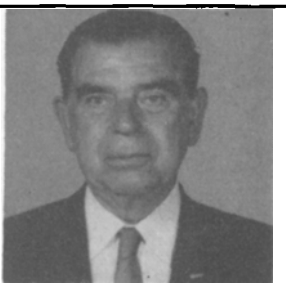
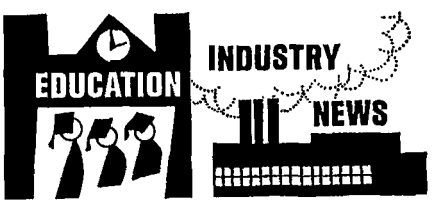
Obituary



Charles E. Schwengeler

Charles Edward Schwengeler died July 21, 1965, in Parthenay, Deux Sevres, France. His home was in Washington, D.C. He was born in Paris, France, February 6, 1888, and became a naturalized citizen of the United States in 1921. As a young man he entered the then infant motion-picture industry in France. In 1910 the French Gaumont film company assigned him to direct the company's film laboratory in Flushing, New York, where his responsibilities included management of the laboratory and film editing. Subsequently he withdrew from laboratory work and continued with Gaumont-*British Films as film editor* until 1946. In 1949, Mr. Schwengeler became Chief of Quality Control in the New York office of the International Motion Picture Division of the United States Information Service under the Department of State. In 1951, he received the State Department's Meritorious Service Award for his work in establishing new procedures for editing and producing news films for overseas use which reduced to a few days, the time between filming of an event and theater showing in Europe. In 1959, Mr. Schwengeler transferred to the Washington office of International Motion Picture Service, USIA, where he remained until his retirement in 1964.

A member of the Society, Mr. Schwengeler was also a member of Motion Picture Pioneers, Motion Picture Editors Union, Local 771, and Motion Picture Laboratory Technicians Union, Local 702.



The Audio Engineering Society will hold its 17th Annual Convention and Exhibition October 11–15 at the Hotel Barbizon-Plaza in New York. More than 90 papers are scheduled for presentation under 13 session topics. Session topics will include: Microphones and Earphones; Audio Amplification; Music and Electronics; Miniaturized Audio Applications; Loudspeakers; Audio Instruments and Instrumentation; Electronic Control of Auditorium Acoustics; Sound Reinforcement; Studio and Control Systems; Disc Recording and Reproduction: Magnetic Recording and Reproduction; and Speech Analytics.

A random sampling of papers of special interest includes (in the session on Audio

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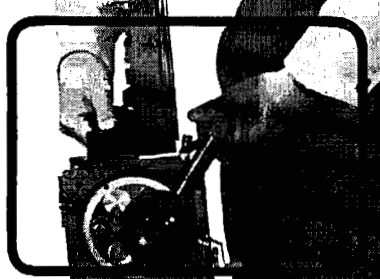

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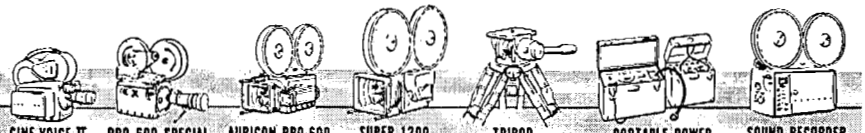

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Amplification) "A New Concept in Gain-Reduction Amplifiers" by John P. Jarvis; "Design Considerations of a Solid State Amplifier for Use in High-Quality Professional Studio Recording and Broadcast Consoles" by Arthur C. Davis; (in the session on Audio Instruments and Instrumentation) "A Solid State Transient Test Signal Generator" by Glen R. Southworth; (in the session on Electronic Control of Auditorium Acoustics) "Passive and Active Acoustics in Architectural Enclosures" by Harry F. Olson; (in the session on Studio and Control Systems) "The CBS 8A Field Audio Console" by E. S. Raymond; "Audio Control Equipment for Use in Studio Sound Recording" by Robert C. Fine; "A New Compact Studio Audio Console" by A. C. Angus; "Design of Control Consoles With Theater Reinforcement Systems" by David L. Klepper; "New Trends for Studio Console Design" by William C. Dilley; (in the session on Magnetic Recording and Reproduction) "Modulation Noise in Tape Recording" by Robert Z. Longevin; "Transient Response and Cross-Modulation Distortion in Magnetic Recorders" by Keith O. Johnson and D. P. Gregg; and "A New Compatible Mastering Tape Recorder" by George S. Bohrs and Walter T. Selsted.

