CHAPTER V

TECHNICAL INTELLIGENCE SUPPORT OF COMBAT OPERATIONS VIETNAM, THE MID-EAST, AND THE 1970'S

On the other side of the world, the situation in Indochina was beginning to become the focal point of U.S. attention. The United States had numerous advisors in Vietnam who were to advise the Vietnamese Armed Forces on the use of U.S. military equipment and, in some cases, tactics. There was a limited intelligence effort and Technical Intelligence Collection was almost non-existent. By 1963, President Diem had been removed from office and killed. The complete story of President Diem's removal from office would serve no purpose in discussing Technical Intelligence.

Strategic intelligence on Indo China continued to be provided by the CIA, the State Department and various military attaches stationed worldwide. The U.S. presence in Vietnam was organized around the country team concept in which the team consists of the ambassador, representatives from the military, representatives from AID, CIA, and others. As a result of President Kennedy's emphasis on the Special Forces and unconventional warfare, the primary American presence in the field were various Special Forces units. The complete organization of the Special Forces is covered in great detail in Col. Charles M. Simpson III's book, INSIDE THE GREEN BERETS, THE FIRST THIRTY YEARS. The primary Special Forces unit in Vietnam was the 5th Special Forces Group with its headquarters in Nha Trang.

As Col. Simpson pointed out in his chapter on intelligence, contrary to popular opinion, the field of intelligence is not a particularly strong point with Special Forces, though both guerrilla and counterinsurgency operations can be no more successful than the intelligence on which they depend. It is necessary to explain that the military use of the term intelligence is not that of Webster's Dictionary. Information becomes intelligence only after it is collated with other information, analyzed, interpreted, and The sources of information vary widely, from patrol disseminated. reports to satellite imagery, and the more sophisticated the source, the higher the classification on the information derived from that The more widely known classifications, such as "secret" or source. "top secret," are used if appropriate, but some sources are so sensitive that they are given additional "code word" classifications. For example, if it were possible to fasten a tiny camera to a dragonfly trained to fly over Vietnam, the results of that imagery could be code-worded with some such label as "Alpha" and the dissemination of those photographs limited to only those with an Only people with a "need-to-know" the contents of Alpha clearance. the photographs would have access to them. If cleared for access to a code word category, it is forbidden to tell anyone else of the existence of that code word, to say nothing of the subject or the

means of collection. Thus the Army is divided into two camps, the vast majority ignorant of code word intelligence, and the tiny minority with access to most of the nation's secrets.

Probably no aspect of the Vietnam War is more confusing than the relationship between the various Special Forces-manned units not in the CIDG program. The CIA used Special Forces detachments in many parts of Vietnam for a variety of purposes. For example, the elite airborne ARVN Ranger Battalions were trained by SF detachments, usually on temporary duty from Okinawa. The South Vietnamese Special Forces were trained by SF detachments. The CIA also used some fifty SF soldiers to train and supervise its paramilitary Provincial Reconnaissance Units (PRU) program. One of the largest users of SF soldiers outside of the CIDG program was the Special Operations Group (SOG). Although it used SF soldiers, it had no official relationship to the 5th Special Forces Group.

As the 5th Special Forces Group evolved and enlarged, it had special needs, mostly for reconnaissance work, that it fulfilled out of its own resources. Project names, such as "Sigma," "Omega," and "Delta," were given those units. It also created Mobile Guerrila Forces which all carried project names of "Black Jack" followed by a number. The 5th SFG created and ran a school of reconnaissance to train the allied forces under COMUSMACV, called the RECONDO School. It is very easy to mistakenly place "Project Delta" under SOG, as has often been the case, but the point is that there were two principal chains of command for Special Operations, the 5th Special Forces Group under MACV, and SOG under the JCS with MACV supervision.

The SOG was the oldest of the special projects. It operated under the cover name of "Study and Observation Group," and was a combined force -- that is, it had Army, Navy, and Air Force elements, and consisted of both Vietnamese and Americans. It was a highly classified operation for which there is no single unclassified Although the operation was large and stretched over a history. period of ten years of U.S. participation, the constraints and limitations that were imposed for political reasons reduced its effectiveness to that of relatively minor harassment of North Vietnam. From the start of U.S. involvement in South Vietnam, the American leaders stressed that the purpose of U.S. participation was to insure a free South Vietnam with the Freedom to determine its own There was never a U.S. policy with the objective of overfuture. throwing the North Vietnamese government. The subversion of North Vietnam was never our policy. The goal was to place pressure on the government of North Vietnam to cause it to cease its subversion of South Vietnam.

