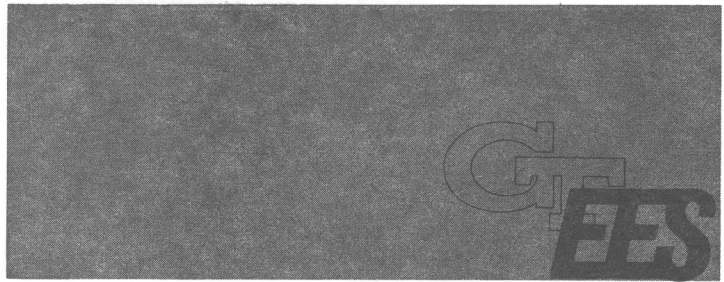


STATION NEWS

ENGINEERING EXPERIMENT STATION • GEORGIA TECH



VOLUME 7

NUMBER 8

SEPTEMBER, 1978

Radar Project at Tech to Save Money for Military

One of the many projects in radar research and development underway at EES is known as EROS (Environment and Radar Operation Simulator) and is significant in that it is a hardware simulator, not a computer simulator, and the EROS can save the military money in testing radars and radar systems.

The hardware facility is electrically connected to a radar and simulates the radar's external world in producing synthetic backscatter. The EROS concept, its requirements and its potential capabilities were identified by the Combat Surveillance and Target Acquisition Laboratory of the U.S. Army Electronics Command (ECOM).

The function of EROS, according to **Eric S. Sjoberg**, project director in the Radar Instrumentation Laboratory, is to produce a synthetic controllable radar signal consisting of simulated returns from a variety of targets and clutter in battlefield environments.

EROS has many possible uses. It can serve as a cost-effective replacement for radar field tests by providing realistic, repeatable and controllable laboratory experiments; it can assist radar maintenance in identifying faulty radars and in check-out after repair; and it is an aid in radar operator education.

A related program being proposed and developed for the application of the EROS is called LARIAT and is being formulated by ECOM for application of the EROS capabilities. This proposed program will automate the detection of un-



Herb Burrows, (center front), seated with his wife, is surrounded by his many friends as they gather to celebrate his retirement after nearly 38 years with Georgia Tech.

authorized human intruders at military bases.

According to Sjoberg, the EROS system translates scenario information into signal data in a form appropriate for real-time simulation. During the real-time simulation, the EROS system combines scenario data, signals from the subject radar, and operator commands into realistic radar backscatter, which is applied to the radar receiver. This form of simulation permits laboratory testing as an alternative to field testing and has a number of potential advantages: EROS testing promises to be less expensive than field testing; the results are controllable to a high degree of scenario detail; and the tests are repeatable. Signal insertion at frequencies other than radio frequencies permits simulated field testing of specific receiver components without having to incorporate this component in a complete radar.

Reminder to EES Employees

The EES Flower Fund serves as a means for employees to express sympathy and concern to fellow workers. Donations to support the fund are entirely voluntary, but it is hoped everyone will participate. Suggested contributions are as follows: PRS/E — \$6.00, SRS/E and RS/E — \$4.00, ARS/E and Support Staff — \$2.00. Send any contributions to the R&P Department.

Attention, Authors

The technical editor for a major book publisher is planning to visit Atlanta within the next few months.

Persons with manuscripts in engineering, science or economics wishing to confer with the editor should contact Dr. Maurice Long at 262-2588 or 237-9352.

TDL

The annual meeting of Area Office personnel was held on Jekyll Island August 3 and 4.

Ed Bethea hosted a meeting of the directors of the various Technology Commercialization Centers. The purpose of the meeting was to discuss an information exchange system to be installed in each Center. States represented were Washington, Mississippi, North Carolina, Washington, D.C., Georgia and Oklahoma.

Ben Trammell and **Dr. Badarinnath Dixit** joined TDL last month as members of the new Community Energy Systems Branch headed by **Dave Wade**.

Bill Craig of the Macon Area Office resigned effective August 31 to become Engineering Manager of Allied Operations of the St. Regis Paper Company, Jacksonville, Fla.

Jim Knight and **Ken Purdy** visited with the DOE staff in Washington, D.C., on June 28 to discuss "Fuels from Biomass" and other related subjects regarding future contract work.

Ed Bethea was in Washington, D.C., July 18, to give a presentation to the Assistant Secretary for Administration of the Department of Commerce on the Technology Utilization and Commercialization Center located at Georgia Tech.

