

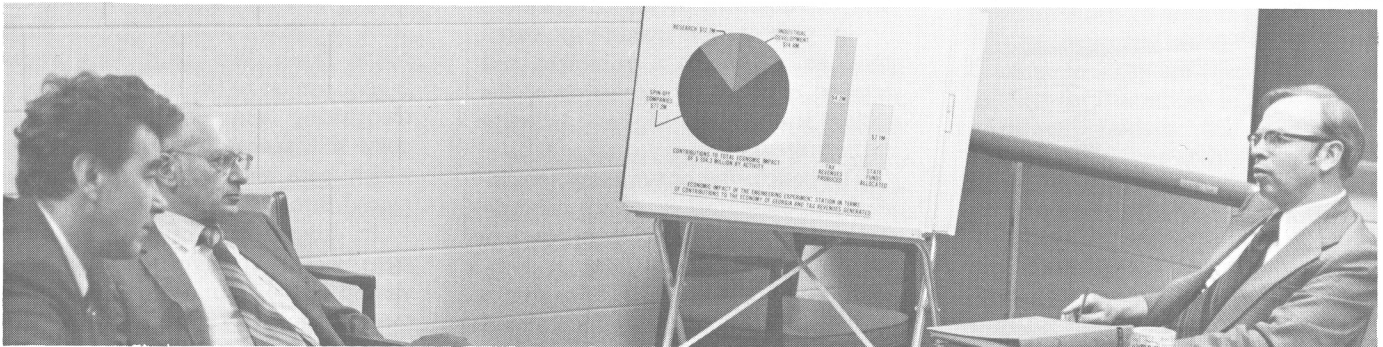
STATION NEWS

ENGINEERING EXPERIMENT STATION • GEORGIA TECH



VOLUME 2 NUMBER 4

MAY, 1973



Rudy Yobs, Assistant Director, discussing EES operations and capabilities with Vasily I. Gromeka from the Russian Institute of U. S. Studies.

Russian Visitor

EES hosted Dr. Vasily Gromeka, the 1973 Eisenhower Exchange Fellow from the Union of Soviet Socialist Republics April 16. Dr. Gromeka is Chief, Section on Economic and Social Problems of Technological Change, Institute of U. S. Studies. During his fellowship period, he is interested in measurement, forecasts, national policy and economic effects of technological change.

EES Assistant Director **Rudy Yobs** explained the role of the EES in developing technology and economic applications.

Dr. Long at Wildlife Monitoring Meeting

Dr. M. W. Long, Director EES, accepted an invitation to participate in an ad hoc panel meeting on Wildlife Monitoring in Response to National Needs, extended by Dr. Sidney R. Galler, Deputy Assistant Secretary for Environmental Affairs, Department of Commerce.

The meeting, held 24-27, April, was sponsored by NASA at the Ames Research Center, Moffet Field, Cali-

fornia. Its purpose was to assemble a priority-ranked set of definite programs, both biological and technological, required to produce the information needed by private, federal, state and local agencies to enable them to perform the tasks associated with monitoring of wildlife. Dr. Long was primarily concerned with the "birds" category.

Publicizing the EES

In order to stimulate a lively public awareness of the EES as the principal technological resource of Georgia and to increase public understanding of the function, capabilities and services of EES, a continuous and widely based information production effort should be made. News, publicity and information material about EES that can be disseminated to the media or incorporated in contract development presentations must originate in the branches and divisions. Projects, accomplishments, reports, activities and news about people are the raw materials from which we produce a steady flow of public information. Frequently, activities and events will be of sufficient interest to attract media writers or reporters for interviews and in-depth stories.

All EES professionals are encouraged to consider the public information possibilities of their projects and their findings to help obtain the proper credit and recognition due the Station and its people.

Individuals should contact Jim Donovan or Bonnee Wettlaufer at the Publications-Information office, 3405, for assistance in publicizing their activities.

Need a Plumber? Continued :

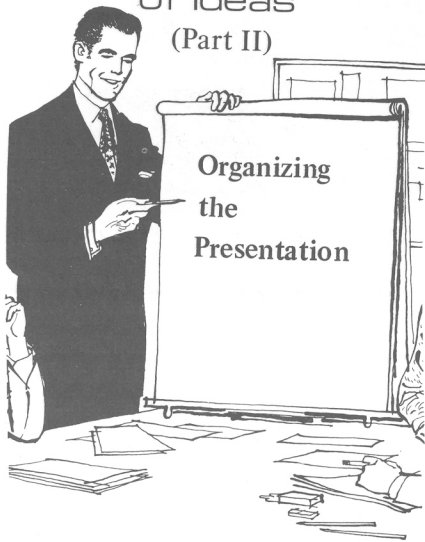
Don't call PPD direct for service and repairs. EES offices should make requests through Tom Jones' office, Service Groups, 3407.

