SYRACUSE CHAPTER—MARCH 2012

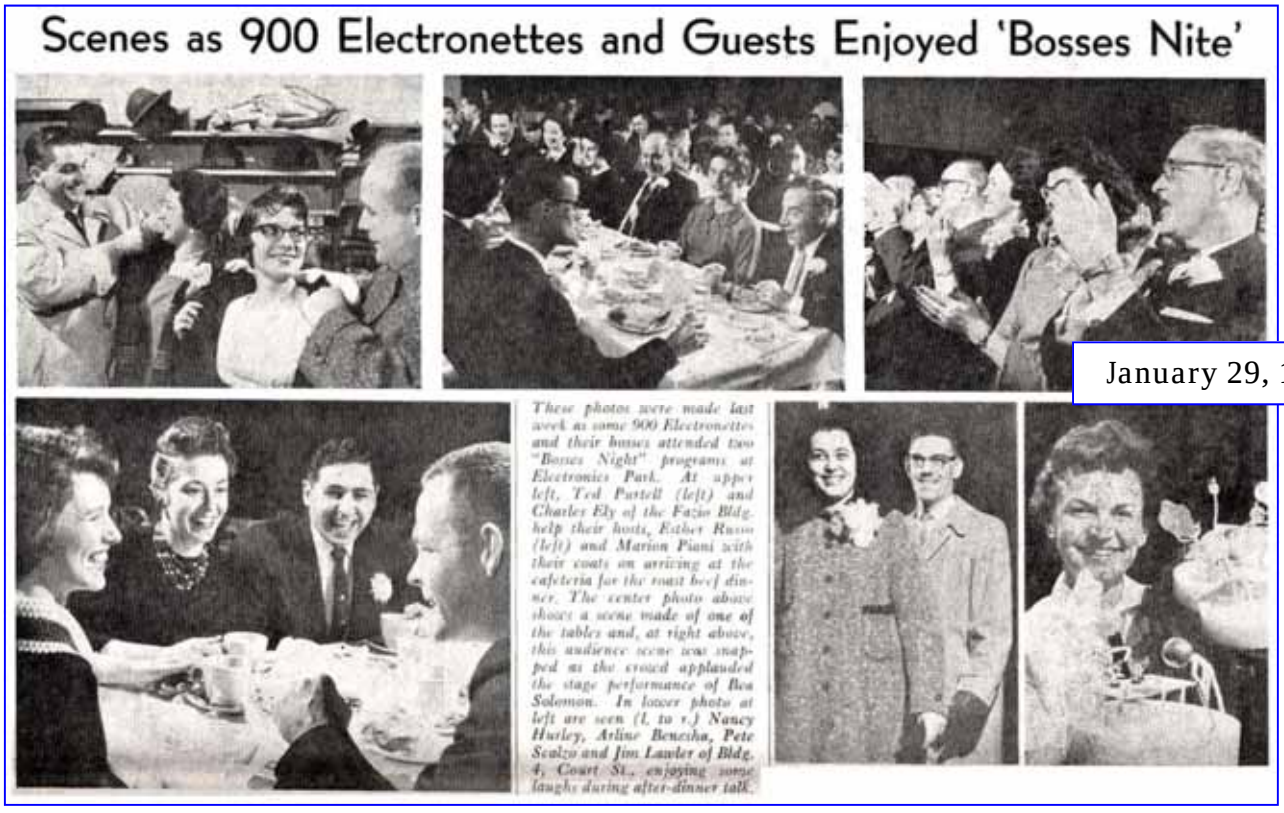
ELFUN QUICK NOTES 1960

An occasional publication by the Syracuse Chapter of material that would not ordinarily be included in our regular newsletters.

What Was Happening in Syracuse in 1960?

Highlights of 1960 included:

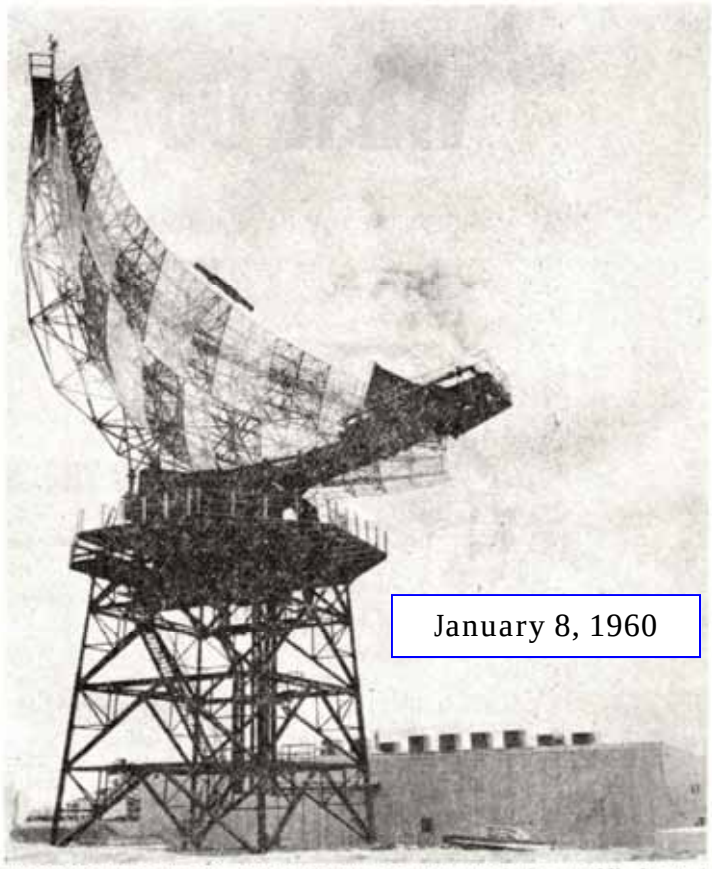
- DSD and HMED were developing the MISTRAM system and were in production of the FPS-6, SPS-30, FPS-24, BMEWS, 412L, MPQ-4A, FPS-7 and HIPAR systems.
- Digital computers were being used to speed calculations (Finance had responsibility for the new technology).
- A new Engineering/Production facility was being constructed on the west side of the city.
- TVR continued high production rates of B&W consoles and introduced a new line of portables.
- CRTO's new "Daylight Blue" CRT was introduced in GE televisions.
- SPD continued to introduce new devices and set up additional production facilities.
- ELab introduced a new thermoplastic recording technique.
- TPO delivered a number of broadcast transmitters, including six 250KW units for the Voice of America.
- And GE and the IUE marched toward a possible strike in the fall.


Scenes as 900 Electronettes and Guests Enjoyed 'Bosses Nite'

These photos were made last week as some 900 Electronettes and their bosses attended two "Bosses Night" programs at Electronics Park. At upper left, Ted Purtell (left) and Charles Ely of the Fazio Bldg. help their hosts, Esther Russo (left) and Marion Piani with their coats on arriving at the cafeteria for the roast beef dinner. The center photo above shows a scene made of one of the tables and, at right above, this audience scene was snapped as the crowd applauded the stage performance of Ben Solomon. In lower photo at left are seen (l. to r.) Nancy Hurley, Arline Benesha, Pete Scalzo and Jim Lawler of Bldg. 4, Court St., enjoying some laughs during after-dinner talk.

January 29, 1960

HMED Builds Large Radar for AF Site



January 8, 1960

TOPS ON DEFENSE—This picture shows one of the world's largest rotating radar antenna systems, made for the US Air Force by the Heavy Military Electronics Department, maintaining its skywatch at an Air Force site in Alabama. The AN/FPS-24 Search Radar is 120 feet wide and 50 feet high, weighs more than 135 tons.

Electricity sparks the... 60s

Patent Awards Made at Two Ceremonies

AWARD IN BLDG. 15—Major Johnson (left) of the Ordnance Radar Unit, Marine and Ordnance Radar Engineering section, Bldg. 15, Electronics Park, is seen receiving a General Electric Patent Award. Making the award which recognizes one of Johnson's inventions is Ed Koprowski, supervisor of the Ordnance Radar Unit.

February 22, 1960

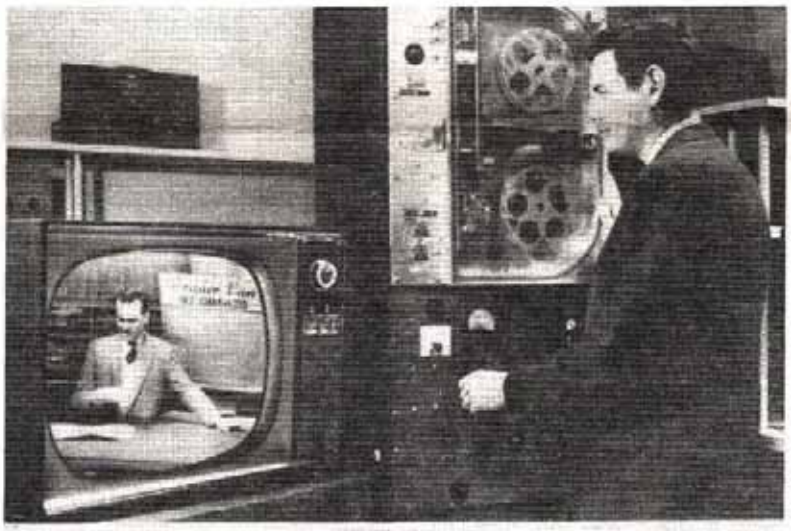
MONDAY CEREMONY — Dr. John B. Russell (left), manager of the Electronics Laboratory, is seen last Monday presenting Patent Awards to six employees of the Laboratory. Left to right are Dr. Virginia Russell, Tom Bray, Dr. Paul Chow, Dr. Paul Gleichauf, George Kirkpatrick and Dr. Frank Dickey.

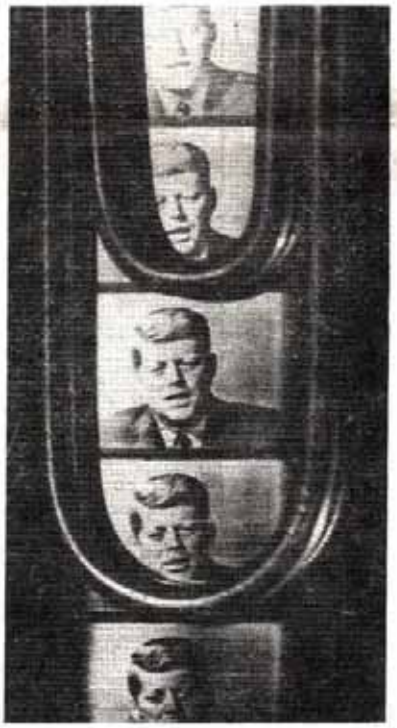
G-E Theater Stars

ROMANTIC COMEDY — Dick Shawn plays a likable "schnook" who wins a small fortune in the Las Vegas casino of Jerome Cowan (center) and then becomes the romantic target of chorus girl Gloria Grahame in "Don't Let It Throw You" on The General Electric Theater, Sunday, Jan. 1 over WHEN-TV at 9 p.m.

