

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROGRESS REPORT TO THE ARKANSAS STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT,
YEAR ENDING SEPTEMBER 30, 1981
By R. C. Gilstrap and T. E. Lamb

Open-File Report 82-97

Prepared in cooperation with the
ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

Little Rock, Arkansas
1981

UNITED STATES DEPARTMENT OF THE INTERIOR

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CONTENTS

	Page
Abstract-----	1
Introduction-----	2
Objectives-----	2
Accomplishments-----	3
Crest-stage stations-----	3
Rainfall-runoff modeling-----	3
Drainage areas-----	12
Reports published this year-----	12
Other information furnished this year-----	12
Published bridge-site studies-----	13
Program plans for year ending September 30, 1982-----	20
Related Water Resources Division programs-----	21

ILLUSTRATION

Plate 1. Map showing locations of highway-program data-collection sites and completed bridge-site studies-----	In pocket
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TABLE

	Page
Table 1. Period of record of annual peaks at crest-stage gaging stations in Arkansas-----	4

PROGRESS REPORT TO THE
ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT,
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ABSTRACT

The objectives of the cooperative program with the Arkansas State Highway and Transportation Department are described. Accomplishments within the program are summarized and reports are listed. The accomplishments include operation of a crest-stage station network, modeling of rainfall-runoff station data, publication of drainage-area reports for all major river basins in Arkansas, floodflow-characteristics reports at proposed bridge sites, furnishing peak-flow and stage information at many sites, and furnishing technical advice and field training to Highway and Transportation Department personnel.

Program plans for the 1982 fiscal year are listed and discussed. Other water-resources programs and publications that may be of interest are discussed and all available flood-prone-area maps for Arkansas are listed.

INTRODUCTION

The economic design of bridges and culverts requires a knowledge of the magnitude and frequency of floods for all size drainage basins. In addition, an analysis of the hydrologic and hydraulic characteristics at specific sites where unusual circumstances exist is a prerequisite to design.

The Arkansas State Highway and Transportation Department and the U.S. Geological Survey have a mutual interest in flood-frequency and open-channel hydraulics and therefore are cooperating in a program to provide information necessary to meet their objectives.

This report is a summary of the accomplishments of the cooperative program. Included are plans for future work and a brief description of related water-resources programs of the Geological Survey in Arkansas.

OBJECTIVES

The primary objective of the program is to define regional flood-frequency relations for Arkansas, with particular emphasis placed on drainage areas of less than 50 square miles (130 square kilometers). The second objective is to analyze the hydrologic and hydraulic floodflow characteristics at specific sites as requested by the State Highway and Transportation Department. One of the principal parameters for floodflow analysis is the drainage area; therefore, the delineation, measurement, and publication of drainage areas are included as a part of the program. In addition, the program includes the documentation of unusual small-area floods.

From time to time, the Highway and Transportation Department and Survey personnel encounter difficult hydraulic and hydrologic problems.

The solutions to these problems are made more difficult by unusual channel geometry, embankment slopes, unusual bridges and culverts, and other conditions that do not fit standard computation procedure. The Department and the Survey collaborate in developing procedures for analysis and solution of these problems. Although not a specific part of the cooperative program, the Geological Survey provides data on water resources upon special request by the Highway and Transportation Department.

ACCOMPLISHMENTS

Crest-Stage Stations

A network of 85 crest-stage stations was operated and maintained during fiscal year 1981. Annual peak stages and discharges for the 1981 fiscal year were determined at all the stations. Annual peak stages and discharges at each station are published annually in the report "Water Resources Data of Arkansas." A summary of the period of record for all stations operated during the life of the program is shown in table 1. The locations of the crest-stage stations are shown on plate 1, with station-numbers cross-referenced to table 1.

Rainfall-Runoff Modeling

All the rainfall-runoff data have now been translated, edited, and entered into computer storage. More than one-third of the 26 station records have been calibrated and a long term record of peaks has been synthesized. Flood frequencies have been computed for these synthesized records.

