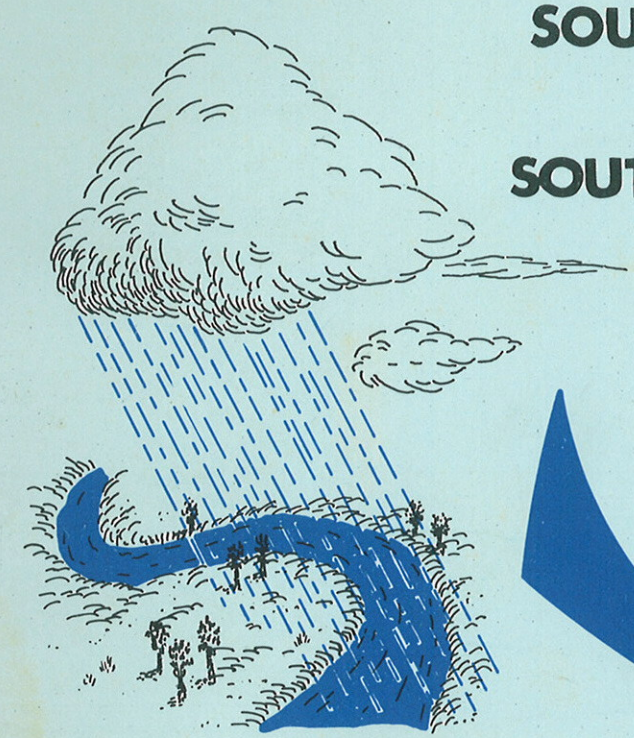
RAINFALL-RUNOFF RELATIONS

FOR SOUTHEASTERN LOUISIANA AND SOUTHWESTERN MISSISSIPPI



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STATE OF LOUISIANA
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RAINFALL-RUNOFF RELATIONS FOR SOUTHEASTERN LOUISIANA AND SOUTHWESTERN MISSISSIPPI

by

ANTHONY J. CALANDRO

HYDRAULIC ENGINEER
U.S. GEOLOGICAL SURVEY

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DEPARTMENT OF PUBLIC WORKS

Leon Gary, Director
Calvin T. Watts, Assistant Director
H. B. Meyers, Chief Engineer
C. K. Oakes, Hydraulic Engineer
E. J. Taylor, Hydraulic Engineer

Prepared cooperatively by the

United States Geological Survey

William T. Pecora, Director
E. L. Hendricks, Chief Hydrologist
H. D. Wilson, Jr., Regional Hydrologist
R. R. Meyer, District Chief

PREFACE

In 1962, the Louisiana Department of Public Works and the U.S. Geological Survey agreed, as part of their cooperative program, to investigate and develop methods which could be used to reproduce or synthesize storm hydrographs of specific storms from basin characteristics and rainfall records. The original agreement was for southeast Louisiana, an area known locally as the "Florida Parishes". After this investigation started, it was found that certain streamgaging stations in southwestern Mississippi would greatly benefit the overall results; therefore, an area of about 4000 square miles in southwestern Mississippi was also included. A similar study is in progress for an area of about 9,000 square miles in southwest Louisiana.

The project is divided into three basic phases: (1) rainfall-runoff relations, (2) unit-hydrographs, and (3) magnitude and frequency of storm runoff. Separate reports covering each phase will be published as a series of technical reports, as follows:

Technical Report No. 2a - Rainfall-Runoff Relations for Southeastern Louisiana and Southwestern Mississippi

No. 2b - Unit Hydrographs for Southeastern Louisiana and Southwestern Mississippi

No. 2c - Rainfall-Runoff Relations for Southwestern Louisiana

No. 2d - Unit Hydrographs for Southwestern Louisiana

No. 2e - Magnitude and Frequency of Storm Runoff in Southwestern Louisiana, Southeastern Louisiana, and Southwestern Mississippi

One phase of the project has been published in U.S. Geological Survey Professional Paper 501-D. This paper, "Magnitude and Frequency of Storm Runoff in Southeastern Louisiana and Southwestern Mississippi", by V. B. Sauer, will be incorporated into Technical Report No. 2e. The five reports listed above will constitute a set which can be used to derive a storm hydrograph from rainfall records and basin characteristics in the area described.

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RAINFALL-RUNOFF RELATIONS FOR SOUTHEASTERN LOUISIANA AND SOUTHWESTERN MISSISSIPPI

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ABSTRACT

This report presents a method for estimating storm runoff from rainfall records in southeastern Louisiana and southwestern Mississippi.

A rainfall-runoff relation that is generally applicable in the study area is expressed in the mathematical formula,

$$R = aP^x$$

in which, R = total storm runoff, in inches
P = total storm rainfall, in inches
a = coefficient depending on week of the year
x = exponent depending on week of the year.

Values of a and x for each week of the year are given in tabular form.

The standard error of estimate of this relationship for all storms is about ± 40 percent; for storm rainfalls greater than 4 inches, the standard error decreases to about ± 25 percent. With these limitations, the rainfall-runoff relation can also be used to distribute incremental rainfall excess with time.

Records for 20 stream-gaging stations and 34 rainfall stations in the area studied were used to compute antecedent rainfall parameters, rainfall duration, total storm rainfall, and total runoff for 959 storm hydrographs. Graphical analysis indicates that regressions of rainfall versus runoff for each week of the year are good as or better than regressions involving parameters of antecedent conditions and rainfall duration for estimating storm runoff. Apparently, the week-of-year factor accounts for seasonal variations in duration and antecedent conditions, and use of the seasonal factor alone will provide useful estimates of storm runoff in the area studied.

INTRODUCTION

Purpose

Many of the quantitative problems of hydrology could be solved if the relationship between precipitation and runoff [1/] were known. The true relationship, when all of the contributing factors are considered, is very complex and beyond the scope of any study based on the data now available. A simple regression of precipitation and runoff data provides a means for estimating storm runoff when precipitation records are available. It will provide a tool for flood prediction work and will aid in the development of agricultural, municipal, industrial, and recreational facilities where flooding is a problem. In addition to furnishing design data, the tabulations included in the appendix of this report provide basic data for extending and refining concepts in the field of statistical hydrology.

The purpose of this report is to relate rainfall to storm runoff for streams in Southeastern Louisiana and Southwestern Mississippi. Rainfall-runoff relations will provide part of the data necessary for the application of the unit-hydrograph, a subject which will be presented in Technical Report No. 2b, "Unit Hydrographs for Southeastern Louisiana and Southwestern Mississippi". This, then, is the first step in the overall plan to synthesize storm hydrographs from rainfall records and basin characteristics.

Data Available

Records of stage and of discharge are available at 5 gaging stations in the study area for periods to 23 years. Records at 14 other gaging stations are for shorter periods. Records are available at one pond station which is used to determine volumetrically runoff from a small area.

The gaging stations are listed in table A-1 of the appendix. Listed also are drainage area and period of record for each gaging station. The station number is the downstream order number permanently assigned to the gaging station.

Rainfall records for 33 U.S. Weather Bureau rainfall stations in the area, recording and non-recording, and for 1 U.S. Geological Survey rain gage were used in the study. Rainfall records are available at some stations for more than 50 years and at a few stations for more than 75 years. Rainfall stations are listed in table A-2.

1/ In this report, the term "runoff" denotes the volumetric measure of the excess rainfall. It is that part of rainfall which goes directly to surface runoff and does not include that part of rainfall which goes to infiltration, evapotranspiration, and subsurface runoff.

Available rainfall data are generally insufficient for a study of this type because of the low density of the rain-gage network. On the average, each rainfall station must represent more than 200 square miles, an area much too large for average rainfall to be accurately measured by a single rain gage.

A brief description of each stream-gaging station, accompanied by a list of storms showing selected antecedent factors, rainfall, actual runoff, and computed runoff, is given in tables A-3 through A-22 of the appendix.

Records for four gaging stations were furnished by the Mississippi district.

DESCRIPTION OF THE AREA

Physiography

The study area (fig. 1) includes most of the parishes in southeastern Louisiana, which are commonly referred to as the "Florida Parishes" and about eight counties to the north of the Florida parishes in southwestern Mississippi. It is bounded on the east by the Pearl River, on the west by the Mississippi River and on the south by U. S. Highway 190. The area includes a total of about 7,500 square miles.

The entire area is within the "Southern Pine Hills" belt of the coastal Plain Province (Fenneman, 1938). Characteristic features are the forests of long-leaf and short-leaf pine that cover most of the area. Scattered throughout the area are small patches of cultivated land and many small stock ponds. Soils in the hills are generally permeable sandy loams that allow rather rapid percolation of rainfall. Swamp areas near the southern boundary are characterized by heavy clay soils, poor drainage, and high water tables, but these areas form only a small part of the study area and have little effect on runoff of the streams.

The topography is varied, ranging from gently rolling hills in the northern part to flat, swampy lands in the southern part. Elevations of the land surface range from about 50 to 500 feet above mean sea level. Location of the study area, rain gages, and stream-gaging stations are shown on figure 1.

The principal streams draining the study area are the Homochitto River, Buffalo River, Bogue Chitto, Thompson Creek, Tchefuncta River, Tangipahoa River, Tickfaw River, and Amite River. Main tributaries of these that are gaged are the Natalbany River, Comite River, and West Fork Thompson Creek. Many other smaller streams complete the drainage network of the area, as shown on figure 1.

Most of the streams draining the study area flow southward into Lake Maurepas and Lake Pontchartrain. The Homochitto River, Buffalo River, and Thompson Creek, draining the northwestern part of the area, flow into the Mississippi River. Bogue Chitto and Bogue Lusa Creek, which drain the northeastern part of the area, are tributary to the Pearl River.

Streams in the northwestern part of the area, such as the Homochitto River, Buffalo River, and Thompson Creek, have relatively steep slopes as compared to streams in the remainder of the area. The main channels of these streams are generally deep, wide, smooth, and fairly straight, whereas the main channels of streams in the southern and eastern part of the

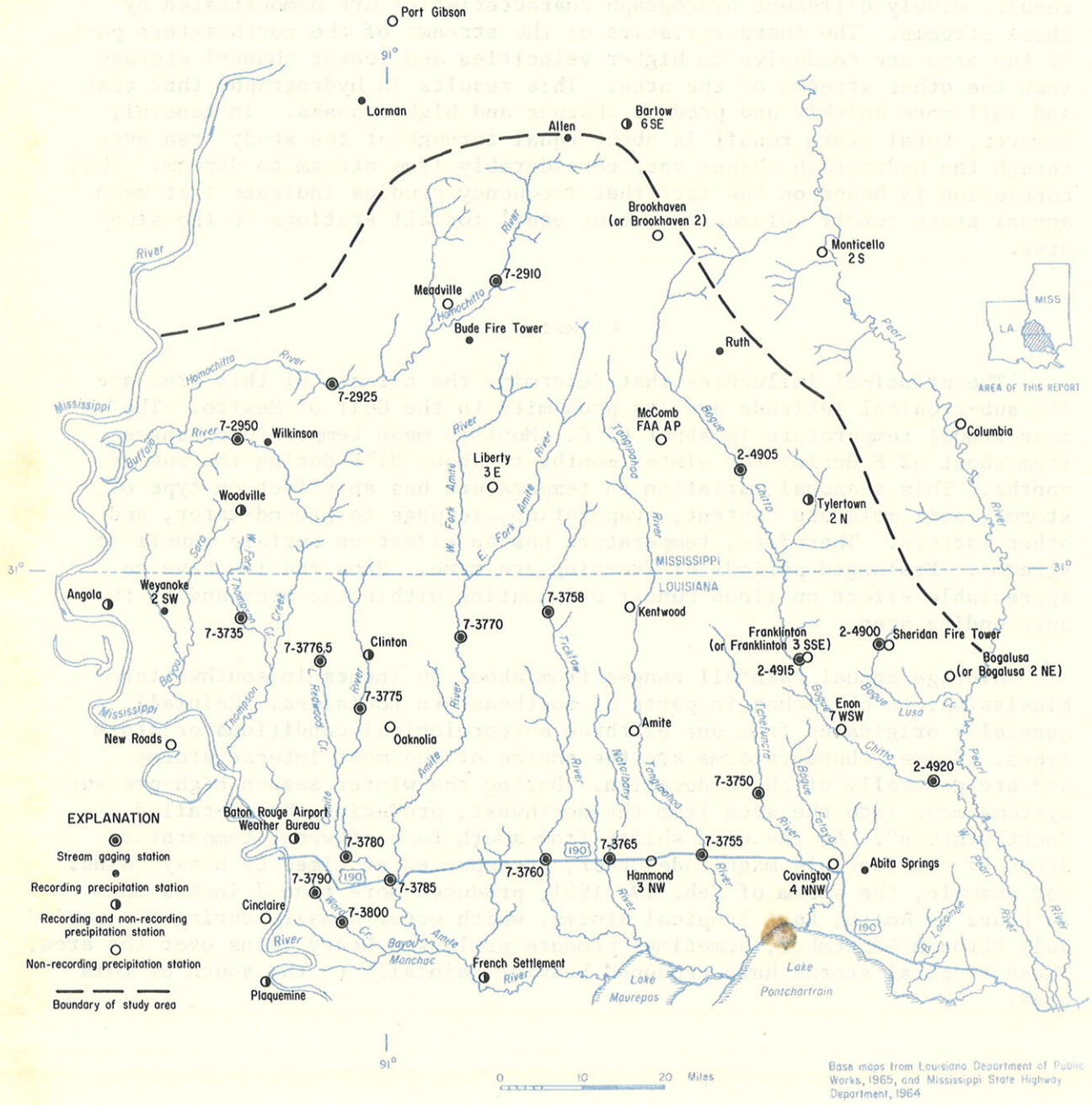

Figure 1.--Map showing drainage basins, stream-gaging stations, and rainfall stations of study area.

area (such as the Amite River, Tangipahoa River, Tickfaw River, Bogue Chitto, and others) are smaller, rougher, and considerably more meandering. As a result, widely different hydrograph characteristics are demonstrated by these streams. The characteristics of the streams of the northwestern part of the area are conducive to higher velocities and lesser channel storage than the other streams of the area. This results in hydrographs that rise and fall more quickly and produce sharper and higher peaks. In general, however, total storm runoff is about equal throughout the study area even though the hydrograph shapes vary considerably from stream to stream. This conclusion is based on the fact that frequency studies indicate that mean annual storm-runoff volumes are about equal for all stations in the study area.

Climate

The principal influences that determine the climate of this area are its sub-tropical latitude and its proximity to the Gulf of Mexico. The mean annual temperature is about 67°F. Monthly mean temperature ranges from about 52°F during the winter months to about 81°F during the summer months. This seasonal variation in temperature has an effect on type of storms, soil moisture content, evaporation, seepage to ground-water, and other factors. Therefore, temperature has an effect on surface runoff to streams. Prolonged periods of freezing are rare. Snow and ice have no appreciable effect on flood runoff originating within the area and in the surrounding area.

Average annual rainfall ranges from about 56 inches in southwestern Mississippi to 66 inches in parts of southeastern Louisiana. Rainfall generally originates from one of three meteorological conditions or storm types. Summer thunderstorms are the source of the most intense storms and are generally of short duration. During the winter season high-pressure systems move into the area from the northwest, producing the so-called "northwesters". As the wind shifts from south to northwest, temperature drops of considerable magnitude occur, accompanied at times by heavy rains. For example, the storm of Feb. 19, 1961, produced more than 7 inches in 24 hours at Amite, La. Tropical storms, which occur usually during the period July through September, sometimes produce prolonged heavy rains over the area. These tropical storms have produced heavier rainfalls to the south of this area.

ANALYSES OF DATA

Rainfall

Rainfall records of the U. S. Weather Bureau were used to approximate the total basin rainfall and duration for each storm analyzed in this study. Antecedent rainfall factors were also tabulated for each storm. These are, (1) number of dry days preceding the storm, (2) the 5-day antecedent rainfall preceding the dry days, and (3) weighted antecedent rainfall preceding storm rainfall.

