

were offered.<sup>41</sup> With the College's permission, the student could also choose from a variety of 40-hour courses offered in the College classrooms by participating universities -- Kansas University, Kansas State University, and the University of Missouri at Kansas City; these had for several years been a feature of the Regular Course.

For the College to offer 90 or so electives, even though many of them would have few applicants, was quite a lot for the faculty to bear. Perhaps half of them were newly prepared in 1974-75. However, as the department directors assessed their needs and capabilities, they concluded that they were up to the load, the teaching part of which would be in the second and third terms.

We considered the combination of six mandatory electives and six choices, on top of the common curriculum, to be a suitably varied, and for each student an extraordinarily rich, year-long purposeful learning experience.<sup>42</sup>

### **Trouble with TRADOC**

Much alike in our mental capacities, work ethic, and mission-mindedness, General DePuy and I were very different people, each a product of his own experience and outlook, each of whom could see the same situation quite differently. Commanding the Combined Arms Center, I was critical to his achieving his purposes. On February 19, 1974, after observing my performance for several months, he wrote me an "eyes only" letter. Revealed by me to no one before this, it is at Inclosure 1 of Annex E, the remaining inclosures of which are documents that flowed from it for the next eighteen months.

Writing "I have developed some concerns which I want to get off my chest and out of my mind as they now constitute a kind of low-level background worry," General DePuy said that his first concern was about "the depth and the quality of the work being done at Leavenworth." His second was about "the quality of work... on the scenarios."

He opened his letter with: "Our conversation on the phone Thursday has prompted me to write this letter," writing that in that conversation I had mentioned an elective on sys-

---

<sup>41</sup>The Department of Tactics offered 19 electives and the Department of Logistics 6. Within the Department of Command, the Staff Committee offered 6 electives, the Management Committee 9, and the Profession of Arms Committee 7. Within the Department of Strategy, the Strategic Studies Committee offered 18 electives (many of these being military history), the Joint and Combined Operations Committee 11, and the Security Assistance Committee 13.

<sup>42</sup>For several years the College had been offering highly qualified students the opportunity to complete the requirements for a Master of Military Art and Science (MMAS) degree that would reflect mastery of that discipline, as shown by achievement of high standing in the Regular Course plus extended research in an area of professional concern as displayed in a scholarly thesis. During my time as Commandant, Congress approved our award of this MMAS, whereupon I awarded it to those graduates, including all those of former years who had completed its requirements.

tems acquisition. Telling me why Leavenworth had no business offering such an elective, he wrote: "I am concerned that the electives which are being offered for the next school year may fall below the acceptable quality level. I say this hoping very much that I will be proved wrong. However, when I think about the difficulty in the tactics electives alone, it raises my level of concern. If they are not excellent they will be counter-productive and bring down on Leavenworth much opprobrium from officers throughout the Army."

He then wrote that he was sending Lt. Gen. Orwin C. Talbott, the Deputy Commanding General of TRADOC, to Leavenworth to "conduct a comprehensive review of your next year's elective courses sometime in May or June."

I could have done without General DePuy's initiative, which I thought reflected an unjustified lack of confidence. It would be a distraction for my faculty at a time when they were very busy. But we got ready.

The offending elective was "Materiel Acquisition Management," and there was another, "Advanced Materiel Acquisition Management." Looking at about 250 Army students coming from the logistics community, the Department of Logistics had come up with six electives, in addition to its 115 hours in the common curriculum.

Including the two just named, they were:

- Logistics for Commanders (primarily for combat and combat support officers)
- Advanced Logistics Management--Supply
- Advanced Logistics Management--Maintenance
- Advanced Logistics Management--Transportation

With a team that included Brigadier General Paul Gorman, Director of Training at TRADOC, General Talbott visited us 3-6 June. A selection of my briefing charts is at Incl 2, Annex E. My department directors and their committee team chiefs did very well. Incl 3, Trip Highlights, which was left behind as the Team departed, had a number of useful suggestions, some of them simply reminders for what we were already doing. But the Talbott team changed no electives.<sup>43</sup> Those on Materiel Acquisition Management, which had triggered the visit, remained intact (except that the TRADOC team said that "management" should be changed to "process").

---

<sup>43</sup>On June 5, General Talbott told Ben that that the Strategic Studies and Security Assistance majors would be eliminated, but early in the morning of the 6th I sent him a handwritten message, Incl 4, and he changed his mind.

I had thought that this would be the end of it.<sup>44</sup> But in about January-February of 1975, after our new course had been underway some six months, we learned that General Talbott and a team would be revisiting us that April as a follow-up, which he did.

This time after his visit General Talbott signed off a letter to me; dated 22 April 1975, it is at Incl 5, Annex E. He addressed the matter of student grades, which was a subject into which we had put a lot of thought and in which we had carried out a comprehensive overhaul.<sup>45</sup> He said that we should cut electives. He had other suggestions. And he attached a Summary of Team Findings; it is at Incl 6.

Dismayed at this detailed list of things we were told to do, I made a 2 May appointment with General DePuy. My memorandum for record of that meeting is at Incl 7. Its outcome: We would consider General Talbott's letter a useful and important TRADOC document but would not be bound by it.

Incl 8 is my personal letter to General DePuy that reports on General Talbott's displeasure when, on a visit 24 July for another purpose, I told him what we had done, which was essentially nothing, following his April visit. That was the end of the matter.<sup>46</sup>

### **Conflicting Ideas**

My, and General DePuy's and to certain extent my faculty's, problem was that I had what could be called an unconventional, nonstandard, approach to the teaching of tactics (among other things). It derived from what I had read over the years (Infantry in Bat-

<sup>44</sup>Confirming our 1974 judgment, in 2000-2001 the College offered these electives (now called "advanced application courses") for officers in the materiel acquisition specialty: Contracting Fundamentals, Contract Pricing, Intermediate Systems Acquisition, Intermediate Information System Acquisitions, all at 81 hours, and Intermediate Pricing, Introduction to Simulation Based Acquisition; and Advanced Acquisition Seminar at 54 hours, requiring them to take at least 81 hours, but "they may choose more."

<sup>45</sup>Among other things, the College had for some time been practicing grade inflation by turning in academic reports on some 1000 students in which far more than half were given a "superior" which the Army's regulations defined as "well above average." In my mind this was akin to a false official statement by the CGSC. Over student and some faculty opposition, we had established a new grading system in which, in any given grading situation, roughly 30 percent of a student section would get an "A," most of the remainder a "B" (or B+ or B-) and a poor performer in a given subject and section would receive a "C" or "D," or even an "F." We called the "Leavenworth B" a mark of solid accomplishment. It was here that General Talbott focused.

In testifying before a delegation of the North Central Association of colleges and schools that was reviewing our curriculum's suitability for award of the MMAS (footnote 42), I successfully defended our "Leavenworth B."

<sup>46</sup>In January 1976 General Fred Weyand, Army Chief of Staff, called me in to be interviewed after he had told me that I was to have three stars and command the I Corps (ROK/US) Group in Korea. As I left his office he asked me if I had read the efficiency report rendered on me by Orwin Talbott when he retired in August 1975. It had two blistering pages of remarks, to include "General Cushman is a very strong minded individual. It is very difficult to make him truly responsive to guidance, to make him a true member of the team." I next saw Orwin upon moving to Annapolis in 1989, where he lived. In glowing words he seconded my nomination to a "gentlemen's luncheon club," which I joined. We became friendly as if nothing untoward had ever happened between us. Last year he and his wife Nell showed us their apartment in the Knollwood retirement home in Washington where we will join them in due time, under amiable circumstances I am sure.

tle, the writings of B.H. Liddell Hart, and so on) but also from my experience. My first infantry duty, in 1952, had been as S-3 to Major Sam Carter, commanding the 1st Battalion, 22d Infantry, in Germany. A practical man who had been through two years of combat as a company commander in the 1st Infantry Division in World War II, he was also an exceptional, thinking man's, tactician and innovator. I learned a lot from him.

On the Leavenworth faculty in 1958 I discovered a manuscript that had a profound effect on me. I caused it then to be issued widely to instructors and students, and did so again in 1973. Its title was The Command Decision.<sup>47</sup> Describing in detail a German division's combat experience on the Russian front in World War II, its author wrote...

"Clausewitz makes a statement to the effect that war is the realm of uncertainty, and that the only known quantities are the character and ability of the commander. As we have seen, this applies particularly to the making of decisions.

"A decision is not a problem of simple arithmetic, but a creative act... Intuition and a keen sense of perception play a considerable role. Even if the commander has a large quantity of reference material at his disposal, and even if he has sufficient time for careful evaluation of all known factors, it still remains true that the process by which a decision is reached is, in the final analysis, nearly always a secret, which in most instances, remains insoluble to the person who has arrived at the decision." (emphasis in the original)

Three Vietnam tours further developed my thinking and my confidence in my judgment. In 1963-64 I had been senior advisor to a division/division tactical area commander in the southernmost Delta region. There our advisory team and our counterparts in the division and in four provinces had developed and put into effect a, then unique, civil/military campaign with which we began to take back the countryside one hamlet at a time. Years later, people who had worked for and with me helped the White House and Ambassador Robert Komer translate much of our concept into the pacification program that he took charge of in Vietnam and that in 1967-68 began to succeed, but too late.<sup>48</sup>

In that tour I found the little red book, Selected Military Writings of Mao Tse-Tung, four pages of which particularly impressed me; I issued them to the 1974-75 class. Key paragraphs read...

"To learn is no easy matter and to apply what one has learned is even harder. Many people appear impressive when discoursing on military science in classrooms or in books, but when it comes to actual fighting, some win battles and others lose them...

<sup>47</sup>By Generaloberst Dr. Luther Rendulic, published by the Office of the Chief of Military History, undated.

<sup>48</sup>See "Pacification Operations in the 21st Infantry Division," Army, March 1966. These people with Komer were my deputy senior advisor, Lt Col Robert M. Montague, and Richard Holbrooke, the later Ambassador, who was with us on his first tour as a foreign service officer. Our division commander was Colonel Cao Hao Hon, later major general and chief of pacification under President Thieu of the Republic of Vietnam.

"Why are subjective mistakes made? Because the way the forces in a war are disposed or directed does not fit the conditions of the given time or place, because the subjective direction does not correspond to, or is at variance with, the objective conditions, in other words, because the contradiction between the subjective and the objective has not been resolved... Here the crux is to bring the subjective and the objective into proper correspondence with each other."

I translated this into a saying, "If you don't understand the situation, anything you do will be right only by accident."

In my second Vietnam tour, 1967-68, I commanded the 2d Brigade, 101st Airborne Division in the heavy fighting north of Hue during Tet 1968 and its aftermath. Using unique and unconventional tactics we drove the NVA deep into the hills.<sup>49</sup> Three principles governed our operations: *Work closely with the Vietnamese. Maintain unrelenting pressure on the enemy. At every opportunity surround the enemy and destroy him.*

The brigade's trademark was the cordon operation: *When an enemy force is located, surround it before nightfall. When the enemy is surrounded, seal off all avenues of escape. When the enemy is penned in, turn night into day with constant illumination from flare ships and artillery.*

In a dozen cordon operations in March-June 1968, we broke the back of the NVA. The most spectacular such battle took place in April at Phuoc Yen, where in a bend of the Song Bo River with a mix of brigade, ARVN, province, and local forces we trapped an NVA battalion. Under heavy artillery and tactical air pounding, for five days it tried to escape. In the end some 400 enemy were dead, 107 had surrendered, and a great quantity of equipment, including the battalion's radios and code books, was taken.<sup>50</sup> For its efforts in Thua Thien the brigade received the Vietnamese Cross of Gallantry with Palm.

My third tour was in 1970-72, when I was Deputy, then Senior Advisor, to the Commander of IV Corps and Military Region 4. In my tour-end report I wrote this...

**2. (U) The Need for Insight.** "Insight" is mentioned above. All too often insight is gained too late, and through adverse experience. I believe that great costs could have been saved in the Vietnam experience if our individual and collective insight had been better as things were developing. I claim no particular insight, but I do have some views on how insight can be gained.

