

the installation of sound and picture equipment in the Kremlin Hall of Conventions.

He is the author of more than 40 published works and holds many Author Certificates. He places special emphasis on the training of young scientists; from 1942 until 1944 he was a lecturer at LIKI (Leningrad Cinema Engineers' Institute) and from 1944 to the present at Moscow Electrical Institute.

Professor Komar performed the duties of Chairman of the Scientific Council of NIKFI. He is a member of the Technical Advisors of the State Committee for Cinematography of the Cabinet Council of USSR, a member of the Committee

AN USSR for Scientific Photography and Cinematography and a member of the editorial staff of the journal, *Tekhnika Kino i Televideniya*. For his part during World War II in developing new equipment for the Red Army, he was decorated with the Red Star and medals. For efficient work, he also received a commemoration medal, "800 Years of Moscow."

Professor Komar has visited the U.S.A. and Canada on different occasions and also is known to *Journal* readers through his article "Cinematography in the USSR" in the March 1964 *Journal*, which he presented earlier with many slides at the Toronto Convention.

Education, Industry News



Dr. Deane R. White (left), Associate Director of Research for the Photo Products Dept., E. I. du Pont de Nemours & Co., Inc., Parlin, N. J. receiving the Centennial Medal Award of Columbia University's School of Engineering and Applied Science, presented by Dean John R. Dunning of Columbia.

The Photographic Society of America (PSA) presented its highest award, the 1964 Progress Medal, to Deane R. White at ceremonies concluding the PSA International Convention held in Montreal, during August. The citation stressed Dr. White's "... contributions to photography over many years as a physicist in both fundamental and applied research. . . ."

Dr. White's professional contributions to photography during his early work at E. I. du Pont de Nemours & Co. include the drying of processed films and the development of improved sensitometers, densitometers, and developing machines. Under his direction the Du Pont Research Laboratory has markedly increased its contributions to both fundamental and applied research including the development of Cronar polyester film base. The citation also noted Dr. White's leadership of a cultural exchange group mission to Russia in 1963. (This mission is described in the March 1964 issue of the *Journal*, pp. 177-196.)

The PSA Progress Award was originated in 1948 by the Oval Table Society and perpetuated by the PSA. Previous recipients include Edwin H. Land, Harold E. Edgerton, C. E. K. Mees, Henry R. Luce, and Melville Bell Grosvenor.

Dr. White is also recipient of the Centennial Medal Award of Columbia University's School of Engineering and Applied Science. Dr. White and six other photographic scientists were presented with the award at ceremonies held during the International Conference of the Society of Photographic Scientists and Engineers (SPSE) held in New York during April. The Centennial Medals, presented for the first time, commemorate the founding of the Columbia Engineering School in 1864.

The Society of Photographic Scientists and Engineers has announced that its 1964 Annual Symposium (*Journal*, p. 588, July, 1964) will be co-sponsored by the Photographic Management Division of the Bureau of Naval Weapons. The

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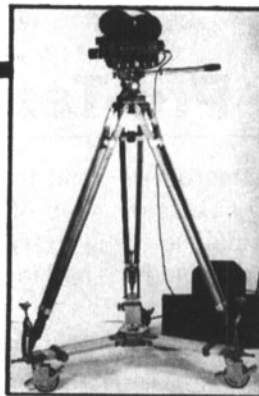
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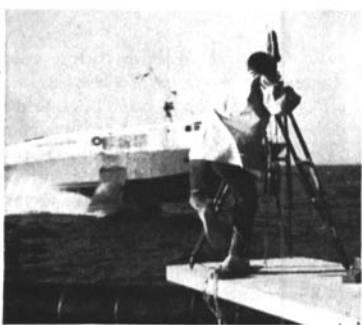
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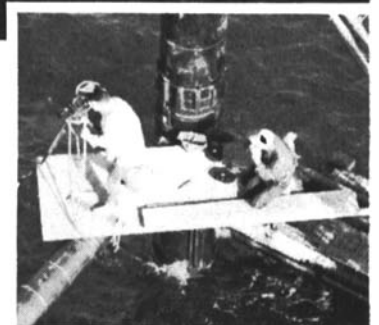
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Symposium will be held October 29-31 at the Marriott Twin Bridges Motor Hotel, Washington, D.C. The theme will be Unconventional Photographic Systems.

General Chairman of the SPSE Symposium will be Jaromir Kosar, a native of Czechoslovakia presently residing in Beechhurst, L.I., N.Y. Dr. Kosar is a research associate with Keuffel & Esser Co., Hoboken, N.J., where he is conducting basic studies on light-sensitive photographic systems as they relate to the problems of reproduction of engineering drawings and to office copying techniques. He is also concerned with the study of non-conventional photographic systems and the chemistry of high-speed processing.

