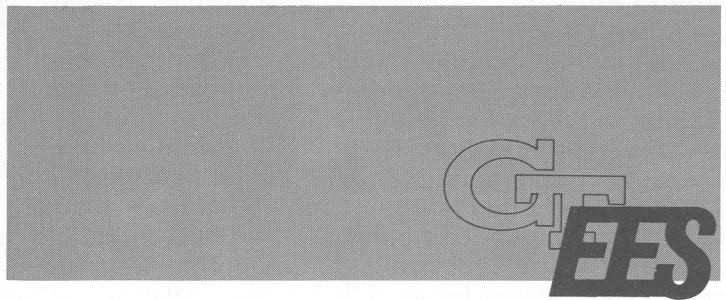


STATION NEWS



ENGINEERING EXPERIMENT STATION • GEORGIA TECH

VOLUME 5 NUMBER 9

OCTOBER, 1976

Allen Ecker Resigns

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Dr. H. Allen Ecker, Director of the Applied Engineering Laboratory, surprised his friends and associates at the Station on Friday, October 1, when he notified Dr. Don Grace, Director of the EES, that he intended to resign his position with the Station and accept an opportunity with Scientific Atlanta.

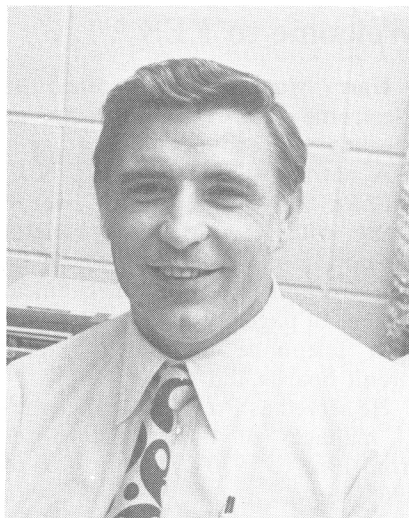
Allen will become an officer of the Atlanta-based electronics firm which was originally a spin-off of EES and has been closely associated with EES personnel.

Ecker expects to make the move in November and Dr. Dick Johnson, Associate Director of EES, will be acting director of the AEL assuring continuity of staff for sponsors.

Allen is a 1957 graduate of Georgia Tech where he was distinguished as an All-American football player as well as a scholar. He received his M.S.E.E. from Tech in 1959 and a Ph.D. in E.E. at Ohio State University in 1965.

After Tech he served on active duty as an Air Force Reserve Officer and project engineer at Wright Patterson AFB, Ohio. He worked with a team responsible for determining the electronic countermeasure system for the B-70. After three years of military duty he remained on at W-P/AFB as a U.S. Air Force civilian and Aerospace Engineer until 1966.

Dr. Ecker returned to Tech and EES as a Senior Research Engineer and became chief of the Radar Division of the Systems and Techniques Department. In the 1975 reorganization he became Director of the



Allen Ecker, director of AEL

Applied Engineering Lab, a major organization of EES now consisting of the Radar Technology Division, the Systems Engineering Division, the EM Effectiveness Division and the Countermeasures Division.

The growth of the AEL and its divisions, as well as EES in recent years, has been in a large part the result of Allen Ecker's dynamic leadership and management skill. His executive ability was recognized recently when he was a leading candidate being considered for the position of EES director.

Allen Ecker's departure from EES will leave a man-sized vacancy in EES leadership ranks. However, all of his friends and associates at EES realize he has a fine opportunity to move ahead and now wish him the success and prosperity he deserves.

J.A.D.

PTAL Forms New Division

Rudy Yobs, director of PTAL, recently announced the formation of a new division, Productivity Systems Division, to be headed by Jerry Birchfield.

Birchfield, who is also associate lab director to Yobs, will be assisted by Jim Lowry, associate division chief.

PTAL's new division will continue generating contracts for public and private sponsors including work in productivity improvement, energy conservation and energy sources, industrial process improvement, equipment design and labor productivity.

In addition to the new division, the Productivity Laboratory also operates two research groups; Materials and Chemical Technology, and Waste Utilization.

Howard Dean III

Howard Dean, associate director for Programs and Services, has been suffering from what appeared to be typhus or Rocky Mountain Spotted Fever and was laid up in the DeKalb General Hospital. He is now at home and all of Howard's friends and associates wish him a speedy recovery.

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Mrs. Dolores (Dee) Ramunno has joined E.E.S. as secretary to the director, Dr. Don Grace. Dee has been in commercial real estate and in the Atlanta area for eleven years. She is a native of Chicago. Welcome aboard Dee.