Dr. Tze I. Chiang of the Economic Development Division, had his article, "Economics of Thermo-mechanical Market Pulp Mills in the Southeastern Part of the United States," published in the July issue of Forest Products Journal, a monthly publication of the Forest Products Research Society.

Eric Berg of the Industrial Extension Division, was invited to act as a judge, July 31 and Aug. 1 and 2, in the Governor's All Star Program for Georgia Communities.

Dr. Mac Bowen resigned from RUB to go into business from himself and to do consulting work.

Kay Powell of the Augusta Area Office resigned effective Sept. 1.

In the Energy and Engineering Division; **Bill Boykin**, **Wiley Holcombe**, **Dennis Coughlin**, **Larry Fisher**, **Guillermo Hoyos** and **Carol Aton** recently joined EES.

In the Chemical and Material Sciences Division; **Ibrahim El-**

Barbary and **Chris Newman** are also new personnel.

Jeff Rees recently resigned from RUB to join a company in Washington, D.C.

IPO News

Don Lodge has resigned from IPO effective September 15 to become Director of Management and Rural Development at Math-tech, Inc., a management consulting firm.

Frank Malvar will leave in mid-September for a five-week stint in Ghana under the AID Small Industry Grant. He will work on the design of basic machinery, such as a maize sheller and grinder, cassava grater and sugarcane crusher, for the Technology Consultancy Centre to produce for use at the village level.

Nelson Wall has been asked by the Colombian government to perform a study of its National Apprenticeship Service (SENA) and to make recommendations for its improvement, including modifications in its training programs and evaluation systems. He will be in Colombia for three to four weeks in September and October.

EES Services

The EES Service Groups have several new employees: Valarie Carter, report typist in the Reports & Procedures Department; Mary Gene Ryan, clerk in the Supply Services Department; and Jennie Tiernan, accounting clerk in the Accounting Department.

SED News

SED welcomes a new secretary, **Rachel Foster**. Ms. Foster transferred from Reports and Procedures Office to become the secretary for the new Special Projects Office of SED.

Dr. Peter G. Sassone of Industrial Management and the Systems Engineering Division recently attended the Annual Meeting of the American Association for Engineering Education in Vancouver where he was presented with the Eugene L. Grant Award. The Award recognizes the outstanding paper in Volume 22 of *The Engineering Economist*. Incidentally, the new book by Sassone and Professor Bill Schaeffer

of the IM College is now available. It is entitled *Cost Benefit Analysis* and is based largely on their work on the NASA-Lewis project on cost benefit analysis of wind energy systems.

It Can Happen...!

Just this past month, one of two cartons of State-owned equipment was lost by an airline carrier as the property was being returned from an EES field site operation. Claims were filed with the carrier for minimum coverage and under "All-Risk" insurance through the State Insuring Unit (the claim amount was \$12,841). Fortunately, some 18 days later, this property was located by the carrier and delivered to EES intact.

This incident reminds us that whenever State-owned property is to be removed from the campus for job-related utilization, a report of the movement must be on file in proper form at the Office of the Director.

Questions or requests for information concerning "All-Risk" Insurance coverage and reporting should be directed to C.E. Smith, 304 Hinman Research Building, telephone 894-3515 (from off-campus) or either extensions 3676 or 3515 (on-campus).

An Equal Education and Employment Opportunity Institution

STATION NEWS

Vol. 7 No. 8 Sept. 1978

Published monthly for employees of the Engineering Experiment Station, Georgia Institute of Technology, Atlanta, Georgia 30322.

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Wood Show on the Road

The Technology and Development Laboratory and the Georgia Forestry Commission are hitting the road this month to demonstrate to Georgia residents that wood can replace fossil fuels and electricity for space heating.

Equipped with two trailers, one fitted with different designs and makes of wood-burning stoves and one fitted with central wood-burning and multi-fuel furnaces, TDL and the Forestry Commission plan a year-long tour of the state in order to show folks how effective wood can be as a fuel source.

The purpose of the tour, according to Carol Aton of TDL, is to educate homeowners, store operators and energy system installers on using wood to replace scarce or costly fuels. Aton says emphasis will be placed on the purchase, installation and safe operation of wood-burning appliances as well as how to obtain a wood supply.

Forestry Commission personnel will do the actual manning of the trailers and TDL engineers will provide training to the foresters on the mechanics behind wood-burning equipment.

