

# 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

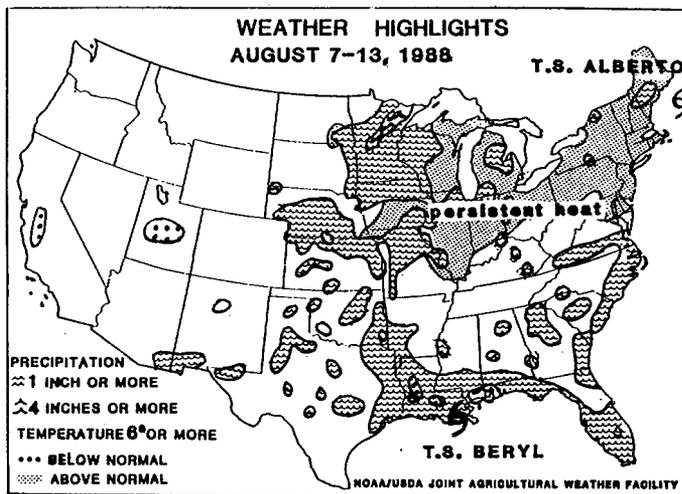
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## National Weather Summary

August 7 to 13, 1988



WEDNESDAY...Beryl moved inland and continued to drench the lower Mississippi Valley with heavy rain. It was another unseasonably hot day over much of the Nation. Philadelphia's high temperature reached at least 90 degrees for the 44th time, breaking the record for the greatest amount of times that the temperature has equalled or exceeded 90 degrees during a calendar year. Thunderstorms were widely scattered east of the Rockies.

THURSDAY...Beryl dissipated as a tropical storm but continued to soak northeastern Texas and northwestern Louisiana. Persistent heat and widely scattered thunderstorms remained in the East.

FRIDAY...The dog days of August continued. Thunderstorms abounded in the hot and humid air east of the Rocky Mountains range. The remnants of Beryl continued to dump heavy rain over northeast Texas. Sunny skies prevailed over the western States.

SATURDAY...Sultry weather persisted in the East. High temperature records continued to be set in the northeastern States. A number of stations also broke records for having the most consecutive number of days of temperatures of 90 degrees or more. Abundant moisture from the Gulf of Mexico produced heavy rain over the central United States. A tropical depression off the Florida coast brought rain to the South Atlantic States.

HIGHLIGHTS: Hot, humid air remained over the East. A number of stations in the Northeast set records for persistent heat. A frontal system caused rain from the Great Lakes to the central Plains early in the week. Tropical Storm Beryl dumped heavy rain along the central Gulf coast.

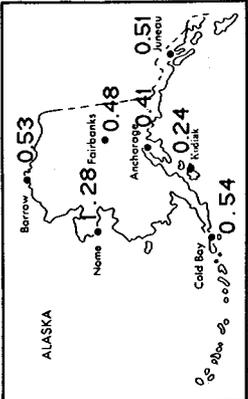
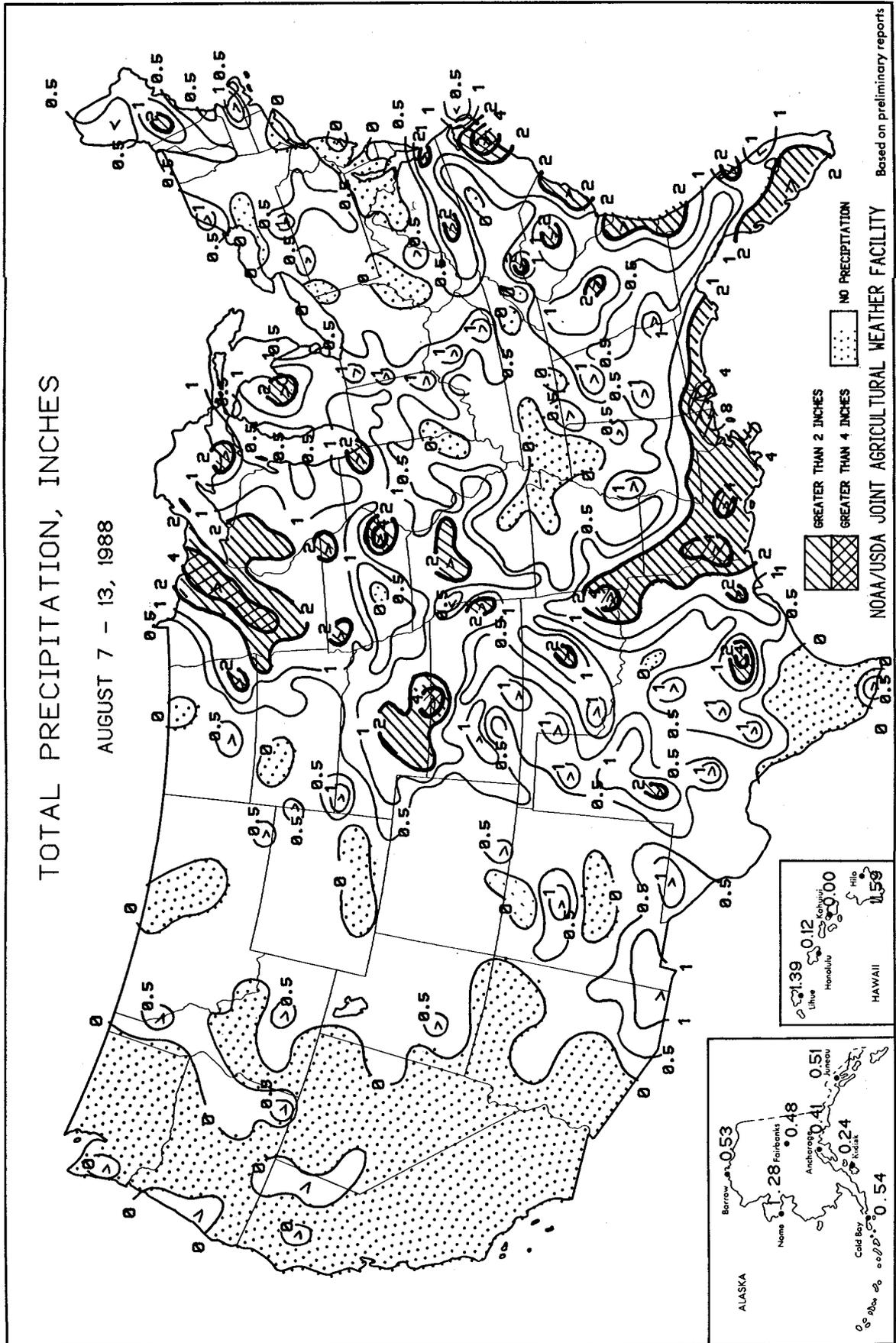
SUNDAY...Showers and intense thunderstorms developed in advance of a frontal system which swept across the northern Plains into the upper Mississippi Valley and the central Plains. High temperature records were set ahead and south of the system from the upper Great Lakes to the southern Great Plains. Rain showers were widespread across the Southeast and widely scattered over the Rockies. Rain along the New England coast resulted from Alberto, the first tropical storm of the year in the Atlantic.

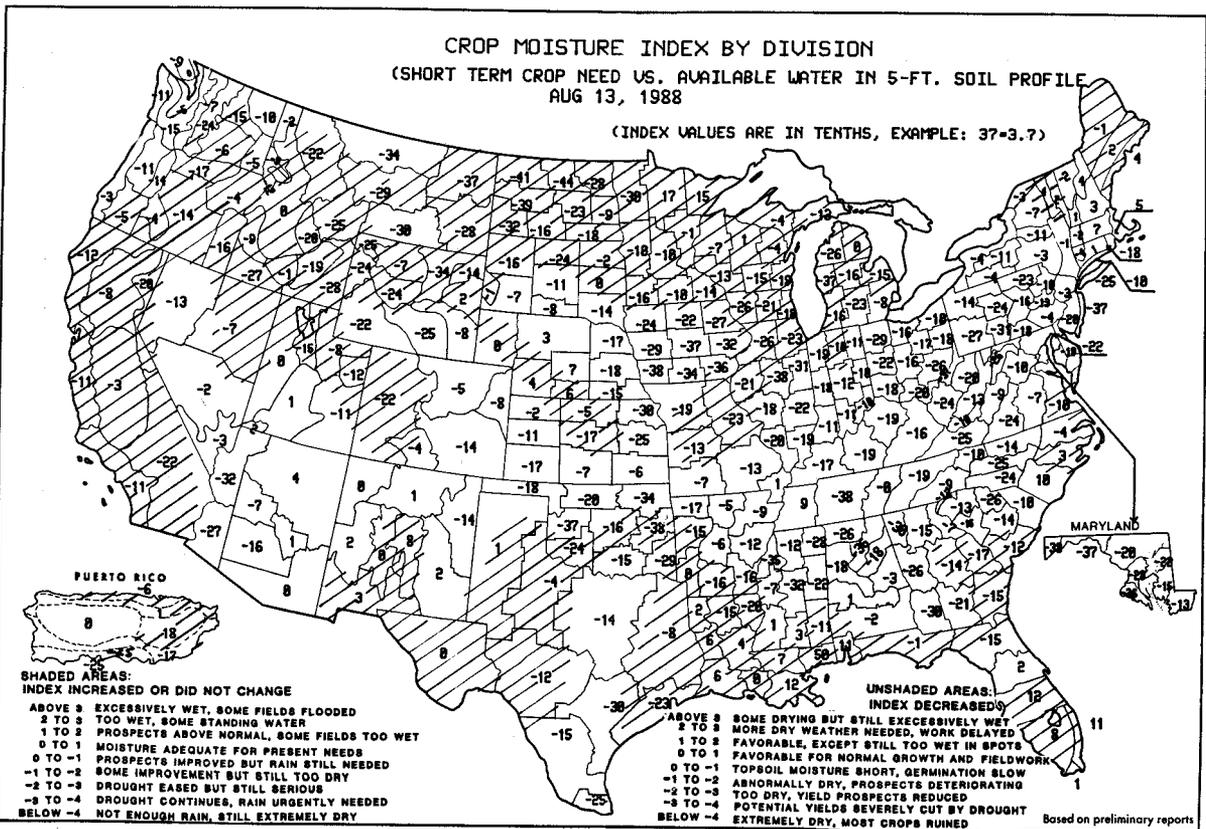
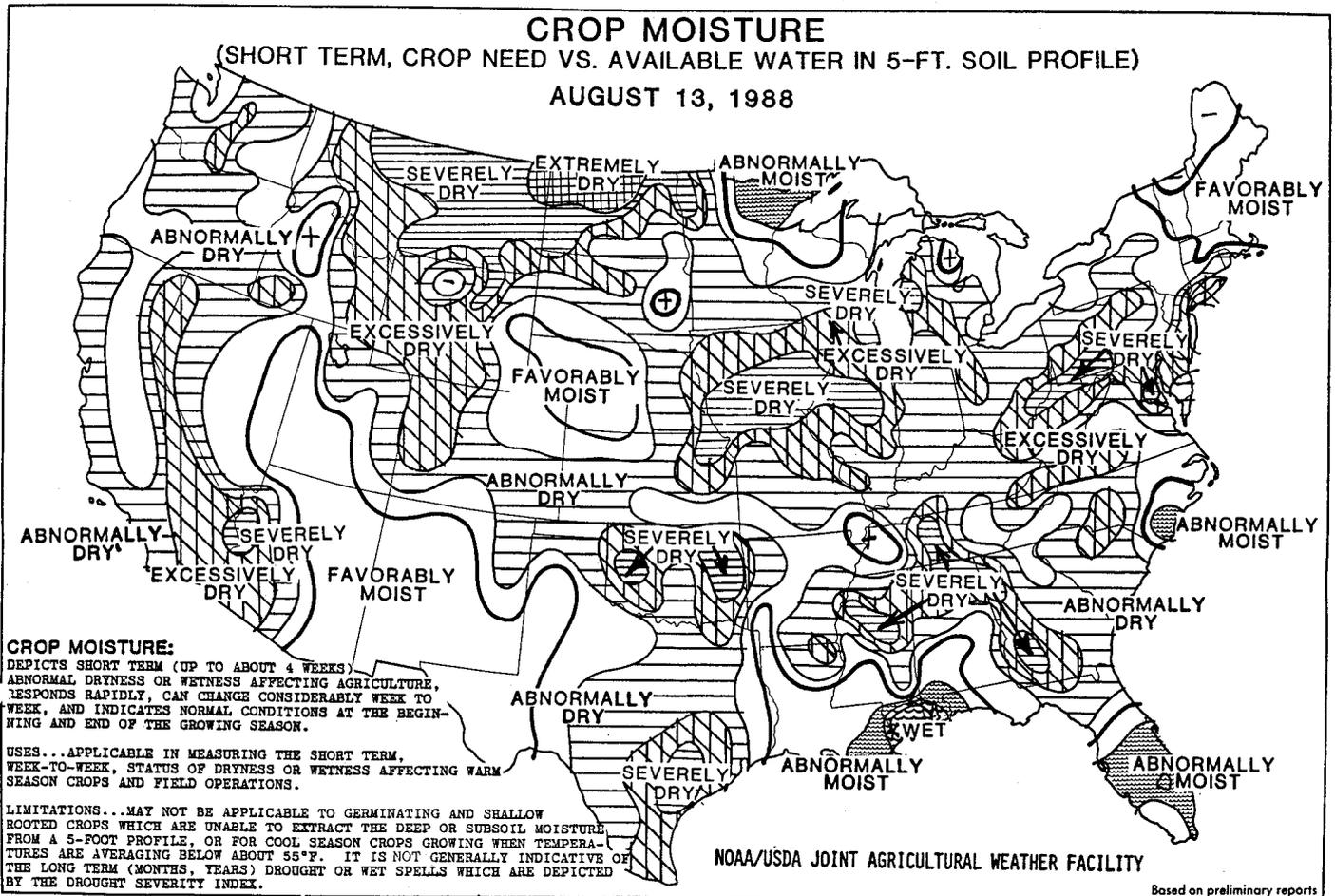
MONDAY...Showers and thunderstorms continued ahead and along the frontal system, stretching from Michigan into the southern Great Plains. High temperature records were again broken south of the front in the middle Mississippi Valley and southern Plains. Tropical Storm Beryl developed off the Louisiana coast and dumped heavy rain along the central Gulf coast.

TUESDAY...Tropical Storm Beryl drenched the central Gulf coast with more rain. Showers and thunderstorms remained along the stationary front extending from the lower Great Lakes to the southern High Plains. The heat and humidity were well entrenched throughout most of the East, while warm but less humid air covered the West.

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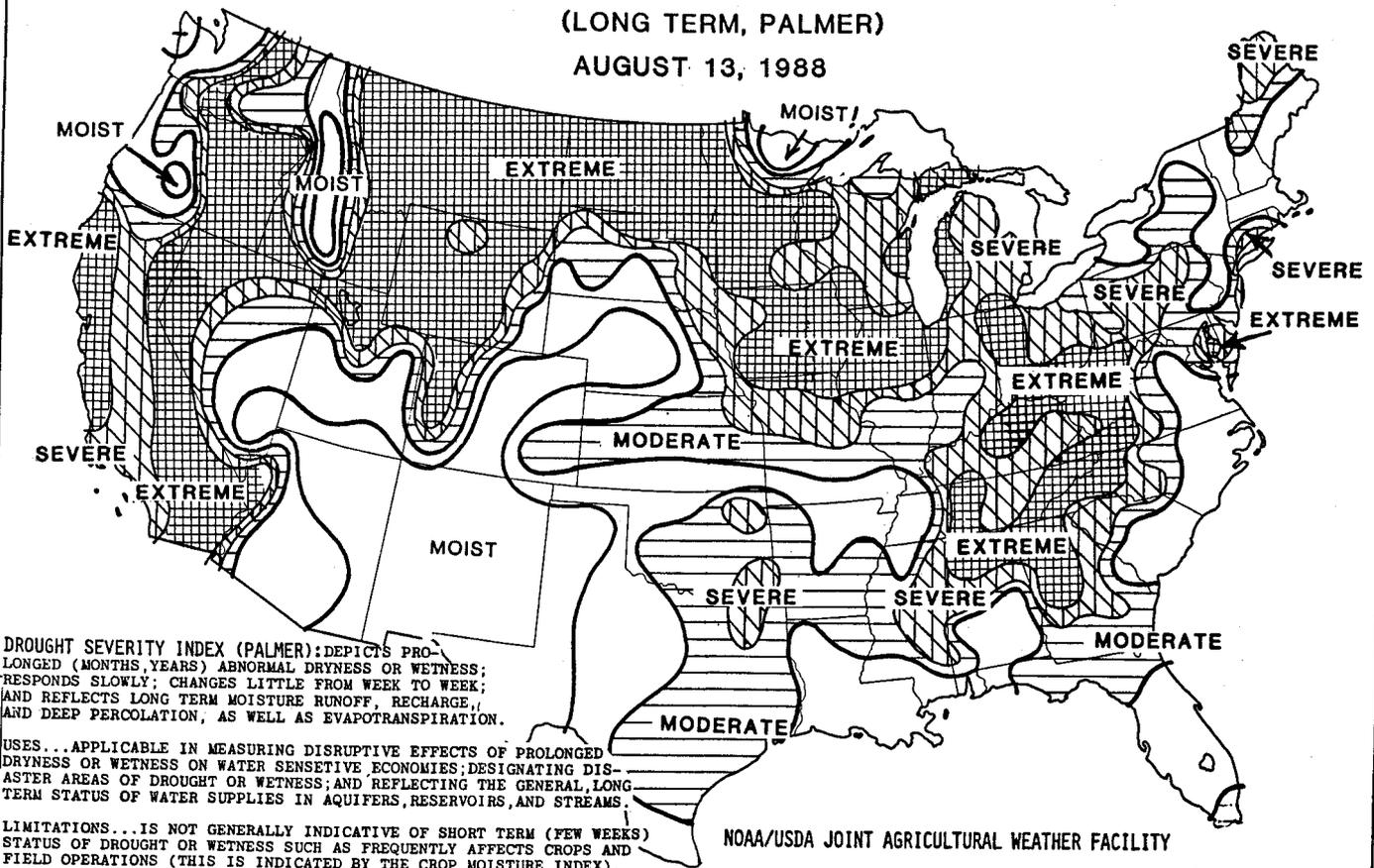




### DROUGHT SEVERITY

(LONG TERM, PALMER)

AUGUST 13, 1988

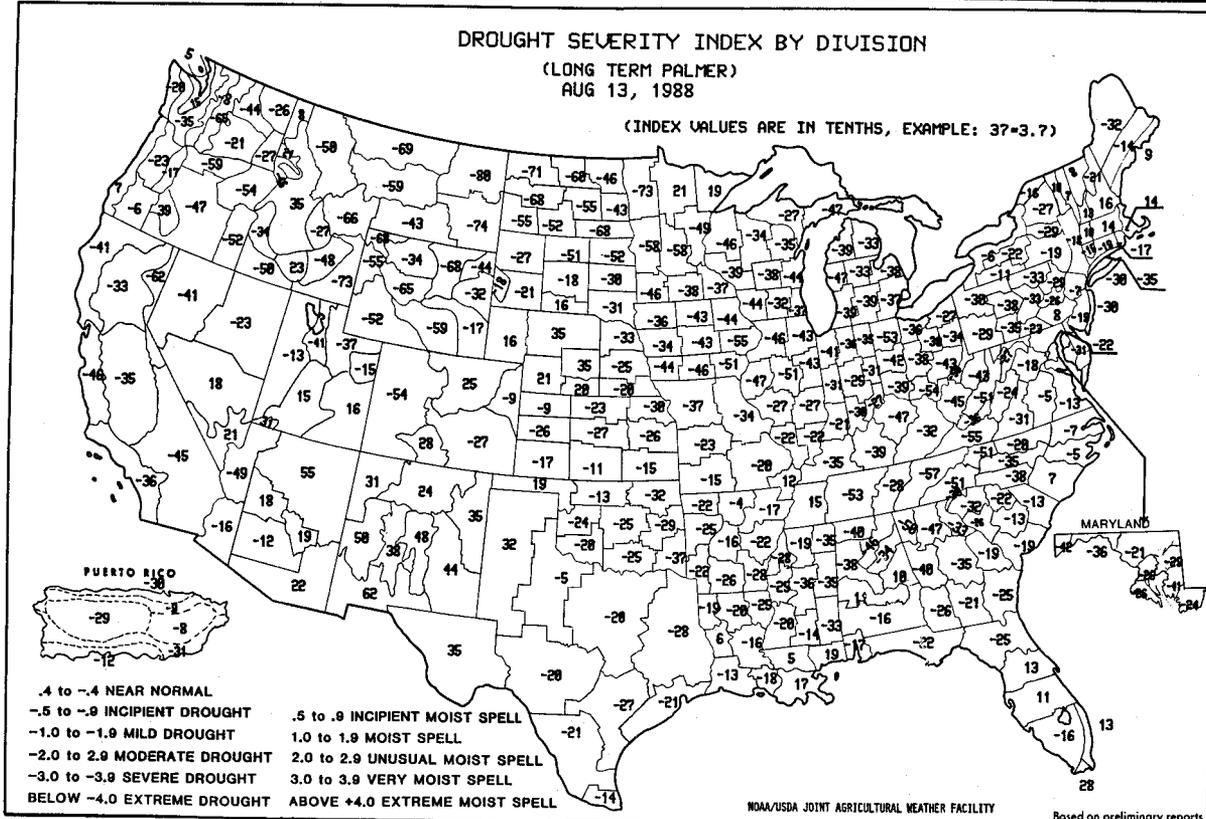


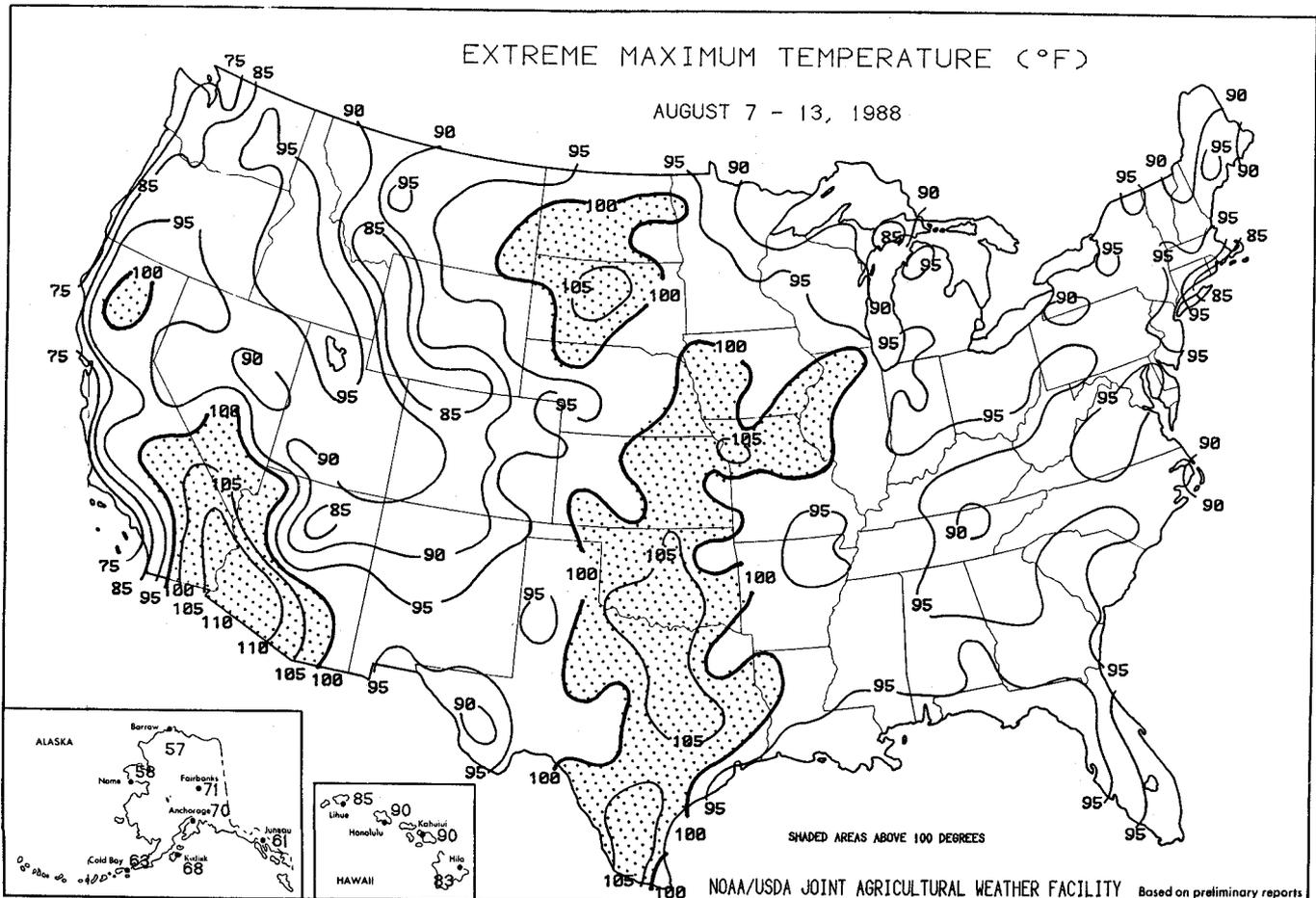
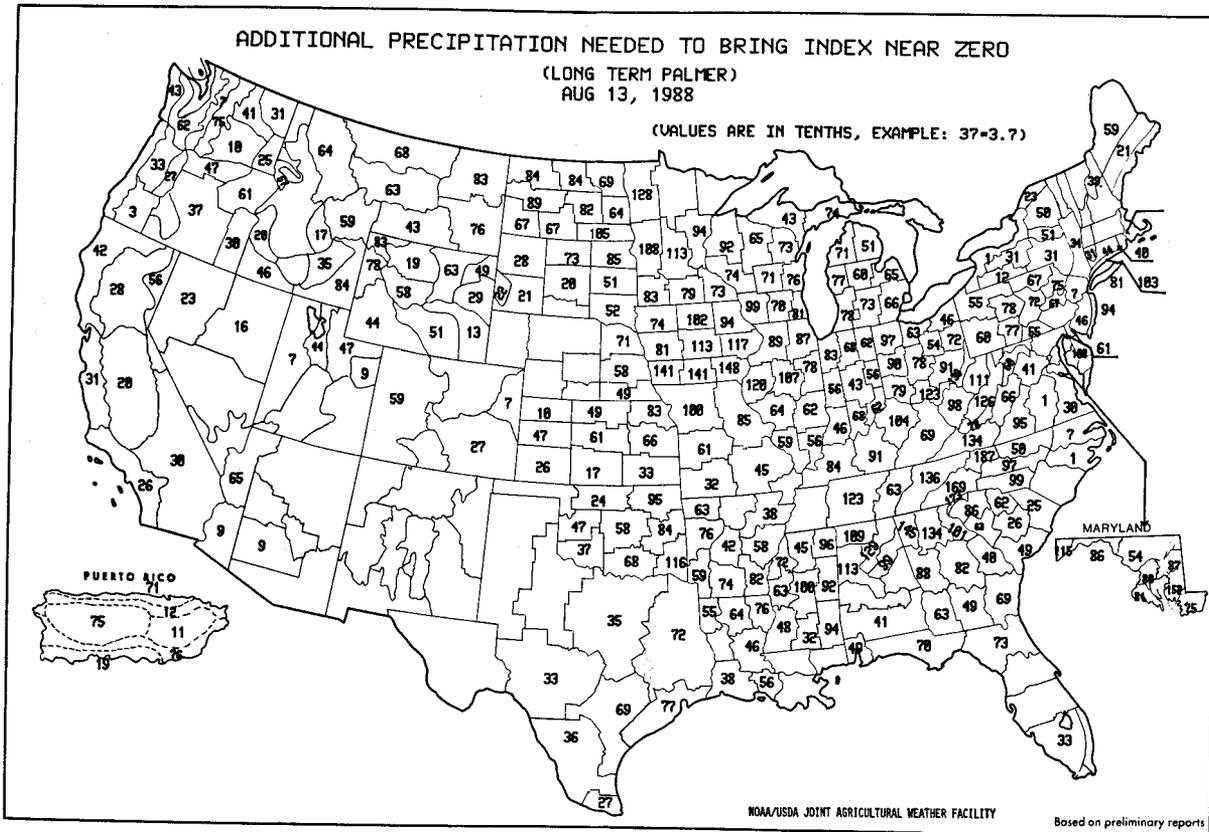
Based on preliminary reports

