WEEKLY WEATHER AND CROP BULLETIN

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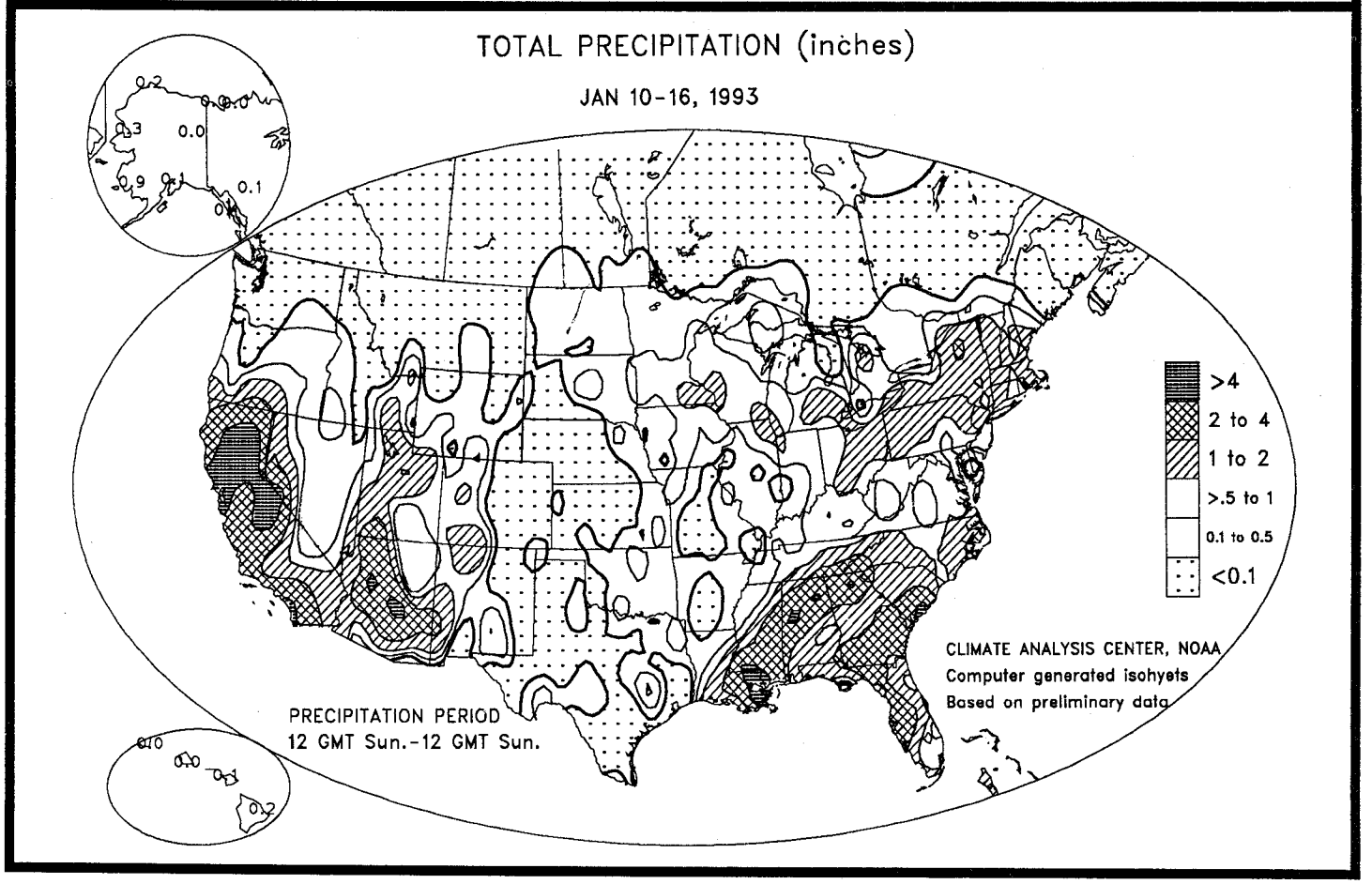

HIGHLIGHTS

January 10 - 16, 1993

Three weeks of exceptionally stormy weather culminated with a three-storm barrage that drenched the **Southwest** and the **Southeast**, and buried the **upper Midwest** and **New England** under heavy snow. During the first half of the week, one storm progressed from **Nevada** to **New England**, while another approached **California**. The first storm pushed snow depths to all-time record levels at **Klamath Falls, OR** (25 inches), and **Salt Lake City, UT** (26 inches), before delivering up to 1 foot of snow from the **upper Mississippi Valley** to **New England**. Farther south, the storm brought renewed flooding to **Arizona**, deluged **New Orleans, LA**, with up to 8 inches of rain, and drenched the **Southeast**. Meanwhile, temperatures contrasted sharply across the Nation. On Sunday, temperatures ranged from a morning low of -46°F in **Roseau, MN**, to an afternoon high of 87°F in **West Kendall,**

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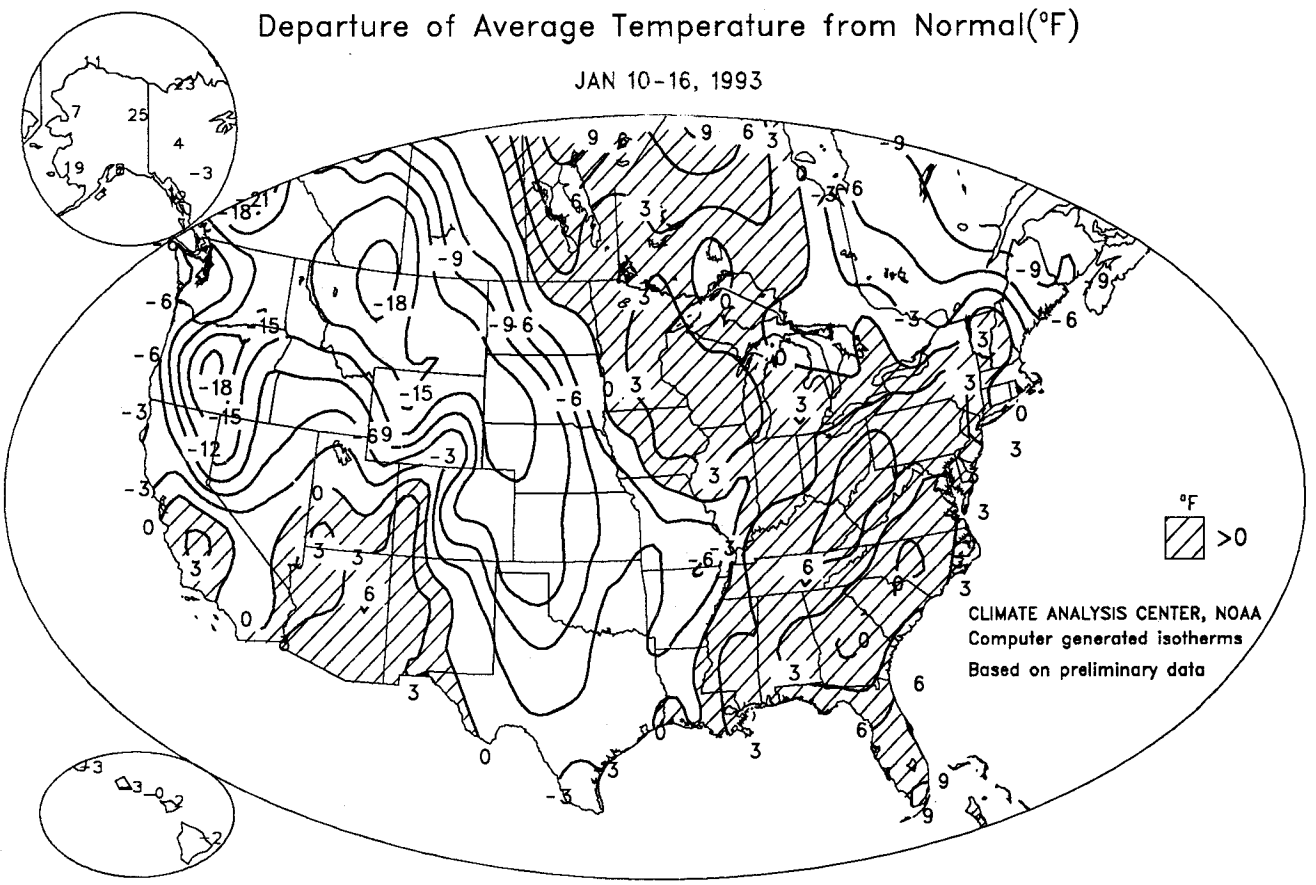
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JAN 10-16, 1993
°F
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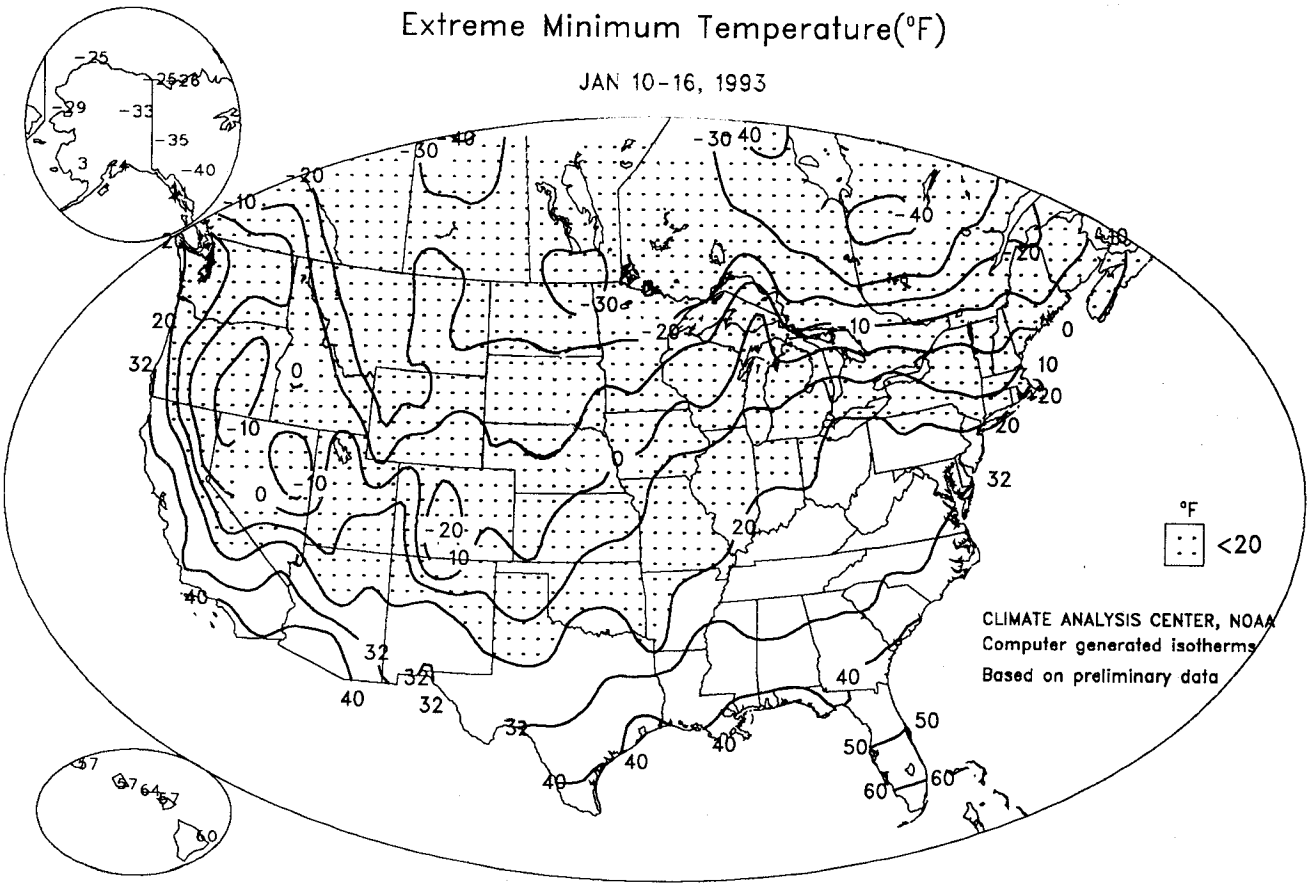
Computer generated isotherms
Based on preliminary data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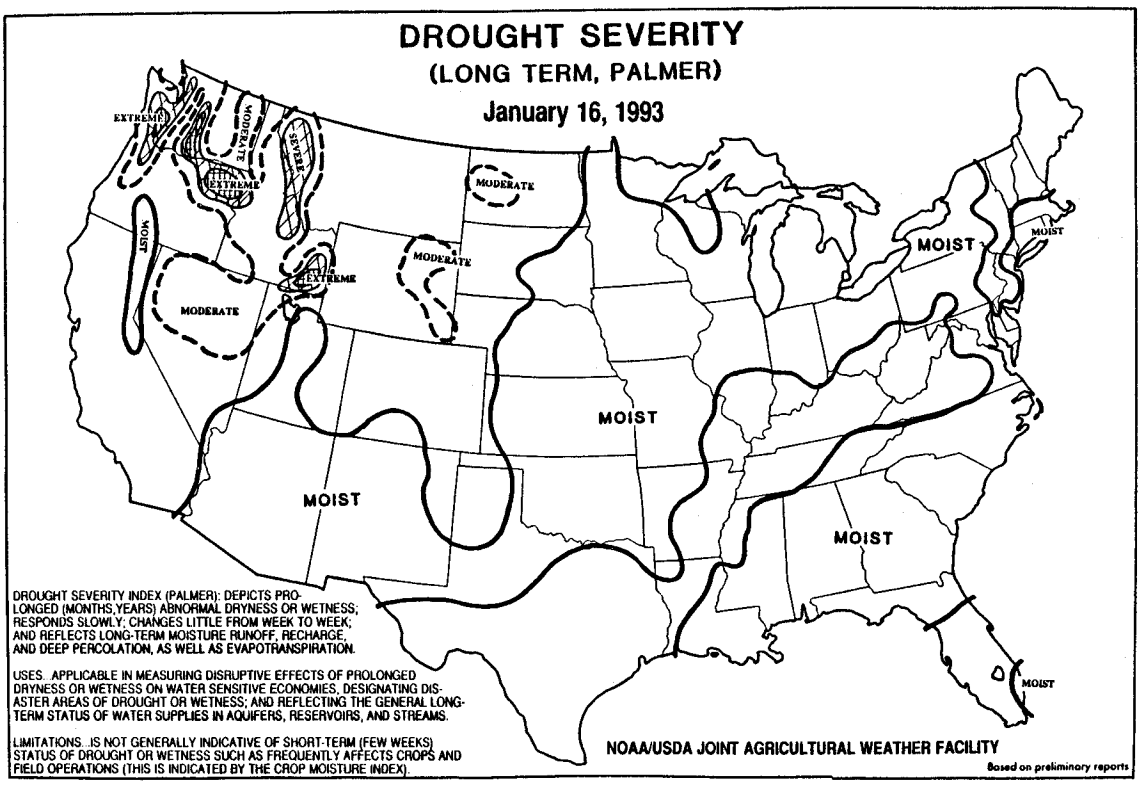
JAN 10-16, 1993
°F
<20
CLIMATE ANALYSIS CENTER, NOAA
Computer generated isotherms
Based on preliminary data

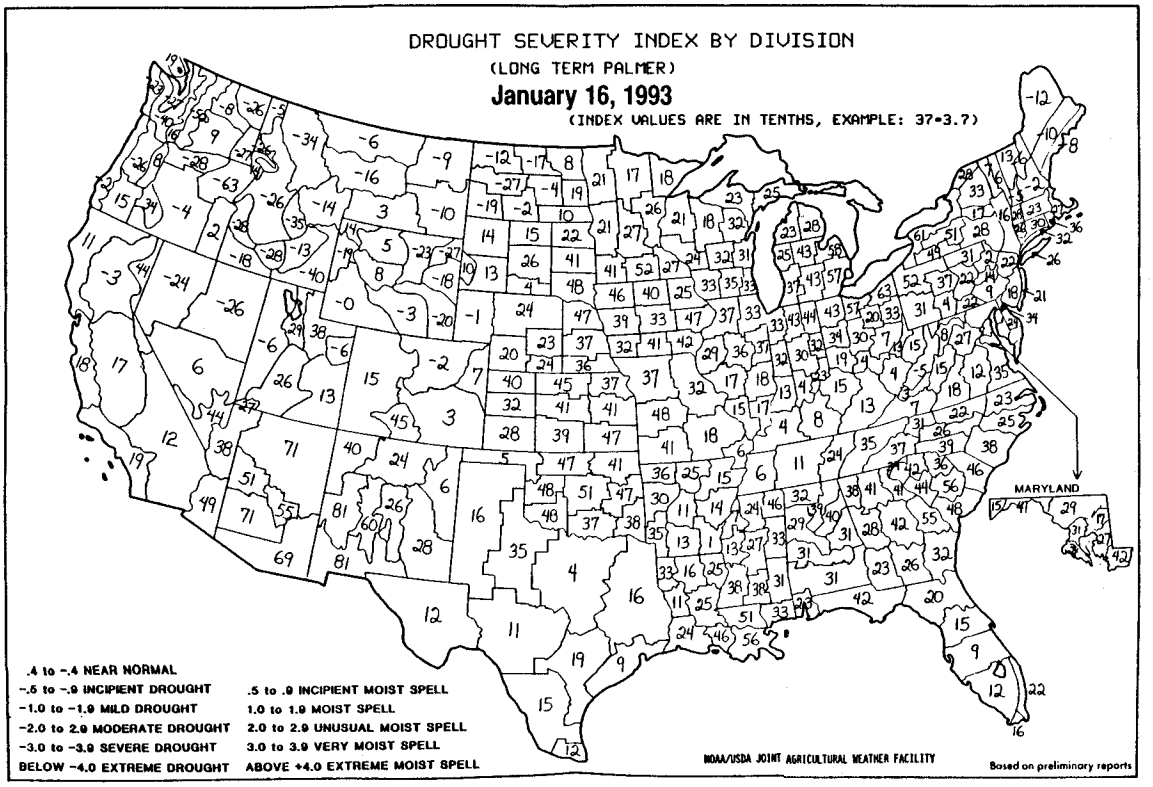
Mid-Winter Drought Update

Long-term drought has been virtually erased from the continental United States except in the Northwest. Pockets of severe to extreme drought conditions persist in Washington, Oregon, Idaho, and western Montana, as recent major storms have tracked farther south across California. Rainy season precipitation in California (through January 20, 1993) ranges from 150 to 250 percent of normal at most locations, except along the north coast (see related table on page 22), returning Palmer indices to near normal levels.

East of the northern Plains and south of the Great Basin, conditions turn considerably wetter. Wetness, in fact, has become a problem in many parts of the Nation. Extremely wet areas (Palmer indices greater than 4.0) include the Southwest, parts of the Southeast, and portions of an area from Oklahoma northeastward into the upper Mississippi Valley, then eastward through the Great Lakes States.

