Aerial Maps Advocated As Aid to Assessing.

The move for equalized assessments started by the state Corporation Commission and the Arkansas Assessors' Association recently by drafting property valuation schedules on automobiles, houself bounded to the control of the control livestock, household goods and other items has stirred agitation for use of aerial maps for more equitable land as-

Assessment experts believe that aerial maps are the most accurate methods of equalizing assessments yet devised. On a map the size of an ordinary table

highly technical matter and involves so many evaluation angles that an assessor, even though highly experienced and thoroughly familiar with quired to make several trips into dif-ferent sections of the county and make L. A. Henr

Experiments have shown that a person fails to get a true picture of land topography on a horizontal view because his eyes fail to register land curvatures. Aerial mapping gives a true prospectus of land surfaces.

Assessment experts hav expressed belief that Poinsett county is the most equitably assessed county in the state as the result of the use of aerial maps in a reassessment in January, 1935.

county assessors have placed the same valuations on property year after year without considering fluctuating land values. The law requires that all Resources Division of the Oklahoma property be assessed at 50 per cent of its value but assessment experts say that in many instances assessments are now as low as 14 per cent of actual

Use of aerial maps at this time not only would make assessments more equitable but would bring all assessments up to date.

has made aerial maps of nearly every ing of the Arkansas Engineers Club and will be invited to join the session.

Statistics Show Need.

Of the 679,393 square miles in the their counties by taking advantage of this opportunity to make assessments

### Map Program To Be Studied

Conference to Meet Here Engineers Will Study Plans for · Southwest States.

A conference of interest to eight states in the Southwest Mississippi River basin territory to devise ways and means of financing a mapping program of the states will be held in Little Rock Friday, February 25, in conjunction with the regular meeting of the Alvanyas Francesco n conjunction with the regular meeting of the Arkansas Engineers Club at the Hotel Marion.

Club at the Hotel Marion.

The plans for a mapping program by eminent engineering authorities from throughout the nation, and especially from the territory involved in the plans, were announced yesterday by L. A. Henry, engineer-director of the Arkansas Planning Board, following conferences in Little Rock with Col. Eugene Reybold, U. S. Army southwestern division engineer, and Walter H. Burnham of Oklahoma City, chief engineer of the Water Resources Division of the Oklahoma Planning Board.

Proposals for carrying out the

The conference here will be addressed by Leonard V. Reece, assistant executive secretary of the

American Engineering Council.
Mr. Henry said yesterday that
679,393 square miles are embraced in the Southwestern Mississippi division for which the mapping program is planned. He said that in this area only 13 per cent, or 87,751 square miles, are adequately mapped, 40 per cent is inadequately mapped for use in flood control and other major operations by the federal and state governments, and 47

per cent unmapped.

In Arkansas, Mr. Henry said, 27
per cent of the state area is unmapped, 39 per cent inadequately, and

per cent mapped.
Recommendations for a thorough mapping program are contained in the November, 1936, progress re-port of the Arkansas Planning Com-

### Funds for 20-Year Mapping To Be Sought Gazette 1-30-38

Expressing disappointment at failure of President Roosevelt to include in his On a map the size of an ordinary table top the assessor is enabled to get a prospectus of the entire county, whereas under present assessment methods the assessor can view only a few hundred invited engineers of eight Southwestern states yesterday to attend a conference here February 25 and 26 to discuss

States invited to send representatives topography of the county, will fail in equalizing assessments when he is re-Texas, Oklahoma, Kansas, Colorado and

L. A. Henry, engineer-director of the comparative valuations through mem- state Planning Board, said the conference had been called because of a need of quick action to obtain approval for the mapping program. The program would call for allocation of \$5,000,000 annually to the states for mapping work.

He reported that the program had the recommendation and support of Secretary of the Interior Harold L. Ickes all engineering groups including the American Council of Engineers and the in a reassessment in January, 1935.

Although the law requires that reassessments be made every year, many and the National Resources Committee.

Planning and Resources Board, and state Geologist George C. Branner, Col. Eugene Reybold, Southwest Division engineer of the United States Engineers, said he was "heartily in accord" with the mapping movement.

