghum good progress, light greenbug levels noted. Rapid heading northern counties. Soybeans good progress, no problems noted. Third cutting alfalfa 80%, 4th cutting 10%, regrowth slow. Range, pastures declined; grazing still good for this time of year.

**KENTUCKY:** Hot and dry, temperatures 3 to 5° above normal. Rainfall none to isolated amounts 1.00 in., majority stations well below normal.

Days suitable for fieldwork 5.8. Soil moisture 37% very short, 59% short, 14% adequate. Corn rapidly maturing. Late corn, soybeans, hay crops, pastures need rain. Tobacco variable in size, overall 2% very poor, 6% poor, 49% fair, 41% good, 2% excellent. Burley 20% cut, 13% 1987, 7% avg. Dark tobacco 14% cut. Pasture 4% very poor, 17% poor, 52% fair, 26% good, 1% excellent. Livestock movement limited to night, early morning.

**LOUISIANA:** Temperature 1 to 2° above normal. Temperature extremes 70°; 98°. Rainfall averaged 0.14 to 5.33 in.

Days suitable for fieldwork 3.1. Soil moisture 16% short, 41% adequate, 43% surplus. Corn good; 83% mature, 95% 1986, 87% avg.; 18% harvested, 59% 1986, 40% avg. Cotton 100% setting bolls, 100% 1986, 97% avg.; 6% open bolls, 39% 1986, 12% avg. Rice 92% headed, 97% 1986, 87% avg.; 32% ripe, 60% 1986, 48% avg.; 22% harvested, 43% 1986, 32% avg. Sorghum 97% headed, 100% 1986, 97% avg.; 69% turning color, 94% 1986, 82% avg.; 34% ripe, 73% 1986, 47% avg.; 9% harvested, 39% 1986, 21% avg. Soybeans 89% blooming, 92% 1986, 86% avg.; 67% setting pods, 72% 1986, 65% avg.; 6% turning color, 4% 1986, 2% avg. Hay final cutting 26%, 40% 1986, 19% avg. Sweetpotatoes good; 8% harvested, 16% 1986, 15% avg. Pasture, livestock good; vegetables fair; sugarcane fair to good; rain delayed preparations for planting. Main activities: Harvesting corn, rice, sorghum, sweetpotatoes, vegetables; cutting hay; spraying for weeds, insects.

**MARYLAND & DELAWARE:** Maryland: Temperatures averaged 76°, 73° normal. Precipitation averaged 0.09 in., ranging from normal to 0.82 in. Glenn Dale.

Days suitable for fieldwork 6.7. Topsoil moisture very short to short, mostly very short. Subsoil moisture very short to short. Corn fair. Corn 97% silked, 95% avg. Corn 75% dough, 65% avg. Corn 40% dent, 25% avg. Corn 5% mature. Soybeans fair. Soybeans 70% bloomed, 65% avg. Soybeans 50% set pods, 35% avg. Tobacco poor to fair. Tobacco 80% bloom, 70% 1986. Pasture poor to fair. Apples, peaches good. Peaches 55% harvested, 55% avg.

Delaware: Temperatures averaged 76°, 76° normal. Precipitation averaged 0.20 in.

Days suitable for fieldwork 7.0. Topsoil, subsoil moisture very short to short. Soybeans fair. Soybeans 60% bloomed, 70% avg. Soybeans 40% set pods, 40% avg. Corn poor to fair. Corn 100% silked, 97% avg. Corn 65% dough, 70% avg. Corn 50% dent, 40% avg. Peaches 70% harvested, 70% avg.

**MICHIGAN:** Temperatures ranged from 2 to 6° above normal. Temperature extremes 48°; 93°. Precipitation ranged from none to 4.80 in. across State.

Days suitable for fieldwork 5.5. Soil moisture 60% short, 40% adequate. Corn 85% dough, 20% 1986, 35% avg.; 20% dent, 1% 1986, 2% avg.; 5% very poor, 15% poor, 30% fair, 35% good, 15% excellent. Soybeans 100% bloomed, 96% 1986, 95% avg.; 85% setting pods, 50% 1986, 60% avg.; 3% very poor, 12% poor, 30% fair, 40% good, 15% excellent. Wheat 100% harvested, 100% 1986, 98% avg. Dry beans 80% setting pods, 50% 1986, 60% avg.; 10% very poor, 20% poor, 40% fair, 20% good, 10% excellent. Major activities: Making hay, combining oats, tilling cropland. Soil moisture improved.

**MINNESOTA:** Temperatures normal to 4° above normal. Temperature extremes 42°; 100°. Precipitation averaged 0.16 to 0.32 in. below normal west central, southwest; normal to 1.03 in.

above normal elsewhere. Precipitation totals averaged 0.38 to 1.95 in. for State. Greatest weekly total 3.79 in.

Days suitable for fieldwork 5.2. Topsoil moisture 8% very short, 27% short, 59% adequate, 6% surplus. Spring wheat 98% cut, 54% 1986, 68% avg.; 92% combined, 30% 1986, 43% avg. Oats 98% cut, 85% 1986, 92% avg.; 97% combined, 70% 1986, 77% avg. Barley 99% cut, 71% 1986, 87% avg.; 87% combined, 40% 1986, 66% avg. Field corn 99% in milk, 88% 1986, 78% avg.; 90% in dough, 30% 1986, 26% avg.; 39% denting, 6% 1986, 4% avg. Soybeans 98% setting pods, 85% 1986, 81% avg.; 6% turning yellow, none 1986, none avg. Potatoes 9% harvested, none 1986, none avg. Sweet corn 58% harvested, 34% 1986, 29% avg. Winter wheat 99% harvested, 90% 1986, 89% avg. Rye 6% planted, 1% 1986, 1% avg.; 100% harvested, 91% 1986, 91% avg.

**MISSISSIPPI:** Temperatures 1° below to 5° above normal; extremes 68°; 100°. Massive amounts of rain due to tropical depression over southern part of State. Greatest weekly total rainfall 16.25 in. Greatest 24-hour total rainfall 12.20 in.

Days suitable for fieldwork 4.5, 5.7 1986, 4.6 avg. Soil moisture 27% very short, 28% short, 18% adequate, 15% surplus, 12% excessive. Corn 99% dough stage, 100% 1986; 93% dented, 94% 1986; 45% mature, 70% 1986, 56% avg.; 2% very poor, 2% poor, 10% fair, 69% good, 17% excellent. Hay 77% harvested, 76% 1986, 74% avg. Sorghum silage 46% harvested, 57% 1986, 43% avg. Watermelons 86% harvested, 86% 1986, 80% avg. Peanuts 12% harvested, 24% 1986. Sweetpotatoes 5% harvested, 6% 1986, 7% avg. Corn silage 56% harvested, 78% 1986, 57% avg. Peaches 99% harvested, 100% 1986, 92% avg. Rice 93% headed, 100% 1986, 76% avg.; none harvested, 1% 1986; 15% poor, 20% fair, 63% good, 2% excellent. Sorghum 99% headed, 98% 1986, 91% avg.; 77% coloring, 77% 1986; 24% mature, 41% 1986, 28% avg.; 1% poor, 22% fair, 76% good, 1% excellent. Cotton 100% set bolls, 100% 1986, 95% avg.; 2% open bolls, 23% 1986, 11% avg.; 11% poor, 15% fair, 74% good. Soybeans 76% blooming, 77% 1986, 82% avg.; 50% set pod, 49% 1986, 43% avg.; 14% poor, 40% fair, 46% good.

**MISSOURI:** Temperatures averaged 1 to 3° above normal. Heavy rainfall parts of central, northeast; between 4.50 to 5.50 in., less than 0.60 in. south, 0.50 to 2.50 in. elsewhere.

Days suitable for fieldwork 4.9. Topsoil moisture 46% short, 48% adequate, 6% surplus. Alfalfa hay 3rd cutting 92%, 77% 1986, 61% avg. Pasture 11% very poor, 42% poor, 33% fair, 14% good.

**MONTANA:** Temperatures below normal. North central, central coldest, averaging 7 to 8° below normal. Every station reported precipitation. West, north central most 0.60 in. Central division least 0.20 in., 14th heaviest rainfall day.

Days suitable for fieldwork 6.0. Topsoil moisture 23% short, 75% adequate, 2% surplus. Subsoil moisture 16% short, 84% adequate. Barley 2% very poor, 4% poor, 15% fair, 69% good, 10% excellent. Barley 42% harvested, 38% 1986, 43% avg. Oats 28% harvested, 35% 1986, 42% avg. Second cutting alfalfa 63% harvested, 52% 1986, 56% avg. Wild hay 92% harvested, 92% 1986, 88% avg. Winter wheat planting to start 4th.

**NEBRASKA:** Temperatures near normal with higher than normal humidity east. Precipitation generally light, scattered except for southeast, east 2.00 in. or more. Extremes 50°; 97°.

Days suitable for fieldwork 4.8. Topsoil moisture 58% short, 36% adequate, 6% surplus. Subsoil moisture 39% short, 61% adequate. Oat harvest virtually complete. Corn silking virtually complete. Moisture, cooler temperatures improved crop progress, conditions. Alfalfa hay fair to

good. Third cutting 65%, 28% 1986, 28% avg. Pasture, range supplies mostly adequate. Livestock making good gains. Fly problems severe but not affecting gains.

**NEVADA:** Mixed between dry westerly, weak southern flow with subtropical moisture most of week. Spotty thunderstorms southern, eastern areas. Cooler temperatures, breezy conditions end of period. Heavy thunderstorms north, east. Hail reported northeast. Temperatures averaged below normal central, east; near normal south, west. Extremes 31<sup>o</sup>; 112<sup>o</sup>.

Garlic harvest about completed. Growers working on remaining acreages hay, small grains, onions, melons.

**NEW ENGLAND:** Precipitation averaged less than 0.25 in. Maine, 0.50 to 1.00 in. remainder. Normal temperatures ranged from low to mid 60s north, central, upper 60s south.

Days suitable for fieldwork 6.5. Soil moisture 5% very short, 42% short, 53% adequate. Grazing availability 7% very short, 60% short, 27% adequate, 7% surplus. Fieldwork progress 1.0 day ahead. Maine potato harvest began; good to excellent. Maine oats good to excellent. Field corn good to excellent north, good south. Sweet corn good; 45% harvested, 42% 1986, 40% avg. Shade tobacco good 65% picked. Outdoor tobacco good; 55% picked. Second crop hay 65% cut, 55% 1986, 64% avg.; good north, poor to fair south. Third crop hay 15% cut, 15% 1986, 18% avg.; good north, fair to good south. Apples good, size medium. Cranberries good. Major farm activities: Haying, harvesting fruits and vegetables, irrigating, spraying.

**NEW JERSEY:** Temperatures averaged near normal. Extremes 48<sup>o</sup>; 95<sup>o</sup>. Rainfall averaged none north, 0.46 in. central, none south. Heaviest 24-hour total 2.72 in. on 10th, 11th. Estimated soil moisture percent field capacity averaged 85% north, 79% central, 46% south. Four inch soil temperatures averaged 69<sup>o</sup> north, 73<sup>o</sup> central, south.

Warmer weekend temperatures advanced crop maturity. Soil moisture about adequate except southern most areas. Summer vegetable movement began to decline. Irish potato digging increased. Peach marketing slowed by low prices; many in storage. Summer variety apple volume steady. Cranberry prospects generally very good, some flood damage occurred. Oat combining well advanced. Pasture growth responded to recent rain.

**NEW MEXICO:** Temperatures over State slightly above to slightly below normal. Low temperature 34<sup>o</sup> Quemado. High temperature 103<sup>o</sup> Hobbs. Precipitation statewide. Trace amounts some areas, 2.39 in. Des Moines.

Days suitable for fieldwork 5.1. Soil moisture 14% short, 79% adequate, 7% surplus. Some localized hail damage reported. Alfalfa 8% poor, 33% fair, 51% good, 8% excellent. Fourth cutting underway some areas. Cotton 33% fair, 67% good. Some boll opening. Irrigated grain sorghum 29% fair, 71% good; 75% heading. Dryland sorghum 25% fair, 75% good; 83% heading. Light wheat planting activity reported, field preparation continued. Onion harvest continued Mesilla, Hatch Valleys, High Plains, other scattered areas. Prices poor, quality still above average, harvest slowed by rains. Potato harvest continued, poor prices reported. Pecans 33% fair, 67% good. Chile 33% fair, 67% good, harvest continued. Apples 20% fair, 60% good, 20% excellent; some light harvest activity. Range 7% poor, 64% fair, 29% good; rains helped conditions, additional rain needed. Cattle, sheep fair to good.

**NEW YORK:** Heavy rains early week followed by dry conditions later. Humidity build up by late week. Temperatures fluctuated widely. Record low night temperature Albany 46<sup>o</sup>. Daytime temperatures several areas over 90<sup>o</sup>.

Days suitable for fieldwork 5.5. Soil moisture short to adequate. Pastures good. Hay good. Corn excellent. Second cut alfalfa hay 78%, 63% 1986, 76% avg. Third cut alfalfa 17%, 5% 1986, 10% avg. Oats 58% harvested, 31% 1986, 46% avg. Early apple harvest continued. Bartlett pear harvest to begin this week. Grapes excellent. Anticipated onion yields down.

**NORTH CAROLINA:** Temperatures averaged 2<sup>o</sup> below normal to near normal. Temperature extremes 44<sup>o</sup>; 99<sup>o</sup>. Precipitation ranged from 0.02 to 4.75 in. across State. Storms scattered statewide, but mostly along coast.

Days suitable for fieldwork 5.9. Soil moisture 23% very short, 47% short, 27% adequate, 3% surplus. Pasture 7% very poor, 34% poor, 44% fair, 15% good. Tobacco 16% poor, 56% fair, 27% good, 1% excellent. Flue-cured tobacco 37% harvested, 34% 1986, 42% avg. Peanuts 4% poor, 48% fair, 48% good. Hay 5% very poor, 35% poor, 44% fair, 15% good, 1% excellent. Sweetpotatoes 3% poor, 55% fair, 39% good, 3% excellent. Corn for silage 22% harvested, 43% 1986, 23% avg. Fruit crops fair to mostly good. Truck crops mostly fair. Peaches 85% harvested, 92% 1986, 90% avg. Major farm activities: Tobacco related topping, spraying for sucker control, irrigation, harvesting, marketing; harvesting hay, vegetables, peaches, corn silage; spraying soybeans, cotton, peanuts; scouting soybeans, peanuts; shearing Christmas trees; tending livestock; preparing equipment for corn for grain harvest; general farm maintenance.

**NORTH DAKOTA:** Cool, wet. Temperatures averaged 1 to 4<sup>o</sup> below normal. Extremes 41<sup>o</sup> northwest; 100<sup>o</sup> west central. Precipitation throughout week, heaviest northwest 5.99 in.

