Fort Leavenworth -- A Memoir

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Relying on my personal recall, documentation saved from my tours there, and limited research, this is my tale of my time at Fort Leavenworth, a place for which I have a deep affection.

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September, 2001

Volume I, Narrative

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Prologue

Fort Leavenworth, Kansas, home of the Army's Command and General Staff College, figures large in my life and memories. I lived there as a teenager in 1934-36 when my father was a student in the last two-year course before World War II. In 1954-58 I was for a year a student and for three years on the faculty. And in August 1973 to February 1976 I was Commandant. Although my 1954-58 Leavenworth tour bears on that of 1973-76, I have written this memoir primarily to tell my story of the latter period, seeking to give a straightforward account, useful to history, of those times from my perspective.

It was a time of considerable change, even of tumult, as the Command and General Staff College along with the rest of the Army school system adjusted to the reorganization of the Army that had just created the Army Training and Doctrine Command (TRADOC) and to the driving initiatives of TRADOC's first commander, General William E. DePuy, at Fort Monroe, Virginia. I had been selected by General DePuy to be the Commander of a new Combined Arms Center and of the new Combined Arms Combat Development Agency (CACDA), both at Fort Leavenworth, in addition to my duties as Commandant of the Command and General Staff College.

This is a revision of a draft written by me in early 2001 and circulated for comment. I am deeply indebted to Ben Harrison, Ivan Birrer, Mike Sanger, Jess Hendrick, Bud Weaver, and Bob Doughty, who were all associates of mine in 1973-76 and are identified herein. I also thank John Romjue, who served as a TRADOC historian for that period, for reviewing my draft. Of course I take full responsibility for any errors of fact or interpretation in this final version. For those who care to read it, it is my story, from my viewpoint, as accurately and objectively as I can relate it some twenty-five years after the events.

I was born in 1921 in Tientsin, China, the son of Captain Horace O. Cushman, Fifteenth U.S. Infantry, of Danville, Illinois, and Kathleen O'Neill Cushman of Charleston, South Carolina. I enlisted in the U.S. Army in 1940 and in 1941 entered the U.S. Military Academy, graduating in 1944 and commissioned in the Corps of Engineers. I served with the 808th Engineer Aviation Battalion building airfields and port facilities in the Philippines and Japan, returning on leave in June 1946 to marry Nancy Townsend Troland. I had met Nancy three summers earlier on a cadet field trip to Fort Benning where her father, Colonel Girard B. Troland, was senior Corps of Engineers instructor at the Infantry School and Nancy was home before her senior year at Connecticut College.

On reporting back to Japan for duty I received orders to join the Manhattan Engineer District (later the Armed Forces Special Weapons Project) at Sandia Base, NM, where I became operations officer of the 38th Engineer Battalion (Special) (later the 8460th Special Weapons Group), which unit had the mission, when so ordered, of assembling atomic bombs from their components and placing them in U.S. Air Force bombardment aircraft for delivery on target.

This, Nancy's and my first assignment together, was a wonderful introduction to our Army life. We were with about sixty other newly married couples, the men of which were mostly West Pointers, classmates or near contemporary engineer officers who had been assembled by Major General Leslie Groves, the builder of the atomic bomb. After the 1946 Bikini tests the scientists, who had assembled the bomb as essentially a laboratory device, began leaving the Manhattan Project to return to their universities, and Groves decided to replace them with officers chosen from worldwide. At Sandia Base we had two children, Constance and Cecelia, and made friends that would last a lifetime.

In the summer of 1949 I entered the Massachusetts Institute of Technology to earn a Masters degree in Civil Engineering. In June 1950 I reported to the Engineer School at Fort Belvoir, VA, for the Advanced Course -- just as war broke out in Korea. On March 6, 1951, I wrote my father, brigadier general, retired...

6 March 1951

Dear Dad -

Mom has probably told you that I was considering transferring from the Corps of Engineers to the Infantry. I know that you will be interested in hearing that today I submitted my request for such a transfer.

This is something that I have been thinking over for some time. As you remember, as a cadet I was on the fence for quite a while - undecided between the Engineers and the Infantry. I eventually chose the Engineers because of their many advantages in peacetime - further education, interesting and responsible work in civil construction, and a preparation for a useful and remunerative life after retirement. I visualized that the major part of my army career would be in times of peace, when military appropriations would again be cut.

The picture today is quite different from what I expected. And I believe that for most of the rest of my career the army will be either on a partially mobilized basis or engaged in actual hostilities. Under those conditions I would much prefer service in the various command and staff jobs that exist in the combined arms. Engineer officers just don't normally get those jobs. The Corps of Engineers is today in the unfortunate position of being short 800 regular officers out of a total authorized

of about 2300. Because of this, and because of the continuing commitment of a couple hundred to the civil works program, they do not place engineer officers in branch immaterial jobs without a great deal of protest. So I can look forward, as an engineer, to a long succession of fairly specialized assignments - usually not in the field of the combined arms. To avoid such a prospect and to get into a position where I can have more varied duties is the main reason for my transfer.

There are others. I have become a believer in a nearly branchless army as an ideal - such a concept is heresy in the higher echelons of the Engineers. I have become convinced that the continuing interest of the Corps of Engineers in civil works, regardless of their statements that it is not the primary mission of the Engineers, is to the disadvantage of their army role - and hence operates to the disadvantage of the army. I personally do not want to serve in the civil works program and have no desire to ever attain to the position of Chief of Engineers. That is not a fit way for an Engineer officer to think and it is not good for me to remain in the branch.

I know that I can be of value to the army as an infantryman. My engineer training will be helpful, as will my time in the atomic bomb business. I will go first to Benning for the short advanced course they give reserve officers (13 weeks). Then I will be assigned to troops - to a division in the states or overseas. I hope to stay with a division for a couple of years, and expect that at the end of such a time I will be up to the level of my contemporaries in the Infantry. From then on I hope to continue my education in the combined arms through the varied assignments that will be open to me as an infantryman. I expect that my troop duty will be overseas - in Europe.

Naturally this was a big decision for me to make. I would like to have been able to talk to you about it but I really doubt if you would have influenced me one way or the other. It was really something for me to decide for myself. When all the facts were in it was obvious to me that there was only one answer. And in the answer Nancy and I concurred as one.

Well, we are looking forward to having both you and Mom visit us later this month - the weekend of the 25th. We hope that you can get away for that weekend - although we know that those are your busiest times. When you come down we can catch up on all the news and talk of one sort or another.

All of us send our love --

Jack

Ordered to the 4th Infantry Division then training at Fort Benning for deployment to Europe, I was sent to the Associate Infantry Officers Advanced Course en route. Coming on top of the Engineer Advance Course, that experience was invaluable to me, new to

the infantry. I studied the organization and tactical operations of infantry units from squad, through platoon, company, battalion, and regiment -- along with their communications, logistics, personnel administration, intelligence and other aspects.

The school had been energized and expanded as a result of the Korean War with its early defeats, followed by MacArthur's brilliant stroke at Inchon, advances northward, then the Chinese intervention that drove United Nations forces far south of Seoul. United Nations forces in a counteroffensive had advanced beyond Seoul when in May 1951 they were ordered to halt their attack and wait for armistice negotiations. Both sides strengthened their positions, exchanging artillery fires, and fighting lapsed to patrolling and small unit actions. In late June, the Soviet delegate to the United Nations proposed a truce, and in July truce talks began at Panmunjom, a village on the front lines twenty-five miles north of Seoul, and continued for two years.

As the war went on I, now a major, reflected on my lack of infantry combat experience and on what my getting that in Korea might mean to an infantry career. My infantry classmates, all of whom had served in combat in World War II, had the coveted Combat Infantryman's Badge, while I did not. Believing that that might make a fundamental difference, I considered volunteering for Korea. As truce talks began, I asked the opinion of a battalion commander just returned from Korea, who had been a tactical officer in my time at West Point. He said that the war in Korea was over and suggested that I go to Germany as scheduled. I took the idea no further and never mentioned it to Nancy.

Moving my family to St. Petersburg, Florida, and with six weeks out of my life for a knee operation at Walter Reed, I finally arrived in December 1951 at my first infantry troop duty in the 22d Infantry Regiment of the 4th Infantry Division in Schweinfurt, Germany. I was assigned as S-3, 1st Battalion, commanded by Major Sam Carter. Major Carter had been through two years of combat as a company commander in the 1st Infantry Division in World War II.[1] I learned a great deal from him.

In a few months we had a new regimental commander, Colonel Legrande A. Diller. In early August he transferred me from the 1st Battalion to be the regimental S-3. Six

[1]Sam Carter (who by the way had been passed over for lieutenant colonel, I am sure for his outspokenness) gave me my first searing critique of the Army school system. Using my advanced course material I had organized training for "Company in the Night Attack" with its forward assembly area, its line of departure, and its close assault. When I showed him my intended training, he told me that in the war he had seen too many lieutenants killed by applying what they had learned at Fort Benning, and that was "no way to make a night attack. The way to make a night attack is to find a place in the enemy lines where a company can get through in single file, to take a battalion through it, and by dawn to have the whole battalion behind the enemy to trap him." Later in Rommel's Infantry Attacks, I saw the same lessons applied again and again, and had the Adjutant General at Fort Campbell run off a copy for every infantry officer in the 101st Airborne Division.

weeks later, Colonel Diller suffered a heart problem of some sort after climbing a hill and was forced to leave the regiment for reasons of health.

By that time, as part of a redisposition of the forces upon the arrival in Germany of two recently mobilized National Guard divisions, the 22d Infantry Regiment, with all its dependents, had moved to Giessen, 40 miles north of Frankfurt, where the regiment would defend a new sector. Pending completion of a new kaserne being built in Kirch-Goens, closer to Frankfurt, the regiment would live in a tent city on the outskirts of Giessen and our families would be in dependent housing, nearby apartments.

In Giessen we got our new regimental commander, Colonel David L. Edwards, who had been with General Harlan Hartness, 4th Infantry Division commander, when the latter had been Assistant Commandant at the Army Command and General Staff College at Fort Leavenworth. Colonel Edwards was a demanding commander with ideas all his own, some of them unusual; he surprised us often. Within a few weeks he had fired his S-1 (personnel), his S-2 (intelligence), and his S-4 (logistics), leaving only me on the regimental staff surviving.

In a few months our barracks at Kirch-Goens were ready to move into and we did just that, giving the regiment a few weeks to settle in before leaving for six weeks at Grafenwohr, which was the training area in Bavaria large enough for regimental-size exercises and all kinds of live firing. I take some pride in getting our training program ready for that deployment; everything that could be done was done to insure that each battalion's time was well organized and could be well used. The regiment motored to Graf at the first of May.

After about four weeks at Grafenwohr I assumed command of the 2d Battalion of the regiment. Colonel Edwards had for a while been dissatisfied with the 2d Battalion's commander. When one day that commander made a serious, possibly deliberate, error reporting the status of his battalion on a regimental exercise, Colonel Edwards decided to relieve him. On his telling me his intent, I thought about it for an hour or so, then went to him to say that I thought that I could command that battalion. He agreed, and said that he would go down right away to General Hartness in Frankfurt and make that recommendation. He got in his plane, returned two or three hours later, and told me that I had the battalion. That was quite something for me as a new infantryman at age not quite 32 and with only two years as a major.

Command of the 2d Battalion was the most satisfying duty I had ever had, and ranks today as one of the most satisfying of my career. Those six months had many good mo-

ments, a memorable one of which was the feeling of elation that struck me one day as I rode in my jeep at the head of the battalion on the road to a defensive position we were about to occupy in a corps field exercise, on a day and at an hour when I knew our plans were good, my command was organized and under control, I was on top of my job, and we were going to excel -- as we did throughout the exercise.

But, with the oversupply of qualified lieutenant colonels for battalion command, that job could not last. After six months I became the regimental S-4, or supply officer. It was an opportunity to learn about a different sphere of regimental activity, but it was a decided come-down from having commanded a battalion. Seeing ahead of me a full year before I would complete my three-year tour in Germany, I decided to seek reassignment.

