



By Michael Dolan

In this column we provide interesting historical briefs from the *Journal* articles of days past. The purpose of this column is primarily entertainment, but we hope it will also stimulate your thinking and reflection on the Society's history, how far we have come in the industry, and (sometimes) how some things never change. This is not meant to be an authoritative reference, and no attempt is made to correct any past errors or omissions of the *Journal*. We simply hope you enjoy the material. This column is sponsored by Television Broadcast Technology, Inc.

25 YEARS AGO IN THE JOURNAL

The December 1983 *Journal* published in "An Inexpensive Method for Preservation and Long-Term Storage of Color Film" by Roland Gooes and Hans-Evert Bloman: "The Swedish Film Institute has begun an operation to save and store all Swedish color motion picture film, starting with those made in the 1950's...One of the problems is the difficulty and expense of maintaining controlled humidity in low temperatures...This air keeps a constant temperature of 68°F, and a relative humidity of 25%...the air is filtered continuously; first, through a pre-filter that removes dust, and then, through a highly effective particle-absorbing filter that removes micro-particles. The chemical Purafil filter thereafter reduces air contaminants; e.g., sulfuric compounds that may affect image stability... The cooling unit reduces the rise in temperature in the dehumidifier and gives a constant air temperature as set +/- 1°F The rotating dehumidifier will keep the relative humidity as set within +/- 1%... Two film plates are included in the cabinet where the film is wound with a pre-determined tightness before conditioning time."

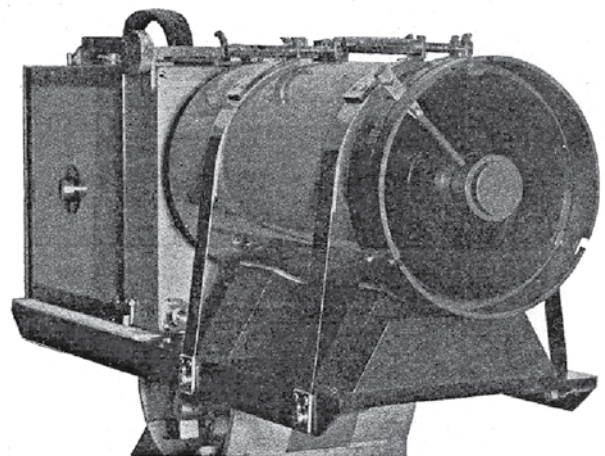
50 YEARS AGO IN THE JOURNAL

The November 1958 *Journal* published in "Electronic Marking and Control for Rapid Location of Vertical Blanking Area for Editing Video-Tape Recordings" by Joseph Roizen: "Three basic problems were dealt with in early research and experiments: (1) the visual "development" of the magnetic image on the tape; (2) the accurate positioning of the splice in relation to the small mechanical tolerances within which the transition must be placed; (3) the method of joining tape ends to achieve maximum mechanical strength and minimum effect on the head drum assembly...The logical location for a splice is during vertical blanking time and after vertical synchronization has occurred. Under these conditions the home viewer will not see the splice going by because both video and sync continuity will be maintained...Experimental data also showed that to maintain stability during a splice, it was of the utmost importance that the 240-cycle control track phase shift at the splice be kept under 15°...The problem of how to join the tapes required careful consideration. There are four methods by which Mylar tapes can be spliced: (1) welding by controlled heat and pressure; (2) welding

by dielectric heating; (3) overlapping an adhesive joint; (4) butt-jointing with pressure-sensitive backing tape."

75 YEARS AGO IN THE JOURNAL

The December 1933 *Journal* published in "New Motion Picture Apparatus" by H.P. Niemann: "*Mirror Telephoto System*: The problem of gaining "distance" in motion picture photography, in contradistinction to that of achieving close-ups, has led to the development of telephoto objectives. When it is required that the focus be increased to a large extent, and if the aperture be kept within the usual range, the length of the required attachment and the diameter of the front lens become rather impracticable. The Askania Werke, Berlin, has recently developed a mirror telephoto system similar in principle to the mirror system used in astronomical instruments for lengthening the focus. It consists of a large ring mirror perforated at the center, and a small round mirror mounted opposite the larger one...*Special Speed Cameras*: A high-speed camera has been developed...using continuously running film, which permits taking photographs on 16-mm film at the rate of 1000 pictures per second; or 2000 pictures per second if half-sized frames are used. A special disk with 32 lenses is mounted behind the standard objective lens, and is rotated by means of a simple belt drive at a speed of 3750 rpm. The film speed is about 65 feet per second."



