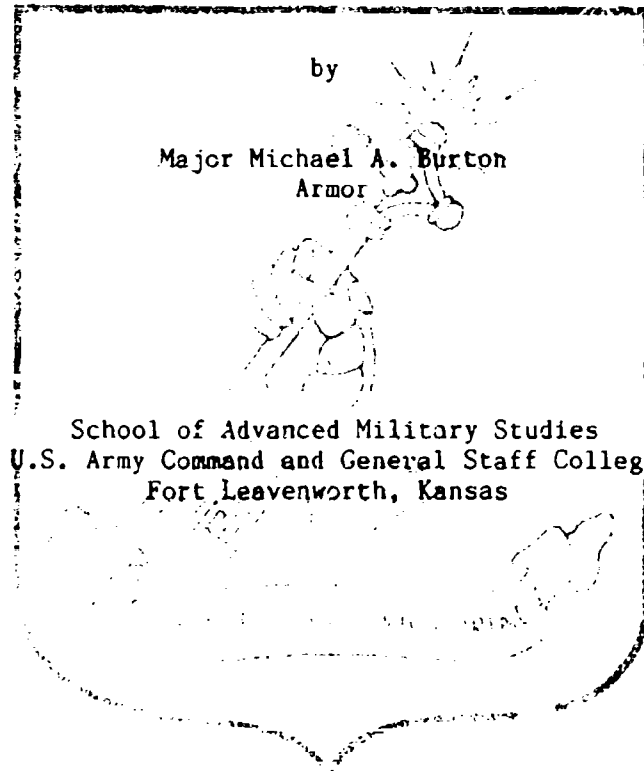


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Command and Control:  
Is the U.S. Army's Current Problem With Decentralized  
Command and Control a Function of Doctrine or Training?



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Command and Control a Function of Doctrine or Training?

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ABSTRACT

COMMAND and CONTROL: Is the U.S. Army's Current Problem With Decentralized Command and Control a Function of Doctrine or Training? by Major Michael A. Burton, USA, 40 pages.

The decentralized command and control system required to execute AirLand Battle Doctrine presents a significant challenge to tactical leaders. Incapable of predicting the critical place on the battlefield or occupying multiple vantage points simultaneously, today's leader depends on the decisions and initiative of his subordinates to win battles. Results at the National Training Center indicate decentralized command and control is not being employed effectively. Does this problem stem from doctrine as represented by FM 100-5 or Training?

This study examines and compares a successful model of decentralized command and control, Auftragstaktik, with that demanded by FM 100-5 in order to draw conclusions from any significant differences in regards to the current problem. First this paper uses a historical analysis to identify the principles of Auftragstaktik and how the Germans made their command and control system work. With the principles of Auftragstaktik identified, the principles behind the decentralized command system demanded by FM 100-5 can be examined and compared. If the principles are similar, the problems with decentralized command and control may not be with FM 100-5. A similar comparison can then be conducted between the application of doctrine in training by the Germans and the U.S. Army.

This study concludes that the U.S. Army's problem with decentralized command and control is with application of doctrine, not FM 100-5. In order to be successful, a dynamic decentralized command system must have a cohesive integration of doctrine and training. The U.S. Army has the right doctrine but has yet to make it work. Based on the German experience, recommendations are made on how to train for decentralized command and control.

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## I. INTRODUCTION

The decentralized command and control system required to execute AirLand Battle Doctrine presents a significant challenge to tactical leaders. Incapable of predicting the critical place on the battlefield or occupying multiple vantage points simultaneously, today's leader depends on the decisions and initiative of his subordinates to win battles.

At the National Training Center (NTC), the closest approximation to real battle the Army has, results indicate decentralized command and control is not being employed effectively. The "battles are invariably decentralized and very little ever happens as planned." [1] Confusion reigns on the battlefield. The Opposing Forces (OPFOR) routinely disrupt and destroy the cohesion and effectiveness of regular Army battalions. [2] Fragmented into company, platoon, or even squad sized groups, the blue forces' defenses are penetrated and defeated by the superior mass of the OPFOR. Battalion commanders often do not realize their units are in trouble until it is too late. "The dispersion and pace [of battle] are typically such that senior leader supervision and detailed control of even a minor portion of the critical action is simply not possible.... [However] there is nothing more important to success on the battlefield than effective command and control." [3]

Effective command and control is essential to winning on the AirLand Battlefield. [4] From the foregoing comments, neither command nor control appears to be working very well for the Army's combat battalions. Further evidence depicting the difficult nature of command and control at the NTC can be found in nearly any professional journal which counts NTC veterans among its readers. [5] The Army, at least at the battalion level and below,

has yet to master the techniques of effective command and control. Just what is the command and control system that is causing the Army problems?

FM 100-5, Operations, states,

"The command and control system which supports the execution of AirLand Battle Doctrine must facilitate freedom to operate, delegation of authority, and leadership from any critical point on the battlefield." [6]

From this description, it appears the U.S. Army desires a decentralized command and control system.

Richard Simpkin, the late British military writer, characterized the types of command and control systems as a spectrum with centralized command and control ("tight reign") on one end, and decentralized systems ("loose reign") on the other. [7] "Tight reign" allows only the overall commander the flexibility and authority to make plans and change operations. Subordinates are not expected or given the opportunity to use their initiative. "Loose reign" delegates authority and freedom of action. [8]

Martin van Creveld says one of the earliest examples of a decentralized command system was created within the Roman legion. The Romans, "by means of a standardized formation, proper organization at the lower levels, and the diffusion of authority throughout the Army, "allowed subordinate leaders to use their initiative and react to changes on the battlefield." [9] There have been many solutions for solving command and control problems on a changing battlefield. "One extreme was to surrender virtually all control (the ultimate in decentralization), as did medieval princes." [10] Each knight fought his own battle. The other extreme was "to try and command all of [the] army all of the time,"... like Frederick the Great. [11]



Decentralized command and control then, is a system which delegates decision authority and allows subordinates freedom to use their initiative.

Decentralized command systems are differentiated by:

- 1) The amount of authority delegated to each level of command.
- 2) The lowest level of command at which significant freedom of action is retained.
- 3) The parameters by which subordinate freedom of action and subsequent use of initiative are bounded.

Martin van Creveld argues that, in addition to the characteristics of a decentralized command and control system, there are three factors which are required to make such a system work. These are:

- 1) Uniformity of thinking.
- 2) Reliability of action.
- 3) Complete confidence in subordinate-commander relationships.[12]

The relationship between the effectiveness of a decentralized command and control system and Creveld's three factors can be illustrated easily.

Decentralized command and control assumes some measure of subordinate initiative. If one accepts the requirement for subordinate initiative, the effectiveness of the decentralized command system is determined by subordinate behavior. Therefore, the commander must somehow cause his subordinates' behaviors to conform in a manner which approximates his actions were he present. Achievement of this expected behavior by subordinates is Creveld's factor 'reliability of action'.

Reliability of action is the critical factor of any decentralized command and control system. If there are no means to harmonize the actions of the parts (subordinate units), then there is no way to govern the effect of the whole (the Army, the division, etc.). Without a means to ensure

reliability of action, individuals and small units engage the enemy like medieval knights. Each fights its own battle.

Another factor presented by Crevelde is 'uniformity of thinking'. Uniformity of thinking is an inseparable link in obtaining reliability of action. Uniformity of thinking implies a common terminology and a common thought process. Common terminology is essential as the communications medium to establish uniformity of thought. On a more practical level, if common terminology does not exist, it is impossible to transmit clearly the commander's intent. Without a sound understanding of the commander's final goal, in the "fog of war" the tactical and operational missions are at the mercy of the youngest, least experienced subordinate.

The existence of a common thought process among all leaders enhances the possibility of reaching similar decisions when confronted with the same circumstances and tactical alternatives. When subordinates are required to make independent decisions, their behavior will more closely approximate that of the commander. Without uniformity of thinking, any expectations of reliability of action by subordinates are ill advised.

Finally, there is Crevelde's third factor, confidence in subordinate-commander relationships. Mutual trust is the glue which binds together the soldiers within a decentralized command and control system. From the perspective of the commander, there is a measure of trust required in the short term to establish a decentralized command system. Commanders must delegate authority and afford freedom of action to subordinates. This is not easy for a commander to do if he is not sure subordinates have been trained to act correctly. In the long term, once it is clear that subordinates are properly trained, reliability of action by subordinates stimulates, fosters, and solidifies the commander's trust.

From the subordinates' perspective, reliability of action requires a period of deviant subordinate behavior. Subordinates expect the latitude to make mistakes while learning to conform to the required pattern of behavior. When subordinates trust commanders to allow for these mistakes, reliability of action can grow in an environment of learning through supervision, not fear and repercussions. In the long term, mutual trust binds the subordinate to the commander. A subordinate is reluctant to fail a commander who has learned to rely on the subordinate's actions. The long term result of this interaction of trust between subordinates and commanders is a reciprocal bond from which neither can escape. As the reliability of the subordinate increases, so does the dependence of the commander on the subordinate. This dependence of the commander hardens the resolve of the subordinate not to fail his superior. At all levels of command, this mutual bond in subordinate-commander relationships can only become stronger as the reliability of the subordinate increases.[13]

Clearly then, decentralized command and control requires some measure of each of Crevel'd's three factors to be effective. FM 100-5 describes a decentralized command and control system. It is not clear what type of decentralized system is required by AirLand Battle Doctrine. Nor is it clear if the problems evidenced at NTC stem from doctrine or a failure to establish Crevel'd's three factors of effectiveness.

