

# The TV spot meter that never was.



It's called the Minolta Auto-Spot 1° TV Exposure Meter. And it's the only spot meter in the world with illuminated, continuous and motorized IRE and foot-lambert scales in the viewfinder.

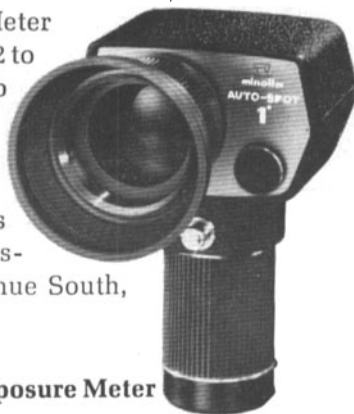
It'll give you quick, precise 1° readings that speak your language. Just aim, squeeze the button and watch the scales turn. With-

out taking your eye off your subject or switching from low to high brightness ranges, you're getting a perfect 1° reading. And the IRE scale makes it easy to keep the right balance between skin tones and the brightest area of your subject. This makes color work a snap.

Your subject is magnified 4x with focusing from 3.3 feet to infinity. And because of the 1° angle of measurement, you can pick out details for tight shots or long telephoto work without leaving your camera position. (This came in handy when the Apollo 8 astronauts took a version of the Auto-Spot 1° along for measuring moon and earth light.)

So thanks to Minolta, TV work will never be the same. After all, just because something never was is no reason to think it can never be.

The Minolta Auto-Spot 1° TV Meter with IRE and foot-lambert scales (.32 to 5000), under \$250 with wrist strap and hard leather, velvet-lined case. (Also available with shutter speed, lens opening, and EV scales for still and cine uses.) For details write Minolta Corporation, Industrial Sales Division, 200 Park Avenue South, New York, N.Y. 10003.



Minolta Auto-Spot 1° TV Exposure Meter

Institute. He joined British Broadcasting Company (before it became a corporation) at its original studio premises in Savoy Hill. In 1933, he joined Ealing Studios in London as Sound Engineer. He was advanced to Technical Supervisor and General Manager and from 1933 to 1947 he was responsible for recording Ealing productions.

During World War II he was attached to R.A.F.V.R. as instructor in radio and communications for Air Training Corps cadets. He was awarded an MBE for his wartime services. He was widely traveled and motion-picture assignments took him to many parts of the world, including Arabia, Samoa, Hong Kong and Canada. He took a keen interest in the development of the Australian film industry and he was General Manager of Ealing Studios, Page-wood, Sydney, from 1947 to 1953. In 1953 he returned to England where he became Associate Producer for Ealing Films. In 1960 he joined ABC Television in Teddington as Head of the Films Department. In 1968 he returned to Australia to produce a TV series in association with Supreme Sound Studios.

He joined the Society in 1936 and he was also a long-time member of the British Kinematography Sound and Television Society.



## Clearinghouse Publications

The publications listed below are available from Clearinghouse, U.S. Department of Commerce, Springfield, Va. 22151. Unless otherwise noted each report is \$3.00 (microfilm 65 cents).

For the convenience of the reader, titles and brief descriptions of the publications have been grouped under seven categories.

### Acoustics

AD-674 753, *Acoustical Holography of Non-existent Wavefronts Detected at a Single Point in Space*, A. F. Metherell and S. Spinak, 17 pp. Describes a configuration based on an extension of the reciprocity theorem and realized by physically interchanging the source and detector. The hologram-recording operation is executed by scanning the source throughout a plane and sampling the resultant wavefront as a function of time with a stationary detector.

AD-674 762, *The Relative Importance of Phase and Amplitude in Acoustical Holography*, A. F. Metherell, 44 pp. Determines qualitatively the effect of recording a hologram by detecting only the phase of the object wave rather than both the phase and the amplitude, as in conventional holography.

PB-182 292, *Ultrasonic Imaging Using a Scanned Hologram Method*, R. B. Smith, 33 pp. Records holograms of ultrasonic sound fields in water on film using a scanning technique. Reconstruction of the hologram in a



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coherent light beam forms the optical analog of the original sound field and permits the imaging of objects as seen by ultrasound.

