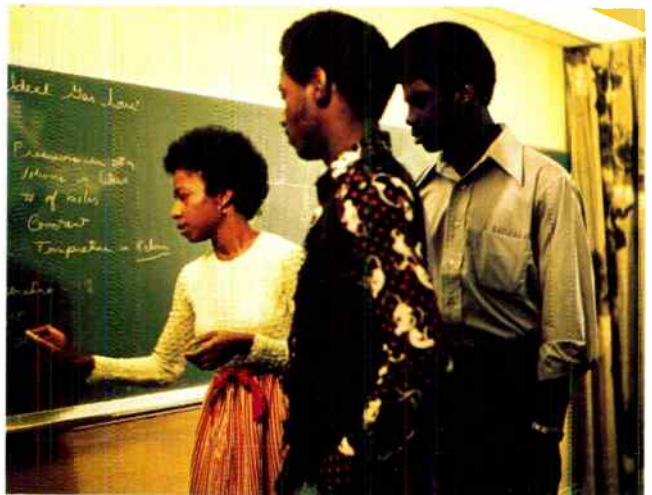




LUCALOX
AFTER SEVEN



'UP WITH PEOPLE'
COAST TO COAST



NEEDED: MORE
MINORITY ENGINEERS



VOLUME 49, NUMBER 5

The Monogram's purpose is to keep its readers informed on General Electric activities so that they may more effectively represent the Company in its relationships with the public. It is published bi-monthly by Corporate Public Relations Operation—Douglas S. Moore, Vice President. Editorial Supervision is by David W. Burke, Manager, Public Relations Programs, and J. Hervie Haufler, Manager, Corporate Editorial Communications. Permission for reprinting articles should be obtained from the Monogram Editor, 570 Lexington Avenue, New York, N.Y. 10022. Copyright, 1972, General Electric Company.

Editor

DONALD M. HILL

Associate Editor

WILLIAM KERMIT BARCLIFT

Editorial Assistant

CAROL A. OLCHA

Design

LIKA ASSOCIATES, INC.

Contents of this issue

THE COMPANY Pages 2-13
 More minority engineers • The Borch years • Estes on Board's reorganization • New attacks on waste • Area Councils • Corporate Briefs

PRODUCTS 14-21
 Lucalox after seven • Broader GE input in '73 autos • New self-cleaning iron • Hotpoint's new line

THE BUSINESSES 22-25
 Improving productivity • MATSCO taps Government services

PEOPLE 26-27
 "Up With People" coast to coast • Organization changes

PERSPECTIVES 28-31
 Inside view of Awareness Seminars

Cover photos include Lucalox-lighted Deeds Carillon in Dayton, Ohio

THE COMPANY

Minority opportunity: tackling the supply problem

The trouble with Sharon McAfee is that she is too rare an example. Not just because she's a woman engineer—although that's rare enough—but because she's a *black* engineer. Industry today could use thousands more Sharon McAfees than are available.

Sharon knows this. That's why she's always eager to seize moments to talk engineering to young fellow-blacks, as she is shown doing on the cover with highschoolers Larry Bunch and Mike White.

For blacks and other minorities to reach the opportunity goals they have set for themselves, there simply have to be more of their young people—masses more—moving into the engineering supply line.

It's a situation of which General Electric's top officers have become acutely aware—a problem to which GE experts have been devoting a great amount of analysis, prognosis, and attempts to develop sound solutions.

Company spokesmen recently presented their case where, it was hoped, it could touch off widening ripples of response. This was to a conference of 44 deans of engineering colleges, convened at the GE Management Development Institute in Crotonville, N.Y.



GE engineer Sharon McAfee, striving to interest young blacks in engineering careers...



... represents a resource that Senior VP Stan Smith sees as needing a ten-fold increase...



... requiring approaches that Chairman Fred Borch sees reaching into primary schools.

A hard-hitting examination of the problem and an urgent call for action to improve industrial opportunities for minorities came in an address to the engineering deans by J. Stanford Smith, Senior VP—Corporate Administrative Staff.

Tracing industry's progress in the struggle against discrimination, Smith recalled that General Electric's policy of non-discrimination was enunciated almost 40 years ago by President Gerard Swope and has been reaffirmed by each of his successors.

"Our managers have specific targets and plans for affirmative action," Smith told the engineering deans, "and they are measured on their performance. As a result, our Company has 26,000 minority employees, and 19 percent of our new hires in 1971 were minority." Relatively few of them, however, entered the exempt-salaried ranks.

Smith went to the heart of the problem: "Persons with engineering or financial training provide the main volume streams of professional employment. Until industry can get large numbers of qualified black engineers, blacks cannot become a significant element in top professional and managerial ranks. The real problem today is *not* one of demand, but of supply."

Smith asked the deans to consider this: of the people in the top 20 percent of GE's exempt-salaried ranks, more than 60 percent have a four-year *technical* degree, and they provide a majority of the Company's managerial leadership. "Now as a matter of fairness—social justice—public acceptance—a healthy society—we want to see minority faces emerging in the leadership of industry. We're not neutral about it; we're *eager* to get the job done."

Here's the rub: of 43,000 engineers graduated in 1971, only 407 were black, and a handful were other minorities or women. One percent. "It takes about 15 to 25 years for people to rise to top leadership positions in industry," Smith pointed out. "So if industry is getting one percent minority engineers in 1972, that means that in 1990, that's about the proportion that will emerge from the competition to the top leadership positions. Not five percent, or 10 percent, or 17 percent, but *one* percent."

Calling this "a formula for tragedy," Smith put the challenge bluntly: "Unless we can start producing not 400, but 4,000 to 6,000 minority



In Crotonville discussion: Engineering Dean Reg Amory (left), of North Carolina A&T, and Fred Andrews, Purdue's Vice President and Dean of the Graduate School.

engineers a year, industry will not be able to achieve its goals of equality, and the nation is going to face social problems of unmanageable dimensions."

Rejecting such pat solutions as restructuring jobs and lowering standards as "a sham that the minorities would quickly see through and resent," Smith deplored the steady movement toward a day when "the blacks might dominate the civil service ranks of local, state, and federal government, while the whites would hold the centers of technology," a form of segregation that "could have disastrous consequences."

The only acceptable solution, according to Smith, is to "take bold, innovative, all-out action to increase the supply of minority engineering graduates not by a few percentage points, but ten- or fifteen-fold, and to get it done within the decade."

Noting the barriers that stand in the way of minority people—the barriers of poor preparation, of poor motivation, of money and distance, and of a seeming lack of interest in engineering—Smith said that "we will have to enlist all the major institutions in the nation for a mighty effort." He ticked off those whose help is needed: "the business establishment, the educational establishment, the government, the armed forces, the professional societies, the foundations, the minority organizations."

Business is eager to be put to the test, Smith said. "The doors are open and the channels of upward mobility have been cleared. Now it is truly a problem of supply. What we need most, in terms of numbers, is qualified minority engineering graduates."

Describing his listeners, leaders of the nation's top schools of engineering, as the people who "will probably have more to say than anyone else as to how these challenges will be

met," he added, "I'm sure you will agree that what we are talking about is not business as usual, or education as usual. We are talking about an undertaking of staggering proportions that requires *revolutionary* action."

Responding to its own call for action, General Electric is mounting a multi-faceted program that includes greatly expanded financial support, stepped-up guidance activities, and a more intensive attempt to get the message across to minority youths, all aimed at drawing more of them into engineering careers.

Initial attention will focus on helping the predominantly black engineering colleges develop to their ultimate capacity. This effort will be complemented by numerous other new and existing approaches. One example discussed with the deans by Lindon E. Saline, manager of Corporate Education Services, would encourage the creative use of "co-mingled work and learning"—a broadened, accelerated, society-wide commitment to the tried-and-true co-op avenue to higher education.

Even more is needed, in the view of Chairman Fred J. Borch, who said, "If we are going to significantly increase the numbers of minority professionals in industry, then we must first provide more aid, guidance, and encouragement all the way back into the secondary and primary schools..."

Stressing that the problem is far too big for any single company, industry, university, or government to solve alone, Borch told the engineering deans that "we are in this together... We must keep open the doors of opportunity and help people qualify for advancement just as far as their talents will take them. In the long view, our success in this venture may have more to do with the future peace and prosperity of the world than anything else we could do." ❧

'The Borch Years': adding another General Electric

Following on Fred Borch's announced plans to retire as the Company's Chairman of the Board and Chief Executive Officer at year-end, the first assessment of his leadership of General Electric has come, appropriately enough, from Reginald H. Jones, the Company's President and Borch's designated successor.

Jones spoke at the September 12 National Meeting of Elfun Society officials. He recapped the fact that "there have been only five Chief Executive Officers in the Company's history since it was founded in 1892: Charles Coffin; Gerard Swope; Charlie Wilson; Ralph Cordiner; Fred Borch," and characterized them as "leaders not only in business but in national life." He added that he was taking the occasion to reflect on Borch's stewardship "even though we do so against his wishes."

The GE President said: "Every one of our Chief Executives has been a strong individual who left his distinguishing mark on the organization. Fred Borch is no exception."

