the other by power applied to a coil. In this arrangement, there is no power applied to the coil when the house lights are either on or off, but only when changing from one condition to the other. All other possible sources of noise within the studio are eliminated such as electrically refrigerated drinking fountains, telephones and plumbing in the studio proper.

The double plateglass "view ports" were provided in one of the studio walls which adjoins our sound-recording monitor room. If desired, the sound recorder can be put in the next building near one of the view ports. In this location, the recordists can look over the stage and watch for visual signals from the mixer or assistant director. Communication between recordist and mixer is accomplished by a public address system. Cables for this system and the sound-recording channel are fed through four large-diameter conduits which were cast into the concrete floor when it was laid. Two of these conduits are still vacant and available for future requirements.

Three 4-in. diameter conduits were placed under the wall adjoining the parking lot area so that the cables from a sound truck, parked outside the stage, could be brought through without making a sound leak in the insulated wall. Another 4-in. conduit has been provided to bring in cables from a d-c generator which can be parked in the same parking lot. All of these seemingly small details make the stage more practical and useful to an independent film producer.

Proposed American Standard

A Proposed American Standard, PH22.114, 16mm Azimuth Test Film, Magnetic Type, is published here for a three-month period of trial and comment.

This proposal was revised and resubmitted to the Sound Committee four times before it was permitted to proceed to the Standards Committee. Your attention is directed to some of the comments which were considered by the committee prior to this published version. It was suggested that the title be changed to "16mm Azimuth Alignment Test Film." Although the proposed test film would be most helpful as a tool for aligning magnetic heads, it can also be used for routine checking. Therefore it was decided to retain the original title.

There was some objection regarding the dimensioning of the magnetic soundtrack from the centerline rather than the edge of the film. Both forms of dimensioning appear in American Standards; however, the Sound Committee has adopted the practice of indicating track location by dimensioning the recording head using the centerline of each head because the manufacturing tolerances of head width have less effect on the track position.

The question of using a square wave in place of a sinusoidal wave was considered. It was the consensus of the committee that square waves are difficult to make with existing modulators and their use would increase the difficulty of making the test film.

A test film, M16AL, made in accordance with this Proposed American Standard may be purchased from the Society.

All comments should be addressed to Society Headquarters, attention of J. Howard Schumacher, Staff Engineer, prior to June 15, 1958. If no adverse comments are received, the proposal will then be submitted to ASA Sectional Committee PH22 for further processing as an American Standard.—*J.H.S.*

Proposed American Standard

16mm Azimuth Test Film, Magnetic Type

PH22.114

1. Scope

1.1 This standard specifies a test film with full-width magnetic coating having a magnetic sound record to be used for aligning the azimuth of magnetic heads on 16mm magnetic recording and reproducing equipment.

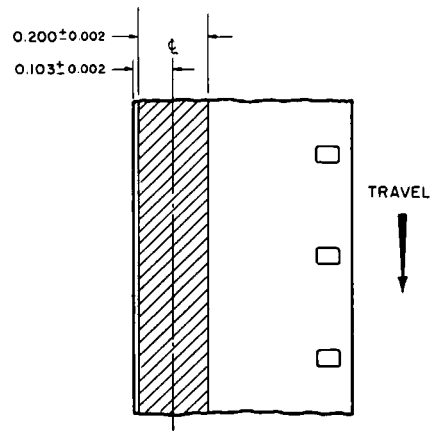
2. Test Film

2.1 The test film shall have an original sound record whose wave shape is approximately sinusoidal and whose frequency is about 7000 cps when the film rate is 24 perforations per second, approximately 36 feet per minute.

2.2 The sound record shall have correct azimuth within ± 3 minutes of arc.

2.3 The recording shall be made at 100 percent modulation level with a tolerance of + 0 — 2 db. 100 percent modulation is defined as the recording head current at which 3 percent total harmonic distortion occurs at a signal frequency of 1000 cps.

2.4 The locations and dimensions of the sound record shall be in accordance with American Standard 200-Mil Magnetic Sound Record on 16mm Film Base Perforated One Edge, PH22.97-1956, or the latest revision thereof approved by the American Standards Association, Inc., and as shown in the drawing.



3. Film Stock

3.1 The film stock used shall be of the low-shrinkage safety type, cut and perforated in accordance with American Standard Dimensions for 16mm Film, Perforated One Edge, PH22.12-1953, or the latest revision thereof approved by the American Standards Association, Inc.

4. Length of Film

4.1 The film shall be supplied in 100-ft lengths.

5. Identification

5.1 The film shall have identification markings at both ends.

APPENDIX

(This Appendix is not a part of Proposed American Standard 16mm Azimuth Test Film, Magnetic Type, PH22.114, but is included to facilitate its use.)

Fluctuations in signal level may seriously impair the ease and precision of setting an azimuth adjustment. It is recommended that the signal level when reproduced on high quality equipment and measured with a VU meter be held to a tolerance of ± 0.5 VU through any 100-ft length of film. Exception may be made for occasional rapid level fluctuations such as may be caused by "drop-outs."

NOTE: A test film in accordance with this standard is available from the Society of Motion Picture and Television Engineers.

NOT APPROVED