Additional information is available from William S. Dempsey, SPSE Publicity Chairman, FMA, Inc., 4925 Fairmont Ave., Washington 14, D.C.

The Third Annual Symposium on the Physics of Failure in Electronics will be sponsored by the IIT Research Institute, 10 W. 35 St., Chicago, Ill. 60616, and will be held Sept. 29 - Oct. 1 at the Grover M. Hermann Hall, 33 and Dearborn Sts., Chicago. Five sessions will be held. Session topics are announced as: Test, Analysis and Correlation; Surface Effects; Principles and Applications; Effects in Films; and Bulk Effects. Papers will cover the most recent discoveries on the funda-

mental physical processes leading to electronic failure and the development of mathematical models of these processes.

Station KCET, Channel 28, scheduled to begin operating September 28, will be the first Educational Television Station serving the Greater Los Angeles area and Los Angeles' second uhf station. Construction and remodeling of the station, located at 1313 N. Vine St., Hollywood, is estimated at \$1½ million. Operating power will be at 1,200,000 w (erp). The station will be on the air five days a week with programs ranging from the purely instructional to music, theater, art, public affairs and children's programs. In making the announcement it was pointed out that owners of vhf sets could have them converted to receive uhf channels at comparatively small cost.

The Audio Engineering Society will hold its 16th Annual Fall Convention and Exhibition of Professional Products October 12-16 at the Barbizon-Plaza Hotel in New York. Thirteen technical sessions are scheduled.

Two new Colonial Williamsburg color films, *Around the World in Eighty Feet* and *Folk Artist of the Blue Ridge*, have been added to the schedule of free evening programs at the Williamsburg Information Center. The films were produced by Arthur L. Smith, Director of Audio-Visual Programs for Colonial Williamsburg, in association with Mary C. Black, Director of the Abby Aldrich Rockefeller Folk Art Collection. The films are pioneer efforts in the conversion of material existing on canvas to living folk art through the medium of motion-picture film. A third folk art film is expected to be completed late this year and two more are in early stages of production. A series of 12 such films is contemplated and all will be available for school, museum and club showings.

The Great Plains Regional Instructional Television Library is conducting a Co-operative Production Project according to terms of a contract with the U.S. Office of Education. At present 25 educators from the Library's 12 member states are studying possibilities of joint production of educational resources via television for elementary and secondary school use. Additional information is available from Dr. Richard H. Bell, Work Group Coordinator, Co-operative Production Project, Radio-TV Section, BAVI, University of Colorado, Boulder, Colo. 80304.

Rochester Institute of Technology has announced a graduate program in Photographic Science leading to the degree of Master of Science. The program has been inaugurated with a one-course offering in mathematics. Evening classes will be held during the current semester and it is anticipated that the program will be expanded and a full curriculum offered beginning in September 1965. The program will be administered by the Council on Graduate Studies; James W. Wilson, Executive Officer for Graduate Studies;

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C. B. Neblette, Dean of the School of Photography; and B. H. Carroll, Professor, School of Photography. Additional information is available from Dean Neblette, College of Graphic Arts and Photography, Rochester Institute of Technology, Rochester, N.Y. 14608.

A camera designed especially for use in the White House to film the President's press conferences is being developed by F&B/CECO, Inc., 315 W. 43 St., New York, N.Y. 10036. A regular NC Mitchell camera is being converted to a reflex

camera with 3,000-ft magazines, automatic zoom lens, automatic electronic slating, and a sync pulse generator to operate with a Nagra $\frac{1}{4}$ -in. tape recorder. The camera will be called the L. B. J. Camera.