According to John Romjue, "A significant addition ... [to FM 100-5, 1982], was the adoption of the German conception of mission orders-Auftragstaktik." [14] While this may be something of an overstatement, there is a clear relationship between the U.S. Army's decentralized command and control system and Auftragstaktik. The U.S. Army wants to achieve the combat power and war fighting capability realized by the Germans during

World War II. As Crevelde has observed, armies wish to emulate the Germans of World War II because their victories were won against considerable numerical odds, under extreme logistical constraints, and without the expected disintegration and loss of cohesion normally associated with men and units confronted with a clearly hopeless situation. [15]

Auftragstaktik and the U.S. Army's decentralized system may be two different variations of decentralized command and control. This study does not intend to assert either that Auftragstaktik and the U.S. Army's command system are identical, or that Auftragstaktik is the answer to the U.S. Army's command and control needs. However, by examining Auftragstaktik, the command system used by the Germans from 1933-1945, specific lessons and/or techniques may be discovered which will hasten the U.S. Army's realization of a similar goal, increased combat power and war fighting capability.

The purpose of this paper is to examine and compare a successful model of decentralized command and control, Auftragstaktik, with that demanded by FM 100-5. If there is a problem with the U.S. Army's decentralized command system, such a comparison may highlight this problem simply because Auftragstaktik is a historical example of decentralized command and control that worked. Conclusions may be drawn concerning any differences identified and their effects on the successful integration of decentralized command and control by the U.S. Army.

First, this paper will explain the doctrine of Auftragstaktik by examining the evolution of the concept from the Prussian/German experience (1800-1945). With this foundation, the monograph will show, using Crevelde's three factors, how the Germans applied their doctrine to make Auftragstaktik work.

Second, the command and control system demanded by FM 100-5 will be examined. If the US Army's principles for command and control are not similar to those employed by the German Army, then FM 100-5's command and control system:

- 1) May not achieve the desired results in terms of developing combat power and war fighting capability.
- 2) May take an inordinate length of time to perfect.
- 3) At the extreme, may not work.

However, if FM 100-5's principles of command and control are similar to those employed by the German Army, doctrine is probably not at fault. The U.S. Army's current problem with decentralized command and control as evidenced at NTC may originate in faulty application of doctrine. Crevel'd's three factors of effectiveness may not be present in the U.S. Army.

This study does not discriminate between the use of decentralized command and control at the tactical or operational levels. Decentralized command and control is not exclusively a method for battalions nor does it appreciably change in application by higher level commands. This paper will use historical examples from the German/Prussian experience irrespective of the level of command involved. This monograph may have current relevance to higher levels of command. While the most detailed evaluations of command and control in the U.S. Army are conducted at NTC and only examine battalion level, higher level commands may have problems with decentralized command and control which have yet to be identified.

## II. AUFTRAGSTAKTIK

Changes in war since the time of Napoleon have made the job of the commander increasingly difficult. The size of the armies, improved capabilities of weapons, resulting dispersion of forces, and the increased tempo of the battle have eliminated the all-seeing, omni-present battle captain sitting on top of a hill directing the fight. The responsibilities of a commander have become too large and complicated for one man to control effectively.

The search in Prussia for innovative solutions to reduce what Clausewitz eventually characterized as the fog of uncertainty which clouds all action in war centered around the role of subordinate leaders, units, and individual soldiers. As early as the 1780s, the Hessians who fought in the American Revolutionary War returned to Germany with a command technique that emphasized the initiative of highly trained junior leaders and individual soldiers.[16] From the germ of this idea, obtained from what was then a foreign army, Prussia and later Germany, over a period of 140 years, developed a command system utilized during WW II, commonly called Auftragstaktik.

Auftragstaktik is a dynamic process which evolved to address the changing nature of war. The evolution of Auftragstaktik was by no means continuous or even deliberate. Initially, the loosening of the reigns of control by the overall commander applied only to major subordinate commanders. The 1806 Exercise Regulation of the Prussian Army provides some insight regarding how little control had been relinquished:

Long winded orders on dispositions must not be given before a battle. (The commander-in-chief) looks at as much of the ground as he can, if time allows gives his divisional commanders the general idea in a few words, and shows them the general layout of the ground on which the army is to form up. The manner of deployment is left to them; fastest is best [emphasis added]. The commander-in chief cannot be everywhere.[17]

In the next fifty years, the actual execution of this early form of Auftragstaktik changed very little.[18] The reform movement of 1807-1815 aided the advance of Auftragstaktik. The goals of this movement were to ignite a sense of nationalism in Prussia following the defeat by Napoleon at Jena.[19] A more liberal political and social policy was adopted in the Prussian Army. After the defeat of Napoleon at Waterloo, the liberal policies were partially retracted.[20] However, this retraction could not diminish the general spirit of imaginative thinking within the Prussian Army.[21] The new school for General Staff officers was partially responsible for this freshness of thinking. Another major factor after 1819 was the "institutionalizing of military excellence" accomplished by creating a system of required officer education to raise professionalism throughout the army.[22]

A major retrenchment in the evolution of Auftragstaktik occurred in the late 1840s. The Prussian Army reverted in both political and organizational structure to a less creative and democratic body more characteristic of pre-Napoleonic times.[23] The Prussian training regulations of 1847 reinstated the rigid structure and control of Frederickian drills.[24] This reversal in tactical thinking was solidified under the counter-reform measures of Frederick William IV in 1848.[25] These actions happened at an inopportune time. The Crimean War of 1854 demonstrated the uselessness of mass infantry tactics against the rifled musket.[26] It would appear that the direction Prussia had been

following-- increased officer education, dispersion of infantry formations, and limited amounts of authority delegated to major commanders-- was disrupted just at the moment the realities of war called for a more flexible and responsive command system. Luckily two events occurred which were to advance the evolution of Auftragstaktik to an infant but recognizable form in forty years.

The first event was the rejection in principle of the 1847 regulations by the junior leaders under actual combat conditions. The realization that the 1847 Regulations were too centralized and emphasized closed formations in the face of modern firepower caused many leaders to throw away the book on crossing the Austrian border in 1866. This same behavior won the title the "Captain's War" for the Franco-Prussian War of 1870-71.[27] The other event was the ascendancy of Helmuth von Moltke (also known as "the elder," and hereafter referred to as Moltke) to the position of Chief of General Staff in 1857.

Moltke is generally recognized as a strategist; rarely is he thought of as the patron of Auftragstaktik. His two most significant contributions to the evolution of Auftragstaktik were: 1) his skillful efforts and subsequent victories of 1866/1870-71 which guaranteed the survivability and eventually the preeminence of the General Staff system in the politically volatile situation he initially encountered as Chief,[28] and 2) his sponsorship during the great debates after the Franco-Prussian War of decentralized command and control measures down to and including company level.[29]

Moltke's philosophy of command and leadership are integral parts of Auftragstaktik.



The advantage which a commander thinks he can attain through continued personal intervention is largely illusory. By engaging in it he assumes a task which really belongs to others, whose effectiveness he destroys. He also multiplies his own tasks to a point where he can no longer fulfill the whole of them.[30]

In line with the premise quoted above, Moltke instigated broad directives which continued to affect the Army on the eve of WW II. The Kriegsakademie was placed under the General Staff for supervision. Moltke's General Directives on command became integral elements of General Staff and the Army's training.[31] The freedom to use initiative was encouraged not only as a technique of enlightened leadership, but as a necessity to combat the fog of uncertainty. "One thing must be certain... our own decision. In war everything is uncertain as soon as operations commence." [32] Therefore, he wrote, "...it is absolutely necessary that subordinate headquarters perceive the object of what has been ordered, to enable them to attain that object even if conditions make it necessary to act differently than laid down in that order." [33] While to the higher command he wrote:

Each subordinate headquarters should be informed of so much of the intentions of highest headquarters as is necessary for the attainment of the object... because unforeseen events can change the course of things in a few hours; ... we must never forget that if we order much, the most important part, what actually should be done, easily is put into the background by minor things; ...it will rarely be advisable to simply repeat to subordinate headquarters the instructions received from higher headquarters.[34]

The need for a more efficient method of operating within the confusion of the battlefield was also recognized by others. Ardant Du Picq, a French theorist who was killed at Metz during the Franco-Prussian War, wrote about the depressive nature of centralized command seeking absolute control of

subordinates. He believed that such a system inhibits subordinates' initiative thru fear and mistrust and fails to capitalize on the intelligence and ability of junior officers.[35] Prussian junior officers who participated in the war of 1870-71 communicated similar opinions in military journals:

All idea of attacking with large compact masses...., is finally exploded.... The real secret of infantry fighting... now consists in so regulating and controlling the independent action of the individual soldier, and of the leaders of a tactical unit, as to facilitate... the direction of the fight, without losing the advantage of that same independence of self-reliance...[36]

While Moltke was still Chief of General Staff in 1888, the level at which decentralization would be practiced was resolved. Authority was delegated down to the company commander.[37] Company and individual soldier training assumed additional significance. Baron von Freytag-Loringhoven characterized this period before the first World War as a tireless effort "to find means whereby the will of the leader would be enforced in a coordinated manner down to units fighting in the front line." [38] By 1895, the German Army had advanced enough for G.F.R. Henderson to report that even German soldiers "act like intelligent beings, who thoroughly understand their duty, ... and the fact speaks volumes for the way in which even the privates are taught to use their initiative, and for the excellence of the system of individual training.[39] The 1906 Army Regulations emphasized, "in particular, combat demands thinking, independent leaders and troops capable of independent action." [40] The 1908 Regulations further directed the injunctions of Moltke in respect to the "official" status of initiative. "From the youngest soldier upwards, the total independent commitment of all physical and mental forces is to be demanded. Only thus can the full power of the troops be brought into

action."[41] Six years later, at the start of WW I, the German Army appeared to have lost this decentralized capability at the lowest level.[42]

There are two reasons why the description by G.F.R. Henderson in 1895 would seem to be inappropriate for the army of 1914-15. First, the nature of the war had degenerated into an unexpected slugging match of mud and wire.[43] And second, technology in the form of the telephone presented the illusion that the "will of the commander" could be enforced from 20 miles away.[44]

The High Command, as well as the headquarters further down in the chain of command, did use the telephone on entirely too vast a scale. Far beyond the obligatory and necessary impulsion from above did unnecessary inquiries and an accumulation of orders restrict the independence of the subleaders; and yet it was this very freedom of action which in 1866 and 1870-71 had a far reaching influence on our successes.[45]

The apparent loss of initiative and tactical unit flexibility brought on by the telephone and the unexpected environment of the battlefield was redressed in 1917-18 under the direction of Ludendorf.[46] The solution which the Germans applied in the West was a return to decentralized execution of the mission, tailored to the realities of war in the trenches. [47] In the defense, for example, battalion commanders were authorized to commit the regimental reserve without permission of higher authority.[48] Inherent in the German methodology were speed and flexibility. Both attributes are characteristic of decentralized command and control.[49] Auftragstaktik is a close relative of this WW I system.

