

# STATION NEWS

ENGINEERING EXPERIMENT STATION • GEORGIA TECH



VOLUME 2 NUMBER 9

SEPTEMBER, 1973

## Plan Ahead

### Satellite Maps

Bill Spann and Nick Faust, Special Techniques Division, have been processing data from the Earth Resources Technology Satellite (ERTS) to produce land use maps of Atlanta and other areas of Georgia. Natural and man-made features which can be identified are roads, water, industrial areas, commercial areas, single family residential, multifamily residential and green vegetation. Depending on the bands selected and the type of automatic classification used other features can also be identified.

The ERTS passes over Atlanta (or any other spot) every 18 days at the same time of day. From its 500 nautical mile orbit, it records reflected sunlight in the green, red, and near infrared portions of the spectrum. These data are then telemetered to Goddard Space Flight Center and processed into computer compatible tapes. The tapes can then be used for automatic classifications such as those described above.

In addition to land use studies, the ERTS data are used for studies in fields such as geology, hydrology, agriculture, forestry, and resource management. Among the many advantages of automatic classification are speed, efficiency, and reduced cost. Automatic classification via computer eliminates the need for skilled photo-interpreters which are in short supply.

The Georgia Teacher's Retirement Plan does help us plan ahead to the years we will have the free time we have been working for. Enrollment in the plan is automatic for University System employees, except maintenance or custodial service personnel, working full time or at least one-half time. And you remain a member until retirement, employment termination or reduction of time to one-half, provided you contribute to the fund at least one year in every three. July 1, the Legislature raised the employer's rate, meaning each month the University System puts in 8.5% instead of 7.75% of your salary in addition to your 6% contribution. Each June 30 your account is credited with 3½% interest paid on the previous June 30 balance.

You may contribute to the plan for a maximum of 40 years, with fractions of years added together. If you have 40 years of service and are less than 65 years old, you may cease contributing. A waiver may be approved to continue contributions after age 65.

You qualify for a service retirement if you have 35 or more years of service or reach age 60 with at least 10 years of contributing time. A member is eligible for disability retirement if he has 10 years of service and is under 62 at the time of permanent disability. If the retiree is over 62 or has more than 35 years of service, applying for a service retirement may be financially advantageous. Mandatory retire-



ment age is 67.

The minimum amount paid to you is \$9 per month per year of service. At age 62 a monthly cost of living escalator is added January 1 and July 1. This amounts to 1½% of the monthly benefit. There are different formulas for computing your monthly benefit which may be found in the Handbook, reprinted in the Procedures Manual. It has recently been revised and is available to EES personnel.

There are several safeguards for your account and service years. Leaves of absence will permit flexibility in retaining years of service. A member may take critical illness, one-year maternity or child adoption, three-year military or four-year study leaves of absence. Details about these options are available in the Handbook.

Credit for lost service in previous years may be established. If you elected not to join the plan at its start, you may pay in the accrued amount and its interest had you been a member since January 1, 1945.

Continued, next page.

## PLAN AHEAD —

If you were out of service for two but not more than three years without removing your contributions, you may pay 12½% of your last annual salary to re-establish credit. The rate is 25% if you were out three to four years. If you withdrew your contributions, you must repay that amount plus interest; or if you lost eligibility and did not withdraw the funds, you simply pay the interest. In both cases, five years' current membership is required.

**For those with military service, you may also establish credit. If you were covered by the plan before 1960, you may get up to five years' service credit between specified dates for World War II, Korea and Vietnam by paying the contributions and interest based on your salary before entering the service or your first salary after discharge. Credit for military service between Dec. 7, 1941 and Dec. 31, 1944, is established at no cost. Non-professional employees covered by the 1960 amendment get credit for post-1945 service based on the same criteria.**

If you participated in another state's retirement plan, you may establish up to ten years of credit, provided you are not entitled to the other fund. After serving five years in Georgia, you may match each additional year here with one year of service from the other state. The pay-back rates differ for the years and conditions of reciprocity. You may also purchase credit if you taught in an American Dependents' School.

If you are not eligible for retirement but have 10 to 35 years of service and terminate your employment, you may freeze the benefits until you reach 60, then draw a monthly allotment. There is no interest paid during the freeze period. Should you return to the System before 60, the frozen and active contributions are valued at the average of your highest salary for five consecutive years.

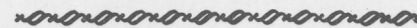
Application for retirement benefits should be made no later than the end of the month retirement becomes effective. Death benefits become effective the first of the month following death.

The amount of retirement benefits is based upon a person's salary and length of service. If he dies before the funds are exhausted, the balance goes to the beneficiary. The contributor has options for payment plans: he may take a reduced monthly amount with the guarantee of a lump sum going to the beneficiary. Based upon the ages of the contributor and the beneficiary, either the same amount may go to each, or the beneficiary may receive one-half the member's monthly amount. The member may also designate the amount payable to the beneficiary, upon approval of the Board of Trustees.

Your survivors receive a lump sum of your assets and interest if you die before retiring and reaching 60 with less than 10 years' service. After 10 years' service, the survivors may elect to receive a lump sum or a monthly installment. Beneficiaries receive the maximum allowable, provided the contributor had 10 years of service if he was younger than 60 or was at least 60 with ten years of service and had filed the appropriate forms.