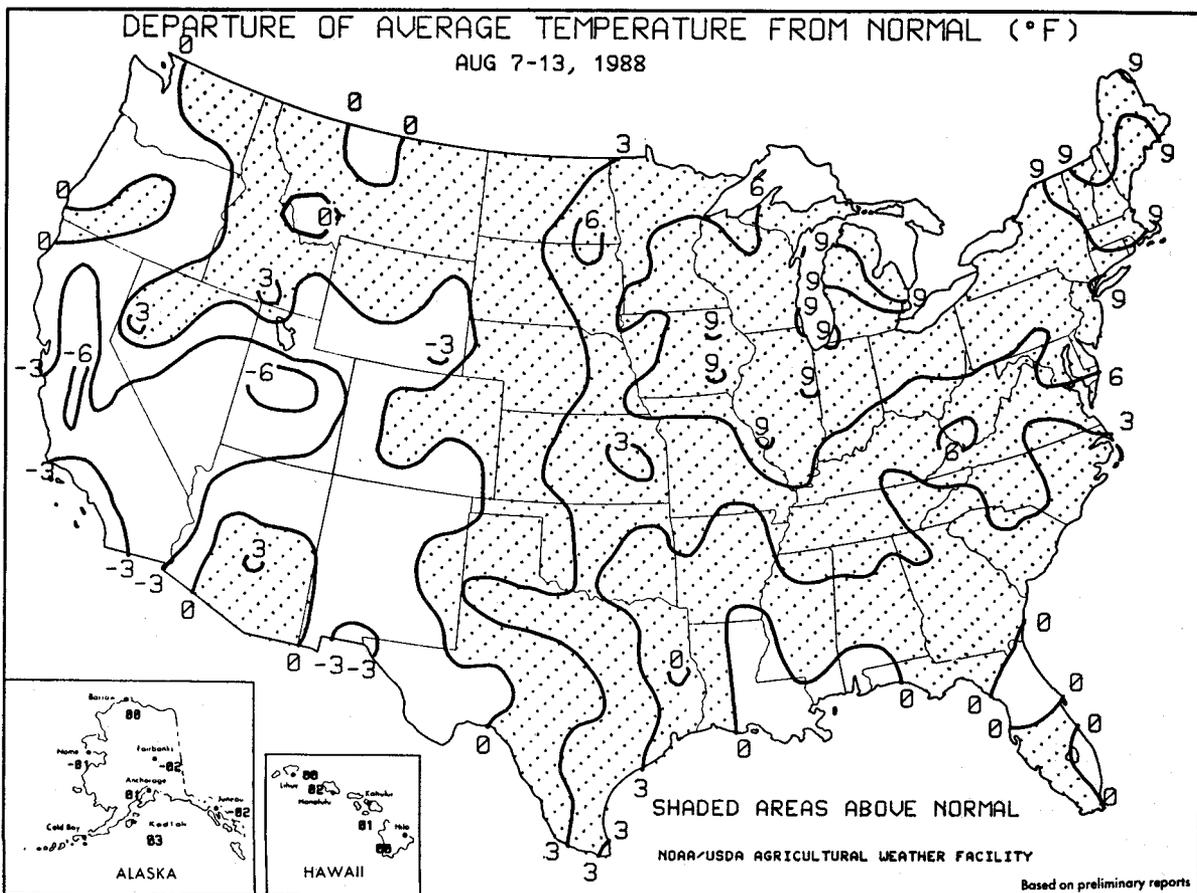
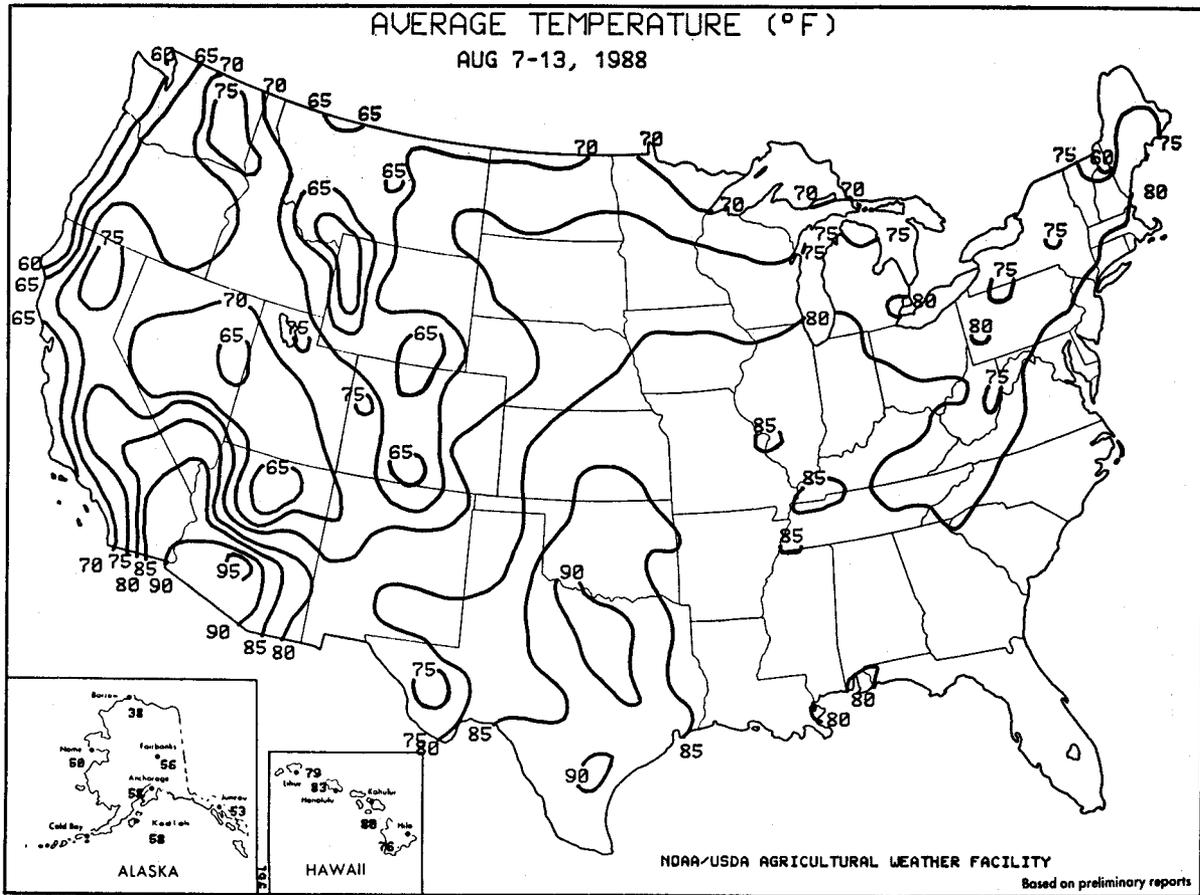
### DROUGHT SEVERITY INDEX BY DIVISION

(LONG TERM PALMER)  
AUG 13, 1988

(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)





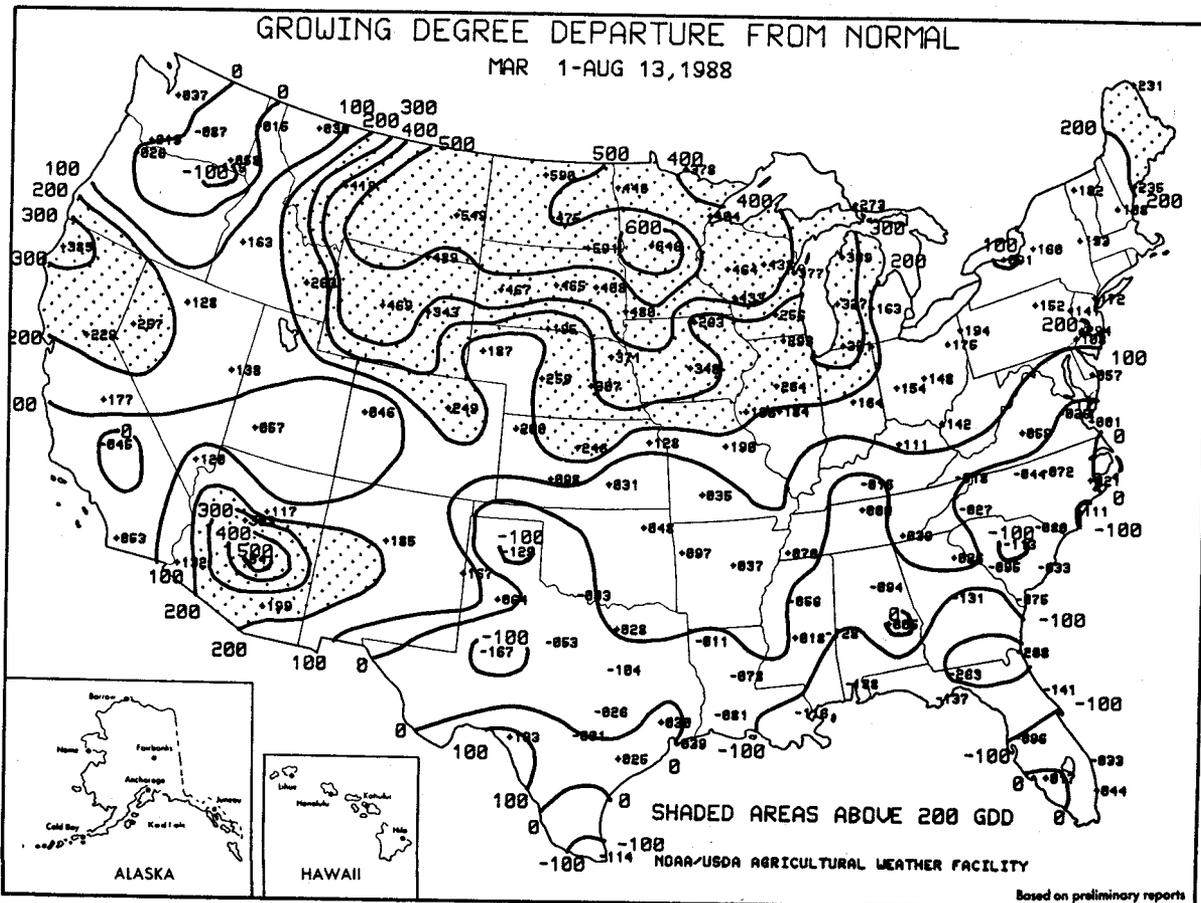
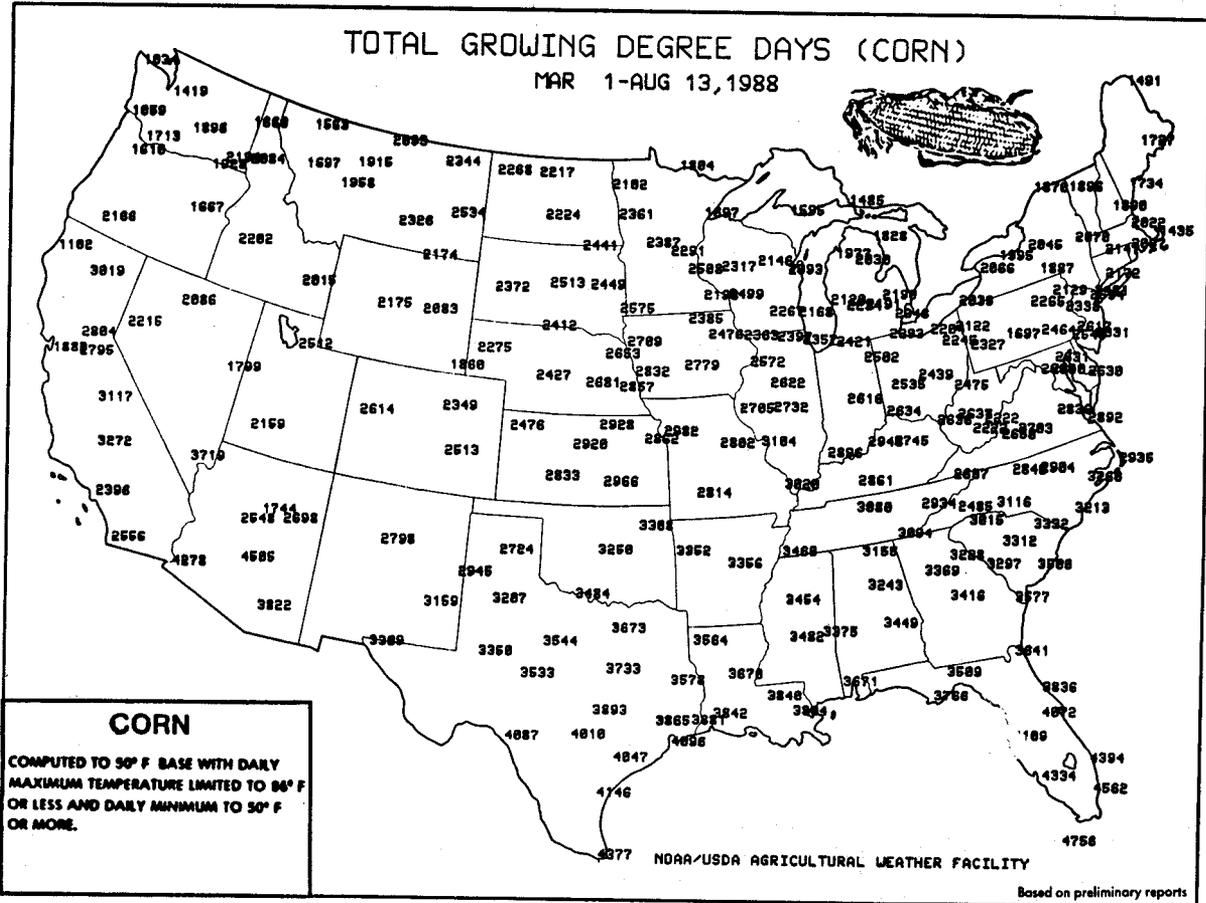


Cooling Degree Days Table

CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NRDIS-NOAA

LAST DATE OF DATA COLLECTION PERIOD IS 8-13-1988
ACCUMULATIONS ARE FROM JANUARY 1
\*\* = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

Table with columns: STATE CITY, CALL, WEEK TOTAL, WEEK DEV FROM NORM, WEEK DEV FROM L YR, CUM TOTAL, CUM DEV FROM NORM, CUM DEV FROM L YR, CUM DEV FROM NORM PRCT, CUM DEV FROM L YR PRCT. Lists 100+ cities and their cooling degree day data.

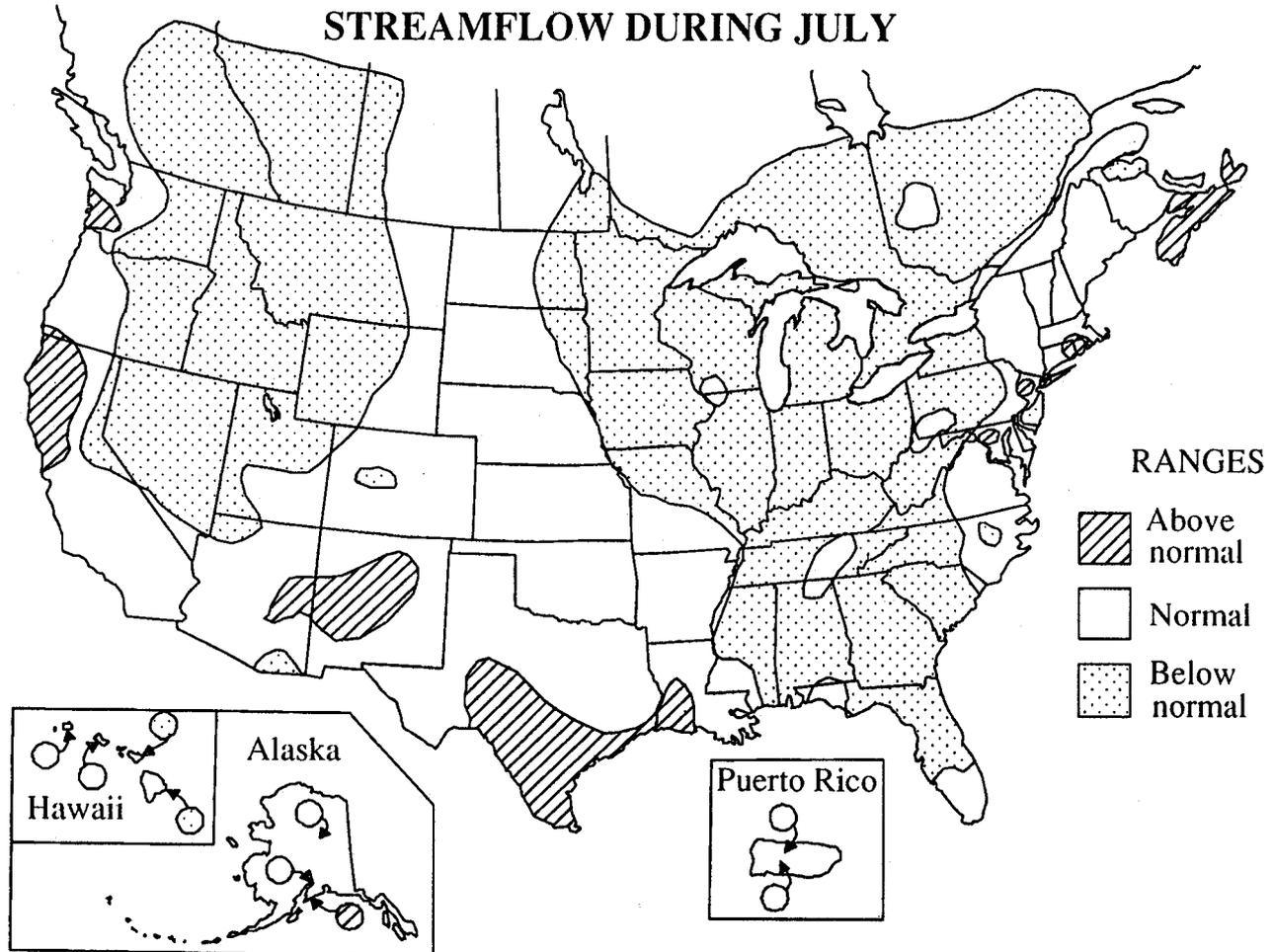


# National Water Conditions

UNITED STATES  
Department of the Interior  
Geological Survey

CANADA  
Department of the Environment  
Water Resources Branch

## JULY 1988



Although fewer streams set record-low levels in July (eight new lows compared with 33 record monthly lows in June), flows continued well below normal across nearly half the country. The Mississippi River, pipeline for nearly half the streamflow in the United States, set a new monthly low, the lowest July in at least 54 years, and 13 percent lower than the record low set in June.

The record-low flow on the Mississippi was the main reason for a second consecutive monthly record low for the combined flow of the Nation's three largest rivers (the Mississippi, the Columbia, and the St. Lawrence) with only the St. Lawrence in the normal range. In addition to the Mississippi River, record-low flows were recorded on seven other streams in the Southeast and upper Midwest.

# National Weather Data for Selected Cities

## Weather Data for the Week Ending August 13, 1988

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 1	PCT. NORMAL SINCE JUNE 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE		PRECIPI- TATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	93	73	94	70	83	3	1.2	.3	1.0	5.0	47	20.6	56	97	49	7	0	3	1
MOBILE	87	73	94	71	80	-2	7.0	5.4	2.7	16.4	104	39.9	94	99	68	2	0	3	3
MONTGOMERY	92	73	95	71	82	1	.6	-1	.4	13.4	141	39.1	120	98	57	6	0	5	0
AK ANCHORAGE	66	51	69	45	58	1	.4	-1	.3	2.3	59	4.6	63	84	47	0	0	3	0
BARROW	44	32	57	28	38	0	.5	-3	.3	1.6	99	1.8	73	99	82	0	4	4	0
FAIRBANKS	63	49	71	44	56	-2	1.5	0	.2	4.4	112	6.7	109	91	51	0	0	5	0
JUNEAU	57	49	61	44	53	-2	1.5	.4	1.1	8.7	95	28.0	107	99	79	0	0	2	1
KODIAK	66	50	68	42	58	3	1.2	-.8	1.1	6.5	68	41.2	124	94	59	0	0	2	0
NOME	55	46	58	39	50	-1	1.3	-.6	.7	3.0	64	6.9	90	92	62	0	0	5	1
AZ PHOENIX	108	83	110	81	96	5	T	-3	T	1.0	73	3.4	89	41	13	7	0	0	0
PRESCOTT	88	55	91	53	72	1	.1	-7	.1	4.9	91	9.3	81	55	19	1	0	1	0
TUCSON	101	73	105	71	87	2	.7	.2	.5	2.9	76	5.3	85	73	23	7	0	3	0
YUMA	107	75	110	72	91	-2	0	-1	0	.1	33	1.1	93	62	16	7	0	0	0
AR FORT SMITH	96	76	104	73	86	4	.4	-3	.3	4.5	56	20.0	79	90	46	5	0	3	0
LITTLE ROCK	92	74	95	72	83	1	.1	-6	.1	11.5	137	26.8	85	85	55	6	0	1	0
CA BAKERSFIELD	93	63	99	59	78	-5	0	0	0	T	33	3.0	79	72	25	5	0	0	0
EUREKA	61	53	65	52	57	0	T	-1	T	2.3	310	15.9	71	93	78	0	0	0	0
FRESNO	93	62	98	57	78	-2	0	0	0	T	67	5.5	79	70	23	5	0	0	0
LOS ANGELES	73	61	74	60	67	-3	0	0	0	T	0	4.6	55	91	61	0	0	0	0
REDDING	95	62	105	54	79	-3	0	-1	0	1.7	153	16.9	68	73	22	5	0	0	0
SACRAMENTO	86	56	96	53	71	-4	0	0	0	.2	154	6.9	65	87	32	2	0	0	0
SAN DIEGO	75	66	76	65	70	0	0	0	0	T	0	6.7	103	84	60	0	0	0	0
SAN FRANCISCO	69	55	74	50	62	-1	T	0	T	.6	545	7.3	59	90	57	0	0	0	0
CO DENVER	88	60	93	56	74	1	.1	-3	.1	4.5	108	11.7	108	82	24	3	0	1	0
GRAND JUNCTION	90	59	94	58	75	-2	.2	-1	.1	.8	60	4.8	106	57	13	5	0	2	0
PUEBLO	93	58	96	54	76	0	.4	-1	.4	4.9	127	9.2	123	89	23	6	0	2	0
CT BRIDGEPORT	90	74	94	69	82	8	0	-8	0	9.3	118	22.3	88	90	53	3	0	0	0
HARTFORD	93	70	97	64	82	9	.2	-7	.2	9.3	116	24.5	93	93	44	6	0	2	0
DC WASHINGTON	95	75	97	71	85	7	0	-1.0	0	4.7	52	19.2	79	91	41	7	0	0	0
FL APALACHICOLA	89	76	91	75	82	1	2.2	.5	2.1	17.2	115	38.3	118	94	64	3	0	4	1
DAYTONA BEACH	89	73	91	71	81	0	1.1	-3	.6	6.6	46	21.7	76	99	64	3	0	4	1
JACKSONVILLE	91	73	96	71	82	0	2.8	1.0	2.7	11.0	71	30.9	94	93	57	6	0	3	1
KEY WEST	90	79	92	75	85	0	1.7	.8	1.0	11.5	111	27.1	134	86	62	4	0	3	2
MIAMI	90	76	94	73	83	0	1.5	-1	1.3	22.9	129	32.8	97	91	60	4	0	4	1
ORLANDO	90	74	95	73	82	0	.3	-1.2	.2	15.3	85	30.7	94	98	58	3	0	4	0
TALLAHASSEE	93	71	95	68	82	1	.4	-1.3	.3	10.7	58	32.9	76	96	49	7	0	3	0
TAMPA	92	74	94	73	83	1	2.6	.9	2.4	12.0	75	23.4	78	97	55	7	0	4	1
WEST PALM BEACH	88	75	90	74	82	-1	.6	-6	.4	20.8	130	43.3	129	93	64	1	0	4	0
GA ATLANTA	91	73	93	69	82	3	1.0	.2	.7	8.4	87	26.7	80	94	50	5	0	3	1
AUGUSTA	92	72	96	69	82	2	1.1	.1	.8	8.2	83	25.6	85	97	52	5	0	3	1
MACON	92	72	94	71	82	1	1.0	.1	1.0	7.1	72	25.8	83	98	50	6	0	1	1
SAVANNAH	93	74	97	72	83	2	3.5	2.0	2.5	8.8	55	27.0	79	97	52	6	0	5	2
HI HILO	81	70	83	67	76	0	11.6	9.2	7.1	24.3	126	78.3	100	97	72	0	0	6	4
HONOLULU	90	76	90	73	83	2	.1	0	.1	.4	34	7.2	52	80	49	6	0	1	0
KAHULUI	88	73	90	70	80	1	0	-1	0	.4	59	12.6	105	88	55	1	0	0	0
LIHUE	84	75	85	73	79	0	1.4	1.0	.9	4.8	108	24.2	97	89	71	0	0	4	1
ID BOISE	91	57	98	47	74	1	T	-1	T	.6	46	6.9	94	47	15	4	0	0	0
LEWISTON	91	60	95	51	76	2	0	-2	0	2.6	117	6.8	84	48	17	5	0	0	0
POCATELLO	87	50	94	44	69	-2	T	-1	T	.6	33	4.6	66	75	16	4	0	0	0
IL CHICAGO	91	72	99	63	81	9	2.1	1.3	1.2	6.2	69	14.8	69	93	53	5	0	4	2
MOLINE	93	71	102	62	82	8	1.0	.1	.6	4.2	39	13.1	53	96	50	5	0	3	1
PEORIA	94	71	100	60	82	8	.6	-1	.3	1.6	17	10.4	45	93	47	6	0	3	0
QUINCY	93	72	102	64	82	7	.7	-2	.6	4.1	41	10.3	42	92	48	5	0	2	1
ROCKFORD	91	69	98	58	80	8	.8	0	.8	4.2	39	13.8	58	94	50	5	0	1	1
SPRINGFIELD	93	73	98	66	83	8	T	-8	T	3.1	37	12.4	55	90	51	6	0	1	0
IN EVANSVILLE	93	71	96	68	82	5	.3	-5	.3	8.5	97	21.8	78	99	56	7	0	1	0
FORT WAYNE	90	68	92	61	79	7	.8	0	.6	8.5	101	19.8	88	97	55	6	0	3	1
INDIANAPOLIS	92	70	94	63	81	7	.3	-5	.3	5.9	60	19.5	75	94	49	6	0	1	0
SOUTH BEND	91	71	95	64	81	9	1.3	.4	.6	5.1	55	16.6	70	94	53	5	0	4	1
IA DES MOINES	95	71	100	67	83	8	T	-9	T	7.6	83	11.4	55	90	44	7	0	0	0
STOUC CITY	92	68	101	62	80	6	.8	.1	.5	4.5	52	11.3	63	93	47	5	0	3	1
WATERLOO	92	68	99	59	80	9	1.0	.2	1.0	5.9	56	11.7	53	91	46	4	0	2	1
KS CONCORDIA	96	72	103	67	84	5	1.6	.8	1.6	6.4	71	12.2	65	88	39	7	0	1	1
DODGE CITY	96	70	99	66	83	4	0	-6	0	2.7	38	10.9	74	83	32	7	0	0	0
GOODLAND	91	63	95	60	77	2	.1	-4	.1	8.3	141	17.4	147	94	34	5	0	2	0
TOPEKA	94	71	101	66	83	5	1.2	.3	1.2	6.2	58	15.4	70	92	49	5	0	2	1
WICHITA	98	74	105	72	86	5	T	-6	T	3.8	43	14.2	76	89	38	6	0	1	0
KY BOWLING GREEN	91	70	94	68	80	2	.5	-3	.4	6.7	65	21.0	64	100	51	4	0	2	0
LEXINGTON	91	70	95	66	81	5	1.4	.5	1.4	6.5	59	20.8	67	91	46	5	0	1	1
LOUISVILLE	93	72	96	67	83	5	T	-8	T	6.9	76	23.6	82	92	47	6	0	0	0
LA ALEXANDRIA	91	76	97	74	83	0	3.3	2.3	1.8	9.1	88	27.5	78	86	52	5	0	3	3
BATON ROUGE	88	74	94	73	81	0	3.5	2.3	1.8	17.7	140	48.7	131	97	59	3	0	4	2
LAKE CHARLES	91	75	94	74	83	1	3.6	2.4	2.4	17.7	152	38.5	119	97	63	5	0	4	2
NEW ORLEANS	86	75	92	73	81	-1	2.2	.8	1.0	21.4	153	56.2	146	99	72	3	0	4	2