--Brad Rippey





National Weather Data for Selected Cities

Weather Data for the Week Ending January 16, 1993

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMP. °F		PRECIP.	
	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	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	53	39	58	30	46	4	2.9	1.7	1.8	9.1	118	3.8	138	94	60	0	1	3	2
MOBILE	62	48	76	39	55	4	.6	-.4	.2	7.0	89	1.7	71	95	61	0	0	3	0
MONTGOMERY	54	43	61	36	49	2	.5	-.4	.4	9.6	137	1.8	83	91	65	0	0	3	0
AK ANCHORAGE	25	13	39	-1	19	7	.1	-.1	.0	1.2	79	.5	115	94	79	0	7	3	0
BARROW	10	-15	29	-25	-2	11	.2	.2	.1	.7	250	.4	308	88	72	0	7	3	0
FAIRBANKS	21	2	35	-13	12	24	1.0	.9	.8	3.4	336	2.2	737	90	75	0	7	5	1
JUNEAU	29	16	35	4	23	1	.1	-.7	.1	6.5	99	.8	39	96	71	0	7	3	0
KODIAK	37	24	41	19	31	1	.3	-1.0	.3	5.2	61	.4	12	93	65	0	6	2	0
NOME	16	1	33	-35	8	2	.2	.0	.1	2.4	235	1.1	271	93	77	0	7	4	0
AZ PHOENIX	63	51	68	42	57	5	2.6	2.4	1.2	7.8	645	4.7	>1000	92	58	0	0	7	2
PRESCOTT	46	32	49	22	39	1	1.2	1.0	.4	5.1	309	3.1	575	93	69	0	4	6	0
TUCSON	63	46	66	38	55	4	.9	.7	.5	6.8	491	3.3	748	94	49	0	0	5	0
YUMA	65	53	70	44	59	4	.7	.7	.3	4.6	879	1.6	858	81	50	0	0	5	0
AR FORT SMITH	42	31	54	22	36	-1	.3	-.1	.2	8.1	215	2.7	270	90	65	0	3	2	0
LITTLE ROCK	42	31	53	25	37	-3	.1	-.8	.1	6.4	103	1.9	94	83	63	0	4	3	0
CA BAKERSFIELD	58	42	64	32	50	3	.6	.4	.2	3.5	311	1.6	349	92	54	0	1	4	0
EUREKA	51	41	59	35	46	-1	1.8	.2	.6	13.9	140	4.6	124	89	63	0	0	6	2
FRESNO	56	41	64	32	48	3	2.5	2.0	.9	7.1	269	4.4	426	92	65	0	2	5	1
LOS ANGELES	60	51	64	45	55	0	3.9	3.2	1.1	12.8	409	8.6	573	97	71	0	0	6	4
REDDING	46	34	53	26	40	-6	2.9	1.0	1.1	15.5	135	5.2	116	99	72	0	3	7	3
SACRAMENTO	52	37	58	30	44	-1	3.8	2.9	2.3	11.2	225	6.2	300	99	67	0	1	5	3
SAN DIEGO	61	54	64	44	58	1	4.4	4.0	1.8	9.7	395	7.1	659	92	67	0	0	6	4
SAN FRANCISCO	54	42	60	35	48	0	4.1	3.0	2.0	15.0	250	9.0	368	98	71	0	0	5	2
CO DENVER	33	5	53	-5	19	-10	T	-.1	T	.9	119	.2	96	90	45	0	7	0	0
GRAND JUNCTION	37	26	42	15	31	6	.3	.1	.1	1.3	146	1.0	306	95	65	0	6	4	0
PUEBLO	34	4	59	-2	19	-10	T	-.1	T	.8	183	.3	231	93	47	0	7	0	0
CT BRIDGEPORT	32	26	37	19	29	-1	.8	.0	.5	6.2	114	1.9	109	93	73	0	6	5	0
HARTFORD	29	18	34	8	23	-2	1.1	.2	.7	5.9	98	1.6	83	95	72	0	7	4	1
DC WASHINGTON	41	35	47	29	38	3	.3	-.3	.1	5.3	113	2.4	163	91	70	0	2	4	0
FL APALACHICOLA	66	54	74	44	60	7	2.2	1.4	1.1	7.1	132	5.5	302	--	--	0	0	4	2
DAYTONA BEACH	73	59	82	49	66	8	.5	.0	.3	1.9	57	1.4	124	97	69	0	0	3	0
JACKSONVILLE	66	52	80	42	59	5	1.4	.7	.6	3.9	99	3.2	226	98	71	0	0	5	1
KEY WEST	83	72	84	64	77	7	2.3	1.9	1.5	5.4	212	5.3	631	93	70	0	0	3	2
MIAMI	82	70	85	63	76	9	.3	-.2	.1	6.5	224	4.5	437	93	65	0	0	3	0
ORLANDO	76	59	83	48	67	7	2.3	1.8	.9	4.3	145	3.4	332	99	67	0	0	5	2
TALLAHASSEE	63	48	74	38	56	4	1.6	.5	.7	8.7	125	7.4	308	94	68	0	0	5	2
TAMPA	75	62	82	50	69	9	1.4	.9	1.2	3.5	111	2.6	245	99	70	0	0	3	1
WEST PALM BEACH	82	66	83	59	74	8	.8	.2	.6	7.7	213	5.8	431	99	63	0	0	3	1
GA ATLANTA	49	39	58	31	44	2	1.3	.2	1.2	9.0	133	2.6	103	93	66	0	1	3	1
AUGUSTA	53	40	67	33	47	2	.7	-.2	.4	7.0	134	4.7	235	97	65	0	0	3	0
MACON	54	40	66	35	47	1	.7	-.2	.6	7.8	124	4.6	209	94	64	0	0	2	1
SAVANNAH	59	47	70	43	53	4	2.1	1.4	.9	6.3	144	4.8	304	95	69	0	0	4	2
HI HILO	77	62	82	60	69	-2	.2	-1.9	.2	18.0	103	1.0	21	86	56	0	0	1	0
HONOLULU	77	62	78	57	70	-3	.0	-.9	.0	7.0	128	.5	22	83	46	0	0	0	0
KAHULUI	77	62	79	57	70	-2	.1	-.9	.1	3.4	70	.9	45	86	48	0	0	1	0
LIHUE	75	62	78	57	68	-3	T	-1.5	T	22.7	258	.5	15	82	50	0	0	0	0
ID BOISE	30	11	39	2	20	-9	.6	.2	.3	2.0	90	1.1	123	98	81	0	7	5	0
LEWISTON	22	11	30	1	16	-15	.1	-.3	.1	.8	39	.4	55	93	76	0	7	1	0
POCATELLO	28	7	36	-5	18	-6	1.3	1.1	.7	3.6	239	1.8	309	92	70	0	7	6	1
IL CHICAGO	30	18	35	11	24	4	1.1	.7	.5	5.5	167	3.0	318	96	77	0	7	3	1
MOLINE	29	19	33	12	24	5	.5	.2	.4	5.4	191	1.4	154	90	76	0	7	2	0
PEORIA	30	22	36	20	26	5	.4	.1	.3	5.7	195	2.7	298	91	75	0	7	2	0
QUINCY	29	20	38	14	25	2	.2	-.1	.2	4.0	162	2.0	271	90	76	0	7	1	0
ROCKFORD	28	17	33	10	23	4	.7	.4	.5	5.3	197	1.9	239	96	84	0	7	3	1
SPRINGFIELD	31	22	38	15	27	3	.4	.0	.3	5.4	181	3.0	351	93	76	0	7	3	0
IN EVANSVILLE	39	29	50	25	34	4	.4	-.3	.3	3.6	71	1.9	119	89	71	0	6	4	0
FORT WAYNE	29	20	36	10	25	1	.6	.2	.4	6.4	180	3.8	339	95	76	0	7	4	0
INDIANAPOLIS	32	24	39	22	28	2	.5	-.1	.2	3.9	89	2.0	142	90	76	0	7	3	0
SOUTH BEND	29	21	34	12	25	2	.6	.1	.3	6.8	160	2.8	209	93	75	0	7	4	0
IA DES MOINES	26	16	34	7	21	3	.9	.6	.6	3.3	213	1.3	260	91	74	0	7	5	1
SIOUX CITY	24	7	39	-3	16	0	.3	.2	.3	1.3	123	.5	161	98	77	0	7	3	0
WATERLOO	26	12	32	2	19	5	.4	.2	.3	2.0	130	.4	98	98	84	0	7	4	0
KS CONCORDIA	25	11	37	0	18	-7	.3	.1	.3	1.8	182	.5	155	92	69	0	7	1	0
DODGE CITY	27	12	39	2	19	-10	T	-.1	T	1.7	227	.8	335	94	72	0	7	0	0
GOODLAND	27	6	44	-4	16	-11	T	-.1	T	.3	53	.2	79	92	63	0	7	0	0
TOPEKA	28	14	39	6	21	-5	.4	.2	.3	3.0	174	1.0	210	92	73	0	7	2	0
WICHITA	29	17	35	8	23	-6	.1	-.1	.0	1.7	124	.5	132	90	67	0	7	2	0
KY BOWLING GREEN	46	30	55	23	38	5	.4	-.6	.3	4.5	64	1.4	59	98	73	0	4	4	0
LEXINGTON	43	31	56	26	37	6	.5	-.3	.2	3.2	57	1.4	74	93	77	0	4	4	0
LOUISVILLE	41	32	53	28	36	4	.6	-.1	.2	3.3	63	1.7	95	90	72	0	4	4	0
LA BATON ROUGE	57	46	61	35	51	1	2.2	1.2	1.1	8.8	119	4.1	172	96	71	0	0	3	2
LAKE CHARLES	57	45	65	38	51	1	.7	-.4	.4	7.9	104	4.0	160	97	67	0	0	4	0
NEW ORLEANS	61	51	75	41	56	4	3.1	2.0	1.7	10.5	134	4.8	189	93	67	0	0	3	3
SHREVEPORT	50	38	58	31	44	-1	.2	-.8	.1	8.3	137	2.4	114	93	61	0	1	4	0

Based on 1951-80 normals.

Weather Data for the Week Ending January 16, 1993

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMP. °F		PRECIP.	
	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	.01 INCH OR MORE	.50 INCH OR MORE
ME CARIBOU	11	-10	26	-18	1	-10	T	-.5	T	2.4	54	.8	64	80	53	0	7	1	0
PORTLAND	26	11	33	4	19	-3	.9	.1	.7	3.5	54	1.4	69	89	52	0	7	4	1
MD BALTIMORE	40	34	47	28	37	4	.4	-.3	.2	6.8	137	2.2	137	95	77	0	3	4	0
SALISBURY	45	36	50	32	41	6	.5	-.3	.2	9.1	164	3.6	200	98	76	0	2	5	0
MA BOSTON	32	23	40	15	27	-2	.9	.0	.7	9.8	149	1.6	74	83	62	0	7	5	1
CHATHAM	35	29	38	26	32	1	.8	-.2	.8	8.3	114	1.2	54	95	70	0	6	3	1
MI ALPENA	27	8	30	2	17	-1	.3	-.1	.3	2.1	74	.9	96	92	67	0	7	1	0
DETROIT	30	23	36	16	26	3	.7	.3	.3	5.1	145	2.8	267	89	70	0	7	4	0
FLINT	27	21	33	18	24	3	1.0	.6	.6	4.0	141	2.0	232	93	77	0	7	6	1
GRAND RAPIDS	28	20	31	7	24	1	.7	.3	.3	6.9	187	3.6	323	95	81	0	7	4	0
HOUGHTON LAKE	24	14	28	6	19	2	.4	.1	.3	3.3	122	1.3	160	94	77	0	7	4	0
LANSING	28	21	32	18	25	4	1.1	.7	.6	4.8	141	2.6	276	93	76	0	7	5	1
MARQUETTE	23	8	27	0	15	3	.9	.4	.7	3.7	105	1.2	112	87	77	0	7	4	1
MUSKEGON	29	21	33	10	25	1	.6	.0	.3	4.6	118	1.9	145	92	76	0	7	3	0
SAULT ST. MARIE	22	3	30	-10	12	-1	.1	-.4	.1	4.1	110	.7	55	84	47	0	7	2	0
MN ALEXANDRIA	15	-1	22	-14	7	2	.5	.3	.3	1.6	134	.7	159	88	73	0	7	3	0
DULUTH	21	3	25	-15	12	6	.8	.5	.6	2.1	111	.9	137	87	66	0	7	5	1
INT'L FALLS	12	-8	20	-38	2	2	.1	-.1	.1	1.9	142	.2	48	87	72	0	7	4	0
MINNEAPOLIS	23	8	28	-6	16	5	.8	.6	.6	1.9	150	.9	198	88	71	0	7	4	1
ROCHESTER	21	7	26	-2	14	5	.8	.6	.6	2.3	173	1.0	216	93	79	0	7	3	1
MS GREENWOOD	51	39	61	34	45	2	.5	-.7	.2	7.3	89	1.7	61	95	70	0	0	4	0
JACKSON	55	42	63	35	49	3	1.7	.5	.9	6.9	86	2.6	96	95	65	0	0	4	2
MERIDIAN	55	43	62	36	49	4	3.7	2.6	2.5	11.5	137	5.6	206	92	63	0	0	4	2
MO CAPE GIRARDEAU	39	27	48	19	33	--	.1	-.5	.1	5.1	95	3.2	206	93	67	0	6	2	0
COLUMBIA	31	20	41	9	25	-3	.1	-.3	.1	4.6	156	1.9	207	89	68	0	7	1	0
KANSAS CITY	27	16	35	7	22	-6	.4	.1	.3	5.4	258	1.7	254	91	72	0	7	2	0
SAINT LOUIS	34	24	45	18	29	0	.2	-.2	.2	6.1	197	2.4	270	90	65	0	7	2	0
SPRINGFIELD	35	23	47	16	29	-2	.1	-.3	.1	6.0	176	1.7	200	88	65	0	7	2	0
MT BILLINGS	14	-3	33	-16	6	-15	.3	.1	.2	.9	71	.4	78	73	56	0	7	2	0
GLASGOW	6	-11	21	-21	-3	-11	.1	.0	.1	.4	84	.2	100	86	71	0	7	2	0
GREAT FALLS	8	-11	33	-25	-2	-21	.1	-.1	.1	.9	72	.6	122	84	69	0	7	2	0
HAVRE	4	-18	31	-27	-7	-18	T	-.1	T	.5	62	T	0	73	56	0	7	0	0
HELENA	10	-10	37	-21	0	-17	.2	.0	.2	1.0	99	.4	103	85	67	0	7	2	0
KALISPELL	13	-7	24	-22	3	-16	T	-.4	T	3.0	124	1.0	120	88	71	0	7	2	0
MILES CITY	8	-10	20	-23	-1	-14	.2	.0	.1	.7	70	.3	84	87	67	0	7	2	0
MISSOULA	12	-6	24	-17	3	-18	T	-.3	T	1.1	57	.3	42	86	64	0	7	0	0
NE GRAND ISLAND	21	5	37	-1	13	-8	T	-.1	T	1.2	136	.4	148	92	72	0	7	0	0
LINCOLN	23	8	36	-3	15	-4	.4	.2	.3	1.5	154	.6	197	92	71	0	7	2	0
NORFOLK	23	4	41	-2	13	-4	.4	.3	.3	1.8	209	.9	344	91	67	0	7	3	0
NORTH PLATTE	22	1	37	-9	11	-10	T	.0	T	.9	153	.6	300	93	64	0	7	2	0
OMAHA	23	11	35	4	17	-3	.5	.3	.3	1.8	160	.8	200	82	68	0	7	2	0
SCOTTSBLUFF	21	0	38	-12	11	-13	T	-.1	T	1.1	145	.4	160	87	66	0	7	1	0
VALENTINE	20	-5	37	-17	8	-10	.1	.0	.0	.4	73	.2	162	94	58	0	7	2	0
NV ELY	32	10	40	-19	21	-3	.9	.7	.8	2.5	221	1.6	408	89	65	0	7	5	1
LAS VEGAS	51	39	57	31	45	1	.9	.7	.3	3.0	548	1.3	525	93	61	0	1	6	0
RENO	32	11	47	-1	21	-10	.6	.3	.2	3.2	174	1.3	206	95	64	0	7	7	0
WINNEMUCCA	30	11	41	-4	21	-9	.4	.2	.2	2.4	185	1.4	311	92	70	0	7	4	0
NH CONCORD	26	13	32	0	20	0	.4	-.2	.3	3.0	60	.7	48	93	68	0	7	4	0
NJ ATLANTIC CITY	42	34	48	28	38	6	.5	-.3	.3	6.1	113	2.1	117	98	76	0	2	4	0
NM ALBUQUERQUE	47	28	53	24	38	3	.2	.2	.1	1.8	250	.6	271	91	48	0	6	3	0
CLOVIS	47	24	64	14	36	-1	T	-.1	T	.6	68	.3	132	92	37	0	7	1	0
ROSWELL	50	27	67	23	39	0	.1	.0	.1	.8	148	.3	142	91	40	0	7	1	0
NY ALBANY	28	19	35	6	24	2	1.2	.7	1.0	4.6	108	1.6	122	96	77	0	7	5	1
BINGHAMTON	29	21	35	11	25	4	1.1	.5	.7	4.6	108	1.6	120	95	74	0	7	5	1
BUFFALO	29	23	37	17	26	2	1.2	.5	.7	6.7	133	2.9	177	93	75	0	7	7	1
NEW YORK	36	29	39	23	33	1	1.1	.4	.4	7.9	148	2.4	145	96	73	0	5	5	0
ROCHESTER	28	22	35	16	25	1	.8	.3	.7	4.5	118	1.5	123	97	77	0	7	4	1
SYRACUSE	29	20	36	7	25	2	.9	.3	.6	4.4	98	1.9	136	92	73	0	7	7	1
NC ASHEVILLE	47	34	62	28	40	4	.8	.1	.7	6.1	126	2.4	144	96	69	0	2	4	1
CHARLOTTE	47	37	65	33	42	2	1.1	.2	.8	6.1	115	3.3	172	89	67	0	0	4	1
GREENSBORO	44	33	55	29	38	1	.6	-.3	.4	5.0	95	2.5	136	91	71	0	4	3	0
HATTERAS	55	47	65	41	51	6	2.2	1.1	1.8	10.7	154	5.0	200	97	77	0	0	6	1
NEW BERN	53	42	66	37	47	4	1.5	.6	1.0	8.2	142	5.1	249	95	76	0	0	5	1
RALEIGH	47	36	63	28	41	2	.5	-.3	.2	5.4	109	2.9	162	98	79	0	1	4	0
WILMINGTON	53	42	67	37	48	2	1.1	.3	.4	9.3	175	4.9	257	95	72	0	0	5	0
ND BISMARCK	12	-7	27	-22	3	-3	.2	.1	.2	.7	91	.2	80	87	70	0	7	2	0
FARGO	13	-5	21	-24	4	0	.4	.3	.2	1.1	116	.5	167	87	71	0	7	4	0
GRAND FORKS	11	-7	20	-30	2	0	.3	.1	.2	1.0	99	.3	71	89	76	0	7	2	0
WILLISTON	8	-12	19	-28	-2	-9	.2	.1	.1	.7	88	.2	84	86	74	0	7	3	0
OH AKRON-CANTON	34	27	46	24	30	5	1.7	1.1	.9	5.2	129	3.0	218	96	80	0	7	5	1
CINCINNATI	37	28	51	20	33	4	.7	.0	.3	3.5	76	2.1	130	96	82	0	6	4	0
CLEVELAND	34	27	42	22	30	4	1.4	.8	.6	7.7	190	3.4	258	92	72	0	7	4	1
COLUMBUS	37	29	48	27	33	6	1.1	.5	.6	3.9	97	2.6	178	95	77	0	6	5	1
DAYTON	34	25	46	19	30	3	.3	-.2	.2	3.7	97	2.1	157	94	80	0	7	3	0

Based on 1951-80 normals.

