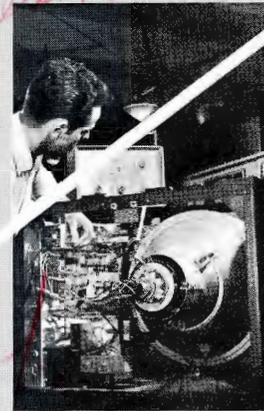
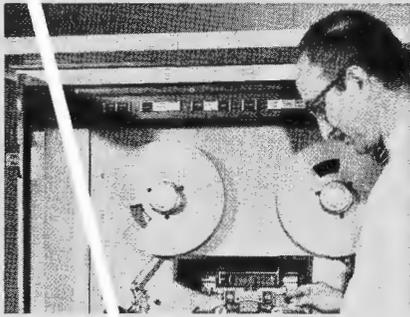


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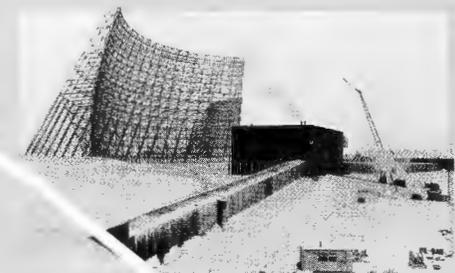
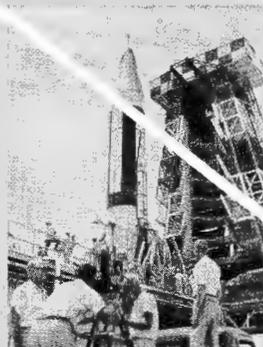
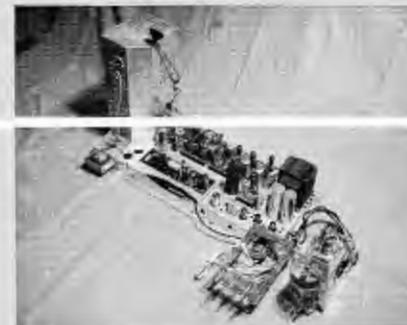
Bill Wilson

Ed Jones



SERVICE

AN RCA FAMILY PUBLICATION



RCA SERVICE COMPANY

AUGUST, 1963



SERVICE

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Editor

J. GRUBE

Personnel Dept., Bldg. 201-1

Cherry Hill, Camden 8, N. J.

THE COVER

Representing various types of Service provided by the Service Company, our Cover does not pretend to illustrate the magnitude of the world-wide work done by our Division.

Can you name those pictured?

SOLUTION—(Reading clockwise, or near-ly): Electronic Data Processing Service—Site Maintenance; Educational Services—a student at the RCA Institutes studies TV and General Electronics; Technical Products Service—a Mobile Communications Service truck; Consumer Products Service—a Color TV chassis (CTC-15); Government Services—BMEWS, Thule—at the Missile Test Project, Cape Canaveral—and the “missile measurement ship,” SS American Mariner.

EARNINGS SET ALL-TIME RECORD

RCA set all-time sales and earnings records in the first half of 1963. Profits after taxes rose to a new peak of \$29,400,000, an increase of 23 per cent over earnings of \$24,000,000 in the first six months of 1962. Sales rose 3 per cent to a new first half high of \$877,300,000, compared with \$853,900,000 a year earlier.

Earnings per share for the six months ended June 30 totaled \$1.60, as against \$1.32 in the similar 1962 period.

Reviewing some of the specific factors that influenced the company's performance, General Sarnoff and Dr. Engstrom said in their joint announcement:

“RCA now has more than 550 computer systems currently installed or on order. During the second quarter, we received our largest single domestic order for electronic data processing systems—a lease contract for thirty 301 systems from the U. S. Air Force Logistics Command. The Electronic Data Processing Division is advancing according to plan toward a crossover into profitability during the fourth quarter of next year.

“In color television, the expansion and intensification of competition has not reversed our position of leadership—a position we fully intend to maintain. It is significant that the month of June, normally a period of seasonal decline, produced 48 per cent more RCA color set sales than the previous peak month of September, 1962. With black and white set sales also moving strongly, the Home Instruments Division had its best second quarter and first half in history.

“RCA's growing role in space was underlined by the successful launching of the seventh Tiros weather satellite, by the successful completion of seven months of orbital tests with the RCA-built Relay communications satellite and by the start of work on RCA's portion of NASA's Project Apollo—the manned landing on the moon. As a major subcontractor to Grumman Aircraft Engineering Corporation, RCA's share of the Apollo Project is expected to be in excess of \$40 million.

“In both sales and profits for the second quarter and first half, NBC surpassed its previous records for these periods set in 1962.”

"TV EYES" AID SEA-GOING SCIENTISTS

U. S. Government's Newest Fisheries Research Vessel uses RCA Closed Circuit TV for observation both above and below the surface.

The \$2,000,000 *Albatross IV*, newest addition to the nation's fleet of craft engaged in oceanographic research, was equipped with TV eyes before her maiden voyage, for use both above and below the surface.

The water-borne TV system, supplied by the Radio Corporation of America, was installed at the Southern Shipbuilding Corporation, Slidell, La., under the supervision of Radiomarine Service Chief A. G. Hickey, and T&I Field Manager H. K. Lubcker and Field Engineer A. S. Riley. The 187-foot vessel now operates out of the Bureau of Commercial Fisheries Biological Laboratory, at Woods Hole, Mass.

Her sea-going scientists use the remotely-controlled underwater TV camera to observe fish in their natural habitat and to develop information on fish behavior, abundance and distribution and on other matters of vital concern to the nation's commercial fishermen.

Three other cameras in the system operate from fixed positions aboard ship. Their chief function is to provide visual communications and to insure safety for the ship's complement of 16 scientists and 22 officers and crew.