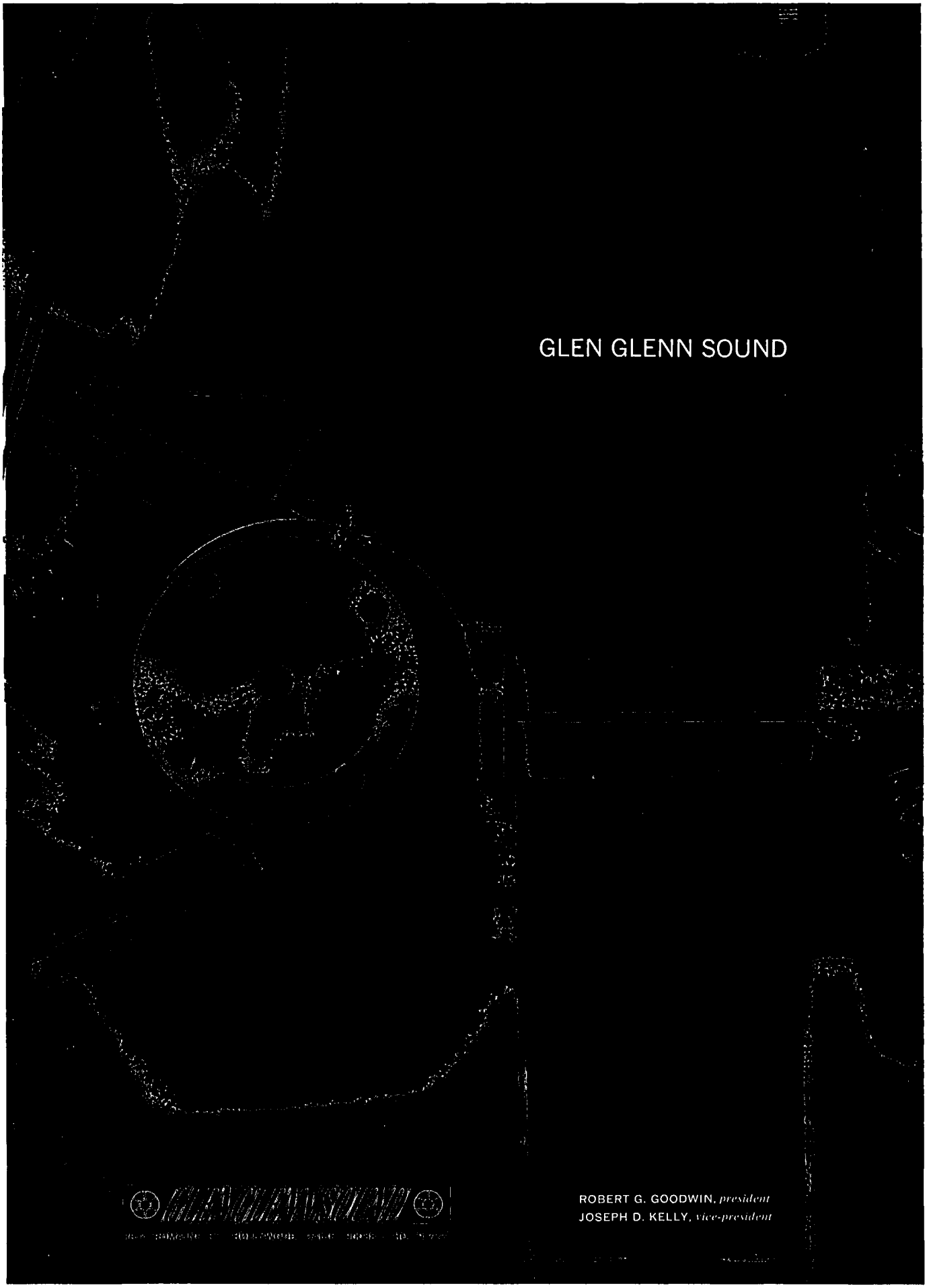
Highlights of the 1965 National Electronics Conference to be held October 25–27 in Chicago (*Journal*, p. 454, May 1965) will include a special report on Project Mariner by J. R. Casani of the Jet Propulsion Laboratory. Data and photographic interpretation will be discussed in connection with such questions as "Does Mars Have an Atmosphere?" and "Can Mars Sustain Life?" Twelve universities will display their latest research projects and the University of Michigan will demonstrate a "lensless" photography system utilizing lasers. About 300 papers will be presented and a number of panel discussions are scheduled. Two seminars will be held on the subjects of Digital Communications and Monolithic Integrated Circuits.

1965 NEC officers are: Chairman of the Board, Dr. John D. Ryder, of Michigan State University; President, Walter C. Kottemann, of Illinois Bell Telephone Co.; Vice-President, Dr. Edward W. Ernst, of the University of Illinois; Secretary, Dr. Warren B. Boast, of Iowa State University; and Treasurer, Dr. Arthur C. Moeller, of Marquette University. Further information is available from Joseph P. O'Brien, Chairman, Public Relations Committee, National Electronics Conference, 228 N. La Salle St., Chicago, Ill. 60601. SMPTE is one of the participants in the NEC.

