

BOOKS, BOOKLETS, BROCHURES

The Exploration of Outer Space with Cameras, by Michael M. Mirabito, is a profusely illustrated, 170-page book. Well-written and easy to read, it provides the reader with a clear understanding of the role television has played in acquiring the awesome knowledge of the universe and other planets that we now have.

The author traces the space exploration program from the launching of America's first successful moon probe, the *Ranger 7*, on July 27, 1964, through the *Mariner* spacecraft series, the *Pioneer* and the *Voyager*, that rendezvoused with Jupiter and Saturn.

The *Voyager* incorporated a powerful transmission system, a tape recorder, and television cameras with slow-scan vidicons. The spacecraft also carried a photopolarimeter, an instrument first used on the *Pioneer* missions. The photopolarimeter on the *Pioneer-Venus* was a spin-scan imaging device using ultraviolet silicon photodiodes. The ultraviolet imaging showed Venus's cloud structure in the transmitted pictures.

The *Voyager* incorporated a powerful transmission system, a tape recorder, and television cameras specifically designed to produce both high- and low-resolution photographs. The photopolarimeter was designed to measure the brightness and polarization of light from the two planets. The television system consisted of two television cameras mounted on a movable scan platform and the ancillary camera electronics.

The photographs consisted of 800 scan lines/frame with 800 picture elements/line. This was equal to 640,000 picture elements in one photograph. Each picture element was coded into an 8-digit binary word. Each binary word represented black to white and gradations of gray. The television system also used an improved pre-amp that reduced noise or interference in a transmitted signal.

The *Galileo* spacecraft, tentatively planned for launch late in the 1980's, is fitted with a charge-coupled device instead of a slow-scan vidicon. The CCD is superior in terms of light sensitivity, spectral response, and size and weight.

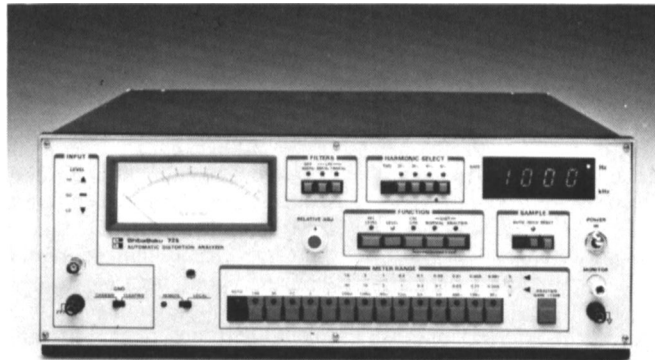
Chapter 10 deals with terrestrial applications of spacecraft cameras. It describes the use of spacecraft technology on earth in such areas as the communications industry, medical and health services, and the study of astronomy with both earth-based and space telescopes.

The book is carefully researched. A reader seeking information about the mind-boggling developments in space exploration, and the equipment which made these developments possible, will find much of interest in this book.

The Exploration of Outer Space With

SMPTE Journal, March 1984

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Cameras is available from the publishers, McFarland & Co., Box 611, Jefferson, NC 28640, at a price of \$19.95 (\$1.50 for postage and handling).

The Complete Home Video Book by Peter Utz (Vols. I and II) is available from the publisher, Prentice-Hall Inc., Englewood Cliffs, NJ 07632, at a price of \$16.95 for Vol. I, \$9.95 for Vol. II.

The book is intended as a guide for the video enthusiast, but it could also serve as a textbook for a student entering the field of television. It is profusely illustrated with photographs and diagrams. The book is a clearly written, easily understood compendium of useful — in fact essential — information for anyone who is interested in the field of video, and especially for those who own or plan to own a videocassette recorder.

The Optical Memory Report, researched and compiled by Rothchild Consultants, is a yearly service with updates throughout the year. It is available from Optical Memory Report, P.O. Box 14817, San Francisco, CA 94114-0817, at an annual subscription rate of \$1995.

The report profiles over 30 firms, worldwide, that are developing optical disk drives, over 40 working on optical media, and over 50 that have licenses to manufacture digital read-only 12-cm

(4.72-in.) disk drives. Included are detailed product specifications, analysis of vendors and their product programs, U.S. and worldwide market forecasts, development projects, introduction timetables, future technology trends, explanations of the technology, and a glossary of terms.

The IES Membership Guide & Directory is available from the Illuminating Engineering Society, 345 E. 47th St., New York, NY 10017, at a price of \$10 for IES members and \$35 for nonmembers. The directory contains over 200 pages of information about the IES, including member and sustaining member listings.

Also announced by IES was the *Directory of Lighting Equipment and Accessories*, published as a complete issue of *LD+A*, a popular lighting design magazine. The issue is devoted to manufacturers' listings with names and addresses. The list includes light sources, fixtures or housings, and lighting accessories. Descriptions of the companies' product lines, including brand names, accompany their listings. The directory is available from IES at a price of \$10.

The Professional Microphone Catalog is available upon request from Electro-Voice Inc., 600 Cecil St., Buchanan, MI 49107. The catalog includes descriptive and technical information on EV micro-

phones used in professional applications, such as broadcasting and sound recording. Also included is data on two new EV microphones for ENG applications.

Leader Instruments Corp. has announced the availability of a new test and measurement instrument catalog which includes 25 new product introductions. The 80-page catalog contains information on two new oscilloscopes and a new oscilloscope calibrator. A total of 13 oscilloscopes, ranging in bandwidth from 4 to 100 MHz, comprise the firm's oscilloscope line. Included in the professional video products line is a new NTSC waveform monitor designed for broadcast applications.