Photos Show New Recording System

THERMOPLASTIC RECORDING, General Electric's revolutionary new recording system, was announced in last week's issue of The GE News along with details on how the Electronics Laboratory here, managed by Dr. John B. Russell, is developing military applications for the system. These photographs illustrate how it works and some of its capabilities. Above, Dr. William E. Glenn, the system's inventor, shows that the Encyclopedia Britannica—all 24 volumes of it—could be, in principle, recorded on the reel of tape he holds. In the photos below at left, Dr. Glenn operates a thermoplastic recorder that transforms a TV signal into a series of minute wrinkle patterns on a plastic coated, transparent tape. In the bottom photo, this thermoplastic record is "played back" through a projector using a special optical system that reacts to the wrinkle patterns. The photo at right gives you some idea of the size of each frame of the thermoplastic recording—less than a quarter of an inch wide and, as shown, fits easily inside a paper clip. When ordinary light strikes the record at an angle, the image can be seen with the naked eye.





January 22, 1960

BMEWS MEN

Experience Totals 2,500 Years, G-E Radar 'Team'

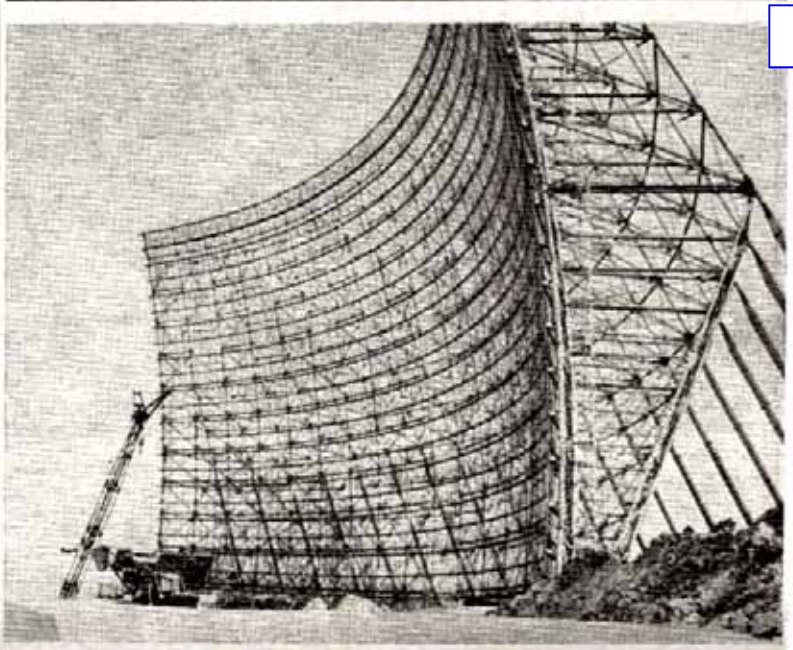
February 5, 1960

A team of approximately 350 Heavy Military Electronics Department engineering, scientific and technical personnel with an accumulated total of more than 2,500 years of electronic experience are engaged in the design and development of the Ballistic Missile Early Warning System (BMEWS) surveillance radar subsystem.

Added to this 25 centuries of experience offered by HMED employees are hundreds of more years of experience found in the 450 suppliers and subcontractors who are members of the General Electric industrial team participating in this top priority defense project. The Radio Corporation of America is prime contractor for the over-all BMEWS program.

The super-power radar system subcontracted to General Electric here is designed to detect intercontinental ballistic missiles as they rise over the horizon miles away. When in operation, the surveillance radar subsystem—developed in cooperation with the Air Force's Research and Development Command — generates a gigantic curtain of radio frequency energy over the northern polar region.

Only last weekend: it was announced here that this largest long-range surveillance radar subsystem in the Free World now is being installed in the Arctic at the Air Force's BMEWS Site 1. The announcement was made by Thomas I. Paganelli, manager of HMED's Missile Detection Systems Section.



17 STORIES HIGH—This is the torus-shaped antenna reflector for the BMEWS surveillance radar subsystem under construction at Site I in Alaska. It's 165 feet high and 400 feet long. The huge reflector is built to withstand a six-inch coating of ice in winds of 185 miles per hour.

Preparin' For Wearin' Of The Green

PLAN ST. PAT'S DANCE — Electronettes (L to R) Chris Christoffel, Bldg. 1, Elec. Park; and Dorothy Foley, Court St., co-chairmen of the club's St. Patrick's Day Dance to be held at the Drumlins March 17, model some of the green toppers to be provided for everyone attending.

EDITORIAL

PEACEFUL vs. LEGAL PICKETING

March 11, 1960

It certainly says something about organized labor's reputation when it makes headline news by **not** breaking the law.

Last week a local newspaper carried an eight-column, front page, headline which said **"Carrier Pickets Let Salaried Workers Through".** In other words, these union pickets did **not** resort to illegal intimidation, force or violence to prevent salaried employees from exercising their **right** to go to work. This made news.

A picket sign does not turn a picket into a union-appointed policeman

pickets have assumed the authority to police the gates and decide who enters and leaves the plant. According to news reports published on March 7, 1960, some 225 individuals were denied admittance.

HMED Is Testing BMEWS Here

Transmitting, receiving and signal processing elements of the USAF's Ballistic Missile Early Warning Surveillance Radar Subsystem are being tested in the Heavy Military Electronics Department's high power radar laboratory here—thousands of miles from BMEWS Site 1 in the Arctic.

More than 290 electronics equipment cabinets and ten monitoring and control consoles are included in the complete BMEWS Surveillance Radar Subsystem designed and produced by HMED for Site 1, under a subcontract with the Radio Corporation of America.

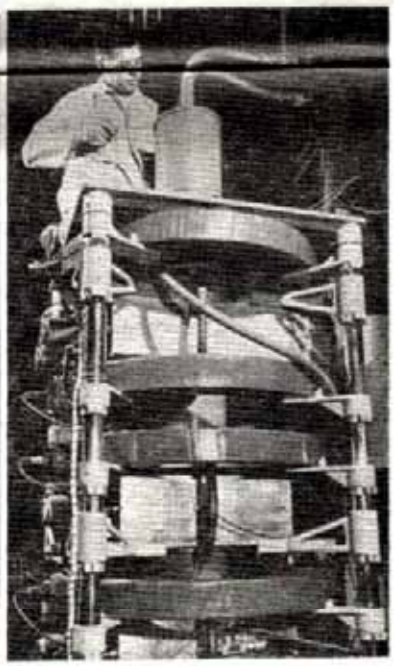
To facilitate the high power tests required on these complex electronic equipments, HMED's 28,000 square foot laboratory in Bldg. 8, Court St., is equipped with a transmitter capable of generating radio frequency (RF) power at multi-million watt levels. The power from 34,000 volt in-coming transmission lines is converted by banks of high voltage regulators, transformers, rectifiers and capacitors to the 120,000 volt DC supplies required by the transmitter.

Groups of 9-foot high Klystron tubes are used to generate the powerful pulses required for testing.

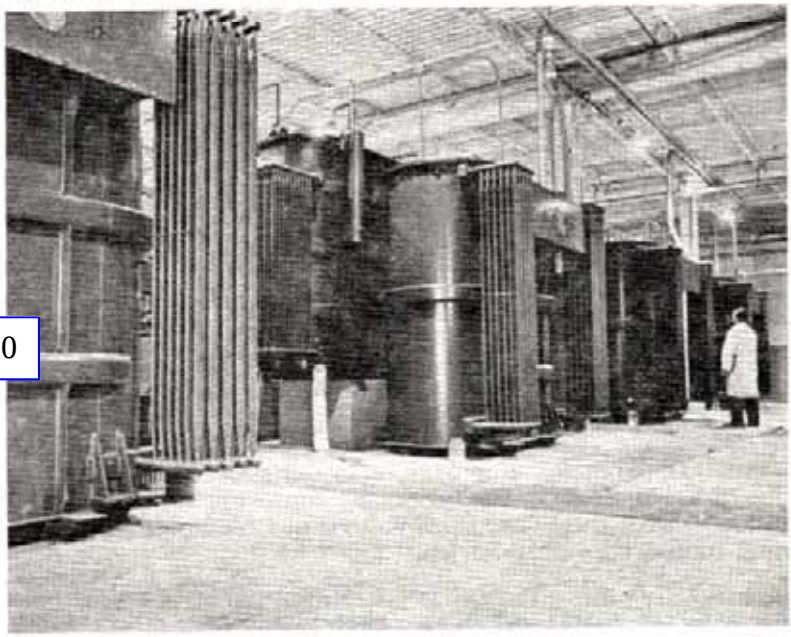
Typical of the electronic equipment being tested in this new facility is the high speed scanning switch developed for General Electric by General Bronze, Inc., Valley Stream, Long Island, New York. In the language of radar engineers, this scanner is designed to transmit high powered pulses of RF (radio frequency) energy and to receive milli-micro-micro-watt return signals. This difference in power levels is approximately the same as the difference between the size of the earth and a basketball.

In addition to its numerous test facilities, the high power laboratory is used for training personnel in the overseas installation and operation of the super power BMEWS Surveillence Radar Subsystems.

Completely air conditioned, the test facility includes space for enginering and training personnel, space for equipment modifications, a high-bay area equipped with a two-ton crane for positioning components, and a machine shop for on-the-spot equipment changes and repairs.



GIANT TUBE—This is one of the high-power Klystron tubes used in the Air Force's Ballistic Missile Early Warning surveillance radar subsystem built by the Heavy Military Electronics Department here. Richard Dougherty works on the big nine-foot tube which is encircled by large focusing coils.



POWER FOR BMEWS—A HMED electronics technician is dwarfed by this bank of four high-voltage transformers and full wave rectifiers needed to produce the 120,000 volt DC power supply for the BMEWS transmitters being tested at HMED's high power radar laboratory in Bldg. 8, Court Street.

February 12, 1960

THE GENERAL ELECTRIC NEWS

HEADQUARTERS—DEFENSE ELECTRONICS DIVISION

CATHODE RAY TUBE DEPARTMENT
COMMUNICATIONS PRODUCTS DEPARTMENT
DEFENSE SYSTEMS DEPARTMENT
SEMICONDUCTOR PRODUCTS DEPARTMENT
HEAVY MILITARY ELECTRONICS DEPARTMENT
TELEVISION RECEIVER DEPARTMENT

Hail Tunnel Diodes As Top Achievement

MIGHTY MITE—Dr. I. A. Lesk and Mrs. Marguerite Roehrig, a laboratory technician, examine one of the Semiconductor Products Department's tiny gallium arsenide tunnel diodes under test. The tunnel diodes held in the tweezers here saw Dr. Nicholas Holonyak of the Advanced Semiconductor Laboratory and Dr. Robert Hall of GE's Research Laboratory take major roles in its development. This development is one of the top accomplishments we can hail as the nation observes National Engineers' Week, which concludes tomorrow.

