National Park Service Uses Tech Expertise

The National Park Service has a far-flung empire of facilities stretching from Alaska and Hawaii, through the contiguous 48 states, to Puerto Rico and the Virgin Islands. With the myriads of visitors that stream through them, keeping buildings shipshape becomes a monumental job.

So the Service recently embarked on an innovative and ambitious computerized facilities management program to inventory and inspect all its buildings nationwide. The ultimate aim: more efficient and cost-effective maintenance.

This comprehensive system encompasses eight priority areas: life safety, health, accessibility, energy use, mechanical equipment, structural condition, electrical aspects, and overall maintenance. After purchasing the software from a contractor, the Service turned to Georgia Tech for help in testing, evaluating and modifying the program to meet its specific needs.

The Park Service found just what it needed in Tech's Center for Architectural Conservation, directed by architect John Myers. And EES is providing extensive support, with Grant Curtis of the Technology Applications Lab (TAL) directing the EES portion of the program.

TAL is responsible for three major tasks: analyzing the needs of facilities users; evaluating the mechanical, electrical and maintenance aspects of the system; and developing a training package for inspectors.

"There are other computerized facilities management systems," says Curtis, "but this is the first time one has been attempted on this scale. The

(Continued on page 2)
Park Service, Cont.

task of implementing it is staggering. The Park Service owns an estimated 16,000 buildings on properties as diverse as the White House, the Arch in St. Louis, Cumberland Island, and Ocmulgee National Monument. Many of these structures are 30 to 40 years old or older. The Park Service is vitally concerned with assessing their condition and repair needs.”

“We are attempting to develop a series of pertinent computer-based questions that will guide the inspector through the inspection process. The trick is to define and phrase the questions at a level of complexity that will enable an inspector who is not an expert in any of the priority areas to compile the necessary information. Computerized building reports will identify areas that require follow-up professional evaluation and corrective action. Eventually, the mass of data will be used as a guide for setting up a maintenance policy. It should provide answers to such questions as how often certain types of structures need painting and how long various kinds of roofs should last. Basically, the computer will be used as a management tool.”

Tech researchers currently are in the throes of a three-month pilot project to field-test the inventory and inspection system at Mammoth Cave and Everglades National Parks, which have a total of 75 structures. The next stage will involve about 1,000 buildings owned by the Park Service but operated by concessionaires. They are mostly older buildings, predominantly motels, cabins, marinas, restaurants, and the like. Beyond that, who knows?

“This is basically a research project,” says John Myers, “and we’re operating in relatively uncharted waters. We’re constantly having to modify the program as we progress. On something as experimental as this, the main question is: Will it work? If we can make it work, it will open up large vistas for applying computerized facilities management to many areas. And the expertise of a broad range of people in the entire Georgia Tech community will be useful in designing these programs.”

Governor Busbee welcomes representatives of 60 major national companies to the Material Handling Research Center workshop.

Material Handling Research Center Holds Successful Industry Workshop

Eighty-five top representatives of some 30 national companies attended a workshop at the Hyatt Regency Atlanta on May 13 to launch Georgia Tech’s Material Handling Research Center.

After a briefing from ISYE Professor John A. White, director of the Center, on how the Center is organized, what its facilities and capabilities are, and what benefits member companies can expect to gain, 10 firms made tentative verbal commitments to join at a cost of $30,000 a year.

“We were elated at the tremendous show of interest by some of the nation’s leading companies,” said Dale Atkins of EES’ Technology Applications Lab and associate director of the Center. “We had to switch to a larger room because the response was so much greater than we anticipated. And it looks like we already may be in sight of our first-year goal of 12 members.”

Governor George Busbee welcomed the group on behalf of the state, and Dr. Thomas E. Stelson brought greetings from Georgia Tech. Alex Schwarzkopf of the National Science Foundation explained NSF’s support in establishing the Center, the nation’s first in this field. The participants were given an opportunity for feedback to ensure that the Center’s research plans will be responsive to the needs of U.S. industry.
Staff Members Attend Meetings,

ECONOMIC DEVELOPMENT LAB
William Spain presented a six-hour course entitled "OSHA Injury and Illness Records" at the American Occupational Health Conference in Toronto, Canada, on April 26-27. He also visited the Canadian Ministry of Labor to discuss Canada's occupational safety and health efforts.