Table 1.--Period of record of annual peaks at crest-stage gaging stations in Arkansas

Station		Annual peak records (water years)		
Number	Name	Peak stage and discharge	Peak stage only	Continuous stage and rainfall
St. Francis River basin				
07040420	Johnson Creek near Paragould--	1961-62		
07046530	Ditch No. 42 at Hickman-----	1963-		
07047200	Ditch No. 45 near Lepanto-----	1962-		1969-74
07047820	Murray Creek near Jonesboro---	1960-		
07047880	Pope Creek tributary at Birdeye.	1963-		
07047924	Crooked Bayou tributary at State Highway 149, at Hughes.	1963-a		
07047925	Crooked Bayou tributary at Hughes.	1962-63		
07047935	Wolf Creek near Cherry Valley.		1961-62	
White River basin				
07047975	Dog Branch at St. Paul-----	1961-80 ^b		
07047990	West Fork White River tributary near Greenland.	1960-c		
07048900	Whitener Branch tributary near Spring Valley.	1960-d		
07048940	War Eagle Creek near Witter---	1963-		
07050200	Maxwell Creek at Kingston-----	1961, 1963-81		
07504000	Freeman Branch at Berryville--	1961-80		
07054400	Charley Creek near Omaha-----	1962-81		

See footnotes at end of table, p. 11.

Table 1.--Period of record of annual peaks at crest-stage gaging stations in
Arkansas--Continued

Station		Annual peak records (water years)		
Number	Name	Peak stage and discharge	Peak stage only	Continuous stage and rainfall
White River basin--Continued				
07054450	East Sugarloaf Creek tributary near Lead Hill.	1962-		
07055550	Crooked Creek near Dogpatch---	1961-e		1969-74
07055650	Smith Creek near Boxley-----	1963-		1969-74
07055800	Dry Branch near Vendor-----	1962-81		
07057300	Dodd Creek tributary near Mountain Home.	1961-e		1969-74
07060600	Band Mill Creek near Brockwell.	1961-		
07060670	Hughes Creek near Mountain View.	1961-80		
07060710	North Sylamore Creek near Fifty Six. ^f	1966-		1968-
07060830	Wolf Bayou near Drasco-----	1963-		
07061100	Gibbs Creek at Sulphur Rock---	1962-		1969-74
07068870	Fourche River tributary at Middlebrook.	1961-80		
07069250	Brush Creek near Mammoth Spring.	1961-		
07069290	Miller Creek near Salem-----	1961, 1963-81		1969-74
07072200	Hubble Creek near Pocahontas--	1961-		
07074200	Dry Branch tributary near Sidney.	1961-80 ^e		
07074250	Reeds Creek near Strawberry---	1963-		
07074550	Village Creek near O'Kean-----	1961-80		

See footnotes at end of table, p. 11.

Table 1.--Period of record of annual peaks at crest-stage gaging stations in
Arkansas--Continued

Station		Annual peak records (water years)		
Number	Name	Peak stage and discharge	Peak stage only	Continuous stage and rainfall
White River basin--Continued				
07074855	Cypress Creek tributary near Augusta.	1962-81		
07074900	Trace Creek tributary near Marshall.	1961-e		
07074950	Tick Creek near Leslie-----	1961-80		
07075400	Town Branch at Clinton-----		1963	
07075600	Choctaw Creek tributary near Choctaw.	1964-		
07075800	Dill Branch tributary near Ida.	1964-		
07076630	Key Branch near Searcy-----	1961-		
07076820	Gum Springs Creek near Higginson.	1961-79		1968-70
07076870	Pigeon Roost Creek at Butler- ville.	1961-		
07077100	Big Creek near Boydsville-----	1962-81		
07077200	Big Creek tributary near Boydsville.	1962-		
07077340	Sugar Creek tributary near Walcott.	1963-		1969-74
07077430	Willow Ditch near Egypt-----	1963-		1969-74
07077680	Threemile Creek near Amagon---	1961-80		
07077860	Boat Gunwale Slash near Holly Grove.	1962-81		1969-74
07077920	Big Creek at Goodwin-----	1961-		
07077940	Spring Creek near Aubrey-----	1962-81		
07078170	Little LaGrue Bayou tributary near DeWitt.	1961-80		

See footnotes at end of table, p. 11.