When the Board chose Borch at the end of 1963, Jones recalled, the Company had just broken through the \$5 billion mark in annual sales. "In his nine years he has essentially built another General Electric of the same size beside the one he inherited. Our sales this year will probably crack through the \$10 billion level...and our total assets have also doubled in the period of Fred's stewardship."

In terms of earnings, in 1963 the Company

netted \$272 million, or \$1.52 a share, adjusted for the recent stock split. "We had some hairy times in the intervening years," Jones said, "but in more than thirty years with General Electric, my impression is that this Company gains strength from its adversities. That's the true test of character. Here's how they put it in the *Berkshire Eagle*: 'Aside to the troubled GE: A company that survives great difficulty is like a tea bag. It doesn't know how good it is until it gets in hot water.' And so, last year our earnings were about 30% higher than they had ever been before—amounting to \$474 million, or \$2.60 a share."

Of deeper importance than the annual financial results—"and I think the market senses this," said Jones—is that major investments in new technologies and managerial innovations of strategic importance have positioned General Electric for strong future growth.

As "Fred's living monument," Jones singled out the establishment of a new system of strategic business planning at both corporate and operating levels. "Through this system (or, more precisely, through the managers and professionals who will make this sophisticated system work) we expect to be able to allocate our resources more intelligently."

Jones emphasized that General Electric leaders have never been totally preoccupied with internal affairs. "The job requires men of the world. I don't think there is anyone on the public scene today who commands greater respect than Fred on the subject of foreign trade and investment policy."

Turning to challenges facing the Company, Reg Jones called for GE people to:

- take full advantage of a rising economy to improve sales and earnings;
- make "Best Buy" a smashing success;
- keep up quality of General Electric products and services;
- increase the number of blacks, other minorities, and women in General Electric professional and managerial ranks; and
- speak up for business and for General Electric to help correct public misunderstandings, especially in such areas as proposed tax changes, the role of multinationals, and renewed attacks on "industrial concentration." **▲**



To Jones from Borch:
a Company positioned for growth.

The Board reorganizes: “to see that we are doing as much as we should be doing”

What does a Director do? Most GE people could fill in a number of specifics: the Board represents the interests of GE's half-a-million share owners; since most of them are "outside" Directors rather than GE employees, Board members bring objective viewpoints and varied experience to bear on the Company's plans and problems; they're present at share owners' Information Meetings and regularly tour GE operations; and they constitute the ultimate internal authority on such matters as vital policy determinations, major managerial changes, and, on a more concrete basis, allocation of resources for all significant new ventures and construction of new plant facilities. A more detailed glimpse into the workings of the Board came recently with reports on its re-organizing of its own committee structure. The Monogram asked Robert M. Estes—Senior VP, General Counsel and Secretary—to comment.

Mr. Estes, what's behind the change in the Board's committee structure?

The desire of Directors and of GE management to make better use of the time that Board members devote to the Company's interests. We're in a period when General Electric, and other large U.S. companies, are caught up in much more diverse cross-currents than they used to be. Added to the basic problems of running the business and competing effectively is a host of new challenges—social, environmental, technological, and the like. As a consequence, the range of matters with which Directors must concern themselves has greatly broadened. The new committee structure recognizes these changes and tries to strengthen the Board's approach to them.

How does it work?

The former approach was for the Board as a whole to tackle almost all areas of concern at its monthly meetings, supported by the work of



its special committees. The new structure puts much greater emphasis on the committees. More of the Board's work will be first considered in committees preparatory to the full Board sessions. Also, the Board has streamlined its agenda so that a substantial portion of the time of the full Board will be spent on key areas—risks and opportunities, resource allocation, planning. In other words, matters that can be handled by committees will be delegated to them with provision for full reporting to the Board, leaving the Board itself more time to concentrate on the larger, more crucial matters.

Part of the change involves establishing new committees?

Yes. Three new committees have been established. In addition, the work of two former committees has been redefined.

What's the present line-up?

The new names of the committees are really quite descriptive of their functions. Of the two committees whose functions have been redefined, for example, the Management Development and Compensation Committee is involved primarily with the quality, depth, selection, performance, and compensation of management. The other, the Audit and Finance Committee, works directly with the Company's Independent Public Accountants and acts in overseeing all financial matters, such as audits, financing, budgets, and investments.

And the three new committees?

The Operations Committee reviews operating reports, the strategic planning process generally, and selected critically important business undertakings. The Technology and Science Committee reviews and appraises the Company's broad technological and scientific efforts

and such specifics as the balancing of resource allocations required to maintain product leadership and develop potential growth areas. The Public Issues Committee reviews the Company's posture, policies, programs, and practices on public issues of significance, including our Equal Opportunity/Minority Relations performance, the Company's support of business, charitable, and educational organizations, and, in conjunction with the Technology and Science Committee, environmental effects of our operations and products.

Who heads up these committees?

Each is chaired by an outside Director, with GE officers serving as Vice Chairmen on all but the Management Development and Compensation Committee. Each outside Director serves on two of the five committees, and committee memberships are carefully planned so that each committee is so constituted that it includes a member from each of the other Board committees.

Are other GE people involved?

Yes. Quite a bit more than formerly. Staff support for the committees is provided by the Senior Vice Presidents and their staffs.

What's the present status?

The new system has begun to function. Most committees have held their first meeting. The Chairmen and Vice Chairmen have taken the initiative to develop committee scopes and methods of operations. Board members regard these changes as essentially evolutionary in nature. They are moving up aggressively to use these committees as essential links between operating management and the Board. They anticipate that over time and with experience there will be continued improvement in the manner in which the committees fulfill their respective roles. They seem confident that the new structure will enable them to keep pace with the increasing complexity of the business environment and thereby help them fulfill their responsibility for seeing to it, as Chairman Borch recently expressed it, "that we are doing all we should be doing in each of the areas where the committees are involved." The sense of the Board is definitely to the effect that with this restructuring of its activities the Board is in a position to make a positive response to the changes and new expectations affecting business today. ■

New Board committees headed by outside Directors



Audit and Finance Committee
John E. Lawrence (above), Chairman
Reginald H. Jones, Vice Chairman



Operations Committee
J. Paul Austin, Chairman
Walter D. Dance, Vice Chairman



Public Issues Committee
Frederick B. Dent, Chairman
Jack S. Parker, Vice Chairman



Public Issues Committee
Frederick L. Hovde, Chairman
Jack S. Parker, Vice Chairman



Management Development and Compensation Committee
Ralph Lazarus, Chairman

NEW GENERAL ELECTRIC ATTACKS ON WASTES

Of the ways in which the General Electric theme of "Men Helping Man" is being implemented, not all are glamorous. Some of the most important, in the long run, may be current projects dealing with the homely problem of man's wastes. The following three examples reflect the Company's progress on three fronts: nuclear wastes, keeping shipboard wastes out of the sea, and dealing with solid wastes on a Statewide basis.

Vorcinerator takes on the atom

A new process inside a simple 40 x 60-foot building at the Nuclear Fuel Department's Wilmington, N.C., plant has drawn the interest of the Atomic Energy Commission.

The building houses a trash burner, part of an entire solid waste disposal system with a distinctive capability. It burns solid wastes that have been contaminated with radioactive material during the manufacture of nuclear fuel rods.

Key to the whole process is a Vortex I Vorcinerator^(T), a development of the Industrial Heating Business Department in Shelbyville, Indiana. The Vorcinerator, designed for use by cities in disposing of solid wastes, has been modified to meet the special requirements of the Fuel Manufacturing Operation.

Fuel process engineer George Sakash, who designed the system for the Wilmington plant, outlined the pre-Vorcinerator problem. "The normal trash that accumulates inside the radioactive area can't be carted off to a dump, so

we've had to pack it in boxes or 55-gallon drums for shipment to approved burial grounds."

This specially-designed Vorcinerator, with a capacity of 2,000 pounds an hour, is the first system licensed by the AEC that can continuously burn more than 250 pounds an hour. In early trials, Sakash said, "we have been converting the trash into ash amounting to as little as 2 percent of the original volume and 3 percent of the weight."

Radioactive waste goes through a scanner that measures—cumulatively—the amount of radioactive material entering the system, "so we have complete accountability of radioactive material."

A complex series of scrubbers and filters makes the system environmentally acceptable; it is so efficient that virtually all that comes out of the carefully monitored exhaust stack is steam.

"We're saving storage, transportation, and burial costs," Sakash said, "and now we even get to re-use the 55-gallon drums."

The final refinement: recycling of the ash left after incineration is reclaiming valuable uranium amounting to as much as 30 percent of the ash.

Newport news: controlling shipboard wastes

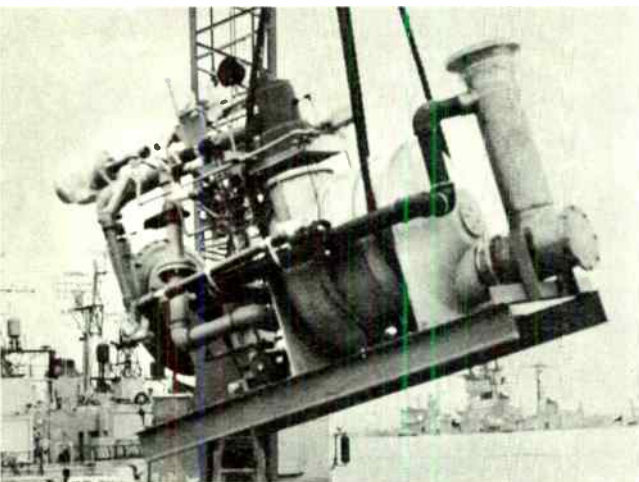
When the destroyer escort USS Koelsch steamed out of Newport (R.I.) Harbor earlier this year for a six-week cruise in the North Atlantic, it carried some special equipment that the Navy now sees as a likely answer to its shipboard pollution problems.

