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SPECTRUM

FOR THE EMPLOYEES OF GE INFORMATION SERVICES COMPANY

cover story

THE MAGIC OF GENIE™



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EAST-TEK

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**INFORMATION
SERVICES**

General Electric Information Services Company, U.S.A.

THE MAGIC OF GENIE

[At the West Coast ComputerFaire in San Francisco last April, the 50,000 personal computer enthusiasts touring the exhibits kept stopping in the aisles in front of the large monitor at the General Electric Information Services Company booth. On the screen, the public domain VCO and Studio Session Player (SSP) softwares available through GENie were demonstrated alternately. The VCO screen showed a conference table surrounded by faces (sketched to resemble participants); when a speaker addressed the group, that face became more prominent, and the lips moved. The SSP program emulated a cassette player, producing jazz music whose tracks could be turned off or adjusted (similar to an equalizer). And if the trade show participants wanted to talk to the authors, they were right there. GENie was out of the bottle.]

On August 9, ten months after its introduction, GENie—the GE Network for Information Exchange, GE Information Services' first venture into the mass consumer market—signed up subscriber number 20,000 roughly five months ahead of the original schedule. By the end of 1986, GENie should have 33,000 subscribers.

The GENie service offers personal computer users in more than 500 cities affordable computing time during evenings, weekends, and holidays, increasing MARK III[®] Service traffic during what otherwise would be off-peak and therefore excess-capacity network hours.

Trade press and subscriber reactions to GENie have been very positive (see illustrative comments on page 2). There is a consensus that GENie is priced right, easy to use, and very subscriber-responsive.

The GENie Network

The GENie network has "one enormous advantage over everyone else, which gives us staying power and will help us to win the market," Vaughn Rockney (Product Manager, Mass Market Applications) explains. "In my opinion, GENie uses the best mainframe and network system in the world, and because it's already in place, all we have to do is write applications."

"GENie is priced at \$5 per off-peak hour," Jean Wackes (Senior Communications Specialist, Advertising and Sales Promotion) says. "That rate is up to 60 percent better than our competitors at 1200 baud.

"Moreover, charging the same rate for 1200 baud as for 300 baud allows users to spend less time on line and save money," notes Wackes. "And the modem manufacturers love it—they think it will drive the



Willard Convention Photo

The GENie staff took their show on the road to the ComputerFaire in San Francisco, and interested users visited the booth in droves.



Bill Loudon, GENIE GM, came to GENIE with a strong track record in the consumer on-line services industry.

sale of 1200 baud modems." GENIE also offers 2400 baud service in over 60 cities at a \$10 per hour surcharge.

GENIE went commercial on October 1, 1985, and—measured by subscribers—has become the third largest service in less than a year, one of the fastest growth rates in the industry. (CompuServe claims 250,000 people have subscribed at some time, and The Source has around 60,000 subscribers.) Total GENIE revenues topped \$1 million on July 12, and target 1986 revenues have been raised from \$2.6 million to \$3.1 million.

"GENIE is well on the way to exceeding its original 1986 revenue target," reports Ruann Pengov (VP & GM, Sales & Marketing Services Operation). "Revenue currently exceeds one-quarter million dollars a month, and we will exit the year at a monthly pace of over one-half million dollars per month. GENIE's revenue target for 1987 is \$10 million."

The GENIE staff and the outstanding volunteer support from employees throughout the company are largely responsible for the success of the service. Bill Colbert (Product Manager, Mass Market Technical Support) notes, "We literally could not have accomplished our objectives without a tremendous influx of volunteer help."

Rockney emphasizes, "Many employees helped us design, alpha test, and work the bugs out of GENIE, especially the folks in Network Operations, Amstelveen, and Brook Park.

"And we wouldn't be anywhere without the help of MARK III Engineering. We're very proud of the new MARK III products we're using. GENIE is the first major user of XMODEM, TP Relogon, C language, multi-stream C language (on EAASY SABRE), and the 'MARK III as an Asynchronous Device' capability."

USER AND PRESS REACTIONS TO GENIE

GENIE users—many of them former customers of more expensive competing services—have volunteered both suggestions and positive reactions to the system. The trade press has reviewed GENIE quite favorably, a process encouraged by the Press Relations editorial program (described in the story).

The following quotations give a feel for user and press reactions to GENIE.

Users

"In short, good-bye CompuServe and big Source and hello GENIE. You are great, just don't forget about novices in the future. We need a good network just like you."

"You've definitely proved that you care! Gotta go turn in my resignation to CompuServe."

"I had CompuServe, gave them up. They had a lot more topics than you, too many in fact, [but] they were just too impersonal and didn't care about customer relations...Some day you will be big, too, but make it a point to always care about customers. They are important, but too many businesses forget this...Keep up the good work..."

Press

"GENIE's electronic mail...RoundTables...and real-time computer conferencing...are a little better than most, and the user manual is one of the best around...When you enter command mode, GENIE's solid design becomes apparent...GENIE also uses plain English commands to access many services...GENIE's RoundTable command mode is particularly powerful...GE Information Services has built a solid foundation upon which GENIE can grow, and it appears to be doing so by leaps and bounds." —PC WORLD, July 1986

"According to legend, freeing a genie from a bottle entitles you to three wishes. Telecommunications enthusiasts would wish for unlimited information, ease of use, and low cost. Companies wish for low initial investment, fanatic customer loyalty, and big profits. Although apparently a contradiction in supernatural terms, a new service from GE Information Services, called GENIE, is well on its way to granting all wishes...at \$5 per hour...and with a company of GE's stature in for the duration, GENIE represents an incredible bargain and promises a bright future." —A+ MAGAZINE, June 1986

Genesis of GENIE

Originally called GENESIS in-house, GENIE is the brainchild of Mike Chamberlain (VP & GM, Applications Marketing Operation), who in 1984 first articulated the opportunity to use MARK III during off-peak hours to make money and test the mass

consumer market waters. "Starting a new business and watching it grow is one of the most satisfying feelings you can have," says Chamberlain.

Chamberlain remembered that Rockney had mentioned his interest in mass marketing on his CMMD. One Tuesday, Chamberlain asked him to assess the feasibility of a MARK III CB simulator. With the advice of Norm Harvey (Manager, MARK III Client Applications) and Inta Henderson (Senior Product Manager), Rockney went to work. The next Monday, Rockney demonstrated LiveWire™ to Chamberlain, who offered him the first full-time project position. Rockney didn't think twice.

Shortly thereafter, Bill Loudon came on board to manage the project, initially focusing on business plans and advertising campaigns. Loudon had helped found CompuServe's Information Service (and hence the consumer on-line service industry), designed software (including the first commercial multi-player game, MegaWars), reported on the industry, and gained a reputation for an uncanny knack of predicting the market's strength and direction.

"I've been involved in this kind of business since the inception," Loudon explains. "What we chose to concentrate on is what I know from experience makes money. I believe in state-of-the-market as opposed to state-of-the-art technology. I'd rather follow the market than try to second-guess the market, lead it totally down the wrong path, and thereby disserve my customers."

Rockney designed the menu system, a simple program based on open architecture that enables a new product to be added without recompiling or binding in the new menu. Wackes (who had worked for The Source) and Jack Smith (Technical Writer) were assigned to support advertising and user documentation, respectively.

Employees throughout the company helped the small staff alpha-test the system from May 1985 until it went commercial.

In August 1985, volunteer Dan Leichtenschlag wrote a bulletin board on his own time that was a perfect fit for GENie (and received a management award for the accomplishment). Leichtenschlag later joined the staff full time as Senior Systems Analyst and assumed responsibility for programming, coding, maintaining the menu system, and developing and adapting gateways as necessary for new GENie products. Rod Clark (Manager, Pricing and Alternate Channel Marketing) volunteered financial analysis in support of pricing system development.

In September, Colbert came on board to produce the billing system (also a management award winner), with the volunteer help of Jan Edson's then-Telemarketing group. Rockney and Colbert worked out the basic details over lunch one day, and Colbert



Photo by Jean Sunderland

The GENie technical staff includes, from left to right: (standing) Dana Bacanskas, Bill Colbert, and Debbie Bartlett; and (sitting) Vaughn Rockney, Dan Leichtenschlag, Keats Carleton, and Jim Leichtenschlag (summer intern).

spent the next five weeks (with one day off) producing the extremely compact billing program.

Colbert accommodated demands for subscriber validation procedures, author royalty report interfaces, and surcharges for certain phone numbers—as well as last-minute requests to be compatible with the company's existing revenue accounting system (with three weeks to go) and to incorporate local sales taxes (with ten days to go).

When GENie went commercial in October, the real work began. Now, almost a year later, GENie's prospects are shining. Chamberlain notes, "GENie is living proof that an entrepreneurial start-up program can flourish within a company the size of GE Information Services. In 1987, GENie will have firmly established itself as #2 in its market (and watch out, #1!)."

Products on the GENie Network

GENie started out with an eclectic group of about a dozen products. Since then, the product roster has expanded to around 50 (see accompanying list), and the high-priority goal of adding one product per week—a target that Jay Saur (Product Manager—New Products) affirms is sustainable—will make GENie even more attractive.

"The biggest challenge is to go through the product proposals, assess the product's mission, and decide how to respond," Saur explains. "I've received about 190 (mostly unsolicited) proposals through the mail and through GENie itself, and product quality and marketability range clear across the board. We target some products—particularly those of big companies that might reap the same off-peak revenue-generation advantage that we do—but such products are a small proportion of the total.