Chairmen for the 1965 Symposium of the Society of Photographic Scientists and Engineers to be held October 21–23 in Washington D.C. (*Journal*, p. 694, Aug. 1965) have been announced. Conference Chairman is Edward K. Kaprelian, U.S. Army Limited War Lab., Aberdeen Proving Ground, Md.; Papers Chairman, Dwin R. Craig, Fairchild Hiller, Data Systems Engineering, 1455 Research Blvd., Rockville, Md.; Exhibits Chairman, Robert Payne, Photogrammetry, Inc., 12230 Wilkins Ave., Rockville, Md.; Registration Chairman, Joseph Mangiaracina, 30 Brook Ave., Little Silver, N.J.; Audio-Visual Chairman, Arthur W. Hansen, E. I. du Pont de Nemours & Co., Photo Products Dept., Parlin, N.J.; Publicity Chairman, William S. Dempsey, Houston Fearless Corp., 1413 K St., N.W., Washington D.C.; and Social Events Chairman, Cabot T. Stein, Xerox Corp., 1680 Wisconsin Ave., N.W., Washington, D.C.

The American Science Film Association will hold its annual meeting November 7–9 at the Mayflower Hotel, Washington, D.C. Sessions will cover such subject areas as science films for teaching, cinematography in research, new development in technology and technique, and film as a medium for scientific reporting. Further information is available from American Science Film Association, 1319 F St., N.W., Washington, D.C. 20004.

The Inter-Society Color Council will hold a special technical conference February 6–9, 1966, in Williamsburg, Va., on the subject of Instrumental Approaches to Colorant Formulation. (As used in the title of the conference, the term colorant includes dyes, pigments, phosphors, lamps and all related materials used to modify the perceived color of objects.) Fifteen of the Council's member bodies are cooperating in the conference, which is limited to 100 participants. Selection of participants will be made on the basis of the qualifications of the individual to contribute to the purposes of


GLEN GLENN SOUND
ROBERT G. GOODWIN, *president*
JOSEPH D. KELLY, *vice-president*

the conference. Honorary Chairman is Deane B. Judd. Further information is available from Coordinating Chairman, Max Saltzman, National Aniline Division, 40 Rector St., New York, N.Y. 10006.

The degree of Master of Science in Photographic Science and Instrumentation will be granted by the Rochester Institute of Technology, School of Photography, upon completion of 40 credit hours and a thesis. This newly inaugurated graduate program will begin in September. The program is designed for students who received baccalaureate degrees in engineering and science from other schools, but lack a background in photography. The program is not designed for RIT graduates since it is along the lines of the undergraduate program in photographic science. Enrollment in the graduate program is limited this year to 10 students.

Nineteen countries will participate officially in the 6th International Industrial Film Festival to be held October 6–11 in Rouen, France (*Journal*, p. 456, May 1965). About 140 films have been selected for exhibition during the festival. The films are grouped in six categories: films dealing with industrial questions of general interest (such as economic, social, technical, scientific, etc.); specific industrial products, materials or projects; industrial techniques (management methods, efficiency and output, automation, etc.); industrial application of research and educational films; management and manpower training; and films on accident prevention, occupational diseases, and public health.

The 1st International Folklore Film Festival will be held November 18–21 in Siena, Italy. Films may be either 16mm or 35mm and must deal with the study of world folklore. A prize of one million lire and a gold medal will be awarded to the best film and a prize of one-half million lire to the best film for television. The festival is under the auspices of Azienda Autonoma di Turismo, Banchi di Sollo, 20, Siena, Italy.

Licensintorg, a Soviet trading organization established in 1962 to, among other things, promote the sale of Soviet technology and patent licenses, offers, in *Licensintorg Soviet Inventions Newsletter*, a number of inventions which may be of interest to United States industry. The newsletter states," All inventions shown in this newsletter are available under license from Licensintorg. A brochure, in English, giving full technical specifications is available from the New York representative, Amtorg Trading Corp., 355 Lexington Ave., New York, N.Y. 10016, or from Licensintorg, G-200-Moscow, USSR.

Inventions described in the current (July) issue of the newsletter include an automatic film rewinder, said to prolong the life of the film by avoiding the film surface wear caused by slippage of the film layer during rewinding of the film, and an interference reflector (cold light mirror). According to the newsletter, the reflection coefficient in the visible spectrum

is 99% and in the infrared region is 6% to 15%. The reflectors are said to provide higher intensity and illumination uniformity on screens up to 300 sq m with a possible 40,000 lm.