AD-680 251, *Sound Holograph Real-Time Display Tube*, 33 pp. Describes a real-time display tube for an acoustic imaging system based on acoustic holography.

AC-683 568, *Temporal Reference Holography*, A. F. Metherell, 20 pp. Describes a new form of acoustical and microwave holography which obviates the need for a real or electronically simulated reference wave.

JPRS-47131, *Measuring Machine and Equipment Noise*, G. L. Osipov et al., U.S.S.R., 1968, (trans. from Russian) 171 pp. Describes methods of measuring noise characteristics of machines, mechanisms, transport media, process equipment, mechanized tools, and individual assemblies. Report discusses basic acoustic concepts and variables, instruments for measuring noise, anechoic and reverberation chambers, errors in measuring noise characteristics, and taking measurements by standard procedures.

#### Control Systems and Instrumentation

AD-677 894, *The Video-Tape Recording of Ultrasonic Test Information*, R. A. Youshaw et al., 22 pp. Converts a video-tape recorder into a wide band instrumentation recorder and directly records the "A" scan from the ultrasonic tester, together with the operator's voice giving the location, transducer position, and interpretation of test data. The circuitry necessary to couple the

output of the ultrasonic tester to the tape recorder is described.

#### Communications

PB-179 449, *Semi-Portable Color Camera*, T. Sato et al., 16 pp. Describes a semi-portable prototype color camera for television service. The camera uses the 4-tube separate-luminance system, consisting of one 2-in image orthicon and three 1-in special vidicons. The camera head is small and light, weighing only 28 kg.

AD-678 879, *New Long Distance Broad-band Coaxial With Laminated and Corrugated Outer Conductor*, W. G. Nutt et al., 34 pp. Describes a coaxial that has an outer conductor of thin copper laminated adhesively to tin-plated steel. Major application will be in multicoaxial cable for long distance communications between people, computers and control systems.

AD-678 109, *S-band Telemetry Antenna Studies: Nose-Tip Array and Other Systems*, B. T. Buller, 173 pp. Results of studies on a nose-tip array, a parasitic array, and a dielectric antenna.

AD-678 552, *Analysis of Structural Return Loss in CATV Coaxial Cables*, H. Lubars and J. A. Olszewski, 27 pp.

N68-17042, *The Technological Problems of Television Broadcast Satellites*, P. W. Kuhns, 18 pp. Assesses the technological level of both the ground receiver and the space transmitter. Report discusses technological problems of the spacecraft subsystems whose

characteristics are determined from the trade-offs. Subsystems include: transmitting antenna, output power amplifier, power conditioning, prime power source, and attitude control and station keeping.

AD-679 200, *Handling Trial of Australian Lightweight Adjustable 26-76 Mc/s Antenna*, R. F. Hills, 8 pp.

AD-678 950, *Millimeter/Microwave Radomes—Susceptance Theory for a Metallic Circular Hole Lattice*, E. B. McMillian, 76 pp.

AD-673 481, *Image Enhancing Microscope*, Philco-Ford Corp., Aeronutronic Div., 57 pp. Discusses theoretical considerations, design and construction, and system performance of a high resolution television system that enables an operator to enhance aerial reconnaissance imagery. The system is capable of handling three standard sizes of aerial film in either chip or roll form, with rolls up to 500 ft long.

#### Data Processing

AD-684 360, *A Linguistic Model for Waveform Analysis*, T. Pavlidis, 22 pp. Describes a method by which a time function can be represented as a concatenation of simpler functions. Results of the analysis can be used to represent waveforms as strings of symbols. Report gives a procedure for imperfect matching of such strings and discusses the problem of detecting common substrings which characterize the various classes.

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## Information Technology

PB-180 930, *Research in Automatic Russian-English Scientific and Technical Lexicography*, Wayne State Univ., 65 pp. Studies feasibility of automating compilation processes associated with lexicography and describes a system for producing bilingual dictionaries by semi-automatic means.

