

WEEKLY WEATHER AND CROP BULLETIN

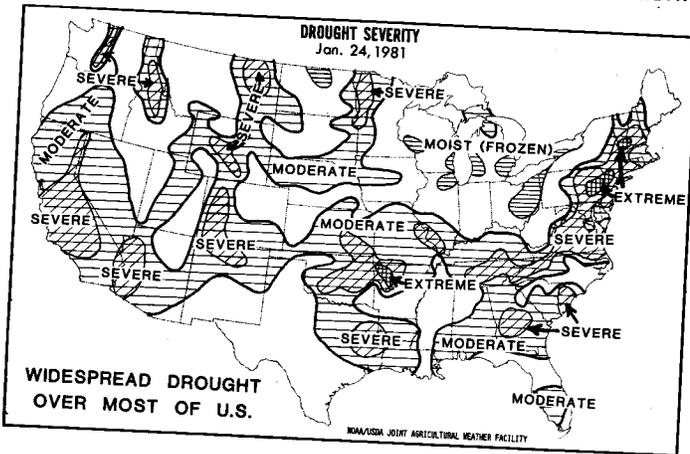
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warm weather continued in the West but moderated somewhat in the East. Light drizzle continued in parts of the South and some rain and occasional snow fell in the mid-Atlantic States. Out West, the cold front brought rain and high wind to the coastal region. Rain and some snow at high elevations reached from northern California northward.

THURSDAY...Rain was sparse over the relatively dry Nation. Only the far West and the Northeast recorded extensive precipitation. Some isolated moderate showers fell in extreme south Texas. The precipitation over the Northeast was mostly light snow. The frontal system moving into the West caused heavy rain along the coast and some heavy snow in the Sierras. Showers extended eastward to the northern Plateau. Record-high temperatures were reached ahead of the front. Lewistown, in central Montana, recorded an unbelievable 74°. Temperatures in the high 50s and 60s set records elsewhere in the northern Plains.

FRIDAY...Welcome rain fell in the West. The rainy weather spread to southern California, to the central and northern Plateau. Some heavy amounts fell in the California valleys and heavy snow began piling up in the Sierras. Elsewhere, light snow showers continued in the Northeast and rain showers were scattered over southern Florida. Record-high temperatures were again marked in the northern Plains. Temperatures in the 60s reached into North Dakota.

SATURDAY...The cold front which had produced heavy rain along the Pacific Coast and snow in the Sierras moved into the northern and central Rocky Mountains, producing rain and snow showers. Scattered light snow lingered over northeastern United States. High temperatures in the 70s reached from Texas to South Dakota. Sixties prevailed through the middle Mississippi Valley, where the previous record-highs were in the 50s.

SUNDAY...The storm system from the Pacific moved into the northern Plains and spread welcome snow-cover through Montana and North Dakota. Scattered light snow lingered over the northern Rockies. Another weather system began spreading light rain along the west coast. Warm temperatures in the northern Plains and Mississippi River Valley were being replaced by cooler weather but new record-highs were established in Iowa and Illinois.

National Weather Summary

JANUARY 25, 1981

HIGHLIGHTS...Drought is plaguing a large part of the Nation. Severe-to-extreme drought in parts of the Northeast is taxing public water supplies and moderate-to-severe drought in other parts of the Nation has depleted soil moisture which will be needed for the approaching spring planting season. Welcome rain fell early in the week from the Southwest to the mid-Atlantic region and a cold front brought heavy precipitation to the West late in the week.

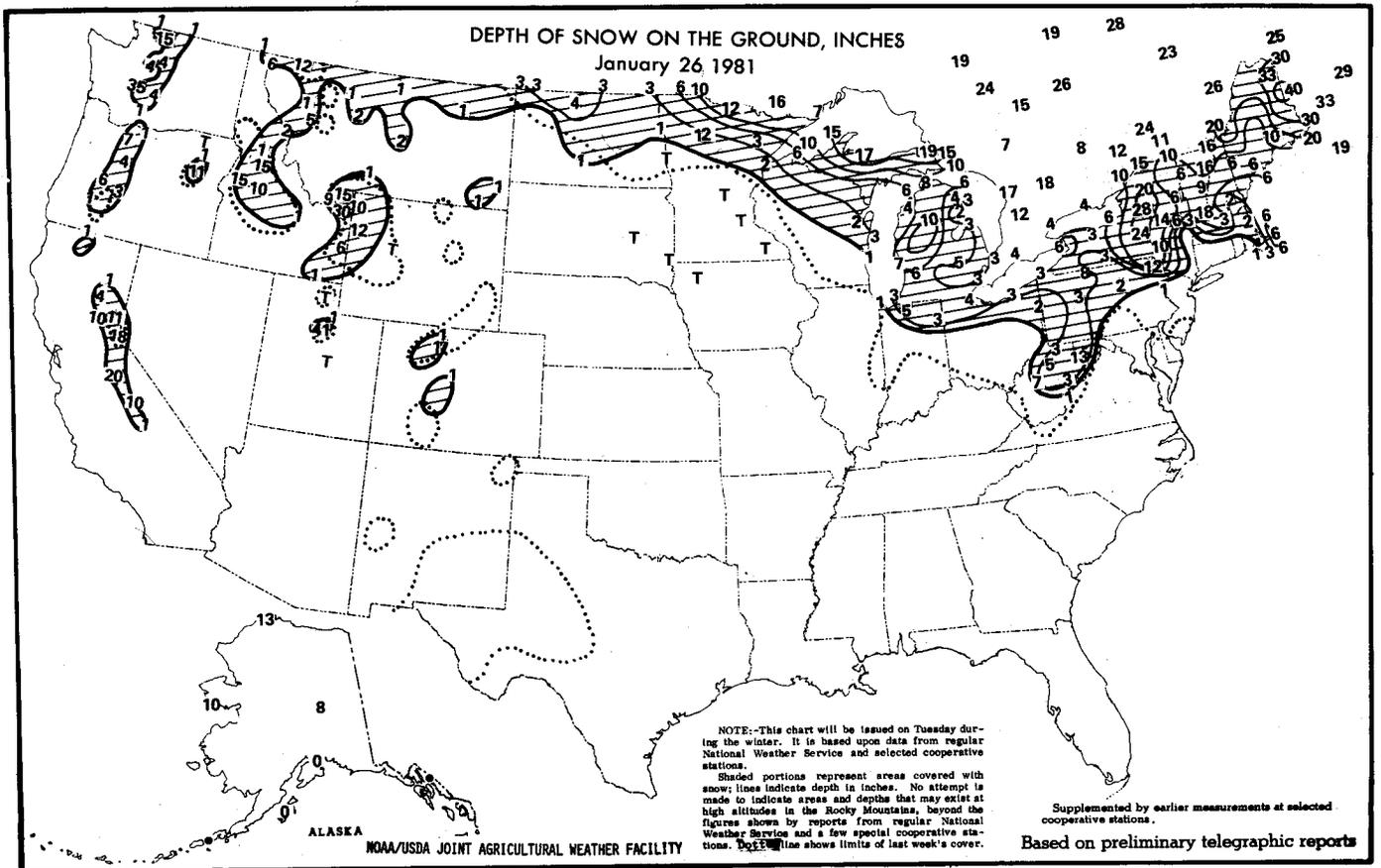
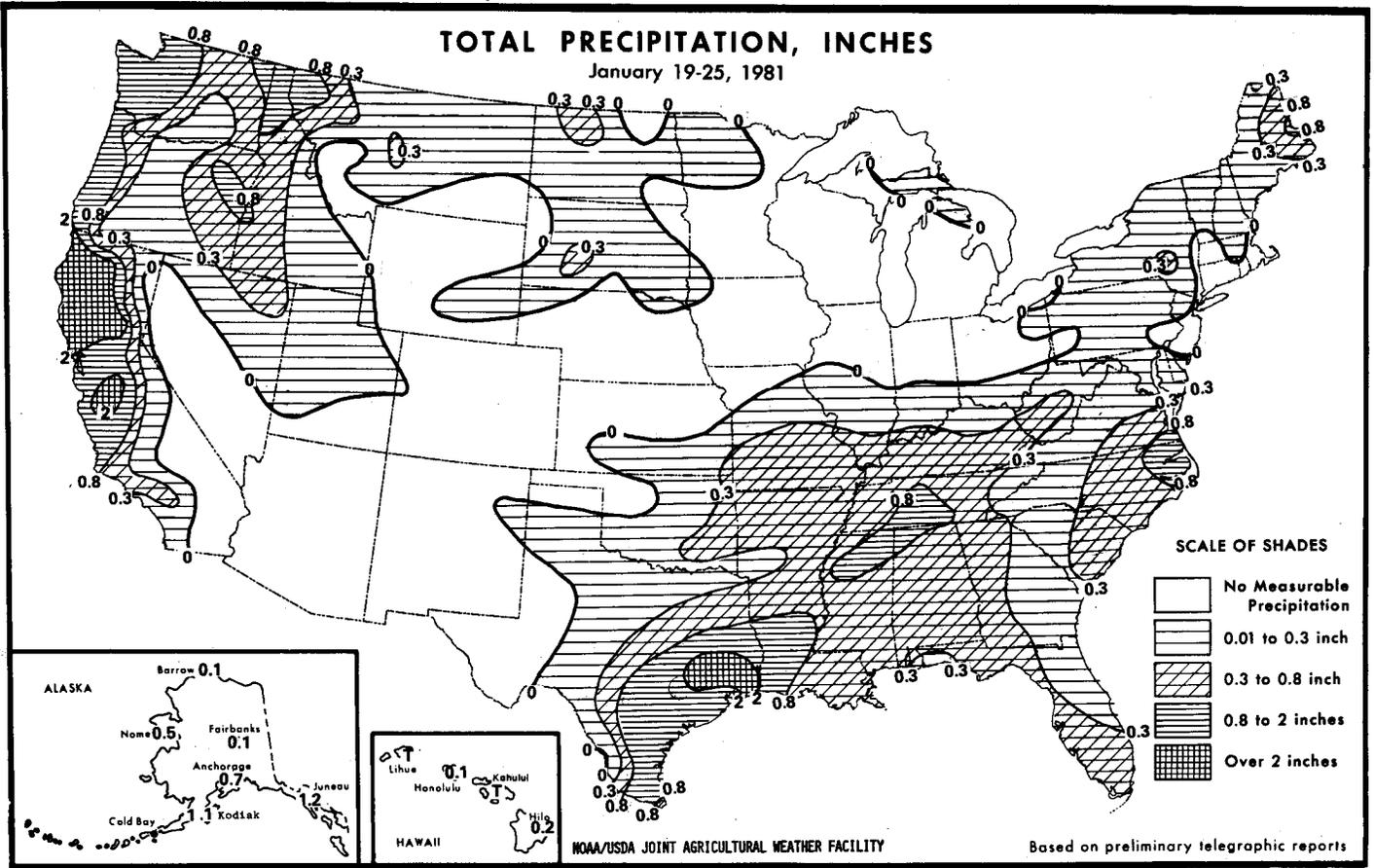
MONDAY...Much of the Florida Peninsula had frosty temperatures again. Temperatures stayed in the mid-20s and 30s this time, but freezing weather reached as far south as the Everglades. Temperatures warmed later in the day and except for some colder weather in the northern Plains, most of the Nation had rather mild temperatures. Rain reached northward from southern Texas through Oklahoma to Missouri and slowly spread eastward to Alabama.