February 26, 1960

G-E Work Unaffected By Strike

According to latest reports, General Electric employees have not been affected by the Steelworkers strike against the Carrier Corporation.

At the Defense Systems Department's Geddes Street plant (where GE and Carrier employees occupy the same building) and at the Heavy Military Electronics Department's Thompson Rd. plant (where GE and Carrier employees share a common entrance), no forceful attempts have been made to interfere with these General Electric personnel involved in defense work or Carrier salaried personnel.

Steelworkers union officials seem to be concentrating on the disrupting of production operations at Carrier in an attempt to force management to accept their terms.

Steelworkers union officials recently were voted in by less than 51 per cent of the ballots cast. Now they seem bent on trying to prove their worth by quickly calling a pay-losing strike.

March 4, 1960

What's ahead in the 1960's?

OBSTACLES or OPPORTUNITIES?

March 25, 1960

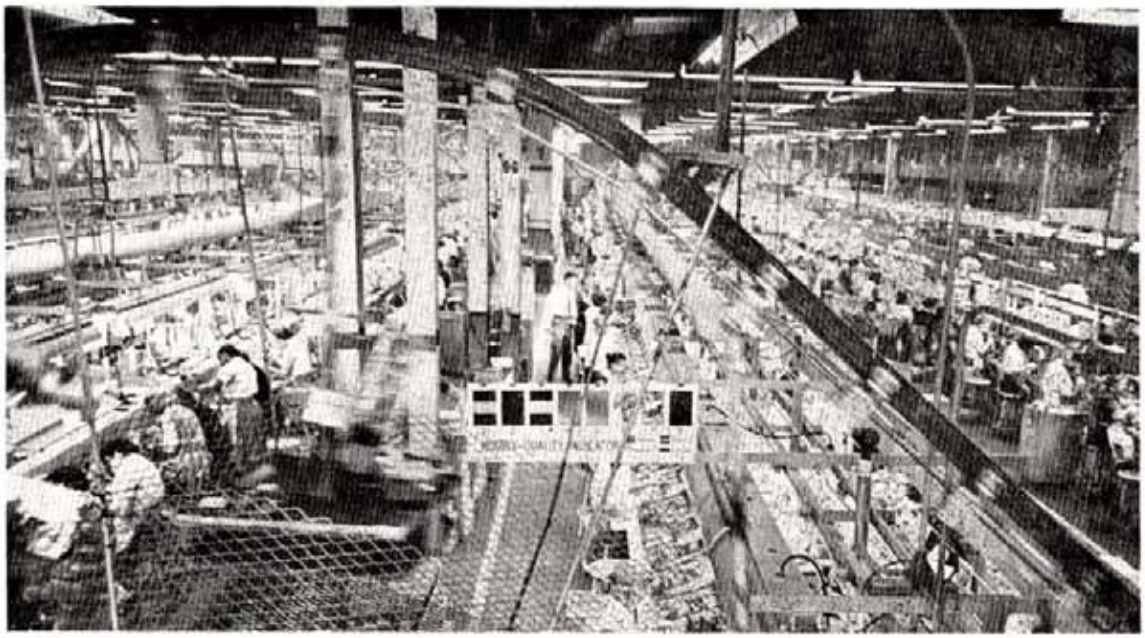
THE CUSTOMER IS 'KING'

March 18, 1960

Television Receiver Dept. Starts Output of '61 Line; Past Year Was a Successful One

TVR Improves Employment, Sales In 1959

CUSTOMER-BOUND—General Electric television sets by the thousands are seen being prepared for shipment to market via freight boxcars from Bldg. 5, Electronics Park. Larry O'Shea easily handles the packaged sets with his clamp truck. In dealers' showrooms, these sets will ultimately await the customers' ultimate decisions whether to buy GE or a competitive brand.



TVR ASSEMBLY LINES captured in this picture show Bldg. 5 employees at work making chassis. Note the "Hourly Quality Indicator" scoreboard located at center of the photograph. It gives employees an hour-by-hour check on the quality of chassis being produced. The symbols score quality as "Over Bogey," "Marginal," "Good" or "Excellent."

INSTRUMENT LINE in rear of Bldg. 5, Electronics Park, finds the parade of newly-manufactured General Electric televisions sets nearing completion. Sign at picture's upper right shows these receivers are about to move into final "Quality Test" area for a final check-up before being boxed for shipment.

March 18, 1960

SMITH-CORONA LEAVES

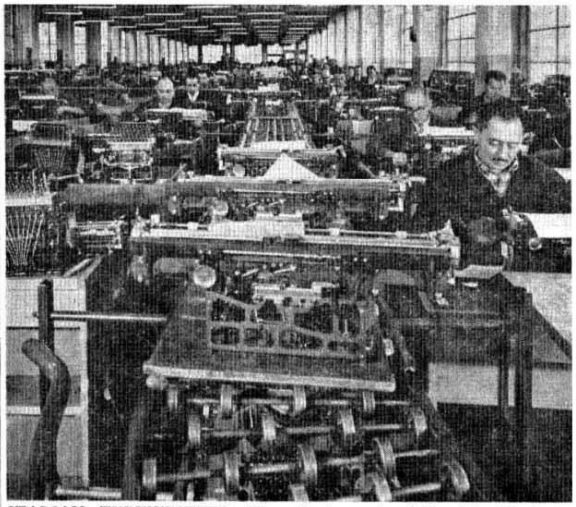
NO 'BOGEYMAN'

Costs and Imports Take Toll

Foreign competition suddenly materialized into something more than just a vague threat to Syracusans this week as the Smith-Corona typewriter company announced it was forced to close its Syracuse plant because of the inroads made in its business by Japanese and Italian typewriters.

This announcement should convince even union officials . . . who insist foreign competition is only a "bogeyman" dreamed up by businessmen . . . that anything which increases the cost of doing business makes every job just that less secure.

Olivetti Plant . . . Lower Costs Mean Sales



ITALIAN TYPEWRITERS—The giant, modernistic Olivetti typewriter company in Italy turns out high-quality machines at much lower costs than American competitors. One of the big differences Olivetti enjoys is the lower cost of labor—a cost difference which finally led to the Smith-Corona decision to consolidate at Cortland-Groton in hopes that production efficiency would narrow the cost gap.

April 1, 1960

April 8, 1960

FOR AIR DEFENSE

Award $3,500,000 Radar Contract to HMED Here

A $3,500,000 contract from the Air Materiel Command's Rome Air Materiel Area for the production of advanced high power, search radars for air defense has been awarded to General Electric, according to an announcement this week by J. J. Farrell, general manager of the Heavy Military Electronics Department.

A similar production contract for $17 million was awarded to HMED last summer, Mr. Farrell said.

Designated the AN/FPS-7, this high power, multi-beam search radar is capable of detecting aircraft at significantly higher altitudes and longer ranges than present day air defense radars. It will supply radar data to the SAGE Continental Air Defense System.

Mr. Farrell explained that the FPS-7 provides much faster target data on approaching aircraft than is possible with the conventional system using separate radars for obtaining range and height.

Earn Patent Awards In Electronics Lab

SHARES OF G-E STOCK—Three Electronics Laboratory employees were presented patent awards this week by Dr. John B. Russell, manager of the Laboratory. Left to right are Dr. Russell, Jerome J. Suran, Vernon P. Mathis, and Harrold W. Abbot.

May 13, 1960

"Everything's Coming Up Roses"

SPRING DANCE—Displaying decorations for the GE Engineer's Wives Club annual spring dance Saturday, May 14 at the Liverpool Golf and Country Club are (l to r) Mrs. Robert Fredericks, co-chairman of the dance and Mrs. Phillip Harter, ticket chairman. Theme of the affair is "Everything Is Coming Up Roses."

CRT Replacement Tube Operations Expanded

April 22, 1960

The Cathode Ray Tube Department has expanded its manufacturing and warehouse operations in Syracuse to increase the production of replacement television picture tubes for the Northeast and Middle Atlantic States.

More than 100 wholesale distributors of electronic parts gathered here Monday and Tuesday from throughout the Northeastern states to view the new facilities at Electronics Park. They were welcomed at a banquet Monday evening by J. W. Duffield, Clifton, N. J., Regional Distributor Sales Manager. Tuesday they toured the plant facilities and discussed shipping and warehousing procedures with CRT personnel.

The expansion was completed to meet the rising demand for replacement television picture tubes in this region since it contains one of the heaviest concentrations of older television sets in the country said David C. Scott, general manager of the Cathode Ray Tube Department.

"The large metropolitan areas around such cities as New York, Boston and Philadelphia contain a great number of five to 15-year-old television sets since commercial television as we know it today really initiated there," he said.

Prior to this expansion, Syracuse production facilities were devoted exclusively to making television picture tubes used in new television sets.

A "Thunderbird" In The Springtime

T-BIRD FULL OF BEAUTIES—Grace Despirito, steno-typist in the HMED Product Service Unit at the Rudolph Bldg. and Tuesday's winner of the HMED "Thunderbird for a Day" Contest, gets set to enjoy a bit of balmy Spring weather. Here, seated in the driver's seat, she shows off her prize for a day to a bevy of beauties from HMED Product Service, including (front seat) Cam Traino, (back seat (l to r) May O'Connell, Sally Brown, Gordyne Slover, (trunk l to r) Donna Sotir, Jo Cooley and Donna Roche.

G-E Theater Stars

DAN DURYEA stars as a newspaper columnist who probes into a long-forgotten accidental death and marks himself for death, in "Mystery at Malibu," suspense-drama of a newsman's search for the story behind the headlines on The General Electric Theater Sunday, April 10. "Mystery at Malibu" may be seen at 9 p.m. on WHEN-TV.

May 13, 1960

Got Triskaidekaphobia?

WORRIED ABOUT FRIDAY THE 13TH?—Delia DiNicola, a secretary in Heavy Military Electronics Department, Bldg. 5, Court St., dares to ignore superstition as she poses under ladder with a black cat.

FOR SALE

MISCELLANEOUS — 1955 Frigidaire automatic washer; 5-pc. Colonial maple living room suite, couch opens into double bed; platform rocker and matching chair. Good condition. GR 5-1289 after 6.

1956 PONTIAC — 2-door hardtop, radio, heater, good tires, good running condition, reasonable, owner must sell, Canastota OW 7-7025 after 6.

