

new products

(and developments)

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Further information about these items can be obtained direct from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement of the products or services.

Plans for the production of low-cost, simplified video tape recorders have been announced by Magnasync Mfg. Co., 5546 Satsuma Ave., North Hollywood 2. The company is aiming at small, independent TV stations and the home market. The new, simplified recorders will be developed under patents of Lee de Forest. The company recently acquired world rights to the patents. Dr. de Forest, an Honorary Member of the Society, is often described as "the father of the electronic age."

Six RCA color video tape recorders will be delivered to NBC-TV's \$1.5 million "Tape Center" at Burbank, Calif., in April 1958, as the network begins its changeover to the use of magnetic tape for all broadcasts. The change to magnetic tape is scheduled to coincide with the beginning of Daylight Saving Time. Magnetic tape has been used by other networks to solve time-zone problems, but NBC is the first to go all the way in switching from kine-scope to magnetic tape.

Announcement of the changeover was made by Robert Sarnoff, NBC president, November 4, at the company's Burbank studios. Construction of another tape center is planned for NBC's New York headquarters, Mr. Sarnoff said. The California tape center will contain the six RCA color recorders now on order and five Ampex black-and-white recorders. The RCA color recorder is built to the same specifications as the Ampex black-and-white recorder. Ampex is reported to be working on a color converter for its recorder which is expected to be in production within the year. Because of the similarity between RCA and Ampex machines, color and black-and-white tapes will be interchangeable between the two machines.

The first demonstration of the RCA rack-mounted color recorders was given in New York about two weeks before Mr. Sarnoff's announcement. During the demonstration, NBC color programs were transmitted from the RCA engineering studios at Camden, N.J., to the Exhibition Hall in New York.

The machines are expected to be available commercially by December 1958 at a price of \$63,000. Early estimates were about \$100,000. The seven RCA prototypes (6 to NBC; 1 to WBTB) are priced at \$96,000.

Other than the NBC machines, a few

prototypes are being made for other networks. WBTB, Charlotte, N.C., has ordered one of the recorders and has planned to have it installed and in operation by September.

The first production model of the VR-1000 made by Ampex Corp. for King-TV, Seattle, Wash., was delivered on November 26. A second production model is scheduled for delivery to KGW-TV in Portland, Ore. The company has also announced plans for production of an electronic device to convert the present black-and-white model to color recording. The color conversion device is scheduled for production late in 1958.

A million-dollar plant for the manufacture of magnetic tape is being built at Danbury, Conn., by Reeves Soundcraft Corp., 10 E. 52 St., New York 22. The plant, which will cover 50,000 sq ft, is expected to be put in operation in the summer of 1958. Design features include manufacturing areas which are air-sealed and dust-free and the extensive use of automation. Expanded facilities are reported necessary both because of present needs and in anticipation of a rapidly mounting use of tape. The company's Stamford, Conn., plant is presently running three shifts with a 6-month backlog schedule of tapes for high fidelity, telemetering, television, motion pictures, data processing and instrumentation.

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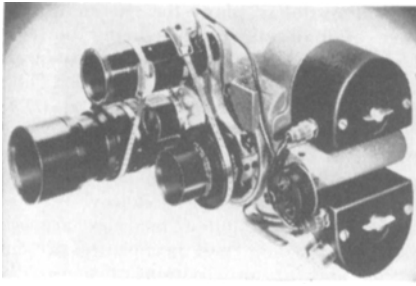
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Autex, a versatile electronic device for the automatic control of exposure in motion-picture photography, was first exhibited by Flight Research, Inc., Richmond, Va., at the 12th Annual Instrument Society of America Instrument-Automation Conference and Exhibit, Sept. 9-13 at the Auditorium, Cleveland. It is designed to adapt to any motion-picture camera and to be used with many lenses. An advanced circuit incorporating transistors provides high sensitivity and wide range facilitating use with color film or the fastest black-and-white film.

A light-sensitive device actuates a motor that turns any number of lens aperture rings. An adjustable steel tape drive is incorporated for ease in changing lenses. The self-contained unit weighs about 3½ lb, including the flashlight cells that drive it. The drive unit, mounted next to the lens, weighs slightly more than 1 lb and is about 4½ in. long and 2 in. in diameter. One of the features of the device is a control which permits the photographer to change the aperture setting from the correct value for the average lighting of the scene

so as to produce the best exposure for the object of most interest.