To summarize then, from the early 1800s, the Prussian/German Army demonstrated a willingness to change their method of operation to meet the challenges of the battlefield. Specifically, they changed the political,

social, and organizational structure of the Prussian Army after Jena to incorporate the strength of Prussia's nationalistic fervor. They discarded the Field Service Regulations of 1847 under actual combat conditions in 1866 and 1870-71. Finally, they completely reoriented their method of operation in 1917-18 to address trench warfare.

Throughout this period, three principles remained constant in their command and control system:

Principle #1- (From Clausewitz): War is an action filled with uncertainty.[50]

Principle #2- (From Moltke): Plans usually become invalid on contact with the enemy. Therefore, the exact method of mission success cannot usually be pre-determined. The only certainty the commander can effect on the battlefield is his decision.[51]

Principle #3- (From experience): Initiative by subordinate leaders and individuals is the true secret to winning on the battlefield. Not only will initiative by all soldiers be demanded, it must happen to win.[52]

The continuing evolution of Auftragstaktik during the post World War I period to 1933 remained consistent with these ideas. Jonathan House attributes the early World War II German victories to an astute evaluation of the nature of war.[53] Truppen Führung (German Field Service Regulation, Troop Leading, 1933 edition), probably the single most important tactical document of the German Army during World War II, emphasized all three of the command and control principles stated above:

Principle #1- (the uncertain nature of war):

3. Situations in war are of unlimited variety. They change often and suddenly and only rarely are from the first discernible. Incalculable elements are often of great influence. The independent will of the enemy is pitted against ours. Friction and mistakes are of every day occurrence. (p. 1)

Principle #2- (the importance of the decision)

36. The mission and the situation form the basis of the action.

The mission designates the objective to be attained. The leader must never forget his mission...

Obscurity of the situation is the rule. Seldom will one have exact information of the enemy. Clarification of the hostile situation is a self-evident demand. However, to wait in tense situations for information, is seldom a token of strong leadership, often of weakness.

37. The decision arises from the mission and the situation. Should the mission no longer suffice as the fundamental of conduct or it is changed by events, the decision must take these considerations into account. (p.4)

Principle #3- (the importance of initiative):

9. ... Willing and joyful acceptance of responsibility is the distinguishing characteristic of leadership. (p. 1)

10. In spite of technique, the worth of man is the decisive factor. Its significance is increased in group combat. (p. 1)

15. From the youngest soldier on up the employment of every spiritual and bodily power is demanded to the utmost. Only in such conduct is the full power of accomplishment of the troops achieved. (p. 2)

... The first demand in war is decisive action. Everyone, the highest commander and the most junior soldier, must be aware that omissions and neglects incriminate him more severely than the mistake of choice of means. (p. 2) [54]

In conclusion, Auftragstaktik was a dynamic process which matured over one hundred years. It would appear that decentralized command and control was indeed part of "German military tradition." [55] From a narrow viewpoint, Auftragstaktik was the "Heart of German orders and operations,

mission orders,.... [However, it was] more than a method of giving orders, actually more akin to a habit of thought."[56] Thus, Auftragstaktik, as it existed in the German Army from 1933-1945, is not only a system of command, but a method of thought and action. The evolution of Auftragstaktik established not only a system of command and control, but an individual and collective ethic based on the three principles above. Auftragstaktik encompassed the thoughts and actions of soldiers in battle.

\*

The Germans created an effective command and control system by applying their doctrine in accordance with the three principles established above. Michael Howard, writing in the introduction of On War states:

The emphasis on simplicity and directness rather than on ingenious maneuver, on resolution rather than subtlety, on bold initiative rather than elaborate calculation was to be found in every German textbook between 1870 and 1914.[57]

This emphasis did not change during the post World War I era. However, emphasis in textbooks alone could not guarantee that the command system would be the decisive element of German tactical operations in the next war. The Germans institutionalized Crevel'd's three factors; uniformity of thinking, reliability of action, and confidence in subordinate-commander relationships, throughout their entire army.

Crevel'd's three factors of effectiveness are recognized by other authors as a significant part of Auftragstaktik. A German officer, writing in 1977 about Auftragstaktik for Military Review, noted that the easiest way of implementing a decentralized command and control system is "when a tactical command and operations doctrine has become common knowledge and

when tactical principles are translated into reality."[58] He added that "command by means of mission directives requires uniformity of thinking and reliability of action."[59] General Franz Halder agreed. "Uniformity of doctrine is a prerequisite of independent action within the framework of over-all operations."[60] Confidence in subordinate- commander relationships, mutual trust, is emphasized in Truppen Führung (German Field Service Regulation, Troop Leading, 1933 edition).[61] F.W. von Mellenthin believed the German method of operation was possible only because of trust that existed throughout the ranks.[62] Crevel'd's three factors were present in the German Army. Their command and control system was lethal in its efficiency. How was the environment of uniformity of thinking, reliability of action, and mutual trust created in the post World War I German Army?

Uniformity of thinking, Crevel'd's first factor, was established in the post World War I German Army in three ways. First, uniformity of thinking was enhanced by a long-term tradition of officer education and a rigorous General Staff system. As previously mentioned, the German General Staff system was formed in 1808 to address the inefficiencies of generals who indirectly abetted the Prussian defeat at Jena.[63] Through the General Staff system, the Prussians "would try to institutionalize genius-or at least try to perfect a system that could perpetuate military excellence through the vagaries of change."[64] The officers of the German General Staff:

... would be a collection of the best and most experienced minds of the entire Army, so organized and dedicated that they could collectively function as a single, coordinated brain.[65]

Scharnhorst, using the defeat at Jena as justification for his actions, established three military academies and restructured the

organization of the higher institution of military education. This later institution was to be known as the Kriegsakademie. [66] The top graduates of the Kriegsakademie became potential candidates for the General Staff School. Throughout this entire process of raising the standard of education in the Prussian Army, one serious caveat prevailed. "Knowledge and scholarship" are not the only qualities which distinguish an officer. [67]

Further reforms in education in the next 100 years shaped the environment of the post World War I German Army. In 1819, the standard of officer education, not just that of the General Staff, was elevated Army-wide. A progression of military schooling was required of each officer throughout his career. [68] The successes of Moltke fifty years later solidified the preeminence of the General Staff. Subsequently, the General Staff was given control of the Kriegsakademie. [69] Therefore, by the 1920s, a rigorous institution of professional education existed in the German Army based on an ultimate standard, that of the General Staff.

The second process which helped produce uniformity of thinking in the post World War I German Army was the establishment of a common tactical doctrine. In the 1920s General von Seeckt, Chief of Staff after World War I, desired an "Army of Leaders" and took steps to get the German system in line. The Heeresleitung (the leadership of the Army) took responsibility for and produced an Army-wide common tactical manual, Führung und Gefecht (Leadership in Battle). [70] Prior to 1914, each arm had its own publications governing command and tactics, causing much disunity. Führung und Gefecht united all these branch publications, in spite of the general disagreement, into a single set of principles which remained without modification until 1933. [71] Thus, with a common tactical doctrine and a



rigorous system of professional education, a common terminology and foundation of knowledge was institutionalized in the Army. The final step was to formulate a common process of thought throughout the Army.

A common thought process, the final part in producing uniformity of thinking in the post World War I German Army, was created by focusing on formulating a common decision-making process based on common doctrine. It was part of an officer's training to learn the art of making independent decisions.[72] General von Senger und Etterlin commented, "In regard to quick and accurate appreciation of a situation... all our officers had been schooled to acquire a mastery of the subject." [73]

From the German perspective, the decision of the individual (from Moltke's quote and Principle #2 of Auftragstaktik) controls all actions in war. Generaloberst Lothar Rendulic observed that "the combat order constitutes the primary instrument used by a commander to translate his decision into action." [74] He further stated that:

The most difficult but also most crucial part of a commander's varied duties is the making of a decision.... The decision represents the culmination of a series of thoughts which the mind has turned over for longer or shorter periods of time. Again, it may be borne in a split second. The decision always reflects the will of the commander.[75] (emphasis in original)

Since all action in war is controlled by a decision, from the German viewpoint, a common process of thought specifically entails common decision-making by all leaders. Understanding the commander's intent, an important part of regulating subordinate actions, would be enhanced by establishing a common decision-making process. Subordinates could quickly grasp the meaning of their commander's orders and the situational assumptions on which they were based. Subsequent actions by subordinates would approximate those of the commander simply because under the same

circumstances, the decisions would be similar.[76] Therefore, in regards to the decision:

A thorough education in strategy and tactics will equip the commander with a valuable foundation. It is not so much a matter of acquiring knowledge, as it is one of training the mind along lines of strategic and tactical thought and judgement. Such a training of the mind, therefore, must be made the goal of education.[77]

The Germans emphasized the decision of the individual as a controlling factor in all military education. Lesson plans from German officer candidate training support this statement:

Special emphasis was put on the following:

Estimate of situation and decision.

