PHILCO NEWS

OCTOBER
1960

James M. Skinner, Jr., Philco President

"On both American coasts Philco maintains streamlined production facilities, research and advanced development laboratories and well-equipped testing laboratories to support its increasing production for national defense, for industry and for the home.

"Philco is facilities and Philco is capacity. But the single most important fact about the company is its people—it is the men and women of Philco who provide the creative spark which welds facilities and capacity into a smoothly-functioning machine.

"In Philco's Western Development Laboratories on the west coast, research scientists and engineers direct top priority programs in space technology and weapons systems, as Philco keeps in the forefront of these accelerated fields. Their fellow members of the Philco organization at company headquarters in Philadelphia —top engineers, physicists, chemists, mathematicians —execute equally vital programs in such fields as missile guidance and control, weapons systems, communications, data processing and solid state electronics.

"The driving force that knits together these skilled men and women is the spirit of cooperation and the interchange of ideas that is traditional at Philco. Drawing upon their combined wealth of education, experience and specialized training and supported by excellent research and engineering facilities, the people at Philco unite in a concentrated attack upon tough problems in almost every field of electronics.

"This is the explanation for Philco's growing leadership in the fields of research and creative engineering. This is the reason why Philco's most precious resource is the vast reservoir of ability provided by its people."

HENRY F. ARGENTO, Vice President and General Manager, Government & Industrial Group.

" . . . because scientific achievement has become the key to a nation's preparedness, perhaps even its survival, America depends upon industry for the advanced electronic equipments vital to its security. Philco, through its Government and Industrial Group, is proud to be a leader in this all-important work.

"The following pages provide a capsule picture of Philco G & I at work, designing, developing and producing advanced weapons systems, high speed electronic data processing equipment, missiles and missile guidance systems, global and space communications. In well-equipped facilities on both coasts, Philco G & I dedicates its energies to this task, drawing upon the skills of its thousands of engineers, scientists, mathematicians and specialists in many fields. This is a continuous program at Philco—producing a steady stream of electronic equipments to build the strength of America."

FLASH—As this issue of The Philco News was going to press word came from Cape Canaveral, Fla., that the United States had successfully orbited a 500-pound military communications satellite known as Courier.

The Courier's complex payload was designed and built by Philco at its Western Development Laboratories at Palo Alto, Cal., in conjunction with the United States Signal Research Development Laboratories. Other Philco contributors to the success of the new satellite were the Lansdale Division and two divisions of the Government and Industrial Group—Communications & Weapons and Computer.

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VOL. 18 OCTOBER, 1960 No. 7

OUR COVER THIS MONTH

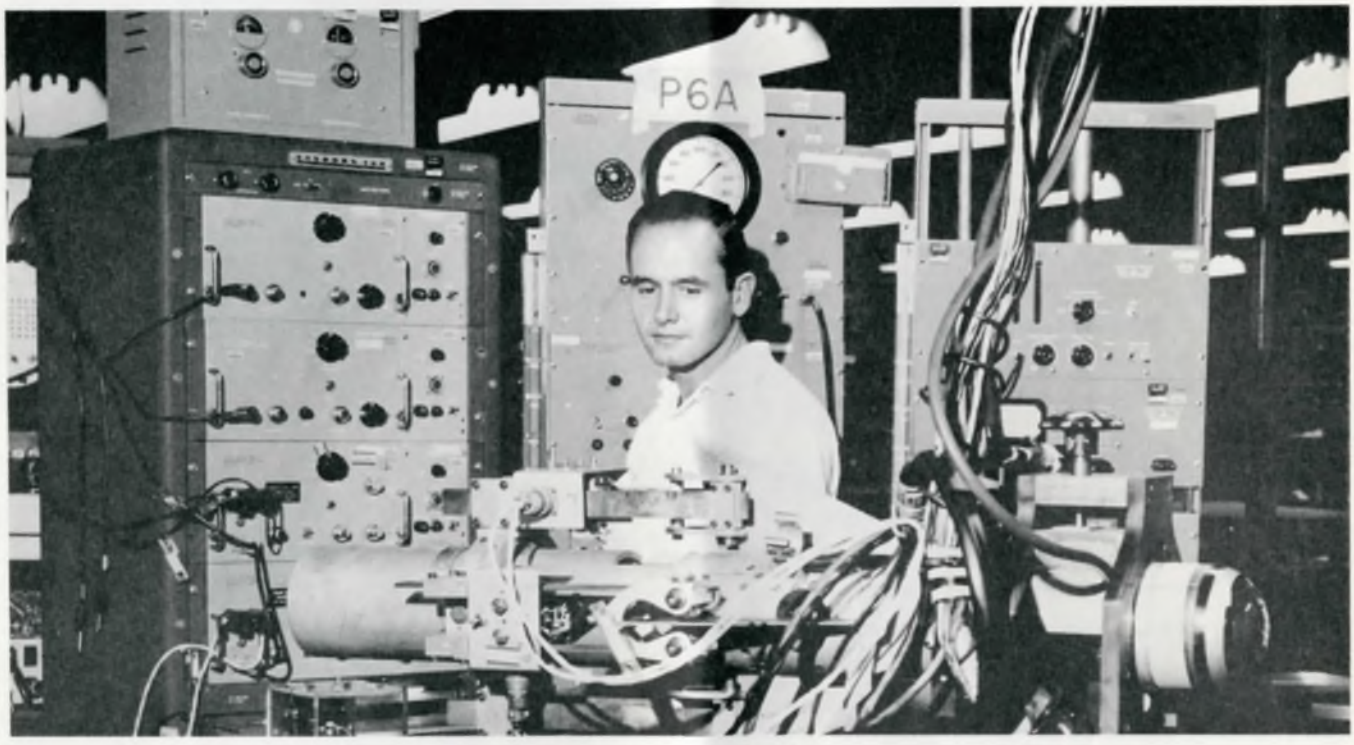
A step in the production of the Philco 2000 electronic data processing system at Plant 35, Willow Grove.

PHILCO SERVES GOVERNMENT AND INDUSTRY

Philco's Government and Industrial Group's history is a record of the company's service to government and industry through creative engineering and leadership in the broad field of electronics. The G&I Group represents one of Philco's great potential assets and the company's major contribution to our national defense and space efforts.

G&I is optimistic about its future. It fully expects to play a major role in both government and industry programs, including participation in our nation's plans for their customers in a wide range of products and services. These are Communications and Weapons, Computer, Western Development Laboratories, Sierra Electronics and Communications Systems.

The G&I Group is engaged in global communications, satellites, operational control centers, command and space communications, microwave forward scatter systems, radar of many types, missiles, missile fuzing, closed circuit television, anti-submarine warfare and electronic data processing systems, commonly called



The deadly accuracy of the Sidewinder's infrared "eye" and the missile's complete guidance and control system is checked out on the above simulated flight test equipment at Philco Corporation's Government and Industrial Group in Philadelphia.

electronic defense against possible aggression, the space race, missiles, rockets, and the increasingly important role of electronic data processing systems in both government and industry.

In the competition to achieve a leading position in the defense and industrial electronic fields, G&I is ably supported by the Research Division, the TechRep Division and the Lansdale Division. While separate divisions within the company, the work of all three divisions and G&I is meshed in many government and industry contracts.

Within the G&I Group are five divisions which serve computers. G&I distinguished itself during World War II in airborne radar, airborne communications systems and in the development and production of many kinds of ordnance for the Government.

In recent years, G&I has centered its major efforts in such critical areas as strategic electronic and electromechanical equipment for our nation's defense. Among these areas are included guided missiles, airborne radar, missile fuzing, airborne computer systems, countermeasures and anti-submarine warfare implementation.

This is not Alaska, but a Philco Microwave repeater antenna on Mount Spokane in Washington State. An Engineer of the Communications Systems Division checks the operation of the Philco Thermo-Microdome covering that keeps the snow and ice from the dish type antenna.

—U. S. Navy Photo

FLYING TV STATION—Bow of the Navy's most powerful icebreaker, USS Glacier, smashes through a field of ice in Melville Bay off the coast of Greenland as a Navy helicopter uses Philco airborne television for observing ice conditions ahead of the ship. This vital information is instantly relayed back to the icebreaker.

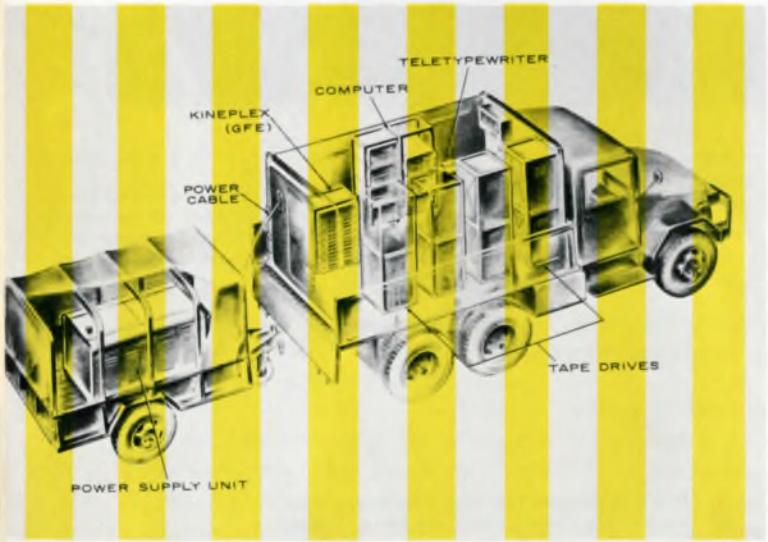
Philco Microwave repeater, part of the Over-Horizon microwave system at Eglin A. F. Base.

A night view of Philco's new computer center at Willow Grove. This ultra-modern plant has over 200,000 square feet of floor space. The national sales offices and research, engineering and manufacturing facilities for producing the Philco 2000 large scale electronic data processing system and Philco's industrial process control and mobile field computers for the military are housed here.

COMPUTERS—G&I's NEWEST DIVISION

Early this year Philco officially opened its new computer plant and announced the formation of the division in recognition of the present and future potentialities in electronic data processing systems. In this new facility, Philco is producing the Philco 2000 electronic data processing system, the Philco 3000 industrial computer and is developing the medium-scale mobile Basicpac computer for the armed services.