A total of 27 inventions are listed in the July newsletter, among them (in addition to the two mentioned above), a quartz resonator (provided with a piezoelement which produces torsional oscillations), a high-precision potentiometer, coke ovens, an artificial arm with bioelectric control, and a process for the champagnization of wine.

Two new television stations will begin operation in Argentina toward the end of the year. One, in Mar del Plata, will be operated by Mar del Plata Television S.A., and the other, in Santa Fe, will be operated by Televisora Santafecina S.A. Both studios will be equipped with Marconi television studio and transmitting equipment, according to an announcement from Marconi Company Ltd., Chelmsford, Essex, England. The television audience at Mar del Plata, which is the principle seaside resort in Argentina, will number about 300,000 for six months of the year, plus an expected 1½ million visitors during the summer season which lasts from November to April. The station at Santa Fe will also provide coverage for the neighboring town of Parana.

Erratum: The correct address of George Humphries & Co. Ltd. is 71-81 Whitfield St., London, W.1, England. (The address was erroneously given as Mitre House, 177 Regent St., London, W.1, on p. 630 of the July issue of the *Journal* in a report on the firm's new laboratory facilities in Manchester.)

Wollensak-Fastax high-speed cameras and related equipment are available on a rental basis from 3M Company, Photographic Equipment and Optical Division, 850 Hudson Ave., Rochester, N.Y. 14621. A minimum one-week period has been established with longer rentals on a 30-day basis.

Aero-vision helicopter anti-vibration camera mount developed by Doi Works Ltd. of Japan (*Journal*, p. 370, Apr. 1965) is distributed in the United States, Canada and South America exclusively by F&B/CECO, Inc., 315 W. 43 St., New York, N.Y. 10036, according to a recent announcement. The 120-lb camera mount has five patented features to ensure picture steadiness and freedom from vibration. It has been used in Japan by the NHK TV network. Aero-Vision is available for either sale or rental, the announcement stated.

Itza support equipment, previously manufactured by the Telequip Mfg. Corp., will be manufactured and distributed by Camera Mart Inc., 1845 Broadway, New York, N.Y. 10023, under terms of a recent agreement. The Itza support device weighs only 3 lb and adjusts from 30 in. to 11 ft 6 in. It can be used as a light stand, camera stand, unipod, etc.

ColorTran Industries has moved to new quarters at 1015 Chestnut St., Burbank, Calif. Administrative and engineering offices and all manufacturing facilities have been relocated in the new building. The plant and offices now occupy more than 30,000 sq ft and an additional 60,000 sq ft is available adjacent to the plant for future expansion.

A new company, Film/Tape Cartridge Productions, Inc., 113 North San Vicente Blvd., Beverly Hills, Calif. 90211, has been formed by Edward A. Altshuler, west coast management consultant, and a small group of private investors. A standard library of film/tape cartridges for use in Execugraf filmstrip sound projectors will be distributed nationally by Execugraf Corp. (same address as above). A library of tape cartridges will be distributed by Autostereo Corp., 14617 Keswick St., Van Nuys, Calif. This library is based on Autotrain, a system for training salesmen in their cars, which was originated by Mr. Altshuler, the announcement states. Autotrain tapes are on such subjects as management training, sales training, foreign language courses, and religious and educational subjects.

The Execugraf, Model 303, is a 14-lb projector. It has a self-contained screen measuring 10½ by 7¼ in., for "desk-top" presentations or it can be converted to wall or screen projection for larger audiences.

Advanced microdensitometer systems were discussed by Albert J. Derr, Manager

of Physics Research for General Aniline & Film Corp., Photo and Repro Div., 140 West 51 St., New York, N.Y. 10020, in a paper presented at the 10th Annual Symposium of the SPIE (*Journal*, p. 346, Apr. 1965). Mr. Derr discussed mainly problems of design and requirements for systems capable of generating data suitable for use as a computer input. Requirements for a computer-oriented microdensitometer system were outlined as (1) high optical resolution; (2) precision photometric measurement; (3) digital recording of both density and distance data; (4) precision distance measurement in both x- and y-directions; and (5) some form of programed automatic operation. He also described considerations in system design, such as precise distance measurement, a programed position control for automatically directing the microdensitometer, and auxiliary equipment which could be applied to the system, such as an automatic servo system which can search for a fixed density level and track a line of constant density, a variation for using a pre-set density level as a program command, triggering the next operation in the program, and a "Center Finder" which will permit the system to center specific images on the optic axis.

