UPDATE

Expanded Employee Referral Program to run through 1982

"I just happen to have a lot of smart friends," said Harvey Lindenbaum, senior systems specialist and project leader, communications, Engineering Department, about the two successful referrals he has made through the Employee Referral Program. Harvey is $1,000 richer for his efforts but, he notes, "Quite frankly, the most satisfaction I got was helping the people I knew."

Jay Walsh, employee relations manager, southern region, National Sales Department, was a big winner too: "We filled 21.5 percent of our openings through the program for a total of 10 new hires. And they have come from throughout the southern region—from Dallas to Greensboro. It has been a great help to us," he went on.

The Employee Referral Program, which has been extended through 1982, began last May and has so far resulted in the hiring of 30 new GEISCO employees. For each one hired through the program, the referring employee has received $500 after tax.

"This year," said Tom McKinnon, manager, human resources, source development and programs, "not only have we extended the program through '82, but we will pay the bonus for *all* exempt employees hired and we have increased eligibility for awards to non-hiring employee rela-
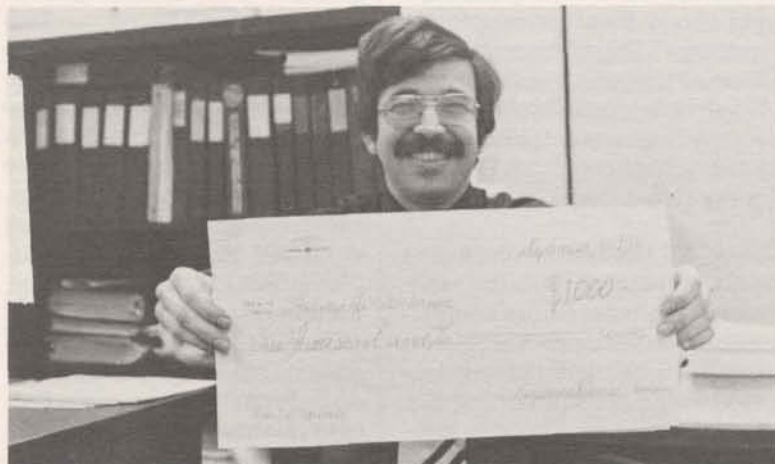
With a little help from his friends Harvey Lindenbaum is $1,000 to the good.

GE buys out Honeywell's interest in GEISCO

On January 4, 1982, General Electric Company exercised its option to purchase those shares of GEISCO stock owned by Honeywell. This buyout makes GEISCO a wholly-owned subsidiary of GE. Honeywell's 15.9 percent interest was purchased for an amount in excess of $70 million.

GEISCO was formed in 1979 as a joint venture that combined those Honeywell organizations with the computing services business of GE. Previously, Honeywell had been an independent distributor of GE's computing services in Europe and Australia. Honeywell had received its minority interest in GEISCO at its formation in consideration for the

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Interaction IV: future plans, past accomplishments

"We are in a terrific position for 1982. This year we will accomplish the most ambitious program of technology improvements ever undertaken by GEISCO in one year," GEISCO President Gregory J. Liemandt said during the recent taping of Interaction IV.

The planned technology improvements, the almost total refurbishing of our "factory floor," is one of the principal subjects of the newest edition of Interaction.

Taped at the end of 1981, Interaction IV features a clip from the New York Security Analysts meeting held last October and a segment taped at the Rockville Supercenter with Bob Hench, vice president and general manager, Engineering Department, and Tom Little, vice president and general manager, Systems Operations Department.

Bob and Tom outlined four major upgrades planned for the Rockville Supercenter in 1982—a switch from Honeywell disks to IBM plug compatible devices, upgrade of Level 66 processors to DPS870 processors, a major network upgrade which will allow entry into the VAN market, and a

swapout of IBM 3033s with IBM 3081s to assure high availability of MARK 3000 ™ Service.

"These programs are the single, biggest step that we've ever taken," Bob said. "When we're finished, we really will have taken a giant step forward in the technology and position ourselves for the dramatic changes that will take place in the rest of this decade."

The participants in the question and answer session with Greg Liemandt, who was joined by Bob Hench and Tom Little, were: Lin Bower, Marketing Department; Charles Carter, Systems Operations Department; Ronnie Genser, National Sales Department (Atlanta); Bob Jessup, Engineering Department; Tom Kent, Programs Management Department; John Roeder, Marketing Department; and Mark Sillcox, National Sales Department (New York City).

Some of the issues discussed by the panel and participants were: plans for future acquisitions, career opportunities in acquisitions and the integration of those acquisitions into the GEISCO family, the possibility of an engineering development center in the U.K.,

how the recession has affected GEISCO, and our most outstanding accomplishments in 1981.

Class of '81

"It was a very intensive, very thorough class," said Kevin Gardiner, one of the new associate field service representatives who graduated from the MARKLINK ® Terminal maintenance class last month.

Tom Little, vice president and general manager, Systems Operations Department, was on hand in Dallas to present eight students with diplomas and offer congratulations. This special group of field service reps is the first to finish GEISCO's new in-house MARKLINK Terminal maintenance training class. They are: Garry Ferris, San Francisco; Emmet Hinger, Los Angeles; Frank Wiczkonski, Houston; Kevin Gardiner, Tampa; Garry Shiffett, Rockville; Randall Hunsicker, Charlotte; Tom Snyder, Chicago, and Brian Hutchinson, Calgary, Canada.

"This event marks two significant changes in our maintenance program," said Tom Taylor, manager, network and field service, Systems Operations Department. "The first change is how these individuals were recruited. In the past we have hired experienced field service personnel. This formed the basic structure which we are now building on. This new group of associate field service representatives were recruited from a highly regarded technical school. They will form our second tier, the senior field service reps of the future," Tom explained.

"The second change is in our training program. In the past, we've always sent the trainees to an outside vendor for electronics maintenance training. When they were finished there, we (GEISCO) had to provide additional training to familiarize them with our own machines," Tom said.

That's no longer the case. The students received hands-on training on MARKLINK Terminals as well as customer interface training during the four week course in Dallas. "They're completely ready to handle customer problems on the MARKLINK Terminals—from hardware, to operating software, to communications protocol," Tom said.

"We have a commitment to offer total maintenance service on all our products. Right now we have approximately 50 field service reps in varying degrees of becoming fully trained. Some are MARKLINK experts, some are data communication experts," Tom said. "Our goal is to be full service, meaning all the reps will be able to work on any maintenance problem, by mid-'82."

Tom explained that this goal will be accomplished by this new intensive training program. The net result will be better customer service and quicker response. Average response time to customer problems has already improved 20 percent. Average response time from notification of the problem to implementation of the solution is currently only six hours. "GEISCO's customers don't have to play the shell game. If they have a hardware, software, or communication problem, it should be fixed on the spot," Tom said.

The next in-house class will be on data communications later this month, and another MARKLINK Terminal training class is scheduled for February. Students will be chosen from current field service representatives and technical schools around the country.

contribution of its European and Australian computing services marketing & distribution organizations to GEISCO.

When Lawrence A. Bossidy, executive vice president, Services and Materials Sector, announced that GE would exercise its option at the Security Analysts Meeting in late October 1981, he said that the decision was based on GE's evaluation of the high growth and profitability potential of this computing services business.

"We believe that dynamic businesses like these with demonstrated profit and growth potential will become GE's core business of the future," he said in the announcement.

Milestones

Congratulations to the following headquarters employees celebrating service anniversaries in January.

Richard Mankowski	30
Edward Seibert	15
Charles L. Bodine	5
Ignacio Huerta	5
Jerry P. Collins	5
Mary Ellen King	5
John W. Strauch	5
Fletcher E. Honemond	5

The check is in the mail

Maybe you'll use it for college expenses. Or possibly to create an IRA, take a great vacation, or maybe even buy a new house.

That's what Phyllis Bryant, project manager, data terminals program, Programs Management Department, is doing with her Savings and Security Program "payout" currently being sent to S&SP participants.

"The payout couldn't come at a more opportune time," Phyllis said. "Moving into a new home is a very expensive proposition and this extra perk will certainly help out." Phyllis is one of many GEISCO employees receiving payouts from the 1978 S&SP holding period.

"If you had savings in the 1978 holding period, then you may already have received some of the Savings Bonds or securities due you," said Leon Golinski, manager, personnel accounting. General Electric stock and cash, U.S. Savings Bonds, and Statements of Accounts showing ownership of S&SP Mutual Fund units are in the mail. (Because of mailing restrictions on the number of bonds which can be mailed in a single envelope, U.S. Savings Bonds may come in more than one envelope.

Leon reminds S&SP partici-

pants that, since the Holding Period Interest Fund began only in 1980, there will be no securities mailed as a result of that investment until 1984.

He also pointed out that the Tax Information Statement on this payout would be on the way to participants about the end of January. "It's last year's distribution—the one in January 1981—that should be reported on the federal income tax returns most people will be filing soon. Therefore, participants who received a payout in January 1981 should dig out the Tax Information Statement they received at that time. However, for those who may have misplaced the 1981 state-

ment, this year's Tax Information Statement will include information on both 1981 and 1982 distribution."

With the payout disbursement coinciding with employees eligibility to establish Individual Retirement Accounts (IRA), employees may want to consider putting some or all of their payout into an IRA.

If you have moved within the last 12 months and haven't received your payout by the end of January, it could be that Employee Savings Operation in Schenectady has not been notified of your new address. If this is the case, simply send a letter stating your name, social security number, and your old and new address to— Employee Savings Operation, 1 River Road, Schenectady, NY, 12345.

The house that S&SP built: Phyllis Bryant surveys the plans for her new house.

It takes a lot of CMMDs to make an AHRR

"The annual updating of every employee's CMMD (Corporate Management Manpower Development) provides each of us with the opportunity to review our experience as well as list our goals, strengths, and plans for growth and development," said Dan Johnson, manager, employee relations, Programs Management, Business Development, and Legal Operation Departments.

Dan, who is the 1982 project leader for the Annual Human Resource Review (AHRR), went on to explain, "The fact that the entire General Electric Company goes through this process is a measure of its importance." He noted that filling out or updating CMMDs is just the beginning of a lengthy process that ultimately reaches the corporate level.

"After each employee completes his CMMD-2 (the internal resume) and CMMD-3 (Qualification and Development Summary)," Dan continued, "the manager completes the reverse side of the CMMD-3. Then employee and manager meet to discuss the comments each has made on the form."

This discussion provides the forum for realistic evaluation of the employee's expectations and ambitions and can be especially helpful to the employee in determining what needs to be done to accomplish his career goals. This process is repeated through each management level at GEISCO, then on to Sector, and finally to Corporate.

The most recent CMMDs are available from Ski Aller in the Mail Room at the Maryland Center.

Joe Scandone, manager, human resources systems, works out the details of the upcoming AHRR with Dan Johnson (right).

Cost Centers change

Due to the recent reorganization many cost center numbers have changed.

"It's extremely important that correct cost center numbers are indicated on invoices we receive. We don't want to charge a New York office for an expense incurred in Tampa," said Roger Marcus, manager, accounts payable, accounting operations, Finance Operation.

Many field locations now have new cost center numbers. A complete list of all cost centers is available on the AG25 catalog—run COSTLIST, instructions are provided.

A new image for customer service

"Traditionally, customer service has been organized around the communications, foreground, and background service areas. In the coming months, we plan to align our organization with Field Sales, Programs Management, and Marketing Departments to support the TMO environment," said Ron Rasmussen, manager, customer service.

That's not all they're planning to do in customer service. Plans for 1982 also include significant changes in the areas of quality awareness, hardware additions, productivity improvements, and even some cosmetic changes.

Perhaps the most significant of the planned changes is the restructuring of the customer service group to focus resources on specific customer markets and functional needs. Specialized industry expertise will address the particular needs of the identified TMOs. "Under the new structure we will have a manufacturing support unit. We'll have order service, energy and transportation support units. We'll have banking and financial and general

business support units. And we'll have a delivery system support unit to handle MARK III® Service, MARK 3000™ Service, Distributed Data Processing (DDP), and network related service needs," Ron said.

Ron cited several advantages to be gained from the new structure. "From a customer standpoint, it means customers should be dealing with the same two or three specialists whenever they call— more personal service. The customer service reps should then be familiar with the account and the industry. From a headquarters viewpoint, we will be aligned with the rest of the company, so when Marketing and Programs introduce new products, we'll be ready to handle them," he said.

In conjunction with this realignment is an increased emphasis on productivity. Installation of an automated telephone system for handling incoming calls is planned to be completed by March. Ron expects a 25 percent increase in the number of calls handled once the new system is in place. "The call analysts won't have to manually log in calls, which will save time. All customer information will be entered via the push button phone— the customer's name, phone number, date and time of the call, length of the call, cata-

log ID, the region the call is coming from, even the customer's problem will be entered by special code," Ron explained. The result will be computer generated daily output reports to be used to track efficiency. "We will also be able to see if there is any connection between certain types of problems and the areas they exist in. Then we can provide training, staffing, or whatever is necessary to handle them," Ron said.

New terminals will be added to the customer service area which will also result in improved productivity. "We'll have the capability to simulate customer problems better by having hardware exactly like the customer's right here," Ron said. "Customer problems should be handled quicker and more efficiently."

Also part of the new customer service image is a stronger focus on quality. Plans call for Customer Quality Audits involving representatives from customer service and the field talking to the customer to define areas where improvements in quality can be made. "Actually it will be a measurement of ourselves," Ron said. "We'll ask the customer questions about customer service quality, how we can improve it. The net result should be customer satisfac-

HP Fund interest rate for 1982 savings:16-1/4 percent

An expected annual rate of interest of 16¼ percent has been announced for 1982 savings under the Savings and Security Program's Holding Period Interest Fund. The rate will apply to HP Fund investments in 1982, and for each year of the holding period for those savings ending January 1, 1986.

In announcing the new expected interest rate, Tom Burns, manager of Corporate Employee Benefits, reminded participants that it applies only to 1982 savings and the earnings from 1980 and 1981 savings invested during 1982. HP Fund savings for prior years will continue to receive the rates announced for savings of those years.

In the event the actual rate of interest varies from the announced rate for a particular year's savings, HP Fund units will receive the actual rate earned. For example, the actual rate currently being earned by 1980 savings is 11.0 percent (the announced rate was 10.75 percent; the actual rate for 1981 savings is 13.2 percent (the announced rate was 13.0 percent).

Employees who are investing in the HP Fund for 1981 will automatically be continued in the HP Fund in 1982 with the new rate for 1982 savings applying to those savings—no new election is necessary. However, forms for changing investments under the program, or for enrolling in S&SP, are available from the Maryland Center mail room. Completed forms must be turned in before the end of a quarter in order to take effect at the start of the following quarter.

NEW IMAGE

tion and quality improvements."

Other major enhancements to the customer service organization include the integration of acquisition support, specifically for MIMS® System and Software International. "We want to be able to resolve MIMS System and SI questions right here if possible," Ron said.

Other enhancements for first quarter of next year include expansion of the Fast Fax service to provide technical assistance to the field, a centrally located group to handle arrangements for regional sales and customer meetings, and a redesigned customer observation area.

Social Security tax rate increase

On January 1, the tax that provides Social Security benefits went up for both employers and employees. Last year Social Security benefits increased by 11.2 percent to help retirees and other recipients keep up with inflation.

