

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

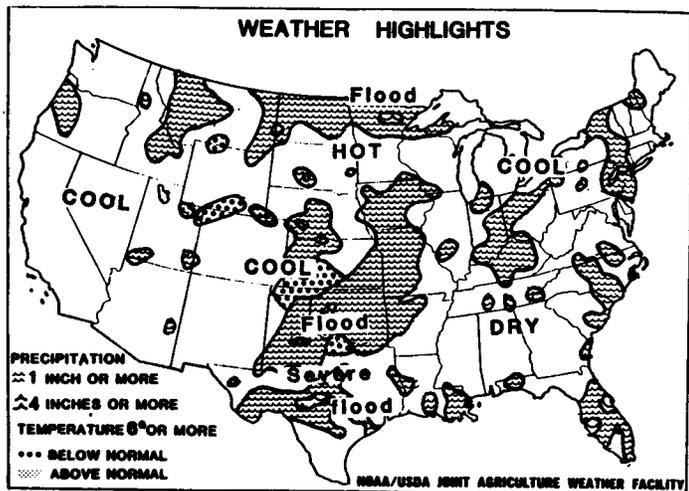
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July 21, 1987

National Weather Summary

July 12 to 18, 1987



areas of violent thunderstorms appeared all along the east coast. Warm, moist air from the Gulf of Mexico triggered scattered thunderstorms through Texas and New Mexico. Cooler air moved over the mid-Atlantic and Northeast.

WEDNESDAY...The thunderstorm area moved to the lower Great Lakes and Ohio Valley. Thunderstorms lingered along the Atlantic Coast from Virginia through Florida. Moisture continued to flow northward through Texas and the Southwest, triggering scattered thunderstorms. Record-cool temperatures appeared in parts of the Northeast and southern Plains, but later in the day, very warm weather moved over the northern Plains.

THURSDAY...Violent thunderstorms inundated parts of central Texas. Scattered storms spread throughout the Rockies and Intermountain region. Cool weather continued over the East and southern Plains, but afternoon temperatures rose to over 100 degrees in the northern Plains.

FRIDAY...Severe thunderstorms with heavy rain concentrated in Oklahoma, Nebraska, and Montana. Thunderstorms were scattered throughout the Northwest and the Great Plains. The unusually warm weather from the northern Plains abated somewhat as they moved to the western Great Lakes but were still in the nineties.

SATURDAY...Thunderstorms were generally confined to the northern tier of States and to southern Canada. Heavy showers fell from North Dakota to upper Michigan. Much cooler weather moved into the West, where the highest temperatures reached to only the eighties.

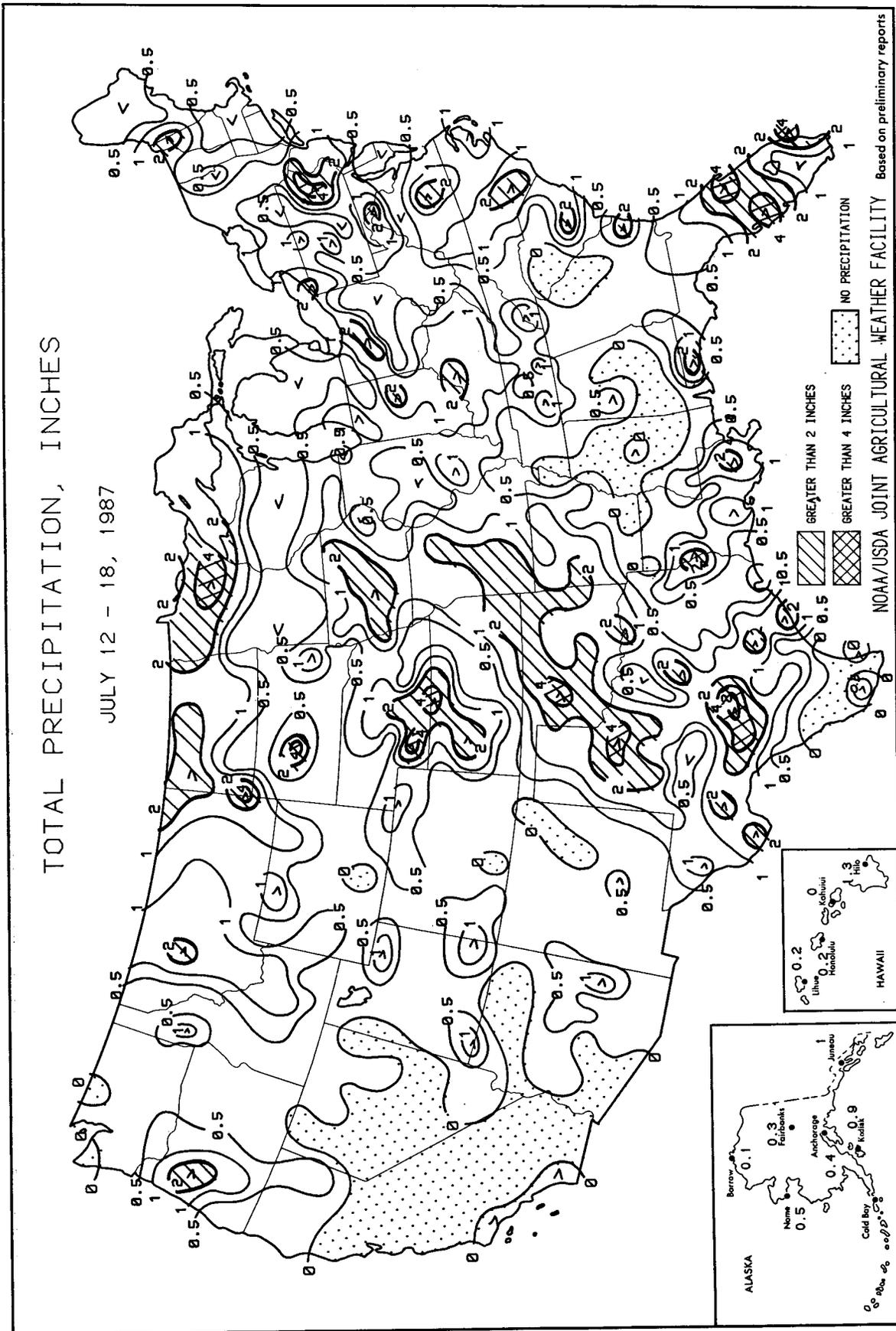
HIGHLIGHTS: Showers and thunderstorms were widespread over most of the Nation. Torrential rain in central Texas caused severe flooding. Flooding also occurred in western Oklahoma, Nebraska, and in northern Minnesota and Wisconsin. The least shower activity was in parts of the Southwest and Southeast. Some record-cool weather was in parts of the Great Lakes region, and unusually warm weather moved through the northern Great Plains. However, average temperatures were near normal in most of the Nation but unusually cool from the central Plains to the central Plateau.

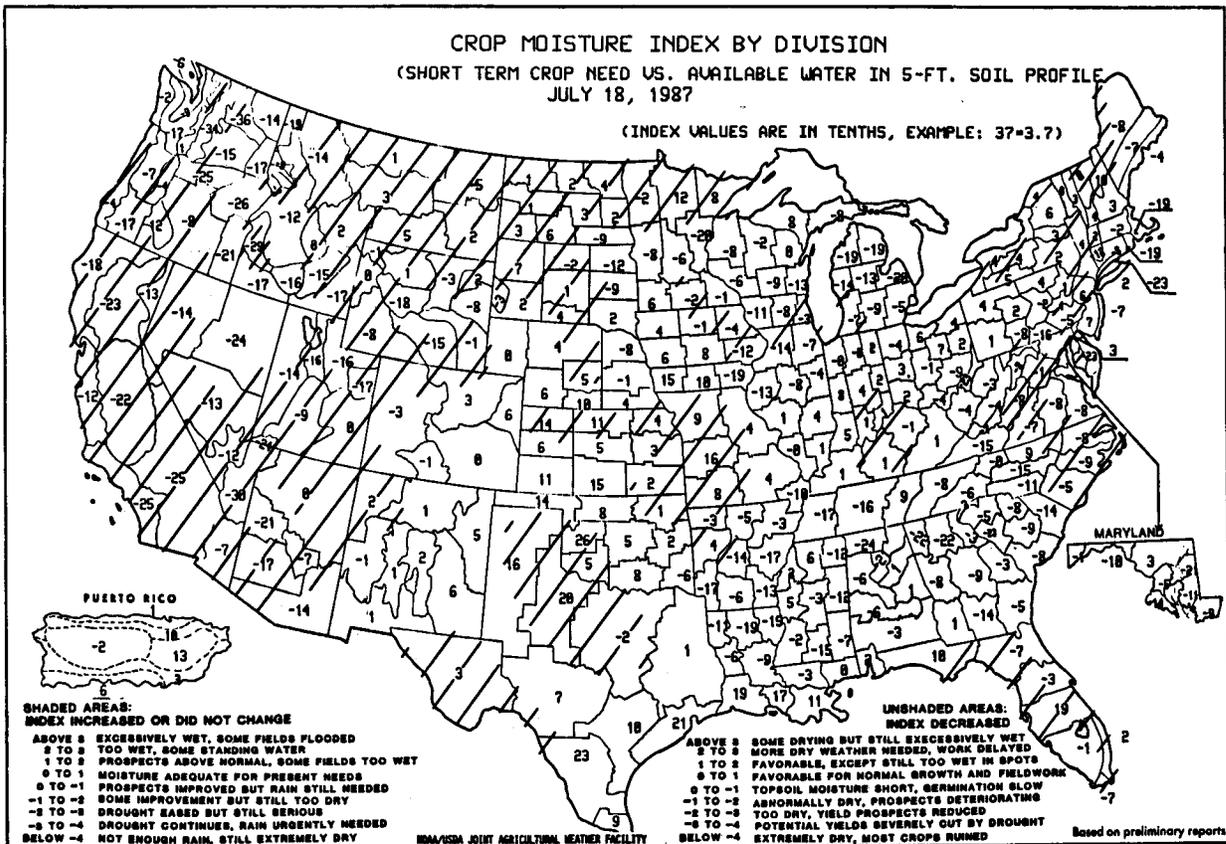
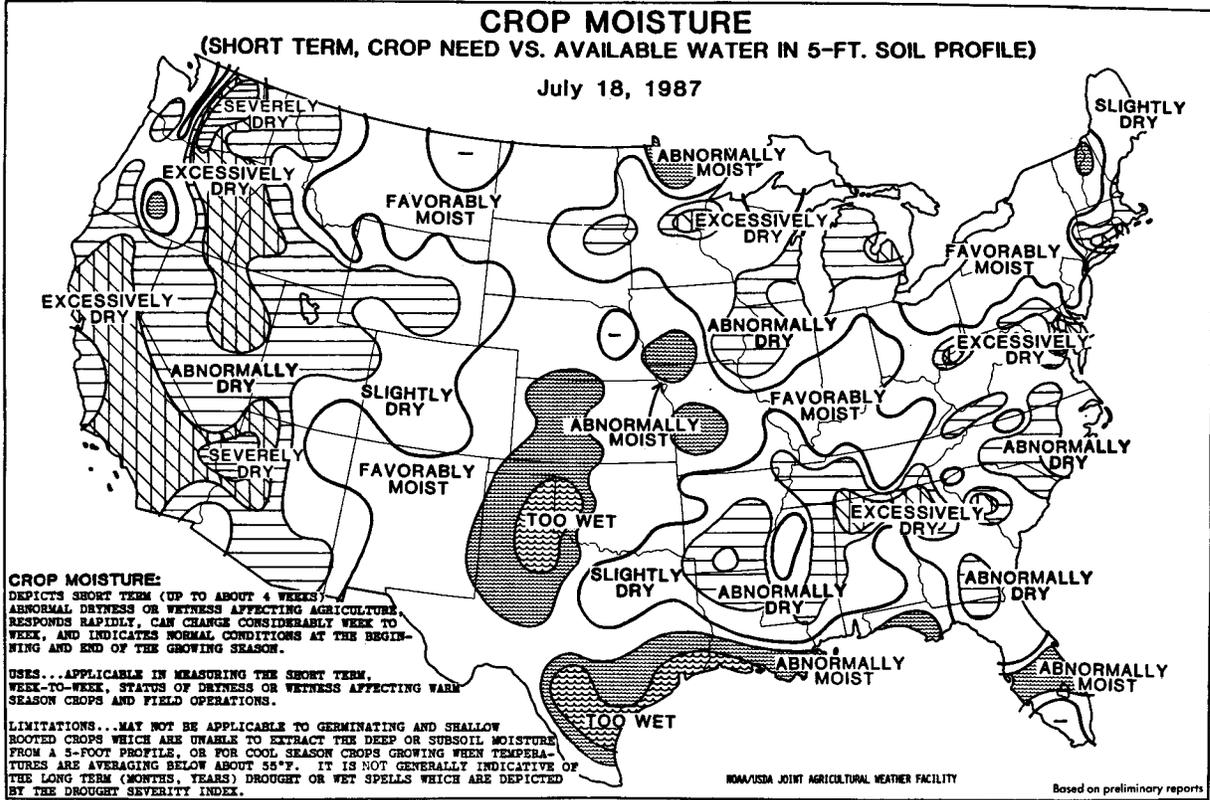
SUNDAY...Heavy thunderstorms reached from north-central Texas through most of Missouri. Scattered thundershowers covered the rest of the Great Plains from northern Texas northward and through the western Great Lakes region, Ohio Valley, and Tennessee Valley. Moderate to heavy thunderstorms covered isolated areas along the east coast. Generally clear weather prevailed in the West as unusually cool temperatures covered the mountains and spilled into the Plains.

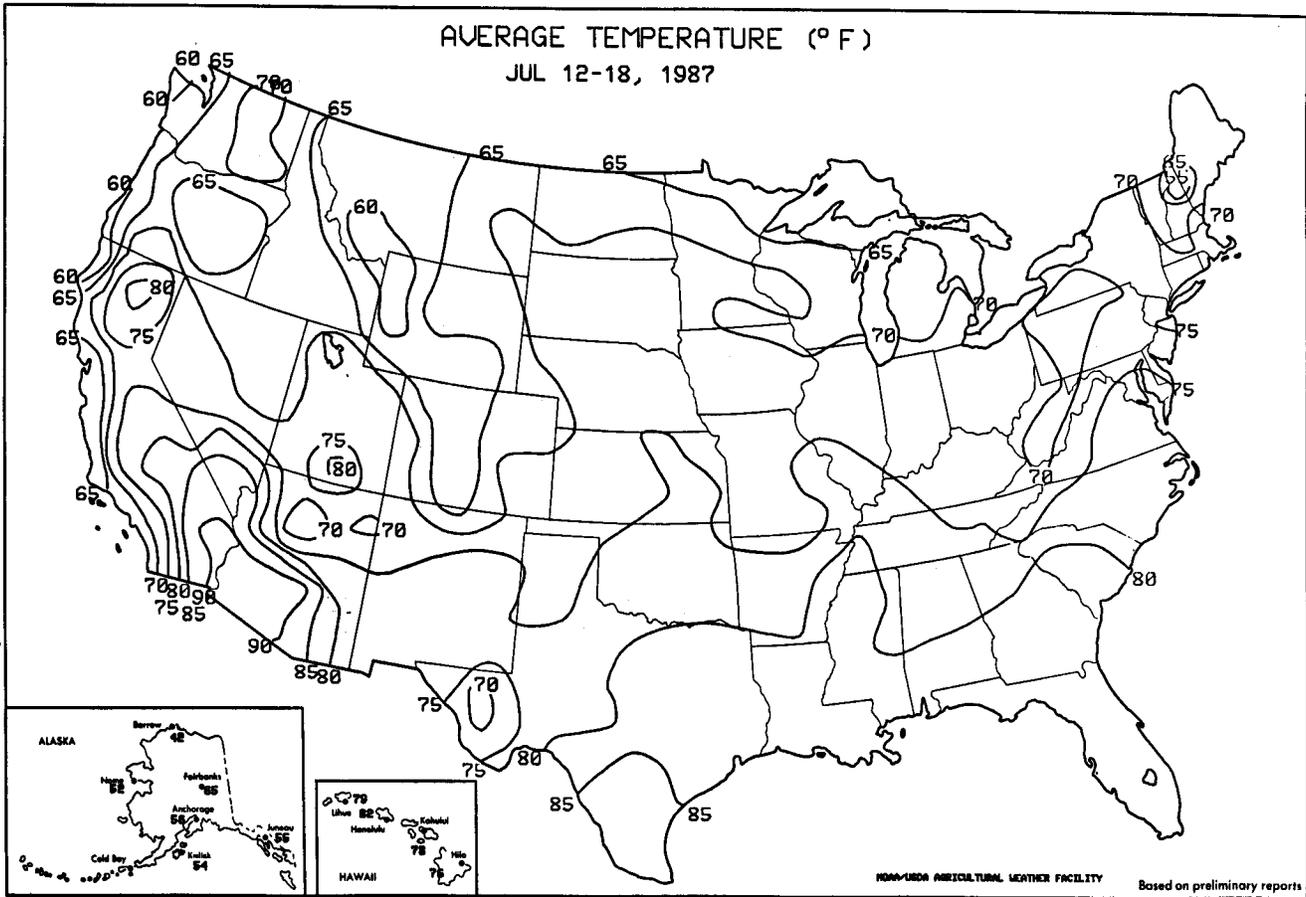
MONDAY...Thunderstorms spread generally light to moderate showers from the Plains to the east coast. The heaviest showers were in the eastern Great Lakes region, the central Ohio Valley, and in isolated parts of the Southeast. Cool air pushed toward the east coast, and another surge of cool air pushed into the central Plains.

