

STATION NEWS

ENGINEERING EXPERIMENT STATION • GEORGIA TECH



VOLUME 4 NUMBER 11

DECEMBER, 1975



A NEW TEAM MOVING THE BAG

Search Committee for New Director

Dr. T. E. Stelson recently formed a Search Committee for the EES Directorship. The Committee consists of J. L. Birchfield, H. G. Dean, A. L. Ducoffe, R. W. Hammond, D. W. Robertson and J. M. Spurlock. Dr. Pettit will chair the Committee and Drs. Stelson and Shepard will coordinate the related administrative matters. An additional member for the Committee from outside of Georgia Tech will also be selected. The selection process will take several months and recommendations will be encouraged from the EES staff.

CHANGES TO BOARD OF REGENTS PERSONNEL POLICIES

Interpretation of Annual Leave Accumulation and Terminal Leave Provisions

This interpretation establishes June 30 as the annual date on which vacation accrual, if more than 45 days, is rolled back to the maximum allowance under the classified personnel vacation policy of 45 days. It also re-emphasizes that employees will under no circumstances be paid more than 45 days accrued leave upon termination of employment.

To comply with this interpreta-

tion, vacation accrual will not be adjusted on December 31, 1975, as has been the procedure in past years. The first accrual adjustment will take place on June 30, 1976, and annually on June 30 thereafter.

Deferred Compensation and Payment for Accrued Annual Leave

The Board of Regents' Deferred Compensation Policy provides for payment to the spouse of a deceased employee an amount of deferred compensation equal to one, two, or three months salary depending upon length of service. It is the intention of the Board of Regents to pay either deferred compensation or for accrued leave (maximum 45 days) *whichever is greater*. Payment is to be made to the spouse for deferred compensation or to the estate for accrued leave but in no case shall payment for both be made.

Pre-Employment Physicals

The Board of Regents has modified its program for pre-employment physicals, bringing it into line with new less stringent requirements of the state Personnel Board. Generally, only those employees involved in public safety, food service and skilled/unskilled maintenance occupations will be required to provide a pre-employment physical examination report. All other categories of employment will complete a Pre-Employment Health Questionnaire which, if acceptable to the State Employee Health Service, will satisfy the requirement for a pre-employment physical examination.

BEST WISHES FOR 1976

Bombs Away!

On a recent trip to London, Associate Director **Dick Johnson** found himself within a hundred yards of an IRA bomb explosion. Dick was in London to visit Queen Mary College to discuss research on compact antenna ranges. While he was eating breakfast in the hotel dining room, the waitress mentioned that it was raining outside. Later in his hotel room, he heard this terrific "clap of thunder" and thought "boy, that lightning sure did strike near my hotel!"

A few minutes later he heard a siren in the neighborhood but thought nothing more about it until he heard two more sirens which seemed to stop right near the hotel. Then it dawned on him that it must have been a bomb exploding nearby.

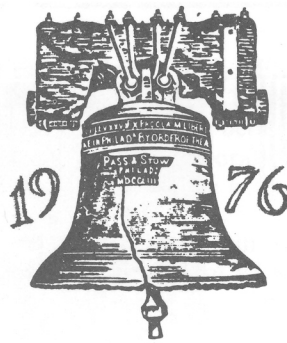
He grabbed his camera and went outside, but by that time, the police had already cordoned off the immediate area of the bomb. He took a few pictures of the emergency vehicles and talked to a few people in the vicinity, and then returned to his room to get ready for the visit to Queen Mary College.

As he left to go to the subway station, several new reporters were interviewing people near the scene. One of the reporters interviewed Dick to get his reaction to the bomb. When she found out that he was from America, she asked him if the bombing would put him off from future trips to London. He told her "no, it doesn't bother me a bit; in fact, it is a little exciting!"

According to the London papers, about seven pounds of explosives were placed by the front tire of a car and it blew up just as the car wheels started moving. The car was flipped into the middle of the street on its roof, and the whole engine and front end was blown off the car. Miraculously, the driver only suffered a broken leg and other injuries which he should recover.

Dick said that he regrets not recognizing the noise to be an explosion when it happened. He missed a chance probably to be the first person on the scene with a camera.

Claudine Taylor has resigned, effective January 15.



