COMPLEX LRL SYSTEM SHIPPED TO CALIFORNIA

One of the most complex telemetry-computer systems ever built at EMR was shipped from Sarasota to Lawrence Radiation Laboratory, Livermore, Calif., last week. LRL is operated by the University of California for the Atomic Energy Commission.

The powerful, versatile EMR system combines an EMR 6130 computer with EMR telemetry hardware and special computer programs. The system's complexity is due to the variety of data processing tasks it will be assigned to handle at LRL-- processing high-speed and intermediate speed analog data, PCM data, and PAM/PDM data, utilizing the flexibility of the EMR 6130 computer. The EMR system will also perform data compression. Data rates are very high in this application

Walt Knopik, Manager of Ground Digital and FM Systems, and Joe Faso, Project Development Specialist in Systems, with several racks of EMR-T equipment -- a part of the multi-rack LRL system.

EMR TELEMETRY SYSTEM FOR V/STOL PROGRAM ORDERED BY NASA-ERC

NASA's Electronics Research Center, Cambridge, Mass., has ordered an EMR digital telemetry system--known as a Mobile PCM Telemetry Reduction Center-- to be used for V/STOL aircraft development testing. V/STOL stands for vertical or short takeoff and landing.

The EMR-Telemetry equipment will be installed in a van and used in the Wallops Island/Langley Field, Va., area for checkout and field operation of V/STOL aircraft.

Other EMR telemetry instrumentation which has been used on the same NASA project for research in V/STOL aircraft safety includes equipment EMR-Telemetry supplied for the Gemini program. Currently, an EMR Airborne Digital-to-Analog Converter was delivered to NASA this week.

The NASA project is aimed at developing a control system to guide, monitor and land V/STOL aircraft under all weather conditions with the highest possible degree of safety, reliability and efficiency. More automatic controls are needed to assist pilots of V/STOL craft during the landing phase of V/STOL flight because the crew must handle thrust, lift, aileron, elevator and rudder.

Curt Dyke is Systems Project Engineer for the van-mounted system which includes our 2700-series standard products.

SCHOOL'S OPEN -- please drive with extra care.

EMR CATTLE BARONS - - THEY HAVE BEEF ON THE HOOF AND IN THE FREEZER

Florida visitors are often amazed to learn that cattle raising is a big industry here. (Florida is tenth in the nation for cattle production.)

Even more surprising is the number of EMR-Telemetry employees who raise cattle as a sideline--for beef, or breeding, for enjoyment, or perhaps a future retirement interest.

Leading EMR cattleman is Don Riker, of Systems, with a herd of 22 purebred Registered Aberdeen Angus beef cattle. He's been raising cattle for about 8 years, starting with grade animals and later switching to the purebred black Angus. A native of the Palmetto area, Don and his family have their home on three acres-- called the Riker Angus Ranch--and lease adjoining acreage for pasture.

"Improved pasture--seeded and fertilized-- will support about two animals per acre," Don explains. "You supplement their feed with hay and protein blocks, particularly in winter when pasture grasses are low or killed off by frost."

Don's Angus herd is strictly for breeding. He acquired his 1700-pound purebred Angus bull (worth about $1000) by trading off several heifers and cows last year. Don figures his herd's average worth is about $300 per head.
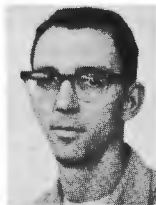
"Angus are good-tempered and have no horns," Don says. Calving isn't really a problem. The mother takes care of herself and the calf, and complications are rare."

Don Riker (left) with his purebred Angus bull, grandson of an International Grand Champion. Right, Joe and Caryl Faso with "Ankonian of DD."

However, record-keeping is important in cattle raising. Besides satisfying the Internal Revenue Service, you've got to know when a cow is bred, when she'll calve, know the bull in order to avoid later in-breeding, keep track of shots for each animal--bangs, blackleg, brucellosis, vitamins and other medication. If you're registering purebred stock, you must substantiate the animal's lineage--dam, sire, grandparents and great-grandparents. In addition to the purebred Angus, Don has a couple of steers for table beef, a Guernsey for milk, and some hogs.

Luke Brendle (Digital Products Engineering) is enlarging his herd, aiming for beef and profit. On their 80-acre homestead near Myakka City, the Brendles and their four sons (ages 8-14) run a do-it-yourself operation--clearing land, building barns and fences, planting large vegetable gardens. Luke now has 9 acres in Pangola for hay, and 20 acres in Argentine Bahia for improved pasture. His herd of 25 head includes Angus-Brahman cross, Angus-Hereford cross, a registered Angus bull, and two dairy-beef cross cattle. The Brendles use two or three head a year for table beef.

Are cows hard to handle? "Well, they vary," says Luke. "The compact Angus-type cattle go through the fences, and the large Brahman-type go over the fences!"

