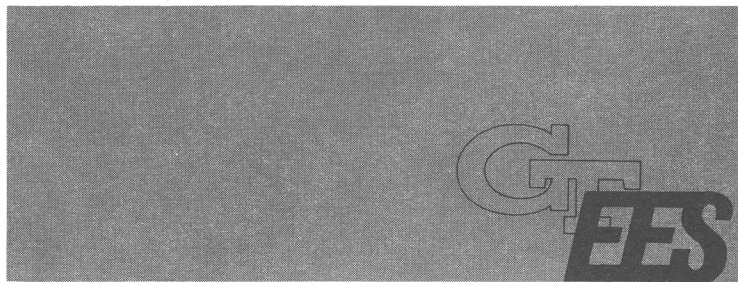


STATION NEWS

ENGINEERING EXPERIMENT STATION • GEORGIA TECH



VOLUME 7

NUMBER 6

JULY, 1978

Some of EES Moving to Lockheed

At its June 14 meeting, the Board of Regents authorized the execution of a Rental Agreement between Lockheed Corporation and the Board of Regents of 128,124 square feet of the Lockheed-Georgia Company's Research Center in Marietta.

The lease begins for one year on July 1, 1978, at a monthly rental of \$42,500 and has a right-to-renew for four additional one-year periods.

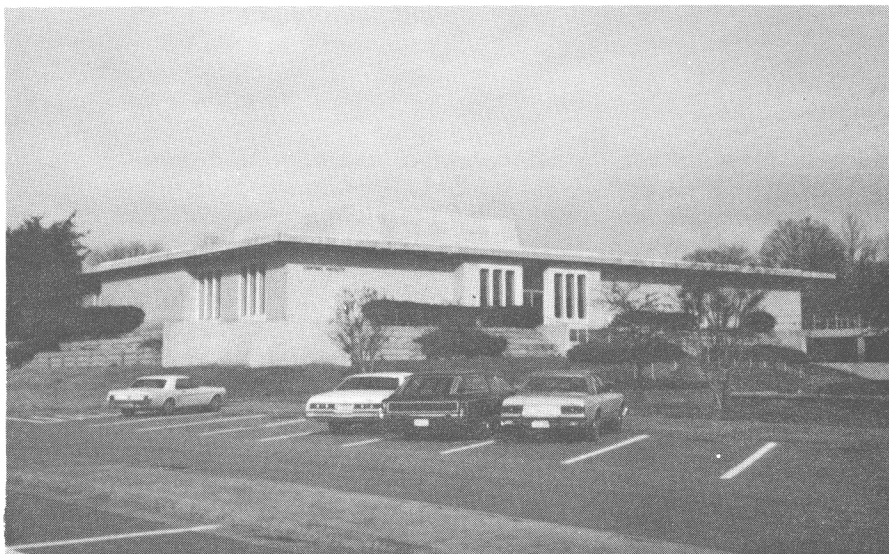
About 250 EES people will be moving to the facility from S&T Lab, TDL and RAIL initially with an expected increase to 500 or more within the next few years.

The lease includes four of Lockheed's modern buildings near the Naval Air Station entrance off Atlanta Street.

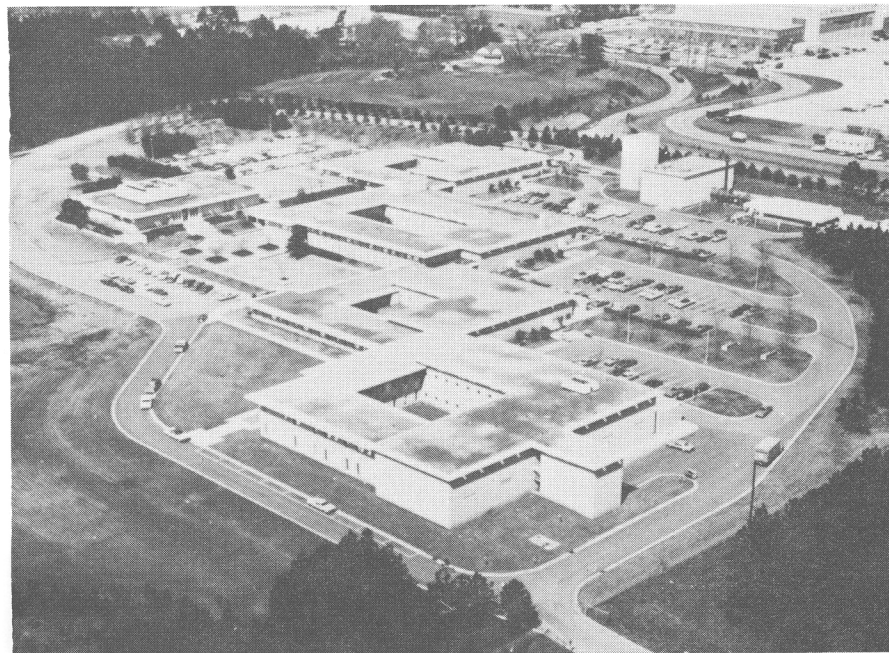
Dr. Thomas E. Stelson, Vice President for Research at Georgia Tech, says the Lockheed facilities are ideally suited for performing the expanding Georgia Tech research and development work. The multi-million dollar complex was built and dedicated in 1965. Another building, the materials technology laboratory, was built in 1971.

