Strategic Issues Targeted During Retreat

"Strategic Issues—What External Issues Should We Be Attending To," was the focus of President John P. Crecine's presentation during the retreat attended by the President's staff, deans, key administrators and faculty members at Lake Lanier last month. In this series of articles, President Crecine; Dr. Michael E. Thomas, special assistant to the president for Academic Affairs; Dr. Gary W. Fuehrlein, acting vice president for the Office of Interscience; Programs; and Robert G. Shackelford, executive associate director of the Georgia Tech Research Institute; give their viewpoints of the retreat's events. The Whistle will continue to cover subjects discussed during the retreat in future issues.

President John P. Crecine

"There are major changes in the educational and research markets," in which Georgia Tech must compete. "We face a highly competitive and fluid situation. Change means opportunities to "leap frog" the competition—but only if that is a conscious goal. We must anticipate change and be proactive where possible," President Crecine said.

"In implementing our responses, we must keep focus on strategic issues. Everybody must be thinking strategically—outward orientation, market orientation is the key. Strategic planning is really a pervasive organizational attitude and a continuing process, not a centralized 'plan,' fixed for all time. Structure must be appropriate for people to operate opportunistically, in a decentralized way. Organizational flexibility is key! We must be able to mobilize resources and concentrate them."

For that reason, he said, we must pay close attention to population demographics. Crecine predicted that the college-age population will decline by "nearly 30 percent" from 1987-97 with an even greater decline in the high SAT segment so important to Georgia Tech's future. "There will be no such decline in our competition (good schools in East, Mid-Atlantic, Southeast) and there will be tougher competition (between schools) for good students."

Faculty demographics will be a concern as well, Crecine added, with likely 'shortages across-the-board in engineering, science, humanities and social sciences professions.' The "capitalization of education" will impact the "uses of computer technology in education."

President Crecine also made several points regarding the research environment to come and the federal levels of R&D spending. That environment will be influenced by several factors, including:

- Continued absence of federal R&D policy;
- DoD budget cuts;
- Outside of DoD, a trend toward smaller awards, away from faculty salary support;
- Shifts toward medicine, biology and health sciences;
- A changing concept of national security;
- Demand for research in key national problems—the environment, economic competitiveness, manufacturing sector;
- Emerging research opportunities and key technological trends in computing, digital technologies, materials, controls, logistics, sensors, miniaturization of goods, automation of processes, facilities;
- Increasing costs of doing research in technical areas— instrumentation, large capacity computing, laboratory facilities (especially "wet labs"), support personnel (higher skill levels, costs), offset somewhat by dramatic price/performance declines in digital technologies; and
- Traditional sources of support for capital costs of research (and education) is disappearing—federal

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Dedication Of Joseph Mayo Pettit Building To Take Place On Jan. 17

"To recognize and celebrate the critical role played by the partnership of the State legislature, the Georgia Research Consortium and private industry, we will dedicate the Joseph Mayo Pettit Building on Wednesday, Jan. 17 at 8 a.m. in the building's conference room," says President John P. Crecine. The building will house a major expansion of the Georgia Tech Microelectronics Research Center.

Gov. Joe Frank Harris, Chancellor of the University System of Georgia H. Dean Probst, key legislators and representatives from Georgia Tech, representatives from the industries who participated in matching state funding and other invited guests are scheduled to be present for the dedication.

"Dr. Pettit's vision to create a Microelectronics Research Center became a reality in the early 1980's, and is now fully realized with the completion of the building," President Crecine says. "The ceremony will be followed immediately by a briefing for key members of the Georgia General Assembly on the legislative priorities of Georgia Tech and the University System.

"The dedication date was chosen specifically to coincide with the legislative briefing, because the building could not have been constructed without the General Assembly's commitment to fund it through the Georgia Research Consortium at Gov. Harris' recommendation," he explains.

The building is named for Dr. Joseph Mayo Pettit, who served as Georgia Tech's eighth president from 1972 until his death in 1986. During his administration, the Institute steadily rose to the forefront of technological education. Under his leadership, Tech's research budget surpassed the $100 million mark for the first time in its history. Student enrollment also grew from 8,048 in 1972 to 11,078 in 1986.

Pettit also served as dean of the School of Engineering at Stanford University from 1958-72. In 1949, he was awarded the Presidential Certificate of Merit for his work in radar countermeasures development during World War II.