Leonard V. Reece, assistant executive secretary of the American Engineering The Agricultural Adjustment Administration in its cotton control program time of the conference to attend a meet-

> Of the 679,393 square miles in the eight Southwestern states only 13 per cent or 87,761 square miles is add quately mapped. Forty per cent or 270,-292 square miles is inadequately mapped and 47 per cent or 321,340 square

In Arkansas 27 per cent of the total area is unmapped, 38.7 per cent inade-quately mapped and 34.3 per cent ade-

## Will Meet This Week

The annual convention of the Arkansas Engineers Club will be held at the Hotel Marion Friday and Saturday, W. Terry Feild, secretary, said yester-day. Several hundred members and associate members are planning to attend, Mr. Feild said.

Registration will open at 9:30 a. m. Friday and a reception for visiting engineers and guests will be held at 10 a. m. The first business session will be held at 11 a. m. with R. C. Limerick of Oklahoma Planning Board.

Proposals for carrying out the mapping program were taken up by national and state engineering groups after President Roosevelt's recommendations for appropriations for the work by the federal government were not met by Congress.

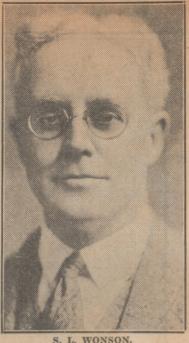
The conference here will be addressed by Lawrence and the luncheon with a welcome address by Mayor Overman.

An address by S. L. Wonson of St. Louis, Mo., assistant chief engineer of the Missouri Pacific Lines, will follow the luncheon.

tute of Technology. He was associated with the American Bridge Company from 1902 through 1907 and the Mexican railways from 1907 through 1910. He has been with the Missouri Pacific

Lines since Conference Arranged. A conference on "Ways and Means

### Speaker



S. L. WONSON

for Mapping" by Arkansas delegates and visitors from seven regional states will be held at 2 p. m. A golf tournament to be played on a handicap basis will be held at the Little Rock Country sions. Club during the afternoon. The annual banquet and floor show will be held at the hotel ballroom at 6:30 p. m.

Officers will be elected at the opening session at 10:45 a. m. Saturday. neers Club will be held at 12:15 p. m. with Col. Eugene Reybold, Southwest Division engineer of the United States Engineers, as speaker. His subject will be, "Departmental Problems of Southwest Division." H. T. Harrison Country Half Manned.

one mended by Department of the Interpretation and in a large continental area such as the United States it is essential to a high standard of living, he said.

Transportation "is now in an unsatisfactory state, due largely, in the opinion of many, to the acts of country to the acts of New business will be taken up and rewest Division." H. T. Harrison, general counsel of the Rock Island Lines, will speak on, "Doguratisms of a Barking Dog." The convention will adjourn following Mr. Harrison's address.

### Convention Of Engineers To Open Today Gazette 2-25-38

Members and associate members of the Arkansas Engineers Club will meet at the Hotel Marion today for the opening of the thirteenth annual convention Approximately 400 persons are expected. W. Terry Feild, secretary-treasurer, said The convention will be concluded to-

Registration will begin at 9:30 a. m. and the first business session will be called to order at 11 a. m. by President R. C. Limerick. Mayor Overman will welcome delegates at a luncheon. S. L. Wonson of St. Louis, Mo., assistant chief engineer of the Missouri Pacific Lines, will speak on "Economics of Transpor-

A conference of ways and means of mapping will be held during the afternoon directed by Dr. William Bowie of the United States Coast and Geodetic Survey. A golf tournament will be played at the Little Rock Country Club

### Map Program Given Backing Of Engineers

Gazette 2-25-38 State Association Urges Congress to Support Projects.

Congressional support of a Federal will be adequate for some years to Roads. Congressional support of a rederal will be adequate for some years to mapping program, on funds marked by President Roosevelt for carrying out such a project on a nation-wide basis, had the backing of the Arkanbasis, had the backing of the Arkanbasis, lad the backing of the Arkanbasis, lad the backing of the Arkanbasis Engineers' Club opening its thir-

conference during the afternoon.

The governor's office also made public today an exchange of correspondence between Governor Bailey and President Rossevelt on the subject. The president previously had announced that he was delaying making recommendations to Congress on the mapping program until Congress completed action on his proposed reorganization of the federal government.