Weather Data for the Week Ending January 16, 1993

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMP. °F		PRECIP.	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTRME 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	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	30	23	37	17	27	3	.8	.3	.4	5.5	149	2.0	177	94	79	0	7	3	0
YOUNGSTOWN	34	27	47	23	30	6	1.3	.7	.5	6.0	144	2.5	173	94	73	0	7	4	2
OK OKLAHOMA CITY	37	25	50	18	31	-4	.2	-.1	.2	4.2	254	1.1	226	89	66	0	6	1	0
TULSA	37	25	51	17	31	-4	.2	-.1	.1	6.4	260	1.2	175	92	66	0	7	2	0
OR ASTORIA	39	27	46	16	33	-8	.1	-2.4	.1	7.4	43	1.5	25	86	58	0	5	3	0
BURNS	25	8	34	-10	16	-11	.7	.4	.3	2.4	100	1.2	144	91	71	0	7	4	0
MEDFORD	45	32	51	28	38	1	.3	-.5	.2	4.5	85	1.0	56	99	61	0	4	4	0
PENDLETON	18	6	24	-6	12	-20	.5	.1	.4	1.9	74	1.2	123	97	80	0	7	3	0
PORTLAND	36	27	44	22	32	-7	T	-1.4	T	5.3	55	.4	10	77	50	0	7	1	0
SALEM	36	24	44	13	30	-9	.3	-1.3	.2	9.4	86	1.6	42	86	58	0	7	3	0
PA ALLENTOWN	34	27	38	20	31	3	.8	.0	.5	4.8	87	1.5	84	93	70	0	5	3	0
ERIE	33	27	39	20	30	5	.7	.2	.3	5.7	125	2.3	178	89	71	0	7	4	0
HARRISBURG	35	30	40	23	33	3	.9	.2	.9	2.9	60	.9	55	89	72	0	4	1	1
PHILADELPHIA	39	33	48	25	36	5	.4	-.3	.2	6.1	119	1.5	88	89	66	0	2	4	0
PITTSBURGH	39	31	54	28	35	8	.8	.2	.4	4.3	105	1.4	95	96	77	0	5	5	0
SCRANTON	35	28	41	21	32	6	.8	.3	.6	4.5	122	1.6	131	93	69	0	6	5	1
RI PROVIDENCE	32	22	41	18	27	-1	.7	-.2	.6	8.3	126	1.4	67	90	70	0	7	4	1
SC CHARLESTON	57	45	68	41	51	3	5.5	4.8	3.9	9.5	197	8.0	469	96	70	0	0	4	3
COLUMBIA	51	39	66	32	45	1	.9	-.1	.5	8.7	151	5.5	245	96	64	0	1	4	0
FLORENCE	53	42	66	37	47	2	1.2	.4	.5	9.7	202	6.0	330	92	65	0	0	6	1
GREENVILLE	49	35	64	27	42	1	1.9	1.0	1.3	9.9	159	4.9	222	97	65	0	2	4	2
SD ABERDEEN	14	-3	26	-15	6	-2	.2	.1	.2	.6	84	.4	168	89	73	0	7	2	0
HURON	19	-1	30	-10	9	-2	.2	.2	.2	.6	83	.3	132	88	72	0	7	2	0
RAPID CITY	15	-4	34	-12	6	-15	.2	.1	.1	1.2	197	.7	342	87	68	0	7	2	0
SIOUX FALLS	20	5	30	-4	12	0	.5	.4	.4	1.3	140	.5	200	91	76	0	7	4	0
TN CHATTANOOGA	51	40	60	30	46	7	1.4	.2	.9	8.3	104	2.7	98	97	64	0	1	4	1
KNOXVILLE	48	37	55	27	43	5	.8	-.2	.8	9.1	129	2.4	99	99	68	0	2	4	1
MEMPHIS	46	33	53	28	40	1	.2	-.8	.1	5.1	70	1.7	68	93	64	0	3	4	0
NASHVILLE	49	35	57	27	42	5	.5	-.5	.3	4.5	65	1.6	68	90	64	0	4	4	0
TX ABILENE	50	29	66	21	39	-4	.1	-.1	.1	1.3	96	.3	62	91	45	0	5	2	0
AMARILLO	38	17	60	5	28	-7	T	-.1	T	.7	100	.3	128	94	59	0	7	0	0
AUSTIN	53	39	67	34	46	-3	.1	-.3	.1	4.3	154	1.0	130	91	59	0	0	2	0
BEAUMONT	58	45	65	39	52	0	.2	-.7	.2	11.6	165	5.1	239	96	65	0	0	2	0
BROWNSVILLE	63	50	73	42	56	-4	T	-.3	T	1.0	56	.1	17	99	81	0	0	1	0
CORPUS CHRISTI	62	46	75	40	54	-1	T	-.4	T	1.3	66	.4	45	91	61	0	0	0	0
DEL RIO	59	41	75	35	50	0	.1	.0	.1	.8	104	.4	160	77	43	0	0	2	0
EL PASO	58	39	63	35	48	4	.2	.2	.1	2.1	373	.8	395	89	49	0	0	3	0
FORT WORTH	49	36	61	28	42	-1	T	-.4	T	4.8	184	.5	60	86	55	0	2	3	0
GALVESTON	58	48	64	46	53	0	T	-.7	T	8.0	153	4.2	255	91	70	0	0	1	0
HOUSTON	59	44	68	41	52	0	.3	-.5	.2	6.1	110	2.7	147	88	59	0	0	2	0
LUBBOCK	46	22	65	15	34	-4	.1	.0	.0	2.1	373	.7	374	94	47	0	7	3	0
MIDLAND	53	28	66	22	40	-3	T	-.1	T	.7	118	.1	53	92	45	0	5	1	0
SAN ANGELO	54	29	70	23	41	-4	.2	.1	.2	1.3	135	.5	168	96	50	0	5	1	0
SAN ANTONIO	57	39	74	35	48	-2	.1	-.3	.1	2.7	130	.5	72	87	49	0	0	1	0
VICTORIA	58	44	70	39	51	-1	T	-.4	T	4.3	139	2.2	234	90	61	0	0	1	0
WACO	52	35	64	31	43	-2	.1	-.3	.1	4.2	156	.9	111	92	57	0	3	2	0
WICHITA FALLS	44	29	53	21	36	-4	.2	.0	.1	2.8	167	.6	118	90	60	0	6	2	0
UT CEDAR CITY	41	26	47	3	33	4	.3	.2	.2	2.0	207	1.0	306	95	63	0	4	3	0
SALT LAKE CITY	33	18	36	8	26	-3	.7	.4	.3	3.5	173	2.5	358	98	74	0	7	5	0
VT BURLINGTON	23	10	31	-2	17	0	.8	.4	.6	2.2	65	1.2	124	96	74	0	7	6	1
VA NORFOLK	48	39	59	35	44	3	1.4	.5	.9	7.5	147	4.3	226	98	76	0	0	5	1
RICHMOND	44	35	51	31	39	3	.7	.0	.4	6.4	126	3.6	212	98	79	0	3	5	0
ROANOKE	44	32	64	26	38	3	.3	-.3	.2	5.3	122	2.7	186	93	62	0	4	3	0
WA QUILLAYUTE	40	26	48	18	33	-5	T	-3.3	T	10.3	41	.5	7	89	54	0	6	2	0
SEATTLE-TACOMA	41	29	51	23	35	-4	T	-1.4	T	4.2	44	.2	6	71	42	0	6	0	0
SPOKANE	24	8	30	2	16	-10	T	-.5	T	2.8	73	.6	48	90	68	0	7	2	0
YAKIMA	26	14	33	2	20	-8	.2	-.1	.1	2.6	128	.3	41	92	71	0	7	3	0
WV BECKLEY	41	31	55	24	36	6	.2	-.6	.2	4.7	96	.7	42	91	70	0	5	2	0
CHARLESTON	45	36	56	29	40	7	.5	-.3	.2	4.5	87	1.0	52	91	65	0	4	4	0
HUNTINGTON	45	34	56	29	40	6	.6	-.2	.3	3.9	81	1.1	65	91	72	0	4	4	0
PARKERSBURG	43	33	55	28	38	7	.4	-.3	.1	3.0	70	1.0	64	93	71	0	3	4	0
WI GREEN BAY	26	11	30	0	18	4	.5	.2	.3	3.0	145	.7	105	93	68	0	7	2	0
LACROSSE	25	9	31	1	17	3	.9	.6	.8	2.5	161	1.0	192	91	68	0	7	3	1
MADISON	27	12	33	4	20	4	.8	.5	.5	3.5	167	1.1	185	90	74	0	7	4	1
MILWAUKEE	29	21	35	13	25	6	.8	.4	.4	4.3	146	1.8	201	94	73	0	7	4	0
WAUSAU	23	6	26	-8	14	4	.6	.4	.3	2.7	151	.9	173	93	76	0	7	4	0
WY CASPER	25	4	38	-9	15	-7	.1	.0	.1	1.6	209	.7	276	82	61	0	7	2	0
CHEYENNE	31	11	43	-2	21	-5	T	-.1	T	.8	141	.3	168	82	50	0	7	1	0
LANDER	12	-4	20	-13	4	-16	.2	.1	.2	1.6	216	.8	332	85	65	0	7	1	0
SHERIDAN	14	-5	36	-15	4	-15	T	-.2	T	1.5	132	.2	55	89	65	0	7	0	0

Based on 1951-80 normals.

HEATING DEGREE DAYS (Base 65° F)
January 10 - 16, 1993

(Cumulative totals and departures from normal are for the period July 1, 1992 - January 16, 1993)

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE	CUMULATIVE TOTAL	CUMULATIVE DEPARTURE	CUMULATIVE DEP fm 91-92
AL BIRMINGHAM	130	-28	1362	-126	-26
MOBILE	73	-36	739	-153	-221
MONTGOMERY	114	-19	1041	-147	-155
AK ANCHORAGE	320	-48	5550	-114	457
BARROW	467	-83	9575	-331	-487
FAIRBANKS	370	-182	7382	-296	158
JUNEAU	296	-12	4501	-151	414
KODIAK	238	10	4412	15	274
NOME	394	-18	7287	249	884
AZ FLAGSTAFF	238	-21	3381	-54	197
PHOENIX	56	-35	600	-150	56
PRESCOTT	182	-21	2173	-155	-3
TUCSON	72	-26	847	-15	30
WINSLOW	181	-56	2708	219	46
YUMA	40	-27	515	-18	151
AR FORT SMITH	199	3	1736	-58	72
LITTLE ROCK	197	16	1657	20	121
CA BAKERSFIELD	102	-19	1108	-14	-59
EUREKA	129	3	1997	-319	-60
FRESNO	115	-25	1232	-151	-17
LOS ANGELES	66	-1	510	-147	92
REDDING	164	24	1378	44	143
SACRAMENTO	143	2	1340	-37	110
SAN DIEGO	59	2	478	-58	102
SAN FRANCISCO	117	-2	1138	-359	-12
STOCKTON	125	-18	1283	-81	16
CO DENVER	321	69	3280	366	256
GRAND JCT.	235	-48	2917	-22	-145
PUEBLO	318	66	3270	521	350
CT BRIDGEPORT	250	2	2441	6	212
HARTFORD	290	10	2985	34	330
DE WILMINGTON	203	-35	2188	-165	138
DC WASHINGTON	189	-21	1978	-5	211
FL APALACHICOLA	55	-38	427	-273	-284
DAYTONA BEACH	20	-37	225	-196	-123
FORT MYERS	0	-35	52	-155	-63
JACKSONVILLE	47	-44	505	-223	-181
KEY WEST	0	-10	3	-39	-4
MIAMI	0	-14	13	-65	-22
ORLANDO	14	-35	164	-149	-89
TALLAHASSEE	64	-39	582	-277	-274
TAMPA	8	-41	153	-197	-120
W. PALM BEACH	0	-21	36	-72	-44
GA ATLANTA	146	-18	1409	-130	77
AUGUSTA	127	-15	1174	-154	-69
MACON	122	-12	1136	-51	03
SAVANNAH	84	-35	774	-236	-76
ID BOISE	311	59	3208	287	373
LEWISTON	339	101	2943	166	439
POCATELLO	330	36	3827	309	327
IL CHICAGO	287	-21	3179	119	154
MOLINE	284	-38	3220	66	203
PEORIA	272	-36	2961	-75	66
QUINCY	279	-15	2943	119	198
ROCKFORD	296	-33	3433	71	208
SPRINGFIELD	265	-22	2637	-113	-7
IN EVANSVILLE	214	-31	2161	-194	-58
FORT WAYNE	281	-13	2917	-98	104
INDIANAPOLIS	254	-20	2626	-121	104
SOUTH BEND	278	-16	2991	-20	111
IA DES MOINES	304	-25	3313	124	150
DUBUQUE	317	-33	3786	206	269
SIOUX CITY	344	-4	3648	212	245
WATERLOO	320	-42	3682	-7	130
KS CONCORDIA	326	39	3094	331	431
DODGE CITY	320	68	3079	568	543
GOODLAND	341	72	3526	524	588
TOPEKA	302	23	2758	90	289
WICHITA	292	40	2543	146	251
KY BOWLING GREEN	184	-35	2066	-95	49
LEXINGTON	193	-45	2220	-138	28
LOUISVILLE	199	-32	2015	-215	31
LA BATON ROUGE	94	-15	740	-144	-101
LAKE CHARLES	97	-8	726	-99	-86
NEW ORLEANS	62	-36	574	-196	-232
SHREVEPORT	145	7	1208	25	60
ME CARIBOU	446	68	4602	-34	157
PORTLAND	322	20	3418	-76	192
MD BALTIMORE	197	-27	2118	-129	04
SALISBURY	169	-41	1986	-96	94
MA BOSTON	262	17	2650	110	276
CHATHAM	229	-9	2526	-45	245
MI ALPENA	332	-1	3971	83	288
DETROIT	269	-24	2953	-153	146
FLINT	283	-25	3237	-61	99
GRAND RAPIDS	287	-14	3282	33	127
HOUGHTON LAKE	318	-18	3887	-12	235
LANSING	281	-22	3376	95	137
MARQUETTE	347	-24	4786	256	257
MUSKEGON	281	-13	3244	53	194
SAULT ST MARIE	367	5	4510	182	394
MN ALEXANDRIA	401	-20	4646	184	298
DULUTH	368	-47	4941	147	145
INT'L FALLS	439	-22	5431	189	410
MINNEAPOLIS	344	-38	4024	116	41
ROCHESTER	356	-29	4275	249	156
SAINT CLOUD	374	-38	4559	164	193
MS GREENWOOD	137	-17	1247	-176	-40
JACKSON	113	-27	1104	-134	-79
MERIDIAN	109	-33	1080	-221	-112
MO CAPE GIRARDEAU	223	-8	2190	-30	157
COLUMBIA	275	9	2658	95	183
KANSAS CITY	303	23	2771	160	191
SAINT LOUIS	253	-6	2330	-116	153
SPRINGFIELD	247	9	2311	-2	124
MT BILLINGS	414	99	3930	404	710
GLASGOW	468	63	4680	285	750
GREAT FALLS	463	130	4434	644	1044
HAVRE	498	113	4765	451	947
HELENA	450	114	4526	434	602
KALISPELL	431	102	4597	332	673
MILES CITY	458	94	4169	240	676
MISSOULA	429	115	4371	379	687
NE GRAND ISLAND	365	50	3549	314	487
LINCOLN	347	25	3367	207	422
NORFOLK	359	20	3627	143	338
NORTH PLATTE	374	62	3756	307	566
OMAHA	334	14	3321	249	239
SCOTTSBLUFF	376	83	3893	560	670
VALENTINE	397	68	3999	392	474
NV ELY	304	17	3779	59	224
LAS VEGAS	141	-6	1367	11	113
RENO	303	69	2829	-184	392
WINNEMUCCA	310	58	3366	156	441
NH CONCORD	317	2	3619	43	335
NJ ATLANTIC CITY	188	-43	2312	-26	144
NM ALBUQUERQUE	190	-25	2281	-8	37
CLOVIS	204	4	2138	65	-140
ROSWELL	181	13	1738	27	-178
NY ALBANY	289	-19	3249	-35	206
BINGHAMTON	276	-32	3554	119	483
BUFFALO	270	-21	3067	-49	171
NEW YORK	223	-8	2180	-57	293
ROCHESTER	277	-12	3232	148	231
SYRACUSE	280	-14	3182	52	222
NC ASHEVILLE	171	-28	2042	-106	100
CAPE HATTERAS	97	-43	895	-281	-36
CHARLOTTE	158	-17	1536	-159	163
GREENSBORO	186	-10	1933	-5	255
NEW BERN	122	-32	1154	-258	-13
RALEIGH-DURHAM	164	-17	1668	-97	133
WILMINGTON	117	-20	1084	-134	-49
ND BISMARCK	431	17	4835	358	706
FARGO	423	-7	4852	284	474
GRAND FORKS	437	-9	5078	236	496
WILLISTON	467	52	5046	460	881
OH AKRON-CANTON	241	-39	2913	-27	159
CLEVELAND	242	-36	2763	-110	161
COLUMBUS	220	-46	2538	-209	65
CINCINNATI	225	-28	2479	-78	95
DAYTON	246	-24	2691	-46	76
TOLEDO	267	-27	2918	-213	123
YOUNGSTOWN	242	-45	3009	-77	207
OK OKLAHOMA CITY	235	25	1945	52	147
TULSA	237	24	2041	141	328
OR ASTORIA	224	54	2679	187	309
BURNS	337	70	4180	704	771
MEDFORD	184	-12	2108	-283	80
PENDLETON	371	140	3043	361	531
PORTLAND	232	43	2235	-52	351
SALEM	243	61	2301	-91	278
PA ALLENTOWN	240	-26	2717	-57	273
ERIE	244	-39	2675	-373	105
HARRISBURG	226	-23	2504	-53	211
PHILADELPHIA	202	-36	2082	-253	99
PITTSBURGH	208	-58	2660	-194	117
SCRANTON	232	-48	2820	-197	76
RI PROVIDENCE	265	6	2647	-67	305
SC CHARLESTON	96	-31	853	-238	-62
COLUMBIA	136	-13	1287	-72	19
FLORENCE	122	-24	1156	-143	-2
GREENVILLE	159	-9	1717	71	204
SD ABERDEEN	413	10	4557	338	591
HURON	390	7	4242	255	525
RAPID CITY	412	97	4065	528	719
SIOUX FALLS	367	-7	4089	205	325
TN CHATTANOOGA	134	-55	1647	-189	-20
KNOXVILLE	153	-36	1825	-47	11
MEMPHIS	175	-7	1557	-85	40
NASHVILLE	160	-36	1755	-141	-23
TX ABILENE	179	25	1334	-50	-165
AMARILLO	260	50	2448	312	162
AUSTIN	130	15	861	-62	-8
BEAUMONT	90	-8	703	-70	-64
BROWNSVILLE	58	9	262	-52	-86
CORPUS CHRISTI	77	7	439	-64	-59
DEL RIO	102	-3	752	-103	-23
EL PASO	116	-31	1384	-102	-44
FORT WORTH	155	10	1187	-2	-41
GALVESTON	81	-7	526	-78	-69
HOUSTON	92	-11	736	-74	-84
LUBBOCK	215	26	1798	-19	-106
MIDLAND-ODESSA	170	16	1425	2	-195
SAN ANGELO	164	24	1208	-37	-148
SAN ANTONIO	113	8	789	-67	-36
VICTORIA	95	4	591	-69	-48
WACO	150	12	1089	-11	07
WICHITA FALLS	199	24	1522	-47	-16
UT BLANDING	247	-21	2884	-147	90
CEDAR CITY	220	-32	2997	76	107
SALT LAKE CITY	275	16	3105	204	260
VT BURLINGTON	338	0	3571	-165	77
VA LYNCHBURG	189	-21	2002	-133	109
NORFOLK	148	-27	1473	-139	70
RICHMOND	179	-21	1861	-97	189
ROANOKE	187	-23	2110	-38	233
WA COLVILLE	347	59	3984	303	606
QUILLAYUTE	222	36	2928	33	338
SEATTLE-TACOMA	208	22	2391	-109	346
SPOKANE	344	64	3796	312	631
YAKIMA	312	46	3439	302	634
WV BECKLEY	202	-43	----	---	---
CHARLESTON	171	-53	2140	-185	76
HUNTINGTON	175	-51	2132	-188	29
PARKERSBURG	188	-50	2316	-98	09
WI GREEN BAY	324	-34	3890	22	204
LA CROSSE	333	-29	3756	90	59
MADISON	317	-33	3629	-72	136
MILWAUKEE	278	-50	3278	-131	206
WAUSAU	354	-25	4293	154	143
WY CASPER	350	46	3748	41	172
CHEYENNE	307	31	3702	224	270
LANDER	427	105	4221	301	221
SHERIDAN	421	97	4327	472	671

Based on 1951-80 normals.

National Agricultural Summary

January 11 - 17, 1993

HIGHLIGHTS: Below-normal temperatures dominated much of the West and Great Plains, while well-above-normal temperatures occurred in the Southwest and East. More precipitation fell in California, the Southwest, the Southeast, and New England. While the precipitation in the West continued to improve the water situation, wet fields have started to become a problem. Field work remained delayed by wet conditions in the South and Southeast. Supplemental feeding of livestock increased on the Great Plains in response to the cold weather.

SMALL GRAINS: Winter wheat continued in good condition across the Nation. Snow cover remained adequate across the Northwest and the Great Plains. Some yellowing of small grains due to excessive moisture was reported in Arkansas, California, and Texas. Concern was expressed over the effect of standing water and cold rains on the wheat crop in Indiana. Some flooded fields will need reseeding in California. Rain in Texas helped decrease greenbug and mite infestations. Barley and rye were reported in fair to good condition. Wet conditions hindered work on small grain fields in the Southwest and Southeast.

COTTON: Cotton harvest advanced across the south as weather conditions allowed. In Texas, 98 percent (%) of the crop was harvested, compared with 96% last year and the 5-year average of 99%. Harvest was at a standstill in Oklahoma due to continued wet conditions. A hard freeze was needed for harvest to continue. Plowdown of harvested cotton fields for pink bollworm control was delayed by rain in Arizona and completed in California.

OTHER FIELD CROPS: Row crop harvest advanced little, if any. Weather conditions stopped sorghum harvest in Kansas. Some corn was harvested in South Dakota. Corn harvests in Michigan and Wisconsin were reported at 75% and 77% complete, respectively, both unchanged from 2 weeks ago. Little more progress is expected until field conditions improve this coming spring. In the Southeast, soybean harvest dragged on with wet fields still an obstacle. Tobacco seedbed preparation was hindered in the Southeast by wet conditions, with progress behind normal. Harvest of the California winter potato crop continued between rains. Spring potato crop planting started in Texas and California where conditions allowed. Onions in Georgia and Texas progressed well. Weed control in Texas continued.

FRUIT AND NUTS: Wet conditions slowed fruit harvest in Arizona, Florida, and California. In California's Fresno area, growers pumped water out of flooded orchards and vineyards. Some trees in that area also had wind damage. Elsewhere in California, standing water brought the citrus harvest to a virtual standstill, with the navel orange crop nearly inaccessible. In Florida, field work on the east coast was hampered by rain. Early orange harvest for processing was very active. Grapefruit and honey tangerine harvests were increasing. Pecan harvest was active in Georgia, Arizona, and Texas when weather allowed. In the Texas Cross Timbers area, shucks were still sticking to the nuts.

VEGETABLES: Wet conditions hampered harvest of winter vegetables in Arizona, California, and Florida. In Arizona, broccoli, cabbage, cauliflower, and lettuce were harvested where conditions allowed. Wet conditions hindered harvest in the Westside, Riverside, and Palo Verde Valley areas of California. Some frost damage to vegetables was reported in the Kern-Tulare area. California celery, lettuce, broccoli, cabbage, and cauliflower were harvested when weather permitted. Wet, cloudy weather hampered spring seedling growth and delayed melon field preparation in the Westside and Palo Verde Valley areas. Spinach in the Kern-Tulare area of California progressed nicely. Excessive rainfall in southern Florida affected vegetable quality. Major vegetables harvested included tomatoes, peppers, cabbage, cucumbers, and celery.

PASTURES AND LIVESTOCK: Livestock condition rated fair to good across the Nation. In the Midwest, the cold damp weather caused foot and respiratory problems to increase, while the wet weather stressed livestock in the South. Cold weather in the northern Plains forced producers to continue supplemental feeding. Feed supplies were rated adequate. Rain and snow in the West continued to improve stock water supplies. Early lambing and calving advanced in the west.

