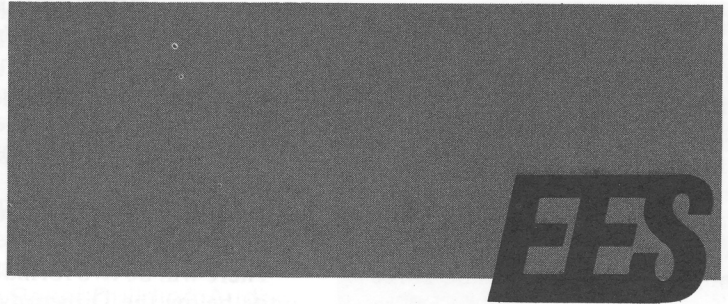


STATION NEWS

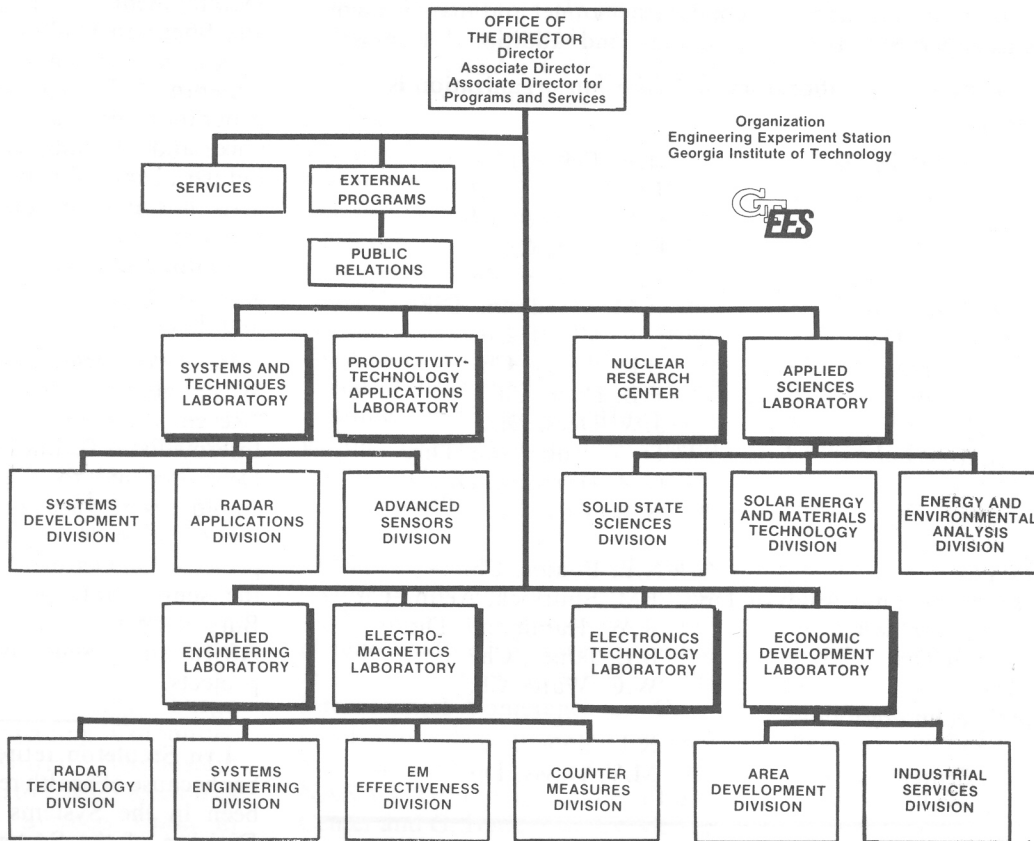


ENGINEERING EXPERIMENT STATION • GEORGIA TECH

VOLUME 4 NUMBER 9

OCTOBER, 1975

New Organization for EES



A new organization of the EES went into effect on September 1, 1975. Although the reorganization at this time is still awaiting official approval by the Chancellor's office, it is assumed that the plan will be accepted with little or no modifications and the new organization is now commencing to function.

