INDUSTRY NEWS AND EDUCATIONAL ACTIVITIES

Verbatim Corporation, 323 Soquel Way, Sunnyvale, CA 94086, has announced that its subsidiary in Limerick, Ireland, has begun construction on a 44,000-ft^2 addition to its present facility in Raheen Industrial Park. Verbatim presently has a 65,000-ft^2 facility in Ireland housing manufacturing plants and administrative offices. The new facility should provide additional capacity for producing flexible disks.

CFI Video, 959 Seward St., Hollywood, CA 90038, has completed installation of a fully computerized, 1-in on-line edit suite at a cost of just under $1 million, according to a recent announcement. Features of the new edit suite include five Sony BVH 1100A 1-in Type "C" VTRs; a computer-controlled, 7-channel Quantum Audio Labs stereo mixer; a computer-controlled Quantel DPE 5000 special effects system; a computer-controlled CDL 480 switcher; Mach 1 editing system; and a ¾-in JVC 6600 VTR.

Operator and maintenance instruction classes for the 3M Model D-8800 graphics generator system will be conducted regularly for the remainder of 1981 and during 1982 by 3M's Professional Audio/Video Equipment Technical Service Department. Instruction is provided to three individuals designated by each purchaser. Two openings for operator training and one for maintenance training are included in the D-8800 purchase price; additional personnel may be trained for an extra fee. Operator training takes three days and maintenance training takes 10 days. The courses will be conducted by Norman Anderson. Further information is available from Art Cuscaden, Professional A/V Equipment Technical Services Training, Bldg. 236-GN, 3M Center, St. Paul, MN 55144.

Japanese National Association of Broadcasters Exhibition, Tokyo

The Japanese National Association of Broadcasters (JNAB) Exhibition was held at the Science Museum in Tokyo. A few special items were shown representing commercial and technical changes that may have significance for the future.

JNAB is essentially a domestic show, and no foreign manufacturers display equipment except through their distributors or joint venture companies in Japan. The major Japanese companies such as NEC, National (Panasonic), Hitachi, Ikegama, Toshiba and Sony, have independent booths with their own product lines together with the products of the major

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United States companies they represent. Half of Toshiba's space was allocated to Toamco, a joint venture with Ampex. The Toamco side displayed Ampex VTR's and the Ampex Digital Optical Effects.

Sony, which has a joint venture with Tektronix, showed TEK measuring and generating equipment in a separate booth. Sony is now the exclusive distributor in Japan for the Grass Valley Group line of switchers and terminal equipment. Sony also exhibited a modified version of the Betacam with separable camera and VTR.

The Aurora Imaging Systems showed its Digital Videographics unit for the first time in Japan under the auspices of Hoei Sangyo. The Aurora System, demonstrated by Richard Shoup, the inventor, and Damon Rarey, the graphic artist who developed some of the creative techniques for using this electronic tool, showed the system to Japanese broadcasters who wanted to see how the system could produce Japanese oriented graphics. No Japanese system of any similarity was on display.

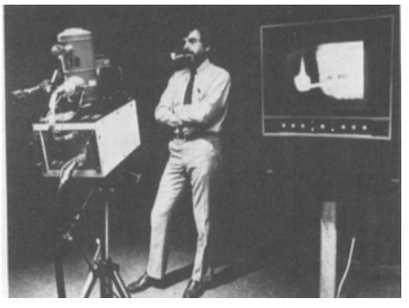
Another major Japanese manufacturer and distributor, the FOR-A company, also showed a number of foreign products, including the ADDA ESP, the CDL switcher line, the Microtime TBCs, the Faroudja Labs image enhancers and the Convergence editors. Faroudja Labs and Adda Corp. have licensed FOR-A to build some of their products in Japan.

Digital Switchers

Three companies, (National, NEC and Toshiba) had digital switchers on display. These products were not being offered for sale. Atsumi Sugimoto, project manager of the NEC digital switcher, revealed a few details but said that there was no current plan to make or market the product. The switcher works with an A/D converter at each input, using an 8-bit TRW chip operating at four times color subcarrier (14.3 mbs) sampling rate. The switcher uses component coding but it does not operate at the newly agreed-upon CCIR digital standard (13.5 mbs). Mr. Sugimoto showed how he could use a movable cursor on the image to select a chromakey signal level and then adjust the system to work at precisely that level.