HOUSE—Mattydale, 2-story frame dwelling with 2 bedrooms and bath. Kitchen, dining room, living room, full basement, screened-in front porch. Complete with storm windows, screens, landscaping, 1½ car garage. Nr. schools, buses and shopping area. GL 4-4110.

COLOR TV — GE 21", chassis needs work, cabinet, also GE 17" TV in need of repair. Look at them and make an offer for one or both. GL 8-5937.

1959 RENAULT — Dauphine, 4-door sedan, 3500 miles. Like new. $1295. GR 6-0947.

STOVE—Built-in Chambers stove and oven. Regency-style sofa, custom made. Both like new, sell for half. Refrigerator, $50. Baby chifferobe, $25. GR 5-5542.

MISCELLANEOUS — Boy's top coat and jackets, size 3, $1 and $2; three oilskin raincoats, size 3, 5, 12, $1 each. Misses' bathrobes, size 12, $1; 2-piece navy silk dress, like new, size 12, $3. Girl's skirts and dresses, size 8, $1 each. Lady's best quality shoes, 2 pr., size 5, $1 each. Two twin bedspreads, $2; 1 pair drapes, $3. GR 8-2973 after 4.

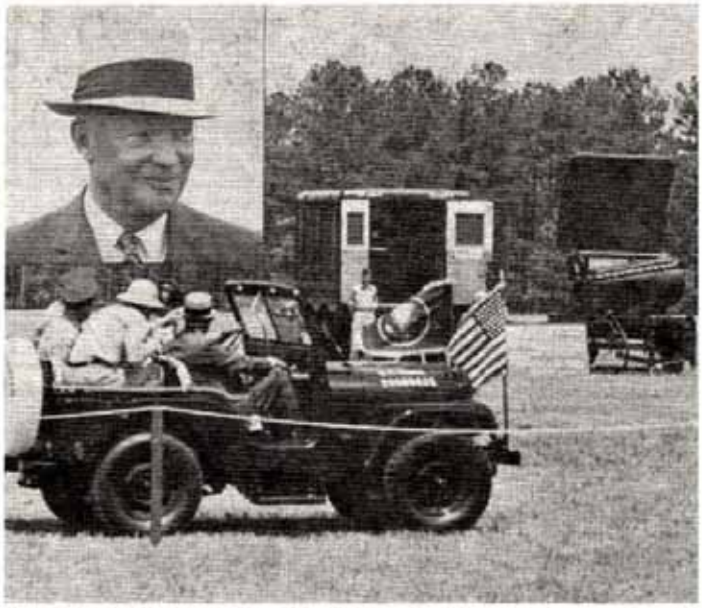
MISCELLANEOUS — Lincoln arc welder, 180 amp. complete with shield and lines, like new, $130; trailer, ¾-ton steel pick-up box, spare tire included, $125; bedroom suite, 3-piece blonde oak, Hollywood style, in good condition, $50. OL 2-2601.

G-E Theater Stars

DAVID WAYNE and Peggy Knudson play the husband and wife in "Do Not Disturb," a General Electric Theater comedy episode involving the trials of a free-lance magazine writer who is pressed into service as author of the school play by his son's teacher. The show can be viewed at 9 p.m. Sunday on WHEN-TV.

In Fort Benning, Ga.

Exhibit HMED Mortar Radar at Project MAN



EISENHOWER INSPECTS RADAR—President Eisenhower (seated in jeep) viewing the demonstration of a modern Army's capabilities to wage war in a 3-day demonstration—Project MAN—at Fort Benning, Ga., last week inspected HMED's MPQ-4A mortar locator radar (extreme right).

May 13, 1960

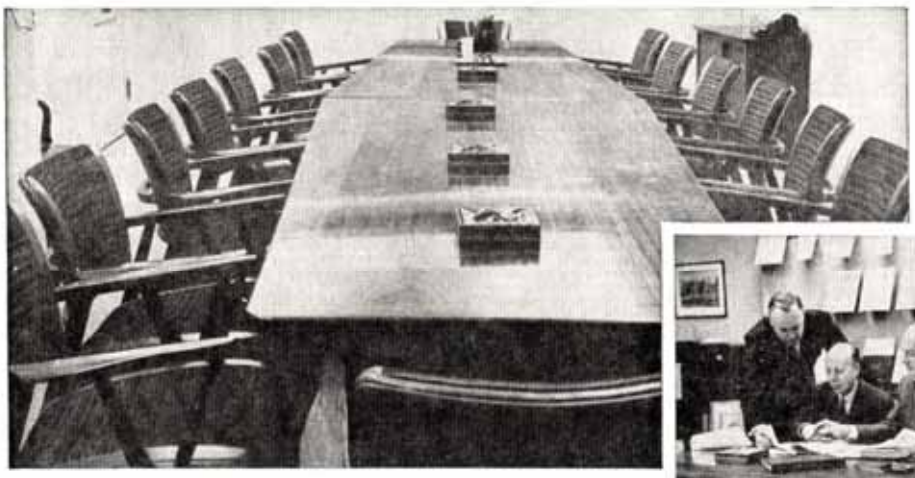
In this age of intercontinental ballistic missiles, earth satellites and rockets to outer space, the needs of the front-line infantryman are not being overlooked. This was dramatically shown last week at the Army-Industry sponsored Project MAN (Modern Army Needs), Fort Benning, Ga.

Among the many ground combat equipments demonstrated at this three-day meeting was a mobile radar system designed to protect today's foot soldier from one of his most deadly enemies —mortar fire. This is emphasized by the fact that more than half of the U. S. Army's casualties during World War II resulted from this type of weapon. The percentage was even higher during the Korean conflict.

Designated the AN/MPQ-4A, this highly mobile, trailer-mounted radar system is capable of pinpointing the location of enemy mortars more than six miles away. It detects the mortar shell in flight and electronically computes the exact location of the enemy mortar battery, permitting immediate, accurate counter-fire.

The MPQ-4 was developed jointly by the U. S. Army Signal Corps Research and Development Laboratory, Fort Monmouth, N. J., and the Heavy Military Electronics Department here. It has been accepted for operational field use.

GETTING READY



● A room like this will be the scene when Company and union negotiators sit down to discuss new contracts later this summer. But, meanwhile, there is an immense amount of careful preparation and fact-gathering going on.

● "A fair, firm offer is the result of much research and fact-gathering . . ." Top photo at right shows four members of General Electric's Relations staff studying just a small portion of the research and industry reports and other factual statistics which are reviewed constantly by Company experts in preparation for union bargaining sessions. (Left to right in photo): Russell H. Hubbard, James F. Duncan, George P. Lehman, and Irving H. Dearnley.

June 10, 1960

G-E Theater Stars

RONALD REAGAN and PEGGY LEE are the co-stars of "So Deadly, So Evil," suspense-filled presentation on The General Electric Theater Sunday evening in which the blonde songstress makes her television debut in a dramatic role. The show can be viewed at 9 p.m. on WHEN-TV.

FOR AIR DEFENSE

May 20, 1960

Air Force Awards HMED $4 Million Contract

A $4,280,405 contract from the Air Materiel Command's Rome Air Materiel Area for continuation of the 412L Air Weapons Control Systems project has been awarded to General Electric, according to an announcement this week by J. J. Farrell, general manager of the Heavy Military Electronics Department.

A similar contract for $22 million was awarded to HMED last August, Mr. Farrell said.

The most recent contract is for systems integration, engineering, and management for a period of 12 months and was a negotiated procurement.

HMED is the Air Force's System Manager for the 412L project and is supplying the AN/GPA-73 Data Processing and Display Sub-System for the universal air weapons control system.

'61 Models Roll Off TVR Assembly Line

FINAL QUALITY CHECK—Albert Sobey and Addi. Palmer perform a final quality check on this '61 television model as it ends its journey on the assembly line. The country's top consumer magazine editors previewed the 1961 line of television receivers at a press preview in Syracuse yesterday. They also toured Television Receiver manufacturing facilities in Bldg. 5.

Grievance Backlog Grows

Union Officials Display Obvious Lack of Interest

The question was raised this week whether IUE Local 320 officials are sincerely intent on resolving problems that deserve attention, or are more intent on using the grievance system "to serve their own ends."

C. H. Harrison, manager of Employee Relations for Syracuse General Electric, declared yesterday that union officials clearly have been engaged in a campaign of "generating grievances regardless of their merit, and then carrying them to the second step — even including many which had already been settled."

At the same time, while protesting that the grievances are important, IUE Business Agent John Stanley has seemed bent on preventing a second step review, and union delaying tactics have resulted into the gradual build up of a backlog of grievances which recently hit the 300 mark, Harrison said.

Local 320 officials' strategy took a new twist on grievances last week, Harrison disclosed. Obviously referring to the recent series on the grievance procedure carried in The GE News, John Stanley reportedly remarked, "You're not going to put anything in The GE News about me stalling on grievances."

HATS IN STYLE—Peter Scalzo, 5, and his brother, Michael, 3, model Family Day headgear. The youngsters are sons of Peter Scalzo, HMED Purchasing, Bldg. 4, Court St.

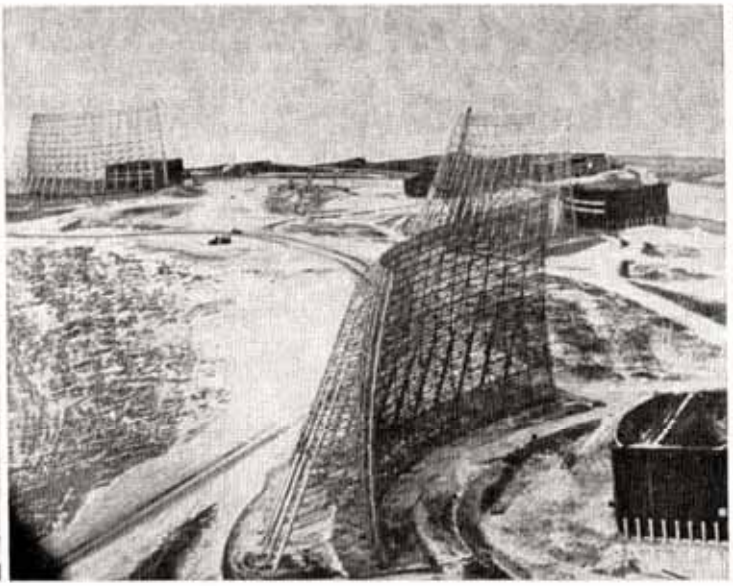
June 17, 1960

G-E Theater Stars

SAMMY DAVIS, JR., stars as a hapless army rookie who's the butt of platoon pranks in this Sunday night's General Electric Theater presentation of "The Patsy." The show is seen at 9 p.m. on WHEN-TV here.

