

Floods of December 1961 in Mississippi and Adjoining States

By James D. Shell



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ABSTRACT

Widespread floods occurred over parts of Mississippi, Louisiana, and Alabama after heavy rains during December 5—18, 1961. A series of low-pressure systems produced as much as 19 inches of rainfall in some areas. Heavy rainfall, 7 to 11 inches, on December 10 resulted in outstanding floods on small streams in southern Mississippi and southwestern Alabama. Subsequent rains produced multiple floods on small streams and outstanding floods of prolonged duration along the Big Black, upper Pearl, and lower Tombighee Rivers in Mississippi.

At Jackson, Miss., the Pearl River reached the highest stage known. Along the east bank, flood waters topped or breached some of the levee system protecting the Flowood industrial area, but other parts were saved by extensive reinforcement and by emergency operation of the partially completed dam 10 miles upstream. Additional heavy damage to commercial and industrial property was prevented as a result of these measures.

Elsewhere, damage was restricted primarily to secondary highways and bridges. Two lives were lost.

INTRODUCTION

The data presented are intended to give a brief general account of the floods of December 1961 in Mississippi and in adjoining parts of Louisiana and Alabama that were affected significantly. Data for a complete report are not presently available but are being collected in anticipation of a more comprehensive report later.

These records were collected as a part of the cooperative programs between the U.S. Geological Survey and the various State agencies.

Work of the Surface Water Branch district personnel was directed by the following district engineers: F. N. Hansen, Louisiana; W. H.Robinson, Mississippi, and L. E. Carroon, Alabama. J.D. Shell, with advice and assistance of H. H. Barnes, Jr., flood specialist, collected and assembled the data. The report was prepared under the general supervision of Tate Dalrymple, chief, Floods Section, Washington, D. C. Various Federal, State, municipal, and private agencies furnished information and appropriate acknowledgment is given in the text.

GENERAL DESCRIPTION OF RAINFALL

A series of weather fronts associated with low-pressure systems, migrating northeast-ward from northern Mexico and the lower Rio Grande Valley, moved over Louisiana, Mississippi, and Alabama during the period December 5–18, 1961. These systems collided with cold-air masses moving southeastward from the Rocky Mountain area and resulted in a prolonged storm period during which rain fell in amounts totaling as much as 19 inches.

During the period December 5-9, rainfall was light over much of the area, with an average accumulation of approximately $1\frac{1}{2}$ inches. This precipitation produced no appreciable rises on the streams but did soak the ground thoroughly and caused high percentages of runoff from precipitation that fell later.

On December 10, heavy rain fell on a narrow belt extending from Bogalusa, La, northeastward through southern Mississippi and into southwestern Alabama along a line from Washington County to Wilcox County. Along this narrow band, as much as 11 inches of precipitation was measured. At Bogalusa, La, 9.78 inches was measured. Immediately to the east of Bogalusa, in the White Sand community of Pearl River County, Miss., 10.52

inches fell early on December 10. Other areas of heavy precipitation were in south-eastern Mississippi at Beaumont, with 11.42 inches, and in Alabama at Pinehill, Millers Ferry, and Selma, each receiving more than 7 inches of rainfall.

Precipitation continued on December 11 and 12, with the heavier precipitation in central Mississippi over the Pearl and Big Black River basins. The isohyetal map (fig. 1) based on rainfall data furnished by the U.S. Weather Bureau and the Mississippi Forestry Com-

mission shows storm rainfall for the period December 5-13. During the second storm period, December 14-18, heavier rains again fell over the Pearl and Big Black River basins, as indicated by the isohyetal map of rainfall for that period (fig. 2). The isohyetal map for the entire period, December 5-18, is shown on figure 3. These isohyetal maps are necessarily generalized because of the variations of intensity and accumulation. Figures of daily rainfall for a few selected stations in the area, shown in table 1, give detailed daily distribution of the precipitation.

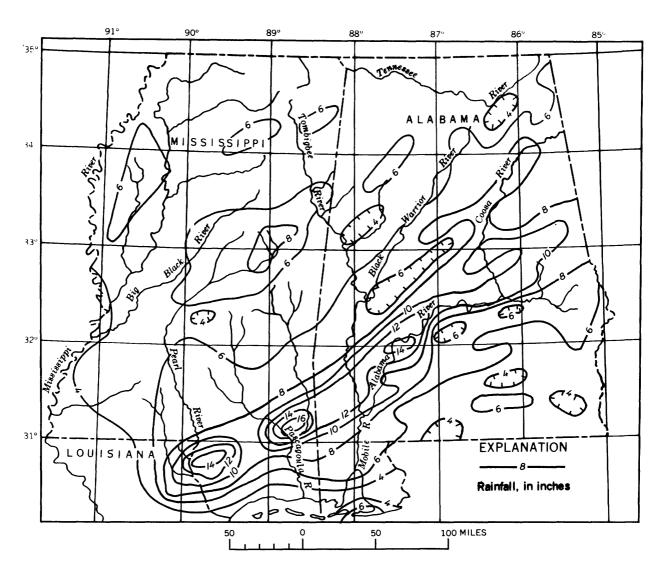


Figure 1.—Isohyetal map of Mississippi and adjoining States, showing rainfall December 5-13, 1961.

