RIVERS AND FLOODS

[River and Flood Division, MERRILL BERNARD in charge]

By BENNETT SWENSON

Atlantic Slope drainage.—Moderate to heavy floods in the Roanoke, Neuse, Tar, and Cape Fear Rivers in North Carolina which began late in July continued the first few days of August in most cases. The flood in the Neuse River was the heaviest in 9 years as far downstream as Smithfield, N. C. The overflow in the Roanoke River was a lower river flood, where the stage at Weldon, N. C., rose from 12.3 feet on July 20 to 44.1 feet on July 28, due to a concentration of water following frequent heavy rains.

East Gulf of Mexico drainage.—Heavy rains on August 1–2, followed by additional heavy rains on the 7–8th over the Pearl and Pascagoula River Basins caused general rises in these rivers. Flood stage was exceeded only at one of the river gaging stations, namely Pearl River, La., on the Pearl River. At that point the stage reached 12.3 feet on August 11. The main loss was caused by the forced suspension of activities by the lumbering interests.

Missouri Basin.—Late reports indicate that flood stages occurred in the Big Sioux River from July 2 to 7. Heavy rains in the upper Big Sioux Valley caused a rise at Akron, Iowa, of 7 feet in the 24 hours ending at 8 a. m. July 2. The crest was reached at that place at 7:45 a. m. July 4, with a stage of 17.55 feet (flood stage 12 feet). Damages, mostly to growing crops, are estimated at $116,000.

Ohio Basin.—An unusually severe storm occurred in the Great Smoky Mountains about midnight of August 4 and excessive rain continued for about 3 hours. Severe flash floods resulted on the morning of August 5 in the headwaters of the Little Pigeon and Little Rivers in Sevier and Blount Counties in Tennessee. The Tennessee Valley Authority reports that the area of most severe rainfall seems to have extended from the general vicinity of Calderwood, Tenn., on the Little Tennessee River, in a general northeast direction to the vicinity of Cosby, Tenn., on the Pigeon River. Unofficial records indicate that more than 9 inches of rain fell in about 3 hours at one point near Pittman Center in the region of the middle fork of the Little Pigeon River.

The greatest damage from the floods occurred along Webb Creek, Ball Branch, Laurel and Roaring Branch Creeks, and the middle fork of the Little Pigeon River. Eight lives were lost in the vicinity of Webb Creek.

Another severe local storm occurred about midnight August 8 over Brush Creek, a tributary of Watauga River, and resulted in flooding of Johnson City, Tenn., causing considerable damage.

West Gulf of Mexico drainage.—A destructive flood occurred in the Colorado River from July 22 to August 3. Six lives were lost and property and crop losses are estimated at more than $5,000,000. A complete report on this flood will be made in the next issue of the Review.

The flood in the lower Rio Grande that was in progress at the close of July and the beginning of August caused little damage. Another flood occurred near the close of August and a report on this flood will be made later.

Estimated flood losses by drainage basins during August 1938 are as follows:

Atlantic Slope drainage:	
Roanoke River	[1] $244,000
Neuse River	[1] 13,600
Cape Fear River	[1] 4,000
Tar River	[1] 10,500
East Gulf of Mexico drainage:	
Pearl River	5,000
Ohio Basin:	
Little Pigeon and Little Rivers (Sevier and Blount Counties, Tenn.)	85,000
Brush Creek (Johnson City, Tenn.)	106,000
Green River in Kentucky	10,000
West Gulf of Mexico drainage:	
Colorado River in Texas	[1] 5,200,000
Rio Grande	[1] 1,100
Gulf of California drainage:	
Colorado River in Arizona	16,200
Total	5,695,400

[1] July and August.

Table of flood stages during August 1938

[All dates in August unless otherwise indicated]

River and station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE	Feet			Feet	
James: Columbia, Va	10	4	11	15.4	5
Roanoke: Williamston, N. C	10	July 26	14	13.7	July 31, 1
Tar:					
Tarboro, N. C	18	July 30	1	20.2	1
Greenville, N. C	13	July 28	4	15.0	2
Neuse:					
Neuse, N. C	14	July 24	1	22.0	July 29
Goldsboro, N. C	14	July 27	8	19.2	4
Santee:					
Rimini, S. C	12	July 25	1	14.4	July 31
Ferguson, S. C	12	July 28	6	13.4	1
Savannah: Clyo, Ga	11	July 30	12	17.6	3
Altamaha: Charlotte, Ga	12	July 28	6	13.4	4–5
EAST GULF OF MEXICO DRAINAGE					
Pearl: Pearl River, La	12	10	13	12.3	11
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Rock: Moline, Ill	10	19	19	10.0	19
Ohio Basin					
Barren: Bowling Green, Ky	20	1	2	21.1	2
Green: Lock No. 4, Woodbury, Ky	33	1	3	35.3	2
Lower Mississippi Basin					
Big Lake Outlet: Manila, Ark	10	5	9	10.4	6–7
WEST GULF OF MEXICO DRAINAGE					
Colorado:					
Marble Falls, Tex	21	July 22	July 28	36.4	July 25
Austin, Tex	21	July 23	July 27	33.0	July 25
Smithville, Tex	25	July 25	July 29	34.3	July 27
Columbus, Tex	24	July 25	1	38.4	July 29
Wharton, Tex	26	July 25	3	37.4	July 30
Nueces: Cotulla, Tex	15	July 30	2	17.0	July 31
Rio Grande:					
Rio Grande City, Tex	21	29	Sept 1	30.1	31
Hidalgo, Tex	21	30	Sept. 3	24.6	Sept. 2
Mercedes, Tex	21	31	Sept. 3	22.2	Sept. 2
Brownsville, Tex	18	1	2	18.1	2