Days suitable for fieldwork 4.7. Topsoil moisture well above normal; 9% short, 84% adequate, 7% surplus. Subsoil moisture above normal; 7% short, 91% adequate, 2% surplus. Small grain harvest progressed ahead of normal pace. Spring wheat 51% combined, 23% 1986, 34% avg.; durum wheat 30%, 14% 1986, 21% avg.; oats 63%, 38% 1986, 48% avg.; barley 75%, 42% 1986, 61% avg. Row crops mostly good to excellent. Sunflower 24% flowers dried and beyond 9% 1986, 10% avg.; corn 15% denting-dented, 8% 1986, 8% avg.; potatoes 4% dug, none 1986, none avg.; dry beans 83% fully podded and beyond, 83% 1986, 64% avg.; soybeans 30% lower leaves yellowing, 19% 1986, 11% avg.; flax 3% combined, none 1986, 3% avg. Pastures mostly good. Second cutting alfalfa 76%.

**OHIO:** Temperatures 2 to 4<sup>o</sup> above normal ranging from 51 to 96<sup>o</sup>. Precipitation none to 0.50 in.; mostly north.

Days suitable for fieldwork 6.5. Soil moisture 59% short, 40% adequate, 1% surplus. Activities included harvesting fruit, vegetable, hay, silage; plowing, mowing. Corn developed rapidly; good but declining. Soybeans need moisture to fill pods; fair to good, declining. Oat harvest complete. Grasslands fair to good. Farmers with poorest pastures feeding hay. Livestock, poultry stressed by heat; mortality up.

**OKLAHOMA:** Temperatures averaged 1<sup>o</sup> below normal west central to 4<sup>o</sup> above normal east central. Precipitation averaged 0.16 in. west central to 0.84 in. southeast.

Days suitable for fieldwork 6.4. Topsoil moisture 65% short, 33% adequate, 2% surplus. Subsoil moisture 50% short, 50% adequate. Wheat 100% harvested, 100% 1986, 100% avg. Sorghum 1%

poor, 14% fair, 85% good; 30% coloring, 30% 1986, 20% avg.; 3% mature, 3% 1986, 2% avg. Hot, dry weather stressed dryland acreage. Cotton 45% fair, 55% good; 65% setting bolls, 70% 1986, 65% avg.; none open bolls, none 1986, none avg. Growers monitoring insect infestations. Pastures good to fair, cattle good. Marketings increased, prices stable.

**OREGON:** Temperatures near to slightly below normal except south coast up to 11° above normal. Nearly all stations measured rain; heaviest amounts along coast, north interior.

Soil moisture 71% short, 29% adequate. Barley 71% harvested, 86% 1986, 82% 1985. Grain harvest winding down Columbia Basin, west. Grass seed harvest essentially complete Willamette Valley. Spring grain harvest getting started eastern high country. Mint harvest continued west. Hop harvest started Willamette Valley. Alfalfa cutting in 2nd or 3rd cycle around State. Bartlett pear harvest well underway Jackson, Washington Counties. Pear size small, quality good. Peach harvest continued west. Golden delicious apples, prunes, plums picked Milton-Freewater area. Mid-Willamette Valley growers nearly finished with berry harvest; started post harvest field activities. Blueberry, blackberry, raspberry harvest continued Washington County. Some non-irrigated fruit, nut orchards show drought stress McMinnville area. Snap bean, sweet corn harvest continued for fresh, processing markets-Marion County. Sweet corn, snap bean, broccoli, cucumber harvests well underway Washington County. Broccoli planted western fields. Some onions windrowed Salem area. Onions nearly mature southwest. Eastern potatoes continued to size, show good condition. Garlic harvest well underway Jefferson County. Livestock mostly good. Range, pasture fair to excellent. Spotty rain prompted some forage growth north Willamette Valley. Few loads of earlier contracted yearlings shipped Lake County.

**PENNSYLVANIA:** Cold front early week dumped heavy amounts of rain across central, east portions of State. Temperature, precipitation normal. Average temperature 71°, 1° above normal. Temperature extremes 44°; 94°. Average precipitation 0.89 in., 0.05 in. above normal.

Days suitable for fieldwork 6.0. Soil moisture 70% short, 28% adequate, 2% surplus. Corn 95% silk, 98% 1986, 91% avg.; 63% dough, 57% 1986, 43% avg.; 13% dent, 13% 1986, 7% avg. Corn 3% very poor, 9% poor, 23% fair, 38% good, 27% excellent. Soybean 2% very poor, 10% poor, 25% fair, 39% good, 24% excellent. Wheat 100% harvested, 98% 1986. Oats 88% harvested, 88% 1986. Potatoes 22% harvested, 29% 1986. Second cutting alfalfa 88%, 92% 1986. Third cutting alfalfa 47%, 46% 1986. Second cutting clover-timothy 69%, 72% 1986. Quality of hay made good. Amount of feed being obtained from pastures below average to average. Apple 11% harvested, 17% 1986. Peach 49% harvested, 55% 1986. Activities: Harvesting small grains, hay, haylage, fruit, potatoes, other vegetables; fall plowing; machinery maintenance; caring for livestock.

**PUERTO RICO:** Island average rainfall 0.42 in., 1.17 in. below normal. Highest weekly total rainfall 2.37 in. Adjuntas followed by 2.20 in. Arecibo Observatory, 2.00 in. Corozal Aes. Highest 24-hour total 2.34 in. Adjuntas. San Juan mean temperature 84°, 1° above normal. Rainfall total 0.36 in., 0.97 in. below normal. Divisional temperature averaged about 82 to 83° on coasts, 77 to 78° interior with mean station temperature ranging from 69° Pico Del Este-Luquillo to 85° Roosevelt roads. Lowest minimum temperature 59° Adjuntas. Highest maximum temperature 95° San Sebastian.

**SOUTH CAROLINA:** Rainfall widespread 0.50 to 3.00 in. Cooler temperatures early week, 90s by weekend.

Days suitable for fieldwork 5.5. Soil moisture 12% very short, 58% short, 30% adequate. Cotton 95% setting bolls, 94% 1986, 98% avg.; 1% bolls open, 8% 1986, 9% avg.; 1% very poor, 1% poor, 90% fair, 8% good. Soybeans 72% blooming, 59% 1986, 69% avg.; 40% setting pods, 29% 1986, 33% avg.; 1% leaves turning, 1% 1986; 64% fair, 36% good. Tobacco good; 61% harvested, 70% 1986, 69% avg.; 2% stalks destroyed, 5% 1986, 4% avg. Corn fair to good; 73% mature, 85% 1986, 72% avg.; 9% harvested, 25% 1986, 15% avg. Pastures, hay, livestock fair to good. Peaches fair to good; 85% harvested, 97% 1986, 93% avg. Peanuts fair to good, light harvest.

**SOUTH DAKOTA:** Average temperatures normal to 4° above normal. Extremes 50°; 100°. Black Hills low 34°.

Days suitable for fieldwork 5.2. Topsoil moisture improved from previous week 10% critically short, 39% short, 50% adequate, 1% surplus. Heat stress somewhat alleviated by cooler temperatures, rainfall. Row crops 9 to 12 days ahead of normal.

**TENNESSEE:** Below average rainfall. Above normal temperatures.

Days suitable for fieldwork 5.9. Soil moisture 34% very short, 57% short, 9% adequate. Corn 93% dough, 92% 1986, 88% avg. Corn 70% dent, 70% 1986, 50% avg. Corn 19% mature, 25% 1986, 12% avg. Corn 8% poor, 42% fair, 42% good, 8% excellent. Tobacco 75% topped, 60% 1986. Burley 20% harvested, 12% 1986, 12% avg. Dark fired 12% harvested, 16% 1986, 10% avg. Dark air-cured 15% harvested, 11% 1986, 9% avg. Tobacco 2% very poor, 14% poor, 63% fair, 21% good. Cattle mostly fair. Pastures poor to fair. Main activities: Harvesting corn silage; topping tobacco; weed, insect control.

**TEXAS:** Tropical depression moved across State coast early week; most heavy rainfall stayed east of State. Widely scattered thunderstorms developed along cold front stalled across north, west early week, thunderstorms across State mostly late afternoon, early evening. High pressure ridge dominated south. Most State below normal rainfall, above normal amounts north central, Rolling Plains. Temperatures near normal. Temperatures Rolling Plains slightly below normal because of rainfall.

**Crops:** Corn dent stage many areas Plains. Rain benefited crop. Some silage cutting underway Plains. Grain harvesting advanced rapidly Blacklands, central, Upper Coast. Yields good most areas. Harvest winding down Valley. Corn 40% harvested, 58% 1986, 35% avg. Grain sorghum good progress Plains, rain brought much needed moisture dryland fields. Fields turning color, some harvesting began Low Plains. Harvesting continued Blacklands southward to coast, many producers Coastal Bend, Valley completed harvest. Yields good. Sorghum 50% harvested, 52% 1986, 52% avg. Plains cotton continued good progress. Many fields loading with bolls. Rain very beneficial to dryland crop. Bollworm activity increased wetter fields. Insect activity light Trans-Pecos. Bolls opening rapidly Blacklands. Harvest full swing Coastal Bend, Rio Grande Valley. Yields good. Bolls opening rapidly east along Upper Coast. Cotton 100% squaring, 99% 1986, 98% avg. Cotton 4% harvested, 8% 1986, 6% avg. Rice harvest advanced well along Upper Coast. Yields varied because uneven stands. Rice 99% turning color, 100% 1986, 89% avg. Soybeans looked good Plains. Rain critical time should benefit Plains crop. Along Upper Coast, many fields need moisture, still look good. Early beans neared maturity. Peanuts continued to look good Cross-Timbers, irrigation continued. Dryland fields need moisture.

Development good Plains. Some early harvest continued south. Fields need rain. Soybeans none harvested, 1% 1986, none avg.

**Commercial Vegetables:** Rio Grande Valley, land preparation continued. Tomato, pepper planting, irrigating continued. Citrus sizing well. Only minor insect problems so far. East watermelon harvest continued. Sweetpotato harvest to begin soon. High Plains cabbage, cucumber, carrot, potato harvest continued. Onion harvest winding down some abandonment because of low demand. Pepper harvest to begin soon. Trans-Pecos, producers watching pepper fields for insects. Cantaloup harvest slowed. Tomatoes look good. Pecan trees suffered from lack of moisture many areas. Webworms, walnut caterpillars working on leaves. Some additional droppage from dry weather continued. Moisture would help nuts fill more properly.

**Range and Pasture:** Hot, dry weather further aided drying of grasses many areas. Rain relieved stress somewhat; additional moisture beneficial. Many pasture grasses browning, stopped growing. Hay cutting continued. Yields decreased because dry weather; remained fair to good. Livestock good, large amount livestock going through markets. Sheep, goat shearing continued.

**UTAH:** Precipitation moderate southeast, south central, none to light elsewhere. Temperatures normal.

Days suitable fieldwork 6.3. Soil moisture 56% short, 44% adequate. Winter wheat 89% harvested, 78% 1986, 69% avg. Barley 75% harvested, 70% 1986, 56% avg. Spring wheat 92% ripe, 88% 1986, 70% avg.; 71% harvested, 50% 1986, 36% avg. Oats 72% ripe, 53% 1986, 50% avg. Oats harvested for hay or silage almost completed, for grain well underway. Corn 84% tasseled, 78% 1986, 80% avg.; 38% dough, 13% 1986, 24% avg. Alfalfa 2nd cutting 94%, 90% 1986, 85% avg.; 3rd cutting 5%, 6% 1986, 2% avg. Peach harvest underway. Apples, pears expected to start within 2 weeks. Onion harvest began. Range, pasture good higher elevations. Cattle, sheep good. Major farm activities: Irrigation, hay harvest, grain harvest, county fair, care of livestock.

**VIRGINIA:** Hot, humid early period. Cooler, less humid mid period. Becoming humid, slightly warmer, variable cloudy end period. Temperature ranged 52 to 102°. Light rain, drizzle end period some locations. Most locations trace or no rain. Maximum 0.48 in.

Days suitable for fieldwork 6.3. Topsoil moisture 98% short, 2% adequate. Drought worsened. Corn poor, some fair mountains. Corn 66% in or beyond dough stage, 70% 1986, 75% avg. Corn 48% in or beyond dent stage, 51% 1986, 52% avg. Corn 24% mature, 38% 1986, 24% avg. Silage 6% harvested, 8% 1986, 12% avg. Less than 1% grain harvested. Soybeans poor, growth very slow. Soybeans 69% in or beyond bloom stage, 69% 1986, 73% avg. Soybeans 50% in or beyond pod setting stage, 38% 1986, 47% avg. Peanuts good, declining slowly. Irrigated peanuts where possible. Irrigated flue-cured tobacco good, non-irrigated poor to fair. Burley tobacco good. Flue-cured markets opened. Flue-cured 10% harvested, 10% 1986, 25% avg. Fire-cured 6% harvested, 4% 1986, 27% avg. Burley 4% harvested, 2% 1986, 3% avg. Peach harvest active, good crop. Apples 15% harvested, 14% 1986, 11% avg. Hay poor, pastures poor to very poor. Hay yields low. Fed stored hay to livestock. Third cut alfalfa yields light. Some early cattle sales. More counties requested drought disaster designation.

**WASHINGTON:** Cool, cloudy conditions prevailed. Temperatures early week 90s east, central;

elsewhere 80s. Late week thunder storms northeast, central, west. Precipitation elsewhere negligible.

Days suitable for fieldwork 6.3. Soil moisture 40% short, 60% adequate. Rain showers interrupted grain harvest eastern area. Winter wheat 88% harvested, 76% 1986, 72% avg. Spring wheat, barley respectively 60%, 84% harvested. Wheat, barley straw being baled. Field preparation full swing. Pea, lentil harvest continued; yields average. Third crop alfalfa hay cutting completed Yakima, Benton, Garfield Counties; early stages Kittitas, Douglas, Lincoln, Stevens Counties. Alfalfa seed growers preparing for harvest. Bartlett pear harvest mostly completed lower areas, expected to continue thru next week higher areas. Apple growers prepared for harvest; trees loaded with fruit. Apricot harvest finished. Peach, nectarine harvest winding down. Sweet corn ripening rapidly, growers prepared for harvest. Elsewhere sweet corn harvest mostly complete except for cannery varieties. Vegetable seed crops being planted Grant County. Early potato harvest continued Columbia Basin. Vegetable growers throughout State continued to pick tomatoes, summer squash, peppers, cucumbers. Cantaloupes being picked Grant County. Carrot harvest continued Franklin County. Pastures dry, stockmen prepared to turn cattle into empty hay fields Stevens County. Livestock good, ranges dry east central. Statewide range, pastures 60% short, 40% adequate. Limited amounts of supplemental feeding for livestock on range, pasture areas Columbia County.