A 70mm missile-tracking camera, the Multidata Model V, has been introduced by Flight Research, Inc., Richmond, Va. It was exhibited at the 12th Annual Instrument Society of America Instrument-Automation Conference and Exhibit, Sept. 9-13 at Cleveland and at the meeting of the Society of Photographic Scientists and Engineers, Sept. 9-13 at Asbury Park, N.J. The camera features a 400- or 1000-ft magazine, a field of view of 2¼ by 2¼-in. frame size, increased magnification to provide closer views of fin flutter and exhaust nozzle characteristics, a film transport designed to permit high resolution at speeds of 60 fps at shutter openings of 120°, precision alignment by registration pins, a time coding system with two neon lights, four lighted fiducial markers, and a front-plate accepting most standard lenses with provision for modified plates for other lenses.

The 65-70mm process developed by Panavision, Inc., 1917 Pontius Ave., Los Angeles 25, will be used in feature films for roadshows produced by Panavision Films, a newly organized independent production company. A film now in production will be shown throughout the country in theaters capable of handling 3-to-1 aspect ratio screens, as announced by Robert E. Gottschalk, Vice-President of the new company and President of Panavision, Inc. A 35mm anamorphic version of the feature

is planned for release in about a year after the roadshow.

In announcing the new company, Mr. Gottschalk emphasized the importance of the 65-70mm development to the future of motion-picture exhibition. He advanced the opinion that the future of motion-picture exhibition is in roadshows. He cited the success of the Mike Todd production, *Around the World in 80 Days*, for which his company produced the anamorphic print-down lens for the 35mm version.

The company earlier developed a system of photography which utilizes anamorphic lens. Certain patents on this system have been granted and others are still pending.

A high-speed switching transistor called the Thyristor has been developed experimentally by RCA's David Sarnoff Research Center, Princeton, N.J. A modified alloy-junction transistor, the device employs a new form of collector contact which makes possible the high-speed switching action. It may be operated as a bi-stable switching element or as a more conventional high-frequency transistor, either in switching or in amplifying circuits. The new transistor is characterized by its ability to switch substantial currents from one circuit to another in periods as short as one fifty-millionth of a second, and its ability to switch from Off to On and vice versa by the application of low energy pulses to the base circuit in one polarity or the other, according to a statement by Dr. Irving Wolff, RCA Research Vice-President, Research. The device is not now available commercially.

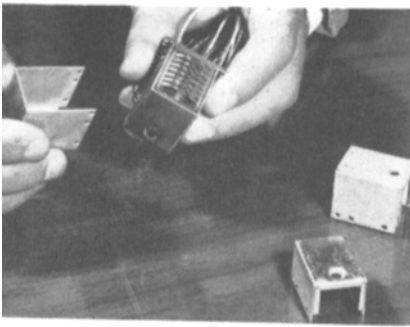
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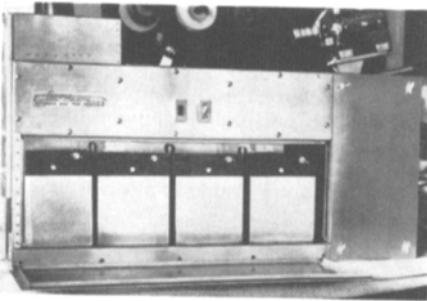
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A miniature multitrack magnetic recording-reproducing head is a product of the Davies Laboratories Div. of Minneapolis-Honeywell Regulator Co. The unit, approximately one inch long, is used in supersonic planes and missiles to record temperature, speed, vibration and other data. The heads are specially shielded to guard against electromagnetic fields with mumetal, manufactured by Allegheny Ludlum Steel Corp., Henry W. Oliver Bldg., Pittsburgh 22. The basic design is two half sections lapped individually, assembled in molds and embedded in a special plastic.



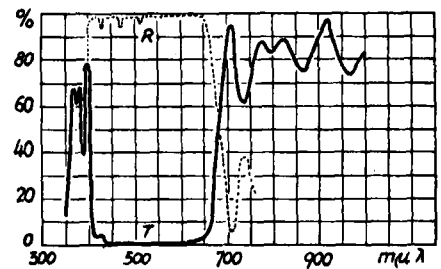
The Mini-Rapid 16, an automatic 16mm rapid film processor, has been introduced by Fairchild Camera and Instrument Corp., Robbins La., Syosset, L.I., N.Y. The portable device permits inspection of black-and-white film either in the studio or on location within 20 minutes after exposure. It is announced as being able to develop dry to dry at a rate of up to 10 ft/min without sacrifice of quality. Major elements in the tiny processor are the interchangeable film transport plastic inserts containing a high-speed developer, a rapid fixer, a hypo eliminating agent and a static rinse. Provisions have also been made for the use of an accessory tank for circulating water. Drying is carried out by a high-velocity air jet on the emulsion side of the film. The unit, including four tanks, weighs 70 lb dry and measures 27 by 12 by 13 in. It is priced at \$1,250.00.