Russell Hubbard, who specializes in legislated benefits for GE, points out that, for an individual earning $20,000 yearly, the 1982 tax increase will be $10, for a total tax of $1340 in 1982. In specifics, the 1981 tax of 6.65 percent on earnings up to $29,700 will increase to a new rate of 6.7 percent on earnings up to $32,400 in 1982. Employers pay an amount equal to the total paid by all employees.

Hubbard points out that the increase is one of a series of Social Security tax rate changes legislated in 1977, the last time major changes were made in the Social Security Law. The next tax rate increase is scheduled for January 1, 1985.

General Electric is expected to pay about $435 million in Social Security tax in 1982 compared to the estimated $390 million being paid in 1981. For employees, the maximum possible Social Security tax in 1982 will be $2170.80 compared to the 1981 maximum of $1975.05.

tions professionals not directly involved in the recruiting process.

The program has been designed to encourage employees to bring to GEISCO's attention those proven professionals that they know and respect. In addition General Electric Company experience with similar programs indicates that referred employees have a tendency to be top performers with a longer than average longevity.

Moving on

John Barber—has been named manager, International Training Center, Employee Relations Operation, reporting to Jack R. Mulford, vice president, Employee Relations Operation. John will be responsible for the development and delivery of customer and internal training.

Carol Herrick—has become manager, management reporting, product marketing, Marketing Department. Carol is responsible for the management reporting TMO which encompasses services such as DMS, DMI, Graphics, and the QUIKCOMM ™ System.

Sandy Kring—has been named manager, financial reporting, financial management, product marketing, Marketing Department. Sandy has responsibility

for areas such as TABOL, the INTERNATIONAL COMMAND System, and CPL/MERCUR.

Bob Powell—has become manager, financial services programs, Programs Management Department, reporting to Ray Marshall, vice president and general manager. Bob's responsibilities include developing and implementing overall business strategies for GEISCO products and services in the banking, CPA, and other financial institution business areas. Bob comes to GEISCO from Chase Manhattan Bank.

Zigi Quastler—has become manager, MARK III® Foreground projects, MARK III products, Programs Management Department. Zigi will be responsible for the management of resources to achieve the best business results in MARK III Foreground.

Steve Sayre—has become manager, financial management, product marketing, Marketing Department. Steve is responsible for the financial management TMO which includes such products as the INTERNATIONAL COMMAND System, the INTERNATIONAL LEDGER System, and TABOL.

Kent Schwab—has become manager, microprocessor systems, applications systems, Engineering Department. Kent is now responsible for development of tools permitting microprocessors to be used as

an integral part of MARK III applications.

John Touch—has been named manager, materials, materials and facilities operation, Systems Operations Department. John is responsible for purchasing, hardware and software contracts, shipping and receiving, and warehouse operations.

Tom Taylor—has been appointed manager, network and field services, Systems Operations Department. In his new position, Tom is responsible for the operation of the remote network and field maintenance of all associated GEISCO equipment.

Richard Willey—has become vice president, finance, Software International. As chief financial officer for our newest acquisition, Rich will be responsible for completion of the budget, long range forecasting, financial planning, and all financial operations of SI. Most recently, Rich was manager, financial analysis, Systems Operations Department.

UPDATE

Two recognized for business contributions

It isn't often that someone develops a product for internal use and it goes commercial. It also isn't often that someone writes a manual documenting custom application procedures from feasibility surveys to system maintenance.

But Stan Brown and Steve Huyser both recently received management recognition awards for doing just that.

Stan, senior application specialist, SDC, National Sales Department, won an award for developing and implementing PUB, an easy-to-use text editing application that has grown from an application in the TOOL Library to a commercial product offering.

"When the library was established, the applications weren't intended as products for sale," said Steve Mudrick, manager, foreground application techniques, application techniques, Engineering Department. "But PUB has received such wide acceptance that the Marketing Department accepted it as a commercial product."

Steve Huyser, project manager, SDC, National Sales Department, won an award for the development of the software tools necessary to use the Custom Applications Software Engineering (CASE) manual, a guide covering the entire SDC development cycle.

Stan Brown and Steve Huyser (right).

GE preliminary results announced: $2 billion plant, equipment investment noted

"Expenditures of about $2 billion for new plant and equipment in 1981 brought our cumulative investment for the last three years to over $5 billion," GE Chairman John F. Welch said in announcing General Electric's preliminary and unaudited results for 1981 in mid-January.

"Total research and development expenditures were up

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General Electric Information Services Company

We'll hold our own in the year ahead: Welch in review of year

In an address to representatives of the financial community last month in New York City, Chairman Jack Welch called General Electric "a set of diverse enterprises that has to be the envy of every single product line business in America." He recognized the "tough environment of the recent months" and expressed confidence that we have the "resources and plans in place to more than deal with it."

At this annual meeting of General Electric Company officials and key members of the financial community, Welch reviewed the company's progress in 1981, gave a "sense of our positioning," offered a feel for "where GE is headed," and outlined "how we will get there."

Highlights, 'low lights' identified

Welch lined up each Sector's highlights and "low lights" for 1981, stating, "these are businesses and people full of excitement and achievements." For the Consumer Sector, the highlights were lighting and audio; the "main low" was the major appliance business. The Industrial Sector saw successes in transportation and contractor equipment; domes-

tic locomotive had difficulties, however, as did some of the motor businesses due to the news that Whirlpool is considering phasing GE out of some $40 million in annual sales volume over the next two to three years.

The Power Sector had an excellent 1981 highlighted by the $500 million order by Tokyo Electric Power; but domestic utility load growth was a disappointment. In the Aircraft Engine Business Group, the military side remained strong, with engines being selected for both the B-1 and the advanced technological bomber; but market weakness on the commercial side accounted for only modest earnings increases for the year. Utah International had strong earnings performance particularly due to Australian metallurgical coal, along with the further exploration successes and earnings growth in Ladd Petroleum.

Welch completed the review by discussing the two new sectors that resulted from the company's reorganization effective September 1, 1981—a reorganization he termed "perhaps the biggest company-wide highlight of 1981."

The Services and Materials Sector saw substantial earnings

gain. On the Services side was the highlight of GE Credit Corporation's $1.5 billion in tax leases with the "low light" of lower growth due to high interest rates. On the Materials side, sales and earnings were up dramatically, and GEISCO strengthened its strategy with the acquisition of four software companies.

In Technical Systems, Welch said, "our drive to become the clear leader in factory automation" was accelerated with the purchase of Intersil, the integrated circuit company, and Calma, the interactive graphics company, plus the development of the automated systems business with the six announced robots. Orders in Aerospace were up 35 percent over 1980. Medical Systems continued to grow sales and earnings rapidly on a worldwide basis, principally as a result of the success in the computed tomography (CT scanners) market.

'Central idea' will govern GE's diverse plans

"We feel that we can more than hold our own in the year ahead," said Welch as he began to discuss the outlook for 1982. He said a "central idea—a simple core concept" is what will guide GE in the '80's, rather than one "grand strategy."

Included in the "diverse initiatives" for the '80's were: the initiation of a $1.5 billion concept for new plastic plants; a $300 million commitment for a locomotive plant productivity upgrade and capacity expansion; a new microelectronics lab at the Research Center in Schenectady; investments in a microelectronics application center in Raleigh/Durham, N.C.; and the investment in a new factory automation lab in Charlottesville, Virginia.

No room for mediocrity

Welch identified the "real world" of the '80's as one where inflation is the number one enemy causing countries to fight back with some form of tight money and fiscal responsibility "medicine." The result, he said, would be slower worldwide growth. As "companies and countries will fight for that reduced volume, fight

their own unemployment problems, there will be no room for the mediocre supplier of products and services...the winners in this slow growth environment will be those who search out and participate in the real growth industries and insist upon being number one or number two in every business they are in...the number one or number two leanest, lowest cost, worldwide producer of quality goods and services or those who have a clear technological edge, a clear advantage in the market niche."

Three 'soft values'

Welch identified three "soft" values wrapped around the idea of being number one or number two: reality, quality and excellence, and the human element.

Reality, he said, is seeing the world the way it is. "We have

to permeate every corner, every mind in the businesses of this company with an attitude, with an atmosphere that allows people, in fact, encourages people, to see things as they are, to deal with the way it is."

In talking of quality and excellence, he said, "we mean creating an atmosphere where every single individual across the whole company is striving to be proud of every product and service we provide... stretching beyond our limits."

The human resource element, he said, is creating an atmosphere where "people dare to try new things—where people feel assured in knowing that only the limits of their creativity and drive, their own standards of personal excellence, will be the ceiling on how far and how fast they move."

December S&SP prices

Here is the report on the average prices for GE Stock, Mutual Fund, and Holding Period Interest Fund used under the Savings and Security Program to credit participants' accounts in December. The Long Term Interest Fund price for the last month is also shown, as well as year-to-date annual income rates for both the HP and LT Funds.

Holding Period Fund

Month	Stock Price	Mutual Fund Price	Price	YTD Annual Income Rate 1980	1981	Long Term Fund Price	YTD Annual Income Rate
January	$61.863	$29.643	$10.00	10.9%	13.1%	$9.31	14.1%
February	63.118	28.834	10.00	10.9	13.1	9.07	14.3
March	66.580	29.905	10.00	10.9	13.1	9.19	13.9
April	66.732	30.271	10.00	10.9	13.1	8.87	13.8
May	64.688	29.861	10.00	10.9	13.1	9.07	14.2
June	65.182	30.349	10.00	10.9	13.1	8.96	14.2
July	61.085	29.563	10.00	11.0	13.2	8.70	14.2
August	58.292	29.809	10.00	11.0	13.2	8.39	14.4
September	54.185	27.698	10.00	11.0	13.2	8.32	14.8
October	54.347	27.802	10.00	11.0	13.2	8.51	14.8
November	56.906	28.419	10.00	11.0	13.2	9.42	14.7
December	58.676	28.803	10.00	11.0	13.2	9.05	14.7 -a)

(a-At December 31, 1981, the Net Current yield of the long term investment portion of the fund was 13.9%)

Hot items earn cold cash

"This beautiful walnut base, mahogany-stained thermometer would enhance any desk, and for the amazing low price of only $7.00," was just one sales pitch used by 'employees' of Thermonics to market their product at GEISCO recently.

Thermonics is a GEISCO-sponsored Junior Achievement company. Junior Achievement, more commonly known as JA, is a program designed to involve high school students in running their own business. "JA is one of the best ways for businesses to get their ideas into the high schools," said Jack Mulford, vice president and manager, Employee Relations Operation, at a recent JA awards ceremony. "It's very important to have business people committed to this mission because these students are our future executives."

Thermonics is comprised of 35 students from Rockville, Wootton, Richard Montgomery, and Kennedy High Schools. The students formed the company,

elected officers, sold stock (98 shares at $1.00 per share) to raise money for the initial supplies and materials, and then produced, marketed and sold their product. In addition, they maintained accounting, personnel, and production records at their weekly meetings.

They were assisted in their efforts by several GEISCO employees. "We're there to advise the kids," said Sharon Barger, FMP trainee and JA advisor. "We help keep the books but the students actually run the business. They learn what a real business is like—it's not a cold learning experience like reading it out of a textbook."

Also acting as JA company advisors were Bill Starner, specialist, exempt compensation, Employee Relations Operation, Bob Miller, manager, MARK III Languages, MARK III Systems, Engineering Department, and George Ewing, shipping and receiving, Systems Operations Department.
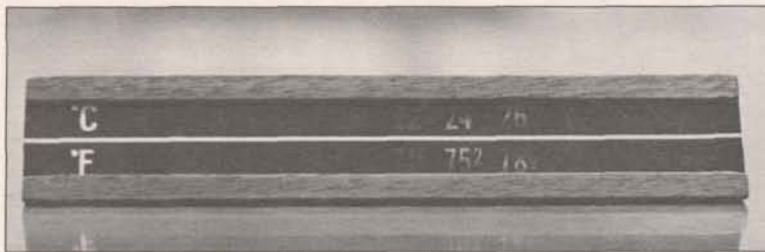
Thermonics' entry in JA's activities.

again this year to about $1.7 billion. And in 1981 we completed a number of key acquisitions in electronics and GEISCO, promising areas targeted for future business development."

Sales, earnings

He said that the preliminary, unaudited results indicate that sales for 1981 were about $27.24 billion, compared with last year's $24.96 billion. Net earnings were approximately $1.652 billion, compared with the $1.514 billion reported for 1980. Sales and earnings increased by about the same percentage.

Sales for the 1981 fourth quarter were about $7.56 billion, compared with the $6.92 billion for the same quarter of 1980. Earnings for the fourth quarter of 1981 were about $452 million.

Outlook for '82

"Looking ahead at 1982 we like most others, are forecasting a significantly stronger second half than first half," Welch said. "The shape of the year will of course, be dependent upon the course that monetary and fiscal policies take, but we are optimistic that the mid-year tax cuts will lead to an increased level of activity and another good year for General Electric."

TWO RECOGNIZED

"Steve and Stan developed the software on their own time and have encouraged people to use the TOOL Library," said Steve Mudrick. "Sometimes people are reluctant to use the tools available. We want people to know what's available in the library and take advantage of already developed software."

The TOOL Library contains utilities and routines developed by GEISCO employees. These applications have been tested and proven in the systems building environment and can result in less duplication of effort and faster implementation. The software exists on both the MARK III® Service and MARK 3000® Service and will be available for Mark-Link™ Terminal use in the near future.

For more information on the TOOL Library and the CASE manual, see the June 1981 and September 14, 1981 issues of UPDATE. TOOL Library documentation is available by listing a DY28 file named TOOLINFO.

It may have looked like a scene from 'Close Encounters' but the satellite dish outside of the International Training Center recently was actually part of a project management class. Thirty-five GEISCO employees attended the two-hour satellite course in basic project management. The satellite dish, rented from a local communications company, received signals sent via satellite from South Carolina. "The quality of the video image was amazing," said Lee Stanton, manager, engineering development program, Engineering Department, who coordinated the class. "We've been exploring the possibilities of video based conferencing and courses throughout the company via satellite," he said. "Students all over the country could participate in the same course, at the same time with their questions answered immediately over the air." As a matter of fact, over 700 students viewed this project management course from 42 locations.

Social Security now applies to sick pay

Changes in the Social Security law that went into effect January 1, 1982 call for Social Security tax to be deducted from all short term disability payments such as that paid under GE benefit plans, and for that pay to be included as covered SS earnings.

As a result, those receiving Weekly Sickness and Accident payments under the GE Insurance Plan, or other short-term disability payments, will note that the 1982 Social Security tax of 6.7% is deducted.

As with other Social Security deductions, General Electric will pay a matching tax to Social Security for these deductions.

Benefits specialists emphasize that the new law did not increase the Social Security tax rate or maximum tax for the year. By making sick pay subject to SS tax, the government aims to help improve the Social Security system's financial soundness.

Rasmussen gets roasted—It wasn't exactly the Friars Club—more like the Trainers Club toasting Ron Rasmussen, manager, customer service, National Sales Department. Twelve employees of the International Training Center gathered recently to show their appreciation to Ron for all the assistance he has provided them. "Ron has gone beyond the call of duty in helping the ITC," said Ike Smith, senior specialist, Sales Training Program, Employee Relations Operation, who coordinated the event. "He's gone out of his way to conduct MARK III® overviews for the NETS, STEP, and PATHMARK classes whenever we've needed him." In traditional roasting fashion, Ron was razzed about his use of a stepladder during MARK III classes, his rapid-fire pace and "no questions" policy, and his reputation as the "guru" of the MARK III overview.

