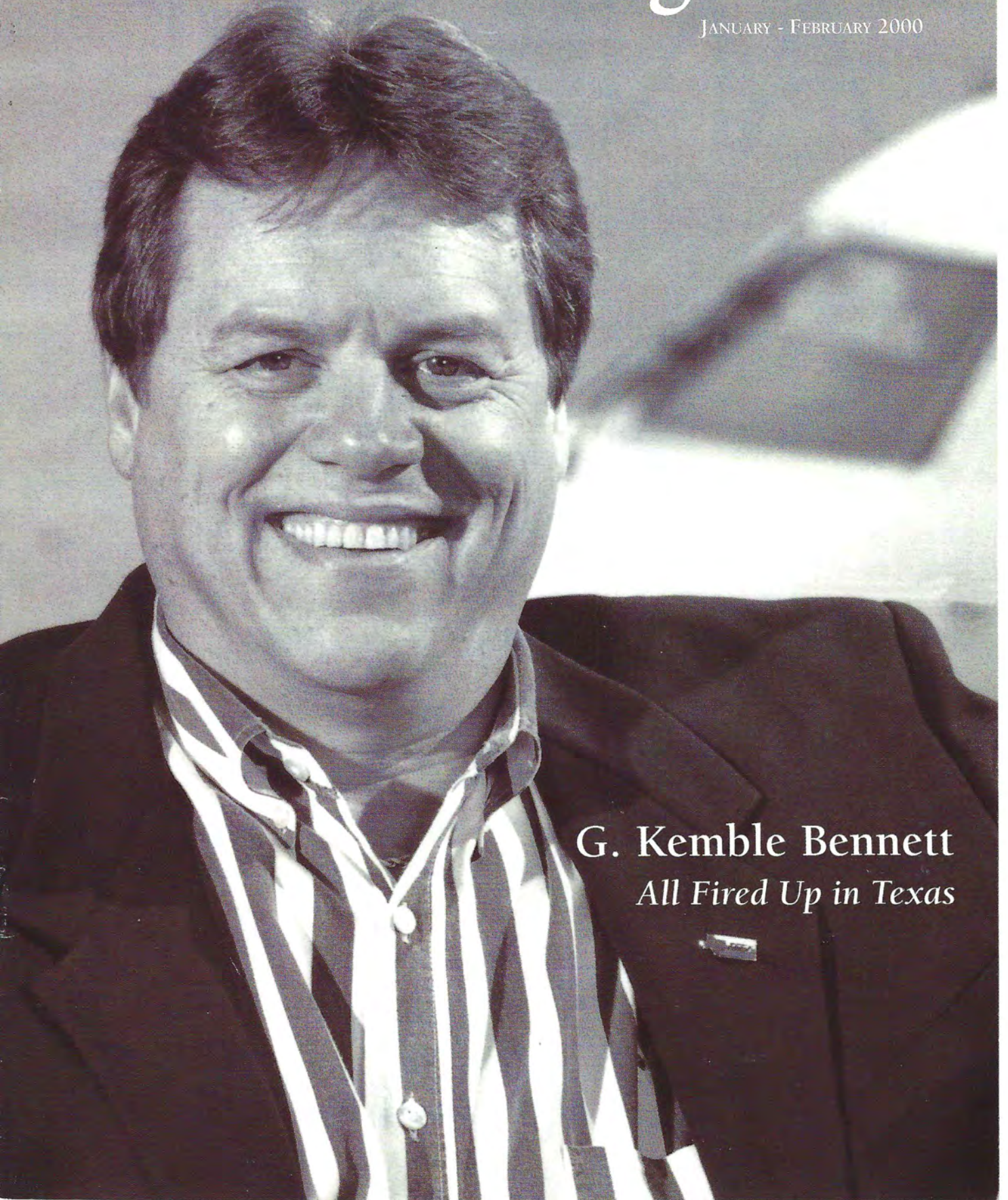
