

from the report of the official in charge of the Weather Bureau office at Columbia, S. C., is suggestive of conditions in other districts as well as his own:

It is generally accepted that the September floods were more damaging than the August floods, especially as to highways and crops, the latter being practically ruined in extensive areas, while the highway commission has made increased allotments over the August sums for road repairs. On account of much lighter rainfall in the Piedmont sections, the principal damage occurred in the central basins and the lower reaches.

This report also states that on account of damaged culverts two railroad trains were wrecked in South Carolina and five persons killed, the damage to the culverts having been due to undermining and seepage from the rains and floods. These were the only deaths reported. The total monetary loss, however, is reported to have reached a total of \$4,004,050. Of this amount at least \$2,000,000 was in crops, about evenly divided between the two States.

[All dates in September except as otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC DRAINAGE					
Connecticut: Bellows Falls, Vt.....	12	18 30	19 (1)	12.2 12.3	19 30
James:					
Columbia, Va.....	18	7	7	24.0	7
Richmond, Va.....	10	7	7	11.8	7
Roanoke:					
Randolph, Va.....	21	7 20	24.8 26.1	8 21	
Weldon, N. C.....	30	7 20	10 25	36.6 42.0	9 23
Dan:					
Danville, Va.....	8	20	20	8.3	20
Clarksville, Va.....	12	21	22	13.0	22
Tar:					
Rocky Mount, N. C.....	9	5 19	8 24	9.9 13.6	7 20
Tarboro, N. C.....	18	9 20	11 28	20.7 29.0	10 24
Greenville, N. C.....	14	10 20	13 (1)	15.7 21.9	12 24-25
Fishing Creek: Enfield, N. C.....	15	19	22	16.7	20
Neuse:					
Neuse, N. C.....	15	6 19	9 25	16.3 20.0	9 22
Smithfield, N. C.....	14	4 18	11 26	21.5 23.0	7 21
Cape Fear:					
Fayetteville, N. C.....	35	4 19	10 25	55.5 64.7	8 22
Elizabethtown, N. C.....	22	4 19	13 28	35.7 41.8	9 23
Haw: Moncure, N. C.....	22	6 19	7 22	27.0 30.3	6 20
Wacamaw: Conway, S. C.....	7	14	(1)	13.4	30
Peedee:					
Cheraw, S. C.....	27	5 19	9 23	37.7 42.0	7 20
Mars Bluff, S. C.....	17	5	(1)	29.6	23
Lynches: Effingham, S. C.....	14	5 18	14 23	19.0 19.4	11 20 and 24
Black: Kingstree, S. C.....	12	6 19	14 28	15.6 18.0	8 21
Santee:					
Rimini, S. C.....	12	(?)	(1)	30.4	Aug. 21
Ferguson, S. C.....	12	(?)	(1)	20.6	Aug. 22
Catawba: Catawba, S. C.....	12	6 18	7 20	14.0 17.5	7 18
Wateree:					
Camden, S. C.....	24	5 18	8 22	33.2 32.5	6 19
Malta, S. C.....	14	8 21	8 22	14.0 14.5	8 22
Congaree: Columbia, S. C.....	15	6 19	7 20	26.2 19.6	6 19
Broad: Blairs, S. C.....	15	6 19	7 20	18.5 19.0	6 19
Saluda: Chappells, S. C.....	14	6 19	6 19	16.4 14.4	6 19

<sup>1</sup> Continued at end of month.

<sup>2</sup> Continued from last month.

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC DRAINAGE—continued					
Altamaha:	Feet			Feet	
Charlotte, Ga.....	15	(?) 7	1	26.2	Aug. 22
Everett City, Ga.....	10	(?) 5	30	18.9	11
Oconee: Milledgeville, Ga.....	22		6	15.0	Aug. 27-28
Ocmulgee:				26.5	6
Macon, Ga.....	18	6	6	18.1	6
Abbeville, Ga.....	11	6	15	13.0	12
MISSISSIPPI DRAINAGE					
French Broad: Asheville, N. C.....	4	3	3	5.0	3
Big Pigeon: Newport, Tenn.....	6	6	8	5.0	6
Hiwassee: Charleston, Tenn.....	22	3	3	6.0	3
Wisconsin:				6.5	6
Knowlton, Wis.....	12	15	17	22.6	3
Portage, Wis.....	17	19	21	16.9	16
Grand:				18.1	20
Gallatin, Mo.....	20	12	16	28.2	15
Chillicothe, Mo.....	18	12	18	27.8	16
Brunswick, Mo.....	12	17	19	12.2	18
Canadian: Logan, N. Mex.....	4			5.0	2
WEST GULF DRAINAGE					
Rio Grande: San Benito, Tex.....	23	25	26	23.9	26

<sup>2</sup> Continued from last month.

MEAN LAKE LEVELS DURING SEPTEMBER

By UNITED STATES LAKE SURVEY

[Detroit, Mich., October 5, 1928]

The following data are reported in the Notice to Mariners of the above date:

Data	Lakes <sup>1</sup>			
	Superior	Michigan and Huron	Erie	Ontario
Mean level during September, 1928:				
Above mean sea level at New York.....	Feet 603.40	Feet 580.44	Feet 572.12	Feet 246.17
Above or below—				
Mean stage of August, 1928.....	+0.38	-0.06	-0.47	-0.47
Mean stage of September, 1927.....	+0.74	+1.26	+0.48	+0.90
Average stage for September, last 10 years.....	+1.17	+0.57	+0.16	+0.63
Highest recorded September stage.....	-0.64	-2.99	-1.82	-1.44
Lowest recorded September stage.....	+2.07	+2.22	+1.19	+2.17
Average departure (since 1860) of the September level from the August level.....	+0.05	-0.20	-0.26	-0.41

<sup>1</sup> Lake St. Claire's level: In September, 1928, 575.16 feet.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, SEPTEMBER, 1928

By J. B. KINCER

*General summary.*—A continuation of heavy rain during the first decade over an area from New Jersey and Pennsylvania southward was very detrimental to farming operations and crops, with much work delayed and crops damaged. Elsewhere it was mostly favorable for outdoor work, but fall plowing was hindered by hard, dry soil in many interior districts and a general rain was needed over most of the interior valley States.

During the second decade a tropical hurricane which struck the Florida peninsula on the 16th-17th, brought torrential rains and high winds to most sections from Florida northeastward to Pennsylvania. The weather