

METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR NOVEMBER 1943

[Climate and Crop Weather Division, J. B. KINCER, in charge]

AEROLOGICAL OBSERVATIONS

NOTICE.—Effective with the December 1942 issue, the publication of table 1 (RAOB summaries) was discontinued indefinitely.—EDITOR.

TABLE 2.—Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during November 1943. Directions given in degrees from North (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second.

Table with 15 columns of station names (Abilene, Albuquerque, Atlanta, Billings, Bismarck, Boise, Browns-ville, Buffalo, Burlington, Charles-ton, Cincinnati, Denver, El Paso, Ely, Grand Junction, Greensboro, Havre, Jackson-ville, Joliet, Las Vegas, Little Rock, Medford, Miami, Mobile, Nashville, New York, Oakland, Oklahoma City, Omaha, Phoenix, Rapid City, St. Louis, St. Paul, San Antonio, San Diego, Sault Ste. Marie, Seattle, Spokane, Washington) and rows for altitude (Surface, 500, 1,000, 1,500, 2,000, 2,500, 3,000, 4,000, 5,000, 6,000, 8,000, 10,000, 12,000) with sub-columns for Observations, Direction, and Velocity.

TABLE 3.—Maximum free-air wind velocities (m. p. s.), for different sections of the United States, based on pilot-balloon observations during November, 1943.

Section	Surface to 2,500 meters (m. s. l.)				Between 2,500 and 5,000 meters (m. s. l.)				Above 5,000 meters (m. s. l.)						
	Max. velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Max. velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Max. velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast ¹	41.7	n.	1,580	24	Philipsburg, Pa.	42.6	nw.	5,000	12	Boston, Mass.	49.6	w.	6,980	20	Philipsburg, Pa.
East Central ²	37.9	wnw.	2,500	13	Raleigh, N. C.	58.4	ssw.	4,850	8	Huntington, W. Va.	64.0	ssw.	5,660	8	Huntington, W. Va.
Southeast ³	29.8	sw.	2,090	9	Charleston, S. C.	43.6	sw.	3,600	8	Atlanta, Ga.	60.0	w.	18,150	20	Jacksonville, Fla.
North Central ⁴	43.2	nw.	1,430	18	Duluth, Minn.	59.6	nw.	4,900	12	St. Paul, Minn.	73.8	wnw.	12,420	20	Detroit, Mich.
Central ⁵	35.6	ssw.	2,500	17	Joliet, Ill.	45.5	nw.	4,590	12	St. Louis, Mo.	72.0	nw.	7,560	12	St. Louis, Mo.
South Central ⁶	31.0	wnw.	2,360	8	Texarkana, Ark.	44.7	wsw.	4,150	7	Houston, Tex.	67.0	w.	16,050	28	Big Spring, Tex.
Northwest ⁷	33.8	sw.	1,640	29	Eugene, Oreg.	48.0	wnw.	4,600	5	Burns, Oreg.	67.0	nw.	8,520	5	Medford, Oreg.
West Central ⁸	27.7	w.	2,490	5	Cheyenne, Wyo.	46.8	nnw.	4,280	6	Modena, Utah	66.0	nnw.	5,540	6	Modena, Utah
Southwest ⁹	25.3	se.	770	16	Bakersfield, Calif.	40.0	nw.	5,000	6	Winslow, Ariz.	73.0	wsw.	12,230	3	Phoenix, Ariz.

¹ Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
² Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
³ South Carolina, Georgia, Florida, and Alabama.
⁴ Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.

⁵ Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
⁶ Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
⁷ Montana, Idaho, Washington, and Oregon.
⁸ Wyoming, Colorado, Utah, northern Nevada, and northern California.
⁹ Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS

By C. R. JORDAN

PRECIPITATION during November was below normal over most of the country. The northeastern States, and Mississippi, Alabama, Michigan, Wisconsin, and Minnesota were the only ones that had above normal precipitation. The greatest deficiencies reported for November were in the far Southwest, the Central and Southern Plains, and the lower Missouri Valley. Arkansas had the driest November since 1910, and Arizona and Oklahoma since 1932.