"Many system operators (i.e., the product administrators) make a part-time or full-time living from their products. We want our system operators to be happy and to complement each other, so I look for

GENIE PRODUCTS

The products available on GENie are growing at the rate of roughly one new product per week—alleviating one of the few complaints heard about the system. Current and soon-to-be-added products are listed below; many more are still in the proposal or negotiation stage.

CURRENT PRODUCTS

RoundTables:

Apple Macintosh
IBM PC
Commodore
Apple
FreeSoft (Red Ryder)*
CP/M
Tandy
Atari
Starship Amiga
Laptop
Nonprofit Connection
Microsoft Windows*
Electronic Hobbyist
Databases
Art of Programming

TI
A+ Magazine
Spaceport
Science Fiction & Fantasy
Atari ST
Mac Developers
Data Based Solutions
MichTron*
National RoundTable
Conference
BBS
Telecommunications
PROTREE*
Scuba RoundTable

Games:

Stellar Warrior
Games RoundTable

BlackDragon™
CastleQuest™
Adventure 550™
Stellar Conquest
Dor Sageth
Original Adventure
Hunt the Wumpus
Rim World Wars

News:

Computing Today
ISIS Newswire
Computers and Technology
A Networker's Journal
Cineman Entertainment
Groliers Encyclopedia**
Computing Across America
Hollywood Hotline
Apple Tech Tips

Travel:

EAASY SABRE

Other:

GE Mail
LiveWire CB Simulator
Electronic Yard Sale

SCHEDULED FUTURE PRODUCTS

Photo RoundTable
Accu-Weather
GENie Classifieds
Lienti Football**
Computer Express
Stellar Emperor
Hollywood Hotline Trivia
Securities Database
QMODEM*
Softronics*
Frontline Game
Linkage to the Hotline/FYI services

* Product Support
RoundTables

** These products impose a surcharge beyond the \$5 per hour rate.

products that don't compete directly with existing GENie products and negotiate deals with the authors."

Current GENie products include:

- Computer RoundTables™—the guts of the network—which feature public domain software libraries (over 10,000 such files are available, and uploading is free following a successful pilot program) and bulletin boards (broken down by discussion categories and specific topics).
- Product support RoundTables organized by companies that find 800 numbers too burdensome or expensive and local support numbers too restrictive. "We're looking to add a lot of product support RoundTables, which help GENie to tap existing user bases," Saur notes.
- Many classic and multiuser games geared to both adults and children (see list of current products).
- GE Mail™, a subset of the QUIK-COMM™ System that features easy menus and off-line message creation.
- Business Band Real-Time Conferencing in one of 40 electronic meeting rooms (each named after a famous person—e.g., Claude Monet, Marie Curie, Sir Arthur Conan Doyle). Conference leaders can exercise electronic control, e.g., by locking the meeting room door (late arrivers can knock) or requiring hand raising and leader recognition to speak.

- EAASY SABRE, American Airlines' on-line plane, hotel, and car rental information and reservation service.

- Although GENie is communications intensive rather than research oriented, it does include news, reference, computer buff commentary, and movie review products (see current product list) as well as the full electronic version of Grolier's Academic American Encyclopedia.

- Freelance writer Steve Roberts decided to use GENie to make his "Computing Across America II" reports (he used CompuServe for his first trip). To demonstrate that you don't have to be tied to an office to function, Roberts will bicycle across the country for a year, communicating with colleagues, friends, and secretary via GENie. Roberts will ride a 225-pound recumbent bicycle—dubbed Winnebiko II—equipped with solar panels, several portable computers and modem, CB and ham radios, a stereo system and cassette deck for music and dictation, a security system, twin air horns, and lights and flashers.

Measured by revenues, the top three products are:

- The LiveWire CB Simulator, which enables users "with their ears on" to communicate interactively in real time, discuss specific topics on Bantering Board, consult an advice column, and scramble conversations (e.g., to make dates or plan game strategies).



The GENie marketing and client support staff includes (from left to right): Jack Smith, Bonnie Sax, Jean Wackes, and Jay Saur.

- The Macintosh™ RoundTable, GENie's "information center" for Macintosh computer users.
- Stellar Warrior™, a Kesmai Corporation game licensed to GE. Up to 50 individual or team players can fly their hyperspace-capable starships through space, blowing up opponents and taking over planets. "It's like 50-player chess, only more exciting," Rockney says.

Products in GENie's future include:

- A package of home-office financial products (available later this year).
- Travel-related services—such as adventure vacation options and hotel ratings—that should complement EAASY SABRE.
- An electronic shopping mall built around items such as discount computer ware, publications, classified ads, and auctions.

Subscriber Services

Responsiveness to subscribers is an extremely high priority throughout the GENie organization, because a friendly network is what the users say they want—and it's just good business. Subscribers notice that the documentation is easy to read, that someone cares enough to have the system greet them by name and thank them for choosing GENie.

Client Services (CS) is central to subscriber responsiveness, because it is the first point of contact when a subscriber signs up and the first resort when product or network problems are encountered. The CS GENie support group has grown from a few volunteers to a nine-person staff and two full-time temporaries. The group soon will move into a separate office area to encourage a team mentality and to facilitate cross-support.

The CS GENie support group validates all on-line sign-ups and calls within a day with the user's ID number and password—known as "rubbing the lamps to let all the new GENies out," Colbert reports. If unsuccessful at the on-line sign-up, the user can call the CS group 800 number for help. The CS group uses these initial calls to screen for children, potential frauds, and the like.

On average, the CS GENie support group handles from 100-200 sign-ups per day (more during special promotions), and they responded to almost 7,000 customer service calls (including inquiries about new products) in July. "It can be a killing pace," admits Scott Melnick (GENie Client Representative). "Service calls can take a few minutes, a half-hour of research, or days to track network problems."

Edson (Manager, GENie Client Services), notes, "Our new staff is getting up to speed on the GENie network, but that task really is an ongoing challenge, because the number of products on the system and the number of users are growing so rapidly."

Smith produces INSIDE THE LAMP, the GENie user newsletter, which describes new products and commands, relays administrative details, provides RoundTable activity updates, reviews games and strategies, and answers reader questions. (Smith also has an as yet uncompleted mystery on line on the LiveWire CB Simulator.)

"I think the feedback to and support for GENie customers is great across the board," he notes. "Almost every menu has an editor feedback capability, and some weeks we've received 200-300 communications. Our goal has been to respond by the next day, and we've come close."

The technical staff also responds to subscriber needs—which requires one of them to be on call each night. As Leichtenschlag notes, "If something major goes wrong, we could miss an entire day, and that doesn't do much for customer good will. We developed a list of possible problems and decided on each whether the on-call person should be contacted.



The GENie Client Services group includes (from left to right): (standing) Scott Melnick, Vivian Stiggers, Valerie McClintock, Kay Stephens, Jan Edson, and Laura Beckham; and (sitting) Dave Reus, Sandi Flanary, Adam Lloyd, Judy Versteeg, and Debbie Brady.

Once I was called at 4AM when Stellar Warrior went down—but it makes so much money, the call was warranted."

Advertising and Promotion

GENie has been heavily promoted through trade publication ads and special offers—one offered three free hours on GENie; another waived the sign-up fee and gave the subscriber a coffee mug with the magic terminal logo (on the SPECTRUM cover)—when the mug is filled with hot liquid, the smoke clears to reveal the message, "Stay Longer for Less."

The ad campaign is being stepped up with an aggressive schedule of monthly full-page ads that feature before-and-after GENie scenarios (see the vampire ad reprinted on p. 21, first in a series of ads).

"Ads to date have targeted the serious user, the one who already is in the market for our service. In 1987, we'll start addressing the novice and more skeptical users," Wackes explains.

She can track the success of individual ads and ads in specific magazines by using sign-up numbers that are unique to each ad or publication. "If an ad isn't producing subscribers, we'll pull it and go to another ad or publication," she says.

GENie subscription rates also have been boosted by:

- A direct mail campaign last February that delivered 80,000 targeted messages—"Dear IBM®PC owner" and so on—and generated 3,000 subscribers and 10,000 requests for additional information—a remarkably high response rate for a direct mail campaign.

- A series of eight press releases developed for GENie—at first on a volunteer basis—by the Press Relations staff, which also maintains a file of several hundred GENie press clips.

- An editorial program, managed by Steve Haracznak (Senior Communications Specialist, Press Relations), that has assigned a temporary user ID number to over 100 members of the press so that they could "test run" the system—no doubt contributing to positive reviews.

- Trade show exposure, to date only at the ComputerFaire. "This was our first real presence, and it established our credibility with the personal computer community," Saur reports.

"We handed out 10,000 brochures and posters," Wackes notes. "On the second day of the show and for two weeks thereafter, the subscriber rate from that brochure number just shot up."

The GENie team is planning additional promotional efforts, including:

- Theme promotions that invite subscribers to try specific products—EAASY SABRE in August, back-to-school products in September, and home finance products later this year.

- Jointly funded promotions with computer companies (particularly OEMs such as modem and software manufacturers), e.g., sign-up brochures in OEM product boxes or joint ads.

- Subscriber retention letters. If a user hasn't signed on for 45 days, a letter asks if the password has been forgotten, supplies the 800 number, and points out new products on the system. If the user doesn't respond, two or three additional letters can be sent at 45-day intervals.