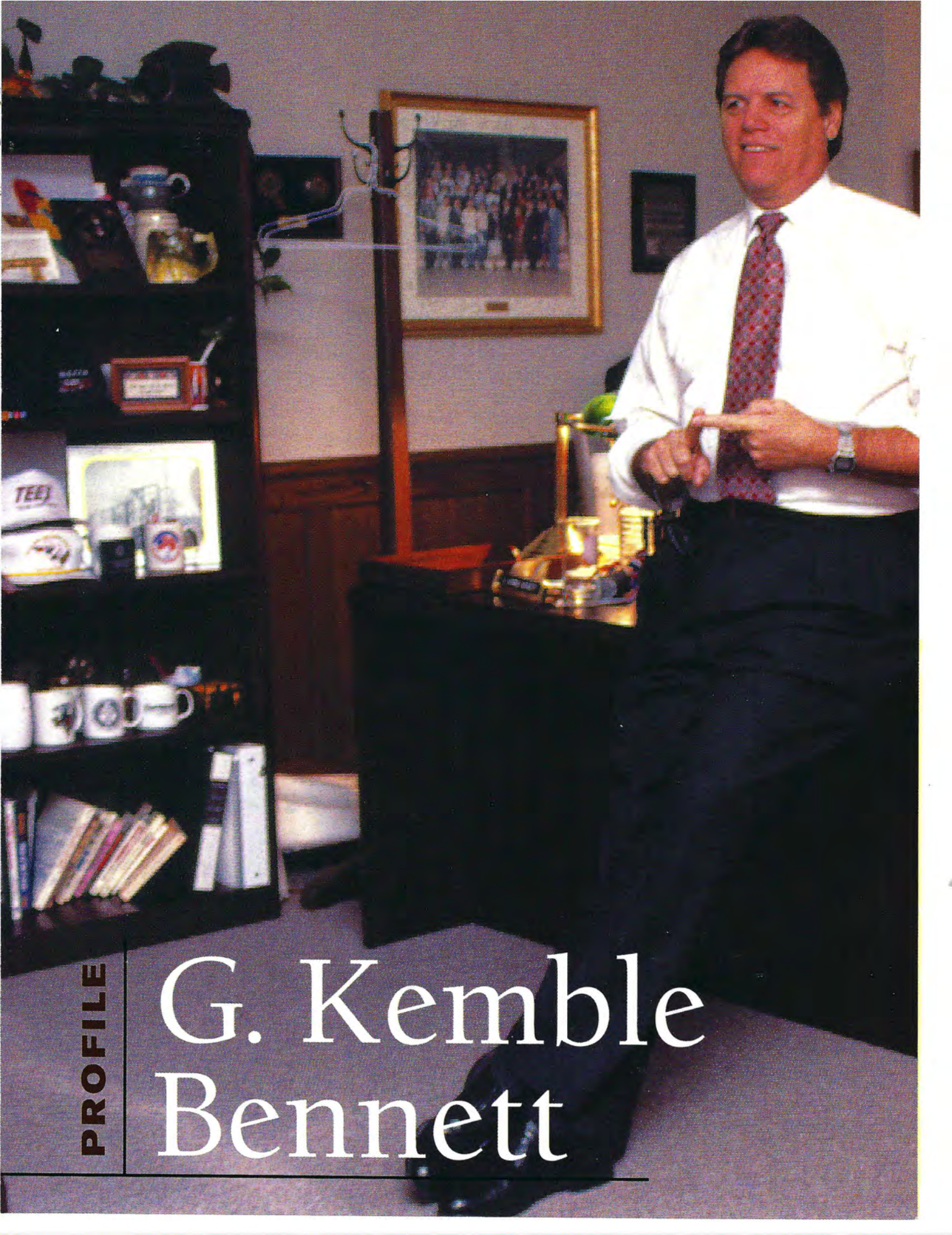


