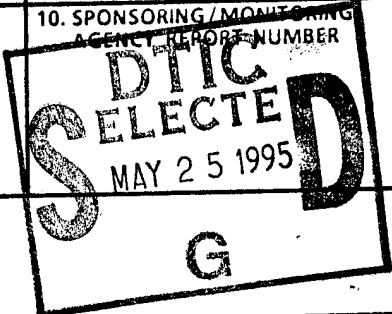


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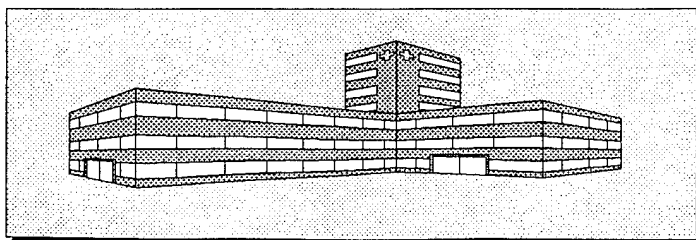
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THE DEGREE  
MASTER OF MILITARY ART AND SCIENCE

On 5 August 1974 legislation was enacted authorizing the U.S. Army Command and General Staff College (CGSC) to award the degree, Master of Military Art and Science (MMAS), an authority originally requested in 1964. The legislation prescribes that the MMAS program require a thesis; also, that the College must attain affiliate or member status with the North Central Association of Colleges and Schools prior to the award of any degree. Included in the statute was authority for retroactive awards to the 182 officers who had successfully completed the MMAS requirements in previous years. On 31 March 1976 the College was granted full accreditation as a masters' degree-granting institution by the North Central Association of Colleges and Schools.

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FOR THE COMMANDANT:

*Philip J. Brookes*

PHILIP J. BROOKES  
Director  
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710. POST-GENEVA-ACCORDS AFGHANISTAN: A REFLECTION INTO THE FUTURE, by Major Muhammad Asghar, Pakistan Army, 151 pages.

This study discusses the interests, objectives, and policies of various actors involved in the conflict, especially those of the Kabul Regime and the Mujahideen, and analyzes their power potential to accomplish their objectives. The study seeks to establish the prospects and probability of the Mujahideen victory, and their ability to replace the Kabul Regime without serious infighting.

The study concludes that the Mujahideen, who are not organized, equipped, and trained to conduct large-scale conventional attacks, are not likely to achieve quick victories through direct assaults against the urban strongholds of the Kabul Regime. Only a unified military strategy, based on the strangulation of the cities, and aimed at inducing defections from the Regime Forces can help to cause the break up of the Regime from within and pave the way for the final Mujahideen victory. Following the anticipated fall of the Kabul Regime, an initial period of disorder and power struggle appears to be a foregone conclusion. Moreover, as a result of the last ten years of war, the demographic balance of the country has been altered, a new wave of awakening has politicized the masses, and certain new forces have been introduced into the political structure. Hence, any future government of Afghanistan will be based on the newer political dynamics, whose impact can only be determined through further research and study.

711. SOVIET ARMS TRANSFERS TO SUB-SAHARAN AFRICA: WHAT ARE THEY WORTH IN THE UNITED NATIONS?, by Major James F. Babbitt, USA, 128 pages.

This study is an analysis of Soviet arms transfers to sub-Saharan Africa during the period 1974-1983. Using a focused comparison methodology, ten sub-Saharan national are examined in light of two objectives. The first is to describe the range of military assistance relationships that existed between the Soviet Union and sub-Saharan nations during the review period. The second seeks evidence of the ability of arms transfers to assist the Soviets in achieving political influence over client states.

The degree of similarity existing between the United National General Assembly voting records of the Soviet Union and recipients of Soviet military aid is used as an indicator of political influence. The principal research hypothesis states that is the Soviet Union represents the sole or predominant supplier of military arms and equipment to a recipient country, that country will "mirror image" the Soviet Union's United Nations voting record.

The study concludes that the Soviet Union gains political influence as a result of arms transfers when recipient states are confronted with active or imminent military threats. Recipients of Soviet military assistance are unwilling to restructure military forces to align with new sources of supply for military hardware while regime survival is challenged. Therefore, African states, to include Angola, Ethiopia, and Mozambique, find themselves obligated to meet the expectations of their Soviet patrons to ensure the continued flow of arms and military equipment.

The author states his belief that an understanding of this finding has implications for American foreign policy in sub-Saharan Africa. Rather than a willingness to provide sophisticated weapons to the African continent in an attempt to counterbalance Soviet transfers, the study proposes that the interests of the United States would be better served by finding means to reduce the African need for arms.

712. COMMAND AND CONTROL MECHANISMS IN THE CHICKAMAUGA CAMPAIGN: THE UNION EXPERIENCE, by Major Philip J. Baker, Jr., USA, 154 pages.

This thesis analyzes how Major General William S. Rosecrans, commander of the Army of the Cumberland, employed the command and control mechanisms available to him as he maneuvered his army from Tullahoma, Tennessee, toward Chattanooga, Tennessee in August-September 1863. It also analyzes how these mechanism were employed during the battle of Chickamauga itself, on 19-20 September 1863.

General Rosecrans possessed three mechanisms for commanding and controlling his army. The first was the military telegraph, provided by the quasi-military U.S. Military Telegraph service. Next were the assets of the fledgling U.S. Signal Corps, which consisted of signal flags and torches, and a portable version of the telegraph. Finally, there were couriers, who were usually mounted, and were provided by subordinate unit details, or by units specifically formed for courier duty.

The thesis concludes that General Rosecrans did not use his command and control mechanisms effectively. Rosecrans relied too heavily on couriers to carry messages over densely wooded, cross-compartmented terrain in order to send orders to his widely dispersed subordinates and receive information from them. While Rosecrans made wide use of the military telegraph, to include using it during the battle itself, he did not effectively use his Signal Corps assets. These assets were used essentially as static observation posts, and only to a limited degree as a means for effecting command and control.

The thesis further concludes, however, that General Rosecrans' use of command and control assets was not a decisive factor in the outcome of the campaign or battle. While his reliance upon courier assets added significantly to the time required to obtain information and send orders, it was not the reason for the Union defeat at Chickamauga.

713. ALEXANDER P. STEWART AND THE TACTICAL EMPLOYMENT OF HIS DIVISION AT THE BATTLE OF CHICKAMAUGA: AN ANALYSIS OF THE TACTICAL FORMATIONALS EMPLOYED BY STEWART'S DIVISION DURING THE BATTLE OF CHICKAMAUGA, 19-20 SEPTEMBER 1863, by Major Luke J. Barnett, USA, 167 pages.

This thesis is a historical analysis of Stewart's Division during the Battle of Chickamauga. It determines what tactical formations Stewart and his brigades employed, how this affected casualty totals and their significance to the outcome of the engagements in Stewart's sector.

This thesis includes a brief description of the evolution of Civil War tactics with a primary focus on infantry offensive doctrine. This is followed by a brief overview of the Chickamauga Campaign and Battle, and a description of Stewart and his unit. Thereafter, the focus will be on Stewart's actions from the crossing of Thedford's Ford on 18 September 1863, to the closing shots of the battle on the evening of the Twentieth. This will include the initial action at the ford site on the eighteenth and Stewart's numerous attacks on the afternoon of the nineteenth. Also included is his attack on the morning of the twentieth and his final attack later that evening. Conclusions will summarize the significance of Stewart's tactics and insights applicable to current doctrine.

The results of this thesis conclude that Stewart and his brigade commanders did not deviate from the published doctrine of the time. Except for a minor modification in timing, Stewart's attacks complied with the manuals. The decision to attack on the nineteenth, with a column of brigades, was more a result of limited frontage and restrictive terrain than a deliberate desire to add depth to his attack. However, this formation proved very effective and contributed to Stewart's success that day. Stewart's

morning assault on the twentieth failed due to the collapse of an adjacent unit coupled with the fact that he was frontally assaulting prepared defenses with his flank exposed.

This thesis concludes that Stewart's tactical formations contributed to his success on the nineteenth. Stewart's failure on the twentieth was more the responsibility of a higher echelon commander. In the final analysis Stewart's leadership abilities were more a contributor to the success of the division than the tactics that he employed.

714. IN SEARCH OF QUALITY: PROGRESS AND PROSPECTS OF THE ALL-VOLUNTEER ARMY, by Major Michael K. Beasock, USA, 157 page.

This study investigates the impact of the all-volunteer system on the quality of soldiers in the U.S. Army. This analysis is important because the issues of raising and maintaining our armed forces involve not only the preservation of the United States as a free nation, but the way we go about procuring military manpower has far-reaching social, economic, and political implications for our society.

The reader is provided with a theoretical and historical framework and then introduced to the basic elements of quality measurement. The two indicators of quality widely accepted by the armed services, above-average mental aptitude and the possession of a high school diploma, are addressed in detail. The principle focus of the study consists of a comparative analysis of the quality of soldiers during the draft and volunteer eras.

The study concludes that: (1) The Army's "barometers" of soldier quality, as defined by a high school diploma and an above-average mental aptitude, are valid. (a) High School graduation status is the best available measure of an individual's potential for adapting to life in the military. It is closely related to attrition, discipline, and motivation. (b) There is a strong relationship between mental aptitude and learning and retaining specific military occupational skills. The Army is using the best available measure to screen, classify, and assign its recruits. (2) An analysis of the draft and volunteer eras revealed that, on the average, the quality of soldiers has not differed appreciably. The quality of the force is equal to that achieved under the draft. In particular: (a) The volunteer system brought about a decrease in the proportion of above-average mental category recruits and a slight increase in the proportion of below-average mental category enlistees. (b) The mean AFQT score of the Army remains below that of the other services and of the enlistment-eligible youth population. This is largely the result of the long-term impact of an infusion of low quality accessions. (c) The educational level of volunteer era recruits differs little from that of draft era recruits. Volunteer era accessions are more likely to have a high school diploma, but less likely to have attended college. The percentage of the total force with a high school diploma or equivalent has increased considerably. (d) Fluctuations among the quality measures have been the greatest during the volunteer era. (3) The volunteer system produced a more experienced force due to increased initial terms of service. (4) Attrition rates were significantly lowered and reenlistment rates were significantly raised during the volunteer era. (5) Disciplinary incidents have shown dramatic reductions with the volunteer system. (6) Female accessions have increased dramatically during the volunteer era and have significantly raised the high school diploma and above-average mental aptitude profile of the Army. (7) Evidence examined in this study support a conclusion that the volunteer system has not lowered the quality of soldiers. On the average, the quality of the Army has not differed appreciably between the draft and volunteer eras. (8) The Army needs to specify the optimal mix of educational and aptitude levels that will maximize effectiveness. (9) Recruiting and retention resources must be integrated and optimized to achieve

a stated quality mix for the enlisted force. (10) The volunteer system continues to be a viable concept despite future uncertainties.

