



ISBD

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

INFORMATION
SERVICES
BUSINESS
DIVISION

ROCKVILLE,
MARYLAND

Nov. 23, 1976
305.67



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.

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



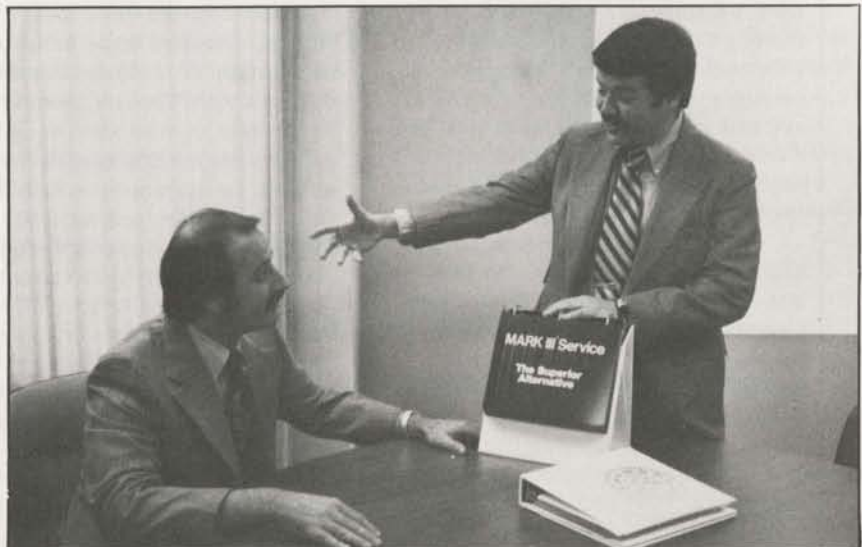
New Flip Chart Now Available To Help Sell VS Service

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. Pietravallo** 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 ⁴ 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 ³ 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.

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.

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



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.



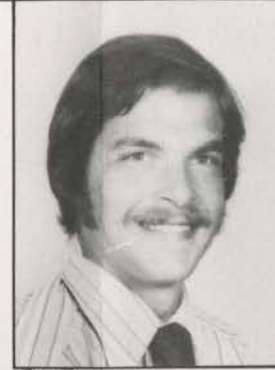
Wally Beck



Jim Beesley



Fred Bickford



Jim Boomer



Joe Fortson



Ken Fowler



Mike Fuller



Cornal Gibson



Henry Koeppel



Katrina Lin



Peggy Lyons



Joe Martin



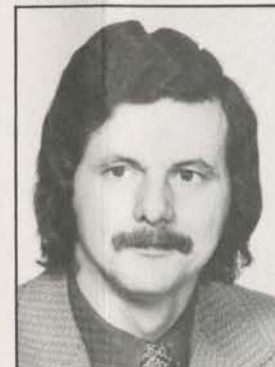
Karl McGuire



Larry McNeill



Chris Morgan



Dave Morris



... On the Move

Henry Koeppel, 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.



Jim Boomer



Bernie Bounce



John Boyd



Curt Fields



Cornal Gibson



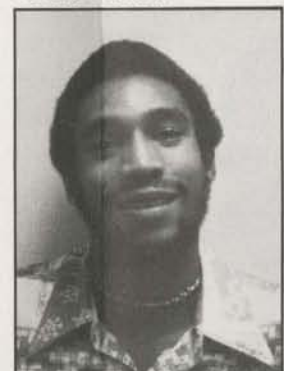
Jim Grogan



Charlie Harp



Cheryl Hicks



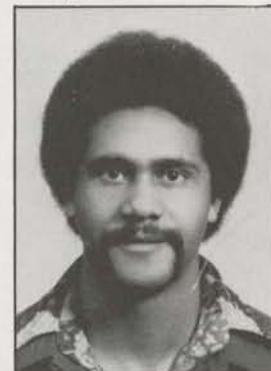
Joe Martin



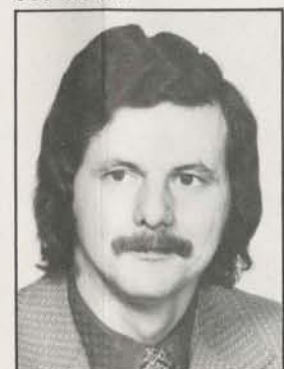
Marcia Mascarello



Verna McAdams



Don McArthur



Dave Morris



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.

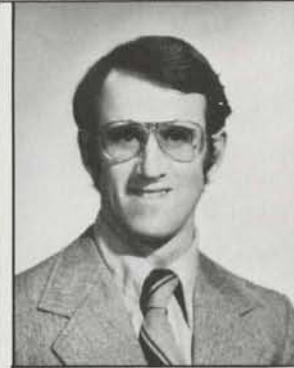
N. Ed Wetzel, from Project Manager, Technical Training and Communications; to Manager, Headquarters Training Operations.