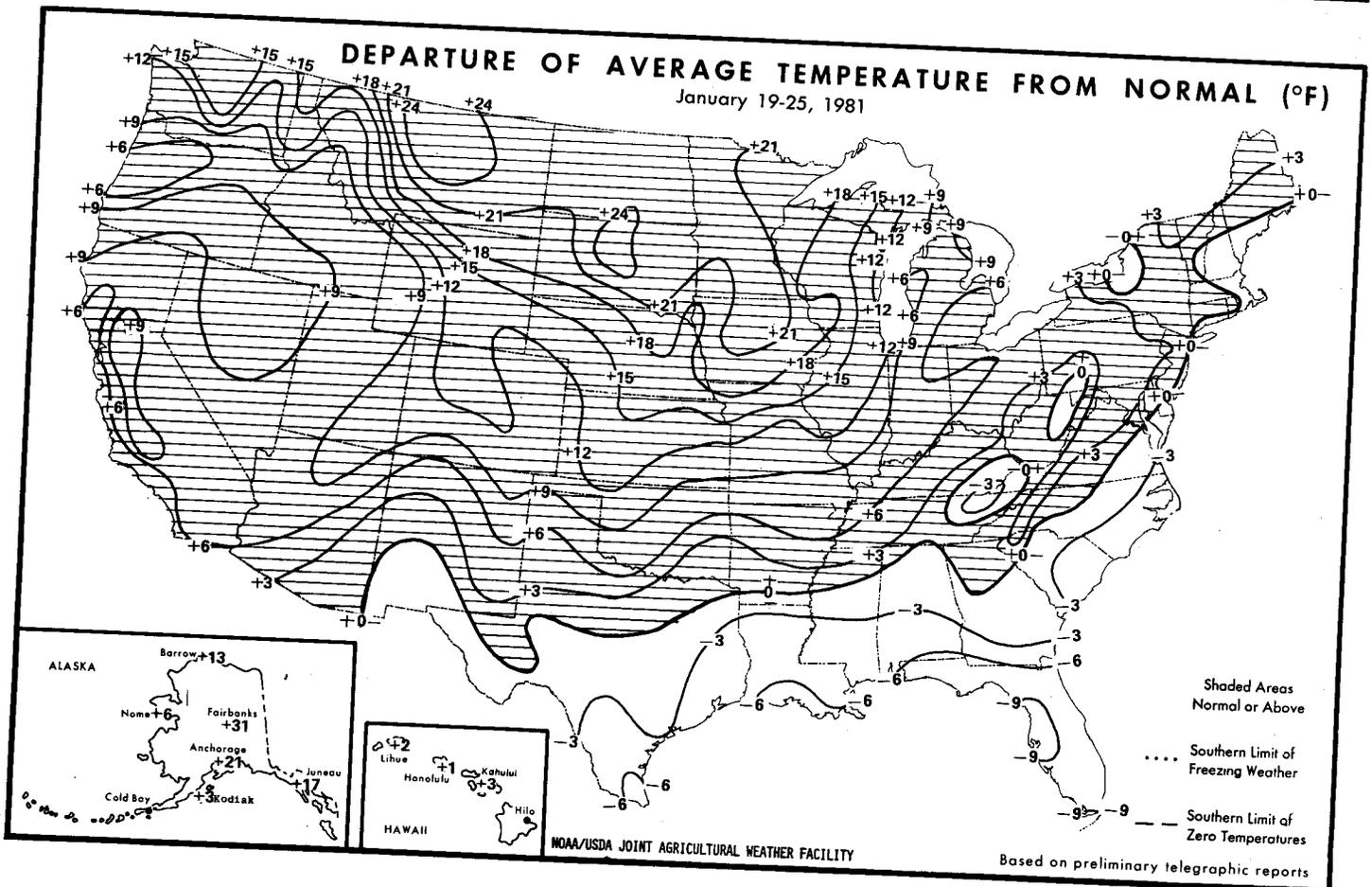
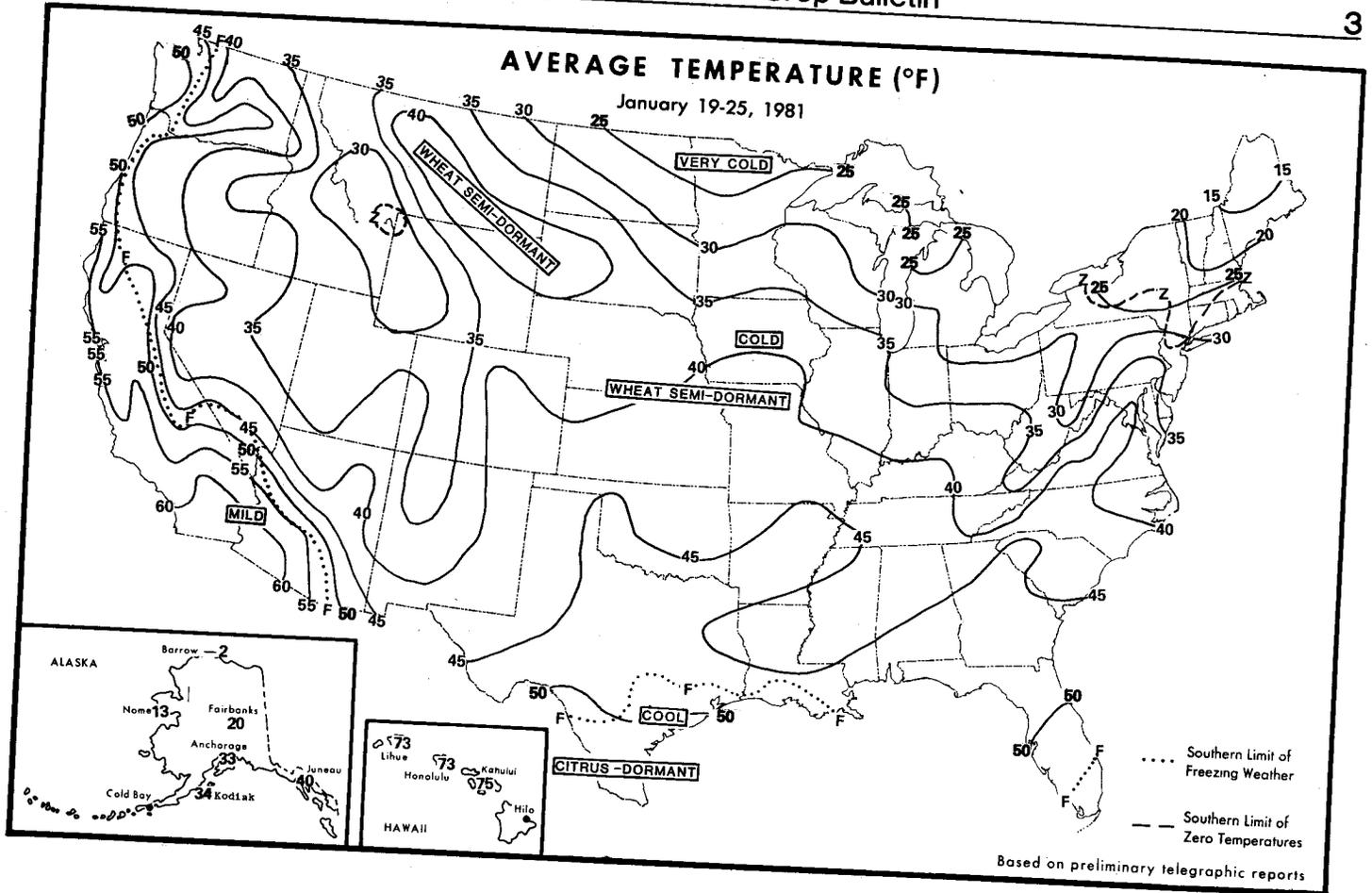
TUESDAY...An extensive area of rain covered much of the South from eastern Texas to Georgia and from the gulf coast to Missouri, the Ohio Valley, Virginia, and Maryland. The welcome rain was widespread through the Southeast. Elsewhere, a cold front moved onshore in the West, spreading showers from central California through Washington. Morning temperatures were in the teens in the northern Plains but daytime temperatures warmed to near the freezing mark. Unseasonably warm weather covered both coasts during the day -- in the 50s in the mid-Atlantic States and the 60s and 70s in California.

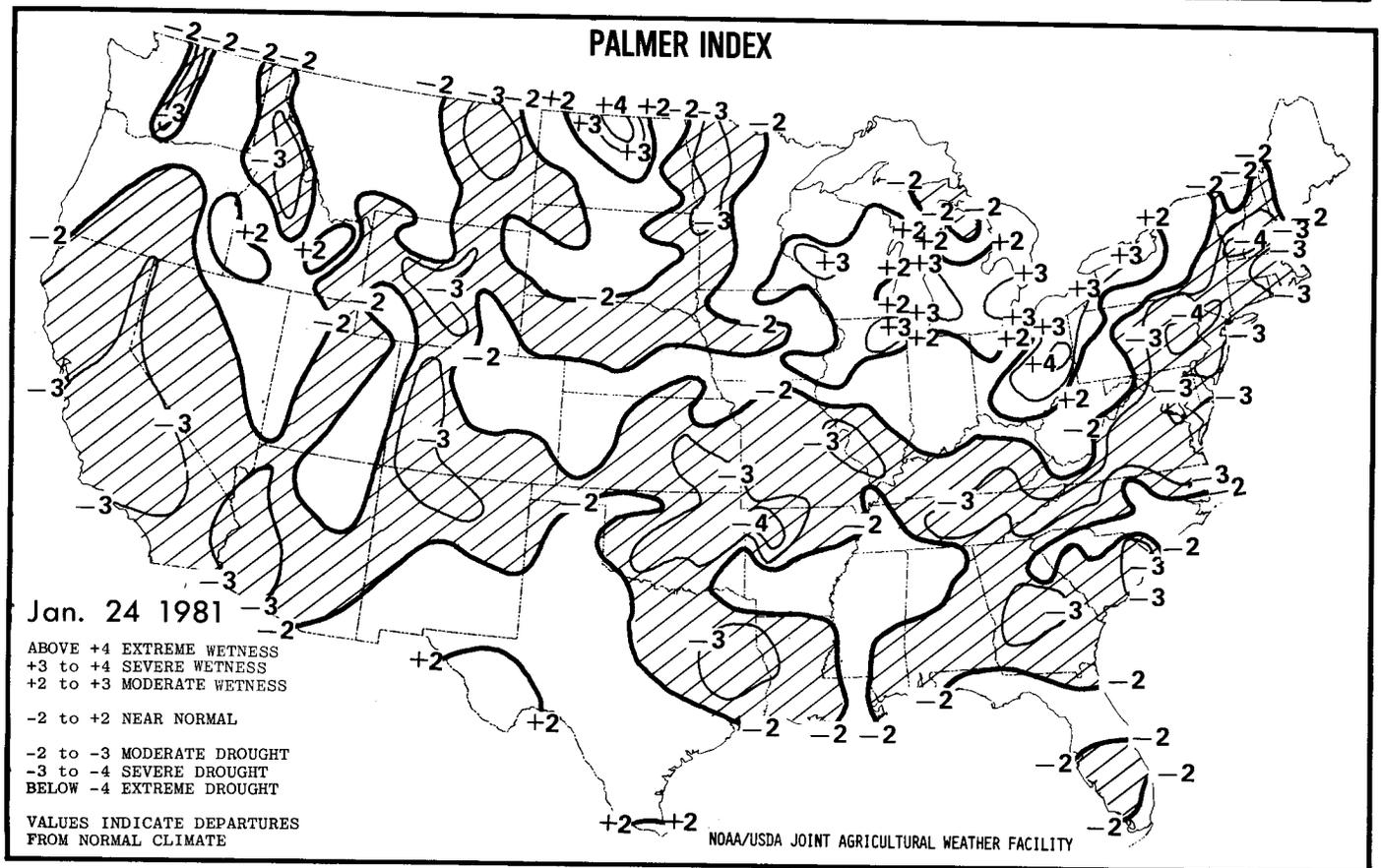
WEDNESDAY...Cold morning temperatures extended throughout the Plains, ranging from the low teens in the North to the 30s in Texas. Unseasonably

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The Palmer Drought Index Map is being issued early this year because of the great concern about low water supplies in soils, reservoirs, and rivers.

The drought has continued since last fall over the eastern central Great Plains, through much of the Southeast and the East Coast. It expanded

westward during the fall and winter from the Rockies to the Sierra Mountains.

Extreme drought covers early parts of southern Vermont, southern New York, eastern Pennsylvania, northwestern New Jersey, and northwestern Arkansas.

Moisture is abundant around the Great Lakes but probably most of it is frozen.

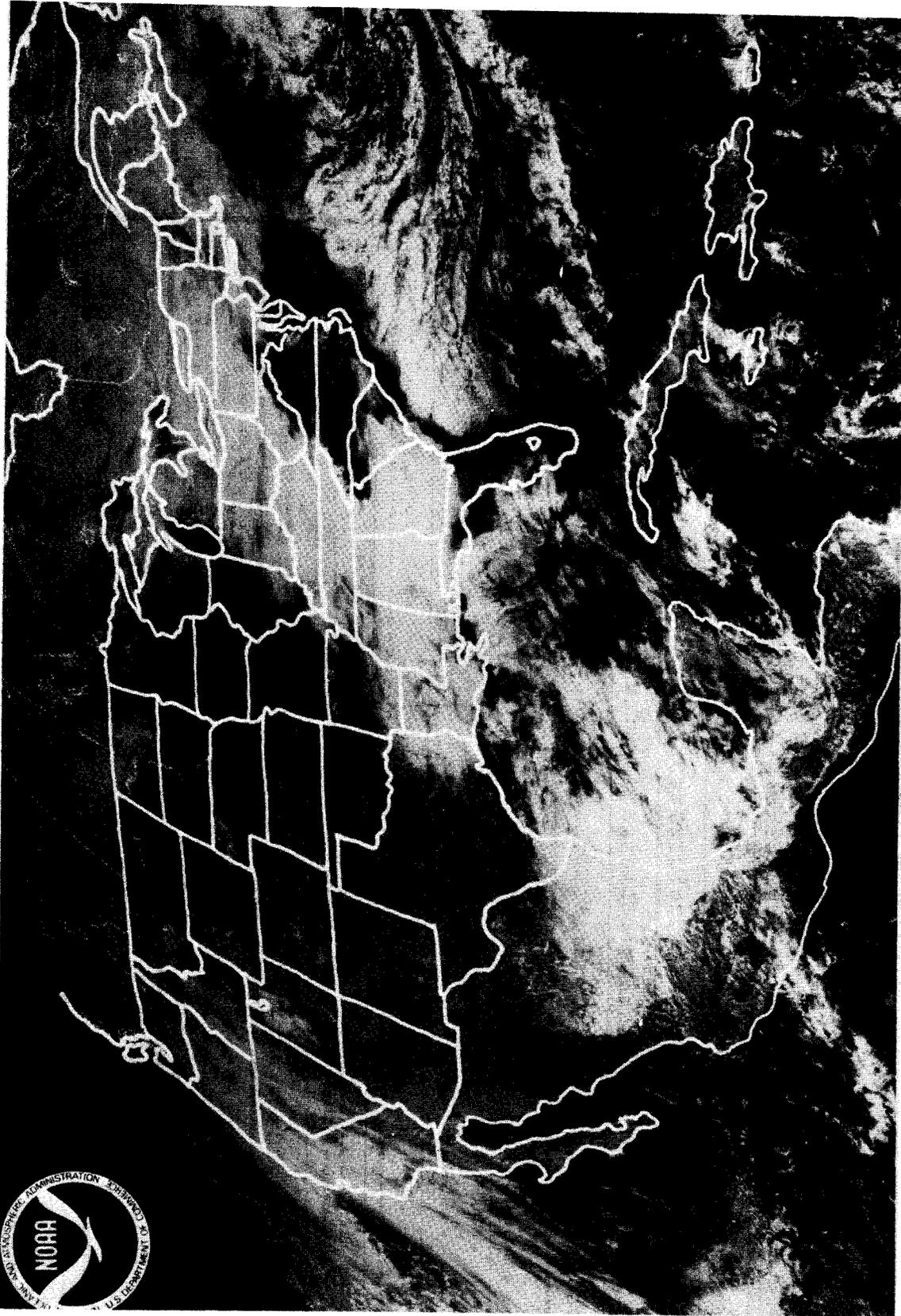
The Palmer Index

The Palmer Index is an index of meteorological drought, which may be defined as a prolonged and abnormal moisture deficiency. The general concept is one of supply and demand. Supply is represented by precipitation and stored soil moisture. Demand is the combination of potential evapotranspiration, the amount needed to recharge the soil moisture, and the runoff needed to keep the rivers, lakes, and reservoirs at a normal level. The results of this water balance accounting produce a positive or negative anomaly which is then weighted by a climate factor. The final product is an index that expresses the abnormality for that particular place for the period of time being computed. This manipulation allows the index to have a reasonably comparable local significance in space and time, that is, a certain index value obtained for a division in New York would have the same local significance as a like value in the more arid areas of western Kansas. This monthly increment is added to a portion of the previous month's index to include the duration of the anomaly in the final index.