Table 1.--Period of record of annual peaks at crest-stage gaging stations in
Arkansas--Continued

Station		Annual peak records (water years)		
Number	Name	Peak stage and discharge	Peak stage only	Continuous stage and rainfall
White River basin--Continued				
07078210	Tarleton Creek tributary at Ethel.	1963-		
Arkansas River basin				
07188900	Butler Creek tributary near Gravette.	1961-80 ^e		
07194890	Osage Creek at Cave Springs---	1963-81 ^g		
07195200	Brush Creek tributary near Tontitown.	1959-79 ^h		
07195450	Ballard Creek at Summers-----	1963-		
07195800	Flint Creek near Springtown ^f --	1961-		1968-74
07249300	James Fork near Midland-----	1963-		
07249450	Mill Creek at Fort Smith-----	1952, 1960-63		
07249650	Mountain Fork near Evansville.	1962-81		
07249950	Webber Creek tributary near Cedarville.	1962- ^e		
07252200	North Fork White Oak Creek tributary near Watalula.	1961-		
07254000	Sixmile Creek subwatershed No. 5 near Chismville. ^f	1960-73		1969-73
07257060	Mikes Creek tributary near Ozone.	1964-		
07257100	Minnow Creek tributary near Hagarville.	1963- ^e	1962	1969-74
07257700	McCoy Creek near Dover-----	1961- ^a		

See footnotes at end of table, p. 11.

Table 1.--Period of record of annual peaks at crest-stage gaging stations in
Arkansas--Continued

Station		Annual peak records (water years)		
Number	Name	Peak stage and discharge	Peak stage only	Continuous stage and rainfall
Arkansas River basin--Continued				
07258200	Pack Saddle Creek tributary near Waldron.	1961- ⁱ		1969-73
07260630	Jake Creek near Chickalah-----	1961-80		
07260670	Clear Creek tributary at Moreland.		1961	
07260679	East Fork Point Remove Creek tributary near St. Vincent.	1967-		
07260680	Pool Hollow Branch near Hattievile.		1962, 1964-66	
07260950	Bettis Creek near Pearson-----		1962	
07261050	Pine Mountain Creek tributary near Damascus.	1961-80		1969-74
07261300	Tan-a-hill Creek near Boles---	1960-79		
07261800	Brogan Creek near Rover-----	1963-		
07263100	Fourche La Fave River tributary near Perryville.	1963- ^b	1962	
07263400	Little Maumelle River at Ferndale.	1963-		
07263860	Mile Branch near Tomberlin----	1963-79		1969-74
07263910	Cypress Branch near Jacksonville.	1961-		
07264100	White Oak Branch near Lonoke--	1961-		

Red River basin

07338700	Twomile Creek near Hatfield---	1963-		
07339800	Pepper Creek near DeQueen-----	1961- ^{e i}		

See footnotes at end of table, p. 11

Table 1.--Period of record of annual peaks at crest-stage gaging stations in
Arkansas--Continued