Joe and Caryl Faso's 30-acre "Jay-C" ranch is on State Road #64, 10 miles east of Bradenton. (Joe works in Systems, Caryl in Engineering.) Joe's enthusiasm is infectious as he talks about his cattle. "I've got 23 head now--a grade herd for beef. Nine are purebred Angus. The others are part Charolais, Angus, shorthorns and Hereford. For a winter food supplement, I buy 100-pound sacks of citrus pulp from Tropicana--a high-energy citrus by-product with the citrus rind, pits and pulp dried into small chunks or pellets. This is mixed with high-protein cottonseed meal."

An electrified fence helps Joe to keep his cattle where he wants them--although he lost one head, presumably to "rustlers."

His automatic water trough, now hooked up to a deep well, is a big improvement. "During the 1967 drought, our water holes and shallow well went dry. So every day for two weeks I carted four 20-gallon garbage cans of water from my sister's place to water the cattle. Each animal drinks 10 gallons of water and eats about 40 pounds of grass a day. You also need to put out 30-pound blocks of salt and trace minerals (at $2 each) for the animals to lick. It aids their digestion."

George Phillips, of Production's Special Projects group, has a few head for table beef and a dairy cow. Some day he hopes to have more cattle on the family's 32-acre homestead in Parrish. Two sons, 7 and 14, help with milking and chores.

GEORGE PHILLIPS   PERVIS SANDERS   DICK VORCE

Dick Vorce (Analog Products Engineering) keeps about five head of mixed breed for beef on leased pasture. He also has 100 acres near Myakka where he plans to raise purebred Charolais in the future.

Two EMR men in Test raise cattle in the Plant City area. Pervis Sanders shares some acreage with a member of his family, and together they raise dairy and beef cattle. George Bennett's 18 head of mixed Brahman, Angus and white face are looked after by his brother during the week, and George goes to Plant City on weekends.

You don't really need much acreage-- Milt Litwiller (Systems) reports he has one young Ayrshire steer on a half acre of grass at his home (between Tallevast and Oneco.) "He's sort of a pet and also mows the grass," Milt says, "but next year he'll give us about 350 pounds of high quality beef at roughly 10¢ a pound less than the price would be for a side of beef, and 20¢ a pound less than the supermarket price."

Beef cattle dress out to about 55 or 60% meat and 40-45% waste. All the EMR "cattle barons" agree that the quality of the beef they raise themselves is much superior to the beef you can buy. And that's no bull.

NEW BROCHURE READY

A brand new EMR Telemetry/Computer Systems brochure will be included in the current issue of Telemetry Journal -- ready for distribution at the International Telemetering Conference in Washington, D. C., September 15-17.

GEORGE BENNETT   LUKE BRENDLE   MILT LITWILLER

TWO EMR FACILITIES EXPAND INTERFACE

Ron Gadway, Senior Applications Engineer, moves northwest this week to become "our man in Minneapolis." His reassignment to EMR-Computer is in line with continued efforts to expand and improve coordination between EMR-T and EMR-Computer in the design, manufacture and marketing of data acquisition systems.

Ron Gadway

Prior to this move, Ron had worked in Research and Engineering, Systems and in Product Marketing.

J. D. West, EMR-Computer Technical Support Engineer, has been assigned similar interface duties here as EMR-C's man in Sarasota. In addition, EMR-Computer has recently established a new Florida District Office at the Sarasota EMR plant. EMR-Computer's Florida District Sales Manager Randy Williams and Florida District Analyst Edward Stucky now cover six Deep South states from their Sarasota base of operations.

DEMONSTRATIONS GIVEN AROUND THE COUNTRY

EMR-Telemetry's well traveled demonstration equipment spent two weeks in the Mountain Sales Area recently, with Bob Jimenez and Ross Tilton showing customers and prospective clients just what our equipment can do for them.

Ross and Bob traveled with the 900-pound field equipment display to make presentations in Albuquerque, White Sands, and Holloman Air Force Base, New Mexico.

During September, EMR-T's Eastern Sales Area and Product Marketing personnel will join forces to present a series of individual showings of these display units to customers in the Boston-Philadelphia-Washington-Long Island area.

These traveling demonstration units include 2700-series PCM manual display; 4000 Tunable Series manual- and computer-controlled equipment; 4000 Modular Series FM equipment; High Frequency FM equipment, and computer-controlled Discriminators and VCO's.

COMPLEX LRL SYSTEM SHIPPED TO CALIFORNIA (Continued)

compared to previous computer-controlled telemetry systems. Two disc memory systems are contained in the 6130 Computer, giving the machine a greater capacity for mass storage and high-speed data processing. Computer peripherals include a cathode-ray-tube (CRT) display with a light pen.

EMR-T's 2700-series digital modules and 4000-series analog products were integrated with the computer hardware and software in our Ground Digital and FM Systems section headed by Walt Knopik. Rack assembly was handled by personnel from Production's Special Projects group under Bill Gibson.

Alyene McCoy, Jim Ewton and George Phillips of Production's Special Projects group, handled rack assembly for the complex LRL system.

Programmer Analyst Jon Altenbernd at the console of the LRL telemetry-computer system. In the background are mag tapes, discs, and the computer's central processor.