

FAIRCHILD WESTON

FAIRCHILD WESTON SYSTEMS, INC.

DATA SYSTEMS DIVISION

P.O. BOX 3041

SARASOTA, FLORIDA, 33578

Schlumberger

NEWS ABOUT DATA SYSTEMS DIVISION

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## NEW INSPECTION STATION FOR PWB QUALITY CONTROL

A bright new location for Printed Wiring Board In-Process Inspection has been set up near the Telemetry Test/Assembly area. Some of our Quality Control Inspectors are now relocated to the new area which enables the Inspection personnel to work more efficiently as individuals and as a group.



*Pictured in their bright new Printed Wiring Board In-Process Quality Control Inspection Station are: Front Row: Inspectors Cleo Brown and Pearl Jennings; Second Row: Coordinator Carmen Ireson and Inspector Doris Roberts; Third Row: Clara Vann (Repairs) and Inspector Sue Obenauer. Missing from this photo is Inspector Cora DiBello.*

"The new layout for PWB In-Process Inspection has made it possible to have a more comfortable, efficient work area," said Wayne Brinton, Supervisor of Quality Control. "We also have work table space for floating Inspectors, or additional Inspectors, and space for Customer/DCAS Inspectors when required."

Other changes are underway in several Quality Control/Inspection areas. Construction of a new Gage Room is now nearing completion. The new Gage Room, near the Machine Shop, will be a Fabrication Precision Inspection area, and will be maintained as a semi-clean-room environment, Wayne said. New precision measuring equipment will be located in the new Gage Room to help with inspection accuracy and increase overall work output.

(Cont'd on Page 2)

## LARGE SHIPMENT MADE ON MCCLELLAN SYSTEM

A major portion of the huge McClellan Air Force Base FDAPS system was shipped on Friday, July 13, culminating 18 months of intensive effort by employees throughout the Data Systems Division plant.

The initial part of the large data acquisition and reduction system was ordered by McClellan Air Force Base, Sacramento, Calif., in 1982. The FDAPS (Flight Data Acquisition & Processing System) order was valued at almost \$5 million. A significant add-on contract for additional airborne systems was booked this year, at a value of close to \$3 million.

Shipped this month were three major segments of the overall McClellan FDAPS equipments:

- One complete Airborne System, contained in an instrumentation case specially designed for installation in the F-111 aircraft.
- One Ground Checkout System -- to be installed in a van by McClellan, for pre-flight checkout of the F-111 FDAPS system.
- A large multi-rack ground data processing system -

(Cont'd on Page 2)

## SO ARE DARRELL & LOU!

Darrell Powell (CADDs/Drafting) and her son Lou took a first place in the first annual Holmes Beach Sand Sculpturing Contest held on July 1st. Their six-foot-long "Banana Split with Spoon" sand sculpture took 9 hours to complete and won a \$50 prize in the humorous category. Darrell and Lou added a touch of color with some spray paint.



"Say! He's good!"

"Laugh Parade" by Bill Hoest



DARRELL POWELL

## **LARGE SHIPMENT MADE ON MCCLELLAN SYSTEM** (Cont'd from Page 1)

- to be installed at McClellan AFB, and to be used to process the flight test data.

Some 90 "pieces" were contained in this shipment, including 16 racks of equipment and peripherals. Installation, on-site acceptance testing, and subsequent training activities are scheduled to take place beginning in late July, and continuing for some weeks to come.

"Shipment of this portion of the McClellan job -- essentially on schedule -- is a major accomplishment," said Program Manager Wiley Dunn. "We want to express our appreciation to the many employees in departments throughout the plant who contributed to this effort and gave wholehearted support to reach this milestone."

FDAPS is to be used for flight testing during modernization of the F-111/FB-111 tactical aircraft. The total order consists of seven airborne systems, plus checkout systems for the airborne equipment, and a computer-controlled ground station for analysis of the information gathered by the airborne system during flight testing. In addition to monitoring the wide variety of serial computer data streams on board the aircraft, the airborne systems will also gather traditional flight test information such as vibration, structural strain, and temperature conditions.

In addition to Program Manager Wiley Dunn, the McClellan FDAPS team includes Hal Roberts, Airborne & Ground Checkout Project Engineer; Jack Cain, Ground System Project Engineer; Mike Hutchinson is Software Project Engineer, and John Keal, 5000-Series Project Engineer.

On the Airborne System team are: Hal Roberts, Russ Phillips, Carlos Mileham, David Payne, and Fuad Ali. The 5000-Series team includes John Keal, Mart Dismukes, and Milt Litwiller. The Ground Processing System team consists of Jack Cain and Don Riker.