S&T Department

James M. Schuchardt has signed on as a Senior Research Engineer in the Special Techniques Division. Mr. Schuchardt has been with Martin-Marietta Corporation, Orlando, Florida since 1964, working in the general areas of RF, microwave, and millimeter wave technology. He holds the Masters degree in EE from the University of Florida.

On the Presentation of Ideas

(Part II)



J. A. Donovan

The oral-visual presentation consists of the introduction, the body and the conclusion.

The introduction gains attention, motivates interest and sets the stage for the presentation. It may be very informal for a small group or more formal for a large audience.

"Good morning, gentlemen, we appreciate this opportunity to tell you about the Applied Sciences Department of the Engineering Experiment Station" is a standard type greeting. Introduce yourself if this hasn't been done. Put the audience at ease with a humorous remark. A joke about one's self is usually safe. Focus their attention with a challenging remark or question. State the topic and purpose of your presentation and briefly mention the main topics within the scope of your talk. Then motivate their interest in your subject with comments on its importance and how it will help to solve their problems. Stress what you can do for them.

Appropriate jokes or humor are helpful as are quotes and anecdotes. Good taste is a matter of good judgment.

The body of the presentation contains the main ideas or topics to be discussed.

—The topics should be arranged in logical sequence.

—The fewer the number of main ideas the easier it will be for the audience to understand the material.

—The number of topics and amount of material to be discussed should be reasonable for the time length of the presentation. Don't attempt to make the audience drink from a fire hose of data and information.

—Use examples to illustrate main topics.

—Ideas and subjects should be tied together with transitional statements leading from one topic to the next.

—When an expanded written outline is used, each subsection and subtopic is filled in with a brief sentence, data or statement of the information.

—A presentation manuscript based upon an outline is a complete and detailed explanatory discussion of the subject and is read or followed closely in the presentation.

The conclusion or summary terminates the presentation. It may briefly review the main ideas, it emphasizes the important topics and it may recommend or suggest action decisions by the audience. It can include a hard or soft sales message.

Conclude with appreciation remarks and allow time for questions or discussion.

To be continued, "Techniques of Presentations."

WATER POLLUTION RESEARCH

R.S. Ingols and T.F. Craft, NBSD, are carrying out experiments to determine the rate of diffusion of manganese under different conditions in the presence of a variety of different compounds commonly found in water supplies. There are several treatment procedures to remove manganese, but there may be considerable variation in their effectiveness. These differences may be caused by the presence of other materials. Preliminary experiments have shown that manganese diffuses more rapidly through water which contains tannic acid. It is hoped that this knowledge will lead to improved techniques for manganese removal. These matters are being studied under the joint sponsorship of the Office of Water Resources Research, U.S. Department of the Interior and EES.

S&T STUDIES PEACH TREES

A mysterious disease which threatens the state's peach trees is being studied by Assistant Research Physicist G. William Spann. He is using NASA color infrared aerial photographs of selected peach orchards and studying them through electronic enhancement of imagery. The infrared transparency is viewed by a television camera, and the information in the image is transformed into a digital code so it can be computer processed.

In a process known as multispectral density slicing, the computer sorts out areas of the coded photographic image which "look alike" to it. This process is very similar to the human process of recognizing and sorting objects by color differences. Areas of the image which have similar characteristics are placed into categories.

In doing these tests, some of the trees which appeared healthy when viewed on the ground exhibited characteristics similar to some of the diseased trees. If the declining trees can be identified early enough, perhaps the cause of the disease can be more readily determined.

Dr. Jerry Payne and researchers of the USDA's Fruit and Tree Nut Research Station are also working on the project.

David L. Cox has joined EES as a reactor operator in Nuclear & Biological Sciences.

Ronald A. Sands is a new safety engineering assistant in the Office of Radiological Safety.

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MANAGEMENT & TECHNICAL ASSISTANCE NEWS

IDD is expanding its management and technical assistance services to minority businesses throughout the Southeast under an agreement with The Marcy Corp., an Atlanta consulting firm which has a contract with the Office of Minority Business Enterprise. So far, Marcy has issued eleven task orders for IDD services to individual firms.

Hardy Taylor and **Ed Bethea**, IDD, went to Washington April 2 to discuss proposals involving minority business development with officials of the Small Business Administration and the Office of Minority Business Enterprise.



Neal Alexander, Sensor Systems Division, is receiving congratulations on his recent marriage. His bride is the former Susan Johnson.

