

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

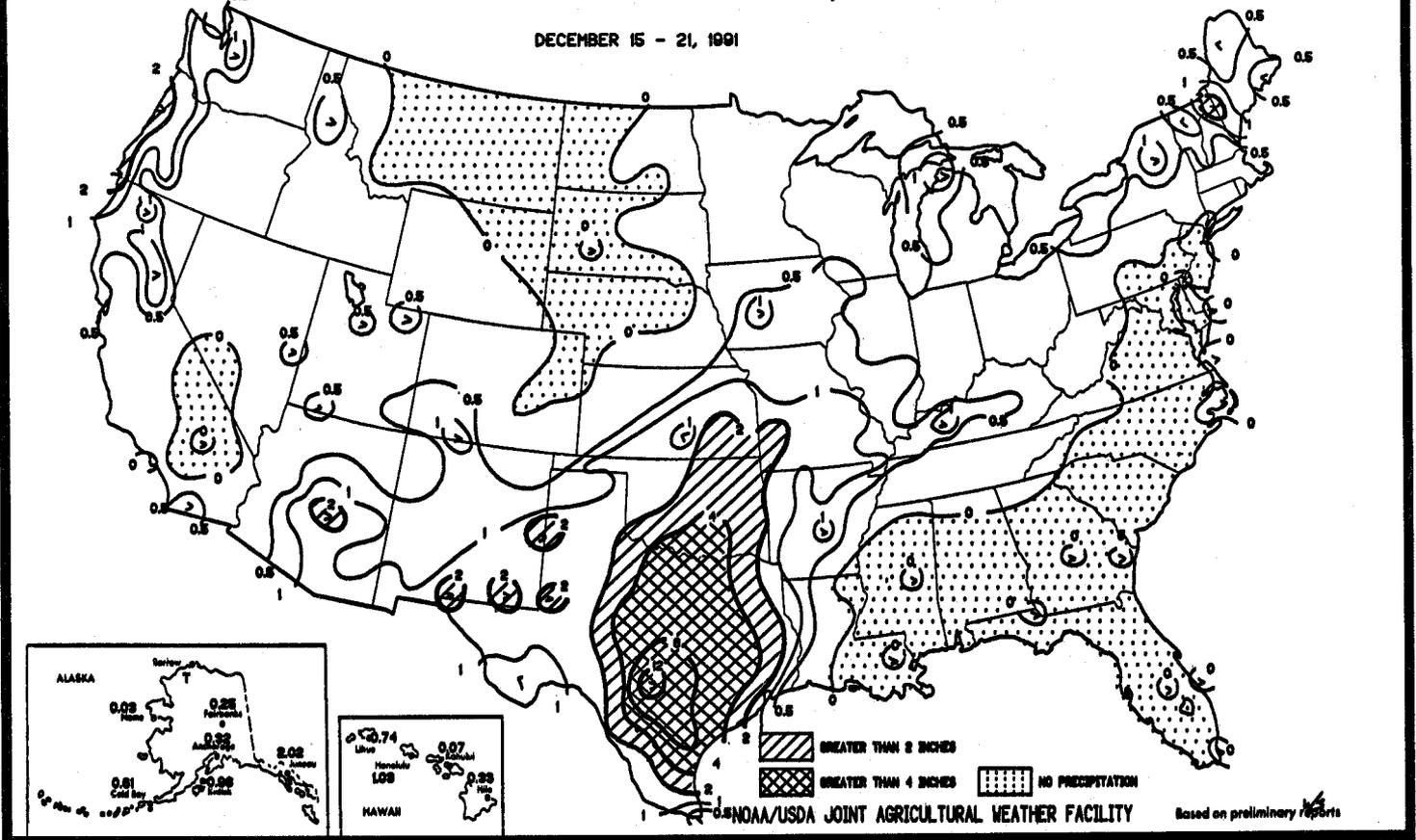
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December 24, 1991

TOTAL PRECIPITATION, INCHES

DECEMBER 15 - 21, 1991



HIGHLIGHTS

December 15 - 21, 1991

Relentless rains caused flooding in Texas, and snowy, cold weather prevailed from Michigan to Maine. Elsewhere, drier-than-normal conditions persisted in the Southeast, while California's rainy season continued to be slow to materialize. Early in the week, cold air swept into the Northeast, touching off snow squalls in the eastern Great Lakes States. A fast-moving storm followed, leaving a stripe of snow from northern Minnesota to Maine, and reinforcing winter's grasp on the East. By midweek, a pair of storms reached the West coast. One storm moved into the Northwest, pushing precipitation as far south as the northern third of California. The other grazed southern California before moving into the southern Rockies. Locally heavy precipitation hit the Southwest for the second week in a row. Intense rains erupted in Texas on Wednesday and continued until week's end. Flooding was prevalent from

southern Oklahoma southward to the central Texas coast. The San Antonio, TX, area was among the hardest hit, as 4-day rainfall totals topped 8 inches (normal December rainfall is 1.38 inches). In western Texas, heavy rain delayed late cotton harvesting. Farther north, ice glazed surfaces from the central Plains to the western Great Lakes. At week's end, rain spread northeastward, changing to snow from the central Appalachians to the Northeast. Meanwhile, heavy precipitation continued in parts of New Mexico and Texas.

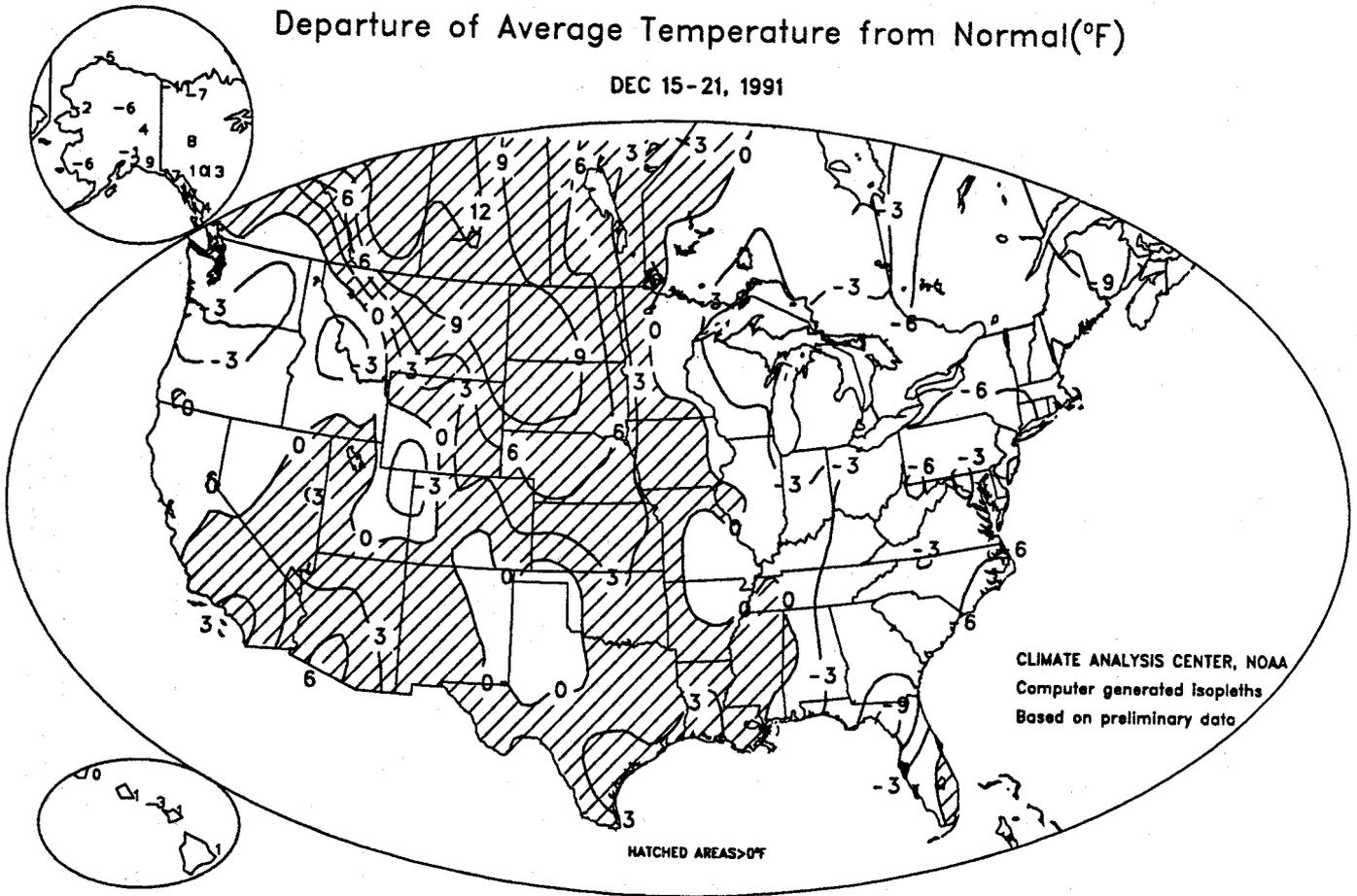
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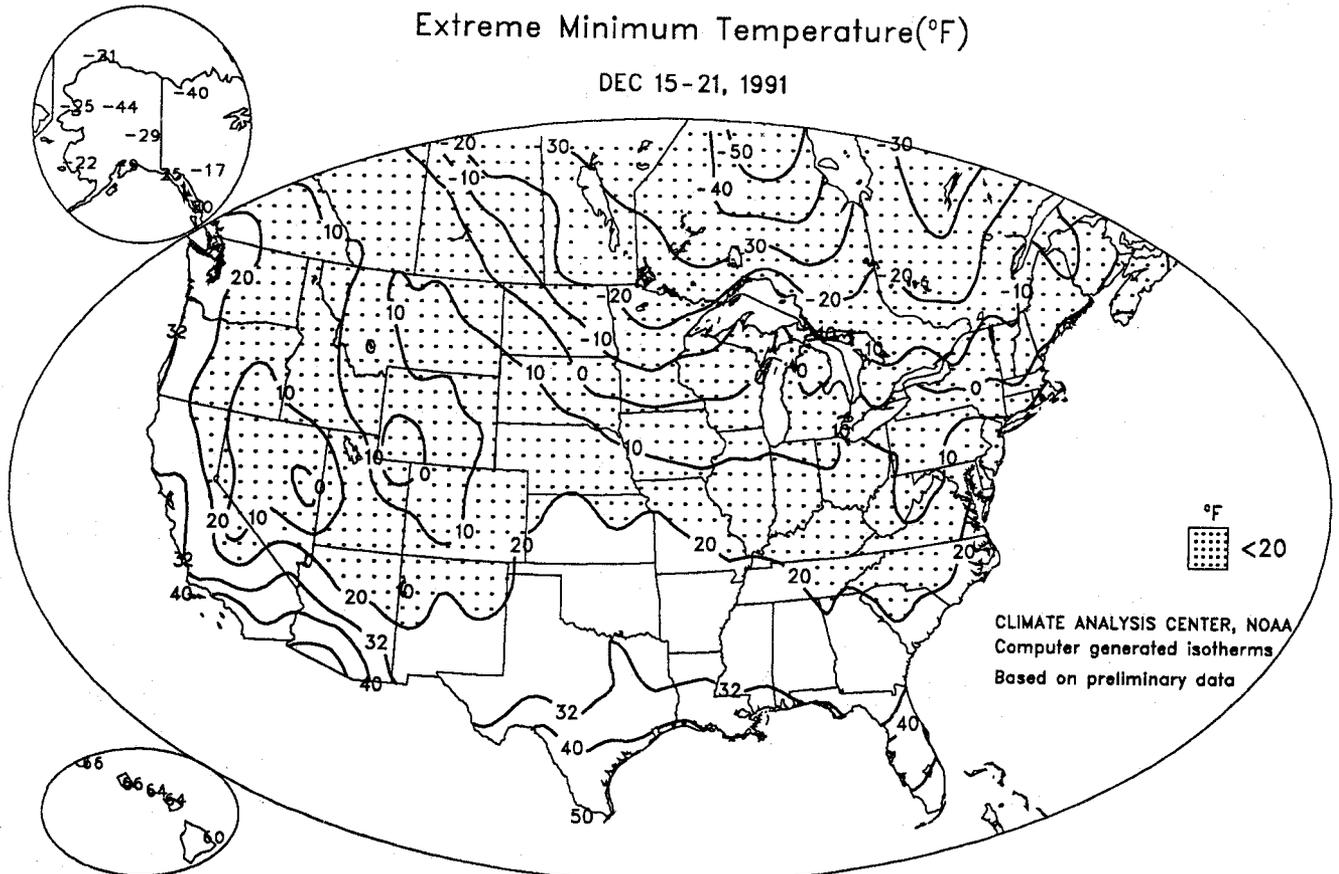
Departure of Average Temperature from Normal(°F)