Based on 1951-80 normals

Weather Data for the Week Ending August 13, 1988

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 1	PCT. NORMAL SINCE June 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	93	75	101	72	84	1	2.6	2.1	2.0	5.9	73	19.3	67	93	49	5	0	3	2
ME CARIBOU	81	65	86	59	73	9	.5	-.4	.3	7.6	86	18.1	85	100	64	0	0	4	0
PORTLAND	89	69	93	67	79	11	.2	-.4	.2	8.5	122	23.6	93	96	52	3	0	3	0
MD BALTIMORE	94	72	97	67	83	7	0	-1.1	0	4.7	49	20.4	78	93	41	7	0	0	0
SALISBURY	90	74	92	71	82	6	.1	-1.3	0	9.4	90	29.4	105	96	56	5	0	2	0
MA BOSTON	92	75	95	72	83	10	.2	-.6	.2	9.2	130	23.5	90	88	47	5	0	2	0
CHATHAM	82	71	83	65	76	8	.1	-.9	.1	6.9	93	22.2	80	96	84	0	0	1	0
MI ALPENA	85	60	93	54	72	7	1.0	.3	.8	6.2	83	15.7	88	99	56	2	0	3	1
DETROIT	91	70	93	65	81	9	.9	.2	.5	4.7	80	11.6	58	94	49	6	0	4	1
FLINT	89	68	92	60	79	9	1.5	.8	1.2	6.8	92	14.0	76	95	56	2	0	2	1
GRAND RAPIDS	90	68	95	59	79	8	.5	-.2	.2	4.5	57	14.3	70	96	49	5	0	4	0
HOUGHTON LAKE	85	64	90	53	75	9	1.9	1.2	1.7	6.3	88	14.3	83	92	54	1	0	4	1
LANSING	90	67	94	60	79	9	.7	.1	.7	3.8	50	12.6	68	96	48	5	0	1	1
MARQUETTE	82	59	88	49	71	7	1.2	.5	1.1	7.2	86	18.7	82	92	52	0	0	2	1
MUSKEGON	86	70	91	62	78	8	.4	-.3	.4	2.7	44	13.5	73	97	58	3	0	2	0
SAULT ST. MARIE	83	56	90	49	70	6	1.1	.4	.7	4.4	58	15.0	80	100	56	1	0	3	1
MN ALEXANDRIA	88	64	97	57	76	6	5.2	4.3	2.0	10.0	116	15.4	93	90	47	4	0	3	3
DULUTH	80	61	88	49	70	6	3.0	2.0	1.8	10.9	113	18.7	100	95	53	0	0	4	2
INT'L FALLS	81	58	90	49	70	5	1.5	.8	.9	9.6	110	13.3	86	93	49	1	0	2	2
MINNEAPOLIS	89	68	95	62	78	6	1.3	.5	.8	5.1	56	11.4	64	90	43	3	0	4	1
ROCHESTER	88	66	95	58	77	8	1.1	.3	.7	4.5	49	12.2	66	94	49	3	0	2	1
MS GREENWOOD	94	73	96	72	84	2	.3	-.4	.3	3.8	41	16.6	47	92	48	7	0	2	0
JACKSON	94	73	97	71	83	2	.5	-.3	.4	3.4	36	22.6	65	97	51	7	0	3	0
MERIDIAN	93	71	96	68	82	1	.2	-.6	.1	6.4	62	25.8	71	97	51	7	0	2	0
MO CAPE GIRARDEAU	95	74	98	72	84	1	.1	-.7	.1	3.4	39	17.8	61	94	47	7	0	1	0
COLUMBIA	93	72	102	68	82	5	1.4	.7	.7	4.5	56	16.8	71	94	51	5	0	4	1
KANSAS CITY	94	74	105	70	84	5	.5	-.3	.3	3.7	36	11.5	50	86	50	4	0	3	0
SAINT LOUIS	97	77	101	75	87	9	.2	-.4	.1	5.2	61	18.1	79	80	40	7	0	2	0
SPRINGFIELD	93	72	97	68	82	4	.1	-.5	.1	10.5	113	28.1	112	91	49	6	0	3	0
MT BILLINGS	86	60	96	53	73	1	.1	-.1	.1	.6	18	6.1	59	57	22	3	0	1	0
GLASGOW	85	59	95	53	72	1	.2	-.1	.1	3.0	64	5.6	69	74	27	4	0	3	0
GREAT FALLS	84	52	94	44	68	-1	-.1	-.2	.1	3.4	78	7.4	67	69	24	2	0	1	0
HAVRE	84	56	92	50	70	0	0	-.3	0	2.7	67	3.8	45	64	24	1	0	0	0
HELENA	86	53	95	44	69	2	T	T	T	1.9	54	6.3	77	66	21	2	0	2	0
KALISPELL	85	48	91	38	67	2	T	T	T	2.5	69	8.9	89	80	22	1	0	1	0
MILES CITY	88	62	99	54	75	1	.2	-.1	.2	.9	20	2.3	22	65	24	3	0	1	0
MISSOULA	88	48	93	38	68	1	.2	0	.2	2.5	83	8.7	100	71	19	3	0	1	0
NE GRAND ISLAND	91	67	98	65	79	3	1.5	.9	.8	10.8	146	16.5	99	96	47	4	0	4	1
LINCOLN	95	71	104	66	83	6	1.4	.6	1.3	3.2	38	9.6	51	91	42	6	0	2	1
NORFOLK	90	68	97	62	79	4	.5	-.2	.3	7.6	88	16.5	95	94	49	4	0	2	0
NORTH PLATTE	89	61	93	56	75	1	2.6	2.2	2.1	9.4	126	16.1	109	96	47	4	0	4	1
OMAHA	91	71	101	67	81	5	.3	-.6	.2	6.1	65	14.2	70	90	52	3	0	2	0
SCOTTSBLUFF	91	56	98	51	73	0	T	T	T	3.8	71	13.2	117	89	24	3	0	1	0
VALENTINE	92	60	100	52	76	2	.5	0	.4	8.9	138	17.3	135	79	31	5	0	2	0
NV ELY	82	42	86	38	62	-5	.2	0	.1	2.0	122	5.8	98	80	18	0	0	3	0
LAS VEGAS	102	69	104	66	85	-4	0	0	.1	.1	11	1.8	71	19	10	7	0	0	0
RENO	89	52	94	47	70	3	T	T	T	.8	125	2.4	51	61	12	3	0	1	0
WINNEMUCCA	92	50	96	46	71	1	T	T	T	.7	61	4.3	86	49	10	4	0	0	0
NH CONCORD	90	66	93	61	78	10	.1	-.7	.1	7.4	102	19.0	89	99	46	5	0	1	0
NJ ATLANTIC CITY	92	72	95	65	82	7	.1	-1.1	.1	5.6	64	19.6	75	97	53	6	0	1	0
NM ALBUQUERQUE	89	64	92	59	76	-1	1.4	1.0	1.4	4.9	198	8.0	175	80	27	2	0	1	1
CLOVIS	93	67	98	64	80	2	.3	-.3	.1	8.2	124	15.1	137	82	31	6	0	2	0
ROSWELL	92	67	99	65	80	0	.2	-.2	.1	6.0	167	11.4	193	86	33	6	0	3	0
NY ALBANY	90	67	95	62	79	8	.2	-.6	.2	5.6	73	17.3	80	98	52	4	0	1	0
BINGHAMTON	86	65	91	60	76	7	T	T	T	6.3	74	19.9	88	94	48	1	0	1	0
BUFFALO	88	69	93	63	78	8	.1	-.9	.1	8.1	109	22.4	103	87	43	4	0	1	0
NEW YORK	92	78	96	74	85	8	0	-1.0	0	9.4	109	24.1	92	83	48	5	0	0	0
ROCHESTER	88	65	94	60	77	6	T	T	T	5.6	84	14.2	74	92	45	3	0	0	0
SYRACUSE	89	66	95	61	78	8	T	T	T	8.3	93	19.5	82	92	48	4	0	0	0
NC ASHEVILLE	87	64	88	62	76	2	T	-1.0	T	4.3	46	14.7	52	99	47	0	0	0	0
CHARLOTTE	92	72	95	69	82	3	T	-.8	T	6.5	72	18.8	66	92	46	6	0	1	0
'GREENSBORO	92	70	94	68	81	4	.2	-.8	.2	7.9	79	19.9	73	97	47	6	0	2	0
HATTERAS	88	74	89	72	81	2	.3	-1.1	.1	5.9	48	26.1	81	98	65	0	0	3	0
NEW BERN	90	73	92	72	82	2	5.3	3.9	4.2	17.5	119	37.7	111	95	60	5	0	4	2
RALEIGH	91	71	93	70	81	3	T	-1.0	T	5.7	57	19.4	71	97	52	5	0	0	0
WILMINGTON	88	73	91	72	81	0	1.6	.1	.9	20.8	130	43.4	126	97	65	1	0	3	2
ND BISMARCK	87	58	102	48	72	2	.7	.3	.4	4.8	83	8.0	72	89	35	4	0	3	0
FARGO	87	63	98	50	75	5	1.5	.9	1.4	3.7	48	8.4	62	89	43	3	0	4	1
GRAND FORKS	86	59	99	46	72	4	.3	-.3	.2	5.9	86	8.9	72	86	39	2	0	3	0
WILLISTON	85	57	95	45	71	1	.2	-.1	.1	4.2	84	7.4	76	76	28	3	0	3	0
OH AKRON-CANTON	90	69	93	62	79	8	T	-.8	T	5.5	64	16.2	69	96	46	4	0	1	0
CINCINNATI	91	68	95	63	80	5	.6	-.1	.6	9.2	96	26.3	98	90	45	6	0	1	1
CLEVELAND	89	69	93	63	79	8	.2	-.6	.2	5.4	66	16.3	72	92	52	4	0	1	0
COLUMBUS	91	67	93	62	79	6	.2	-.7	.2	9.5	99	23.0	92	98	46	6	0	2	0

Weather Data for the Week Ending August 13, 1988

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 1	PCT. NORMAL SINCE JUNE 1	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	93	69	95	63	81	7	T	-7	T	5.3	62	17.2	74	86	40	7	0	0	0	0	
TOLEDO	91	67	93	59	79	8	1.0	-2	T	5.3	66	12.3	60	96	51	6	0	3	1	1	
YOUNGSTOWN	90	64	93	55	77	7	0	-8	0	6.5	72	17.6	73	97	46	3	0	0	0	0	
OK OKLAHOMA CITY	97	74	104	72	86	4	1.1	-6	T	6.7	86	20.5	100	89	38	7	0	1	1	1	
TULSA	95	76	99	74	85	3	T	-6	T	4.8	53	17.8	72	90	48	5	0	1	0	0	
OR ASTORIA	66	52	70	45	59	-2	T	T	T	4.5	109	30.5	81	93	67	0	0	0	0	0	
BURNS	87	46	94	39	67	-2	T	-1	T	1.2	119	4.9	83	61	16	3	0	1	0	0	
MEDFORD	92	54	99	47	73	1	0	-1	0	1.0	97	6.8	64	77	23	4	0	0	0	0	
PENDLETON	86	55	92	49	71	-2	0	-1	0	.3	28	7.3	103	53	21	1	0	0	0	0	
FORTLAND	77	57	85	51	67	-1	0	-2	0	3.0	135	19.4	95	85	44	0	0	0	0	0	
SALEM	78	51	86	45	64	-2	0	0	0	2.0	114	18.8	86	93	40	0	0	0	0	0	
PA ALLENTOWN	91	69	95	62	80	7	T	-1.0	T	8.0	85	25.4	93	98	51	5	0	0	0	0	
ERIE	86	69	90	62	78	8	0	-9	0	6.1	68	18.7	81	86	54	2	0	0	0	0	
HARRISBURG	91	70	94	63	80	5	.6	-1	.6	6.7	81	22.6	92	96	48	5	0	1	1	1	
PHILADELPHIA	93	75	94	70	84	7	.1	-9	.1	8.7	92	24.4	94	95	50	7	0	1	0	0	
PITTSBURGH	93	67	96	60	80	8	.1	-7	.1	4.4	51	16.7	68	98	42	6	0	1	0	0	
SCRANTON	89	67	93	61	78	7	.1	-6	.1	8.3	101	20.9	98	92	47	4	0	2	0	0	
RI PROVIDENCE	91	73	95	70	82	10	T	-9	T	6.7	90	24.7	92	96	51	4	0	1	0	0	
SC CHARLESTON	90	74	93	71	82	2	2.4	.9	1.4	10.1	60	22.1	63	98	57	3	0	5	2	2	
COLUMBIA	95	72	98	69	83	2	3.0	1.7	3.0	8.7	71	21.9	86	95	43	6	0	1	1	1	
FLORENCE	94	73	98	71	83	3	.4	-7	.4	9.6	77	22.5	75	100	44	7	0	2	0	0	
GREENVILLE	93	70	96	68	81	3	.6	-3	.5	7.4	71	22.2	66	98	49	6	0	3	1	1	
SD ABERDEEN	92	65	103	55	78	7	.5	-1	.3	7.4	115	11.9	91	83	35	5	0	3	0	0	
HURON	91	65	100	53	78	4	.3	-1	.3	4.2	65	13.6	101	84	37	3	0	1	0	0	
RAPID CITY	92	58	99	53	75	2	.2	-1	.2	3.4	58	8.3	86	72	23	5	0	1	0	0	
SIOUX FALLS	92	68	99	56	80	7	1.1	.4	1.0	3.5	45	10.4	64	87	42	4	0	3	1	1	
TN CHATTANOOGA	93	71	94	70	82	3	T	-8	T	8.7	94	25.0	73	96	48	7	0	1	0	0	
KNOXVILLE	92	68	94	66	80	3	T	-7	T	6.3	65	20.7	66	99	48	6	0	0	0	0	
MEMPHIS	95	76	96	74	86	4	0	-9	0	7.4	81	24.6	72	87	47	7	0	0	0	0	
NASHVILLE	95	74	97	72	84	5	0	-8	0	4.2	48	16.1	50	94	44	7	0	0	0	0	
TX ABILENE	99	74	102	72	87	3	.1	-5	.1	5.7	103	11.7	82	70	28	7	0	1	0	0	
AMARILLO	92	67	97	66	79	1	1.3	.6	1.1	8.3	112	18.1	137	86	37	5	0	4	1	1	
AUSTIN	102	76	105	75	89	4	1.1	.6	1.1	6.5	115	15.1	81	87	32	7	0	2	1	1	
BEAUMONT	94	76	100	74	85	1	3.5	2.2	1.3	13.2	100	30.3	90	98	56	6	0	5	3	3	
BROWNSVILLE	97	77	98	76	87	2	0	-5	0	3.9	78	11.1	92	94	45	7	0	0	0	0	
CORPUS CHRISTI	99	76	102	74	87	3	0	-7	0	4.1	56	8.5	51	96	41	7	0	0	0	0	
DEL RIO	98	75	101	71	87	1	0	-3	0	8.1	203	10.0	101	73	31	7	0	0	0	0	
EL PASO	89	67	95	66	78	3	-3	.7	.4	5.4	201	6.8	162	98	44	4	0	4	0	0	
FORT WORTH	102	79	107	77	90	5	0	-4	0	5.7	109	14.2	72	74	32	7	0	0	0	0	
GALVESTON	91	79	94	76	85	2	.3	-6	.2	8.7	97	23.0	102	86	60	5	0	3	0	0	
HOUSTON	97	76	102	74	87	3	1.9	1.1	1.9	8.3	87	18.3	66	95	46	7	0	1	1	1	
LUBBOCK	97	70	98	67	83	4	.5	0	.5	4.5	75	9.6	83	85	32	7	0	1	1	1	
MIDLAND	96	68	97	66	82	0	1.0	.7	1.0	8.7	232	12.2	151	86	34	7	0	2	1	1	
SAN ANGELO	99	70	100	63	84	1	T	-3	T	3.7	102	9.5	93	85	29	7	0	1	0	0	
SAN ANTONIO	100	76	102	74	88	4	T	-6	T	11.8	202	15.6	92	85	32	7	0	0	0	0	
VICTORIA	100	78	102	76	89	4	.1	-6	.1	4.7	58	9.0	43	93	36	7	0	1	0	0	
WACO	104	76	108	70	90	4	.3	-1	.3	7.3	146	14.4	75	82	29	7	0	1	0	0	
WICHITA FALLS	102	75	108	72	89	3	T	-4	T	3.5	64	13.6	82	78	29	7	0	0	0	0	
UT BLANDING	86	58	89	54	72	0	0	-1	.1	2.6	124	7.2	111	57	22	0	0	1	0	0	
CEDAR CITY	86	52	89	47	69	-4	T	-3	T	2.5	122	9.8	154	58	15	0	0	1	0	0	
SALT LAKE CITY	90	60	96	52	75	-1	T	-2	T	.3	15	6.4	64	59	14	5	0	1	0	0	
VT BURLINGTON	90	67	94	66	78	10	.4	-5	.3	6.2	72	13.9	69	91	41	4	0	2	0	0	
VA NORFOLK	91	74	93	72	83	4	1.7	.5	1.0	8.6	78	25.5	90	96	53	6	0	2	2	2	
RICHMOND	92	72	95	70	82	4	T	-1.1	T	10.8	98	25.7	94	98	53	5	0	1	0	0	
ROANOKE	92	65	95	60	79	3	T	-9	T	7.6	90	17.9	72	98	42	7	0	1	0	0	
WA QUILLAYUTE	67	49	71	45	58	-1	T	-6	T	4.1	63	56.2	98	95	61	0	0	0	0	0	
SEATTLE-TACOMA	75	55	80	51	65	0	0	-3	0	2.1	82	16.8	82	95	48	0	0	0	0	0	
SPOKANE	86	54	91	49	70	1	0	-2	0	1.3	69	8.7	88	51	18	1	0	0	0	0	
YAKIMA	88	51	93	43	69	0	0	-1	0	1.0	118	3.5	77	82	22	2	0	0	0	0	
WV BECKLEY	87	64	90	57	76	6	0	-8	T	7.1	69	19.2	69	90	41	1	0	1	0	0	
CHARLESTON	94	67	95	61	80	6	0	-1.0	0	4.1	38	15.7	55	96	35	6	0	1	0	0	
HUNTINGTON	92	67	95	62	79	4	T	-9	T	8.2	82	20.7	75	98	40	6	0	1	0	0	
PARKERSBURG	93	67	95	63	80	5	0	-8	0	6.4	68	16.6	65	100	39	7	0	0	0	0	
WI GREEN BAY	87	64	92	56	76	7	1.0	.3	.5	4.7	62	11.0	62	98	51	3	0	4	0	0	
LACROSSE	91	68	98	59	80	7	2.0	1.2	.9	7.9	84	14.0	71	98	50	4	0	3	2	2	
MADISON	89	66	95	55	78	7	.9	0	.7	5.7	62	12.7	64	93	47	3	0	3	1	1	
MILWAUKEE	88	71	94	67	79	9	1.0	.3	1.0	4.1	48	14.5	73	90	54	4	0	2	1	1	
WAUSAU	85	63	91	51	74	6	1.2	.2	.5	6.2	65	11.7	58	94	51	2	0	4	2	2	
WY CASPER	89	52	94	48	71	0	T	-1	T	1.0	40	4.7	58	62	12	3	0	1	0	0	
CHEYENNE	83	53	88	48	68	0	0	.7	.4	3.5	123	12.9	130	87	25	0	0	4	0	0	
LANDER	87	55	93	48	71	1	.2	.1	.2	1.2	53	5.9	63	52	13	1	0	2	0	0	
SHERIDAN	87	54	99	50	71	1	.1	-1	.1	.9	25	7.5	71	75	23	3	0	1	0	0	
PR SAN JUAN	90	78	92	77	84	2	1.7	.4	1.5	7.9	64	32.0	110	89	68	5	0	5	1	1	

## National Agricultural Summary

August 8 to 14, 1988

**HIGHLIGHTS:** Precipitation across the central Great Plains, western Corn Belt, and Southeast did little to improve crop condition. High temperatures continued plaguing crops throughout most of the Corn Belt and northern Great Plains. Fieldwork averaged 5 to 6 days in most areas. Soil moisture remained short throughout most of the eastern half of the Nation.

Winter wheat harvest was confined mostly to the Pacific Northwest. Harvest was more than 50 percent (%) finished in Idaho, Washington, and Oregon. Spring wheat was 87% harvested, more than doubling the average and 35 percentage points above 1987. Corn silking was virtually finished. Sixty-eight percent of the acreage reached the dough stage, compared with the 5-year average of 56%. Twenty-nine percent of the acreage was in the dent stage, 7 points above normal. Soybeans setting pods gained 11 points and was 6 points above the 67% average. Blooming was 89% finished, slightly ahead of normal. Sorghum heading reached 73% completion, compared with 80% in 1987 and the 67% average. Turning color was slightly behind normal at 25% completion. Cotton setting bolls was nearing completion. Bolls opened normally at 10% completion. Rice was 61% headed, 7 points behind normal. Livestock was good to fair.

**SMALL GRAINS:** In Washington, winter harvest reached the halfway point but trailed slightly behind normal. Harvest was 9 points behind 1987. Yields have been good thus far. Idaho's harvest climbed 23 points ahead of the average at 66% completion. Montana's wheat harvest neared completion. Oregon's wheat harvest was 79% finished, compared with 83% in 1987 and the 78% average. The lack of moisture for fall seeding concerned wheat producers in Washington.

Spring wheat was 87% combined, more than doubling the 39% average. Harvest was finished in South Dakota. Normally, only 75% of the acreage would be combined by this date. Idaho's harvest surged 35 points ahead of the previous week and was 3 times greater than the 20% average. In Minnesota, only 8% of the acreage remained to be harvested when normally more than 50% of the acreage would still be unharvested. Montana's harvest was 48 points ahead of normal and 57 points greater than in 1987. Eight-nine percent of the acreage was combined in North Dakota, compared with 33% normally.

**CORN:** Despite substantial rain in the central Great Plains and western Corn Belt, corn showed no signs of improving. Crop condition remained mostly poor to fair. In the 17 major producing States, 68% of the acreage reached the dough stage, 15 points below 1987 but 12 points above normal. Twenty-nine percent of the acreage had ears in the dent stage, compared with 46% in 1987 and the 22% average. Harvesting continued spreading across the Southeast and Delta.