TUESDAY...An area of moderate to heavy thunderstorms developed in northern Illinois, eastern Iowa, and southern Wisconsin. Heavy showers covered much of the Northeast, while isolated

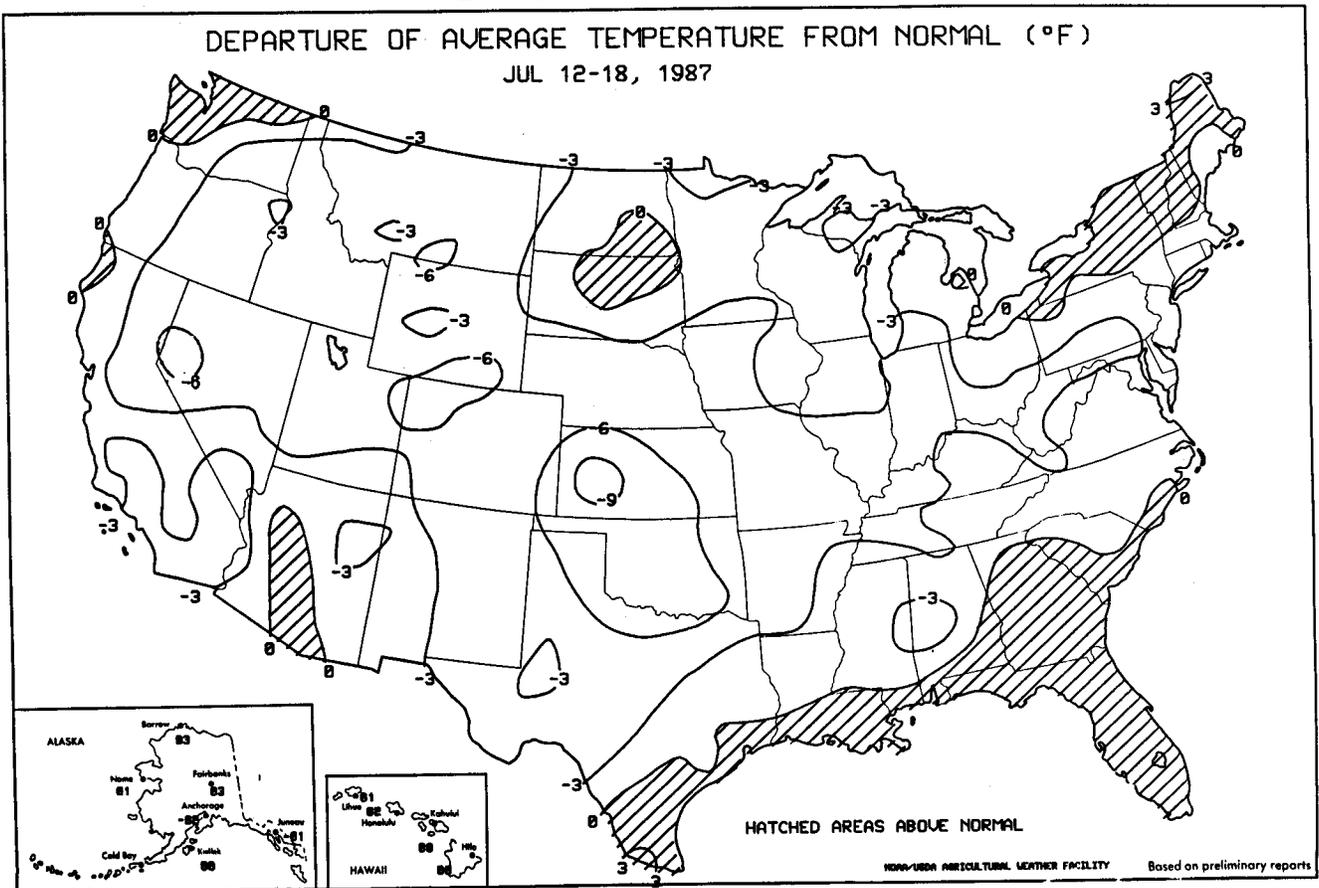
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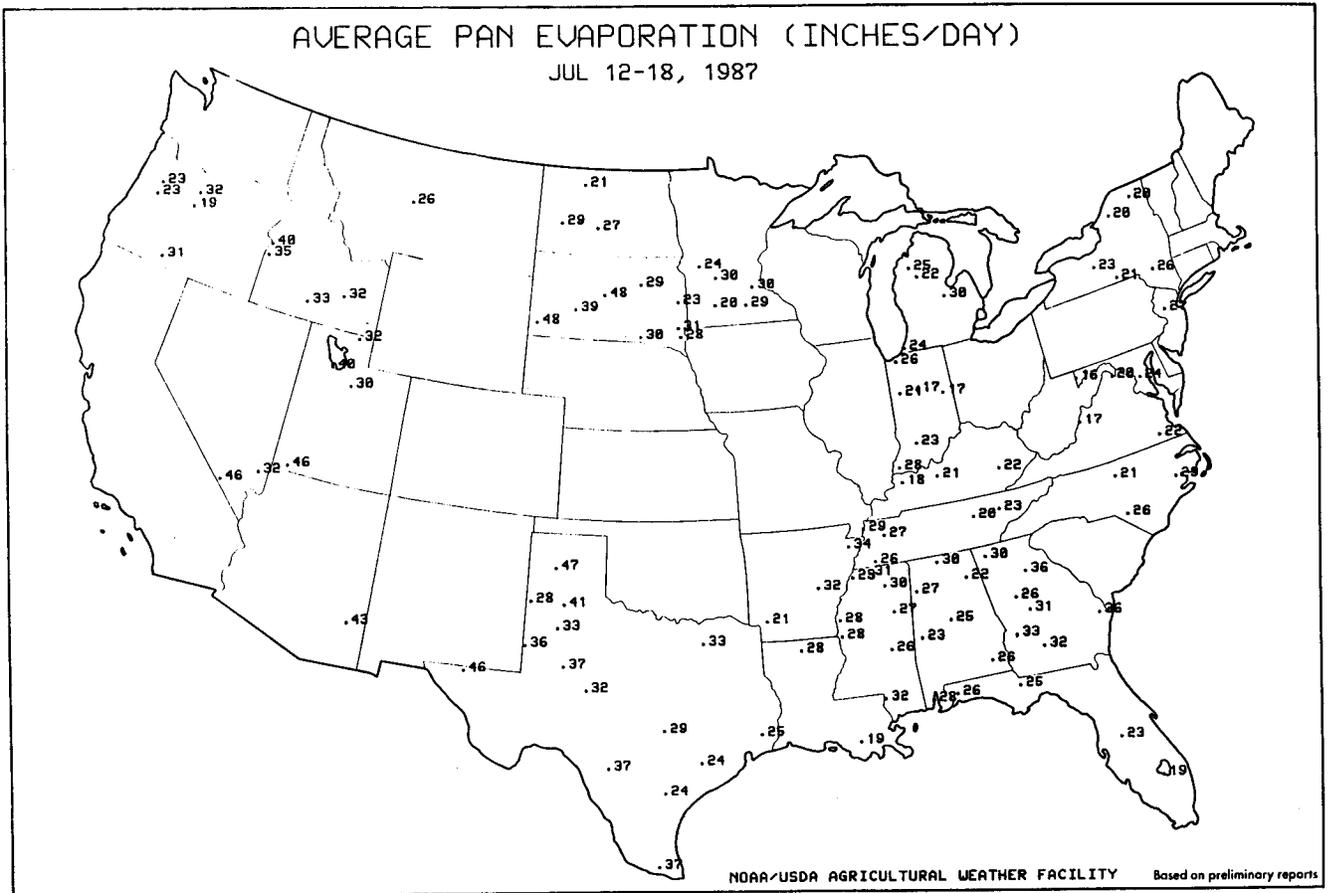
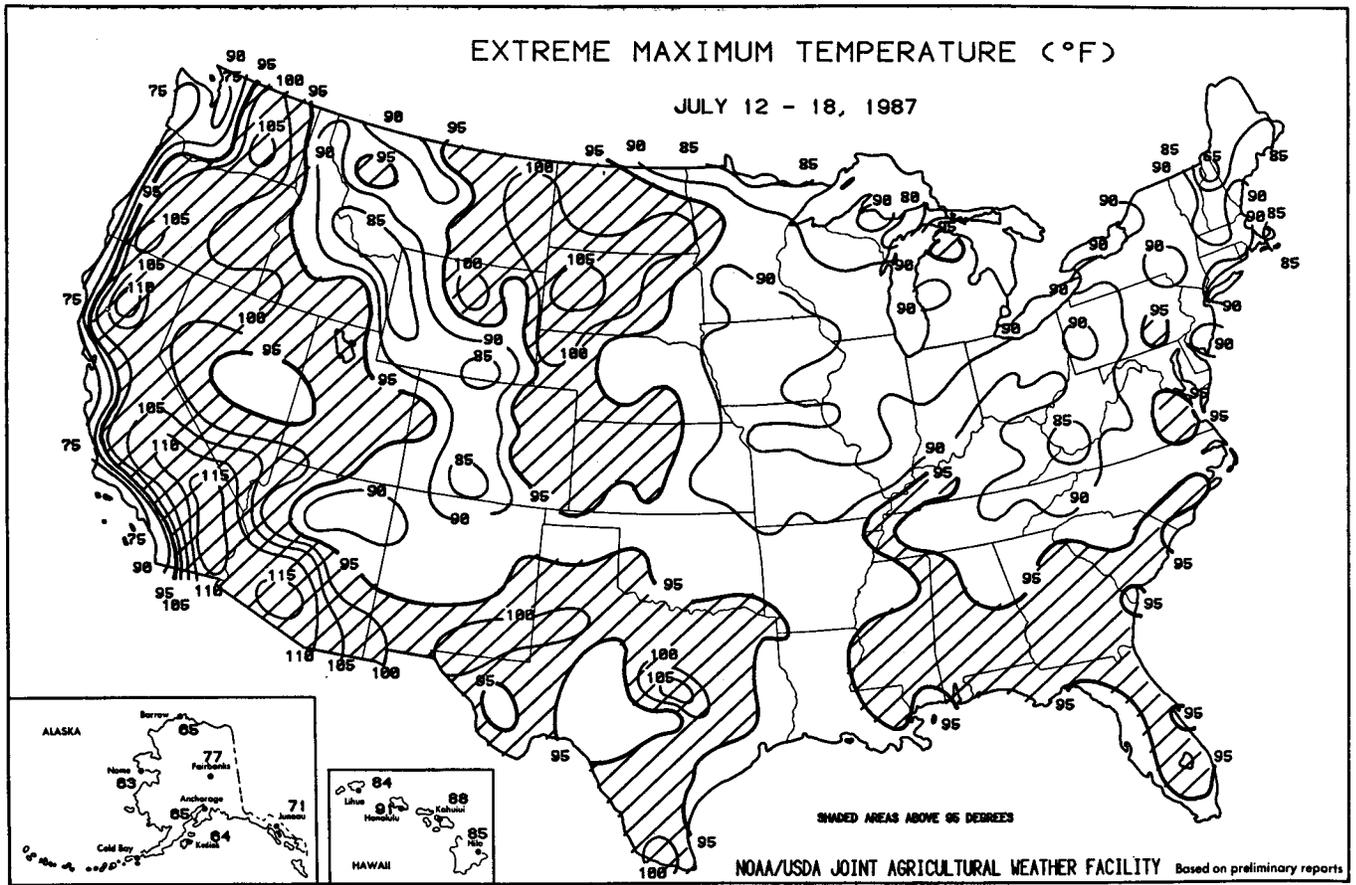






Point values may differ on these computerized maps from the reported values in the tables.

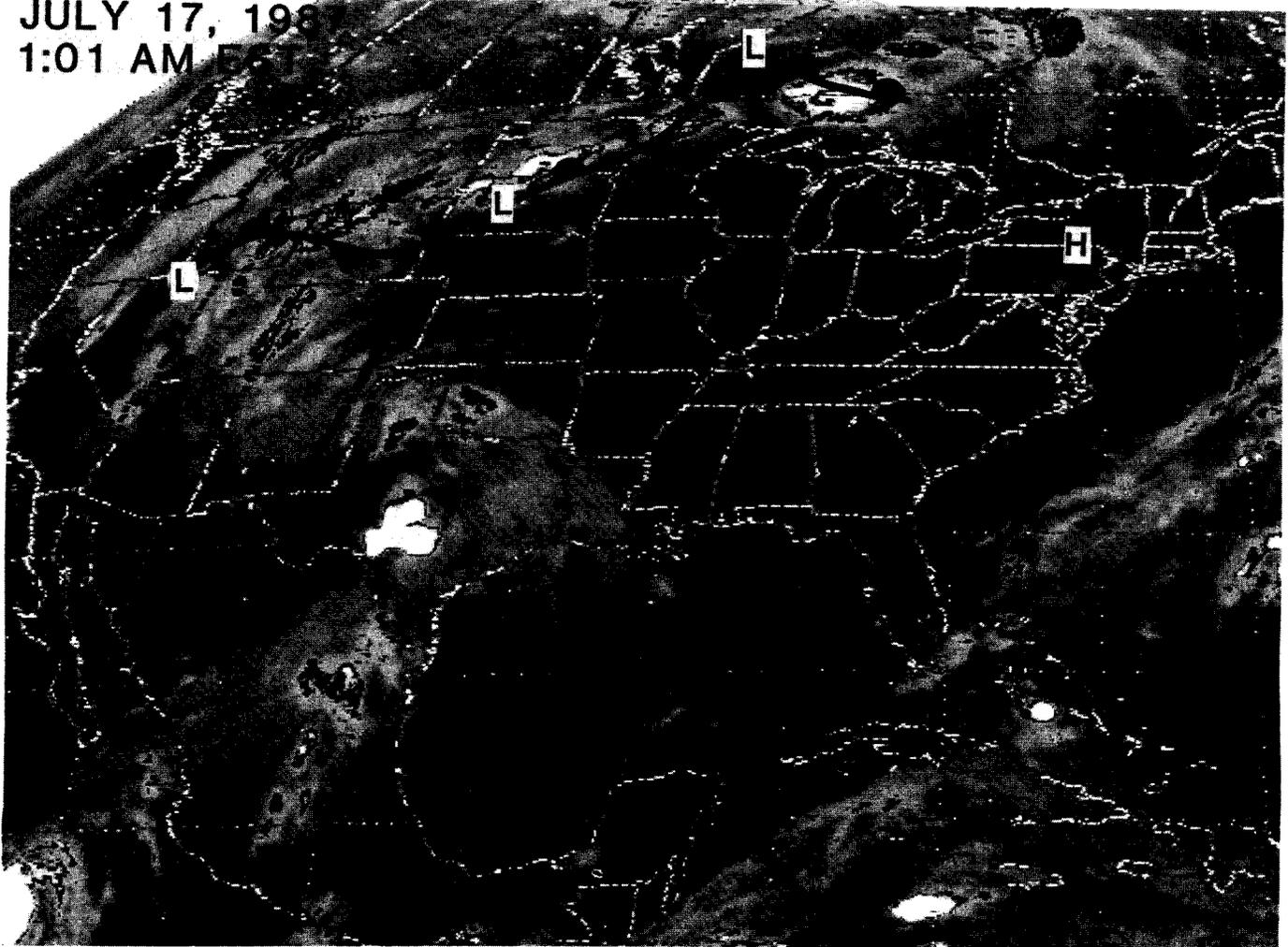




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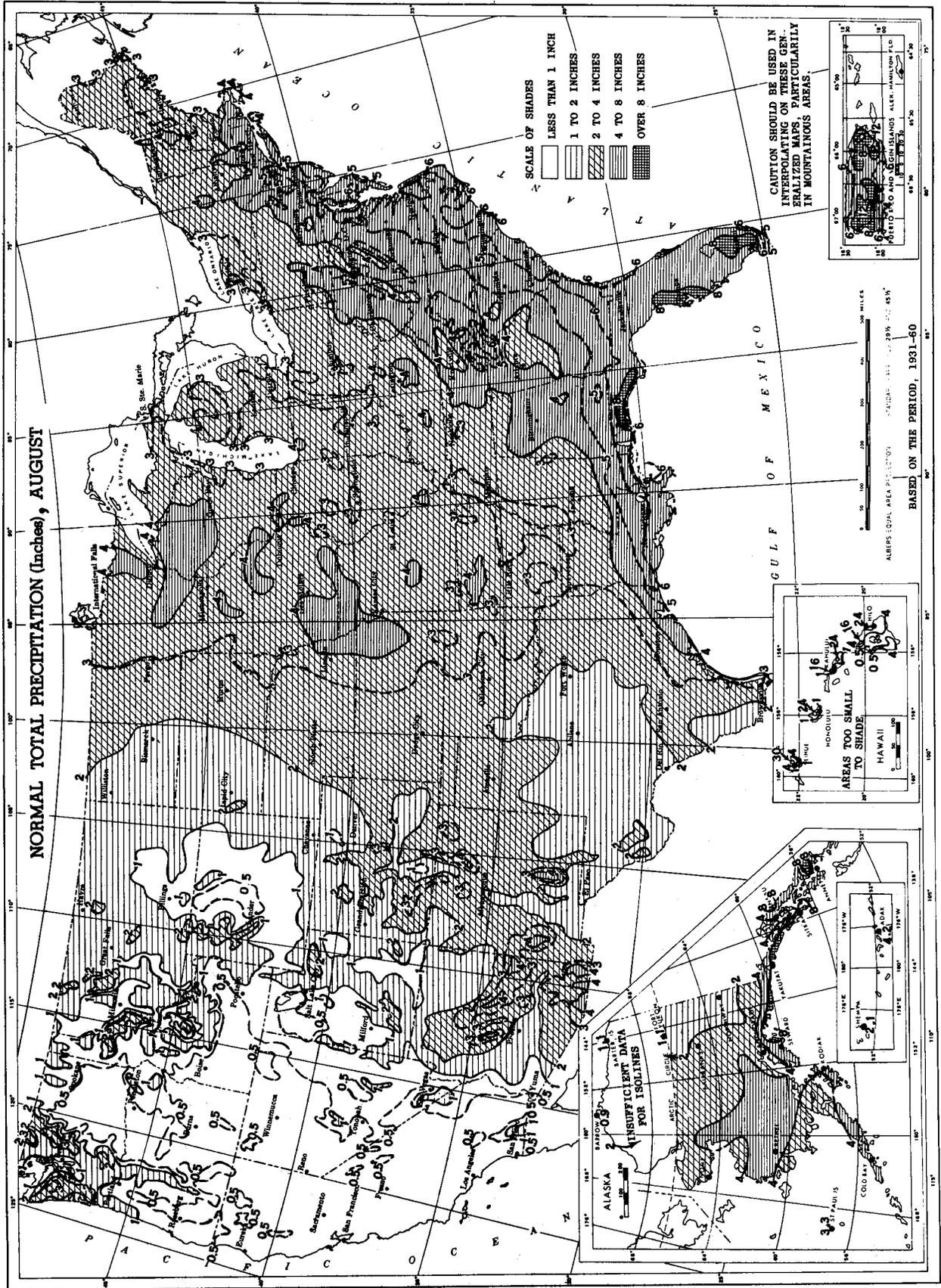


