



**ISBD**

INFORMATION SERVICES BUSINESS DIVISION

ROCKVILLE, MARYLAND

August 2, 1976 05.62

## ISR-500: A Major New Foreground Software Release

ISR-500 is ready for field testing. Selected customers with substantial production applications will be given an opportunity to take advantage of this testing period, beginning around August 1, to make sure all new and improved features work properly on their runs, and to verify that no previous features used by the customers have been lost.

ISR-500 is to be the vehicle by which ISBD will be able to offer its evolutionary new Fortran product, due to be introduced later this year as Fortran 77. But in addition, it includes a number of additional software enhancements as well as several completely new and useful features.

First, run-time limits have been modified so that the first limit established is the controlling one. That is, RUN-100 means the job stream will abort if more than 100 CRU's are

generated — of particular importance to CMF files and IND runs which use CALL CMD.

Improved run-time limits give the user better control over the number of CRU's generated in total. And it also eliminates the danger of a customer's program getting caught in the proverbial "processing loops" even when the program is run from a command file.

The system commands LOCate and CHAnge no longer require random scratch files. They can now operate on any file size and have other new capabilities. Of particular importance to programs that use CHA or LOC through CALL CMD. This enhancement allows us to make more efficient use of our computer capacity, as "random space" is no longer needed. The user will no longer see CAN'T OPEN SCRATCH FILE messages.

Now, for the first time, you can edit any allowable file size up to 4,000 PSU's, and there are also other new capabilities to make editing easier for the user.

The TTY command output is now two digits longer. TTY will now produce a nine-digit number. This is of importance to programs that CALL CMD TTY or read an output file containing TTY command output. The extra digits allow for mini-remote concentrators being deployed in the network.

The BASIC and FIV backup compilers (ZBA and FVI) are replaced with the current FIV and BAS compilers. Programs saved under ZBA or FVI should be tested and saved under the new compilers. Customers affected should be made aware of this modification. Marketing notification plans include an on-line information file at the appropriate time.

Among the new features of ISR-500, nested CALL CMD will now be allowed as far as three levels deep. This gives management and the designing programmer more control and allows much greater flexibility in design.

Also, the EDIT CATALOG capability is now even better. It allows users' file descriptions to be automatically sorted in any of a great many different ways . . . and it can sort catalogs of any size now.

Another new feature is that High Speed Service (HSS) allows multi-sessions without redialing, and it supports the PEBCDIC character set. So if a user wishes to access more than one user number during a single on-line session, it's no longer necessary for

*Continued on page 2*

### Winning Phoenix Team Celebrates in Style



*Melanie Bouer's Phoenix Branch walked away with ISBD's first-quarter top honors, and recently they got together at the Arizona Biltmore for a celebration. From left: Rich Orantes, Senior T/R; Bob Binkert, Senior T/R; Norma Frinch, Acting Technical Manager; Jim Schuster, Manager, Southwest Zone; Melanie Bouer, Branch Manager; Peter Fuentes, Senior T/R; Florence McCorkle, Branch Administrator; Barbara Woodward, A/R; Bill Breedlove, Senior A/R; and Lee Demarest, Senior A/R.*

GENERAL  ELECTRIC





## New DMS/STATSYS Interface: One More Money and Effort Saver for Customers

A new Mark III® Service enhancement can mean new cost savings and added convenience for many of our customers — another reason for selecting and staying with ISBD. It's an interface between DMS, our massive Data Management System, and STATSYSTEM, our statistical analysis program.

Now, for the first time, users can retrieve information directly from their DMS databases for use with our efficient, results-oriented STATSYSTEM program, where they can analyze it in just about any way they like; and then the results may be printed out for immediate use, and/or written to a file for use during a database update.

In the past, users wishing to do statistical analysis on their facts and figures had to retrieve the information from their DMS databases (if it is stored there), do some complicated programming, then re-enter the information into STATSYSTEM in a completely new format. This time-consuming, costly function has been rendered obsolete by our automatic new interface. Of course, users must still run statistical analysis routines within STATSYSTEM to instruct it in the types and amounts of information desired analyzed . . . what facts and figures are to be compared against what other facts and figures, and in what way, for example.

But Floyd DeAndrade, Product Programs Specialist, said this is a small task compared with the steps previously necessary. "For one thing," he said, "it allows for far more sophisticated analysis of users' data than ever before. And it's no longer necessary to 'read' ASCII files into STATSYSTEM." He said users should experience considerably lower CRU usage costs, thanks to the new interface, not to mention the man-hours saved by use of its automatic features.

For additional information on this new interface, give Floyd a call at 8\*273-4718.

## ISR-500 *Continued from page 1*

him to hang up and redial. This is made possible by using the \*EOM command instead of the \*EOS command.

The OPTION command now allows TTY OFF/ON. OFF suppresses the system output from CALL CMD and CMF runs. This new feature gives the programmer better control than previously over what the system does. It will very likely result in a reduction in user time and output costs too.

And, as stated earlier, ISR-500 will permit the release of the Division's new Fortran 77, which will embody a number of exciting enhancements. Fortran 77 is due for field tests beginning in mid-August, and Update readers should look for more details in future issues.

ISR-500 field tests will be conducted on a special system separate

from our cluster systems, and the test versions of the customers' programs will be run in parallel — at no cost to the customer — with their regular runs.

It is expected that the first week of August will be light in terms of user tests. This may be a good period for ISBD personnel to check the system out internally. Coordinate this activity with Bob Loew, NSO Senior System Specialist at 8\*273-4571. Any technical questions you may have should be referred to Bob. If you have questions regarding the marketing implications of this release, call Fred Wood, Senior Specialist in Marketing, at 8\*273-4624. Both Bob and Fred believe you'll find that ISR-500 offers both new efficiencies and new capabilities that will help make MARK III Service still a better, more valuable tool for your customers.

## July Service Awards

### Thirty-Five Years

Henrietta K. Curl Philadelphia

### Fifteen Years

Sandra L. Brown Brook Park

### Ten Years

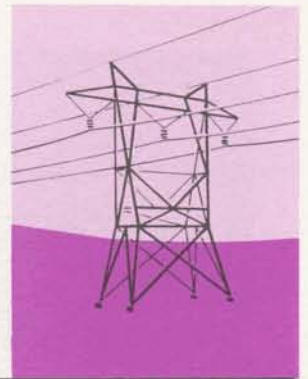
Bruce M. Ayer Rockville  
Glen J. Eubank Rockville  
Joseph T. Schartman Rockville  
Carolyn S. Littles Rockville  
Fred A. Wood Rockville

### Five Years

Michael P. Chan Palo Alto  
Paul H. Lebowitz Rockville  
Celia H. Baldwin Stamford  
Joseph M. Worthington Atlanta  
John E. Boyd Rockville  
David P. Thacker Charlotte  
James H. Winchester Los Angeles

Update is published bi-weekly by the Information Services Division for the benefit and information of employees. Articles and photographs may be submitted to Update, Information Services, 401 N. Washington Street, Rockville, Maryland 20850; or call 8\*273-4387.





## Two New Electric Utility Programs On MARK III Network Software Service

Two new NSS programs of value to electric utility companies, created and owned by General Electric's Electric Utility Systems Engineering Department in Schenectady, are now in the NSS library, and are available for customers' use.

They are *Transmission Line Environmental Digital Studies* (TRENDS); and *Electromagnetic and Electrostatic Transmission Line Parameters* (EMES7). Sales Manual descriptive profiles have already been written and printed for both products. Their publication numbers are 5204.42 and 5204.51, respectively.

TRENDS is a package of six computer programs designed to calculate the environmental effects of EHV and UHV transmission lines. The package provides the capability for analysis of ground-vicinity electric fields, audible noise, radio interference and corona loss calculations. This interactive Foreground Service package is controlled by an executive module which controls execution of individual programs of TRENDS to allow any or all to be run during a single study.

EMES7 is designed to assist electric utilities in calculating the electromagnetic and electrostatic line para-

meters for overhead lines. It provides the user with a convenient means of determining these line parameters rather than the use of conventional handbook methods, which may be no longer adequate, or through hand calculations that are laborious, time-consuming and subject to errors.

The program calculates the electrical characteristics of a system of overhead

conductors for either EHV or UHV lines, as well as overhead HVDC transmission lines. Flexibility is provided through the program's ability to handle odd or non-standard phase conductor configurations and tower geometries.

For additional information on either of these new NSS products from EUSED, call Ralph Bice at 8\*273-4722.

## Dottie, Diana Win Effective Presentation Trophies



*Dorothy Tumolo (left), NSO Customer Assistance Specialist, and Diana DiGiulian, Secretary, International Support Operation, recently won championship and runner-up trophies, respectively, for their speeches in the Effective Presentation finals at a graduation banquet at Rockville's Ramada Inn. Instructor Bob Rogers, Product Promotions Specialist, offers congratulations. Effective Presentation is a 15-week course in ISBD's Employee Development Studies Program, designed to teach students to communicate more persuasively in all situations. The course is expected to be offered again in the 1976-77 EDSP academic term.*

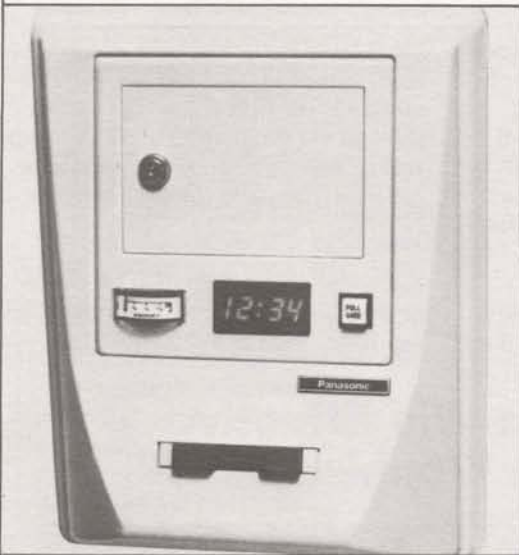
## New Literature Folder Now Available

An attractive new literature folder has been created and produced for use by Field Sales Personnel. Featuring a silver MARK III Service mosaic on a white kromecoat background, it is now stocked on OLOS (900.54). Two popular sales brochures have also been reprinted: the Order Service brochure (5302.15) and the "Value" brochure (0910.20).





## New Automatic Time Clock Terminals Linked to the MARK III System



*The new Panasonic S-Line Data Entry Terminal.*

A brand new and unique sort of terminal has been qualified for use with the MARK III system, and it is already in use by one of ISBD's major international customers.

Produced by Panasonic, the terminal is called the "S-Line Data Entry

## Nuclear Power Plant Gives Our National Bird a Boost!

A nuclear power plant, built by GE and equipped with two GE nuclear reactors, is helping some bald eagles, America's emblem and a threatened species, stage a comeback.

The Quad Cities power plant, jointly owned by Commonwealth Edison and Iowa Gas and Electric, is located on the Mississippi River near Moline, Ill., and was licensed to begin operation a little over three years ago. At that time a study showed less than 30 bald eagles within a 25-mile radius of the plant. A one-day count of the birds taken last December revealed 107 eagles within the same area — an amazing increase.

Terminal," the "S" standing for "stand-alone." The terminal looks like a small wall-mounted box into which each employee inserts a time card upon arriving at and leaving from work. The time cards used by employees are not the typical printed paper cards, but rather a plastic card which looks very much like an ordinary credit card with punched holes which, when read by the terminal, translate into the employee's pay number.

Each S-Line terminal is capable of reading and storing up to nine ASCII characters for each employee, and it also records the exact time the employee punches in or out. The terminal has a memory which can accommodate up to 512 entries. Assuming that each employee will use the "time clock terminal" twice daily, each location can accommodate up to 256 employees.

The S-Line terminal is "married" to a Texas Instruments Model 733 KSR, which is used to output the stored information at the end of each day and/or erase it.

According to Harry Bernhard, a biologist for Commonwealth Edison's Department of Environmental Affairs, the rise in the eagle population is mainly due to the power plant's causing a small area of the river to remain unfrozen during the winter. This results in an ample supply of one of the eagles' favorite foods: fish. "I've studied this area for several years," Bernhard states, "and environmental damage around this plant just doesn't exist."

So, in this Bicentennial year, America's national bird is thriving, not threatened, in at least one part of our land, thanks to some help from a nuclear power plant.

Once a day, a designated employee calls in to MARK III Service, and the S-Line/733 KSR combination quickly reads all the day's stored information into the ISBD computer complex. This occurs many times, of course, depending on the number of locations around the country. MARK III Service accumulates the input from all S-Line terminals, and combines this information with permanent files on employees' names, Social Security number, etc. A final output report is then sent to the customer's in-house system for preparation of payroll checks.

According to Harold Stover, Terminal Projects Manager, "This is the first application of its type in the country, as far as we know . . . possibly in the world." Harold explained that he has never heard of any payroll input system as completely automatic as this new configuration appears to be.

"Not only does the system eliminate squabbles about when an employee reported to work, but it totally eliminates the necessity to manually record times, hours and payroll numbers. And with the elimination of those tasks, their attendant errors are also eliminated," he declared.

Harold believes the system is excellent, and that it can be used for a wide variety of MARK III Service customers. "Any company which has many employee locations," he said, "might be prime candidates for this type of setup using the MARK III system and Panasonic's S-Line terminal. This device is a particularly excellent input means for our new Employee Accounting System (EAS)."

For additional information on the new S-Line Data Entry Terminal and how it may be used to help increase ISBD revenue, call Harold Stover at 8\*273-4620.





## ISBD Rockville Sponsors Award-Winning Junior Achievers Second Consecutive Year

A 30-week endeavor, utilizing the volunteered efforts of such Rockville ISBDers as Dave Cearnal, Linda Crisafulli, Tony Crisafulli, Elaine Kissell, Ray McNees, Jim O'Connell, Jim O'Sullivan and John Touch recently ended, and for the second year in a row, our Junior Achievers have walked away with performance trophies.

Like last year, when we first entered this citizen-building project, ISBD sponsored two Junior Achievement companies, advised the high-school participants and taught them some of the finer points of manufacturing, business procedures and pursuit of the profit dollar.

This year's companies were Guiding Lites Unlimited and Hands of Time. Guiding Lites manufactured a very clever automobile emergency light, using small GE sealed beam headlamps, rubber plumber's helpers, electric cords and plugs for use in car cigaret lighters. Selling at \$7 each, the useful product became an immediate success, and Guiding Lites Unlimited ended the season with a tidy profit . . . plus the

second-place trophy for overall performance throughout the greater Washington area in competition with some 65 other JA companies.

On the other hand, The Hands of Time company, which elected to manufacture and sell clocks, discovered that it had chosen a bummer. For some reason, virtually everybody seemed to have just about all the clocks they wanted! So Hands of Time management made a quick midstream re-evaluation and decided to add a new, more saleable product to the line. What they came up with was a series of beer and soft drink can table lamps, complete with bulbs and shades, selling at \$6.50. The product sold like wildfire, and helped the company to recoup almost all its losses, finishing the season with only a slight loss.

Interestingly, Hands of Time consisted primarily of students who comprised one of last year's ISBD award-winning Junior Achievement companies. So another lesson learned this year is that not every

product will find a ready market. Undaunted, however, these enthusiastic youths are looking forward eagerly to next year when they're determined to go after the winner's trophy once again.

Junior Achievement is a national program in which American companies . . . and their knowledgeable employees . . . sponsor high-school aged youths in "real" companies to teach them the fundamentals of business. The students organize their own companies, elect officers, sell stock, select products, manufacture them, market them and pay dividends (if their endeavor is profitable). ISBD-sponsored JA companies are based at Rockville High School.

Last month an awards luncheon was held at ISBD headquarters for participating Junior Achievers. Guiding Lites President Mark Kleber presented Norm Barth, Manager of the Relations Operation, with a plaque earned by the company for achieving runner-up position among Washington-area JA companies.

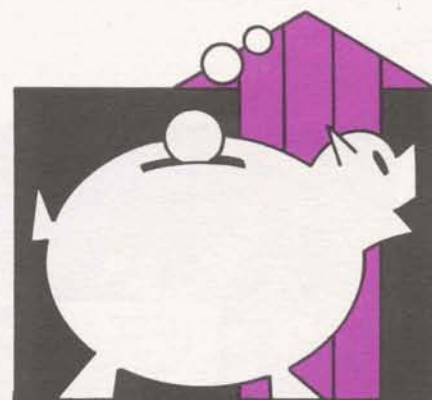


*Guiding Lites Unlimited officers (Bob Longo, Safety Officer, left; and Laurian Kleber, Vice President of Manufacturing) give Allen Ezzell and George Cooper their sales pitch for emergency auto lamps in the fifth floor lobby of the Maryland Center.*



*On the other side of the lobby, selling clocks and beer can lamps for Hands of Time, were Treasurer Pam Pepper and Vice President of Sales Donna Stengell (right). Customers are Jim O'Sullivan and Gail Rogge.*





## GE Earnings, Sales Continue Rebound

Earnings of the General Electric Company were \$180.8 million in the second quarter of 1976, Reginald H. Jones, Chairman of the Board, reported recently. This represents 5 cents profit on each sales dollar. Earnings per share were 98 cents for the 1976 quarter compared with 71 cents for the 1975 period.

Sales in the second quarter of 1976 were \$3.64 billion, up 8 percent from the \$3.37 billion reported in the same quarter of 1975.

Earnings for the first six months of 1976 were \$316.2 million. This was an increase of 55 percent from the

\$204.0 million reported in the first six months of 1975. Earnings per share were \$1.71 for the period compared with \$1.12 per share for the same period in 1975.

Sales in the first six months of 1976 were \$6.91 billion, up 9 percent from the \$6.35 billion reported in the same period of 1975.

In commenting on the second quarter, Mr. Jones said, "The Company's earnings performance reflects the strengthening of the U.S. economy

from the depressed level of last year. Increased sales, combined with vigorous efforts to control costs, resulted in substantially improved operating margins for the quarter. In addition, other income for the second quarter included a non-recurring pre-tax gain of \$20.7 million realized on the sale of the Company's investment in AEG Telefunken. We continue to anticipate that earnings for 1976 will exceed those for 1975, but not at the high rate of improvement in the second quarter and first half."

## Hartford Takes Second-Quarter Lead; Cleveland Still Climbing!

Word reached Update just prior to publication that Del Merenda and his hard-working account and technical representatives of the Hartford Sales Branch have captured the number one position for ISBD's second quarter of 1976. This reflects a particularly impressive performance, considering the fact that the number of ISBD branches has been growing rapidly of late, and competition has become keener than ever for this singular honor.

And only 19 positions behind Hartford is Ron Rasmussen's Cleveland Branch, still moving upward from the bottom of the list against a tidal wave of other determined branches. In June, Cleveland moved up two more positions to 20th place — 17th from the bottom.

Look for more information on Hartford (and Cleveland too), as well as the 60 top individual performers for the second quarter, in the next issue of Update.

## In Other GE Divisions . . .

**Valley Forge:** A new computer-based building automation system, installed last November, is helping the Space Division save on its electric and fuel bills. The new system, believed to be the first of its kind in GE, is programmed to do two main functions: schedule the operation of air handling units, and automatically limit peak electricity demands. According to Lee Farnham, Space Systems general manager, the new system will save a total of \$93,000 in fuel and electricity costs in its first year.

**Charlottesville:** According to Kim Fox, plant manager, 1976 looks like a good year for GE's numerical control business—thanks, in part, to a competitor. Sperry-Rand recently dropped out of the numerical control business. When that happened, "Our sales engineers," Fox states, "went to former Sperry customers and by promising value, quality and quick delivery, were able to convince several of Sperry's customers to switch to GE." This new business is one reason for the hiring of a number of new people for the Charlottesville plant.

## S&SP Prices — June

Month	Stock Price	Fund Unit Price
June	\$54.722	\$27.317
May	51.469	27.547
April	53.190	28.088
March	52.098	27.962
February	53.329	28.042
January	52.220	26.986
December	46.347	25.407
November	48.336	25.991
October	47.332	25.257
September	44.173	24.010
August	44.542	24.670
July	49.926	27.114

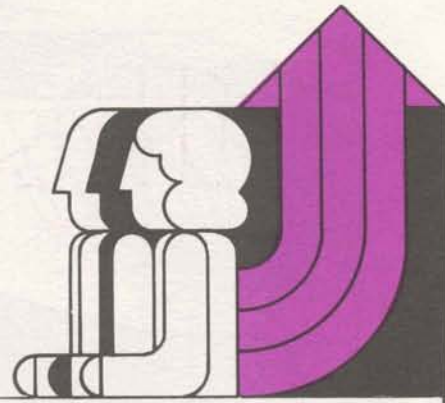
## CEDB Now Has Plotting Capability

The plotting capability of the Currency Exchange Data Base (CEDB) software on the MARK III system has now been activated, permitting users to get graphic output directly from the data base. The edition of the CEDB User Guide (5103.20) currently in circulation describes the use of the plot commands and provides examples of their use.

Customers using CEDB should have the availability of plotting called to their attention, as many of them will find it greatly facilitates their use of the data base. For additional information, call Bill Backer at 8•273-4698.

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## People On the Move



*Rudy Baldor*



*Bud Bische*



*Carol Brunzell*

Rudolfo Baldor, from National Account Representative — Data Planning; to Manager, Miami Branch.

Howard T. Bische, from Account Representative, Cincinnati; to Senior Account Representative, Indianapolis.

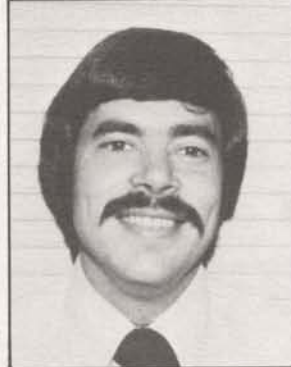
Carol A. Brunzell, from Secretary; to Data Clerk, Rockville.