PB-180 720, *Two Studies of the Effect of Film Polarity on Patent Examiners' Performance*, G. A. Bloch et al., 169 pp. Positive film should be used by the U.S. Patent Office in establishing a microform system to alleviate problems of storage, file integrity, and duplication costs, according to studies recently completed at the U.S. Patent Office. Polarity studies have been conducted to evaluate positive and negative films in a microfilm viewer with respect to rate of search, preference for image, perception and quality of image, optimum level of magnification and illumination, optimum screen angle, glare properties, word recognition threshold, and efficiency and accuracy of search. Based on the measurements obtained in the studies, it has been recommended that a microfilm system for the Patent Office should use: positive film, magnification level of 24X, variable screen illumination and angle, a retractable screen hood, focus that is not highly sensitive, image rotation of 90°, and a maintenance staff that is responsible for the condition of the microfilm readers.

BNL 50119 (T-499), *Chemical Titles: a Computer Information Retrieval Data System*, R.

Baldwin, 55 pp. Describes the Chemical Titles Data System for informing scientists interested in chemistry and related fields about articles in current scientific journals relevant to their subject matter interests.

PB-180 944, *The Role of the Technical Report in Scientific and Technological Communication*, Federal Council for Science and Technology, Washington, DC, 112 pp.

## Optics

AD-820 528, *Laser Output Coupler*, E. A. Ash and G. Singh, 38 pp. Presents a technique for optical detection of small mechanical displacements at high frequencies by use of a short Fabry-Perot resonator with one moving mirror, illuminated by a laser.

N68-29438, *Lasers and Masers: A Continuing Bibliography With Indexes*, 369 pp. A selection of annotated references to unclassified reports and journal articles introduced into the NASA information system during the period April 1967-December 1967.

AD-675 803, *Laser Parameters for Human Viewing. I. An Analysis of Viewing Direct and Scattered Laser Radiation*, L. R. Solon and S. D. Sims, 95 pp. Analyzes physiological optics of directly transmitted, reflected, and scattered laser radiation. Report discusses parameters determining the retinal irradiance for continuous lasers (or radiant exposure for pulsed sources). Emphasis is on optimization of laser systems where visual observation is required, or can occur inadvertently. Among factors considered are the influence of auxiliary optics, environ-

mental illumination, and the Stiles-Crawford effect.

N68-33224, *A Cathode Ray Tube Suitable for Viewing Under High Ambient*, D. Amberger, 85 pp. Investigates feasibility of fabricating a cathode-ray tube employing a reemission technique.

AD-482 130, *Optical Pumps for Lasers*, R. Schlecht et al., 258 pp.

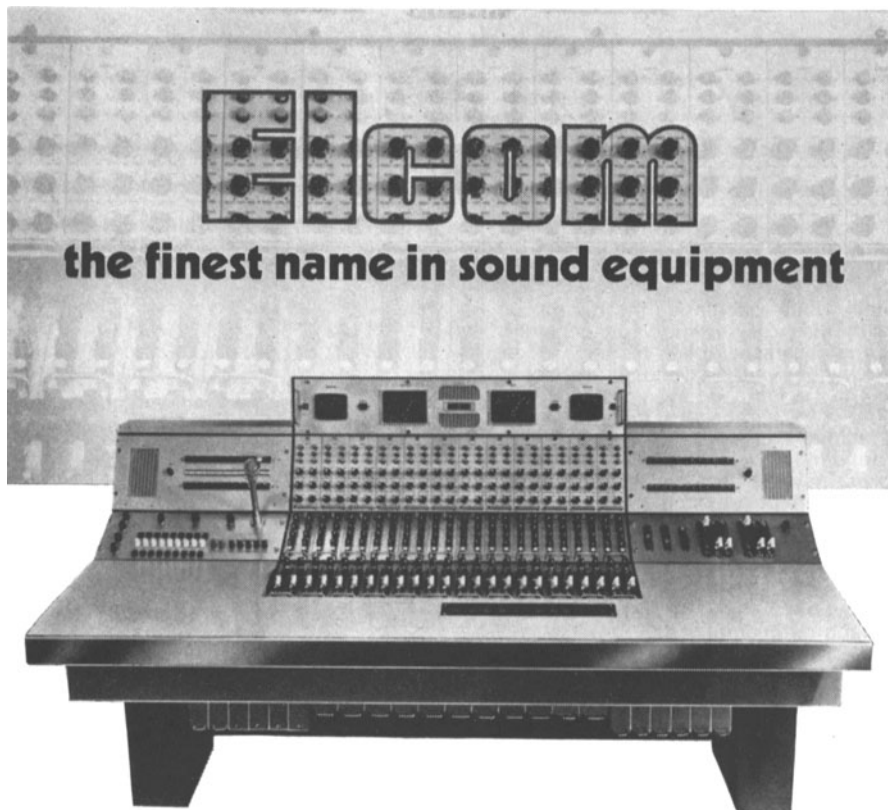
AD-678 858, *Holographic Techniques for the Study of Dynamic Particle Fields*, J. D. Trolinger et al., 27 pp. Reviews techniques of small-particle holography and shows how multiple-exposure holography can be used to study the dynamic properties of particle fields.