New publications: On line from marketing communications

Here are new and revised publications and sales aids. Most are available through the On-Line Ordering System. For other requests, crossfile documentation (address OLOS) or advertising and sales promotion (address PROM).

TITLE	PUBLICATION	ABOUT THE PUBLICATION
MIMS ⁿ MFG System		Functional descriptions of nine subsystems
Part Control	5311.03	
Shop Calendar	5311.07	
Bill Material Control	5311.11	
Purchasing	5311.15	
Product Cost	5311.19	
Product Control	5311.23	
Inventory Control	5311.27	
Master Scheduling	5311.31	
Material Requirements Planning	5311.35	
Product Catalog	5000.02	Guide to top 50 money-making products and services
Data Communications Products		
MarkQuik ᵀᴹ Terminal user's guide	1350.02	Guides users through local editing features, and more
CRT Interface Guide	1370.01	Subroutine to program smart CRT terminals; for internal use
Televideo ⁿ Terminal operations card	1370.03	How to operate this CRT terminal
Dial-Out user's guide	3504.01	To initiate a session from Foreground Service to specified devices
Command System reference manual supplement	3501.01P-2	Features Language Value command and expanded LOCATE command
Data Management Inquiry System (DMI) ᵀᴹ		
DMI user's guide	5613.01	
DMI product brochure	5613.02	
Product Profiles		
STRUDL	7014.16	PDSI's package for structural analysis and design
EFACT	6133.00	Johnson Control's energy alternatives
DSXMIT/2	3910.43	High-speed file transfer utility
Petroleum/Mining Applications Guide	5001.07	About GEISCO and third party author software for Energy Industry
Price Schedules		
MARK III Service Price Schedule, 1981 Supplement	2001.01AG-1	Prices effective Nov. 1, 1981; adds and substitutes to schedule dated April 1, 1981
MARK III Service Price Schedule 1982	2001.01AG	Prices effective Jan. 1, 1982

Moving on

Wiley Harris—has beome manager, human resource programs and practices, Employee Relations Operation. Wiley is responsible for recruiting, compensation practices, human resources systems, and advanced human resources planning.

Frank Gibbins—has become manager, relations programs, Employee Relations Operation. Frank is responsible for the employee relations for the Finance Operation, as well as international practices, Equal Employment Opportunity programs, and employee services.

Tom McKinnon—has become employee relations manager for the Engineering Department, Employee Relations Operation. Tom is now responsible for recruiting, retention, and enhancement of human resources in the engineering Department.

Bill Starner—has become manager, employee relations, Engineering Department, Employee Relations Operation. Bill's new responsibilities will be for the employee relations activities for Software International Corporation and MIMS® Systems.

Tom Taylor—has been appointed manager, network and field services, Systems Operations Department. In his new position, Tom is responsible for the operation of the remote network and field maintenance of all associated GEISCO equipment.

Soaring with the Golden Eagle

"It's really a thrill to be honored by your peers, and it's especially nice when others in your field recognize your work," said Jesse Burnett, senior specialist, advertising and sales promotion, marketing communications, Marketing Department, about winning an award for his role in production of the film, "Information is Energy."

Jesse captured the Council on International Nontheatrical Events (CINE) Golden Eagle award for the three minute, color film which uses over 7000 dominos to give a brief overview of the worldwide scope and multi-faceted capabilities of GEISCO.

The film has since been used at sales seminars to give an overview of manufacturing, for various training classes, and at subsequent trade shows.
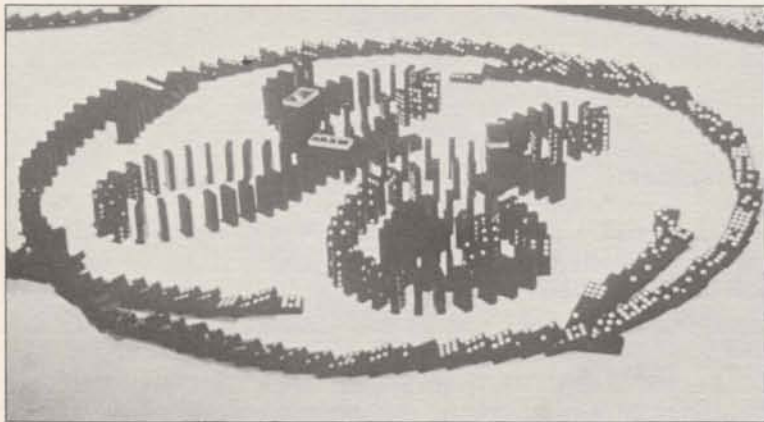
The GE logo was the last to topple in the film "Information is Energy" sponsored by GEISCO.

UPDATE

DP Community: Say hello to the MARKQUIK™ Terminal

GEISCO's new hardware development, the MARKQUIK Terminal, a battery operated terminal that fits in the palm of your hand, functions as an ordinary telephone, and can be used for a wide variety of business services, will be publicly introduced at the Annual Conference and Exposition for the Federal DP Community next week in Washington, D.C.

"With a portable MARKQUIK Terminal, a user has access to the world's largest teleprocessing network, with the ability to manage cash, send a memo or check an order," said Ray Marshall, vice president and general manager, Programs Management Department. "It can be used in the office or at home and is portable, providing access from over 600 major cities throughout the world," he
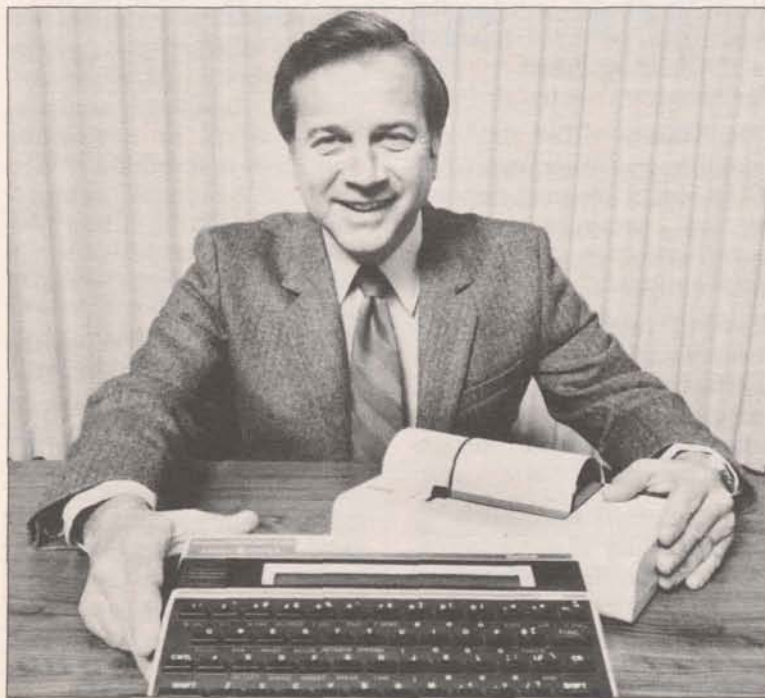
Ray Marshall with the new MARKQUIK Terminal.

More than $19 million for GE people

GE employees eligible for benefits under the Employee Stock Ownership Plan (ESOP) have been credited with $3.31 worth of GE stock for each $1000 of their 1980 pay. In total, more than $19 million has been credited to employees based on their 1980 pay.

The third year of credits under ESOP added these new amounts of GE common stock to the ESOP accounts of most GE employees when credits were allocated several weeks ago. The three-year total amount that has been credited to employees now exceeds $46 million.

Participation in ESOP is automatic for every eligible employee and there is no sign-up requirement. All individuals who were employees during

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General Electric Information Services Company

MARKQUIK TERMINAL
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continued in the news release announcing the MARKQUIK Terminal.

With a phone call to the MARK III® Service network, the MARKQUIK Terminal can provide access to a host of applications including energy audits which allows the user to gain information and results on the spot, providing a timely, cost efficient energy report.

"Actually, Enercom home audits are the reason we started working on what became the MARKQUIK Terminal," said Don Sweet, manager, Enercom program, Programs Management Department.

Don explained that the device's development grew out of the need to reduce the cost of home energy audits by reducing the on-line time needed to enter and analyze the data. Bill Johnson, senior project planner in the Engineering Department, who was assigned to develop the device, generated an approach involving a speech synthesizer. (The MARKQUIK Terminal has a vocabulary of 300 words.)

The concept was then presented to Enercom, which was very enthusiastic about it.

Novation of Tarzana, California, the manufacturer of the MARKQUIK Terminal, developed and presented its prototype about nine months ago.

"While it did some of what we wanted, only a programmer could use it easily," Don went on. "So Paul Inserra, manager, order service programs, Programs Management Department (formerly manager, distributed processing products), got involved and now it's generic and very user friendly." More important, Enercom is very pleased with it—especially since it reduces the cost of an audit by about 30 percent.

The two and one-half pound MARKQUIK Terminal can also be used for order entry and inventory management applications. Already one large book distributor is using the MARKQUIK Terminal together with their in-house system, for inventory control.

The MARKQUIK Terminal can also be used to access GEISCO's electronic mail delivery system, financial management, and cash consolidation applications.

Several large orders have been placed for the MARKQUIK Terminal including one from a large photographic supplier and a major liquor distributor.

Ray Marshall summed it up saying, "The MARKQUIK Terminal is another example of how GE Information Services is transforming itself from a supplier of raw computer power to a provider of full computing services."

Summer intern spots open

"We anticipate 20 summer intern positions," said Peg Ohrt, manager, college relations, Employee Relations Operation, about GEISCO's summer intern program. Peg noted that preference would be given to the children of current GEISCO employees.

Peg explained that the positions are in Systems, Engineering, and Finance Operations and that managers are interested in candidates who have completed college level course work in computer sciences, information systems management, electrical engineering, financial analysis, mathematics, or accounting and have maintained a high level of academic achievement. She also said that previous work experience in computer related fields is also desirable.

"We are currently accepting resumes and will be making offers through the end of May," she said. "If your child wishes to be considered for one of these summer intern positions, please have them send a blue application to me in the Maryland Center, 1 SW. These application blanks can be picked up in the recruiting and placement office on the first floor," she concluded.

How we're doing

January revenue was 29 percent higher than the same period last year. The domestic base business showed strong improvement with a 27 percent increase over 1981 while acquisitions grew by 114 percent with the addition of Software International Corp., Banking Systems, Inc., and Energy Enterprises. International revenue increased by only five percent as strong growth in distributor revenue was offset by significantly lower exchange rates in Europe.

Net income improved by 51

Revenue and earnings growth 1982 vs 1981

V%	
50	--
40	
30	--
20	
10	
0	

J F M A M J J A S O N D
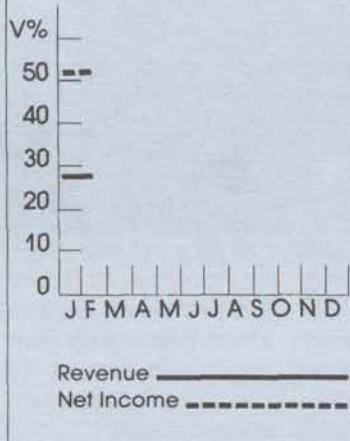
Revenue ————————
Net Income ----------

percent over last year. This reflects the acquisition of Honeywell's minority interest at the beginning of 1982 and a very favorable impact of strong revenue growth.

Outlook for '82

This is expected to be another year of significant growth in both revenue and net income with continued strength in the domestic base business and the international distributors plus a full year's impact of the new acquisitions.

Net income is expected to increase as a result of the strong revenue growth, tight control of operating costs, and the acquisition of Honeywell's minority interest.

ESOP

1979 and were still employed on December 31, 1980 are eligible to receive ESOP benefits unless they have specifically requested in writing to be excluded.

Here is how ESOP works: Under income tax laws the company claims an extra "1% investment tax credit" on its qualifying investments in machinery and equipment when it files its federal tax return. This extra credit is then used to acquire GE common stock for distribution to employees. The amount available for distribution in the most recent

crediting totaled $19,426,108. The stock is divided among employees on the basis of their pay. It is placed in a trust in individual accounts set up for each employee and is held until the employee retires or leaves the company.

Estimate your ESOP
Here's how to estimate the amount of stock credited to your account in the most recent distribution:

First, using your federal income tax records, write down your 1980 earnings as shown on your W-2 form.

Second, multiply those earnings by 0.00331. (That gives you the dollar value of your

portion of the total ESOP amount for 1980.)

Third, divide the dollar amount by $56.081. (That's the value of a share of stock according to the formula for pricing stock under ESOP.)

The answer tells you the shares of stock credited to you in the latest ESOP distribution.

The "Personal Share" statement to be issued in the spring will state the specific amount added to your ESOP account. It will also show the amount of dividends on your previous ESOP shares which have been reinvested in your account as well as the total value of the account on December 31, 1981.

Cheryl Hicks with just a few automatic deposit applications.

EFT: A service you can bank on

If you've ever been out of the office on payday and wondered how you were going to pick up and deposit your paycheck, then you're not one of over 65 percent of GEISCO employees taking advantage of Electronic Funds Transfer (EFT).

"I'm convinced EFT is the best way to receive your pay," said Cheryl Hicks, manager, payroll preparation. "So far the program has received enthusiastic response and within the next three months I hope just about everyone at GEISCO will be using it. EFT is one way to help insure your paycheck gets deposited into your account each and every payday."

With EFT you won't have to worry about picking up your check, waiting in line at the bank, or waiting for your paycheck to clear.

"And signing up for EFT is simple," Cheryl said. "I don't understand why everyone isn't doing it."

Cheryl, shown here with a few of the EFT enrollment forms, explained just how easy it is to sign up. "Anyone interested, just fills out one of these short forms available from personnel accounting (TOC3), returns it to us, and never worries about their paycheck again."

Cheryl went on to point out that even though you don't receive a check on payday, you'll continue to receive an earnings statement and deposit memo for your records.

IRAs: A new option worth considering

"General Electric employees can now set up their own Individual Retirement Accounts (IRAs)," according to Tom Burns, manager, Corporate Employee Benefits.

Before January 1, the legislation which originally established IRAs prohibited employees from having their own IRA if they participated in their company pension plan or such plans as Savings and Security Program, Savings and Stock Bonus Plan, or Employee Stock Ownership Plan. Now, explains Tom Burns, provisions of the Economic Recovery Tax Act of 1981 open the door for GE people to take advantage of this opportunity to set up an "extra" fund for retirement and to reduce current income taxes at the same time.

While GE is not establishing a company plan for employees to use in setting up their IRAs, it is important for all GE people to have information on this new opportunity. IRAs are offered already by a broad range of financial institutions with many choices of investment media that allow individuals to pick the degree of growth or risk or both desired for their retirement savings.

The new legislation permits any individual employee to make contributions of up to $2000 per year to an Individual Retirement Account (IRA) and to take a tax deduction for those contributions starting with the 1982 tax year, for which tax returns are due April 15, 1983.

Are contributions to GE pension or S&SP eligible for tax deduction under IRA legislation? They can't be, explains Tom Burns.

"The new law provides that only contributions to plans in which contributions are 'voluntary' are eligible for tax deduction as contributions to an IRA. Since the Company provides a large share for our pension benefit and matches by 50 percent the first six or seven percent of contributions to S&SP, the law considers contributions to the GE Pension Plan and the first six or seven percent of contributions to S&SP as 'mandatory' and, therefore not eligible for tax deductible IRA treatment."