Station		Annual peak records (water years)		
Number	Name	Peak stage and discharge	Peak stage only	Continuous stage and rainfall
Red River basin--Continued				
07340200	West Flat Creek near Foreman--	1962-81		
07340530	Mill Slough tributary near Lockesburg.	1963-		
07340600	Browns Creek near Ben Lomond--		1961-62	
07341100	Rock Creek near Dierks-----	1961, 1963-81		
07341700	Caney Creek near Hope-----	1963-		1969-74
07344320	Mill Creek tributary near Fouke.	1961-		
07346800	East Fork Kelly Bayou tribu- tary at Kiblah.	1961-80		1969-74
07348630	Barlow Branch tributary near McNeil.	1961-		
07355800	Lewis Creek tributary near Mena.	1961- ¹		1969-74
07355900	Big Fork tributary at Big Fork.	1964-		
07356700	Barnes Branch near Mount Ida--	1961-80		
07357700	Glazypeau Creek at Mountain Valley.	1961-		1968-74
07359520	Jackson Creek near Malvern----	1962-81		
07359750	Little Sugarloaf Creek near Bonnerdale.	1962-81		
07360150	Pearson Creek tributary near Dalark.	1961-80		1969-74
07361020	Prairie Creek tributary near Kirby.	1963-		
07361180	South Fork Ozan Creek near Ozan.	1963-		

See footnotes at end of table, p. 11.

Table 1.--Period of record of annual peaks at crest-stage gaging stations in
Arkansas--Continued

Station		Annual peak records (water years)		
Number	Name	Peak stage and discharge	Peak stage only	Continuous stage and rainfall
Red River basin--Continued				
07361680	Middle Caney Creek tributary near Rosston.	1961- ⁱ		
07361780	Bradshaw Creek near Hollywood.	1962-81		
07362050	Ross Creek near Camden-----	1961-80 ⁱ		
07362330	Dunn Creek near Hampton-----	1962-		
07362450	Cooks Creek near Fordyce-----	1962-81		
07363050	Holly Creek tributary near Benton.	1962-		
07363330	West Fork Big Creek at Sheridan.	1960, 1963-81		
07363430	East Fork Derriousseaux Creek near Pine Bluff.	1961-80		
07363450	Varnell Creek near Rison-----	1964-		
07363470	Saline River tributary at Rye.		1961, 1963	
07364030	L'Aigle Creek tributary near Hermitage.	1963-		
07364070	Bear Creek near Strong-----	1963-		
07364110	Nevins Creek tributary near Pine Bluff.	1961-		1968-74
07364125	Cane Creek at Star City-----	1962-81		
07364140	Ables Creek near Tyro-----	1969-74		1969-74
07364165	Upper Cutoff Creek near Monticello.	1963-		
07364260	Hanks Creek near Hamburg-----	1962-		

See footnotes at end of table, p. 11.

Table 1.--Period of record of annual peaks at crest-stage gaging stations in
Arkansas--Continued

Station		Annual peak records (water years)		
Number	Name	Peak stage and discharge	Peak stage only	Continuous stage and rainfall
Red River basin--Continued				
07364550	Cany Creek tributary near El Dorado.	1961-		1969-74
07367658	Cypress Creek Canal No. 19 tributary near Dumas.	1961- ⁱ		
07367670	Wards Bayou tributary at Montrose.	1961-80		
07367740	Camp Bayou near Parkdale-----	1963-		1969-74

^a Peak stage in 1963 lower than the index.

^b Peak stage in 1962 and 1963 lower than the index.

^c Incomplete record in 1962 and 1963.

^d Peak stage in 1962 and 1965 lower than the index.

^e Peak stage in 1962 lower than the index.

^f Continuous-record gaging station equipped with rainfall recorder.

^g Peak stage in 1964 and 1967 lower than the index.

^h Peak stage in 1962 and 1966 lower than the index.

ⁱ Incomplete record in 1961.

Drainage Areas

Drainage area reports have been published for all the major river basins in Arkansas, as listed below:

1967--St. Francis River basin

1970--Arkansas River basin

1974--White River basin

1978--Red River basin

1979--Ouachita River basin

Reports Published This Year

The following reports were approved and furnished to the Department.