715. MATERIAL ACQUISITION MANAGEMENT OF U.S. ARMY ATTACK HELICOPTERS, by Major Patrick J. Becker, USA, 105 pages.

The Army has produced attack helicopters without any clearly defined concept as to useful life. Until the publication of the Army Aviation Modernization Program (AAMP), the Army had not attempted to define an attack helicopter's useful life nor did it possess a strategy by which to modernize its attack helicopter force. Without a definition of useful life and a modernization strategy, the Army has had difficulty in justifying valid operational requirements to the legislature. This thesis investigates methods to aid in program clarification and analysis permitting more concise analysis and justification of the Army's requirements.

This thesis historically defines the life cycles of existing attack helicopter programs. This is essential in determining the useful life of these helicopters and may bear on the requirement to procure a new system.

Second, the thesis identifies criteria that are common to many acquisition programs that may be useful in model design which can be used to evaluate an attack helicopter program. This could aid in the determination as to whether or not to procure a new system or upgrade an existing system.

Finally, a comparison of the existing system versus the model is made to determine what benefits there may be in use of the model and its utility.

716. DETAILED PLANNING CONSIDERATIONS FOR DIVISIONAL ATTACK HELICOPTERS (AH-1) IN THE DEEP BATTLE: A DEFENSIVE OPERATION PERSPECTIVE, by Major John C. Bendyk, 141 pages.

This study analyzes current U.S. deep attack doctrine at the Army corps and division levels, identifies the division's weapons systems, capabilities, limitations, and identifies the battlefield activities associated with a divisional aviation deep attack. The research focuses on five of the fires, air defense, and command and control. Soviet tactical doctrine is analyzed to determine the required depth of a division deep attack. Additionally, the study incorporates a non-nuclear, mid-intensity scenario set in Central Europe that applies the information discovered in the research. The results are baseline planning criteria which must be met to successfully conduct a division aviation deep attack.

Some of the conclusions drawn from this study are: divisions will require 24-36 hours planning time to conduct an aviation deep operation; the aviation brigade's tactical operations center will have to collocate with the division's tactical operations center to facilitate planning, coordination, and synchronization; a division has the capability of suppressing enemy air defense artillery to a range of 30 kilometers; and division organic intelligence systems are incapable of providing the information/intelligence required for an aviation deep attack operation.

The study concludes that a division in contact, augmented by corps assets, which are identified early in the planning process, can successfully plan, support, and execute an attack helicopter deep attack operation.

717. MANEUVER AND DESTRUCTION: A REFINEMENT OF OPERATIONAL AND TACTICAL OFFENSIVE DOCTRINE, by Major Stephen A. Bourque, USA 140 pages.

This study examines the nature of U.S. Army offensive doctrine by asking: What should be the purpose of the offensive at the tactical and

operational levels of war? And secondly, what should be the fundamental principles that guide U.S. offensive doctrine?

FM 100-5, Operations (1986) has imposed a standard upon itself for doctrinal sufficiency by stating that: (1) Doctrine should be rooted in time tested theories and principles; and (2) Doctrine must be definitive enough to guide operations. These standards provide the measure for evaluating current AirLand Battle offensive doctrine.

Offensive doctrines of the United States, Germany and the Soviet Union are examined within their historical context to determine what time-tested principles formed the core of their offensive doctrine. The congruence in thought in regard to levels of war, tactical and operational purpose, and fundamental principles indicted a true mainstream of western military through in regards to offensive operations.

Advocates of maneuver as the primary tool for achieving success were also examined. Key figures of this school of thought include: Jomini, Liddell Hart, Fuller, Boyd, Lind, and Luttwak. These maneuver theorists have had a profound influence on U.S. doctrinal development since the Vietnam War and their views merited examination. At the operational level of war their theories were in general harmony with other large-unit doctrines, while their tactical offensive ideas were often found to be unsupported by historical evidence.

Against these evaluations, AirLand Battle offensive doctrine is compared. The result of this evaluation indicates first, that the current offensive doctrine is rooted in time-tested principles and is generally in the mainstream of western military art. Secondly, this evaluation indicates that this offensive doctrine is presented in an ambiguous manner for training and operations. Most significant is the need to clearly state the purpose of the offense at the tactical and operational levels (destruction versus defeat/dislocation) and to clearly articulate the appropriate offensive principles for each level of war.

This study concludes with recommendations for improving the clarity of the offensive doctrine.

718. INTELLIGENCE OPERATIONS OF THE ARMY OF THE CUMBERLAND DURING THE TULLAHOMA AND CHICKAMAUGA CAMPAIGNS, by Doyle D. Broome, Jr., USA, 137 pages.

This study is a historical analysis of the intelligence operations conducted by the Union Army of the Cumberland between 15 May 1863 and 18 September 1863. The study analyzes two key campaigns the Tullahoma (or Middle Tennessee) Campaign and the Chickamauga Campaign. The Tullahoma Campaign lasted from 23 June 1863 through 7 July 1863. The Chickamauga Campaign lasted from 10 August 1863 through 22 September. The study does not cover the actual Battle of Chickamauga on 19 and 20 September 1863. The study analyzes how Union Major General William S. Rosecrans used the available information to plan and conduct these two campaigns.

The means used to gather intelligence were: spies; cavalry operations; the questioning of civilians, deserters, and prisoners of war; the forming of hypothesis by the commander; a network of signals; and newspapers. By today's standards, the commander in 1863 had a limited ability to gather, decipher, and then act on intelligence. Commanders actively gathered intelligence in spite of not having sophisticated gathering means, and dedicated interpretation staffs. The commander analyzed the accumulated information and decided on how to use it.

The study concludes that: The Tullahoma Campaign was successful because Rosecrans used the available intelligence effectively. Rosecrans actively

gathered information about Bragg's strength, dispositions, and unit morale. Rosecrans then correctly analyzed this information and developed a plan that would strike at Bragg's weak point. The study further concludes that: The Chickamauga campaign was unsuccessful because Rosecrans did not effectively use the available intelligence. Rosecrans failed to properly interpret the available intelligence because the success of the Tullahoma Campaign had convinced him that Bragg could not or would not fight. This preconceived idea about Bragg caused Rosecrans to disperse his army over a forty-mile arc in the rugged north Georgia mountains. Belatedly, Rosecrans correctly analyzed Bragg's true intentions. Rosecrans then assembled his scattered corps, by herculean forced marches, in time to face Bragg's reinforced army in the Battle of Chickamauga.

719. THE UNITED STATES SHIPBUILDING AND SHIP REPAIR INDUSTRY: ADEQUATE FOR PROLONGED GLOBAL CONFLICT? by Lieutenant Commander Robert Martin Brown, USN, 177 pages.

This thesis examines the ability of the American shipbuilding and ship repair industry to meet the national defense requirements of a prolonged global war involving the United States

A history of this vitally important industry is presented to illustrate the problems that have plagued it for over a century. In addition, the key role played by shipyards in the outcome of the last global conflict, World War II, is examined.

Estimated wartime demands to be placed on shipyards are detailed and compared to the three integral parts of the industry: physical plant, skilled labor, and equipment suppliers. Based on this analysis, conclusions are made concerning the adequacy of U.S. shipyards in time of war. The study concludes numerous shortfalls would be encountered in the reactivation, repair, and construction of merchant and naval vessels; this poses serious questions concerning the ability of this country to sustain forces in a prolonged conflict.

Possible solutions to this industrial readiness problem are also presented and discussed.

720. FIRE SUPPORT IN THE REDUCTION OF AN ENCIRCLED FORCE- A FORGOTTEN MISSION, by Major Joel A. Buck, USA, 157 pages.

Using historical analysis and survey, this study examines the sufficiency of U.S. field artillery doctrine, tactics, and techniques to support the destruction of an encircled enemy. Focus is on identifying existing weaknesses by comparing applicable lessons learned from history with the practices spelled out in current manuals. The Allied attempt to encircle and reduce the German forces within the Falaise-Argentan pocket in central France during August 1944 and the Soviet Belorussian Offensive and subsequent encirclement and reduction of German forces during June 1944 are examined. The results of a survey completed by the V and VII U.S. Corps artillery commanders on the subject are also included.

Among the shortfalls identified are: current attention is more focused on breaking out of an encirclement than on forming an encirclement; when encircling an enemy is addressed, discussion stops after the encirclement is formed and before reduction begins; field artillery procedures do not separately address this mission; friendly or enemy use of chemical or nuclear weapons has not been considered; the requirement to simultaneously support reduction and exploitation operations has not been addressed; there is a need for an artillery commander at echelons above corps.

The study concludes that the process of reducing a large encircled enemy force is sufficiently different from other operations that it should be separately addressed. Although the "doing" of the component parts of the artillery aspect of this operation are doctrinally established, tying them together into a synergetic package requires innovative attention. Resulting field artillery doctrine, tactics, and techniques derived are equally applicable in reducing an isolated enemy force that has broken through or been inserted into our rear area as they are in the reduction of an offensively encircled enemy.

721. THE EFFECTS OF UNITED STATES NAVAL FORCES DEPLOYED TO THE PERSIAN GULF, by Lieutenant Commander Larry D. Carr, USN, 79 pages.

The purpose of this thesis is to examine the U.S. Navy's ability to surge forces forward to meet crises and still meet its day-to-day commitments.

This study reviewed the 43 treaties and agreements the U.S. has with other nations and the strategy and policies of the U.S. in support of these agreements, policies, and strategies on the Navy. Key areas of personnel and material readiness are then examined.

As a case study, the paper used the U.S. response to the crises in the Persian Gulf from 1970 to the present. This crisis is typical of the employment of Naval forces to show U.S. interest in world affairs and is the most recent crisis. The author was part of the forces deployed to meet this crisis.

The research showed that the Navy's ability to surge its forces and continue to meet its everyday commitments is limited. The Navy lacks a sufficient number of ships and personnel to man them. The mission in the Persian Gulf was successfully completed only by pushing the ships and men of the fleet to their limit.

The paper ends with five proposals which will increase the Navy's ability to continue this type of crisis intervention and still be prepared to meet the day-to-day commitments in support of U.S. policy.

722. AIRBORNE EARLY WARNING AND BRITISH COUNTERAIR OPERATIONS IN THE FALKLANDS. AN EXAMINATION OF THE BRITISH COUNTERAIR CAMPAIGN IN THE FALKLAND ISLANDS WAR OF 1982, AND HOW THE AIR DEFENSES WERE HANDICAPPED BY THE LACK OF AN AIRBORNE EARLY WARNING SYSTEM, by Major Alleyne Carter, USAF, 198 pages.

When the Falklands crisis erupted into limited war in the spring of 1982, Britain was unprepared for a conflict outside of the NATO European Theater. To cut defense costs, the British Ministry of Defence had eliminated any forces not needed for a united NATO effort against the Warsaw Pact. These cutbacks included the decommissioning of Britain's last full-size aircraft carrier, which also meant the end of the Royal Navy's last carrier-based airborne early warning (AEW) aircraft. The Ministry of Defence considered this action expedient, since Britain's allies would provide sufficient air defense and early warning assets during any NATO conflict. As a result, the British fleet which took part in the Falklands War had no AEW platforms of any kind, and had to rely on surface-based radars to detect hostile aircraft.