The Computer Division is an outgrowth of a series of successfully completed projects which started in 1953. Among these are three designs of transistorized real time control computers developed primarily for the control of high performance military aircraft. The Philco S-1000, a transistorized, parallel asynchronous computer—the first system produced for scientific study—has a very powerful command structure of some 825 permissable instructions. The CXPQ computer delivered to the Navy Bureau of Ships this year further extended the computer art by lengthening the word length to 48 bits and adding a magnetic tape system.



Artist's drawing of the new mobile data processors to be built by Philco for the Army Signal Corps is shown above. The computers will be installed in all-weather shelters for ease of handling and transportation.

The Computer Division has shipped eight Philco 2000 electronic data processing systems to date this year. In addition, 16 more Philco 2000 computers are in production.

The Philco 2000 was the first large scale system in the computer industry to use an all-transistor design. It is the only large-scale data processing system using a true internal asynchronous mode of operation. The system is particularly suited for both business and scientific applications.

"Two of the big 2000 systems were shipped in March and will be used in connection with the most important of our Government's defense projects. These are the two largest, fastest, and most flexible data processing systems ever delivered by any company in the world," Henry F. Argento, vice president and general manager of G&I, said.

The first of two Philco 2000 computers was delivered in June to United Aircraft Company, East Hartford, Connecticut, where the electronic data processing system will be used in connection with studies on the Air Force's 433L weather system contract for which United is prime contractor.

Vast production area in Philco's new Computer Division production plant which has the present capacity for producing 2.5 Philco 2000's per month in addition to production of the Army's Fieldata Computer, the Basicpac, and the Philco C-3000, a new and widely diversified process control computer.

In addition to this great internal speed, the system features the fastest magnetic tape system available. The ultra-high input-output speed is demonstrated by the system's reading/writing capacity of 360,000 alphanumeric characters per second.

A wide range of input-output equipment is integrated into the Philco 2000 system by the Universal Buffer-Controller. This unique device also permits the selection of any specified data. The system's other high-speed capabilities include printers which print 108,000 alphanumeric characters per minute, and punched-card readers which read at the rate of 2000 cards per minute. These and other input-output units enable the system to perform as a key switching and data processing element of a data communications network.

Several additional contracts for Philco 2000 computers are now in final stages of negotiations. Leeds and Northrup Company of Philadelphia has ordered a number of Philco 3000 industrial computers, and several orders have been received for the Basicpac tactical field data digital computer for the military. The Basicpac is a medium scale general purpose computer. In July the Barber Colman Company of Rockford, Illinois, a major machine tool and instrument manufacturer, signed a contract for a Philco 2000. It will be used by Barber-Colman for business data processing.

The Philco 2000 is also being used in Philco's Western Development Laboratories in Palo Alto, California, for the company's work in space calculations and tracking of satellites.

The Computer Division is currently completing its national sales organization and the 15-state regional office for the midwest was opened this past summer in Chicago. Other offices are in Palo Alto, California, New York areas, Boston, Pittsburgh, Willow Grove, Pennsylvania, Washington, D. C. and Los Angeles.

The new Willow Grove plant is headquarters for the division and Philco provides training for the use of our systems as well as management of orientation seminars in the effective use of computers in industry and business.

(Continued on next page)

The wiring of the magnetic core plane for an electronic data processing system is shown being done here at Philco's new Computer Division facility at Willow Grove, Pa. Each core plane has 4,096 minute magnetic cores which must be assembled and wired together. The magnetic core memory in Philco 2000 computer systems is available in 10 micro-second or two micro-second access time. The production assembly line here is one of many such lines in the Computer Division's new 210,000 square foot facility.

A training seminar in the use of computers is shown underway at the Computer Division's new facility.

"By its very nature the research and development expenses and the initial production costs of computers of this discriminating design represent a substantial investment.

"The division intends to continue sizable research and development expenditures so that it can remain in front of the art. We are certain that the Computer Division will be a source of important future earnings.

"We believe by year end our ratios of expenses to earnings in our Computer Division should be in line," continued Mr. Argento.

The Philco 2000 handles all business problems with equal facility. The 2000's unprecedented speed, for example, permits a 10,000-man payroll to be computed in less than five minutes, or more than 1,000,000 records to be sorted in one hour.

In scientific applications the Philco 2000 has solved complex linear programming problems involving 40 equations and 80 unknowns in 2½ seconds.

General view of the demonstration room for the Philco 2000 electronic data processing system. The central computer and console typewriter is in the right foreground; the magnetic tapes are in the center and the high speed printer and printer controller are at the right.

F9F Grumman "Cougar" jet in flight armed with Sidewinder missiles, developed by the Naval Ordnance Test Center and Philco. This infrared guided missile is now in production at Philco's Government and Industrial Group plant in Philadelphia.

COMMUNICATIONS AND WEAPONS DIVISION

The Communications and Weapons Division is the oldest division in the G&I Group and many of the projects and products it has completed are examples of Philco's leadership in government and military electronics as well as industrial electronic products.

Recently the division was awarded an initial contract in excess of $3,000,000 to develop, produce and modify the height finder radar system for Airborne Long Range Input (ALRI). This is a system to provide the North American continent with a seaward extension of SAGE, an existing network of radars, data processors and computers which keep decision making centers informed of approaching aircraft. Burroughs Corporation, Detroit, is the program manager for ALRI.

The Philco radar system will be housed in an RC-121 reconnaissance aircraft (Constellation) which will allow a greater sweep and coverage for America's early warning lines.

Other examples of Philco electronic leadership are:

Video data processing in which Philco leads the industry in the art of radar data storage integration, and cancellation techniques which provide superior high resolution radar systems with outstanding moving target indicator capabilities. The utilization of these techniques also increases target range and reduces clutter and interferences.

The Philco REDAP high resolution radar system, compact enough to be used in a wide variety of operational aircraft, is particularly adaptable to reconnaissance and combat area surveillance. This system produces unusually clear and detailed pictures.

The "Sidewinder" for which Philco is the prime contractor is a deadly, heat-seeking missile and is used by both the Navy and the Air Force as well as friendly foreign nations. It was employed by the Chinese Nationalists against communist jets during the 1958 Quemoy crisis. The "Sidewinder" was conceived at the U. S. Naval Ordnance Test Station and developed by Philco. New and advanced versions are now in development by the division.

This lonely lighthouse, located on the Northern Coast of Puerto Rico, was joined by a Philco Microwave repeater, part of the system that provides telephone and teletypewriter communication between Ramey Air Force Base and Fort Buchanan. A similar system will be installed near Fort Allen, Puerto Rico, by the Installation Engineers of the Communications Systems Department.

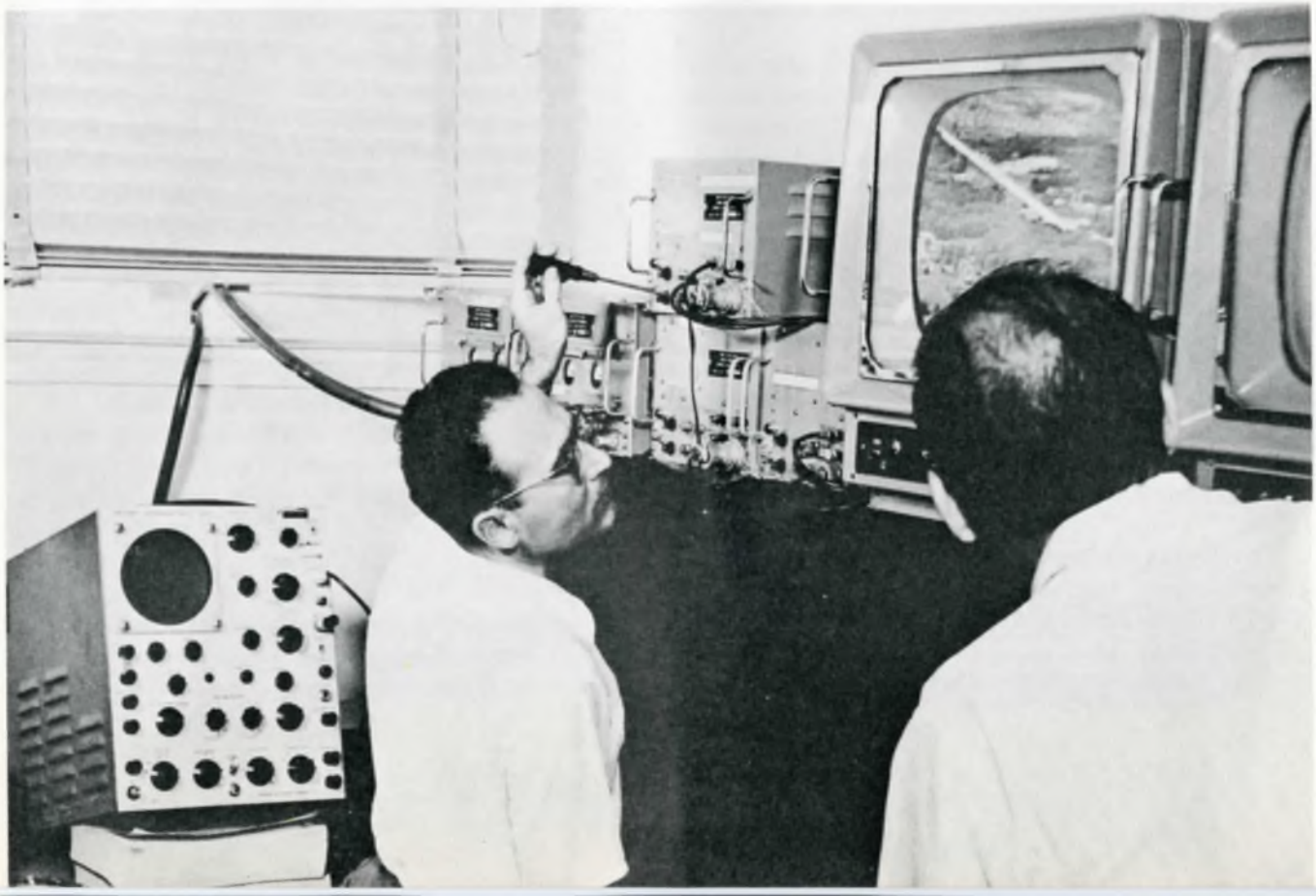
Major missile fuzing system contributions have been made by G&I for these missiles: Corporal, Sergeant, Little John, Falcon, Talos, Tartar and Terrier. Back of these contributions has been Philco's specialized experience in detailed analyses of physical and countermeasure environments to determine the optimum solution to each particular problem.