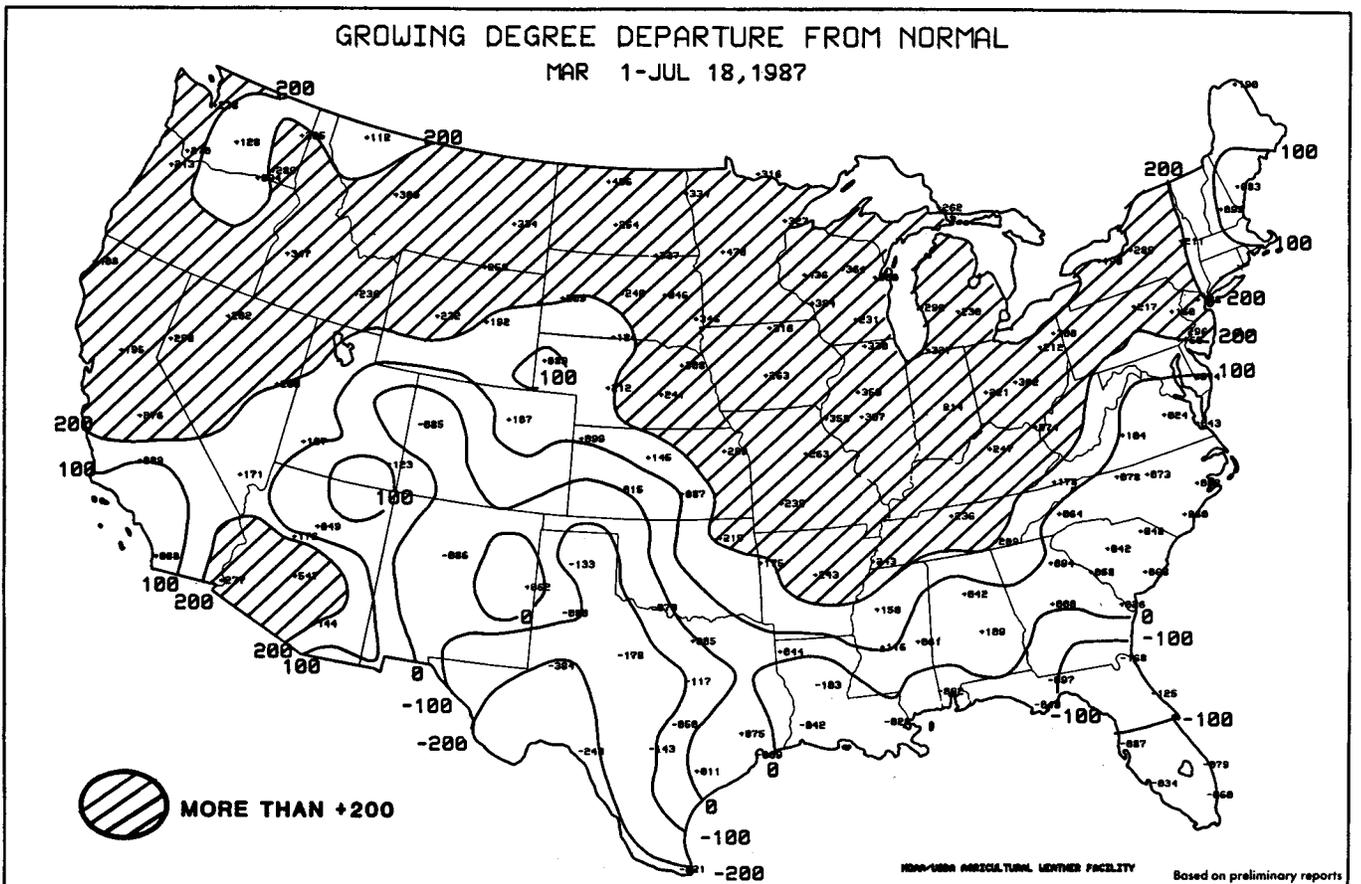
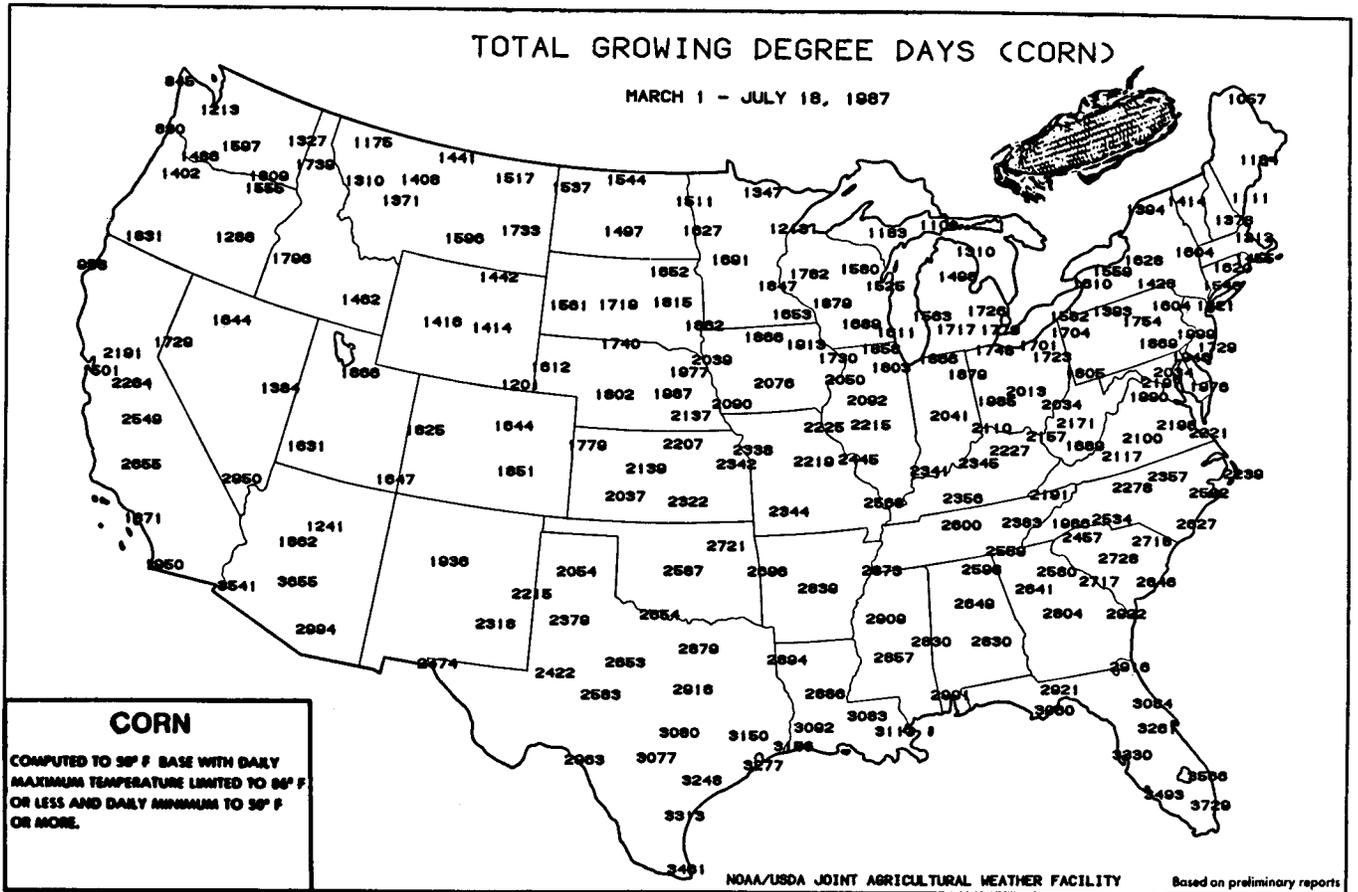
HEAVY RAIN FALLS FROM THUNDERSTORMS IN CENTRAL TEXAS.

THUNDERSTORMS ARE OCCURRING NEAR A FRONTAL ZONE IN THE DAKOTAS AND MINNESOTA.

IN THE WEST, SHOWERS AND THUNDERSTORMS ARE SCATTERED THROUGHOUT THE INTERMOUNTAIN REGION.

THE EASTERN HALF OF THE NATION IS DRY AND ALMOST CLOUDLESS.





National Weather Data for Selected Cities

Weather Data for the Week Ending July 18, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE JUNE 6	PCT. NORMAL SINCE JUNE 6	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	72 AND BELOW	PRECIPITATION		
																		.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	90	66	95	58	78	-2	7	-1.3	7	5.5	82	26.1	80	92	42	5	0	0	0	
MOBILE	93	71	96	67	82	0	3	-1.5	3	18.3	110	42.7	118	94	42	6	0	1	0	
AK ANCHORAGE	61	51	65	45	56	-3	4	-1.1	3	9.5	152	36.8	126	93	48	6	0	0	0	
BARRON	50	34	65	30	42	3	1	-1	1	1.7	77	5.4	96	92	62	0	0	4	0	
FAIRBANKS	73	57	77	54	65	3	3	-1	2	1.5	64	2.5	55	98	43	0	0	4	1	
JUNEAU	63	47	71	46	55	-1	1	0	6	7.4	143	21.9	99	95	62	0	0	4	1	
KODIAK	60	48	64	45	54	0	0	0	5	17.9	293	47.1	158	96	75	0	0	4	1	
NOME	59	46	63	38	52	2	2	0	4	1.3	55	3.7	70	96	68	0	0	2	0	
AZ PHOENIX	105	81	114	77	93	1	1	-2	2	2	2	3.2	107	41	16	7	0	1	0	
PRESCOTT	88	60	97	57	74	1	1	-7	1	4	17	4.9	60	49	17	4	0	1	0	
TUCSON	101	72	110	66	87	1	2	-4	1	3	20	4.9	120	53	18	7	0	2	0	
YUMA	105	80	114	69	93	-1	1	0	1	0	0	4	47	44	17	7	0	0	0	
AR FORT SMITH	88	66	92	58	77	-5	1	0	7	4.8	87	22.2	98	96	48	3	0	3	2	
LITTLE ROCK	89	70	94	65	79	-3	4	-4	4	3.8	66	21.1	73	77	48	4	0	1	0	
CA BAKERSFIELD	95	67	107	52	81	-4	0	0	0	3	517	4.0	103	69	26	5	0	0	0	
EUREKA	61	54	64	51	57	1	2	2	1	5	77	17.9	80	91	76	0	0	2	0	
FRESNO	95	65	107	54	80	-1	0	0	2	14	6	6	95	65	22	5	0	0	0	
LOS ANGELES	71	62	72	60	66	-3	1	1	2	22	19.3	78	69	25	5	0	2	0		
REDDING	95	67	114	60	81	-2	2	2	2	2	22	19.3	82	82	31	4	0	0	0	
SACRAMENTO	88	57	99	51	73	-3	0	0	0	0	0	8	82	71	0	0	1	0		
SAN DIEGO	71	63	74	62	67	-3	1	0	0	75	5.1	83	87	70	0	0	1	0		
SAN FRANCISCO	71	56	76	54	63	1	0	0	0	0	8.5	69	91	56	0	0	1	0		
CO DENVER	84	55	95	47	69	-4	2	-2	2	3.8	142	12.7	137	73	25	3	0	1	0	
GRAND JUNCTION	87	59	96	54	73	-6	3	2	2	7	114	6.1	154	65	20	3	0	2	0	
PUEBLO	89	54	99	51	71	-6	1	-4	1	1.5	71	6.3	110	84	23	5	0	1	0	
CT BRIDGEPORT	82	67	86	58	75	1	4	-4	4	2.5	53	18.5	84	84	51	0	0	1	0	
HARTFORD	85	61	93	51	73	-1	1	-7	1	4.6	91	23.2	100	91	47	2	0	1	0	
DC WASHINGTON	87	67	93	60	77	-2	1	-8	1	5.8	106	19.2	93	88	46	3	0	2	0	
FL APALACHICOLA	92	74	98	70	83	2	2	-1.4	1	6.8	77	29.7	113	91	51	5	0	4	0	
DAYTONA BEACH	92	74	97	72	83	2	1	-2	6	5.3	55	25.0	105	98	60	5	0	4	1	
JACKSONVILLE	93	72	99	67	83	0	7	-8	5	5.8	63	23.6	89	96	49	5	0	3	1	
KEY WEST	92	77	93	71	84	0	2.5	1.8	1.5	7.2	100	20.9	124	89	57	7	0	2	2	
MIAMI	91	76	96	74	84	1	3.3	2.0	1.9	9.8	76	22.5	79	93	56	4	0	6	1	
ORLANDO	91	73	95	70	82	0	4.0	2.2	1.3	9.8	83	26.1	99	99	59	5	0	6	4	
TALLAHASSEE	94	70	97	65	82	1	2	-1.9	2	16.4	142	45.0	125	96	43	7	0	1	0	
TAMPA	91	74	94	71	83	0	2.4	0	0	8.0	86	28.1	121	95	61	6	0	6	3	
WEST PALM BEACH	93	75	98	73	84	1	1.4	0	0	9.5	82	27.9	97	95	56	5	0	4	1	
GA ATLANTA	89	68	93	64	79	0	1	-1.0	1	11.1	181	32.2	108	85	41	3	0	2	0	
AUGUSTA	94	68	99	63	81	1	0	-1.0	0	6.0	95	28.8	110	94	35	7	0	0	0	
MACON	92	68	97	62	80	-1	3	-7	3	6.2	98	27.9	101	92	36	6	0	1	0	
SAVANNAH	93	73	97	67	83	2	2	-1.5	2	12.2	123	34.9	125	90	42	6	0	1	0	
HI HILO	83	70	85	67	76	1	1.3	-6	6	17.0	158	60.2	86	94	68	0	0	6	1	
HONOLULU	89	74	91	72	82	2	2	-1	2	7	93	3.3	25	85	48	4	0	3	0	
KAHULUI	87	70	88	66	78	0	0	-1	1	26	12.4	106	86	53	0	0	0	0	0	
LIHUE	84	75	84	74	79	1	2	-3	2	2.4	86	13.1	56	87	66	0	0	1	0	
ID BOISE	84	56	99	47	70	-5	1	-1	1	7	59	5.7	80	51	19	3	0	0	0	
LEWISTON	83	59	99	52	71	-4	5	3	4	2.9	165	6.4	85	63	26	3	0	2	0	
POCATELLO	83	50	97	40	66	-5	3	2	3	1.3	94	6.3	97	78	23	2	0	2	0	
IL CHICAGO	82	60	91	52	71	-2	7	-1	6	4.0	63	12.7	68	91	51	3	0	3	1	
MOLINE	85	63	93	52	74	-1	9	-3	7	2.9	41	12.2	58	93	49	2	0	3	1	
PEORIA	84	62	91	55	73	-2	8	-2	4	4.2	68	12.0	61	93	48	2	0	2	0	
QUINCY	84	64	89	54	74	-3	1.1	1	4	4.8	73	13.5	65	91	52	0	0	4	0	
ROCKFORD	82	60	91	50	71	-3	6	-4	6	4.5	63	13.9	68	94	51	2	0	2	1	
SPRINGFIELD	84	65	91	57	74	-2	2	-6	1	7.8	140	15.2	79	88	50	2	0	2	0	
IN EVANSVILLE	86	63	90	57	75	-4	9	-1	5	8.1	138	20.6	83	99	56	3	0	2	0	
FORT WAYNE	81	60	90	50	70	-3	2	-5	2	7.9	141	17.5	89	96	55	2	0	2	0	
INDIANAPOLIS	81	62	89	53	72	-4	1.4	4	8	11.7	179	20.8	93	96	55	0	0	3	2	
SOUTH BEND	81	62	91	54	71	-1	1.0	2	5	5.6	92	16.6	82	95	57	2	0	3	1	
IA DES MOINES	83	63	89	54	73	-3	2.5	1.8	2.3	7.2	120	18.6	107	93	55	0	0	3	1	
SIOUX CITY	83	61	89	52	72	-4	4	-3	3	5.3	88	16.6	111	95	51	0	0	4	0	
WATERLOO	82	60	89	51	71	-2	2.3	1.2	1.0	7.4	105	15.8	85	92	55	0	0	3	2	
KS CONCORDIA	86	64	96	55	75	-4	2.1	1.3	1.8	7.0	111	25.8	163	84	43	3	0	2	1	
DODGE CITY	83	59	95	51	71	-9	1.3	6	7	7.5	157	17.3	141	91	42	2	0	3	2	
GODDARD	83	56	96	44	70	-7	3	-2	3	8.4	202	16.2	163	89	35	3	0	2	0	
TOPEKA	84	62	89	52	73	-6	1.3	4	1.2	7.6	101	23.7	126	93	52	0	0	3	1	
WICHITA	85	64	93	53	74	-7	6	-3	4	6.6	107	24.1	151	91	50	2	0	2	0	
KY BOWLING GREEN	86	63	95	57	75	-4	7	-3	7	10.5	147	26.4	89	99	53	1	0	1	0	
LEXINGTON	85	63	90	56	74	-3	1.9	8	1.3	9.8	137	21.9	81	94	49	2	0	3	2	
LOUISVILLE	86	65	92	61	76	-2	2.7	1.8	2.1	7.9	131	20.1	79	95	52	2	0	3	2	
LA ALEXANDRIA	90	72	93	68	81	-2	1	-1.0	1	4.8	72	31.4	94	93	58	4	0	2	0	
BATON ROUGE	92	74	95	71	83	1	1	-1.6	1	6.7	95	33.4	106	93	51	5	0	2	0	
LAKE CHARLES	92	75	94	74	84	1	4	-9	4	18.1	256	39.0	142	96	56	6	0	1	0	
NEW ORLEANS	93	74	95	71	84	1	1.9	3	1.4	20.7	246	47.0	143	98	51	7	0	2	1	

Based on 1951-80 normals.