N68-16910, *Laser Resonators, Properties of Laser Beams and Design of Optical Systems*, B. A. See, 39 pp. Reviews properties of laser resonators with emphasis on characteristics which determine optical properties.

AD-679 908, *Indium Arsenide-Phosphide Injection Lasers*, R. K. Willardson et al., 121 pp. Describes two techniques for preparing polycrystalline  $\text{InAs}_{1-x}\text{P}_x$  ingots. Lasing diodes are fabricated from the material and their characteristics examined.

AD-680 192, *Chemical Mixtures in Submillimeter Lasers*, G. E. Morris et al., 28 pp. Studies operating characteristics of the HCN laser when various chemicals are added to the basic fuel  $\text{CH}_3\text{CN}$ .

AD-679 588, *Liquid Laser Parameters*, W. Block et al., 78 pp. Studies the influence



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of chemical and physical environmental factors on the intensity, efficiency, and lifetimes of rare earth phosphorescence in liquid systems. Criteria for selection of optimum coordinating ligands, counter ions, and solvents for rare earths are developed.

PB-180 565, *Digital Laser-Beam Deflection Sensor*, Office of Technology Utilization, NASA, 80 pp. Investigates two types of optical beam deflectors employing piezoelectrically driven mirrors for application in optical acquisition and tracking systems. Report describes a new type of deflector, the piezoelectric bender driver mirror, for large-aperture, high-resolution, applications requiring bandwidths up to a few kilohertz.

AD-679 143, *Optical Pumps for Lasers—Phase II*, I. Liberman et al., 379 pp. De-

scribes the way high efficiency continuous pumping of Nd:YAG is achieved through use of spectral additive lamps; develops a long life xenon flash lamp suitable for pumping Nd:YAG at high repetition rates; and develops theoretical techniques for determining the spectra from lamps so that, in conjunction with a known absorption spectrum from a laser material, the most efficient pump can be predicted.

LA-3968-MS, *Holographic Plasma Diagnostics*, F. C. Jahoda, 10 pp. Reviews the uses of holography in plasma diagnostics.

PB-180 864, *Calibration of a Kerr Cell System for High Voltage Pulse Measurements*, E. C. Cassidy and H. N. Cones, 53 pp. Summarizes work on Kerr cell pulse measurements, including development of systems for purification and testing of the nitro-

benzene used in the Kerr cells and methods for calibration of a Kerr system by reference to calibrated pulse divider measurements.

AD-680 034, *Spectroscopic and Structural Studies of Oxyanions of Transition Metals in Fused Salt Media*, J. B. Hunt and F. X. Powell, 17 pp. Uses electrical discharge in developing stable sources for Raman spectroscopy. Mercury thallium, indium, gallium, rubidium, and lead are used in the lamps.

AD-680 406, *Research on Direct Nuclear Pumping of Gas Lasers (DNPGL)*, J. R. Rusk et al., 109 pp. Investigates nuclear stimulation of emission in noble gases.

N68-17069, *Laser Vibration Analyzer*, G. A. Massey, 58 pp. Describes a laser vibration measuring instrument designed to operate at a distance of three feet from the vibrating surface. The output beam is focused on the surface and can be scanned manually by means of a rotatable steering mirror.