This study explores the impact of the lack of AEW on British operations in the Falklands, especially with regard to the counterair campaign. It examines the British air defense system with its capabilities and limitations, and describes how the Argentine pilots exploited the limitations. An indepth examination of most of the major Argentine air raids will demonstrate that many could have been intercepted and disrupted had the British possessed an AEW system. The study will prove that the absence of AEW should have resulted

in a British failure to recapture the Falklands due to unacceptable losses. This was averted only by unforeseen mistakes on the part of the Argentinians.

723. SECURITY OPERATIONS: CURRENT NET VALUE OF NATIONAL TRAINING CENTER LESSONS LEARNED FOR THE DIVISIONAL GROUND MANEUVER BRIGADE, by Major John Stephen Chappell, USA, 111 pages.

This study investigates the value of the Army's National Training Center (NTC) Lessons Learned with regards to security operations for the divisional ground maneuver brigade. The study focused on current Airland Battle doctrine, force structure, unit training, NTC operations, and a historical example. Analysis conducted of the heavy brigade NTC rotations addressed: specific security mission requirements; force structure inadequacies; unit training deficiencies; and, NTC artificialities in training. The historical example from the Tunisian Campaign, North Africa in World War II demonstrated the importance of security operations in battle.

Among the conclusions that could be derived from this study are: doctrine on counter-reconnaissance needs to be re-assessed and expanded upon; the brigade needs an organic reconnaissance and security capability; units need to emphasize reconnaissance and security operations in training as a mission essential task; and, the value of NTC Lessons learned must be examined against the artificialities inherent in peacetime training environments.

This study concludes that training at the NTC is superb. However, the goal of the NTC Lessons Learned should focus on deficiencies across the spectrum of doctrine, force structure, and unit training. Most of the lessons learned dwell on poor unit training and fail to highlight major deficiencies in the other areas of equal importance. Additionally, efforts should continue to reduce peacetime artificialities that skew NTC evaluation results. These efforts should focus on creating a more realistic battlefield environment and deter gaming techniques designed just to "win" at NTC.

724. AN ANALYSIS OF ROK-US MILITARY COMMAND RELATIONSHIP FROM THE KOREAN WAR TO THE PRESENT, by Lieutenant Colonel Chung, Kyung Uoung, ROK Army, pages 130.

The purpose of this thesis is to analyze the evolution of the Korean-American military command relationship from the historical perspective with the object of setting forth a proposal for a new structure based on a consultative relationship, rather than command.

The study focuses on the following questions: (1) What factors led to the original structure of the ROK/US/UN command relationship at the time of the Korean War? (2) What changes have altered the requirements of the command structure? and (3) What changes should be made in the ROK/US/UN command structure to make it militarily more efficient and politically more acceptable to the ROK?

Analysis reveals that the current politically complex ROK-US military command arrangement is not designed to wage war. The inconsistency between the peacekeeping mission of the UNC and the warfighting task of the CFC seems to pose added problems for the effective combined operations of allies. No single US unit is assigned to the operational control (OPCON) of CFC in peacetime, while most combat units of ROK forces are assigned to CFC. The ROK JCS exercises only OPCON ROK units for counter-infiltration operations. The ROK Chief of Staff of each service exercise command less OPCON. A single US senior officer has an overwhelming power. The fact that the U.S., as a foreign power, speaks for the entire southern side on the Military Armistice Commission while North Korea represents the North constitutes a further embarrassment and political humiliation for the ROK. The ROK Armed Forces has outgrown the ROK-US military relationship created by the Mutual Defense Treaty of 1953.

Therefore, a more desirable proposal for the ROK-US military command arrangement is as follows: (1) Eliminate the inequity in the ROK-US military command relationship by reevaluating and redefining the ROK-US Mutual Defense Treaty. It should reflect a command structure to which both countries will make forces available if North Korea attacks. (2) Return OPCON of ROK forces to the ROK National Command Authority. (3) Both countries need to work out a mutually acceptable rotation for primary command positions. (4) Disband the UNC HQ. Korea has outgrown it. (5) A bilateral agreement between South and North Korea must be negotiated to replace the 1953 Armistice Agreement. After this, the UNC and the military Armistice Commission should disappear.

725. DEVELOPING AND IMPLEMENTING DECEPTION PLANS FOR JOINT AIR OPERATIONS, by Major Robert A. Coe, USAF, 132 pages.

The Goldwater-Nichols Defense Reorganization Act of 1986 has helped focus attention upon joint interoperability issues within the US military. This thesis takes a look at joint deception planning and the doctrinal mechanisms emerging to assist in the coordination of deception plans.

In order to establish a basis for understanding deception, the study first describes the art of deception, including its capabilities, limitations, and theory. It also outlines the principles of deception, including those of the Soviet military forces. Historical examples of successful and unsuccessful attempts to use deception are provided.

Next, the study covers the fundamentals of deception plan development. Details of the planning, execution, and evaluation of deception operations are introduced, primarily as applicable to the joint forces air component staff and below. A brief discussion of interoperability between US military forces in the development and coordination of deception plans completes the analysis.

The thesis concludes that the doctrinal guidance currently under development should be adequate to meet the needs of the joint deliberate planning process for deception operations. The next challenge is to better train the operational and tactical level commanders, staffs, and joint forces to incorporate deception into their joint exercises and operations. Particular emphasis must be placed on exercising the vertical and horizontal coordination mechanisms as well as providing constructive feedback and evaluation.

Deception needs to be exercised and employed to be of any peacetime or wartime value. Considering present and foreseeable defense budget constraints, a renewed emphasis on deception planning and training may be one of our most important investments.

726. BATTLE STAFF OPERATIONS: SYNCHRONIZATION OF PLANNING AT BATTALION AND BRIGADE LEVEL, by Major William F. Crain, USA, 120 pages.

This thesis examines whether or not current doctrinal staff planning activities can be better synchronized at battalion and brigade level.

Using doctrinal, historical and current data collected from the National Training Center, the study focuses on the problem of time management and information flow. Employing the concepts of applied systems theory, the elements of the battle staff system are defined as purpose, activities (outputs), processes, resources (inputs), space and time. These elements are examined to determine what information is critical, how it is processed, who processes it and when.

The study establishes an information hierarchy, proposes a single planning process, identifies functional staff areas of responsibility, and provides a guide which concentrates the battle staff on producing the critical

information necessary for a commander to make and execute decisions in a time constrained environment. This tool is in the form of a Battle Staff Planning Guide.

The study concludes that current doctrinal staff activities can be better synchronized to enhance battle staff operations. To achieve this aim, doctrine must better define the command and control and battle staff systems; staff activities must focus on producing the necessary critical information under the constraining of time; and planning must be oriented towards a decision driven process rather than a process that drives decisions.

727. THE CONCEPT OF COMMON TRAINING: A COMPARISON OF MILITARY QUALIFICATION STANDARDS II WITH SELECTED PAST OFFICER BASIC COURSE PROGRAMS OF INSTRUCTION, by Major Kelvin Dale Crow, USA, 181 pages.

This pilot study analyzed eight programs of instruction and five common cores for past officer basic courses and compared them to the 1988 Military Qualification Standards II revision. The purpose of the study was to assess the applicability of past POI's to current training design.

Infantry and Transportation Branches were studied. POI's for the pre-war and mid-war years from World War II, Korea, and Vietnam were collected and an instrument devised to systematize their contents. The results were analyzed for common and critical tasks for peace, war, and mobilization. Data as to course length, intent, and prerequisites were also collected.

The study found that the training record is being destroyed but what remains is applicable to modern training design. OBC has historically been allocated major resources and common cores were found for all periods. Mobilization critical tasks were discovered, but combat and peacetime critical tasks were not. thirteen universal training tasks were identified.

The study concludes that the current MQS list is adequate but some items should be considered for inclusion or elimination. Further study is indicated into other branches, the common cores, and training given in the combat theater. Changes to the Concept Based Requirements System are recommended.

728. STALINGRAD AND THE TURNING POINT ON THE SOVIET-GERMAN FRONT, 1941-1943, by Captain Dennis W. Dingle, USA, 130 pages.

This study is an historical analysis of the Soviet-German conflict during World War II and focuses on the years 1941-43. It examines the relative economic and military power of the two nations to determine if there was a shift in advantage, or turning point, during that period. To quantify those elements of power, it uses criteria taken from a current strategic analysis model. This model assesses elements of national power to aid in strategic problem solving and international policy formulation. specific criteria are applied to four specific military events between 1941 and 1943. The resulting data are then graphed to compare relative military and economic power. The graphs serve as the basis for conclusions.

Among the conclusions which may be drawn from this study are: the Battle of Stalingrad was not the economic turning point of the war when considering the criteria of industrial labor and armaments production; Stalingrad was the military turning point, considering military forces and equipment on the Soviet-German front.

This study concludes that this method of assessing relative national power of nations can be applied in a historical context to evaluate past wars. It may assist historians to better understand the factors that led to various turning points throughout history.

729. CAN THE ARMY MAN THE ARMORED FORCE OF THE 21ST CENTURY? by Major Joseph F. Fil, Jr., USA, 160 pages.

The United States Army Heavy Forces Modernization Program involves the fielding of an Armored Family of Vehicles (AFV's) which will incrementally replace the entire current ground combat vehicle fleet. This study examines the Army's ability to man that force as it is fielded in the early 21st century.

The manpower and personnel requirements of the AFV's force were estimated using predicted crew, maintenance, and support forecasts. These were compared to several force alternatives in an effort to estimate the soldier-related impacts associated with implementing the AFV program. The requirements were then compared to the forecasted population of 18-21 year old American males available in the early 21st century, and an assessment was made of the Army's likely ability to achieve its AFV's manning needs.

The manning requirements of the AFV's force were found to be less than those of the current (late 1980's) fleet. Available 21st century manpower was determined to be even greater than that of the present, in spite of an alarming temporary decline in the population of American youths in the mid-1990's. Manning the AFV was therefore found to be entirely achievable. The study provides recommendations to AFV planners to help ensure that the encouraging manning situation is maintained as the Heavy Forces Modernization Program transitions into reality.

730. COLOMBIAN GUERRILLAS AND THE DRUG CARTELS: COOPERATING OR COLLIDING?: ANALYSIS OF THE RELATIONSHIPS BETWEEN THE VARIOUS COLOMBIAN GUERRILLA GROUPS AND DRUG SMUGGLING ORGANIZATIONS, by Major Craig R. Firth, USA.

