DISCHARGE AND SUSPENDED-SEDIMENT DATA FOR THE LOWER ATCHAFALAYA RIVER, ATCHAFALAYA BAY, AND WAX LAKE OUTLET, LOUISIANA, 1980-82

By George J. Arcement, Jr.

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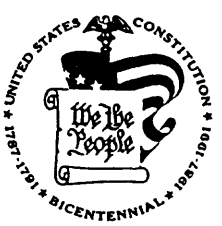

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CONVERSION FACTORS AND ABBREVIATIONS

For the convenience of readers who prefer to use metric (International System) units rather than the inch-pound units used in this report, values may be converted by using the following factors:

Multiply inch-pound unit	By	To obtain metric unit
foot (ft)	0.3048	meter (m)
square foot (ft^2)	929.0	square centimeter (cm^2)
	0.0929	square meter (m^2)
foot per second (ft/s)	0.3048	meter per second (m/s)
cubic foot per second (ft^3/s)	0.02832	cubic meter per second (m^3/s)
square mile (mi^2)	2.590	square kilometer (km^2)
tons per day, short, (tons/d)	0.9072	megagram per day (Mg/d)

Temperature in degrees Celsius (°C) can be converted to degrees Fahrenheit (°F) as follows: °F = 1.8 X °C + 32.

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called "Mean Sea Level of 1929."

DISCHARGE AND SUSPENDED-SEDIMENT DATA FOR THE LOWER ATCHAFALAYA RIVER, ATCHAFALAYA BAY, AND WAX LAKE OUTLET, LOUISIANA, 1980-82

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ABSTRACT

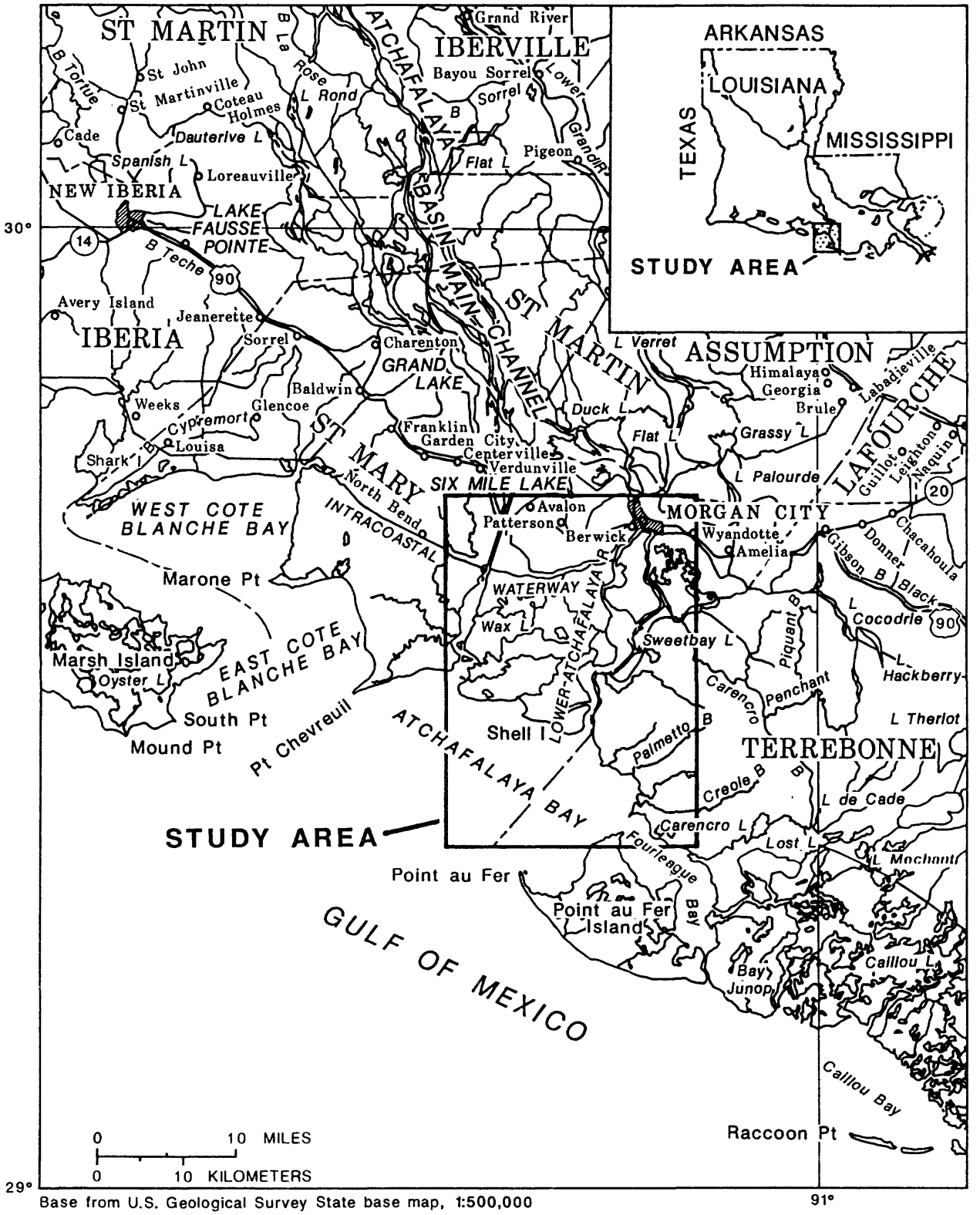
Discharge and suspended-sediment data were collected on the Lower Atchafalaya River, Atchafalaya Bay, and Wax Lake Outlet during the period May 1980 to April 1982. Fifteen sets of discharge measurements and suspended-sediment samples were collected at eight sites on the Lower Atchafalaya River and in Atchafalaya Bay. Discharge measurements were made twice a month on the Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet; suspended-sediment samples were collected at these two sites monthly. The discharge measurements made on the Lower Atchafalaya River at Morgan City ranged from 33,600 to 250,000 cubic feet per second. Discharge measurements for Wax Lake Outlet at Calumet ranged from 11,000 to 156,000 cubic feet per second. The average flow distribution for this period was 62 percent through the Lower Atchafalaya River and 38 percent through Wax Lake Outlet.

The suspended-sediment samples collected at Lower Atchafalaya River at Morgan City ranged in concentration from 85 to 649 milligrams per liter, and suspended-sediment discharge ranged from 8,170 to 289,000 tons per day. The concentration of suspended sediment for Wax Lake Outlet at Calumet ranged from 64 to 633 milligrams per liter, and the suspended-sediment discharge ranged from 1,930 to 232,000 tons per day.

INTRODUCTION

The Atchafalaya Bay, in south-central Louisiana, is a coastal inlet of the Gulf of Mexico (fig. 1). Historically, the bay has been characterized by open water and shallow depths, generally less than 5 ft (feet). Recently, sedimentation and land accretion are occurring in the bay. In the past 10 years approximately 15 mi^2 (square miles) of land have been created in the bay (Roberts and others, 1980). Atchafalaya Bay, therefore, is a unique area in coastal Louisiana, as the general trend in other areas has been land erosion. This sedimentation trend is changing the hydrology of the Atchafalaya Bay and may have adverse effects on navigation and shellfish habitats. A ship channel is dredged through the eastern part of the bay connecting the Gulf of Mexico with the Lower Atchafalaya River and the city of Morgan City. A sizable fishing fleet and major offshore oil and gas operations are also located at Morgan City.

The Atchafalaya Bay receives most of its water and sediment from the Atchafalaya River through the Lower Atchafalaya River and Wax Lake Outlet (fig. 2). The Atchafalaya River is a major distributary of the Mississippi



Base from U.S. Geological Survey State base map, 1:500,000

Figure 1.--Location of Lower Atchafalaya River study area.

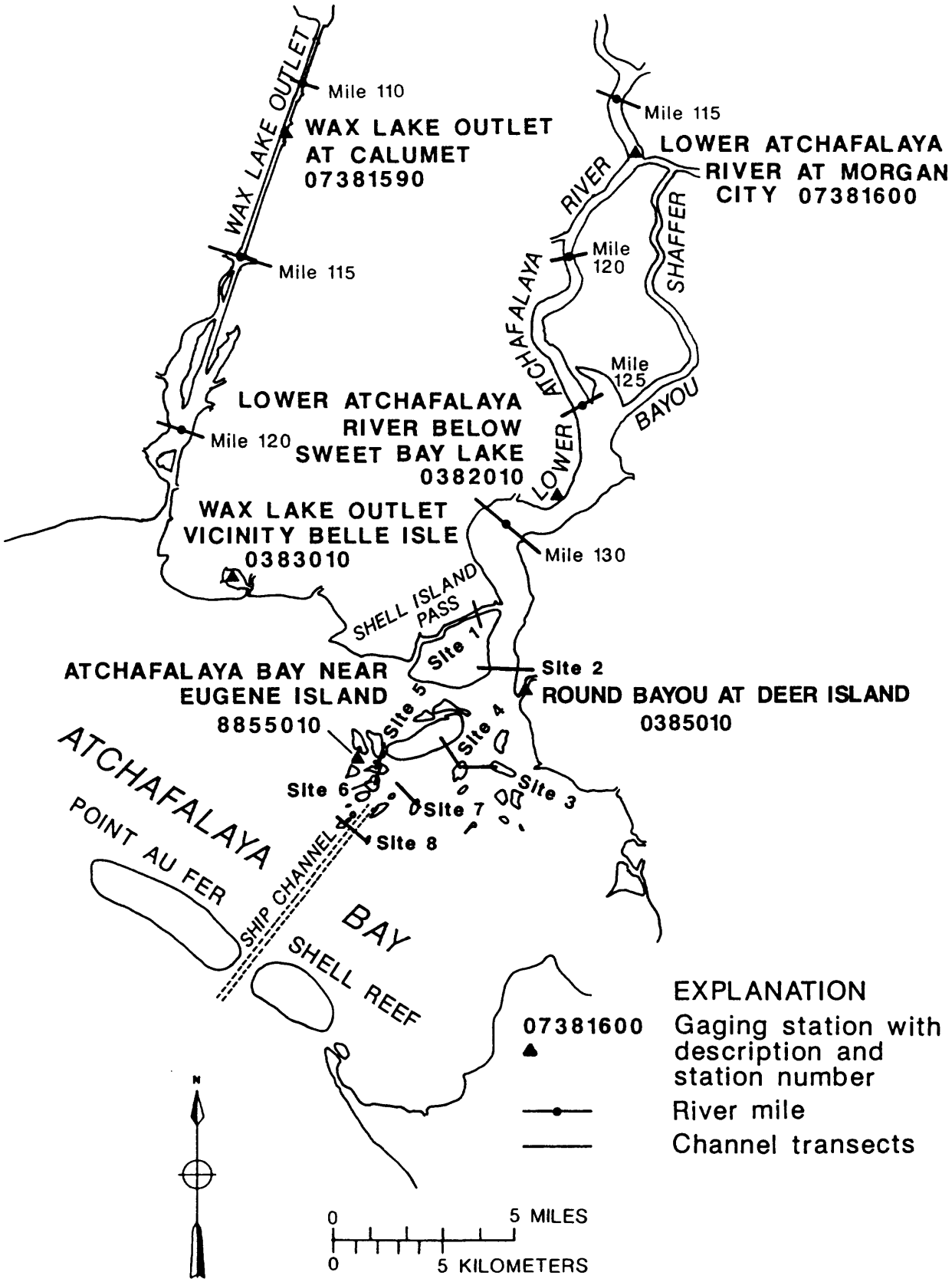


Figure 2.--Location of Lower Atchafalaya River study area, discharge-measuring sites, and gaging stations.

