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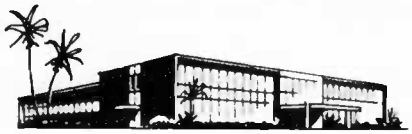

SANGAMO WESTON
Schlumberger

SANGAMO WESTON, INC
DATA SYSTEMS DIVISION
P.O.BOX 3041
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NEWS ABOUT SANGAMO WESTON, SARASOTA

VOL. IV, NO. 4 APRIL, 1982

NASA-KSC ORDERS EQUIPMENT FOR MOBILE LAUNCHER #2 ON SPACE SHUTTLE PROGRAM

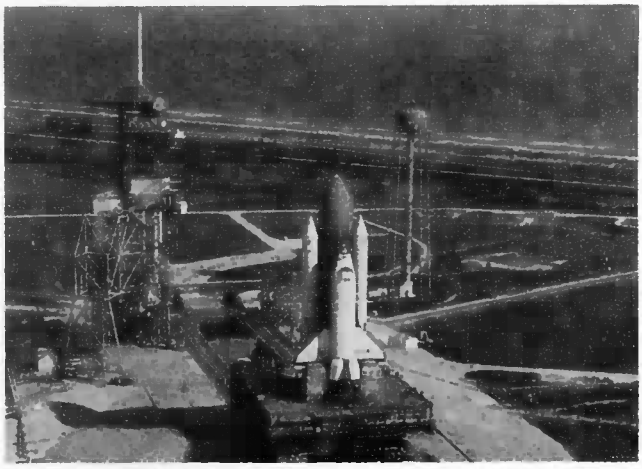
NASA Kennedy Space Center has ordered a large quantity of products from Sangamo Weston's Data Systems Division for use in monitoring Mobile Launcher #2. Mobile Launcher #2 will support Space Shuttle 6, which is scheduled for launch in January, 1983. The order is valued at almost $1,000,000.

The equipments ordered from Data Systems Division will be part of a PCM instrumentation system forming a permanent measurement system for Mobile Launcher #2. Mobile Launcher #2 rides on the crawler-transporter which moves the launch vehicle from the Vehicle Assembly Building to the launch pad.

This particular Mobile Launcher #2 is scheduled to be used in launching the first mission of Challenger, the second Space Shuttle.

The main objective of the permanent measurement system is monitoring the launch environment -- vibration, stress, strain, temperature, acoustics (sound pressure level) -- during the launch and post-launch period, according to NASA-KSC Project Engineer Richard A. Blais and Design Engineer Charles H. Griffin, who visited our plant recently.

(Cont'd on Page 3)



This NASA photo shows Space Shuttle 3 arriving at Launch Pad 39A, prior to its recent successful mission.

1300 VISIT PLANT DURING OPEN HOUSE

Open House for employees, their families and retirees drew a crowd of 1300 to Data Systems Division on April 4. There were technical demonstrations, displays, refreshments, and door prizes. The kids, moms, dads, grandparents, and many of our retirees enjoyed seeing our facility and what we do here.

Special Sangamo Weston key rings were designed and made in-house by employees to be given to all the visitors as souvenirs.

Elizabeth Byrd's two young daughters were delighted to learn that Mom had won the first prize -- an Atari Video Computer System. Other cash prize winners were Hans Napfel, Hal Roberts, Jim Fulmele, and Baba Marrero.

Among our special visitors were Mr. and Mrs. J.C. Legrand, who toured the plant for the first time in many years. Mr. Legrand, an employee of Schlumberger from 1927 until his retirement in 1958, was Chief Executive Officer for Electro-Mechanical Research when our company relocated to Sarasota from Ridgefield, Conn., 25 years ago.

(Cont'd on page 4)

INTRODUCING QUALITY CIRCLES CONCEPT TO EMPLOYEES

The concept of Quality Circles is being introduced to all employees through a series of informational meetings. Quality Circles Facilitator Dexter Nash and Quality Assurance Director Ray McPartlin are conducting the orientation/question-and-answer sessions.

"To date, just about all the employees in the Manufacturing operations have heard about Quality Circles through these meetings," Dexter Nash said. "We will continue having informative meetings with employees in other departments throughout the plant during the next few weeks."