**SOYBEANS:** Soybeans were mostly fair. Precipitation provided much needed moisture in the western Corn Belt, southern Delta, and Southeast. In the 19 major producing States, 89% of the acreage reached the blooming stage, trailing slightly behind normal. Seventy-three percent of the acreage was setting pods, 6 points ahead of normal. Soybeans began turning yellow in Illinois. Heavy rain lodged soybeans in southern Louisiana. Spider mite and velvetleaf weed problems continued in Ohio.

**SORGHUM:** Sorghum was mostly good to fair. Precipitation aided growth and development in the central Great Plains and west-central Corn Belt. Heading was 73% finished, up 16 points from the previous week and 6 points above average. Heading fell 7 points short of the progress achieved in 1987. Sorghum turning color fell 3 points below normal at 25% completion. Sorghum was 14% harvested in Alabama, doubling the average. In Arkansas, harvest may begin in 1 to 2 weeks. Sorghum harvest reached the final stages in many central and southern areas of Texas. Harvest approached in Cross-Timbers and the Low Plains, but late planted fields could use additional moisture. Texas harvest was 51% finished, 3 points ahead of normal.

**COTTON:** Cotton was mostly good to fair in the Delta and Southeast and mostly good elsewhere. Nearly all acreage was setting bolls except in North Carolina, South Carolina, and Oklahoma. Ten percent of the acreage reached the boll opening stage, just slightly ahead of normal. Bolls were opening in all States except Missouri, Oklahoma, and South Carolina. In Georgia, cotton improved but armyworms and aphids were still problems. Cotton harvest got underway in northeast Louisiana. Cotton harvest progressed rapidly at Coastal Bend and in the Rio Grande Valley. Bolls opened rapidly in central and Blackland areas with little defoliation. Texas harvest reached 8% completion, compared with 3% in 1987 and 5% normally. Cotton opened bolls in most fields in far southern California. Growers applied defoliants in early planted fields. Cotton progressed well in Arizona.

**OTHER CROPS:** Rice was 61% headed, trailing 19 points behind 1987 and 7 points behind normal. Heading lagged behind normal in all States except California. Harvest is expected to begin within 2 weeks in Arkansas. One-third of Texas rice acreage was harvested but lagged 7 points behind the 42% average. Harvest progressed well along the Upper Coast with minimal delays. Heavy rain lodged rice in Louisiana. In California early rice reached the dough stage.

Rain benefited peanut development in the Southeast. Scattered rain gave dryland peanuts a boost in the Cross-Timbers and central areas of Texas. Minor leaf spot disease developed in the Plains and Cross-Timbers.

Tobacco harvest pulled nearly even with the average in the Southeast. Flue-cured markets were open. Kentucky's tobacco was fair to good.

**FRUITS AND NUTS:** Florida citrus trees were good to excellent with abundant new foliage. New crop fruit progressed well, but size was inversely related to fruit set. In Texas, pecans looked good. Nuts reached the water stage in many areas. Valencia orange harvest slowed in California. Grapefruit and lemon harvests neared completion. Early almonds were harvested and walnut orchards were prepared for harvests. Nectarine, peach, prune, wine grape, table grape, and pear harvests were active.

**VEGETABLES:** Fall vegetable land preparation was very active in Florida. Planting activity increased. Fall vegetable planting was well advanced in New Jersey. Land preparation and planting progressed well in the Rio Grande Valley. Rain slowed truck crop harvest in east Texas. Land preparation was underway in the Trans-Pecos area,

and planting continued in the San Antonio-Winter Garden area. California vegetable harvest consisted mostly of broccoli, artichokes, cauliflower, carrots, celery, lettuce, melons, and strawberries. Growers prepared land for seeding lettuce at Riverside. Potatoes and carrots were planted at Riverside.

**PASTURES AND LIVESTOCK:** Pastures showed some improvement and were mostly fair to poor in the Southeast and Delta. Condition remained mostly poor in the Corn Belt and northern Great Plains. Livestock was mostly fair.

#### CROP PRODUCTION

**ALL WHEAT** production is forecast at 1.82 billion bushels, down 13 percent from 1987 to the lowest level since 1978. The 90 percent confidence interval for this production forecast is 1.76 to 1.88 billion bushels.

**CORN FOR GRAIN** production is forecast at 4.48 billion bushels, down 37 percent from last year's crop. Yield is forecast at 78.5 bushels per acre. The 90 percent confidence interval for this production forecast is 3.8 to 5.1 billion bushels.

**SOYBEAN** production is forecast at 1.47 billion bushels, 23 percent below last year. If realized,

this will be the lowest production since 1976. Yield at 26.0 bushels per acre is the lowest since 1974. The 90 percent confidence interval for this production forecast is 1.30 to 1.64 billion bushels.

**ALL COTTON** production for the 1988 season is forecast at 14.9 million bales, an increase of 1 percent from the 1987 crop.

**ALL TOBACCO:** Production is forecast at 1.26 billion pounds, 6 percent above 1987. The higher production from a year ago is primarily the result of increased acreage.

**PEANUT** production is forecast at 4.34 billion pounds, up 20 percent from last year. Production is up in all areas except the Southwest.

**ALL HAY:** Production, at 131 million tons, is down 12 percent from 1987. The change is a result of sharply lower yields which more than offset an increase in hay acreage.

**NUMBER OF FARMS** in the U.S. in 1988 is estimated at 2.16 million, down 1 percent from 1987. For the first time, land in farms has declined to less than a billion acres, falling to 999 million acres, a decrease of less than 1 percent from 1987. Average size of farms increased from 461 acres last year to 463 acres in 1988.

## 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 mostly under 0.25 in.; local areas near 1.00 in.; over 6.00 in. Mobile, Baldwin counties. Temperatures averaged 1 to 4° above normal; 2° below normal Mobile, Baldwin Counties.

Days suitable for fieldwork 6.2. Soil moisture 12% very short, 50% short, 34% adequate, 4% surpluses. Another hot, dry week contributed to slight decline of most crop, pasture conditions. Soybeans 71% blooming, 72% 1987, 76% avg.; 39% setting pods, 40% 1987, 47% avg.; 8% turning color, 7% 1987, 3% avg.; 19% poor, 31% fair, 50% good. Corn 91% dented, 96% 1987, 93% avg.; 71% mature, 79% 1987, 70% avg.; 44% harvested, 32% 1987, 27% avg.; 24% very poor, 23% poor, 44% fair, 9% good. Cotton 99% setting bolls, 100% 1987, 97% avg.; 12% bolls opened, 8% 1987, 4% avg.; 11% very poor, 20% poor, 45% fair, 19% good, 5% excellent. Sorghum 14% harvested, 11% 1987, 7% avg.; 6% very poor, 7% poor, 46% fair, 41% good. Peanuts 1% fair, 71% good, 28% excellent. Hay, roughage supplies 14% very short, 57% short, 29% adequate. Pasture feed supplies 6% very short, 32% short, 60% adequate, 2% surplus. Livestock good to fair; pastures mostly fair. Primary activities: Harvesting corn, sorghum, hay, vegetables, peaches; planting fall vegetables; controlling insects in row crops; managing production ponds, marketing catfish; applying fungicides to peanuts; routine care of livestock, poultry.

**ALASKA:** Cooler temperatures, some localized frost, seasonal rainfall. Temperature lows from 6° below normal to 2° warmer than normal. Highs from 8° below normal to 1° above normal. Seasonal precipitation 1.73 in drier than normal to 4.61 in. wetter than normal.

Days suitable for haying 2.0. Topsoil moisture 10% short, 84% adequate, 6% surplus. Frost nipped potatoes, tender vegetables. Second crop hay harvest slowed by sporadic rainfall, very little harvested. Barley for grain over 75% turning color, 20% ripe, small amount swathed. Commercial potato harvest for early market began. Commercial vegetable harvest continued.

**ARIZONA:** Drier air, sunny skies, except strong thunderstorms southeast 7th. Sunny, dry air, except thunderstorms White Mountains, southeast 8th to 10th. Thunderstorms numerous 11th. Dry, stable air 12th to 13th. Precipitation from traces to 1.53 in. Average temperatures 4° below to 5° above normal.

Cotton 75% good, 25% excellent; 100% setting bolls, 40% opening. Insecticide spraying, irrigation, cultivation continued. Alfalfa harvest active; crop fair to good. Water grass, pigweeds, heavy insect infestations central. Hay, roughage supplies 63% adequate, 37% surplus. Corn harvest central, west. Sorghum good, 43% heading west. Preparation of fields for fall vegetables progressed west. Cantaloupe, honeydew melon harvest continued central. Apple harvest, packing continued; honeydew melon, green chili harvest east. White corn mature east.

**ARKANSAS:** Hot, humid week, scattered showers. Most rainfall amounts less than 1.0 in. Temperature extremes 64°; 104°. Rainfall totals none to 2.71 in.

Days suitable for fieldwork 7.0. Soil moisture 85% short, 15% adequate. Main farming activities: Cutting hay; applying fertilizers and pesticides; weed control; irrigation; harvesting fruits and

vegetables; preparing land for fall pasture seedings. Corn harvest underway some areas. Corn 10% poor, 42% fair, 39% good, 9% excellent. Harvest of some sorghum, rice fields may be underway 1 to 2 weeks. Hay quality, yields low. Hay and roughage supplies 5% very short, 84% short, 11% adequate. Pastures greened up where showers received, providing below average feed for livestock. Pasture, range 2% very poor, 33% poor, 62% fair, 3% good. Livestock fair. Stock water supplies 41% short, 59% adequate. Some shallow wells for poultry houses dry Calhoun County.

**CALIFORNIA:** Upper level low pressure off coast. Brought cooler than normal temperatures, scattered showers, thunderstorms over Sierras.

Continued cool, open weather aided crop development, allowed normal field activities. Cotton opening most fields far south. Defoliating early fields. Early rice dough stage. Wild rice harvest progressed. Safflower harvest increased. Sugarbeet, corn silage, dry bean, alfalfa harvests active. Small grain harvest late, high elevation areas. Thundershowers interrupted caused lodging. Alfalfa harvest normal. Few northern small irrigation districts no water. Irrigation, pest control normal. Apple harvest active. Harvesting avocado continued. Date harvest near completion. Harvesting of table grapes progressed. Wine grape harvest active. Nectarine, peach, prune picking active. Plum harvest near completion. Asian, Bartlett pear harvests active. Grapefruit, lemon harvests winding down. Valencia orange harvest slowed. Early varieties of almonds harvested. Walnut orchards prepared for harvest. Artichokes light, good quality Castroville. Broccoli moderate, good quality Salinas; heavy, good quality Santa Maria. Cauliflower moderate, good quality Salinas, Santa Maria. Carrots planted Riverside; supplies heavy, good quality Salinas. Celery moderate, good quality central coast. Lettuce ground prepared Riverside. Lettuce moderate, variable quality Salinas, Santa Maria. Mixed melon harvest active Cutler-Orosi, Merced-Atwater, Riverside, Sacramento Valley, Westside areas. Some heat, insect stress noticeable Cutler-Orosi melon fields. Potatoes planted; Riverside, growing normally, Tulalake. Strawberries moderate, variable quality Salinas. Strawberries light Santa Maria. Growers turning old fields for new plantings. Processing tomato harvest active Merced-Atwater, Sacramento Valley, Westside. Cooler temperatures reduced rot, mold. Fresh tomatoes picked Delta, Merced-Atwater, Westside. Livestock good. Pastures northern counties drying up. Lightening caused major wildfire, claiming rangeland Modoc County. Range, pasture conditions valley, foothill areas continued deteriorate. Few pasture areas along coast good shape. Feeding hay supplements increased. Hay, roughage supplies adequate most areas. Livestock movement continued limited extent. Water supplies continued shrink, helped by storms few areas. Hay and roughage 85% adequate, 15% short.

**COLORADO:** Scattered thundershowers throughout State. Very little moisture over Eastern Plains. Precipitation none to 0.48 in. Average temperatures normal to 3° above normal.

Days suitable for field work, 6.1. Soil moisture 16% very short, 47% short, 33% adequate, 4% surplus. Hay & roughage supplies 2% very short, 9% short, 87% adequate, 2% surplus. Beans flowered 92%. Barley harvested, 64%. Oats harvested 53%.

Dry onion 8% harvested. Summer potatoes 8% harvested. Livestock mostly good to excellent. Ranges, pastures fair to good.

**FLORIDA:** Tropical weather systems caused increased showers, thunderstorm activity producing generous rains. Tropical storm Beryl affected western Panhandle 8th. Tropical waves across Peninsula 7th, 8th; 11th, 12th. Tropical depression moved across northern areas 14th. Rains averaged 1.00 in., Panhandle, 2.00 to 3.00 in. elsewhere. Temperatures averaged near normal except 2° below normal northeast.

Soil moisture generally adequate throughout except few scattered areas surplus. Cotton, peanuts, soybeans good progress. Corn harvest active. Tobacco harvest winding down. Haymaking active. Sugarcane good growth. Pastures continued to improve; mostly good to excellent except only fair several localities northern Peninsula, Panhandle where weekend rains beneficial. Temporary forage crop planting active some areas. Hay, roughage supplies 29% short, 71% adequate. Cattle improved somewhat, ranging from fair to good Panhandle, extreme northern Peninsula; elsewhere, good to excellent. Citrus trees very good to excellent. Moisture adequate to surplus. Abundant new foliage. New fruit progressed well; fruit sizes inversely relate to fruit set. Very few insect, disease problems. Caretakers busy with normal summer activities. Hot days, warm nights; frequent showers vegetable producing areas. Land preparation fall crops, very active. Planting activity increased.

**GEORGIA:** Warm week. Average temperatures 1 to 3° above normal. Extreme high temperatures mid 90s with some high 90s south. Extreme lows, low and mid 60s mountains to around 70 elsewhere. Rain many locations. Totals under 0.25 in. Greater amounts southeast and extreme south, totals 1.00 to 3.00 in.

Days suitable for fieldwork 5.4. Soil moisture 12% very short, 52% short, 33% adequate, 3% surplus. Corn 16% harvested, behind last year, average. Cotton improved but armyworms, aphids still problems. Peanuts 4% very poor, 10% poor, 51% fair, 35% good. Soybeans mostly fair, behind year, average. Tobacco improved, fair to good. Apples mostly good. Pecans mostly fair. Pasture, hay fair. Hay 1% very poor, 23% poor, 62% fair, 14% good. Hay supplies 16% very short, 62% short, 22% adequate. Cattle, hogs mostly good.

**HAWAII:** Unstable weather. Heavy rains early and late in week. Minor flooding, silting, erosion losses expected. Mostly sunny, humid between rains. Heavy rains replenished reservoirs, soil moisture. Daily temperatures ranged low 70s to 90. Rainfall none to 5.85 in. Variable winds 5 to 20 mph.

Days suitable for fieldwork 7.0. Chinese cabbage production moderate. Head cabbage good, output moderate. Cucumber production moderate. Snap bean production light. Papaya harvesting active. Banana production of Cavendish varieties heavy. Tomato production light. Watermelon production above year ago. Pastures improved due to rains.

**IDAHO:** Temperatures near normal across State. Precipitation scattered; below normal most areas.

Days suitable for fieldwork 7.0. Soil moisture 30% very short, 26% short, 44% adequate. Irrigation water supplies fair, good; Eastern areas very poor, poor. Potatoes fair, good; 27% turning. Winter wheat 66% harvested, 40% 1987, 43% avg. Spring wheat 60% harvested, 26% 1987. Spring barley 58% harvested. Oats 53% harvested. Dry peas 48% harvested. Lentils 42% harvested. Second cutting alfalfa hay 82% harvested. Third cutting underway. Mint over 75% harvested. Peaches 60%

harvested. Range, pastures fair. Hay, roughage 35% short, 61% adequate, 4% surplus. Livestock good.

**ILLINOIS:** Temperatures averaged 5 to 10° above normal. Variable precipitation averaged 0.10 in. some places, 1.00 to 2.00 in. north, south and southeast drier.

Days suitable for fieldwork 5.75. Soil moisture 92% short, 8% adequate. Soybeans 5% turning yellow, 9% 1987, 2% avg. Alfalfa 3rd crop cut 51%, 57% 1987, 46% avg; 12% very poor, 20% poor, 57% fair, 11% good. Hay and roughage supplies 12% very short, 62% short, 24% adequate, 2% surplus. Pasture 38% very poor, 35% poor, 25% fair, 2% good.

**INDIANA:** Temperatures 6 to 9° above normal nearly all of State. Lows near 70°, highs at or above 90°. Precipitation varied. Totals none to 2.44 in.

Days suitable for fieldwork 6.0. Topsoil moisture 65% short, 35% adequate. Subsoil moisture 91% short, 9% adequate. Pasture condition improved. Alfalfa 98% cut twice, 100% 1987, 98% avg. Pastures 11% very poor, 40% poor, 43% fair, 6% good. Hay, roughage supplies feeding season 7% very short, 57% short, 36% adequate. Livestock water supply 6% very short, 21% short, 73% adequate. Crops, pasture conditions improved slightly due to scattered showers.

**IOWA:** Temperatures 6 to 10° above normal. Extremes 55°; 105°. Precipitation 0.01 to 4.89 in.; most areas less than 0.20 in.

Days suitable for fieldwork 6.3. Topsoil moisture 94% short, 6% adequate; subsoil moisture 98% short, 2% adequate. Hay 36% very poor, 37% poor, 22% fair, 5% good. Third crop alfalfa 40% harvested, 39% 1987, 19% avg. Second crop clover 97% harvested, 82% 1987, 84% avg. Hay being fed to supplement pastures 11% light, 46% moderate, 43% heavy. Availability of hay for feed 9% very short, 28% short, 58% adequate, 5% surplus. Corn 96% in milk stage, 100% 1987, 84% avg. Livestock under heat stress. Hog losses and small litters. Weight gains very slow all livestock. Water for livestock a continuing problem. Pastures 78% very poor, 14% poor, 7% fair, 1% good.

**KANSAS:** Temperatures ranged 80° northwest to 86° south central; about 5° above normal. Precipitation averaged 0.50 in. western third, 1.00 to 2.00 in. central third, little to none eastern third.

Days suitable for fieldwork 5.5. Topsoil moisture 65% short, 33% adequate, 2% surplus. Subsoil moisture 63% short, 37% adequate. Corn borers, mostly European, remain southwest, south central light to severe. Greenbugs present sorghum, particularly western third. Treatment where necessary. Beneficial insects keeping pests down many places. Hay and roughage supplies 3% very short, 46% short, 46% adequate, 5% surplus. Pastures poor to fair, very poor northeast. Third cutting alfalfa 90% complete, fourth cutting underway where possible. Working wheat stubble, applying fertilizer, irrigation major activities.

**KENTUCKY:** Hot and humid, little or no rain. Temperature lows averaged 70°, highs in 90s, averaging 3 to 7° above normal. A few widely scattered storms deposited from 0.01 to 1.39 in., most area dry.

Days suitable fieldwork 5.5. Soil moisture 8% very short, 73% short, 19% adequate. Crop conditions improved slightly. Burley 48% topped, 66% of Dark tobacco topped. Tobacco fair to good. Pastures fair to good. Hay and Roughage supplies 17% very short, 71% short, 12% adequate.

**LOUISIANA:** Temperatures 2° below to 1° above normal. Temperature extremes 68°; 101°. Rainfall averaged 0.16 to 3.46 in.

Days suitable for fieldwork 3.1. Soil moisture 1% very short, 18% short, 42% adequate, 39% surplus. Corn fair; 84% mature; 15% harvested. Sorghum 10% ripe; less than 1% harvested. Sweetpotatoes fair to good; 8% harvested. Peaches 99% harvested. Hay, roughage supplies 14% very short, 45% short, 40% adequate, 1% surplus. Livestock feed obtained from pastures 89%. Sugarcane good. Livestock, pastures, pecans fair to good. Vegetables fair. Heavy rains caused lodging in rice, soybeans south. Spraying fungicides on rice, soybeans. First cotton picked northeast. Main activities: Fertilizing pastures, hay; harvesting hay, peaches, corn, rice, sweetpotatoes; cultivating, spraying soybeans.

**MARYLAND & DELAWARE:** Maryland: Precipitation averaged 0.35 in. Average temperature 81°, normal 77°. Temperature extremes 53°; 99°.

Days suitable for fieldwork 6.7. Topsoil moisture 10% very short, 70% short, 20% adequate. Hay supplies 40% short, 60% adequate. Pastures fair. Corn 40% poor, 60% fair; 95% silked, 95% avg.; 50% dough, 65% avg. Soybeans 10% poor, 50% fair, 40% good; 65% bloomed, 60% avg; 35% podded, 35% avg. Tobacco 50% fair, 50% good; 80% bloomed, 75% avg.; 55% topped; 5% harvested, 5% avg. Alfalfa 3rd cutting 75% finished, 70% avg. Apples 10% harvested, 10% avg.

Delaware: Precipitation averaged 0.10 in. Average temperature 82°, normal 76°. Temperature extremes 76°; 100°.

Days suitable for fieldwork 7.0. Topsoil moisture 50% very short, 50% short. Subsoil moisture 30% very short, 70% short. Pastures fair. Hay supplies 25% short, 75% adequate. Corn fair to poor; 100% silked, 95% avg.; 38% dough, 65% avg. Soybeans good; 45% bloomed, 65% avg.; 20% podded, 35% avg. Alfalfa third cutting 80% finished, 80% avg. Apples, peaches good. Peaches 60% harvested, 65% avg. Apples 10% harvested, 5% avg.

**MICHIGAN:** Temperatures ranged 7 to 11° above normal. Temperature extremes 49°; 96°. Precipitation none to 1.87 in.

Days suitable for fieldwork 5.5. Soil moisture 65% short, 35% adequate. Corn 100% silked, 100% 1987, 95% avg.; dough 17%, 85% 1987, 35% avg.; dent 2%, 20% 1987, 4% avg.; 15% very poor, 30% poor, 35% fair, 18% good, 2% excellent. Soybeans 90% bloomed, 100% 1987, 95% avg.; setting pods 50%, 85% 1987, 60% avg.; 7% very poor, 15% poor, 38% fair, 33% good, 7% excellent. Dry beans setting pods 40%, 80% 1987, 55% avg.; 10% very poor, 17% poor, 40% fair, 25% good, 8% excellent. Pastures supplying 25% of livestock feed supply. Hay and roughage supplies 35% very short, 60% short, 5% adequate. Major activities: Oats and barley harvest, cutting hay, apple and peach picking, vegetable harvest, spraying insecticides.

**MINNESOTA:** Temperatures averaged 4 to 8° above normal. Temperature extremes 45°; 104°. Precipitation averaged 0.63 to 4.40 in. Greatest weekly total 6.50 in.

Days suitable for fieldwork 5.5. Topsoil moisture 35% very short, 50% short, 15% adequate. Spring Wheat 92% combined, 84% 1987, 47% avg. Barley 96% combined, 95% 1987, 69% avg. Corn 95% milk, 98% 1987, 77% avg.; 73% dough, 83% 1987, 33% avg.; 33% denting, 37% 1987, 9% avg. Soybeans 98% setting pods, 97% 1987, 81% avg.; 11% turning yellow, 4% 1987, 1% avg. Sweet Corn 52% harvested for processing, 54% 1987, 31% avg. Potatoes 9% harvested, 1% 1987, none avg. Winter Wheat 4% seeded, 4% 1987, 1% avg. Rye 5% seeded, 5% 1987, 1% avg. Hay and grain 38% stubble plowed, 34% 1987, 7% avg. Soybeans 18% very poor, 41% poor,

31% fair, 10% good. Field Corn 30% very poor, 41% poor, 25% fair, 4% good. Hay supplies for the remainder of the feeding season 28% very short, 53% short, 18% adequate, 1% surplus. Livestock feed now obtained from pastures 23%.

**MISSISSIPPI:** Heavy rains south due to tropical storm Beryl. Little or no rain central, north. Higher than normal temperatures north, lower south.

Days suitable for fieldwork 5.3, 4.5 1987, 4.8 avg. Soil moisture 5% very short, 40% short, 50% adequate, 5% surplus. Corn fair to poor; 34% mature, 43% 1987, 53% avg.; harvest just beginning. Sorghum fair; 48% coloring, 73% 1987, 70% avg. Cotton good; 3% open bolls, 2% 1987, 9% avg. Rice fair to good; 66% heading, 89% 1987, 76% avg.; severe sheath blight in north Delta. Soybeans fair; 58% blooming, 73% 1987, 77% avg. Pastures fair. Livestock fair to good. Watermelons 80% harvested, 85% 1987, 76% avg. Corn silage 44% harvested, 54% 1987, 53% avg. Sorghum silage 32% harvested, 42% 1987, 40% avg. Sweetpotatoes 6% harvested, 5% 1987, 5% avg. Hay 65% harvested, 76% 1987, 73% avg. Hay supplies 20% very short, 60% short, 20% adequate. Peanuts 17% harvested, 11% 1987. Peaches 95% harvested, 99% 1987, 94% avg. Activities: Irrigating, haying, scouting and spraying for insects.

**MISSOURI:** Temperatures 3 to 8° above normal, some 100° readings. Rainfall southwest to northeast 1.50 in., northwest 0.50 in., southeast 0.10 in.

Days suitable for fieldwork 5.6. Topsoil moisture 81% short, 18% adequate, 1% surplus, northwest 100% short, southeast only surplus. Extreme heat, despite rainfall, damaging soybean crop. Alfalfa 3rd cutting 74%, 91% 1987, 66% avg. Livestock feed from pasture 60%. Supply of hay, roughage 32% very short, 62% short, 6% adequate. Stockwater supply 23% critically short, 50% short, 27% adequate. Pastures 37% very poor, 25% poor, 26% fair, 11% good, 1% excellent.

**MONTANA:** Temperatures near normal. Thunderstorms moved across State leaving precipitation amounts from 0.01 to 0.73 in.

Days suitable for fieldwork 6.8. Topsoil moisture 94% short, 6% adequate. Subsoil moisture 93% short, 7% adequate. Spring wheat 39% very poor, 39% poor, 17% fair, 4% good, 1% excellent. Barley 33% very poor, 31% poor, 25% fair, 10% good, 1% excellent. Oats 41% very poor, 31% poor, 20% fair, 7% good, 1% excellent. Winter wheat harvest almost finished at 95%, 55% 1987, 61% avg. Spring grain harvest well over half complete. Barley 54% harvested, 18% 1987, 25% avg. Oats 61% harvested, 14% 1987, 23% avg. Range, pasture feed 48% very poor, 32% poor, 15% fair, 5% good. Hay, roughage supplies 38% very short, 40% short, 21% adequate, 1% surplus. Livestock 2% very poor, 7% poor, 40% fair, 44% good, 7% excellent. Second cutting alfalfa 72% harvested, 46% 1987, 45% avg. Other hay 86% harvested, 84% 1987, 84% avg.