DEC 15-21, 1991



Extreme Minimum Temperature(°F)

DEC 15-21, 1991



National Weather Data for Selected Cities

Weather Data for the Week Ending December 21, 1991

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	TOTAL, IN., SINCE Jan 1		PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	MINIMUM	TEMP. °F		PRECIP.
													90 AND ABOVE					32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	57	31	66	24	44	-1	.0	-1.1	.0	2.6	79	51.9	99	78	25	0	0	0	0	
MOBILE	63	38	72	32	51	-2	.0	-1.3	.0	1.7	48	80.3	128	80	35	0	0	0	0	
MONTGOMERY	59	31	73	25	45	-3	.0	-1.1	.0	3.5	108	65.6	139	81	27	0	0	0	0	
AK ANCHORAGE	21	10	37	-5	16	2	.3	.1	.3	1.5	201	17.0	118	94	72	0	4	0	0	
BARROW	-12	-27	-10	-31	-20	-6	.6	.0	.0	0	1.8	39	85	67	0	0	0	0		
FAIRBANKS	2	-15	19	-32	-6	5	.3	.1	.1	.9	178	9.3	91	85	77	0	7	0	0	
JUNEAU	37	31	44	25	34	8	2.1	1.0	.8	7.5	231	81.5	158	99	70	0	5	2	0	
KODIAK	32	20	40	10	26	4	1.0	.3	.6	4.2	113	94.7	161	89	57	0	7	0	0	
NOME	5	-11	21	-26	-3	-7	.7	.1	.1	.2	52	14.0	98	84	54	0	0	0	0	
AZ PHOENIX	66	51	73	46	59	6	1.0	.8	.5	1.6	296	8.4	126	78	48	0	0	0	0	
PRESCOTT	50	31	57	21	41	2	.5	.2	.2	1.5	199	15.7	126	89	54	0	4	0	0	
TUCSON	64	48	73	42	56	4	2	.7	.5	1.4	226	10.7	100	84	49	0	0	0	0	
YUMA	69	53	72	50	61	5	1.1	.0	.5	2.19	2.8	122	64	31	0	0	0	0		
AR PORT SMITH	51	32	61	25	42	2	1.3	.7	.8	3.7	181	45.5	117	92	45	0	5	0	0	
LITTLE ROCK	50	37	61	30	43	1	.7	.3	.3	3.7	127	58.3	122	60	46	0	1	0	0	
CA BAKERSFIELD	56	35	68	30	46	2	.7	.1	.1	2.2	44	5.1	95	92	53	0	3	0	0	
BUREKA	54	39	57	32	47	2	1.1	.3	.3	2.0	47	22.9	63	90	68	0	1	0	0	
FRESNO	56	35	67	28	46	3	1.1	.3	.3	2.9	9.6	98	91	54	0	2	0	0		
LOS ANGELES	71	53	77	47	62	5	1.1	.4	.4	37	8.6	76	60	27	0	1	0	0		
REDDING	55	32	62	29	43	3	1.1	.6	.7	1.6	36	22.2	58	98	51	0	0	0	0	
SACRAMENTO	51	35	62	29	43	1	.1	.6	.6	5.5	28	14.7	93	97	64	0	3	0	0	
SAN DIEGO	67	50	76	44	59	3	1.4	.1	.1	8.9	12.6	146	83	38	0	0	0	0		
SAN FRANCISCO	56	42	61	39	49	1	2	.6	.6	.8	94	13.5	74	86	52	0	2	0	0	
CO DENVER	45	22	62	18	34	1	1	.1	.1	2.2	3	20.2	135	84	40	0	0	0	0	
GRAND JUNCTION	34	15	38	11	25	0	.3	.3	.3	.4	105	9.1	119	97	69	0	7	0	0	
PUEBLO	43	21	64	15	32	0	.5	.1	.1	3.3	148	14.0	131	88	55	0	7	0	0	
CT BRIDGEPORT	37	22	44	10	29	-1	.3	.8	.8	2.4	124	39.4	98	71	37	0	0	0	0	
HARTFORD	31	15	40	6	23	-1.5	.3	.7	.7	2.4	83	46.7	109	83	43	0	2	0	0	
DC WASHINGTON	43	27	52	19	35	0	.0	.7	.7	3.6	168	28.2	75	55	30	0	6	0	0	
FL APALACHICOLA	62	38	66	33	50	0	.0	.8	.8	.7	29	90.0	167	81	37	0	0	0	0	
DAYTONA BEACH	67	47	74	41	57	0	.0	.8	.8	.5	30	66.1	139	85	45	0	0	0	0	
JACKSONVILLE	62	35	73	29	49	-1.7	.0	.5	.5	.2	13	79.3	157	89	39	0	0	0	0	
KEY WEST	74	65	79	63	70	0	.0	.0	.0	.1	5	40.6	105	82	58	0	0	0	0	
MIAMI	77	61	83	54	69	0	.0	.4	.4	.1	1	71.4	126	83	48	0	0	0	0	
ORLANDO	70	50	75	46	60	0	.0	.4	.4	.2	10	60.9	125	82	42	0	0	0	0	
TALLAHASSEE	64	32	73	23	48	-1.5	.0	.1	.1	1.1	38	71.8	114	81	24	0	0	0	0	
TAMPA	71	47	76	42	59	0	.0	.1	.1	.7	46	43.2	94	87	40	0	0	0	0	
WEST PALM BEACH	75	58	80	53	67	0	.0	.5	.5	.9	58	76.4	130	83	46	0	0	0	0	
GA ATLANTA	53	31	63	26	42	-2	.0	.0	.0	1.5	54	54.7	117	60	22	0	6	0	0	
AUGUSTA	58	26	70	18	42	-2	.0	.0	.0	.8	38	54.7	131	76	20	0	4	0	0	
MACON	59	30	71	24	44	-1.4	.0	.0	.0	1.5	56	50.1	116	80	25	0	6	0	0	
SAVANNAH	60	34	72	28	47	-1.4	.0	.0	.0	.9	48	67.5	138	67	22	0	2	0	0	
HI HILO	80	66	84	60	73	0	.3	.2	.2	12.8	140	150.1	121	87	58	0	0	0	0	
HONOLULU	81	69	85	67	75	0	1.0	.3	.8	1.1	48	17.7	80	80	53	0	0	1	0	
KAHULUI	81	68	85	64	74	0	.1	.3	.3	.3	17	11.2	65	86	55	0	0	2	0	
LIHUE	77	69	80	66	73	0	.7	.5	.5	6.2	170	37.9	90	84	61	0	0	3	1	
ID BOISE	39	20	53	17	30	-2	.1	.3	.3	.3	30	9.4	85	93	54	0	7	1	0	
LEWISTON	38	27	42	22	33	-2	.1	.3	.3	.2	27	11.1	90	92	58	0	6	1	0	
POCATELLO	35	13	46	6	24	-2	.1	.1	.1	.2	28	13.6	132	92	58	0	7	1	0	
IL CHICAGO	32	14	37	6	23	-3	.5	.3	.3	1.7	102	35.5	106	88	53	0	7	2	0	
MOLINE	34	18	45	8	26	-3	.2	.2	.2	1.4	107	34.0	94	85	50	0	7	1	1	
PEORIA	34	20	44	12	27	-4	.4	.4	.4	1.8	126	35.9	105	83	50	0	7	1	0	
QUINCY	36	22	48	13	29	-4	.6	.3	.3	1.7	139	36.4	98	85	53	0	7	2	1	
ROCKFORD	32	15	37	6	23	-1	.0	.4	.4	1.8	132	32.3	90	88	53	0	7	2	0	
SPRINGFIELD	38	23	46	14	30	0	.3	.3	.3	1.1	78	37.7	113	91	55	0	6	1	0	
IN EVANSVILLE	42	26	48	16	34	-1	.4	.4	.4	3.1	130	32.1	79	80	48	0	4	2	0	
FORT WAYNE	35	19	40	10	27	-2	.3	.3	.3	2.0	115	44.7	133	87	52	0	7	3	0	
INDIANAPOLIS	37	20	42	14	29	-2	.4	.5	.5	1.1	51	37.1	98	78	44	0	7	2	0	
SOUTH BEND	32	18	38	6	25	-4	.2	.3	.3	1.5	76	36.2	98	91	54	0	7	3	0	
IA DES MOINES	35	18	50	10	27	-2	.7	.5	.7	1.5	204	39.1	129	84	55	0	7	2	1	
SIoux CITY	36	18	45	9	27	-2	.1	.1	.1	.9	167	26.2	104	90	56	0	7	1	0	
WATERLOO	32	15	44	5	23	-3	.5	.2	.2	1.5	181	43.1	133	87	59	0	7	1	0	
KS CONCORDIA	41	26	49	20	34	2	.4	.2	.2	.9	176	19.2	71	88	54	0	7	2	0	
DODGE CITY	44	28	58	25	36	3	.5	.4	.3	1.1	306	10.3	81	90	50	0	7	3	0	
GOODLAND	44	24	59	19	34	4	.4	.1	.1	.7	281	22.8	143	90	50	0	7	0	0	
TOPEKA	43	27	60	19	35	4	1.2	.9	.8	1.9	208	28.6	87	87	50	0	5	2	1	
WICHITA	44	30	54	24	37	3	.9	.7	.7	1.5	220	26.2	93	91	52	0	5	2	1	
KY BOWLING GREEN	46	27	56	17	36	-1	.3	.8	.3	6.1	201	47.6	100	82	37	0	5	1	0	
LEXINGTON	42	23	51	15	32	-3	.3	.6	.3	5.8	227	40.3	91	77	38	0	6	1	0	
LOUISVILLE	44	27	53	19	35	-1	.2	.6	.2	4.1	175	37.1	88	70	37	0	5	2	0	
LA ALEXANDRIA	63	45	72	34	54	4	.0	.1	.1	6.6	201	75.7	149	85	40	0	0	1	0	
BATON ROUGE	67	43	78	34	55	2	.0	.2	.0	1.8	54	70.5	130	83	35	0	0	0	0	
LAKE CHARLES	65	49	76	39	57	4	.0	.2	.0	1.8	53	70.0	134	90	53	0	0	1	0	
NEW ORLEANS	65	45	76	35	55	1	.0	.2	.0	.8	23	100.6	174	88	44	0	0	0	0	