Weather Data for the Week Ending July 18, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE JUNE 6	PCT. NORMAL SINCE JUNE 6	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	92	71	95	66	82	-1	0	0	6.2	111	24.8	94	95	48	6	0	0	0	0
ME CARIBOU	79	61	86	44	70	4	0	-0.9	1.1	4.2	12.9	73	93	56	0	0	1	1	0
PORTLAND	79	60	91	50	69	1	0.9	0.3	6.2	132	24.7	107	95	59	1	0	3	1	1
MD BALTIMORE	86	63	94	58	74	0	0.9	1.1	6.9	117	21.9	98	96	52	2	0	2	1	1
SALISBURY	86	63	91	57	74	0	0.2	0.8	3.6	61	21.9	94	96	48	3	0	1	1	0
MA BOSTON	81	66	93	60	73	0	0.1	0.1	3.4	77	26.9	115	85	52	1	0	2	2	0
CHATHAM	73	58	81	56	66	0	0.2	0.5	2.7	63	29.1	119	92	77	0	0	1	1	0
MI ALPENA	80	53	95	39	66	0	0.1	0.6	4.3	87	9.9	66	97	51	3	0	2	2	0
DETROIT	81	61	91	52	71	0	0.6	0.1	8.6	166	18.3	107	93	49	2	0	2	2	0
FLINT	83	59	93	45	71	1	0.1	0.5	2.4	50	9.6	61	99	46	2	0	2	2	0
GRAND RAPIDS	80	57	93	47	68	0	0.6	0.1	5.0	91	10.6	59	96	53	1	0	2	2	1
HOUGHTON LAKE	78	55	91	37	67	0	0.1	0.6	1.9	40	6.9	47	89	50	2	0	1	1	0
LANSING	80	58	91	45	69	0	0.1	0.5	5.5	101	10.7	67	94	51	2	0	2	2	0
MARQUETTE	74	51	90	37	63	1.4	0.8	1.1	6.6	132	17.8	113	94	57	1	0	5	5	1
MUSKEGON	79	58	89	48	68	0	0.5	0.5	1.9	50	11.0	69	95	48	0	0	2	2	0
SAULT ST. MARIE	76	51	89	38	63	0	0.6	0.4	4.3	86	11.2	70	98	59	0	0	3	3	0
MN ALEXANDRIA	80	60	91	52	70	0	0.1	0.6	2.9	50	9.6	70	90	47	2	0	1	1	0
DULUTH	75	53	91	37	64	3.7	2.8	2.7	5.8	94	11.5	75	96	56	1	0	3	2	2
INT'L FALLS	74	55	83	41	64	1.5	0.6	0.4	3.2	54	8.2	65	95	53	0	0	6	6	0
MINNEAPOLIS	81	62	93	51	72	0	0.3	0.2	3.7	60	7.2	49	89	48	1	0	2	2	0
ROCHESTER	78	58	87	49	68	1.7	0.9	0.8	7.5	126	12.8	84	96	62	0	0	3	2	2
MS GREENWOOD	91	68	94	60	80	0	0	-1.1	0	5.4	89	86	91	47	5	0	0	0	0
JACKSON	93	67	97	61	80	0	0	-1.1	0	6.3	110	106	95	39	5	0	0	0	0
MERIDIAN	91	66	96	61	79	0	0	-1.2	0	8.5	128	121	97	44	5	0	0	0	0
MO CAPE GIRARDEAU	89	66	93	58	77	0	0	-0.8	10.7	189	22.8	88	89	48	4	0	1	1	0
COLUMBIA	85	63	90	54	74	1.1	0.4	0.8	7.0	126	16.4	78	92	49	2	0	2	1	1
KANSAS CITY	85	64	90	55	74	1.6	0.6	1.1	7.6	106	20.4	102	89	54	1	0	3	1	1
SAINT LOUIS	85	68	91	58	76	0	0.4	0.4	8.6	146	17.9	89	85	49	2	0	2	2	0
SPRINGFIELD	84	62	88	52	73	2.1	1.3	1.8	8.4	122	27.3	122	96	57	0	0	3	1	1
MT BILLINGS	80	55	98	46	67	0.6	0.6	0.6	2.7	103	8.8	92	77	27	1	0	2	1	1
GLASGOW	81	56	99	50	68	0.8	0.4	0.8	2.2	61	5.8	85	69	28	2	0	2	1	1
GREAT FALLS	77	51	93	47	64	1.6	1.4	1.0	3.6	105	9.0	89	74	24	2	0	2	2	2
HAVRE	79	52	95	41	66	0.9	0.6	0.5	3.3	108	5.9	80	71	32	2	0	2	1	1
HELENA	77	50	94	42	64	1.5	1.3	0.8	4.0	151	7.9	110	76	28	2	0	2	2	2
KALISPELL	77	46	93	39	62	0.5	0.3	0.4	1.8	64	8.0	88	82	26	1	0	2	0	0
MILES CITY	85	55	100	44	70	0.6	0.2	0.5	2.0	54	7.2	79	76	22	2	0	2	0	0
MISSOULA	79	47	95	39	63	0.4	0.2	0.3	2.2	90	5.8	73	81	27	2	0	2	0	0
NE GRAND ISLAND	86	60	96	50	73	0.3	0.3	0.1	2.7	50	16.4	113	91	44	3	0	4	0	0
LINCOLN	87	62	94	54	74	0	0	-0.6	6.0	105	19.4	121	90	41	3	0	3	0	0
NORFOLK	84	61	93	51	72	0.9	0.2	0.4	3.4	54	18.0	120	92	44	1	0	4	0	0
NORTH PLATTE	83	57	94	44	70	0.5	0.2	0.3	6.7	120	14.3	112	92	38	3	0	2	0	0
OMAHA	82	63	90	54	73	0.8	0.3	0.3	6.8	109	20.2	119	87	60	1	0	4	0	0
SCOTTSDUFF	87	52	100	45	70	0.1	0.4	0.0	4.9	115	16.4	162	85	26	3	0	2	0	0
VALENTINE	85	57	95	43	71	0.4	0.2	0.4	6.0	136	14.2	134	82	32	3	0	1	0	0
NV ELY	84	46	93	40	65	0.3	0.1	0.1	3	25	5.2	97	68	17	2	0	1	0	0
LAS VEGAS	101	74	111	62	88	0.3	0.1	0.1	2	64	3.3	168	33	10	6	0	1	0	0
RENO	87	55	100	49	71	1	0	-0.1	1.2	245	6.0	134	54	13	5	0	0	0	0
WINNEMUCCA	88	49	101	42	69	0.3	0	0	5	50	6.8	142	49	14	5	0	1	0	0
NH CONCORD	82	58	90	47	70	0	0.1	0.6	8.7	188	21.0	112	96	53	1	0	2	0	0
NJ ATLANTIC CITY	83	61	88	53	72	0.2	0.7	0.7	6.7	136	26.7	121	96	54	0	0	1	1	1
NM ALBUQUERQUE	90	61	93	57	76	0.1	0.1	0.1	2	15	3.1	94	62	16	5	0	1	0	0
CLOVIS	88	62	96	58	75	0.3	0.3	0.3	4.7	110	10.0	116	89	34	3	0	2	0	0
ROSWELL	91	64	98	62	78	0.3	0.1	0.1	4.2	221	8.4	201	82	28	5	0	2	0	0
NY ALBANY	86	61	94	51	73	1	0.8	0.2	5.5	111	17.8	95	90	47	3	0	2	1	1
BINGHAMTON	80	58	90	50	69	0	0.2	0.5	7.0	125	18.1	93	94	52	1	0	1	0	0
BUFFALO	80	61	92	54	71	0	0.8	0.1	9.5	221	21.7	117	89	48	1	0	1	1	1
NEW YORK	84	68	89	63	76	-1	1.0	1.0	10.2	198	26.8	119	81	49	0	0	1	1	1
ROCHESTER	81	60	92	51	70	-1	0.9	0.4	9	8.9	18.2	110	95	52	2	0	1	1	1
SYRACUSE	84	60	93	51	72	1	1.0	1.0	7.0	122	17.3	84	93	47	2	0	1	1	0
NC ASHEVILLE	83	60	88	54	71	-2	0.2	0.6	10.8	184	28.9	118	97	48	0	0	1	0	0
CHARLOTTE	89	69	93	65	79	0	0.2	0.2	3.9	68	21.1	84	87	42	2	0	2	2	2
GREENSBORO	85	65	91	60	75	-2	1.3	0.4	8	6.7	29.0	123	95	52	1	0	2	2	2
HATTERAS	85	70	90	61	77	-1	1.4	0.2	9	5.2	35.4	130	96	56	1	0	3	1	1
NEW BERN	88	70	93	62	79	0	1.5	0	1.2	10.9	31.7	113	94	52	4	0	3	1	1
RALEIGH	86	66	92	60	76	-2	0.7	0.3	5	3.5	24.3	104	94	49	2	0	2	0	0
WILMINGTON	89	70	95	61	80	-1	1.4	0.3	7.6	77	25.1	89	97	53	3	0	3	1	1
ND BISMARCK	83	55	98	46	69	-2	1.0	0.6	9	4.5	12.0	125	94	39	2	0	3	1	1
FARGO	82	58	101	46	70	-1	0.2	0.6	1	1.4	6.6	61	94	46	1	0	3	0	0
GRAND FORKS	78	55	93	45	67	-2	2.8	2.1	1.0	5.2	11.1	112	98	50	1	0	4	2	2
WILLISTON	79	55	99	43	67	-4	3.4	3.0	3.3	4.7	9.2	110	82	37	1	0	2	0	0
OH AKRON-CANTON	80	60	87	52	70	-2	0.3	0.6	2	6.0	17.8	87	94	51	0	0	2	0	0
CINCINNATI	82	60	90	54	71	-4	0.8	0.2	7	8.8	21.5	91	94	52	1	0	3	1	1
CLEVELAND	80	60	89	52	70	-2	1.5	0.8	1.0	11.3	23.0	117	95	54	0	0	3	2	0
COLUMBUS	83	61	90	54	72	-2	0.1	0.1	6.5	102	15.1	70	96	50	1	0	3	0	0

Based on 1951-80 normals.

Weather Data for the Week Ending July 18, 1987

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE JUNE 6	PCT. NORMAL SINCE JUNE 6	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	81	68	89	52	71	-4	.3	-.4	.2	7.4	127	17.6	85	95	49	0	0	3	0
TOLEDO	82	58	91	48	70	-3	.2	-.5	.2	6.6	124	14.9	84	98	50	0	0	2	0
YOUNGSTOWN	81	58	88	48	69	-1	.5	-.4	.5	9.6	165	28.8	101	98	51	0	0	2	0
OK OKLAHOMA CITY	85	67	89	61	76	-6	1.7	1.0	1.2	9.5	168	30.7	168	91	53	0	0	3	1
TULSA	87	68	93	60	78	-6	1.9	1.1	.8	6.5	97	26.5	120	88	49	0	0	3	3
OR ASTORIA	66	53	69	51	60	-3	.3	.1	.3	1.5	48	32.3	89	92	68	0	0	1	0
BURNS	79	46	95	33	63	-6	.1	0	.1	1.0	104	6.1	94	**	**	3	3	1	0
MEDFORD	86	58	107	53	72	-1	.4	.4	.4	.6	69	8.5	82	73	30	4	0	2	0
PENDLETON	83	55	101	48	69	-5	.1	0	.1	.6	72	5.4	80	61	23	3	3	2	1
PORTLAND	81	56	93	51	68	-1	.7	.6	.7	1.0	60	19.0	97	80	38	3	0	2	1
SALEM	79	52	97	42	66	-1	2.0	2.0	1.9	2.5	170	21.4	99	90	40	3	3	1	1
PA ALLENTOWN	84	60	92	53	72	-2	1.9	1.0	1.7	7.7	135	21.5	92	94	50	2	2	1	1
ERIE	79	64	87	59	71	-2	2.1	1.4	1.2	9.0	153	20.1	101	82	53	0	2	2	0
HARRISBURG	85	61	95	54	73	-3	.6	-.2	.3	4.6	83	18.0	83	95	43	3	0	2	0
PHILADELPHIA	86	64	94	58	75	-2	2.1	1.3	1.1	6.8	111	20.5	91	90	49	2	0	2	2
PITTSBURGH	82	59	91	49	71	-2	.2	-.6	.1	8.7	153	21.9	103	93	47	2	0	3	0
SCRANTON	81	60	90	51	70	-2	.5	-.2	.5	9.8	166	20.1	109	93	51	1	0	1	1
RI PROVIDENCE	79	63	92	57	71	-2	.2	-.5	.2	2.9	67	22.4	94	95	61	1	0	1	0
SC CHARLESTON	91	72	96	67	82	1	1.7	0	1.7	8.1	75	29.1	101	94	46	4	0	1	1
COLUMBIA	93	69	97	64	81	0	T	-1.2	T	8.7	116	29.3	103	92	39	7	0	0	0
FLORENCE	91	69	95	66	80	0	.1	-1.2	.1	5.1	64	21.9	87	92	42	6	0	2	0
GREENVILLE	90	66	92	61	78	-1	T	-1.0	T	9.5	136	30.1	101	94	43	5	0	0	0
SD ABERDEEN	86	58	100	44	72	0	.8	.3	.7	2.4	50	7.7	68	92	36	3	0	2	1
HURON	84	59	96	45	72	-3	.1	-.4	.1	2.9	61	11.7	100	96	40	2	0	2	0
RAPID CITY	90	54	106	39	72	-1	T	-.5	T	1.7	38	8.0	72	74	24	3	0	1	0
SIOUX FALLS	82	61	92	48	72	-3	.1	-.5	.1	4.6	86	11.4	83	93	47	1	0	1	0
TN CHATTANOOGA	89	65	93	60	77	-2	T	-1.0	T	6.7	112	32.0	104	99	44	4	0	2	0
KNOXVILLE	87	64	91	58	75	-3	.8	-.3	.8	7.3	112	26.4	93	80	47	2	0	1	1
MEMPHIS	90	71	94	65	80	-2	0	-.9	0	4.3	74	21.9	71	80	40	5	0	0	0
NASHVILLE	89	67	93	59	78	-2	T	-.9	T	4.2	71	17.2	60	93	45	5	0	1	0
TX ABILENE	89	70	93	63	79	-5	1.9	1.4	1.3	3.8	101	14.8	120	89	47	4	0	2	2
AMARILLO	87	60	93	53	73	-6	.6	0	.5	4.1	81	12.0	112	89	36	2	0	2	1
AUSTIN	91	74	94	71	83	-2	1.4	1.0	1.4	13.0	31.0	25.4	148	95	54	5	0	1	1
BEAUMONT	92	76	94	74	84	1	T	-1.3	T	15.4	188	36.8	128	97	60	7	0	1	0
BROWNSVILLE	94	77	95	75	86	2	T	-.3	T	4.9	136	13.0	124	94	52	7	0	0	0
CORPUS CHRISTI	92	76	94	74	84	0	0	-.5	0	6.0	113	20.0	139	95	56	5	0	0	0
DEL RIO	90	75	93	71	83	-4	.5	.1	.5	6.8	251	17.2	201	80	50	0	1	1	1
EL PASO	92	67	102	60	80	-3	.2	-.1	.2	2.5	173	4.1	139	77	26	6	0	2	0
FORT WORTH	92	71	96	64	81	-5	.9	.4	.7	5.0	139	17.6	98	87	44	5	0	2	1
GALVESTON	89	80	90	76	85	1	T	-.9	T	12.4	216	25.6	134	82	64	1	0	0	0
HOUSTON	93	76	95	71	85	1	.2	-.6	.1	13.6	208	27.1	110	94	50	7	0	2	0
LIBBOCK	88	63	100	58	76	-5	4.0	3.5	2.1	6.8	163	12.6	131	100	52	3	0	6	3
MIDLAND	92	67	98	60	79	-2	.3	-.1	.3	3.3	139	11.4	171	87	38	4	0	1	0
SAN ANGELO	90	69	93	64	79	-5	.2	0	.2	3.5	137	22.9	254	89	48	4	0	2	0
SAN ANTONIO	92	76	96	73	84	-1	.3	-.2	.1	8.3	200	29.6	195	92	49	6	0	3	0
VICTORIA	93	76	94	74	85	0	.3	-.3	.3	12.9	210	24.9	134	95	51	7	0	1	0
WACO	94	72	98	63	83	-3	.1	-.3	.1	7.3	200	19.6	110	94	47	7	0	1	0
WICHITA FALLS	89	68	96	60	79	-7	.7	.3	.5	5.2	128	23.5	156	91	49	4	0	4	0
UT BLANDING	86	57	93	53	72	-2	1.3	1.1	1.2	1.4	155	6.4	121	53	27	2	0	2	1
CEDAR CITY	87	56	96	51	71	-3	.5	.2	.3	.6	60	5.4	101	69	20	3	0	3	0
SALT LAKE CITY	88	60	99	54	74	-4	T	-.2	T	.3	18	7.9	84	56	17	3	0	1	0
VT BURLINGTON	85	60	93	48	72	3	.6	-.2	.3	5.9	106	13.7	81	92	44	3	0	3	0
VA NORFOLK	86	69	95	60	78	-1	.8	-.4	.8	5.0	80	26.9	114	89	46	3	0	2	1
RICHMOND	88	65	95	60	76	-2	.6	-.5	.6	7.5	116	27.5	121	91	45	3	0	1	1
ROANOKE	86	62	91	57	74	-2	.7	-.1	.7	3.2	61	30.5	142	97	48	3	0	1	1
WA COLVILLE	82	55	97	53	69	1	.1	-.1	.1	2.3	119	10.6	112	65	31	2	0	2	0
QUILLAYUTE	72	49	84	40	61	2	T	-.6	T	2.9	67	54.1	98	93	48	0	0	0	0
SEATTLE-TACOMA	80	54	86	49	67	2	.2	0	.1	.5	27	19.0	97	86	33	0	0	2	0
SPOKANE	79	54	95	48	67	-3	.1	0	.1	2.0	129	8.5	91	73	26	2	0	2	0
YAKIMA	84	53	100	45	68	-2	.4	.4	.4	.5	68	4.3	98	75	25	3	0	2	0
WV BECKLEY	79	57	85	48	68	-2	.1	-.1	.1	5.9	87	24.7	102	94	49	0	0	1	0
CHARLESTON	84	60	89	52	72	-3	.3	-1.0	.2	7.4	118	21.9	91	99	43	0	0	2	0
HUNTINGTON	84	59	89	52	72	-4	.4	-.7	.2	5.7	92	22.3	95	100	48	0	0	4	0
PARKERSBURG	85	59	92	49	72	-3	.3	-.6	.2	3.4	54	13.9	63	98	38	2	0	3	0
WI GREEN BAY	79	56	92	46	68	-2	.2	-.5	.2	2.9	50	10.2	69	94	49	2	0	1	0
LACROSSE	82	63	94	52	73	-1	.6	-.2	.4	4.5	71	15.0	90	89	48	1	0	2	0
MADISON	81	59	91	49	70	-1	1.0	.2	1.0	2.5	42	12.1	73	93	46	1	0	2	1
MILWAUKEE	78	61	90	51	69	-1	.9	.1	.8	5.1	90	17.3	101	89	58	1	0	2	1
WISAU	79	58	89	50	68	-1	.3	-.6	.2	5.0	81	10.9	66	92	46	0	0	2	0
WY CASPER	84	50	96	39	67	-4	.2	0	.2	1.5	80	7.5	101	74	19	2	0	3	0
CHEYENNE	79	52	91	43	65	-4	1.1	.7	.6	3.4	108	10.7	126	83	26	1	0	2	2
LANDER	83	56	94	47	69	-2	T	-.1	T	1.5	81	10.1	112	67	23	2	0	2	0
SHERIDAN	80	50	96	37	65	-5	.8	.6	.8	3.4	119	9.1	92	88	33	1	0	3	1
PR SAN JUAN	89	78	90	76	83	2	.3	-.9	.2	8.5	111	37.9	155	91	74	2	0	4	0

Based on 1951-80 normals.

NATIONAL AGRICULTURAL SUMMARY

July 13 to 19, 1987

HIGHLIGHTS: Scattered precipitation throughout the Corn Belt and central Great Plains continued pushing crop development ahead of normal. Moisture benefited crops in the northern Great Plains. Farmers were able to work 5-6 days in most areas, but rain limited fieldwork to less than 4 days in Ohio and Indiana. Soil moisture remained short in the northern Great Plains and was becoming short in the Southeast and some Corn Belt States.

Winter wheat harvest reached 79 percent (%) completion, 4 percentage points above the 5-year average. Harvest was virtually finished except in the Pacific Northwest, Rocky Mountain States, and northern Great Plains. Spring wheat harvest was underway in Minnesota and South Dakota. Seventy-four percent of the corn acreage reached the silking stage, and 14% was in the dough stage. Silking was 40 points above normal, and dough was 8 points above normal. Soybeans were setting pods nearly 4 times faster than normal. Soybeans were setting pods in all major producing States except North Carolina. Sixty-six percent of the acreage was blooming, compared with 37% normally. Sorghum was 33% headed, 6 points above the average. Harvest was underway in Texas. Cotton setting bolls ended the week 13 points above the 32% average. Squares were present on 84 percent of the acreage, 10 points above normal. Cotton was mostly good. Light harvest was underway in Texas. Rice headed trailed 2 points below the average. Growers drained fields in preparing for harvest in Texas. Tobacco harvest lagged behind normal in the Southeast. Livestock was mostly good.

SMALL GRAINS: Winter wheat was 79% harvested, compared with 78% in 1986 and 75% normally. Harvest climbed 9 points ahead of the previous week but was slowed by rain in some Corn Belt States. Harvest was virtually finished except in the Pacific Northwest, Rocky Mountain's, and northern Great Plains. Rain caused some lodging in Ohio. Half of Michigan's wheat acreage was combined in 1 week, bringing harvest to 75% completion. Harvest jumped 30 points ahead of the previous week in Colorado and Nebraska. Ninety-two percent of Ohio's wheat acreage was combined, 36 points above the previous week and 15 points above normal.

Spring wheat was mostly good to fair. Spring wheat turned color in Idaho and North Dakota. Harvest was 12% finished in South Dakota, 9 points ahead of 1986 and double the average. Minnesota's harvest was 2% finished.

CORN: Corn was mostly good throughout the Nation but crop condition was good to excellent in some Corn Belt and central Great Plains States. Crop development continued surging ahead of normal, especially in the Corn Belt and central Great Plains. In the 17 major producing States, 74% of the acreage reached the silking stage, 40 points above the 34% average. Fourteen percent of the acreage was in the dough stage more than doubled the average. Corn reached the dough stage in all major producing States except Colorado, Iowa, Minnesota, Pennsylvania, South Dakota, and Wisconsin. Corn in the dent and mature stages became more prevalent across the Southeast and Delta. Harvest was underway in Louisiana and Texas.