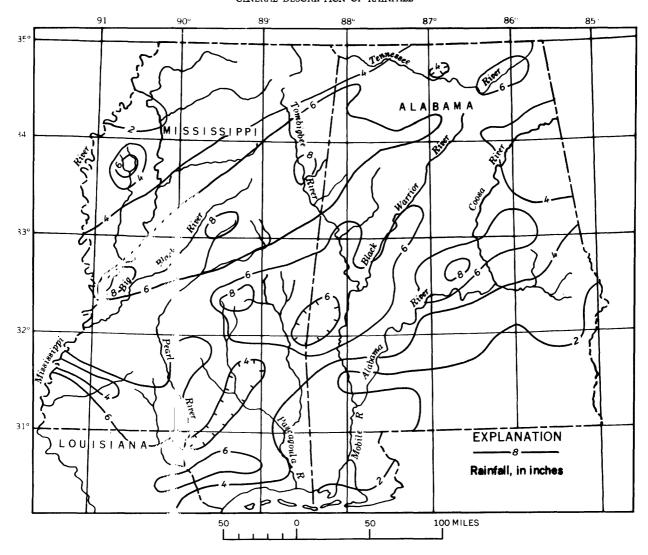


Figure 2.—Isohyetal map of Mississippi and adjoining States, showing rainfall December 14-18, 1961.

Table 1.—Rainfall, in inches, at selected sites in Louisiana, Mississippi, and Alabama for period December 5-18, 1961

Station							Dece	mber							Total
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	l
Bogalusa, La Pearl River Fire Tower, near Savannah, Miss Perry County Fire Tower, near Richton, Miss Beaumont, Miss. Greene County Fire Tower, near Neely, Miss Merrill, Miss. George County Fire Tower, near Lucedale, Miss Louisville, Miss. Edinburg, Miss. Columbus, Miss. Millers Ferry, Ala Pine Hill, Ala Selma, Ala Wetumpka, Ala	0 0 0 0 .05 78 .31 .34	.25 .71 1.41	0 .08 .06 .08 .01 .10	.28 .06 0 0 0 0 0	0.08 1.08 .25 .08 .64 0 1.00 .27 .40 .15 .21 0	7.87 4.75 11.42 9.64 6.18 5.00 1.65 1.53	88 27 58 2 00 1 30 2 00 15 03 1 09 31 85	2.63 1.22 67 3.27 3.27 1.25 5.16 3.51 2.77 1.45 2.95 1.67	46 45 2.25 52 1.94 1.00 03 19 03 2.56 2.58 1.90	.08 .55 .43 .40 .04 .10 .48 .60 0	1.14 .85 .37 .78 .48 1.00 1.02 2.15 .66 1.26 .72 1.50	.57 .34 .49 .15 1.30 .75 .67 .18 .14	2.50 82 1.83 .85 .13 .25 1.34 1.58 3.19 .10 0	1.76 2.41 1.32 1.05 .65 .60 2.45 2.07 2.61 1.84 2.77 3.85	18,09 19,25 12,38 19,56 19,68 12,69 13,30 14,72 14,23 12,64 16,41 18,59 17,55 18,93

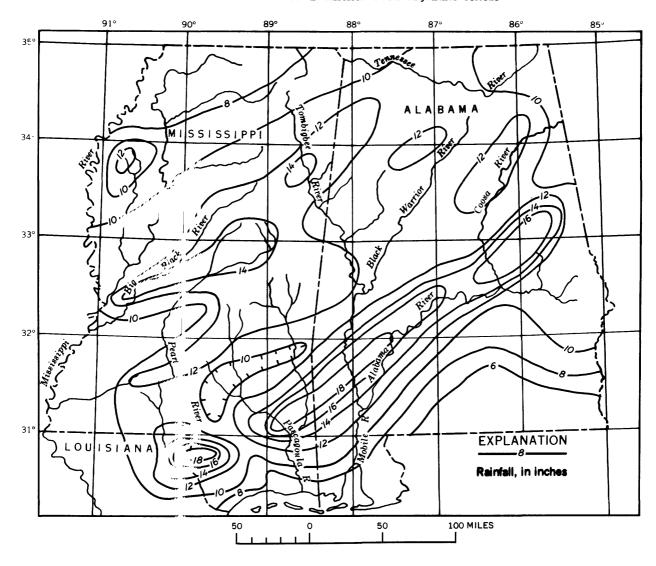


Figure 3. —Isohyetal map of Mississippi and adjoining States, showing rainfall December 5-18, 1961.

DESCRIPTION OF FLOOD

In general, only on small streams or on streams with short records of streamflow did the flood peaks exceed previous maximums. A few small streams, notably in the Pearl and Pascagoula River basins, reached peaks with recurrence intervals of 50 years or more.

Peak discharges along the main stem of the Pearl River ranged from a 12-year flood at Edinburg to a 25-year flood at Jackson, then flattened to an 8-year flood at Columbia. At Jackson, Miss., the Pearl River reached the highest stage known; the peak stage was slightly higher than the previous maximum in 1902, although the peak discharge was less than that of 1902.

The east side of the flood plain at Jackson is occupied by an extensive network of ring levees north of U.S. Highway 80 that protect commercial and industrial property. This area is commonly known as Flowood. Some of the levees were overtopped, and only through coordinated efforts of municipal, county, and State agencies were some levees raised high enough to prevent the entire area from being flooded. Two gates of the spillway section of the partially completed dam on the Pearl River approximately 10 miles upstream from Jackson were closed late on December 20 to reduce the anticipated flood crest in the Flowood area. It was estimated that the crest at the gaging station at Jackson was reduced approximately 0.2 foot as a result of this action.



