

Engineer's Discarded Crutch Helps

College FM Station Limp On Air

LOS ALTOS HILLS — Any place that has rain and salt air. A discarded crutch is being used to carry broadcasts from Foothill College's FM station KFJC.

It belongs to the station's engineer, Douglas M. Gardner, 26, of 433 Ortega Ave., Mountain View. It had served him while he was recovering from a leg injury received in an auto accident.

Now it's mounted on the station's Black Mountain antenna mast, not as a prank but as part of an emergency antenna.

The steel pipe turnstile antenna above it has been made useless by corrosion.

"We had to have an emergency antenna to operate, and I had to find a suitable support," he said. "The crutch was just the thing. It was varnished and waterproof, and it was adjustable for tuning."

The "working parts" of the antenna are two lengths of copper tubing, and the cost of the emergency rig to the college, less Gardner's crutch, was \$1.29.

"I don't know who made the other antenna, but he obviously didn't consult anyone the engineering department. The size and design are good, but the material is quite inferior for

sipation of about half the signal from the promontory on which it is located. The station, which operates on a frequency of 89.7 megacycles, broadcasts from 6:30 p.m. until 10:15 p.m. Monday through Friday, and is nearing the end of its third year — the first of course, on the new campus.

"It would work fine in Nevada." The student-managed station began encountering antenna troubles when it resumed broadcasting after the Christmas holiday and was virtually shut down until Gardner devised the crutch antenna.

"It has improved the signal immensely," comments Fred Critchfield, faculty advisor.

The crutch is strictly a stopgap measure, a fill-in while tests are being completed on a working model of a directional antenna Gardner designed.

Results of the antenna's performance are being collected by members of an advanced electronics class taught by Dr. John Sherman, electronics engineering division chairman.

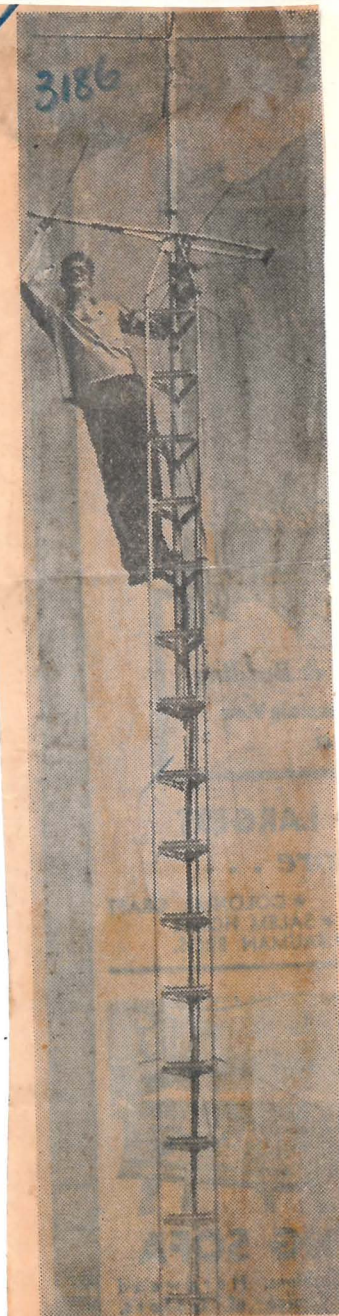
This material will be sent to the Federal Communications Commission, which will have to decide whether to permit the station to use a directional antenna.

As Gardner explains it, the directional antenna would beam a concentrated signal into the section of the Santa Clara Valley that the college serves. Use of a conventional non-directional antenna would result in dis-

Critchfield believes the station, now programming selections from a music appreciation class list and a language session on its schedule, will be used increasingly for educational programs.

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BROADCASTING CRUTCH — Foothill College sophomore Douglas M. Gardner adjusts the emergency antenna he rigged for the school's FM station, KFJC, using his discarded crutch and two pieces of copper tubing.