NEW PROJECTS

Naval Surface Weapons Center to ETL (**E. E. Donaldson**) for RF Effects Handbook — Armament Development & Test Center to EML (**H. L. Bassett**) for antenna pattern analysis for target vehicles — Medcor, Inc. to ETL (**B. M. Jenkins**) for evaluation of implantable cardiac pacemaker responses to selected environments — Kentron Hawaii, Ltd. to ETL (**H. W. Denny**) for consulting services for grounding surveys of FAA facilities — Bickman, Cunnane, Libby & Thomas and The Marcy Corp. to EDL (**H. S. Taylor**) for management & technical assistance programs — National Science Foundation to ASL (**T. P. Lang**) for low energy experiment to measure a weak coupling of the neutrino current — GA Bureau of Community Affairs to EDL (**R. E. Collier**) for guidelines for APDC energy impact statements and energy audits — Blue Ridge Mountain Electric Membership to EDL (**E. O. Berg**) for technical assistance — General Dynamics to STL (**W. J. Dittman**) for missile seeker antenna development and fabrication — NASA to EML (**J. W. Dees**) for research in millimeter wave techniques — AID to EDL (**R. Johnston**) for evaluation of national technical information — General Dynamics to AEL (**J. Cribbs**) for design, fabrication, test and delivery of electronic sub-system — Douglas County to EDL (**E. O. Berg**) for technical assistance — National Science Foundation to ASL (**T. P. Lang**) for particle physics — Air Force to AEL (**R. J. Hodges**) for application of polarization modulations — Air Force Armament Development & Test Center to STL (**S. T. Alford**) for scanning tracking antenna system — National Science Foundation to STL (**R. M. Goodman**) for verification testing of the Transetts personal transit system.

Weapons Research

James W. Canan, a long-time reporter in the Washington bureau of McGraw-Hill World News, has written a book titled *The Superwarriors* that should be of interest to many EES researchers.

It takes the reader on an informative journey inside the supersecret Research and Development sections of the Pentagon to watch weapons planners at work and to explore the future weapons systems that are being developed and tested for the U.S. air, naval and land forces of tomorrow. It is a revealing and fascinating account of the problems, pressures and costs of defense R&D.

The Superwarriors, James W. Canan, Weybright and Talley, New York, \$12.50. J. A. D.

Welcome to new employee in P/TAL Richard S. Combs, an Assistant Research Engineer.

Ila Benson, EDL, is recuperating at home after a stay in the hospital.

Congratulations to **Thomas Blackstock** who has recently graduated from Georgia Tech with a B in EE. Thomas first came to EES in October of 1973 working as Student Assistant to **Betty Jaffe** and **Dr. Harrison**. In May of 1975 he began working for **Dr. Mason** in connection with his NSF projects. Thomas intends to leave EES sometime after Christmas to begin his new job with Square D Company.

STATION NEWS

Vol. 4 No. 11 Dec. 1975
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
Deborah Ariail	3445
Judy Bodnar, Assoc. Ed.	3523
Mary Ann Clarke, Assoc. Ed.	3507
Martha A. Deadmore, Assoc. Ed.	3873
Sis Hancock, Assoc. Ed.	3492
Marie Harden, Assoc. Ed.	3412
Gayle Hudson, Assoc. Ed.	3542
Denise Kisselburg, Assoc. Ed.	3460
Olga Kilpatrick, Assoc. Ed.	3620
Nancy Price, Assoc. Ed.	3500
Albert H. Becker, Reproduction	3570

Opportunities For Self-Development

EES professional staff members have many opportunities for self-development, and the administration wholeheartedly encourages all qualified staff members to take advantage of these opportunities. In order to participate in most of these opportunities only approval of the staff member's Laboratory Director is required.

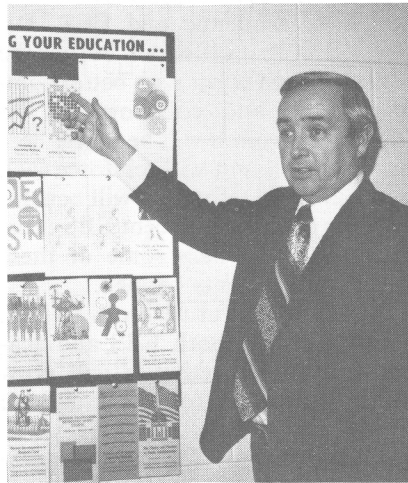
The Tuition Reimbursement Plan offers to reimburse costs of up to six hours per quarter for any course for which prior approval has been granted to any permanent, full-time professional staff member. Reimbursement will be made when the staff member completes the course with a grade of C or better. Guidelines, procedures, and application forms may be obtained from Laboratory Directors as well as the Reports and Procedures Office. All professional staff members interested in obtaining tuition reimbursement for the Winter Quarter are encouraged to submit applications as soon as possible.