The Software team consists of Mike Hutchinson, Adam Leonard, Roger Mort, and Herb Larrabee. Other Programmers involved in various stages of the McClellan software project included Art Hallett, Kevin Lewis, Kathy Bossert, and Beth Putnam.

### **NEW INSPECTION STATION FOR PWB QUALITY CONTROL**

(Cont'd from Page 1)

Another Quality Control improvement is scheduled for the Receiving Inspection area. A new temperature/humidity controlled Test Equipment Room will be constructed soon. Micro-component technology test equipment and Data I/O test equipment will be located in this room.

"This test equipment is sensitive to temperature and humidity, and is more reliable when used in a controlled environment," Wayne Brinton said. Linear devices, all I.C.'s, and memory chips will be tested in the new Test Equipment Room in the Receiving Inspection area.

Special Hardware and Software designs were required for the various data streams -- Mark IV, SRAM, Pavetack, Mil-Std-1553, PCM (5000-series) and FM (OPE) -- to be used in flight testing of the F-111/FB-111 tactical fighter aircraft.

Enormously complex programming design effort went into the McClellan system. Our Software Engineers performed many design tasks -- Parameter Data Base software; real-time and non real-time displays of alphanumeric and graphic data; telemetry support software; software and microcode for the three Model 715 Multiplex Processors; Ground Checkout System software; special software for separate McClellan real-time reports; a program to read 5000-Series setup information back from the Sabre X tape recorder; calibration data; autotrouble shooting software -- and more.

Other items still to be completed on the huge McClellan order include one set of equipment (a ground checkout system and an airborne system) scheduled to be shipped to General Dynamics in Fort Worth, Texas, plus another airborne system to McClellan. In addition, five more airborne systems and two more ground checkout systems are scheduled to ship to McClellan beginning in late 1984, with shipments continuing into early 1985.

## **FORT HUACHUCA SYSTEM SHIPPED TO ARIZONA**

A new Telemetry System has been shipped to Fort Huachuca, Arizona, for use at the U.S. Army Electronics Proving Ground. Our updated telemetry system will interface with their VAX 11/780 computer for handling in-flight test data and to recover data stored on analog tape. The system includes PCM/PAM/FM telemetry data formats.

"Software on this system includes some of the new telemetry software packages originally developed in connection with the McClellan system, as well as newly-developed software," said Project Engineer Paul Taylor. "An interesting feature of this system is the ability to pass data directly from the Model 715 Multiplex Processor to one or more Model 713 Digital-to-Analog Converter units, thus bypassing the main frame computer and saving computation time in the computer."

Gary Snyder and Paul Taylor were on the Fort Huachuca system team, and they will participate in the installation and checkout of the system, scheduled for late July.

## **CONGRATULATIONS!**

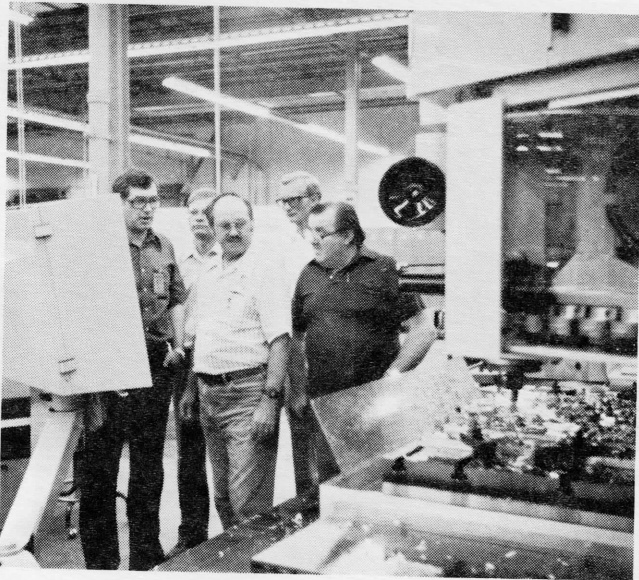
PATSY FULCHER (Aviation Recorders Marketing) and TOM CRAWFORD (Illustrations) were married in a garden wedding on June 30 in Morehead City, N.C.

CHRIS LAWSON (Telemetry Engineering) and MARK LAWSON (Sheet Metal) welcomed their son Matthew Ryan on June 8.

## ADVANCED MACHINING CENTER INSTALLED IN MACHINE SHOP

A new Monarch Vertical Machining Center has been installed in our Machine Shop, and employees are currently involved in training activities to operate, maintain, and program the advanced new machine. Some parts have already been run on the new computer-controlled machining center.