**Insight - or the ability to see the situation as it really is - is the most valuable asset an advisor can have. Intellect alone does not guarantee insight. Soldierly virtues such as integrity, courage, loyalty, and stead-**

<sup>49</sup>See my "How We Did It in Thua Thien," Army, May 1970

<sup>50</sup>At very small cost in US and RVN lives, illustrating a conviction of mine that if you fight smart you accomplish the mission and at the same time save lives, a message that deserves emphasis in instruction.

fastness are valuable indeed, but they are often not accompanied by insight. Insight comes from a willing openness to a variety of stimuli, from intellectual curiosity, from observation and reflection, from continuous evaluation and testing, from conversations and discussions, from review of assumptions, from listening to the views of outsiders, and from the indispensable ingredient of humility. Self-doubt is essential equipment for a responsible officer in this environment; the man who believes he has the situation entirely figured out is a danger to himself and to his mission.

I dwell on this because, while insight is the secret of good generalship in any situation, it is even more a requirement among the intangibles, nuances, and obscurities of a situation like Vietnam. Certainly the responsible officer must be a man of decision, willing to settle on a course of action and to follow it through. But the reflective, testing, and tentative manner in which insight is sought does not mean indecisiveness. It simply raises the likelihood that the decided course of action will be successful, because it is in harmony with the real situation that exists. I am convinced that the subjective insight into the conditions which actually prevail comes about only in the way I describe.

I reminded my faculty more than once of these words.

To conclude this treatment of where I was coming from, at Annex F is the latter half of my lecture introducing the Tactics curriculum; its first half consisted of some definitions, various aphorisms, an historical example (Alexander the Great at the Hydaspes) and among other slides on versions of the Principles of War, the Commandant's: (1) Outsmart the SOB, and (2) Outfight the SOB.

General DePuy, brilliant thinker, masterful expositor, and driving leader, came from a different direction. The story is well known of how his experience in the 90th Infantry Division in Normandy and later influenced his thought and convictions. The division arrived poorly trained. Its top leadership was abysmal; two division and two regimental commanders were relieved. Learning on the job, the division became highly competent. General DePuy, as battalion and regimental operations officer and then as battalion commander, absorbed combat lessons on leadership, maneuver, fire support, and troop leading that he never forgot. On becoming TRADOC's commander, he resolved that his command would train leaders and soldiers, and would write doctrine by which commanders could train their units, to his standards so that the Army would be ready.

General DePuy was determined to teach the Army in the field, and Leavenworth students, "how to fight." I wanted to teach the students "how to think about how to fight." We never quite connected.<sup>51</sup>

<sup>51</sup>In one visit to Leavenworth, speaking to the Regular Course students in Eisenhower Hall, General DePuy told them and my faculty something like this: "All I want from this class is ten battalion commanders."

My "Shenandoah" at his December 1973 conference (which presentation I do not remember at all) clearly got me off on the wrong track with General DePuy. About it, he wrote: "There was no substance to the presentation -- in fact the concept had never gotten beyond what I would call the romantic stage." I do know that Jackson's Valley Campaign, although of limited value to the Army in Europe which was then becoming TRADOC's primary interest, is replete with lessons on "how to fight outnumbered and win."

### Field Manual 100-5

I first encountered FM 100-5, Field Service Regulations -- Operations, in 1953, when as S-3 of the 22d Infantry I would read the 1949 edition simply for pleasure. It was the distilled product of the US Army's experience in World War II. Written by Leavenworth instructors who had been in that war, it spelled out in spare language, without paragraph headings, clear statements of doctrine derived from their experience.

The 1954 revision, written post-Korean War in the early Eisenhower era of "massive retaliation" policy, said that "land forces are the decisive component of the military structure by virtue of their unique ability to close with and destroy the organized and irregular forces of an enemy power or coalition of powers..."

On the Leavenworth faculty in 1957-58, I was part of a committee formed to produce a revision to the 1954 version. That manual appeared in 1962; it was followed by another version in 1968.

General DePuy told us to write a new FM 100-5 as the capstone in a series of field manuals through which TRADOC was to change the Army. I told the Tactics Department to write a manual in the style of the 1949 version, of which these were paragraphs...

137. Orders must be clear and explicit and as brief as is consistent with clarity. Short sentences are easily understood. Clarity is more important than technique. The more urgent the situation, the greater is the need of conciseness in the order. Any statement of reasons for measures adopted should be limited to what is necessary to obtain intelligent cooperation from subordinates. Detailed instructions for a variety of contingencies or prescriptions that are a matter of training impair confidence and have no place in an order.

b. A penetration depends for success on coordinated power. The more important conditions favorable to success are surprise, adequate fire power, especially artillery, to neutralize the area of penetration, favorable terrain within the hostile position for the advance of the attacking troops, and strength to carry the attack through to its objective. An integral part of the plans for the penetration of a defensive position should be the pinning down of hostile reserves by the action of artillery fire and the tactical air force.

541. The defense, no less than the offense, must effect surprise. The organization of a defensive system must not betray the defensive dispositions. Every available means must be employed not only to mislead the attacker as to the location of the position but also as to the strength and disposition of the defending force. These means include shifting, during lulls, those weapons whose positions were disclosed in repelling attacks. Deception, delay, and security are obtained through the use of covering forces.

I did some of the drafting myself, and edited every page. But, frustrated by our inability to produce a draft that met the TRADOC staff's expectations, I finally told Paul Gorman, TRADOC's staff chief for Training, that the only solution was for TRADOC to take over its authorship. The manual, written largely by a team of officers working directly for General DePuy, went in July 1976 to the field to have a major effect.

Six years after I retired from the Army in 1978, I received a call at my home in Bronxville, NY, from Major Paul H. Herbert of the History Department at West Point. He told me that, at the suggestion of Colonel Doughty, his department head, he was about to write the story of the 1976 revision of FM-100-5, which itself had been revised in 1982, and that he would like to interview me. I told Major Herbert that my experience with that revision had been very painful and that I wanted nothing to do with his project. He urged me to cooperate with him, saying that he had a copy of the draft we had completed at Leavenworth before we turned the writing over to TRADOC, that he had been researching the matter, and that both he and Colonel Doughty believed that it was essential that I be interviewed by him so that the full story could be told.

I agreed to be interviewed, and in July 1988 Herbert's 130-page book appeared as Leavenworth Papers Number 16 of the CGSC, titled Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations. I thought it well written, complete and accurate, and the objective product of thorough research.<sup>52</sup> It was informative to me beyond my own knowledge. I encourage anyone who wants to understand what went on at Leavenworth and TRADOC during my time there to read it. It can be obtained by writing Combat Studies Institute, CGSC, Fort Leavenworth, KS 66027, or by calling 913-684-2810. CSI's web site is <http://www.cgsc.army.mil/csi>.

### **Other Initiatives**

Simulation. Command post exercises (CPXs) with scenarios written in advance and events played out according to a script had been a feature of field and school training in the Army for generations; their purpose was to exercise staffs and often communications. "War games" fought by opposing sides in which umpires using rules determined outcomes in real time had likewise long been in use, both by actual forces on the ground and in classroom settings; their purpose was to shed light on tactics and decision making. By the 1960s computer simulations, in which engagements were played out according to algorithms developed by humans but with no further human involvement, had begun to multiply, leading to combinations of the old and the new.

<sup>52</sup>A less generous appraisal of our FM 100-5 effort appears in "AirLand Battle" by Richard M. Swain, which is an essay in Camp Colt to Desert Storm: The History of U.S. Armored Forces, edited by George F. Hoffman and Donn A. Starry, University Press of Kentucky, Lexington 1999; pp 370-373.

My first experience with simulation occurred in 1952, when in the 22d Infantry I was detailed to be a regimental controller in a CPX in the neighboring 1st Infantry Division. Armed with the script together with its written messages I reported to the regimental command post in the field. It was evident that its members were prepared to be bored. So I decided that rather than using "canned" written messages I would use my radio and on the regimental net would extemporaneously act the parts of each of the battalion commanders, using their call signs and inventing messages while adhering to the established scenario. Increasing message traffic by a factor of five or more, and creating urgent situations requiring a response, I added some excitement to the drill, and afterwards received a very nice commendation from the regimental commander.

Seeking in 1974 to give the student a realistic experience in combat command, we did something like that. We built a mockup armored personnel carrier command post with hatch where the student "battalion commander" could station himself to view the sand table "battlefield," with his S-3 and artillery liaison officer seated inside, each with their battle maps and each using intercoms that would replicate the voice radio suites. In a darkened room the commander could peer across a barely lit landscape, seeing artillery flashes and hearing the sounds of battle. On simulated radio nets controllers would act the parts of company commanders, forward observers, the division artillery fire direction center, and the brigade commander and staff. After placing the student team into the situation, we would take them through an hour or so of battle, with controllers adjusting their responses to reflect orders received. The Tactics Department appropriately called this simulation "White Knuckles."

In early 1974 a faculty-student team began to develop a war game that the Tactics Department would use in the final periods of its 48-hour lesson, "Forward Deployed Force Operations (European Setting)," to be presented in the common curriculum that September. Adapting the routines of a manual war game already in existence, this simulation allowed the defending corps, division, and brigade commanders, played by students, to fight the opening half day of a war in which Soviet forces, played by the faculty, attacked into West Germany. Student player-controllers who could see both sides decided battle outcomes at the battalion level and gave reports of the outcomes in the language of combat to brigade level players, triggering decisions by the chain of command as it coped with the attack. Called "First Battle," this war game gave students and faculty valuable insights into the conduct of the defense and became useful not only in instruction but in the development of doctrine.

In a special project in the 1974-75 year two students, Captains Hilton Dunn and Steve Kempf, created a war game which on a Mideast terrain model portrayed a U.S. tank-infantry platoon with artillery support defending against a Soviet-style armor-mechanized infantry attack. They carved the terrain from styrofoam blocks and painted it sand colored, made model tanks and TOW vehicles that students could place on the ground, replicated called-in artillery with cotton balls, and erected a screen that prevented each side from seeing the other's dispositions. Using their invention,<sup>53</sup> and dividing each classroom's four 13 to 14 student work groups into defenders, attackers, and controllers, we gave each side its mission and took each of the four separate battles from start to outcome, and then into a critique. In the 1975-76 class we subjected the students to this war game early in the Tactics curriculum, to great interest and effect.

Organization of Command Posts. The Army's thinking on command post organization and operations had stagnated during the Vietnam war with its large command posts at brigade and higher which rarely displaced. Steadfast had given Leavenworth responsibility for the tables of organization and equipment (TO&Es) of the division and corps headquarters company, as well as for FM 101-5, Staff Organization and Procedures. We began forthwith to address command post organization and doctrine.

Fortunately, division and corps commanders out in the Army had already begun to think about those matters. At Fort Hood, Texas, particularly, Major General Bob Shoemaker, commanding the 1st Cavalry Division, was experimenting with a three-part command post system that set up a division main, a division tactical (or forward), and a division rear. We moved in that same direction at Leavenworth.

I had long favored smaller staffs. For a few months in 1954 I had been a liaison officer with the I Belgian Corps, a NATO force with its command post in Cologne. The corps staff, organized along British lines, was smaller, and often swifter, than that of the US 4th Infantry Division, one of whose regiments I had just left. In 1974 I traveled to Germany, where I visited the headquarters of the 4th Infantry Division (yes) of the British Army of the Rhine, which not only had a tactical responsibility but also responsibility for housekeeping, which in the US forces was in the hands of a different chain of command. Nonetheless it was small compared to its American counterparts.

I had always found telling the remarks of General W.T. Sherman in his Memoirs:

"A bulky staff implies a division of responsibility, slowness of action, and indecision, whereas a small staff implies activity and concentration of purpose. The smallness of General Grant's staff

---

<sup>53</sup>Named after its authors the Dunn-Kempf War Game, it and First Battle were reproduced in quantity by TRADOC for the use of the Army everywhere.

throughout the Civil War forms the best model for future imitation. An army is efficient for action and motion exactly in the inverse ratio of its impediments."