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



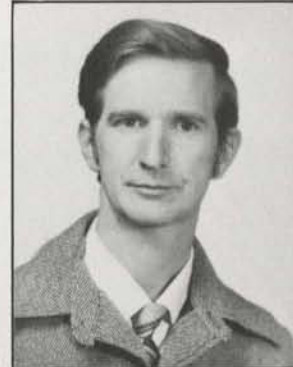
JoAnn Richert



Dick Rubinstein



Clark Shafer



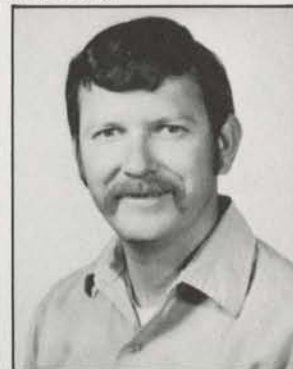
Erv Sharp



Jerry Shipley



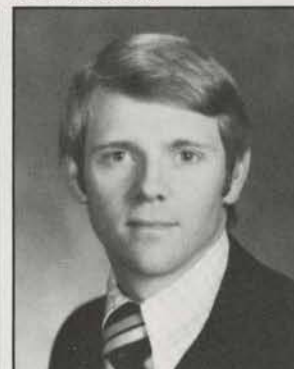
Bob Truelove



Jim Warden



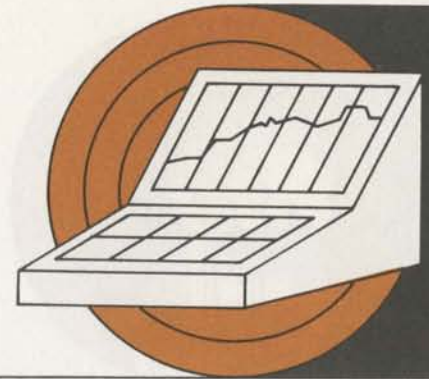
Ed Wetzel



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

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	2.47	002571	02/15/74	3.47
51-07242	01/14/74	60.43	002571	02/15/74	60.43
51-11275	01/21/74	152.40	002571	02/15/74	152.40
51-12330	01/27/74	104.53	002571	02/15/74	104.53
51-14514	02/03/74	14.44	002619	03/15/74	14.44
51-17180	02/14/74	102.42	002619	03/15/74	102.42
51-20342	02/29/74	63.00	002619	03/15/74	63.00
51-21541	03/02/74	189.12	002619	03/15/74	189.12
51-23730	03/07/74	19.72	003093	04/17/74	19.72
51-24226	03/10/74	1,092.46	003093	04/17/74	1,092.46
51-28859	03/27/74	605.00	003093	04/17/74	605.00
51-29331	03/31/74	5,486.00	003093	04/17/74	5,486.00
51-31155	04/11/74	19.09	003093	04/18/74	19.09
51-33126	04/21/74	187.55	003093	04/18/74	187.55
51-34560	04/25/74	28.90	003096	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 8½ 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.

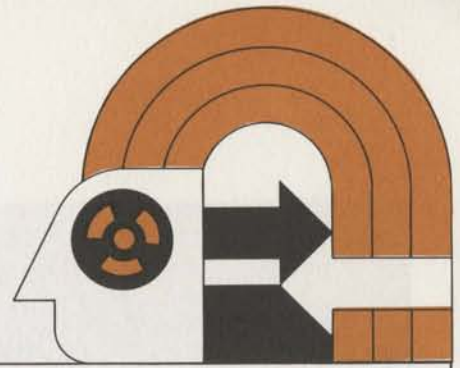
MARK IV can use all of the standard VS Background file structures such as sequential, indexed sequential, direct, etc. If the customer's in-house computer systems are IBM System/360, this means that most in-house files will be compatible with MARK IV on VS Background.

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 short-cuts 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.

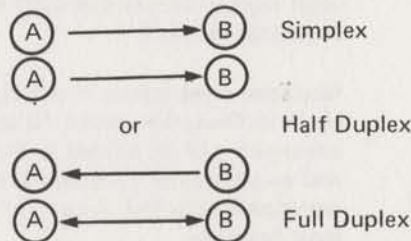
Channel Types

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

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(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:



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:

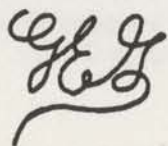
Logo First Appeared On Ceiling Fan In 1898

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:

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

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

Name (optional): _____

Send to: GENERAL ELECTRIC
ISBD - PRODUCT SUPPORT
401 N. WASHINGTON STREET
ROCKVILLE, MARYLAND 20850

I am enclosing a suggested article for the Interchange Corner.

Nov. 23, 1976
305.67