"We selected the Monarch VMC-75 with the new state-of-the-art GE-2000 Control because this combination best suits the machining needs of our shop," said Bud Steinhoff, Manager of Fabrication Engineering. "It provides rigidity for accurate cuts, at high metal removal rates, along with the ability to hold the precise tolerances demanded by our work."

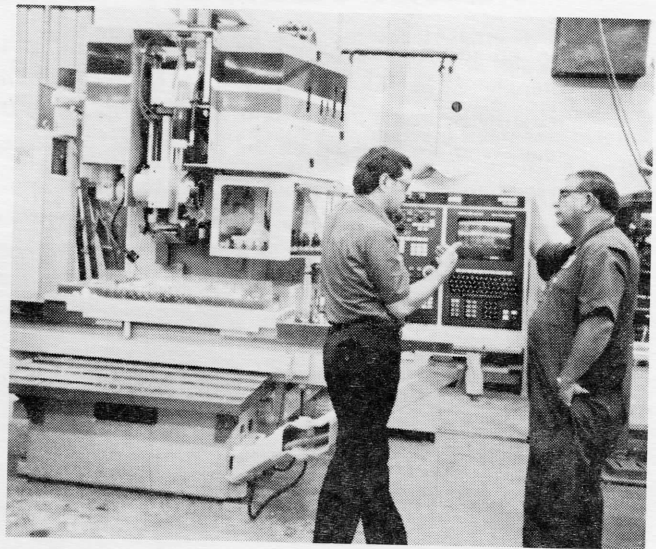


*"Making chips" on the new Monarch Vertical Machining Center in the Machine Shop -- Monarch Representative Stuart Hallock, Al Marion, Paul Shetler, Don Stover, and Steve Jelemensky.*

Another feature is the non-volatile bubble memory, so that our summer electrical storms and power outages will not wipe out programs, and work can continue as soon as the power returns.

With its many advanced features, the new machining center will allow the Machine Shop to eliminate some secondary operations now being done on other machines. This should result in better turn-around time, and reduced errors, because less realignment is required. The machine's speed should also aid in meeting customer delivery schedules.

Currently operating the machine are Steve Jelemensky and Paul Shetler. In April, Al Marion, Paul Shetler, Bud Steinhoff and Don Stover attended programming school at the Monarch plant in Cortland, N.Y. Plans include preparing programs for machining the transport castings, side frames, and bezels on the Model 80, Model 80T, and Model 9 Tape Recorders respectively.



*New Monarch Vertical Machining Center, with Monarch Representative Stuart Hallock and our Bill Wheeler at the Control Unit, discussing machine maintenance.*

## TUITION REIMBURSEMENT PROCEDURE IS CHANGED

Employees who are utilizing our Educational Assistance program will notice some changes in how Tuition Reimbursement is now being processed. A new 1984 Government requirement calls for the company to withhold income tax and FICA (Social Security) tax on educational reimbursement payments to employees.

Your educational reimbursement payments are now being processed through the Payroll Department. Employees will receive a statement at year-end, through Payroll, indicating the part of "gross wages" on your W-2 form which is attributable to tuition reimbursements.

Hourly and nonexempt employees will have the tuition refund added to their weekly gross pay. The amount will be indicated on your pay receipt in the block labeled "Extra Pay Included in Gross" under Code 5 "Adjustment." Federal income tax and FICA tax will be withheld.

Because of the way the current computer program operates, Exempt employees will continue to receive a separate expense check for tuition reimbursement, with Federal income tax and FICA tax withheld.

At year-end, if you have received tuition reimbursement, you will receive an annual statement showing the amount of your "gross wages" attributable to tuition reimbursements. If you have questions about these procedures, please call Beth Jenkins, Ext. 145.

Employees are reminded to complete Educational Assistance benefit forms (available from Personnel) BEFORE enrolling in classes, in order to be eligible for tuition reimbursement. Eligibility for the Educational Assistance benefit is spelled out in Procedure 3.32.