The Palmer Index was designed as a climatological indicator of the scope and severity of past droughts. Using the Palmer Index on a real-time basis presents difficulties. A day or so of normal or better rainfall is certainly welcome in an area that has experienced a long drought, but one cannot know whether it indicates the end of the drought or just a brief respite. In order to

make the program have some real-time value, a system of computing a "probability" that a weather spell has ended was devised. This is not entirely satisfactory, but does allow one to assign a definite index value at times when there may be some doubt as to whether it should be positive (wet) or negative (dry).

Another aspect of using the Palmer Index is that one must remember that the demand part of the computations includes three parameters—potential evapotranspiration, recharge of soil moisture, and runoff, any one of which may produce a negative index. For instance if only enough rain fell to satisfy most of the expected evapotranspiration, but not enough to supply the expected recharge and runoff, then a negative index would result. If such a situation continued then one might find that agriculture was progressing at a near normal pace but the Palmer Index would be indicating a worsening drought. In this situation the drought would cause shallow wells and springs to go dry and the levels of rivers, lakes and reservoirs to fall below normal and, if this odd situation continued long enough, would cause serious economic stress to the livestock industry and eventually to other industries and cities. Then if rainfall fell below the minimum needed for agriculture, crops would suffer drastic and rapid decline because there would be no reserve water in the soil. Such a situation, to some extent, occurred during the Northeast drought in the 1960's when New York City almost ran out of water.



Satellite photo taken at 1 p.m. EST, January 22, 1981, shows thick frontal clouds producing precipitation over California, and low clouds generating precipitation from New England through the Ohio Valley to the Gulf Coast.

Weather Data for the Week Ending Jan. 25, 1981

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 Dec. 1	PCT. NORMAL SINCE Dec. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE °F		PRECIPI- TATION	
														90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	53	32	67	23	43	-1	.4	-.7	.4	1.7	19	90	53	0	4	2	0
MOBILE	56	36	68	30	46	-5	.4	-.6	.4	2.3	23	83	47	0	2	1	0
MONTGOMERY	55	35	67	28	45	-3	.4	-.4	.4	2.3	28	75	54	0	3	1	0
AK ANCHORAGE	38	29	47	24	33	21	.7	.5	.4	1.2	71	67	64	0	7	3	0
BARROW	22	-9	111	-23	-2	13	.1	0	.1	.3	100	95	72	0	7	2	0
FAIRBANKS	32	8	42	0	20	31	.1	0	.1	.4	44	62	47	0	7	2	0
JUNEAU	44	35	52	28	40	17	1.2	.3	1.2	--	--	97	73	0	1	7	1
KODIAK	38	29	44	23	34	3	1.1	0	.7	13.0	144	82	61	0	3	3	1
NOME	18	8	38	-10	13	6	.5	.3	.1	1.2	86	80	60	0	7	3	0
AZ FLAGSTAFF	53	23	59	13	38	10	0	-.4	0	1.9	51	--	25	0	6	0	0
PHOENIX	69	44	74	42	57	5	0	-.1	0	.8	57	63	27	0	0	0	0
TUCSON	66	40	71	35	53	2	0	-.2	0	1.5	100	64	22	0	0	0	0
WINSLOW	55	28	60	26	42	8	0	-.1	0	.9	113	--	--	0	7	0	0
YUMA	76	49	80	47	62	6	0	0	0	.3	43	65	25	0	0	0	0
AR FORT SMITH	53	31	71	23	42	3	.6	-.1	.5	2.0	43	88	53	0	3	3	1
LITTLE ROCK	55	35	70	30	45	4	.4	-.5	.3	3.1	42	75	40	0	2	1	0
CA BAKERSFIELD	68	47	79	38	58	9	.1	-.1	.1	.3	21	--	36	0	0	2	0
EUREKA	64	50	75	37	57	9	4.8	3.2	3.4	11.5	91	83	58	0	0	7	2
FRESNO	62	44	73	36	53	7	.8	-.4	.8	1.3	41	79	47	0	0	2	1
LOS ANGELES	65	52	67	47	59	4	.2	-.5	.2	1.9	48	86	59	0	0	1	0
RED BLUFF	58	47	62	35	53	7	2.5	1.5	1.5	5.7	77	--	64	0	0	6	1
SAN DIEGO	67	54	72	49	61	5	T	-.4	T	.7	21	90	64	0	0	1	0
SAN FRANCISCO	59	49	64	38	54	6	1.8	.8	1.4	3.8	51	82	66	0	0	4	1
STOCKTON	62	46	71	34	54	9	1.4	.8	1.2	2.6	51	--	65	0	0	2	1
CO DENVER	58	27	69	21	43	13	0	-.1	0	.2	25	54	16	0	6	0	0
GRAND JUNCTION	52	24	56	21	38	11	T	-.1	T	.2	25	72	25	0	7	0	0
PUEBLO	64	21	73	11	42	12	0	-.1	0	T	0	64	13	0	7	0	0
CT BRIDGEPORT	36	22	41	14	29	-1	0	-.6	0	1.4	25	80	57	0	7	0	0
HARTFORD	37	18	44	8	27	3	T	-.7	T	1.2	18	70	36	0	7	0	0
DC WASHINGTON	51	34	56	29	43	7	.1	-.4	.1	1.1	21	77	47	0	3	1	0
FL APALACHICOLA	57	37	62	31	47	-8	.4	-.3	.4	1.9	32	74	54	0	1	1	0
DAYTONA BEACH	64	38	67	29	51	-7	T	-.5	T	1.6	47	90	46	0	1	1	0
FORT MYERS	68	44	73	30	56	-8	.7	-.3	.5	1.2	43	92	54	0	1	2	1
JACKSONVILLE	62	35	68	25	49	-7	.1	-.6	.1	1.0	21	86	44	0	3	1	0
KEY WEST	65	55	72	50	60	-11	.3	-.1	.2	.8	28	85	68	0	0	2	0
MIAMI	70	48	79	37	59	-8	.5	-.1	.4	.8	24	78	48	0	0	2	0
ORLANDO	66	37	71	28	51	-9	.2	-.3	.1	.7	19	96	40	0	1	3	0
TALLAHASSEE	59	33	69	27	46	-7	.5	-.3	.5	2.1	29	79	48	0	4	1	1
TAMPA	63	38	68	30	50	-10	.4	-.2	.4	.8	19	99	56	0	1	2	0
WEST PALM BEACH	69	45	76	35	57	-8	.4	-.2	.3	1.8	41	85	49	0	0	3	0
GA ATLANTA	53	35	65	31	44	1	.3	-.6	.3	1.8	23	72	53	0	3	2	0
AUGUSTA	56	30	64	22	43	-3	.1	-.6	.1	1.4	23	89	42	0	4	2	0
MACON	57	37	67	27	47	-1	.2	-.6	.1	1.9	26	70	53	0	2	1	0
SAVANNAH	57	38	62	29	47	-3	.2	-.4	.2	1.8	32	79	44	0	2	1	0
HI HILO	--	--	--	--	--	--	.2	-.7	--	--	--	--	--	--	--	--	--
HONOLULU	81	65	85	60	73	1	.1	-.8	.1	4.6	63	93	54	0	0	1	0
KAHULUI	--	--	--	--	75	3	T	-.8	T	--	--	--	--	--	--	--	--
LIHOE	--	--	--	--	73	2	T	-1.4	T	5.2	45	--	--	0	0	0	0
ID BOISE	46	31	50	25	38	9	.8	.5	.3	2.3	92	85	57	0	5	1	0
LEWISTON	48	38	53	29	43	12	.8	.5	.8	1.7	71	83	63	0	2	3	1
POCATELLO	41	22	49	18	32	9	.1	-.1	.1	.7	37	90	59	0	7	1	0
IL CAIRO	50	34	64	29	42	6	.3	-.6	.3	1.8	25	--	--	0	3	2	0
CHICAGO	45	28	53	24	37	14	T	-.4	T	3.5	106	81	58	0	6	0	0
MOLINE	49	25	62	19	37	16	0	-.4	0	2.9	94	81	38	0	6	0	0
PEORIA	45	28	52	23	37	12	0	-.4	0	2.5	76	94	61	0	6	0	0
ROCKFORD	46	24	55	18	35	15	T	-.4	T	2.7	84	87	47	0	6	0	0
SPRINGFIELD	48	31	59	24	39	13	T	-.4	T	2.2	67	89	64	0	5	1	0
IN EVANSVILLE	48	30	64	25	39	6	.3	-.4	.3	1.4	23	82	53	0	4	2	0
FORT WAYNE	37	24	42	15	30	5	0	-.6	0	3.1	74	91	75	0	7	0	0
INDIANAPOLIS	44	26	58	21	35	7	0	-.6	0	1.3	26	88	57	0	6	0	0
SOUTH BEND	40	24	49	16	32	8	T	-.5	T	4.6	98	94	71	0	7	0	0
IA BURLINGTON	51	30	63	22	40	17	T	-.4	T	3.1	97	--	--	0	0	0	0
DES MOINES	53	26	62	17	40	21	0	-.2	0	1.1	50	73	32	0	6	0	0
DUBUQUE	49	25	57	21	37	20	0	-.4	0	1.9	58	73	38	0	6	0	0
SIOUX CITY	52	18	70	11	35	17	T	-.1	T	.3	27	85	33	0	7	0	0
KS CONCORDIA	55	27	71	17	41	15	0	-.1	0	.9	82	76	34	0	5	0	0
DODGE CITY	59	28	74	21	44	13	T	-.1	T	.8	114	58	25	0	6	1	0
GOODLAND	55	22	69	12	38	10	0	-.1	0	.1	14	76	28	0	7	0	0
TOPEKA	55	28	72	18	42	13	T	-.2	T	3.8	158	83	40	0	5	0	0
WICHITA	56	28	74	20	42	11	T	-.1	T	2.2	116	76	31	0	5	1	0
KY LEXINGTON	45	30	62	24	37	4	.2	-.7	.1	2.0	29	85	61	0	5	1	0
LOUISVILLE	49	30	66	23	39	6	.2	-.6	.2	1.7	27	86	51	0	5	2	0
LA BATON ROUGE	54	37	71	31	46	-5	.5	-.5	.2	3.6	42	88	53	0	2	2	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Jan. 25, 1981