Based on 1951-80 normals

Weather Data for the Week Ending December 21, 1991

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	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE	MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																				.01 INCH OR MORE	.50 INCH OR MORE		
SHREVEPORT	59	40	68	29	50	1	1.1			6.2	233	80.6	190	94	48			0	2	4	1		
ME CARIBOU	13	-2	28	-15	6	-9	1.3			2.1	95	35.3	100	83	63			0	7	7	3	0	
PORTLAND	29	11	40	-2	20	-5	1.7			2.8	90	55.9	133	82	45			0	7	7	3	0	
MD BALTIMORE	40	23	48	14	31	-5	1.0			3.1	136	29.3	72	63	29			0	7	7	0	0	
SALISBURY	43	22	51	15	33	-6	1.3			3.1	122	43.2	98	74	28			0	6	6	1	0	
MA BOSTON	34	19	42	10	27	-6	1.2			1.9	63	41.7	99	76	42			0	7	7	3	0	
CHATHAM	39	24	44	17	31	-3	1.3			2.8	84	38.5	85	68	45			0	7	7	4	0	
MI ALPENA	27	8	38	-8	17	-6	1.3			1.4	104	33.7	119	91	62			0	7	7	4	0	
DETROIT	33	17	42	10	25	-3	1.3			1.4	82	29.2	97	83	52			0	7	7	3	0	
FLINT	29	14	38	3	21	-5	1.4			1.9	134	31.4	111	86	59			0	7	7	4	0	
GRAND RAPIDS	29	13	38	2	21	-6	1.5			2.5	139	44.8	137	91	58			0	7	7	6	0	
HOUGHTON LAKE	27	11	35	-4	19	-3	1.2			2.0	153	37.8	138	89	64			0	7	7	6	0	
LANSING	30	12	38	1	21	-5	1.3			1.8	108	30.5	105	92	61			0	7	7	3	0	
MARQUETTE	23	4	36	-8	13	-4	1.2			1.5	89	37.1	102	88	68			0	7	7	4	0	
MUSKEGON	31	17	38	7	24	-3	1.6			1.8	103	41.3	136	91	61			0	7	7	4	0	
SAULT ST. MARIE	24	5	35	-9	15	-4	1.5			2.4	135	33.1	102	91	72			0	7	7	3	0	
MO ALEXANDRIA	24	4	38	-12	14	1	1.1			1.1	117	28.4	117	91	64			0	7	7	1	0	
DULUTH	21	1	35	-13	11	-2	1.2			1.6	69	43.4	150	83	55			0	7	7	4	0	
INT'L FALLS	27	-6	40	-29	7	0	1.2			1.9	149	27.9	117	85	61			0	7	7	4	0	
MINNEAPOLIS	27	7	39	-3	17	-1	1.1			1.9	149	36.5	141	84	57			0	7	7	2	0	
ROCHESTER	26	9	35	-1	18	1	1.2			1.5	233	36.9	132	86	69			0	7	7	2	0	
MS GREENWOOD	56	36	62	27	46	1	1.0			8.0	218	66.1	129	80	35			0	2	2	0	0	
JACKSON	62	36	76	27	49	1	1.0			5.1	142	62.9	126	83	30			0	4	4	0	0	
MERIDIAN	61	35	74	29	48	0	1.3			6.1	161	72.8	142	83	33			0	3	3	0	0	
MO CAPE GIRARDEAU	45	29	53	20	37	-1	1.6			4.4	170	47.6	110	82	43			0	5	5	2	0	
COLUMBIA	40	24	57	17	32	-1	1.0			2.5	180	34.6	96	82	48			0	7	7	2	0	
KANSAS CITY	40	26	53	18	33	0	1.0			1.6	162	28.3	79	83	52			0	5	5	1	0	
SAINT LOUIS	42	28	56	20	35	1	1.7			1.6	101	33.0	100	76	47			0	4	4	1	0	
SPRINGFIELD	44	28	58	25	36	1	1.9			1.9	177	37.4	97	78	46			0	6	6	2	0	
MT BILLINGS	45	25	50	17	35	8	1.0			2.2	42	20.6	141	68	33			0	7	7	0	0	
GLASGOW	39	15	44	6	27	11	1.0			1.1	75	11.0	103	87	43			0	7	7	0	0	
GREAT FALLS	44	24	52	12	34	8	1.0			1.1	16	14.1	96	60	27			0	6	6	0	0	
HAVER	40	15	50	4	27	8	1.0			1.1	0	9.0	78	78	40			0	6	6	0	0	
HELENA	29	8	37	0	18	-5	1.0			1.1	193	12.0	106	89	61			0	7	7	0	0	
KALISPELL	29	18	36	11	23	-1	1.0			1.1	62	15.2	100	91	71			0	7	7	2	0	
MILES CITY	46	19	52	13	33	12	1.1			1.1	17	20.0	143	81	31			0	7	7	0	0	
MISSOULA	27	14	39	10	21	-4	1.1			1.0	125	11.6	92	92	73			0	7	7	1	0	
NE GRAND ISLAND	42	22	55	17	32	6	1.1			1.1	233	28.8	126	89	46			0	7	7	1	0	
LINCOLN	40	22	49	14	31	5	1.3			1.3	287	24.1	90	89	49			0	7	7	2	0	
NORFOLK	40	18	52	10	29	6	1.1			1.1	173	29.1	125	90	48			0	7	7	0	0	
NORTH PLATTE	46	19	60	16	32	7	1.3			1.3	104	20.1	105	93	34			0	7	7	0	0	
OMAHA	37	22	47	12	29	3	1.3			1.3	239	36.7	123	83	56			0	7	7	2	0	
SCOTTSBLUFF	48	17	59	11	33	5	1.0			1.1	0	14.3	99	90	34			0	7	7	0	0	
VALENTINE	46	16	58	10	31	7	1.1			1.1	0	21.9	128	89	30			0	7	7	0	0	
NV RLY	45	13	52	-3	29	4	1.1			1.1	50	10.0	115	76	36			0	7	7	2	0	
LAS VEGAS	57	39	59	33	48	4	1.1			1.1	56	3.9	101	53	26			0	7	7	1	0	
RENO	42	21	52	15	32	0	1.1			1.1	10	5.1	76	92	48			0	7	7	1	0	
WINNEMUCCA	41	16	50	4	28	-2	1.2			1.2	86	7.7	104	92	47			0	7	7	1	0	
NH CONCORD	27	8	39	-4	17	-6	1.2			2.3	94	38.1	107	86	49			0	7	7	3	0	
NJ ATLANTIC CITY	39	20	48	13	29	-6	1.2			2.7	111	33.4	92	71	37			0	7	7	0	0	
NM ALBUQUERQUE	46	30	52	23	38	3	1.7			1.3	400	11.4	148	84	47			0	3	3	3	1	
CLOVIS	45	30	62	22	37	2	1.5			2.5	646	23.9	142	90	58			0	3	3	4	1	
ROSWELL	47	33	58	23	40	0	1.3			1.9	776	20.6	197	95	58			0	3	3	4	1	
NY ALBANY	29	13	39	1	21	-5	1.3			2.2	107	35.1	101	84	56			0	7	7	1	0	
BINGHAMTON	27	15	36	7	21	-5	1.3			2.0	99	32.6	91	87	55			0	7	7	5	0	
BUFFALO	30	14	38	2	22	-7	1.8			2.7	117	39.1	108	96	55			0	7	7	0	0	
NEW YORK	38	25	44	15	32	-4	1.2			2.5	100	37.2	90	83	38			0	5	5	0	0	
ROCHESTER	30	15	39	3	22	-6	1.6			1.6	88	27.9	91	92	53			0	7	7	0	0	
SYRACUSE	31	14	39	2	22	-5	1.5			2.1	94	36.0	95	89	60			0	7	7	5	0	
NC ASHEVILLE	49	23	58	16	36	-3	1.7			3.9	180	42.7	100	70	20			0	7	7	0	0	
CHARLOTTE	51	30	60	21	40	-2	1.0			1.9	42	43.2	103	60	17			0	7	7	0	0	
GREENSBORO	48	26	57	14	37	-3	1.7			1.7	76	40.7	99	60	19			0	7	7	0	0	
HATTERAS	52	34	60	29	43	-4	1.0			1.4	48	61.4	113	73	39			0	3	3	1	0	
NEW BERN	52	28	60	23	40	-4	1.3			1.6	33	47.6	92	69	20			0	7	7	1	0	
RALEIGH	49	26	58	14	38	-4	1.7			1.7	32	33.5	83	64	18			0	6	6	0	0	
WILMINGTON	55	28	66	22	41	-6	1.1			1.8	36	56.1	107	70	23			0	6	6	0	0	
ND BISMARCK	38	14	50	2	26	11	1.1			1.1	48	16.8	112	84	47			0	7	7	1	0	
FARGO	27	4	37	-14	16	4	1.1			1.4	88	20.9	109	88	66			0	7	7	2	0	
GRAND FORKS	26	3	37	-14	15	4	1.1			1.3	78	21.6	120	86	83			0	7	7	0	0	
WILLISTON	38	14	45	2	26	11	1.0			1.1	55	17.7	133	86	48			0	7	7	0	0	
OH AKRON-CANTON	32	17	42	11	25	-5	1.4			3.0	168	23.8	68	89	54			0	7	7	5	0	
CINCINNATI	39	21	50	13	30	-4	1.3			3.3	194	38.9	100	77	41			0	7	7	2	0	
CLEVELAND	34	20	41	13	27	-4	1.3			1.9	101	32.3	94	89	52			0	7	7	6	0	
COLUMBUS	37	20	46	13	29	-3	1.1			3.1	176	32.0	89	78	41			0	7	7	1	0	