River and an intergal component of the Mississippi River and tributaries project, which provides for flood protection of the alluvial valley of the Mississippi River between Cape Girardeau, Missouri, and Head of Passes, Louisiana. Approximately 30 percent of the sediment-laden Mississippi River water is diverted into the Atchafalaya River through the Old River Control structure and auxiliary structures (Letter, 1982).

Purpose and Scope

This report documents flow and suspended-sediment conditions that occurred in the Lower Atchafalaya River, Wax Lake Outlet, and Atchafalaya Bay. The scope of the work included periodic discharge measurements, and collection of suspended-sediment and other hydraulic data over a 2-year period from May 1980 through April 1982. This study was conducted in cooperation with the U.S. Army Corps of Engineers, New Orleans District, to gather hydrologic information for the development of a management plan for the Atchafalaya Basin and Atchafalaya Bay.

Description of Study Area

The study area is comprised of the Atchafalaya Bay and the two river reaches, the Lower Atchafalaya River and Wax Lake Outlet (fig. 2), connecting the bay with the Atchafalaya Basin. Atchafalaya Bay is located in the center of the Louisiana gulf coast in the Teche delta, approximately 120 mi (miles) west of the Mississippi River delta. The bay is about 33 mi wide (east to west) and 8 mi long (north to south), with a surface area of about 230 mi^2. The bay is very shallow with an average depth of about 5 ft below sea level. The bay is protected from the open, deeper water of the Gulf of Mexico by the Point au Fer Shell Reef to the south. The two principal sources of freshwater into the bay are Lower Atchafalaya River and Wax Lake Outlet, both located on the northern side of the bay.

The Lower Atchafalaya River starts at Morgan City at Six Mile Lake and runs for 18 mi to its mouth in Atchafalaya Bay. The river is about 1,800 ft wide with a maximum depth of about 50 ft at Morgan City and widens to a width of about 5,000 ft with a maximum depth of about 40 ft near its mouth (figs. 3 and 4).

A navigation channel in the Lower Atchafalaya River was authorized by the River and Harbor Act of 1910 to provide a 20 by 200 ft channel from the -20 ft contour in the bay to the gulf. The channel was widened to its present 20 by 400 ft dimensions after authorization in 1968. This channel extends from the river mouth, through the Point au Fer Shell Reef near Eugene Island, and then to the -20 ft contour in the Gulf of Mexico.

Wax Lake Outlet and its floodway channel, 45 by 300 ft at its head in Six Mile Lake, increases to 45 by 400 ft at its mouth 15 mi downstream in Atchafalaya Bay. This channel was authorized by the River and Harbor Act of 1938. This outlet was designed to provide an additional path to the bay for floodwaters and was completed in 1941. Wax Lake Outlet was designed to carry

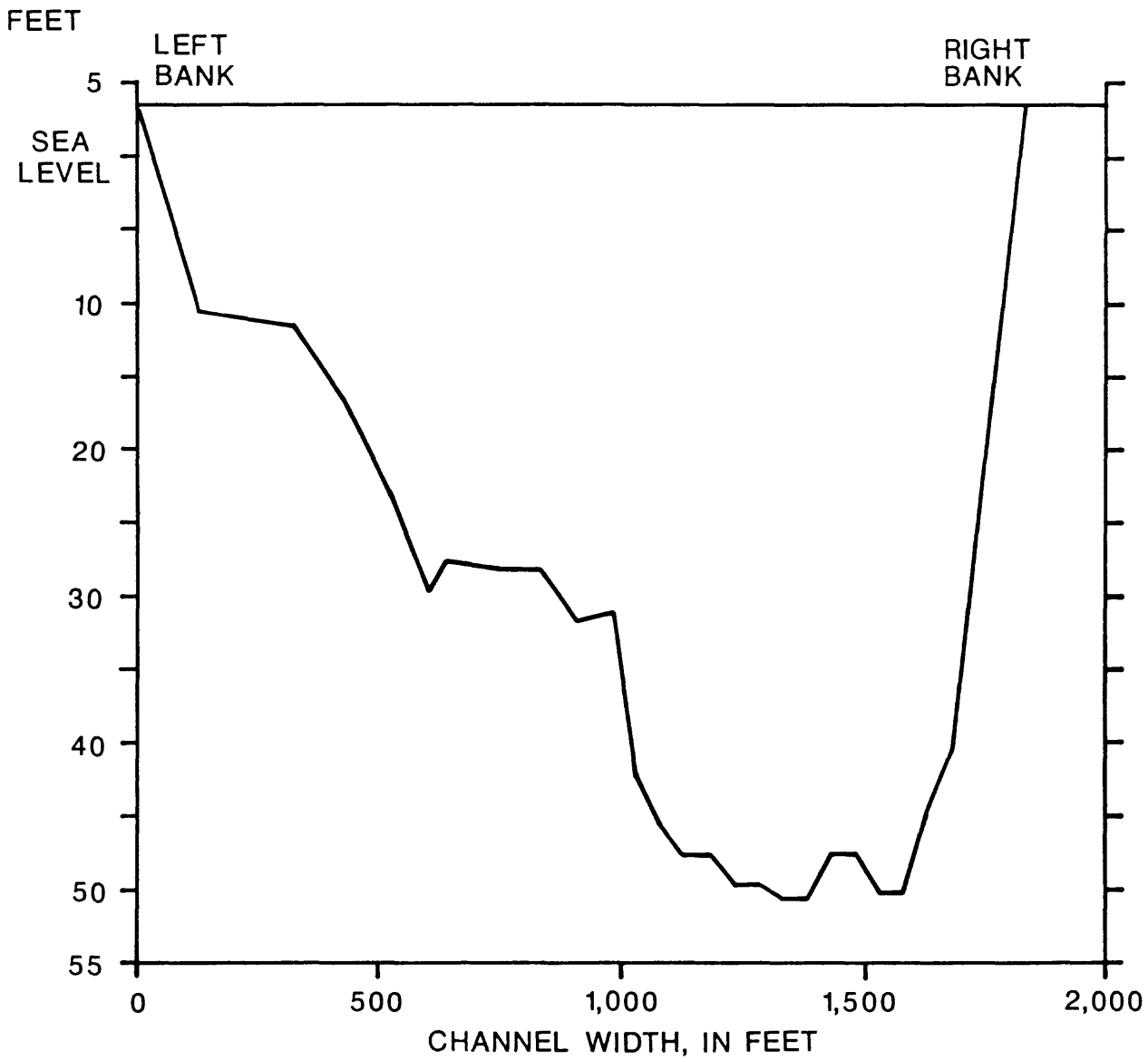


Figure 3.--Cross-section profile of Lower Atchafalaya River at Morgan City.

30 percent of the flow from the Atchafalaya Basin while the Lower Atchafalaya River would carry 70 percent of the flow (Letter, 1982).

The tides in the region of Atchafalaya Bay alternate between diurnal and mixed tides, with diurnal tide being dominant. The mean diurnal tidal range is about 1.5 ft.

The primary source of flow is the Atchafalaya River. The average flow for the Atchafalaya River at Simmesport (fig. 1) for the period 1938-82 was 207,000 ft^3/s (cubic feet per second). For the period 1973-82 the average flow was 247,000 ft^3/s, while for 1973-79 the average flow was 263,000 ft^3/s, showing the impact of the high flood years 1973-75 which had an average flow of 342,000 ft^3/s for this 3-year period.

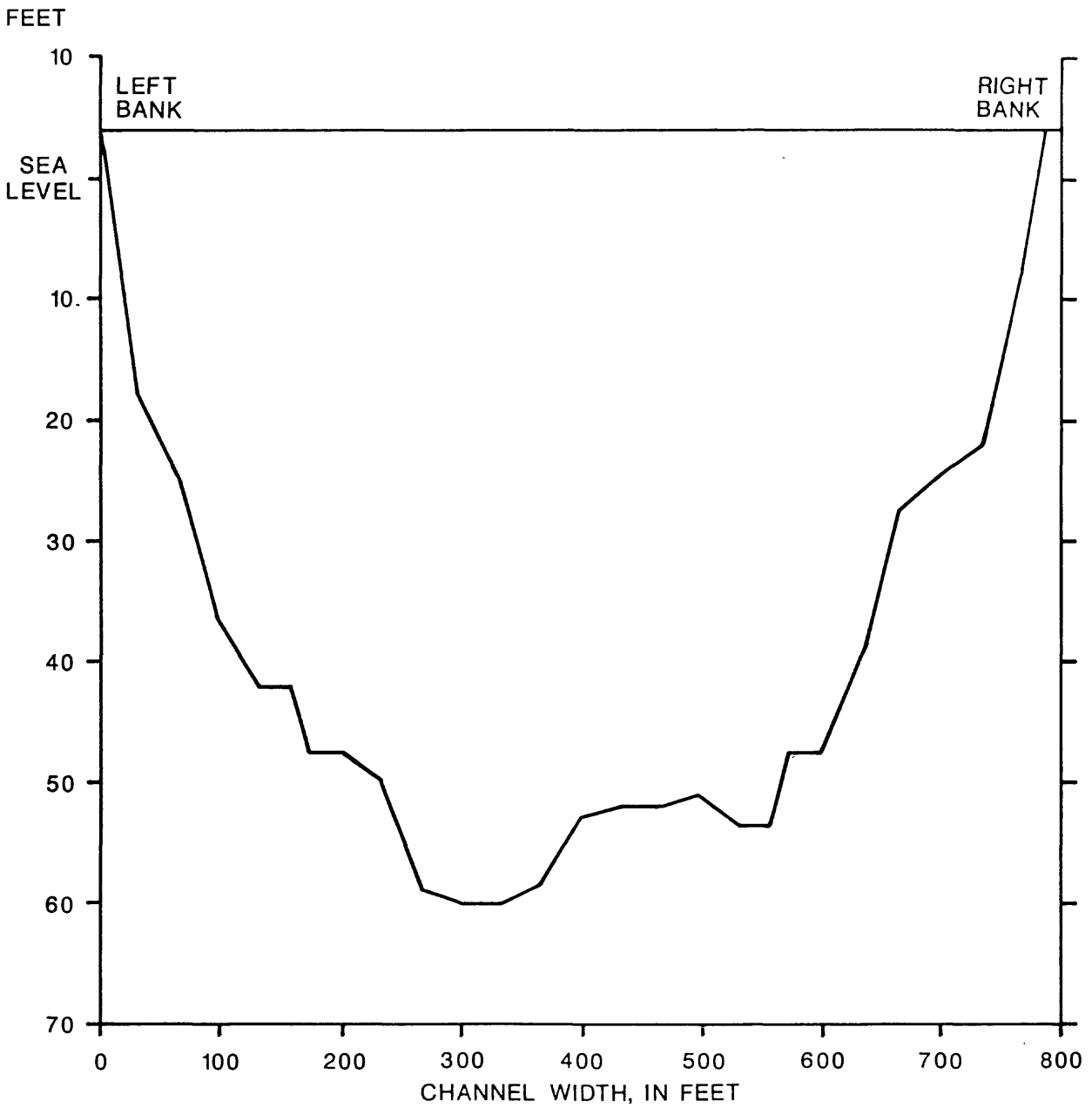


Figure 4.--Cross-section profile of Lower Atchafalaya River below Shell Island Pass, site 2.

Along with the increased flow being received by Atchafalaya Bay is an increase in suspended-sediment load. The average annual suspended-sediment discharge for the Atchafalaya River at Simmesport for the period 1973-75 was 142 million tons/d (tons per day), while for 1973-82 the average annual suspended-sediment discharge was 94 million tons/d.