*Jerry Copple*



*Ron Egoille*



*Roger Johnson*

Gerald Copple, from Data Control Clerk; to Computer Operator, Philadelphia Remote Operation.

Ronald Egoille, from Shift Manager; to Manager, Support Services, Brook Park.

Roger S. Johnson, from Computer Operator; to Senior Computer Operator, Brook Park.



*Dana Lowry*



*Karen Moats*

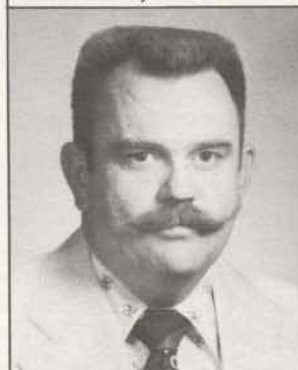


*Marty Reese*

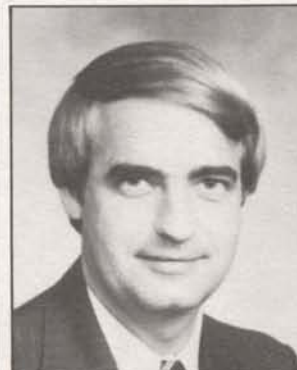
Dana Lowry, from Systems Analyst; to Product Planner, Rockville.

Karen Moats, from Tape Librarian; to Senior Tape Librarian, Brook Park.

Martin A. Reese, from Applications Specialist; to Senior Applications Specialist, Torrance.



*Ben Richardson*



*Randy Taylor*



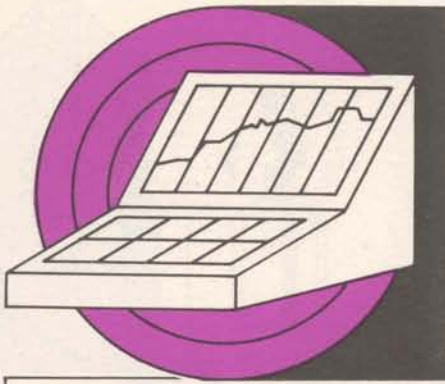
*Jim Teapole*

Benton L. Richardson, from Account Representative; to Senior Account Representative, Telco Branch, Los Angeles office.

Randolph Taylor, from Applications Specialist; to Senior Applications Specialist, Atlanta.

James C. Teapole, from Systems Software Specialist, Erie; to RFM Techniques Specialist, Rockville.





## 360 APT on VS Background Service Creates New Revenue Opportunities

Although ISBD's Numerical Control capabilities have not received as much publicity as some of our other products, our activity in this area has grown to a multimillion-dollar business for the Division. According to Joseph Schartman, System Engineer in Technology, there is additional NC business all over the U.S. (and overseas) waiting to be gleaned by our account representatives.

One of the reasons Joe believes our NC revenue potential has recently taken a giant step upward is the availability of IBM's System/360 APT Numerical Control Processor on the MARK III VS Background system. 360 APT is the most popular, most widespread numerical control software in use today, and thanks to our Foreground Interface and a unique Foreground driver, our 360 APT program is very likely to be the easiest to use anywhere, including in-house systems.

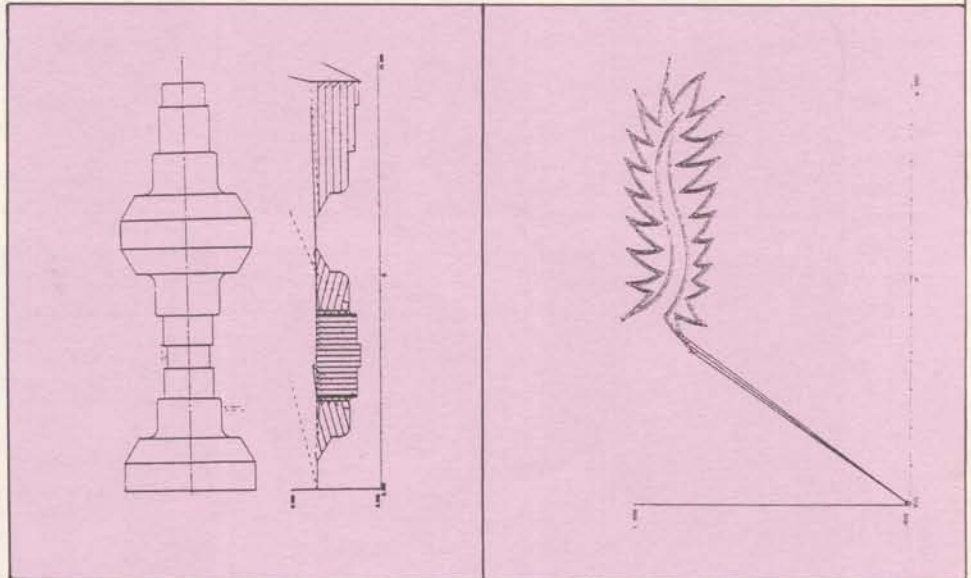
The IBM System/360 APT uses a symbolic language to simplify the preparation of instructions for numerically controlled machine tools. The APT system, along with the appropriate postprocessor, punches the actual paper tape to control the machine tool. Already using NC software on MARK III Service are manufacturers of tennis shoes, sewing machines, Coke and beer bottles, transit cars, locomotives, boxes and cowboy boots, plus a host of others. Oil companies also make widespread use of the programs. Joe pointed out that there are between 30,000 and 40,000 numerically controlled machine tools in the U.S., and ISBD is able to solve a great many of their problems.

A unique feature of 360 APT on VS Background Service is the Foreground interface and the program's driver. Since the driver automatically writes

the job control language (JCL), it does not take a knowledgeable programmer to use the product. It only takes a couple of simple commands to activate the program. "Quite a few of our current customers have ordinary clerks handling their input, processing and output," Joe said.

In addition to the ease of use, our 360 APT is ideally suited to manufacturers who are already using the program in-house. This is because it is extremely simple to convert their use

families of machines. We have, on-line, the postprocessors created by seven original equipment manufacturers (OEM's), and in addition, we have the staff to custom-create postprocessors to individual customers' needs and specifications. These manufacturers, incidentally, also document all their own postprocessor programs. And, thanks to VS Background Service, users can now create, install, modify and access their own postprocessors. "Numerical Control hasn't been one of our primary market thrusts," Joe



*The plot at left shows the outline of a steel shaft to be lathed; the right plot details each of the blade cuts necessary to achieve the final shape.*

to our system, and in many cases we can offer much faster turnaround than they're getting with their own overburdened in-house systems.

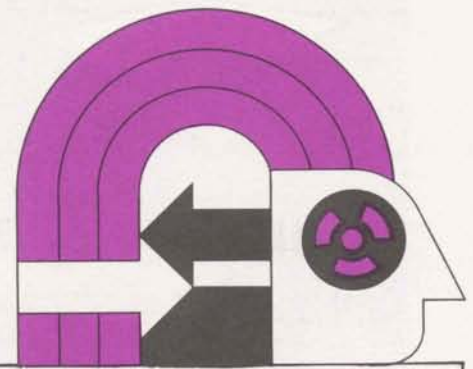
Closely associated with the 360 APT application are postprocessors — programs which take APT output and adapt it to specific machines or

*This plot represents an NC tape which controls an automatic sewing machine. An ISBD NC customer sews this design, automatically, on cowboy boots.*

said, "so most of our business has been through referrals and growth of existing users. A potential customer will call and ask if we have the capability of creating a certain type of numerical control tape. Frequently the answer is 'yes' and suddenly we find ourselves with a brand new customer."

*Continued on page 10*





## Interchange Corner

### Foreground File Recovery Capabilities

#### Base Dump

Each Foreground file system is dumped to magnetic tape in total once each week. This full system (or base) dump is performed on-line either Saturday or Sunday morning, commencing at approximately midnight. The day when the base dump is performed is determined by the file maintenance schedule for each given system. These dumps occur at midnight preceding the file maintenance. For example, if a file system is scheduled for file maintenance at 20:00 EST on Saturday, the base dump will be accomplished on Saturday morning at 00:01; file systems scheduled for Sunday file maintenance are dumped on Sunday morning at 00:01.

All system control information, user validations, user files and system libraries are included in the base dump. The only files that do not appear in the base dump are those files that are busy at the time the base dump is performed. A special flag is set on to indicate that the file was busy during the base dump, and they are included in the off-line incremental dump performed during weekend file maintenance.

#### Incremental Processing

In order to provide total backup capabilities, an incremental system dump is performed on a daily basis. All system control information and user files that have been modified since the base dump are included in the incremental dump. In this way, an entire file system or any portion can be reconstructed by combining the incremental and base dumps.

In practice the incremental and base dumps work as follows:

#### Base Dump — Contains All Files

FILE1	FILE2	FILE3	FILE4	FILE5	FILE6
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During Day 1 this user modifies FILE3 and FILE5. The incremental dump for Day 1 contains the following:

FILE3	FILE5				
-------	-------	--	--	--	--

During Day 2 this user modifies FILE1 and FILE6. The incremental dump of Day 2 contains the following:

FILE1	FILE3	FILE5	FILE6		
-------	-------	-------	-------	--	--

As shown by the diagrams, incremental dumps are cumulative to facilitate quick backup, should the need arise. By using cumulative incremental processing, the most recent incremental dump and its associated base dump combine to form the total file system contents.

There is one situation that must be given special attention — perpetually busy files. Since all incremental processing is performed on-line, there is no provision for dumping such files. The only time that these files are actually dumped to magnetic tape is during weekend file maintenance when the system is shut down. In order to protect these files, users should implement a backup system that parallels our incremental system. Journalization can be used to accomplish this backup capability or the user can install a transaction recording file that contains all update/modification information for the database, accumulated on a Sunday through Friday basis. In this way a user can protect against a multiple day reversion by performing a maintenance routine using the transaction file. Failure to utilize one of these methods for database protection could result in reversion to the prior weekend file status with no means to obtain the lost data.

#### Tape Retentions

Due to the extremely large volume of magnetic tapes that are utilized in the day-to-day Foreground operation, it is impossible to save all system dumps for indefinite periods of time. In order to maintain a manageable, yet comprehensive, tape library, the following tape retention criteria apply:

Tape	Site	Retention
Daily I-Dump	On	27 days
Daily I-Dump	Off	N/A
Weekly Base	On	7 days
Weekly Base	Off	23 days
*End-of-Month	On	365 days
*End-of-Month	Off	365 days

\*End-of-Month dumps are not actually taken, but consist of the necessary compliment(s) of base and I-dump tapes required to provide total system backup for the month.

#### Hard Copy Dump Records

Every system dump generates a data file that contains an entry for each file dumped to tape. This data file is processed to microfiche in order to provide a reference for all file recovery requests.

#### File Recovery Capabilities

Our operating system provides total file restoration capabilities. Foreground operations personnel can recover a total catalog, user number or specific file(s). The time required to accomplish a file recovery is completely dependent on the accuracy of the recovery request. If a file recovery request is submitted and the file does not exist on the dump requested, time and computer resources are wasted. The accuracy of a file recovery request can be assured by obtaining specific

*Continued on page 10*





## Coming This Month: New GCOS Background Service Self-Paced Training Course

Something entirely new for ISBD is planned for release by the Training Operation this month: a "how to sell" training course which is completely self-paced and self-instructed. The course teaches field personnel how to sell GCOS Background Service, one of the division's major sales thrusts for the remainder of 1976.

The course is composed of two tape cassettes and a supporting workbook. The tapes dramatize a case study of an account representative and his branch manager as they progress through a typical sales cycle with "Western Products" a hypothetical FG account that they are in jeopardy of losing to the customer's in-house system. A key element in the structure of this course is a series of review discussions with your branch manager throughout the

material. This joint involvement is designed to enhance the course's contribution to your Background sales success.

The course was developed by Tratec, Incorporated, a Los Angeles-based firm, working closely with Denny Senko, Project Manager in the Training Operation. As most of you know, Tratec specializes in the development of sales training courses. Among their customers are such leading corporations as IBM, Burroughs and the Coca Cola Company. Tratec is also well known among ISBD field personnel; and we have used their services many times in the past, and found their methods to be very effective.

GCOS Background Service was selected as the pilot effort in this self-paced, self-instructed training because

of the division's commitment to our background services, and a substantial portion of our revenue potential lies in this area.

The title of the new course is "Selling MARK III GCOS Background Service."

### 360 Apt *Continued from page 8*

Joe added that since most NC customers have their own programming experts, they don't require a great deal of support in the field once they're established. "And they stay with us, too," he declared. "We still have our very first NC customer . . . and we hardly ever lose an NC customer either to competitive services or to in-house systems."

When a customer converts to ISBD for 360 APT, the learning process is extremely simple. "We can have them into production in only two or three days," Joe said, "and it only takes a few minutes for an individual user to learn how to use 360 APT on our system."

Another plus in our court is our Foreground editing capability for our Background applications. It allows for easy corrections at both ends — input and output data can both be easily edited.

Two excellent 360 APT manuals are available directly from IBM or through ISBD. They are the Application Description (CH20-0181-2) and the Programming Manual (CH20-0309-5). If you have any questions about the 360 APT program on MARK III VS Background Service, call Linda Lukey, Senior Specialist in VS Sales, at 8\*273-4355.

### Interchange *Continued from page 9*

data about the file in question from the customer and relating that to the dump retentions and procedures outlined in the preceding paragraphs. The normal turnaround is eight hours if the tape is stored on site and 24 hours for tapes that are stored off site.

#### Mailbox Information

In order to minimize confusion on file recoveries and transfers, the following information should be included:

A. When entering the Mailbox, use the "from" catalog as you enter your request.

B. Under REMARKS, supply FROM XXX TO XXX and give the last modified time and date.

C. Do not try to over explain in the REMARKS section of the Mailbox. A

supplemental letter, memo or phone call to Expediting would be better.

D. Remember on transfers, that two types of files require special attention: (1) ARCHIVAL FILES are not transferred. They must be retrieved prior to transfer, and (2) SPECIFIC PERMISSION FILES will always carry the old permissions with them. Plan to re-permit to the new user and/or catalog upon completion of the transfer.

Call Expediting at 8\*347-3526 for any additional information needed on recoveries or transfers.

*Do you have any special technical information on procedures which help make the use of MARK III Service easier or more useful to our customers? Share them with your fellow Update readers . . . send them in today!*





ISBD

## Division Organization Restructuring Sets Business Climate Toward Future

Dr. George J. Feeney, Vice President and General Manager of the Information Services Business Division, has announced major changes in department responsibility and organization structure. The changes reflect reorganization or additions in Marketing, Operations and International areas of the business.



In making the announcement, Dr. Feeney said: "This is the most significant change our Division has made in recent years. Each part has been

carefully thought out, and the overall goal is to make our efforts, in terms of both technology and marketing, still more effective in 1976, 1977 and beyond."

Dr. Feeney added: "The business is continuing to grow rapidly in both the domestic and international areas. These changes are intended to intensify our strength in overall marketing throughout the business and to capitalize on our domestic success to help expand internationally."

### Marketing



The Marketing Operation has been expanded and given additional responsibilities and functions which now establish it as a department.

The new Information Services Marketing Department's first General Manager is Robert R.

Hench, formerly General Manager of the Technology Department. The components of the Marketing Department include the following:

Custom Applications Operation—Manager: Marvin F. Lewis.

Industry Accounts Operation—Manager: Stephen A. Marmion.

Marketing Communications—Manager: William R. Hewlett.

National Service Operation—Manager: Melvin F. Szot.

Product Planning—Manager: A. William Gindra.

Product Programs—Manager: N. Lee Beyer.

Training Operation—Manager: Robert A. Simmons.

*Continued on page 2*

GENERAL  ELECTRIC

## Atlantic Zone Vows New Sales Records for 1976



Key ISBDers from the Atlantic Zone's six branches and from the Zone Office met last month to establish their sales thrusts for the remainder of 1976. Here, the branch managers commit to Atlantic Zone Manager Mike Emmi that their branches will meet the goals. From left: Mike Emmi; Mike Mash, Manager, Philadelphia Branch; Sung Park, Manager, Pittsburgh Branch; Ed Mazur, Manager, Telco Branch; Mike Paccione, Manager, New Jersey Branch; John Ignozza, Manager, Atlantic Technical Branch; and Ron Rasmussen, Manager, Cleveland Branch.

INFORMATION SERVICES BUSINESS DIVISION

ROCKVILLE, MARYLAND

Sept. 2, 1976  
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## Restructuring *Continued from page 1*

Previously, Custom Applications Operation was a part of the Technology Department; Industry Accounts Operation was a part of the Sales Department; and National Service Operation was a part of the Systems Department.

### Systems and Technology



The Systems Department and the Technology Department have been combined to make up the new Information Services Systems and Technology Department.

Its General Manager is Raymond W. Marshall, formerly General Manager of the Systems Department.

The new combined department is organized as follows:

Communication Systems—Manager: Robert D. McCalley.

File Systems—Manager: David F. Foster.

Operating Systems—Manager: David J. O'Connor.

Quality Assurance—Manager: Zigmund Quastler.

Remote Operations—Manager: Robert L. Johnson.

Systems Operations—Manager: Richard J. Lewis.

Systems Planning—Manager: Jerome M. Butler.

Technology Systems—Manager: Donald L. Shell.

VS Services Program—Manager: James D. Babcock.

User Systems—Manager: F. Don Montgomery.

### International



The Information Services International Department has been formed with Paul R. Leadley as General Manager. Paul was formerly Manager of the Strategic Planning Operation.

The International Department's structure is as follows:

European Operations—Manager: Gerhard O. Mueller.

Far East Operation—Manager: Paul W. Sage.

International Projects Operation—Manager: Paul L. Wexler.

International Support Operation—Manager: Warner R. Sinback.

Middle East Programs—Manager: Robert F. Streight.

European Operations was formerly a part of the Systems Department; Middle East Programs and International Support Operation were formerly part of the Marketing Operation.

Update is published bi-weekly by the Information Services Division for the benefit and information of employees. Articles and photographs may be submitted to Update, Information Services, 401 N. Washington Street, Rockville, Maryland 20850; or call 8\*273-4387.

### Sales



The Information Services Sales Department, with Roger T. Hobbs as its General Manager, has the following organization structure:

Atlantic Zone—Manager: Michael J. Emmi.

Central Zone—Manager: Robert B. Manning.

Eastern Zone—Manager: Ellen R. Kistler.

Northeast Zone—Manager: Bruce J. Frisch.

Pacific Zone—Manager: Frank H. Robertson.

Southern Zone—Manager: James W. Spencer.

Southwest Zone—Manager: James P. Schuster.

Federal Sales Operation—Manager: Sally A. Smith.

VS Sales Operation—Manager: Bruce K. Barnard.

RFM Sales Operation—Acting Manager: Roger T. Hobbs.

Sales Support Operation—Manager: John M. Griffin.

The RFM Sales Operation is a newly created section within the Sales Department.

*Continued on page 3*





## GE's Neil Purves Wins Radio "Spirit" Contest



An ISBD employee who has been a U.S. citizen for just five years was one of 20 winners of KYW Radio Station's recent Bicentennial "Spirit" competition,

in a 200-word essay contest with winners reading their award-winning words over the air on the Philadelphia station.

Neil Purves, Computer Systems Special-

ist with ISBD's Philadelphia Remote Operations, wrote an essay entitled "A Certain Spirit? Freedom, Of Course!" A native of London, Neil has been in America since 1967.

With GE for seven years, he and his wife Anthea have two sons, Paul, 7; and David, 5; and they live in suburban Secane. More than 1,000 entries came into the "Spirit" contest. Neil also won a \$100 U.S. Savings Bond.

## S&SP Prices — July

Month	Stock Price	Fund Unit Price
July	\$56.899	\$27.978
June	54.722	27.317
May	51.469	27.547
April	53.190	28.088
March	52.098	27.962
February	53.329	28.042
January	52.220	26.986
December	46.347	25.407
November	48.336	25.991
October	47.332	25.257
September	44.173	24.010
August	44.542	24.670

## Restructuring

*Continued from page 2*

### Strategic Planning

George J. Feeney will serve as Acting Manager of the Information Services Strategic Planning Operation. Its structure is as follows:

Advanced Technology Operation—Manager: Aksel Olesen.

Strategy Development—Manager: Norman W. Harvey.

Strategy Development—Manager: Paul H. Inserra.

Strategy Development—Manager: John W. Neuenschwander.

Strategy Development—Manager: Conrad G. Persels.

Advanced Technology Operation was formerly a part of the Technology Department.

### Finance



The Information Services Finance Operation, with Leo B. Ramer as its Manager, has the following organization structure:

Accounting Operations—Manager: Max Harris.

Auditing—Manager: John H. Meyer.

Credit and Collection—Manager: Jack A. Hanson.

Information Systems—Manager: Robert A. Niemann.

Operations Analysis—Manager: William J. Kerr.

### Legal



The Information Services Legal Operation, with David Sherman as Division Counsel, has the following organization structure:

Attorney: Robin K. A. Ficker.

Attorney: Lynn E. Stein.

Telecommunications Policy and Regulation: Brendan A. McShane.

### Relations



The Information Services Relations Operation, with Norman B. Barth as its Manager, has the following organization:

Affirmative Action Programs—Manager: Donald C. Clark.

Employee Relations/Sales Department—Manager: David A. Shepherd.

Employee Relations/Systems and Technology Department—Manager: John P. Werbicki.

Employment and Community Relations—Manager: Frank W. Gibbins.

Personnel Practices and Development—Manager: Allen U. Nuss.

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## Miami is Outstanding Branch for Second Quarter; New York Commercial and Hartford Take Second, Third



Rudy Baldor's Miami Branch has won ISBD's "Outstanding Branch" award for the second quarter of 1976, and will soon be enjoying our Geochron Clock.