Figure 4.—Aerial view showing flooded area along South State Street, Jackson, Miss.

U.S. Highway 80, linking Jackson and Flowood, was overtopped, but traffic was maintained by sandbagging critical points along the westbound lane. U.S. Highway 51, railroads, some principal streets, and commercial and residential property in southeast Jackson were flooded (fig. 4 and 5).

The extent of flooding by the Pearl River in the Jackson-Flowood area is shown in the aerial photograph taken by the Mississippi Air National Guard near the crest on December 21, 1961 (fig. 6).

The extended duration of flooding on the Pearl River is noteworthy. At Jackson the Pearl River reached flood stage (18 feet) on December 11, 1961, and remained above this point until February 13, 1962, a period of 65 days, as a result of the reported storm and subsequent rainfall. Prolonged high stages

during the period—32 days above a stage of 28 feet—delayed repairs to the damaged levee system. It is of interest to note that from February 19, 1961, to February 13, 1962, Pearl River at Jackson was above flood stage a total of 127 days.

Downstream, at Bogalusa, La., the Pearl River reached an initial peak discharge of 55,600 cfs on December 20 as a result of heavy rainfall during the period December 5—13. The river then fell slightly but rose again as the upstream crest approached. It reached a peak discharge of 70,800 cfs on December 29, which has a recurrence interval of about 14 years.

Immediately east of Bogalusa, La., in Pearl River County, Miss., floods on small streams were outstanding. East Hobolochitto Creek at Highway 26, at White Sand, reached a stage



Figure 5. - Aerial view showing flooded area along Gallatin Street, Jackson, Miss.

0.3 foot higher than the peak stage in February 1961, and reached a peak discharge known to be in excess of a 50-year flood. The creek overflowed its banks and flooded many houses in the White Sand community.

Peak discharges on the upper Tombigbee River reflected the long duration and fairly even distribution of rainfall in northeastern Mississippi during the entire storm period. At Columbus the runoff from the several rainstorms coincided to produce a peak discharge of about a 21-year recurrence interval. Upstream from Columbus, the peaks were of progressively lower recurrence interval—12 years at Aberdeen and 8 years near Amory—whereas on the tributaries upstream from Amory the peak discharges had recurrence intervals ranging generally from 1 to 3 years. A map (fig. 7) showing recur-

rence intervals of peak discharge at selected points indicates flood peaks of smaller frequencies at sites on the tributary streams than at sites on the larger streams, where drainage areas are larger and precipitation time is longer.

At Columbus, U.S. Highway 82 was overtopped and closed, as was Mississippi Highway 50. Floodwater inundated much of the area west of the rivers in the Columbus area. Many industries were forced to suspend operations and an estimated 45 families were evacuated.

The multicrest response of small streams to the time distribution of storm rainfall compared with the single crest of long duration on large streams is illustrated by figures 8 and 9.



Figure 6.—Aerial view of Jackson, Miss., showing flooding by Pearl River near time of peak, December 21, 1961. Photograph by Mississippi Air National Guard.

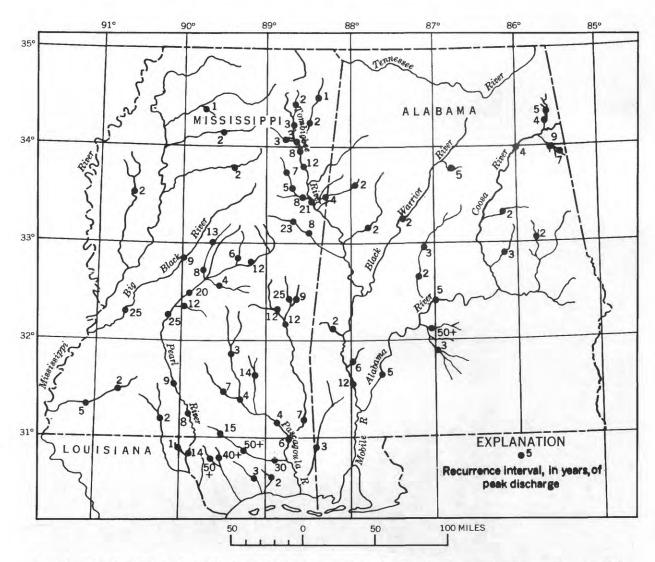


Figure 7.—Map of Mississippi and adjoining States, showing recurrence intervals of peak discharge at selected points, December 1961.

9

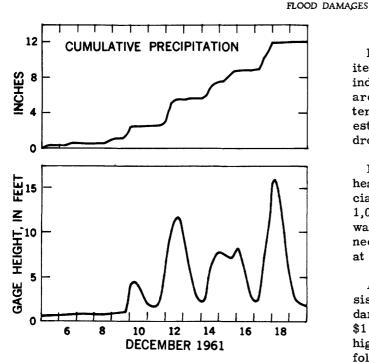


Figure 8.—Graph showing accumulated rainfall and stage of Sowashee Creek at Meridian, Miss. (drainage area, 51.9 sq mi). December 5-19, 1961.