A unique feature of the closed-circuit system is a low power TV transmitter capable of broadcasting pictures produced by the cameras so that they may be picked up by portable receivers anywhere on the weather decks.

The transmitter is controlled from a switching console in the ship's wheel-

house where the operator selects which of the cameras to put "on the air." The pictures also may be received on six wired-in video monitors, including one at the control console.

For underwater observation, the TV camera is encased in a special water-proof housing and mounted at the axle position of a wheel-like metal frame. The camera, with its cable connection to the ship, goes overboard inside a large trawling net.

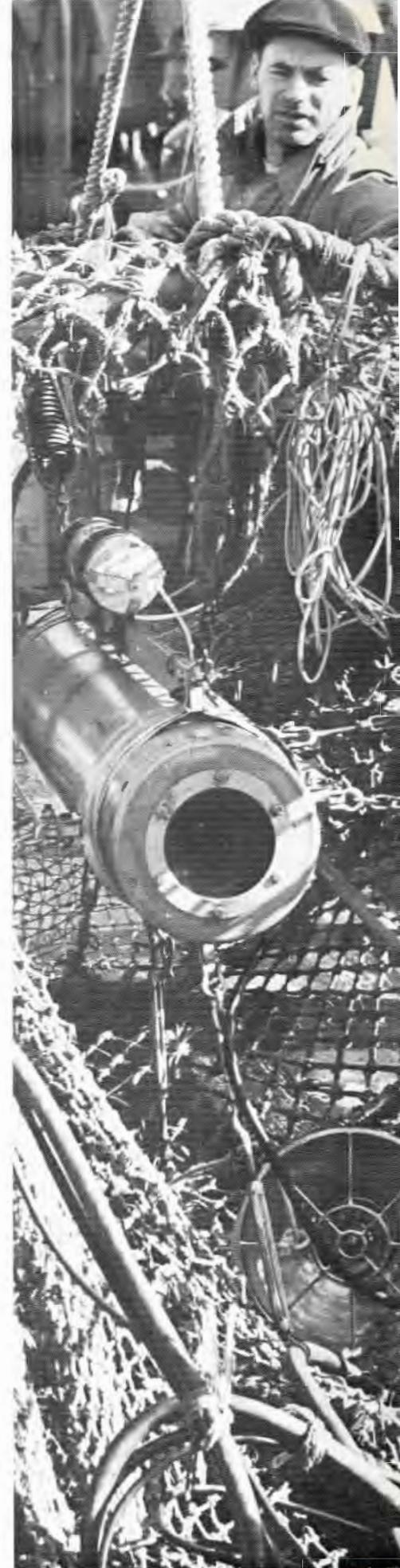
In earlier studies using television, government scientists have observed pictures from the towed net and its catch continuously for as long as three hours. A permanent pictorial record can be made by photographing a monitor screen with a still camera or with a motion picture camera operating at 30 frames a second, the scanning rate of TV cameras.

The television camera adapted for the underwater probes is a standard RCA industrial type (TK-202) using a vidicon, or pickup tube, of high sensitivity. The vidicon performs satisfactorily with a relatively low level of light, although artificial illumination may be needed for some underwater observations. In such cases, a 1000-watt diver's lamp frequently is used.

The research ship's three other cameras are enclosed in weather-proof housings which are heated and cooled under thermostatic control to keep them operative under all types of weather conditions. A windshield wiper on the housing's glass face assures the camera lens a clear view in storms or sea spray.

Two of the cameras are positioned high on the ship's masts and cover fore and aft decks. One camera is trained on the remotely controlled main winch, enabling the winch operator to make certain the area is free of ship's personnel before the winch is started.

The aft camera, which can be panned and tilted remotely from the wheelhouse, overlooks the fishing deck, allowing the officer on the bridge to keep track of operations there without leaving his station. The system's third camera is trained forward, giving those in the after part of the ship a view from the bow.



IN GENERAL

With Flags Flying. For its outstanding contribution to the government's export expansion program, RCA received the Presidential E-for-Export Expansion award—presented in Washington to RCA President E. W. Engstrom by Secretary of Commerce Luther H. Hodges.

In addition to a specially inscribed certificate, RCA was awarded the President's blue-and-white "E" flag, which may be flown over approximately 30 RCA plants and installations throughout the United States.

In making the award, the Commerce Department took note that RCA's export sales have increased approximately 25% over the past three years. This, said the Department, represented a major export effort in 30 different product lines. The Department further noted RCA's introduction of new products in export trade, as well as its conspicuous success in developing markets abroad for existing products not previously exported.

Consolidation. The Broadcast and Communications Products Division will consolidate its engineering, laboratory and assembly facilities for broadcast antennas at its 40-acre Gibbsboro, N. J., test area, erecting a new building there to accommodate the enlarged operation. The improved facilities are needed to handle an unprecedented volume of antenna business which has given the Division the largest backlog of orders for antennas in its history.

Volume. With its last order for eleven RCA transistorized TV tape recorders, ABC-TV brought its total purchases to 25 such units valued at more than \$2,000,000.

The recorders, first to use an all solid state design, have built-in capability for color program operation. They will replace older, tube-type equipment in the network's facilities.

Superior. A burst chart, developed by Broadcast and Communications Products Division, is an aid to measuring accurately the frequency response of TV cameras throughout their entire optical and electronic systems.

The chart is reproduced on heavy, non-reflecting plastic stock and con-

sists of groups of vertical lines which correspond to the various signal frequencies from .5 to 4 megacycles.

When the camera is focused on the chart, the overall frequency response of the system may be observed directly on a TV waveform monitor. RCA engineers regard the burst chart method as superior to use of a resolution chart, since it eliminates the subjective evaluation involved.