The research facility is in Cobb County approximately fourteen miles northwest of downtown Atlanta. It is accessible via Interstate 285, South Cobb Drive, Highway #3 and Highways 41 or 75. It is located along the western boundary of the 3000 acre Dobbins Air Force Base.

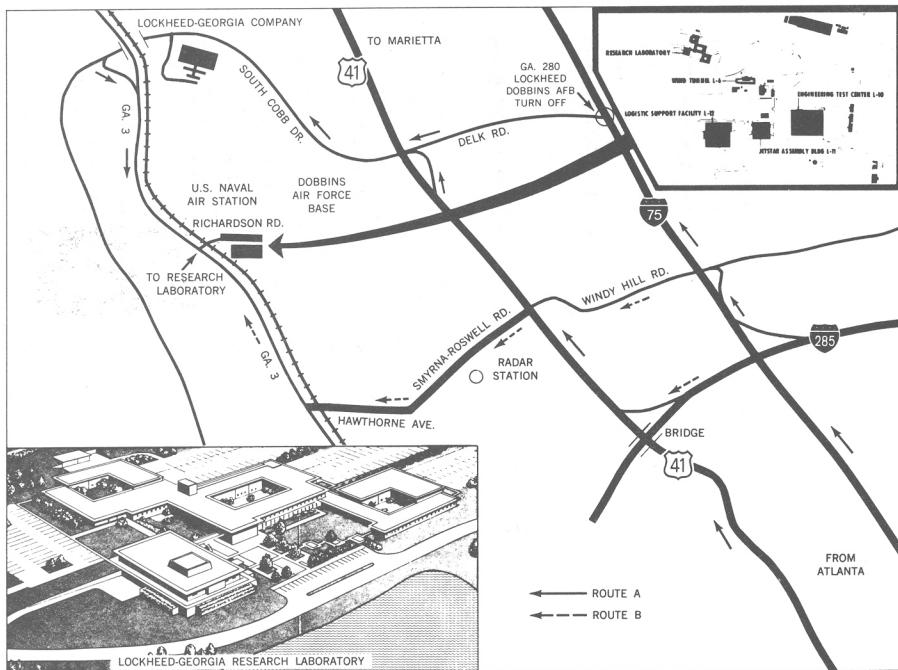
The four research buildings are on a campus-like tract of 23.1 acres,



Building L-1, administration, is typical of appearance of facilities rented for EES use.



Aerial view of four Lockheed buildings leased at research facility by Georgia Tech.



Sketch map of the new EES research facility location at Lockheed-Georgia and Dobbins Air Force Base.

landscaped and wooded with a small six-acre lake on the property. There is parking space for 250 automobiles.

The buildings are one or two story brick veneer approximately twelve years old. Floors are concrete, tiled or carpeted. Walls are sheet rock or brick and some are papered. There is central air-conditioning.

In addition to lab spaces, there are executive offices, conference rooms, a projection room, auditorium and a 150 seat cafeteria space. Some walls and ceilings will have to be repaired or painted, but generally the buildings are considered to be in good condition.

Former AID Official Joins IPO Staff

Clinton A. Stone has joined the staff of the Office of International Programs effective July 1 with the title of Senior Research Engineer. He received his M.S. in physics and completed his Ph.D. coursework at the Illinois Institute of Technology. For 24 years he was associated with the IIT Research Institute, where he served as Manager, Nuclear Physics; Assistant Director and Director, Physics Research; Director, Astro Sciences Center; and Director, Management and Social Science Research.