Fortunately for the College, Colonel Jess Hendricks, who opened his Staff Operations course to the 1975-76 class with a lecture "The Commander and his Staff," in which this quote appears, was head of the Department of Command, and responsible for writing staff organization and procedures. As a captain, he had been an operations officer in the headquarters of the revered General Creighton Abrams, then commanding the 3d Armored Division, who had told him to write a division SOP of not more than one page.<sup>54</sup> In April 1976 the College published Training Circular 101-5, Control and Coordination of Division Operations, Leavenworth's first "how to fight" manual, reflecting this enlightened approach.

Computers. In previous assignments I had used the computer effectively in installation management. On reporting to the 101st Airborne Division in 1965 to wait in line to command a brigade, I had been detailed as Fort Campbell's installation Director of Supply. A General Accounting Office and an Army Audit Agency audit of Consolidated Supply had revealed its desperate condition. Two months after my taking charge it was functioning adequately, and the division's repair parts readiness condition had gone from "4" to "1." Six months later Consolidated Supply was fully recovered. One secret lay in the SOPs we built to use with our punch card routines and the installation's rudimentary Univac 1004 computers (the programs for which in those days were modified by hand-wiring them from behind).

A year later I became Chief of Staff of the division and post, in which capacity I was Chief of the computer-dependent Program and Budget Committee. After taking the 2d Brigade to Vietnam and fighting it there, I took command of Fort Devens, Massachusetts. There I offered to buy from our budget one of the new IBM 300 computers then being issued to installations, if I could get it earlier that way. We got one and, programming it ourselves, within a year we were running an exemplary computer-using installation.<sup>55</sup>

<sup>54</sup>He was able to write one of five pages, which he adapted into the College SOP for the 52d Armored Division. This has been a losing battle. A perusal of the current CGSC web site reveals the appalling amount of matrix and other documentation considered to be necessary references today for the production of orders (e.g., the Joint and Agency Mission Essential Task Lists, or JMETL/AMETL), and the lengthy sample operations plans/orders deemed necessary for the conduct of operations. Erwin Rommel would not approve.

<sup>55</sup>1969 while at Fort Devens, I visited Bill DePuy, then a major general in the Army Chief of Staff's office, in a position in which he was in charge of automating the Army. I told him of our success with computers at Fort Devens. He commented to the effect that "We're tired of you commanders using your own programs. We are going to standardize all the programs." My reply was, "That's OK by me, if you use Fort Devens' software." Returning to Fort Campbell in 1972 after my third tour in Vietnam, I called in the Director of Supply, who had been my deputy in 1965 and asked him the percentage of stock fund excess, which by 1967 we had reduced to 2% (the Third Army goal was 10%). When he replied that it was at 10%, I asked him why. He said that we had been ordered to use the standard Army software.

In 1972-73, we recruited and manned the 101st, tracked its materiel from depot to unit, and managed and trained its soldiers, making awesome use of the computer.<sup>56</sup>

In my early guidance to the faculty (Annex B) I had told the faculty: "We must greatly increase the student's immersion in the world of computers."<sup>57</sup> To facilitate this we equipped a classroom with a host of computers and made it available to students, with help, night and day. Major Ed McGushin, of the faculty team writing instruction on the Mideast contingency force, invented and built an unclassified version of the Joint Chiefs of Staff program JOPS (Joint Operations and Planning System) using which students could calculate the aircraft requirements for various troop lists in a quick-response deployment. It was easier to use than was JOPS.

## TOS

Soon after arriving at Leavenworth in August 1973, I learned that the Combined Arms Center was the proponent for TOS, the Tactical Operations System, the purpose of which was to automate the command posts at division and corps.

The November 1969 Army magazine, in reporting on the meeting of the Association of the US Army a month before, had quoted Army Chief of Staff General William C. Westmoreland: "(We) are on the threshold of an entirely new battlefield concept... I see an army and an integrated area control system that exploits the advanced technology of communications, sensors, fire direction and... automatic data processing." He said that "...no more than 10 years should separate us from the automated battlefield."

TOS in 1973 was one product of the effort that General Westmoreland announced that day. TRADOC was TOS's "user" according to the Army's materiel development system, and CACDA had been working on TOS's "required operational capability" (ROC) for two or three years. Brigadier General Al Crawford at Fort Monmouth, NJ, was the TOS project manager; he had worked for General DePuy in the Chief of Staff's office in 1970-71 and remained in close touch with him in 1973. I immediately became immersed in the effort to place a working TOS at Fort Hood for testing in 1975.

<sup>56</sup>Just one example: As soon as our NCO canvassers out with the recruiting stations signed up a volunteer for the 101st under the Unit of Choice recruiting program, the man's name and the MOS for which he volunteered were entered into the division data base. When the soldier arrived at the division after basic or advanced training (we did our own AIT for infantry, artillery, engineers, etc.), he either went into the duty for which he had signed up, or he was interviewed to see if he would take another duty. The result: zero Congressional inquiries about a soldier whose commitment was not honored.

<sup>57</sup>While visiting my son Jack, a freshman at Dartmouth, that fall I met with its president, Dr. John Kemeny, inventor of the Basic language. He had made computer instruction and use mandatory for all students and had equipped a computer center with time-sharing terminals available to all. When Jack came home for Christmas vacation, I had him describe to the Faculty Board how Dartmouth exploited the computer, and then said, "That's what we want to do at Leavenworth." (That overstatement caused some alarm in the faculty, as Major Dougherty reported in his paper for me.)

To relate, even to remember, the back-and-forth complexities of our trying to describe the ROC for something that would automate a division command post is too much for me. Suffice it to say that I thought it to be an impossible task. Few if any of the responsible CACDA staff had served in a division command post, it was operating on theory alone. I could not spare the experts in the College, busy with instruction and doctrine.

I had read that the Chief of Police of Kansas City, Missouri, one William J. Flynn who had been chosen to replace the deceased J. Edgar Hoover as Director of the FBI, had pioneered the use of computers in the Kansas City Police Department. So I visited that department.

I was shown its large computer, connected to the nationwide law enforcement computer system. In the dispatchers' room sat a dozen men, each with a computer terminal keyboard and an overhead display. Police sergeants much like the operations staff in the 101st Airborne Division command post, they were talking by radio to police patrol cars. A typical message from a squad car might be.. "I have a car improperly parked (or speeding, or such), car type and license number is... driver inside." The dispatcher then punched his keyboard, looked at his screen, and might say... "Car belongs to (name). Has police record (e.g., larceny)." That was combat intelligence! I noted that no one had to convince these dispatchers or police patrols of the value of the computer and its data links; their value was obvious. The system was in a process of evolution; the next step was to place a terminal in the squad car so that police could query the computer directly. General DePuy later joked at my citing the Kansas City Police Department, but my visit there convinced me that the right way to automate command posts was to put a modest capability in the hands of the troops and then improve it.

An August 1974 General Officer Review decided that TOS was a "test bed," not a "development," that we should seek alternatives, that TOS, being costly, should go slowly, that "hands on" testing was called for, and that milestones were guides only. At the annual AUSA meeting that October, in his hotel room in Washington's Sheraton Hotel, speaking from butcher paper charts that I made from my notes at Annex G, I made a presentation to General DePuy. Its gist:

**CGSC instruction is designed to get faculty and student in a "hands on" mode, comfortable and familiar with ADP.**

**Nature of the computer: powerful, rapid, fantastic memory, does only what it is told.**

**Nature of command and control in land combat: chain of command direction; staff and command judgment; uncertainties; precision is desirable, is sometimes inherent, sometimes not.**

**Issues of interoperability with: army systems, joint systems, commo systems.**

**Experience with corporate and large systems: History is "written in advance." Clarity of vision is hard to achieve. Mistakes made early are costly. Hardware and software decisions are often binding. Development takes time, so History slips. Lack of alternatives ties you down. Computer generations are quickly overtaken.**

**Cultural problems: unfamiliarity, complexity, hesitancy, unhappy experiences, suspicion, overzealous salesmen. The result: very little out the end of the pipe.**

**Issues: "large central" vs "mini" computers, "near real time" reporting of data vs "hierarchical review," "computer to computer" vs "TOC to TOC" commo, digital input "at source" vs "at ops center," large system vs incremental growth, "wait for big system" vs "get something into the field."**

**CAC's combat developments approach: embrace ADP; keep in touch with the schools, troops, developers, ARTADS (Army Tactical Data System), logistic applications, personnel applications, Computer Systems Command (CSC), the other Services; involve CAC and the troops in software (including the rewrite of FM 101-5); get a CSC element at Leavenworth; keep options open, but get something to the troops ASAP.**

**Our criteria for a new ROC: incremental application; use (militarized) general-purpose ADP, TOC to TOC data transmission; early and incremental availability to the troops; let real time data links, large screen displays, and low level input systems be fitted in later; keep options open; orient and indoctrinate the schools; be cost effective, step by step.**

I told General DePuy that it was essential to station a detachment of the Computer Systems Command, the software developer for TOS and the rest of ARTADS, at Leavenworth. There they could interact with our TOS team on a daily basis, rather than, upon finishing a software segment at Fort Monmouth, "throwing it over the wall" for us to apply and comment on.

General DePuy listened to me but as it turned out he was too far committed to the current approach to buy into my proposal and things went on in about the same pattern, although we did get a CSC detachment. But at Fort Hood, in a demonstration of a truck-mounted test bed TOS, all that the provider could do was (as I too sarcastically pointed out) make the machine light up. In due time the Army cut back on the scale of TOS, now aiming to put into the field only its jeep-mounted terminal, but by then the technology was obsolete and even that did not work out. It would be years before the Army adopted an evolutionary approach to computerizing the command and control system with off-the-shelf hardware. General Westmoreland's vision still suffers from "stovepipe" development of computerized systems that have not been interoperable from the outset, as they would have been if the troops had had a hand in them.

## Engaging the Students

Our students were a remarkably experienced and lively group, among whom I enjoyed mingling. At roughly the 10th-15th year of their service, virtually all had served in Vietnam and half of them twice. I resolved to use their backgrounds and skills as a resource not only in the work group discussions that would be a large part of their instruction, but some of them in research projects that, without unduly interfering with their curriculum, could assist both the College and CACDA. Each student was mailed a questionnaire that asked him to describe his experience, education, and interests. Compiling student responses into a data base called SAFE (Student and Faculty Expertise), we were then able to find talents and combinations of talents to suit requirements.

Calling myself the "Senior Instructor" of the College, I taught many a class -- in work groups, in 60-man classrooms, and in both Marshall (a quarter of the class) and Eisenhower (the full class) Auditoriums. I often wandered down into the classrooms to get a feel of how the instruction was going. I read the issue material for class after class, and commented on it to the instructor or department director. Students shared their thoughts with me in writing, although I, to my later regret, all too often did not reply.

One objective announced in my September 12 meeting with the Faculty Board was Develop Fiber and Depth. I did not know exactly how to do that,<sup>58</sup> but although the 1973-74 year was set in concrete, I thought I would liven it up with an optional "Commandant's Requirement." Ivan Birrer seized on the idea and prepared this memo for me...

In my opening remarks to the 1973-74 class, I asked students to dedicate themselves to making the Army as ready as the resources provided will permit. Among other "charges," I said:

- Take the year seriously.
- Study and master the Army as it is.
- Gain a historical perspective of at least some part of the Army.
- Improve your ability to solve a problem.
- Improve your ability to write.
- Participate with the faculty as we help move the Army from "A to B."

Toward these and other ends, from time to time I will place a Commandant's Requirement on the student body.

The purpose of a Commandant's Requirement is to invite the members of the class to engage in reflective thinking about military problems and to put their thoughts in written form for examination and discussion. Response is optional, but encouraged.

<sup>58</sup>Toward fostering student thought on "professional values," at about this time I placed a large poster (a part of which is on the next page) in every classroom. Maj Gen "Buck" Lanham, who commanded the 22d Infantry in Europe in WWII, was an editor of Infantry in Battle in 1934. When General Lanham visited the College to advise us on preparing a similar compendium on "Combined Arms Actions Since 1939," he presented me with an autographed reproduction of the poster that in 1993 I gave to the College's School of Advanced Military Studies where it may well still be hanging on a hallway wall.



## SOLDIER

The stars swing down the western steep,  
And soon the east will burn with day,  
And we shall struggle up from sleep  
And sling our packs and march away.

In this brief hour before the dawn  
Has struck our bivouac with flame  
I think of men whose brows have borne  
The iron wreath of deadly fame.