DATA COLLECTION

Fifteen data-collection trips were made in the study area from May 1980 through April 1982. During these data-collection trips, discharge measurements and suspended-sediment samples were taken at eight sites shown in figure 2. Discharge measurements were made twice a month at Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet, and suspended sediment was collected once a month. The data were usually collected at the two upstream sites, Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet, the first day and the remaining sites on the following day or next 2 days. This schedule was required because of the number of sites and the location of these sites which could be accessed only by boat. After the second data trip it became evident that the tide cycle would also have to be considered when making these measurements. It was decided that the measurements would be made during the ebbtide so that the flow would be going in one direction at all sites.

Conventional discharge measurements were made at the Lower Atchafalaya River at Morgan City, Wax Lake Outlet at Calumet, and at sites 5 and 6 (in Atchafalaya Bay). These measurements were made using techniques described by Carter and Davidian (1968). Moving-boat discharge measurements using techniques described by Smoot and Novak (1969) were made at site 1 (Shell Island Pass), site 2 (mouth of Atchafalaya Bay), site 3 (east pass in bay), sites 4 and 8 (in the ship channel), and site 7 (Atchafalaya Bay). These data are shown in tables 1 and 2. Channel cross sections determined from the discharge measurements are shown in figures 3-12. Specific conductance, along with temperature, dissolved oxygen, and pH were measured using a Hydrolab Model 6[a] during the discharge measurements; the results are shown in tables 3 and 4. No stratification of flow was found in the river reach, although some stratification was found in the bay during extreme low-flow conditions.

Suspended-sediment samples were collected at each site when discharge measurements were made. Point samples were collected using a P-63 sampler at 10, 30, 50, 70, and 90 percent of the total depth at three lateral points in each cross section at Lower Atchafalaya River at Morgan City, Wax Lake Outlet at Calumet, and sites 2, 4, and 8 in the bay. Vertically integrated samples were taken at two lateral points on the cross sections at sites 1, 3, 5, 6, and 7. The integrated samples were collected using a DH-59 sediment sampler. The suspended-sediment samples were collected according to methods listed by Guy and Norman (1970), and analyzed for total silt concentration using techniques described by Guy (1969). Tables 5 and 6 show the suspended-sediment concentration, suspended-sediment discharge, and percentage of suspended-sediment finer than sand for each site.

Continuous-stage gages are operated at six sites in the study area (fig. 2). Four of these stage gages are located on or near the Lower Atchafalaya River: Lower Atchafalaya River at Morgan City (07381600), at mile 116; Lower

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[a] Use of trade names in this report is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey or the U.S. Army Corps of Engineers.

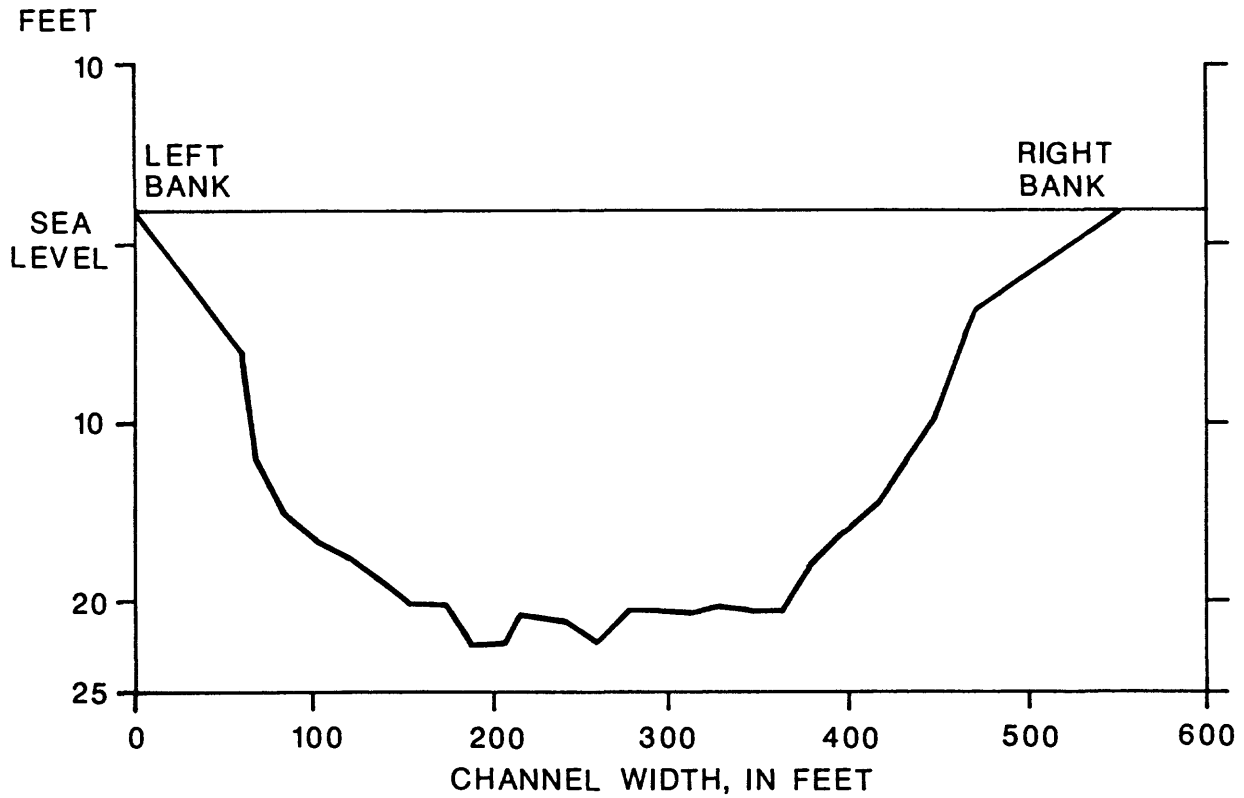

Figure 5.--Cross-section profile of Wax Lake Outlet at Calumet.

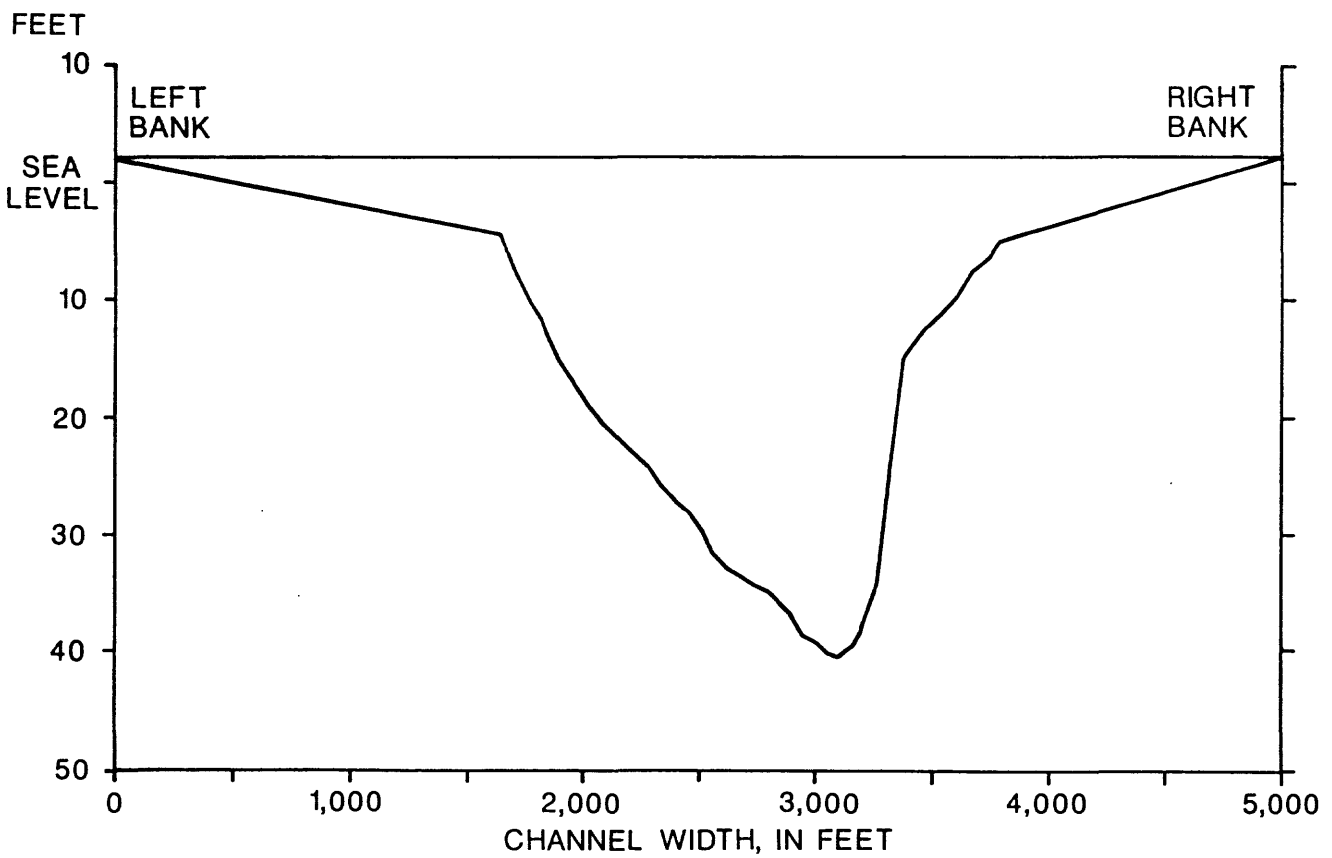

Figure 6.--Cross-section profile of Shell Island Pass, site 1.

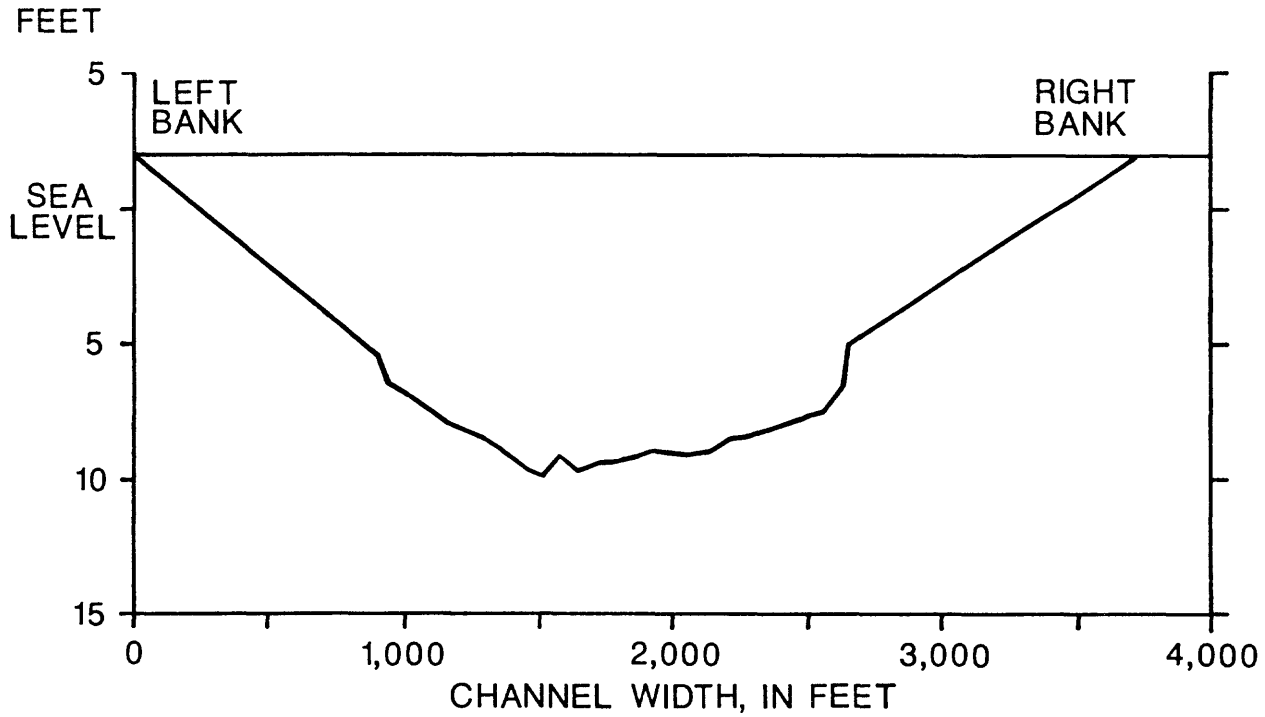

Figure 7.--Cross-section profile of Atchafalaya Bay, site 3.