Bailey asked whether this meant

Bailey asked whether this meant some new agency would be set up under the proposed reorganization to

gists, planning board members and other leaders from Arkansas and other states in the Southwest region-

Resolutions passed here today took cognizance of last year's proposed free play of economic forces. program and its shelving, and proposed that Congress get behind it to monopoly, inland transportation expedite its set-up.

It was pointed out that only about 50 per cent of the United States is mapped, with only about 24 per cent of this figure representing adequate mapping—leaving 76 per cent of the country either unmapped or inadequately so

Through the conference, it is hoped to cause Congress to realize the seriousness of the country's inadequate mapping. It was brought out that the condition presents a serious problem to engineers of all types "who know the cost of not having

maps."
As an illustration of the costliness of few mapping facilities, con-ference discussions brought out that it is impossible to estimate costs of flood control projects, public roads, pipe lines, soil and forestry conservation programs and numerous other developments and building.

Flood Control Handicapped.

U. S. Army engineers now working on the White River basin flood control project are handicapped be-cause of inadequate mapping facili-ties, the engineers pointed out as an illustration of the need for a map-ping program. Need of maps in the outhwest Regional Basin for con-ol of the Arkansas and Red rivers in Arkansas, Oklahoma, Texas, Kan-sas, Nebraska, Missouri, Colorado nd New Mexico, was especially em-

phasized.
Out-of-state representatives included P. G. Fammill, Oklahoma
Planning and Researchs Board director; Robt. H. Dott, Oklahoma

man of its Executive Committee on Surveys and Mapping. He is now sojourning at Hot Springs.

Col. Reybold is scheduled to talk on "Department Problems of the Southwest Division" at a luncheon at the hotel tomorrow. H. T. Harrison of Little Rock will speak on "Dogmatisms of a Barking Dog" at this time.

S. L. Wonson, assistant chief civil

S. L. Wonson, assistant chief civil engineer for the Missouri Pacific railroad, addressed the body.

His talk was based on the subject "Economics of Transportation," in which he reviewed the history of transportation in this country and declared that "existing transportation facilities are more than adequate for the country's needs and will be adequate for some years in Paceds."

West Mississippi basin. The resolution was offered by Dr. George C. Branner, state geologist. L. A. Henry, chairman of the state Planning Board, presided Speakers included:

J. W. Pritchett, member of the Texas Board of Waterworks Engineers.

J. C. Carpenter of Fort Worth, Tex., secretary of the Engineers Division of the United States Bureau of Public

teenth annual two-day convention this morning at Hotel Marion.

Resolutions calling attention to the country's lack of mapping facilities and seeking congressional aid for a mapping program set-up were passed at a "Ways and Means for Mapping" their full share of the annual charges for construction and maintanger "tanance" transportation facilities. And as to existing facilities, created by public funds, those who use them for commercial and industrial purposes should pay into the public treasury their full share of the annual charges for construction and maintanger.

Maj. W

# On Railroads

Gazette 2-26-38

handle the mapping work.

"Under the reorganization authority," the president replied, "it would be possible after careful study of the situation to determine whether our mapping work should be carried on by the existing agencies in their present form, or in a consolidated form, or under the co-ordinating direction of an agency newly established for that purpose and in that connection to determine the extent of the program to be carried out. In other words, I thought that a determination of the extent and rate of progress of any new mapping program would necessarily involve a determination of the agency to conduct such a program."

Adoption of a national policy requiring adequate compensation for use of importance to engineers in planning and carrying out public improvements involving flood control, hydroelectric development, drainage, irrigation, soil of the Missouri Pacific Lines said at the Hotel Marion yesterday. He adoressed members of the Arkansas Engineers Club following a luncheon which opened the thirteenth annual convention.

"The present condition of the railroad determination of the agency to conduct such a program."

Adoption of a national policy requiring out public improvements and carrying out public improvements involving flood control, hydroelectric development, drainage, irrigation, soil of the Missouri Pacific Lines said at the Hotel Marion yesterday. He adoressed members of the Arkansas Engineers Club following a luncheon which opened the thirteenth annual convention.

