

THE MONOGRAM

APRIL-MAY

1967



PROGRESS IN TURBINES . . . PAGES 1 & 12

AND: Expo 67... Annual Meeting... "Go For Improvement"

Until further notice, *The Monogram* will be published every other month effective with this combined April-May issue. The next *Monogram* will be the June-July issue, distributed in mid-July.

LETTERS

Radiogram

EDITOR: Your caption on the service truck dispatched by radio in the March, 1967 issue was well-phrased—"Keeping the Wheels of Progress Rolling."

Our Communication Products Department has used the umbrella name "Progress Line" for mobile radio for several years for two reasons—to illustrate progress in engineering design and to show how radio helps to move the American economy forward.

(Oh, yes. It was a GE set in the GEA truck—and there are hundreds of them in GEA trucks all over the country.)

R. A. PAGE

Communication Products Department
Lynchburg, Virginia

Computer Feedback

EDITOR: In your article on computers in the March, 1967 issue of *The Monogram*, you show examples of equipment produced at the Computer Equipment Department, Phoenix, Arizona. The identifications of the photographs on pages 6 and 7 are reversed. They are also examples of older style pieces of equipment. We are presently producing more advanced pieces.

K. K. KID

Computer Equipment Department
Phoenix, Arizona

First Lady?

EDITOR: While we note in the February issue you carefully state that Mississippi Test Facility's new Quarter Century Club president "may well be the first distaff QCC president," we couldn't let another month go past without calling to your attention that this is not the case. We would not wish to detract from the honors bestowed by our friends to the South on one of their belles who, we are cer-

(Continued on inside back cover)

The object of *The Monogram* is to keep its readers informed on General Electric activities so they may contribute more effectively to General Electric progress on the job and better represent the Company in its relations with the public.

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Devere E. Logan, Editor

The *Monogram* is produced for office employees of the General Electric Company and its affiliates. It is published monthly at New York by the Employee Communication Operation of Personnel and Industrial Relations Services and printed in the U.S.A. by the Maqua Company. Permission for reprinting articles should be obtained from the Editor, General Electric Company, 570 Lexington Avenue, New York, N.Y. 10022. Copyright, 1967, General Electric Company; Gerald L. Phillippe, Chairman of the Board; Fred J. Borch, President and Chief Executive Officer; Robert M. Estes, Secretary; John D. Lockton, Treasurer.

GENERAL  ELECTRIC

GAS TURBINES

Growth in Greenville

"General Electric locating here is one of the biggest events of the decade," was how South Carolina State Senator Thomas A. Wofford reacted to news that the Company's Gas Turbine Department would build a new plant near Greenville.

During simultaneous press conferences in Greenville, S. C. and New York City, the announcement was made that General Electric will build a \$50-million, 288,000-square-foot plant for the production of heavy duty gas turbines. The plant will be built on a 600-acre site between Greenville and Spartanburg, S. C. and is expected to provide jobs for some 500 persons during the first year of operation. It is expected to start up late next year.

In Greenville, Donald E. Craig, vice president and general manager of the Power Generation Division said that the new plant was part of an overall expansion program either underway or in advanced planning stages that represents "an ultimate investment of well over \$250 million—and that is a conservative figure.

"What we are beginning here in Greenville," said Mr. Craig, "is a good example of the new dimensions of the power generation industry. The growth of the gas turbine business is a dramatic success story."

During 1966 the Company received

orders for 128 gas turbines totaling nearly 1600 megawatts of generating capacity. This was a 34 percent increase in unit orders over the previous year, and a 565 percent increase over 1961.

Whitman Ridgway, general manager of the Gas Turbine Department, told the New York press that the new manufacturing plant was needed to meet the growing world-wide demand of electric utilities and of the petroleum and process industries for heavy duty gas turbines.

"Although we have increased our Schenectady plant capacity 75 percent in the past several years, it is inadequate to meet the great demands for gas turbines," he added. The new plant will supplement Schenectady facilities, which were expanded under a program approaching \$15 million.

Greenville Gathering: The importance of the Company's announcement to the Piedmont area was evident by those in attendance. South Carolina Governor Robert E. McNair was on hand, together with Senators Strom Thurmond and Ernest F. Hollings, Congressman Robert Ashmore, State Representative Carolyn Frederick and Greenville Mayor David G. Traxler.

With Mr. Craig in Greenville were Southeastern Regional Vice President Thomas K. Edenfield, General Electric Directors Robert T. Stevens and Frederick B. Dent and Greenville Plant Manager John L. Bauer.

Mr. Edenfield said that the Greenville-Spartanburg area was selected for the new



TURBINE PLANT: An artist's rendering of the new Gas Turbine Department Greenville plant is held by General Manager Whitman Ridgway, left. Also participating in the announcement were (from left) John A. Urquhart, marketing manager; Donald E. Craig, vice president and general manager of the Power Generation Division; John L. Bauer, Greenville plant manager.

plant because it offers "A growing, progressive industrial climate, with many fine community facilities." He also said the Company planned to work with the state's special schools division and the technical education centers in the area to recruit and train the necessary work force.

According to Mr. Bauer, the package power plant to be produced in Greenville initially has a rating of 17,500 kw, but that after a short time a new unit rated 45,000 kilowatts will be manufactured.

Look Ahead: The need for the larger-rated unit was reflected in remarks by Department Marketing Manager John A. Urquhart, who pointed out that a conservative estimate of growth between now and 1975 shows shipments of gas turbines by all manufacturers increasing from 1966's 2.5 million kilowatts to six million.

"The outlook is for virtually unlimited growth in all the existing markets, both at home and abroad," he said.

(As *The Monogram* went to press, a \$5-million contract to supply gas turbines to Libya, Africa was announced by IGE Export Division. The order, from Esso Standard Libya, Inc., calls for eight GE mechanical drive gas turbines to drive compressors used for gas transmission from the Libyan Desert to a Mediterranean port city.)

OPERATING RESULTS

Our First Quarter

Mixed trends, and a domestic economy experiencing a more moderate growth rate than last year are reflected in General Electric's 1967 first quarter results.

Net sales billed rose to \$1,774,403,000 or a 13 percent increase over 1966 first quarter levels. Company earnings improved over the previous quarter, but were below the record-high first quarter of last year.

Net earnings in the first quarter of 1967 were \$72,656,000, or 81 cents a share — off last year's record 91 cents.

President Fred J. Borch noted that earnings felt the effect of the increased squeeze on profits that many U. S. businesses are encountering as they adjust to major shifts in demand. Earnings were also affected by the Company's intensive efforts to increase capacity.

Factors: Several factors were noted by Mr. Borch as having had an impact on first quarter results. Among them: a leveling off of consumer goods sales and a shift to lower-priced products plus a slow-down in the appliance and automotive markets.

(continued on page four)

AT DEADLINE

The SST: President Johnson has authorized the Secretary of Transportation to sign the contracts for the prototype construction of a supersonic transport. Mr. Johnson also sent to Congress a request for \$198 million to finance the Government's share of the next phase of the development. General Electric will supply the engines, while the Boeing Company will build the airframe. The announcement was "extremely gratifying" to Edward E. Hood, Jr., general manager of the Company's SST Project, who said that GE and the Flight Propulsion Division welcome the job of helping to assure this country's leadership in supersonic commercial flight.

Floating Power: A floating power plant supplying 20,000 kilowatts of power for the Nike-X test site on Kwajalein Island is being designed and fabricated for the Army Corps of Engineers by 16 General Electric departments in six divisions. The plant will power a multi-function array radar system. The plant's mobility will allow Army use at other locations in the world where power may be required in the future.

