



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

**T**he July 1998 *Journal* published in “The HDTV Broadcast Standard: Subjective Evaluation of Proponent Systems” by A. Chopra, P. Corriveau, P. Hearty, A. Kennedy, B. Leafloor, R. Renaud, and L. Stelmach: “Development of HDTV began in the late 1970s in Japan, and in the 1980s in Europe and North America. In North America, proponent HDTV systems were required to meet challenging design criteria. Roughly six times the amount of information contained in a normal NTSC transmission had to be transmitted within the same 6-MHz television channel...During the first round of testing, which lasted from September 1991 to November 1992, five proponent systems were tested...A major decision in the first round of tests was to proceed with an all-digital HDTV system. However, of the four digital systems, none was deemed substantially superior to the others. Instead, the FCC Advisory Committee on Advanced Television Service (ACATS) recommended that a second round of tests take place... ACATS also encouraged the

proponents to merge their systems... [into] a unified system, known as the digital HDTV Grand Alliance System...[which] was recommended for standardization in November 1995 by ACATS. In December 1996, the Advanced Television System Committee, Digital Television Standard (ATSC DTV Standard) received regulatory approval from the Federal Communications Commission (FCC).” For the full article, see <https://ieeexplore.ieee.org/document/7245905>

## 50 Years Ago in the Journal

The July 1973 *Journal* published in “The Zero-Discharge Law and the Motion-Picture Film Processing Industry” by Thomas N. Hendrickson: “The short-range effects on the motion-picture processing industry of Public Law 92-500 (Federal Water Pollution Control Act Amendments of 1972) are assessed. The goal of the Act is to see that all industries discharging wastes into navigable waters 1) by mid-1977 use the best practicable technology to reduce pollution, 2) by mid-1983 use the best available technology to further reduce pollution, and 3) by 1985 eliminate the discharge of pollutants altogether into such waters. The motion-picture processing industry

is seen to be in a good position to meet the 1977 standards with minimal economic dislocation; the later proposed standards are rather controversial and may be tested in the courts, so their potential impact is difficult to assess.” For the full article, see <https://ieeexplore.ieee.org/document/7233321>

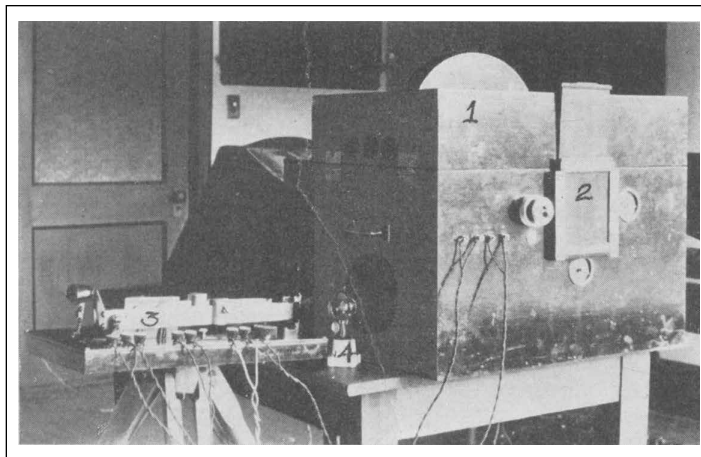
## 75 Years Ago in the Journal

The July 1948 *Journal* published in “Air Purification by Glycol Vapor” by J. W. Spiselman: “The germicidal activity glycol vapor on air-suspended bacteria and viruses has been clearly demonstrated. The most suitable compound thus far found for use in such air disinfection is triethylene glycol. When dispersed in the air as a true vapor in exceedingly small amounts it is highly germicidal for pathogens of the respiratory tract, including influenza virus. It is nontoxic, non-irritating, odorless, tasteless, invisible, and inexpensive. Satisfactory devices for the vaporization and regulation of bactericidal concentration of glycol are now made and are in use...A man eats about two pounds of food a day. He drinks, say, a quart of liquids a day. But he breathes about 80 pounds of air per day.” For the full article, see <https://ieeexplore.ieee.org/document/7227832>

## 100 Years Ago in the Journal

The October 1923 *Journal* published in “Recent Progress in the Transmission of Motion Pictures by Radio” by C. Francis Jenkins: “Since the presentation at the Atlantic City Meeting of the methods and apparatus employed in the transmission and reception of photographic images by radio, development has

progressed quite satisfactorily. The quality of the reproduction has been raised, while the time required for the transmission of photographs has been reduced to less than a minute. This higher degree in the quality of the picture has come from the adoption of a special lamp...A hundred lines per inch has been found quite sufficient for all classes of pictures; and fifty lines per inch adequate for most...The speed of message transmission by this same radio-photo process is about ten seconds per message. When a special lamp, now being developed, is available, it is believed a complete 100-word message can be sent every second...Speeding up the apparatus to 16 pictures per second has given us radio vision, as a laboratory demonstration, although the few lines per inch so far attempted give us but a crude picture, a picture which is unmistakable, however... To get movies by radio the demonstration



Complete receiving station. 1) Radio camera. 2) Photographic plate holder. 3) Tuning fork for holding the motor in synchronism with the sending station. 4) Lamp for determining synchronism (Fig. 10, from *Trans. SMPTE*, Oct. 1923, p. 84).

consists in projecting a picture, with a motion picture projector, onto a ground glass screen located in the focus of the radio photo transmitter. The necessary number of lines

per second for satisfactory radio vision and radio movies can doubtless be attained.” For the full article, see <https://ieeexplore.ieee.org/document/7451367>

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