The purposes of the reorganization include better accommodation of current growth and research activities as well as improved freedom of action within the University System.

The organizational changes will also establish minimum guidelines for formulating administrative units which can more quickly respond to new areas of technical need and which will allow a fluid structure that can be phased in and out with minimum disruption as budgetary and technical requirements change.

At the end of August, Dr. Thomas E. Stelson, Vice President for Research, proposed the changes to President J.M. Pettit following a number of meetings held over several

months with Dr. M.W. Long and his key staff administrators.

It was recognized that the EES organization used in recent years served a useful and effective purpose in allowing us to consolidate many loose operations and to identify leadership capabilities on the staff, but the new changes are now believed appropriate to meet our growth needs and to reflect the more flexible budgetary arrangement in regard to the administration of EES technical personnel. All technical personnel

are now listed budgetarily by the category "Research Operations" rather than by technical divisions or departments.

Main features of the new organization are: The Director's Office will consist of the Director (Dr. T.E. Stelson, Acting) with the addition of an Associate Director (Dr. Richard C. Johnson) and an associate Director for Programs and Services (Howard G. Dean). The service units (accounting, procurement, facilities and machine shop) will report to Howard Dean, and Betty Yarborough will assist in their supervision. Archie Corriher will also report to Dean and be responsible for developing external contracts and marketing as well as supervising the

As of this date, the new EES Laboratory and Division organization is established as follows:

Applied Engineering Laboratory
 Radar Technology Division
 Systems Engineering Div.
 EM Effectiveness Div.
 Countermeasures Div.

Systems and Techniques Lab
 Systems Development Div.
 Radar Applications Div.
 Advanced Sensors Div.

Electromagnetics Lab

Electronics Technology Lab
Applied Sciences Lab

Solid State Sciences Div.
 Solar Energy and Materials
 Technology Div.

Energy and Environmental Analysis Div.

Economic Development Lab

Area Development Div.
 Industrial Services Div.

Productivity and Technology
Applications Lab

Nuclear Research Center (Lab)

Public Relations (Publications) Office of EES. The Photo Lab under Al Becker will now report directly to E.E. Renfro, Director of the Office of Contract Administration.

"The External Programs" function will include marketing, program development and related matters being determined.

There will be two formal operating units below the Director's level. The principal unit is called a "Laboratory" and larger units of the laboratories will be called "Divisions." The Division Chiefs will primarily develop sponsored research programs and manage their several research project teams. The Laboratory Directors will conduct personnel and management functions and additional technical

H.A. Ecker, Director

J.L. Eaves, Chief

R.P. Zimmer, Ch.

F.L. Cain, Ch.

R.J. Hodges, Ch.

R.M. Goodman, Dir.

S.T. Alford, Ch.

E.K. Reedy, Ch.

F.B. Dyer, Ch.

J.W. Dees, Dir.

D.W. Robertson, Dir.

G.R. Harrison, Dir.

N.W. Cox, Ch.

N.E. Poulos, Ch.

J.M. Spurlock, Acting Ch.

R.W. Hammond, Dir.

B.E. James, Ch.

W.C. Ward, Ch.

R.L. Yobs, Dir.

M.V. Davis, Dir.

duties beyond the scope of Divisions. There will also be smaller units and technical groups reporting to the Lab Directors.

A Laboratory will normally consist of 15 or more full-time professional researchers, and a Division will be an administrative unit with at least 10 full-time professionals.

NEWS OF EDL PEOPLE

Nelson Wall, EDL, was in Kumasi, Ghana, September 14-20 initiating counterpart activities with the University of Science and Technology under the Agency for International Development 211(d) program. He and **Sherman Dudley**, EDL, will be in Nigeria September 21-October 11 under the AID Small Industry Grant program to provide technical assistance and training to counterpart industrial extension personnel and to assist in solving problems of selected small industries.

Judith Lohr has joined the EDL staff as secretary for the Education and Training Branch.

Ross W. Hammond, EDL, in Washington October 16 to speak on "Recent Developments in Designing Intermediate Technology for Rural Development" to a group of AID employees who are undergoing training to assist in rural development projects. On October 10, he will brief the senior staff of AID's African Bureau on Georgia Tech's work in Africa and discuss possible future projects.

