

# Project Underway Here To Plot Highways With Aid Of Computers

Computers may plot interregional highways of the future for the U. S. Bureau of Public Roads. And they may aid Civil Defense officials in mapping possible evacuation routes in the event of nuclear attack.

An assistant research mathematician for the design and traffic department of the Texas Transportation Institute at Texas A&M has been awarded a \$22,000 grant from the Bureau of Public Roads for a one-year study of developing highway routes by computers.

Charles Blumentritt is programming the IBM 7094 computer to provide minimum distances from any point in the United States to any other point in the nation within four seconds. He said it is the first time the nation's traffic situation has been analyzed as a whole by computers.

The 29-year old mathematician finds the shortest routes between two points by making "trees" with the computer. When the computer produces a solution to a specific problem the end result on paper resembles branches of a tree. Like

trees, the computer's solution has no loops.

"My masters thesis here at A&M was on graph theory," explained the native of San Angelo. "That's where I developed the idea. The possibilities are unlimited . . . it's a fascinating area."

Blumentritt is working on "trees" by counties in preliminary investigations, but hopes to enlarge his scope to state highway networks eventually.

He is preparing a manual for every state in the union to use

for coding their networks into the same format. When the state codes are completed, they will be assembled by Blumentritt into a realistic national system.

Some of the data for the researcher's program will come from the U.S. Department of Civil Defense.

Blumentritt said the minimum path technique, the basis of all traffic assignment work, will be used in most of his research.

Cost of building a single "tree" via computer is minimal, at least for the internal machine time.

# Fisheries Major In Puerto Rico

Van Conner, a graduate wildlife management student at Texas A&M, is in Puerto Rico this week for meetings with fisheries biologists.

Conner is representing A&M's Wildlife Management Department. After a week in Puerto Rico he will go to the Dominican Republic for two weeks of conferences with fisheries biologists.

Dr. Richard Baldauf, professor of wildlife management, said Conner will advise fisheries biologists in both countries about raising fish as a high protein food item.

A former Uvalde resident, Conner was a distinguished student four times as an undergraduate.



PLANNING A 'TREE'

Charles Blumentritt, assistant research mathematician for the Texas Transportation Institute at Texas A&M, prepares a roll of magnetic tape for the IBM 7094 computer. Blumentritt has devised a program for developing highway routes by computer and is doing a study for the U. S. Bureau of Public Roads.

## Agricultural Briefs

# Sharp's Thesis One Of U.S.'s Best

One of the three best Masters theses on agricultural economics in the United States this year, comes from Texas A&M.

The thesis was written by Wayne W. Sharp, who was awarded a certificate and a \$100 check at the American Farm Economic Association and Western Farm Economic Association's annual meeting August 22-25 in Stillwater, Oklahoma. The thesis was completed at A&M in 1964 and submitted to the national judging panel this year.

Each college or university offering courses in agricultural economics may choose the best thesis written at their school, each year, to submit to a national panel of researchers for judging. There is no first, second or third place designation, the top three are chosen, but not ranked.

Sharp was raised on a ranch near San Angelo, attended high school in San Angelo, and was an outstanding 4-H Club member. He holds a B.S. degree in range management from A&M and an M.S. in agricultural economics from A&M. He has received an assistantship to begin work toward a Ph.D. in agricultural economics at Michigan State University this fall.

Sharp spent six months in Argentina as the 1964 International Farm Youth Exchange delegate from Texas.

Forty-five Texas county home demonstration agents are attending the Home Management Workshop, which will continue through Friday. The workshop is being held in the MSC.

The keynote speaker was Dr. Margaret Liston, head of the Department of Home Management at Iowa State U. She spoke Tuesday on the meaning of management.

Four research grants totaling \$9,694 have been made available to the Texas Agricultural Experiment Station, Dr. R. E. Patterson, station director has announced.

The largest is \$5,294 from the Easo Research and Engineering Company of Baytown for research on influences of different mulches and covers on fall vegetables. Dr. C. J. Gerard of the Lower Rio Grande Valley Research and Extension Center at Weslaco is heading the project.

A grant of \$1,800 is from the Chevron Chemical Company of Florida for studies on cotton defoliation. Dr. C. S. Miller of the Texas A&M Plant Sciences Department is project leader.

The Texas Valley Citrus Committee has provided \$1,500 to support an economic analysis of the state citrus market. Research is being conducted by Dr. R. E. Branson of the A&M Agricultural Economics and Sociology Department.

A grant of \$1,100 has been made available from the Niagara Chemical Division of the FMC Corporation for research on cotton seedling diseases. Dr. L. S. Bird of the A&M Plant Sciences Department is supervising the study.

Dr. R. G. Reeves, widely known Texas A&M plant geneticist who retired several years ago left here Aug. 20 for his fourth major agricultural assignment in a foreign country.

His destination this time is Egypt, where he will be a guest professor at Alexandria University. He is accompanied by his wife Mary.

The scientist returned last March from East Pakistan after two years as chief advisor to the East Pakistan Agricultural University at Mymensingh.

Dr. D. C. Pfannstiel, assistant director for management operations with the Texas Agricultural Extension Service, will leave here Sept. 1 for a one-year special assignment as visiting professor at the University of Wisconsin.

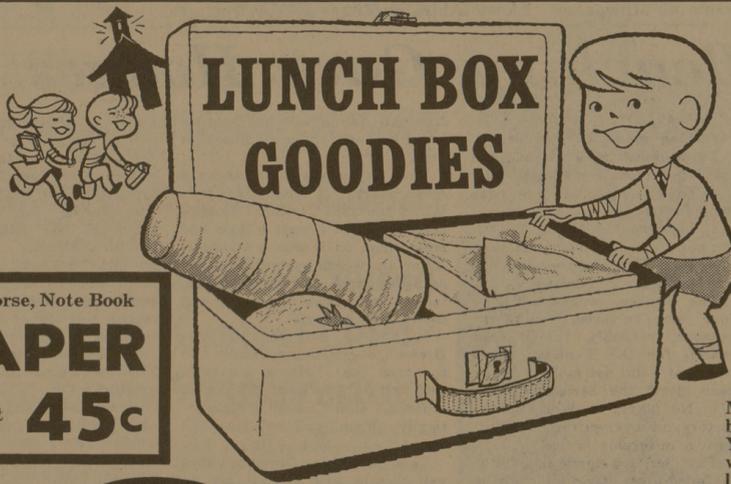
Extension Director John E. Hutchison said that during Pfannstiel's leave of absence from Texas A&M he will teach courses in administration and direct the graduate seminar program in the National Agricultural Extension Center for Advanced Study.

Ministers attending Texas A&M's 20th annual Town and Country Church Conference Oct. 14-15 will receive a short course in dynamic agriculture in addition to topics directly related to their field.

General theme for the meeting is "New Tools for the Church and Community in Town and Country."

Tom Prater, program chairman and Extension Service farm management specialist at A&M, said various areas of agriculture will be discussed by authorities in the College of Agriculture.

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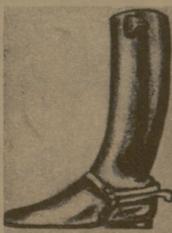
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