Although I began my search seeking duty at a joint or allied headquarters in Germany or France, my desire to do so became known at the headquarters of the US Army in Europe (USAREUR), at Heidelberg, and soon I was told that I would go to that staff's G-3 office, with station at Cologne with the I Belgian Corps. There I was to be a member of a newly created US liaison team assigned to help the Belgian army, now a part of NATO's forces, adapt to the use of the nuclear weapon in the defense of its sector.[2]

I had become regimental supply officer November 5, 1953. On December 15 I received orders to Cologne, effective December 21. We now had a family of six, with Kathleen having been born while I was at MIT and Mary just the previous May. I made a reconnaissance to Cologne, then requested leave time so that our family could spend Christmas in Bad Nauheim, and in early January we moved. By then Nancy and I knew that she was pregnant with our fifth child. We hadn't known that in November.

As Belgium was a country with two languages, both French and Flemish were used in the headquarters, but everyone spoke French. I had studied French in night school in Washington while we were at Fort Belvoir, and soon became fluent enough to brief the Belgians in that language. The corps headquarters was organized under the British staff system, which meant that it was much smaller than that of an American corps and correspondence was less formal. I found that both interesting and refreshing.

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[2]NATO's forces in Germany had grown since 1951. The I Belgian Corps was part of the mostly British Northern Army Group. US and French forces were in Central Army Group with headquarters at Heidelberg alongside USAREUR. Both these army groups were under Allied Forces Central Europe at Fontainebleu, France, where I had hoped for assignment, as well as at SHAPE in Paris. Since my time at Sandia, nuclear weapons had become part of the US Army's arsenal, to be fired by artillery as well as delivered by tactical air. US nuclear munitions teams were stationed around Germany with procedures for turning those munitions over when ordered to allied forces, who would use their own artillery to fire them. Our two-man detachment at Cologne was to assist the Belgians in understanding the tactical employment of these weapons and in obtaining them when and if a war began so that they could use them properly. We tested those procedures in command post and field exercises.

Time was available and I had been reading on military history and operations for some years, so I began writing an article on the future of the Army in the atomic age. Taking our team's sedan I visited Stuttgart, where the commander of the VII Corps, the famed Lieutenant General James A. Gavin, was trying out some interesting initiatives in operational concepts. I took time off from my job to go by car to nearby battlefields of World Wars One and Two. Having admired the writings of the British historian and military analyst B.H. Liddell-Hart, I began a correspondence with him in which he invited me to visit him in England. I did so for a delightful overnight with him and his wife Kathleen. All of this was interesting to me, but it was simply making the best of an assignment that I had blundered into, that while rewarding in some ways I did not really like very much, and that I was unable to do anything about.

Then one April day in our office I received a call from my boss in Heidelberg, saying that the Infantry assignment people in the Pentagon had asked if I could be released to attend next fall's Command and General Staff College course at Fort Leavenworth -- and was I willing to curtail my tour to do that? My answer was yes! I soon advised headquarters that Nancy was due to have a baby in August so we had to travel well before that time. On May 7th we received orders telling us to proceed to Bremerhaven to arrive May 25th and to board the transport USS Geiger for New York.

We expedited our travel from Germany, arrived at Fort Leavenworth in early July, and soon were living in the "Beehive." Jack, Jr., was born in August.

Classes would not begin until late August, and looking for an interesting place to work for a few weeks, I arranged to be assigned to a small new section of the College called Combat Developments. A section of six or seven officers who had previously been instructors, it was in the basement of Wagner Hall, which was the College Library and Archives building.[3] They were working on something called ANA, Atomic Non-Atomic Army. By 1954 the people at Sandia Base, NM, and in the Army's Ordnance Corps had developed and begun to test some low yield nuclear weapons and the field artillery cannon and missiles to deliver them. Soon after I arrived, ANA was succeeded by TRANSANA, Transition to the Atomic Non-Atomic Army.

The Army had only nine years earlier successfully completed a World War; only the year before it had ended the war in Korea. Nuclear weapons and missiles were on the horizon; a military revolution was brewing. The Army knew it must adjust, but it was venturing into the unknown. TRANSANA visualized a new United States Army from battalion through regiment, division, corps, and field army that would incorporate the air- and artillery-delivered nuclear weaponry now under development.

At this stage of my career, I was acutely conscious of being a engineer-recently-turned-infantryman who, in my ten years after graduating from West Point, had seen combat in neither of the two wars. True, I had just served very well in the 22d Infantry Regiment in Germany, where as a major I had for six months commanded a battalion. But I did not wear the Combat Infantryman's Badge. Strive as I might to be well regarded, I knew that nothing could substitute.

In September the course began. Classes were in 55-man classrooms in Gruber Hall, which in my father's time as a student had been a huge riding hall for the cavalry troops stationed at Fort Leavenworth. The meticulously prepared "lecture-conference" instruction was uniform across the three sections scheduled simultaneously, and was identical when given by the same three instructors to the other three-quarters of the class, a quarter at a time. Very much a product of World War II experience, its map exercises

[3]The library's reading room was on the first floor, and I remembered coming in there as a teenager when my father was a student and reading the newspapers' comic strips. In the basement of Grant Hall off the sally port under the clock tower was the location of the barber shop, now closed, where I had got my hair cut.

were almost entirely set in Europe. In the class were friends from my youth and fellow West Pointers of my time there, including many classmates.[4]

The course: staff procedures, decision making, tactical problems starting at division, logistics, a lot of memorization, and a load of books and maps to carry in a book bag down to class from the Beehive each morning and back. Six hours of class every day, and plenty of reading and other homework to do the night before, maps spread out on the floor or dining room table. No classes on weekends, with much golf then (and even weekday afternoons) for those who played. Playing with a partial set of inexpensive clubs I was among the occasional golfers, not very good at it.

As was becoming my lifelong and not entirely admirable habit, I sought to excel and was consistently in the top four or five in the class standings that were provided to students every two or three months. However, in the final days of the course I "busted" the examination on corps offensive operations, which had involved the employment of nuclear weapons in an attack of an enemy force. I had paid insufficient attention to the instruction beforehand, perhaps rebelling because it had seemed to be less than believable. My barely passing grade brought my final class standing to twelfth out of 650, not in the top ten announced at graduation, and I was very disappointed in myself.[5]

I had decided that after a student year I would seek assignment as a Leavenworth instructor, to continue developing as a troop-oriented professional soldier. I had twice been asked by West Point to become an instructor there, but I had begged off. Midway in my Leavenworth year I was told by the assignment people in the Pentagon that I was to go next to West Point to serve the required three-year "utilization tour" of my civil engineering year at MIT. In March 1955, uncertain of being asked to remain at the College on the teaching faculty, I approached Colonel Seth Weld, who was director of a new CGSC research and analysis office, to ask if he would intercede and arrange that I be assigned to his domain. He did, and I was; and although I would not be a full time instructor on the platform as I had hoped, we would stay at Leavenworth.

As the course ended and during my instructor training for new faculty members,[6] I prepared a comprehensive proposal for overhauling the Regular Course curriculum --

[4]In bachelor housing across the street from the Beehive lived Mark Boatner, a friend from my Fort Benning youth. A like-thinking and reform-minded activist who among other things decried the Army's "over-supervision" during the later years of the Korean War, Mark and I had frequent discussions during the school year. We formed a small and informal group of students holding similar views, with a view to publishing a "mailing list" through which we would continue to maintain contact, but nothing came of that idea.

[5]This paragraph is in here because the event played, I think, an important part in shaping my attitudes to nuclear warfare and to Leavenworth.

[6]For many years I kept the recording that each new instructor was required to make of extemporaneous remarks. Typical of my attitude at the time, mine was a call for the "majors of the Army" to be agents of reform.

concept, content, sequencing, and methods of instruction. I laid my recommendations out on a large sheet of graph paper on which I had pasted typed notes descriptive of my suggested course organization and content. My proposal incorporated the idea of a "pilot model" course which, using a fraction of the faculty, would present a markedly different year-long course to a part of the Regular Class for test and evaluation, and would then be modified for adoption by all the following year. During the school year Dr. Ivan Birrer, the College educational advisor, and I had many discussions on the curriculum, so when I completed my work I addressed my proposal to Major General Garrison H. Davidson, Commandant, and gave it to Dr. Birrer to take to him. I received no acknowledgment from General Davidson, who must have been bemused by my effrontery.[7]

In 1951 I had begun to write for professional magazines; my first article was on mine warfare for the Combat Forces Journal, formerly the Infantry Journal. While at Cologne I had sent them "Thoughts on Training," based on my experience with the 22d Infantry; it appeared while I was waiting for the course to begin. In October the Combat Forces Journal published my "What is the Army's Story," suggesting that the Army get straight the public message of its reason for being. At Cologne, while reading and visiting General Gavin's headquarters, I had begun a long piece called "Harness the Revolution" that I finished after arriving at Leavenworth. I submitted it to the College monthly, Military Review; it won the January 1955 monthly prize.[8]

That summer of 1955 Nancy took the children by air to Lexington, while I took leave to drive the car through Virginia's Shenandoah Valley to study Stonewall Jackson's Civil War campaigns,[9] then through Washington to Boston, doing business along the way.

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[7]Later in the year I asked the Assistant Commandant, Brigadier General William F. Train, for an appointment. I left him with a book from the College library by the British military analyst and historian Major General J.F.C. Fuller, whose many writings I had admired for some time. The book was Memoirs of an Unconventional Soldier; I called General Train's attention to those pages in which General Fuller told how, when between the wars he became Assistant Commandant of the British Army's staff college at Camberly, England, he had called in the Director of Instruction and told him to throw out all instructional material; the course would be rewritten in its entirety. I suggested that such action was now called for on the part of General Train. Nothing came of my visit but he graciously sent me a note later listing some well known British officers of World War II who had attended Camberly at General Fuller's time.

[8]It opened with "In this crucial hour of decision that is upon us today, the United States Army must find the answers to two massive questions: What is the role of the Army in our nation's security? How should it organize to fulfill that role?... Once the role is determined the task is this - - to do today those things that will make that Army of the future an unbeatable fighting instrument. Revolutionary means of warfare are now emerging. We must integrate these means into a superlative weapons system for ground combat. With objectivity, imagination, and vision we must attack this task. Extraordinary leadership and character will be required to see it though..." A major with ten years service, I was neither in doubt nor shy!

[9]The LeavenworthTimes story on that trip is on the next page. My interest in Jackson's Valley campaigns would have repercussions almost thirty years later when I was Commandant.

DAUGHTERS MAKE RECONNAISSANCE—Connie Cushman, 8, points to a spot on the map used by her father, Maj. John H. Cushman of Ft. Leavenworth, during his recent tour of the Shenandoah Valley while sister Cecelia, 6, looks on. Major Cushman, here shown telling the girls about his trip shortly before their bedtime, is a student of historic battle sites. (Times Photo)

THE LEAVENWORTH TIMES, Sunday Morning, September 4, 1955.

Major Visits Shenandoah Valley As a Scholar, Not a Vacationer

By CAROLINE COLLINS

In the course of delving into accounts of this summer's vacation spots, tha reply "battlefields" is disconcerting on an Army post. The popular conception persists that a man likes to put as much distance as possible between himself and his job when vacation time comes around.

The lure of the Shenandoah Valley with its history of Stonewall Jackson's mobile campaign proved too strong a lure, however, for Maj. John H. Cushman, a student at last year's regular course, CGSC, and currently assigned to the Combat Developments Sections of the college. While Mrs. Cushman and their children traveled by train to her family home at Lexington, Mass., Major Cushman drove to Shenandoah National Park where he camped for four days studying General Jackson's "beautiful example of deception and movement."

A man who militarily sees beyond the physical limits of terrain and weapons involved, the major explained, "I feel the study of other operations — not so much tactics or weapons but the effect of personality, the factor of luck, the will of the leader — give a better idea of what makes a successful leader."

"I believe military history is one of the best things any officer can study," he said. His interest in battlefields was aroused during study of the Civil War at the United States Military Academy where he was graduated in 1944. A later tour in Europe from 1951-1954 when he was a battalion commander in the 22nd Infantry of the 4th Division gave Major Cushman an opportunity to study a number of historic battle sites.

The earnest dark-haired officer who appears as much the athlete as a military man described the World War II battlefields of Arnaville, France, and Schmidt, Germany, where small unit actions predominated. He noted that the highly destructive German artillery detonating in the trees of the Huertgen Forest had virtually changed the character of the land to raw farmland, now resettled by refugees from the East Zone of Germany.

