

The FCC solved that problem by scrambling station powers as well as frequencies. Now the enemy will not know where the strong stations are.

All told, the system will cost commercial broadcasters about \$1,500,000. The money will go for new electronic gear needed to change the station's spot on your dial during an emergency. More money will be poured into the communication system that will link the stations to central dispatching points throughout the country.

Of the 2,500 AM radio stations in the United States, over half already have endorsed the plan. The FCC hopes to enlist at least three-fourths of them by the time Conelrad is completely set up. Stations that do not agree to take part, of course, will leave the air during an emergency.

The Air Force asked the FCC to work out Conelrad after military leaders realized radio stations would be a weak link in America's defense preparations. Since the stations would be needed to carry vital civil defense information, they could not be taken

off the air. The FCC's plan has been approved by the Air Force and tested under simulated conditions of national emergency.

In the early hours of the morning, Air Force bombers have set out to "blast" certain targets, using their radio direction-finding equipment to guide pilots to the goals. Radio stations in the target areas switched to the Conelrad frequencies and went on and off the air as instructed. Progress of the planes was plotted continuously. How an interception unit operates is shown on the cover of this week's SCIENCE NEWS LETTER.

During the tests, the Air Force checked the effectiveness of the system on its own dead-reckoning navigational aids. Both the bearing types (that use the compass-like indicator) and the homing type (that directs the pilot to fly right or left) were tested.

In typical non-committal language, the tests were proclaimed "satisfactory." But there was a thoroughly satisfied inflection in the voices of those reporting.

Science News Letter, September 6, 1952

HOME ECONOMICS

# Freezers Not For Clothes

► THE IDEA that nylon hose last longer if frozen before wearing is debunked in a report from the U. S. Department of Agriculture in Washington.

Freezers are for food, not nylons and not winter clothes, Agriculture's home economists state.

Their reasons are:

1. Tests by nylon manufacturers showed that freezing does not make this fiber more durable.

2. It is poor economy to take up freezer space with clothes during the season for fruits and vegetables.

3. Fur experts advise against storing fur garments in home freezers. Fur that is stored for any length of time folded or rolled will come out creased or crushed, and then will need glazing or other treatment to lift and straighten fur fibers. If the pelt freezes stiff, it is likely to crack at folds, especially if any weight, like packaged frozen food, is placed on or against it. Finally, there is the risk of damage from

dampness, either in the freezer or later when the fur is thawing out. Dampness may cause aging, fading, loss of lustre or even mildewing. Fur garments in commercial cold storage hang loosely so that air can circulate around them. Both temperature and humidity are carefully regulated to keep fur in best condition. Any fur worth home freezer space would seem to deserve expert commercial storage.

4. Clothes can be protected from moths without freezing or even refrigerating them, and the freezing treatment gives no protection when the clothes come out of the freezer.

Science News Letter, September 6, 1952

PSYCHOLOGY

## Boys Fitting Into Army Take Authoritarian Ideas

► SIX WEEKS in the Army may make a boy shift toward acceptance of authoritarian ideology. So Dr. Richard Christie of the Research Center for Human Relations, New York University, told the American Psychological Association meeting in Washington.

The boy's political views before he went into service have nothing to do with this shift. What is important is how well he fits into military life and what his buddies and superior officers think of him. If he fits in well and makes a good soldier, then he tends to accept the authoritarian way of thinking.

Dr. Christie's conclusions are based on interviews with 182 inductees in an Army basic training center.

Science News Letter, September 6, 1952

SEISMOLOGY

## Earth Has Hard, Dense, Solid Metallic Heart

► THE EARTH has a hard, solid heart.

Prof. K. E. Bullen, Sydney University mathematician, told the Australian and New Zealand Association for the Advancement of Science meeting in Sydney that his researches show that the earth's inner core, with a radius of about 800 miles, is solid with a density at the center about 18 times that of water. It is chemically distinct and consists of iron, nickel and probably some denser metals.

The rest of the central core, extending to 2,200 miles from the center, consists of a liquid form of silicate rock about 11 times the density of water, Prof. Bullen's work on earthquake vibrations has indicated.

Prof. Bullen has for some years been studying the density variations through the earth's interior by means of observations of earthquake waves. Earthquake vibrations travel right through the earth and vary in speed according to the density and elastic properties of the material encountered. By studying their times of arrival at different seismological observatories throughout the world, various properties of the earth's interior can be estimated.

Science News Letter, September 6, 1952



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