**Retirement benefits are subject to Federal income taxes, but not to Georgia taxes. Disability checks are included as sick pay and are excluded from taxes until the recipient reaches 62, then they are taxed in the normal retirement income manner.**

**For any questions not covered by the Handbook, contact the Teacher's Retirement System, 254 Washington Street, S.W., Atlanta, 30334.**



Some minds are like concrete—all mixed up and permanently set.

**Eugene Greneker**, Radar Division, and his wife Jane are proud parents of a baby boy, Gregory Eugene. Born Wednesday, August 22, he weighed in at 7 lbs., 9 ounces.

**John Vogt** has joined the staff of the Radar Division as an Assistant Research Engineer. John is a recent graduate of Southern Tech.



EES Director Dr. M. W. Long, left, and Representative Chappelle Matthews chat during a break at the transportation workshop sponsored by the Georgia Department of Transportation and held on the Tech campus July 31. The workshop centered on research projects and implementation.

## CARDIAC PACEMAKER

The Atlanta Journal, on Tuesday, August 21, carried an extensive article that discussed pacemaker testing here at EES. To date 86 different pacemakers have been tested, while exposed to 8 different electromagnetic environments. The pacemakers have been mounted on open air supports, submerged in saline solution, and implanted in canines. Work has been performed for two military agencies and two industrial organizations by **James Toler** and co-workers in the Communications Division.

**Joseph W. Elder** and **Charles Hilbers** have joined the Sensor Systems staff as Research Engineers. Both are Georgia Tech graduates.

## STATION NEWS

Vol. 2 No. 8 September, 1973

Published monthly for employees of the Engineering Experiment Station, Georgia Institute of Technology, Atlanta, Georgia 30332.

J. A. Donovan, Editor	3405
Bonnee Wettlaufer, Ass't Ed.	3405
Betty Yarborough, Assoc. Ed.	3445
Betty Jaffe, Assoc. Ed.	3430
Ann Lewis, Assoc. Ed.	3516
M. A. Deadmore, Assoc. Ed.	3873
J. E. Garrett, Reproduction	3570

## International Development Activities

The Georgia Tech project to stimulate small-scale industry and employment in developing nations has nearly completed selection of counterpart institutions. Agreements have been signed with Soong Jun University in Korea; Fundacao Educacional do sul de Santa Catarina, an educational foundation in Brazil; and Centro Desarrollo Industrial de Ecuador, an industrial development center in Ecuador.

Winding up the selection process, **Ross Hammond**, IDD, was in Africa August 13-25 to screen possible counterparts there. An agreement probably will be signed with the University of Ife in Nigeria, a technological university whose Industrial Research Unit has just completed a survey of some 22,000 small businesses. Another recommended counterpart is in Kenya — the Rural Industrial Development Program under the Ministry of Industry and Commerce, which is setting up 14 industrial develop-

ment centers around the country. Hammond also visited the Ivory Coast.

The External Advisory Committee for the Agency for International Development (AID)-funded project met at Georgia Tech July 30-31 to review progress to date. Members include representatives from AID, the National Academy of Engineering, The Ford Foundation, and the deans of engineering at Cornell and MIT.

The third seminar of the project was held August 3 in the EES auditorium. Jesse Perkinson of the Organization of American States spoke on the technology transfer project which OAS now has under way.

Working with IDD on the interdisciplinary project are Herbert Eller of Southern Technical Institute, Dr. Kong Chu from the College of Industrial Management, and Dr. David Fyffe from the School of Industrial and Systems Engineering.

## STUDENTS LEARN TO HELP BUSINESSES IN IDD PROGRAM

During the past school year, six students from Georgia Tech and Atlanta University worked with **Bill Ward** and **Hardy Taylor** of IDD's Industrial Services Branch to provide technical assistance for small businesses. The program, funded by the Small Business Administration, was designed not only to help the small businessman with his problems, but also to give the students insight into the opportunities and problems facing business today.

Among the various types of companies assisted were a paint manufacturer, an exterminator, a cut-and-sew operation, a cosmetics producer, a manufacturer of broilers used in restaurants for cooking steaks, and a toy manufacturer. Just as the types of businesses differed, the problems encountered ranged from lack of inventory control systems to areas of poorly designed plant layouts, purchasing, and marketing.

## JOINT USE OF CAMPUS FACILITIES

In a recent memorandum, Tech President J. M. Pettit announced that in the spirit of maximizing the resources of the University System, many institutions are joining in cooperative programs for public service. Often conferences, short courses, seminars and credit courses are held on the campus of another University System Institution. Georgia Tech is involved in several of these joint ventures, and you occasionally may see short courses or seminars jointly sponsored by Tech, the U. of Ga., Ga. State U. or another University System institution. The coordinating unit for such use of campus facilities is the Tech Dept. of Continuing Education. Everyone on campus is urged to offer the traditional Tech hospitality to all visitors.