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G. Kemble Bennett
All Fired Up in Texas



PROFILE

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All Fired Up in Texas

By Eric Minton

Oklahoma City. The World Trade Center. Olympic Park. Unabomber. The Washington and Vermont border crossing arrests. The United States is involved in a veritable world war, and the battlefields are American communities. The enemies are fundamentalist Muslims, militiamen opposed to their own government, and anybody else who might have a beef. The first line of defense against such terrorism is local emergency responders.

The man marshalling those frontline troops is G. Kemble Bennett — a math whiz and industrial engineer in College Station, Texas. “I go by Kem,” he says. That’s a fitting school-boy moniker because, with a wave of black hair atop his youthful countenance, he looks 35, maybe. Only when you glance over his curriculum vitae and add up the experience do you begin to wonder if the director of the Texas Engineering Extension Service (TEEX) and associate vice chancellor for engineering at Texas A&M University is in league with Mephistopheles, Dorian Gray, and Dick Clark. Gary L. Hogg, professor and chair of industrial engineering at Arizona State University, likens Bennett to former Denver Bronco quarterback John Elway. “They look so much alike it’s uncanny. And that grin — like Elway’s. They have to be brothers.”

What is TEEX?

TEEX — the state agency that Bennett directs — comprises 10 state universities and 8 agencies with a total staff of 480 people to deliver firefighting and rescue, as well as counterterrorism training, to 125,000 workers annually. TEEX has a \$57 million annual operation budget, only 10 percent of which comes from state coffers and is earmarked for specific pro-

grams. "Like any business, we have to earn our way by what we do," Bennett says.

"Most of the people we train are in skilled jobs, but the bottom line is they are better off because of us, and the companies they work for stay healthy and competitive in a world market. Those are kind of fun things to be involved in. Anyway, that's why I ended up over here. And it's been a trip."

For a man who had committed his previous 22 years to industrial engineering scholarship, the move to TEEEX was not as big a jump as his collegiate colleagues believed. Bennett is heading an organization that, as he says, helps people get job skills, keeps them out of prison, takes them off welfare, and helps them move up in high-skill professions. "I don't want to get too philosophical," Bennett says, "but when you're a teacher, helping people is what drives you. If you're a true educator, your joy comes from being around those students and seeing them learn and go out and do well, knowing you were a part of that."

Down-home friendliness disarms

"Most people are really shocked when they find out my age," Bennett says in a languid drawl that's equal parts rural Florida and Texas Aggie. "Sometimes it hasn't helped because people look at me and say, 'Hell, he's so young he doesn't know what he's doing.' And sometimes that's helped me, too." He chuckles. It's a multidimensional laugh. Bennett is savvy, no doubt about it. He has deftly maneuvered his way through the political minefields of academia, the Texas statehouse, and Washington, D.C., to become one of the most influential industrial engineers today and the nation's de facto leader of terrorism response. His down-home demeanor, in addition to his apparent lack of years, can disarm people not expecting the potent one-two combination of his keenly analytical mind and intuitive insight, inevitably followed by an uppercut of blunt honesty.

But, too, Bennett just likes to laugh. Colleagues regard him as they might a guru come down from his Tibetan mountaintop to hang with the boys. "He has a very dynamic personality that made him effective in smoothing things over when two or more people were very hot under the collar on controversial issues," says Marlin U. Thomas, director of the Institute for Interdisciplinary Engineering Studies at Purdue University, who has known Bennett for 25 years through their work together for the Institute of Industrial Engineers. And how does he do that? "He has a very friendly and persuasive



pleasantness about him that made others listen to him. He's also a big guy."

"He was a rowdy guy who every once in a while liked to let his hair down," recalls Hogg, who, as a faculty member at Texas A&M, helped lure Bennett from the University of South Florida to chair A&M's IE department in 1986. Of his time as second in command until Bennett was appointed associate dean of the engineering school in 1991 Hogg says, "I learned a lot about the passion for excel-

lence. It was a good opportunity to learn about leadership under him." Hogg also recalls: "He was a very good person in terms of developing esprit de corps."