The Team

In addition to the team members mentioned throughout the article, the GENie staff has expanded recently in response to the growth in GENie business. New GENie team members include: Bonnie Sax, Editor/QA; Debbie Bartlett, GENie Administrator; Dave Rice, Senior Programmer/Analyst; Keats Carleton, Senior Consulting Specialist; Dana Bacanskas, Business Production Specialist; and Sherry Mills, Secretary.

But GENie can always use more help. "GENie has built its life on volunteers," Rockney says. "I want to encourage any employee with a new product idea or improvement to come talk to us."

Sign Up!

Before researching this article, the SPECTRUM staff was aware of GENie's existence but didn't really know that much about it. Now we've signed up. If you have a personal computer at home, you may want to sign up, too. Now that the field test is over, there's no free GENie use for internal employees. If you want to sign up for a commercial account, however, the one-time sign-up fee of \$18 will be waived through October 31. With this special deal, you'll only pay the standard commercial rate of \$5 per hour for non-peak use. So sign up, have fun, and remember you will have to pay those low GENie hourly rates.

To sign up, follow these easy steps:

- Have your VISA, MasterCard, or checking account number ready.
- Set your modem for half duplex (local echo) at 300 or 1200 baud.
- Dial (toll free) **1-800-638-8369**. When connected, enter **HHH**.
- At the U#= prompt, enter **XJM11927,SPECTRUM**.
- If you need more help or have a question, call **1-800-638-9636**. ▲

COMPENSATION PLANNING FOR 1987

[Editors Note: The time is quickly approaching when managers will be asked to make 1987 salary plans for their direct reports. To help employees and managers alike to better understand the compensation process, Randy Keuch, Manager, Compensation Programs, explains below the process and what employees can expect in 1987.]

The Process

The first step in planning 1987 salaries is to review the company's competitive position in the marketplace. We have a very clear philosophy: we want to provide a level of compensation (including benefits) that is competitive in the marketplace in order to attract, retain, and motivate the talented people needed for business success. Typically, this review includes surveying our closest competitors and the industry and reviewing inflation projections and other cost-of-living indicators.

The next step is to establish a merit budget, using two factors: (1) What size merit budget is necessary to maintain the competitive pay philosophy? (2) How well is the business performing? In a business such as ours, where people costs exceed all other costs—and in light of a shortfall in our revenues—compensation decisions have become very important to the success of this business.

Once management has established a merit budget, managers are given guidelines for planning salary increases. The most important determinants of an individual's salary increase are *performance* and *contribution*. Outstanding contributors usually receive the larger salary increases, while marginal

performers may receive no increase. In addition, outstanding performers often receive increases more frequently.

Prior to the end of 1986, all planned 1987 salary increases will pass through several management review and approval cycles. The final plan will be transmitted to DSO (Schenectady), which sends notices of planned salary changes to managers well in advance of the salary action.

It is important to recognize that the salary plans developed during the last quarter of 1986 are only plans. Managers have the option to suggest changes based on significant changes in performance. Such deviations then would be reviewed by Employee Relations Managers and by Department General Managers (where appropriate) to ensure that overall targets are hit and that tradeoffs are balanced. Thus, if an employee's performance changes significantly, a manager can initiate a salary action that varies

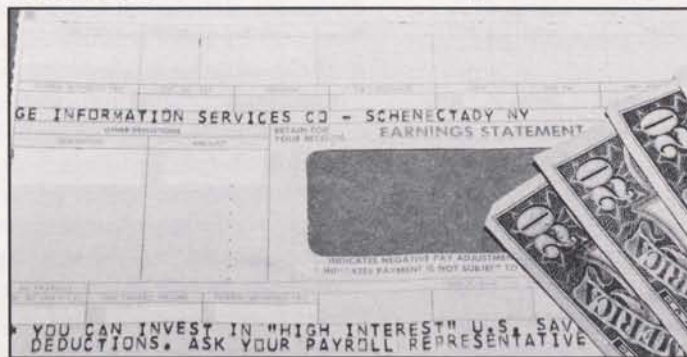
from the planned salary action.

What To Expect In 1987

In 1986, the average pay increase for GE Information Services employees who received an increase (and for our industry) exceeded the rate of inflation. This is good

news for employees, who could purchase more with their earnings. On the other hand, the size of the average employee's salary increase has declined significantly since inflation began dropping in 1982. This is good news, too, because pay increases of 10% or more in the early 1980s did not keep up with inflation, so employees were losing purchasing power.

Declining salary increases for employees in our industry reflect several factors. Industry performance has not been strong, inflation continues to be comparatively low, unemployment is relatively low, and turnover is declining. Key indicators suggest a continuing modest approach to salary administration next year. For 1987, our salary plans will be tied to remaining competitive in our marketplace and meeting the financial goals of the business. ▲



MEETINGS PROVIDING INFORMATION ON STATE OF THE BUSINESS

Information on the state of the business, planned for inclusion in this issue of SPECTRUM, instead is being relayed to Network Based Services employees through Marketing & US Sales Operations

(M&USSO) and Technology Operations (TechOps) meetings scheduled during August and early September.

M&USSO held its first meeting with Section and Sub-Section managers in Rockville on August 18, and TechOps is planning a similar session early in September. These managers, in turn, will communicate this business information to employees in their respective organizations. ▲

AMSTELVEEN SUPERCENTER CELEBRATES 10TH ANNIVERSARY

Although the Fourth of July is not normally a European holiday, this year it marked a special celebration for Technology Operation's European Operations: the tenth anniversary of the European Supercenter in Amstelveen, The Netherlands.

Established in 1976, the Amstelveen Supercenter addresses requirements of the growing international client base. The Amstelveen file systems support the majority of European, Asian, and Pacific clients. Amstelveen has two DPS 90 processors (see last month's cover story) and a unique configuration of dual DPS 8/70s dedicated to a client's personalized MARK III Service.

Employees from all European Operations joined the Amstelveen staff to celebrate the anniversary for two days, participating in a wide range of events. Considerable ingenuity ensured that the network and the Supercenter were fully operational and that as many employees as possible could join the festivities.

On Friday, July 4, employees began gathering at the Huister Duin, a hotel on the beach in Noordwijk, one of Holland's most popular seaside resorts. A casual-dress business meeting that afternoon featured updates on the MARK 3000™ System and on



On "Sports Day," the tug-of-war demanded great energy and attracted many cheering spectators (you're looking at the winning team).



Multicolored balloons sailed skyward in celebration of the Amstelveen Supercenter's 10th anniversary.

programs and clients of special interest by Dick Meltzer, Manager, European Operations; Joe Marchese, VP & GM, MARK 3000 Department; Lasse Syversen, Manager, GE Information Services, Norway; Bruno Bordone, ISSO Business Planning and Development Manager; Russell Murray, Manager, GE Information Services, Benelux; and closing comments by MARK III Department VP & GM Bob Hench.

Celebrations began in earnest with a dinner dance Friday evening. After the meal, a 30-minute dinner show starred GE Information Services employees. The show toured the countries comprising European Operations and also the US. Spouses, guests, and fellow employees watched friends, relatives, and colleagues as they danced and lip-synched to music designed to be representative or thematic of the various European Ops countries.

Although space constraints here prevent recognizing each individual cast member, show stoppers included: Bob Hench, who gave a highly individualized version of "Yankee Doodle Dandy"; Technology Operations Senior VP Ray Marshall, Network Operations Manager Dick Lewis, and Marchese, who became strolling players; and President Walt Williams, who was "Sitting on Top of the World."

On Saturday, Europe's spell of warm weather broke, giving way to a typical wet Dutch summer. Undaunted, "Sports Day" participants moved indoors, taking over a large room in the hotel for a series of hotly contested team games. The enthusiasm and energy poured into such events as the tug-of-war (pictured here) harnessed the team spirit so apparent during the show the previous evening.

After a late-afternoon cool-off period, celebrants changed from sportswear to formal evening wear for a dinner dance and seafood buffet. Marshall, Tony Craig (Senior VP, ISSO), and senior Honeywell-Bull representatives presented comments honoring the past, present, and future of European Ops and marking the end of the 10th anniversary celebration. From all reports, a super party for a Supercenter. ▲

MARK 3000 UPDATE

24x7

On June 29, the MARK 3000 System inaugurated commercial 24x7 service to better serve clients worldwide by performing normal maintenance without affecting client service. This objective establishes an "expectation of excellence" for MARK 3000 and provides fundamental building blocks of service that are designed to give GE Information Services a competitive edge in serving client needs and meeting new application requirements.

Like its counterpart in development for MARK III (see last month's cover story), the MARK 3000 24x7 project affords commercial clients access to continual processing 24 hours a day, seven days a week, 52 weeks a year, and still accommodates normal system hardware and software maintenance.

This service is unique within the IBM-based data processing industry, because GE Information Services' 24x7 project is designed to ensure smooth transition of work from one system to another without disrupting or stopping any MARK 3000 client processing.

Other installations claiming 24x7 availability typically have at least one period each day or week in which all processing stops and switches to another system. Additionally, a few installations advertising 24x7 only provide it for very specialized applications—such as airline reservations systems—that typically are written in assembly language and are designed to automatically migrate specialized workloads from one system to another, usually in seconds, without the user seeing the migration.

Each weekend, a third MARK 3000 system is added to commercial service at 6PM on Saturday and removed at 6PM on Sunday (Eastern time), replacing the system scheduled for maintenance. At those times, clients who are already logged on to MARK 3000—and using the system scheduled to be taken out of service—may experience a momentary communications disruption (less than five minutes) as their line is switched to the third system. Neither client jobs nor client TSO sessions are cancelled on the system taken out of service, and all other users experience no interruption whatsoever.

