by Jay Finegan

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FOUR-STAR MANAGEMENT

IN THE CLEAR SKIES OVER SOUTHERN Nevada, a major air battle is raging. Fifteen Russian MiGs are swarming like high-tech hornets as Air Force fighters close in at twice the speed of sound. One of the MiGs lets fly an air-to-air missile, sending an F-15 Eagle banking into a nine-G evasion turn. Another F-15, locking its sights on an MiG, launches a Sidewinder missile and blows the enemy out of the air. Moments later, a handful of A-10 Thunderbolts, cruising in at low altitude, open fire on a column of Soviet tanks as four F-16 Falcons suddenly appear from behind a mountain to bomb a Soviet troop formation.

The Russian troops are only simulated, of course, as are the missiles, bombs, and bullets. The planes, however, are real. At nearby Nellis Air Force Base, several controllers in a darkened room are watching the battle unfold on huge screens, the world's biggest and most expensive video game. It is something straight out of James Bond--and, as we'll see, straight out of Tom Peters as well.

This is one of the Air Force's Red Flag training exercises, a mock war that rages year-round over several million acres of Nevada desert. On one side are the men and planes of the Tactical Air Command (TAC), which is charged with defending American interests in the skies anywhere in the world. On the other, squadrons of F-5 Tigers sporting Warsaw Pact paint jobs, flown by American pilots who have been specially trained in Soviet air tactics.

On this day, the good guys win. But it wasn't always that way. A decade ago, when Red Flag was just beginning, the Tactical Air Command was in a sorry state. At any one time, half of the planes in its \$25-billion fleet were not battle ready and more than 220 airplanes were classified as "hangar queens'--grounded at least three weeks for lack of spare parts or maintenance. Because of equipment problems, TAC pilots--trained at a cost of \$1 million each-lacked the flying time necessary to keep their skills sharp, and the best of them were deserting the Air Force in droves. So, too, were mechanics and technicians, frustrated in their jobs and disappointed by the deplorable living conditions at almost every TAC installation. Perhaps worst of all was the soaring accident rate that resulted in tragic deaths, unnecessary loss of expensive airplanes, and embarrassment for the service.

Into this mess in 1978 stepped General W. L. (Bill) Creech. As the new commander sized up his domain from TAC

headquarters at Langley Air Force Base, in Virginia, it looked to him like a potential national security disaster. "The U.S. military was coming apart,' is how he remembers it. "It was worse than you think.'

This is the remarkable story of how, in six and a half years, Creech turned his command into one of the bright stars of the defense firmanent. TAC fighters today are in superb condition, its pilots fully trained, its installations sparkling. The number of hangar queens has declined from 200 to just a handful. Reenlistment rates are way up. And a dramatic reduction in the crash rate has saved dozens of lives and billions of dollars' worth of airplanes.

Perhaps most remarkable, Creech was able to work his magic with no more money, no more planes, and no more personnel than were available when he started. Creech's strategy was to force a bottoms-up management style on an organization that had always been strictly top-down--pushing responsibility and authority down into the tiniest crevices of his command. And so stunning was his execution that the Pentagon has now begun to apply his techniques throughout the U.S. military. Says one Defense Department official, "It's probably our biggest success since MacArthur's Inchon landing.'

Any chief executive officer would have been daunted by the challenge of simply running so sprawling an operation, let alone reviving it. At the time that Creech settled into his post, he was in charge of 115,000 full-time employees working at 150 installations around the world--plus another 65,000 men and women trained and on call. The assets under his control were valued at more than \$40 billion, including some 3,800 aircraft--more than twice as many as all U.S. airlines combined. He had a discretionary budget of \$1.4 billion, with billions more reserved for fuel and spare parts.

Creech was no stranger to TAC. By 1978, he had already spent nearly 30 years in the Air Force, a career that took in the first jet-age dogfights of the Korean war, a military position with the United Nations, and wing commands in Europe. But perhaps most crucial to his views on managing TAC was a stint he had put in the Pentagon during the days of Defense Secretary Robert McNamara.

The watchword of the McNamara regime was centralization, for which there was a dual imperative. Politically, the Kennedy Administration came into office as suspicious of the military as the military was of the new President and his advisers. McNamara's assignment was to curb interservice rivalry and bring all of the services under greater civilian control. In addition, as the former

president of Ford Motor Co., McNamara was a disciple of the management gurus of the day who preached that centralization was synonymous with efficiency. While his whiz kids fashioned new military strategies for the various services, battalions of cost analysts and systems planners cranked out new rules and regulations that reached into every facet of military life. Commanders in the field sensed that they had been stripped of much of their autonomy. Decision making was jealously guarded within the Pentagon.