The additional unmatched payroll deduction savings under S&SP—one, two, or three percent of earnings—while "voluntary," are not eligible for tax deduction because of the potential for distribution after the holding period and the liberal opportunity for withdrawal. Under an IRA, funds are more restricted and cannot be withdrawn before age 59½

without incurring a 10 percent penalty, Burns explains.

How IRAS work

An IRA is an additional personal retirement plan that an individual may open through a financial institution, insurance company, brokerage form, or the U.S. government. IRA investments include passbook savings accounts, annuities, mutual funds, money market funds, etc. IRA "rollover" provisions allow transfer of funds from one type of IRA investment to another or, under certain circumstances, from one plan to another.

Future Value of Annual Investments of $2,000

RETURN	YEARS		
	10	20	30
8%—Tax exempt	$31,291	$98,846	$244,692
Tax rate of 30%	27,320	74,432	155,671
Tax rate of 40%	26,118	67,850	134,566
Tax rate of 50%	24,973	61,938	116,657
10%—Tax exempt	$35,062	$126,004	$361,887
Tax rate of 30%	29,567	87,730	202,146
Tax rate of 40%	27,943	77,985	167,603
Tax rate of 50%	26,414	69,439	139,521
12%—Tax exempt	$39,309	$161,397	$540,585
Tax rate of 30%	32,010	103,719	264,364
Tax rate of 40%	29,904	89,838	209,960
Tax rate of 50%	27,943	77,985	167,603

The National Association of Mutual Funds Comparison of earnings in a tax-exempt IRA vs. a non-exempt investment in varying tax brackets.

The National Association of Mutual Funds

Courtesy Investment Company Institute

Contributions to an individual IRA are limited to a maximum of $2000 earned income each year. An individual with a non-working spouse can contribute $2250 to a combined IRA. The contribution is tax deductible for the individual and earnings accumulate tax-free until withdrawn. However, the earliest you can receive the retirement income from an IRA without a ten percent tax penalty is age 59½.

Right now employees all over the country are hearing of many opportunities to set up IRAs, Tom Burns said. "Banks, insurance companies, and investment institutions are all advertising. There is a great deal of information available and GE people should study it carefully before investing."

How about the comparative value of saving in S&SP or in an IRA?

"Each person's tax situation is different," says Burns. "However, in most cases the 50 percent company matching payment will be more valuable than the tax savings in an IRA." He added, however, that employees who are investing the additional unmatched savings of one, two or three percent under S&SP may want to consider putting these unmatched savings in an IRA for the tax savings. If they do not expect to need the funds until age 59½.

Cinderella's Castle—one of Disney World's main attractions.

Disney discounts offered

If you're planning a vacation in Florida this year, don't forget to pack your shorts, suntan oil, and Magic Kingdom Club discount card.

All General Electric employees and pensioners who want to visit Walt Disney World are entitled to special discounts on park admission and lodging as members of the Magic Kingdom Club.

And while you're in Walt Disney World, don't miss GE's Carousel of Progress in "Tomorrowland." This GE exhibit features an entertaining review of the role electricity has played in improving life from the 1890s to the present.

To obtain a membership card, good at Disneyland in California too, send your name, home address, employee pay number, and a self-addressed, stamped envelope to Georginne Edmon, GE Carousel of Progress, Walt Disney World, P.O. Box 40, Lake Buena Vista, Florida 32830.

New executive staffing position created. *Ed Seibert, formerly employee relations manager for the National Sales Department, has become manager, executive staffing and manpower, Employee Relations Operation. This new position came about in response to the need to define the increasing staffing demands arising from GEISCO's rapid growth. As we move closer to becoming a billion dollar company with a projected 10,000 employees, Ed will be responsible for development of a management enrichment program for GEISCO worldwide. His new position, focused at the section level and above, will assure that the sourcing and staffing demands for executive talent in the business are met.*

Ed Seibert

New publications:
On line from marketing communications

Here are new and revised publications and sales aids. Most are available through the On-Line Ordering System. For other requests, crossfile documentation (address OLOS) or advertising and sales promotion (address PROM).

TITLE	PUBLICATION	ABOUT THIS PUBLICATION
Sales Brochures and Folders		New and revised brochures and folders.
Making Information Work for You	0110.31	MARK III Service executive overview.
Data Management Inquiry Sys.	5613.02	Describes our data base query language.
TABOL	5112.35	Describes our financial analysis language.
International Ledger System	5116.01	Describes our fully-integrated general ledger sys.
MIMS (R) DP Manager	5310.20	Deals with the MIMS approach to manufacturing.
MRP System II	5300.10	Deals with Software International's manufacturing & financial software.
Executive Guide to Financial Planning	5100.39	Info. on software for financial management and management reporting.
FINPLAN	5105.09	Describes personal financial planning for executives.
ADDATA Marketing Info. Sys.	6295.05	Used for sales and marketing analysis.
Computer Graphics	5111.06	Information on 6 graphic software packages.
Enercom TRAC	5840.07	Information on energy audit data.
EPO™ System Sales Kit	5110.08	Includes four inserts.
Generic TMO folder	900.60	This folder and the following folders do not contain
Banking TMO folder	5099.18	any brochures, but they can be used by you as
Order Service TMO folder	5302.60	handy storage devices for pertinent TMO
Software/Consulting TMO folder	6300.10	brochures, which you can leave with customers
Transportation TMO folder	5212.03	or prospects. Each 4-color folder contains the
Manufacturing TMO folder	5300.09	company's positioning statement and appropriate
Financial Management TMO folder	5103.46	graphics on the front which match the subject
Energy TMO folder	5210.25	area of the TMO being advertised.
Product Profiles		New profiles published by end of 1981.
DMI™ System	5613.00	Describes our data base query language.
Equipment Control System	5212.01	Describes management of cargo inventory.
Editors	3400.07	Describes three editing packages.
DSXMIT/2	3910.43	Deals with applications on IBM-compatible systems.
Profit Planning Model (MCS Assocs.)	6131.00	Describes how to improve profit planning strategies.
EFACT System (Johnson Controls)	6133.00	Deals with energy savings on HVAC systems.
MISS (Ketron, Inc.)	6280.00	Deals with mining industry planning.
E. H. Boeckh Building Cost System	6220.00	Solutions for dealing with construction cost controls.
PVS (Xebek, Inc.)	6242.00	A flexible project management system.
Optymizer Plus (Telco Research)	6169.00	Software for solving telecommunications problems.
STRUDL (PSDI)	7014.16	Discusses static and dynamic analysis of complex structures.

Moving on

John Brennan—has become manager, distributed processing products, Programs Management Department. John's responsibilities include GEISCO's mini-terminal, micro-terminal, and terminal-based delivery systems.

Mary F. Howard—has been named manager, systems engineering, Engineering Department. Mary's major responsibilities include project planning, management and administration, systems modeling and performance analysis, engineering training programs, software engineering, and engineering services such as the library, the development lab, and word processing.

Paul Inserra—has become manager, order service programs, Programs Management Department. Paul's responsibilities include the development and implementation of the overall business strategies for GEISCO products and services in order service applications. He will also lead our entry into the electronic purchase order market. Paul came from distributed processing products where he successfully introduced the GEISCO mini-terminal.

Gerhard O. Mueller—is now manager, MARK III® Systems, Engineering Department. In this position, Gary is responsible for the team of programmers responsible for the MARK III Service operating system which includes foreground programs, foreground support, foreground languages, MARK III Service hardware, and MARK III Service background systems.

Peg Ohrt—has become manager, college recruiting, professional recruiting and placement, human resources programs and practices, Employee Relations Operation. Peg's responsibilities include new college hires, MBA recruiting, and coordinating and developing campus relations.

Joseph Scandone—is now manager, human resource systems, human resources and practices, Employee Relations Operation. In his new position, Joe is responsible for human resource planning including strategic plans and Employee Relations Operation planning.

Donald L. Shell—has become manager, advanced engineering, Engineering Department. Don is now responsible for architectural and design concepts for our delivery systems planned for commercial deployment in two to five years.

Mike Woodruff—is now manager, source development, professional recruiting and placement, human resources programs and practices, Employee Relations Operation. Mike is responsible for developing new candidate sources, aiding in the integration of acquisition recruiting, and recruiting training.

Milestones

Congratulations to the following employees who celebrate service anniversaries in February.

Richard Henderson	30
Thomas J. Little	25
Jennie L. Heinbach	15
Mack Mauldin, Jr. (Brook Park)	10
Judie Gronkiewicz	10
George C. Hairston	5
Per A. Suneby	5

LOANS

*

UPDATE

Bob Hench: Engineers Week—What it means

Each year, National Engineers' Week occurs during the week of Washington's birthday. This year's theme is Pioneering America's Revitalization. The week is a very important one to a company that not only depends on, but was made possible by engineers.

Update conducted interviews with Bob Hench, vice president and general manager, Engineering Department, Technology Operations, and a sampling of three GEISCO engineers. The intent was to take the temperature of Engineering at GEISCO by talking

to people with varying experience and lengths of service. The interviews that follow simply demonstrate the enthusiasm and dedication that has created and maintains a technological edge essential to our continued success.

Q: What is the importance of National Engineers Week?
A: The importance still and always has been the tremendous impact of technology on any industrial society. This recognition of the contributions of engineers is an occasion to reflect on the field and its significance to our way of life. It is good to pause and recognize both the discipline and the people.

Q: What does GEISCO offer engineers?
A: We offer a lot to engineers and computer scientists. First, there is a tremendous diversity in the kinds of work avail-

Bob Hench in the Engineering Lab.

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General Electric Information Services Company

HENCH

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able to engineers at GEISCO. I can think of few organizations of our size that offer as wide a variety of opportunities in applications systems, networking, compilers and operating systems, to name a few. Most engineering facilities focus on far fewer disciplines. Our size and variety give engineers a chance to be exposed to many possibilities.

Second, because of our size and rapid growth, we offer the opportunity to be heavily involved in major decisions that affect the architecture of the system, in other words to contribute in a real way to the decision process.

Third, I know of no other organization with such deep technology and that still has the opportunity to work directly with customers. This real world exposure gives us the chance to see a problem from the viewpoint of the ultimate user of the system.

Q: What interesting opportunities are there in engineering for the near future and for the longer term?
A: The short and long term are becoming rapidly intertwined, as we devote more and more energy to the longer term, especially in two areas. The first is raw technological advances such as the new disk hardware. The other is applying more energy into applica-

tion development and packages that are directly useable by the end user.

Q: What are the greatest growth areas for engineers?
A: There is no marked contract between areas. It used to be less focused on applications, but now with TMO's we have a good balance among all the areas such as networking, mainframes, IBM, communications areas, and applications.

Q: What advice would you give to someone just starting out?
A: Ride that computer horse. It's the best one in town. For the last ten years the computer field has offered the most lucrative opportunity for interesting assignments and for advancement for engineers. And the exciting part is that the evidence is overwhelming that it will be even more so in the future.

Q: What is the biggest challenge for the future?
A: It is important for our engineering people to be most sensitive about change, technological change. Our industry has always been noted for rapid and accelerating change. But that is nothing to what's coming. You must motivate yourself, keep involved, and do whatever it takes to stay on top of what is coming in the future. Otherwise these changes will leave you in their wake.

Twenty years and still growing

John Watson

John Watson, manager, foreground communication interface, MARK III® foreground support, MARK III Systems, Engineering Department, Technology Operations, joined GE Information Services in November 1970. Prior to that John worked for General Electric in the Aircraft Engine Group and more recently in the Missile and Space Division. John's GE career has evolved in both application and operating system development.

Q: What changes have you seen in the engineering field, particularly at GEISCO, in the years you have been here?

A: The most obvious change in the engineering field in general is the increased use of computers in everyday engineering practice.

I started at Evendale in 1959 and my first project was part of an enormous engineering design where the designers did not have any sort of computer at all. Today's microcomputers are much more powerful than the 32K IBM 704 that was then truly a giant computer.

GEISCO's mainstream business changed from MARK I to MARK II around 1970, but surprisingly the business has since continued to evolve rather than require the development of another radically new system. Some of the instructions in the new operating system and user software developed for MARK II in the late 60's has now gone through 12 years of service, and our software could evolve only because the 600 hardware originally designed by GE could be upgraded. This is amazing and certainly a testimony to the hardware and software designers who developed the original systems.

Q: How do you foresee the product evolving in the future?
A: I suspect that the base line business, MARK III® Service, will become increasingly database intensive, accessed by micro-computers and that we may, in fact, support services for home computing.

Q: The theme for National Engineers Week is Engineers: Pioneering America's Revitalization. How have or will engineers pioneer our revitalization?

A: I think a real challenge for GEISCO in the future is to pursue applications that effect a marriage between the computing power of microcomputers and the database and storage capabilities of MARK III Service. The reason being—all future engineering development work will use microcomputers as commonly as engineers used to use the slide rule and drafting board.

Part of the EngineeringWeek ceremonies was the presentation of a managerial award by Bob Hench, vice president and general manager, Engineering Department, Technology Operations, to Roz Hopenfeld, senior systems engineer, MARK III Hardware. "Roz's contributions have extended over her seven years at GEISCO," said Bob. He also noted that she has contributed particularly to both the RAM (in the background) program and the 3350 disc program.

Susan Kim

Susan Kim: A new view

Susan Kim, associate programmer, MARK III® foreground systems support, MARK III foreground systems, Engineering Department, joined GEISCO in December 1981, only five days after graduating from Catholic University with a BSE in computer science. She came to the United States from Japan in 1975 and is one of GEISCO's youngest engineers, only 23 years old.

Q: What were your expectations when you graduated from college and how have they been met?

A: I knew I wanted to work for a large company because it would be interesting and I'd have the opportunity to meet a lot of new people. I also wanted to work for a high-quality computer company, one that was more than a software supermarket. GEISCO has met my expectations in every way. I'm doing exactly what I wanted to do which at the moment includes various things like plotting, doing QDRs, and learning about the operating system.

Q: What attracted you to the engineering field?

A: Ever since I was young, I've liked science and math. I've always wondered why and how things are the way they are. So when I had to pick a major it was natural that it be in the engineering field. One of the best things about engineering is you can design something practical one day and see if it works the next—you get results right away.

Q: What do you want to do in the long-range?

A: I want to become a systems programmer—to really understand the operating system and computer networks as a whole. Also, one of my most favorite things is the microprocessor. I'd like to do application design with it as my hobby. I just hope that my curiosity and desire to learn will never go away.

Q: Did you make a good decision in choosing to go into engineering?

A: It was an important and a very hard decision, but yes, I'm extremely glad I chose this field. Some knowledge of hardware should help my career in the long range. But I really owe great thanks to my dear "mama" who had always supported my decision.

Bob Tetrault: Building a system

Bob Tetrault, project manager, central network maintenance, communication systems software maintenance, communication systems software, communication and distributed systems, Engineering Department, began his engineering career with General Electric at the Nuclear Energy Division (San Jose, California) in 1973 and came to GEISCO in 1979.

Q: How did you happen to become interested in the engineering field?

A: I've always been interested in electronics. While I was in the Navy the push was toward nuclear power programs. I attended numerous schools including electronic technician school, nuclear power school and ships inertial navigation school. It was at the latter that I received my introduction to the computer world.

At the time of my discharge I had the unique distinction of being one of four people in the Navy to hold a reactor operator's and navigation systems specialist's job codes simultaneously.

