

# STATION NEWS



ENGINEERING EXPERIMENT STATION • GEORGIA TECH

VOLUME 3 NUMBER 1

FEBRUARY, 1974

**ABOU**  
**December, 1973**  
**Presented to**  
**MR. FREDERICK B. DYER**  
**Sensor Systems Division**



Fred Dyer, ABOU Winner

### Citation

In spite of our suicide clause,  
We have decided to consider a pause,  
And give you the protection of ABOU,  
For the misery self inflicted by you.

This will be a noble experiment,  
To help keep track of your equipment,  
To assist you while on the "go,"  
And help you learn to say "no."

In case the Boca Raton site is sold,  
We'd like to suggest a place that is cold,  
Such as some place like Alaska,  
For to go there you don't have to ask her.

No disasters will be experienced there,  
Because it will require airfare,  
Thus trucks will need no repair,  
And boats will not be your flair.

While this will be no West Palm Beach,  
When chart rolls do not you reach,  
It is always good to know,  
You can always record in the snow.

So without further ado,  
We would like to give you ABOU,  
To suffer all year for you,  
Your self inflicted "flu."

And while ABOU blows smoke,  
Maybe you won't be the goat,  
Who always stays on the "go,"  
Because you can't say the word "no."

And so throughout the whole next year,  
May you not shed a tear  
Because we know you're no crier,  
Our ABOU Recipient this year—  
FRED DYER.

### Walk to lunch and save gasoline

**Runner-up Award**  
**Presented by**  
**Dr. M. W. Long**  
**to**  
**Betty C. Yarborough**

### Citation

EES is committed to affirmative action. This plan is particularly sensitive to words related to "gender." As part of our affirmative action plan, the "suicide clause" for the ABOU award was carefully reviewed and found to read as follows: "This clause specifically eliminates from consideration for first award every individual who has brought 'his' misery on 'himself.'" According to legal advice, this clearly removes the suicide clause in applying it to our female employees. This seemingly minor overcite in our affirmative action procedures clearly indicates the trials and tribulations thru which one of our staff members has been suffering and appears to be the type problems which only ABOU could help alleviate.

Despite:

- 1) affirmative action
- 2) re-doing the picture book three times
- 3) issuing procedures which everyone questions
- 4) filling out "Regents" forms leaving "no blanks"
- 5) trying to determine what "100% of 0 time" means
- 6) missing the premiere showing of "Deep Throat",

this staff member has remained *her* usual cheerful and bouncy self. In recognition for suffering through these problems, a runner-up ABOU award is presented,

To this lady, so grand,  
Who has no fear from the stand,  
That "Females should make  
more dough,"  
This award goes to Betty  
Yarborough.



**ABOU who?**

## Major Medical Insurance

Our insurance package includes free health care insurance for employees to a maximum of \$250,000 and contributory insurance for dependents at a monthly cost of \$20.36 per family unit.

There is a \$100 deductible for each calendar year. If three or more members of the same family paid the deductible in one year, other charges will not be subject to the deductible. Charges incurred in the last three months of the calendar year may also be applied to satisfy the next year's \$100 deductible. If an entire family has an accident, there is only one cash deductible to satisfy, and it will carry over to the next calendar year.

Covered charges for accidental injury or sickness not work connected include: physician's charges for diagnosis, treatment and surgery; private nurse; oral surgery performed during hospital confinement; hospital services; certain preventive medical care charges; and miscellaneous charges such as ambulance, X-Rays and radioactive isotopes.

Some of the charges not covered are unprescribed services, treatments and supplies; costs of a Federal hospital; fitting or costs of eyeglasses and hearing aids, and transportation other than an ambulance.

A benefit period begins when your covered charges exceed the deductible. For a hospital stay, the first \$2000 is paid in full (after satisfying the deductible) at the semi-private room rate. Other charges are reimbursed at 80% until \$5000 is paid, then other charges are paid in full. Preventive care charges are paid at 80% for the first \$150 per calendar year.

Psychiatric treatment is covered for not more than \$30 per visit outside a hospital. The maximum is 80%, up to a maximum of \$500 in 12 consecutive months.

Female employees and dependent wives do not have to satisfy the \$100 deductible for maternity benefits. Costs incurred within nine months of becoming insured are not paid; however, maternity benefits will be paid during the nine months following termination of the coverage. Amounts of maternity benefits are

\$700 for a caesarian section, \$500 for a normal delivery and \$250 for an abortion or miscarriage.