**WEST VIRGINIA:** Average temperature 75°, 2 to 6° above normal. Extremes 43° Greenbank; 99° Creston. Precipitation averaged 0.01 in., divisional averages all well below normal.

Days suitable for fieldwork 5.9. Soil moisture 83% very short, 17% short. Farm activities: Harvesting hay, general maintenance, gardening, livestock care. Oats, apples mostly fair. Corn, tobacco mostly fair to poor. Second cut hay 65%, 55% 1986.

**WISCONSIN:** Temperatures averaged 71°, 1° above normal. Extremes 46°; 91°. Rainfall 1.00 to 4.10 in. Heavy rain, thunderstorms south.

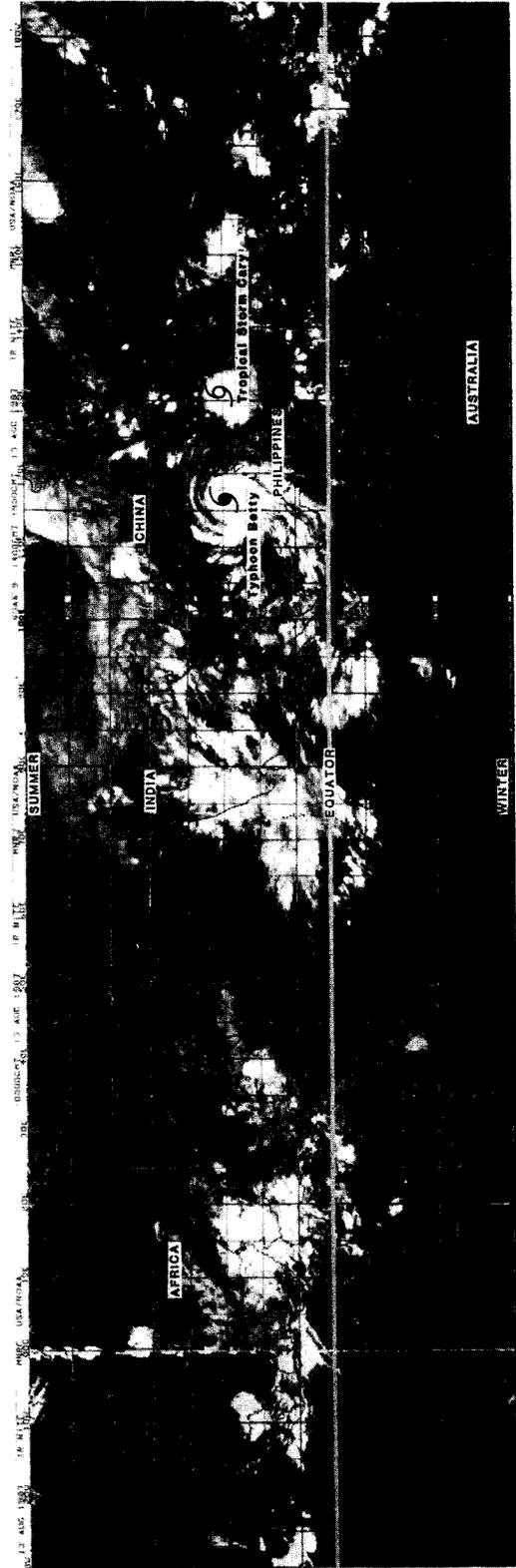
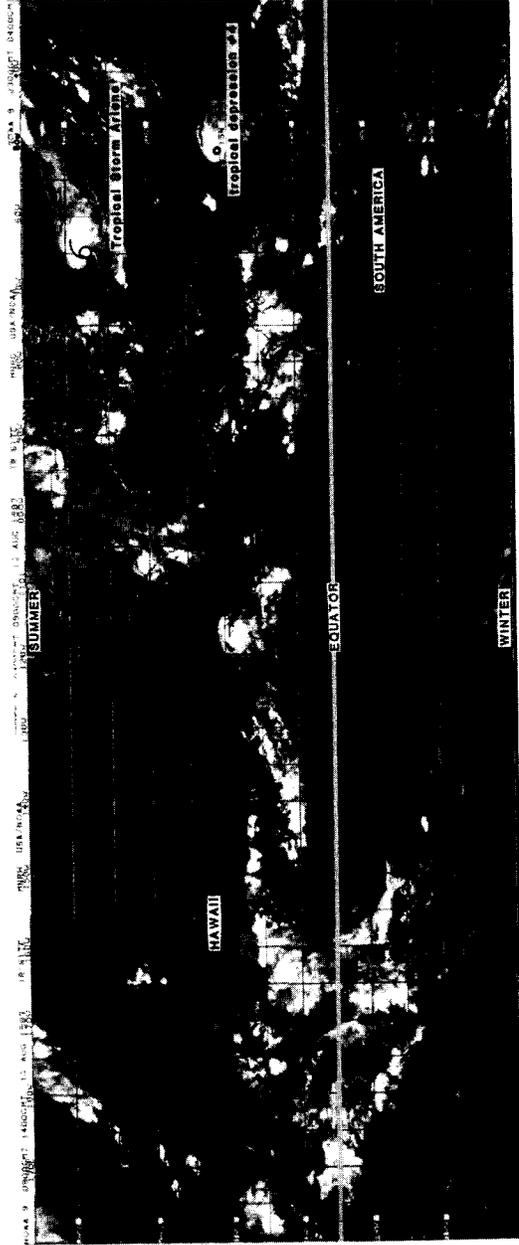
Days suitable for fieldwork 3.4. Soil moisture 26% short, 61% adequate, 13% surplus. Crops 1% poor, 23% fair, 66% good, 10% excellent. Corn 62% in dough, 49% 1986, 38% avg. Corn 15% in dent, 8% 1986, 6% avg. Soybeans excellent. Oats 85% harvested, 73% 1986, 64% avg. Yields low, straw short. Winter wheat 98% harvested, 94% 1986, 89% avg. Second crop hay 81% cut, 78% 1986, 78% avg. Third crop 14% cut, 12% 1986, 8% avg. Third crop yields, quality better than 2nd. Tobacco mostly topped. Cranberries, apples good yields. Scab on apples, east. Pastures continued to improve. 79%, 88% 1986, 78% avg.

**WYOMING:** Temperatures near normal. Precipitation generally below normal.

Days suitable for fieldwork 6.0. Topsoil moisture 63% short, 37% adequate. Winter wheat 5% mature, 10% 1986; 95% harvested, 90% 1986, 90% avg. Barley 10% headed, 5% 1986; 5% turning color, 15% 1986; 20% mature, 30% 1986; 65% harvested, 50% 1986, 50% avg. Spring wheat 10% turning color, 10% 1986; 25% mature, 50% 1986; 65% harvested, 40% 1986, 45% avg. Oats 5% headed, 5% 1986; 15% turning color, 20% 1986; 30% mature, 40% 1986, 40% avg.; 50% harvested, 35% 1986, 30% avg. Potatoes 100% bloom, 100% 1986. Dry beans 95% bloomed, 100% 1986, 90% avg.; 80% setting pods, 90% 1986, 90% avg.; 20% turning color, 30% 1986, 15% avg. Corn 95% tasseled, 95% 1986; 70% silked, 90% 1986; 45% in milk, 50% 1986; 30% dough, 20% 1986, 30% avg. Row crops mostly good to excellent. Cattle, sheep

# Global Weather Satellite Image

August 13, 1987



TROPICAL STORM CARY STRENGTHENED TO TYPHOON FORCE ON AUGUST 14. THE DISTURBANCE LOCATED SOUTHWEST OF MEXICO NEAR 13° NORTH, 117° WEST BECAME HURRICANE JOVA ON AUGUST 17.

# International Weather and Crop Summary

August 9-15, 1987

### HIGHLIGHTS:

**UNITED STATES** ... Rain improves crop condition in the central Great Plains and western Corn Belt. Inadequate, but much needed moisture eases crop stress in the Delta and Southeast.

**U.S.S.R.** ... In Western U.S.S.R., scattered showers over the Ukraine and North Caucasus favor corn in the filling stage, but unseasonably cool weather slows crop development. In the New Lands, warm, dry weather favors spring grain maturation.

**EUROPE** ... Periodic dry weather helps French wheat harvesting. Wet weather persists in the north as dryness returns to the southeast.

**SOUTH ASIA** ... Scattered showers benefit summer crops in central and southern India. Needed dry weather continues in Bangladesh.

**SOUTHEAST ASIA** ... Typhoon Betty damages Philippine crops. Beneficial showers continue throughout Thailand's rainfed crop areas, improving soil moisture levels for rice transplanting and filling grains.

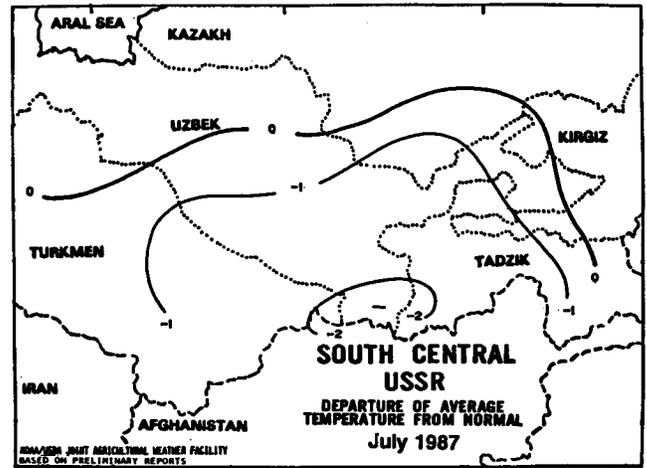
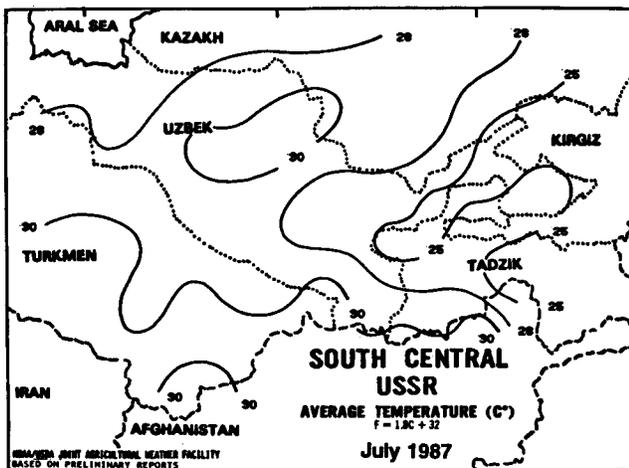
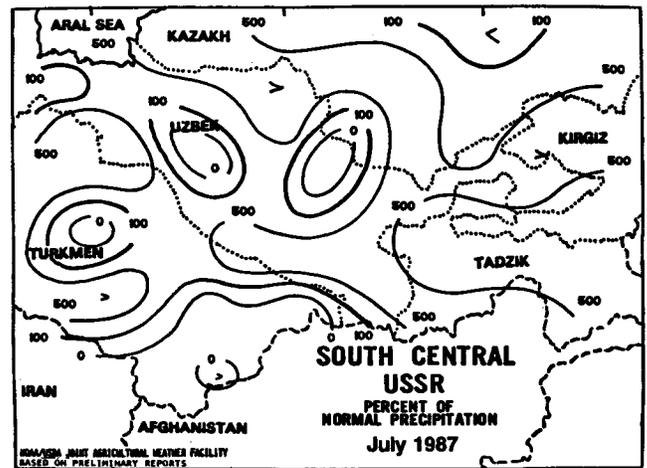
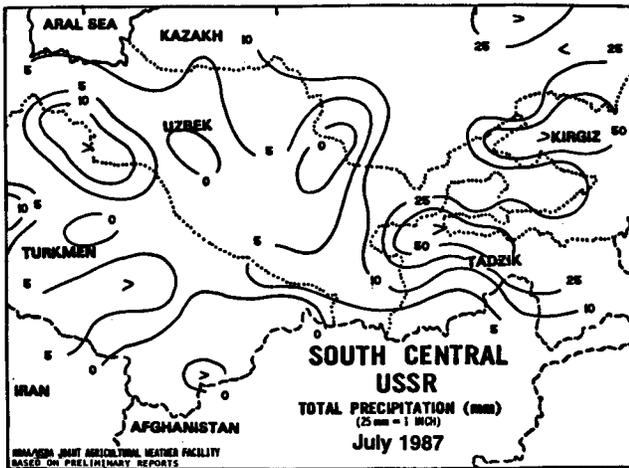
**EASTERN ASIA** ... Moderate to heavy showers continue over crop areas in the North China Plain.