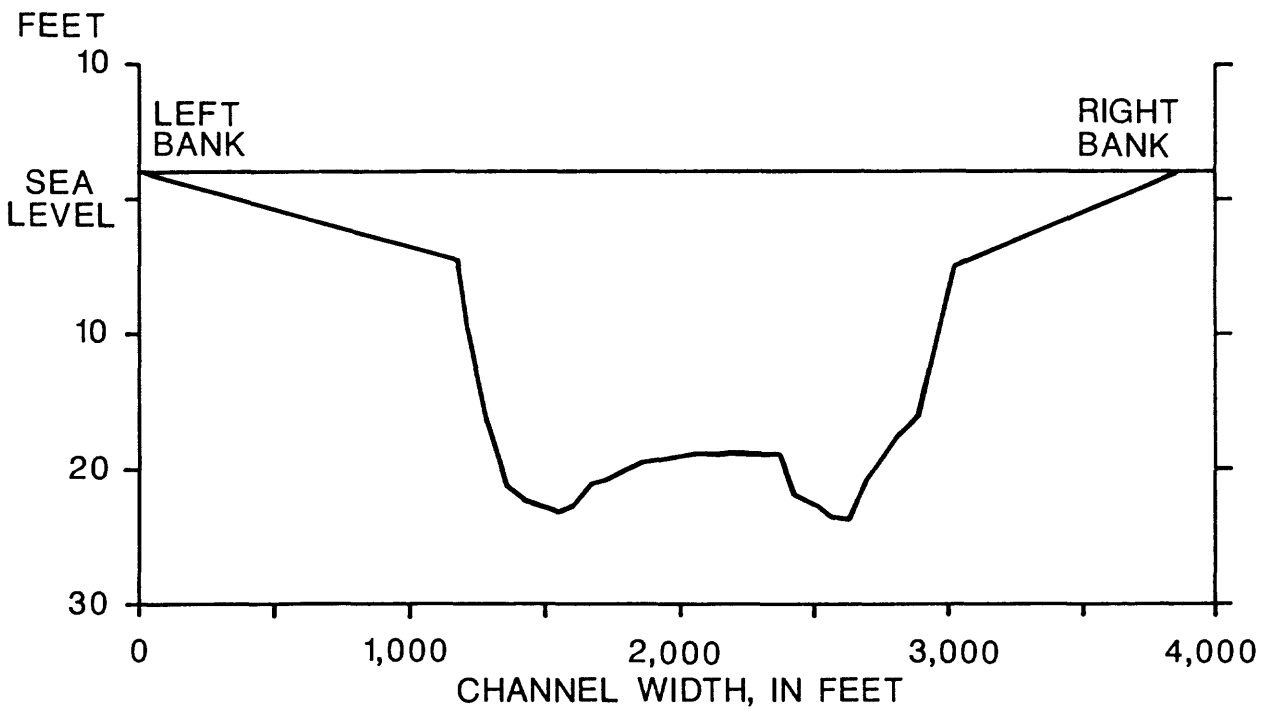

Figure 8.--Cross-section profile of Atchafalaya Bay, site 4.

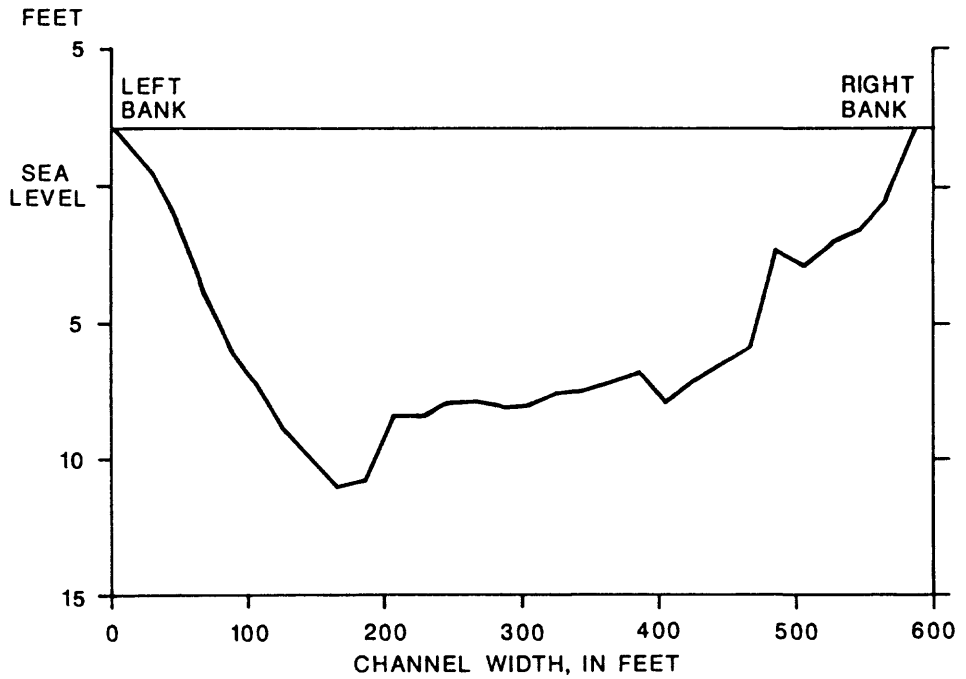

Figure 9.--Cross-section profile of Atchafalaya Bay, site 5.

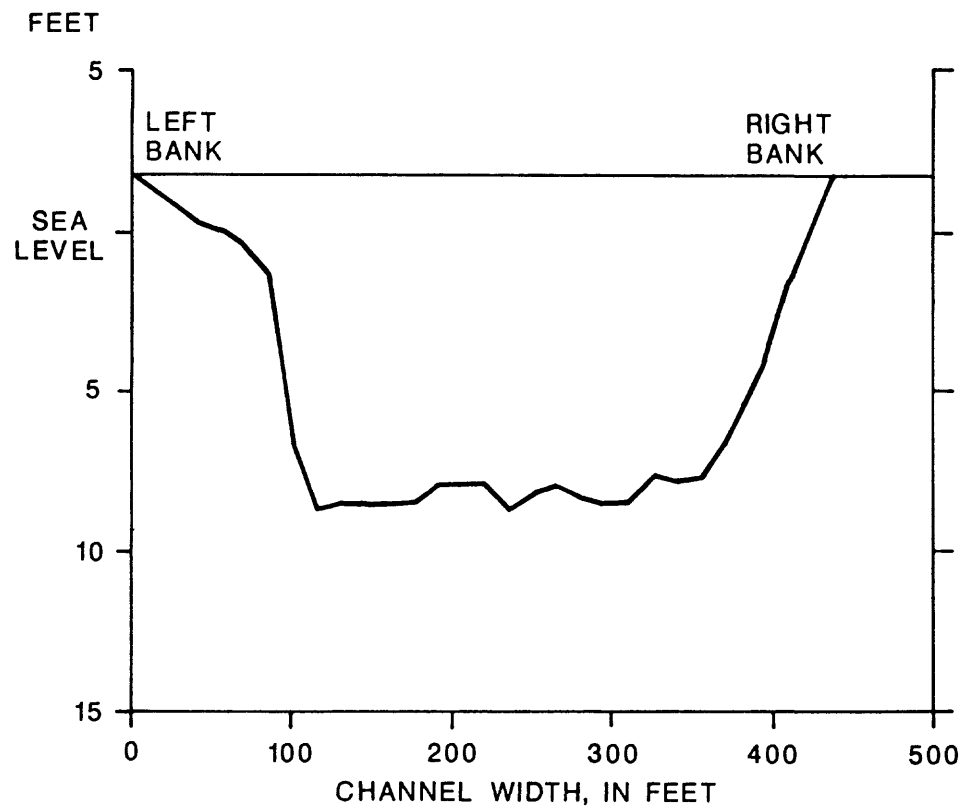

Figure 10.--Cross-section profile of Atchafalaya Bay, site 6.

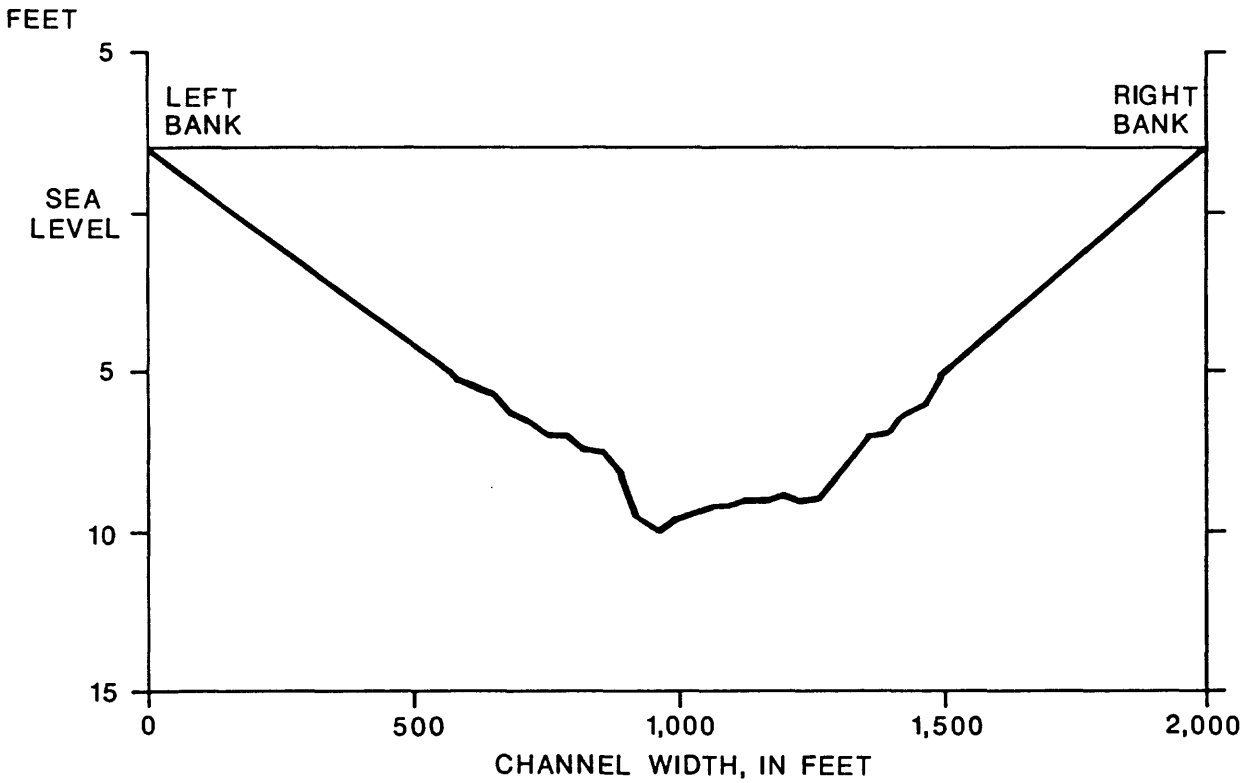

Figure 11.--Cross-section profile of Atchafalaya Bay, site 7.