"Floodflow characteristics of Grassy Flat Creek at Butler Park and at Presbyterian Village on Rodney Parham Road in Little Rock, Arkansas," by T. E. Lamb

"Floodflow characteristics of Bayou Meto near Macon Arkansas," by R. C. Gilstrap

"Floodflow characteristics of Ouachita River at Moro Bay Arkansas," by R. C. Gilstrap

Other Information Furnished This Year

Many requests for peak flow and stage and various other factors were answered, including:

Saline River near Fountain Hill

Osage Creek near Berryville

Spring River at Williford

Brush Creek at Elm Springs

Spring Creek near Cave Springs

Butter Creek near Bradford
White River near Newport
St. Francis River at Parkin
Little Missouri River near Kimberly
Fourche La Fave River near Boles
Hicks Creek and Dodd Creek near Mountain Home
East Fork Point Remove Creek at Highway 124, near Cleveland
East Fork Point Remove Creek near Solgohachia
Saline River near Traskwood
Galla Creek near Atkins
Hurricane Creek near Bryant
Bayou Meto near Seaton
Bayou Bartholomew near Dermott
White River near Fayetteville
Faras Run, Buck Creek, and Short Creek near Carlisle

Survey personnel provided technical advice and field training in measurement techniques to Department personnel studying changes in flow velocities in wetlands near the relocated U.S. Highway 67 crossing of the White River and Departee Creek near Bradford, Ark.

Published Bridge-Site Studies

For informational purposes, the following list of bridge-site studies, referenced to plate 1 by numbers, is included in this annual progress report. The listing is arbitrarily grouped according to the month and year of completion.

- 1 May 1960, L'Anguille River near Wynne, Arkansas, Floodflow characteristics at bridges on U.S. Highway 64.

- 2 December 1960, Fourche La Fave River, Floodflow characteristics at bridge site on State Highway 28 near Parks, Arkansas.
- 3 October 1962, Sulphur River, Floodflow characteristics of Sulphur River at State Highway 237 near Fouke, Arkansas.
- 4 May 1963, Floodflow characteristics of Arkansas River at Interstate Highway 540 at Van Buren, Arkansas.
- 5 June 1963, Supplement I to Floodflow characteristics of Arkansas River at Interstate Highway 540 at Van Buren, Arkansas.
- 6 June 1965, Supplement II to Floodflow characteristics of Arkansas River at Interstate Highway 540 at Van Buren, Arkansas.
- 7 June 1964, Floodflow characteristics of Red River at Interstate Highway 30 at Fulton, Arkansas.
- 8 1965, Floodflow characteristics of Caddo River at U.S. Highway 67 and Interstate Highway 30 at Caddo Valley, Arkansas.
- 9 October 1965, Floodflow characteristics of Little River and Caney Creek at State Highway 41 near Horatio, Arkansas.
- 10 January 1965, Floodflow characteristics of Strawberry River and South Big Creek at State Highways 115 and 117 at Jesup, Arkansas.
- 11 July 1965, Floodflow characteristics of Little Missouri River at Interstate Highway 30 near Boughton, Arkansas.
- 12 July 1965, Floodflow characteristics of Point Remove Creek at Interstate Highway 40 and U.S. Highway 64 near Morrilton, Arkansas.
- 13 March 1965, Floodflow characteristics of Cadron Creek at Interstate Highway 40 near Menifee, Arkansas.
- 14 1965, Supplement to Floodflow characteristics of Cadron Creek at Interstate Highway 40 near Menifee, Arkansas.