The Andre Debric Co. of France will distribute its French-manufactured professional motion-picture equipment in 11 Western States through Gordon Enterprises, 5362 N. Cahuenga Blvd., N. Hollywood, Calif. Equipment manufactured by the French firm and by Andre Debric Mfg. Corp. of America, a subsidiary of Belock Instrument Co., includes automatic daylight motion-picture processing equipment, microfilm processing equipment and professional 16mm and 35mm cameras.

The Sharps Colour Chart and Grey Scale is to be distributed exclusively in the United States by Camera Equipment Co., 315 W. 43 St., New York 36. It is published in England by Fountain Press, 46-47, Chancery Lane, London, WC2. The chart provides a guide to the relative color responses of television tubes and of photographic material. The color spectrum is abstracted from the Wilson Colour Chart, designed by R. F. Wilson, Art Director, British Colour Council.

The Victor Animatograph Corp., Plainville, Conn., has redesigned its 16mm sound projector by adding color-coded threading. Red, white and blue guide lines painted on the projector housing indicate, in that order, the direction the film should be threaded, over the sound drum, onto the single sprocket and through the film gate. The company has also announced a new visual oiling system for its 16mm sound and silent projectors.

Technical Review is a publication of Brush Electronics Co., 3405 Perkins Ave., Cleveland 14, distributors for the Denmark firm, Bruel & Kjaer, manufacturers of instruments for the measurements of sound, vibration and strain. The periodical suggests current and potential applications of the instruments in industry. The current (No. 3, 1957) issue contains an illustrated article by Per V. Bruel on "Sound Analysis in Industrial Processes and Production."



Cold mirrors for motion-picture projectors and studio lamps, with coatings of greater durability than glass, and designed to give maximum light transmission while protecting the film against the heat from today's high-intensity lamps, have been developed by Geraetebau-Anstalt Balzers, Principality of Liechtenstein, Swiss Customs Area. Reflection and transmission characteristics of these new mirrors are shown in the graph. One of the technological advances claimed lies in the high resistance of the reflective coating. Since it has a higher melting point than glass, it is less likely to suffer damage from carbon particles. This firm specializes in the production of cold mirrors and heat-deflecting filters. Mirrors up to 24-in. diameter, supplied by the customer, are coated by the firm for less than \$100.

Permafilm Preservative Treatment for negatives, fine-grain masters, dupe negatives and positives has been announced by Permafilm, Inc., as now available by a franchise recently given to Consolidated Film Industries of Hollywood and Fort Lee, N.J.

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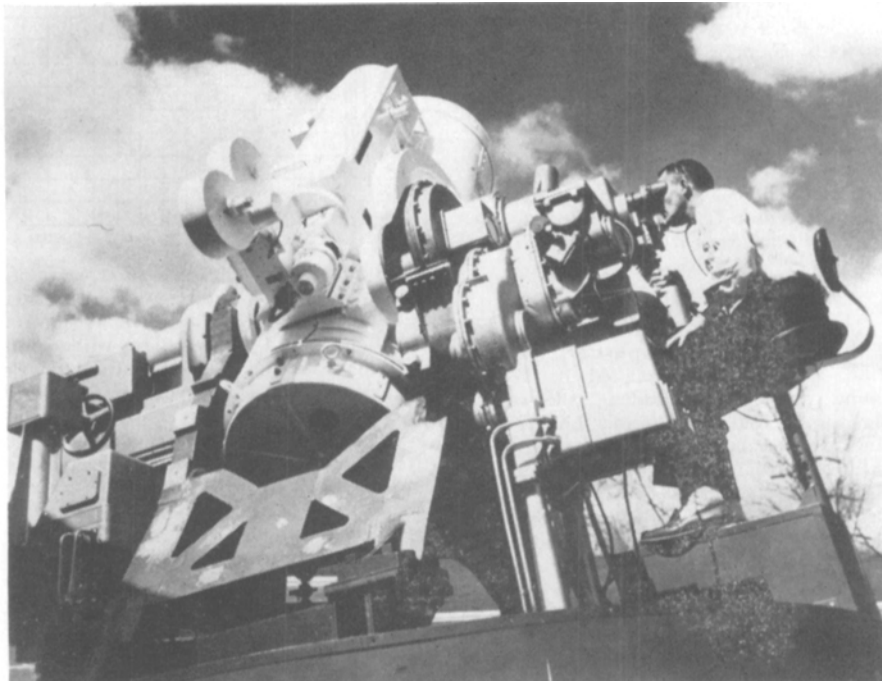
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The Roti Mark II, an eight-ton camera designed and built by the Perkin-Elmer Corp., Norwalk, Conn., for use by the Air Force in its guided missile program has been installed at an Air Force Missile Test Center at Patrick AFB, Fla. The camera, which employs a Newtonian Telescope with 100- to 500-in. focal lengths in 100-in. steps, has taken "close-up" pictures of the moon, but its main purpose is that of photographing guided missiles in the earlier stages of their flight after launching.