Asked for the sources used in the intensive study which precedes a trip to a battlefield, the major crossed the room to pull a book from a case well-filled with professional volumes. "US Army in World War II, Three Battles, Arnaville, Altuzzo and Schmidt" was the businesslike title on the first book. Regarding the Civil War, he feels the best source is a pamphlet entitled "Shenandoah" published by the Australian Staff College in 1952, the late date indicative of recent interest in this "example of a war of movement."

Major Cushman's attractive blonde wife sat curled in a chair halfway across the high-ceilinged room. (Due to the size of their family, composed of Constance, 8, Cecelia, 6, Kathleen O'Neill, 5, Mary Allerton, 2, and Jack Jr., 1, they are entitled to large quarters in the famed Beehive.) She confessed to a lively interest in the histories of battles but has been able to accompany her husband only once to the actual site. That was at Waterloo, which they both described as similar to Atlanta with its cyclorama. Mrs. Cushman feels it an especially rewarding experience for a wife to accompany a military man to a battlefield.

Traces of trenches and devastation at Verdun, Somme and Cambrai were noted in the young officer's tour of scenes of conflict. Roman battlefields in Belgium and France where Caesar's legions fought claimed his interest. Military history became increasingly meaningful and vivid as he was able to see the areas of operations.

But above all his interest centered in Field Marshal Rommel's push through the Maginot Line in 1940, when almost 50 miles were covered in a single 24-hour period. After detailed study, Major Cushman traveled from Dinant, Belgium, to Cambrai. A side incident of interest was the concrete post knocked down by the first German tank to cross the Line at the customs gate at Sivry; it was never restored.

Major Cushman's method of studying a battlefield is first to drive to where he can overlook most of the ground, then to compare his maps and read over material concerning the site. Particularly rewarding are conversations with natives in the vicinity of the battlefield.

While at Shenandoah studying General Jackson's Battle of Port Republic he obtained a great deal of local color from two elderly schoolmarms. Their home, recently torn down, had been a Confederate hospital, and pictures taken in 1902 showed the hole in the chimney made by a Yankee cannon ball. Until the day the house was destroyed, bloodstains on the floor under the rug were reminders of that campaign.

Throughout the evening the recurrence of the word "mobility" finally brought the conversation back where it began — to Shenandoah and a campaign which was won by the use and exploitation of mobility by an inferior force to accomplish its mission. And back to something more difficult to define which had likewise threaded the conversation — the military insight, the personality, the vision of such great leaders as Jackson which is made manifest upon the scenes of their triumphs.

The major, who has done some writing in the past, is interested in applying his research in an article "to emphasize the factor of mobility in modern war." And next? The answer came with no hesitation whatsoever. He's looking toward Georgia and Sherman's campaign. After that many other battlefields will doubtless kindle the interest of this military scholar.

Under Colonel Weld I found an outlet for my reform-minded activism. The previous year had been bad for the Army. President Eisenhower had put into place a new military strategy with the short title of "massive retaliation." It would rely on the nuclear weapon and an expanded Air Force to meet military challenges, and would substantially reduce the size of the Army. The defense budget he proposed at end-1954 reflected the new strategy. The Army Chief of Staff, General Matthew Ridgway, objected strenuously, arguing that United States military capabilities must provide for meeting situations short of those that might call for nuclear response. He got nowhere and in July 1955 he was replaced by General Maxwell Taylor. Meanwhile a group of activist Army colonels in the Pentagon had been mobilizing to fight the Army's battles in the Congress and in the media. Among those was Colonel George Forsythe, with whom in the 22d Infantry I had become good friends and who had a high regard for me. I wrote him to enlist in the effort.

On my travels east I stopped to see George Forsythe in Washington, then continued on my way to Lexington, visiting various political-military think tanks at Princeton, Columbia, Harvard, and MIT and sizing up the growing academic support, as the Cold War continued unabated, for readiness for "limited war," as differentiated from all-out nuclear war with the Soviet Union.

When I returned to Leavenworth I kept in touch with George, and beat the drums for that kind of thinking. That fall, he was among those creating the Association of the United States Army (AUSA), whose new monthly magazine Army would project the Army's line. He and others organized the founding AUSA annual meeting at Fort Benning, to which the College sent a delegation. As the action officer at Leavenworth on that project, I was a delegation member and was soon the moving figure behind setting up the Henry Leavenworth chapter of the AUSA (its first chapter) and became its secretary.

In September 1955 Colonel Weld's domain was reorganized and I went into a new section called Current Analysis, concentrating on short range development of the Army's organization and doctrine.[10] I became the College project officer on ATFA, the Atomic Field Army, the new name for the Army of the future, and sought without success to

[10]Among other projects I was action officer for the College position on results of tests at Fort Benning of a new organization and tactics for the infantry division. I drafted a recommendation that the commander of the division's new logistic support command also be the the division G-4 (logistics staff officer); that concept had worked successfully in the British Army. People were so busy that this heresy slipped by until I specifically highlighted it to the Commandant's attention, at which an uproar ensued, as I had expected, and that notion was expunged. I was also engaged in the study of new organization for the command posts of division and corps, to be called a Tactical Operations Center, that would provide more effective coordination of operations, including the use of nuclear weapons. That title and concept have remained to this day.

mobilize support for it to be the vehicle for College instruction in the 1956-57 curriculum. I was assigned to present two hours of instruction on ATFA for that course.

That fall I organized a group of faculty members, all senior and some far senior to me, who began an unofficial study of the "optimum strategy and organization" for war short of nuclear war on the Soviet Union's periphery; our goal was to prepare a series of thought-provoking articles for the Military Review, which appeared about a year later.

Aside from all that, I had been named secretary of the post dramatic club and was working within the Holy Name Society of St. Ignatius Church on post toward persuading the post authorities to provide bus transportation to parochial schools in Leavenworth, while at the same time getting the Diocese of Kansas City, Kansas, to accept the increased enrollments in the schools downtown that would result.

Family and post life, in 1955-56, my first faculty year, was not helped by our having to live another year with our five young ones in the Beehive with its dingy halls and cluttered stairwells; as a major I had not enough rank for four-bedroom faculty quarters. But that summer we were able to move into quarters in East Normandy. The next two years at Leavenworth would be markedly different professionally from my first faculty year.

June 14th, 1956, was the birthday of the Infantry (and of the US Army, in 1775), for which Infantry officers at Fort Leavenworth were organizing an Infantry Ball. Lt. Col. Bev Read was in charge, and he recruited me to help, along with Major Dick Hallock, who had just graduated from the Regular Course. Dick and I were to take from storage a large replica of the Combat Infantryman's Badge and install it overhead in the ballroom. As we worked we fell into conversation, quickly realizing that we had similar ideas about the inadequacies of the Regular Course.[11]

At just that time, the Commandant, General Davidson, was being replaced by Major General Lionel C. McGarr, whom Dick knew rather well from having served under him as a regimental S-3 when McGarr was commanding the 7th Infantry Division in the Korean War. We agreed that together we would build a plan to overhaul the College curriculum with a view to presenting it to General McGarr. At the end of September, having met with General McGarr to arrange it, Dick presented to him our joint paper.

[11]Dick (Richard R.), a graduate of Oberlin College and well-educated in the liberal arts, was a brilliant officer with an incisive mind. He became an Army officer through Officer Candidate School and served in an airborne infantry battalion in Europe in World War II. In the late '40s-early '50s, he had served in Army intelligence in Europe, whence he had become a special assistant to General Lucius Clay, the US Army commander, as the Cold War was heating up. He had there developed a unique ability to sit at a senior officer's side advising on policy and personalities, which he exploited in his soon-to-become-close relationship with General McGarr.

Typed by me on our home portable and reproduced here, it was to be fateful in my, and Fort Leavenworth's, life.[12]

30 September 1956

1. a. CGSC instruction is inadequate. It is out of date, sterile, stereotyped, inflexible, unimaginative, and fails to prepare for conditions as they exist in the field. Its doctrine is essentially ETO-World War II and its approach to atomic warfare is to superficially impose atomics on conventional doctrine.

b. At a time when it is vital to the future of the Army and the security of the nation that service schools lead in support of the announced aims and policies of the Chief of Staff, CGSC support is late and incomplete.

c. CGSC does not develop the qualities that will equip the professional officer for his future responsibilites in the atomic-air age: initiative, imagination, flexibility and independence of mind, moral courage, and command decisiveness. It is even questionable how well CGSC prepares the officer for conventional war, should one occur today.

d. Related problems exist, such as: limited classified instruction, nonresident instruction, research side of college.

e. The cause of this situation lies in the CGSC system, the organizational concept and operational procedures that have grown up with time. This ponderous system has mastered the management, through the sheer work involved in any significant change. The Staff is overcentralized and out of balance with the Line. The system is complacent, inbred, essentially negative in outlook, closes ranks against change, and stifles growth. It not only fails to exploit the considerable talents available, but it absorbs additional talents without useful product. Attempts to change the College have had piecemeal effect because they did not attack the basic root of the problem, the system.

2. a. The basic missions of the College are:(1) to prepare officers to fight today, and (2) to prepare professional officers for the future.

b. This means that the course of instruction must be changed to: (1) teach doctrine that can be used in combat today, (2) incorporate the new division and other organizations, (3) train realistically and imaginatively in atomic warfare, and (4) develop the faculties which equip an officer to keep pace with the rapid change in war.

c. Related problems must be solved concurrently.

d. The present system cannot produce changes of this magnitude in the time available.

e. With a new approach CGSC can turn apparent disadvantages into assets. It can make these changes and at the same time support the aims of the Chief of Staff and assume its role of leadership.

[12]The 194-page USACGSC document, Special Report of the Commandant, 1 January 1959, which was essentially Dick Hallock's 1958 work, is a comprehensive exposition of the changes of the next three years.

We adapted my earlier idea of a "pilot model," except that we recommended that, in one year, part of the College would write a complete new curriculum, while at the same time the rest of the faculty carried out the old one. The paper went on...

3. a. The solution is for CGSC to concentrate on changing the basic system concurrently with preparation of the 57-58 courses of instruction. The current management and system continue to conduct the 56-57 course, making all changes possible within their capacity.

b. Establish now a group to plan, develop, and test the 57-58 course and to form the nucleus of the new instructional organization. Initially, the chief of this group is essentially responsible to the Commandant. He has first priority on personnel and other support. Using a selected group of current students as a prototype class and as potential future instructors, he plans, develops, and tests the new course. This group must start out small, keen, eager, and imaginative. It will be a dynamic nucleus which through its own qualities will attract and integrate other dynamic individuals as it grows. By August 1957 the nucleus will have expanded to a new instructional staff and faculty, with a new personality. The old instructional organization will concurrently phase out, together with its personality.

c. During the same period, planning proceeds to solve the related problems (future doctrine, nonresident instruction, etc) so as to produce an integrated solution. This provides an opportunity for a basic solution to these interlocking problems.

d. This solution is feasible in terms of manpower resources, since it does not visualize a completely new rewrite. Rather it visualizes a new basic course plan, into which much of the present course can be logically integrated, ~~with relatively minor change~~.

We thought better of those last four words, which in the event were entirely inaccurate. Dick drew a line through them just as he was leaving to see General McGarr.

In the early summer of 1956, General Taylor, Army Chief of Staff, had reacted to the pressures on him to get in step with the "New Look" strategy and budget competition. He abandoned the idea of simply modifying the division organization, and decided instead to create out of the blue a totally different "pentomic" division, the first of which would be the 101st Airborne Division, to be activated at Fort Campbell, Kentucky. Its "pent" derived from the five battle groups that were its maneuver elements, each of which had five maneuver companies; this eliminated the battalion and regimental echelons of the former "triangular" division (and, further, provided no command slots between captain and colonel). It's "tomic" came from the Honest John missiles with nuclear warheads that were in its division artillery.

Early in October 1956, the CGSC began development of a new Army field manual for the Army's pentomic infantry divisions, to which all active Army and National Guard triangular infantry divisions were to be converted. I was named to the committee that would write this new manual.[13]

Maj Gen Lionel C. McGarr

That summer of 1956, an Educational Survey Commission, chartered a year earlier by General Davidson, had completed a study of the Command and General Staff College program and methods;[14] although positive, it had also been quite critical. General McGarr wanted to put its recommendations immediately into effect. Meeting alone in his quarters with Dick Hallock (with me off stage as Dick's accomplice), he began without the knowledge of any of the faculty to prepare dynamite charges. They would shake the very foundations of the Command and General Staff College as he drove it to adjust to the changes demanded by his continuing guidance.