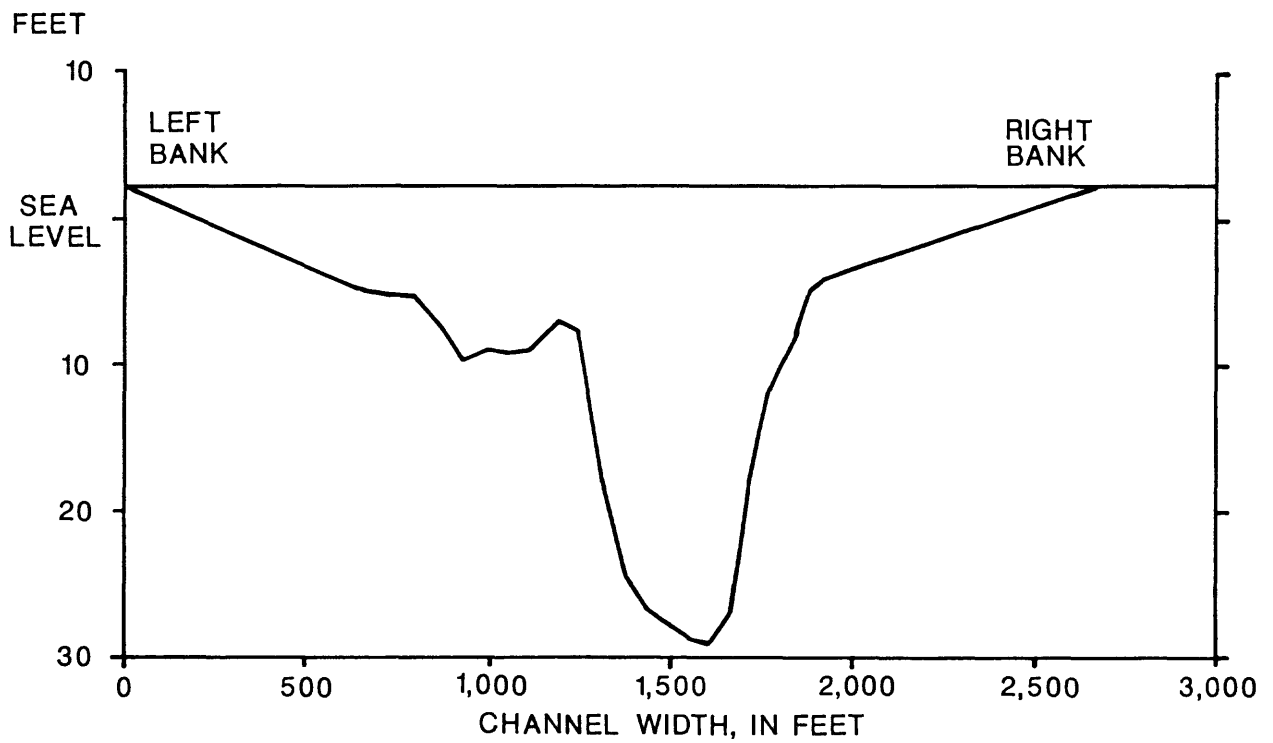

Figure 12.--Cross-section profile of Atchafalaya Bay, site 8.

Atchafalaya River near Sweetbay Lake (0382010), at mile 128; Round Bayou at Deer Island (0385010), at the mouth of the river, mile 134; and Atchafalaya Bay near Eugene Island (8855010). Two stage gages are located on Wax Lake Outlet: Wax Lake Outlet at Calumet (07381590), at mile 112; and Wax Lake Outlet at Calumet at Belle Isle (0383010), at mile 124. The stage gages at Morgan City and Calumet are operated by the U.S. Geological Survey, and the other four gages are operated by the U.S. Army Corps of Engineers.

SUMMARY AND CONCLUSIONS

The discharge measurements made at the Lower Atchafalaya River at Morgan City during the period of May 1980 to April 1982 ranged from 33,600 to 250,000 ft^3/s. For Wax Lake Outlet at Calumet, during the same period, discharge ranged from 11,000 to 156,000 ft^3/s. Although continuous discharge over a period of time would provide a more accurate estimate of distribution of flow, the instantaneous discharge measurements do indicate the general flow pattern in the study area. The majority of the flow from the Atchafalaya River goes through the Lower Atchafalaya River. The average flow distribution between the Lower Atchafalaya River and Wax Lake Outlet for this period was about 62 and 38 percent, respectively.

The discharge measurements made at sites 1-8 in the Lower Atchafalaya River and Bay ranged from 1,060 ft^3/s at site 6 to 293,000 ft^3/s at site 2. At each site the percentage of flow was compared to Lower Atchafalaya River at Morgan City; most flow enters the bay by way of the ship channel from the Lower Atchafalaya River through sites 4 and 8. Suspended-sediment concentrations ranged from 85 to 649 mg/L (milligrams per liter) at Atchafalaya River at Morgan City and 64 to 633 mg/L at Wax Lake Outlet at Calumet. Suspended-sediment discharges ranged from 8,170 to 289,000 tons/d at Lower Atchafalaya River at Morgan City and 1,930 to 232,000 tons/d at Wax Lake Outlet at Calumet. Percentages of sediment finer than sand ranged from 74 to 100 percent at Lower Atchafalaya River at Morgan City and 73 to 100 percent at Wax Lake Outlet at Calumet, with most samples near 100 percent at both sites.

Suspended-sediment concentrations for sites 1-8 in the Lower Atchafalaya River and Bay ranged from 23 mg/L at site 4 to 526 mg/L at site 5. Percentage finer than sand ranged from 64 percent at site 3 to 100 percent at site 6, with most samples greater than 95 percent finer than sand.

Because of the number of measuring sites and their locations it was difficult to collect representative data sets in a short period of time. The tidal action in this complex hydrologic system is also a major factor affecting flow and sediment conditions. Flow and sediment movement may be more effectively studied in further studies by making measurements at specific sites through several tide cycles at different flow conditions.

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Table 1.--Discharge measurements for Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet

[ft, feet; ft², square feet; ft/s, feet per second; ft³/s, cubic feet per second]

Lower Atchafalaya River at Morgan City								Wax Lake Outlet at Calumet							
No.	Date	Time	Width (ft)	Area (ft²)	Mean velocity (ft/s)	Discharge (ft³/s)	Percent of flow[1]	No.	Date	Time	Width (ft)	Area (ft²)	Mean velocity (ft/s)	Discharge (ft³/s)	Percent of flow[1]
216	5- 5-80	1820	1,820	69,300	3.61	250,000	62	221	5- 5-80	1450	752	34,600	4.51	156,000	38
217	5- 5-80	1620	1,820	60,800	4.06	247,000	62	222	5- 5-80	1340	513	30,600	5.00	153,000	38
218	5-29-80	1210	1,820	64,400	2.42	156,000	60	223	5-29-80	1010	752	33,200	3.16	105,000	40
219	6-24-80	1700	1,820	61,600	2.09	129,000	60	224	6-24-80	1410	752	32,500	2.64	85,700	40
220	6-24-80	1610	1,700	61,600	2.22	137,000	65	225	6-24-80	1400	513	32,800	2.89	94,800	35
221	7- 9-80	1040	1,700	57,600	1.75	101,000	59	226	7- 9-80	1010	513	30,200	2.36	71,300	41
222	7-22-80	1440	1,820	61,800	1.40	86,700	64	227	7-22-80	1200	748	32,500	1.52	49,300	36
223	7-22-80	1410	1,700	58,700	1.41	82,600	58	228	7-22-80	1120	513	30,800	1.97	60,700	42
224	8- 6-80	1220	1,700	59,900	1.25	74,600	56	229	8- 6-80	1040	513	32,500	1.81	58,700	44
225	8-19-80	1550	1,820	58,200	1.52	88,300	66	230	8-19-80	1320	748	31,400	1.46	46,000	34
226	8-19-80	1540	1,700	58,700	1.54	90,500	65	231	8-19-80	1340	513	24,100	2.03	48,900	35
227	9- 3-80	1220	1,820	62,300	1.69	105,000	65	232	9- 3-80	1000	748	32,100	1.79	57,400	35
228	9-16-80	1530	1,820	62,000	1.63	101,000	65	233	9-16-80	1300	752	31,700	1.69	53,500	35
229	9-16-80	1530	1,600	56,600	1.67	94,400	62	234	9-16-80	1300	513	23,900	2.38	56,900	38
230	9-30-80	1250	1,820	62,500	1.73	108,000	65	235	9-30-80	1100	748	31,600	1.82	57,500	35
231	10-16-80	1320	1,820	62,400	1.42	88,400	67	236	10-16-80	1100	748	31,200	1.38	43,000	33
232	11-10-80	1350	1,820	59,300	1.39	82,500	63	237	11-10-80	1130	748	31,000	1.55	48,100	37
233	11-18-80	1510	1,820	60,600	1.03	62,200	68	238	11-18-80	1220	752	30,200	.96	29,000	32
234	12- 2-80	1230	1,820	61,200	.81	49,400	56	239	12- 2-80	1000	748	31,600	1.22	38,500	44
235	12-16-80	1440	1,820	57,200	1.24	71,200	63	240	12-16-80	1040	748	31,300	1.35	42,100	37
236	1- 6-81	1200	1,820	59,200	1.12	66,400	67	241	1- 6-81	1000	748	31,300	1.03	32,100	33
237	1-28-81	1020	1,820	61,500	.55	33,600	75	242	1-28-81	1350	748	31,100	.35	11,000	25
238	2-17-81	1250	1,820	60,100	1.67	100,000	61	243	2-17-81	1010	748	30,800	2.06	63,600	39
239	3- 9-81	1100	1,820	60,700	2.41	146,000	62	244	3- 9-81	0910	750	31,600	2.88	91,100	38
240	3-23-81	1320	1,820	58,500	1.91	112,000	62	245	3-23-81	1020	750	31,700	2.20	69,700	38
241	4- 7-81	1300	1,820	60,100	1.52	91,100	67	246	4- 7-81	1100	752	31,700	1.41	44,700	33
242	4-21-81	1320	1,820	59,200	1.50	88,600	63	247	4-21-81	0950	748	32,000	1.63	52,200	37
243	5-12-81	1310	1,820	60,200	1.09	65,500	53	248	5-12-81	1100	727	32,200	1.80	57,800	47
244	5-27-81	1400	1,820	59,000	1.73	102,000	54	249	5-27-81	1010	752	32,500	2.70	87,800	46
245	6- 9-81	1140	1,820	62,600	2.72	170,000	58	250	6- 9-81	0950	752	33,400	3.65	122,000	42

246	6-23-81	1500	1,820	60,800	3.06	186,000	60	251	6-23-81	1220	752	33,900	3.66	124,000	40
247	7-14-81	1300	1,820	59,000	2.54	150,000	61	252	7-14-81	1100	748	32,900	2.94	96,800	39
248	7-28-81	1220	1,820	57,300	1.85	106,000	63	253	7-28-81	1010	780	32,100	1.97	63,200	37
249	8- 4-81	1210	1,820	59,000	2.08	123,000	64	254	8- 4-81	1000	748	32,900	2.07	68,100	36
250	8-11-81	1210	1,820	57,900	2.09	121,000	61	255	8-11-81	0940	752	32,600	2.37	77,100	39
251	9- 1-81	1240	1,820	57,700	1.53	88,400	69	256	9- 1-81	0950	748	32,800	1.22	40,000	31
252	9-15-81	1130	1,820	54,900	1.99	109,000	63	257	9-15-81	0940	748	32,500	1.93	62,700	37
253	10-13-81	1345	1,820	57,900	.79	45,700	56	258	10-13-81	1015	736	33,800	1.08	36,600	44
254	11- 3-81	1240	1,820	57,300	2.16	124,000	62	259	11- 3-81	1010	748	31,800	2.37	75,300	38
255	11-17-81	1400	1,820	53,400	2.12	113,000	62	260	11-17-81	1100	744	31,600	2.17	68,600	38
256	12- 8-81	1250	1,820	55,200	.89	49,100	49	261	12- 8-81	1010	748	31,300	1.62	50,800	51
257	1-27-82	1400	1,820	56,000	1.80	101,000	61	262	1-27-82	1000	748	31,700	2.02	64,200	39
258	2-18-82	1510	1,820	59,300	2.88	170,000	60	263	2-18-82	1235	752	33,700	4.03	136,000	40
259	2-23-82	1200	1,820	59,600	3.52	210,000	61	264	2-23-82	1005	752	33,200	4.10	136,000	39
260	3- 9-82	1340	1,820	59,800	3.53	211,000	60	265	3- 9-82	1045	752	33,500	4.12	138,000	40
261	3-30-82	1440	1,820	59,300	3.04	180,000	58	266	3-30-82	1150	758	33,400	3.72	130,000	42
262	4-12-82	1220	1,820	61,400	3.48	214,000	60	267	4-13-82	1020	758	33,800	4.23	143,000	40
263	4-27-82	1210	1,820	60,100	2.90	174,000	59	268	4-27-82	0940	748	33,600	3.63	122,000	41
						Average	62							Average	38

[1] Percentage of flow compared to total flow of Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet.

