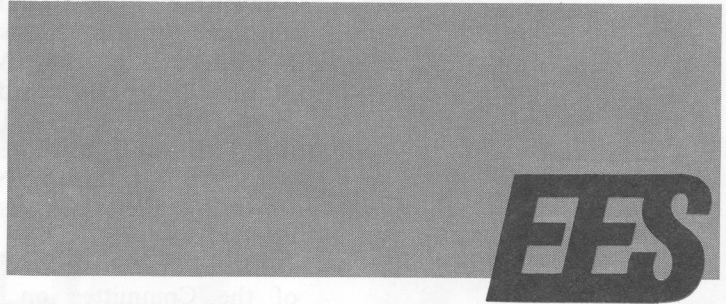


STATION NEWS



ENGINEERING EXPERIMENT STATION • GEORGIA TECH

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The ASD Forms New Division

During the month of May the new Energy and Materials Technology Division (EMTD) began to take shape in the Applied Sciences Department. **Gordon Harrison**, Manager of ASD, announced the appointment of **Dr. Jack M. Spurlock** as the new division's chief.

Request for formation of the Division was approved by Georgia Tech, and the Board of Regents were informed of the plan. Administrative changes and details are underway and it is expected that the Division will become

operational by 1 July.

Effective with formation of EMTD, the High Temperature Materials and the Nuclear and Biological Sciences Divisions will cease to exist, so future references to these Divisions will be phased out.

The ASD will operate with two divisions: PSD and the new EMTD. All personnel presently in the Department will be located administratively in these Divisions except for those people assigned to the ASD office.

The new organization is expected to improve efficiency of operations and administration and to better reflect the character of ASD's current research efforts.

Special Techniques Division to Move

Plans are presently being made to move **J. W. Dees'** Special Techniques Division from the Electronics Research Building to the second floor of the Baker Building in the space now occupied by Crystal Physics Branch, probably during July.

The move will involve some eighteen members of the Special Techniques staff and nine graduate students plus several tons of laboratory equipment, microwave and special test gear, supplies and all the furniture not bolted down. Also receiving high priority and special handling in the move will be **J. W. Dees'** stereo equipment and well-stocked refrigerator.

Ray Young's Crystal Physics Branch will move to the Physics Building. The moves are being made because of the on-going expansion of the S&T Department and Special Techniques Division's need for more working space.

The residents of Baker Building will be interested and curious about the activities of the new tenants and will be anticipating the Division's first Open House and "new office warming party."

S&T NEWS

Recently joined the staff:

G. E. Riley, Senior Research Engineer. **M. J. Sinclair**, Assistant Research Engineer, **J. A. Stratigos**, Assistant Research Engineer, **G. R. Loefer**, Assistant Research Physicist.

IDD Hosts AID Symposium On Rural Development

IDD hosted another important international meeting May 6-9, the Annual Strategy and Planning Symposium for the Agency for International Development's Office of Science and Technology (AID/OST). The objective of the symposium was to assist AID/OST in the planning of its new rural development program. Participation in the meeting was by invitation only, and the approximately 50 attendees included distinguished theorists and practitioners in international rural development. Issues in the areas of rural education, employment, housing, environment and energy development were discussed.

Life Insurance Enrollment Extended

The Regents Central Office has announced the enrollment period for increased supplemental life insurance and increased dependent life insurance coverages has been extended to July 1. You have until then to take the coverage without further evidence of insurability. For those who have already increased their coverage, the effective date was June 1.

The necessary enrollment forms are in the Personnel Office, Room 201, Knowles Building. For those making no decision by the July cut-off date, it will be assumed they do not elect the increased coverage, and their insurance will continue at the same level.



John Tatom, TAG, cavorts happily in his pile of peanut hulls on Cherry Street.

That's a Shelluva Lot of Peanuts

What would you do with 90 tons (give or take a few hundred pounds) of peanut shells? Personally, we wouldn't do much, but **John Tatom** is going to feed them to his big blue mechanical elephant called Blue Three and make wondrous fuels and other things from them. So he says—and the Environmental Protection Agency hopes. This is part of a program evaluating the effects of mechanical agitation and the differences in various feed materials during pyrolysis. This testing program lasts seven months or until the bottom of the peanut hull pile, whichever comes first. Eventually, a portable waste converter may be feasible. Then a truck can drive up to your door and you can give it all your tons of peanut hulls.

