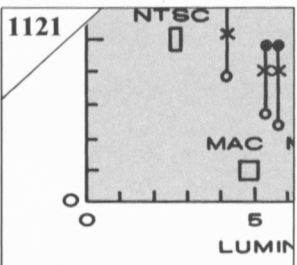


**High-Resolution TV for the Production of Motion Pictures**

*L. L. Pourciau*

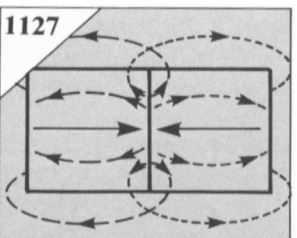
The use of high-resolution TV for the production of motion pictures has been proposed. The performance level requirements of the film system and of a TV system that would be used to produce a tape recording, equivalent from a system point of view to the dupe negative in the motion-picture system, are examined. The performance of the film and TV systems is compared with respect to resolution, signal-to-noise ratio (SNR), gray scale reproduction, contrast range, and sensitivity.



**Perceptual Considerations for High-Definition Television Systems**

*C. R. Carlson and J. R. Bergen*

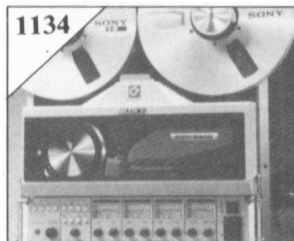
The perceptual impact of various high-definition television systems is evaluated using just-noticeable-difference analysis. The major conclusion of this analysis is that foreseeable cameras and displays will not permit effective use of luminance bandwidths beyond roughly 10 MHz in a 4:3 aspect ratio format.



**Perpendicular Magnetic Recording Technology: A Review**

*M. P. Sharrock and D. P. Stubbs*

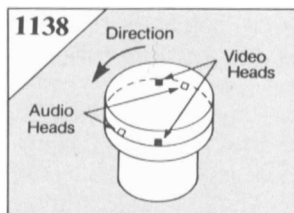
Perpendicular magnetic recording, in which the direction of magnetization is predominantly perpendicular to the plane of the tape or disk, is a relatively new technology that promises information densities significantly higher than those currently used. New recording media and heads are currently being developed and impressive results obtained.



**Delta T: A New Dimension in Type-C Recording**

*Y. Fujiwara, H. Sakamoto, and S. Sarafian*

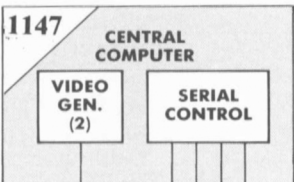
A new Type-C VTR, the BVH-2500, was introduced by Sony at the NAB and Montreux exhibits in 1983. This machine was designed to expand the capability and flexibility of videotape recording by utilizing a new technique called Delta-T recording. The concept and theory of Delta-T recording are described in this article.



**Developmental Trends for Future Consumer VCRs**

*K. Sadashige*

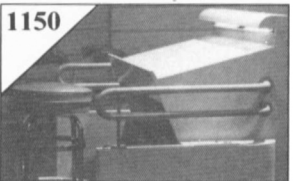
Consumer VCRs are currently being manufactured at a rate equal to 40% of that of color TV receivers. CATV, DBS, and other broadcasting and interactive services for video display will require additional refinements in the areas of cost, audio and video performance, operational versatility, and user friendliness. Certain details of products being developed, including a high dynamic range audio system, 270° lap head-scanning techniques, an 8mm VCR with color-under recording, and an 8mm VCR with TCM recording are discussed.



**Novel Human Interfaces for Videotape Editing**

*G. Simon and J. Roizen*

This article is intended to provide some technical details on possible new editing system user interfaces and an outline of their development. The technical innovations in these interfaces are intended to retain all the best current features of computer-assisted editing, while adding a new dimension of "user friendliness." A description of the general hardware and features of the editing system is included.



**GSSI — Ma Bell's Little-Known Grandchild**

*J. G. Matthews*

This article chronicles the short history of General Service Studios, Inc. (GSSI) founded by Western Electric Co., a subsidiary of the Bell System. From its troubled beginnings, GSSI went on to become a dream studio for independent producers of the 1930's. The role of the independent producer and studio in the early days of talking motion pictures is recalled, together with their contributions to the innovative equipment designed to fit the needs of the fledgling industry.