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 Dec. 1	PCT. NORMAL SINCE Dec. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
														90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
LAKE CHARLES	54	37	69	31	46	-7	1.6	.8	1.4	4.3	49	88	66	0	1	2	1
NEW ORLEANS	57	39	73	31	48	-5	.4	.7	.4	2.4	27	86	55	0	2	1	0
SHREVEPORT	56	34	70	28	45	-2	.6	.3	.5	2.0	27	83	55	0	3	3	1
ME CARIBOU	20	6	26	-2	13	3	.4	.1	.2	4.6	107	79	50	0	7	3	0
PORTLAND	33	6	40	-3	20	-1	0	.8	0	2.2	32	80	42	0	7	0	0
ND BALTIMORE	48	28	53	22	38	4	.1	.5	.1	1.2	21	77	41	0	5	1	0
MA BOSTON	35	21	43	14	28	-1	T	.8	T	1.8	25	62	42	0	7	0	0
CHATHAM	34	22	37	18	28	--	T	--	T	--	83	52	0	7	0	0	
MI ALPENA	37	17	44	8	27	10	T	.4	T	--	--	--	0	7	1	0	
DETROIT	36	19	42	11	28	4	T	.4	T	2.8	74	87	69	0	7	0	
FLINT	33	21	43	13	27	5	T	.4	T	3.5	109	89	74	0	7	0	
GRAND RAPIDS	39	22	45	13	30	7	0	.4	0	4.1	114	94	70	0	7	0	
HOUGHTON LAKE	36	14	42	4	25	8	T	.3	T	2.7	84	87	59	0	7	0	
LANSING	36	20	43	9	28	6	T	.4	T	3.4	97	94	69	0	7	0	
MARQUETTE	39	15	47	9	27	15	T	.4	T	3.6	100	89	57	0	7	1	
MUSKEGON	36	20	45	14	28	4	T	.5	T	4.1	93	96	77	0	7	0	
SAULT STE. MARIE	30	14	37	3	22	9	T	.4	T	4.8	123	84	64	0	7	0	
MN DULUTH	38	18	43	13	28	20	T	.3	T	.7	28	81	50	0	7	0	
INT'L FALLS	34	13	47	4	23	22	T	.2	T	.8	47	94	60	0	7	0	
MINNEAPOLIS	47	20	57	14	33	22	0	.1	T	.4	29	85	39	0	7	0	
ROCHESTER	46	23	55	17	35	22	0	.1	0	.5	42	83	42	0	7	0	
SAINT CLOUD	46	15	56	9	30	21	T	.2	T	.4	27	89	--	0	7	0	
MS JACKSON	55	34	70	24	44	-3	.5	.5	.5	2.3	26	90	54	0	3	2	
MERIDIAN	57	32	71	24	44	-3	.5	.4	.5	2.3	23	89	48	0	4	2	
MO COLUMBIA	49	31	64	21	40	11	.2	.1	.2	1.4	44	72	48	0	5	1	
KANSAS CITY	53	30	68	22	42	15	T	.3	T	5.5	212	66	37	0	4	0	
SAINT LOUIS	52	33	67	28	43	11	.3	.1	.3	1.0	29	85	57	0	5	1	
SPRINGFIELD	53	32	70	24	42	9	.3	0	.3	2.3	61	76	47	0	3	3	
MT BILLINGS	56	31	64	25	44	22	0	.2	0	.3	27	60	24	0	4	0	
GLASGOW	43	22	50	16	32	24	T	.1	T	.2	25	96	59	0	7	1	
GREAT FALLS	52	33	62	23	43	22	.3	.1	.3	.6	43	62	38	0	4	1	
HAVRE	49	25	59	18	37	26	.1	0	.1	.8	114	82	45	0	6	1	
HELENA	41	20	45	16	30	12	T	.1	T	.4	44	94	51	0	7	0	
KALISPELL	34	28	37	22	31	12	1.2	.8	1.0	3.9	139	94	83	0	6	3	
MILES CITY	50	25	59	13	38	23	T	.1	T	.4	50	81	41	0	7	0	
MISSOULA	34	27	38	24	30	10	.1	.2	.1	1.5	68	98	92	0	7	2	
NE GRAND ISLAND	57	21	72	12	39	17	0	.1	0	.2	25	76	26	0	7	0	
LINCOLN	57	20	72	13	38	16	0	.1	0	.8	80	81	26	0	7	0	
NORFOLK	54	20	71	12	37	18	T	.1	T	.2	25	78	30	0	7	0	
NORTH PLATTE	57	16	70	7	36	13	0	.1	0	T	0	74	22	0	7	0	
OMAHA	53	27	66	14	40	20	0	.1	0	.3	30	74	34	0	4	0	
VALENTINE	56	19	68	8	37	17	T	.1	T	.5	63	85	29	0	7	0	
NV ELY	49	20	58	14	34	11	T	.1	T	1.2	120	79	36	0	7	1	
LAS VEGAS	66	40	71	34	53	8	0	.1	0	T	0	51	23	0	0	0	
RENO	53	29	65	20	41	8	T	.3	T	.7	32	86	41	0	4	0	
WINNEMUCCA	54	27	62	16	40	12	.1	.2	.1	.3	14	73	36	0	6	1	
NH CONCORD	33	6	39	-10	20	0	T	.5	T	1.2	23	79	37	0	7	1	
NJ ATLANTIC CITY	41	22	45	11	31	-1	0	.8	0	1.4	20	82	49	0	7	0	
TRENTON	40	20	44	21	35	3	T	.6	T	.9	16	--	--	0	4	0	
NM ALBUQUERQUE	53	21	62	16	36	0	0	.1	0	.8	100	68	27	0	7	0	
ROSWELL	58	26	71	21	42	4	0	.1	0	.5	71	--	--	0	6	0	
NY ALBANY	33	13	36	-6	23	2	T	.5	T	1.9	40	73	44	0	7	0	
BINGHAMTON	31	18	37	7	25	3	.1	.4	.1	2.4	51	86	66	0	7	2	
BUFFALO	34	23	48	9	29	5	.1	.6	.1	3.7	70	85	64	0	7	2	
NEW YORK	38	27	42	22	33	1	T	.6	T	1.2	20	72	51	0	6	0	
ROCHESTER	34	16	44	-6	25	1	.1	.4	.1	3.5	85	84	54	0	7	2	
SYRACUSE	33	11	41	-8	22	-1	.2	.4	.1	4.7	89	82	43	0	7	3	
NC ASHEVILLE	51	29	63	21	40	2	.2	.6	.2	.8	13	81	48	0	5	2	
CHARLOTTE	54	29	62	23	42	-1	.2	.6	.2	1.1	17	85	40	0	5	1	
GREENSBORO	53	28	62	24	40	1	.4	.4	.4	1.2	21	81	39	0	7	1	
HATTERAS	48	29	61	23	39	-6	1.0	0	1.0	5.7	70	87	56	0	4	1	
RALEIGH	53	26	60	22	40	-1	.5	.3	.5	2.1	37	79	42	0	7	1	
WILMINGTON	53	29	56	8	41	-6	.5	.2	.5	6.1	103	86	49	0	5	2	
ND BISMARCK	44	15	62	7	30	22	.1	.1	.1	.4	44	93	48	0	7	1	
FARGO	37	15	52	7	26	21	T	.1	T	.5	63	93	62	0	7	1	
WILLISTON	41	19	53	13	30	22	.1	.1	.1	.8	80	89	52	0	7	1	
OH AKRON-CANTON	38	24	47	17	31	5	T	.6	T	2.8	62	86	54	0	7	1	
CINCINNATI	44	27	61	15	36	5	.2	.6	.1	1.8	32	93	60	0	6	2	
CLEVELAND	36	25	47	15	31	4	T	.6	T	2.9	64	88	65	0	7	0	
COLUMBUS	41	26	54	15	33	4	0	.7	0	2.8	58	91	63	0	7	0	
DAYTON	42	28	57	20	35	7	T	.6	T	1.9	41	90	61	0	6	0	
TOLEDO	35	20	45	12	28	3	0	.5	0	3.0	75	94	72	0	7	0	
YOUNGSTOWN	35	24	46	16	29	4	T	.7	T	2.1	41	84	64	0	7	1	
OK OKLAHOMA CITY	56	30	76	21	43	6	T	.3	T	1.6	73	68	40	0	5	1	

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

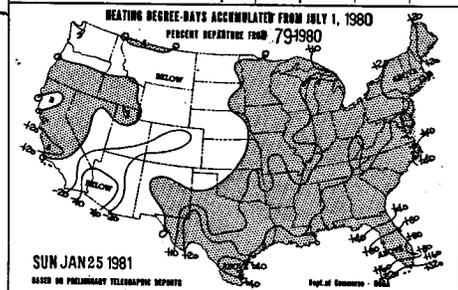
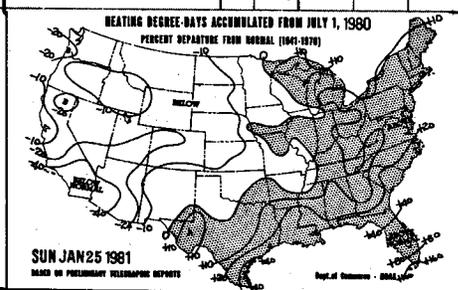
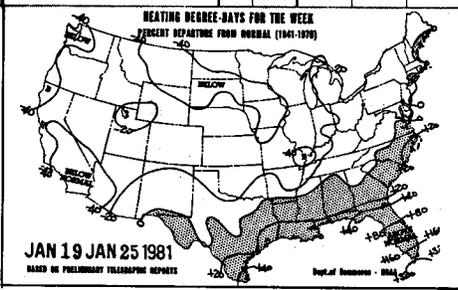
Weather Data for the Week Ending Jan. 25, 1981

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 Dec. 1	PCT. NORMAL SINCE Dec. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
														90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OR TULSA	55	33	75	23	44	7	.2	-.2	.1	1.6	53	80	50	0	3	2	0
OR ASTORIA	56	45	62	37	51	10	1.0	-1.1	.4	13.6	74	81	61	0	0	7	0
BURNS	44	28	53	20	36	11	.3	-.1	.3	1.8	56	88	43	0	4	3	0
MEDFORD	59	39	71	27	49	12	.2	-.5	.1	2.9	45	78	50	0	2	2	0
PENDLETON	43	35	53	29	39	7	.2	-.2	.1	1.4	45	85	74	0	3	3	0
PORTLAND	52	41	56	33	47	8	.5	-.8	.2	10.4	95	82	70	0	0	5	0
SALEM	51	38	53	29	45	6	.8	-.7	.4	11.4	91	95	74	0	1	4	0
PA ALLENTOWN	40	26	43	16	33	5	T	-.6	T	1.3	22	75	55	0	6	2	0
ERIE	34	23	50	18	29	3	T	-.6	T	3.2	64	--	--	0	7	0	0
HARRISBURG	41	26	48	19	34	4	0	-.6	0	1.3	25	77	57	0	5	0	0
PHILADELPHIA	42	26	45	18	34	2	T	-.6	T	1.2	21	79	47	0	6	0	0
PITTSBURGH	38	25	50	15	31	3	T	-.6	T	2.0	43	85	65	0	7	0	0
SCRANTON	35	20	42	9	28	2	T	-.4	T	1.8	43	87	57	0	7	1	0
RI PROVIDENCE	38	19	45	10	29	1	0	-.8	0	2.3	33	69	37	0	7	0	0
SC CHARLESTON	58	32	63	26	45	-4	.3	-.6	.3	1.7	31	81	41	0	4	2	0
COLUMBIA	56	29	66	24	43	-3	.3	-.4	.2	1.9	31	91	44	0	5	2	0
GREENVILLE	57	33	63	28	45	3	.1	-.8	.1	.9	12	68	35	0	4	2	0
SD ABERDEEN	49	16	60	7	32	23	-1	0	.1	.2	29	85	38	0	7	1	0
HURON	50	17	62	7	33	21	T	-.1	T	.1	13	90	36	0	7	1	0
RAPID CITY	55	27	67	15	41	19	T	-.1	T	.7	100	64	33	0	4	0	0
SIOUX FALLS	51	19	66	11	35	21	T	-.1	T	.3	30	82	35	0	7	1	0
TN CHATTANOOGA	50	31	64	20	41	1	-.8	-.5	.6	2.0	21	84	51	0	4	2	1
KNOXVILLE	47	29	61	23	38	-3	.2	-.8	.2	2.2	27	90	54	0	5	2	0
MEMPHIS	56	38	69	30	47	6	.4	-.7	.4	3.0	34	83	51	0	1	1	0
NASHVILLE	53	31	71	26	42	3	.8	-.3	.8	2.5	29	82	45	0	4	2	1
TX ABILENE	58	35	73	28	46	2	T	-.2	T	2.9	161	73	37	0	3	1	0
AMARILLO	58	25	75	19	42	6	.1	0	.1	.5	50	59	25	0	6	1	0
AUSTIN	62	37	75	34	49	-1	1.3	.8	1.3	2.9	78	87	43	0	0	1	1
BEAUMONT	56	38	70	32	47	-5	2.3	1.4	2.0	5.2	63	90	64	0	1	2	1
BROWNSVILLE	65	43	76	38	54	-6	.7	.4	.3	3.6	157	95	54	0	0	2	0
CORPUS CHRISTI	63	39	74	35	51	-5	1.8	1.5	1.8	2.7	96	92	54	0	0	1	1
DEL RIO	65	36	78	29	51	0	.1	0	.1	1.6	229	91	36	0	2	1	0
EL PASO	54	30	68	24	42	-2	0	-.1	0	1.2	133	82	41	0	5	0	0
FORT WORTH	56	35	77	30	46	1	.2	-.2	.2	1.8	56	88	52	0	2	2	0
GALVESTON	54	45	66	38	50	-4	.7	.1	.6	3.2	53	78	61	0	0	2	1
HOUSTON	61	35	76	31	48	-4	1.9	1.1	1.9	3.5	50	88	51	0	1	2	1
LUBBOCK	58	27	76	21	42	3	T	-.1	T	.9	100	81	29	0	6	0	0
MIDLAND	58	30	69	27	44	0	0	-.1	0	1.7	189	74	32	0	5	0	0
SAN ANGELO	61	31	75	27	46	-1	T	-.2	T	3.3	275	88	38	0	5	1	0
SAN ANTONIO	64	33	76	30	48	-3	1.5	1.1	1.5	2.6	93	97	40	0	3	1	1
VICTORIA	63	39	75	34	51	-3	1.7	1.3	1.7	2.7	79	93	53	0	0	1	1
WACO	59	34	76	31	46	-1	.7	.3	.5	3.6	106	95	49	0	1	2	0
WICHITA FALLS	62	36	80	30	49	7	.1	-.1	.1	2.1	95	67	35	0	2	1	0
UT BLANDING	52	23	58	19	38	10	0	-.2	0	.2	9	72	21	0	7	0	0
SALT LAKE CITY	37	28	45	24	32	4	T	-.3	T	.5	19	89	70	0	7	1	0
VT BURLINGTON	30	11	35	-6	21	5	.1	-.3	.1	2.0	59	81	56	0	7	3	0
VA LYNCHBURG	51	28	58	23	39	2	.3	-.3	.3	1.0	18	72	--	0	5	2	0
NORFOLK	49	26	57	19	37	-3	.8	-.1	.8	3.5	61	87	47	0	6	1	1
RICHMOND	51	24	60	18	38	0	.4	-.2	.4	1.0	18	84	42	0	7	1	0
ROANOKE	50	31	58	23	41	4	.2	-.4	.1	.9	17	71	39	0	5	2	0
WA COLVILLE	41	30	48	24	36	12	.6	-.2	.6	3.9	100	--	--	0	4	3	1
OMAK	45	34	48	28	39	--	.5	--	.3	2.8	--	--	64	0	3	3	0
QUILLAYUTE	56	45	63	39	51	12	1.3	-2.0	.3	20.6	75	90	65	0	0	7	0
SEATTLE-TACOMA	55	45	64	40	50	12	1.0	-.3	.4	8.9	84	80	62	0	0	6	0
SPOKANE	43	33	46	25	38	12	.7	-.2	.7	4.4	98	80	77	0	3	1	1
WALLA-WALLA	45	37	51	31	41	8	.4	-.1	.4	3.4	92	88	76	0	1	3	0
WYAKIMA	50	36	54	23	43	16	.3	0	.2	3.1	135	87	66	0	3	2	0
WV BECKLEY	40	27	55	21	34	2	.2	-.5	.2	1.8	29	72	51	0	6	1	0
CHARLESTON	45	28	62	21	37	1	.3	-.5	.3	2.8	47	74	58	0	5	2	0
HUNTINGTON	45	30	61	25	37	3	.3	-.4	.2	2.6	48	85	55	0	4	2	0
PARKERSBURG	41	28	58	21	35	2	.1	-.6	.1	1.7	33	83	55	0	6	1	0
WI GREEN BAY	36	18	42	12	27	12	0	-.3	0	1.5	65	86	66	0	7	0	0
LA CROSSE	45	20	57	11	32	16	0	-.2	0	.7	41	89	43	0	6	0	0
MADISON	46	23	55	19	35	18	T	-.3	T	1.8	69	86	45	0	6	0	0
MILWAUKEE	38	23	45	16	30	11	0	-.4	0	3.8	119	86	63	0	7	0	0
WY CASPER	48	23	59	13	36	13	T	-.9	T	.6	75	58	28	0	7	0	0
CHEYENNE	51	26	65	17	39	12	0	-.1	0	.3	38	56	26	0	7	0	0
LANDER	42	15	47	-2	29	9	0	-.1	0	.3	43	75	40	0	7	0	0
SHERIDAN	56	26	68	20	41	20	T	-.8	T	.9	90	71	29	0	7	0	0
PR SAN JUAN	84	72	90	68	78	3	.6	-.2	.4	5.5	71	87	59	1	0	3	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JAN. 25, 1981.
BASED ON 1941-70 NORMALS. + ACCUMULATION FROM JULY 1, 1980.