RAIL

Last year, **Eric Sjoberg's** horse had a foal, and now they have a rider for it. Eric, and his wife Maggie, are proud parents of a baby girl to be named Abigail Grace. Abigail Grace was born at home and weighed 5 lbs. 10 ozs.

Congratulations to **Skip Wethington** who is to be married in September.

L. A. Leiker and **L. A. Sims** were invited by the Human Engineering Laboratory at Aberdeen Proving Grounds, MD, to observe studies on loading and firing rates of three artillery howitzers.

R. A. Gagliano, **L. A. Leiker**, and **L. A. Sims** visited Aberdeen Proving Grounds to present a briefing to members of the Human Engineering Laboratory on preliminary results of an indirect fire study.

L. A. Sims and **L. A. Leiker** visited the Director of Evaluation, U.S. Army Field Artillery School at Ft. Sill, OK, to present a briefing on indirect fire data collected during

Army Training and Evaluation programs over the past year.

Carol Agee, ARS, recently joined EES. She graduated from Virginia Polytech with a BS and MS. Carol comes from Christiansburg, VA.

D. Roger Johnson, RE, received his degree from Georgia Tech, majoring in electrical engineering, and is formerly from Calspan Corporation.

Welcome back to **Gene Knott**. Many will remember Gene from his former days in EES working with **Fred Dyer**.

Carol Hollins left EES in August to get ready for her baby, due in November. Carol has been replaced by **Susan Fuller**.

Otto Rausch has left to take a job in another area of the country.

MEETING NOTICE

**PEACHTREE ROOST
ASSOCIATION OF OLD CROWS
DINNER —
WITH SPOUSE/GUEST
SPEAKER — MEL MARCUS
20 SEPTEMBER 1978
FOR DETAILS,
CALL JANICE, 894-3519.**

ETL News

Don Clark and **Bill Free**, EMC Group, were in Syracuse, N.Y. August 14-15 for a technical conference at RADC.

Ernie Donaldson, EMC, attended the Composite Material Seminar in Washington, D.C. August 23-25.

Craft Elected

Dr. T. F. Craft, senior research scientist, ASL, was elected 1st vice president of the Georgia Water and Pollution Control Association at its Annual Conference held at Savannah August 20-23. The organization has about 2500 members and is the spokesman in Georgia for the water and wastewater treatment industry.

Tech to Send Energy Aid North

The EES has contracted to help an Ohio city find ways to use waste steam from the city's electric generating plant to heat local homes and businesses.

Beginning sometime this summer, EES will undertake the energy conservation project for the city of Piqua, Ohio, a small Midwest city located on the Miami River. The major aim of the project is to determine the economic and technical feasibility of adapting the city's homes, businesses and coal-fired electric generating plant so that waste steam from the plant can be used for heat. The project is being funded by the Department of Energy.

According to **David Wade** of TDL, two methods of using the waste steam are currently being considered. In the first, waste steam from the generating turbines in Piqua's electric plant would be piped directly to radiators or heating coils in homes and businesses in the city. In the second, the waste steam would be used to heat water which would then be piped to the radiators and heating coils. Heat from this steam is now discharged into the Miami River.

Piqua is one of eight locations in the Midwest and Northeastern United States selected by DOE to participate in energy conservation projects of this type. These projects represent the first phase of a program leading to the possible construction of central heating systems for entire communities using waste heat from electric power plants.

This energy conservation concept, known as cogeneration, would increase the operating efficiency of power plants and lessen dependence on limited fuels such as natural gas and oil.

Wade points out that central heating systems have been used for some years in Europe where fuel prices are almost double what they are in the United States.

**Use appliances
efficiently and sparingly**

Personality

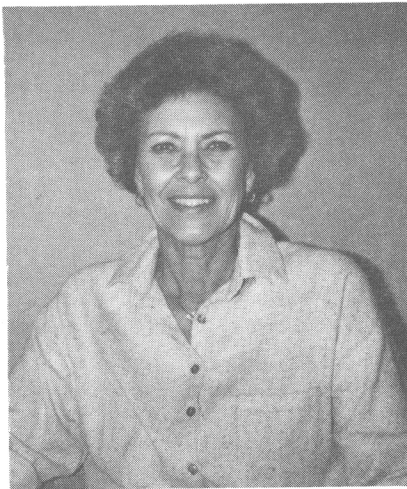
Live Wire: Margaret Textor

Around one of the corners at C&S, in a well-lighted place, an EES personality conducts business for the Office of International Programs, and her office gives immediate confirmation that herein resideth one of the live ones. Noticeable are plaques stating, "*A Clean Desk is the Sign of a Sick Mind*," and "*Coast Clear, Boss Happy*," as well as a hand-written, wall-attached message instructing that, "*Social Visits Strictly Discouraged. This Probably Means YOU!*" and illustrated with an authoritative picture of "*The Mgt.*" If Ross Hammond, director of OIP, ever noticed the sign declaring, "*This Place Would Die Without Margaret*," he might have playfully chided, "Margaret who?"