Occasional periods of extended maintenance that affect all clients are, of course, essential for system-wide maintenance. MARK 3000 plans call for such periods to be scheduled once every six weeks in 1986.



Bill Kerns (on the left) and Dan Lance (MARK 3000 Senior Shift Manager) check out DataSwitch equipment.

The 24x7 project augments the Virtual Availability (VA) File System project by reducing the weekly file system maintenance down window from eight to four hours and by allowing users to match weekly down windows for file system hardware maintenance with the lowest-volume processing period of the week. For example, clients serving Japanese and Australian markets can schedule weekly down windows on Sunday (Tokyo time) between 1AM and 5AM (Eastern time, noon to 4PM Saturday). The 24x7 project can provide each existing VA file system with different weekly down windows corresponding to the needs of clients in the 23 time zones served by MARK 3000.

The 24x7 project requires high-quality execution by the entire MARK 3000 Department:

- Operations must smoothly migrate the many different workloads between systems and must provide mechanisms that will isolate hardware



Ken Kraft (MARK 3000 Console Operator) and Phyllis Fenwick (MARK 3000 Senior Console Operator) are in a familiar pose—on duty at the control center console that helps ensure 24x7 availability.

components, remove them from service, conduct necessary maintenance, and return them to service without affecting commercial clients.

- Engineering must deploy software in support of the Operations activities noted above without adversely affecting commercial client service or taking all MARK 3000 systems out of service simultaneously.

- Planning must provide the hardware component redundancy and deployment planning that enables hardware components within each MVS system supporting MARK 3000 to be maintained, upgraded, relocated, or replaced without adversely affecting commercial service.

New Switching Capability

During the third quarter of 1986, the MARK 3000 Department is taking an important step toward centralized automated operations and increased system availability (in support of the Department's High Availability goals) by installing intelligent matrix peripheral switches that electronically complete in seconds system reconfigurations that currently require about 20 minutes of human labor.

The switches are supplied by DataSwitch Corporation, the winner of a competitive bidding process, and are designed to provide a flexible path for configuration growth. Each of the four new Model 1200 switches can be expanded from a matrix of 8 channels by 8 ports to one of 16 channels by 24 ports by inserting cards into the original cabinets. The IBM 2914 switches being replaced are at capacity, very difficult to expand, and at the end of the manufacturing cycle.

According to Project Manager Bill Kerns, the most challenging aspect of the project is installing the electronic switches in the new 24x7 environment, because the capability to perform switching in the event of a processor failure must be maintained at all times. Thus, installations and deinstallations must be performed while all switches remain in service.

The first two switches have been installed, and the project should be completed by the end of September.

[Contributors: Tom Mack and Bill Kerns] ▲

1986 ISMP GRADUATES

On July 22, Ed Skiko (VP, Corporate Information Technology) and several of his staff joined Walt Williams, John Clouse (Manager, Information Systems), David Lloyd (Manager, Administrative Information Systems and ISMP Administrator), and invited guests to honor GE Information Services' three 1986 graduates of the Information Systems Management Program (ISMP). Williams presented graduation plaques to: Karen Synnnett, Applications Engineering; Julia Carlson, Information Systems;



and Chris Hogan, Applications Marketing. In the picture, from left to right, are Lloyd, Williams, Carlson, Hogan, Synnnett, Skiko, and Clouse. ▲

GET READY FOR QUALITY QUOTES

Sales & Marketing Services commissioned a survey of clients to determine their perception of the key elements of quality and of GE Information Services' demonstrated strengths related to quality.

This survey, conducted during the past few weeks, generated many complimentary quotes about the company's performance on behalf of clients.

Some of these Quality Quotes will be included in each issue of SPECTRUM—a "thank you" from satisfied clients. ▲

QUALITY QUOTES

"GE Information Services is very, very responsive...they've gone beyond our expectations... they have real quality people."

*Manager, Information Systems
National Retailer...Chicago*

SECURITY AWARENESS: FIELD LOCATIONS

The stepped-up security program inaugurated recently by GE Information Services (see the May SPECTRUM) extends throughout the company. This article, the second in a series of security awareness features, addresses security for field locations.



Like all field offices, Oak Brook (Illinois) maintains a sign-in and sign-out log.

Adella Waddell—newly appointed Manager, Safety & Security—urges all field employees to read and act upon the following guidelines, emphasizing, "Security rules are designed to preserve the company's competitive edge and to protect employees. Employees should constantly remind themselves of the care required when sensitive and proprietary information is handled. Security really is everybody's business!" The following steps should be taken to improve field security.

Visitors

- All visitors should sign in and out of a log maintained at the reception desk. Visitors must be escorted by a GE Information Services employee at all times.
- Employees should observe and report any unusual activities—e.g., suspicious persons, hazardous areas, unlocked doors—to the appropriate building manager.

Confidential and Proprietary Information

- Proprietary materials should be secured when employees are going to be away from the office.
- Employees should make sure that sensitive materials are not left in conference rooms, at the Panafax, or in copier machines.
- Proprietary materials should be discarded either by shredding them or by inserting them into a designated proprietary trash container.
- Employees should not discuss information that may be proprietary at meetings or other gatherings if there is any doubt that all participants are GE employees.

- Employees should be careful about giving information to outside callers. Such information may be company confidential.

Securing the Facility

- Offices must be locked during non-business hours. Moreover, it is good practice to secure the doors whenever the reception area is unstaffed.

Removal of Property

- Employees are reminded that company property removed from offices for over a two-week period requires a shipping notice. Employees must log out and log back in property removed for less than two weeks.

Security Incident Reporting

- A physical security incident report is required if an incident occurs that involves loss of or damage to company or personal property, injury to an employee, fire, facility evacuation, or any other unusual situation. Incident Report forms are available in all locations. [If more forms are needed, they can be requested via a QUIK-COMM System note to AWAD.]

- The procedure for filing reports is:
 - (1) Complete the Description of Incident portion of the form. For company property, include full details of property loss (i.e., serial numbers, company property numbers, and cost center).
 - (2) Forward the completed form to:
Adella Waddell
Manager, Safety & Security
GE Information Services Company
401 N. Washington Street, 05A
Rockville, MD 20850
Or send the information to Waddell via the QUIK-COMM System (address: AWAD).
 - (3) When a serious incident occurs, make an immediate phone call—before submitting the written report—to:

Adella Waddell (8*273-4109)
or
Dennis Hayslett (8*273-4393)

Employees at both field and headquarters locations must be aware that security is an important issue to GE Information Services. By adopting and monitoring the above security measures, each employee in a field location will be more secure personally, and company property will be protected as well.

For assistance on security matters or the answers to any questions on physical security, send a note via the QUIK-COMM System to AWAD. ▲

GOOD NEWS

General Motors

GE Information Services, Belgium won a contract to develop and operate a Treasury Management System for General Motors, which established a Regional Treasury Center (RTC) in Belgium.

The RTC will centralize intercompany foreign exchange management for GM's European operations, expedite liquidity management by taking deposits and on-lending funds, and provide consultation on longer term financing arrangements such as cross-border leasing, issuance of commercial paper, and interest rate swaps.

Louis Lampe (Manager, Belgian Operations) comments, "We became involved because of our excellent reputation in financial services. We're very proud of this win—GM profits are based upon its financial results, so this treasury system is vital to the largest industrial company in the world. Moreover, we won this contract despite GM's recent \$2.5-billion acquisition of EDS, now a GM computer services subsidiary."

Freddy Nurski (Business Consultant, Belgium) assembled the needed functional and technical expertise. "We wanted to illustrate our added value and consult GM on their treasury approach, and only team work allowed us to deliver a quality proposal on time. Hans Zuurdeeg (Treasury Consultant, ISSO Finance) and Frits Luchsinger (Technical Consultant, Netherlands) investigated GM's requirements in more detail. Jean-Jacques Poussol (Manager, SDC Belgium), Daniel Van Der Wilt (Technical Consultant, Belgium), and Rene Hamon (Technical Consultant, France) highlighted the various project development phases and consequential resources and timing aspects."

Other team members included Russell Murray (General Manager, Benelux) and Chris Starling (Counsel, Northern Europe Area).

GE Information Services, Belgium proposed an umbrella agreement covering functional specifications, systems development, and operation and maintenance—an everything-or-nothing approach that would avoid building a sophisticated system that EDS would operate in house immediately. The final decision for a three-year contract, made at the highest levels of GM in Detroit, was explained in

the letter of intent: "We have been extremely impressed with the level of professionalism at GE Information Services as well as the spirit of cooperation and look forward to a successful development."

Campbell Soup Company

Campbell Soup Company, the world's largest canned soup producer and parent company to over 45 subsidiaries and affiliates, is jointly developing with GE Information Services a marketing reporting system that uses a Telxon hand-held terminal. Ultimately, terminals will be distributed to all US marketing representatives, who daily will input findings into the 256K Telxon display unit by attaching a modem to the Telxon unit, dialing into the GE Information Services network, and transmitting findings for further analysis by Campbell's Market Research staff in Camden, New Jersey.

The impetus and confidence to implement the marketing reporting system on the GE Information Services network stems from a long-term relationship with Campbell—including transmission of financial data internationally via the QUIK-COMM System—but, more importantly, from the successful implementation of a similar application at Pepperidge Farm Inc., one of Campbell's subsidiaries (see the Good News column in the March SPECTRUM).

