

# Station News

Georgia Tech Engineering Experiment Station

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MARCH 1982

## ATDC Cites First-Year Accomplishments

The Advanced Technology Development Center (ATDC) expects to start construction in about a month on the 45,000-sq. ft. first phase of its complex, to be located at the corner of Tenth Street and Greenfield, one block west of the Baker Building. Together with a second building of comparable size to be erected shortly thereafter, the facility will cost a total of \$5.1 million — funded two thirds by the State and one third by Georgia Tech.

The center will provide rental "incubator" space for high-technology entrepreneurs, administrative offices for ATDC, space to display and demonstrate the latest state-of-the-art technology and exhibits of products made in Georgia, as well as conference and audiovisual facilities.

The ATDC staff has an impressive array of accomplishments under its belt at the end of its first full year of operation. Major developments so far include:

- Four entrepreneurs have located in temporary incubator space on campus.

- ATDC is assisting 16 other entrepreneurs.

- A major microelectronics firm is seriously considering Georgia as a location for a \$200-million division headquarters that ultimately will employ 1,500 people.

- Eight other major electronics-related industrial prospects have been identified.

- One high-technology industry has made a tentative commitment to establish R&D activities in the incubator facilities and serious discussions are under way with another.

- ATDC has cosponsored three large venture capital conferences.

- An ATDC resource support network has been established in the Georgia technology, academic, financial, political and development communities.

As of February, ATDC had received more than 300 inquiries about its entrepreneurial development program, and 70 companies had applied for ATDC assistance. Aid ranges from providing access to Georgia Tech supporting services to management and marketing assistance and identification of venture capital sources. When the incubator facilities are completed and the ATDC staff size expanded, the tempo of entrepreneurial aid should increase substantially.

ATDC is actively participating in Georgia's concerted efforts to recruit high-technology industries. To date, ATDC personnel have made four domestic and two international industrial recruitment visits.

"We have called on EES personnel for assistance quite a bit in our initial activities," said ATDC Associate Director **Wayne Hodges**, "and we expect to continue to take advantage of their expertise and capabilities. Many of our industrial contacts originate with or involve EES, particularly in the electronics field," he pointed out.

"Last year, EES' eight field offices cooperated with us in putting on seminars all over the state that attracted 400 to 500 persons," Hodges added. "We also participated with the Technology Applications Lab in evaluating the high-technology training capabilities of Georgia's vocational-technical schools.

**Jerry Birchfield** is acting director of ATDC while a search is going on for a permanent director. Hodges is associate director, and other full-time staff members are **Bob Schwartz** and **David Wolfson**. Tech research and academic faculty members, including EES personnel, are used on a project basis to provide support in specific areas of expertise.



This rendering by Cooper, Carry & Associates, Inc., ATDC architects, shows how the first building of the ATDC complex will look. Tenth Street is on the lower right, and the Baker Building is beyond the lower left corner of the picture.



TAL's booth at the International Poultry Trade Show attracted much interest and prompted a picture and story in the *Atlanta Constitution*.

## TAL Promotes Farm Computers

Researchers in the Technology Applications Lab (TAL) are developing software that will help poultry farmers increase their profits by using computers.

TAL's Poultry Research Group, headed by **Craig Wyvill**, already has developed a program for financial records, and compiled a list of home computers costing under \$1,000 which are suitable for farm information systems. They now are evaluating sensors and electronic controls to monitor heat and ammonia levels in poultry growout houses. Wyvill believes it will be possible eventually to program a computer so that it constantly monitors and even corrects unacceptable conditions.

The on-farm computer system was the "star" of Georgia Tech's exhibit at the huge International Poultry Trade Show, held at the World Congress Center in Atlanta January 28-30. "Lots of people stopped by," said Wyvill, "and we had 35 requests for further information, about 40% of them from overseas visitors."

Other examples of TAL's work that were exhibited included models showing solar and wood energy systems developed for poultry growout houses, a model of a wastewater treatment system, an electronic data information system developed for poultry inspection, and samples of noise control panels for processing plants.

### EES-Related Short Courses Coming Up

April 27-29. *Electromagnetic Radiation Hazards and Medical Applications*. Administrators — Albert Sheppard (Research), James Wiltse (EES), James Toler (ECSL). Faculty will include members of ECSL's Biomedical Research Division.