Based on 1951-80 normals

Weather Data for the Week Ending December 21, 1991

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	TOTAL, IN., SINCE Jan 1		PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE
													.50 INCH OR MORE							.01 INCH OR MORE
DAYTON	36	18	43	11	27	-4	.2		.2	2.5	146	36.0	107	81	44	0	7	3	0	
TOLEDO	34	17	39	8	26	-5	.1		.1	1.2	66	27.0	88	87	53	0	7	2	0	
YOUNGSTOWN	32	15	39	6	23	-5	.3		.3	2.4	126	25.1	69	92	53	0	7	4	0	
OK OKLAHOMA CITY	48	34	60	31	41	-5	3.5		3.2	5.0	616	42.8	141	87	58	0	3	3	0	
TULSA	50	35	63	29	41	-2	2.4		2.0	3.9	305	32.9	86	84	50	0	3	2	0	
OR ASTORIA	48	35	51	29	41	-2	1.4		1.3	6.3	80	56.9	86	94	63	0	2	3	0	
BURNS	38	14	40	8	26	-8	.3		.3	1.1	13	5.5	56	91	49	0	7	1	0	
MEDFORD	42	30	47	23	36	-1	.3		.5	1.1	46	14.5	78	99	79	0	6	2	0	
PENDLETON	36	25	46	21	30	-5	.2		.2	.6	51	13.3	116	94	73	0	7	2	0	
PORTLAND	44	32	48	26	38	-5	1.4		1.1	4.0	94	33.3	95	94	63	0	3	2	0	
SALEM	41	31	48	27	36	-5	1.4		1.1	4.0	94	33.3	95	94	73	0	7	2	0	
PA ALLENTOWN	34	21	45	14	28	-5	1.6		.8	3.4	73	33.1	88	96	82	0	5	2	0	
ERIE	33	19	40	9	26	-4	.6		.2	2.6	102	33.5	78	65	40	0	7	2	0	
HARRISBURG	35	26	45	20	30	-2	.6		.2	2.6	112	31.1	80	85	53	0	6	6	0	
PHILADELPHIA	39	24	47	18	32	-3	.7		.7	2.7	120	31.0	81	54	35	0	6	6	0	
PITTSBURGH	34	17	44	9	26	-5	.2		.1	3.3	142	35.6	89	58	36	0	7	4	0	
SCRANTON	30	17	40	11	24	-6	.2		.1	3.0	175	31.4	89	87	41	0	7	4	0	
RI PROVIDENCE	35	19	42	11	27	-5	.3		.0	2.3	130	29.8	88	85	50	0	7	3	0	
SC CHARLESTON	57	33	71	28	45	-5	.0		.2	2.6	85	45.1	103	76	36	0	7	2	0	
COLUMBIA	56	26	67	17	41	-4	.0		.0	.4	21	48.5	96	63	22	0	3	0	0	
FLORENCE	56	29	66	21	42	-4	.0		.0	.8	37	60.6	127	77	18	0	6	0	0	
GREENVILLE	53	27	62	19	40	-3	.0		.0	.3	15	43.0	100	60	21	0	5	0	0	
SD ABERDEEN	36	9	47	-6	23	-7	.0		.0	1.2	46	45.6	92	63	17	0	6	0	0	
BURON	37	12	52	-2	25	-7	.1		.1	.1	39	23.1	132	89	50	0	7	1	0	
RAPID CITY	49	21	61	13	35	-5	.1		.1	.1	23	23.4	128	86	49	0	7	1	0	
SIoux FALLS	35	14	45	4	24	-9	.0		.0	.1	13	17.3	109	81	31	0	6	0	0	
TN CHATTANOOGA	49	27	59	22	38	-3	.2		.2	5.6	162	53.5	105	83	23	0	6	1	0	
KNOXVILLE	45	26	55	22	35	-5	.2		.2	8.4	277	56.5	124	75	33	0	6	1	0	
MEMPHIS	52	34	59	25	43	0	.3		.3	6.5	199	60.5	122	75	38	0	4	2	0	
NASHVILLE	49	29	58	19	39	-1	.1		.1	6.4	207	45.4	97	75	31	0	4	1	0	
TX ABILENE	52	37	59	30	44	-2	3.7		3.5	1.7	5.5	939	32.6	142	92	68	0	1	4	3
AMARILLO	46	28	65	24	37	-1	1.0		.9	.5	1.2	367	14.3	76	90	53	0	6	4	0
AUSTIN	60	48	70	38	54	2	9.7		9.3	4.2	11.8	824	49.9	163	93	70	0	6	4	1
BEAUMONT	65	50	73	39	58	4	.1		-1.0	.1	10.3	307	80.2	150	91	56	0	5	4	0
BROWNSVILLE	68	59	80	48	63	1	.3		.2	.6	7.6	76	30.1	121	90	75	0	0	0	0
CORPUS CHRISTI	68	58	77	49	63	5	7.5		7.2	6.7	6.6	948	45.8	150	89	69	0	5	1	0
DEL RIO	59	50	66	43	54	2	1.8		1.7	1.1	2.7	700	21.7	127	85	64	0	0	5	2
EL PASO	54	39	60	30	46	2	2.1		2.0	1.2	2.8	>1000	11.7	157	90	56	0	1	4	1
FORT WORTH	55	40	66	30	47	0	6.0		5.6	4.2	8.3	700	53.0	174	94	57	0	2	4	2
GALVESTON	64	57	72	45	61	4	.2		-6	.1	3.3	133	60.0	153	87	69	0	0	4	0
HOUSTON	64	48	74	34	56	2	4.2		3.4	3.4	6.6	259	58.4	129	95	66	0	0	5	1
LUBBOCK	49	33	62	26	41	-1	1.1		1.0	.5	1.4	564	23.2	134	95	64	0	2	4	0
MIDLAND	52	36	65	27	44	-1	1.5		1.4	.4	2.1	662	23.5	176	95	69	0	2	4	0
SAN ANGELO	56	40	64	28	48	0	2.4		2.3	1.5	3.4	791	23.8	134	98	77	0	2	4	1
SAN ANTONIO	62	51	70	35	57	4	11.6		11.3	6.0	12.7	>1000	41.5	146	93	67	0	2	4	1
VICTORIA	66	54	75	39	60	4	4.5		4.0	3.3	5.0	340	55.6	153	91	71	0	0	5	4
WACO	59	42	68	30	51	2	6.7		6.3	3.9	7.7	585	44.9	149	97	65	0	1	4	4
WICHITA FALLS	51	38	64	31	44	1	4.3		4.0	2.3	6.5	783	35.5	136	94	62	0	1	3	3
UT CEDAR CITY	41	24	51	18	33	2	.1		.2	.1	.3	62	12.1	120	90	59	0	6	2	0
SALT LAKE CITY	39	23	44	18	31	1	.2		.2	.1	.3	37	17.7	121	92	61	0	7	2	0
VT BURLINGTON	25	8	38	0	16	-5	.3		.2	.1	.3	69	32.4	99	89	60	0	7	6	0
VA NORFOLK	47	30	56	25	38	-4	.3		.7	.9	41	41.3	94	57	23	0	5	1	0	
RICHMOND	47	25	59	18	36	-3	.3		.8	2.8	123	34.1	80	71	22	0	7	0	0	
ROANOKE	46	24	56	13	35	-3	.3		.7	2.7	137	35.9	95	52	22	0	6	0	0	
WA QUILLAYUTE	47	32	50	26	39	-1	1.3		1.2	.7	9.3	79	97.7	97	99	71	0	3	5	1
SEATTLE-TACOMA	45	34	48	26	39	-2	.7		.8	.4	2.9	68	34.9	96	97	66	0	3	3	0
SPOKANE	31	22	34	18	27	-2	.5		.2	.2	1.2	73	14.3	91	97	79	0	7	3	0
YAKIMA	33	17	35	12	25	-6	.3		.1	.2	21	7.5	103	99	81	0	7	2	0	
WV BECKLEY	39	21	48	13	30	-3	.3		.4	5.1	245	38.9	94	67	26	0	7	2	0	
CHARLESTON	43	23	56	15	33	-3	.3		.5	4.6	212	41.2	100	74	30	0	6	1	0	
HUNTINGTON	42	23	54	13	33	-4	.2		.6	3.9	186	37.2	94	71	33	0	6	1	0	
PARKERSBURG	39	21	52	13	30	-4	.2		.5	3.9	217	43.5	118	77	33	0	7	1	0	
WI GREEN BAY	26	10	33	0	18	-5	.3		.1	1.4	145	26.6	97	87	57	0	7	2	0	
LACROSSE	27	11	35	2	19	-2	.2		.0	1.1	1.4	187	36.3	123	88	55	0	7	3	0
MADISON	28	13	35	3	21	-1	.4		.1	1.7	160	39.2	130	90	57	0	7	3	0	
MILWAUKEE	30	15	37	6	23	-2	.4		.1	1.7	124	39.2	130	82	51	0	7	4	0	
WAUSAU	22	5	36	-4	14	-4	.1		.1	1.4	154	38.9	125	93	68	0	7	2	0	
WY CASPER	41	20	45	9	30	5	.1		.0	.1	.3	103	12.4	113	77	41	0	7	2	0
CHEYENNE	45	20	55	16	33	3	.3		.1	.1	.3	16	18.6	141	77	33	0	7	2	0
LANDER	34	13	49	2	24	1	.2		.1	.2	.3	77	14.7	115	85	55	0	7	2	0
SHERIDAN	35	14	46	9	25	0	.2		.2	.6	114	16.0	108	85	53	0	7	0	0	

Based on 1951-80 normals

HEATING DEGREE DAYS (Base 65° F) December 15 - 21, 1991

(Cumulative totals and departures from normal are for the period July 1 - December 21, 1991)

