







# STUDENT LIFE





## Transition: Tech's Gradual Growth to the Eighties



The year 1885 saw a dramatic change in the educational system of Georgia. The founding of Georgia Tech not only presented the state with a much needed technical institution but also began a tradition of excellence in academics, sports, and achievement. Tech has experienced a broad variety of changes since the first students arrived here nearly ninety-three years ago. Whether good or bad in the eyes of the students any changes that have occurred have left a lasting impression on the school. Tech has witnessed the admission of women students in 1952, the elimination of mandatory ROTC training in the early 70's, and the leisurely switch from the SEC to the ACC, a cycle which took fourteen years to complete.

As time has progressed, Tech's reputation as an outstanding school has grown proportionately to the development of her academic program. Today, a Tech student may major in subjects ranging from textile chemistry to nuclear engineering. In addition to scholastic growth, the school has experienced physical expan-

sion in the center of a rapidly encroaching downtown Atlanta area. The student population has changed also; it has become a diversified group including students from over sixty countries.

With the promise of a rejuvenated athletic program to come, a sense of pride has been resurrected in the students. This pride between Tech and her students has encouraged them to give back to the school a small percentage of what she gives to them, both while they are here as students and after they have become alumni. Though change is an imminent factor, all Tech students, past and present, are linked by an indomitable dedication to their school, despite any signs of change that may confront her.

*TOP, LEFT TO RIGHT:* Dorm life isn't all bad as this couple takes a break from studying. Bobby Dodd lends words of inspiration at the Notre Dame pep rally. The mascot finds himself a tasty cheerleader snack. *BOTTOM, LEFT TO RIGHT:* Students patiently wait in another line to get their athletic I.D.'s. Career day gives these Tech co-eds a look at what can come after graduation.





# People and Personalities







# Rednecks Invade Homecoming '80

The air was filled with the sounds of banjos, jugbands, and washboards during Homecoming 1980, which allowed Tech students the opportunity to display some of their latent hillbilly characteristics. The underlying theme "Technically Country" forced the technically minded students, donned in overalls and straw hats, to revert to somewhat more rustic inventions and mannerisms. Log cabins graced by bubbling stills greeted returning alumni who might have wondered what was actually brewing in those casks. Organization members toiled fervently on displays in order to prepare them for judging while also participating in the various events designed to "countrify" them in their thoughts and actions.

Ellie Maes and Jethros flocked to the Student Center to display the latest fashions in the Beverly Hillbillies Lookalike Contest. Other events such as the Soap Sculpture, Hog Calling, and Stillbuilding Contests presented students with an opportunity to give their hands and jaws a good workout. The Tulane pep rally attracted over 3500 screaming fans, while traditional activities including the Mini-500 Tricycle Race, the Freshman Cake Race, and of course the Reck Parade exhibited

fine examples of pedal power, foot power and horsepower.

October's cloudless blue skies encouraged a festive atmosphere at Grant Field. The week was capped by the disclosure of the Homecoming events winners and the announcement of the selection of Terry Honick as the 1980 Homecoming Queen. While the Yellow Jackets were unable to sail over Tulane's Green Wave, the fans kept their spirits high and never wavered in their support.

Poor planning scheduled Homecoming Week during mid-terms, posing a conflict of interests between academic pressures and an overwhelming desire to join in the fun. Even with their divided loyalties, students managed to spare some of their precious time to make Homecoming a success in spite of all the conflicts.

*TOP, LEFT TO RIGHT:* The Alpha Xi's washboard band entertains a lunchtime audience at the student center. An unsuspecting backwoodsman sits back while the world passes by. *BOTTOM, LEFT TO RIGHT:* Moonshiner makes adjustments on his still to insure the perfect brew. Jean Branand brings home the bacon with the help of a strong set of lungs. ASME's apply their mechanical knowledge to their winning entry in the Reck Parade. Push comes to shove as another wreck bites the dust before reaching the finish line.









## Singular Traditions Make Tech's Homecoming Different

Homecoming has been around as long as George P. Burdell himself. Tech's version has always been unique with strong traditions, which have made the Yellow Jacket image famous. Two attractions that have contributed to the popular nature of this annual affair are the Freshman Cake Race and the famous Ramblin' Reck Parade, begun in 1932.

The Homecoming football game is different from the other games during the season in that the alumni return to the campus to check on the performance of the Yellow Jackets. More than anything, Homecoming gives the students the chance to take pride in the traditions that their predecessors established and the obligation to continue these "sacred" tasks.

*TOP, LEFT TO RIGHT:* All-nighters are a Homecoming tradition as fraternities complete their contraptions. Spectators file into Grant Field for the day's festivities. This Kappa Sig works diligently to finish pumping their Homecoming display. *BOTTOM, LEFT TO RIGHT:* Terry Honick, Tech's new Homecoming Queen. Men and women alike put the pedal to the metal during the Mini-500.













# As the Seasons Change, So Does the Campus Mood

The seasons of the year play a major role at Tech. Each new climate brings with it a change for the students in activities, courses taken, thoughts and attitudes. When a Tech student tells you how their quarter went, they will probably refer to it in terms of the time of the year. "Winter was lousy" or "Spring was fantastic" might or might not indicate how they did academically. Yet each period is unique and separate from the others in the ways that the students act and think.

Spring quarter is probably the least productive (academically) of Tech's four seasons. For once during the year, classes seem to take a back seat to such diversions as frisbee, tennis, and softball. Intramurals pick up in pace, shorts replace thermal underwear, and crowds flock to Grant Beach to soak up the rays. Though the studies are ever-present, most students try to take easy courses and a minimum of hours so that they can live it up a little and enjoy a typically sensational Atlanta spring.

Summers spent at Tech are definitely low key. While an average student never attends a summer session, it is a good chance for some to make up for previously dropped courses or poor grades. Classroom attire is skimpy, with shorts and bare feet being sported by many. The student-teacher relationship seems to be more casual during the summer, and many feel that this air of ease aids in helping the students get more out of their classes.

Summer almost always seems too short, and fall quarter arrives before most people have a chance to get a good sun tan. Fall is hectic for many students, with football season, rush, and Homecoming keeping people busy. For freshmen, fall quarter means the beginning of a long sojourn at Tech. They are called on early to prove themselves by surviving registration, dorm life, and three meals a day of college "food." After three months of letting their brains go soft, most students find it a chore to get back in the swing of

things and concentrate on the books.

Between fall and spring quarters, there exists a time at Tech that most people would rather bypass completely — winter. Fighting below freezing weather when a warm bed beckons is rough, with Tech's present to winter — 8 o'clock classes — rating the fewest participants. The bad weather does seem to help out in the study department as students can't do much except work or dream of a possible ski trip. The annual snowfall that everyone anticipates evaded the campus this year, but the milder temperatures kept the students more optimistic about school and made the arrival of spring an important date to mark on the calendar.

*TOP, LEFT TO RIGHT:* Winter Quarter means ACC Basketball time, and these students wait overnight to purchase tickets to the Championship tournament in Maryland. Inclement weather is typical of fall and a sudden storm turned the Florida-Tech game into a real drencher. *BOTTOM, LEFT TO RIGHT:* Bob Grabowski catches some rays before heading off to Differential Equations class during spring quarter. An ice cold drink of fresh water makes a summer softball game more bearable.









## Social Tastes Display Diversity



Anyone who says that Tech students don't know how to have a good time has obviously never had much exposure to the Tech environment. One need not look past the boundaries of the Tech campus to discover a vast assortment of parties and other social gatherings. Between twenty-two dorms and over thirty-five fraternities and sororities, there is usually activity going on somewhere. Whether it be a small get-together in a dorm room or an extravagant band party thrown by the Greeks, the students here can come up with some dandy reasons to live it up.

The city of Atlanta offers many interesting diversions for those who wish to venture off campus. When the food at Brittain is no longer bearable, many good yet not too expensive restaurants are available. Such delights as Houlihan's Old Place, Good ol' Days, The Magic Pan, and a recent addition called Hamburger Hamlet will satisfy almost any palate.

The list of night spots where the Tech student may indulge himself is virtually endless. For the down home guys and

gals, Jacks and the Blue Eagle give one a chance to don the cowboy boots. The terminally preppie hangouts can be distinguished by the sounds of "Build Me Up Buttercup" coming from them. Claibornes, P. J. Haley's, and P. J.'s Nest (the old Burdell's) will put sand in your shoes for as long as you can stand it.

Disco is not dead yet, at least not in Atlanta. A very popular Tech hangout is Packets, where the cheap drinks and fast-paced music attract students like flies. One of the beautiful people havens is Limelight. It is fast becoming a retreat for many Tech students, where the clientel is always something to be seen. Where else could you go to drink, dance, and get snowed on all at the same time.

*TOP, LEFT TO RIGHT:* Dean Carol Moore takes off from her duties at Tech to enjoy Houston's. This group of enthusiastic drinkers goes for a record consumption. Disco is definitely not dead for this lively crowd of Limelight dancers. *BOTTOM, LEFT TO RIGHT:* Kim Callender appears to be enjoying the two to one ratio at Jacks. Limelight entertainer sports the latest in apparel as he leads the crowd in a Donna Summer melody.







# Concrete Covers Campus as Ma Tech Gets a Facelift

Located in rapidly growing metropolitan Atlanta, Georgia Tech has always been restricted in its attempts at development and expansion. Yet the school has utilized various methods of land acquisition and efficient usage to combat the closing in of the city on the campus. Students returning in the fall may have been shocked at a building explosion going on at Tech that was reminiscent of the early 70's when the Student Center, Area III dorms, and several classroom buildings were constructed.

Architecture students finally came together as a single unit after having been scattered about campus with the completion of the new west wing. The first of a three-building complex housing the College of Management and ISYE school was begun, and the long-awaited Intercollegiate Athletic Center began to take shape on the site of the old Naval Armory, leaving the NROTC's without a

home. The Student Center, a second home to most Tech students, gained an ice cream counter and an outdoor patio adjoining the cafeteria.

In addition, already existing areas on campus underwent alterations and renovations. While the Tech community patiently awaited the construction of a badly needed additional dormitory, Brown dorm was completely renovated. The Brittain Dining Hall area was also relandscaped to create a parklike atmosphere around the vicinity. Rain traditionally plays havoc upon the traveling of students from the library to the bookstore, so walkways were raised and widened in an effort to keep 22,000 feet somewhat drier. The often discussed yet never realized Yellow Jacket Plaza finally took shape with the construction of phase one of a five phase plan that will eventually include fountains, sunbathing areas, and even a carillon that will chime

music. Grant Field was sandblasted to the consternation of dust-choked summer students, and received a fresh coat of paint.

As always, funding for many of the projects was a problem, but private support came to the rescue again. Students accustomed to descriptions of Tech as just a collection of ugly brick buildings saw the transformation of the very nature of the campus. Complaints and jokes about the Plaza super-slab or the gently wafting dust from sandblasting soon subsided as the improvements took final shape.

*TOP, LEFT TO RIGHT:* ARA staffers prepare for opening of the Student Center's new sweetheart haven. The construction of Yellow Jacket Plaza in front of the Student Center is a minor inconvenience for students heading to the post office. *MIDDLE:* The Naval Armory falls prey to the wrecker's ball to make room for Athletic Complex. *BOTTOM, LEFT TO RIGHT:* Landscaping combines with dorm renovations to make Area I more attractive for residents. The new west wing allowed all architecture students to come together under one roof.