Do employees have some reservations or questions about Quality Circles?

"Yes, and that's O.K.," was Dexter Nash's response. "Questions are always important, and it is an intelligent and natural reaction to have some reservations about a new program. I'll be happy to talk with any employee about any Quality Circles questions as I visit the various areas of the plant."

Groups of employees attended Quality Circles orientation meetings.

A pilot program of a small number of Quality Circles is planned for later this year.

MORE QUESTIONS AND ANSWERS ABOUT QUALITY CIRCLES

Q. How long do Quality Circles meetings last, and how often are they held?

A. Meetings last one hour, once a week, on a regularly scheduled basis during regular working hours.

Q. How is a Quality Circle program organized?

A. Quality Circles is a system made up of several parts: the Circle Members, Circle Leaders, the Facilitator, and the Steering Committee.

Q. What is the Steering Committee?

A. The Steering Committee is composed of representatives from departments within the company who are responsible for establishing the guidelines and controlling the rate of expansion for Quality Circles activities. They are responsible for providing the support and resources necessary for Quality Circles programs.

There were slides and questions and answers about Quality Circles.

Q. What is a Facilitator?

A. A Facilitator is the individual responsible for coordinating and directing Quality Circle activities within the organization. Dexter Nash has been selected as the Facilitator for our facility.

Q. What does the Facilitator do?

A. The Facilitator is responsible for training the Circle Leaders and Circle Members. The Facilitator forms a link between the Circles and the rest of the organization and works closely with the Steering Committee.

Q. Who is the Quality Circle Leader?

A. Initially, in most cases, the Circle Leader will be a Supervisor from the area in which the individual Circle Members work.

Q. What are the duties of the Circle Leader?

A. The Circle Leader is responsible for chairing the Quality Circle meeting and assisting the Facilitator in the training of Circle Members. However, as a Quality Circle member, the Circle Leader has one vote and only one vote.

Q. How does the Quality Circle process work?

A. After an initial training period, a Quality Circle identifies specific problems in their work area. Among the problems identified, one problem is selected and then analyzed. Following the analysis, the Circle makes a recommendation to management to solve the problems.

NASA-KSC ORDERS EQUIPMENT FOR MOBILE LAUNCHER #2 (Cont'd from Page 1)

The Mobile Launcher #2, and the permanent measurement system, will also be utilized in the Vehicle Assembly Building while the stacking operation takes place, as the segments of the solid rocket motors are aligned, and for special tests in the VAB, the NASA Engineers said.

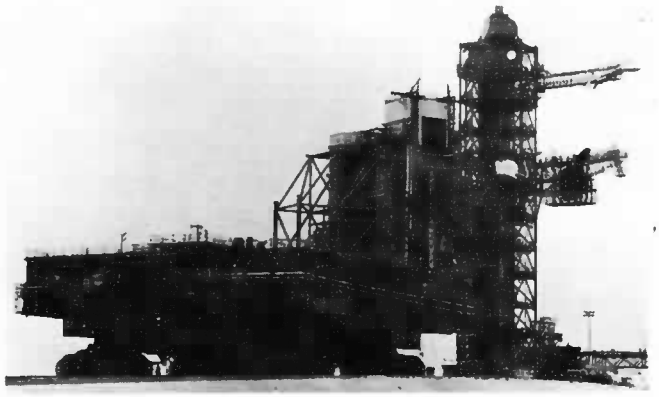
The information provided by the measurement system is quick-look data to see if there is any potential damage to the Orbiter. Additionally, the system will provide data on any structural damage or defects in the new Mobile Launcher Platform.

"Having the opportunity to participate in this Mobile Launcher #2 instrumentation project is especially interesting to those EMR/Sangamo Weston employees who recall the LUT FM/FM telemetry system we provided to NASA back in the '60's," said Applications Engineer Art Kelley. The LUT (Launch Umbilical Tower) FM system monitored the Apollo/Saturn 5 mobile launcher.

Art Kelley performed the on-site acceptance test on the first LUT system, and is Applications Engineer on the new PCM system. Many other employees throughout our plant worked on the earlier NASA contracts and will again be active on this Space Shuttle project.