May 3-4. *Biomass Energy: Commercial Opportunity Update*.

May 5-6. *Non-Petroleum Fuels Alternatives*.

May 10-11. *Energy Cost Reduction Refresher for Managers*. Administrators for energy courses — Albert Sheppard (Research) and Jack Spur-

lock (OIP). Faculty will include EES personnel.

May 13-14. *Industrial Noise Control and OSHA in 1982*. Coordinator — George Lee (EDL-Macon).

May 17. *Financing Alternatives for Energy Conservation Equipment*. Coordinators — Hank Jackson and Bill Himes (TAL).

May 19-20. *Basic Safety Management*. Director — Mike Luster (EDL).

Registration deadlines are usually ten days prior to the course starting date. For further information, contact Continuing Education.

## Professional Ac

### ECONOMIC DEVELOPMENT LAB

**David Clifton's** *Project Feasibility Analysis: A Guide to Profitable New Ventures* (New York: Wiley, 1977), co-authored with **David Fyffe** (ISyE), recently was translated and published in a Hungarian edition.

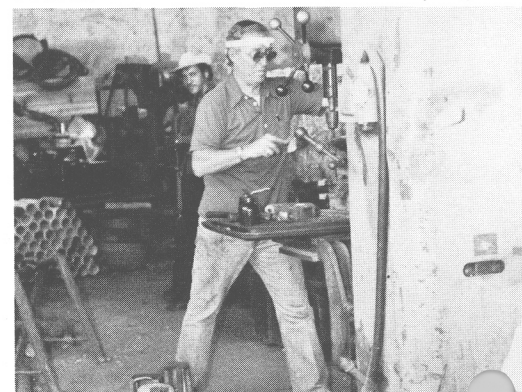
**Judi Komaki** made a presentation on "The Role of Performance Consequences in Work Motivation" at Bowling Green State University in Ohio and reported on her Marine Corps preventive maintenance project to the U.S. Marine Corps Tactical Motor Transport Conference in California.

Industrial Extension Division: **Jim Mercer** is a coauthor of a recently published book, *Managing Urban Government Services* (New York: AMACOM). He also was quoted in the *New York Times* Business Section of March 4, 1982, in an article about how municipalities can save money. New Professional Engineers are **George Lee**, mechanical engineering, and **Dennis Primrose**, industrial engineering. Primrose is in Korea working on the Korea Credit Guarantee Fund project.

Safety & Health Services Branch: At the February 8 meeting of the American Industrial Hygiene Association — Georgia

## Pump Projects A

For six years, international development personnel at EES have been promoting the local manufacture, installation, maintenance and repair of a manually operated water pump in numerous developing countries worldwide. Funded by the Agency for International Development under its Water And Sanitation for Health (WASH) program,



At a foundry in Honduras, Ben James of TAL's International Division demonstrates machining techniques in manufacturing water pumps.

## Activities Reported

Section, **Jim Burson** and **William Spain** made presentations on the recently expanded noise and inorganic arsenic standards.

### ENERGY & MATERIALS SCIENCES LAB

**Martha Clayton** spoke at the Ninth Annual WATTEC National Energy Conference in Knoxville, Tenn., on February 24 on the topic: "High Temperature Solar Energy Technology — Applications in the 1980's."

### RADAR & INSTRUMENTATION LAB

**Bill Steinway** and **Charles Luke** recently attended the Tenth International Pipeline Technology Exhibition and Conference in Houston, Tex., where they exhibited a ground penetration radar system on behalf of Gulf Interstate, a current sponsor.

### SYSTEMS ENGINEERING LAB

**Jerry Heckman** was the copresenter of a technical talk to the Independence Chapter of the Association of Old Crows in Philadelphia, Pa., on January 12. The topic was "Adaptive Polarization Electronic Countermeasures."

### TECHNOLOGY APPLICATIONS LAB

**Douglas Moore** was the administrator and principal instructor for the March 9 short course on Alternatives in Residential Heating and Cooling Systems.

## Active in 7 Nations

the projects have brought reliable supplies of safer water to rural areas of Africa, Asia and Latin America.