The first dynamite charge came October 25, 1956, when General McGarr met with the faculty to tell them that they would rewrite completely the College curriculum for the 1957-58 school year (known as the "slant eight" curriculum, for the "/8" which followed each subject's number). He soon followed that with a detailed, signed, eleven page single-spaced paper, "Guidance for Planning the /8 Curriculum," that he had prepared with Dick's help. Then he issued a blizzard of directives calling for the faculty to study ways to organize and work to accomplish the rewrite. Of course I knew that Dick's hand was behind all this; we cooperated covertly. But, as yet, few suspected Dick and no one suspected our collaboration.

[13]Made in desperation in an effort to gain resources and regard for the Army's contribution in the nuclear-oriented Eisenhower administration, General Taylor's decision turned out to be a mistake. The new organization was the untested product of a study by a small group and did not work well in practice. Within three years all the Army's infantry divisions, both active and National Guard, were converted. Then, in 1961, upon President Kennedy's election which led to an increase in Army strength, all were converted back to something resembling the old organization, with brigade replacing the regimental echelon.

[14]The Commission was composed of three outstanding combat commanders of World War II (Lt Gens Manton S. Eddy, Geoffrey Keyes, and Troy S. Middleton) and three distinguished civilian educators. Eddy and Middleton had been instructors at the prewar College, and after the war Eddy had been its Commandant.

On December 4, 1956, General McGarr cut through the welter of the faculty's studies and addressed the faculty with his solution -- a complete reorganization of the College instructional departments, first, for the curriculum's rewrite, then for its execution. The old departments would stay in place for the execution of "slant seven," while the new departments would report to the "/8 Coordinator," Colonel Ward Ryan. On that day I was reassigned from the committee writing the division field manual, where I had finished Chapter 1, Introduction, and was made a part of Colonel Ryan's office. And Dick, who had been operating all along in the Department of Non-Resident Instruction, was named the Commandant's "special assistant for /8 planning," with an office adjacent to that of General McGarr. Nine weeks had elapsed since our paper went to General McGarr. The course would begin in August 1957, nine months away.

General McGarr was not an adept change agent. Communication and persuasiveness were not his strong suits. Very much the proven combat commander, he was intelligent, insightful, and shrewd. But compared to the smooth and likable Gar Davidson, his equally intelligent though less visionary and decisive predecessor, McGarr came across as blunt, rough, humorless, and suspicious -- not easy to like. His guidance was largely in writing or in speeches to the faculty, mostly prepared with Dick Hallock's help, with no give-and-take and little explanation to the listeners groping for understanding.

Ward Ryan and the new department directors, quickly named, first had to design the course. Virtually every "unit of instruction" (lesson) in the Regular Course, 1100-plus hours in length, was to be rewritten. Because the locales of the map exercises that were the heart of the course (e.g., The Infantry Division in the Defense) went worldwide (not 95% in Europe as in previous years); most of these exercises were placed in a new locale. For each one the author/instructor had to find maps and prepare overlays, write the general and special situations with their First Requirements, then their Second and Third Requirements, with the teaching/learning points for each. The department head or his subordinate section head then had to conduct a faculty review of the entire package and of its doctrinal references. After this review the entire bundle had to be sent to the print plant to be made into hundreds of copies in time for instructors to become thoroughly prepared to teach the lesson.

The Commandant soon issued his "approach to instruction"...

> *Instruction is designed to develop student reasoning ability, decision-making ability, character, self-expression, and ability for team work. Specifically, the student must be able to recognize a problem, determine the basic issues involved, obtain the necessary information for solution, understand and properly apply principles, analyze problems based on available information, arrive at sound logical solutions or decisions with reasonable*

speed, communicate his reasoning and decisions with facility, both orally and in writing, and know how to supervise so as to ensure proper execution. While the student is indoctrinated in sound doctrine and procedures, detailed instruction and memory work in skills and techniques which are subject to change and more rapidly learned in the field are held to the minimum. Instruction is oriented primarily on developing logical, practical, and original reasoning ability in military problem solving, rather than on the merits of any single solution. Particular attention is given to the development of intellectual honesty, integrity, and professional values and standards.

The Commandant's, and his faculty's, problem was to define how to accomplish these worthy goals. Among the host of initiatives that followed: classroom configurations that allowed increased small group discussion,[15] instructor evaluation of student oral performance, and acceptance of sound logic that led to other than the "approved solution."

The faculty divided into two camps, the larger of which, coalescing around the Assistant Commandant, Brigadier General William F. Train, lined up against McGarr describing his program as unnecessary -- "change for change's sake." A few were on his side, most importantly Dr. Ivan Birrer, the Educational Advisor, who had seen commandants come and go since 1948 and who, keeping his lines open to the dissenters, was helpful in making things work. Ward Ryan was loyal, as was the rock-solid Colonel John Franklin, College Secretary, along with the newly chosen /8 department directors. But because General McGarr's persuasive and communicative skills were so lacking, these loyalists were often hard put to defend his decisions, despite their essential soundness. General Train, who would be gone by summer, found himself out of the loop for /8 instruction and relegated to simply completing the '56-'57 year.

Dick Hallock and I continued to work together. I would occasionally give Dick a hand with ideas, or comment on what he was considering. Discussing them with him, among others, I wrote two important directives, The Doctrinal Basis for Instruction, and The Design of Units of Instruction, that attempted to spell out how to go about achieving the intent of the Commandant's guidance. I was the author of the 40-page 1957/58 Catalog of Courses that would articulate the new Leavenworth. Dick and I would spend hours either at his quarters or mine thrashing out ideas. As it became known that we were in touch with each other, people talked of the "major" revolution at Leavenworth. I sensed that I was not well regarded by some who, correctly, saw me as a Hallock ally.

Working 12-14 hours a day, my time went by fast. Everything was in flux -- new doctrine came off the press; an innovative category of subject matter called "Situations Short of

[15]Ivan Birrer came up with the idea of two-man tables that could be arranged for group work, with curtains pulled to divide the classroom. Bell Hall, the new College building, was then under construction; it opened in 1958 with folding partitions that allowed each large classroom to be divided into four small ones.

War" (Dick Hallock's idea) was added to the curriculum; a variety of instructional methods was introduced; the student evaluation system was modified; atomics were incorporated from the ground up. Lessons were to be built in blocks of three hours, scheduled one in the morning and one in the afternoon. The schedule took shape.

Permit me to reproduce these pages from the /8 Catalog of Courses. They represent our effort's final product, which was profoundly different from that which went before...

THE Regular Course curriculum consists of 8 courses of study, 1 prepared by each of the 6 academic departments and 1 by the Department of Combat Developments, except that the Department of Staff and Educational Subjects presents 2 courses of study. Each course of study focuses on the achievement of the instructional purpose of the curriculum.

Recognizing the impossibility of exploring completely the entire gamut of ground operations, any curriculum is at best a sampling of the more vital subject areas. The subject content of each course of study is selected to provide the best and most comprehensive sample of possible learning experiences, consistent with the depth of approach essential to understanding.

The curriculum is introduced by a series of subjects not assigned to a course of study, the purpose of which is to place the course in perspective. This includes such instruction as *Content and Nature of the Curriculum, The Army and National Security,* and *The Principles of War and their Application in Atomic Warfare.*

The courses of study are:

STAFF—148 hours

The purposes of specific instruction in staff subjects are: to provide thorough grounding in staff mechanics; to provide initial application of these fundamentals, procedures, and techniques in basic problems; to present basic instruction in oral and written communication; and to provide a broad understanding of staff theory and pertinent staff systems.

The staff is taught as the vital and essential tool of command. The higher level staffs are taught after a thorough grounding at division level. This instruction is followed by thorough and detailed application of staff integrated in all other courses of study, so that actually these hours are a relatively small part of the total instruction in staff activities.

The broader treatment of the staff later in the year includes the consideration of staffs of other services and other nations in *Comparative Staff Systems.* It also includes *The Staff as a Tool of Command,* which synthesizes and culminates all staff instruction. Parts of this subject deal with *The Intelligence Function, The Control and Coordination of Tactical Operations,* and *The Control and Coordination of Administrative Support Operations.*

This approach to staff instruction is designed to produce a graduate who not only is well grounded in staff mechanics and procedures, but who also can serve confidently on any staff in any future situation.

SPECIAL WEAPONS—47 hours

With respect to technical special weapons instruction, the aim of the Regular (and Associate) Course is to prepare the student as a com-

mander or general staff officer in the supervision of the trained specialist, the atomic weapons staff officer. Classified technical instruction in special weapons required to accomplish this purpose is contained in this course of study. Atomic warfare instruction throughout the curriculum is unclassified, except that additional classified technical instruction is contained in 30 hours of instruction specifically designated in other courses of study. This course includes instruction on the technical aspects and operational problems of chemical, biological, and radiological warfare, which is also applied in other courses of study.

INFANTRY DIVISION—253 hours

The instruction in infantry, armored, and airborne division operations is the heart of the curriculum and the foundation of tactical instruction. The purpose of infantry division instruction is to provide the student with experience as a commander and staff officer in making and executing decisions and problem solving in the area of infantry division operations so as to develop basic understanding of the capabilities and doctrine of the infantry division in the wide variety of roles, operational environments, and types of operations characteristic of its operations in modern war. Thorough understanding of infantry and other division operations, portrayed realistically in a corps and field army framework, make

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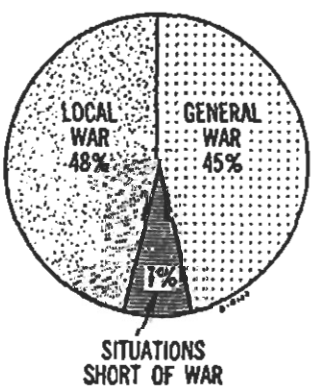
All instruction reflects the atomic-age Army and its versatility in the many roles it will have in different forms of war.

The course is completely atomic, since in the future all ground operations will take place under the threat of the use of atomic weapons, and to classify operations as "atomic" and "nonatomic" oversimplifies the problem. The term "nonactive atomic" more nearly describes the condition in which atomic weapons are not being used but may be used at any time by either side.

Fundamentals are taught in an "active atomic" environment, pointing out nonactive atomic differences. The bulk of applicatory tactical and logistical instruction is under active atomic conditions. Nonactive atomic operations are taught with varying degrees of the threat of use of atomic weapons, and to the extent necessary to ensure that the graduate is capable of performing with equal facility in either active or nonactive atomic conditions.

The scale of use of atomic weapons varies from the threat only, through intermittent and wide use, to their unrestricted use as part of an all-out thermonuclear exchange.



The percentage figures (left) for the Regular Course on forms of war reflect all applicatory tactical instruction in which the strategic setting of the operational problem is significant. Initial basic instruction in staff subjects and the technical aspects of atomic weapons is not included, although much of this is placed in a local or general war setting. Nonactive atomic operations are taught only in the local war and situations short of war environment.

it relatively easier to advance to instruction at these higher levels. In this course of study, as well as in those which follow, the student reinforces and augments his earlier specific staff instruction by its application in realistic combat situations.

ARMORED DIVISION—113 hours

Similarly, the purpose of armored division instruction is to provide the student with experience in making and executing decisions and problem solving in armored division operations so as to develop basic understanding of the capabilities and doctrine of the armored division in modern war. Additional time allocated to this subject over that of previous years provides wider coverage of the various types of operations, gives the student more experience in a division which has a different organizational structure for its maneuver elements, and provides instruction which is common to infantry, airborne, and armored divisions in those operations for which mechanized mobile forces are particularly well suited.

AIRBORNE OPERATIONS AND ARMY AVIATION—147 hours

This course of study includes airborne division, airborne corps, Army aviation, and air-landed operations of the infantry division. It too is oriented on decision making and problem solving, with the view toward developing understanding of air mobile operations and their tremendously growing importance in modern war. Instruction in Army aviation is directed at the introduction and basic application of this subject; the use of army aviation is emphasized in tactical and administrative support operations in all instruction. These subject areas are grouped into one course of study presented by a single newly organized department to ensure the energetic pursuit of concepts of air mobility. Instruction in unconventional warfare is also assigned to this course of study; this latter reflects College emphasis on guerrilla and antiguerrilla operations and on the politico-psychological aspects of modern war on the technical level.