The total basin rainfall and its duration were computed for the 959 storm hydrographs used in this study. The starting time of rainfall was determined by inspection of gaging station hydrographs and from U. S. Weather Bureau recording rainfall stations. Although hourly precipitation amounts of less than 0.1 inch preceding and following a storm were not considered in computing the duration, they were included in the total amount of rainfall. Hours of no rain coming within the selected storm period were counted as duration hours. For example, suppose that during hour one, 0.5 inch of rain fell; during hour two, 0.75 inch of rain; during hours three and four, no rain; and during hour five, 0.75 inch. Then the storm duration would be 5 hours and the total rainfall would be 2 inches. If hourly amounts of less than 0.1 inch preceded or followed this storm, the duration would still be considered as 5 hours, but the total rainfall would be increased by these additional amounts of rainfall. It is obvious that numerous combinations can occur which require judgement in computing these two factors.

The first antecedent factor, dry days, was computed as the total number of dry days preceding the selected storm. A day was considered dry if less than 0.1 inch of rain was recorded. Fractions of a day at the beginning or end of the period were included as indicated by recording rain gages. The second antecedent factor, 5-day antecedent rainfall, is the total rainfall occurring during the 5 days preceding the dry days. Both of these factors are evaluated directly from rainfall records by fairly simple and objective computations.

Other antecedent factors, such as 5 and 30-day weighted rainfall totals, were computed. A weight factor was assigned to each day preceding the storm, the first day having the largest weight, the second day the next largest, etc.

The Thiessen method for computing mean depth of precipitation was used for this study. This method attempts to make allowance for irregularities in gage spacing by weighting the rainfall for each gage in proportion to the area which that gage is assumed to represent.

Table 1 illustrates how the average depth of rainfall was computed for a given storm on the Tickfaw River basin.

Table 1.--Depth of rainfall for storm on the Tickfaw River basin

Tickfaw River at Holden, La.--Storm period 0400 June 6 to 0500 June 7, 1950					
		Depth, by Thiessen Weights, in inches			
Rainfall Station	Thiessen Weights	5-day Antecedent (Station total)	5-day Areal (Station total times weight)	Current Storm (Station total)	Current Storm (Station total times weight)
Hammond	0.074	1.57	.116	9.00	.666
Amite	.308	1.33	.410	8.10	2.495
Clinton	.002	1.78	.004	3.30	.007
Oaknolia	.012	1.56	.019	4.40	.053
Kentwood	.409	1.02	.417	4.01	1.640
Liberty	.177	1.15	.204	2.46	.435
McComb	.018	1.41	.025	3.58	.064
Basin Total	1.000	----	1.195	----	5.360

The total 5-day antecedent rainfall for the basin is 1.20 inches and the total rainfall over the basin for the storm period is 5.36 inches. For detailed studies requiring hourly totals, the basin total is distributed by time on the basis of recording rain gages in the area.

Table A-23 of the appendix lists rainfall stations, with their respective Thiessen weights, for each stream gaging station used in the study. Alternate combinations are also given. The addition of one or more rainfall stations to the given sets will require the recomputation of all Thiessen weights; however, the increased accuracy resulting from additional data compensates for the additional work required for the recomputation.

Runoff

Storm runoff was computed from hydrographs of 959 storms in the study area. Storms were selected for computation if the resulting peak discharge had a recurence interval of 1.15 years or more. This base provided an average of 3 to 5 storm hydrographs per year at each of the 19 regular gaging stations and one pond station.

The basic procedure for computing storm runoff consists of two parts. First, the total runoff during the storm period was computed; and second, base flow was estimated for the period and subtracted from the total runoff to obtain storm runoff.

The total runoff was computed for each storm by tabulating the average daily flows beginning with the initial day and continuing through the peak to an estimated point where the storm recession and base-flow recession meet. Base flow for the storm period was estimated on the basis of an average base-flow recession curve and a smooth transition from the recession curve to the initial base flow at the beginning of the rise. The net storm runoff was obtained by subtracting the total base-flow from the total of the listed daily flows. The procedure is illustrated in figure 2. The storm-runoff in cfs-days was reduced to inches by multiplying by the conversion factor,

$$F = \frac{0.03719}{A},$$

when A is the drainage area in square miles. The runoff, in inches, for all storms used in the analysis is listed in tables A-3 to A-22.

Multiple peaks on hydrographs were separated when it was certain that they were caused by multiple storms. If tributary timing caused the multiple peak, no separation was made. Separation was made graphically, and runoff for each storm was computed separately using the same type of procedure explained above. Judgement is necessarily a factor in such computations, and various individuals will separate storms differently. Generally these answers will not be significantly different.

Regression of Rainfall and Runoff Data

Many graphical regressions were made using precipitation, runoff, duration, and the antecedent factors. The various combinations that were tried are listed below:

1. Rainfall vs runoff for each gaging station.
2. Rainfall vs runoff using all gaging stations as a group.
3. Rainfall vs runoff for various station combinations.
4. Rainfall vs runoff using dry-days as a factor.
5. Rainfall vs runoff using storm duration as a factor.
6. Rainfall vs runoff using 5-day antecedent rain as a factor.
7. Rainfall vs runoff using various combinations of duration and other antecedent factors.

Regressions were also made of rainfall versus runoff for each week of the year. Statistical analyses indicated that the "week" regressions were good as or better than any of the other combinations listed above, including those using the antecedent and duration factors. Although the effect of duration and antecedent factors is recognized, the simple relationship between precipitation and runoff by week combinations takes into consideration the seasonal variations of these factors, at least to the extent that the use of these factors does not significantly improve the correlation.

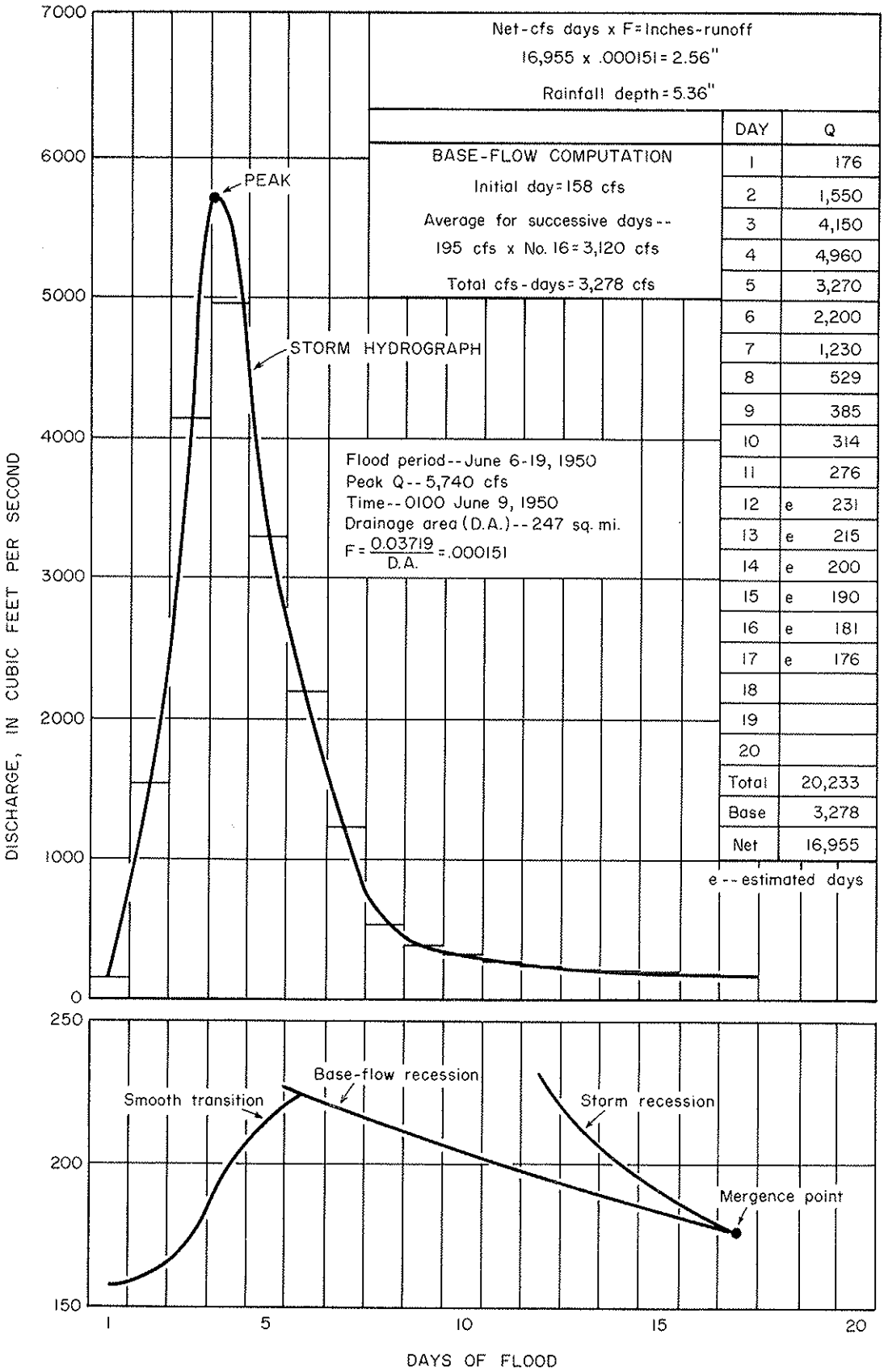

Figure 2.--Storm hydrograph for example storm showing method of computing total storm runoff.

In the preliminary analysis, separate curves were drawn for each week of the year. The weekly curves were grouped into the combinations 1-12; 13-22 and 51-52; 23 and 48-50; 24-34 and 46-47; and 35-45. Week number one starts with the first week in the calendar year. The curves of week combinations were then plotted on logarithmic paper for smoothing and for adjusting.

The final curves are expressed by the mathematical formula $R = aP^x$, in which R = storm runoff, in inches

a = coefficient depending on week of the year (also indicates the runoff for 1.0 inch of rainfall)

P = total rainfall of storm, in inches

x = exponent depending on week of the year

Values of "a" and "x" were computed for each week so that a smooth transition was accomplished throughout the year. The values of "a" and "x" are listed in table 2. It can be noted from this table that maximum runoff, (maximum value of "a") occurs during the 5th week (February) of the year and the minimum runoff occurs during the 40th week (October).

Using the final relations of rainfall versus runoff by week, the standard error of estimate of the computed runoff for all the storms used in this study is 0.166 log units (-32% to +47%). The error was larger for small storms and decreased as size of storm increased. For example, for storms larger than 4 inches of rainfall, the standard error of estimate is 0.120 log units (-22% to +28%).

Table 2.--Rainfall-Runoff Coefficients for Formula $R=aP^x$ for Southeastern Louisiana and Southwestern Mississippi

Week	a	x	Week	a	x
1	.400	1.235	27	.310	1.299
2	.421	1.222	28	.299	1.308
3	.442	1.210	29	.289	1.317
4	.464	1.198	30	.278	1.327
5	.485	1.186	31	.267	1.337
6	.483	1.180	32	.256	1.348
7	.481	1.180	33	.246	1.359
8	.480	1.181	34	.235	1.370
9	.478	1.185	35	.224	1.382
10	.476	1.190	36	.213	1.395
11	.467	1.195	37	.202	1.408
12	.458	1.200	38	.192	1.422
13	.449	1.205	39	.181	1.437
14	.440	1.210	40	.170	1.453
15	.431	1.215	41	.186	1.435
16	.421	1.220	42	.202	1.415
17	.411	1.226	43	.217	1.394
18	.402	1.232	44	.233	1.374
19	.392	1.238	45	.250	1.354
20	.382	1.245	46	.267	1.336
21	.372	1.252	47	.285	1.320
22	.362	1.259	48	.302	1.305
23	.351	1.267	49	.320	1.291
24	.341	1.275	50	.339	1.277
25	.331	1.283	51	.359	1.263
26	.320	1.291	52	.379	1.249

APPLICATION OF RAINFALL-RUNOFF-WEEK RELATION

The simplest method for estimating the total runoff from a given storm is by direct application of the average depth of rainfall over the basin to the rainfall-runoff formula. This involves only the selection of the proper coefficients from table 2 and a simple, direct computation.

To illustrate, assume that 2.00 inches of rainfall occurred in a storm in the first week of the year. From table 2, "a" equals 0.400 and "x" equals 1.235. The runoff is computed from the formula,

$$R = aP^x$$
$$R = 0.400\ (2.00)^{1.235}$$
$$R = 0.400\ (2.35)$$
$$R = 0.94 \text{ inches}$$

Time distribution of storm runoff is an important factor in some types of investigations, especially those involving the synthesis of flood hydrographs from rainfall records. Where recording rain-gages are available, the time distribution of rainfall can be determined with reasonable accuracy. Even though total runoff can be computed from total rainfall, the distribution of runoff cannot be assumed to be directly proportional to the distribution of the rainfall. It is obvious that as rainfall continues and the ground becomes more saturated, the percentage of rainfall which appears as runoff becomes larger and larger. For this reason it is suggested that runoff be computed by successive accumulations when a time distribution is desired.

Table 3 illustrates the computation of runoff by successive accumulations for a hypothetical storm occurring in the first week of the year. Rainfall was computed for one hour intervals.

Table 3.--Computation of Runoff by Successive Accumulation for a Hypothetical Storm

Hour	Rainfall, in inches	Cumulative Rainfall, in inches	*Cumulative Runoff, in inches	Hourly Runoff (Successive differences of cumulative runoff)	Ratio Hourly Runoff to Rainfall	Infiltration rate, in/hour
1	1.0	1.0	0.40	0.40	0.40	0.60
2	1.0	2.0	0.94	0.54	0.54	0.46
3	1.5	3.5	1.88	0.94	0.63	0.56
4	1.0	4.5	2.56	0.68	0.68	0.32
5	0.5	5.0	2.92	0.36	0.72	0.14
				2.92		

* Computed from formula $R = aP^x$, where a = .400 and x = 1.235

Runoff for the first hour was computed directly from the rainfall during the first hour. Runoff for the second hour was computed by using the cumulative rainfall at the end of the second hour and subtracting the runoff for the first hour from the total runoff computed for the two hours. The runoff for the second hour is 0.54 inches. The runoff for the 3d, 4th, and 5th hour was determined in similar manner.

It can be seen from the next to last column of table 3 that as the storm continues, the ratio of runoff to rainfall increases. During the first hour, 40 percent of the rainfall appeared as runoff. During the last hour, 72 percent was runoff. This is the most logical way of distributing runoff based on the regressions of this report. Infiltration rates (see last column of table 3) do not decrease as the rain continues, but vary with the magnitude of rainfall for a particular time interval. For instance, the infiltration rate during hour 3 is greater than during hour 2. According to some investigators (Scully and Bender, 1966) this type of variation is logical.

CONCLUSIONS

This study has attempted to define the effects of certain parameters, such as storm duration and antecedent rainfall conditions, on the relation between storm rainfall and runoff. Graphical regressions were made relating storm rainfall, storm duration, dry days prior to the storm, antecedent rain, and other factors, to storm runoff. These regressions were generally poor, although on the whole they did indicate improvement over the simple regression of rainfall versus runoff. It was found, however, that equally good results were obtained by correlating rainfall versus runoff by week of the year. Because of its simplicity, this method was selected in preference to the more complicated procedures using duration and antecedent factors. It is postulated that the week factor takes into account, at least to some extent, the seasonal variations of duration and antecedent conditions.

