

Station News

Georgia Tech Engineering Experiment Station

VOLUME 8 NUMBER 8

DECEMBER 1979



Abou Who?

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.

The committee responsible for deciding on the Abou recipient is composed of all the past winners of Abou who are still on the campus, and the chairman of the committee is the most recent winner. Some seemingly deserving candidates never receive the award because of the "suicide clause." This clause specifically eliminates from consideration every individual who was guilty of bringing his misery on himself.

Past sufferers have received the Abou award for reasons varying from dominating 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

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MERRY CHRISTMAS



We're wishing you a Merry Christmas at two locations this year and hope you'll join us for some Christmas cheer and Abou presentations at either or both locations!

*Please join us
Thursday, December 20,
3 p.m. to 5 p.m.*

Building 1 Cafeteria

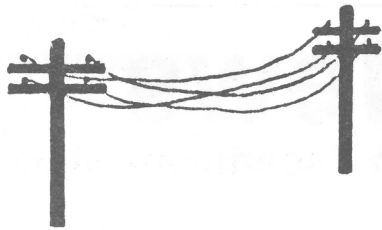
Friday, December 21

2 p.m. to 4:30 p.m.

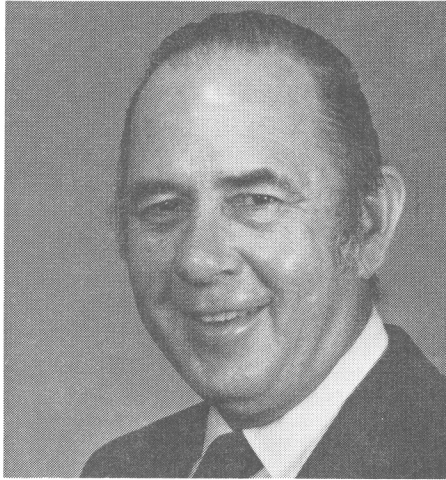
*Chip Robert
Alumni/Faculty House*

Maps and directions to the Cobb County party are available from Dee Ramunno at 3400. If you've never seen the facility in Cobb County, here's a great chance to do so.

The campus gathering will be held in the ballroom of the beautiful, newly refurbished Chip Robert Jr. Alumni/Faculty House on North Avenue (old YMCA). Try to come early because campus regulations require the building to be cleaned, cleared, and locked by 5 p.m.



Station to Station



Let us all prepare for the Christmas holiday by giving thanks for past and present good fortune.

I personally wish to express my sincere gratitude to all of you for your contributions to EES as an organization, for your support of my office in providing administrative management, and for your continuing enthusiastic interaction with your colleagues. I never have any trouble being fiercely loyal to such a wonderful staff, and proud of what we've accomplished together.

Christmas being a time for sharing, it is appropriate to report that our total dollar contributions to United Way this year were almost \$14,000, up 11% from last year. The number of individual contributors also increased to 317, representing 51% of the budgeted staff.

Looking toward the New Year, I'll make a few of my resolutions public now: I intend to find better ways to interact with you. I plan to emphasize management information systems, to improve new employee orientation, and to find new ways of providing special recognition for outstanding performance. I want us to expand public awareness of EES activities, while we seek innovative solutions to the challenges of growth—space, equipment, capital, personnel, salaries, and all the rest.

But for now, my parting word is to offer the very best wishes from my family and me to all of you and your loved ones for this Holiday Season. May we share many more!

Donald J. Bruce

Tech/Gold Kist Energy Conserving Plant Opens Doors

As a result of the Georgia Tech/Gold Kist project sponsored by the Department of Energy, poultry processing plants may be able to increase their energy efficiency by 20 percent. Gold Kist's Ellijay, Georgia, plant, with the help of a Technology Applications Laboratory team, reduced its actual energy use by the equivalent of 5,357 gallons of fuel oil during the first seven months of 1979 even though production increased 27 percent.

TAL researchers installed and tested energy-conserving equipment and systems to reclaim heat wasted during the production process. Bill Boykin of TAL said, "We conducted this project because the poultry processing industry is energy-intensive. Georgia's poultry processors paid a \$6.5-million energy bill in 1978 alone. Most of that energy is imported into the state in one form or another."

For Georgians, who consume chicken at the same rate they do Coca-Cola, it could mean more stable prices in the supermarket, and an overall boost to the Georgia economy which the poultry industry supports to the tune of about \$800-million per year.

On December 10, a tour of the Gold Kist poultry processing plant was held. The Georgia Poultry Federation and the Georgia Processors Association sponsored the tour for area poultry processors to see first-hand what can be done to cut energy costs in their own plants.