The beginning of SOG was the Vietnamese Army's 1st Observation Group organized in February 1956, with an authorized strength of 300 men. It was a Special Forces-type of unit with the mission of operating in South Vietnam. Many of the original members were from North Vietnam. They were trained for guerrilla operations at the group's home base at Nha Trang. They were to prepare guerrilla



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stay-behind units just south of the seventeenth parallel for the eventuality of an invasion by North Vietnam. The unit was supported by the U.S. Military Assistance Program (MAP), and had CIA training and radios (RS-1s). It was organized into twenty fifteen-man teams. It was not in regular Republic of Vietnam Armed Forces (RVNAF) command channels, but was classified and segregated with a command line direct to President Diem. All operations of the group were directed or approved by the president.

As a result of the deterioration of the South Vietnamese position in the spring of 1961, President Kennedy approved the dispatch of 400 U.S. Special Forces men to act as trainers and advisors to the ARVN, but specifically to Nha Trang to train the embryo Vietnamese Special Forces. At the same time 100 other American military advisors were also approved. The president also directed that a campaign of clandestine warfare be waged in North Vietnam, to be conducted by South Vietnamese agents directed and trained by the CIA and American Special Forces. Those agents were to form networks of resistance, establish bases in North Vietnam, and conduct light harassment. Other South Vietnamese Ranger units were to be trained to conduct ranger raids and other military actions in North Vietnam. Naturally, the ARVN 1st Observation Group was given the primary clandestine mission.

In October 1961, the president approved additional missions for the 1st Observation Group against North Vietnamese operations in the Laotian panhandle. The use of U.S. advisors on the ground was authorized on an "as necessary" basis.

Those actions were the implementing directives of recommendations from an interdepartmental task force comprising representatives from the Department of State, the Department of Defense, the CIA, the International Cooperation Administration, the U.S. Information Agency, and the White House Office. The recommendations for covert action were part of a larger program which included other military actions, as well as economic and psychological actions. On 11 May 1961, those recommendations were approved by National Security Action Memorandum Number 52, which called for explicit unconventional warfare actions in these words:

"Expand present operations of the First Observation Battalion in guerrilla areas of South Vietnam, under joint MAAG-CIA sponsorship and direction. This should be in full operational collaboration with the Vietnamese, using Vietnamese civilians recruited with CIA aid.

In Laos, infiltrate teams under light civilian cover to Southeast Laos to locate and attack Vietnamese Communist bases and lines of communications. These teams should be supported by assault units of 100 to 150 Vietnamese for use on targets beyond capability of teams. Training of teams could be a combined operation of CIA

and U.S. Army Special Forces."

Under CIA auspices, the 1st Observation Group was augmented by a Vietnamese Air Force Transport Squadron to provide a means for infiltration by air. The U.S. Army Special Forces trained the Vietnamese in ground operations, and a detachment of Navy SEAL frogmen taught them how to infiltrate by sea. The CIA also set up an alleged Vietnamese private air transport company (VIAT) and hired experienced pilots from Taiwan. The purpose of VIAT was to provide a plausible denial that the Vietnamese or U.S. governments were involved in operations over North Vietnam.

CIA operations against North Vietnam were disappointingly unsuccessful. An unknown number of teams of Vietnamese agents were dropped into North Vietnam, and some were inserted from the sea. In almost every case, they were captured or failed to report by radio. One reporter had refered to the CIA/Green Beret relationship as "an incestuous marriage between the sneaky Petes and the Spooks." Until 1964, the Central Intelligence Agency had been in control of the United States Special Forces in Vietnam. In 1964, in an operation known as "Parasol/Switchback," the Agency relinquished control to the military. Until that time, all Special Forces programs had been funded by the CIA. It may have been the Bay of Pigs fiasco that had begun the policy of the CIA moving away from operations as such. Although the Agency remained an important and powerful intelligencegathering organization, military operations were turned over to the Still, there continued to be advantages to transferring army. Department of Defense funds to the CIA, so that various programs could operate under CIA rules rather than the more restrictive military regulations.