The Joseph Mayo Pettit Building See Pettit, page 4
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increasingly international and technologically-oriented society in a state preoccupied with economic development issues, and Tech is "a technological university well-positioned to provide the basis for General Education for the 21st Century."

"We have a great undergraduate student body and traditions and considerable momentum in graduate (Ph.D.) and research programs. Our major programmatic change demonstrates that we can do it. [There is] much public support for the appropriateness of the changes and recognition of 'Future Orientation.'"

Georgia Tech, he said, "is where exciting, new things are happening in the management of technology, public policy, international affairs, computing and environmental sciences. We need strong, local leadership and resources to capitalize on the opportunities."

By Pam Rountree

Dr. Michael E. Thomas

Tech officials gathered last month at the retreat to sit down together and "think about some issues that are currently facing Georgia Tech," said Special Assistant for Academic Affairs Dr. Michael E. Thomas, who also attended the event.

According to Thomas, there were three key issues presented and discussed at the retreat.

One issue dealt with the "change in the world scene and its implications on defense funding which, in turn, has implications for a lot of the research programs here at Georgia Tech," Thomas explained. "We were thinking strategically about positioning our research activities.

"There is a tremendous amount of uncertainty about what's going to happen—in response to the very rapid changes that are taking place internationally and the implications that has for the Defense Department.

"There was a lot of speculation [at the retreat]. Of course, nobody knows what is going to happen. There was speculation that there would be some substantial reductions in the Defense Department budget which could free up re-search funds for other areas," Thomas continued. "The idea [for this session and the others] was to get people to think about it."

With respect to strategic planning, Thomas noted, "we talked about it for not only our research programs, but for all of Georgia Tech. Dr. Tim Gilmour's (new vice president for strategic planning) executive assistant to the president) is going to put together a group of people to look at what has been done already in strategic planning and, where necessary, to fill in the gaps."

Some areas (a number of academic units and laboratories in GTI) have already spent a good deal of time on strategic planning, but in other areas (such as student recruitment, student services) "we need to do more," he added.

"A lot of the academic restructur-ing was undertaken to think stra-tegically about where we ought to be five years from now with respect to our degree offerings," Thomas explained.

The second issue focused on Tech's students—in particular, undergraduate students—and "how we interface with them, how we recruit them, how we serve them while they are here, and how to set the stage for some additional think-ing on what our student body is go-ing to look like in the future and what we can do to influence what it is going to look like.

"It's clear that the demographics are changing. We're very shortly going to hit the bottom of a valley in terms of the number of high school graduates that will be com-ing out of the schools in this coun-try. Then, when it starts back up again (in several years) the demo-graphic characteristics of that population are going to be substantially different, and the increases deal of time on strategic planning that Georgia Tech and all institutions need to work harder to attract," Thomas said.

The third issue was a "consciousness raising session on what the work force of the future are going to be," Thomas explained. During the session there was also a presentation on Tech history given by Dr. Robert G. McMath Jr. (provost/dean of the College of Sciences and Liberal Studies)—"where Tech came from, what it is now."

"I thought [the retreat] was a very good exercise and the departmental heads added, "This group [that attended the retreat] is the leadership group at Georgia Tech. We need to be thinking about these issues and change the ways we do things.

"During the last three years there has been a lot of change in the leadership [of Tech]. As we start appointing new deans for these new organizational units, (which will probably happen some-time in the next two years), it will be important to acclimatize them to Georgia Tech, and the departmental heads will probably do something similar again at that time."

By Pam Rountree

Dr. Gary W. Poehlein

"Graduate Studies at Georgia Tech" was the topic of discussion during a presentation by Dr. Gary W. Poehlein, acting vice president for Interdisciplinary Programs. Poehlein attended the retreat in a dual capacity (in his current position in the Office of Inter-disciplinary Programs, and as former associate vice president and dean of the graduate Studies of- fice). He focused his discussion in the graduate arena, looking at graduate program development.

The first item discussed—enrollment trends and degrees—"has very happy slopes," Poehlein said. "Enrollments, especially the Ph.D. enrollments, have grown. We have had a growth in our total graduate program, but a more significant growth in the Ph.D. program because we are attracting more students who are inter-ested in pursuing a doctorate and who have the capabilities of doing so."

"In Ph.D.'s awarded," he noted, "last year was the first year we awarded 100. The projected numbers are to be awarded (150 in 1990-91, 180 in 1990-91, and 200 in 1991-92) are not pie-in-the-sky wishes, they are based on enrollment here now."