# Atlanta: Uptown Down South and Changing Daily

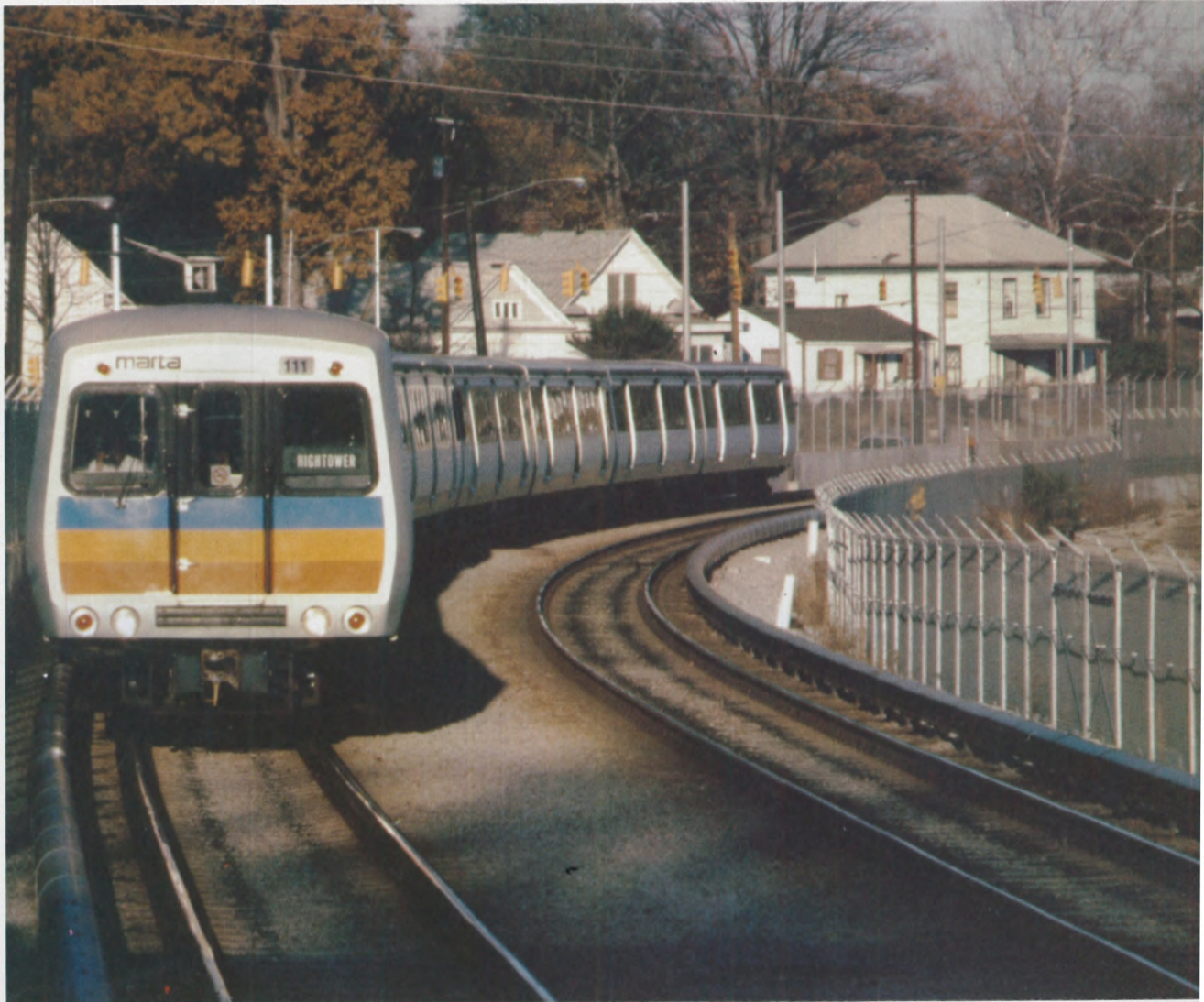


Atlanta. The word conjures up images of the traditional southern belle. Like Scarlett O'Hara, the true southern belle is a beautiful woman of genteel manner with an underlying character of strength and determination. She is one who is committed to growth. Although the rapid blossoming of the city occurring during the past year has not had effects on Tech, long-range consequences are inevitable.

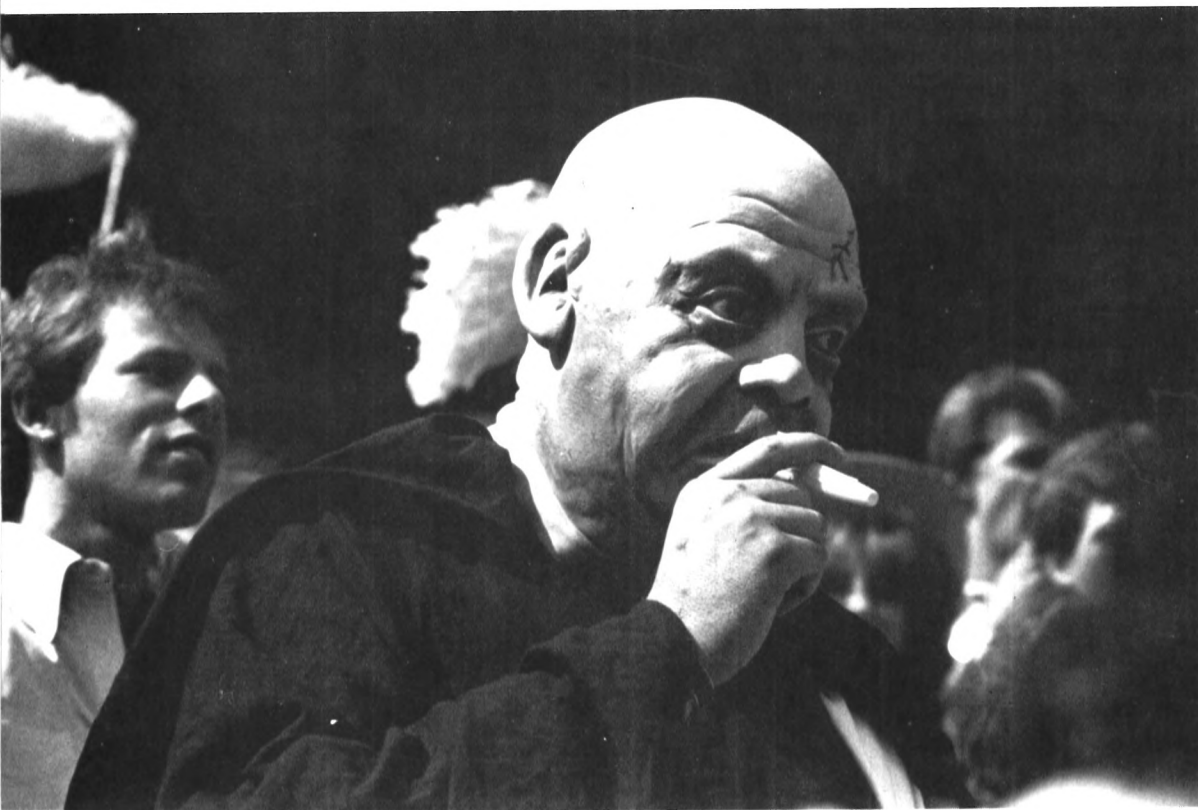
With the construction of each additional floor of the towering Southern Bell building, Tech's newest neighbor cast an imposing shadow over the entire campus. The eventual opening of the North Avenue Marta rapid rail station, adjacent to Ma Bell, will improve access to the cam-

pus for commuters and football fans alike and eliminate the hassles of interstate travel.

Georgia-Pacific began work on its new corporate headquarters, which will eventually shoot up and dominate the Atlanta skyline. Speculation continued about the fate of the Coca-Cola sign, an Atlanta landmark, which faced the threat of removal in order to make way for the soon to be built Georgia-Pacific complex. Students arriving for fall quarter by plane faced the prospect of reorientation at Atlanta's new midfield terminal in order to find the right gate to catch the return flight for home.









## Student Antics Keep Spirit Alive

One thing never changes at Tech: the endless spirit that the students have for their school. Tech gives people a number of ways to demonstrate their affection: in Homecoming, the Reck Parade, the rat caps traditionally worn by first quarter freshmen, and the flashcard section at the football games. Block seating was introduced at the Memphis State game to encourage even greater group participation.

Some students are able to devise clever plans to silence the whistle, make the library look like a bubble machine, or relieve the Tech tower of one of its precious T's. Through less popularized

devices such as the publications, Student Government, and the clubs, a student may use his talents in areas other than just academics. Tech has been a recognized institution for many years not only because of her excellent credentials but also because of the efforts of her students to maintain an air of devotion for their school.

*TOP, LEFT TO RIGHT:* Tennessee pep rally crowd prepares themselves for Saturday's big game. Jane Justus, Cindy Sotire, Susan Bailey, and Joan Dvorsak get ready to lead the Jackets on the field. *BOTTOM, LEFT TO RIGHT:* The Reck Club passed out bazoos to students to help increase spirit. Kim and Kay Knight do the bump while Jacque George shows her amusement.





## Dome Vibrates With Down Home Rock



Due to the proximity of Atlanta's major concert houses, the Fox and the Omni, it's a rare concert which makes its way to Tech's acoustical nightmare, the Alexander Memorial Coliseum. So when the lights dimmed in the Dome on January 24 for the Marshall Tucker Band concert, it was a rare treat for students.

Southern rock bands may not be as prevalent now as they were before, but the biggest names of that genre, like the Marshall Tucker Band, still continue to hit the charts and support a large following of fans. The group proved themselves worthy of their reputation when they filled a two hour concert with songs that were familiar to Tech students and off-campus visitors alike. The evening began with an introductory performance by Whiteface, while the audience patiently awaited the arrival of the good ole boys from Spartanburg, South Carolina.

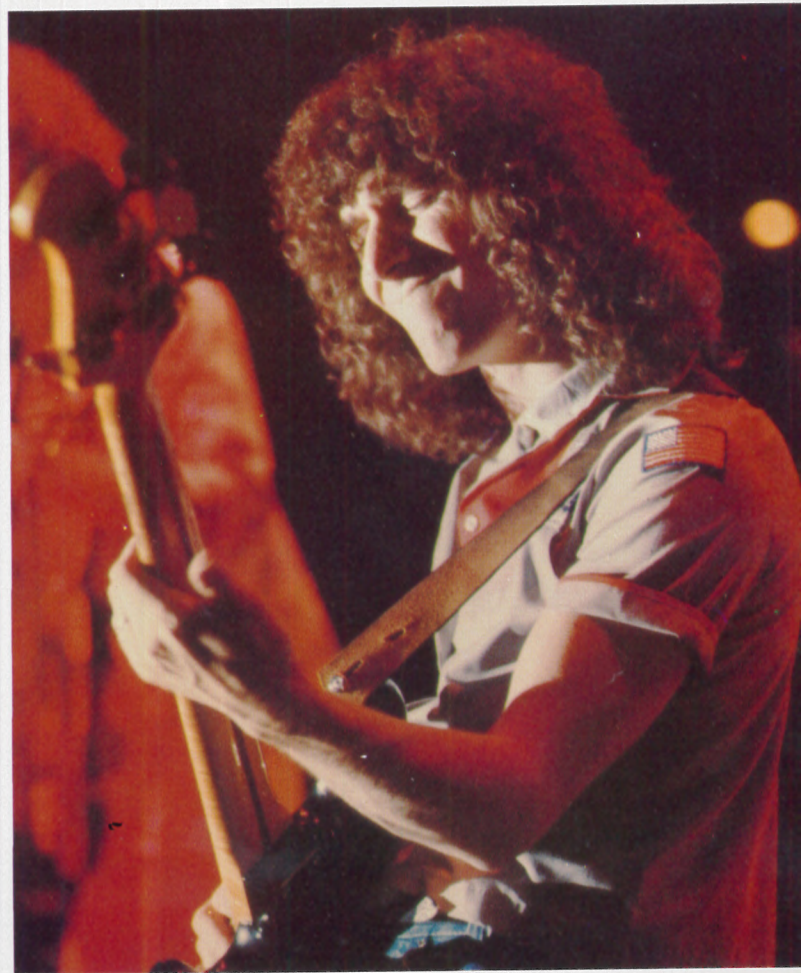
The top bill of the night brought their

talents to the stage and overcame the facility's poor acoustics with excellent instrumental solos. Country classics such as "Fire on the Mountain," "Heard It in a Love Song," and "Last of the Singing Cowboys" brought tears to the eyes of even the reddest of necks.

Starting out in the early 70's, the band named themselves for a blind country and western piano player who regularly played bars in their area. They have since grown into one of the top draws in the southern rock market. The two encores demanded by the enthusiastic audience proved that the hard work exerted by the band was well worth the effort as they were certain of another invitation to the Tech campus.

*TOP, LEFT TO RIGHT:* A pair of pickers crank out "Heard It in a Love Song." Lead vocalist goes to town with "Last of the Singing Cowboys." Flutist adds his touch to "Fire on the Mountain." *BOTTOM:* Whiteface guitarist entertains prior to the main show.