HMED Pioneers In Land of Ice and Snow

POLAR HOTEL—R. B. Eggleston, left, HMED BMEWS site manager, and J. L. Fitzpatrick, MDSS, HMED, pause in front of the BMEWS housing units at Thule, Greenland.



AERIAL VIEW of BMEWS, Site I nearing completion at Thule, Greenland shows three of the four giant antenna reflectors for the super surveillance radar system built by HMED as part of the USAF's Ballistic Missile Early Warning System. Each reflector is 165 feet high and 400 feet wide, and weighs 1,500 tons. A total of 20 giant trusses and 20 pillar-like 60 foot-long backstays support the mammoth steel structures.

PRODUCT SERVICE Technicians at the BMEWS site, R. Braun, (kneeling) and H. Brewington (standing), check out the synchronizer, which controls operation of the complex transmitter-receiver.

BMEWS Site Operational By Year's End

May 20, 1960

Electronettes Stage "Evening In Paris"

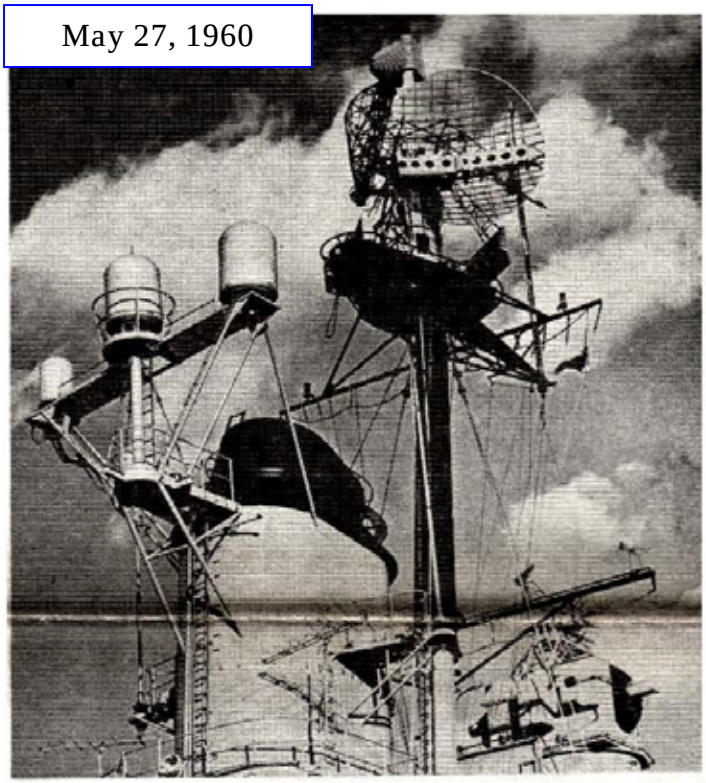
June 3, 1960

EVENING IN PARIS — Irene Isabell, Erie Blvd., pauses to let members of the Electronettes view the latest in summer fashions at the show in Baker Hall last week. Irene is wearing a white cotton accented in black.

SPORTS WEAR—Four models, posing for the GE News camera in sportswear and afternoon dresses, are: (l to r) Helen Wede, Linda Southard, Irene Isabell, and Mary Losky.

ON THE BEACH—Electronettes and guests were treated to the latest in swimwear as Helen Wede, Court St., models a suit with a matching blouse. Rose Bernthal of Fiah & Co., was guest moderator for the evening show.

May 27, 1960



SYRACUSE BUILT—This AN/SPS-30, one of the longest-range radars in production for the U.S. Navy is shown installed atop the mast of the USS Macon. The new radar which simultaneously detects the range, azimuth, and height of a target, is being built by Heavy Military Electronics Department at Electronics Park.

$14 Million Contract for Production of Navy Radar Units Awarded to HMED

A fourteen million dollar contract for the production of new long-range height-finding radar units for the U. S. Navy has been awarded to the Heavy Military Electronics Department here, according to an announcement this week by J. J. Farrell, Department general manager.

Designated the AN/SPS-30, this lightweight unit will be one of the longest range radars in production for the Navy and will feature a three dimensional capability which simultaneously detects the range, azimuth, and height of a target, Farrell explained.

"The increase in aircraft speeds and the introduction of missiles in recent years has made it imperative for the Navy to have this new type of long-range height finding radar capable of detecting objects at extremely long ranges", Farrell said.

The AN/SPS-30 will incorporate many advanced signal processing methods and circuitry.

Work on the AN/SPS-30, is being done by the Marine and Ordnance Engineering Unit of HMED at Electronics Park.

This new radar is an outgrowth of the General Electric Company's extensive experience in the Navy radar field, including many different search radars, height finding equipments, and three-coordinate systems and their associated display units.

July 8, 1960

Award Contract Of $1.4 Million For SPD Project

The Semiconductor Products Department here has begun work on a major silicon transistor reliability program in connection with the Air Force Minuteman missile.

The project is being conducted under an estimated $1.4 million contract awarded by Autonetics, a division of North American Aviation, Inc., and will extend over a 24-month period.

In addition to the amount of the contract, it is expected that the cost of transistors for the program will be in excess of $500,000.

According to H. B. Fancher, general manager of the Semiconductor Products Department, the reliability improvement will establish process specifications, complete production facilities, production controls and a personnel training program.

The aim of the contract is to achieve reliability requirements of 99.999 per cent per 1,000 hours of life or no more than one failure out of each 100,000 units produced.

The transistors used in the program are designed to survive severe conditions of shock, vibration, centrifugal force and temperature. They are high performance devices of fixed-bed construction which have been developed for extremely high mechanical reliability.

Named to manage the reliability improvement program for the Semiconductor Products Department is C. H. Zierdt, Jr.

Zierdt said special "Snow White" (ultra clean) production lines have been established to perform manufacturing functions for the device.

The "Snow White" facility provides extremely clean environment for the production of failure-free transistors required for the Minuteman program.

The transistors developed by GE will attempt to improve the high reliability requirements sought for the Minuteman in two principal areas. Air Force operational missile squadrons demand a weapon which will perform reliably after storage in underground silos up to three years and which will achieve maximum reliability in flight.

Technical direction meetings among engineering teams from both companies have been scheduled on a monthly basis, one month here in Syracuse, the following month at the Autonetics plant in Downey, Calif., to monitor the progress of the Minuteman program.

FOR AIR DEFENSE

Award $2.5 Million Radar Contract to HMED Here

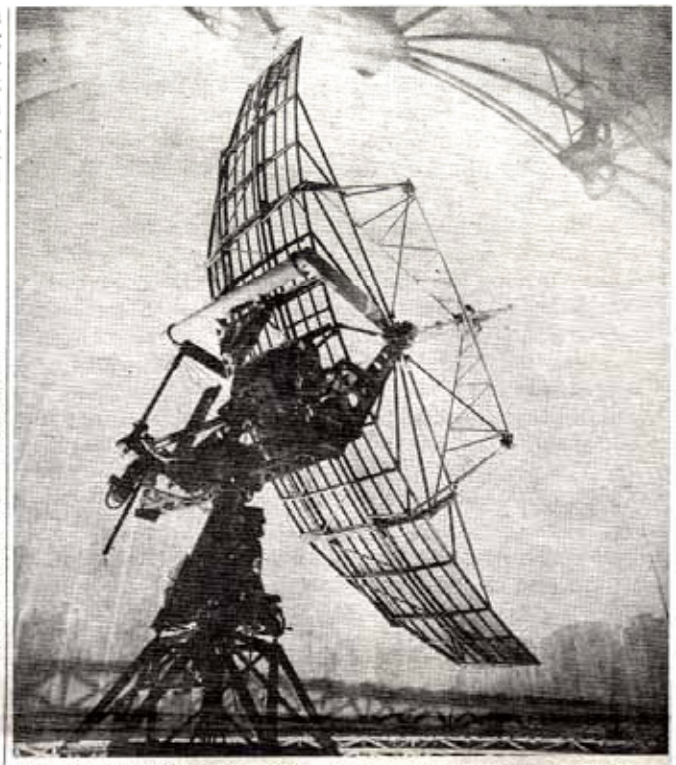
June 24, 1960

A $2,500,000 production contract for 65 anti-jamming modification kits to be installed on AN/FPS-6 Height Finding Radars has been awarded to Heavy Military Electronics Department here, it was announced this week by J. J. Farrell, general manager.

The contract was awarded by the Directorate of Procurement and Production, Rome Air Materiel Area, Griffiss AFB, Rome, N. Y. The Air Force will use 49 kits and the Army will use 16.

"These new kits," Farrell said, "will greatly increase the performance capabilities of the FPS-6 radars, which for the past six years have been operational as the armed forces' primary height finder radar for air defense."

FPS-6 radars are being operated in combination with search radars throughout the Free World to provide height data on air targets several hundred miles away. They are installed on "Texas Towers" far off the Atlantic coast, in 50-foot radomes in the frozen north to protect them against Arctic weather, and on steel towers in temperate climates.



SYRACUSE-BUILT RADARS — Heavy Military Electronics Department here has been awarded a $2½ million contract for anti-jamming modification kits to be installed on these AN/FPS-6 Height Finding Radars. The AN/FPS-6 radars provide USAF installations throughout the Free World with long range, accurate height information on air targets several hundred miles away.

Experts Work Constantly to Develop Fair Offer to All—Including Employees in All Unions

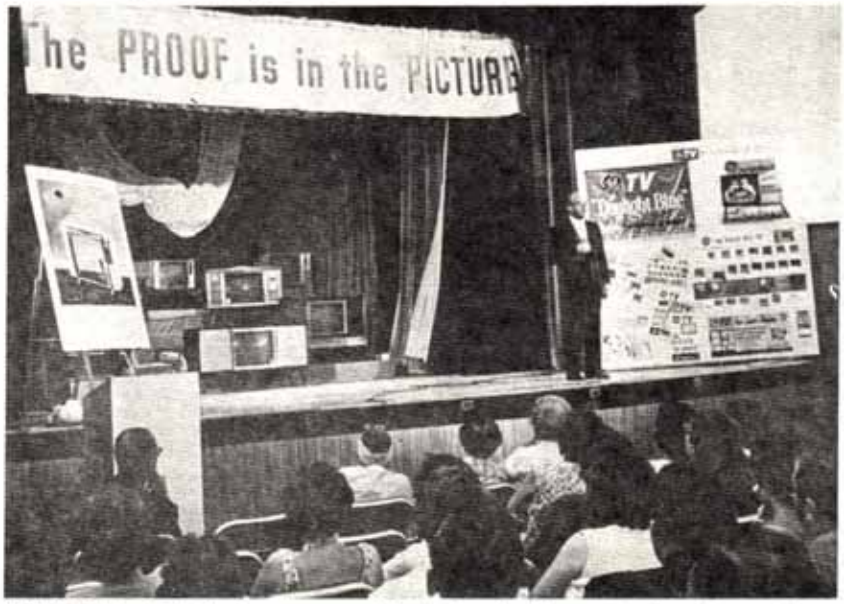
July 22, 1960

Close to Employee Problems—No "ivory tower" decisions on how to make General Electric jobs better are made by Philip D. Moore, second from left, who heads the Company's negotiating team. Besides years of experience as an Employee Relations Manager in operating departments, he is continuously in touch with operating problems. Here he talks with R. A. Burns, manager of Employee and Community Relations, River Works, Lynn, Mass., and members of his staff. Left to right: Mr. Burns; Mr. Moore; S. E. Cushing; C. S. Tsorvas; and W. H. Weicker.

