

Sound & Vision '88

Third International Conference of the SMPTE Australian Section, June 21–24, 1988, Sydney

The third Sound & Vision Conference of the SMPTE Australian Section was held June 21–24, 1988, in Sydney, Australia. The conference and exhibit was organized by the Australian Section and World Trade Promotion Pty Ltd. The theme of the conference, "The Challenge of Changing Technology," recognizes current changes in the Australian and New Zealand broadcast industries and their implications for the future. Many of the papers delivered were presented by overseas delegates, giving the show an international scope, and the latest products, including the D-2 digital composite videotape format, were shown by a number of exhibitors.

Opening Session

The opening session began with an HDVS 1125/60 down-converted to PAL 625/50 videotape and produced by AAV as an introduction to the challenge of changing technology. Dominic Case, Chairman of the SMPTE Australian Section, introduced the first speaker, Kim Williams, outgoing chief executive, Australian Film Commission. Williams addressed the conference on the 10BA tax concessions for film pro-

jects, stating that the tax-driven nature of those funds has had a profound impact on the character of the industry, often to its detriment. Williams went on to talk about the Federal Government's announcement in May to establish an independent Film Finance Corp., as well as to continue support for AFC's special productions fund.

Case then introduced SMPTE President M. Carlos Kennedy, Ampex Corp. Kennedy stated that the Australian Section of SMPTE was the only separate section outside of North America, and that it is celebrating its 17th anniversary. He also commented that SMPTE was hopeful of reaching a single worldwide production standard for High-Definition Video. SMPTE currently has 161 standards and 154 recommended practices, with a standard for HDVS hopefully in the future. The text of Kennedy's speech follows this article.

Si Becker, SMPTE Director of Engineering, was next, and he described the current proposals being examined by SMPTE for a frame rate change from 24 to 30 frames/sec. This move would allow other changes to be made in several areas. The first and most significant effect of a faster frame



Dominic Case, Conference Chairman/Australian Section Chairman, speaking at the opening session.

rate would be reduced screen flicker. Since perception of flicker depends on screen luminance, it would be possible to increase from a standard of 16 fL to 24 fL at the faster frame rate and still have slightly less apparent flicker. In turn, the greater number of frames/sec would reduce motion artifacts (strobing when panning past railings, for example).

Becker showed a series of comparison tests, demonstrating flicker at different brightnesses and frame rates



Richard Sindel, Manager; Tom Nurse, Secretary/Treasurer; Dominic Case, Chairman; Murray Forrest, International Governor; Kim Williams, keynote speaker; M. Carlos Kennedy, SMPTE President; Si Becker, SMPTE Director of Engineering; and Stephen Kerman, SMPTE Financial Vice-President, at opening session.



(L-R) John Baptista, SI Becker, Dominic Case, and Moe Shore at the Film Formats Seminar.

and comparing prints of test material shot at the different rates and printed to suit the different screen luminances. A poll of the audience showed that the vast majority felt that the 30 frames/sec, 24 fL projection was the better one. Interestingly, those accustomed to 50-field PAL television (the system used in Australia) were less conscious of flicker than overseas visitors accustomed to American 60-field NTSC. Of course, 30 frames/sec would be a far more convenient rate for telecine transfer to NTSC television, but would work against PAL transfers at 25 frames/sec.

Becker explained that the equipment modifications required for a change would not be great. Cinema projectors would pose a problem, but most of these could be converted with a simple pulley change. Others would need a frequency converter unit. He commented that the final decision would be made by producers, who would determine whether the improvements would be reflected in increased ticket sales.

While there would be an increase in footage used due to this change, one factor that would offset this would be a change to a 3-perf pull-down. This proposal, described by Moe Shore, Panavision, and already in use for a number of Lorimar TV productions, has the primary benefit of reducing stock usage by 25%. Most cinema formats (with the exception of anamorphic processes) waste a considerable amount of film in the frame line because of the shape or aspect ratio of the frame, and the 3-perf proposal recognizes this. In the case of Lorimar Productions, filming is done at 24 frames/sec for additional cost savings. Using a projector with a specially adapted movement, some 3-perf film was shown.

Sound & Vision '88 — Board of Managers

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Panel discussion on High Definition Television, chaired by Joe Roizen (at right).



Managers Richard Sindel, Peter Bowlay, and Murray Forrest at Speakers' Luncheon.

Shore also took the opportunity to explain Panavision's film time-code system, whereby time codes readable by both people and machines are exposed onto the edge of negative in the camera at the time of shooting. This leads into an effective editing and conforming system for a television finish.

Following the three presentations, refreshments provided by courtesy of the Australian Film Commission were served in the theater's foyer area.

Film Formats Seminar

SMPTE's Australian Section organized a seminar during their recent

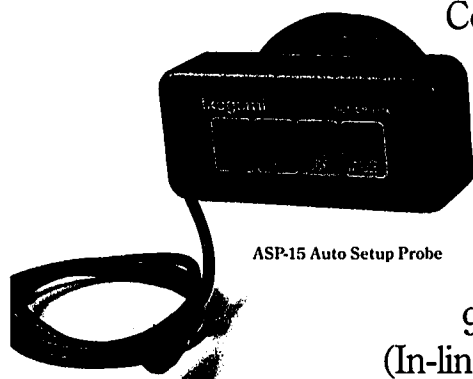
Sound & Vision '88 conference to examine the current status of the fundamental standards of motion-picture film, frame rate, pull-down rate, and aperture size, that hold the key to all other standards. The seminar was held at Greater Union's new Mosman Theatre, specially equipped for the evening with some modified projectors, and was attended by 170 people from all walks of the film industry in Sydney, as well as many interstate and international visitors.