"The thrust was on saving money and people,' Creech says. "It overlooked the requirement to do a good job. A lot of these guys, when you started talking about spirit and teamwork and cooperation, their eyes glazed over. They just couldn't relate to that.'

By the time Creech put on his fourth star and took command of TAC, Robert McNamara was long gone from Defense, but his dogma of centralized management and command had become inviolate within the Pentagon. Only it wasn't working--not at TAC, anyway. Granted, some duplication had been eliminated, along with some jobs. But the cost had been high: the American military command had been robbed of much of its vigor. Innovation and initiative were discouraged, and people were dehumanized, thought of as mere costs of production, like so many bullets or mess kits.

It was not that Creech was unwilling to use quantitative means by which to judge TAC's performance. On the contrary, taking stock of the crucial measurement of production--the number of training sorties flown--Creech found that TAC had been losing ground at the rate of 8% each year since 1969. And to deal with the problem, he proposed nothing less than a radical restructuring of his command, one that would send authority down the ranks along with responsibility for meeting clear and simple goals.

Pentagon planners were appalled at the thought. Creech, they argued, would wind up adding thousands of new jobs and spending millions of new dollars. They were uneasy with the notion that one command might be different from all the others. And although they didn't quite come out and say it, they were suspicious that authority could be intelligently exercised by the likes of career military men.

"They were legion, the people against me,' recalls Creech. "You couldn't single anyone out. The villain wasn't any particular person, but the whole system. It was all the staffers down below --these faceless regulation writers and approvers. I was going against the grain of the Pentagon culture. The system bristled.' Creech had an early ally, however, in Air Force Chief of Staff General David C. Jones. Jones's support would not assure success for the decentralization campaign, but it did give Creech the kind of bureaucratic altitude he needed to escape the flak from the doubters within the Pentagon.

A \$27-million F-15 is a beautiful piece of design and engineering, but without spare parts and skilled mechanics, it soon becomes a relatively useless hunk of metal.

In 1978, when Creech took command, the procedures for getting a fighter fixed might just as well have been devised by a British labor-union steward. Consider the case of a jet grounded for a minor electrical malfunction.

The first man on the scene would be a general aircraft mechanic, known as a crew chief. The chief, after making his initial inspection, would put a call into Job Control, the centralized maintenance unit for each base. Job Control, in turn, would call the electrical shop, which would dispatch a man out to the flight line to work on the problem. On arriving, however, the electrician might well discover that an entire panel would have to be removed before he could really get to the problem, requiring yet another technician. There would be another round of calls to Job Control and the electrical shop. Then--perhaps after a stop at the post office and the coffee shop--the panelremover would finally arrive on the flight line, only to find that he needed a spare part. So somebody would put in a call to the base's central supply depot, which stocked everything from jet engines to toilet paper, to see if one was available. Three more hours might pass before the part was trucked out by somebody else from the warehouse to the flight line. Meanwhile, the jet and its pilot probably would have missed their scheduled sortie.

Time, however, was only half the problem. Quality was the other half. The electrical shop, like the other specialized units for hydraulics, ejection seats, radar, navigation systems, and the like, would invariably dispatch its lowest-ranking people for routine calls. That left the senior sergeants, with their 15 to 25 years of experience, back at their comfortable offices, pushing paper or maybe just reading the paper. And without their direct supervision, much of the work done on the flight line was not the quick-fix variety--or worse.

"We were all aware that a human being was strapping into that jet, but there was a lot of sloppy work done to get it into the air,' says Technical Sergeant Ruben Saldana, an F-15 crew chief at Langley and a TAC man before, during, and after the Creech command. "And if it missed its sortie, it was no big deal.'

The pilots, too, were less than enthralled. "Used to be you could take an airplane off, but your radar wasn't working or the inertial navigation system didn't work,' says Lieutenant Colonel Burr Crittenden, an F-16 squadron commander at Nellis. "So even when we did fly, the sorties were often low quality.'

It all added up to a lackluster fighter force, beset with apathy, sagging morale, and horrifying statistics. Only 20% of "broken' planes were getting repaired in a typical eight-hour shift. Pilots who needed a minimum of 15 hours of flying time a month were getting 10 or less. The average plane, which had flown 23 sorties a month in 1969, was flying only 11 by 1978. And for every 100,000 hours flown, seven planes were crashing. Investigators blamed many of the crashes on faulty maintenance.