Close behind were Vic Henschel's New York Commercial Branch in second place; and Del Merenda's Hartford Sales Branch in third place.

The Outstanding Branch for each quarter is selected by combining two areas of performance: quota performance and growth over the same quarter of the previous year. Based on quota

performance alone, the Hartford Sales Branch ranked number one for the second quarter.

And for the benefit of all Cleveland-watchers, Ron Rasmussen's determined team held on to 20th position at the end of July (same as June); but moved a significant single line upward to rest just *above* the national average, rather than just *below*, where they stood last month.

### Individual Performers

Update is pleased to present the names of the top 60 individual performers for the second quarter of 1976—the Top Twenty and the Next Forty. Note that

a single asterisk (\*) beside an individual's name indicates that he or she was among the top 20 performers for the first quarter of 1976; a double asterisk (\*\*) means the individual was among the next 40 first quarter. Those who have consistently remained among the top 60 for three or more consecutive quarters are identified by a number beside their names, representing the number of quarters they have remained on the list.

The list of top performers is always presented in alphabetical arrangement, including both account representatives and technical representatives—not according to relative rank among the Top Twenty or the Next Forty.

### The Top Twenty

George P. Alber  
Account Representative  
Schenectady Branch (NEZ)

Raymond N. Bernier  
Senior Technical Representative  
New England Tech. Branch (NEZ)

James E. Carlson  
Account Representative  
Detroit Branch (CEZ)

John A. Conway  
Account Representative  
Hartford Branch (NEZ)

Diana D. Feld\*\*  
Account Representative  
Palo Alto Branch (PAZ)

Deborah L. George  
Technical Representative  
Detroit Branch (CEZ)

Donald A. Graves  
Senior Technical Representative  
New England Tech. Branch (NEZ)

Gerald F. Grover<sup>3</sup>  
Plastics N.A.R.  
Hartford Branch (NEZ)

Loyal J. Huddleston  
Senior Account Representative  
Denver Branch (SWZ)

David T. Jarvis\*\*  
Senior Account Representative  
Schenectady Branch (NEZ)

John D. McCloskey  
Technical Representative  
Denver Branch (SWZ)

Betty Merritt  
Account Representative  
Hartford Branch (NEZ)

Michael E. Nelson  
Account Representative  
Chicago Com. Branch (CEZ)

Ronald E. Nutter  
Johns-Manville N.A.R.  
Denver Branch (SWZ)

James B. Quayle  
Senior Technical Representative  
Cleveland Branch (ATZ)

Eileen S. Reidinger<sup>3</sup>  
Technical Representative  
Atlantic Telco Branch (ATZ)

Joan A. Rosenberg  
Senior Technical Representative  
New York Tech. Branch (EAZ)

Edward W. Taylor  
Senior Account Representative  
Cleveland Branch (ATZ)

Jeffrey A. Tyler  
Account Representative  
New York Ind. Branch (EAZ)

Albert G. Yokota\*  
Account Representative  
Atlantic Telco Branch (ATZ)

### The Next Forty

Pedro Alfonso  
Account Representative  
National Programs (FSO)

Silvio J. Anichini  
Senior Technical Representative  
Chicago Technical Branch (CEZ)

Ronald F. Banazek  
Account Representative  
New York Ind. Branch (EAZ)

John W. Boehlke  
Technical Representative  
Denver Branch (SWZ)

Gerald J. Brown  
Senior Technical Representative  
NY State Tech. Branch (NEZ)

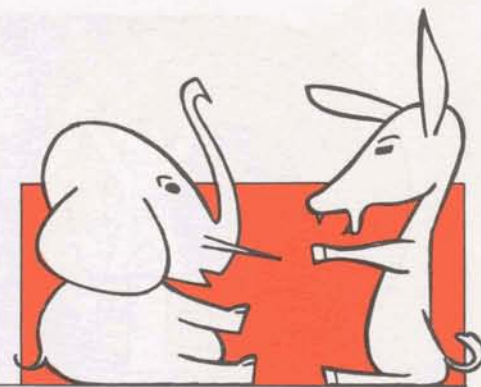
Thomas A. Buck  
Account Representative  
Pittsburgh Branch (ATZ)

Linda E. Burgess\*  
Senior Technical Representative  
New York Tech. Branch (EAZ)

Mary E. Clark  
Account Representative  
Hartford Branch (NEZ)

*Continued on page 5*

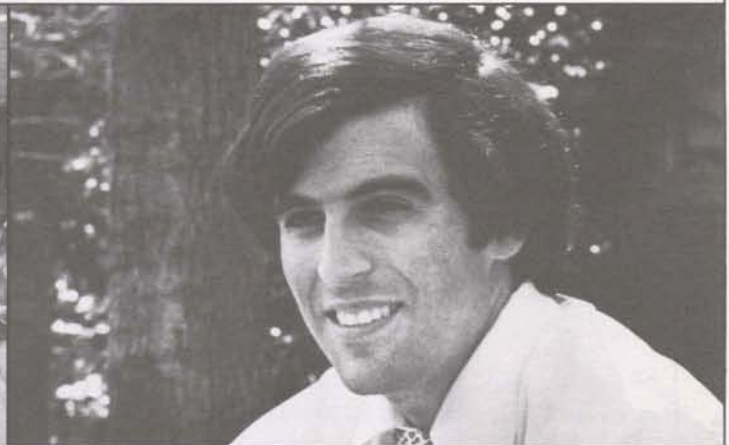




## Candidates Campaign At ISBD-Rockville



*"I'm Newton Steers, Republican candidate for the United States Congress, Eighth Maryland District." Candidate Steers (right) solicits Dr. George Feeney's vote during a recent visit to the ISBD Cafeteria on the fifth floor of the Maryland Center.*



*Two weeks later, Lannie Davis, Democratic candidate for the same office, appeared in the Cafeteria in search of the same votes.*

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Kenneth P. Conroy Senior Account Representative Atlanta Branch (SOZ)	Barbara R. Garner Account Representative Chicago Com. Branch (CEZ)	Frank H. Moros Account Representative New Jersey Branch (ATZ)	Charles R. Romero Account Representative New York Ind. Branch (EAZ)
John A. Cuney Senior Account Representative Denver Branch (SWZ)	Barry L. Greenspan Account Representative New York Com. Branch (EAZ)	Pamela A. Pietravallo Account Representative New Jersey Branch (ATZ)	Ronald A. Straight Chemical Bank N.A.R. New York Fin. Branch (EAZ)
Arthur S. Davies Senior Account Representative Cincinnati Branch (CEZ)	Gretchen L. Gregory Technical Representative New England Tech. Branch (NEZ)	James Poduka** Account Representative Cleveland Branch (ATZ)	David P. Thacker Senior Account Representative L.A.-North Branch (PAZ)
Tamara DePlanter** Technical Representative Atlantic Telco Branch (ATZ)	John S. Harper Morgan Guaranty N.A.R. New York Com. Branch (EAZ)	Robert C. B. Poon Tech. Representative Chicago Tech. Branch (CEZ)	Carl O. Uebelacker Account Representative Cincinnati Branch (CEZ)
Paul W. Dowdy Senior Account Representative Charlotte Branch (SOZ)	Gil S. Harris Peat Marwick & Mitchell N.A.R. New York Fin. Branch (EAZ)	Arthur J. Putnam** Account Representative Atlanta Branch (SOZ)	Ernest P. Vodarsik** Public Services-NJ N.A.R. New Jersey Branch (ATZ)
Terence R. Faff Account Representative L.A.-South Branch (PAZ)	George M. Laraia New Jersey Bell N.A.R. Atlantic Telco Branch (ATZ)	Patricia D. Rakich Senior Tech. Representative No. Calif. Tech. Branch (PAZ)	Bill R. Warner Account Representative Tulsa Branch (SWZ)
Charles E. Fowler Technical Representative Atlanta Branch (SOZ)	Thomas J. LaSalle* Senior Account Representative Rochester Branch (NEZ)	Darlene E. Remy* Senior Tech. Representative No. Calif. Tech. Branch (PAZ)	John H. Welch Senior Tech. Representative Pittsburgh Branch (ATZ)
Richard A. Gariepy Senior Technical Representative NY State Tech. Branch (NEZ)	Otis H. McKee Senior Technical Representative Federal Support Services (FSO)		Gayle M. Wessel Account Representative San Francisco Branch (PAZ)





## People . . .

Calvin Andrews, from MAP Trainee, Rockville; to Account Representative, Kansas City.

Judith Biauce, from Account Representative; to Senior Account Representative, Los Angeles.

Cheryl Y. Brickus, from Branch Administrator; to Technical Representative Trainee, Washington, D.C.

Robert L. Cage, from Purchasing Administrator; to Manager, Accounts Payable, Rockville.

Grace E. Canning, from Senior Specialist, Sales Planning, Rockville; to Zone Support Manager, Philadelphia.

Jeffrey Caro, from Senior Applications Specialist; to Project Manager, New York.

Mary Clark, from Account Representative, Hartford; to Specialist, Sales Training, Rockville.

Alice Crisp, from Status Clerk; to Operational Specialist, Rockville.

Walter Dubiel, from Expediter, HCS; to Specialist, Facilities Planning, Rockville.

John G. Dunn, from Senior Account Representative, Richmond; to Zone Support Manager, Oak Brook.

Roy Gamer, from Technical Writer; to Senior Technical Writer, Rockville.

Sheila Garner, from Computer Operator Trainee; to Computer Operator, Rockville.

Wayne Gowan, from Systems Analysis Project Analyst; to Manager, International Business Analysis, Rockville.

Robert Grabowski, from Specialist, Purchasing and Administration, Brook Park; to Computer Equipment Procurement Administrator, Rockville.



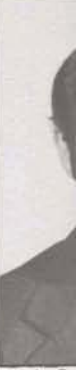
*Cal Andrews*



*Judi Biauce*



*Cheryl Brickus*



*Bob Caro*



*Alice Crisp*



*Walt Dubiel*



*John Dunn*



*Roy Gamer*



*Lena Green*



*Tina Hill*



*Kate Jacobson*



*Mike Jacobson*



*Lee Shaffer*



*Dick Sharp*



*Dave Shepherd*



*Charles Shepherd*





## ... On the Move

Lena Green, from Status Clerk; to Operational Specialist, Rockville.

Kristine Hill, from Summer Intern; to Employment Representative, Rockville.

Katheryn Jacobson, from Secretary; to Branch Administrator, Chicago.

Michael Johnson, from Senior Systems Specialist; to Senior Specialist, HCS Marketing, Rockville.

Michael R. Kelley, from Systems Specialist; to Advanced Technical Planning Specialist, Rockville.

Ken Kennedy, from Account Representative; to Senior Account Representative, Los Angeles.

Jong H. Park, from Technical Intern; to Technical Representative, Los Angeles.

Leland Shaffer, from Account Representative, Chicago; to Senior Specialist, Foreground/Background Programs, Rockville.

Richard E. Sharp, from Account Representative; to Senior Account Representative, Indianapolis.

David Shepherd, from Pacific Zone Employee Relations Manager, Los Angeles; to Manager, Employee Relations — Sales Department, Rockville.

Charles H. Stevens, from Senior Systems Specialist; to Consulting Quality Assurance Specialist — GCOS Background, Rockville.

David A. Travis, from Technical Representative; to Senior Technical Representative, St. Louis.

Ernest Vodarsik, from Account Representative; to Senior Account Representative, East Orange.

William D. Wright, from Systems Specialist; to Senior Systems Specialist, Rockville.



Grace Canning



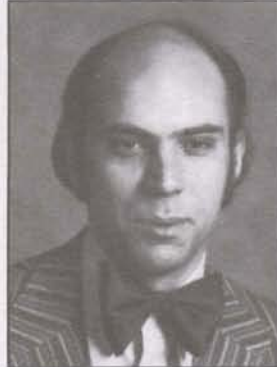
Jeff Caro



Mary Clark



Sheila Garner



Wayne Gowan



Bob Grabowski



Mike Kelley



Ken Kennedy



Jong Park



Dave Travis

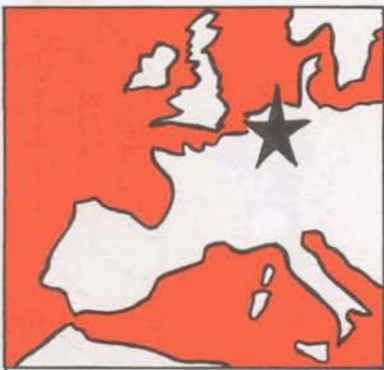


Ernie Vodarsik



Bill Wright





## Marshall: "Amsterdam Supercenter is Right On Schedule!"

Ray Marshall, General Manager of the Systems and Technology Department, returned to Rockville from his recent inspection of ISBD's new Amsterdam Supercenter, to report on its progress.

"Things are going extremely well!" Ray commented. "Construction and conversion are progressing on schedule. We are interviewing and hiring a staff of well-qualified employees, with most being Dutch citizens, to operate the Supercenter. Further, we have completed negotiations with Honeywell-Bull (Nederlands) N.V. for three new Honeywell 6088 computer systems." Ray said commercial service will be inaugurated before the end of 1976 for Foreground Service, with Background Service to follow early in 1977.

"Our first Dutch operating manager has also come aboard," Ray reported. "He is Henno Rijnders, who is our new Amsterdam NDP Manager. His experience and qualifications will make Henno a major contributor to the early success of our new center."



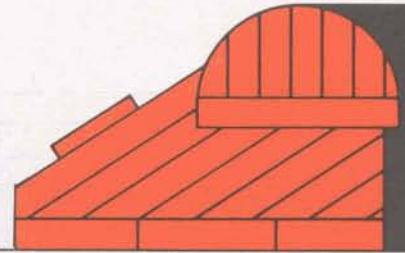
*Systems and Technology Department General Manager, Ray Marshall (left), confers with Henno Rijnders, NDP Manager, at ISBD's new Amsterdam Supercenter. Henno is the first Dutch operating manager to join the Supercenter staff.*



The Amsterdam Center, the third computer supercenter to be established by Information Services, is located just outside Amsterdam in the suburb of Amstelveen. Not only has the center already received widespread publicity throughout the United States and the Netherlands, but the *Amsterdam News Letter* also ran a feature on the new Amsterdam Supercenter in its July-August edition. The newsletter is a publication of the Amsterdam Promotion, and distributed to top businessmen world-wide.

*Inspecting the NTO-NDP area; (from left) Jim Folder, Honeywell FED - Rockville; Mike Schnierer, Manager, NDP London; Ray Marshall; Rich Hokaj, Manager, Network Operations; Dave Simshauser, Manager, European Supercenter Operation; and Jim Morgan, Senior Security Data Analyst.*





## Versatile New ISBD Job Scheduling Product Goes Into Field Test

JOBS\*\*\* is a new MARK III® utility which can totally automate production-oriented applications for all elements of our service — including Foreground, GCOS Background Service and VS Background Service. JOBS schedules jobs, initiates jobs, and monitors results of the work done.

Field test is scheduled to begin about August 30 and is expected to last about five weeks. Commercial release is planned for about November 1.

Through the use of a master schedule, a user may define a job or group of interdependent jobs with parameters

to ensure that they are run at the right time and in the correct sequence. In this area, for practical purposes, JOBS's versatility is virtually unlimited.

For example, in the master schedule shown below the user wants the following to occur:

- INPEDIT to run in Foreground daily at 7:30 PM or as soon thereafter as input file, HOURS, is ready,
- EAS (payroll) to run in VS Background every Thursday at 9:00 PM, and
- LABOR to run in GCOS Background on the third Monday of every month at 10:00 AM.

running them according to dependency requirements (in line 110 INPEDIT is conditional upon the normal completion of job FIN001),

- Verifying input data availability (in line 100 INPUT\*\*\* checks that file HOURS has been updated in the last day),
- Distributing output (in line 130 PAYROLL output is directed to HSS LTID "LTIDIX"),
- Purging production files,
- Monitoring status and reporting information required for control.

For production-oriented customers, JOBS will offer the following user-oriented benefits:

- Improves system management,
- Eases the burden of setting up a tailored schedule,
- Improves the productivity of the operations staff,
- Allows simple extraction of daily schedules, including infrequent but regular jobs,
- Simplifies greatly the manual controls otherwise required for verifying input data — especially when from multiple locations and time zones,
- Reduces costs and simplifies file housekeeping procedures,
- Allows modifying of daily schedules,
- Reduces errors.

### Master Schedule Example

100	FIN001	INPUT***	///	ALL	1930	'HOURS;AGE(DAYS<1)'
110	FIN002	INPEDIT		RUN ALL	1930	CON (N,FIN001)
120	PAY101	EAS		VS THU	2100	
130	PAY102	OUTPT***	///	THU	2200	'PRI JOB:PAY101; LTID1X'
180	LABREP	LABOR		GCOS 3MON	1000	

### Field Descriptions:

1. Line number
2. Job name
3. Program or filename
4. Run instructions — type operating system
5. Frequency code
6. Time — when to start task
7. Options — special instructions

NOTE: See comments relating to this example in text below in parentheses.

Similarly, other jobs could be run every other week, or once a month, or on a certain date, or with just about any frequency the user can conceive. And once the initial cycle is defined and initiated, no manual intervention is ever required — unless the user wishes

to change the existing frequency pattern of some of his jobs.

JOBS supports the five following production control functions:

- Scheduling production jobs and

JOBS should provide us with another competitive edge in selling, implementing, and maintaining production applications. For additional information, contact Lee Shaffer, Senior Specialist, Foreground/Background Programs in Product Programs, at 8\*273-5164.





## RPS III Sales: Alive and Healthy

RPS III Service, using the high-speed print station which was designed by ISBD for use on the MARK III system and introduced commercially during the Impact '75 sales campaign, is coming of age. It has proven its reliability and its efficiency for medium/high-volume MARK III High Speed Service output.

There are currently more than 60 RPS III's leased and installed in ISBD customer sites and as our field sales personnel become better acquainted with the RPS III Print Station's superior cost efficiencies, more opportunities are being recognized.

One team which is already enjoying success consists of Susan Larson, Senior Account Representative; and John McClosky, Technical Representative, both of the Denver Branch.

A joint study by Sue and John showed that if one customer using a TermiNet\* 1200 Printer had used an RPS III instead, a saving of nearly \$16,000 would have been realized in just nine months of 1975. They pointed this fact out to the customer, and made a sale. And last month, a similar study for another customer resulted in another RPS III sale for Sue and John. Joe Ripkin, Zone Terminal Sales Manager for the Southwest Zone, is pleased to have this team on his side.

But the reigning RPS III champion remains Cal Dearborn, Senior Account Representative in Washington, D.C. He recently leased two additional units to the U.S. Government to bring his total to nine units.

Jim O'Sullivan, Terminal Sales Manager, says RPS III Service is not the perfect solution for every customer. "For example," he said, "It may not be a logical 'next step' beyond the TN1200 because the RPS III is not interactive."



*The RPS III High-Speed Printer, designed by ISBD for MARK III Service customers.*

However, Jim said, there are quite a number of ISBD customers with medium to heavy output needs who can enjoy a cost saving by using an RPS III Print Station. If you have a customer who may benefit from installing an RPS III, give Jim a call at 8\*273-4227 and discuss it. Chances are that

you can save your customer some money, improve your own sales performance and help your branch move closer to the top of the "realization of quota" list.

\*Registered Trademark of the General Electric Company, U.S.A.

### ISBD Sponsors New Sonny Jurgensen Show

Information Services has teamed up with Sonny Jurgensen, the Washington Redskins' greatly admired former quarterback, for a 22-week radio show on Washington's station WTOP-AM.

Called "Pro Football Picks," every Friday Sonny predicts who'll win each of the weekend's major league football games. Then on Monday, he reviews his hits and misses, along with his excuses

for the latter. The program is aired at 7:45 and 8:45 a.m., and can be heard throughout the Greater Washington area by tuning to WTOP at 1500 on the radio dial.

ISBD is sponsoring the program as a means of creating an increased awareness of the capabilities of remote computing on the part of government and business personnel in the Washington metropolitan area.





## Get Ready for Cross-File; It'll Be Here Next Month!

Somewhere around the middle of September, three familiar internal systems will be replaced. They are Memosystem, Company Communicator (ComCom) and Network Monitor (NM).

They've all been rendered obsolete by our totally new CROSS-FILE system, which will provide all the services previously available from these three systems — plus a lot more.

CROSS-FILE is a new system which allows a user to enter and file items of information under hierarchical subject headings of his choice, and to permit these items of information to other users of the system for review.

Information items are entered into the system with a simple ENTer command. Permission is given to another user to review this item if a PERmit command is also given. A reference to the item remains in each permitter and permittee's HOLD file until released by all users, or by the system after 30 days. News that items have

## New Phone Book To Be Published

A new internal ISBD phone book is scheduled to be published in September, and Sam Wenck, Facilities Specialist, urges all ISBD personnel to get corrections, additions and deletions in right away . . . certainly no later than September 13. This also goes for any changes in the "Who, What, Where and How" yellow pages.

Forms located near the end of your current phone book may be used to submit corrections and deletions. Take a moment now to check all information concerning your number, address, name, job and responsibility. Send your corrections to Sam at the Rockville ISBD headquarters.

been permitted to you is given the next time you sign on.

Paper files of correspondence can be a thing of the past. Filing these items can be simply accomplished through commands specifying subject names and item numbers. A reference to your identification item is filed under that subject, where it remains until RELeased. Since subjects can be made hierarchical, a subject within a subject will be filed under Subject.Subject.Subject., similar to the 1.1.0 type of nomenclature. New subjects can be created when required.

Other features of the system will include permanent copies of items obtained from the database by one of three commands: LISt, PRInt (queuing for High Speed Service) or FIChe.