Q: What attracted you to General Electric?
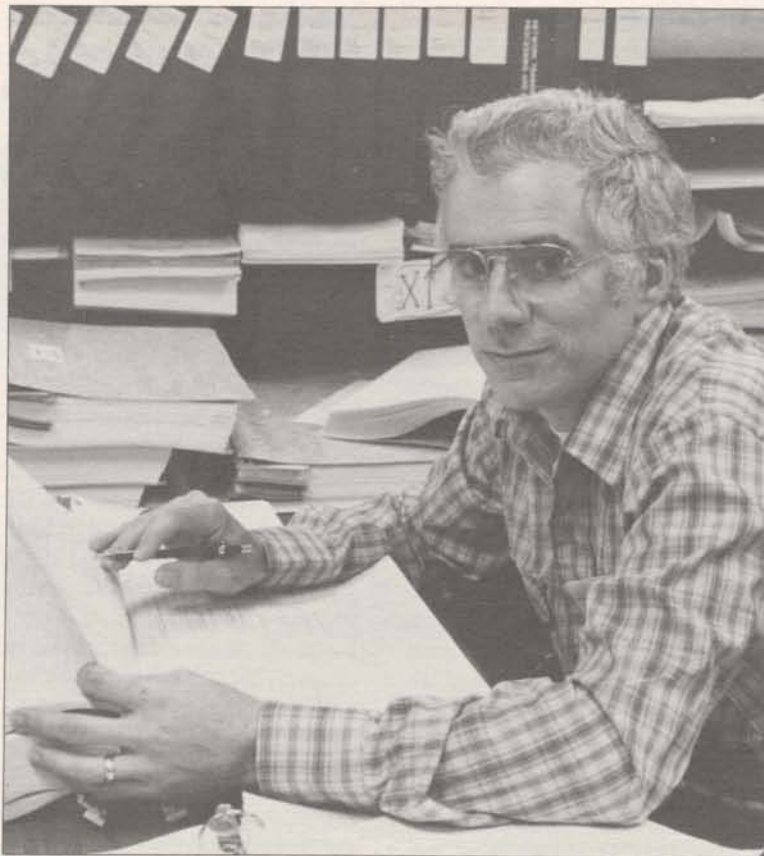
Bob Tetrault

A: After I got out of the Navy, I went to work at the General Electric nuclear power plant in Vermont. The day I started there it was nothing more than a hole in the ground. I spent about a year installing the process computer system and all its related sensor equipment at the plant.

During the next year and a half, through study on my own and working with GE field personnel I learned the computer software.

General Electric (San Jose) ultimately contacted me about a job opportunity. The next six years were extremely busy. I not only worked at GE full time, obtained a bachelors degree at San Jose State University, but I also coached a little league baseball team all the way to the championships. (My team won!)

TETRAULT
cont'd. from p. 5

It was after I graduated from SJSU that I became really acquainted with GEISCO and ultimately worked a transfer.

Q: What are the differences and similarities between the General Electric locations you've worked at in the engineering field?

A: GEISCO is service oriented, that's about the only difference. The job I'm in is remote to the customer. Many of our customers don't even know the computers I work on exist. The process computers I work on are basically the same design used by both the Nuclear Energy Division and GEISCO, so my responsibilities at GEISCO are similar to those I had at Nuclear Energy Division.

Q: Are you satisfied being an engineer at GE?

A: I love my job, as a matter of fact, you could call me a workaholic. I have a terminal at home and I'll spend three or more hours a day working on it. People from the Ohio and Maryland Center NSC will call me at home if they have a problem. I'll help if I can, or else I'll contact someone who can. They need to have a friend sympathetic to their problems. As far as GE is concerned, I believe in General Electric. I have a simple philosophy—when I'm working on a project I give it all I have. If time constraints or departmental boundaries become obstacles I work around them even if I have to work at home. I get very frustrated when people use departmental boundaries as an excuse rather than a guide to where the expertise may be found.

Q: What advice would you have for engineers just entering the field?

A: If you can't accept the responsibility for what you are designing then don't do it.

Q: What would you like to see done in the engineering field in the future?

A: At GEISCO I would like to see a pilot program started where engineers could perform certain job related functions in their own home. I know IBM has explored the concept of allowing programmers to work at home.

Student loans available through GEISCO

GEISCO employees may once again obtain direct student loans or loans guaranteed by the company, for either themselves or their children, for the 1982-83 school year.

The Guaranteed Educational Loan Program, offered to GEISCO employees since 1973, provides for the guarantee of student loans by the United Student Aid Funds, Inc. (USAF) on the basis of deposits made by the General Electric Company. The loans themselves would be made by a participating lending institution.

Under the Guaranteed program, students may obtain up to $2,500 a year for undergraduate, and $5,000 per year for graduate study. Individual lending institutions, however, may have limits below the maximum. The loans may total up to $12,500 for undergraduate and $25,000 for undergraduate and graduate combined. No interest will be charged while the student is attending school, or for six months immediately following study completion or termination of attendance. After six months, the interest rate would be nine percent, with a minimum monthly payment of $50.

Under the Employees Educational Loan Program, which is in its 26th consecutive year, employees may obtain loans directly from the company for themselves or their children for fulltime higher education, on a day or evening basis.

The direct loans must have

New publications: On line from marketing communications

Here are new and revised publications and sales aids. Most are available through the On-Line Ordering System. For other requests, crossfile documentation (address OLOS) or advertising and sales promotion (address PROM).

TITLE	PUBLICATION	ABOUT THIS PUBLICATION
It's Positively MARK III® Service		
Brochure	3000.31	Announces enhancements and new features.
F77 Documentation Supplement	3106.21	Supplements 4 other F77 books.
CRT Terminal Interface Guide	1370.01	Subroutines to program a CRT terminal.
Command System reference manual supplement	3501.01P-1	New features include enhanced LIST command.
High-Speed Service reference manual supplement	3910.01D-2	Features KANA transliteration characters and NOBANNER.
Publications Editor user's guide	3406.01	How to use this text formatter on Foreground Service.
Transaction Processing Monitor user's guide	3505.01	For concurrent access by many users.
Dial-Out user's guide	3504.01	To initiate a session from Foreground Service.
Software Management System user's guide	3501.36	For management of large applications.
Terminals		
MarkQuik™ Terminal user's guide	1350.02	How to use its local functions.
MarkQuik Terminal Operations Card	1350.01	How to operate the terminal.
MarkQuik Terminal Programmer's Guide	1350.03	About down-line loading programs and program control.
MarkQuik Terminal Brochure	1350.04	Announces this new terminal.
Televideo® 950 terminal operations card	1370.03	How to set up and operate this CRT terminal.
MARK 3000™ Service		
CICS	2055.01 to 2055.08	IBM books in stock and on OLOS.
PROJACS	5602.51 to 5602.53	IBM books in stock and on OLOS.
MIMS® System and MIMS® MFG System		
MIMS System Request reference manual	5310.04B	Principal reference about MIMS language.
MIMS MFG System Documentation	5311.02 to 5311.37	27 books about subsystems for manufacturing information management. See the Market File for a complete list.
Internal Users		
QDR user's guide	0001.10D	Revised edition.
Internal Training Catalog	4001.12E	Lists course materials for 1982.
Internal Market File Index	0001.09T	Most current is January-March 1982.
Popular References		
Course Quarterly	4000.01AA	Over 60 courses listed.
Publications Price List	402.01AD	Prices effective January 4 through March 28.
International Access Directory	1401.01AJ	January-March edition.
LEADER Index	0301.33A	Revised in December.
Product Profile Index	304.13G	Many new and revised profiles are listed.

Dick Autz, senior field service rep—Dallas, network and field service (left), and Rudy Becker, senior design engineer, materials and facilities operation (right), were in for a surprise when Tom Little, vice president and general manager, Systems Operations Department called them into his office recently. "I'm very pleased to present you both with well deserved management awards for your outstanding contributions to the Systems Operations Department," Tom said.

Dick received his award for developing and teaching GEISCO's first MARKLINK® Terminal maintenance training class, a project accomplished in only four weeks. "The amount of work needed to complete this task was staggering. Without Dick's constant vigilance we would not have made our goal," said Tom Taylor, manager, network and field service. Dick was also recognized for developing, mostly on his own time, and teaching a printer training class in September.

Rudy, as project manager and design engineer, was recognized for the successful completion of the Oakland NSC move. Also, Rudy's personal interest in the engineering and project management of the new Rockville Depot Services facility has been critical to the project's completion. "We were faced with the difficult task of completing the Depot in a very short time frame," Tom Taylor said. "Rudy was involved in every facet of the project—from helping prepare the presentation to overseeing the construction on a day-to-day basis. His quiet dedication and hard work make him a credit to our business," he added.

Congratulations to both Dick and Rudy!

STUDENT LOANS

department general manager approval.

Employees may borrow up to $2,500 per student per year with a maximum of $10,000 outstanding for one student and a total of $15,000 outstanding per employee borrower. Interest on the direct loans approved for the 1982-83 school year is 12.5 percent per year, or the maximum legal rate in the state in which the loan is made, whichever is lower. All 1982-83 loans must be approved by December 31, 1982.

For more information about either loan program contact Doreen Hilts, extension 3623.

UPDATE

GEISCO fills the pipe for the energy business

This article is one of a series on GEISCO's major business opportunities. For more information on Energy Enterprises, the acquisition whose software addresses the petroleum industry, see the accompanying article: "EE: making software that fits."

"Grouped under the energy and transportation programs,"

Jerry Shipley

said Lee Beyer, program general manager, energy and transportation, Programs Management Operations, are four different areas of potential business for GEISCO.

"First under energy are the petroleum companies, who are already large customers. Next are mining companies, a small business today, but with a terrific potential. Finally there are the residential energy audits offered by utility companies, which Enercom addresses," Lee continued.

He pointed out that the transportation part of energy and transportation has a huge potential but is as yet untapped. (A future issue of *Update* will address this area.)

"Prior to the acquisition of Energy Enterprises of Denver," explained Jerry Shipley, petroleum and mining program manager, "our main thrust in making our petroleum business grow was to obtain new authors with attractive software that would address the target areas in the petroleum market: exploration and production and corporate services."

Jerry noted that corporate ser-

EE: Making software that fits

When GEISCO wanted to increase its offerings to the energy industry, it acquired a Denver-based software and timesharing company that has been growing at 100 percent per year since 1977. Energy Enterprises, which has 60 employees, owes its remarkable growth to its approach to the petroleum and gas industry and to its line of software that offers solutions to the industry's most pressing problems.

Jim Gernert, founder of EE, is a petroleum engineer who saw an opportunity to solve problems in an industry that was willing to pay for those solutions. The Reserve Analysis and Management System (the RAMS™ Software) was written initially in 1976 and released

Contents

ENERGY BUSINESS
cont'd. from p. 1

vices is already well served by the general business software available from GEISCO. "Our niche is to provide excellent software packages that will help our customers manage their exploration and production activities, because this is a tremendous growth area. Right now there are 4400 active drilling rigs in North America, a record, reflecting the boom in drilling in 1981. So the management of this resource is a great opportunity for us."

Jerry explained that there is a tremendous financial investment in those rigs and to maximize their return through prudent management and by placing them where they are most likely to provide a good return is of obvious importance to the oil companies. "We have a number of pieces of software and databases that address this need," he said. "Two areas in particular are crucial to the petroleum companies. One is the history of drilling activity and production figures and one of the best databases to evaluate production results and opportunities is available from Dwight's Energydata, Inc., an NSS author.

"The other is economic modeling and evaluation. As the cost of drilling rises, more analysis is needed to help insure the return on investment. The Reserve Analysis and Management System (RAMS) and the Production and Price Monitoring System (PMS) are two GEISCO owned products, developed and supported by Energy Enterprises, that will help our customers evaluate properties and track production and well test data. These applications are examples of the petroleum program strategy to provide key industry software that is controlled by GEISCO."

"While the near term promises huge growth in the petroleum industry, the longer term needs to be evaluated. Currently, we expect a peak in industry activity by 1985 but we don't know what will happen to production after that time," Jerry said.

"However, we are in the process of planning and setting up an Energy Center to address the whole range of petroleum company needs. We will begin modestly with an energy center manager, Ron Jackson, and a technical representative in the Energy Center in Houston," Jerry went on. "We are taking a three-phased approach to the centers. First, they will serve to demonstrate GEISCO's capabilities and as a showcase of our focused software and authors. We plan them to evolve into true consulting and training facilities and eventually into full service business consulting operations."

"The mining industry is currently an underserved market," Jerry went on. "In 1982 we hope to position GEISCO for a 1983 penetration strategy. We will be concentrating on surface coal mining, since that appears to be growing most rapidly and is an area where the energy companies are investing heavily." Jerry explained that for GEISCO to address the industry we need a mine planning package and a full range of project management software. The market research for selection of the right mine planning package is to be finished in the second quarter. He also explained that GEISCO already has project management packages that provide enough capabilities for the industry.

"The mining and petroleum industries offer GEISCO an attractive opportunity to service areas with very promising growth possibilities for the near and longer term. To accomplish this, we have developed a group of offerings that satisfy these industries needs. At the same time, the U.S. Sales and Services Department has organized two energy districts to concentrate our sales efforts in the most promising areas of the country." And, Jerry said that internationally, the North Sea and Australia have organized to take advantage of the opportunities that the multinationals offer on a worldwide basis.

ENERGY ENTERPRISES

commercially the next year. (*See box for profiles of EE's software offerings.*) It, like all of EE's software, is continually being enhanced and updated to accommodate changing government regulations, tier pricing, and windfall profits. The RAMS Software is the base on which EE's success has been built and currently provides almost three-quarters of EE's revenues.

"RAMS was initially offered on other timesharing systems," said Les McMillin, manager, application software and senior petroleum consultant. "But we really couldn't control our costs that way, so we backed into the timesharing business."

Jim Gernert

"We now have four DEC 2060s," said Neil Stratton, manager of systems and facilities, "and we are projecting a total of six by year end." Neil went on to note that EE has a teleprocessing network (accessed via WATS and leased lines) that connects with the recently opened 15,000 square foot computer facility housing the DECs. "We are also in the process of converting both the Integrated Petroleum Accounting System (the IPAS ™ Software) and Land Accounting and Management System (the LAMS ™ Software) from Prime computers to DEC's 2020s (a small to medium scale machine) for the purpose of evaluating this as a turnkey offering. "The commercial release of the IPAS Software as a remote company service offer-

ing, is planned for the second quarter of the year," said Tom Schwing, marketing manager.

The process of development is a key ingredient in all of EE's projects. "All of our software is continually undergoing enhancement and refinement," said Les. "We are the Paul Masson of the software industry—We will release no software before its time. For instance, the RAMS Software has been in development for 11 years, PMS for two, LOAN for one, and the LAMS Software ware for three years. While we're enhancing what we have, we are also developing new releases as well." Les explained that his group develops new software when they perceive a need in the energy industry.

"Right now we're putting North Sea tax information into both PMS and the RAMS Software, and working on on-line graphics, as well as working on a run ticket system.

The way that Les's group perceives a need is through Scott Serani's client support organization. "We are EE's eyes and ears on the world," said Scott. "Client support is the group that interfaces with our customers and our group knows the petroleum industry as well as petroleum engineering. Our people are prepared to handle every question a customer could ever ask."

EE fact sheet

RAMS: Reserve Analysis and Management System is an economic evaluation tool for the petroleum industry that projects taxes, expenses, production, and prices to provide a net income projection on a property.