The equipment was an advanced prototype General Electric sewage treatment plant, developed by Re-entry and Environmental Systems Division.

The Navy's Destroyer Development Group at Newport, alert to ways of staying out of hot water with environmentalists, has been evaluating waste treatment plants for half a dozen years. "This was the first time, however," said John G. Federico, manager of Water Resources Marketing, "that the Navy has really put such a plant through the mill—during actual operational maneuvers, in harbor and out, on the open seas, in rough weather, even during gunnery practice."



Wilmington's Sakash shows small amount of ash left from Vorcinerating of contaminated wastes.



Incinerator portion of RESD's shipboard sewage treatment plant is hoisted aboard USS Koelsch.

How did the system perform? Cmdr. R. Logan Sharrah, Navy project officer, spoke for the Navy: "A major advantage of this system is that it uses a pump storage grinder that can be located in the vicinity of where you are collecting waste, whether it is from the galley, the laundry, or where." He said that the plant, which incinerates solids and turns waste liquids into clear water, can handle waste water from showers, galleys, sculleries, medical dispensaries, and soft garbage from mess halls, in addition to raw sewage. "The General Electric unit certainly shows promise," Sharrah said.

"The system is completely automatic," according to Federico, "and it is compatible with either fresh or salt water. And no extensive replumbing of ships is necessary."

Federico summed up the Koelsch's findings: "Considering the weather, the sea conditions, and the nominal training given to the crew, the demonstration was close to an unqualified success." The Navy, which has kept the unit on board for evaluation during a six-month overseas deployment, seems to agree.

The Connecticut project: 10,000 tons a day

First announcements during the summer that General Electric had been awarded a contract to design a Statewide solid waste management system for Connecticut sketched in a bare outline that Company specialists now are filling in.

The task: to plan a complete system that is environmentally sound, economically feasible, socially acceptable, and technologically flexible, and to have the plan ready by next July 1.

Initial efforts have led to a clearer understanding of the scope of the project, according to program manager Paul McGavin. "We've been talking with everyone who can shed light on the State's waste picture: Departments like Agriculture and Transportation; the Environment Committee of the Legislature; people from the 15 Planning Regions; and other firms that can make a contribution to the solutions we're seeking."

Connecticut's solid waste problem is no little one. The State throws out 10,000 tons of solid waste every day. Disposal facilities are inadequate, and land for disposal sites is sky-high and hard to come by. Getting rid of solid wastes has become the most costly municipal expense after education and highways in many of the State's towns.

The system-design team, spearheaded by General Electric's Research and Development Center, will make recommendations that will encompass every element of the total system, including identification of needed equipment and facilities, estimated costs and methods of financing, analysis of the system's impact on the environment and the economy, and a step-



The solid wastes from an entire State—that's the study project taken on by R&D specialists.

by-step schedule for putting the system into operation.

"Primary consideration," said McGavin, "will be given to suggesting the many materials and products that can be developed from solid wastes of all kinds, defining markets for recovered wastes, both existing and potential, and finally to recommending legislation whose passage by the Federal or State government would encourage industries to use more recovered wastes." ❏

Conversation in Cascais: GE Portuguesa's outlook

The vacationing president and general manager of General Electric Portuguesa and a vacationing Monogram reporter met last month in the former's attractive home in Cascais, a suburb of Lisbon. In the conversation, Portuguesa's Homer L. Brown had these things to say about the GE affiliate's prospects:

One fact of business that a General Electric manager won't ever again take lightly, after an experience such as the one I've had in directing the Portuguese operation, is that of technological leadership. Sure, in the States we emphasize the importance of gaining a technical edge but that's just one of a number of factors contributing to success. Here it's the absolute essential. To try to sell products in Portugal that don't have a clear margin of technological superiority is a waste of time.

The reason lies in the country's economics. Portugal is a developing country, struggling mightily to broaden its economy away from its centuries-old agricultural base. Its golden era of being among the richest of nations is long since past—today it has to keep close watch on every escudo it spends, particularly on imports. Yet its list of critical needs is long. The result for Americans trying to trade here is that unless their products meet a need in a way that isn't available elsewhere, Portugal simply isn't buying.

The importance of technological "exclusives" is borne out by the products General Electric is currently supplying Portugal. Incidentally, as Country Manager for Portugal, I'm interested in developing sales via the International Sales Division as well as in selling the limited range of products manufactured by General Electric Portuguesa itself.

The country has recently purchased its first two GE gas turbines, as an example. These will meet two critical needs in the Algarve, Portugal's southern coastal area that's been experiencing a Florida-type land boom as Europeans vacate their traditional inland spas and flock to the beaches. The two needs:

- Power generation, particularly in the summer months. This is the height of the tourist rush; it's also the time of greatest drought—so



Portuguesa's President: Homer L. Brown

that electricity from hydro sources is scant. Portugal has been solving the problem by buying power—at high rates—from other countries. They've accepted the idea that a better solution, one that in the long run is more economical, is to use gas turbines that offer advantages in meeting peak loads and that can be delivered to the site almost ready to go.

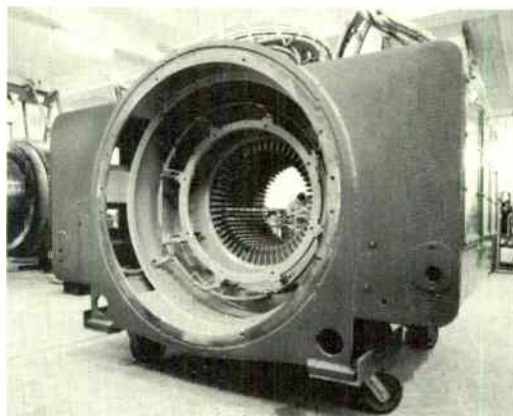
- Stabilization of systems—when our gas units aren't being used to generate power they can be used as synchronous condensers to increase the power factor in the region's system.

So, we've made a start on a whole new area of technology here. If these first gas turbines work out as well as we expect, we foresee that Portugal will find uses for other units.

Another product line that sells in Portugal is mobile radio. European producers simply haven't moved into the market selling systems instead of equipment, or with the high degree of reliability and many special features as the Company's Communication Systems Division offers, so again we have an edge.

Similarly, outdoor lighting has gone well. Most of the main streets of Lisbon are GE-lighted. So are a number of the great landmarks, such as the ancient Lisbon aqueduct and the Moorish fortress in Sintra. GE Lucalox is giving us a new competitive edge in going after further sales of our lighting systems.

And our medical systems shouldn't be overlooked. Here we benefit from being a part of the General Electric world system—from be-



Continuing electric iron production... but growth emphasis is on industrial, including Service Shop above...



...and on selling advanced technology products such as lighting for Lisbon's aqueduct.

ing able to offer products supplied by the Belgian facility and from GE Española's medical operations, as well as from the U.S.

As for GE Portuguesa itself, it's in a transition period, moving from a predominantly consumer-goods base to an industrial one. We had been supplying appliances, most of which were manufactured by General Electric's Italian affiliate. But the sale of the consumer-goods portion of the Italian operations required a new strategy for us as well. We're continuing to produce electric irons in Lisbon, but otherwise have begun to phase out as a supplier of consumer goods to Portugal.

Instead, we're building a very successful Service Shop operation and are expanding our role as a supplier of components. The Service Shop, located near Lisbon, is meeting a real need in the industrial growth of Portugal and has been very successful due to the repair technology supplied by the Apparatus Service Business Division.

In components manufacture, we've won U.S. contracts and are looking forward to being a

supplier to European countries. Portugal is plainly planning to become a partner in the European Economic Community. When that happens we should be in a good position to expand.

Personally, I consider my three years in Lisbon an invaluable experience. I came to this job after years in the Service Shop business, directly from managing the Service Shop in Salt Lake. The thing about my present job, as the only American among some 150 Portuguese employees, is that it provides experience in so many different areas. Where else would I have to switch so quickly and often over so broad a range of activities—from government relations to banking negotiations to the nitty-gritty of getting production out the back door? Also, the challenges presented by a different culture, a different language and a different mentality inevitably broaden and enrich one's outlook. I can't imagine another assignment that offers so many opportunities for personal growth, and I wouldn't trade these past three years for anything. **W**

Area Councils: new name, new look

General Electric has 86 new ways to overcome the disparate pull of diversified operations and to maintain a "One Company" approach to its markets and its relations with key publics.

They're called Area Councils. The 86 of them are spread from sea to sea and vary in size from the Connecticut Council's 151 members to Boise, Idaho's nine. But they push toward a common goal: to provide an integrating mechanism that will improve each area's communications, sales coordination, and public affairs effectiveness.