Scientific EDP Center. A new data processing center housing RCA's largest and fastest computer—the 601—is being constructed at RCA/Princeton to speed research in a number of complex programs.

The new facility is scheduled for completion this fall. It will be used to quicken research in such areas as lasers, plasma physics, solid-state theory, character recognition devices, advanced computer memories and computer programming.

The center will also act as a back-up facility for two other RCA 601 customers—the New Jersey Bell Telephone Company and the New Jersey Public Service Gas and Electric Company.

Contract. RCA/Moorestown, under a contract from the Air Force Systems Command, has undertaken a study to develop the use of lasers in missile tracking and flight analysis.

The study has as its goal development of an electro-optical system using a laser beam to measure the roll, pitch and yaw of missiles up to an altitude of about 60,000 feet. The laser beam will be directed at reflectors on the missile skin and the return signal will be phase-analyzed to extract the desired altitude data.

The initial installation will be on the Atlantic Missile Range at Cape Canaveral, Florida.

Enhancement. A four-way package of modifications, to increase the speed and productivity of the RCA 501 EDP system by as much as 33 per cent, may be applied readily to any RCA 501 on site. The four "enhancements" are: (1) An increase in memory cycle speed from 15 microseconds to 12 microseconds. (2) A three-character adder which can result in dramatic time savings in basic operating techniques.

(3) Left-to-right comparison of two numbers for improved file maintenance operations. (4) Three-way simultaneity, with the computer now able to read, write and compute at the same time.

Major Advance. A new concept in the design of the famed TIROS "weather eye" satellite, to provide continuous picture-taking of the earth and its cloud cover, will be developed by RCA under a NASA contract. The new TIROS would employ a "wheel configuration" design. In effect, the present hatbox-shaped TIROS would be turned on its side and made to roll endlessly through the sky, snapping pictures of the earth. It would be launched in a polar orbit, meaning that every area of the world would be photo'd at least once a day.

PERSONALITIES

Herbert A. Semler, as Service Company's Controller, is responsible for the direction and supervision of all of the Company's financial operations. This encompasses Treasury activities, Auditing, Accounting, Budgets and Pricing, Credit and Collection, and related services such as Capital Property Control, Data Processing, Management Engineering, and Electronic Business Systems Planning.

Mr. Semler is a native of Denver, Colorado, attending schools there, and receiving his BS in Commerce from that city's Regis College. He is a Certified Public Accountant (Colorado) and after college worked in the Rocky



CONTROLLER H. A. SEMLER heads Service Company's financial operations.

Mountain area as a CPA for a period of six years.

In the following six years he was associated with the Reconstruction Finance Corporation in Washington, D. C. as a Supervisory Auditor and later as Regional Audit Director, located in Cleveland, Ohio.

He then became associated with the Koppers Company in Pittsburgh for a period of twelve years in various Financial Management positions. His last position with that company, prior to coming with RCA, was Assistant Treasurer and Manager of Administration, Engineering and Construction Division.

Mr. Semler has travelled extensively—to Italy, Africa, and Switzerland in military service with the Office of the Fiscal Director, Mediterranean Theatre Headquarters; and to India, Brazil and Chile on various subsequent business assignments.

* * *

Cyrus O. Caulton, whose RCA career spans three decades, came to Service Company in 1961 as Manager of Planning. His responsibilities, recently increased, now also include the supervision of Support Services—Building Maintenance, Office Services, Purchasing, and Real Estate and Facilities.

A physicist and mathematician, and widely known throughout the Corporation, Mr. Caulton has had diverse experience in several RCA divisions, principally in the areas of engineering, marketing, and management. Very early in his career, he combined these same proclivities in jobs as an electronic tester for a consulting engineer and in the retail trade business.

From Cherry Hill, Mr. Caulton is also conducting the Company's Dis-



C. O. CAULTON is Manager of Planning and Support Services.



BOND WINNERS—(Above, l to r) Gov't. Services L. F. CASHWELL, Mgr. W. E. Grundy; Mgr. T. L. Boulton, J. E. COOPER. (Right) TV Br. Mgr. R. J. Sokolowski, J. H. HUTCHISON.



aster Control program, in which he heads a committee of "specialists" in the fields of emergency communications, transportation, fire fighting, welfare, medical service, and other strategies necessary to the safety of the masses.

He is a Philadelphian by birth and, continuing his residence in the nearby suburbs, contributes some of his time to Civic works. He also enjoys gardening, photography, and vacation trips to Canada.

Awards

LUCKY

The three free E-Bonds, of \$25 denomination, offered for drawing in Service Company's recent "Underwrite Your Country's Might" campaign, were won by:

James E. Cooper, Government Services Field Engineering. He is a Systems Service Tech in the Central Area; makes his home in Madison, Wisconsin.

L. Franklin Cashwell, Government Services Field Engineering—a Field Technician in the Eastern Area, who lives in Carnegie, Penna.

Mrs. Julia H. Hutchison, Commercial Services, Consumer Products. Mrs. Hutchison is a Telephone Clerk at the Compton TV Branch; lives in Long Beach, Calif.

The campaign, auspiced by Personnel Services, added up to some interesting statistics. Government Services' White Alice project in Anchorage, Alaska, has 99.7% participation; is privileged to fly the Treasury Department's Minute Man Flag. So is BMEWS, with 76.3%.

MTP, with 72.5% participation came close to the 75% required to win a flag. Cherry Hill, low in some field departments, looks on wistfully.

BLUE RIBBON

Service Company recently received one of the most coveted awards in the business and educational film industry—the American Film Festival's "Blue Ribbon" Award for the customer relations training film, "Strange Birds of the TV World."