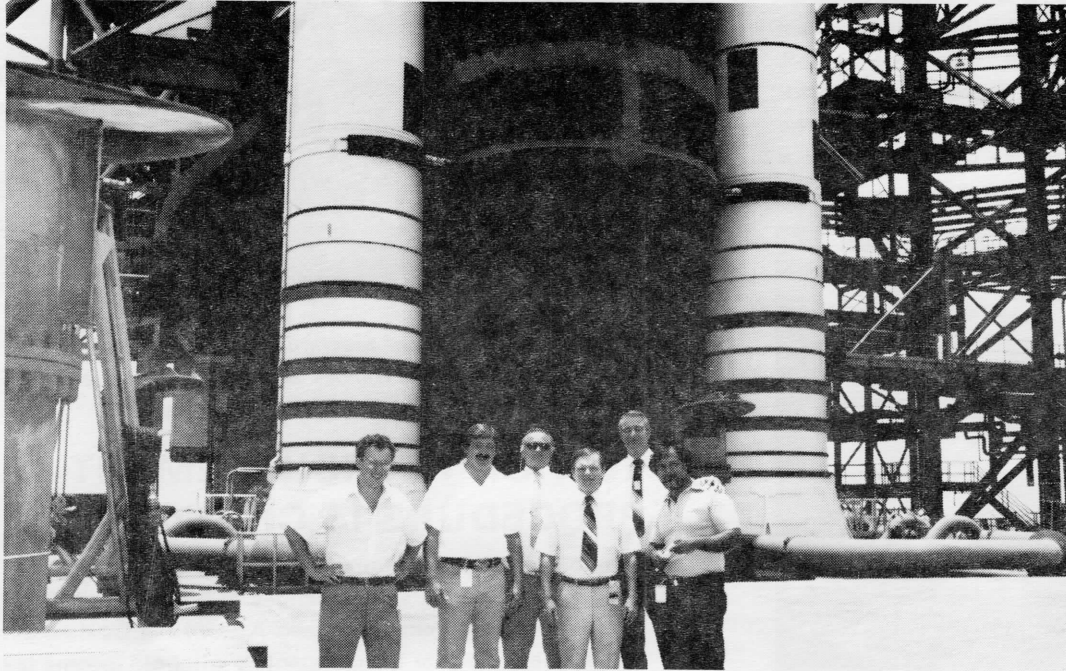
# A VISIT TO SPACE SHUTTLE "DISCOVERY"

An on-site survey of the real environment of Launch Complex 39 at NASA Kennedy Space Center was conducted recently by some members of the Data Systems Division team who are working on the NASA-KSC contract.

Len Zeiler, Earl Studenwalt, and Wyatt Bishop spent some vigorous hours at the site on June 8, and got close enough

to Space Shuttle "Discovery" to appreciate the huge size of the Shuttle, and its launch vehicle.

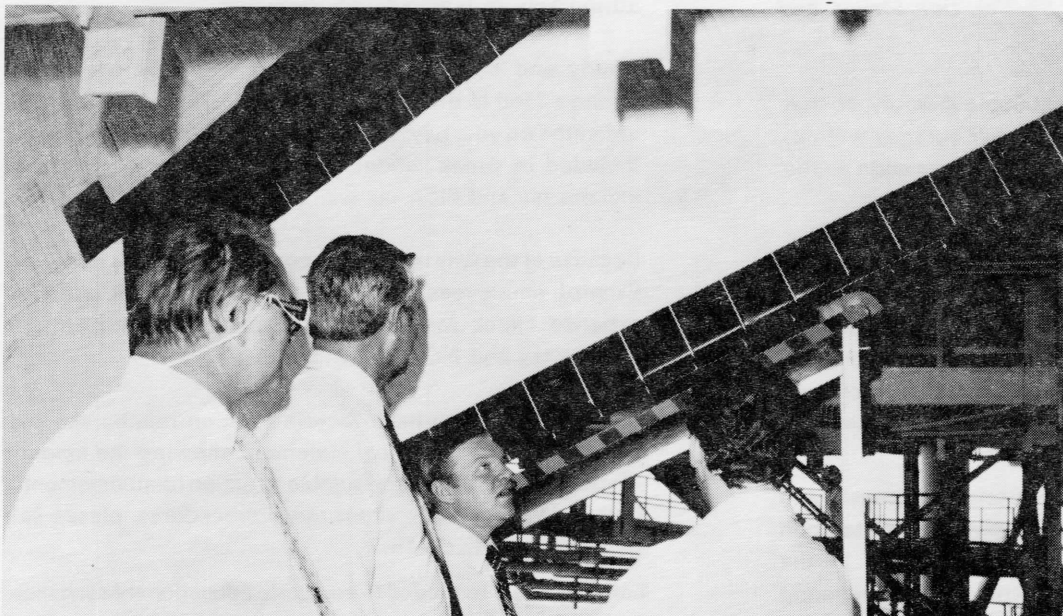
Data Systems Division was recently awarded a contract to upgrade Launch Complex 39 at NASA-KSC. The contract, valued at over \$3,800,000, involves 400-series signal