The next feed material John will test is cotton gin waste. Just imagine the size of the pile of 90 tons of cotton gin trash—or imagine what will happen to it in a strong wind!

Radar Division

Dr. H. Allen Ecker, Fred L. Cain, C. Patrick Burns, and E. Clifford Burdette of the Radar Division attended the International Microwave Power Institute's Microwave Power Symposium for 1975. The Symposium was held May 27-30 at the University of Waterloo, Ontario, Canada. Messrs. Burdette and Burns presented two papers in the area of biomedical applications of microwaves. "Electromagnetic

Thawing of Frozen Granulocytes," authored by Pat Burns and Clif Burdette, was given by Mr. Burns. A second paper entitled, "Microwave Energy for Wood Products Insect Control," authored by Clif Burdette, Pat Burns, **Neil Hightower**, and Fred Cain was presented by Burdette.

Allen Ecker conducted a meeting of the Committee on Man and Radiation of the Institute of Electrical and Electronics Engineers. He is currently serving as Chairman of COMAR for 1974-1975. The COMAR meeting was held May 29 at the University of Waterloo in conjunction with the Microwave Power Symposium. Fred Cain attended the COMAR meeting, and, as a member, he gave a report concerned with reported effects of 60 Hz radiation on biological systems.

Dr. Ecker and Mr. Cain also attended a meeting of the American National Standards Institute (ANSI) C.95 Sub-Committee on Safety Standards for Non-Ionizing Electromagnetic Radiation at the University. Both Ecker and Cain are members of this standing committee of ANSI. Mr. Cain is the Chairman of the Working Group of the C.95.4 Subcommittee concerned with establishing a rationale for possible peak power limitations on the C.95.1 Safety Standard reported on this subject.

Mr. Pat Burns continued on from the International Microwave Power Symposium to present a paper at the 1975 International Symposium on Antennas and Propagation held at the University of Illinois at Urbana on June 2-4. Burns presented a paper entitled, "Accuracy of Hemispherical Far-Field Patterns Determined from Near-Field Measurements"; this paper was coauthored by **E. B. Joy, G. P. Rodrigue**, and **E. C. Burdette**. **Dr. Charles E. Ryan, Jr.** also attended the joint AP-S/URSI Symposium and presented a paper entitled, "Some Results on Effects of Complex Scattering Structures in the Near Field of Directive Antennas." The paper was coauthored by **Dr. Ryan** and **Fred Cain**.



Vietnamese Refugees Coming

The Vietnam evacuation is coming close to EES with the planned "adoption" of a Saigon mother and twin 22-year-old daughters by **Otis Rogers** (Colonel U.S.A., Ret.), Administrative Special Assistant to **Al Becker**. Otis has applied for the refugees to come live with his family until the Vietnamese women can find work and become independent. They are presently at the Eglin AFB refugee camp, which Otis notes is not exactly a beautiful oasis or typical of life in the USA.

Otis served in Saigon during 1965-66 and, like many Americans who have witnessed the agonies of Vietnam, feels a compassion for the people and wants to help them in some small way. He doesn't know the prospective guests, but feels certain that his teen-age boys and wife will be able to help reorient them to America. The women are all bilingual, educated, and the mother worked for ESSO in Saigon. Anyone with job prospects or interest in sponsoring other refugees can contact Otis at 4822 for information.

Welcome!

We would like to welcome the following new employees who joined us in May and in June: **Bobby C. Appling, Johnson J. H. Wang** and **Eric S. Sjoberg** in the Radar Division; **Linda A. Leiker**, Sensor Systems; **Diane K. Brownlee**, Reports & Procedures; **Nancy H. Price**, Special Techniques Division; **Barbara A. Wilson**, IDD (West Georgia Office); **Shirley J. Fleming**, Reactor Operations, and **John E. Dawkins**, Technical Support Department.

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IDD News

Bob Cassell, IDD, has been appointed by Gov. George Busbee to represent statewide industrial developers on the newly constituted Coastal Zone Management Communication Forum. The Forum will act as liaison between the Office of Planning and Budget and the state's citizens in matters relating to development of a coastal zone management program.

Ross Hammond and **Hardy Taylor**, IDD attended an EDA University Centers Conference on "University Assistance to Economic Development in a Recession" May 13-15 at the University of Arkansas. Hammond gave a talk at the conference on "Multi-Source Funding for University Centers and International Activities."