Lyn Stapleton retired in September because of health reasons. He had been in the Systems Development Division of the Systems and Techniques Lab.

NEW PROJECTS

Naval Air Test Center to RD (**D.G. Bodnar**) for switchable polarization antenna study — Army Research Office to RD (**H.A. Ecker**) for *in vivo* determination of energy absorption in biological tissue — Appalachian Regional Commission to EMTD (**J.M. Spurlock**) for study to investigate potential benefits from synergistic co-siting of industrial activities — Black & Veatch to EMTD (**S.H. Bomar**) for conceptual design activities for solar thermal test facility; (**J.N. Harris**) for solar

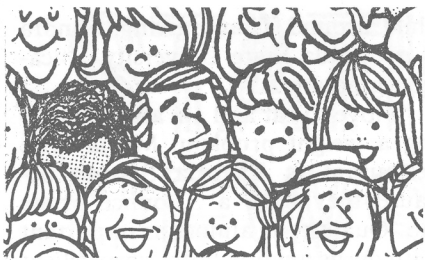
thermal conversion to electricity; (**J.M. Akridge**) for conceptual design of EPRI solar materials and components test facility — GA. Department of Agriculture to P/TAG (**J.F. Lowry**) for poultry industry research — Bell Telephone Labs to EMTD (**M. Marek**) for corrosion protection of cable sheath materials — Sperry Rand to EMTD (**J.N. Harris**) for radome blank — GA. Energy Office to IDD (**R.E. Collier**) for substate energy management —

STATION NEWS

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EES people on the move

J.W. Goodrum, EMTD, to Pittsburgh Aug. 5-7 for Coal Gasification Conf. ... **R.M. Mason**, EMTD, to Raleigh for Southern Growth Policies Board meeting Aug. 26-27 ... **H.A. Ecker**, RD, to Washington for Steering Committee Meeting for Electronic Warfare Symposium Sept. 4 ... **S.W. Day**, EMTD, to Columbus, OH Sept. 7-9 for Energy Policy Planning conf. ... **R.E. Collier**, IDD, to Washington Sept. 9-10 to discuss public technology and visit training program sponsors ... **S.L. Robinette**, ETL, to Washington for meeting of CCIR, joint industry/government committee Sept. 12 ... Director **M.W. Long** attended National Conference on the Advancement of Research in White Sulphur Springs, WV Sept. 13-17 ... **D.L. Allen** and **S.A. Bloom**, OCA, to meeting of Office of Federal Programs Liaison Officers in Washington Sept. 17-18 ... **R.J. Hodges**, AEL, to San Diego Sept. 19 to present paper to 1975 AOC Technical Symposium ... **E.C. Burdette**, AEL, presented a paper at Conference on Medicine and Biology and IEEE meeting in New Orleans Sept. 22-23 ... **H.A. Ecker**, AEL, to San Diego for Technical Steering Committee for Electronic Warfare Symposium Sept. 22-27, then to IEEE Electronics and Aerospace Systems Conf. in Washington Sept. 29-30 ... **J.M. Spurlock**, ASL, to Algeria for contract discussions Sept. 25-Oct. 18 ... **R.C. Johnson**, S&TD, to Washington Sept. 28-Oct. 1 for EASCON Conf. ... **R.B. Cassell** and **W.G. Dodson**, EDL, to Glasgow, Mont. for Economic Development Seminar Sept. 29-Oct. 1 ... **M.T. Tuley**, ASD, attended Radar Camouflage Symposium Sept. 30-Oct. 3 in Dayton, OH ... **D.L. Allen**, OCA, attended meeting of Society of Research Administrators in Las Vegas Oct. 5-10 ... **E.L. Meeks**, ASD, to Dallas Oct. 5-9 for Electrochemical Society meeting ...

Farewell Luncheon

A farewell luncheon honoring Maurice Long was held on Thursday, October 2 at the Atlanta Townhouse by the EES Laboratory Directors and a few other close staff associates, including President Pettit. The luncheon was followed in the afternoon by an EES staff reception for Dr. Long in the Baker Building Auditorium. Many friends and colleagues from Tech and the Station attended and expressed their best wishes.