"Today, much of the EMR LUT equipment is still being used in various monitoring systems at the Cape, and we now have the opportunity to supply a new PCM monitoring system for the newest Mobile Launcher to be used on the Space Shuttle program. It is, in essence, a successor to our earlier LUT system," noted Wyatt Bishop, Telemetry National Sales Manager.

Sangamo Weston equipments in this new PCM system include 400-series equipment and 700-series products.



Mobile Launcher Platform #2 (MLP-2) is pictured during tests in a move aboard the Crawler-Transporter, from the gate to the top of Launch Pad 39A. The second platform will go into operational use during future Space Shuttle missions.

The Mobile Launcher Platform is a transportable launch base for the Space Shuttle. The MLP is a two-story steel structure 25 feet high, 160 feet long, and 135 feet wide. There are three openings -- two for Solid Rocket Booster exhaust, and one for Space Shuttle Main Enginer exhaust.

Inside the Platform are two levels with rooms and compartments housing Launch Processing System Hardware Interface Modules, system test sets, propellant loading equipment and electrical racks.

Unloaded, the MLP weighs over 8 million pounds. With a fueled Space Shuttle aboard, the total weight is 12 million pounds.

MORE QUESTIONS AND ANSWERS ABOUT QUALITY CIRCLES (Cont'd from Page 2)

Q. What training is provided?

A. The training provided over the first 7 or 8 meetings of the Circles involves problem solving techniques such as brainstorming, data gathering, cause and effect, problem analysis, etc., and presentation techniques for use by the Circle during recommendation presentations to management.

Q. What takes place during a Circle meeting?

A. Any of several activities may occur during a meeting, such as: training of the Circle Members, identifying a theme or problem to work on, analyzing a problem, preparing recommendations for implementing a solution or participating in a presentation to management.

Q. What is the Management Presentation?

A. A Management Presentation is where the Leader and Circle Members describe to their management what project they have been working on and what recommendations they wish to make concerning it.

Q. How does the Circle select a project?

A. The Circle Members, through consensus, choose which specific problem they will work on.

Q. Is there a relationship between the Circle and the job?

A. The Members of a Circle are people who normally work together. The projects they select to work on will always relate to the work they do.

Q. What are general problem areas selected by Quality Circles?

A. Paperwork, hardware, communications, service and processes are but a few of the general categories of problems worked on by Quality Circles. Virtually anything which affects the quality of their work is a candidate.

OPEN HOUSE ATTRACTS EMPLOYEES, FAMILIES AND RETIREES

Mr. and Mrs. J.C. Legrand tour plant with Linda McKinney.

1300 VISIT PLANT

OIL PRODUCTION MONITORING SYSTEM INSTALLED IN DUBAI

Three members of our Industrial Systems group returned recently from Dubai and the Arabian Gulf where they successfully installed the initial portion of a large oil production monitoring system.

Engineers Chuck Berster, Mart Dismukes and Hal Roberts spent much of the two weeks on an offshore oil production platform in the Arabian Gulf to assure that the computer-controlled system was fully operational. The system includes a master station, our SUPCON-DOS software and RECON III Remote Stations.

CONGRATULATIONS

JANICE BOLDT, of our Credit Union, became Mrs. Mark Maus on April 3.

CLIFF STALDER, of Data Processing, married Laureen Melasecca on April 3 in Sarasota.

JUANITA MALLORY, of Standard PWA, married W. David Rose on April 17 in Sarasota.

JAMES HORNBERGER, of Fairchild Weston Systems, won an Honorable Mention award at the annual United First Federal art show in downtown Sarasota earlier this month for his multiple exposure photograph of a monarch butterfly. A large variety of Jim's nature study photographs are currently on display at the United First Federal's Siesta Key branch.

FIELD SERVICE GROUP SCORES RECORD MONTH

April was a million dollar month for incoming service orders for the Field Service group of Fairchild Weston Systems, Inc. -- nearly double the previous high month for service contract in June, 1981.

NASA-Lewis, NASA-Ames, Sandia and Edwards Air Force Base are a few of the Fairchild Weston Field Service customers who placed orders during April.

"We receive these orders as a direct result of the dedication of our Field Service people to their jobs," says Florence Johnson, Contract Administrator. "And they're doing great on all their paper work, too!"