The new Area Councils haven't been started from scratch. Rather, they're an outgrowth and enlargement of the long-existing Marketing Councils. It happened this way:

A year ago, at the initiative of Corporate Public Relations VP Douglas S. Moore, Marketing Consulting Service specialists in New York undertook a whole new look at the Marketing Councils. These had been formed over the years primarily to give field salesmen a means periodically to compare notes, pool their knowledge and, hopefully, help each other tap sales opportunities that might otherwise be missed. The MCS study sought the opinions of field sales GMs, Regional VPs, and others, making it plain that here was a chance to shelve the Councils if they weren't worth sustaining.

Instead, the six-month study turned into a whopping vote of confidence. What should happen to the Councils, the consensus held, was not that they should be abandoned or curtailed; they should be expanded and revitalized.

Why, for instance, couldn't they help field salesmen broaden their knowledge of the Company? Provide the salesman a channel for learning about personnel development and training opportunities? Point up community activities offering both meaningful involvement for the individual and good will for GE?

The Councils could, and should, do these things, the study indicated. They should, in fact, cover so broad a spectrum that the name "Marketing Council" was no longer appropriate. Thus the new name "Area Council" is more than a semantic change; it sums up a new mission, new objectives, new sets of guidelines.



Time to compare notes...and hear RVP Frogue

A *Monogram* visit to a recent session of the Dallas-Fort Worth Area Council showed how the new concept is working. At the meeting: 72 GE people representing 50 Company components operating out of 39 separate locations. Understandably, the first hour was given to the old and primary function of comparing business notes and exchanging news about upcoming contracts and new area projects.

But with Area Council Chairman Ted Quinlan presiding, the meeting quickly turned to its other, broader purposes. Joe Canning gave a report for the Minority Relations Committee. Joe Thornburgh told of 1972-3 plans for the Council's sponsorship of Junior Achievement and introduced the four Company advisors. Joe Synar outlined plans for United Fund and Constructive Citizenship participation. The Regional VP, Bill Frogue, teamed with Chairman Quinlan to present the latest Best Buy Award to Industrial Sales Division's Jim Rockwell.

Then the meeting fulfilled the Council's goal of helping its members broaden their knowledge of the Company by having guest speaker Dick Turner present "An Overview of the General Electric Supply Company." Frogue himself added a wrap-up on corporate-level highlights.

"Seventy GE guys have gone their separate ways," Bill Frogue said afterward. "But if this Area Council is doing what we think it's doing, they left here with a renewed sense of 'One Company' that will carry over into their daily work. It's a great help to the sales representative to sell not just a line of products but the spirit of being a knowledgeable part of a great organization. I'm sure I can speak for the other RVP's in saying that we're finding the Area Councils to be new centers of enthusiasm for General Electric and new resources for cohesion and unity." ■

CORPORATE BRIEFS

Seven of IR's 100—the hundred most significant technical achievements of 1972 selected in the competition sponsored by Industrial Research, Inc.—are General Electric developments. Once again, the GE total tops that for any other competitor. The winners include Lamp's "ELH" Quartzline reflector lamp for photographic projectors, Plastics' Valox^(T) thermoplastic polyester; a joint award to Semiconductor Products and the Research and Development Center for "GE-MOV" varistors, and four R&D Center developments—a new nitration process, stretchable biological filters, metalplating on plastics, and the nutrient reclamation process for converting animal wastes into a feed supplement.

BWR/6 orders pick up: Just two weeks after the Mexican Government selected General Electric to supply the nuclear system for Mexico's first nuclear plant, GE was awarded orders for twin reactors from the Potomac Electric Power Company. The reactors will be of the advanced BWR/6 design, introduced by the Company's Nuclear Energy Products Division earlier this year. The \$875-million-dollar PEPCO order brings to seven the number of boiling water reactors ordered this year.

GE retirees make news: Dr. Katherine Blodgett, retired research scientist, received the Photographic Society of America's Progress Medal for 1972, in recognition of her work in measuring the thickness of films and new development of non-reflecting "invisible" glass... A new book, *The Marketing Mystique*, published by the American Management Association, is the work of E. S. "Ted" McKay, former member of the Company's corporate marketing staff.

Double honors have recently been garnered by the Company's share owner relations programs. In this year's *Financial World* competition, the Company's 1971 Annual Report took one of 100 bronze "Oscars" for being "Best in the Electrical Manufacturing Industry," but also won one of ten silver Oscars as the best among all electric and electronic com-

petitors. Earlier, General Electric was cited by the Financial Analysts Federation in recognition of its "excellence in corporate reporting." Write on!

Bake a fortune: General Electric employees and their families are eligible to compete for two \$25,000 grand prizes by submitting recipes to the 24th annual GE/Pillsbury Bake-Off. Also, a new category is for the best recipe cooked by microwave energy only. October 31 is the deadline. Entry blanks are at groceries or GE appliance dealers.

1972 Product Listing, 164 close-packed pages of information on who makes what and which sales and service organization handles it, has been published as an aid in serving customers better. Order publication MS 5-2 from the Corporate Publication Warehouse, Building 2, Schenectady, N.Y. 12345.



25 millionth visitor to General Electric's Carousel of Progress exhibit at Disneyland in California was recently recognized by Regional Vice President Harry M. Lawson (left above), with Goofy and other Disney characters as witnesses.

The visitor: Mrs. Marion Freeman, an Escalon, Cal., housewife, part-time beautician and mother of three. Lawson presented her and her family with a Porta Color TV set, Toast-R-Oven[®], and a digital clock radio.

The General Electric pavilion drew its 25 millionth visitor in its fifth year at Disneyland, adding to the 16 million who saw its cast of 32 "audioanimatronic" figures acting out the decades of electrical progress at the New York World's Fair.

PRODUCTS

LUCALOX: SEVEN YEARS AFTER

When it was announced in October 1965, General Electric's Lucalox® lamp was billed as the precursor to the "Third Age of Light"—as important as incandescent and fluorescent lamps had been before its development.

Today, seven years after its introduction, has Lucalox lived up to such claims? On the following pages, photographs of Lucalox applications, on location in great cities of the world, provide an affirmative answer.

In their varied applications, Lucalox lighting systems are making significant social and commercial contributions. By brightly lighting streets, highways, and parking lots, they are helping reduce traffic accidents, auto thefts, and crime. When used to floodlight buildings, monuments, and landscapes, they are enhancing the nightscape. In industrial applications the lamps are helping to increase production, improve morale, and curtail accidents. By illuminating playgrounds, beaches, and parks, Lucalox systems enhance the after-dark enjoyment of sports and recreational activities.

How did it all start? Development of Lucalox lamps stems from research dating back to 1954 at the Company's R&D Center. "Lucalox is another example of completely unexpected results from basic research," reports R&D Vice President Dr. Arthur M. Bueche. "As a result of wanting to understand one of man's oldest industrial processes—sintering—one of our ceramists achieved a very pure aluminum-oxide material that was free of internal pores and, surprisingly, turned out to be translucent. It was the only material devised that can contain high temperature sodium vapor without disintegrating while spreading the light in an acceptable color tone."

Two years later, Lamp Business Division engineering managers learned of the sintering experiments and requested development of a translucent ceramic for use in high-intensity-discharge lamps (H.I.D.). Even after this was achieved, major Lamp Division technological breakthroughs were required before this concept proved feasible. However, the resulting lamp soon became the most efficient and economical source of white light in the history of artificial lighting.

What's the outlook for Lucalox? The *Mono-gram* asked Henry H. Marvin, general manager of GE's High Intensity and Quartz Lamp Department. "The demand for H.I.D. lamps (mercury, Multi-Vapor®, Lucalox) is increasing at an annual rate of 15%, and already Lucalox is the star performer of the H.I.D. line," he reported. "Although these sources represent only 10% of the large lamp business, H.I.D. lamp sales are growing faster than the rest of the industry and are expected to double within the next five years."

Of the reasons for the great increase in popularity of H.I.D. lamps, Marvin explains that "one has to do with the performance characteristics of the new light sources; the other with the customers' need for high levels of light which the lamps can provide more economically than has been possible in the past. In total, H.I.D. lamps offer a remarkable new set of choices for designers and users of lighting systems."