A counterpart agreement was signed July 30 by Tech President Dr. J. M. Pettit and Soong Jun University President Hahn-Been Lee, Seoul, Korea. The agreement is part of an Agency for International Development grant to develop small scale industries on the international level. Presidents Lee and Pettit are shown in the front row. In the second row are Ross Hammond, Industrial Development Division Chief, EES; Earl Logan, EES; Henry Arnold, AID; Dr. Kong Chu, Tech; Herbert Eller, Southern Tech.

# PERSONALITY

## THE BEACHCOMBER

The EES Resident Frustrated Beachcomber title goes to Manager of Services Tom Jones. Instead of land-locked metropolitan Atlanta, Tom would prefer to be wandering the beaches of Sanibel Island in Florida or sailing the Gulf and Atlantic. But until he and his family can retire to Florida, Tom continues supervising the service functions of the EES.

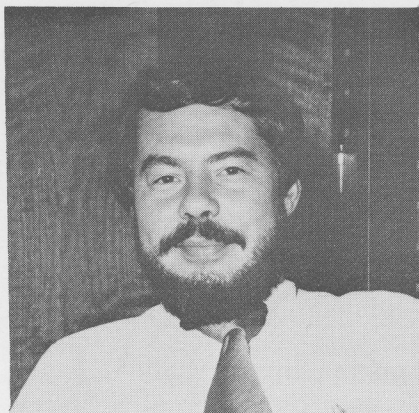
As Manager of Services, Tom is responsible for the proper utilization of available funds, equipment and personnel to insure efficient operation of the various service groups without reducing the quality of work. This also includes responsibility for construction, renovation and maintenance of equipment and buildings. He sums his duties in three words: "The Complaint Department."

Tom's expertise comes from earning a Business Administration degree from Ohio University and from serving as a field representative for Ford Motor Company in Jacksonville, FA. following his Navy service. He has also spent three summers at the College Business Management Institute held at the University of Kentucky. He has been with the EES since June, 1965.

Commenting on his personal goals, Tom said that since his senior year in college he has wanted to be an administrative official in a university or state board of education. He said several members of his family were similarly employed and he always felt they enjoyed their work. Also, he wanted to assist in bringing up-to-date business practices to the educational system.

Tom's hobbies include photography, growing plants under artificial light, sailing, beaching and hunting for shells. His wife Jody and children Leslie and Michael, join him for a week on Sanibel and for a week of sailing as their annual vacation. The shells he picks up on Sanibel usually end up as jewelry.

Tom has several concrete goals for the EES. He wants to provide the most efficient administrative services at the most reasonable



Tom Jones, Manager of EES Service Groups

expenditure of funds. Without reducing service, he has found ways to reduce costs on the telephones, rental charges for gas cylinders used in labs, copying and machine maintenance. Staff members are using their time more efficiently, such as repainting the EES vehicles on machine shop downtime.

One area he is still working to reduce is the amount of the utility bills. For instance, electricity rates have climbed 40%, making the Station's monthly bill about \$6000. Tom is campaigning for all staff members to try to conserve electricity as much as possible by turning off equipment and other high power consumers when they are not in use. The amount of water used can also be curbed. "After all, the more we save on utility bills, the more we'll have for capital expenditures for equipment," Tom commented.

## LET'S GET AWAY FROM IT ALL

Three IDDerS are vacationing abroad in September. **Ross Hammond** is going to Mexico, **David Clifton** is touring England, Wales and Spain, and **Martha Ann Deadmore** is visiting England and Scotland.

**Phyllis Doorenbos** will be working part time as a secretary in the Sensor Systems Division while pursuing studies at Georgia State University.

New secretary in the Radar Division is Mrs. **Judy Bunker**, who recently moved to Atlanta from East Lansing, Michigan.

## IDD MEN PARTICIPATE IN INDUSTRIAL DEVELOPMENT INSTITUTE

**Bill Howard**, IDD, completed his third and final year at the Industrial Development Institute held for one week annually (August 13-17 this year) at the University of Oklahoma under the sponsorship of the American Industrial Development Council. His student thesis, "The Staffing Experience of a New Industrial Plant: A New Technique for Determining Manpower Availability and Characteristics," is under consideration for publication in the *AIDC Journal*.

**Bob Cassell**, IDD, served as director of the Advanced Symposium on International Business for graduates of the Institute, and also was one of the instructors.

The July 1973 issue of **MICRO-WAVES** carried an article by **James Toler**, Communications Division, entitled "Tests Show Common Radiation May Show Serious Malfunctions in Pacemakers," which summarized test efforts at EES on pacemakers.

## HAIL AND FAREWELL

**Lillian Hurd** is the new IDD receptionist, replacing **Carolyn Eberhart**, who will become Mrs. Frank Gelzer in the fall.

**Kay Rogers** "retired" from IDD's Basic Data Branch August 31. She and her husband, George, are expecting their first offspring in December. Kay had been with IDD for eight years.

Most men agree that woman's place is in the home—and that's where he wants his, just as soon as she gets off work.

## STORK SCOOP

**Gaston Parets**, IDD, is the proud father of a baby boy, Maurice Gaston, born August 17.

**Judi Germano**, who resigned from IDD in June, gave birth August 11 to a girl, Kristin Judith.