Decision with explanation.

Decision problems.

Adherence to a decision.

Flexible reaction resulting from changed situations.[78]

In summary, uniformity of thinking was established in the post World War I German Army through a long-term tradition of military education, the creation of a common tactical doctrine, and formulation of a common decision-making process. Uniformity of thinking, as previously stated, was an inseparable link in the German effort to achieve reliability of action by subordinates.

First, however, before reliability of action by subordinates could be established, the Germans had to set the parameters in which Auftragstaktik would operate. Unless the desired decentralized command and control system is to be extremely "loose reigned" like the medieval knights, limits on delegation of authority had to be defined. The specific boundaries and conditions in which subordinate initiative would operate also had to be clearly stated. Without these two general guidelines,

neither commanders nor subordinates know the limitations on their authority or the expectations of their actions.

First, the Germans defined the limits on delegation of authority. For example, "the Army (German) ran on orders and obedience." [79] F.W. von Mellenthin states:

In spite of all independent decisions, the main thing in our military role remains discipline, and give the staff leaders as much freedom as you can, but when things are broken on one side, then you give the clear-cut order, do it. There's no doubt about it. [80]

Truppen Ffuhrung (German Field Service Regulation, Troop Leading, 1933 edition) also set limits on delegation of authority:

37. ...The commander must permit freedom of action to his subordinates insofar that this does not endanger the whole scheme. He must not surrender to them those decisions for which he alone is responsible. [81] (emphasis added)

Second, the German Army established boundaries and conditions in which subordinate initiative would operate. From Truppen Ffuhrung (German Field Service Regulation, Troop Leading, 1933 edition), the parameters are clear:

9. ...Willing and joyful acceptance of responsibility is the distinguishing characteristic of leadership. This does not mean that the subordinates should seek an arbitrary decision without proper consideration of the whole or that he should not obey orders precisely or that he should let his feeling of greater knowledge take precedence over obedience. Independence of action should never be based upon contrariness. Independence of action, properly used, is often the basis of great success. [82] (emphasis added)

37. ...Should the mission no longer suffice as the fundamental of conduct or it is changed by events, the decision must take these considerations into account. He who changes his mission or does not execute the one given must report his actions at once and assumes all responsibility for the consequences. He must keep in mind the whole situation. (emphasis added)

...Without very good reasons a decision once made should not be abandoned. [83]

Therefore, by 1933 the Germans had clearly stated the limits in delegating authority, and established boundaries and conditions for the use of initiative. This procedure formed the basis for reliability of action.

Next, the post World War I German Army had to ensure they obtained the right kinds of soldiers from which they could establish reliability of action in combat. The willingness to assume responsibility and display initiative became the standard in the German Army for all favorable personnel actions.[84] The reason is obvious. Without a willingness to assume responsibility and use initiative, subordinates are not reliable. Reliability of action starts with subordinates who act within the parameters of the decentralized command and control system.

The German Army believed that individual "character" was an important element in the ability of their officers. Truppen Führung (German Field Service Regulation, Troop Leading, 1933 edition) specifically states, "In war, character outweighs intellect." [85] F.W. von Mellenthin defined "character" as "the capacity to make independent decisions." [86] Manstein thought "the German method (of war) is really rooted in the German character." [87] The significance of "character" in the German Army is that an individual's induction into the post World War I army (a socially high status), future promotions, and combat awards for valor, were evaluated on making or having made independent decisions. [88] These procedures and values of the German Army of 1933-1945 were instrumental in selecting and influencing soldiers to meet the first standard of reliability of action, willingness to assume responsibility.

Lastly, but of equal importance, the German Army emphasized in training the three principles of Auftragstaktik as the means to achieve reliability of action in accordance with their doctrine. Early in the development stage of Auftragstaktik, the Germans realized that granting freedom of action to subordinates is only as effective as the ability of the soldiers to respond correctly. Usually, subordinates would not act as efficiently as the experienced commander if he were present. However, the commander is incapable of occupying all points of the battlefield, an unavoidable aspect of the nature of future wars.

The German solution to this problem implied one monumental task which became the responsibility of the entire army. If subordinates' freedom to act is only as effective as their ability to respond correctly, then subordinates must be trained specifically for Auftragstaktik-type tactics. Crevel'd points out that mission-type tactics have one major drawback; they assume "very thorough training." [89] In response to this challenge, the Germans emphasized the three principles of Auftragstaktik in all military exercises and problems.

First, the Germans always injected "friction" and the uncertain nature of the battlefield into their field/training problems.

In peace-time,... certain mandatory conditions were imposed on the situation. For example, if a "new enemy" came into the picture, it was stipulated that all communications had broken down or that some other snag had cropped up. [90]

These "mandatory conditions" were evident even in individual and section training exercises. A British military observer reported on a number of such training events in Germany in May of 1939. One exercise had the object "to train soldiers and sections to face unexpected situations and to deal with them effectively." [91] These types of training problems

required a solution which emphasized the last two principles of Auftragstaktik, the importance of the decision and the requirement for initiative.

In all training exercises, the requirement for subordinate initiative was further emphasized as the secret ingredient to success on the battlefield. "Careful training in initiative [was] given at all levels in order that combat teams, whether large or small, may deal aggressively with fleeting opportunities." [92] "The tasks were always set in such a way that the local leader was compelled to make more or less independent decisions.... By this means the pupils were to acquire great skill and a readiness to make decisions and accept responsibility." [93]

From these examples, a complete picture of the relationship between German command and control doctrine and the directed training programs on Auftragstaktik can be established. Both doctrine and training contributed to making Auftragstaktik a flexible, reliable, and extremely efficient means of conducting war. Crevel'd's first two factors, uniformity of thinking and reliability of action were created within the framework of Auftragstaktik's three principles. The skeleton of this methodology is as follows:

- 1) Establish a common terminology as a universal reference point in communications.
- 2) Influence uniformity of thinking (terminology and thought process) by establishing common tactical doctrine.
- 3) Train soldiers to expect and react to the uncertainty and friction of the battlefield.
- 4) Demand individual initiative as the reaction to the unexpected. Emphasize willingness to assume responsibility as one of the greatest soldierly traits.
- 5) Communicate intent and assure understanding through common terminology and doctrine.

6) Create a uniform thought process by developing a standard decision-making process based on realistic tactical principles. (When subordinates had to make a decision to take an action, the results would not be the same, but practical; and most often a correct alternative.)

Two other characteristics of German training which influenced reliability of action should also be addressed. First, great mental stress was placed on both low-level and high-level leadership when undergoing decision-making training.[94] German training in general was "tough (even brutal)... [with] iron discipline and harsh punishments."[95] Some measure of training effectiveness must be attributed to this manner of treatment of soldiers, even if not specifically emulated. Second, wargames played a major role in German training.

Kriegsspiel or wargames were invented by Prussian Lieutenant von Reisswitz in 1811.[96] Initially, their use was for coordination between arms and teaching staff procedures.[97] From the original purposes of wargames, the Germans tailored the objectives of Kriegsspiel to focus on developing "common understanding of terminology and insight." [98] Wargames were also training vehicles to test the decision-making process of subordinates and emphasize the need for individual initiative. Sand table exercises, for example, were used not only for tactical reasons, "but rather for the purpose of training NCOs in making quick decisions and giving orders"; thus generating great speed and initiative.[99] Commanders could use wargames as "an opportunity to get to know" their subordinate officers' strengths and weaknesses.[100] Wargames, in conclusion, were tailored to teach Auftragstaktik and establish uniformity of thinking and reliability of action among subordinates.

Creveld's third factor, confidence in subordinate-commander relations or mutual trust, was recognized as a necessity for sound leadership. As

previously discussed in the introduction, mutual trust has both a short and long-term meaning to subordinates and commanders. The most difficult period for commanders and subordinates is in the initial stage of establishing a decentralized command and control system. Commanders are expected to relinquish authority and allow freedom of action to subordinates who have yet to perfect an acceptable pattern of behavior (reliability of action). Subordinates are required to use their initiative knowing they will make mistakes. Thus, in the short term, there is a state of mutual apprehension. If these apprehensions are not resolved, efficient execution of decentralized command and control may never be achieved.

The Germans resolved these short-term apprehensions in the decade following the Franco-Prussian War. German written thought debated the major problem of "Drill oder Erziehung".[101] The issue was how to integrate "initiative and originality with necessary discipline at both the tactical and strategic (operational) level." [102] Commanders were reluctant to release authority to subordinates. The conclusion of this debate was the realization by all commanders that decentralization, as shown in the wars of 1866 and 1870-71, was a necessity, not an option. For the security of the nation and the future success of the Prussian Army, commanders, not subordinates, would have to make the move toward obtaining mutual trust.