Fairchild Weston Systems Field Service handles the field maintenance for Sangamo Weston Data Systems Division telemetry and data recorder products and systems.

NEW EARLY RETIREE

Rex Van Tassel, Quality Assurance Contract Coordinator, starts his second retirement on May 1, after 21 years of service with our company in Sarasota. Earlier, just before joining EMR in 1961, he retired from 21 years of service in the U.S. Army Signal Corps. His military duties in radio communications and microwave repair, and teaching, took him to Hawaii, North Africa, Europe, and Taiwan. He spent 15 years out of the country.

Rex Van Tassel

Here at Sangamo Weston Rex started in the Calibration Lab, and advanced to Quality Assurance supervisory positions, interfacing with customer representatives.

"At one time we had 28 Government and Customer Inspectors in-house. Quality Engineering gives you the opportunity to see every facet of the organization," Rex commented. "I know I am going to miss the people here and dealing with customers."

Rex plans to move to the Tallahassee area where his 32 acres of land have nothing but trees, squirrels, wild turkey and deer on them. His daughter lives in Tallahassee, and Rex has two sons, one in Germany in the Service, and the other in Colorado.

"I will probably build on the property, and will have time for traveling and fishing," he said.

All the best to you, Rex.

NEW DIGITAL FLIGHT RECORDER DELIVERED

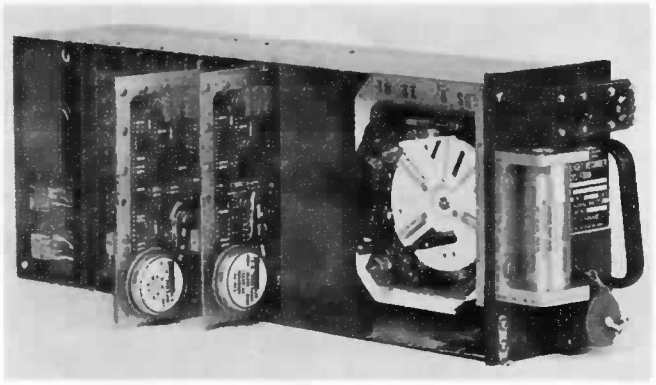
The first production unit of our new Digital Flight Recorder was shipped to Boeing, Seattle, during April for certification, test and installation on Piedmont Airlines' new B737 aircraft. Piedmont has ordered the new Digital Flight Recorder for installation on all of their new B737 aircraft.

Other customers who have ordered substantial quantities of the new digital unit include Republic, for its current fleet, and Lufthansa, for their new A310 Airbus.

Dornier, of Germany, has ordered a DFR for installation in a new Canadair "Challenger" corporate jet aircraft, our first corporate application for the DFR.

Our new generation of Fairchild Digital Flight Recorders (DFR) is designed to acquire and convert up to 64 aircraft parameters to digital information and provide a continuous record of this data for the last 25 hours. The new Digital Flight Data Recorder is fully interchangeable with the older type of Flight Data Recorder. An internal microprocessor controls all functions and alerts the crew in case of malfunction.

Considerable Engineering effort is being devoted to the development of this new Recorder and its family of test and support equipment.



Our Digital Flight Recorder

HAPPY ANNIVERSARY

Congratulations to our colleagues observing major service anniversaries during April. Included are four of our fellow employees who this month mark a quarter of a century with our company -- Nevel Christie, Lela Kallio, Randy Mitchell, and Hazel Taylor.

Seated, Hazel Taylor, Nevel Christie and Lela Kallio, each with 25 years of service. Standing, Lonnie Gunter (20 years); Della Presley (10 years) and Helen Duthe, Richard Veigel, and Arlene Lutz, all completing five years of service.

Randy Mitchell, of Fairchild Weston Systems in Sarasota, completes 25 years of service this month.

TWO TEAMS JOIN IN FUN AT "ANYTHING GOES" GAMES

Two teams of employees threw inhibitions to the winds to compete in the annual "Anything Goes" games, part of Sarasota's King Neptune Frolic week, on March 27.