IN-1219, *Bibliography of Laser Publications of Interest to Emission Spectroscopists*, J. M. Baldwin (ed.), 23 pp. Contains references in the following categories: (1) laser beam interactions with gases and vapors, (2) action of laser beams upon matter initially present as a condensed phase, and (3) applications of lasers to spectrographic analysis.

AD-683 841, *Up-Conversion of a Laser-Induced Quasi-Continuum (the Rainbow Laser)*, M. D. Martin and E. L. Thomas, 23 pp. Describes a method whereby a relatively narrow-band source of radiation, which is tunable over most of the visible and near infrared spectral regions, can be generated. Tuning curves and power/wavelength curves are presented.

AD-684 581, *Energy Transfer Mechanisms in the CO<sub>2</sub> Laser a Short Bibliography With KWIC Index*, G. A. Henderson, 56 pp.

AD-684 140, *Pure Modes With Pulsed Lasers*, O. Svelto et al., 88 pp. Investigates a newly invented laser cavity made by two roof-top prisms with roof angle smaller than 90°. Report also studies dynamic behavior of a single mode Q-switched ruby laser and the effect of host dispersion on a self-locked laser.

AD-685 855, *Degradation of Laser Optical Surfaces*, T. L. Barber, 21 pp. Describes a procedure that minimizes problems of optical surface degradation caused by atmospheric dust and cleaning solvents.

AD-684 786, *Aeronautical Applications of Holographic Interferometry*, R. D. Matulka et al., 42 pp. Describes use of holography for production of wind-tunnel interferograms of the Mach-Zehnder type and discusses the possibility of extending the process toward the interferometric study of three-dimensional flow fields.

AD-685 795, *Threshold Calculations for Superconducting and Other Infrared Lasers*, J. Bostock et al., 116 pp. Proposes a scheme for obtaining far infrared power from normal to superconducting tunnel junctions by using the energy gap characteristic of the superconducting component.

AD-674 241, *Coated Paper and Developer for Continuous Tone Electrophotography*, W. S. Grimes and G. J. Young, 131 pp. Studies combinations of varnish, zinc oxide, paper, and liquid developer to obtain maximum