Table 2.--Discharge measurements for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay

[ft, feet; ft^2, square feet; ft/s, feet per second; ft^3/s, cubic feet per second]

No.	Date	Time	Width (ft)	Area (ft^2)	Mean velocity (ft/s)	Discharge (ft^3/s)	Percent of flow[1]
			Shell Island Pass, Site 1				
1	5- 7-80	1450	500	8,340	2.43	20,300	8
2	6-26-80	1505	490	8,010	1.29	10,300	8
3	7-24-80	1320	490	8,210	1.27	10,400	12
4	8-20-80	1610	490	8,010	1.65	13,200	15
5	10-22-80	1720	500	8,280	.55	4,520	---
6	11-20-80	1400	490	8,720	1.89	16,500	7
7	12-17-80	1550	490	8,640	.46	3,990	6
8	1-26-81	1330	470	7,960	.59	4,720	14
9	2- 9-81	1210	470	7,990	1.70	13,600	---
11	4-22-81	1420	530	8,480	1.13	9,620	11
12	5-28-81	1820	500	8,100	1.64	13,300	13
13	6-25-81	1415	550	8,550	1.78	15,200	8
14	2-17-82	1020	500	9,580	1.96	18,800	9
15	4-28-82	1540	500	8,550	1.03	8,840	5
						Average	10
			Lower Atchafalaya River below Shell Island Pass, Site 2				
1	5- 9-79	1100	4,959	72,000	4.07	293,000	---
2	5- 7-80	1400	4,970	69,500	2.75	191,000	76
3	6-26-80	1530	4,970	64,500	1.92	124,000	91
4	7-24-80	1330	4,970	69,700	1.34	93,400	108
5	8-20-80	1530	4,970	61,100	1.56	95,600	106
6	9-17-80	1620	4,970	65,700	1.99	131,000	130
7	10-22-80	1645	4,970	64,600	.53	34,300	---
8	11-20-80	1245	4,970	64,600	.45	29,300	47
9	12-17-80	1445	4,970	65,000	.39	25,200	35
10	1-26-81	1220	4,970	65,500	.88	57,700	172
11	2- 9-81	1130	4,970	65,000	1.53	99,700	---
12	3-24-81	1415	4,970	66,700	.96	63,800	57
13	4-22-81	1325	4,970	66,900	.93	61,900	70
14	5-28-81	1735	4,970	65,700	2.18	143,000	140
15	6-25-81	1330	4,970	63,600	2.45	156,000	84
16	2-17-82	1610	4,970	63,200	2.56	162,000	81
17	4-28-82	1440	4,970	63,400	1.95	124,000	72
						Average	91

See footnote at end of the table.

Table 2.--Discharge measurements for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

No.	Date	Time	Width (ft)	Area (ft^2)	Mean velocity (ft/s)	Discharge (ft^3/s)	Percent of flow[1]
			Atchafalaya Bay, Site 3				
1	5- 8-79	1100	3,718	28,600	2.39	68,400	---
2	5- 7-80	1200	3,720	25,800	1.77	45,700	18
3	6-26-80	1255	3,720	24,200	1.48	35,700	26
4	7-24-80	1035	3,720	26,500	1.02	27,000	31
5	8-20-80	1345	3,720	23,400	1.11	26,000	29
6	9-17-80	1435	3,720	22,000	1.25	27,500	27
7	10-22-80	1545	3,720	24,600	.43	10,600	---
8	11-20-80	1130	3,720	22,500	.56	12,700	20
9	12-17-80	1350	3,720	24,100	.62	15,000	21
10	1-26-81	1130	3,720	22,600	.69	15,500	46
11	2- 9-81	1035	3,720	22,500	.90	20,300	---
12	3-24-81	1320	3,720	23,300	.91	21,100	19
13	4-22-81	1230	3,720	24,000	.90	21,700	24
14	5-28-81	1650	3,720	24,900	1.53	38,100	37
15	6-24-81	1520	3,720	24,600	1.77	43,500	23
16	6-25-81	1240	3,720	25,000	1.66	41,500	22
17	2-17-82	1500	3,720	25,400	1.44	36,600	18
18	4-28-82	1345	3,720	24,700	1.30	32,100	18
						Average	25
			Atchafalaya Bay, Site 4				
1	5- 8-79	1600	4,154	49,300	3.83	189,000	---
2	5- 7-80	1050	3,850	47,800	1.99	95,500	38
3	6-26-80	1130	3,850	47,400	1.73	81,800	60
4	7-24-80	1125	3,850	54,800	1.41	77,500	89
5	8-20-80	1250	3,850	46,200	1.31	60,300	67
6	9-17-80	1300	3,850	43,500	2.13	92,800	92
7	10-22-80	1445	3,850	45,600	.99	45,100	---
8	11-20-80	1040	3,850	45,900	.51	23,500	38
9	12-17-80	1355	3,850	46,100	.82	38,000	53
10	1-26-81	1030	3,850	42,300	1.13	47,600	142
11	1-27-81	1400	3,850	44,200	.63	27,900	83
12	2- 9-81	0945	3,850	45,200	1.27	57,200	---
13	3-24-81	1150	3,850	45,400	1.08	49,000	44
14	4-22-81	1140	3,850	46,100	1.01	46,700	53
15	5-28-81	1600	3,850	45,700	1.81	82,700	81
16	6-24-81	1430	3,850	46,000	2.37	109,000	59
17	6-25-81	1200	3,850	45,300	1.83	82,900	45

See footnote at end of the table.

Table 2.--Discharge measurements for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

No.	Date	Time	Width (ft)	Area (ft^2)	Mean velocity (ft/s)	Discharge (ft^3/s)	Percent of flow[1]
			Atchafalaya Bay, Site 4--Continued				
18	2-17-82	1450	3,850	48,000	1.94	93,000	46
19	4-28-82	1230	3,850	45,000	1.69	75,900	44
						Average	65
			Atchafalaya Bay, Site 5				
1	5- 6-80	1220	583	4,600	1.64	7,540	3
2	6-25-80	1420	580	4,130	1.03	4,260	3
3	7-23-80	1130	580	4,300	1.03	4,440	5
4	8-20-80	1330	568	4,160	.81	3,370	4
5	9-17-80	1130	580	4,310	1.15	4,970	5
6	10-22-80	1110	555	3,870	.68	2,640	---
7	11-19-80	1255	575	4,410	1.55	6,850	11
8	12-17-80	1015	560	3,770	.29	1,080	2
9	1-27-81	1420	570	4,260	.28	1,190	4
10	3-25-81	1000	570	3,760	.88	3,320	3
11	4-22-81	0950	583	4,500	.37	1,680	2
12	5-28-81	1430	582	4,400	.99	4,410	4
13	6-24-81	1100	595	4,630	.93	4,300	2
14	2-17-82	1220	582	4,410	1.07	4,730	2
15	4-28-82	1105	584	4,670	1.05	4,890	3
						Average	4
			Atchafalaya Bay, Site 6				
1	5- 6-80	1500	403	3,280	1.99	6,540	3
2	6-25-80	1655	400	2,970	1.47	4,370	3
3	7-23-80	1425	390	2,920	1.49	4,360	5
4	8-20-80	1045	400	3,060	.86	2,660	3
5	9-17-80	1500	390	2,950	1.84	5,420	5
6	10-22-80	1400	385	3,150	1.42	4,470	---
7	11-19-80	1440	405	3,090	1.20	3,710	6
8	12-17-80	1255	400	3,010	1.22	3,670	5
9	1-27-81	1240	410	2,920	.36	1,060	3
10	3-25-81	1145	388	2,780	.96	2,670	2
11	4-22-81	1135	405	3,170	1.16	3,680	4
12	5-28-81	1600	400	3,050	1.59	4,860	5
13	6-24-81	1450	435	3,180	2.15	6,830	4
14	2-17-82	1430	440	3,290	1.46	4,820	2
15	4-28-82	1345	457	3,480	.94	3,270	2
						Average	4

See footnote at end of the table.

Table 2.--Discharge measurements for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

No.	Date	Time	Width (ft)	Area (ft^2)	Mean velocity (ft/s)	Discharge (ft^3/s)	Percent of flow[1]
			Atchafalaya Bay, Site 7				
1	5- 6-80	1430	1,930	12,400	1.73	21,500	9
2	6-25-80	1500	1,980	11,800	1.43	16,900	12
3	7-23-80	1355	1,980	13,200	1.32	17,400	25
4	8-20-80	1115	1,980	12,000	.88	10,600	12
5	9-17-80	1145	1,980	12,200	1.43	17,500	17
6	10-22-80	1135	1,980	11,400	.51	5,820	---
7	11-19-80	1350	1,980	13,200	.73	9,630	15
8	12-17-80	1100	1,980	11,700	.59	6,960	10
9	1-27-81	1310	1,980	12,200	.48	5,890	18
10	3-24-81	1035	1,980	11,300	.89	10,100	9
11	4-22-81	1040	1,980	12,100	.83	10,100	11
12	5-28-81	1510	1,980	12,300	1.31	16,100	16
13	6-24-81	1225	1,980	12,800	1.56	19,900	11
14	2-17-82	1310	1,980	13,500	1.24	16,700	8
15	4-28-82	1150	1,980	13,000	1.11	14,400	8
						Average	13
			Atchafalaya Bay, Site 8				
1	5- 6-80	1330	2,660	26,400	2.13	56,300	23
2	6-25-80	1400	2,660	26,200	1.93	50,600	37
3	7-23-80	1130	2,660	27,800	1.49	41,300	48
4	8-20-80	1030	2,660	25,000	1.22	30,500	34
5	9-17-80	1040	2,660	26,000	1.87	48,600	48
6	10-22-80	1045	2,660	23,600	.94	22,200	---
7	11-19-80	1300	2,660	27,500	1.14	31,400	50
8	12-17-80	1005	2,660	24,700	.41	10,200	14
9	1-27-81	1215	2,660	25,600	.45	11,600	35
10	3-24-81	0945	2,660	25,500	1.31	33,400	30
11	4-22-81	0950	2,660	26,700	.52	14,000	16
12	5-28-81	1435	2,660	26,800	1.44	38,500	38
13	6-24-81	1120	2,660	25,600	1.66	42,500	23
14	2-17-82	1240	2,660	27,800	1.33	37,100	19
15	4-28-82	1110	2,660	26,600	1.44	38,400	22
						Average	31

[1] Percentage of flow compared to Lower Atchafalaya River at Morgan City.