The "Fairchild Flashes", representing Fairchild Weston Systems, beat the Sangamo Weston Data Systems Division team, the Bit Sinks (bit sync). Each team displayed their skills at such challenging contests as the water balloon relay, or the croquet hop obstacle course, or the bucket-ball race.

On the Sangamo Weston team were: Captain Tom Thomas, Paul Copen, Michelle Crawford, Brenda Cunnien, Bob Dalton, Wiley Dunn, Patsy Fulcher, Debbie Graham, Dan Harriger, Beth Jenkins, Mike Kelly, Linda McKinney, David Payne, Jack Snider, Linda Walker and Alternate Carl Priddy.

The Fairchild Weston Systems team, headed by Scott Blair, included Sharon Ames, Paula Baker, Peggy Creadon, Dick Crete, Joy Fischette, Gail Hoyt, Florence Johnson, Bill Kessler, plus some non-employee recruits.

Photo by Jim Wayda.

REMEMBER WHEN?
SEEDLINGS GREW TO TALL TREES IN POLLUTION CONTROL SYSTEM

It was 1969. EMR-Telemetry planted 11,000 slash pine seedlings in a "tree farm" on 15 acres at the northwest section of the company's property, bordering Fruitville Road.

The re-forestation project was part of a forward-looking new pollution control system which the company was installing. After careful treatment in our new chemical waste treatment plant, the treated water would be used in an overhead sprinkling system for the new stand of pine trees planted early in February, 1969.

Those six-inch seedlings have today matured to heights of up to 30 or 35 feet, and our waste water treatment system remains in full compliance with Government pollution control regulations.

In this 1969 photo, Joe Wood (then Manager of Plant Engineering and Maintenance) showed the height of the slash pine seedlings being planted in our tree farm.

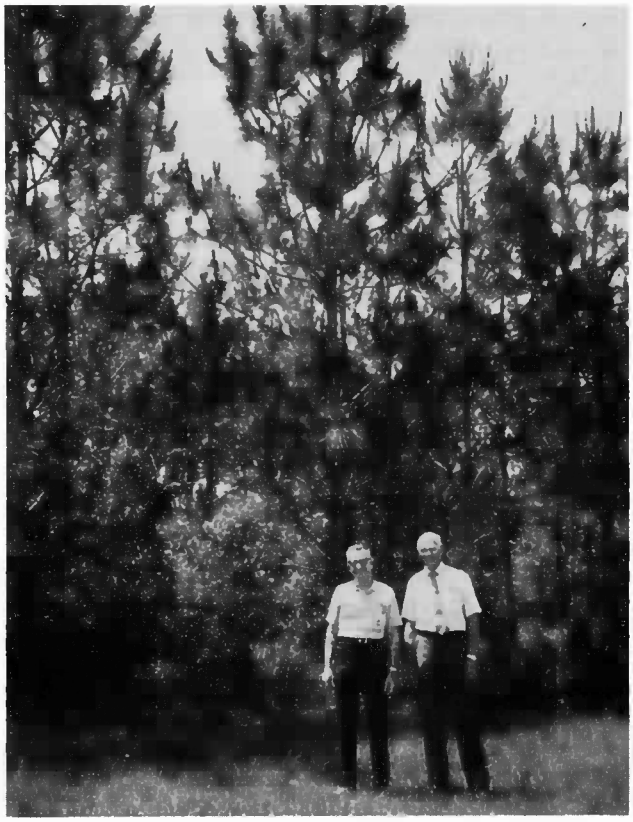
Our waste water treatment plant originally provided for handling of the chemical wastes from our manufacturing processes. Subsequently, treated sewage effluent was also incorporated into the system. The safe, treated effluent continues to be used in sprinkling the trees. The company's goal was, and is, to assure that we discharge no waste of any kind, no matter how safely-treated, into any stream.

Over the years, improvements have been added to the waste water treatment system, and it has proved to be a workable, efficient pollution control system. Water conservation is also achieved by re-cycling treated water for certain operations in the plant.

Sangamo Weston is proud to be a "clean" industry and a good citizen in our community -- now celebrating 25 years in Sarasota.

FORE!

Sangamo Weston golfers tee up on April 27 for the start of the mixed Golf League, scheduled to run to mid-August. There are 20 two-person teams plus seven substitutes, playing Tuesday afternoons at Rolling Green Golf Course. Larry Foster is League President, Walt Knopik, Secretary, and Ray Shuford, Treasurer. A few more substitutes would be welcome.



