

*Nomenclature for Devices Enclosing 8 mm Motion-Picture Film for Projection*

1. Scope

This recommended practice defines the terms CARTRIDGE and CASSETTE when applied to devices enclosing 8 mm motion-picture film intended for projection. It does not apply to enclosures or containers for unexposed 8 mm camera film.

2. Definitions

- 2.1 The term CARTRIDGE should be used for devices enclosing 8 mm motion-picture film for projection where the ends of the film are joined to form an endless loop.
- 2.2 The term CASSETTE should be used for devices enclosing 8 mm motion-picture film for projection where the film is contained in a conventional roll form and the ends are not joined.

**Appendix**

(The Appendix is not a part of this SMPTE Recommended Practice, but is included for information purposes only.)

The proliferation of devices to enclose processed motion-picture film intended to simplify and, more or less, automate the use of projectors or display mechanisms has led to some confusion of nomenclature among the basic types of devices. For super 8 projectors especially, such devices generally may be grouped in two categories: those in which the film is in the form of an endless loop and those in which the film is in conventional roll form and the ends are not joined. Each of these groups, aside from the differences of particular design within a group, offers a basically different combination of features and use patterns. It is obvious that suppliers and users alike would benefit from consistent generic nomenclature which would make clear which type of device was being referred to.

Past and present colloquial word usage within the United States makes selection of completely unambiguous terms difficult. Such devices also are already items of international exchange. Thus,

reconciliation of foreign language terms and their translations to English and vice-versa, is also involved. Some similarity to devices and nomenclature in the audio and video magnetic tape and microfilm fields is another complication. These problems, as well as the desirability of consistent nomenclature for processed motion-picture film packaged for projection were recognized by the ad hoc committees of the 16 & 8 mm Committee which have considered the preparation of American National Standards for such devices.

It may be impossible, short of coining new words, to have a completely specific nomenclature that does not conflict with or overlap that used in other areas of interest, such as magnetic tape or microfilm. However, the benefits of consistency within the motion-picture industry outweigh, on a practical basis, the hazards of particular words having slightly different meanings in other areas or languages.

**Pierre Mertz Moves to New Jersey**



Pierre Mertz has moved from his home at Lido, Long Beach, N.Y., to New Jersey. His new address is Meadow Lakes 901, Etra Rd., Hightstown, NJ 08520.

A member of the Society for more than 33 years, Dr. Mertz has been Chairman of the Society's Board of Editors for almost 20 years. During those years he has been the most important influence in maintaining the quality of the *SMPTE Journal*.

During a distinguished 35-year career with the Bell System, much of Dr. Mertz's work was in the field of transmission prob-

lems relating to telephotography and television. In 1934 a paper entitled "A Theory of Scanning and Its Relation to the Characteristics of the Transmitted Signal in Telephotography and Television" by Pierre Mertz and F. G. Gray appeared in the *Bell System Television Journal* (Vol. 8 No. 3). An extraordinary work now regarded as a classic, it provided the National Television Systems Committee (NTSC) with the means for producing compatible color television.

By the expression in a double Fourier series of the signal resulting from scanning, Mertz and Gray showed that it was possible to demonstrate the existence of gaps in the spectrum in which pilot and control tones or other signals might be transmitted without interference. This mathematical theory of scanning underlies the NTSC color television transmission system. The two men, unknown to each other, had worked independently on the same problem. They were brought together by a colleague who suggested that they join forces in publishing their findings.

Dr. Mertz is the author of many other important papers; among the noteworthy papers that have appeared in this *Journal* are: "Perception of Television Random Noise" (Jan. 1950), "Data on Random-Noise Requirements for Theater Television" (Aug. 1951), "Influence of Echoes on Television Transmission" (May 1953) and "Long Haul Television Transmission"

(Sept. 1966). In addition to the important technical papers, Dr. Mertz's contributions to the *Journal* have included translations, historical notes and reports. He is the author of an extensive entry in "Techniques of Motion Pictures" in the current *Encyclopaedia Britannica*.

Dr. Mertz was made a Fellow of the Society in 1948. In 1971 he was made an Honorary Member (the highest honor bestowed by the Society). In 1962 he was the recipient of the David Sarnoff Gold Medal Award presented in recognition of his development of the mathematical theory of scanning the television and for his studies of the effects of noise and of echoes on the quality of television pictures.

Among other professional organizations of which he is a member are the American Physical Society and the Inter-Society Color Council. He is a Fellow of the Institute of Electrical and Electronic Engineers and of the Optical Society of America. He is listed in *Engineers of Distinction* (the *Who's Who* for engineers) published by the Engineers Joint Council in New York. Of late years he has been active as a consultant in the development of facsimile systems, optical systems and in other fields.

He and Mrs. Mertz took up their new residence at the beginning of June.

A brief Biographical Note about Dr. Mertz's career appears in the May 1958 *Journal* (p. 344).