## Seventeen New FAL II Subroutines Released

In order to aid the FAL II user in the area of data projections, 17 new FAL II subroutines are now provided specifically for use in the areas of forecasting and modelling. Basically, four areas are addressed by these new capabilities:

- Initial value known and projection desired;
- History values known and projections desired;
- History values known and their characteristics desired;
- Single or total value known and dispersed value or apportionment desired.

FALINFO has been updated to reference these new subroutines. A new FAL II User's Guide Supplement is also now available on OLOS (5103.15C-1). Refer any questions you may have on this subject to Floyd DeAndrade, Senior Specialist in Product Programs, at 8\*273-4718.

A tickler file can be set up by flagging items which require action by a specific date with a REMind command, and items can be permitted to someone else while away with the DELEGate command. Inquiries about other users can be made with the USEr command.

Direct any inquiries you may have on CROSS-FILE to Brian Garnichaud at 8\*273-4988. Brian is part of a special task force, headed by Malcolm Davies, Manager, European Product Support, which has developed the new system. Other members of the task force responsible for designing, implementing, testing and documenting XFL (CROSS-FILE) are Roger Dyer, Bob Guillette and Roberta Jankowski.

## August Service Awards

### Thirty-Five Years

John E. Fitzgerald      Watertown

### Twenty Years

Willard A. Gilly      Rockville  
 Frank J. Evan      Rockville  
 Zigmund Quastler      Rockville  
 Russell I. Evans      Brook Park

### Fifteen Years

Jack A. Hanson      Rockville

### Ten Years

James W. Sciarrino      Hartford  
 Gerald H. Way      Rockville  
 Steven C. Jenkins      Rockville

### Five Years

Anthony P. Dwyer      Rockville  
 Roger Black      Dallas  
 David Simshauser      Amsterdam  
 Patricia F. Hughes      Rockville





## New and Revised Documentation

In case you've been on vacation during July and August, and need to catch up on recent documentation, here are notes on two dozen top publications of the summer.

The recently published *FORTRAN IV (FIV/PFN)* reference manual has been extensively corrected. It is now available as Revision A, 3102.13A. The *FORTRAN IV* vocabulary card, out of stock for some time, has been revised to agree with the manual. It is 3102.04D.

GCOS Background documentation was republished to make it coincide with Honeywell Level G software. The prime book is our *MARK III GCOS Background User's Guide* (2000.01C), which consolidates the former *Foreground-Background Interface* reference manual (2000.01B), *Foreground-Background Interface* user's guide (2000.23) and the *Background User's Guide* (2000.26). Nine major Honeywell documents were republished by ISBD, including *Control Cards* (2000.33), *File Management Supervisor* (2300.03), and *File and Record Control* (2300.04). The pocket *GCOS Foreground Interface* vocabulary card, that summarizes commands and directives, was also revised (2000.25B). So was the *Guide to GCOS Background Documentation* (2000.04E), which lists documents that support GCOS Background, gives cross references to their Honeywell numbers, and explains which are appropriate and which may be unnecessary.

*Scheduling Time and Resources (STAR \*\*\*)* has been documented in a user's guide (5306.11B) and reference manual (5306.12A). Identical except for the covers, they were also published in *TELNET* editions, as 5820.13A and 5820.14A, respectively. Note the revision letters. These represent late August revisions. Prior editions should be destroyed and not used.

There have been several important supplements: One (5111.01A-1), to the *PLOT\*\*\** user's guide, documents new attribute commands, new plotters, and minor changes. The user's guide has already been reprinted, incorporating this information. Supplements to *Command System* (3501.01K-1) and *FIV System Routines* (3104.01D-1) document, for July and August, SLEEP/WAKE under IND. Supplement 5103.15C-1 documents new *FAL II* subroutines.

The *International Access Directory* now contains full-duplex and Metro Access information. Revision P (1401.01P), accurate as of July 1, is the correct version.

The *Publications Price List* (402.01H) lists all technical documents, with latest revision letters, and prices. It was revised as of July 12.



## Three Complete GE's FMP Course

Two ISBD-Rockville employees and an employee of Major Appliance in Jessup, Maryland, graduated last month from the Division's Financial Management Program. They are Liz Smith, Employee Expense Accounting Specialist in Disbursements Accounting; Charlie Harp, Credit and Collection Specialist in Credit and Collection; and Dick Comstock of Major Appliance.

The Financial Management Program is a two-and-a-half-year studies program which incorporates five courses: Principles of Accounting, Financial Accounting, Management Accounting, Auditing, and Information Systems. The courses are designed to advance

employees' knowledge of finance and accounting. They provide a background of academic theory and its application in areas where GE Finance people have responsibility. In addition, recruits hired specifically for the program participate in six months of rotational job assignments in Finance.

According to John Meyer, Manager, Auditing, who administers the FMP program, it has been offered every year at ISBD since 1969, and a new course will begin in the fall academic term. Washington-area ISBD employees interested in learning more about the program should contact John at 8\*273-4397.



*Graduation time in Rockville: ISBD Finance Operation managers chat with FMP graduates in Leo Ramer's office after they receive their diplomas. From left: Max Harris, Manager, Accounting Operations; FMP graduates Dick Comstock, Liz Smith and Charlie Harp; Leo Ramer, Manager of the Finance Operation; and John Meyer, Manager, Auditing and FMP Representative.*





®

## ISBD's New Cash Management Package, CASH, Is Easy to Implement/Use, Economical, Flexible

CASH\*\*\*, GE's application programs for creating user-responsive cash management systems, has completed field test and was released for commercial use on October 1. This new software is so easy to use that once the customer has decided what he wants, a technical representative can readily implement a cash consolidation system for a customer. Alternatively, a customer can implement his own customized system in a day or less with the aid of a step-by-step user's guide. No programming expertise is necessary.

Using CASH makes it extremely economical to implement and run a cash management system. Costs are significantly less than with prior customized systems.

Based on the field test, it's expected that an average TIP input session should cost less than 20¢, a figure far lower than we've been able to achieve in the past. And by using Metro Access and selecting options which emphasize efficiency, a session could cost even less!

Bill Backer, Senior Specialist in Product Programs, said CASH's unprecedented simplicity of implementation and operation, and its extremely low cost, should enable many new companies to consolidate cash daily from all of their remote bank accounts. In the past, they may have either had to rely on the mails or on costly long-distance phone calls. "A potential customer for CASH," Bill said, "could be any company which is a wholesaler, retailer or service organization with 10  
*Continued on page 2*

## Two Chicago ISBDers Win Management Awards



*Anne Van Wagoner, Senior Technical Representative in the Chicago Technical Branch, displays the Management Award recently presented to her by Bob Manning, Central Zone Manager, for some outstanding work she did for ISBD customer Arthur Anderson. As though that weren't enough in itself, the long-stemmed red roses behind her were a gift from two customers at Hotpoint for special help she gave them "far beyond the call of duty." Both honors came Anne's way within a day of each other.*



*Darlene Santarelli, Branch Administrator, Chicago Commercial Branch, receives a Management Award from her Branch Manager, Mike Schermer, as Central Zone Manager Bob Manning beams his approval. Darlene was instrumental in helping her team win two Outstanding Branch awards, the VIP '75 campaign and the WW '76 campaign. She also helped solve a customer's problem (on her own time) that enabled her branch to realize 100 percent of quota for the quarter. In presenting the award, Mike said: "Many customers have commended her for the outstanding job she has continually done."*

GENERAL  ELECTRIC

For General Electric Employees Only

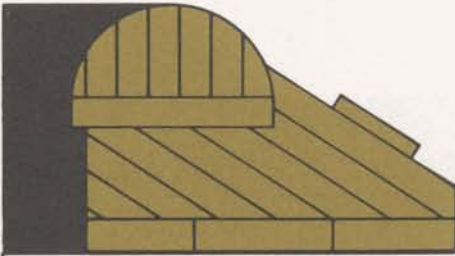
Hotpoint

INFORMATION  
SERVICES  
BUSINESS  
DIVISION

ROCKVILLE,  
MARYLAND

05.64  
Oct. 12, 1976





## CASH \*\*\* *Continued from page 1*

or more operating locations dispersed in different metropolitan areas, which needs daily reporting of deposits of at least \$1,000 in each location." Bill believes CASH will be a very easy package to sell to companies which qualify, and that it should be an excellent door-opener to additional ISBD business in the financial management area.

Here are some of the features which make CASH a superior new product:

- Program generators are used to create a cash management system with numerous default features and override capability;
- It handles input from telephones or terminals, or both;
- An easy-to-use means of specifying the collection session language;
- Uses latest efficiency features such as PFN, HISAM, etc.;
- Has built-in TIP capability;
- Reporting and maintenance routines are included;
- Provides total DMS capability, including source and compiled DBDF's.

The benefits to a customer in using CASH to generate his cash management system are many. Here are a few:

- System quickly and easily developed by customers or GE technical representatives;
- Cost-effective operation and maintenance;
- TIP training or programming knowledge not required;
- Ad hoc reports quickly and easily prepared;
- System easy to understand and use;

- More efficient operations and less overhead than a packaged approach;

- Maximum flexibility for end users;

- System can keep pace with dynamic business conditions.

Among the things which make CASH fast and easy to use is a new technique which enables a user to develop his own TIP messages during a single session at the terminal. Using a CASH function called SPEAK\*\*\*, the implementor can create and refine TIP messages by typing the message into a terminal and listening to it at the same time on a telephone. This way, phonetic sounds can be adjusted on the spot until the desired voice quality is obtained. This feature alone cuts implementation time and cost by about two-thirds.

Another important feature is that CASH files are stored in HISAM, our most economical format. "And the fact that CASH is fully compatible with DMS," said Bill Backer, "enables users to access the database and make inquiries, as well as obtain just about any type of ad hoc reports they could want."

After Chuck Newton, then a product planner, researched customer needs and interest in the cash management area, a development team in Technology Business Systems made up of Lou Schreiber, Russ Barkdoll and Ron Bidwell, went to work. Three months later, ISBD's newest business management product was ready in the form of CASH\*\*\*, the Cash Management System.

CASH is supported by an easy-to-understand user's guide (5100.14) just revised following field test and written for non-programmers. Copies are available via OLOS. An application sys-

tems profile (revised edition of 5100.12) is also complete and has been distributed to branch offices. A TIP sales brochure (3915.03) can also be very helpful in selling CASH, as can a demonstration program and instruction card (3915.01). Leader will feature a cash management article in the winter issue, and a news article is being released to the financial and trade press. And, to summarize pertinent selling information, a sales guide is being sent to all field managers and account representatives.

If you have any questions on CASH, address them to the National Service Desk (for technical information) at 8\*273-4675; or Bill Backer (for marketing information) at 8\*273-4698.

## September Service Awards

### Twenty-Five Years

Kenneth H. Rockwell	Schenectady
William H. Johnson	Rockville

### Twenty Years

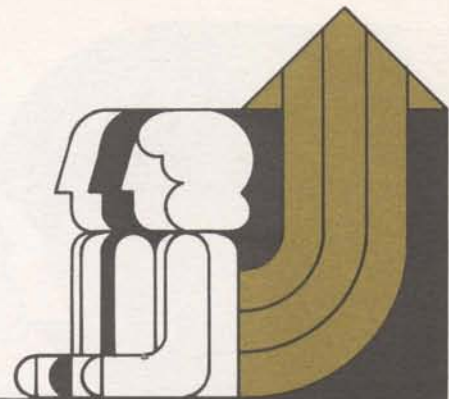
Harold D. Stover	Rockville
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### Ten Years

Brendan A. McShane	Rockville
Jeannette M. Martin	Watertown
Michael J. Emmi	Philadelphia
Lawrence C. Kristainsen	Rockville
Audrey B. Kannapel	St. Louis
Calvin J. Cillay	Rockville

Update is published bi-weekly by the Information Services Division for the benefit and information of employees. Articles and photographs may be submitted to Update, Information Services, 401 N. Washington Street, Rockville, Maryland 20850; or call 8\*273-4387.





## People . . .

Steve Bain, from Technical Representative; to Senior Technical Representative, Atlanta.

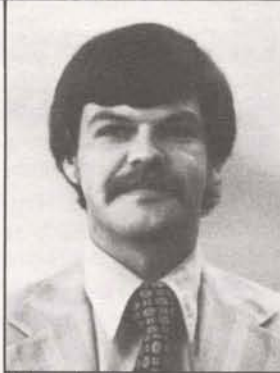
John Beal, from Tape Librarian; to Senior Tape Librarian, Rockville.

George Cooper, from Customer Assistance Specialist; to Specialist, International Technical Support, Rockville.

Frank Cornell, from Systems Specialist, Brook Park; to Senior Systems Specialist, Rockville.

Ted Day, from Specialist, Validations, Brook Park; to Shift Manager, Customer Assistance, Rockville.

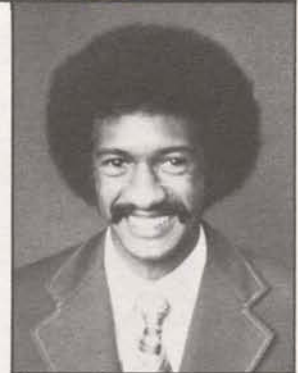
Robert A. Diskowski, from Senior Applications Specialist; to Project Manager, Oak Brook.



*Steve Bain*



*John Beal*



*George Cooper*



*Frank Cornell*



*Ted Day*



*Bob Diskowski*



*Joan Fitzpatrick*



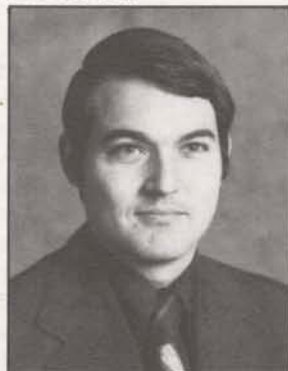
*Pat Jackson*



*Genie Reilly*



*Mark Shurr*



*Fred Wood*



*Paula Zak*

## . . . On the Move

Joan Fitzpatrick, from Secretary; to Statistical Clerk, Rockville.

Patricia Jackson, from Summer Intern; to STAP, Rockville.

Eugenia Reilly, from Secretary; to Administration Clerk, Rockville.

Mark Shurr, from Application Specialist; to Senior Application Specialist, New York.

Fred A. Wood, from Senior Specialist, Product Programs; to Manager, Product Training Programs, Rockville.

Paula Zak, from Manager, Industry Accounts Support; to Manager, Field Training Operations.

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Oct. 12, 1976





## Treat the Cause — Not the Effect!



By Terry Faff, Account Representative,  
Los Angeles-South Branch

A few months ago while visiting a customer, I learned that a DMS system which his company had designed and brought up on its own to handle inventory control and status reporting, was not functioning as well or as economically as they had anticipated. The customer said he felt the system was too costly for the kinds of reports he was getting, and asked if I could arrange to have someone come out and assist them in modifying this system to make it run more efficiently and reduce the monthly operating cost.

Responding to this inquiry, I contacted our CAO group and asked them to join me in a meeting with this customer. During the course of this meeting, it became evident to me that there was much more to this problem than was originally expressed.

Further investigation and questioning revealed that the inadequacies were not with the basic system, but rather due to a lack of communication be-

tween the designer and the end user in determining needs and requirements.

At this point, I realized that there were two alternatives open to us: to respond directly to the request of the customer by doing just what he asked, attempting to enhance the existing system and decrease monthly operating cost (this would be approximately a \$3K CAO opportunity, resulting in about \$3K/month operating revenue); or initiate a full study to determine the *cause* of the dissatisfaction.

In reviewing these preliminary findings with the customer, I was able to convince him that the best alternative was the second one. And he signed a CAO contract to begin the study.

As we suspected, the investigation revealed many shortcomings in the current system, such as the lack of controls, meaningless reports and inaccurate information requirements.

A presentation of our findings was made to the customer, during which we explained the shortcomings of the existing system. At the conclusion of the presentation, an additional CAO contract was signed to begin a redesign of the system.

As we proceeded with the redesign effort, we became aware of other aspects of the customer's operation that could be easily designed into the system to allow for future expansion. These additions were discussed with the user and added to the redesign specifications.

My point in sharing this particular situation with you is that had we responded only to the initial request of the customer, we may have improved the operation of the system . . . perhaps even lessened the costs of it. But the end user's requirements would still

not have been satisfied. Ultimately, the system would have deteriorated, bringing an end to monthly revenue for ISBD and leaving the user with a bad taste for our products and services.

By looking beyond the effects of the problem, and trying to determine the *cause* of it, we uncovered the real needs of the user and were able to address them directly. This created a more meaningful and useful system, satisfying current needs and allowing for future requirements.

Incidentally, this system was originally just for inventory control. It has since expanded into a complete order entry and production scheduling system; and it's still growing. CAO contracts have already reached \$20K, and there'll be more; and monthly revenue is running at \$5K. Not only has treating the cause been beneficial to the user, but it's also been great for long-term, dependable revenue to the account representative.

So next time you are discussing a problem with a customer or prospect, just take a moment to ask yourself: "Are we discussing the effect of an underlying cause or the actual *cause* of the problem?" Remember, the answer could be worth a lot to you!

### S&SP Prices — August

Month	Stock Price	Fund Unit Price
August	\$54.790	\$27.759
July	56.899	27.978
June	54.722	27.317
May	51.469	27.547
April	53.190	28.088
March	52.098	27.962
February	53.329	28.042
January	52.220	26.986
December	46.347	25.407
November	48.336	25.991
October	47.332	25.257
September	44.173	24.010





## ISBD Sales Training Really Works; Here's a Senior Account Representative's Own Story



Lew Thompson

Virtually every ISBD employee has had an opportunity to benefit from some part of the Division's extensive and comprehensive training offerings. One of the most popular courses, which has been attended by literally hundreds of ISBD field personnel, is the Lee DuBois Course in Selling Techniques.

Last month, Ike Smith from the Training Operation conducted the three-day Lee DuBois course for the 14th time, and the day after the course ended, Lew Thompson, a senior account representative in Syracuse, decided to put what he'd learned to the test. The results were so outstanding, he rushed a letter to Ike to share his experience. Update would like to share it with our readers.

For the benefit of readers who have not taken the Lee DuBois course, chapter seven (mentioned in the following letter) deals with the "trial close." It may also help to point out that Lee DuBois advocates what he calls "The Law of Psychological Reciprocity." This

means that people do unto you as you first do unto them. In Lew's case, the first thing he did was to give his prospect credit for being intelligent.

Here's the letter:

"Ike—it works!

"The next time you get to chapter seven, please remember this real-life example:

"Situation: company with an IBM 370/135 running three shifts per day, six days a week, has an order service challenge.

"Known: no room to automate the job on the existing 370. The director of planning has decided to put the remote order service system on a new PDP mini.

"Goal: to obtain permission to quote on the MARK III® Order Service System as an alternative to the PDP mini.

### Appointment

"Results: phone call at 9:30 a.m. Thursday, after finishing the Lee DuBois course on Wednesday, to obtain an appointment to pursue the goal. Appointment set for 2:50 p.m. with the director of planning, whom I had never met.

### Conversation

"We talked about *his* duties and *he* showed me many examples of how *he* had used a Census Bureau database on *his* 370 to predict various things about *his* business. Ike, I found several openings here to offer really *sincere* compliments!

### Curiosity, Interest

"The discussion *then* came around,

without obvious control, to order service. My 'fat little claim' centered around the value of MARK III Order Service to other companies, and the potential value to *his* company.

"His answer was: 'We think the PDP mini is the best way to go for our company.' That's when I *knew* we were going for a little ride on the TNT Railroad (he didn't know, of course)!

### TNT Railroad

"I had *thankfully* received my first 'no.' Never thought I'd be thankful for a 'no,' but I really wanted to practice on this account. So instead of drawing my sword and fighting the PDP mini as I might have done prior to your course, we moved right out of the graveyard and back onto the tracks (he didn't even notice the train turning around).

"We discussed several more 'Units of Conviction' about our order service and the value of his looking into it. His benefits were always the major topic of conversation, *not* our order service.

### Tonnage

"After a few 'the more information you have the better your ultimate decision will be,' and 'the ability to show your boss how thoroughly you've investigated this important matter for your company,' it was time for a trial close.

### Close

"Well, it's time for the close (or *is* it?).

I took out my thermometer—he didn't know it—to take a reading. Prior to the Lee DuBois course I would have been headlong into a PSS-type situation that would have used one of these trial closes: 'to restate the problem;' 'since you now

*Continued on page 6*





## Workshop for New Field Managers in Rockville

The ISBD International Training Center was the location last month of a special high-powered workshop for the Division's new field managers, covering everything from time management and work planning to coaching and motivating employees.

The workshop was conducted by Dean Daniels who, as most of you know, is a management consultant from GE Corporate Consulting Services who has been working with our field sales organization for the past two and a half years and understands our division pretty well now.

The new field managers, including several from our Canadian distributor, CGE, took part in case studies and real life situations where they could apply the course theory. Because of its relevance and timeliness, the intensive three-day course was received by the managers with a great deal of enthusiasm. They all left with the general feeling that they had a much better grasp of their responsibilities as managers.

### ISBD Sales Training

see how. . .,' and so forth. Ike, I really think none of these would have worked, as he would have staunchly defended his PDP mini against any one of them.

"But guess what: (you're right!) I took his temperature with a fantastic: 'In your opinion, do you feel that having someone from our Order Service group look over your challenge would be of benefit to you?'