During the Fall Quarter, 37 EES professional staff members submitted tuition reimbursement applications to the Professional Staff Development Committee. Of the 30 staff members whose applications were approved, 27 are attending Georgia Tech, two are attending the Atlanta Law School and one is enrolled at Georgia State.

The on-campus Continuing Education Program of short courses and conferences offers enrollment without payment of fee to full-time staff personnel if their presence will not overload the class or conference. Brochures outlining the contents and dates of these short courses are posted on bulletin boards throughout the Station. Application forms may be obtained from the Department of Continuing Education (Extension 2400).

Auditing courses at Georgia Tech is another excellent opportunity for self-development. Interested persons should contact the appropriate Department and/or instructor.

A program to supplement funds for foreign travel is now in the process of being approved and will provide opportunities for the EES professional staff to travel to foreign countries to (1) attend international conferences which would benefit EES as well as the professional staff member, (2) pursue contract devel-



Bill Howard points out a few of the many short courses and conferences available to the EES staff through the Department of Continuing Education.

opment activities, or (3) enhance research programs at EES or Georgia Tech. When approved, these special funds will be made available to supplement EES Laboratory budgets for partial payment of certain foreign travel expenses.

These are only a few of the excellent opportunities available to the EES professional staff for self-development. Also, information on the following opportunities may be obtained from Laboratory Directors or the Professional Staff Development Committee: off-campus conferences, professional societies, writing and presenting papers, and developing publications and short courses.

The Professional Staff Development Committee has been working diligently toward developing and implementing new programs for self-development at EES and sincerely requests suggestions from the entire EES staff. Professionals who may have questions or suggestions may contact Committee members directly: Dwight L. Allen, EES/OCA, 304 Administration Building, 4819; Dr. M. E. Anders, EDL/Basic Data, 323 Baker Bldg., 3848; Dr. N. W. Cox, Jr., SSSD, 133c Baker Bldg., 3420; William C. Howard, EDL/Special Projects Branch, 304 Baker Bldg., 3844; J. C. Toler, AEL, 140 Baker Bldg., 3596; Mrs. B. C. Yarborough, TSD/R&P, 113 Baker Bldg., 3445.

Congratulations to Bonnee Wettlaufer, PR office, who has received her Masters in marketing at Georgia State.

AE Lab News

Dr. Allen Ecker traveled to Washington, D.C. on December 3 for a Technical Steering Committee Meeting held by the Old Crow's Association. The meeting was held at the National AOC Office.

Tom Hedges attended the 1975 International Symposium on Computer Hardware Description Languages (CHDL) and Applications in New York City on 3-5 September 1975. The conference was held at New York University and dealt with recent advances in computer hardware descriptions.

Bob Zimmer and Tom Miller, Jr. traveled to Washington, D.C. on November 7 and visited Headquarters, Air Force in the Pentagon, the Army Security Agency, the Federal Aviation Agency, and the Naval Air Command to present an outline of the research capabilities in the Systems Engineering Division.

On November 10, **Tom Miller and George McDougal** traveled to Eglin Air Force Base, Florida to hold technical discussions on Tactical Expendable Assessment Study (TEAS), with Jerry Sowell of the Tactical Air Warfare Center. They then traveled to Wright-Patterson Air Force Base, Ohio on November 13 to attend the final program review on the Low Cost Light Weight Electronic Countermeasures Systems Study performed by Sanders Associates and ITT.

Larry Holland, Jim Gallagher, Spurgen Robinette, and Peter Sassone traveled to Washington, D.C. on November 6 and 7 to brief NASA Headquarters Communications Office on the results-to-date in the Space Communications Technology Cost-Benefit Study, Project A-1739.

The illustrated version of the EES 1975 Annual Report is available on request to the Public Relations-Publications Office. Call 3405.

Earnes Baillif, Vice President for Research at Whirlpool Corporation, is the new industry-at-large representative on the GTRI Board of Trustees. He also visited EES November 20.

Personality



President Joseph M. Pettit

EES and Tech

Tech President Joseph M. Pettit recently expressed his ideas about the future and the direction of research activities at EES and at Tech. His main point was that there can be a great deal of interaction in the total research effort with the objective of strengthening Tech's overall research position. He commented that there are many research projects the Station can undertake which an academic unit could not, such as DoD, proprietary or classified research. On the other hand, the academic units can concentrate on some of the more basic research which proceeds more slowly. This slow evolution may later become the basis for the Station's involvement in applied research on a full-time basis. This full-time staff effort is another advantage the Station has. And, as Dr. Pettit pointed out, when the Station communicates its findings back to the academic units, future basic research will be positively influenced.

