

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington 25, D. C.

FCC 60-497
37910

In the Matter of)
)
Inquiry into Amendment of Parts 2,)
3, and 4 of the Commission's Rules)
and Regulations and the Standards)
of Good Engineering Practice) DOCKET NO. 12517
Concerning FM Broadcast Stations)
to Permit FM Broadcast Stations)
to Engage in Specified Non-)
Broadcast Activities on a Multiplex)
Basis.)

REPORT AND ORDER

By the Commission: Commissioner Lee absent.

1. On March 22, 1955, the Commission released a Report and Order in Docket No. 10832 (FCC 55-340) which adopted rules providing for the issuance of Subsidiary Communications Authorizations (SCA's) to FM broadcasters -- Section 3.293, et seq. Among other things, those rules provided for the rendition of multiplex background music and storecasting services by FM broadcasters as a means of bolstering station operating revenues. Approximately 240 SCA's have been issued during the past five years. The bulk of these authorizations specify one or two multiplex sub-carrier frequencies which are normally programmed separately from the main channel. Assigned sub-carrier frequencies fall within the range 20 to 75 kilocycles removed from the main carrier, in accordance with Section 3.319.

2. After the adoption of the SCA rules it became increasingly evident that multiplex techniques could be successfully employed for a variety of purposes above and beyond the limited "news, music, time, weather, and other similar programming" format prescribed in these rules. Accordingly, a Notice of Inquiry in Docket No. 12517 (FCC 58-636; 23 FR 5284) was released by the Commission on July 8, 1958, for the purpose of exploring possible additional uses of FM multiplexing, including slow-scan video transmission of advertisements, stock market reports, doctor paging, and traffic light control. The specific issues on which comments were invited were as follows:

- (a) What limitation, if any, should the Commission impose upon the types of subsidiary communications which an FM station may provide?
- (b) Should an FM station be permitted to use subsidiary communications for relay purposes?

- (c) Should the number of subsidiary communications channels employed by a single FM broadcast station be limited, and, if so, what should be the limit?
- (d) To what extent, if any, should subsidiary communications be permitted to affect the quality of the broadcast channel?
- (e) Should specific sub-channel frequencies be allocated for subsidiary purposes? What quality and performance standards should be applied to the sub-channels?
- (f) Should an FM broadcast station be permitted to transmit subsidiary communications at times when it is not providing a broadcast service on its main channel?
- (g) To what extent should we permit a license holder to enter into contracts or arrangements with other parties to provide program material for subsidiary communications or to lease the rights to the multiplex channels?

3. A preliminary analysis of the comments submitted in response to above-mentioned Notice of Inquiry demonstrated a widespread interest in the related subject of FM multiplex stereophonic transmission. Accordingly, on March 12, 1959, the Commission released a Further Notice of Inquiry (FCC 59-211) which enlarged the scope of proceedings under Docket No. 12517 in order to afford interested persons an opportunity to submit further data and opinions directed specifically to the matter of FM stereophonic "broadcasting". The extended deadline for submission of comments in Docket No. 12517 was March 15, 1960. This Report and Order deals only with the issues raised in the original Notice of Inquiry. FM stereophonic "broadcasting" is the subject of a companion Notice of Proposed Rule Making being issued concurrently with this document. Related questions stemming from the decision of the United States Court of Appeals, D. C. Circuit, in Functional Music, Inc. v. USA & FCC, Case Nos. 14,374 and 14,375, will be treated in a separate Notice of Proposed Rule Making to be issued in the near future.

4. The more than 160 comments received in response to the Notice of Inquiry (paragraph 2, supra) are discussed below.

5. Limitations, if any, which should be imposed upon multiplex operation: The majority of comments were submitted by FM enthusiasts and "audiophiles" who expressed concern that any enlargement in the

permissible scope of SCA services would tend to encourage a proliferation of non-broadcast multiplexing, thereby compromising main channel quality and eventually undermining the development of wide-band FM stereophonic "broadcasting". This viewpoint was opposed by most of the 40 broadcast respondents, their general position being that no absolute limitation should be placed on the types of subsidiary communications which an FM station may provide. The Sundial Broadcasting Corporation, Charles River Broadcasting Company, Northeast Radio Network, Westinghouse Broadcasting Company, Metropolitan Broadcasting Corporation, and Pacifica Foundation expressed an interest in the following uses to which FM multiplexing might be put: transmission of news photographs by facsimile, slow-scan TV, paging signals, servo-mechanism control pulses, musical A pitch, stock market quotations, detailed weather reports, remote pickup and cueing intelligence, studio-transmitter administrative messages, transmitter telemetry and radio teletype. Additionally, Pacifica Foundation and others urged that non-commercial educational FM broadcast stations be permitted to render subsidiary communications services on the same basis as commercial FM stations. The telephone interests, notably the American Telephone and Telegraph Company, registered opposition to any expansion of subsidiary undertakings on the part of FM broadcasters. Various licensees in the Domestic Public Radio Services reinforced this opposition, citing their generally low operating revenues and the allegedly ruinous effect of additional competition from a new source. In this connection, organizations providing radio paging and communications services for hire emphasized their status as common carriers under Title II of the Communications Act, and their responsibility to service the public without discrimination pursuant to published tariffs. It would be grossly unfair, they argue, to be placed in competition vis-a-vis unregulated operators who could "skim the cream" off the existing market for radio paging and related services. Traffic light control as a subsidiary service to be provided by FM broadcasters was supported by the International Municipal Signal Association. On the other hand, the General Electric Company voiced opposition to non-broadcast operations in the FM broadcast band as a matter of allocations principle. By the same token, the Electronic Industries Association concluded that "if there is sufficient FM frequency space available to permit FM broadcasters to use that valuable space for non-broadcast activities, it would appear that a basic question of frequency allocation is raised which can only be treated properly in a comprehensive study such as that now underway in Docket No. 11997". To summarize, further expansion of non-broadcast sub-carrier operations by FM broadcast stations was generally opposed by listeners, telephone interests, communications services, and by a broad segment of the electronic manufacturing industry, while the only substantial endorsement of such expansion came from the broadcast industry itself.