The regressions were affected to some extent by the quality of the data from which they were derived. Runoff data generally are considered fairly good; however, certain interpretive elements are involved in the computation of base flow and in the separation of overlapping storm hydrographs. These interpretations undoubtedly produce some error in the runoff data. The principal source of error is probably in the rainfall data. Each rain gage serves an average area of over 200 square miles and, consequently, the average basin rainfall for many storms, especially those of the thunderstorm variety, cannot be determined accurately. The inaccuracies of the base data overwhelm the smaller effects of duration and antecedent conditions. Until such time that a more dense rain-gage network is established, it is doubtful that significant improvements can be made over the regressions derived from this study.

The method presented in this report provides a tool for estimating runoff from rainfall. This tool will be useful in studies involving the computation of runoff hydrographs and corresponding frequencies. The user should keep in mind the sources of error and attempt to supplement the base data wherever possible.

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U.S. Department of the Army, Corps of Engineers, Baltimore District, Unit hydrographs: part 1, principles and determinations: Civil Works Investigations, project 152, 30 p.

APPENDIX

Table A-1.--GAGING STATIONS IN SOUTHEASTERN LOUISIANA AND SOUTHWESTERN MISSISSIPPI

Number	Station	Drainage area (sq. mi.)	Period of record
2-4900	Bogue Lusa Creek near Franklinton, La.	12.1	1948-61
2-4905	Bogue Chitto near Tylertown, Miss.	502	1944-61
2-4915	Bogue Chitto near Franklinton, La.	985	1928-31 1938-57
2-4920	Bogue Chitto near Bush, La.	1210	1937-61
7-2910	Homochitto River at Eddiceton, Miss.	180	1938-61
7-2925	Homochitto River at Rosetta, Miss.	750	1951-61
7-2950	Buffalo River near Woodville, Miss.	182	1942-61
7-3735	West Fork Thompson Creek nr Wakefield, La.	35.3	1949-61
7-3750	Tchefuncta River near Folsom, La.	95.5	1943-61
7-3755	Tangipahoa River at Robert, La.	646	1938-61
7-3758	Tickfaw River at Liverpool, La.	89.7	1956-61
7-3760	Tickfaw River at Holden, La.	247	1940-61
7-3765	Natalbany River at Baptist, La.	79.5	1943-61
7-3770	Amite River near Darlington, La.	580	1950-61
7-3775	Comite River near Olive Branch, La.	145	1942-61
7-3776.5	Little Redwood Creek tributary at Joe Howell Pond, near Wilson, La.	0.73	1954-61
7-3780	Comite River near Comite, La.	284*	1944-61
7-3785	Amite River near Denham Springs, La.	1,280*	1938-61
7-3790	Ward Creek at Government Street, (Capital Heights Avenue) at Baton Rouge, La.	4.10	1954-61
7-3800	Wards Creek at Siegen Lane, near Baton Rouge, La.	40.0	1947-54

* Prior to 1957, drainage area was 46 sq miles larger.

TABLE A-2.--RAINFALL STATIONS IN SOUTHEASTERN LOUISIANA AND SOUTHWESTERN MISSISSIPPI

R - Recording gage N - Non-recording

Station	Location Latitude	Location Longitude	Years of Record	Type of Gage
Abita Springs	30° 29"	90° 02"	73	R
Allen	31 44	90 42	--	R
Amite	30 43	90 30	77	N
Angola	30 57	91 35	47	R&N
Barlow 6 SE	31 45	90 35	3	R&N
Baton Rouge WB Airport	30 32	91 09	93	R&N
Bogalusa (or Bogalusa 2 NE)	30 47	89 52	31	N
Brookhaven (or Brookhaven 2)	31 34	90 26	87	N
Bude Fire Tower	31 25	90 51	--	R
Cinclaire	30 24	91 14	50	N
Clinton	30 52	91 01	66	R&N
Columbia	31 17	89 50	57	N
Covington 4 NNW	30 32	90 07	68	N
Enon 7 WSW	30 42	90 11	18	N
Franklinton (or Franklinton 3 SSE)	30 51	90 09	49	N
French Settlement	30 18	90 48	22	R&N
Hammond 3 NW	30 32	90 29	65	N
Joe Howell Pond nr Wilson (USGS)	30 54	91 07	6	R
Kentwood	30 56	90 32	21	N
Liberty 3 E	31 10	90 46	13	N
Lorman	31 49	91 03	--	R
McComb FAA AP	31 16	90 28	13	N
Meadville	31 28	90 53	6	N
Monticello 2 S	31 32	90 07	55	N
New Roads	30 42	91 26	18	N

TABLE A-2.--RAINFALL STATIONS IN SOUTHEASTERN LOUISIANA AND SOUTHWESTERN MISSISSIPPI

R - Recording gage N - Non-recording

Station	Location		Years of Record	Type of Gage
	Latitude	Longitude		
Oaknolia	30°44"	90°59"	20	N
Plaquemine	30 18	91 14	18	R&N
Port Gibson	31 57	90 59	76	N
Ruth	31 23	90 19	--	R
Sheridan Fire Tower	30 51	89 59	9	N
Tylertown 2 N	31 09	90 08	23	R&N
Weyanoke 2 SW	30 55	91 28	--	R
Wilkinson	31 13	91 21	69	R
Woodville	31 06	91 18	69	R&N

Table A-3 2-4900. Bogue Lusa Creek near Franklinton, La.

Location.--Lat 30°52'05", long 90°00'10", in NE1/4 NW1/4 sec. 39,, T.2 S., R. 12 E., St. Helena meridian, near right bank at downstream side of bridge on State Highway 10, three-quarters of a mile upstream from Witches Creek and 9 miles east of Franklinton.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
12-16-48	50	1.40	8 18/24	10	2.66	1.36	1.18
3-21-49	12	1.71	7 7/24	8	2.47	1.35	1.35
3-31-49	13	3.81	7/24	3	.86	.66	.37
5-02-49	18	3.51	1 21/24	12	5.10	2.07	2.98
6-10-49	23	.67	1 5/24	6	1.62	1.26	.65
7-23-49	30	1.77	5 11/24	16	3.87	2.72	1.67
2-13-50	7	1.66	2 0/24	13	5.11	3.82	3.30
3-15-50	11	2.44	7 11/24	8	2.84	1.52	1.62
3-18-51	11	.51	5 5/24	12	4.54	1.65	2.84
3-29-51	13	4.64	8 22/24	13	4.79	1.69	2.97
4-22-51	16	.47	9 15/24	5	4.53	3.04	2.65
1-08-53	2	2.61	---	--	1.06	1.11	.45
5-03-53	18	1.18	3 11/24	11	3.67	2.43	1.99
8-22-53	34	.63	2 0/24	22	3.69	2.65	1.41
12-03-53	49	5.05	11 9/24	10	5.92	2.09	3.18
12-06-53	49	6.26	1 12/24	16	4.73	2.73	2.38
12-09-53	49	10.70	2 23/24	6	3.71	1.93	1.73
12-12-53	50	8.44	2 1/24	10	2.52	1.31	1.10
4-16-54	16	1.33	18 0/24	8	4.16	1.51	2.40
4-13-55	15	4.17	2 11/24	2	2.76	.94	1.52
2-04-56	5	.35	17/24	34	3.11	3.37	1.86
7-07-56	27	.94	1 14/24	10	2.13	1.34	.82
4-01-57	14	1.49	7 2/24	7	1.46	1.52	.80
4-04-57	14	1.46	3 8/24	11	2.40	1.39	1.27
11-04-57	46	.86	5 1/24	21	5.48	2.47	2.68
10-14-59	41	2.70	1 22/24	3	1.38	.77	.30
4-03-60	14	2.92	1 4/24	12	2.84	.98	1.56
5-05-60	18	.53	5 4/24	4	1.64	.85	.74
8-22-60	34	.61	1 23/24	3	1.25	.83	.32
2-18-61	7	.75	---	14	4.32	2.67	2.70
3-08-61	10	.94	1 15/24	2	1.09	.53	.53
3-18-61	11	2.06	8 16/24	17	3.65	1.88	2.24
3-28-61	13	1.06	20/24	2	1.48	.66	.72

Table A-4 2-4905. Bogue Chitto near Tylertown, Miss.

Location.--Lat 31°11', long 90°17', in SE1/4 sec. 34, T. 3 N., R. 9 E., Washington meridian, near right bank on downstream side of bridge on U.S. Highway 98, a quarter of a mile upstream from Fernwood, Columbia and Gulf Railroad Co. bridge, a quarter of a mile upstream from Bars Branch, 21/4 miles downstream from Topisaw Creek, and 9 miles northwest of Tylertown.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
1-08-45	2	---	---	7	2.34	0.99	1.19
2-13-45	6	2.51	7 4/24	7	1.62	.84	.84
2-23-45	7	.78	1 5/24	4	1.68	1.00	.89
3-18-46	13	.83	2 1/24	5	2.28	1.32	1.19
5-17-46	21	4.78	1 16/24	3	1.86	1.05	.81
9-22-46	40	.79	4 18/24	6	1.23	.84	.23
1-20-47	3	2.59	2 0/24	29	2.65	3.12	1.43
3-08-47	9	3.03	11/24	8	1.13	1.08	.56
4-03-47	13	1.51	2 5/24	6	3.68	2.47	2.16
1-28-48	4	1.09	3 3/24	6	1.90	1.14	1.00
2-14-48	6	1.60	4 10/24	3	1.64	.85	.87
3-04-48	9	3.12	17/24	8	1.81	.84	.97
3-06-48	9	4.88	2 7/24	11	2.67	1.27	1.53
11-28-48	47	3.10	4 5/24	15	4.56	2.93	2.17
1-07-49	2	1.10	7 2/24	2	2.00	1.16	.98
2-17-49	7	1.26	5 16/24	24	3.38	1.89	2.02
3-22-49	12	.91	---	6	3.75	1.90	2.24
3-31-49	13	2.13	9/24	21	2.89	2.18	1.62
5-02-49	18	4.38	23/24	7	.73	.65	.38
1-07-50	1	.86	7 21/24	45	6.76	5.13	4.24
2-14-50	7	2.20	2 23/24	16	2.84	1.54	1.64
5-04-50	18	2.28	2 0/24	22	2.94	1.50	1.50
3-30-51	13	1.74	8 3/24	36	5.63	3.55	3.60
4-22-51	17	.27	6 0/24	4	2.81	.72	1.46
2-25-53	8	2.58	3 3/24	15	2.31	1.44	1.29
3-15-53	11	2.84	1 23/24	2	1.26	.49	.62
5-04-53	18	2.43	3 1/24	21	5.87	3.29	3.52
5-16-53	19	5.98	9 20/24	25	3.98	1.42	2.18
5-19-53	20	4.21	16/24	34	4.02	3.05	2.16
8-22-53	33	1.90	2 2/24	16	6.67	2.78	3.23
2-07-55	6	1.44	14 11/24	29	4.79	2.80	3.06
4-14-55	14	1.21	7 14/24	76	8.38	5.50	4.07
2-04-56	5	.84	3 6/24	16	5.02	1.92	3.30

Table A-4--cont. 2-4905 Bogue Chitto near Tylertown, Miss.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
3-12-56	11	2.25	7 22/24	9	2.33	.81	1.27
3-16-56	11	2.91	1 15/24	9	2.31	1.94	1.27
4-05-57	14	2.08	3 2/24	6	2.10	1.61	1.08
5-11-57	19	3.26	5 23/24	9	2.04	.69	.95
6-29-57	26	2.17	3 16/24	22	5.12	1.47	2.62
11-16-57	46	3.56	3 16/24	22	1.73	1.07	.57
11-19-57	47	1.57	5 2/24	18	3.43	1.91	1.45
5-05-58	18	3.16	3 22/24	25	2.61	.79	1.30
6-17-58	25	.82	1 7/24	6	3.70	1.28	1.78
12-19-59	50	.88	5 3/24	12	3.21	1.35	1.50
1-09-61	2	1.75	6 21/24	21	3.57	1.59	1.99
1-14-61	2	3.57	5 0/24	8	2.22	1.11	1.11
2-22-61	8	3.11	2 15/24	37	3.58	3.18	2.39
3-18-61	11	1.15	8 16/24	26	4.75	2.62	3.00
3-29-61	13	5.31	7 9/24	26	6.24	3.69	4.10

PEARL RIVER BASIN

Table A-5 2-4915. Bogue Chitto at Franklinton, La.

Location.--Lat 30°50'35", long 90°09'45", in SE1/4SE1/4 sec. 26, T. 2 S., R. 10, E., at bridge on State Highway 10, three-quarters of a mile west of Franklinton and 3-1/2 miles upstream from Lawrence Creek.

4-30-40	17	1.78	10 18/24	22	2.99	.76	1.57
7-11-40	27	6.46	3 5/24	1	1.10	.42	.35
12-17-40	50	4.31	2 5/24	7	1.96	1.21	.80
4-19-42	14	1.05	7 18/24	13	2.22	.76	1.15
12-29-42	52	1.95	5 4/24	18	5.08	2.70	2.88
2-07-43	6	.84	9 14/24	16	3.80	1.89	2.34
3-21-43	12	2.57	1 8/24	37	6.66	4.84	4.44
3-26-43	12	7.91	4 11/24	7	1.91	.90	1.00
3-23-44	12	3.44	2 21/24	17	2.62	.83	1.46

Table A-5--cont. 2-4915. Bogue Chitto at Franklinton, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
3-30-44	13	5.25	4 1/24	58	3.92	2.32	2.33
4-29-45	17	2.12	3 12/24	5	1.47	.37	.71
12-27-45	51	.72	14/24	21	2.28	1.16	.90
1-06-46	1	1.61	1 11/24	5	2.06	1.01	.98
3-17-46	12	1.28	2 4/24	6	2.06	1.07	1.09
5-18-46	20	5.11	2 0/24	2	1.05	.60	.41
9-23-46	38	.54	4 16/24	49	3.53	.85	1.15
1-03-47	1	1.91	22/24	32	1.33	.85	.57
1-21-47	3	3.46	1 18/24	29	2.34	2.23	1.23
3-09-47	10	.41	4 19/24	47	4.10	1.70	2.60
3-15-47	10	4.14	5 6/24	8	2.70	1.04	1.55
4-11-47	14	.35	3 8/24	15	4.30	1.19	2.56
4-02-47	13	2.04	2 3/24	7	4.30	1.63	2.61
9-20-47	37	.25	7 12/24	23	4.14	.65	1.49
12-10-47	49	.34	1 3/24	11	2.79	.96	1.20
12-16-47	50	5.03	1 17/24	7	1.59	.82	.61
1-30-48	4	1.06	4 4/24	46	3.06	1.14	1.77
3-06-48	9	1.38	5 11/24	11	2.57	1.32	1.46
11-22-48	47	3.02	2 12/24	5	1.91	.49	.67
11-27-48	47	3.20	4 9/24	15	2.26	1.36	.84
11-29-48	48	3.18	2 6/24	4	2.43	1.41	.96
12-17-48	50	1.30	8 5/24	7	3.57	1.50	1.73
1-08-49	1	1.19	7 3/24	2	1.17	.58	.49
2-18-49	7	1.46	5 16/24	14	3.38	1.92	2.02
3-22-49	12	1.64	3 11/24	6	3.80	1.10	2.27
4-01-49	13	1.84	1 14/24	33	2.35	1.43	1.26
5-02-49	18	1.81	1 23/24	7	3.07	1.61	1.61
8-14-49	33	2.00	4 1/24	20	1.10	.52	.28
1-08-50	2	.86	7 23/24	19	5.44	3.16	3.34
2-15-50	7	1.65	3 1/24	13	4.34	2.47	2.72
3-05-50	9	.68	9 17/24	24	3.58	1.37	2.16
5-05-50	18	2.30	3 2/24	22	2.63	.78	1.32
3-31-51	12	2.12	6 3/24	36	5.01	2.93	3.16

Table A-5--cont. 2-4915. Bogue Chitto at Franklinton, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
4-22-51	16	.24	3 4/24	3	3.34	1.28	1.83
4-14-52	16	1.41	8 8/24	3	1.95	.27	.95
2-26-53	8	2.16	3 1/24	15	2.12	1.27	1.17
3-16-53	11	2.84	12 0/24	123	3.79	.97	2.29
5-06-53	18	2.73	3 1/24	45	5.99	2.42	3.64
5-21-53	20	3.92	13/24	25	2.45	1.87	1.16
8-23-53	34	1.63	2 4/24	22	7.61	2.66	3.56
12-10-53	49	4.60	3 1/24	7	2.43	.58	1.04
12-12-53	49	2.62	2 0/24	5	1.34	.33	.47
2-08-55	6	.31	8 16/24	28	4.50	2.28	2.84
4-15-55	15	.67	7 19/24	84	8.98	4.31	6.20
2-05-56	6	.71	3 7/24	52	5.74	2.57	3.79
3-13-56	11	.17	3 9/24	9	2.73	.88	1.55
3-18-56	12	2.79	2 11/24	9	2.36	1.04	1.28
4-06-57	14	1.90	7 19/24	81	4.37	1.67	2.62
6-30-57	27	2.72	4 2/24	11	3.53	.90	1.42

PEARL RIVER BASIN

Table A-6 2-4920. Bogue Chitto near Bush, La.