The second issue discussed was the institutional support mecha-nisms. "These have been very key to this (Ph.D.) growth. We provide very significant financial support to the graduate program primarily for supporting students that have allowed us to increase our enrollment, increase our Ph.D. produc-tivity and so forth," Poehlein noted. President Crecine noted: "• The President's Fellowship Program—"This has been expanded significantly in the last few years. It will cost us about $1 million a year to keep it up and is a very im-portant program."

• Matching Funds for New GRAs—"It's a very important com-ponent of the institutional support of our doctoral program."

Two other programs, Poehlein added, are "significant in concept." These include the Doctoral Student Safety Net Program and Doctoral Fellowships for Research Faculty. The Safety Net Program "covers one or two quarters of doctoral students' research at the end if the contracts that they are working on are cancelled before they finish their Ph.D. It's an important con-cept that the department and the students know that if their grant gets cancelled, support can continue."

The Research Faculty Program "takes a student that, in effect, has been a research faculty member but also a part-time doctoral stu-dent. When that person gets to the point of where they can say, 'I can finish this if I can work on this for a solid 12 months without worrying about contracts,' and they're willing to make a sacrifice (50 percent cut in salary), we will give them a 50 percent salary fellowship that will take all the responsibilities away from them except completing their
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for Research Administration Dr. Demetrios Paris, of a session on "Research and Graduate Education Strategies," with Dr. Gary W. Poehlein, acting vice president for the Office of Interdisciplinary Programs. The focus of this session was to brief and discuss research activities and goals with retreat participants.

Schackelford stressed the importance of positioning research activities, especially in the defense area, to be responsive to impending changes in the external sponsor community.

"The whole definition and meaning of defense research is changing, due to recent political changes in Europe and declining defense budgets," Schackelford said. "It will be necessary to adapt and expand our research activities to meet economic and policy changes."

Recent changes in Eastern Europe, for example, leading to redefinition of national security and emergence of the European Economic Community, will present challenges and opportunities for new research initiatives, according to Schackelford.

"We will have to watch the fundamental changes that have taken place in the political arena during the past six months and see how they will affect the directions and funding of research," Schackelford said.

Other areas discussed during this session were:

• Increased use of graduate students in GTRI;
• Increased interaction on joint sponsored research programs between the academic departments and GTRI; and
• Joint recruiting and appointment efforts for academic and research faculty.

Schackelford said he was impressed with the cross-section of reseachers, professors and administrators at the retreat.

"The retreat was a very worthwhile exercise because it gave us a chance to share different perspectives," Schackelford said. "The experience was very valuable."

—By Jackie Nemeth

Obituaries

Lyann Allen-Wilburn, employment manager of the Personnel Division, died Jan. 6 at Georgia Baptist Hospital after a short illness. She was 34. Funeral services were held at Dunwoody Baptist Church on Jan. 6.

Allen-Wilburn was employed at the Georgia Tech Personnel Division in April 1980 as a clerk and was promoted to personnel assistant in July 1981. In November 1981, she advanced to employment interviewer, during which time she was in charge of the Rambler program. Allen-Wilburn was promoted to employment manager in October 1986. At one time, she was a member of the Georgia Tech Choral, and she also pursued her musical interests through church activities. Personnel Director John Gibson said Allen-Wilburn will be remembered as a dedicated, hardworking and a master professional who was known "by her reputation of kind- ness and fairness, her ability to seek solutions and for a heart filled with sensitivity."

"She was admired by many; not only was she a true ambassador for Georgia Tech, but she was an ambassador for the entire community,}\n
Gibson said.
What's next

ARTS & ENTERTAINMENT
January 21 - Georgia Tech Club Meeting (Richmond), bus trip to GFUVA men's basketball game, call 4-2390
January 22 - Georgia Tech Club Meeting (DeKalb), Dr. Gene Griessman, speaker, call 4-2390
January 23 - Georgia Tech Club Meeting (Backhead), Dr. Mike Thomas, speaker, call 4-2390