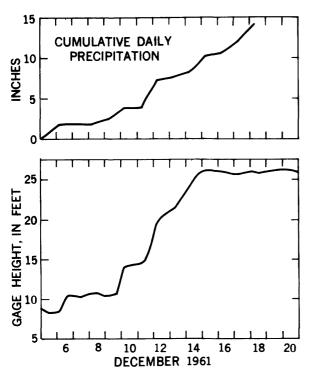


Figure 9.—Graph showing accumulated rainfall and stage of Pearl River at Edinburg, Miss. (drainage area, 898 sq mi), December 5-20 1961.

FLOOD DAMAGES

Damage resulting from the flood was limited mostly to highways and to municipal and industrial property in the Jackson, Miss., area. Because the flood occurred in the winter, agricultural damage was light and no estimates of it was made. Two persons were drowned in Mississippi.

Pearl River County, Miss., sustained very heavy damage to roads and bridges, especially on the secondary road system. About 1,000 feet of newly constructed road was washed out. Estimates by the county engineer placed the damage to roads and bridges at about a quarter of a million dollars.

A preliminary estimate made by the Mississippi Highway Department placed the total damage to all secondary roads in the State at \$1 million. Estimates of damage to major highways in the State by districts were as follows:

District	Area in State	
1	Northeast	\$25,000
2	Northwest	6,000
3	West central	30,000
5	East central	20,000
6	Southeast	35,000
7	Southwest	36,300
Total		\$152.300

The Alabama Highway Department made no complete cost estimate but reported damage to highways in at least 10 counties, principally in southwestern Alabama. In Marengo County there was appreciable damage to 6 bridges or fills, and 9 sections of highway were inundated. In Clarke County 2 bridges were damaged. In Fayette County the Sipsey River overtopped a county road near Hubbertville, causing damage estimated at \$15,500. In Wilcox County there was extensive damage to State and county roads along Goose and Turkey Creeks in the vicinity of Kimbrough. Other counties in the area reported lesser damage.

Industrial damage and cost of flood protection in the Flowood area east of Jackson, Miss., was estimated as follows by Mayor Flynn of Flowood:

Knox Glass Co	\$90,000
Other industries (total)	30,000
Cost of maintaining Flowood	•
levee	40,000
Total	\$160,000

Complete data on damages to private property are not available. According to incomplete figures furnished by the American National Red Cross, 567 residences were flooded

in the Jackson, Miss., area and about 45 at Columbus, Miss.

AERIAL PHOTOGRAPHY

Aerial photographs by the Mississippi Air National Guard covered flooded areas along the main stems of the Pearl, Big Black, and Tombigbee Rivers, as indicated on the map, figure 10. These photographs, taken during

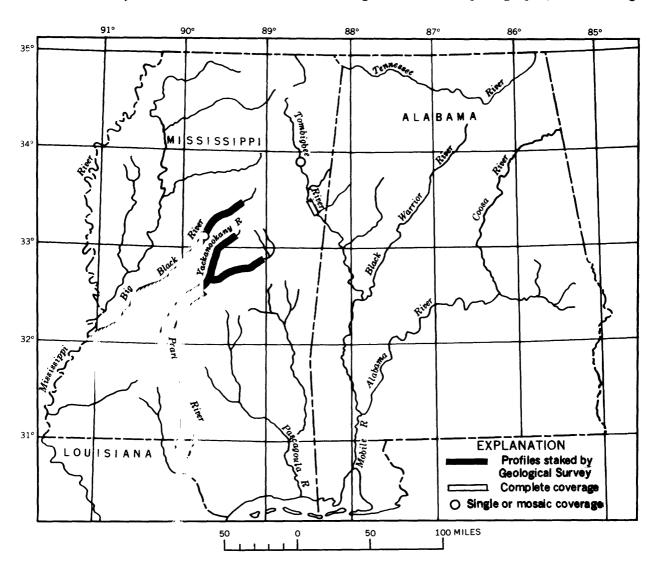


Figure 10.—Map of Mississippi and adjoining States, showing aerial-photograph coverage and location of flood profiles to be surveyed, December 1961.

or near the crest stage, are available for use in inundation mapping.

RIVER PROFILES

At selected points along the Big Black, Pearl, and Yockanookany Rivers in central Mississippi, high-water marks were staked to define the flood profiles. From survey of these marks about 360 stream miles of flood profiles are being developed as is shown in figure 10.

In the Jackson area along Pearl River, the flood profiles were defined in more detail in anticipation of an inundation map now in preparation.

STREAMFLOW DATA

RECORDS OF DISCHARGE

At 3 stations on Pearl River and 1 on Big Black River preliminary figures of daily and monthly discharge and runoff, in inches, for December 1961 are given in tables 2-5. At all 4 stations, Pearl River at Edinburg, at Meeks Bridge near Canton, and at Jackson and Big Black River at Bovina, the floods were noteworthy.

SUMMARY OF FLOOD STAGES AND DISCHARGES

Flood stages and discharges are summarized in table 6. The table gives in downstream order the station name, drainage area, and the maximum stage and discharge of record prior to and during December 1961 with date of occurrence; and recurrence interval, T, of the December 1961 peaks. Recurrence intervals with a plus sign (+) indicate that the recurrence interval can be much greater than the interval shown.

