

and township lines, placement of copies in counties will save an immense volume of correspondence, travel and work in the land office, Mr. Page said.

Copies will be made available to each county contributing the approximately \$75 needed for materials for its copies. Data will be copied two counties at a time.

Approximately 21 workers will undertake the task, most of whom will be drawn from the WPA project for completion of delinquent land records which ended its work Friday. Completion of the records has speeded handling of applications for redemptions and delinquent land sales by several days, Mr. Page said.

Page Restoring County Plats

Democrat 2-27-38
Commissioner Using WPA Workers to Copy Original Surveys.

State Land Commissioner Otis Page yesterday announced the launching of a project in his office to copy the original United States government land plats for each county in Arkansas and field notes made by government surveyors in making their first surveys.

The project will carry on through a WPA job to be supervised by W. E. Davis and will provide employment for approximately 30 persons.

Mr. Page said copies of land plats and surveyors' field notes will be made only for those counties which agree to assume a part of the cost of equipment to be used in doing the work. He said letters have been sent to all county judges asking each to contribute \$75 toward cost of the project. If all counties come in, he predicted the cost to each county would be only half that much and said that refunds would be made to the counties.

The copies of the field notes will be compiled in loose-leaf form.

Mr. Page said that availability of the land plats and field notes at the county seat of each county will save county surveyors many dollars of public funds over the course of several years, by eliminating trips to Little Rock to inspect the original records on file in the land office.

At the same time, Mr. Page said the copies will save wear and tear on the yellowed records which have just about been torn to pieces by constant handling. Some of the field notes on file in the office are copies of the original notes, but others are the originals made by the government surveyors themselves.

Mr. Page said only those counties which agree to share a part of the cost of the project will be given copies of plats and field notes.

Mr. Davis said some counties have had copies of both plats and field notes in the past, but the notes were hand written and in most instances have been lost or destroyed. The notes to be prepared through the project will be typewritten.

Work on the project will start Tuesday and Mr. Davis said the first counties to come in the project will be the first to receive their copies of plats and notes.

Lack of Maps Said To Cause Waste

Gazette 3-6-38

Serious waste of public and private funds is resulting from lack of adequate topographical information about the Southwest Mississippi basin, where the United States Engineers, the state Highway Department and state Geological Survey have projects under way declared a resolution mailed to the president, the Congress, and Arkansas's Congressional delegation yesterday from the state Planning Board offices.

The resolution was drafted by delegates to the conference on ways and means for expediting mapping within the Southwest Mississippi basin, comprising the Arkansas and Red river basins and their tributaries and portions of Missouri, Kansas, Colorado, New Mexico, Texas, Louisiana and Arkansas. It urged "immediate appropriation" by Congress of \$1,832,000 for completing the necessary horizontal and vertical control, and mapping of the basin, under the Hayden-Ickes plan.

Need Explained.

The resolution set forth that "modern topographic maps are of vital importance to engineers in planning and carrying out public improvements involving flood control, hydro-electric development, drainage, irrigation, soil

conservation, forestry, construction of municipal utilities, power lines, pipelines, highways, recreational facilities and other developments incidental to public planning."

The basin is comprised of 679,393 square miles, of which 47 per cent is totally unmapped, 40 per cent is inadequately mapped and 13 per cent is adequately mapped, the report said. The resolution was approved at a recent meeting of the conference here, and drafted in its final form yesterday.

Conservation Mapping To Begin Monday

Gazette 4-2-38

Development of Arkansas's soil conservation program will take another step forward Monday when 43 soil technicians begin work of mapping the approximately 4,000,000 acres in 10 districts which have been set up. J. W. Sargent, state co-ordinator of the Soil Conservation Service, said yesterday. The 10 districts embrace parts of 21 counties.

The mapping work will be done farm by farm to determine land cover such as the amount in cultivation, forests, and waste; to determine soil types, and to determine slopes of lands and degrees of erosion.

C. L. Orrben, head of the soil mapping division of the Fort Worth, Tex., office of the SCS, will supervise the program. He formerly was stationed at Conway.

District supervisors will be Marvin Lawson, Conway; William H. Willis, Forrest City; Harold L. Dean, Monticello; William C. Page, Hope; Wade Long, Waldron; Charles J. Finger, Bentonville and Pearce Adams, Harrison.

Mapping of 4,000,000 Acres Starts Monday

Democrat 4-2-38

Mapping of approximately 4,000,000 acres in soil conservation districts in Arkansas with a view of determining land cover will begin Monday by 45 soil technicians of the Soil Conservation Service, according to J. W. Sargent, state co-ordinator. The 10 districts are located in 21 counties.