**NEBRASKA:** Hot, dry weather with only few showers. Precipitation amounts were quite variable over State. Temperatures above normal. Extremes 48°; 102°.

Days suitable for fieldwork 6.3. Topsoil moisture 65% short, 31% adequate, 4% surplus. Subsoil moisture 67% short, 33% adequate. Alfalfa hay 2% very poor, 20% poor, 55% fair, 23% good. Alfalfa hay 3rd cutting 60%, 63% 1987, 32% avg. Pasture, range feed supplies 13% very short, 30% short, 57% adequate. Hay, roughage supplies 4% very short, 27% short, 67% adequate, 2% surplus.

**NEVADA:** South to southwest flow of air kept temperatures near normal. Only light, spotty rainfall amounts generated from widely scattered thunderstorms. Some range, forest fires started by

lightning strikes. Hottest temperatures for week reported 108° extreme south.

Garlic harvest about completed. Producers working on remaining acreages hay, small grains, onions, melons. Hay roughage supplies 33% short, 60% adequate, 7% surplus.

**NEW ENGLAND:** Precipitation averaged 1.00 in. north, 0.50 in. south. Average temperatures from low 70s northern Maine to low 80s interior south. Temperatures above normal.

Days suitable for fieldwork 5.5. Fieldwork 2.0 days behind. Soil moisture 6% very short, 17% short, 72% adequate, 6% surplus. Grazing availability 27% short, 73% adequate. Hay and roughage 17% short, 83% adequate. Percent of feed now being obtained from pastures 28%. Maine potatoes good. Rhode Island potatoes 10% harvested, 10% 1987, 10% avg.; condition good. Connecticut River Valley potatoes 5% harvested, 5% 1987, 5% avg.; condition fair to good. Field corn good. Sweet corn 40% harvested, 40% 1987, 35% avg.; condition good. Shade tobacco 55% harvested; condition good. Outdoor tobacco 33% cut; condition good. Second crop hay 60% cut, 65% 1987, 60% avg.; condition fair to good. Third crop hay 15% harvested, 15% 1987, 15% avg.; condition fair to good. Apples good; size medium. Peaches 10% picked; condition excellent. Blueberries 45% picked; condition good. Major farm activities: Haying, insect control, and harvesting fruits and vegetables.

**NEW JERSEY:** Temperatures averaged much above normal. Extremes 58°; 100°. Rainfall averaged 0.13 in. north, 0.32 in. central, 0.02 in. south. Heaviest 24-hour total 1.64 in. on 11th, 12th. Estimated soil moisture % field capacity averaged 57% north, 35% central, 23% south. Four inch soil temperatures averaged 78° north, 80° central, 80° south.

Hot humid weather continued. Some locations received heavy thunderstorms, but most areas need a good soaking. Fall vegetable planting well advanced. Marketing summer vegetables mostly moderate, declining. Irish potato digging light. Most sweetpotato fields made good growth. Peach harvest active. Summer variety apple movement steady. Cranberry prospects continued good. Rain needed for sizing. Oat combining neared completion. Field corn, soybeans, hay, pastures need a good rain. Hay and roughage supplies 50% adequate, 50% short.

**NEW MEXICO:** High temperature 103° Clovis, low 43° Chama. Measurable rainfall recorded most areas.

Days suitable for fieldwork 6.0. Soil moisture 25% short, 75% adequate. Cotton 95% setting bolls, 2% bolls open; 5% poor, 45% fair, 45% good, 5% excellent. Cattle 42% fair, 50% good. 8% excellent. Sheep 22% fair, 67% good, 11% excellent. Range 17% fair, 75% good, 8% excellent. Hay and roughage stocks supplies 20% short, 53% adequate, 27% surplus.

**NEW YORK:** Hot, humid. Temperatures averaged 10° above normal. Widely scattered showers, thundershowers brought locally heavy but spotty rainfall. Rain confined to northern half of State.

Days suitable for fieldwork 6.5. Soil moisture mostly short to adequate. Pastures mostly fair; hay fair to good. Corn fair to good, growing well but spotty. Second cutting alfalfa 67% complete, 70% 1987, 68% AVG. Wheat 94% harvested, 90% 1987, 87% avg. Oats 47% harvested, 47% 1987, 33% avg. Light yields reported. Hay and roughage supplies 67% short, 33% adequate. Tree fruits generally good to excellent. Lake Ontario Region apples showed some sunburn due to heat, dryness. Kraut cabbage, processing snap bean harvest continued,

reduced yields. Early potato harvest underway, good quality and yields.

**NORTH CAROLINA:** Temperatures averaged normal. Temperature extremes 56°; 97°. Precipitation ranged none to 5.30 in.

Days suitable for fieldwork 5.6. Soil moisture 3% very short, 41% short, 50% adequate, 6% surplus. Pasture 1% very poor, 15% poor, 39% fair, 42% good, 3% excellent. Flue-cured tobacco 31% harvested, 33% 1987, 33% avg. Tobacco 1% very poor, 2% poor, 19% fair, 67% good, 11% excellent. Peanuts 3% very poor, 3% fair, 81% good, 13% excellent. Sweet potatoes 11% fair, 84% good, 5% excellent. Irish potatoes 96% harvested, 99% 1987, 100% avg. Peaches 80% harvested, 83% 1987, 87% avg.; 21% fair, 67% good, 12% excellent. Truck crops 3% poor, 32% fair, 62% good, 3% excellent. Hay and roughage supply 21% short, 73% adequate, 6% surplus. Condition 20% poor, 40% fair, 37% good, 3% excellent. Livestock feed obtained from pasture 71%. Apples 4% poor, 48% fair, 44% good, 4% excellent. Major farm activities: Tobacco topping, spraying, suckering, harvesting; spraying soybeans, cotton, peanuts; harvest peaches, truck crops, hay, corn silage; shearing Christmas trees; land preparation for fall planting; tending livestock and general farm maintenance.

**NORTH DAKOTA:** Many temperatures above century mark, averaged 2 to 4° above normal. Extremes 38°, 104°. Scattered, variable precipitation averaged 0.12 to 0.95 in. Heaviest east central.

Days suitable for fieldwork 6.0. Topsoil moisture improved; 60% very short, 33% short, 7% adequate. Subsoil 74% very short, 21% short, 5% adequate. Small grain harvest well ahead of normal pace, virtually complete southeastern two thirds. Spring wheat record 89% combined, 44% 1987, 33% avg.; durum 72%, 25% 1987, 19% avg.; oats 92%, 54% 1987, 47% avg.; barley 93%, 67% 1987, 60% avg. Row crops deteriorated slightly. Corn for grain 23% very poor, 58% poor, 14% fair, 5% good; corn for silage 24%, 60%, 13%, 3%; sunflower 17%, 27%, 45%, 11%; dry edible beans 5%, 35%, 47%, 13%; soybeans 20%, 33%, 26%, 21%; potatoes none, 72%, 24%, 4%; flax 23%, 41%, 32%, 4%. Row crops progressed ahead of average development. Sunflower 40% flowers dried and beyond, 18% 1987, 9% avg.; corn for grain 19% denting to dented and beyond, 9% 1987, 6% avg.; potatoes 13% vines killed, not dug, 10% 1987, 5% avg.; dry edible beans 77% fully podded and beyond, 74% 1987, 65% avg.; soybeans 23% lower leaves yellowing and beyond, 23% 1987, 12% avg.; flax 76% turning to ripe and beyond, 64% 1987, 57% avg. Hay and roughage supplies 21% very short, 65% short, 14% adequate. Pastures improved slightly; 93% poor to very poor, 7% fair; furnished 69% roughage requirements. Spider mite activity soybean, edible bean fields.

**OHIO:** Average high temperatures low 90s. Average low temperatures high 60s to low 70s. Temperatures 5° to 10° above normal. Rainfall scattered, generally under 0.33 in.

Days suitable for fieldwork 6.3. Soil moisture 66% short, 34% adequate. Crop conditions generally same as previous week with slight alterations. Corn smut reported frequently; corn poor. Problems with spider mites, velvetleaf continued in beans; soybeans fair to poor. oat and second cut hay harvests approached end. Corn silage, potato, processing tomato, summer apple, peach harvesting expanded. Hay, pasture continued to improve. Hay fair to poor. Pastures poor. Hay, roughage supplies 28% very short, 46% short, 25% adequate, 1% surplus.

**OKLAHOMA:** Temperatures averaged 2° above normal south central to 4° above normal northeast.

Precipitation averaged none west central to 0.95 in. central.

Days suitable for fieldwork 6.5. Topsoil moisture 90% short, 10% adequate. Subsoil moisture 60% short, 40% adequate. Cotton 25% fair, 75% good; 85% setting bolls, 65% 1987, 55% avg. Sorghum 30% fair, 70% good; 55% heading, 70% 1987, 65% avg.; 30% coloring, 30% 1987, 20% avg. Peanuts 60% setting pods, 65% 1987, 70% avg. Soybeans 45% flowering, 85% 1987, 70% avg.; 25% setting pods, 55% 1987, 35% avg. Corn 20% mature, 40% 1987, 30% avg. Pastures fair. Supplemental feed comprised 12% of livestock feed. Hay, forage supplies 10% very short, 45% short, 45% adequate. Cattle good. Marketings light-to-average, prices up from previous week.

**OREGON:** Temperatures near or slightly below normal coast, northwestern, extreme north. Rest of State averaged 2 to 3° above normal, high daytime temperatures; extreme east near 100°. Slight amount precipitation west; significant rainfall east from thunderstorms. Baker 0.45 in., Redmond 0.33 in. Elsewhere east 0.10 in. or less.

Soil moisture 53% short, 47% adequate. Winter wheat harvested 79%, 83% 1987, 78% avg. Barley harvested 69%, 69% 1987, 75% avg. Hay, roughage supplies 11% short, 70% adequate, 19% surplus. Grass seed harvest near completion, field burning concern, few acres burned with moratorium in effect. Wheat, barley yields good. Mint harvest underway. Boysenberry, Marionberry, blueberry harvests nearly completed. Evergreen blackberries begun harvest. Peaches, pears harvest begun, Hood River Valley, upper northwest. Sweet corn, snap beans, squash, broccoli, cucumber harvest continued. Onions, potatoes harvest; Hermiston. Livestock mainly good. Range, pasture fair to good. Higher elevation rangeland fair to good. Stock water shortages increased southeast, northeast. Ranges drying feed supplies, however, adequate to surplus southwest.

**PENNSYLVANIA:** Bermuda high blocked weather systems. Hot, very dry week. Average temperature 78°, 70° above normal. Temperature extremes 49°; 98°. Average precipitation 0.08 in., 0.77 in. below normal.

Days suitable for fieldwork 6.0. Soil moisture 82% short, 18% adequate. Corn 80% silk, 94% 1987, 88% avg.; 15% dough, 56% 1987, 36% avg.; 1% dent, 10% 1987, 5% avg. Ensilage corn harvest 7% complete, 6% 1987. Corn 20% very poor, 29% poor, 33% fair, 14% good, 4% excellent. Soybean 8% very poor, 24% poor, 36% fair, 23% good, 9% excellent. Wheat harvest 98% complete, 98% 1987. Oat harvest 81% complete, 86% 1987. Tobacco harvest 11% complete, 10% 1987. Potato harvest 13% complete, 19% 1987. Second cutting alfalfa 88% complete, 87% 1987. Third cutting alfalfa 32% complete, 43% 1987. Second cutting clover-timothy 64% complete, 66% 1987. Hay and roughage supplies 27% very short, 51% short, 22% adequate, 0% surplus. 17% of livestock feed now obtained from pastures. Quality of hay made good to fair. Feed from pastures below average. Apple harvest 8% complete, 10% 1987. Peach harvest 33% complete, 47% 1987. Fall plowing 14% complete, 13% 1987. Activities: Harvesting oats, barley, wheat, hay, haylage, vegetables, fruit, potatoes, tobacco; controlling weeds; caring for livestock; maintaining machinery.

**PUERTO RICO:** Island average rainfall 1.30 in., 0.16 in. below normal. Highest weekly total rainfall 5.15 in. Pico Del Este-Luquillo followed by 4.00 in. San Lorenzo, 2.95 in. Maricao. Highest 24-hour total 2.80 in. Pico Del Este-Luquillo. Accumulated total rainfall since January 1 32.78 in., normal. Total rainfall 1.60 in., 0.30 in. below normal. Divisional temperatures averaged 81

to 83° on coast, 76 to 78°. Temperature extreme: 57° Adjuntas; 95° several places.

**SOUTH CAROLINA:** Daily temperatures averaged above normal. Rainfall none Upstate 7.00 in. East.

Days suitable for fieldwork 5.6. Soil moisture 3% very short, 80% short, 17% adequate. Cotton 98% squaring, 100% 1987, 100% avg.; 82% setting bolls, 94% 1987, 96% avg.; 3% poor, 25% fair, 72% good. Soybeans 68% blooming, 67% 1987, 61% avg.; 22% setting pods, 37% 1987, 28% avg.; 12% poor, 35% fair, 53% good. Tobacco good, 55% harvested, 57% 1987, 58% avg. Corn 91% dough stage, 98% 1987, 94% avg.; 39% mature, 68% 1987, 64% avg.; 5% harvested, 8% 1987, 11% avg.; fair. Peanuts fair. Sorghum fair to good, 7% harvested, 15% 1987, 10% avg. Peaches fair to good, 88% harvested, 84% 1987, 89% avg. Pastures fair. Livestock fair to good. Hay and roughage supplies 17% very short, 68% short, 15% adequate.

**SOUTH DAKOTA:** Average temperatures 2 to 8° above normal. Extremes 45°; 109°. Thunderstorms scattered over State largest amounts east. Rainfall for growing season since April 10 below normal at most locations but above normal over parts of southwest; south central.

Days suitable for fieldwork 5.9. Topsoil moisture 35% critically short, 52% short, 13% adequate. Hay, roughage supplies 11% very short, 52% short, 36% adequate, 1% surplus. Seventy-three percent of livestock feed obtained from pasture.

**TENNESSEE:** Warm, humid air covered State entire week. Temperatures averaged 3 to 6° above normal. Spotty showers, most areas 0.75 in. below normal rainfall.

Days suitable for fieldwork 5.7. Soil moisture 15% very short, 75% short, 10% adequate. Pastures mostly fair to poor. Cattle mostly fair.

**TEXAS:** Record breaking heat northcentral, south. Tropical Storm Beryl turned, crossed Louisiana; set up subsiding air, very dry, hot conditions east, southeast. Wet conditions Hill Country and northward through High Plains into Trans-Pecos. Temperatures Blacklands 6° above normal. Hot weather High Plains, south 2 and 3° above normal, respectively. Temperatures below normal southern Low Plains, Trans-Pecos. Southeast; High Plains, Trans-Pecos above normal rainfall. Rain lacking south, Coastal Plains.

**Crops:** Corn harvesting winding down Coastal Bend, Upper Coast. Progress good Valley. Harvest continued minor delays central, east; Blacklands. Yields better than expected for dry year. High Plains crop continued excellent progress under heavy irrigation. Scattered rain helped some. Limited spraying insect problems. More fields entering dent stage with hot temperatures. Corn 65% mature, 62% 1987, 60% 3-year avg. Harvested 49%, 38% 1987, 34% avg. Grain sorghum harvest final stages many central, southern areas. Yields fair. Harvest continued Blacklands, yields generally good. Fields turning color, nearing harvest Cross Timbers, Low Plains. Later fields still use another rain. Producers High Plains treating some fields for midge. Irrigation steady. Dryland fields could use additional moisture. Some fields beginning to turn color. Sorghum mature 54%, 51% 1987, 54% avg. Harvested 51%, 47% 1987, 48% avg. Cotton harvest progressed rapidly Coastal Bend, Valley. Progress increased south. Bolls opening rapidly central, Blacklands with little defoliation taking place. Producers continued fight bollworms High Plains, Trans-Pecos fields. Irrigation active some dryland fields needing additional moisture. Overall development good with only normal shedding of fruit. Cotton squaring 100%, 100% 1987, 98% avg. Harvested 8%, 3% 1987, 5% avg. Rice harvest progressed Upper

Coast little delays. Overall yields fair to good. Rice harvested 35%, 46% 1987, 42% avg. Peanuts good progress across State. Scattered rain Cross Timbers, Central areas gave dryland fields a needed boost. Minor leaf spot showed Plains, Cross Timbers. Irrigation again steady except where rain fell. Soybeans good progress Plains under heavy irrigation. Most fields blooming. Harvest early beans continued Upper Coast. Later fields pod-filling stage.

**Commercial Vegetables:** Rio Grande Valley land preparation, planting moved ahead. San Antonio-Winter Garden planting, irrigating continued. East late week rain slowed harvest truck crops. Yields low. High Plains cucumber, pepper, onion, potato harvest continued. Trans-Pecos cantaloupe harvest continued. Peppers look good. Land preparation underway. Pecans continued look good, nuts many areas water stage. Aphids caused problems. Irrigation steady west.

**Range and Pasture:** Conditions improved where rainfall occurred; many areas drying out rapidly with recent hot temperatures. Haying operations steady. General rain improve growth, greening. Some drier areas decline livestock body condition. Local markets steady. Hay supplies remained constant with 14% very short; 38% short; 43% adequate; 5% surplus.

**UTAH:** Precipitation light to moderate statewide. Temperatures 1 to 3° below normal.

Days suitable fieldwork 6.6. Soil moisture 58% short, 42% adequate. Winter wheat 92% harvested, 89% 1987, 73% avg. Spring wheat 74% harvested, 71% 1987, 45% avg. Barley 83% harvested, 75% 1987, 60% avg. Oats 82% ripe, 72% 1987, 54% avg.; 35% harvested grain, 33% 1987, 27% avg. Corn 95% tasseled, 84% 1987, 80% avg.; 24% dough, 38% 1987, 34% avg. Alfalfa 2nd cutting 94% completed, 94% 1987, 86% avg. Alfalfa 3rd cutting underway south. Pasture, range 8% very poor, 35% poor, 38% fair, 19% good. Irrigation water supply 12% very short, 46% short, 42% adequate. Stock water supply 4% very short, 46% short, 50% adequate. Hay and roughage supply 25% short, 75% adequate. Field corn condition average to above average. Potatoes mostly average. Scattered showers beneficial range south. Livestock good to excellent.

**VIRGINIA:** Very hot, humid. Spotty rainfall. Temperatures averaged 4 to 6° above normal. Rainfall ranged from none to over 2.10 in.

Days suitable for fieldwork 6.1. Topsoil moisture 20% very short, 50% short, 28% adequate, 2% surplus. Some decline in crop conditions with hot weather. Corn mostly fair, poor mountain areas, good southeast. Corn 84% in or beyond silk stage, 97% 1987, 97% avg. Fifty four percent in or beyond dough stage, 63% 1987, 70% avg. Thirty two percent in or beyond dent stage, 48% 1987, 49% avg. Soybeans fair north, good south. Soybeans 58% in or beyond bloom stage, 67% 1987, 70% avg. Thirty two percent setting pods, 47% 1987, 45% avg. Sprayed for spider mites. Peanuts excellent. Flue-cured tobacco excellent, 17% harvested, 10% 1987, 17% avg. Flue-cured markets opened. Burley tobacco poor, aphid problem. Hay, pastures vary, mostly fair. Peaches 45% harvested, apples 13% harvested. Some livestock feeding.

**WASHINGTON:** Upper level low over Pacific Northwest ushered in cool ocean air early week, warming trend followed. Temperatures near seasonal normals most areas, gradually warmed to above normal after midweek.

Days suitable for fieldwork 7.0. Soil moisture 65% short, 35% adequate. Favorable weather allowed rapid progress in cereal grain harvest. Winter wheat 50% harvested, 59% 1987, 51% avg. Yields reported generally good. Spring wheat 28% harvested, 52% 1987, 36% avg. Barley 46% harvested, 61% 1987, 47% avg. Concern expressed over moisture levels for fall seeding. Post-harvest field preparation for planting of alfalfa, buckwheat, vegetable seed underway. Potato harvest continued Columbia Basin. Second cutting alfalfa hay winding down, third cutting continued early areas. Hay, other roughage feed supplies 60% adequate, 40% surplus. Stone fruit harvest continued. Few early apples, Bartlett pears picked Benton, Chelan Counties. Raspberry harvest winding down; blueberry, blackberry harvest full swing. Early sweet corn, carrots, other vegetables being harvested. Late season vegetables coming ripe. Range, pasture conditions mostly adequate, some short.

**WEST VIRGINIA:** Average temperature 79°; 5 to 8° above normal. Extremes 49° Greenbank; 102° Creston. Average precipitation 0.15 in., 0.75 in. below normal.

Days suitable for fieldwork 5.9. Soil moisture 60% very short, 40% short. Corn fair to poor; 62% silked, 43% dough. Apples, peaches fair to good. Pasture, very poor to fair. Cattle, sheep fair to good. Feedsupplies, 22% very short, 41% short, 37% adequate. Feed from pasture 72%. Farm activities: General farm maintenance, haying, livestock care, clipping pasture.

**WISCONSIN:** Hot and humid, temperatures averaged 76°, 6° above normal. Extremes: 46°; 100°. Precipitation 0.60 to 2.00.

Days suitable for fieldwork 4.8. Soil moisture 90% short, 10% adequate. Crop conditions 20% very poor, 37% poor, 37% fair, 6% good. Extreme heat south evaporates minimal rainfall. Corn 15% very poor, 41% poor, 30% fair, 14% good. Corn 89% silked, 100% 1987, 91% avg. Corn in dough 46%, 56% 1987, 38% avg. Corn dent 14%, 13% 1987, 5% avg. Oats harvested 84%, 84% 1987, 65% avg. Second crop hay 80% cut, 80% 1987, 77% avg. Third crop hay 15% cut, 14% 1987, 9% avg. Rain north reviving dormant fields. Feed and roughage supplies 37% very short, 56% short, 7% adequate.

**WYOMING:** Temperatures above normal. Rainfall below normal.

Days suitable for fieldwork 7.0. Topsoil moisture 81% short, 19% adequate. Winter wheat 5% mature, 5% 1987, 5% avg.; 95% harvested, 95% 1987, 95% avg. Barley 5% turning color, 5% 1987, 15% avg.; 20% mature, 20% 1987, 30% avg.; 75% harvested, 65% 1987, 50% avg. Spring wheat turning color, 10% 1987, 15% avg.; 25% mature, 25% 1987, 35% avg.; 75% harvested, 65% 1987, 50% avg. Oats 15% turning color, 15% 1987, 25% avg.; 40% mature, 30% 1987, 40% avg.; 45% harvested, 50% 1987, 30% avg. Corn most tasseled, 95% 1987, 85% avg.; 90% silked, 70% 1987, 70% avg.; 65% milk, 45% 1987; 30% dough, 30% 1987, 25% avg. Dry beans most in bloom, 95% 1987, 90% avg.; 85% setting pods, 80% 1987, 90% avg.; 10% leaves turning color, 20% 1987, 15% avg. Potatoes most in bloom, 1987 most, 95% avg. Alfalfa second cutting 60% complete, 50% 1987, 55% avg. Other hay 90% harvested, 90% 1987, 80% avg. Ranges, pastures poor to fair. Livestock feed obtained from pastures 95%. Stock water 60% short. Hay roughage supplies 5% very short, 60% short, 35% adequate. Livestock to be wintered: Cattle 85% 1987; sheep 95% 1987.

**CROP PROGRESS<sup>1/</sup>**

FOR WEEK ENDING AUGUST 14, 1988

	CORN % SILKING		
	1988	1987	AVG.
COLO	96	80	85
GA	100	100	100
ILL	100	100	100
IND	100	100	99
IOWA	100	100	100
KANS	100	99	96
KY	100	100	95
MICH	100	100	95
MINN	100	99	98
MO	100	100	99
NEBR	100	100	98
N C	100	99	99
OHIO	94	100	98
PA	80	94	88
S DAK	97	100	86
TEX	100	100	100
WIS	89	100	91

17 STATES 98 99 97

THESE 17 STATES PRODUCED 94% OF THE 1987 CORN CROP.

	CORN % DOUGH		
	1988	1987	AVG.
COLO	47	25	27
GA	99	100	100
ILL	85	92	77
IND	70	96	70
IOWA	68	83	48
KANS	80	85	60
KY	64	90	67
MICH	17	85	35
MINN	73	83	33
MO	86	96	79
NEBR	70	74	55
N C	91	85	87
OHIO	57	93	69
PA	15	56	36
S DAK	67	71	29
TEX	92	97	92
WIS	46	56	38

17 STATES 68 83 56

THESE 17 STATES PRODUCED 94% OF THE 1987 CORN CROP.

	CORN % DENT		
	1988	1987	AVG.
COLO	4	3	2
GA	92	99	96
ILL	39	65	36
IND	10	57	18
IOWA	38	54	17
KANS	35	40	15
KY	28	56	36
MICH	2	20	4
MINN	33	37	9
MO	55	78	53
NEBR	20	26	12
N C	73	72	72
OHIO	8	46	30
PA	1	10	5
S DAK	17	26	6
TEX	68	77	74
WIS	14	13	5

17 STATES 29 46 22

THESE 17 STATES PRODUCED 94% OF THE 1987 CORN CROP.

	COTTON % SETTING BOLLS		
	1988	1987	AVG.
ALA	99	100	97
ARIZ	100	99	99
ARK	100	100	99
CALIF	98	100	92
GA	100	99	98
LA	96	99	96
MISS	97	100	94
MO	100	100	96
N MEX	95	94	93
N C	85	96	87
OKLA	85	65	55
S C	82	94	96
TENN	100	100	93
TEX	91	91	82

14 STATES 94 94 87

THESE 14 STATES PRODUCED 100% OF THE 1987 COTTON CROP.

	COTTON % BOLLS OPENING		
	1988	1987	AVG.
ALA	12	8	4
ARIZ	40	30	29
ARK	2	9	9
CALIF	8	15	5
GA	5	7	9
LA	6	5	11
MISS	3	2	9
MO	0	14	4
N MEX	2	15	16
N C	11	0	0
OKLA	0	0	0
S C	0	0	4
TENN	6	5	3
TEX	13	12	10

14 STATES 10 10 9

THESE 14 STATES PRODUCED 100% OF THE 1987 COTTON CROP.

	RICE % HEADED		
	1988	1987	AVG.
ARK	53	86	64
CALIF	30	35	29
LA	78	90	87
MISS	66	89	76
TEX	100	100	100

5 STATES 61 80 68

THESE 5 STATES PRODUCED 97% OF THE 1987 RICE CROP.

