



The EMR-Telemetry News Sarasota, Florida

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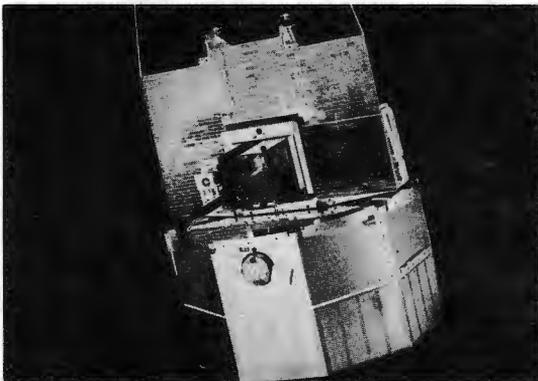
15 October 1971

WHITE LIGHT CORONAGRAPH OPERATING ON BOARD OSO

On board OSO-7, the newest Orbiting Solar Observatory launched by NASA from Cape Kennedy on September 29, are a highly complex scientific experiment and telemetry data handling equipment produced by EMR-T.

The White Light Coronagraph, a sun-studying experiment sponsored by the Naval Research Laboratory, Washington, D. C., was designed and built here in Special Systems. The sophisticated electronic equipment is observing the sun's corona--a gaseous halo surrounding the sun, with streamers shooting out intermittently to distances of hundreds of thousands of miles from the sun's surface. The White Light Coronagraph, prime OSO-7 experiment, utilizes a miniaturized

(Continued on Page 3)



OSO-7, 1400-pound satellite, carries White Light Coronagraph and other sun-studying experiments, as well as PCM telemetry produced at EMR-T.

INTRODUCE NEW PRODUCTS



MISS MINI T/C (Rosemary Williams); MISS 287 (Brenda Hall) and MISS 720 (Judy Amuso) --three of EMR-T's prettiest young ladies--helped focus our Salesmen's attention on our new products introduced at the National Sales Conference in Sarasota recently. Let's see, now, the names of those products are ... uh...

PLANNING CHRISTMAS DANCE

Saturday, December 11, is the date to circle on your calendar for the EMR-T Employees Association's Christmas Dance. Dance Chairman Frank Bost has lined up Tony Swain's Combo for the event set for Dec. 11, 9 p. m. to 1 a. m., at the Sarasota Motor Hotel.

Initial members of the Dance Committee are: Mary Bell, Linda Herring, and Roma Parker.

EMR DATA SET AVAILABLE TO SEND INFO VIA PHONE

A new EMR-T product offering is now being demonstrated to potential customers who are interested in data transmission over telephone lines.

The EMR-T Data Set can be connected to a telephone and enables the user to transmit and receive both analog and digital data. Here are some examples of how the EMR Data Set can be used:

- For biomedical purposes, an EMR Data Set can be attached to a regular telephone and permits outlying clinics or physicians' offices to transmit a patient's medical data from a "remote" location to the central computer/diagnostic center located at the main hospital. Electrocardiograms, vectorcardiograms, and electroencephalograms can be transmitted and received via ordinary telephone lines. Both patient and doctor benefit from rapid data analysis.

- A business with plants at several locations can use the EMR Data Set to send analog computer data between the plants over telephone lines. This application was demonstrated recently for Martin-Orlando.

- The status of individual oil wells in a remote oil field can be transmitted back to a central office via the Data Set and ordinary Direct Distance Dialing phone lines.

Although designed specifically for operation over ordinary phone lines, the EMR Data Set will operate over any voice grade communication path such as twisted wire or radio frequency link.

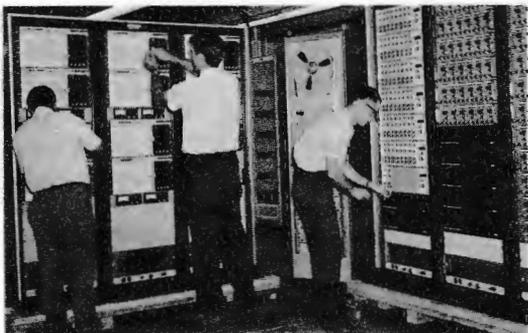
Signals have been sent all the way from Sarasota to Denver, Colorado, and back with less than 5% error.

The new offering is one example of the many uses for EMR-T's 600 Series industrial telemetry products. Individual 600 Series functional printed circuit cards can be combined into various configurations for a wide variety of applications.

"We expect to demonstrate the Data Set to a broad cross section of potential customers for many different applications," says Dick Vorce, of Marketing, "and we believe market prospects are unlimited."

-- IT'S UNITED APPEAL TIME --
If you don't do it, it won't get done.

SHIP FAIRCHILD SYSTEM



"Let's get this system on the road, fellas," seems to be the theme for Bob Anderson, Wyatt Bishop and Don Jones, of Systems shown here getting a big system ready for shipment.

The vibration data acquisition system, ordered by Fairchild Industries, Inc., of Germantown, Md., was shipped last week-ahead of schedule.

"Production delivered the equipment to us on time, or ahead of schedule, and Procurement did a fine job of expediting ordered parts," says Kent Morgan, Manager of Special Systems. "That made it possible for our people to complete the system on a compressed schedule, and deliver ahead of promised delivery date." And, says Wyatt Bishop, Project Engineer for this system, "That's a great feeling!"

PULSE - The EMR-Telemetry News
M. E. Herbst, Editor

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WHITE LIGHT CORONAGRAPH OPERATING ON BOARD OSO-7 (continued)

digital television camera and associated data handling circuits. EMR has employed unique data compression techniques in this scientific experiment, according to Project Engineer Richard Davies who has been closely connected with all phases of the White Light Coronagraph since the contract award over two years ago. Senior Engineering Technicians Phil Potts and Tony Ramos have been major participants in the project.

