



The EMR-Telemetry News

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LOCKHEED ORDERS EMR SYSTEM FOR L-1011 AIRLINER

Lockheed-California Company has awarded EMR-Telemetry a contract for an advanced computer-controlled processing system for handling flight test telemetry data from Lockheed's new L-1011 commercial jet airliner. The order is valued at more than \$1 million.

The fully-automated data system includes modular telemetry processing equipment supplied by EMR-Telemetry and a high-speed digital computer supplied by EMR-Computer, of Minneapolis.

The new EMR system, scheduled for delivery to Lockheed in Palmdale, Calif., in mid-1970, is similar to the sophisticated ground-based automated data processing system EMR delivered to Lockheed-Georgia in 1968. The earlier EMR system is currently processing flight test data for the world's largest aircraft -- the giant C-5 Air Force military jet transport built by Lockheed.

In addition to telemetry and computer hardware, the new contract calls for EMR to provide software for automatic system readiness checks, self-calibration, and both on-line and off-line operation in any desired mode.

Lockheed's new three-engine L-1011 TriStar jetliner is designed to carry 250 to 345 passengers in commercial medium-range and long-range flights. Passengers

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DISPENSARY MOVING

EMR-T's Dispensary moves to Room 152, A & E Building, on Tuesday, Oct. 21. The new location is near the central entrance at the north side of the building.

HUFF WINS \$50 PRIZE



Jim Huff, Sr., of Material Planning, wears a winning smile after being awarded a \$50 prize for his entry in the contest to name EMR-T's newly-formed employees' social and recreation club. Jim's prizewinning name for the new organization is EMR

EMPLOYEES ASSOCIATION. (In photo are Jim Huff, center, with Publicity Chairman Dale Hefke, left, and Al Orr, Board Chairman of the new Association.)

The contest, which drew 144 entries, was the brainchild of Dale Hefke. Judges were members of the Board of the EMR Employees Association. During judging each entry was identified only by number. Contestants' names were kept secret until the winning entry was chosen. Dale was custodian of the entries and the contestants' names, and disqualified himself as a judge.

Asked about plans for his \$50 prize, Jim Huff said, "It's going to come in mighty handy on the vacation we're taking this week!" Jim's been with EMR since 1958.

YATES AND BROWN ARE AT WORK "BEHIND THE SCENES"

Harry Yates and Alden Brown work "behind the scenes." Few of us ever get to see these men, but the work they do affects the job and environment of each EMR-Telemetry employee.

Harry and Alden operate EMR-T's water and waste treatment facilities, and their duties are varied. They watch over, sample, test, treat, and keep records on various water systems and waste disposal systems.

For example, differing treatments and tests are required for our domestic water (drinking water, and water used in laboratories) and the water used in our air conditioning system. Specially-treated water supplies are needed for Production's Printed Circuit Fabrication and Plating Room. In Engineering, the Printed Circuit Lab, Microelectronics Lab, Photo Lab and Drafting have special water system requirements. In addition, treatment and safe disposition of chemical wastes from these industrial processes calls for care and special know-how. Then there's the matter of watching over the efficiency of EMR-T's sewage treatment plant. Effluents (both industrial and human wastes) must be carefully monitored to avoid pollution of nearby land and streams.

Together, Harry Yates and Alden Brown take samples and conduct some 25 to 30 tests a day. They test for the proper pH level (scale of acidity and alkalinity), for dissolved metal solids, and chemical contents in the several water systems and waste treatment plants. System maintenance, testing, record keeping, weekly and monthly reports to County and State regulatory agencies, plus facility inspections by County and State authorities, are among the responsibilities in water and waste treatment operation.

Harry mans the day shift and Alden takes the evening stint from 4 p. m. to 12:30.



Harry Yates (left) holds stainless steel plate showing metal deposits removed from industrial wastes in our new chemical waste treatment plant. Right, Alden Brown gets ready to regenerate water filter system north of S-3 Building.

Their activities cover a wide area. The water treatment plant, testing lab, and office are in a small building just west of the Production Building. Located on the south side of our Production P. C. facility and Plating Room are the large filters, huge white tanks for industrial waste treatment, and a giant tank for water for our air conditioning system. A separate water filtering system for the Engineering Labs is located just north of the S-3 Building. Farther west of the Production Building is our new chemical waste treatment plant. And at the far west end of the property is our sewage treatment plant.

EMR-T pumps an average of 66,500 gallons of water a day. We have 12 wells, of which we use three or four at a time. Water treatment varies, depending upon the use we make of the water. Drinking water is aerated and chlorinated. For air conditioning, the water is treated with lime and alum which, properly controlled, form a protective scale inside pipes to prevent and reduce pipe corrosion. Our special water systems have several kinds of filters for purification and demineralization. (Incidentally, this special de-ionized water, required for certain manufacturing and lab processes, is not good

for drinking purposes. Such de-mineralized water is not chlorinated, so bacteria could thrive in this de-ionized water, leaving you susceptible to more diseases.)

Treatment of chemical wastes varies, too, depending upon the chemicals involved. A new step in pollution control is the advanced chemical waste treatment plant which EMR added this year. Treatment ponds are used to neutralize, aerate, and remove solids from the chemical wastes. After the water is safely treated, it is used to sprinkle 11,000 pine trees planted in 15 acres at the northwest corner of EMR-T property.