**CANADA** ... Cool, wet weather covers the Prairies, slowing crop maturity and early harvesting.

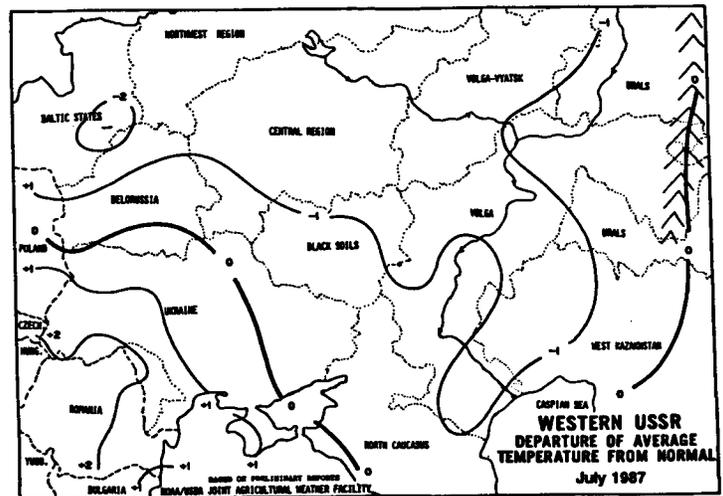
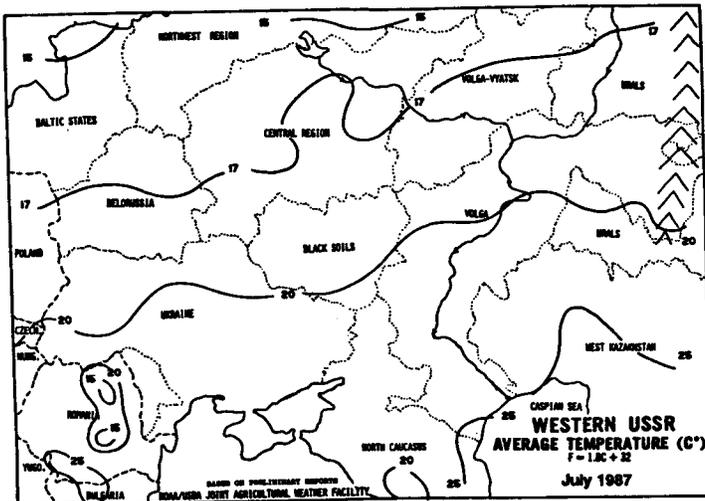
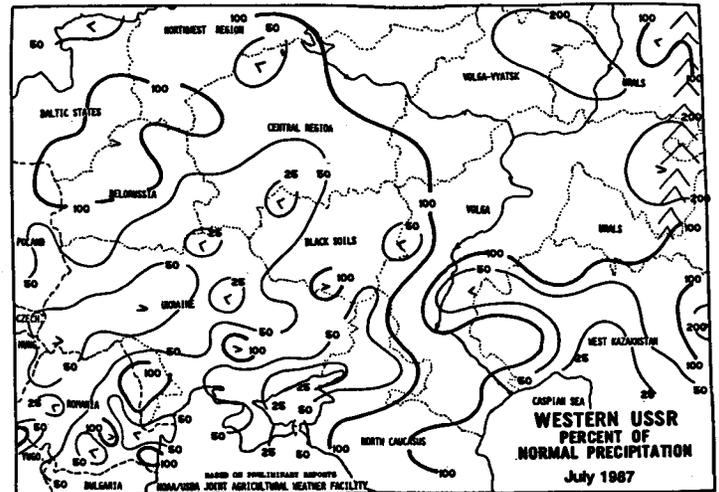
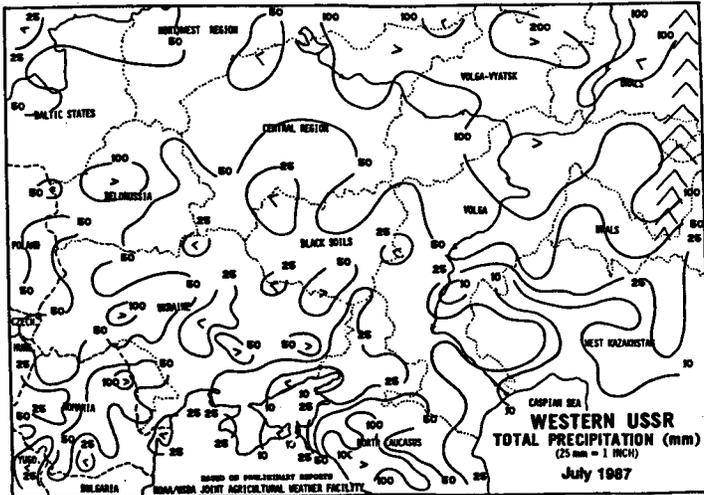
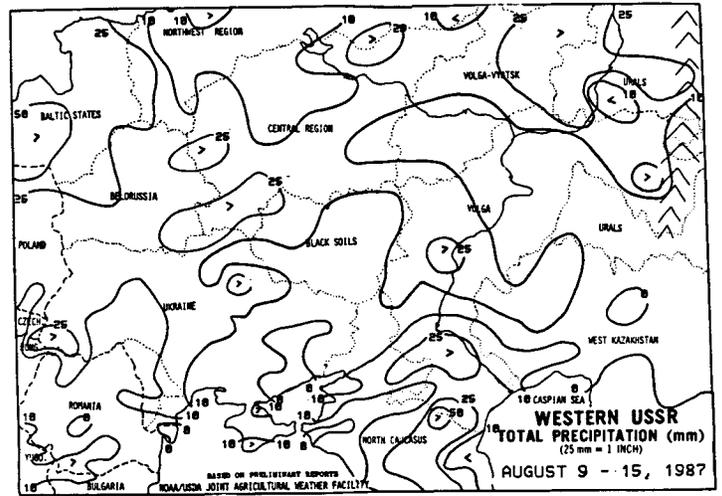
**SOUTH AMERICA** ... Wheat planting is nearly complete in Argentina. More rain falls in southern Brazil, but dry weather prevails in northern wheat and coffee areas.

**AUSTRALIA** ... Showers increase soil moisture throughout Australia's winter grain areas.

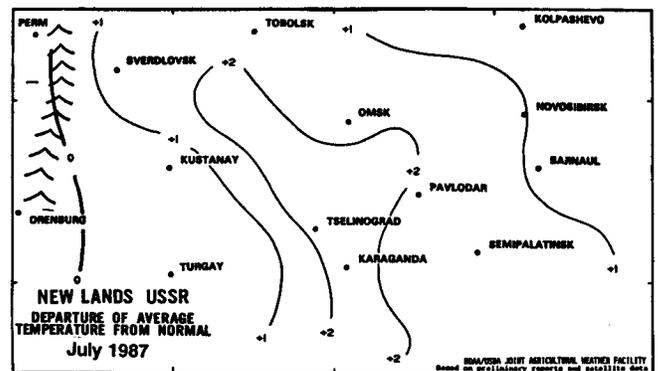
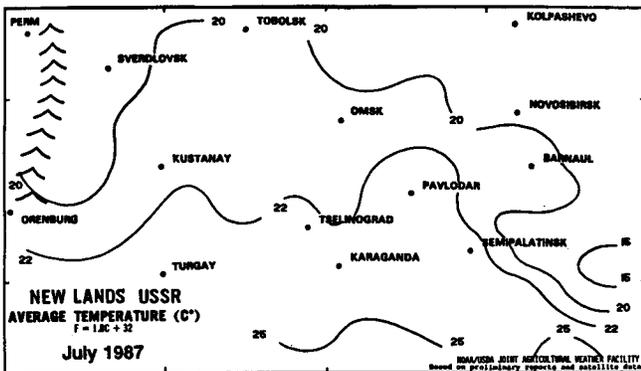
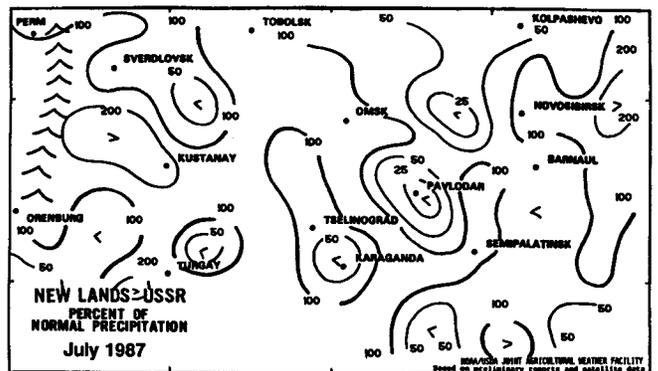
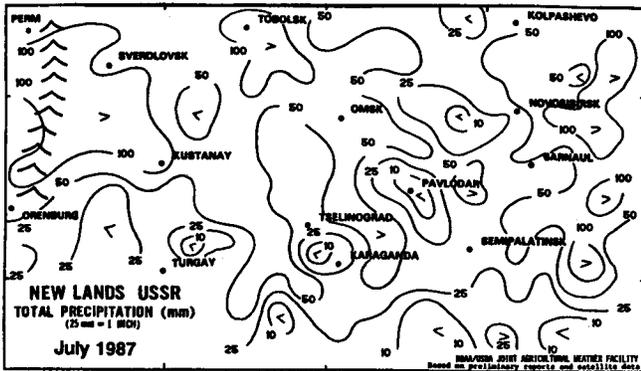
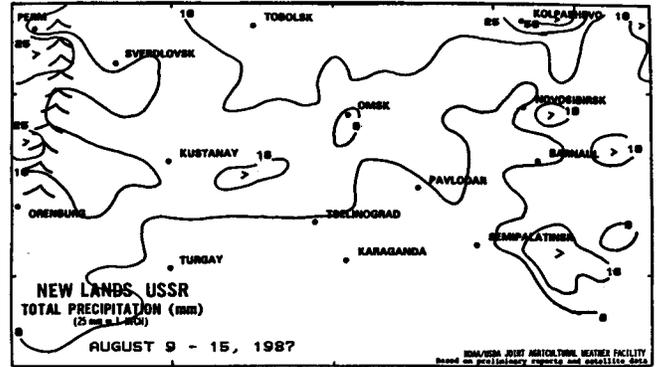
**MEXICO** ... Showers continue to benefit crop development.



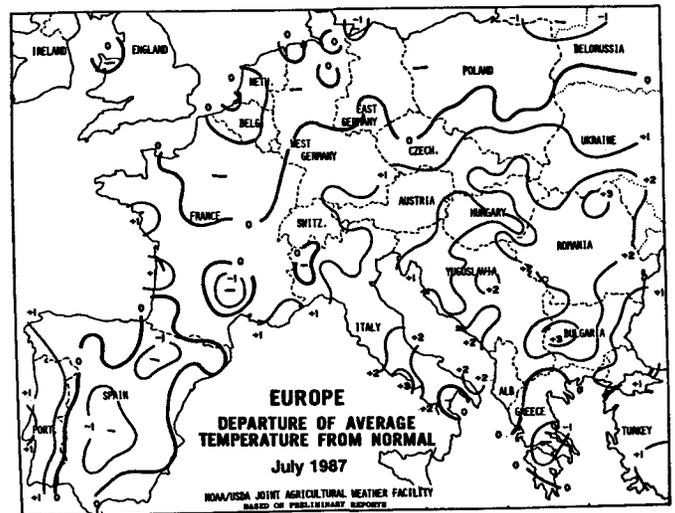
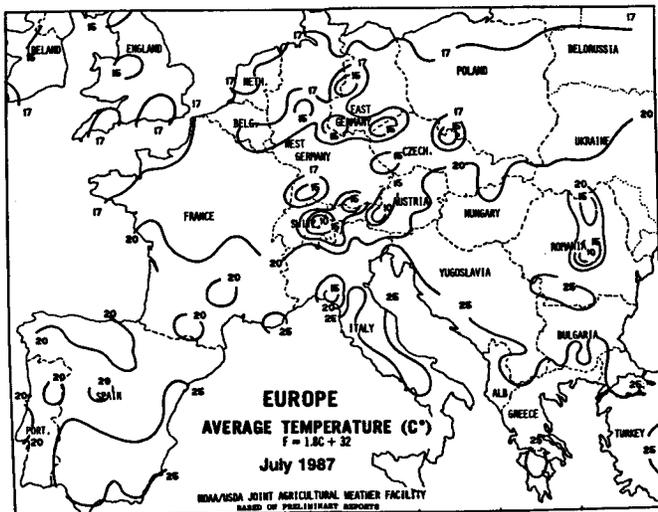
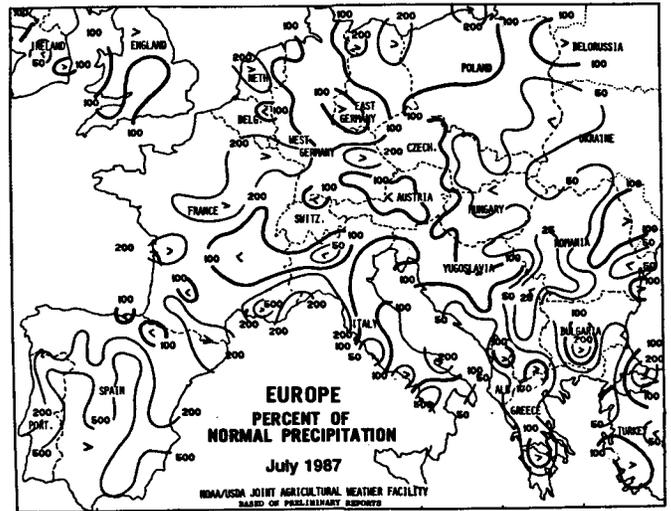
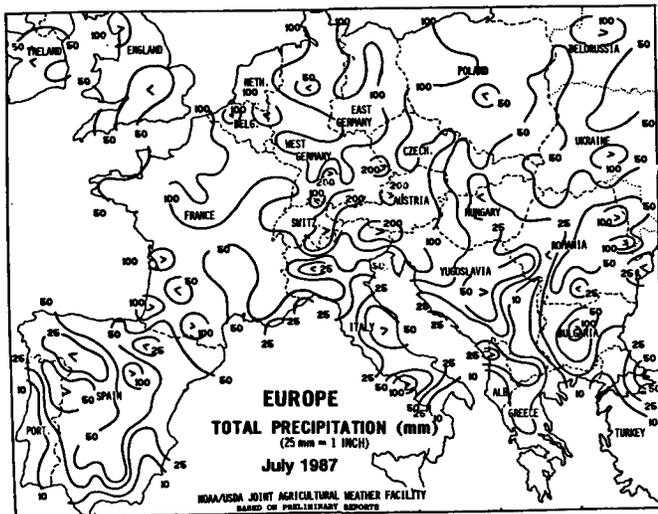
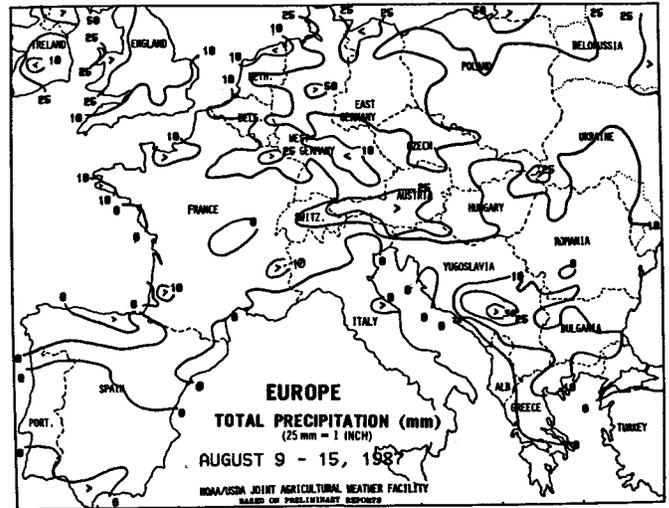
**WESTERN U.S.S.R.** ... Above normal July precipitation over the Baltics, northern Belorussia, the Volga Vyatsk, the upper Volga, and the northern North Caucasus benefited spring grains in the filling stage. July precipitation was below normal in the Central Region, southern Belorussia, the Black Soils Region, the Ukraine, and western North Caucasus. The minimal rainfall pattern in these areas favored winter grain maturation and aided early harvest activities. Spring barley in the grain filling stage and corn, approaching the reproductive stage, had to rely on soil moisture reserves to meet crop moisture requirements. However, near-to below-normal temperatures during July minimized crop stress. This past week, scattered showers in the Ukraine and North Caucasus favored corn in the filling stage, but some delays in the winter wheat and spring barley harvests may have occurred. Wet weather continued over the Baltic States, northern Belorussia, and the western portion of the Central Region. Weekly average temperatures were 2-4 degrees C below normal over much of the region.