Dale Covington has joined the staff of the Radar Division as a Research Engineer. A native of Marietta, Dale has recently received his PhD from Georgia Tech. He also has degrees from Vanderbilt and the Massachusetts Institute of Technology and has done graduate work at the University of Manchester in England

Mr. R. M. Goodman, Jr. and **Dr. D. G. Bodnar** presented a paper at the 95 GHz Symposium held April 10 and 11 at the Applied Physics Laboratory of the Johns Hopkins University. The subject of Mr. Goodman's and Dr. Bodnar's paper was a description of the 95 GHz antenna design and test results and other 95 GHz work performed at Georgia Tech.

IDD STAFF CHANGES

Eric Newsom resigned effective April 15 as head of the Southwest Georgia field office at Albany to go with Tech-Air Corp., an EES "spin-off" firm resulting from the development of a peanut hull converter by EES under the direction of Mac Bowen. Returning to Albany office as Newsom's replacement is **Bill Studstill**.

Nora Bennett has replaced **Debbie Brown** as secretary in IDD's Special Projects Branch.

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The Publications Office, EES, has available supplies of capabilities brochures and printed material for use in contract research development: EES, 1972 Annual Report, EES briefing notebook handout, EES Facts brochure, S&T, IDD and EES capabilities brochures. All are up-dated material. Additional items can be produced upon request. Call extension 3405.

Janie Godwin has joined the secretarial staff of the Sensor Systems Division.

New members of the professional staff of the Systems and Techniques Department are Mr. Raymond Gober and Mr. Dewey Carl Griffin. Mr. Gober, Research Engineer in the Sensor Systems Division, comes to Atlanta from Winter Park, Florida. Mr. Griffin, a Georgia Tech graduate, is working in the Radar Division as a Research Engineer. He will be moving soon from Burlington, N. C.



Debbie Brown, formerly of IDD, at the Flint River Water Pollution Control Plant of the City of Atlanta shown with dissolved oxygen analyzer-controller instrument under test by Dr. T. F. Craft of NBSD.

There are three proud new fathers in the Radar Division. **Bob Zimmer** and his wife **Martha** announced the birth of Margery Ann on 28 February. **Neal Hightower's** wife Carl gave birth to Neal Clarke, Jr. on 15 March, and **Chuck Ryan** became a father for the 5th time on April 3 when his wife Deirdre presented him with Sean William.

IDD Speakers

Phil Koos and **Bill Ward**, IDD, conducted a housing seminar in Newnan April 16 with the cooperation of the Newnan-Coweta Chamber of Commerce. They are planning a similar seminar for Statesboro in May.

George Dodson will discuss the recent IDD research report "An Examination of the Economic Impact of Pollution Control on Georgia's Water-Using Industries" on May 2 at the 1973 Water Research Seminar sponsored by the Environmental Resources Center on the Georgia Tech campus.

Welcome back to **Ed Garrett** of the Photo Lab who was in the hospital.



Tech undergraduates who have recently begun work in the Systems and Techniques Department include **Alan Butler**, **John Kascak**, **Clarence Foster**, and **Peter Morris** in the Communications Division; **Arthur Jordin** and **Curt Walker** in the Sensor Systems Division; and **Terry Harris** in the Radar Division. Mr. Foster and Mr. Harris attend Southern Tech. All are students in Electrical Engineering.

International Development Seminar

On 27 April the Georgia Tech Program of Employment Generation Through Stimulation of Small Scale Industry and IDD sponsored a seminar given by Dr. Franklin Ahimaz, Assistant Dean of Engineering at Cornell University. He lectured on "Policies for Science and Technology in Developing Countries" as the first in a series of seminars concerning employment generation through stimulation of small scale industry in developing countries.

REACTOR-SHARING AIDS UNIVERSITIES

The Reactor-Sharing Program initiated in April, 1970 by EES for the Division of Nuclear Education and Training, United States Atomic Energy Commission, continues to be used widely by many universities and colleges. Managed by **G. W. Leddicotte** and **M. E. McLain** of the Nuclear and Biological Sciences Div., ASD, the program centers about the use of the Georgia Tech Research Reactor and the laboratories and ancillary facilities of the Station's F. H. Neely Nuclear Research Center. Since the Program began, at least 36 academic departments of 21 different colleges and universities have utilized it and more than 7,200 Megawatt hours (MWH) of GTRR time have been used.

Universities and colleges from the Southeastern United States have used the Program most often. However, in 1972-73, participants from Arizona, California, Nebraska and New York were serviced by the Program. It was used 134 times by the universities and colleges that have participated in the Program. The benefits already derived from this Reactor-Sharing Program are quite large. At least 200 undergraduate students, graduate students and post-doctoral fellows have been aided by the Program. Participants used the GTRR for neutron activation analysis experiments most often in the 1970-71 program and continued with similarly strong interests during the 71-72 and 72-73 programs. An additional wide variety of research interests from a broad range of scientific disciplines have been aided since the Program started. The Program activity carried out by the EES has been most effective and each of the participating institutions have emphasized that their educational efforts have been greatly enhanced through such an opportunity.