This study is an analysis of the relationships between the four major guerrilla groups in Colombia and the drug smugglers. The study begins with a historical analysis of the violent traditions of Colombian culture. The impact of those violent traditions on the development of the guerrilla movement is then examined. The study then depicts the evolution of the four major guerrilla groups in Colombia. The drug smugglers are examined next, with biographical sketches of the key figures being presented. The development of the smuggling "cartels" is detailed, and the relationships between the guerrillas and the drug smugglers is examined in detail. The study uses unclassified material, as well as briefings and discussions among the author, U.S. Embassy officials, U.S. Military Group personnel, Colombian Armed Forces personnel, Colombian civilian officials, and DEA agents.

The study concludes that, although the smugglers have occasionally shown some ambivalence toward the guerrillas, the two groups are likely to continue their mutually convenient relationship, but in a limited fashion. The smugglers desire the government to remain destabilized, but not to the extent that some ideologically "pure" element would seize control. They will therefore also continue to finance right-wing paramilitary groups, in an effort to keep both sides in a weakened state. For their part, the guerrillas have come to rely so heavily on smuggling-derived revenues that they also support a discreet continuation of the relationship. Regardless of competing interests among the groups, the one overriding mutual interest is the continuing prosperity associated with the drug industry.

The study further concludes that the surest way to combat both the insurgencies and the drug traffickers throughout the region would be to develop a massive economic assistance package, on the scale of the Marshall Plan, for Latin America. As long as current economic conditions persist, both groups will find fertile recruiting grounds for their hirelings. The introduction of U.S. forces would only arouse nationalistic resentment of U.S. intervention, and fuel fears of American imperialism. Only through the

development and diversification of their economies will Latin American governments be able to offer meaningful alternatives to guerrilla or drug trafficking incentives.

731. U.S. MILITARY NATION-BUILDING IN PERU: A QUESTION OF NATIONAL INTERESTS, by Major Leonardo V. Flor, USA, 138 pages.

This study examines the advisability of U.S. Military nation-building exercises (MNBE's) in Peru, specifically active component engineer deployment for training (DFT) and reserve component "Fuertes Caminos (FC)" exercises. It examines advisability by looking at how a U.S. MNBE affects the national interests of both the U.S. and Peru (Is it desirable?) It also looks at the risks involved in conducting a U.S. MNBE in Peru (Is it feasible?).

The study initially establishes U.S. "traditional interests" by tracing the history of the relations between the U.S. and Latin America from the 1800's to the present, and between the U.S. and Peru from 1945 to 1985. The paper goes on to determine "contemporary interest" in U.S.-Peruvian relations by examining the issues that dominate the interaction between the two nations, today. The study concludes that the U.S. interests/objectives in Peru are: to foster regional stability by supporting democracy, to curtail cocaine trafficking, and to reduce Soviet influence. The study also determines that these interests are important but not vital to U.S. survival.

The paper examines potential benefits and risks. It concludes that U.S. MNBE's are "desirable" because they may promote national interests in such ways as assisting in Peru's economic development, helping the counterinsurgency and counter-narcotics effort, and bettering the life in rural Peru. Risks such as the possibility of insurgent attacks against U.S. troops, competition with the private sector, and increased "perceived relative deprivation" are examined. The paper concludes that U.S. MNBE's are feasible because the risks involved can be mitigated through judicious planning, the use of a multi-year program, and an integrated Country Team approach.

In the sense that they are "desirable and feasible," the paper deems U.S. MNBE's in Peru advisable--as ways for the Country Team to foster U.S. ends in Peru.

732. ARTILLERY EMPLOYMENT AT THE BATTLE OF GETTYSBURG: AN ANALYSIS OF HOW UNION ARTILLERY FORCES WERE EMPLOYED DURING THE BATTLE OF GETTYSBURG, 1-3 JULY 1863, by Major Mark R. Gilmore, USA 93 pages.

This thesis is a historical analysis of the Union artillery at the Battle of Gettysburg. It examines the significance of the Union artillery's contribution to the Federal victory.

This study explores all aspects of the tactical employment of the Union artillery on the first and last days of the battle. A brief description of the evolution of artillery organization in the Army of the Potomac prior to the battle of Gettysburg is included. This is followed by the chronological presentation of the tactical employment of artillery during the battle. First its employment in the meeting engagement on 1 July is examined, followed by a study of its use on the final and decisive third day when Union forces fought a set-piece defensive battle.

Among the conclusions arrived at during the course of this study are these: That the Army of the Potomac's corps artillery brigades and army artillery reserve proved to be responsive and efficient organizations in fulfilling their fire support mission, and when coupled with the skillful use of artillery and aggressive leadership by the army's Chief-of-Artillery, Brigadier General Hunt, were crucial to the successful employment of the Union artillery forces.

This study concludes that the Union artillery under the command of Brigadier General Henry Hunt had a decided and positive influence on the Federal victory by successfully employing its corps artillery brigades and army artillery reserve as part of a combined arms force.

733. WHICH HEADQUARTERS IS THE MOST CAPABLE TO COMMAND AND CONTROL THE CORPS TACTICAL COMBAT FORCE, by Major Michael W. Hackerson, 94 pages.

This study is focused on analyzing the current Soviet operational-tactical deep attack threat, the current U.S. Army corps rear operations doctrinal missions, and requirements for the corps tactical combat force designated to counter the Soviet threat.

The study involves an overview of the current Soviet doctrine, force structure, and technical equipment advances that will allow the Soviet air assault battalions, at army level, to air assault armored forces into the corps rear area. The threat is overlaid onto a doctrinal corps defensive framework to look at the synchronization issues the corps commander will face allocating forces.

Research reveals that the Soviets have continued to develop the capability to conduct deep attacks into our rear areas. The tactical combat force that is designated must be capable of anticipating the Soviet employment capabilities by moving rapidly, day or night, to intercept, delay, and destroy them prior to the interrupting the command and control sustainment the corps' operations.

The study concludes that the best headquarters to command and control the tactical combat force is an attack helicopter regiment assigned to the corps aviation brigade.

734. CAN THE AIR ASSAULT CEWI BATTALION BE BETTER ORGANIZED TO FULFILL ITS MISSION? by Major Richard C. Halbleib, USA, 95 pages.

This study reviews the background and development of the Combat Electronic Warfare Intelligence (CEWI) battalion concept. The focus of the investigation centers on the structure, mission, and requirements of the Air Assault CEWI battalion. Problems and weaknesses associated with training, maintaining, and leading are examined through a review of literature and independent Army studies. Structural deficiencies are also documented in a survey of key intelligence personnel with service in the Air Assault Division.

The study concludes that the Air Assault CEWI battalion should be reorganized to better fulfill wartime employment and peacetime training parameters. A proposed reorganization is presented which recommends a five company battalion organization consisting of a headquarters and service company, three forward support companies and a general support company.

735. ARE COUNTERNARCOTICS OPERATIONS A VIABLE MISSION FOR U.S. ARMY SPECIAL OPERATIONS FORCES, by Major William Henry Harris, Jr., USA, 135 pages

This study investigates a solution of how to integrate U.S. Army Special Operations Forces (SOF) into viable counternarcotics missions should current legal restraints be lessened, authorization be granted for Special Activities under Executive Order 12333, or legislation be passed that would direct integration. Currently, Special Forces are occasionally tasked to support the Drug Enforcement Administration. The research hypothesis is that counternarcotics missions may be viable for Active Component U.S. Army SOF.

The illegal drug trade continues because of the immense drug smuggling profits, and the civilian law enforcement agencies remain unable to cope with the flow and sale of illicit drugs. Without the dedicated efforts of

additional assets and interagency command and control integration, drug trafficking will continue to flourish.

The study concludes that the research hypothesis is valid and that U.S. Army SOF has the potential to make an immense contribution as long as the mission does not detract from SOF's primary wartime readiness requirements. The study provides operational techniques for employing SOF in various counternarcotics scenarios and argues that selected counternarcotics missions closely parallel SOF wartime missions and those of federal law enforcement agencies. It also provides that SOF must not be committed without a well defined campaign plan, and realistic strategic goals combined with a well defined chain-of-command.

736. COUNTERMINE OPERATIONS IN EL SALVADOR, by Major Kevin M. Higgins, 185 pages.

This study analyzes the mine/countermine environment in El Salvador from 1985 to present. The tactics and techniques of mine/boobytrap employment practiced by the Marxist guerrillas of the Farabundo Marti Liberation Front (FMLN) against the El Salvadoran Government Armed Forces (ESAF) are examined in detail. The countermeasures taken by the ESAF, with the assistance of the US advisory effort, are reviewed. This environment is described based on research of available books and periodicals, El Salvadoran Government and FMLN documents, as well as from personal interviews of ESAF personnel and US advisors.

Research reveals that FMLN mine warfare has been very effective against the ESAF. In contrast, ESAF countermeasures have met with limited success. In many cases countermeasures cannot be accurately assessed due to an inadequate ESAF mine/boobytrap reporting system. The US advisory and assistance effort has focused primarily on equipment, specifically physical protective gear and metal detectors.

In drawing conclusions and recommendations, it was helpful to review the US forces countermine efforts in Vietnam 1964-1972 against a very similar mine threat posed by the Viet Cong/North Vietnamese. This review revealed that although the US was never able to fully resolve the mine problem either, their development of a mine/boobytrap intelligence reporting system enabled them to prevent enemy mining attempts as well as reduce the effects of emplaced mines. A similar reporting system enabled them to prevent enemy mining attempts as well as reduce the effects of emplaced mines. A similar reporting system is recommended for ESAF. US analysis also revealed that mine detectors and likewise, ESAF is recommended to focus their countermine efforts on training the individual soldier in visual detection techniques.

The study concludes by recommending that those US forces preparing for possible deployments to Central America, or similar low intensity environments, must incorporate realistic mine/boobytrap training into their schedules. As the popularity of mines/boobytraps spreads among the Latin American insurgent groups, mines/boobytraps will pose a potential threat to US forces.

737. CAN NATO SURVIVE PERESTROIKA?, by Major Willis L. Hintz, USAR, 113 pages.

Can NATO Survive Perestroika analyzes the Soviet Union's economic program "perestroika" and its effects on the military alliance of the North Atlantic Treaty. The treatise questions the interpretation of perestroika as merely economic reform. The central issues addressed: is this purely an economic restructuring; does perestroika also enhance political "venzapnost" (surprise) and economic "maskirovka" (deception) in support of historical

Soviet national goals; and finally what is the potential impact of perestroika on the North Atlantic Treaty Organization.

This thesis concludes with the assessment that perestroika is at its foundation an economic program. However, it also argues that Soviet political ambitions and strategies have not been abandoned but that the Soviets have adapted the means for achieving their ends through a required economic recovery plan.

The research concludes with the theory that perestroika shifts Soviet aggression in Europe to a new plane--economic warfare.

738. U.S. MILITARY ASSISTANCE TO PHILIPPINE GROUND FORCES, by Major James A. Harris, USA, 135 pages.

This study examines the suitability of current U.S. military assistance to Philippine ground forces. The research hypothesis is that the scope and form of current military assistance to the Philippines is not optimum and that more, or different, aid is warranted.