After an introduction by John L. Baptista, SMPTE Engineering Director for Motion Pictures, Consolidated Film Industries; Australian Section Chairman Dominic Case, of

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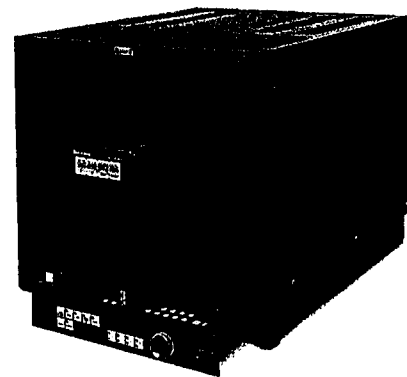
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The 10-Series Broadcast Color Monitors feature a high resolution (800 TV Lines) Delta Gun CRT, specifically developed for image quality, with nine-sector convergence controls and Feedback System (BFS) that detects and greatly reduces brightness changes due to current deviation in CRT emission. Available in 14" and 20" models, the 10-Series is remarkable for its picture quality. And this quality is equally evident in our 3H-Series Monochrome Monitors.

The 3H-Series of Professional Monochrome Monitors provides the high per-

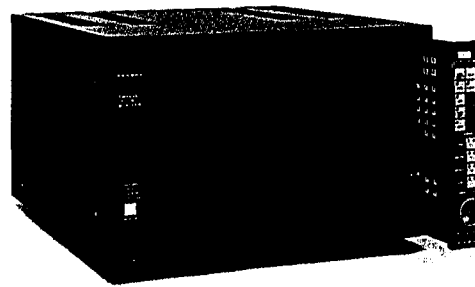
formance necessary for technical evaluations. 9-inch configurations are available as: bare chassis, cabinet with handle; and for 19-inch rack mounting in an 8 $\frac{3}{4}$ -inch height for

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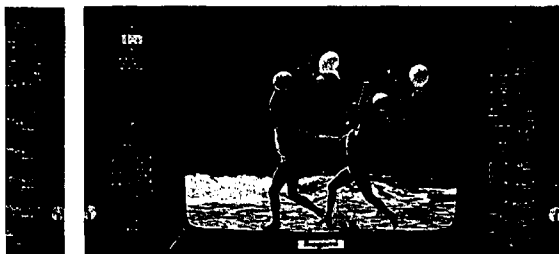
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(L-R) Dominic Case; Kim Williams; Murray Forrest; and Don Kennedy, Life Fellow and founding chairman of Australian Section.

Colorfilm Pty, started the evening's topics by describing the Super 35 format. This is a reappearance of the earlier Superscope technique, in which 35mm negative is exposed across the full "perf-to-perf" width of the film and to the full 4-perf height of the frame, using conventional spherical lenses. It is then possible in the laboratory duplication stages to extract various areas of the image to suit widescreen (1:1.85) ratio, anamorphic (1:2.35), or to blow straight up to 70mm. A television or video release is also possible without the usual cropping problems associated with panning and scanning, as the original image is closer to the required ratio of 1:1.33.

Case said that five features had so far been produced in Australia using this format, but that the choice of Super 35 had been made for a variety of sometimes conflicting reasons. *Time Guardians*, for example, has been shot in Super 35 so that the massive amount of special and optical effects work could be carried out without having to use anamorphic lenses; whereas *Everlasting Secret Family* was filmed in Super 35, but the director avoided using any optical effects whatsoever because of concern about the extra graininess likely to be introduced.

The use of the full width of the negative is to maximize image area, so that definition is as good as possible and grain is minimized. Construction details in some cameras restrict this to some extent, and there is currently an impasse in arriving at an industry standard aperture for this format. In any event, an anamorphic release uses only about half of the available negative height, pointing to the compro-

mises that have had to be accepted in maintaining evolutionary processes. A later paper was to explore the solution to this apparent inefficiency.

Technical Program

The four-day technical program was made up of more than 50 informative papers covering all facets of video production and post-production, and film and satellite technology. There were 11 sessions with new areas such as video artwork systems. Two panel discussions took place on Wednesday and Thursday afternoons. These discussions proved to be a very important part of the conference, as they discussed the areas of aggregation in Australia and how broadcasters will cope with the future. This session was chaired by P. Gough, WIN-4, one of the stations in the first area to aggregate. The other panel discus-

sion chaired by Joe Roizen, Telegen, and titled "Changing Technology — Evolution or Revolution," presented the arguments about the use of future technologies such as Extended PAL, HDVS, and MAC distribution systems.

Papers presented by overseas visitors covered topics such as advancements in CCD technology, composite digital VTRs, the latest developments in videotape composition, and techniques in audio post-production.

Equipment Exhibit

An exhibit of equipment and services coincided with the conference. Sony and Ampex showed their D-2 composite digital VTRs, which proved to be a highlight of the exhibit. Other well-known companies and some smaller local firms were represented in the Royal Hall of Industries' Mazda and Ford Pavilions. The exhibit allowed conference participants to closely examine some recently introduced graphic animation systems, monitors, editing systems, audio recorders, and other devices for upgrading a studio or post-production facility.

Social Events

An SMPTE dinner was held June 23 at the Sebel Town House in Sydney. It was attended by more than 140 members and their wives. The guest speaker was Max Walker, a retired Australian test cricketer. Spouses attending the conference enjoyed an interesting program of events chaired by Georgia Forrest.



Visitors at the exhibit.