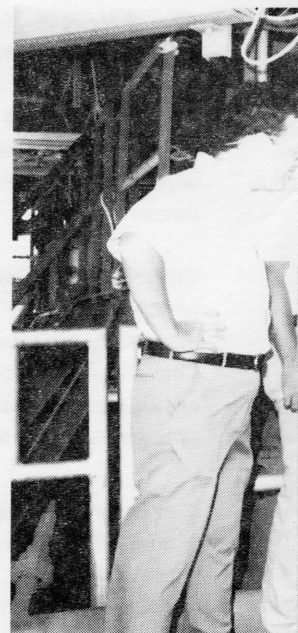
*Nick Enicks (Planning Research Corp/KSC), Chuck Griffin (NASA), Len Zeiler, Earl Studenwalt, Wyatt Bishop, Barry Birnhak (PRC/KSC) on Mobile Launcher Platform-2. In background are the two solid fuel engines and (center) liquid fuel tank which are to be used in launching Space Shuttle Discovery.*



*Within racks  
Picture  
Barry  
Bishop*



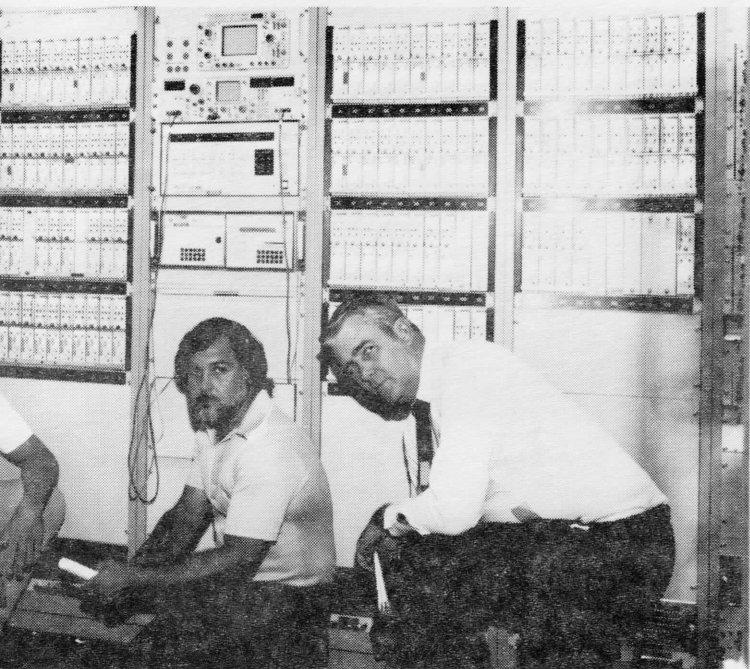
*Len Zeiler, Wyatt Bishop and Earl Studenwalt are looking at the vertical stabilizer (Rudder) of Space Shuttle Discovery on MLP-2.*



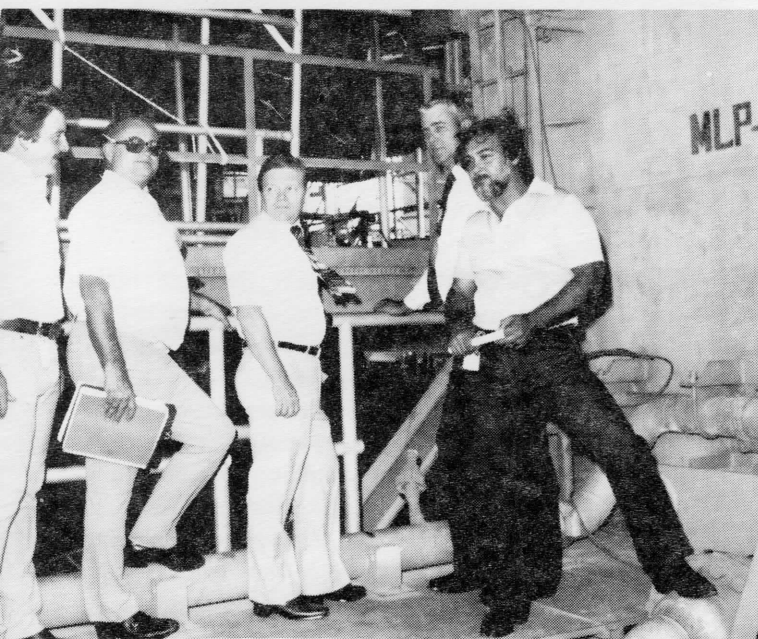
*On a  
engin*

# Y" AT NASA-KSC

conditioning equipments, and two Model 4 Data Recorders. Work on this latest NASA contract is expected to extend over the next 18 months, and involves manufacturing and systems effort to configure and test the racks of equipment for each of the launch sites.



the huge Mobile Launcher Platform-2 (MLP-2) are of our equipment delivered to NASA-KSC last year. and with our equipment are: Chuck Griffin (NASA) and Birnhak, of Planning Research Corp/KSC, and Wyatt



power level of MLP-2, with Space Shuttle Discovery is located behind Earl Studenwalt.