"All of us keep track of the people we believe have a profound influence on us," says Del Kimbler, chair of industrial engineering at Clemson University, who was both an undergraduate student in the mid-'70s and a faculty member from 1980 to 1986 under Bennett at South Florida. "Other than my wife, there have been three people like that in my life, and Kem is one of them." It wasn't all scholarship, though. "He was fun loving. A very caring person. Fun to be around." "To some extent we were just a little wild and crazy," says Kenneth E. Case, a regents professor of industrial engineering and management at Oklahoma State University and director of the master of science in engineering and technology management. He served on the faculty with Bennett at Virginia Polytechnical Institute from 1970 to 1974. "Kem has always been a hard worker. If you look at his career he's obviously been a leader; he's been a good decision maker and manager. In retrospect you see he had all that in him then." And, in summary Case says, "We sure had our good times the last 30 years."

"One of the things I can do is walk among Ph.D.'s and presidents, and I can also go sit out there on the fence with Bubba and chew tobacco if we have to," Bennett says.

Bennett's conversations testify to his varied talents. He loops from mathematical principles to observations of human nature to systems analysis to backyard witticisms, all laced with a fair dosage of laughs, chuckles, and interjections of "doggone." "He's unique because he can communicate with everybody," Thomas says. "He knows how to adjust his communication skills to fit in a very positive way the groups he's trying to communicate with." Bennett in fact left his position as associate dean of engineering at Texas A&M in 1992 to take the job as TEEEX director — thereby foregoing other engineering schools interested in him for their deanship vacancies

— because working with rank-and-file workers appealed to him. “I guess in some ways I was lured because these were like my folks, too. My father was a sawmill worker, and my mother sewed and did other things. My whole family were skilled craftsmen-type people.”

At eight years, it's the longest trip of his career, surprising even him. “I told people when I came here I've never been able to hold a job over five years,” he says. “This job has had so many changes and phases that it's still

very exciting.” If there's something that makes this educator's heart beat faster, it's a challenge. Job services training has become a much more dynamic field, with distance learning technology and new teaching methods to match recent studies on how adults learn. Bennett has used his visioning techniques and systems management principles to reshape not only the TEEEX organization but the delivery of training methods, particularly simulation. “We continue to go through change; in fact, I think change is our name.”

Change comes to TEEEX

One of the biggest changes came with TEEEX's fire and rescue training program, the largest of its kind and internationally renowned for its Brayton Fire Training Field, where firefighters from every state and 60 countries train. In 1996 the Fire Protection Training Program's director left, prompting Bennett to take a closer look at the whole field of emergency response. “I foresaw a big technology push. Up to then it was pretty much what I call putting white stuff on red stuff, which is water on fire.”

So Bennett appointed as division head ... himself. For two years he directed the Fire Protection Training Program. “It's probably the job I'd like to go back to. It was great fun, great people to work with.” He's still an instructor in the summer school, teaching a course on chemical plant fires. While he pushed for expanded use of technology in fire training, especially computer simulation, his own education in emergency rescue forged a major new direction for the program, one that came into sharp focus after the Oklahoma City federal building bombing. His agency has a state-appointed role to coordinate rescue assets during large-scale emergencies like hurricanes, tornadoes, floods, and terrorist acts. “I had been signing that document for three years — they brought it up from downstairs, said ‘Here, sign this,’ and I said, ‘OK.’ [But after Oklahoma City] I read that document and found out, ‘Oh my God,



I'm responsible. What if that happened in Texas? Would we be prepared?”

He created the Urban Search and Rescue Team for Texas and, of course, he's on it. “I get to ride around in helicopters and fly planes. I get to go out in the field with the guys and dress in my little uniform. It's wonderful. I'd rather do that than sit here any day.” He also began broadening, philosophically, the role of the firefighter. “We started crafting a vision. What other things are firefighters going to

do in the future? If you need a gun, you call a cop. If you don't need a gun, you call a firefighter, if that means your washing machine is overflowing or your cat is in the tree or a car is wrecked. And usually if you need a gun you call a firefighter, too, because they need to show up with an engine company for support and do all the emergency medical stuff. The role and scope of the firefighter has changed.”