Project Director **Phil Potts** has five engineers in the Technology Applications Lab (TAL) currently working on seven such projects in the Dominican Republic, Ecuador, Haiti, Honduras, Tunisia, the Philippines and Sri Lanka. Completed projects have been carried out in Costa Rica, Nicaragua and Indonesia. Overall, approximately 3,600 pumps have been manufactured and, when installed, will serve some 350,000 rural villagers.

Georgia Tech's role is basically technology transfer. In each country, TAL personnel work with local foundries to develop pump manufacturing capabilities. They also instruct the people in proper methods of well construction and water disinfection, as well as pump installation and maintenance, so that by the time the Tech engineers leave, the country can handle the work without further outside assistance.



PEACH Program enrollee undergoes treadmill test which evaluates blood pressure, heart rate, and electrocardiographic responses to exercise. Maximum oxygen consumption is measured during the final stage of the test as the participant breathes through a mouthpiece.

## SAC Body Shop

### Repairs Tech 'Recks

Are you tired of being a rambling 'reck — not operating on all cylinders? How would you like to be a Georgia Tech peach instead? It's easy: just join the PEACH (Physical Evaluation And Conditioning for Health) Program!

Tech's Department of Physical Education offers this health enhancement program to faculty, staff, alumni and their spouses at no cost except for an initial health-related fitness evaluation. The evaluation fee is \$100 and is partially reimbursable under the Georgia Tech medical insurance. An exercise physiologist and a cardiologist administer the tests in Tech's Exercise Science Laboratory, evaluate the results, and prescribe a customized diet and exercise plan.

Supervised exercise sessions are scheduled at the Student Athletic Complex on Mondays, Wednesdays and Fridays at 7:00 a.m. and 5:30 p.m. After a general calisthenic warmup, each participant is free to "do his or her own thing" — be it jogging, swimming, racquetball or whatever. Quarterly fitness testing measures the participant's progress.

Health promotion seminars are available to all, not just PEACH members. A 12-week weight control seminar started in January and will be offered again in September. The Physical Education Department plans a course on stress management for April, as well as a stop-smoking clinic sometime this spring. Other possible topics include low back pain,

hypertension and nutrition.

New members can join the PEACH Program anytime. To find out more about this tremendous fringe benefit, call PEACH Program Coordinator **Dalynn Badenhop** at extension 3402.

## Wally Shakun ... Superstar!

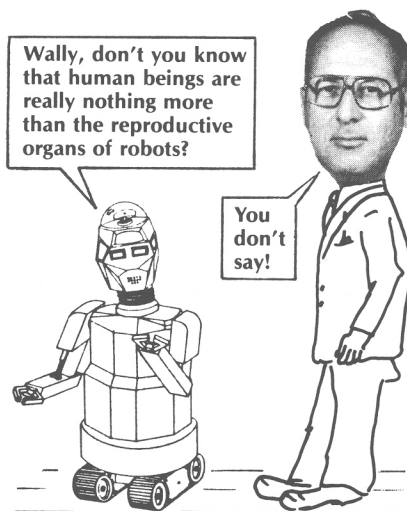
A brilliant new TV star is zooming across the Atlanta horizon — EES' own **Wally Shakun**. Wally, a senior research engineer in the Energy and Materials Sciences Lab, auditioned for — and won — a slot on WAGA-TV 5's Weekend Magazine, shown Saturdays at 7:00 p.m.

Wally, with his dry wit and inimitable "chutzpah," hosts the "Gizmos" portion of the hour-long show. He ferrets out and presents with a humorous twist new and unusual technological gadgets.

His first appearance featured an Atlanta company which makes commercial robot characters such as those in "Star Wars." Always alert to project possibilities, Wally also spoke to the plant manager about contracting with Georgia Tech to improve his production techniques.

On the second show, Wally demonstrated an electrical potato peeler. Our "mad scientist" wound up this segment by using the peel as a jump rope!

Wally says it's no bed of roses to be a TV personality. Besides all the time it takes to come up with material for the program, he spends 2½ to 3 hours weekly taping the four-minute segments. But don't take his complaint seriously — he loves it! And it's good publicity for Georgia Tech.



# Personnel News

## ENERGY & MATERIALS SCIENCES LAB

**Jim Knight** has returned to work after having surgery in late January.

**David Hurst**, a 19-year Tech employee, resigned in January to devote full time to consulting.

## RADAR & INSTRUMENTATION LAB

A recent M.S.E.E. graduate of Georgia Tech, **Vincent Sylvester**, joined RAIL as a research engineer I in March. **Mike Hadsell** has resigned to enter Emory Medical School.

