

The 15th Meeting of IEC TC 60 – Recording, Subcommittees SC 60A – Audio Recording, and SC 60B – Video Recording

By Frederick M. Remley

Every 18 months or so, the International Electrotechnical Commission (IEC) Technical Committee 60 meets for about six days to work on new international standards for recording systems. Working as it does within a framework of international standardization procedures, TC 60 is responsible for the analog and digital formats and media used for audio and video recording; other organizations such as the International Radio Consultative Committee (CCIR) and the European Broadcasting Union (EBU) standardize items such as program leaders and the preferred formats for the international exchange of broadcast programs. Many of the TC 60 standards address recording on magnetic media, but standards for long-playing records, compact audio discs, and laser video discs are also within the purview of TC 60.

The 1989 meeting of TC 60 and its subcommittees took place in Paris, France, during the period February 27 to March 4. The meeting site was a modern building that houses the headquarters of the Comité Electrotechnique Français (CEF), The French national group for IEC work. The CEF offices are located in the rapidly expanding La Defense district of Paris. La Defense is an elaborately planned, nearly suburban area filled with many new tall buildings and is the site of the nearly completed Grand Arche, a monumental structure that will help commemorate the 200th anniversary of the French Revolution. The meeting location offered good hotel accommodations and delegates were able to reach the center of Paris quickly by rapid transit rail lines

that serve the area. Fifty-five delegations from 16 countries attended the Paris meeting.

At the opening of the meetings, the chairman of TC 60, Werner Habermann (Germany) pointed out that it was especially fine to be in Paris in 1989 because the first TC 60 meeting had been held in Paris in 1968. Thus the 1989 meeting was the anniversary of more than 20 years of international video recorder standards work.

It should be noted here that Joseph R. Roizen, a Fellow of the SMPTE, served as chairman of SC 60B at its first meeting in 1968 and was chairman for more than a decade thereafter. Joe Roizen came to Paris in 1989 to attend and participate in the 15th meeting of SC 60B. I am sad to report that he was suddenly and fatally stricken on March 1, 1989. On March 3, delegates to TC 60 and its subcommittees participated in a moving memorial service organized by Radio Television Français to honor the memory of Joe Roizen and to recognize his contributions to television technology and to the standardization of video recording.

In the U.S., SMPTE provides technical advice to the U.S. National Committee (USNC) for IEC about the video recording matters assigned to IEC SC 60B. The American National Standards Institute (ANSI) is secretariat for the USNC. The Audio Engineering Society (AES) performs a similar role for sound recording matters that are assigned to SC 60A. Reports of the progress made by SC 60A should be available from the AES and will not be presented here.

TC 60 – Recording

At the opening plenary meeting of TC 60 it was announced that since Mr. Habermann had completed his term of ten years as chairman of TC

60 he would soon retire from his chairmanship and that Heinrich Zahn (Germany) would assume the role of chairman. Mr. Zahn is well known for his engineering work in the field of video magnetic recorders and CCD telecine systems. Mr. Habermann will continue his work as leader of the Video Dept. at the Institut für Rundfunktechnik (IRT) in Munich. The delegates to the Paris meetings wished Mr. Habermann well and thanked him for his dedicated and inspiring leadership of TC 60 for so many years. At the same time it was announced that Mr. W. Andriessen (Germany) would continue his chairmanship of SC 60A, with Mr. J. Celen (Belgium) as secretary, and that Mr. F. Remley (U.S.) would continue as chairman of SC 60B, with Mr. R. Muller (Germany) as secretary. Mr. K. Hermann (Netherlands) is secretary of TC 60, assisted by Mr. A. van Kuijk (Netherlands). Mr. J. Sheldon (IEC Central Office, Geneva) will continue to work with TC 60, as he has for several years.

TC 60, as the coordinating organization for the work of SC 60A and SC 60B, is involved with liaison contacts with CCIR, EBU, International Organization for Standardization (ISO), and other international organizations. During the Paris meeting particular attention was paid to the urgent need to keep close contacts with organizations dealing with technologies similar to those of audio and video recording, such as the recording of computer data, in order to be as certain as possible that duplication of effort does not occur among the several standards groups involved.

To this end, a coordinating meeting was held in Paris to discuss parallel interests between TC 60 and a new ISO/IEC committee known as Joint Technical Committee 1 (JTC-1).

Frederick M. Remley is chairman, IEC SC 60B. He is with the University of Michigan, Center for Info. Technology Int., Ann Arbor, MI 48105.