TVR EMPLOYEES' PREVIEW

July 22, 1960

'61 Line Features New "Daylight Blue" Picture



NEW MODELS — S. M. Fassler, manager of Marketing, describes outstanding features of new GE television models.

59 Employees Involved

July 22, 1960

Take Disciplinary Action In HMED Work Stoppage

Fifty-nine Heavy Military Electronics Department production employees at Thompson Road have been notified that they will be given a day off without pay as a result of their participation in an illegal work stoppage last week. The employees involved walked off their jobs for a half day Thursday, July 14, in support of an employee who refused to do part of his regularly assigned job.

The work stoppage was in direct violation of the agreement between the Company and the union which requires the processing of such questions through all levels of the Grievance Procedure before resorting to strike action.

In ignoring the peaceful and orderly process of the Grievance Procedure, the people instigating the walkout last week were apparently influenced by the current determination of local union officials to stir up trouble at every opportunity in preparation for the contract negotiations.

Both employees and the Union, as well as the Company, are contractually obligated to follow the provisions of the Grievance Procedure for the peaceful adjustment of differences. When employee groups disregard this obligation, management has no alternative but to follow its well established policy of taking appropriate disciplinary action in order to discourge harassing tactics which are damaging to the Company and to other employees.

Plan Inter-League Golf Tourney At Tecumseh Aug. 20

One hundred Syracuse General Electric golfers will tee off at the Tecumseh Course Saturday, August 20 in the GE Inter-League Golf Tournament to determine top individual golfers and teams. The tournament will also serve to qualify GE representatives for the annual Syracuse Industrial (MA of S) Tournament this fall.

Ten golfers from each of the GE Leagues — the Cathode Ray Tube League, DSD League, Heavy Military Electronics, 412 L Systems League, Laboratory League, Missile Guidance League, Park Club League, Receiver Electronics, Right Chaps League, and Syracuse Electronics — will vie for 12 trophies to be awarded at a buffet lunch-

July 15, 1960

DSD Receives New MISTRAM System Order

The Air Force announced a 15½-million-dollar contract with the Defense Systems Department this week to design and build MISTRAM, a new missile trajectory measurement system. The system, which will determine the guidance performance of missiles launched at the Atlantic Missile Range, represents a major effort of DSD and a new electronic market for General Electric in Syracuse.

Whereas the system for the Air Force Missile Test Center will be called MISTRAM, DSD is working diligently on new business opportunities for the precision trajectory measurement system which led to the synthesis of MISTRAM.

"General Electric's experience is extensive in this field," stated Richard L. Shetler, DSD General Manager, "The Defense Systems Department, as a missile guidance contractor, and one of the principal users of range instrumentation for the past four years, has acquired an appreciation of the complexity of the problems in planning a trajectory measurement system," he said.

He added, GE's experience in the instrumentation field ranges from early tracking radars followed by the development of tracking and guidance equipment for the V-2 program in 1945 to present work on the Air Force Atlas radio-command guidance and impact prediction work for the Titan missile at Cape Canaveral and in the Bahamas.

Shetler indicated that the MISTRAM work is not expected to substantially change General Electric employment levels in the Syracuse area inasmuch as this activity had already been factored into earlier business forecasts and manpower planning.

General Electric's Heavy Military Electronics Department in Syracuse will produce much of the ground-based equipment and the Light Military Electronics Department in Utica will produce the airborne equipment and airborne equipment test set in support of the Defense Systems Department. Both equipment departments will also develop their respective "hardware" for MISTRAM. The balance of the equipment comprising the MISTRAM system will be developed and produced by seven subcontractors.

A missile trajectory measurements system is part of the Atlantic Missile Range's missile development program. In order to check performance of missile guidance systems, the Air Force needs

IMPROVES NIKE-HERCULES

New HMED Radar Plays Role In Missile "Kill"

August 19, 1960

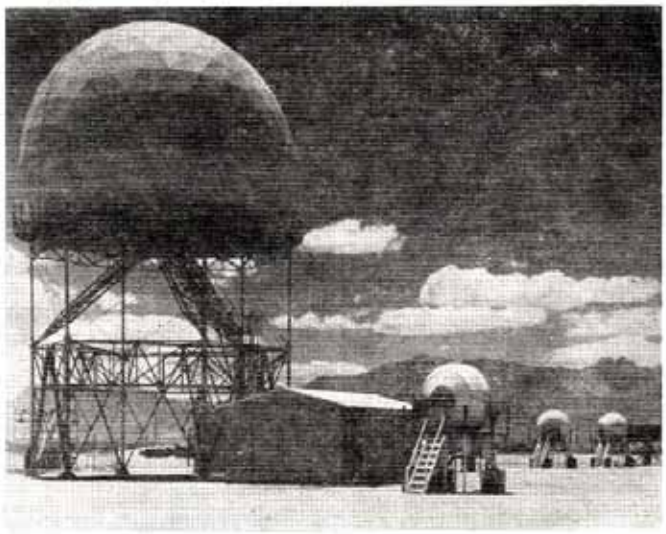
An advanced high power, long-range acquisition radar developed by the Heavy Military Electronics Department here played a key role in last Friday's destruction of a Hercules missile by another Hercules missile at the White Sands Missile Range in southern New Mexico by providing precise, long-range acquisition data.

This missile "kill" represents one of the most difficult yet achieved to date in this area because of the relatively small target size and high speed capabilities of the target missile.

The new acquisition radar known as HIPAR, developed under a subcontract with the Bell Telephone Laboratories, more than triples the defensive capabilities of the present Nike-Hercules Weapons System, J. J. Farrell general manager of HMED, disclosed this week.

The HIPAR provides the U. S Army's improved Nike-Hercules Weapon System with the capability to meet the threat posed by hypersonic aircraft, short-range tactical ballistic missiles and missiles of the size used in an air-to-ground mission, Mr. Farrell said. Western Electric is prime contractor for the Nike-Hercules System.

The improved Nike-Hercules Weapon System is capable of detecting, tracking and destroying any air-supported target in existence today, or now known to be on the drawing boards. Equally important, it has demonstrated its defense capabilities against tactical ballistic missiles, of the field artillery type.



HIPAR RADAR—U.S. Army's Improved NIKE-HERCULES System at White Sands Missile Range, New Mexico, showing General Electric-built high power acquisition radar (HIPAR) housed in large radome and tracking radars built by Western Electric Company, prime contractor for the NIKE-HERCULES System. These advanced radars played a key role in last Friday's destruction of a Hercules missile by another Hercules missile.

IN CASE OF IUE STRIKE

Physical Interference Not Expected For Employees Who Wish to Work

August 19, 1960

Q. Will the salaried employees of HMED get paid if the IUE-CIO strikes and pickets the Syracuse GE plants this fall?

A. Facts Forum is told we definitely are basing our planning here on the expectation that employees who want to come to work will be able to do so without physical interference by the union, and with the plant open we naturally will expect all non-striking employees to report for work.

As for the approximately 5,000 union members most of whom are hourly-rated employees, we of course do not know how many will elect to come in, so we cannot make any specific plans in advance with regard to factory operations. However, we intend to do everything possible to provide work for all those who report—both hourly and salary—and it goes without saying that those who work will continue to be paid.

Whether or not we will be able to continue to provide work for all salaried employees will depend in some measure on the extent to which we will be able to maintain factory operations, and if the work of some people runs out we will then have to consider whether the pay of such individuals should be reduced or discontinued.

Obviously this does not answer the question as to whether the approximately 9,000 salaried employees will continue to be paid if the picketing is such as to prevent them from working. We do not expect this situation, and so do not feel that there is any need to cross this bridge until we come to it. If such a decision should have to be made, it will have to be based on the circumstances as they develop, together with sound business considerations. But no assurance can be given that employees who do not work will continue to be paid for any extended period.

STRIKE VOTE SUNDAY

September 23, 1960

Local 320 Meets In War Memorial

BUILD SIX UNITS FOR AFRICA

New VOA Transmitter Contract Awarded TPO

The Technical Products Operation at Electronics Park has been awarded a contract by the U. S. Information Agency to build six super-powered radio transmitters for the Voice of America station near Monrovia, Liberia, on the West Coast of Africa.

The 250,000 watt transmitters will be almost identical to the six TPO is furnishing the USIA for its East Coast VOA broadcast facility near Greenville, N. C. They are the largest high-frequency short-wave transmitters built by General Electric in its 40 years in the communications field.

The Monrovia installation will give the Voice effective radio coverage of Africa and supplemental coverage of other areas. In addition, it will serve as an around-the-world relay station for programs originating in VOA's Washington headquarters.

Latest electronic device and techniques, including some aimed specifically at filling unique VOA needs, are packed into the transmitters.

The equipment is especially suitable for rapid change in frequency, vital to VOA as it switches broadcast coverage area during the day.

Built for the Voice installations, the transmitters give high-reliability performance at relatively low maintenance cost. One factor making this possible is the use of silicon rectifiers in the main power supplies, an innovation pioneered by General Electric in the broadcast industry.

VOA TRANSMITTER—John W. Stonig, sales engineer, and Charles J. Simon, manager of TPO Sales, examine one of the new 250,000 watt transmitters which TPO is building for the Voice of America.

October 7, 1960

October 7, 1960

IUE Strikers Receive Last Paycheck Today

Today's paycheck may very well be the last one for a long time for Syracuse General Electric employees participating in the strike called by National officers of the IUE.

The next paycheck for these employees will not come until after the IUE strike is ended, or until these employees join the nearly 10,000 other Syracuse employees who were reporting for work during the first week of the IUE strike.

Syracuse General Electric plants will continue to remain open for all who wish to come to work and the employees who are at work will be paid in the usual manner.

Law enforcement officials have given assurances that they will continue to do their best to protect individuals from violence, threats, or intimidation.

IUE-represented employees who continue working will be paid on the same basis as before the contract was terminated. This includes base pay plus cost-of-living adders granted through October 1, 1960.

Benefits for IUE-represented employees will be continued during the strike on the basis in effect prior to the contract termination.