Table 3.--Specific conductance, temperature, dissolved oxygen, and pH for Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet

[µS/cm, microsiemens per centimeter at 25°C; mg/L, milligrams per liter]

Lower Atchafalaya River at Morgan City						Wax Lake Outlet at Calumet					
Date	Time	Temperature (Celsius)	Specific conductance (µS/cm)	Oxygen dissolved (mg/L)	pH (standard units)	Date	Time	Temperature (Celsius)	Specific conductance (µS/cm)	Oxygen dissolved (mg/L)	pH (standard units)
5- 5-80	1500	19.5	254	7.1	7.4	5- 5-80	1330	19.5	246	7.0	7.4
6-11-80	1200	----	294	6.0	6.8	6-11-80	1100	27.0	317	6.1	6.5
7-22-80	0915	30.0	431	6.8	7.7	7-22-80	1000	31.0	434	6.6	7.7
8-19-80	1100	----	486	7.9	7.8	8-19-80	1015	24.0	488	7.4	7.7
9- 3-80	1315	30.0	498	7.0	7.0	9- 3-80	1245	30.0	483	7.5	7.1
10-16-80	1400	23.0	414	8.1	7.4	10-16-80	1100	22.5	417	8.3	7.2
11-18-80	1300	15.0	496	8.6	7.6	11-18-80	1100	15.5	475	8.8	7.6
12-16-80	1500	13.0	492	10.2	7.3	12-16-80	1000	12.5	474	10.7	7.2
1-28-81	1030	7.5	576	11.1	7.5	1-28-81	1330	9.0	538	11.2	7.3
2-17-81	1400	7.0	443	----	7.0	2-17-81	1000	6.0	420	----	7.1
3-23-81	1400	12.5	348	9.8	6.9	3-23-81	1000	12.0	340	10.0	7.1
4-21-81	1300	19.0	399	10.1	7.2	4-21-81	0900	21.0	402	10.0	7.3
5-27-81	1400	22.0	372	8.2	7.2	5-27-81	1000	22.0	372	7.6	7.3
6-23-81	1500	28.5	362	6.4	6.9	6-23-81	1100	28.0	376	6.1	6.1
7-14-81	1245	30.0	342	5.9	7.6	7-14-81	1000	29.0	344	5.9	7.7
8-11-81	1200	29.0	347	6.5	7.9	8-11-81	0930	29.0	350	6.6	8.1
9- 1-81	1400	28.5	459	----	7.9	9- 1-81	1000	28.5	482	7.3	7.3
10-13-81	1400	25.0	568	8.1	7.9	10-13-81	1000	25.0	554	8.4	7.9
11-17-81	1400	16.0	598	8.3	7.6	11-17-81	1000	16.0	592	8.2	7.7
12- 8-81	1400	13.5	526	9.3	7.7	12- 8-81	1000	12.5	514	9.7	7.7
1-27-82	1300	6.0	383	12.3	7.2	1-27-82	0850	5.5	440	12.6	7.4
2-18-82	1430	7.0	238	11.7	7.4	2-18-82	1215	6.0	239	11.7	7.5
3- 9-82	1400	8.5	285	10.3	6.7	3- 9-82	1000	8.5	272	10.7	6.9
4-27-82	1200	16.5	299	8.1	6.8	4-27-82	0945	16.5	295	8.4	7.1

Table 4.--Specific conductance, temperature, dissolved oxygen, and pH for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay

[ft, feet; µS/cm, microsiemens per centimeter at 25°C; mg/L, milligrams per liter]

Date	Time	Depth (ft)	Temperature (Celsius)	Specific conductance (µS/cm)	Oxygen-dissolved (mg/L)	pH (standard units)
Shell Island Pass, Site 1						
8-20-80	1600	1.0	30.0	530	2.7	6.0
		22.0	30.0	530	2.7	6.1
9-17-80	----	1.0	----	490	---	---
		22.0	----	490	---	---
10-23-80	----	1.0	21.0	450	---	---
		22.0	21.0	450	---	---
11-20-80	1215	1.0	15.5	1,049	9.3	7.4
		8.0	15.0	1,049	9.2	7.4
		18.0	15.0	1,046	9.2	7.4
12-17-80	1515	20.0	11.0	490	---	---

Table 4.--Specific conductance, temperature, dissolved oxygen, and pH for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

Date	Time	Depth (ft)	Temperature (Celsius)	Specific conductance (µS/cm)	Oxygen-dissolved (mg/L)	pH (standard units)
Shell Island Pass, Site 1--Continued						
1-26-81	----	1.0	7.5	560	---	---
		20.0	7.5	560	---	---
2- 9-81	1145	1.0	9.0	620	---	---
		10.0	9.0	620	---	---
		20.0	9.5	620	---	---
3-24-81	1510	1.0	13.5	347	9.8	7.3
		18.0	13.0	347	9.8	7.3
6-24-81	1230	1.0	27.5	364	5.8	---
		24.0	28.0	364	5.7	---
6-25-81	1345	1.0	29.5	353	5.3	---
		20.0	28.5	349	5.1	---
Lower Atchafalaya River below Shell Island Pass, Site 2						
8-20-80	1530	1.0	32.0	530	3.0	6.2
		40.0	31.0	630	2.8	5.9
9-17-80	1620	1.0	----	590	---	---
		31.0	----	1,100	---	---
10-23-80	----	1.0	21.0	480	---	---
		47.0	20.0	4,500	---	---
11-20-80	1200	1.0	15.0	1,286	9.1	7.4
		15.0	15.5	345	8.7	7.3
		35.0	16.0	704	8.3	7.1
12-17-80	1430	1.0	11.5	500	---	---
		35.0	11.5	650	---	---
1-26-81	1220	1.0	7.5	600	---	---
		15.0	----	950	---	---
		20.0	----	2500	---	---
		25.0	----	6,900	---	---
		30.0	----	11,000	---	---
		35.0	----	15,000	---	---
		40.0	----	16,000	---	---
2- 9-81	1045	1.0	9.0	830	---	---
		15.0	9.0	950	---	---
		25.0	9.0	2,300	---	---
		35.0	9.0	7,500	---	---
3-24-81	1415	1.0	12.5	344	9.8	7.3
		38.0	12.5	344	9.4	7.3
6-25-81	1300	1.0	28.5	351	5.3	---
		15.0	28.0	351	5.1	---
		30.0	28.0	350	4.8	---

Table 4.--Specific conductance, temperature, dissolved oxygen, and pH for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

Date	Time	Depth (ft)	Temperature (Celsius)	Specific conductance (µS/cm)	Oxygen-dissolved (mg/L)	pH (standard units)
Atchafalaya Bay, Site 3						
6-26-80	1300	1.0	28.0	440	6.7	7.0
		10.6	28.0	440	6.7	7.0
8-20-80	1345	1.0	32.0	600	3.7	6.1
		7.0	32.0	600	3.5	6.1
9-17-80	1430	1.0	30.0	900	---	8.0
		8.0	30.0	1,500	---	8.0
10-22-80	1600	1.0	21.0	400	---	---
		8.0	21.0	440	---	---
10-23-80	----	1.0	21.0	700	---	---
		10.0	20.0	1,700	---	---
11-20-80	1100	1.0	14.5	1,300	9.3	7.4
		6.0	14.5	1,350	9.2	7.3
12-17-80	1315	9.0	11.5	500	---	---
1-26-81	1130	1.0	8.0	960	---	---
		8.0	7.0	2,100	---	---
2- 9-81	1030	1.0	9.0	1,500	---	---
		5.0	9.0	1,500	---	---
		9.0	9.0	1,500	---	---
3-24-81	1340	1.0	13.5	344	9.8	7.3
		7.0	13.5	344	9.4	7.3
6-25-81	1250	1.0	28.5	352	5.2	---
		8.0	28.5	350	5.2	---
Atchafalaya Bay, Site 4						
6-26-80	1130	1.0	28.0	450	6.7	7.2
		22.0	28.0	450	6.7	7.1
8-20-80	1300	1.0	32.0	740	2.5	6.0
		23.0	30.0	16,000	2.2	5.5
9-17-80	1300	1.0	29.0	1,100	---	8.0
		24.0	29.0	15,000	---	7.9
10-22-80	1445	1.0	21.0	500	---	---
		20.0	20.0	1,400	---	---
10-23-80	----	1.0	21.0	950	---	---
		22.0	20.0	11,000	---	---
11-20-80	1045	1.0	15.0	1,682	9.2	7.2
		10.0	15.0	1,800	9.2	7.1
		18.0	15.0	1,870	9.3	6.8
12-17-80	1230	20.0	11.5	900	---	---
1-26-80	1030	1.0	7.5	1,200	---	---
		11.0	----	6,000	---	---
		15.0	----	15,000	---	---
		20.0	----	21,000	---	---

Table 4.--Specific conductance, temperature, dissolved oxygen, and pH for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

Date	Time	Depth (ft)	Temperature (Celsius)	Specific conductance (µS/cm)	Oxygen-dissolved (mg/L)	pH (standard units)
Atchafalaya Bay, Site 4--Continued						
2- 9-81	1000	1.0	9.0	1,200	----	---
		10.0	9.0	1,500	----	---
		18.0	9.0	3,500	----	---
		22.0	9.0	10,000	----	---
3-24-81	1315	1.0	13.0	345	9.5	7.4
		23.0	13.0	346	9.3	7.3
6-24-81	1430	1.0	27.5	364	5.8	---
		24.0	28.0	364	5.7	---
6-25-81	1200	1.0	28.0	350	5.2	---
		26.0	28.0	350	5.2	---
Atchafalaya Bay, Site 5						
10-22-80	1115	1.0	20.0	650	----	---
		8.0	20.0	650	----	---
11-19-80	1130	11.0	15.0	315	10.2	7.1
12-17-80	1100	9.0	11.5	1,100	----	---
1-27-81	1415	1.0	10.0	2,400	----	---
		8.0	9.0	3,800	----	---
3-24-81	0915	1.0	12.5	348	9.7	7.2
		10.0	12.5	348	9.8	7.1
6-24-81	1000	1.0	28.0	365	5.8	---
		10.0	28.0	364	5.8	---
Atchafalaya Bay, Site 6						
10-22-80	1400	1.0	21.0	600	----	---
		8.0	21.0	600	----	---
11-19-81	1545	1.0	15.5	375	11.6	7.6
		7.0	14.0	390	11.6	7.6
1-27-81	1245	1.0	9.5	1,700	----	---
		8.0	9.5	1,700	----	---
3-24-81	1135	1.0	13.0	348	9.5	7.3
		8.0	13.0	350	9.4	7.3
6-24-81	1350	1.0	28.0	360	5.7	---
		5.0	28.0	340	5.6	---
Atchafalaya Bay, Site 7						
6-25-80	1500	1.0	28.0	432	7.2	6.7
8-20-80	1115	1.0	31.0	900	3.9	6.1
		7.0	31.0	950	3.9	6.1
9-17-80	1145	1.0	29.0	1,900	----	8.0
		7.0	29.0	1,900	----	8.0

Table 4.--Specific conductance, temperature, dissolved oxygen, and pH for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

