

STATION NEWS

ENGINEERING EXPERIMENT STATION • GEORGIA TECH



VOLUME 2 NUMBER 10

NOVEMBER, 1973

ABOU for '73

EES is establishing a new procedure for selecting the ABOU Award for 1973. In past years, ABOU winners have formed an ABOU Award Committee whereby names are submitted and selected solely by the Committee. This year nominations will be extended to the entire EES Staff.

For those who wish to nominate a likely candidate, they may do so by sending the nominee's name, with a brief paragraph stating why this person should qualify for the ABOU Award, to: **Gordon Harrison**, Baker Building. Nominators may remain anonymous. Nominations should be received by November 23.

The basic qualification for the ABOU Award has been established: "ABOU is, by definition, the patron of those who suffer unusual tribulations on behalf of research at Georgia Tech and specifically, EES."

The ABOU has a long and impressive history: At the first Christmas party of the Engineering Experiment Station, in 1947, it was agreed to exchange 10-cent gifts. Two wind-tunnel rats, **Charles Whitaker** and **Bill Mosely**, decided to buy an antique to add to the collection of their boss. They bought ABOU—the only antique available for a dime. The gift was given to **Professor Lavier** in loving esteem for his kindness as an employer, or so it is now supposed. At the 1948 Christmas party, **Professor Lavier** awarded ABOU to **Mr. Ed Garrett**. The two of them became aware of ABOU's unusual ability to protect his owner from suffering, and they



decided that the trophy should be passed on annually as a tribute to the individual who had experienced the greatest degree of suffering in the interest of research at Tech. Some seemingly deserving candidates never receive the award because of the "suicide clause." This clause specifically eliminates from consideration for first award every individual who has brought his misery on himself.

Past sufferers have received the ABOU award for reasons varying from domineering bosses to unbearable budget restrictions. One recipient was cited for the tribulation of working many months in a tiny, windowless office with five beautiful women. Another received the award when it was learned that he had been sent on an 8-week trip which lasted 8 months. (This might not

have been so bad except that the trip started shortly after he returned from his honeymoon.)

Past ABOU Award winners are:

Hurlbut W. S. Lavier	1947
James E. Garrett	1948
Fred W. Cox, Jr.	1949
James L. Taylor	1950
Robley H. Tatum	1951
Robert J. Kyle	1952
Maurice C. Hedin	1953
Harry L. Baker, Jr.	1954
Henry A. Corriher, Jr.	1955
James E. Boyd	1956
Frederick Dixon	1957
Toney W. Bryant	1958
Nick E. Poulos	1959
Maurice W. Long	1960
Howard E. Bedell	1961
Thomas W. Jackson	1962
William B. Harrison, III	1963
Barbara Beall	1964
Milton W. Bennett	1965
Wyatt C. Whitley	1966
Frederick Bellinger	1967
Rudolph L. Yobs	1968
Thomas F. Jones	1969
Paine Lenoir	1969
Nelson C. Wall	1970
Maurice W. Long	1971
Gordon R. Harrison	1972

Posthumously winners have been Benjamin H. Weil, Gerald A. Rosselot, Audrey Wrigley and Annabelle H. Bragg. Past winners are eligible for renomination because of new tribulations.

HELPFUL HINT

In the first throes of the changeover to the new telephone system last month, this helpful memo appeared on the bulletin board just outside the Xerox room: "If you are having difficulty with your phone, please go to the nearest telephone that works and call 378-7584." (Note to Our Readers: Are you adventurous and full of curiosity? Try that number and see what you get!)

Dependent's Coverage

Last issue we wrote about your life insurance coverage changes which were effective July 1. Now let's look at life insurance coverage for your dependents; your spouse and unmarried children. Your children are considered dependents from the age of two weeks until age 19, or until 25 if a full-time student. The Staff Benefits Office at 894-4631 can help with optional dependent coverage for your children from the time of their birth is you desire such insurance.

Your dependents become eligible for life insurance when your insurance begins. If you enroll them immediately, no physical examination is necessary. If, for some reason, they are not enrolled immediately, you may include them in coverage within 31 days and the benefits will start immediately. Otherwise, there will be a three-month waiting period for delayed enrollment.

Your spouse may be insured for \$1000. The amount of life insurance coverage for your dependents depends upon their ages. Starting at the age of two weeks, your child may be insured for \$100. The coverage increases each year until coverage for \$1000 is obtainable at the age of 5 and over. Your cost for dependent life insurance is \$.47 per family unit (a family group, regardless of size).

