Change is a constant for today's armed forces. With frequently shifting requirements as well as advancing technology, it is imperative that any reforms contribute to a force's ability to operate on the battlefield. The author reviews some changes that have occurred in the past, points out certain requirements associated with change and calls for creative solutions to future needs.
Reform of an institution as large as our Army is problematic under the best of circumstances. The recent history of change in military systems of the world is instructive. Let us examine the story of Sir Ernest D. Swinton's invention—the tank—as well as the history of the development of concepts for mobile all-arms warfare to illustrate the challenges that would-be reformers face in trying to introduce new ideas.

In the British army, where the idea had its genesis and was the subject of much early development and experimentation, a succession of single-minded tank and mobility enthusiasts persisted in developing the concept of mobile all-arms warfare built around the tank striking force. They did so in the face of persistent opposition by most of their less imaginative peers and superiors. Most of these reformers were "loners." For the most part, they were argumentative, assertive and hardly ever in agreement—even with one another.

Despite support from Winston Churchill, they were forced to work around an organizational system which abhorred change. In frustration, many went public with their arguments and, by doing so, incurred enmity among their superiors sufficient either to bring on their early retirement from the active ranks or to relegate them to some inconsequential posting.

Although field trials were held to demonstrate the new concepts, those who benefited most from the trials were the Germans. They spawned the blitzkrieg based largely on their own study as well as their study of the writings of the British reformers, J. F. C. Fuller and B. H. Liddell Hart, and the record of the trials on the Salisbury Plain.

As war came to Europe in 1939, the British army found itself with an imperfectly developed concept of all-arms combat based on the tank, to include inadequate tactics, organizations, equipment and training to implement a state of warfare they themselves had invented.

In the US Army, the pioneers were fewer in number, and the institution proved considerably more resistant to change than even the British army. Therefore, the development of a concept of mobile warfare fared even less well. A succession of Army chiefs of staff rejected the idea out of hand. Even such future practitioners of maneuver warfare as General of the Army Douglas MacArthur testified before the Congress that one should not buy too many tanks for they were terribly expensive and quickly became obsolete.

Strongest among the opposition was that bastion of mobile thinking—the US cavalry. Its last chief, Major General John K. Herr, was the most strident, outspoken opponent of the idea of all-arms warfare which was built around the tank.

There were really only two heroes of this drama in our Army. Major General Adna Chaffee and Lieutenant General Daniel Van Voorhis. Without Chaffee, the US Army quite likely would have had no tanks at all in 1940. And, without Van Voorhis, there would not have been an operational concept for armored formations in World War II. As Edward Katzenbach concludes in his fascinating paper, "The Horse Cavalry in the 20th Century," the Army of the most mechanized nation on earth came to the threshold of World War II firmly wedded to strategy, operational art and tactics deeply rooted in the 19th century.

On the other hand, the Germans seemed to have developed, in what retired Colonel Trevor N. Dupuy calls their "genius for war," a much more impressive willingness and ability to adapt to change. Captain Timothy T. Lupfer describes well the German army's ability to change operational
concepts and tactical schemes in a matter of months in World War I.  
Heinz Guderian, reading reports of the armored force trials on the Salisbury Plain, demonstrated the concept with a small force for Adolf Hitler at Kummersdorf in 1934. Kenneth Macksey describes well how the German tank pioneers seized on and matured the preliminary British work on all-arms warfare built around the tank.

With Hitler’s blessing of the concept, Guderian, in 18 short months, produced an all-arms panzer division. The division operated within a fairly well-spelled-out doctrinal framework. It included the strategy for mobile warfare; a general operational scheme for how the larger forces would fight; and the organization, tactics and at least a preliminary array of the type of equipment needed to bring the concept from theory to reality. In his new book, The German Army, 1933-45, Albert Seaton describes the German army’s remarkable ability to adapt to change in those very turbulent years.

How did they do it? How were the Germans different from the British or the Americans? Several facts stand out which frame the answer and outline a set of requirements necessary to effect change.

First, the Germans had a general staff element whose primary function was to examine the need for change and, when change was decided on, to draw up the necessary programs to make it happen. True, this capability became diffused as Hitler fragmented his army command into the OKW (Armed Forces High Command) and the OKH (Army High Command), an overshadowed army headquarters. Indeed, some of the bitter antagonisms that arose between those two organizations in World War II survived until recently even in the Bundeswehr. Nonetheless, for the critical developmental years, there existed an institutionalized framework for examining the need for changing doctrine—strategy, operational art, tactics, describing the equipment, organizational training and other changes needed; and producing the impetus for change through the office of the inspekteur.

Second, the German mavericks were all products of the enormously demanding and rigorous officer selection and training system characteristic of the German army to this day. Mavericks they may have been, but all had been taught to think logically about tough problems. They were all taught in the same way, in the same schools. Compelling logic to one was, therefore, equally compelling to all. This made arriving at a consensus much easier. And change simply cannot be effected
without a consensus by some means

Third, the principal instigators of reform remained for years in positions related to implementation of the changes they espoused. For example, follow Guderian through the evolution of the blitzkrieg in Macksey’s book on Guderian. Change was further facilitated because the senior leadership, to include most importantly Hitler himself, was quick to seize on the strategic advantages Germany could gain over its potential foes by changing the basic ingredients of its military system.