RAMS allows a great deal of detail to be inputed, produces regular reports, and organizes data for government reporting.

Potential users: petroleum independents, petroleum consultants, banks, investment companies, and funding companies.

LAMS: Land Accounting and Management System is a program that maintains large volumes of descriptive data on land acquired for exploration or development. The user can determine what information should be stored in what format and can have his reports written in whatever format is most useful. LAMS will even track lease data and print out the rental checks.

Potential users: petroleum independents with a number of parcels of land under lease.

PMS: Production and Price Monitoring System is designed to maintain information associated with producing property. The user may monitor data on a single well, lease, unit, or any grouping of wells. A primary use of PMS is the generation of federal and state reports based on the user's stored information.

Potential users: both petroleum operators and producers can benefit from the use of PMS.

LOAN: Petroleum Loan Evaluation Program is a tool to help determine the feasibility of applying a loan to a revenue producing property. Given a loan of certain dimensions and a property or group of properties producing a certain amount of revenue, LOAN calculates the degree to which that property is able to support that loan, as well as the necessary loan payments and cashflows of the property.

Potential users: both borrowers and lenders.

IPAS: Integrated Petroleum Accounting System (available in the second quarter of 1982) is an accounting system designed specifically for the petroleum industry. It generates revenue distribution statements, joint interest billing, Authorization for Expenditure (AFE) billing, lease operating system profit and loss statements by well, accounts payable/receivable, and general ledger financial statements.

Potential users: petroleum independents.

Customers: Energy Enterprises serves nearly 250 of the 10,000 independent oil producers in the U.S.

Availability: Nationally (through leased and WATS lines via an 800 number) and internationally through Tymnet.

Hardware DEC 2060s.

GEISCO energy districts and branches have been working closely with EE over the last five months to sell and support these projects. For more information, call Scott Serani (303-832-7111) or Ed Scully (8-273-5051).

ENERGY ENTERPRISES

Client support is organized regionally, and has an office in Houston, and each region includes a RAMS expert.

EE's customers apparently find this a workable system, and each year for the last few their revenue has leaped ahead. "We find," said Tom, "that because our software is so easy to use and solves their problems, our clients use us more and more and it doesn't take long before they are spending more with EE."

"We have also found that our clients treat us like an in-house data processing group. They feel we are solving something not selling them something," Les went on, "And because we are knowledgeable, our software's output is oriented toward managment, and because it is easy to use and applicable to a broad range of problems, we have been successful."
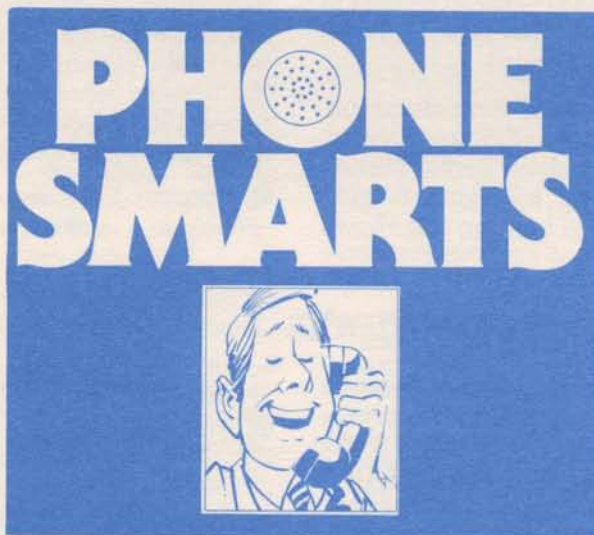

A couple of weeks ago posters proclaiming tips for becoming phone smart appeared. This past weekend, just about every phone in the Maryland Center and Twelve Oaks got a "Phone Smart" sticker and booklet. The campaign is designed to cut down the mountainous telephone bills that we get and reduce the multimillion dollar GE phone bill as well. "It is an easy way to reduce operating costs for GEISCO," said Jerry Way, Telephone Cost Awareness Program chairman, "It doesn't take any time at all to read the booklet and follow the tips, and we can gain real benefits in reduced telephone costs."

How we're doing

Revenue for the first two months of 1982 is 27 percent higher than the same period last year. Foreign exchange rates and the sluggish European economy continue to have a negative impact on this figure.

Net income at the end of February was 39 percent ahead of last year. Tight expense management continues to have a positive impact on this figure.

(NOTE: This is the first month that TIPO results have been included.)

Revenue and Earning growth
1982 vs 1981

Revenue ———
Net Income — — —
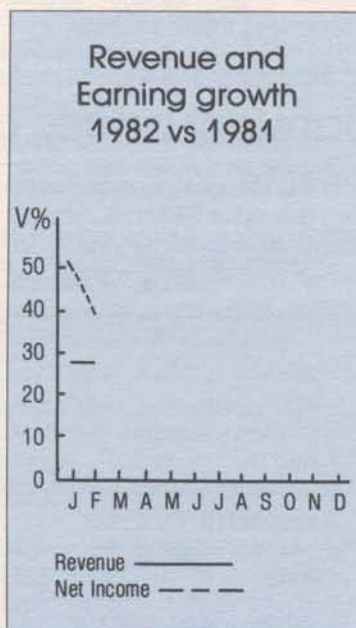
How your S&SP statements will help you in the future

"How can I use the tax shelter feature of S&SP?" "What is the tax cost of my recently received S&SP securities?" "What is my taxable income for this payout?"

These and other questions can be extremely important to Savings and Security Program participants. Help in answering them is in the combined Annual Statement and Tax Information Statement that most S&SP participants recently received, as well as in the Holding Period Distribution Notice sent to each participant a few months before the recent S&SP payout.

"Study your S&SP documents and then file them so you can find them when you need them," says Leon Golinski, manager, personnel accounting. He listed some of the important questions which may come up in the future and how the statements can help answer them:

Q: Can I defer taxes on the income I'm going to receive in my S&SP payouts over the next few years?

A: Your S&SP Annual and Tax Information Statements and your Holding Period Notice show you how your taxable income is built up and shows

various ways to use the Retirement Option "tax shelter" feature of S&SP.

Q: What income should I report on my current federal income tax return as a result of my recent S&SP payout?

A. First, for tax returns now being filed, report on the payout of 1981—not the one received early in 1982. In the past, you would have had to find last year's S&SP Tax Information Statement to get the taxable income figure on the 1981 payout. This year's Tax Information Statement shows the taxable income from your 1981 payout as well as the Taxable Income from your recent 1982 payout. The latter is for next year's tax return.

Q. Suppose I sell some of my

January prices on S&SP investments

Here is the report on the average prices for GE Stock, Mutual Fund, and Holding Period Interest Fund used under the Savings and Security Program to credit participants' accounts in January. The Long Term Interest Fund price for the last day of the month is also shown, as well as year-to-date annual income rates for both the HP and LT Funds.

Month	Stock Price	Mutual Fund Price	Holding Period Fund					Long Term Fund	
			Price	YTD Annual Income Rate				Price	YTD Annual Income Rate
				1980	1981	1982			
Announced HP Fund Rate				10.75%	13.00%	16.25%			
January	$58.075	$24.957	$10.00	11.0	13.2	16.5		$8.95	14.7% -a)

(a- At January 31, 1982, the net current yield of the long term investment portion of the fund was 14.3%.

S&SP securities. Do I check back on the monthly stock and mutual fund prices to find the price of the security at the time it was credited to my S&SP account? Should I use that figure to determine gain or loss for my income tax return?

A. No, in both cases. The tax cost of each of the securities you receive under S&SP is given in the Tax Information Statement you received for the year in which you received the securities. (Another reason why your S&SP Statements should be carefully filed.) The tax cost is calculated for you by using a special formula furnished by the government for use in determining the tax cost of securities bought through programs like S&SP. So, use the figure on the Tax Information Statement.

Q. What do I have waiting for me in S&SP holding periods?

A. Check the Annual Statement part of your document. It'll show the kinds of securities and how many of each are waiting to be paid out to you as holding periods end over the next three years. You can obtain an idea of their current worth by checking the current price in Update.

Q. How many securities can I expect from the company's 50 percent matching payment?

A. The Annual Statement will give you specific figures on the securities credited to your account from company payments in each of the three holding periods now in progress.

Q. How is my S&SP participation helping me build funds to improve my income when I retire?

A. Check the Retirement Option Account column on your Annual Statement and your Holding Period Distribution Notice. They will show whether you're missing out on an opportunity to build retirement income and perhaps defer taxes on your S&SP investments. If you are building a Retirement Option Account, the ROA column will show you how securities are piling up for use when you retire or to draw on in specified emergencies.

New publications: On line from marketing communications

Here are the new and revised publications and sales aids. Most are available through the On-Line Ordering System. For other requests, crossfile documentation (address OLOS) or advertising and sales promotion (address PROM).

Title	Publication Number	About the Publication
Publication's Editor user's guide	3406.01	Information on text formatting
File Transfer Utility user's guide	1300.59A	Describes enhanced version of this popular software
Sales Information Summaries		
QUIK-COMM ™ System	3410.16	New sales aid for this important product
EPO® System	5110.09	Summarizes sales pointers to sell this system
TABOL	5112.27A	A January 1982 revision
Product Profiles		Revised profiles completed by end of 1981
High Speed Service	3910.00J	Large-volume data transmission capability
FORTRAN 77	3106.00A	A state-of-the-art FORTRAN
1200 Baud Service	3905.00E	A fast, economical data transmission service
Input/Output Capabilities	0910.03H	Describes a wide range of I/O choices
Speeds and Terminals	1002.00G	Describes various speeds and terminals available on MARK ®III Service
Files and Storage	0910.04G	Describes data storage and security controls
Independent Run	3501.12B	A job scheduling tool
Telephone Information Processing	3915.00C	Using a telephone as a terminal
TABOL	5112.00C	Our financial analysis language
Data Base Storage Plan Agreement	0800.46	New pricing plan for HISAM storage units
LEADER Magazine	0301.38	First quarter issue

Al Sutherland cashes in

Congratulations are in order for Al Sutherland, manager, credit and collections customer accounts, Finance Operation. Al is a grand prize winner in The Great Corporate Cash-In, a GE program designed to help improve the turnover of receivables owed GEISCO and GE by customers.

"We are really proud of Al's achievement and his well deserved recognition at the highest levels in the company," said Leo Ramer, vice president, Finance Operation. "Al was voted by the experts as the top winner in our entire sector and has earned a high honor for himself and for GEISCO," he added.

Tom Thorsen, senior vice president, Finance, who will pre-

Al Sutherland turned thumbs down on receivables.

sent Al with an engraved plaque for being one of five top performers exceeding the program's goal by the greatest amount.

Al's winning efforts on improving the condition of the accounts receivable invest-

ment at GEISCO resulted in a reduction from 1980 to 1981 in the key measurements of days' sales from 46 to 42, delinquency ratio from 36 percent to 31 percent, and percent past due over 60 days from 3.9 to 2.5.

The Great Corporate Cash-In program, which began in April, achieved its target of freeing $200 million throughout GE

Help wanted: International sales

A terrific opportunity is available for someone interested in becoming manager, manufacturing and distribution sales operation, in Melbourne, Australia. This level 13/14 position carries responsibility for all of Australia in the manufacturing and distribution area, a market generating $4 million in revenue. Reporting directly to the manager, GEISCO-Australia, the person filling this position will gain valuable internation-

al experience and the knowledge that comes with total responsibility for managing a business operation.

This approximate two-year position is an unique career opportunity accompanied by an attractive compensation package. For more information contact Gabe Battista, manager, Pacific and Distribution Sales Operations, crossfile address GABE.

UPDATE

Software International: Our newest team member

In September, GE Information Services announced a series of acquisitions that were part of the effort to become a full service software supplier. The largest acquisition was that of Software International Corporation, a company whose General Ledger and Financial Reporting is a top quality software package that satisfies the financial reporting needs of customers across industry lines.

Software International Corporation began fourteen years ago as a professional consulting firm. Very early in its history, the company identified the need for a high quality

Software International President Bill Watson

First quarter results in

General Electric Company's earnings were $377 million in the first quarter of 1982, Chairman Jack Welch has reported. This was an increase of 5 percent from the $359 million for the first quarter of 1981. Earnings per share were $1.66 compared with $1.57 for the 1981 period.

Sales in the first quarter of 1982 were $6.02 billion, down 1 percent from $6.9 billion for the 1981 quarter.

Commenting on the first quarter results, Mr. Welch said: "This continued earnings improvement in the face of the current recession indicates the strength of General Electric's diversity. Our first quarter business environment was highly polarized. Several of our businesses that are closely tied to construction and consumer durable markets were down, while other businesses in services and high technology did very well.

Contents

General Electric Information Services Company

Software International
cont'd. from p. 1

financial application package. The result of this insight was the development of Software International's General Ledger and Financial Reporting System, one of the most successful financial application packages in the history of the software industry.

During the development of this package, Software International determined that, despite operational differences, all businesses have similar management information needs.

Software International chose to address these similarities.

Designing a product

"Our approach," according to William G. Watson, Software International Corporation's president, "was to design a standard, heavily-featured product that would satisfy 95 percent of the financial reporting needs of any customer, in any industry, in any country. We are very reluctant," he continued, "to customize our software. Standardization has allowed us to maximize the impact of enhancement poli-

cies, research and development efforts, and distribution networks. From the customer's point of view the products are quick to install, immediately operational, and assured to meet current and future requirements."

Keys to success

Since 1968, Software International's product line has expanded to include a wide range of financial and manufacturing management systems. Software International also provides strong product and customer support, including in-

SI expands in Australia

Software International Corporation has strengthened its computing services operations in Australia with a new business relationship and the addition of professional staff.

Simpac Systems Pty. Ltd., an affiliate of SI, has changed its name to Simpac International Pty. Std. SI's growth is clearly reflected at Simpac International where, in 1981, there was a 60 percent increase in staff, both sales and technical. Simpac also recently added a branch office in Melbourne.

"We are excited to be part of GE Information Services' future," said Steve Twadell, general manager, Software International, Sydney. "Our growth has been excellent and we are fully committed to continued growth and support of our products."

Computer Processing Services, an agent of Software International with offices in Singapore, Hong Kong and Kuala Lumpur, Malaysia, is now reporting to Simpac International on a day-to-day, operational basis. IDAPS of Auckland, N.Z., is an agent of Simpac.

"We have every intention to enchance and expand our computing services operations in the Australian

marketplace," said GE Information Services' President Greg Liemandt. "We are extremely excited about the synergy created by the pooling of resources between GE Information Services and Software International. SI brings with it a very firm foothold in the financial and manufacturing systems market. This, coupled with our success in telecommunications and networking, will put us in a position to offer a wide range of new solutions to businesses. New markets and products created by this synergy will significantly contribute to GE Information Services' goal of reaching $1.5 billion in sales by 1986."

stallation assistance, continuing education, and a 12-hour-per-day customer service phone.

Recently introduced were MRP System II, an integrated manufacturing resource planning and financial reporting system, which has already gained excellent market acceptance, and Fiscal DSS, a commercial and municipal financial reporting system. A Forecasting, Modeling, and Reporting System is planned to be introduced.

One key to Software International's success is its emphasis on employees. "We want Software International to be the leading software producers in the world," said Bill Watson, "and we know that good products alone won't do it. People make a company." To reinforce this belief, Software International has developed an annual Maximum Achievement Award program which lets outstanding contributors from all areas of the company (sales, technical, professional, and administration) enjoy a resort vacation and recognition from their peers for a job well done.