(Continued from front cover)

FL. Among the dozen daily record lows were readings of -10°F in **Burns, OR**, and -38°F in **International Falls, MN**. But in the **Alaskan interior** at **Fairbanks**, weekly temperatures averaged 24°F above normal. The relative warmth was accompanied by nearly 3 feet of snow during the first half of January, which is more than three times **Fairbanks'** normal monthly total. At midweek, the second storm impaled itself on **California**, dumping intense rain and mountain snow. More than 5 feet of snow cloaked **Mammoth Mountain, CA**, and nearly 3 feet fell at **Sierra Ski Ranch, CA**. Rainfall surpassed 4 inches in **Oakland, CA**, and atop **Mt. Wilson, CA**. By Friday, runoff from earlier rains induced river flooding in **southern California** and **Arizona**, as well as in **southern Louisiana** and **southern Georgia**. Late in the week, a third major storm pressed into the rain-weary **Southwest**. **Mt. Palomar, CA**, endured 6.59 inches of rain during the 24-hour period ending at 4:00 p.m. PST on Saturday, pushing their weekly total above 12 inches. Flooding and mud slides were prevalent from **Los Angeles, CA**, southward. Elsewhere, heavy rain showers moved across **Florida**, while dry, seasonable weather prevailed across the remainder of the Nation. In **Alaska**, cold weather returned to western areas, as **Nome** noted a daily record low of -35°F.

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 0.45 to 3.15 in. north; 0.21 to 2.93 in. central; 0.58 to 2.96 in. south. Temperatures 1° below normal to 6° above north; at normal to 5° above normal central; 1 to 4° above normal south. Lows 25 to 32° north; 27 to 34° central; 30 to 39° south. Highs 55 to 61° north; 58 to 63° central; 63 to 76° south.

Primary activities: Harvesting timber; marketing cattle; maintaining farm records, equipment; land-use planning, management, repairing machinery, fences; general care of livestock, poultry, catfish.

ARIZONA: Precipitation statewide most of week. Flash flood warnings central, southern areas; minimal damage to agriculture. Temperatures 1 to 9° above normal. Extremes -1°; 62° higher elevations, 28°; 71° deserts.

Cotton stalk shredding, plowdown near halted by rain, wet fields. Alfalfa good; harvest delayed, all areas. Small grains planted 83%, 93% 1992, 93% avg.; stands established 72%, 79% 1992, 80% avg. Field activities virtually stopped due to rain, wet fields. Vegetable, fruit harvest also slowed by wet conditions. Broccoli, cabbage, cauliflower, lettuce, bok choy, cilantro, kale, parsley, napa, spinach available western, central areas. Also available west: sweet corn, broccoflower, escarole, endive. Leeks, beets, dill, kohlrabi, radishes, rapini, mixed greens, green onions, turnips available, central. Citrus harvest continued central, western areas. Pecans, tomatoes harvested east.

ARKANSAS: Temperatures slightly below normal, light rain statewide early in week. Extremes 17°; 62°. Rainfall 0.04 to 0.63 in.

Soil moisture supplies adequate to surplus. Wheat good, needs sunshine, dry weather. Some wheat fields saturated. Early planted wheat continues to do better than late planted wheat. Livestock good. Producers feeding hay. Pastures good.

CALIFORNIA: Another wet week for State as storm systems continued to cause widespread flooding. Snow levels were higher this week under the influence of warm subtropical air moving inland.

Rain, wet soils stopped field activities most areas. Growth small grains, forage crops excellent south; slowed cold temperatures, overcast skies elsewhere. Some stalk yellowing low-lying areas standing water. Reseeding necessary in flooded fields. Ground preparation, seeding will resume as soils dry. Plowdown harvested cotton fields for pink bollworm control complete. Rain halted grain corn harvest. Herbicides applied small grains, fallow fields limited areas between rains. Pruning, spraying orchards continued limited basis, rainy weather allowing. Fresno area many growers pumped water out flooded orchards, vineyards; wind damaged trees reported. Dormant sprays applied aerially some orchards, wet ground impeded access. Kiwifruit moved slow pace, Fuji apples packed, storage. Coachella Valley grape vines pruned. Citrus harvest virtual standstill throughout most State, rain and standing water. Picking grapefruit, tangerines continued Coachella Valley, more slowly Palo Verde area. Navel orange crop nearly inaccessible; crop characterized by excellent internal quality, limited external cold-weather marking. Winter vegetable harvest Statewide slowed, halted due to wet weather. Broccoli fairly light, variable quality central coast. Most fields Westside area too muddy to be harvested. Some frost damage Kern-Tulare area. Cauliflower light, variable quality Santa Maria; finished Salinas-Watsonville. Celery packing moved towards completion Santa Maria, light movement, good quality. Cabbage harvest slowed due to muddy fields Riverside district. Iceberg lettuce shipments Palo Verde Valley slowed wet field conditions. Spring seedling growth Westside area hampered cold, overcast weather. Kern-Tulare fields progressing well. Melon field preparation Palo Verde Valley delayed 1 month wet fields. Fall potato movement from storage Tulelake-Butte Valley area steady, fairly good demand. San Jacinto district winter potato harvest continued slow between storms. Spinach fields emerging Modesto-Turlock area; progressed nicely Kern-Tulare area. Other crops being harvested: Garlic, onions, turnips, various oriental vegetables. Rangeland, pasture conditions fair to good, needed warmer temperatures for growth. Rains, runoff raised stock ponds. Summer moisture supplies promising due to abundant snow pack. Supplemental feeding continued active. Livestock movement light to moderate. Sheep grazed alfalfa.

COLORADO: Series of storm systems moved across the State from the southwest during the first part of the week. Storms dumped from 1 to 3 feet of snow on the area mountains, with up to a foot of snow over the Four Corners area. By the end of the week a high pressure system was over the State. Little if any precipitation fell at the lower elevations with occasional light snow showers over the mountains, generally about 1.00 in. The Colorado River Basin received the highest amount of precipitation about 0.50 in. The other river basins less than 0.25 in. Temperatures 15 to 20° below normal for the river basins. The exceptions were the Colorado River Basin 5° above normal, Rio Grande River Basin 4° below normal for the week.

Care, feeding of livestock was the major activity this week.

FLORIDA: Temperatures 3 to 8° above normal. Highs; 70s Panhandle, Big Bend, low to mid 80s Peninsula. Lows; 30s north, isolated locations freezing Panhandle, 40s inland Peninsula, mid 50s southern coasts. Rain 2 to 4 days most locations. Amounts generally 1.00 to 3.00 in., some locations north received up to 5.00 in., less than 1.00 in. south.

Soil moisture mostly adequate to surplus throughout State. Sugarcane harvest, planting active. Tobacco growers actively maintaining plant beds. Citrus groves very good condition. East coast wet, rain most areas. New growth, bloom buds showing few trees in isolated areas. Early orange harvest very active for processing. Grapefruit harvest for fresh, processing active east coast. Temple, Honey tangerines harvest increasing. Dancy tangerine, all tangelo harvest slow with few crops remaining. Caretakers cutting cover crop, unbanking, unwrapping young trees. Temperatures 3 to 8° above normal all vegetable producing areas. Above normal rainfall of past weeks in southern vegetable producing areas lowered crop quality, slowed field work, harvesting. Southwest potato harvest to start 7 to 14 days. Volume leaders: Tomatoes, peppers, cabbage, cucumbers, celery. Also available: Snap beans, carrots, chinese cabbage, sweet corn, eggplant, escarole, iceberg lettuce, romaine, specialty lettuces, radishes, squash, strawberries, cherry tomatoes. State's pastures fair to good. Pasture 40% fair, 60% good. Moisture levels adequate to surplus. State's cattle herds fair to good.

GEORGIA: Warm, wet. Heaviest rains northern, southern areas: 1.50 to 4.00 in., central 1.00 in. or less. Dry weather colder nighttime temperatures 16th to 17th. Temperatures 2 to 4° above normal. Warmest upper 50s northeast mountains to mid 70s south. Coldest from mid to upper 20s mountains near 40° southeast.

Very little change from last week. Soil moisture surplus. Fieldwork very limited. Harvest progress pecans, soybeans, cotton limited. Tobacco bed preparation, onion planting progress limited during week, progress behind normal. Tobacco plants, onions good. Small grain top dressing at standstill, good. Virtually no progress in land preparation during week, progress well behind normal. Pastures poor to fair, mostly fair. Supplemental feeding cattle increasing as farmers taking cattle off soggy pastures. Cattle, hogs good.

HAWAII: North winds caused chilly weather to linger in the State. Temperatures in Honolulu dropped to record tying lows 11th, 12th. Days mostly sunny, cool with intermittent showers falling windward, higher elevations. Rainfall none to 1.40 in.

Days suitable for fieldwork 7.0. Farmers, ranchers took advantage of weather conditions to cleanup debris, fix torn fence lines caused by previous weeks heavy rains, high winds. Most field operations resumed. Spraying activities delayed due to gusty winds. Crops affected by last week's inclement weather made satisfactory progress. Chilly weather slowed fruit development in orchard crops.

IDAHO: Temperatures normal to 13° below normal. Precipitation fell across most of the State with Pocatello reporting the largest amount at 1.56 in.

Soil moisture varied across State. Adequate amount southwest, north; short amount south central, southeast. Activities: Plowing snow off roads, marketing crops, repairing farm machinery. Hay, roughage supplies adequate. Livestock activities: Marketing cattle, cattle on winter hay, calving beginning in some areas of State, lambing activity continuing across the State. Livestock good.

ILLINOIS: Settled weather prevailed as cold, dry, arctic air filtered into the State late in the week. Some snow was noted over the northeast. Highs upper 20s to lower 30s, while lows averaged teens to 20s. Precipitation was least in the central, southeastern, western areas, 0.20 in. or less. The heaviest precipitation was 0.50 to just above 1.00 in. reported in the northeast.

The majority of winter wheat is reported good. Soil moisture 63% surplus, 37% adequate. Livestock fair to good. Grain movement continues at a slow to moderate pace.

INDIANA: Temperatures mostly near normal. Highs the upper 20s to around 30s north to the mid 30s to around 40s the south. Lows mid teens to around 20s north to mostly the 20s the south. Precipitation (water equivalent) 0.15 to 0.50 across much of the State. Snowcover remained around 2 to 4 in. over the north part of the State. Soil temperatures at the 4-inch depth under bare ground averaged upper 20s to mid 30s across the State.

Livestock feedlots remain muddy, wet. Standing water is reported to be almost gone. Little progress has been made on unharvested crops. Wheat is reported to still be in good shape with some concern over the effects of the standing water, cold rains on the crop. Farming activities: Hauling grain, tending to livestock.

IOWA: Temperatures 1° below normal southwest to 5° above normal northeast. Extremes -18° Decorah (northeast) 18th, 39° Sioux City (west central) 16th. Moderate to heavy snowfall northwest at midweek. Precipitation 0.17 in. Donnellson (southeast) to 1.05 in. Forest City (north central); average 0.55 in. (normal 0.19 in.). Snowcover varies from 1 to 3 in. southeast to 8 to 12 in. north.

Due to snow, ice, frigid temperatures, field activities are at a standstill. Respiratory complications among livestock continue to be a problem. The weather greatly increased hay, bedding usage.

KANSAS: Temperatures 3 to 12° below normal over State. Significant precipitation received all districts.

Precipitation in the form of freezing rain, snow was received over the State early in the week. Winter storms have been frequent in 1993, seeming to occur every few days. All areas have good snow cover. Wheat winterkill should be minimal. Soil moisture generally adequate or surplus. Weather conditions during the past week generally stopped any harvest progress. Stockmen busy tending livestock. With the cold weather, precipitation, instances of livestock sickness have increased. Generally, livestock feed, care requirements have increased.

KENTUCKY: High temperatures in the 40s, lows around 32°. Precipitation 0.60 in.; west received the least rain.

Agricultural activity minimal due to wet conditions. Burley markets beginning to close for season. Sales volumes light with lower prices. Cold, cloudy, wet weather stressed livestock.

LOUISIANA: Temperatures 0.6° below to 3.5° above normal. Extremes 30°; 73°. Rainfall 0.12 in. northwest to 3.05 in. east central.

Crawfishing, caring for livestock. Topdressing pastures. Repair, maintenance of farm equipment. Caring for livestock.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.88 in. Temperature 36.4°, normal 32.6°. Extremes 23°; 56°.

Warmer temperatures, precipitation continue to favor cattle, small grain condition. Some trees beginning to form buds. Hay supplies adequate. Cutting firewood, feeding hay, caring for livestock.

DELAWARE: Precipitation 1.01 in. Temperature 37.7°, normal 33.5°. Extremes 26°; 50°.

Hay supplies adequate. Pastures, livestock mostly excellent. Small grains good.

MICHIGAN: Extremes -10°; 36°. Precipitation 0.19 to 0.96 in. across State. Corn remained at 75% harvested. Mostly cloudy skies, cool temperatures prevailed last week. Precipitation fell as rain turning to ice early in the week, significant amounts of snow at midweek.

Feed supplies are adequate to short, livestock good. Major activities included: Cleaning, fixing barns; making winter repairs on equipment; getting ready for taxes, waiting for cold, dry conditions to return to continue harvest.

MINNESOTA: Temperatures near normal to 5° above normal for the State. Extremes -37°; 30°. Precipitation 0.20 to 1.02 in., 0.08 to 0.81 in. above normal. Greatest weekly total 1.66 in. Snowfall 8 to 12 in. with snow depths averaging 10 to 22 in. for State. Temperatures moderated, nearly a foot of snow fell across a large area of the State.

Livestock producers report mostly adequate feed supplies but poor feed quality of corn is a concern. Farmers are checking storage bins for possible deterioration of stored corn. Good quality alfalfa hay is hard to find in many areas of the State.

MISSISSIPPI: Temperature 46°, 3.6° above normal. Extremes 24°; 78°. The northwest third of the State received below normal rainfall, rest of the State received above average rainfall. Rainfall 1.48 in., 0.34 above normal. Soil temperatures 49°.

Days suitable for fieldwork 0.2, 1.5 1992, 0.7 avg. Soil moisture 20% adequate, 60% surplus, 20% excessive. Wheat 100% fair. Hay supply 100% adequate. Feed grain 100% adequate. Livestock 20% fair, 60% good, 20% excellent. Activities: Feeding livestock.

MISSOURI: Temperatures 1° above normal northeast to 3° below normal central, western areas. Precipitation 0.25 in., varying by district from 0.07 in. southwest to 0.50 in. north central.

Main activities include livestock chores, book work, some late row crop harvesting. Wheat in most central, northern counties has snowcover.

MONTANA: Temperatures well below normal statewide; 8 to 15° below normal. All divisions except northwest received at least 0.10 in. of precipitation with central, south central receiving 0.30 in.

The protectiveness of snowcover for winter wheat 20% fair, 40% good, 40% excellent. Grazing was 1% open, 77% difficult, 22% closed. More than 92% livestock receiving supplemental feed.

NEBRASKA: Temperatures 11° below normal west, 3° below normal east. Precipitation occurred during the first half of the week, averaging less than 0.10 in. west to 0.30 in. east.

Activities included: Record keeping, equipment maintenance, livestock care, routine chores.

NEVADA: Week dominated by persistent wet weather pattern. The pattern spun series of weak disturbances throughout the State. Brief clear period early in week plummeted lows to sub-zero readings across most northern parts of State. Areas of dense fog were also prevalent in northwest early in week.

Good snowcover favorable fall seeded grains, makes livestock feeding operations more difficult. Mild weather generally easy on livestock, feeding requirements. Major farm/ranch activities: Care, feeding of livestock, chopping ice for livestock water, general maintenance.

NEW ENGLAND: Precipitation none to 1.19 in. Temperatures zero to high 20s. Maximum temperatures mid 20s to low 40s. Minimum temperatures -17 to 11° north, 8 to 19° south.

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

NEW JERSEY: Temperatures much above normal, 31° north, 36° south, 38° coastal. Extremes 18°; 49°. Precipitation near normal north, below normal south, coast; averaged 0.78 in. north, 0.45 in. south, 0.51 in coastal. Heaviest 24 hour total 0.44 in. on 12th, 13th. Heaviest 24 hour snowfall 1.5 in. on 11th, 12th.

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

NEW MEXICO: Nearly all the State received some precipitation from several winter storms. Higher 1.70 in. southwest with continued isolated flooding. With abundant clouds, moisture, most of State experienced temperatures a few degrees above normal. The only arctic outbreaks affected the extreme northeast.

The continued wet weather again slowed most farming, ranching activities for another week.

NEW YORK: Temperatures slightly above seasonal normals. Week started with temperatures well below normal. Highs 0° to 10°, lows plunged to -10°. Temperatures rose above normal by midweek, remained that way for the remainder of the period. Precipitation was above normal. Rainfall 1.00 to 1.50 in. Light snow fell at the beginning of the week. At midweek, heavy snow 8 to 12 in. fell in central, northeastern areas. In western, southeastern areas the precipitation fell as wet snow, freezing rain or rain.

Major activities: Tending livestock, spreading manure, grading, packing fruit, onions, potatoes, attending meetings.

NORTH CAROLINA: Temperatures 0 to 6° above normal. The largest positive departures were along the coast. Precipitation 2.07 in. at Highlands to 0.56 in. at Raleigh.

Crop condition: Winter wheat 3% poor, 35% fair, 59% good, 3% excellent. Oats 4% poor, 30% fair, 64% good, 2% excellent. Barley 26% fair, 72% good, 2% excellent. Rye 2% poor, 25% fair, 71% good 2% excellent. Hay, roughage supplies 2% short, 93% adequate, 5% surplus. Feed grain supplies 2% short, 90% adequate, 8% surplus. Activities included: Harvesting soybeans, cotton; preparing tobacco plant beds; tending livestock; equipment repair; soil sampling; general farm maintenance.

NORTH DAKOTA: Temperatures 7° below normal in the southwest to 3° below normal north central, northeast, southeast. Extremes -40° northeast; 33° southwest. Precipitation 0.22 west central to 0.45 east central.

Snowcover mostly adequate, sufficient to protect winter wheat, rye, alfalfa. Frigid temperatures continued to stress livestock but reports of health problems have decreased. Livestock mostly good. Supplemental feed supplies were adequate. Livestock marketing below normal to normal due to cold temperatures. Grain marketing normal.

OHIO: Temperatures 0 to 5° above normal, due to much above normal temperatures early in week. Highs mostly in low to mid 30s except for the extreme south which saw low 40s. Low temperatures generally between 20 to 30° which was 3 to 12° above normal. Thermometers climbed into the 40s to 50s 13th, dropped into the teens by 17th night. Precipitation, liquid equivalent, totaled 0.30 to 1.00 in. Scattered areas in north central, northeast State recorded over 1.00 in. The majority of the precipitation fell around midweek. Soils continued to experience freeze-thaw cycles at the surface. At the 4 in. depth soil temperatures showed little change with both the maximums, minimums averaging mainly in the 30s.

OKLAHOMA: Temperatures 9° below normal Panhandle to normal southeast. Precipitation 0.07 in. Panhandle to 0.46 in. east central.

Cotton harvesting at a standstill over the past week due to continued wet conditions in the southwest section of the State. Prospects for further harvesting look bleak unless a hard freeze occurs soon. Prices for feeder steers, heifers steady to $1.50 per cwt. higher.

OREGON: All regions 5° below normal; greatest departure in central, north central areas. Widespread precipitation, statewide; in the form of snow in eastern areas, Cascades, Siskyous, the Coastal Range, Willamette Valley, even some coastal areas. Precipitation amounts were greater in the southern areas, Brookings 2.00 in. Several northern locations 0.15 in. or less.

Soil moisture mostly adequate to surplus west, adequate east. Wheat snowcover adequate, Columbia Basin. Fruit, nut orchard winter activities continue, Willamette Valley. Livestock good. Mountain snowpack at or above 100% of normal, early calving, lambing beginning, pastures, ranges dormant, supplemental feeding; statewide.

PENNSYLVANIA: Above normal temperatures, precipitation. Temperature 33°, 7° above normal. Extremes 16°; 58°. Precipitation 0.75 in., 0.08 in. above normal.

Activities: Hauling manure; fixing fence; caring for livestock.

PUERTO RICO: Average rainfall 0.41 in., which was 0.25 in. below normal. Highest total 2.97 in. at Pico del Este. Average temperatures ranged from 61.5° to 78.8°; extremes were 49° and 89°.

SOUTH CAROLINA: Temperatures averaged 2 to 4° above normal. Average rainfall 1.80 in.

Farm activities: Rain, wet fields delayed land preparation for small grains, tobacco bed preparation; pastures wet; livestock fair to good.

SOUTH DAKOTA: Temperatures 10 to 15° below normal west, normal to 7° below normal in the east. Extremes -29°; 47°. About 0.25 in. to 0.50 in. of precipitation fell over the east; around 1.10 in. or less fell over the rest of the State.

Snowcover across the State remained adequate for the winter grains. Some areas are still harvesting corn.

TENNESSEE: Combination of Gulf, Atlantic moisture early in the week. A cold front passed through at midweek, another one arrived over the weekend. A high pressure system dominated between the frontal passages. Temperatures above normal, 2° above normal in the west to 6° above normal in the east. Temperatures upper 30s over the west, in the lower 40s elsewhere. The State as a whole experienced below normal precipitation; 0.15 in. below normal in the east to 0.75 in. below normal in the west.

Wheat mostly good. A few cotton gins are still active, on a very limited scale. Activities mostly consist of livestock care, winter chores, general farm maintenance.

TEXAS: West to southwest flow allowed weather disturbances to cross. Light precipitation resulted. Cold air invaded Northern portions producing freezing rain, sleet, snow. Temperatures above normal East Texas, Trans-Pecos, below normal High, Low Plains, near normal elsewhere. Precipitation below normal all districts; each area reported some moisture. Northern counties of East Texas observed most rainfall, more than 1.00 in. Texarkana, around 2.50 in. Longview.