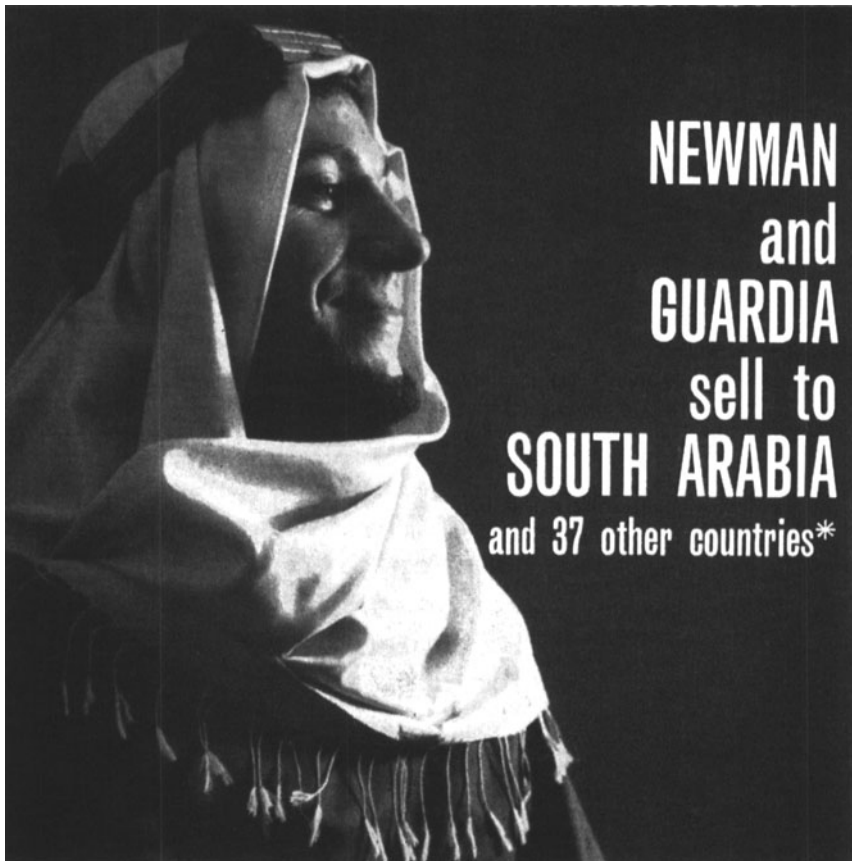
The six-camera RCA television system aboard the Ranger 7 Spacecraft that hit the moon July 31 successfully transmitted to Earth thousands of pictures of the surface of the Moon. The cameras began taking pictures about 1,250 miles from the lunar surface with the last picture

sent back to the giant antenna at the Goldstone Deep Space Instrumentation Facility in California's Mojave Desert from about 1,760 feet from the Moon. The cameras were arranged in two separate chains, each with its own power supply and controls. One chain had two cameras with a picture readout time of $2\frac{1}{2}$ sec; the other had four cameras which sent back a sequence of five pictures/sec. The vidicons (RCA Dev. Type C74072) were developed especially for slow-scan operation. The vidicons are magnetically focused and deflected types which employ a specially developed highly sensitive photoconductor. The vidicon also permits the camera to retain the image on the sensitive tube face for a relatively long period while the information is scanned by an electron beam for transmission to the ground in the form of television signals.

Camera systems similar to those on the Ranger were carried on the Nimbus weather satellite successfully launched in August. One system is called the "triple-eye" AVCS (Advanced Vidicon Camera System). The other is an APT (Automatic Picture Transmission) system. The AVCS cameras have three 1-in. vidicon tubes, looking downward through three separate lenses. The system takes pictures in oblong strips, each covering an area 1,300 miles across and 400 miles deep with a picture resolution of 800 lines. The APT system automatically transmits pictures by direct readout to ground stations anywhere within range of the satellite. This camera, also equipped with a 1-in. vidicon, has better than 700-line resolution. It produces one picture every 208 sec., showing weather conditions in a local ground station area covering 1 million sq mi.

Two special film readers for analyzing Tiros satellite photographs will be built by Itek Corp., Lexington 73, Mass., under a subcontract with Aracon Geophysics Co., a division of Allied Research Associates, which is under contract to NASA's Goddard Space Flight Center. The readers will display two consecutive Tiros photographs simultaneously. The pictures may show a single weather pattern taken from different angles and at different times as the satellite speeds by overhead. The readers will project the pictures on a bright 30 in. by 30 in. screen. One picture will remain fixed while the other is rotated to match up landmarks with the first. A third picture projected on the screen will give auxiliary information about the photographs.

The Remote Maneuvering Unit (RMU), described as an unmanned spacecraft inspector for examining "unknown objects," has been developed by the Astronautics Div. of Ling-Temco-Vought, Inc., P.O. Box 5003, Dallas, Tex. 75222, for the Air Force Aero-Propulsion Laboratory at Wright-Patterson Air Force Base, Ohio. The unit is designed to be launched from a manned orbiting mother craft to examine other nearby craft. As it is maneuvered about the "unknown object" it televises its image to the crew of the mother craft. Prototype of the unit measures 29 by 26 by 10 $\frac{1}{2}$ in. and weighs less than 125 lb.