# WOMEN'S SOFTBALL TEAM HAVING A GREAT SEASON

Fairchild Weston's Women's Softball Team is scoring runs and winning games. At press time the team has a winning record of five wins and one loss. The spirited players and coaches would enjoy hearing more Data Systems Division supporters in the rooting section to cheer them on to victory. The team's schedule of games for August is posted on bulletin boards.



Women's Softball Team -- Front row: Paige McDonough, Sharon Rose, Marci Morrow, Brenda Burchette, Sheri Hand. Second row: Pat Wetjen, Betty Huffman, Leigh Wendlandt, Jackie Newberry, Marti Peachey, Sue Rogers, Sharen Blankenship, Barbie Tacchi. Back row: Coaches Jim Huffman and Paul Copen. Missing from the team picture are Jill Hattaway, Becky Walser, and Coach Art Acosta.



Coaches discussing game strategy -- Paul Copen, Bill Burchette, Art Acosta and Jim Huffman.



Waiting to play, Sharon Rose and Becky Walser.

**NEITHER SNAKES NOR SWAMP  
CAN STAY THESE ENGINEERS**

An enhanced Low Level Wind Shear Alert System has been installed at the New Orleans Moisant International Airport - snakes and swamp notwithstanding.

The Fairchild wind shear system will be used by the FAA to study data on wind shear incidence and determine potential future improvements to be added to wind shear monitoring systems now operating at many airports around the country.

Walt Knopik, Project Engineer, and Marvin Edgeworth, who had software responsibility, performed the on-site installation and training, prior to the system's being commissioned on June 29th.

The enhanced system replaced the centerfield wind unit and the five original remote wind units with newly-designed microprocessor-controlled units. Five additional new remote wind units were installed to provide better coverage of the airport periphery. The master station was replaced by a more powerful unit (PDP 11/23 Plus), with storage and recording capability for preserving wind data collected from the remote units. The collected data is transferred at two-week intervals to the FAA Technical Center in Atlantic City, N.J., for processing and evaluation in the FAA research program.

Wind speed and direction data are collected from remote units, and sent to the master station via radio link. A determination is made concerning wind shear, and passed along to the Tower Air Traffic Controllers for voice transmittal to incoming and outgoing pilots.

"We became very familiar with the New Orleans Airport and Kenner, La., since the remote sites are scattered throughout the airport and adjacent locations. One site was a 3/4 mile hike over snake-invested swamp via a planked catwalk," reports Walt Knopik. Both men agreed that Sarasota looks mighty good after their adventures in the field.

**CREDIT UNION SHORTENS  
WAITING PERIOD TO JOIN**

Effective July 1, 1984, the Board of Directors of the Employees Credit Union has reduced the waiting period for new members from six months to 90 days. New employees who started with Data Systems Division in April, 1984, or earlier, are now eligible to join the Credit Union.

"Members are encouraged to utilize the Credit Union's loan services," said Treasurer Ed Annatone. "We cannot progress without your support, and we need more loan activity in the coming months for your Credit Union to prosper."

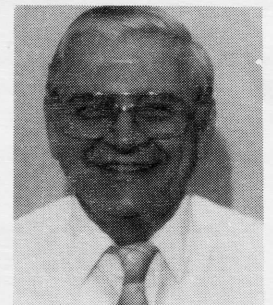
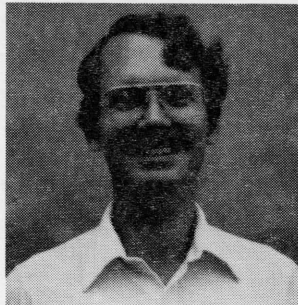
For more information about the advantages of Credit Union membership, stop in at the Credit Union Office, or call Lillian Conway, Ext. 535.

**ANNIVERSARIES OBSERVED  
BY LONG-TIME EMPLOYEES**

Major service anniversaries were observed by a large group of employees this month. Three employees celebrated a quarter of a century of service during July -- George Bennett, Marianna Campbell, and Wayne Norman.