Systems and Techniques Lab

Bob Goodman and **Sam Alford** of S&TL were invited to make presentations to the Tri-Services Crossbow-S committee meeting on September 28 and 29 at Nellis AFB near Las Vegas, Nevada. Their presentations dealt with current S&TL programs.

Sam Alford and **Bill Dittman** of STL/SDD visited the General Dynamics plant in Fort Worth in September for discussions with General Dynamics and Air Force personnel regarding their contract for missile seeker antennas.

David Keith, **Sam Alford**, **Henry Cotten** and **George Whitley** visited MICOM in Huntsville recently to deliver a program involving electrical and mechanical design studies on two radar antennas.

Charley Hilbers, **George Ewell** and **Sam Alford** visited the Armament Development and Test Center (ADTC) at Eglin AFB to discuss STL/SDD's new program involving radar receivers.

Bob Moore, joined by **Calvin Jameson**, **Bob Somers** and **Al Kovatch**, hosted visitors from ADTC/Eglin AFB, MICON/Huntsville and NWC/China Lake, CA., for a training course and acceptance testing of the first scanning/tracking antenna for ADTC.

Bob Plumlee of STL/SDD was recently approved by the Society of Manufacturing Engineers as a Certified Manufacturing Engineer. This recognition, based on his experience and educational background in the manufacturing field, is well deserved. Congratulations, Bob!

Bob Goodman was invited by Col. John B. Marks, Jr., commanding officer of the Foreign Technology Division of Wright-Patterson Air Force Base, to attend the dedication program of FTD's new facility.

Electronics Technology Lab

Richard Moss and **Bob Rice** were in Washington, DC on the 7th and 8th of September to discuss enforcement mobile monitoring with the FCC.

Hugh Denny and **Jimmy Woody** visited Kentron-Hawaii in Dallas, Tex. on September 10 for technical discussions and program planning on

grounding, bonding and shielding measurements.

Spurgeon Robinette traveled to Dahlgren, Va. on September 10 where he visited the Naval Surface Weapons Center to discuss measurements technology.

Don Clark attended a conference in Albuquerque, NM, September 28 and 29 at Kirtland Air Force Base. This conference was sponsored by the Directorate of Aerospace Studies regarding Air Force anechoic chamber requirements. He then traveled to San Antonio, Tex. on the 30th to attend a conference on TEMPEST requirements at Air Force COMSEC, Lackland Annex.

Welcome to EES.....

Harry Muzika recently joined the Electromagnetics Laboratory as Mechanical Technician III.

A native of Scotch Plains, N.J., Muzika was employed for over 6 years with the Martin Marietta Corporation in Orlando where he was responsible for mechanical designs of pager systems to interface with telephone equipment racks, circuit boards and power supply.

He served as President and General manager of Butler Enterprises from 1968 to 1970 and from 1966 to 1968 he was a senior designer with Chrysler Corporation.

His background also included positions with Comprehensive Designers, Inc., Martin Company, H.L. Yoh Co., and Southern Associated Engineers.

Muzika will be working in the Radiation Systems Division of EML.

Flu Shots Available in November

The Swine Influenza Vaccine will be administered on campus during the month of November. The Infirmary, in cooperation with the Fulton County Health Department, will administer the vaccine at no charge to Tech faculty, staff, and students on a voluntary, first-come, first-served basis. Those who want to be immunized must sign a release slip which is furnished by Fulton County. Immunization will take place at the Infirmary. The exact dates and times will be announced later.

Applied Engineering Laboratory

New Personnel in AEL are: **John R. Moore**, Res. Eng., working part time for **Jerry Eaves**, RTD. **Glenn N. Caplin**, Assist. Res. Eng., working full time for **Lee Edwards** (Advanced Technology Technical Area) and **Stephen F. Gildner**, Assist. Res. Eng., working full time for **Fred Cain**, EED.

The Radar Short Course was presented again during October 4-8. There were 49 attendees. The course presents the fundamentals necessary for radar systems analysis, synthesis and evaluation. The fundamentals are presented through lectures and live demonstrations with X-band, K-band and millimeter wave radars. The academic administrator was **Jerry Eaves**, chief of the Radar Technology Division.

Allen Ecker attended the IEEE EASCON-76 (Electronics & Aerospace Systems Conference) Conference in Arlington, VA, on September 27 and 28.

EES Services

Reports & Procedures has two new employees: **Karen Hill** and **Cindy Kitchens**. There are also two new employees in Mechanical Services: **Donald Butts** and **Danny Wilkes** (Machinists).