The dry weather that has persisted over most of the country for 3 or 4 months is reflected in subnormal stream flow; very little flooding occurred during November.

Moderate to heavy rains over the northeastern States on November 8 and 9, with 24-hour amounts as great as 4 inches, produced light flooding in some streams in that area.

Atlantic Slope Drainage.—Slight damage was caused by high water in the Kennebec and Androscoggin Valleys on November 9 and 10. No towns were affected but a number of fields were overflowed.

A sharp rise in stages occurred in the headwater tributaries of the Merrimack Basin on November 9 as a result of the rain which began in that area on the morning of the 8th. The rise in both the Pemigewasset and Bakers Rivers was very rapid and bankful stages were reached above Bristol, N. H. Water overflowed farm land and roads at a few scattered places but no important damage resulted.

Precipitation resulting from the same storm over the Connecticut River Valley caused a rise in that stream and flood stage at Hartford, Conn., was exceeded slightly from November 10 to 12. Minor flooding occurred at a few low places in the vicinity of Hartford, but damage was confined principally to inconvenience to construction work along the main river and in the channel of the Park River at Hartford. River traffic was slowed to some extent but not disrupted during the high-water period.

The Lehigh River at Lehigh, Pa., and the Schuylkill River at Reading and Philadelphia, Pa., were slightly above flood stage on November 9.

Pacific Slope Drainage.—Moderate to heavy rain fell along the Oregon coast on November 4 and 5 and produced some light flooding along the McKenzie River at Leaburg, Oreg., and along the Santiam River in the vicinity of Jefferson, Oreg. No damage was reported.

FLOOD-STAGE REPORT FOR NOVEMBER 1943

[All dates in November]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
Bakers: Rumney, N. H.	Feet 8	9	9	Feet 8.4	9
Pemigewasset:					
Woodstock, N. H.	10	9	9	11.1	9
Plymouth, N. H.	11	9	10	15.6	9
Connecticut: Hartford, Conn.	16	10	12	17.1	11
Lehigh: Lehigh, Pa.	9	9	9	12.3	9
Schuylkill:					
Reading, Pa.	13	9	9	15.1	9
Philadelphia, Pa.	11	9	9	11.2	9
PACIFIC SLOPE DRAINAGE					
<i>Columbia Basin</i>					
McKenzie: Leaburg, Oreg.	12	4	5	13.7	4
Santiam: Jefferson, Oreg.	13	5	5	14.2	5

ESTIMATED FLOOD LOSSES AND SAVINGS FOR 1941¹

BY BENNETT SWENSON

The monetary losses from floods during the year 1941 have been estimated at nearly \$40,000,000 and a total of 47 lives were lost. The savings, as the result of the flood forecasting and warning service, are reported at about 7 million dollars. These losses and savings, shown in the table below, are somewhat below the average annual loss and saving for the period 1924 to 1941 of about \$90,000,000 and \$14,500,000 respectively.

Outstanding among the floods during 1941 were the series of floods in the interior of the country from New Mexico and Texas northeastward to Illinois and Wisconsin. These floods occurred intermittently from April through October, and were severe in portions of the Rio Grande, Arkansas, Missouri, and upper Mississippi River basins.

Generally, drought conditions prevailed east of the Mississippi River. West of the Mississippi, except in the Northwest, abundant precipitation and extensive flooding was the rule.

¹ Annual flood losses and savings for previous years have been published in the Monthly Weather Review as follows:

Year	Issue of Review	Pages
1933	Vol. 62, No. 1, Jan. 1934	25-27
1934	Vol. 62, No. 12, Dec. 1934	465-467
1935	Vol. 63, No. 12, Dec. 1935	362-365
1936	Vol. 65, No. 1, Jan. 1937	28-31
1937	Vol. 66, No. 12, Dec. 1938	426-430
1938	Vol. 68, No. 9, Sept. 1940	262-263
1939	Vol. 68, No. 11, Nov. 1940	329-330
1940	Vol. 69, No. 7, July 1941	217-218

Prior to 1933 losses and savings have been published monthly, as a rule.