The study profiles the communist insurgency; the Aquino administration's counterinsurgency policies; and the composition of AFP ground forces and their counterinsurgency programs. It investigates and analyzes the extent of U.S. military aid, both direct and indirect.

The study concludes that the insurgency presents a real and immediate threat to the Aquino administration; and that the Aquino administration has no clear national COIN strategy integrating civil and military efforts. It further concludes that both the U.S. and the AFP may optimize U.S. aid by adopting several initiatives; and that the use of U.S. advisors is appropriate only in a limited "train-the-trainer" role.

739. DUTCH DEFENSIVE PREPARATIONS, 1933-1940, by Major John R. Kennedy, USA, 126 pages.

This study is an historical analysis of the military preparations made by the Dutch from the appointment of Adolf Hitler as Chancellor of Germany in 1933 until the German invasion of the Netherlands in 1940. The impact of Dutch history, national character, defense and security policy, national leaders, and the organization of the armed forces is examined based on contemporary accounts and reports submitted to the War Department from American military attaches stationed in Europe.

Among the many conclusions which could be drawn from this investigation are: Dutch defensive preparations during the period were generally inadequate although the total number of soldiers mobilized was entirely sufficient, the national defense and security policy was not based on a realistic appraisal of the German threat or Allied assistance, the Dutch Army was unable to withstand a German invasion alone, the successful Netherlands policy of neutrality in World War I greatly contributed to the nation's attempt to stay out of World War II by remaining neutral, the government possessed few perceived policy options due to the country's neutrality by the spring of 1940, and the national leadership never endeavored to mobilize public opinion to support increased military preparedness.

The study concludes that the national civilian and military leadership failed to understand the nature of the German threat in time to effectively prepare its defenses.

740. DOES THE ARMY NEED A MEDICAL DRAFT?, by Major Jack L. Killen, USA, 151 pages.

The study identifies the magnitude of the shortfall of health care personnel to meet the wartime medical requirements of the United States Army. It identifies the total personnel shortfall, critical types of personnel and specific job skills by component.

The Army's dependency upon elements of the Reserve Component which may not be available upon mobilization is reviewed. The effect of the shortages on trained strength in units is noted.

Some of the history of the draft in the United States and historical solutions to the medical strength problem are then reviewed.

Currently proposed retention methods are applied to the shortfall and the results are compared to the wartime requirements in four different wartime scenarios, all within one year.

New acquisition and management programs are examined, and projections made about how effective they would be given the same four wartime scenarios as before.

Different forms of compulsory services are compared to the remaining shortfall under the wartime scenarios and the results are discussed.

Among the conclusions drawn are: (1) without legislation enacted and a medical draft mechanism in place before M-day, no solution discussed will solve the problem (even within six months); (2) without new draft legislation, expanded use of retirees appears to be the most responsible alternative; (3) the "best" apparent solution is a "standby" draft keyed to the strength of the Selected Reserve, the Individual Ready Reserve and the Inactive National Guard. An operating standby draft would provide units that are training together and near full strength along with an identified pool of individual replacements on M-day.

The study concludes that if a "standby" draft cannot be ongoing, the only other suitable alternative is legislation permitting a draft of medical manpower well in advance of the mobilization of the force.

741. SURRENDER - A SOLDIER'S LEGAL, ETHICAL, AND MORAL OBLIGATIONS; WITH PHILIPPINE CASE STUDY, by Major Matthew S. Kilmow, 186 pages.

This thesis examines what a soldier's legal, ethical, and moral obligations are when he is ordered to surrender but still has the will and means to resist. The question pits two of the military's highest values against one another. The first is the imperative to obey orders of legally constituted commanders. The second is the military virtue of fighting the enemy as a soldier is able.

Legal obligations are addressed at two levels beginning with international law regarding capitulation agreements, followed by United States military law concerning discipline and obedience. The American military ethic is examined with emphasis on the Code of Conduct and its strong injunction against surrender. Finally, law and the military ethic are linked to personal moral values and the difficult decisions a soldier has to make when forced to choose between surrender and disobedience.

A case study of the American surrender of the Philippines in 1942 is used to illustrate this complex dilemma. Diaries, letters, and other historical material were examined to weigh the actions of American soldiers in a legal, ethical and moral context. Additionally, a written questionnaire and personal interviews were conducted to solicit first person accounts of the decisions made regarding surrender.

The study finds that the law, the military ethic, and personal moral values are likely to conflict when soldiers are ordered to surrender while they still have the means to resist. While no definitive solution is provided to this complex moral dilemma, the author provides several key factors that should be considered before a soldier chooses a course of action in this different situation.

742. THE JOINT LESSONS LEARNED SYSTEM AND INTEROPERABILITY, by Major Alan D. Landry, USA, 213 pages.

This study analyzes the evolution of the Joint Lessons Learned System. It examines historical evidence of interoperability issues in US joint military operations from World War II to the present. Three major conflicts: World War II, Korea, and Viet Nam, are surveyed to identify basic issues, factors affecting problem resolution, and general trends. Six contingency operations: Lebanon, 1958; Congo, 1964-1965; Dominican Republic, 1965-1966; Cambodia (Mayaguez), 1975; Iran, 1980; and Grenada, 1983, are then examined in similar fashion.

This review provides the rationale for an effective, institutionalized Joint Lessons Learned System. Based on the evidence, the study then traces the evolution of the Joint Lessons Learned System from 1979 to the present. Primary tools of analysis are two US General Accounting Office Reports issued in 1979 and 1985, recent Congressional documents, the 1986 Goldwater-Nichols Defense Reorganization Act, and interviews with key personnel involved in Joint and Army Lessons Learned Systems.

Basic conclusions of the study are: interoperability issues are resistant to resolution; clear patterns of failure exist in critical fields including intelligence, communications, fire support, logistics, airlift, and command and control; and lessons learned activities have not been institutionalized in a systematic and cohesive fashion. Resolution of recurring interoperability issues depends on reversal of these trends.

The study concludes that increasingly enhanced threat force capabilities are certain to escalate the cost of future success. The study argues that the defense community should carefully nurture the embryonic Joint Lessons Learned System and move quickly to develop supporting Service Lessons Learned Systems. Cost-effective recommendations are offered which, if implemented, could significantly alter the effectiveness of current lessons learned activities and assure their survival in times of austerity and challenge.

743. COMMAND AND CONTROL OF LAND FORCES DURING JOINT OPERATIONS, by Major William C. Lockwood, USA, 144 pages.

This study is an historical analysis of command arrangements for land forces and the changes which were required by events. The study analyzes contingency operations in Lebanon, 1958; the Dominican Republic, 1965; and Grenada, 1983; as a means of developing the context in which command and control decisions were made and their impact on the actual operations. The study also considers the effects of Joint and Service doctrine on the planning and execution of the land force mission.

The study concludes that past and current doctrine does not adequately address the simultaneous conduct of airborne and amphibious operations or the establishment of a land forces commander. Historical examples used through the course of the study support the these that unit of command of land forces is a pre-requisite for future operations of this nature.

744. SYNCHRONIZATION OF COMBAT POWER AT THE TASK FORCE LEVEL: DEFINING A PLANNING METHODOLOGY, by Major Clyde L. Long, USA, 169 pages.

This study seeks to identify a planning model and matrix from current doctrinal sources that explains how to synchronize combat operations in planning. It examines most current and emerging heavy maneuver doctrine specifically in regard to the synchronization process defined in FM 100-5, Operations.

The review of literature concludes that current doctrine does not define the synchronization process at any level of command. In addition, the review of literature reveals that the terms necessary for an understanding of how to synchronize combat activities are confused in U.S. doctrinal manuals.

The thesis presents definitions for the terms activities, battlefield operating systems; redefines planning factors; and relates these terms to time, space, and purpose used in the doctrinal definition of synchronization.

The study concludes that the model and matrix are applicable for use as instructional aids and for use by field units to help organize the myriad of activities that occur during the planning of combat operations.

745. MENTORING: ITS EFFECT ON BLACK OFFICERS' CAREER PROGRESSION WITHIN THE U.S. ARMY, by Major E. James Mason, USA, 151 pages.

This study addresses the mentoring experiences of black and white senior Army officers. Principally, this study investigated the nature of black senior officers mentoring experiences and the perceived effect of those experiences on their career progression. It also examined the number of both groups' mentoring experiences and their perceptions of the role of mentors to ascertain the prevailing thought among the population. The research hypothesis of the study is that there is no correlation between mentoring and black officers' career progression within the U.S. Army. The study uses statistical tests to analyze black and white senior officers' responses to the "Senior Officers" Perceptions of Mentoring Survey," and to determine if there were significant differences in their perceptions of mentoring.

The study concludes that the research hypothesis is invalid. Black senior Army officers perceive that mentoring helps black officers' career progression within the US Army, and that mentoring is an important factor in their present career success. Also 59% of the black senior officers surveyed reported having been involved in a mentoring relationship. Further, most of them first received mentor interest prior to their 11th year of service.

Moreover, 58% of the senior Army officers reported having been involved in a mentoring relationship. Their attitudes towards mentoring were positive, and they reported that mentoring was an important career development tool that added to junior officers' job satisfaction and success in the organization.

The study also concludes that senior officers perceive that mentors should definitely assume the roles of role model, counselor, and teacher.

746. THE AMERICAN AND GERMAN INFANTRY BATTALIONS, 1944, by Major Paul E. Melody, USA, 219 pages.

This study analyses the American and German armies' 1944 infantry battalion doctrine, organization, and weapons. From this analysis it is possible to understand the inherent strengths and weaknesses the American and German infantry battalions brought to the battlefield in 1944. The study also discusses each army's prewar infantry doctrine and battalion organization, demonstrating the influence each army's peacetime concepts had on its wartime doctrine. In conclusion, the study suggests why each army's infantry possessed its particular strengths and weaknesses, and how these strengths and weaknesses might have affected combat performance.

747. HOW CAN SURPRISE BE ACHIEVED TODAY AT THE OPERATIONAL LEVEL OF WAR, by Lieutenant Colonel James Meredith, USA, 101 pages.

The primary purpose of this study is to determine how surprise can be achieved today at the operational level of war. Two supporting questions are answered as well. These are: What are the theoretical and historical foundations for the concept of surprise? And specifically, what are the ways, means, and effects (ends) of achieving surprise at the operational level of war?

The theory of surprise can be drawn from the writings of both classical and contemporary theorists. Leading military theorists who discuss the element of surprise include Sun Tzu, Carl Von Clausewitz, Baron de Jomini, J.F.C. Fuller, Bh.H. Liddell Hart, M.M. Kiryan, V. YE. Savkin, Michael Handel and Edward Luttwak. These theorists provide assertions about the desirable effects (ends) of surprise and the various ways and means to achieve those effects.