The Nate P. and Frances Spingold Theater Arts Center of Brandeis University, Waltham, Mass., was dedicated June 11 during the University's Commencement exercises. The $3\frac{1}{2}$ million three-story center houses a gallery for displays of paintings, theater scenery, costumes, etc., an auditorium with a seating capacity of 750, a director's theater, dance studio, rehearsal rooms, production shop, and a flexible theater designed so that it can be used as a theater or as a television studio. A Unistrut Metal Framing steel suspension system is used to suspend the lighting grid over the area. For sound-proofing, acoustically absorbent wall panels of Owens-Corning type FF Fiberglas at $4\frac{1}{2}$ lb/cu ft have been used, and suspended acoustical ceilings using Fiberglas tile have been installed. To prevent feedback of sound underneath the vaults, or fluted portion of the roof, acoustically absorbent limpets have been sprayed on. An acoustical canopy has been installed in the main auditorium.

Three Japanese firms, Hiyachi, Ltd., Tokyo Shibaura Electric Co., Ltd., and Nippon Electric Co., Ltd., have been issued patent license agreements by CBS Laboratories, Division of Columbia Broadcasting System, Inc., High Ridge Road, Stamford, Conn., for use of the curved shadow mask color television tube. Color television tubes manufactured in the United States use the CBS Laboratories patent. First licensee was Radio Corp. of America which entered into a license agreement with CBS in November 1954.

Three new export distributors for Technicolor 8mm Instant Movie Cartridge Projector have been appointed by Technicolor Corp. The new distributors are Perrot S.A., Biehl, Switzerland; Westermann Cy, Braunschweig, Germany; and Anderson's Photography & Colour Studio, Kingston, Jamaica. The projector is available in var-

ious models designed for educational or industrial applications or for home movie projection.

Verbal communications between astronauts orbiting in space and men on the ground may be possible by means of a laser device developed by RCA's Applied Research Organization in Camden, N.J., for NASA's Manned Spacecraft Center, Houston, Tex. The 6-lb laser transmitter (about the size of a home movie camera) uses a new type of laser, called a gallium arsenide injection diode laser which operates at room temperature, eliminating the need for cryogenic fluids, such as liquid nitrogen, in the spacecraft. Four of the lasers are used in the transmitter. The transmitter will be used by astronauts in the 2-man Gemini 7 spacecraft during a 14-day flight scheduled for early 1966. One of the astronauts will aim the laser device at another laser light beamed at the spacecraft from the White Sands Missile Range in New Mexico as Gemini 7 passes overhead. When the light beam receiver picks up pulses of light from the spacecraft, the ground laser beacon will flash as a signal that contact has been established. The astronaut will aim the laser transmitter using an optical telescopic sight. He will attempt to contact the ground with the laser pulsing at a rate of 100 pulses/sec, and will change the pulse rate to 7,000 pulses/sec using a button on the side of the transmitter. The higher pulse rate will then be modulated to carry the astronaut's voice over the light beam to the ground.

A coherent-light oscillator that can be tuned over a broad band of frequencies has been demonstrated at Bell Telephone Laboratories. Observation of tuneable optical parametric oscillation in a crystal of lithium metaniobate is reported in the June 14 issue of *Physical Review Letters* by J. A. Giordmaine and R. C. Miller. The wavelength of the coherent light (light with laser-beam characteristics) emitted by this oscillator was varied, or tuned, over most of the wavelength region between 9,700 and 11,500 A. Tuning is achieved by changing the temperature of the lithium metaniobate crystal.

The oscillator is driven, or "pumped," in a pulsed mode by a coherent light beam at 5,290 A. The oscillator output consists of two beams, the sum of whose frequencies always equals the pump frequency, thus conserving energy among the photons involved. The output beams are highly collimated (diverge very little), nearly monochromatic (of a single frequency), and have a peak pulse power of 15 w. This output is achieved with a 6.7 kw input pulse, so the overall power efficiency is about 0.45%. It was found that a temperature change of 12 C could shift the wavelength of each of the two beams by more than 6% (about 700 A).

The Tele-Beam Division of Newal, Inc. (formerly Waltham Precision Instruments Co.) has been acquired by Kalart Co., Inc., Plainville, Conn. The division is primarily engaged in the design, manufacture and sales of large-screen television projection systems. All manufacturing, engineering and sales activities will be transferred to the Kalart plant in Plainville, Conn.

A complete television studio facility for WNYE-TV, the New York City Board of Education's new educational station, will be supplied by Radio Corp. of America under a contract with the Board. The studio site is a one-story building at 112 Tillary St., Brooklyn, N.Y., which will house the station's Television Production Center. Equipments to be supplied by RCA include three cameras using 4½-in. image-orthicon tubes (type TK-60) and three type TR-4 television tape recorders. In addition to the 40 by 60 ft studio, the Center will have complete facilities for broadcasts of motion pictures and a switching system with special effects generator.