Harry Yates, a 20-year Army veteran with tours of duty in Korea, Japan and Germany, had Army experience with portable water treatment systems. Since joining EMR in 1966, he has taken a special course in water and waste treatment plant operation and passed his State certification test for water treatment.

Alden Brown, a native of Stratford, Conn., served in the U. S. Maritime Service in World War II. He joined EMR in 1962, and has worked in our water and waste treatment area since 1964.

PRIVATE SALE FOR EMR EMPLOYEES

EMR Employees Association has arranged with Firestone Stores to hold a Private Sale for EMR-T employees at wholesale cost plus 10% on appliances, color TV, refrigerators, washers, dryers, ranges, dishwashers, freezers, stereos, bikes, lawnmowers, air conditioners, plus great savings on Firestone tires and auto service.

Thursday, Oct. 23 6 - 9 p. m.

Friday, Oct. 24 6 - 9 p. m.

Saturday, Oct. 25 9 a. m. - 3 p. m.

FIRESTONE

1710 Main St., Sarasota

EMR Badges must be presented.

HALL GETS MASTER'S DEGREE

Charles H. Hall, Jr., of Digital Products Engineering, has been awarded his Master's Degree in Electrical Engineering by the University of Pennsylvania. Charlie fulfilled the requirements for his advanced degree by completing his thesis this year. He had done his course work earlier, prior to joining EMR in 1964.



C. H. Hall

His thesis, "Acquisition Parameter Selection for PCM Frame Synchronization," relates to his EMR engineering activities, and he was given permission to use EMR's 6130 Advance high-speed digital Computer to work out equations for the complex mathematics involved.

Charlie now joins that select group of eighteen EMR-T employees who hold advanced degrees.

HELP WANTED

WANTED: Responsible people to help manage a growing, \$250,000 organization. Must be EMR-T employees -- capable, honest, interested. See Nominating Committee of the EMR-T Credit Union -- Mel Everhart, Martin Belkin, and Don Buffington.

The Committee is seeking the best candidates for the Credit Union's Board of Directors, Credit Committee, and Supervisory Committee. Suggestions for possible nominees will be accepted through October 24. Call Mel, 259; Martin, 435; Don, 390.

PULSE - The EMR-Telemetry News

M. E. Herbst, Editor

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JAPANESE FIRM ORDERS EMR 2700 SERIES SYSTEM

An EMR-Telemetry PCM Decommuration System has been ordered by the Japanese firm of Mitsubishi for use by Japan's Radio Research Laboratory in an experimental satellite application.

The PCM Decom System will consist of a rack of 2700-series digital telemetry products and will interface with a Fujitsu Data Logger. Delivery is scheduled for early 1970.

EMR-T's Japanese representatives, Marubun Company, of Tokyo, are handling the details on this order. Coordination of our expert business is the responsibility of Peter M. Smith's group in the Applications Department.

MOHRFELD NAMED PLANT ENGINEER

Robert W. Mohrfeld has been appointed Manager, Plant Engineering and Maintenance for EMR-Telemetry. He succeeds C. J. Wood who resigned recently.



Bob Mohrfeld

Bob joined the Mechanical Engineering group of EMR-T in 1965 as a Mechanical Design Engineer, and has served as Supervisor of our Environmental Lab. Born in Philadelphia, he later moved to Clearwater, Fla., where he attended high school. He received his BA and MA degrees from the University of Florida in 1950 and 1951. Following service in the U. S. Air Force, he earned his degree in Mechanical Engineering at the University of Florida in 1958. He held engineering positions with Olin Mathieson Chemical Corp., Sperry Electronic Tube Division, and was Plant Engineer at Tropicana in Bradenton before coming to EMR.

The Mohrfelds are the parents of three children.

LOCKHEED ORDERS EMR SYSTEM (Continued from Page 1)

will occupy three rows of seats separated by two aisles. The plane's length is just over 177 feet, with a wing span of 155 feet, and overall height of 55 feet, 9 inches. The TriStar's maiden flight is scheduled for November of next year.

During flight testing, the EMR system will process data concerning parameters such as pressure, temperature, vibration, strain, valve and control positions, and others, from several thousand data points in the aircraft. It will also provide means for preflight setup and calibration of the airborne telemetry systems, and for verification and go/no-go tests, all automatically under control of the central processing unit.

The PCM/FM Ground Data Processor System incorporates an EMR 6040 high-speed digital computer, EMR-T 4000 Series computer-controlled constant-bandwidth discriminators and 2700 Series modular telemetry processing equipment.

In addition to the Ground Data Processor System, EMR will also supply Lockheed-California with a quick-look van-mounted mobile telemetry station and one other satellite quick-look FM telemetry station.

SHOW YOU CARE ✓ CHECK FAIR SHARE

UNITED APPEAL

October 23-31, 1969



Here's your chance to help those less fortunate... Your ONE gift helps finance the work of 23 agencies for a full year...

The annual United Appeal campaign is the only solicitation permitted at EMR-Telemetry.

WON'T YOU GIVE GENEROUSLY?