An Equal Education and Employment Opportunity Institution

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CONTINUING EDUCATION NOTES

R. E. Collier

EES activity in continuing education continues to grow. Although we are only two months into the current fiscal year, ten short courses are tentatively scheduled with more expected. Last year EES conducted only five short courses. As we have pointed out in previous notes, it takes about six months to prepare and advertise a short course, so we have about four months left in which to schedule additional courses.

Our records indicate that the courses listed below have been scheduled by the several laboratories. If we have missed any, please call Bob Collier at 3820.

Economic Development Laboratory

"Basic Industrial Development Course"

April, 1977

Mr. R. B. Cassell

"Survival and Profits — Managing Growth and Diversification in Small and Medium Industry"

December 1-2, 1976

Mr. R. E. Collier

"Contingency Planning for Energy Crisis Management"

January 19-21, 1976

Mr. R. E. Collier

"Marketing Operations for Small and Intermediate Businesses"

May, 1977

Mr. R. E. Collier

Productivity and Technology Applications Laboratory

"Energy Conservation in Existing Buildings"

To be scheduled

Mr. Ron Pearl

Electronics Technology Laboratory

"Grounding of Electronic Systems"

To be Scheduled

Dr. H. W. Denny

Systems and Techniques Laboratory

"Scanning Antenna Concepts"

February, 1977

Dr. J. W. Cofer

Other Activities

"Radar Reflectivity of Land and Sea"

November 8-12, 1976

April 25-29, 1977

Dr. M. E. Long

**Be Somebody's Miracle
by Giving
to the United Way**



Area Office Staff Directors (left to right): Sherman Dudley, Douglas; Eric Berg, Atlanta; Larry Edens, Savannah; Bill Craig, Macon; Wayne Hodges, Carrollton; Ben James, Atlanta; Bill Studstill, Albany; Bill Darley, Rome; R.L. Hughey, Augusta; Kay Powell, Augusta; Ed Lewis, Douglas.

History of the Engineering Extension Service

The Engineering Extension Service was established in the late 1960's under the EES Industrial Development Division, now the Economic Development Laboratory. The service provides economic research and technical assistance to local and area development groups, state-wide development organizations and to individuals throughout the State of Georgia.

Research work for groups such as local chambers of commerce, planning commissions, utility companies, municipal governments and industrial development corporations has contributed greatly to the growth and development of Georgia's business economy.

Today there are seven state-wide area extension service offices, staffed by industrial developers and engineering specialists, whose skills add introspect to local community growth potential. Areas of assistance include energy conservation techniques for manufacturing plants, compiling feasibility studies on economic growth, analyzing faulty machinery, recommending new equipment and plant production methods, contributing to industrial site selection and providing engineering assistance.

Their capabilities and services are geared to the localized communities. This includes working closely with local groups, providing organizational guidance and support, and providing an "On Call" service to the counties within each of the seven areas.

Working on a full, partial or contract basis, the area service directors have the added benefit of utilizing engineering specialists from the Georgia Tech campus and the Engineering Experiment Station for consultation and assistance on various projects.

The seven Engineering Extension Service offices are located in the following cities: Albany, Augusta, Macon, Rome, Savannah, Douglas and Carrollton.

The Extension Service is headquartered in Atlanta, under the direction of **Ben James** and assisted by **Eric Berg**, **Frank Kingsland** and **Lynnard Tessner**.

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Leisure Time Activities

The Yellow Jacket Bowling League, a mixed ten pin league for Tech faculty/staff and their families, seeks new teams and individuals for the 1976-77 season. The league bowls at the Student Center on Tuesdays at 5:30 p.m. Anyone interested may contact Dr. Line, Mathematics, at ext. 2719 or Mr. Tatum, OCA, at ext. 4818.

EDL News

New EDL Contracts

EDL has been awarded its first contract with the Environmental Protection Agency. The 11-month project, "Analysis of the Economic Impact of Pretreatment Standards for the Textile Industry," will investigate the effects of waste treatment standards upon price, production, employment, the community, and balance of payments. **David Clifton**, EDL, is project director. He was assisted in writing the proposal by **Lee Burks**, PTAL, and **David Gentry**, Text. Eng. School. Researchers working on the interdisciplinary project include four from EDL and one each from ASL, PTAL, Text. Eng. School, and Civ. Eng. School.

Another new contract just getting under way is a two-year project, sponsored by the Agency for International Development (AID), to test a hand-operated water pump developed by the Battelle Memorial Institute for village use in developing countries. **Phillip Potts**, project director, and **Philip Hess** will oversee the activity, with cooperation from EDL's counterparts in Nigeria and one other country. In-country firms

will be found to manufacture the pumps, which then will be installed in various rural locations. The performance of the Battelle pump will be compared with that of similar pumps under actual use conditions.

