

# AES CONVENTION PROGRAM

**C**OMMENCING AT 10:45 A.M. on October 26th, the Second Annual Convention of the Audio Engineering Society will open at Hotel New Yorker, 34th Street at Eighth Avenue, in New York City, and will feature a series of five technical sessions. All of these sessions will be held in the Grand Ballroom, assuring considerably more space than was available for the meetings in 1949.

Twenty-one full-length papers will be presented at the technical sessions, which will meet on Thursday morning and afternoon, Friday morning and afternoon, and Saturday morning. The opening session is to be devoted to High-Fidelity Sound for the Home, and offers three papers; the Thursday afternoon session and the two on Friday are devoted to miscellaneous audio problems, with the Saturday morning meeting being given over to magnetic recording.

The Second Annual Banquet will be held in the Grand Ballroom on Thursday evening, and will feature the presentation of the Society's Annual Award, the John H. Potts Memorial Award, and a number of Society Fellowships. These presentations will be followed by entertainment.

The complete program for the convention follows:

## THURSDAY, October 26, 1950

**9: 30 a.m. to 6: 00 p.m.**

Registration .....6th Floor  
 Audio Fair Exhibits open  
 5th & 6th Floors  
 Advance Sale of Banquet Tickets  
 Room 627

**10: 15 a.m. to 10: 45 a.m.**

**Business Meeting**

*Grand Ballroom*

Installation of Officers—Committee reports

**10: 45 a.m. .... Technical Session**

*Grand Ballroom*

**HIGH-FIDELITY SOUND FOR THE HOME**

C. G. McPROUD, *Chairman*

**1. TOWARD A MORE REALISTIC AUDIO**

ROSS H. SNYDER, *Consultant, Consumers' Research, Inc.*

**2. WIDE-RANGE REPRODUCTION**

M. S. CORRINGTON, *Radio Corporation of America*

**3. GENERAL PROBLEMS**

NORMAN C. PICKERING, *Pickering & Co.*

**12: 00 noon to 2: 00 p.m. . . Lunch Recess**

**2: 00 p.m. .... Technical Session**

*Grand Ballroom*

C. J. LEBEL, *Chairman*

**STANDARD METHODS OF CALIBRATING DISC RECORDING AND REPRODUCING HEADS**

H. E. ROYS, *Radio Corporation of America*

Where response and other characteristics of recording heads and pickups are being specified, it is desirable to have a common method of test so that the results obtained with different types and different manufacture can be compared directly. It is the purpose of this paper to discuss methods of measurement that might be appropriate for such standardization purposes.

Obtaining the frequency-response characteristic of a recording head under no-load conditions (with the stylus vibrating in air) appears to be a logical means of determining the basic response characteristic. Likewise, the response characteristic of a pickup obtained by the variable-speed method also provides a basic measurement.

Additional information is necessary, however, in order to determine the actual operating characteristics since these are so dependent upon the recording medium and the physical characteristics of the stylus, as well as other factors.

**2: 35 p.m.**

**SOME APPLICATIONS OF SQUARE-WAVE TESTING TECHNIQUES TO THE EVALUATION OF DISC RECORDING SYSTEMS**

SAMUEL R. BRADSHAW and WEIANT WATHEN-DUNN, *Naval Research Laboratory*

Some of the ways in which square waves may be used to determine performance during disc recording and reproducing operations will be discussed, and the inherent limitations of the method will be noted. A practical use of square waves for evaluating overall equalization of recording and reproducing channels on a "yes-no" basis will be described.

**3: 00 p.m.**

**R.T.M.A. STANDARDS OF SOUND EQUIPMENT**

O. L. ANGEVINE, JR., *Stromberg-Carlson Co.*

R.T.M.A. Standards SE-101A through SE-106 for Commercial Sound Equipment were approved during 1949 after six years of committee work in a field in which no previous standards existed. These standards are reviewed to show their content and to discuss some concepts peculiar to sound equipment. Among these are the 70-volt standard for speaker lines and the matching of speakers to amplifiers by the use of voltage and power ratings, the measurement of speakers using a source having a 3-db voltage regulation, and the use of "transducer gain" as the gain of an amplifier.

A new "Loudness Efficiency" and a "pressure Efficiency" are used for rating speakers, and a new method for rating sensitivity of microphones is introduced. The body of standards is so integrated that the sensitivity of the microphones, the gain of the amplifier, and the efficiency of the speaker can be added to get a system rating.

The new standards will be followed in the next catalogues of most sound equipment manufacturers and should eliminate the present confusion as to the meanings of ratings.

**3: 45 p.m.**

**EDUCATIONAL AUDIO REQUIREMENTS**

PROFESSOR WILLIAM J. TEMPLE, *Brooklyn College*

Educational needs are not always met adequately by audio equipment designed primarily for other applications and only incidentally for the uses of

the teaching profession. Features which are desirable in equipment for communications or entertainment may be disadvantages in certain classroom uses. Special areas in the fields of speech and language instruction call for recording and reproduction of very high quality. Teachers are learning to analyze their needs and appraise these new tools of their trade functionally in terms of essential features, desirable refinements, and meretricious gadgetry.

**4: 20 p.m.**

**TEST AND DEMONSTRATION RECORDS**

An AES Committee Report; R. D. Darrell, *Chairman.*

**7: 00 p.m. SECOND ANNUAL BANQUET**

*Grand Ballroom*

COL. R. H. RANGER, *Toastmaster*  
 Presentations: Society Annual Award, the John H. Potts Memorial Award, and Society Fellowships

**FRIDAY, October 27, 1950**

**9: 30 a.m. to 9: 00 p.m.**

Registration .....6th Floor  
 Audio Fair Exhibits ..5th & 6th Floors

**9: 30 a.m. .... Technical Session**

*Grand Ballroom*

JOHN D. COLVIN, *Chairman*

**LOW-NOISE MINIATURE PENTODE FOR AUDIO AMPLIFIER SERVICE**

R. A. WISSOLIK and D. P. HEACOCK, *Radio Corporation of America*

The RCA-5879, which was designed for audio applications requiring a miniature tube having reduced noise, is described. The design features which account for the improved microphonics level, the low hum, and the reduced leakage noise in this single-ended, 9-pin miniature pentode are discussed. Data are presented to compare the performance of the 5879 tube with other tubes used in similar applications.

**10: 05 a.m.**

**A CONSIDERATION OF THE INTENSITY-LOUDNESS FUNCTION AND ITS BEARING UPON THE JUDGMENT OF "TONAL RANGE" AND "VOLUME LEVEL"**

STEPHEN E. STUNTZ, *U. S. Naval Medical Research Laboratory*

Acoustical intensity not only affects the loudness of sounds, but also profoundly influences the listener's perception of certain ranges of frequencies. The data of Fletcher and Munson demonstrate that the effective frequency response of the ear varies with signal intensity-level. On the basis of this variation, it is possible to account for certain anomalies appearing in the Eisenberg and Chinn study of listeners' preference for frequency ranges and intensity levels in the reproduction of speech and music. It is also possible to explain the disparity between their results and those of Olson's investigation of preference for frequency ranges. For example, it can be shown that when frequency is plotted against loudness, raising the intensity level from 50 to 70 db will add more than one whole octave downward to the effective frequency response of the ear at 50 millisonnes loudness.

**10: 40 a.m.**

**CBS TELEVISION STUDIO INTER-**

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