The role and scope of modern warfare has changed, too, not only in the type of war waged — through terrorist acts — but in the arms of choice: weapons of mass destruction and biological and chemical agents. “When an incident happens, it's the community's responsibility to handle it,” Bennett says. “Like in Oklahoma, who was in charge? The fire chief was the incident commander. Everybody supports him. Plus, how long is it going to take to get the federal people in after a terrorism incident? Well, I tell you, it's going to take a little while to mobilize all those resources. Who's going to be there at ground zero? The firefighters, the police officers, the emergency medical people.” And these people, Bennett realized, were vastly undertrained for that responsibility.

Change goes national

While his agency worked on training Texas municipalities, Bennett took his concern to the national level, working with U.S. Rep. Curt Weldon of Pennsylvania on legislation and, because he saw the Department of Justice taking the lead on the issue due to the FBI's mission, Attorney General Janet

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Reno. "I don't care what anybody says, this woman cares," he claims. She also preached patience. "I guess I came across to her as impatient," Bennett says wryly. "She said, 'I've got two years; I'll get this accomplished,' and doggone it if she didn't go and do it." She persisted in carrying Bennett's platform even against forces in her own department who wanted federal control of terrorism response.

"My platform was very simple: Those who train firefighters now are the ones who should transfer that knowledge to the firefighters because those networks already exist. We know how they think, we know their training programs, we know where to integrate material on terrorism and weapons of mass destruction into current training methods and scenarios." Other training institutes expressed similar concerns: the Department of Energy's Nevada Test Site, with its mock cities sets; New Mexico Tech in Socorro, with its engineering program focusing on explosives; the Center for National Preparedness at the Army's former chemical biological center in Fort McClellan, Ala.; and Louisiana State University which, like TEEEX, has a well-known fire-training academy and a counter-terrorism program.

These entities and TEEEX combined in 1997 under federal auspices to form the National Domestic Preparedness Consortium that runs an integrated training program for community emergency personnel, local public works officials, and town leaders. Training ranges from recognition and handling of deadly materials to working within a unified incident command that would ultimately include federal agencies. "And in my own retiring way I became chairman [of the consortium]," Bennett says.

Now, there's nothing "retiring" about Bennett — especially when it comes to answering to himself. "I've got to be able to look in that mirror and say I did everything possible to do the best I could in my sphere of influence to get people prepared." He was reflecting on that even as his team responded to the bonfire collapse last fall at Texas A&M. Standing at the scene coordinating recovery efforts, Bennett thought back on the statehouse battles he fought to get his team's \$1 million annual funding. He also recollected the friends who had said he was tilting at windmills. "What would have happened if I had said, 'Oh yeah, it was too hard to do so I just sat on my fanny and I didn't speak out'? But the fact that I pushed it and we got the team, and the team's already saved many lives, that's my drive."

Bennett tries to instill his own sense of mission in his



agency. It's part of the corporate culture he wants. "The people see the impact of what we've done, the lives we've saved across the state of Texas. People are proud to be a part of this organization because that's a very visible role. What about those people that are on welfare and now have a good job? They're just as exciting, too."

IE principles alive at TEEEX

In moving to TEEEX, Bennett didn't abandon his IE upbringing. He instilled many IE principles

in the agency's management — streamlining administration among the various divisions and using teams to implement process change. He also hired several industrial engineers in key positions, including division chiefs. More than that, though, Bennett is a natural IE, a leader crafted through his upbringing as the only child of Murla Weeks and George Kemble Bennett Sr. in Starke, Fla., and a professional career that carried him from mathematical engineering and computer programming through IE teaching and research to academic management.

His father was the first to teach him quality modeling. "Before the expression 'Do it right the first time' came along, my father used to do that with me on everything." If young Kem rushed through a household chore to get back to the playground, his father inevitably intercepted him. "I never got away with doing anything sloppy. I learned that if I didn't do it right, I was going to be there all day, so I better get it right if I wanted to get out of there."