At the request of the Navy, Philco entered the field of underwater ordnance after World War II. This work has included propulsion, acoustics, sonar and fire control. Facilities in Philco's Environmental Testing Laboratories include high pressure hydrostatic torpedo test chamber, anechoic (sound) tank and transducer test laboratory. Philco is continuing its work in this vital field of defense work.

In the field of Air Traffic Control, the G&I Group has supplied the military and governmental agencies with a wide range of systems and components. These include electronic character generators, radar target simulators and displays and a track-while-scan system which can be used for either commercial or military air traffic control systems.

In the industrial electronic field, the division has wide experience and acceptance in micro-wave communications and closed circuit television systems. An outstanding example of closed circuit television installations is the fully-integrated system installed at St. Christopher's Hospital in Philadelphia. This nationally

An airborne television system, developed by Philco's Group for the U. S. Navy's Bureau of Ships, could be used by the Navy for control of amphibious landings. TV picture of the Pennsylvania Turnpike, shown on the monitor, was photographed from a helicopter and relayed 50 miles to the receiving station. Philco has also developed an airborne TV system for use in jet reconnaissance aircraft which can be used to transmit TV pictures from the stratosphere.



famous children's hospital has found Philco's closed circuit television an invaluable training aid.

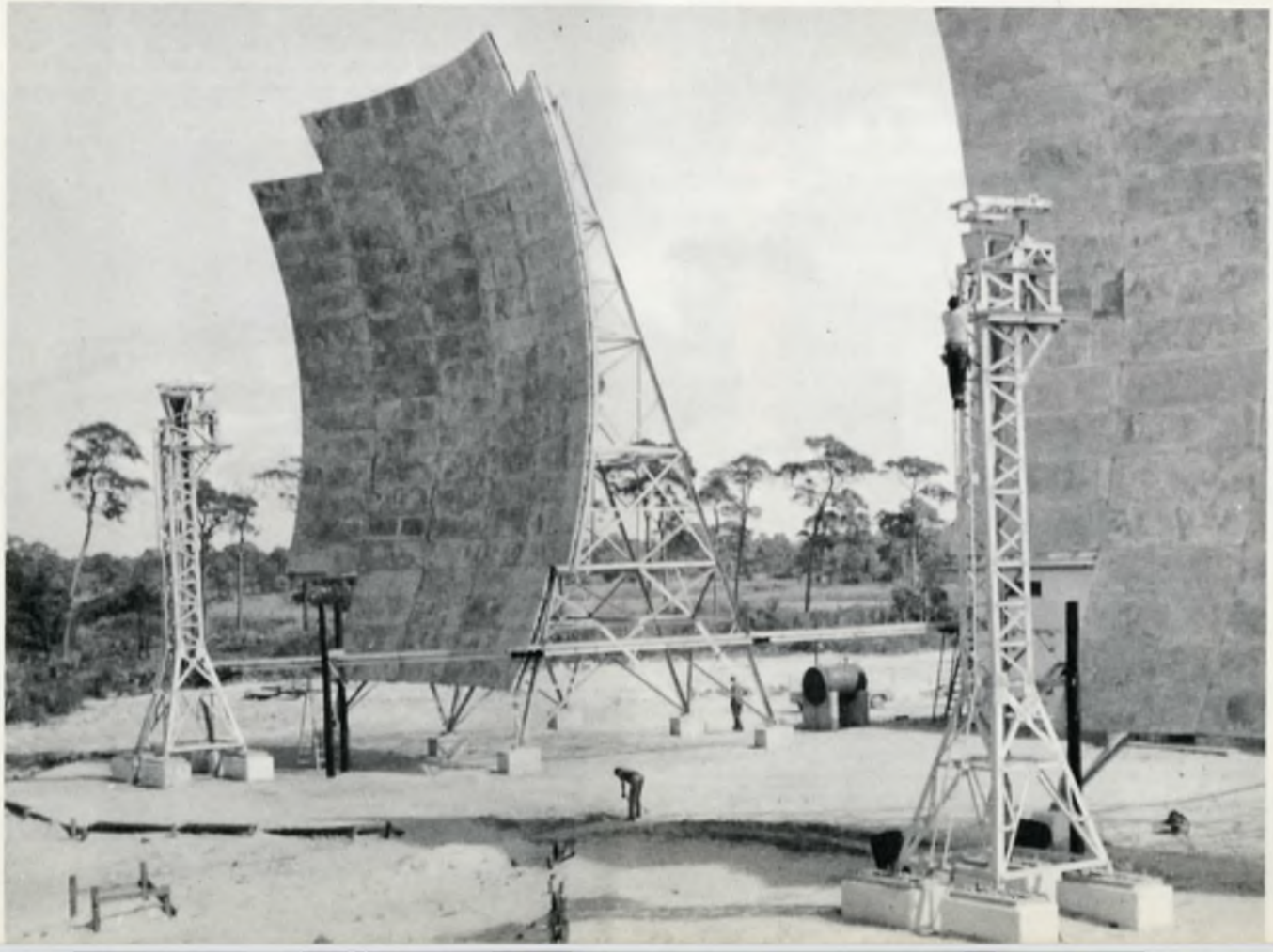
The most recent closed circuit television systems engineered and installed by Philco include the Pompano National Bank, Pompano, Florida, and the Fort Pitt Tunnel in Pittsburgh, Pennsylvania.

The division has a strong record in the field of communications and has made major hardware contributions to Western Development Laboratories and Sierra Electronics Division. This hardware has included transmitters, receivers, decoders and command systems for space satellites, as well as ground telemetry equipment. The division now is designing and fabricating the display subsystems for the Defense Communications Agency contract. Philco is prime contractor to DCA for the establishment of the interim Defense Communications Control Center, which work is under the direction of Communications Systems Division of the G&I Group.

The Communications and Weapons Systems Division is always seeking new industrial products or new applications of its industrial electronic products for business and industry.

A lecturer at St. Christopher's Hospital for Children in Philadelphia is shown above as he explains an operation to medical students in the hospital auditorium which is shown on the monitor of the Philco closed circuit television system used by the hospital.

This is part of the Over-Horizon Microwave system installed by Philco Field Engineers at Eglin Air Force Base, Florida.



WESTERN DEVELOPMENT LABORATORIES . .

The Western Development Laboratories is actively engaged in providing communications and tracking systems for satellite programs such as Discoverer, Samos Midas, Courier, and the Rome (New York) Communications Link. These assignments include developing and manufacturing precision timing, tracking and ranging systems with command and communications capabilities. Equipment for these systems includes large-scale acquisition antennas, precision angle tracker antennas, digital command and control equipment and computer input-output equipment, for use with the Philco 2000 electronic data processing system.

One of the major projects at WDL was the 60-foot, three-axis telemetry and data acquisition antenna, called the "big dish." The project involved both the design and fabrication of the antenna which is now in service at Vandenberg Air Force Base. The antenna provides reception of telemetry and data signals in the 200-mc region from satellites and missiles during any phase of flight. A three-axis mount provides continuous hemispherical covering during the tracking mode without any cone of silence.

Three other antennas and an 85-foot radio telescope have been developed by WDL. As one phase of a contract awarded to Philco's Research Division for the Rome Air Development Center, WDL set up a passive satellite communication link between Trinidad Island and Rome, New York. The Rome installation consists of an antenna system, and tracking and data receiving systems. The antenna system is a 33-foot parabolic reflector using a gun mount as the antenna drive. Helical antenna arrays for tracking the radar signal reflected from the satellite are mounted around the periphery of the 33-foot reflector.

The installation at Trinidad consists of a 2-kmc transmitter operating with an existing tracking radar at the Trinidad Down Range Facility. The WDL designed and installed feed system is mounted in the radar reflector so that the radar and data systems can be pointed together.

A 400-inch parabolic reflector for radio astronomy was designed and built for the University of California. The solid aluminum surface of this antenna, because of the high frequency demand, was finished with a reflector surface accuracy of .0033 inches over the

Sixty-foot reflector for world's largest three-axis antenna resembles giant bird bath as it is mounted atop 50-foot pedestal at Philco's Western Development Laboratories, Palo Alto, California. Destined for a remote satellite tracking station, the antenna is largest in world to employ tri-axial mounting—movement in three directions much like a man's wrist and forearm. Antenna will provide hemispheric coverage of telemetered information and data from satellites and missiles during any phase of flight.

Servo Lab Manager Lynn Harvey shows Lynda Lee Mead, Miss America 1960, how to operate WDL's telemetry acquisition antenna. Here Miss Mead takes over the controls and watches through the window as the big dish responds to her touch.

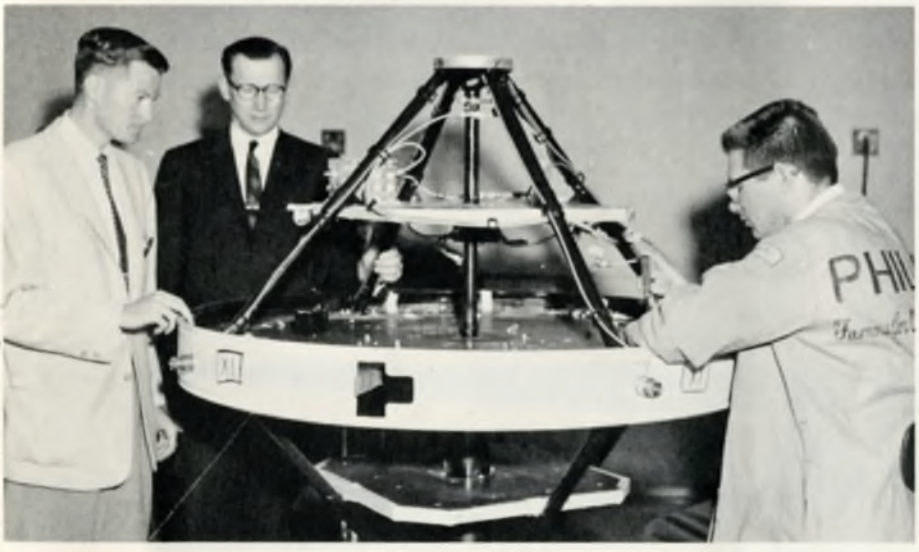
entire surface. The solid aluminum surface was positioned and checked with the aid of a Philco developed contour measuring device and technique.