LARGER UNITS AND ADMINISTRATIVE SUPPORT—247 hours

This course of study includes corps, field army, administrative support of larger forces (both logistics and personnel management), and joint operations. These related areas are combined into one course of study to economize on time in instruction by eliminating duplication of coverage, to ensure the integrated approach to doctrinal development and instruction that is vital to progress in these areas, and to give special attention to the vital importance of logistics in modern war. Although this instruction includes the logistical support of larger units, it does not include: division level logistics specifically covered in departmental courses of study (infantry, armored, and airborne); airborne corps logistics specifically covered in the airborne-army aviation course; staff aspects of logistics specifically covered in the staff course; and applicatory logistical instruction integrated in all courses.

Certain instruction by Navy, Air Force, and Marine representatives at the College is included in this course of study. A portion of this course of study is presented at the outset of the curriculum to provide the student with an overall understanding of the environment in which tactical operations take place.

FUTURE WARFARE—65 hours.

From the point of view of the student, the purpose of this instruction is to prepare him to adjust rapidly to the conditions of future war and to contribute to the modernization of the army. From the point of view of the

College, this instruction also serves as a means of evaluating future concepts, developed at the College or elsewhere, and for improving the analysis of weapons. This is a refinement and extension of instruction in this subject presented in previous years.

The course of study includes three short subjects on the Army Combat Developments System, techniques of field testing, and concepts of organization and doctrine currently under development and test. Following this, the instruction presents two 12-hour subjects designed to develop student ability to evaluate weapons systems and to project the student into division operations and organizational concepts in future environments. The last subject of the course is a 6-day exercise in which the student develops and evaluates concepts of future war in an area of strategic significance. Six guest lectures on research and development activities are included in this course. In addition, some future warfare instruction is given in all other courses of study.

EDUCATIONAL SUBJECTS—97 hours

The purpose of this course of study is specifically the long-term development of values, standards, and theoretical knowledge of the student as a professional soldier. Although the entire curriculum orients on this purpose, the educational subjects are distinguished in that they are devoted to the "cultivation of wisdom and judgment" rather than toward the acquisition of a skill. Thus, the treatment of learning is entirely educational, rather than partly training in nature. This course extends a concept of previous years and improves it by treating sustantially the same amount of material in a single block taught by a newly organized section under an integrated approach.

Selected areas from six subjects are presented: *Military Geography, Comparative Military Systems, Legal Status of the Military, Military Organization and Management, Military Psychology and Leadership,* and *Military History.* The College is receiving advice and assistance from the educational world in the preparation and conduct of this instruction. The British and French representatives to the College assist in preparation and presentation of this course of study.

This course not only reinforces by sound theory all other courses of study but additional solid practical value is also expected. Examples: management instruction uses specific "cases" which not only develop judgment, understanding, and discrimination, but also illustrate current management problems both in the Army and in business; and *The Legal Status of the Military* includes required instruction on martial law and the function of the Army in civil emergencies, as well as orientation on such subjects as the "status of forces" agreements.

THE GUEST SPEAKER PROGRAM

Throughout the year, guest speakers are invited to address the student body and to answer student questions in the discussion period which follows each speaker's presentation. The guest lectures are among the most profitable aspects of the course. The program is designed to provide outstanding speakers on professionally and ethically educational topics; to provide stimulating and intelligent ideas from outside agencies and institutions; and to inform students firsthand of the latest thinking on future concepts and materiel of other military agencies.

These pages of the summer of 1957 described what the College leadership was seeking to do. Actual achievement no doubt fell short of these ambitious goals.

In March 1957 I organized a widely attended and successful CGSC conference on "Roles and Operational Environments of the Army in the Field" (ROETAF) that was aimed at insuring that our /8 instructional map exercises reflected and supported the Chief of Staff's new National Military Program. We also attempted to define atomic warfare environments by levels, from being only a threat, to limited use, to large scale use -- a subject that the Army has since wrestled with but never successfully.

That fall I joined a committee writing a new Field Manual 100-5, Operations -- the manual that by tradition sets forth the basic operational doctrine for army forces in the field. Issued in 1949 to reflect the Army's experience in World War II, it had been revised in 1954 after the Korean War. The Army needed a new version to reflect developments in munitions. Soon after that the College was told to prepare an "Army Combat Power Exercise" that a team of Leavenworth instructors was to take into the field to illustrate the new doctrine. I worked on that project too.

During this period, an essential feature of my professional thought began to develop; it was to continue throughout my career and into retirement. I called it then "air/land warfare" or "the air/land battle." The concept stemmed from a conviction that not since the airplane became a means of war in 1917 had there been anything called "land warfare"; it was forever after that "air/land warfare," the doctrine for which required a unified approach. I believed that it was incumbent on the Army, working of course with the Air Force, to lead the way in articulating this doctrine. For this draft FM 100-5, I wrote the initial Chapter One, Introduction, and then Chapter Two, The Air/Land Battle. Chapter Two did not survive into the final field manual and is nowhere to be found.

As the /8 course opened Dick Hallock intimated that he was thinking of asking General McGarr to request my extension on the faculty for another year; I told him that I would prefer not. In September 1957, the visiting Secretary of the Army General Staff, Major General William C. Westmoreland, asked to see me in General McGarr's office; it seemed to be an interview. I soon learned that his office was asking to have me assigned to the Chief of Staff's Coordination Group, the small study cell in the Chief's immediate office when my three years at Leavenworth were to be completed.[16] I wrote the assignment people in the Pentagon that I would prefer that to being extended at the

[16] I surmised that, while George Forsythe, my friend and mentor, had left the Coordination Group, my reputation lingered there, and that new people in that office who had come to our ROETAF Conference had been impressed by my potential as a candidate for their group. One of these visitors was Colonel William E. DePuy, who as a lieutenant colonel at V Corps in Germany was in charge of the battalion test exercise program when I took the 2d Battalion, 22d Infantry, 4th Infantry Division through it in the summer of 1953. We scored highest in the regiment. Bill DePuy came to lunch at our quarters in 1957 and I remember my three-year-old son Jack holding his hand as they walked up the concrete path to our front door at 24 Buckner Drive.

College for a year. On October 10th I received Department of the Army orders to Washington, to report no later than June 30, 1958. That settled the matter.

Our second son, Ted, was born in May 1958; the following month our family of eight left for Washington. Before my departure General McGarr wrote in my copy of /8 Catalog of Courses, "With appreciation and admiration for your great contribution," and presented me with an Army Commendation Medal for my work since 1956.

While I was pleased with General McGarr's recognition, I left Fort Leavenworth somewhat troubled about the reputation that I feared that I had acquired there -- that of a collaborator though Dick Hallock with General McGarr who from within the faculty served them rather than his direct superiors and confreres.

I may be too hard on myself, but my handling of my role in this overhaul of Leavenworth has been a concern of mine ever since. Because I fully agreed with the direction General McGarr was taking, and had indeed been party to his taking that direction, I worked for months with Dick Hallock while keeping the degree to which we worked together from my colleagues and from the College hierarchy whom I was seeking to serve well. As 1957 wore on and the /8 course took shape, I cut back working with Dick, ending it when I submitted through Ward Ryan my draft Catalog of Courses, on which Dick had commented to me privately. My conduct seemed the right thing to do at the time. For the first time to anyone I reveal here its full nature.

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That summer I went on to the Coordination Group in the Office of the Chief of Staff, whence in early 1961 to the Office of the General Counsel (Cyrus R. Vance) to work on Robert McNamara's Pentagon reorganization schemes, thence in 1962 as a military assistant to Mr. Vance when he was named Secretary of the Army. From there I went to Vietnam to serve a few weeks in Saigon, then as senior advisor to the commander of the 21st Infantry Division and 42d Division Tactical Area in Vietnam's Delta. After a year at the National War College I joined in 1965 the 101st Airborne Division at Fort Campbell, KY, where I served as installation Director of Supply and division and post chief of staff, and then took command of the 101st's 2d Brigade as the division was alerted for December 1967 deployment to Vietnam, where I led the brigade in the fighting north of Hue during Tet 1968 and its aftermath. In 1968, a new brigadier general, I commanded Fort Devens, Massachusetts, returning in February 1970 to Vietnam. There I was deputy senior advisor then the major general senior advisor to the Commander, IV Corps and Military Region IV, returning in 1972 to Fort Campbell to command the 101st Air-

borne Division. I welcomed the division's colors back from Vietnam and brought it to full combat readiness under a Unit of Choice recruiting program. My next assignment, in August 1973, returned me to Fort Leavenworth as Commandant.

Dick Hallock did not fare as well. He left Leavenworth in 1959 for Turkey, then returned to the Pentagon, and later was a student at the Army War College under Major General Train, whose nemesis he had been while Train was Assistant Commandant, CGSC. At Fort Campbell in 1965, I received a desperate call from him; General Train had butchered him on his academic report to the extent that he had been passed over for colonel, and he was seeking advice or help. Dick successfully challenged that evaluation and was in due time promoted, but retired not long afterward. I know that he worked in Iran during the Shah's regime, and lived out his last years in California then Ohio, leaving a bequest to his cherished Oberlin College that funded its Hallock Auditorium.

Part Two, 1973-1976

There is no way that in fifty pages or so I can cover fully my thirty-month second tour at Fort Leavenworth. Histories written at the Combined Arms Center and in the Training and Doctrine Command address in detail this turbulent time. Here I deal with some highlights and a few major issues of my tour as I see them. From the huge stack of papers that I saved from those times, I have selected some; they are attached as annexes. For a full appreciation of my story, I ask the reader to look them over carefully.

The Beginning

The story of this tour at Fort Leavenworth begins in June 1973 when I, then a major general commanding the 101st Airborne Division at Fort Campbell, Kentucky, was visited by General Alexander Haig, Army Vice Chief of Staff. As he was preparing to depart, General Haig hinted that he knew my next assignment, saying only that I would have a nice set of quarters. Somehow I sensed that I would be Commandant of the Command and General Staff College. I soon received my orders.

I had taken command of the 101st fourteen months earlier, welcoming its colors and a few hundred of its soldiers back from Vietnam. At the April 1972 homecoming ceremony were General William C. Westmoreland, Army Chief of Staff,[17] who officiated at the transfer of the division colors to me from my classmate Tom Tarpley, its last commander in Vietnam, and General Ralph Haines, commanding the Continental Army Command. General Westmoreland was planning a major reorganization of the Army in the continental United States. In charge of the study project, called Steadfast, was Lieutenant General William E. DePuy, Assistant Vice Chief of Staff of the Army. Waiting for the ceremony to begin, I overheard General Haines taking exception in conversation to the direction the reorganization study was taking; it was evidently visualizing a breakup of CONARC.

[17]General Westmoreland had commanded the 101st at Fort Campbell years before. In Vietnam I had served under him as a division advisor (1963-64) and commanding the 2d Brigade of the 101st in Vietnam (1967-68). As Chief of Staff he had visited Fort Devens in 1969 during my time in command there, and I had made a favorable impression on him. It was he who told me in 1971, when I visited his office while on leave from Vietnam, that I would command the division when it returned home; and it was he, speaking later that year at an AUSA luncheon at Fort Campbell, who announced that the division would come back to Fort Campbell and that I would command it.

In early 1973 the study was completed and its recommended reorganization was approved by the Secretary of the Army; it did indeed divide CONARC into two parts. A new Forces Command, its headquarters to be at Fort McPherson, Georgia, would encompass all of the Army's active, Army Reserve, and National Guard units in the continental United States. The remainder of CONARC, namely the Army's service schools and training centers, would be gathered under a new Training and Doctrine Command (TRADOC) which would take over CONARC's headquarters at Fort Monroe, Virginia, and which would also assume the functions and people of the Army's Combat Development Command, heretofore located at Fort Belvoir, Virginia. TRADOC would be commanded by the to-be-promoted General William E. DePuy, who selected me to be his commander at Fort Leavenworth.