Date	Time	Depth (ft)	Temperature (Celsius)	Specific conductance (µS/cm)	Oxygen-dissolved (mg/L)	pH (standard units)
Atchafalaya Bay, Site 7--Continued						
10-22-80	1130	1.0	20.0	845	----	---
		8.0	20.0	845	----	---
10-23-80	----	1.0	21.0	1,600	----	---
		9.7	20.0	1,900	----	---
11-19-80	1345	1.0	16.0	313	9.7	7.3
		5.0	16.0	326	9.7	7.3
		9.5	15.5	420	9.8	7.3
12-17-80	1030	10.0	12.5	750	----	---
1-27-81	1315	1.0	9.0	1,700	----	---
		5.0	9.0	3,500	----	---
		10.0	9.0	5,400	----	---
3-24-81	1100	1.0	13.0	353	9.3	7.3
		10.0	13.0	353	9.3	7.2
6-24-81	1215	1.0	28.0	362	5.7	---
		5.0	28.0	362	5.7	---
Atchafalaya Bay, Site 8						
6-25-80	1400	1.0	28.0	432	6.7	7.0
		28.0	28.0	430	6.7	7.0
8-20-80	1030	1.0	31.0	16,000	2.3	6.0
		10.0	31.0	14,000	2.3	5.7
		27.0	31.0	21,000	2.9	5.7
9-17-80	1045	1.0	30.0	2,900	----	8.0
		30.0	30.0	25,000	----	8.0
10-22-80	1045	1.0	21.0	1,200	----	---
		25.0	20.0	10,000	----	---
10-23-80	----	1.0	21.0	2,500	----	---
		26.0	20.0	18,000	----	---
11-19-80	1300	10.0	13.5	520	10.5	7.6
		27.0	14.0	681	10.2	7.5
12-17-80	1000	30.0	12.5	1,000	----	---
1-27-81	1215	1.0	9.0	4,000	----	---
		8.0	----	15,000	----	---
		10.0	----	17,000	----	---
		20.0	----	25,000	----	---
		30.0	12.0	25,000	----	---
3-24-81	1015	1.0	12.5	350	9.7	7.2
		28.0	12.5	350	9.5	7.3
6-24-81	1150	1.0	28.0	363	5.8	---
		20.0	28.0	363	5.8	---

Table 5.--Suspended-sediment concentration, suspended-sediment discharge, and percent finer than sand for Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet

Date	Suspended-sediment concentration (milligrams per liter)	Suspended-sediment discharge (tons per day)	Suspended-sediment sieve diameter percent finer than sand (0.062 millimeter)	Percent suspended sediment discharge[1]
		Lower Atchafalaya River at Morgan City		
5- 5-80	289	195,000	78	61
6-24-80	155	54,000	99	33
7-22-80	182	42,600	98	64
8-19-80	85	20,300	95	72
9- 3-80	451	128,000	99	88
12-16-80	148	28,500	99	--
1-28-81	90	8,170	100	81
2-17-81	209	56,400	99	58
3-23-81	172	52,000	99	56
4-21-81	105	25,100	100	57
5-27-81	334	92,000	100	50
6-23-81	457	230,000	92	61
7-14-81	376	152,000	98	62
8-11-81	471	154,000	100	61
9- 1-81	159	38,000	99	78
10-13-81	92	11,400	96	58
11-17-81	520	159,000	100	61
12- 8-81	536	71,100	100	80
1-27-82	221	60,200	99	63
2-18-82	620	286,000	85	55
3- 9-82	496	282,000	74	63
4-27-82	412	193,000	86	59
5-25-82	649	210,000	100	61
6-22-82	590	289,000	94	59
			Average	63
		Wax Lake Outlet at Calumet		
5- 5-80	294	124,000	73	39
6-24-80	486	112,000	99	67
7-22-80	177	23,600	99	36
8-19-80	64	7,950	91	28
9- 3-80	111	17,200	99	12
1-28-81	65	1,930	99	19

See footnote at end of the table.

Table 5.--Suspended-sediment concentration, suspended-sediment discharge, and percent finer than sand for Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet--Continued

Date	Suspended-sediment concentration (milligrams per liter)	Suspended-sediment discharge (tons per day)	Suspended-sediment sieve diameter percent finer than sand (0.062 millimeter)	Percent suspended sediment discharge[1]
2-17-81	239	41,000	100	42
3-23-81	215	40,500	100	44
4-21-81	134	18,900	100	43
5-27-81	382	90,600	98	50
6-23-81	430	144,000	91	39
7-14-81	350	91,500	98	38
8-11-81	474	98,700	99	39
9- 1-81	97	10,500	99	22
10-13-81	82	8,110	99	42
11-17-81	541	100,000	100	39
12- 8-81	131	18,000	99	20
1-27-82	200	34,800	99	37
2-18-82	633	232,000	86	45
3- 9-82	453	169,000	83	37
4-27-82	411	135,000	90	41
5-25-82	626	135,000	100	39
6-22-82	567	202,000	93	43
			Average	37

[1] Percentage of suspended-sediment discharge compared to total suspended-sediment discharge at Lower Atchafalaya River at Morgan City and Wax Lake Outlet at Calumet.

Table 6.--Suspended-sediment concentration, suspended-sediment discharge, and percent finer than sand for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay

Date	Suspended-sediment concentration (milligrams per liter)	Suspended-sediment discharge (tons per day)	Suspended-sediment sieve diameter percent finer than sand (0.062 millimeter)	Percent suspended sediment discharge[1]
Shell Island Pass, Site 1				
5- 5-80	294	124,000	73	39
5- 7-80	182	10,000	96	5
6-26-80	262	7,270	97	14
7-24-80	118	3,310	98	8
8-20-80	114	4,060	96	20
10-22-80	105	1,280	96	-----
11-20-80	53	2,380	79	-----
12-17-80	61	659	83	2
1-26-81	37	470	80	6
2- 9-81	90	3,310	78	-----
4-22-81	49	1,260	80	20
5-28-81	113	4,070	99	4
6-25-81	139	5,720	99	2
2-17-82	376	19,100	95	7
4-28-82	117	2,790	94	1
			Average	11
Lower Atchafalaya River below Shell Island Pass, Site 2				
5- 7-80	202	104,000	88	53
6-26-80	302	101,000	98	187
7-24-80	115	29,100	98	68
8-20-80	95	24,600	95	121
9-17-80	168	59,600	95	-----
10-22-80	130	12,000	95	-----
11-20-80	43	2,930	84	-----
12-17-80	45	3,090	70	11
1-26-81	35	5,430	86	66
2- 9-81	72	19,400	77	-----
3-25-81	55	9,500	88	18
4-22-81	39	6,470	88	26
5-28-81	143	55,200	98	64
6-25-81	194	81,600	96	29
2-17-82	423	185,000	94	65
4-28-82	150	50,300	95	26
			Average	61

See footnote at end of the table.

Table 6.--Suspended-sediment concentration, suspended-sediment discharge, and percent finer than sand for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

Date	Suspended-sediment concentration (milligrams per liter)	Suspended-sediment discharge (tons per day)	Suspended-sediment sieve diameter percent finer than sand (0.062 millimeter)	Percent suspended sediment discharge[1]
		Atchafalaya Bay, Site 3		
5- 7-80	195	24,000	94	12
6-26-80	244	23,500	97	44
7-24-80	140	10,200	92	24
8-20-80	122	8,560	96	42
9-17-80	249	18,500	94	-----
10-22-80	111	3,170	89	-----
11-20-80	30	1,040	89	-----
12-17-80	32	1,230	64	4
1-26-81	87	3,650	86	45
2- 9-81	57	3,120	99	-----
3-25-81	70	4,000	89	8
4-22-81	36	2,120	79	8
5-28-81	137	14,100	97	15
6-25-81	204	22,900	93	8
2-17-82	387	38,200	98	13
4-28-82	157	13,600	98	7
			Average	19
		Atchafalaya Bay, Site 4		
5- 7-80	198	51,000	96	26
6-26-80	306	67,600	98	125
7-24-80	214	44,900	96	105
8-20-80	163	26,600	97	131
10-22-80	136	16,600	96	-----
11-20-80	31	1,950	84	-----
12-17-80	23	2,370	81	8
1-26-81	29	3,720	79	46
2- 9-81	80	12,400	86	-----
3-25-81	55	7,280	89	14
4-22-81	59	7,460	83	30
5-28-81	155	34,500	99	38
6-24-81	404	119,000	93	42
6-25-81	262	58,800	96	21
2-17-82	414	104,000	98	36
4-28-82	158	32,300	98	17
			Average	49

See footnote at end of the table.

Table 6.--Suspended-sediment concentration, suspended-sediment discharge, and percent finer than sand for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

Date	Suspended-sediment concentration (milligrams per liter)	Suspended-sediment discharge (tons per day)	Suspended-sediment sieve diameter percent finer than sand (0.062 millimeter)	Percent suspended sediment discharge[1]
		Atchafalaya Bay, Site 5		
5- 7-80	223	4,530	98	2
6-25-80	387	4,450	99	8
7-23-80	373	4,470	98	10
8-20-80	216	1,970	99	10
9-17-80	437	5,870	92	-----
10-22-80	142	1,010	99	-----
11-19-80	57	1,050	91	-----
12-17-80	38	112	85	.4
1-26-81	55	177	84	2
3-25-81	75	676	97	1
4-22-81	59	266	84	1
5-28-81	133	1,580	82	2
6-24-81	98	1,130	88	.4
2-17-82	526	6,720	96	2
4-28-82	113	1,490	95	1
			Average	3
		Atchafalaya Bay, Site 6		
5- 7-80	219	3,860	98	2
6-25-80	463	5,470	100	10
7-23-80	296	3,480	97	8
8-20-80	209	1,500	97	7
9-17-80	428	6,260	94	-----
10-22-80	117	1,410	100	-----
11-19-80	52	516	82	-----
12-17-80	54	537	82	2
1-26-81	34	98.3	85	1
3-25-81	71	511	87	1
4-22-81	47	469	88	2
5-28-81	130	1,710	92	2
6-24-81	210	3,880	98	1
2-17-82	469	6,100	97	2
4-28-82	122	1,080	94	.6
			Average	3

See footnote at end of the table.

Table 6.--Suspended-sediment concentration, suspended-sediment discharge, and percent finer than sand for sites 1-8 in Lower Atchafalaya River and Atchafalaya Bay--Continued

Date	Suspended-sediment concentration (milligrams per liter)	Suspended-sediment discharge (tons per day)	Suspended-sediment sieve diameter percent finer than sand (0.062 millimeter)	Percent suspended sediment discharge[1]
		Atchafalaya Bay, Site 7		
5- 7-80	200	11,700	94	60
6-25-80	403	18,400	99	34
7-23-80	213	10,100	98	24
8-20-80	159	4,560	97	22
9-17-80	326	15,400	93	-----
10-22-80	146	2,290	98	-----
11-19-80	40	1,030	90	-----
12-17-80	45	848	80	3
1-26-81	92	1,460	85	18
3-25-81	70	1,910	85	4
4-22-81	32	873	90	3
5-28-81	108	4,690	94	5
6-24-81	186	10,000	96	4
2-17-82	399	18,000	97	6
4-28-82	159	6,180	99	3
			Average	16
		Atchafalaya Bay, Site 8		
5- 7-80	216	32,900	97	17
6-25-80	443	60,500	98	112
10-22-80	179	10,700	94	-----
11-19-80	97	8,210	90	-----
12-17-80	49	1,350	66	5
1-26-81	30	953	82	12
3-25-81	88	7,920	86	15
4-22-81	52	1,980	90	8
5-28-81	114	11,900	95	13
6-24-81	280	32,100	96	11
2-17-82	384	38,500	98	13
4-28-82	191	19,800	96	10
			Average	22

[1] Percentage of suspended-sediment discharge compared to suspended-sediment discharge at Lower Atchafalaya River at Morgan City.

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