Judged to be the top filmstrip in the Personnel Training and Relations category, "Strange Birds" was also selected for showing at a special AFF "Filmstrip Showcase," where it will be viewed and discussed as one of the four outstanding filmstrips of the year 1962.

The film and accompanying sound tape were prepared under the supervision of Service Company's Advertising Department, which also produced the supporting flip charts, posters, folders and stickers.



FOR AN OUTSTANDING training film, the American Film Festival Award.

PRODUCT NEWS

Home Instruments

A RECORD IS SET

Spurred by the best sales month (June) in color television history, RCA's home instrument dollar volume in the first half of 1963 rose 19 per cent above the all-time high set a year ago.

W. W. Watts, Group Executive Vice President and Board Chairman of the RCA Sales Corporation, said that while color TV receiver sales were a strong factor in the record first half performance, there also was increased demand for black-and-white TV portables and stereo "Victrola" phonographs. He also listed these other new dollar volume achievements:

— Color television receiver sales in June were 170 per cent ahead of June, 1962, and 48 per cent ahead of the previous best month, September, 1962.

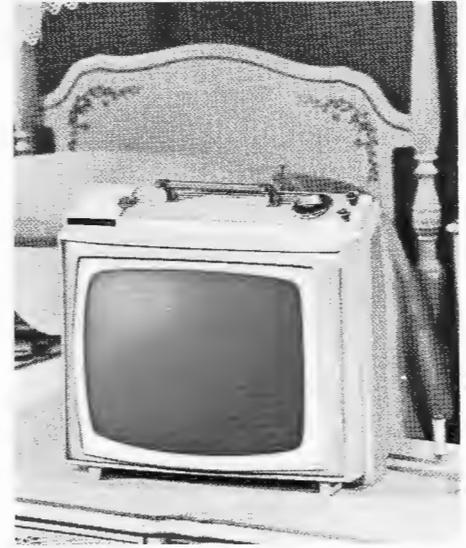
— Total home instrument sales in June ran 46 per cent ahead of the previous June high set in 1962, and 30 per cent ahead of the former best month, September, 1962.

"This tremendous vote of confidence by RCA Victor dealers and distributors is especially significant, since it follows the introduction of our 1964 merchandise as well as the announcement of price cuts by some other companies in the industry," Mr. Watts said.

"The demand for RCA Victor color TV sets indicates to us that proven quality is the most important consideration of the prospective color TV



IN THE 1964 LINE—The AM/FM "Spice Chest" can be hung on a wall. The new 16-inch portable TV at right is the "sweet sixteen" Petite.



customer," he said. "These factory sales records reflect an accelerated rate of color set purchases by consumers in what is usually a relatively slow period."

Raymond W. Saxon, President, RCA Sales Corporation, said color set production at RCA's Bloomington, Ind., plant is now fully committed through Labor Day and shipping facilities are being used seven days a week to expedite deliveries.

"Distributor orders for color sets are nearly double those of last year, while orders for black-and-white sets for the second half are approximately 15 per cent ahead of the 1962 period — indicating that we should have an exceptionally good second half," Mr. Saxon said.

He further stated that the new lines of RCA Victor color and black-and-white television, radio, stereo "Victrola" phonographs and tape cartridge recorder-players reflect improved consumer values in each product category, with particu-

lar emphasis on expanded furniture styling.

"We see a definite demand in all product categories for better styled, higher priced merchandise with added value features," he said.

RCA Service Company

HOTEL/MOTEL — 1964

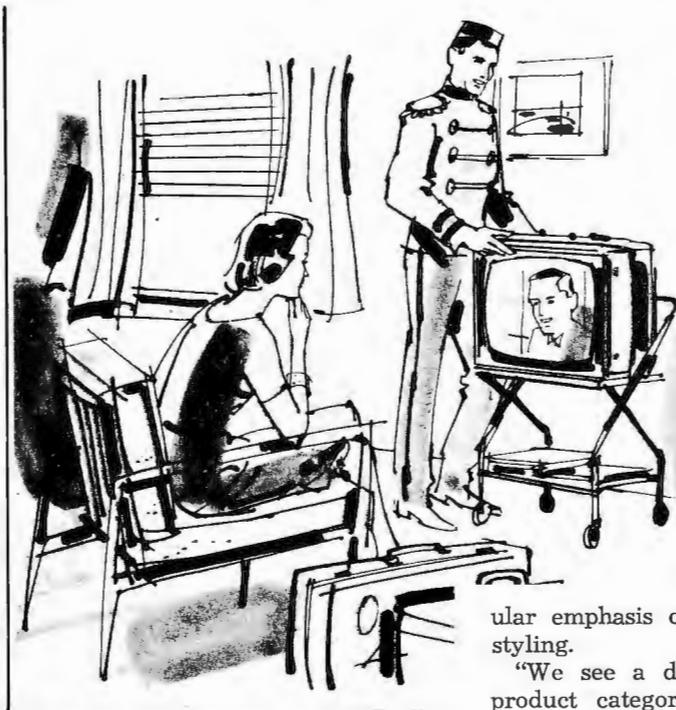
The "single source" line of 1964 models, especially designed to meet the needs of hotels and motels, are in 19-inch and 23-inch black-and-white and 21-inch color TV screen sizes (overall diagonal)—some with remote control.

A special feature of this year's black-and-white sets is modulated sound reception with picture tube dimming device, when such is available from TV systems source. Modulated sound may include AM/FM radio, background music, recorded music and maid paging.

Tamperproof backs discourage opening by unauthorized personnel. Volume limiters prevent guest annoyance. Cabinet finishes resist alcohol stains and burns. Other features include a 72 ohm balun for hook-up of receiver directly to master antenna system without adaptors, heavy duty type power cord, and advanced design adaptable to any decor.