I see the fatal phalanx creep  
Like death, across the world and back,  
With eyes that only strive to keep  
Bucephalus' immortal track.

I see the legion wheel through Gaul,  
The sword and flame on hearth and home,  
And all the men who had to fall  
That Cæsar might be first in Rome.

I see the horde of Genghis Khan  
Spread outward like the dawn of day  
To trample golden Khorassan  
And thunder over fair Cathay.

I see the grizzled grenadier,  
The dark dragoon, the gay hussar,  
Whose shoulders bore for many a year  
Their little emperor's blazing star.

I see these things, still am I slave  
When banners flaunt and bugles blow,  
Content to fill a soldier's grave  
For reasons I shall never know.

— C. T. LANHAM, *Captain, Infantry*

Each Commandant's Requirement is intended to be an intellectual challenge to the class. I invite students to accept the challenge. For those who do, I assure you that your papers will be read with care. I would expect to read most of them personally and to conduct roundtable discussions with some of the authors. Some of the papers will be reproduced; all will be available for review by any interested party. In short, we intend to recognize the efforts of those who participate.

You should understand that the Commandant's Requirements are not a part of our formal student evaluation program. You are not obligated to participate in the program. Nonparticipation will in no way affect your academic report and will not be made a matter of record. Although a decision to participate does offer an opportunity for recognition, recognition is not what you should be seeking. The goal is reflective military thought; careful expression; the discussion that follows; and, through these, intellectual growth.



J. H. CUSHMAN  
Major General, USA  
Commandant

Reproducing an article titled "The Experimental Armored Force, 1927-28," that told of the British Army's experiments in armored warfare -- the lessons of which it had ignored but the German army had applied all too well -- I asked the students to assess the article in about 500 words.

Something less than a hundred students responded; there were many good papers. I met with most of those who responded -- revealing only then that I had written the article for Army magazine in 1965 while a student at the National War College. We had some lively discussions.

I followed this with a second Commandant's Requirement, also optional. Sharing an article on the subject by Lieutenant General Bruce Palmer, I asked them for a paper on "how to attract young Americans to join a Volunteer Army, as infantrymen." These are about the hardest volunteers to get, but there are more infantrymen in the Army than anything else. About the same number responded, and again we had good papers and lively discussions.

By now something unexpected was happening. The students were beginning to bring up issues of "ethics" and "integrity." The Commandant's Requirements were clearly troublesome material for them. With regard to the experimental armored force, for example -- when does an officer speak his mind, stand his ground, or even resign? And with regard to recruiting -- is not the Army deceiving itself by putting the face of success on what seems to be a failure? It was clear that the students were interested in tackling basic questions such as honesty, candor, and the freedom to fail without committing career suicide.

So the third Commandant's Requirement would be mandatory for all US students. It consisted of two cases, on each of which the student was required to comment "in 25 words or less." The first case told of a company commander sorely tempted to lie about two AWOL (absent without leave) soldiers. In the second case a chief of staff, rank of colonel, had to decide what to do about a case of misappropriation of government property by his commanding general.

These two cases touched the students' nerve ends. Heated discussion ensued, not simply about these particular cases, but about a range of issues as to lying, honesty, and integrity, and especially about integrity in the face of command pressures.

So I decided to have, in March 1974, a "Symposium on Officer Responsibility."

### **Symposia on Officer Responsibility**

Annex H consists of a few papers from our two Symposia on Officer Responsibility, in 1974 and 1975. I will cover it here with a posting that I made in April 2000 on the West Point Forum, which is an Internet list server open only to West Pointers on which they can exchange views on a variety of subjects. My posting follows:

This is a very long post that I wrote a few days ago, intending to post it on the upcoming 25th anniversary of the fall of Saigon that ended the Vietnam War. But the Chief of Staff's recent announcement, on convening two blue ribbon panels at Fort Leavenworth led by brigadier generals to deal with perceived grave problems in Army officer leadership and morale, leads me to post it now.

On that day, April 30, 1975, when Saigon fell, I was Commandant of the Command and General Staff College, having reported for duty in August 1973. It was one of the best jobs I ever had, putting me in touch each year with 1000 student officers of great talent, experience, and promise. It gave me scope for many ideas that I had at the time. I had a marvelous faculty, and a sterling Assistant Commandant whose name was Ben Harrison.

April 30th, 1975, was the final day of our second "Symposium on Officer Responsibility," the first one having taken place in March the year before. That one had been in response to the palpable need to restore a sense of participation by my Leavenworth students in regenerating the professional ethic in an Army officer corps affected badly by Vietnam.

Three or so years earlier the results of an Army War College study on Military Professionalism had become known, revealing a widespread perception of differences between what mid-level and senior officers should do and what they actually do, including... distortion of reports... selfish and ambitious behavior... lack of competence... variations in standards... condoned rationalization by the chain of command of lying, cheating, stealing...

...all of this leading to a professional climate of... pressure to remain competitive for rapid promotions... unrealistic goals or quotas, often set to enhance the reputation of the commander... no opportunity for learning, coupled with a demand for instant perfection... loyalty upward but not downward... and so on.

A series of discussion-provoking "Commandant's Requirements" that I instituted in the fall of 1973 had led me to hold the first Symposium on Officer Responsibility, March 1974. As I briefed the major generals, selected colonels, CGSC faculty members, academicians, and journalists who had been invited to sit on panels before groups of 100 students at that symposium, I had said to them...

"How do we raise our standards?

"How do we help create an environment of integrity as the routine order of things?

"How do we as general officers meet our responsibilities toward this end? How do our colonels, lieutenant colonels, and senior field grade officers contribute?

"Finally, how can we imbue our students and our faculty -- and indeed every officer everywhere -- with the need to stand his ground in terms of integrity, regardless of whatever temptation or environment might exist?

"Perhaps most important, how can we structure the environment so as to encourage them and reward them?

"On this last point, however, I want to be clear. Certainly we have to understand the officer. We have to realize the pressures that he may be under. But we have to be sure that he understands that, in the final analysis, nobody is forced to lie, or to act without integrity.

"Very many of these decisions are not easy to make. But each man is his own man. He makes his own decision to compromise. When he succumbs to pressure, he is failing himself, and failing the system as well. Our officers have to realize that it is not possible to go through life without being tested.

"At the same time, just as the officer has his responsibility to himself and to this institution that we cherish, we have our responsibility to him. I hope each of you here will help hold your, and my, and the students' feet to the fire and never let us, or him, forget our ultimate responsibility as an officer."

That 1974 Symposium attracted quite a bit of attention. Colonel Bill Dyke (Lt Gen Charles W., Retired) -- an officer I much admired then, have since, and still do -- arrived too late to hear the warning in my briefing, above, that the colonels and generals on the panels would be challenged; be ready for it. With a great combat record, including command, in Vietnam (101st Airborne Division), and having held a variety of other troop and staff jobs, he was at that time Exec to the Secretary of the Army. During one heated session, a student rose and told him, "Colonel, you're a ticket puncher!" He was livid, and I heard about it.

So did others. The following Monday morning in the staff meeting of the Army DCSPER, Lt Gen Bernie Rogers, there was talk of nothing else but "What's going on at Fort Leavenworth!?" Well, a month or so later General Abrams came out as a guest speaker, and when a student asked him what he thought of our "ethics" instruction, he gave it his OK from the platform -- and did the same later in a session with me and a dozen students in our conference room. It was cathartic, and useful.

So, in late April 1975 we had our second Symposium, and on May 11 there appeared in the Kansas City Star and Times the following commentary by one of the journalists present. It told of the last day, April 30th, on the morning of which news media carried the story of the fall of Saigon that day, halfway around the world.

By C.W. Gusewelle, "an editorial writer," it was titled "Remarkable Military Maneuver at Ft. Leavenworth." As I continued in my posting, the writer's piece read...

\*\*\*\*\*

It was not, self consciously at least, a part of the fallout from the trials and tragedy of Vietnam. Neither was it a public relations exercise -- some tasteless attempt at military image-polishing. Least of all was it that!

No, the 1,000 or so student officers at the U.S. Army Command and General Staff College at Ft. Leavenworth were about a more serious business. Their purpose, for two and one-half uninterrupted days, was to consider their several responsibilities as soldiers in the uniform of their country.

A few journalists and academics had been invited to participate in their symposium, for whatever uncertain contribution they might make. And also enough major generals and brigadiers assembled in one place, there on the old fort looking eastward from its bluff across the Missouri River, that the Russians, if they had known about it, might have been tempted to a preemptive strike. So many glittering stars that a one-time second lieutenant gone all to rumpled suits and middle age had consciously to keep his hand stuffed in a pocket lest it twitching up in involuntary salute.

But all of them -- the generals no less than the journalists and professors -- were outsiders. The event belonged to the students, most of them majors with a scattering of lieutenant colonels and senior captains. It was for them to ask, and if possible to answer, the questions.

Hard questions. Is the individual first a military officer, responsible to the dictates of the system, or first a human being answerable to personal conscience? What happens when professional mission and one's own value system come into conflict? What sorts of compromises can be made? And what sorts cannot?

In short, is it possible to reconcile the highest standards of moral integrity with a successful career -- or even with survival -- within the military establishment?

It had to strike any fair minded listener with astonishment to hear how freely, how fiercely, these midrank officers -- some of them the top leaders of tomorrow's armed forces -- were willing to punish themselves and challenge their superiors with that kind of introspection.

In the civilian world, our options are somewhat freer. At last resort, if a collision of values cannot be resolved, we may change jobs. Move to another newspaper. Sign on with a different bank. Apply for a position on another faculty. The career soldier cannot look for another Army to serve.

Moreover, few of our moral choices involve life and death. And most of them are made behind desks or in board rooms, not in the pressing fury of the bunker or the trench.

And yet how many of us -- in the course of our whole careers -- have ever, in so concerted, so deliberate, or so open a fashion, set about trying to define the relationship between our professional obligations and our human ones? Between principle and promotion? Between private honor and blind obedience? And how many of us will ever be called upon to pay with our livelihoods -- and possibly with our lives -- for our choices?

It was, all in all, not an especially pleasant two and one half days for anyone concerned, the participants or the observers. But it was a remarkable experience and an illuminating one.

My own military service dates back to those fine, comfortable, cocksure days before it was learned that some wars are unwinnable and that the most critical battle of all is the political one for public understanding at home. When, within the bounds of strict legality, there was no such thing as a "good" order or a "bad" order; they were all carved in stone.

I was astonished to find how generally those memories have been overtaken by change.

Amazing, first of all, is how young the majors have gotten. Nearly all of them have served a combat tour, and some of them two or three. And yet, to a man, they are in their 30s, often their very early 30s. Probably it is only the time-warp of middle age that creates the memory of an old man's Army. Maybe it never was.

Amazing, too, the level of skills and sophistication they represent. It's true the students at Leavenworth were the cream of their age and rank groups. But well over half of them owned master's degrees in some non-military discipline. Many had two.

I found them a reflective, widely informed, genuinely inspiring and relentlessly candid class of professionals, full of self-directed wit, willing to ask -- and be asked -- questions of elemental principle. Willing to say to 2-star generals not only that it is permissible to question the decency of an order but that there are in fact occasions when an order must be disobeyed because there are higher obligations even than the one to discipline and the flag.

That is strong stuff. If you have spent any time around or in the military establishment, you know just how strong. Granted that the Command and General Staff College is nominally an academic environment as opposed to a strictly military one. Granted, too, that after these students go on to their eventual assignments, every conflict between the ideal and the expe-

dient may not invariably be resolved on the side of the graces. Perfection, like piety, is a rare commodity, otherwise fewer people would have to spend their whole lives seeking it.

There was, as mentioned earlier, very little direct reference to Vietnam. But Vietnam was nevertheless the tapestry into which many of the themes and issues were woven. One heard the name of Calley mentioned. And My Lai. One heard the term "body count" used as a kind of code word for any such blind stupidity as believing that victory is measurable by corpses, even fictitious corpses.

Then, on the evening before the last morning of the symposium, the last American was plucked by helicopter off a rooftop in Saigon and the government of South Vietnam surrendered unconditionally to the invading Communists.

And on the chalk board in one of the classrooms the next day someone had written: It's all over over there.