Fast Charger: A new charging system that will charge nickel cadmium batteries to 90 percent of their capacity in 15 minutes instead of the typical 16 hours is announced by the Battery Business Section, Gainesville, Florida. The new low-cost system operates from standard a-c, and meets the need for efficient utilization of nickel cadmium batteries long sought by manufacturers and users of cordless devices.

News in New Mexico: The Flight Propulsion Division plans to supplement its capacity to make component parts for the J79 engine by operating a plant at Albuquerque, N.M. The plant is presently operated for the Atomic Energy Commission by American Car and Foundry Industries, Inc., and is being transferred by A.E.C. to the Air Force. As A.E.C. work at the Albuquerque plant phases out this year, space will be available for manufacture of components for the J79, which powers aircraft including the F-4 Phantom fighter-bomber.

There were increased orders for heavy goods, however, and business was also brisk in the electric utility, aerospace and defense areas.

Pay and benefits to General Electric employees totaled \$750 million in the quarter.

Earnings were equivalent to 4.1 cents per dollar of sales, and dividends paid to share owners were maintained at the quarterly rate of 65 cents a share.

ANNUAL MEETING

Era of Expansion

An unprecedented era of growth challenges General Electric's resources now and for the future according to President Fred J. Borch.

At the Company's 75th annual meeting in Dallas, Texas on April 26th. Mr. Borch — referring to the recent annual billion-dollar sales increases — told shareowners that they have every reason to be grateful to the "more than 350,000 men and women of General Electric around the world for this tremendous achievement — and the market growth, market penetration and expansion opportunity it represents."

Some 800 shareowners assembled for the annual meeting in the ultra-modern Apparel Mart. Mr. Borch pointed out that the Company's heavy investment of profit dollars in growing new businesses had increased its backlog of nuclear-related orders by a billion dollars in the last year and brought a 600 percent increase in computer shipments from 1963 to 1966.

Referring to the first quarter results (see story page 2) and the mixed trends in the economy, Mr. Borch said that business is presently coping with the imbalances that took root in a long, sustained six-year expansion.

"Your managers will continue throughout 1967 to emphasize the need to consolidate sales gains and to work toward improved earnings performance — to offset the increased squeeze on profits that many U. S. businesses are encountering. Every operating component has initiated programs to reduce costs, eliminate inefficiencies, and improve productivity in response to the need for immediate larger plant and capacity expansion to produce more than seven billion dollars worth of products versus the five billion of three years ago."

Growing the Company: The rapid growth of the last two years has confronted the Company with a dual task, pointed out Mr. Borch: "Simultaneously expanding traditional businesses, while fulfilling our responsibility of moving ahead with important new ventures."

Citing the nuclear order backlog, and the increased shipments of computers, he said of the information systems business: "Some parts of this business are profitable now, some will be profitable shortly, and others will take several years to come to fruition. But such a perspective, and such an investment, is necessary in a complex

THE DALLAS, TEXAS APPAREL MART WHERE THE



business of this nature.

"This is not the first time General Electric has had to have the courage of its convictions in developing a new business in the face of powerful competition."

The brisk growth rate of the Company led to the issue of \$200 million in debentures to help finance plant expenditures. Board Chairman Phillippe told a Dallas press conference at the time of the announcement that the Company would spend some \$600 million in plant expenditures in 1967 — substantially in excess of any prior year's capital expenditures.

Futures: President Borch pointed out several of the Company's promising "futures" businesses, including Chemical materials (Man-Made® diamonds, PPO® plastic) power generation (nuclear systems), international businesses and home entertainment.

Summed up President Borch: "Progress for both of us, for the people of this great state, and for your Company, has involved big risks and big investments, not just of dollars, but of courage and skill and perseverance. For we are natural born movers and earth shakers for people's progress."

COMPANY HELD ITS 75th ANNUAL MEETING



PUBLIC RELATIONS

Opening at Expo

While Expo '67 didn't open officially for thousands of Montreal-bound fun seekers until April 28th, the Canadian General Electric Expo computer installation had been in action long before.

The \$3-million computer system is the biggest installation of its kind in Canada, and a key performer in handling visitors' lodging requests via LOGEXPO and the many administrative problems accompanying a major exhibition visited by 30 million persons.

Unlike the Company's Progressland at the recent New York World's Fair, the CGE installation will do most of its "performing" behind the scenes. It will be headquartered, for instance, in the Expo Operations Control Centre.

One of the computer's jobs is to provide an instant analysis of crowd flow to help Expo personnel head off bottlenecks.

Commenting on the CGE installation, J. Herbert Smith, CGE President, said that it was there mainly as a public service. "We expect the computer operation," he said, "will help to make a visit to Expo a happier and more pleasant experience for everyone."

Visiting Hours: The CGE installation will be open for visitors from 10 a.m. to 9:30 p.m. and is located on the main pedestrian traffic route near the U. S. Pavilion. The staff includes CGE programmers and systems personnel. Admission is free.

Direct Energy Conversion Operation, Lynn, Mass., is supplying a special transparent fuel cell to be displayed as part of the official Expo theme pavilion "Resources for Man."

A ZD "Happening"

The event was billed by some employees as a "Happening," and in terms of its unique nature, it may well have been just that.

Air Force Major General Gerald F. Keeling had elected to fly to Syracuse and personally present the Company's Heavy Military Electronics Department with the Zero Defects Achievement Award—prized among defense contractors.

The presentation was a fine tribute to the Department's ZD efforts since the program was kicked off in June of 1965.

General Manager Thomas I. Paganelli said credit for the achievement was directly attributable to the efforts of employees, and cited some specifics:

- A factory employee who made 3,200 wire connections and soldered 2,500 joints in an electronic cabinet without a single error;
- Cooperation among engineering and manufacturing units that enabled radar equipment needed in Vietnam to be built and shipped in one-third the normal time;
- Secretaries who voluntarily compiled a handbook for avoidance of errors in secretarial routines;
- A factory group that fabricated 11,000 coils for electronic circuits during a six-month period without error.

Since the Department's ZD program got underway, said Mr. Paganelli, over 350 individual and group awards have been made to employees for significant accomplishments.

Where it's Going: During a talk with employees, Major General Keeling, who is Deputy Chief of Staff for Procurement and Production in the Air Force Systems



TALKING SHOP: General Keeling discusses work on a wiring harness with Irene Filicia during recent Zero Defects Achievement Award presentation at HMED, Syracuse.

Command, congratulated the Department on its achievement, and urged employees to think of the equipment they make in terms of where it might end up in the world.

"Think how critical this equipment could be," he said, "to a mission and the lives of men who have trained for years to protect the security of the country that is yours and mine. That kind of thinking is the intent of Zero Defects, and that is why your program needs your continuing personal participation."

New Generation

Four years ago, some 6,000 employees of the Flight Propulsion Division packed the Boston Garden for a mammoth kickoff rally launching its Zero Defects Program (*The Monogram*, Feb. '63).

The General Electric program was the second of its kind in the country, and four years later the record shows that employees have done well in dropping

defects and upping engine quality.

To celebrate the fourth birthday of FPD's ZD program, Lynn pledged to sustain the momentum and announced plans for "A New Generation of Quality." There were high spirits evidenced throughout the employee meetings, customer's day, and other rounds of activity plus zippy motivational music from a brassy band and high-kicking "ZD Au Go-Go" girls.

"The accomplishments of the personnel of the GE Flight Propulsion Division in reducing defects and improving quality through Zero Defects is well recognized throughout the Department of Defense," wrote Air Force General Kenneth B. Hobson in a letter to Edward Woll, general manager, military production engine programs.

"Yours has been one of the leading programs in the nation."

Kenneth N. Bush, manager of Lynn's products manufacturing operation, points out that the high level of quality has helped produce significant cost effectiveness benefits.