RCA also offers a full line of attractive, convenient receiver accessories, customized Master-Tenna antenna signal distribution system, a complete RCA Factory Service Maintenance Program, and a choice of payment arrangements or leasing plans.

For added guest enjoyment and ease of administration, the Hotel/Motel line contains an Audio Entertainment Control System, Room Services Panel,



FOR HOTELS AND MOTELS—A full house line, specifically designed.

Message-At-Desk System, Radio-Selector System providing up to six channels of AM/FM radio, Zone Paging, Audio and Visual Maid Control Systems, and Room Status Boards.

EDUCATIONAL TV

In 1953, when the first educational station began transmitting in Houston, RCA began its ETV service to schools by placing receivers in Houston area classrooms.

Since that time, RCA cooperated closely with schools and teachers around the country. Working directly with educators, RCA was the first major TV manufacturer to engineer a set specifically designed for school use. An extensive survey of teachers' actual classroom needs preceded the design of RCA Victor's line of ETV for schools.

Today this educator-specified equipment is represented in a full line of "Lyceum" receivers, a Master-Tenna antenna signal distribution system, stands and accessories, Closed Circuit TV, complete installation and maintenance services, and financing if desired.

After scattered beginnings, the use of TV in education has now become a part of the teaching program in schools and colleges across the United States. It is estimated that well over six million students of all grades are receiving some form of TV instruction.

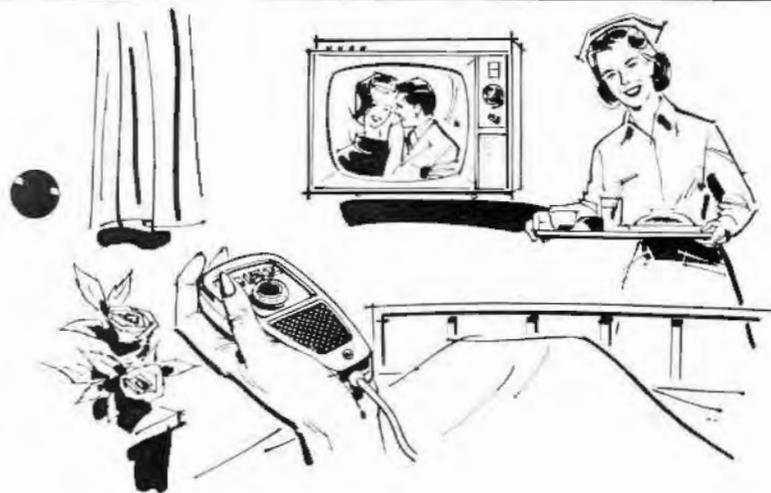
In the complete installation, reception of both off-air and in-school telecasts is possible—the latter through RCA's ETV Closed Circuit Camera offered as an accessory in the line.

FOR HOSPITALS

The RCA Hospital TV "package"—not just adapted, but engineered to hospital use—offers sets, system and service under a TV lease plan or outright purchase.

The good effects of modern equipment upon overall hospital administration was recently pointed out by Division Vice President L. G. Borgeson.

"RCA has long recognized the importance," he said, "of proper communication and entertainment facilities to productive hospital administration. Using this as a basis, a new and integrated program has been devised which can include RCA Victor receivers, accessory equipment, systems and service, to answer all hospital needs."



RCA'S HOSPITAL "PACKAGE" is engineered to hospital use.

The program centers around RCA Victor "Mural TV" receivers designed expressly for hospitals, to fulfill the entertainment requirements of patients and provide added income for hospitals. Following this program of single source responsibility, a Master-Tenna System is installed to assure each patient the best possible reception. Com-

plete Coverage Maintenance is provided through RCA Factory Service Technicians in most metropolitan areas.

Heading the list of specialized communications equipment which can be integrated into the entertainment equipment is the RCA Nurse Call System. Only recently introduced, this audio-visual intercom and signal system consists of master, patient, bedside, and auxiliary stations to permit fast, easy communication between patients and staff.

Further, these accessories items blend in with the receivers and nurse call system:

—Sturdy bed-high stand, or adjustable wall mount with swivel and tilt action for viewing comfort.

—Audio control system, distributing AM/FM radio entertainment or recorded music.

—Doctor's Paging System, quickly locating attending physicians.

—Doctor's In/Out Register, complementing the Paging system, and indicating the immediate status of physicians in attendance.

—Closed Circuit TV system, enabling non-ambulatory patients to see religious and other special programs, or to see visitors otherwise restricted. Patient instruction and training also may be televised to good advantage.

To help hospitals secure the necessary equipment without delay, RCA has available three options in its program—outright purchase, or convenient payment arrangements, or through the lease plan. The lease plan enables hospitals to cover the expenditure through TV rental fees or increased room rates.



EDUCATOR-SPECIFIED school equipment, for best ETV programming.

COMMERCIAL SERVICES

Technical Products Service

DOUBLE BY CARFONE

Helping to develop new motor freight business, a new two-way radio system has extended communications control of vehicles operating out of Herrin Transportation Company's Dallas terminal into neighboring Fort Worth.

The big Houston-based motor carrier recently began operation of the new system, which uses 160 transistorized mobile Super-Carfone units. The system was supplied by RCA, and was installed and is maintained by Service Company.

The 150-megacycle equipment is installed in Herrin pickup and delivery vans, as well as in sales and supervisory vehicles, and includes base stations at the firm's four major terminals in Houston, Dallas, Memphis and New Orleans.

Eldon Brown, Dallas Terminal Manager, said the new system enables his dispatchers for the first time to reach drivers in the Fort Worth area, some 30 miles distant, and to relay instantly orders for pickup or return loads to Dallas.