The American people demanded change in 1980, eager for reprieve from a government which had accomplished few visible results in the past four years. An actor turned governor and a governor turned president battled it out to the bitter end, with Ronald Reagan capturing a landslide victory over Tech's own Jimmy Carter in the race for the Oval Office. In Georgia, Herman Talmadge met the first challenge to his Senate seat in years in Republican opponent Mack Mattingly, who stunningly upset the senior senator.

Many candidates were well-represented on the Tech campus by groups of vivacious students eager to swing student votes to their candidate's side. Candidates had a chance to express their views in person when Student Government sponsored a political forum. Cynthia Fuller campaigned for the House seat in the 27th District, in which Tech is located. Her dedication aided in her defeat of George Armbrister for the position. In an effort to assure that any eligible voter would be able to cast a ballot, a voter registration was held at Tech with over 1000 students signing up.

*TOP, LEFT TO RIGHT:* Mack Mattingly speaks to a Tech crowd prior to a successful race for U.S. senator. Tech students attempt to raise support for Libertarian candidate Ed Clark. *BOTTOM, LEFT TO RIGHT:* Cynthia Fuller answers student questions in her bid for state representative. Presidential candidate John Anderson stresses his philosophy to listeners at Georgia State University. Mike Ashworth discusses Reagan with student worker.

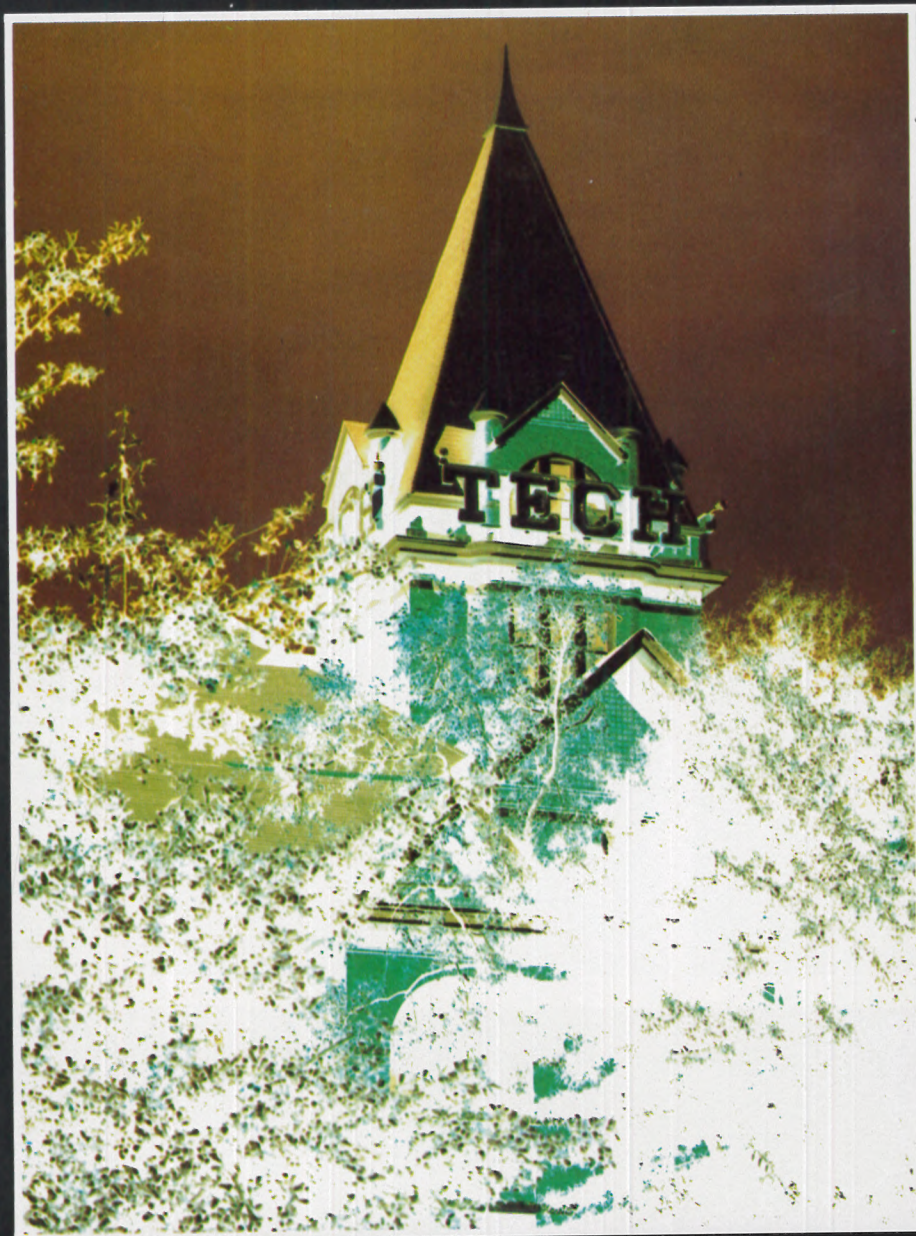




## Election Spurs Campus Interest







# Events and Places







# Tech's Mystery: Why Do We Come, Why Do We Stay?







#### Why Tech?

Who knows, actually? The incoming rat may have chosen this campus for reasons ranging from its academic reputation to its location in temperate Atlanta.

But regardless of the reasons for coming here, the question is "Why do we stay?" What is it about Tech that makes us endure a winter quarter 8 o'clock class or stay up all weekend to finish a design project? What could possibly be worth all the work when you know your high school buddies are over at Georgia beginning their weekend on Wednesday and making it stretch all the way to the following Tuesday?

The answer is as individual as each of us. Yet, in every reason there are a few common threads. It's the sense of accomplishment and of striving towards that accomplishment. It's the tradition of knowing thousands have strived before you, and their efforts form the bonds of a unique camaraderie.

As the years pass and the diploma yellows, the sense of tradition, of pride, and of achieving a goal becomes ingrained in our lives. Then we understand "Why Tech."

*TOP, LEFT TO RIGHT: Carla Leonard surveys her fee cards on the last leg of her registration trek. AE's experiment with an adult version of the paper airplane. ChE student becomes wrapped up in his work. Seniors camp out in hopes of beating the crowds to the placement center. BOTTOM: Recording lab results can be an eye-straining process.*



## Coed Arrival Alters Campus Rhythm







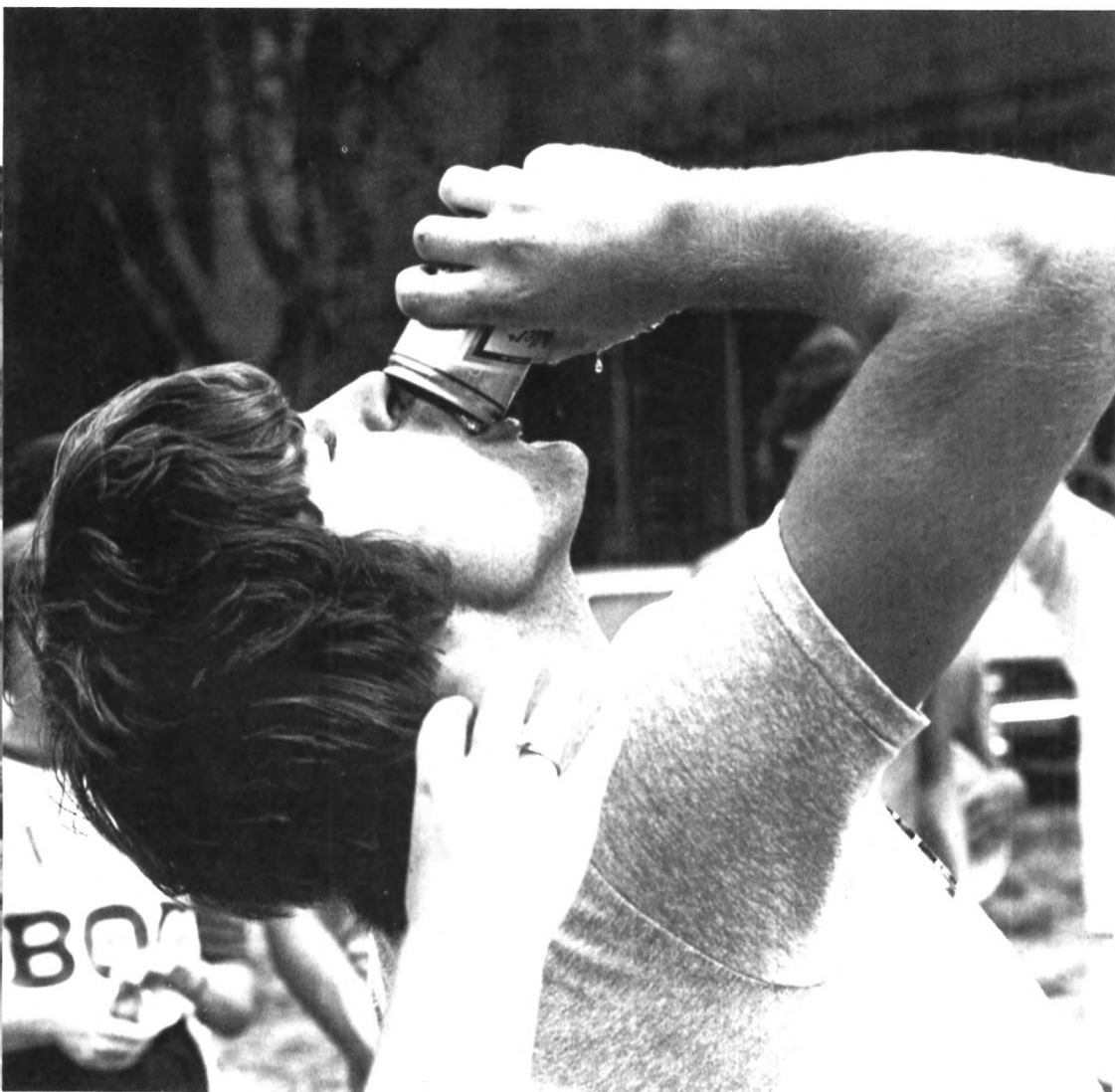
An unfamiliar and strangely out of place face graced the Tech campus in 1952 — the first co-ed. This new addition must have thrown the entire student body off balance. Not only did the men have to adjust to women at Tech, but those first few women had to cope with being an unquestioned minority. While the influx of women had an effect on the all-male image of the school, most of the male populace didn't complain about a pretty face here and there. In covering the co-ed arrival, the 1953 *BLUEPRINT* reported that "reaction varied from blase (about 10) to favorable (the rest)."

The mood around school took a dramatic turn, as female enrollment continued to grow. Tech now has five sororities and a four-to-one male-female ratio. The increase of women has not only made the men stop and stare but has also made them realize that academic competition from the other half is stiff. Tech need not worry that her strict academic reputation will be damaged by women. On the contrary, they might just make the pressures of Tech a little more bearable.

*TOP, LEFT TO RIGHT:* Two co-eds seem amused at the antics of an unseen Tech male. Kim Pace and Tom Noonan are typical examples of the amiable relationships between Tech men and women. *BOTTOM, LEFT TO RIGHT:* The busy Techwood and Third intersection halts two co-eds on their way back to their dorm. Will their sons yell "To Hell With Georgia" like their *mothers* used to do? Scholastically, the women's average has remained slightly ahead of that of Tech men.









# Rats Go Underground as Legal Drinking Age Goes Up



Although an eighteen-year-old is eligible to vote in elections and may soon be hearing the call of his country, he is now unable to possess or purchase alcoholic beverages until he reaches the ripe old age of nineteen. The Georgia State Legislature raised the drinking age in September in an effort to keep alcohol out of the high school altogether, where most seniors had been able to drink legally.

The impact of this measure on the Tech lifestyle was dramatic, as a majority of the entering freshmen were unable to buy or be served any type of alcohol. The law affected not only underaged students but legal drinkers as well, who had to deal with the increased vigilance of tavern owners.

Certainly, the most evident effect of this legal measure was the switch from wet to dry fraternity rush. The atmosphere around school changed from one of public and unrestricted consumption to one of rather low key socializing with people either laying off the booze altogether or trying to keep it hidden from the watchful eyes of roving interfraternity patrols.