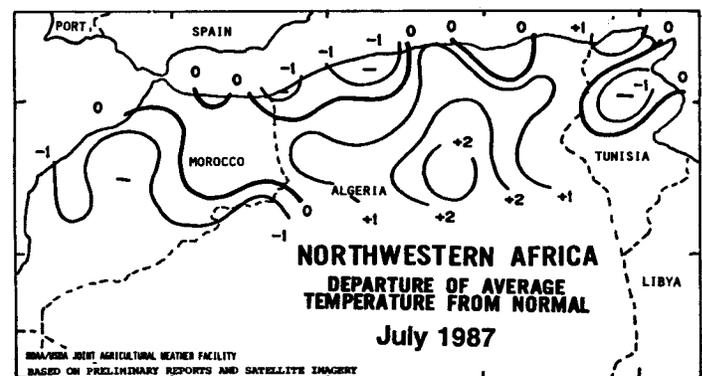
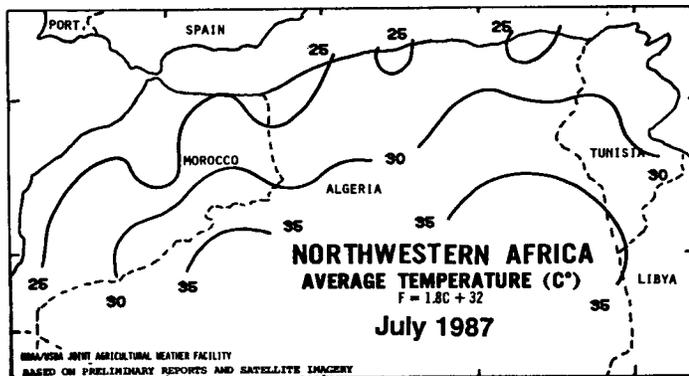
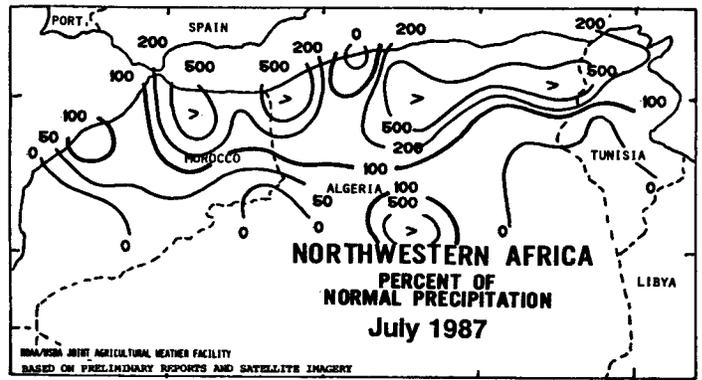
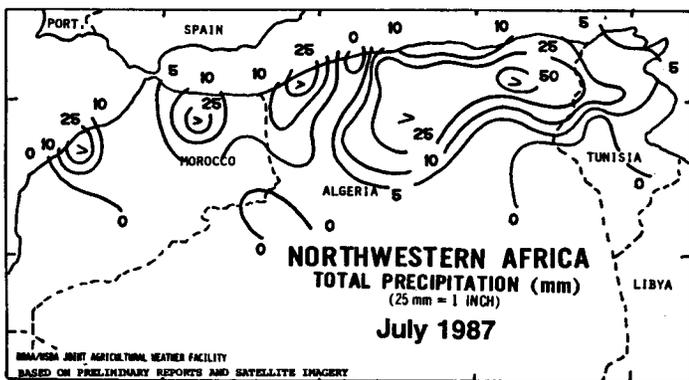
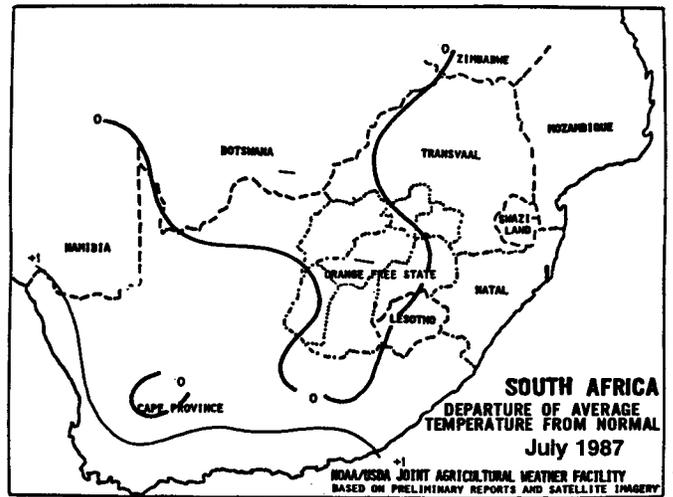
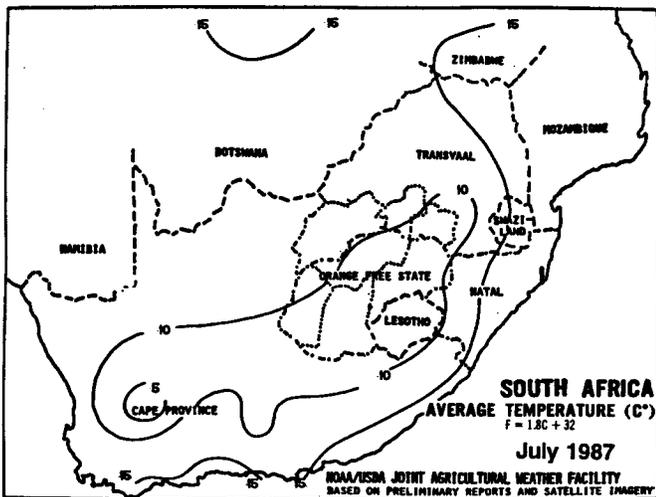
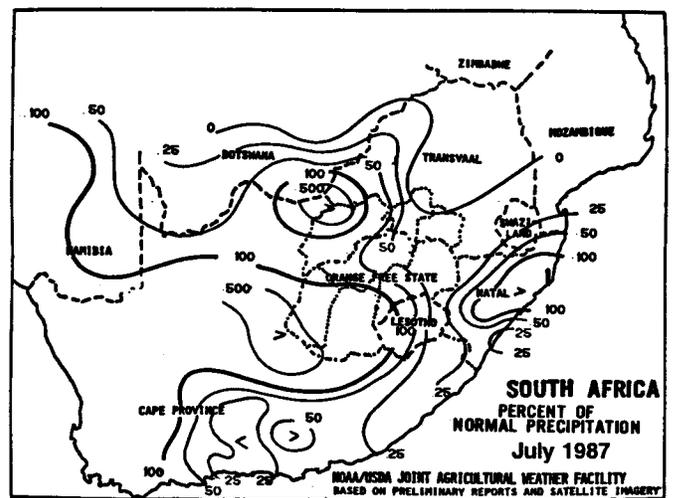
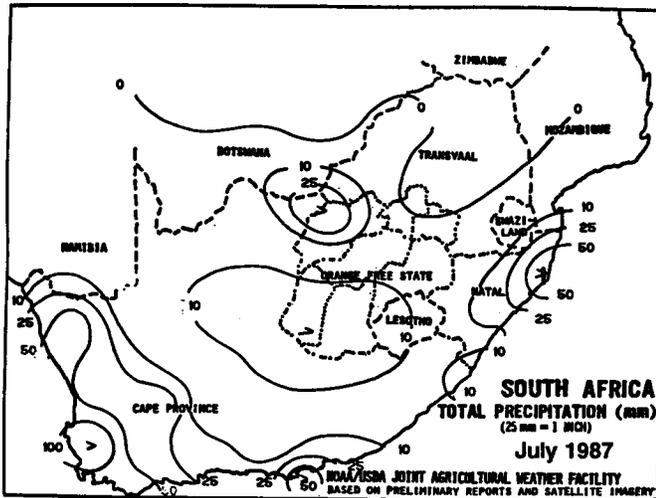


**NEW LANDS ...** Near- to above-normal July precipitation over the Urals and parts of western Kazakhstan improved moisture conditions for spring grains, which advanced through the reproductive and filling stages. Below-normal precipitation and above-normal temperatures covered spring grains in eastern Kazakhstan and central crop areas in Western Siberia. This past week, unseasonably warm, dry weather over the southern half of the region favored spring grain maturation. Light showers favored grain filling in the extreme north. In South Central U.S.S.R. cotton areas, light showers accompanied near- to below-normal July temperatures. This past week, above-normal temperatures covered cotton areas with daily maximum temperatures rising to around 37 degrees C by week's end.

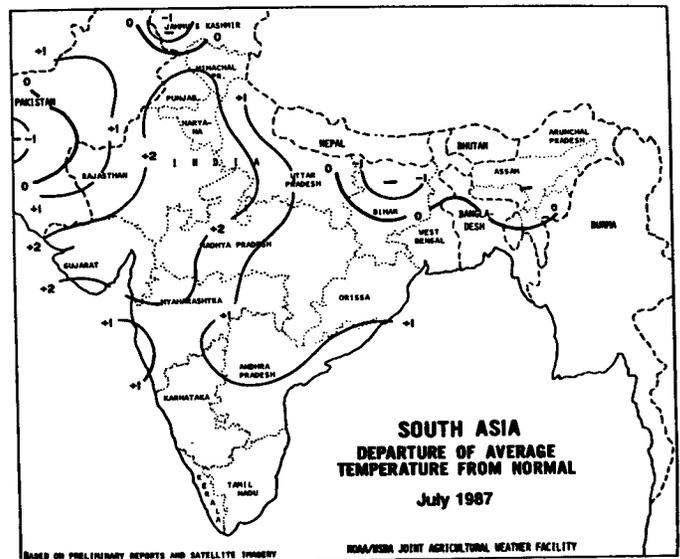
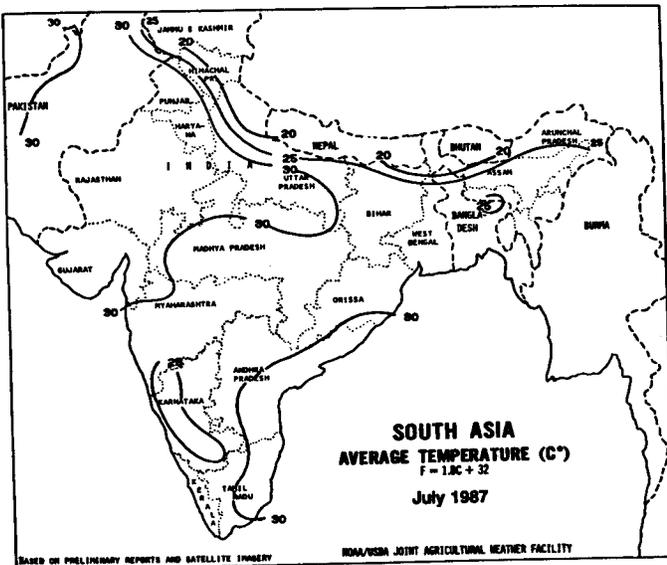
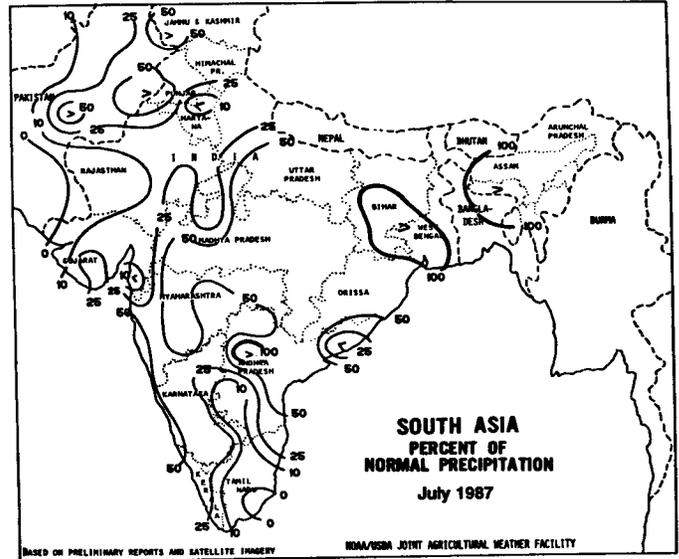
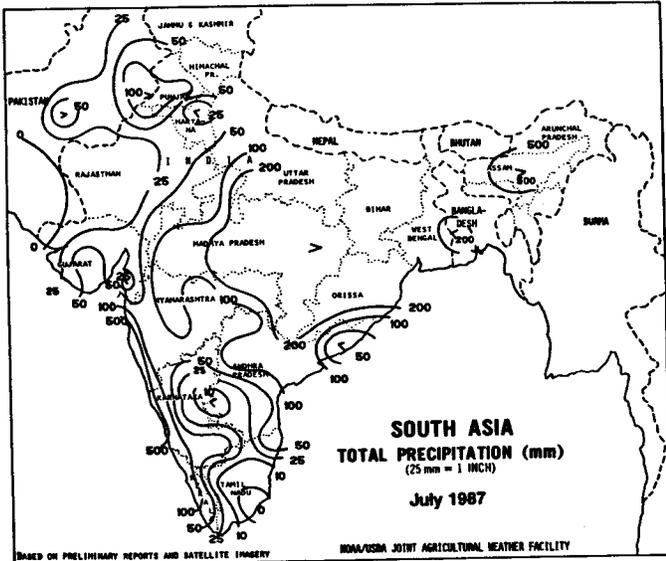
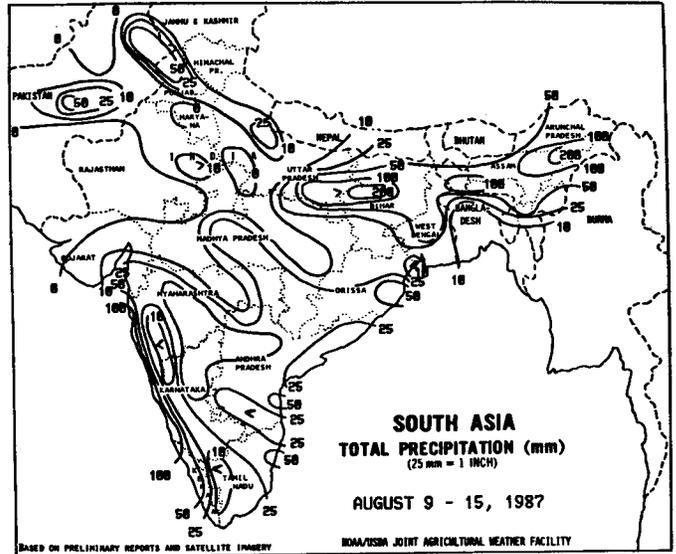


**EUROPE ...** Periodic dry weather in Italy, France, and southernmost England favored wheat harvesting. Moderate to heavy showers (10-58mm), however, over central England and from the Netherlands and Belgium to Poland, caused further harvest delays. This season's cool, wet weather slowed growth and damaged crops throughout western and northern Europe. Moderate to heavy showers (10-53mm) relieved filling summer crops in eastern Yugoslavia and southern Bulgaria, but minimal rain fell elsewhere. Moisture is limited over much of the southeast for the normal development of reproductive to filling crops. In July, this season's pattern of cool, wet weather continued in western and northern Europe, slowing crop development and hindering wheat harvesting, with damage from heavy showers in the north. Dry weather and much warmer than normal temperatures from southeastern Poland to Greece stressed summer crops in or nearing reproduction but favored winter grain harvesting.