I had come to know Bill DePuy rather well. I was with him in the Army Chief of Staff's Coordination Group in 1958-59; he then went on to the Imperial Defense College and to battle group command in Germany. When he returned to the Army Staff in 1962 to take charge of counterinsurgency I was a military assistant to Secretary of the Army Cyrus Vance; we renewed our association. There he made brigadier general. General Westmoreland, who had in 1964 become the US commander in Vietnam, brought Bill over to be his J-3 (operations officer) masterminding the US forces buildup and their early operations. After a year or so he commanded the 1st Infantry Division in some of its heaviest fighting, returning to duty in the Joint Chiefs of Staff as its counterinsurgency expert, thence to duty in the Office of the Chief of Staff. When I took command of the 101st Airborne Division, I recruited his star performer in the A-Vice shop, Lieutenant Colonel Lou Menetrey (who had been selected for colonel below the zone) as my G-3 (operations officer), with a promise that he would get a brigade in a year. I then recruited another star performer, Lt Col Fred Mahaffey, to replace Lou as G-3.[18]

Bill DePuy thus knew what we were doing in the 101st. For one thing, we were putting into practice ideas that I had learned from him on the tactics of the infantry rifle squad, as he first espoused these in an insightful article that he had written in 1961 or so, called "11 Men, 1 Mind." He had further developed his squad and platoon tactical thinking in movement to contact and assault tactics that featured "overwatch," and had put them into practice in the 1st Infantry Division. In the 101st we had adopted and extended these techniques in our squad and platoon training, and had prepared battle drills and a training film on them. With others, Bill had watched us, using a Unit of Choice

[18]Both Menetrey and Mahaffey went on to four-star rank.

recruiting program, build the all-volunteer 101st from less than a thousand men to a fully combat-ready division by the summer of 1973.[19]

Bill DePuy had his favorites, who made up a roster of very good men, but, although he chose me to command Fort Leavenworth, I was never one of them. This story of my two and one-half years in command at Fort Leavenworth cannot be told without describing my problems with Bill DePuy and his with me. After I left Leavenworth for Korea in 1976 I never saw or heard from him again.[20] In his last days, I wrote his son Billy of my sorrow that his life was ending. May his soul rest in peace.

Under Steadfast, Fort Leavenworth (then commanded by my USMA 1944 classmate Jack Hennessey, who was being promoted to lieutenant general) had been designated the Combined Arms Center (CAC). CAC was one of three TRADOC "coordinating centers," the other two being the Administrative Center at Fort Benjamin Harrison, Indiana, and the Logistics Center at Fort Lee, Virginia. Each center was to "coordinate" the activities of the various Army service schools that came under its umbrella; for CAC this meant the schools of the combat and combat support arms -- Fort Benning (Infantry), Fort Knox (Armor), Fort Rucker (Aviation), Fort Belvoir (Engineer), and so on.

As CAC commander, I was also to command CACDA, the Combined Arms Combat Development Agency, which heretofore had been the Fort Leavenworth activity of the Army Combat Development Command, now absorbed into TRADOC. The Deputy CG,

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[19]From the TRADOC History: "Commissioned from Army ROTC as a second lieutenant of Infantry, General DePuy saw combat in Europe with the 90th Infantry Division, in which he commanded an infantry battalion at age 25 and ended the war as division operations officer. Later, he served almost three years in Vietnam where he commanded the 1st Infantry Division in 1966-67. In the early 1970s, as Assistant Vice Chief of Staff of the Army, he led a small planning group that developed the concept of revitalizing the Army by focusing the work of preparing the Army for war in a command dedicated solely to that task. DePuy came to Fort Monroe to establish the new command in 1973, and became its first commander. Over the next four years, he spearheaded what was perhaps the most dramatic single advance in tactics, equipment modernization, and training ever undertaken by the peacetime Army. After he retired in 1977, he continued to influence the direction of the Army and TRADOC as a military affairs writer, lecturer, and advisor. Recognized as one of the great Army leaders of his time, he died at Arlington, Virginia in 1992. His legacy was the trained and ready Army that went to Panama in Operation Just Cause in 1989 and to the Persian Gulf in 1990 and 1991." In 1964-67 I had taken exception to Bill DePuy's approach to fighting in Vietnam, having heard enough for me to believe that both as General Westmoreland's J-3 and then as division commander he had misunderstood the nature of the war, downrating pacification and emphasizing massive search and destroy operations by US forces, while allowing those to shunt aside the ARVN (Army of the Republic of Vietnam) troops and to take insufficient note of province and local forces and their advisors who were in the closest touch with the people.

[20]But a few years after I retired I was asked by Joshua Lederberg, a Nobel laureate, to join a group he was assembling for a project for, as I remember, the National Academy of Sciences on the use of artificial intelligence in military decision making. When I demurred, for reasons I do not remember well, he persuaded me to accept, saying that General DePuy had recommended me when he himself had turned Dr. Lederberg down because of commitments of his own.

CACDA, recently arrived, was another classmate and good friend, Major General Dennis P. McAuliffe.[21] His assistant was Brigadier General Edward F. Gudgel, Jr.

Maj. Gen. John H. Cushman

My office would be in that of my third "hat" -- Commandant, Command and General Staff College -- in Bell Hall, the academic building which had been completed in 1958 as I had been leaving. Its entrance was through a door that also opened on the office of the Assistant Commandant. This was the peerless Ben Harrison, brigadier general and my indispensable partner for the next 30 months.

In July, while still at Fort Campbell, I had taken four of my 101st work horses, Lou Menetrey, Fred Mahaffey, John Crosby (G-1), and Tom Brain (Cdr, Support Command) to Fort Sheridan, Illinois, to visit the Recruiting Command. I had just completed an intensive fourteen months recruiting from scratch the 101st Airborne Division and bringing it to full combat readiness; these men had been with me through that experience, replete with its stress and innovations. I planned that evening in the visiting officers' quarters to probe with them how I should approach my new responsibility. Lou Menetrey was familiar with the thinking behind Steadfast; both he and Fred Mahaffey knew the views and characteristics of General DePuy.

I told them that I had to decide if I should go into my new job, which would be quite different but which I thought called for reform-minded action, with the same kind of intensity with which I had dealt with the division. In three or four hours, exploring with me the nature of the challenge, they helped me decide that I could do just that, and that I would.

I was fairly familiar with the current Fort Leavenworth. Several months earlier I had visited there for a general officers conference. In the 101st I met with a half-dozen students who had just graduated and then joined. I arranged for background information to be mailed to me. Taking my family (we now had a fifth daughter, Anne) by automobile, I

[21]Replaced within a year by Maj Gen William R. Wolfe, Jr., Phil McAuliffe soon went on to become the three-star Commander in Chief, U.S. Southern Command.

arranged a short vacation for us on the way in a cabin on a lake at Fort Leonard Wood, Missouri. Colonel Tom Giboney, CAC's Chief of Staff, met me there with some more papers and for a day of discussion; I was pleased to learn that my friend from my earlier tour, Dr. Ivan Birrer, was still on the scene as Educational Advisor. Tom took back my draft opening remarks to be typed and to be looked at by key people, including Ivan. Our family arrived I think on Friday, August 10th, the welcoming ceremony was on Monday,[22] and I opened the Regular Course on Wednesday morning the 15th.

Brig. Gen. Benjamin L. Harrison

In writing this account, it was a pleasure for me to read once again the 21-page manuscript of my opening remarks. They were too long, perhaps, but I poured into them all of the expectations and convictions I had now arrived at, recalling all the while my experiences of almost twenty years before. They were indeed a blueprint for what I meant to accomplish, and for what I believe I largely did accomplish. Edited then somewhat for posterity, they are at Annex A.[23]

Instruction

Although my every day at Fort Leavenworth would be a melange of instruction, doctrine, and combat developments, I thought my first priority to be the Regular Course. Two recent events directly affected it: OPMS and EAD.

[22]In which the post band welcomed me with the 82d Airborne's "I'm All-American and proud to be..."

[23]My remarks reflect a real affection for Fort Leavenworth. I was glad to be back in its familiar and evocative surroundings. In 1934-36 we lived in student housing at 324-G Doniphan. When I was visiting Nancy at her home in 1944, her mother, discussing the problems of "clearing quarters," mentioned that the cleanest set of quarters she had ever moved into was at Leavenworth, where Nancy's father had been in the one-year class of 1936-37. It turned out that Major Troland's family had moved into quarters vacated by Major Cushman's. I well remembered helping my Dad clean them! Score one point for the suitor of Nancy Troland. Those years I had gone to Immaculata High School. In 1973 I received a letter from Sister Mary Constantia, a high school teacher in Kansas City, KS, who had seen my name in the newspaper. She wrote, "At Immaculata High School 40 years ago, I taught geometry to a little redheaded boy from Fort Leavenworth. He was one of the youngest and brightest in the class. His name was 'Jack' Cushman. After high school he received an appointment to West Point... I am writing to ask you if you could be that little chap that was such a pleasure to teach." Sister came up at Christmas time to visit us and to meet my visiting mother.

OPMS, the Officer Personnel Management System, introduced by the Army in 1971, had established some fifty officer specialty fields that allowed each officer at about ten years service to broaden his opportunities for service and advancement by pursuing a "secondary specialty," such as "financial management," in addition to his or her primary specialty, such as "air defense artillery." The College had anticipated this development a few years earlier by allowing each student to choose "electives" -- not part of the "core curriculum." The electives had increased each year, and would do so again.

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EAD, the Echelons Above Division study, recently approved by Army Chief of Staff Creighton W. Abrams, had eliminated the field army echelon, which had been a fixture of the standard Army in the Field since World War I, and had made the corps, heretofore an echelon of tactical command only, one of administrative (personnel and logistics) support. Corps would not only direct the operations of divisions and other units in the corps; it would support them with service support. This would require considerable rewrite of instruction.

But these would be only part of what was about to take place as I set about to overhaul the entire curriculum. Four weeks after taking command, I had assessed the situation sufficiently to meet with the Faculty Board[24] to start the process. Using its verbatim transcript, Ben Harrison wrote a September 26 memorandum for the faculty that summarized the meeting. On reading that memorandum decades later for this work, I was pleased to observe its vision and clarity.[25] At Annex B; it too deserves a good look.

I told the Faculty Board that my first requirement was that <u>the curriculum be real</u> (page 2, Annex B). Thus, as we dealt with teaching the infantry division in the defense, I insisted

[24]Except for moving Joe Hynes from the Department of Command (to which I added the Profession of Arms Committee) to Secretary and replacing him with Jess Hendricks of Tactics, and except for the Department of Tactics, headed until June 1974 by the exemplary Colonel John D. White, the organization and Faculty Board shown here was unchanged to produce and open the '74-'75 course.

[25]I also have a verbatim transcript of another meeting, which at this date impresses me with its verbosity and wanderings, aspects Ben Harrison and I surely policed up as we worked on Annex B. As Major Doughty relates in his paper (see footnote 28 below), the faculty, struggling to understand, was not always clear as to just what I intended (nor, unfortunately, was I).

that we portray the units of the school's fictional 20th Infantry Division defending frontages approaching those then in effect for our divisions in Europe. Howls came that "that is not how we want to fight"; instructors wanted to teach the principles of defense under what could be called "standard" conditions. Our solution was to have the Tactics Department prepare 31 hours of tactics orientation, then teach defensive operations in a continuing exercise that portrayed the school's X Corps with its three divisions on Germany's eastern border on a frontage similar to that of V Corps, differing only in that we did not reveal the actual war plans.

I later went with Ben Harrison and Colonel White, Tactics Department director, out on the ground west of Fort Leavenworth where we conceived a problem that placed a brigade as part of a division on a front like that of a division in Europe. There, in an elective required of all combat arms officers, students could see for themselves what such a situation meant on the ground and could learn to cope with it.

Another charge was Make them think,[26] Many years before I had read the classic Infantry in Battle, prepared at the Infantry School under the direction of Colonel George C. Marshall, Assistant Commandant.[27] On its first page, at the head of its first chapter, "Rules," were these words, which I had long ago assimilated into my thinking:

> The art of war has no traffic with rules, for the infinitely varied circumstances of combat never produce exactly the same situation twice. Mission, terrain, weather, dispositions, armament, morale, supply, and comparative strength are variables whose mutations always combine to form a new tactical pattern. Thus, in battle, each situation is unique and must be solved on its own merits.
>
> It follows, then, that the leader who would become a competent tactician must first close his mind to the alluring formulae that well-meaning people offer in the name of victory. To master his difficult art he must learn to cut to the heart of a situation, recognize its decisive elements and base his course of action on these. The ability to do this is not God-given, nor can it be acquired overnight; it is a process of years. He must realize that training in solving problems of

[26]"Make them think" was Annex B's third charge. Its second item of guidance was titled Hard Work. While various indicators had told me that students were not working very hard, it was not until I went shopping for groceries at the commissary one day that that impression became vivid. I was in my car approaching the spot where prisoners from the USDB (US Disciplinary Barracks, a facility on post) would take the grocery bags from a loading dock and place them in the cars of the shoppers. As the student who was in line ahead of me got out of his car to open his trunk, I saw inside all the books and advance lesson material that he had been issued before opening day weeks before; they were tied up in string just as they had been issued, untouched.

