15th Annual SMPTE TV Conference

(Continued from page 46)

Saturday Morning, 7 February

Multichannel Sound for Television

Japanese Multichannel and Stereo Television Sound Experience
K. Iizuka, *Tokyo Broadcasting System, Inc., Tokyo, Japan*

Future Direction for Television

The NHK High Resolution Wide-Screen Television System
Dr. T. Fujio, *NHK, Tokyo, Japan*
High Definition Television
M. Joseph Polonsky, *Thomson CSF, Gennevilliers, France*
Comparisons of High Resolution Television
Dr. Wendlantt, *Dortland University, Germany*
NHK Demonstration on High Resolution Television

Saturday Afternoon

The All-Digital Studio

World Standardization — Now or Never
T. Robson, *Independent Broadcasting Authority, London, England*
Systems Engineering Considerations in the All-Digital Television Production and Transmission Centre
Michael S. Tooms, *Protel Broadcast Services, Ltd., Camberley, England*
Digital Decoding of PAL and NTSC Signals Using Field Delays, Comb Filters, and Line Lock Sampling
C.K.P. Clarke, *British Broadcasting Corp., London, England*
Test Signals in the Digital Domain
J. Judge, *Tektronix, Beaverton, Ore.*
Panel Discussion on Digital Video Component Tests Performed by the SMPTE Committee on New Technology:
Chairman Robert Hopkins, *RCA Corp.;* Participants: Frank Davidoff, William Connolly, Charles Ginsburg, and Ken Davies

Industry News & Educational Activities

Vladimir Kosma Zworykin, 91-year-old television pioneer, has been honored by the Eduard Rhein Foundation of Germany for his many contributions to "fully electronic" television. Eduard Rhein, a German writer, publisher, and physicist, personally presented Dr. Zworykin, Honorary RCA Vice President, with the first Rhein Ring award. The Rhein Foundation established the award of the Ring as a "prize of honor" for persons who have made significant contributions to audiovisual techniques.

Dr. Zworykin, a member of the U.S. National Inventors Hall of Fame, in 1968 received America's highest technical honor, the National Medal of Science from President Lyndon Johnson. Dr. Zworykin's developments of the iconoscope, a revolutionary camera tube that made possible practical television picture transmission, and the kinescope, or television picture tube, are credited with having made fully electronic television possible by eliminating the need for spinning disks and other mechanical devices used in early television systems.

German recognition of Dr. Zworkykin's accomplishments "is truly befitting" according to Prof. Walter Bruck, President of the Rhein Foundation's Scientific Advisory Board and inventor of the PAL system used in Germany. He said, "It was in Germany that Dr. Zworykin's iconoscope was used for live transmission for the first time. Two television cameras employing iconoscopes broadcast the 1936 Berlin Olympic Games."

Three rare television receivers from the 1930s have been donated to the Academy of Television Arts and Sciences/UCLA Television Archives by Harry Lubcke, who directed development of Los Angeles's first electronic television station, W6XAO. Two of the receivers, both of the 12-in variety, were designed and built by the W6XAO staff in 1937 and 1938. The third receiver, a TRK-12, was manufactured by RCA in 1939 and is one of the earliest receivers to be sold publicly.

The Television Archives have also acquired a TK-10 studio camera deposited by television station KTLA, Los Angeles. Built by RCA, the TK-10 was the first production camera to be sold in quantity, beginning in 1946. The name "Emmy" for the Television Academy Award was coined by Harry Lubcke as a nickname for the image orthicon tube first used in the TK-10.

The Television Archives are jointly run by the Academy of Television Arts and Sciences and the University of California at Los Angeles. The recent acquisitions are part of a major effort by the ATAS/UCLA Television Archives to build a Technology and Design collection relating to the development of broadcast equipment and home receivers. The collection will be used for research and educational exhibits.

Assisting the Archives as technical advisors to the Technology and Design collection are television historian Edwin H. Reitan, with ITT Gilfillan, and Albert Abramson, with CBS, Hollywood. Robert Rosen, Archives Director, said the decision to establish a Television Technology and Design collection was in response to the immediate and critical need to preserve important samples of the technology which enabled the television medium to advance. Already many items representing major historical milestones no longer exist.