If you terminate your employment or die, your dependents' group life protection may continue and your spouse may have 31 days to convert to individual life insurance without a medical examination.

Benefits are payable to you in the event of the death of your insured dependent. If you are not living, payment will be made to your spouse's executors if the spouse is deceased. If your child dies and you are not living, payment will be made to the child's surviving parent if there is one, or to surviving brothers and sisters or estate administrators.

Consult the Equitable booklet recently distributed with the itemized list of your coverage. Or call the Benefits Office to clarify any questions you might have.

Radar Course Held

The Radar Division of the Engineering Experiment Station (EES) at Georgia Tech conducted its fifth annual Short Course in Principles of Modern Radar on the Tech campus October 22-26. The course was conducted by the Tech Department of Continuing Education and administered by Dr. H. Allen Ecker, chief of the Radar Division. Twenty-three members of the EES staff conducted the course, including Dr. M. W. Long, director of the EES.

The purpose of the short course is to inform people ranging in expertise from new graduates to experienced project directors about the fundamentals necessary for radar systems analysis, synthesis and evaluation. Emphasis is placed on the need for interaction among the various disciplines involved in overall radar system design and development. The course's enrollment is limited to 75, and attendees included those in the fields of mathematics, physics, electrical engineering and technical management from across the country. Demonstrations and experiments with Tech's equipment and Compact Radar Reflectivity Range supplement the lectures.

Theoretical radar analyses are based on models and are valid only to the degree to which the assumptions in the model are valid. The study of radar systems involves not only individual disciplines such as electromagnetic scattering and propagation, antenna design, detection theory and complex signal analysis, but also their interaction. Thus it is necessary for the radar engineer to be familiar with performance and characteristics of actual radars.

Some of the discussion topics included: Propagation effects, detection problems, elements of radar systems, mechanical aspects of design, measurements and tracking, special processing techniques and ECM. A panel discussion on future trends in radar concluded the course.

Insurance Reps Meet

Representatives of the Equitable Life Assurance Society met with EES personnel October 25 to discuss changes in our life and health care insurance coverage. **Jim Ramage, Bill Dyer** and **Virginia Norton** were introduced by Assistant Director **Rudy Yobs**.

It was pointed out that the employee's contribution for supplemental insurance coverage has declined and that dental insurance benefits have not changed.

Assistant Divisional Benefits Manager Norton, in commenting that the guidelines for health care reimbursement are complex, recommends everyone save all his or her medical receipts to turn in. That way, Equitable can select which are valid, some of which may be overlooked if the employee tries to determine this himself. However, because of the year end overload of paper work, she suggests the receipts be sent in periodically, not all on December 31.

Most of the questions concerned the health care insurance. This will be covered in the next of the the continuing series of articles on insurance benefits. A major point to remember this time of year is that costs incurred from October 1 to December 31 may be applied to the next year's deductible if they have not been reimbursed.

If you have any questions, call the Staff Benefits Office at 894-4631 or Equitable at 577-5400.

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S&T Department

Mrs. Lee Goodrun was Sandra Williams prior to her marriage on October 6. Sandra is a secretary in the Communications Division. She and her husband are residing at 2225 Lenox Drive.

Bob Zimmer is recuperating at home after surgery. He expects to be back at work the middle of November.

W. G. Spann has been named to membership on the Georgia Metrication Committee and the Georgia Energy Policy Committee.

Neale Hightower, Radar Division, has an article, "Nondifferential Phase Inverter Offers Balanced-Output Z with 2 Transistors," in the September issue of *Electronic Design*.

Berry Pyron, Sensor Systems Division, has returned from a vacation visit with friends in Portugal and England.