STATES AND STATIONS	WEEKLY		CUMULATIVE			STATES AND STATIONS	WEEKLY		CUMULATIVE			STATES AND STATIONS	WEEKLY		CUMULATIVE		
	TOTAL	DEPARTURE	TOTAL	DEPARTURE	DEP. from '90		TOTAL	DEPARTURE	TOTAL	DEPARTURE	DEP. from '90		TOTAL	DEPARTURE	TOTAL	DEPARTURE	DEP. from '90
AL BIRMINGHAM	149	10	884	-38	179	NEW ORLEANS	68	-8	488	62	162	CINCINNATI	245	22	1609	-37	277
MOBILE	100	9	593	83	218	SHREVEPORT	106	-11	704	9	133	DAYTON	262	25	1797	29	265
MONTGOMERY	137	21	743	26	197	ME CARIBOU	415	60	3133	-110	173	TOLEDO	275	10	1953	-113	207
AK ANCHORAGE	343	-19	4024	-268	-566	PORTLAND	309	27	2220	-164	260	YOUNGSTOWN	290	35	1950	-102	234
BARROW	588	35	7985	131	226	MD BALTIMORE	236	30	1394	-33	204	OK OKLAHOMA CITY	167	-12	1193	44	257
FAIRBANKS	496	-37	5479	-157	-237	SALISBURY	225	37	1251	-70	109	TULSA	164	-17	1129	-12	262
JUNEAU	214	-55	3330	-220	-210	MA BOSTON	267	40	1577	-64	244	OR ASTORIA	164	10	1820	-56	110
KODIAK	272	20	3314	-201	-209	CHATHAM	236	22	1527	-187	118	BURNS	271	5	2421	-47	-296
NOME	472	38	4874	-598	-338	MI ALPENA	332	35	2679	-12	229	MEDFORD	202	7	1358	-301	-290
AZ FLAGSTAFF	218	-32	2167	-311	-151	DETROIT	278	16	1950	-103	236	PENDLETON	241	37	1710	-141	10
PHOENIX	41	-44	285	-125	58	FLINT	303	32	2232	39	253	PORTLAND	187	17	1304	-303	-75
PRESCOTT	170	-28	1399	-175	-13	GRAND RAPIDS	304	34	2249	87	318	SALEM	204	33	1432	-291	-121
TUCSON	61	-34	448	-48	56	HOUGHTON LAKE	321	20	2674	-16	231	PA ALLENTOWN	258	17	1677	-133	105
WINSLOW	223	-10	1717	111	20	LANSING	306	34	2316	130	322	ERIE	270	19	1765	-265	212
YUMA	27	-36	179	-99	-8	MARQUETTE	360	24	3445	259	367	HARRISBURG	242	15	1559	-92	131
AR FORT SMITH	163	-8	1066	-24	167	MUSKEGON	282	19	2193	59	264	PHILADELPHIA	233	20	1297	-179	145
LITTLE ROCK	149	-8	957	-37	220	SAULT STE MARIE	352	28	3019	-4	183	PITTSBURGH	275	34	1753	-134	195
CA BAKERSFIELD	134	12	723	64	09	MN ALEXANDRIA	356	-6	3241	283	582	SCRANTON	287	34	1884	-119	168
EUREKA	127	8	1655	-198	91	DULUTH	375	10	3667	363	604	RI PROVIDENCE	264	29	1559	-215	108
FRESNO	134	-8	751	-94	-37	INT'L FALLS	402	-4	3830	243	554	SC CHARLESTON	136	27	567	-72	159
LOS ANGELES	24	-33	216	-200	19	MINNEAPOLIS	336	9	2984	436	674	COLUMBIA	165	33	809	-21	144
REDDING	147	14	728	-85	-114	ROCHESTER	330	-2	3106	452	666	FLORENCE	156	27	727	-51	168
SACRAMENTO	151	11	751	-89	-61	SAINT CLOUD	370	14	3282	355	575	GREENVILLE	175	20	997	-33	176
SAN DIEGO	22	-34	191	-121	-34	MS GREENWOOD	128	-6	800	-72	148	SD ABERDEEN	294	-52	2903	118	364
SAN FRANCISCO	108	-4	765	-290	44	JACKSON	112	-6	731	-13	124	HURON	280	-68	2475	62	298
STOCKTON	152	12	760	-62	-36	MERIDIAN	118	-4	748	-52	173	RAPID CITY	288	-39	2806	257	399
CO DENVER	219	-9	2125	123	358	MO CAFE GIRARDEAU	197	-7	1353	-29	244	SIoux FALLS	284	39	1098	-62	219
GRAND JUNCTION	281	18	1920	22	-19	COLUMBIA	229	-1	1714	102	382	TN CHATTANOOGA	188	20	1297	-62	219
PUEBLO	230	2	2075	239	378	KANSAS CITY	224	-12	1819	200	450	KNOXVILLE	206	35	1201	16	224
CT BRIDGEPORT	250	28	1461	-77	142	SAINT LOUIS	211	-9	1456	-72	341	MEMPHIS	152	-4	956	-40	206
HARTFORD	289	29	1781	-148	185	SPRINGFIELD	202	-4	1478	16	292	NASHVILLE	181	9	1166	-23	267
DE WILMINGTON	229	16	1352	-143	88	MT BILLINGS	211	-56	2388	-18	294	TX ABILENE	143	10	929	99	230
DC WASHINGTON	209	22	1135	-89	139	GLASGOW	265	-76	2867	-97	149	AMARILLO	193	3	1569	194	320
FL APALACHICOLA	102	27	426	48	152	GREAT FALLS	216	-61	2577	-40	145	AUSTIN	76	-17	497	-15	162
DAYTONA BEACH	54	5	192	-23	66	HAVRE	264	-63	2833	-113	181	BEAUMONT	52	-23	430	-2	101
FORT MYERS	16	-12	63	-29	31	HELENA	327	34	2722	-169	271	BROWNSVILLE	35	0	188	42	91
JACKSONVILLE	114	36	409	8	142	KALISPELL	291	4	2958	-134	223	COORPS CHRISTI	30	-21	266	3	116
KEY WEST	0	-6	8	-13	-3	MILES CITY	225	-83	2556	-85	255	DEL RIO	72	-19	458	-20	128
MIAMI	0	-8	8	-18	04	MISSOULA	309	26	2631	-229	13	EL PASO	129	-18	897	-28	71
ORLANDO	33	-4	138	-8	56	NE GRAND ISLAND	231	-42	2220	114	386	FORT WORTH	121	3	761	81	172
TALLAHASSEE	117	29	532	42	152	LINCOLN	237	-36	2146	133	462	GALVESTON	35	-25	318	1	137
TAMPA	44	2	161	-11	83	NORFOLK	251	-43	2435	162	396	HOUSTON	65	-15	469	8	124
WEST PALM BEACH	3	-11	32	-14	19	NORTH PLATTE	226	-51	2286	-42	175	LUBBOCK	170	3	1253	111	309
GA ATLANTA	162	14	836	-109	158	OMAHA	247	-24	2240	303	452	MIDLAND ODESSA	145	10	1044	171	278
AUGUSTA	160	30	798	-12	151	SCOTTSDUFF	225	-38	2279	1	150	SAN ANGELO	117	-5	859	116	166
MACON	143	26	703	-10	102	VALENTINE	237	-54	2540	115	273	SAN ANTONIO	60	-28	468	-13	90
SAVANNAH	125	20	513	-69	116	NV ELY	247	-30	2524	-134	40	VICTORIA	40	-26	348	-7	110
ID BOISE	247	12	1949	-50	-25	LAS VEGAS	116	-26	735	-72	22	WACO	99	-12	644	27	162
LEWISTON	226	14	1772	-150	305	RENO	230	-1	1605	-529	-177	WICHITA FALLS	142	-9	973	34	171
POCATELLO	285	13	2441	-3	140	WINNEMUCA	255	9	2003	-269	-213	UT BLANDING	241	-13	1793	-250	-70
IL CHICAGO	289	22	2163	206	391	NH CONCORD	332	41	2266	-155	170	CEDAR CITY	225	-16	1944	-46	-45
MOLINE	274	-2	2175	172	329	NJ ATLANTIC CITY	247	37	1449	-47	104	SALT LAKE CITY	238	-10	1867	-76	34
PEORIA	265	-1	2056	122	319	NM ALBUQUERQUE	189	-21	1418	-68	51	VT BURLINGTON	339	33	2360	-152	179
QUINCY	247	-4	1933	156	394	CLOVIS	192	9	1530	182	394	VA LYNCHBURG	213	21	1256	-115	122
ROCKFORD	289	2	2315	137	306	ROSWELL	175	14	1223	133	357	NORFOLK	184	28	885	-94	153
SPRINGFIELD	242	-3	1836	107	320	NY ALBANY	306	29	2047	-121	158	RICHMOND	199	19	1072	-161	139
IN EVANSVILLE	216	5	1490	4	288	BINGHAMTON	308	29	2134	-187	10	ROANOKE	208	16	1251	-138	197
FORT WAYNE	266	8	1960	-2	268	BUFFALO	299	39	2001	-67	204	WA COLVILLE	278	14	2452	-179	13
INDIANAPOLIS	252	13	1716	-47	213	NEW YORK	233	25	1216	-180	154	QUILLAYUTE	177	8	2030	-193	16
SOUTH BEND	277	20	2041	85	345	ROCHESTER	296	37	2070	28	178	SEATTLE-TACOMA	180	12	1489	-339	-126
IA DES MOINES	267	-13	2305	289	458	SYRACUSE	296	32	2005	-60	109	SPOKANE	268	14	2283	-186	-1
DUBUQUE	301	0	2559	231	417	NC ASHEVILLE	203	19	1342	-82	198	YAKIMA	278	42	1996	-181	-49
SIoux CITY	262	-36	2519	322	453	CAPE HATTERAS	155	36	548	-131	10	WV BECKLEY	245	22	2125	273	666
WATERLOO	289	-20	2639	240	439	CHARLOTTE	170	8	868	-191	143	CHARLESTON	222	22	1383	-128	237
KS CONCORDIA	218	-25	1896	149	406	GREENSBORO	194	16	1101	-129	160	HUNTINGTON	226	25	1409	-95	200
DODGE CITY	203	-19	1789	187	362	NEW BERN	173	36	727	-123	88	PARKERSBURG	243	32	1572	14	242
GOODLAND	217	-30	2008	-17	241	RALEIGH-DURHAM	190	25	1000	-112	185	WI GREEN BAY	327	11	2720	141	438
TOPEKA	210	-28	1741	64	345	WILMINGTON	163	41	720	-9	188	LA CROSSE	318	7	2744	368	656
WICHITA	196	-23	1606	110	313	ND BISMARCK	274	-79	3099	93	280	MADISON	310	5	2557	106	398
KY BOWLING GREEN	201	9	1339	-35	256	FARGO	344	-29	3274	243	577	MILWAUKEE	295	10	2210	-27	401
LEXINGTON	226	20	1474	-38	214	GRAND FORKS	351	-33	3475	222	537	WAUSAU	359	25	3099	323	588
LOUISVILLE	206	7	1311	-98	236	WILLISTON	273	-83	3106	-2	270	WY CASPER	241	-36	2582	-24	142
LA ALEXANDRIA	79	-24	605	13	109	OH AKRON-CANTON	282	33	1916	-15	237	CHEYENNE	224	-27	2503	23	145
BATON ROUGE	70	-18	519	11	104	CLEVELAND	266	23	1791	-89	170	LANDER	288	-7	2713	-36	207
LAKE CHARLES	57	-23	480	8	95	COLUMBUS	252	17	1707	-82	221	SHERIDAN	280	-4	2667	-24	276

National Agricultural Summary

December 16 - 22, 1991

HIGHLIGHTS: Extensive rains in the latter half of the week caused widespread flooding in Texas. More limited precipitation provided light snow cover over the Great Lakes and Northeast regions, while continued above-normal temperatures in the North Central and Rocky Mountain States further reduced snow cover.

SMALL GRAINS: Small grain seeding approached completion in the Southeast and continued in Arizona. Fieldwork was suspended by heavy rains in Texas and Oklahoma with small grain seeding near completion. Temperatures continued to average above normal in the North Central and Rocky Mountain States, heightening concerns over inadequate snow cover for the protection of small grains from freeze. Additional precipitation in the Great Lakes and Northeast increased snow cover.

CORN: Progress was made early in the week harvesting Iowa's limited remaining corn, but ice and rain halted harvest by the weekend.

SOYBEANS: Continued dry weather along the Atlantic Coast allowed the completion of harvest, while midweek rains left a few fields along Texas' Upper Coast and High Plains unharvested.

COTTON: Cotton harvest was completed Arizona, California, and the Carolina's, while rains continued to delay harvest in Oklahoma and Texas. Excessive rains reduced the quality of unharvested cotton and many modules left in fields began to show deterioration also. Stalk shredding and discing were neared completion in Arizona and California with California's compliance date for plowdown approaching. Ground preparation and pre-irrigation for next year's crop was ongoing in California.

GRAIN SORGHUM: Harvest of the 1991 crop was completed with California, North Carolina, and Texas growers completing harvest during the week.

OTHER FIELD CROPS: Alfalfa harvest remained active, though slowed by rains in Arizona. Peanut harvest, at 95 percent (%) complete in Texas, was delayed by rains, and some damage from freezes and excessive moisture occurred. Peanut harvest was wrapped up in Alabama. Rice stubble burning was hampered by wet conditions in California.

FRUIT AND NUTS: Pecan harvest was approaching completion in the southern States. Lemon, grapefruit, orange, and tangerine picking continued in Arizona. Damp, foggy weather slowed picking of oranges in California. California oranges remained smaller than normal, but cooler nights brought out fruit color which reduced the need to gas fruit. Grapefruit picking continued. Citrus groves were being maintained with irrigation in Florida, and afternoon wilt on some trees was noted in sandy soil areas without irrigation. Florida's early fruits were in good condition with advanced maturity and harvest active. Orchard and vineyard pruning continued as weather conditions permitted in the northern States. Citrus harvest continued in Texas.