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
Dec. 1	1,920	Dec. 9	1,840	Dec. 17	21,000	Dec. 25	5,280
2	1,790	10	2,750	18	21,300	26	4,470
3	1,620	11	3,330	19	23,400	27	3,620
4	1,410	12	5,650	20	24,400	28	2,860
5	1,210	13	7,670	21	18,600	29	2,350
6	1,500	14	16,100	22	12,400	30	2,020
7	1,720	15	23,400	23	8,810	31	1,880
8	1,770	16	21,800	24	6,520		-
Monthl	y mean, in cubi	c feet per	second				8,210
	, in inches						10.54

Table 3.—Mean discharge (preliminary), in cubic feet per second, December 1961, of Pearl River at Meeks Bridge, near Canton, Miss.

						
3,460	Dec. 9	3,840	Dec. 17	42,300	Dec. 25	31,000
2,800	10	4,720	18	55,500	26	24,500
2,180	11	6,020	19	62,500	27	20,000
1,890	12	8,790	20	65,400	28	16,100
1,770	13	12,200	21	64,800	29	12,800
1,900	14	17,200	22	59,500	30	10,100
2,280	15	22,300	23	49,400	31	7,880
2,950	16	28,900	24	39,000	1	
	2,180 1,890 1,770 1,900 2,280	2,180	2,800 10 4,720 2,180 11 6,020 1,890 12 8,790 1,770 13 12,200 1,900 14 17,200 2,280 15 22,300	2,800 10 4,720 18 2,180 11 6,020 19 1,890 12 8,790 20 1,770 13 12,200 21 1,900 14 17,200 22 2,280 15 22,300 23	2,800 10 4,720 18 55,500 2,180 11 6,020 19 62,500 1,890 12 8,790 20 65,400 1,770 13 12,200 21 64,800 1,900 14 17,200 22 59,500 2,280 15 22,300 23 49,400	2,800 10 4,720 18 55,500 26 2,180 11 6,020 19 62,500 27 1,890 12 8,790 20 65,400 28 1,770 13 12,200 21 64,800 29 1,900 14 17,200 22 59,500 30 2,280 15 22,300 23 49,400 31

9.15

Table 4.—Mean discharge (preliminary), in cubic feet per second, December 1961 of Pearl River at Jackson, Miss.

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
liec. 1 2 3 4 5 6 7 8	4,970 4,360 3,670 2,960 2,620 2,490 2,600 3,280	Dec. 9 10 11 12 13 14 15 16	4,450 6,130 6,750 10,700 12,000 16,000 21,400 25,400	Dec. 17 18 19 20 21 22 23 24	34,900 43,500 53,500 62,800 64,900 64,500 63,000 58,200	Dec. 25 26 27 28 29 30 31	51,200 43,300 35,200 27,900 21,600 17,200 14,600

Monthly mean, in cubic feet per second..... 25,360 Runoff, in inches 9,43

Table 5.—Mean discharge (preliminary), in cubic feet per second, December 1961, of Big Black River near Bovina, Miss.

Day	Discharge	Day	Discharge	Day	Discharge	Day	Discharge
Dec. 1	7,580	Dec. 9	6,940	Dec. 17	46,200	Dec. 25	39,400
2	7,620	10	8,590	18	53,900	26	32,100
3	7,480	11	9,400	19	59,100	27	26,800
4	7,140	12	11,700	20	63,100	28	23,000
5	6,670	13	12,100	21	62,300	29	19,900
6	6,650	14	14,800	22	57,600	30	17,200
7	6,950	15	20,400	23	51,800	31	15,000
8	6,800	16	28,800	24	46,000		

Monthly mean, in cubic feet per second..... 25,300 Runoff, in inches 10.36

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				T (yr)			2	4	i !	o	4		1	~	- 1	က		7		-	ഹ	n	۰	3	က	20+	1 1 1		2		ഹ	-	7	
		er 1961	Dis-	charge (cfs)			13,300	21,000	1,500	19 100	57,800		4,070	5,680		13,500		9,320	3,360	9,760	158,000	37,800	35,000	•	6,000	19,000	748	1 1 1 1 1 1	4,040		179,000	2,010	23,000	
	pod	December 1961	Gage	height (feet)			9.92	11.01	8,00	11 46	26.22		9.45	11.79	10.78	19.87	8.86	21.02	5.61	21.94	51.20	29,41	91 70	7	17,74	19,11	9,12	25.02	9.64		48.83	15.04	18,87	
	Maximum flood			Date				Dec. 12 Dec. 18		Dec 19			Dec. 18			•						Dec. 18	10		Dec. 13	Dec. 14	Dec. 12	Dec. 10	Dec. 10				Dec. 19	_
	Ma	ber 1961	Dis-	charge (cfs)			21,800	11,700	1,580	91 000	000000000000000000000000000000000000000	76,900	3,700	33,000	810	22,800	4856	15,600	23,000	48,000	284,000		000°T6	95,000	45,600	22,100	1,650	7,200		30,600	267,000	16,300	82,200	
lischarges		Prior to December 1961	Gage	height (feet)			12.9	10.08	8,24	12.3	37.9	1 1 1 1 1	9.05	19	5.42	24.9	7.2	25.7	18.8	28.65	58.35	36.63	90 00	28.55	24.58	20.1	14,15	19,64	22	16,28	55,15	28,44	25,75	
ses and c		Prior		Year			1948	1961	1961	1948	1886	1936	1961	1951	1961	1946	1958	1957	1919	1961	1961	1938	1961	1938	1961	1955	1961	1961	1929	1961	1961	1955	1955	_
Table 6.—Flood stages and discharges		Drainage	(so mi)				120	194	15,9	т Т	5,800	•	67.3	98.4	13.5	244	5.1	196	109	298	17,100	1,029	1 270	0 0 0	217	45.4	9,73	114	117		22,000	99	605	
Table 6		Stream and location				MOBILE RIVER BASIN		Little River near Blue Fond, Ala	Little Terrapin Creek near Borden	Springs, Ala.	Coosa River at Gadsden, Ala.		Talladega Creek above Talladega, Ala		Paint Creek near Marble Valley, Ala		Sofkahatchee Creek near Wetumpka, Ala	Hillabee Creek near Hackneyville, Ala	Autauga Creek at Prattville, Ala	Catoma Creek near Montgomery, Ala	Alabama River at Selma, Ala	Cahaba River at Centerville, Ala	Cohoho Discon of Comott Alo	Canada myer at Sprot, Ma	Cedar Creek at Minter, Ala		Prairie Creek near Oakhill, Ala	Turkey Creek at Kimbrough, Ala	Limestone Creek near Monroeville, Ala.		Alabama River at Claiborne, Ala	Mackys Creek near Dennis, Miss	East Fork Tombigbee River near Fulton,	Miss.
		Station	No.				2-3990	2-3992	2-3998	9-4000	2-4005		2-4058	2-4060	2-4079	2-4085	2-4100	2-4150	2-4205	2-4210	2-4230	2-4240	3707 6	0 + 7 + 1 7	2-4255	2-4256.55	2-4273	2-4277	2-4290		2-4295	2-4300	2-4310	