Table with columns for STATES AND STATIONS, WEEKLY TOTAL, WEEKLY DEPARTURE*, SEASONAL ACCUMULATION +, and SEASONAL DEPARTURE* FROM 1979-80. Rows list various states and cities such as ALA., ARIZ., ARK., CALIF., CONN., DEL., D.C., FLA., GA., IDAHO, ILL., IND., IOWA, KANS., KY., LA., MAINE, MD., MASS., MICH., MINN., MISS., MO., MONT., NEBR., NEV., N.H., N.J., N.MEX., N.Y., N.C., N.DAK., OHIO, OKLA., OREG., PA., R.I., S.C., S.DAK., TENN., TEXAS, UTAH, VT., VA., WASH., W.VA., WIS., WYO.



National Agricultural Summary

January 19 - 25, 1981

HIGHLIGHTS: Above-normal temperatures pushed eastward and dominated all areas of the Nation except the far south from Texas to Florida and the extreme east coast where sub-normal temperatures continued to prevail. Most parts of the Nation received some moisture, but not enough to replenish soil moisture supplies. Heaviest amounts of rain fell in southeast Texas and in northern California. A major part of the Great Plains still had no snowcover and warm temperatures melted much of the snow throughout the Corn Belt, leaving fall seeded grains vulnerable to wind and freeze damage. Nearly all areas need more snow or rain to help restore soil moisture supplies, which were rated short to adequate. Cotton harvest wound down in Texas, although rain and snow delayed final picking and clean-up operations. Warmer weather helped ease the stress on livestock in many eastern areas. Feed supplies remained mostly adequate although some spot shortages developed. Early lambing gained momentum.

SMALL GRAINS: Winter wheat generally rated fair to good in the major production areas. A major part of the Great Plains still had no snowcover and warmer temperatures melted much of the snow throughout the Corn Belt. Stands were left vulnerable to wind and freeze damage. Soil moisture supplies continued short to adequate in all major production regions.

Kansas winter wheat rated fair to good with only isolated light wind damage. Warm temperatures promoted insect activity in fields, but infestations were generally light. Moisture supplies were short. Oklahoma stands were fair although short soil moisture limited growth and warm temperatures kept wheat from going into a true dormant stage thus far. Weeds were becoming a problem in some areas as a result of mild weather and below normal wheat development. Some growers sprayed to control weeds and insects. Winter wheat in Texas rated fair to good. More moisture is needed to improve conditions. Grazing prospects were poor in dryland fields, but irrigated fields showed good progress. Insects were increasing with the warmer temperatures. Montana wheat rated fair to good except in north central areas where stands rated fair to poor. Wind damage has been light to moderate thus far. With very little snowcover, fields are vulnerable to low temperatures. In the Pacific Northwest, wheat was in good to excellent condition but concern is growing for disease problems or possible winter-kill if the weather should change radically. Small grains in New Mexico rated fair to good, although dryland fields need moisture. About 75% of the irrigated fields and 50% of the dryland fields were being grazed.

OTHER CROPS: The Texas cotton harvest wound down, although rain and snow delayed final picking and clean-up operations. In the Trans-Pecos area, the moisture lowered yield and grade of cotton.

Tobacco growers prepared and seeded plantbeds. Virginia growers were preparing sun and fire-cured tobacco for market. Georgia tobacco plants rated fair to good. Kentucky burley tobacco auctions experienced the lightest volume of the season. Many markets closed for the year and several recessed until sufficient poundage becomes available for sale.

The Florida sugarcane harvest continued active. Cold damaged the sugarcane more than was originally thought. Young cane was hit hard in some fields, but should grow out.

FRUITS AND NUTS: Continued cool weather retarded further deterioration of freeze-damaged fruit in Florida. Citrus trees were showing freeze effects

with foliage turning gray and brown in most areas except the lower East coast. Growers continued irrigation activities.

Citrus harvest remained active in the Rio Grande Valley of Texas with good fruit size and quality reported.

Arizona groves were mostly in good condition with new growth prevalent. The citrus harvest made very good progress. The Navel and sweet orange harvest were rapidly closing, the lemon harvest was past peak, tangerines made seasonal progress, and grapefruit picking was slow but steady.

Cultural practices continued in California's fruit orchards. Growers picked Desert grapefruit and lemons, with lemons breaking color early. The Navel orange movement increased, although sizes were small. Almond buds were swelling.

Deciduous orchard growers pruned and sprayed trees throughout the southern half of the Nation. The pecan harvest was 99% complete in Texas, 1 point ahead of last year, but 1 point behind normal. Filbert trees were being planted in Oregon.

VEGETABLES: Temperatures in the 20's and heavy frosts on the 19th caused additional damage in the vegetable growing areas of Florida. Most areas received light rains, but soil moisture remained short and irrigation continued active. Below normal temperatures slowed plant growth and maturity. Total shipments were down 30% from the previous week. Supplies increased for cauliflower, held steady for carrots, celery, and eggplant, and declined for snap beans, cabbage, chinese cabbage, sweet corn, cucumbers, escarole, lettuce, okra, parsley, peppers, radishes, squash, and tomatoes. The watermelon harvest was finished, but strawberry picking increased. Some disease was beginning to show in the Hillsborough-Manatee area because of prolonged sprinkling to prevent freeze damage.

In the Rio Grande Valley of Texas, harvest of lettuce, cabbage, broccoli, and spinach continued. Onion stands progressed well. Rains slowed land preparation in the Coastal Bend and East Texas areas. Wet fields hampered harvest of cabbage and carrots in the San Antonio-Winter Garden Area. In the Trans-Pecos region, land preparation continued and the pepper harvest was active. Onion stands rated good.

The asparagus harvest was light but increasing in the Desert and South Coast areas of California. Broccoli and cauliflower harvest was active on the South and Central Coast. Lettuce harvest continued in the Imperial Valley. Strawberry harvest was very light and tomato harvest was limited on the South Coast. Potato movement from storage was active.

PASTURES AND LIVESTOCK: Pastures generally rated poor to fair across the South due to cold weather and short moisture supplies. Herdsmen were forced to feed large amounts of hay, forage, and grain. Adequate supplies of stored roughage were available throughout the Nation, although some local shortages were reported.

Texas pastures provided limited grazing and supplemental feeding was heavy. Pastures remained in poor condition and needed additional moisture. Arizona pastures rated fair to poor and water supplies were short. Supplemental feeding increased in Florida; hay and feed supplies are of increasing concern. Cattle were in mostly poor to fair condition. Livestock in California were in exceptionally good condition as a result of the mild weather. Early calving and lambing gained momentum throughout the Nation.

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 ESS State offices in cooperation with the National Weather Service.

ALABAMA: Temperatures 1° below normal. Rain less than 0.50 in. southern section to 1.00 in. in northern area.

Soil moisture short. Fieldwork on schedule, 3.6 days suitable. Plowing 41% complete. Feed supply: Pastures and stored feed very short to short. Conditions: Wheat poor to fair; pasture poor; livestock fair. Activities: Care livestock and poultry, plowing, soil testing, repair farm buildings and fences, farm planning, general chores.

ARIZONA: Dry weather, mild temperatures prevailed. No precipitation reported. Average temperatures mostly 1 to 9° above normal.

Cotton harvest complete, residue disposal rapidly winding down. Preparations, planting cotton fields to following crops rapid progress. Planting small grains continue, earlier planted fields excellent progress, some well past tillering into stem elongation stage. Sugarbeet progress ahead normal. Alfalfa haying seasonally slow, many fields sheep winter pastures. Lettuce harvest Yuma area excellent progress, later plantings Yuma, Salt River Valley making good growth, planting late spring harvest active central areas. Mixed vegetable harvest making good progress. Land preparations, planting cantaloups, watermelons underway Yuma area. Dry onions growing well. Planting potatoes slowing, nearly complete. Citrus harvest very good progress. Navels, sweets rapidly closing, lemon harvest past peak but volume levels, tangerine harvest seasonal progress, grapefruit slow but steady. New growth prevalent, groves mostly good condition. Ranges fair to poor higher elevations, very poor to poor remainder. Livestock poor to fair Desert areas, fair to good higher elevations. Water supplies short.

ARKANSAS: Mild week with general precipitation early in the week. Highest normal 46°, lowest 36°. Highest mean 46°, lowest 39°. Highest temperature 78°, lowest 17°. All departures from normal ranged from -9 to -3°. Most rainfall, 0.96; least 0.29.

Wheat good. Pastures average this time of year. Apple, grape, and peach growers pruning and getting orchards ready.

CALIFORNIA: Some rain just about everywhere over State, although just traces southeastern Desert. Amounts were heaviest over the North Coast mountains and the northern third of the Sierra Nevada range. Some heavy amounts over mountains at north end of the Sacramento Valley. Weekly mean temperatures well above normal for sixth consecutive week although upper level ridge finally moved east allowing Pacific storms into the State.

Rainfall during week brightened hope for small grains. Some showing stress. Irrigated fields good growth with recent warm weather. Weed control underway. Oats planted after rainfall. Cotton fields pre-irrigation. Sugarbeets emerged. Land preparation underway. Fruit crops winter cultural practices continue. Almond buds swelling. Picking Desert grapefruit, lemons, Minneolas. Lemons breaking color early. Increased Navel orange movement, small sizes. Asparagus harvest light but increasing Desert, South Coast. Broccoli, cauliflower harvest active South, Central Coast. Carrot harvest active Kern, increasing Desert districts. Celery good volume South Coast. Lettuce harvest active Imperial Valley. Potato movement active from storage. Very light strawberry harvest South Coast. Limited tomato harvest South Coast. Rains improved

soil moisture ranges throughout most of State. Supplemental feeding remains heavy, will continue until new grass gains strength. Livestock exceptionally good condition result mild weather. Sheep continue grazing alfalfa fields.

COLORADO: Continued dry with only light snow flurries. All river basins averaged only a trace or no measurable precipitation. Average temperatures ranged from 7° above normal in the Kansas River Basin to 12° above normal in the Colorado River Basin.