Campbell conducts an ongoing marketing analysis of major retail distributors. Over 950 marketing representatives across the nation regularly visit a prescribed group of retailers in their geographic areas to monitor product sales and promote continued and increasing sales. The marketing representatives meet with the retail store managers to identify any problem areas that should be addressed, such as adequacy of shelf space, timely delivery of products to stores, and results of sales campaigns and promotions.

Paul Herzog and Rich Osten developed, implemented, and installed the system at Pepperidge Farm, and they will provide the same SDC support for Campbell. ▲

INDUSTRY BRIEFS

GTE Telenet

GTE Telenet acquired from AirCall PLC (UK) a 60 percent share of Consortium Communications International, Inc., a Telex service provider based in New York, and has an option at a later date on the remaining 40 percent. The system will allow an authorized user of Telenet public data network or Telemail electronic mail service to send a message to any Telex address. Users also can access information via Telex machines, asynchronous terminals, or PCs.

The FCC has approved the merger between Telenet and United Telecommunications' Uninet. The new company, US Sprint Communications Company, will have two divisions: a data communications service that will use the Telenet name and a long-distance voice service that will use the Sprint name. Telenet users shouldn't have to change log-on procedures (thanks to a new device), but Uninet's Worldlink users will have to switch to Telenet's Telemail system and its different command structure.

IBM

IBM won approval to offer a value-added network service in the UK. When the French government voted to allow VAN service from companies other than the state-owned telephone company, IBM was among the first applicants.

IBM recently announced that it would enter the electronic publishing market through a new unit that will focus on developing and marketing integrated publishing systems. The system will use a variety of products, including microcomputers. IBM may rely on independent third-party developers for products rather than developing them in house.

This summer, IBM is scheduled to offer Version 2 of its MVS/BDT program for moving data sets between installations on an MVS/BDT network, enabling a JES3 Network Job Entry (NJE) site to send or receive jobs over an SNA network to another NJE site.

IBM also unveiled a series of software tools—the IBM System/370 to IBM Personal Computer Enhanced Connectivity Facility (ECF)—that will provide the first IBM support for direct application-to-application communication. The package of products includes incorporation of a Server/Requester Programming Interface (SRPI) into previously announced operating system software for both PCs and mainframes and new micro-to-mainframe

communications that take advantage of the SRPI to provide advanced features.

AT&T

AT&T recently unveiled a package of transaction services (T-Services) for point-of-sale and ATM applications. T-Services offers ports and packets at a cost based on the customer's forecast and uses a nationwide AT&T packet network (some 100 access sites now available). T-Service currently serves the West Coast, the South, the East Coast, and Chicago.

Western Union

Western Union will interconnect its Easylink subscribers with France Cables et Radio (FCR), which provides a public French mail service, Missive. FCR is a subsidiary of the French Post and Telecommunications Administration (PTT). Since September 1985, Easylink subscribers also have been connected to public electronic mail services in the UK. Easylink subscribers will pay the same rate for a Missive, UK, or Easylink mailbox message: \$.25 per 1,000 characters plus \$.40 per message.

Mercury Communications PLC

Mercury Communications, the UK's second largest telecommunications operator, teamed with IBM, Electronic Data Systems (EDS), and the London Stock Exchange to offer a satellite communications service scheduled to be available in the UK next fall and throughout Europe at a later date. The service employs small satellite dish antennas at customer sites and targets industries such as distribution, oil, finance, and public utility. Applications include broadcast of time-critical information, data base inquiry and response, record updates from remote locations, and remote-site monitoring. Rates have not been established as yet but will not be based on distance according to the companies.

CompuServe

By acquiring Advanced Media Group, a subsidiary of L.M. Berry, CompuServe is now the sole marketer of Electronic Mall, a PC on-line shopping service.

CompuServe also announced that its Information Service will provide access to 700 additional data bases supplied by 13 vendors, such as Dialog, Newsnet, Datasolve (England), Questel (France), and Datastar (Switzerland). These data bases include information from books, magazines, newsletters, reports, dissertations, conferences, and other sources.

[For answers to specific competition questions, send a QUIK-COMM System message to COMPINFO.] ▲

ADMINISTRATION

TIM LEE

SAN FRANCISCO

I thought I could get the Multicountry Service Supplement data from the MCSSUSA file on DY28. What happened?

The new file MCSSPROC supersedes and replaces it. Also, the procedures to process an MNA are now in MNAPROC rather than in MCATPROC.

**VERN SMITH
DETROIT**

My client has had a leased line for some time, but now wants to cancel it. What's the procedure?

Send a note via the QUIK-COMM System to George Klumph, Domestic Network Deployment Manager, on QK GBKL and provide him this information: Client name, effective cut-off date, circuit number.

**AL WEISS
NEW YORK**

Is there an employee purchase discount for the Apple™?

Yes, it amounts to about a 28 percent discount. List a QK11 file named APPLEBUY.

**BILL GAVIN
NEW YORK**

The file NEWINTL, with data about the PDNs around the world, references prices in a gold franc. What's the value of a GF?

Its value is: one US dollar=2.5374 Gold Francs. It's a technique used by the various PDNs to clear money amounts between themselves, because they all have different currencies.

EAST-FAX
8*274-6517 QK: FAST

**DAN WECKER
CHICAGO**

*Isn't there an on-line system that helps with the MARK*NET™ sale by figuring out all the connections and costs the client is going to incur?*

Yes, and it's much more than a listable file—it's a complete system that provides the kind of data you need when evaluating a MARK*NET prospect from a VAN application standpoint. The system is available from an immediate-run program in catalog JYV53. It's a program that you may remember, SUPER.

Documentation is available from the system, and it's offered to you by a menu when you sign on.

The program lets you build a model of the scenario you're evaluating—then it runs the pricing model and generates data that you then can withdraw into a report. There are also several utilities available that have valuable information relative to area codes and exchanges—whether your prospect's area code and

exchange are toll-free to one of our nodes or not. Another utility will let you select the kind of service you're trying to sell, then—if you enter the city and state of the prospect—the utility provides the location of the nearest MRC and IMUX and tells you what the line charges are to that point.

If you don't have a user number in the JYV53 catalog, send a note via the QUIK-COMM System to Tom Kerry (TOMK) and ask for your number.

**PAUL MISER
SINGAPORE**

Do we have clients using the Disaster Recovery Service (DRS)?

Yes, there are clients who signed up for the service, but DRS is no longer a GE Information Services function. DRS was a part of the GE Information Services marketbasket, but it was transferred to GE Corporate Information Systems in Schenectady, NY. I doubt if users in Singapore would find DRS to be a solution to their back-up problems.

Here's the way the service was designed and how it's used: Users with critical applications running on IBM, Honeywell, or Hewlett-Packard processors sign up for the service, which permits them (at the time of a disaster for their DP center) to take magnetic tapes and/or disk packs to the center in Schenectady. There they will have use of the computer system to continue processing.

It does not relate to MARK III users who are using our remote computing service but rather to clients who have their own data centers and who may or may not be using our teleprocessing network. In any event, the time to relocate from Singapore to Schenectady would not make this a viable backup alternative.

**NADINE ROSENBAUM
NEW YORK**

I want to order a manual, but I want to make sure I get all the supplements. How do I do that?

Just order the basic number, and you'll receive all the supplements automatically. For example, 3501.01 will bring you 3501.01Q-1, 3501.01Q-2, and 3501.01Q-3 if there's a third supplement.

DELIVERY SYSTEMS

**PHYLLIS VERMA
WASHINGTON**

Is it possible to have asynchronous service and bisynchronous service in the same MARK 3000 VAN catalog?

Yes. The catalog can be set up so that, with no indication provided, the default status will take the

user where he wants to go. Or an index table can be set up so that the user can direct himself or herself to the proper destination.

For example, REK10666,MEASURE,,1 will take the user to the destination specified by the first RID in the table. REK10666,MEASURE,,3 will take the user to the third RID specified in the RID table.

The catalog is not necessarily validated for asynchronous service only or for bisynchronous service only.

DATA*MARK REFERENCE GUIDE CORRECTION

Page 30 of this book incorrectly states that DATA*MARK applications are allowed 100 locks per transaction. However, the software enforces a 30-lock limit per transaction.

MARK BALAWAJDER PHILADELPHIA

One of my clients wants to have MARK III send a Telex to one of his terminals, but he wants it to come to his Telex 1200 baud device. Can we direct TRT to send out the traffic at 1200 baud?

The Telex number itself will indicate to TRT that the message is to be received at a 1200 baud device, and TRT will send it out at that speed.

STEVE HARWIN NEW YORK

When presenting BusinessTalk™ to a prospective client, we found that the prospect had been approached by Apple and had been offered access to their AppleLink system at a perceived lower price. What's the story?

Apple offers its VARs (Value Added Resellers) two

E-Mail addresses on AppleLink to facilitate their relationship. Apple will not offer anyone its own system.

address is DASL. His complete mailing address is: D. S. Lewis, GE Technical Services Co., Kowa 35 Bldg., 5th Floor, 14 Akasaka 1 chome, Minato-ku, Tokyo 107 Japan.

BOB FOSTER MIAMI

I suggested that our prospect could use the new distributor in Malaysia, but the prospect didn't know who FORMIS was. Can you give me some background on the company?

Yes. FORMIS has four operating divisions in Malaysia.

(1) On-line Information Services. They are the leading information technology house in Malaysia, having pioneered financial and economic data bases on Malaysia's top 300 companies. FORMIS' services are used by leading bankers, investment institutions, and corporations.