Location.--Lat 30°37'45", long 89°53'50", in T. 5 S., R. 13 E., near center of span on downstream side of bridge on State Highway 21, 0.2 mile downstream from Gulf, Mobile, and Ohio Railroad bridge and 1.4 miles north of Bush.

7-11-40	27	5.14	2 7/24	31	5.41	1.80	2.78
12-18-40	50	4.48	2 5/24	7	1.75	1.47	.71
12-30-40	52	.93	6 12/24	15	2.94	1.22	1.46
1-05-42	1	4.57	---	--	3.20	1.05	1.68
4-21-42	16	1.00	7 19/24	12	2.00	.76	.98
1-01-43	1	1.94	4 18/24	25	5.92	4.74	3.60
2-08-43	6	.75	10 4/24	22	3.23	1.55	1.93
3-23-43	12	2.57	20/24	34	6.19	5.09	4.08
4-21-43	16	1.94	14/24	13	1.90	1.73	.92

Table A-6--cont. 2-4920. Bogue Chitto near Bush, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
3-24-44	13	3.08	2 21/24	17	2.66	.93	1.46
12-31-45	52	.66	17/24	18	2.38	.96	1.12
1-07-46	1	.91	8 11/24	6	1.88	.61	.87
3-18-46	12	1.28	2 1/24	5	2.16	1.26	1.15
5-20-46	21	4.84	2 0/24	2	.80	.38	.28
1-22-47	3	3.41	2 0/24	29	2.41	2.25	1.28
3-10-47	10	1.71	13 1/24	39	4.15	1.96	2.60
4-03-47	13	2.23	2 3/24	7	4.18	2.43	2.50
4-12-47	14	.38	4 9/24	14	4.55	1.36	2.76
12-12-47	49	.54	1 3/24	11	4.15	1.25	2.01
12-17-47	50	5.25	1 16/24	7	1.60	1.12	.62
1-31-48	4	1.21	4 5/24	9	1.48	.68	.74
3-06-48	9	.29	15/24	29	3.64	2.92	2.20
11-24-48	47	1.90	2 12/24	5	2.20	.78	.81
11-28-48	48	3.83	4 9/24	15	4.85	1.74	2.37
12-19-48	51	1.35	8 5/24	7	2.48	1.12	1.12
2-20-49	8	1.53	6 19/24	14	2.76	1.75	1.57
3-24-49	12	1.34	3 11/24	5	3.99	1.99	2.41
5-03-49	18	2.01	23/24	7	3.36	1.87	1.79
1-10-50	2	.65	19/24	19	3.73	2.07	2.10
2-15-50	7	1.63	2 23/24	16	4.29	2.67	2.69
3-06-50	10	1.15	2 6/24	17	2.18	.83	1.20
3-17-50	11	.98	2 6/24	3	2.86	1.05	1.64
2-03-51	4	2.19	1 5/24	23	1.82	.90	.95
4-01-51	13	2.61	8 3/24	36	5.34	2.68	3.38
4-24-51	16	.35	3 4/24	3	2.73	1.21	1.43
2-27-53	8	2.03	3 3/24	15	2.36	.93	1.33
3-17-53	11	2.16	1 23/24	2	1.60	.73	.82
5-22-53	20	3.36	13/24	9	2.29	1.66	1.07
8-25-53	34	1.31	2 4/24	15	6.99	2.04	3.38
12-07-53	49	3.55	2 11/24	2	2.15	.52	.86
12-12-53	49	4.62	2 1/24	4	1.43	.27	.52
2-10-55	6	.38	14 11/24	29	3.89	1.95	2.39

Table A-6--cont. 2-4920. Bogue Chitto near Bush, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
4-16-55	15	3.81	1 22/24	12	4.34	3.01	2.56
2-06-56	6	.75	3 6/24	51	5.01	1.96	3.22
3-14-56	11	1.80	7 22/24	9	2.53	1.13	1.41
3-19-56	12	2.49	1 3/24	9	2.05	.75	1.08
4-08-57	15	1.75	3 2/24	2	2.55	.96	1.35
11-16-57	45	1.35	5 2/24	18	4.49	1.83	1.90
6-14-59	24	3.01	4 21/24	1	1.75	.73	.69
5-09-60	20	.51	5 4/24	43	5.11	.80	2.92
2-23-61	8	4.87	2 15/24	37	6.18	4.22	4.13
3-20-61	12	1.66	8 14/24	31	4.69	2.36	2.92
4-01-61	13	4.72	7 9/24	28	6.69	2.82	4.42

HOMOCHITTO RIVER BASIN

Table A-7 7-2910. Homochitto River at Eddiceton, Miss.

Location.--Lat 31°30', long 90°47', near center of sec. 11, T. 6 N., R. 4 E., Washington meridian, on left bank at upstream side of Mississippi Central Railroad Co. bridge, 900 ft downstream from bridge on U.S. Highway 84, 0.4 mile upstream from McCall Creek and three-quarters of a mile east of Eddiceton.

4-11-40	14	1.39	---	--	2.07	1.53	1.06
4-30-40	17	.42	1 14/24	4	2.14	2.34	1.00
7-03-40	26	2.66	3 21/24	15	3.68	1.84	1.72
12-13-40	49	.81	1 16/24	11	4.09	2.15	1.97
12-15-40	50	4.77	2 5/24	7	1.61	1.58	.62
12-22-41	51	.67	9 0/24	--	4.90	2.35	2.68
3-21-42	11	1.17	7 6/24	3	1.42	1.20	.71
4-09-42	15	1.33	13 21/24	2	1.23	1.03	.55
5-15-42	19	.82	1 0/24	6	3.00	1.81	1.53
4-19-43	16	2.73	14 10/24	4	3.68	1.00	2.06
3-22-44	12	4.68	2 21/24	17	2.25	1.51	1.21
3-29-44	13	4.37	1 6/24	7	2.96	2.17	1.66
2-05-45	5	.36	2 12/24	6	2.24	1.62	1.26
2-06-46	5	.88	6 5/24	9	2.20	1.71	1.25

Table A-7--cont. 7-2910. Homochitto River at Eddiceton, Miss.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-13-46	6	3.97	3 14/24	6	1.65	1.34	.87
11-10-46	45	1.37	3 6/24	9	4.65	1.26	2.00
1-19-47	3	2.83	2 0/24	10	1.21	2.07	.56
3-13-47	10	3.93	5 7/24	9	2.58	1.83	1.47
4-01-47	13	1.49	2 5/24	6	4.40	3.16	2.67
4-11-47	15	.63	9/24	4	1.90	2.30	.94
4-20-47	16	3.21	6 10/24	3	2.16	1.32	1.08
3-02-48	9	.68	1 14/24	3	1.96	1.32	1.06
11-26-48	47	4.15	4 8/24	15	4.83	1.43	2.28
11-28-48	48	4.86	23/24	11	1.87	1.67	.68
1-05-49	1	1.14	7 5/24	19	3.65	1.97	1.97
3-31-49	13	3.00	1 4/24	2	2.00	2.38	1.03
1-06-50	1	.40	19/24	21	7.16	4.39	4.56
2-13-50	7	2.66	1 8/24	19	2.75	2.20	1.59
3-01-50	9	.69	6 16/24	2	3.04	.87	1.78
3-15-50	11	1.54	2 7/24	3	1.87	1.33	.99
5-02-50	17	3.59	10/24	7	2.35	2.85	1.21
3-28-51	12	2.18	12/24	10	2.60	.94	1.44
12-14-51	49	3.68	4 23/24	12	1.99	.65	.78
2-24-53	8	1.75	3 5/24	19	2.84	1.87	1.65
3-11-53	10	3.36	12 23/24	9	2.35	1.35	1.31
4-29-53	17	2.19	3 12/24	4	4.01	2.60	2.26
5-04-53	17	4.94	11/24	3	1.50	1.67	.67
5-17-53	20	4.61	1 3/24	20	5.36	4.70	3.10
3-27-54	12	.39	1 20/24	5	1.06	.55	.49
12-29-54	52	.22	11 7/24	11	3.81	.66	2.01
2-05-55	5	.85	1 6/24	6	1.68	1.15	.90
2-06-55	6	2.53	1 4/24	10	1.66	1.05	.88
2-21-55	8	.31	1 11/24	30	3.36	2.21	2.00
4-10-55	15	1.89	21/24	4	2.47	1.73	1.29
4-13-55	15	4.38	23/24	9	3.35	2.78	1.87
2-03-56	5	1.76	7/24	4	1.78	1.88	.96
3-15-56	11	1.42	9/24	6	2.12	1.56	1.14

Table A-7--cont. 7-2910. Homochitto River at Eddiceton, Miss.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
6-28-57	26	.58	1 2/24	12	3.17	1.07	1.42
11-18-57	46	2.84	15/24	4	1.29	.84	.38
6-16-58	24	1.74	15/24	6	4.15	1.69	2.09
6-12-59	23	.93	19/24	4	1.38	.72	.53
12-17-59	50	.80	4 20/24	14	4.78	4.13	2.50
2-04-60	5	.82	5 14/24	5	1.52	1.00	.80
3-28-61	13	1.08	15/24	7	3.58	2.99	2.09
3-31-61	13	5.92	1 8/24	7	1.74	1.50	.87

HOMOCHITTO RIVER BASIN

Table A-8 7-2925. Homochitto River at Rosetta, Miss.

Location.--Lat 31°19'20", long 91°06'20", in sec. 12, T. 4 N., R. 1 E., Washington meridian, on downstream side of bridge on State Highway 33 at Rosetta, 800 ft downstream from the Illinois Central Railroad Co. bridge, 1 mile downstream from Foster Creek and 5 miles upstream from Dry Creek.

12-15-51	49	3.77	5 11/24	11	1.61	.41	.59
2-21-53	7	1.20	22/24	6	2.21	1.08	1.23
2-24-53	8	2.46	3 4/24	7	2.66	2.13	.99
3-11-53	10	2.79	12 17/24	13	2.87	1.74	1.67
4-29-53	18	1.94	4 12/24	4	4.41	2.51	2.48
5-04-53	19	6.56	11/24	4	1.89	1.97	.86
5-13-53	20	.31	2 13/24	6	1.65	.71	.71
5-15-53	20	1.96	1 4/24	12	1.68	.59	.73
5-17-53	21	3.84	1 14/24	5	1.88	1.43	.82
5-18-53	21	5.72	1 7/24	24	4.37	3.77	2.37
5-03-54	18	.32	1 0/24	11	2.94	.43	1.52
2-06-55	6	1.30	13 7/24	31	4.89	3.54	3.14
2-21-55	8	4.69	14 13/24	12	3.64	1.91	2.20
4-10-55	15	1.79	13/24	10	3.08	1.54	1.69
4-13-55	15	4.89	2 0/24	9	3.91	3.65	2.26
3-15-56	11	1.64	1 5/24	8	2.71	1.78	1.54
12-22-56	49	1.18	2 0/24	23	3.35	1.04	1.57

Table A-8--cont. 7-2925. Homochitto River at Rosetta, Miss.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
12-22-56	49	1.18	2 0/24	23	3.35	1.04	1.57
4-01-57	15	2.54	10 6/24	6	1.92	.81	.95
6-28-57	26	2.69	18 21/24	20	5.86	1.52	3.14
9-27-57	38	2.22	3 11/24	24	4.30	1.53	1.53
10-16-57	41	4.54	17 22/24	7	4.12	1.13	1.41
11-14-57	45	2.51	5 1/24	9	2.63	1.02	.93
11-18-57	46	3.21	19/24	2	1.16	.80	.33
9-22-58	38	2.15	12/24	2	1.34	.67	.29
2-17-59	7	1.50	2 13/24	14	1.67	.95	.88
12-17-59	50	1.05	4 18/24	14	4.48	3.04	2.30
2-04-60	5	.68	5 12/24	3	1.74	.61	1.08
1-08-61	2	2.72	6 21/24	23	3.79	2.07	2.14
2-18-61	7	.64	14 16/24	9	2.79	1.44	1.62
3-17-61	11	1.87	9 15/24	14	2.54	1.69	1.42
3-18-61	11	2.66	4/24	8	1.10	.40	.52
3-28-61	13	4.05	7 10/24	7	4.37	3.61	2.65
3-31-61	13	5.22	20/24	16	2.46	1.97	1.33

BUFFALO RIVER BASIN

Table A-9 7-2950. Buffalo River near Woodville, Miss.

Location.--Lat 31°13'35", long 91°17'45", in SW1/4 sec. 21, T. 3 N., R. 2 W., Washington meridian, near center of span on downstream side of bridge on U.S. Highway 61, 1 1/2 miles downstream from Fords Creek, 2-3/4 miles west of Wilkinson, and 8 1/2 miles north of Woodville.