Another feature of the medical coverage is the Home Health Service Benefit. This covers part-time or intermittent nursing care rendered by a licensed nurse; physical, occupational or speech therapy provided in home or as an out-patient. There are certain restrictions as to who can perform the services which must be prescribed by a physician. The charges are paid at 80% after satisfying the deductible the day following a hospital confinement of at least 5 days. The benefit period terminates after 60 days or when the physician requests discontinuation or when there has been no service rendered for seven consecutive days. There is a lifetime maximum of \$500, if not immediately preceded by at least 5 days of hospital confinement; and the home health agency must be primarily engaged in providing skilled nursing and therapeutic care.

There is also an Extended Care Facility Benefit, payable when you are confined within 14 days after leaving a hospital stay of at least three days. This benefit pays 100% of the room and board for 60 days and 80% for the next 120 days. If you were not in the hospital, charges for five days are 100% paid and 80% thereafter to a lifetime maximum of 60 days. The extended care facility is not to be a rest home for the aged, a custodial care facility or facility for drug or alcohol addicts.

If you have questions, call the staff benefits office at 894-4631 or consult your booklet published by Equitable.

## Paper Conservation

There is also a shortage of various paper types. EES people are encouraged to use both sides of paper in reproducing reports, limit paper use, use up existing stocks — and check with the Photo Lab on other possible economy and conservation steps.

**Billy Atcheson was also a 1973 ABOU Runner-Up — but his citation is unavailable — or unprintable!**

## S&T Department News

The Communications Division of the Systems and Techniques Department, in cooperation with the Federal Aviation Administration, will hold a Workshop on the Grounding of Electronic Systems at the Space Sciences Building on March 12-14, 1974. Topics to be covered include signal grounding techniques in complex facilities, compatibility of signal grounding requirements with the National Electrical Code, grounding for personnel safety and lightning protection, and future standards requirements. Experts from Bell Telephone Laboratories, Martin-Marietta Co., Aerospace Corporation, Boeing, Philco-Ford, FAA, Air Force Communications Service, and other organizations will give papers on signal grounding, earth measurements, electrical safety, and lightning protection. Existing and proposed standards of facility and equipment grounds will be reviewed and evaluated. The Workshop is being organized and coordinated by **Hugh W. Denny**, Senior Research Engineer in the Communications Division. Other Division personnel expected to contribute to the Workshop include **Jimmy A. Woody**, Assistant Research Engineer, **James C. Toler**, **Spurgeon L. Robinette**, and **Larry D. Holland**, Senior Research Engineers.

**Turn off electric equipment not in use**

### STATION NEWS

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## IDD SIGNS NEW CONTRACTS

The Farmers Home Administration of the U.S. Department of Agriculture has signed a \$50,000 contract under which IDD will assist the agency with evaluation and preparation of applications for business loans under the terms of the U.S. Rural Development Act of 1972. The first industrial loan in the entire nation made under the act's provisions was announced recently by Senator Herman Talmadge, author of the legislation. It goes to establish a plant in Calhoun, Georgia, and IDD's Industrial Services Branch assisted in preparation of the loan application. The new firm, Calhoun Padding Co., Inc., will employ 100 persons in manufacturing sponge rubber carpet underlay and other rubber products.

IDD also has received approval for funding under Title I of the Higher Education Act for its "Program to Provide Instruction and Assistance to Community Leaders and Employers in the Better Utilization of Human Resources." The program will involve conducting seminars in four Georgia towns. IDD's Special Projects Branch has been conducting local manpower seminars for industry, but this project will be the first attempt to bring community and industrial leaders together to seek common solutions for manpower problems associated with both community efforts to attract new industry and the needs of existing industry.

**Dr. Robert S. Ingols attended the Symposium on Water Quality Parameters, November 19-21, 1973 in Burlington, Ontario where he presented a paper co-authored with T. F. Craft (NBSD), entitled "Sensors for Monitoring Water Quality."**

Conversation overheard in the halls of EES Baker Building:

"We should reactivate a proposal on Fly Ash." Margaret Textor of IDD remarked, "Yes, and then Betty Jaffe's boss could be project director and we could call him "F-L-Y-A-S-H GORDON!"

## Author Craft

**Dr. T. F. Craft**, NBSD, recently had two articles appear in the *Georgia Operator*, Fall, 1973 issue. He writes a regular column on Water and Pollution Control Research, highlighting current research projects throughout the state.