"His answer, believe it or not, was: 'you're the expert; what do you feel?' I closed the sale by saying: 'I feel we should have the GE Zone Representative visit you at your earliest convenience. Is the early part of next week best for you, or would you prefer the latter part?' He replied: 'It doesn't matter; call



*New ISBD field managers pose for a parting photo before returning to their branches. Front row, from left: Rod Belle, District Manager, VS Sales, Chicago; Steve Saltar, District Manager, CGE, Vancouver; Dean Daniels, who conducted the workshop. Second row: Ray Gryzbowski, Branch Manager, Chicago; Ed Wetzal, Project Manager—Sales Training; Sung Park, Branch Manager, Pittsburgh; Ann Fillipone, Branch Manager, New York; David Burnett, Branch Manager, CGE, Toronto; Paul Goldstein, Manager, Federal Sales, Washington, D.C.; John Ignozza, Technical Branch Manager, East Orange. Back row: David Killins, District Manager, CGE, Montreal; Vic Henschel, Branch Manager, New York; Stan Smith, Branch Manager, Cincinnati; Matt Herman, Technical Branch Manager, New York; Andre Thompson, Branch Manager, St. Louis; Harrison Jordon, Manager, Federal Technical Branch, Washington; Brian Morrison, District Manager, CGE, Calgary; Clete Spehr, ISBD Support to CGE, Toronto.*

*Continued from page 5*

me when they can schedule the meeting.'

"Ike, it really happened that way, and I really feel that the 'confrontation close' (forcing a decision) would not have worked on this very logical-thinking director of planning. Yes, we still have to take on that PDP mini someday, but when we do, we'll have the best tonnage we can load on the train!

"Without the course you taught, we probably would have drawn the sword and taken on the PDP mini that Thursday afternoon. . .and lost!

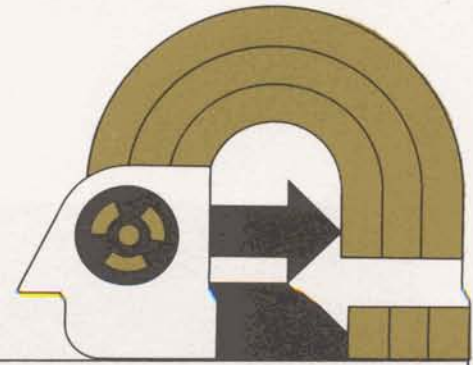
"Thanks!"

## ISBD Dependents Learn About MARK III Service

Thirty-six dependents of ISBD Rockville employees have completed the Division's first "Introduction to Computers" course offered especially for the purpose of acquainting spouses and children with MARK III Service.

Attending two evening courses, the 36 who completed the course were enthusiastic over what they had learned, and many requested additional training. The introductory course, incidentally, will be offered again for dependents beginning this month.





## Interchange Corner

### ISBD Network Communications Part II—Terminal Compatibility and Log-On

In order for a terminal to successfully log-on to, communicate with and disconnect from the MARK III System, it should "look" like one of the "standard" terminals, such as the "standard" terminals listed here:

#### "Standard" Low-Speed Terminals

Type	Speed	Representative Terminal
0	110 baud	Teletype, model 33
1	150 baud	Teletype, model 37
2	300 baud	Terminet® 300
3	110 baud	Friden 7102
4	134.5 baud	BM 2741
5	Any	Gulton
6	Any	Hazeltine 2000
7	1200 baud	Terminet® 1200
8	Voice	Touch-Tone* input (TIP)

\*Registered Trademark of the Bell System

#### "Standard" High-Speed Terminals

Speed	Representative Terminal
2000-4800 baud	RPS III
2000-4800 baud	IBM 2780
2000-4800 baud	IBM 3780*
2000-4800 baud	G-115
2000-4800 baud	High-speed print station

\*Asterisk in column 80 of user number card is required.

A baud is equivalent to a bit per second. 300 baud is the same as 30 characters per second. All speeds are given in baud rates.

When a low-speed (1200 BPS and below) user logs on to the MARK III System, he may optionally type one or more "H" characters (lower case "h" plus the carriage return for TYPE 4 terminals). If he

does not exercise the option (within seven seconds), the network assumes that his speed is 110 baud. If he does exercise the option, the appropriate speed (110, 134.5, 150, 300, or 1200 baud) is set by the communications system.

Once speed has been determined, the input stream is sent into Foreground along with the user number. A special TYPE message is sent for TIP users as well. Otherwise, speed implies TYPE. For example:

Speed	Implied TYPE
110 baud	0
134.5 baud	4
150 baud	1
300 baud	2
1200 baud	7

If the user does not wish the default type, he may issue a "TYPE" system command sometime after log-on and operate in one of the following modes:

TYPE 3 — Friden terminals—special CR-LF transliteration.

TYPE 5 — These terminals are sent a high number of delay characters (rub-outs) by the communications system. Univac DCT 500's are one example.

TYPE 6 — These terminals are sent no delay characters by the communications system; they are usually CRT terminals.

TYPE 3 and TYPE 4 terminals require the (RC/LSC/MRC) to perform character transliteration. In all other cases, ASCII output received from the CC is sent to the user as received (except for parity). Additional rubouts may be sent before or after certain characters, depending upon user type and whether or not the user has done a "SET D" command. Delay characters are necessary on some terminals to allow time for mechanical motions to be completed. An insufficient number of delay characters is seen by the user as lost characters in the output report or lost line feeds.

Delay characters are sent before the output characters only at 1200 BPS and then only in two cases: (1) enough delays are sent before a line feed to ensure that every line has 36 or more characters (successive line feeds receive 24 delay characters between them); and (2) 36 delay characters are sent before the form feed.

Values set by the SET D command override this table. This command is only valid at 1200 baud.

#### Number of Delay Characters Sent After Specific Characters:

TYPE	0	1	2	3	4	5	6	7	8
CR	2	0	0	2var	4var	8	0	0	0
LF	1	2	8	2	2	8	0	3	0
HT	0	8	0	6	6	6	0	0	0
VT	0	2	0	0	0	0	0	0	0
BS	2	0	6	2	0	2	0	0	0
FF	0	0	0	0	0	0	0	217	0

$$\text{VAR} - \text{Variable delay} \left[ \frac{IX/16 + IY + 2}{2} \right] * 2$$

X = Current line length; Y = Number of characters in delay table

Cont'd, pg. 8





## New and Revised Documentation

Just published, in advance release versions to support field testing, are three FORTRAN 77 documents: the FORTRAN 77 reference manual (3106.01), *Comparisons — FORTRAN 77 and FIV/PFN* (3106.02), and *Loading and Overlaying for the FORTRAN 77 User* (3106.03). A system routines manual and a techniques user's guide are planned for early next year. Currently, F77 system routines are documented in the comparisons booklet.

The *MARK IV System* is a general purpose software system developed by Informatics, Inc., and available on MARK III VS Background Service. The five-volume Informatics documentation has been republished in two loose-leaf binders with GE covers. The *Reference Manual and Special Features* volume (5611.01) describes capabilities and features, record structure, file creation and maintenance, record selection and processing, and report specification. The *User's Guide, Operations Guide, and Practices Handbook* (5611.02) describe a problem-oriented training example, detailed information on operations, diagnostic messages, deck setups, and practical techniques.

*Employee Accounting System User Documentation* (5101.23), another VS Background system with Foreground driver, is a large binder containing a product information manual (yet to be published), the

*PAYPAC*\*\*\* user's guide (in loose-leaf form), a *PAYII* user's guide, *EAS options* documentation, and the *Labor Cost* user's guide. The *PAYPACS*\*\*\* user's guide is still available separately as publication 5101.21A.

Orders for MARK IV and EAS documentation must be approved by VS Background Operation personnel before they will be processed, because of the cost of the documents.

The *Course Quarterly* (400.01E), announcing courses and schedules for 600 classes to be held October through December, was mailed last week to 34,000 customers and prospects. Bulk shipments have been made to zones and branches.

New course materials: *Advanced FAL II* instructor's guide (5103.32), view-graphs (5103.33), and student's guide (5103.34). *Advanced Statsystem* instructor's guide (5707.09), view-graphs (5707.10), and student's guide (5707.11).

A revised *Instructor's Guide to Course Materials* (4001.10B), which lists available teaching materials (required and optional) for all GE ISBD courses, was printed October 1 and is orderable via OLOS. Another important internal document, the *Market File Index* (1.09E), revised through

September, is being mailed this week to all field Sales personnel and Market File Librarians.

Also newly available: A revised *International Access Directory* for October 1 (1401.01Q). *Cash Management System* (CASH\*\*\*) (5100.14A) user's guide in its final version. And *Cross-File*, documented in an internal Division advance release user's guide (0000.12). All three are available through OLOS.

## Interchange Corner

*Continued from page 7*

Some TermiNet 300 users attempt to increase throughput and decrease terminal connect hours (TCH) by issuing CALL CMD ('TYP 0'). This is contrary to manufacturers' recommendations and may lead to missing characters and/or overprinting.

There is no CALL CMD ('SPE X'). If a user issues a valid SPE X command, his speed is set according to X and his TYPE assumes the default (implied) values in the preceding table.

None of the types has been tailored for the TermiNet 30. This terminal is recognized as TYPE 2, and works correctly with one exception: if a user program will be outputting a carriage return with no line feed (FIV + format), a TYP 5 command should be issued first.

If you are asked whether or not an "unqualified" terminal works with MARK III Service, the answer is that if it "looks" exactly like one of the "standard" terminals, it will probably work; although special features such as tabling and plotting may not work. In determining how the format "looks" to our system, you should test the terminal, accessing the system for several sessions, giving particular emphasis to special features and error recovery. For additional information, call Product Support at 8\*273-4571.

## Robin's Hat's In the Ring!

*Robin Ficker, Independent candidate for Congress from Montgomery County, Maryland, is one of our own ISBD attorneys at Division Headquarters in Rockville. He campaigned recently in the Maryland Center cafeteria. Robin expects to complete personal visits to 50,000 county homes discussing Congressional issues; and he's placed three questions on the November ballot targeting tax issues.*



Robin Ficker

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**ISBD**

INFORMATION  
SERVICES  
BUSINESS  
DIVISION

ROCKVILLE,  
MARYLAND

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Nov. 1, 1976

## U.S. Government Extends MARK III Service To Saudi Arabia

For the first time, ISBD is providing remote computer services to the Middle East to accommodate the needs of an important customer. Our customer in this case is the U.S. Army Corps of Engineers, which has contracts to handle literally hundreds of construction projects for the Saudi government, and the Corps has selected General Electric to support these projects with MARK III® Service.

Sold by Dick Rubinstein, Senior Account Representative in the Federal Sales Operation, in the face of heavy competitive efforts, GE was selected primarily because of the MARK III Teleprocessing Network, which reaches major cities in both the U.S. and Europe where the Corps has operations. Another important factor was that the computer language predominantly used by the Corps of Engineers is Honeywell COBOL, and many of their established programs were easily implemented onto GCOS Background Service with very little modification.

According to Bob Streight, Manager, Middle East Programs, who has coordinated the project, the Corps of Engineers is the first ISBD customer ever to supply its own circuits. "The Corps uses a satellite circuit which begins in Riyadh, the capital of Saudi Arabia," he said, "and ends in Rome. It's the Indian Ocean Satellite. From there, under-

sea cables connect the Corps' Saudi headquarters with the MARK III Supercenters." Bob said the primary reason the Corps is using its own telecommunications circuits was to speed up implementation of the applications.

The Corps is using MARK III Service for a great many applications, predominantly to monitor the status of and to manage their numerous large construction projects in Saudi Arabia; and to handle the Corps' own computerized financial and personnel systems which must be updated from Saudi Arabia. Everything is done exclusively on MARK III Service.

To give you an idea of the scope of the Corps' use of our capabilities, its Saudi Arabian equipment configuration includes its own dedicated mini remote concentrator in Saudi Arabia, connected directly to our

*Continued on page 2*



*Bob Streight, Manager, Middle East Programs (left), and Gerry Mueller, Communications Technical Specialist, chart the satellite/undersea cable route the U.S. Army Corps of Engineers' data processing takes between Riyadh, Saudi Arabia, and the MARK III Supercenters.*



*The large building at right is the U.S. Army Corps of Engineers' Saudi Arabia headquarters in the capital city of Riyadh. It was formerly the palace of a princess of the royal family. The small building is the data processing center.*

**GENERAL  ELECTRIC**

For General Electric Employees Only





## Account Representatives Can Earn Cash Bonuses of Up To \$3,900 From CAO

Marv Lewis, Manager of the Custom Applications Operation, has made it relatively easy for account representatives to make sure they have plenty of spending money. All you have to do is sell CAO contracts which result in significant on-going ISBD revenue.

"A field rep can earn up to \$3,900 as a bonus for selling CAO business," Marv said. "This includes \$2,700 in personnel services, and another \$1,200 for computer usage during CAO's development and implementation of the customer's new application.

"Yes, it is entirely possible that several AR's will win the maximum," Marv added. "In fact, we've implemented a couple of applications in recent months that would have earned the account representative the \$3,900 maximum, had the bonus plan been in effect at the time."

The new CAO Bonus Plan, which became effective during August, extends to the end of 1976. During

### **Saudi Arabia** *Continued from page 1*

network by way of a 9600 baud satellite circuit, a COPE 1600 high-speed terminal, plus 20 low-speed terminals. Eight of these are the new GE TN30's. "That kind of an equipment configuration," Bob said, "means pretty massive amounts of data processing!"

One interesting facet of this particular account is that quite a wide variety of terminals is involved. Gerald Mueller, Communications Technical Specialist, who configured the total system from conception through implementation, was instrumental in generating a test of the entire configuration before "turning it on," so to speak. With the help and cooperation of the Corps, he staged a mock setup at the Corps' Saudi Support Headquarters in Virginia,

these remaining months, a number of account representatives should be able to add to their ISBD earnings. In fact, eight already have. Because of the Bonus Plan rules which tie the total bonus in to on-going processing revenue, the bonuses that have already been awarded are, in effect, only the "tip of the iceberg." If the implementations meet the requirements (for specifics, call Elaine Kissell on the "CAO Bonus Plan Hotline" at 8\*273-4663), much larger cash amounts than those shown here will be paid.

In the New Jersey Branch, Ernie Vodarsik has obtained an order from Public Service Electric and Gas for a large database system covering nuclear power plant components and equipment, earning him an \$80 bonus.

Another order for enhancements to the GTE Data Services telephone service order processing system has

where all the bugs were removed. When the system was implemented in Saudi Arabia, everything worked the way it was intended.

Although Gerry spearheaded the technology of this innovative implementation, he had some able assistance from Bob Knight, Rick Walsh, Jim Magruder and Charlie Galloway, all of the Systems and Technology Department.

Although we can't really count Saudi Arabia in our official list of countries served by our network, this very significant new account does extend MARK III Service into yet another corner of the world, broadens our base of experience and racks up another major winner for the General Electric team.

earned Al Moss of the Miami Branch a bonus of \$110.

Terry Faff, Los Angeles — South Branch, got a contract from Beckman Instruments for an order processing system which has the distinction of being the first OMNI installation. A bonus of \$60 goes to Terry for this order.

In addition to these three, Update has received word on the following five recent winners:

Paul McClary of the Schenectady Branch: Initial bonus — \$150; customer—GE—I&SE (Installation & Service Engineering); application—service engineering worldwide.

Dick Rubinstein of the Federal Sales Operation; Initial bonus—\$80; customer—U.S. Army Command and General Staff College; application—war games simulation.

Kenneth Conroy, Nashville: Initial bonus—\$80; customer—Bendix; application—major order entry system.

Alex Schwartz, Chicago: Initial bonus—\$60; customer—U.S. Steel; application—order entry system for steel suppliers.

Egan Skinner, Charlotte Branch: Initial bonus—\$40; customer—Duke Power; application—data base system for power generation requirements.

As stated previously, the bonus payments reported for each of these individuals are the initial portions only; the bulk of the potential bonuses will become payable after the system has been turned over to the customer and monthly processing revenue is achieved.

Also, in each case, the initial bonus payments to these account reps are matched by equal payments to their branch managers. . .Mike Mash, Mike Paccione, Rudy Baldor, Randy Myers, Paul Heiner, Jim Brady, Pete Curtin and Jimmie Lowry.





## 62 ISBD Employees Recognized for Outstanding Achievements

Management Awards recognizing unusual and superior contributors to the business have recently been issued to employees in Ray Marshall's Systems and Technology Department, Bob Hench's Marketing Department, and Leo Ramer's Finance Department. Here they are . . .

*Systems & Technology. Seated, from left: Tom Travis, Dane Barnett, John Watson, Marilyn Mouly, John Haugen, Fred Howard, Greg Cook, Steve Mudrick. Second row: John Kisler, Mary Howard, Elena Sacchet, Carol Bretagne, Raj Chopra, Paul Wang, Alta Davis, Denny McPhail, Forest Lorz, Bob Schunneman. Back row: Tom Kent, Dave Bean, Tony Dwyer, Terry Thiel, Harry Haraseyko, Joe Grzegorzewski, Gary McIrvn, Mike Van Blaricum, Jim Palmer, Dave Morris. Not pictured: Harold Larsons, Dave Johnson.*



*Marketing. Seated, from left: Gayle Bleichner, Beth Rowley, Peggy Lyons, Marguerita Flores, Gloria Chang. Standing: Bob Hench, Bill Johnson, Don Farrell, Art Lee, Mark Sillcox, Norm Otis, Mannie Roberts, Alan Tolk, Ernie Barrow. Not pictured: Carol Kamerick, Pat Buteux, Bill Backer, Don Greenwood, Bob Hadelar, Ray Blevins, Charles Wilson, Eileen Ripley, John Ferrell.*



*Finance. Seated, from left: Carolyn Jones, Leo Ramer, Thelma Halliburton, Linda Crisafulli. Standing: Larry Capriotti, Al Bledsoe, Mike McGaha, Carroll Roach, Dave Lloyd, Harold Boyd, Curtis Jones, Jr.*

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## General Electric Sales, Earnings Climb In Third Quarter

Earnings of the General Electric Company were \$184.8 million in the third quarter of 1976, up from 1975 third quarter earnings of \$156.1 million. Sales in the third quarter of 1976 were \$3.54 billion, up from the \$3.28 billion reported in the same quarter of 1975.

For the first nine months of 1976, earnings were \$501 million—about 4.8 cents profit per sales dollar—up from the \$360.1 million—or 3.7 cents profit per sales dollar—reported for the same period of 1975.

Sales of \$10.45 billion in the first nine months of 1976 were ahead of the \$9.63 billion reported in the same period of 1975.

In commenting on the third quarter, Reginald H. Jones, chairman of the board, said, "The Company's performance resulted in record earnings for the quarter as compared with the strong third quarter of last year. The continued improvement in our operating margins is the result of higher sales combined with effective control of costs by our operating managers. Other income was also up in the quarter, primarily as a result of the higher income the Company realized from short and long-term investments."

As to the categories of the Company's business for the third quarter of 1976 compared with 1975, Jones said: "Consumer goods' sales and earnings for the third quarter were again ahead of the comparable quarter of last year. Major appliances, housewares and lamps contributed significantly to the improvement.

"Industrial components and systems sales and earnings continued strong in the third quarter and were better than the 1975 quarter, principally because of higher sales of components related to consumer products and in-

creased demand for GE materials such as engineering plastics.

"Aerospace sales and earnings maintained their moderate rate of improvement, primarily because of higher sales of commercial aircraft engines during the 1976 quarter as compared with a year ago.

"Industrial power equipment sales were up for the third quarter of 1976 from the same quarter of 1975. Earnings, however, despite improvements in turbine-generators, gas turbines and power delivery operations, were down primarily as a result of lower nuclear sales and higher programmed nuclear

engineering costs.

"The international category reported improvements in both sales and earnings for the 1976 third quarter over the 1975 quarter, principally because of higher export sales.

"Earnings of the General Electric Credit Corporation for the 1976 third quarter were \$14.6 million, compared with \$13.4 million reported in the comparable 1975 period. The first nine-month earnings of the Credit Corporation were \$41.4 million compared with \$38.7 million for the same 1975 period."

## Jean Curl Launches 36th Year of GE Service



Henrietta K. "Jean" Curl, Product Control Coordinator in the Switchgear Remote Operations in Philadelphia, is flanked by Lou Ciccone, Switchgear Remote Operations Manager (left) and Bob Johnson, Manager, Remote Operations, as she receives her 35-year General Electric pin. "If the next 35 GE years are as enjoyable and productive as the first 35 have been," Jean said, "then I'll be totally satisfied with my career!"





## Federal Sales Makes Good Showing At Users Group Meeting in California

A few weeks ago, ISBD personnel from both coasts descended upon the University of California at Davis to participate in a users' group meeting with the U.S. Army Corps of Engineers. Heading our contingent was Sally Smith, Manager of the Federal Sales Operation. Other Federal Sales participants were Ken Santucci, Acting Manager, DOD/NASA Branch; and Richard Rubinstein, Army Senior Account Representative

The Pacific Zone supported the meeting with Ken Clement of the Sacramento office, Wayne Garber from Portland and Ina Crouse from San Francisco.

The users' group—INFOCORP—is composed of Corps of Engineers personnel,

both ADP and engineers. They meet annually to discuss problems and questions, and to present seminars that would be useful to all Corps locations. Three days were allotted for the conferences, and GE-ISBD personnel had the opportunity to meet and dine with all persons involved. They were also allowed to observe most of the sessions. Various vendors were there, including CSC, BCS, AT&T, McAuto, Harris and HIS.

Thanks to the cooperation of all GE personnel involved with support from the Pacific Zone for terminals, and from Headquarters for their assistance, the Corps' spokesmen expressed opinions that the group from GE

showed the most enthusiasm of all vendors present. Dick Rubinstein told Update that the GE demonstrations were clearly the most well-organized and covered the most varied range of services.

"ISBD worked under temporary telephone lines," Dick said, "and unlike any other vendor, had no outages during the demonstrations!" He added that simultaneous demonstrations of Foreground Service, GCOS Background Service and VS Background Service were highlighted; and the TN300, the TN30 with compact printing, and the Zeta\* Plotter were also demonstrated.