No one referred to that epitaph to a war. None of them even acknowledged it. They simply went on talking, a while longer, about the kind of men and officers they hoped and intended to be -- the kind that they would insist that the system let them be. And then, at the appointed time, they went off to the main auditorium for the concluding session

A journalist spoke. The professors spoke, and one of the generals. And a student for his fellow officers. Finally it was the turn of the commandant of the college, a major general, who after some summarizing comments, seemed to hesitate just an instant and then asked them all to stand.

It must be a hard thing to say a public prayer from the lighted stage in an auditorium of 1,000 professional soldiers of many backgrounds and several faiths, or none at all. In the Army, praying is the chaplain's job. But this obviously was something that it had occurred to the general spontaneously at that moment to do.

The long habit of command had shaped his manner. So that when he spoke to God he still sounded a little like a man addressing his troops. But his sincerity was not to be doubted, nor the plain decency of what he asked.

He prayed for all those who had suffered in the war just ended, and those who might yet suffer after it. And for the country. And for the wisdom to understand duty. And for the courage to do it. And finally he prayed for the friends and comrades that all of them -- every single man there -- had left behind on that bloody field.

It was a moment very full of emotion.

Somehow reluctant, then, to pronounce an Amen, which seems more a preacher's word than a general's, he simply stopped saying what was in his mind.

And after a pause told them: "Now just go quietly out of here."

They did. And it was a little time before some present could speak.

(end of Gusewelle commentary)

\* \* \* \* \*

I still have my notes. They read...

Father

Pause as soldiers to reflect on VN

Ask you to sustain those who must now bear the conqueror's yoke

Ask you to sustain us who each could have done more or better

But also to help us not to seek someone to blame... - yet to learn what we can

Remember those who died, wounded, their families

Heal our country

Let us do our duty - meet our responsibilities - be examples of the soldierly virtues.

This vignette is a little previous for the exact 25th anniversary, but since it is germane to today's conditions I post the story now -- as well as to tell how it was, at one place 25 years ago, when Saigon fell. Remember it in eleven days.

As to the problems being addressed by the blue ribbon panels, "The more things change, the more they are the same." I can only say to the Chief of Staff, and to the Vice Chief who I think may well be responsible for involving the Leavenworth students, "good for you." Let's hope that we can trust the officer corps to be sufficiently resilient and responsive that it is not too late.

Jack Cushman, '44 (end of my April 2000 posting)

Soon after I left Leavenworth for Korea in February 1976, General DePuy, who had never thought well of our Symposia, ordered the one we had been planning for April 1976 to be canceled. In its stead, Ben Harrison organized a similar assembly of senior officers to convene with the students in a like discussion on "Obstacles to Readiness," which accomplished a useful result.

### **Problems of Organization**

Three or four months into the 1974-75 curriculum, General DePuy, while visiting Leavenworth for another purpose, arranged to have several students meet with him so that he could hear their opinions of the tactics instruction. I did not know of this until after his departure, when one of the students reported it to me in passing, saying that the comments were uniformly positive, which I was pleased but not surprised to hear.

Getting that year's instruction on line had been quite a strain on the faculty, but we knew that the product was good and that next year would be better. Meanwhile initiatives requiring our action continued to flow from TRADOC. In the combat developments realm many of these required us to task members of the instructor faculty. From the beginning I had considered that CACDA and the College were "one faculty," but it turned out that the "subject matter experts," as they were called, in most areas were in the College.<sup>59</sup>

There was also duplication, for example, in the Command and Control directorate of CACDA and the Department of Command in the College. In addition, CADCA had no expertise in logistics, that field being considered by TRADOC the province of the Logistics Center, while in the College we had a Department of Logistics. I believed that, representing the interests of the division and corps commanders of the Army, we should speak our minds on logistics, as well as on personnel administration.

In mid-year 1974-75 I relocated some people of CACDA's Command and Control directorate from Sheridan Hall up on the hill down into Bell Hall, placing them with the Department of Command. At the same time I relocated the head of the Department of Logistics and his people up on the hill with CACDA where they could provide input on combat developments studies on logistics, as well as accomplish their instructional and doctrinal duties.

Another problem area was force development. The College was responsible for defining an area of expertise in the OPMS specialty of Operations and Force Development.

The doctrine for that specialty was more a matter of lore than doctrine. With its efforts in force structure, including SCORES, CACDA was working in that field but without studying its decision-making aspects. The College required a fictitious but realistic troop list, with the traditional 20th Infantry Division, 52d Armored Division and so on down into nondivisional units of every description, from which instructors could develop their map

---

<sup>59</sup>To my mind, CACDA often wasted people on unprofitable drills. After the combat development directorate at TRADOC assigned us the task of developing a new organizational structure for the air assault division, I learned that CACDA had given the action on that project to a small team in Force Development, none of whose members had any background in the subject. I proposed to Major General Robert C. McAlister, DCS for CD at TRADOC, that TRADOC assign the task instead to the commanding general, 101st Airborne Division (Air Assault), which was of course the only such division in the Army. I proposed that the current G-3 there, when the time came for him to be replaced, would remain on post to head up a small section of people who would make that study for the division commander. I said that we would help supervise, and that I would contribute from CACDA spaces equivalent to those now engaged in the study to provide for some spaces for that group. Bob McAlister's reply to me was, "If you have spaces to spare at Leavenworth, I can use them at TRADOC." Nothing came of my idea, and in due time our recommended structure was forwarded to TRADOC, only to be discarded in favor of one proposed by Forces Command; it had been prepared by the CG, 101st.

exercises. For 1974-75 we had hastily built one for each of the two corps forces (one in Europe and one in the Middle East), under the Echelons Above Division concept where corps was an administrative support as well as a tactical echelon.

The SCORES product was moving very slowly and the curriculum schedule could not wait. So I set up a faculty/student effort known as the Corps Forces Study Effort (CFSE) that would not only build the two instructional corps forces but would attempt to define how their makeup was determined (e.g., how do we know the size of the non-divisional combat engineer contingent in the corps force). The current method, when in the real world a troop list was to be determined for an operation, was to call in the corps engineer and ask him. But the sum of what the engineer, the signal officer, the quartermaster, etc., would say was necessary would make the total so large that it would not fit the force ceiling. We had to help the OPMS generalist with ways to supervise the various specialists and arrive at the tough decisions. Heretofore the method had been essentially "judgment." We wanted to know if some techniques could be found.

Here were my guidelines for building the two corps forces:

**Austerity - Face up to accomplishing the mission with less resources.**

**Discipline - Assume a well-trained, disciplined force.**

**Skill - Assume skilled, professional commanders with lean staff organization and small headquarters.**

**State of the Art - Push to the limits those things which we can use today, e.g., ADP, improved airlift, communications.**

**USAF Teamwork - Maximize our use of USAF capabilities where feasible -- fire support, reconnaissance, airlift, air defense.**

In the 1974-75 year, the Department of Command, using some students in their electives, built a command post mockup in a former bowling alley near Bell Hall, modeling its interior spaces on the ideas favored by the 1st Cavalry Division, incorporating a division forward, a division main, and a division rear, equipping it with tables, map boards, telephones and simulated net radios, and writing a manning chart for its personnel. Toward the end of that year, we placed students in those spaces for a scripted command post exercise to see how it worked.<sup>60</sup> Then, using our First Battle war game rules, we put into place a Soviet-style enemy combined arms army command post with its own telephones, etc., with stations for player/controllers who could in the language of combat play the roles of the division's subordinate units as the battle unfolded. After Christ-

---

<sup>60</sup>It was a pleasure to escort General Abrams, Army Chief of Staff, who had been a Leavenworth instructor just after WWII, through this facility and to receive his understated but enthusiastic approval of its concept for teaching staff organization and procedures.

mas 1975, in a forty-hour class in the common curriculum, we would have students play the two-sided battle, then switch sides and play it again. If we did it right, this facility could also serve as a test bed for the development by the CACDA Command and Control Directorate of computer assistance devices in the command post, as I had suggested for TOS (pages 53-55).

In early May 1975, I took a briefing to General DePuy and his staff at Fort Monroe. I described the problems of integrating instruction, doctrine, and combat developments while economizing on, and making the best use of, the subject matter experts in both CACDA and the College. I spoke about our use of students. I concluded my briefing by recommending that we do away with CACDA as a separate entity, and that we spread its subject matter experts around the College faculty, while retaining a Combat Developments Directorate at the same level as the College departments. Its function would be to direct the combat developments efforts of those departments, including, with a small cadre, to direct their participation in SCORES. The College departments would be the primary engines of thought.

I introduced the briefing with a standard CAC cover chart that showed CACDA's clock tower building in the upper left corner, and the College's Bell Hall with its flagpole in the lower right; the flag was being blown left to right. At the end of the briefing General DePuy asked his staff for comment, then said to me, "Bring back that first chart," which I did. He then said, "See how that flag is blowing? From now on I want it blowing the other way." Toward CACDA, that is. My notes on General DePuy's end-of-briefing remarks:

- Statement of the problem is correct.
- Applaud and encourage the use of students in research
- Glad to see tie-in of student research with Admin and Log Centers

However:

- CFSE duplicates SCORES; these questions should be addressed in SCORES, not outside SCORES. CFSE should be incorporated into CACDA's CFD (Concepts and Force Design Directorate). College instruction must grow from SCORES; we must get force planning "on line" through SCORES, to have an effect on the Army. SCORES is the vehicle, not the College.
- CGSC is now in better shape, presenting better instruction, than at any time in its history. CGSC, through CACDA, can make a great contribution to help make the Army's case.
- Our weakness is that the Army is perceived as not being able to make a good case for weapons. Strengthen Combat Developments; otherwise AMC (Army Materiel Command) will take over.

**Therefore:**

- Do not eliminate CACDA; strengthen CACDA.
- CACDA will be used by CG, CAC, as management control over the process of combining tactics, command and staff, resources, materiel and systems, and operations analysis capabilities to make the Army's case at DOD for materiel and forces.

So that summer I moved my office as Commander, Combined Arms Center, from Bell Hall to Grant Hall, up on the hill, taking that of Morey Brady, now the major general Deputy Commander CACDA, who moved into the office of his departed former assistant. Ben Harrison took my Bell Hall office. Into his former office alongside it I placed the newly promoted Brigadier General Bill Louisell, former head of the Department of Tactics, whom I designated CAC SCORES Manager, responsible to Morey Brady.

### **Busy Busy**<sup>61</sup>

At Annex I is my 5 September 1975 letter reporting to General DePuy after two years as Commander, CAC. Speaking with pride of our curriculum just beginning, it also indicates the shift of my attention to CACDA. This letter, with a plethora of acronyms unexplained here, may give a sense of the combat developments agenda that was consuming us.

By now the TRADOC effort to provide training material to the Army had led to the term "training developments," an area of concentration that was equal in emphasis to combat developments. Orchestrated by Paul Gorman, now a major general, it too became a consuming mission as the various schools were driven to produce manuals, multimedia training material, and handbooks for individual soldier skills, all on a common format.

At about this time, TRADOC came out with a standard organizational concept for all its schools. Known as the "school model," and developed by Brigadier General Max Thurman, TRADOC Controller, it called for establishing at each school a separate entity which was to prepare this sort of training material; its manning would include no instructors. Some of us school commandants viewed this with alarm, because the subject matter expertise of each school resided in its teaching faculty, with the departments responsible for both instruction and the writing of doctrine. At Leavenworth we tried to maintain our concept, but began to be constrained by manpower guidance coming from the same General Thurman that eventually reduced our instructor spaces.

<sup>61</sup>It was at about this time that I entered Bell Hall to find just inside the door a setup manned by medical technicians that provided a blood pressure reading to anyone who desired. When I asked Ben Harrison about it he told me that he had ordered it to give an opportunity to anyone who may be feeling stressed to have his blood pressure measured as a health precaution. I took Ben's message to heart, but I'm afraid the pressure continued.

In October 1975, General DePuy gave us two new missions: The first was to prepare for the Anti-Armor System Program Review, to be held in March 1976 at Fort Leavenworth. He wrote, "I expect CACDA as the integrating center for the combined arms to conduct this important review as your number one priority project..." The second was to take over "all the TRADOC command and control simulations (naming them)... expedite (their) development... (and) design a refresher course in tactical leadership for command selected colonels and lieutenant colonels of the four combat arms." General DePuy's letters, in full, are at Annex J, October 1975 Mission Letters.

