

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION**

WASHINGTON, D.C. 20554

Discrete Four-Channel Multiplex Transmissions Report No. 10851

August 9, 1972

THE COMMISSION ISSUED THE FOLLOWING PUBLIC NOTICE:

Broadcast Action

Discrete Four-Channel Multiplex Stereo Transmission Requires Specific Authority, FCC Rules

FM broadcast stations may not engage in discrete four-channel multiplex transmission without specific authorization, the Commission has ruled.

Pacific FM, Incorporated, licensee of FM station KIOI, San Francisco, Calif., asked for the Commission ruling. Pacific FM had previously obtained temporary experimental authority to field test the Dorren Quadraplex System. It contended that the Dorren system was compatible with present rules governing two-channel stereo and that music transmitted by this method could be offered to the public without further authorization.

The Commission said that the four-channel stereo systems being sold today are "pseudo-enhancement devices relying on a phase-differential principle to achieve four-channel audio effects," and may be used within the FCC's present FM stereo transmission standards without specific authorization.

The Commission cautioned, however, that these "pseudo systems" should not be confused with discrete four-channel multiplex transmission, like the Dorren system, which has been authorized only on a limited experimental basis. Section 73.322(c) of the rules permits the transmission of only a single sine subcarrier, where the Dorren system requires the addition of a cosine subcarrier, the FCC noted. The Commission also indicated that, since the Dorren system might exceed present limits on modulation, existing protection ratios for co-channel and adjacent channel stations would have to be reviewed before the system could come into general use.

Action by the Commission August 9, 1972, by letter. Commissioners Robert E. Lee (Acting Chairman), H. Rex Lee and Wiley, acting as a Board.