Also in conjunction with the University of California program, design and development work is in progress on an 85-foot diameter radio telescope. The high frequency service of this antenna, the solid aluminum reflector surface will have a contour accuracy of .070 inches.

A 40-foot antenna system is now installed at the Communications and Navigation Flight Test Facility for Wright Air Development Division.

Philco displayed construction details of the Department of Defense's Courier satellite which was designed and built at its Western Development Laboratories. Richard Nichols, left, and Richard Grant, Philco supervisor, watch the assembly technique as Mrs. Vera Hibbard, Philco laboratory technician, puts the finishing touches on a solar cell array module, consisting of 84 solar cells. The module is one of 228 similar sections that cover the outer surface of the Courier communications satellite shell and which will convert sunlight into electrical energy for powering the satellite's electronic equipment.

Construction details of the Department of Defense's Courier satellite include the scene shown below. The balanced and weighted model of the Courier is mounted on the vibration table to test its performance under the conditions which are encountered when the Thor-Able-Star accelerates the payload into orbit around the earth.



John Burt of the U. S. Army Signal Research and Development Laboratory of Ft. Monmouth, N. J., left, and Gerald Moore, Philco satellite project manager, center, inspect a receiver and a transmitter mounted on the inner structure platforms of the Courier communication satellite. Ronald Weathers, Philco technician, attaches cable. Various pieces of electronic equipment are mounted on both sides of the three platforms.

Sierra Electronic Division
Global Transmission
Transmitters and Instruments

The Sierra Electronics Division is Philco's most recent acquisition on the West Coast. Currently, Philco is expanding the division's manufacturing facilities.

The division has an outstanding record in the field of instrument manufacturing and contract development. Sierra has produced major innovations in design of Klystron Amplifiers, Pulse Modulators and Pulse Amplifiers. Work for the military has brought new advances in communications in missiles and other defense projects.

Along with this work, a line of more than 100 measuring instruments has been developed, to include Carrier Frequency Voltmeters, Wave Analyzers, R. F. Wattmeters and other instruments, many of them recognized as standard equipment for industry.

One of the most intriguing projects of Sierra was the development of the Electronic Snow Gage System, an achievement in the telemetering field which serves a highly useful purpose in the heavy snow regions of the West.

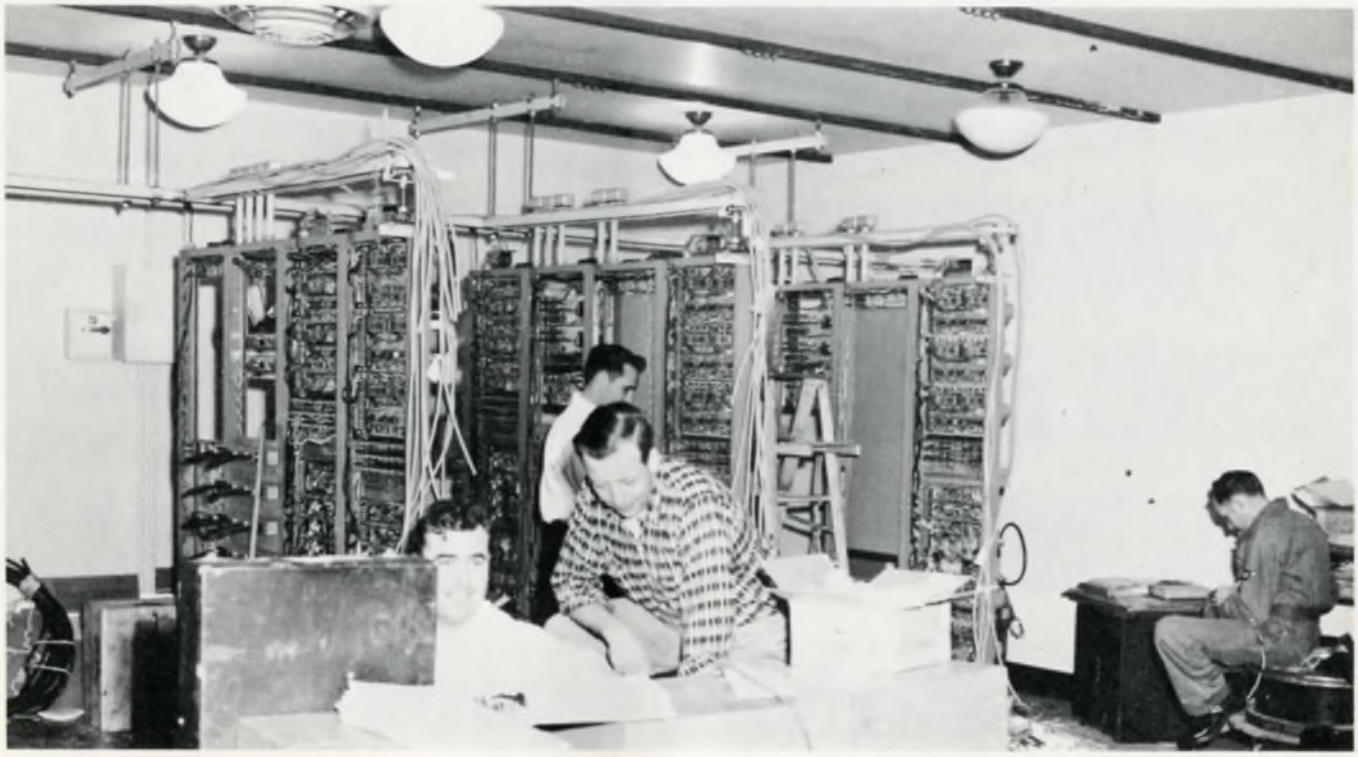
In areas dependent for water upon mountain snow fields, such as the Pacific Coast, crews of men travel through winter mountain weather by skis and by snowshoes, to measure the water content of snow fields. Working from a basic electronic gaging technique developed by the Corps of Engineers, Philco engineers produced a method of measuring and transmitting water-content information from any number of fixed locations in any kind of weather eliminated hazardous trips and assures continuous, accurate reports all through the winter.

The system works in the following manner. At the measuring stations, a small amount of radioactive cobalt is placed just below the surface of the ground, and a radiation detector measures the amount of radiation that penetrates the snow. This information, which indicates the water content of the snow, is transmitted in response to a query signal back to a relay site and then to a base station to be recorded in printed form on paper tape. Extremely low power consumption of both transmitting and receiving stations enables these stations to operate on one set of batteries for an entire winter season. A number of these systems are now in operation in California and Washington, and more will be installed as funds become available.

In the field of global transmission one of the largest single pieces of apparatus developed by Philco's Sierra Division is a 15 kw transmitter. This is a broadband long-wave transmitter that is being used for point-to-point telegraph, tele-printing and facsimile communication. It can be operated at any frequency from 30 kc to 600 kc. This was a Navy contract.

A Pulse Modulator was designed and manufactured for the General Electric Company for the operation of a high power klystron transmitter. A 10 kw klystron amplifier was designed for Philco complete with control circuitry, power supply and heat exchanger. It is used with scatter communications systems.

COMMUNICATIONS SYSTEMS DIVISION A GLOBAL ARM OF PHILCO



Installation Engineering personnel at work in the field, installing a Philco Microwave system for the Air Force.

In the historic Fort Washington area, where George Washington's troops held forth against the British and had their own problems of logistics and communications, a new Division of the Government and Industrial Group conducts a world-wide operation in logistics and communications.

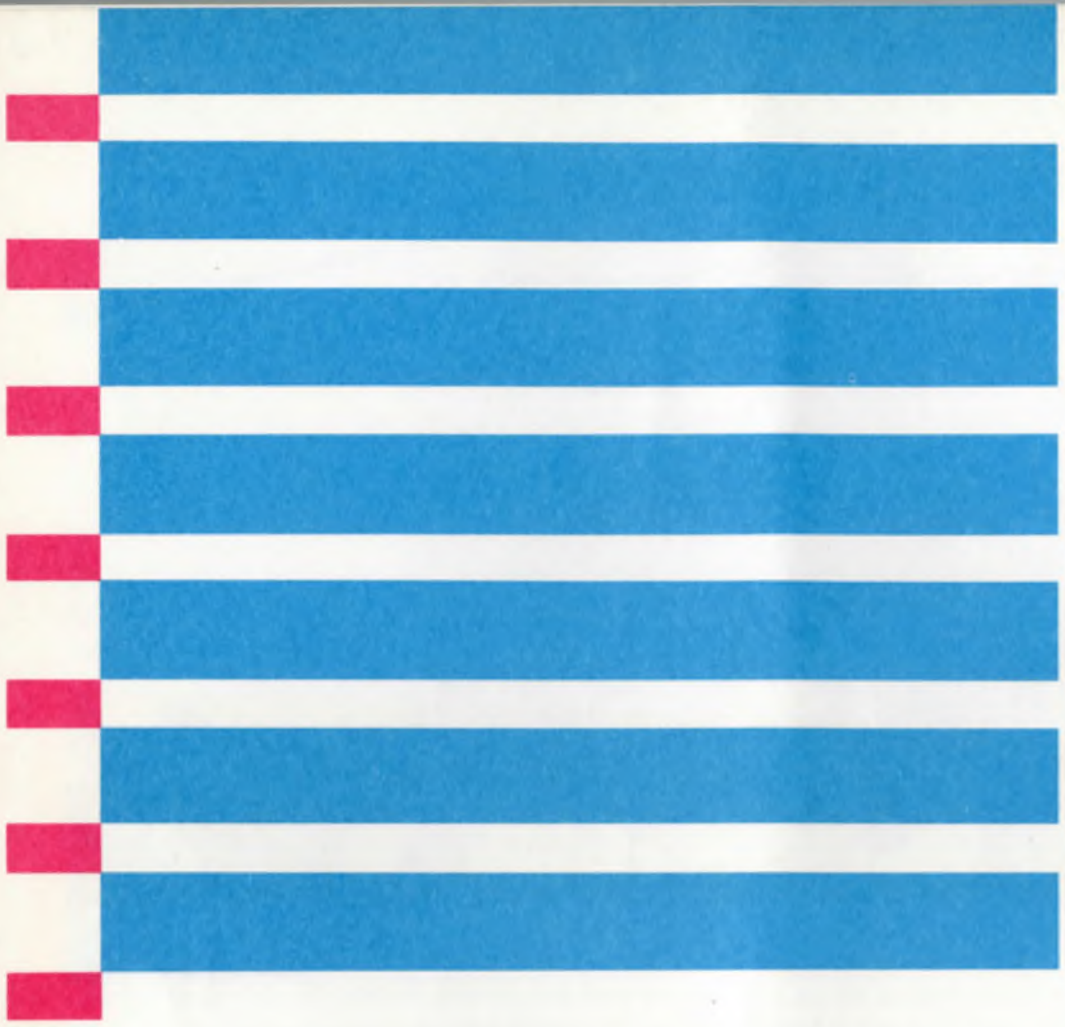
Called the Communications Systems Division it directs engineering, procurement and installation of complex communications networks for the military and industry. The military work has developed as part of the close relationship of industry to the military in which neither usurps the functions or prerogatives of the other but both work as a tightly knit team to accomplish a common goal. This work represents recognition of Philco's ability in this complex management field.