"One reason we were doing so poorly is because we were so good at centralization,' says Creech. "It was a highly matrixed system, where the functional specialists only loosely worked for the person in charge of getting the job done. The supervisor was just a voice on the radio. Nobody really cared.'

Creech's first move was to structure his command around a smaller and more manageable unit of organization--the squadron, which consists of 24 planes, rather than the wing, which is three times the size. Starting on a trial basis at a few installations, he created squadron repair teams, drawing technicians from each of the maintenance disciplines. The team would work only on their own squadron's aircraft. And instead of operating out of rear-area dispatching locations. Creech ordered them to move right down to the flight lines.

Almost immediately, there was an undercurrent of opposition from some of the senior sergeants, the princes of the maintenance realm, who had to abandon their cushy offices and move with their men to the flight lines. Worse still, the sergeant who once had supervised 60 electricians was now supervising 20. Many felt demoted or diminished.

"We didn't care for it,' says one of these so-called supersergeants, who asked not to be named. "Here was this crazy general coming in and splintering an operation we'd spent years putting together.'

Creech had anticipated some hostility, but in this instance a military culture worked in his favor: in the Air Force, there are severe penalties for insubordination. "I'm not saying everyone thought this change was great,' he says. "But slowly they were won over. In the centralized system, we were top-heavy in management. We were keeping beautiful track of what we were not doing. But in our system, sergeants were sergeants. They were in charge of people, not paper. And they had to make those people produce. If they didn't, they were out.'

The idea was to give each operational squadron and its companion maintenance team a common identity, purpose, and spirit. The maintenance people, who had been faceless cogs in a 2,000-person wing operation, found themselves sporting the prestigious flight squadron patches on their fatigues. They now belonged to the Buccaneers or the Black Falcons. They began wearing squadron baseball caps.

With the crew chiefs, the general practitioners of the maintenance staffs, this sense of identity was further reinforced. Where before they had worked on any jet in the wing, now they were assigned airplanes of their very own. They painted their names on the sides, just as pilots did. And all of a sudden, a 23-year-old buck sergeant making \$15,000 a year was in charge--yes, in charge--of a \$27-million jet.

"It was exactly what we needed,' remembers Sergeant Tony M. Brunner, a young F-15 crew chief at Nellis. "It makes you feel important to be in charge of something. There's got to be more to what we do here than a paycheck.'

The crew chiefs took to their new responsibilities with a passion, doing whatever was necessary to make their jets the best. They went everywhere with them-- on deployments, through inspections, to the wash racks. And they kept a sharp eye on the technicians--in military parlance, "kicking ass and taking names.' Excellence became an obsession. When Creech went to visit some crew chiefs to find out how they liked the new arrangement, a sergeant summed it up nicely. "General,' he said, "When was the last time you washed a rental car?'

The pilots couldn't help but notice the change in attitude. "Crew chiefs now come in sometimes on days off to buff up the planes,' says Lieutenant Colonel Paul V. Hester, a former F-15 squadron commander at Langley. "When we get back from a sortie, they are standing at attention, saluting, holding the forms. That's not anything they're directed to do. That's pride in their airplanes. They want us to feel that pride when we fly.'

It was not long before a strong comradery grew up between pilots and their crew chiefs. They talked electronics, they talked football, and they went drinking together after work. At the same time, squadrons began to build strong identities. Squadron colors were painted once again on the tail wings of aircraft, a time-honored tradition that had been outlawed under centralization. And pretty



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soon one squadron was working overtime to beat the other two squadrons in a wing, on everything from pilot performance to quality of maintenance.

What Creech did best, perhaps, was to remind even the lowest-level employees that their jobs were directly tied into TAC's central mission: flying and fighting. Wing commanders were ordered to resume active flying, and to emphasize the point, they were encouraged to wear flight suits when visiting Langley. For their part, squadron maintenance officers were routinely summoned to headquarters for three days of classroom work and inspiration from the top brass.

"We didn't send captains in to brief them,' recalls General Jerry Rogers, Creech's logistics chief. "We did it ourselves. And on the third day, General Creech himself came in and spent half a day with them. They had to figure that if he does that, then he thinks maintaining airplanes is pretty important.'