6. Use of multiplex sub-carriers for relay purposes: The proposal to use multiplex sub-carriers for relay purposes is but one facet of the larger question of expanded uses discussed in the preceding paragraph; hence, respondents' reactions followed the same general pattern, i.e., multiplex relaying was opposed by the telephone interests and supported by the broadcast industry. The broadcasters' main interest in multiplex relaying focused on the program relay services which have been and are being rendered by a few FM stations under temporary authorizations issued by the Commission. For example, Radio Station KDKA-FM (Westinghouse Broadcasting Company) originates play-by-play descriptions of the Pittsburgh "Pirates" baseball games and transmits them to numerous standard and FM broadcast stations within its primary service area on a sub-carrier frequency of 67 kilocycles without disturbing the serious music programming on its own main channel. The Northeast Radio Network distributes WQXR-FM musical programs throughout north-central New York State in much the same manner. The WGBH Educational Foundation asserted that educational networks could be developed on the same principle if non-commercial educational FM stations were permitted to engage in multiplexing. Many comments favorable to multiplex relaying suggested that it should be limited to the relaying of programs of a broadcast nature.

7. Limitations, if any, which should be imposed upon the number of multiplex sub-channels employed by a single FM broadcast station: While the record discloses some sentiment for limiting the number of available sub-channels to three or less, the majority of comments addressed to this issue (most of which came from FM broadcasters) disapproved of any limitation on the theory that the types of programming provided on the sub-channels would automatically limit the number which could be successfully used at any given installation.

8. The extent, if any, to which multiplex sub-carrier operation should be permitted to affect main channel operation: Most respondents disapproved of any reduction in main channel quality, although the proponents of wide-band FM stereophonic systems recognized that some degradation of main channel quality would be an inevitable by-product of accommodating such systems.

9. Allocation of specific sub-channels for FM multiplexing: Broadcast interests were generally opposed to a sub-channel allocations plan and to the application of performance standards to such sub-channels. Those favoring such measures were, for the most part, seeking the allocation of a single stereophonic channel which, it was contended, would standardize the manufacture of stereophonic adapters and indirectly discourage the "pirating" of functional music programs.

10. Sub-carrier operation during periods of main channel inactivity: Under Section 3.310(i) and other applicable provisions of the Commission's Rules sub-channel operation is proscribed during periods of main channel inactivity. Some FM broadcasters who derive substantial revenue from their subsidiary operations would like to schedule such operations beyond the required 36 hour weekly main channel minimum without incurring an obligation to program the main channel during the extended hours. A few broadcasters and others branded the idea a misuse of frequencies allocated to FM broadcasting.

11. Propriety of multiplex sub-channel leasing arrangements: The only substantial interest in this issue was expressed by FM broadcasters, most of whom advocated the continuance of such arrangements in view of the existing requirement that each licensee be responsible for, and in control of, all activities conducted on its authorized sub-channels.

12. The major issue posed by the Notice of Inquiry is whether, on balance, the public interest would be served by permitting an expansion of multiplex subcarrier operations by FM broadcasters, and if so, to what extent. In our Report and Order adopting the present SCA rules (Docket No. 10832), we expressed the belief that ". . . the character of the specialized operation should not run completely counter to that of a broadcast operation."

13. In light of the comments herein, and other relevant considerations, we adhere to the same position. The economic plight of the FM industry, which was one of the chief factors leading to the original adoption of the SCA rules, has somewhat improved recently as a result of increased interest in FM as a broadcast medium. ^{1/}

^{1/} The number of applications for commercial FM broadcast stations received in calendar year 1959 was approximately 500% greater than the number received in 1956. The sharp increase in public interest in FM as a broadcast medium is further attested to by statistics supplied by the Electronics Industries Association to the effect that 329,274 FM receivers were produced during the first eight months of 1958, but that 593,952 sets were produced during the corresponding months of 1959. In the New York, Los Angeles, and other large metropolitan markets, the demand for FM channels already exceeds the supply, in view of which many applications have been set for comparative hearing.