*Continued on page 6*

## S&SP Prices—September

Month	Stock Price	Fund Unit Price
September	\$54.798	\$28.310
August	54.790	27.759
July	56.899	27.978
June	54.722	27.317
May	51.469	27.547
April	53.190	28.088
March	52.098	27.962
February	53.329	28.042
January	52.220	26.986
December	46.347	25.407
November	48.336	25.991
October	47.332	25.257

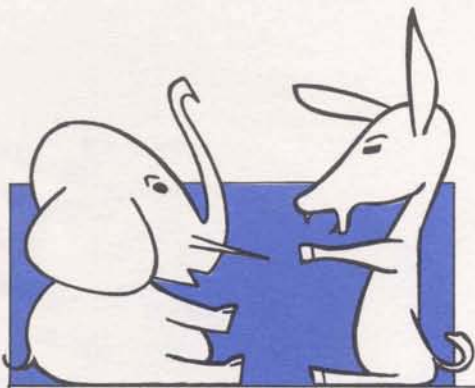


*The General Electric exhibit was one of the most popular of all, as this photo suggests. Here, Sally Smith tells a part of the MARK III Service story to a prospect.*

Update is published bi-weekly by the Information Services Division for the benefit and information of employees. Articles and photographs may be submitted to Update, Information Services, 401 N. Washington Street, Rockville, Maryland 20850; or call 8\*273-4387.

305.65  
Nov. 1, 1976





## Federal Sales *Continued from page 5*

Wayne Garber demonstrated the SDRC program SUPERB on VS Background Service. ISBD's award-winning documentary movie, "The Global Village," made a hit with everyone there, Dick said.

Follow-up by Ken Clement in Sacramento, and Dick Rubinstein in Washington, D.C., have unearthed many large potential Corps applications. Presently the Portland and Birmingham offices are supporting potential and actual applications respectively. Dick said the cooperation of all branches can lead to a great deal of new revenue for ISBD, "as GE is the only vendor that can supply all the domestic locations with local access, including Alaska and Hawaii."

The Corps headquarters is presently working on a major reconsideration of all timesharing services, which involve CSC and McAuto primarily. GE stands an excellent chance of getting a major portion of this business with

the cooperation of all ISBD branches with Corps locations in their territories.

Dick Rubinstein has "key person" contacts in every Corps location and is anxious to disperse the information and interact through the Corps headquarters in Washington to help the field offices obtain the necessary approvals as required. Call him at 8\*272-4464 to obtain the name of your nearest Corps contact.

"The Corps can be a real fourth-quarter revenue producer," Dick said, "with the local support and contact that only ISBD can give them!"

\*Registered trademark of Zeta Research, Inc.

**Democracy  
Depends On You;  
VOTE  
November 2!**

## October Service Awards

### Thirty Years

Norman H. Beal                      Rockville

### Twenty Years

Floyd C. Johnson                      Erie  
William H. Breedlove                      Phoenix  
James R. Underwood                      Rockville

### Fifteen Years

Thomas J. Sullivan                      Schenectady

### Ten Years

Jean M. Keene                      Rockville  
Carl H. Worlock, Jr.                      Phoenix  
Maura T. McCollum                      Philadelphia  
Gerald J. Brown                      Syracuse  
John R. Gummo                      Rockville  
Tess Damour                      Brook Park  
Gordon R. Grant                      Seattle

### Five Years

James F. Brady                      Atlanta  
Diana D. Feld                      Palo Alto  
Noreene G. Davis                      Brook Park  
Michael J. Paccione                      East Orange  
Jo Anne Velardo                      East Orange  
Cheryl Brickus                      Washington  
A. William Gindra                      Rockville

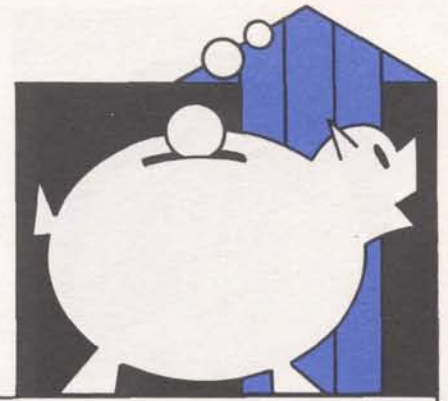


*Dick Rubinstein, Senior Account Rep, demonstrates MARK III Service to a potential Army Engineer customer.*



*Ken Santucci, Acting Branch Mgr. Dod/NASA and Ken Clement from the Sacramento office answer questions from Ferrell Ard of the Corps' Atlanta District on local MARK III access for the Corps of Engineers.*





## Some Q's and A's on those Insurance Improvements in the GE Job Package

**Editors Note:** Because of the number of practical and beneficial improvements made recently in our GE employee benefits plans, we've asked Paul Beaudry, Compensation & Practices Manager, to answer some of the questions that have been asked most frequently.

**Update:** There are a number of recent improvements in the insurance portion of the GE job package. Which would you say has the greatest value?

**Paul:** Which improvement has the greatest value for you would depend on your individual circumstances. Many employees do not have life insurance coverage on any of their dependents. For them, the most important change may be the opportunity to purchase the low-cost coverage that became available October 1, 1976. The new dependent life insurance for non-exempt salaried employees will enable you to cover your spouse and children—no matter how many children—for just 45 cents a week. A spouse will have \$5,000 of coverage and each child will have \$1,000. That's an exceptional value.

**Update:** How does an employee obtain this coverage?

**Paul:** All non-exempt salaried employees will receive application forms in the near future. . . But life insurance is not the only change that benefits dependents. There are others, although they are more often thought of as benefits for employees.

**Update:** Which changes do you mean?

**Paul:** Well, some very practical additions to the GE Insurance Plan are of great value to dependents. For example, the extension of medical expense coverage for a full year following the death of an employee or eligible pensioner who is under 65 . . . Survivors formerly had coverage continued for only 31 days after an employee's death.

Another improvement that has similar value is this one: If you are disabled, comprehensive medical expense protection for your dependents under the Insurance Plan will be continued for as long as your own comprehensive protection is continued. That could be as long as two years following the year in which your disability started. Formerly dependent coverage terminated after an employee had been absent on disability for a year. The extended protection is provided at no cost during your disability period.

**Update:** Those are very practical improvements in insurance coverage. How do other improvements fit into our insurance program?

**Paul:** Another important improvement coming January 1 is the increase in the maximum Weekly Sickness and Accident income paid to disabled employees. This payment is 60% of straight-time earnings for up to 26 weeks. The maximum amount is currently \$150 a week. For disabilities that start on or after January 1, 1977, the maximum will be \$175. Because earnings have been increasing, this change in the S&A maximum will help more employees who are disabled in the future to receive about the same percentage of regular income as they would have received in the past.

**Update:** Would you review some of the other Insurance Plan changes that were made?

**Paul:** The installing of a minimum life insurance coverage for employees. Every full-time employee, who works a schedule of 35 hours or more a week, will have coverage of at least \$15,000 for death — a total of \$22,500 in event of accidental death. Of course, the formula for life insurance continues—twice normal straight-time annual earnings for death, a total of three

times normal straight-time earnings for accidental death. In addition, comprehensive medical expense insurance coverage was improved in a number of ways.

A practical addition is the provision that encourages treatment of alcoholism or drug addiction problems. Our Insurance Plan will now cover the cost of doctor-approved confinement in a licensed detoxification facility at 100% of semi-private room costs as a Type A-1 expense under the Plan.

Also, with the increase in medical technology and knowledge there is often need for a "second medical opinion" by a physician in connection with the diagnosis and treatment of non-occupational illness or injury.

**Update:** Isn't there a situation in which the Plan will now cover private room costs in a hospital?

**Paul:** Yes, the Plan will now pay hospital charges for a private room when the patient has no choice and it is medically required by a doctor because the patient has a contagious disease such as tuberculosis, or in some cases, measles. The private room and board charges will be considered "Type A-1" expenses and, like other Type A-1 costs, will be covered 100%.

**Update:** Would you explain the maternity benefit change?

**Paul:** Yes, another important addition is the extension of maternity coverage to dependent, unmarried, female children for expenses incurred on or after the effective date—June 28—provided the dependent was covered under the Plan at the date of conception and on or after June 28, 1976. The benefits will be the same as for a female employee or a male employee's wife, covering normal delivery and complications such as miscarriages, abortions, caesarians, and ectopic pregnancies.





## In Other GE Divisions. . .

- **SCHENECTADY**—GE plans to furnish rotors and other critical gas turbine components worth about \$90 million for 158 gas turbine compressor modules as part of an order by Machinoimport of the Soviet Union.

Jack Gatzemeyer, general manager for the Gas Turbine Division's International Operations Department, expressed "disappointment" at not receiving the full Soviet order, but emphasized that the \$90 million worth of GE-supplied components represents more than 1,000 man-years of jobs for the U.S.

- **LAS VEGAS**—About one year after its completion, the original roof of the M.G.M. Grand Hotel in Las Vegas proved unsatisfactory.

Lou Ricca, M.G.M.'s chief engineer, analyzed several different types of roofing systems which would have to stand up under the demanding weather conditions of the area, including high winds and great temperature fluctuations, and decided GE's Silicone Roofing System best met the hotel's needs.

The GE roofing system consists of a seamless, sprayed-in-place layer of polyurethane foam coated with a thin, protective layer of silicone rubber. Over 56,000 square feet of M.G.M.'s hotel is now covered by the GE roofing system.

- **DAYTONA BEACH**—Purchase orders have been received from Bath Iron Works and Todd Shipyards for 11 shipsets of machinery control system hardware, including propulsion control systems and damage control consoles for guided missile frigates, two of which are destined for service with the Royal Australian Navy.

According to Lad Warzecha, general manager, "This significant production order of approximately \$12 million will form a strong base

for our Ship Systems product line and will maintain our competitive position for similar programs."

- **SAN JOSE**—According to Don Rubio, general manager, Nuclear Energy Control and Instrumentation Department, the business throughout the nuclear industry has been quiet for about two years. One reason: utilities have a hard time financing their plant expansions—nuclear plants cost on an average of \$1 billion for a single reactor plant.

On the plus side, Rubio states that a large backlog of orders, which GE received before utilities had financing problems, are beginning to reach the shop floor now. This has resulted in hiring a substantial number of manufacturing people for the past several months. The higher level of employees will, according to Rubio, "probably hold steady for the next four to five years."

- **LOUISVILLE**—According to James Cherol, GE's general manager, Central Air Conditioning Business Department, industry shipments of central residential units will rise 40% this year, adding, "GE is doing much better than we hoped." Cherol continues, "Now we're reaping the benefits of demand that built up in the last half of 1974 and during all of 1975."

- **HOLLAND**—The automotive marketing team in Bergen op Zoom in Holland has come up with a dramatic way to show people that Lexan and Noryl resins (GE trademarks) can be widely used to fabricate parts for replacement of metal and other conventional materials in autos. The idea: build a car.

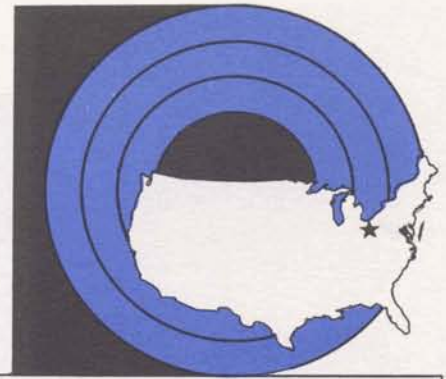
The General Electric Engineering Plastics (GEEP) car was built by fitting GE Plastics parts on a Renault R5. Total weight of the replacements was less than 31 pounds, compared to the 71 pounds of the original components.

## Now The Lady Glows Like Never Before!



*New York Harbor's famed Statue of Liberty glows four times brighter than she did, thanks to a complete system of GE lamps—a gift to the American people from Crouse-Hinds Company. The torch glows with four 400-watt Lucalox lamps, golden-white in color to simulate a flame; inside the crown are 17 100-watt mercury lamps for a blue-green jeweled effect; and the statue itself is illuminated by 58 1000-watt Multi-Vapor lamps which blend with 15 400-watt Lucalox lamps illuminating the pedestal. It's the first new lighting she's had since 1931.*





## Cleveland Slips, Rebounds To 100% For Year's First Time

Ron Rasmussen's Cleveland Branch, which ranked at the very bottom among ISBD branches at the beginning of the year, made public commitment that things were about to change. And they *did* begin to change, with the branch showing an improvement every single month since Update first reported its plight in the April 30 issue.

But in August, Cleveland had its first set-back. . .it slipped from 20th place and just above the national average, to 25th place and four positions below the national average. It was beer and beans for the Cleveland team throughout September, while first and second-ranked Federal DOD Sales and

Pittsburgh, respectively, enjoyed steak and champagne.

In Cleveland, the pain was just too much to take. And all hands turned-to. They consequently finished September more than 100% of quota. . .for the first time in 1976. That is, more than 100% in VS Background Service, more than 100% in GCOS Background Service and more than 100% in Foreground Service. What's more, they moved up to 10th performance position among the 41 branches.

Not bad at all. But we're wondering what Cleveland is going to do in October. And in November, and . . .? Watch this space!



*Ron Rasmussen's Cleveland staff bears marks of its determined struggle from bottom place as the year started, to 10th place and 100% of quota in all three categories for September. Their next goal: first place, nationwide! Seated, from left: Jim Poduka, Ron Rasmussen, Don Ina. On slab: Carl Fiorenza. Standing, from left: Jim Quayle, Jack Hauber, Hillary Jones, Jack Mitchell, Bill Broks, Dennis Bibler, Tim Kleimeyer, Jeanne Aniton, Andy Hatcher, Lisa Rosenblatt.*

## International Tax Planning Made Easy With New NSS Software Package

Hercules Incorporated, a major multinational chemical corporation, has developed a package for international tax planning and is currently offering the software via MARK III Service's Network Software Services (NSS). The model uses the latest FAL II routines, contributing to its ease and convenience of use.

The model consists of four programs. Two of these complete the separate statutory calculations of Earnings & Profits and Accumulated Profits; and the calculations of the deemed paid foreign tax credits pursuant to either Section 902 or 964.

These two models interact with a third program which prepares four kinds of reports: a summary of data obtained from the reserve file, a calculation of the taxable dividends received from a foreign corporation, a calculation of net taxable foreign-source income and the U.S. tax due on that income for a U.S. parent and other members of a U.S. consolidated tax return group, and an analysis of foreign tax credit "carry backs" and "carry forwards" and, when applicable, indicates the amount of excess unused foreign tax credits and the year in which the excess occurs.

The fourth program is used to consolidate multiple executions of the reports generated by the first three programs.

Information on this new NSS package may be obtained from Bill Conroy or Liz Gibson in the Philadelphia Branch (8\*241-1297).





## Way Cleared For Share Owner Vote On GE-Utah Merger

Reginald H. Jones, chairman of General Electric Company, and Edmund W. Littlefield, chairman of Utah International, Inc., announced recently that they were very pleased that the Department of Justice has provided the companies with a favorable letter under its Business Advisory Clearance procedure. The Department stated that it "does not presently intend to bring an action to enjoin the proposed merger" of Utah with General Electric. Jones and Littlefield also said that the proposed merger will be submitted to their respective share owners at separate meetings to be held in December, 1976. Upon receipt of the share owners' approval it is the parties' present intention to complete the merger before the end of the year.

Utah and General Electric submitted a revised request for a Business Advisory Clearance letter to the Department of

Justice on August 18, 1976. The revision responded to the Department of Justice's concerns expressed in its letter of July 23. At that time the Department noted the potential anti-competitive effects resulting from General Electric's role as a supplier of nuclear steam supply systems and Utah's role as a uranium mining and milling company. To resolve these concerns, the uranium assets and operations owned and conducted by Utah will be transferred to a new company wholly owned by the merged companies. The voting stock of this new company will be deposited in a trust managed by five independent trustees. In this manner, General Electric and Utah will retain all of the earnings of the new uranium company, while control over its operations will be vested in the trustees. The GE-Utah merger is not being changed in any other respect.

## Seattle: "For On-Going 100% Quota Performance, Let's Celebrate!"



Seattle Branch Manager Ron Simon treated his successful team to a deep sea fishing outing aboard Bill Schwinck's (NDP Seattle) boat the other Saturday. Spouses and kids too. They brought back plenty of sizeable silver salmon, plus a few sharks and various other catches. Prizes went to: biggest salmon—Ron Simon; most fish caught—Dick Winwood; and smallest fish—Karen Mask.

As previously announced, the proposed merger is to be accomplished through a tax-free exchange of 1.3 shares of General Electric Common Stock for each share of Utah Common Stock. General Electric has approximately 184.7 million shares outstanding and Utah approximately 31.5 million.

Share owners will be receiving a proxy statement with detailed information on the proposed merger and the special meeting to be held in connection with the required share owners' vote.

## Morning Call Gazette

One of the services the National Service Operation (NSO) provides is the daily publishing of the Morning Call Gazette. Morning Call is a meeting held every weekday morning by the Systems and Technology Department to review the previous day's network performance. A representative of NSO attends the meeting and reports on the customers' view of MARK III Service as reflected in their calls to NSO.

The NSO representative then prepares a summary of the previous day's service and a forecast for the current day. One observer said the NSO forecast "has a better batting average than the weatherman!"

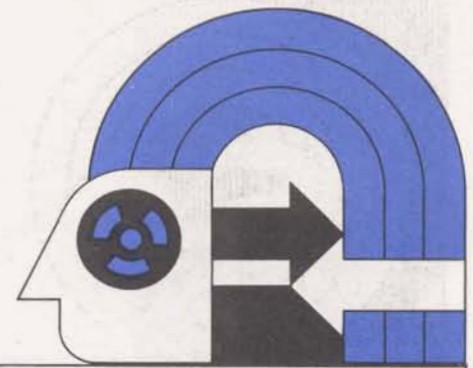
The Gazette is put on-line by 11 a.m. EDT. To access the Gazette, just sign on to the MARK III System with your Crossfile (or Memosys) user number.

Filenames are constructed as follows:

The filename for Monday, November 1, then, would be GAZ11\*01; and the previous day's file would be there also, under the name GAZ10\*29.

Questions and comments on the Morning Call Gazette should be directed to either Ernie Barrow or Ted Day of the National Service Operation at 8\*273-4675.





## Interchange Corner

### Memory Set To "Zeroes" — Except!

Jack Mitchell, CAO Application Specialist in Oak Brook, has contributed the following insight on how memory is initialized in GCOS Background Service. The initialization is done the same way under both COBOL and FORTY, although the examples here use COBOL.

Normally it is assumed that, unless otherwise specified, memory is initially set to zeroes and that it *remains* as zeroes until a "value" is assigned or something else is moved into the memory area. This is not true in all cases because the H6000 is a word-oriented machine. Each word consists of six characters.

#### Example 1:

Below is a working storage area defined in the program:

```

01  Work-Area
    02  Field 1  Picture x(8)
    02  Field 2  Picture x(12)
    02  Field 3  Picture x(6)
    02  Field 4  Picture x(6)
    02  Field 5  Picture x(4)
  
```

Using this definition, core content at time of load will be:

```

Field 1 | Field 2 | Field 3 | Field 4 | Field 5
000000 | 000000 | 000000 | 000000 | 000000
  
```

#### Example 2:

```

01  Work-Area
    02  Field 1  Picture x(8) value spaces
    02  Field 2  Picture x(12)
    02  Field 3  Picture x(6) value spaces
    02  Field 4  Picture x(6)
    02  Field 5  Picture x(4) value spaces
  
```

Using this definition, core content at time of load will be:

```

Field 1 | Field 2 | Field 3 | Field 4 | Field 5
bbbbbb | bbbbbb | 000000 | bbbbbb | bbbbbb
  
```

As shown, parts of Field 2 are spaces, and all of Field 4 is spaces.

#### Example 3:

In the work area shown in Example 2, change two lines:

```

02  Field 2  Picture x(12) value zeroes
02  Field 4  Picture x(6) value zeroes
  
```

The resultant core content is below:

```

Field 1 | Field 2 | Field 3 | Field 4 | Field 5
bbbbbb | 000000 | 000000 | 000000 | 000000
  
```

#### Example 4:

Use the Work Area defined in Example 2. In the Procedure Division, move zeroes into Field 3 and Field 4, as the first executable statements. After that, core content will be:

```

Field 1 | Field 2 | Field 3 | Field 4 | Field 5
bbbbbb | 000000 | 000000 | 000000 | 000000
  
```

Results are exactly the same as in Example 3.

If any comparisons are to be made at the start of a COBOL program execution, using Field 2 or Field 4 (where zeroes are required), these comparisons will fail, using Work Area defined in Example 2. To initialize Field 2 and Field 4 to zeroes, follow Examples 3 or 4.

## Munzer, Gronkiewicz Win Suggestion Awards

Steve Munzer, Shipping and Receiving Clerk in Rockville, has earned himself a \$50 suggestion award for his idea that ISBD should knock out some curbs and build ramps to simplify building entry by handicapped visitors and employees, and for getting supplies into the building.

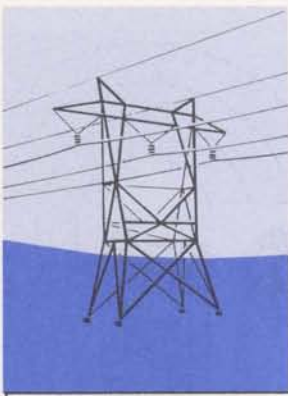
Judie Gronkiewicz, Secretary, Legal Operation, won a \$25 suggestion award for her idea to fly the official bicentennial flag outside the Maryland Center.