Exterior view of mirror telephoto system.

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Information for Authors

The *SMPTE Motion Imaging Journal* publishes papers on technical, engineering, and scientific developments in motion pictures, television, and related fields, including desktop video, multimedia, and computers.

Review: Every paper submitted to SMPTE is reviewed by three or four members of the Board of Editors, knowledgeable in the subject presented. The identities of the reviewers are confidential, so they may feel unconstrained in their evaluations. Once the paper is reviewed, the author is informed of its acceptance or rejection. Based on the reviewers' remarks, the editor often suggests revisions to improve the paper. Every manuscript undergoes copyediting by the editorial staff to ensure accuracy, consistency, style, and readability.

Content: The *Journal's* primary objective is to follow the progress of engineering developments in the motion imaging fields. Controversial papers are welcome, providing they are substantiated by reliable data.

Technical articles must be informative and well organized. They must record original work or review previous work, giving proper credit. Results of actual experience and research should be given.

Commercialism is unacceptable.

Preparation of Manuscript: All material, including abstract, main text, references, figure captions, and tables, should be double-spaced. Number all pages consecutively.

Title Page: The author's first and last name should appear at the top of the first page.

Abstract: Below the title should be a complete, self-contained, informative abstract of about 100 words giving the objective of the paper and an outline of its contents.

Text: The body of the paper should develop the main argument, starting with introductory material and advancing toward a summary. All illustrations must be referred to in the text by figure number. Source materials should be keyed (in order of appearance) to the references by superscript numbers in the text. Footnotes should be avoided, where possible, by making parenthetical notes in the text. Mathematical symbols, abbreviations, acronyms, etc., that may not be familiar to the average reader should be spelled out the first time used, or defined in the text.

Subheads: Appropriate subheadings, inserted throughout the paper, are a useful service to the reader and an aid to rapid comprehension of the information. Usually, one order of subheadings is sufficient.

References: References to periodicals should include the author's name, full title of article, periodical title, volume, inclusive pagination, and month and year of publication. Book references should contain the name of the author, title of book, edition (if other than the first edition), name and location of publisher (the street address is not usually required), year of publication, and the relevant page number(s). Examples of references style can be found at the end of many articles appearing in recent issues of the *Journal*.

Figure Captions: Captions should be included under each figure and also at the end of the document following the references. They should be concise.

Illustrations: All figures should be numbered and included in the document and submitted in separate Tiff files, if possible. Photographs and figures should be at least 300 dpi resolution and illustrations 600 dpi (preferably in color).

Manuscript Submissions:

Authors are encouraged to submit manuscripts in Microsoft Word via e-mail or on CDROM. For further information, please contact the editor.

Manuscripts should be submitted to:

Dianne Purrier, Managing Editor
SMPTE Motion Imaging Journal
3 Barker Avenue
White Plains, NY 10601
E-mail: dpurrier@smppte.org

Abbreviations

When preparing a paper for submission to the *SMPTE Motion Imaging Journal*, abbreviations should be used. The following are some examples:

bit or bits	spell out
byte or bytes	spell out
decibel	dB
degree	°
foot	ft
frames per second	frames/sec
gigabit	Gbit
gigabyte	Gbyte
gram	g
hertz	Hz
hour	hr
inch	in.
kelvin	K
kilobit	kbit
kilobyte	kbyte
kilohertz	kHz
megabit	Mbit
megabyte	Mbyte
megahertz	MHz
meter	m
micrometer	μm
microsecond	μsec
millimeter	mm
milliseconds	msec
minute	min
nanoampere	nA
nanosecond	nsec
second	sec

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