Artifacts in this "lost" category include the earliest television cameras of the iconoscope and orthicon pickup tube varieties, electronic television receivers developed in the early and mid-1930s, and the experimental color television receivers used in the field testing of color television.

The North American Photonics Association is a new international scientific organization formed 5 October 1980 in Madison, Wis., by a group of leading technologists in the field of high speed imaging technology representing the United States and Canada. Photonics is the scientific discipline that deals with the detection, recording, and measuring of high speed phenomena by means of images formed of photons. The new organization aims at advancing the technology of high speed imagery by means of advanced education, training, and more widespread dissemination of technical information.

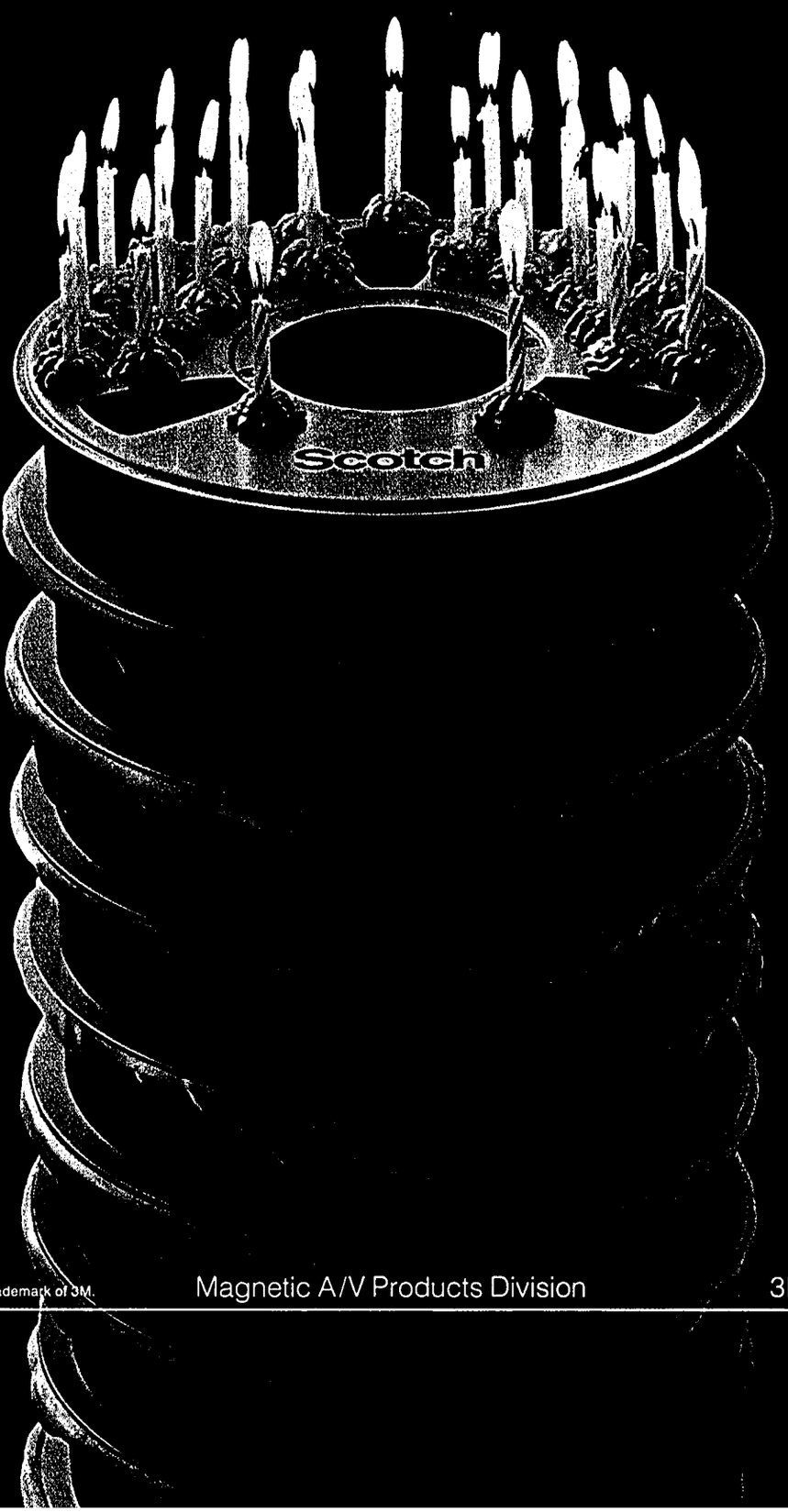
Elected officers of the new organization are: President, William G. Hyzer; Vice-President, Donald Clayton; Secretary-Treasurer, Robert Rowlands. Board members are: Robert Shoberg, Gilbert Pendley, Lincoln Endelman, and Eugene O'Connell.