Described by the Air Force as "the largest, highest performing and most complex" instrument of its type, the Roti (Recording Optical Tracking Instrument) consists of a 24-in. aperture primary objective telescope, sighting telescopes, camera, controls and associated equipment. It weighs 8 tons and is mounted on a Navy 5-in. gun mount especially adapted for the purpose. The primary telescope is about 8 ft long, 2 ft in diameter and weighs a ton. It incorporates about 200 different optical elements. A 70mm camera with frame rates up to 60/sec is used with the system.

Roti is focused automatically and corrects automatically for parallax and for the earth's curvature. When a missile is fired, radar information is fed into the system and computers convert this information into impulses that activate and adjust it. The station can be operated by remote control or by human operators. Operating personnel are trained by Perkin-Elmer. Three more Rotis are scheduled for installation at Air Force bases in the near future.

The National Film Theatre of Great Britain was formally opened on October 15. The building includes a public theater seating 500 persons and a private viewing theater with a capacity of 25. The screen for the large theater is a Harkness stereo, full size 36 ft 6 in. by 12 ft 6 in. with the frame equipped with magnascopic side masking electrically controlled to give eight positions. Projection equipment for the main theater consists of Gaumont-Kalee "20"

projectors with President arcs. The sound system is Gaumont-Kalee "21" four-channel, capable of handling optical recording, 4-track stereophonic and single-track magnetic. Facilities for showing 16mm films include two G.B.-Bell & Howell Model 609 arc projectors, suitable for optical or single-track magnetic recordings, or CinemaScope-optical.

Lanco Apparatus News, Vol. 9, No. 1, is available from the publisher, Arthur S. LaPine & Co., 6001 South Knox Ave., Chicago 29. The 16-page illustrated brochure gives descriptions and prices of various types of laboratory apparatus including moisture meters, thermistor Tele-Thermometers and other equipment.



Television on trains has been highly successful in Great Britain, according to a report by Pye Ltd, Cambridge, which installed the first TV system in a British excursion train. Placed in operation last spring on an experimental basis, the innovation was received with enthusiasm by the public and is now a permanent feature on

a Glasgow to London train. A guard's van has been transformed into a studio and variety shows, interviews with passengers, and scenic views are presented.

Catalog F, the latest catalog of Mole-Richardson Co., 937 North Sycamore Ave., Hollywood 38, lists the company's complete line of specialized lighting equipment. The 39-page catalog contains photographs, specifications and descriptions of equipment and accessories. A 4-page separate price list accompanies the catalog.

As a service to its customers, the company also handles a few standard technical books and has added the Society's publication, *Elements of Color in Professional Motion Pictures*, to its "recommended" list.

Cine-Kodak 16mm Films, Data and Selection, a Kodak publication, is designed for use by movie-makers in all fields of 16mm cine photography. Characteristics of individual Cine-Kodak films are explained as an aid to their selection and use. The 16-page booklet is perforated to fit the Kodak Photographic Notebook. It is available without charge from Sales Service Div., Eastman Kodak Co., Rochester 4, N.Y.

Cinema Engineering Division of Aerovox, 1100 Chestnut St., Burbank, Calif., has issued Catalog No. 16-C which lists audio frequency amplifiers. The 12-page illustrated brochure lists preamplifiers, boom microphone preamplifiers, line amplifiers, oscillators, equalizer-amplifiers (for magnetic film playback), plug-in chassis in kit form, mounting frames and power supplies.

Two new long-wearing magnetic tapes, No. 148 and No. 149 have been introduced by Minnesota Mining and Mfg. Co., 900 Bush St., St. Paul 6, Minn. The new tapes feature a durable binder construction which minimizes problems of oxide rub-off and deposit on machine heads. The new tapes are similar to the firm's Scotch brand video recording tape. No. 148 has a 1.5-mil backing and comes in 1200-, 2500- and 5000-ft lengths. No. 149 has a 1-mil backing and comes in 1800-, 3600- and 7200-ft lengths. Both tapes are available in all standard widths.

The Orth Saver, a device for extending the life of image-orthicon tubes, has been announced by Visual Electronics Corp., 342 W. 40 St., New York 18. The device combines optical image movement with motion compensation to eliminate target and photo cathode "burn-in." The product is reported to extend the life of the tubes by several months and to improve the picture by eliminating double images caused by retained images on sticky tubes.

The newly organized firm of Basic Electronics Engineering Co., 2748 Junipero Serra Blvd., Daly City, Calif., offers engineering and management consulting services and plans the manufacturing and marketing of proprietary electronics products. Charles M. Brown, a member of the Society, heads the new firm. He was formerly Engineering Manager of Remler Co., San Francisco.