Also scheduled for October start-up is a three-month AID project to investigate the feasibility of pyrolytic conversion of agricultural wastes in Indonesia. **Tze Chiang** and **John Tatom** will kick the project off with three weeks' on-site activity.

Ray Manoff, **Nelson Wall** and **Charles Wommack** were in Chile September 19-October 3 as consultants to AID/Chile, helping them develop a small industry/rural development program for 1977.

Ray Manoff will lead a three-man team of consultants that will go to Tunisia in mid-October to conduct a survey for AID/Tunisia to identify rural industrial problems.

Bill Howard left for Honolulu September 26 for a three-week workshop to design the evaluation program and research methodology for an AID project to evaluate Georgia Tech's Small Industry Development Network and the Regional Adaptive Technology Centers program of the East-West Center.

PTAL News

On Sept. 22 and 23 **Jerry Birchfield** chaired a conference on Identifying Research and Development Needs of the Poultry Processing Industry which was sponsored by the Georgia Poultry Association and the National Science Foundation. The conference was held at the Omni International Hotel and included speakers from the poultry industry and representatives from the Georgia Poultry Federation.

Jim Knight presented a paper entitled "Pyrolysis of Pine Sawdust" at the Centennial meeting of the American Chemical Society, held in San Francisco, Sept. 2.

Richard Coombes and **Bob Fulford** addressed members of the National Conference of the Carpet and Rug Institute at Stouffer's Pine Isle Inn, Lake Lanier, Sept. 29. Richard spoke about the benefits of carpet as insulation; Bob defined the state of the art of improvements in efficiency and potential energy conservation measures applicable to all sectors of the industry.

As part of a project sponsored by EDA, "A Project to Reduce the Impact of Energy Shortages and Cost Increases on Industrial Production in the Southeast," **John Dawkins** and **Bob Fulford** of PTAL and **Fred Cook** of the School of Textile Engineering will conduct a workshop on "Energy Conservation in the Textile Industry" in Dalton on Oct. 19th. The workshop will be held in conjunction with the Carpet and Rug Institute and The American Textile Manufacturer's Institute.

Electromagnetics Lab

The EML staff is happy to learn that **Susan Wheeler** is recuperating nicely after undergoing major surgery on Sept. 27. She is presently receiving physical therapy treatments and is feeling much stronger. Susan's mailing address is: Shands Teaching Hospital, University of Florida, Room 273, Gainesville, Fla. 32610.

EML welcomes **Gale Kitchen**, new secretary to **Bob Shackelford** in the Electro-Optics division. Gale was formerly secretary with Diversified Plans in Atlanta.

Applied Sciences Lab

Welcome to **Doug Davis** and his staff: **Frank Tully**, **Ravi Ravishankara**, **Dan Philen**, **Glen Smith**, **Albert Nelson** and **Linda Rose**. Davis and his staff will be researching atmospheric sciences. The group is located on the third floor of the Baker Building.

T.P. Lang's Neutrino Research Group was visited by Dr. Fredrick Reines on September 27. Reines is the co-discoverer of the neutrino and directs neutrino research at the University of California in Irvine.

Steve Bomar and **J.D. Walton** were in Washington, D.C., September 3 for a Program Review meeting with George Kaplan (ERDA) on the Georgia Tech Solar Thermal Test Facility.

Max Akridge and **C.T. Brown** were in Jekyll Island, Sept. 13-14 participating in the Georgia Water and Pollution Control Association's 45th Annual Conference. Akridge presented a paper on "Application of

Solar Energy for Heating and Cooling," while Brown's paper was titled "Electric Power from Solar Energy."

J.D. Walton was in Genoa, Italy Sept. 20-27 for a Program Review with Ansaldo, an Italian electro-mechanical firm designing and supplying parts for the GT/STTF. Walton will be in Odeillo Font Romeu September 30-October 4 visiting Claude Royere at the French CNRS Solar Energy Laboratory.

Nick Poulos, **Steve Bomar**, and **C.T. Brown** were in Washington, D.C., Sept. 24 meeting with Gutstein and G. Kaplan to discuss the continuation of the 1 MW Bench Model Testing Program and other potential areas of research in solar energy.

Nuclear Reactor Center

Dave Hill, reactor operator, has announced his resignation from the Research Center.

Welcome to **Karen Bockstahler**, new receptionist at the Reactor, who replaces **Olga Kilpatrick**.