(2) Computer Sales. FORMIS sells Tandem computers, IBM PCs, HPs, and peripherals.

(3) Software Products and Services. FORMIS assists clients to develop special software and provides installation and training.

(4) Engineering/Support Services. FORMIS provides maintenance and back-up services to computer installations 24 hours a day, 365 days a year.

There's plenty of room for synergy in the relationship between FORMIS and GE Information Services. For more information about clients doing business in Malaysia, send a message via the QUIK-COMM System to FORMIS.



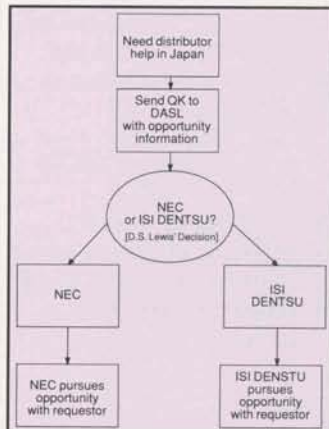
DISTRIBUTORS

ARMANDO CALIENES MIAMI

My client needs some support in Japan, but I don't know whether to go to ISI Dentsu or NEC. How do I decide?

I'm glad you asked—going to the wrong distributor causes loss of time and effort, confusion, and embarrassment. Remember that the two are competitors, and a proper decision is necessary (see flow diagram).

Fortunately, there is a Manager of North Asia Operations who can make the decision about which distributor in Japan should handle the business. His name is David S. Lewis, and his QUIK-COMM System



NSS INFO

EDDIE TAN SINGAPORE

Is the structural analysis program named STRUDL available on our service?

It was available on DQ14 in MARK 3000 Service from a Cambridge, Massachusetts, firm, but it is no longer available. The write-up you see on pages 44-45 of the blue-and-white NSS Author Index is no longer valid.

Many other programs in the NSS Author Index also

have disappeared. A word of caution advises never to offer a prospect any software you find in the NSS Author Index before checking with either FAST or AUTH to see if it is still available.

THREE FORMER GENERAL ELECTRIC EMPLOYEES OFFER GLOBAL PERSPECTIVE™ REPORTS

Dr. Richard Kaufman, formerly the Chief International Economist for GE and the director of Chase Manhattan's international economics division, has formed a company, Global Perspectives, with two other ex-GE personnel.

If your client is interested in the economic and political outlook for other countries, these reports, available through the QMOD System, can be very valuable.

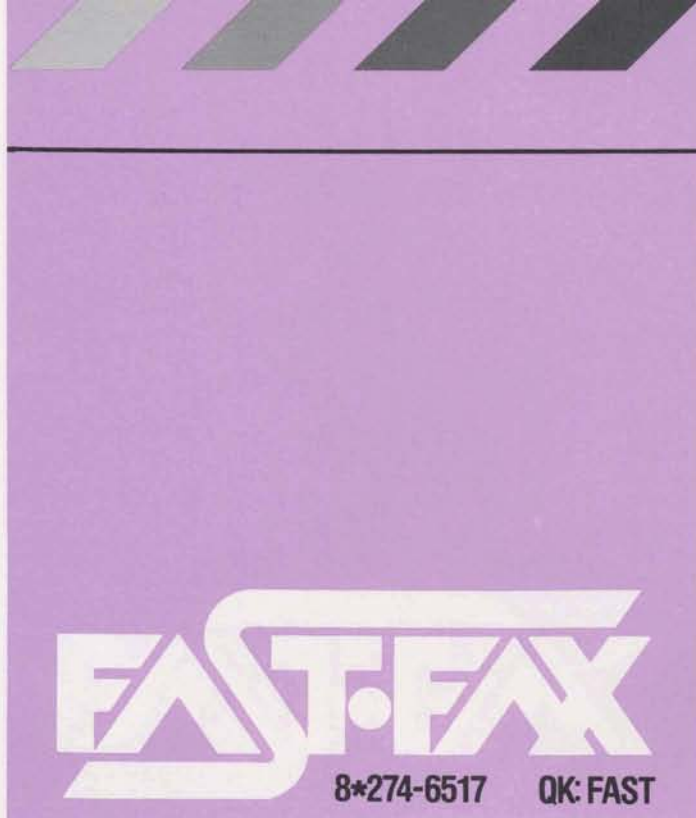
Reports are currently available for the following 12 countries: Brazil, Canada, China, France, Germany, Italy, Japan, Mexico, the Philippines, Saudi Arabia, South Korea, and the UK.

Each Global Perspective report is available for \$50, or there is a subscription available for unlimited access.

Understaffed economists can turn to Global Perspectives via QMOD when asked for assessments on countries they cannot adequately follow.

Corporate information centers can utilize Global Perspectives when asked for up-to-date information on foreign countries. Busy executives welcome the brief, to-the-point format.

Need more information? Send a note through the QUIK-COMM System to



FAST-FAX
8*274-6517 QK: FAST

QMOD/Maureen Haver and ask for more data about Global Perspectives, available from QMOD on MARK III Service.

**DAVE WIIG
FAIRFIELD, CT**
Do you know if the HP150 (claimed to be MS-DOS compatible) can run the QUIK-COMM System PC Mailbox?

Dave Skelton, the International Product Marketing Manager for Micros, responded with a resounding NO. Previous attempts to get our communications packages running on the HP150 have all failed. There may be some programs that run on both the IBM PC and the HP150, but PC Mailbox is not one of them.

**PHIL FITZPATRICK
ATLANTA**
When a client uses PC Mailbox, is there an error-free protocol that is used in transmitting the message?

No, not in PC Mailbox. If the user begins a session with attached files, an error-free protocol is used.

QUIK-COMM

**HOWARD FORER
NEW JERSEY**
Can the QUIK-COMM System be used directly on the network from Japan? What are the charges there?

Users must use VENUS-P, the Public Data Network in Japan, to access the QUIK-COMM System. The charge for a copy of PC Mailbox is 80,000 yen. The installation charge, which includes a half-day of training, is 40,000 yen. The per-month multicountry access charge is 50,000 yen for the general invoice.

**COLIN BONN
SAN FRANCISCO**
Is there a charge for the QUIK-COMM System when a user sends a message to a Telex device?

The charge is only for the Telex charge, not for the use of the QUIK-COMM System, provided you use the non-interactive method. If you use the conversational technique to build the message (a line at a time), you will be charged the difference between TBATCH and conversational in addition to the Telex charges.

SUBADMINISTRATORS IN THE QUIK-COMM SYSTEM

In the previous issue of Fast Fax, the subject of subadministrators and their powers within the QUIK-COMM System was discussed. Fast Fax had a call from Virginia Bonini, a programmer in the Engineering Section, and she asked that readers be informed that the Chief Administrator in the catalog must perform a function first before subadministrators can get control of addresses.

When the Chief Administrator runs QUIKADMN***, he or she goes into the OPTIONS module. The answer must be a "Y" for Yes when the system asks, "Subadministrator domain control of addresses?" With that done, the subadministrator can control addresses within the domain. ▲

FAST FAX PRICING REPORT

NETWORK ACCESS
Asynchronous Dial-In

Type of User: TCH vs = I/O char.	April 1983		Beginning May 1986	
	Low Speed 50-300BPS	Medium Speed 1200	50-1200bps	New 2400bps
High TCH Low I/O	Option 1 \$8.50/hour .35/KC	Option 3 \$8.50/hour .35/KC		
Medium	Option 2 \$13.50/hour .15/KC	Option 2 \$13.50/hour .15/KC	STANDARD \$13.50/hour .15/KC	\$16.50/hour .15/KC
Low TCH High I/O	Option 3 \$18.00/hour 0/KC	Option 3 \$18.00/hour 0/KC	OPTION \$28/hour 0/KC	\$38/hour 0/KC

These options changed to this

This changed to this

NOTES:

- 1 All three speeds, 50-1200 and 2400, must be either standard or option.
- 2 The old pricing questions will be asked if the old catalogs are identified as being price protected.

SUBJECT: Changes to MAILBOX Pricing Questions

Old Pricing Questions:

CATALOG LOW SPEED TCH OPTION(1=OPT#1/STD LIST, 2=OPT#2, 3=OPT#3)?
CATALOG MEDIUM SPEED TCH OPTION (1=OPT#1/STD LIST, 2=OPT#2, 3=OPT#3)?

New Pricing Questions:

CATALOG ASYNCHRONOUS DIAL-IN ACCESS PLAN(1=STD LIST, 2=OPT#2)?

ASYNCHRONOUS DIAL-IN CONTINUOUS ACCESS PLAN (CAP)

Effective April 1983 to \rightarrow May 1, 1986

OPTION 1	OPTION 2	OPTION
\$400/line .30KC/prime .08KC/non-prime	\$1800/line 0/KC	\$800/line .15/KC \$20/hour premium added for 800# usage

Old Pricing Questions (from Mailbox):

F/G CONTINUOUS ACCESS PLAN(1=OPT#1, 2=OPT#2)?

New Pricing Questions (from Mailbox):

F/G ASYNCHRONOUS ACCESS PLAN(1=NONE, 2=OPT#1)?

[This graphic presentation of the price change was prepared by Art Brusila.]