Crops: Remaining cotton harvest continued, limited basis, Plains. Stubble Plains being plowed under, 98% harvested, 96% 1991, 99% avg. Small grain growth continued slowly, most areas. Some yellowing from excess moisture evident. More sunshine needed to ensure normal development. Cross Timbers, Blacklands, greenbug, mite populations decreasing with heavier rains. Limited grazing small grain fields took place. Statewide wheat 63% normal, 80% 1991.

Commercial Vegetables: Rio Grande Valley, some spraying for insects, mildew occurred. East Texas, land preparation potato planting began, conditions allowing. Some fruit trees budding, blooming with warmer temperatures. Trans-Pecos, onions progressing favorably. Weed control continued. Pecan harvest nearing completion all areas, hampered by wet. Cross Timbers shucks still sticking to nuts.

Range and Livestock: Several areas, condition cattle herds decreasing with increased stress from cold, damp weather. Supplemental feeding continued all areas, with hay supplies short several places. Winter pastures improving with warmer temperatures, wet conditions still limited grazing. Overall livestock fair to good.

UTAH: Temperature maximums 5° less than normal, minimums averaged 4° above normal. Precipitation heavy to very heavy in a swath across the State running from the southwest to the northwest; elsewhere precipitation moderate to heavy.

Recent heavy snow fall has caused problems with feeding cattle, hauling manure. Major farm activities were snow removal, preparing for calving season with some early calving reported. Feed supplies were reported adequate.

VIRGINIA: Temperatures and precipitation above normal. Extremes 20°; 64°. Rain fell much of week with the average near 1.00 in.

Days suitable for fieldwork 1.6. Topsoil moisture 18% adequate, 82% surplus. Winter grains, grazing crops 2% very poor, 11% poor, 52%

(Continued to p. 21)

International Weather and Crop Summary
HIGHLIGHTS

January 10 - 16, 1993

FSU-WESTERN: Unseasonably warm weather diminished protective snow cover in major winter wheat-producing areas.

EUROPE: Mild weather melted snow cover in the northeast. Substantial rain fell in the northwest, but dryness persisted in Spain.

SOUTH ASIA: Light showers fell in northwestern and eastern winter crop areas. Scattered frost was possible in Pakistan and north-central India.

EASTERN ASIA: Rain continued to benefit reservoir levels across central China.

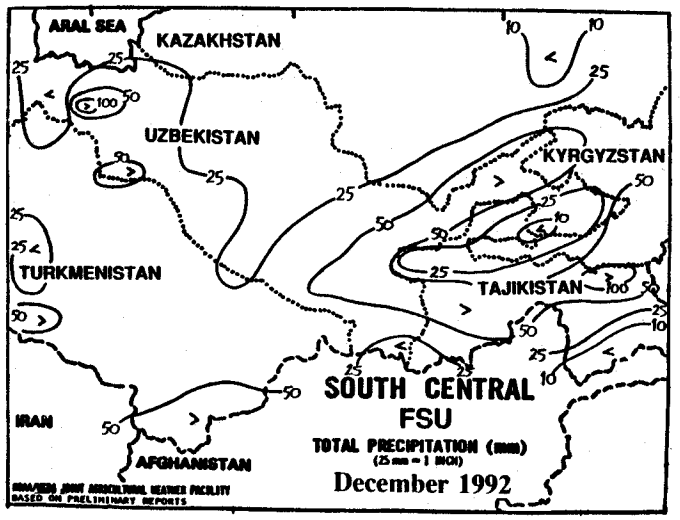
SOUTHEAST ASIA: Rainfall was beneficial for oil palm and rice in Indonesia and Malaysia.

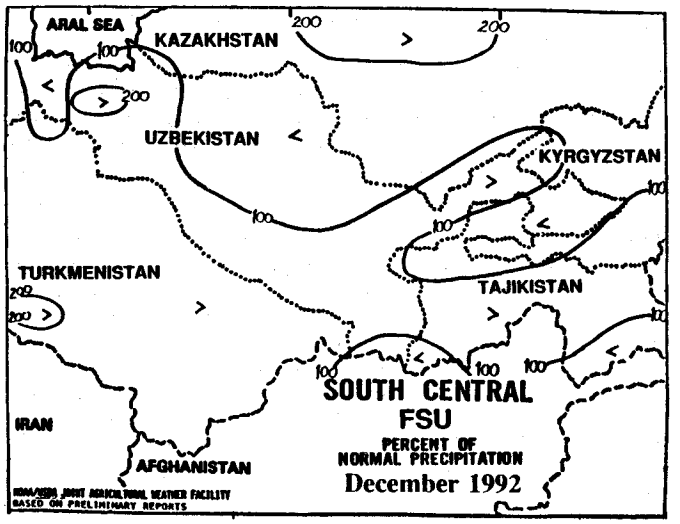
AUSTRALIA: Dry weather favored maturing winter grains and harvesting across southern Australia.

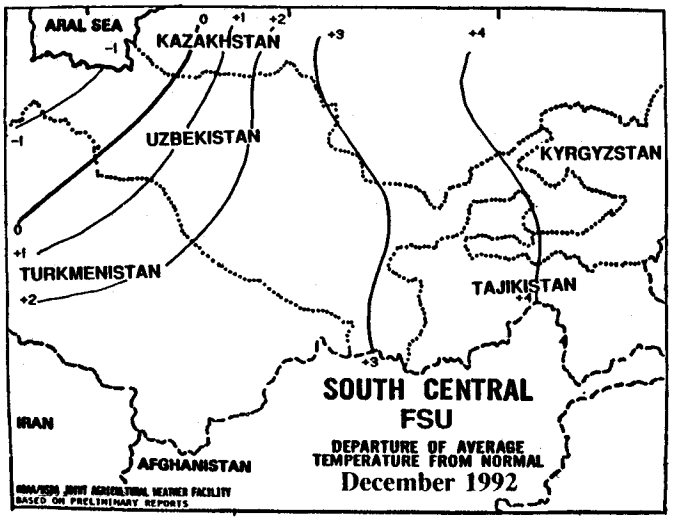
SOUTH AMERICA: Widespread rain favored Brazilian soybeans, while warmer and somewhat drier weather aided Argentine summer crop development.

NORTHWESTERN AFRICA: Drought continued over Moroccan winter grain areas.

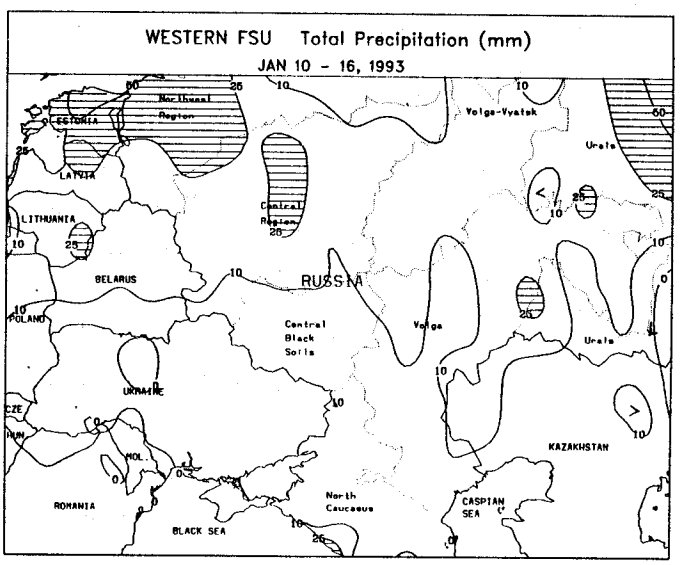
SOUTH AFRICA: Persistent dry, warm weather worsened growing conditions for western corn in or nearing reproduction.

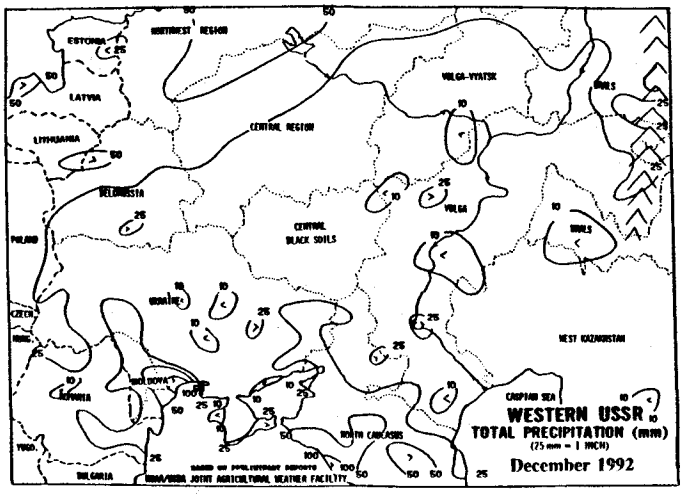


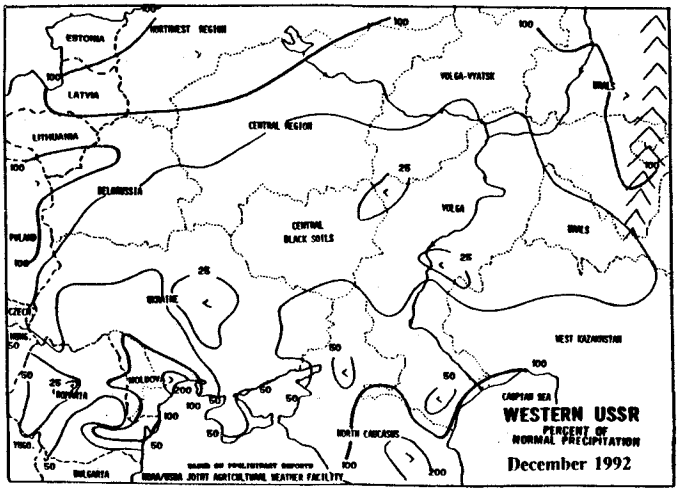


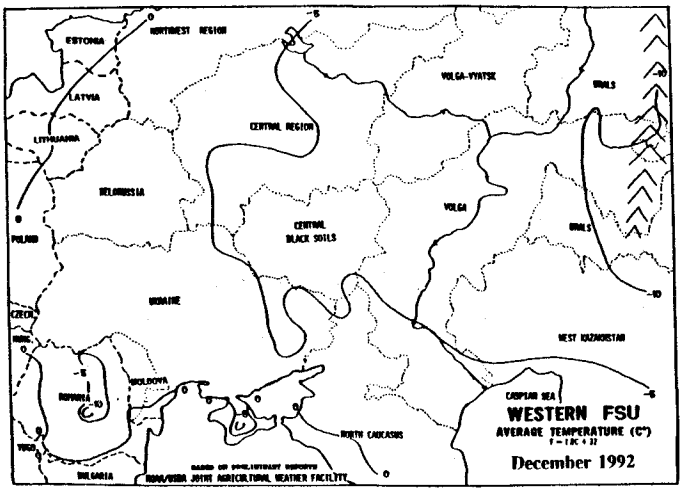


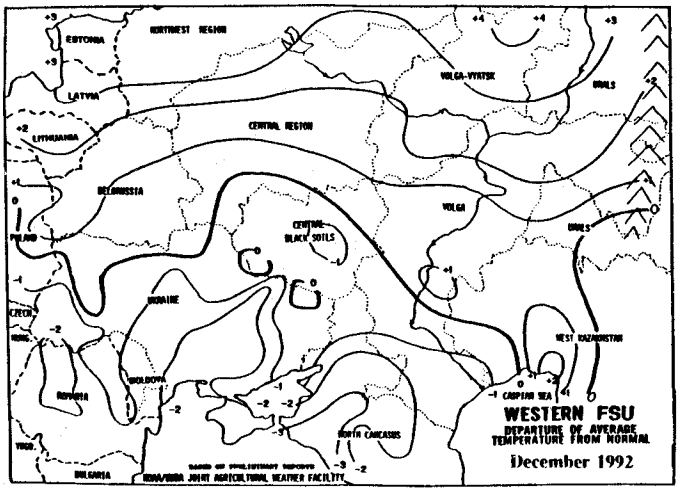
FSU-WESTERN: A pronounced warming trend occurred over most winter grain areas. Highest temperatures during the week ranged from 6 to 12 degrees Celsius (C) in the west and 2 to 6 degrees C in the east. Average temperatures ranged from 1 to 4 degrees C in the Baltic States, Belarus, and Ukraine (8-10 degrees C above normal). Average temperatures in North Caucasus, Central Region, Volga Vyatsk, Central Black Soils, and Volga Valley ranged from 0 to -2 degrees C (2-8 degrees C above normal). While the mild weather provided favorable overwintering conditions, it diminished snow cover in the Baltic States, Belarus, Ukraine, and North Caucasus. Widespread, light precipitation (1-10 mm) covered southern areas, while greater amounts of precipitation (10-31), mainly rain, fell in the north. In December, overwintering conditions for dormant winter grains continued mostly favorable. Below-normal precipitation covered most areas in December, limiting potential moisture recharge. Near- to above-normal temperatures in early December were replaced by a cooling trend by month's end.

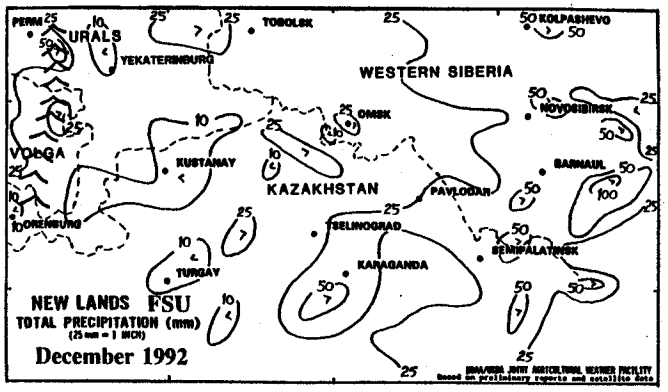


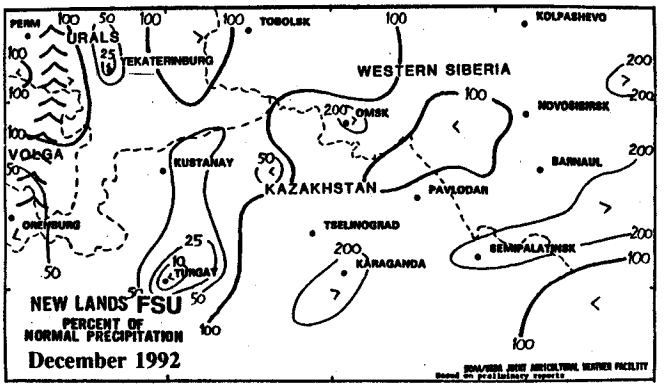


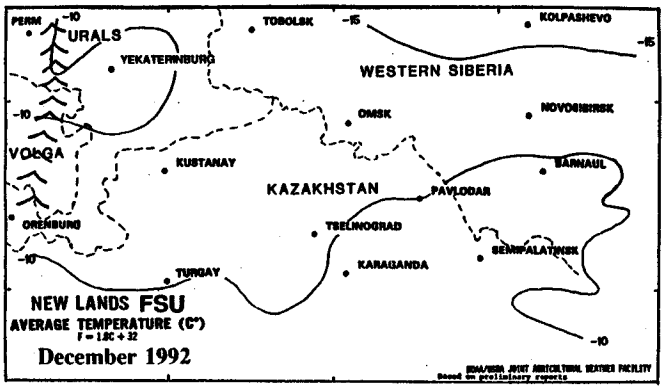


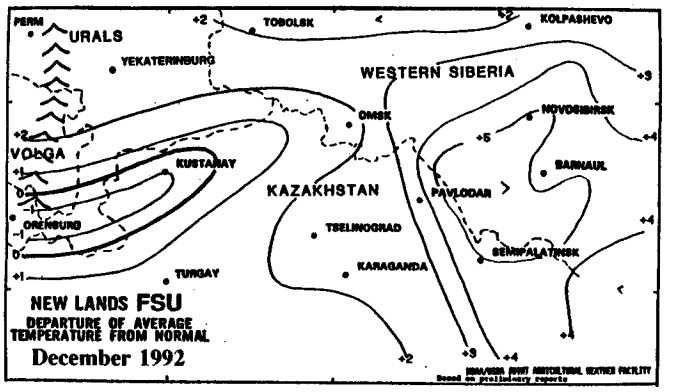


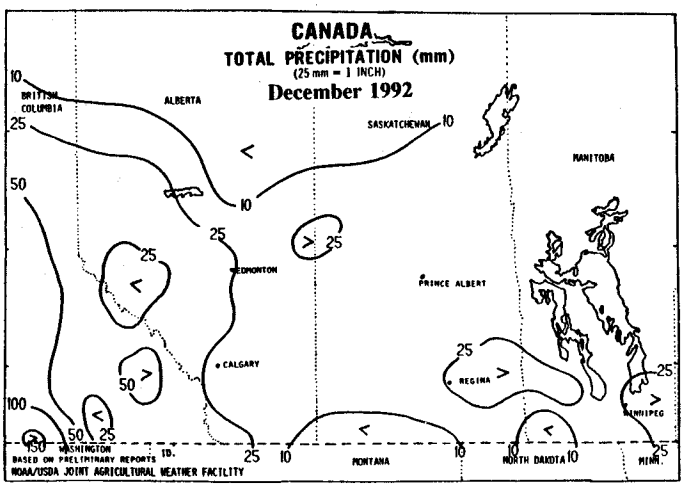


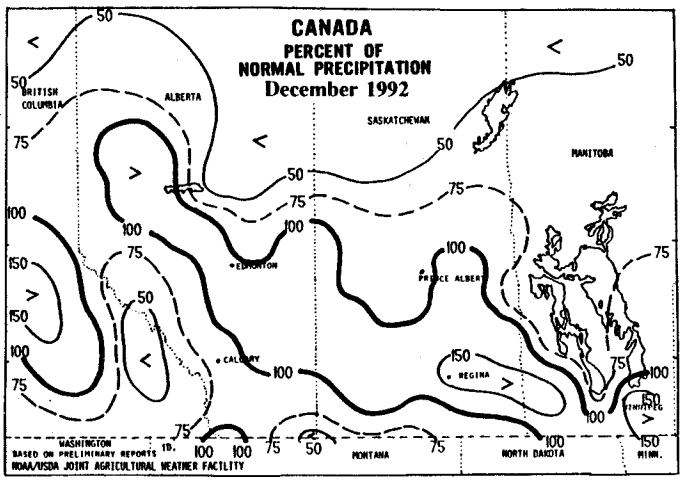

NEW LANDS FSU
TOTAL PRECIPITATION (mm)
(25 mm = 1 INCH)
December 1992
PERM
URALS
YEKATERINBURG
TOBOLSK
KOLPASHEVO
WESTERN SIBERIA
OMSK
NOVOSIBIRSK
VOLGA
KUSTANAY
KAZAKHSTAN
BARNAUL
PAVLODAR
ORENBURG
TSELINOGRAD
SEMIPALATINSK
KARAGANDA
TURGAY
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports and satellite data

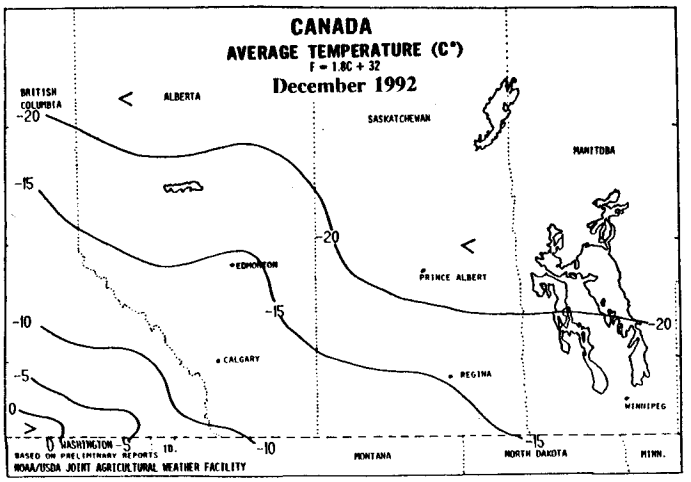

NEW LANDS FSU
PERCENT OF NORMAL PRECIPITATION
December 1992
PERM
URALS
YEKATERINBURG
TOBOLSK
KOLPASHEVO
WESTERN SIBERIA
OMSK
NOVOSIBIRSK
VOLGA
KUSTANAY
KAZAKHSTAN
BARNAUL
PAVLODAR
ORENBURG
TSELINOGRAD
SEMIPALATINSK
KARAGANDA
TURGAY
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

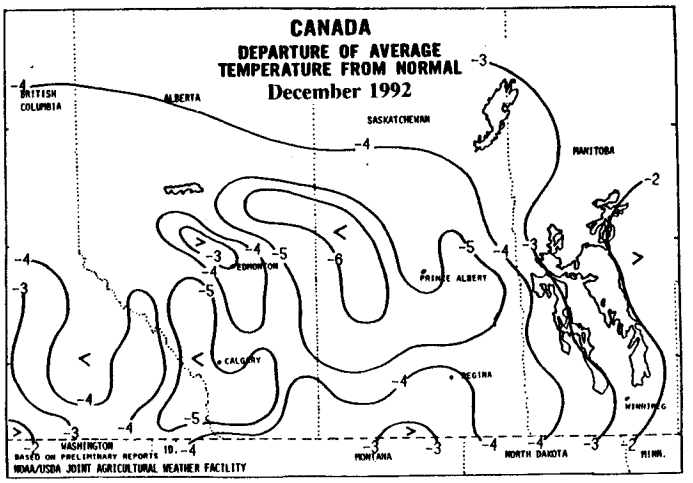

NEW LANDS FSU
AVERAGE TEMPERATURE (C°)
F = 1.8C + 32
December 1992
PERM
URALS
YEKATERINBURG
TOBOLSK
KOLPASHEVO
WESTERN SIBERIA
OMSK
NOVOSIBIRSK
VOLGA
KUSTANAY
KAZAKHSTAN
BARNAUL
PAVLODAR
ORENBURG
TSELINOGRAD
SEMIPALATINSK
KARAGANDA
TURGAY
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