The mapping will be done on each farm to determine the land in cultivation, forest and waste land and to determine soil types and slopes and degree of erosion.

The program will be in charge of C. L. Orrben, head of the soil mapping division in the regional office at Fort Worth, Tex. He formerly was stationed at Conway.

State Gets \$10,000 To Make Mappings

Democrat 6-28-38

Allocation of \$10,000 to the Arkansas Geological Survey for continuation of surveys and mappings under direction of State Geologist George C. Branner was announced today in Washington by the Public Works Administration.

The Arkansas allotment is part of a \$2,690,000 grant to the geological survey for 93 projects in the various states. Forty-five of the projects provide for mapping surveys and 48 for repairs and improvements to survey facilities.

Simultaneous with the geological survey and improvement allocations, the PWA announced an allotment of \$5,000 for repairs and developments at the federal fish hatchery at Mammoth Spring. The amount was contained in allotments totaling \$1,055,350 given the Federal Bureau of Fisheries for 78 projects in 39 states.

Flying cameramen are taking 333,000 snapshots which will be skillfully pieced together into a gigantic portrait of the entire country

The United States Gets Its Picture Taken

Condensed from Current History

Dec. 1938.
Morris Markey

THE UNITED STATES is having its picture taken — full length and generous size. Our whole 3,000,000 square miles from ocean to ocean are being photographed — the most gigantic mapping feat ever attempted by anyone, anywhere. Every day the sun shines, some 50 planes shuttle monotonously 14,000 feet above the country that is sitting for its portrait, while photographers, whiffing oxygen in the thin air, work their marvelous cameras. Each plane takes hundreds of pictures a day — yet it will be years before the task is finished.

But when that day comes there will exist not only the world's most colossal map but a veritable portrait of the country — every field and every house, every stream and every town and every lonesome valley. A \$15,000,000 portrait. That's a lot of money but it's much less than mapping would cost, done by any other way, and for many purposes it is much better.

The aerial atlas idea was conceived by the Soil Conservation Service which had been finding out how useful accurate air photographs could be. A soil erosion area may

AAA. The AAA's prints go out almost immediately to the field. To a Virginia tobacco county, for example: Early in the year, AAA figures out how many acres of tobacco should be planted this season, and each state's fair proportion. Virginia headquarters in Richmond apportions that state's quota among the tobacco counties. Each county association — a voluntary organization of farmers who pay all its expenses — then apportions the county's quota among the individual farms.

The first step, naturally, is to find out the exact acreage of each farm and of each field. This can be done quickly from the air maps — a minute or so for a farm on which a surveyor would have to spend a day. Inspectors carry the maps out to the farms and check up on details of the farmer's plan. From these reports the county association allots the acreage the farmer may plant in tobacco if he wishes to comply with the AAA plan and participate in the benefits — cash at the end of the season for staying within his limit and doing certain things to improve the soil.

The air maps are used again by the inspectors who determine whether the farmer is fulfilling his agreement. People who don't like the AAA call the flying cameramen "Sky Snoops," but allotting acreage and administering crop control laws would be quite impossible without the air maps.

appear so suddenly, or a stream may change its course so rapidly, that completely up-to-date information must be always at hand. Plateaus and canyons inaccessible to the surveyor can be mapped quickly and cheaply from the air. The Navajo, Gila, and Rio Grande soil conservation project, for instance, was in danger of abandonment until it was found that the necessary data could be obtained by the flying cameramen.

Major engineering projects such as the Boulder Dam and the TVA have found air photography indispensable. The Mississippi, Missouri and other rivers are air-photographed every year to show where new bars have formed, where erosion occurs, etc., in the interest of flood control.

Work on the big map began in the western dust bowl. It is already complete for several states, and has many uses in addition to those of soil conservation. The Forest Service analyzes stands of timber in a way never possible before. Experts can tell from the light-and-shade values what types of trees the photograph shows. Most important of all at the moment, the AAA makes up

The central, useful portions of the corrected exposures are cut out — not in regular squares but along natural lines of the terrain: rivers, roads, railway lines, the edges of forest lands. They are fitted together, jigsaw-puzzle style, and glued to a board. This master picture is now photographed, greatly enlarged, so that one square inch of map equals exactly ten acres of the earth's surface. The result is a series of pictures, each about two feet square, each showing in fabulously clear detail about 5760 acres — nine square miles — of America.