IN SEARCH OF... SPECTRUM PHOTOGRAPHERS

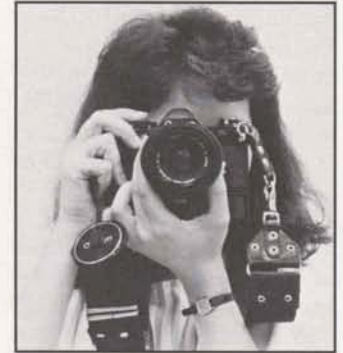
Are you an aspiring photographer or amateur shutterbug who wants to gain experience or publish credited photos for the sheer thrill of it? Well, have we got a deal for you!

SPECTRUM is looking for employees who would like to volunteer to take 35mm black-and-white photographs on occasion. As we hope you've noticed, SPECTRUM is featuring more stories that focus on field activities and employees, so we could really use your help if you're a photographer located at any field office.

For volunteer photographers on assignment, SPECTRUM will cover associated costs, e.g., film, developing, proof sheets, and enlargements that might appear in the publication. SPECTRUM will offer guidance on the type of pictures that

would complement the story and will choose photos to appear with the story.

If you're interested in occasionally taking a few pictures for SPECTRUM, please send a note via the QUIK-COMM System to SALLIE and briefly state your name, location, and experience. If you'd like to submit a few sample photo-



graphs, send them to Sallie Chafer, Mail Drop 01B, Maryland Center, 401 N. Washington Street, Rockville, Maryland 20850. [Note: We will soon need photographers in Tampa, Atlanta, Chicago, Denver, Saddle Brook, Detroit, and Boston. Contact us soon if you're interested.] ▲

QUALITY QUOTES

"GE Information Services should be especially proud of their day-in-day-out workers...they perform so consistently... their high-quality product is the result of their being an excellent vendor."

*VP, Management Info Systems
Int'l Manufact'r...Los Angeles*

NEW AND REVISED DOCUMENTATION

Changes in the Documentation staff have prevented the "New and Revised Documentation" column from appearing in SPECTRUM over the past few months. To bring employees up to date, SPECTRUM is running the following list of documentation, sales aids, and ramp materials published during the summer. The list, likely much shorter in the future, will appear each month in SPECTRUM.

Prices are available as part of OLOS, the On-Line Ordering System for these publications. Forms and promotional pieces are free; most technical documents have prices (some rather high).

800.08E

Computer Services Agreement (Revision)

800.52A

Multicountry Service Supplement to Agreement for Computer Services (Revised)

800.52-1B

Multicountry Service Supplement Schedule of Country Factors, US and Puerto Rico, for MARK III Service (Revised)

800.52-3A

Multicountry Service Supplement Schedule of Country Factors, US and Puerto Rico, for MARK 3000 System (Revised)

910.39

Worldwide Financial Services brochure (New)

910.40

Serving the World of Sales and Marketing brochure (New)

1376.07

For GENIE users only: Stellar Warrior Starship Pilot's Battle Guide (New)

1401.01C

Teleprocessing Services International Access Directory (July-September) (Revision)

2051.75-1

SIM/PC User's Guide for Version 2 (New)

2052.02A

MARK 3000 US User's Guide (Revision)

3410.99

Proven Professionalism in Worldwide Information Services sales portfolio (no connection to QUIK-COMM, although numbered here) (New)

3410.101

QUIK-COMM Product Profile (New)

3410.105

QUIK-COMM Telex Product Profile (New)

3410.106

QUIK-GRAM Product Profile (New)

3410.107

QUIK-COMM to PROFS Product Profile (New)

3910.00K

High-Speed Service Product Profile (Revised)

3910.06A

DSXMIT2-OS User's Guide (Revision)

3910.43A

DSXMIT2 Product Profile (Revision)

3918.09G

MARK*NET Access Directory (July-October) (Revision)

3918.27A

MARK*NET Network Monitoring Facility Product Profile (Revision)

3918.36

MARK*NET 2780/3780 Advance Release User's Guide (New)

3919.00A

Credit Card Services Product Profile (Revision)

3919.06

Point-of-Sale Credit Card Price List (New)

5070.10A-1

EDI*PC™ User's Guide (Revision)

5070.10-4

EDI*PC Getting Started (for users) (New)

5070.10-5

EDI*PC Practice Session (a follow-on to the preceding booklet) (New)

5070.10-6

EDI*PC Daily Activities (New)

5070.10-7

EDI*PC Book for Codes for 1984 ANSI Version (New)

5070.10-8

EDI*PC Quick Reference Guide (New)

5070.23-1

EDI*PC Demo Guide (New)

5070.31A

EDI*PC Document Entry Guide for 1984 ANSI Version (Revision)

5070.32A

Accelerated Trade Payments Product Profile (Revision)

5070.34

TRADE*EXPRESS brochure (New)

5070.36

EDI Vendor Conference notebook (New)

5070.39

TRADE*EXPRESS™ price schedule (New)

5070.40

TRADE*EXPRESS sales information summary (New)

5070.41

SPEX*US Program License Agreement (New)

5070.41-1

SPEX*US Program License Agreement—Schedule A, Program License Fees (New)

5070.43

Supplement for QUIK-COMM Services—EDI*EXPRESS™ (New)

5070.43-1

QUIK-COMM System Registration Form (New) ▲

READERS' CHANCE TO TALK BACK

Some 350 US Network Based Services employees, selected as part of a random sample, have been asked to participate in a survey of employee reactions to SPECTRUM, MGR, and the Electronic Bulletin Board (soon to be on MARK III as well as Rockville monitors).

If you've received a questionnaire, please take a few minutes to complete it and return it to us. Tabulated results will be published in a future issue of SPECTRUM, but the identities of those surveyed will remain confidential—so respondents can feel completely free to be candid.

If you do not receive a questionnaire but would like to submit criticisms or suggestions, please do so (via the QUIK-COMM System to SALLIE). Your comments will be useful when decisions are made—some in the near future—about the style and content of future employee communications. ▲

GUARDING AGAINST EXCESSIVE MEDICAL FEES

Reasonable and Customary Charges

Employees can save money by raising their awareness of the "reasonable and customary" provision of the GE Comprehensive Medical Insurance Plan. The provision is designed to protect both employees and the company from medical bills that are higher than reasonable and customary amounts.

The insurance company categorizes a bill as reasonable and customary based on medical fee information about the specific medical service in the geographic area in which the charge is incurred.

To make sure that this provision serves the employee well, four steps should be taken whenever the employee or a covered dependent is scheduled for surgery or other medical treatment.

(1) *Tell the doctor in advance—before treatment begins—that the GE Insurance Plan provides benefits for reasonable and customary fees, as determined by the insurance company.* If the doctor requests additional information, suggest that the insurance company be contacted.

Don't arrange in advance to pay the doctor a specific amount. If asked to sign a statement before service is rendered, the employee should read it carefully to ensure that it does not commit the signer to pay a fee above that which is reasonable and customary. If the provider insists on an advance agreement, be sure

to ask the insurance company to review the fee to determine if it is indeed reasonable and customary.

(2) Authorize direct payment of benefits to the doctor by completing the assignment section of the Plan's claim form. This enables the insurance company and the doctor to work out problems if the charge appears to be higher than that which is reasonable and customary.

(3) After the insurance company pays the doctor benefits allowed under the reasonable and customary provision, the employee should then pay only the difference, if any, between the benefits paid and the reasonable and customary charge. The payment will be the employee's deductible and coinsurance amounts. If the employee has not made a commitment to the doctor about charges, the employee is not required to pay any amount in excess of the reasonable and customary amount determined by the insurance company.

(4) If the employee follows the first three steps, and the doctor insists upon payment of an amount over and above the reasonable and customary charge, advise the insurance company as soon as possible so that it can work with the doctor on the employee's behalf. In the meantime, the employee should make no further payment to the doctor.

By following the above four steps, the employee will have the protection of the reasonable and customary provision, which can save quite a bit of money—remember that the employee pays 15 percent of surgical charges exceeding \$500 in a calendar year and 15 percent of nonsurgical medical charges (50 percent

for certain mental treatments) after the Plan's deductible provisions are met. In sum, the lower the total charges, the less the employee has to pay.

If a doctor takes legal action against an employee to collect a balance above the reasonable and customary charge, the insurance company will arrange to defend the employee as long as no prior commitment has been made to the doctor about the amount of the charge.

If, as a result of legal action by the doctor, the employee is required to pay more than the reasonable and customary charge—and that decision is not occasioned by any commitment to pay by the employee—the insurance company will pay benefits based on the legally determined charge. In such a case, the employee would be liable only for the amounts due under the deductible and coinsurance provisions.

Footnote on Tubach's Experience with Metropolitan Life

In last month's issue of SPECTRUM, Paul Tubach described Metropolitan's outstanding service in his case. One of the aspects of Metropolitan's service that most impressed him was the speed with which bills were paid.

SPECTRUM is happy to report that one of the factors in such expeditious payments was the hospital's electronic submission of claims via EMC* EXPRESS™. Tubach's experience is a testimony to the EDI medical claims group as well as to Metropolitan. Congratulations all around. ▲

MILESTONES

Congratulations to the following employees, who celebrated service anniversaries in July.