	SOYBEANS % BLOOM		
	1988	1987	AVG.
ALA	71	72	76
ARK	56	80	68
GA	86	89	84
ILL	99	100	98
IND	98	99	97
IOWA	100	100	100
KANS	95	90	80
KY	80	89	72
LA	70	85	83
MICH	90	100	95
MINN	100	99	98
MISS	58	73	77
MO	90	94	86
NEBR	100	100	100
N C	56	61	61
OHIO	97	100	98
S C	68	67	61
S DAK	99	100	90
TENN	66	83	79

19 STATES 89 94 90

THESE 19 STATES PRODUCED 96% OF THE 1987 SOYBEANS CROP.

	SPRING WHEAT % HARVESTED		
	1988	1987	AVG.
IDAHO	60	26	20
MINN	92	84	47
MONT	68	11	20
N DAK	89	44	33
S DAK	100	95	75

5 STATES 87 52 39

THESE 5 STATES PRODUCED 95% OF THE 1987 SPRING WHEAT CROP.

	SOYBEANS % SETTING PODS		
	1988	1987	AVG.
ALA	39	40	47
ARK	29	50	36
GA	44	55	53
ILL	92	97	79
IND	71	89	70
IOWA	98	95	87
KANS	75	70	50
KY	37	49	32
LA	43	63	61
MICH	50	85	60
MINN	98	97	81
MISS	27	45	38
MO	70	81	65
NEBR	90	82	79
N C	26	28	28
OHIO	86	95	80
S C	22	37	28
S DAK	87	91	68
TENN	38	58	40

19 STATES 73 81 67

THESE 19 STATES PRODUCED 96% OF THE 1987 SOYBEANS CROP.

GRAIN SORGHUM  
% HEADED

	1988	1987	AVG.
ARK	88	98	NA
ILL	86	100	NA
KANS	60	65	45
LA	88	96	96
MISS	96	98	93
MO	85	94	83
NEBR	90	91	79
OKLA	55	70	65
S DAK	80	83	62
TENN	84	94	91
TEX	80	90	84

11 STATES 74 81 NA

EXCL. STATES WITH NA 73 80 67

THESE 11 STATES PRODUCED 96% OF THE 1987 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

GRAIN SORGHUM  
% COLORING

	1988	1987	AVG.
ARK	41	75	NA
ILL	29	30	NA
KANS	3	10	4
LA	42	64	76
MISS	48	73	70
MO	25	55	50
NEBR	10	19	6
OKLA	30	30	20
S DAK	15	15	8
TENN	38	61	43
TEX	62	61	65

11 STATES 26 33 NA

EXCL. STATES WITH NA 25 32 28

THESE 11 STATES PRODUCED 96% OF THE 1987 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

1/ AVERAGES IN THESE SUMMARIES ARE FOR THE YEARS 1983 - 1987.

CROP CONDITION

FOR WEEK ENDING AUGUST 14, 1988

GRAIN SORGHUM

STATE	VP	P	F	G	EX
ARK	0	11	41	45	3
ILL	0	6	54	40	0
KANS	2	8	41	41	8
LA	0	9	51	40	0
MISS	1	34	40	25	0
MO	5	13	50	31	1
NEBR	0	46	27	23	4
OKLA	0	0	30	70	0
S DAK	0	28	43	29	0
TENN	2	9	57	32	0
TEX	1	7	29	49	14
11 STATE	1	14	37	41	7

RICE

STATE	VP	P	F	G	EX
ARK	0	0	39	56	5
CALIF	0	0	10	85	5
LA	0	1	38	59	2
MISS	0	0	55	45	0
TEX	0	0	18	67	15
5 STATE	0	0	33	62	5

COTTON

CORN

SOYBEANS

STATE	VP	P	F	G	EX	STATE	VP	P	F	G	EX	STATE	VP	P	F	G	EX
ALA	11	20	45	19	5	COLO	0	2	10	60	28	ALA	0	19	31	50	0
ARIZ	0	0	0	75	25	GA	16	20	42	22	0	ARK	0	10	62	28	0
ARK	0	0	26	67	7	ILL	17	50	30	3	0	GA	3	5	66	26	0
CALIF	0	0	15	65	20	IND	13	32	48	7	0	ILL	3	29	53	15	0
GA	9	10	69	12	0	IOWA	23	44	29	4	0	IND	2	24	59	15	0
LA	0	0	59	41	0	KANS	0	16	9	48	27	IOWA	10	38	46	6	0
MISS	0	10	30	59	1	KY	9	33	53	5	0	KANS	0	5	23	44	28
MO	0	0	13	74	13	MICH	15	30	35	18	2	KY	0	16	47	37	0
N MEX	0	5	45	45	5	MINN	30	41	25	4	0	LA	0	14	31	51	4
N C	0	3	14	74	9	MO	28	38	26	8	0	MICH	7	15	38	33	7
OKLA	0	0	25	75	0	NEBR	2	15	24	45	14	MINN	18	41	31	10	0
S C	0	3	25	72	0	N C	3	14	39	40	4	MISS	5	25	50	19	1
TENN	0	1	21	71	7	OHIO	22	35	33	10	0	MO	16	21	44	18	1
TEX	1	1	28	56	14	PA	20	29	33	14	4	NEBR	0	39	33	26	2
14 STATE	1	2	29	57	11	S DAK	15	42	24	18	1	N C	2	1	27	62	8
						TEX	3	7	30	42	18	OHIO	15	28	40	16	1
						WISC	15	41	30	14	0	S C	0	12	35	53	0
												S DAK	1	13	44	37	5
												TENN	2	6	57	35	0
						17 STATE	16	36	30	15	3	19 STATE	7	25	45	21	2

## International Weather and Crop Summary

August 7 - 13, 1988

### HIGHLIGHTS

**USSR** ... In Western USSR, the first substantial rains since mid-June in the upper Volga and the Volga Vyatsk increase soil moisture for winter rye planting. In the New Lands, dry weather in Kazakhstan favors spring grain maturation and helps early harvest.

**EUROPE** ... Mostly dry weather favors winter grains harvest across the north. Hot, dry weather continues crop stress in the southeast.

**SOUTH ASIA** ... Dryness in southern India limits moisture for reproductive grains and oilseeds. Showers elsewhere maintain favorable conditions.

**EASTERN ASIA** ... Remnants of Tropical Storm Bill bring heavy rain to eastern China. Unfavorably hot, dry weather continues in sections of southern Manchuria.

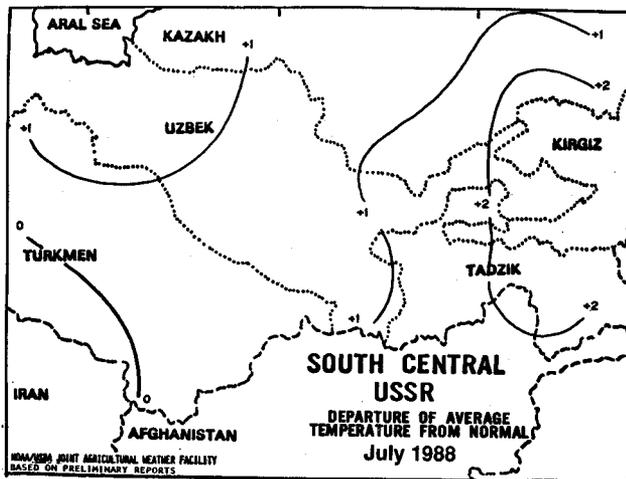
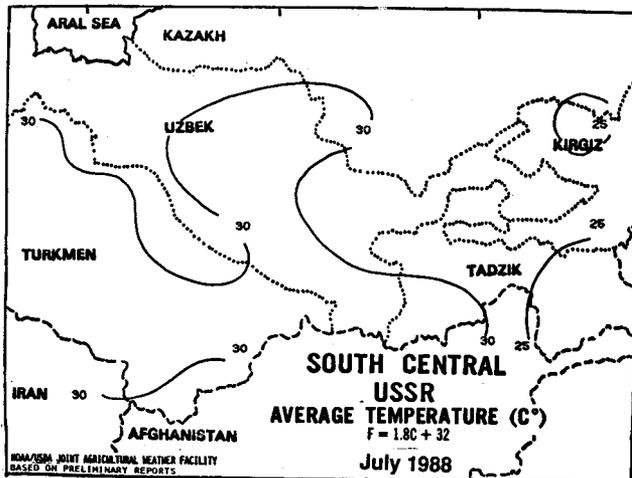
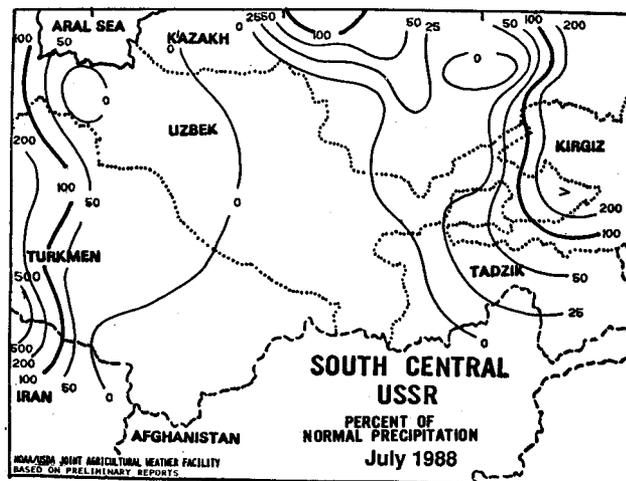
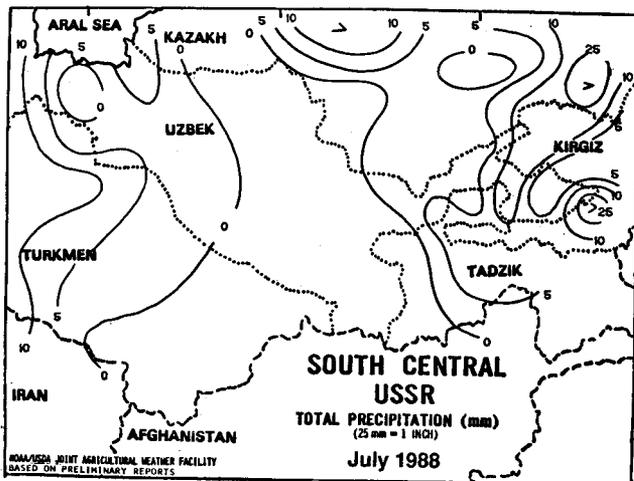
**SOUTHEAST ASIA** ... Widespread rain in Thailand benefits immature corn and improves moisture conditions for rainfed rice.

**SOUTH AMERICA** ... Light showers provide some relief to Argentina's wheat areas, but more substantial rain is needed. Mostly dry weather prevails in south-central Brazil, except for showers in the extreme southeast.

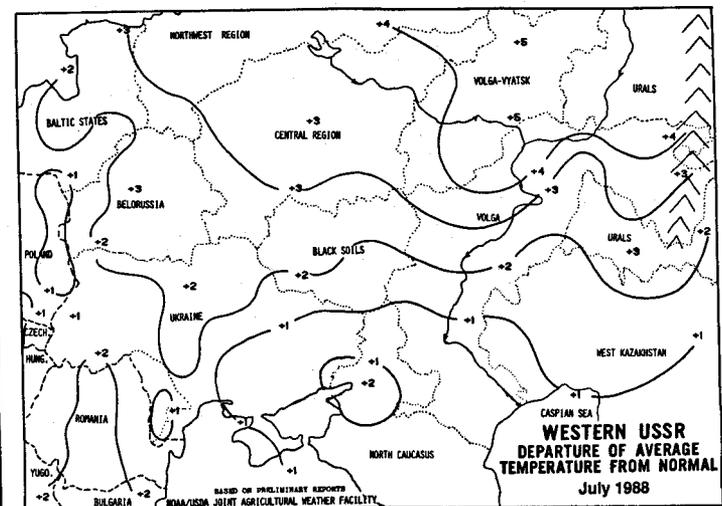
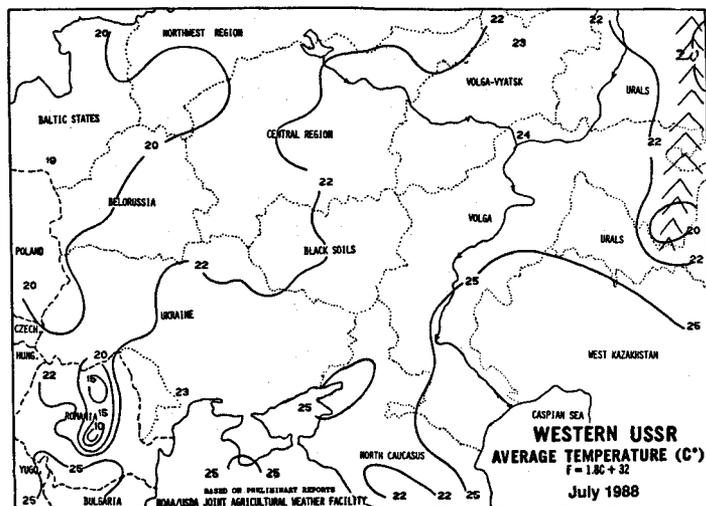
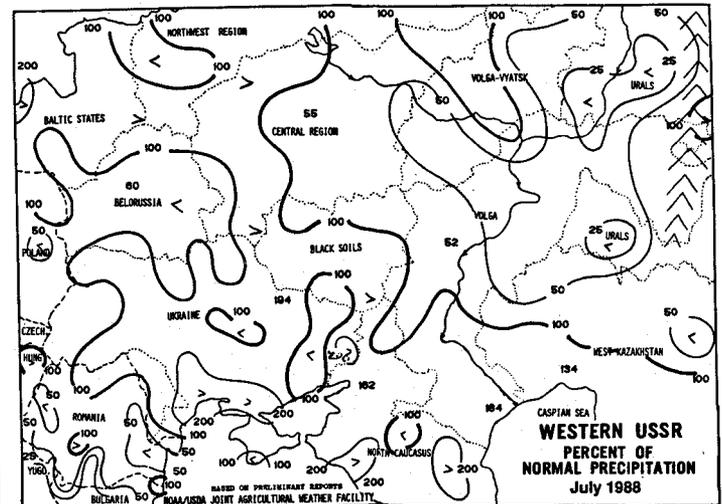
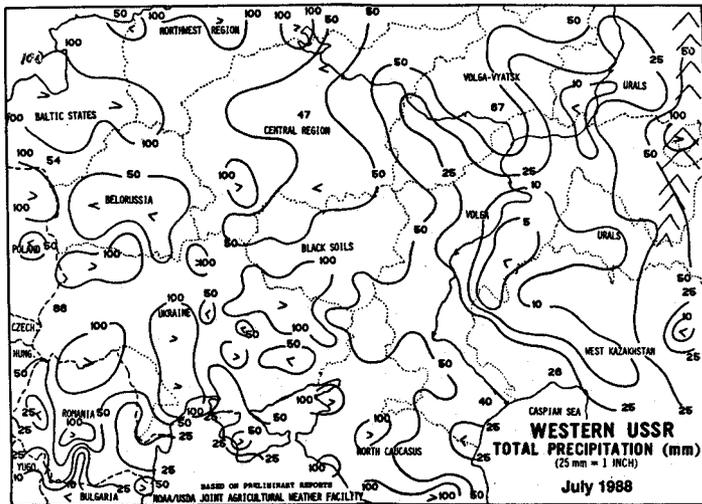
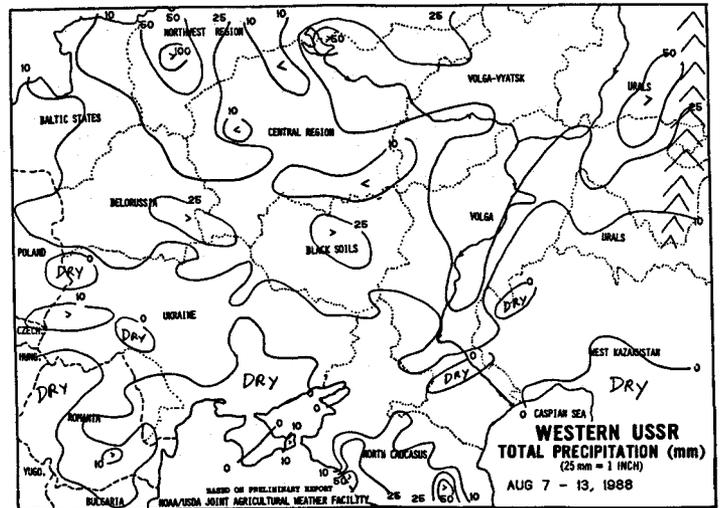
**AUSTRALIA** ... Moderate to heavy rain returns to crop areas of Western Australia.

**MEXICO** ... Substantial rain continues to favor agriculture.

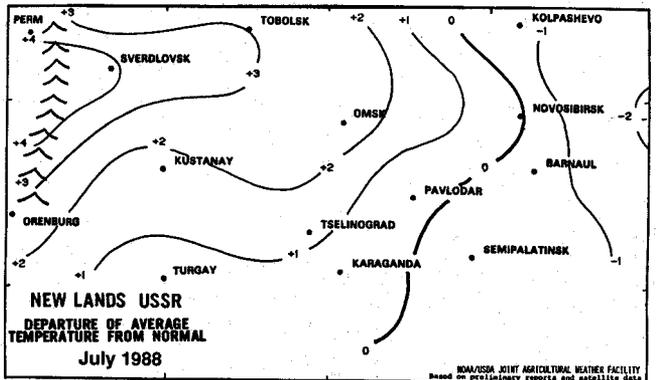
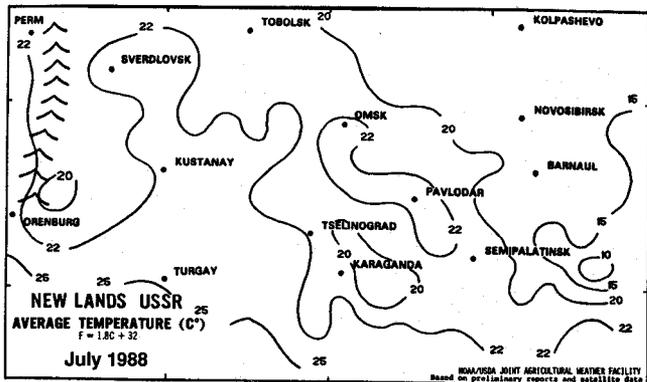
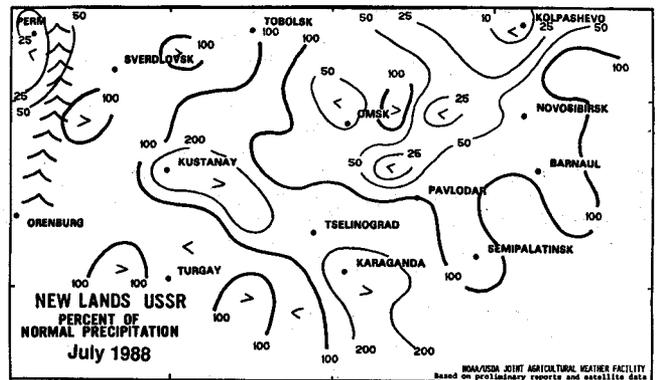
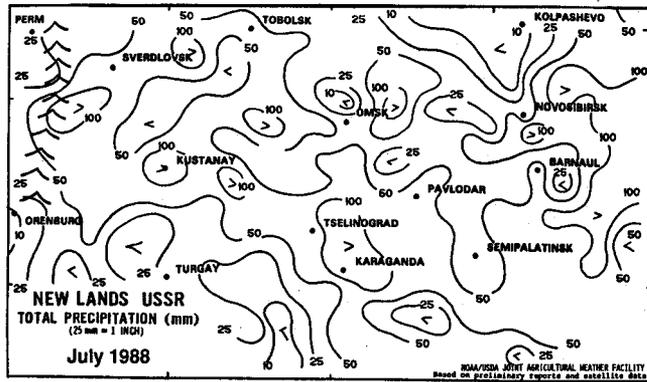
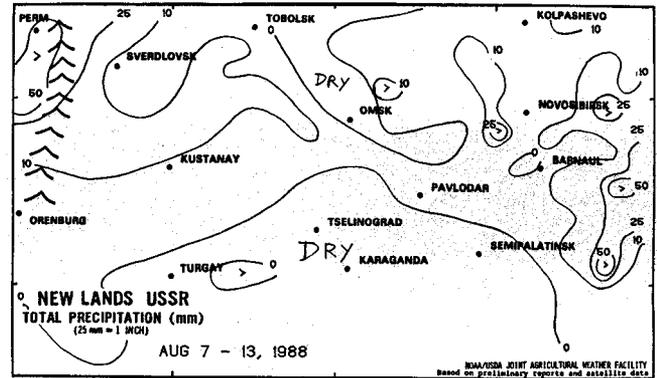
**CANADA** ... Dry weather in the southern Prairies promotes harvesting.



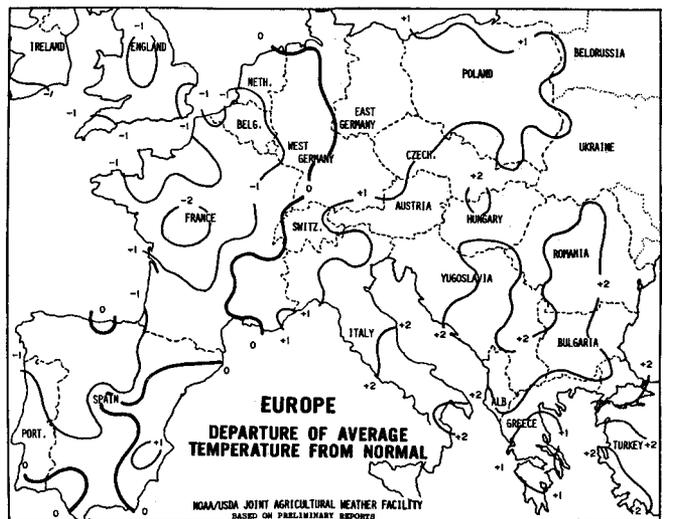
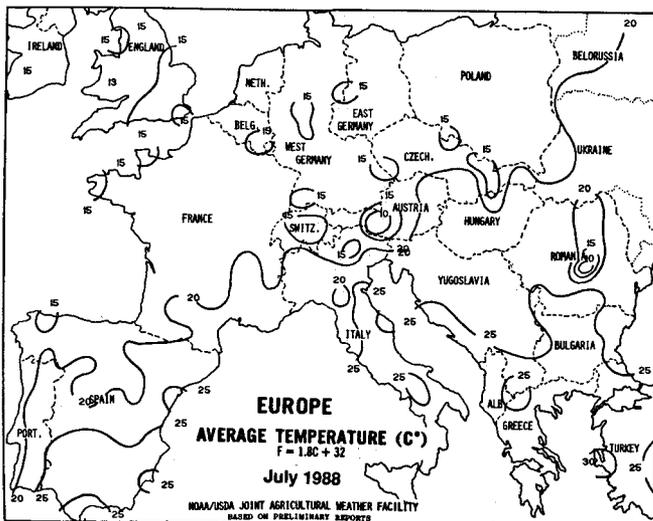
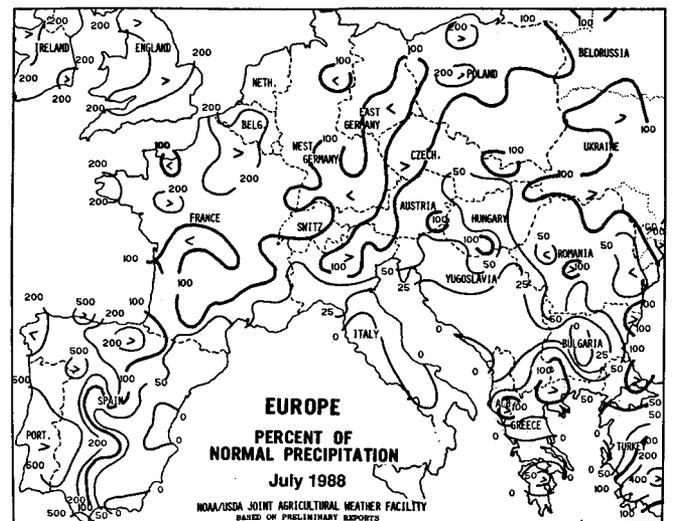
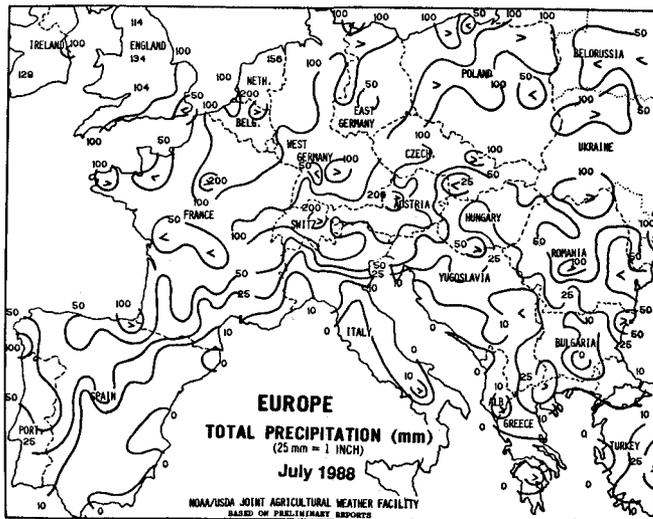
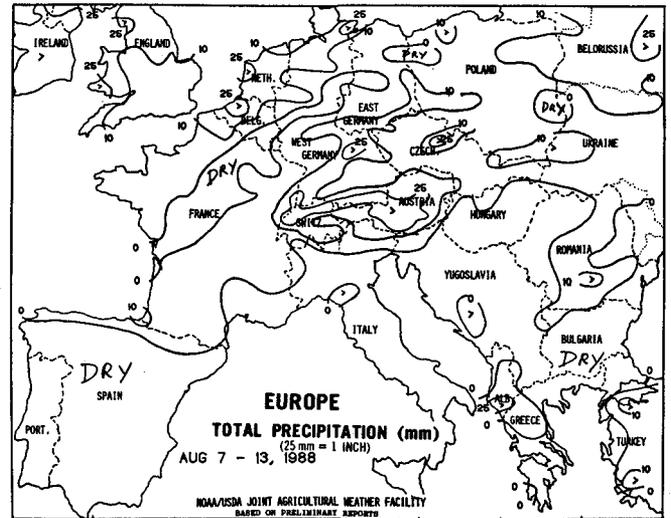
USSR ... Early-week, light showers (10-25mm) over the Baltic States, Belorussia, the Central Region, and the Black Soils Region delayed harvest. Dry weather by midweek in these areas allowed harvest to resume. Several days of dry weather in the Ukraine and the northern North Caucasus allowed the winter and spring grain harvests to advance toward completion. The first substantial precipitation since mid-June covered the upper Volga and the southern Volga Vyatsk. Although the rain (25-50mm) delayed harvest, it increased soil moisture for winter rye planting which usually begins in mid-August. In July, above-normal precipitation covered the Baltic States, the western portion of the Central Region, the Black Soils Region, the Ukraine, the North Caucasus, and the lower Volga benefiting filling spring barley and corn advancing through reproduction. Most of July's rain fell during the first 3 weeks, slowing the winter grain harvest. However, an extended period of warm, dry weather in late July and early August allowed rapid harvest progress. For the upper Volga, the Volga Vyatsk and the eastern portion of the Central Region, July's precipitation was less than 50 percent of normal, stressing spring grains in the reproductive to filling stages.