5-09-42	18	1.91	---	--	2.15	.91	1.03
12-27-42	52	1.61	16/24	3	2.02	.98	.94
3-19-43	17	1.21	2 7/24	4	2.52	1.41	1.27
3-26-43	12	5.15	4 14/24	15	3.91	1.96	2.36
3-19-44	12	1.20	1 19/24	16	2.02	1.13	1.06
1-06-45	1	1.88	5 14/24	6	1.28	1.02	.54
2-05-45	6	.50	1 20/24	6	2.12	1.27	1.17
2-06-46	6	.92	5 14/24	15	2.27	1.42	1.27

Table A-9--cont. 7-2950. Buffalo River near Woodville, Miss.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-13-46	7	2.48	---	--	1.64	1.17	.86
3-15-46	12	1.13	2 2/24	7	1.62	1.50	.82
5-15-46	21	4.01	9/24	8	2.62	1.11	1.25
5-17-46	21	6.00	1 23/24	2	1.54	1.48	.64
5-31-46	23	.48	5 7/24	4	1.80	1.28	.74
11-11-46	45	.97	---	--	7.05	2.99	3.52
1-13-47	2	.74	---	--	2.30	1.20	1.15
3-13-47	10	2.71	---	--	2.12	1.74	1.17
1-27-48	4	1.23	2 14/24	6	1.46	1.08	.73
3-02-48	9	1.97	1 15/24	3	2.48	3.46	1.41
9-13-48	37	1.12	2 21/24	15	3.14	.87	1.01
11-19-48	46	3.24	2 4/24	5	2.74	1.45	1.02
11-26-48	47	3.61	4 9/24	14	3.42	2.42	1.44
12-16-48	50	.36	8 14/24	6	3.91	3.41	1.93
3-21-49	11	2.28	7 22/24	25	2.87	2.09	1.64
1-06-50	1	.80	8 6/24	38	7.01	4.00	4.44
4-22-51	16	.46	---	--	1.93	2.05	.94
6-17-51	25	1.42	4 6/24	8	6.69	2.39	3.78
5-19-52	21	1.96	6/24	4	1.40	.39	.57
2-11-53	6	2.69	12 17/24	21	4.04	1.93	2.51
5-04-53	18	2.68	3 4/24	20	8.92	5.50	5.93
5-13-53	19	3.01	8 12/24	5	3.36	2.09	1.75
5-18-53	20	8.31	1 6/24	9	1.93	1.13	.87
3-27-54	12	.70	14/24	7	1.50	.56	.74
2-05-55	5	2.76	5/24	2	1.18	.83	.59
2-21-55	8	8.84	14 12/24	12	4.10	2.25	2.53
4-10-55	15	2.14	10/24	10	2.88	1.40	1.56
4-13-55	15	5.04	2 1/24	9	4.93	4.62	3.00
7-30-55	26	.62	8/24	6	2.51	1.04	1.04
3-11-56	11	1.29	7 23/24	7	2.54	1.46	1.42
3-15-56	11	3.19	1 7/24	9	5.08	2.87	3.26
12-22-56	50	2.68	13/24	9	3.89	1.40	1.91
6-28-57	24	5.03	13 17/24	22	5.42	1.75	2.94

Table A-9--cont. 7-2950. Buffalo River near Woodville, Miss.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
11-14-57	45	.70	8/24	5	2.82	1.92	1.02
6-22-58	25	2.90	3 12/24	14	3.16	1.65	1.44
9-22-58	37	1.54	2 8/24	5	1.69	2.93	.44
12-17-59	50	1.05	10/24	14	4.91	2.14	2.58
2-17-61	7	1.07	10 2/24	9	2.64	1.42	1.51
3-17-61	11	.60	4/24	6	3.95	2.70	2.40
3-28-61	12	2.91	4/24	2	.83	1.99	.35

THOMPSON CREEK BASIN

Table A-10 7-3735. West Fork Thompson Creek near Wakefield, La.

Location.--Lat 30°55'20", long 91°17'35", in lot 43, T. 1 S., R. 2 W., St. Helena meridian, near right bank on downstream side of bridge on State Highway 421, 3 1/2 miles northeast of Wakefield, and 4 1/2 miles upstream from Middle Fork Thompson Creek.

1-06-50	1	.79	8 1/24	37	7.19	4.93	4.58
2-10-50	6	1.01	2 19/24	18	1.06	1.72	.52
1-29-51	5	.40	5 14/24	13	1.80	1.35	1.00
2-06-51	6	3.93	5 12/24	4	2.03	1.25	1.12
3-28-51	13	1.91	20/24	8	2.09	1.55	1.09
6-17-51	25	1.36	6 7/24	19	6.33	1.26	3.51
2-20-53	8	.54	22/24	6	1.42	1.01	.73
2-24-53	9	1.96	3 4/24	7	2.12	1.71	1.17
3-11-53	11	2.73	7 17/24	12	4.03	2.78	2.53
3-22-53	13	3.48	6 11/24	3	2.01	1.00	1.04
5-04-53	18	3.42	17/24	6	3.59	6.45	1.94
5-13-53	20	5.11	9 13/24	5	3.46	1.82	1.79
5-18-53	20	3.77	2 19/24	5	9.65	5.46	6.43
2-05-55	5	.15	8 16/24	4	8.32	3.22	6.01
2-21-55	8	.19	3 20/24	12	4.08	2.83	2.52
4-10-55	15	2.19	10/24	10	2.69	1.47	1.43
4-13-55	15	4.89	2 1/24	9	4.67	3.75	2.80
12-18-55	51	4.16	13 21/24	4	1.82	1.65	.77

Table A-10--cont. 7-3735. West Fork Thompson Creek near Wakefield, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-02-56	5	.97	2 6/24	8	2.28	1.15	1.29
2-08-56	6	5.18	4 1/24	5	1.66	.92	.88
3-11-56	11	1.30	7 23/24	7	2.55	2.43	1.43
3-15-56	11	3.40	1 7/24	9	4.86	2.83	3.10
4-09-56	15	1.45	4 14/24	4	.93	.92	.47
12-22-56	50	2.86	13/24	9	3.99	1.90	1.97
6-28-57	27	2.59	1 4/24	10	4.04	2.46	1.90
11-13-57	45	2.81	5 2/24	19	3.17	1.49	1.19
11-18-57	46	3.46	4 11/24	2	.78	1.05	.17
2-06-58	6	2.92	13 9/24	2	2.24	1.93	1.25
8-24-58	34	.69	19/24	5	4.85	1.47	2.05
9-20-58	38	3.17	17/24	1	.48	.49	.04
9-22-58	38	1.49	2 8/24	5	1.88	1.76	.47
4-18-59	16	.83	21/24	2	.72	.80	.26
12-17-59	50	1.18	1 10/24	14	5.18	2.30	2.78
1-07-61	1	3.07	6 19/24	21	4.78	2.04	2.76
2-17-61	7	1.19	14/24	9	1.85	1.32	1.00
2-21-61	8	3.36	21/24	4	1.63	1.47	.86
3-17-61	11	1.17	9 16/24	21	7.43	5.20	5.14
3-28-61	13	2.72	---	2	.73	.59	.31

MISSISSIPPI RIVER DELTA

Table A-11 7-3750. Tchefuncta River near Folsom, La.

Location.--Lat 30°36'55", long 90°14'55", on line between SE1/4NE1/4 and SW1/4NE1/4 sec. 13, T. 5 S., R. 9 E., St. Helena meridian, near center of span on downstream side of bridge on State Highway 40, 1.2 miles upstream from Bull Branch and 3.6 miles southwest of Folsom.

3-24-44	12	2.55	2 17/24	17	2.55	1.57	1.41
3-30-44	13	.56	7/24	4	1.36	.88	.65
11-27-44	49	4.21	5 23/24	24	2.65	1.46	1.13
3-18-45	12	.60	3 5/24	3	2.00	1.36	1.05
4-30-45	18	2.08	3 13/24	5	2.29	.83	1.12

Table A-11--cont. 7-3750. Tchefuncta River near Folsom, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
10-07-45	41	2.06	3 19/24	24	3.83	.65	1.27
12-26-45	51	2.08	4 0/24	--	3.46	1.24	1.72
1-06-46	2	.88	5 12/24	5	2.76	1.56	1.46
2-19-46	8	1.43	4 21/24	5	2.44	1.25	1.37
3-17-46	13	1.71	3 1/24	5	2.44	1.16	1.32
3-28-46	14	4.15	12 15/24	24	3.68	1.10	2.13
1-21-47	4	2.95	12/24	7	2.82	1.51	1.60
3-08-47	10	.41	4 0/24	32	4.49	1.70	2.84
3-14-47	11	4.60	5 8/24	6	3.44	2.57	2.08
3-31-47	14	.79	5 0/24	--	3.06	1.33	1.70
4-02-47	14	3.05	3 3/24	7	4.25	3.29	2.53
4-11-47	15	.20	4 8/24	15	6.98	3.47	4.57
12-10-47	49	1.89	14 4/24	11	6.99	4.09	3.94
12-15-47	50	7.95	2 17/24	7	1.72	.85	.68
3-03-48	10	1.23	10 17/24	26	3.66	2.20	2.23
3-06-48	10	3.69	2 7/24	11	3.58	2.67	2.17
9-05-48	37	1.16	1 9/24	12	4.27	1.40	1.56
11-23-48	48	1.77	2 16/24	6	2.71	1.98	1.11
11-27-48	48	4.06	3 19/24	19	5.34	6.12	2.68
3-23-49	12	2.11	7 8/24	5	2.79	1.65	1.57
5-02-49	18	2.06	2 21/24	12	4.91	3.56	2.87
8-02-49	31	1.38	1 0/24	4	4.05	1.59	1.73
8-15-49	33	.34	8 0/24	3	4.78	1.07	2.06
3-16-50	11	.38	2 6/24	4	3.67	1.75	2.21
2-02-51	5	.66	5 14/24	85	4.70	2.21	3.04
3-29-51	13	4.41	9 3/24	36	4.45	2.28	2.71
4-23-51	17	.84	3 4/24	3	3.03	1.07	1.60
5-03-53	19	4.64	3 1/24	20	7.43	7.07	4.71
5-19-53	21	.99	3 13/24	2	2.35	1.78	1.09
7-24-53	30	1.37	23/24	1	4.96	.91	2.32
12-04-53	48	.32	10 21/24	17	6.48	3.29	3.48
12-06-53	49	7.20	1 16/24	16	2.89	1.35	1.26
12-10-53	49	9.50	4 1/24	8	3.10	.91	1.38

Table A-11--cont. 7-3750. Tchefuncta River near Folsom, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-05-56	6	.37	2 20/24	34	5.32	2.86	3.46
3-11-56	11	2.30	7 23/24	8	2.30	.91	1.26
4-05-57	14	1.50	2 1/24	8	1.99	1.45	1.01
4-18-57	16	1.81	6 16/24	5	2.20	1.36	1.10
11-15-57	45	1.13	12/24	19	6.77	2.27	3.35
2-04-59	6	2.77	3 1/24	6	4.68	2.80	2.98
6-02-59	23	.67	1 0/24	7	2.46	1.74	1.09
7-31-59	31	1.96	5 10/24	19	1.57	1.13	.49
8-24-60	35	.87	22/24	4	2.05	.81	.61
2-18-61	7	.87	9 0/24	15	3.60	3.41	2.18
2-22-61	8	3.61	2 14/24	34	9.44	8.72	6.81
3-19-61	12	2.09	8 16/24	26	3.37	1.85	1.97
3-29-61	13	5.21	6 13/24	28	3.86	2.33	2.29
9-14-61	37	3.35	21/24	14	3.60	1.00	1.34

MISSISSIPPI RIVER DELTA

Table A-12 7-3755. Tangipahoa River at Robert, La.

Location.--Lat 30°30'23", long 90°21'42", in lot 39, T. 6 S., R. 8 E., St. Helena meridian, on right bank just downstream from bridge on U.S. Highway 190, 1 mile west of Robert, 2 miles downstream from Chappepeela Creek, and 6 miles east of Hammond.

9-19-42	38	1.02	8 12/24	11	5.22	1.34	2.02
2-08-43	6	.62	9 14/24	16	3.58	1.73	2.18
3-22-43	12	2.73	19/24	33	6.11	3.67	4.01
9-22-43	38	4.18	11 3/24	4	2.20	.61	.59
3-24-44	12	.43	1 17/24	100	4.85	1.99	3.06
3-31-44	13	2.53	18/24	10	2.17	1.25	1.14
5-06-44	18	1.85	6 11/24	9	3.78	1.08	2.06
11-27-44	47	2.55	5 23/24	24	2.25	.83	.83
5-01-45	18	1.84	3 12/24	5	2.65	.71	1.33
1-07-46	1	.91	5 11/24	6	2.15	1.26	1.02
3-18-46	11	1.65	2 1/24	5	2.04	1.35	1.09

Table A-12--cont. 7-3755. Tangipahoa River at Robert, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
7-09-46	28	1.42	1 16/24	39	2.54	1.41	1.02
9-26-46	39	.80	4 17/24	47	3.83	1.21	1.24
1-04-47	1	.94	2 20/24	31	1.25	.89	.53
1-16-47	3	.41	1 1/24	38	2.36	1.79	1.25
1-22-47	4	2.66	2 1/24	28	2.85	1.96	1.59
3-09-47	10	.92	15 18/24	46	4.95	1.37	3.10
3-14-47	11	4.16	5 8/24	6	3.71	2.01	2.24
4-03-47	14	1.92	1 14/24	7	3.46	2.60	1.98
4-11-47	15	5.34	9 1/24	14	3.33	1.20	1.86
12-11-47	50	.50	1 3/24	11	6.86	1.85	3.94
2-01-48	5	1.38	4 2/24	9	2.77	1.29	1.69
3-06-48	10	3.47	2 10/24	21	3.57	4.34	2.16
9-05-48	36	.77	3 7/24	12	5.90	1.11	2.54
11-23-48	47	2.99	2 12/24	5	2.16	.99	.74
11-27-48	48	3.56	4 9/24	15	4.24	2.21	1.99
12-10-48	50	5.13	9 3/24	16	1.83	.85	.73
12-20-48	51	2.00	8 17/24	7	2.34	1.12	1.05
2-19-49	8	2.01	5 17/24	13	2.47	1.25	1.40
3-24-49	12	2.04	7 8/24	5	3.22	2.10	1.87
4-03-49	14	2.22	9/24	21	1.80	1.30	.90
4-24-49	17	1.26	9 16/24	27	3.88	1.45	2.16
5-04-49	18	1.38	1 18/24	33	5.42	3.38	3.23
1-10-50	2	.33	9 17/24	23	3.20	1.58	1.74
2-14-50	7	1.36	2 23/24	13	3.41	2.28	2.05
3-06-50	10	.78	2 7/24	16	2.27	1.20	1.27
3-17-50	11	.50	2 7/24	3	1.75	1.02	.91
6-07-50	23	1.29	4 6/24	18	5.12	2.29	2.71
2-02-51	5	.27	4 7/24	65	4.26	2.00	2.71
3-20-51	12	.51	5 12/24	30	3.50	1.37	2.06
3-31-51	13	3.60	8 1/24	41	4.99	2.50	3.11
4-25-51	17	.38	3 18/24	17	1.89	1.25	.90
2-27-53	9	1.84	3 9/24	6	2.24	1.25	1.25
3-16-53	11	2.29	3 20/24	1	1.82	.69	.95

Table A-12--cont. 7-3755. Tangipahoa River at Robert, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
5-03-53	18	4.73	3 4/24	24	4.92	4.28	2.46
5-19-53	20	2.41	13/24	8	2.90	2.11	1.44
12-04-53	49	5.44	10 21/24	17	3.44	1.58	1.58
12-06-53	49	3.99	2 7/24	1	1.55	.87	.57
12-10-53	50	5.02	3 1/24	8	2.64	1.43	1.17
1-18-55	3	.73	5 9/24	12	2.94	1.10	1.63
2-08-55	6	.80	14 1/24	28	4.53	2.46	2.87
4-16-55	16	4.36	2 6/24	5	3.42	1.92	1.89
2-05-56	6	.43	2 23/24	50	4.38	2.34	2.76
2-12-56	7	4.44	4 10/24	5	2.29	1.08	1.28
3-13-56	11	1.92	3 10/24	8	2.91	1.41	1.67
3-15-56	11	2.92	1 23/24	11	1.12	.58	.53
4-05-57	14	1.93	3 1/24	8	2.00	1.03	1.03
9-19-57	38	1.47	15/24	10	4.85	1.12	1.81
11-16-57	46	1.44	---	19	3.93	1.83	1.66
3-10-58	10	2.05	1 4/24	11	1.03	1.27	.49
2-04-59	5	2.17	2 1/24	6	3.36	1.83	2.04
6-02-59	22	.73	23/24	25	4.32	1.75	2.28
6-14-59	24	1.99	2 18/24	2	2.70	.92	1.21
2-05-60	6	.87	5 13/24	5	1.95	.85	1.06
4-04-60	14	1.68	22/24	8	1.76	.93	.87
2-19-61	8	.82	10 1/24	18	5.00	2.69	3.20
2-22-61	8	5.00	2 4/24	41	6.67	4.08	4.51
3-20-61	12	1.91	8 17/24	25	4.83	2.57	3.03
3-30-61	13	5.40	6 14/24	27	4.79	2.76	2.96
9-15-61	37	1.70	21/24	14	2.54	.67	.75

MISSISSIPPI RIVER DELTA

Table A-13 7-3758. Tickfaw River at Liverpool, La.