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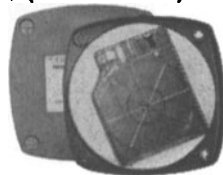
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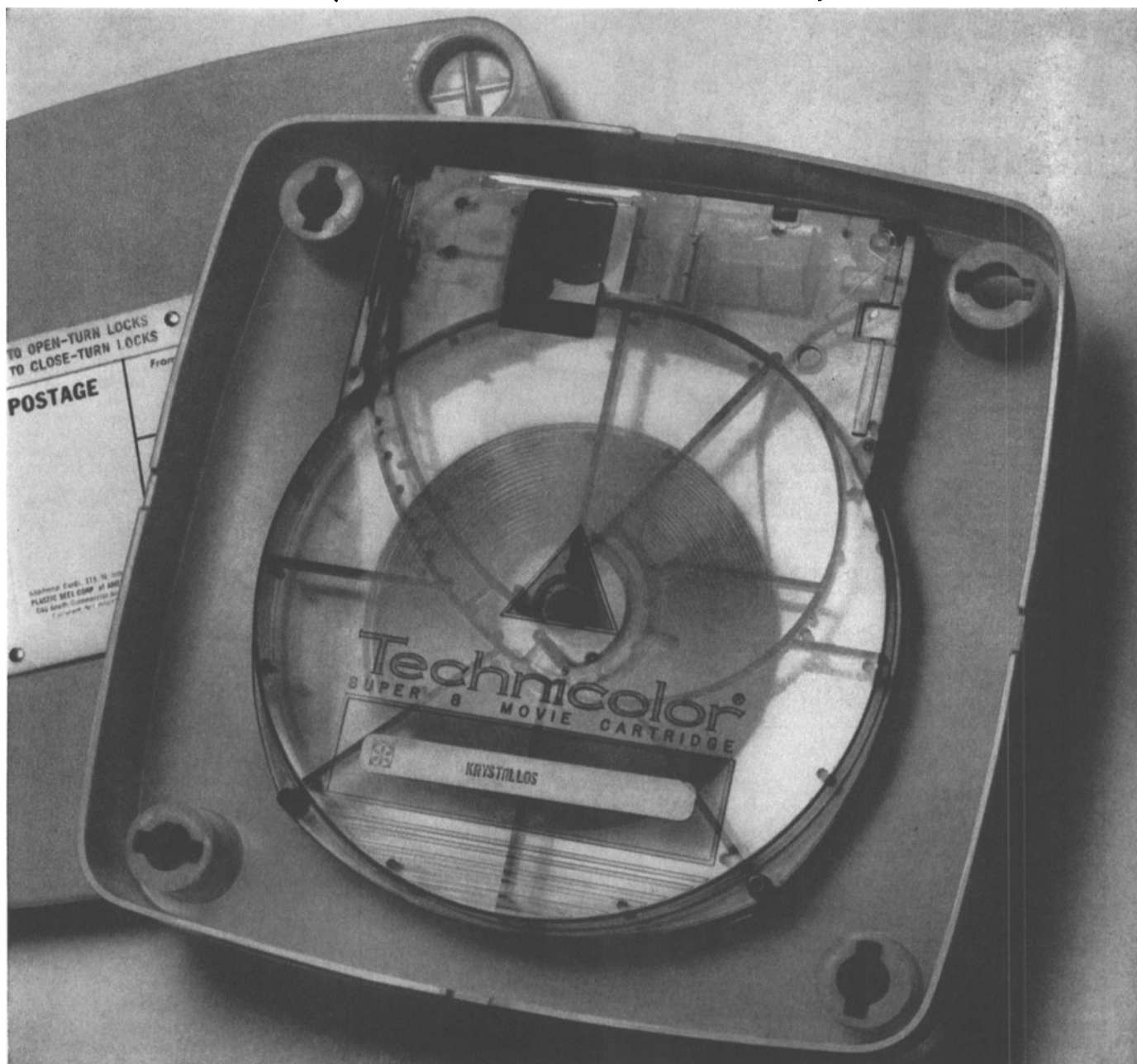
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tone steps and maximum density. Report covers preparation of samples of electro-photographic papers, testing for various properties, and evaluation for continuous tone capabilities using various black liquid developers.

PB-179 920, *On the Precision of Stereometric Systems*, H. M. Karara, 56 pp. Reviews current status of stereometric cameras and discusses results of studies to explore the feasibility and assess the potentialities of using stereometric systems for measuring deformations of structural models under test conditions.

AD-676 991, *Feasibility Study for Airborne Ice-Crystal Disdrometer*, J. H. Ward and W. A. Dyes, 19 pp. Describes an ice-crystal hologram camera that records ice crystals and raindrops in the 0.1-mm to 10-mm size range over a sample volume 50 cm deep.

## New Members

The following members have been added to the Society's rolls since the June 1969 *Journal*. Also listed are those regrettably reported as deceased since then. The designations of grade are the same as those used in the July 1968 Directory. An up-to-date list of the Sustaining Members appears on the outside back cover of each month's *Journal*. The members listed below complete the Society's roll as of June 15.

The Directory for Members, Part II of the July 1968 *Journal* shows the geographic membership distribution by states included in the Sections.

Life Fellow (LF) Life Member (LM) Fellow (F) Active (M) Associate (A) Student (S)

**Deceased:** Ellis W. D'Arcy (LF) Robert Hutchison (A) J. W. Schaeffer (A)  
John C. P. M. Davis (A) Gerald J. Marfleet (M) Joseph A. Tanney (LM)  
Karl Freund (F) James Matthews (M) Howard M. Tremaine (M)

### ATLANTA SECTION

Boyd, Martin L., Projectionist, Weis Theatres, Inc. Mail: 117 E. Fairmont Ave. Savannah, Ga. 31406 (A)

Melton, Ervin T., Jr., Dir. of Photog., WBTV. Mail: 5721 Wedgewood Dr. Charlotte, N.C. 28210 (M)  
Roach, Frazier, Audio-Visual Asst., Audio-Visual Dept. College of the Albemarle Elizabeth, City, N.C. 27909 (A)  
Wolfheimer, A. D., Dev. Engr., Systems Dev. Div. IBM Corp. Mail: 5421 Thayer Dr. Raleigh, N.C. 27609 (A)