He also authored an article on Textile Wastewater, discussing the problems of treating the wastewater from the state's textile mills. The textile industry uses seven percent of the state's industrial water and discards chemicals from finishing fabric. This includes such chemicals as acids, bases, salts, wetting agents, retardants, accelerators, detergents, oxidizing agents, reducing agents, developers, stripping agents and finishes. These chemicals are used for cotton, wool and synthetics. The complexity of these potentially high pollutants and the wide fluctuations in their composition make treatment difficult.

## Think car pools

## EES Kaolin Project Activity

**John Husted, TAG, and Bill Ward, IDD, recently testified before the Georgia House Committee on Kaolin and Processing in regard to a proposed amendment to the Georgia Constitution that would authorize "payment of \$250,000 to the first person, firm or corporation . . . which establishes a plant for the commercial production of aluminum ore . . . from kaolin and produces a minimum of 300,000 tons annually." The resolution has passed the Senate and will be introduced in the House.**

Among the recommendations in the House Committee's report is the following: "The valuable research being done by the Engineering Experiment Station at Georgia Tech should be continued, and the General Assembly should support that research as necessary." EES is completing its third year of work on the kaolin-alumina project under the sponsorship of the Coastal Plains Regional Commission through the Georgia Department of Community Development, and is drafting a proposal for continuation of the project.

## EES People on the Move

**J. C. Toler and E. E. Donaldson**, Comm., attended the meeting of the Assoc. for the Advancement of Medical Instrumentation in Washington Dec. 13-14. . . **J. D. Walton**, HTMD, visited British Aircraft and Selenia in Rome and the solar furnace during January. . . **M. V. Davis**, NRC, visited the Argonne National Lab. to meet with the AEC on fusion reactor materials.

## Secretaries Attend Courses

Several EES secretaries completed continuing education courses in December. **Ila Benson** and **Mildred Cole** of IDD received certificates for finishing the Short Course in Business Grammar.

Attending the Short Course in Office Supervision for Campus Personnel were **Susan Harden, Ann Lewis, Ann Mintz, Ina Newton** of Systems and Techniques; **Betty Jaffe** of Applied Sciences; **Margaret Textor** of Industrial Development and **Claudine Taylor** of the Office of the Director.

## S&T Reps Visit GM

**H. A. Ecker** and **E. E. Martin** visited General Motors on the 28th of November 1973 to present a briefing on Georgia Tech project with General Motors which involved tracking cars, road signs, trees, etc. on collision prediction radar for future highway safety. Dr. Ecker was invited to conduct a tutorial on radar reflectivity to the General Motors Engineering Staff in the afternoon.

## S&T in France

**John Langley** and **Joe Newton** spent two weeks, 4-20 January, in Odeillo, France in connection with Project A-1523, Program to Measure Radome Antenna Radiation Patterns at High Temperatures. Joe then traveled to Paris for a week's vacation.

## Personality —



Archie Corriher of S&T

### Once You Find Him . . .

Who knows what evils lurk behind the reams of reports, memos and newspapers? The Shadow knows, in the form of Systems and Techniques Assistant Manager Archie Corriher. To those who wonder, Archie replies that he knows what and where many of the things are, but not all. "To those who have viewed it (his office), it might be called unique," he commented.

Once the visitor gets past the paper stacks, this former ABOU winner's enthusiasm and love of S&T and its people fill the office more than the paper. And he admits it. "I like people. People are one of the great things here. Why, we have one of the most dedicated and competent staffs that can be found in any organization. I have pride in their accomplishments and contributions. They really strive to do a good job, and they care."

This enthusiasm is also directed toward the Station as a whole. "In the 23 years I've been here, EES has gone through a great evolution in mode of operation and in responsiveness to state needs and the general character of sponsored research."

He would like to see Georgia industries helped more by EES, but admits there are inherent problems. "The small industries often don't realize they need help, don't know where to go to get it, and don't have the means to implement suggestions.

And the large companies have their own research staffs." With Atlanta being primarily a distribution center, it is difficult to apply sophisticated electronics research here. However, S&T wants to help state industry and business in any way it can. "Just because the problem is not sophisticated does not mean it isn't important," he emphasized.

About the energy crunch, Archie feels that although it will be difficult for anyone to establish a monumental breakthrough, EES can help Georgia people use their energy supplies more efficiently.