As Annex J makes clear, the Anti-Armor System Program Review (ASPR) called for "models," which were supposed to shed light on weapons questions by portraying the outcomes of many engagements in which different weapons and combinations of weapons were employed; these outcomes would lead to insights on the right mix of weapons for the Army. To the combat development community and its reigning systems analysts a "model" was generally thought to be a computer simulation into which weapons characteristics and dispositions were fed, whereupon the computer would deliver the answer. Because among other things they left out the human element I was highly skeptical about the credibility of such "models" for any important purpose.

Recalling our classroom experience the previous fall with the Dunn-Kempf war game<sup>62</sup> (see page 51), I decided to develop a simulation that would be more believable. I described it in a 19 January 1976 message to General DePuy:

In order to do a proper job with the ASPR, we have had to develop a new simulation of the FM 100-5 tactics that will help us answer more credibly the various questions on systems, mixes, and tactics... Most analytical simulations break down when dealing with any but the most stereotyped tactical scenarios and do not adequately handle the unit and weapons movements of the new tactics. Our approach has been to develop a new simulation and concurrently to gain its acceptance by the analytical community. This model is called PAAM for Player-Assisted Analytical Model.

PAAM is an assembly of accepted routines (ground combat, artillery, target acquisition, and so on) into a composite, computer-assisted but player-rich two-sided closed simulation. It is

---

<sup>62</sup>I was one of twenty instructors for a five classroom section. The "battlefield" was a terrain model war game board about ten feet square. The tanks, TOWs, mines, smoke, artillery, etc., were represented by little models. In one work group where I was the instructor, the defender had placed an infantry squad with LAWs (light shoulder-held antitank rockets) well forward on a terrain feature, and, at a certain stage of the battle, had called for delivery of planned artillery fire forward of the squad. The artillery timing was perfect. A strong enemy tank-infantry force was moving toward that squad when the artillery came in. The roll of the controller's dice brought the artillery concentration down on top of that force -- wiping out most of its infantry, causing the tanks to button up, and allowing the defenders to work the tanks over with their LAWs. That, plus some other good tactics (and good luck) led to a rout of the attacker and a clear win for the defender. Other defenders, with other defensive plans and other enemy schemes, had other outcomes, some of them quite bad.

essentially a brigade model which permits very high resolution and gives, we think, good authenticity... We are attempting to advance the state of the art by combining high resolution assessment, player participation, and increased responsiveness into this new simulation... Because so much of the analytical community has been involved in PAAM's development, we anticipate its acceptance.

We put this simulation in place and, setting up about six different terrain boards in some loft space over the Staff Judge Advocate's office and using as players a large contingent of students devoting several electives each, we began to exercise it. Because I left for my next assignment in early February, I was unable to see it succeed (as I fully expected it would).

### Air/Land Battle Coordination

I had long been versed in Army-Air Force matters, from battlefield doctrine to roles and missions to strategic disagreements to relationships within the Pentagon, and was convinced of the need for closeness.<sup>63</sup> At Annex K is a series of articles I wrote under the pen name "Pegasus" for Army magazine in 1965 while a student at the National War College. Titled "The Forty Year Split," they tell how Army and Army Air Corps/US Air Force harmony had waxed and waned in 1920 through 1960. The last installment, speaking of the early years of Vietnam, was called "The Healing Years."

In 1974, General Abrams, who became Army Chief of Staff in 1973, decided with General George S. Brown,<sup>64</sup> who had been Commander 7th Air Force when Abrams had recently commanded in Vietnam and who was now the Air Force Chief of Staff, that they would institutionalize the Army/Air Force harmony that developed in the Vietnam War. Abrams issued orders to General DePuy at TRADOC and Brown gave like orders to General Robert J. Dixon, commanding the Tactical Air Command nearby at Langley Field, that the two commanders, each responsible for doctrine in his own service, would work together to write doctrine to which both services would agree.<sup>65</sup>

General DePuy grasped the issues very well. Keeping the TAC/TRADOC working arrangements in his own hand and doing much of the conceptualizing, he tasked Leaven-

---

<sup>63</sup>Soon after I became Commandant I initiated action to increase the number of Air Force students in the Regular Course from 14 to 40, which would permit two per student section. It took place in 1977.

<sup>64</sup>George Brown, highly regarded even then, was two years ahead of me in 1934-36 when, both sons of Army officers at Fort Leavenworth, we attended Immaculata High School in nearby Leavenworth, KS. When I returned in 1973 to be Commandant, Nancy and I paid a visit to Sister Mary Baptista, the principal in those days who had retired and was living at St. Mary College in Leavenworth. As we talked about some of the students of those times, she asked me, "Whatever happened to George Brown?" I was able to tell her that he had risen to be the Air Force Chief of Staff, then Chairman of the Joint Chiefs of Staff.

<sup>65</sup>The Secretary of Defense had in 1962 created a unified command, known in 1973 as US Readiness Command, to do the same thing. Generals Dixon and DePuy essentially ignored what they considered the ineffectual REDCOM.

worth to get busy on the matter. General Dixon created at Leavenworth a Tactical Air Command Liaison Office (TACLO) to work with us. One early Leavenworth task was to write a draft TAC/TRADOC manual on suppression of enemy air defense; this eventually came out as the first TAC/TRADOC manual. We moved on to airspace management, which was more difficult. Other areas loomed: intelligence and reconnaissance, electronic warfare, fires both close air support and interdiction, air logistics.

The first draft of the (later superseded) new Field Manual 100-5 that we submitted to TRADOC in December 1974 expressed our thinking; it was in tune with that of TRADOC.

More today than ever before, air and land combat is indivisible. Tactical air and land force operations are intertwined and make up a single battle. The individual capabilities of air and land forces are complementary; their combined capabilities are greater than the sum of the two operating independently... Only the commander who... can effectively mesh tactical air into his fighting scheme will realize the full benefits of the combined arms...

But the question was, how were we in practice to mesh the two kinds of capabilities? The Air Force had its doctrine in which a tactical air force was to be independently paired with a field army (which under Echelons Above Division had disappeared)<sup>66</sup> and would provide an Air Liaison Officer (ALO) and Direct Air Support Center (DASC)<sup>67</sup> at corps and ALO's with tactical air control parties (TACPs) at division, brigade and battalion. Wiping out the field army had increased the importance of corps, which all came to recognize as the key echelon at which to orchestrate air/land teamwork. Working with some Air Force students in what we called J-SCORES, we prepared a briefing for Generals Dixon and DePuy that presented a forward looking Mideast scenario in which the forces' air/land operations were directed by an air/land joint command structure, with an Air Force deputy commander, and an Army/USAF staff.

This was too much for General Dixon, hence for his partner General DePuy as well, so we sought other solutions. To make solutions easier to arrive at, in September 1975, converting an unused wooden Post Exchange "9 to 9" store with ample floor space, I established an experimental air/land battle facility. The Combined Arms Center letter of instructions is at Annex L.

The facility, which we called the Air/Land Battle Coordination Center (ALBCC), housed a combination of full-time and part-time participants from CACDA, the College, and the

---

<sup>66</sup>The doctrine authorities of the Air Force in the Pentagon and at TAC had been thrown off by the Army's EAD decision; they didn't know how to accommodate it and keep centralized control of tactical air in the theater, an ingrained tenet. TACLO, being a TAC office, would not help us plow new ground. But we had some bright USAF majors in the student body whom we enlisted in our study effort. Being, with the USAF faculty liaison section, under the Air University, they had no compunctions about thinking in new directions.

<sup>67</sup>Later renamed the Air Support Operations Center (ASOC)

TACLO that represented all the subject matter expertise, from the commander on down, that was required for orchestrating the command and control of air/land operations at the corps level. From the yellowed transparencies of that time, I can duplicate our standard briefing...

The CAC approach:

Evolutionary, from A... to B... to C

Required: Brains, organization, procedures. Not necessarily: New money, new equipment, more people.

A Common Effort.

We then showed a layout of the ALBCC, which was essentially a command post with in its center an operations portrayal managed by an Operations Coordinator and an intelligence portrayal managed by an Intel Coordinator (choosing for experimental purposes to use different names for the G-3 and G-2). Around the sides of the space were open cubicles for the specialties -- electronic warfare, fire support, reconnaissance and surveillance, and so on. We would start with maps as "portrayals" but would graduate to other means (e.g., rear screen projections) if experimentation showed they had advantages. The Direct Air Support Center with its operations, intel, and recce specialists was centered on ops/intel portrayal.

The Method:

Exercise the elements of the Center in slow motion in College and SCORES scenarios.

Coordinate with combined arms schools, Admin and Log Centers, and TAC agencies.

Identify problems and document deficiencies.

Develop SOPs to do the job better.

Test with full up manning with faculty and students.

Recommend actions to Commanders of TAC and TRADOC.

The Expected Products:

Streamlined corps headquarters; procedures for integrating the air/land battle; improved comms and ADP assistance; improved proficiency in conduct of air/land battle; benefit to both Army and Air Force combat developers.

At the ALBCC we established a battle simulation facility that could support slow motion and real time exercises in the ALBCC using College troop lists and scenarios. When up and running we had in mind making the facility available to the active corps headquarters of the Army and their associated Air Force elements.

In the winter of 1975-76 I had great hopes for the ALBCC. The full-time CACDA/College staff under the leadership of Colonel Sanders of the Department of Command was exploring the issues and periodically calling in people of the part-time staff. With Colonel Clyde Tate of the Department of Tactics and Colonel C. H. Carter, the TACLO, they

were getting into substantive discussions on how to improve air/land coordination. Wargamers were getting established. When Lieutenant General Hank Emerson, XVIII Airborne Corps Commander, visited Leavenworth I showed him around the ALBCC; he expressed an interest in using it.

\* \* \* \* \*

I had been struggling to manage the combination of the College and CACDA as we adjusted to TRADOC's steadily rising demands of combat and training developments. In December I rearranged the roles of my three generals. Ben Harrison, who would still be titled Deputy Commandant of the College, would be fully responsible for the Training Developments function, described by General DePuy as a "factory" for turning out training material for the Army. I named as Assistant Commandant Bill Louisell, who had headed the Tactics Department before taking the assistant deputy slot in CACDA; he would run the College's resident instruction. In addition he would be my CAC Deputy for Battle Analysis and, as I put it to General DePuy, "will see that there is consistency in tactical thought and orderly experimentation in CAC, including SCORES." That put him squarely in the middle of our wargaming for the Anti-Armor Systems Program Review. Morey Brady remained Deputy Commander of CACDA where he would have tasking authority for the combat development work done by the College; he would no longer have a general officer assistant.

Meanwhile the resident course was going very well and we were planning for the year 1976-77. Manpower cuts in the faculty had yet to take place, and I thought that we were giving the class of 1975-76 the best instruction in the history of the College.

In early January I received a telephone call from General Weyand, Army Chief of Staff. He told me that he was going to nominate me for promotion to lieutenant general and to take command of I Corps (ROK/US) Group in Korea.<sup>68</sup>

With less than a month before I would depart for Korea, I could only hope that my temporary successor as the commander of the Combined Arms Center, Morey Brady, would, while meeting the demands of TRADOC, take good care of my cherished College. With Ben Harrison and Bill Louisell on the scene I felt good about that.<sup>69</sup>

<sup>68</sup>I was getting ready to give up on ever being promoted. Bob McAlister and Donn Starry of TRADOC, both junior to me, had gone on to three stars. In my interview with General Weyand he told me that General DePuy had recommended another TRADOC major general for my new job. I then thought about an invitation that General Weyand had extended to Nancy and me in December, inviting us to attend a dinner party at his Fort Myer quarters and to spend the night. We did. At breakfast Nancy charmed him when she left a gift of a box of marzipan, telling a story about it. That visit must have satisfied him that I was all right.

<sup>69</sup>A few months after I left for Korea, Jess Hendricks wrote to tell me that Morey Brady's successor had closed down the ALBCC, saying that he needed the space for another purpose.