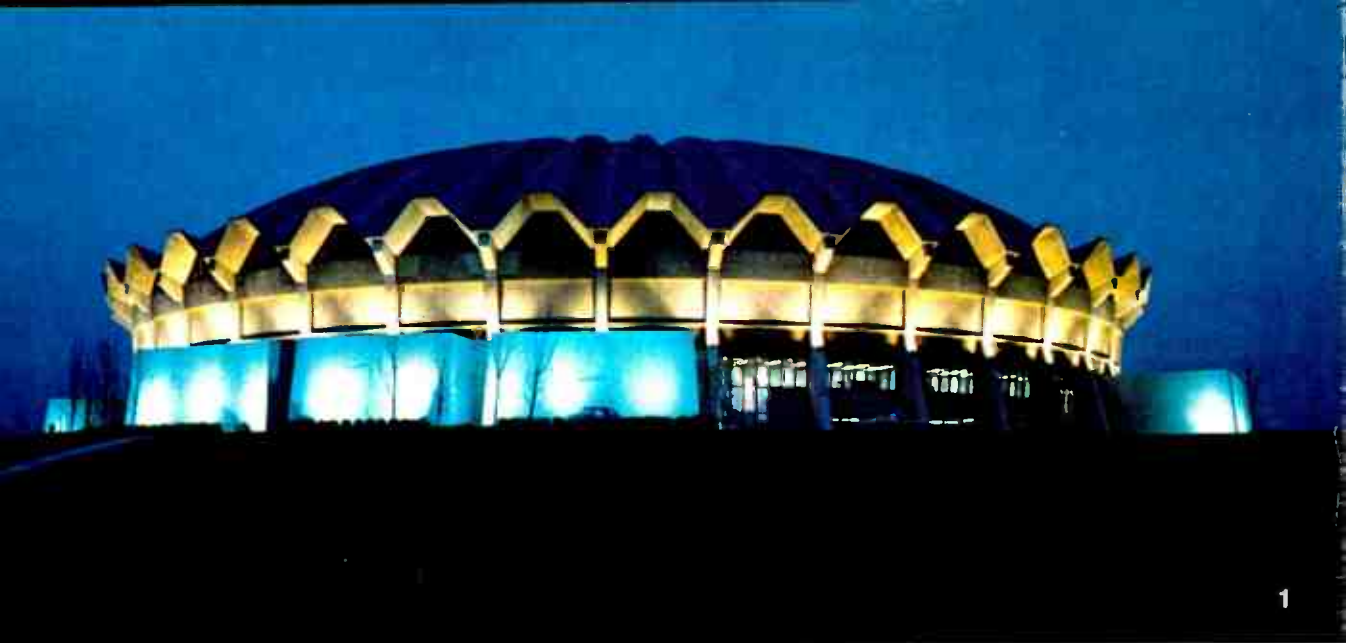
A prime mover in marketing Lucalox has been GE's Lighting Systems Business Department, which has innovated a series of luminaires to take advantage of Lucalox and hence stimulate additional applications. "Because of seven years of experience in ballasting and controlling this light source in our luminaires," explained Philip R. Milroy, general manager of LSB, "today's lighting systems are more efficient, economical, and durable than ever before. We expect Lucalox lighting systems to continue to have a major impact on most lighting markets."

Lucalox took another step forward last year with the introduction of a new 1,000-watt lamp that sets new records for producing light efficiently and economically. The new high-pressure sodium lamp has an initial light output of approximately 130,000 lumens and makes possible a variety of new lighting applications for LLBD and LSB.

In short, Lucalox at seven is fulfilling its predictions and is well on its way to producing, worldwide, the "Third Age of Light."

LUCALOX LIGHTS THE GREAT CITIES:
Washington's Pennsylvania Avenue (right), route of the upcoming inaugural parade.





1

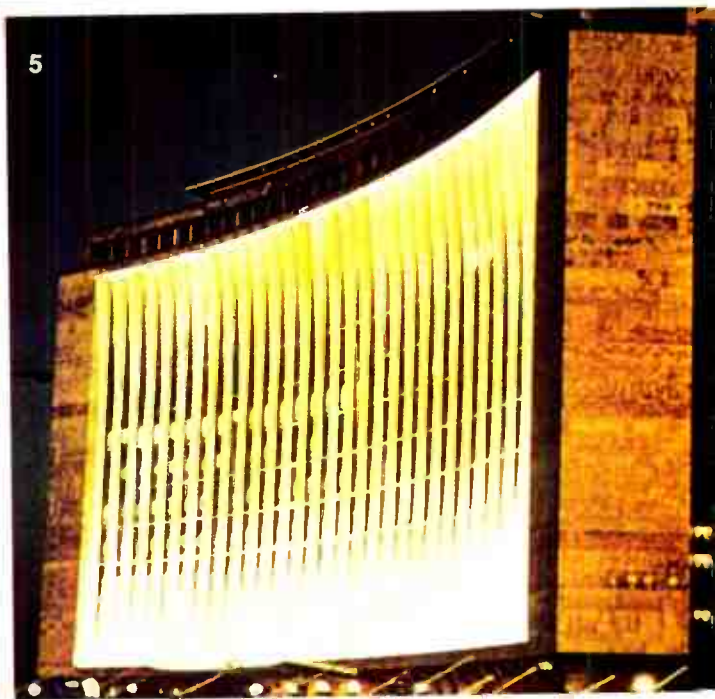
LUCALOX (continued)

The golden-white glow of General Electric Lucalox lighting systems is becoming increasingly familiar in diverse spots around the globe. Pictured are several examples of famous cities and landmarks illuminated with the 'star' performer of the Company's Large Lamp Business Division's high-intensity-discharge lamp family:

1. University of West Virginia's new fieldhouse
2. Downtown Singapore
3. Picasso's sculpture *Colossus* in Chicago
4. New York's St. Patrick's Cathedral
5. Philippines office building
6. Historic buildings in Savannah, Ga.
7. Main thoroughfare of Bogotá, Columbia 



6



In the new models: four main areas of General Electric contributions

1. LAMPS ▶



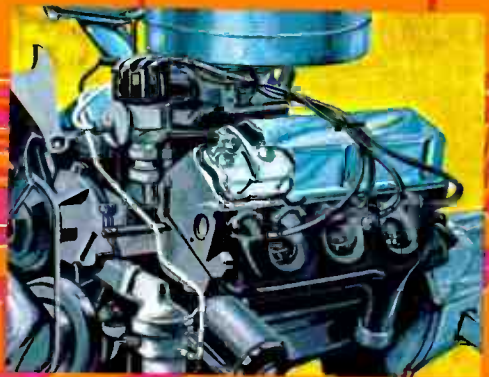
2. PLASTICS ▶



3. ELECTRONIC COMPONENTS ▶



4. SILICONE CHEMICALS ▶



1973 autos: General Electric broadens its input

While Detroit has long been among the top customers for General Electric's industrial production systems, about the only GE components that succeeded in getting into the cars themselves were, for years, the Company's headlamps and other light bulbs. Now this is changing. As illustrated at left, the Company is supplying three other major types of component.

With U.S. production of automobiles running around 10 million units a year, Detroit is a rich market for companies that can compete as components suppliers. It's a market that General Electric businesses are, as indicated by the following round-up, tapping with increasing effectiveness, aided by the auto makers' heightened interest in components that can add to safety, reliability, and environmental protection.

Lamps: miniatures, 'Plus-25' make inroads

General Electric's miniature lamps are being found in increasing numbers in the 1973 models as auto makers go to new types of indicator lights and new approaches to instrument clusters. Also, wedge-base miniatures, used in side markers and dashboard instruments, have au-



An extra margin of safety in night driving is available through the development of General Electric's "Plus 25" headlamps, standard on many 1973 cars. They enable a driver to see an additional 25 feet down the road.

tomated the loading of lamps into sockets—a development that has the great appeal of lowering assembly costs.

The Company's "Plus 25" headlamp, introduced in 1970, is now standard on many models. It produces 30 percent more light and throws the light 25 feet farther on low beam.

These innovations build on some 50 years of Lamp Division improvements in auto lighting. In the early years, one beam pattern took care of city and country driving. General Electric took the first step toward today's headlamp with the development, in the mid-20's, of the two-beam lamp.

In 1939 came GE's introduction of the sealed-beam headlamp, making all others obsolete. For the first time the bulb was eliminated, and the reflector and lens became one integral unit sealed together in a dust-free, moisture-proof atmosphere.

The dual, or four-headlamp, system that appeared on the 1957 models improved upper beam visibility. More important, though, was the greatly enhanced visibility with the lower beam, under which 85 percent of night driving is said to take place.

With the widespread use of "Plus 25," the seeing distance along the right side of the road has been pushed well beyond that of the original sealed-beam lamps, offering motorists a further broadening of safety margins that has saved untold lives.

Safety calls for GE engineering plastics

Detroit has found dozens of places in the '73's where tough General Electric engineering plastics, with their light weight and great strength, can do a better job than the metal or plastics they have replaced:

- Lexan® polycarbonate resin and sheet, tough as metal, clear as glass, can be seen shielding taillights, parking lamps, back-up lights, cornering markers, license plate lamps, and dome lights. Lexan has also found its way into less visible corners such as window stop mechanisms and interior door guides.

- Noryl® thermoplastic resins take shape as grilles and wheel covers. Inside the car, chances are increasing that a given instrument panel, rear window deck, or instrument cluster is molded from Noryl.

(continued on next page)

1973 AUTOS (continued)

- Genal® injection phenolics are turning up in ash trays, fuse boxes, solenoid covers, and various light and instrument housings.

- Valox^(T), the Company's newest line of thermoplastic polyesters, has unusual heat-resistant properties that are finding use under the hood as distributor caps and radiator valves, as well as in side window louvres and windshield wiper gears.

Electronic components on the threshold

With electronic ignition systems already standard on some models, Detroit is verging on a greatly expanded use of electronic components. General Electric's readiness is accentuated by the use of GE semiconductor devices in four classes of systems in 1973 autos:

- Entertainment systems — in AM radios, AM/FM stereo radios, and stereo tape players.
- Safety systems — in anti-skid devices and rear window defrost controls.
- Emission control systems—in electronic ignition and electronic spark advance.
- Control, power, and display systems — in voltage regulators, automatic headlight dimmers, anti-theft systems, and electronic speed controls.