VEGETABLES: Lettuce and mixed vegetable harvesting continued in central and western Arizona. Asparagus harvesting continued in Coachella Valley, CA, with good quality reported. Broccoli, carrot, cauliflower, celery, and lettuce supplies began to diminish in California with harvest activities moving southward. Strong winds caused minor damage to vegetable plants in Florida, with harvests steady for most crops before the holiday lull. Florida's volume leaders were tomatoes, peppers, cucumbers, celery, squash, and snap beans. Onion planting was 85% complete in Georgia. Rio Grande Valley, TX, harvest operations continued despite cool, damp conditions. Texas onions continued good progress, and some irrigation was underway in the Upper Valley. San Antonio-Winter Garden and East Texas harvest activities were limited because showers stalled progress at midweek. Rhubarb growers started to dig crowns for the forcing sheds in western Washington.

PASTURES AND LIVESTOCK: Hay and forage supplies remained mostly adequate nationwide, with supplemental feeding ongoing in most central and northern States. Continued dry weather has hurt pasture conditions in the Southeast. Livestock movement to market slowed due to the holidays.

State Summaries of Weather and Agriculture

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

ALABAMA: Rainfall mostly under 0.33 in. north; none to light elsewhere. Temperatures 2° above normal to 2° below normal.

Primary activities: Seeding small grains, winter annuals; shredding cotton stalks; soil testing; cleaning, storing equipment; preparing taxes; general care of livestock, poultry, catfish.

ARIZONA: Cloudiness increased statewide, 15th, 16th. Rain statewide, snow higher elevations 17th, 18th. Strong winter storm statewide brought rain, hail, snow 19th. Partial clearing north, west; showers remainder of State, 20th, 21st. Temperatures normal to 6° above. Extremes 16°; 66° higher elevations, 34°; 75° deserts.

Cotton harvested 100%, 100% 1990, 99% avg.; second picking south, east. Stalk shredding, plow down, delayed by storms; active statewide. Alfalfa harvest, light, condition good; sheeping off, light. Small grains seeded 71%, 78% 1990, 65% avg.; small grains established, 57%, 54% 1990, 41% avg. Lemons, grapefruit, oranges, tangerines, mixed vegetables, lettuce harvested central, west. Pecans harvested, central. Peanut harvest wrapping up, west.

ARKANSAS: Temperatures normal with scattered showers later part of the week, heaviest northwest. Extremes 18°; 72°. Rainfall none to 1.59 in.

A few cotton gins continued to gin modules. The wet weather kept producers from doing any fieldwork. Livestock good. Some hay, feed was fed to cattle.

CALIFORNIA: High pressure with central valley fog dominated the first part of the week. A storm moved through midweek with small amounts of precipitation over much of the State. An offshore wind pattern followed it as high pressure rebuilt over the State.

Early rains slowed field activities. Rice stubble burning hampered by wet conditions. Shredding, discing cotton nearing completion, plowdown compliance approaching. Late harvest isolated areas. Ground preparation, pre-irrigation next year's crop ongoing. Grain sorghum harvest complete. Seeding new alfalfa continued. Germination, emergence slowed, cold temperatures, dry soils. Small grain, forage crops seeded. Growth good in areas receiving rain. Other areas little growth, low soil moisture. Herbicide applications continued alfalfa, small grains. Seasonal cultural practices continued: grape vineyards, fruit and nut orchards. Growers irrigated orchards, poor soil moisture. Pruning, treatment to control mealy bugs continued vineyards. Pruning, dormant spray application continued. Growers sprayed weeds, almond, fig orchards. Damp, foggy weather slowed picking of Navel oranges. Harvest Bonanza, Tulegold, Washington Navel oranges continued to increase; fruit sizes still on small side. Cooler nights brought fruit color; less gassing required. Mandarins harvest continued. Satsuma harvest essentially over; Moro Blood oranges, Pummelo grapefruits picked and packed. Asparagus harvest continued

Coachella Valley, quality good. Broccoli fairly light Salinas-Watsonville, moderate Santa Maria good quality. Fall packing winding down, some central valley areas, most volume processed. Carrot harvest active Kern Tulare, Coachella Valley, quality good. Cauliflower harvest nearly over Salinas Watsonville, Santa Maria fairly light variable quality. Celery supplies very light Salinas Watsonville, fairly heavy Santa Maria, quality good. Lettuce very light Santa Maria; variable quality. Packing head, leaf lettuce increased Imperial Valley, minimal rain damage. Cold weather hampered onion growth Kern Tulare area. Fall potato movement Tulelake Butte Valley continued steady but light, slow demand. Other vegetables harvested: Artichokes, cabbage, leaf lettuce, various oriental vegetables. Range poor to fair. Supplemental feeding continued. Pastures improved slowly.

COLORADO: Weather summary was not available from National Weather Service this week.

FLORIDA: Temperatures 1 to 4° below normal most locations. Highs: lower 70s Panhandle; middle 70s elsewhere north; middle, upper 70s central, south. Lows: middle, upper 20s north; 30s central; middle, upper 40s interior south; middle 50s southeast coast. Rain at a few Panhandle spots; elsewhere under 0.10 in.

Soil moisture Panhandle, southern Peninsula short to adequate; northern, central Peninsula moisture mostly short. Cotton harvest, winter wheat planting complete. Sugarcane harvest, planting active. Good citrus grove condition being maintained with irrigation. Some afternoon wilt of trees in sandy soils with no irrigation. Drought conditions minimized by cool weather. Early fruit good condition with advanced maturity. Harvest very active for all early types. Caretakers cutting cover crops, preparing for cold weather. Dry, cooler than normal weather prevailed over major vegetable producing areas. Strong winds caused minor damage to plants most areas. Harvest steady most crops before holiday lull. Volume leaders: Tomatoes, peppers, cucumbers, celery, squash, snap beans. Also available: Cabbage, carrots, sweet corn, eggplant, escarole, lettuce, radishes, strawberries. State's pastures poor to good. Pasture ratings 25% poor, 45% fair, 30% good. Moisture levels short to adequate. State's cattle herds poor to good.

GEORGIA: Dry week. Rain mainly extreme north. Rainfall under 0.25 in. Temperatures 1 to 2° above normal. Extremes 10° north; 77° south.

Soil moisture short statewide. Land preparation for spring plantings just getting underway, mainly south. Pastures poor to fair condition, hay being fed to cattle. Small grains fair condition. Tobacco bed preparation active. Onion planting 85% complete, condition good. Soybean, pecan harvest winding down. Cattle, hogs good.

ILLINOIS: Temperature ranges: upper teens to the lower 30s in the north; mid 20s to the mid 40s in the southern part of the State. Precipitation 0.25 to 0.90 of an inch, except in some southern

areas which exceeded 1.00 in. Snow accumulation of 1 to 2 in. was reported in the far north.

INDIANA: Temperatures 0 to 5° above normal. Highs low 30s to low 40s. Lows teens to mid 20s. Extremes, single digits to low 50s. Precipitation widespread, generally below normal.

Farmers are attending seed meetings, winter schools, last minute Christmas shopping. Other activities included hauling grain, hauling manure, cleaning, repairing machinery, fixing fence, building repairs, attending equipment shows, bookwork. Concern is still present for winter wheat condition, hay supplies, although hay quality is good. Livestock generally okay.

IOWA: Temperatures 2 to 9° above normal. Extremes 1° Algona (18th), Decorah, Esterville (19th); 51° Lamoni (16th). Precipitation 0.02 in. Spencer to 1.38 in. Albia and Des Moines; State average 0.63 in., weekly normal 0.23 in.

Progress was made harvesting corn early in week. Ice, rain halted harvest by weekend. Moderate movement of cows, calves to market. Milder weather relieving some of the stress on livestock.

KANSAS: Temperatures 3° above normal across State. Most areas received some precipitation. The southeast part of the State received 1.82 in., the most precipitation of any district.

Topsoil moisture generally adequate to surplus central and east; short to adequate west. Wheat stands showing moderate to good top growth; root development also improving. Better grazing available but still shorter than normally seen at this time. Most producers feeding, keeping close eye on livestock.

KENTUCKY: Normal temperatures, below normal rainfall. Daytime highs mid 40s, lows upper 20s. Rainfall 0.25 in., 0.50 in. below normal.

Topsoil moisture mostly adequate. Kentucky burley sales reached 342.7 million lbs. on the 19th. Market closed for holidays, sales resume January 6th. Pastures limited. Livestock is in satisfactory condition.

LOUISIANA: Temperatures normal to 3° above normal. Extremes 25°; 78°. Rainfall none most places to 0.97 in. northwest.

Main activities: Pecan harvest, top dressing winter pastures, wheat, crawfishing, spraying sugarcane fields to control winter grasses. Cotton ginnings were virtually completed.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.19 in. Temperature 35.5°, normal 35.6°. Extremes -6°; 66°.

Activities: Preparing fields for spring planting; stripping tobacco; fall vegetable harvest; gleaning fields; liming and fertilizer applications; marketing, caring for livestock, holiday preparation.

DELAWARE: Precipitation 0.06 in. Temperature 37.6°, normal 37.0°. Extremes 15°; 64°.

Activities: Cleaning, storing equipment; cleaning seed for next year; marketing, caring for livestock, holiday preparation.

MICHIGAN: Temperatures 5° below normal to 1° above normal. Extremes -11°; 42°. Precipitation 0.06 to 2.01 in. across the State. Most of the State received some snow this past week. Temperatures lower early in the week, rose towards the weekend. Livestock good, with plentiful feed supplies. Activities: Pruning orchards, grapevines; barn fixing, cleaning; hauling manure; Christmas shopping.

MINNESOTA: Temperatures 2 to 11° above normal for the State. Extremes -29° International Falls; 44° St. Cloud. Precipitation 0.02 to 0.18 in. for the State; 0.03 to 0.07 in. below normal for the north central, west central, northeast regions, 0.10 to 0.17 in. below normal elsewhere. Greatest weekly total 0.20 in. at Hibbing. Snowfall 3 to 9 in. over the north central, northeast districts, trace to 2 in. elsewhere. Snow depth at week's end averaged 12 to 18 in. over the northeast, north central, 4 to 9 in. over east central, none to 3 in. elsewhere.

MISSISSIPPI: Temperature 47°, 1° below normal. Extremes 21°; 82°. Dry throughout the state. State rainfall 0.05 in., 1.22 below normal. Soil temperature 47°.

Days suitable for fieldwork 3.4, 2.5 1990, 2.8 average. Soil moisture 14% short, 43% adequate, 43% surplus. Hay supply, 33% adequate, 67% surplus. Feed grain 60% adequate, 40% surplus. Pecans 85% harvested, 95% 1990, 96% avg.; 67% fair, 33% excellent. Wheat 50% fair, 50% good. Livestock 100% good. Pasture 93% of normal. Activities: Feeding livestock.

MISSOURI: Temperatures near normal. Precipitation 1.23 in.; less than 1.00 in. southeast to over 2.00 in. southwest, mostly 1.00 to 1.50 elsewhere.

Wet weather continuing to limit work to barnyard, holiday activities.

MONTANA: Temperatures 5 to 10° above normal east, slightly below normal west. Precipitation mainly confined to western valleys with amounts under 0.10 in. Eastern plains dry.