The first step, discussed above, involved setting the parameters in which Auftragstaktik would function and undertaking a major training effort throughout the Army to establish reliability of action. The commanders' apprehensions were never directly addressed in the short term, other than the knowledge that all levels of command understood the critical nature of the situation. However, since most commanders are themselves



subordinates of higher commanders, the solution to relieving subordinates' apprehensions exponentially stimulated the system. Moltke stressed that the greatest sin was not a wrong action but inaction.[103] The logic of Moltke's statement is clear. If the greatest demand of Auftragstaktik was subordinate initiative, serious penalties for wrongful action would stifle that which was most critical. This training philosophy continued even into the post World War I period.

Every individual from the highest commander to the lowest private must always remember that inaction and neglect of opportunities will warrant more severe censure than an error of judgment in the action taken.[104]

One of the principles taught to German officers echoes these thoughts. "In war, omission and delay are greater crimes than the choice of wrong method of action; prompt decision and prompt action are vital at all times." [105] Latitude for mistakes was evident even as a specific teaching point in training exercises.[106]

Thus the Germans resolved the short-term mutual apprehension period of both commanders and subordinates in the 1870s. As reliability of action was established, the only short term apprehensions exhibited were those of newly inducted soldiers and officers. Commanders had learned that given time and proper training, these new soldiers would be proficient, trusted comrades-in-arms. The new soldiers learned through military education and training that they would be given the opportunity to progress in spite of honest mistakes.

The long-term element of mutual trust, where commanders are bound to subordinates in dependence on their actions and subordinates to commanders out of loyalty, developed as reliability of action progressed. Even then Auftragstaktik was flexible enough to address unusual situations and

subordinates who were not super stars. An excellent example is the technique of mission orders.

Auftragstaktik did not require "mission-orders". Generalmajor Curt Gallenkamp as a division commander gave specific missions to his regimental commanders.[107] This fact "may in some cases cause surprise," but the assigning of specific missions was a technique used from the formation of the division in 1937, throughout the campaigns of 1939-40, and all of 1941 in the Soviet Union.[108] "This proves that no rigid pattern should be followed in combat."[109] The most important trait of the commander is the understanding of "circumstances" and having "a profound feeling for the psychology of subordinate commanders."[110] General Hermann Balck voiced similar sentiments. There were always officers who could not work with only a general statement of the mission. Late in the war, the quality of the officers and their lack of training also affected the detail of the orders.

It (more detailed guidelines) depended on the subordinate. If he was a stupid fellow, you had to go into much detail explaining the situation to him; if he was an intelligent officer, a word was sufficient for him.[111]

I always prized most highly those commanders who needed to be given the least orders- those you could discuss the matter with for five minutes and then not worry about them for the next eight days." [112]

General Gerd Niepold, operations officer, 6th Panzer Division at Kursk and later a NATO corps commander, agreed flexibility in applying "mission-orders" was inherent in Auftragstaktik. The degree of detail in operations orders was dictated by the tactical mission. Late in the war, the complexity of the missions such as the withdrawal required specific instructions.[113]

The lesson from these examples is clear. "Mission-orders", while an important technique of Auftragstaktik, were not an absolute requirement. The amount of detail in an order was determined by the standard of training and reliability of the subordinate, the general situation, and the complexity of the mission. Commanders were afforded the option of using their judgment in delegating authority and allowing freedom of action by subordinates. There was no requirement for absolute blind trust in the ability of subordinates. Therefore, "mission-orders" are an advanced technique for trained, disciplined soldiers well versed in the concept of Auftragstaktik.

By 1933, mutual trust was an active part of Auftragstaktik. The most difficult period involving trust may have occurred in the 1870s. However, with a sound method of training reliability of action and the flexibility for commanders to determine the capabilities of his subordinates, confidence in subordinate-commander relationships flourished in the German Army.

In conclusion, the Germans created an effective command and control system by applying their doctrine in accordance with the three principles of Auftragstaktik. Establishment of Crevel'd's three factors, uniformity of thinking, reliability of action, and mutual trust, was instrumental in making Auftragstaktik work. Using this methodology during World War II, the Germans sustained a method of decentralized command which delegated authority, allowed freedom of action by subordinates within defined parameters, and provided the necessary leadership across the uncertain, dispersed battlefield.

### III. FM 100-5

FM 100-5 recognizes the same general principles of command and control as Auftragstaktik. The preface of FM 100-5 states that [this manual] "emphasizes flexibility and speed, mission type orders, initiative among commanders at all levels, and the spirit of the offense." [114] While this statement reflects a general similarity to Auftragstaktik, specific passages in the first two chapters of FM 100-5 erase all doubts.

One consistent theme in FM 100-5 is the nature of the battlefield. "The high- and mid-intensity battlefields are likely to be chaotic, intense, and highly destructive." [115] A selection of additional examples from the first two chapters are:

[From a sub-section entitled, "Command and Control."] The more fluid the battlefield, the more important and difficult it will be to identify decisive points and to focus combat power there. (pp. 3-4)

The fluid, compartmented nature of war will place a premium on sound leadership, competent and courageous soldiers, and cohesive, well trained units. The conditions of combat on the next battlefield will be unforgiving of errors and will demand great skill, imagination, and flexibility of leaders. (p. 5)

Friction—the accumulation of chance errors, unexpected difficulties, and the confusion of battle—will impede both sides. (p. 16) [116]

A plausible conclusion, then, is that a principle behind AirLand Battle doctrine and its decentralized command and control system is the belief in the intense, confused, and chaotic nature of war. This belief is nearly an exact reproduction of the writings of Clausewitz as adopted by the Germans in their first principle of Auftragstaktik.

The conclusion FM 100-5 draws from the uncertain nature of the battlefield is that:

The command and control system which supports the execution of AirLand Battle doctrine must facilitate freedom to operate, delegation of authority, and leadership from any critical point on the battlefield.[117]

This command and control system demanded by FM 100-5 has the same "ends" as the Germans created with Auftragstaktik; delegate authority, facilitate freedom to act, and provide responsive leadership across the dispersed, confused battlefield. Both FM 100-5 and the Germans also recognized the same "means" to achieving these "ends," subordinate initiative.

Subordinate initiative within the framework of the commander's intent is the "means" by which success on the future battlefield is achieved.

Subordinate leaders will be expected to act on their own initiative within the framework of the commander's intent. (p. 4)

In the chaos of battle, it is essential to decentralize decision authority to the lowest practical level because overcentralization slows action and leads to inertia.... Decentralization demands subordinates who are willing and able to take risks [by using their initiative] and superiors who nurture that willingness... (p. 15) [118] (emphasis added)

Initiative with respect to commander's intent is also mentioned as an important part of: the command and control process for committed maneuver unit commanders (p. 22); synchronization (p. 17); speed and tempo of operations (p. 97); flexibility (p. 97); and indirectly, agility (p. 16) and depth (p. 17).[119] In summary, subordinate initiative is recognized as the critical element of the command and control system demanded by FM 100-5.

In conclusion, FM 100-5 emphasizes the same general principles as Auftragstaktik. The command and control system demanded by FM 100-5 requires delegation of authority, freedom of action for subordinates, and

leadership throughout the dispersed battlefield. This demand by FM 100-5 is in recognition of the uncertain nature of the battlefield and subordinate initiative as the solution to the problem. Therefore, based on the similarities with a historical example of decentralized command and control that worked, Auftragstaktik, the Capstone Doctrine does not appear to be the reason for the failure of decentralized command at NTC.

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If FM 100-5 is not the cause of inefficient employment of decentralized command and control, then the problem may reside in the application of doctrine. Are Crevel'd's three factors of effectiveness present in the U.S. Army?

FM 100-5 addresses all three of Crevel'd's factors. Uniformity of thinking is stressed in two locations.

To be useful, doctrine must be uniformly known and understood. (p. 6)

The command and control system must also stress standardized training in operations and staff practices to assure mutual understanding between leaders and units. (p. 21) [120]

Reliability of action is also emphasized, specifically in reference to commander's intent.

If subordinates are to exercise initiative without endangering the overall success of the force, they must thoroughly understand the commander's intent and the situational assumptions on which it was based. (p. 15) [121]

Finally, confidence in subordinate-commander relationships, mutual trust, is a major point of emphasis in FM 100-5.

The most essential element of combat power is "competent" and "confident leadership." (p. 13) (emphasis in original)

The primary function of tactical leaders is to induce soldiers to do difficult things in dangerous, stressful circumstances. (p. 14) [122]

However, just because FM 100-5 recognizes Crevel'd's three factors does not mean the U.S. Army has taken steps to initiate or institutionalize these qualities into the command system. The U.S. Army does not have a good foundation for establishing uniformity of thinking throughout the force. Tactical manuals do not support attainment of this goal. Doctrinal literature does not establish a common terminology nor enhance a common process of thought. Army institutions of higher learning and individuals teaching themselves are caught in a web of contradictions.

The use of terminology is inconsistent in Army publications. The definition of command and control is one example.[123] General John H. Cushman asserts that lack of a common understanding of command and control, who is in charge and what are responsibilities and limits of that authority, present daily challenges to U.S. Army commanders.[124] These misunderstandings may result in the needless deaths of American soldiers.

The inconsistency in terminology may be even more significant with regards to operational terms. In the past, one major mission of the Armored Cavalry Regiment (ACR) was the delay. The delay operation is further classified into two ill defined categories, HIGH Risk and LOW Risk. The new J-series FM 17-95, due out in August 87, will cite only the LOW Risk delay as an applicable mission for the ACR because of changes in combat equipment.[125] This lack of precise terminology and the subsequent misunderstanding of what missions the ACR can execute effectively may result in the death of a number of cavalry troopers in the next war.