Further information is available from Prof. Robert Rowlands, University of Wisconsin, 1415 Johnson Dr., Madison, WI 53706.

The Video Movie (provisional name), a single unit color video camera-cassette recorder has been developed by Sony Corp. of America and released as a prototype. In announcing the new recorder (which weighs only 2 kg — about 4.4 lb) Sony spokesmen revealed plans to "invite other technically qualified manufacturers to discuss ways of arriving at a common videocassette and video recording format."

The prototype Video Movie system consists of a one-chip CCD color video camera, an extremely small VTR, and the attachable Home Editor. The camera's one-chip image sensor, measuring 10 × 12 mm, provides certain advantages, other than light weight (the camera with its lens and viewfinder weighs

Happy 25th birthday to video tape from the people who lit the first candle.



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New from Hitachi

A Colossal One-Inch Step

One-inch is the VTR format of the future. It's too important a step forward for a scaled-up 3/4" or a scaled-down 2" system. It deserves to be totally original, with every advance designed in. That's how we approached the new Hitachi HR-200, after almost 20 years of experience making quad machines. The result: a one-inch Type C VTR destined to establish new broadcast standards everywhere. In every department, the Hitachi HR-200 is miles ahead of the one-inch competition!

Fast, sure, easy operation

Hitachi one-inch VTR's are loaded with features—many of them Hitachi exclusives. Like the brake release for easier threading. Both video and audio confidence. A "B-wrap" configuration, for reduced dropout. A *precision* moveable tape guide for easy loading, with an incredible 1-micron tolerance that's accurate for up to 2 million threadings! Plus a sloped design and easier-to-see top mounted drum for still easier threading.

Dazzling performance extras

Imagine shuttling a 1-hour tape end-to-end in just 80 seconds! It's possible, only on the Hitachi HR-200, because an internal air compressor injects a column of air into the tape guides to reduce friction and increase acceleration. The same air compressor provides air for the non-contact air drum, cushioning the tape when in the standby or fast shuttle modes. For fumble-free shuttling and jogging and fast editing, a single knob controls both. There is audio spot erase capability. And a Hall-Effect head on the third channel reads the time code more accurately, regardless of tape speed.

A microprocessor makes the built-in editor the most advanced you'll find today. And, just as important: it can be re-programmed to interface with editing systems of the future. Serial or parallel logic for remote control? Both have advantages, so Hitachi gives you both. Built-in cable compensation boosts the signal so you can use cable up to 300 feet.

Uniquely simple service

Serviceable components have been human-engineered for easy access and replacement. The PC modules are front-mounted and can be removed in an instant. The six heads come as a pre-aligned drum assembly that snaps out and snaps back in minutes.

HR-100 Portable Model

The HR-200 is available as a console, or for tabletop use or 19" rack mounting. Best of all, it costs no more than ordinary 1-inch VTR's!

Smallest Type C portable ever!