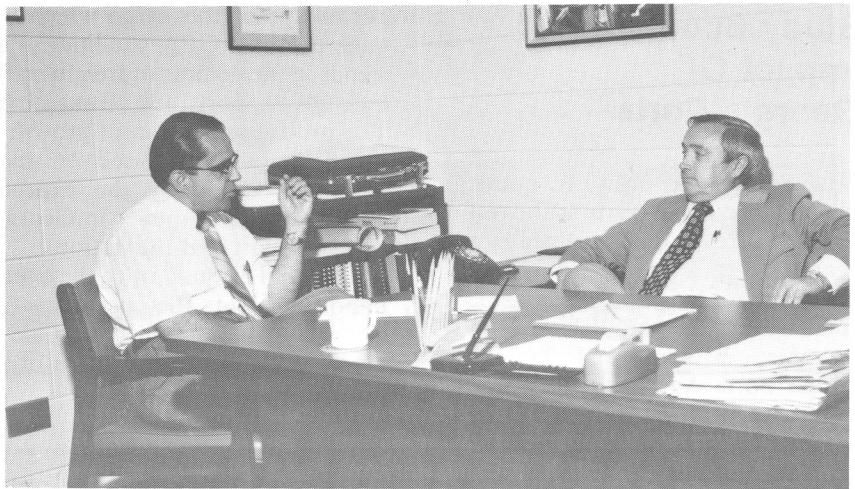
James C. Toler was recently elected to serve on the Administrative Committee of the Electromagnetic Compatibility Group of the IEEE.

Bill Spann and his wife Laura are parents of a baby girl, Tanya Lynne, born August 26.

Ann Mintz is the new Radar Division Secretary, having moved into that position after **Sandy Pricher** resigned in order to return to Florida.

Spann Attends RSTC at EROS

W. G. Spann will attend the Remote Sensing Training Course to be held at the Environmental Resources Observation Systems (EROS) Data Center at Sioux Falls, South Dakota for two and a half weeks in November. Emphasis of the sessions will be on applications of remote sensing to land utilization and environmental studies. Prior to the training course, he will attend a conference on Management and Utilization of Remote Sensing Data.



Mat Sikorski and **Bill Howard** discuss a project related to the dark halls of EES.

IDD In Action

Bob Cassell, IDD, will go to Champaign-Urbana November 6 to teach part of the American Industrial Development Council—accredited Basic Industrial Development Short Course at the University of Illinois.

Phil Koos and **Bill Ward**, IDD, spoke on "The \$14,000 House" at the Annual Convention of the Home Builders Association of Georgia on October 5 at Callaway Gardens. An article by Phil, "Low Cost Housing: The Coastal Plains Experience," appeared in the October 1973 issue of *The Georgia Builder*, the official monthly publication of the association.

Dick Johnston, IDD, addressed the Emory University Library School Colloquium on October 17. He discussed the organization, function and operation of the Basic Data Branch, IDD-EES, and the establishment of data centers in Venezuela and Paraguay by IDD's International Development Branch under the Agency for International Development contracts.

Nelson Wall, IDD, and **Herb Eller**, IDD and Southern Tech, recently returned from visits to Brazil, Colombia and Ecuador in connection with IDD's international development projects. **Nelson Wall** also went to Paraguay.

Ross Hammond, IDD, addressed a Seminar on Small Industry sponsored by the World Bank in Washington, D.C., October 8. His topic was "Georgia Tech Activities in International Development."

Southern Industrial Development Council Honors IDD

In the Literature Awards Competition held at the Southern Industrial Development Council (SIDC) Annual Conference in Atlanta October 21-23, an IDD report won a "Superior" ribbon. The study, "An Examination of the Economic Impact of Pollution Control upon Georgia's Water-Using Industries," was conducted by **Winfred G. Dodson** and **Robert B. Cassell** and was published in cooperation with the Environmental Resources Center of Georgia Tech.

Bob Cassell was reelected Executive Director of SIDC, and IDD's contract to serve as SIDC's executive office was renewed. **Bob** and **Ila Benson** have performed the administrative functions of the organization for the past seven years.



Rumor has it that **Herb Eller** has upstaged **Betty Jaffe** in the office decorating department. Drop by Room 321, Baker Building, for a dazzling display of foreign travel mementos.

The EES Christmas Party will be held Friday, December 21, Y'all come.

Study Economic Impact Of Georgia Ports

The current and future economic benefits of Georgia's ports to the rest of the state are being determined by a research team from the Industrial Development Division.

The study, to be released in December, is sponsored by the Georgia Ports Authority. Research areas include analysis of the economic impacts of the deepwater port facilities at Savannah and Brunswick, of firms whose business is directly generated by the ports, and of industries which rely heavily on port facilities. Projections of the freight traffic through the deepwater ports to 1980 and 1990 also will be made.

Principal investigators are **David Clifton** of IDD's Special Projects Branch and **Larry Edens**, director of EES's Savannah area field office.