Solid products backed by a dedicated, experienced staff has proven to be a very successful approach. Today, Software International has more than 4,000 satisfied customers in 43 nations, representing over 300 of the Fortune 500. There are wholly-owned subsidiaries: AMS, Inc. in Bellevue, Washington; Simpac International

Pty., Ltd. in Sidney, Australia; and MRP Software International in Woburn, Massachusetts. In addition, a network of 16 international agents sells and supports the products around the world.

Rapid growth

Part of Software International's success can be attributed to its excellent domestic sales and systems force, representing almost 150 of its 400 North American employees. Sales, technical support staff, and educators operate from offices in Atlanta, New York, Toronto, Montreal, Chicago, Houston, Dallas, Los Angeles, San Jose, and North Andover near corporate headquarters in Andover, Massachusetts, just outside Boston.

To accommodate Software International's rapid growth, the company is building a new headquarters. The 100,000 square foot facility in Andover will house the currently-dispersed Boston area staff and provide meeting space for product demonstrations, customer education, and internal training.

In its 14-year history, Software International has experienced consistent, strong growth, approximating 50 percent per year, keeping pace with a burgeoning information services industry. "But our best year ever, with the strongest growth, was the last . . . 1981,

and our biggest month in history was September 1981," says Bill Watson. He comments, "Our major growth is yet to come. Software International is an adolescent."

To continue and increase this rapid growth rate, early in 1981 Software International's Board of Directors began exploring alternatives: either a public offering or a merger. Mr. Watson explained, "During this process it became clear that GE Information Services had the most to offer Software International in terms of computer power, international telecommunications, and worldwide sales capabilities. GE Information Services is a people-oriented company with an impressive team of top managers whose long-term objectives dove-tailed comfortably with our own. We both have a lot to gain from this exciting endeavor."

The acquisition, effective in early October 1981, has not changed Software International's direction but has enhanced it by supporting a rapid expansion of domestic and international market exposure for the application products. For its part GE Information Services now can offer a full line of information services products including standard, proven, and successful financial and manufacturing systems with a team of experienced educators and technicians to support the products.

RESULTS

"Our quarter results could be characterized in three distinct categories:

• Those impacted by the depressed conditions in consumer durables and construction markets had significantly lower operating earnings, i.e., major appliance, housewares, television, and the air condition businesses.

• In contrast, services and those businesses in high technology niches did very well. General Electric Credit Corporation experienced an 89 percent surge in earnings to $51 million in this year's first quarter as a result of a much higher level of earning assets and somewhat lower money costs. Strong increases were also experienced by Information Services and Engineering Services. The high technology gains were led by Medical Systems and Aerospace, both of which had continued strong growth and resultant earnings gains.

• Our third category would be strong core businesses which, although operating in weak markets had the benefit of increased productivity and new product introductions. Lighting with its significant earnings gains was the principal example of several in this category.

"The remainder of 1982 will continue to be challenging. We anticipate very little economic improvement in the second quarter. Our economists are looking for a moderate recovery in the third and fourth quarters fueled by the July tax cut and lower inflation."

Mr. Welch then summarized the results of the various segments of the Company in the first quarter of 1982, compared with those for the same quarter of 1981. For the Services and Materials Sector, he reported substantially higher earnings and good revenues increases, led by General Electric Credit Corporation and Information Services. Engineered materials operating earnings were down on lower volume, however, overall earnings were up slightly reflecting a gain on the sale of the mining products business.

Employees get 1981 Annual Report

Nearly all GE employees have now received the company's 1981 Annual Report issue of the GE Investor. It went into the mail in mid-March for distribution to a wide GE constituency, including shareowners, key customers, employees, financial analysts, community leaders, educators, the press, and government officials.

Most GE employees are shareowners as a result of participation in GE savings plans.

The opening statement of the Report assesses today's world business climate, noting how GE intends to enhance its revenues and earnings in this intensely competitive environment.

The letter to shareowners (pages 2 and 3), co-signed by the Chairman and Vice Chairmen, begins with a survey of the company's good 1981 results, pays tribute to former GE Chairman Reginald Jones for the strong company he left to the new GE management, and spells out four ways by which GE is driving for worldwide market leadership.

A photo-essay (pages 4-17) gives readers a look at the company's major 1981 thrusts —identifying ways by which GE is going for fast growth in a slow-growth economy.

A segment-by-segment survey of worldwide results (pages 22-28) provides brief operations reviews that explain how these segments are pursuing growth opportunities.

The company's financial results for 1981 are summarized in a final section of the publication.

6-plus pennies: Plowed back to help us keep up

It's just one line in the financial summary in GE's 1981 Annual Report. But, it's an important line, about an important figure.

Six and one-tenth cents to be exact. That was GE's profit on each dollar of sales in 1981.

GE's profit rate has stayed about 6 percent—six cents on each sales dollar—for the past few years . . . In 1980 it was 6.1 cents . . . . In 1979 it was 6.3 cents.

Holding that 6 percent rate in the face of tough economic times, and even tougher competition, is the result of hard work by all of us; secretaries, assemblers, sales people, engineers, managers. . . . Sound decision and good effort have enabled us to maintain our profit rate as our sales have grown.

What do those six-plus pennies of profit on each dollar of sales mean to all of us?

Of those six-plus pennies of profit, 2.6 cents went to share

owners as dividends—and nearly every employee is a share owner. A total of 3.5 cents—a total of nearly $1 billion—was retained for reinvestment in new equipment and facilities to help us win our share of the customers available.

Overall, about $2 billion was spent last year for new plant and equipment. Here are just a few examples of the way those expenditures are going to work for us:

• In Jonesboro, Ark., where GE people manufacture motors primarily for refrigeration equipment, a $6.4 million investment is adding 13,000 square feet plus equipment to expand operations.

• In Lynn, Mass., one investment of $1 million is improving the facilities which house the bucket and rotor manufacturing activity of Medium Steam Turbine to help Lynn remain competitive.

• In Schenectady, N.Y., just

one of the continuing investments in Large Steam Turbine-Generator business is $1.5 million for a computer-aided manufacturing system to improve customer service capabilities.

• At GE Information Services, the supercenter equipment swap-out and enlargement of the Ohio Supercenter will help us serve our customers better.

Those are only a few of the many continuing investments in the business.

Of course, each sales dollar included items other than the 6.1 cents of profit. The other 93.9 cents were also important to us. They covered our pay and benefits, supplies and services, and all the other expenses that were necessary to keep us working last year. But, the six-plus pennies of profit were equally important. Without them we might soon be out of business. They will help keep us working in the years ahead.

Joanne Di Novo, a 7th grade student from Belt Junior High School, enjoyed using the MARKQUIK™ Terminal as a telephone during the class.

Kids, computers introduced

Paul Sharer, age 14, wants to be an engineer, and he's decided he wants to work with computers. So does Anna Ledwell, age 12, although she hasn't decided what specific area to go into yet.

Paul and Anna are two of the 25 students who attended an Introduction to MARK III® Class at the International Training Center recently.

Sponsored by the D.C. chapter of the Elfun Society, the class was designed to give local junior high school students a taste of the computer world. "We initiated the program on the notion that if the students found themselves interested in this area, they would be able to take advantage of taking further high school computer courses," said Jack Hanson, chairman of the Elfun Society Public Affairs Committee.

During the class, taught by Steve Mudrick, manager, foreground application techniques, the students learned how to sign-on a terminal and basic editing commands, they saw the film Global Village, and by the end of the day they had written their own BASIC program.

"We're extremely excited about the benefits that this program offers to the students. And as a major employer in Montgomery County, we have a corporate responsibility to our community. By using our resources to the benefit of the students in the county, we are helping to fulfill this responsibility," Jack said.

Another Elfun-sponsored class for high school students is scheduled in April.

Anna Ledwell (left) and Angela Marie Holiday, both age 12, get some hands-on experience.

Saudi show a success

"The show was an unequivocal success," said Jesse Burnett, senior specialist, advertising and sales promotion, Programs Management Operations, "particularly in terms of its stated objectives of establishing that General Electric is a worldwide high technology company."

Jesse was talking about the GE Science and Technology Exposition (SATEX) which took place in Riyadh, Saudi Arabia, recently. All sectors of General Electric involved with the Saudi market, 26 including GE Information Services, participated in the trade show. High level Saudi government officials attended the show along with business executives, educators, distributors, and almost every major foreign multinational company doing business with the Kingdom.

The three-day exposition generated a prospect list of over 150, many which represented the leading Saudi-based and other multinational firms in the Kingdom.

The GE Information Services booth featured distributed data processing capabilities, as demonstrated on four MARK-LINK® Terminals, for integrated project scheduling and cost control, energy exploration, and business and financial applications.

"The exposition went so well

that it should position both GE Information Services and General Electric for continued market growth in this dynamic, growing, and prosperous region of the Middle East," Jesse said.

Jesse went on to say that international trade shows pose special problems in terms of almost everything. These range from the power supply to shipping and transport to communications lines interfaces and even to the level of suport services at the show.

"For example," he said. "Our set up crew didn't speak English and didn't have any tools. The key is thorough planning before hand and being prepared to become an

instant expert at doing everything that might crop up once there. Everyone—Charles Soto (field services representative from Los Angeles), Rodney Walker (data communications marketing specialist), Jim Smith (Middle East development manager) and Gabe Battista (general manager, Pacific area and distributor sales) pitched in as a team to make this show a success. Those are the kinds of things that make the difference between a successful show and a nightmare everytime in the international trade show arena."

"It was worth all the effort it took," said Rodney, "to get the display and terminal hardware there in order for GE Information Services to participate in this important exhibit."

A representative from GE Aircraft Engine Group (left) tells Prince Faad how the MARKLINK Terminal can help with data processing needs. Ed Bavaria, vice president Middle East African Business Development, (middle), Ahmad Habibi, and Gabe Batista (right) listen in.

Moving on

Lawrence J. DeMonaco — has become manager, employee relations for the Technology Operations. Larry comes to GE Information Services from the Metallurgical Business Division, Worthington, Ohio, where he was manager, organization and manpower operation. He joined GE in 1969 on the Relations Management Program and has held increasingly responsible positions in Employee Relations and Organization and Manpower.

Carolyn S. Littles — is now manager, financial analysis Technology Operations. She rejoins GE Information Services after a four year break. Most recently, she was manager, operations analysis for the Technical Systems Sector in Fairfield, Connecticut.

John H. Meyer — has become manager, auditing, operations analysis, Finance Operation. John is responsible for the audit work crossing all functions of GE Information Services and also to provide assistance to the Company Staff for special reviews and projects.

Jamie L. Moore — has become employee relations manager for the national accounts region, Employee Relations Operation. Located in New York City, Jamie is responsible for staffing, development, and employee relations practices for the national accounts region.

Lou VanDyck — has become manager, financial analysis, Programs Management Operations. Lou is now responsible for all phases of the financial activities for the Programs Management Operations.

Jay Walsh — is now employee relations manager, U.S. Sales and Services Department, Employee Relations Operation. Jay's responsibilities include recruiting, development, management enrichment, and employee relations practices for all U.S. Sales locations.

February S&SP prices

Here is the report on the average prices for GE Stock, Mutual Fund, and Holding Period Interest Fund used under the Savings and Security Program to credit participants' accounts in February.

The Long Term Interest Fund price for the last day of the month is also shown, as well as year-to-date annual income rates for both the HP and LT Funds.

Holding Period Fund

Month	Stock Price	Mutual Fund Price	Price	YTD Annual Income Rate			Long Term Fund	
				1980	1981	1982	Price	YTD Annual Income Rate
Announced HP Fund Rate				10.75%	13.00%	16.25%		
January	$58.075	$24.957	$10.00	11.0	13.2	16.5	$8.95	
February	$61.434	$24.794	$10.00	11.0	13.2	16.5	$9.05	14.8% -a)

(a- At February 28, 1982, the net current yield of the long term investment portion of the fund was 13.9%.

UPDATE

GE'S SECOND QUARTER EARNINGS ANNOUNCED

Earnings of General Electric Company were $465 million in the second quarter of 1982, chairman John F. Welch, Jr. reported. This was an increase of 7 percent from the $436 million reported for the second quarter of 1981. Earnings per share were $2.05 for the 1982 quarter compared with $1.92 for the 1981 period.

Sales in the second quarter of 1982 were $6.63 billion, 5 percent less than the $6.95 billion reported for the comparable 1981 quarter.

Earnings for the first six months of 1982 were $842 million, an increase of 6 percent from $795 million for the first half of 1981. Earnings per share were $3.71 for the first two quarters of 1982 compared with $3.49 for the same period in 1981.

Contents

RAY MARSHALL ON CHANGE: MICROS, TIPO, SERVICE QUALITY

Update recently had the opportunity to interview Ray Marshall, senior vice president, Technology Operations, about the directions the business is taking.

Q: *You just passed your 25th year with GE. What are the most impressive changes you have seen?*

A: Technology. The time compression of technology change is most impressive. I have always gravitated toward high technology businesses and feel fortunate that I very early decided to move into the information processing world. The rapid rate of change here is almost unreal. I can't think of anywhere else in the business scene that there has been an impact equivalent to the rapid change in information processing. I am also certain that the impact of the computer and communications will be even more impressive and dramatic in the future.

Q: *What does the establishment of the ORION and HERCULES projects mean to MARK III® Service?*

A: One of the well tested equations of success in the business world is that product leadership and market position coupled with cost leadership yields an extremely strong business.

One of the responsibilities of technology at GE Information Services Company is not only to move technical capabilities forward, but to research the avenues of lowest costs. One of the largest elements of our cost structure is the computers we employ in the supercenters.

Hence the HERCULES and the ORION projects are both aimed at source of supply of large mainframes for

Ray Marshall

RAY MARSHALL

the last half of the decade. We are aggressively pursuing larger capacity in computer power with the lowest cost per unit.

The trend in large computers shows great promise in this area. To have suppliers compete for the General Electric business is a distinct advantage for us. And since the machines under consideration can be based on the same architecture, there will be a very easy transition from the current system to the next one.

Q: *You have recently established the Engineering Technology Council. What would you like to see come out of it?*

A: I think the Engineering Technology Council could be the leading edge for giving direction in the technological thrust of our business. Many decisions must be made that will have a long lasting impact on the technological base of the business. Using history for example: The basic MARK III Service

Network technology was formulated in the last half of the 60's. We have built on this base through evolutionary means rather than revolutionary means, to have the outstanding network we have today. If we do well in technical calls, we can evolve our business, rather than a very costly scrap and rework process.

So, I'm looking to the Council to provide technical guidance in making the big calls. And one of the biggest calls is the relationship of our business with the explosion of micros. To many they look like threats to our business—even face-to-face competition. But I think the real challenge is how to make micros synergistic with our business.

Most probably, the best approach will be a combination of centralized and distributed computing in product areas where we are strong today. For example, in order service and financial reporting, we could integrate micros fairly easily. This technical area offers us one of the biggest potentials for new

directions for GE Information Services products.

Q: *Has our business been hurt by having no strong position on micros?*

A: No. Not right now. There is relatively low use in business today but it is exploding. In general, the impact on our revenue is small in 1982. I think there were several years of introduction micros had to go through to shake out their position. But with the entry of IBM and other large manufacturers into the market, the broad path has been chosen.

Certainly, when the business community decides micros fit everywhere . . . we have to be ready.