"The present condition of the railroad determination of the agency to condition of the railroad determination of the agency to condition of the railroad importance to engineers in planning and carrying out public improvements and carrying out public planning to evelopment, development, dev Adoption of a national policy requir-

duct such a program."

Dr. William Bowie of the United States Coast and Geodetic Survey, and former director of its Geodesy division, led the conference discussions.

Civil and road engineers, geolocivil and road engineers and control to the coast of operation and taxation, together with the fact that the industry has operated for some years under intensive regulation, prompts the thought that equality of regulation may best be attained by a relaxation of regulations phis were called in to make the show phis were called in the control of the contr her states in the Southwest region-basin, participated in the confer-

ment, both national and state, which have gone too far in restricting the

"Originally more or less a natural monopoly, inland transportation in this country has become highly competitive, as between waterways, railroads, high-

U. S. Engineers Welcomed Here.
R. C. Limerick, retiring president, said that establishment of the United States

Army Engineers, headquarters. Army Engineers headquarters in Little Rock was a bright spot during 1937 and one that had aided the general outlook in Arkansas.

"Undoubtedly the government has begun to take a major interest in the handling of flood control measures on streams throughout the Arkansas valley

Gazette 2-27-38 in addition to that on the Mississippi itself and in time to come much greater of these two streams both as to levees and reservoirs," he said.

business session opening at 10:45 this morning. Members of the Nominating Committee are Fred I. Brown, M. Z. Bair and W. W. Zass. Resolutions will be submitted by a committee composed of J. R. Rhyne, E. M. Shaw and E. N.

Present officers are Mr. Limerick. president; Mr. Brown, vice president; W. Terry Feild, secretary-treasurer and Haskell Dickinson, steward.

Little Rock, president, presiding. Committees will be appointed. A luncheon will be held at 12:15 p. m. in the Herman Kahn room with a welcome address by Mayor Overman.

An address by S. L. Wonson of St. Louis, Mo., assistant chief engineer of the Missouri Pacific Lines, will follow the luncheon. His subject will be, "Economics of Transportation."

Mr. Wonson is a member of the American Society of Civil Engineers, American Railway Engineering Association and the St. Louis Engineers Club. He received his A. B. degree from Harvard and his B. S. and C. E.

Diaged at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap played at the Little Rock Country Cau Prizes will be awarded on a handicap prize will be awarded on a handicap Prizes will be awarded on a handicap prize will be watched to morrow morning when of ficens will be elected. A joint luncheon of the Missouri Park, Cyrus K. Moresi, Louisiana state geologist; Of Expediting Mapping.

A conference Discusses Methods Of Expediting Mapping. A conference on ways and means of the United States Engineers at Austin, Tex.; Cyrus K. Moresi, Louis Prize prize prize prize prize prize p expediting mapping in the southwest Mississippi drainage basin, resulted in adoption of a resolution asking Congress to appropriate \$1,832,000 for undertaking horizontal and vertical control by the United States Coast and sippi Drainage basin.

Representatives from Oklahoma. Texas and Louisiana attended the conference. Representatives of Missouri, Kansas, Colorado and New Mexico, were scheduled to attend. These eight state; or portions of them are in the Southwest Mississippi basin. The resolution

Cyril K. Moresi, state geologist for

Col. Eugene Reycold, Southwest Division engineer, United States Army En-

Maj. William Bowie, former chief of the Geodetic Branch, United States Coast and Geodetic Survey and chair-man of the committee of surveys and maps of the American Society of Civu

Speakers said that the Southwest basin comprises an area of 679,393 square miles and of that area 47 per cent or 321,340 square miles is unmapped. It was said that 40 per cent or 270,292 square miles is mapped in-adequately and 13 per cent or 87,761 square miles is adequately mapped.