These final maps cost, delivered to the government, about \$35 each. The complete map of the country will require about 333,000 of them. And thus the first portrait of a nation ever accomplished will cost something like \$12,000,000 — and you may reckon another \$3,000,000 for duplicate prints, retakes and other incidental costs. If surveyors and their field crews set out to produce a map of similar detail and accuracy, the expense would run to astronomical figures.

As each new area is photographed the finished prints are sent to Washington — to the Soil Conservation Service, the Forest Service and the

AAA Will Be Asked to Supply Aerial Photos.

Gazette 10-30-39

The Natural Resources Council of Arkansas will ask the Agricultural Adjustment Administration to provide aerial photos of 72 counties in the state, President Thomas Fitzhugh said yesterday.

The state Utilities Commission chairman, who heads the new organization of departments formed to co-ordinate their activities, said the maps would be used by the Arkansas Geological Survey and state Planning Commission.

The maps also will be useful in checking results of the Land-Use Committee's recommendations to farmers.

Many thousands of aerial photos were required to piece together an air map of the state. All counties except Grant, Pike and Baxter have been photographed. Parts of Garland, Polk, Newton and Searcy have not been fully covered.

Mapping soon will be completed in Arkansas, Nevada, Hempstead, Columbia, Lafayette, Miller, Little River, Lincoln, Desha, Drew, Chicot, Ashley, Bradley, Calhoun and Union.

POLK COUNTY MAP READY.
A mineral and topographical map of Polk county was completed by the WPA Mineral Survey of the state Geology Department yesterday. The work was under the direction of Ray Wismer, co-ordinating geologist. Dr. George C. Branner, state geologist, said similar maps will be made of 19 other counties.
Gazette 11-8-39

Arkansas Maps Before 1819

Early Maps of the Area Now Included in Arkansas Reveal Many Difficulties Encountered in Recording Nature of Undeveloped Territory.

5-19440

GAZETTE

By Sarah Walker Cowan.

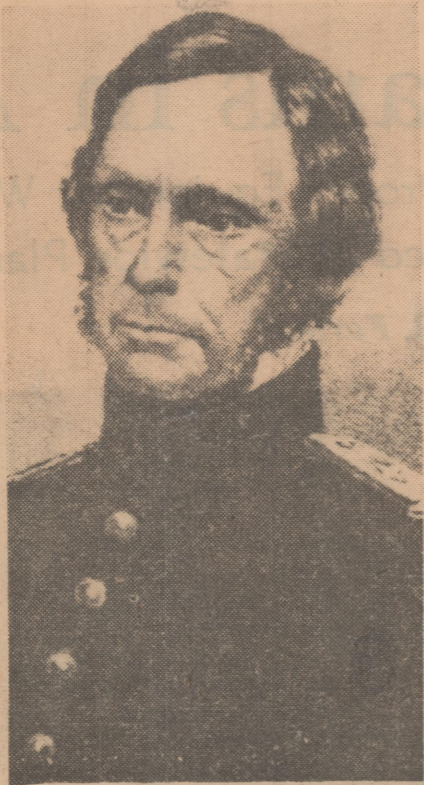
Arkansas was, of course, not even a name to cartographers until the late Seventeenth century. The first men that sketched North America followed the medieval map-makers, who reasoned that it "was better to people strange regions with imaginative creatures and physical features than to leave them blank." As late as the beginning of the 1700's, Belgium's royal geographic artist, De Fer, like his predecessors, drew California as an island; Franquelin, "king's cartographer in Canada," showed ostriches, camels and giraffes feeding upon the plains just west of the upper Mississippi river. On other drawings of the same period, one camel occupied Brazil while several beavers held forth in Pennsylvania, but there was not even a single bear to indicate the Arkansas country.

Arkansas first appeared on maps because it bordered on the Mississippi river. For more than a century after DeSoto, cartographers betrayed their hazy notions as to the embouchure of the great river (which on early Spanish manuscripts was designated "Rio de Espiritu Santo") and knew little about its size, course or tributaries. But in the summer of 1673 down the huge stream came Joliet and Marquette, headed for the "Arkansas." They visited the village of Michigamea (near the mouth of the St. Francis) and the Quapaw village (close to the future Arkansas Post). While Marquette was "at the Arkansas," he wrote to an acquaintance in the North, "Beyond a doubt the Mississippi empties into the Florida or Mexican gulf some three or four days' journey (from here)." Thus one conclusion stood out clear through the metaphorical haze that lay over the mighty Mississippi or la Riviere des Peres.

