

# Technicolor Topics

AN OCCASIONAL DIGEST OF NEWS  
OF INTEREST TO THE PEOPLE  
WHO MAKE AND SELL FILMS

Great interest has been centred upon the development  
of Monaural Magnetic Sound for release prints.

Technicolor Limited has been closely concerned with  
this project, within its overall programme of  
research and development into higher standards of  
motion picture presentation. As a service to the  
industry, we are disseminating the following notes by  
Mr. A. W. Lumkin on the progress that is being made  
in sound reproduction.

## MONAURAL MAGNETIC SOUND FOR RELEASE PRINTS

By A. W. LUMKIN

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For a number of years, it has been apparent that the Cinema has  
not kept pace, regarding sound quality, with other fields of sound  
reproduction. The public are more than ever being conditioned to wide

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range sound reproduction in their own homes from L. P. and Stereophonic record players and in particular, the teenagers - who represent a very large proportion of the cinema-going public - are very sound conscious.

Magnetic sound has so far been available in the Cinema only in Stereophonic form. Due to the high cost of such installations, only a small proportion of the total number of cinemas in this country are installed. It has been proved that although Stereophonic sound gives the most realism, the greatest part of the improvement in sound quality of such films is due to the use of striped magnetic prints in the Cinema, and comparisons of Monaural sound between optical and magnetic tracks of the same subject matter has proved that a change to Monaural magnetic sound reproduction in cinemas is very much worth-while.

Although magnetic film has been in use in film studios for a considerable number of years, so far it has been merely used as a vehicle for what is virtually an optical sound track, as all review theatres in studios play such magnetic tracks as if they were optical tracks. The main advantage being to minimise background noise and distortion.

In May 1959, the ad hoc committee of the B.F.P.A. agreed that it should recommend the use of single track magnetic release prints. However, in October, 1960, A.B.P.C. Limited decided to investigate ways and means of putting this into effect. Considerable practical work was done to determine the best form of striping to be used for release prints.



It was discovered that edge tracks were very susceptible to damage and due to other technical draw-backs were proved to be unsatisfactory. Eventually, it was decided the only satisfactory method was to use a wide magnetic stripe in the same position as existing optical track.

In May 1962, A.B.P.C. agreed to a limited release in the Monaural magnetic format for their production "Summer Holiday". Consequently, all recordings for this film were made with this in view. As the film progressed it was realised that the magnetic release of this production would be solely confined to its West End run and as a result, a magnetic striping format was devised so that magnetic copies of this film could play successfully over existing 4-track Fox equipment, it being considered that any exhibitor who had gone to the expense of installing Stereophonic magnetic equipment should also be able to play a Monaural magnetic print over his equipment without any additional expense to himself.

In July 1962, representatives of A.B.P.C., R.C.A., Westrex Limited and Technicolor met at the Technicolor Plant to discuss the ideal track format for striping and magnetic cluster manufacture. The striping format finally devised is exactly identical to that of 4-track CinemaScope except that track number 2 has a width of 126 mil (exactly twice as wide as the standard track 2). This necessitated the use of a release print with small perforations. In order to cater for this increase in distribution, seven magnetic prints were eventually ordered for "Summer Holiday".



In the event that the magnetic prints should subsequently be required as additional optical sound copies, each print carries an optical sound track which can be used after washing off the magnetic stripes and re-perforating the film with standard perforations.

Although the object of this work is to foster single track magnetic sound replay from track 2 over a single speaker system in all cinemas, sound is also recorded on tracks 1 and 3, so that in the case of Fox installed cinemas, sound may be played over all three stage speakers. For specialised presentation, in some cases sound is also recorded on track 4 for playing over ambient loud speakers.

At the moment of writing, yet another production is being made for Monaural magnetic sound release.

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