No wonder he plays hard today when the job is done, but Bennett also has a unique regard for griping customers. "I always love complaints. I really do, because that's an opportunity to hit a home run. When somebody will call and say, 'Gosh, I went into your Web page and that's the hardest thing I've ever seen to navigate,' or 'This guy came down here to teach and was just awful.' I think, 'OK, here's an opportunity.' Of course, the first reaction I get from people under me is 'Oh gosh, we don't want Dr. Bennett to hear that something went wrong.' Quite the opposite; they should really realize this is their chance to become a hero."

Early influences

Bennett, describing himself as a "good C high school student," had only vague notions of going to college. His mother never finished high school and his father "just did," forced by economics to go to work after graduation. But Bennett Sr. was an educated man through his love of reading, and he always

wished he had continued his education. "He instilled in me that desire down in there without me even knowing it to go on to college," Bennett says. So when the young Bennett scored so high on a state-mandated high school math test that it simultaneously spurred college interest and suspicions of cheating, he headed for Florida State University where he majored in math. He also took courses in education and earned a teaching certificate, thinking he would teach high school algebra and coach.

His father, however, convinced him to apply for a job at the newly opened Martin plant near Orlando. The math whiz with a working knowledge of computers, thanks to courses he had taken at Florida State, interviewed at the aerospace firm that was then developing the Pershing missile system for the U.S. military.

Bennett ended up running computer programs for engineers and technicians working on space flight mechanics, trajectories, and navigation systems. "I remember one I worked on back then was how to go to Mars. -I thought, 'Well, I understand all this mathematics, and I can program all this stuff, but I'd like to know more about how they come up with these equations.'" Driven to get more education, in 1963 he landed a job with Lockheed in California, where he could also attend night courses at Stanford. He earned a master's in engineering mathematics in 1968 from San Jose State University after Stanford shut down its night program, and he learned another valuable lesson while working in the research labs of what was yet to become Silicon Valley: "I started looking at what [salary] I was making and what other people were making, and most of the people I was working with were doctorate level."

A lab colleague tapped to direct Texas Tech University's computer center offered Bennett a job as his computer systems engineer with an important caveat: for full-time salary, Bennett could attend school half-time. Upon arriving in Lubbock, Bennett discovered the math department specialized in pure mathematics. "I always liked applied math versus theorem and proofy kind of things. I really liked to see a result. I think I was an engineer at heart." So he gravitated to Texas Tech's indus-

trial engineering program. "The thing that really hit me was the applied aspect of the operations research and computer simulation modeling they were doing. It fit exactly what I needed. It used my mathematical background and skills, it used my programming skills, and it was real-world problems. I was a real-world focus kind of guy; I like to see the results of something that I've implemented."

As Bennett neared completion of his doctoral program, however, the IE department discovered he was "a hybrid," not a true engineer, and demanded he take all the basic engineering classes. Bennett convinced the school to allow him to test out of the courses, and thanks to his work experience he passed all the tests for civil engineering: "structures and forces and all those good things. I crammed 12 hours of undergraduate courses into a summer, and I'm telling you that's the hardest summer of my life." He later realized how much the detour paid off — especially when he sat for his PE exam in Florida several years later — and today he believes industrial engineers must be steeped in all the basic engineering sciences. "It's critical that we turn out engineers first. If you are going to impact systems, if you're going to streamline and increase productivity, and if you're going to work in a technical environment, you have got to understand the details of the process."

The G. Kemble Bennett Files

Favorite saying: "If you can dream it, you can do it."

Favorite books: Tom Clancey and John Grisham novels.

Favorite movie of 1999: *The Matrix*

Recent reading: *Business at the Speed of Thought* by Bill Gates.

Role models: His dad, who taught him that hard work, perseverance, and sweat pay off.