The ultimate goal, toward which all car makers seem to be working, is a computerized adaptive control system for the entire engine—one that senses, identifies, and eliminates excessive effluents in the exhaust by changing the inputs. It's the car makers' best hope for complying with the Government's regulation clean-

ing up pollutants in the exhaust by 1975.

Silicones improve autos' reliability

The competitive drive of manufacturers to produce cars that are safer and more reliable creates dissatisfaction with ordinary lubricants, brake fluids, and rubber products. Result: an increasing acceptance for General Electric's silicone chemicals wherever resistance to heat, vibration, and moisture is a critical consideration.

Silicone fluids are lubricating heater doors, windshield wiper motors, fan clutches and bearings, disc brakes, and accelerator cables. They're also present in some shock absorbers and impact-absorbing bumpers. Down the road: silicone brake fluids, now being tested in racing cars.

As resins and chemicals, GE silicones are being used in engine paints, glass primers, and fiberglass tire cord coupling agents.

Room-temperature-vulcanizing (RTV) silicones are seen encapsulating electronic ignition systems and the connectors for headlights and taillights. They're sealing vinyl tops, windshields, and the rear windows of convertibles. In the engine, they're rapidly becoming the material of choice for formed-in-place gaskets on intake manifolds, valve covers, and push rod covers. As adhesives, they're sticking sideview mirrors and emblems on cars.

The Company's offerings in silicone rubber have been formed into crankshaft seals, ignition cables, radiator and heater hoses, and other places where a tougher, more heat-resistant rubber is desirable.



Things to come: the side windows of an experimental safety vehicle developed for the Department of Transportation by Fairchild's Republic Division are made from General Electric's Lexan® MR-4000 sheet. The plastic glazing material is strong enough to keep passengers from being thrown out should an accident occur, yet flexible enough to "give" on impact, thus reducing the chance of injury. ☐

The season for innovation

HOUSEWARES' SELF-CLEANING IRON

The boost that General Electric's range business received from its innovation of the P-7 self-cleaning oven is legend. Now comes Housewares with the self-cleaning iron, looking for the same kind of competitive upsurge.

Meeting the press in New York's posh Plaza Hotel, Housewares VP John S. Chamberlin called the F-110WH "the most significant innovation in electric irons since General Electric introduced the spray feature in 1957."

The result of four years of research, the iron will, at the press of a button, flush water from the iron's tank out through the steam vents. Accompanied by steam, this combination carries away mineral deposits, sediment, and 'int.

The new feature enables the iron to use tap water, to limit the build-up of mineral deposits in the water chamber that cause a loss of steaming effectiveness, and to check the "brown spots" that can come from discharges of charred lint.

Housewares gives the iron an added significance. Says Chamberlin: "It is an indication of the resurgence of the Housewares Business Division as the leader in the electrical housewares industry."



The new Whoosh, demonstrated by Marty Rising

HOTPOINT'S NEW LINE

In keeping with Hotpoint's practice of introducing significant improvements as they can be factored into production, the most recent innovations were previewed to N.Y. press representatives on September 21. "We had so many new and exciting products coming all at once that a full-scale press briefing became

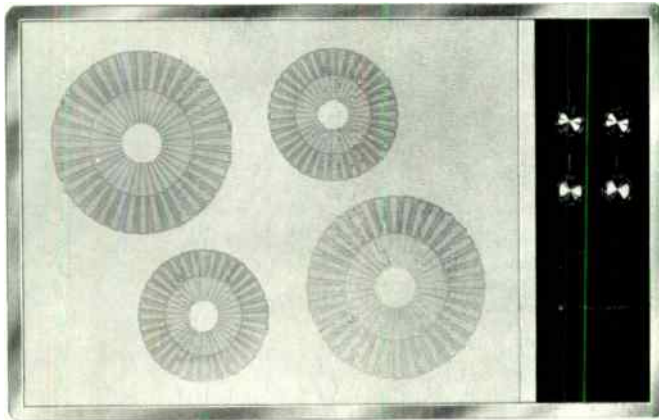
essential," explained Gordon L. Koppert, manager of Hotpoint's Dealer Sales Operation.

Included in the preview were 18-pound-capacity automatic washers, a restyled 30-inch range line, compact portable dishwashers, a retail-oriented Disposall® food waste disposal, and a Smoothline™ glass-ceramic cooktop.

New portable washer



One-piece glass cooktop



THE BUSINESSES

PRODUCTIVITY: GE EXHIBITS NEW WAYS TO IMPROVE IT

Lagging productivity in the U.S. is a problem that feeds other problems. It has made inflation tough to bring under control. Its upward pressure on the prices of U.S. products has opened American markets to enormous inroads by overseas competitors. This in turn has contributed to naggingly high levels of unemploy-

ment, particularly among minority groups. Internationally, sluggish increases in U.S. output per manhour—for example, U.S. factory productivity climbed only 10% while that of Japanese industry soared 90% during the same period—have been a factor in plunging the U.S. trade balance to its first deficit since the late nineteenth century.

These facts threw an especially serious light on the 1972 International Machine Tool Show, held recently in Chicago. Occurring every second year, the show is *the* place to exhibit any



"Carbo," the human robot, describes Carboloy Systems' approach to providing customers with the best match of productivity and costs.

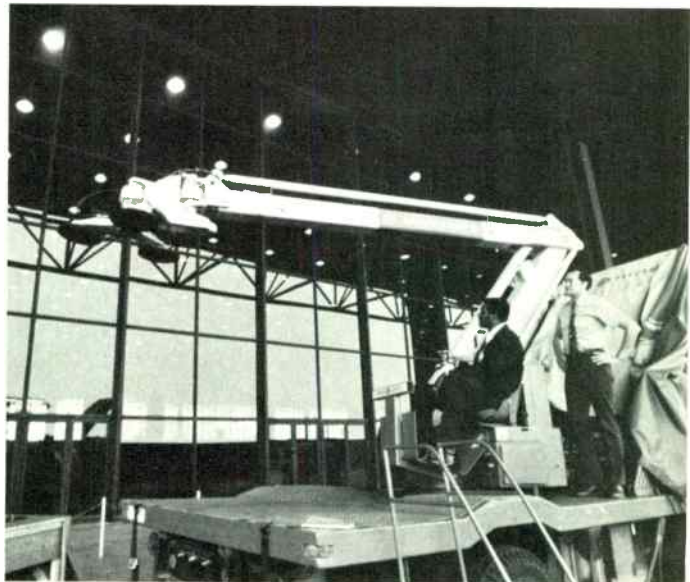


GE Borazon[™] super-abrasive achieves significant time and cost savings in precision grinding of hardened tool and die steels.



New spindle drive utilizing latest semiconductor technologies offers machine tool users a new diagnostic circuit for quick troubleshooting.

Man-Mate[™] industrial manipulator, duplicating the motion of its operator's arms, increases productivity in materials handling.



new ideas for increasing productivity. This year's show was too big to be contained in McCormick Place, the world's largest exposition center under one roof. It overflowed into the International Amphitheatre five miles away.

General Electric was there, in a large, diverse, and innovative way. Among U.S. machine-tool producers, a visitor could find the Company's components in almost every exhibit: General Electric drives, controls, tooling systems, relays, switches, Lexan® shields, instruments, etc. Overseas exhibitors, representing some 50% of the numbers and about 35% of the space, showed some beginnings of penetration for GE components. It was evident that the jobs of a great many General Electric people depend on helping others do their jobs better.

GE ingenuity also showed itself in the Company's entries in the show. Standing out as a crowd pleaser was Carboloy® Systems' unique way of drawing the public's attention to its message: an actor who so perfectly portrayed an electronic robot that he fooled even the experts. The passages of "Carbo" through the hall invariably drew a Pied Piper following that ended up at the Carboloy booth, where the prospective customer learned about "New Directions in Carboloy Products and Services."

But the top stars for General Electric were the innovations in productivity shown in the exhibits themselves. Shown here are some of the Company's developments to help customers boost productivity, cut costs, and compete more vigorously—show-stoppers, every one. ▮



An extensive selection from GE's line of over 10,000 general purpose control devices was on display.

Latest in the Mark Century series of NC equipment, the "soft-wired" 8500 (below) optimizes productivity and machine flexibility.



The Mark Century 550 Series, a new low price numerical control, extensively broadens the range of machine tool applications.

GE LOGITROL Programmable Controller enables users to cut machine set-up time and generally reduce machine downtime.

MATSCO'S new approach to Government services

A company within the Company—that's how a new General Electric component is trying to tap more of the two-billion-dollar Government services market.

It's called the Management and Technical Services Company—MATSCO for short. A semi-autonomous unit within the Space Division, MATSCO is attempting to apply a flexible, mobile, low-cost approach to garnering new Government contracts.

The background is filled in by John R. Picard, who is both general manager of Technical and Operations Services Department and president of MATSCO: "General Electric has been a major participant in the growing government services area for over 70 years. The creation of MATSCO, dedicated solely to the services business, adds a new dimension to our competitiveness."

This service market, MATSCO believes, is many things, but it's always enormously competitive. In dollars, to be sure—but also in management flexibility, organizational mobility, and general adaptability. By establishing MATSCO General Electric has innovated a flexible tool to attack selected service markets while maintaining a strong tie to those resources that have put the Company among the leading technical organizations in the world.