[27]Infantry in Battle, The Infantry School, 1934. Its 2d Edition, 1939, was reproduced at Fort Leavenworth in about 1958 by permission of the copyright holders, the Combat Forces Journal. In the Catalog of Courses which I had authored in 1957, I had quoted these lines from its page 14: "Every situation encountered in war is likely to be exceptional... It is more valuable to be able to analyze one battle situation correctly, recognize its decisive elements, and devise a simple, workable, solution for it, than to memorize all the erudition ever written of war."

all types, long practice in making clear, unequivocal decisions, the habit of concentrating on the question at hand, and an elasticity of mind, are indispensable requisites for the successful practice of the art of war.

The leader who frantically strives to remember what someone else did in some slightly similar situation has already set his feet on a well-travelled road to ruin.

I directed that Infantry in Battle be issued to each student in the 1974-75 class. I let the faculty know that the words above were to be their guideposts. Achieving that aim in practice would be another matter; it became a never-ending search for methods.

In mid-September, along with Colonel Jess Hendricks of the Tactics Department, I traveled to Germany to learn first hand the situations and deployments of our forces there, so that these would be realistically reflected in our instruction. We visited the headquarters of U.S. Army, Europe, V Corps, and the 3d Armored Division, and the 11th Armored Cavalry Regiment and the two kasemes where Jess and I had commanded battalions, myself twenty years before. We ended our trip with a visit to the British Staff College at Camberly, where we received an orientation on the curriculum and dropped in on "syndicates" in which small student groups were routinely led by an instructor, quite differently from our College practice. This trip reinforced my conviction that we should emphasize real world conditions and small group instruction.[28]

Doctrine

While at Leavenworth in the mid-fifties, I had formed views about doctrine, which the Army defines in part as "that which is taught," and its relationship to classroom instruction, where the faculty desirably forges advances in doctrine. But Army doctrine is also what is written in field manuals and generally applied in the field. With Steadfast, the writing of Army doctrine, which in 1962 had been assigned from the schools to the Combat Development Command, was reassigned back to the schools. The College resumed a major responsibility. What would the College produce?

Soon after I arrived at Fort Leavenworth, General DePuy called a meeting of all the school commandants on training literature, i.e. "doctrine." At that conference I presented basic beliefs that I had developed over the years. They are at Annex C.

[28]In 1975 I asked a student in the 1975-76 course, Major Robert A. Doughty, who had a Masters degree in history (and who later became Head of the History Department, USMA), to use some electives that year to prepare a history of my regime at Leavenworth. I opened my and the College's files to him. His Final Report, The Command and General Staff College in Transition 1946-1976, dated 11 June 1976, is available at the Defense Technical Information Center. I have used it to refresh my memories as I have written this account. Upon receiving his report in my next assignment commanding I Corps (ROK/US) Group in Korea, I was displeased; following my instructions very well, he had been entirely candid. But I got over my offended pride and accepted his criticism as valid. When my Korea subordinate, MG John R. Thurman commanding the 2d Infantry Division, was ordered to be the next Commandant at Leavenworth, I gave him my copy of the report.

The following month there came an event that would fundamentally affect every school commandant's writing of doctrine and instruction. On October 6, which was Yom Kippur and the holiest day of the year for the Jewish people, Egypt and Syria, using Soviet mechanized doctrine and materiel, attacked Israel by surprise, including technological surprise, on two fronts. Egypt's forces swiftly crossed the Suez Canal and overran the Bar-Lev line. Syria, outnumbering Israel in the north by some 1,100 tanks to 150, took the Golan Heights and nearly reached its 1967 border with Israel. Israel suffered hundreds of casualties and lost nearly 150 planes to Soviet-supplied air defense, but its forces reacted with skill and courage. On October 10 the tide of the war began to turn; the Syrians were pushed back and Israel advanced into Syria proper. As the Soviet Union airlifted weaponry and logistics to Damascus and Cairo, the United States staged a similar massive airlift to Israel. Israeli forces crossed the Suez Canal and surrounded the Egyptian Third Army on October 21. A first cease fire failed; a second cease fire ended the war on October 25.

The Arab-Israeli War triggered a concentrated TRADOC effort to learn its many lessons on armor-antiarmor, mechanized infantry, artillery, air defense, air support, mine warfare, electronic warfare, intelligence, battlefield logistics, and so on.[29] The last US forces having left Vietnam, this effort evolved into a single-minded focus by TRADOC on applying the war's lessons to Europe, where NATO defenders faced similar odds against the Warsaw Pact. TRADOC's watchwords became to "train to fight outnumbered" and "win the first battle of the next war," meaning war with the Soviet Union.

For the College the lessons of the Mideast War would first appear in two Tactics Department electives in the Spring Term of 1973-74, both with heavy student research and participation. One of these was classified, available to only US students, for which a great deal of outside material had been generated. The other, based on news reports and analyses in the public domain, was for allied officers; it brought together in the same classroom the several Arab officers, along with the one Israeli officer,[30] in the class.

As Commander, Combined Arms Center, it was my assigned duty to coordinate the instruction of the Infantry, Armor, Field Artillery, Air Defense, Aviation, Aviation and other schools. So, telling TRADOC of my intention and inviting representation, with the Tactics Department in the lead and with CACDA's participation, we organized a series of

[29] I had brought Brigadier General Morris J. Brady, my Assistant Division Commander in the 101st, to replace the departing Ed Gudgel as Assistant Commander, CACDA. Brought in early, Morey was tasked by TRADOC with coordinating and preparing a TRADOC-wide assessment of the war and its lessons.
[30] A colonel,he had left the course to serve his country when war broke out, to return when it was over.

"defense conferences" (DEFCONs) to which the schools sent representatives to discuss how each might want to teach defensive operations in Europe.[31]

Combat Developments

When I had temporarily joined its seven-man Leavenworth component as a CGSC student-to-be in 1954, Army combat developments consisted of that group and a handful of people at CONARC led by a major general. In 1973, after TRADOC took over the Combat Development Command, the combat development staff at Fort Monroe amounted to a little less than 300 people; another 4,000 were at the three coordinating centers, at the schools, and at separate agencies. This apparatus, whose numbers paled alongside the training center establishment which he also commanded, came into the imaginative and energetic hands of General DePuy. Reinforcing it with the school faculties, DePuy would build it into an engine of great influence that he would wield with a single-minded energy along with other mechanisms to remake the Army.

On April 25-26, 1973, soon after taking command of TRADOC, General DePuy had visited CACDA. Phil McAuliffe had prepared a Memorandum for Record that said that General DePuy had told CACDA's assembled senior people that he...

> "...regards the combat developments mission as one of charting the direction in which the Army in the Field should move in peacetime in terms of improving its combat, combat support and combat service support capabilities through the development of new concepts and doctrine, and the introduction of new materiel and organizations, so as to be better prepared for employment in wartime or in crisis situations. To accomplish this mission, first priority must be given to measuring the effectiveness of Army units in the field, employed in a given scenario, with present equipment and capabilities. This measurement of present capabilities would constitute a baseline from which to evaluate the improvements in capabilities resulting from new weapons systems or organizational changes. Such evaluations would be made on an incremental basis, from the present toward the future. For example, an evaluation of a new light division would start with an assessment of the present capabilities of the 82d Airborne Division to operate in a Mid-East scenario (the result becomes the baseline). Then would follow an assessment of the improvements to be achieved to include deficiencies corrected (in terms of percentage of increase in effectiveness, or probability of target detection and kill, of area coverage, etc.) by the introduction of weapons and materiel (such as TOW-COBRA) in the 1975-76 period; then look

[31] In mid-August 1973 I had called the commandants of the Armor, Infantry, and Aviation Schools to set up a meeting at Leavenworth on the use of aviation, thinking that, having just commanded the Army's only airmobile division and its 400-plus helicopters, I had something to contribute to a treatment of that subject. Soon after I did so, General DePuy called me to say that, notwithstanding my coordinating duties, I was not to use my initiative in such matters without checking with him, and "let's not do it now." In due time I was instructed by General DePuy to discontinue my DEFCONs; SCORES (see below) would be the vehicle.

at the period of the late 1970s; and then the early 1980s, if appropriate. At each stage, a determination of the deficiencies remaining should serve as a focus for further combat developments effort. General DePuy intends, by this approach, to be able to influence the thrust and configuration of the Army in the Field commencing in the near term and extending forward....

"He outlined the combat developments responsibilities within TRADOC: The Schools will be in the forefront on individual weapon effectiveness; tactical unit (i.e., division) effectiveness will be the responsibility of CAC; the comparison or relationship of families of weapons will be a CAC responsibility; force effectiveness, i.e., for a force of approximately corps level, will be CAC responsibility..." (emphasis in the original)

Swept along by the brilliant, articulate, and forceful General DePuy, CACDA responded with a "living model," which soon took on the name SCORES (Scenario-Oriented Recurring Evaluation System). When Phil McAuliffe unveiled his concept to me soon after my arrival, I made little input[32] and he took it to General DePuy, who approved it.

With vigor and plentiful resources TRADOC put SCORES into effect. Remodeling a stable, we at Leavenworth built a secure complex where classified scenarios could be conceived, wargamers could work, and briefings could be held for them and for visitors from TRADOC and the schools. Each school established a SCORES contingent that used our scenarios to create the details relevant to that school's interest. A Mideast scenario came first. But with the Yom Kippur War, attention shifted to Europe; that scenario portrayed V Corps deployed in essentially its existing war plan configuration. I, as CAC commander, would personally play the commander, V Corps.

We set up the opposing Soviet-style combined arms armies. Then, knowing everything about the assumed enemy, I issued the corps defensive operation plan, after which I issued a division plan, after which the Armor and Infantry School players issued the brigade plans for that division, the Field Artillery School players issued the corps and division artillery plans, and so on through the various schools. Then the enemy, played by a "threat" team, attacked. Using a simulation, a model called Jiffy, we ran an open war game in which players could see both sides and we recorded how the battle unfolded. Periodic critiques and adjustments were part of the process, attended by TRADOC combat developments staffers and from time to time by General DePuy himself.

Though I kept my distaste for this ponderous process to myself, I could not get enthusiastic about SCORES. Its scenario frameworks might serve the schools as commonly

[32] I had my reservations then but, not well formed, they would have involved fundamentally questioning the concept of what became SCORES as a way to determine the future form of the army in the field. Having been on the scene only a few weeks, I did not express them. I thought it was no time to disagree with General DePuy on so basic a part of his thinking.

based vehicles through which to justify their separate material items.[33] Its feedback to College tactics instructors, although initially expected to be of some value (see Annex D, referenced below), did not materialize and I did not find it worthwhile to force tight connections. As to measuring force effectiveness I saw SCORES as a waste of people and resources; there were so many better ways to determine force effectiveness.[34]

Instruction (contd)

The war in Vietnam was over for US forces. We decided that -- for instruction in tactics, logistics, joint operations, and staff work -- much of the 1974-75 curriculum would be built on two quite different scenario-based vehicles. One, portraying a deployed force, would be in Europe. The other, portraying a contingency force, would be in the Middle East. The Tactics Department would prepare the basic framework and teach most of each course, with teams from other departments participating where they should.

To illustrate our approach, at Annex D is the guidance of Colonel Jess Hendricks, the Tactics committee chief responsible for the Middle East scenario, which was to be an excellent vehicle for instruction in force structure development, movement planning, and joint operations and command relationships, as well as tactics.[35]

As we built the curriculum, a first question was: What would be the center of gravity of instruction? To a query from General DePuy, Jack Hennessey had said that a reasonable ratio of Regular Course instruction would be 10 percent below division, 55 percent at division, and 35 percent above division. The TRADOC response had come back: Make it 25, 50, and 25. Another issue was the relative emphasis that we should place on preparing students for their assignments in the years soon after graduation, compared to their long-range potential service as division and corps commanders or principal staff officers, the traditional orientation of the course. The TRADOC guidance: In-

[33]Donn Starry, Commandant of the Armor School, made good use of Europe I by concentrating his attention on a single brigade-size engagement around Hunfeld. There he experimented with the employment of tanks and armored personnel carriers, and artillery and engineers, in novel ways, wargaming competing defending concepts and coming up with ideas for the defense that made their way into doctrine.