Judi Komaki was at the University of Maryland May 28-30, where she led a university colloquium on "Exchanging Uncertain Outcomes for Certain Feedback" and spoke at the invitation of the North American Society for the Psychology of Sport and Physical Activity on "Single-case Designs: Evaluation without Traditional Control Groups."

Darlene Fischer of the Gainesville field office received a certificate from the State Merit System for successful completion of the Secretarial Workshop held at Georgia Tech March 31-April 2.

ELECTROMAGNETICS LAB
Presenting papers at the Society of Photo-optical Instrumentation Engineers (SPIE) Technical Symposium East '82, May 6-7 in Washington, D.C., were: Robert McMillan and Ronald Bohlander, "Millimeter Wave Turbulence Measurements"; Ronald Forsythe and James McSheehy, "Automatic Millimeter Wave Mixer Measurements"; Joe Newton, Joe Gagliardo and Thomas Morton, "Millimeter Wave Radiometry"; Geoffrey Holah, "The Use of Metallic Mesh in Sub-millimeter Optical Components."

James Gallagher chaired one of the sessions.

ENERGY & MATERIALS SCIENCES LAB
J. D. Walton attended the 84th Annual Meeting of the American Ceramic Society in Cincinnati May 4-7.


On April 6-7, Hans Spauschus, Bob Cassanova, J. D. Walton, Tom Brown and Steve Bomar attended the Solar Thermal Test Facilities Users' Association Annual Meeting at the University of Houston. Bomar and Brown presented a paper, and Walton chaired a session.


John Brown, James Hubbard and James Johnson attended an American Society of Metals short course on Failure Analysis given at the University of Louisville on April 29.

EMSL displayed its capabilities for research into industrial and municipal solid waste disposal alternatives at the Institute of Environmental Sciences 28th Annual Technical Meeting at the Atlanta Marriott Hotel April 21-23. Representing the lab were Wally Shakin, Mahendra Bery, Alton Cord and Ginny Gross.

Eglin, Continued

Georgia Tech's Airborne Electronic Laboratories operated by SEL utilize the Eglin Range. Major General Gerald Carey (USAF, Retired), former commander of TAWC, is now an associate director of EES. Andy Borden, who has been manager of the Eglin office, was a member of this special task force.

In addition to supporting ECM effectiveness studies, the Eglin office is designing and implementing an automated Reliability and Maintainability data base for the determination of operational suitability. Joe Harrison is the current manager of the Eglin office.

Steve Stilley (research scientist I) and Craig Olson (Auburn co-op) also are assigned to the office.

Present Papers

OFFICE OF THE DIRECTOR
Jim Wiltsie presented the keynote address on "Millimeter Wave Trends" at the SPIE Technical Symposium in Washington on May 6-7. He will be at the University of California, Berkeley, June 2-4 as an invited guest speaker. June 7-11, Wiltsie will be in Norway as a consultant to the Norwegian Defense Research Establishment on millimeter-wave circuit techniques, traveling under the auspices of the NATO Advisory Group for Aerospace Research and Development.

RADAR & INSTRUMENTATION LAB
Robert Trebits conducted the fourth in RAIL's internal seminar series on May 5, speaking on "Proposal Win Strategy — How to Write Winning Proposals." Nearly 60 people attended. The RAIL seminars are coordinated by Neal Alexander and are open to non-RAIL attendees.

SERVICE GROUPS
Research Security Coordinator Al Becker attended a seminar at Vint Hill Farms, Virginia, May 3-7. He was invited by the Department of Defense to assist in rewriting their procedures for safeguarding classified material.

TECHNOLOGY APPLICATIONS LAB
Jerry Birchfield and Ken Maddox were out of the country April 25-May 12. They coordinated activities with the East-West Center in Hawaii and engaged in technical discussions with prospective sponsors in the Philippines, principally the Agency for International Development.
EES Welcomes 10 Employees

ELECTRONICS & COMPUTER SYSTEMS LAB
The Command & Control Branch welcomes Research Engineer I Larry D. Becker.

Hank Jenkins had back surgery again — this time to remove an implant which had been embedded to stimulate the healing process.