SED News

Several SED personnel attended the 41st Military Operations Research Society in Washington, D.C., on July 11-13. **W. E. Sears** of SED presented two papers entitled: "Description and Application of a Computer-Aided Test and Evaluation Concept" and "F-16 Radar Cross Section Reduction Trade-Off Analysis" by **T. M. Miller** and **G. F. McDougal**. **H. F. Engler** presented papers entitled, "Integrated Approach to the Validation and Verification of EW Systems Software" and "Human Operator Control Strategy Models," the latter being authored by Bud, Harold, and **Lee Burks** of TDL. **D. L. Kelly** also authored a paper for presentation entitled, "Methodology for Cost and Training Effectiveness Analysis."

Congratulations to **Frank Gramling** and **Perineau Poole** who were married on 24 June 1978. Frank is an Assistant Research Engineer in SED.

SED welcomes new co-ops — **Steve Jensen**, **Ivan Howitt**, **Robert Hummel**, and **Joseph DiNunno**. **Joseph DiNunno** transferred from RAIL to SED.

Good luck to **Larry D. Holland** — Senior Research Engineer in SED. Larry will be leaving the EES in July.

CBS Decision to Locate in Georgia Aided by EES

A recent decision by CBS, Inc., to locate their new \$50 million tape and record manufacturing and distribution facility in Carrollton, Ga., was aided by the West Georgia Office of Tech's Industrial Extension Division, which is part of EES.

Through its economic development assistance contract with the Chattahoochee-Flint Area Planning and Development Commission, IED was able to make CBS aware of the 140 acre site in the Carrollton Industrial Park. CBS's consulting firm, which conducted the land search for CBS, acknowledged that without IED's assistance, they would more than likely have not been aware of Carrollton as a prospective site. Three hundred different locations in seven southeastern states were initially considered for this facility.

According to **Wayne Hodges**, of the West Georgia Office, **Eric Berg** of the Atlanta Office was approached by CBS's consulting firm in September of 1977. The firm described what sort of site they were looking for and Berg contacted Hodges who in turn contacted the consulting firm. It was the Tech representative who suggested the site.

An Equal Education and Employment Opportunity Institution

STATION NEWS

Vol. 7 No. 6 July, 1978

Published monthly for employees of the Engineering Experiment Station, Georgia Institute of Technology, Atlanta, Georgia 30322.

J. A. Donovan, Editor	3405
Sharon Sebaly, Assistant Editor	3405
Associate Editors:	
Deborah Ariail	3445
Maggi Rampling	3523
Mary Ann Clarke	3507
Martha Ann Stegar	3873
Marilyn Huber	3500
Mary Ann Mayo	3414
Linda Beasley	3552
Peggy Simcic Bronn	3623
Lanita Solomon	3505
Barbara Cartledge	3703
Albert H. Becker, Reproduction	3570

Contract for Air Lab

The first contract calling for the utilization of the Georgia Tech Airborne Electronic Laboratory has been received. The \$210,000 contract was awarded to Antennas and Countermeasures Div. as a modification to the existing Adaptive Polarization ECM contract out of the WRW-1 group of the Air Force Avionics Laboratory (AFAL), and calls for a total of 104 flight hours at three different test ranges throughout the United States. The AEL will be modified for flight tests during July through October of 1978. The schedule currently calls for the flight testing to begin in November 1978 and continue through March 1979.

ASL Activities

J. D. Walton, Jr., was one of the invited guest speakers at an international solar energy symposium held in Denver June 14 and 15. The U.S. Dept. of Energy issued the invitation for the event which was hosted by the Solar Energy Research Institute (SERI). Walton's paper was on international developments in concentrators which included a description of significant work ongoing in other countries and results obtained to date that would help the U.S. solar program in areas of component development, experiments and system demonstration.

The Department of Energy (DOE) is in the process of establishing four regional solar energy centers to complement the activities of the national Solar Energy Research Institute (SERI) at Golden, Colorado. **Steve Bomar** of the SEMTD has been serving since April as a technical consultant to the Southern Solar Center Planning Project which is responsible for developing plans and programs for the Southern Solar Energy Center. On June 13 and 14, Steve and **Charlie Murphy** of SEMTD attended a major program review meeting in Atlanta for the purpose of defining the programs which will be undertaken by the SSEC. These programs will emphasize early commercialization of solar energy and will emphasize the particular needs of the southern region of the United States. The SSEC is expected to be in full operation by October 1978.