Creating a common process of thought in the U.S. Army is another significant challenge. Tactical manuals, besides having differences in

terminology, are not always consistent in discussing tactical concepts. A good example concerns passage of lines. FC 100-15 (1984), Corps Operations, does not address passage of lines. FM 71-2J, The Tank and Mechanized Infantry Task Force and FC 71-101, Light Infantry Divisions Operations, have significant differences in their approach to the subject. FC 71-101 focuses entirely on the forward passage. FM 71-2J discusses both forward and rearward passages but uses different terminology, describes a different method of Combat Service Support, and has additional control measures.[126] The end result of these kinds of problems is that the U.S. Army does not have standardized tactical doctrine nor many "tactical principles accepted as common knowledge."[127]

Finally, in regard to uniformity of thinking, it is debatable whether the service schools are teaching a common decision-making process. The focus of instruction still appears to be, at least at the Command and General Staff College, the writing of a complete, formatted operations order. There are no specifically oriented exercises which repeatedly drill quick decisions, rationale of the decision, adherence to the plan, or changing situations in which the mission/plan must be altered. The difference between Army schools and the Germans appears to be that the Germans focused on the decision, the Americans focus on the estimate of the situation. Generaloberst Rendulic warned:

Training in the drawing up of written orders in connection with strategic or tactical problems, which the student solves himself is inadequate, because the student then incorporates his own decision into the order, and thus is not trained to work with ideas other than his own.[128]

The goal is uniformity of thinking. FM 100-5 may recognize the need for uniformity of thinking, but without an Army-wide system, the burden



rests on each commander to teach his subordinates his interpretation of tactics.

Without uniformity of thinking, it is questionable whether the U.S. Army will ever achieve other than a superficial standard of reliable action from subordinates. However, what can be determined is whether there exists a foundation from which to build reliability of action. This foundation, borrowing from the German experience, should have as as a minimum the limits of authority to be delegated and the parameters in which subordinate initiative is authorized to operate.

FM 100-5, as the "operational guidance for use by commanders and trainers at all echelons,"[129] does recognize general limits to delegation of authority and parameters in which subordinate initiative should operate. These qualifiers in the operation of decentralized command and control are only general, as the scope of this manual suggests. Delegation of authority in FM 100-5 appears to include "commanders at all levels." [130] The amount of authority to be granted subordinates is prescribed by stating:

[Plans] will... leave the greatest possible operational and tactical freedom to subordinate leaders.... Commanders should restrict the operations of their subordinates as little as necessary. Mission orders that specify "what" must be done without prescribing "how" it must be done should be used in mos: cases. [131] (emphasis added)

The limits to subordinate use of initiative is contained in the previously cited quote:

If subordinates are to exercise initiative without endangering the overall success of the force, they must thoroughly understand the commander's intent and the situational assumptions on which it was based. [132] (emphasis added)

Fundamentally there is nothing wrong with a manual like FM 100-5 providing broad guidance in general terms for the entire Army. The problem surfaces when tactical manuals fail to translate the general guidelines into usable, explicit instructions. Almost every tactical manual published after the 1982 version of FM 100-5 repeats the exact same guidance to commanders and soldiers concerning the limits on delegation of authority and the parameters on subordinate initiative.[133] The result is that the command and control system demanded by FM 100-5 is, by default, a very "loose reigned" system. Terms affording subordinates the "greatest possible freedom" and mission orders to be used in "most cases" do not clarify anything for tactical leaders. The fault lies not with FM 100-5 but with the application of the command and control doctrine to tactical level manuals.

To summarize, reliability of action by subordinates is a distant possibility in the U.S. Army. First, uniformity of thinking, an integral part of reliability of action, does not have a solid foundation in doctrine. Second, at the tactical levels, the broad guidance directed by FM 100-5 concerning the decentralized command and control system of AirLand Battle doctrine has not been translated into a functional form. There are no definable limits on delegation of authority nor explicit parameters on subordinate use of initiative. The next war may find subordinates and their units jousting about the battlefield executing missions within the limits of their understanding of the decentralized command system demanded by FM 100-5.

Crevel'd's third factor, confidence in subordinate-commander relationships, may also be an obstacle in getting FM 100-5's command and control system to work. There is a perception by a number of authors that

a lack of mutual trust between commanders and subordinates exists among a high percentage of leaders.[134] Commanders are reluctant to release authority to subordinates. Subordinates resent the limitations imposed on them when FM 100-5 clearly states they are authorized and expected to use their initiative.[135] This scenario sounds like a state of mutual apprehension between subordinates and commanders as experienced by the Germans in the 1870s.

As previously mentioned, the most difficult period of establishing mutual trust may be in the initial stages of creating a decentralized command and control system. The first move toward resolving the problem has to be with the commanders, all commanders. The basis for this initial step should be from a sense of obligation and duty to the country and to the Army. The U.S. Army will not win the next war without a decentralized command system. The responsibility to the nation would not be fulfilled. This is not easy for commanders to do, especially if reliability of action by subordinates is not evident. Delegating authority is even harder to do if, as a commander, you are simultaneously a subordinate to a higher commander who does not like mistakes.

The crux of the problem in establishing mutual trust between commanders and subordinates is the lack of a training philosophy which emphasizes the "Freedom to Excel." The most damning evidence in the assertion of a lack of mutual trust in the U.S. Army may be the lack of an explicit policy which encourages all soldiers to use their initiative at the expense of occasional wrong methods. Similar to the injunctions by Moltke, if subordinate initiative is the most critical element of a decentralized command system, it is the responsibility of the commander to encourage and train subordinate behavior into a reliable pattern. "Freedom

to Excel" is the latitude to establish reliability of action knowing the act of making a mistake is an act of progress. The U.S. Army does not have this "Freedom to Excel." A state of mutual apprehension will continue to exist until this freedom is sanctioned in doctrine and ratified through action by all commanders.

In conclusion, FM 100-5 does recognize the same general principles of Auftragstaktik. Additionally, FM 100-5 addresses all three of Crevel'd's factors of effectiveness. The problems with decentralized command and control at NTC do not appear to exist from shortcomings in the Capstone Doctrine. The problem seems to be one of a less than adequate translation of the principles from FM 100-5 into usable, explicit doctrine at the tactical level, and a subsequent cohesive integration through training and education. The U.S. Army has not initiated or institutionalized the uniformity of thinking, reliability of action, or mutual trust required of the command and control system demanded by FM 100-5.

#### CONCLUSIONS

This study has attempted to examine and compare two decentralized command systems, Auftragstaktik and that demanded by FM 100-5. This examination is deliberately broad in scope to emphasize the holistic nature of command and control systems. No one or two parts of a command method can be viewed in isolation from the whole. The more sophisticated and dynamic decentralized command systems require a cohesive integration of the principles of decentralized command and control with doctrine and training. The U.S. Army's command and control system does not withstand this test of cohesive integration. The U.S. Army must focus its attention on creating

uniformity of thinking, reliability of action, and mutual trust between subordinates and commanders for decentralized command and control to work.

The establishment of a decentralized command and control system requires an "unusually long common-goal-oriented education and training process." [136] FM 100-5's decentralized command system is currently structured for short term effects, not long term achievements. The most striking example is the emphasis on commander's intent. Presently, without uniformity of thinking, understanding commander's intent is a process involving a specific commander and a specific subordinate. After working to obtain mutual understanding, the link between commander and subordinate is destroyed when either party rotates or changes position. The long term solution, creating uniformity of thinking by establishing common tactical doctrine and a common decision-making process, allowed the Germans to sustain the decentralized nature of Auftragstaktik in spite of combat losses.

There are no easy solutions to establishing uniformity of thinking, reliability of action, and confidence in subordinate-commander relationships. However, a few recommendations are offered. The German experience suggests the U.S. Army should create an ethic within the commissioned and noncommissioned officer corps which recognizes the requirement for individual initiative to win on the modern battlefield. The distinguishing characteristic of combat leaders should be a willingness to assume responsibility. There must be a common tactical doctrine and recognized tactical principles throughout the U.S. Army. Included in this doctrine must be explicit limits on delegation of authority and the parameters for subordinates' use of initiative. A common decision-making process must be established which teaches not only when to act or how to

act, but why. Some of the German training techniques, such as the use of wargames and the emphasis on the individual's decision in formal education, should be adopted to teach this process. All small unit training should incorporate the uncertain nature of war into the exercises; independent decisions and subordinate initiative should be the required solution. These recommendations, based on the successful German experience with Auftragstaktik, should advance uniformity of thinking and reliability of action in the U.S. Army to an acceptable standard.

Establishing confidence in subordinate-commander relations in the U.S. Army is an entirely different proposition. Success lies within the corporate body of the officer corps. If for no other reason than the good of the Service and the security of the Nation, the U.S. Army needs decentralized command and control. Commanders at all levels must initiate the first step. Authority must be delegated and subordinates given a measure of freedom to act in order to properly pattern acceptable behavior. The single most influential and tangible action that needs to be taken is a sanctioned policy which allows for the "Freedom to Excel." As General Bruce C. Clark once said, "you must be able to underwrite the honest mistakes of your subordinates if you wish to develop their initiative and experience." [137]

Finally, the decentralized system of the U.S. Army must be reconciled with both the requirements of administrative and logistical functions and the state of technology. The U.S. Army today is not the German Army of 1933. Specialization of equipment and talent plays a more important role. The nature of war, technology and logistics has changed. Without change in the context of the age and a long term view of the dynamics of decentralized command, it is unlikely that we "Can Get There from Here."