Three historical case studies of campaigns and major operations undertaken during the period 1944 and 1950 are examined for evidence of these theoretical assertions. These case studies include Cobra (1944), Manchuria (1945), and Inchon (1950). Evidence found in these three historical case studies provides a tentative validation for the theoretical framework of surprise. This framework is then compared to four case studies of more contemporary campaigns and major operations undertaken during the period 1968 to 1979. These case studies include Tet (1968), Czechoslovakia (1968), Sinai (1973), and Afghanistan (1979).

Evidence resulting from the comparative analysis of the theoretical and historical framework, and modern case studies, supports the conclusion that surprise can be achieved today at the operational level of war by attacking at an unexpected time, place, and manner using the means of deception and speed. More specifically, attacks must be timed during a period when the defender is relaxed, in a direction that is inconvenient to the defender, using unexpected weapons and tactics, masking troop buildup through deception and using speed of movement along ground and air routes in order to concentrate attacking forces. Military forces, fighting outnumbered, who desire to achieve decisive victory must use surprise skillfully in order to achieve the operational advantage.

748. DEVELOPING A FOUNDATION FOR SPACE DOCTRINE: DO ALL THE PRINCIPLES OF WAR APPLY TO MILITARY SPACE OPERATIONS?, by Major James H. Mueller, USA, 108 pages.

Since 4 October 1957, when the first manmade satellite, Sputnik, orbited around earth, satellites and the space environment have played an increasingly important role in society. This is particularly true for the military. Today, the military uses space-based capabilities in the fields of reconnaissance and surveillance; command, control, and communications; missile launch detection and early warning; meteorology; geodesy; strategic and tactical targeting; and, in the case of the Soviet Union, weapons (such as its antisatellite and laser programs). However, space operations doctrine has not kept pace with space technology or the military's use of the space environment. This study looks at a fundamental aspect of doctrine, the principles of war, and whether currently accepted terrestrial principles apply to military space operations.

The study uses the Air Force principles of war, listed in AFM 1-1, Basic Aerospace Doctrine of the United States Air Force, as the framework for this research. The author's analysis concludes that these principles of war do apply to military space operations at the strategic and operational levels. Since the military does not have space warfare experience that can be used to

develop warfighting doctrine, the current principles of war should be used as a foundation for developing doctrine for military space operations.

749. THE POLITICAL IMPACT OF AN ISLAMIC REVIVAL IN A PLURAL SOCIETY: THE CASE OF MALAYSIA, by Major Ng Yat Chung, 101 pages. *Singapore*

Like many other multiethnic countries, Malaysia has seen a revival in Islamic fundamentalism in her Muslim populace since the seventies. The ongoing revival has led to pressures on the Malaysian government to establish an Islamic state in the country. Since the eighties, this revival is associated with a deterioration in political relations between Muslims and non-Muslims and a heightening of domestic tensions in the country. This study examines the process by which the activities of Islamic revival movements have contributed to the polarization in Malaysia's domestic politics.

The study analyzes the characteristics of the revival and the impact on some key areas of Malaysian politics. These areas include Muslim and non-Muslim interests, governmental response to the revival, responses of major political parties, and changes in the alignment of popular support for these political parties.

The study shows that the government has adopted conciliatory responses toward the demands of Muslim revivalists because of the pivotal role of the Muslim vote in the electoral process. Such responses have been detrimental to the interests of non-Muslims, resulting in a deterioration in relations between Muslims and non-Muslims at the grassroots level, and a polarization of support for political parties along ethnic lines. If the momentum of the revival continues, interethnic relations are likely to continue deteriorating.

750. THE REACTIVATION OF THE WESTERN EUROPEAN UNION: AN ANALYSIS OF THE ROLE OF THE WESTERN EUROPEAN UNION (WEU) IN THE FORMATION OF A EUROPEAN PILLAR WITHIN NATO, 1945-88, by Major Patrick F. P. Nopens, Belgium, 169 pages.

Founded in 1954, the WEU soon lapsed into obscurity in the shadow of NATO. In 1984 it was reactivated. The WEU is the only Western European organization mandated to treat security problems outside NATO.

This study uses the US Command and General Staff College's Strategic Analysis Model. However, it supplements it in three ways: a historical overview of NATO and Europe between 1945 and 1988; an analysis of the tensions within NATO; and a study of possible strategies of reform of the transatlantic relationship.

Among the conclusions drawn from this investigation are: the tensions within NATO result from both American impatience about burden sharing and European frustration about "power sharing;" since 1984 the members of the WEU demonstrated a clear will to develop a real forum of security matters; potentially the members of the WEU can create a powerful basis for a European Pillar within NATO; and integration of Western Europe will not be complete until it has drawn up a common defense policy.

The thesis concludes that the WEU is fulfilling its role at present. However, it emphasizes that once all members of the EEC join the organization, the WEU will have outlived its utility as an independent institution.

751. THE SECOND SHABAN INVASION: The French and Belgian Intervention in Zaire in 1978, by Major Thomas P. Odom, USA, 181 pages.

This study is a historical analysis of the 1978 Shaba Province Invasion in Zaire that culminated in three independent rescue missions to save expatriate mine workers from being killed as hostages. The study encompasses earlier crises in the country, tracing the origins and history of the Katangan

Gendarmerie from its creation in 1960 to the invasion of 1978. For the first time, this study includes the entire Western response to the invasion: the initial airborne operation by the Zairian Army; the airborne assault by the French Foreign Legion's 2nd parachute Regiment; and the air assault landing by the Belgian Paracommando Regiment. In doing so, it addresses the abortive Zairian airborne operation that set off the massacre of expatriate mine workers and forced a European reaction to the murders. Next the thesis examines the French response to the crisis through the use of primary source materials such as the operations orders, daily journals and after action reports. The study then addresses the Belgian response to the crisis through the Belgian Army's official publications, the Belgian news media, and personal documents of the then Regimental operations officer. Overall, the thesis uses United States Department of State message traffic to document the actions taken during the invasion.

Non-combatant evacuations are a common peacetime contingency mission, often coupled to the rescue of hostages. In this study, it is apparent that the Zairian response to the invasion led to most of the deaths involved. It is equally apparent that the French and Belgian political attitudes colored their military approach to the operation. The French deployed to restore order to the province and the Belgians went to Kolwezi on a strictly humanitarian rescue. As a consequence, each developed independent plans for the mission; plans that were not coordinated until the two European forces were shooting at one another.

Despite the political differences between the French and the Belgians, certain needs were basic. Among those, the first was extensive airlift support throughout all phases of the operation. Next was the requirement for effective training to deal with a rapidly developing situation. Additional medical support that could be deployed fully by air was also needed as was long-range communications support. The list continues, and in doing so, proves that such operations are challenging and worthy of serious study.

752. ONE TANK, THIRTY-ONE BOXES OF .50 CAL, and ELEVEN MEN: An Analysis of the Armor-Infantry Team in Korea, June 1950 through July 1952, by Major Ronald D. Offutt, USA, 142 pages.

This thesis analyzes the ability of the United States Army to incorporate the lessons of history in the evolution of doctrine. The analysis focuses on armor-infantry team doctrine and uses task force level operations during the Korean War to resolve the analysis issue.

The study conducts an analysis of armor-infantry doctrine from its conception in Army manuals in 1941 through 1950. Capstone doctrinal material such as Field Manual 100-5, Operations, and battalion-level manuals are examined. Other relevant doctrinal material is included to create a detailed picture of how the armor-infantry team was to conduct operations.

Unit structures and training are also examined to determine the ability of committed units to implement doctrine. Published doctrine is then compared to actual armor-infantry operations during the Korean War.

The study concludes that the Army effectively included the lessons of World War II in the development of armor-infantry doctrine. Regardless of the literature and the opinion of senior military leaders that doctrine was understood, the field army failed to understand and implement basic armor-infantry doctrine during the Korean War. The study also concludes that the successful implementation of doctrine requires adequate support systems, tailored organizations, and realistic training.

753. THE EVOLUTION OF FM 100-20, COMMAND AND EMPLOYMENT OF AIR POWER (21 JULY 1943): THE FOUNDATION OF MODERN AIRPOWER DOCTRINE, by Major John P. Owens, USAF, 274 pages.

This study examines the evolution of the Army Air Forces' "Declaration of Independence." Released without the concurrence of the Army Ground Forces, FM 100-20 was a distillation of previously existing doctrine and lessons learned in combat in Northwest Africa during 1942-43. The study demonstrates that all but a few of the essential elements of sound airpower doctrine existed prior to FM 100-20's release. The study suggests, however, that certain flaws in the previous doctrine coupled with the failure of air and ground commanders adhere to the most current doctrine available contributed substantially to the initial difficulties they experienced in Northwest Africa.

Citing contemporary primary source evidence, the study shows that thoughtful combat commanders recognized these failures and moved to correct them prior to the Battle of Kasserine Pass. FM 100-20 was written following the Axis surrender in Northwest Africa and was based on the recommendations of the combat commanders who fought there. The study concludes that it incorporated the valid portions and corrected the flaws of the preceding doctrine and was not, as has been suggested, merely a subterfuge to further the goal of Air Force "self-determination...under the guise of lessons learned in battle at Kasserine."

754. F-16 LOW ALTITUDE NAVIGATION AND TARGETING INFRARED SYSTEM FOR NIGHT AND THE NIGHT CLOSE AIR SUPPORT MISSION, by Major Michael W. Palmer, USAF, 133 pages.

This study examines the capabilities and limitations of the F-16 low altitude navigation and targeting infrared system for night (LANTIRN) to perform the night close air support (CAS) mission in Central Europe. The study examines the needs of the ground force commander for CAS in the night battle, assesses the threat posed by the Soviet integrated air defense systems, and measures the capabilities and limitations of the F-16 LANTIRN performing the night ground attack role. It applies those night ground attack capabilities to the specific requirements of CAS and makes a recommendation based on the analysis of employment effectiveness.

This study reveals that the need for night CAS is real. The LANTIRN system gives the F-16 pilot a new, survivable, night, low-altitude attack capability in the Central European threat environment. But the unique mission requirements to effectively conduct air attack in support of troops-in-contact at night are not adequately met by this weapon system.

755. LIGHT INFANTRY AUGMENTATION TO HEAVY DIVISIONAL FORCES IN EUROPE: A EUROPEAN HEAVY-LIGHT PRIMER, by Major David L. Poston, USA.

This study examines the utility of augmenting heavy divisions in the European Theater with light infantry forces. It assesses and expresses the optimum tactics and techniques for thus created heavy-light force. The study provides a bridge over the knowledge gap on how to fight a heavy-light force within a heavy division in a high-intensity European environment.

This study acutely investigates why heavy and light forces currently exist with the U.S. force structure; provides historical insight on heavy-light operations and light infantry in World War II, assesses light infantry of the 1980's, examines doctrinal principals and augmentation requirements for the employment of heavy-light forces, reviews heavy-light insights and lessons learned, and examines the impact of the European (West German) environment and Soviet threat. This study then quantifies qualitative data by addressing

alternative tactics against a set of attributes using technique for order preference by similarity to ideal solution.