IPO

An article by **Harlan Davis** entitled "Appropriate Technology: An Explanation and Interpretation of Its Role in Latin America" was published in *Inter-American Economic Affairs*.

Kermit Moh was in Central America June 21-July 12 monitoring the AID water pump field test project. He will be in Ghana July 15-August 12 in conjunction with pyrolysis projects.

Phil Potts was in Monrovia, Liberia, July 2-7 to discuss a possible pump project. He will attend a pyrolysis conference in Vienna July 25-27.

Frank Malvar will be in the Philippines July 3-15 and in Korea July 17-29 under the AID Small Industry Grant to conduct the annual audiovisual documentation, to assist the Georgia Tech counterpart institutions in provision of technical assistance to small industry, and to provide them with training and other assistance.

Ross Hammond, Nelson Wall, Phillip Potts and **John Kaatz** left for Manila July 6 to conduct a six-day Regional Seminar on Appropriate Technology/Small-Scale Industries Development for the Asian Development Bank. Joining them in presenting the seminar will be David Wright of the Intermediate Technology Development Group, London.

Don Lodge will be in Korea July 15-August 14 to provide marketing technical assistance to the industrial extension staff and client firms of the Korea Credit Guarantee fund.

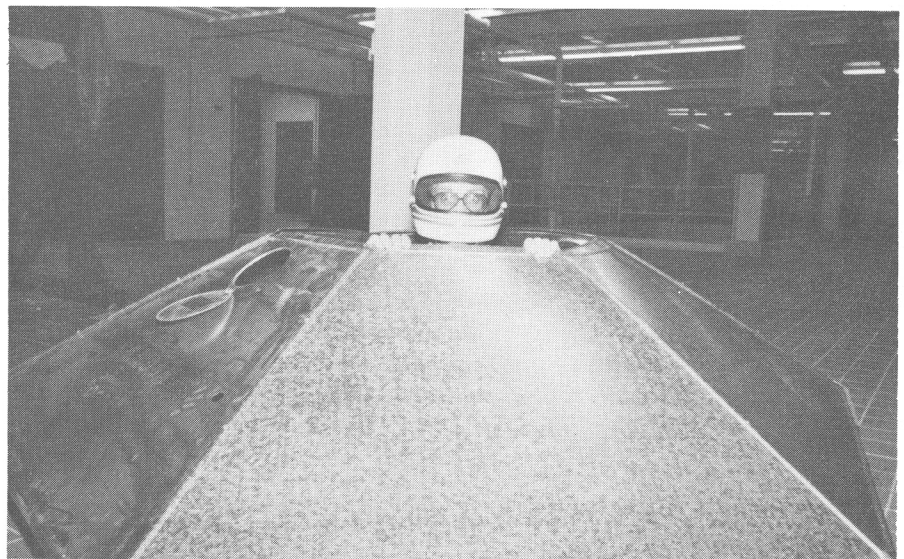
Out of this World

Jack Spurlock, associate director of the Applied Sciences Laboratory, presented a paper at the Twenty-first Plenary Meeting of the Committee on Space Research (COSPAR) in Innsbruck, Austria, June 3. The title of his paper was "Technology Requirements for Non-terrestrial Ecosystems."

COSPAR was established by the International Council of Scientific Unions in 1958 to encourage cooperative exchanges of information among nations on space research topics. The plenary meetings have become prestigious forums for the discussion of advanced concepts in space exploration.

Spurlock's paper described the factors that are involved in planning and implementing research and development for closed-ecology life support systems applicable to future space missions. It is anticipated that systems of this type probably will be required for space activities that would involve many participants in a space habitat, particularly at remote locations or for long-duration missions.

Returning from an exhausting jump into hyperspace, Randy Mattison of TDL demonstrates his perplexity after realizing his mistake of landing at the University of Georgia. Actually, Randy and his chicken brooder space craft were at the Richard B. Russell Research Center in Athens recently in order to research different types of brooders used to heat poultry growout houses.



Tolar Chairs IEEE Symposium

The 1978 International IEEE Symposium on Electromagnetic Compatibility held at the Atlanta Sheraton Biltmore June 20-22 was chaired by **Jim Toler** of S&T Lab and included other EES personnel officiating.