Margaret Textor, administrative secretary to Hammond, had not intended to work for more than four years — while one of her daughters was at Radcliffe. "I guess I'm a fixture now," she laughs with her usual vivaciousness. "This is my 20th year."

Twenty years with EES...and on the same team even though the name and home bases have changed. "First we were the Industrial Development Branch, then we became a division, then Economic Development Laboratory and, finally, International." She further recalls, "Once upon a time we were housed in 1100 square feet of the Library, then 680 W. Peachtree, then 1132 W. Peachtree, and when we moved to the Baker Building, we thought we had come home, but it was on to C&S." IDB, IDD, EDL, OIP and still OK. Many agree that Margaret has a built-in stability and security system.

Twenty years at Georgia Tech. "I stayed because I've loved it here," says Margaret, often referred to as a "secretary's secretary" because people from all over campus know that she either has the answers or can give directions. A co-worker of long standing recently offered that those who recognize ability when they see it say that Margaret is one of the highlights at the Station — with remarkable skills and wittiness. She's capable with foreign money exchanges as



Margaret Textor

well as everyday transactions, and she's also been described as adept at juggling ten priorities at one time. And she's multi-lingual. "Yep," she laughs, "I can say 'high-bush cranberry' in Ojibway and 'Is this yours?' in Finnish...and 'How are you?' in Swahili." Her style is elegant humility.

Born in Chisholm, Minnesota, Margaret attended the University of Minnesota and then, after living in New Jersey, Pennsylvania and Wisconsin, she and her husband, "Tex" settled in Atlanta about 24 years ago. "My family's a unique group," she declares, "and even though our children — Suzy, Clinton and Julie — are grown now, we're still the closest of friends. We visit each other often and even travel together, here and abroad. And my son-in-law, Bill Badger, — why, I absolutely adore him!" Children. Family. That's what Margaret Textor is convinced life is really all about. Recently, she bought a 100-year-old Christening gown. "Yep," she exclaims, "for a new grandbaby — I'm about to get another one!"

She describes her own parents in superlatives. "They were the smartest people I've ever known...and a fine influence on our children as they indulged all three with the things that count — a love for nature, respect for others, painting...even the knowledge that families can live far away and still have deeply affectionate and nourishing relationships." Margaret's parents later lived with the Textors for six years, "and we continued to be good friends," she adds.

There seems to be a story behind

everything in Margaret's life. The log of family pets includes: "Rodger, the Lodger," a cat who turned out to be a female named Pixie — and Lorelei I and II (two Weimaraners), Napoleon, Hop-o-My-Thumb and others. Her own parade of nicknames brings queries: "The Dragon Lady," "Queen of C&S," Maud, Monge, Maggie, dear Margie and Marg as well as WGS*. "Margaret," according to a long-term friend, "is always comfortable — incredibly fun — and works as hard as anyone I know." Enthusiasm and wit continue to punctuate her conversation. If eating chocolate, Margaret's comment might be, "I feel like I've died and gone to heaven." "Isn't that tacky," she responds to phoniness, and whereas she's charming, she is not easily charmed.

Not the ambitious type, Margaret hasn't aimed for rich-and-famous type goals. Satisfied with what is, she communicates a peace of mind midst genuine cheerfulness which has unusual stamina. Her main interests continue to be not of the cooking and sewing variety but, rather, numerous friends, travel and family. OIP is described in a monograph as being "a major operating unit and coordinating center..." Someone said that sounds like Margaret. Different world, same music.

*One story goes that some time ago, Ross Hammond called Margaret at home and asked for the "World's Greatest Secretary." "My daughter Julie answered the call," Margaret offered, "and firmly told him that he had the wrong number and then promptly hung up the phone." Her eyes light up as she exclaims, "'A Prophet is without honor in his own home.'" The OIP phone rings again...and again. Someone is put on hold, and there is no doubt about it. She'll make sure she's back in a minute.

—Sharon Sebalý