*Congratulations to: George Bennett, Wayne Norman, and Marianna Campbell, seated, who completed 25 years of service this month. Standing, Charlie Hall and Robert Williams, both marking 20 years; Gary Bowers and Kay Cole, both observing 15 years of service; and Marc Kolchakian, completing 10 years with our company in July.*



*Bob Petrey (left) and Loy Dunkel (right) both rounded out 15 years of service this month. Loy is currently based in our Dallas, Texas, area Data Recorders Sales Office.*

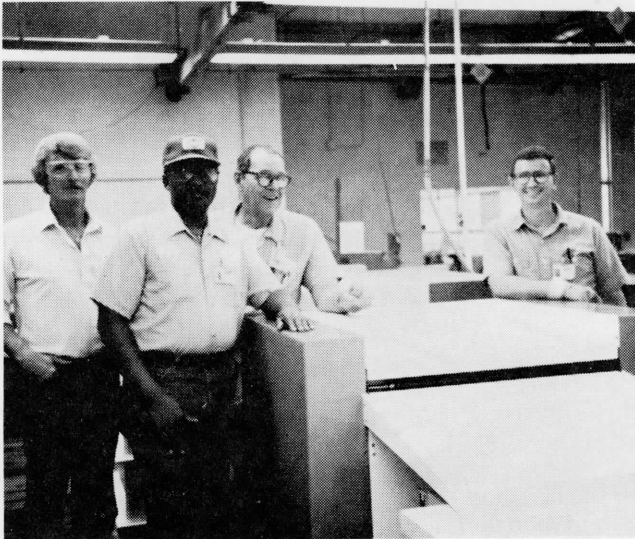
**WANT TO VOTE?**

New employees -- and long-time employees who are not registered -- are reminded to register if you want to vote in the forthcoming local and national elections. Voters are required to be 18 years of age, a U. S. citizen, and a legal resident of Sarasota County. Registration deadlines are Saturday, August 4 (5 p.m.) for the local primary, and Saturday, October 6 (5 p.m.), for the General Election. Details on voter registration are available through Personnel.

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**SAFETY AWARENESS PAYS**

## NEW MACHINE HELPS P.C. FAB SECTION

A recently-installed machine in the Printed Circuit Fabrication area is proving very beneficial. The new rinse/dryer system in P.C. Fab will help employees in that department eliminate over 50% of the hand cleaning of printed circuit panels prior to the dry film laminating process.



*Shown with our new Marseco Printed Circuit Board High Pressure Rinse Drying System are: Gene Flagg, Supervisor of Printed Wiring Board Fab & Metal Finishing Department; Ray Honor, John Thornton, and Wes Woodruff.*

Certain copper-clad panels, of varying sizes, can now go through the Chemcut Scrubbing Machine and the new Marseco Printed Circuit Board High Pressure Rinse Drying System, prior to the dry film laminating process. The panels then proceed to other P.C. fabrication steps to become our printed wiring boards -- an essential item in all of our electronic products and systems.

"Before the new machine was installed, these copper-clad panels were hand scrubbed, rinsed, and oven-dried," explains Gene Flagg, Supervisor of Printed Wiring Board Fabrication and Metal Finishing Department. "We expect the new Marseco machine will help improve quality and productivity."

## **\$13,500 IN DIVIDENDS PAID BY CREDIT UNION**

Dividends amounting to \$13,521 were credited to Credit Union members' accounts for the first half of 1984. The Credit Union Board of Directors voted to pay a 6% (annual rate) dividend on shareholders' accounts effective June 30, 1984. The dividend has been posted to members' accounts.

If you have not yet received your statement, please stop by the Credit Union Office and pick up your statement -- and find out how rich you are!

## QUALITY CIRCLES PREPARE MANAGEMENT PRESENTATIONS

Members of several of our Quality Circles are scheduled to make Management Presentations about their projects during the next few weeks.

A Management Presentation is the culmination of the Circle's project study and explains the steps the Circle members took to analyze and solve the problem. The Circle's recommendations to Management for implementing the solution are offered at the Management Presentations.

The FINE LINERS (Drafting Department) are scheduled to make their initial Presentation on July 31 on the topic of Control of Expendable Supplies. Members of this Circle are: Todd Brandehoff, Ken Clair, Paul Coyas, Gary Fuller, Don Norris, Bev Still, Paul Waldmann, Ray Wilson, and Circle Leader Ben Robinson.

"With this Circle's enthusiasm and use of problem-solving tools, the Circle has developed much faster than usual," said Facilitator Tom Hackett.

On August 3 the TAPE ENGINEERING Quality Circle is scheduled to make a Management Presentation on the subject of Engineering Checking Function Guidelines. Members of the Tape Engineering Circle are: Preston Cox, Bob Hughen, Roy Kitaoka, Wayne Lockwood, Tom McCarthy, Frank McGowan, Bill Miles, Francis Wozniak and Circle Leader Ellis Speicher.