The NoisEX system developed by EMT Wilhelm Franz GmbH (*Journal*, April, p. 371) is distributed in the United States by Gotham Audio Corp. 2 W. 46 St., New York, N.Y. 10036. The device utilizes an all-silicon transistor circuitry and incorporates on one 3½-in. standard rack panel a matched compressor and expander capable of reducing tape, film, disc, or other recorder noise up to 15 db. It is said to produce a final playback indistinguishable from the original signal. The unit is priced at $1,445.

Noel R. Bacon has been elected President and a member of the Board of Directors of Metro-Kalvar, a company owned jointly by Metro-Goldwyn-Mayer, Inc., and Kalvar Corp. Jason Rabinovitz, Treasurer of M-G-M, was elected Metro-Kalvar Treasurer; and Benjamin Melniker, Vice-President and General Counsel of M-G-M, was elected to the Metro-Kalvar Board

of Directors. Mr. Bacon, who joined Metro-Kalvar as Vice-President in 1963, was previously associated with American Machine and Foundry Company as Manager of Programs Control for the Government Products Group.

Metro-Kalvar was organized in 1961 to further the applications of Kalvar film, which utilizes heat rather than chemical processes to reproduce images on film. A new 16mm printer-processor based on this technique will be demonstrated at the Society's Conference in Montreal to be held October 31 – November 5.

Charles Lipow has been appointed Director of Advertising and Public Relations for ColorTran Industries, 1015 Chestnut St., Burbank, Calif. Prior to his affiliation with ColorTran, Mr. Lipow was associated with Birns & Sawyer Cine Equipment Co., Los Angeles, and The Camera Mart and F&B/CECO in New York. ColorTran Industries is recipient of a Scientific-Technical Academy Award (*Journal*, pp. 616–620, July 1965) "for advancements in the design and application to motion-picture photography of lighting units using quartz-iodine lamps."

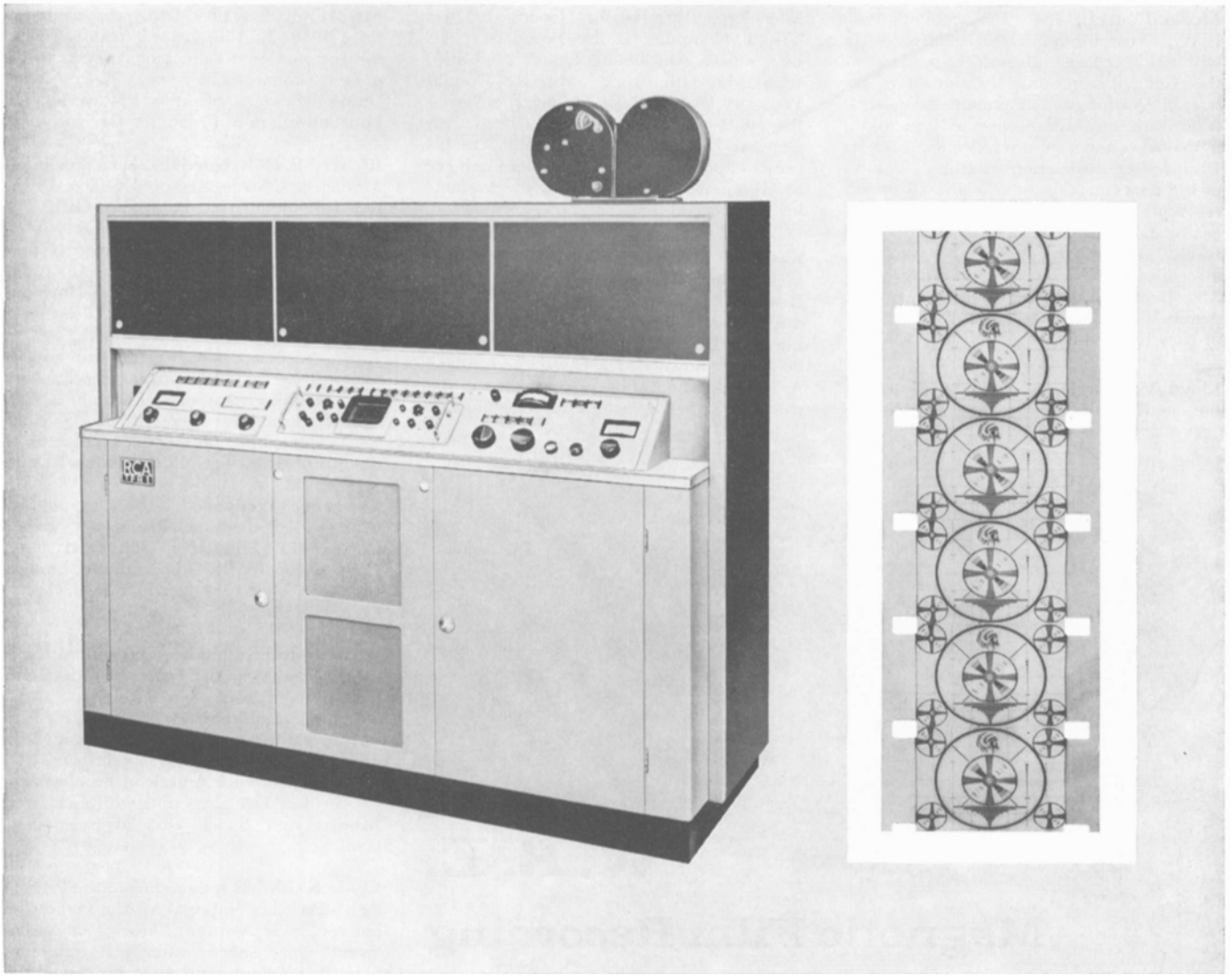
Sy Cane has been appointed Sales Manager for Camera Service Center, Inc., 333 W. 52 St., New York, N.Y. 10019, and its subsidiary, Camera Sales Center Corp. Mr. Cane was formerly associated with Arriflex Corp. of America and with ColorTran Industries.