The Hendersonville, N.C. native came to EES after obtaining degrees in electrical engineering from North Carolina State and Cal Tech. He has since earned a Masters in Applied Mathematics from Tech. Although his primary duties are now administrative, he still finds time to do some technical work on radar and the reflective properties of radar targets. He also devotes considerable time to initial contacts with potential sponsors, reviews proposals and technical reports, and develops program areas and teams. "I'd like to see the EES liaison engineer concept expanded; we need more people out in the field working the Georgia companies. This is why the network of EES area offices is such a good idea."

In his spare time, Archie serves as a Lt. Colonel in the Air Force Reserve in a disaster preparedness group assigned near Washington. "Personally, I'm more of a disaster than prepared," he joked. His favorite hobby is traveling, particularly with his two children. Thus far, he has been in the 48 contiguous states, with yearnings to visit Alaska and Hawaii. He commented that in traveling he notices the diverseness of people in this country, yet all linked by an intangible bond. His amateur photographer status allows him the opportunity to record his journeys.

All in all, Archie approaches his work partly as an avocation. "I just want to be useful, to enjoy what I'm doing and to have some sense of accomplishment in it."

Bonnee W.

## IDD MERRY-GO-ROUND

**Bob Collier**, IDD, was a speaker at the second Annual Meeting of the Georgia Association of Economics Educators, held January 25 at Clayton Junior College. His topic was "Interests and Opportunities for Economics Educators." GAEE was organized in May 1973 for the "dual purpose of promoting all means whereby the teaching and learning of economics may be enhanced and of opening opportunities for economics to be understood and disseminated broadly in society."

**Ross Hammond** and **Jerry Lewis**, IDD, presented "An Introduction to the Engineering Experiment Station and Industrial Development Division" January 14 at the Mid-Winter Meeting of the International Division of the American Society of Engineering Education, held in Atlanta.

**Ross Hammond**, IDD chief, is a member of a National Academy of Sciences/National Academy of Engineering Study Panel chaired by Georgia Tech President Joseph M. Pettit. The panel met at Tech January 16-17 to draft its final report on the role of U.S. engineering schools in development assistance.

Governor Jimmy Carter, as chairman of the State Manpower Planning Council, has asked **Bill Howard** to represent IDD on a committee to make recommendations and plan for implementation and operation of Georgia's programs under the U.S. Comprehensive Employment and Training Act of 1973.

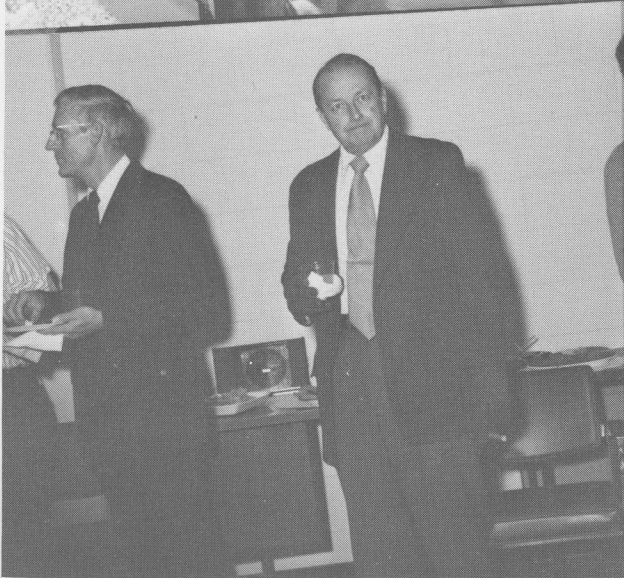
**Hardy Taylor**, IDD, announces that the Technical and Managerial Centers in the Southeast will hold a Technical Assistance Conference at EES February 6-8. Hardy is chairman of the eight-state consortium.

All of IDD's Atlanta staff is together on the third floor of the Baker Building now. Its International Development Branch moved the latter part of January from the second floor into the former administrative offices of ASD, which shifted into the next-door suite of offices.

**Energy economy is  
everybody's business**



# Christmas Party



Getting into the Christmas spirits



## How to Survive in a Cold Climate: New EES Building

By Art Bookwall

Mental attitude counts for a lot in arctic survival. Try thinking of the large federal funding that might come from a government project to use the New EES Building for Arctic survival training for our armed forces with staff personnel showing how. Cool idea?