IDD SICK LIST

It's nice to have **Jerry Lewis**, IDD, back at his desk after a month's illness.

Mary Edna Anders, IDD, is recovering at home after two hospital stays in recent months.

OUR EES

PEOPLE ON THE MOVE

S&T Res. Eng. **R. P. Woodward** went to Wright-Patterson AFB, Dayton, Mar. 5-8 for a conference . . . S&T Res. Eng. **T.M. Miller, Jr.** discussed contract development at Ft. Belvoir Mar. 6-8, then at Rome Mar. 19-21. He attended the MERDC Passive Countersurveillance Symposium Mar. 29 and visited Texas Instruments and Hughes Research Lab Mar. 29-Apr. 10 . . . IDD Res. Sci. **W.C. Howard** conducted regional research for the EDA in Nashville Mar. 7 and in Jackson Mar. 14 . . . S&T Sr. Res. Eng. **R.P. Zimmer** held technical discussions at WPAFB, Dayton, Mar. 8. Then joined with Res. Eng. **R.G. Pearl** and Asst. Res. Eng. **W.P. Cooke** for discussions in Dayton and Washington Apr. 17-18 . . . Pearl and Res. Eng. **R.J. Hodges** previously gave a briefing on Tech capabilities at Ft. Monmouth, N.J. Mar. 12-13 . . . Hodges was in Dayton Apr. 4-5 for project briefings and contract development with Prin. Res. Eng. **H.A. Ecker**, Sr. Res. Eng. **J.L. Eaves** and Res. Eng. **J.J. Heckman** . . . IDD Asst. Res. Sci. **D. Clifton** gathered project information at Montgomery Mar. 12 and went to Columbia for project development Apr. 2 . . . Asst. Dir. for S&T **R.C. Johnson** discussed radar design and reliability at WPAFB Mar. 15. Then he traveled to Rome and Washington for technical discussions and contract development Mar. 19-21 . . . S&T Res. Eng. **R.W. Moss** attended a briefing in Washington Mar. 14 then returned Mar. 21-22 to make a presentation to the FCC. Res. Sci. **R.M. Mason** accompanied him . . . TAG Res. Eng. **C.H. Bonham** discussed project development with the NSF in Washington Mar. 14 . . . IDD Res. Sci. **P.D. Koos, Jr.** examined houses in Cherokee, N.C. for use with a project Mar. 14 . . . Asst. Dir. **G.R. Harrison** was in Washington Mar. 14-15 for contract development with several agencies and held technical discussions in Boston Apr. 17-18 . . . S&T Sr. Res. Eng. **F.L. Cain** and Sr. Res. Phy. **L.E. Wards** briefed a sponsor in Rome Mar. 14-15 . . . NBSD Acting Chief **G.W. Leddicotte** was in Washington Mar. 14-15 for contract research discussions . . .

BASIC INDUSTRIAL DEVELOPMENT COURSE HELD

The Sixth Annual Basic Industrial Development Short Course was held on the Tech campus April 15-20 with over 40 students enrolled. Accredited by the American Industrial Development Council, the course provides a thorough introduction to industrial development theory and techniques. It is sponsored by the College of Industrial Management and the Industrial Development Division, along with the Georgia Industrial Developers Association. Course director **Bob Cassell**, IDD, was assisted by a large number of Georgia Tech faculty members and practicing industrial developers from Atlanta, Georgia, and several other states.

Screening of prospective counterpart institutions got under way in April with a South American trip by Nelson Wall, IDD, who visited organizations in Colombia, Ecuador, Bolivia, and Brazil. He also visited Paraguay in connection with IDD's current contract there. IDD Chief Ross Hammond will be inspecting Asian institutions April 30-May 18, stopping in Korea, Indonesia, and Thailand, and returning by way of Honolulu.

Table of Excuses

To save time for management and yourself, please give your excuses by the Number. This list covers most situations:

1. That's the way we've always done it.
2. I didn't know you were in a hurry for it.
3. That's not my department.
4. No one told me to go ahead.
5. I'm waiting for an okay.
6. How did I know this was different?
7. That's his job, not mine.
8. Wait for the boss to come back and ask him.
9. I forgot.
10. I didn't think it was very important.
11. I'm so busy, I just can't get around to it.
12. I thought I told you.
13. I wasn't hired to do that.
14. That's not my writing.