OSO-7 achieved a lower and more elliptical orbit than anticipated, but is expected to exceed its six-months design life. All previous OSOs have continued to function longer than the specified six-months period. Four of the six earlier OSOs launched since 1962 are still operating and returning data.

In addition to the White Light Coronagraph, EMR provided PCM (Pulse Code Modulation) telemetry equipment used on board the satellite. EMR-T has supplied telemetry for all seven successful OSOs under contracts with Ball Brothers Research Corp., Boulder, Colo., prime contractor for the current series of OSO spacecraft.

OSO-7, heaviest and most sophisticated of the OSO series, carries six experiments.

Ground support equipment for the White Light Coronagraph experiment, also supplied by EMR-T, is currently at NASA-Goddard Space Flight Center, and will be moved to the Naval Research Lab to give the sponsoring laboratory the capability for real-time observation of the function-experiment. The ground equipment records the experiment's observations; reconstitutes, or "decompresses," the compressed data, and reassembles the TV picture for display. Richard Davies was on hand at NASA-Goddard, Greenbelt, Md., when the experiment was "turned on" in gradual stages several days after launch.

Launched by a two-stage Delta booster, the 1400-pound OSO-7 satellite carries

six experiments weighing 463 pounds. The lower part of the spacecraft, the wheel, is about 30 inches high, with a diameter of 56 inches, and spins at a near constant 30 rpm.



Richard Davies with C. R. Detwiler and David Roberts, of NRL, during White Light Coronagraph acceptance testing.

MASON JOINS WEST COAST INSTRUMENTS SALES OFFICE

Cephus H. Mason, one of our Hatboro Instruments colleagues, has been transferred to the EMR-T Instruments Organization's office in Monterey, Calif., where he will serve as a Sales Representative. He will report to Bob DeFord on the West Coast.



C. H. Mason

Since joining Hatboro Instruments in 1965, his duties have ranged from Field Service Technician to Engineering Coordinator and Quality Assurance Manager. He spent two weeks here recently assisting in coordinating the move from Hatboro to Sarasota.

Before joining Weston Instruments, Mr. Mason was employed by RCA in Moorestown, N. J., and from 1963 to 1965 was stationed on Grand Turk Island with RCA Service Company's Missile Test Project. He attended Temple Technical Institute, Howard University and LaSalle College, and is a veteran of service with the Army, Air Force, and the Air National Guard. Cephus and his wife, Janet, are parents of a daughter and son--Joy, 14; David, 10.

FIRST INSTRUMENTS UNITS SHIPPED FROM SARASOTA



Pictured here with the first EMR Instruments unit completed in Sarasota are: Frank Bloechl, of Manufacturing Engineering; Stan Baron, Production Test; Don Roberts, Test Engineering; George Phillips, Assembly; and Paul Milo, of Test Engineering.

This Model 1310 Frequency Response Analyzer was the first unit finished in Sarasota following the move of the Instruments facility from Hatboro to EMR-T last month.

Manufacturing Manager Norman Siegel cited Sam Gray and other employees who "did a fine job of moving and incorporating the Hatboro operations into our facility."

Frequency Response Analyzers produced by our Instruments Organization include the Model 1310 and the 1410. Customers use these instruments in driving devices for a wide variety of testing applications to determine how the device under test reacts. Examples of uses include testing complex controls of aircraft; the quickly-moving heads of a computer disc memory; drive systems of numerically controlled machine tools; auto suspension systems, and the flexing of tires.

The EMR Frequency Response Analyzers drive these devices by means of an electrical signal at speeds of from one cycle every sixteen minutes up to 20,000 cycles per second.

TREMAIN JOINS EMR-T

George F. Tremain, former Director of Marketing for DCS (Data Control Systems), Danbury, Conn., has joined EMR-T's Marketing Organization as Telemetry Marketing Specialist.

He reports to Marketing Manager S. D. Bass. "Mr. Tremain's primary duties will consist of assisting us in acquiring new business," Mr. Bass said.

During his five years at DCS, Mr. Tremain held positions as Product Manager in Systems, and Systems Application Engineer before his promotion to Director of Marketing. Prior to joining DCS, he was employed at Grumman Aircraft and Republic Aviation as an Instrumentation Engineer. He holds a BSEE degree from Long Island University and is a Marine Corps veteran. George and Margaret Tremain are the parents of a nine-year-old son.

UNITED APPEAL GIFTS HELP PEOPLE IN NEED

EMR-T's United Appeal solicitors are calling upon all employees to give generously during our United Appeal drive October 11-22.

Chairman Ernie Wright and co-chairman Dave Middleton are being assisted in the EMR campaign by a team of solicitors from all parts of the plant. Team members are: Skip Bailes, Bill Black, Wayne Brinton, Dick Dungan, Tom Fultz, Bill Gibson, Sam Gray, Charlie Hall, George Keegan, Chris Papastrat, Gerry Radwell, Randy Schaub, Bud Steinhoff.

Your contribution will help people in need - PLEASE GIVE.

ANNIVERSARY GREETINGS

Among the 37 EMR-T employees observing service anniversaries in October are the following of our colleagues marking major milestones of five, 10 and 15 years:

1956 - Stan Sniffen

1961 - Wayne Brinton, Dave Long,
Barbara Ryan

1966 - John Brady, Bob DeFord, Tony
Ramos, Jo Snyder