The Communications Systems Division works as a closely coordinated team so that a project from evaluation of the job to be done, the equipments to be used, the engineering of the task and installation are smoothly carried out. For installation work throughout the world—and many of the locations are in remote sections of India, Asia and other distant countries—the Division calls upon Philco's TechRep Division. There are more than 3,000 TechReps who represent the skills and experience to assemble, install, maintain, repair and modify communications systems of any magnitude. They can also provide on-the-job training for station personnel as well as technical manuals and logistical support.

One of the major contracts currently being handled by the Communications Systems Division is work on the Quick-Fix phase of the United States Air Force's integrated communications network, known as AIRCOM. At the present time work is underway at 24 major stations. Additional contracts are in process now for installation of advanced communications equipments in many U. S. Air Force communications stations.

These global communications systems not only perform the routine information functions of the Armed Services but stand as a prime early warning link in the nation's defense system.

The Division looks forward to the day when it may be called upon to manage systems of communication satellites rather than the ground stations upon which communications depends today. While communications satellites today are still in the experimental research and development stage, it is recognized that in the not too distant future a major burden of communications may well be carried by satellites, freeing communications from such problems as sun spots and other phenomena which interfere with message traffic today.



this then, is Philco's Government and Industrial Group...

"... a large, coordinated group of research, engineering, manufacturing, and service specialists; which, through the facilities of modern plants and equipment, produces many complex electronic and electromechanical devices and systems to meet the needs of industry, the government and the military."

H. F. ARGENTO

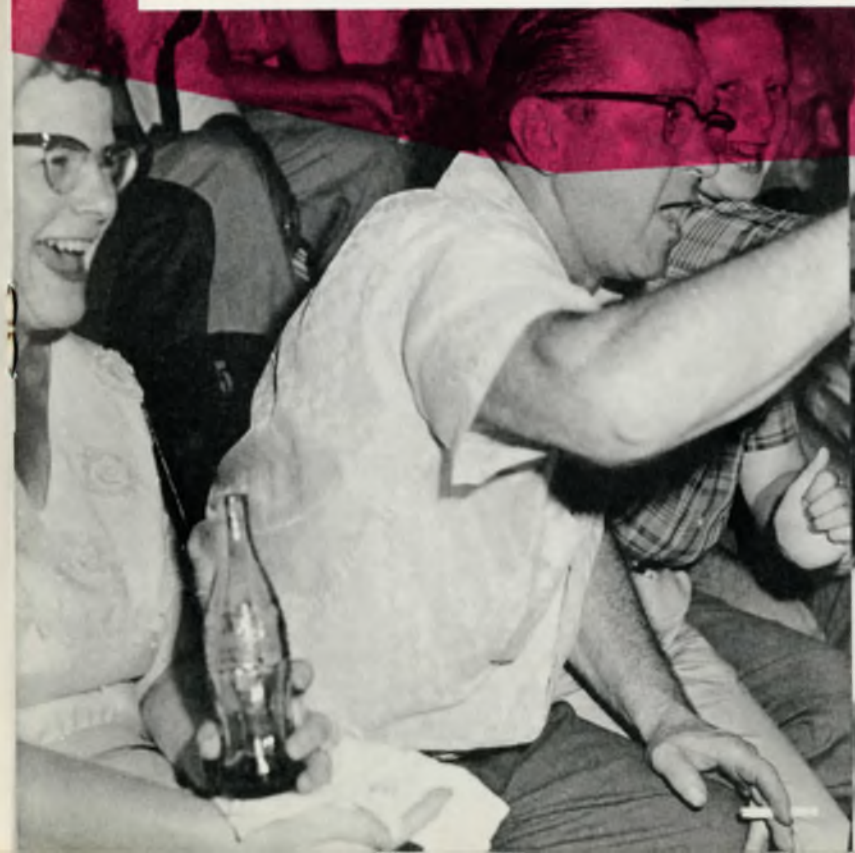
"PHILCO NITE" PROVES POPULAR

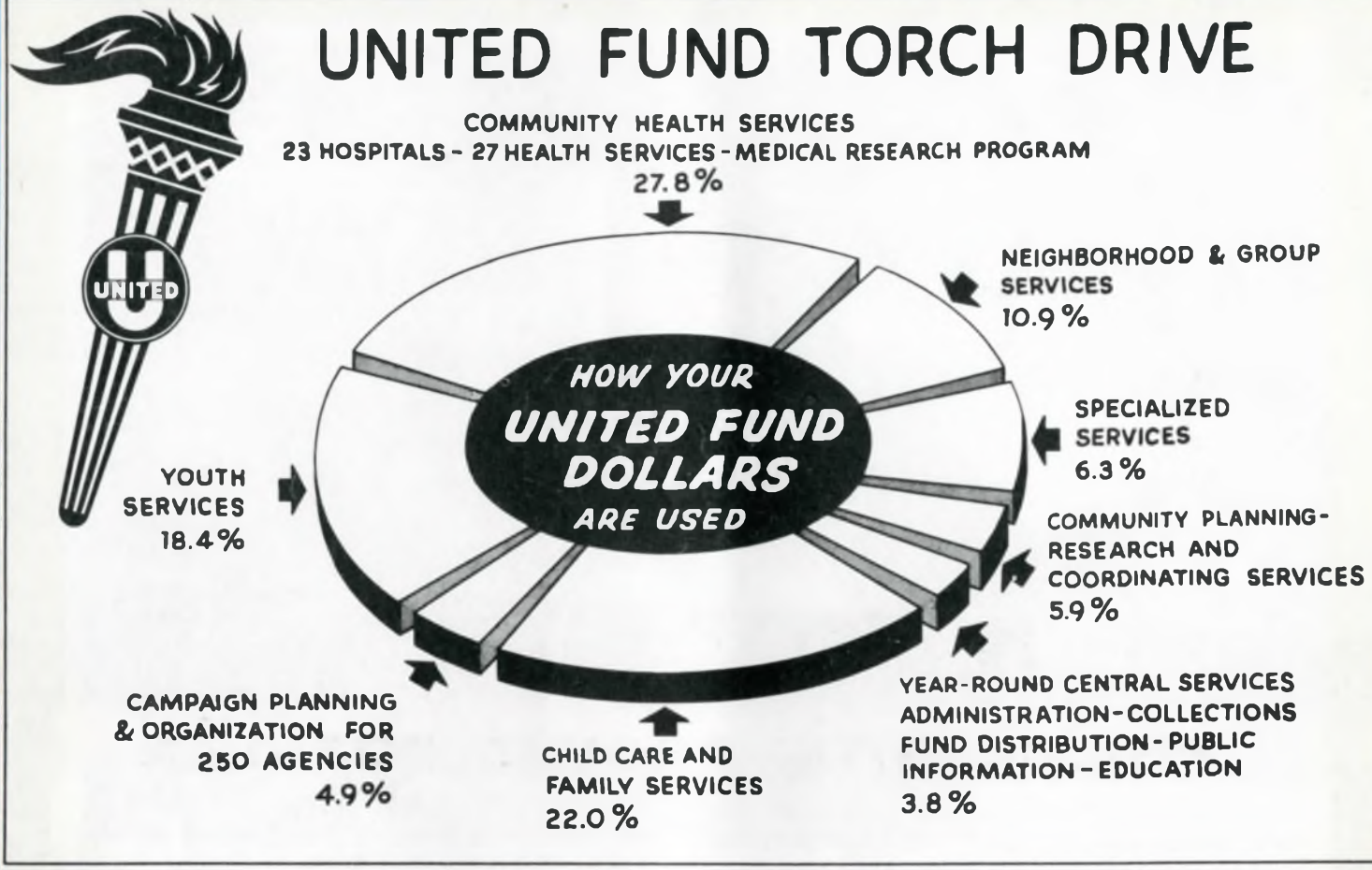
Several thousand Philco employees from all plants in the Philadelphia area attended "Philco Nite" at Connie Mack Stadium, September 9. Some of the enthusiasm shown by Philco-ites and members of their families is caught by the photographer in the pictures on this page.

Tickets for the sections of the grandstand reserved for Philco employees were sold out shortly after announcement of "Philco Nite," and a second order of tickets was exhausted well in advance of the game.

Preceding the game Robert Carpenter, president of the Phillies, was host to Philco dealers of Delaware Valley. Philco President James M. Skinner, Jr., was among the guests and spoke briefly.