Location.--Lat 30°55'47", long 90°40'41", on line between secs. 46 and 47, T. 1 S., R. 5 E., St. Helena meridian, near left bank on downstream side of bridge on State Highway 38, half a mile east of intersection of State Highways 38 and 43, half a mile upstream from Cotton Patch Branch and 1 mile north of Liverpool.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
3-12-56	11	1.92	6 11/24	7	6.69	3.15	4.53
3-25-57	12	2.36	2 8/24	4	2.08	.81	1.10
11-15-57	46	1.57	5 1/24	20	4.12	1.08	1.78
3-08-58	10	1.46	8 20/24	64	2.66	1.42	1.52
6-23-58	25	1.91	3 5/24	14	2.96	1.14	1.33
7-26-58	30	1.45	---	--	1.65	.44	.54
2-03-59	5	1.76	2 8/24	14	3.24	1.75	1.96
6-01-59	22	2.30	22/24	2	1.22	.97	.47
12-18-59	50	1.33	4 18/24	13	3.35	1.82	1.58
2-05-60	6	.55	5 14/24	4	2.42	1.66	1.38
2-18-61	7	.75	11 0/24	10	3.70	1.70	2.26
2-22-61	8	3.73	1 23/24	34	3.86	2.21	2.36
2-25-61	8	7.59	2 7/24	3	1.55	1.00	.81
3-17-61	11	.13	8 16/24	25	6.91	5.05	4.86
3-29-61	12	---	---	2	3.25	2.16	1.88

MISSISSIPPI RIVER DELTA

Table A-14 7-3760. Tickfaw River at Holden, La.

Location.--Lat 30°30'13", long 90°40'38", in sec. 26, T. 6 S., R. 5 E., St. Helena meridian, near left bank on downstream side of bridge on U.S. Highway 190, half a mile west of Holden and 5.1 miles upstream from Big Branch.

12-17-40	51	.77	2 0/24	10	5.23	3.28	2.91
12-29-40	52	.75	5 15/24	8	2.46	1.33	1.17
5-18-42	20	1.02	2 14/24	6	2.90	.98	1.43
9-19-42	38	1.35	6 22/24	27	4.12	1.89	1.44
12-30-42	52	1.93	4 6/24	21	4.67	2.37	2.59
2-08-43	6	.64	9 16/24	16	2.71	2.02	1.57
3-22-43	12	4.67	2 9/24	30	4.03	2.55	2.44
3-28-43	13	8.36	4 14/24	6	2.17	.59	1.14
3-25-44	12	2.99	3 2/24	9	2.37	1.02	1.29
4-01-44	13	4.48	20/24	38	2.95	1.27	1.66

Table A-14--cont. 7-3760. Tickfaw River at Holden, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
5-02-45	18	1.32	4 19/24	5	2.78	.97	1.42
3-18-46	11	2.81	2 3/24	7	2.18	1.72	1.19
6-20-46	25	1.89	4 12/24	11	1.17	.59	.41
7-09-46	28	2.42	12/24	29	2.06	1.28	.77
9-26-46	39	.41	12 15/24	6	.94	.86	.07
1-17-47	3	.43	5 18/24	7	2.60	1.91	1.40
1-23-47	4	2.62	12/24	10	2.52	1.64	1.40
3-10-47	10	.24	---	7	4.13	1.53	2.58
3-15-47	11	4.22	---	11	4.43	2.58	2.76
5-03-47	18	1.35	13 2/24	8	5.03	3.35	2.94
12-12-47	50	.88	16 14/24	14	4.68	2.03	2.44
3-05-48	10	.51	12/24	26	3.41	3.23	2.05
11-29-48	48	3.83	2 17/24	18	5.34	3.00	2.69
12-21-48	51	2.08	8 14/24	24	3.06	1.49	1.47
2-19-49	8	2.09	8 3/24	13	3.20	1.87	1.90
3-24-49	12	1.75	7 6/24	6	3.19	2.80	1.85
4-03-49	14	2.46	3 2/24	2	1.87	1.48	.94
4-24-49	17	1.14	10 0/24	2	4.12	1.52	2.32
5-04-49	18	1.52	1 16/24	13	4.91	2.06	2.85
1-09-50	2	1.12	10/24	26	3.36	2.06	1.84
2-16-50	7	1.42	1 15/24	14	3.28	2.15	1.95
3-18-50	11	.58	2 7/24	2	1.71	1.39	.89
6-09-50	23	1.20	2 15/24	25	5.36	2.56	2.95
2-03-51	5	.59	5 0/24	78	4.54	2.47	2.91
3-21-51	12	2.32	12/24	24	1.47	1.00	.73
3-31-51	13	.49	2 0/24	11	4.15	2.79	2.49
2-28-53	9	1.99	3 0/24	20	2.37	1.44	1.38
3-17-53	11	2.86	14 0/24	2	3.97	1.63	2.42
4-27-53	17	.84	5 21/24	10	3.15	.89	1.68
5-03-53	18	2.38	3 4/24	20	4.99	3.20	2.91
5-20-53	20	2.18	1 15/24	20	3.59	3.13	1.88
12-06-53	49	.86	13/24	11	3.55	1.42	1.64
12-12-53	50	4.96	2 22/24	86	4.10	1.80	2.05

Table A-14--cont. 7-3760. Tickfaw River at Holden, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-09-55	6	.35	9 15/24	30	4.43	2.86	2.79
4-15-55	15	4.50	2 0/24	10	3.76	1.94	2.05
8-04-55	31	1.76	1 19/24	18	5.63	3.08	2.67
2-07-56	6	.72	3 7/24	8	3.75	2.34	2.30
3-14-56	11	2.06	3 11/24	7	5.07	2.79	3.25
9-21-57	38	3.01	5 9/24	8	5.77	1.32	2.33
11-16-57	46	1.44	4 1/24	20	4.03	2.23	1.71
3-10-58	10	1.26	2 16/24	2	1.70	1.37	.90
5-27-58	21	1.41	6 10/24	1	1.81	1.00	.78
2-05-59	6	1.96	2 8/24	14	3.96	2.18	2.45
6-04-59	23	3.44	3 10/24	13	4.84	2.70	2.58
2-07-60	6	.87	5 14/24	4	2.14	1.49	1.18
2-23-61	8	.66	10 23/24	21	13.67	6.73	10.55
3-20-61	12	1.91	8 16/24	25	5.89	3.11	3.85
4-01-61	13	5.93	7 20/24	6	4.58	2.17	2.81

MISSISSIPPI RIVER DELTA

Table A-15 7-3765. Natalbany River at Baptist, La.

Location.--Lat 30°30'15", long 90°32'45", in NE1/4NW1/4 sec. 30, T. 6 S., R. 7 E., St. Helena meridian, near right bank on downstream side of bridge on U.S. Highway 190, 0.7 mile downstream from Still Branch and 0.7 mile west of Baptist.

1-13-44	2	.99	4 22/24	6	1.93	1.20	.94
3-23-44	12	2.26	3 2/24	9	2.77	1.01	1.55
5-05-44	18	1.18	21/24	1	1.87	.90	.87
11-26-44	48	2.14	6 22/24	6	1.12	.60	.35
1-22-45	4	.54	2 16/24	8	1.06	.47	.47
2-05-45	6	.94	1 11/24	5	1.68	.76	.89
7-27-45	30	.95	1 16/24	6	1.42	.72	.44
1-05-46	1	.80	5 13/24	3	2.18	.95	1.05
3-08-46	10	1.63	21/24	4	1.46	.64	.75
3-16-46	11	2.45	2 3/24	7	1.96	1.08	1.04

Table A-15--cont. 7-3765. Natalbany River at Baptist, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
5-15-46	20	4.58	1 12/24	9	1.27	1.16	.51
5-18-46	20	5.85	1 23/24	12	1.20	.76	.48
6-01-46	22	1.04	6 2/24	7	2.35	1.16	1.06
1-15-47	3	.71	1 14/24	1	1.42	.83	.68
1-21-47	3	1.72	12/24	10	2.00	1.00	1.02
3-07-47	10	.24	---	36	2.45	1.61	1.38
3-13-47	11	4.57	6 9/24	9	1.88	2.44	1.00
4-02-47	14	2.46	13 2/24	8	2.79	1.67	1.52
4-11-47	15	5.27	8 22/24	17	4.06	.85	2.38
9-19-47	38	.34	23 14/24	10	5.42	.98	2.13
12-11-47	50	1.08	17 0/24	14	6.79	4.63	3.90
12-15-47	50	8.24	1 13/24	9	1.54	1.50	.59
3-03-48	9	.38	1 2/24	7	3.44	1.46	2.07
3-06-48	10	3.50	1 22/24	16	4.10	4.37	2.55
11-22-48	47	3.17	2 14/24	7	2.92	1.00	1.17
11-26-48	48	4.56	2 17/24	18	6.49	8.08	3.44
3-23-49	12	2.06	7 6/24	6	2.75	1.82	1.54
4-22-49	16	2.36	1 0/24	2	1.96	.56	.96
5-04-49	18	1.00	1 15/24	13	2.71	1.08	1.38
2-13-50	7	1.17	1 15/24	14	3.52	1.90	2.12
3-03-50	9	.57	23/24	19	2.19	1.13	1.21
6-07-50	23	1.38	2 21/24	18	8.15	5.48	5.03
1-30-51	5	.77	11 2/24	20	2.54	.72	1.46
2-01-51	5	2.54	1 4/24	19	2.00	1.62	1.10
3-18-51	11	.59	5 1/24	5	4.59	2.12	2.89
3-29-51	13	1.43	10/24	12	3.19	2.27	1.82
2-15-52	7	.66	2 7/24	5	1.81	.74	1.04
4-04-52	14	1.20	3 4/24	4	3.06	1.11	1.70
1-23-53	4	1.65	5 10/24	3	1.49	1.01	.75
2-15-53	7	.64	2 11/24	7	1.69	1.22	.89
2-25-53	8	2.81	7/24	12	.84	.93	.38
3-15-53	11	1.62	3 7/24	2	2.58	1.50	1.44
4-25-53	17	.73	5 21/24	10	3.60	1.56	1.97

Table A-15--cont. 7-3765. Natalbany River at Baptist, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
5-03-53	18	1.12	3 4/24	20	6.21	7.15	3.84
5-18-53	20	1.91	1 15/24	20	2.83	2.03	1.40
6-29-53	26	2.90	22/24	15	5.62	1.81	2.66
7-24-53	30	4.09	---	--	1.59	.52	.52
11-20-53	47	2.19	11 1/24	15	5.51	1.42	2.71
12-04-53	49	.87	3 8/24	15	3.89	2.51	1.86
12-09-53	49	5.78	2 22/24	9	2.76	2.18	1.19
12-12-53	50	4.65	2 1/24	4	1.68	1.10	.66
12-22-53	51	1.19	1 18/24	4	1.46	.97	.58
4-16-54	16	.22	6 20/24	10	2.31	1.36	1.17
1-16-55	3	.50	5 2/24	13	2.52	1.41	1.35
2-06-55	6	.32	8 15/24	13	3.89	2.24	2.40
4-10-55	15	.43	2 3/24	27	5.50	1.69	3.41
4-13-55	15	5.86	2 0/24	10	2.04	1.22	1.01
7-31-55	31	1.94	2 15/24	2	2.43	1.18	.88
8-02-55	31	4.05	2 10/24	18	3.56	2.19	1.46
8-06-55	32	6.69	3 3/24	1	.42	.56	.07
2-04-56	5	1.76	1 13/24	17	2.10	1.53	1.17
2-10-56	6	1.54	1 6/24	7	.92	.78	.44
3-11-56	10	2.20	8 0/24	7	1.93	1.06	1.04
3-14-56	11	2.32	1 13/24	1	1.31	.82	.64
5-05-56	18	1.65	2 4/24	5	.52	.29	.18
12-23-56	51	2.06	22/24	2	1.94	.55	.83
4-01-57	13	1.14	7 20/24	3	2.41	.61	1.29
4-04-57	14	2.41	3 2/24	10	2.06	1.12	1.06
4-17-57	16	1.00	5 10/24	3	2.66	.90	1.39
11-14-57	46	1.10	5 1/24	20	4.02	2.02	1.71
2-06-58	6	.42	8 6/24	4	2.35	1.17	1.32
3-07-58	10	1.66	1 11/24	2	1.58	.79	.82
3-24-58	12	1.31	5 14/24	12	2.20	1.07	1.18
4-10-58	15	1.45	9 12/24	8	2.16	.70	1.10
5-24-58	21	1.36	22/24	1	1.34	.55	.55
2-03-59	5	2.09	2 8/24	14	3.68	2.22	2.28

Table A-15--cont. 7-3765. Natalbany River at Baptist, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-25-59	8	.31	9/24	26	2.16	.94	1.19
5-31-59	22	.43	1 0/24	24	4.36	2.54	2.30
7-31-59	31	2.36	3 10/24	2	2.36	1.23	.84
8-03-59	31	3.06	3 10/24	1	.78	.29	.26
10-14-59	41	.97	1 20/24	12	1.97	1.06	.49
2-04-60	5	1.19	5 14/24	4	2.09	1.51	1.16
4-03-60	14	1.48	4 6/24	7	2.26	1.23	1.17
5-05-60	18	1.89	10 6/24	5	2.15	.43	1.03
2-18-61	7	.61	10 23/24	21	4.22	3.18	2.64
2-21-61	8	6.00	1 23/24	1	9.27	5.92	6.69
3-18-61	11	2.27	---	--	1.94	1.14	1.04
3-29-61	13	1.78	22/24	2	.70	.65	.29
4-26-61	17	1.82	14 4/24	4	1.76	.61	.82
9-14-61	37	2.45	1 14/24	6	2.61	1.38	.78

MISSISSIPPI RIVER DELTA

Table A-16 7-3770. Amite River near Darlington, La.

Location.--Lat 30°53'20", long 90°50'40", in lot 72, T. 2 S., R. 4 E., St. Helena meridian on left bank just downstream from bridge on State Highway 10, 1.5 miles upstream from Collins Creek and 3.9 miles west of Darlington.

12-07-50	49	.74	3 6/24	11	2.14	.82	.86
1-30-51	5	.32	11 13/24	8	2.34	1.60	1.33
3-30-51	13	2.94	7 1/24	37	5.03	4.03	3.10
4-23-51	17	1.03	14 0/24	--	2.55	2.26	1.29
6-18-51	25	2.16	6 3/24	15	3.51	.63	1.66
2-22-53	8	.77	22/24	6	1.70	1.03	.90
2-26-53	9	2.88	2 8/24	12	2.34	1.94	1.31
3-13-53	11	3.30	13 6/24	12	2.84	1.83	1.63
5-01-53	18	2.22	4 12/24	4	1.05	.89	.43
5-05-53	18	2.00	3 4/24	7	3.82	2.80	2.10
5-20-53	20	3.75	1 15/24	16	3.61	2.74	1.88

Table A-16--cont. 7-3770. Amite River near Darlington, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-07-55	6	.30	9 15/24	13	4.30	3.52	2.70
2-23-55	8	.68	3 22/24	7	2.70	1.53	1.55
4-13-55	15	3.96	2 0/24	10	5.71	4.97	3.57
12-19-55	51	3.29	13 1/24	4	1.16	.45	.45
2-05-56	6	.78	3 8/24	50	4.51	3.04	2.85
2-06-56	6	.50	5 3/24	9	2.50	.94	1.42
2-11-56	6	2.44	4 3/24	41	1.96	1.25	1.07
3-12-56	11	1.66	3 11/24	7	4.41	2.75	2.75
3-17-56	11	4.70	1 6/24	8	2.52	2.29	1.41
4-05-57	14	1.63	3 2/24	10	3.43	1.24	1.96
5-04-57	18	.46	1 6/24	9	1.27	.83	.59
6-29-57	26	2.59	4 18/24	15	5.70	2.25	3.02
9-29-57	39	2.42	2 19/24	17	3.33	1.05	1.02
11-16-57	46	1.55	4 1/24	19	3.98	2.04	1.69
11-20-57	47	3.59	19/24	3	1.62	1.06	.54
6-23-58	25	2.23	3 5/24	18	2.59	1.21	1.12
9-23-58	38	1.72	13/24	12	4.28	1.83	1.52
2-03-59	5	2.13	2 7/24	14	2.69	1.47	1.57
5-27-59	21	2.00	21/24	1	1.90	.84	.84
12-19-59	51	1.07	4 18/24	13	4.31	2.93	2.27
2-06-60	6	.50	5 14/24	4	2.50	.94	1.85
1-10-61	2	1.39	6 19/24	22	3.20	1.60	1.75
1-26-61	4	.22	5 5/24	11	2.49	1.03	1.53
2-19-61	8	1.04	10 23/24	7	2.82	1.64	1.64
2-25-61	8	4.02	2 7/24	3	1.62	1.00	.85
3-18-61	11	1.16	8 16/24	18	7.80	5.05	5.41

Table A-17 7-3775. Comite River near Olive Branch, La.