- 15 1966, Floodflow characteristics of South Fork Terre Noire Creek at Interstate Highway 30 near Gurdon, Arkansas.
- 16 April 1966, Floodflow characteristics of Frog Bayou at Interstate Highway 40 and U.S. Highway 64 at Alma, Arkansas.
- 17 March 1966, Floodflow characteristics of Blakely Creek at Interstate Highway 30 and State Highway 84 at Social Hill, Arkansas.
- 18 1966, Floodflow characteristics of Ouachita River at proposed relocation of State Highway 4 at Camden, Arkansas.
- 19 1967, Supplement I to Floodflow characteristics of Ouachita River at proposed relocation of State Highway 4 at Camden, Arkansas.
- 20 1967, Supplement II to Floodflow characteristics of Ouachita River at proposed relocation of State Highway 4 at Camden, Arkansas.
- 21 October 1968, Floodflow characteristics of Cache River at State Highway 226 near Cash, Arkansas.
- 22 June 1968, Floodflow characteristics of Cypress Bayou at relocation of U.S. Highway 67 at Ward, Arkansas.
- 23 March 7, 1969, Administrative memorandum on Floodflow characteristics of Bayou Two Prairie at U.S. Highway 67 near Cabot, Arkansas.
- 24 March 7, 1969, Administrative memorandum on Floodflow characteristics of Fourmile Creek at relocated U.S. Highway 67 near Austin, Arkansas (Highway Station 328).
- 25 March 7, 1969, Administrative memorandum on Floodflow characteristics of Fourmile Creek at relocated U.S. Highway 67 near Ward, Arkansas (Highway Station 441).

- 26 March 7, 1969, Administrative memorandum on Floodflow characteristics of Cypress Bayou at relocation of U.S. Highway 67 at Ward, Arkansas, Supplement to report of June 21, 1968.
- 27 June 1969, Administrative memorandum on Floodflow characteristics of Caddo River at U.S. Highway 67 and Interstate Highway 30 at Caddo Valley, Arkansas, Supplement to 1965 report.
- 28 Cache River near Grubbs at State Highways 14 and 37 (cancelled).
- 29 October 1970, Floodflow characteristics of White River at State Highway 38 at Des Arc, Arkansas.
- 30 December 1970, Floodflow characteristics of White River at State Highway 1 at St. Charles, Arkansas.
- 31 March 1971, Floodflow characteristics of Rock Creek at Interstate Highway 430 and at Shackleford Road in Little Rock, Arkansas.
- 32 August 1971, Floodflow characteristics of St. Francis River floodway at U.S. Highway 63 near Marked Tree, Arkansas.
- 33 September 1971, Floodflow characteristics of Jack Bayou at U.S. Highway 67, near Jacksonville, Arkansas.
- 34 April 1972, Floodflow characteristics of Mulberry River at Interstate Highway 40, near Mulberry, Arkansas.
- 35 May 1972, Floodflow characteristics of Little Creek at State Highway 286, near Conway, Arkansas.
- 36 November 1972, Floodflow characteristics of East Fork Horsehead Creek at Interstate Highway 40, near Hartman, Arkansas.
- 37 September 1972, Floodflow characteristics of Fourche La Fave River at State Highway 28, near Bluffton, Arkansas.

- 38 April 1973, Floodflow characteristics of White River, at State Highway 122, at Oil Trough, Arkansas.
- 39 November 1973, Floodflow characteristics of Rock Creek near Shady Grove, Arkansas.
- 40 April 1974, Floodflow characteristics of White River at U.S. Highway 167 at Batesville, Arkansas.
- 41 May 1974, Floodflow characteristics of Straight Slough at State Highway 42, near Birdeye, Arkansas.
- 42 October 1974, Floodflow characteristics of Bayou DeView at State Highway 214 north of Weiner, Arkansas.
- 43 November 1974, Floodflow characteristics of Fourche Creek at Interstate Highway 430 in southwest Little Rock, Arkansas.
- 44 November 1974, Floodflow characteristics of Little Missouri River at State Highway 53 near Whelen Springs, Arkansas.
- 45 November 1974, Floodflow characteristics of Rock Creek at State Highway 5 in Little Rock, Arkansas.
- 46 January 1975, Supplement to Floodflow characteristics of Rock Creek at State Highway 5 in Little Rock, Arkansas.
- 47 January 1975, Supplement to Floodflow characteristics of White River at U.S. Highway 167 at Batesville, Arkansas.
- 48 February 1975, Floodflow characteristics of Barnes Creek, Turkey Creek, and Wildcat Creek, at U.S. Highway 65, near Redfield, Arkansas.
- 49 April 1975, Floodflow characteristics of June 5, 1974 flood of East Fork Horsehead Creek at Interstate Highway 40, near Hartman, Arkansas.
- 50 April 1975, Floodflow characteristics of Big Creek at State Highway 96 near Lavaca, Arkansas.