30 years

Rockville

Chuck A. Cahill

25 years

Brook Park

Sandra L. Brown

20 years

Brook Park

Glen J. Eubank

Rockville

Carolyn S. Littles

Philip V. Otero

Joseph T. Schartman

Fred A. Wood

15 years

Rockville

John E. Boyd

Robert E. Healing

Paul H. Lebowitz

10 years

Rockville

Mark A. Asel

Kathryn L. Bradley

Gary F. Downs

John T. Farrell

Joan H. Hunter

Joe F. Pursel

Houston

Beth S. Neruda

San Francisco

Jerilyn L. Parazin

5 years

Bridgeport

Jeff T. Hansen

Brook Park

James M. Fischer

Oak Brook

Henry L. Caruso

Rockville

Fred E. Hylla

Dennis P. Weigel

Barbara S. Wright

San Francisco

Karen K. Morgan

Colin L. Bonn ▲

WORTH NOTING

GE's Second-Quarter Financials

GE Company earnings were \$621 million in the second quarter of 1986, an increase of 5 percent over \$590 million for the second quarter of 1985. Earnings per share were \$1.36 (compared to \$1.30 for the 1985 period). Second-quarter sales were \$7.79 billion, up 14 percent from the \$6.84 billion reported for the second quarter of 1985.

Earnings for the first six months of 1986 were \$1.158 billion, or 5 percent more than the \$1.101 billion tallied for the first half of 1985.

Earnings per share were \$2.54 for the first six months of 1986 (compared to \$2.42 for the same period in 1985). Sales in the first half of 1986 were \$13.67 billion, 5 percent more than the \$13.04 billion reported for the first half of 1985.

GE's 1986 net earnings include \$36 million from RCA Corporation before estimated acquisition costs, and sales include \$803 million from RCA (RCA's operating results since June 1, 1986). After acquisition costs, GE's net earnings declined by about 1 cent per share.

Merger News

A new GE corporate staff component has been formed by combining the GE and RCA corporate information systems and telecommunications organizations, as well as application development activities formerly managed by other corporate staff components. The new organization, Corporate

Information Technology (CIT), will be headed by GE Vice President Edward J. Skiko, located in Fairfield, Connecticut. Seven components report to Skiko: Corporate Computer Services, Computing and Product Technology, Corporate Telecommunications, CIT Integration Programs, Customer Service, Finance and Support Services, and Professional and Management Development. Skiko said that over the next several years, GE's data center and telecommunication operation in Schenectady, New York, will be phased down as the work is consolidated in Cherry Hill and Princeton to take advantage of the technology and flexibility offered by the RCA systems and to be more cost efficient.

Honors for GE People

The Abrasive Engineering Society presented its 1986 Man-of-the-Year Award to Bob Wentorf, a physical chemist at GE's Corporate Research and Development Center, for his invention in the 1950s of cubic boron (tradenamed Borazon[®] by GE), which is second in hardness only to diamonds, is capable of withstanding temperatures at which diamonds literally burn up, and (since its commercial introduction in 1968 as an industrial abrasive) has developed into a worldwide multimillion-dollar business.

Other GE Business

GE and Fanuc Ltd. of Japan, a major maker of automation machinery and controls, have agreed to establish a joint venture company to serve the rapidly growing worldwide market for high-tech factory automation equipment and systems. The GE Fanuc Automation Corp. will be

based in Charlottesville (where GE has its own factory automation operations), have subsidiaries in Europe and Japan, be owned 50/50, and employ about 1,600 people initially.

A joint venture between RCA and Sharp of Japan (formed in 1985 before the GE/RCA merger) has been discontinued, because GE's large investments in advanced semiconductor technology and foundry capacity at Research Triangle Park—combined with existing RCA capabilities and the continuation of an earlier foundry relationship agreed upon with Sharp—provides the capability to meet GE and RCA customer needs.

The Aircraft Engine Business Group has a fixed-price contract to design, develop, and ground-test a "scramjet" engine by mid-1987 for the US government, which plans to build an aerospace plane capable of taking off from a runway, accelerating to 18,000 miles per hour into a low-Earth orbit, and deploying satellites and other payloads in orbit or taking people and supplies to a space station. United Technologies' Pratt & Whitney has a similar contract; the two engines later will compete head-to-head for possible follow-on contracts.

GE's Medical Systems Group scored major international market victories by: selling its first magnetic resonance (MR) imaging system in West Germany to the University of Herne in Bochum, one of that nation's foremost medical research sites, replacing a two-year-old unit supplied by Siemens, a West German firm that formerly had a stranglehold on that country's market; and selling the first magnetic resonance diagnostic imaging system in Australia to a private clinic in Sydney, winning

the contract over Siemens (West Germany), Philips (The Netherlands), and Picker (Great Britain). (GE also won the second order for an MR system, for the Royal North Shore Public Hospital in Sydney, beating out Siemens).

GE's Silicon Systems Technology Department (former employer of Dick Meltzer, the new Manager, European Operations) is offering a new three-dimensional graphics processor that displays highly complex images up to 100 times faster than competitive systems for engineering, scientific, architectural, geophysical, governmental, and medical applications. The five chips at the processor's heart were designed using GE's Calma subsidiary's computer-aided tools.

Youth and Science Careers

A strong US commitment is needed to "ignite the spark of excitement that will draw more of our brightest young men and women into careers in science, engineering, and mathematics," said Roland Schmitt, GE's Senior Vice President in charge of Corporate Research and Development, during National Science Week (May 11-18), observed annually to make Americans—especially young students—more aware of the key roles that science, mathematics, and engineering play in the quality of life and in the nation's ability to compete economically. [GE Information Services' support for the Rockville computer camp this summer—see rear cover—certainly responds to the same spirit.]

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S&SP

The following table summarizes the prices for GE Stock, Mutual Fund, and Holding Period Interest

Fund used in the Savings and Security Program to credit participants' accounts. 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	Price	YTD Annual Income Rate (a)				Price	YTD Annual Reinvestment Income Rate
				1983	1984	1985	1986		
January	\$69.818	\$35.929	\$10.00	13.7%	13.2%	12.8%	9.6%	\$11.57	10.1%
February	\$75.013	\$38.019	\$10.00	13.7%	13.2%	12.8%	9.7%	\$11.96	10.4%
March	\$77.403	\$40.995	\$10.00	13.7%	13.2%	12.9%	10.5%	\$12.53	10.2%
April	\$77.744	\$41.184	\$10.00	13.7%	13.2%	12.9%	10.6%	\$12.23	10.2%
May	\$80.923	\$42.452	\$10.00	13.7%	13.2%	12.9%	10.6%	\$12.36	10.1%

(a) The "announced" HP Fund Rate was 13.25% for 1983, 12.75% for 1984, 12.50% for 1985, and 9.50% for 1986.

BOTTOM LINE

July sales of \$40.0 million were the same as estimated but 7 percent below Op Plan, with volume under-runs in most components.

- Network Based Services revenue was down 7 percent from Plan, driven mainly by a 13 percent under-rundown in Marketing and US Sales. Domestic revenue continues to be affected by selected product delays and slower-than-anticipated ramp of new application business. International sales were on Plan; favorable exchange offset lower volume.

- GE Consulting Services revenue was 14 percent below Plan, reflecting lower volume and fewer billable contract personnel.

- Software International sales were 2 percent above Plan, mainly due to higher maintenance revenue.

Year-to-date sales were 2 percent lower than Op Plan and 4 percent below last year's, excluding the Schemm Center Operations transfer to Corporate. ▲

VAMPIRE AD

"Computing at night bit into my budget..."



\$10.00+ per hour

"With GENie™ I get more bytes online for less."



\$5 per hour

If you're still undecided about signing up for GENie, perhaps the first ad in the latest series of ads will convince you. The text declares, "Most on-line information networks can drain your resources faster than you can say, 'Vampire.'...GENie won't bite into your budget....Now you can get more bytes on line without incurring bloodcurdling costs."

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According to a recent survey conducted by McGraw-Hill's GRADUATING ENGINEER, GE is the No. 1 choice for employment among students graduating with degrees in mechanical engineering; 19 percent of the students picked GE, 18 percent General Motors; 17 percent IBM. GE has finished first each of the last 3 times the survey was conducted (1981, 1983, and 1985). For all engineering disciplines combined, GE was second to IBM). ▲

HOW MY PC SPENT ITS SUMMER VACATION

For the fourth year, GE Information Services and the city of Rockville are jointly sponsoring computer camps for youngsters in grades four through seven. This summer, ten company executives gave up their IBM PCs (and four of them their printers) to support the four two-week computer camps, two for beginners and two for advanced students.

In the picture below, Bob Hench (VP & GM, MARK III Department) visits his PC and talks to some of the campers. "Almost all of these youngsters have had experience with



computers before—Commodores, Apples, Ataris—and this is the beginning class," he notes. "I'm impressed."

GE Information Services also contributes scholarship funding for students who can't afford the camp tuition and provides necessary supplies and hardware maintenance (coordinated by Mary-Ellen King, Senior Training Specialist). One day each session, Tom Mack (Consulting Specialist, MARK 3000 Engineering) demonstrates how a computer works by disassembling an IBM PC and describing the components.

Counselors, who usually are college students with computer science majors, teach the theory and practical uses of BASIC language, including input and for/next loops for beginners and nested loops, arrays, and subroutines for advanced students.

The lessons include entertaining problems, such as number guessing games for beginners and tic-tac-toe program creation for advanced students. On the last day of each session, the campers spend the morning running a program that incorporates as much of the material that they've learned as possible, and the competition for the blue ribbon is keen. The 25 youngsters in each filled-to-capacity session don't spend all their time learning, however—swimming and other recreational activities are an integral part of their days.

The campers, who knew their benefactors from masking-tape name tags on the equipment, extend thanks to Hench, Bob Kaiser, Betty Koch, Dana Fidler, Ron Pejsa, Paula Wiltrout, Mike McGaha, Mel Szot, Roger Dyer, and Deb Keller. ▲