Family: He and his wife, Jill, have two sons and two daughters.

Activities: Woodworking and reading.



NASA fellowship: Pivotal period

Bennett's '68 summer of agony segued into a pivotal period for him and the world when he landed a NASA fellowship at what is now the Johnson Space Center in Houston. Between completing his doctorate thesis using NASA's computers and playing in the Apollo simulators, which were being run by a former colleague at Martin, Bennett helped develop the algorithms used to land Neil Armstrong's Lunar Module in the Sea of Tranquility. He also set up probability models for the astronauts' quarantine after they returned from the moon. "I felt like what I was doing was giving my life quite a bit of meaning at that time," he recalls. "To be part of that is something you can't explain. I just wish I had kept all those old photos I used to be able to pick up for free. They'd probably be worth a fortune today."

The NASA experience's primary impact on Bennett, however, came from the program's subsequent brain drain after the goal of landing a man on the moon had been reached. Many of the engineers began looking for other challenges, and most headed for the academic world. "All that talent there used to talk about going back and impacting education and engineering and stuff. That got me thinking about teaching again."

IE doctorate in hand, Bennett in 1970 joined a Virginia Tech faculty of "young academic tigers" under Dean Paul Torgeson (now the university's president): Bill Schmidt, Wayne Turner, Harry Snyder, Marvin Agee, and Ken Case, among others. "We would all be bouncing off the walls on issues of curriculum and everything else," Bennett says. "There was a lot of chemistry and a lot of competition and a lot of bright minds, and we all worked together very, very well."

"We were all young, aggressive, and eager," Case says. "We were at a very fine university, but maybe the biggest thing we had was some very strong, very good leadership." That was Torgeson. Bennett often approached the dean to gripe about some issue in the IE field. "Paul would sit me down and say, 'How do you know that Kem?' I'd say, 'Well, I know that. Everybody says that.' And he'd say, 'Show me your data.' I'd say, 'Data? What data?' That goes back to the IE training of just not taking things on the surface. When I went back to check the data, I was wrong; the data did not support my passionate beliefs. But that was good. I've learned to say, 'Show me the data. Verify that for me.' It's a common phrase at TEEEX today. A tap dance and beautiful colored overheads don't work unless you have substance to them."

A recurring theme

Kimbler got a dose of the need to verify at the University of South Florida in Tampa, where Bennett moved in 1974 to be nearer his ailing parents. "Part of what I learned about problem



solving and analysis from Kem was honesty in science and engineering," Kimbler says. "Making sure you give due credit to the work of those that come before you, presenting your results honestly and fairly and objectively so they can stand a close scrutiny, avoiding ambiguity, even when you might lose a positive interpretation that someone might make."

Honesty is a recurring theme in Bennett's career. "I always thought honesty in dealing with people was a really core principle

with him," Kimbler says. Agrees Hogg: "Kem is a person of very high integrity." He says when Bennett headed Texas A&M's IE department he listed only two sins. "One was dishonesty, the other was disloyalty. We could forgive anything else but those two things. And he was both very honest and very loyal. He gave 150 percent to the organization. Sometimes we were frightened by that because he expected the same of us."

If Bennett had a fault as a manager, it was in failing to fathom staff who didn't share his passion, Hogg says, and sometimes the old college football defensive back emerged. "He tended to use what I call the head-slap management technique: 'Wake up! We're in the game!'"

Bennett admits that in his early days of management he used the bull-in-a-china-shop style of leadership. But he claims he's now adept at reading personalities and responding accordingly, and he further contends this is a necessary skill for upcoming industrial engineers. "Sometimes engineering management courses don't get into the real leadership issues they should. The course should be about the psychology of people working in teams, realizing we weren't all cut out of the same cookie cutter, and learning the cultural diversity we have today in the workplace. They need to not shy from it but embrace it and understand it."