## SERVICE GROUPS

Mechanical Services: **Carlton Osborne** was married on March 12.

Personnel Services: **Brenda Wilkerson** has been promoted to personnel assistant I and **Pat Burns** to administrative assistant. **Molly Bell** is the new *Station News* associate editor for the Service Groups.

Supply Services: **Lesa Keith** was married on March 20.

## SYSTEMS & TECHNIQUES LAB

**Glenda Powell** has been promoted to administrative secretary in the Microwave Systems Division. In January, **Royce Byrd** joined the Division as an electronic specialist.

Systems Development Division: New hires are **Howard Atkinson**, senior research engineer; **Tana Burley**, secretary; **Frank Lee**, mechanical technician I. Returnees are **Mark Kilgore**, mechanical technician II; **Alex Morrison**, research technologist I.

**Richard Whatley** and Freida Walker were married on January 2.

Cradle Roll: Barbara and **Paul Meeks** had a son, Thomas Lance, January 12; Catherine and **Richard Ivy** had a daughter, Andrea Lauren, January 21.

## SYSTEMS ENGINEERING LAB

**Bill Youngblood** has been appointed chief of the Defense Systems Division. **Fred Dyer**, who has been acting division chief, will resume his duties as SEL's chief scientist. Youngblood has reorganized the Division as follows: Applied Systems Branch, **John Vogt**, head; System Requirements Group, **Ronald Creswell**, leader; Advanced Digital Systems Group, **Kenneth Perry**, leader; and EW Software Engineering Branch, **Andrew Lipscomb**, head.

**Harland B. Armitage** has joined the Flight Operations Group of the Countermeasures Development Division as a senior research engineer.



**Bill Youngblood** is now chief of SEL's Defense Systems Division.

**Ken Trussel** was married to Carol Dickson on March 20.

**Barbara Sajor** resigned in February. Her work with the Defense Technical Information Center is continuing under the direction of **Richard Johnston**, EDL, with the assistance of **Jean Swank**.

## TECHNOLOGY APPLICATIONS LAB

**Rachel Moore** has left to work for Kimberly Clark. **Bill Larson** has resigned to go with the Asian Development Bank. **Mercedes Saghini** has transferred to Foundation Relations. **Rick Steenblik** has transferred from EMSL to TAL's Energy Conservation Division for the next six months.

**Virginia Keller** has been elected chairperson of the recently organized Georgia Tech Women's Forum.

## EM Window Meet Set For Campus

Georgia Tech will host its ninth biennial Electromagnetic Window Symposium on June 9-11 in the Space Sciences Building. Anticipated attendance will be approximately 150 people, 30 to 40 of them from foreign countries.

The symposium brings together a select group of engineers and scientists who are working on problems concerning radomes and electromagnetic windows. It was initiated by the U.S. Air Force and Ohio State University in the early 1950s and moved to Georgia Tech in 1966.

This year's general chairman is **Joe Harris** of EMSL. **J. D. Walton** of EMSL is program chairman. Other members of the steering committee are **Dennis Kozakoff** and **Joe Newton** of EML, **Harold Bassett**, RAIL, **Jim Fuller**, ECSL, and **Ed Joy** and **Keith Huddleston** of the School of Electrical Engineering.

## EES Participates In Small Business Study

Two EES staff members were among more than 400 small business leaders appointed by the Georgia Senate Small Business Study Committee to survey the problems and opportunities of doing business in Georgia. Seven task forces were organized to ascertain what should be the role of state government in the economic development of Georgia.

EES Associate Director **Rudy Yobs** chaired the task force on technology development, and Douglas Area Office Director **Sherman Dudley** was a member of the management assistance group.

"The recommendations of the technology development panel were directly applicable to our industrial assistance work at Georgia Tech," Yobs stated. "We urged that existing programs for aid to small business at the University of Georgia and Georgia Tech be strengthened."

"Our report points out that two thirds of all newly created jobs are in existing business, with about 85% of those being in small business," said Yobs. "Obviously, one of the best investments Georgia can make is in providing technological assistance to existing small businesses. Our Productivity Center program at EES is at the forefront of this trend."

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