The RTI Supplies and Accessories Catalog, is available from Research Technology International, 4700 Chase Ave., Lincolnwood, IL 60646. The 64-page catalog lists hundreds of professional items ranging from adapters to an XCL liquid cleaning/conditioning unit. Categories include film cleaning/conditioning equipment and supplies, motion-picture supplies, audiovisual equipment, video/audio equipment, and furniture and storage.

Philips Remote Control and Telemetry Equipment is described and illustrated in color in a brochure available from Pye



The second generation Elmo 35mm Slide Projector is truly a remarkable piece of professional equipment. It offers the fastest cycling time of any standard projector—an incredible 65 slides per minute. And no white-light flashes during slide changes. The shutter keeps the screen dark even when the projector's gate is empty. Plus the new Omnigraphic is quiet. Truly "whisper quiet."

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TVT Ltd., P.O. Box 41, Coldhams Lane, Cambridge CB1 3JU, England. The brochure contains instructive illustrations, including a foldout showing typical system configurations.

Display linearity evaluation is discussed in a 6-page brochure available from Visual Information Institute, Inc., P.O. Box 33, Xenia, OH 45385-0033. The brochure explains how a test chart is used to check scan accuracy. The VII SPS-1 linearity chart projection system, which overcomes limitations involved with placing test images onto a CRT surface, is described. Also included are graphic displays of various linearity and geometry defects commonly encountered in raster scan displays, including keystone, skew, hum, and flag waving.

General Electric Quartzline® and incandescent lamps are listed and described in a 30-page illustrated booklet available from General Electric, Nela Park #4153, Cleveland, OH 44112. Technical data for the lamps listed is provided. The booklet contains indexes by ANSI codes, wattage, and lamp base; lamp tables; and cross reference and substitution guides.

Coaxial and twinaxial patching equipment is described in a catalog available from Dynatech Data Systems, 7644 Dynatech

Ct., Springfield, VA 22153. Coaxial patch jacks are designed for use with any type of equipment operating over a coaxial cable. Twinaxial patch jacks are used in such applications as testing laboratories, analog and digital signal transmission, video distribution, and secure communications.

The Stantron line of video center products is described in a 32-page catalog available from Stantron, 6900 Beck Ave., North Hollywood, CA 91605. The line consists of VTR/VCR racks, dubbing racks, modular desk consoles, cabinet consoles, and other equipment used in video production, post-production, editing, and tape duplication.

The Video Black Book, an illustrated video equipment reference catalog, is published by Bill Daniels Co., Shawnee Mission, KS 66201, and distributed in the New York metropolitan area by Ron Riley, 217 Main St., Lincoln Park, N.Y.

The catalog contains 1200 pages and more than 2000 illustrations. It provides up-to-date information on products for motion pictures, television, audiovisuals, CCTV, and all types of relevant electronics equipment. The book is indexed alphabetically by company names, by manufacturers of television and film equipment, and by producers.

ZoneMate lighting control installations are described in a 6-page color brochure available from Wide-Lite Corp., P.O. Box 606, San Marcos, TX 78666. Systems described include multiple-zone dimming with HID and other light sources, automatic energy control, which uses photosensors to adjust light levels to compensate for daylight contributions, and a variety of manual or programmed control options.

The BTX Softouch™ editing system is described and illustrated in a 4-page brochure available from the BTX Corp., 75 Wiggins Ave., Bedford, MA 01730. The system provides a wide range of editing applications including time-code applications, as well as synchronization and control of multiple VTRs and film transports.

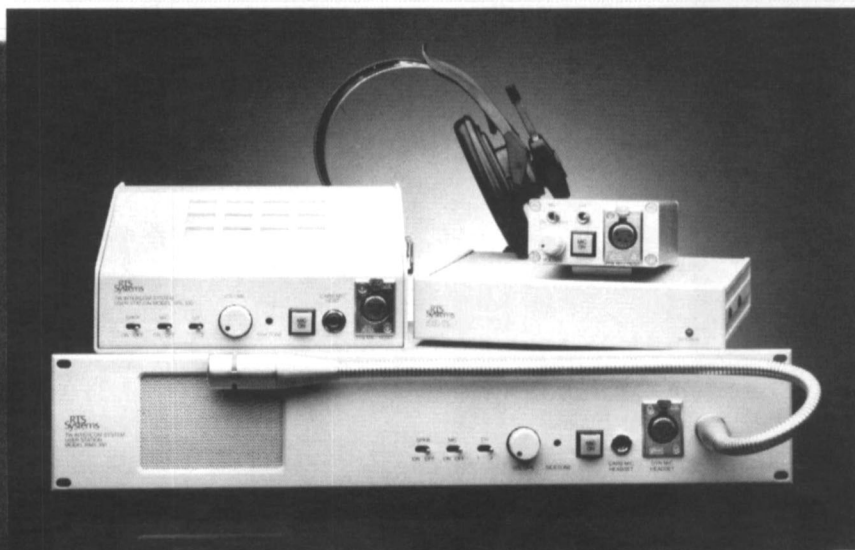
Errata

December, 1983, Journal.

Books, Booklets, Brochures, p. 1348: *The U.S. Motion Picture Theater Industry*, published by Business Trends Analysts. The price is \$475, not \$4.75 as erroneously given.

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