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JTC-1 is intended to coordinate computer-related standards work within ISO and IEC committees. It appears, however, that JTC-1 has spent some time establishing its own standards committees and has not yet fulfilled its coordinating role. For example, JTC-1 has established a Working Group 8 of its Subcommittee 2. WG 8 is called Coded Representation of Picture and Audio Information, and there is concern in some quarters that this group may duplicate efforts now under way in IEC, such as the work of TC 60. At the special meeting called in Paris to discuss this matter it was stated by the secretariat of SC-2 that only digitally created audio and video signals would be considered by WG 8. It was agreed that an exchange of all relevant documents would occur between JTC-1, SC 2 secretariat, and the TC 60 secretariat.

Coordination and liaison between TC 60 and CCIR Study Groups 10 and 11 is well established and is functioning smoothly at the CCIR Headquarters/IEC Central Office level in Geneva. The separation of responsibilities that assigns recording-format questions to IEC and program-distribution questions to CCIR is being implemented through this liaison process.

SC 60B - Television Tape Recording

The work of SC 60B is performed in four Working Groups. One of these (WG 3) is concerned with Measuring Methods for Video Tape Recorders and Tape Properties. It has as secretary Mr. R. Heinz (Germany). During the Paris meetings WG 3 completed most of the work on a proposed publication listing the characteristics and sources for video recorder reference tapes, which are unrecorded (blank) tapes provided to demonstrate the magnetic tape properties necessary for proper operation of the

various IEC formats. The WG also prepared a revised version of a document called *Calibration Tapes for Broadcast VTRs* that lists sources for broadcast-quality calibration tapes in a variety of formats. The WG is responsible for several measurement documents. It completed work on a revision of existing IEC Publication 735, *Measuring Methods for Video Tape Properties*, and began work on documents covering electrical measuring methods for television tape recorders (to be based on work under way in Europe and Japan) and on measuring methods for analog component VTRs, based on an EBU contribution. The new documents will be incorporated into a future revision of IEC Publication 698, *Measuring Methods for Television Tape Machines*.

WG 5 - Nonbroadcast Recorders

SC 60B Working Group 5 is assigned to standardize nonbroadcast videotape recorders and has been charged to also include still-picture floppy disk video recording in its work. Mr. H. Call (Austria) is secretary. During the Paris meetings WG 5 completed work on a draft document covering the floppy disk video system. The WG also finished work on a description of measurement methods to be used on SECAM nonbroadcast VTRs and a new specification for the audio characteristics for FM (“hi-fi”) recording on domestic tape formats, such as VHS and Beta. A description of the compact VHS cassette was prepared and will be added to IEC Publication 774, which discusses the VHS format. A modification of IEC Publication 843, *8mm Video Recording*, will incorporate specifications for the PCM multitrack audio recording system. A specification for measuring methods for camcorders and another for measuring methods for color-under domestic recorders were also dis-

cussed and will be subject to further working group consideration in 1989.

WG 7 - Broadcast Videotape Recorders

Mr. K. Sadashige (U.S.) served as the secretary of WG 7 during the Paris meetings. The WG processed documents necessary to bring the IEC time code specification for the D-1 digital recorder format into conformity with current SMPTE/EBU documents; current practice is for a single time code in the D-1 format. Informal discussions were held within the WG concerning HDTV recording formats. However, no contributions containing specification for HDTV formats have been received by IEC and it is considered to be too early to start standardization efforts. It was decided that IEC Publication 712, *U-matic SP Format*, will be updated. It was decided to issue a second edition of IEC Publication 961, *Type L Format (Betacam)*, in order to include a variety of changes that have been incorporated in the format in the past years. The MII format was assigned to WG 7 as an item of new work, as was the D-2 composite digital format. Work on these formats will begin during the next meeting cycle. A proposed revision of IEC Publication 503, *Spools for Magnetic Tape*, will be issued, based on work done in the U.K. to harmonize spool dimensions.

WG 8 - Nonbroadcast Video Disc Recording

It was decided to issue new second editions of Publications 856 (CAV) and 856 (CLV), the IEC LaserVision video disc standards. They will incorporate several changes made to the specifications by previous amendments. A new publication, *Parameters Characterizing Video Disc Systems*, will be published after balloting by the national committees.

Conclusion

TC 60 and its subcommittees completed a large amount of work in the time available. The meetings proceeded smoothly thanks to the dedicated efforts of the administrators, engineers, and office staff of the Comité Electrotechnique Français. The next TC 60 meeting is tentatively scheduled for the late spring of 1990. The location is not yet selected.