Following the plant tour, a seminar was conducted by EES research engineers of the Technology Applications Laboratory to pinpoint energy problems and solutions.

Braille Computer System Opens Jobs For Visually Handicapped

EES/TAL engineers are developing a braille computer display/printout system that may double the number of occupations for the visually handicapped if successful.

The low-cost system features a braille display in the form of a 40 character one-line punched braille printout that will enable a person with vision problems to use a computer with the ease of a sighted person.

Many jobs will become immediately accessible to the visually handicapped with this innovation. Suitable applications would be in bookkeeping, airline reservations, banking, credit card

ABOU, continued from p. 1

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.)

Who has been chosen in 1979? Two recipients will share the award this year. The grand announcements will be made at the Christmas parties. Be there!

Past Recipients

Hurlbut W. S. Lavier	1947
James E. Garrett	1948
Fred W. Cox, Jr.	1949
Benjamin H. Weil—Posthumously	
James L. Taylor	1950
Robley H. Tatum	1951
Robert J. Kyle	1952
Gerald A. Rosselot—Posthumously	
Maurice C. Hedin	1953
Harry L. Baker, Jr.	1954
Henry A. Corriher, Jr.	1955
James E. Boyd	1956
Frederick Dixon	1957
Audrey Wrigley—Posthumously	
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 Allen	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
Annabelle H. Bragg—Posthumously	
Fred Dyer	1973
Robert S. Ingols	1974
Billy H. Atcheson	1975
Steve H. Bomar, Jr.	1975
Ben E. James	1976
Richard C. Johnson	1976
H. Allen Ecker—Posthumously	
Dwight L. Allen	1977
Jack M. Spurlock	1977
James A. Knight	1978

verification or any other job that requires the use of visual displays from computers.

Gary Kelly, project engineer who is himself visually handicapped, says that a unit could be built as early as the summer of 1981 if additional funding is secured. The project is currently funded with monies from the Florence C. and Harry L. English Memorial Fund.

EEL Seeks Manpower

The present manpower forecast for the next 90 days indicates an urgent need for additional engineers for international work. If you know of any BSME or BSEE with about 5 years of industrial experience, one additional language, preferably French, and who is willing to travel overseas, please have him contact Nelson C. Wall at 3500.



Systems Engineering Laboratory personnel participating in the Old Crow short course given at Bethpage, N. Y., are pictured above with Grumman and AOC personnel: (l-r) George Briscoe (Grumman), George McDougal (GIT), John Gibbons (GIT), Tom Miller (GIT), and Dave Mount (Grumman).

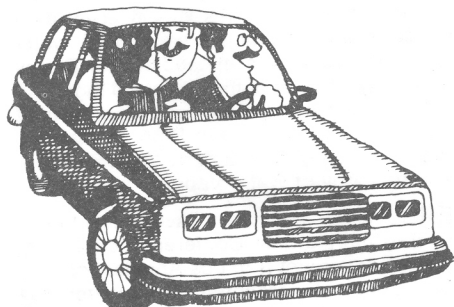
Tech, Old Crows, and DoD Sponsor Electronics Courses

Georgia Tech, under the auspices of the National Association of Old Crows and the Department of Defense, is sponsoring a series of three-day electronics short courses to be given at various locations throughout the United States.

The Old Crows are a group of professional engineers and scientists dedicated to promoting technical

exchange in the field of electronic defense. Bob Zimmer and Tom Miller, of EES's Systems Engineering Laboratory, are active in the Atlanta chapter of the AOC and are coordinating the short courses.

On October 16-18 the Metropolitan Roost of the AOC hosted the first course at the Bethpage Long Island facility of the Grumman Aerospace Corporation in New York.



Carpool

Send us your name, route, telephone number, and any other pertinent information (smoking/non-smoking, type of car, etc.) and we'll include it in the next issue. Send to Elinor Plowden, 226 Hinman.

Tom McGowan, 894-3635/627-4722. Grant Park to Tech, via Boulevard and North Ave. Non-smoking preferred. Victor K. Tripp, 894-3478. Tucker to Tech, 7-4, M-F, via I-85. Non-smoking.

The Motor Vehicle Office in cooperation with the State of Georgia will also assist those who are interested in car pooling with a computerized program. Call Les Petherick for details, X-4636.

Wiltse and Dees Host Overseas Delegation

Jim Wiltse, EES associate director, and J. W. Dees, director of EES's Electromagnetics Laboratory, have been selected to lead a delegation of American scientists who will visit several western European countries and the Soviet Union, April 1-May 3, 1980.