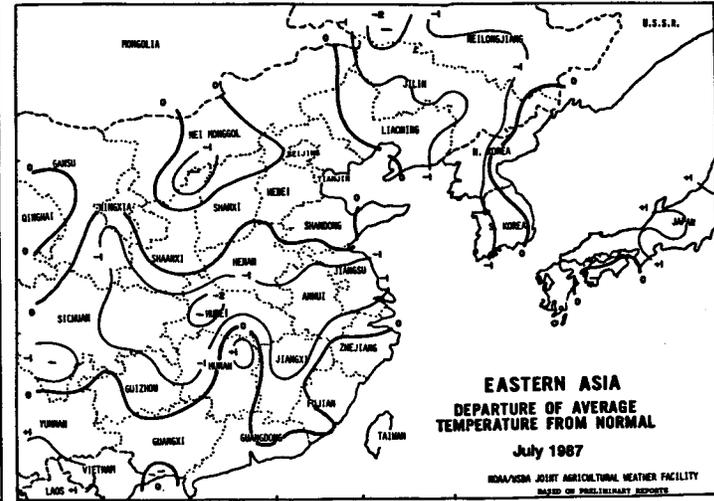
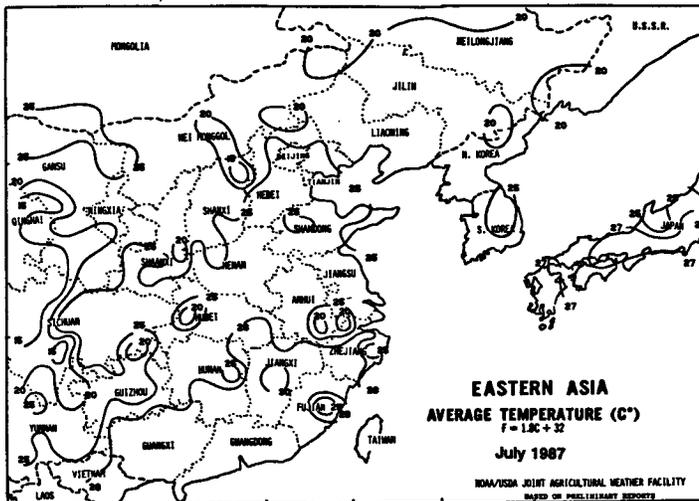
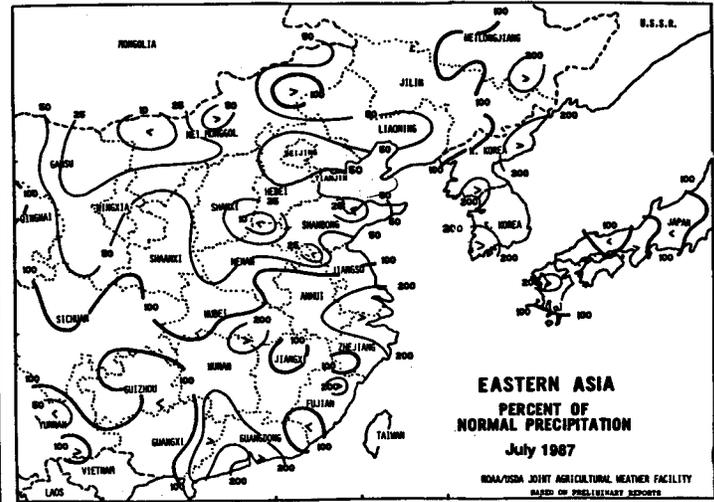
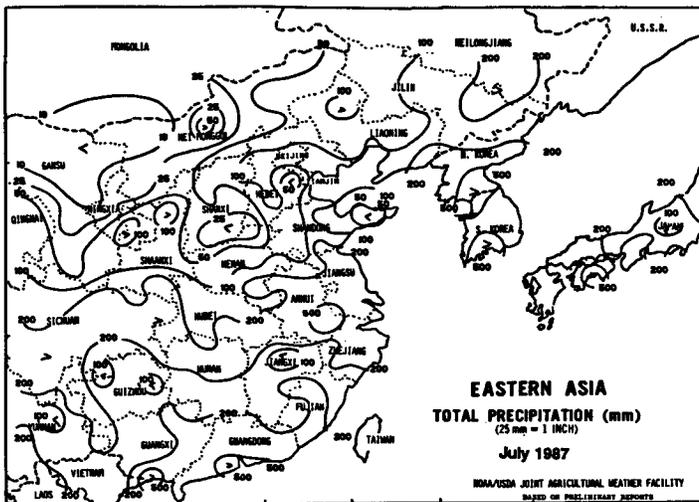
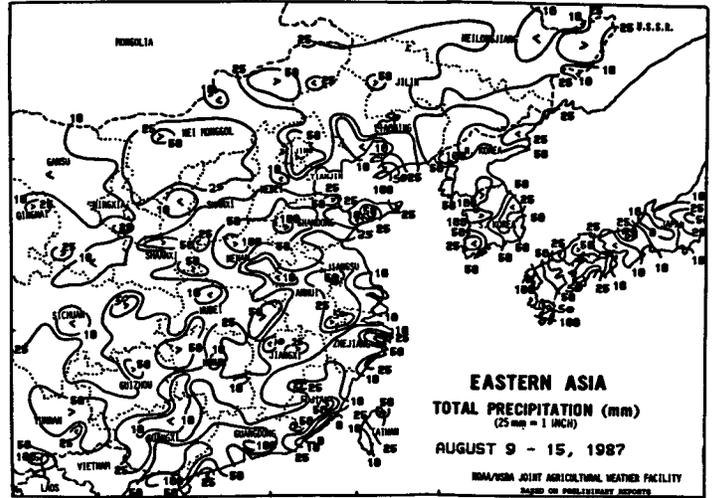




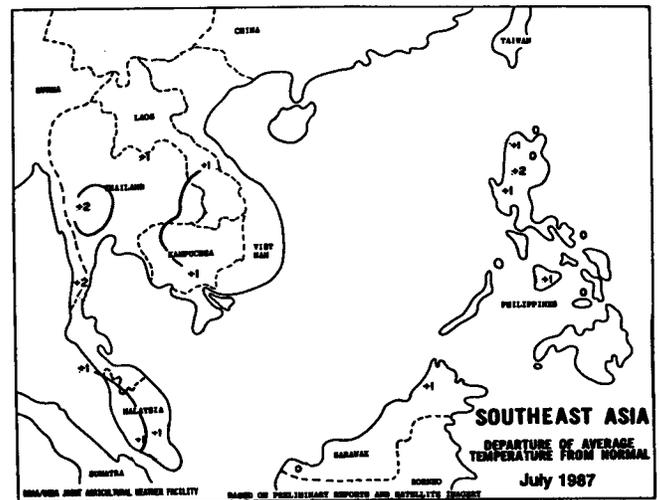
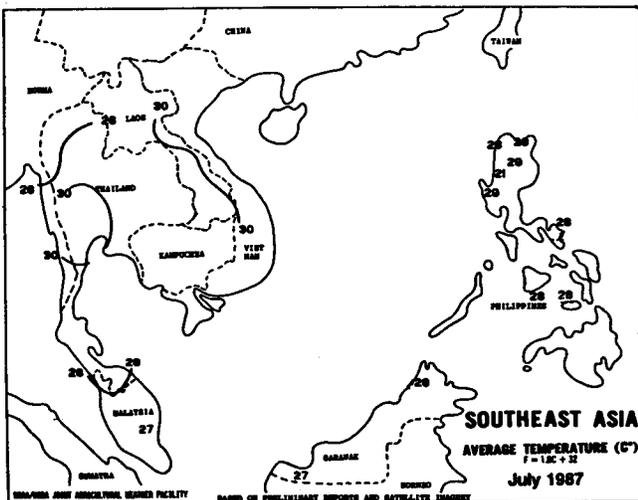
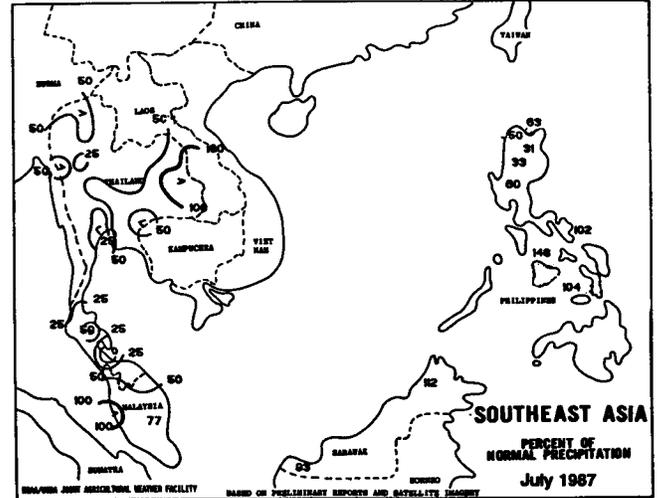
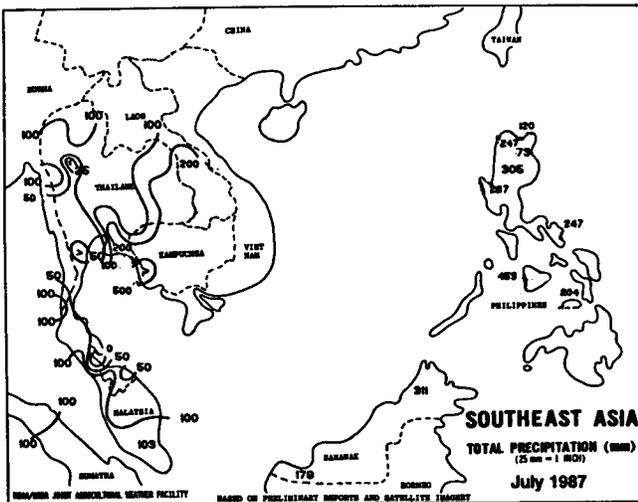
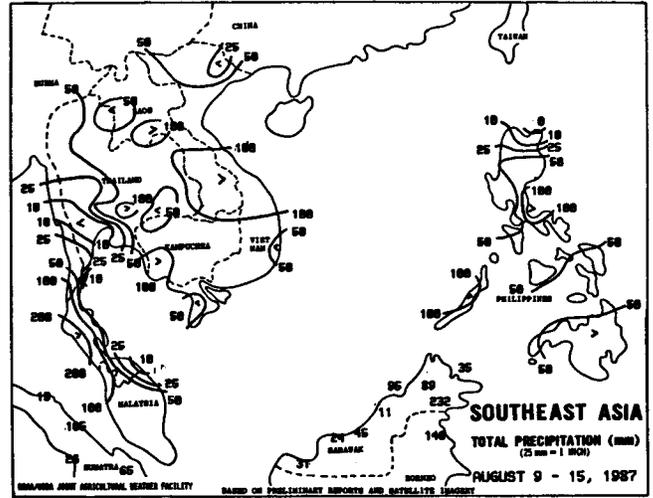
**SOUTH ASIA** ... Scattered showers (25-78mm) benefited vegetative summer crops in parts of central and southern India. Light rain (less than 25mm), however, returned to crop areas from western Maharashtra to western and northern Tamil Nadu, to southern Andhra Pradesh, and along the southeast coast. Moderate to heavy showers (25-78mm) improved irrigation reserves for boll forming cotton in northern India and Pakistan, but insufficient rain persisted in northwestern India, extending into eastern Madhya Pradesh and eastern Maharashtra. Heavy showers (50 to more than 200mm) likely caused local flooding from eastern Uttar Pradesh to the eastern states, but mostly dry weather brought relief to recently flooded areas of Bangladesh. In July, rainfall averaged less than 50 percent of normal in most summer crop areas of southern and western India, and in the heavily irrigated cotton regions of northern India and Pakistan, as the monsoon continued to be late in forming. Near to above-normal rainfall benefited rice in eastern India, but locally heavy showers caused flooding in Bangladesh and some eastern states. July temperatures averaged up to 4 degrees C above normal in the summer crop areas of the south and northwest, inhibiting planting activities and greatly reducing soil moisture levels.