"If their recommendation is implemented, the Circle's solution would establish clear guidelines for use in standard procedures for both Engineering and Drafting responsibilities toward ECO's and Drawing Checking functions," said Quality Circle Facilitator Tom Hackett.

Another August Management Presentation is scheduled by the Manufacturing Engineering Quality Circle called QC's IE's. Their topic has to do with a variety of improvements in the assembly of the Model 420, including Assembly layout, pick cart, and other recommended changes in this very busy Production area.

Members of this Quality Circle are: Art Acosta, George Keegan, Bob Kellett, Al Marion, Mike Moninger, Rob Ramey, Harry Wendt, and Hank Zarnoski. Circle Leader is currently Rob Ramey.

"Due to an organization change mid-way through this Circle problem, Rob Ramey replaced Ray Shuford as Circle Leader. Both did an excellent job during the transition period," Tom Hackett said.

## SAFETY COUNTS

Our current record shows 285,000 hours without a lost-time accident -- thanks to YOUR safety awareness. Let's avoid painful injuries and help our safety record grow.

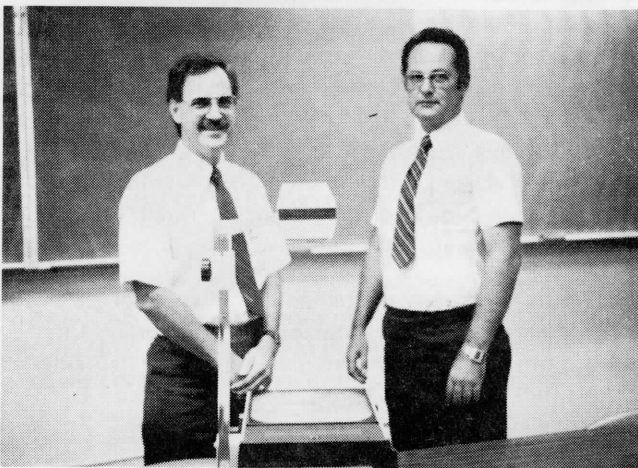
## TELEMETRY TECH PUBS AND TRAINING TELL OUR STORY

Telemetry Training and Technical Publications Departments are two service groups whose common mission is to communicate telemetry product and service information to the customer. Today's customers demand reliable documentation and meaningful training, along with the very complex products and systems purchased from our company.

Telemetry Tech Pubs produces Operation Manuals and Maintenance Manuals for all telemetry standard products and systems. A small tech writing staff is currently at work on Manuals for the 8000 series, 5000 series, and the new 1720 Multiplexer/ADC Encoder. Since January this group has delivered multi-volume System Manuals to NASA, McClellan AFB, FAA, and General Dynamics. Recently the Tech Pubs group has also begun to support Software Engineering documentation. Faced with a heavy workload, the Tech Pubs group has taken steps to increase its staff and improve efficiency by acquiring word processing equipment.

The Telemetry Training Department has responsibility for training customers and FWSI personnel in both operation and maintenance of our equipment and systems. The Trainer must have the technical knowledge and communications skills to select and present material that will enable the student to achieve the desired results of the training course.

Standard courses are offered covering Basic to Advanced Telemetry Theory. Special system-related courses covering Hardware and Software are also taught, so that the customer can utilize the maximum capabilities designed into these systems. Courses are conducted in Sarasota and all over the world. At the present time, two regular Instructors handle the bulk of the Telemetry training. When special system training is required, additional Instructors are recruited from the Telemetry Marketing and Telemetry Systems Departments.



Ron Spadoni, Manager of Telemetry Training & Technical Publications, and Senior Instructor Vince Supple head the Telemetry Training effort.

The goal of FWSI is to provide systems that offer maximum capabilities and trouble-free service. Proper training of customer personnel at the beginning, along with good technical Manuals, can go a long way toward accomplishing this important goal.



John Wood (left), Dolores Goebel, and George Emigh, are the three regular writers in Telemetry Tech Pubs. Group Leader John Wood is responsible for scheduling, tasking, and planning within Tech Pubs, plus his share of the technical writing. George Emigh, a veteran Tech writer with six years in Telemetry Pubs, has overall responsibility for 8000-series Manuals, and Dolores Goebel is currently working on the Model 1720 Manual, among other projects.



Ann Murray (left) and Sharron Hicks, of Telemetry Tech Pubs. As Tech Pubs Coordinator, Ann is responsible for maintenance of departmental files, reproduction of Manuals, and coordination of Manual delivery schedules. Sharron Hicks recently joined the Tech Pubs Department as Software Documentation Editor and Training Coordinator. Her duties include editing Software Manuals and coordinating training and video materials for the Training Department.