Glen A. Twombly has been appointed to the newly created post of Director of Research and Development, Lighting & Electronics, Inc., Brooklyn, N.Y. He will be responsible for developing new products in the architectural, decorative, theatrical, television, and control lighting fields. Prior to his present appointment, Mr. Twombly had spent five years with Columbia Broadcasting System in the audio video design engineering department.

James S. Tomes has been appointed to the newly created position of Vice-President, Administration, of Bell & Howell's Photo Products Group. He will be responsible for management of the group's market research, professional motion-picture equipment and military and special products functions. He has served since 1961 as Counsel and Head of the firm's Law Department. Previously he served as Assistant Counsel.

Elliot Berman has been appointed to the newly-created post of Director of Itek Research Laboratories, Itek Corp., Lexington, Mass. He will be responsible for research and advanced development activities in physics, chemistry and mathematics. For the past year, Dr. Berman has been Technical Director of Itek's Research Div. He was formerly Manager of the division's Chemistry Dept.

John D. Bardwell has been appointed Executive Director of the Educational



Versatile RCA Television Film Recorder

Produces High Quality, Low Cost Films From Any TV Source

Broadcasters and producers with TV studio facilities will find the RCA TFR-1 Recorder a versatile tool for production of commercials, promotional and public service films, and film syndication of popular programs. The TFR-1 records live programs or transfers tape to 16mm or 35mm film with studio quality. With its new image display tube and recording camera, the TFR-1 has a resolution capability of 800 lines. More important, however — there is no shutter bar, no vibration, no halations to mar the film recording. The electronics of the TFR-1 have been designed to minimize controls, with many operations being performed automatically. An advanced exposure technique and a superior gray scale provide true, consistent film reproductions. Once the scene or program is recorded, multiple "mirror-sharp" copies can be made to satisfy distribution requirements.

Many RCA Television Film Recorders are now in use, producing excellent recordings and providing continuous stable operation with low maintenance. It could be a profitable addition to **your** facilities. To see a sample of film recorded on the TFR-1, or for technical details on this equipment, mail the coupon or contact your RCA Broadcast Salesman.

TO: Radio Corporation of America
Broadcast & Communications Products Division
Camden 2, New Jersey

___ Send more information on the TFR-1.

___ Have salesman call.

Name_____

Address_____

City & State_____

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Media Council, 1346 Connecticut Ave., N.W., Washington, D.C. 20036. He will be in charge of staff operations at the Council's national headquarters office in Washington. Pursuant to a contract with the U.S. Office of Education, a major concern of the Council and its 14 member associations will be a study of the concentration of educational media resources to assist in such education programs as those designed to help the culturally disadvantaged and the vocationally dispossessed. For the past five years Mr. Bardwell has been Director of the Audio-Visual Center of the University of New Hampshire.

Lloyd V. Morris has been appointed to the newly created position of District sales Representative for General Electric Visual Communications Products. His new offices will be at Pasadena, Calif., where he will work with R. Donald Peterson, District Sales Manager, covering the Southwest. Mr. Morris has been with General Electric since 1962. Prior to his present appointment, he was Sales Engineer at GE's Visual Communications Products headquarters at Syracuse, N.Y.

Kenneth H. Houtz has been appointed Field Sales Manager of the Midwestern District of the Photo Products Dept. of E. I. du Pont de Nemours & Company, Wilmington, Del. 19898. His headquarters will be in Lincolnwood, Ill. He succeeds Edgar A. Kerrick who has been transferred to the company's headquarters in Wilmington. Mr. Houtz has been with the company since 1950. In 1963 he was transferred to the International Department. Prior to his present appointment he was X-Ray Marketing Manager of Adox Fotowerke, Du Pont subsidiary in Frankfurt, Germany.