Having among other things learned the names of the students who would be sent to Korea on graduation, and having organized an elective on Korea for them to be presented in Term 3, in early February I flew off to my new assignment.<sup>70</sup>

---

<sup>70</sup>Nancy would remain on post, in quarters on Doniphan Avenue, while our two children still living at home finished their school year.

## Epilogue

### Korea

In Korea I made good use of what I had done and learned at Leavenworth.

My command was the ROK/US field-army-size formation that, with three ROK corps and eleven ROK divisions plus the US 2d Infantry Division, defended the Western Sector of the Demilitarized Zone and the approaches to Seoul. North Korea's army, deployed in attack formation, outnumbered and outgunned the defenders. Should it be ordered to attack, it would surely seek surprise. The defender, with only one chance to not be surprised, would require a prepared-to-fight superior application of airpower working with the ground forces to defend successfully against a massive attack, especially one aimed at Seoul which lay only 25 miles from the frontier. My overriding aim was to insure that Kim Il Sung, the North Korean dictator, whenever he asked himself, "Is this the time to attack?", would answer to himself, "Too dangerous. Too uncertain. Not now."

In those days nuclear weapons were part of the United Nations Command's defense scheme, with procedures in place for U.S. stockpile agents in Korea to deliver nuclear munitions when ordered to South Korean field artillery units. Skeptical of our ability to use these munitions effectively, and mindful of the urgent need not to confront the United States President with a decision for their use, I resolved to improve the defense of the Western Sector to the point where none would be required.

In Korea, 1976-78 -- A Memoir,<sup>71</sup> a 60-page paper with twenty appendices, I wrote in 1998 about those two years, which were marked by wargaming of actual defense plans using an adaptation of First Battle built in large part by former Leavenworth students who joined me. In a series of Caper Crown exercises, with commanders and their staffs from corps through regiment in command posts linked by simulated communications, we played in real time the opening day or two of a North Korean attack in which the enemy with his own attack scheme was independently played. Our last such exercise played two corps with full associated theater tactical air. These were the first such simulations conducted by fielded combined arms formations anywhere.

In two years we made great progress in air/land battle coordination. The Commander, Air Forces Korea, who in war would command the ROK/US tactical air forces in support of my force, and I developed and wargamed mechanisms for bringing in tactical air harmoniously with my forces, not only in close support but in "battlefield interdiction" (a new

<sup>71</sup>A copy, plus the briefing with its slides, is in the US Army Military History Institute, Carlisle Barracks, PA. Two copies are now in the Combined Arms Research Library, Fort Leavenworth. With an assurance of its return I will lend one of my remaining two copies on request to 4 Revell Street, Annapolis, MD 21401.

term for close-in, but not "close," air support), thus making it possible for us to hold our positions -- provided however that his tactical air forces, employed under the direction of the overall Korea commander, General John W. Vessey, also targeted and sufficiently devastated the reinforcing echelons of the North's armies. At I Corps(ROK/US) Group, we called our part of the defense the "air/land battle."<sup>72</sup>

When I returned to the United States in February 1978, I visited TRADOC, then commanded by General Donn Starry, who in 1975 had gone from Fort Knox to command V Corps in Germany, where he had further developed the "active defense" ideas of FM 100-5. Using a couple of cassettes of slides, I presented a two-hour briefing to him and his staff, titled "Defense of the Western Sector." I described what we in I Corps (ROK/US) Group had done in harmony with Air Forces Korea, labeling that notion as "air/land battle," and telling of the Vessey combination of deep attack on the enemy's reinforcing echelons together with close air/land teamwork in the zone of contact.<sup>73</sup>

## **Retirement**

I retired from the Army on March 1, 1978 and went to work as a consultant and writer on the organization and employment of theater forces and their command and control -- and on battle simulation of air/land forces. This led me into developing an expertise in the fields of joint and combined organization and doctrine, which became a principal focus of mine.<sup>74</sup>

In the first ten years or so of retirement I stayed close to Leavenworth, which I thought beginning in 1979, when Lieutenant General Bill Richardson took command, entered an age of especially enlightened management. For one thing, in 1981 Bill took posses-

---

<sup>72</sup>When I left Korea MG Bob Taylor, Commander AFK, presented me with a brass replica of a fighter pilot's hand grip; on it were the words "Mr. Air/Land Battle."

<sup>73</sup>In 1980 I began hearing of something called "AirLand Battle," which with its deep attack features seemed very like prescribing for Central Europe's air/land forces what the Korea command had been doing for three years. It was coming from briefings by BG Donald R. Morelli, who in December 1979 had become TRADOC's Deputy Chief of Staff for Doctrine. With its unorthodox spelling, the concept was introduced by TRADOC's General Donn Starry and LTG Bill Richardson of Leavenworth in articles in early 1981 and was incorporated into the 1982 edition of FM 100-5 and into the 1986 version after that, but disappeared in the 1993 version. When I first heard of Morelli's pitch I thought it was more public relations than doctrine, but it took hold for about ten years as a useful rallying cry.

<sup>74</sup>A partial list of my writings: For the Center for Information Policy Research, Harvard University, a series of four books on Command and Control of Theater Forces: Adequacy, 1983 (published in 1985 as a book by the Armed Forces Communications and Electronic Association), The Korea Command and Other Cases, 1986, Issues in Mideast Coalition Command, 1991, and The Future of Force Projection Operations, 1995. For the Army War College, a 1983-1984 text, Organization and Operational Employment of Air/Land Forces. For the Command and Control Research Program, National Defense University, Five Lessons in Command and Control of Joint Force Operations presented at the School of Advanced Military Studies, 1989. Pamphlet, Thoughts for Joint Commanders, self-published in Annapolis, MD in 1993, and used until out of print as a text at the Army War College. Since moving to Annapolis in 1989, I have written a dozen or so articles for the U.S. Naval Institute Proceedings.

sion of the idea of SAMS (the School of Advanced Military Studies) in which selected graduates of the one year Regular Course stayed on for another year.<sup>75</sup> As Army DCS-OPS, then Commander, TRADOC, Bill saw SAMS through to fruition in 1984, when the first 48-student class began. It has proved most beneficial to the College and the Army.

In 1983, soon after Lieutenant General Carl Vuono took command of the Combined Arms Center, I asked him for an appointment at which I could brief him on what we had done with the Air/Land Battle Coordination Center (pages 70-73). I took him and a handful of his key people through its rationale and the stage of development reached when I had left Leavenworth. I told him what I had expected of it, including its use with a wargaming capability to exercise corps commanders and their staffs. Not long after that, the imaginative Carl Vuono began the development of what later would become the Battle Command Training Program, which -- by exercising division and corps commanders and staffs at home station with a traveling team of wargame controllers, enemy players, and retired senior officer advisors -- would in due time revolutionize the training of Army forces and lead to their astounding performance in Desert Storm.<sup>76</sup>

Through the early 1990s, in visits to Leavenworth and by other means, I kept myself abreast of the evolution of Army doctrine, observing the successive editions of FM 100-5.<sup>77</sup> When Paul Herbert's Leavenworth Paper, Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of FM 100-5, Operations, appeared, the reaction in the pages of Leavenworth's Military Review in November and December 1989<sup>78</sup> was useful in describing that doctrinal evolution and the impact thereon of the 1976 manual. Points made included:

- o The 1976 manual, written by a small group of men responsive to General DePuy and dealing with the tactical level of war in "the only theater conceivable in the late 1970s" (Europe), galvanized a productive, professional debate throughout the Army, stimulating doctrinal ferment unique in US military experience.
- o FM 100-5's 1982 version, drafted at Leavenworth, edited by TRADOC, and introducing "AirLand Battle doctrine," benefitted from this debate, refining and modifying the 1976 tactical doctrine, and treated at length the operational level of war.

<sup>75</sup>In 1977 the position of Commander, Combined Arms Center, had been made Deputy Commander, TRADOC, as well, and a three star billet.

<sup>76</sup>Along with the National Training Center at Fort Irwin, CA, which idea had originated in the fertile brain of Paul Gorman.

<sup>77</sup>I also tracked the abortive effort by Army Chief of Staff Edward C. Meyer to create in the 9th Infantry Division at Fort Lewis, WA, a powerful, yet rapidly deployable, "light division" through experimentation directly under the Army Staff. (See "Transformation: Let's Get it Right this Time," Parameters, Spring 2001.)

<sup>78</sup>Where comments were by William S. Lind, "longtime critic of the 'active defense' doctrine espoused in the 1976 FM 100-5," and Leonard D. Holder and Richard M. Swain, two students and writers of Army basic doctrine at Leavenworth and practitioners in the field.

- o The 1986 version, in the words of Don Holder, an author of it, presented "a far broader view of war in its stress on historical experience, on worldwide contingencies and varying force mixes, on human strengths and weaknesses, and on the dynamic effects of tempo, maneuver, and action in depth. These features and its attention to the operational level of war -- entirely absent in the 1976 document -- result in AirLand Battle doctrine's having more in common with pre-1976 versions of FM 100-5 than with the Active Defense formulation (of the 1976 version)."

In 1982 I was asked by the Army War College to write a text for its 1983-84 curriculum, which the College Commandant then "widely distributed throughout the Army." Titled Organization and Operational Employment of Air/Land Forces, in its Foreword I wrote:

The charge to the author was to produce "the best available thought which can be defended by reason, regarding air/land operations... (at) brigade through unified and combined command."

This work had its origin in a desire by doctrinal authorities at the U.S. Army War College for something which would fill a perceived void in the literature at "echelons above corps." The product reflects the real-world situation: There is little uniformity in air/land field organizations, as they now exist, at echelons above (or even below) corps. Nor can there be, given the variety of conditions where U.S. air/land forces are, or may be, deployed.

Any search for principles, or for the best available thought, must take that lack of uniformity into account, and also the practical reality that U.S. Army forces will always be employed in a multiservice or multinational framework in which the multiservice/multinational commander's needs and perspectives should govern.

In March 1984 the College faculty member who monitored my effort received this letter:

Dear Colonel Stewart

I have recently had the occasion to review your reference text, Organization and Operational Employment of Air/Land Forces, written by Lt Gen Cushman. I am enormously impressed with this document. I wonder if it is possible to get 10 copies or so for distribution here at TAC Headquarters.

Thanks very much for publishing an outstanding text.

Sincerely



MERRILL A. McPEAK, Major General, USAF  
Deputy Chief of Staff, Plans  
Tactical Air Command

General McPeak later became Chief of Staff, U.S. Air Force.

During the 1980's, at a time when military simulation projects were mushrooming, I was quite active writing and briefing on the simulation of air/land warfare. My involvements were manifold, sometimes helpful, sometimes not.<sup>79</sup>

In 1989, having moved to Annapolis, I began writing for the United States Naval Institute Proceedings, where I found a forum ready and willing to publish articles reflecting and building on the ideas on joint matters that I had developed over the years. When the Gulf War erupted, this kind of writing became even more germane to Proceedings, and in 1994 I was named the USNI "Author of the Year."

By 1984 the School of Advanced Military Studies, which had in 1982-83 run its first 12-student pilot class under the talented Colonel Huba Wass de Czega, was in business with a 48-student class. Huba, who had been the primary author of the 1982 FM 100-5 and had originally conceived the idea of a SAMS, remained its director until 1985. I began lecturing there annually. By 1991, the Director, SAMS, the admirable James R. McDonough (whom I had come to know when in 1986-88 he was a SAMS advanced studies fellow in lieu of attending a war college), had been tasked with drafting the next version of FM 100-5.

I had long advocated expanding the treatment of joint operations in the Army's basic doctrinal manual, and making its treatment of joint operations useful to senior Army officers who might command joint formations. I asked the Commander, CAC, LTG Wilson A. Shoffner, for an opportunity to brief the Director, SAMS, and the manual's principal author on my views. I did so at length, but became so discouraged about the prospect of influencing the new draft along those lines that I wrote a letter to General Shoffner telling him that I would not be back to lecture at SAMS, but giving him my ideas on how FM 100-5 should be developed. My nine-page letter to General Shoffner is at Annex M. When a new CAC commander was named, I changed my mind and accepted an invitation to speak to the next SAMS class.