ENERGY & MATERIALS SCIENCES LAB
Ginny DiSalvo is the new senior secretary at the Solar Site. Mai-Lan

1982 Promotions

Congratulations to the following 34 EES employees, who are being promoted, effective July 1, to:

Principal Research Engineer/Scientist:
C. Thomas Brown EMSL
David C. Flowers SEL
Larry D. Holland SEL

Senior Research Engineer/Scientist/Associate:
O. David Asbell STL
Edwin A. Bethea EML
Ronald A. Bohlander EML
James L. Clark TAL
Barry J. Cown EML
Sherman L. Dudley EDL
Fred L. Eisele EML
Harold F. Engler, Jr. SEL
Norberto F. Ezquerra RAIL
Joseph A. Gagliano EML
Joanne Green SEL
James A. Mahaffey EML
Ricky L. Moore EML
Ronald L. Seaman EML
Robert L. Somers STL
Jimmy A. Woody EML

Research Engineer/Scientist/Technologist/Associate II:
David R. Blount ECSL
Ralph Brooks RAIL
Dorothy M. Brown STL
Homer F. Cochran STL
Jackie M. Erney RCO
Scott A. Faulkner RAIL
Wiley D. Holcombe, Jr. TAL
Joseph G. Jay EML
Charles M. Luke RAIL
A. Robert Muzio STL
Benjamin Perry, IV RAIL
R. Bruce Rakes RAIL
Barry R. Sharp STL
Timothy M. Strike SEL
Bobby J. Wilson EML

Aikens has transferred to the Controller’s Office.

Charlotte Sanders is recovering well after having surgery May 4. Our sympathy goes to Tom Elfe, whose father died May 13.

A lasergram by John Owen is one of only 11 art works recently purchased by the State of Georgia from 550 submitted in annual competition. After touring the state in the Georgia Art Bus, it will be hung in rotation in various public buildings. He will have a show at the Chattahoochee Valley Art Association Museum in LaGrange in June. He also has won money awards at the last four street shows where he has exhibited.

OFFICE OF THE DIRECTOR
Welcome to Kathy Barbay, new administrative secretary in the Himnan reception area. She replaces Debra Woods, who has moved down the hall to the Advanced Technology Development Center.

RESEARCH COMMUNICATIONS OFFICE
Mary Ann Burke was married on May 7 to Bill Moore.

SERVICE GROUPS
Candice Stilwell was married on May 1 to Earl Martin.

SYSTEMS & TECHNIQUES LAB
The “S” Program Office welcomes Anne Roe, lab technician, and Leslie Herman, administrative secretary.

Beth and Len Cayce are the proud parents of Laura Catherine, born April 8. Rickey Cotton was married to Ann-Carrie Cawthon on April 28.

SYSTEMS ENGINEERING LAB
Joe J. Harrison (USAF, Retired) has joined SEL as a senior research associate and is the new manager of the Eglin field office.

Other new employees are Jose A. Rugama, research engineer II in the Defense Systems Division, and John T. Parish, research engineer I with the ESM Division.

SEL said good-bye to three employees: Robert White, Eric Berkobin and Deborah Larkin.

TECHNOLOGY APPLICATIONS LAB
Welcome aboard to Ann Harbert, secretary, and Yvonne Koss, word processing operator.

Tech Delegation Visits China, Japan

EES Director Donald J. Grace was part of the 16-member delegation of Georgia Tech personnel accompanying President Joseph M. Pettit on a trip to China and Japan in April. The trip was financed by the Georgia Tech Foundation.

The high-level group was invited to China by the China Association for Science and Technology (CAST), the prestigious umbrella organization for 150 professional societies in the People’s Republic of China. They discussed setting up a CAST/GIT exchange program for experts to lecture or engage in joint research. The Tech delegation also visited 10 key universities in science and technology to try to establish reciprocal exchange programs for both professors and graduate students.

In Japan, they presented Georgia Tech’s research capabilities to large gatherings of members of the corporate community and visited Japanese corporations that are prospects for membership in Tech’s Corporate Liaison Program. President Pettit and Vice Presidents Warren Heeman and Thomas E. Stelson also discussed opportunities for research and exchange programs with the universities of Tokyo and Osaka.

Station News

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