



# The EMR-Telemetry News

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## WAGGENER GIVES PAPER ON WATER POLLUTION MONITORING SYSTEM

W. N. Waggener, Principal Engineer in Research and Engineering, presented a paper entitled "Telemetering in Water Pollution Control" during the Instrument Society of America (ISA) Conference in Cocoa Beach October 14-15.

Harry Johnson and Art Kelley, of Marketing, also took part in the ISA show, displaying EMR-T's Model 515/516/517 PAM data handling equipment and Model 4180, 4580, 4880 High Frequency FM equipment.

In his two-hour tutorial presentation, Bill Waggener analyzed problems associated with water pollution monitoring and discussed methods of using telemetry for remote monitoring of waste treatment plants, outfalls, streams and bays.

Telemetering systems discussed in Bill's talk would permit remote sensors to gather (Cont'd on Page 3)



Bill Waggener with part of water pollution monitoring system at EMR-T's modern waste treatment plant.

# A FASHION NOTE

Fashion-conscious ladies who work at EMR-T have solved the mini/midi dilemma by adopting the pants suit. They are practical--particularly in jobs requiring bending and reaching-- and comfortable, the gals say.



Here Jean McCurry, of Material Handling; Mary Jo Meyers, EMR-T Nurse; and Nancy Kerns, of EDC, demonstrate that a girl can be attractive and feminine in the new pants outfits.

#### GERMAN VISITORS HERE

Visitors from Germany were at the EMR-T plant this week to participate in acceptance testing of an Airborne PCM System which will be used intesting a new German STOL (Short Takeoff and Landing) cargo plane. On hand for the tests were: Ernst Wolfrum and E. Piche, of VFW (Vereinigte Flugtechnische Werke) of Munich, Germany; and W. Ruby, of SOMV, EMR's marketing representatives in Munich. EMR products in the system include a Model 371 Airborne Multiplexer Encoder plus associated 2700-series modules.

#### READY FOR DELIVERY



Clara Vann (left) and Betty Cobb are shown here putting the finishing touches on a new Buffered Multiplex Channel just before delivery to EMR-Computer, Minneapolis. Looking on are Harry Durrett and Graham Hildebrand, of Digital Products Engineering.

This new version of the Model 2761/2762 Buffered Multiplex Channel will become part of a computer system which EMR-C will deliver to the National Bureau of Standards.

The Buffered Multiplex Channel incorporates new packaging techniques, including quantities of integrated circuits mounted on large-sized wire-wrapped boards. It provides an interface between the EMR Model 6135 Computer and our 2700 products and Direct Memory Access peripheral devices, such as magnetic tapes, discs, etc.

## ANNIVERSARY GREETINGS

Listed here are those of our colleagues marking 5, 7, 10 or more years of employment with the company this month:

1956 - Stan Sniffen

1957 - Margaret Dill, Tom Toler

1958 - Anne Anderson, Jim Beebe, Skip Brawn, Dick Dungan

1959 - Bill Slattery

1960 - Berny Hartenstein, Lauris McClain, Fred Thornton

1963 - Al Orr, Don Smith

1965 - Luke Brendle, Mike Brown, Bob Mohrfeld

# ORDER MORE EQUIPMENT FOR HELICOPTER TESTING

An add-on order for a second mobile telemetry/computer system has been placed with EMR-Telemetry by the U.S. Army Aviation Systems Test Activity at Edwards Air Force Base, Calif.

This latest telemetry/computer system--called a Remote Ground Station--will be mounted in a van for on-site use in testing Army helicopters.

When delivered in February, this second van-mounted T/C system will join other EMR telemetry and computer equipments which make up the Army's new Advanced Instrumentation and Data Analysis System (AIDAS) at the California facility.

The large AIDAS station is used for real-time flight safety and data monitoring of new Army aircraft such as helicopters. EMR has supplied the AIDAS Central Ground Station (a telemetry/computer system); one Remote Ground Station (a mobile, van-mounted T/C system); and an Airborne System. Work is currently underway in Sarasota on the second and third Airborne Systems. In addition to our telemetry modules, the AIDAS equipment includes two Model 6135 Computers. This latest order for another van-mounted T/C system will add a third EMR Model 6135 Computer at the AIDAS installation.

Dick Haase, of Systems, is Project Engineer for the AIDAS systems. Julian Cecio, of EMR-C, and Don Shumaker, of EMR-T, are the EMR service personnel for the AIDAS system at Edwards, under a service contract with the Army.

#### FLAG FOOTBALL STARTS

EMR's Flag Football Team has started play in the City Winter Flag Football League, according to Team Captain Kent Morgan. Team members include: Rich Davies, Walt Groves, Don Jones, Joe Lehmann, Jim Maguire, Kent Morgan, Chris Papastrat, and Myers Parrish. Games are played at the Bee Ridge Recreation Park.

#### POLLUTION MONITORING SYSTEM (Cont'd)

data at municipal or industrial waste treatment plants and send the sensor signals to a central supervisory display and control unit. He pointed out the possibilities that such a system offers for increased surveillance via automated means, while reducing manual monitoring frequency and thereby freeing monitoring personnel for other tasks.