"The cost of General Electric production jet engines has been substantially reduced during the life of the Zero Defects program despite constantly advancing engine technology. Today, FPD engines have higher performance ratings, longer-life components and more economical maintenance requirements than they did four years ago."

BENEFITS

Good Ideas

Over a million dollars was received last year by alert General Electric employees who submitted ideas under the Company's Suggestion Plan.

It was the 60th year for the Plan, and the first time awards for a single year had topped the million dollar mark.

Among the winners were David S. Perin and Elmer J. Berger, both machine operators at Evendale, who shared a record-high award of \$17,500. A recent supplementary award of \$7,500 brought their grand total to \$25,000 and made them recipients of the largest suggestion award ever made by General Electric.

Their suggestion—making possible more reliable manufacture of advanced jet engines at lower cost—has been incorporated in virtually every engine produced at Evendale in the past 18 months.

In Fort Wayne, there was also some cause for jubilation on the part of Ray Loveless, an employee of the Specialty Transformer Department. Mr. Loveless recently collected a check for \$2,225 and became the biggest suggestion award winner in the history of the Fort Wayne plant. The award was presented by Department General Manager Carl H. Rinne.

The year was also off to a brisk start at Hotpoint, where Romeo Paoli of Household Refrigerator collected an award of \$3,033 for his suggestion for reclaiming refrigerator cabinets. His suggestion was the fourth highest in Hotpoint history.

Tall Tally: Over 34,700 employee suggestions were adopted last year—an increase of 11 percent—according to E. S. Willis, manager of Employee Benefits and Practices for the Company.

Mr. Willis points out that participation in the Suggestion Plan is an important way for employees to contribute to the Company's continuing efforts toward cost improvement, product service improvement, and Company effectiveness.

Some 13 departments made the "400 Club," with rates of adopted ideas better than 400 per 1000 eligible employees.

Showing off at IEEE

As electronic engineers checked computer calculations of amplifier performance using new GE ceramic tubes, other visitors to the recent Institute of Electrical and Electronic Engineers Convention in New York were enjoying a glowing "Astro Gown" of electroluminescent lamps worn by GE's Lady of Light.

It was all part of the big (1,339 exhibits), impressive (\$7.5 million worth of equipment), annual rite that has become the world's largest technical meeting of electrical and electronic engineers.

It's also one of the best times for a company such as General Electric to display its wares before 54,000 of the best engineering brains in the galaxy. Some 13 of the Company's product departments did just that.

Luminary: The "Astro Gown," for example, was chosen by the Miniature Lamp Department as a pleasing way to model

its electroluminescent lamps. The flat, cool light sources convert electricity into visible light using a thin layer of phosphor powder sandwiched between two conducting surfaces. The thin-as-a-dime lamps are designed for spacecraft instrument panels, night lights, and other applications.

Four computer keyboards set up in the Company's exhibit allowed visiting engineers to sample time-sharing using special IEEE programs supplied by various components. A paper presented during the IEEE show also summarized the experiences of Dartmouth's School of Engineering in using a GE 235 for educational and research activities.

Some tongue-twisting product innovations were unveiled at the show, primarily those of the Semiconductor Products Department, which displayed a new, low-cost silicon monolithic Darlington Amplifier, a Complementary Unijunction, and two new types of triacs.

Elsewhere in the GE Exhibit, a new glass-filled Noryl® thermoplastic resin for use in electronic components was announced by the Polymer Products Operation, and a Man-Made* diamond thermistor was shown by the Magnetic Materials business section. The display was also alive with blinking indicator lights, clicking relays, and colorful displays of feathery species of Blackhawk, Bluejay and Oriole capacitors that had flown in from their homes in Irmo or Hudson Falls.

After four days on their feet answering thousands of questions, some Company representatives at the New York Coliseum could be glad it was only a once-a-year event. But it was a great success in the opinion of Thomas E. Roberts of the Information Services Department, who pointed out that the IEEE Show presents the Company with a "most sophisticated audience."

*Trademark of General Electric Co.

SEMICONDUCTOR SHOWMEN

Bill Gutzwiller, Dick Stasion, Bill Gingrich.



NUCLEAR POWER

Two Giant Steps

The next generation of nuclear power reactors took two giant steps closer to reality last month as the Nuclear Energy Division's Advanced Products operation announced two new study contracts.

The first contract, worth \$1,200,000 is for a joint one-year design and feasibility study of a 50,000-kilowatt experimental steam-cooled reactor, between the Company and the East Central Nuclear Group.

As a study, the work will not involve any facility or plant construction. It will develop a preliminary design of the plant and plan the research and development program necessary for the design and operation of the steam-cooled reactor.

The second phase of the program, based on the successful completion of the initial study, would be the final design, construction, and operation of the plant to demonstrate that the nuclear fuel performance is technically and economically acceptable, establish successful long-term operation and reliability of key components, and gain licensing experience.

Sodium Study: The second contract, this one estimated to be for \$750,000, will be a two-year study into the feasibility and preliminary design of a 300,000-kilowatt sodium-cooled reactor.

Joining the Company in the project will be the Commonwealth Edison Company, Duke Power Company, Pacific Gas and Electric Company, and the Southwest Atomic Energy Associates. The latter is the owner of the Southwest Experimental Fast Oxide Reactor now under construction near Fayetteville, Ark. The Advanced Products operation is also leading this project.

The results of the sodium study are expected to produce system designs, equipment specifications, and safety criteria, plus capital and fuel cycle costs for a demonstration plant that could be committed for construction by utilities in 1969.

Both sodium-cooled and steam-cooled reactors fall into the general category of "breeders." The term "breeder" is used because of the reactor's potential for producing more nuclear fuel than is consumed in the production of electrical energy. The steam-cooled reactor concept shows a lower potential for "breeding," but shows a definite advantage in plant capital cost.

Fuel in Italy

Agreement to form a new, jointly-owned company to manufacture power reactor components and produce nuclear fuel in Italy was announced last month by General Electric Company and Ansaldo Meccanico-Nucleare (AMN) of Genoa, Italy.

The new Italian company will be known as Fabbricazioni Nucleari, S.p.A., and will be 55-percent owned by AMN and 45 percent by GE.

FAST OXIDE REACTOR MOCKUP

Producing more nuclear fuel than it consumes.



SAVINGS

Well Bonded

David R. Kimmel, cost specialist with the Switchgear Department, has been a firm believer in U. S. Series E Savings Bonds since they were first offered in 1941 and currently buys them through the Company Savings and Security Program.

So it really couldn't have happened to a nicer guy when one of his recent bonds became the one that took General Electric employee bond purchases over the \$1,500,000,000 mark.

Since the \$1.5 billion bond-buying effort by General Electric employees is a record in industry, Secretary of the Treasury Henry H. Fowler offered his hearty congratulations to the Company and its employees for having "led the way and set the pace in promoting increased ownership of Savings Bonds by the industrial employees of America."

THANKS FOR BUYING BONDS

In Washington: Messrs. Kimmel, Fowler and Wood.



Mr. Fowler also held a ceremony in Washington marking the milestone, and presented the now-famous Mr. Kimmel, who represented Company employees, with the Treasury Department's Liberty Bell Award.

Bondsmen: Present for the occasion was Hubert W. Gouldthorpe, vice president in charge of the Power Transmission Division (in which Mr. Kimmel works) and Laurence I. Wood, vice president in charge of Washington Services.

Mr. Fowler presented a Citation to the Company which lauded the "patriotic achievement in which the General Electric Company and every participant can take pride."

INSTRUMENTS

Another SST

The flurry of interest in the U. S. supersonic transport has practically obscured the existence of the Anglo-French Concorde SST; however construction is humming along.