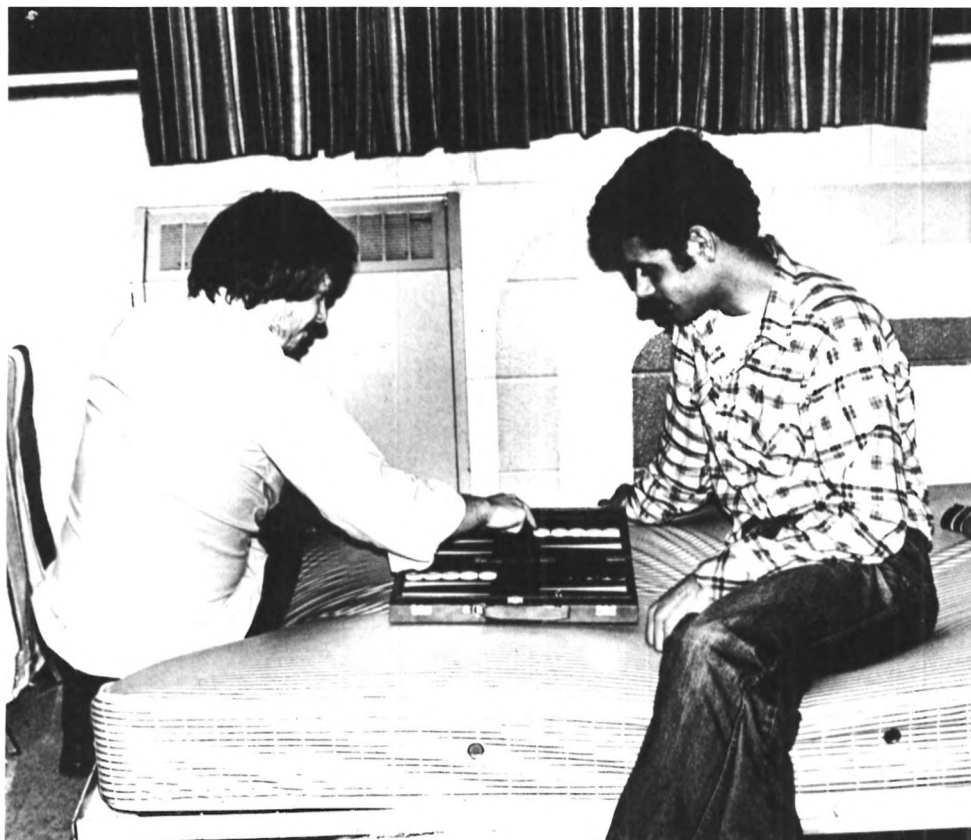
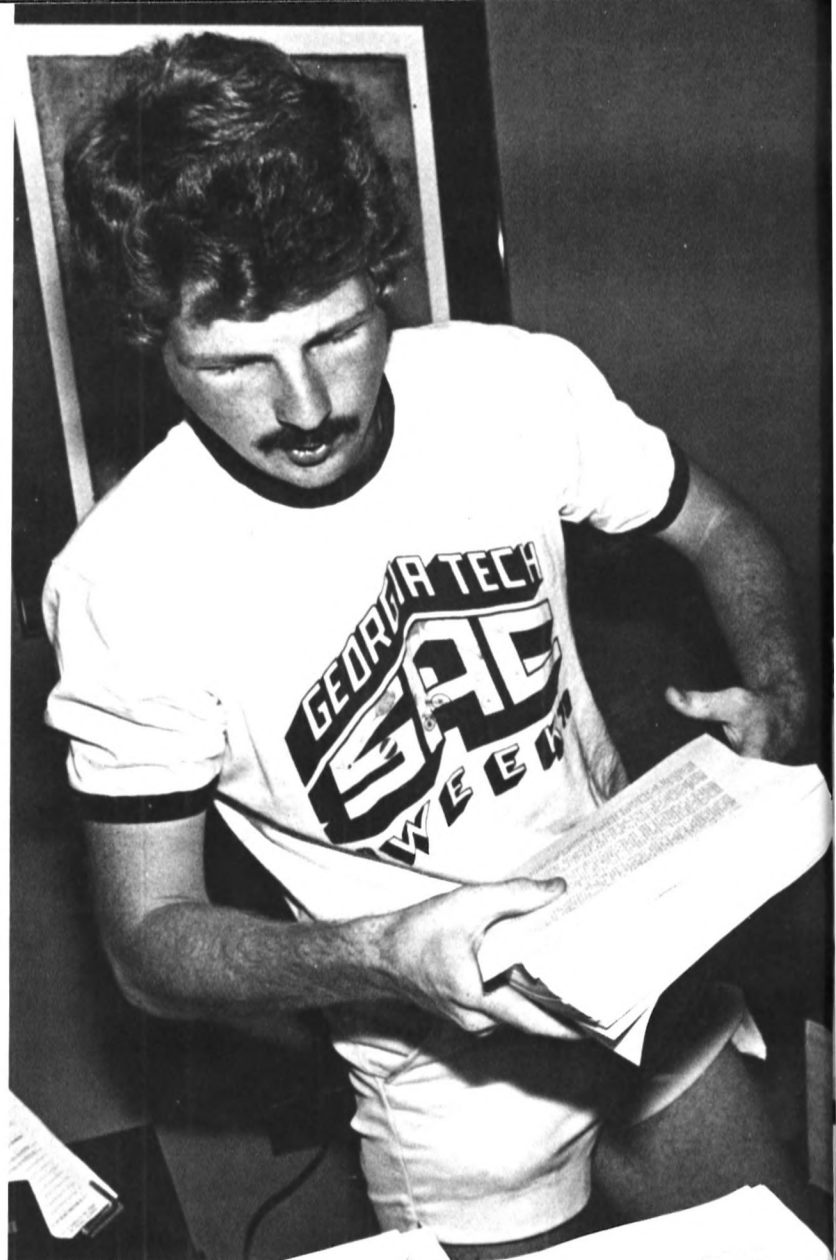
Student opposition to the change was intense, with legislators commenting that it was the first time in years that they had seen student reaction concerning a legislative act so vehement. Industrious student lobbyists carried their campaign to the State Capital yet were unable to sway the lawmakers to their way of thinking. While raising the drinking age was an unsettling experience for many people, things calmed down after the initial transition period. Students took the inconvenience in stride, either accepting it at face value or finding creative methods to get around it.

*TOP, LEFT TO RIGHT: ATO's Harry Colley and Tom Noonan go in for some heavy consumption during a Greek Week chugging contest. Spectator takes time out from the Tennessee game to indulge in a little refreshment. Happy hour at M.J. Pippin's is a popular after-class activity. BOTTOM, LEFT TO RIGHT: A cold beer on a hot day goes down easy for this thirsty consumer. Students partake of that great Tech "spirit."*





## Dorms Reflect Tech Image







First quarter freshmen at Georgia Tech face one of their greatest adjustments when moving into one of the twenty-two dormitories on campus. Life in a dorm can be quite disconcerting, often leading students to wonder why they ever left the conveniences of home to live in the likes of Techwood. The on-campus location of the dorms is the main advantage over off-campus housing, and it is amazing how the same people who complained about dorm conditions will beg and plead the housing office to allow them to live there just one more year.

Regardless of how long one lives in a dorm, the experience is worth remembering and impossible to forget. Waiting on showers in the morning when you are late for class, trying to whip up a late night snack in your toaster oven, and putting up with your roommate's idiosyncrasies are just part of what dorm life is all about. Usually a group of people on a hall will find out that they really do have something in common. The dorm can be like a club, with the "members" getting together to go over to Pippin's or out for a movie.

For its benefits, the housing situation has not been without problems. Tech falls short of the number of rooms that she needs to house her students. Each year, thousands are turned down for housing while administrators attempt to convince stubborn legislators that this shortage is not a temporary one.

While students tolerate the inconvenience of not being able to decide their own fate, Student Government has spent hundreds of hours trying to turn the dream of a 500 room dormitory into a reality. Lobbying efforts at the State Capitol, drives to inform parents of student needs, and public awareness programs were used as tools to bring about the necessary appropriation to finance the dorm. In essence, a Tech dorm can be compared to the very nature of the school: hard to get in and even harder to stay in.

*TOP, LEFT TO RIGHT:* Susan Rhoher whips up something in her compact campus kitchen. Steve Sanders headed the student move to get state funding for a new dorm. *BOTTOM, LEFT TO RIGHT:* Jamie Burns and Faoud Abel-Akel relax over a game of backgammon. David Bowers puts his calculator to good use. Kim Semkin transformed her dorm room into a real home away from home.





Traffic jams, stacks of unpaid bills, and burned TV dinners are all part of a fascinating facet of Tech life — off-campus living. Some students choose to live off campus of their own accord. The freedom and seclusion of an apartment or house is preferable to many who refuse to put up with crowded bathrooms, noisy neighbors, or obnoxious roommates. On the other hand, those unfortunate souls who see the situation as being "cheated" out of an avidly pursued dorm room must cope with life in an apartment, rented house, or the occasional horror of having to move back in with mom and dad.

More often than not, the final decision as to whether to live on or off campus is not made by the student, but by a computer program which selects lottery numbers for the "Annual Housing Office Extravaganza." The students take a chance on getting a dorm spot but often end up disappointed, as were many last year when the first 100 percent lottery was held.