This direct "dispatcher to truck cab" message service has produced payloads that would have been missed previously, and is paying dividends in customer service and good will.

In the Houston area, experience with the RCA system thus far indicates a coverage range double that of a previous two-way communications setup, extending radio control into new areas there.

Introduced last November as the newest addition to RCA's mobile communications equipment line, the



PAYING DIVIDENDS—Herrin Company's RCA 2-Way Super-Carfone system has 160 units and base stations in Houston, Dallas, Memphis, New Orleans.

Super-Carfone uses all-transistor receiver and power supply circuits as well as maximum transistorization in the transmitter.

FIRST 601 INSTALLED

The initial installation of the RCA 601, one of the world's most powerful business computers, was made at Teaneck, N. J., for the New Jersey Bell Telephone Company.

They established a computer "central" there to keep track of the 14 million toll calls placed each month in the populous northern half of the State. Four RCA 301 computers complete the center.

On the average, the computer processes 35,000 bills daily, correlating such factors as duration of calls, rates as

determined by distance, time of call and type, and charges for extra message units.

The computers turn out the finished bill to be mailed to the individual customer and maintain a master file for each account. The New Jersey Bell system involves 15 separate billing dates every month.

One of the major contributions of the RCA 601 is extreme speed. The new computer in operation at New Jersey Bell handles instructions 10 to 15 times faster than many EDP systems now in use.

As an example of its work power, the RCA 601 in a single second can make up to 666,667 "decisions," or add 183,000 eleven-digit figures. With an RCA 301 and multiple printer hookup, the RCA 601 can turn out paper work at a rate fast enough to print a full-length novel in one minute—7,200 lines of 120 letters each.

At Teaneck, the RCA 601 and RCA 301s gradually will be assigned such other tasks as the production of traffic pattern studies and statistical analyses.

The service of the huge installation is directed by Dirk Den Boef, Manager of Site Maintenance. A Hollander by birth, he was once Radio Officer for Radio Holland N.V., Keizersgracht, Amsterdam; in 1957 completed Advanced Technology courses at RCA Institutes; was trained as a Bizmac engineer, and assigned to the installation at Travelers BIZMAC, Hartford, Connecticut.

Delivery of RCA's second 601 has been made to Public Service Electric and Gas Company, in Newark, New Jersey.



AT THE N. J. BELL TELEPHONE Company in Teaneck, N. J., EDP Specialist Bob Strominger operates the console of RCA's first 601 installation.

LAURELS AMONG PALMS

To learn the facts on 501 "Speed Pak" enhancement and on the newly acquired Magnetic Tape Terminal equipment, EDPS District Managers met at a session called by management at Singer Island, Florida.

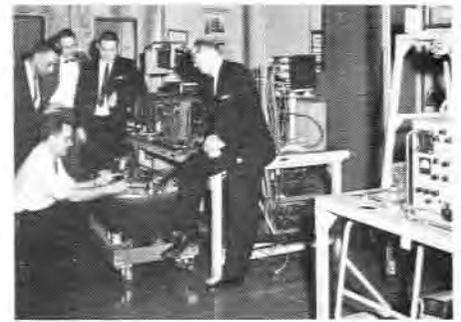
"Speed Pak" up-dates 501 equipment by increasing its speed and consequently its productivity — and "MTTE," used presently by the Air Force, permits lightning swift transmission of data from outlying points.

The meeting was opened by R. F. Adams, Manager of Technical Products Service, and by H. W. Johnson, EDPS Field Operations Manager.

A highlight of the 3-day schedules was a day's tour of EDP manufacturing facilities in Palm Beach Gardens. There, EDP Operations Manager J. A. Scarlett presented Mr. Johnson with an etched silver bowl, in recognition of contributions made to the growth and acceptance of RCA Electronic Data Processing. Bruce Aaront, EDPS Operations Support Planning Manager, was named "EDP Assistor of 1962," and given an appropriate plaque.

To Mr. Johnson, Group Executive Vice President Charles M. Odorizzi subsequently wrote:

"... you can be justly proud that these people went to a special effort to recognize your leadership in bringing your function within the RCA Service Company into a mutual team effort with the EDP Division, that has led to a rapidly growing customer acceptance of RCA Electronic Data Processing Products. I would like to offer my thanks and congratulations for your contribution in this regard."



G. E. REILLY manages the NAESU Contract. Upper right, Jack Loughrey's class on search radar. Below, Al Dickson instructs on anti-sub gear. Right, NAESU writing staff includes R. L. Jennings and N. G. Ross, 2nd and 3rd from right.

Gov't. Services—Field Engineering

THE NAESU CONTRACT

The U. S. Naval Aviation Engineering Service Unit (known as NAESU), now in its twentieth year of service to the air arm of the Navy, provides field engineering assistance and instruction to Naval aviation activities in the installation, maintenance, repair and operation of all types of aviation systems and equipment.

To accomplish this, NAESU provides qualified field engineers obtained under

contract from industry, who in turn are required to furnish classroom instruction and on-the-job training to fleet personnel; repair equipment when failures are beyond the capabilities of fleet personnel; plan and assist in the installation of shore and ship electronics and electrical shops; and submit technical reports on equipment maintenance.

Service Company has supplied engineering services to NAESU since the Unit's inception twenty years ago. The program has consisted of world-wide service, with qualified technical personnel assisting on various types of airborne equipments, such as automatic pilot systems, fire control and airborne missile systems, electronic counter-measures, navigation and communications equipment, and anti-submarine warfare gear.

NEWS-WORTHY—Field Projects

Tom Burbage, assigned to the Tradex Project on Roi-Namur, Marshall Islands, was "hamming it up" as KX6AV on a 20-meter single sideband. He worked a Ham named Barry, W3UIG. When the QSL card arrived, it turned out to be from Barry Goldwater. Tom is keeping the QSL and the note from the Senator, because he thinks W3UIG might move up a notch!