Among the 35 U.S. aerospace companies that are subcontractors or suppliers for the Concorde prototypes is General Electric, which is supplying nearly a hundred panel instruments for the planes.

The \$7,000 order, secured through ICE-London, is for three types of panel instruments manufactured by the Instrument Department, West Lynn. The devices are used to measure voltage, current, power and frequency. The first shipment has already been made to the builders of the Concorde.

The Instrument Department is hopeful that this prototype order will be followed by additional business once the Concorde goes into production.



PROGRESS CITY

Potential of today's technology.

DISNEYLAND

GE in Tomorrowland

Disneyland, that mecca of merriment in Anaheim, California, is about to add another star to the attractions of Tomorrowland.

Workmen are still zipping over the scaffolds in last-minute bursts of enterprise, but a close look reveals a building that's reminiscent of General Electric's Progressland where millions were entertained during the New York World's Fair. As a matter of fact, the new Disneyland attraction will include the popular Carousel Theater.

Another star of the GE Pavilion when it opens in June will be an animated model of an all-electric community called "Progress City." The model city will show new concepts in urban planning and development possible with today's technology. The model (see photo) is 115 feet wide, 60 feet deep, with "night sky" background 23 feet high.

Old 'n New: Says David W. Burke, manager of Public Relations Programs, "We believe that the proven, audience-tested Carousel show will continue to intrigue and entertain many millions of guests. The addition of Progress City will give the public the feel of the great promise held by urban life in the future."

The Carousel of Progress includes 32 Audio-Animatronic "Actors" who tell the story of progress in electrical living in homes from the 1890's to the present. The GE pavilion has been completely redeveloped by the Disney organization including advances in Audio Animatronics that make the figures appear more lifelike.

Ted M. Kramer has been appointed resident manager of the Pavilion, which will have its formal opening when Tomorrowland is dedicated.

Admission to the GE pavilion is free to Disneyland visitors.

PROCESS CONTROL

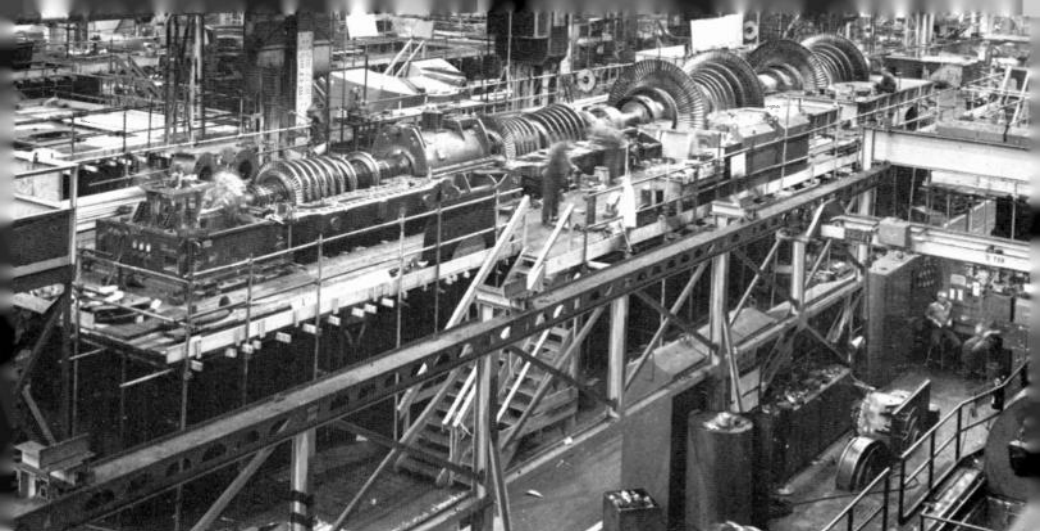
Systems Go in Virginia

A new manufacturing operation near Richmond, Va. is being planned by the Specialty Control Department, Waynesboro, Va.

A 128,000-square-foot building has been purchased by the Company in Henrico County, and will be used for the assembly and testing of numerical control systems.

At full capacity the plant will eventually employ about 600 persons, although initial production won't begin for several months.

According to Vice President Louis T. Rader, the Company's numerical control business, which began only 12 years ago, has made "spectacular strides" and enjoyed over a 200 percent sales increase in the past two years alone.



TESTING TURBINES IN THE 22-ACRE "GRAND CANYON OF INDUSTRY"

STEAM TURBINE-GENERATORS

The New Excitement

You begin with raw chunks of steel. Painstakingly, with a watchmaker's precision, you slowly transform the steel into a huge, brutally magnificent powermaker—the modern steam turbine-generator.

The dynamism and excitement of the Company's Large Steam Turbine-Generator Department in Schenectady perhaps are not fully appreciated. This could result from its being one of the Company's oldest "traditional" businesses or because it is an evolutionary business that grows quietly.

It is true that since 1903, when the Company supplied the industry's first commercial 5000-kilowatt turbine-generator to Commonwealth Edison Co.'s Fisk Street Station, the basic principles of steam turbine-generators have remained virtually unchanged. But inside the turbine-generators, however, it's a different story.

The Department is continually refining and improving its products through extensive research and development programs. At the Turbine-Generator Product Development Laboratory and at the Materials and Processes Laboratory in Schenectady, more than 250 scientists, engineers, and technicians have long been studying and applying such typical "space-age identified" disciplines as chemistry and insulation, metallurgy, electromechanical engineering, fluid mechanics, and heat transfer in an effort to continue the improvement in turbine-generator efficiency and economy that has characterized the business over the years.

The results have been impressive. The first Fisk Street turbine-generator required about three pounds of coal to produce one kilowatt hour of electricity in 1903. With today's modern, efficient units, it takes less than 14 ounces, and just one stage of the largest nuclear turbine now on order will produce over ten times the total kilowatt output of the pioneer Fisk Street unit.

In recent years electric utilities have increased their turbine-generator orders at a galloping pace. In 1962, for example, the domestic utility industry alone placed turbine-generator orders with U.S. manufacturers for nearly 10 million kilowatts. In 1965 this almost tripled to 28 million kilowatts, and in 1966 the order rate skyrocketed to 44 million kilowatts. The annual order rate has increased by almost 500 percent in the last six years.

To keep pace with customer demands, the Department, according to Marketing Manager George B. Cox, will ship at least 10 million kilowatts of turbine-generators this year; 12 million kilowatts in 1968; 14 million kilowatts in 1969.

Vulnerability: Like any other business the turbine-generator industry is vulnerable to a number of influences.

Strikes and walkouts, such as the 12-week strike in Schenectady last year, do not help, particularly when you are pushing to ship units to utility customers. Even with the strike, however, the Department missed the all-time high in shipments by only 50,000 kilowatts last year—a remarkable achievement in itself. Although the strike lasted 12 weeks, total production was delayed by about four months. Mr. Cox says the Department is trying to make up one month's lost production each year for the next four years.

Another point of vulnerability is the spiralling order rate and its effect on the Department's current manufacturing capacity. The large steam turbine-generator complex in Schenectady was originally designed to produce 2.5 million kilowatts of equipment and yet it is presently handling over four times the original capacity.

Nuclear: The problems of manufacturing capacity limitations have been further compounded by the unexpected flood of

turbine-generator orders for nuclear power plants.

As background, in 1963 the National Power Survey forecast nuclear power would only account for about one-sixth of the new steam additions in 1980, or about six million kilowatts. How much this forecast underestimated the rapid progress in nuclear technology and economics is indicated by the nine million kilowatts of nuclear additions already placed with all manufacturers for service in 1970—50 percent higher, almost a decade earlier than the survey forecast. In 1966, the Department alone received orders for 17 nuclear turbines for service in the early 70's totaling more than 13 million kilowatts—well over half the total capacity ordered from the Department.