## Nela Park is historical site

A bronze plaque mounted on a stone pedestal has been installed on the lawn just west of the Advertising Building, proclaiming GE's Nela Park at Cleveland, Ohio, as an official historical location. Nela Park—the oldest industrial park in the nation—won the designation last year, when it was included in the National Park Service's National Register of Historic Places.

Currently there are approximately 9000 properties throughout the country listed in the Register.





## Nuclear Power Is Energy Key

Remember all those motorists with short tempers waiting in long lines for gasoline back in 1973? An instant replay of those gloomy days could occur at any time because our dependence on foreign oil sources is steadily increasing. Six years ago, 23 percent of the oil used in America came from foreign wells. The total had climbed to 44 percent by this March. And, with a record 60 percent of all U.S. oil imports coming from the same guys who turned the oil off and put the squeeze on three years ago, another oil embargo lasting six months could stop our economic recovery and send another 1.5 million Americans to the unemployment lines.

If you think there's got to be a better way, you're not alone. "We have enough coal to last for over 200 years, more energy than all the Mideast countries put together. And, if the U.S. had 200 large nuclear power plants in operation today instead of 55, we would be saving the equivalent of all the oil we are now importing," declares Dave Dance, GE vice chairman of the board and executive officer.

However, Dance states that using coal as a *major* energy source isn't very likely for several reasons, including: the enormous sums of money needed to mine the quantity of coal required are not readily available; and, much of the coal that could be mined couldn't be burned because of air pollution restrictions.

According to Dance, that leaves nuclear power as a key part of any plan designed to end our ever-increasing reliance on foreign-oil imports. Stripping aside the emotional charges of the critics, these facts remain:

- Nuclear power plants cost a great deal of money—averaging nearly \$1 billion for a single reactor plant—but burning uranium supplies 10 million times as much energy as we get from the same amount of coal or oil.

- Nuclear power plants save consumers money. In 1975, nuclear power plants saved utility customers over \$1 billion in their electrical bills.

- Nuclear plants are safe. Worldwide, commercial nuclear power plants have logged over 700 reactor years of operation without a single fatality or serious injury.

- Nuclear power plants don't emit harmful levels of radiation. In fact, the natural radiation given off by the granite at New York's Grand Central Station is 500 times greater than the radiation a person would receive at the gate of a nuclear power plant.

- Nuclear power is a job provider for Americans. In addition to the millions of man-hours put in by the building trades to construct a nuclear power plant, each new nuclear plant provides enough energy to sustain 25,000 to 30,000 *permanent* jobs.

Long-term, Dance states there is little disagreement that conservation, more efficient energy conversion, and technical advances to tap new energy sources will greatly reduce our dependence on imported oil. "But," Dance adds, "we don't have the 20 or 30 years needed to make them work. Short-term, we must rely on our two most abundant energy resources—coal and nuclear power.

## Alumnus Program Sets New GE Record

Matching contributions under the GE Foundation's Corporate Alumnus Program reached an all-time high of \$648,437 in 1975. The new record seems primarily the result of more gifts by employees as a response to the increased needs of higher education, according to the Foundation staff.

The General Electric Foundation's Corporate Alumnus Program was the first employer matching gift program established by industry. It is currently operating in its twenty-second year since its establishment in 1955. All GE employees with one year of continuous service are eligible to participate in the Program.

Provisions of the Program remain as amended in 1973, except that beginning July 1, 1976, checks for matching gifts under the Program will be distributed annually to the beneficiary colleges and universities. In previous years the distribution was made quarterly. Gift checks will be processed following the second quarter of each calendar year. This change can help win increased recognition for the Program from colleges and universities and

will reduce processing costs for the Foundation. Matching gift forms for the Program have been changed from blue to brown, and information on the form has been revised. Those using the Program should look for the revised form.

Under the Program, eligible employees make gifts to the eligible colleges or universities of their choice. When appropriate forms are submitted, the Foundation will make matching gifts, within the Program's limitations, to those colleges and universities.

The Foundation prepares an Annual Report on gifts made under the Corporate Alumnus Program. Copies go to colleges and universities and to General Electric components so that interested employees can see how matching gifts have been distributed.

Any questions related to the Program should be directed to:

Richard E. Kramer, Jr.  
GE Corporate Support Operation  
1285 Boston Avenue,  
Bridgeport, CT 06602  
Dial Comm 8\*223-2775/1876





## ISBD's Paul Beaudry Typifies Many Community-Minded GE Employees



*ISBD's Paul Beaudry brings his two favorite outside activities together as he interviews his blind partner, Gail Snider, for the closed-circuit radio station "Washington Ear" on a tour of the National Air and Space Museum. The original Wright Brothers airplane hangs from the ceiling over Mrs. Snider's shoulder, and Paul makes the point that it's "Orville, not Wilbur" lying precariously on the wing.*

Whether he's reading the Sunday comics on the air to Greater Washington's blind and handicapped community, or answering the simplest question of the littlest Brownie at the Smithsonian Institution's new National Air and Space Museum, Paul Beaudry is doing the thing he likes better than anything else: helping his fellow man and helping to make the world a better place for as many as possible.

Paul Beaudry, Compensation and Practices Manager, spends a large part of his time away from ISBD Headquarters doing exactly that — sharing with others a part of the great wealth of

knowledge and experience mankind has accumulated. And he loves it! "Whatever else I have to do away from work," he declared, "simply has to be built around these activities. This is what's most important to me; what I really enjoy most. And there's so much need . . ."

Paul has two favorite outside activities. One is to give as much of his time as he can to the Washington Ear, a radio station which operates as a subcarrier of Station WETA. Its one reason for existence is to bring news and culture. . .not to mention 20th century

education. . .to the blind and other handicapped individuals in the Greater Washington area who cannot keep themselves informed through the more ordinary media such as newspapers and television.

"The 'Ear' is a closed-circuit radio station," Paul said. "So we don't have to worry about copyrights and the like. We can read the latest novel on the air, without censorship, and that goes a long way toward helping to keep the blind up with the rest of the world." Paul is moderator of a monthly program called "Let's Take a Look." It's a walking/talking/feeling tour of Washington and its great wealth of cultural and national attractions.

On his tours, Paul has a partner: Gail Snider, who is blind. Paul might ask Gail to describe an airplane engine as she did during a recent tour, and Mrs. Snider does so in words that perhaps better portray the object than a sighted person could select.

Paul also hosts another monthly show on the Washington Ear called "Pot Luck." This Sunday broadcast covers everything that hasn't been able to be classified under any other category. "It's a real potpourri of just about everything and anything you can conceive," he said. "My job on this project is really easy; all I have to do is select the material and read!"

Paul's other civic activity — or more accurately, his most *important* other one, is serving every Saturday as a "rover" at the National Air and Space Museum. Rovers are among the 300 or so volunteer guides who give their time, without pay, to explain anything

GENERAL  ELECTRIC

*Continued on page 2*





## Six More AR's Win CAO Cash Bonuses

Six additional field personnel have won initial cash bonuses for selling CAO services to customers. Along with eight winners announced in the November 1 issue of Update, they bring the total to date to 14.

As pointed out in that Update, the initial amount paid as CAO bonuses may be only the beginning of these account representatives' winnings; additional sums will be paid out after the applications have been implemented, are on-line and are generating ongoing revenue. An account representative can earn CAO bonuses amounting to as much as \$3,900, covering both CAO personnel services and computer usage during development.

### Paul Beaudry *Continued from page 1*

and everything about America's amazing progression from the Wright Brothers' first flight through Viking II and the Space Shuttle.

"Generally we rovers will spend an entire shift in one area of the museum," Paul said, "answering any question any visitor might have. We also give mini-tours. There are other volunteers who conduct the regular, longer, tours." Paul pointed out that there is not a single *paid* guide anywhere in the Smithsonian Institution, which is probably the largest, most well-endowed and most exciting museum the world has ever known. "There must be thousands of us," he declared, "including a very large contingent at the National Zoo."

Paul, believe it or not, doesn't limit his community activities to the blind and the Space Museum; he's also very active

Bonus-winning account reps' initial payouts are being matched by equal payments to their branch managers.

Here are our newest six CAO bonus winners:

Terry Faff of the Los Angeles-South Branch has won an initial bonus of \$40 for a production scheduling and reporting application for AMOCO Reinforced Plastics. Branch Manager is Randy Myers.

Pete Mannetti of San Francisco collects \$40 for a loan tracking system for Crocker National Bank. Branch Manager is Ron Lewis.

John Barber, Schenectady, wins \$170 for an electrical load database applica-

tion for GE Electric Utility Systems Engineering. Paul Heiner is Branch Manager.

tion for GE Electric Utility Systems Engineering. Paul Heiner is Branch Manager.

Hartford's Art Goetz wins \$80 for a marketing reporting application for GE Power Transformer. Branch Manager is Del Merenda.

Ron Burkley of Los Angeles-North wins \$40 for an intracompany billing and accounting application for Occidental Petroleum. Dean Paschal is Branch Manager.

Leo Edford of the Chicago Industrial Branch, and Branch Manager Pete Curtin, each win \$40 for Swift Dairy & Poultry's financial reporting application.

Referring to the November 1 Update, one of the first eight bonus winners was Bill McClary, not Paul, as reported, and his initial bonus was \$250.00.

in his church and several other organizations. And, he claims, he still finds time for his family. "Actually, my family takes precedence," he declared, "but if you're really interested in something, you'll be surprised how easily you can *find* the time you need to do the things you want to."

Paul doesn't feel he's any more community-minded than anybody else. "There are thousands upon thousands right here in Washington," he exclaimed, "who devote every possible spare minute and all their spare energies to helping others. But there's so much that needs to be done . . . so many people who need help in so many ways . . . that any new volunteers with a few extra hours or minutes to give will be welcomed with open arms."

Asked what he's getting out of his extracurricular activities, Paul answered, simply, "It's very fulfilling."

## Four Paid Holidays Yet To Come

ISBD employees have four official holidays with full pay during the remaining five weeks or so in 1976. One of them, New Year's Day, officially belongs to 1977; but since New Year's is on Saturday next year, GE is giving us Friday, December 31, instead.

The holidays yet to come are:

Thanksgiving Day	Thursday, November 25
Day after Thanksgiving	Friday, November 26
Christmas Holiday	Friday, December 24
New Year's Holiday	Friday, December 31









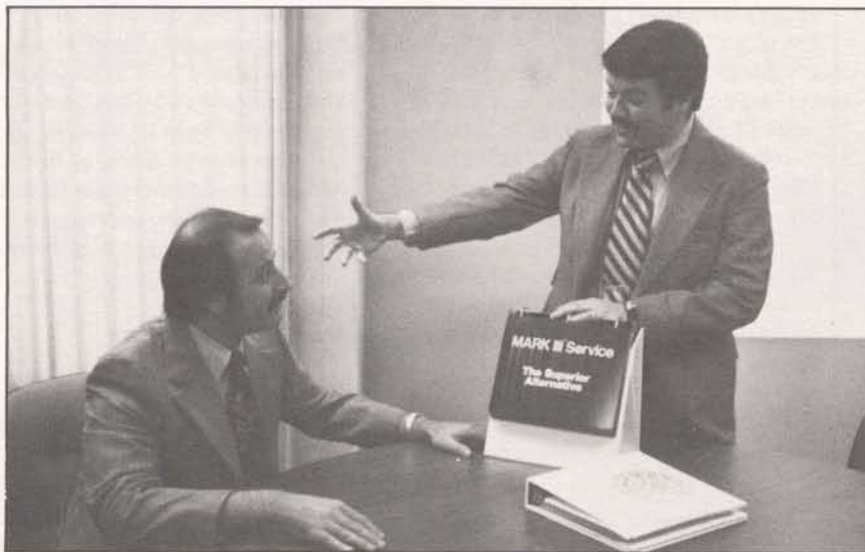
## New Flip Chart Now Available To Help Sell VS Service

A new desk-top flip sales presentation is now available and is being distributed to all field locations.

According to Bruce Barnard, Manager of the VS Sales Operation, it is identical in content to the full-color slide presentation recently distributed.

The presentation describes MARK III® Service in general, Bruce said, but features VS Background Service and was designed especially to help sell VS Service to present and prospective MARK III Service users.

"We recommend that account representatives use the desk-top presentation for use with small, informal groups," Bruce said, "and the slide version for more formal presentations, with larger audiences."

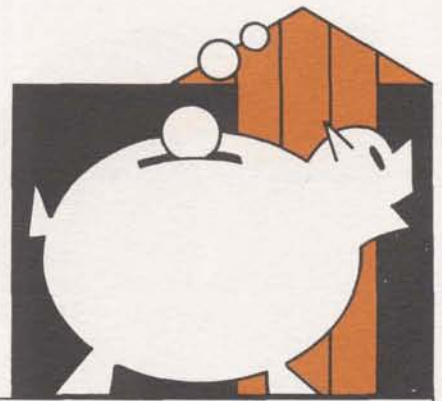


*Bill Marcy, Senior VS Marketing and Sales Specialist, demonstrates the new VS Service flip-chart presentation to Bruce Barnard. VS Marketing and Sales Support, with assistance from Joanne Thyken, Senior Product Promotions Specialist in Marketing Communications, developed both the slide and flip-chart presentations.*

### Individual Performers *Continued from page 3*

Barbara R. Garner** Account Representative Chicago Commercial (CEZ)	Loyal J. Huddleston* Senior Account Representative Denver (SWZ)	Ronald E. Nutter* NAR-Johns-Manville Denver (SWZ)	Stuart A. Sather Senior Technical Representative New York State Technical (NEZ)
Ronelle W. Genser Senior Technical Representative Atlanta (SOZ)	Ronald O. Jackson NAR-Conoco Houston (SWZ)	Michael P. O'Brien Account Representative Chicago Industrial (CEZ)	Shelley A. Schwartz Technical Representative Chicago Technical (CEZ)
Barry L. Greenspan** Account Representative New York Commercial (EAZ)	Alan J. Kasper Senior Account Representative Chicago Commercial (CEZ)	Pamela A. Pietravalle** Account Representative New Jersey (ATZ)	Richard E. Sharp Senior Account Representative Indianapolis (CEZ)
Steven Hagis Senior Technical Representative Atlantic Telco (ATZ)	Clinton F. Kelly NAR-NED Palo Alto (PAZ)	Eileen S. Reidinger <sup>4</sup> Technical Representative Atlantic Telco (ATZ)	Ronald A. Straight** NAR-Chemical Bank New York Commercial (EAZ)
John S. Harper** NAR-Morgan Guaranty New York Commercial (EAZ)	Kenneth F. Kral Senior Account Representative Pittsburgh (ATZ)	Darlene E. Remy <sup>3</sup> Senior Technical Representative No. California Technical (PAZ)	Carl O. Uebelacker** Account Representative Cincinnati (CEZ)
Marilyn E. Hitchings Technical Representative Houston (SWZ)	Guyler Magruder Senior Technical Representative So. California Technical (PAZ)	Edward E. Rice Senior Account Representative Los Angeles-North (PAZ)	Thad N. Webster Senior Account Representative St. Louis (SWZ)
Peggy R. Huddle Technical Representative Houston (SWZ)	Patrick J. Moran Senior Account Representative New Jersey (ATZ)	Joan A. Rosenberg* Senior Technical Representative New York Technical (EAZ)	





## November 30 Is Deadline for Vacation Banking

If you are entitled to vacation time over three weeks, here's good news: you are eligible for vacation banking.

Here's more news: if you want to use this vacation plan feature during 1977, you'd better hurry, because time is running out.

"To use the 'banking' benefit in 1977, an employee must make sure his election form is received by payroll by November 30," says Paul Beaudry, Compensation and Practices Manager.

A letter concerning the Vacation Banking provision has been distributed to all employees eligible for the benefit. Those who want to use banking should contact Art Cleary in Rockville to obtain the proper forms.

Vacation banking lets you "bank" one or more full days of vacation in excess of three weeks.

## November Service Awards

### Twenty-Five Years

John J. Gillette                      Rockville

### Twenty Years

Leona B. Ehrheart                      Rockville  
Francis L. Helker                      Philadelphia  
Conley D. Stallard                      Rockville

### Fifteen Years

Warren C. Rose                      Rockville

### Ten Years

Elizabeth J. Seitz                      Atlanta  
John L. Touch                      Rockville  
Thomas B. Sesler                      Brook Park  
Shirley L. Jones                      Rockville

You are paid normally for work on "banked" days, and your vacation pay those days is credited to your retirement option account under the Savings and Security Program. If you don't have such an account, one will be opened for you.

Your "banked" pay, invested in one of the S&SP securities, will be held until your retirement or until your service with GE is terminated for some

other reason. According to Paul, election to bank vacation days is irrevocable. That means you can't change those banked days back into vacation days.

"This information," Paul added, "is not a solicitation for participation in vacation banking, but simply a reminder to eligible employees to study the benefit."

## Affirmative Action for Veterans On the Way

Final regulations covering the responsibilities of government contractors in the employment of disabled veterans and Vietnam-era veterans were issued in July and take effect in General Electric on November 22.

These regulations are very similar to those recently issued covering affirmative action for the handicapped, according to Don Clark, ISBD's Affirmative Action Programs Manager. They require that each GE location with 50 or more employees develop an affirmative action program for the hiring and advancement of disabled veterans of the Vietnam era (August 1964 through May 1975).

Don said the affirmative action program developed for veterans will be similar to our AAP for the handicapped, but will be maintained separately from the AAP's already in place for minorities, women and the handicapped.

No goals or timetables are required for this new affirmative action program, Don said, however, our affirmative action program for veterans must be maintained and updated annually.

Don noted three regulations covering persons under the new program:

1. "Veteran of the Vietnam Era." This is a person who (a) served on active duty for more than 180 days, any part of which occurred between 8/5/64 and 5/7/75, and who was discharged with other than a dishonorable discharge, or (b) was discharged from active duty during that period for a service-connected disability, (c) was discharged within 48 months preceding any alleged violations of the Vietnam Era Veteran's Readjustment Assistance Act of 1974, the AAP clause and/or the regulations.
2. "Disabled Veteran." A person entitled to disability compensation under laws administered for disability rated at 30% or more, or a person whose discharge or release from active duty was for a disability incurred or aggravated in the line of duty.
3. "Qualified Disabled Veteran." A disabled veteran, as defined above, who is capable of performing a particular job with reasonable accommodation to his or her disability.





## People . . .

Wallace Beck, from Data Communication Specialist; to Network Distribution Specialist, Rockville.

James A. Beesley, from Computer Operator; to Senior Computer Operator, Brook Park.

Fred Bickford, from Remote Terminal Specialist; to Data Communications Analyst, Atlanta.

James S. Boomer, from Terminal Specialist; to Data Communications Analyst, Los Angeles.

Bernard A. Bounce, from NDP Specialist; to Senior Network Transmission Specialist, Brook Park.

John E. Boyd, from Peripheral Operator; to Console Operator, Foreground, Rockville.

Curtis C. Fields, from Operations Specialist; to VS Systems Specialist, Rockville.

Joe Fortson, from Technical Representative; to Senior Technical Representative, Houston.

Kenneth W. Fowler, from Data Communications Specialist; to Senior Network Distribution Specialist, Dallas.

Michael K. Fuller, from Account Representative; to Senior Account Representative, Chicago.

Cornal Gibson, from Peripheral Operator; to Console Operator, Brook Park.

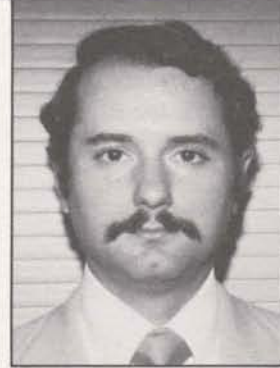
James Grogan, from Data Communication Specialist; to Network Distribution Specialist, Chicago.

Charles M. Harp, from Credit and Collection Specialist; to Specialist — Auditing, Rockville.

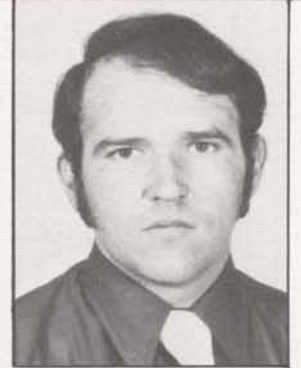
Cheryl Hicks, from Buyer—Standard Supplies; to Manager, Payroll Processing, Rockville.



*Wally Beck*



*Jim Beesley*



*Fred Bickford*



*Jim Boomer*



*Joe Fortson*



*Ken Fowler*



*Mike Fuller*



*Cornal Gibson*



*Henry Koeppel*



*Katrina Lin*



*Peggy Lyons*



*Joe Marshall*



*Karl McGuire*



*Larry McNeill*



*Chris Morgan*



*Dave Morgan*





## ... On the Move

Henry Koepfel, from Senior Technical Representative; to Manager, Technical Support, Atlantic Telco Branch, New Jersey.

Katrina Lin, from Specialist, Customer Reports; to Specialist, Investment Accounts, Rockville.

Margaret A. Lyons, from Receptionist/Clerk Typist; to Secretary, Rockville.

Alexander J. Martin, from Console Operator; to VS Senior Computer Operator, Rockville.

Marcia A. Mascarello, from Systems Specialist; to Manager, Foreground Physical I/O, Rockville.

Verna McAdams, from International Marketing Clerk; to Secretary, Rockville.

Donald McArthur, from Tape Librarian; to Senior Tape Librarian, Rockville.

Karl McGuire, from Applications Specialist; to Senior Applications Specialist, Torrence.

Larry D. McNeill, from Senior Technical Representative; to Manager, Technical Support, Atlanta.

Christine Morgan, from Secretary; to Project Control Administrator, Rockville.

David Morris, from Data Communication Specialist; to Senior Network Distribution Specialist, Atlanta.

Marilyn M. Mouly, from Systems Analyst; to Systems Specialist, Rockville.

Steven Mudrick, from Quality Assurance Specialist; to Senior Quality Assurance Specialist, Rockville.