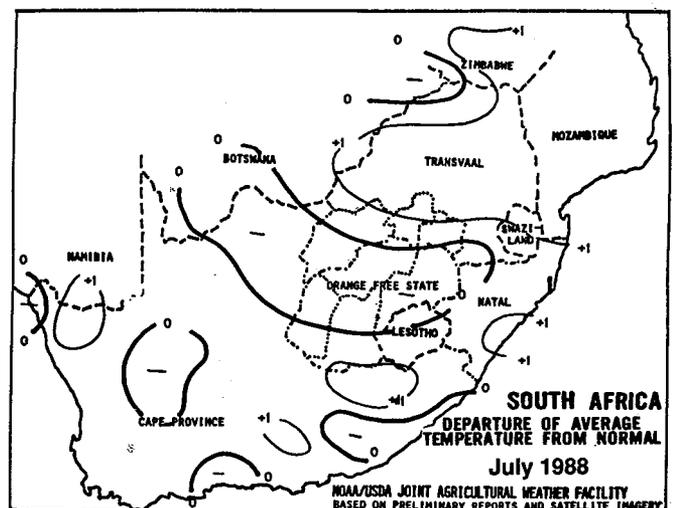
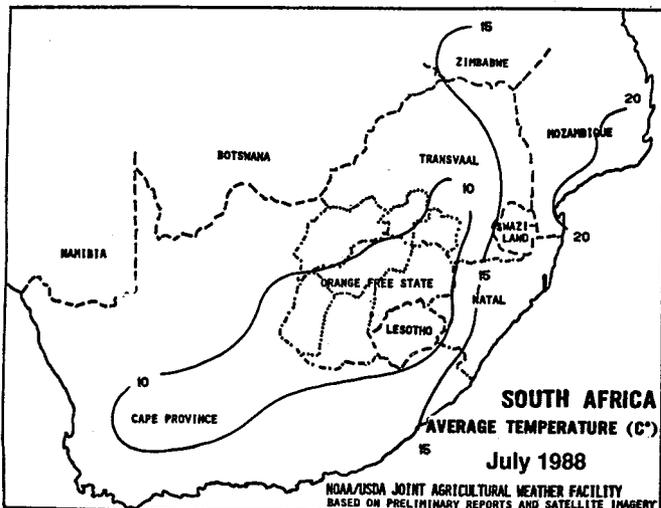
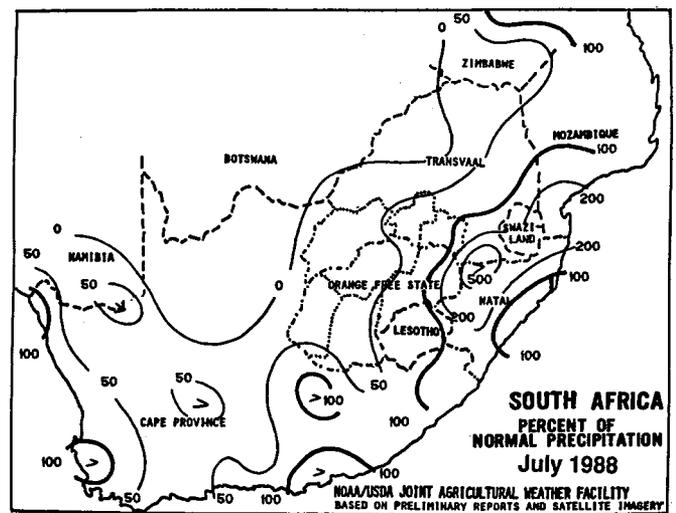
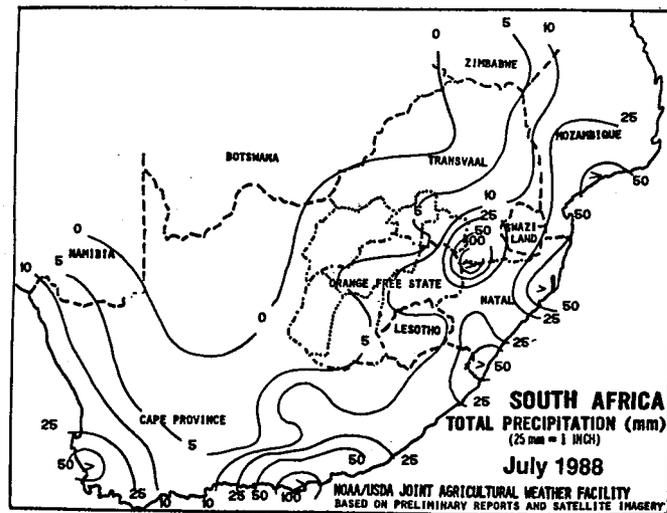
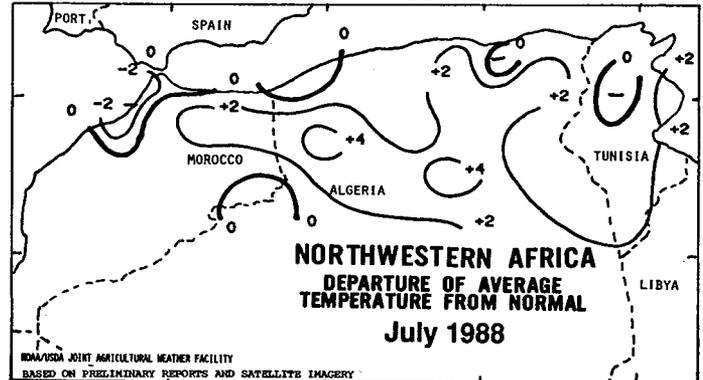
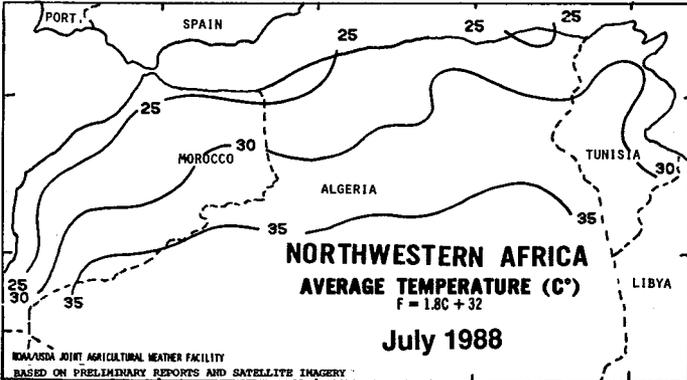
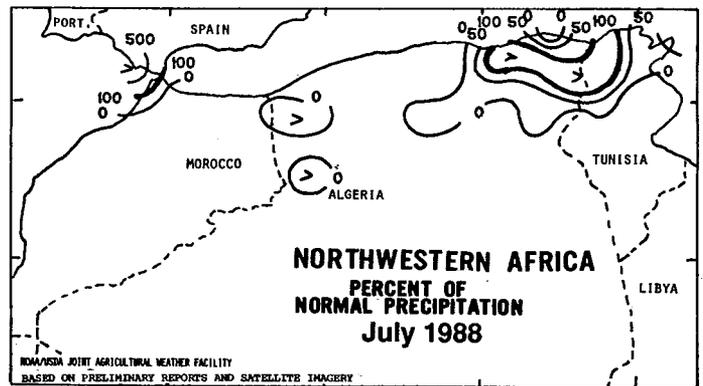
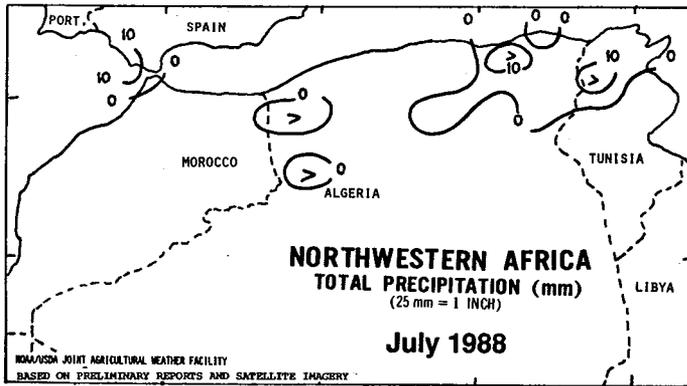


**NEW LANDS** ... Showers (20-50mm) in the northern Urals came too late to help maturing spring grains. Unseasonable warm, dry weather in Kazakhstan favored spring grain maturation and helped early harvesting. In July, unseasonable warm, dry weather in the Urals and central crop areas in West Siberia continued to stress spring grains in the heading and flowering stages. In Kazakhstan, following adverse hot, dry weather in early July, rain and cooler weather began in major central growing areas around July 10 and continued until month's end, helping to stabilize conditions for those spring grains in the filling stage. Weather conditions since the beginning of the growing season have been mostly favorable for spring grains in East Siberia.

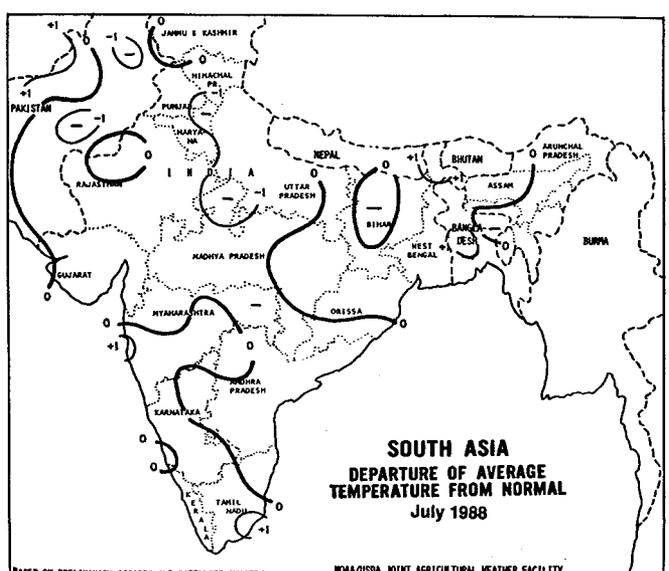
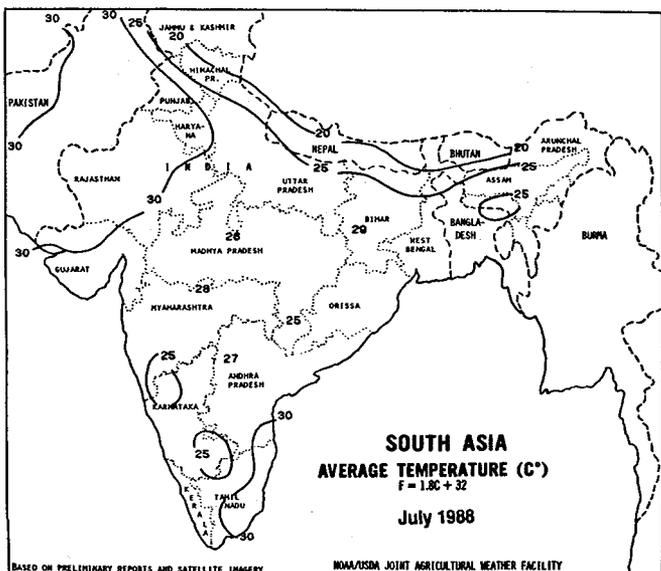
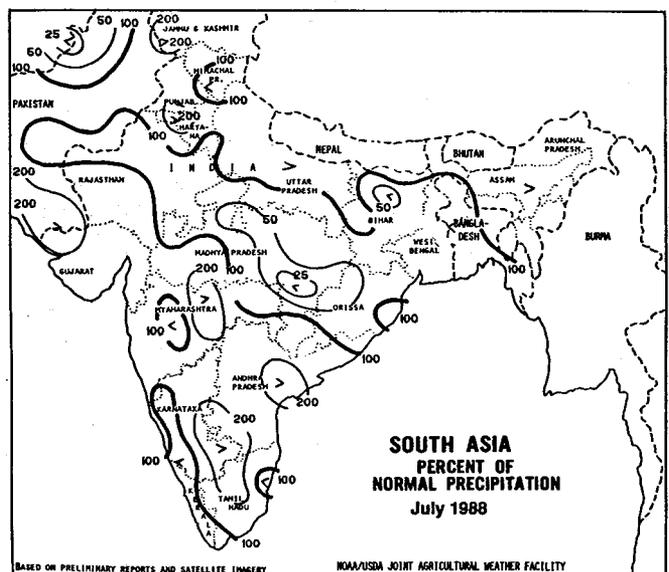
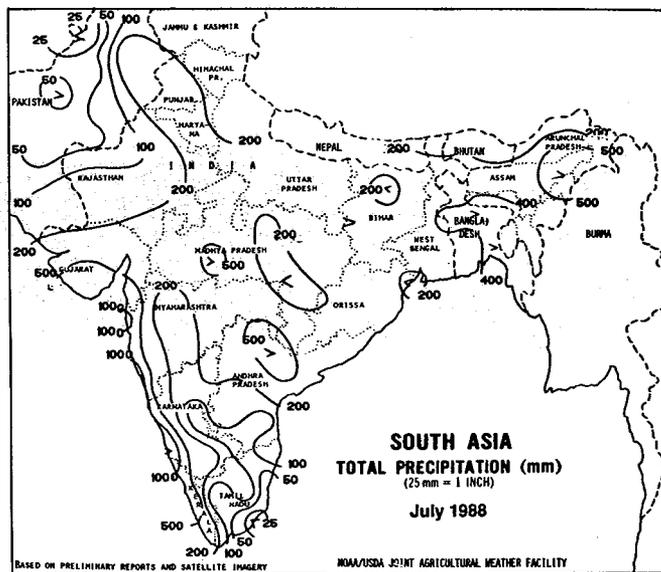
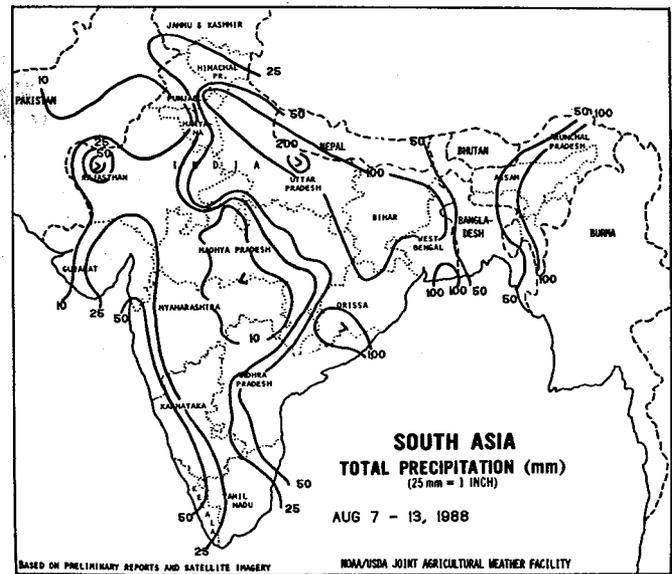


**EUROPE** ... Mostly dry weather favored winter grains harvest across northern Europe, although late-week, light to moderate rain (5-15mm) may have caused minor delays. Drying conditions for mature grains have improved since early August, following several weeks of above-normal rainfall during July. Hot, dry weather also continued across southern Europe, increasing stress for summer crops, especially in the Balkans. The combination of below-normal rainfall and above-normal temperatures during sensitive reproductive and filling crop stages in July and early August has likely reduced yield potential across crop areas of Yugoslavia, Hungary, and Bulgaria. Mean temperatures during July were normal to below normal over western Europe and above normal over the remainder of the continent.

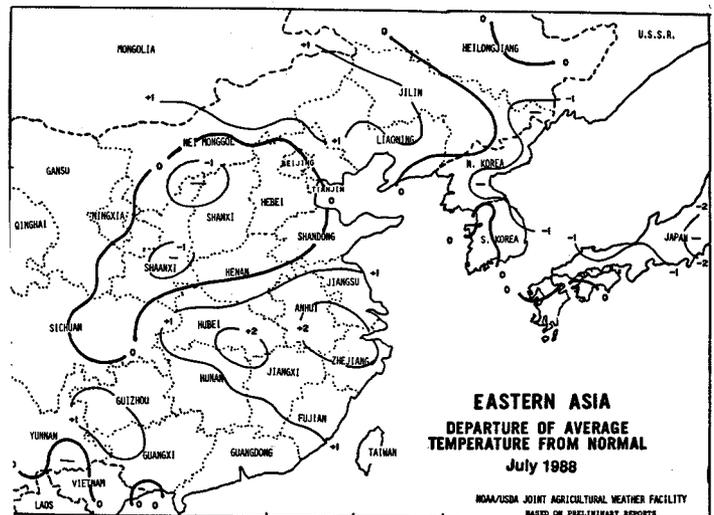
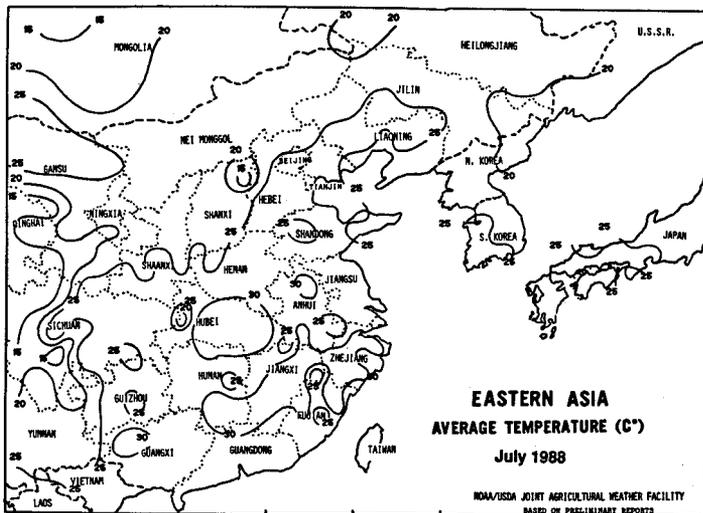
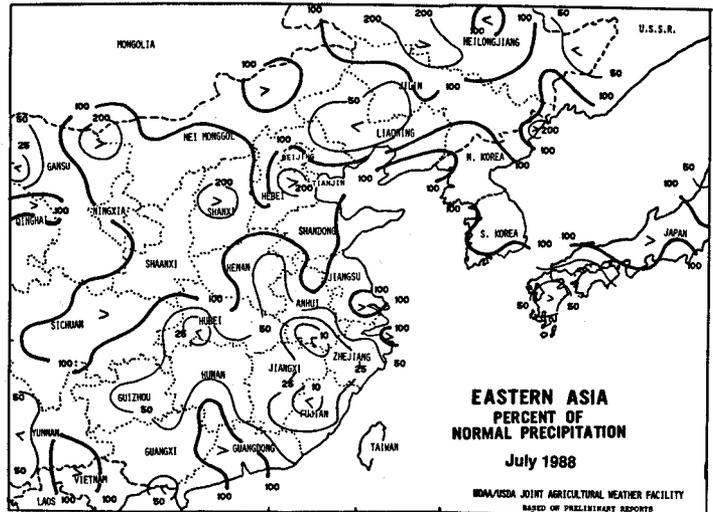
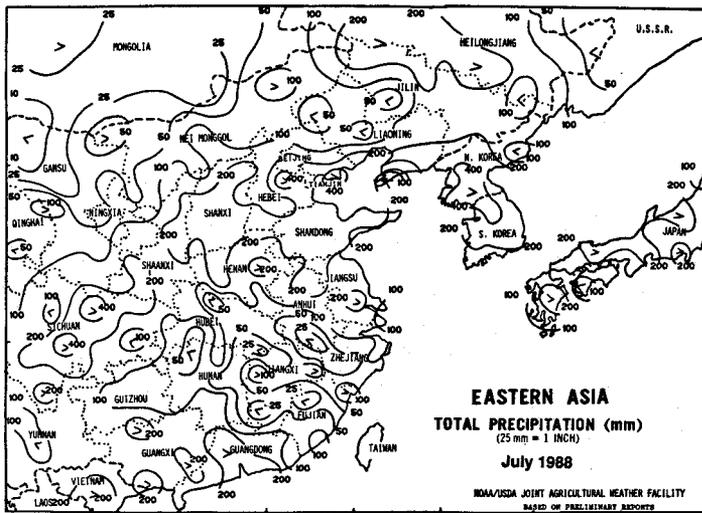
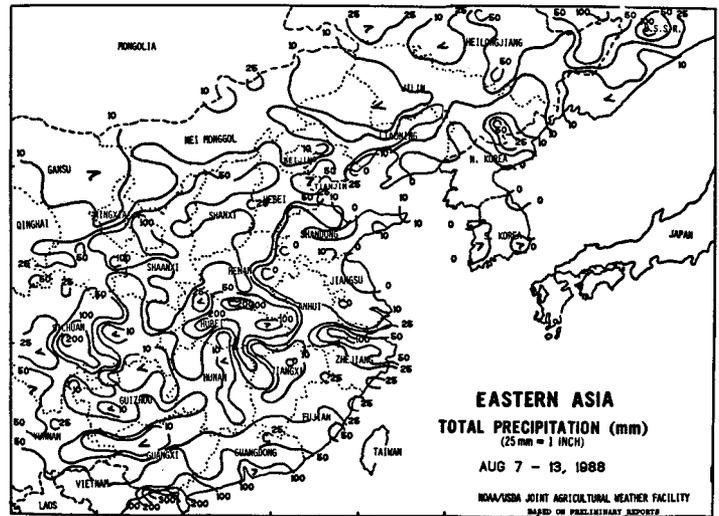




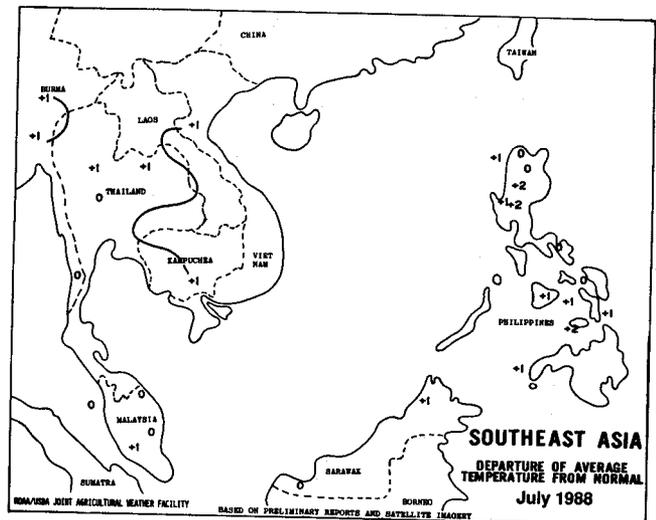
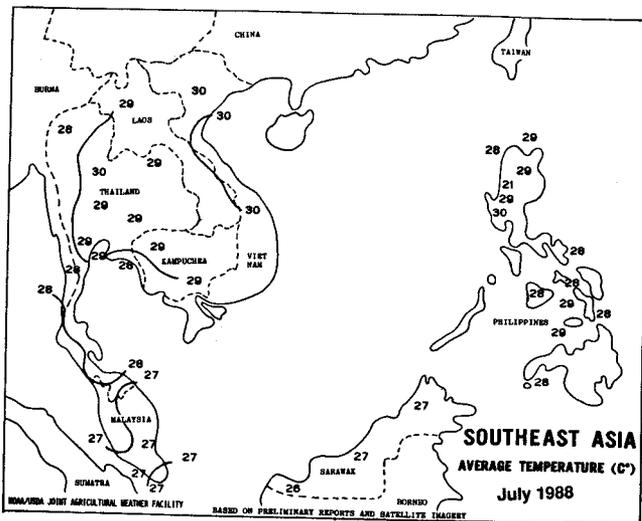
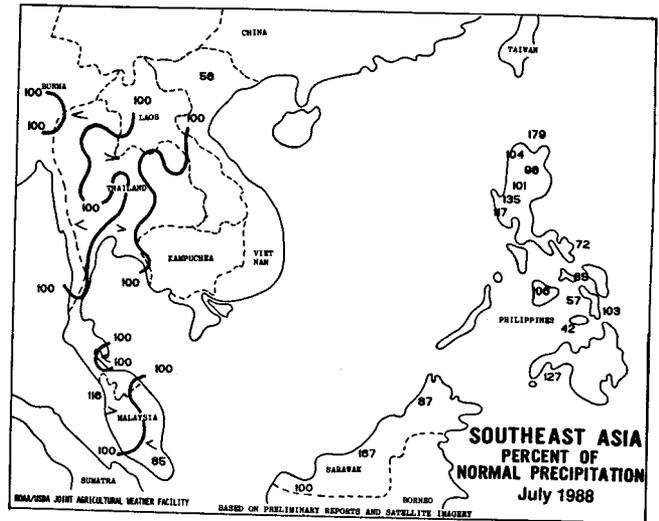
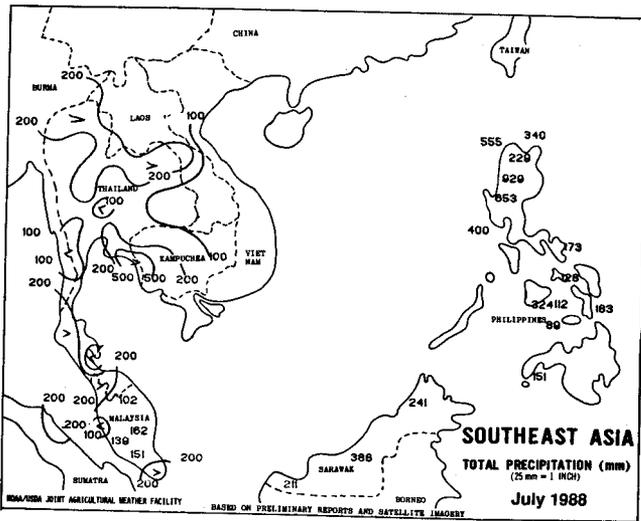
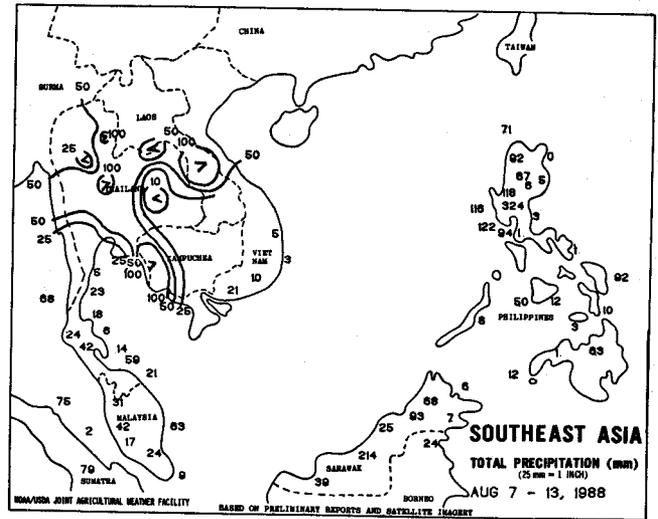
**SOUTH ASIA ...** Drier-than-normal weather covered a large portion of central and southern India from western Madhya Pradesh to western Tamil Nadu, limiting moisture for grains and oilseeds in or nearing reproduction. However, moderate to heavy rain (31-100mm or more) from southern Karnataka eastward, and northward along the coast of Andhra Pradesh, benefited vegetative crops and boosted irrigation reserves for jointing to heading rice. Moderate to heavy showers (50-100mm or more) fell over rice regions from Orissa and Bihar eastward, benefiting jointing to heading rice and increasing irrigation reserves. Variable rain (25-100mm or more) fell elsewhere in India and in parts of northern Pakistan, maintaining favorable conditions for crops in or nearing reproduction, though rainfall was excessive in parts of the north and west. In July, rainfall was near to above normal in most regions and temperatures were near normal. However, in parts of southern India, moisture was limited for vegetative crops due to recurring periods of drier-than-normal weather.