This rapid growth in orders for nuclear units compounds the manufacturing problem because of the sheer physical size of the turbines.

A typical 600,000-kw nuclear turbine weighs over 2,000 tons, is half the breadth of the USS United States, and with its generator, measures over two-thirds of the length of a football field. It is 20 percent longer, 65 percent wider and twice as heavy as a coal-fired unit of the same type and rating. It requires about twice as much fabricating, welding, machining, and manufacturing floor space.

A Matter of Time: Utilities currently are ordering turbine-generator equipment far in advance of their actual "in-service" requirements. In 1966, they added about 11 million kilowatts of generating equipment to their systems but ordered four times as much. As nuclear power becomes more deeply entrenched as a "fifth energy source," more and more nuclear units, with their additional manufacturing requirements, will continue to crowd factory capacity. One other change in the long-

range outlook is the coming of "breeder" type reactors which will produce higher steam temperatures and pressures. "This," says Mr. Cox, "should bring back the size of the nuclear turbine closer to that of the typical fossil-fired unit."

The Department recently announced a major expansion, modernization, and retooling program for its Schenectady facilities, plus new multi-million dollar facilities at "unannounced" sites (*The Monogram*, March 1967). Some of this additional space will be ready by the end of 1967, although most will be stretched out over succeeding years.

To ease the present situation, and due partially to the recent strike, the Department has set up a component manufacturing farmout program with both domestic and off-shore manufacturers.

Long Road Ahead: Summing up the Department's position, Mr. Cox says, "With record orders last year, and the 'new excitement' throughout the electric utility industry, some people might feel that our marketing activities could be relaxed; just the opposite is true. We're

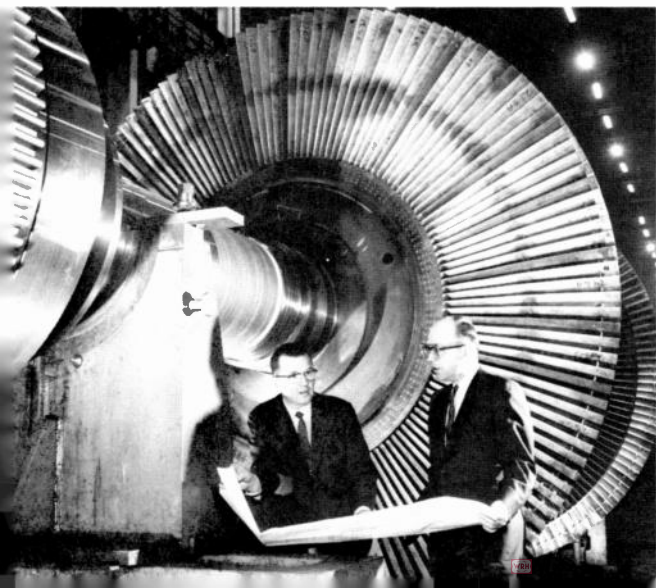
being challenged as never before to point up the superiority of our product and the advantages of doing business with GE. Everyone involved in securing 'the order' for one of our units must fully understand that all our present efforts — new product innovations, improved customer services, and major facility expansion and modernization programs—have been set in motion to attain our permanent objective of providing a high-quality product, on schedule, and with a fair return on the investment."

PUBLIC AFFAIRS

Studying the Mail

General Electric President Fred J. Borch and Company Director Ralph Lazarus are among ten prominent Americans selected to review our postal system.

The special Commission was formed by President Johnson to make "the most searching and exhaustive review ever undertaken of the structure of the Post Office Department."



TURBINE TALK: General Manager of the Large Steam Turbine-Generator Department Clement E. Sutton, left, talks shop with Marketing Manager George B. Cox. The rotor looming behind them is typical of those used in the manufacture of General Electric large steam turbines and could weigh up to 300,000 pounds and measure about 40 feet in length.



DIVISION COUNCIL: Members of the Defense Electronics "Go For Improvement" Council meet with Charles W. George, General Manager of the Division and member of the Company-wide Council. A Division kick-off meeting was held in Utica April 18th.



PLANNING: President Borch and Arthur E. Peltosalo discuss the "Go For Improvement" program. At rear are variations of the emblem being used in the campaign.

THE COMPANY

Going for Improvement

Recent pressures on General Electric earnings as reported at the annual meeting in Dallas, have also led to action within the Company.

Board Chairman Phillippe summed up the thrust of this effort during a Dallas press conference:

"Today in General Electric we are asking each of our operating components to pursue a program to really get after costs, achieve greater efficiencies and higher productivity."

President Borch observed that while several operating departments of the Company have developed individual programs, a common "rallying point" for these efforts will be provided through a new Company-wide program called "Go For Improvement."

The purpose of the Program is to foster creative improvement in all the important factors that will help to "grow earnings this year as we grew sales last year," and

to achieve the balance needed for continuing General Electric progress.

The Program is not a New York-directed effort, but depends upon Divisional leadership for its implementation.

Dual Approach: As "Go For Improvement" swings into action, it will be implemented on two levels:

The first and primary thrust will be in a management program in which department general managers will develop plans, with target dates, for the high priority avenues to profit improvement.

The other element of the Program, which follows the first, is an all-employee effort of personal involvement in achieving locally-defined areas of improvement.

Many individual departments and divisions have already established their own "Go For Improvement" councils with local chairmen (see photo).

A Company-wide "Go For Improvement" Council has been established, with

Gerald L. Phillippe as Chairman. The Council will be available to assist operating components in carrying out the "Go For Improvement" program.

Members of the group: Charles W. George, Fred H. Holt, Irving L. Griffin, Hubert W. Gouldthorpe, Oscar L. Dunn, Russell E. Whitmyer, Edwards B. Murray, Charles C. Leader, William W. Beardslee, Philip D. Moore, Arthur E. Peltosalo, John T. Castles and Lawrence W. O'Brien.

Mr. Peltosalo is Operations Director of the program.

MARINE SALES

San Juan Shipper

Sprawling its 700-foot length over a Chester, Pa. drydock is a GE-equipped trailership under construction that's destined to become one of the world's largest and fastest cargo vessels.

As Sun Shipbuilders work on the 24,000-ton, \$18-million ship, General Electric is equally busy with installation of its new 32,000 shaft-horsepower MST-14 marine power system. The package, from the Medium Steam Turbine, Generator,

and Gear Department in West Lynn, Mass., includes reheat steam turbine, reduction gears, and drive train. The trailership also will be GE-equipped with controls, motors, generators and lighting panels.

The craft is to be called the Ponce de Leon, and resembles an aircraft carrier with its 105-foot-wide deck (see photo). It has the capability of carrying some 250 loaded standard 40-foot truck trailers plus 280 automobiles and light trucks on runs between New York and San Juan, Puerto Rico. It represents a totally new door-to-door transportation concept.

Historic: The Ponce de Leon is also significant in being the first large general cargo vessel since pre-World War II days to be built in an American shipyard without government assistance of any kind.

"Under these circumstances," points out Medium Steam Turbine's Marketing Manager Hughes W. Ogilvie, "the owners were free to select the most economical power plant available just as ship owners throughout the world do when they build ships for their own account."

Joseph J. Kleschick, manager of the Philadelphia office of Marine and Defense Facilities Sales, which handled the order,



PONCE DE LEON: an artist's conception of how the roll-on, roll-off trailership will look while docked at a truck terminal. The ship is due to be completed late this year, and will be well-equipped with General Electric products. Installing the MST-14 is the Installation and Service Engineering Department.

says that the Company beat out domestic and foreign competition for the sale.

"I think the reason we got the order was that no one else in the country could offer as advanced a plant (the MST-14) or provide such an outstanding reputation for total performance and service," he said.