We can expect more and more power, storage, and software—in fact a flood of software. So we'll have to establish where we will be in '83 and '84. Certainly, when the business community decides they fit everywhere, *which they will decide,* we have to be ready.

I think our strengths are well suited to make micros a key element of our future success—large applications with customized systems, turnkey system, and complex application packages.

Q: *What direction will the future integration of TIPO take?*

A: We are extremely happy to have TIPO as a member of the GE Information Services family. We've all heard that you cannot mix corporate services organizations with profit making components. Not true! I believe a profit making component such as we are can be excellent stewards for this corporate responsibility and since the TIPO activities are so close to the main line of GE Information Services activities, we will become stronger both internally and externally.

It is important to understand that we fully intend to use the many synergies to strengthen both the corporate position and our position. For example, the original consolidation proposal projected $19 million in cost savings. We are now projecting well over that number. There are a number of steps we're taking. We will make Schenectady our fourth supercenter, which will negate the need for another location. We will consolidate TIPO's IBM activities into MARK 3000 ™ Service and integrate TIPO's Honeywell based activities into GCOS. We will also integrate QUIK-COMM ™ Service and RECOMM. For the near future, we will leave TIPO's voice communications

activities intact. Further, we will be integrating TIPO's and GE Information Services' domestic satellite activities for both voice and data.

Q: *What is the Technology Operations doing to improve the response time on MARK III Service.?*

A: One of the areas that separate us from the competition is that we are recognized as the service quality leader in the industry in terms of availability, response time, reliability, and all other measures. A problem with high service quality is that as you get close to

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The most usual cause of degradation of service quality is change.

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perfection the customer expects that level all the time. Since we are always working against ourselves, even a few tenths of a percentage point is detectable by customers.

The most usual cause of degradation of service quality is change. Change in hardware or software, in delivery systems, or change in the way customers use the service. All require different solutions.

In the customer's area, the best solution is to be able to anticipate a new or different way the customer is

going to use the service. Our customer interfaces are extremely important in forecasting new demands on our service.

The antidote to internal change is control and management.

Change is inevitable and can bring about better service costs and new products. But uncontrolled change without adequate field testing, quality assurance, or exhaustive planning can create tremendous problems.

Q: *What is the value of software methodology to our business?*

A: Certainly in our business the largest growth area is software. The projected scarcity of software developers in the future is truly alarming. With this increasing demand and decreasing supply, productivity

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The projected scarcity of software developers in the future is truly alarming.

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becomes the single most important ingredient for the software base of the business. Software design has reached the point where methodology and software development techniques can be applied to developing software faster —with a higher promise of

RAY MARSHALL
cont'd from previous page

meeting the specifications, with superior quality and ease of development. So applying more method, particularly higher order languages, structured programming techniques, and transportability of base applications to the software development process is mandatory if we are to accomplish the major items on our agenda.

Q: *What impact have the TMO's had on Technology Operations?*

A: The biggest thing they provide is a focus for the allocation of resources. As this is true of the rest of the company, it is no less true of Technology Operations. We can organize Technology Operations' work toward a finite set of objectives knowing we are in consort with the market thrust of the business.

Q: *Will the recent cost reductions have a negative impact on our service?*

A: All managers try to balance impact of cost reduction measures on both the short term and the long term. And our recent cost reductions were well balanced. We didn't eliminate or even significantly reduce *any* critical program. I would say, however, that in the event the business environment does not improve or further deteriorates, then the

changes we would have to make would be difficult to do without some significant reordering of our priorities. The fortunate thing for the Technology Operations is that the

TELEVIDEO® 950 CRT NOW OFFERED

"We chose the TeleVideo 950 CRT for a number of reasons," said Phyllis Bryant, data terminals marketing, projects manager, Delivery Systems Products Department. "Basically, it was on the basis of performance, reliability, service, cost, and future availability."

Phyllis explained that the TeleVideo 950 CRT, which will retain its logo, will be leased or resold through GE Information Services, which will service it on the customer's site. Customers will call client services for service.

"The TeleVideo 950 CRT has a long list of desirable features for our customers," she said. "But the most attractive attributes are that it is a smart CRT that can be used with the MARKLINK® Terminal or with MARK III® Service. We have found that the CRT increases productivity two fold."

"And we have a real

first with the TeleVideo 950 CRT," she went on. "There is an on-line, self-paced training course in the *** library. Anyone can log onto the TeleVideo 950 CRT and the training course will walk you right through how to use it."

Some of the TeleVideo 950 CRT's features are:
- 24 lines by 80 characters per line;
- 25th status line;
- line and character editing capability;
- Underlining;
- Non-glare screen;
- Programmable function keys;
- 15 special graphics characters;
- Versatile screen attributes;
- Buffered auxiliary port; and
- Optional 48- or 96-line memory.

For further information on the TeleVideo 950 CRT, please call Phyllis Bryant.

productivity improvement projects we began last fall are reaching fruition on schedule. They significantly strengthen our position to take these reductions without damage.   △

SYSTEMS HEARS A CLIENT'S VIEW

"All our records are on your system," said Raymond F. Bryant, director of information systems at General Telephone of Florida. "I want you to think about that."

He was one of a series of speakers at the Systems Operations Department meeting in June held in both Rockville and Brookpark. Ray Bryant, Erik Ringkjob, executive vice president, Storage Technology Corporation (a vendor), Art Marks, senior vice president, Program Management Operations, as well as Tom Little, vice president and general manager, Systems Operations Department, and Ray Marshall, senior vice president, Technology Operations, each presented their perceptions of the department. Chris Hegarty of C.J. Hegarty and Company was also a featured speaker and highlighted self-motivation techniques.

Ray Bryant detailed how heavily General Telephone of Florida depends on GE Information Services for the successful operation of its MARK (Mechanized Assignment and Record Keeping) system. The MARK system is in turn a fundamental component in GTFL's service to its own clients.
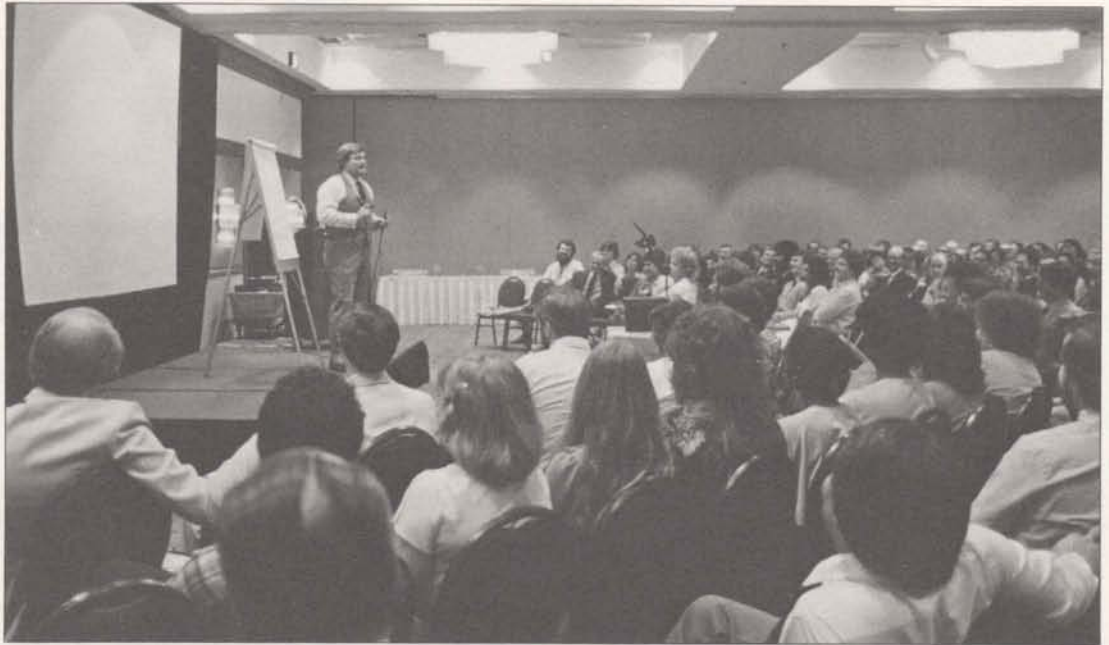
Ray Bryant tells it to Systems.

"In one month alone, May 1982," he said, "the MARK system handled 21 million transactions. This is the most powerful telephone operating system going.

"Our overall performance is tied to your quality of service," he continued. MARK III® Service plays a vital role in our business. Without it, we are out of business—not only that, but we could be fined if you go down."

Ray Bryant detailed how he has held up GE Information Services performance as the benchmark of quality to his own organization. "Since 1972, we've had an excellent, reliable relationship with you.

"This is important because all our eggs are in one basket: MARK III Service."

He then offered a challenge to the Systems Operations Department: Keep state of the art in technology and make maximum use of talented personnel. "People make the system work," he stressed. "Everybody has technology, but you have the people."

Ray Bryant's comments addressed the same note that Art Marks did in his outline of the role that the Systems Operations Department plays the execution of GE Information Services product plans — delivery.

"We could have the most perfectly targeted marketing strategy in the world," Art said, "but if we couldn't deliver, we'd lose."

Each speaker explained how the Department fits into his view of the GE Information Services whole. Taken together, they revealed a complete picture of the Department's relationships.

GE'S EARNINGS

Sales in the first half of 1982 were $12.66 billion, down 3 percent from $13.04 billion for the 1981 period.

Commenting on second quarter results, Mr. Welch said:

"The highly polarized business environment we noted in the first quarter is still with us. While the overall level of sales was disappointing, there were several encouraging aspects of the second quarter performance. Operating margin as a percent to sales was 9.5 percent compared with 9.2 percent in last year's second quarter. This margin rate improvement reflected strong sales gains by a number of our high technology and services businesses and continuing favorable trends in costs across almost all of the company's businesses. Earnings from aerospace, aircraft engines, medical systems, nuclear fuel and services, information services, and our financing subsidiary, General Electric Credit Corporation, were up $62 million, 66 percent over the second quarter of 1981. Strength in these businesses more than offset the $33 million, or 10 percent lower earnings in other businesses, primarily Major Appliance, Lighting, and Engineered Materials.

"General Electric Credit Corporation, whose results are included in consolidated earnings on an after-tax basis in other income, turned in another strong performance. Earnings of $47 million were 34 percent more than the $35 million in 1981's second quarter, reflecting more favorable interest rates and a higher volume of business.

"GE's second quarter earnings also benefited from reduced interest and financial charges from somewhat lower borrowings and interest rates compared with a year ago.

"While we do expect a modest recovery, principally consumer driven, the continuing high level of interest rates is creating a drag on capital spending and poses a threat to any sustained pickup in 1983."

"I've had substantial opportunities for setting product directions plus the opportunity for changing locations," said Norm Harvey. He was explaining some of the reasons he has been with GE for 30 years. "In '65 I heard about the Dartmouth time-sharing work, and for the next five years I was involved in the start-up of the new business," he said. Since then, Norm has worked throughout the organization including the Japanese joint venture. He also has FLEXIMIS, DMS, GRAFIC, and a great deal of work on the connectivity of CRTs to MARK III* Service to his credit.

SIZABLE INCOME TAX CUT JULY 1

July 1 was a special day for most GE Information Service employees. That's the day the federal income withholding tax rate for individuals was reduced 10 percent — a tax cut twice as big as the one that went into effect last October 1.

Leon Golinski, manager personnel accounting, Finance Operation, said the payroll has been reprogrammed according to a government directive so that most paycheck deductions for federal income tax were lowered about 10 percent on wages paid after Wednesday, June 30. That means higher take-home pay for most employees

paid on Thursday, July 1 and after.

HOW IT'S FIGURED

He explained that the decrease in income tax deductions is usually "about 10 percent" rather than a precise 10 percent because GE's payroll operation must use tables issued by the government which provide formulas for each wage bracket.

"It isn't as simple as taking one's present tax deduction and reducing it by 10 percent," said Leon. "While that's a good way to estimate the reduction, in some cases the tax reduction was more than 10 percent in other cases, it was less.

"Higher-paid employees who are subject to the maximum tax rate also will have reductions in tax withholding which are less than 10 percent."

SOME EXCEPTIONS

There are no changes in the deductions of those who previously elected to have specific amounts withheld from their pay because they wished to cover expected taxes from other income sources.

This is the second of the three scheduled income-tax reductions approved by Congress last summer. On July 1, 1983 another cut of 10 percent is scheduled.

Anyone having questions should contact Leon Golinski.

MAY S&SP PRICES

Here is the report on the average prices for GE Stock, Mutual Fund, and Holding Period Interest Fund used under the Savings and Security Program to credit participants' accounts in May.

The Long Term Interest Fund price for the last day of the month is also shown, as well as year-to-date annual income rates for both the HP and LT Funds.

Month	Stock Price	Mutual Fund Price	Holding Period Fund				Long Term Fund	
			Price	YTD Annual Income Rate			Price	YTD Annual Reinvestment Income Rate
				1980	1981	1982		
Announced HP Fund Rate				10.75%	13.00%	16.25%		
January	$58.075	$24.957	$10.00	11.0	13.2	16.5	$8.95	14.7%-a)
February	$61.434	$24.794	$10.00	11.0	13.2	16.5	$9.05	14.8% -a)
March	$61.011	$24.397	$10.00	10.9	13.2	16.5	$9.04	14.9% -a)
April	$64.321	$25.404	$10.00	10.9%	13.2%	16.5%	$9.19	15.0%-a)
May	$63.269	$25.377	$10.00	10.9%	13.2%	16.6%	$9.24	15.0%-a)

(a- At May 31, 1982, the net current yield of the long term investment portion of the fund was 13.9%.

MOVING ON

Barris named general manager; Blackburn, McNerney become vice presidents

Peter Barris—has been named general manager, Financial Services Department, Programs Management Operations. Peter is now responsible for the programs and marketing to address the financial services arena.

Alexander M. Blackburn III—has become vice president, Finance. Al comes to GE Information Services from his last position as manager-Finance, Refrigeration Products Division of Major Appliance Business Group. He joined GE in 1964 and has held numerous positions within the company.

Robert McCalley—has become manager, network program, Delivery Systems Products Department. Bob's responsibilities now include requirements definitions, project management, commercialization, and pricing for the Network business.

W. James McNerney, Jr.—has been named vice president and manager, Strategic Planning and Business Development Operation. Jim comes to GE Information Services from McKinsey and Company, Inc., and prior to that from Proctor and Gamble. He is a graduate of Yale University and the Harvard University Graduate School of Business Administration.

Roger I. Sekera—is the manager, employee relations, staff components, Employee Relations Operation. Roger was most recently a vice president and partner in McFeely Wackerle Associates, Chicago, a national executive search firm. Roger will be responsible for the employee relations activities for the Employee Relations Operation, the Finance Operation, Legal Operation, and Strategic Planning and Business Development Operation.

MILESTONES

Congratulations to the following employees who celebrated service anniversaries in June.

George Ovigian	35
Norman Harvey	30
Raymond Marshall	25
Ralph Taylor	25
Albert Ertel	20
Charles McInnes	20
James Richards	20
N. Lee Beyer	15
Henry Martin	15
Lawrence Mauceri	15
Peter E. Nilsson	15
Gerald Porter	15
Eleanor Smith	15
Ike Smith	15
Lorraine Miller	10
Geraldine Mills	10
Philip Snyder	10
Diana Chow	5
Marc Datlow	5
Christy Gentile	5
Arthur Hyder	5
Joan Robertson	5
John Staples	5
John E. Toussaint	5