Sponsored by the "People to People" program, the trip is intended to foster international goodwill and provide a forum for the exchange of scientific information. The invited delegates will be electronics experts, primarily in the field of microwaves. They will meet with government officials and scientists in cities throughout the Netherlands, West Germany, the Soviet Union, Denmark and Norway. The trip will include inspections of several electronics laboratories and related technological facilities. The size of the delegation will be limited to approximately 38 people, including spouses.

Walton Participates in "Strategy for Peace" Conference

What types of international and U. N. machinery should be developed in the 1980's for better meeting the energy needs of developing nations? This and other key questions were explored by J. D. Walton and the participants of the "1981 U. N. Conference on Energy" panel, one of six panels held during the 1979 Strategy for Peace Conference conducted recently in Virginia. The conference, held once each year since 1959, meets to discuss urgent foreign policy issues of America.

Walton has developed an international reputation for expertise in solar energy. He was active as the principal organizer of two major solar conferences held in Atlanta this year: the African Solar Energy Workshop and the 25th Congress of the International Solar Energy Society. At the Engineering Extension Laboratory he directs a number of solar energy research and development projects.

Objectives and plans of the U. N. 1981 conference were outlined and the roles of various types of renewable energy were discussed: motivations and pitfalls, guidelines for examining the state of the art, and recommendations on U. S. policy. Walton said, "Clearly the 1981 U. N. Conference on Energy will serve to focus world attention on the energy problems of lesser developed countries and the potential of new and alternative energy sources in helping to alleviate these problems."

The Strategy for Peace Conferences are sponsored by the Stanley Foundation of Muscatine, Iowa. 1979 marks the 20th anniversary of the conferences, begun in 1956 by Maxwell Stanley, a consulting engineer practicing on an international basis who has a deep seated personal interest in foreign affairs.

It is interesting to note that on this 20th anniversary of the Strategy for Peace Conferences one of the issues the first attendees addressed in the 1950's—arms control—remains an ever important issue in the international forum. The Strategy for Peace Conference is the oldest U. S. foreign policy conference in the country.

Tighten Up!

Turkey sandwiches and Christmas treats got your wardrobe in a bind? Call Darlene Pearson, 5437, for details on her Arden Zinn exercise classes for men and women starting January 7. For \$30 a quarter you may attend morning classes (MWF - 11:30 a.m.-12:30 p.m.) and/or evening classes (MWT - 5:00 p.m.-6:00 p.m.) at a location to be announced.

Personnel Announcements

CSTL Stanley Warner has been hired as a Research Scientist II in the Computer Applications Branch. Warner came to EES from Rockwell International Corporation.

Carolyn Mahaffey was recently elected to the Board of Trustees of the Medical Research Foundation, a non-profit organization which has provided seed money for several cancer research projects at Georgia Tech. Carolyn served as Project Coordinator for the Foundation for 2 1/2 years before joining CSTL as an administrative aide. Carolyn and Jimmy Mahaffey were wed on October 28.

EDL Diane Lanier joined the Marketing Research Group as Research Associate II. She was previously employed with Marketing Information Services, a full service marketing research firm headquartered in Atlanta. Diane started with that company as a Research Analyst and was promoted to Project Manager. Diane will coordinate research projects and provide consulting services for EDA and the TAAC project through the efforts of the Marketing Research Group. She received a BA degree from the University of Georgia and an MBA from Georgia State University.

Greg Murphy from Australia will be working with Judy Komaki in the area of Behavioral Analysis.

EEL Darla Gibson joined the IED staff in Albany November 14, 1979.

Edward Hardison, from Altamonte Springs, Florida, joined the IED staff in the Southwest Area Office on December 1, 1979.

EML Laurence S. Spiegel has joined the Molecular Sciences Group of EML as Graduate Research Assistant. Patrick Maresca has joined as a Research Engineer I, EML/RSD, Mark Finlay as a Research Engineer I, EOD, and Doris Schulze, as Administrative Secretary to J. W. Dees, Director of EML.

Kesavan Sadarsanan is leaving Georgia Tech after thirteen years to work with a computer oriented company in Alabama.

ERL Ginny Gross has returned to EES as Laboratory Secretary for the Director, Bob Cassanova.

ETL William W. Butler, Research Engineer I, is working in the Communications Systems Branch.

RAIL Jeff Grover and Shawn Windon were married recently.

Skipp Wetherington retired after 28 years with EES.

SEL Charles D. Wakefield joined the Special Projects Division. He was previously employed at Charles Stark Draper Labs in Cambridge, Mass. and previously resided in Chelmsford, Mass. He will be involved in the areas of Radar and Electronic Countermeasures and Control Systems. Wakefield is a Senior Research Scientist.

