

Station Identification

Once every hour, the operator at Position 1 on our overseas switchboard pauses for station identification . . .

With a Service Assistant monitoring, she plugs in on the Molokai circuit and announces these call signs three times: "K U N 79 . . . K U Q 78." Then, over the Lanai circuit, she announces, "K U N 78 . . . K U N 80."

She time-stamps a toll ticket, signs her operating number, and files the ticket for future reference.

The reason? These radiotelephone circuits come under the ruling of the Federal Communications Commission which requires all radio transmissions below 50 megacycles, and licensed for point-to-point operation, to identify themselves every hour.

The FCC monitors all these circuits, and by means of the call sign announcements, can check on stations who may be tuned to the wrong frequency.

The call signs above indicate frequencies for which the telephone company holds station licenses. Should some other radio operator interfere on these frequencies, the FCC would promptly serve him with a citation, thus keeping the circuits clear for our interisland radio-telephone traffic.

* * *

A business man, telephoning a friend at home, was answered by a child.

"Tell him Mr. Brown called," he said.

"Wait till I get a pencil and paper," said the youngster. Then, "How do you spell Brown?"

"B-r-o-" the man began. There was a labored silence.

Finally the child asked, "How do you make a B'?"

STATIC FROM THE SKIES

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gas cloud in the constellation Cassiopeia, some colliding galaxies in the constellation Cygnus and a variety of other places.

Mr. Reber's installation is located at an elevation of 10,020 feet at the center of a huge circle of ocean. The ocean acts as a sort of "dish" antenna, receiving and reflecting cosmic radiations which are then picked up by the radio telescope.

These radiations are recorded as a wavy line on a moving paper chart. Interpretation of this line gives information about the intensity and position of these sources of celestial radiations which cannot be seen or photographed.

At present, these studies seem to offer little practical application, but they are adding to man's knowledge of the universe. And knowledge is power.

LIFE TEST ON DROP WIRE

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upright shaft which is attached to a small motor. The motors run night and day at 525 rpm, setting up a constant vibration.

Because the Neoprene insulation remains intact after the wire breaks, it was necessary to figure out a way to determine the exact moment each wire broke.

An electric clock was linked to each moror, and a current was put through the wires. At the moment the wire breaks, the current is cut off, and stops the motor and electric clock—which then registers to the second the time the wire snapped.

If the tests "prove in" the 20-gauge wire, the company figures it can save a minimum of \$5600 a year by substituting it for the 18-gauge wire now being used.

This test is just one of the many things your telephone company does to provide you with the finest possible telephone service—at the lowest possible cost!

* *

Aviation won't really be safe until they do away with the ride to the airport.

"Your dress is too short."

"I don't think so."

"Then you must be in it too far!"



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Static From The Skies



Back in 1931, Karl G. Jansky of the Bell Telephone Laboratories discovered certain mysterious electro-magnetic disturbances coming from outer space. These disturbances set up static in radio receivers which could interfere with radiotelephone service.

Some years later, the Research Corporation of New York awarded a grant for the construction of a "radio telescope" to further study the source of this "cosmic static."

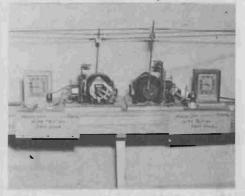
Mr. Grote Reber—one of the world's very few radio astronomers—was placed in charge of the program, and began looking for a site for his laboratory. He required a place that would be high, fairly isolated, and surrounded by water out to the horizon.

He found his site on Maui—the top of Kole Kole hill on Mt. Haleakala—which he sub-leased from Hawaiian Telephone Company.

On this hill, the installation shown above was built;—a wooden framework 60 feet long, 30 feet high, mounted on a steel turntable which runs on a track 82 feet in diameter. This allows him to "track" the static, which at present seems to emanate from the Milky Way, including a

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Life Test On Drop Wire



The apparatus above is being used to compare the tensile strengths of 18-gauge and 20-gauge drop wire under simulated wind vibration.

Most telephone companies on the mainland use the heavier 18-gauge wire on their installations, since it must stand wide variations in climate. In winter, for example, the wires are under heavy stresses from ice deposits.

Certain South American companies have been successfully using the lighter 20-gauge wire in areas where there is no great variation in climate.

Here in Hawaii, we should be able to do the same—but we want to be sure, first!

Therefore, our Services and Supplies Department—in collaboration with the Engineering Department—designed and built the Rube Goldberg contrivance shown in the picture.

It consists of two 8-foot lengths of wire (one 18-gauge, one 20-gauge) clamped at each end to braces. They are adjusted to a tension that permits the same amount of sag found in the standard 180 foot span between telephone poles.

At the center, each wire is clamped to an (Continued on Page 4)