AT RCA/PALM BEACH, EDPS District Managers see EDP Ops. Mgr. Scarlett and EDPS Field Ops. Mgr. Johnson plant a palm. Left, Sup. Plan. Mgr. Aaront (center); EDP's Toothman and Scarlett.

AUTO-INSTRUCTION

Two RCA Autotext courses—Introduction to Electronics, and Introduction to Semiconductors—are newly offered by the RCA Institutes Home Study School.

A method of programmed learning, Autotext provides students with the quickest and most effective means yet devised for attaining basic knowledge in electronics. Each step is carefully coordinated with statements, questions and answers, supported by illustrations, practice lessons and work kits.

How it evolved. RCA, faced with a severe training problem in developing maintenance technicians for Electronic Data Processing Service activities, decided to utilize at once a form of programmed learning. This decision led to the development of the RCA Autotext which, in its initial form, was applied to teaching computer logic to beginner computer maintenance technicians.

Since employing this form of auto-instruction in its own operations, RCA has successfully applied it to other learning situations, including use by the Philadelphia National Bank and the Edison Electric Institute.

RCA Autotext programs for other applications are now being produced, and negotiations are underway with a

national publisher to make such programs available for use in schools and colleges through regular book distribution channels.

Progress accelerated. Jack W. Friedman, Director of the Home Study School, expressed the belief that the Autotext method would open new horizons for home study, in which the progress of students would be substantially accelerated.

The method employs three accepted phases of the learning process: *stimulus* is generally provided by a statement or question; *response* comes through active participation in the form of, for example, selection of the correct answer; *reinforcement* is obtained by informing the student as soon as possible whether he is right.

Content. The Introduction to Electronics course is comprised of sixteen theory lessons, sixteen service practice lessons, and sixteen experiment lessons, together with eight kits of electronic parts.

The Introduction to Semiconductors course consists of eight programmed theory lessons, bound in four study groups. In addition, the student may obtain an RCA Transistor Trainer on a rental basis, enabling him to conduct experiments using transistors in various types of circuitry, including that of a complete transistor radio.

Take Care!

Nurse Elen D. Messerschmidt, pinchhitting for the vacationing Dr. Mitnamow, tells how she helps to "take care" at Cherry Hill, and elaborates on some of the other duties of the industrial nursing profession.



"You're going to the Mid-East, Sir? We can start your series of shots on Monday . . ."

"Something blew in your eye? Sit right down here . . ."

"He can't walk to the dispensary? We'll be right over . . ."

And so the work-week might start for any Industrial Nurse in any of the RCA dispensaries across the country. At Cherry Hill, we have our share of heart attacks, twisted ankles, sudden or severe pain, cuts, bruises, treatment of chronic ailments, common colds, headaches. Emergency care—and sometimes long-range care—is given to any of Cherry Hill's 2,000 workers.

While our major concern is for the immediate care of the under-par employe, our work has other and not-so-familiar functions. The new employe, for example, must pass a physical examination before hire. We nurses assist the doctors in determining the physical fitness of the new worker. He must be able to do the work without harm to himself, and without risk to any of the other people with whom he will be working. We test approximately 1,000 new job applicants every year.

We also work in cooperation with national, state and local agencies in the prevention of major epidemics. You recall last winter's flu virulence? We helped to combat it by giving inoculations to 1,800 RCA people. We believe the medication helped to keep them well, preventing absenteeism and loss of money.

Dispensary administration is another phase of our work. We can't afford to run out of supplies nor have faulty equipment. We must be ready and equipped for any emergency.

But I think we love you most during Red Cross Blood Drives, when you share in our work of alleviating illness. It's easier to give blood than be given it, believe me!