SOYBEANS: Soybeans were mostly good, except in the Delta and southeast, where condition was good

to fair. Soybean blooming was 19 points ahead of the 37% average and 18 points above the previous week. Twenty-seven percent of the acreage was forming pods, compared with 7% normally. Soybeans were setting pods in all major producing States except North Carolina. Soybeans were nearly 2 times taller than normal in Indiana. Soybean development was far ahead of recent years in Ohio.

SORGHUM: Sorghum was 33% headed, 1 point below 1986 but 16 points above average. Heading surpassed the average in all States except Louisiana and Texas. Sorghum was turning color in Louisiana but lagged 11 points behind normal. Harvest increased at Coastal Bend and began along the Upper Coast in Texas. Three percent of the acreage was harvested, compared with 23% normally.

COTTON: Cotton was mostly good. Squares were present on 84% of the acreage, 10 points above the average and the previous week. Boll setting increased 12 points to 45% completion, compared with 32% normally. Adequate moisture pushed cotton development nearly 2 times ahead of normal in Oklahoma. Weather conditions were ideal for cotton in Arizona. Irrigation and spraying for pink bollworms continued. Cotton progressed rapidly in California. Hot daytime temperatures benefited cotton in Texas. Rain and hail lowered temperatures in the Plains, slowing growth a little. Bolls opened rapidly at Coastal Bend and in the Rio Grande Valley, with light harvest underway.

OTHER CROPS: Rice was 21% headed 2 points below normal and 8 points below 1986. Heading lagged behind normal in Mississippi, Texas, and, by as much as 17 points, in Louisiana. Some fields were drained in preparing for harvest in Texas. Most rice continued turning color rapidly.

Peanuts were mostly good in the Southeast and Texas. Blooming neared completion in Georgia, and 84% of the acreage was pegging just slightly behind normal. Pegging was 2 points ahead of normal in Alabama. Peanuts progressed well in Texas. Some dryland peanuts could use additional moisture in the Blacklands. Hail caused minor damage in the Plains.

Tobacco harvest lagged 10 points behind normal in Georgia and 8 points behind normal in South Carolina. North Carolina's tobacco was mostly good. Tobacco reached the blooming and topping stage in Kentucky and Tennessee.

FRUIT AND NUTS: Peach harvest was in full swing but lagged behind normal in the Delta and Southeast. Clingstone peach harvest was active in New Jersey. Some early variety peaches were harvested in Oregon. Florida's citrus trees were good. New crop fruit set progressed well. Table grapes, peaches, pears, plums, apples, and oranges were harvested in California. Growers prepared for prune and almond harvests. Grape harvest was active in Arizona.

VEGETABLES: Light supplies of summer vegetables were available in northern and Panhandle areas of Florida. Land preparation for fall crop was underway. Fall vegetable land preparation continued in the Rio Grand Valley. Broccoli, carrots, cauliflower, sweet corn, cucumbers, lettuce, and melons were harvested in California.

PASTURES AND LIVESTOCK: Pastures were mostly good. Livestock was mostly good. Heat caused stress in some Corn Belt and Southeast States.

Crop Progress

FOR WEEK ENDING JULY 19, 1987

WINTER WHEAT
% HARVESTED

	1987	1986	AVG.
ARK	100	99	99
CALIF	96	98	94
COLO	66	80	68
GA	100	100	100
IDAHO	4	6	3
ILL	100	91	95
IND	99	91	90
KANS	100	100	95
MICH	75	20	20
MO	100	100	95
MONT	3	2	2
NEBR	85	90	71
N MEX	100	100	NA
N C	100	100	98
OHIO	92	80	77
OKLA	100	100	99
OREG	20	12	6
S DAK	38	31	33
TEX	99	100	99
WASH	14	9	6

20 STATES 80 79 NA

EXCL. STATES WITH NA 79 78 75

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

NA - NOT AVAILABLE.

SOYBEANS
% BLOOM

	1987	1986	AVG.
ALA	32	32	26
ARK	21	14	13
GA	25	22	28
ILL	93	75	61
IND	90	53	43
IOWA	80	59	45
KANS	45	40	20
KY	46	34	24
LA	30	48	32
MICH	60	20	20
MINN	81	44	36
MISS	29	26	26
MO	70	47	31
NEBR	70	70	46
N C	16	11	11
OHIO	80	54	43
S C	10	9	11
S DAK	70	32	39
TENN	30	25	20

19 STATES 66 48 37

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

COTTON
% SQUARING

	1987	1986	AVG.
ALA	98	97	94
ARIZ	100	99	100
ARK	99	99	98
CALIF	100	98	89
GA	99	94	95
LA	97	98	90
MISS	100	98	96
MO	100	100	92
N MEX	90	90	88
N C	87	91	79
OKLA	45	50	25
S C	88	91	94
TENN	96	92	91
TEX	74	60	60

14 STATES 84 77 74

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

SOYBEANS
% SETTING PODS

	1987	1986	AVG.
ALA	10	13	13
ARK	4	0	1
GA	6	3	7
ILL	55	33	19
IND	27	6	4
IOWA	40	9	9
KANS	20	15	3
KY	16	11	4
LA	7	17	10
MICH	15	2	1
MINN	29	4	1
MISS	8	8	6
MO	33	21	10
NEBR	15	11	4
N C	0	0	0
OHIO	25	12	5
S C	4	1	0
S DAK	10	7	2
TENN	8	7	4

19 STATES 27 13 7

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

COTTON
% SETTING BOLLS

	1987	1986	AVG.
ALA	70	63	49
ARIZ	85	94	86
ARK	87	77	59
CALIF	60	45	37
GA	57	50	64
LA	60	81	57
MISS	77	74	45
MO	100	71	53
N MEX	33	30	39
N C	70	55	55
OKLA	10	5	5
S C	57	68	79
TENN	55	40	25
TEX	25	17	17

14 STATES 45 39 32

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

CORN
% SILKING

	1987	1986	AVG.
COLO	19	21	14
GA	99	99	97
ILL	95	84	61
IND	95	65	35
IOWA	80	50	30
KANS	75	65	30
KY	82	76	50
MICH	60	15	10
MINN	72	14	7
MO	86	81	48
NEBR	60	51	22
N C	81	89	87
OHIO	72	60	38
PA	27	20	14
S DAK	32	8	9
TEX	79	89	86
WIS	43	16	8

17 STATES 73 52 34

THESE 17 STATES PRODUCED 94% OF THE 1986 CORN CROP.

CORN
% DOUGH

	1987	1986	AVG.
COLO	0	0	0
GA	84	93	86
ILL	32	19	9
IND	20	5	0
IOWA	0	0	0
KANS	30	15	5
KY	16	13	3
MICH	3	0	0
MINN	0	0	0
MO	38	36	15
NEBR	5	2	0
N C	54	60	55
OHIO	12	5	0
PA	0	0	0
S DAK	0	0	0
TEX	62	69	66
WIS	0	0	0

17 STATES 14 10 6

THESE 17 STATES PRODUCED 94% OF THE 1986 CORN CROP.

GRAIN SORGHUM
% HEADED

	1987	1986	AVG.
ARK	71	65	NA
ILL	45	29	NA
KANS	10	10	2
LA	69	93	76
MISS	58	55	43
MO	53	35	25
NEBR	15	9	2
OKLA	15	15	10
S DAK	5	3	2
TENN	60	50	45
TEX	61	67	67

11 STATES 35 34 NA

EXCL. STATES WITH NA 33 32 27

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

NA - NOT AVAILABLE.

	SPRING WHEAT % HARVESTED		
	1987	1986	AVG.
IDAHO	0	0	0
MINN	2	0	0
MONT	0	0	0
N DAK	0	0	0
S DAK	12	3	6
5 STATES	2	0	1

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

	RICE % HEADED		
	1987	1986	AVG.
ARK	9	10	4
CALIF	1	0	0
LA	37	69	54
MISS	12	24	19
TEX	73	81	78
5 STATES	21	29	23

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

Crop Condition

CROP CONDITION PERCENT FOR WEEK ENDING JULY 19, 1987

STATE	SPRING WHEAT				
	VP	P	F	G	EX
IDAHO	0	3	32	44	21
MINN	1	4	49	45	1
MONT	0	4	26	58	12
N DAK	0	3	36	56	5
S DAK	1	3	39	54	3

STATE	RICE				
	VP	P	F	G	EX
ARK	0	0	19	76	5
CALIF	0	0	0	75	25
LA	0	0	29	68	3
MISS	0	0	13	77	10
TEX	0	0	17	75	8

STATE	COTTON				
	VP	P	F	G	EX
ALA	0	3	9	88	0
ARIZ	0	0	0	80	20
ARK	0	0	4	72	24
CALIF	0	0	0	40	60
GA	0	3	30	57	10
LA	0	0	5	95	0
MISS	0	0	8	83	9
MO	0	0	0	29	71
N MEX	0	0	11	89	0
N C	0	4	18	74	4
OKLA	0	10	25	50	15
S C	0	0	12	88	0
TENN	0	0	8	50	42
TEX	1	1	50	42	6

STATE	GRAIN SORGHUM				
	VP	P	F	G	EX
ARK	0	0	26	60	14
ILL	0	0	7	68	25
KANS	0	4	8	24	64
LA	0	6	32	62	0
MISS	0	2	25	70	3
MO	0	0	17	70	13
NEBR	0	0	11	55	34
OKLA	0	0	10	87	3
S DAK	0	2	30	63	5
TENN	0	0	25	60	15
TEX	0	1	20	52	27

STATE	SOYBEANS				
	VP	P	F	G	EX
ALA	0	0	18	79	3
ARK	0	0	20	68	12
GA	0	0	17	81	2
ILL	0	0	12	73	15
IND	0	1	4	68	27
IOWA	0	0	13	71	16
KANS	0	2	5	12	81
KY	0	3	31	54	12
LA	9	9	24	58	0
MICH	1	4	25	50	20
MINN	2	5	20	52	21
MISS	0	0	39	55	6
MO	0	0	23	70	7
NEBR	0	0	11	63	26
N C	0	0	39	57	4
OHIO	1	4	20	49	26
S C	0	0	24	71	5
S DAK	1	0	7	70	22
TENN	0	2	20	70	8

STATE	CORN				
	VP	P	F	G	EX
COLO	0	1	6	84	9
GA	0	0	14	79	7
ILL	0	0	9	55	36
IND	0	0	4	50	46
IOWA	0	0	8	56	36
KANS	0	13	8	16	63
KY	0	1	15	55	29
MICH	2	8	25	45	20
MINN	1	1	24	52	22
MO	0	0	11	60	29
NEBR	0	0	0	73	27
N C	0	6	35	55	4
OHIO	0	2	12	51	35
PA	0	2	11	43	44
S DAK	0	0	13	58	29
TEX	2	1	15	56	26
WISC	0	1	18	55	26

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

State Summaries of Weather and Agriculture

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

ALABAMA: No significant rainfall most areas; 0.50 to 1.00 in. local areas northwest, southeast. Temperatures averaged near normal south; 2 to 40 below normal elsewhere.

Days suitable for fieldwork 6.2. Soil moisture 27% short, 68% adequate, 5% surplus. Most areas dry; allowed good progress for field activities. Corn 96% silking, 96% 1986, 92% avg.; 58% dented, 59% 1986, 49% avg.; 21% fair, 68% good, 11% excellent. Sorghum 98% planted, 99% 1986, 98% avg.; 16% fair, 84% good. Cotton 98% squaring, 97% 1986, 94% avg.; 70% setting bolls, 63% 1986, 49% avg.; 3% poor, 9% fair, 88% good. Peanuts 78% pegging, 70% 1986, 76% avg.; 91% good, 9% excellent. Soybeans 32% blooming, 32% 1986, 26% avg.; 10% setting pods, 13% 1986, 13% avg.; 18% fair, 79% good, 3% excellent. Livestock, pastures mostly good. Primary activities: Spraying row crops for insects, disease, weed control; cultivating soybeans, peanuts, sorghum; harvesting fruits, vegetables, hay; stocking, fertilizing fish ponds; routine care of livestock, poultry.

ALASKA: Continuation of cool, wet, cloudy most areas. Temperature lows ranged from 1° above normal to 7° warmer than normal, highs ranged 6° below normal to 4° above normal. Seasonal precipitation totals ranged from 0.51 in. drier than normal to 2.86 in. wetter than normal.

Days suitable for haymaking 2.0. Topsoil moisture 2 short, 98% adequate. Subsoil moisture 5% short, 95% adequate. Barley for grain 26% poor, 32% fair, 35% good, 7% excellent. Barley, oats for grain heights averaged 20 in., 28 in. 1986. Crop growth 19% slow, 67% moderate, 14% rapid. First cutting of hay harvest averaged nearly 70%, 85% 1986. Potato heights averaged 14 in. Over 85% potatoes hilled, 70% starting to bloom. Commercial radishes, leaf lettuce, romaine, other greens harvest continued.

ARIZONA: Typical pre-monsoon weather, hot sunny days, low humidities through 13th. Isolated showers, thunderstorms developed east 13th. Fourteenth, blazing hot, readings 114 to 117° western deserts, upper 80s mountains. Monsoon conditions prevailed late 14th. Rainfall spotty, amounts small. Many localities south stayed dry, hit with strong gusty winds, blowing dust, visibility near zero. Sub-tropical moisture covered States 15th, 16th, showers, thunderstorms increased, afternoon temperatures fell 10 to 15°. Monsoon moved northeast early 17th. Large low pressure system from pacific northwest brought mostly sunny skies, cooler drier air, windy conditions 17th, 18th. Precipitation traces to 0.75 in. Temperatures normal to 4° below.

Weather good past week; excellent conditions for cotton. Irrigation continued, spraying pink bollworms active. Weeds, insects, light to moderate. Wheat, barley harvest minimal. Yields good to excellent; ground plowed in preparation for next crop. Alfalfa harvest active; quality summer type hay baled. Weeds, insects light to moderate. Corn silage good; harvest active south. Sorghum good. Grape harvest active Harquahala; thompsons, flame seedless packed. Figs picked, carrots dug, central valley. Chili harvest advanced southeast. Canning tomato harvest finished. Fall lettuce planting Willcox. Apples developed normally southeast. Mixed melons shipped central valley; watermelon movement limited. Honeydews, cantaloups harvested, Aguila.

ARKANSAS: Unusually cool temperatures early in week. All stations reported below normal readings. Scattered showers first part, isolated showers latter part. Temperature extremes 51°; 102°. Rainfall none to 1.73 in.

Days suitable for fieldwork 7.0. Major activities: Cutting, baling hay; applying herbicides, pesticides; fertilizing, irrigating crops; scouting fields, insects, diseases. Fruit, vegetable harvest halfway. Livestock good.

CALIFORNIA: High pressure ridge that warmed temperatures until midweek replaced by cold low pressure cell bringing cooler weather, precipitation. Temperatures below normal except some northern, central coastal areas, southeastern parts San Joaquin Valley.

Cotton progress rapid; chemicals applied. Rice progressed well; chemicals applied. Small grain, alfalfa hay harvests continued. Dry beans, sugarbeets irrigated; sugarbeets mildew treated. Corn treated for mites. Safflower approaching maturity. Gravenstein apple, fig, San Joaquin Valley flame seedless table grape, nectarine, peach, pear, plum, valencia orange harvests active. Harvest preparation for prunes, almonds. Spraying grapes. Snap beans packed Westside, desert, south coast. Broccoli moderate, good quality; Salinas, Santa Maria. Carrot fairly heavy, Salinas; heavy Kern-Tulare; good quality. Harvest continued Westside. Cauliflower moderate, Salinas; fairly light, Santa Maria; good quality. Celery moderate, both Salinas-Watsonville, Santa Maria-Oceano; good quality. Sweet corn harvesting continued statewide. Cucumber packing active, Westside. Lettuce packing; Salinas, Santa Maria; moderate, variable quality. Honeydew harvesting continued as watermelon picking began, Sacramento Valley. Mixed melon harvest expected, 24th. Honeydew, watermelon harvests continued, Westside. Cantaloup packing continued at slower pace due to depressed market. Many fields plowed after only one picking. Palo Verde melon harvest nearly completed as demand continued poor. Dry onion digging active, desert. Production for fresh market, processing full swing Westside. Dehydrator onion fields Tulelake-Butte Valley continued to grow well. Summer potato harvest continued Hemet-San Jacinto. Fall potato fields Tulelake-Butte Valley, progressed normally. Tomatoes for processing, fresh market full production statewide. Cannery harvest Sacramento Valley, should begin Palo Verde Valley when harvest ends 24th. Ranges, non-irrigated pasture Central Valley dry. Northern, mountain pastures somewhat better shape. Fire danger high. Stock ponds low. Livestock movement light.

COLORADO: Temperatures 2 to 90 below normal. Cold air mass produced lower temperatures, little rain. Front range area 0.16 to 0.93 in.; 0.03 to 0.58 in. rest of State.

Days suitable for fieldwork 5.8. Soil moisture adequate. Small grains, livestock good. Corn good. Barley 9% harvested. Oats 5% harvested. Wheat harvest 66% complete. Second cutting alfalfa 26% complete.

FLORIDA: Midweek cold front, moved southeastward, cleared Panhandle of thunderstorms. Heaviest rainfall generally over central Peninsula where front eventually stalled, dissipated. Temperatures about 20 above normal statewide.

Topsoil moisture mostly adequate. Tobacco harvest, haymaking active. Corn, soybeans, peanuts good progress. Boll weevils, boll worms major problems in cotton. Sugarcane continued good growth. Pastures good to excellent except few isolated areas. Cattle, calves good. Citrus trees very good. Moisture adequate; general irrigation stopped. New crop fruit set, progress good. Very little late bloom. Abundant new foliage. Valencia harvest all but over. Late orange concentrating over for season. Typical summer weather vegetable producing areas. Light supplies summer vegetables available northern, Panhandle areas. Land preparation fall crops underway.

GEORGIA: Rainfall averaged under 0.50 in., many areas no rain. Temperatures 1 to 3° below normal except near normal extreme south. Hottest on 13th, maximums upper 90s central, south. Minimums 3 to 6° below normal 16th through weekend. Coolest low 60s, some upper 40s and 50s in mountains.

Days suitable for fieldwork 6.1. Soil moisture 6% very short, 52% short, 42% adequate. Corn 58% dent, 72% 1986, 61% avg.; 10% mature, 33% 1986, 28% avg.; none harvested, 5% 1986, 2% avg. Sorghum grain 19% fair, 80% good, 1% excellent; 99% planted, 99% 1986, 96% avg. Peanuts 14% fair, 84% good, 2% excellent; 97% blooming, 95% 1986, 97% avg.; 84% pegging, 76% 1986, 86% avg. Soybeans 99% planted, 99% 1986, 99% avg. Tobacco 14% fair, 86% good; 25% harvested, 28% 1986, 35% avg. Watermelons 48% fair, 52% good; 83% harvested, 82% 1986, 73% avg. Apples 11% fair, 86% good, 3% excellent; 2% harvested, 16% 1986, 9% avg. Peaches 10% poor, 14% fair, 75% good, 1% excellent; 83% harvested, 90% 1986, 85% avg. Pasture 1% poor, 14% fair, 79% good, 6% excellent. Hay 1% poor, 19% fair, 76% good, 4% excellent. Cattle 11% fair, 81% good, 8% excellent. Hogs 12% fair, 80% good, 8% excellent. Main activities: Controls for weeds, insects, diseases. Harvesting hay, peaches, tobacco, melons, corn, vegetables. Some heat stress for livestock, poultry.

