



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 column is sponsored by Television Broadcast Technology, Inc., since March 2001: <http://ieeexplore.ieee.org/document/7257346>

25 Years Ago in the Journal

The September 1994 Journal published in, "Delivery of TV over Existing Phone Lines" by Peter F. Prunty: "The FCC has given Bell Atlantic approval for a one-year "video dial tone" trial that delivers TV over existing phone lines. The trial is being done by Bell Atlantic's Chesapeake and Potomac Telephone Co. of Virginia (C&P)... The current trial delivers MPEG1 compressed video to a subscriber's TV set-top unit that decodes the compressed video and feeds it to a conventional TV set... ISDN bit rate is 144 Kbits/s. To advance beyond that, two additional line types have been identified: the high bit-rate digital subscriber line (HDSL) and the asymmetrical digital subscriber line (ADSL). ADSL provides a 1.544 Mbits/s bit rate... The FCC, in its approval of the C&P trial, cited validation of ADSL over actual phone lines as a primary objective... AT&T Bell Labs, working with its sister company AT&T Paradyne, has invented a transmission technique that accommodates ADSL. (It is also a candidate for HDSL.) The method is called CAP modulation... The FCC has also approved an

NYNEX video dial tone trial." For the full article, see: <https://ieeexplore.ieee.org/document/7240278>

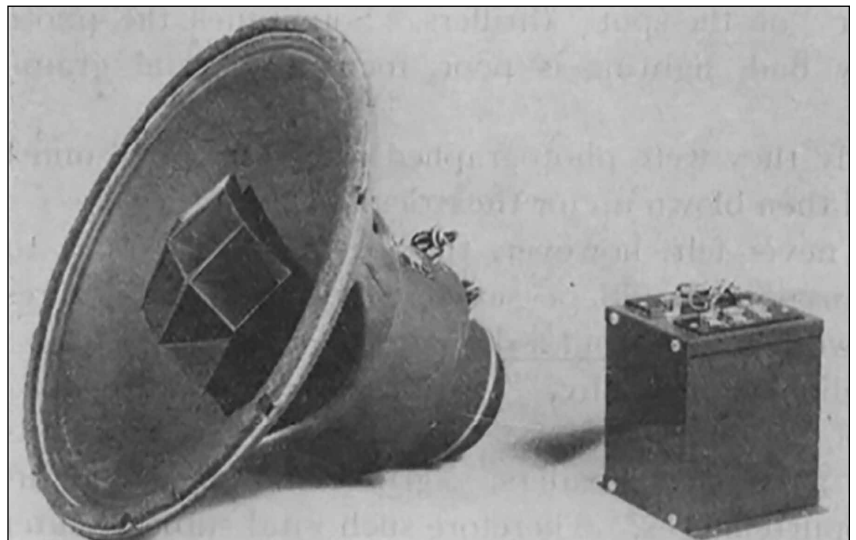
50 Years Ago in the Journal

The September 1969 Journal published in, "Apollo 11—Television and Photography:" "One of the most impressive culmination of the research and development activities of a number of firms was the vicarious walk on the moon experienced by the millions who watched the first live telecast from the moon. Among the firms who have developed and adapted cameras and other equipment [sic], or otherwise taken part in Moon-Earth communications and

photography are included: Data Memory, CBS Laboratories, Eastman Kodak, Edgerton, Germeshausen and Grier, General Electric, J. A. Maurer, Inc., Paillard, Inc. (distributors of Hasselblad cameras manufactured in Sweden), Philips Broadcast Equipment Corp., RCA Corp., and Westinghouse. Video Disk Recorders, produced by Data Memory, were used to reconstitute the slow TV signals from the moon for world broadcast use. Compared with standard TV pictures, Apollo transmissions provided only one-third of the usual number of electronic picture frames. The Video Disk Recorder was adapted to record each active frame containing a picture and repeat it three times before moving on to the next active picture." For the full article, see: <https://ieeexplore.ieee.org/document/7227283>

75 Years Ago in the Journal

The September 1944 Journal published in, "The Duplex Loudspeaker" by James B. Lansing:



The Duplex Loudspeaker and its dividing network (Fig. 5, from JSMPPE, Sept. 1944, p. 172).

Digital Object Identifier 10.5594/JMI.2019.2927900 Date of publication: 19 August 2019

“Duplex Loudspeaker is a combined two-way loudspeaker mounted in an integral unit so that the high-frequency energy is radiated from a small multicellular horn mounted on the face of the low-frequency diaphragm. Separate permanent magnets of improved magnetic material are now used for the fields of each voice coil. The crossover has been selected at 1,200 cycles so that the high-frequency horn can be placed in the center of the low-frequency diaphragm. A signal input up to 25 W can safely be applied to the speaker. The intermodulation products are very low as a result of the two-way principle. The configuration of the high-frequency horn produces an angle of radiation which is 60° in

the horizontal plane and 40° in the vertical plane. Due to the type of construction, a high degree of uniformity between units can be maintained in manufacture. The unit is capable of efficient radiation beyond 15,000 cycles.” For the full article, see: <https://ieeexplore.ieee.org/document/7252134>

100 Years Ago in the Journal

The October 1919 *Journal* published in, “Preliminary Measurement of Illumination in Motion Picture Projection” by W. E. Story, Jr.: “First efforts to compare accurately the total illumination in motion picture projection with different optical arrangements led to such improbable conclusions as to point to errors of

observation so large as to render the required comparison unsatisfactory. The problem is to compare the quantities of light falling on the objective lens through a standard motion-picture aperture, with different sizes of source and objective; with different condenser systems, and with different distances between various components.... Of course, the method of measuring the light delivered by an optical system says nothing about the distribution on the screen. This will have to be determined separately and probably cannot be determined by any method that does not depend on direct observation by the eye.” For the full article, see: <https://ieeexplore.ieee.org/document/7230001>

SMPTE

Why are you still using FTP?

It's slow, unreliable, and can be a gaping security hole.



Media Shuttle is the easiest way to send large files fast.

Learn more at www.signiant.com

SIGNIANT

2019 Signiant. All Rights Reserved.