While **Bill Ward**, IDD, was at the U.S. Bureau of Mines pilot plant in Boulder City, Nevada, May 5-7 for the last scheduled test run of the nitric acid process for producing alumina from kaolin, he missed seeing his grandson pitch a no-hitter in the Little League.

IDD staff members **David Clifton** and **Bob Collier** and ISyE professor **David Fyffe** will be at the University of the Philippines June 17-28 to field-test a training program on "Analysis and Evaluation of Industrial Projects." This activity is part of the Agency for International Development 211(d) institutional grant program.

Also in connection with the AID grant program, the University of Science and Technology in Kumasi, Ghana, has agreed to become a Georgia Tech counterpart, and formal papers are in the process of being signed. Since the University's Technology Consultancy Centre was established 2½ years ago, its small staff has had remarkable success in stimulating grass roots industrial development through appropriate technology.

Gordon R. Harrison, ASD, attended the 1975 International Microwave Symposium in Palo Alto, California in May where he also received the IEEE Fellow award.



Some of EES staff ponder thoughtfully (and sleepily?) during presentation to Jerry Horton and members of the Georgia House Industry Committee.

NEW PROJECTS

Public Health Service to PSD (**R. A. Young**) for tooth enamel apatite investigations at the atomic level—Keck and Wood to PSD (**R. S. Ingols**) for assistance in improving the settling characteristics of water treatment plant floc—Office of Naval Research to RD (**W. E. Sears**) for MARCOR Radar Landing Systems—Aeronautical Systems Division to CD (**C. S. Wilson**) for time standard system for directing satellite tracking antennas—NASA Lewis Research Center to RD (**L. D. Holland**) for cost benefits of space communications technology—



Staff Promotions Announced

The Board of Regents recently announced the following promotions for EES staff members effective July 1. Promoted to Senior Research Engineer are: **Neal T. Alexander**, **James W. Cofer, Jr.**, **Robert A. Moore** and **William E. Sears, III**, all of S&TD. Promoted to Senior Research Scientist are: **James L. Hubbard** and **Robert M. Mason**, ASD; **Richard Johnston**, IDD, and **Stephen P. Zehner**, S&TD.

New Research Engineers are **William P. Cooke** and **Joe M. Newton** of S&TD and **William N. Craig, Jr.** of IDD. Research Scientists now include **Eric O. Berg, Jr.** of IDD and **Barry J. Cown** and **Edward E. Weaver** of S&TD.

House Committee Visits

An afternoon presentation on EES industry related projects was given by staff members on May 21 to the Georgia House Industry Committee, chaired by Mr. Jerry Horton. **Dr. Maurice Long** welcomed the Committee representatives and was followed by **Rudy Yobs** with a general overview of EES operations. **Howard Dean** discussed the energy conservation program, **Jack Spurlock** talked about our work in solar energy, **Ross Hammond** reviewed IDD's work with Georgia industry and **John Tatom** explained the waste conversion developments. **Allen Ecker** talked about the tornado radar warning research and work in biomedical electronics. **Jerry Birchfield** concluded the presentation with a description of the EES Productivity Program. Afterwards the Committee and their EES hosts were cocktail guests at the home of President and Mrs. Pettit.

New Faces In ASD

Steven A. Lubs, Student Assistant in the Solid-State Devices Group, ASD.

Benjamin W. Lin and **Francis (Frank) P. Coyle**, Graduate Research Assistants working with **Jack M. Spurlock** and **Robert M. Mason** in Energy and Materials Technology/ASD.

Anita M. Fey, Assistant Research Engineer, working with **Jack M. Spurlock** and **Robert M. Mason** in Energy and Materials Technology ASD.

Elena S. Vernon, Secretary to **Dr. R. A. Young**, PSD/ASD.

Personality

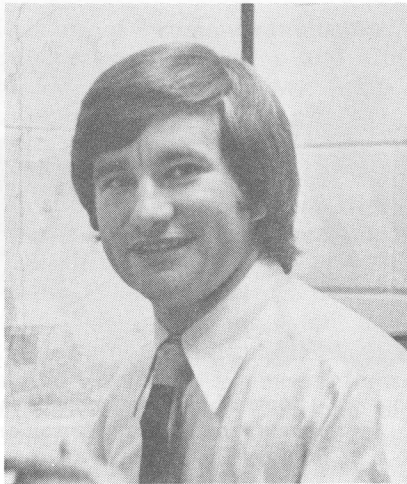
An Enthusiastic Optimist

"I'm definitely an incurable optimist—and it really works. You get enthused about a job and then so does the next person, on and on, and the next thing you know, the job is done." Such spirit and enthusiasm is characteristic of **Research Engineer Ron Pearl of the Technical Support Department.**

Ron is currently using his positive thinking to help other people be more productive; he's directing a pilot project to help city governments conserve energy while maintaining their present level of services. He said this project is part of the new Governmental Productivity Program at EES. He's also involved in some of the energy conservation workshops to furnish technical assistance to industry and is handling other public-related matters such as inquiries from inventors.