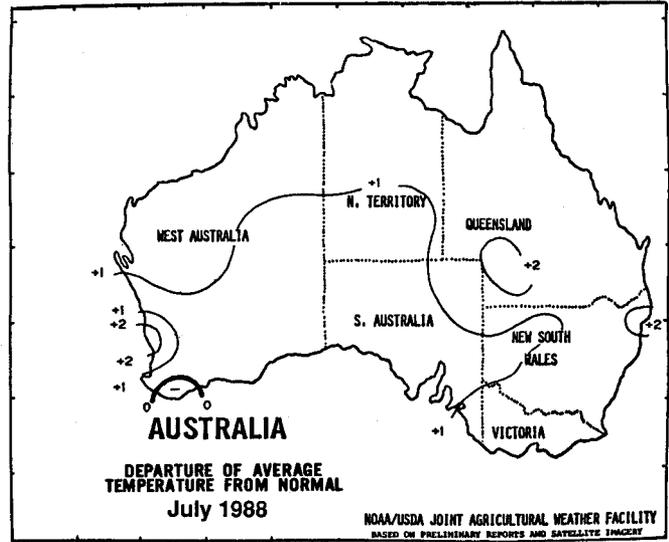
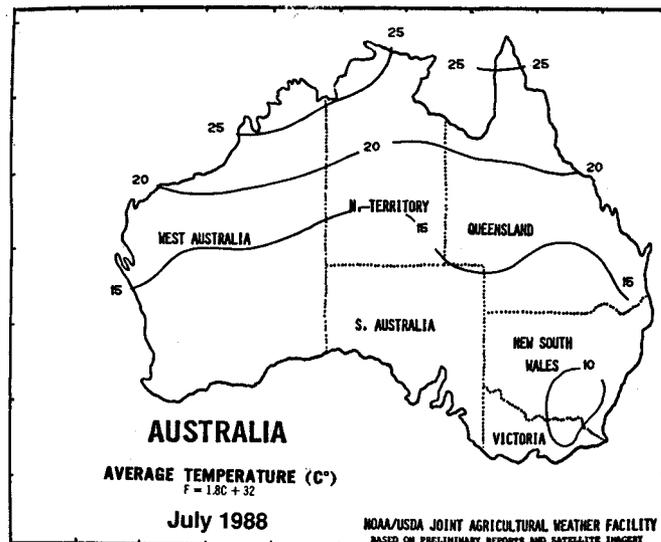
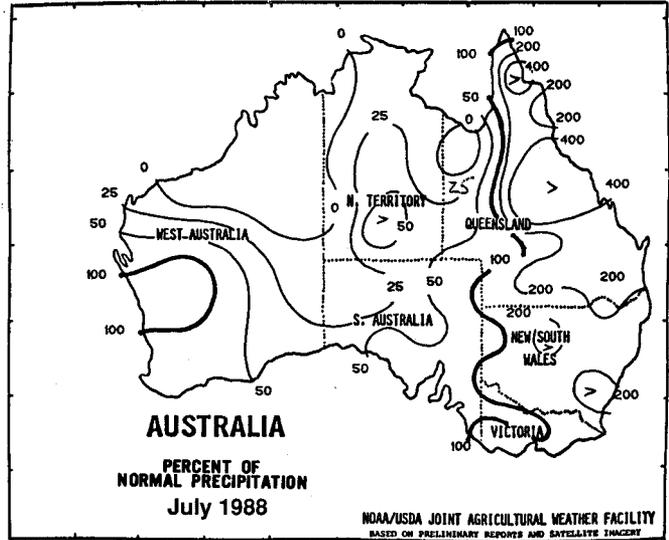
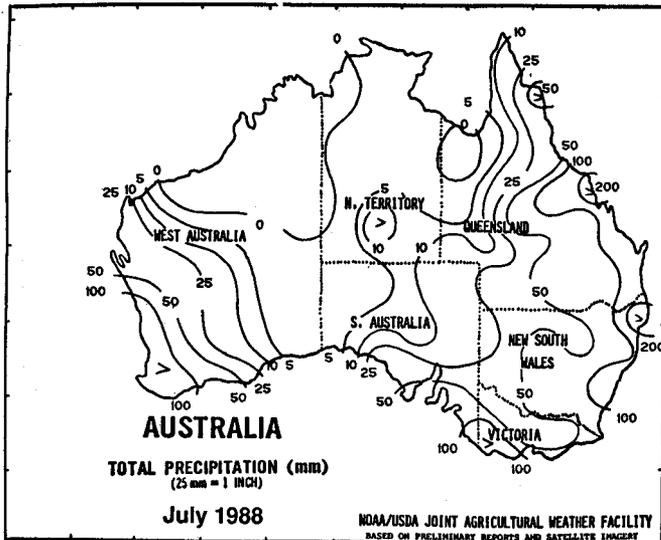
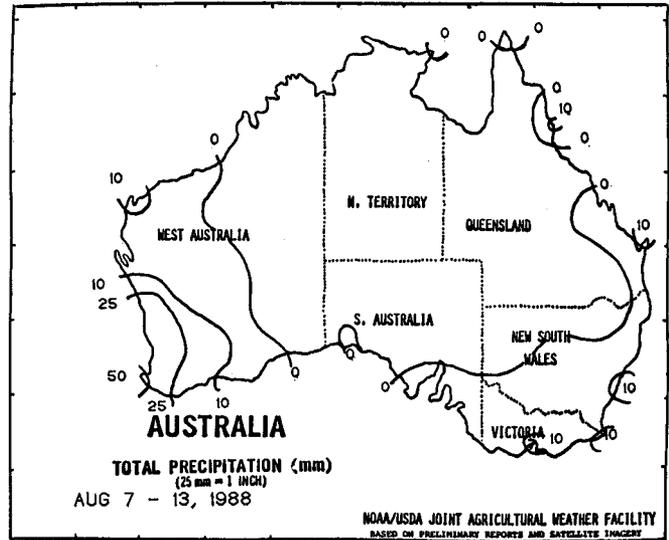
**EASTERN ASIA** ... Remnants of Tropical Storm Bill brought heavy rain (25-50mm, with isolated amounts greater than 100mm) and flooding to sections of Zhejiang, Anhui, and Hubei. The rain helped alleviate stress in single and late-crop rice after extreme heat and below-normal rainfall in July and early August. Unfavorably dry conditions, however, still remain in sections of the Yangtze Valley. Elsewhere, heavy rain (25-50mm, with scattered rainfall greater than 75mm) favored crops across coastal southern China, western and northern Chinese crop areas, and Japan. Heavy rain in northern China likely caused delays in spring grains harvest from Gansu to Hebei. In contrast, parts of Liaoning, Jilin, and the Korean Peninsula remained unfavorably hot and dry for much of the week, although a slow moving frontal system brought much needed rain and cooler temperatures by week's end. During July, rainfall was above normal over most crop areas except for the Yangtze Valley, parts of southern China, and southern Japan, where it was below normal.



**SOUTHEAST ASIA** ... Beneficial rain (25-100mm or more) covered most Thai grain regions, benefiting immature corn and heading rice. A dry pocket (less than 10mm) covered corn regions in eastern Thailand, favoring harvesting. In July, a drying trend over the southeastern Khorat Plateau limited moisture for rice planting and establishment, but rainfall was near to above normal elsewhere in Thailand. July temperatures averaged slightly above normal. Moderate showers (25-57mm) covered rice regions of northern and southern Vietnam, reflecting July's trend of scattered but below-normal rain. In the Philippines, moderate to heavy showers (50-122mm) covered western Luzon, but elsewhere, rainfall generally averaged less than 10mm. In July, rainfall was near to above normal over most regions, including grain regions of northern Luzon, due in part to the midmonth passage of Typhoon Warren. July temperatures averaged 1-2 degrees C above normal over most grain regions.

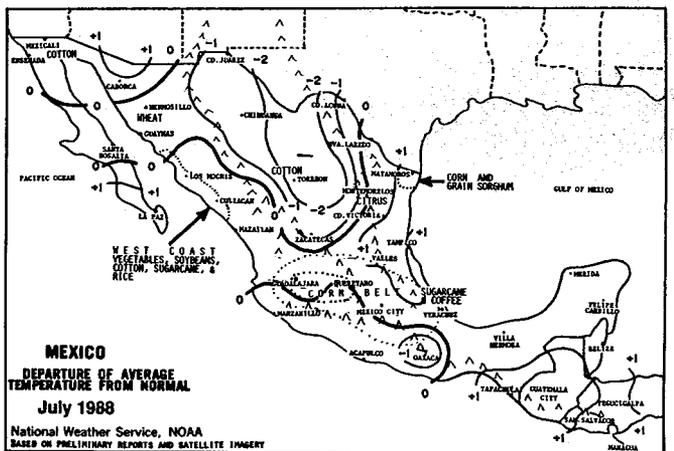
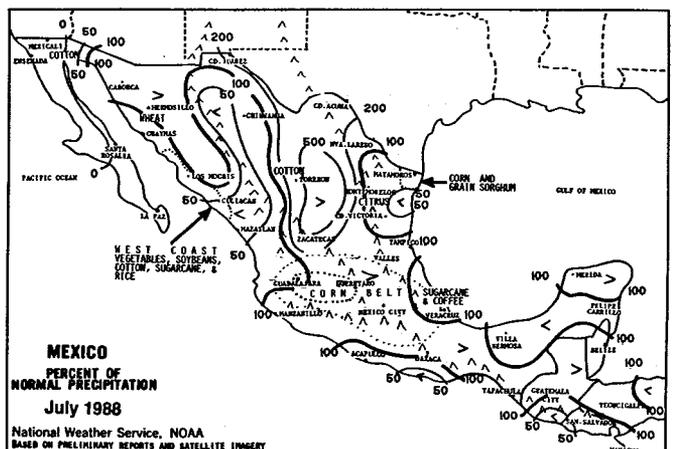
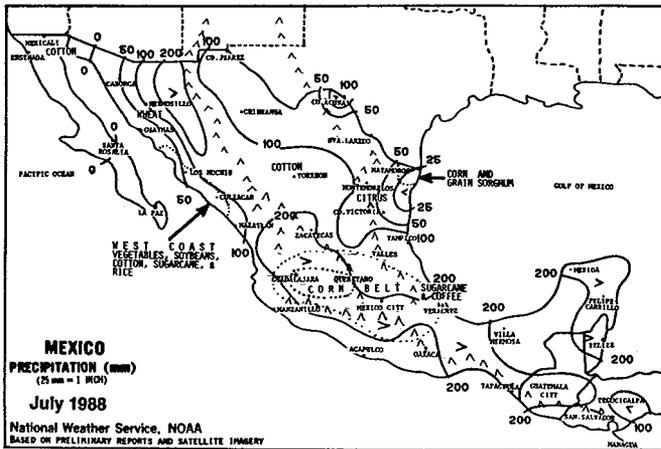
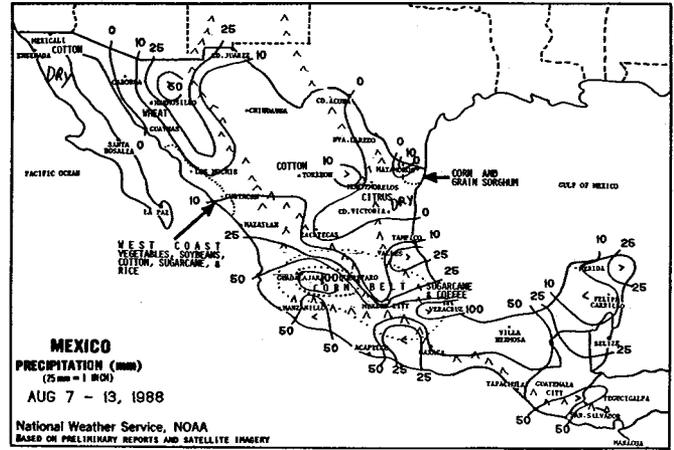


**AUSTRALIA** ... A frontal system brought moderate to heavy rain (15-40mm) to winter grain areas of Western Australia. The rain, which followed 2 weeks of drier-than-normal weather, kept soil moisture at adequate to high levels. Scattered light rain (less than 10mm) fell over crop areas of South Australia, Victoria, and southern New South Wales, while northern New South Wales and southern Queensland remained dry. Scattered showers (less than 10mm) caused only minor delays in the sugarcane harvest in eastern Queensland. During July, precipitation was normal to above normal over crop areas of Western Australia and along coastal eastern and southern Australia. Rainfall was below normal over most southern and eastern winter grain areas. Mean temperatures were normal to above normal over most growing areas.

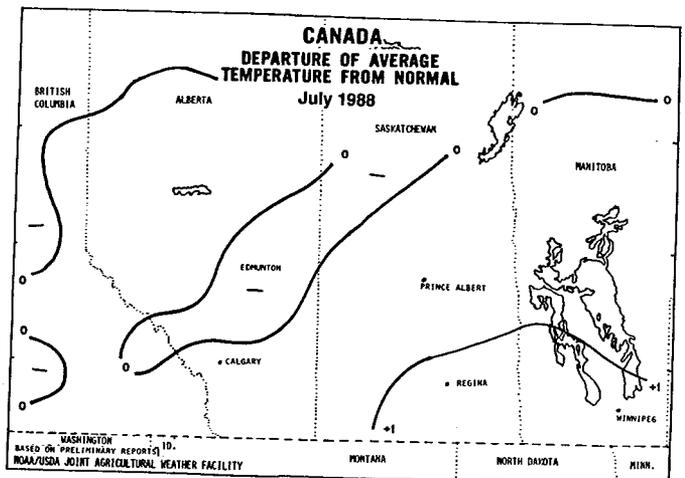
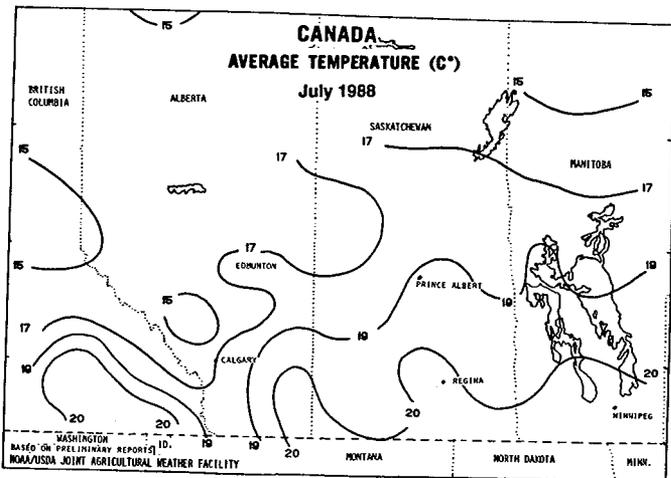
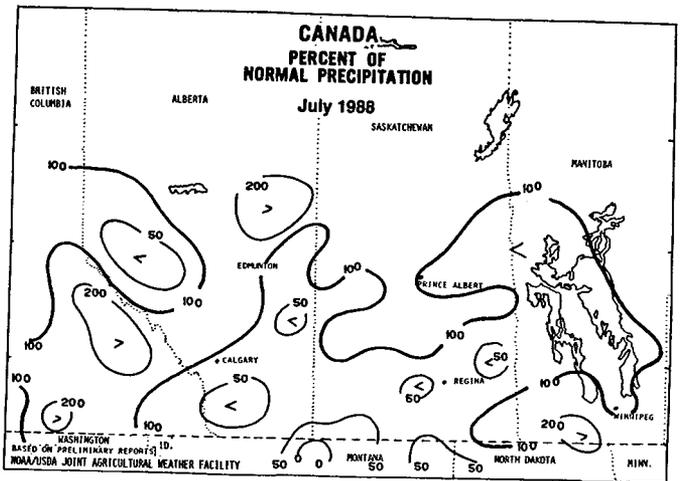
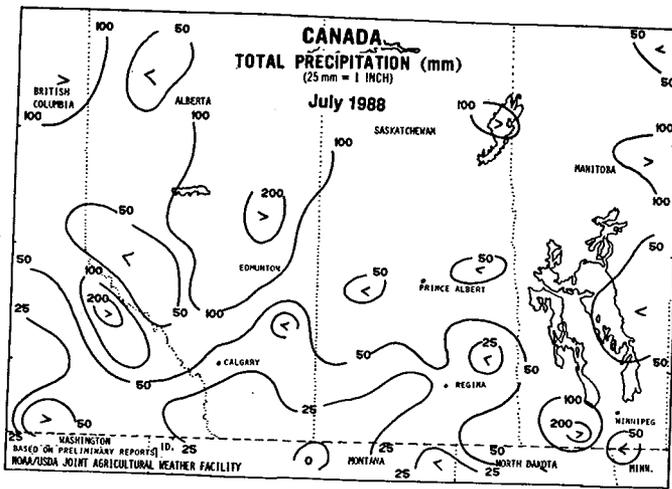
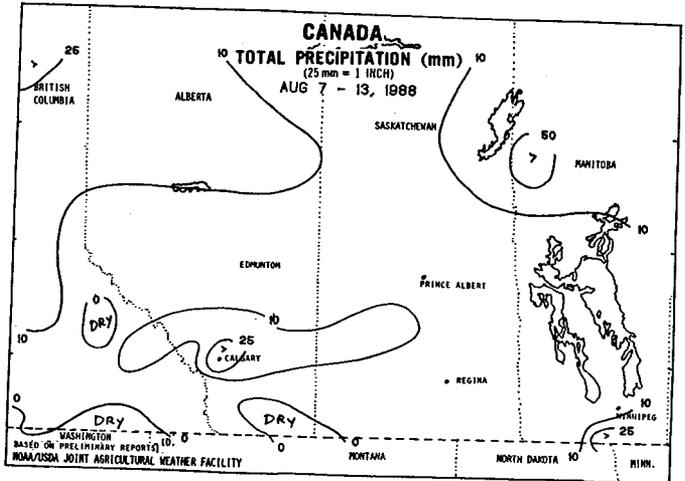




**MEXICO** ... Substantial showers continued to benefit reservoirs and irrigation supplies in the northwest, and crop development throughout the Southern Plateau corn belt. In the northwest, weekly rainfall ranged from 38 to over 90mm, helping irrigation reserves for the west coast farming region. Mostly light showers fell along the west coast, as well as over north-central rangelands and the northeast grain and vegetable areas where harvesting is underway. July rainfall averaged above normal over much of northern Mexico, except for the northeast and along the west coast. More rain fell recently throughout the Southern Plateau corn belt, continuing July's favorable rainfall pattern. Widespread, tropical showers covered southern Mexico as well. Above-average, July rainfall and early August showers benefited early corn growth in the Yucatan peninsula.



**CANADA** ... Mostly dry weather in the eastern and southern Prairies benefited maturing crops and favored harvesting activities. Early-week, hot weather from central Saskatchewan eastward stressed immature grains and oilseeds. To the west, moderate rain (10-29mm) and cooler weather benefited immature crops from central Alberta to west-central Saskatchewan and in the Peace River Valley, with light rain elsewhere. In early July, rain and cooler weather brought relief to filling and late reproductive crops, stressed during June by periods of hot, dry weather. Drier, warmer weather returned the latter half of the month, benefiting maturing crops and helping to dry fields in the northwest but stressing some immature crops.



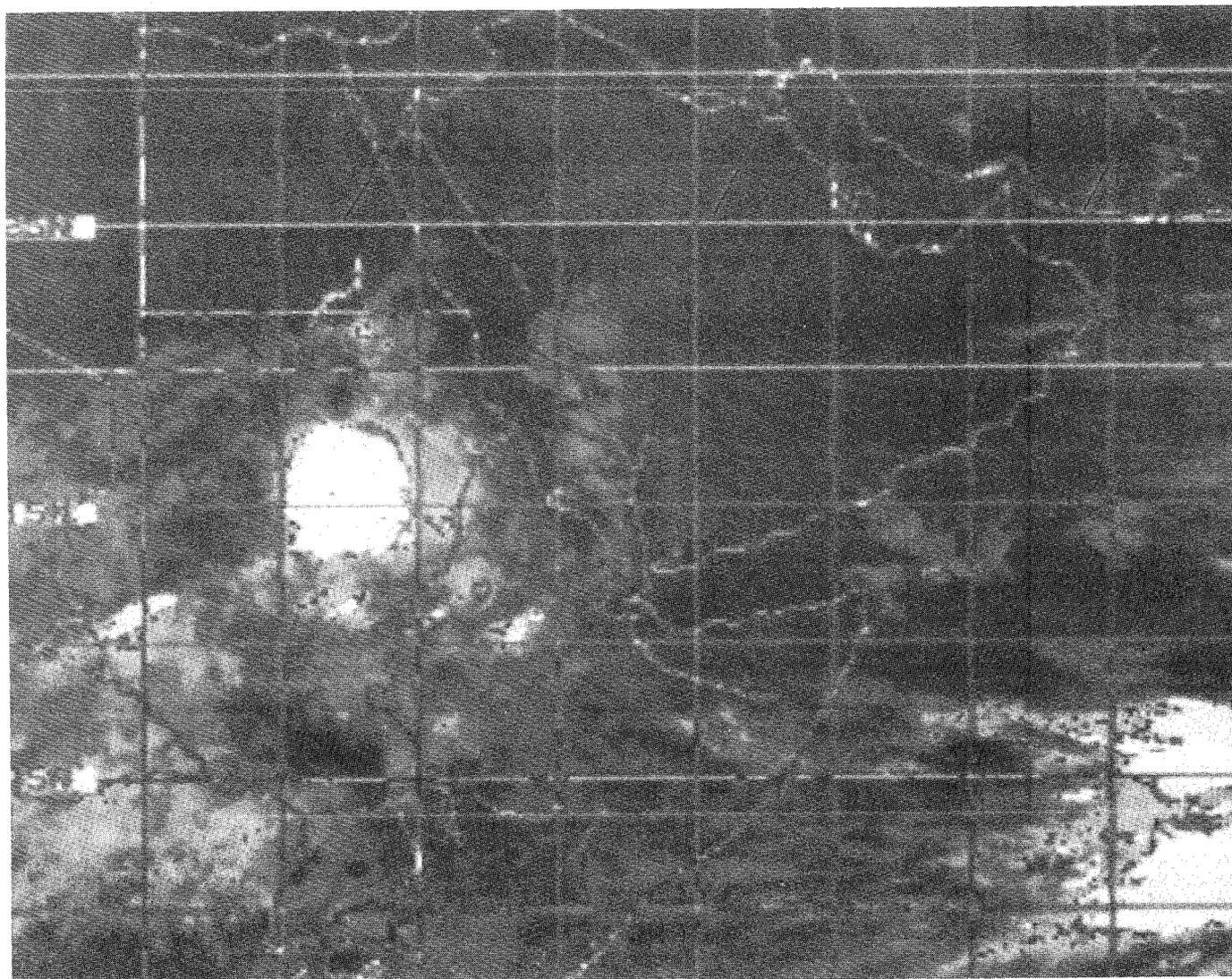
## AFRICAN AGRICULTURAL WEATHER SUMMARY

Unusually heavy rains fell over the Blue Nile catchment basin in northern Ethiopia during the last week of July and the first week of August, triggering major floods in the Nile valley in eastern and northern Sudan. Heavy rains over the Nile valley, especially in the Khartoum area, aggravated flood problems on August 5 and 13. Major growing areas in Sudan have reportedly been affected by the flooding, but the extent of damage is unknown. Rainfall exceeding 300mm over northern Ethiopia in late July through early August likely caused some crop losses, but overall crop prospects for the country remain favorable.

In the west, ample rainfall over Chad, Niger, Burkina Faso, and Mali has maintained good to excellent growing conditions

for grains approaching the reproductive stage as the Intertropical Discontinuity's location continued north of its normal position. Even northern areas of Burkina Faso have received plentiful rainfall this season. Dori's July total of 163mm was the highest July total since 1980 and the third highest since 1963. The main problem this season continues to be dry weather in the western Sahel zone, with rainfall since the beginning of the season being less than 75 percent of the long-term mean in northern Senegal and southern Mauritania. The rainy season began late in this region. Since late July when the rains finally began, rainfall has not been sufficient to make up for the delay. However, favorable Senegal River water levels suggest high yield potential for irrigated crops in Mauritania. Prospects for crops in Senegal's groundnut basin are unfavorable.

NOAA polar-orbiting satellite image of east Africa, night of August 12, 1988. A large thunderstorm complex brought heavy rains to the Khartoum area of Sudan. The storm caused additional damage to areas still recuperating from the Nile River flooding earlier in the month.



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