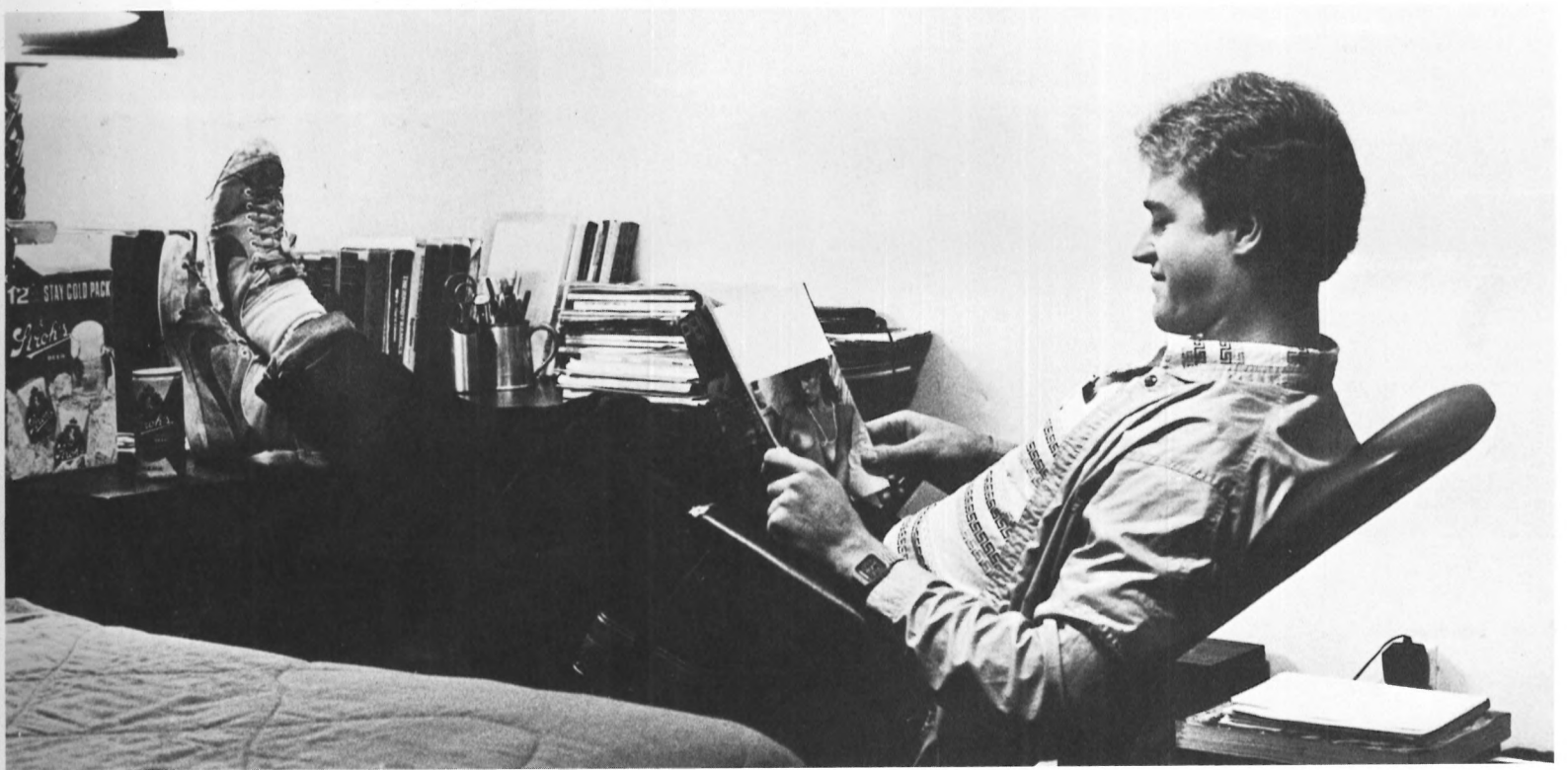
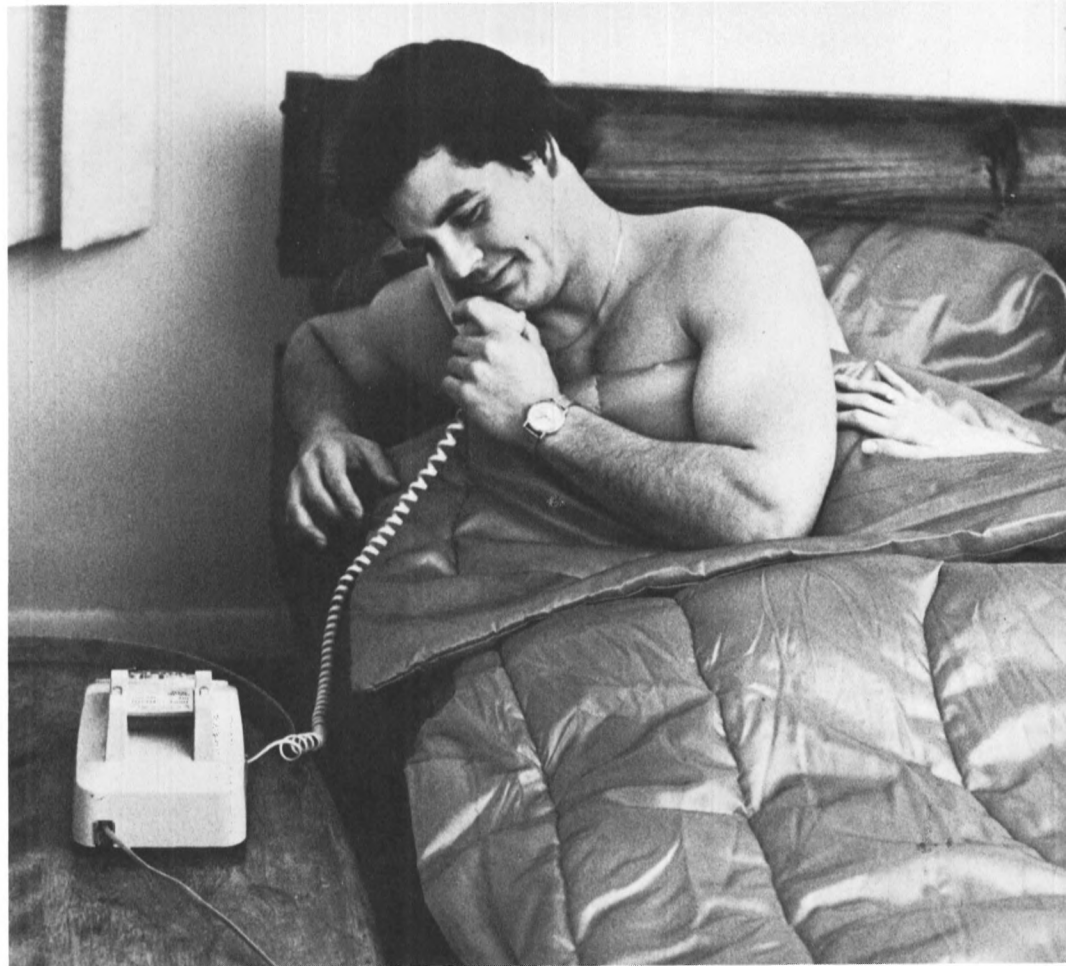
Acquiring off campus quarters can be as difficult as getting a dorm. In-town apartments near Tech continue to boast long waiting lists and local neighborhoods are filled with students who will take any house that comes on the market. For most Tech students, the housing game is a risky undertaking with winners being few and far between.

*TOP, LEFT TO RIGHT:* Corky Henry scrubs his "china" after dinner. A wandering hand tries to get Mark Lopiano off the phone. *BOTTOM, LEFT TO RIGHT:* Dave Cancellari relaxes with his "room-mate." Laurie Meeker catches up on the latest news. Charlie Fahrmeier with his favorite magazine.





## Off-Campus Residents Increase





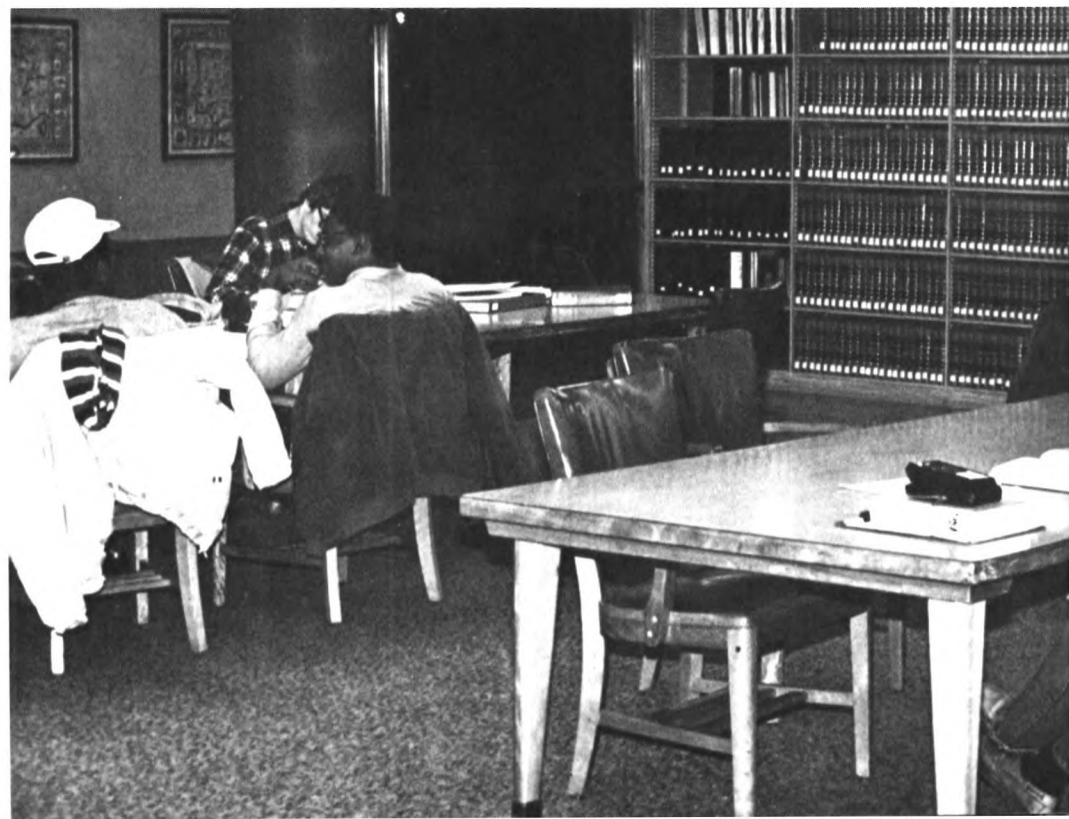


One of the first things that the incoming freshman picks up on is the Tech lingo. Preeminent among these phrases which describe Tech life is the word characterizing that curve-recking student with the calculator permabonded to his hand: "the Nurd." Although a trip to an unabridged dictionary might reveal otherwise, student legend has it that "nurd" is just a bastardization of "d.unk" spelled backwards. What this reveals is that even in the hardest of socialites, there is a little nurd trying to escape.

Other "party" schools point to the Tech student body and chastize it for keeping its collective head in the books instead of having a good time. While Tech students can party with the best of them, it is also true that if you shut a Tech student's textbook you'll break his nose. Tech students are alternately quiet and boistrous about their studying habits. Those same students who brag that they haven't hit the books in weeks are the same ones slying off to the library on a Saturday afternoon when they think that no one is looking.

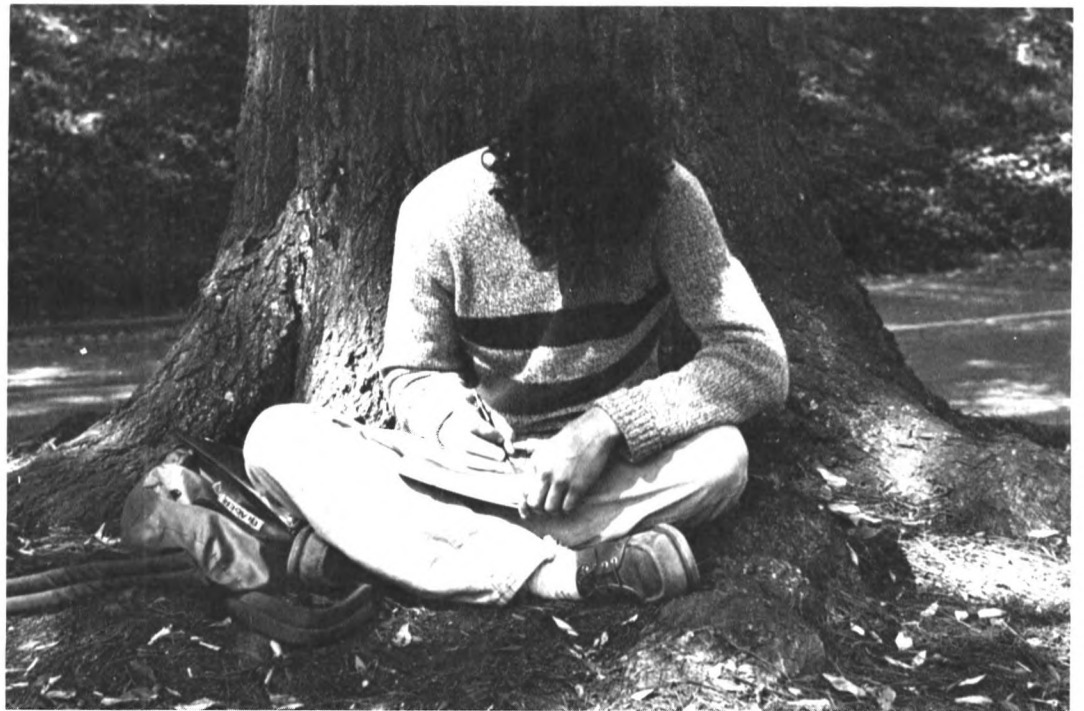
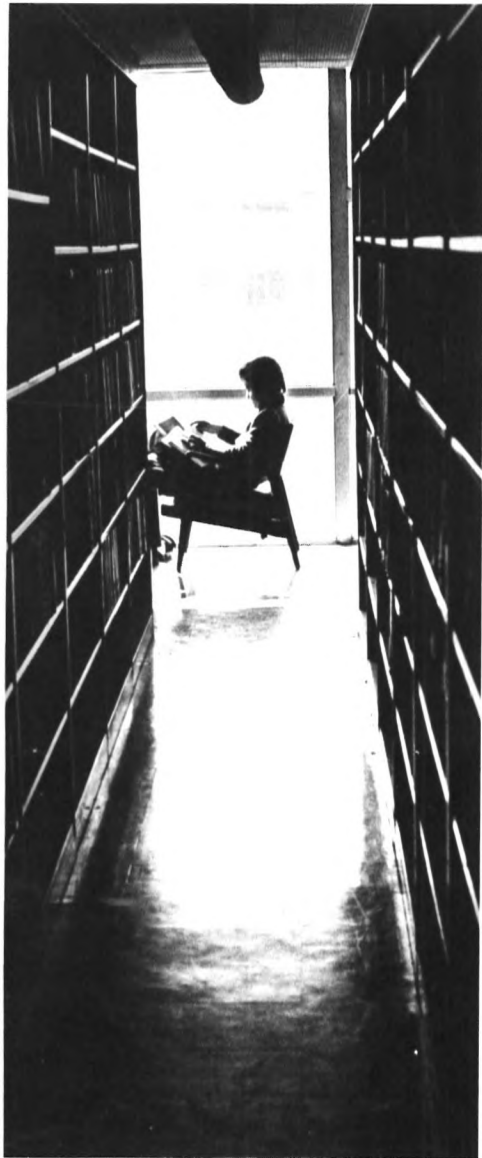
The simple truth is that if you want to survive here, you've got to study — even if your schedule includes "Rocks for Jocks," "Phootball Physics," or "Bricks for Kicks." Labs, design projects, exams and term papers are all a part of life at Georgia Tech. And whether we admit it or not, the rigors of the academic environment are one of the reasons we come here — and why we stay. We love the challenge, the blur of six tests, a lab and a paper all due in the same week. The hassle is something that we thrive on. It's obvious that we love it — or else we would just head to Athens for a four year vacation.