Doug Robertson served as vice chairman; **Clif Burdette** was chairman of the Publications Committee; **Hugh Denny** was Technical Program Committee chairman; **Jimmy Woody** was Finance Committee chairman and treasurer; **Don Clark** was head of Registration; **Bill Free** chaired the Publicity Committee and **Mrs. Toler** was in charge of the ladies' program.

The Symposium was sponsored by the IEEE Group on Electromagnetic Compatibility and hosted by the Atlanta Chapter of the IEEE EMC Group.

STL News

Recently joining STL are **Ron Townsend**, Research Technician I, and **Tony Clark** and **Al Phillips**, each Mechanical Technician I, as well as new technical assistants **Elizabeth Callahan** and **Lewis Yobbs**. **Glen Sprouse** is a student assistant, and returning co-ops are: **Paul Bernhardt**, **Carol Ostrander** and **Ed Scharff**. **Mike Flynn** has transferred to the Applied Sciences Laboratory and **William Fife** to the Electromagnetics Laboratory.

Bob Somers of SDD has returned from a 6-week tour of France and England.

Tropical Trees For Energy

Whether or not certain tropical trees can be used to produce energy is another research project at EES.

Funded through the U.S. Forest Service, the research is centered around two trees which are found in Florida — the Melaleuca, or punk tree, and the Eucalyptus grandis, or rosewood eucalyptus. Both of these trees are native to Australia and are distant cousins of one another.

According to **Jim Knight** of TDL, the trees will be pyrolyzed to yield char, wood oil and gas. Pyroly-

sis is the decomposition of solid organic waste brought about through the action of heat in the absence of oxygen, or with limited amounts of oxygen. Tech has developed a pyrolysis system over the past several years as a means of converting agricultural and forestry residues to alternate energy sources.



Symposium on Electromagnetic Windows Held at Tech

The Fourteenth Symposium on Electromagnetic Windows was held at Tech June 21-23. Discussions dealt with such topics as: EM Window Analysis and Design; Environmental Considerations; Materials and Coatings and Measurements.

The purpose of the meeting was to exchange the latest technical information on radomes and radome technology, and a reception and banquet were held on June 22 at the Atlanta Townhouse Motor Inn.

The Symposium Planning Committee included **Harold Bassett** and **Joe Harris** of EES.

Workshop For Women Engineers

Lee Burks of TDL organized 25 three-hour workshops for over 500 persons attending the National Convention of the Society of Women Engineers held in Atlanta June 21-25.

Topics ranged from parenting and communications skills to retirement planning. **Archie Corriher**, OOD, conducted the workshop on Effective Management of R&D Projects with participation by other speakers from Union Carbide and Coca-Cola. **Jim Donovan's** cartoon view-graphs were enthusiastically received by the group of over 50 persons at this workshop. Archie will be giving the presentation to interested EES staff in the near future.

Tech Aids Guam With Economic Development

Representatives from EES/TDL will be in Guam this month to conduct a training program that would help local citizens improve the economy of the small island which is a protectorate of the United States.

Sponsored by the Department of Defense's Office of Economic Adjustment, the program will be conducted for government officials and for private citizens who own businesses in Guam. Included in the training program will be discussions of business development, industrial development and how to stimulate new and additional economic activity.

According to the project personnel from TDL, this program is specifically designed to give advice on how to generate new job opportunities for persons affected by the closing down of a U.S. naval ship repair facility on the island.

The training team will consist of project director **Bob Cassell** with **Bob Collier**, **George Dodson** and **Ed Bethea**.

ETL News

The EMC Group acted as host and organizer of the Fifth Grounding and Lightning Protection Workshop, sponsored by EES and the Federal Aviation Administration and held in the Space Sciences Building on May 2-4. **Hugh Denny** served as General Chairman of the Workshop and presented a paper. **Jim Woody** also presented a paper.

Ernie Donaldson and **Bill Free** visited Point Mugu, Calif., Fort Huachuca, Ariz., and White Sands Missile Range, N.M., for contract development purposes.

Don Clark and **Bill Free** visited Syracuse and Rome, N.Y., to attend a seminar and to conduct discussions with a program sponsor.

Ernie Donaldson was invited to present a paper, "Field Measurements Made in an Enclosure," at the conference on Precision Electromagnetic Measurements in Ottawa, Canada, June 26-29.