NEC also demonstrated a new technique for multiplexing two video signals into a single channel. The system is unlike the systems offered by Thomson-CSF and RCA where alternate fields are transmitted for subsequent interpolation with a frame store. The NEC system compresses the two TV images horizontally placing them side by side on the screen. When reconstituted, each image is expanded to full screen width. The system, called DV-10, is said to provide picture quality somewhat better than a U-Matic recording. NEC also showed a digital VTR built on a Type C 1-in helical transport.

No high definition television systems were shown at JNAB, although prototypes have been made by NHK and other Japanese organizations.



An infrared camera that detects small variations in heat and creates recognizable television pictures of warm objects in a room totally dark to the human eye has been demonstrated by RCA. During the demonstration, the camera was able to discriminate veins on a human hand and detect residual thermal prints on objects that had been touched by a hand for a second or less. The research device responds to infrared waves in much the same manner that a solid state television camera responds to light waves, according to Dr.

Henry Kressel, Staff Vice President, Solid State Research at RCA Laboratories in Princeton, N.J.

The heart of the camera is a high performance solid state imager, about the size of a dime, containing over 8,000 infrared sensitive elements. While the picture it produced does not meet commercial television standards, it is a vast improvement over pictures produced by earlier, smaller imagers. This progress indicates that the technology has the potential for approaching full television resolution, Dr. Kressel stated.

The temperature-sensitive camera has many potential applications. One of the most interesting is in the field of medicine. It is possible, Dr. Kressel said, that someday physicians will use such a camera to locate blood clots and related circulation problems as well as tumors.

Possible industrial applications include production and maintenance inspections by remote temperature profiling. This type of thermal camera could also be used as a lightweight heat-leak detector for building and pollution control measurements.

The camera contains a 64 × 128 array of Schottky-barrier platinum silicide (PtSi) detectors integrated on a silicon substrate with charge coupled device readout registers.

RCA's achievement consists of the development of fabrication technology for the new high-performance PtSi detector arrays. Since these devices are constructed using conventional integrated circuit technology, this type of infrared image sensor could be mass-produced at a lower cost than other competing devices which require either more complex device processing or a large number of complex mechanical parts.

The 64 × 128 infrared imager and its fabrication technology were developed at RCA Laboratories. The infrared camera was developed at RCA Automated Systems in Burlington, Mass. A higher density Schottky-barrier image sensor is now under development at RCA Laboratories.

Shown above is scientist Gary Hughes with the experimental RCA camera. Warm objects like Hughes's skin and his lighted pipe look white on the TV monitor while cooler objects such as his hair and mustache appear dark. Also shown is the 64 × 128 elements PtSi Schottky-barrier IR-CCD imager chip. It is bonded in a 32-lead ceramic package.

The RCA Satcom III-R communications satellite, launched November 19, has been placed in its assigned orbital position of 131° West longitude at an altitude of 22,300 miles, according to an announcement issued by RCA on December 1. "Over the next few weeks," the announcement stated, "RCA technicians will test the new satellite prior to assigning traffic to it." When fully operational, Satcom III-R will carry cable television programming presently carried on Satcom I. Following the changeover, Satcom I will be used to handle other types of communications carried by RCA Americom. According to Harold W. Rice, RCA Americom's Vice-President Audio/Video Services, "Of the 24 channels, 23 are assigned to cable programmers, while the 24th will be available for occasional service, primarily television."

Krishna Gopal, a Fellow of the Society of Motion Picture and Television Engineers, was honored at a ceremony held December 5 in Bombay, India, for his achievements as a film technician. He received a scroll, which was presented by the Prime Minister of India, Indira Gandhi. The citation read: "The Indian Academy of Motion Picture Arts and Sciences presents this scroll to Mr. Krishna Gopal in sincere appreciation of his outstanding contribution to the growth and development of the Indian cinema." Mr. Gopal was one of three technicians who were so honored.