IDD currently is surveying port-related businesses—transportation, marine services and government services—which are directly dependent on the proximity of the port facilities. Information supplied by the respondents will be used to quantify the extent of the impact of their business volume, employment, payrolls and taxes on the economy.

Similar data are being collected on the Georgia Ports Authority (GPA) operations themselves. The main focus of the study is the deepwater ports at Savannah and Brunswick, although information also will be gathered on the inland ports of Augusta, Bainbridge and Columbus.

Results of these two investigations will be combined to determine the direct economic impact of the GPA on the state.

Manufacturing and mining industries in Georgia which are major users of the ports, such as the carpet industry, will be identified. Their economic characteristics will be analyzed to round out the picture of the effect of the ports and the GPA facilities on the economy of Georgia.

Another important facet of the port impact study will be projections to 1980 and 1990 of the tonnage handled by the deepwater ports and the

percentage of this cargo which will pass through GPA facilities. Past trends in the volume of freight traffic through the ports will be examined. The projections of future growth of the ports will be based on these trends, modified by the expected growth of the economy in Georgia, the Southeast and the nation.

The final evaluation of the overall importance of the ports to the Georgia economy will be an aid in planning for the future needs of the ports.

Annual Library Reception

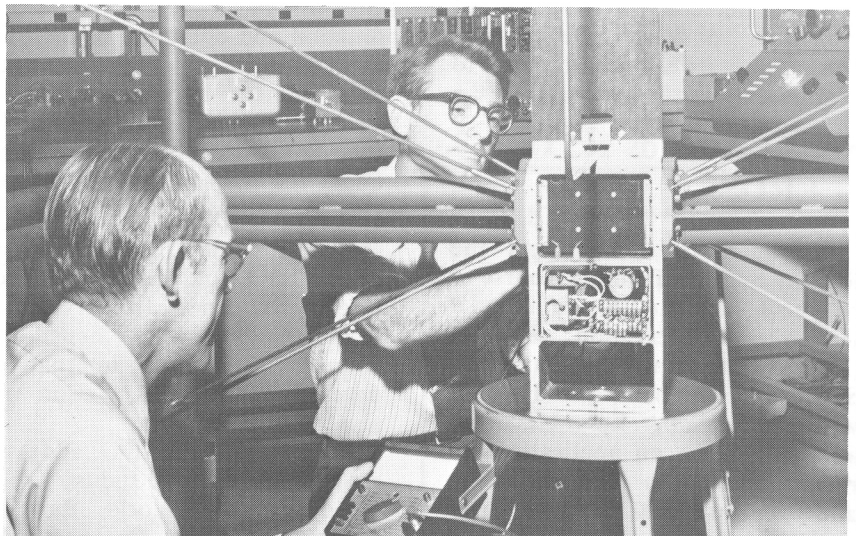
The Georgia Tech Library staff hosted its annual Library-Faculty Reception Thursday, October 18 in the library's First Room. This was the third year the Library Staff Association held the gathering for the faculty to meet and to welcome its new members. About 200 attended.

This year, the availability of the faculty lounge in the library basement was announced and its use encouraged. **Dr. Paul Mayer** of Civil Engineering and the Faculty Lounge Committee have provided the room for use from 8:30 A.M. to 5:00 P.M. The current refreshment selection will be expanded soon. The Engineering Experiment Station personnel are encouraged to use the facilities.

Rapid Sand Filters And Radioactive Emergencies

Dr. T. F. Craft authored an article in the *Bulletin of the Georgia Academy of Science* on filter processes applicable if water supplies become contaminated by radioactivity. The increasing use and transportation of radioisotopes makes their accidental release less improbable. The chances of encountering this hazard are fortunately small, but the effect could be very serious and irreversible. Mankind could survive without the modern conveniences of electricity and telephones, but not without a continuing safe water supply.

If radioactive material is particulate or becomes absorbed on suspended matter, **Dr. Craft** found much of it may be removed by sedimentation and filtration, processes widely used in the purification of surface waters. The removal of dissolved radioactivity is more difficult, but the experimental data show that sand and Anthrafil (a ground, screened anthracite for water filtration) filters would exert a beneficial effort. Both types of filter would absorb some of the radioactive matter, possibly reducing the maximum concentration. The absorbed radioactivity would later be released to the effluent as the concentration in the influent decreased.



Douglas Robertson, Communications Division Chief, and **Hank Jenkins** check the operation of the preamp circuitry of a special purpose spaced loop direction finding antenna.