The first important French drawing of the Mississippi (and the mother map of all later ones of this river) was made by Guillaume de Lisle from data obtained by Iberville. The original, measuring 31 by 22 inches, is displayed in the Marine Library at Paris. This "Map of the Vicinity of the Mississippi River in the Year 1701," is believed to be the first one to locate Arkansas Village, which it denotes as "Village de Kappa ou Acansa."

Both under French regime and during the "domination of the Dons," the "Parish of Arkansas" was little known to cartographers. From Bernard La Harpe, who entered Arkansas first in 1718—when he camped on the environs of the present town of Richmond, Little River county—and his friend Dumont de Montigny, French authorities acquired an extended knowledge of the Arkansas river country. Montigny's "Carte de la Province de la Louisiane," printed about 1740, is, however, more valuable for its historical legends than for its geographical content.

British maps of the Eighteenth century afforded no new data about Arkansas. Two old maps dated 1763 attest to the fact that for years England regarded what is now Arkansas as her possession. Her early proprietary grants in South Carolina embraced the lands between the 29-degree and the 36-degree, 31-minute parallels, and from these points on the Atlantic to the Pacific. Arkansas lay within these limits. On one of these maps Arkansas is east of the Mississippi in "Carolina." The farthest edge of this "Arkansas" is cut off by a stretch of land some 30 miles wide designated "The Earl Granville property." On the



Zebulon Montgomery Pike



Stephen Harriman Long

other map, the entire tract west of the Mississippi is called "Arkansas." This vast stretch appears blank except for the three streams "Riv. Arkansas," "Riv. St. Francis" and "Riv. Blanc." But our Ozarks are recognized by a single word, "Monte."

When the "District of Arkansas" of the "Territory of Louisiana" was created in 1806-1808, it still was very sparsely settled. As soon as the United States acquired this region the government began investigation of land grants, which resulted in the release of many areas for new settlement. President Jefferson appointed a commission directed by "Sir" William Dunbar to make scientific explorations of the Ouachita river region (1804) and the Red river country (1805). Neither of these gestures of governmental interest in Arkansas served noticeably to attract attention from either map-makers or home-seekers. The year 1810 found fewer than two persons per square mile within the District of Arkansas.

Official attention, although of a rather informal sort, is given Arkansas in Pike's "Chart of the Internal Part of Louisiana, 2d Part," which appears in the reports of Lieutenant (later General) Zebulon Montgomery Pike, on his travels of the years 1805-1807. This chart is not altogether lacking in the pictorial charm of medieval maps, for scattered over its surface there are quaint drawings and trivia of comment. In the northwestern part of our present state is the entry: "Hackerton's and Williams' settlements were broken up in 1806 by order of Governor Wilkinson." These settlements must have been among those interfered with for technical reasons. There is record that some wealthy settlers ("one of whom had 30 Negroes") were forced off their lands by General Wilkinson for not having titles thereto from the United States. Across the river from "Hackerton's" on this map is a "Settlement of Delaware Indians." West of "Buffalo Fork" is seen "Fulenah's Selm," and about one mile farther north is shown "Williams' Settlement 2d Set'mt,"—supposedly the one transferred in 1806. Some 40 miles west of the "Post of Arkansas" there are "French Hunting Camps" represented by a double

row of triangles to denote tents. "Old Caddo Vil." is designated by a sun-like emblem to show wigwams radiating from a circular center. The "Dividing Point Orleans Territory" (from Louisiana Territory, which corresponds to our present Arkansas-Louisiana state line, is also noted.

Other observations on Pike's sketch are "Canes & Pines," "Ferruginous Earth" (in the south central part); "Here commences the congelation of salt on the surface of the earth" (in the present Saline county); "Mountain Seen) days journey" (in the Ouachita hill region, presumably either Magazine or Buck mountain; "Cliff 100 Ft. Perpen." (a trifle south of where is now Pine Bluff). Finally, a notation in the extreme southeast corner of Arkansas informs the curious or the cautious, "The Alligators go no farther North." Pike employs the spelling "Arkansasaw."