In the productivity area, Ron says each industry and city government has unique problems. "There are a lot of challenges we haven't faced before in this project, such as how to implement changes in how a city does business in ways that are politically acceptable to all involved. We must work with diverse groups such as city employees, elected officials, Area Planning and Development Commissions and the Georgia Department of Community Development. The whole idea in this area is to develop programs to apply existing technology to government problems. You have to build up a momentum with people: The people you are working with, other people who are doing similar things in the state, and people who might be funding the work. And it's an excellent opportunity for engineers to get involved in community affairs."

As a bachelor in one of the singles capitals of the world, Ron's outside activities are about as varied as his work. He likes to do "field operations" at Harrison's, Pharr Library and Daddy's Money. These excursions give him an advantage when entertaining out-of-town clients. "I try to match the personalities of the people to the facilities of the city. I like cities and like being involved in a lot of activities. So many of the things are new, I wish I could do them all."



Ron Pearl

Ron may appreciate the city more because he spends some time away from it. He skin dives when visiting his parents in Florida, snow skis in the North Carolina mountains, and swims and water skis when camping at Lake Lanier each summer weekend. He and a group of friends pitch tents, cook, sun themselves, drink considerable amounts of beer and generally enjoy whatever they find to do. Ron also plays tennis and enjoys driving his sports car.

Atlanta is now home to the Michigan native. He and his family have spent considerable time in Florida, so he chose Atlanta and Georgia Tech for college as a "compromise of quality and climate." He was in the Class of '68 at Tech. Now he likes Atlanta too much to leave and gets perturbed at residents who claim to not like the city.

His father designed radios, so Ron started to follow in his footsteps by majoring in electrical engineering. He specialized in communications for his Master's in 1970 and is currently working on a Master of Business Administration in marketing at Georgia State. Ron worked as a student assistant at EES, then started full time designing electronic circuits for radar systems. He spent several years as a computer programmer, systems analyst and radar engineer. He has always been interested in media and the techniques of selling our research. He wants EES to become well known to the public. It's frequently frustrating to explain to people what the Station is, and what he does, he claims.

However, Ron said he wouldn't trade his technical background for anything because he believes it all fits well into the marketing of EES. "There are a lot of marketing techniques that we can use. I'm just trying to find a way to fit in my background and attempt to use it. I feel good about the things I've done. I just wish I had been more aware of the community when I was in school. I'm

now having to learn to talk to varied groups of people."

Ron is getting more involved in the community, particularly with the Democratic Party of DeKalb County by working in media relations for various campaigns. "I'm beginning to understand how the political system works and how EES can possibly work with it. I want to get more deeply involved in this area."

If Ron should get into politics, he probably would not suffer from stage fright. He was once a disc jockey and news announcer for WRAS at Georgia State. He was also lead singer and drummer in a rock band for a couple years and is currently taking acting lessons at Tech's Free University. He is a member of the Society of Communicating Arts and the National Association of Television Arts and Sciences.

"I don't get as 'psyched up' as many of my friends do about making money as their only goal. I'm more interested in the problems of our governmental system in this country, especially how universities can cooperate with each other, how we can coordinate problems and solutions and how we can deliver the goods. The more I get into the work here, the more optimistic I get about what we in research can accomplish."

B. W.

Solar Energy

The High Temperature Materials Division has recently published an interesting illustrated report titled "Solar Energy Activities at Georgia Tech, 1971-1974." The report briefly summarizes the various solar energy activities and discusses them according to the temperature provided by the particular solar devices being used or studied. It covers such high temperature devices as solar furnaces and continues to flat plate collectors for heating water or air and includes information on instrumentation, isolation and economies.

It is a very informative report and is available upon request to J. D. Walton, Jr.

WINNERS

Congratulations to two members of ASD's Solid State Devices Group for winning trophies in the George C. Griffin Cross Country Race May 10. Earl Meeks came in second in his age group for the 3 mile race. James Owen took first place in the paddle ball tournament.