- 51 June 1975, Floodflow characteristics of Archey Creek along U.S. Highway 65 at Clinton, Arkansas.
- 52 January 1976, Floodflow characteristics of Arkansas River at East Belt Freeway in Pulaski County, Arkansas.
- 53 April 1976, Floodflow characteristics of Illinois River tributary near Siloam Springs, Arkansas.
- 54 June 1976, Floodflow characteristics of Rolling Fork and Union Creek, northwest of DeQueen, Arkansas.
- 55 June 1976, Floodflow characteristics of Little Bear Creek and Bear Creek at DeQueen, Arkansas.
- 56 September 1976, Floodflow characteristics of Black River at proposed State Highway 37, at Elgin, Arkansas.
- 57 February 1977, Supplement to Floodflow characteristics of Little Bear Creek and Bear Creek at DeQueen, Arkansas.
- 58 April 1977, Floodflow characteristics of Mine Creek along the proposed relocation of State Highways 4 and 27 at Nashville, Arkansas.
- 59 July 1977, Supplement to Floodflow characteristics of Mine Creek along the proposed relocation of State Highways 4 and 27 at Nashville, Arkansas.
- 60 September 1977, Floodflow characteristics of Caddo River at Norman Arkansas.
- 61 November 1977, Supplement to Floodflow characteristics of White River at State Highway 1 at St. Charles, Arkansas.
- 62 February 1978, Floodflow characteristics of Red River at U.S. Highways 59 and 71 at Index, Arkansas.

- 63 February 1978, Floodflow characteristics of Spring River and Straight Lake (State Highway 361) near Black Rock, Arkansas.
- 64 May 1978, Floodflow characteristics of Strawberry River near Strawberry, Arkansas.
- 65 June 1978, Floodflow characteristics of Doctors Creek (State Highways 60 and 252) near Charleston, Arkansas.
- 66 December 1978. Floodflow characteristics of Crooked Creek and Crooked Creek tributary at Alexander, Arkansas.
- 67a,b,c,d February 1979, Floodflow characteristics of White River and Departee Creek near Bradford, Arkansas.
- 68 February 1979, Floodflow characteristics of Fourche River at State Highway 328 near Maynard, Arkansas.
- 69 July 1979, Floodflow characteristics of West Fork Point Remove Creek near Hattieville, Arkansas.
- 70 November 1979, Floodflow characteristics of Black River at Jacksonport, Arkansas.
- 71 September 1980, Floodflow characteristics of White River and Departee Creek flood plain near Olyphant, Arkansas.
- 72-73 December 1980, Floodflow characteristics of Grassy Flat Creek near Presbyterian Village and at Butler Park on Rodney Parham Road in Little Rock, Arkansas.
- 74 March 1981, Floodflow characteristics of Bayou Meto near Macon, Arkansas.
- 75 August 1981, Floodflow characteristics of Ouachita River at Moro Bay, Arkansas.

The Survey, in cooperation with State and Federal agencies, is collecting peak-stage data at the following discontinued regular-gaging stations. This information will be useful in future flood-frequency investigations.