Finally, trials had been conducted—by the Germans in Russia, by the British on the Salisbury Plain and by the Germans and the Russians in the Spanish Civil War. And these closely observed lessons were fed back into the system for the further refinement of their mobile striking forces. Recounting, then, we have a set of generalized requirements for effecting change.

- There must be an institution or mechanism to identify the need for change, to draw up parameters for change and to describe clearly what is to be done and how that differs from what has been done before.
- The educational background of the principal staff and command personalities responsible for change must be sufficiently rigorous, demanding and relevant to bring a common cultural bias to the solution of problems.
- There must be a spokesman for change. The spokesman can be a person, one of the mavericks; an institution such as a staff college; or a staff agency.
- Whoever or whatever it may be, the spokesman must build a consensus that will give the new ideas, and the need to adopt them, a wider audience of converts and believers.
- There must be continuity among the architects of change so that consistency of effort is brought to bear on the process.
- Someone at or near the top of the institution must be willing to hear out arguments for change, agree to the need, embrace the new operational concepts and become at least a supporter, if not a champion, of the cause for change.
- Changes proposed must be subjected to trials. Their relevance must be convincingly demonstrated to a wide audience by experiment and experience, and necessary modifications must be made as a result of such trial outcomes.

This framework is necessary to bring to bear clearly focused intellectual activity in the matter of any change, whether in concepts for fighting, equipment, training or manning the force. Such a framework
was recently institutionalized in the US Army. Let us briefly describe how this came about.

The Army reorganization of 1973 was aimed, in part at least, at the institutional side of the problem we are examining. In those years, the Army needed many changes. Some were purely managerial, reflecting our apprehension of a lot of structure and too little manpower. More importantly, however, the Army realized it needed to change its concepts of warfighting. It addressed the strategic problems of fighting outnumbered and winning, the matter of the operations of larger units, which units perchance would be fewer in number; and the revision of tactics, organizations, equipment and training to bring the Army out of the Vietnam trauma and to make it an effective fighting force in the last quarter of this century.

The Army found itself confronted by principle antagonists, who were almost always sure to outnumber it, and by a growing militarization and modernization of conflict in the Third World. The Soviets, impelled by their obsession with numbers, were obviously in possession of a maturing operational concept embracing mass, momentum and continuous land combat in a nuclear, chemical or conventional environment. Convinced by the realities of our then and impending resource constraints, we could not afford a like concept. We set about to look for ways to win even though fighting outnumbered. This was a crucial first step. (Russell F. Weigley might argue that that was more of a radical departure from our antecedents than others might agree.)

However, some analysts suggested history clearly endorsed the idea, and the 1973 Arab-Israeli War provided a fortuitous field trial of useful concepts. The lessons drawn from this conflict, as well as other analytical study, led to the Army's conclusion about the requisite strategy, operational concepts, tactics, organizations, equipment and training. The outcome of this intellectual activity and theoretical study was set forth in what became the 1976 edition of Field Manual (FM) 100-5. Operations. Its primary emphasis, at least as viewed by its critics, was on an operational concept the Army called the "active defense."

However well or not so well that work may have been done, it met with considerable criticism from within the Army and without. Some of this simply reflected institutional resistance to the notion of change. Some of the criticism, however, reflected unresolved intellectual and theoretical concerns. But the experience dem-
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Demonstrated that all too little consensus building had been done and that the concepts set forth in the 1976 edition of FM 100-5 needed additional maturing. The results of that realization were several-fold.

First, the Army re-examined and revised its principles of war and published them in a new book, FM 100-1, *The Army*. An early criticism of the 1976 edition of FM 100-5 was that it was not firmly founded on enduring principles and did not even recount our principles of war. This new book began to build that theoretical foundation. The principles of war, as set forth in FM 100-1, spell out fundamental principles on which we must base our military strategy, operations and tactics in order to be successful today and to meet tomorrow’s needs.

While that development was under way, the Army’s operational concepts evolved through a succession of changes known as the Corps Battle, the Central Battle, the Integrated Battle, the Extended Battle, and, finally, the AirLand Battle.

One lesson of that experience was that we had imperfectly designed the institutional framework to accomplish change. In 1973, the US Army Training and Doctrine Command (TRADOC) absorbed the old US Army Combat Developments Command. There were several good reasons for that amalgamation—some related to resources and others related to perceived shortcomings with the output of that command. In any event, while strong on equipment development and organizational matters, the new combat developments directorate of the TRADOC staff was weak on conceptual work. Therefore, the bulk of the concept work reflected in the 1976 edition of FM 100-5 was done by a handful of people, none of whom was assigned to the combat development staff at TRADOC Headquarters itself or in the schools.