EDUCATION

Hotpoint's Class of '67

It must have been a good feeling for employees Adolph Kostecki, Ed Duffy, Gerald Goldman, Paul Morse and their 53 fellow-classmates. They were the first to graduate from "Hotpoint High" and receive their high school equivalency diplomas.

Hotpoint High is actually a unique in-plant educational program that is a cooperative venture between the Company and the Chicago Board of Education. It's designed to provide employees with a convenient method of getting a high school equivalency diploma (*The Monogram*, Sept. '66).

Students attend classes on their own time, but inside the Hotpoint plant. The Company provides books in addition to the classrooms and the Board of Education provides the teachers.

During recent graduation ceremonies, Raymond Grebey, manager of relations, offered congratulations to the class of '67, while urging the 43 new students to give priority to their studies. "There's nothing more important to you now than to get that diploma." He also warned them about temptations "from TV and ball games that will compete for your time."

One of the class of '67 was heard to observe sagely following the ceremonies: "It seems to me that better jobs are available to a man with training..."

RESEARCH

Through the Magnifying Glass

Preparing for our electronic future, in which more and more is being squeezed into less and less space, may well require a magnifying glass as standard equipment.

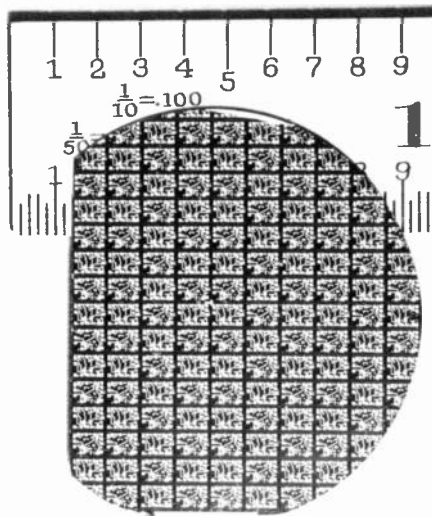
At Electronics Park in Syracuse, for example, preparations are currently evidenced by announcement of a \$5-million expansion of facilities for the development and manufacture of integrated circuits. The announcement was made by Dr. Arthur M. Bueche, vice president in charge of the Research and Development Center, and Dr. James R. Donnalley, general manager of the Semiconductor Products Department.

The expansion is scheduled for completion during 1967 and will establish a new Integrated Circuits Center for research and development in microelectronics. The new Center will be an organizational part of the Company's Research and Development Center in Schenectady.

Integrated circuits are tiny silicon chips containing all the functions of complete electronic circuits. The Company announced its first consumer product using such a chip (only 1/32 of an inch square) last fall when the Consumer Electronics Division marketed a small clock radio with an unprecedented three-year warranty (*The Monogram*, July-August '66).

Advantages: The use of an integrated circuit produces high reliability in addition to the more obvious benefit of miniaturization. Currently, the mini-circuits are used in General Electric phonographs and an eight-track stereo tape player in addition to the clock radio.

Vice President Robert C. Wilson has predicted that by 1970 all of the Consumer Electronics Division products will incorpo-



SHEET OF MICROCIRCUITS

Reliable, cheaper, flexible, and very tiny.

rate some form of microcircuitry.

An immediate advantage provided by the new Center is in supplying the Semiconductor Products Department with additional capacity for the manufacture of low-cost integrated circuits. This new capacity is expected to accelerate the application of the devices in consumer and industrial products.

Uses: Dr. Bueche points out that the microcircuits have applications in a number of fields including military and space electronics, information processing, industrial controls, appliances, housewares, and the already-penetrated fields of radio, television and audio products.

John P. Hanna has been named manager of the new Center. He was previously manager of the Electric Power Control Branch of the Research and Development Center.

Utica Lifesavers

Acting on an urgent U. S. Air Force request, the Aerospace Electronics Department sent 19 volunteer electronics technicians on a three-month special assignment in Southeast Asia.

Their job: to assist Air Force personnel in the use and maintenance of sophisticated airborne electronic equipment produced by the Department.

Fewer Losses: As a result of the team's support, the reliability of the Department-produced equipment has increased and the Air Force's losses due to ground fire have dropped. The real tribute to the team's efforts came from Air Force personnel. One officer said, "We measure your work in terms of lives saved and the results are spectacular.

"It's hard to describe the effect your support program has had on the pilots who are operating daily in an environment worse than any encountered in any previous war," wrote an Air Force flight commander.

Charles W. Nelson, the Department's manager of product service, said the team has received some 25 letters of commendation for their contributions.

John A. Lella, Jr., a member of the Department's design engineering staff said, "This first hand experience will help us to design equipment to meet field application more closely."

Speaking to the team at a special banquet, Charles W. George, general manager of the Company's Defense Electronics Division, said, "The General Electric Company is proud of each of these men, and congratulates them on a job well done."

ON CAMERA

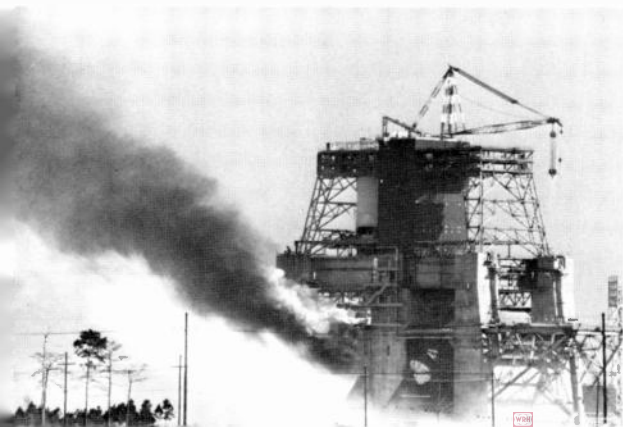


OOH-OOH: Television comedian Joe E. Ross, left, (*Car 54 Where Are You?*) clowns it up with Art Johnson, manager of distributor sales for the Instrument Department. Mr. Ross starred in a film introducing a new battery-operated leak detector.

THE ALHAMBRA: Illuminated with General Electric floodlights and fixtures from Hendersonville and Nela Park is the Alhambra, palace of the Moorish kings. The building was constructed during the 13th and 14th centuries, and is located near Granada, Spain. Modern lighting, sold by IGE Export Division, adds evening beauty to the famous structure.



HER BOA FRIEND: Lamp Division secretary Jeanette Dostal wears reptilian regalia that's actually her pet red tail boa constrictor. Miss Dostal calls the snake "Chit-Chat."



BIG BLAST: This fiery scene was made at the Mississippi Test Support Department when it static-fired the huge 7.5-million pound thrust Saturn V Booster. The event led to certification of the 407-foot high test stand—the tallest building in Mississippi.

PEOPLE



SUPER SALESMAN DOUGHMAN

He did some business with the Shah.

Super Salesman: George B. Doughman, former general manager of IGE's Export Sales Department, retired recently after 43 years of Company service.

His Company career carried him around the globe, traveling to Japan 14 times, and across the Atlantic 83 times. Two of his clients were the King of Morocco and the Shah of Iran.

Mr. Doughman joined the Company in 1924, and joined the International Division two years later. He assumed his position of general manager of the Export Sales Department in 1960.

He is credited with introducing the "project" approach to international business by allowing customers to order a system from a single supplier.

Honors: Regional Vice President Charles J. Miller has been presented the

Distinguished Service in Engineering Award by the University of Missouri-College of Engineering... J. Stokes Gillespie, Consultant-Marketing Consulting Service, is being presented an Alumni Distinguished Service Award by Wofford College, Spartanburg, S. C. . . . Dr. James S. Kouvel, a physicist at the Research and Development Center has been awarded a Guggenheim Fellowship to study magnetic behavior of transition metal alloys at England's Atomic Energy Research Establishment.