Richard E. Holtzworth has been appointed Manager, Eastern Regional Office, Precision Instrument Co., Palo Alto, Calif. His headquarters will be at 4903 Del Ray Ave., Washington, D.C. Mr. Holtzworth previously held executive marketing positions with Sierra Research Corp. and Houston-Fearless Corp. of Los Angeles.

James S. Bruce has been appointed Associate Director, Photographic Technology Div., Kodak Park Works, Eastman Kodak Co. Mr. Bruce has been with Kodak since 1939. Since 1962 he has been Director of the Business and Technical Personnel Dept.

Lawrence Weiland has been appointed Manager, Television Products, Ampex Corp., 401 Broadway, Redwood City, Calif. Prior to this appointment he was *Manager, Video Product Planning*. He has been with the firm since 1960.

Frank Robinson has been appointed Executive Producer of Fraser Productions, Columbus Tower, San Francisco, Calif. 94111. Mr. Robinson has been with the firm for the last three years as Production Manager. He was previously a television and film producer with American Broadcasting Co. in San Francisco and with Lockheed Missiles and Space Div. at Sunnyvale, Calif.

Clyde Keith has resigned from the Presbyterian Board of National Missions where he has served as Assistant Director of Audio-visuals since shortly after his retirement from Bell Telephone Laboratories in 1961 (*Journal*, p. 650, Aug. 1961). An internationally known authority on sound recording, at the time of his retirement from Bell Telephone he was engaged in the design of telephone answering and announcement systems. He holds a number of both United States and foreign patents in the sound recording field and has published a number of scientific papers, many of which have appeared in the *Journal*.

Mr. Keith's present plans include acting as a consultant in sound recording, especially for Recording for the Blind, Inc. During the last year he was a volunteer worker for this organization; among other activities he worked on the development of new methods and materials for making raised line drawings.

John A. Leermakers, Vice-President of Eastman Kodak Co. and Director of Kodak Research Laboratories, has been appointed a member-at-large of the National Research Council, Division of Chemistry, for a 3-year term which began July 1. The National Research Council, organized in 1916, is a part of the National Academy of Sciences, which is "dedicated to the furtherance of science for the general welfare of the United States." The Division of Chemistry and Chemical Technology carries on activities related to cooperation among various chemical societies and interests in the United States, coordination with var-

ious sciences, and international cooperation in chemistry. Dr. Leermakers, who has been associated with Eastman Kodak since 1934, began his career with the company as a research chemist. His field of research was the mechanisms of thermal and photochemical reactions as deduced from rate measurements.

Election of three new vice-presidents has been announced by Paillard Inc., 1900 Lower Rd., Linden, N.J. 07036. Jerry J. Kovanda has been elected Vice-President and General Sales Manager of the Photographic Division; Lawrence L. Viarengo, Vice-President and Treasurer; and Walter Braun, Vice-President for Advertising and Sales Promotion. Mr. Kovanda has been with the firm since 1953 when he became a regional sales manager. Mr. Viarengo has been with the firm since its formation in 1949 and has held the post of Treasurer since 1953. Mr. Braun has been with the firm since 1959 as Advertising and Sales Promotion Manager.

Roger Langmaid has been appointed Manager of Research, Reeves Soundcraft, Great Pasture Rd., Danbury, Conn. He will direct the firm's development programs in sound recording, video, computer and instrumentation tapes and tape products. Prior to this appointment, Dr. Langmaid was engaged in research and development of magnetic recording products at IBM's Poughkeepsie, N.Y., facility. Before his association with IBM he was Research Manager of the MSS Recording Co., an English manufacturer of magnetic tape, discs and recording equipment.

J. P. Ulasewicz has been appointed Manager, International Broadcast and Communications Products Field Sales, International Div., Radio Corp. of America. In his new post he will direct RCA International's worldwide sales activities through regional sales offices located in Geneva, Hong Kong, Mexico City and Argentina. Mr. Ulasewicz has been with RCA since 1949. Prior to his present appointment he was Manager, Broadcast Antenna Merchandising.

Thomas Seymour Wainwright has been appointed Assistant to the President, Fred A. Niles Communications Centers, Inc., 1058 West Washington Blvd., Chicago, Ill. 60607. Mr. Wainwright will head a special creative staff, for the firm's three studios, composed of producers, directors and cameramen. He will also assist in general administration, some of his first assignments having to do with formulation of marketing, sales promotion and advertising policies for the firm's three studios. Formerly Vice-President and Creative Director of Kastor, Hilton, Chesley, Clifford & Atherton, Inc., New York, Mr. Wainwright has served for the last four years as a consultant to major industrial and consumer product firms.

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