It was October 28, 1806, when Lieutenant Pike started down the Arkansas river. Near the mouth of Pawnee Fork, while he himself proceeded with his investigation of the sources of the Red river, he sent a party of six men to reconnoiter the Arkansas river to its mouth. This expedition was led by Lieut. James Biddle Wilkinson. His companions were Sergeant Joseph Bollinger, Privates John Boley, Samuel Bradley, Solomon Huddleston and John Wilson. These men descended the river in skin canoes. On entering Arkansas they noted particularly a stream "au millieu" (between Fort Smith and Van Buren). This was the historic Lee's creek, which today lends its waters to the lake in Devil's Den state park. On the first day of January, 1807, young Wilkinson and his party reached Arkansas Post. A month later he made a report to his chief, General Wilkinson—who was likewise his father—in part as follows: "The survey from the Arkansas Post to the Mississippi I fear is not correct, as I was so ill when I descended that part of the river as to be confined to my blanket. (Signed) Your faithful and obliged servant, James B. Wilkinson, 1st. Lieut. 2d U. S. Reg't of Infantry."

John Bradbury's "Map of the United States of America comprehending the course of the Missouri," shows for Arkansas only the White, Black and Ar-

kansas rivers. This is one of the most accurate maps of the early Nineteenth century. Published in 1819, it illustrates the author's "Travels in the Interior of America in the Years 1809, 1810 and 1811."

On June 4, 1812, when the lower portion of Louisiana, the Territory of Orleans, became the state of Louisiana, the name of the upper portion of Louisiana, "Territory of Louisiana," was changed to "Territory of Missouri."

Matthew Carey, a cartographer and publisher of fine repute, drew his "Map of Missouri Territory" in 1814. For Arkansas Carey shows the two districts "New Madrid" and "Arkansas" that were the initial administrative units comprising Arkansas under the Territory of Missouri, but overlooks the tiny settlements that were beginning to dot her streams.

A map that Josiah Meigs, chief of the General Land Office of the United States, qualified as "probably the most accurate to date of the territory it represents," was drawn by the celebrated and personable Col. Isaac Roberdeau under the auspices of William Rector, surveyor for the territories of Missouri and Illinois. I refer to a "Sketch of the Continent of North America between the latitudes, 35 degrees and 52 degrees north." This shows little in Arkansas except the large streams, including the "Washita." It was issued January 21, 1818—too soon to contain details of information that Rector later acquired as government surveyor in Arkansas, with offices at Davidsonville, Arkansas Post, Batesville and Little Rock.

H. S. Tanner's "Map of the Arkansas River" illustrated Nuttal's well-known journal of travels in Arkansas, while Henry Schoolcraft's "Chart of the Countries Bordering on the Mississippi and Missouri" was the product of personal observations in the northern part of Arkansas during the winter of 1818-19. This chart shows: two districts in our present confines, Lawrence and Arkansas; two towns, the Post and Hot Springs; "The leading Road to Hot Springs."

Just north of the juncture of the Arkansas and White rivers, Schoolcraft indicates "Army Land 2,000,000 acres"—bounty lands reserved for allotment to ex-soldiers. Entirely within what is now Oklahoma he shows a large expanse marked "Dewalliere's Grant." Bradbury's map mentioned above gives a similar location to this land, which was part of huge grants made in 1793 by Governor Carondelet to Don Joseph Valliere (commandant, Arkansas Post, 1786-1790). As research by Zillah Cross Peel has shown, 11,520 acres of these tracts were in the present Washington county.

In the year 1817 the War Department sent the gifted Stephen Harriman Long, a topographical engineer with the rank of brevet-major, to explore "the Southwest." Under date of January 20, 1821, Major Long wrote to Secretary Calhoun regarding our Western hills:

"To this range we have given the name of Ozark mountains, an appellation by which the Arkansas river was formerly distinguished, as also the tribe of Indians * * * inhabiting near the river."

Long's observations as sketched by Dr. Edwin James in a "Map of Arkan-

sas and Other Territories of the United States," represents Arkansas on the eve of its becoming a separate territory, and gives such details as Long's and Bell's routes, pioneer settlements on Red river, and Indian boundary lines. This Long map, 17 1/2 by 22 1/4 inches, printed in colors, and published by Carey and Lea, Philadelphia, is termed by cartographic authorities and collectors "the first American-made map of Arkansas."

Topographical Unit Arrives At Prescott. Maneuver Center.

Special to the Gazette. 8-8-41
Prescott, Aug. 7.—Section 2, Thirtieth Engineers, a topographical unit, has arrived here to make maps of the area preparatory to Second Army maneuvers. It is quartered in the City park in front of the Junior High School building. There are now 2,350 soldiers stationed in Prescott, with the 102d Observation Squadron, 68th Medical Regiment and 101st Radio Intelligence Company expected to arrive by Sunday. The press section, through which all news of army movements will be announced, is scheduled to arrive early next week and be quartered on West Elm and Second streets.