NEW LANDS FSU
DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL
December 1992
PERM
URALS
YEKATERINBURG
TOBOLSK
KOLPASHEVO
WESTERN SIBERIA
OMSK
NOVOSIBIRSK
VOLGA
KUSTANAY
KAZAKHSTAN
BARNAUL
PAVLODAR
ORENBURG
TSELINOGRAD
SEMIPALATINSK
KARAGANDA
TURGAY
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

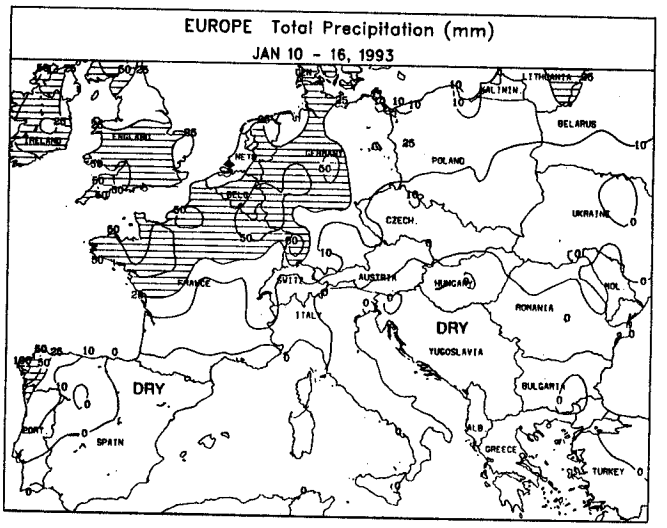

CANADA
TOTAL PRECIPITATION (mm)
(25 mm = 1 INCH)
December 1992
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
EDMONTON
PRINCE ALBERT
CALGARY
REGINA
WINNIPEG
WASHINGTON
ID.
MONTANA
NORTH DAKOTA
MINN.
BASED ON PRELIMINARY REPORTS
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

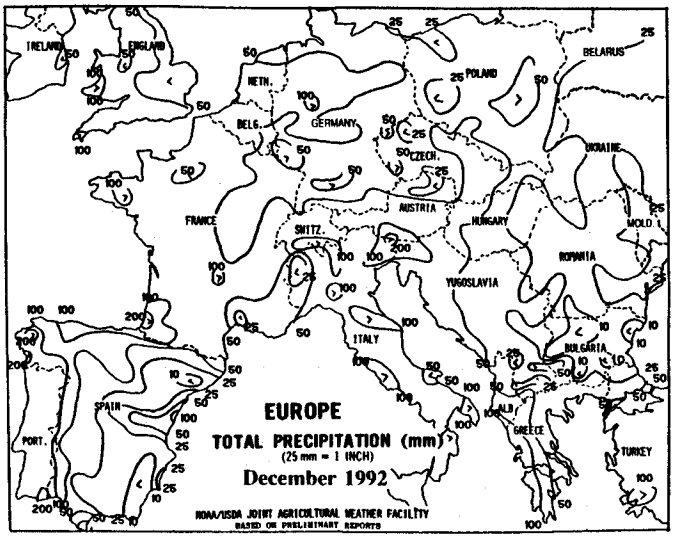

CANADA
PERCENT OF NORMAL PRECIPITATION
December 1992
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
EDMONTON
PRINCE ALBERT
CALGARY
REGINA
WINNIPEG
WASHINGTON
ID.
MONTANA
NORTH DAKOTA
MINN.
BASED ON PRELIMINARY REPORTS
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

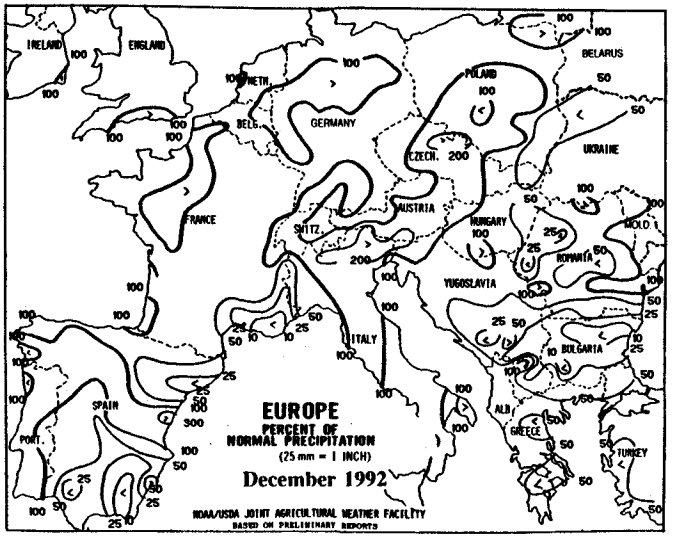

CANADA
AVERAGE TEMPERATURE (C°)
F = 1.8C + 32
December 1992
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
EDMONTON
PRINCE ALBERT
CALGARY
REGINA
WINNIPEG
WASHINGTON
ID.
MONTANA
NORTH DAKOTA
MINN.
BASED ON PRELIMINARY REPORTS
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

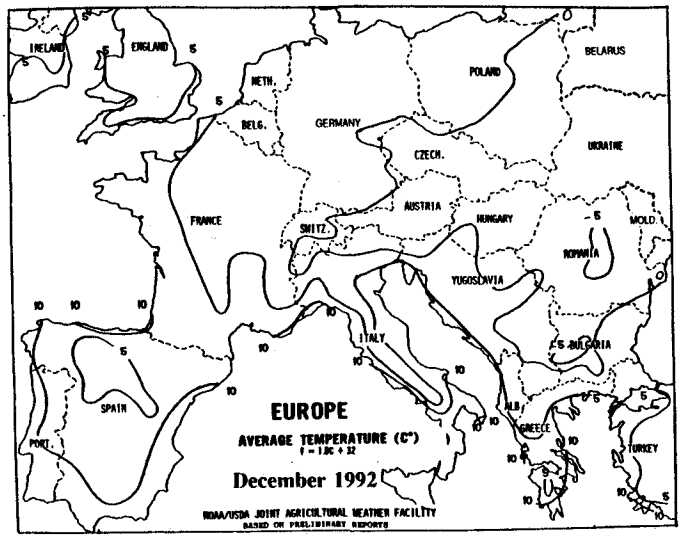

CANADA
DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL
December 1992
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
EDMONTON
PRINCE ALBERT
CALGARY
REGINA
WINNIPEG
WASHINGTON
ID.
MONTANA
NORTH DAKOTA
MINN.
BASED ON PRELIMINARY REPORTS
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

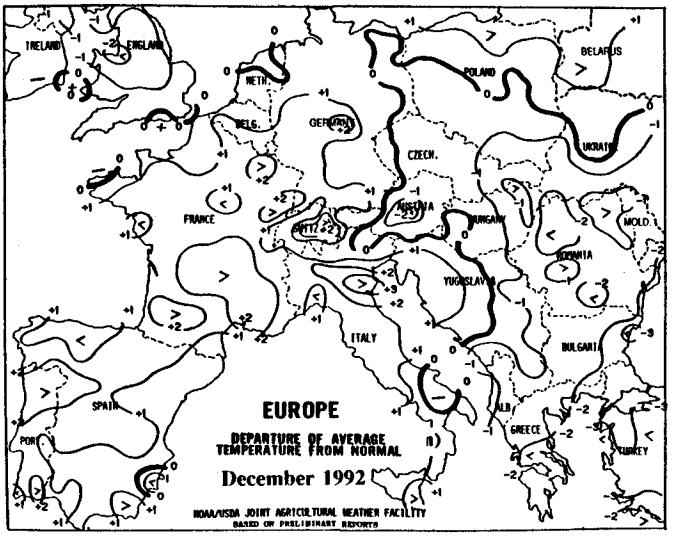
EUROPE: Precipitation was confined mostly to the northwest, with locally heavy rain (50-107 mm) covering the United Kingdom, northern France, and northwestern Germany. The rain, which diminished to less than 5 mm in southern Poland, provided beneficial moisture for dormant winter grains across the north. However, dry weather persisted over most of the Iberian peninsula, which has been unseasonably dry during the winter "wet" season. Normally, about 2-4 inches of rain fell during December and January in Spain. Temperatures averaged 4-8 degrees C above normal over all except Mediterranean areas of Europe. Minimum temperatures averaged above freezing in the northeast, melting the shallow snow cover. In December, well-below-normal rainfall in southeastern Spain and over most of the Balkan region signaled a poor start to the Mediterranean wet season. Elsewhere, highly variable precipitation fell over winter crops advancing into dormancy, with below-average temperatures prevailing in the east and above-normal temperatures in the west.

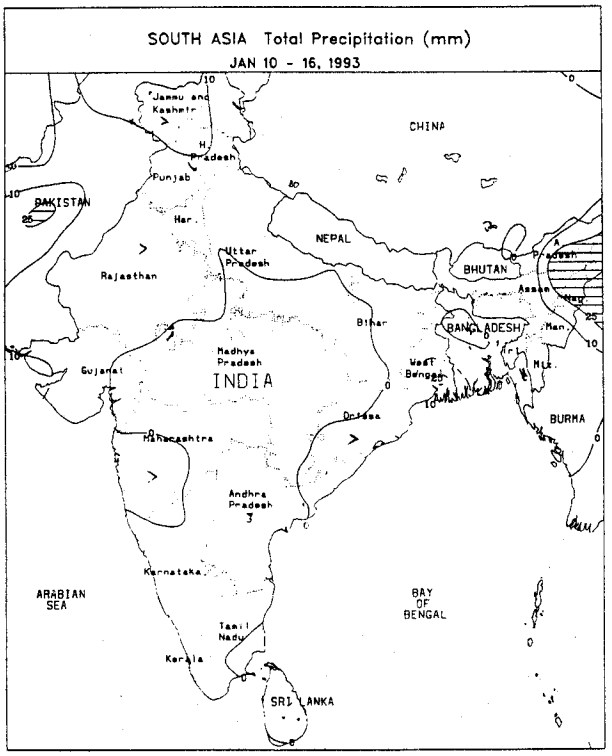




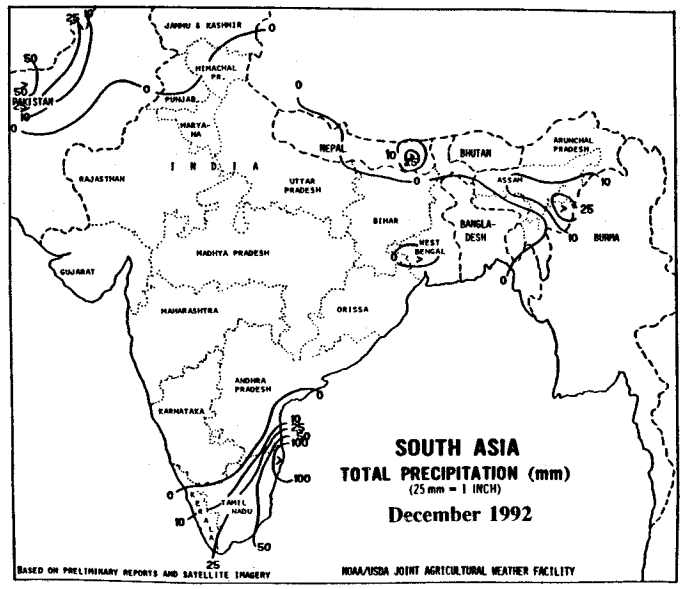


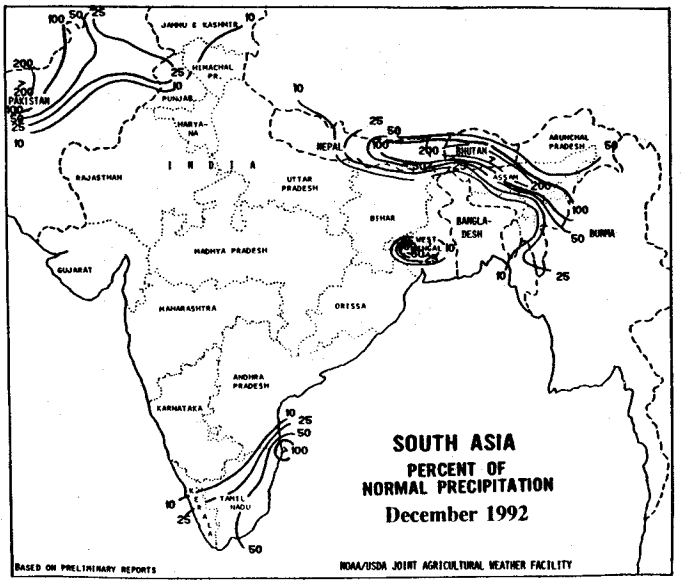


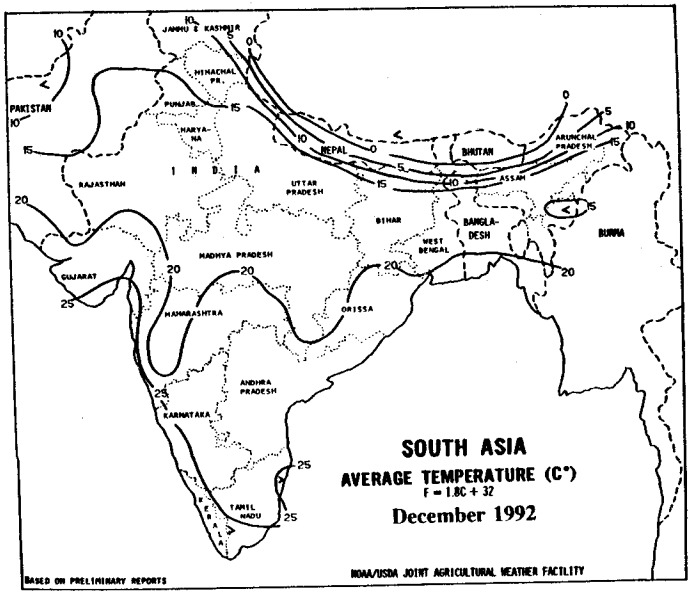


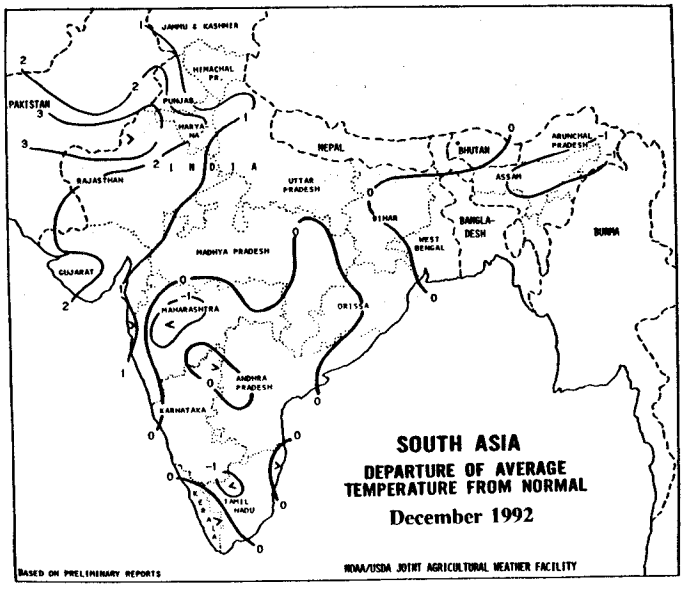


SOUTH ASIA: Scattered, light showers (10 mm or less) fell over crop areas of Pakistan and northwest India as isolated rain (locally as high as 35 mm) dotted the far east. Across northern winter oilseed and grain areas into eastern India, temperatures averaged 1-3 degrees C below normal, with local frost possible in northern Pakistan and northwestern India. During December, dry, seasonably mild temperatures across the region favored winter crop planting and establishment and summer crop harvests. Rain fell in coastal rice areas of southeastern India, although total amounts were below normal.

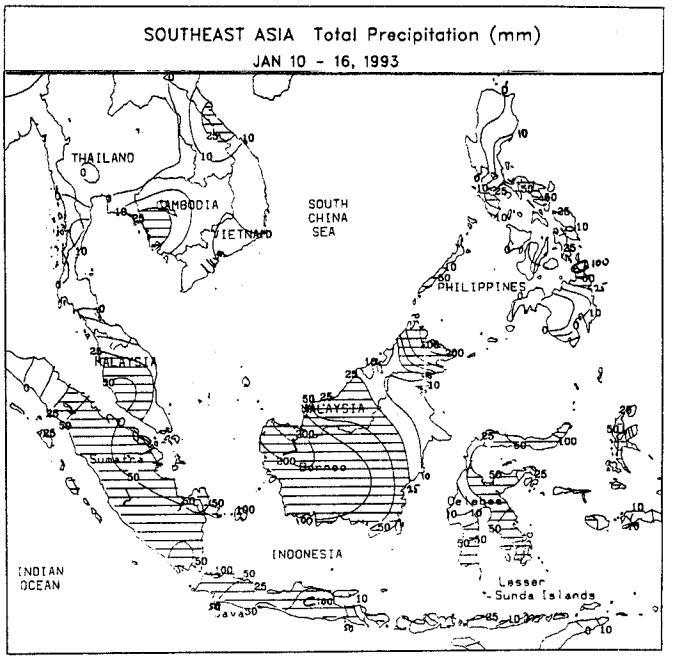


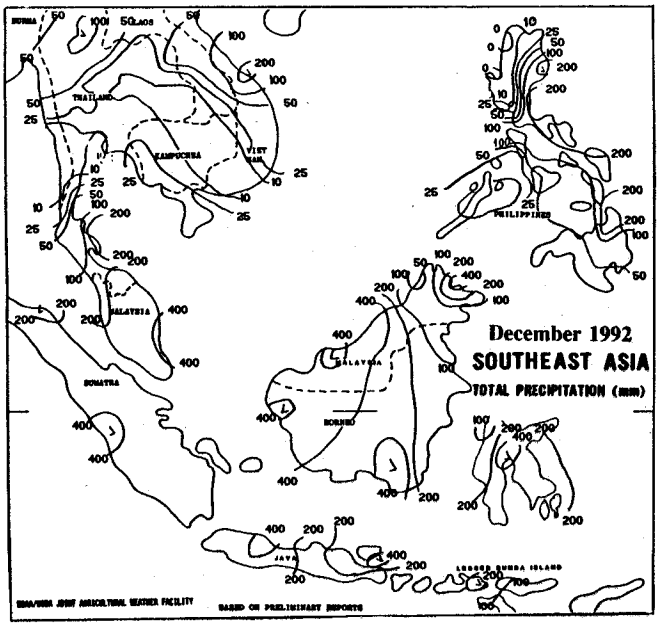


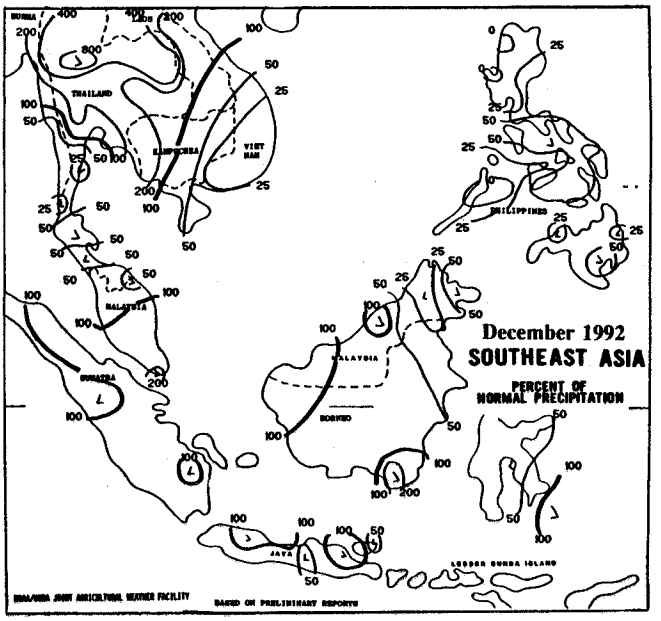


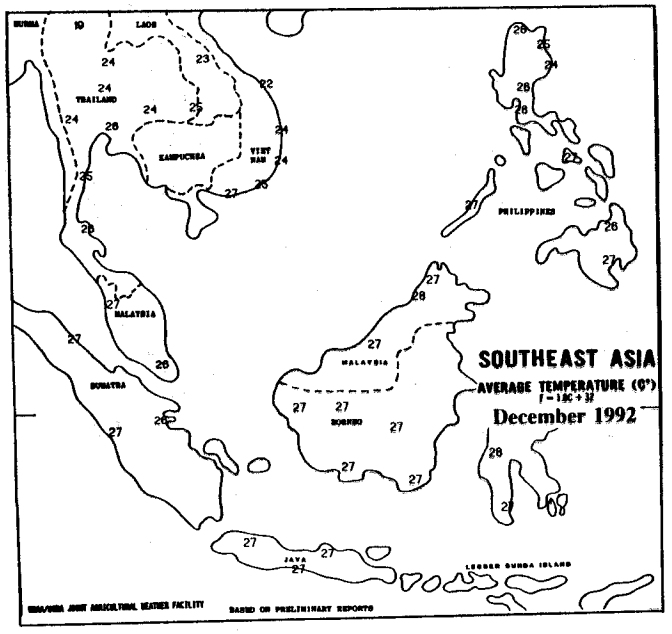


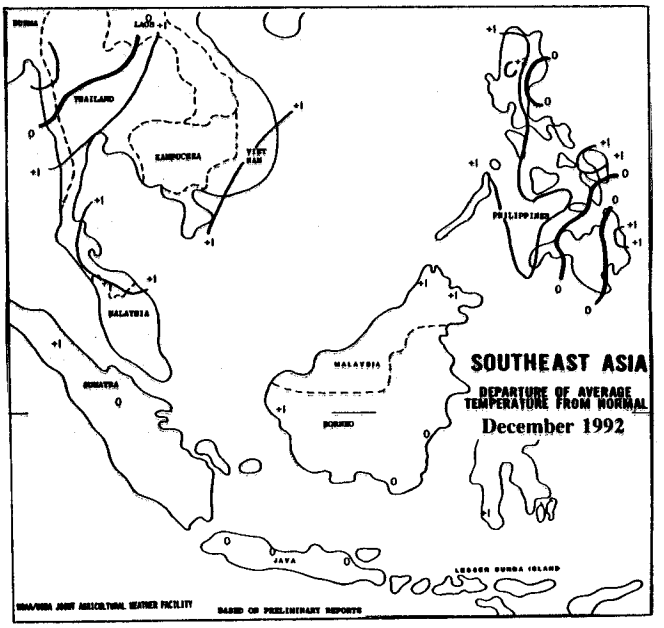
SOUTHEAST ASIA: Moderate to heavy showers (25-50 mm or more) covered Indonesia and Malaysia's primary rice and oil palm regions. Drier-than-normal weather persisted over peninsular Thailand. During December, rainfall was near to above normal over Indonesia and Malaysia, and near to below normal over Thailand's peninsular rice and plantation regions. Unseasonably moderate to heavy rain (25-100 mm or more) over northern Indochina boosted reservoir levels. In the Philippines, scattered, moderate to heavy rain (25-114 mm) fell in eastern crop areas. However, rainfall totals were below normal, reflecting December's pattern of frequent shower activity but insufficient totals to keep up with normals.