Rain in the fifth inning called off the game with the Cardinals in the lead. Philco products, which had been on display at the ball park some time prior to September as prizes, were awarded. People stayed for almost an hour waiting for the prize drawing and for the weather to clear.





COMPANY GOAL IN UNITED FUND TORCH DRIVE SET AT $143,352

During October Philco employees will have an opportunity to participate in the 1961 United Fund Torch Drive for the support of 250 health and welfare agencies and services in the Greater Philadelphia Area. J. Newton Hunsberger, Jr., Company chairman, in announcing the goal said that the drive will be a concentrated one this year and that he hopes the goal will be reached by the end of October.°

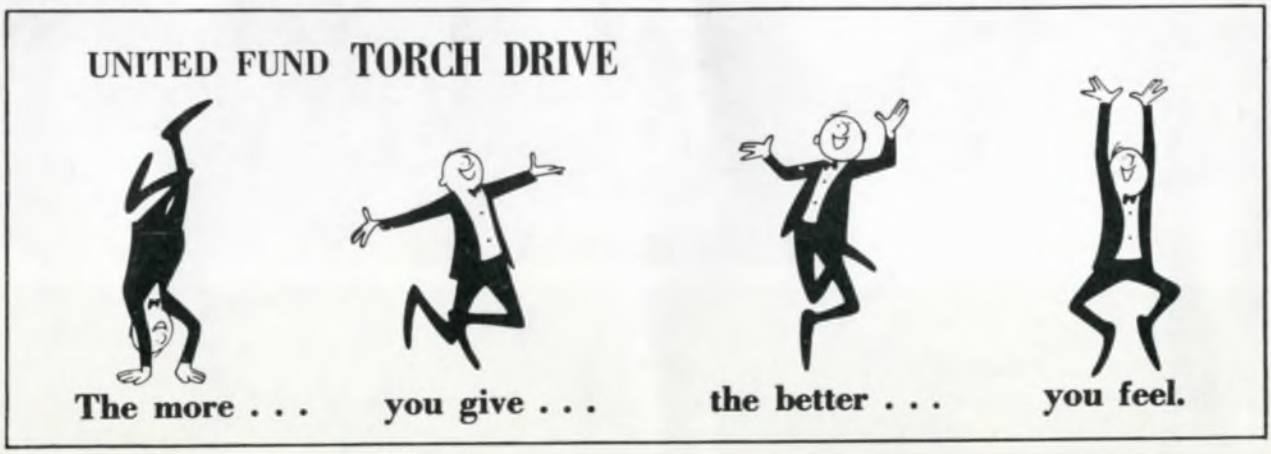
° Philco's *Fair Share* quota for 1961 has been increased in accordance with a formula used by United Fund Headquarters for all major firms in this area. Philco, true to form as an industrial leader, has always responded gallantly to the call to help welfare agencies. To meet the challenge of this 1961 campaign will require the fully concentrated effort of all employees.

At a campaign committee meeting held in plant 2 cafeteria, Sept. 22nd, R. Stewart Rauch, Jr.—general campaign chairman and James M. Skinner, Jr., president of Philco, stressed the importance of pledging support through the company where you are employed, through the Payroll Deduction Plan.

The campaign at Philco started October 3 and the goal is set for completion October 31. This can be accomplished by the full cooperation of every employee with the captain and solicitor in his area. All department heads have been alerted to the urgency of meeting their quotas and on time.

"Working . . . Giving . . . For a Better Tomorrow" will be the theme of the seven-week campaign to be

(Continued on page 28)




CHILD CARE
FAMILY
UNITED FUND
TORCH DRIVE
HANDICAPPED
COMMUNITY HEALTH SERVICES
YOUTH
AGED

These attention getters are wearing Halloween masks which will be offered as a part of our celebration of the production of our 35 millionth Philco radio. To their right is the Rollohome completely equipped with Philco electronic products and appliances. The Rollohome aroused widespread interest and during the time it was parked at Broad and Walnut Streets over 7,000 persons lined up to inspect the interior of this home-on-wheels.

The completely Philco equipped mobile home, 10 feet wide and 55 feet long, was parked at Broad and Walnut Streets during the Company's convention for the introduction of its 1961 line of laundry products. Thousands of visitors filed through the home during its four day stay in mid Philadelphia.

From right to left: Lloyd Beaver, president; Neil Barnett, sales manager of Saginaw Distributors, Saginaw, Michigan. This concern sells thousands of products annually to mobile home manufacturers located in their territory.

PHILCO EQUIPPED MOBILE

A mobile home parked on Philadelphia's busiest intersection—Broad and Walnut Streets—almost stole the show in August from Philco's three-day convention of distributors and salesmen.

A 10 foot by 55 foot model fabricated by the Rollohome Corporation, of Mashfield, Wis., created a sensation among the Philco people because it was completely equipped with Philco electronic products and appliances.

Although the mobile home's appearance was tied in with the sales convention, it soon became a public attraction. At peak lunch hours, bankers, clerks, and secretaries lined up along the sidewalk awaiting their turn to inspect the interior of the big home-on-wheels.

According to Robert C. Digges, Philco's manager of mobile home sales, over 7,000 people jammed through the home during its four-day stay in front of the Bellevue-Stratford Hotel, convention headquarters.

"Many of the visitors," he notes, "were surprised to learn that mobile homes are so completely equipped."

He points out that the Rollohome displayed in Philadelphia included a Philco tilt-top range, refrigerator, air-conditioner, television, radio, Duomatic washer-

dryer combination, and even a stereophonic hi-fi and radio combination in the company's newly-developed "Reverbaphonic" line.

One of the original suppliers to the mobile home industry, Philco has been stepping up its sales activities in this market through its recently-organized special market planning group headed by John L. Utz, general manager.

Chief advantages of Philco's participation in mobile home manufacture, in addition to its wide range of products, has been its guaranteed free service policy for mobile home owners, which draws on a corps of 100 distributors and 35,000 members of the Philco factory supervised service group. The company has also developed a patented Safety-Transi-Lok which holds the drums of Duomatic washer-dryers secure when the mobile home is in transit to prevent damage to the machine.

Managers of the fast-growing Special Market Division of Philco headed by John L. Utz are, from left to right: Richard Koenig, special markets manager in the East; Norman Millard, manager of public utility sales; John L. Utz, director of special markets; Robert Houtz, field supervisor of special markets; George Bittel, sales co-ordinator special markets; Herb Riband, assistant to John L. Utz; Joseph Meluskey, manager of mobile home sales, midwest; John L. Spangler, manager of government contract sales; Robert C. Digges, manager of mobile home sales; Charles Haley, manager of special markets, midwest.

HOME ATTENTION-GETTER

(Below) Jim Forsyth, sales manager; Harold Sunderlin, president of Radio Equipment Company, South Bend, Indiana. There are seventy manufacturers located in the South Bend territory. Bud Sunderlin sells them tremendous quantities of Philco products. They are inspecting Philco's sensational Tilt-Top electric range.

Philco Engineer Heads Professional Society

William H. Mullin, Appliance Engineering, Plant 2, has been elected president of the Philadelphia Chapter of the American Society of Heating, Refrigerating and Air Conditioning Engineers. Mr. Mullin is a graduate in Mechanical Engineering from Drexel Institute of Technology and presently is in charge of the Air Conditioner Advanced Section at Philco.

American Society of Heating, Refrigerating and Air Conditioning Engineers is an association of engineers organized to promote the arts and sciences in the fields of heating, refrigeration and air conditioning. The Society and its members have a long and enviable history of contributions to the development of these arts and sciences.

A.S.H.R.A.E. has a national membership in excess of 20,000 engineers. The Philadelphia Chapter numbers over 800 and meets every second Thursday of each month at the Engineer's Club of Philadelphia.

CAPACITY GROUP OF PHILCO EMPLOYEES

Six major European cities were visited by a group of eighty-four Philco employees, members of their families and friends during the annual plant shut-down in July. The group left Philadelphia's International Airport on July 15 and returned 17 days later after stays in cities in England, France, Switzerland and Italy.

Favorable reports on everything connected with the trip were given by the vacationers. In addition to sight-seeing, members of the party engaged in a number of special events ranging from dinner parties to gondola rides under the stars, visits to night clubs and a stage show. Approval was expressed by all for the amount of time left for personal shopping, sight-seeing and visits with friends and relatives abroad.

A special feature of the trip was an audience with Pope John at his summer villa Castle Gandolfo. Fifty-two members of the group made the trip to see the Pope.

VACATION TRIP TO BE REPEATED— *BUT THIS TIME BY JET*

In response to the great interest shown in the 1960 European vacation trip for Philco employees it has been decided to repeat the trip in 1961. The only change is the flight will be by jet.

Employees and members of their families will again leave Philadelphia for sight seeing and recreation in London, Paris, Lucerne, Venice, Florence and Rome on the last working day prior to the start of the summer plant shut-down.

More detailed information later . . . but for now, start saving. The price, however, for the 17-day all expense trip will be the same as the 1960 price—$695.

Again in 1961 the Alpha Travel Bureau, Inc., will handle the arrangements for the trip. Ask those who went on this what a wonderful job was done.

For further information call Mark Lutz, Ext. 418.

Eighty-four Philco employees and members of their immediate families are photographed before boarding the plane which took them to Europe for a memorable two weeks vacation during the summer plant shut-down. The group, a capacity plane load, visited London, Paris, Lucerne, Venice, Florence and Rome.

SPEND MEMORABLE VACATION ABROAD

Philco-ites with other sight seers in London.

The fountains Villa d'Este at Tivoli serve as a back drop for this photograph of Peg McCarthy.

Mary Pasceri (right) proves to other members of the Philco party that she is photogenic.

IF YOU KNOW A BETTER WAY

LET US HEAR IT

Any original, constructive idea or suggestion, or new application of an old idea which will improve the efficiency and economy of the Company's operations will be considered for an award in the Philco Employee Suggestion Plan.

This includes, but is not limited to suggestions which . . . reduce costs; prevent or eliminate waste of time or material; conserve supplies and equipment; reduce spoilage and breakage; eliminate unnecessary forms, records and reports; eliminate duplication of effort or operations; increase production or work output; improve quality and saleability of Company products or services; improve existing methods or procedures; combine or simplify certain operations; improve utilization of space and equipment, and/or eliminate or reduce health or safety hazards.