## ENDNOTES

1. BG E.S. Leland, USA, Memorandum for LTG Riscassi, Subject: "NTC Observations," (Headquarters, National Training Center, Ft. Irwin, California, 20 November 1985), p. 1; this memorandum was republished by the Combined Arms Training Activity as an NTC Lessons Learned document entitled "Commander's Memorandum," dtd. same as above.
2. COL Jarrett Robertson, Deputy Commander, NTC, in a lecture to the School of Advanced Military Studies, 8 September 1986.
3. Leland, pp. 1 and 17.
4. FM 100-5, Operations, (May 1986), p. 21.
5. See MAJ Harvey Teston Jr., "Command and Confusion at the NTC," Military Review, (November 1985), pp. 56-64, and LTC Alan R. Cocks, "Objective NTC," Armor, (July-August 1986), pp. 11-14; also MAJ Terry W. Bullington's MMAS thesis, "An Evaluation of AirLand Battle Doctrine and Training at the NTC," (Ft. Leavenworth, KS, 5 December 1985).
6. FM 100-5, Operations, p. 21.
7. Richard E. Simpkin, Human Factors in Mechanized Warfare, (New York: Brassey's Publishers Limited, 1983), pp. 148-155.
8. Ibid.
9. Martin van Creveld, Command, (Cambridge, Mass.: Harvard University Press, 1979), p. 46.
10. Ibid., p. 56.
11. Ibid. For a complete discussion of the evolution of decentralized command and control, see pp. 14-57. Also, John A. English, On Infantry, (New York: Praeger, 1981), pp. 1-22.
12. Creveld, Fighting Power, p. 46.
13. This is a controversial topic. My special thanks to Dr. Roger J. Spiller, Professor of Combined Arms Warfare, Combat Studies Institute, CGSC, Ft. Leavenworth, KS., for his continuing help in my understanding of this subject. A partial list of references from which you can make up your own mind about, "Why men fight," includes:  
(Non-fiction)  
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J. Glenn Gray, The Warriors, (Harper Colophon Books, New York: 1970).  
Richard Holmes, Acts of War- The Behavior of Men in Battle, (The Free Press, New York: 1985).

John Keegan, The Face of Battle, (Penguin Books, Middlesex, England: 1965).

14. John L. Romjue, "From Active Defense to AirLand Battle: The Development of Army Doctrine 1973-1982," (USA Training and Doctrine Command, Ft. Monroe, Vir., June 1984), p. 58.

15. Martin van Creveld, Fighting Power: German Military Performance 1914-1945, (Fairfax, Vir.: Hero Books, 1984), pp. 3-4. See also Trevor N. Dupuy's A Genius for War: The German Army and General Staff 1807-1945, (Englewood Cliffs, N.J.: Prentice-Hall, 1978), pp. 253-259.

16. LTC Walter von Lossow, "Mission-Type Tactics Versus Order-Type Tactics," Military Review 57(June 1977): No. 6, pp.87-91. For further information on the Hessian "jaeger" (hunter) experience in the Revolutionary War see Johann Ewald's Diary of the American War: A Hessian Journal, translated by Joseph Justin, (New Haven: Yale University Press, 1979).

17. As quoted by Simpkin, Race to the Swift, (New York: Brassey's Defense Publishers, 1985), p. 227.

18. Gordon Craig, The Politics of the Prussian Army 1640-1945, (New York: Oxford University Press, 1964), 77-79.

19. Ibid., pp. 38-65.

20. Ibid., pp. 65-76.

21. Hajo Holborn, "Moltke and Schlieffen: The Prussian- German School," Makers of Modern Strategy, Edward M. Earle editor, (Princeton: Princeton University Press, 1971), pp. 174-175.

22. Dupuy, pp. 44-53. See also, Gordon Craig's The Politics of the Prussian Army 1640-1945, (New York: Oxford University Press, 1964), pp. 65-82.

23. Holborn, pp. 175-177.

24. Ibid., pp. 176.

25. Craig, pp.92-135.

26. English, p. 1.

27. Holborn, p. 177. See also, English, p. 2.

28. Walter Goerlitz, History of the German General Staff, 1657-1945, translated by Brian Battershaw, (New York: Praeger, 1953), pp. 75-102; and Herbert Rosinski, "Scharnhorst to Schlieffen: The Rise and Decline of German Military Thought," Naval War College Review, (Summer, 1976), p. 98. Both authors give credit to Moltke for not only the survival of the General Staff system, but elevation of its powers which eventually reached beyond the military sphere to political and economic influence.



29. Fritz Honig, Inquiries into the Tactics of the Future, 4th edition, translated by Carl Reichmann, (Kansas City, Mo.: Hudson-Kimberley Publishing, 1898), pp. 265-67. Also, Dupuy, pp. 66-67, 116-117. Moltke completed a study of the Austrian-Italian Campaign in 1862. His conclusions concerning the link between speed of operations/responsiveness and subordinate initiative solidified ideas from 40 years of service. Scharnhorst and Gneisenau were the most notable originators of decentralized command and control in the Prussian Army (specifically oriented at the major subordinate commanders). Moltke pushed the concept not only into the application phase, but downwards into the hands of small unit commanders and individual soldiers.

30. Goerlitz, p. 76.

31. Ibid., pp. 76-79.

32. Helmuth von Moltke, Moltke's Military Works, Vol. IV, "War Lessons, Part II," translated by Harry Bell, (Ft. Leavenworth: Army Service Schools, April 1915), p. 21.

33. Ibid., p. 25.

34. Moltke, p. 25. From the 1933 Heeredienstchiften 300, Truppen Fuhung (German Field Service Regulations: Troop Leading), [the single most important tactical document of the German Army, this regulation did not change appreciably during the war], translated by the Command and General Staff College, Ft. Leavenworth, KS., 1936, a close approximation of these directives can be found:

73. An order shall contain all that is necessary for the lower commander to know in order for him to execute independently his task. It should contain no more. [p.10]

78. ... That which is important (in an order) should be placed first. [p. 11]

85. Seldom is the order of the higher commander transmitted, with all annexes, beyond the next lower commander. These commanders themselves issue orders based on the order of the higher command, incorporate the necessary information and instructions.

35. Ardant Du Picq, Battle Studies: Ancient and Modern Battle, translated by COL J.N. Greely, USA, and MAJ R.C.Cotton, USA, (Harrisburg, PA., 1946), pp. 210-212.

36. CPT Boguslawski, Tactical Deductions from the War of 1870-71, (London, 1872), pp. 160-161; as quoted by Jay Luvaas, "European Military Thought and Doctrine, 1870-1914," The Theory and Practice of War, M. Howard editor, (Bloomington: Indiana University Press, 1975), p. 83.

37. English, p.4.

38. Barron von Freytag-Loringhoven, Generalship in the World War, Vol. II, translated by the Army War College, (Washington, D.C.: October 1934), p. 118.

39. As quoted by Jay Luvaas, "European Military Thought and Doctrine, 1870-1914," p. 90.

40. As quoted from Creveld, Fighting Power, p. 40. Truppen Fuhung (1933 edition) contains a nearly exact interpretation of the 1906 citing.

10. ... The emptiness of the battlefield demands independently thinking and acting fighters, who, considering each situation, are dominated by the conviction, boldly and decisively to act, and determined to arrive at success. (p. 1)

41. As quoted from Creveld, Fighting Power, p. 40. Truppen Fuhung (1933 edition) again contains a distinct similarity in meaning.

15. From the youngest soldier on up the employment of every spiritual and bodily power is demanded to the utmost. Only in such conduct is the full power of accomplishment of the troops achieved. (p. 2)

42. Jay Luvaas, "European Military Thought and Doctrine, 1870-1914," pp. 90-91.

43. CPT Jonathan M. House, "Towards Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine, and Organization," MMAS, (Ft. Leavenworth, KS., August 1984), pp. 16-26. The implication here is that the Germans trained for decentralized command and control during the interwar years under the assumption the next war would be fast paced, non-linear, and of short duration. When the actual conditions of trench warfare unfolded, the Germans literally discarded decentralized command and control on the western front. Of particular note, this was not the case on the eastern front.

44. General Hermann Balck (translation of taped conversation), (Columbus, Ohio: Battelle-Columbus Laboratories, January, 1979), p. 19; see also, Creveld, Command, pp. 145-156.

45. Freytag-Loringhoven, Generalship in the World War, pp. 106-107.

46. CPT Timothy T. Lupfer, USA, "Dynamics of Doctrine," USA Command and Staff College, (Ft. Leavenworth, KS., July 1981), p. 7-11. See also, English, p. 15.

47. Lupfer, pp. 11-21. See also, House, pp. 25-27 and 33-37. Lupfer's thesis studies the process of change used by the Germans during WW I. While the flexibility and internal stability the German Army exhibited to recognize the need for changes and carry them out in the midst of war were extraordinary, Lupfer fails to mention that the tactical principles were but a return to the stature of 1895-1908.