Transoceanics: William L. Wein, Engineering Standards Manager at the Armament Department, will be a member of the U.S. delegation to the International Standards Organization technical committee on engineering documentation which will attend the ISO general assembly in Moscow, USSR in June. . . . Dr. Samuel S. Shapiro, statistician at the R&D Center, recently returned from a year's leave of absence in India where he served as a United Nations Technical Assistance Advisor.

Medal-Winner: Samuel J. Roth, an employee of the General Purpose Motor Department, Fort Wayne, has received the Bronze Star Medal for heroism while serving with the U. S. Marine Corps in Vietnam. Sgt. Roth led his squad in an assault on an enemy position in order to free a trapped friendly unit. Sgt. Roth was wounded during the assault, yet, armed with only a pistol, led his unit in an effective charge that eliminated the enemy position.

Sharp Pen: Vern Thompson, a staff artist in the publications unit of the Memory Equipment Department, has been awarded the George Washington Honor Medal by the Freedoms Foundation at Valley Forge. The award was for an edi-

torial cartoon created by Mr. Thompson for the Peoria *Journal-Star*.

Marathon Man: Fleet-footed employee Tom Laris turned in a fine performance in the grueling Boston Marathon recently when he finished second with the fastest time (2:16:48) ever recorded in the 26-mile race by an American. Mr. Laris, who is supervisor of general accounting at the Distribution Transformer Department's Oakland, Calif. plant, also recorded the fourth best time ever recorded by an American in any marathon. Mr. Laris is a graduate of the Company's Financial Management Program.

Brookings Fellows: Two General Electric employees have been appointed Brookings Fellows, and join 15 other selected representatives from industry, labor and the professions who are spending five months in Washington gaining first-hand knowledge of how the Government operates. William W. Austin, Jr., manager of mail order distributor sales, Housewares Division, and Robert V. Emling, manager of railroad automation

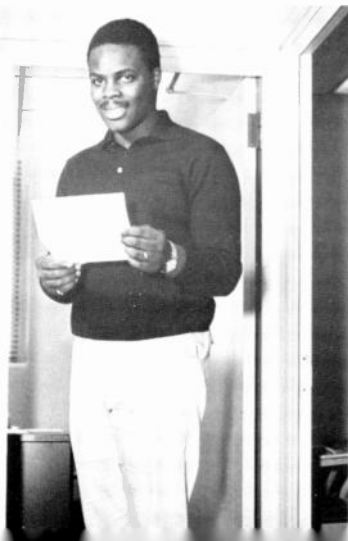
sales, Transportation Systems Division, will participate in seminars with representatives of various branches of Government and its agencies. The men will be assigned later for 14 weeks to a specific agency. The Fellowships are administered by the Brookings Institution, Center for Advanced Study, Washington, D.C.

Testimonial: It was some party the Potomac Electric Power Company (PEPCO) was throwing. There was the Chairman of the Board, top-ranking officers, and Senior Vice President Dorsey F. Hughes among others. The occasion? To honor General Electric sales engineer Frank B. Crider, who was retiring from the Washington, D. C. office of the Electric Utility Sales Division. Mr. Crider had serviced PEPCO for 35 of his 40 years with GE, and evidently done a good job of it. The thoughtful gesture by PEPCO included a set of matched luggage, book of testimonial letters, and cartoon sub-titled with Mr. Crider's favorite expression, "Let me see what I can do."

Getting Involved: It started out as a quiet night at the movies for Nela Park employee William E. Cloud, but near the theater things got busy. He spotted five young men in the process of robbing a Cleveland man, and quickly ran to his aid. Mr. Cloud stayed with the robbery victim, who was left unconscious and bleeding, until police arrived, and then volunteered to help officers track down and identify the thugs. Later, the man aided by Mr. Cloud wrote a letter to General Electric: "He risked his own security in a situation where more than a hundred other persons did not care to do so. The average person like me doesn't know much about a huge corporation, but I am inclined to evaluate it by the character, integrity and standards of its employees. I have a new appreciation for GE and Nela Park."

NELA PARK'S MR. CLOUD

The action was this side of the box office.



AROUND THE COMPANY

Lone Star Winners: College Bowl's third five-game winner of the season is the University of Texas team, which topped Capital University of Columbus, Ohio by the score of 235-175. Texas joins Oklahoma and Columbia, earlier five-game champions of the season.

Langmuir Award: Dr. John Clarke Slater, one of the world's leading solid state physicists, has received the 1967 Irving Langmuir prize for physics. The Award honors the memory of the late General Electric Nobel Prize-winning scientist and is sponsored by the General Electric Foundation. Dr. Slater made significant contributions to the development of the transistor.

IGE Sales: The IGE Export Division has received contracts of over \$8 million to supply a steam turbine-generator and associated equipment for the Dominican Republic's largest thermal power station. Another contract — of over \$1 million — was announced covering a package gas turbine plant for the Mediterranean island of Mallorca. The 14,000 kw unit is the third electric generating unit ordered by Gas y Electricidad S.A., Spain.

IGE Export also received an order to provide marine propulsion turbines and main powerplant controls for three ships being built in the Netherlands by Texaco Panama, Inc. The Medium Steam Turbine Generator & Gear Department will supply the propulsion turbine, while the Industry Control Department will provide the central operations system.

Dial Comment: If you're calling Puerto Rico or the U.S. Virgin Islands, you can realize considerable cost savings over

going toll by using Dial Comm. It's now possible to call these points via the Dial Comm overseas operator at 8*235-1121.

Orders for Ordnance: A target price of approximately \$25 million has been established by the Navy for the development (Phase II) of the guidance system for the Poseidon missile by the Company's Ordnance Department, Pittsfield. The funding covers design, development and documentation efforts extending through 1970. The Department also received a \$2-million Navy contract for the manufacture of gimbal assemblies for Polaris missile inertial guidance systems. Ordnance won the contract over a bid by Honeywell.

Active Alumni: New records in employee contributions to the colleges of their choice were established in 1966, which was the twelfth year of activity for the Corporate Alumnus Program of the General Electric Foundation. Some 7,937 contributors gave \$515,858.12 to 679 colleges and universities in the U. S. and its possessions. Of this total, the General Electric Foundation matched \$432,512.41 in employee contributions for a grand total of almost a million dollars. Noteworthy during 1966 was the \$19,099.83 contributed to Brescia College, Owensboro, Ky., an amount matched by the Foundation. Under new provisions of the Program, all Company employees are eligible regardless of college attendance.

Speedy Simulator: The Company's Transportation Systems Division has recently constructed a new rapid transit car simulator that allows development, testing and precise adjustment of automation equipment before it leaves the factory. The device will be used with train control and propulsion equipment being built for the Delaware River Port Authority's new rapid transit system.

TALKING POINTS

Staff of Life

Curiosity was consuming Bill Doherty, owner of a Long Beach, California food and beverage shop. For the past year, the same man had been coming into his store every day and buying a single loaf of bread. Just the bread; nothing else.

Mr. Doherty's curiosity finally drove him to ask the customer what he was doing with that single loaf of bread. It turned out that the loaves were used by the nearby General Electric Servicenter to test newly-repaired electric toasters!

Dog's Day

The following classified ad appeared in a recent issue of *The Reporter*, published by the Appliance Control Department, Morrison, Ill.:

Help save this marriage. Husband says either I go or dog goes! Dog is small brown and white Terrier, one-and-a-half years old, cute, but chases our house cat. Wife is small also, but eats a lot. Wife is older and not as cute as dog, but doesn't chase anything anymore.

