

METEOROLOGY

Radar Tornado Warning

► **TEXANS** HAVE inaugurated a regional tornado-warning system using radar that is expected to become nation wide.

The 24-station system not only blankets the Lone Star state but reaches into Arkansas, Mississippi, Louisiana and Oklahoma. It was officially dedicated at College Station, Texas, on June 25, in ceremonies attended by State and Government officials and weathermen from all parts of the country.

The radars give weathermen information they need to issue warnings when twisters may strike.

The network has already resulted in saving of life and limb. In 1954, with only eight stations in actual operation, 17 alerts for possible tornadoes were sounded. Six twisters followed, striking heavily populated areas, with only three deaths.

Development of the system, which followed the disastrous tornado that hit Waco, Texas, on May 11, 1953, killing 114 persons, involved cooperation of many individuals and civic groups. Cities participating pay about \$10,000 each for modification and installation of surplus Government radar sets, which are then operated around the clock by Weather Bureau meteorologists.

The modified sets have a range of about 200 miles in which the squall lines where tornadoes are born are spotted and tracked. Information gathered by the 24 stations, some of which can get a 3-D picture of the storms, will eventually benefit all residents of the United States, Capt. Howard T. Orville predicted.

Capt. Orville, a retired Naval officer now affiliated with the Friez Instrument Division of Bendix Aviation, Baltimore, Md., is chairman of the Government's Advisory Committee on Weather Control.

The dedication was one step in fulfilling a prediction he made in January, 1953, that the United States would be covered within 10 years by a national electronics network for reporting weather conditions, with particular emphasis on the severe storms that annually cause millions of dollars in damage.

Instrumental in getting the radar network started were Dr. David H. Morgan, president of the A & M College of Texas, Dr. Earl Hardy, regional director of the U. S. Weather Bureau, and William McGill, on the staff of Texas' Governor Allan Shivers.

Science News Letter, July 9, 1955

PHYSIOLOGY

Susceptible Ears Selected

► A 20-MINUTE test that might detect in advance workers whose ears may be damaged by intense noise in factories was suggested by Dr. J. E. Goodwin of the University of Toronto at the joint meeting of the British and Canadian Medical Associations in Toronto, Canada.

There has been an increasing awareness in recent years that deafness can be caused by continuing exposure to high level noises once considered harmless, Dr. Goodwin said.

About six months ago the University of Toronto began studying workers at a steel-fabricating plant. They studied persons whose ears could apparently withstand high level noise and those whose hearing seems to be affected by it. The factory had a variety of noises ranging from 96 to 126 decibels.

Tests were made on the ears of more than 60 volunteers and also on 12 men picked to determine whether those particularly susceptible to noise could be distinguished from others.

The men were given an audiometer test to determine their acuity of hearing. Then through an earphone on one ear at a time they were subjected to what is called white noise. This is produced electronically in a vacuum tube and sounds like the highly-amplified hissing of escaping gas.

The person being tested listens to the

noise for ten minutes and then the audiometer test is repeated. The audiometer is able to gauge any temporary loss of hearing that the white noise has caused.

Dr. Goodwin, charting his results on a graph, found that the subjects fell into two clearly separated groups of which five out of the 12 had extraordinary susceptibility to intense noise.

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ARCHAEOLOGY

Tools of Ancient People Found in Mexican Desert

► **STONE KNIVES** and other tools of an ancient people who lived in a Mexican desert area, perhaps as much as 5,000 years ago, have been found by Dr. George E. Fay of Joplin, Mo. The site is near what is now Hermosillo, capital of Sonora, Mexico.

The ancient implements are made chiefly of slate and shale but some are of jasper, quartz and rhyolite porphyry (rock of lava origin).

Shaping and workmanship on the tools indicated, Dr. Fay said, that the people were possibly a variant of the Cochise culture in Arizona. This group formerly was thought to have lived only in a limited area in southeast Arizona and the southwest corner of New Mexico. Anthropolo-

gists are interested in the possibility that this ancient people may have extended as far as Sonora. The group has been dated in Arizona approximately 3,000 to 500 B.C.

Among the tools are wedges which Dr. Fay believes may have been used to open mussel shells. The area where the finds were made is now a stretch of flat desert with no immediate evidence of a natural water supply. The Sonora river is about one or two miles to the south.

Altogether, seven campsites of the ancient people that Dr. Fay has named Peralta have been examined.

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