ACTUAL LESSON SIZE 60 x 11

ANSWER SHEET

1-11 ELECTRICITY IN ACTION

100		107	co
101	wire	108	switch
102	resistor	109	heat
103	capacitor	110	conductor
104	inductor	111	generator
105	transformer	112	motor
106	relay	113	transformer
107	diode	114	resistor
108	transistor	115	capacitor
109	vacuum tube	116	inductor
110	integrated circuit	117	transformer
111	microprocessor	118	resistor
112	memory	119	capacitor
113	logic	120	inductor
114	bus	121	transformer
115	network	122	resistor
116	protocol	123	capacitor
117	router	124	inductor
118	switch	125	transformer
119	bridge	126	resistor
120	gateway	127	capacitor
121	firewall	128	inductor
122	proxy	129	transformer
123	cache	130	resistor
124	load balancer	131	capacitor
125	reverse proxy	132	inductor
126	content delivery network	133	transformer
127	edge server	134	resistor
128	CDN	135	capacitor
129	DDoS protection	136	inductor
130	WAF	137	transformer
131	rate limiter	138	resistor
132	captcha	139	capacitor
133	botnet	140	inductor
134	malware	141	transformer
135	ransomware	142	resistor
136	trojan horse	143	capacitor
137	spyware	144	inductor
138	keylogger	145	transformer
139	stalkerware	146	resistor
140	spyware	147	capacitor
141	malware	148	inductor
142	ransomware	149	transformer
143	trojan horse	150	resistor
144	spyware	151	capacitor
145	keylogger	152	inductor
146	stalkerware	153	transformer
147	spyware	154	resistor
148	malware	155	capacitor
149	ransomware	156	inductor
150	trojan horse	157	transformer
151	spyware	158	resistor
152	keylogger	159	capacitor
153	stalkerware	160	inductor
154	spyware	161	transformer
155	malware	162	resistor
156	ransomware	163	capacitor
157	trojan horse	164	inductor
158	spyware	165	transformer
159	keylogger	166	resistor
160	stalkerware	167	capacitor
161	spyware	168	inductor
162	malware	169	transformer
163	ransomware	170	resistor
164	trojan horse	171	capacitor
165	spyware	172	inductor
166	keylogger	173	transformer
167	stalkerware	174	resistor
168	spyware	175	capacitor
169	malware	176	inductor
170	ransomware	177	transformer
171	trojan horse	178	resistor
172	spyware	179	capacitor
173	keylogger	180	inductor
174	stalkerware	181	transformer
175	spyware	182	resistor
176	malware	183	capacitor
177	ransomware	184	inductor
178	trojan horse	185	transformer
179	spyware	186	resistor
180	keylogger	187	capacitor
181	stalkerware	188	inductor
182	spyware	189	transformer
183	malware	190	resistor
184	ransomware	191	capacitor
185	trojan horse	192	inductor
186	spyware	193	transformer
187	keylogger	194	resistor
188	stalkerware	195	capacitor
189	spyware	196	inductor
190	malware	197	transformer
191	ransomware	198	resistor
192	trojan horse	199	capacitor
193	spyware	200	inductor
194	keylogger	201	transformer
195	stalkerware	202	resistor
196	spyware	203	capacitor
197	malware	204	inductor
198	ransomware	205	transformer
199	trojan horse	206	resistor
200	spyware	207	capacitor
201	keylogger	208	inductor
202	stalkerware	209	transformer
203	spyware	210	resistor
204	malware	211	capacitor
205	ransomware	212	inductor
206	trojan horse	213	transformer
207	spyware	214	resistor
208	keylogger	215	capacitor
209	stalkerware	216	inductor
210	spyware	217	transformer
211	malware	218	resistor
212	ransomware	219	capacitor
213	trojan horse	220	inductor
214	spyware	221	transformer
215	keylogger	222	resistor
216	stalkerware	223	capacitor
217	spyware	224	inductor
218	malware	225	transformer
219	ransomware	226	resistor
220	trojan horse	227	capacitor
221	spyware	228	inductor
222	keylogger	229	transformer
223	stalkerware	230	resistor
224	spyware	231	capacitor
225	malware	232	inductor
226	ransomware	233	transformer
227	trojan horse	234	resistor
228	spyware	235	capacitor
229	keylogger	236	inductor
230	stalkerware	237	transformer
231	spyware	238	resistor
232	malware	239	capacitor
233	ransomware	240	inductor
234	trojan horse	241	transformer
235	spyware	242	resistor
236	keylogger	243	capacitor
237	stalkerware	244	inductor
238	spyware	245	transformer
239	malware	246	resistor
240	ransomware	247	capacitor
241	trojan horse	248	inductor
242	spyware	249	transformer
243	keylogger	250	resistor
244	stalkerware	251	capacitor
245	spyware	252	inductor
246	malware	253	transformer
247	ransomware	254	resistor
248	trojan horse	255	capacitor
249	spyware	256	inductor
250	keylogger	257	transformer
251	stalkerware	258	resistor
252	spyware	259	capacitor
253	malware	260	inductor
254	ransomware	261	transformer
255	trojan horse	262	resistor
256	spyware	263	capacitor
257	keylogger	264	inductor
258	stalkerware	265	transformer
259	spyware	266	resistor
260	malware	267	capacitor
261	ransomware	268	inductor
262	trojan horse	269	transformer
263	spyware	270	resistor
264	keylogger	271	capacitor
265	stalkerware	272	inductor
266	spyware	273	transformer
267	malware	274	resistor
268	ransomware	275	capacitor
269	trojan horse	276	inductor
270	spyware	277	transformer
271	keylogger	278	resistor
272	stalkerware	279	capacitor
273	spyware	280	inductor
274	malware	281	transformer
275	ransomware	282	resistor
276	trojan horse	283	capacitor
277	spyware	284	inductor
278	keylogger	285	transformer
279	stalkerware	286	resistor
280	spyware	287	capacitor
281	malware	288	inductor
282	ransomware	289	transformer
283	trojan horse	290	resistor
284	spyware	291	capacitor
285	keylogger	292	inductor
286	stalkerware	293	transformer
287	spyware	294	resistor
288	malware	295	capacitor
289	ransomware	296	inductor
290	trojan horse	297	transformer
291	spyware	298	resistor
292	keylogger	299	capacitor
293	stalkerware	300	inductor

ACTUAL LESSON SIZE 60 x 11

COMPLETION OF EXPERIMENT, LESSON 2

6. The light in a simple circuit goes on a power source (battery) of the battery. Label the generator.

7. The battery is a chemical source of electricity. The generator is a dynamo. Label the generator.

8. Magnetism is what makes power in our electric world. Magnetism can be used to produce electricity in a device called a generator.

9. The battery is a chemical source of electricity. The generator is a dynamo. Label the generator.

10. See how many electrical components (resistor, capacitor, inductor) you can use in a circuit.

11. Name the sources of electricity and give an example of each.

Source: _____ Example: _____

12. A dynamo is a device that converts mechanical energy into electrical energy.

THE RCA AUTOTEXT method of instruction, now applied to the home study of electronics, accelerates the absorption of basic knowledge.



ALBANY—Standing before TV branch, renovated after fire, are: (l to r) Branch Mgr. F. P. Smith, R. Vogel, N. Corbo, Mrs. Dyer, S. Labanowski, H. McGurn, N. Tremblay, E. Sherman, J. Coleman.



CHERRY HILL—Fleet Admin. and Mrs. Tom Foster, with daughter Lillian, at his retirement gala.



COMPTON—Telephone Salesman Bob Austin, with prizes he won in Shirt Sleeve Selling campaign.

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