Modern topographic maps are of vital

"The present condition of the railroad industry, in which many of its units are able to earn little, if anything, above the rests of averaging and source and source the costs of anything, above the costs of averaging and source that the costs of averaging anything above the costs of averaging anything above the costs of averaging anything and the costs of averaging anything and the costs of averaging anything and the costs of averaging anything anyt

The first half of the show consisted Transportation is a vital element in of silly but well-directed skits at politi-Attention was focused on the proposed national mapping program recommended by Department of the Interior Secretary Ickes last year, and United States it is essential to a high later "sidetracked" in allocation of Federal funds. The program as then Transportation "is now in an unmaster. Mayor Overman, Highway Director W. W. Mitchell, James R. Ryhne, his predecessor, Bridge Engineer Neal Garver, John P. Baird, Alderman Jack Pickens, Ross Lander and R. S. Wilson Muswick, Dr. Robert Caldwell and Little Rock newspapers were included in

J. M. Page of Little Rock, senior enactivity will be developed on tributaries gineer for the United States Bureau of Public Roads, was elected president of the Arkansas Engineers Club at the

and reservoirs," he said.

Mr. Limerick said that there were many construction possibilities which might materialize in the next few months.

Nominating Committee Selected.

Mayor Overman welcomed the group at the luncheon meeting. Committee appointments were made at a morning session. Officers will be elected at the business session opening at 10:45 this

and Haskell Dickinson of Little Rock
was re-elected steward.
Col. Eugene Reybold, Southwest Division engineer of the United States
Army Engineers, and H. T. Harrison, army Engineers, and H. T. Harrison, general counsel of the Rock Island Lines, were speakers at a luncheon meeting which concluded the convention. Colonel Reybold discussed problems of the engineers in the Southwest division. He said that the greatest need was adequate mapping of the en-

Mr. Harrison spoke on the subject "Dogmatisms of a Barking Dog." talk dealt with political humor. E.

### Original Land Records To Be Copied Gazette 2-27-38

Copies of original data from which Arkansas land descriptions are taken will be made by WPA workers for placement in county courthouses, Otis Page, land commissioner, said yesterday. Work on the project will begin tomorrow.

Copies will be made of original gov-

ernment plats and field notes compiled by engineers during the first half of the Nineteenth century. Since the data Robert Dott, state geologist for Oklaand township lines, placement of copies in counties will save an immense voltime of correspondence, travel and work in the land office, Mr. Page said.

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. Data will be copied two counties at a time. ties 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 in handling of applications for redemptions and de-linquent land sales by several days,

### Page Restoring County Plats Dem ocrat 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 said. 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

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 heep torn to pieces by

just about been torn to pieces by constant handling. Some of the field

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

counties to come in the project will be the first to receive their copies

### 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 way 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, com-prising the Arkansas and Red river basins and their tributaries and por-tions of Missouri, Kansas, Colorado, New Mexico, Tegas, 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 "mod-ern topographic maps are of vital importance to engineers in planning and carrying out public improvements in-volving flood control, hydro-electric development, drainage, irrigation, soil

conservation, forestry, construction of municipal utilities, power lines, pipe-lines, highways, recreational facilities and other developments incidental to

adequately mapped, the report said. The resolution was approved at a recent meeting of the conference here, and draftd in its final form yesterday.

### Conservation Mapping To Begin Monday Gazette 4-2-38

Development of Arkansas's soil con-Conservation Service, said yesterday. before the task is finished. The 10 districts embrace parts of 21 counties.

to determine slopes of lands and degrees

District supervisors will be Marvin any other way, and for many pur-Lawson, Conway; William H. Willis, poses it is much better. Forrest City; Harold L. Dean, Montitonville and Pearce Adams, Harrison.

### Mapping of 4.202.380 Acres Starts Monday

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. nator. The 10 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 continua-tion 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

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 appear so suddenly, or a stream 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 servation program will take another feet abo the country that is sitstep forward Monday when 43 soil ring for its portrait, while photogtechnicians begin work of mapping the raphers, whiffing oxygen in the thin approximately 4,000,000 acres in 10 dis- air, work their marvelous cameras. tricts which have been set up, J. W. Each plane takes hundreds of pic-Sargent, state co-ordinator of the Soil tures a day — yet it will be years

But when that day comes there The mapping work will be done farm will exist not only the world's most by farm to determine land cover such colossal map but a veritable poras the amount in cultivation, forests, trait of the country - every field and waste; to determine soil types, and and every house, every stream and of erosion.