Today, Glenn Campbell and Dutch Fonteine stand near the 30-foot-high trees, still being sprinkled with our treated waste water.

$ AWARDS CONCLUDE PILOT COST REDUCTION PROGRAM

Final cash awards were presented to employees in our pilot Cost Reduction Program on April 2. Addressing the employees who received awards at the closing CRP awards ceremony, General Manager Kent Morgan commended the many employees who made cost-saving suggestions, and expressed the hope that all employees will continue to be aware of the ongoing need for cost savings.

The pilot Cost Reduction Program was concluded because it was found that administering the program and tracking the actual cost savings on each suggestion was more difficult and more time-consuming than anticipated when the program was instituted.

"It has been a pleasure to give special recognition to those employees who made significant cost-reduction suggestions," Mr. Morgan said. "We need to be constantly looking for ways to cut costs, and I am confident that all employees will continue to make cost reduction suggestions, through their Supervisors, as a regular part of their jobs," he said.

MARY GAYLE INGLE LEADS A BUSY LIFE

Mary Gayle Ingle is a busy lady. She is an Associate Scientific Programmer in our Industrial Research and Development group. She is the mother of an 11-year-old daughter, Stacy. She's a dancer, choreographer and performer with a modern dance company, and also teaches dance.

She's been dancing all her life. When daughter Stacy went to school, Mary Gayle went to college and earned two degrees (with high honors) at the University of South Florida, Tampa. One degree was in Math, the other in dance. As a Teaching Assistant at USF, Mary Gayle taught pre-Calculus and Algebra, and also beginning and advanced modern dance. Currently she teaches dance at the Firethorn Studio in Tampa on Saturdays.

Prior to joining Sangamo Weston last December, Mary Gayle was with RCA, Cape Canaveral, working on Space Shuttle telemetry software. Now she is working on SUPCON-DOS (Supervisory Control Disk Operating System) for the Dubai offshore oil and gas production supervisory control system.

Her local dance activities include performing at the Anna Maria Arts Festival April 24, and a May 1 appearance with the Florida Ballet Company at the Players. The Firethorn company will present a special program on May 15 th at the Florida Studio Theater in Sarasota.

Mary Gayle is financial officer and on the board of directors for the Firethorn Dance Company.

"We also try to raise funds to support the ballet and to stimulate an appreciation of modern dance," she said.

Busy? Yes, but it's fun, when you are young, energetic, enthusiastic, enjoy your work and love to dance.

Mary Gayle, the dancer.

Mary Gayle Ingle processing a control using the light pen/CRT Display.

IN BRAZIL SHOW

Harry Durrett, Barry Hawkins, and Peter Simmons are representing Sangamo Weston's Data Systems Division in Sao Paulo, Brazil, April 26-30, at the Aero-Ter Avionics and Ground Support Equipment show sponsored by the U.S. Department of Commerce. Potential customers have the opportunity to meet with our representatives and see some of our equipment.

Barry Hawkins, of Aviation Recorders Sales, will be taking our Cockpit Voice Recorders, Digital Flight Recorders and Flight Data Recorders to the show.

Harry Durrett, of Telemetry Export Sales, will show our Portable EXPRT system, and present a paper authored by Gary Schumacher, "A Real Time System for Telemetry Data Processing and Display."

Peter Simmons, representing our Industrial Systems group, will show a video tape about our Wind Shear systems, and give presentations on "Characteristics and Detection of Low Level Wind Shear in the Critical Phases of Flight."

Display panels and other show materials for our booth in Sao Paulo were prepared by Jim Horvath, Steve Frayer and Jon Wolf, of our Illustrations group.

BETTER AND BETTER

Hans Kaiser and Carl Palkovich, of our Aviation Recorders group, represented Data Systems at the Tulsa, Oklahoma, Avionics Maintenance Conference April 20-22, 1982. At this Conference, users of various avionics products have the opportunity to air any gripes, or they tell us that they like the way our units work. Hans and Carl will bring us this valuable feedback from our customers so that we can continue to make our products better.