*TOP, LEFT TO RIGHT:* Late night homework problems have Eileen Thompson wondering whether she should get another cup of coffee or give up and start again tomorrow. Cavernous row of books frame a lone studier on Saturday afternoon. The peace and quiet of outdoors eases the rigors of nurning. *BOTTOM, LEFT TO RIGHT:* The Georgia Tech social center booms with activity. A blanket, some crackers, and Thermo.





## The Tech Essentials: A Calculator and a T-Square





# Top Aerospace Positions Go to Tech Alumni

We've made the point in numerous *Blueprints* that graduating from Tech means greater opportunities during later careers. We noticed that this point seemed well demonstrated by the aerospace industry, in which Tech alumni have risen to top corporate positions in a number of companies. We felt that these deserved recognition, and on the following pages you will find interviews with them. Also, Georgia Tech took pride in having another of her alumni in the command seat of the Space Shuttle *Columbia*. Through the courtesy of NASA, we are proud to present an interview with John Young and coverage of America's next step into the "high frontier."



## David C. Garrett

**Industrial Management, 1955**

**President, Delta Air Lines**

*David Garrett is president of Atlanta-based Delta Air Lines, whose recent moves in buying \$3 billion worth of new airplanes have startled his competition and drawn the admiration of the Wall Street Journal and Time. We asked him to comment on Delta's history, the problems that face the airline industry today and the technology making tomorrow's aircraft better.*

We started flying into Atlanta in 1930. At the time we began to grow a little bit, we were flying over to Charleston. In 1941, we also were given the authority to fly down to Savannah and up to Knoxville, Lexington and Cincinnati. Really, I guess, we took a page out of the railroad book. — Atlanta being a large railroad hub, with a number of railroads, we figured that the same thing could happen with air transportation so, we moved our headquarters here in 1941. It's been a good move for us and for Atlanta.

We for years, going back when I started, had a seasonal system. We would

do well in the wintertime, north-south from Chicago, to Miami. In the summertime, we'd kind of get a valley. So we began to work to develop a year-round system. Our system for the last twenty years has been balanced so that 25% of our revenue is in every quarter. We found that our system would not work unless we could go to the spoke-and-hub concept, because we had so much short-haul operation. We worked to insure that we would keep our small cities and feed them all into the Atlanta hub.

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*... We've expanded and will continue to expand under the new law. The impact on us has not been quite as drastic as it has been on some of the others, like Braniff.*

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It's excellent for Atlanta, because they get more service than they would any other way.

We opposed deregulation — not so much the fact that it would hurt us, we said all along that we would be able to work well, regardless of what the law was. But we felt that the change in the law would be bad for the small community, and that's really what's happened. Never-

theless, when the law was enacted in 1978, we said, "we'll proceed to move ahead with it," which is what we've done. We've expanded and will continue to expand under the new law. The impact on us has not been quite as drastic as it has been on some of the others, like Braniff for instance.

We purchased the 767 in 1978 — 20 with an option for 22 more. We get delivery of this airplane starting in October '82. The 757 order was a large order — 60 airplanes. On the other hand, when you stop and realize what you get out of these new airplanes, you don't have a choice. This small airplane, the Delta Three we're working on now, we expect with the technology that's available to be able to fly that airplane for less fuel than we're flying the DC-9 today. The fuel situation has been real tough since the embargo in 1973. We were paying ten-eleven cents for kerosene back in those days, and now it's over a dollar. The impact of fuel is so great — a one cent per gallon increase to us is \$11 million a year. That's why the engineering regimes are so important for the future. You've got to continue to make the airplanes more efficient, and thank goodness the technology is there to take this next step.





## Malcolm T. Stamper

**Electrical Engineering, 1946**

**President, The Boeing Company**

*Malcolm Stamper runs the Boeing Company, leaders in the field of commercial jet aircraft. Boeing is best known for its long line of successful airliners — the 707, 727 Trijet, the 737 and the giant 747 jumbo jet. Mr. Stamper relates his career with Boeing, a personal anecdote from his time at Tech and the difficulties of competing in the international marketplace.*

I went to work at General Motors — the Chevrolet forge plant, GM Technical Center and AC Sparkplug. At AC Sparkplug, they were actually building inertial nav systems for missiles. Boeing came looking for people with electrical smarts. They had a lot of "tin benders" and aerodynamicists, but all of a sudden they found that a good deal of the product was sophisticated electronics. I had done a fair amount of that — I was general superintendent of manufacturing and development on the Polaris missile electronics. So they brought me out here to

head their electronics operation.

From there they promoted me to general manager and vice-president of their gas-turbine business, which I proceeded to put them out of business very shortly, because we either had to build the world's best, according to Bill Allen, then president and chairman, or he wanted out of the business. I said, "You ought to sell this business." He said, "Go ahead and sell it." Then I was out of work. He said, "We're going to build the world's largest airplane, the 747 — would you run that?" So I went over to Everett and we built the airplane and rolled it out — from the start of the project — in two years, eight

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*... I said, "That can't be. I went to engineering school at Georgia Tech and they told me it was. . . impossible!"*

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months. Built the factory as well. I moved from head of the 747 to general manager of all Boeing commercial aircraft, to senior vice-president of operations, then I was made president in 1972.

I remember when I was at Georgia Tech, I took a course and I had a professor that said we could never leave the Earth because we couldn't get enough thrust and we'd burn up on reentry because of the heat. Now, I'm not that old. I sat in the cockpit with Neil Armstrong when he wanted to fly the 747 when he told me he walked on the Moon. I said, "That can't be — I went to engineering school at Georgia Tech and they told me it was going to be impossible!"

We're really in a struggle in this business. We like competition, we thrive on it, it's the American way, free enterprise — and we would build a better airplane, less expensive to buy, if there's good competition.

Over 60% of our business in 1980 was export business — it'll be over 63% this year. Boeing is competing with an airplane built by four foreign companies — the European community, really — who have the treasuries of all those companies. They've all banded together and our Government says, "We don't want to finance the big, healthy Boeing." It seems crazy to me. There's no way one little company can stand up the treasury of any one of those countries. We don't have any money to do that kind of competing. We're not a big, rich company — we're just 110,000 Americans that are trying to work.





# Modern Aerospace Thinking Marks Ormsby, Lewis

**Robert B. Ormsby**

**Aeronautical Engineering, 1945**

**President, Lockheed — Georgia**

*Robert B. Ormsby heads the Lockheed — Georgia Company, one of Lockheed Corporation's three main branches. Best known for the eminently successful C-130 Hercules cargo plane, Lockheed — Georgia was also the builder for the C-141 Starlifter and the C-5 Galaxy that today make up most of the U.S. Air Force airlift capability. Mr. Ormsby discusses what Lockheed is, the controversial loan-guarantee program of a few years ago, and his goals for the future.*

If you say we're basically into advanced technology aerospace, then I would agree with you. Lockheed Missiles and Space Company is big — they make the Fleet Ballistic Missile, they make some of the very sophisticated Air Force reconnaissance satellites. If you say we're primarily sophisticated aerospace technology, then yes, absolutely. We don't make consumer products.

Most of our business is overseas at Lockheed-Georgia. Most people think we're a defense contractor solely. I even get nasty letters about "a ward of the government," "exists by government subsidy," and typically a half or less of our business is with the U.S. Government.

We build the C-130. But we also have versions of the C-130 that we call the L-100, which are used around the world. We're involved in stretching or elongating the fuselage of the C-141 *Starlifter*, an airplane we built some years ago. We are in about the third phase of a four-phase program to modify the wings of the C-5 fleet. I might add, and I should particularly point out with pride to the 141 stretch and the C-5 programs as being ahead of schedule and under budget.

The Lockheed loan guarantees started, I guess, with the Lockheed corporation being involved in a number of contracts, including the C-5, which ultimately turned out to be unworkable — not speaking from just a Lockheed point of view. Because of this inflexibility, we ended up in a cash problem and this was compounded further by the L-1011 in that engine manufacturer, Rolls-Royce, went bankrupt right in the middle of all this. If you can't get engines, you can't deliver

airplanes. If you can't deliver, you don't get paid. We had an economic price-escalation clause on the C-5, which you would expect a prudent businessman to have. The government never allowed it to operate.

Many people still think that the Treasury somehow pumped lots of taxpayer money into us. It might be well to point out that there was hardly any way it could have because, in the event of bankruptcy (which didn't seem likely), then the guaranteed loans had first call on our assets,

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*... It ended up making about a \$30 million net profit for the taxpayer.*

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which were worth more than the amount the Government guaranteed. It ended up making a net profit of over \$30 million for the taxpayer. That's how it came about and it turned out very well.

Our military penetration — market pen-

etration — is in the airlift side, military cargo airplanes. As a result, we're in the position of watching the brass ring on the merry-go-round come around once every ten years. I'd like to expand into markets that are not that dependent. The L-100 commercial *Hercules* is an effort in that direction. I'm trying to expand our international operations and include perhaps joint ventures with other countries.

There exists today a shortage of investment capital that will probably exist until the year 2000, at least. The stumbling block is not the technology. We can fly at Mach 6, we can fly at Mach 12. You want to fly around the world? We can do that. But where do you get the money to invest in it? My goal is to get a number of those joint ventures underway to produce airplanes or aerospace technology, products of the kind we know how to do. But I'm not limited to that — if we find something which fits our skills and knowledge and we can make a successful program out of it, we'll certainly do that.







## **David S. Lewis**

**Aeronautical Engineering, 1939**

**Chairman of the Board and**

**Chief Executive Officer,**

**General Dynamics**

*David Lewis chairs the board of America's largest defense contractor, General Dynamics. Here he talks about his career, the new F-16 fighter and the elements for success in aerospace.*

In 1939, practically for the first time in a long time, there was actually recruiting. Not by people coming around, but at least they sent you some forms to fill out. I went to the Glenn L. Martin Company in Baltimore, when they were just beginning to build up for the war. In 1946, I left the Martin Company (and I stayed there the entire war), which was really booming then. Then I came out to McDonnell as Chief of Aerodynamics — it grew and merged with Douglas. I was president of McDonnell-Douglas. Having stayed there briefly for twenty-four years, I had the opportunity to be chief executive officer at General Dynamics a little over ten years ago, and that's where I am.

When I was at McDonnell, we built the original spacecraft, including the Gemini that (John) Young had his first space flight on. I got into the fighter business — the best in the world were right here at McDonnell. The transport side was Douglas. Delta was always a tremendous

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*... I did a little bit of work on it (the F-16) — over the dead bodies of some of our junior engineers.*

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Douglas customer. All their jets were Douglas, until this last wave, they decided on the Lockheed 1011. But I've known Garrett a long time too — everybody knows everybody.

Our biggest program's the F-16. It's fantastic. It's a 9-G airplane, which means it can pull nine times the force of gravity all day long. We've got the pilot back reclining with his feet up high, and he's got no stick — it's all fly-by-wire. It's high-powered — off the ground in no time. I still get very, very pumped up on things like the 16, and I did a little bit of work on it — over the dead bodies of some of our junior engineers. I've even been to 8.3 G's when I took a ride in the airplane.

You say how did it happen — first, you've got to be lucky and be at the right place when the opportunities come. You have to be in a good company, a growing company, or you can't grow within the company. From that background of good luck, which I've had plenty of, I think enthusiastic interest in whatever we've been doing at whatever time is the single thing ... coupled with that, I'm a very detail-oriented person. I've never found that to be very hard. If you're really enthusiastic, you don't mind really digging and understanding and getting into that detail. You'd better have the full information you can get and hope you come up with the right answer.