The HR-100 portable model has many of the HR-200 features, yet it's the smallest Type C portable in the world. And the most serviceable too, with plug-in PC modules. Die-cast uniblock construction makes the HR-100 durable yet extremely light. And like the HR-200, it has a non-dropout tape path. Plus an extended tape path for less edge wear, an auto back space assemble editor, and 3-way power with built-in battery pack, AC adapter or external DC.

Take a big one-inch step. See the New Hitachi 1" VTR's...today.

Hitachi...Tomorrow's technology today.

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only 600 g), eliminating such problems as image burnout, tailing, and residual image.

The videocassette (said to be the world's smallest) provides 20 min of recording time using 8-mm magnetic tape. The Home Editor, when combined with the Video Movie unit makes it possible to reproduce the images and sound on any television set. It can also be used for editing and transferring the intial recording to any of the videocassette formats now in use, such as the Beta format.

General aim of this new development was that of packaging a color video camera with a video recorder into one portable unit.

SynthaVision-80, a system designed to produce animated computer-generated color pictures on film, has been developed by the Mathematical Applications Group, Inc. (MAGI). The new system, said to be a major advance over an earlier SynthaVision system, can create 3-dimensional and other fantastic special effects. SynthaVision-80 uses graphic design terminals to enter the design of objects to be visualized. The objects are created by a proprietary 3-D modeling process the company originated and now licenses to other firms in the field of computer-aided design and manufacturing. A high speed minicomputer, using MAGI software, processes the design information and produces the sequence of frames specified by the designer or animator. The system also incorporates a high resolution color film recorder with a pin-registered camera that transfers the computer-generated images onto 35-mm color film. While normal resolution is some 1500 lines, the system may be used to produce images with a resolution as fine as 8000 lines. Other features include high speed film output, the ability to accommodate many independent moving objects and creation of such special efects as metallic reflections from multiple light sources.

Pioneer's LaserDisc videodisk system will soon be widely available commercially according to an announcement from U.S. Pioneer Electronics Corp., Moonachie, NJ. The system consists of prerecorded videodisks and a videodisk player that can be connected to any standard television set. It can also be connected to a hi-fi system for stereo sound or for dual languages. A low-powered laser beam reads audio and video information from the videodisk and then transmits the picture to the TV screen and the audio portion through the stereo sound system. Features such as freeze frame, slow motion, and individual random frame access are possible with the LaserDisc system. The videodisks, which resemble mirrored LP records without grooves, do not wear out because no needle or stylus is involved. The disks are recorded on both sides and have a playing time of up to 30 or 60 minutes per side, depending on the mode of operation.

North American Philips Corp. and 3M Co. jointly announced an agreement by which 3M will manufacture reflective optical videodisks. The announcement stated that production quantities of 3M replicated disks for laser-based reflective videodisk players are expected to be available during 1981. Under the agreement, North American Philips will provide disk-mastering equipment to 3M, and the two firms will exchange patent license agreements on selective optical videodisk technologies. According to the announce ment, 3M does not plan to acquire disk pro gramming but instead will act as a contracto for mastering and replicating videodisks foi program suppliers.

Saeco (Sudamericana Electronics Co.) has moved to larger quarters at 1122 E. Chevy Chase Dr., Glendale, CA 91205. The premises were formerly occupied by Medico Electric Labs. (Mel Audio). Saeco will continue to serve the trade formerly handled by Mel Audio, the announcement stated, as well as continuing their own operations, which are primarily the assembly and export of complete broadcast and audio systems.

Animation Video, a new division, has been announced by Convergence Corp., 1641 McGaw, Irvine, CA 92714. Plans for the new division include the manufacture of a full-color video animation system designed to produce broadcast-quality animation directly onto videotape. The new system is intended for use by in-house production departments at broadcast stations; animation/video post production houses catering to the broadcast market; and in-house corporate and ad agency video production groups. Carl Schultz has been appointed General Manager of Animation Video and Steve Price is Engineering Manager. The division will be located in its own facility in Santa Ana, Calif.