Satellite Terminal to Leave Tech

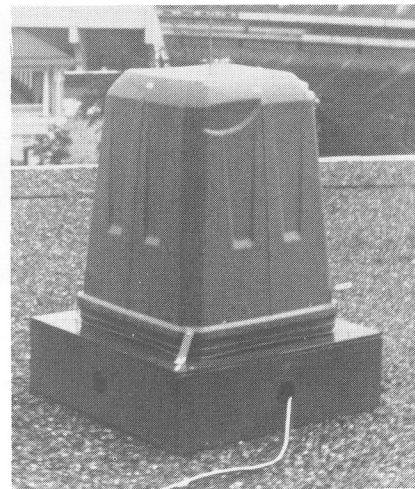
On September 1, the dual frequency 13 and 18 GHz transmitter manufactured by COMSAT Corporation for NASA's Goddard Space Flight Center completed its tour of duty on the Georgia Tech campus. Having transmitted continuous wave signals since May, 1974, through fair and foul weather to NASA's largest synchronously orbiting satellite, the transmitter is now destined for use in India. Shortly, NASA will move the ATS-6 satellite over the Indian Ocean and begin a Satellite Instructional Television Experiment and continue the 13 and 18 GHz Propagation Experiment using several ground stations in India and Europe.

Test results of the Propagation Experiment for the 24 terminals located in the Eastern United States including the one on the Georgia Tech campus have not yet been completely analyzed. However, initial results have been reported in the International Conference on Communications held in San Francisco this past June. J.L. King from NASA's Goddard Space Flight Center and G. Hyde from COMSAT Laboratories authored the paper "Preliminary Results from the ATS-6 13/18 GHz Propagation Experiment."

Coordinating this program for the past year-and-a-half at Georgia Tech were **J.W. Dees**, **J.M. Schuchardt** and **A.N. Chu** of EES.

NEW EMPLOYEES

The Electromagnetics Lab welcomes new employees **Laura Royston**, **Donal Gallentine** from Martin-Marietta and **Joe Walsh** from the former communications division.



What is It?

No, that isn't a spy device used to ferret information about secret football plays of the University of Georgia, although the unit is located on the School of Journalism Building overlooking Sanford Stadium. It's actually the antenna of the second tornado detector to be installed this year and is operated for Tech by Dr. Worth McDougal and his engineering staff under the direction of Chief Engineer Wilbur Harrington. The detector is similar to the Georgia Tech-operated unit located at the Cobb County Field Site.

Bearing angles on severe thunderstorms from Athens and Marietta are fed to the tornado tracking room in the Graduate Library on campus. These angles combined with radar bearing data locate the most severe thunderstorms thought capable of producing tornados. The receiving equipment also counts the electromagnetic burst from the thunderstorm. The rate of the burst is an indication of storm severity.

The tornado detection and warning project is being conducted by the Radar Technology and Communications Divisions as another way to help Georgians.

In case you're wondering what the cover over the detector is, it's a "Herbie the Curbie" (or Maneuverable Maynard) green trash container bought from Atlanta.

Electromagnetics Lab Director **J.W. Dees** announced the formation of two groups: Radiation Systems headed by **James Schuchardt** and Electro-Optics headed by **Bob Shackelford**.

PERSONALITY

South to North and Back

J.W. Dees is a North Carolina native who tried the North, then returned far South and moved a little north again to Atlanta. J.W. earned his bachelors' degrees in Administrative Engineering and Electrical Engineering from Tri-State College in Indiana. Then he married a Northern girl; and, "We spent our honeymoon in graduate school, which is not a fun way to spend it." His MS is in electrical engineering from the University of Cincinnati.

"I call ours a mixed marriage since Bernita (Bea) is a Yankee. But she has learned to make and like grits, gravy on rice, hamhocks and collard greens. What more could you expect from a Yankee?"