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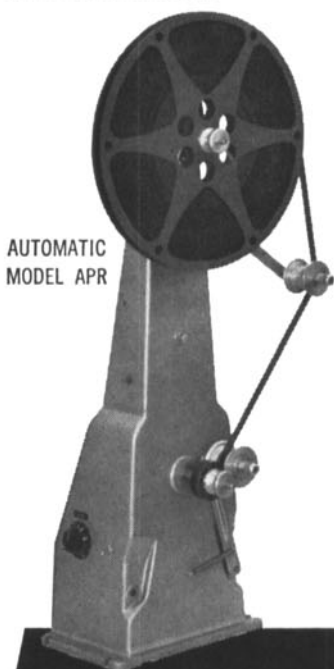
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The Variable Magnetic Field Specimen Holder, a newly developed attachment for the RCA electron microscope, places a variable magnetic field around the specimen under study, thus enabling scientists to observe the movement of tiny "magnetic domains" in certain metals while they are energized by a magnetic field. The announcement from the RCA Broadcast and Communications Products Div. noted that the microscope, which provides magnification of up to 200,000 times, has a low magnetic field at the specimen position. This low field has little effect on magnetization of the specimen under study, thus simplifying measurement of the effect of the varying field. The announcement suggested that the new attachment would enable studies that may lead to the development of new ferromagnetic materials and thus to the development of smaller and lighter motors, faster computers, better magnets, and other advances.

Technicolor Corp. has announced the opening of a new plant in San Francisco at 201 8th St. This is the second Technicolor plant in San Francisco, the first having been opened in 1960. Harry Stuurmans has been appointed General Manager of the new plant. Mr. Stuurmans was formerly General Manager of the firm's Hawaiian plant and later of the Consumer Products Division in New York.

A new firm, Photosystems Corp., has been established at 9 Pinehurst St., Lido Beach, N.Y. 11561, for the design, development and manufacture of specialized photographic equipment for research in government and industry. President of the new firm is Richard A. Hayes. Mr. Hayes was formerly Engineering Vice-President of Photronics Corp., Flushing, N.Y. The firm's first commercial product, now under development, is a high-speed camera designed to record at rates from 10,000 to 1 million pictures/sec.

David C. Yates has been appointed Sales Engineer for S.O.S. Photo-Cine-Optics, 387 Park Ave. South, New York, N.Y. 10016. His headquarters will be in the firm's Western Office in Hollywood. Mr. Yates has a background of motion-picture production in medical films. He was recently associated with the Educational Films Division of the Portland Cement Association.

A new subsidiary, Videoflight Corp., has been announced by Sony Corp. of America, 580 Fifth Ave., New York, N.Y. 10036. The new subsidiary will be responsible for video-tape transfer and distribution of motion pictures used in the firm's airborne entertainment system, according to an announcement from Akio Morita, President. American Airlines is now installing the system in 45 Astrojets under a \$1 million contract, the announcement stated. The motion pictures are taped on a Sony Videocorder located in the cockpit and are transferred to transistor television sets installed for passenger viewing. Individual earphones are provided for private listening. Passengers may select motion pictures, live television, if

Obituary



Edward Lachman

Edward Lachman died suddenly August 4 from a heart attack which occurred while he was attending a convention of the Allied Theatre Owners of New Jersey. He was 56 years of age. He was President and founder of Carbons, Inc., Boonton, N.J. and its two divisions, Lorraine Arc Carbons and XeTron Products. He also owned a theater in Boonton. He was born in Chester, Pa., in 1908 and entered the theater business at an early age in association with his father. Later he was associated with Roth Theatres and the Wilber Snaper Circuit. A member of the Society since 1951, at the time of his death he was serving on the Film Projection Practice committee. He was also active in various exhibitor associations.

within range, stereophonic music and live pictures of take-offs, terrain and landings.

Girard Projection Service has announced the opening of its new offices at 4433 Bissonnet, Bellaire, Tex. 77401. Services include film rental library, projection service, and projection equipment rentals.

A licensing agreement between Will F. Jenkins, inventor of the Front Projection Process, and Front Projection Corp., 404 Park Ave. South, New York, N.Y. 10016, was recently signed, according to an announcement by Sherman Fairchild, the firm's president and founder. The terms of the agreement permit the firm to manufacture and sell the equipment, patented by Mr. Jenkins, for the composite photography of live models and projected backgrounds.

F&B/CECO, Inc., 315 W. 43 St., New York, N.Y. 10036, has been appointed sole sales agent for the new Eclair NR8 camera in the Eastern United States. The firm also maintains authorized official service headquarters for the new camera.