FLORIDA: Rain fell over most areas on the 20th and over south half of Peninsula the 23d. Rainfall amounts were mostly under 0.33 in. with a few places between 0.50 and 1.00 in. Temperatures continued below normal averaging in the 30's north with some 20's to the 40's and 50's south. Highs were in the 50's and 60's north to 60's and 70's south.

Soil moisture short. Shower activity during week little help in relieving dry conditions. Sugarcane harvest active. Cold damaged sugarcane more than originally thought. Young cane hit hard in some fields but should grow out. Fieldwork underway for early spring planting but progress very slow due to dry weather. Grazing very limited due to continued cold, dry conditions. Freezing temperatures early week extended through most of lower Peninsula further reduced amount of grazing. Supplemental feeding increased. Hay, feed supplies are of increasing concern. Cattle condition varies considerably but mostly poor to fair. Citrus trees showing freeze effects. Foliage turning gray and brown most areas except lower East Coast. Growers irrigating. Continued cool weather retarding further deterioration of damaged fruit. Temperatures in the 20's and heavy frosts on January 19th caused additional damage in the vegetable areas. Light rains occurred 20th and 23d. Amounts were mostly under 0.50 in. Irrigation remained active. Temperatures continued below normal slowing plant growth and maturity. Total shipments down 30% from the previous week. Supplies increased for cauliflower. Volume was about steady for carrots, celery and eggplant. Supplies declined for snap beans, cabbage, chinese cabbage, sweet corn, cucumbers, escarole, lettuce, okra, parsley, peppers, radishes, squash and tomatoes. Watermelon harvest ended. Strawberry plants, Hillsborough-Manatee area, in fairly good condition. Some disease beginning to show because of long sprinkling to prevent freeze damage. Volume is increasing. Planting, land preparation underway spring crops central, southern areas.

GEORGIA: Temperatures 3 to 7° below normal north and central portions and 6 to 10° below normal south. Weekly averages ranged from mid 30's mountains to mid 40's south. Precipitation widespread with only sparse amounts recorded. Amounts north ranged from 0.33 to 0.75 in. Amounts central and south less than 0.33 in.

Soil moisture short most areas. Fieldwork activity light to moderate. Small grains fair. Pasture conditions fair. Cattle fair to good, winter grazing becoming short. Tobacco plants fair to good condition.

HAWAII: Rainfall light but not sufficient to alleviate dry spell in some areas. Reservoir water level continues low, Islands of Maui and Hawaii restricting irrigation. Limited water usage to daily 2-hour schedule on Hawaii. A morn-

Jan. 27, 1981

ing and evening conservation schedule in other areas. Crop condition currently fair to good but if drought prolonged for extended time, future production will be affected. Lower yields have already affected tomato, cucumber and flower production.

Vegetables: Supplies still adequate. Head and chinese cabbage in active harvest. Bananas: Orchards on Hawaii further affected by low moisture. Yields declining gradually. Papayas: Light rains beneficial Puna orchards on Hawaii. Moderate supplies expected. Harvesting, Kauai, Maui, and Oahu light. Pineapples: Slow - periodical harvesting. Sugar: Limited harvesting. More rains needed, dry areas on Hawaii. Pastures: Poor in some parts, Island of Hawaii where drought like conditions exist. Other areas generally fair to good - Island chain.

IDAHO: Temperatures averaged well above normal, a few stations up to 19° above normal. A high pressure system dominated the week, only trace amounts of precipitation until the 23d when several stations reported measurable amounts. The warmer temperatures allow limited fieldwork. Some plowing and spraying. Concern over the below average precipitation. Marketing progresses orderly. Livestock in good shape. Forage and feed supplies adequate. Early lambing and calving continues.

ILLINOIS: Temperatures 12 to 17° above normal north; 6 to 8° above normal south. Precipitation none north, 0.30 to 0.50 in. south. Winter wheat mostly good condition, snowcover gone. Livestock mostly good condition. Activities: Machinery repair, livestock feeding, manure hauling, general farmwork.

INDIANA: Warm, dry days. Temperatures averaged 10° above normal and ranged from 16 to 64°. Precipitation trace north and central, 0.20 in. in south. Snowcover 3 to 5 in. in extreme north. Sunshine 40% of possible.

Fieldwork limited. Activities: Hauling manure, cutting wood, hauling grain, readying equipment for spring, working on taxes and records, sowing clover seed, attending chemical and equipment meetings, caring for livestock and usual chores. Freezing and thawing may result in some heaving of overwintering crops.

IOWA: An unseasonably warm dry week. Temperatures averaged near 20° above normal with maximums to 70° at Sioux City the 24th. No measurable precipitation fell during the week.

KANSAS: Precipitation limited to 0.25 in. extreme southeast. Unusually mild with temperatures averaging 40° northwest to 41 to 43° elsewhere, 10 to 12° above normal west and south to 14 to 16° above normal northeast. Several record highs low 70's.

Topsoil and subsoil moisture rated short. Winter wheat rated fair to good; only isolated light wind damage. Warm temperatures promoted greenbug and chinch bug activity in wheat, but infestations generally light. Hay and forage supplies continued short to adequate.

KENTUCKY: Progressively warmer weather. The week began with temperatures near normal, but by week's end readings were near 20° above normal. The first significant precipitation of the month occurred during midweek with rainfall amounts averaging near 0.25 in.

Volume was the lightest of the season during the seventh week of burley tobacco auctions. Many markets closed for season and several recessed until sufficient poundage available for sale. Prices held generally steady. Farm activity minimal except for feeding and care of livestock.

LOUISIANA: Rain general. Extreme 1.61 in. Temperatures 3 to 7° below normal. Extremes: 22 and 74°.

Activities: Routine chores and caring for livestock.

MARYLAND AND DELAWARE: Temperatures were 20° above normal. Highs averaged from the mid 80's to the mid 40's. Lows averaged to the mid 20's. Precipitation very light. The highest reported was 0.24 in. in Oakland, while Patuxent received the least at 0.06 in.

MICHIGAN: January thaw experienced last week. Temperatures averaged 5 to 15° above normal. Snowfall almost nonexistent. Compaction and melting of snow common but most of State remains snow covered.

MINNESOTA: Temperatures averaged greater than 28° in all reporting districts. Extremes: 68° in Redwood Falls and 2° in Hibbing. Precipitation averaged 0.10 to 0.20 below normal. Precipitation totals were trace or less at all reporting stations. Extreme: 0.02 in. in Moorhead.

MISSISSIPPI: Temperatures 5 to 10° below normal. Extremes: 14 and 71°. Low pressure system early in week brought much needed rain. Greatest 24-hour rainfall 1.30 in. Soil moisture adequate to short. Fieldwork: 3.5 days suitable. Wheat condition poor to fair. Pasture condition poor. Livestock condition fair to poor. Hay and roughage and grain supplies short. Feeding livestock main farm activity.

MISSOURI: Average temperatures ranged from 14° above normal in the northwest to normal in the southeast. Precipitation was received in the middle of the week, but was not enough to relieve drought conditions. The most received in any part of the State was 1.20 in. in the south.

MONTANA: Very warm week. Temperatures averaged 5 to 25° above normal. New daily maximum temperature records set in many areas. A new record high temperature was set 22d as Grass Range reported 74°. Lowest, 4° below zero at West Yellowstone. Some precipitation, mostly light, fell end of week over western half of State.

Winter wheat condition fair to good except north central fair to poor. Wind damage light to moderate. Snowcover light to none. Winter wheat crop breaking dormancy due to warm temperatures in some central and south central areas. With limited snowcover it is vulnerable to cold temperatures. About 90% cattle and 95% sheep on supplemental feed. Cattle and sheep losses light.

NEBRASKA: Precipitation: Traces in west; none elsewhere. Temperatures: Very warm week, with temperatures 10 to 20° above normal.

NEVADA: Weakened high pressure system allowed Pacific storm to move through late in period. Precipitation confined to northern areas. Rain in valleys and about foot of snow high elevation levels Sierra. Temperatures averaged well above normal. Extremes: 71 and 11°.

Mild weather easy on livestock. Feeding requirements minimal. Stock water unfrozen.

NEW ENGLAND: Dry conditions continue over the region with only the extreme northern part receiving 0.75 in. of water by weekend. Near normal temperatures for the period.

NEW JERSEY: Temperatures slightly below normal, averaging 27° north, 29° south and 32° coastal. Extremes: 0° at Long Valley and Newton and 43° at Cape May Court House. There was no significant precipitation.

Farmers caring for livestock and tending to other normal winter chores.

NEW MEXICO: Temperatures averaged 4 to 8° warmer than normal north and near to a little below normal south.

Mild weather prevailed allowing outside work to progress unhampered. Soil moisture remains short. Land preparation and supplemental feeding continues. Winter wheat and barley in fair to good condition, although dryland needs moisture. About 75% of the irrigated fields and 50% of the dryland being grazed. Lettuce planting complete with most fields emerged and in good condition. Planting of mid-season onions underway with spring onions emerged and in good condition. Ranges in fair to good condition. Livestock in fair to good condition and wintering in good flesh.

NEW YORK: Near normal average temperatures ranged from the upper teens in the Adirondacks to the 20's elsewhere, except in the low 30's in New York City. Precipitation remains well below normal with all stations reporting 0.25 or less.

NORTH CAROLINA: Temperatures near normal except 2 to 3° below normal along the coast. Precipitation totals ranged from 0.25 to 0.75 in.

Soil moisture: 14% very short, 61% short, 22% adequate, 3% surplus. Fieldwork: 3.7 days suitable. Conditions: Wheat, oats, barley, rye fair to good and declining; pastures poor to mostly fair. Farm feed supplies: Hay, roughage, and feed grains mostly adequate. Major activities: Cutting firewood, tending livestock, seeding tobacco plant beds, and machinery repair.

NORTH DAKOTA: Unseasonably mild week until a minor storm arrived on the 25th. Weekly temperatures averaged 18 to 24° above normal. A reading of 62° at Bismarck (central portion) on the 23d was the highest ever recorded there during the month of January. Temperature extremes: -5° and 69°.

The storm on the 25th brought snow and cooler temperatures. New snow accumulations ranged from an inch or less in the south to 8 to 10 in. in portions of the north central. Wet snow gave good ground cover to the northwestern and north central areas making fall tillage protection just barely adequate. Southwest portion received only a "skiff" of snow with precipitation mostly in the form of rain. Winds up to 40 m.p.h. Some soil drifting filling up a few ditches. Secondary roads in northwest and north central districts are drifted and difficult. Main roads Statewide generally icy at week's end. Mild temperatures early in week continue to stretch feed supplies. Cool nights and warm days with dust causing pneumonia in calves. Early lambing started. A few grain storages having problems with heating, mold and condensation due to continued warm weather. Marketing activity slow. Potato marketing ahead of schedule with good demand for seed. Good quality oats and durum seeds becoming scarce.

OHIO: Temperatures 3 to 7° above normal. Weekend reached low 60's south, 50's central, upper 40's north. Lowest reading mid-teens to mid 20's early week. Precipitation ranged from zero in central and north to 0.10 in. south; 0.50 below normal. Warm weekend weather melted most snowcover with any remaining cover less than 4 in. north and northeast.

OKLAHOMA: Temperatures averaged 1 to 8° above normal. Precipitation mostly light ranging from trace north central to 0.50 in. east central and southeast.

Mild open weather favorable for plant growth, however, short soil moisture had limited growth and wheat has not really gone into a true dormant stage this winter. Soil moisture generally present in the surface 4 to 5 in. but not sufficient for plant growth. Soil moisture supplies shortest in southwest third of State. Weeds becoming a problem in areas of northern Oklahoma as a result of mild winter temperatures and below normal wheat development. Some spraying to control weeds, winter grain mites and greenbugs is being done. Wheat in generally fair condition. Pastures and ranges providing very little forage. Ranchers relying on baled forage supplies and other supplemental feeds. Marketing activities increasing somewhat as pastures and ranges become grazed out and hay supplies diminish. Favorable spring precipitation needed to promote growth of pastures and ranges. Weather favorable for wintering cattle.

OREGON: Scattered showers brought much needed moisture. Rainfall averaged from 0.20 in. in the south central, northern and southeastern sections; 0.40 in. in the north Cascades, north central and southwestern valleys; 0.70 in. in the Willamette Valley; and over 2.00 in. fell along the coast, with Brookings receiving a little over 5.00 in. Temperatures remained above average for all areas of the State and ranged from 3 to 17° above normal for this time of year.

Soil moisture supplies mostly adequate. Winter wheat condition good to excellent but concern is growing for disease problems or possible winter kill if the weather should change radically. Grass seed fields in good condition. Fertilizing and spraying continues as conditions permit. Filbert trees being planted. Livestock wintering well. Feed supplies adequate.

PENNSYLVANIA: Mildest week in 1½ months and driest in almost a year. After averaging 9 to 17° below normal during past 5 weeks, temperatures this week averaged 2 to 6° above normal and 13° higher than the previous week. Extremes: -2 and 52° with highest temperatures 25th. Very light precipitation mostly as snow flurries 23rd and 24th totaled less than 0.10 in. all except extreme northeast where 0.20 in.

PUERTO RICO: Island average rainfall 0.80 in. or 0.07 in. above normal. Temperatures averaged about 76° on Coasts and 71 to 70° Interior Divisions. Mean station temperatures ranged from 78.4 to 67.2°. Extremes: 94 and 49°.