STL Calvin R. Jameson, Research Engineer II, has resigned to accept a position elsewhere.

I. Lee Stillman has joined STL as a Research Engineer II.

TAL Bill Boykin, a research engineer in the Technology Applications Laboratory, recently was awarded a law degree and has been admitted to the State Bar of Georgia.

Awards/Presentations

EDL Judi Komaki was invited to make a presentation, "Managerial Effectiveness: Potential Contributions of the Behavioral Approach," at the Organizational Behavior Management Conference, Drake University, October and to present a seminar on her recent research at the University of Kansas, October.

Mary Edna Anders of Basic Data recently attended a three-day national workshop ("Online 79") in Atlanta. The presentations focused on Bibliographical and Nonbibliographical Data Base Uses, Data Base Preparations, New Technologies and Trends, and Management of Online Services.

Jerry Jackson organized a session on "Buildings' Energy Use" at the International Conference on Energy Use Management held recently in Los Angeles.

EEL Phil Loveless, Gainesville Office, participated in Career Day at Habersham Central High School, Cornelia. He spoke on the advantages of engineering as a career.

On November 16, J. D. Walton was awarded the Hewitt Wilson Memorial Award of the American Ceramic Society for his contributions to the field of ceramics in the Southeast.

EML O. A. Simpson presented a paper, "Submillimeter Laser Spectroscopy of Liquid Water," at the Conference on Microwave Spectroscopy and Coherent Radiation Abstracts, sponsored by the Army Research Office in honor of Professor Walter Gordy, held at Duke University, in Durham, North Carolina. As a result of his work in far-infrared measurements on liquid water and water vapor, Simpson was elected to the Emory University Chapter of the Society of Sigma Xi. At the same meeting Simpson also presented a paper co-authored with R. A. Bohlander, and J. Gallagher entitled "Submillimeter Spectroscopy of Water Vapor."

ERL ERL researchers gave presentations at the International Conference on Energy Use Management II in Los Angeles recently. Ben Trammell presented "Wastewater Heat Recovery for Heat Pump Centered-Integrated Community Energy Systems." David W. Wade presented "Evaluation of Centralized Energy Systems for Community Growth - Shenandoah, Georgia" and "Community Retrofit for District Heating in Piqua, Ohio."

RAIL Ross Gagliano and Perry Schwartz presented a paper entitled "Modeling the Living Enterprise" at the Second International Conference on Mathematical Modeling in St. Louis, Missouri.

SEL Joanne Green and Lee Davenport, along with Perry Schwartz of RAIL, made a presentation at a workshop on "Human Factors in Military Systems," chaired by Dr. Randall Chambers, U.S.A.R.I. Field Unit, at the Annual Convention of the American Psychological Association. The theme of the presentation was "Psychologist-Engineer Collaboration."

New Contracts

(Project Director, Subject, Sponsor, Funding)

CMSL C. J. Ray, Catalogue, Evaluate, and Process Performance Data for Highway Bridge Coatings, Department of Transportation, \$127,200.

CSTL E. W. Martin, Support of Advanced MIS Concept Research, MERADCOM, \$124,960.

C. M. Agee, Develop Software Package for Test Receiver Hardware, Scientific Atlanta, \$18,981.

EDL R. R. Ratajczak, A Research Program to Analyze OMBE Data on Minority Business Failures & Discontinuances, U. S. Department of Commerce, \$41,772.

E. A. Bethea, Operate a Technology Commercialization Center in the Southeastern Region of the U. S., U. S. Dept. of Commerce, \$115,000.

EEL G. S. Smith, Bioelectronics Effects Study, USAF, \$21,075.

R. W. McMillan, NMMW Laser Radar Technology, U. S. Army Mobility Equipment R&D Command, \$635,355.

EML G. E. Riley, Specialized Mathematical Modeling of Guided Missiles, Naval Research Laboratory, \$67,127.

ERL S. H. Bomar, Jr., Hybrid Dish-Stirling Solar Receiver Preliminary Design Program, Fairchild Stratos Division, \$33,706.03.

RAIL B. C. Appling, Intrapulse Polarization Agile Radar (IPAR), Southeastern Center for Electrical Engineering Education, Inc., \$94,982.

SEL J. V. Vogt, Integration Support Station Study, Warner Robins ALC, \$74,000.

A. J. Chimera, Risk Reduction System Definition, USAF/AFSC, \$556,781.

STL R. M. Goodman, Equipment Examination Program, U. S. Army Missile Command, \$425,000.

TAL W. Moran, Energy Audits of Commercial & Industrial Facilities in the Tennessee Valley, Tennessee Valley Authority, \$200,000.

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