HAWAII: Beneficial weather. Mostly sunny with light, scattered showers mostly windward areas. Record high daily temperatures some areas late in week. Irrigation moderate to heavy. Spraying heavy, pest damage lowering some yields. Crop mostly fair to good. Trade winds 5 to 20 mph. Temperatures ranged mid 70s to low 90s. Rainfall ranged none to 5.40 in.

Days suitable for fieldwork 7.0. Banana, papaya production steady. Chinese, head cabbage production moderate fair to good quality. Watermelon supplies heavy.

IDAHO: Temperatures averaged up to 6° below normal. Precipitation generally below normal, some isolated showers north.

Days suitable for fieldwork 6.0. Harvest of winter wheat underway, spring wheat, barley mostly turning. Potatoes generally good, closing middles some turning. Sugarbeets making excellent growth, good crop expected. Second cutting alfalfa gained momentum. Range, pastures mostly good, providing adequate grazing. Livestock good. Producers active with insect, disease control, aphid build-up noted. Irrigation needs continued, some shortages being reported.

ILLINOIS: Temperatures averaged 2 to 4° below normal, with deviations smaller north. Precipitation generally under 0.50 in.

Days suitable for fieldwork 4.8. Soil moisture 39% short, 49% adequate, 12% surplus. Oats 97% ripe, 83% 1986, 67% avg.; 70% harvested, 43% 1986, 34% avg. Alfalfa hay 2nd crop 90% cut, 53% 1986, 72% avg.; 3rd crop 10% cut, none 1986, 2% avg.; 7% poor, 20% fair, 64% good, 9% excellent. Pasture 1%

very poor, 11% poor, 38% fair, 42% good, 8% excellent.

INDIANA: Temperatures averaged 2 to 5° below normal. Lows upper 40s to low 50s, highs low to mid 90s. Precipitation widespread. Most areas totaled between 0.25 to 1.00 in.

Days suitable for fieldwork 3.2. Topsoil moisture 73% adequate, 27% surplus. Subsoil moisture 4% short, 83% adequate, 13% surplus. Corn, soybeans mostly good to excellent. Soybeans 33 in. tall, 24 in. 1986, 17 in. avg. Oats 70% combined, 40% 1986, 30% avg. Alfalfa 70% cut twice, 5% 1986, 64% avg. Pastures 31% fair, 61% good, 8% excellent. Rains slowed wheat harvest, other field activities late in week.

IOWA: Cool early week; hot, humid late week. Temperatures near normal. Spotty precipitation, near normal.

Days suitable for fieldwork 4.1. Topsoil moisture 13% short, 75% adequate, 12% surplus; subsoil moisture 18% short, 73% adequate, 9% surplus. Oats 1% very poor, 13% poor, 50% fair, 32% good, 4% excellent; 58% harvested, 32% 1986, 26% avg. Winter wheat 80% harvested, 61% 1986, 60% avg. Hay 5% poor, 36% fair, 51% good, 8% excellent. Second crop alfalfa 70% harvested, 53% 1986, 51% avg. Second crop clover 35% harvested, 23% 1986, 22% avg. Corn 95% tasseled, 71% 1986, 45% avg.; 15% milk stage, 5% 1986, 2% avg. Pastures 2% very poor, 8% poor, 40% fair, 42% good, 8% excellent. Livestock mostly good. Several reports of pink eye in cattle. Some stress from heat on sows.

KANSAS: Temperatures averaged 74° southwest to 78° northeast; 6° below normal southwest, 1 to 3° below normal elsewhere. Rainfall averaged about 1.00 in. north and east, around 0.50 in. south and west.

Days suitable for fieldwork 5.0. Soil moisture 7% short, 83% adequate, 10% surplus. Wheat harvest complete. Corn developed rapidly, ahead of schedule. Sorghum planting complete, developed ahead of schedule. Soybean planting complete, developed ahead of normal. Alfalfa 2nd cutting 90% complete, 3rd cuttings underway many areas. Range, pastures good to excellent.

KENTUCKY: Mild temperatures, scattered thundershowers early followed by very warm and humid, but dry conditions. Mean daily temperatures lower to mid 70s, 2 to 3° below seasonal normal. Rainfall amounts averaged 0.60 to 1.20 in.

Days suitable for fieldwork 4.2. Soil moisture 19% short, 73% adequate, 8% surplus. Corn developing well most areas. Soybean development ahead of normal. Tobacco 1% poor, 34% fair, 56% good, 9% excellent. Burley 28% blooming or beyond, 22% 1986, 21% avg. Burley 12% topped. Dark tobacco 36% bloomed; 12% topped. Crop spraying, haying active. Pastures 7% poor, 29% fair, 50% good, 14% excellent.

LOUISIANA: Temperature 1° below to 2° above normal. Temperature extremes 63°, 97°. Rainfall averaged none to 1.27 in.

Days suitable for fieldwork 4.9. Soil moisture 13% short, 69% adequate, 18% surplus. Corn good; 100% silked, 100% 1986, 98% avg.; 92% dough stage, 96% 1986, 86% avg.; 14% mature, 33% 1986, 33% avg.; 1% harvested, 4% 1986, 4% avg. Cotton 97% squaring, 98% 1986, 90% avg.; 60% setting bolls, 81% 1986, 57% avg. Rice 37% headed, 69% 1986, 54% avg.; 2% ripe, 7% 1986, 5% avg. Sorghum 69% headed, 93% 1986, 76% avg.; 15% turning color, 43% 1986, 26% avg. Soybeans 97% planted, 100% 1986, 100% avg.; 96% emerged, 100% 1986, 99% avg.; 30% blooming, 48% 1986, 32% avg.; 7% setting pods, 17% 1986, 10% avg. Peaches 91% harvested, 96% 1986, 78% avg. Hay 1st cutting 95%, 98% 1986, 99% avg. Sugarcane, sweetpotatoes, pasture, livestock good;

vegetables fair to good. Main activities: Planting soybeans where conditions permit; baling hay; harvesting vegetables; weed, insect control.

MARYLAND & DELAWARE: Maryland: Temperatures averaged 76°, 76° normal; lowest temperature 42° Oakland; highest temperature 97° Bel Air. Precipitation averaged 0.91 in., ranging from 0.06 in. Royal Oak to 4.99 in. Hancock.

Days suitable for fieldwork 6.7. Topsoil, subsoil moisture short to adequate. Corn mostly good. Corn 55% silked, 50% avg. Corn 10% dough, 10% avg. Soybeans fair to good. Soybeans 97% planted, 98% avg. Tobacco fair to good. Pasture mostly good to fair. Wheat 90% harvested, 90% avg. Apples, peaches good to excellent. Sweet corn 30% harvested, 25% avg. Tomatoes 15% harvested, 15% avg.

Delaware: Temperatures averaged 78°, 77° normal. Precipitation averaged 0.48 in.

Days suitable for fieldwork 6.7. Topsoil moisture adequate. Subsoil moisture adequate. Soybeans good. Soybeans 95% planted, 99% avg. Corn mostly good to fair. Corn 70% silked, 60% avg.

MICHIGAN: Temperatures ranged 3° below to 1° above normal. Temperature extremes 37°; 97°. Precipitation ranged from none to 2.74 in. across State.

Days suitable for fieldwork 5.5. Soil moisture 70% short, 30% adequate. Corn 60% silked, 15% 1986, 10% avg.; 2% very poor, 8% poor, 25% fair, 45% good, 20% excellent. Soybeans 60% bloomed, 20% 1986, 20% avg.; 1% very poor, 4% poor, 25% fair, 50% good, 20% excellent. Wheat 75% harvested, 20% 1986, 20% avg. Dry beans 45% bloomed, 10% 1986, 10% avg. Major activities: Irrigating, combining wheat, oats; making hay, maintaining set aside ground, spraying, harvesting fruits, vegetables.

MINNESOTA: Temperatures averaged 2° below to 2° above normal. Temperature extremes 37°; 101°. Precipitation averaged 1.21 to 3.08 in. above normal northern third, 0.23 in. above normal south central, 0.07 to 0.57 in. below normal elsewhere. Greatest weekly total 5.28 in.

Days suitable for fieldwork 5.1. Topsoil moisture 17% very short, 27% short, 53% adequate, 3% surplus. Spring wheat 70% turning ripe, 20% 1986, 27% avg.; 10% cut, 1% 1986, none avg.; 2% combined, none 1986, none avg. Oats 96% turning ripe, 50% 1986, 48% avg.; 47% cut, 2% 1986, 4% avg.; 19% combined, 2% 1986, 1% avg. Barley 85% turning ripe, 30% 1986, 48% avg.; 20% cut, 1% 1986, 3% avg.; 6% combined, none 1986, 1% avg. Field corn height 73 in., 58 in. 1986, 52 in. avg.; 86% tasseling, 38% 1986, 21% avg.; 8% in milk stage, none 1986, none avg. Soybeans height 26 in., 18 in. 1986, 16 in. avg.; 81% blooming, 44% 1986, 36% avg.; 29% setting pods, 4% 1986, 1% avg. Field corn 2% very poor, 5% poor, 20% fair, 52% good, 21% excellent. Soybeans 1% very poor, 1% poor, 24% fair, 52% good, 22% excellent. Spring wheat 1% very poor, 4% poor, 49% fair, 45% good, 1% excellent. Winter wheat 30% harvested, 6% 1986, 3% avg. Rye 36% harvested, 6% 1986, 4% avg.

MISSISSIPPI: Temperatures 4° below to 1° normal; extremes 55°; 99°. Hot, humid, dry most of week. Cold front on 14th resulted in cooler, drier air, scattered rainfall. Greatest weekly rainfall 0.85 in. Greatest 24-hour total rainfall 0.85 in.

Days suitable for fieldwork 6.2, 5.8 1986, 5.3 avg. Soil moisture 4% very short, 35% short, 61% adequate. Corn 93% silking, 95% 1986, 87% avg.; 66% dough stage, 70% 1986, 59% avg.; 38% dented, 37% 1986; 4% mature, 12% 1986; 12% fair, 71% good, 17% excellent. Hay 58% harvested, 57% 1986, 57% avg. Sorghum silage 6% harvested, 16% 1986.

Watermelons 44% harvested, 42% 1986, 43% avg. Corn silage 14% harvested, 19% 1986, 14% avg. Rice 12% headed, 24% 1986, 19% avg.; 13% fair, 77% good, 10% excellent. Sorghum 58% headed, 55% 1986, 43% avg.; 17% coloring, 18% 1986; 2% poor, 25% fair, 70% good, 3% excellent. Cotton 100% squaring, 98% 1986, 96% avg.; 77% setting bolls, 74% 1986, 45% avg.; 8% fair, 83% good, 9% excellent. Soybeans 29% blooming, 26% 1986, 26% avg.; 8% podding, 8% 1986, 6% avg.; 39% fair, 55% good, 6% excellent.

MISSOURI: Temperatures averaged 3 to 4° below normal. Precipitation 1.50 in. north and west, 0.50 in. or less southeast.

Days suitable for fieldwork 4.1. Topsoil moisture 7% short, 81% adequate, 12% surplus. Corn 96% tasseling, 92% 1986, 62% avg. Oat 96% harvested, 90% 1986, 76% avg. Alfalfa hay 2nd cutting 93%, 85% 1986, 79% avg. Alfalfa hay 3rd cutting 20%, 22% 1986, 14% avg. Other hay 90% harvested, 86% 1986, 85% avg. Pasture 1% very poor, 6% poor, 43% fair, 44% good, 6% excellent.

MONTANA: Cool and dry early, warm midweek, cool, and wet weekend. Temperatures 2 to 8° below normal. Precipitation 1.00 to 2.00 in. east of divide, less than 1.00 in. west.

Days suitable for fieldwork 5.0. Topsoil moisture 30% short, 65% adequate, 5% surplus. Subsoil moisture 40% short, 60% adequate. Barley 5% poor, 28% fair, 61% good, 6% excellent. Oats 5% poor, 28% fair, 59% good, 8% excellent. Sugarbeets 47% good, 53% excellent. Barley 2% ripe, 1% 1986, 5% avg. Oats 3% ripe, 1% 1986, 5% avg. Second cutting alfalfa 14% harvested, 17% 1986. Wild hay 68% harvested, 70% 1986, 60% avg. Grasshopper infestation 23% light, 49% moderate, 28% heavy.

NEBRASKA: Week started cool; ended hot, humid. Scattered thundershowers beginning and end of week. Precipitation varied. Temperatures ranged 1 to 3° below normal. Extremes 40°; 104°.

Days suitable for fieldwork 6.0. Topsoil moisture 31% short, 63% adequate, 6% surplus. Subsoil moisture 12% short, 86% adequate, 2% surplus. Winter wheat 98% ripe, 98% 1986, 86% avg. Harvest began west, extent of russian wheat aphid and disease damage yet to be assessed. East neared completion. Oats 60% harvested, 60% 1986, 49% avg. Alfalfa hay mostly good. Second cutting 80%, 72% 1986, 58% avg. Third cutting 5%, none 1986, none avg. Pasture, range supplies adequate. Livestock doing well. Fly numbers increased.

NEVADA: Mostly hot, dry all areas. Temperatures averaged above normal for entire week. Cooler air end of period dropped temperatures 20° some areas. Cooler air accompanied by scattered thunderstorms. Precipitation light most sections.

Alfalfa hay harvest slowed by scattered light showers, high winds. Potatoes, other row crops showed good growth due high night temperatures most of period. Ranges, pastures continued to deteriorate.

NEW ENGLAND: Precipitation averaged over 2.00 in. northern New Hampshire, 1.50 to 2.00 in. western Massachusetts, 1.00 to 1.50 in. Vermont, less than 0.10 in. eastern Massachusetts. Temperatures 5° above normal north, near normal south.

Days suitable for fieldwork 6.0. Soil moisture 6% very short, 38% short, 44% adequate, 13% surplus. Grazing availability 8% very short, 8% short, 67% adequate, 17% surplus. Fieldwork 1.0 days behind. Maine potatoes excellent. Sweet corn good south, excellent north. Tobacco good. First crop hay 93% cut, 90% 1986, 90% avg. Second crop hay 28% cut, 17% 1986, 20% avg. Maine oats excellent. Active blueberry, raspberry harvest. Major farm activities: Haying, harvesting vegetables, spraying.

NEW JERSEY: Temperatures averaged below normal. Extremes 45°; 95°. Rainfall averaged 1.97 in. north, 1.72 in. central, 0.99 in. south. Heaviest 24-hour total 2.80 in. on 14th, 15th. Estimated soil moisture percent field capacity averaged 88% north, 81% central, 66% south. Four inch soil temperatures averaged 73° north, 75° central, south.

Heavy thunderstorms caused localized flooding, hail, wind damage to crops. Cooler temperatures, lower humidity beneficial. Summer vegetables in good supply. Irish potato harvest very light. Blueberry harvest past peak. Clingstone peach picking continued active. Early summer cooking apple harvest began. Wheat, oat combining delayed again by weather. Early field corn in tassel. Some soybean fields poor. Pasture growth responded to showers.

NEW MEXICO: Temperatures over State slightly below normal. High temperature 100° Hobbs, low 32° Quemado. Showers, thundershowers statewide.

Days suitable for fieldwork 6.5. Soil moisture 45% short, 55% adequate. Some severe hail damage Hatch Valley, High Plains. Alfalfa 9% fair, 82% good, 9% excellent. Cotton 11% fair, 89% good. Squaring reported in 90% of fields; 33% setting bolls. Barley, wheat harvest over; good yields statewide. Irrigated grain sorghum 11% fair, 89% good. Dryland sorghum 20% fair, 80% good. Onion harvest continued; price lower, demand slackening. Pecans 25% fair, 75% good, average nut set. Chile 40% fair, 60% good; average pod set. Range 9% poor, 55% fair, 27% good, 9% excellent. Cattle, sheep fair to good.

NEW YORK: Hot, humid 12th, 13th, turned colder midweek. Near record low temperatures mornings 15th, 16th. Warmer weather returned end of week. Temperatures averaged about normal west, central; slightly above normal east. Thunderstorms 14th produced majority of rain.

Days suitable for fieldwork 5.5. Soil moisture adequate to surplus. Pastures good. Corn growing rapidly, silking in earliest planted fields. Clo-tim hay harvest 82% complete, 78% 1986, 84% avg. Oats turning. Wheat harvest started, yields fair. Fruits good to excellent.

NORTH CAROLINA: Temperatures averaged 1 to 3° below normal. Temperature extremes 49°; 97°. Precipitation ranged from 0.09 to 2.40 in. across State. Storms scattered.

Days suitable for fieldwork 5.8. Soil moisture 6% very short, 38% short, 53% adequate, 3% surplus. Irish potatoes 37% fair, 63% good. Irish potatoes 82% harvested, 83% 1986, 84% avg. Pasture fair to mostly good. Tobacco 2% poor, 13% fair, 80% good, 5% excellent. Peanuts 18% fair, 73% good, 9% excellent. Hay 5% poor, 32% fair, 62% good, 1% excellent. Oats 100% harvested, 100% 1986, 98% avg. Barley 100% harvested, 100% 1986, 100% avg. Rye 94% harvested, 100% 1986, 99% avg. Sorghum 97% planted, 100% 1986, 100% avg. Sweetpotatoes 24% fair, 70% good, 6% excellent. Fruit, truck crops fair to mostly good. Peaches 52% harvested, 69% 1986, 69% avg. Major farm activities: Tobacco related topping, spraying for sucker control, irrigation, harvesting; cutting, baling hay; planting sorghum, soybeans; cultivating tobacco, soybeans, corn, peanuts, cotton; herbicide applications; harvesting vegetables, peaches; shearing christmas trees; tending livestock; general farm maintenance.

NORTH DAKOTA: Statewide rains received. Rainfall averaged 0.75 to 1.00 in. except southeast 0.50 in. Temperatures near normal, cool early warming later. Extremes 41° northeast; 103° east central.

Days suitable for fieldwork 4.5. Topsoil moisture well above normal; 13% short, 75% adequate, 12%

surplus. Subsoil moisture above normal; 15% short, 82% adequate, 3% surplus. Small grain crops ahead of 1986 and average. Spring wheat 28% turning to ripe and beyond, 10% 1986, 11% avg.; durum 16%, 6% 1986, 5% avg.; oats 42%, 21% 1986, 18% avg.; barley 56%, 24% 1986, 28% avg.; winter wheat 51% swathed or combined, 8% 1986, 7% avg. Row crop development ahead of normal pace. Potatoes 87% bloom or beyond, 66% 1986, 49% avg.; flax 58%, 55% 1986, 51% avg.; dry beans 49%, 52% 1986, 36% avg.; soybeans 46%, 60% 1986, 40% avg.; corn 49% tasseling-silking, 38% 1986, 18% avg. Pastures mostly fair to good. Second cutting alfalfa 23% complete, 1st cutting, other hay 88% complete.

OHIO: Temperatures averaged 1 or 2° above and below normal. Extremes low 50s, low 90s. Precipitation widespread, heavy ranging from 1.00 to 4.00 in.