Physical activity also counts for a lot, so keep busy, move around. Don't just sit there thinking of the volcanic (and warm) destruction of Pompeii or the fires of HELL, get busy and exercise. Every half hour or so call someone on the phone (if the dial isn't frozen). If you can't think of someone to call, try phoning the Atlanta Fire Department—not to report a fire, but to find out *where one is*. Maybe you'll find there's one near EES (the Administrative Building, maybe) and you and your fellow employees can go by and share the heat. But be prepared to carry out some planned activity to keep the party going. Tossing old memos on turning down the thermostat into the fire might be one outlet.

Utilization of portable electric space heaters is, of course, *verboten*, but perhaps the administration might grant us a "boon" by allowing heater utilization for 30 minutes each morning. Employees could polish their shoes with Sterno instead of the conventional way. Upon arrival at EES in the all too dark A.M., one's heater could be turned on (after checking with Maggi R. to inform her of the impending power surge and to see if your car lights are on). Then ignite your heater, placing it close to your Sterno-soaked shoes and properly oriented to benefit from the draft in your office (surely your office has a draft). When your shoes have become properly engulfed in flame, turn off your electric heater and prepare to stay warm and toasty for the rest of the day. Should, however, you become too comfortable, you might occasionally want to get up and jump around or jog up the freeway to Norcross, etc. This activity also will be beneficial since physical exercise will raise body temperature and thus help you to

keep warm. Should you have some Sterno left over, you might consider putting some in the nearest thermostat or basting nearby window curtains.

On warm days you might consider getting a glass cutter (if you have a charge number permitting M & S expenditures) and slice out a goodly chunk in the nearest window glass to let in some warm air. (Caution: the very warm air from outside colliding with the arctic air pouring out of your office may cause a storm front or at least hazardous conditions due to excessive fog—in addition to our normal fog intensity—so be sure to call the U.S. Weather Service at Hartsfield International Airport to notify them of the possible impending storm. This gets us back to telephone dialing and physical exercise.)

NEXT MONTH: How to burn IDD reports and copies of *Playboy*—and convert the ashes into charcoal and oil. (In the meantime, keep cool.)



## SAVING ENERGY SAVES MONEY

The recent removal of fluorescent tubes in the Baker Building will result in substantial savings. According to service manager **Tom Jones**, the removal of 2050 tubes will save 85 kilowatts per hour. At the current charge for our electricity, that will save about \$2500 per year. Besides this great reduction in the lighting bill for the one building, Tom said they now have about a year's supply of tubes stored in the basement. So that will be an additional saving.

Plans call for the removal of tubes in the Electronics Building in the near future. About 1000 will be taken out, increasing the amount saved on electricity and tube replacement.

Because of the nature of the wiring, the lights in the Hinman building have not been removed; but turning off switches has cut consumption by about 30%.

The amount of saving will be less, but the application is equally appropriate to our homes.

## HARVARD BLAMED FOR ENERGY CRISIS

Under "Arab Halfback," Art Buchwald in December 18 *Washington Post* finds that the "real villain of the fuel crisis is the Harvard Business School." Buchwald's Professor Applebaum explains: "Almost every Sheikh now in charge of oil policy for his country was trained at Harvard [where they were] taught how to sell oil, raise prices, and demand outrageous profits.... Had these same sons of Arab potentates been sent to the University of Alabama, Oklahoma or Texas, they would be involved in developing football teams instead of putting the screws to everyone."

Sensor Systems Student Assistant **Lawrence Cail** married **Jan Susan Deal** in October.

**Suzanne B. Wheeler** has joined the IDD staff as a secretary in the Industrial Services Branch. She replaces **Marcia Kilmark**, who resigned in September.

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At the invitation of Analytical Measurements, Inc., **Dr. Ingols** attended the 34th Exposition of Chemical Industries at the New York Coliseum, November 26, 30, 1973.

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**Ron Sands**, Office of Radiological Safety health physics technician, collected Toys for Tots during his inspections for radiation surveys. Ron is a Marine Reserve sergeant. The ORS also recently passed the AEC and state radiation inspection for Georgia State, which is under contract.

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**Bill Free** has retired from his position as Principal Research Engineer in the Special Techniques Division in order to start his own business. He is moving to Toccoa, Georgia where he will make custom kitchen cabinets. About 80 of his colleagues in the Department said goodbye to Bill at a luncheon on January 17.