You see companies get up here and sag down — some of them just sag out and are never heard from again. If you don't have the engineers, and you don't keep bringing them in, that's the end. That happened to this company — they stopped recruiting in colleges. But the kids are learning more. They're learning different things, they have new ideas. So we do an awful lot of recruiting. We get a lot of boys from Tech — girls, too.



## Astronaut Alumnus Leads America's Return to Space

*There have been only twelve men on the surface of the Moon, and one among this select company is Georgia Tech alumnus John Young. Young was selected for the astronaut corps in September 1962, after a ten-year career with the U.S. Navy, where he was chosen for flight school and then Test Pilot school. His NASA career has spanned four space missions, and he now serves as Chief of the Astronaut Office and commander of the maiden flight of the Space Shuttle Columbia. Yet it was an incident on his first flight, Gemini III, that first brought him to the attention of America . . .*

I knew it was going to be a pretty tough flight, so they arranged, they gave . . . gee, it has been a long time. Anyway, I ended up with a corned beef sandwich and I gave it to Gus (Grissom) to eat about halfway through the third rev. At the time Gus ate it, he really didn't know which way the spacecraft was pointing,

because the inertial system in there and the alignment system weren't operating as we'd planned them to operate. We were very concerned about that — it was a night pass when you couldn't see which way your yaw axis was supposed to be — so it was set up to relieve the tension of that moment.

All our missions were about as tough as we could figure out how to do, for the systems we had working for us. Like on Gemini III, we had to do a complete flight test on a vehicle in three orbits. On Gemini X, we were going up to do two rendezvous, one with a vehicle that had been launched just before we were and one with a vehicle that had been up there three months. Before we started these missions, nobody had any idea how we'd go about doing it. Apollo X was the same way — we were going to test all the Lunar Module rescue techniques for the first time. Apollo XVI was the first mission to the lunar high-

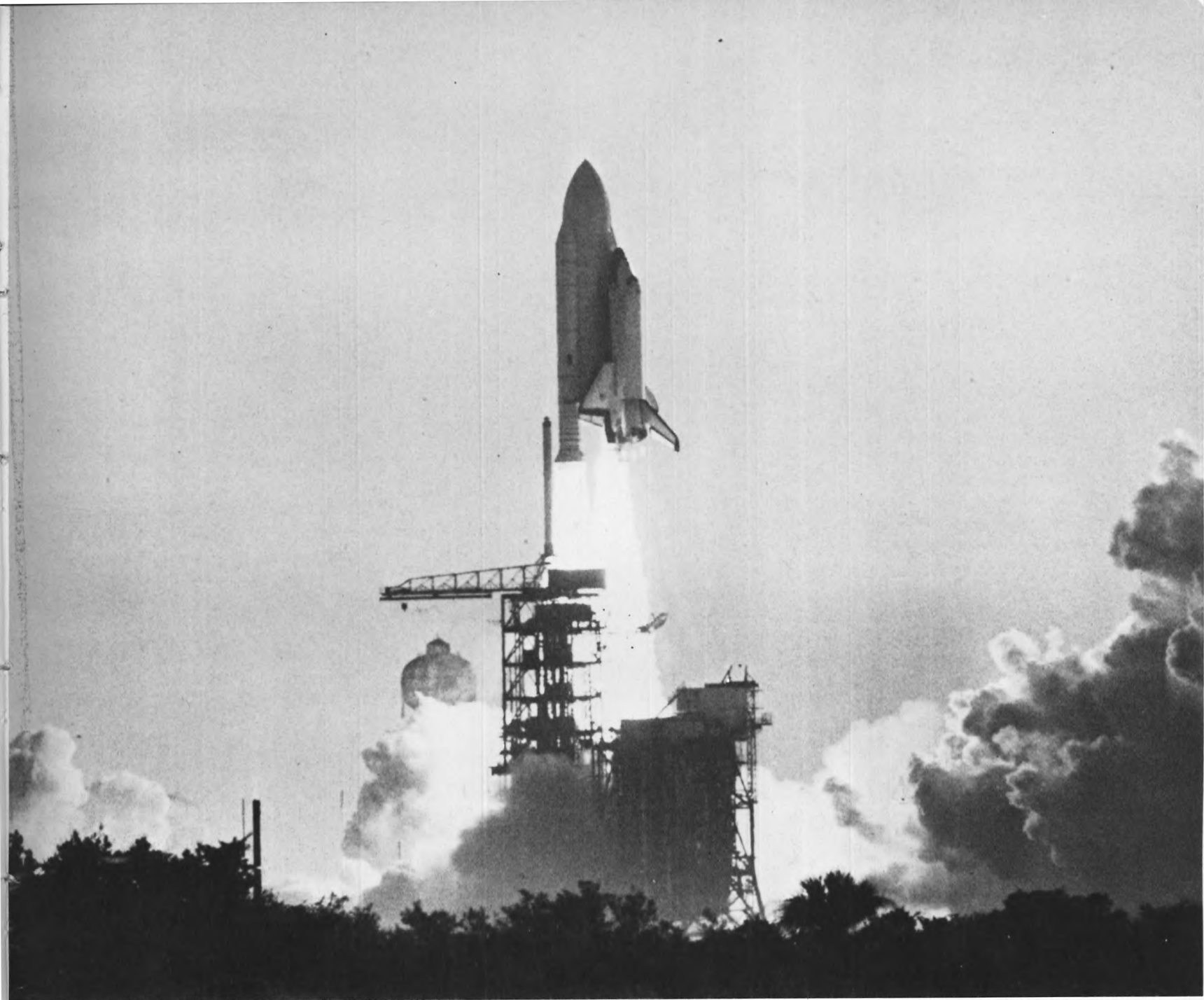
lands. We had planned some pretty impressive traverses and we didn't get to complete them all because we bit off more than we could chew on that mission.

The Space Shuttle is a very sophisticated vehicle, and all our people here worked on it. They participate in the design reviews, systems reviews and certification reviews. We've been participating in the engineering design development of the Shuttle. In addition to the design of the vehicle, there is a function called "mission techniques and procedures" with the flight operations people that design the techniques that are being used in operating the vehicle.

I've not only been running the Space Shuttle group, but also the Astronaut Office. That's a pretty interesting administrative job, because they're all self-starters and they really do a lot of good work in a hurry and they work long hours — they're trained like Tech men.







They've had lots of problems with the engines. It's an advanced technology engine. Very lightweight — for 65,000 pounds, which is all the total engines weigh, they'll put out at 109% 510,000 pounds in a vacuum. That is really a tremendous power output for the weight. The high-pressure oxidizer and fuel pumps weigh about 400 pounds apiece and put out 68,000 horsepower. That's more power per pound than any piece of equipment ever developed in this country. Well, you design your engine as best you can and then you've got to test it. To me, it's not unusual to have failures in it. Then you find your problem and you fix the thing. We had the same problems in Apollo — I remember only too well the Lunar Module had 200 single-point failures for the engines to start when you're sitting there on the Moon. Believe me, you used to think a *lot* about that when you were sitting on the Moon. But it worked.

The tile problem is a tough problem. It's very complicated how they do those rascally tile loads, it's mighty sophisticated and I think very conservative. They're designed for a 1.4 safety factor at maximum dynamic pressure — you're talking about a design that'll really take it. They're amazing insulators. You can take this rascal, and if it's hot in a furnace at 2800°, you can bring it out with your bare hands. They're correcting those tiles. The thermal people are generally very conservative, because we did Apollo and Gemini and the heat shield was at least twice as thick as it needed to be. That's the place to have conservatism, because things sure would be hot.

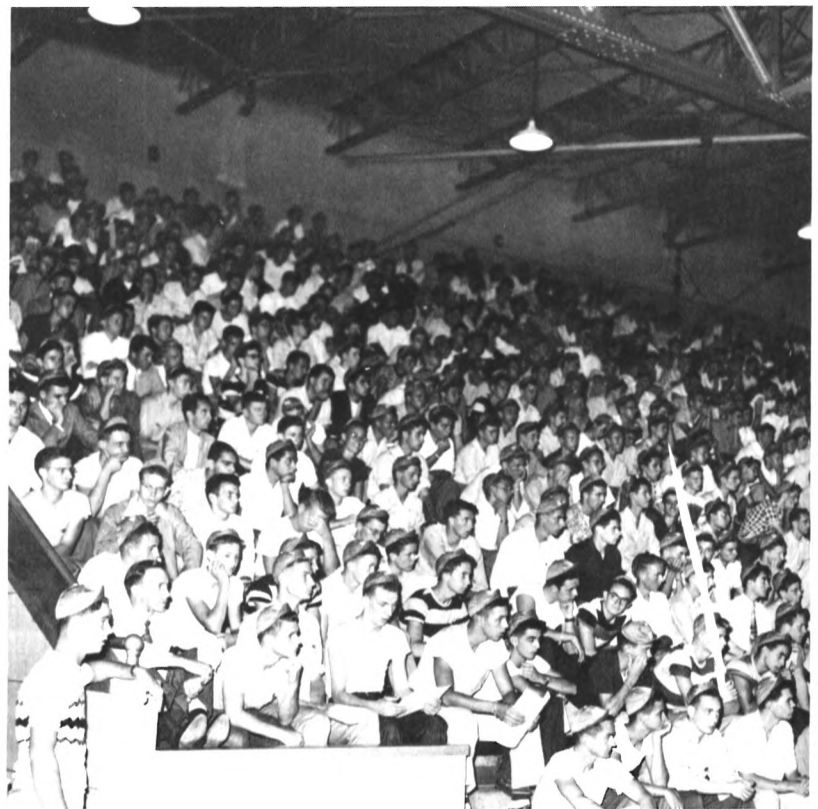
Needless to say, one of our big problems is program cost. If we'd had just a little more money back when we first started, then we could have bought more engines and run more tests earlier and we could have done the tile loads analysis

earlier — maybe we wouldn't have some of these problems now. It's just standard old engineering. I think that engineers that don't have problems, they don't have a job. And it may be that we've been too conservative on some of these measurements.

I've worked a lot of hours. I think it's coming. We haven't even touched the surface of what we can do in space. The sooner we get on and do it, the better off we'll be. Our crew is pretty well-trained and ready to fly. We'll get there.

*Young and his co-pilot, Navy Captain Robert Crippen, lifted off from Kennedy Space Center on April 12, 1981, after a minor computer problem forced a two-day delay. After a virtually flawless fifty-four hour mission, Young and Crippen landed Columbia on the dry lake bed of California's Edwards Air Force Base. Young's verdict on Columbia: "It's really something special."*









## Tech Standards Established Early

When N. E. Harris founded the Georgia School of Technology in 1885, he would never have expected it to achieve the reputation that it has in the years since it was decided that Georgia needed a technical school. The students who have poured in and out of this place have been the predominant force in creating and maintaining her national prestige.

The early years played witness to the formation of Tech's sports teams as well as its schools of learning. Coaches Heisman and Alexander strived to build a program that would eventually reach number one prominence. Tech students displayed an avid support for their school while still holding fast to their basic goal of knowledge as a result of hard work and perseverance. Life was simple: you went to

school and took brief breaks in between to eat and sleep.

As time went on, Tech changed as the country did. Students lived through the First World War, prohibition, the Great Depression, and the drama and tragedy of World War II. Each of these events had a profound effect not only on the school itself but especially on its students. At the crossroad of their lives, they were forced to face the horror of war and the risk of unemployment, even after graduating from one of the nation's most rapidly developing institutions.

*TOP, LEFT TO RIGHT:* Quartet poses in front of the tower. The Hog and Hominy Parade. *BOTTOM, LEFT TO RIGHT:* Tech's first coeds? Rats begin their college career. Tech in its football heyday. Members of an early graduating class.





# Students Avoid Social Turbulence

World War II brought economic growth and a demand for technical skills. Tech graduates contributed their knowledge to industry and the promotion of progress. The ensuing years brought not only growth on a large scale but growth at Tech in the form of a first-rate football team with Bobby Dodd at the helm.

Tech students of the late 60's were attending school during a period of nationwide college unrest. In spite of the rising turbulence and instability around the country, Tech was relatively peaceful and calm by comparison. The era of the Vietnam War, the assassination of a president, and a bloodbath on the Kent State campus had its effects on the students. But the conservative student body was not as likely to be vocal in demonstrating

their reactions to these occurrences.