Winter wheat 1% very poor, 4% poor, 33% fair, 56% good, 6% excellent. Snowcover protection 83% poor, 5% fair, 8% good, 4% excellent. Cattle, calves on supplemental fed 76%, sheep, lambs 80%. Grazing 85% open, 11% difficult, 4% closed.

NEBRASKA: Temperatures 5 to 8° above normal. Precipitation: a trace in the Panhandle to 0.50 in. central, southeast. Most precipitation fell as rain or freezing rain.

NEVADA: Temperatures 6° below normal northwest to 4° above normal south. Extremes -7°; 65°. Precipitation none to 0.18 in. Rainfall varied from light showers south to moderate snow north.

Cold temperatures, lack of snow cover potentially damaging to fall-seeded crops. Livestock fair to good, feeding continues. Major activities: General maintenance, care for livestock.

NEW ENGLAND: Precipitation 0.20 to 0.80 in. north; none to 0.45 in. south. Average temperatures 0 to 5° northern Maine, 10° to low 20s rest of north, upper teens to upper 20s south. Maximum temperatures mid 20s north to mid 50s south; minimum temperatures -20° north to low teens south.

Major farm activities: tending livestock, cutting firewood, making general repairs.

NEW JERSEY: Temperatures much below normal, averaged 27° north, 30° south, 33° coastal. Extremes 8°; 50°. Precipitation below normal; averaged none north, south, coastal. Heaviest 24 hour total 0.01 in. on 21st, 22nd.

Farmers busy deer hunting; cutting, digging, selling Christmas trees; pruning fruit, caring for livestock.

NEW MEXICO: Temperatures slightly above normal over most of the state except the eastern,

southeastern plains. Temperatures 5° above normal to 5° below normal. Precipitation was recorded over most of the State with 0.25 to 4.27 in reported.

NEW YORK: Temperatures began week near normal, but quickly fell to well below normal through 19th, returned to near normal by weekend. Snow widespread reaching up to 6 in. Adirondacks. Light rain, snow 21st. Lake effect snows fell throughout the week from western Mohawk Valley to the Niagara Frontier.

Major activities: Feeding, caring for livestock, general maintenance, spreading manure, attending meetings.

NORTH CAROLINA: Temperatures remained mild. Little or no precipitation. Precipitation in all areas well below normal for the year.

Major activities: Completion of cotton, soybean harvests, planting small grains; tending livestock; cutting wood; preparing tobacco plant beds; land preparation. Other activities included: harvesting Christmas trees; equipment repair; general farm maintenance.

NORTH DAKOTA: Temperatures near normal northeast to 8° above normal west central, northwest. Extremes -22° northeast; 52° southwest. Precipitation none northwest, west central to 0.10 in. northeast.

Snow cover decreasing due to higher temperatures. Livestock in good condition as marketings slow prior to the holiday season. Hay stocks are adequate. Some livestock being fed supplemental feed while on open pasture.

OHIO: It was a mostly dry week up until night of 20th. Low pressure passed just north 16th, 17th, kept most of the precipitation to the north. High pressure 18th to 19th gave way to a cold front that brought rain, some snow 20th night. Widely scattered rain over the weekend was followed by more widespread precipitation 21st night as another front approached. For the week, precipitation was mostly 0.50 in. or less. Some areas in the far southwest, south received 0.50 to 1.00 in. Some snow accumulated briefly in the northeast. Temperatures continued going up, down with extremes highs in the 40s to mid 50s and lows in the single digits. Willard, Canfield, both reported lows of 1° above zero. For the week, temperatures were generally near or below normal. Average highs were in the mid 30s to low 40s.

Days suitable for fieldwork 2.0. Farm activities were generally concentrated on working with livestock. Soil moisture 30% short, 60% adequate, 10% surplus. Pastures 5% very poor, 10% poor, 50% fair, 25% good, 10% excellent.

OKLAHOMA: Temperatures normal Panhandle to 4° above normal southeast. Precipitation 1.24 in. Panhandle to 4.11 in. south central.

A slow moving storm system caused lingering showers through the week halting further cotton harvest. Cattle good; slaughter cow prices higher; steer, heifer prices lower.

OREGON: Temperatures slightly below normal, coast; averaged 4° below normal inland; 3° below, east. Precipitation 1.90 in. along coast; 1.20 to 1.80 in. Willamette Valley, mountain areas; 0.80 in. in southwestern valley. Precipitation 0.10 in., east.

Soil moisture mostly adequate. Winter wheat fair to good. Livestock fair to excellent;

early calving started in Umatilla County; producers breaking ice in watering areas. Range, pasture, fair to excellent across most of State.

PENNSYLVANIA: Cold, dry across the State. Temperature 24°, 8° below normal. Extremes -3°; 48°. Precipitation 0.20 in., 0.52 in. below normal.

Activities: Repairing fence; hauling manure; maintaining machinery; caring for livestock.

PUERTO RICO: Island rainfall 0.44 in., 0.54 in. below normal. Highest rainfall 2.55 in. at Pico Del Este Luquillo, 1.41 in. at Fajardo, 1.00 in. at Barceloneta. Highest 24 hour total 1.20 in. at Pico Del Este Luquillo. Divisional temperatures 75 to 76° on the coasts to 67 to 71° interior with mean station temperatures 60.8° at Pico Del Este Luquillo to 80° at Guayama. Extremes 51°; 90°.

SOUTH CAROLINA: Temperatures 2 to 4° below normal. No precipitation in the State.

Farm activities: Soybean harvest virtually complete; tobacco beds preparation continues; small grain seeding nearing completion; pastures average; hay supply adequate; livestock good; need rain.

SOUTH DAKOTA: Generally dry with above normal temperatures. Temperatures 5 to 15° above normal statewide. Extremes -6°; 65°. Precipitation in the form of freezing rain fell over much of the State. Rainfall less than 0.25 in. Snow cover spotty in Black Hills, trace in east, none elsewhere.

TENNESSEE: High pressure dominated State 16th through 19th with cool, dry period. Southerly winds brought mild, moist conditions 20th. Mainly light rain 21st, 22nd. Temperatures slightly above normal west, middle; 5° below normal east. Extremes 14°; 64°. Precipitation 0.50 in. below normal Statewide.

Statewide subsoil moisture mostly adequate. Farm maintenance, repairs, caring for livestock primary activities.

TEXAS: Major wet weather episode occurred latter half week, strong, slow moving upper air system spawned numerous disturbances. These disturbances interacted with rich supply of Gulf moisture triggering very heavy rains over mainly north central, south central, southeast. Serious flooding in these areas. Weather improvement began late weekend as cool front swept out rain except along coast. For week, rainfall above normal statewide with amounts over 5.00 above normal south central, south districts. Temperatures generally near to above normal except for below normal most Plains areas.

Crops: Cotton harvest experienced more weather delays midweek. Quality continued to deteriorate. Many modules remained in fields, and beginning to show some deterioration also. May be several weeks before some modules are moved. Cotton 88% harvested; 95% 1990; 90% avg. Small grains biggest benefactor of last week's rain. Conditions already improving over most State early week. Cooler temperatures Plains did slow progress some. Greenbugs continued to be problem fields in Cross Timbers, Central. Emergence should increase if warmer temperatures return. Statewide wheat 79% normal compared with 77% 1990. Wheat 96% emerged; 99% 1990; 99% avg. Soybean harvest continued to wind down; however, midweek rains left few fields along Upper Coast, High Plains unharvested. Peanut harvest also delayed last week. Some damage from freezes, excessive moisture occurred. Later nuts showing poorer quality some areas. Other crops: peanuts

95% harvested; 97% 1990; 98% avg. Pecans 80% harvested; 81% 1990; 87% avg. Soybeans 99% harvested; 96% 1990; 98% avg. Sugarbeets 84% harvested; 98% 1990; 95% avg. Sunflowers 92% harvested; 93% 1990; 98% avg. Oats 92% planted; 93% 1990; 97% avg.

Commercial Vegetables: Rio Grande Valley, harvest operations continued, despite cool, damp conditions. Onions continued show good progress. Some irrigation underway Upper Valley. Citrus harvest continued. San Antonio-Winter Garden, light harvest activities occurred, showers stalled progress mid week. East Texas, little activity occurred because wet conditions. Trans-Pecos, some land preparations occurred during first part week. Pecan harvest slowed also last week. Quality remained fair. Trans-Pecos, harvest operations made little better progress.

Range and Pasture: Winter ranges, pastures improving with rainfall. Flooding along many rivers damaged fences, barns, also caused livestock losses. Some herds stranded. Milder weather Plains provided adequate grazing, promoted good weight gains. Many pastures central, Blacklands waterlogged. Stock tanks in Hill Country, central, caught lot of water.

UTAH: Temperature maximums were normal for this time of year; minimums averaged about 2° above normal. Light precipitation was reported in all regions this week.

Major farm activities included: care of livestock, machinery maintenance, financial planning, year end tax reports.

VIRGINIA: Temperature near normal. Extremes 3° at Dulles Airport, 76° at Warsaw. Precipitation was below normal none at Patrick Henry to 0.73 in. at Bristol.

Days suitable for fieldwork 4.4. Topsoil 3% very short, 10% short, 87% adequate. Winter grains, grazing crops 5% very poor, 13% poor, 50% fair, 32% good. Forage from pastures, winter grazing crops dairy cattle 7%, beef cattle 30%, sheep 25%. Livestock good shape with calving, lambing having good weather. Plowing, fertilizing, liming as weather permitted. Tobacco selling continued. Pesticide license renewal was active.

WASHINGTON: Temperatures 2° below normal to 7° below normal, west; 1° below normal to 8° below normal, east. Precipitation 0.16 to 0.71 in. west; none to 0.21 in. east.

Days suitable for fieldwork 2.3. Soil moisture 32% short, 46% adequate, 22% surplus. Hay, other roughage 14% short, 59% adequate, 27% surplus. Range, pasture 10% very poor, 15% poor, 49% fair, 26% good. Winter wheat 16% fair, 84% good. A light to medium snow cover fell on most of the wheat producing areas, protecting from winter freeze. Some areas were hoping for more snow. Pruning, typing of raspberry canes was in progress in King, Pierce counties where rhubarb growers started to dig rhubarb crowns for the forcing sheds. Pruning of orchards continued in the Yakima area, however heavy snow stopped pruning in Chalan county. Canadian geese continued to be a problem for pasture and hay fields along the Columbia river in Cowlitz county. Most cattle were on winter feeding programs.

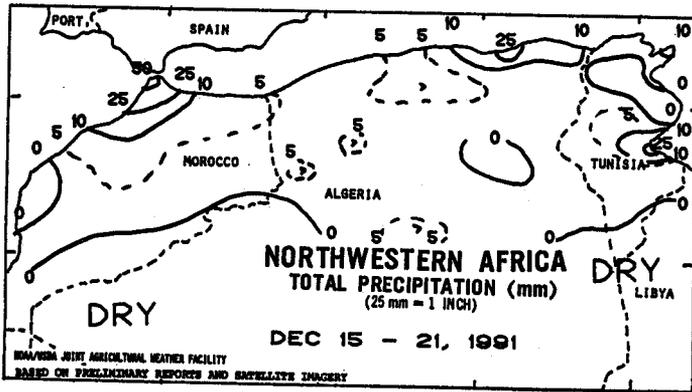
WEST VIRGINIA: Temperature 31°. Extremes 1°; 56°. Precipitation 0.32 in.