An experimental telemetry system for monitoring waste treatment facilities is currently being installed here at EMR-T. The new telemetry system is now undergoing evaluation and will soon be ready for demonstration to customers.

EMR-T utilizes safely-treated effluents from our modern waste treatment plant in a private irrigation system to sprinkle acres of pine trees planted on our property. Consequently, EMR-T does not discharge its effluents into nearby streams. However, the water pollution monitoring telemetry system, now undergoing evaluation, will serve as a practical demonstration of the technical and economic feasibility of remote monitoring of industrial and municipal waste treatment facilities.

Bill Waggener is principal technical investigator in the EMR pollution monitoring effort. However, significant contributions have been made by a large number of EMR-T employees throughout the plant.

#### ATTENDS LARGEST MACHINE TOOL SHOW

Don Buffington, of Manufacturing Engineering, recently attended the largest machine tool show ever held in the U. S. The combined Production Engineering Show at the Navy Pier, Chicago, and the Machine Tool Show, at the International Amphitheater, Chicago, covered 20 acres, with some 650 exhibitors and over 2500 machine tools. Don looked over the latest computer and NC (Numerical Control) equipment, machine components, and inspection, testing and material handling equipment.

#### STUDENTS VISIT PLANT

Over 20 students from the Sarasota Vocational-Technical School's New Directions Program visited EMR-T on October 20, accompanied by Instructors C. B. Eaton and Gerald Strzempka. During the tour which was organized by Jon Brown, of Marketing, the students heard EMR-T technicians, supervisors, and other specialists throughout the plant describe a variety of jobs which the students might find interesting for future careers.



Dave Bryant (seated) and Alton Coles, of our RF Lab, with some of the students.

## EEA NOW PLANNING CHRISTMAS PARTIES

Committees of EMR-T's Employees Association are busily planning the details of the two big annual Christmas parties—the gala Christmas Dance and the Children's Christmas party. Saturday, December 19, is the date for both parties.

Frank and Betty Bost are Chairmen for the Christmas Dance to be held at the Sarasota Motor Hotel Saturday evening, Dec. 19. Tony Swain's combo will play.

Dave Middleton, Chairman of the Children's Christmas Party, is planning movies, Santa and gifts for the youngsters on Saturday morning, Dec. 19, at the Plaza Theater, Azar Shopping Center.

#### PULSE - The EMR-Telemetry News

M. E. Herbst, Editor

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#### CANDIDATES VISIT EMR-TELEMETRY AND MEET EMPLOYEES

Reubin Askew, candidate for the Office of Governor of the State of Florida, visited EMR-T on Friday, October 23, accompanied by Sarasota Mayor Jack Betz and reporters, including CBS TV Newsman Roger Mudd.

News film of the candidate shaking hands with EMR-T employees was carried on the CBS Walter Gronkite evening news program on Tuesday night between 7 and 7:30. The film clearly showed the faces of dozens of EMR-T employees in the cafeteria during coffee break as Mr. Askew spoke with many individual employees.

Askew's visit to EMR-T was one of several such visits by State and National candidates of both parties during the current election campaign. This non-partisan "meet your candidates" program serves to give employees a first-hand view of the candidates, and also gives the candidates the opportunity to become better

Candidate Reubin Askew (standing, right) met many employees in EMR-T cafeteria.

acquainted with EMR-T and the company's employees.

Governor Claude Kirk's scheduled visit on Wednesday of this week was cancelled so that the Governor could be with President Nixon during his Florida visit.

#### HALPERN TEACHING EMR MODEM SEMINAR

Peter H. Halpern, Senior Principal Engineer in Research and Engineering, is serving as Instructor for a special EMR-T seminar on the general principles of Modem and signal design on Wednesday afternoons. Participants in the seminar include over 20 Engineers and Senior Technicians from Systems and Research and Engineering. The one-hour weekly sessions will run until the end of January.

Modem stands for Modulator-Demodulator. At high bit rates, digital data contains a large amount of signal energy and, consequently, is not particularly suitable for transmission over bandwidth-limited communication links such as telephone lines. The data modem (modulator-demodulator) serves two purposes--1) to pack as many bits per second into as small a bandwidth as possible, and 2) to translate the resulting signal spectrum so as to make optimum use of the communication link's frequency response.

#### SLIDE PRESENTATION TO AID EMR-T SPEAKERS

A new color slide presentation and recorded narration about EMR-Telemetry and the company's role in industry and the community is now ready for use by EMR-T speakers when addressing civic groups.

First to use the new presentation before an audience was Charlie Hall, of Digital Products Engineering, who was invited to speak before a women's group on the evening of October 15. "It's just about the easiest way to give a talk that you could imagine," Charlie commented. "All you do is plug it in, push the button, and the slides and narration are presented automatically."

Personnel and Marketing cooperated in producing the presentation. Slides were prepared by Bill Carter and Olie Becker; Jay Volpe wrote the script, and John McQueen recorded the narration. Arrangments to use the presentation can be made by calling Bill Thompson, Ext. 322.