MARTIN J. BUTWIN, Designer, Dep't. 39-647, knew a better way. He puts finishing touches on an example of his suggestion to simplify wiring harness drawings. He then completes a Suggestion Plan Form and delivers it to . . .

REGINA LEONARD, Appliance Engineering Secretary, who accepts the suggestion and sample drawing from Mr. Butwin, time stamps it, assigns a number, and sets up records for the Appliance Operations Suggestion Committee.

Appliance Engineering suggestion committee studies the evaluation, and decides whether to adopt or reject the suggestion. Left to right, Edward Colallilo; Herbert Phillips; E. M. Burkhart, committee chairman; and Charles (Red) Quinn. Other members of the committee are L. C. Bastian, J. E. Harris, E. G. Lipski and H. W. Schulze.

Suggestion is routed to STEVE BLACK, manager of product design section, for analysis and evaluation. Suggestions always go to the person or persons who can put them into effect.

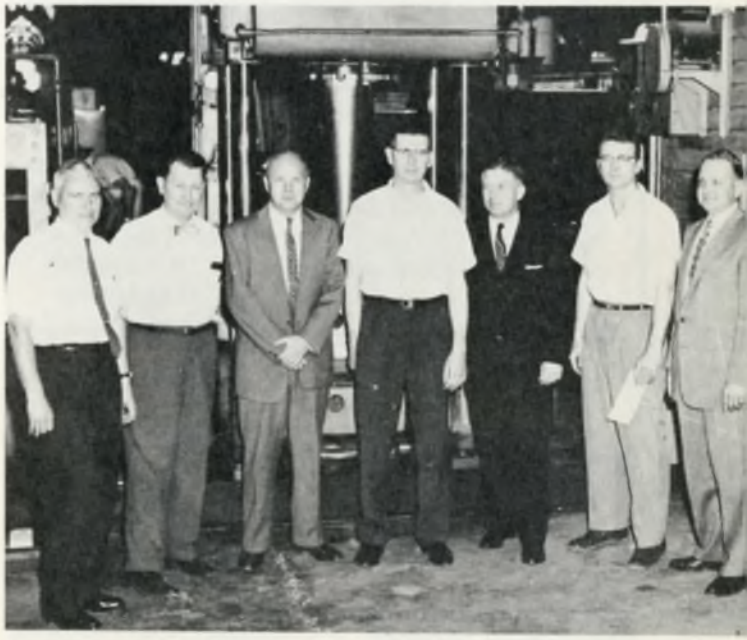
CONGRATULATIONS FROM PHILCO! Frank W. Edwards, general manager, Appliance Engineering, presents $315 check to Mr. Butwin, and thanks him for his originality in finding "A Better Way."

RESEARCH DIVISION SENIOR ENGINEER Robert F. Anderson smilingly accepts an award check resulting from his suggestion for preservation and better maintenance of office furniture. Also present are Research Section Manager Melvin E. Annett and (center) Grant Watt, chairman of Research Division's suggestion committee.

ANGELO SALVATORE, Dep't. 43-503, using anti-static air gun suggested by award winner Leone Carapucci in the Television Production Plant. This suggestion keeps TV masks free of dust and lint, and thus helps Philco remain "Famous for Quality the World Over."

THEIR IDEAS PAID OFF....

CELEBRATION! HELEN BARNES, senior file clerk, Dep't. 52-771, receives suggestion award of $50. and a handshake from William Nagy, merchandise manager, Accessories Division. Joining in the congratulations are, left to right, D. M. Ashton, controller, and chairman of the suggestion committee; W. J. Russell, advertising manager; Henry L. Baer, operations manager; T. E. Rogers, sales manager, and R. W. Ewart, supervisor of office services. Mrs. Barnes' suggestion expedited mail room work.



Three suggestion award winners, and the men they work for: Harry Ferguson, senior engineer; Robert Busch, wood specialist and John P. Maloney, model maker, pose for their pictures in the Appliance Engineering Model Shop. Left to right, R. J. Austin, manager of model development services; Mr. Ferguson; D. W. Schofield, project engineer; Mr. Busch; W. A. McCracken, vice-president appliance operations; Mr. Maloney, and Frank W. Edwards, general manager, appliance engineering.

The 35 millionth Philco radio to come off the production lines during the Company's observance of its thirtieth anniversary of radio progress is the celebrated Model 846 in the foreground above. This receiver features twin speakers in a Bandshell cabinet design, 5 tubes and Philco's Perma-Circuit Chassis with built-in antenna. Proudly displaying the top selling radios in Philco's long history is William H. Mattison (left) who played a prominent role in Philco's early radio production, and who is now Overseas Consultant with Philco International. Mr. Mattison stands behind Model 511, the first radio Philco ever built, while President J. M. Skinner, Jr., is behind Model 20, the famed "Baby Grand" of the thirties.

WHAT'S THAT ADDRESS

If you have changed your address in any way, or if your postal zone number is missing or wrong, you should get in touch immediately with your Personnel Department. It is to your advantage that the Company knows where to locate you for any mailings.

There's a form for changing your address. In filling this out you should include your clock number and zone number. Remember, all changes of address, marital status and increases in your dependencies should be reported without delay to your Personnel Department.

A trip to Rome for two, with all expenses paid, has been won by Dolores Castellano, the 14 year old daughter of Joe Castellano of the Maintenance Department, as a result of a contest conducted by Mt. Carmel Church in Camden.

DEATH TOLL BLAMED ON HUMAN ERROR

Millions of column inches of valuable space are contributed by American newspapers every year in the never-ending battle to halt the bloody carnage taking place on our highways. It seems incredible that drivers continue to act as they do behind the wheel of an automobile despite the avalanche of grim facts and warnings.

A recent report by The Travelers Insurance Companies states that since the advent of the automobile, more than 62,000,000 men, women and children have been killed or injured on our highways. More Americans have died on our highways than in all the wars this country has fought.

The cause of this slaughter calls for attention. More than 85 percent of all fatal accidents last year was blamed on human error!

More than 85 percent of the 37,600 deaths occurred because somebody behind the wheel had shrugged off the countless highway safety news stories and editorials this publication and hundreds of others like it across the country printed during the year. "It can't happen to me," he thought.

Perhaps he didn't consciously think that. Maybe the fact that it could happen to him didn't get past his subconscious. Perhaps it never did happen to him. Perhaps he was the survivor in a horrible crash that maimed and killed those he loved most.

Inattention is the overwhelming factor which figures in 85 percent of our death crashes. A lapse of attention to the road ahead, a heavy foot on the gas pedal, an unnecessary gamble to save a few seconds that cost an eternity—these are the ways in which the human behind the wheel failed. The supreme penalty was the result for those who erred once too often.

It is safe to predict that you as a driver will be exposed to countless news stories during the coming months describing what happened because the human behind the wheel made a mistake. Read them carefully. They could help you avoid that same mistake.

Our space men are surveying the moon! Meanwhile, back here on earth we've got a big job to do, too . . . we're doing it together . . . each of us giving a Fair Share gift to our United Fund Torch Drive. We can help make this community a better place in which to work and to live! Pledge *your* Fair-Share gift to our United Fund Torch Drive!

LEISURE DAYS AHEAD

Friends in the Receiving Department in Plant 2 gather round George Grymes, retiring after twenty-five years of service with the Company. Joe Lavignio presents George with a gift.

Best wishes for the future are extended Wade Read (center) upon his retirement from Test Maintenance after twenty years with the company. He is presented with a watch by Walt Ludman, superintendent of Test Engineering, and his foreman, Dave Stevens, on behalf of fellow employees.

Peg McCormick is the recipient of a number of gifts from friends in Dept. 43-509 upon her retirement after twenty-six years of employment at Philco. Foreman Ed Wirsu made the presentation of gifts. Miss McCormick plans on doing volunteer civic work during her leisure years.

Best wishes for a healthy, happy retirement in Deland, Florida are extended Henry Joe Lennartz, a supervisor in Dept. 43-509, by his foreman, Ed Wirsu, who presents Mr. Lennartz with a gift on behalf of his department. Mr. Lennartz had been at Philco twenty-eight years.

Nine-year-old Tommy Ashbaugh, son of Roy W. Ashbaugh, senior lab technician in our computer plant in Willow Grove, has been raising silkworms for four years. At the suggestion of his fourth grade teacher, Tommy sent a box of 25 cocoons to the Japan Silk Association in New York. The Association was so impressed with Tommy's accomplishments three representatives of the Association visited him at his home and brought him gifts. Among these gifts were a large and a small silkworm life cycle box, skeins of raw silk, handkerchiefs and booklets. Among the personal gifts were a vase and mug, candy, pencils and a Japanese children's story book.

UNITED FUND DRIVE

(Continued from page 18)

conducted simultaneously in nearly 7,000 large business and industrial firms, approximately 5,000 neighborhood and downtown business concerns and in hundreds of thousands of homes throughout Philadelphia, Delaware, Eastern Montgomery and part of Chester counties. R. Stewart Rauch, Jr., president of the Philadelphia Saving Fund Society, is general chairman.

Torch Drive agencies served more than one million men, women and children directly last year without regard to race, creed, national origin or station in life. But it is the entire metropolitan area that really reaps the benefits for UF agencies work around the clock to make this a better, safer community in which to live and work.

Through youth services, juvenile delinquency is fought on all fronts; through health clinics disease is prevented and controlled; through research a basic attack is made on mental illness, arthritis and rheumatism, cerebral palsy, muscular dystrophy, nephrosis, cancer, heart disease, and other great crippling and degenerative diseases; through child care and family services are provided foster home care, institutional care for mistreated and neglected children, counseling for troubled families and individuals, and shelter and care for families in need; through rehabilitation of the handicapped so that they may become self sustaining, the burden of the taxpayer is reduced; and hospitals are needed by every citizen.

While last year's successful Torch Drive surpassed its goal with a record $13,061,000, our United Fund has yet to meet the real needs of the health and welfare agencies dependent upon it for funds. Actual needs are close to $15,000,000.