<sup>79</sup>In April 1983 while on a trip to Europe I briefed General Billy M. Minter, CINC US Air Forces Europe, on the air/land battle wargaming we had done in Korea in 1976-78. The USAF colonel, Moody Suter, who had been instrumental in developing the Red Flag fighter pilot training for the Air Force at Nellis AFB, NV, was in the audience. Along with other USAFE staffers, Moody had, for General Minter, been considering ways to develop the "warrior spirit" in USAFE wings and squadrons. Immediately after my briefing General Minter directed Moody to get busy on a "Warrior Preparation Center" that would among other things feature simulation that would exercise army and air force commanders. General Minter directed that the nearby Einsiedlerhof barracks be used for the WPC, displacing the Glenn Miller USAFE band, and Moody Suter was off to the races. The Air Force officially activated the WPC on 15 August 1983 and ran its first rudimentary exercise some six months later, focusing on electronic warfare. In 1984 USAFE and USAREUR signed a memorandum of understanding that called for shared manning and funding of the Warrior Preparation Center. It has been running US and NATO operational level exercises ever since.

Although from the viewpoint of Army operations the FM 100-5 that came out in June 1993 (which discarded the term AirLand Battle) was an improvement over its predecessor, it was a disappointment with respect to a joint approach. But by then I was writing (desktop composing) a 56-page handbook/pamphlet of my own, Thoughts for Joint Commanders, which I had privately printed in Annapolis in August 1993 in 6,000 copies. These were sold widely (at \$5.00 each, less than that in bulk) around the military establishment. Until copies ran out three or four years ago, the pamphlet was issued to students each year at the Army War College.<sup>80</sup>

---

<sup>80</sup>I appreciated Donn Starry's generous review in Military Review (November 1993) of what he called "this superb little book," with its "masterful discussion of the difficulties of coordinating air power" and its "brilliant laydown of problems stemming from the glut created by modern information technology." "The joint force commander who does not have a dog-eared copy of Cushman's little book close at hand... is missing the best advice he can ever get on the subject."

## Assessment

I have had a satisfying life, with never an unrewarding assignment. Fort Leavenworth has been very important, even central, in it.

My most satisfying memory of Leavenworth is getting to know three classes of vital and accomplished Regular Course students whom I aimed to influence; except for Bob Doughty, all are out of the Army. From the Bell, the yearbook of the 1974-75 Class<sup>81</sup>...

# 1975 Class Profile

## Composition,

Army	980
Air Force	14
Marines	10
Navy	4
Allies*	97
Total	1105

\*representing 52 countries

## Awards And Decorations

Distinguished Service Cross	5
Silver Star	142
Legion of Merit	27
Distinguished Flying Cross	151
Soldiers Medal	21
Bronze Star V	225
Bronze Star	1748
Meritorious Service Medal	270
Air Medal V	106
Air Medal	3924
Joint Service Commendation	132
Commendation V	104
Commendation Medal	1012
Purple Heart	261

## Age

Average 34 yrs. 5 mos.  
Youngest 28 yrs. 8 mos.  
Oldest 47 yrs. 10 mos.

### Average Service

11 yrs. 5 mos.

## Marital Status

Married	947
Unmarried	61
Dependents	3105

## Command

870 (86%) had  
Company/Battery Command  
An average of 15 Months.

## Grade

5% Lieutenant Colonel  
in grade 1 yr. 5 mos.  
70% Major  
in grade 4 yr. 6 mos.  
25% Captain  
in grade 6 yr. 8 mos.

...and one Colonel who didn't achieve a percentage point in the statistics

## Source Of Commission

ROTC	556	55%
OCS	210	21%
USMA	162	16%
Direct	59	6%
Other	21	2%

## Civilian Education

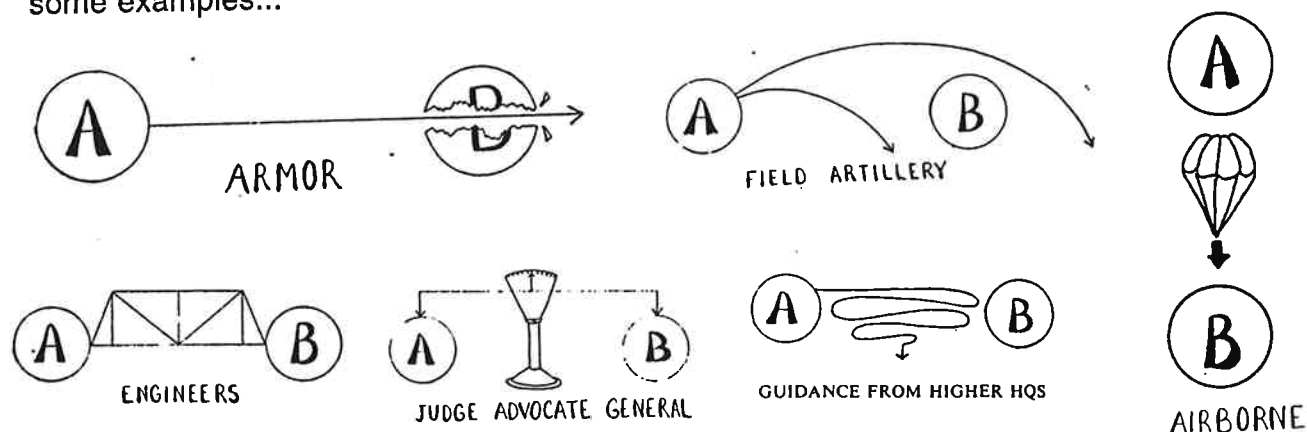
PhD	4	-
Professional	25	3%
Masters	487	48%
Baccalauerate	483	48%
Some College	9	1%

In my opening address (Annex A, page 3) I had said to the 1973-74 class...

"Imagine two points. Point 'A' is where we are. Point 'B' is where we want to be. Controlled adaptation is the systematic program that moves us from point 'A' to Point 'B'... We intend to put your minds to work vigorously on the current Army problems that are pressing us for solution -- so that the Army as a whole can move from 'A' to 'B'."

<sup>81</sup>This class celebrated the bicentennial of the American Revolution which we marked on April 19, 1975, with a reenactment by the post's youngsters of the Battle of Lexington, in the park at Sumner Place. As the "Redcoats" marched toward the battle scene to encounter the waiting sturdy patriots, their column passed the quarters of the British liaison officer, Colonel A.T.P. Millen, where he had displayed the Union Jack.

In its Bell, that Class seized on my A to B notion to add some humor to its back pages; some examples...



When I left in February 1976, Ben Harrison, for the faculty, presented to me the standard "Leavenworth Lamp" given to each departing faculty member. On its base was inscribed "Senior Instructor." Under that was the letter "A" with an arrow pointing to "B." I treasure that gift in all its meaning.

The story of my second tour at Fort Leavenworth is in large part a tale of differences in viewpoint between myself and my boss, General DePuy, who had his own vision of "B." In time I found that I was fundamentally unable to promote key features of his vision; I thus failed to serve him. Painful as our relationship made my job, I loved it and gave no thought to asking to be relieved; nor did General DePuy, however provoked, decide to relieve me. Each of us managed as best he could.

I am proud of what I did in the College. Our changes were good, especially: making instruction realistic, going to the small group instruction mode, modifying the student evaluation system, emphasizing joint Army/Air Force operations, learning through simulations/wargaming, introducing computers into the mainstream, increasing elective choices, introducing Schmidt as a case study, using students in real-world problem solving, our Symposia on Officer Responsibility, and the Air/Land Battle Simulation Center. I am proud of my personal involvement both in teaching and in what was being taught.

I could have done some things better. For example, my insistent tinkering with the instructional material (an example is cited by Bob Doughty, page 40) was probably not worth the anguish it caused the faculty, which must have in turn had an effect on the students. And I know I drove people too hard, brooking little disagreement from time to time, and too often without the human touch and with guidance insufficiently clear.

At the end of a balanced assessment in his paper, Bob Doughty wrote, "One of (General Cushman's) most important reforms has been the reintroduction of the real Army into the classroom... The abstract, academic version that previously existed only in the classrooms of Bell Hall has hopefully disappeared for good. In the truest sense, Leavenworth reached a higher level of excellence as a result of the driving leadership of General Cushman."

In a 268 page transcript of an oral history, Ivan Birrer, who had known every CGSC commandant from 1946 to when he retired in 1978, said, "On my personal scale of Commandants -- the scale is in terms of personal effect over the long term -- (Jack Cushman) stands with the top three. Perhaps twenty years from now, my successor will put him at the top. I wouldn't be surprised."

I take some comfort in hearing now and then favorable remarks from people who were with me at Leavenworth in those days. None have pleased me more than this from an officer who read my posting beginning on page 59 above...

I recently downloaded your posting about the Symposium on Officer Responsibility at CGSC on 30 April 1975. I wanted to respond as one of the captains in the audience with my great admiration for the moral and ethical stature you showed on that sad day. I was too bitter and too immature at that time to appreciate what you were doing. I believe I appreciate it now. Your personal association and leadership of the students at CGSC was not carried on by your successors and the College is poorer for it. "Commandant" has become almost an honorific title (Deputy Commandant is tending the same way) as Commandants moved up the hill to CAC, then were given wider responsibilities outside Fort Leavenworth that absorbed more and more of their energies. Your vision of what the Staff College was and could be, I am glad to say, lived on for almost a decade, maybe a decade and a half more. It is hard to find today, but your example inspired many of us for a long time to come to believe that war was a thinking man's business and CGSC was its principal college. CGSC was an important period of my professional and intellectual life and I appreciate your role in making the College what it then was.<sup>82</sup>

Upon reading my April 2001 draft of this memoir, John L. Romjue, former TRADOC historian, had this to say...

The great fact that comes out of this memoir is that Cushman appears not to have fully appreciated that sense of urgent Army reform, root and branch, that DePuy personified, power-

---

<sup>82</sup>The writer was Rick Swain, whose name I have mentioned in footnotes twice. When writing, he may not have known that LTG William M. Steele, then CAC Commander and CGSC Commandant, with a multitude of responsibilities to meet and but two brigadier generals to assist him, was freeing up one of them, the Deputy Commandant then burdened with many other concerns, to take care full time of the College. (Well before General Steele's time, the organization known as "CACDA" had disappeared from Fort Leavenworth, although some of its former functions remained in other parts of the Combined Arms Center.)

fully prosecuted, and expected Leavenworth to participate aggressively in. The author appears not to have fully bought into the reality that the new animal that was TRADOC was not only a teaching and training command but more primarily a new, unitary and focused development command to meet the Army's crisis now... (I)t must be noted that DePuy was for all who encountered him, in agreement or in conflict, a force of nature.<sup>83</sup>

John Romjue may well be at least partly right. A participant in these events at Leavenworth has written:

To a degree, John Romjue is correct. At Leavenworth we did a great deal of studies and simulations in the Combat Development area dealing with "the Army's crisis now." In the College we modified instructional material and held special symposiums dealing with "the Army's crisis now." We did not, however, change the College's primary purpose of education of future military leaders to one of piecemeal problem solving for "the Army's crisis now." Apparently in John Romjue's estimation, this was not what General Depuy wanted from Leavenworth at the time--Depuy wanted total focus on "the Army's crisis now."

The reader can judge for himself. So ends my story.

**Dedicated with gratitude to the staff, faculty, and students  
of the Command and General Staff College and to the other  
members of the Combined Arms Center, all of whom served  
me so faithfully from August 12, 1973, to February 10, 1976.**

**John H. Cushman  
Lt. Gen., US Army, Ret.**

**4 Revell Street  
Annapolis, MD 21401  
Ph: 410-268-5152  
Fax: 410-268-5315  
Email: JackCushSr@aol.com**

---

<sup>83</sup>At the web site of the CGSC (<http://www-cgsc.army.mil/>) one can see General DePuy's lasting imprint on the College through memorialization instituted after his death in 1992. From time to time students of the Regular Course meet in the new Eisenhower Hall's DePuy Auditorium, which has joined Marshall and Eisenhower Auditoriums in old Bell Hall, and Grant Auditorium in Grant Hall which was used by students in the 1920s and '30s. And there is an annual General William E. DePuy Award for outstanding original thought by a student in the areas of military doctrine, training, organization, materiel, or leadership.