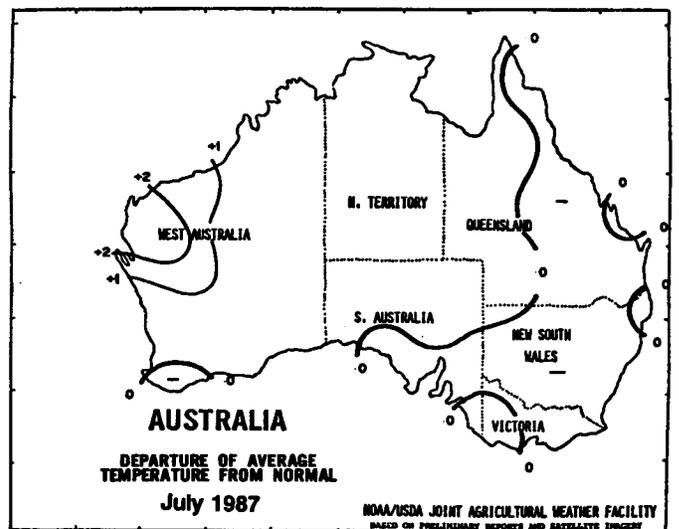
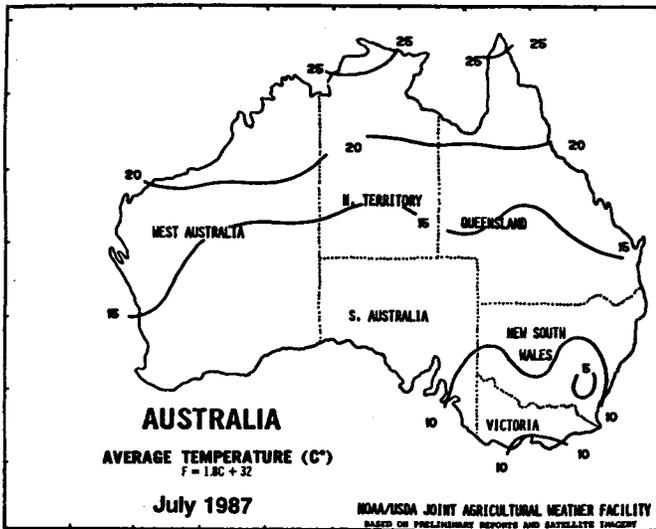
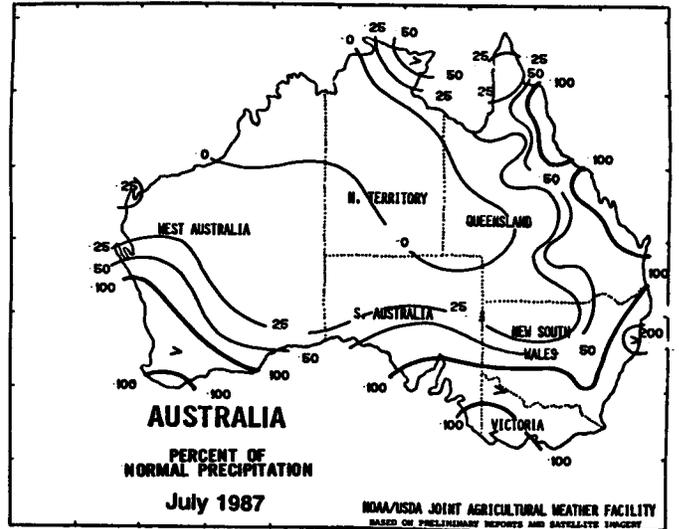
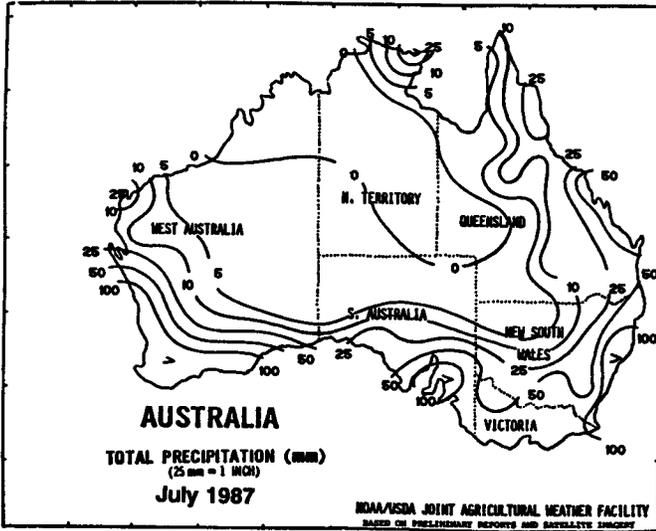
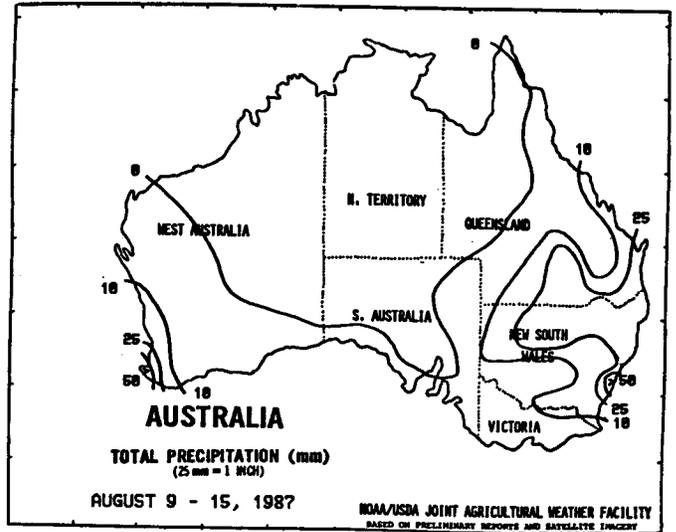
**EASTERN ASIA** ... Moderate to heavy precipitation covered the North China Plain, reversing July's much below-normal precipitation pattern. Rainfall amounts generally ranged from 25 to 60mm, with isolated locations in western Shandong and northern Henan receiving rainfall in excess of 100mm. The rain improved moisture for cotton in the boll forming stage and corn and soybeans in the filling stage. Widespread light to moderate showers fell eastward from Sichuan, through Hubei and Hunan, into Jiangsu and Zhejiang. Light precipitation in southern Jiangsu and most of Zhejiang was welcomed, following July's much above-normal rainfall. In the Manchurian Valley, light precipitation favored corn and soybeans in the filling stage. Elsewhere, moderate to heavy showers over the Korean peninsula continued July's excessive rainfall pattern.



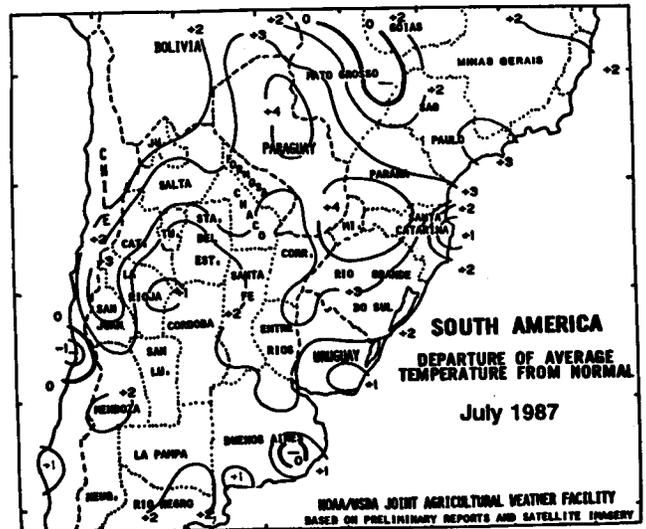
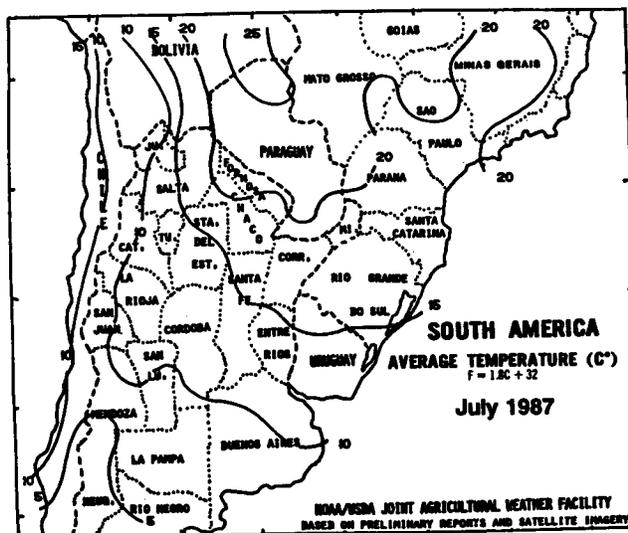
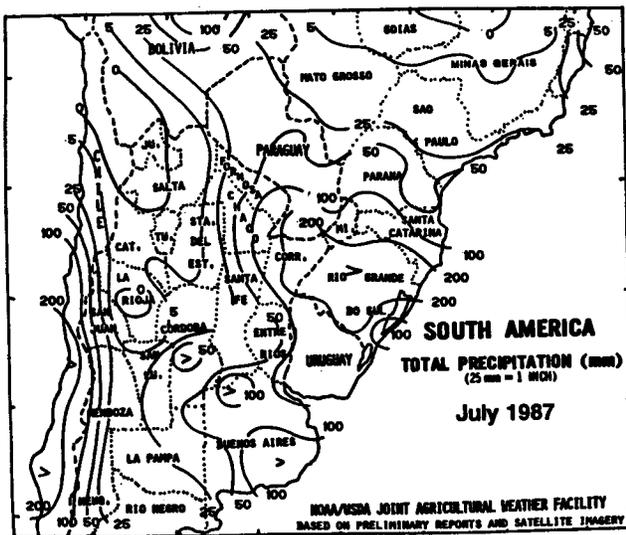
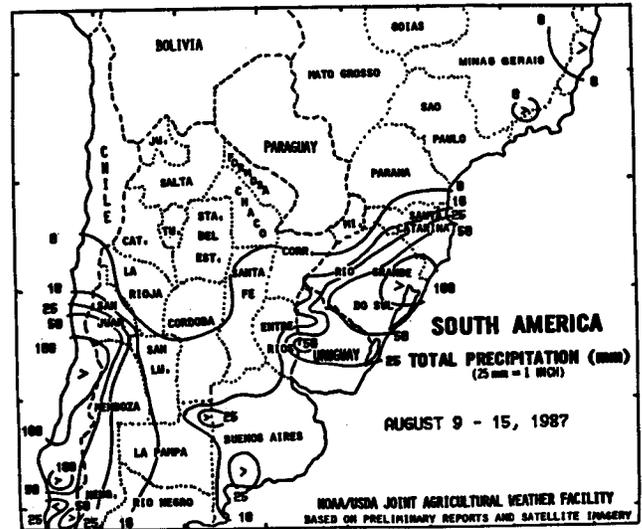
**SOUTHEAST ASIA** ... Typhoon Betty swept through the north-central Philippines, bringing heavy rain and high winds to crop areas as far north as central Luzon. Wind damage was likely in areas of the central islands and southern Luzon which produce grain, sugarcane, and copra. Moderate to heavy showers (25-99mm) covered most other tropical crop areas as a result of the increased tropical activity. Moderate to heavy showers (20-117mm) continued throughout Thailand's rainfed grain regions, improving conditions for grainfilling corn and promoting rice transplanting. Moderate to heavy showers also fell in Indochina and in Malaysia, but dry weather persisted throughout Indonesia. In July, late-month showers relieved filling grains stressed by earlier periods of hot, dry weather. Near- to above-normal rainfall covered most Philippine crop areas, but dry weather persisted in parts of Indonesia, most notably Java.



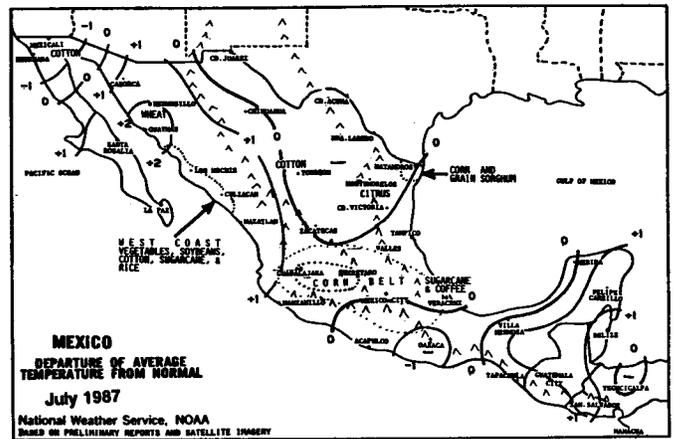
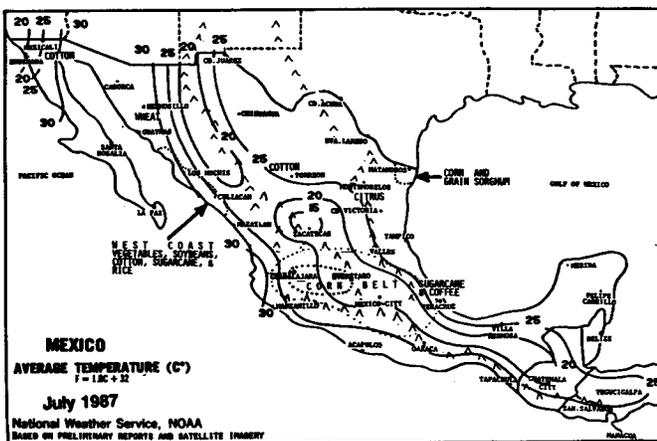
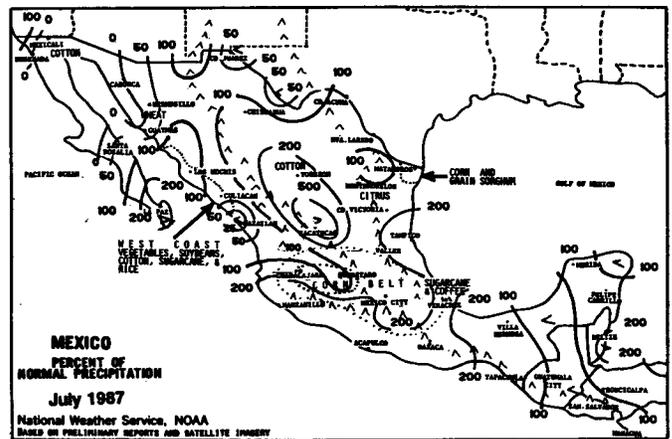
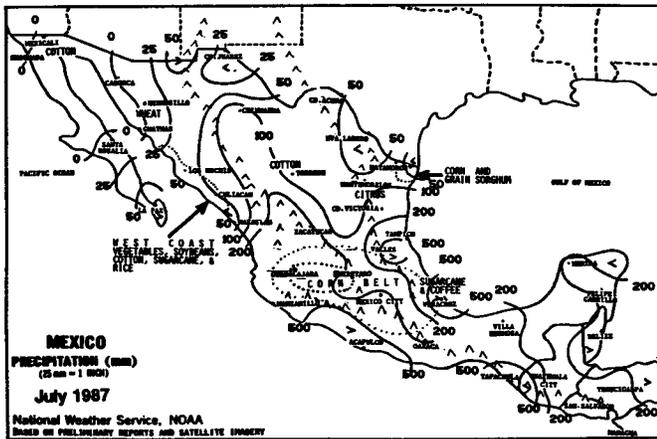
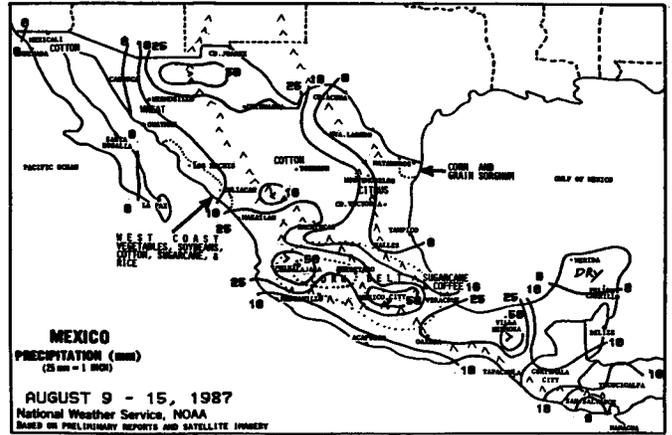
**AUSTRALIA** ... Moderate to heavy showers (10-45mm) soaked fields in winter grain areas of northern New South Wales and southeastern Queensland, increasing soil moisture levels. Light rain (less than 10mm) continued in Queensland's northernmost wheat areas. July rainfall was below normal over much of the area, but end-of-month showers brought some relief to vegetative wheat affected by earlier dryness. Light to moderate rain (1-2mm) covered grains in Western Australia, Victoria, southern New South Wales, and parts of South Australia, maintaining adequate to good moisture levels for vegetative growth. July rainfall was near to above normal in western and southeastern grain areas. July temperatures averaged near to below normal throughout Australia's wheat areas. Light to moderate rain (8-27mm) fell in sugarcane areas along Queensland's coast, reflecting July's near to above-normal rainfall pattern.