After graduate school, the Dees' moved to Ft. Wayne, Indiana, to work for the Capehart-Farnsworth division of ITT. Farnsworth was one of the original inventors of television, and it became ITT Laboratories where J.W. worked in microwave and millimeter wave research.

The Dees' made their move back South in 1959 when he was transferred to Naples, FL to provide engineering assistance on the installation of the Eglin-Gulf Missile Testing Range.

In 1960, he joined Martin-Marietta Corp. in Orlando and stayed there until 1971 when he joined EES. At Martin-Marietta, he again worked on microwave and millimeter wave research and activities for satellite hardware programs for the NASA ATS-5 and 6 satellites.

"The ATS-5 and 6 work was very challenging and rewarding. We had some severe scheduling problems with the launches, but it was worth it because, for the first launch, NASA invited Bea and me to their VIP area right on the launch site.

"I came to EES because of a co-worker I had from 1960-63, Dr. Al Sheppard. We worked on the same projects and became close friends. When he changed positions at EES, I left Martin-Marietta and took over his former job as head of the Special Techniques Branch. So, it's his fault that I'm here. And we are still good friends in spite of it.

"Bea cried all the way to Florida from Indiana because she didn't want



J.W. Dees

to leave the North. We are now both really settled in Atlanta. We like it here, and Bea wouldn't go back to Indiana, except for our vacations which we time with the height of the sweet corn season. It's the best corn in the world."

J.W. is Director of the new named Electromagnetics Laboratory, which is involved in optical/infrared technology, lasers, guidance and seeker technology, radiometer and antenna systems. It's becoming more involved with NASA for airborne and satellite radiometer tests which will obtain data on severe weather phenomena. The first test will be in Guam. He has established two groups in the Laboratory and hopes they become divisions in several months. He is very optimistic about the Laboratory's future growth and foresees a doubling in dollars and people within a year. J.W. also commented that he would like to see the Laboratory get more involved in satellite programs, even though they are increasing their activity in this area from NASA contracts for programs leading to satellite systems.

The Dees' live in the Stone Mountain/Tucker area with their two sons. Mark is 18 and attending the University of Georgia as a business major. "He decided on Georgia when he found out you have to study at Tech. He wanted a scientific calculator, but I told him he didn't need one for Georgia." Greg is 15, on the Tucker High football team and wants to be a dentist.

Daughter Sandra Dees Anthony and her Air Force captain husband are stationed in Omaha. They have a baby boy and are expecting another

child around Thanksgiving. Sandra is a Florida State University education graduate.

"I love to eat and am always battling a weight problem. My favorite restaurant is Victoria Station because they have a 32-ounce prime rib. Quantity is almost as important with me as quality; both are excellent there. I have absolutely no self-discipline when it comes to food."

Other hobbies include swimming, camping and flying. He says he doesn't fly much any more. "Bea used to fly with me when we were dating, but she hasn't gotten into an airplane I'm piloting since we've been married. My brother in Indiana has a twin-engine plane and I fly with him whenever I can. By the way, he's a college dropout and, you see, I made it through college but I don't have a twin-engine airplane. My family and I are also avid Georgia Tech football fans. We love the excitement of Saturday afternoons."

Woodworking is another hobby. J.W. has built cabinets, bookcases, a stereo unit, a fireplace, a bar and paneled the basement of their present house. His workbench is 12 feet long and the top is inlaid with wood from the approach lane of a bowling alley. He said the bar is eight feet long, but not stocked yet.

"People often wonder or ask what my full name is. It's Julian Worth Dees. With such a middle name, I was known as 'Worthless' in my home town. So that's why I go by my initials."

Claudine Taylor to Open Business

Claudine Taylor, after working as secretary at the Engineering Experiment Station for 15 years, announces she will leave the first of January to open her own business, "Claudine Taylor Secretarial Services," on West Peachtree Street. She will offer complete secretarial services at her office, specializing in professional and technical reports.

"This has been a long-time dream of mine and Dr. Long's retirement emphasized the fact that I should also examine my own career goals. I'm looking forward to this venture with excitement, though I definitely will miss my associates at Georgia Tech."