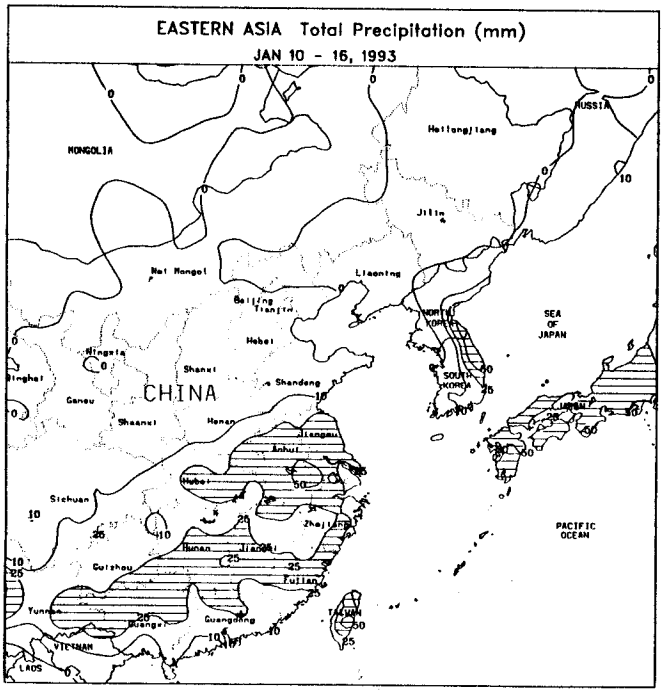




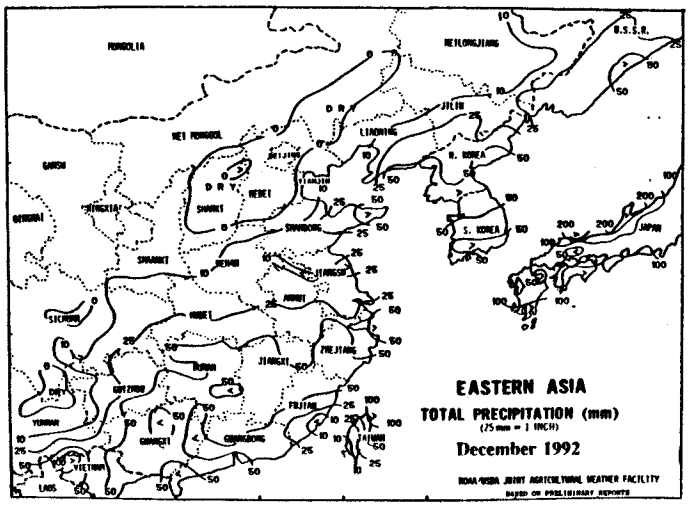


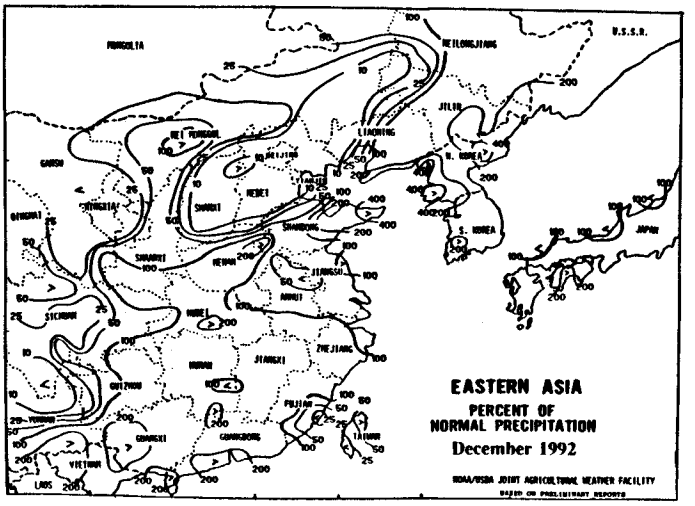


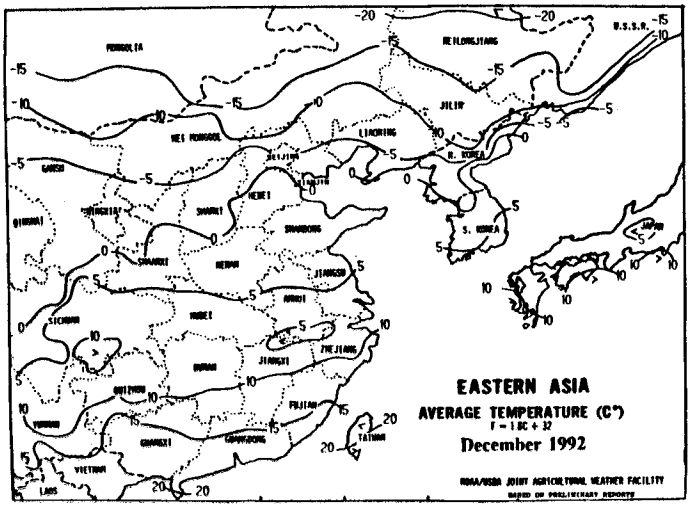


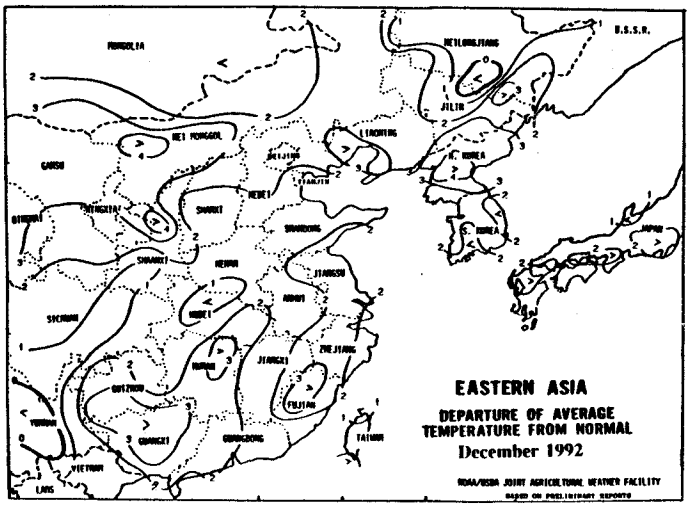


EASTERN ASIA: Light to moderate rain (5-55 mm) covered the southern two-thirds of China, with the heaviest rain confined to the lower Yangtze Valley. The moisture favored reservoir levels throughout southern China and aided semi-dormant winter wheat across the southern North China Plain (Anhui, Jiangsu, and Henan). In Shanxi and Hebei, minimum temperatures ranged from -10 to -15 degrees C, causing possible winterkill to winter wheat. During December, the North China Plain was seasonably dry, while central and southern China received near- to above-normal rainfall, aiding reservoir levels.

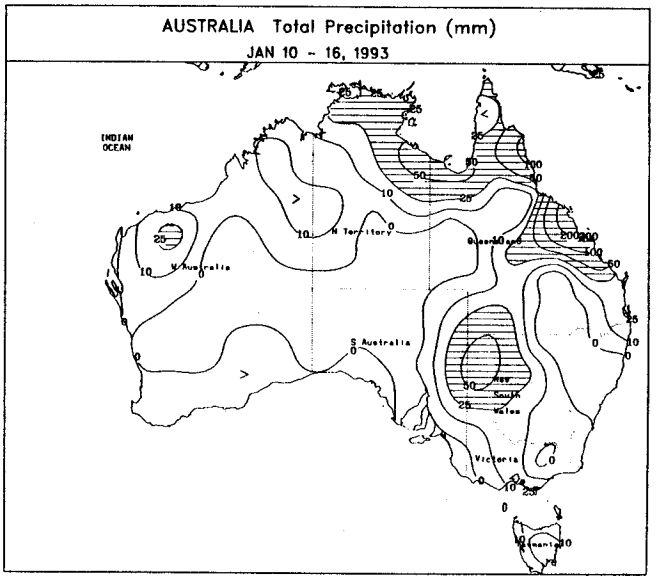


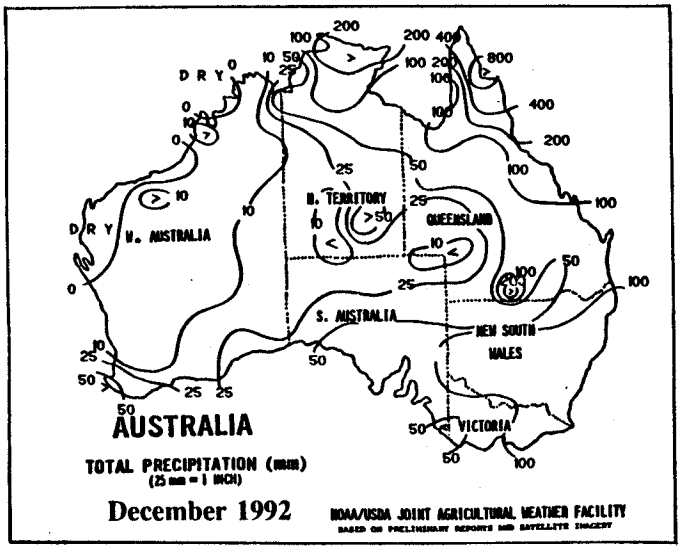


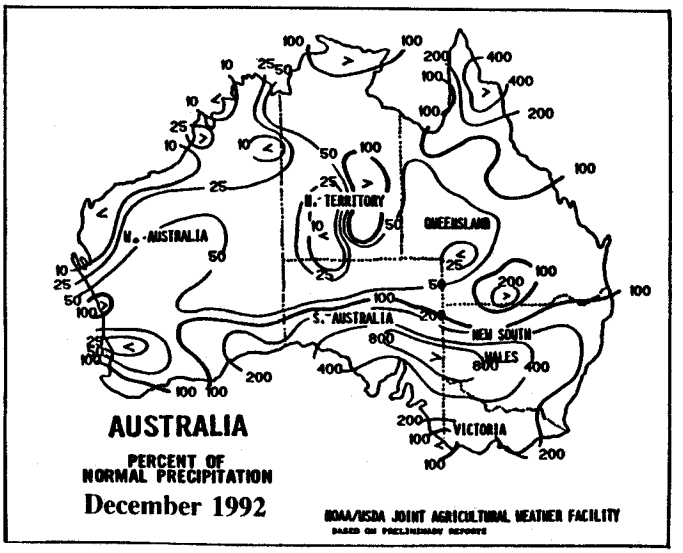


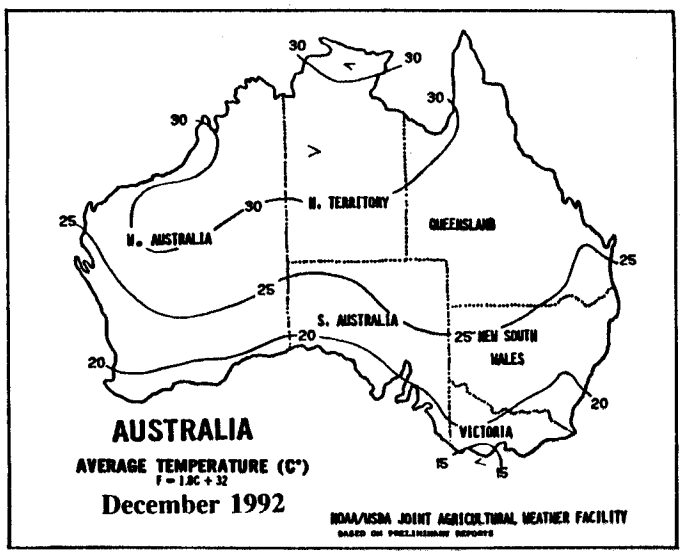


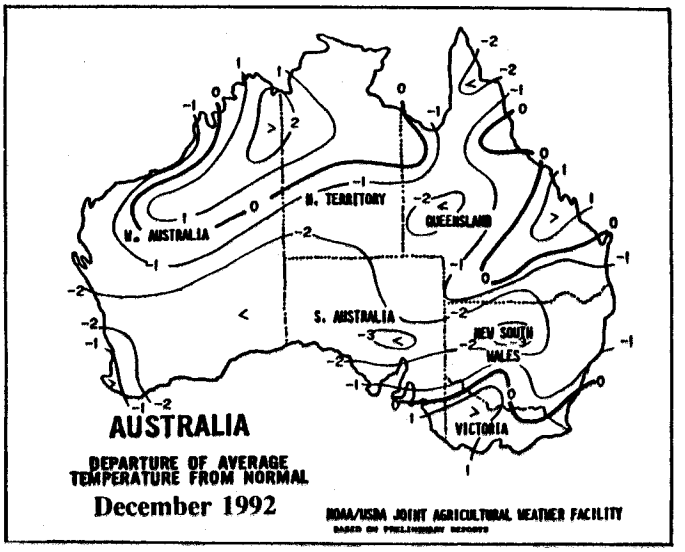
AUSTRALIA: Mostly dry weather continued to favor winter wheat harvesting in South Australia, while harvesting neared completion in Western Australia. Light to moderate rain (2-18 mm) slowed wheat harvesting in Victoria and southern New South Wales. Northeastern Queensland received abundant rains (50-120, with isolated amounts greater than 200 mm) favoring sugarcane, but causing local flooding. Temperatures averaged 2-4 degrees C above normal across the southern wheat areas, aiding the drydown of winter wheat. Above- to much-above-normal (200-800 percent of normal) December rainfall was reported across South Australia, New South Wales, and Victoria, delaying wheat harvesting and contributing to quality and disease problems. November and December 1992 combined ranked among the wettest in the last 40 years in that region. The above-normal rains favored summer crops in New South Wales.

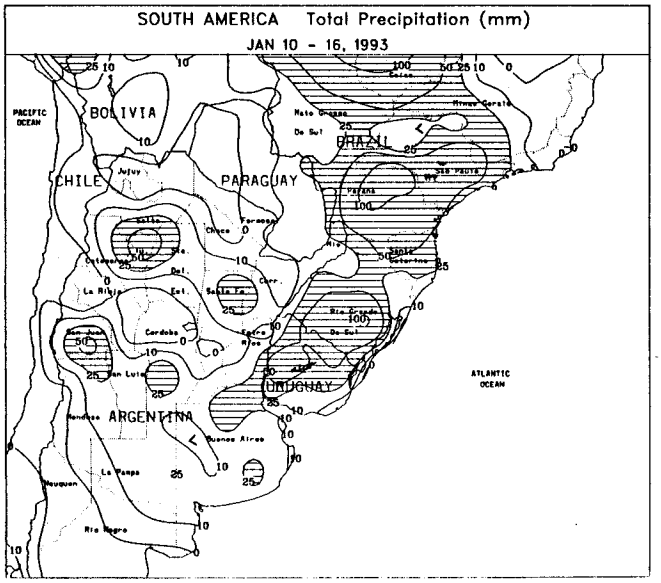




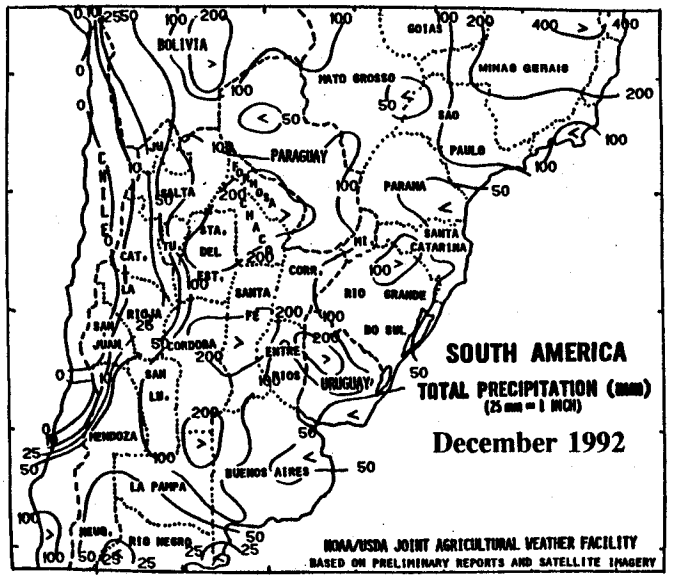


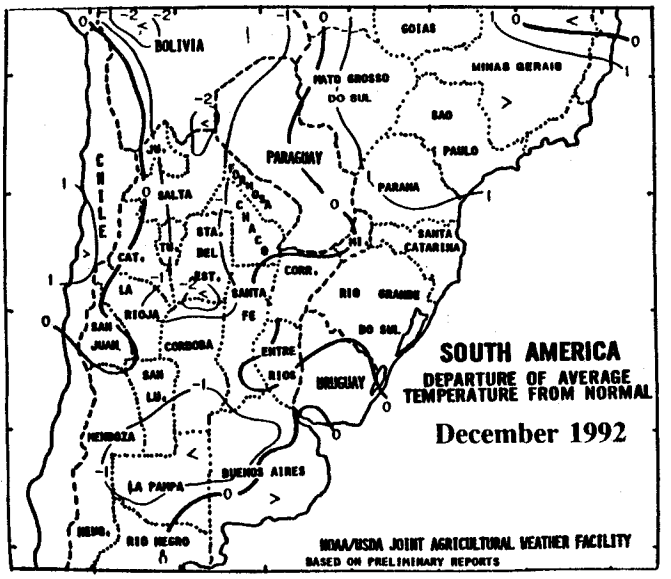


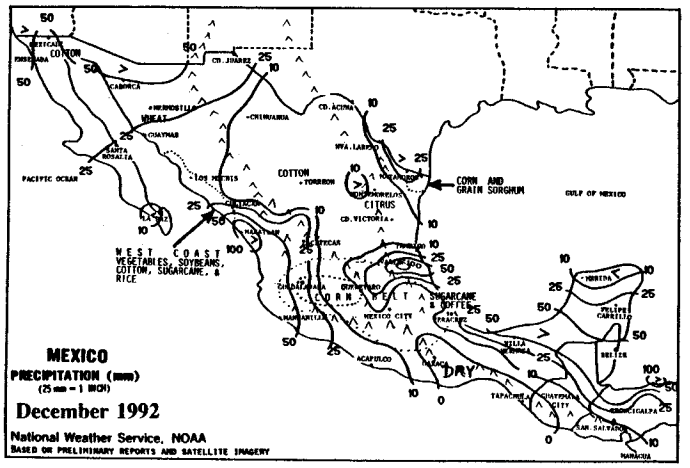


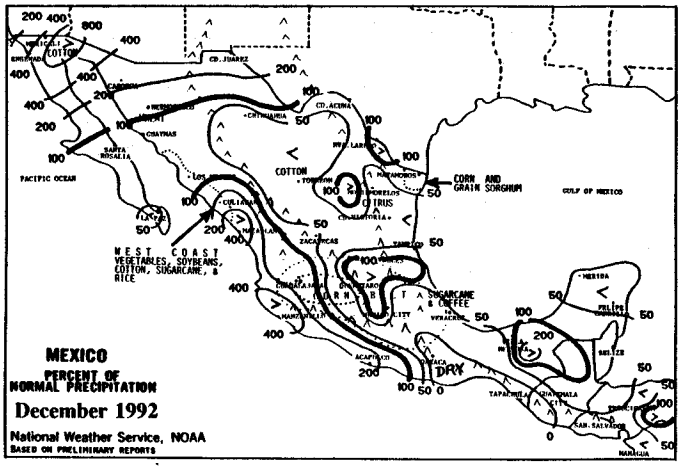


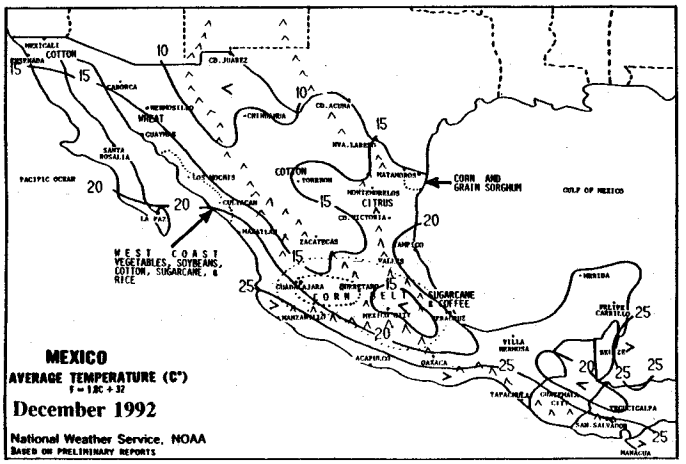
SOUTH AMERICA: Widespread showers (22-90 mm) covered southern Brazil's main soybean belt, increasing soil moisture for vegetative to reproductive soybeans. Heavier showers (100-225 mm) fell in northern Parana, causing some local flooding. The rain was accompanied by moderate temperatures (maximum temperatures ranged from the upper 20's to the lower 30's), averaging only slightly above normal. The rain improved moisture conditions after much of the soybean region received only half or less than the normal December rainfall. In Argentina, scattered light to moderate rain (7-18 mm, with isolated amounts of 33-50 mm) fell mainly across Buenos Aires, Cordoba, and La Pampa. Temperatures averaged 1-3 degrees C above normal, with maximum temperatures ranging from the low to mid-30's. The drier and warmer weather favored late sowing and early crop development of sunseed, soybeans, and corn. During December, most of the Argentine crop areas received near- to above-normal rainfall, delaying winter wheat harvesting and slowing summer crop planting. Heavy rains in the north forced cotton replanting and contributed to poor early development. However, soil moisture levels remained adequate to abundant for summer crops.