SOUTH CAROLINA: Entire week averaged below normal, end of period near normal. Extremes: 11 and 66°. Light rainfall all areas 20th and 21st. Tobacco bed and land preparation. Disking for spring planting; pruning fruit trees, vines. Livestock cared for, winter grazing fertilized. Record keeping and planning for season.

SOUTH DAKOTA: Record breaking, warm temperatures covered South Dakota this week. Statewide temperatures averaged about 20° above normal, with Faulkton the highest at 28° above normal. The northeast averaged 23° above normal, the southeast 19° above, and the west 21° above. Record temperatures were set on the 23rd at Rapid City, 67°; Aberdeen, 60; Huron, 57; Sioux Falls, 57; and on the 24th at Aberdeen, 60; Huron, 62; and Sioux Falls, 66. The 66° at Sioux Falls also established a new high for the month of January. Yankton reported the highest temperature during the week of 74° followed by Winner at 73°. Maximum temperatures ranged from the mid-60's to low 70's over the State. There were no negative temperatures reported this week. Precipitation was nil most of the week over the entire State. However, on 25th light snow dusted various areas with a trace (0.05 in.) of moisture.

TENNESSEE: No major cold fronts during week. Temperatures averaged up to 12° above previous week and near normal for this time of year. Actual temperatures ranged from upper 30's in east, near 40 in middle, and mid 40's in west. Rain amounts averaged near 0.60 in. Some snow flurries on 21st and 22nd in west and middle. No accumulation.

Activities: Caring for livestock, general chores.

TEXAS: Weather: Upper level disturbance, low clouds, scattered rain first half week; second half, high pressure, fair skies. Rainfall 0.25 to 0.50 in. above normal south central Texas, middle Gulf Coast. Elsewhere normal. Temperatures 1 to 3° below normal south, southwest; 3 to 5° above normal elsewhere.

Commercial vegetables: Rio Grande Valley, activity limited. Harvest of lettuce, cabbage, broccoli, spinach continued. Onion stands progressing well. Citrus harvest continued. Fruit size, quality good. Coastal Bend and East Texas, rains slowed land preparation, limited activity. Onions progressing well. San Antonio-Winter Garden area, wet fields hampered harvest of cabbage, carrots. Onions developing well. Trans-Pecos region, land preparation continued, pepper harvest active. Onion stands good.

Range and livestock: Permanent pastures providing limited grazing. Pastures remain poor, need additional moisture. Small grains providing some grazing. Livestock fair to good. Supplemental feeding heavy.

Crops: Generally dry weather prevailed during week; rain, light snow interrupted field operations early week. Land preparation underway South Texas. Cotton harvest winding down; rain, light snow western regions interrupted harvest. Snow Southern High Plains. Fields too wet to complete harvest; stopped clean-up operations. Harvest standstill Trans-Pecos snow, rain; moisture lowered grade, yield. Rains some relief scattered Central Texas dryland small grain fields. Many dryland wheat fields poor grazing prospects; irrigated fields good progress. Cross-Timbers, Central Texas, greenbug, grain mites increasing with warmer weather. Reported wheat condition is 3% excellent; 33% good; 45% fair; and 19% poor. Cotton harvested 99%, 100% 1979, 100% average. Pecans harvested 99%, 98% 1979, 100% average.

UTAH: Fog continued many lower valleys west portion forepart period. Moderate front moved across over weekend clearing fog but releasing only light accumulations of moisture. Average temperatures continued much above normal except in major fog areas. Averages ranged from 1° below normal to 15° above.

Most farm and ranch activities include feeding and caring for livestock; grading and marketing of potatoes, onions and apples as needs permit. Some land preparation in south.

VIRGINIA: Temperatures near normal first time in a month. Extremes: High: Low 60's, lows: 7 to

10°. A storm system on 21st brought a mixture of precipitation to the State; ranging 0.50 in. extreme east and southwest to 0.10 in. northwest.

Frozen soils and a midweek snow limited farm activity to an average 2.5 days. Winter grains rated only fair. Hay and roughage supply: 80% of usual; feed grains 67%. Livestock in mostly good condition. Calves light and a few losses reported. Low water level continues. Major tasks: Feed and care of livestock; calving; lambing; pruning fruit trees; topdressing small grains; plowing in a few localities; attending producer meetings; ordering seeds; firewood cutting; leasing tobacco poundage; preparing sun and fire-cured tobacco for market; farm record and tax work; manure spreading; planning for 1981, and liming and fertilizing.

WASHINGTON: West: Average temperatures 10 to 12° warmer than normal. Precipitation averaged about 1.00 in. less than normal. Field activities limited. Winter crops look good. Harvest of forces rhubarb continued as did pruning and tying of caneberrys. Pastures were growing as if early spring. Hay supplies remained adequate as forage needs for cattle have been reduced due to the mild weather.

East: Temperatures averaged nearly 12° above the expected normal. Precipitation occurred on several days of the week but 0.10 to 0.20 in. less than weekly normals. The mild weather causing concern to producers as crops may fall to a cold snap. Pruning activities continued while weed spraying and fertilizing got underway in the field. Lambing has continued as well as calving. Livestock in good condition with sufficient hay available.

WEST VIRGINIA: Temperatures averaged above normal in northeast and northwest areas, normal in southwest and below normal in central and north central areas. High 52°, low 0°. Precipitation averaged below normal.

Water availability remains a problem due to frozen sources and decreasing ground water levels. Soil moisture adequate to short. Days suitable for fieldwork: 2.2. Hay, grain and other feed supplies adequate.

WISCONSIN: Mild, dry week. Little or no precipitation. Temperatures well above normal. Highs ranged from 30's to 50's, lows teens to 30's. Extremes: 60 and 3° below. Warmest 25th as January thaw peaked. Coldest mornings 20th and 21st.

WYOMING: Temperatures above normal. Several record high temperatures broken. Greatest departure from normal 18.4° in northeast. Highest reported temperature 71°. Precipitation below normal all stations.

Winter wheat mostly good, additional moisture would be beneficial. Some spring fieldwork being done. Livestock mostly good condition, minimal supplemental feeding necessary.

International Weather and Crop Summary

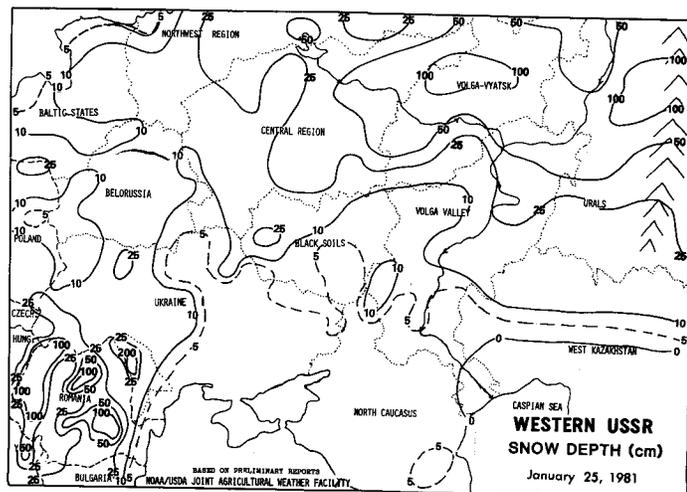
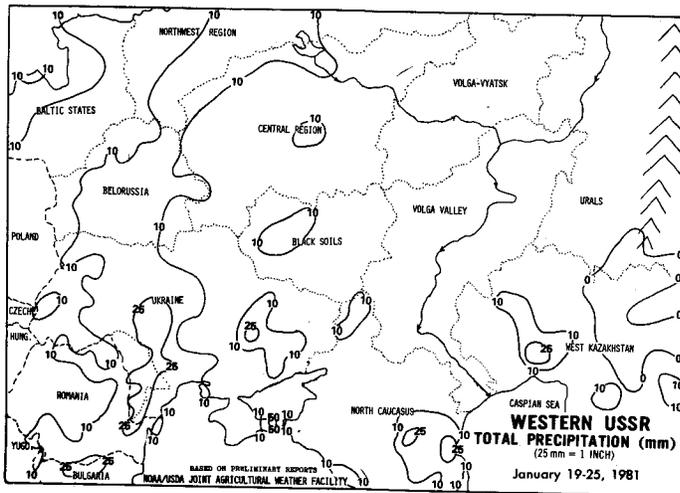
JANUARY 19 - 25, 1981

HIGHLIGHTS

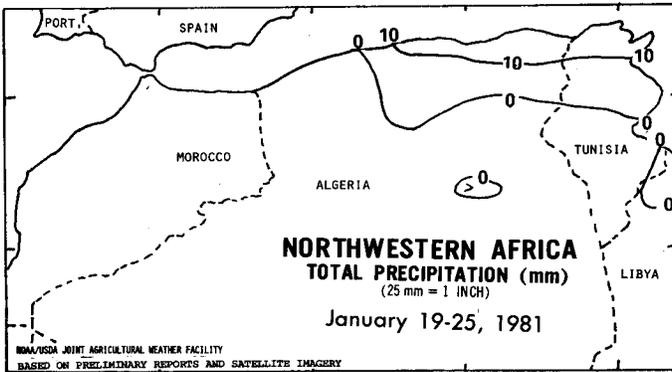
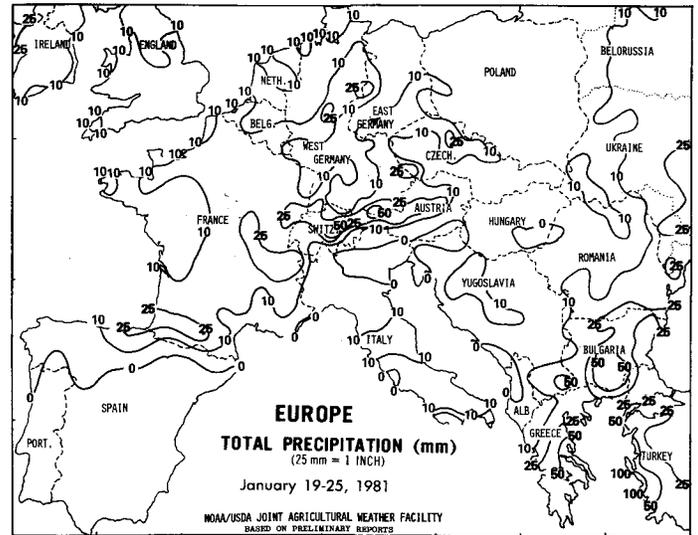
- WESTERN USSR: Temperatures remained above normal as new snow covered the west, but northern winter grains had insufficient cover, should cold weather return.
- EUROPE: Soil moisture adequate in most countries, with winter grains dormant. Warmer in the west, but conditions much too dry in Spain.
- NORTHWESTERN AFRICA: Lighter rainfall -- soil moisture adequate in all areas but southern Morocco.
- SOUTH AFRICA: Much needed and above-average rainfall provided timely soil moisture for corn growth in the Maize Triangle. The crop should be tasseling and silking -- a period of peak moisture demand for the corn crop.
- CHINA: Very light precipitation was beneficial to winter grains. Developing dryness may cause problems as conditions warm.
- INDIA: Widespread abundant rainfall benefited winter grains immensely, with the crop in the heading stage.
- AUSTRALIA: Pastures and rangelands received heavy rainfall in northern Australia while crop areas in southern portions were seasonably dry.
- MEXICO: Sunny, mild, dry weather over the west coast favored vegetable development and harvest.
- SOUTH AMERICA: Favorable weather aided crop development as corn and soybeans progressed into re-productive stages of growth. Abundant moisture was received in most crop areas.

WESTERN USSR. A persistent storm in the eastern Mediterranean brought moisture northward and dumped above-normal precipitation over the western third of the winter wheat belt. Much of the moisture fell as snow, increasing winter grain protection in the west. Southeastern winter grain areas had little snowcover; snow is most needed in

the northeastern Ukraine, northern North Caucasus, southern Black Soils, and lower Volga Valley. However, temperatures remained above normal for the most part, posing no threat of winterkill. Conditions in some extreme southern crop areas became almost warm enough to break winter grain dormancy.

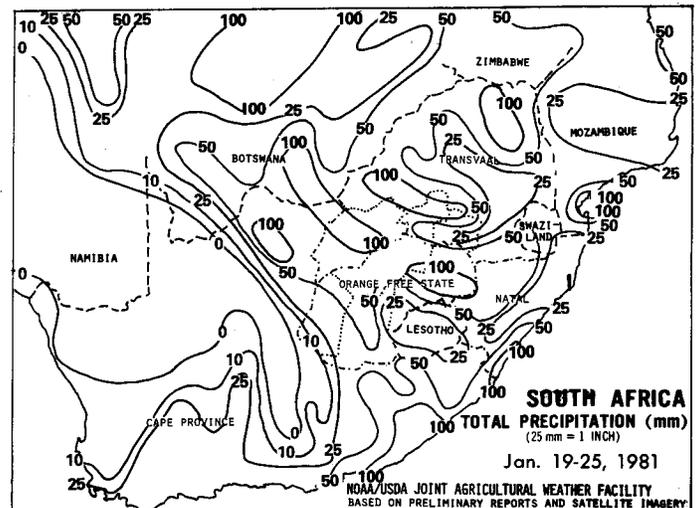


EUROPE. Precipitation slackened somewhat over the region as a high pressure system dominated central Europe. Due to a near-stationary storm system, substantial moisture fell only in eastern Mediterranean areas. Some localized flooding occurred, but precipitation amounts generally remained on the moderate side. Soil moisture over most of the region was good, but dryness has been developing in northern Italy. The southern three-fourths of Spain continued to suffer from limited moisture as winter grain prospects in Spain continued to decline. Temperatures surging above normal allowed winter grain growth over much of the west, but eastern countries stayed cooler than normal. No extreme conditions occurred, and most agricultural areas in the east had at least a light snow covering.