C. L. Orrben, head of the soil mapping division of the Fort Worth, Tex., office of the SCS, will supervise the a lot of money but it's much less every town and every lonesome valprogram. He formerly was stationed than mapping would cost, done by

The aerial atlas idea was concello; William C. Page, Hope; Wade Long, Waldron; Charles J. Finger, Ben-ceived by the Soil Conservation can tell from the light-and-shade Service which had been finding out values what types of trees the photohow useful accurate air photographs graph shows. Most important of all

> AAA. The AAA's prints go out al- corrected exposures are cut out most immediately to the field. To a not in regular squares but along Virginia tobacco county, for exam- natural lines of the terrain: rivers, ple: Early in the year, AAA ngures roads, railway lines, the edges of out how many acres of tobacco forest lands. They are fitted toshould be planted this season, and gether, jigsaw-puzzle style, and glued each state's fair proportion. Virto a board. This master picture is ginia headquarters in Richmond ap- now photographed, greatly enlarged, portions that state's quota among so that one square inch of map equals the tobacco counties. Each county exactly ten acres of the earth's surassociation - a voluntary organiface. The result is a series of piczation of farmers who pay all its tures, each about two feet square, expenses — then apportions the each showing in fabulously clear decounty's quota among the indi- tail about 5760 acres - nine square vidual farms.

> The first step, naturally, is to These final maps cost, delivered benefits - cash at the end of the astronomical figures. season for staying within his limit As each new area is photographed and doing certain things to improve the finished prints are sent to Wash-

inspectors who determine whether the farmer is fulfilling his agreement. People who don't like the Gazette Aerial Photos. AAA call the flying cameramen "Sky Snoops," but allotting acreage and Arkansas will ask the Agricultural administering crop control laws would be quite impossible without state, President Thomas Fitzhugh said the air maps.

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 could be. A soil erosion area may at the moment, the AAA makes up

The central, useful portions of the miles — of America.

find out the exact acreage of each to the government, about \$35 each. farm and of each field. This can be The complete map of the country done quickly from the air maps — will require about 333,000 of them. a minute or so for a farm on which a And thus the first portrait of a nasurveyor would have to spend a tion ever accomplished will cost day. Inspectors carry the maps out something like \$12,000,000 - and to the farms and check up on details you may reckon another \$3,000,000 of the farmer's plan. From these refor duplicate prints, retakes and ports the county association allots other incidental costs. If surveyors the acreage the farmer may plant in and their field crews set out to protobacco if he wishes to comply with duce a map of similar detail and acthe AAA plan and participate in the curacy, the expense would run to

ington - to the Soil Conservation The air maps are used again by the Service, the Forest Service and the

The Natural Resources Council of

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 Commit-

tee'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

Mapping soon will be competed 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, coordinating geologist. Dr. George C. Branner, state geologist, said similar maps will be made of 19 other coun-Gazette 11-8-39

# Arkansas Maps Before 1819

Early Maps of the Area Now Included in Arkansas Reveal Many Difficulties En-lines. This Long map. 17 1.2 by 22 14 countered in Recording Nature of Undeveloped Territory.

5-19440

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 embochure 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 other map, the entire tract west of the huge stream came Joliet and Mar- Mississippi is called "Arkansas." This quette, headed for the "Arkansea." They visited the village of Mitchigamea (near the mouth of the St. Francis) and the Quapaw village (close to the future Arkansas Post). While single word, "Monte." Marquette was "at the Arkansea," 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 of comment. In the northwestern part "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 farthermost 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

vast stretch appears blank except for the three streams "Riv. Arkansas," "Riv. St. Francis" and "Riv. Blanc." But our Ozarks are recognized by a

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 mapmakers or home-seekers. The year 1810 found fewer than two persons per square mile within the District of Ar-

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 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



Stephen Harriman Long

row of triangles to denote tents. "Old Caddo Vil." is designated by a sunlike 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," "Ferrugenous 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 "Ar-

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

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 Mis-

Matthew Carey, a cartographer and scheduled to arrive early next week and be quartered on West Elm and publisher of fine repute, drew his "Map Second streets. 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 degress 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 wellknown 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 Carondolet to Don Joseph Valliere (commandant, by Zillah Cross Peel has shown, 11,520 acres of these tracts were in the present Washington county.

In the year 1817 the War Departent 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

"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 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 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 schodyled to environments with the second section.