<u>Station number</u>	<u>Station name</u>
07050500	Kings River near Berryville
07061000	White River at Batesville
07064080	Black River near Pocahontas
07074420	Black River at Elgin Ferry
07076750	White River at Georgetown
07249500	Cove Creek near Lee Creek
07251500	Frog Bayou at Rudy
07256500	Spadra Creek at Clarksville
07257200	Little Piney Creek near Lamar
07257500	Illinois Bayou near Scottsville
07260000	Dutch Creek at Waltreak
07261250	Cadron Creek near Conway
07263012	Fourche La Fave River near Aplin

The following flood-prone-area maps are now available from the U.S. Geological Survey, 2301 Federal Office Building, Little Rock, Arkansas. All maps are 7.5-minute quadrangles except those shown with an asterisk (*), which are 15-minute quadrangles.

Agnos	Concord	Gregory	*Malvern
Alexander	Congo	Gregory SW	Mammoth Spg.
*Alicia	Conway	Grubbs	Mandeville
Alma	Cord	Guion	*Manila
Amagon	Cornerstone	Hardy	*Marianna
Amity	Corning	Harrison	*Marked Tree
Arkadelphia	Cotton Plant	Hartford	*Marmaduke
Ashdown East	Cozahome	Hartman	Marshall
Ashdown West	Crocketts Bluff	Haskell	Martindale
Atkins		Hasty	Maumee
*Augusta	Dalton	Haynes	Mayflower
Auvergne	Deckerville	Hindsville	McAlmont
	*Dee	Holla Bend	*McGehee
Barling	Delaware	Holly Grove	McRae
Batesville	DeQueen	Homan	Mena
Beebe	Des Arc East	Hope	Monroe
Benton	DeValls Bluff	*Horseshoe Lake	Monticello No.
Bentonville No.	DeValls Bluff NE	Houston	Monticello So.
Bentonville So.	DeValls Bluff SE	*Hunter	Morrilton East
Bethesda	Domino	Huntington	Morrilton West
Big Flat			Moscow
*Blytheville	*Edmondson	Imboden	Mountainburg
Board Camp	*El Dorado		*Mt. Ida
*Booneville		Jacksonport	*Mt. Judea
Boswell	Fayetteville	Jacksonville	Mt. Pleasant
Boxley	*Felsenthal	Jasper	Mulberry
Brinkley	Fletcher Lake	Jericho	Murray
Bryant	Fordyce	Judsonia	
Buckner	Foreman		Nashville
Buffalo City	Forrest City	Keevil	Newark
	Fort Smith	Kensett	New Blaine
Cabot	Fouke	Kingsland	Newport
Cades	Fouke NE		Norfolk
Caddo Valley	Fouke SE	Lake Norrell	Norfolk Dam So.
Calico Rock	Fountain Lake	Latour	No. Little Rock
Calion	Fourche	Lavaca	Northwest Memphis
Camden	Fourche SW	Leslie	
Camp	Fulton	Lewisville	Ogden
Carthage		*Lonoke	*Osceola
Cecil	*Gainesville	Lonsdale	Ozark
*Clarendon	Georgetown	Lonsdale NE	
Clarksville	Gleason		Paris
Clinton	*Glenwood	Madison	Park Grove
Coal Hill	Goosepond Mtn.	Magnolia	*Park Place

*Pastoria	Ravenden	Sonora	Tull
*Piggott	Ravenden Spgs.	So. Fort Smith	Turner
Pine Bluff NW	Ravenden Spgs. SE	Southwest Memphis	Van Buren
Pine City	Reydell	Springdale	
Pocahontas	Rob Roy	Spring Lake	Waldo
Ponca	Russellville East	Stuart	*Waldron
Portland	Russellville West	Stuttgart No.	*Walnut Ridge
Potter		Stuttgart So.	Warm Spgs.
Poyen	*Salem	Sylamore	Western Grove
Prague	Sheridan		West Memphis
Prairie Grove	Sitka	Taylor	Wheeler
Prattsvilleve	Smackover	Texarkana	Williford
Prescott East	Smackover NE	*Tilton	Wilmot
Prescott West	*Snowball	Traskwood	*Wynne
*Princedale	Snow Hill	Tuckerman	