What kind of government services? A good example is the contract recently awarded MATSCO by the Department of Labor. Under the contract MATSCO accepted responsibility for conducting the Memphis Job Corps Center. Of this new assignment the program's manager, John Ivers, said recently: "MATSCO will provide basic education and vocational training for 250 young men between the ages of 16 and 22. But we'll do more than just teach school. These kids are with us 24 hours a day, seven days a week. We supply dorms, medical and dental programs, recreation, counseling, job placement, and we interface with the community—all to the point of assisting in the de-

velopment of a better life for our students."

The contract follows the Company's earlier work operating the Clinton Job Corps Center in Iowa, as well as several contracts for VISTA training and volunteer recruiting.

General Electric and MATSCO realize that "the profitability of the Memphis contract is one of those intangibles you don't measure in terms of dollars. It is a measure of the Company's commitment to social responsibility along with profit objectives."

The MATSCO philosophy is that some needs are satisfied on a national scale by legislation and regulation—but when the need involves 250 youths seeking help, no legislation can solve that situation. The solution comes from one person talking to another—on a man-to-man basis. And that's what General Electric, in Memphis, via MATSCO, is attempting to accomplish.

Besides providing a basic education that will give each Corpsman a high school equivalency diploma, General Electric is committed to employ 5% of the graduates and assist Tennessee's Employment Service in recruitment of trainees and job placement of the corpsmen.

As illustrated at right, MATSCO's areas of primary interest include operation and maintenance, work management and control programs, technical documentation, and socio-economic programs. "We're ready to supply the full spectrum of computer software support," Picard says, "from systems analysis and mission planning for sophisticated space systems to strategic forward business applications. We're fully prepared to undertake 'turn-key' projects for complex technical facilities, including following-up operation and maintenance. Also, we can help with technical writing and can tackle a wide range of photographic and multimedia assignments."

Additional contracts currently on MATSCO's docket range from technical services in assembling, checking out, and launch-

WORK MANAGEMENT AND
CONTROL PROGRAMS

Memphis Job Corps

SOCIO-ECONOMIC
PROGRAMS


\$2 BILLION
GOVERNMENT
SERVICES
MARKET

OPERATION AND
MAINTENANCE

TECHNICAL
DOCUMENTATION

ing of sounding rocket systems in support of NASA's missile research activities at Wallops Island, Va., to helping plan the most feasible way to operate the Connecticut solid waste disposal project awarded to General Electric.

MATSCO started life in Irvine, Calif., but is now in the process of transferring to Space

Division Headquarters in Valley Forge, Pa. "Expense is the deciding factor," Picard says. "To compete in the arena we've selected requires real concentration on costs while also developing managerial and other skills—and we think we've got the right combination to succeed." 



"Wanna make GE the Best Buy
Cause we wanna do our best by you."

In 22 Company locations across the U.S. and reaching into Mexico, 22 young people are demonstrating what they mean by doing their best by people everywhere—and by General Electric people in particular. In a whirlwind of color, dance, and song, the troupe—drawn from the internationally known "Up With People" group of performers—are bringing selections from their own world-famed musical numbers and have included their own version of a Best Buy song.

The young faces shown here reflect the cast's diverse world-wide origins—including a cross-section of America, with members from the Deep South and the ghetto North, as well as representatives from Hawaii, Japan, and Europe. The troupe bring great zest to their theme of "people first," the human commonality that transcends race, color, creed, and national boundaries.

At the 22 stopping places on the "Up With People" schedule, General Electric people are being resourceful in making the cast's visit a centerpiece for Best Buy activities. As examples:

- Schenectady: It took three days and eight performances for "Up With People" to reach all the GE employees located in Schenectady. From "singing tours" of plants to outdoor park concerts, they provided a lively upbeat to Schenectady's fall Best Buy efforts.
- Albuquerque: "Up With People" troupe ar-

'Up With People': coast to coast



rived in time to kick off the Aircraft Engine Group's fifth anniversary in the state. Over 4,000 GE'ers and their families attended the two performances, and employees even organized a contest to determine which families would have the opportunity to host troupe members (in most cities the college-age cast members were guests in the homes of General Electric employees).

- Erie: Transportation Systems Business Division demonstrated a "One Company" view by going beyond exhibiting their own transportation products and other heavy goods and organizing a four-day Appliance Fair for which "Up With People" provided the kick-off. The Fair marked the first time in Erie that the full range of the Company's consumer products was displayed under a single roof.

- Lynn: Six departments entertained 10,000 employees and plant neighbors with two "Up With People" concerts. In between performances, the cast was treated to a tour of historic Boston.

- San Jose: GE's Nuclear Energy Products Division and the Company's motor plant at San Jose welcomed the troupe with a crowd of 5,000. With only three days to spare in the Bay Area before winging to Mexico, the singers held several "mini concerts" at NED plant locations to reach other employees.

In addition to their U.S. plant stops, the cast will make a special appearance at the Share Owners Information Meeting in Denver on October 10, before winding up their tour at GE Mexico, S.A., in Monterrey, on October 17.



ORGANIZATION CHANGES

BOARD OF DIRECTORS

Charles D. Dickey, Jr., *Chairman of the Board and Chief Executive Officer of Scott Paper Company, elected.*

Henry L. Hillman, *President of The Hillman Company, elected.*

CORPORATE

Marshall Bartlett, Jr., *appointed Vice President and Staff Executive—Corporate Strategic Planning, Corporate Executive Staff.*

AEROSPACE GROUP

Richard J. Farrelly, *General Manager—Urban Systems Programs Department.*

AIRCRAFT ENGINE BUSINESS GROUP

Brian H. Rowe *elected a Vice President of the Company.*

COMPONENTS AND MATERIALS GROUP

Ralph E. Nelson, *Manager—Electronic Components Finance Operation.*

CONSTRUCTION INDUSTRIES GROUP

Robert J. Rodwell *elected a Vice President of the Company.*

Raymond H. Rogers, *General Manager—General Purpose Control Products Department.*

CONSUMER PRODUCTS GROUP

Group Organization and Manpower Operation established: David K. Orselet, Manager.

INDUSTRIAL GROUP

Kristian H. Christiansen, *Vice President, appointed General Manager—Industrial Sales Division.*

S. Wellford Corbin, *Vice President, appointed Consultant to Group Executive—Industrial Group.*

INTERNATIONAL GROUP

Israel Mentcher *appointed President of the newly established General Electric ((USA) Asia Company, a branch of General Electric Technical Services Company, Inc.*

Christopher T. Kastner, *Acting General Manager—Europe Business Division.*

Awareness seminars: 'A basic shift of attitudes occurs'

By William Kermit Barclift

It's General Electric's policy to improve opportunities for minorities—to step up hiring people from the ranks of blacks, Spanish-surnamed Americans, Oriental Americans, and American Indians, and to improve the paths for them to move upward.

In broad generalities there are two ways to achieve these goals:

- By fiat, or external pressure—you *will* hire more minority people and you *will* supply them opportunities for upward mobility.

- From the heart, or as the result of internal willingness—you'll do these things because you want to, because you recognize the justice of giving minority Americans a hand up.

Across the Company today, operations are conducting special programs aimed at making progress the second way—through awareness and the strengthening of internal desires to extend equal opportunities to all. At present, over twenty manufacturing facilities have initiated and are running their own locally tailored Social Awareness seminars. In addition, GE's Management Development Institute has included cross-cultural awareness modules in its management training courses.

Recently this writer attended a Social Awareness Workshop, to gain a personal close-up of what happens and to report on the experience to *Monogram* readers.

This specific workshop was one of a series that have been conducted over the past two years by the Nuclear Energy Division at San Jose, California. The facts of social life in San Jose are that a large percentage of the work force are "Chicanos"—Mexican-Americans—and blacks. An effective working environment depends on a high degree of understanding among these minority employees, other employees, and supervisors. To this end, NED has instituted its two-day awareness workshops. To date, some 900 managers from all levels have attended, including virtually all managers in NED and GE's Motor Plant in San Jose, as well as sizeable numbers from other Bay area

and Power Generation marketing groups. Plans are now being formulated for participation by all NED employees.

So what happens? At eight a.m. on an August morning, 74 of us assembled at a downtown San Jose hotel for Session One. Included were 65 male managers, one female manager, three blacks, four Chicanos, and one reporter.

Coffee was served, but the mood remained tense. The laughter was nervous. Everyone seemed more or less uptight.

The group was integrated but only after a fashion. The whites were cloistered in separate groups; the blacks and Chicanos formed other circles. One was willing to mix in but was reluctant to take the first step.