The campaign this Fall will raise funds for 72 youth agencies; 27 health clinics; 23 hospitals; 41 child care and family services; 31 specialized services which include help for the handicapped, the aged and the foreign born; 27 neighborhood centers and services and 11 community planning organizations.

BETTER EYE CARE URGED TO PRESERVE SIGHT

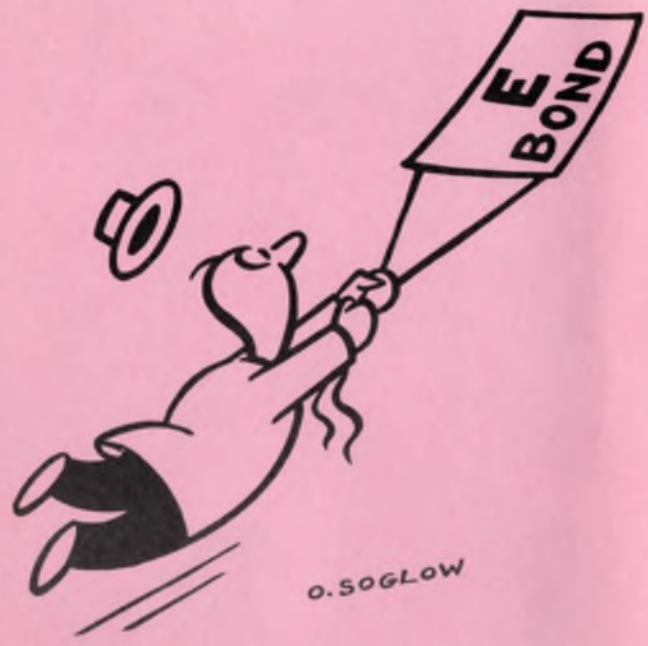
Don't treat that "just a speck of dust" in your eye too carelessly, warns John W. Ferree, M.D., executive director of the National Society for the Prevention of Blindness. Even so trivial an accident can lead to permanent impairment of vision or even the loss of an eye.

Basic first aid for eye injuries should be familiar to all, points out Dr. Ferree, but especially to those responsible for the welfare of young children. The familiar cry of "I've got something in my eye" should be answered immediately with "Don't rub it," he explains. Vigorous rubbing of a speck in the eye may scratch the cornea and leave a scar that may result in serious visual damage.

The procedure for freeing the eye of foreign bodies, as outlined by the National Society for the Prevention of Blindness: To remove a particle from the eye, lift the upper eyelid, pull it down over the lower lid and let the resulting tears wash out the speck. If this fails, wash the eye with lukewarm tap water, tilting the head so the water will flow away from the nose. If the object still remains, bandage the eye lightly and take the child to a physician. Never use any kind of medication unless instructed by the doctor.

If a chemical solution—such as insect spray or washing fluid—gets into the eye, immediate and prolonged (at least 15 minutes) irrigation of the eye with tap water is imperative. Successful subsequent treatment by a doctor may depend on how promptly and completely the harmful chemical is washed from the eye.

"NEXT STOP—THE MOON"



Since 1941, Americans have used E Bond savings, including added interest, totalling more than $75 billion—and still have $38 billion worth, steadily accruing more interest. How do you visualize $75,000,000,000 or $38,000,000,000?

Think of silver dollars, stacked one on the other. The height of a pile of 100 is 10.78 inches; a billion would be 107,812,500 inches. That's a stack 1701 miles high, so 75 billion would be, in round figures, 127,575 miles. The mean distance of the moon from earth is 238,857 miles, so 75 billion silver dollars would reach halfway to the moon, with about 8192 miles left over—maybe you'd settle for that, since it's nearly half a billion silver dollars!

If figures fascinate you—calculate how many dream houses that would buy . . . how much in furniture and equipment . . . how many young people it would put through college, professional school or technical training . . . how many retirees it would keep in comfort . . . how many emergencies it would meet.

Because that's where E Bond money goes. Meanwhile, there's $38 billion, piling up dollars in interest faster than you can count them, just waiting for Savings Bonds owners . . . who are waiting to use them.

Whether you like to play with such figures or not—wouldn't you like to play with the dollars they represent? Join the Payroll Savings Plan and . . . "next stop—the Moon!"

Philco offers a new concept for carefree cooking and cleaning in its new 1961 electric ranges which have tilt-up tops, lift-off oven doors, slip-out storage drawers, and many other accommodating features to make cooking-at-home easier than ever before. All Philco ranges are compatible in height and depth to standard base cabinets, with trim vertical backs that fit flush with the wall and blend in with counter tops, to achieve a "built-in look" in free standing range models. Quick-Chef Oven, plug-in Griddle, Broil-Under-Glass Pot-Watch surface unit, automatic Roast-meter and Hide-Away Rotisserie, are among the many deluxe cooking accommodations. All new Philco 30- and 40-inch ranges have the Tilt-Top feature.

A visitor to the U. S. Exhibit at the 29th Poznan International Fair in June examines a Philco table model radio exhibited by the Philco International Corporation. Fair-goers showed great interest in the overall display which stressed the latest in radio achievements and styling. The U. S. Exhibit was sponsored by the Office of International Trade Fairs, U. S. Department of Commerce, with the cooperation of 80 American firms. Nearly a half million people viewed the demonstrations and displays of American products and processes in the U. S. Exhibit.

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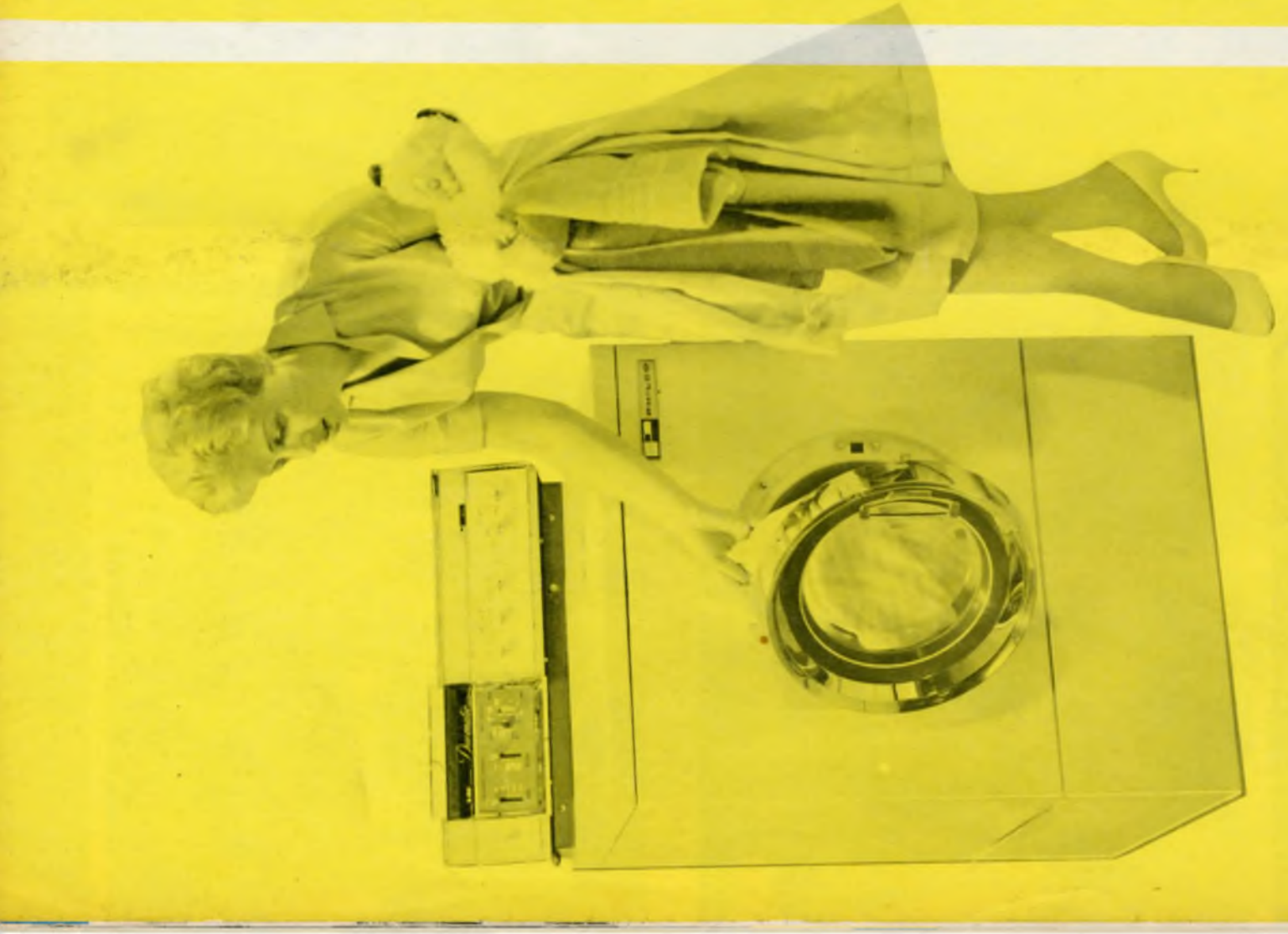

Here's one of Philco's new 1961 high-speed Duomatic washer-dryer combinations which, for the first time in the history of home laundry equipment, will automatically wash and completely dry an average family wash load in less than an hour. Above is deluxe Duomatic washer-dryer Model 716. This model has an automatic bleach dispenser and rinse conditioner dispenser. The bleach dispenser, which stores a three week average supply of liquid bleach, automatically measures, dilutes and adds bleach after the detergent is fully dispersed in wash water. By setting the slide-bar control, the dispenser selects bleach for small, regular or heavy loads. The dispenser's reservoir, which holds more than a quart, is also lighted for the convenience of the housewife when filling. Reservoir for fabric softener is located beside the bleach reservoir, and is controlled to dispense from one to four ounces into the washer. Storing more than a pint of liquid conditioner, the unit will automatically measure, dilute and add conditioner to the last rinse. Duomatics are featured in compact counter-high cabinets that are but 26¾ inches wide, making it convenient to install in almost any location in the home. These compact washer-dryer units are also ideal for apartments and mobile homes. For convenience, speed and economy in home laundry service, Philco's Duomatics are suited superbly.