Improvements in pay as well as Insurance and Pension Plan benefits proposed in the Company's contract offer to the IUE, have already been put into effect for non-represented employees.

These improvements will become effective for IUE-represented employees on the Monday of any week in which agreement is reached.

Employees who chose **not** to come to work this week are entitled to a paycheck for their work during the week of Sept. 25 through 30. These checks were made available at plant locations today.

INJUNCTION GRANTED

Supreme Court Order Limits Union Pickets

October 14, 1960

IUE Strike Ends Third Week; Negotiations Reach Impasse

Morning Traffic Inside Electronics Park

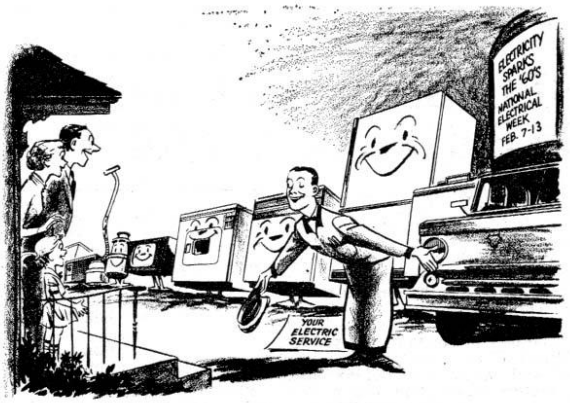
No Further Meetings Have Been Scheduled

As the IUE strike against General Electric ends its third week, negotiations have reached an impasse.

Clyde H. Harrison, manager of Employee Relations for Syracuse General Electric, said, "actually negotiations have been deadlocked for some time, but it was only this week that Company negotiators acted to end negotiations on a day-by-day basis."

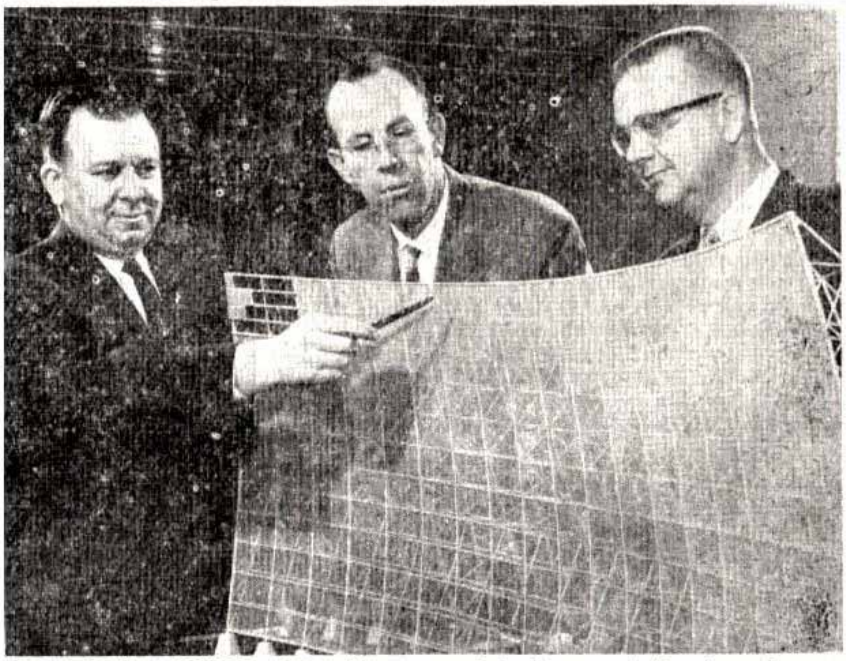
Harrison explained that continuing negotiations on this basis would only serve to mislead some employees and the public into thinking that "something is happening" and that IUE President James Carey is going to be successful in forcing the Company to add to its already generous offer.

October 21, 1960



SERVANTS TO DO YOUR EVERY JOB

Larger Than A Football Field



GE RADAR TEAM—Inspecting a model of one of the four larger than a football field radar antenna reflectors installed at the first operational Air Force Ballistic Missile Early Warning (BMEWS) site near Thule, Greenland are, left to right, Thomas I. Paganelli, manager HMED Missile Detection Systems Section; B. P. Brown, manager Systems Development Engineering, MDSS, HMED; and Paul J. Teich, manager, Systems Equipment Engineering, MDSS, HMED. Brown discussed BMEWS and the role played by local GE engineers and field personnel at the monthly dinner meeting of the Syracuse IRE Chapter last Monday.

October 21, 1960

G-E Announces Disciplinary Action Against Employees Involved in Picketing Violence

Picket Line Violence At Electronics Park

MASS PICKETING — Picketing at the Electronics Park main gate turned into riot as IUE strikers struggled with Sheriff's deputies to keep the roadway bottled up and prevent traffic from entering.

15 Discharged 18 Suspended After Review

The General Electric Company today announced its decisions on disciplinary action to be taken against 33 employees for misconduct on picket lines during the recent three-weeks strike carried out here by IUE Local 320. The decisions announced in a statement by C. H. Harrison, manager of Employee Relations for GE in Syracuse, included immediate discharge of 15 employees from their jobs, as well as suspensions ranging from six to twelve weeks for 18 other employees.

The statement released today by Mr. Harrison follows:

An intensive investigation and careful review of documented evidence against employees accused of improper conduct on the picket lines have been completed and the proper disciplinary action has been established in each case.

The standards or criteria that we have applied in setting the discipline in the various case categories have been more conservative and more lenient than those permitted under existing law.

But in view of the flagrant misconduct of some people, we feel that we have no alternative but to discharge 15 employees immediately. Included in this number is one non-striking employee who is being discharged for threatening one of the pickets with a gun.

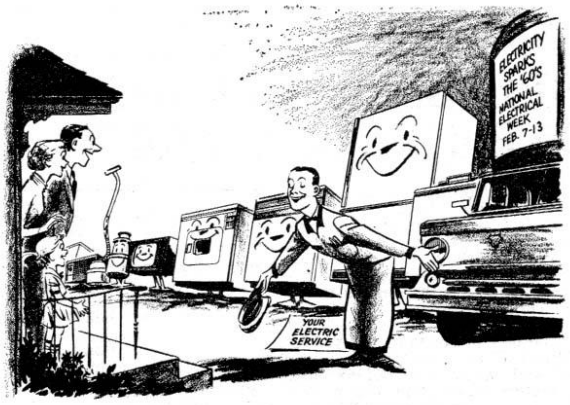
Eighteen other employees are being suspended without pay for periods of time ranging from six to twelve weeks. Many other cases were reviewed but have been closed out, except for a very few which are being checked further.

October 28, 1960

Strikers Cars Towed From Driveway

ABANDONED AUTOS — Autos parked by IUE strikers in General Electric driveways, locked and then abandoned, were towed away to open gates for normal traffic. Do those persons who engaged in such vicious, illegal and irresponsible acts deserve anyone's support?

October 28, 1960



SERVANTS TO DO YOUR EVERY JOB

IUE Blockade Of Electronics Parkway

October 28, 1960

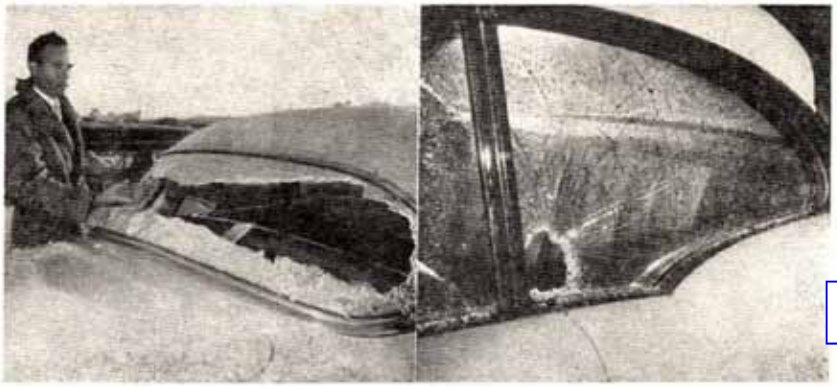
ROAD BLOCK—The well-planned road blockade set up by union pickets on Electronics Parkway at the end of the IUE strike's first week affected not only GE employees, but many thousands of other people living in this part of the county. This illegal move by the union brought many telephone calls from irate and indignant citizens. Suppose your child was in one of those school buses stranded in the traffic snarl devised by Local 320 officials, or suppose you were a home owner near Electronics Park whose home could have burned to the ground because aid was shut off by that traffic jam. Do those persons who engaged in such vicious, illegal and irresponsible acts deserve anyone's support?

Roofing Nails Strewn On TVR Parking Lot

October 28, 1960

WILLFUL DESTRUCTION — These innocent appearing roofing nails spread by striking IUE members on the Television Receiver Department's Bldg. 5 parking lot at Electronics Park were the cause of many flat tires on employees' cars. Nails were [illegible]d GE roadways to discourage employees who wished to exercise their right to work from reporting for their regular jobs. Do those persons who engaged in such vicious, illegal and irresponsible acts deserve anyone's support?

Windows Smashed During Picketing Violence



October 28, 1960

WELL AIMED ROCKS — Windows on these employee cars were smashed with well aimed rocks thrown by striking IUE members. The violence occurred when the autos entered Syracuse General Electric plants during the strike. Do those persons who engaged in such vicious, illegal and irresponsible acts deserve anyone's support?

Deputies Man Fire Hose To Break Up Electronics Park Riot

DISPEL RIOTERS — County law enforcement officers were forced to man fire hoses to break up IUE pickets rioting at the Electronics Park main gate during the second week of the IUE strike at Syracuse General Electric plants.

October 28, 1960

INDUSTRY LEADERS ATTEND

Final Tribute To Dr. W. R. G. Baker

November 4, 1960

TV PIONEER — Dr. W. R. G. Baker, a leader in the development of the electronics industry and a pioneer in television, at work in Electronics Park prior to his retirement from General Electric in 1957.

Nationally known industry, education, civic and professional leaders paid a final tribute Tuesday to Dr. Walter R. G. Baker, founder of Electronics Park, at funeral services in Hendricks Chapel on the Syracuse University campus.

Dr. Baker died Sunday. He was 68 years old.

Charles E. Wilson, 74, retired president of General Electric Company said, "Dr. Baker is virtually the father of the electronics industry at GE."

"His contributions to the industry in the earlier days of electronics are unsurpassed," Wilson said.

Cramer W. LaPierre, GE vice president and Group executive — electronic and Flight Systems Group, said, "Not only did 'Doc' Baker make significant contributions to the development of the electronics industry, but he gave his time and talent unstintingly to his country and to his profession."

"The many medals and citations that recognized his efforts down through the years were most richly deserved," LaPierre said.