TAC's new spirit was soon reflected in the statistics. In Creech's first year as TAC's commander, the sortie rate shot up 11%, and another 11% in the second year. By 1980, the average fighter was in the air 24 hours a month, up from 17 in 1978. Some 60% of the planes were now rated mission capable, up from half.

Creech, however, was just beginning to decentralize his command and improve the sortie rate. Moving beyond maintenance, there was also the question of the sorties themselves--how they were planned and scheduled. In the past, a handful of officers at wing headquarters had plotted schedules out in detail, squadron by squadron, a year at a time--16,000 sorties. Each squadron was given not only its quota, but also detailed instructions on how and when the sorties should be run.

In Creech's decentralized TAC, squadron commanders were given a sortie goal and set free to design their own flying schedules. And they were given some added incentive to meet their targets: if a squadron met its monthly goal early, Creech decreed, then the entire squadron, from pilots to maintenance techs, could take an extra three-day weekend.

Mind you, meeting these goals wasn't easy. These were highly sophisticated jets with hundreds of components that often require repair or replacement. And the training hops were no snaps for fliers, either. An F-16 pilot, for instance, had to master precision bombing, air-to-air combat with complicated missiles systems, and the delicate maneuvers required for tactical nuclear strikes, should they ever be required. Still, the incentive plan worked splendidly. Virtually every squadron in TAC now averages 10 extra three-day weekends a year.

By the early 1980s, the TAC turnaround was attracting plenty of attention at the Pentagon. "There were people who would say, "You're fudging the numbers. It looks too good," General Rogers recalls. The pattern was repeated many times: they'd try something and gather enough evidence that it worked. Then, to make it official policy, they'd have to write a regulation and send it to the Pentagon for approval. "That was a vehicle for endless bickering about details,' Creech recalls. "There was a good bit of hostility and foot-dragging.' But with the help of the successive Air Force Chiefs of Staff, Creech most often prevailed. And, slowly, the converts to decentralization grew in number.

Creech and Rogers weren't shy about inviting Pentagon officials to see their new program in action. At one important outing in 1980, for instance, they took members of the Pentagon's vaunted Program Analysis and Evaluation Office (PA&E)--prime proponents of centralization--along on the first training deployment of F-15s to Europe. Eighteen fighters screamed into Bremgarten, a Luftwaffe base in southwest Germany, and four hours later all of them were loaded for combat. The next day, those same jets flew 75 sorties, nearly 4 apiece.

"Under the old system, we couldn't have dreamed of that kind of launch rate,' says Rogers. "The PA&E folks had been very suspicious of our statistics, but that made believers of them. They went back and became evangelists for us in budget battles and such. It was really a watershed.'

By this time, of course, centralization was under attack everywhere, as newer management theories began to emphasize motivation, competition, delegation, and employee ownership--all concepts Creech had used. And as stories began to surface about \$600 toilet seats and \$200 wrenches --the stuff of centralized procurement-- the Pentagon searched to demonstrate that it was changing with the times. Creech's decentralization efforts became part of the official program. And the general found there was plenty more decentralizing to do.

He started with spare parts. An F-15 crew chief who needed a new tire for his jet, as an example, at that time had to phone in his request to the base warehouse and wait hours for delivery. Moving a part through the system required 243 entries on 13 forms, involving 22 people and 16 manhours for administration and record keeping. It was cumbersome, frustrating, and worst of all, slow.

"We had lost focus on why we existed-- to support aircraft and the maintenance guys,' says Colonel Donald W.



Hamilton, TAC's director of supply at Langley. "We'd grown too bureaucratic.'

In 1981, Creech decided to break up the warehouse system and move aircraft parts from the storage areas at the rear of the base right up to flight line. Not that there was always a convenient place for parts stores big enough to stock 10,000 different items. But with scraps of wood and leftover cans of paint and underutilized shelving, folks made do.

What serious money Creech had, he spent for minicomputers that let crew chiefs and their technicians know exactly what parts were available, and let supply specialists know what parts needed to be reordered. Now, all a crew chief had to do was climb off a jet and walk a few yeards to a terminal to find out if a part was available. A push of a button ordered the part to be set aside. Then it was only a short walk down to the parts store with a simplified order form to have the part in hand. More often than not, it was waiting on the counter by the time he arrived. Total time lapsed: about 15 minutes. Today it's down to 8.