Communication was another main item Dr. Pettit stressed. He said when he came to Tech four years ago, he felt the potential was here for an unusually strong combination of academic and basic/applied research with great talents. He saw the sharing of facilities with the prospect of good communication and cooperation resulting. He opened new lines of communication by establishing the office of the Vice President for Research to coordinate all research

activities, academic and EES. Dr. Pettit feels that office will bolster the total research effort with better communication and collaboration. In this way, research will be better here because each unit will reinforce each other and, therefore, all will benefit. He is confident the recent EES reorganization will help some of these needed refinements happen.

As far as the future looks to him, Dr. Pettit feels both EES and academic research activities will grow quite compatibly for the indefinite future.

"EES is a valid part of the total Georgia Tech community and is better for being here rather than being off campus on its own. The rest of the campus is better for it, too. Research can improve teaching as the intellectual climate is such that contributions to new methods and ways of thinking happen. This makes it a better teaching institution and, at the same time, helps the students by exposing them to high quality faculty. The research efforts at Tech will become better known, but we'll have to let that take care of itself. In order to have that happen, we have to go out and get business, then do the best work we know how." B.W.

P-TA Lab

During the month of November **Jerry Birchfield** spoke at Pinehurst, N.C. before the Southern Growth and Policy Board on Energy Options for the South. He also spoke in Washington before the Society of American Foresters on the subject of Pyrolysis.

Rudy Yobs has been busy: He went to the Annual Meeting of SGPB on The Role of University Research and Extension and Productivity Improvement at Pinehurst, N.C. on November 12...attended the Productivity Seminar in Atlanta sponsored by The Georgia Business and Industry Association and the U.S. Dept. of Commerce...briefed the House Education Committee during a station visit Nov. 21 on activities of P/TAL and attended the Engineers Joint Council on Productivity Improvement in New York Oct. 30.

EES Staff Xmas Party
Friday, December 19th, 3-5 PM,
Baker Bldg. Auditorium

EES people on the move

N. L. Faust, EML, to Phoenix to present paper at Am. Soc. of Photogrammetry Oct. 26-29...**R. C. Johnson**, OOD, to visit several solar energy facilities in Europe and to discuss research at Queen Mary College in London Oct. 23-Nov. 4...**B. R. Livesay**, ASL, attended International Microelectronics Symposium in Orlando Oct. 27-29...**R. P. Zimmer**, AEL, was at the dedication of NASA/Plumbrook Windmill facility Oct. 28-30 in Cleveland...**R. L. Yobs**, P/TAL, gave a talk to the Engineers Joint Council meeting in New York Oct. 28-30...**M. E. Anders**, EDL, spoke to the North Carolina Library Association Oct. 31-Nov. 1 in Winston-Salem...**J. D. Walton**, ASL, attended International Solar Conference Nov. 1-8 in Dhahran, Arabia...**N. C. Wall**, EDL, was in South America Nov. 3-Dec. 12 to carry out small-scale industry projects...**J. W. Johnson**, ASL, was in Miami Nov. 4-5 for committee meeting of Electron Microscopy Soc...**G. R. Loefer**, EML, attended Design of Optical Systems short course at U. of Wis. in Madison Nov. 8-14...**R. W. Moss**, ETL, met with Brazilian Ministry of Communications in Rio de Janeiro Nov. 8-13...**J. W. Tatom**, P/TAL, attended EPA conf. on Cotton Gin Trash Disposal in Jackson, MS Nov. 13...**S. H. Bomar**, **C. T. Brown** and **R. Altman**, ASL, attended review of solar thermal central receiver pilot plant and test facility projects in Las Vegas Nov. 16-18...**J. M. Schuchardt**, EML, attended tri-service workshop on millimeter terminals in Fort Walton Beach Nov. 18-19...**J. J. Gallagher**, EML, attended committee meeting of Plasma Physics Group in Washington Nov. 20...**E. A. Nelson** and **P. W. Potts**, EDL, gave assistance to the Small Business Administration in Hartsville, SC Nov. 20-21...**R. S. Smith**, ETL, attended the "Design of Industrial Power Systems" Workshop at Clemson University, Clemson, SC, October 18-20, 1975...**C. S. Wilson**, ETL, went to Dayton, Ohio, December 2-3, 1975, to demonstrate a Time Standard Distribution System.