Galactic Glitter

Keep your eyes on the skies, because scientists at the Research and Development Center have discovered that certain meteorites blazing through our atmosphere actually contain "hexagonal" diamonds.

Through X-ray studies, Company scientists have shown that these diamonds were formed directly from graphite by intense

impact shock rather than heat and pressure within a "parent" body as had been theorized. The work was done by Drs. Francis P. Bundy, Rodney E. Hanneman, Herbert M. Strong and John S. Kasper.

Small opaque diamonds have been found in some meteorites, but the "hexagonal" diamonds are a new find. They're just not found in any geological formation on earth.

Russians Are Coming

General Electric, it seems, has joined the cultural exchange program.

In Moscow, Leningrad and Kiev, Soviet citizens are currently gazing upon some two dozen General Electric home entertainment products appearing in a U. S. Information Agency exhibit depicting the role of American industrial designers in planning and producing U. S. products.

It's all part of the U. S.-USSR cultural exchange program, and the GE products were chosen—along with other items of domestic manufacture—as examples of excellent American industrial design.

Included in the Soviet exhibit are GE transistor radios, personal portable TV, and console television models.

A Popular Science

The May issue of *Popular Science* has an article on computer time sharing written by feature writer C. P. Gilmore, who had a GE time sharing terminal in his home while preparing his story. Mr. Gilmore must have impressed the magazine's editors, because they've announced a new reader service called "Ask-Our-Computer." For a small service charge, *Popular Science* will make its GE 235 available for solving complex home, shop and car problems.

PRODUCTS

Auto-Motives: Representatives of the Miniature Lamp Department who call on customers operating garages and service stations are adding some new, non-lamp products to their catalogs. Included: silicone rubber automotive sealant, non-melting, non-freezing silicone grease compound (both from the Silicone Products Department), plus tire studs featuring a Carboloy® cemented carbide core (from the Metallurgical Products Department).

Designing Breakers: A major design change in air-blast circuit breakers has resulted from a two-year, \$2.5-million research and development program. Power Circuit Breaker Department announces its series ATB-7 in 115, 138, 230 and 345-kv ratings.

Cool and Compact: Hotpoint is introducing a compact, 2.1-cubic-foot portable refrigerator priced at about \$89 retail. Porta-Cold is a space-saver that measures a mere 22 inches wide, 18 high and 20 deep. Colors are white or beige.

Motoring: A new line of lightweight, high-power a-c induction motors is being launched by Specialty Motor Department. The M59-frame, 3.4-inch diameter motors are rated 15 mhp to 1/3 hp, are fully reversible and equipped for all-angle mounting.

More Memory: A four-fold increase in the memory capacity of GE-425 and GE-435 computers has been announced by Louis E. Wengert, deputy division general manager, Information Systems Division. The central memory banks of the units have been boosted from 32,000 words to a new capability of 131,000 words (524,000 characters).



WELL-ARMED FOR CARS

Miniature Lamp's bonus pack of goodies.

Simple Sauna: A compact, stylish, modern and modestly-priced General Electric Sauna heater is now available "to bring the Sauna within reach of the average individual." The new heater can heat rooms up to four by four feet, and is operated from standard house current. Price: about \$300. For relaxing insights into the Sauna boom and GE equipment, write: Sauna Heaters, Industrial Heating Department, Shelbyville, Ind.

ORGANIZATION

Components and Construction Materials

Reginald H. Jones, Vice President, is assigned the Group Executive responsibility for the Components and Construction Materials Group. Mr. Jones continues as Acting General Manager, Construction Industries Division.

Electronic Components

Robert J. Rodwell has been appointed General Manager of the General Purpose Control Department.

General Electric Broadcasting

Robert L. Gilbertson has been appointed General Manager of Stations WGY, WRGB, and WGFM.

Housewares

Walter A. Schlotterbeck has been appointed Division Counsel.

Information Systems

A Printer-Reader Business Section is established and Dr. Herman Epstein is appointed General Manager.

Management Manpower Services

A Management Manpower Development Service is established with H. Dwight Meader appointed Manager.

Nuclear Energy

George J. Stathakis has been appointed General Manager of the Atomic Power Equipment Department.

A Division Business Development Operation is established and George White is appointed Manager.

Personnel and Industrial Relations Services.

Employee Relations supporting work is transferred from IGE Export Division to Personnel and Industrial Relations Services.

An International Employee Relations Service is established and Richard J. Anton is appointed Manager.

A Personnel and Industrial Relations Administration Service is established and Gordon C. Menzies is appointed Manager.

LETTERS

(Continued from inside front cover)

tain, makes a most capable and charming prexy, but we are also certain there have been others.

The X-Ray Department's QCC elected Donna Ayers, an Analyst in Medical Marketing Administration, to grace its presidential dais in 1964. Donna had served as vice president the year before, and still is a member of that group's advisory board.

D. C. CAMPBELL
X-Ray Department
Milwaukee, Wisconsin

Calendar Crisis

EDITOR: May I suggest that before our calendar designers begin their efforts on the 1968 calendar they be required to write on the blackboard 100 times the maxim "form follows function."

All of that white space on the 1967 calendar may be pretty, but the user can no longer read the numbers from across the room or write in the nonexistent space around the date.

If our range designers used the same concept as our calendar designers, all of the burners would be squeezed together at one side of the range surface in order to achieve a large expanse of "uncluttered" space. The result might be esthetically pleasing, but cooking would be rather difficult.

Thank goodness we don't have to sell our calendars (and that our calendar designers don't work on ranges).

W. A. BILLINGSLEY
Mississippi Test Support Department
Bay Saint Louis, Mississippi

General Electric College Bowl

(NBC, Sundays, 5:30 p.m., EDT)

Participants: May 21—Dunbarton College (Washington, D. C.); May 28—University of Kentucky (Lexington, Kentucky); June 4—Roanoke College (Roanoke, Virginia); June 11—Ohio Northern University (Ada, Ohio).

EDITORIAL

Focus on Improvement

"The biggest room in the world is the room for improvement."
— Colton

TODAY in General Electric we are asking each of our operating components to pursue a program to really get after costs, achieve greater efficiencies and higher productivity."

That's how Board Chairman Philippe summarized the present Company-wide effort that will be reflected in the "Go For Improvement" program. (see story on page 15).

Two aspects of the Program are worth emphasizing. First, its concentration is on improvement in individual departments or divisions. Second, in many cases the "Go For Improvement" program will build upon existing plans such as Zero Defects.

A look around at some current contributions provides rather interesting examples that also reflect the spirit of Going For Improvement.

- In the Heavy Military Electronics Department, which recently received a top Zero Defects Award from the Air Force (story page 6), General Manager Thomas Paganelli cited one of the reasons: an employee who painstakingly made 5,700 wire connections and solder joints without error.

- An employee of the Mississippi Test Support Department noted an alarming increase in the number and types of printed forms (at \$2,000 per

form per year) and worked with NASA and his fellow Department employees to eliminate 234 forms at MTSD and over 200 at NASA's Marshall Space Flight Center. Result: cost improvement savings of \$486,000.

- Addressing the Pittsfield Quarter Century Club, Harland P. Sisk, general manager of the Distribution Transformer Department, told of being in the shop at closing time. "I walked over to a welder who was working feverishly and asked him if he was working on 'a hot one.' He told me it was a job the customer wanted out that night and added, 'and by golly I'm going to finish it.'"

- Employees of the Memory Equipment Department are attaching a letter with each piece of equipment shipped. The letter contains the pledge to "Give the highest quality product available today," and the statement that "Every component, from a printed wire board to the magnetic head that reads your programs, is a product built with pride."

There's an important last paragraph in their letter that could well be digested by each of us: "We are staking our careers on our quality products. We know their performance will reflect that GE cares and Memory Equipment cares, too."