Image Devices Inc., 1825 NE 149 St., Miami, FL 33181, has been appointed the exclusive U.S. distributor and sales/service representative for Miller Fluid Camera Heads and support equipment, according to a recent announcement. Miller Fluid Heads operate on a hydraulic principle with fluid developed by Miller chemists for temperatures in the −30°C to +50°C range — from the freezing Antarctic to the heat and humidity of the tropics.

Paul F. Amedick has been appointed Manager, News Services, for RCA Commercial Communications Systems Div. in Camden, N.J. He is now responsible for news and information programs for the four units of the Division — Avionics Systems, Van Nuys, Calif.; Broadcast Systems, Camden; Cablevision Systems, Van Nuys; and Mobile Communications Systems, Meadow Lands, Pa. Previously, he was Manager, News Services, for RCA Broadcast Systems. He joined RCA in 1968 in the industrial relations activity and since 1971 has held various public relations and publicity posts.

Jack Whalen has been appointed Vice-President of Modern Talking Picture Service's Western Sales Division. Whalen, whose office is in Los Angeles, is responsible for about one-third of the company's U.S. sales territory, including Alaska and Hawaii. He has been with Modern since 1963. Modern's headquarters are at 5000 Park St. North, St. Petersburg, FL 33709.

Logan Enright has been appointed West Coast Regional Sales Manager for the Professional Video Division of US JVC Corp. He was formerly District Sales Manager in the firm's West Coast Branch Office. Prior to that position, he was Regional Sales Administrator for JVC in the Los Angeles office. US JVC headquarters are at 58-75 Queens Midtown Expwy., Maspeth, NY 11378.

Books, Booklets, Brochures

Private Television Communications: 1980 and Beyond, a detailed report international in scope, prepared by D/J Brush Associates, is available from the publisher, International Television Association (ITVA), 26 South St., New Providence, NJ 07974, at a price of $39.95. The report is based on a detailed questionnaire which went to over 1200 organizations in the United States, Canada, United Kingdom, and Europe, plus a series of in-depth interviews covering a wide spectrum of corporate, government and institutional users of video for communications and training. The report covers all aspects of corporate/institutional video including uses and applications, programming types and formats, production and distribution systems, cost accounting/cost analysis, feedback and program evaluation, etc. The study also covers such new technologies as videotext, interactive video, computer graphics, optical and capacitance videodisks, teleconferencing, satellites and interface between television and the computer.

Alan Gordon Enterprises has announced publication of its Master Rental Catalog #29. Equipment listed in the catalog include the Aaton 7 LTR 16-mm camera, the Dawe Cinestrobe Lighting System, and the Javelin Night Viewing Device which is said to permit photography by starlight alone. The catalog is available upon request from Alan Gordon Enterprises, 1430 N. Cahuenga Blvd., Hollywood, CA 90028.

Sylvania Lamps for film, theater, and television are described in a four-page illustrated brochure available upon request from GTE Lighting Products, Sylvania Lighting Center, Danvers, MA 01923. Featured in the brochure are Brite-Arc™ lamps which are reported to have improved lighting while saving energy and reducing heat. Other Sylvania tungsten halogen lamps are also described, including the PAR 36, and others.

Video and pulse delay lines and video filters are described in Catalog 13V available from Allen Avionics, Inc., 224 E. 2nd St., Mineola, NY 11501. The delay line series contains 12 variable delay units with the lowest delay from 0 to 10.5 ns in 0.5 ns steps. The longest delay is from 0 to 2075 ns in 25 ns steps.

Photometers/radiometers and spectroradiometers are described in an 8-page technical brochure available upon request from Photo Research, Division of Kollmorgen Corp. 3000 North Hollywood Way, Burbank, CA 91505. The brochure provides a complete product guide with a summary of light measurement capabilities for each instrument.

The 2380 series remote controls for closed circuit television systems is described on a new illustrated data sheet available from Cohu, Inc., Electronics Div., P.O. Box 623, San Diego, CA 92112. The data sheet describes the camera functions and accessories these controls provide for various Cohu television camera systems including models in the 2000, 2500, 2800, 4500, and 7900 series.