The study concludes that the optimum tactic and technique for the heavy-light force is to utilize the light forces in a MOUT role when conducting offensive and defensive operations and that when given a choice between offensive and defensive operations, the optimum use of its light forces is defensive.

756. JOHN FORD'S CAVALRY TRILOGY: MYTH OR REALITY?, by Major Jeffrey C. Prater, USAF, 167 pages.

The study analyzes John Ford's films Fort Apache (1948), She Worn a Yellow Ribbon (1949), and Rio Grande (1950) for their historical portrayal of the frontier cavalry. Ford is acknowledged as one of America's foremost chroniclers and myth-makers. His films comprise a significant body of film and cultural history, reflect his values and attitudes, and offer conflicts between historical accuracy and cinematic considerations. The analysis begins by examining the personal and business influences shaping Ford's work. The study then examines each film for historical accuracy in the areas of people, places, and events; uniforms, equipment, and accouterments; the profession and garrison life; and finally, the American Indian and military operations.

The later appellation of "trilogy" for Ford's three films is appropriate for several reasons. Each film offers the same subject, similar character types with the same names, recurring musical themes, and the same actors. Lastly, the films were made in consecutive years. In Fort Apache, a glory-seeking regimental commander leads his men to overwhelming defeat at the hands of the Apache Indians. She Wore a Yellow Ribbon treats the last days of a seasoned captain's career during the aftermath of the Custer debacle. In Rio Grande, the cavalry conducts an unofficially sanctioned punitive expedition into Mexico against renegade Apaches.

With notable exceptions, Ford accurately portrays the frontier cavalry of the 1870's. As mythmaker, he embellishes the image of the West using Monument Valley and strengthens the Custer legend throughout the trilogy. The films suffer from significant discrepancies in uniforms, equipment, and accouterments, but these are more than offset by other factors. Ford's depiction of the profession and garrison life are his greatest achievements; he accentuates the feel and mood of the films with authentic music. Although he generally does not depict actual events, Ford's action parallels historical occurrences and adds to the credibility of the pictures. Finally, his portrayal of the Indian-fighting army only adds to the judgment he is more chronicler than mythmaker.

757. NOMADS OF THE BATTLEFIELD: RANGER COMPANIES IN THE KOREAN WAR, 1950-1951, by Major John G. Provost, USA, 92 pages.

This study analyzes the creation, use, and subsequent inactivation of the U.S. Army Ranger Companies during the Korean conflict from October of 1950 to August of 1951. The records and correspondence of the Office of the Chief of Staff for Operations, U.S. Army and historical after action report of the 8th U.S. Army in Korea provide the materials to analyze the Rangers.

The study asks were the organization and methods of employment of the Ranger Companies conducive to their effective use. The study also seeks to answer the questions: (1) How were the ranger companies employed in Korea? (2) What impact did they have in the conflict and upon the U.S. Army? (3) Would they have been more effective under a different organization?

Army Chief of Staff, General J. Lawton Collins ordered the creation of the Ranger Companies of the Korean conflict. He wished to create "Marauder"

units to operate behind enemy lines, attacking their tank parks and assembly areas. This mission was developed as a response to the enemy's assault infiltration tactics launched against American rear areas during the early part of the Korean conflict. The first Ranger company to serve in Korea was a provisional unit formed in October 1950, to test Collins' concept. This unit was inactivated upon arrival of the 5th Ranger Company in Korea in February of 1951. Along with the 5th, the 1st, 2nd, 3rd, 4th, and 8th Ranger Companies served in Korea beginning in December 1950. However, by June of the following year the Department of the Army decided to inactivate these units and accomplished this by 1 August 1951.

Throughout the period of their existence the Ranger Companies acquitted themselves well as a fighting force, but were usually employed as just another company or as a sort of fire brigade for the division commander rather than in the raiding force role initially envisioned. Some of the problems in the employment of the Ranger Companies were the absence of sound intelligence on enemy rear areas and the lack of critical targets behind the front lines of the North Koreans and Chinese. The nature of the conflict and the subsequent concern to limit U.S. casualties all contributed to their eventual inactivation. Lack of intelligence on the enemy, and insertion/extraction assets at divisional level precluded their effective use as a deep raiding force.

The study concludes that although the Army Staff and major commands saw no need for Ranger units, they did see a need for ranger trained personnel. This resulted in the formation of the Ranger School concurrently with the inactivation of the Ranger Companies.

758. THE CAMP DAVID PEACE ACCORDS: A MODEL FOR GREECE AND TURKEY, by Major James C. Ransick, USA, 169 pages.

This study examines the ongoing Greece-Turkey conflict and the 1978 Camp David Peace Accords in an effort to determine whether or not the successful 1978 approach can be modified and adapted to bring peace to Greece and Turkey. The focus throughout the thesis is on the military perspective.

The methodology used to develop the study is a historical, descriptive comparison approach. The analysis begins with a historical review of all the issues that form the current Greek-Turkish dispute. This is followed by an examination of the importance of these two NATO allies to both the United States and the Soviet Union. Included in this discussion is a detailed look at the Soviet Union's regional interests and the methods the Soviets currently use to expand their influence in the region. Balancing the Soviet perspective is a review of United States' relations with Greece and Turkey, which also includes addressing United States regional interests.

The final block of the historical analysis is a review and study of the domestic and international situations that led Egypt and Israel to sign the Camp David Accords. The conclusion of the historical study contains an examination of the Camp David negotiating process and the Accords themselves.

The subsequent descriptive comparison and integration of the Camp David model with the Greece-Turkey conflict divides the hostile issues into three categories (security, territorial, and economic) and then compares the two cases to determine their likeness. After running this comparison, the study concludes that the Greek-Turkish dispute is analogous to the situation that faced Egypt and Israel prior to the Camp David Summit. It further concludes that the Camp David approach will work in the Aegean if properly adapted to the situation.

The final analysis indicates that the United States cannot afford for the ongoing dispute to continue unabated. The summer of 1989 will offer the

optimum time frame for President Bush to initiate a Camp David peace approach in the Aegean, primarily because of the domestic political situations in Greece, Turkey, and the United States.

759. ROSECRANS' STAFF AT CHICKAMAUGA: THE SIGNIFICANCE OF MAJOR GENERAL WILLIAM S. ROSECRANS' STAFF ON THE OUTCOME OF THE CHICKAMAUGA CAMPAIGN, by Captain Robert D. Richardson, USA, 208 pages.

Probably the most unpredictable variable in the "Fog of War," next to leadership, is the command and control process, comprised of three components: organizations, process, and facilities. Organizations include the formulation of staffs by the commander to accomplish the mission. Incorporated in the organization of the staffs are the roles, responsibilities, and functions.

Large Civil War armies like the Army of the Cumberland and the Army of the Tennessee required significant numbers of staff officers to support the armies logistically and to maneuver them operationally. During the Campaign and Battle of Chickamauga, these staff officers often played major roles and were instrumental in determining the outcome of the battle. The roles and functions performed by these staff officers evolved through the history of conflict.

This study is an analysis of the roles, responsibilities, and functions of general Roecrans' staff prior to and during the Chickamauga campaign, using lessons learned in comparison to current Army doctrine on command and control. Primary sources for staff information on the Army of the Cumberland are the Official Records and actual telegrams from the staffs during this period. Doctrinal manuals on senior level staffs did not exist; therefore, these staffs were composites of regimental and War Department staff positions and ad hoc positions. The study uses evolving doctrine from Command and General Staff College that defines an outstanding staff as one that informs, anticipates, coordinates and executes the commander's guidance with enthusiasm and innovation.

This study concludes that Rosecrans' staff was significant to the outcome of the Battle of Chickamauga. Although none of the staff functions developed critical deficiencies during the campaign, their inability to relieve the commander of administrative burdens compelled him to abandon the battlefield.

760. THE SUITABILITY OF USING AN EVOLUTIONARY ACQUISITION STRATEGY IN JOINT ACQUISITION PROGRAMS FOR COMMAND AND CONTROL SYSTEMS, by Major Samuel A. Robinson, Jr., USAF, 136 pages.

The purpose of this study is to determine the suitability of using an evolutionary acquisition strategy in joint acquisition programs for command and control system. The policies of the Office of the Secretary of Defense and of the Joint Logistics Commanders support the use of an evolutionary acquisition strategy in acquiring command and control systems. At the same time, these policies note that the unique circumstances of individual programs should be considered. This study examines the unique circumstances of joint acquisition programs and relates these circumstances to the evolutionary acquisition of command and control systems.

This study has two conclusions. First, the Packard Commission's criterion--an informed tradeoff between user requirements, on the one hand, and schedule and cost, on the other--is (of several sets of criteria presented) the only one upon which to base a decision on the research question. Second, on the research question itself--the suitability of using an evolutionary acquisition strategy in joint acquisition programs for command and control systems--based on the Packard Commission's criterion, the

conclusion is: No, an evolutionary acquisition strategy is not suitable to use in joint acquisition programs for command and control systems.

This study has two recommendations. First, the policies relative to evolutionary acquisition and the policies relative to joint acquisition must consider the effects of each. That is, any evolutionary acquisition policy must consider the unique challenges faced by a joint acquisition program; and the corollary--any joint acquisition policy affecting command and control systems must consider the special attributes of these systems. Second, since the rules for an evolutionary approach do not accommodate the day-to-day realities of program management, further study must focus on how to make the accommodation happen.

761. THE BATTLE OF ASCHAFFENBURG: AN EXAMPLE OF LATE WORLD WAR II URBAN COMBAT IN EUROPE, by Major Quentine W. Schillare, USA, 202 pages.

The Battle of Aschaffenburg examines the fight for the Main River city of Aschaffenburg in the closing weeks of World War II in Europe. It investigates the reasons why it took mobile and well supported elements of the U.S. Army ten days to subdue a defending German military force that was very much militia in character. After setting the battle in the context of Nazi Germany and the Aschaffenburg region just prior to the fight, the study takes the reader through the battle day-by-day describing the struggle and establishing the reasons why it was so prolonged.

The study groups the reasons for the successful German defense into three categories: terrain, operational factors, and behavioral determinants. It establishes that the terrain favored the defenders with the town so located across the Main River from the attackers that they were forced into frontal assaults. Granting favorable defensive terrain, it was not until a numerically superior attacking force enveloped the urban defenses, under the cover of massive fire support, that the Americans gained the upper hand. The study further demonstrates the impact of the concept of the will to win on military operations, even in a hopeless cause.

The Battle of Aschaffenburg addresses European urban combat in the context of World War II and concludes that the factors relevant to success then are still applicable. An attacker must carefully plan operations in urbanized terrain, follow doctrine, and be physically and mentally prepared for a difficult fight.