Days suitable for fieldwork 3.0. Soil moisture 8% short, 46% adequate, 46% surplus. Corn 14 to 16 leaves fully emerged, 14 leaves 1986, 12 leaves avg.; good to excellent; some hail, water damage. Soybeans good; bloom far ahead of recent years, some rain damage, low-lying drown-outs. Winter wheat good; rain delayed harvest, some lodging. Grasslands good; hay harvest difficult where too much rain. Potato leafhopper at economic levels some alfalfa stands.

OKLAHOMA: Temperatures averaged 4° below normal east central to 6° below normal southwest. Precipitation averaged 0.37 in. southeast to 2.68 in. west central.

Days suitable for fieldwork 5.0. Topsoil moisture 7% short, 78% adequate, 15% surplus. Subsoil moisture 2% short, 98% adequate. Wheat 100% harvested, 100% 1986, 99% avg. Sorghum 10% fair, 87% good, 3% excellent; 15% heading, 15% 1986, 10% avg. Cotton 10% poor, 25% fair, 50% good, 15% excellent; 45% squaring, 50% 1986, 25% avg.; 10% setting bolls, 5% 1986, 5% avg. Adequate moisture, light insect activity. Row crop development ahead of average. Pastures, livestock good to excellent. Cattle marketings average, prices stable.

OREGON: Hot, dry early then cool, very wet at weekend. Temperatures early week in 100s southwest, east of mountains; elsewhere in 90s except coast mild, upper 50s to 70s. Weekend cold front brought below average temperatures, above average precipitation. Rainfall from 1.00 to 2.20 in. west. Columbia Gorge, eastern basin received 0.50 to 0.75 in. Southeastern areas 0.25 in. or less.

Soil moisture 83% short, 17% adequate. Barley 43% harvested, 39% 1986, 35% avg. Cool, damp weather slowed grass seed development, harvest many areas. Grass seed harvest underway statewide. Some field burning complete mid-Willamette Valley. Field corn continued tasseling Jackson County. Mint harvest neared Jefferson County; well underway Malheur County. First cutting alfalfa mostly completed, 2nd cutting continued, east of Cascades. Raspberry harvest virtually completed; marionberry, boysenberry harvest full swing; blueberry harvest at peak Willamette Valley. Cherry harvest winding down Hood River, west; finished The Dalles; continued with some rain problems Union County. Red Haven peach, other early peach varieties harvested west. Cranberry fruit development good south coast. Fall onions harvested Willamette Valley. Rows closed all Klamath Falls potato fields, conditions good. Harvested processing snap beans, broccoli, sweet corn, green peas, zucchini west; some fresh pack also. Livestock good statewide. Range, pasture fair to good. Pastures dry, fire danger continued high, weekend rains will help. High elevation range still good.

PENNSYLVANIA: Week began with summer's first heat wave. Middle of week saw strong cold front. Warm, hazy again end of week. Average temperature 70°, normal 70°. Temperature extremes 43°, 95°. Average precipitation 0.71 in., 0.18 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 18% short, 73% adequate, 9% surplus. Corn 27% silked, 20% 1986, 14% avg.; 2% poor, 11% fair, 43% good, 44% excellent. Average corn height 59 in., 53 in. 1986, 47 in. avg. Soybeans 3% poor, 16% fair, 49% good, 32% excellent. Barley 9% turning yellow, 4% 1986; 11% ripe, 19% 1986; 80% harvested, 77% 1986. Wheat 16% turning yellow, 10% 1986; 42% ripe, 38% 1986; 42% harvested, 52% 1986; 2% poor, 16% fair, 54% good, 28% excellent. Oats 26% heading or headed, 18% 1986; 35% turning yellow, 42% 1986; 28% ripe, 34% 1986; 11% harvested, 6% 1986; 1% poor, 15% fair, 48% good, 36% excellent. Second cutting alfalfa 47% complete, 57% 1986. First cutting clover-timothy 92% complete, 97% 1986. Hay stands mostly fair. Feed from pastures average to below average. Activities: Harvesting small grains, hay, haylage; spraying corn, soybeans; machinery maintenance; caring for livestock.

PUERTO RICO: NO DATA AVAILABLE.

SOUTH CAROLINA: Temperatures mid 90s. Mostly hot, dry, little or no rainfall.

Days suitable for fieldwork 6.0. Soil moisture 3% very short, 72% short, 25% adequate. Cotton 88% squaring, 91% 1986, 94% avg.; 57% setting bolls, 68% 1986, 79% avg.; 12% fair, 88% good. Soybeans 100% planted; 10% blooming, 9% 1986, 11% avg.; 4% setting pods, 1% 1986; 24% fair, 71% good, 5% excellent. Corn good; 67% dough stage, 79% 1986, 69% avg.; 15% mature, 33% 1986, 21% avg. Tobacco good; 90% topped, 90% 1986, 90% avg.; 13% harvested, 16% 1986, 21% avg. Peaches fair to good; 55% harvested, 70% 1986, 65% avg. Peanuts good. Fruits, vegetables fair to good.

SOUTH DAKOTA: Average temperatures normal to 4° below normal. Extremes 37°; 107°. Black Hills low 26°.

Days suitable for fieldwork 5.2. Topsoil moisture 17% critically short, 39% short; 41% adequate, 3% surplus. Small grain harvest underway. Crop progressed ahead of normal.

TENNESSEE: Temperatures below normal. Extremes 50s; 90s. Precipitation well below normal. Amounts 0.75 to 1.00 in. or less.

Days suitable for fieldwork 4.8. Soil moisture 14% short, 84% adequate, 2% surplus. Corn 85% tasseling, 80% 1986, 70% avg. Corn 40% dough, 35% 1986, 20% avg. Corn 10% dent, 10% 1986, 4% avg. Corn 12% fair, 57% good, 31% excellent. Tobacco topped 10%, 10% 1986. Tobacco 15% fair, 77% good, 8% excellent. Alfalfa 2nd cutting 93%, 98% 1986, 98% avg. Hay 2% poor, 20% fair, 67% good, 11% excellent. Cattle mostly good. Pastures mostly good. Insect control, haying, cultivating, tobacco topping, clipping pastures main activities.

TEXAS: Early week, mid-summer cold front pushed as far south as Coastal Bend, numerous showers, thunderstorms developed along front. Front also brought much cooler air into State, many overnight low temperatures tied or broken many northern areas. Upper air disturbances moved northward from Mexico causing scattered thunderstorms across much State. One slow moving front caused heavy rains, flash flooding Hill Country. Precipitation totals generally above normal; below normal amounts east, Upper Coast. Temperatures across State below normal.

Crops: Weather excellent corn progressed Plains until hail hit some fields. Some fields dough

stage. Fields continued denting Blacklands, southward, eastward. Fields maturing rapidly under hot temperatures. Some light harvest completed Coastal Bend, Valley. Harvest increased rapidly if current weather conditions hold out. Corn 50% dented, 61% 1986, 57% avg.; 4% mature, 43% 1986, 25% avg. Grain sorghum good progress; scattered fields Plains hail damage. Fields rapidly turning color Blacklands, east, central. Some fields Blacklands could use rain. Harvest increased Coastal Bend, Valley. Harvest also began Upper Coast. Sorghum 46% turning color, 57% 1986, 54% avg.; 20% mature, 46% 1986, 37% avg. Sorghum 3% harvested, 28% 1986, 23% avg. Cotton fields continued benefit from hot daytime temperatures. Rain, hail lowered temperatures slightly Plains, slowed growth little. Producers other areas spraying for insects. Bolls opening rapidly Coastal Bend, Valley, some light harvest. Defoliation activities progressed. Open bolls 1%, 6% 1986, 3% avg. Rice producers busy fertilizing fields, treating for insects. Some fields being drained preparation for harvest. Most fields continued rapidly turn color. Rice turning color 29%, 52% 1986, 41% avg. Soybeans Plains sustained some minor damage from hail. Producers cultivating fields Upper Coast. Peanuts good progress under good growing conditions. Some dryland fields Blacklands need rain. Minor damage occurred Plains from hail. Planting virtually completed. Other crops planted: Peanuts 99%, 99% 1986, 99% avg. Soybeans 100%, 98% 1986, 99% avg. Sunflowers 100%, 100% 1986, 99% avg. Other crops harvested: Oats 96%, 88% 1986, 95% avg.

Commercial Vegetables: Rio Grande Valley, land preparation continued fall crops. San Antonio-Winter Garden watermelon harvest continued. High Plains, onion, potato harvest made some progress despite bad weather. Other vegetables good progress. Trans-Pecos cantaloup harvest to begin soon. Some cantaloups harvested Presidio area. East supplies of peas, sweet corn, tomatoes, watermelons good. Pecans continued good progress; aphids increased. Most nuts sizing well. Spraying programs continued.

Range and Pasture: Ranges, native pastures good, some areas began to dry down. Large amount hay baled. Yields good. Livestock good. Markets remained steady, slower activity.

UTAH: Precipitation light to moderate. Temperatures 2 to 4° below normal. Extreme southwest 2° above normal.

Days suitable fieldwork 6.5. Soil moisture 88% short, 12% adequate. Winter wheat 91% ripe, 54% 1986, 43% avg.; 42% harvested, 18% 1986, 11% avg. Spring wheat 50% ripe, 26% 1986, 8% avg.; 4% harvested, 3% 1986, none avg. Barley 65% ripe, 51% 1986, 15% avg.; 19% harvested, 19% 1986, 7% avg. Oats 61% turning, 43% 1986, 30% avg.; 26% ripe, 5% 1986, 2% avg. Corn 54 in. high, 47 in. 1986, 38 in. avg. Tasseling underway. Alfalfa 2nd cutting 26% complete, 35% 1986, 18% avg. Grass hay neared completion. Tart cherries 50% harvested. Apricots neared completion. Major farm activities: Haying, small grain harvest, irrigation. Lower elevation ranges continued to dry. Fires more frequent. Grasshoppers not major problem. One mormon cricket outbreak Uintah County. Livestock good.

VIRGINIA: Hot, humid beginning of week giving way to cold front midweek. Scattered thunderstorm activity across State. Temperatures varied from hot to cool but averaged little below normal. Rainfall ranged from trace to 2.00 in.

Days suitable for fieldwork 5.4. Topsoil moisture 53% short, 44% adequate, 3% surplus. Dry areas scattered across State. Corn good to excellent. Corn 58% in or beyond silk stage, 52% 1986, 62% avg.; 21% in or beyond dough stage, 16% 1986, 23% avg. Soybeans excellent, 10% blooming,

16% 1986, 12% avg. Peanuts excellent. Tobacco excellent. Flue tobacco being topped. Harvest began isolated areas. Small grain harvest neared completion. Fruit mostly excellent. Picking peaches. Pastures, hay good to excellent. Rain needed many areas. Feeding livestock some areas. Leafhoppers in alfalfa. Potato harvest 72% complete, 84% 1986, 73% avg. Vegetable harvest continued.

WASHINGTON: Dry, mild conditions prevailed. Temperatures near normal. Extremes 41° Olympia, 103° Wapato. Precipitation minimal statewide.

Days suitable for fieldwork 6.7. Soil moisture 60% short, 40% adequate. Winter wheat 14% harvested, 9% 1986, 6% avg. Barley 16% harvested. Dryland grain mostly good. Winter wheat yield Adams, Lincoln Counties down considerably due to frost, drought conditions which occurred in spring. Hay, rape seed, other crops also affected by adverse conditions. More vigorous varieties of hops growing on stringing cables in Yakima County. Early red potato harvest continued in Benton, Franklin Counties. Potatoes good to excellent. Cherry harvest completed most areas. Harvest of peaches, nectarines, apricots, began. Orchardists geared up for apple harvest. Berry growers western area continued to pick raspberries, blueberries. Strawberry harvest complete. Green pea harvest completed Walla Walla County. Dry pea, lentil harvest progressed. Summer vegetable harvest continued west of Cascade range. Range, pastures 40% short, 60% adequate. Ranges east central area particularly dry. Cows, yearling cattle good flesh. Dairymen continued preparation to send milk cows to slaughter as final month of dairy termination program draws near.

WEST VIRGINIA: Average temperature 70°, 3° above normal northwestern division, 1 to 4° below elsewhere. Extremes 42° Elkins; 96° Creston.

Precipitation averaged 0.33 in.; 0.40 to 0.72 in. below normal.

Days suitable for fieldwork 4.4. Soil moisture 12% very short, 40% short, 48% adequate. Wheat, oats, tobacco fair to good. Barley, corn good to fair. Feed supplies adequate. Farm activities: Harvesting hay, clipping pastures, combining grain, farm maintenance, gardening.

WISCONSIN: Temperatures averaged 70°, 1° below normal. Extremes 37°; 96°. Rainfall 0.20 to 0.90 in.

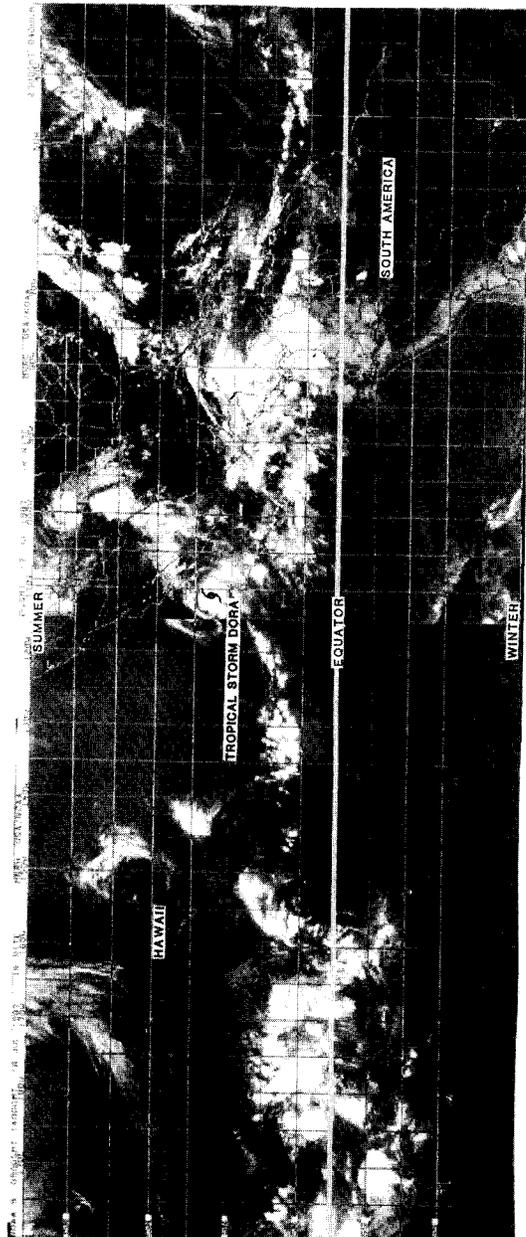
Days suitable for fieldwork 5.8. Soil moisture 58% short, 42% adequate. Crops 1% very poor, 5% poor, 39% fair, 54% good, 1% excellent. Corn better, average height 67 in., 60 in. 1986, 51 in. avg. Corn 43% in silk, 16% 1986, 8% avg. Oats 12% harvested, 6% 1986, 3% avg. Yields below average. Winter wheat 26% harvested, 3% 1986, average unavailable. Second crop hay 35% cut, 28% 1986, 26% avg. Yields low, quality generally good. Soybeans good. Sweet corn harvest active. Pea harvest finishing. Cranberries good fruit set.

WYOMING: Temperatures below normal. Rainfall mostly general. Central portion only exception.

Days suitable for fieldwork 6.0. Topsoil moisture 77% short, 23% adequate. Winter wheat 5% headed, 10% 1986; 35% turning color, 35% 1986; 55% mature, 40% 1986; 5% harvested, 15% 1986, 10% avg. Barley 5% boot, 5% 1986; 35% headed, 25% 1986; 40% turning color, 50% 1986; 20% mature, 15% 1986. Spring wheat 5% boot, 5% 1986; 50% headed, 45% 1986; 30% turning color, 35% 1986; 15% mature, 15% 1986. Oats 15% boot, 10% 1986; 50% headed, 60% 1986; 25% turning color, 15% 1986; 10% mature, 10% 1986, 5% avg. Alfalfa 1st cut 95% complete, 85% 1986, 85% avg. Other hay 55% harvested, 50% 1986, 40% avg. Dry beans 15% bloom, 30% 1986, 35% avg. Potatoes 25% bloom, 40% 1986, 50% avg. Corn 5% tasseled, 10% 1986, 10% avg. Range, pasture mostly good. Stock water supplies adequate most areas.

Global Weather Satellite Image

July 18, 1987



International Weather and Crop Summary

July 12-18, 1987

HIGHLIGHTS:

UNITED STATES ... Scattered precipitation throughout the Corn Belt and central Great Plains pushes crop development ahead of normal. Moisture benefits crops in the northern Great Plains.

U.S.S.R. ... In Western U.S.S.R., mostly dry weather in the Ukraine and North Caucasus favors winter wheat maturation and helps harvesting. In the New Lands, showers cover western spring grain areas while dry weather covers the east.

EUROPE ... Moderate to heavy showers soak fields in western and northern Europe. Dry pockets persist in the southeast, limiting moisture for filling wheat and summer crops nearing reproduction.

SOUTH ASIA ... Minimal rain persists in southern India's cotton and groundnut regions, limiting moisture for vegetative crops.

SOUTHEAST ASIA ... Minimal rain persists over most Thai grain regions, limiting moisture for reproductive to filling crops.

EASTERN ASIA ... Heavy rain from Typhoon Theima causes flooding in southern crop areas of South Korea and Japan's southern Islands. Substantial rain continues to benefit crops in the Manchurian Valley.

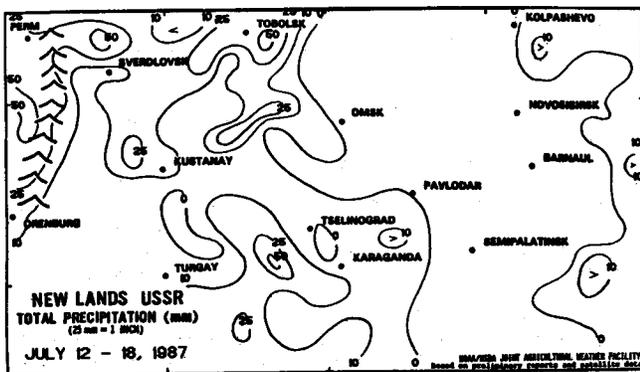
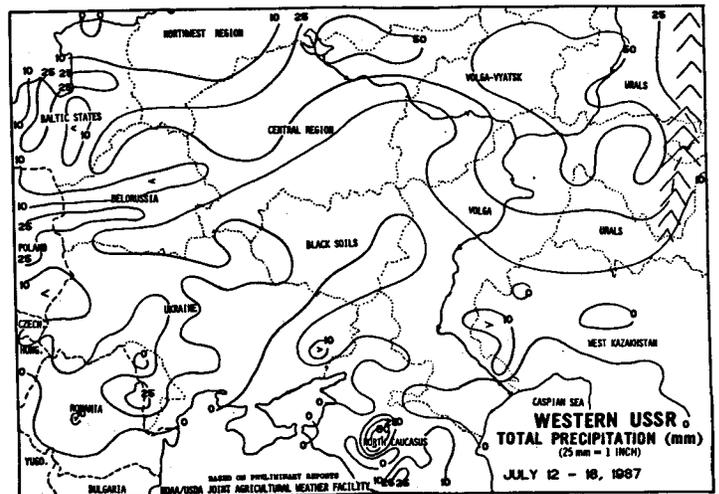
CANADA ... Beneficial rain promotes grain development in the Prairie Provinces.