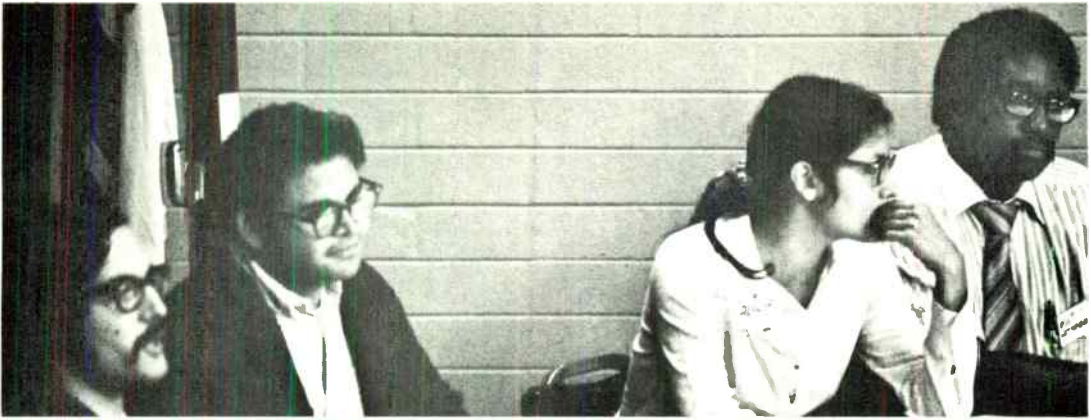
One white-shirted manager was quick to explain that he really didn't need awareness because prejudice just didn't exist where he grew up. Where was that—the Bronx? No, in a Western rural area. Then, just as the Workshop was called to order, the same participant pointed to one black and remarked: "Those big bushy hairdo's make me cringe. She'd need a wig to work in my shop."

It was the kind of comment and state of mind due for a strong shaking-up as the Workshop progressed.

The Workshop welcome was delivered by Britton W. Saterlee, manager of NED Relations



Awareness architect Royce Hubin opens workshop.



Encounters with minority resource participants (above) stimulate group discussions.

and Utilities Operation. "Our goal," he said, "is to educate managers about the obstacles our society has thrown in the face of minority group members. We want our participants to comprehend the differing values, mores, and cultural codes of persons of different backgrounds. If managers are to be effective in dealing with a multi-racial work force, they must understand that racism, conscious or not, is to blame for the situation in which minorities find themselves. Such awareness makes good business sense as well as being morally right. To fill the jobs that are becoming available, we must turn to those who have been misunderstood in the past—the unskilled—the educationally disadvantaged—the minorities."

Instructor input and lectures during the two-day session would be kept to a minimum, said Royce Hubin, NED's education and training specialist and architect of the Workshop. The emphasis would be on group and individual activities. "The value of the Workshop directly correlates to what each of you puts into it," he added. In the present atmosphere his words sounded ominous—how would each of us perform when it came our turn? We weren't racists—or were we?

Hubin outlined how the two-morning sessions would go. "Encounter" sessions would provide the main thrust. The blacks and Chicanos were here from the San Jose community as "resource people." Divided into sub-groups we were to face these people, hear them, argue with them, encounter the facts of their differences in viewpoints and life styles. Understanding would also be fostered by four films detailing different facets of racial problems, by minority speakers and panel discussions. And we would join in "role-playing" situations, in which we'd be actors in racially revealing skits.

My group, in its first encounter discussion, faced Sandra, our black resource member. She started letting us have it right away by talking about her problems in dealing with "Whitey." In her mind, Whitey causes problems by hanging up on superficial details. Things like hair-do's, for example. "Whites feel that an Afro haircut means militancy," she said, "when with me it's chiefly a symbol of racial pride."

Saterlee's distinction between conscious and unconscious prejudice began to come clear. No white participant there considered himself a "racist." Yet as the discussion with Sandra began to flow more freely, subsurface attitudes

(continued on page 30)

AWARENESS SEMINAR (continued)



Awareness is built by role-playing that puts participants in minorities' shoes...

started coming out in the form of such remarks as: "You know how they are... When blacks earn their rights like everybody else, rights will be given to them... Laziness is their main problem. They can't even get to work on time."

Healthy as it was to get these underlying feelings in the open, that first try at probing prejudices and discriminatory attitudes made only slight headway. Sandra, unsure of these managers, was on the defensive—as were we.

Two thought-provoking films, each dealing with a different aspect of the racial situation, were next programmed into the Workshop. The first, *Involvement*, follows a young black named Josh through repeated frustrations and insults—some real, some imagined, but all within Josh's frame of reference—as he seeks to make his own way as a telephone installer. Sitting alone in the company cafeteria, he overhears two supervisors mouthing the expected clichés that blacks are inherently lazy, shiftless, and irresponsible. He returns to work only to be approached by "Whitey," who tries to establish camaraderie with a race-oriented joke: "Say, Josh, have you heard about the colored gal who..."

The second film, *Mexican-American: The Invisible Minority*, dealt with the highly distinctive culture of the Chicanos and traced the causes underlying their present militancy. Especially memorable was a sequence showing a Chicano mother declaring fervently that she will not permit her children to suffer the same deprivations she has experienced.

Now when discussion resumed there was a perceptible difference. Talk was freer, less inhibited, less defensive. More importantly, there

was acceptance of the idea that problems exist. The managers present showed this by immediately beginning to grasp for possible solutions.

"Improve training programs and establish career road maps for minorities," said one. Another suggested closer liaison with educators to identify qualified minority group members. As ideas they weren't great, but as reflections of a fundamental change in attitudes—tremendous.

As we arrived to begin the next morning's session it was obvious that the opening day had done its work. The tension and edginess were gone. Managers and resource people mingled casually, chatting about yesterday's events. All were eager to get the Workshop started.

But discussion was held off until we could absorb more information and more insights. Merrill Hall, NED's manager—Professional Relations and Organizational Planning, presented an overview of the EO/MR affirmative action programs in NED and the Company. Two more films hit hard at specific areas of prejudice. Quizzes helped to pinpoint our individual attitudes on racial questions. Then came the role-playing.

The stratagem is simple. You're given several mimeographed sheets outlining not a script to be read but a situation and characters to be improvised. My assignment was to role-play a personnel man as he awkwardly attempts to relate to a 23-year-old black job applicant who has a good head and good potential but who avows himself to be in sympathy with the Black Panthers, lacks transportation, is skeptical about being able to get to work on time, and admits he's never had a real job before. The situation is complicated by my foreman, a



and by direct thrusts from EO/MR leaders.

rigid type who, in filling the available job, puts high priority on the usual virtues of being dependable and cooperative and of fitting in with the group. The foreman is convinced he isn't prejudiced—"Some of my best friends are Negro"—but he's equally unwilling to unbend from a set of criteria that automatically preclude the employment of the young black.

Even with amateurish improvisation, the skit succeeds. The audience laughs, but it is a rueful laughter, acknowledging the impact of truths striking home.

The second role-playing situation focused on a hypothetical manager who has just completed the Social Awareness Workshop and returns to work fired up to bring EO/MR affirmative actions into his operations, convinced that it's both good morals and good business. He calls his foremen together and quickly encounters reality, in the form of inertia, cynicism, or outright opposition. His most outspoken opponent is his oldest foreman, a man with 37 years of GE service who has weathered through the Depression of the Thirties—"and nobody mollycoddled us then"—and considers present EO/MR actions as the product of "bleeding hearts." His attitude is: "As long as the guy can do his job, I don't care if he's black or brown or green. If he can't do it, he can get out. I'm not going to hold his hand." To him, people are disadvantaged because they're too lazy and too used to living on welfare to get out and do a good day's work.

Again the audience recognizes very real and pervasive attitudes—rigidities in outlook that leave no room for adjustment to the needs of others of differing backgrounds, experience, and outlook.

The role-playing, it seemed to me, had the most significant effect on sensitizing the participants. The live drama pointed up to each of us our insensitivity to minorities, our semi-conscious or totally unconscious acceptance of rules and standards that work for us but that raise those terrible obstacles to the minority person, and the widespread lack of understanding that Britt Saterlee had referred to.

The Workshop was over. Had it been a success—had anyone's attitude changed? One can doubt that any enduring awareness can be generated in two days, yet it was certainly true that the participants in San Jose emerged from those sessions talking a different language and thinking in a different way. Participants discovered "blind spots" in their racial attitudes of which they were previously unaware. One manager said: "A person's outward appearance is not nearly as important in correctly assessing his capabilities as I used to believe." Another reacted more strongly: "This will go a lot further than its influence on my work—now I want to know what I can do as a private citizen to help improve existing social conditions."

But no matter how strong the response, there was change—a basic shift in attitudes occurred.

The best measure is in actual performance over the long run. Whether the Workshops contributed or not, the plain fact is that in NED since mid-1970 both new hires and promotions of minorities have taken a pronounced upswing. There's been significant improvement in numbers and as a percentage of total employment. These increases are most noteworthy in the ranks of professional and technical employees, where minority employment has trailed in the past. Managers are re-examining employment requirements to determine what is really needed to perform a given job. An outreach effort to select candidates on the basis of potential rather than on already meeting all the job requirements is becoming more the routine, less the exception.

Says Hubin: "If we can come to the point of accepting people for themselves without regard for outward differences, this alone will have greater impact on our society and our economy than any of us can imagine."

Hall concluded: "The best results are yet to come—not just in hiring and promoting minority employees but doing so in such a way that color or sex eventually isn't even a part of the hiring consideration. That's what equal opportunity really means." ■



GE on TV: "International Performance," new weekly music and ballet series presented through a grant by General Electric, will be televised nationally on the Public Broadcasting Service Thursdays at 9 p.m. beginning October 5. The series premiere will be Stravinsky's ballet "The Firebird." Shown here: artwork for the program poster and program guides—a water color by New York Artist Seymour Leichman.