November 25, 1960

PROCESSES DATA FOR MILITARY

DSD Installs Fastest Computer In N.Y. State

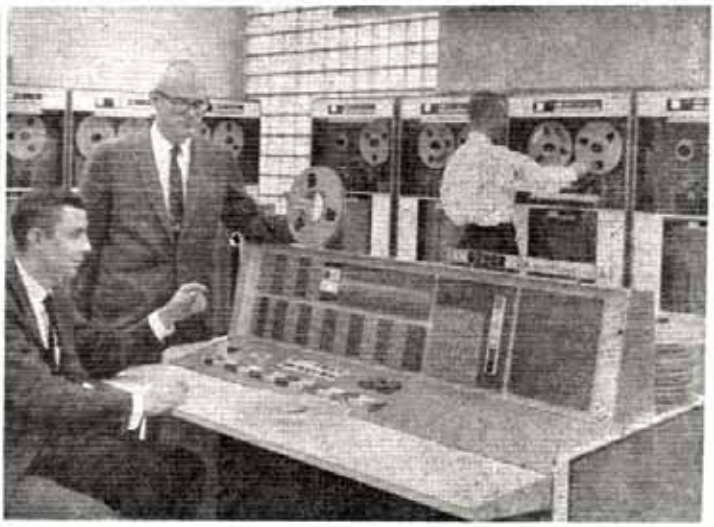
The fastest electronic computer in New York State — outside of New York City —is in operation at the South Geddes St. headquarters of the Defense Systems Department.

The computer, an IBM 7090 similar to that used by a national network during its coverage of election night returns, is considered the most up-to-date general purpose type of its kind.

Robert D. Featherstone, manager of the Defense Systems Department's Finance Operation, states that the new computer will be used for such varied tasks as processing flight test data of the USAF Atlas ICBM — the department has overall responsibility for the Atlas radio-command guidance system — computations needed for the Defense Systems Department's work on the recently-awarded contract for a Missile Trajectory Measurement System (MISTRAM), and all data processing required to perform normal accounting functions of DSD.

Featherstone added that on the Atlas test program alone, the Defense Systems Department last year achieved a cost improvement savings of $350,000 to the military customers by continuous refinement of data reduction techniques.

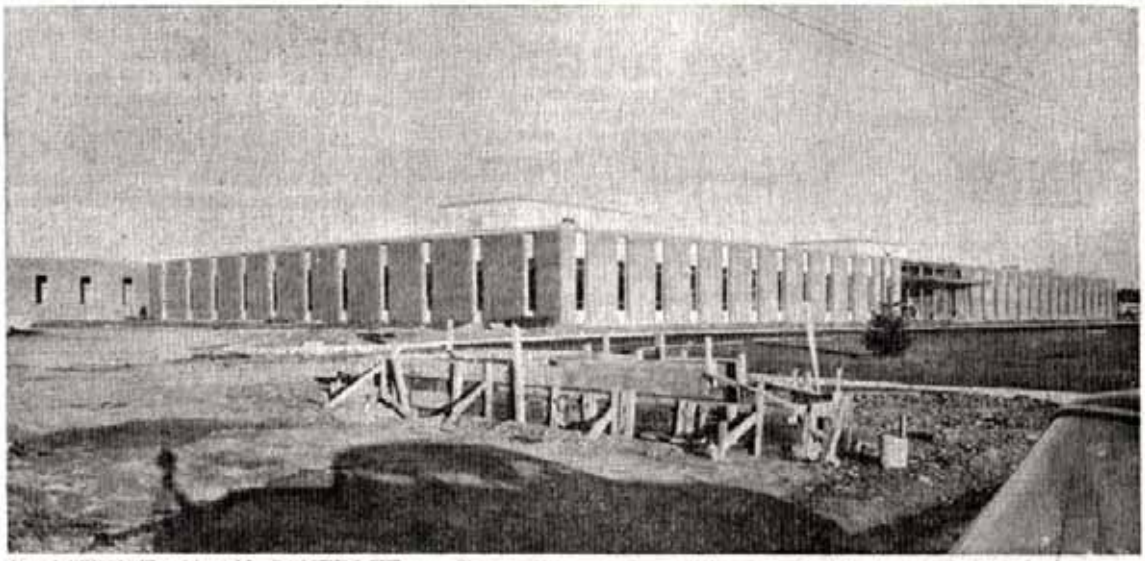
Twenty-three separate units make up the computer which performs basic arithmetical and logical operations at a rate of 200,000 per second.



SPEEDY SYSTEM—Robert D. Featherstone, (standing) manager-DSD Finance Operation, and Daniel G. Lewis, manager-Data Processing and Computations, are shown at the console of the new electronic computer that has been installed at the Department's Geddes St. headquarters. Twenty-three units make up the new data processing system which is called the fastest in New York State outside of New York City.

November 18, 1960

New HMED Facility At Syracuse Industrial Center



CONSTRUCTION ON SCHEDULE — Two new buildings being built by Heavy Military Electronics Department at Syracuse Industrial Center are proceeding on schedule. Bldg. 1, (shown in photo) an engineering and laboratory building, is nearly complete and is expected to be ready for occupancy next month. Structural work and most of the roof are finished on a second building which will house manufacturing operations. This building should be ready in April of 1961.

ARRIVING AT THREE RIVERS — Mr. and Mrs. Lyle Bodoh, HMED and Mr. and Mrs. Theodore Kissell, HMED.

STEAK DINNER—(l to r) Jim Eichler, TVR, Don Roecker, TVR, Stan Boyd, TVR, Mrs. and Mr. Bob Richards, HMED

MEET THE STAR — Mr. and Mrs. Robert Kiester, TVR, Mr. and Mrs. Steve Agnew, SPD, and Mr. and Mrs. Duke Wellington meet Liberace. Wellington and Kiester were co-chairmen of Cabaret Nite.

GEFA Cabaret Nite

November 25, 1960

Inspect Tunnel Diode Manufacturing

PROJECT MANAGERS—James H. Sweeney, (left) and Hugh R. Lowry who have been given managerial assignments in the new Signal Diode Project formed within the Semiconductor Products Department, inspect a Snow White manufacturing area. Sweeney, formerly manager of SPD Marketing, has been named manager of the Project, and Lowry has been appointed manager of Signal Diode Engineering.

Sweeney Appointed Manager

Signal Diode Project Formed Within SPD

December 2, 1960

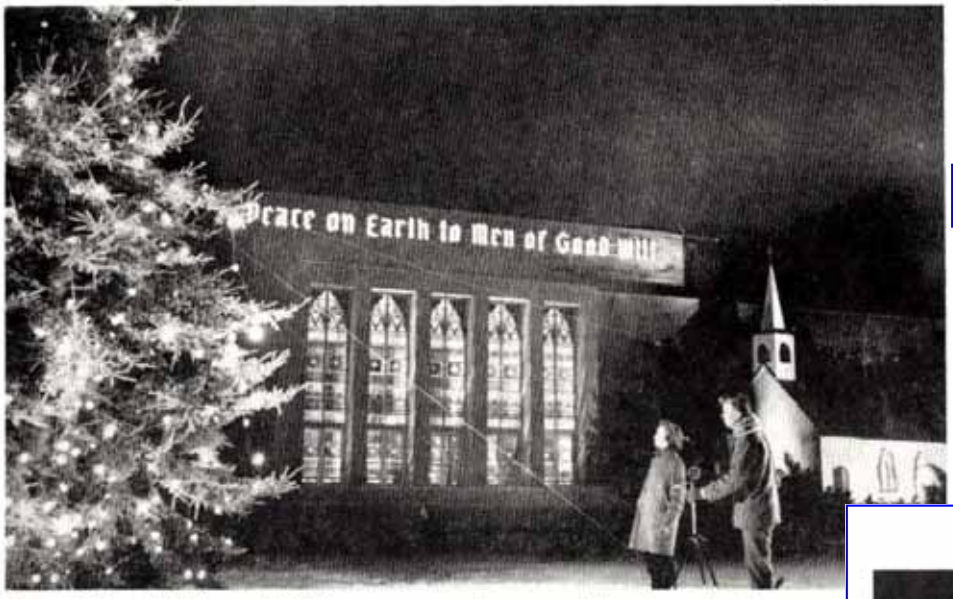
A Signal Diode Project has been formed within Semiconductor Products Department to concentrate attention on its fast-moving tunnel diode business. Tunnel diodes are two-terminal signal semiconductor devices used in electronic circuits for purposes similar to those of transistors.

Many Enjoy Annual Engineers' Dance

Approximately 350 couples attended the annual GEEA-Engineers Wives' Club Christmas Dance Last Friday at the Hotel Syracuse

December 16, 1960

Many View Electronics Park Christmas Display



Mr. and Mrs. Ed Behrens, HMED, were among the many visitors from the Syracuse a
Electronics Park to see this year's display.

December 23, 1960

Reverent Christmas Scene

IN THE MANGER—Mrs. Rose Barone, Heavy Military Electronics Department, her daughter, Roseann, and John Robertson, also an HMED employee, pause to get a close look at the life-size Nativity scene erected near the Electronics Park main gate.

December 23, 1960

G-E Dedicates Industrial Center Plant

December 30, 1960

Farrell Honored At Dedication

ROAD SIGN—Joseph Berndt (right), supervisor of the Town of Geddes, shows J. J. Farrell, general manager of Heavy Military Electronics Department, a new road sign which will mark Farrell Road, entry to the new HMED Syracuse Industrial Center plant off Route 48 in Geddes.

New $8 Million HMED Facility Opens in Geddes

General Electric's latest addition to the defense arsenal of the Free World—an ultra-modern 465,000 square foot engineering and manufacturing facility — was dedicated at Syracuse Industrial Center Wednesday.

When completely equipped, the $8,000,000 plant will be used primarily for the design, development, production and testing of the wide variety of radar and underwater detection equipment manufactured by the Heavy Military Electronics Department here for the Army, Navy, Air Force and major defense contractors.

Known as the Syracuse Industrial Center Plant, the new HMED facility consists of two large buildings, and is located on a 185-acre site west of Syracuse in the Town of Geddes just north of the New York State Thruway at Exit 39.

G-E Theater Stars

GEORGE GOBEL stars in his first serious dramatic role—as an ambitious nightclub comic and devoted father to young Tammy Marihugh — in "They Like Me Fine" this Sunday night on The General Electric Theater. The show can be seen at 9 on WHEN-TV.

December 30, 1960

TVR Introduces "Celebrity" Model

NEW PORTABLE—Kenneth Cook and Philip Toarmino put finishing touches to new Celebrity portables on the Television Receiver Department assembly line. The 19-inch power transformer portable is the first of General Electric's 1962 TV line and represents a return to the portable TV concept GE pioneered in 1955.