

News Release

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GRADUATE RESEARCH CENTER OF THE SOUTHWEST

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SEISMOLOGY RESEARCH TASK RUNS FROM RIO GRANDE TO LAKE SUPERIOR, BACK TO ST. LOUIS

DALLAS --

There's a long, long trail ahead of a small research group from Dallas. It will wind as little as possible, between Del Rio, Texas, and Lake Superior's Wisconsin shore. Then the route will turn south, close to the course of the Mississippi River, to St. Louis.

Starting from the Rio Grande country on July 5, a seismic recording party from the Graduate Research Center of the Southwest, in Dallas, will travel the 1,360-mile northbound line in daily truck hops, listening for the sound waves produced by five ton blasts of explosives fired in Lake Superior.

Purpose of the research is to verify earlier results from seismic experiments; these results show that the Earth's upper mantle rock structure transmits seismic waves at high speeds across the Central United States. Travel times are considerably faster than in other regions. From later analysis of the travel times may come clues to the type of rocks that make up the structure.

Another goal is to determine how distance reduces the energy of the seismic waves; or, to answer the question "how far away from Lake Superior can recordings be made, along the mid-continent line?"

Some good recordings may be made along the Texas segment of the line, says Prof. Anton L. Hales, who heads the Graduate Research Center's Geosciences Division and is directing the field work. Recordings may not give good data until the parties get within a 1,500 kilometer range (or more than 500 miles along the northbound route, into the Oklahoma-Kansas areas).

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The listening will actually be done by seismometers and magnetic tape recorders, as two shots are fired on each of 20 nights in July. The tape recordings will be converted into visual records daily by the central party of the research team.

Three parties will work along the shot-line. The central group will carry one recording station and the playback equipment needed to monitor each day's results. Each of the other two parties will carry four recording stations. The recorders will be set up between 25 and 50 miles apart, along segments of the line. Recordings will be made in the early morning hours, as the explosives are fired in Lake Superior from the U.S. Coast Guard cutter "Woodrush", on a pre-arranged schedule.

Professor Hales will direct the central party. Dr. Rodleigh W. E. Green, Research Scientist, will head one field group, and David B. Edmondson, Electronics Technician, will head the other. Joe B. Nation, Research Assistant, will work with Professor Hales.

Three summer students at the Graduate Research Center will assist in the field work. They are Kenneth Henderson, who is a student at Cooke County Junior College, Gainesville, Texas; Herbert Hoff, Southern Methodist University student in Dallas, and James Rhoads, Austin College, at Sherman, Texas.

Reports from the project will be made to the Air Force Office of Scientific Research. The program is supported by a cost reimbursement with the AFOSR. Costs are expected to be about \$48,000.

The recording line passes near San Angelo, Abilene, and Wichita Falls, in Texas; near Lawton and Oklahoma City, Okla., cutting across the old Chisholm Trail of northbound cattle drive days. Then to Wichita, and west of Topeka, Kans., and St. Joseph, Mo., to points midway between Omaha, Nebr., and Des Moines, Iowa. Mason City, Iowa, and Albert Lea, Minn., are near the line, which also passes near Rochester and east of Minneapolis and St. Paul and reaches Lake Superior east of Duluth, Minn.

The northbound line will cut across five other pioneer trails besides the Chisholm: Butterfield in Texas, Santa Fe in Kansas, and Pony Express, Oregon, and Mormon Trails west of St. Joseph.

The line from Lake Superior to St. Louis, Mo., will be near Eau Claire and LaCrosse, Wis., Dubuque and Davenport, Iowa, and Rock Island and Moline, Ill.

-- Del Rio News-Herald / San Angelo Standard-Times /
Abilene Reporter-News / Wichita Falls Record-News/ Wichita Falls Times /
Lawton Constitution / Oklahoma City Oklahoman-Times / Tulsa Times /
Tulsa World / Wichita Eagle-Beacon / Topeka Capital /
Topeka State-Journal / Kansas City Star- Times / St. Joseph Gazette /
Des Moines Register-Tribune / Fort Dodge Messenger /
Mason City Globe-Gazette / Albert Lea Tribune / Austin Herald /
Rochester Post - Bulletin / Minneapolis Tribune-Star /
Duluth Herald / Duluth News-Tribune / Ashland Press /
Eau Claire Leader / Eau Claire Telegram / LaCrosse Tribune
Dubuque Telegraph-Herald / Clinton Herald / Davenport Times-Democrat /
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