LECTURES & SEMINARS
January 17 - Mechanical Engineering Series, Dr. Richard O. Backus, candidate for the Georgia W. Woodruff chair in Thermal Sciences in the School of Mechanical Engineering, "Radiative Transfer in Multiphase Media Containing Gases and Particulates," 11 a.m., Coon Bldg., Rm. 217
January 18 - Presbyterian Center Luncheon Conversation Series, Dr. Russell Terviliger, director of the Student Counseling and Career Planning Center, 11 a.m., lunch $2
Structural Mechanics Series, Dr. Greg Kriegsman, Engineering Science and Applied Mathematics Department, Technological Institute, Northwestern University, "The Approximate Uncoinciding of the Equations of Structural Acoustics," 1:30 p.m., Weber (SST) Bldg., Lecture Rm. 2
January 22 - Chemical Engineering Series, Edward Cape, Georgia Tech, "Theoretical and Experimental Analysis of Intracardiac Jet: New Techniques for Nominative Assessment of Valvular Insufficiency Using Doppler Ultrasound," 3 p.m., Bunker-Henry Bldg., Rm. 311
January 29 - Chemical Engineering Series, Dee Ling, Georgia Tech, "Fiber Forming Silica Sol-Gel Processes," 3 p.m., Bunker-Henry Bldg., Rm. 311

SPORTS
January 16 - Men's Basketball, vs. Temple, 7:30 p.m. Alexander Memorial Coliseum (AMC)
January 18 - Women's Basketball, vs. Maryland, 7 p.m., AMC
January 26 - Women's Basketball, vs. Virginia, 7 p.m., away
January 27 - Men's Basketball, vs. Virginia, 7:30 p.m., away
January 27 - Women's Basketball, vs. Clemson, 7 p.m., away
January 28 - Men's Basketball, vs. Duke, 7:00 p.m., AMC
January 28 - Men's Basketball, vs. Duke, noon, away

Brown Bag Cultural Exchange Series To Begin This Month

Gov. Joe Frank Harris has proclaimed 1980 The Year of the Inter-Cultural Society in Georgia, and in the spirit of promoting this ideal, the Office of Human Relations will be hosting the Brown Bag International Cultural Exchange Series at noon in one of the Student Center third floor meeting rooms.

Speakers, consisting of native representatives and international experts, will talk about various countries' social, cultural, economic and political aspects in order to encourage understanding and appreciation of diverse cultures in the Tech community. The seminars will last about a half-hour, and a question-answer session will follow. Listed below are dates, scheduled speakers and their topics:

January 16 - The Hon. Mr. Keitaro Sato, Senior Consulate General of Japan, "Japanese-U.S. Relations in Industry and Trade"
January 30 - Dr. David McCreeery, associate professor at Georgia State University, "The Political Situation in Nicaragua and Central America"
February 13 - Dr. Vanya Nick, assistant professor, DeKalb College, "The Political, Economic and Social Conditions in the Soviet Union and Relations with the United States"

Microelectronics research at Tech is genuinely interdisciplinary. The center's architecture fosters this interdisciplinary approach with offices and laboratories linking numerous disciplines. Electrical engineers work with chemists, chemical engineers, material engineers and physicists to create the microchips for the year 2000 while manufacturing and management researchers evaluate manufacturability issues.

This unique partnership will advance the state of the art in a multibillion dollar industry whose future is critical not only to the national economy, but as an important component in regional economic development as well.

Whistle Notice
Due to the Martin Luther King Jr. holiday, the Whistle will not come out on Jan. 22. The next issue is scheduled for Jan. 29. Deadline for items to be considered for publication for the Jan. 29 issue will be Jan. 19 at noon.

Job Hunting?
If you're looking for employment opportunities, call the Job Line in the personnel office—ext. 4-4592.

William Chameides Named Director Of Earth And Atmospheric Sciences School
Subject to approval by the Board of Regents, Dr. William Chameides will be director of the School of Earth and Atmospheric Sciences effective immediately, according to Acting Dean of COSALUS Robert Pierotti. Chameides served as acting director for the past year.

"Dr. Chameides' excellent record in research and teaching, along with his proven ability to manage the school with the support of his faculty, made him a clear choice for this position," said Pierotti.

Chameides came to Tech in 1980 as an associate professor in the School of Geophysical Sciences. Known as an expert in global environmental chemistry, acid rain, biogeochemical cycles and atmospheric chemistry, he earned his bachelor's degree in chemistry from the State University of New York at Binghamton in 1970 and his master's and doctorate in physics from Yale University in 1973 and 1974, respectively.

According to Pierotti, Chameides is expected to further the educational and research goals of the newly named school, expand the educational mission of the school by developing new undergraduate courses and programs, enlarge the graduate program, provide new opportunities for faculty research and development, and hire new faculty and support staff.

Pierotti said, "The School of Earth and Atmospheric Sciences, under Dr. Chameides' leadership, will be a major factor in the birth and growth of the forthcoming College of Science."