[34]The TRADOC historian reports that by the mid-1980s SCORES, which had by then produced its fifth Europe scenario and was producing one every two years in Korea, Southwest Asia, Panama, and Alaska, had become unwieldy and very costly in manpower and dollars. General William R. Richardson, TRADOC commander, settled on three scenarios: Europe, Southwest Asia, and Korea. He sought other ways to develop tactics and doctrine and, useless for measuring force effectiveness, SCORES was overtaken by them.

[35]In 1973-74 TRADOC and the Army Staff began a massive switch from an Army focused on Vietnam to one focused on Central Europe. This Middle East teaching scenario reflects our aim at Leavenworth to give contingency forces, in all their force projection implications, emphasis equal to forces devoted to Europe. Our thought had little effect on the Army at large, which for understandable (but, in my judgment at the time, faulty) reasons through the 1980s gave contingency forces a priority below those for Europe. The result was that when the Berlin Wall fell and the Warsaw Pact broke up, the Army's Europe-oriented and heavy forces thinking was in no position to adapt to the new strategic situation. Only recently and at a disadvantage has the Army begun its "transformation."

crease emphasis on the immediate assignments. A third issue was whether as a matter of philosophy Leavenworth should emphasize training (e.g., the preparation of orders), or education (a deeper understanding of the military art). The decision: both.

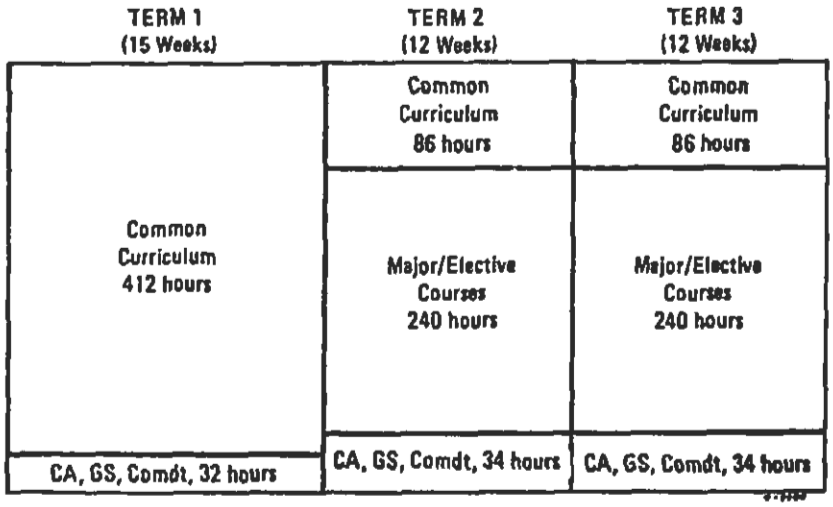
These issues were resolved in a paragraph in the 1974-75 course catalog:

> The Regular Course curriculum is designed to produce trained and educated graduates of quality, insight, character, and motivation who are suitably prepared to do their jobs well in whatever positions they assume, to include eventual positions of great responsibility, and who will exercise a continuing influence for good on the Army.

In the current year each student was taking six electives of 56 hours each. We calculated that 12 electives of 40 hours each would be right for 1974-75; that would be about 42% of his instruction. At four weeks into the course, guided by a faculty counselor, he would declare a "major."[36]

Ivan Birrer had long been a proponent of a term structure that provided for a common curriculum in Term 1, and electives and common curriculum in Terms 2 and 3. We went to a configuration that looked like this (from the catalog)...

> The 39-week academic year is divided into three terms, as illustrated graphically in figure 1. In the first term, the student will complete the majority of the common curriculum. In the second and third terms, the student will finish the common curriculum, take those courses required to complete his major, and those additional courses to round out his full curriculum. The major program is determined by a combination of student choice and faculty counseling. Each elective course in terms two and three is 40 hours.
>
> Communicative Arts (CA), Guest Speakers (GS), and Commandant's Time (Comdt) make up the rest of the academic program.



[36]The class of 1100 being a mix of all Army branches and other Services plus 100 foreign students, the "majors" were Tactics; Staff Operations; Operations and Force Development; Joint and Combined Operations; Management; Strategic Studies; and Security Assistance/Problems of Developing Nations.

Our twenty classrooms were organized into four groups, each of which was scheduled separately. My loyal, intelligent and dedicated team (essentially the Faculty Board, page 31, led by Ben Harrison) put together the Regular Course, piece by piece, and scheduled it. I was in the process up to my elbows, often to their frustration.

Knowing that CGSC students had disdained their tactics instruction (a disgraceful, to my mind, sign of this was that combat arms officers had been overwhelmingly choosing electives from fields other than tactics), I resolved to make tactics interesting in 1974-75.

Key to our Tactics instruction was a 31 hour lesson on the Nature and Characteristics of Ground Combat. Of utmost importance to me personally, its makeup is shown below.

NATURE AND CHARACTERISTICS
OF
GROUND COMBAT

TITLE	HOURS
BATTLE OF SCHMIDT	3 HISTORIC EXAMPLE
CONTEMPORARY WARFARE	1 LECTURE BY DEP COMOT
INFANTRY	4 LECTURE/WORK GROUP /GUEST SPEAKER
CAVALRY	2 LECTURE/WORK GROUP
ARMOR	2 LECTURE/WORK GROUP
FIRE SUPPORT	2 LECTURE/WORK GROUP
AVIATION	2 LECTURE/WORK GROUP
AIR DEFENSE	2 AF, ARMY LECTURE/WORK GROUP STUDENT PAPER
ENGINEER	2 STUDENT TEAM LECTURE/ CONFERENCE STUDENT PAPER
COMMUNICATIONS-ELECTRONICS/EW	2 STUDENT LECTURE/WORK GROUP
COMBAT SERVICE SUPPORT	1 LECTURE/WORK GROUP
OPERATIONAL ANALYSIS OF BATTLEFIELD DYNAMICS	2 LECTURE/WORK GROUP
WEAPONS' EFFECTS & THEIR SIGNIFICANCE	2 GUEST LECTURER
SUMMARY	2 DUFFER'S DRIFT
EXAMINATION	2 20% OF 3121 EVALUATION

We would start by having them read Objective: Schmidt, by Charles B. MacDonald, which told the story of the 112th Infantry Regiment, 28th Infantry Division, in the Huertgen Forest in November 1944. His account was in Three Battles: Arnaville, Altuzzo, and Schmidt, published in 1952 by the Army's Chief of Military History. I had discovered it in

a Stars and Stripes bookstore as I served in the 4th Infantry Division's 22d Infantry. Involving every level from individual soldier to corps, it was a gripping case study in leadership, decision making, the employment of the combined arms, and the nature of war. In February 1954 I had visited that battlefield, the book in hand, and had walked the notorious Kall Trail among other terrain. The Chief of Military History sent us a copy of the book for each student and the Tactics faculty.[37] It was a great introduction and Ben Harrison would follow it with his own lecture.

Then came ten periods on the basic components of a division force. Selected students, with faculty help, would write these lessons; some of these students joined the faculty upon graduation. These lessons were largely in 13-14 man work groups, often student-led. At Ben Harrison's suggestion I invited Brigadier General Richard D. Cavazos[38] to do the infantry lecture; a masterful speaker, in Marshall Auditorium Dick held spellbound a quarter of the class at a time.

I will let Bob Doughty (see footnote 28) tell about the first three of the four infantry hours:

> Being infantry, General Cushman wanted to make certain the class was an excellent presentation, so he took a personal interest in the content and in the excellence of the presentation.
>
> On the day the class was first presented, it was given once in the morning and once in the afternoon. The initial portion of the class was in Eisenhower Auditorium, and the latter portion -- primarily a discussion in small work groups -- took place in the section rooms. When General Cushman saw the first presentation in the morning, he immediately directed several changes in the Eisenhower Auditorium portion of the instruction. When the section team portion was completed at noon, General Cushman immediately assembled all the instructors in one of the classrooms and told them how the material presented in the auditorium and in the section rooms would be changed. At that time he also handed the instructors another student issue that had just arrived from a hasty printing at the printing plant. By the time the presentation was again given in the afternoon, a very different class was presented to the second group.

When I told Bob that I remembered no such event, he assured me he had heard the story several times. His account continued:

> Amidst this dynamic environment of frequent change, the instructors often felt frustrated and did not understand the basic thrust of what was happening. In previous years, lesson plans had been the result of years of development, days of rehearsal, and many hours of careful screening by the chain of command and the individual instructors. Now they were often the results of last minute changes. While this did not overwhelm most of the faculty, it did detract from

[37]When I returned to Leavenworth on a visit in 1979 I was stunned to find these books on pallets on the College loading dock. They were headed for property disposal, a fate that I was able to prevent at the time.
[38]Now General, US Army, Retired, Cavazos had earlier been a tactics instructor at CGSC.

the instruction of the less flexible members of the faculty. This undoubtedly affected the quality of instruction for the Class of 1974-1975, but the Commandant was slowly and successfully imposing the changes on an often unwilling and misunderstanding faculty.

The summary lesson of this block was to read and discuss The Defence of Duffer's Drift,[39] which tells the story of the Boer War's Lieutenant Backsight Forethought, a platoon commander who has been ordered to hold on a river line the only ford using which an enemy column can reinforce sorely pressed Boer forces to his south. In a series of six dreams with ever more favorable (rather, ever less disastrous) outcomes, the lieutenant finally arrives at a solution that suffices. It is a classic tale of tactical decision making. I was one of 20 instructors who led the work group instruction.

This is the Tactics common curriculum;[40] each of the other "majors" had a similar list. In a lecture to the whole class I taught the Tactics first hour.

Title	*Hours*
Introduction to Tactics	1
Organization of the Army in the Field, Brigade and Higher	3
Lessons of the 1973 Middle East War	4
The Nature and Characteristics of Ground Combat	31
Contingency Force Operations (Middle East Setting)	40
Forward Deployed Force Operations (European Setting)	48

Below are the electives from which the student majoring in Tactics must take six, as specified, and of course more should he so choose.

Mandatory:
- 3506 Coordination of Combined Arms
- 3511 Brigade and Battalion Operations
- 3516 The Tactical Commander in Training and Combat

Two of the following:
- 3521 Development of Combat Divisions
- 3601 Advanced Division and Corps Operations
- 3606 Retrograde Operations
- 3616 Antiarmor Operations
- 3621 Tactics in Specialized Situations
- 3626 Defense on Extended Frontage—Division, Brigade, and Battalion
- 3631 Passage of Major Water Obstacles
- 3636 Airmobile and Air Cavalry Combat Brigade Operations
- 3641 Combat in Built-Up and Fortified Areas
- 3646 Tactical Nuclear Operations (SECRET)
- 3651 Mine Warfare and Obstacles (SECRET)
- 3656 War Gaming
- 3661 Advanced Combat Support Applications (SECRET)
- 3666 Combat in Environmental Extremes
- 3671 Tactical Lessons of 20th Century Wars
- 3676 Tactical Lessons of the Civil War

One of the following:
- 1602 Advanced Staff Operations in Combat
- 4640 Logistics for Commanders
- 6501 Planning and Employment of Joint Forces
- 6640 Advanced Airborne Operations
- 9630 Case Studies in Leadership

Having with his faculty advisor selected these six electives, the student with a Tactics major could round out his year with five more chosen from all departments (the twelfth elective would be a forty-hour research paper of the student's choice); some 89 total

[39]By Captain E.D. Swinton, British Army, after serving in the Boer War, 1899-1902. Inventor of the tank and largely responsible for its introduction and development, Major General Swinton was considered by Field Marshall Earl Wavell as one of the most far-sighted officers the British Army has produced.

[40]Integrated into the last two subjects were additional common curriculum hours of the Departments of Command and Logistics -- staff procedures, intelligence, electronic warfare, logistics, etc..