Table 6.—Flood stages and discharges—Continued

,	Table 6.—Flood stages and discharges—Continued	ood stages ar	ıd discha	rges—Conti	nued	,			
					Max	Maximum flood	þ		
Station	Genome of Joseph	Drainage		Prior to December 1961	ber 1961		December	r 1961	
°o N		(sq mi)	Year	Gage height (feet)	Dis- charge (cfs)	Date	Gage height (feet)	Dis- charge (cfs)	T (yr)
	MOBILE RIVER BASIN—Continued								
2-4340	Oldtown Creek near Tupelo, Miss	112	1955 1955	27,72	23,000	Dec. 18	24.45	7,750	en e√
2-4360	Chiwapa Creek at Shannon, Miss	•	1955	16,35	35,500		13,45	10,400	ı က
2-4365	West Fork Tombigbee River near Nettle-	617	1955	33,88	151,000	Dec. 18	29.08	30,100	က
2-4370	Tombigbee River near Amory, Miss	1,941	1955	34,47	126,000	Dec. 19	30.01	52,700	∞
2-4375	Tombigbee River at Aberdeen, Miss	2,210	1955	42.9	106,000		40.93	000,09	12
2-4400	Chookatonchee Creek near Egypt, Miss	170	1953	9,09	15,700	Dec. 18	9.26	14,500	2
2-4405	Chookatonchee Creek near West Point,	514	1951	11.23 23.55	(6) 45,800	Dec. 18	21.3	28,800	ഹ
9-4408	Miss. Tine Creek near Maken Miss	יב	1955	18 38	1 600	Dec 17	5.3	660	6
2-4408	Trim Cane Creek near Starkville. Miss	30.6	1952	26.92	10,900		26.29	9.800	25
2-4410		928	1926	31.5	1 1 1 1	Dec. 18	29.51	56,000	8
			1951	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	75,200		,	!	
2-4415	Tombigbee River at Columbus, Miss	4,490	1949	39.32	148,000		38.40	127,000	21
2-4420	Luxapalila Creek near Fayette, Ala	127	1949	13.8	9,910		12.57	7,400	7 .
2-4430	Luxapalila Creek at Steens, Miss	309	1949	19.2	16,000		17.94	9,800	4° c
2-4465	Sipsey River near Elrod, Ala	010	1901	10.03 23.88	70,00	Dec. 20	20.01	24 500	73
2-4413 2-4480	Novibee River at Macon Miss	812	1892	34			30.97	29,000	, ∞
1			1951	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	52,000				
2-4545		147	1954	25.1	7,750		27.65	008.6	7
2-4695		112	1961	20.13	008,9		17.13	4,480	က
2-4695.5	Horse Creek near Sweetwater, Ala	52.8	1961	16.80	1 1 1		17.5	25,800	1 1 6 1
2-4696	Bashi Creek near Campbell, Ala	86.3	1916	25	1 1 1 1 1	Dec. 10	25,94	21,100	1 1 1 1 1
2-4698	e, Ala	166	1961 1956	24.22 18.37	25,600	Dec. 10	16,53	13,100	9 (
2-4700	Tombigbee River near Leroy, Ala	19,100	11874	51.8	280,000	Dec. 291		198,000	112