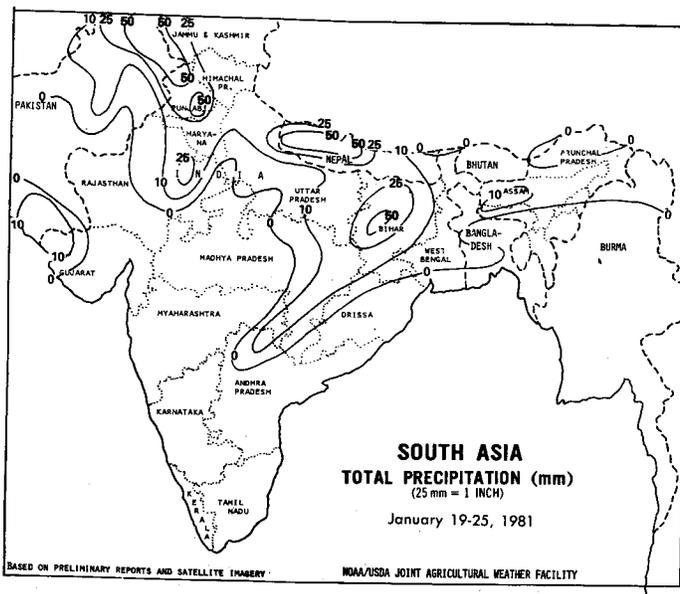
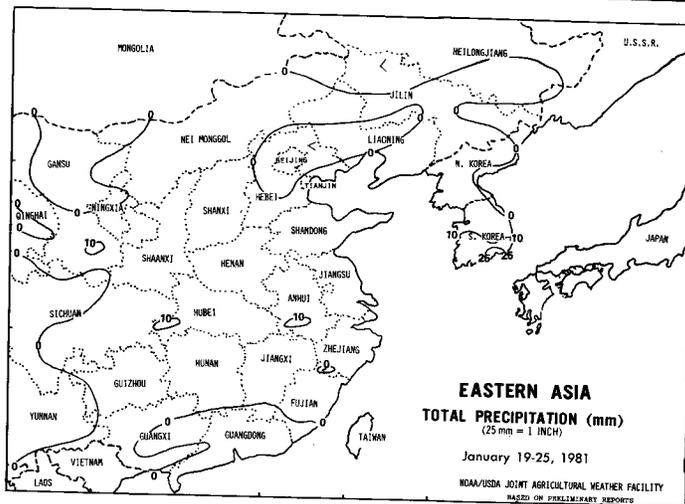


NORTHWESTERN AFRICA. Precipitation decreased substantially in all areas. No moisture fell in Morocco and western Algeria, and amounts in Tunisia and eastern Algeria were lower than normal. Winter grains in Tunisia and Algeria have good soil moisture, but portions of Morocco remain too dry. Moderate rainfall during the previous week in northern Morocco improved soil moisture to near normal, but only light rains fell south of Casablanca. Soil moisture in these more southerly grain areas remains substantially below normal, and conditions will become critical as temperatures rise, unless above normal rainfall is received in the next few weeks.

SOUTH AFRICA. Abundant precipitation (50 to 100 mm) provided extremely beneficial moisture to corn in the Maize Triangle. The main crop is entering the moisture-sensitive reproductive stage, and some areas of southern and western Orange Free State were becoming somewhat dry prior to the timely rains which fell this week. Satellite photos and station reports suggest that the above average precipitation fell during a several day period. This should have provided more soil moisture replenishment than if the rains occurred all at one time, since there is a tendency for greater moisture loss by runoff with heavy rainfall.

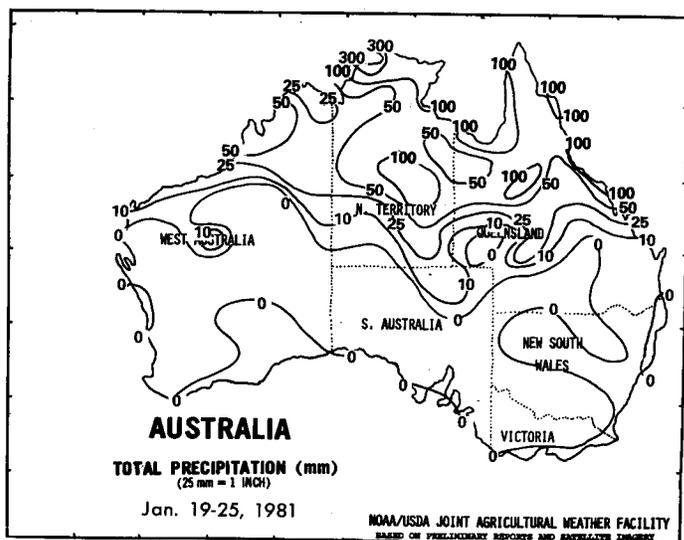


EASTERN ASIA. Most agricultural areas in China received very light precipitation, but totals were too low for the moisture to benefit winter grains. This is the normal dry season in China, but many parts of the winter grain belt have not received what little moisture normally falls. Crop moisture needs are low at this time of year and irrigation supplies should be adequate, but this dryness may indicate problems for unirrigated winter grain fields as moisture needs increase with the onset of warmer springtime conditions. In South Korea, relatively abundant precipitation benefited winter grains, especially in southern coastal areas.

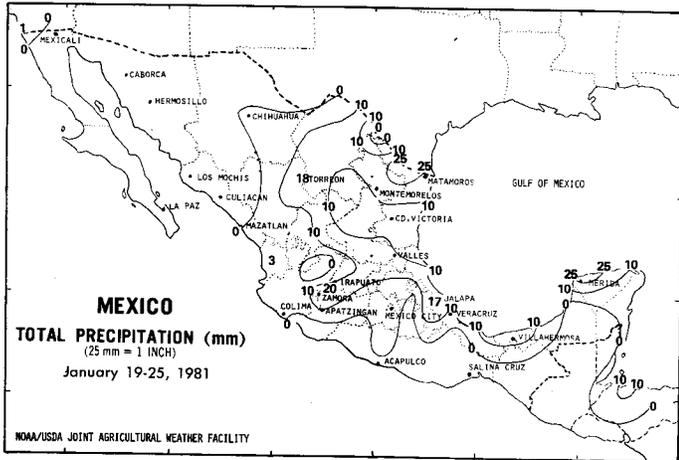
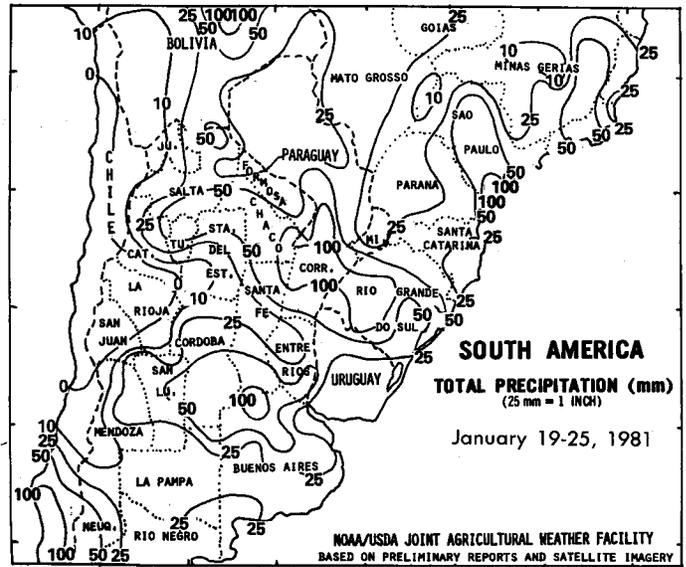


SOUTH ASIA. Much of northern India received abundant rainfall from a slow-moving westerly storm. Totals in many places ranged far above the January normal, greatly benefiting winter grains. These rains were very timely as a follow-up to similar rains in late December. They eased the need for irrigation water and put unirrigated fields in good condition with grains in the moisture-sensitive heading stage.

AUSTRALIA. Significant rainfall (25 to 100 mm) occurred over much of northern Australia, benefiting pasturelands and crop areas in that portion of the continent. Elsewhere, generally dry weather prevailed in summer crop areas of southeastern Queensland and southern Australia. Weekly summaries will be discontinued until autumn sowing activities begin in several months. Monthly maps will continue to be presented as usual.

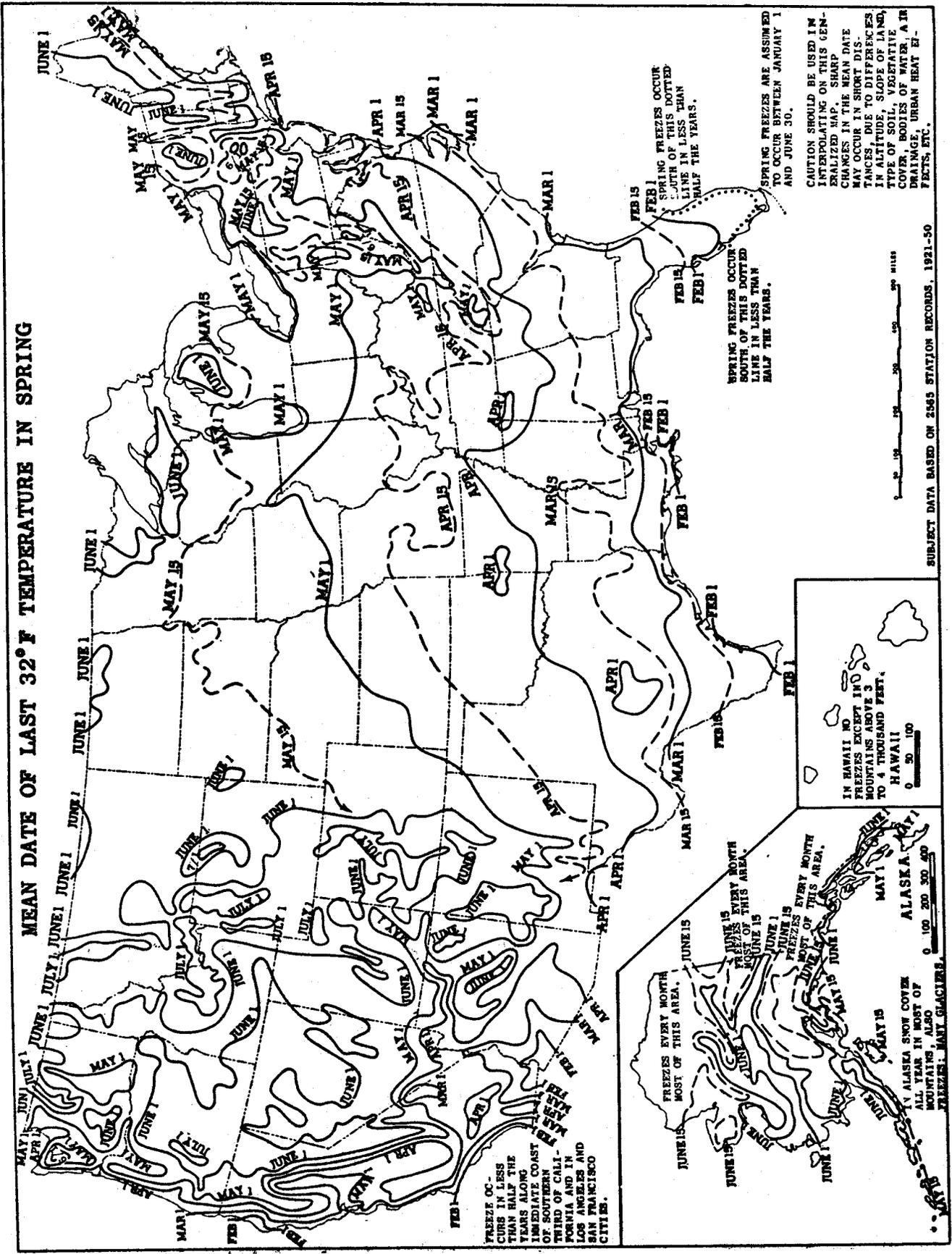


SOUTH AMERICA. Heavy showers occurred in the principal corn/soybean area of Argentina. Weekly rainfall totals were generally between 50 and 100 mm. The crops should be in reproductive stages, and moisture supplies and temperatures are favorable for crop development. In Brazil, scattered showers produced 25 to 50 mm of weekly rainfall in most crop areas with somewhat smaller amounts in Minas Gerais and western portions of Sao Paulo and Parana. The soybean crop is flowering with pods forming on early seeded plants in northern crop areas. Conditions remain favorable for soybean growth in Brazil.



MEXICO. Sunny, mild, dry weather over the west coast favored vegetable development and harvest. Light rains and cool conditions slowed corn harvesting in portions of the Southern Plateau, while keeping citrus cold-hardy and soils damp in the northeast.

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