As America's most humiliating military experience ended, the Tech populace settled down again to concentrate on school. Even though newspapers still carried daily stories on such items as Watergate, a presidential resignation, and the subsequent election of a Tech alumni to the Oval Office, students really care.

The years forced change upon the Tech students, yet the students maintained their steadfast devotion to the reason why they had come to Tech and withstood the winds of change with very little difficulty.

*TOP, LEFT TO RIGHT:* Long lines were as prevalent in the past as they are today. An eager campaigner gets in the '68 spirit. A convenient mode of transportation. *BOTTOM, LEFT TO RIGHT:* Coed displays the utmost in 1960's fashion. Would-be pirates with their latest treasure.













# Years of Change Fail to Alter Students' Attitudes



As the seventies came to a close, the mood around college campuses changed from one of rebellion to one of conservatism, an atmosphere that had existed at Tech for the majority of those turbulent years. The tourists poured into Georgia to see the home of the President. Not only was Carter's home state in the national eye; Tech could boast that he had begun his college education on her soil. The year 1978 saw the school celebrate her ninetieth anniversary as a university.

Nationally, prices began to climb, especially at the gas pump. Tuition for college students rose also, making it harder for some to get by while trying to remain in school. Though the country was not involved in any major conflicts, problems did manage to spring up. The Russian invasion of Afghanistan, the Olympic boycott, and the Iranian crisis all created their shares of worry about the stability of the world, both on campus and off.

The eighties arrived and witnessed many changes at Tech. The athletic program began a mental upswing with the addition of Homer Rice and Bill Curry, who promised students and alumni alike an improved sports administration.

Bobby Dodd, a Tech tradition, celebrated his fiftieth anniversary at Tech. A positive physical addition was the start of the Intercollegiate Athletic Center. Other improvements occurred on campus, such as the new Architecture Annex and Yellow Jacket Plaza, with optimism centering around the construction of a new dorm.

The backbone of Tech, her students, remained basically stable and persevering throughout the many transitions affecting them. When it came to placing their priorities, each student knew what was expected of them. They all shared the same dream that was in the minds of that first class in 1888. They realized that when graduation day finally arrived, they would be able to join the ranks of those who could proudly say that they attended Georgia Tech.

*TOP, LEFT TO RIGHT:* A lowly Rat waits with the other rodents as they prepare to applaud the football team when it comes on the field. These students eye their watches as they await the arrival of the infamous Stinger. This coed seems loaded down as she makes her way from the library to the student center. *BOTTOM, LEFT TO RIGHT:* Three Lambda Chi's make the most of a Saturday afternoon as they live it up at the football game. The new athletic center will be a handsome addition to the Gothic atmosphere of East campus.





# Tech Suffers Sharp Growing Pains

Classrooms seem much smaller, more students are rushing up the hill at 8:05 in the morning, and the two person cubicle you used to share with your roommate is now fought over by the four of you. Those of you who haven't noticed these bizarre events had better get your heads out of the chemistry books and pay attention. We at Tech are in the midst of a student enrollment boom.

Tech's enrollment has been rapidly increasing, while that of other state institutions has dropped off. An industry shortage of engineers and high salaries for the annual graduates can be partially blamed for crowded incoming classes of would-be engineers. From a beginning class of 129 students and one engineering field, Tech has expanded its curricula to include four major colleges, with eleven engineering schools and specialization in a variety of areas. With all this to offer, it's no wonder that Tech is swamped with

eager applicants with dreams of big bucks.

It is becoming more apparent that our increased student numbers involve a lot more than just crowded Stingers and sidewalks. Serious shortages of dorm space, parking places, and classrooms have unfortunately become a common part of student existence at Tech. Promises of a new dorm and the groundbreaking for the new IM/IE complex gave students a little hope during the year. Still, students patiently wait for some physical results to relieve them from some of the pushing and shoving they are experiencing at Tech.

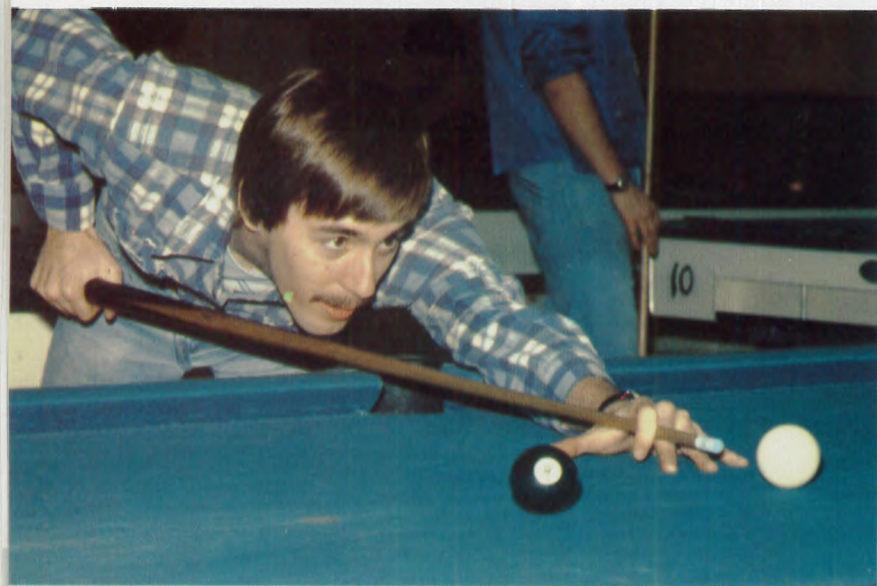
*TOP, LEFT TO RIGHT:* Overcrowded classrooms have become commonplace. Students packed to student center third floor to have their BLUEPRINT portraits taken. *BOTTOM, LEFT TO RIGHT:* A Hewlett-Packard recruiter lures a future engineer. Eighteen hundred jammed FASET sessions like this one. The Stinger is always crowded during class breaks.













## Recreation Breaks School Monotony

When the books and tests get to be a little too much, the Tech student has a variety of activities at his disposal. If you want to get away from the library yet remain indoors, the Rec Area in the student center is an ideal haven for study dodgers. Between pool, bowling, backgammon, and the pinball games, there are enough things to do to keep any person distracted longer than he intended to be.

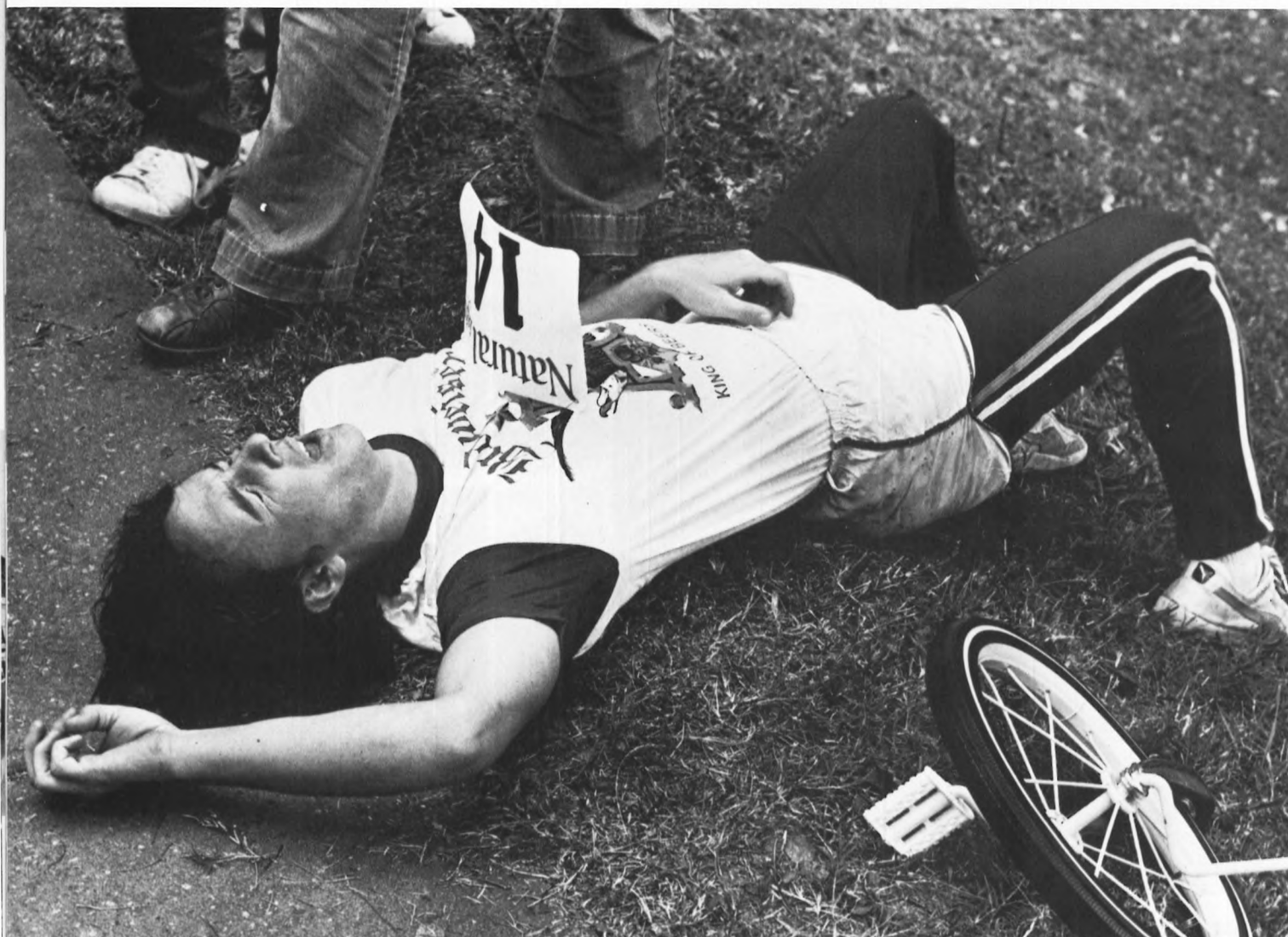
If the weather cooperates, a person can find a myriad of activities to occupy himself with. Running has become a pastime for many students, who can be seen daily on their fixed routes around the SAC or Grant Field tracks or around campus. An object that seems to appear as soon as the weather gets nice is the frisbee. Numerous flying disks can be seen sailing across the campus streets as cars try to dodge them. Those students who complain that there is nothing to do at Tech but study are missing an endless variety of pastimes.

*TOP, LEFT TO RIGHT:* An amateur Minnesota Fats eyes his target carefully during a pool tournament. A frisbee gets a good workout as its "pilot" sends it flying across the student center lawn. *BOTTOM, LEFT TO RIGHT:* An industrious jogger makes one final trip around the SAC track. The Rugby Team takes time out from the rigors of practice to mess around on the field. A relaxing game of cards gives these students a chance to use their minds for something other than studying.





## Transition Leaves Tech Character Intact



As time passes, the students of Georgia Tech change in many ways: fashion, music, political views, interests and tastes, to name a few. Today, women are more abundant; rat caps aren't; Saturday morning means sleeping, not class; and ROTC is voluntary, not mandatory. Transition is inevitable, and yet the spirit and drive that characterized the first Tech students in 1888 has not changed.

There is still a sense of dedication and discipline in each and every student. When the easiest alternative is quitting, this spirit keeps the Tech scholar at the task. When faced with a momentary setback, Tech men and women keep their eye on the end result.

The achievement represented by a class ring and diploma is something that

will remain with a Tech graduate for the rest of their life. But in addition, Tech people earn that priceless intangible: pride. The pride associated with being a graduate of Tech continues long after graduation. It explains the fact that the Tech alumni association is among the strongest in the nation. That pride is the undisputed identity shared by students past and present, withstanding the transition from decade to decade. It remains the steadfast trademark of Georgia Tech.

*TOP, LEFT TO RIGHT:* Exhausted triker rests during a pit stop at the Mini-500. Dan Carey dons an aviator's cap to disguise his lowly rat image. This glorified pumpkin has that great Tech spirit. *BOTTOM, LEFT TO RIGHT:* Co-eds muse on the proceedings on the sidelines during the Notre Dame game. Terri Leblanc and Pete Sherrill take a break from Homecoming activities.