	PASCAGOULA RIVER BASIN								
2-4720	Leaf River near Collins, Miss	752	1856	33	48 000	Dec. 19	25.08	20,300	က
2-4725	Bowie Creek near Hattiesburg, Miss	304	1961	26.8	35,700	Dec.	20.80	10,500	~
2-4730	Leaf River at Hattiesburg, Miss	1,760	1900 19 61	33.6	72,200	Dec. 20	25.92	37,200	4
2-4735	Tallahala Creek at Laurel, Miss	233	1919	26	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Dec. 19	18.75	10,400	14
9 4745		613	1961	30.5	18,800	Dec 21	19 08	12,800	4
O#	randingia Creen itear itemiterstown, with ser	3	1961		33,000	1	00.01	200,41	н
2-4750	Leaf River near McLain, Miss	3,510	1900	١		Dec. 21	25.56	57,500	4
			1961	31.7	128,000		-		
2-4750.5		.65	1959	10,89	683	Dec.	7.48	398	4
2-4753,5	Tarlow Creek near Newton, Miss	15.9	1961	18,29	3,500	Dec. 1	17,56	1,900	4
2-4760	Okatibbee Creek near Meridian, Miss	239	1938	29.5		Dec. 18	25.23	17,000	25
9 4765	Somother Cross at Monidian Miss	0 13	1991	96 5	7.7,000	Dec 18	18 04	5 840	o
0014-7	DOWAPIEC CICEN at METATIN, MISS	9.10	1951	20.09	8.030	•	F0.01	,	•
2-4770	Chickasawhay River at Enterprise, Miss	913	1961	37,94	60,000	Dec. 19	33,78	38,800	12
2-4771,5	1	23	1961	268,32	5,900	Dec. 1	267.86	4,600	2 0+
2-4785	Chickasawhay River at Leakesville, Miss.	2,680	1938	34.12	1 1 1 1 1	Dec.	29.88	39,500	2
			1961	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	73,500				
2-4790	Pascagoula River at Merrill, Miss	009'9	1900	32.5	1 1 1 1 1 1	Dec. 22	25.76	000,06	9
			1961	1	17			,	
2-4791.4	_	22.3	1959	98,16		Dec.	97.47	4,800	20+
2-4791.7	Black Creek near Benndale, Miss	710	1959	62,98	8	Dec.	63.02	24,500	35
2-4791.8	Red Creek at Lumberton, Miss	15.6	1961	98.7		Dec.	98.7	2,640	15
2-4791.9	Red Creek near Wiggins, Miss	168	1960	147.49	_	Dec.	148,82	17,000	20+
2-4792	Flint Creek near Wiggins, Miss	24.8	1957	16.17	3,320	Dec.	14.83	2,120	4
2-4793	Red Creek at Vestry, Miss	416	1961	18.40	19,000		18,56	20,000	30
2-4795	Escatawpa River near Wilmer, Ala	206	1959	24.66	30,000	Dec. 13	22.60	20,100	က
	BILOXI RIVER BASIN								
2-4805	Tuxachanie Creek near Biloxi, Miss	92.4	1907-9	23		Dec. 11	10.78	2,720	2
2-4810	Bilovi Creek near Wortham Miss	8 80	1957 1948	23.3	1 (,000	Dec 10	14 46	4 540	m
			1957		7,740		9)

See footnotes at end of table.

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			ni Acin	528		Maximum flood	po		
Station	Streem and location	Drainage	Prior	Prior to December 1961	ber 1961		December 1961	r 1961	
No.		(sq mi)	Year	Gage height (feet)	Dis- charge (cfs)	Date	Gage height (feet)	Dis- charge (cfs)	T (yr)
	WOLF RIVER BASIN								
2-4814 2-4814.5	Wolf River near Poplarville, Miss Murder Creek near Poplarville, Miss	71 21.6	1961 1961	191.94 16.50	9,300	Dec. 10 Dec. 10	193.42 19.20	13,000	50+ 40
	PEARL RIVER BASIN								
2-4817.5	Nanawaya Creek at Handle, Miss	06	1938	10.64	1 1 1 1 1	Dec.	12,3	7,000	12
2-4818.1	Tallahaga Creek near Noxapater, Miss	53	1953	93.9		Dec.	94.26	6,400	20+
2-4818,4	Noxapater Creek near Noxapater, Miss	33,1	1 0	94.62	4,000		94.82	5,000	20
2-4820	Pearl River at Edinburg, Miss	868	1902	29.0	27.000	Dec. 20	26.53	25,200	77
2-4825	Lobutcha Creek near Carthage, Miss	313	1951	18.00	_	Dec. 18	17.28	11,000	9
2-4830	Tuscolameta Creek at Walnut Grove, Miss -	411	1 0	°24.5		Dec. 19	18.66	16,800	4
0707	71	217	1950	23,00	34,600		17 64	1 5 200	20
2-4840 2-4845	rockanookany kiver near kosciusko, Miss- Yockanookany River near Ofahoma. Miss	314 484	1951	20.28	20,700	Dec. 10	19,40	13,800	6
2-4850		2,780	1932	26.4		Dec. 20	27.77	66,000	20
	Miss.	1	1951	1 1	57,800		1	(,
2-4855	Pelahatchie Creek near Fannin, Miss	205	1950	23.7	13 500	Dec. 18	22.30	13,600	12
2-4860	Pearl River at Jackson, Miss	3,100	1902	37.2		Dec. 21	37.29	000'99	25
2-4866.9	Rhodes Creek near Terry, Miss	20.9	1953	24.5	4,470	Dec. 12	20.77	2,000	7
2-4875	Strong River at D'10, Miss	429	1950	33.0	24,800	Dec.	28.00	11,800	က
2-4876	Dobbs Creek near D'lo, Miss	55,1	1955	24.65	7,950	Dec.	22,48	2,260	-
2-4876.2	Riles Creek near Mendenhall, Miss	25,3	1950	26.29	9,050	Dec.	19,33	2,260	7
2-4885	Pearl River at Monticello, Miss	5,040	1902	33	100,000	Dec. 25	29.97	63,500	6
2-4890	Pearl River near Columbia, Miss	5,690	1874	31	1 1 1 1	Dec. 27	25,15	60,800	œ
(1938	1 0	72,000	(0	c c	;
2-4895	Pearl River at Bogalusa, La	6,630	1961	21.70	87,000	Dec.	20,98	70,800	14
2-4900 2-4905	Bogue Lusa Creek near Franklinton, La Bogue Chitto near Tylertown, Miss	12.1	1948 1950	33.50	4,020 45,700	Dec. 11	20.71	12,900	83