The realization of this omission in our original concept of how TRADOC was to do its business caused us to create a principal doctrinal development staff element at TRADOC—a deputy chief of staff for doctrine. This officer was responsible for identifying the need for change and for describing the conceptual framework of the change itself. Without that orderly process at the beginning and without one agency directly responsible for it, the need for change would always be ill-defined, and the conceptual direction of change would be cloudly at best.

Now, back to the beginning. The post-1973 reforms were presented to then Chief of Staff of the Army General Creighton W. Abrams. He made many amendments but
supported the general direction of the changes. After Abrams' untimely death in 1974, General Frederick C. Weyand gave his support. That support from the top has continued with both of their successors, General Bernard W. Rogers and General Edward C. Meyer.

The reformers then set about designing tactics, organizations, equipment and training systems to support the new concept. This resulted in, among other things, the division restructuring study and field trials of resulting organizations and tactics at Fort Hood, Texas. Because the concept was not yet mature, and because, in the trials, an attempt was made to measure performance differentials at the margin with an instrumentation system and a test scheme not adequate to that degree of precision, the trial outcomes were much too ambiguous to gain widespread acceptance.

At this point, it was apparent that the reformers had to begin anew. It became apparent that considerable internal consensus building would be necessary as organizational development proceeded. So, for two and one-half years, school commandants, representatives of the Army staff, major command, supporting organizations and other services were gathered at frequent intervals, and what we now know as Division 86 was hammered out at Fort Leavenworth, Kansas.

Consensus building in the Army was difficult for several reasons. In the process of bringing about change, there must first be a conceptual notion of what must be done to fight successfully in the battle environments of today and tomorrow. That conceptual thinking can only result from close, detailed and reflective study of a wide spectrum of technology, threat, history, world setting and trends. That kind of thinking can only be done by imaginative people who have trained themselves or have been trained to think logically about tough problems. That kind of intellectual development is one of the most important functions of our Army school systems, especially at the staff college level.

It is perhaps here that we have not yet fully equipped ourselves with the requisite means to achieve change. The US Army lacked that great strength of the German system—the intellectual prowess and staff brilliance of its general staff officer corps. US Army officers lacked the cultural commonality that was brought to bear through the process of the German General Staff system, and that was the most impressive, if not the most effective, catalyst in making it possible for them to change quickly—even under the pressures of wartime.

Even though our Army has begun working on this dimension of the problem at the US Army Command and General Staff College (USACGSC), in both the long course and the course now styled as CAS (Combined Arms and Services Staff School), some years will be required before the results of this effort bear fruit. The question has been raised as to whether we should consider a second year at Fort Leavenworth for selected officers to learn more about how we should prepare and plan for war and to hone the military judgment necessary to fight and win.

The USACGSC was a two-year course from 1929 to 1936 during which time some of our most brilliant staff officers and commanders in World War II were produced. The need to train more officers more quickly caused us to reduce the course to one year. Since then, subject matter related to fighting has been reduced to fill the many demands of our increasingly complex world environment. The time to logically think through tough military problems and to develop logical thought
patterns was greatly reduced. But the complexities of war have increased greatly, and it is time to give the matter a new hearing.

While much remains to be done, the US Army does have in place today most of the ingredients which history suggests are necessary to effect orderly change. And we are in the throes of changes produced by that system—changes designed to move us into the last two decades of this century. We would be well served in the future if that process could include more sound thinkers in uniform and fewer academic and amateur military strategic gadflies.

We would be better served as the process matures if we could somehow focus the intellectual prowess of the operations analysis community on our fundamental rather than our peripheral needs. We would be much better served, in the long run, if we could learn how to change our institutions from within instead of creating the circumstances in which change is forced on us by civilian secretaries of war, defense or whatever.

We would be much better served, in the end, if we could develop and refine, in our institution, the cultural commonality of intellectual endeavor and the ability to think logically about tough problems. These are necessary to develop new ideas, mature them quickly and chart relevant action programs which effect change in an efficient, orderly way.

In short, we need institutional leadership as well as individual leadership. Without a requisite combination of both, history instructs us that the need for change is difficult to define. What is to be done—the goalset of change—is virtually impossible to circumscribe, and the whole process takes so long that not much ever happens. In today's and tomorrow's worlds, we simply cannot afford the luxury of that kind of inefficiency.

The need to change will ever be with us. We may have analyzed the process, framed in its essential parameters, and made some considerable progress toward arming ourselves with systemic mechanisms to permit change to take place. But that in no way ensures either that change will occur or that it will be an easy, orderly process. And so the intellectual search, the exchange of ideas and the conceptual maturation must continue and be ever in motion.

NOTES
1 Kenneth Macksey, The Tank Pioneers, Jane's Publishing Co. NY 1981 gives a first rate account of this whole train of events
3 See Kenneth Macksey, Guatemalan Creator of the Blitzwieg, Stein & Day Publishers, Briarcliff Manor, N.Y. 1976
4 Ibid

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