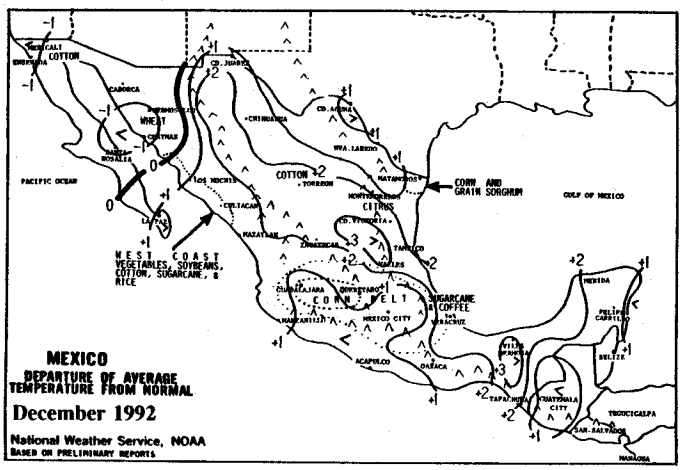












(Continued from p. 11)
fair, 35% good. Forage from pastures, grazing crops dairy cattle 4%, beef cattle 19%, sheep 19%. Marketing dark-fired, burley tobacco, repairing machinery, fences, laying out Maple syrup tubing, preparing for taxes.

WASHINGTON: Temperatures 5° below normal to 11° below normal west; 9° below normal to 21° below normal, east. Precipitation none to 0.05 in. west; none to 0.83 in. east.

Soil moisture 20% short, 72% adequate, 8% surplus. Hay, other roughage 31% short, 54% adequate, 15% surplus. Range, pasture 64% very poor, 21% poor, 9% fair, 6% good. Winter wheat dryland 40% fair, 60% good; irrigated 100% good. Barley dryland 55% fair, 45% good; irrigated 100% good. Persistent frigid weather restricted all but essential farm activity. Most crops safe under snowcover. Some winter wheat injury expected on hilltops blown bare by strong winds. Frozen ground, bitter cold making early calving difficult, extending winter feeding programs.

WEST VIRGINIA: Temperature 38°. Extremes 22°; 59°. Precipitation 0.42 in.

Hay feed supplies adequate. Other feed supplies adequate. Cattle good. Sheep good. Activities: feeding livestock, bookkeeping.

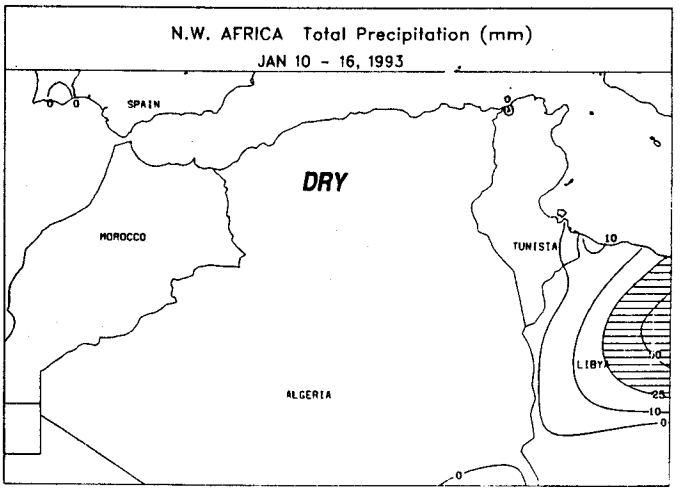
WISCONSIN: Average temperature 17°. Extremes -19°; 36°. The first major snow storm of the winter 11th through morning of the 13th. Final storm snowfall totals 4 to 8 in. north, south with a band of 8 to 13 in. central part of the State. Light snow lingered on the 13th to 14th.

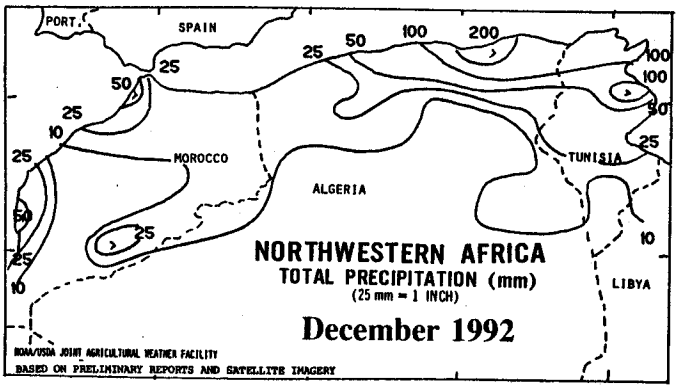
Corn harvested 77% as of 17th. There was no change in the last 2 weeks. Weather past week put an end to any thoughts of corn harvest in the future. Most will have to wait until spring.

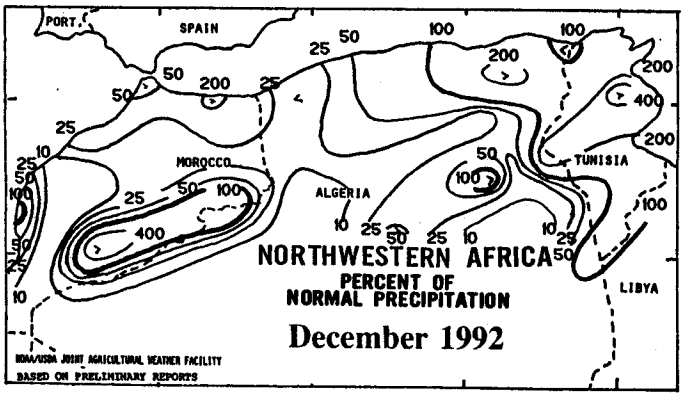
WYOMING: Cold week. Temperatures 9 to 23° below normal across most of the State. The exception was the southwest, south central temperatures 1 to 11° below normal. Precipitation 0.10 to 0.50 in. above normal with the exception of a few areas in the eastern half.

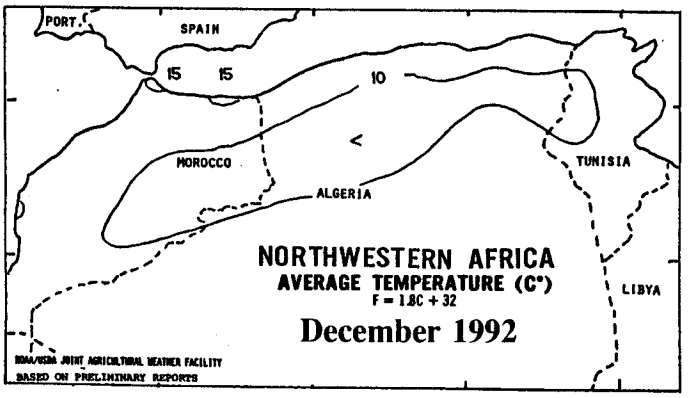
1993 Winter wheat crop fair to good, snowcover adequate in most areas. Livestock mostly good. Snow, cold weather increasing feed requirements. Some stress due to wind, cold temperatures. Supplemental feeding continuing. Farm, ranch activities include feeding, caring for livestock, routine maintenance, preparation for calving, lambing, tax season.

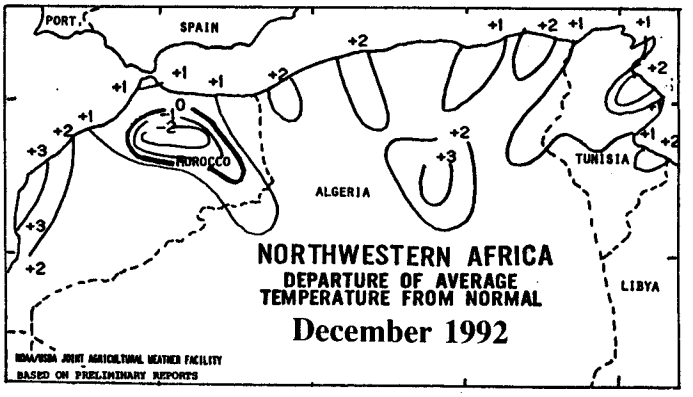
NORTHWESTERN AFRICA: Drought continued over winter grain areas in Morocco and western Algeria. Cumulative precipitation since October has been well below normal and insufficient for proper germination and early development. Widespread, soaking rains are needed soon to prevent further crop deterioration. Further east, dry weather prevailed over winter grain areas in eastern Algeria and Tunisia. Well-above-normal precipitation in these areas in December provided abundant moisture for winter grain emergence and early establishment.











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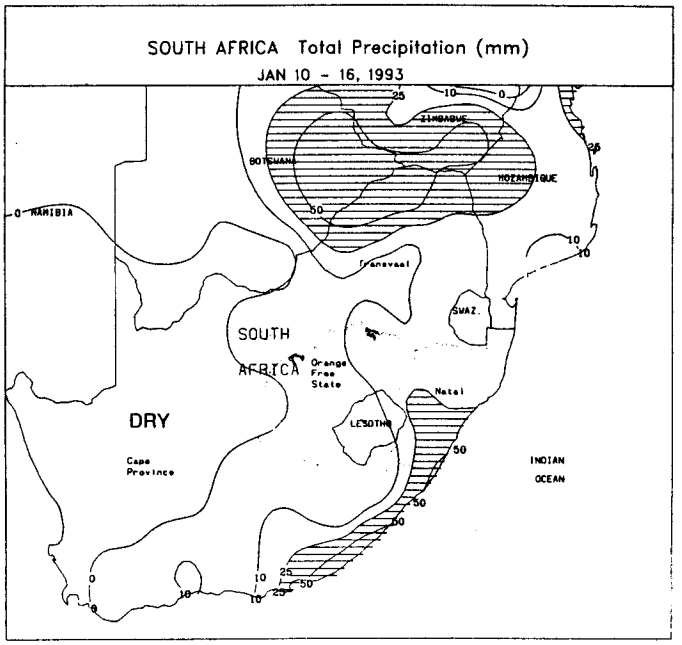
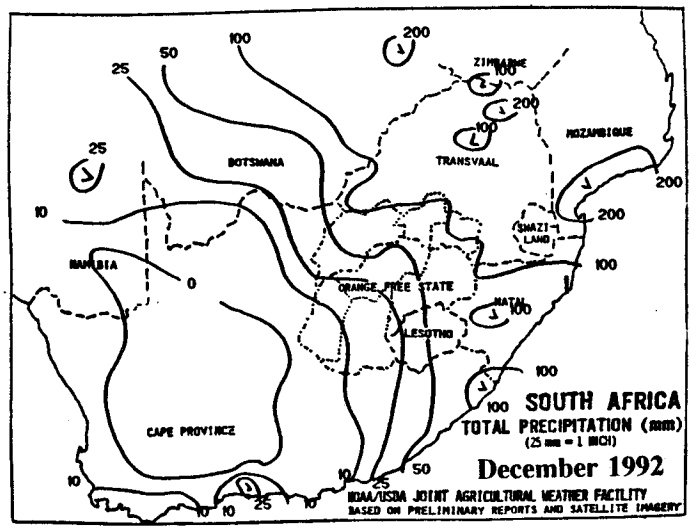
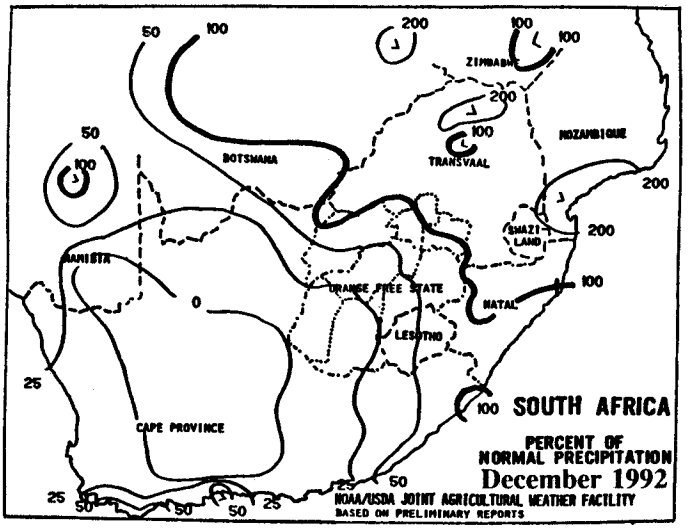
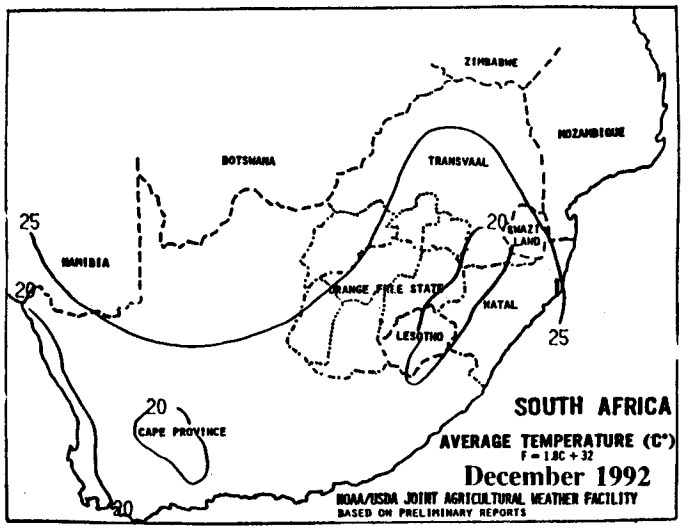
CITIES	JULY 1, 1992 to JANUARY 20, 1993		JULY 1, 1991 to JANUARY 20, 1992	
	Precipitation (inches)	% of normal precip	Precipitation (inches)	% of normal precip
Bakersfield	5.27	222	2.92	143
Blue Canyon	N/A	N/A	N/A	N/A
Eureka	20.35	98	8.52	41
Fresno	10.17	214	4.00	84
Los Angeles	17.12	255	5.55	83
Redding	25.71	118	10.88	50
Sacramento	14.18	158	4.09	46
San Diego	11.28	253	4.78	107
San Francisco	16.46	158	7.38	71
Santa Maria	9.11	167	5.77	106

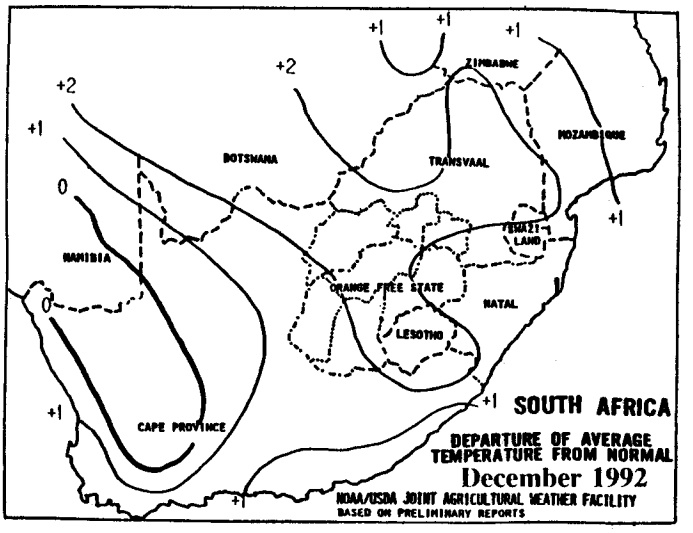


SOUTH AFRICA: Mostly dry, warm weather persisted over South Africa's western corn areas, with southwestern Transvaal and central and western Orange Free State receiving less than 10 mm. Temperatures, while somewhat milder than last week, reached the low to mid 30's C, enhancing crop moisture demand. The present drying trend started in December, resulting in below-normal monthly rainfall accumulations and temperatures averaging 2-3 degrees C above normal. These were the areas hit hardest by last year's drought, which depleted subsoil moisture reserves. Following November's beneficial rainfall, conditions are critically dry for crops in or nearing reproduction. In contrast, light to moderate showers (10-25 mm or more) returned to eastern crop areas, with locally heavy showers (40-92 mm) falling over coastal crop regions of Natal and eastern Cape Province. Near-normal December rainfall benefited corn currently reproducing but temperatures 1-2 degrees C above normal increased crop moisture usage.









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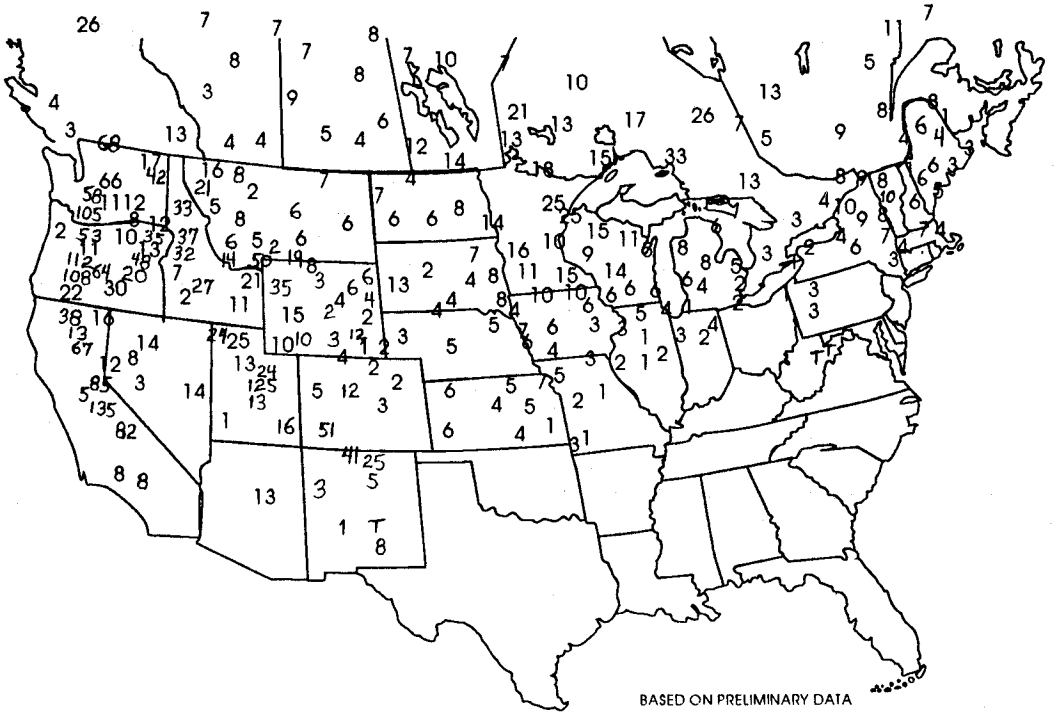
Total Snow Cover (Inches)
January 19, 1993



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