				-		
1955	80.69	8,680	Dec. 17	12,43	2,520	2
1955	29.32	79,000	Dec. 18	25.03	31,600	က
1957	11.66	3,980	Dec. 17	5.89	1,550	-1
1955	23.72	44,100	Dec. 18	21.32	10,500	2
1951	15.22		Dec. 18	14.12	16,800	2
1955	24.11	61,400	Dec. 17	18,80	9,540	7
1959	12.48	2,580	Dec. 17	10.78	1,940	-
1958	28,31	9,300	Dec. 19	23,10	6,590	7
;	1 1 1		Dec. 17	25.87	1,800	7
1955	27.49	16,000	Dec. 17	25.87	5,800	4
1961	24.99	1,600	Dec. 17	25,10	1,800	7
1926	23.7		Dec. 18	21.52	42,000	6
1951		49,400			-	
1959	29.83	4,400	Dec. 17	29,61	4,100	83
1921	18.46	13,000	Dec. 18	17,42	9,300	8
1953	19,0	8,800	Dec. 17	17.91	4,000	5
1953	17.78	1,000	Dec. 17	15.86	550	က
1953	20.88	21,000	Dec. 18	19,45	13,800	2
1951	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	58,600	Dec. 20	40.53	63,500	25
1958	39,74					
1953	25,95	24,400	Dec. 18	26.17	25,000	4
1959	24.03	23,500	Dec. 18	26,12	30,000	က
-	!		Dec. 17	20.80	008'6	က
-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Dec. 17	25.20	39,500	10
1939	16,37	30,900	Dec. 17	12.12	16,700	7
1949	37.8		Dec. 17	26.58	50,000	ភ
1961	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100,000				
1948	16.2	39,900	Dec.	9,95	13,200	-
, , , , , , , , , , , , , , , , , , , ,		1955 1958 1958 1958 1951 1951 1953 1953 1953 1953 1953 1953	1955 24.11 61,400 1958 2,580 1958 2,580 1955 27.49 16,000 1961 24.99 1,600 1951 23.7 49,400 1953 18,46 13,000 1953 17.78 1,000 1953 20.88 21,000 1953 24.03 23,500 1959 24.03 23,500 1949 37.8 100,000 1948 16.37 39,900 1948 16.2 39,900	1955 24.11 61,400 Dec. 1958 22,580 Dec. 1958 28.31 9,300 Dec. 1955 27.49 16,000 Dec. 1951 23.7 49,400 Dec. 1953 29.83 4,400 Dec. 1953 18,46 13,000 Dec. 1953 17.78 1,000 Dec. 1953 20.88 21,000 Dec. 1953 25.95 24,400 Dec. 1953 25.95 24,400 Dec. 1953 25.95 24,400 Dec. 1953 25.95 24,400 Dec. 1954 37.8 23,500 Dec. 1949 37.8	1955 24.11 61,400 Dec. 17 1958 22.580 Dec. 17 1958 28.31 9,300 Dec. 17 1955 27.49 16,000 Dec. 17 1956 24.99 1,600 Dec. 17 1951 24.99 1,600 Dec. 17 1951 29.83 4,400 Dec. 17 1953 17.78 1,000 Dec. 17 1953 20.88 21,000 Dec. 17 1953 22.95 24,400 Dec. 17 1953 22.95 24,400 Dec. 17 1953 25.95 24,400 Dec. 17 1953 25.95 24,400 Dec. 18 1953 25.95 24,400 Dec. 17 1953 25.95 24,400 Dec. 17 1953 16.37 30,900 Dec. 17 1949 37.8	1955 24.11 61,400 Dec. 17 18.80 1958 12.48 2,580 Dec. 17 10.78 1958 28.31 9,300 Dec. 17 25.87 1955 27.49 16,000 Dec. 17 25.87 1951 24.99 1,600 Dec. 17 25.87 1952 23.7 49,400 Dec. 17 25.87 1953 18,46 13,000 Dec. 17 25.61 1953 17.78 1,000 Dec. 17 17.42 1953 17.78 1,000 Dec. 17 17.42 1953 20.88 21,000 Dec. 17 15.86 1953 22.95 24,400 Dec. 18 26.17 1953 24.03 23,500 Dec. 18 26.17 1959 24.03 23,500 Dec. 17 25.20 1949 37.8

^aMay have been higher in February 1961, ^bDischarge not determined, ^c1920-25; rating altered by channel clearing, ^dAt site 200 ft upstream,

e Site and datum then in use.