Cecil Overton, from Data Communications Specialist; to Senior Network Distribution Specialist, Brook Park.



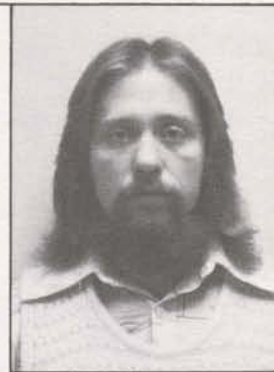
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Bernie Bounce



John Boyd



Curt Fields



son



Jim Grogan



Charlie Harp



Cheryl Hicks



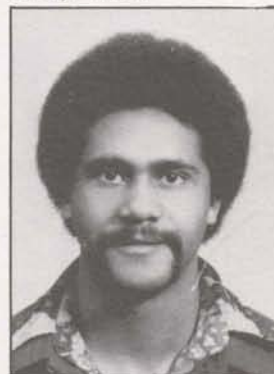
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Marcia Mascarello



Verna McAdams



Don McArthur



is



Marilyn Mouly

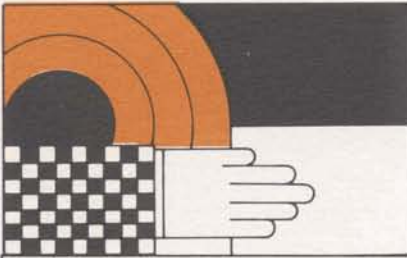


Steve Mudrick



Cecil Overton





## More People . . .

Frederick Palascak, from Computer Operator; to Data Communications Analyst, Brook Park.

Robert G. Peitzke, from Technical Representative; to Applications Specialist, Los Angeles.

JoAnn Richert, from Training Specialist; to Senior Training Specialist, San Francisco.

Richard L. Rubinstein, from Account Representative; to Senior Account Representative, Washington, D.C.

Clark B. Shafer, from Manager, Detroit Branch; to Manager, Atlanta Branch.

Ervin V. Sharp, from Remote Terminal Specialist; to Data Communications Analyst, Dallas.

Gerald Shipley, from Senior Account Representative, Houston; to Senior Specialist, Foreground/Background, Rockville.

Robert Truelove, from Technical Representative; to Senior Technical Representative, Ft. Wayne.

James F. Warden, from Remote Technical Specialist; to Data Communications Analyst, Dallas.

N. Ed Wetzel, from Project Manager, Technical Training and Communications; to Manager, Headquarters Training Operations.

Richard Winwood, from Senior Account Representative, Seattle, to Specialist, International Accounts, Rockville.

Barbara Woodward, from Account Representative; to Senior Account Representative, Phoenix.



*Fred Palascak*



*Bob Peitzke*



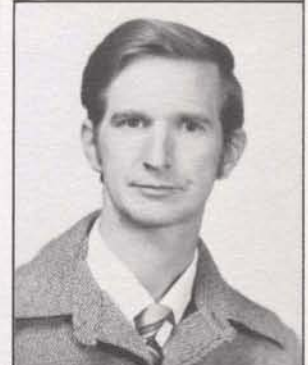
*JoAnn Richert*



*Dick Rubinstein*



*Clark Shafer*



*Erv Sharp*



*Jerry Shipley*



*Bob Truelove*



*Jim Warden*



*Ed Wetzel*

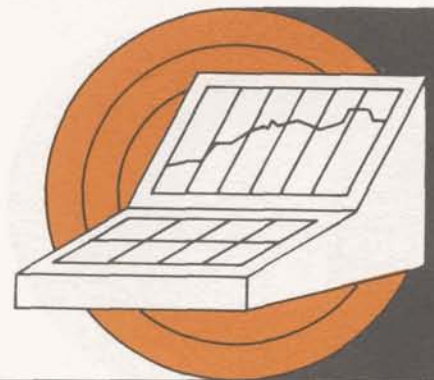


*Dick Winwood*



*Barbara Woodward*





## MARK IV On VS Background Service Offers Many Benefits for Customers

Developed by Informatics, Inc., the MARK IV data management and report writer package may offer VS Background Service users cost saving benefits by improving programmer productivity, decreasing overall programming efforts and permitting faster response to management's needs for the implementation of new applications.

MARK IV's easy-to-use commands promote usage by programmers and

analysts as well as non-data processing management and clerical personnel. All levels of users can take advantage of the dynamic and comprehensive capabilities of the system.

In addition to support of ad hoc queries and report generation, MARK IV is a powerful non-procedural (you tell the computer *what* to do, rather than *how* to do it) programming system for production business data processing (BDP) applications which would

otherwise be implemented in COBOL. Typical applications would include Inventory Control, Financial Reporting, General Ledger, Accounts Receivable/Payable, and Personnel Systems.

Due to its ease of use and built-in functions, MARK IV offers users the following kinds of savings, in time and/or costs when applied to file-oriented BDP problems:

*Continued on page 10*

**INFORMATION REQUEST**

Informatics Inc.  
MARK IV SYSTEMS

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4 INVYEAR EQ D 72

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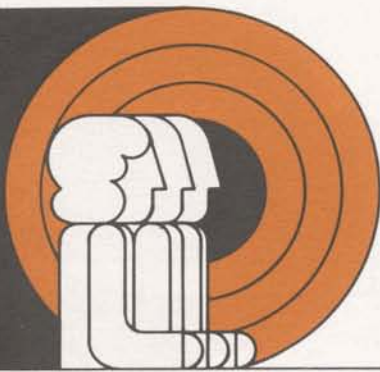
04/28/72 ABC MANUFACTURING COMPANY - YEAR-TO-DATE ACTIVITY PAGE 1

INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT	CHECK NUMBER	CHECK DATE	AMOUNT PAID
51-03917	01/12/74	3.47	002571	02/15/74	3.47
51-07242	01/14/74	60.43	002571	02/15/74	60.43
51-12775	01/21/74	152.40	002571	02/15/74	152.40
51-12336	01/27/74	134.53	002571	02/15/74	134.53
51-14514	02/03/74	14.44	002419	03/15/74	14.44
51-17180	02/14/74	102.42	002419	03/15/74	102.42
51-20992	02/20/74	63.00	002419	03/15/74	63.00
51-21581	03/02/74	189.12	002419	03/15/74	189.12
51-23730	03/07/74	19.72	003043	04/17/74	19.72
51-24226	03/10/74	1,092.46	003043	04/17/74	1,092.46
51-26859	03/27/74	605.00	003043	04/17/74	605.00
51-29331	03/31/74	5,486.00	003043	04/17/74	5,486.00
51-31185	04/11/74	19.99	003043	04/18/74	19.99
51-33126	04/21/74	187.55	003043	04/18/74	187.55
51-34568	04/25/74	28.90	003043	04/19/74	28.90
GRAND TOTAL		8,128.53			8,128.53

MARK IV in action: MARK IV users can define and extract information from data files by spending only a few minutes specifying their requirements on a simple Information Request form, shown at left. For example, visualize a busy accountant who has just received a request from his manager to produce a report on the total year-to-date activity of a particular vendor. The information is needed in hours; typical data processing cycles would require three days to write and debug the program and deliver the report. Use of this form can get the user the same results in minutes via MARK IV. (1) The user first enters a name for his request. Any name that fits, such as PAYABLES. (2) To get today's date on the report, the user enters TODAY. No other information is required in the heading area of the form. MARK IV's automatic default condition ignores everything left blank. In this example, MARK IV will produce a detail report, single-spaced, on standard 8 1/2 x 11 paper. (3) The user, referring to the Accounts Payable file

glossary, specifies that he is looking for data classified as VENDOR. He further specifies the ABC Manufacturing Company (vendor number 2386) by entering VENDOR EQ(ual) D (for decimal) 2386. (4) The user enters INVYEAR EQ D 72 indicating that he is interested in activity only for the inventory year ending December 1972. If no special selection criteria were specified as in (3) and (4), MARK IV would report the total contents of the file. (5) To get the vendor's invoice number, invoice date, invoice amount, check number, check date and amount paid, the user makes entries as shown. The sequence of items indicates how the data is to appear across the output report. (6) To get grand totals of dollar amounts, the user enters a G in the Total column on the lines for invoice amount and amount paid. (7) Finally to give a meaningful title to the report, the user writes in wording of his own choice. The report produced by MARK IV in response to this easily completed request is shown at right.





## Peter Salisbury Fills New Market Programs Position

Peter B. Salisbury, formerly Advanced Software Technical Manager in Strategic Planning, and before that, Strategy Development Manager, has been appointed Manager of the Marketing Department's new Market Programs Operation.

The Market Programs Operation has been established by Robert R. Hench, General Manager of the Marketing Department, to segment the Division's existing and potential markets, and through careful market research and analysis, identify our best business opportunities, as well as the resources needed to capitalize on them. The Operation will also be responsible for implementing programs and providing the market-oriented expertise needed to address the targeted opportunities.

In announcing Pete's appointment, Bob Hench expressed confidence for the new Market Programs concept and Pete's ability to carry out the Operation's objectives effectively. "Pete has a broad background in market analysis and strategic planning," Bob said, "which makes him ideal to spearhead this important challenge. His attentions

### New and Revised Documentation

*Guide to Application Programs for the Utility Industry* (5001.03A) has been revised. Contents have been expanded by 50%, an index to program names has been added, and a more attractive cover has been used.

Two supplements have been issued: One for *RMS* (3710 04B-3) (October) cautions users of the RMS subroutine from a core image program to reload, and limits characters per work order to 191. The other for *Currency Exchange Database* (5103.20A-1) (November) documents the one-time modification required to FIV files in order to use new CRNC\*\*\* software.

and efforts in this area, and those of his staff, will undoubtedly provide valuable new insight into where our best opportunities lie and how to best utilize those opportunities to the Division's advantage."

Pete, a graduate of Harvard University with a B.A. in economics, has been in the computer field since 1958.

Pete came to GE as a systems analyst on the Dartmouth project in 1966. Since then he held a number of assignments in Technology, Marketing and Strategic Planning.



Pete Salisbury

### MARK IV *Continued from page 9*

- Programming costs may be reduced by 60-90%.
- New applications can be implemented approximately six times faster in MARK IV than in COBOL.
- With a high degree of data independence, MARK IV provides rapid response for conversions, modifications and demands for new information.

MARK IV can use all of the standard VS Background file structures such as sequential, indexed sequential, direct, etc. If the customer's in-house computer systems are IBM System/360, this means that most in-house files will be compatible with MARK IV on VS Background.

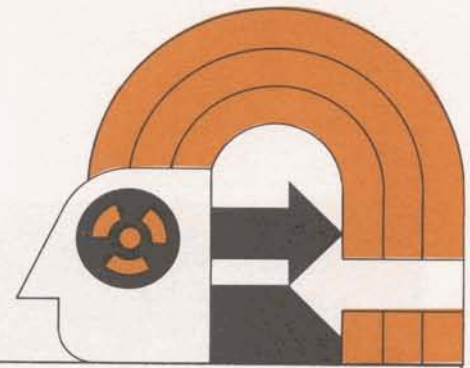
Potential applications are characterized by the need to economically process large files (sequential or random), with single or multiple requests for information, the need for fast implementation and high flexibility, along with dispersed data collection or distribution. MARK IV's compatibility with in-house IBM-generated files, the unique Foreground Interface, and the MARK III Network can all be combined as an integrated service to provide the user with a powerful tool to off-load in-house data bases and provide easy-to-

use retrieval and report generation capability together with world-wide access.

"The tremendous selling advantage that MARK IV provides," Bruce Barnard, VS Sales Operation Manager, explains, "is the ability to focus on high-level functional management needs . . . specifically, the need for fast turnaround vis-a-vis in-house batch; ready access to large in-house generated data files; fast implementation; and responsiveness to special information requests and custom reports."

Combined with the Network and Foreground Interface, MARK IV can be used to target, sell, and quickly implement large database-oriented production and ad hoc reporting applications with significant potential for additional growth. Several orders have been closed recently by asking for a sample data file and report required by the customer, and offering to demonstrate and benchmark MARK IV using the customer's own data and report requirements. For sales assistance or additional information, contact Dave Votta or Ralph Specht, Senior Specialists, VS Marketing and Sales Support, at 8\*273-4713 and 4291, respectively.





## Interchange Corner

*Editor's note: the following primer on communication terminology was prepared for Update by Gwen Risinger, CSO Systems Specialist in Rockville. Update welcomes input for this column from anyone who has technical information or shortcuts to share. Send yours in today; use the handy Update insert provided with this issue.*

### Communication Terminology

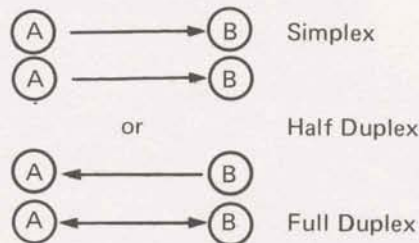
To begin at the beginning, let's define communications as the transfer of information between two points without changing the information content of the whole. The method of transfer may be speech, the written word, semaphores or telegraph. Radio and TV are examples of telecommunication or communication over a distance, as is a terminal's communication with a computer. The basic requirements are a sender, a receiver, a link between the two, a common language or code, and a common speed.

### Channel Types

The link between a timesharing user and a computer is a telephone line. One term for this communications link is "channel," which is defined as a path for electrical transmission between two or more stations.

There are three basic types of channels: simplex, half duplex and full duplex. Transmission from the sender

(A) to the receiver (B) only is simplex transmission. Transmission from A to B or from B to A, but not simultaneously — only one at a time — is half duplex. Transmission from A to B and B to A, possibly simultaneously, is full duplex.



Communication with the MARK III System is essentially half duplex. That is, our 1200 baud full duplex service is a full duplex channel, but we do not receive and transmit simultaneously. Terminals allowing full duplex simultaneous transmission would do so by eliminating user hard copy of input to us. No terminals, either low or high-speed, are used to transmit to us while receiving from us.

### Transmission Modes

There are two primary modes of transmission: asynchronous and synchronous. An asynchronous signal is one in which the information bits or characters are bracketed with a start bit and at least one stop bit. All 110 baud terminals transmit two stop bits per character. Most other terminals use only one. That means each character is individually synchronous transmission, no start/stop bits are added — the transmission is "clocked" or sent at a fixed rate. The terminal equipment needed is more costly for synchronous than for asynchronous transmission because of the higher speeds and complexity of transmission protocol.

The low-speed terminals to which MARK III Service "talks" are asynchronous. Low-speed includes up to 1200 baud. Synchronous transmission

for MARK III Service is 2000 or 4800 baud.

### Terminal Characteristics

Among the characteristics of a terminal are speed, parity (number of bits per character) and character set. Terminal speed can be expressed several different ways; most commonly as characters per second or bits per second. A bit is a single binary decision and is either a zero or a 1. The ASCII letter "A" expressed in binary notation, for example, is 1000001. MARK III Service assumes even parity (an even number of bits/character) at 30 characters per second, but does not check the parity bit.

For even parity, then, the character "A" is 01000001. The TN300 adds a start bit for each character, bringing the total number of bits per character to 10. All 110 baud terminals use two stop bits per second. It is defined as the reciprocal of the length in seconds of the shortest element in the signalling code.

A character set is a representation of characters by binary digits referred to as bits. EBCDIC and correspondence code both use nine bits to represent characters. The concentrator with which a terminal connects must decide which character set an incoming stream of bits represents.

If a wrong decision is made, the concentrator sends the terminal a "U#=" message in the wrong character set. The terminal user will see "garble." Even though the user then types a valid user number, the network will interpret the bit stream incorrectly, resulting in no log-on.

### Operating Speeds

On page 12 is a summary table of the low-speed types of terminals usable with MARK III Service:

Update is published bi-weekly by the Information Services Division for the benefit and information of employees. Articles and photographs may be submitted to Update, Information Services, 401 N. Washington Street, Rockville, Maryland 20850; or call 8\*273-4387.





## Sophisticated New Fortran 77 Is More Versatile, Efficient and Cost-Effective

Fortran 77 will be one of the major enhancements to MARK III Service in 1977. ISBD will again be able to offer customers a superior product that will provide more value and increased productivity. Fortran 77 is based on the new proposed ANSI standard, and should be one of the first commercially available versions of the standard.

The development of the new language has been going on for about a year. Language Systems has finished all major modules; and Quality Assurance is now in the midst of its testing. Concurrent with QA's efforts, internal testing by technical representatives, CAO, NTO and CSO personnel was

started in September with the first formal training class. A second internal class was held for CSO members on November 6, and a third for technical representatives and CAO on November 8 and 9.

Customer field testing is scheduled to begin in December, when 10 selected customers will be trained in Rockville and an additional 22 customers will participate with the support of their local branches.

All of those who have been trained and have used the product have immediately realized the benefits of the new user capabilities provided by Fortran 77:

- Structured programming;
- Interrupt processing (an ISBD innovation);
- Dynamic arrays;
- Easier database interfaces.

All of these features, plus many others, will help maintain the Division's established leadership in the industry.

Fortran 77 will be used to focus on new development projects, primarily production applications. Also, the new capabilities should help in competitive conversions because of its superiority to other vendors' products.

Commercial release is currently targeted for the first quarter of 1977. Any questions about Fortran 77 may be addressed to Jerry Shipley at 8\*273-4624 in Rockville.

### Interchange *Continued from page 11*

Speed (baud)	Character set	Parity (Even/Odd)	Bits/character
110	ASCII	E,O	11
	EBCD		9
134.5	EBCD		9
148	Correspondence Code		9
150	ASCII	E,O	10
300	ASCII	E,O	10
1200	ASCII	E	10

The common speed requires three things: the terminal must operate and be set to a speed which the MARK III System recognizes; the user's modem must be one which handles the terminal speed; and the user must dial the

proper access number to connect to a similar modem at our end.

#### "Qualified" Modems

Following is a list of modems usable with the MARK III System:

Speed (baud)	Modem
up to 300	Bell 103A, 113B or compatible
1200 half duplex	Bell 202S, 202C
1200 full duplex	Vadic 81069-028
2000	Bell 201A3, 201A-L1, 201A-L1A
4800	Bell 208B-L1A

### S&SP Prices — October

Month	Stock Price	Fund Unit Price
October	\$52.000	\$27.255
September	54.798	28.310
August	54.790	27.759
July	56.899	27.978
June	54.722	27.317
May	51.469	27.547
April	53.190	28.088
March	52.098	27.962
February	53.329	28.042
January	52.220	26.986
December	46.347	25.407
November	48.336	25.991

GENERAL  ELECTRIC





## History of GE Monogram:

### Logo First Appeared On Ceiling Fan In 1898

An investigation made several years ago of the early history of the "GE" monogram left its origin shrouded in mystery. The earliest known evidence of its use is on a ceiling-type fan in which the monogram is formed on a pendant extending beneath the fan blades, the pendant constituting a button for actuating the switch of the fan. The photographs of this fan were made on Dec. 28 and Dec. 30, 1898. Early in 1899 its use was extended to the fan guards of desk-type fans and then rapidly extended to various products of the General Electric Company.

One interesting story, though not confirmed by company records, comes from A. L. Rich of New York City. Rich said that he had been asked to design a trademark for the company, and that his first attempt was rejected. Here is Rich's story:

"I was given no suggestions as to what to use, and it was left entirely to me. Being one of those eternally busy General Electric men, I could find no time at the office to devote to the trademark matter, and it was delayed until I took it home one night to dispose of it. It did not take long, however, to develop it, for the idea came to me in a flash, and this is how:

"About eight years before that time I lived in Zaneville, Ohio, where I knew, most pleasantly, a Mr. G. E. Gebest, who had been a circus bandmaster, and who later settled there and became orchestra leader at the theater. One day he brought me a new violin bag and asked me to put his initials, G.E.G., on the bag in order that he might have it worked in silk. So, with a piece of chalk I wrote on the bag —



"which pleased him very much. And so it transpired that when I took up this trademark matter, I unconsciously, and in my everyday handwriting, wrote the initials —



"and was immediately reminded of that similar monogram that I had made years before. So, I swept a ring around it in a single stroke —



"and further embellished it with four dingbats —



"If Mr. Charles Gebest (the son of G. E.), who has been for many years the musical wizard of the George M. Cohan theatrical productions, has ever noticed the similarity between the monogram of the General Electric Company on the electric fan above his desk and the monogram on his late father's violin bag, he will know how it happened should this ever come to his attention."

## Two New GE Board Members Elected

Gertrude G. Michelson and Lewis T. Preston have been elected members of the Board of Directors of General Electric Company, it was announced recently by Reginald H. Jones, Chairman. Their elections are effective immediately.

Mrs. Michelson, 51, is Senior Vice President-Personnel, Labor and Consumer Relations, for Macy's New York. Mr. Preston, 50, is Vice Chairman of the Board and Member of the Executive Committee of Morgan Guaranty Trust Company.

In addition to serving on the Board of Directors of General Electric, Mrs. Michelson serves on the corporate boards of the Chubb Corporation, Harper and Row and Quaker Oats Company.

Mr. Preston, in addition to serving on the Boards of Directors of General Electric and Morgan Guaranty Trust, is Vice Chairman of the Board of J. P. Morgan & Company, Inc. and Chairman of Morgan Guaranty International Finance Corporation.



Gertrude Michelson

Lewis Preston







**Help Us Be More Informative:**

## Proposed Future Subjects For Interchange Corner

### Communications Topics

Terminology

Low speed (asynchronous) communication

High speed (synchronous) communication

Network theory

Telephone equipment

Interested?



Other communications topics you find of interest:

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What other technical topics are you interested in seeing articles about?

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Would you be interested in a 3-5 day class on communications?

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Name (optional): \_\_\_\_\_

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I am enclosing a suggested article for the Interchange Corner.

Nov. 23, 1976  
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