Location.--Lat 30°45'35", long 91°02'50", between lots 41 and 42, T. 3 S., R. 2 E., St. Helena meridian, near center of span on downstream side of bridge on State Highway 67, 500 ft downstream from Knighton Bayou and 1.8 miles northeast of Olive Branch.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-06-43	6	.16	10 16/24	16	4.72	4.00	3.02
3-21-43	12	1.25	2 0/24	11	5.53	3.12	3.57
3-27-43	13	6.16	5 15/24	5	2.25	1.95	1.19
11-07-43	45	.29	14 14/24	10	4.82	1.29	2.11
3-20-44	12	.82	17/24	16	2.37	1.67	1.29
4-24-44	17	2.02	2 1/24	3	1.73	1.25	.81
1-08-45	2	.88	1 23/24	8	2.84	1.51	1.51
4-26-45	17	1.37	1 21/24	3	1.84	.93	.87
4-29-45	17	1.88	1 23/24	8	2.84	1.51	1.48
3-16-46	11	1.92	2 3/24	7	2.67	1.52	1.52
1-14-47	2	.94	3 22/24	7	3.00	2.44	1.61
1-21-47	3	4.13	3 0/24	24	2.65	1.80	1.44
3-14-47	11	2.94	4 0/24	10	2.34	2.51	1.14
4-02-47	14	1.87	2 11/24	8	2.44	1.73	1.29
12-10-47	50	1.01	17 2/24	13	4.41	1.59	2.25
3-03-48	9	1.79	5 9/24	46	3.64	3.85	2.22
3-06-48	10	3.67	2 9/24	8	2.88	2.28	1.68
11-27-48	48	5.81	4 9/24	15	4.86	1.14	2.38
11-28-48	48	5.81	1 0/24	10	1.07	1.28	.33
12-17-48	50	1.56	9 2/24	8	2.55	3.33	1.13
2-17-49	7	2.49	6 19/24	19	3.44	2.09	2.06
3-22-49	12	2.11	6 6/24	6	3.90	3.23	2.34
3-31-49	13	1.88	1 16/24	32	3.20	2.07	1.82
4-24-49	17	.62	12 2/24	2	2.25	1.91	1.11
1-07-50	1	.63	9 3/24	24	4.99	3.53	2.91
1-31-51	5	.32	10 0/24	4	3.45	2.65	2.11
3-28-51	13	.18	2 4/24	16	2.07	.70	1.08
3-29-51	13	2.24	19/24	12	3.54	3.26	2.06
2-26-53	9	2.33	8/24	10	3.02	1.94	1.77
3-12-53	11	3.93	13 5/24	11	3.82	1.79	2.31
5-04-53	18	4.58	3 4/24	7	3.02	1.26	1.57
5-06-53	18	4.53	1 8/24	5	1.58	1.49	.71
5-18-53	20	3.10	21/24	20	6.88	4.32	4.24

Table A-17--cont. 7-3775. Comite River near Olive Branch, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-06-55	6	.32	8 15/24	13	5.31	3.55	3.46
2-23-55	8	.31	3 22/24	7	2.30	1.59	1.29
4-11-55	15	.40	7 18/20	7	2.44	.96	1.28
4-12-55	15	2.79	10/24	10	1.94	.99	.97
4-13-55	15	2.35	2 0/24	10	3.73	3.60	2.14
5-20-55	20	8.35	35 16/24	14	3.81	.58	2.02
8-03-55	31	2.98	1 19/24	18	2.32	2.00	.82
12-19-55	51	4.50	12 1/24	4	3.15	2.30	1.53
2-03-56	5	.74	1 12/24	18	2.15	.72	1.20
2-05-56	6	3.26	15/24	17	2.44	2.51	1.38
3-12-56	11	1.92	3 11/24	7	4.50	3.07	2.82
3-12-56	11	4.64	1 3/24	1	.49	.75	.17
3-17-56	11	1.16	1 4/24	9	.54	.79	.19
4-04-57	15	1.00	2 14/24	7	2.59	1.03	1.37
6-29-57	26	1.40	5 2/24	20	4.07	1.74	1.96
11-14-57	46	1.62	5 1/24	20	3.42	1.67	1.38
9-24-58	39	2.12	13/24	12	.97	1.21	.17
2-02-59	5	2.84	2 10/24	12	2.81	1.27	1.65
2-25-59	8	.26	3 22/24	28	2.16	.75	1.19
12-18-59	51	1.29	4 18/24	13	4.08	2.62	2.12
1-17-60	3	.65	2 13/24	4	2.46	1.15	1.31
1-09-61	2	2.75	6 19/24	22	2.89	1.54	1.54
2-18-61	7	1.31	10 23/24	9	3.70	2.19	2.25
2-25-61	8	6.12	2 7/24	5	2.02	1.28	1.10
3-18-61	11	1.57	8 16/24	25	7.47	6.10	5.19
3-31-61	13	3.53	1 0/24	6	.99	.66	.44

Table A-18 7-3776.5. Little Redwood Creek tributary at Joe Howell Pond, nr Wilson, La.

Location.--Lat 30°53'40", long 91°07'00", sec. 70, T. 2 S., R. 1 E., St. Helena meridian, 1,000 ft east of State Highway 19 and 1.7 miles south of Wilson.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
7-1/2-54	27	0.90	7 2/24	1.75	2.83	0.45	1.20
7-17-54	29	.71	7 6/24	1.50	2.75	1.24	1.08
12-28-54	52	.28	4/24	3.50	1.20	.29	.48
12-28/29-54	52	1.54	3/24	3.50	.89	.19	.33
2-05-55	6	.18	8 17/24	5.50	3.41	2.33	2.06
4-09-55	15	.76	10/24	8.00	1.98	1.26	.99
4-9/10-55	15	2.74	11/24	10.17	1.86	1.13	.92
4-12-55	15	4.66	2 2/24	1.75	.91	.53	.38
4-12/13-55	15	5.81	2/24	1.75	3.62	2.78	2.06
5-20-55	20	.41	10/24	3.50	2.12	.32	.97
6-21-55	25	1.94	11 9/24	1.00	2.88	.39	1.28
7-27-55	30	.60	4 20/24	2.00	1.52	.24	.48
8-1/2-55	32	3.48	1/24	14.50	4.36	2.55	1.86
9-22-55	38	.41	11 21/24	.75	1.61	.20	.38
10-28-55	43	1.75	21 19/24	1.66	1.64	.19	.43
12-18-55	51	4.54	13 22/24	4.25	3.12	2.42	1.53
2-2/3-56	5	.50	3 14/24	10.00	2.28	1.32	1.29
3-11-56	10	1.60	17/24	5.50	4.53	2.75	2.92
6-12/13-56	24	.14	12 8/24	5.00	1.19	.006	.43
6-13-56	24	1.33	5/24	6.00	.84	0	.27
6-13-56	24	2.17	3/24	1.75	.29	.04	.07
6-15/16-56	24	2.56	1 21/24	2.30	3.25	.66	1.53
6-18-56	25	6.59	21/24	1.25	1.62	.40	.62
3-17/18-57	11	.42	5 17/24	5.25	1.68	.77	.87
3-21-57	12	1.91	3 0/24	6.50	2.12	1.27	1.13
5-02-57	18	.81	1 8/24	4.25	1.81	.86	.84
6-27/28-57	26	1.00	10/24	4.00	3.07	1.43	1.36
10-15/16-57	42	.61	17/24	7.25	3.46	1.79	1.17
11-13/14-57	46	2.14	2/24	3.75	1.64	.92	.52
8-24-58	34	.12	21/24	6.00	3.58	1.34	1.34
9-11/12-58	37	.34	2 23/24	2.50	2.98	.58	.94
4-17-59	16	.25	1 17/24	5.50	1.33	1.02	.60
10-13/14-59	41	.14	8/24	7.75	2.05	.63	.52

Table A-18--cont. 7-3776.5. Little Redwood Creek trib. at Joe Howell Pond, nr Wilson, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
12-16/17-59	51	1.55	13/24	8.25	1.34	.65	.49
12-16/17-59	51	2.89	3/24	7.50	2.47	2.14	1.30
6-06-60	23	1.80	30 3/24	6.00	2.77	.78	1.28
10-30-60	44	.25	10 22/24	8.00	2.75	.91	.93
1-13/14-61	2	.48	5 18/24	7.50	1.37	.73	.59
1-24/25-61	4	.36	5 4/24	10.25	1.45	.81	.72
2-17-61	7	.22	10 12/24	2.00	1.15	.65	.86
2-17-61	7	1.15	12/24	6.75	2.60	1.83	1.49
3-16/17-61	11	.26	6/24	6.25	4.76	4.02	3.00
9-11-61	37	.50	1 0/24	9.00	1.75	.05	.45
9-11-61	37	2.25	2/24	6.00	.78	.05	.14
9-13/14-61	37	3.18	1 15/24	6.75	2.38	.48	.69
9-28-61	39	.60	6 10/24	4.00	1.68	.14	.38

MISSISSIPPI RIVER DELTA

Table A-19 7-3780. Comite River near Comite, La.

Location.--Lat 30°30'45", long 91°04'25", in NW1/4 sec. 24, T. 6 S., R. 1 E., St. Helena meridian, near left bank on downstream side of bridge on State Highway 946, half a mile downstream from Blackwater Bayou and 2.6 miles west of Comite.

4-25-44	17	1.45	2 0/24	3	1.71	1.18	.79
1-08-45	2	.86	1 23/24	8	2.52	1.56	1.30
5-01-45	18	2.86	4 17/24	5	1.80	1.16	.83
3-09-46	10	.71	1 7/24	6	1.25	.29	.62
3-17-46	11	1.26	2 1/24	7	2.22	1.62	1.21
5-16-46	20	4.85	1 18/24	7	2.63	.79	1.27
6-02-46	22	.60	4 17/24	9	2.50	1.37	1.15
1-15-47	3	.89	5 19/24	7	2.26	2.44	1.18
1-21-47	3	3.15	21/24	10	1.35	1.65	.64
3-08-47	10	1.65	11/24	6	1.66	1.56	.87
3-14-47	11	3.16	5 9/24	8	4.21	2.93	2.60
4-03-47	14	1.68	2 6/24	8	2.18	1.44	1.13

Table A-19--cont. 7-3780. Comite River near Comite, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
12-12-47	50	.57	1 7/24	14	2.79	1.78	1.26
1-29-48	5	1.28	4 6/24	7	1.26	1.11	.64
1-31-48	5	1.77	2 5/24	1	.58	.69	.22
2-14-48	7	1.30	4 12/24	2	1.28	.77	.64
3-04-48	9	1.35	6 13/24	23	3.26	3.14	1.94
3-06-48	10	3.18	2 8/24	10	2.92	2.66	1.70
11-23-48	47	3.68	2 17/24	6	2.37	.66	.89
11-28-48	48	4.18	4 5/24	16	4.42	2.53	2.10
12-08-48	49	5.59	9 4/24	5	1.81	.90	.69
12-19-48	51	1.94	8 21/24	7	1.81	1.88	.80
2-10-49	6	.47	2 20/24	3	1.80	1.05	.97
2-18-49	7	1.97	6 19/24	12	2.87	1.96	1.67
3-15-49	11	.92	3 21/24	20	1.73	.84	.90
3-24-49	12	1.87	7 6/24	6	3.38	2.88	1.97
3-30-49	13	3.52	6 7/24	6	1.70	1.13	.85
4-02-49	14	2.60	19/24	3	2.01	1.56	1.02
4-23-49	17	.12	1 0/24	25	3.07	2.36	1.62
5-04-49	18	1.61	1 16/24	13	1.92	2.28	.90
1-08-50	2	.60	2 0/24	25	3.76	3.04	2.13
2-15-50	7	1.38	3 0/24	15	2.24	1.64	1.25
3-17-50	11	.37	2 4/24	4	1.73	1.28	.89
6-08-50	23	2.30	2 15/24	25	3.63	1.47	1.79
2-01-51	5	1.03	11 14/24	8	2.55	2.47	1.47
3-20-51	12	.65	5 1/24	58	3.38	1.74	1.98
3-30-51	13	.42	3 4/24	12	4.60	3.88	2.83
2-26-53	9	2.45	7/24	11	2.03	1.87	1.11
3-13-53	11	4.27	15 5/24	12	2.64	1.33	1.49
3-24-53	12	4.48	8 14/24	5	2.16	1.23	1.16
4-26-53	17	.63	9 16/24	10	3.52	1.55	1.92
5-04-53	18	4.29	3 4/24	20	4.33	2.09	2.45
5-19-53	20	2.43	1 19/24	20	7.38	5.90	4.64
12-04-53	49	.77	3 9/24	15	3.41	1.13	1.56
12-10-53	50	3.81	3 15/24	9	3.17	1.82	1.48

Table A-19--cont. 7-3780. Comite River near Comite, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-07-55	6	.34	8 14/24	30	4.90	3.56	3.15
4-11-55	15	.20	2 16/24	27	5.16	2.48	3.17
4-15-55	15	5.34	2 0/24	10	3.02	2.45	1.65
8-05-55	31	2.60	1 20/24	17	2.97	1.34	1.14
2-06-56	6	.68	3 8/24	49	4.53	2.83	2.87
2-11-56	6	4.75	4 2/24	5	1.28	.98	.65
3-13-56	11	1.74	3 11/24	7	3.14	2.09	1.83
4-05-57	14	.94	2 23/24	10	2.64	1.07	1.43
		NOTE: Drainage Area Changed June 1957					
11-15-57	46	1.28	4 1/24	19	3.12	1.50	1.22
1-14-58	2	.78	6 10/24	6	1.53	1.30	.71
3-24-58	12	.76	5 14/24	14	2.09	1.51	1.10
2-03-59	5	2.80	2 8/24	14	2.92	2.15	1.73
2-26-59	9	2.08	9 9/24	15	2.19	1.30	1.21
11-06-59	45	.50	4 11/24	10	3.36	.67	1.29
12-08-59	49	.98	4 16/24	14	3.75	2.53	1.76
1-09-61	2	2.48	6 20/24	10	2.64	1.48	1.43
2-19-61	8	1.29	10 22/24	6	5.04	3.59	3.26
2-26-61	9	7.04	2 7/24	5	1.86	1.27	1.00
3-19-61	12	1.29	8 16/24	18	5.87	4.35	3.83

MISSISSIPPI RIVER DELTA

Table A-20 7-3785. Amite River near Denham Springs, La.

Location.--Lat 30°27'50", long 90°59'25", in lot 2, T. 7 S., R. 2 E., St. Helena meridian, on left bank just downstream from bridge on U.S. Highway 190, 1,000 ft downstream from Comite River, 3 miles southwest of town of Denham Springs, and 15 miles east of Baton Rouge.