762. MILITARY INVOLVEMENT IN POLITICS IN NIGERIA: THE EFFECT ON NIGERIAN ARMY, by Major Habibu I. Shuaibu, Nigerian Army, 118 pages.

This study examines military involvement in politics in Nigeria and its effect on the Nigerian Army. The study begins with the assumption that military involvement in politics has some effects on the military as a profession. In determining these effects, this study traced first, the historical events that led to the first military intervention in the political process of Nigeria. Second, are the subsequent military interventions that have taken place in Nigeria and the reasons behind them. Third, is the impact of military rule on the Nigerian Army.

The study concludes that the military intervened in politics because of the political problems of Nigeria which were exacerbated by ethnic and regional differences. As a result, the military continued to rule Nigeria for 19 years out of its 29 year post independence history. Throughout this period, military rule has had some positive and negative effects on the Army.

This study also concludes that in spite of the positive impact that the military rule has had on the Army, there are negative effects which adversely affect the Army's proficiency. As Nigeria is now preparing to hand over power

to a civilian government in 1992, this study recommends some strategies for depoliticizing the military before the handing over date.

763. AIR REFUELING DEMANDS OF A EUROPEAN DEPLOYMENT: AN ANALYSIS OF THE IN-FLIGHT REFUELING CAPABILITY OF THE U.S. AIR FORCE IN SUPPORT OF A RAPID REINFORCEMENT OF NATO, by Major Jan M. Swickard, USAF, 114 pages.

This study is an examination of the capability of U.S. Air Force air refueling assets to support the demands of a rapid reinforcement of NATO. The United States is committed to reinforce NATO with an additional six Army divisions, 60 tactical fighter squadrons, and a Marine Expeditionary Brigade within ten days of a decision to mobilize. The air refueling assets available to support such a deployment are small in number and it is expected they will be heavily taxed by deploying cargo and fighter aircraft. Add in strategic bomber, strategic reconnaissance, and fighter employment taskings, and it is easy to see how air refueling tanker support will be at a premium.

Among the most pertinent findings from this investigation are: air refueling is necessary to ensure the fastest deployment operation possible; air refueling is required in order to maximize cargo loads on airlift airplanes; and air refueling assets will be required for more taskings than just the deployment.

The study concludes that U.S. Air Force air refueling assets are not sufficient to adequately support the demands of a rapid reinforcement of NATO.

764. HUMAN POWERED VEHICLES IN SUPPORT OF LIGHT INFANTRY OPERATIONS, by Major Stephen T. Tate, USA, 179 pages.

This study examines the suitability of using bicycles to enhance the mobility of U.S. light infantry units. Initially the study defines mobility problems encountered by U.S. light infantry units as a result of force design. The study presents historical examples of previous military cycling operations at the turn of the century, during both World Wars, and the Vietnam Conflict. The tactical use, mobility, speed, distance, and load carrying capacity of bicycle troops during each of these periods are discussed. The present use of three bicycle regiments in the Swiss Army is examined. The impact of recent technological improvements in the bicycle industry is examined for possible military application.

The investigation found that previous infantry units equipped with bicycles enjoyed a significant mobility advantage over foot soldiers. The Swiss cycle regiments continue to demonstrate the utility of the bicycle on the modern battlefield. The study determined that recent improvements in bicycle technology serve to further enhance its military use.

The study concludes that equipping U.S. light infantry units with the bicycle would significantly improve their tactical mobility, yet allow them to retain their present force design.

765. TEACHING MISSION ORDERS IN OFFICER ADVANCE COURSE INSTRUCTION: REALITY OR MYTH?, by Major Robert J. Tezza, USA, 159 pages.

This study examines the relationship between tactical instruction in officer advance courses and the Army's current command and control doctrine. Using content analysis techniques, the study analyzes and compares USAIS and USAARMS tactical instruction. This analysis and comparison focuses on the substance, content, and construction of mission statements. This study reveals USAIS orders achieve a ration of favorable to unfavorable content over two times greater than USAARMS. Although many similarities exist between both schools' instruction, this study discovers USAIS teaches mission analysis and

course of development different from USAARMS. Moreover, USAIS emphasizes use of the Army's current terms to construct mission statements.

The study concludes the Army needs to modify its current estimate process. USAIS teaches a method of mission analysis and course of action development in total harmony with the Army's current C<sup>2</sup> doctrine. Equally important, the Army needs to refine its tactical language to provide commanders necessary means to express their concept of operation to subordinates in a concise and clear manner.

766. COMBAT DIVIDERS, by Major William H. Walsh, USA, 186 pages.

This study traces the development of the Concept Based Requirements System (CBRS) as a methodology for the management of change. It looks at doctrinal, training, organizational, and materials products that have been developed, provided to soldiers in the field and found not to be operationally effective and suitable. Since these are obviously the inverse of combat multipliers, this study addresses them as combat dividers. This research effort examines the development of these isolated products to determine if the utilization of the CBRS methodology resulted in these failures.

This thesis offers five significant insights. The first is the identification of the requirement for the management of change. The second insight identifies how the U.S. Army developed its current system to manage change. The third insight identifies whether the Concept Based Requirements System will enable the U.S. Army to develop products that are operationally effective and suitable. The fourth insight identifies methodologies that can be used by the combat and training developers to assist in their product designs or their examination of past product developments. Finally, the study offers an insight on how the Concept Based Requirements System can be better understood and utilized by the U.S. Army.

This research concluded that the Concept Based Requirements System will enable the U.S. Army to provide users in the field with products that are operationally effective and suitable. The study also concluded that the reasons the Army is providing soldiers with products that are not operationally effective and suitable are that the personnel developing doctrinal, training, organizational, and material products either do not understand the Concept Based Requirements System or they do not follow it. This paper also discusses why this has happened, its impact on the U.S. Army and offers some organizational and training recommendations to resolve these problems.

767. SHOULD MEMBERS OF THE MILITARY BE CONCERNED ABOUT TELEVISION NEWS COVERAGE OF MILITARY OPERATIONS?, by Major Larry Watson, USA, 166 pages.

This study provides a historical perspective of how the press was controlled during war before television became a major news source. It provides background on the nature of television as a news medium and identifies controls set up to ensure fairness in television news broadcast. These controls are explained to show actions taken to prevent the networks from exploiting their perceived power. The study examines significant events in 1968, during the Vietnam War. It shows how they were covered by the television networks. It seeks to show how they were covered by the television networks. It seeks to show how a credibility gap formed between the military and the press. The study then points out some efforts taken since Vietnam to improve the military media relationship.

Among the many conclusions which could be drawn from this study are: (1) Television coverage of the war in 1968 was biased; (2) The credibility gap lead to the hostile relationship between the military and the press; (3) There was a breakdown in the unity of command in the executive and legislative

branches of the federal government; and (4) Though the impact is not fully identified herein, television influenced the decline of a president.

The study concludes that members of the military should be concerned about television coverage of wartime operations. The concern should be over the possibility of biased and distorted coverage or manipulation of film footage on the national and international levels.

768. STRATEGIC ANALYSIS OF TWO JOINT CONTINGENCY OPERATIONS: LEBANON, 1958 AND THE DOMINICAN REPUBLIC, 1965, by MAJ Charles K. Welliver, Jr., USA, 140 pages.

This study compares the United States use of military power to achieve political aims in Lebanon 1958 and the Dominican Republic 1965. The study uses the Strategic Analysis Model, developed at the Command and General Staff College, to integrate historical data to determine if alternative policy options existed. The alternative options are compared and contrasted against the option chosen to reveal lessons which may be applied to future crises.

The study examines U.S. interests and the history of events in Lebanon and the Dominican Republic leading to U.S. military intervention. The development of alternative policy options explores other solutions in light of U.S. frequent use of military power to achieve national objectives since WW II. While military power seems to accomplish short-term goals it has not provided long-term peace and stability necessary to provide security of U.S. interest.

The conclusions recommend integrating elements of national power, other than military, to provide U.S. long-term goals. This is necessary since history has shown that military power does not provide for long-term solutions. However, lessons learned from the crises indicate when military power must be applied, it must be strong and flexible, maintain neutrality during employment and be followed by political negotiations with participation by all factions.

769. SOVIET DESANT OPERATIONS AND US AIR BASE GROUND DEFENSE: A COMPARISON OF SOVIET AND US CAPABILITIES, by Major N. Wijbrandus, USAF, 80 pages.

This study reviews the historical development of the Soviet desant concept and analyzes Soviet capabilities, as they currently exist, to implement this concept. A similar review and analysis is conducted on the development of the US Air Base Ground Defense concept and current US capabilities. These two sides are then compared to determine whether the US forces are prepared to protect USAF resources against Soviet forces.

The parameters of this thesis assume a conventional war. The focus of this study is central Europe, specifically Germany. Soviet covert operations during peacetime are not addressed except for those which might take place right before the outbreak of a general war.

The research methodology is centered on a review of available literature and a critical assessment of declared Soviet intentions, their capabilities, and anticipated or planned US countermeasures. sources comprise both secondary materials, which are numerous, and a more limited number of primary sources.

The study concludes that the US forces are not adequately trained and equipped to deal with the likely Soviet threats. Soviet forces targeted against air bases have more firepower and mobility than the defenders. Also, joint Army and Air Force base defense doctrine is in a state of flux. Both the Army and Air Force base defense units need more firepower and better equipment, and most of all, the Air Force Security Police units need to be

allowed to establish a defensive area off base. To achieve such improvements in air base ground defense capability will necessitate a reinitiation of the cooperative effort which resulted in the 1984 Army and Air Force Chiefs of Staff Memorandum of Agreement broadly setting out cooperative air base ground defense responsibilities.

CLASSIFIED THESIS  
THESIS BY YEAR  
1988-1989

C-51. TACTICAL COMMUNICATIONS INTELLIGENCE PRODUCT COLLECTED BY U.S. ARMY TACTICAL SIGNALS INTELLIGENCE UNITS BE CONTROLLED AS SENSITIVE COMPARTMENTED INFORMATION? by Major David P. Hanson, USA, 166 pages.

This study examines a portion of the modern combat intelligence structure to determine whether or not a component of that structure adequately performs its function. The focus of the study is at the point between the heavy division headquarters and its subordinate brigades which corresponds to the frontier of the Communications Intelligence (COMINT) Security System, that is, COMINT which is Sensitive Compartmented Information (SCI) is not distributed below the division level in wartime.

The study follows a simple methodology. First, it examines the legal and regulatory basis to determine the threshold of SCI and COMINT. Secondly, it quantifies the COMINT product collected by tactical Army Signals Intelligence units. Thirdly, the study looks at mechanisms to pass the information out from SCI security control. Finally, the study compares what remains from previous steps to the SCI threshold to determine whether or not the content merits compartmentation.

The study concludes that tactical communications intelligence product should remain compartmented based on the existing mechanisms to pass the content of COMINT information collected at the tactical level out from SCI control to the Brigades.

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