48. Lupfer, p. 19. See also English, pp. 15-17.

49. Ibid., pp. 19-21.
50. Michael Howard, et.al., Carl von Clausewitz On War, translated by M. Howard and Peter Paret, (Princeton, N.J.: Princeton University Press, 1976), p. 101. "War is the realm of uncertainty: three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty."
51. Reference Moltke's General Directives quoted in footnotes [32, 33, and 34]; and the 1906 Regulation cited in footnote [40].
52. Reference quotes by: Prussian junior officer (footnote [36]), Barron Freytag-Loringhoven (footnote [38]), and the 1908 regulation cited in footnote [41].
53. House, pp. 52-58.
54. Truppen F\u00fchrung (German Field Service Regulation, Troop Leading, 1933 edition), pages as cited in the text of this study. This regulation did not appreciably change during the course of the war.
55. House, p. 53.
56. Generalmajor Carl Waegener, C/S 40th Panzer Corps and 5th Panzer Army, as quoted by LTC Richard F. Timmons, USA, "Lessons from the Past for NATO," Parameters (Autumn 1984): Vol.XIV No. 3, p.5.
57. Howard, ed., On War, "The Influence of Clausewitz," p. 34.
58. Lossow, p. 88.
59. Ibid.
60. MS # P-133, General Franz Halder et.al., "Analysis of US Field Service Regulations," (1953), p. 7; and F.W. von Manstein, Lost Victories, (Presido, CA., 1985), p. 383; "The granting of such independence (freedom of action) to subordinate commanders does of course presuppose that all members of the military hierarchy are imbued with certain tactical or operational axioms."
61. Truppen F\u00fchrung (German Field Service Regulation, Troop Leading, 1933 edition), p. 1; "Mutual trust is the surest basis of discipline in necessity and danger."
62. F.W. von Mellenthin as quoted by LTC Timmons, p. 5.
63. Dupuy, pp. 22-24.
64. Ibid., pp. 24-25.
65. Ibid., p. 28. For a more detailed description of the education and duties of the General Staff Officer see Spenser Wilkinson's The Brain of An Army, (Westminster: Archibald Constable & Company, 1895).

66. Craig, pp. 45-46.
67. Ibid., pp. 44-45.
68. Depuy, pp. 44-53.
69. Goerlitz, pp. 75-79.
70. Robert J. O'Neill, "Doctrine and Training in the German Army," The Theory and Practice of War, M. Howard editor, (Bloomington: Indiana University Press, 1975), p. 149.
71. Ibid. See also Crevelde, Command, pp. 305-6.
72. F.W. von Mellenthin, "Armored Warfare in WW II (translation of a conference), (Columbus Laboratories: 10 May, 1979)," p. 8.
73. General Frido von Senger und Etterlin, Neither Fear Nor Hope, translated by George Malcolm, (New York: E.P. Dutton and Co., 1964), p. 219.
74. MS # D-268 Generaloberst Lothar Rendulic, "Combat Orders," p. 1.
75. MS # D-080a Generaloberst Lothar Rendulic, "The Command Decision," p. 1.
76. Ibid., pp. 1-2, 9-11.
77. Ibid., p. 9.
78. MS # P-021 Kuno Dewitz, "Training of German Officer Replacements in Peace and War," Appendix 5 to Part IV, Personnel and Administration, "Officer Candidate Training," p. 204.
79. Simpkin, "Command from the Bottom," p.35.
80. F.W. Mellenthin, "Armored Warfare in WW II", p. 10.
81. Truppen F\u00fchrung (German Field Service Regulation, Troop Leading, 1933 edition), pp.4-5.
82. Ibid., p. 1.
83. Ibid., pp. 4-5.
84. Crevelde, Fighting Power, pp. 124-127, 137-142, and 152-158.
85. Truppen F\u00fchrung (German Field Service Regulation, Troop Leading, 1933 edition), p. 1.
86. von Mellenthin, "Armored Warfare in WW II," p. 7.
87. von Manstein, Lost Victories, p. 383.

88. Crevelde, Fighting Power, pp. 124-127, 137-142, and 152-158.
89. Ibid., p. 47.
90. Senger und Etterlin, p. 219.
91. Tentative Lessons Bulletins; German Notes on Field Orders and Leadership, Vol. II, Lessons 26-50; "Training of German Infantry Battalions in May 1939," Lesson #30, dtd. 14 August, 1940, p.7.
92. Ibid., p. 4.
93. Senger und Etterlin, p. 219.
94. General von Kielmansegg as cited in 1984 Art of War Symposium, "From the Don to the Dnepr," a transcript of proceedings, U.S. Army War College, 26-30 March 1984, p. 303.
95. Daniel J. Hughes, "From Moltke to Guderian: Abuses of German Military History," unpublished paper, Fort Leavenworth, K.S., October 1986, p. 7.
96. Garry D. Brewer and Martin Shubik, The War Games, (Cambridge, Mass.,: Harvard University Press, 1979), p. 48.
97. Dupuy, pp. 51-52.
98. Senger und Etterlin, p. 123.
99. Tentative War Lessons, Bulletin #30, p. 9.
95. MS # P-094, Rudolf M. Hofmann, "German Army Wargames," 1952. This document also establishes the fact that wargames were institutionalized throughout the Army as a mandatory training requirement, down to and including battalion level. Each year specific game scenarios with materials and learning objectives, including decision rationales, were sent to each level of command. New tactical principles, terminology, or teaching points could be spread throughout the Army each year. (pp. 6-38, 68-73).
101. Luvaas, "European Military Thought and Doctrine, 1870-1914," p. 90.
102. Ibid.
103. English, p. 75.
104. MS # P-094, "German Army War Games," p. 8.
105. Tentative War Lessons, Bulletin #129, p. 2.
106. Ibid., Bulletin #30, p. 6. In a critique of performance in training, "junior leaders were repeatedly told that inaction was criminal and that it was better to do something that might turn out to be wrong than to remain inactive."

107. MS # C-079, Generalmajor Kurt Gallenkamp, "War as an Empirical Basis for the Arrangement of Map Exercises and Field Discussions," 1951, p. 33.
108. Ibid., pp. 33-34.
109. Ibid., p. 34.
110. Ibid.
111. General Hermann Balck, as quoted by CPT Antulio J. Echevarria II, "Auftragstaktik: In Its Perspective", Military Review, (October 1986): Vol. LXVI, No. 6, p. 52.
112. General Hermann Balck, (taped conversations), April 1979, p.26; also the harsh words of Erwin Rommel, as quoted by CPT Echevarria, "Auftragstaktik", p. 52:
- Officers who had too little initiative to get their troops forward or too much reverence for preconceived ideas were ruthlessly removed from their posts and, failing all else, sent back to Europe.
113. General Gerd Niepold as referenced by Timmons, p.5.
114. FM 100-5, Operations, p. 1.
115. Ibid., p. 2.
116. FM 100-5, Operations, pages as cited in text. See also pp. 15, 17, 21, 22, 23, 25, and 26.
117. Ibid., p. 21.
118. FM 100-5, Operations, pages as cited in text. See also p. 15 for additional examples.
119. FM 100-5, Operations, pages as cited in text.
120. FM 100-5, Operations, pages as cited in text.
121. Ibid., p. 15.
122. FM 100-5, Operations, pages as cited in text.
123. FM 100-5, Operations, 1982, p. 7-3 had one definition; FM 100-5, Operations, (DRAFT), 1985, p. 21, had another; FM 100-5, Operations, May 1986, avoids the issue. Similarly, FC 101-55, Corps and Division Command and Control, February 1985 (p. 3-1) and FC 71-100, Armored and Mechanized Division and Brigade Operations, May 1984 (p. 3-1) have different definitions from the first two cited. None of these definitions concur with FM 101-5-1, Operational Terms and Symbols, October 1985 (p. 1-16) and JCS Pub 1. The differences, while relatively minor, have variances in meaning. The differences and implications of the definitions on "command and control" are attributed to Runals, pp. 3-4, 24-29, and Appendix C.

124. General John H. Cushman, Command and Control of Theater Forces: The Korea Command and Other Cases, (Cambridge, Massachusetts: Harvard University Press, April 1985), Chapter 4, pp. 18-27. Cushman's thesis is primarily directed toward the joint arena but he also cites examples of intra-Service problems.
125. Reference MAJ Robert Mixon's Combat Power Insight on leadership, conducted as part of course requirements, School of Advanced Military Studies, 1986.
126. Reference MAJ Charles E. Burgdorf's Combat Power Insight on leadership, conducted as part of course requirements, School of Advanced Military Studies, 1986.
127. Vermillion, p. 18.
128. MS # D-268, p. 17.
129. FM 100-5, Operations, p. i.
130. Ibid., See also pp. 2, 4, and 15.
131. Ibid., p. 21.
132. Ibid., p. 15.
133. For example, see FM 71-2J, The Tank and Mechanized Infantry Battalion Task Force, Chapter 1, pp. 2-7, and 17-18. There is a glaring lack of further guidance on "how" and with what restrictions the command and control system of FM 100-5 will function throughout Chapter 2, Command and Control, pp. 1-69.
134. The issue is the loss of control perceived by commanders at the expense of subordinates using their initiative, sometimes incorrectly. A sampling of references which address this topic are:  
 Daniel A. Hahn, MAJ, USA, "Leadership: The Heart of C2," Military Review 65(November 1985): No. 11, pp. 50-51; John W. Mountcastle, LTC, USA, "Command and Control of Armor Units in Combat," Military Review 65(November 1985): No. 11, pp. 15-39; Vermillion, pp. 36-37; Runals, pp. 31-34; Simpkin, Human Factors in Mechanized Warfare, pp. 148-157; and Lind, pp. 13-14.
135. From a Class Handout for Pre-Command Course LTCs and COLs entitled, "Feedback From Battalion/Brigade Pre-Command Course Classes on Leadership," Ft. Leavenworth, KS., 1986. The question was asked; "Are there institutional pressures, policies, or practices that preclude your accomplishing (development of key leadership imperatives in subordinate leaders)?" Answers included: Bureaucratic BS- like RBIs for every mistake, ambition and ticket punching, zero defects mentality, and leadership by threat and fear.  
 See also the student study projects Excellence in Combat Arms, Naval Post Graduate School, 1984 and Excellence in Brigades, Army War College, May 1986 for a positive viewpoint of what mutual trust achieves.

136. Lossow, p. 88.

137. Fort Knox Student Manual 17-10-3, Leadership Handbook for the Armor Officer, January 1986, Chapter 1, p. 46.



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