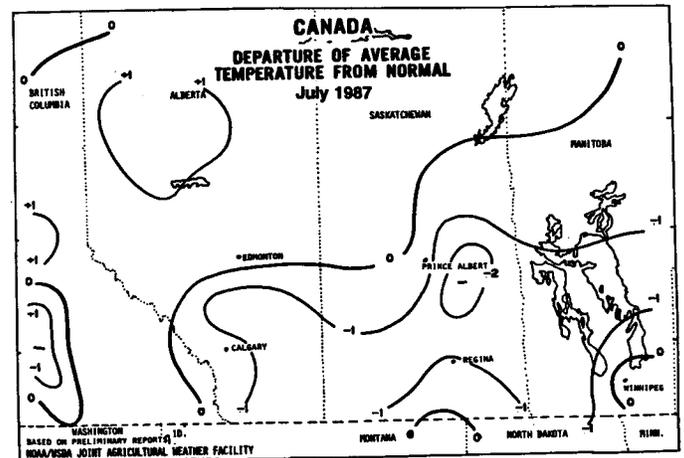
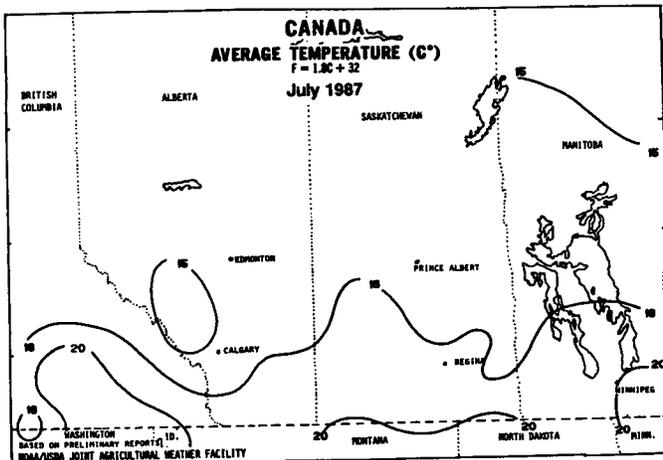
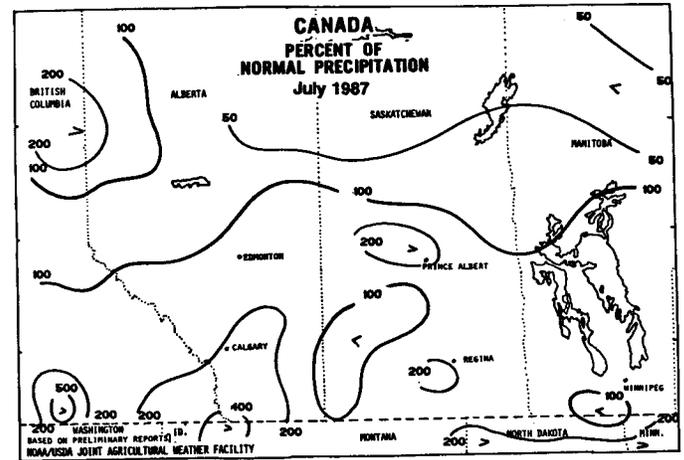
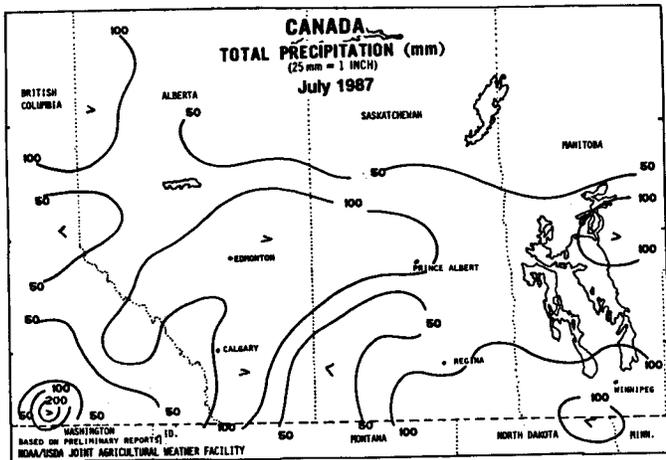
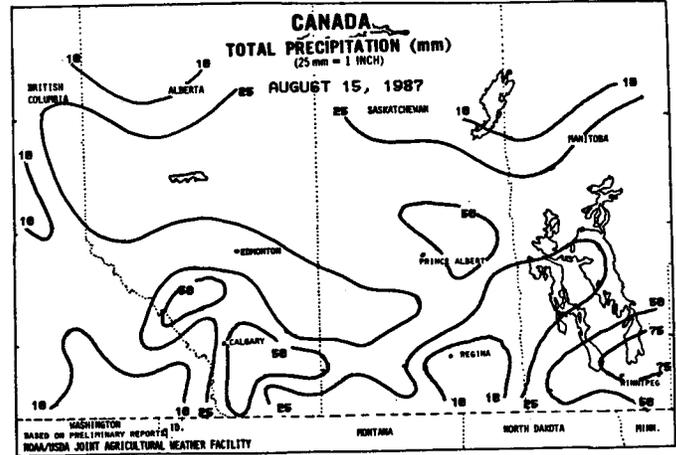
**SOUTH AMERICA** ... Mostly light showers (1-7mm) fell over Argentina's wheat areas of Cordoba, Santa Fe, and northern Buenos Aires, where planting is complete. Some wheat planting is still underway in southern Buenos Aires, where 10-30mm of rain maintained favorable moisture for crop emergence and establishment. Above-average July rainfall resulted in a substantial improvement in planting conditions following earlier dry weather. July's wet weather pattern extended into southern Brazil, where wheat growth is more advanced. More rain fell again this past week in Rio Grande do Sul with 50toover 100mm covering eastern portions of the state. Dry weather prevailed from Parana northward into the coffee areas. Above-average July temperatures throughout south-central Brazil was conducive for weed growth and increased the incidence of fungal disease.



**MEXICO** ... Substantial rain (20-80mm) continued to provide adequate moisture for crop development throughout the Southern Plateau corn belt. Locally heavy showers (25-75mm) fell in the far northwestern mountains while widespread periodic rain covered much of the mountain watershed areas. Showers benefited rangelands in the north-central region, but cotton harvesting may have been slowed. Dry weather in the northeast favored field work. Tropical showers prevailed over the Yucatan peninsula. July rainfall was above average over most of the country, providing favorable moisture for crops, ranging from early soybean growth along the west coast to maturing grains and cotton in the northeast.



CANADA ... Cool, wet weather covered most of the Prairie grain belt, with some light frost in the northwest. Weekly rainfall averaged 20-55mm in crop areas of Manitoba, northern Saskatchewan, and Alberta. Weekly amounts averaged 10mm or less in extreme southwestern and south-central Saskatchewan. July's weather reversed the earlier dry weather pattern with above-average rainfall and slightly below-normal temperatures in the Prairie Provinces. The harvest season has begun with swathing and early combining underway in southern portions of the grain belt. In Saskatchewan, nearly 10 percent of the provinces' spring wheat has been swathed, but up to 45 percent has been cut in the southwest. Freezing temperatures were in northwestern portions of the grain belt, 2-3 weeks ahead of average.



Heating Degree Days (Base 65° F.)

July 1987

ALA. Birmingham . . . . .	0	MAINE, Caribou. . . . .	74	OKLA. Okla. City . . . . .	0
Mobile . . . . .	0	Portland . . . . .	20	Tulsa . . . . .	0
Montgomery . . . . .	0	MD. Baltimore . . . . .	0	OREG. Astoria . . . . .	171
ALASKA, Anchorage . . . . .	243	MASS. Boston . . . . .	8	Burns . . . . .	93
Barrow . . . . .	801	Chatham . . . . .	21	Medford . . . . .	21
Fairbanks . . . . .	61	MICH. Alpena . . . . .	45	Pendleton . . . . .	25
Nome . . . . .	364	Detroit. . . . .	4	Portland . . . . .	22
ARIZ. Flagstaff . . . . .	82	Flint . . . . .	11	Salem . . . . .	54
Phoenix . . . . .	0	Grand Rapids . . . . .	16	PA. Allentown . . . . .	0
Tucson . . . . .	0	Houghton Lake . . . . .	41	Erie . . . . .	0
Winslow . . . . .	0	Lansing . . . . .	16	Harrisburg . . . . .	0
Yuma . . . . .	0	Marquette . . . . .	58	Philadelphia . . . . .	0
ARK. Fort Smith . . . . .	0	S. Ste. Marie . . . . .	53	Pittsburgh . . . . .	4
Little Rock . . . . .	0	MINN. Duluth . . . . .	34	Scranton . . . . .	2
CALIF. Bakersfield. . . . .	0	Internatl Falls . . . . .	31	R.I. Providence . . . . .	2
Eureka . . . . .	163	Minneapolis . . . . .	2	S.C. Charleston . . . . .	0
Fresno . . . . .	0	Rochester . . . . .	8	Columbia . . . . .	0
Los Angeles . . . . .	1	St. Cloud . . . . .	8	Greenville . . . . .	0
Redding . . . . .	0	MISS. Jackson . . . . .	0	S. DAK. Aberdeen . . . . .	4
Stockton . . . . .	0	Meridian . . . . .	0	Huron . . . . .	7
San Diego . . . . .	0	MO. Columbia . . . . .	0	Rapid City . . . . .	10
San Francisco . . . . .	60	Kansas City . . . . .	0	Sioux Falls . . . . .	5
COLO. Denver. . . . .	11	St. Louis . . . . .	0	TENN. Chattanooga . . . . .	0
Grand Junction . . . . .	0	Springfield . . . . .	0	Knoxville . . . . .	0
Pueblo . . . . .	4	MONT. Billings . . . . .	39	Memphis . . . . .	0
CONN. Bridgeport . . . . .	0	Glasgow . . . . .	26	Nashville . . . . .	0
Hartford . . . . .	1	Great Falls . . . . .	66	TEX. Abilene . . . . .	0
D.C. Washington . . . . .	0	Havre . . . . .	57	Amarillo . . . . .	0
FLA. Apalachicola . . . . .	0	Helena . . . . .	75	Austin . . . . .	0
Ft. Myers . . . . .	0	Kalispell . . . . .	103	Beaumont . . . . .	0
Jacksonville . . . . .	0	Miles City . . . . .	25	Brownsville . . . . .	0
Key West . . . . .	0	Missoula . . . . .	87	Corpus Christi . . . . .	0
Miami . . . . .	0	NEBR. Grand Island. . . . .	0	Del Rio . . . . .	0
Orlando . . . . .	0	Lincoln . . . . .	0	El Paso . . . . .	0
W. Palm Beach . . . . .	0	Norfolk . . . . .	2	Fort Worth . . . . .	0
Tallahassee . . . . .	0	North Platte . . . . .	13	Galveston . . . . .	0
Tampa . . . . .	0	Omaha . . . . .	2	Houston . . . . .	0
GA. Atlanta . . . . .	0	Valentine . . . . .	10	Lubbock . . . . .	0
Augusta . . . . .	0	NEV. Ely . . . . .	63	Midland . . . . .	0
Macon . . . . .	0	Las Vegas . . . . .	0	San Angelo . . . . .	0
Savannah . . . . .	0	Reno . . . . .	38	San Antonio . . . . .	0
IDAHO, Boise . . . . .	23	Winnemucca . . . . .	47	Victoria . . . . .	0
Lewiston . . . . .	9	N.H. Concord . . . . .	18	Waco . . . . .	0
Pocatello . . . . .	45	N.J. Atlantic City. . . . .	0	Wichita Falls . . . . .	0
ILL. Cairo . . . . .	0	N. MEX. Albuquerque . . . . .	0	UTAH, Milford . . . . .	13
Chicago . . . . .	4	N.Y. Albany . . . . .	2	Salt Lake City . . . . .	0
Moline . . . . .	0	Binghamton . . . . .	14	VT. Burlington . . . . .	19
Peoria . . . . .	0	Buffalo . . . . .	3	VA. Lynchburg . . . . .	0
Rockford . . . . .	2	New York . . . . .	0	Norfolk . . . . .	0
Springfield. . . . .	0	Rochester . . . . .	7	Richmond . . . . .	0
IND. Evansville . . . . .	0	Syracuse . . . . .	0	Roanoke . . . . .	0
Fort Wayne . . . . .	6	N.C. Asheville . . . . .	0	WASH. Colville . . . . .	31
Indianapolis . . . . .	2	Charlotte . . . . .	0	Quillayute . . . . .	197
South Bend . . . . .	5	Greensboro . . . . .	0	Seattle-Tacoma . . . . .	58
IOWA, Des Moines . . . . .	0	Hatteras . . . . .	0	Spokane . . . . .	51
Dubuque . . . . .	0	Raleigh . . . . .	0	Walla Walla . . . . .	14
Souix City . . . . .	1	Wilmington . . . . .	0	Yakima . . . . .	31
KANS. Concordia . . . . .	0	N. DAK. Bismarck . . . . .	10	W. VA. Beckley . . . . .	5
Dodge City . . . . .	4	Fargo . . . . .	15	Charleston . . . . .	0
Goodland . . . . .	14	Williston . . . . .	31	Huntington . . . . .	0
Topeka . . . . .	0	OHIO. Akron-Canton. . . . .	2	WIS. Green Bay . . . . .	18
Wichita . . . . .	0	Cincinnati . . . . .	0	Madison . . . . .	3
KY. Lexington . . . . .	0	Cleveland . . . . .	3	Milwaukee . . . . .	12
Louisville . . . . .	0	Columbus . . . . .	0	WYO. Casper . . . . .	26
LA. Baton Rouge . . . . .	0	Dayton . . . . .	2	Cheyenne . . . . .	27
Lake Charles . . . . .	0	Toledo . . . . .	5	Lander . . . . .	14
New Orleans . . . . .	0	Youngstown . . . . .	6	Sheridan . . . . .	46
Shreveport . . . . .	0				

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(continued from p. 13)

PASTURES AND LIVESTOCK: Pastures continued declining in most areas. Farmers began supplemental feeding of livestock where growth ceased. Livestock was mostly good. Stress eased a little, but extreme heat stressed livestock in the eastern Corn Belt.

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