At the same time, Creech mounted a crusade he considered equally critical to the rebuilding of TAC. On the theory that quality begets quality, he ordered a top-to-bottom sprucing up of every TAC facility, ranging from airplane hangars to barracks to mess halls. Once the Reagan defense dollars began to flow, that crusade took on a momentum of its own. But long before, Creech had begun by ordering that nearly everything within his domain receive a fresh coat of paint, from airplanes to cars to buildings. Nothing was spared. TAC even went so far as to paint the backs of stop signs.

"I could paint all of TAC for the price of one F-15,' he says. "My philosophy is that if equipment is shabby looking, it affects your pride in your organization and your performance. You can't preach to a young man that an airplane can be shabby on the outside but has to be spic-and-span on the inside. You either have a climate of professionalism, or one of deterioration and decay. You can't segment it. Only on TV do you have these Black Sheep squadrons. Good outfits look sharp and act sharp. The great pilots--the Chuck Yeagers--are not sloppy people.'

Fresh paint gave way to murals and lounges and comfortable furniture in flightline facilities, and then to new barrack complexes with carpeted rooms and semiprivate baths. And while pilots had formation flybys to show their stuff to the public and the brass, squadron vehicle fleets held annual "roll-bys' displaying their gleaming trucks and vans. It was all part of General Creech's emphasis on respect and recognition for his people. "Pride is the fuel of human accomplishment,' he preached to his command. And competition was the spark plug. To drive home the point, annual awards banquets, complete with citations and trophies, were held at every wing, to recognize the year's best maintenance and supply specialists.

By the time General Creech left TAC, 85% of his airplanes were rated as mission capable, and jets were averaging 21 sorties a month, with 29 hours in the air. In wartime, TAC was capable of launching 6,000 sorties a day, double what it had been when he arrived at Langley. In peacetime, the crash rate had dropped from one for every 13,000 flying hours to one for every 50,000--and crashes traced to faulty maintenance nearly vanished.

TAC, under Creech, had gone from the Air Force's worst command to its best. For much of the time, it had been a battle, and heads had rolled. The lazy and the incompetent, who had found numerous hiding places in a centralized structure, were smoked out when maintenance operations moved to the flight line and squadrons were held accountable for their performance. Some had to leave. But many more decided to stay. In 1983, two-thirds of the first-term mechanics decided to reenlist, or nearly double the rate of 1977, the year before Creech took command. Second-termer retention rates went from 68% to 85% over the same period. And some of the older technicians found they liked Creech's program so much that they recalled retirement papers to see it through.

TAC commanding officers thrived under the new system. Of the 148 wing commanders who served under Creech, only about 3% were relieved for poor performance-- fewer than under any of Creech's three predecessors. "It was not a ruthless system,' Creech emphasizes. "You just don't get results by going around chopping people's heads off.'

Even in retirement, Creech's philosophy sets the tone for Air Force management. General Larry D. Welch, now the Air Force Chief of Staff, served in staff positions under Creech. He later went on to head up the Strategic Air Command, the nation's nuclear strike force, where decentralization also became a battle cry.

Even the Pentagon has got the religion. A recent Pentagon directive gives commanders new authority to abolish regulations, streamline procedures, and do whatever they think best to enhance mission accomplishment. "People doing the job day in and day out know better how to do it than some guy who is sitting behind a desk,' asserts William H. Taft IV, deputy secretary of defense.

As for Creech, now 59, he continues to spread the gospel



to leaders of industry and government as a lecturer, consultant, and corporate board member.

In his travels, Creech remarks how common it is for executives to think of decentralization and delegation as loss of control and abdication of command. If anything, he says, just the opposite is true: "When I left TAC, I had more control over it than my predecessors. I'd created leaders and helpers at all those various levels. Without that kind of network below you, you're a leader in name only.

"It's not really that hard to run a large organization,' the general explains. "You just have to think small about how to achieve your goals. There's a very finite limit to how much leadership you can exercise at the very top. You can't micromanage --people resent that. Things are achieved by individuals, by collections of twos and fives and twenties, not collections of 115,000. And that's as true in industry as it is the military.'

Photo: General Bill Creech, retired commander of the Air Force's Tactical Air Command

His may be the most important U.S. military victory since MacArthur's Inchon landing.

Photo: F-15 fighter pilot prepares to take off from Nellis

He cost \$1 million to train and \$27 million to equip.

Photo: Commander Crittenden and his squadron's once-banned decals

Fostering teamwork, competition, and a sense of ownership

Photo: Preflight planning at Nellis

Pushing authority down to the lowest levels

Photo: Flight-line parts depot

Orders that used to take hours to fill now take minutes.