7-07-40	27	.97	21/24	4	3.04	2.67	1.32
12-07-40	49	.93	1 4/24	43	5.30	3.06	2.76
9-19-42	38	1.20	6 22/24	27	4.42	1.26	1.59
3-23-43	12	1.31	2 9/24	30	4.21	3.57	2.57
3-23-44	12	.75	18/24	6	4.01	1.49	2.42

Table A-20--cont. 7-3785. Amite River near Denham Springs, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
7-07-40	27	.97	21/24	4	3.04	2.67	1.32
12-07-40	49	.93	1 4/24	43	5.30	3.06	2.76
9-19-42	38	1.20	6 22/24	27	4.42	1.26	1.59
3-23-43	12	1.31	2 9/24	30	4.21	3.57	2.57
3-23-44	12	.75	18/24	6	4.01	1.49	2.42
1-10-45	2	.36	2 0/24	8	2.36	1.29	1.20
5-17-46	20	1.17	15/24	61	3.68	2.96	1.93
3-14-47	9	1.17	5 9/24	8	3.37	2.74	2.02
12-12-47	50	.80	1 8/24	15	3.87	1.73	1.91
2-01-48	5	6.13	4 7/24	10	1.65	1.76	.88
3-05-48	10	1.72	8 13/24	21	6.23	5.51	4.20
11-30-48	48	3.79	4 5/24	16	4.42	3.21	2.11
1-20-49	3	1.85	10 10/24	12	1.32	.36	.62
2-19-49	8	2.06	5 21/24	19	3.62	2.04	2.19
3-24-49	12	2.12	3 9/24	5	3.44	2.61	2.02
4-02-49	14	3.16	5 9/24	8	2.21	.99	1.15
4-25-49	17	1.37	19 18/24	24	3.74	1.98	2.07
1-09-50	2	.63	9 5/24	25	4.81	3.55	2.88
2-16-50	7	1.09	3 15/24	15	2.85	1.71	1.65
3-06-50	10	.94	2 4/24	11	2.40	1.20	1.35
3-17-50	11	.55	2 7/24	4	1.47	1.19	.74
6-09-50	23	1.87	2 15/24	25	3.15	1.32	1.38
2-02-51	5	.53	11 14/24	39	3.52	2.09	2.15
3-20-51	12	.60	5 1/24	45	2.26	1.25	1.22
4-01-51	13	3.36	7 23/24	36	5.08	2.98	3.19
4-25-51	17	.39	5 0/24	3	1.50	1.06	.68
2-27-53	9	2.63	3 8/24	12	2.25	1.48	1.25
3-15-53	11	3.70	17 5/24	12	5.09	1.88	3.26
4-27-53	17	.43	5 21/24	10	3.31	1.14	1.73
5-05-53	18	1.56	3 4/24	20	4.11	3.42	2.29
5-20-53	20	2.80	3 1/24	20	5.62	5.48	3.26
12-05-53	49	.50	3 8/24	15	3.06	.79	1.36
12-11-53	50	3.48	3 15/24	9	2.60	1.37	1.15

Table A-20--cont. 7-3785. Amite River near Denham Springs, La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
1-18-55	3	.88	5 7/24	13	2.50	.86	1.34
2-09-55	6	.33	8 15/24	30	4.84	2.82	3.10
4-15-55	15	4.53	2 0/24	10	3.90	3.49	2.24
8-05-55	32	2.27	1 19/24	18	2.04	.94	.67
2-07-56	6	.58	3 7/24	50	4.76	2.46	3.04
2-12-56	7	4.89	4 2/24	5	2.18	1.23	1.21
3-14-56	11	1.90	8 0/24	35	4.26	2.17	2.71
3-19-56	12	4.41	---	--	.82	.82	.36
4-06-57	14	1.25	3 2/24	10	2.73	1.07	1.50
7-01-57	26	1.24	4 14/24	20	3.82	1.07	1.78
11-17-57	46	1.45	4 1/24	20	3.18	1.91	1.25
3-09-58	10	.84	11 15/24	2	2.42	1.17	1.36
3-26-58	13	.78	5 14/24	14	1.92	.89	.99
9-26-58	39	1.00	20/24	26	2.40	1.09	.64
2-04-59	5	2.60	2 9/24	15	2.87	1.96	1.69
6-02-59	22	2.19	4 10/24	13	2.64	1.64	1.23
12-19-59	51	1.04	---	13	4.19	2.00	2.19
1-20-60	3	.68	2 13/24	4	2.25	.76	1.18
1-11-61	2	.90	8 7/24	22	2.73	1.23	1.43
1-28-61	4	1.63	11 3/24	33	2.40	.98	1.32
2-20-61	8	1.25	10 23/24	21	4.58	3.42	2.89
3-20-61	12	1.47	8 16/24	25	7.16	3.59	4.87

MISSISSIPPI RIVER DELTA

Table A-21 7-3790. Ward Creek at Govt. St., (Capital Heights Ave) at Baton Rouge, La.

Location.--Lat 30° 26'30", long 91° 08'35", in lot 81, T. 7 S., R. 1 E., St. Helena meridian, on downstream side of bridge pier at Capitol Heights Avenue in Baton Rouge and 6 1/2 miles upstream from Dawson Creek.

5-03-54	18	----	----	6	4.96	3.81	2.89
7-09-54	30	----	----	4	1.56	1.01	.50
9-10-54	37	----	----	1	1.45	.25	.34

Table A-21--cont. 7-3790. Ward Creek at Govt. St., (Capital Heights Ave) at B. R., La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
2-05-55	6	----	----	28	3.90	2.50	2.41
4-10-55	15	----	----	10	2.72	2.72	1.45
4-13-55	15	----	----	2	1.67	2.32	.81
5-20-55	20	----	----	3	3.75	2.21	1.99
8-20-56	34	----	----	3	.86	1.13	.18
4-04-57	14	----	----	2	1.24	.98	.57
9-26-57	39	----	----	4	2.76	1.40	.78
11-18-57	46	----	----	2	1.74	1.19	.56
1-12-58	2	----	----	6	2.00	2.93	.99
2-05-58	6	----	----	2	1.16	1.19	.58
3-23-58	12	----	----	7	2.21	1.92	1.18
3-23-58	12	----	----	1	.78	.73	.34
7-15-58	37	----	----	4	1.47	1.26	.35
2-02-59	5	----	----	10	3.20	3.03	1.92
5-11-59	19	----	----	7	4.01	2.26	2.19
7-31-59	31	----	----	2	3.64	2.99	1.50
2-03-60	5	----	----	2	1.71	1.46	.92
1-27-60	4	----	----	2	.61	.75	.23
2-17-60	7	----	----	5	4.00	2.15	2.47
2-20-61	8	----	----	5	1.30	1.14	.66
9-10-61	37	----	----	4	1.68	1.48	.43
9-11-61	37	----	----	13	3.53	2.77	1.19

MISSISSIPPI RIVER DELTA

Table A-22 7-3800. Ward Creek at Siegen Lane, near Baton Rouge, La.

Location.--Lat 30°22'30", long 91°04'10", in lot 54, T. 8 S., R. 1 E., St. Helena meridian, near left bank on downstream side of bridge on Siegen Lane, half a mile downstream from Dawson Creek and 8 miles southeast of Baton Rouge.

1-20-47	3	----	----	4	1.26	.92	.58
3-08-47	10	----	----	7	2.07	1.41	1.13
3-13-47	11	----	----	8	8.10	7.05	5.70

Table A-22--cont. 7-3800. Ward Creek at Siegen Lane, near B. R., La.

Date of Storm	Week of Year	Antecedent Factors		Storm Rainfall		Actual Runoff (inches)	Runoff Computed From Formula (inches)
		5-Day Rain (inches)	Dry Days	Duration (hours)	Depth (inches)		
4-13-47	15	----	----	3	1.75	1.05	.85
12-10-47	50	----	----	9	3.22	1.36	1.50
3-03-48	9	----	----	3	2.39	1.73	1.39
3-06-48	10	----	----	10	3.21	3.16	1.90
11-27-48	48	----	----	2	1.51	1.37	.52
3-22-49	12	----	----	6	2.86	1.51	1.62
3-30-49	13	----	----	8	2.56	1.90	1.39
1-07-50	1	----	----	8	2.56	1.84	1.28
1-11-50	2	----	----	13	1.37	1.51	.62
2-14-50	7	----	----	15	2.49	1.63	1.41
3-04-50	9	----	----	11	2.52	1.50	1.43
4-04-50	14	----	----	7	2.38	1.28	1.25
3-29-51	13	----	----	36	2.88	1.63	1.61
4-05-52	14	----	----	5	2.35	1.36	1.24
2-15-53	7	----	----	7	2.10	1.25	1.15
3-15-53	11	----	----	2	1.82	1.16	.95
3-23-53	12	----	----	5	3.84	2.53	2.30
4-25-53	17	----	----	11	4.56	1.70	2.64
5-19-53	10	----	----	10	5.15	3.45	3.33
		NOTE:	Antecedent	factors not computed.			

TABLE A-23--RAINFALL STATIONS AND THE RESPECTIVE THIESSEN WEIGHTS FOR EACH STREAM GAGING STATION

Gaging Station Number	Station	Thiessen Weights
2-4900	Bogue Lusa Creek near Franklinton, La.	
	Franklinton (or Franklinton 3 SSE)	0.321
	Bogalusa (or Bogalusa 2 NE)	.679
		1.000
	Alternate	
	Sheridan Fire Tower	1.000
2-4905	Bogue Chitto near Tylertown, Miss.	
	Tylertown	0.075
	McComb FAA AP	.237
	Ruth	.412
	Brookhaven (or Brookhaven 2)	.274
	Monticello	.002
		1.000
	Alternate	
	Tylertown	0.080
	Ruth	.630
	Brookhaven (or Brookhaven 2)	.287
	Monticello	.003
		1.000
2-4915	Bogue Chitto near Franklinton, La.	
	Franklinton (or Franklinton 3 SSE)	0.121
	Tylertown	.346
	Kentwood	.042
	Columbia	.018
	Monticello	.007
	Ruth	.328
	Brookhaven (or Brookhaven 2)	.138
		1.000

Table A-23--cont.

Gaging Station Number	Station	Thiessen Weights
2-4915	Bogue Chitto near Franklinton--continued	
	Alternate	
	Franklinton (or Franklinton 3 SSE)	0.368
	Columbia	.192
	Brookhaven (or Brookhaven 2)	.440
		1.000
2-4920	Bogue Chitto near Bush, La.	
	Bogalusa (or Bogalusa 2 NE)	0.049
	Covington	.017
	Franklinton (or Franklinton 3 SSE)	.398
	Columbia	.164
	Brookhaven (or Brookhaven 2)	.372
		1.000
	Alternate	
	Covington	0.022
	Bogalusa (or Bogalusa 2 NE)	.046
	Franklinton (or Franklinton 3 SSE)	.221
	Kentwood	.034
	Tylertown	.292
	Columbia	.001
	Monticello	.001
	Ruth	.267
	Brookhaven (or Brookhaven 2)	.116
		1.000

Table A-23--cont.

Gaging Station Number	Station	Thiessen Weight
7-2910	Homochitto River at Eddiceton, Miss.	
	Barlow 6 SE	0.716
	Bude Fire Tower	.278
	Lorman	.006
		1.000
	Alternate	
	Barlow 6 SE	0.633
	Meadville	.367
		1.000
7-2925	Homochitto River at Rosetta, Miss.	
	Woodville	0.042
	Liberty	.378
	Port Gibson	.126
	Brookhaven (or Brookhaven 2)	.454
		1.000
	Alternate	
	Woodville	0.013
	Bude Fire Tower	.639
	Allen	.217
	Lorman	.060
	Brookhaven (or Brookhaven 2)	.071
		1.000
	Alternate	
	Woodville	.013
	Bude Fire Tower	.660
	Barlow	.195
	Lorman	.071
	Brookhaven (or Brookhaven 2)	.061
		1.000

Table A-23--cont.

Gaging Station Number	Station	Thiessen Weights
7-2950	Buffalo River near Woodville, Miss.	
	Woodville	0.344
	Wilkinson	.656
		1.000
7-3735	West Fork Thompson Creek near Wakefield, La.	
	Weyanoke 2 SW	0.154
	Woodville	.846
		1.000
7-3750	Tchefuncta River near Folsom, La.	
	Covington 4 NNW	0.095
	Franklinton (or Franklinton 3 SSE)	.892
	Kentwood	.013
		1.000
	Alternate	
	Enon 7 WSW	0.450
	Franklinton (or Franklinton 3 SSE)	.539
	Kentwood	.011
		1.000
7-3755	Tangipahoa River at Robert, La.	
	Hammond 3 NW	0.060
	Covington 4 NNW	.012
	Amite	.280
	Franklinton (or Franklinton 3 SSE)	.015
	Kentwood	.477
	Ruth	.132
	Tylertown 2 N	.024
		1.000

Table A-23--cont.

Gaging Station Number	Station	Thiessen Weight
7-3755	Alternate	
	Hammond 3 NW	0.068
	Covington 4 NNW	.018
	Amite	.601
	Franklinton (or Franklinton 3 SSE)	.164
	Brookhaven (or Brookhaven 2)	.149
		1.000
7-3758	Tickfaw River at Liverpool, La.	
	Kentwood	0.462
	Liberty 3 E	.500
	McComb FAA AP	.038
		1.000
7-3760	Tickfaw River at Holden, La.	
	Hammond 3 NW	0.074
	Amite	.308
	Clinton	.002
	Oaknolia	.012
	Kentwood	.409
	Liberty 3 E	.177
	McComb FAA AP	.018
		1.000
	Alternate	
	Hammond 3NW	0.075
	Amite	.800
	Clinton	.086
	Tylertown 2N	.039
		1.000
7-3765	Natalbany River at Baptist, La.	
	Amite	0.713
	Hammond 3NW	.248
	Kentwood	.039
		1.000

Table A-23--cont.

Gaging Station Number	Station	Thiessen Weight
7-3770	Amite River near Darlington, La.	
	Liberty 3E	0.723
	Clinton	.146
	McComb FAA	.116
	Woodville	.015
		1.000
	Alternate	
	Oaknolia	0.044
	Liberty 3 E	.910
	Woodville	.019
	Brookhaven (or Brookhaven 2)	.027
		1.000
7-3775	Comite River near Olive Branch, La.	
	Clinton	0.960
	Woodville	.040
		1.000
	Alternate	
	Oaknolia	0.059
	Woodville	.049
	Clinton	.892
		1.000
7-3776.5	Little Redwood Creek trib. at Joe Howell Pond near Wilson, La. (USGS rain gage)	1.000
7-3780	Comite River near Comite, La.	
	Baton Rouge WB Airport	0.299
	New Roads	.009
	Clinton	.669
	Woodville	.023
		1.000

Table A-23--cont.

Gaging Station Number	Station	Thiessen Weight
7-3780	Alternate	
	Baton Rouge WB Airport	0.209
	Oaknolia	.252
	New Roads	.008
	Clinton	.511
	Woodville	.020
		1.000
7-3785	Amite River near Denham Springs. La.	
	Baton Rouge WB Airport	0.167
	Amite	.006
	Clinton	.694
	Brookhaven (or Brookhaven 2)	.133
		1.000
	Alternate	
	Baton Rouge	0.326
	Woodville	.309
	Amite	.197
	Ruth	.168
		1.000
7-3790	Ward Creek at Government Street, (Capital Heights Ave) at Baton Rouge, La. Baton Rouge W.B., Airport	1.000
7-3800	Ward Creek at Siegen Lane, near Baton Rouge, La.	
	Cinclaire	0.620
	Baton Rouge WB Airport	.380
		1.000