Days suitable for fieldwork 3.6. Soil moisture, 16% short, 74% adequate, 10% surplus. Wheat, 4% fair, 69% good, 27% excellent. Barley, 27% fair, 59% good, 14% excellent. Hay feed supplies, 84% adequate, 16% surplus. Other feed supplies, 19% short, 78% adequate, 3% surplus. Cattle, good. Sheep, poor. Farm activities: General maintenance, fencing, marketing livestock, stripping tobacco, harvesting soybeans.

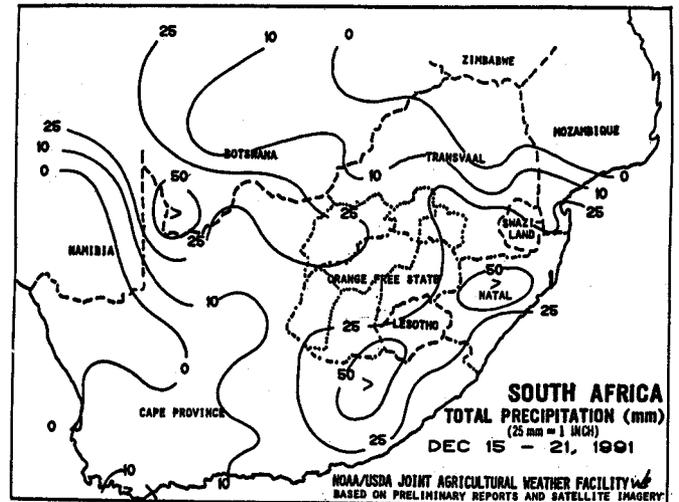
WISCONSIN: Temperature 19°. Extremes -19°; 40°. Light snow early in the week. Mixed precipitation of snow, sleet, freezing rain, rain during the night on 19th, continuing until 20th evening.

WYOMING: Temperatures 1 to 3° above normal. The exception was in the far west where temperatures were slightly below normal. Precipitation generally below normal with only isolated areas above normal.

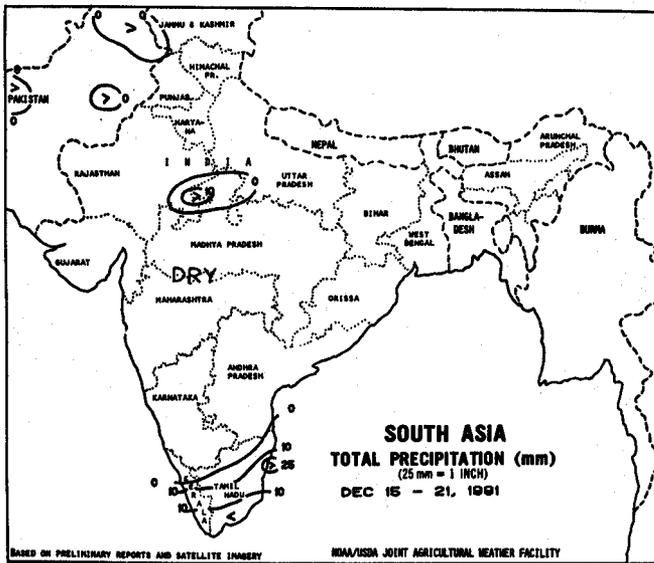
Winter wheat fair to good. Additional moisture, snowcover needed. Cattle, sheep mostly good, supplemental feeding continuing. Ranchers marketing calves, culls. Preparations for calving, lambing continuing.



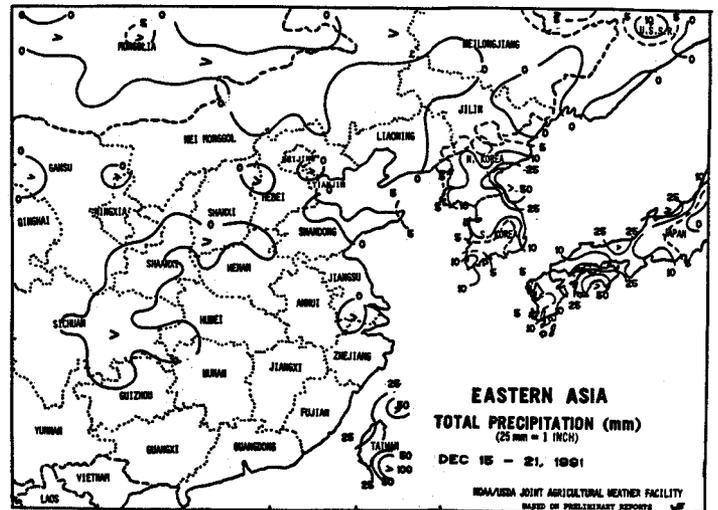
NORTHWESTERN AFRICA ... Showers (10-32mm) helped winter grains in northern Morocco, but mostly dry weather prevailed in the south. Scattered showers (1-8mm) fell in winter crop areas of western Algeria, while more significant rainfall (10-33mm) helped extreme northeastern Algeria. In Tunisia, rainfall was light (less than 5mm), except for isolated heavier showers (7-25mm) in east-central portions of the country.



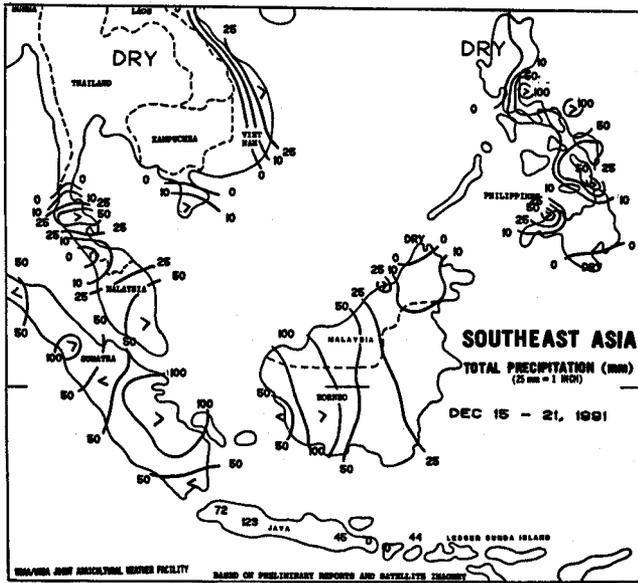
SOUTH AFRICA ... Much-needed, moderate showers (12-39mm) and continued seasonable temperatures benefited vegetative corn in most primary regions. The moisture was especially welcome in the southwestern Transvaal, a relatively high yielding area that had been trending dry since late October. In contrast, rainfall continued light (10mm or less) over the southern half of the Orange Free State. Elsewhere, moderate showers (14-62mm) fell over most crop areas of Natal and the Cape Province, although rainfall was light (10mm or less) for the second week in Natal's southern sugar areas.



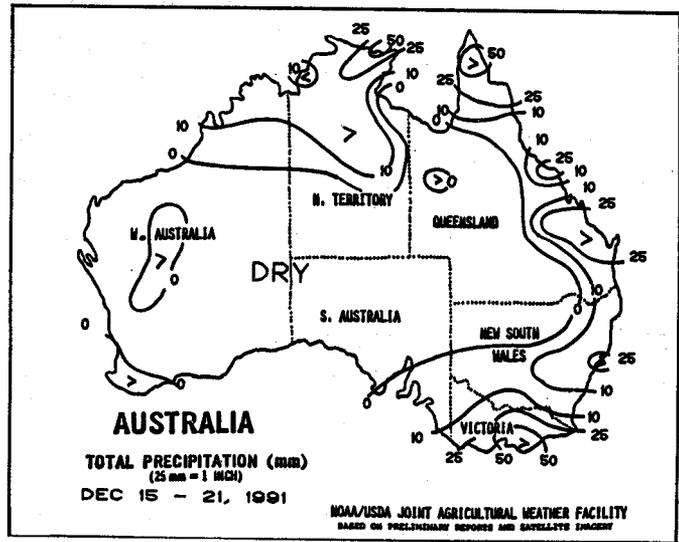
SOUTH ASIA ... Light showers (2-30mm) continued over India's southernmost coastal rice areas, improving local reservoirs for the dry season crop. Elsewhere, mostly dry, warm weather favored growth of winter grains and oilseeds and aided summer crop harvests, usually winding down this time of year.



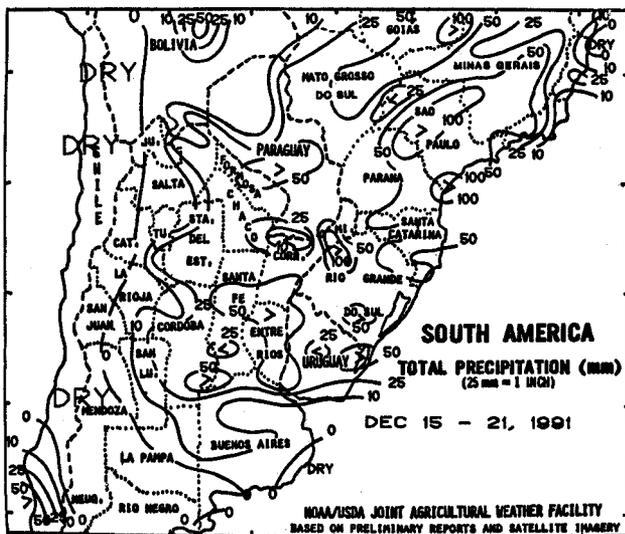
EASTERN ASIA ... Continued seasonably dry conditions existed across the North China Plain, where winter wheat establishment is poor. Cooler temperatures should induce winter wheat in the northern areas to enter dormancy. Weekly temperatures averaged 1-4 degrees C above normal across the country.



SOUTHEAST ASIA ... Seasonable shower activity continued over primary crop regions from the southern half of peninsular Thailand to Java. Amounts were highly variable but generally ranged from 25 to 100mm, with totals as high as 167mm locally. Further north, light to moderate rain (10-39mm) fell in southern and central Vietnam, but the rest of Indochina was seasonally dry. In the Philippines, moderate to heavy rain (25-127mm) continued over crop regions of southern Luzon, northern Mindanao, and the eastern Visayas.



AUSTRALIA ... Favorably drier weather early in the week in eastern summer crop areas aided planting progress after previous heavy rains. However, rain (11-36mm) returned late in the week to southeastern Queensland and eastern New South Wales. Meanwhile, moderate to heavy showers (9-55mm) across Victoria delayed late winter wheat harvesting. Dry conditions in the other winter wheat areas favored harvest. In northeastern Queensland, variable showers (10-67mm) continued over primary sugarcane areas. Weekly temperatures averaged near normal in the west and 2-5 degrees C below normal across the eastern summer crop regions.



SOUTH AMERICA ... Scattered rains (10-95mm) fell across central Argentina, with heavier amounts in Cordoba and Santa Fe prompting possible local flooding. However, portions of northern Buenos Aires received less than 10mm, allowing soils to dry out after heavy rains last week. Summer crop planting and winter wheat harvesting should resume shortly. In southern Brazil, widespread moderate to heavy rain (25-110mm) continued to fall from Sao Paulo to Santa Catarina, aiding developing summer crops, but also causing some local flooding. Weekly temperatures averaged near normal in Argentina and 1-3 degrees C above normal across southern Brazil.

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