Bennett continues: "You need your engineering background, but let me tell you, there needs to be some concentration on the people part of the system, not just how to manage them to make them productive, but to make them fulfilled. You can measure a job from start to end and get some feel for the normal amount of time it takes to do A or B. But you can't get down to modeling the particular individual and particular slot. Overall what you have to work on is the culture. Does everybody see why this organization exists? Do they feel good about their contribution? Is this a job or is this a mission to them? Do they get out of bed feeling good about themselves and that they're contributing? We're in a business [at TEEEX]

"Part of what I learned about problem solving and analysis from Kem was honesty in science and engineering."

where there's plenty of opportunity for that. Our instructors are on the road, they travel many miles, they're gone all the time. If they're not dedicated and motivated to help others, we're not going to exist."

This philosophy first took shape at South Florida, where Bennett became a department head for the first time. "I went down there full of ideas, to revolutionize education, et cetera, et cetera. Well, that's where I got my first wake-up call that maybe I don't know all the answers. I

started to learn that, oh, maybe 10 percent of the problems were related to logic, 90 percent were related to human beings." He read *In Search of Excellence* by Tom Peters and calls it "almost like a religious experience." He began applying the lessons in motivation and buy-in and started getting results. And he started enjoying his role as administrator. "I think a crucial thing that happened at some point was finding out that he liked it," says Kimbler, who returned to South Florida as a faculty member in 1980 and worked for Bennett until the latter's departure to Texas A&M in 1986. "You have to find ways to take your rewards out of the accomplishments of the people who work for you. If you don't do that, a lot of managerial positions can become viewed as a series of hassles. Your rewards have to be aligned with the accomplishments of your organization and the people in it. That's a realization I came to, based at least in part on my working for Kem."

When it comes to gauging Bennett's impact on industrial engineering, his proteges point to many arenas over the years. "He did some excellent fundamental work in quality modeling," Kimbler says of articles and books that still surface in studies today. "He was capable of doing his share of uncommon thinking for important solutions," says Thomas, who served with Bennett on the Council of Industrial Engineering Academic Department Heads as they initiated the Industrial Engineering Research Conference. Just the mere fact he's leading TEEX is influential, notes Kimbler. "Few IEs rise to the point of managing enterprises the size he has. And those examples are really important to us as a discipline."

"I could always point to his papers and research. But, gee, a lot of people have done that," says Case. "He was a superior teacher, no question about that, but there are a lot of superior teachers." Where Bennett stands out in Case's estimation is in his leadership, particularly at Texas A&M, where he took an IE department from 10th best in the nation to 5th in five years at its helm. "Those were five strong, good years, where he



helped a lot of people grow," says Case. "That to me is the ultimate leverage. He was helping people along with their careers by providing them a great atmosphere to work in for five years. That would be his biggest contribution."

Bennett was merely carrying out another principle his dad instilled in him: If you borrow something, return it in better condition. "I can remember having to paint things. I can remember having to take carburetors apart and repair them, put new

starter ropes on. It had to go back better than I got it." Then there was the saying Bennett thought had to do with his father's penchant for tobacco. "He'd always say, 'Bite off more than you can chew and chew it.' I didn't really understand this until later in life," says the man notorious for biting off plenty and devouring the whole scenery besides.

He's certainly packed a lot of credits into the life of a man who looks 35. "The truth is, I'm getting ancient," he says, and he worries that one day soon when he looks in the mirror to answer to his own high standards, suddenly staring back at him is a man of 60 — which he will be on April 2. "I'm coming up on a major birthday," he says. "And I think I'm feeling it, too. But my brain still feels 30 or 25." And that's given him pause to reflect on a lifetime of learning and service. "I just wish I could do it all again. Not that I'd change anything but, gee, I'm a lot smarter now." ■

The Author



Eric Minton is a freelance writer based in Warner Robins, Ga. He has published more than 450 articles in more than 80 U.S. and European publications, covering such topics as government, business, the military, disabilities, assistive technology, and entertainment. His most recent article for *Industrial Management* was "A Philosophy of Change," profiling Jong-Yong Yun, in the July/August 1999 issue.