SOUTH AMERICA ... Mostly light rain helps emerging wheat in Argentina. In Brazil, wetness continues in the south, but dry weather favors the coffee harvest.

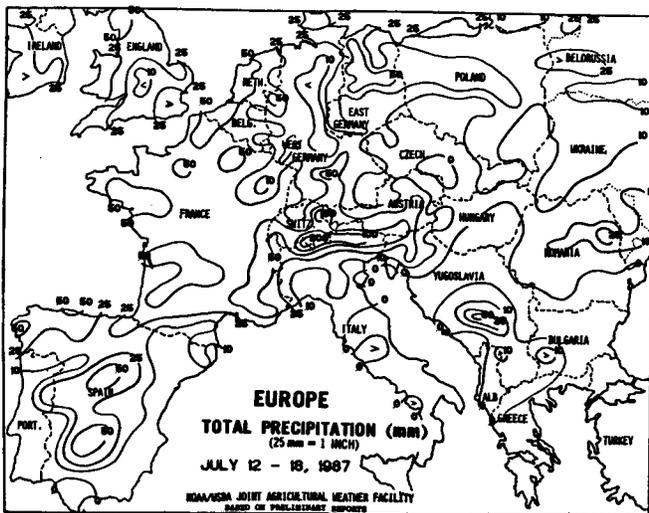
AUSTRALIA ... Beneficial rain covers southernmost vegetative wheat, but dryness continues in Queensland's crop areas.

MEXICO ... Widespread, rain favors crop development.

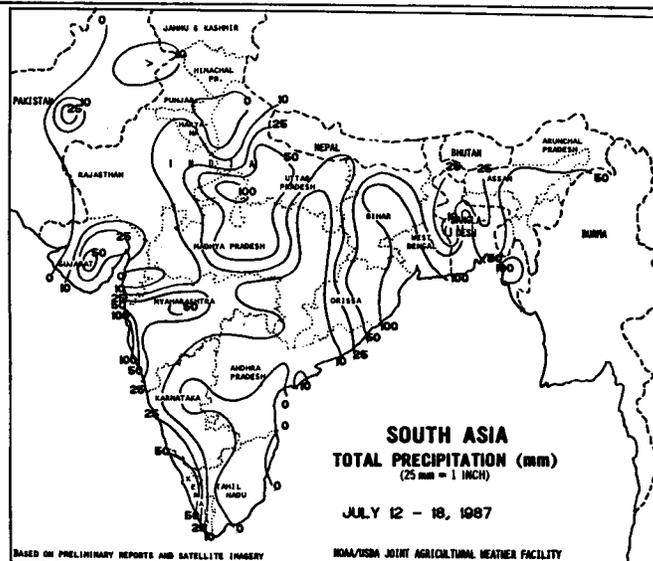
U.S.S.R. ... In Western U.S.S.R., a frontal system moved through the region early in the week, producing widespread showers over northern and western crop areas. Rainfall amounts in the Baltic States, Belorussia, and the Central Region generally ranged from 10 to 40mm, benefiting winter wheat in the filling stage and spring grains in the reproductive phase. The front stalled over the Upper Volga and Ural Mountains as it progressed eastward, providing the heaviest rainfall (30-80mm) to these areas. Mostly dry weather covered major winter wheat producing areas of the Ukraine and North Caucasus, favoring crop maturation and helping early harvest activities. Weekly temperatures were normal to below normal over most crop areas.



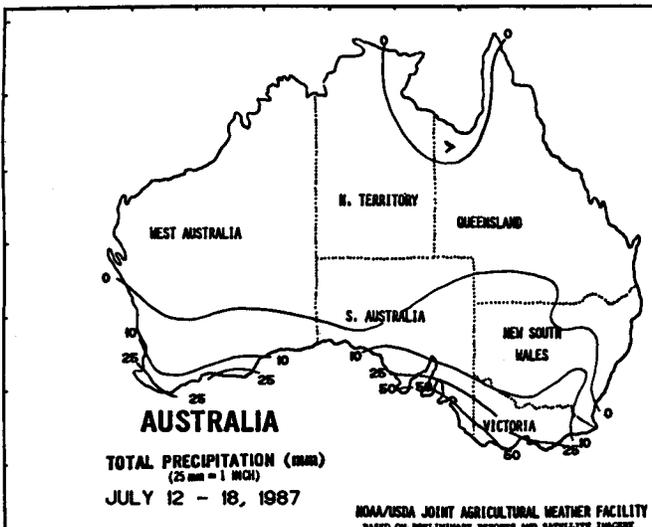
In the New Lands, spring grains were entering the heading stage in the east and advancing through reproduction in the west. During the second half of the week, a frontal system stalled over the western portion of the region, producing significant showers over the Urals and parts of central Kazakhstan. High pressure kept crop areas dry over the eastern half of the region. Weekly average temperatures were 1-3 degrees C above normal at most locations, with maximum temperatures ranging from 28 to 32 degrees C.



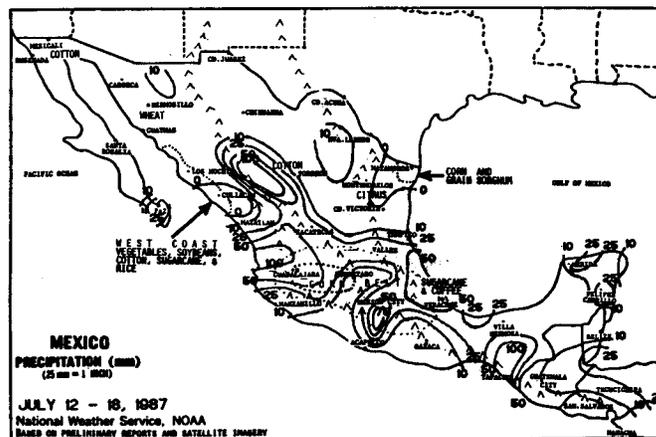
EUROPE ... Moderate to heavy showers (10-99mm) swept through western and northern Europe, soaking fields from central Spain through France into England, and extending as far east as central Poland. The rainfall maintained favorable moisture reserves for filling winter grains and French corn nearing reproduction but delayed winter wheat harvesting in southern France. Minimal rain (less than 6mm) in central and southern Italy promoted wheat harvesting. Heavy showers (greater than 100mm) caused flooding in recently wet montane regions of France, Italy, and Switzerland. Minimal rain (less than 10mm) covered most crop areas in eastern Europe, from eastern Czechoslovakia and eastern Poland, southward to Greece and Bulgaria. The dryness benefited maturing winter wheat in the southeast, but moisture was limited in many areas for summer crops nearing reproduction.



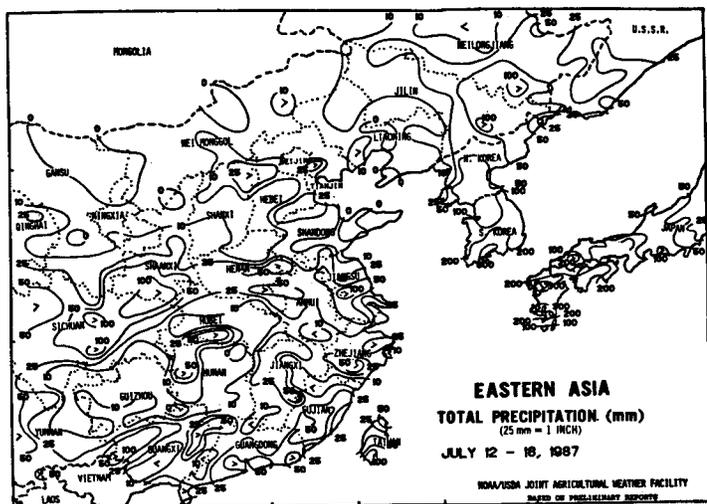
SOUTH ASIA ... Minimal rain (less than 10mm) continued in major summer crop areas of southern India, from southern Maharashtra to Tamil Nadu, limiting moisture for early vegetative cotton and groundnuts. Pockets of moderate showers (25-50mm) over western Maharashtra and Gujarat increased moisture reserves for emerging summer crops and crop planting. Moderate to heavy rain (25-137mm) relieved dryness in central Madhya Pradesh and central Uttar Pradesh, improving irrigation reserves for rice in the jointing stage. Moderate to heavy showers (25-145mm) in eastern India and Bangladesh improved conditions in Bihar and West Bengal but maintained wet conditions to the east. Light to moderate rain (3-24mm) supplemented irrigation reserves in northern Pakistan and northern India.



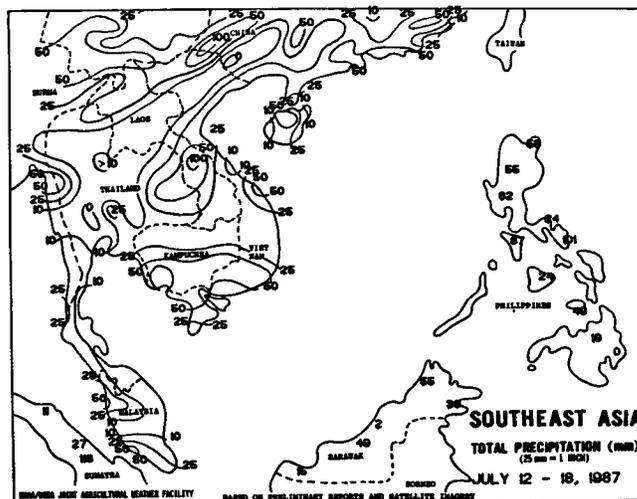
AUSTRALIA ... Moderate to heavy showers (10-59mm) brushed Australia's southern coast, maintaining favorable moisture levels in South Australia and Victoria for vegetative wheat. Rainfall averaged less than 10mm in Western Australia and southern New South Wales, while dry weather returned to northern New South Wales and southeastern Queensland. Moisture levels were adequate in most western grain areas but continue poor in grain areas of northern New South Wales and Queensland. Temperatures averaged 9-14 degrees C throughout the major grain areas, slowing vegetative growth. Dry weather covered coastal Queensland's sugar region.



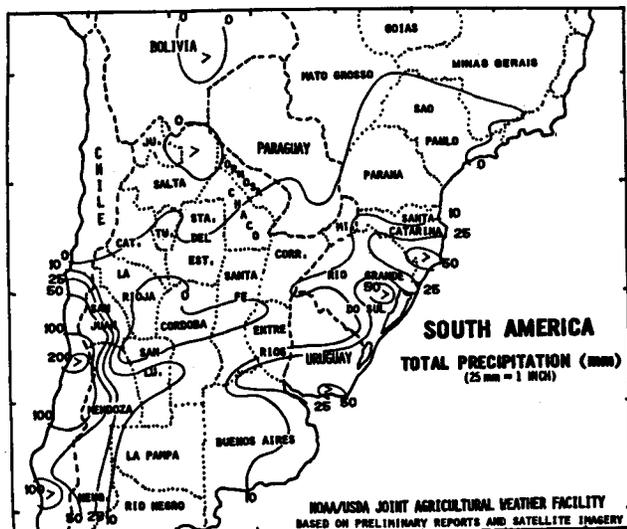
MEXICO ... Widespread, rain and milder weather promoted corn development over much of the Southern Plateau corn belt. Weekly rainfall averaged 50-100mm in the west, 10-45mm in the center, and 25-120mm in the east. More beneficial rain for immature cotton and rangelands covered north-central Mexico. Some light rain (less than 10mm) covered the west coast farming region. Dry weather prevailed in the northwest, but substantial rain fell in the northwestern mountains, favoring irrigation reservoirs. Variable, but widespread, rain covered southern Mexico.



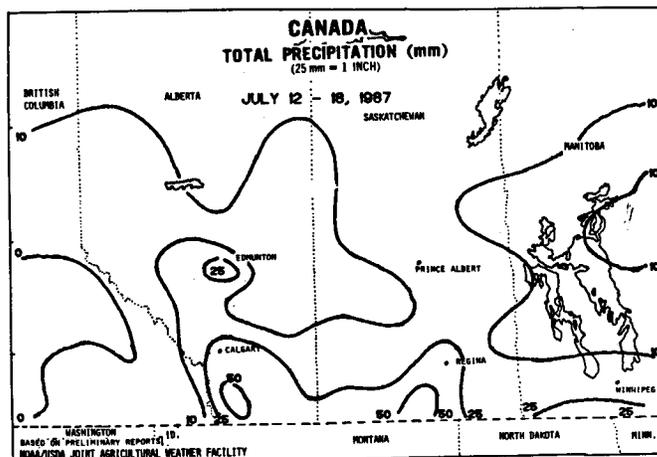
EASTERN ASIA ... An early-week stationary front extended eastward from Sichuan, through Henan, Jiangsu, South Korea, and central Japan, producing moderate to heavy rain. The rainfall over China crop areas ranged from 40 to 100mm. On July 15, Typhoon Thelma moved rapidly through the Korea Strait and dissipated in the Sea of Japan before moving on shore into Heilongjiang on July 17. The combination of heavy rain from the early-week stationary front and heavy rain from Typhoon Thelma produced widespread flooding over southern South Korea and the southern islands of Japan. Total precipitation amounts in these areas ranged from 200 to 350mm. In the Manchurian Valley, substantial rain (40 to 70mm) benefited summer crops advancing through reproduction.



SOUTHEAST ASIA ... Light to moderate rain (1-25mm) covered most rainfed grain regions in Thailand, with amounts averaging less than 10mm in most corn areas. Grains were reproductive to filling, and the persistent, dry, warm weather stressed corn and limited moisture for the crops' normal development. Pockets of heavy rain (50-147mm) benefited rainfed rice in eastern Thailand, extending into southern Laos, and from southern Kampuchea to southern Vietnam. Light to moderate rain (1-50mm) fell elsewhere in Indochina and continued into Malaysia and Indonesia. In the Philippines, light rain (less than 25mm) covered crop areas in the southern islands, but moderate to heavy showers (25-87mm) covered most northern crop areas. Parts of southwestern Luzon, however, were too wet following recent weeks of heavy rain.

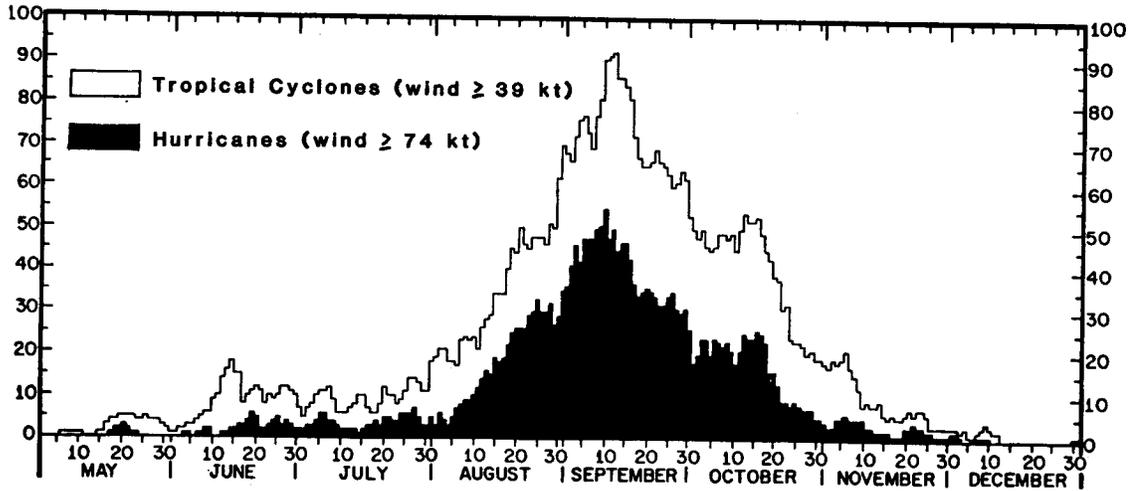


SOUTH AMERICA ... Some rain fell over Argentina's wheat areas, but substantial amounts (10-35mm) were confined mostly to eastern Buenos Aires. Elsewhere, light rainfall averaged 5-7mm in southwestern Buenos Aires and 3mm or less in southern portions of Cordoba and Santa Fe and northwestern Buenos Aires. Another storm system, causing locally heavy rain (100-219mm) in central Chile, produced about 15mm in southeastern Cordoba. The light rain helped emerging wheat. Wheat planting continued throughout the wheat belt and moisture reserves were low. In Brazil, showers produced 10-55mm over much of Rio Grande do Sul, maintaining wet field conditions for wheat growth. Light showers (5mm or less) and mild weather continued over Parana's wheat area. Dry weather favored the coffee harvest in Minas Gerais.



CANADA ... Beneficial rain covered southern portions of the Prairie grain belt. Weekly rainfall averaged 25-50mm in southwestern Saskatchewan and southern Alberta, where deficient moisture hampered grain development. The timely rain helped grain crops, which are heading to filling. Widespread showers produced 10-25mm over most wheat areas of Manitoba, all but northwestern crop areas of Saskatchewan, and over central and western Alberta. Light rain (1-9mm) fell in the northwestern portion of the grain belt. A brief period of hot weather during midweek was displaced by showers and favorably cool weather for grains and oilseeds now advancing rapidly into the filling periods of development.

Hurricane Season



Accumulated number of tropical cyclones each day from 1977-86 in the North Atlantic, Caribbean Sea, and Gulf of Mexico. (Figure is reproduced from "Tropical Cyclones of the North Atlantic Ocean," National Climatic Data Center, NESBZS, NOAA.)

Tropical cyclones of the North Atlantic, Caribbean Sea, and Gulf of Mexico areas have occurred at nearly all times of the year but most frequently during August-October. The official hurricane season is June 1-November 30, since cyclones in other months are rare. Climatic conditions in the areas where these storms form are most favorable for hurricanes during late summer and early autumn, since the ocean surface water temperature reaches its maximum at this time. Tropical cyclones derive much of their energy from warm ocean waters.

Tropical cyclones of storm intensity have maximum wind speeds between 34 and 63 knots (39 and 73 MPH), whereas those of hurricane intensity have winds of 64 knots (74 MPH) or more. All the eastern coastal areas of North America, from Panama to Canada's maritime provinces and the West Indies, and other islands, experience these storms, and a few storms have brushed the northernmost coasts of South America. The number of storms per year has varied from as few as 1 to as many as 21.

The National Weather Service's National Hurricane Center in Miami issues forecasts of tropical storm movement in the Atlantic, Caribbean, and Gulf of Mexico. The Weather Service Forecast office in San Francisco monitors storm activity in the eastern Pacific.

Names of Tropical Storms by Chronological Occurrence for 1987

<u>Atlantic</u>				<u>Eastern Pacific</u>			
1	Arlene	12	Lenny	1	Adrian	12	Lidia
2	Bret	13	Maria	2	Beatriz	13	Max
3	Cindy	14	Nate	3	Calvin	14	Norma
4	Dennis	15	Ophelia	4	Dora	15	Otis
5	Emily	16	Philippe	5	Eugene	16	Pilar
6	Floyd	17	Rita	6	Fernanda	17	Ramon
7	Gert	18	Stan	7	Greg	18	Selma
8	Harvey	19	Tammy	8	Hilary	19	Todd
9	Irene	20	Vince	9	Irwin	20	Veronica
10	Jose	21	Wilma	10	Jova	21	Wiley
11	Katrine			11	Knut		

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