### BOSTON SECTION

Briggs, M. D., Sr. Electrical Engr., Itek Corp. Mail: 22 Cleveland Rd. Wellesley, Mass. 02181 (M)

### CAPE KENNEDY SECTION

Bacon, Noel R., Securities Broker, Hayden Stone, Inc. Mail: 5551 N.E. 33 Ave. Fort Lauderdale, Fla. 33308 (A)  
Harrison, Henry P., Harrison Camera & Lighting Corp., Press. Mail: 6745 NE 3rd Ave. Miami, Fla. 33138 (A)  
Hoffman, Barbara, Prod./Dir., Miami Dade Jr. College. Mail: 227 Ponce de Leon Blvd. Coral Gables, Fla. 33134 (A)  
Kerwin, Harry E., Secy.-Treas., K & W Pictures Corp. Mail: 18831 NW 24 Ave. Opa Locka, Fla. 33054 (A)  
McDaniels, M. A., Cinemat., Martin-Marietta 2819 Harriet Dr. Orlando, Fla. 32806 (A)  
Sanchez, Pedro I., Student Miami Dade Jr. College. Mail: 375 W. 18 St., Apt. 202 Hialeah, Fla. 33010 (S)  
San Fernando, Manuel, Self. Empl., San Fernando Film Enterprise 15020 N.E. 10 Ave. Miami, Fla. 33161 (A)  
Sims, Jim P., Sls. Engr., Video Ampex Corp. Mail: 5701 SW 83 St. Miami, Fla. 33143 (A)  
Warne, John W., TV Engr., J. Hillis Miller Health Center. Mail: 314 N.W. 19 La. Gainesville, Fla. 32601 (M)

### CHICAGO SECTION

Aprille, Thomas J., Jr., Student, Univ. of Ill. Mail: 1010 W. Green St. #405 Urbana, Ill. 61801 (S)  
Baum, Richard C., Chf. Opt. Engr., Bell & Howell 7100 N. McCormick, Dept. 6804 Chicago, Ill. 60645 (A)  
Berry, Loren M., III, Film Editor, N.B.C. Mail: 2125 N. Clark St., Chicago, Ill. 60614 (M)  
Bohmann, Donald K., Professional Union Projectionist, Oak Park Amusement Corp. Mail: 1161 W. Madison St., Chicago, Ill. 60607 (A)  
Borgen, Richard G., Tech. Consult., Strand Electric, Inc. Mail: 5005 Oliver Ave., S., Minneapolis, Minn. 55419 (M)  
Eddens, Gerald R., Sr. Mech. Engr., Simcom Corp. Mail: 11078 Patrina Ct., St. Louis, Mo. 63126 (A)  
Elenz, Edward F., Manufacturing Engr., A.B. Dick Co. Mail: 1008 N. Ridge Ave., Arlington Hgts., Ill. 6004 (A)  
Edmonds, Christopher, Tech. Aide. Chge. of Video Prodn., Bell Telephone Laboratories. Mail: 412 Dawn Ave., Glen Ellyn, Ill. 60137 (A)

# The new Norelco FP-16 16mm Projector that...

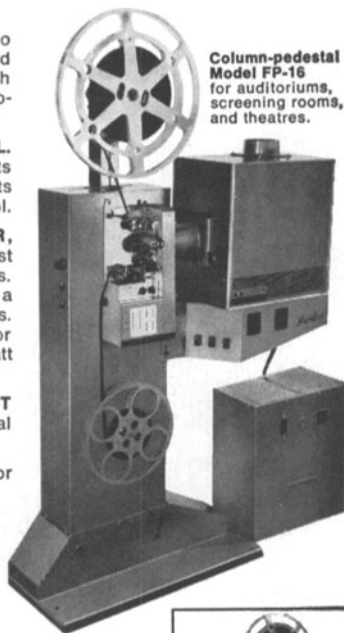
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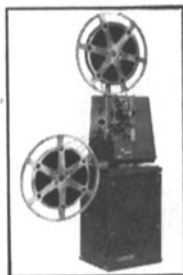
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