By January 1964, the Military Advisory Command had produced an identification book entitled, IDENTIFICATION HANDBOOK, weapons and equipment in the hands of or possibly available to the Viet Cong. One of the first qualified Technical Intelligence officers to arrive in Vietnam was John Baker. In quoting from a letter, John said, I was able to sneak into Saigon, via the back door, in 1963, because the assigned Technical Intelligence advisor, Maj. Stan Sheridan, was my former neighbor, at Redstone Arsenal and West Point classmate of my rating officer. I only saw what was on display at the Joint General Staff museum. Mostly MAS-36 rifles and MAT-49 SMGS. Some Mausers, a Maxim 1908 HMG and lots of homemade shotguns, grenades There was only one item of Technical Intelligence and mines. 1 CHICOM Type 56 (AK) magazine and 3rds of CHICOM significance: ammo (1957 mfg.) which had been recovered after a skirmish in the rubber plantation (off Planatation Road), the week previous. Ι could only assume that some NVN advisor had dropped it.

When I went back in January '64, NVN had started to send Korean War vintage CHICOM PPSH-41 & 43 SMGS and MAT-49s modified to 7.62-mm. Most of the SMGS had the arsenal mark removed (by grinding) and I was able to send them to the Criminal Investigative Division Lab in Japan where they were able to bring out the factory markings long enough to be photographed. I left VN in May '64 and didn't return until August '65, so I don't have knowledge of when the first AKs, SKSs and RPDs were captured. I do know that we didn't see them <u>in</u> <u>quantity</u> until early in '66. Even the III Marine Amphibious Force "Operation Starlight," in September '65 recovered mostly Korean-era weapons (and very few of those) considering that they caught the 1st VC Regt in their "rest" area. 500+ VC bodies (<u>male</u> 16-40 years) and only 70 some weapons. But a Marine Captain sitting in his disabled tank reported that the VC attempted successfully to recover most of their weapons in the midst of a very heavy firefight."

Also, in May 1964, the JCS authorized the U.S. Mission in Saigon to undertake the long-range reconnaissance mission in South Vietnam, code-named "Leaping Lena." The next month the mission was transferred to the Military Assistance Command and the Special Forces under Operation Switchback provisions. "Leaping Lena" was then to be implemented by a force called "Project Delta," organized into a reconnaissance element and a reaction force. At full strength, Delta consisted of over 1,300 men, a powerful long-range reconnaissance and intelligence-gathering force that was the first of the special operations that came to be among the most effective combat operations of the Vietnam War. Project Delta had a reconnaissance element consisting of sixteen reconnaissance teams, each composed of two U.S. and four indigenous personnel. There were also eight road patrol teams consisting of four indigenous personnel each, the so-called Roadrunners. They dressed and were armed to pass as VC, and would follow trails used by the VC to observe and talk with the enemy. The support element of Delta was the ARVN 91st Airborne Ranger Battalion of about 850 men, consisting of six companies. The missions of Delta were country-wide and were approved by the Vietnamese Joint General Staff in conjunction with COMUSMACV. The missions were generally intelligence gathering, though they did perform acts of sabotage and combat. They were originally conceived to enter the reconnaissance by parachute, but later all of their operations were inserted by helicopter. They moved wherever required in South Vietnam, and were capable of supporting and defending themselves. Delta usually based on a CIDG camp, bivouacking outside the defenses and adding strength to the camp's positions. Upon the arrival of the American units, Project Delta was out on missions almost continuously, as the demands for its services outstripped its capabilities.

For that reason, in 1966 two more reconnaissance projects, "Project Omega" and "Project Sigma," were organized to supplement Delta. They were similar in organization to Delta, but were smaller, consisting of just over 1,000 men. The reaction forces were Mike Force battalions of three companies of 150 CIDG each, led by 25 SF officers and men. Initially, there were no Vietnamese Special Forces in Sigma and Omega, though later they were admitted. Omega operated in the II Corps area under I Field Force, Vietnam, and Sigma operated in the III Corps area under II Field Force, Vietnam. They operated in what had previously been exclusively enemy territory, adding a psychological burden on the enemy when he





With Gen Weyand as witness, Gen Westmoreland examines Viet Cong weapons captured during Operation "Wakiki". LTC JOHN C. BAKER COMBINED MATERIAL EXPLOITATION CENTER

began taking casualties from air strikes guided in by the "Greeks" deep in War Zones C or D. In their first nine months of operations, Omega and Sigma inflicted 191 enemy killed, by USSF body count. They were in the field 60 percent of that time.

In 1964, General William C. Westmoreland assumed the position of Commander, U.S. Military Assistance Command in Vietnam. His Chief of Staff was Lt. General William B. Rosson. In quoting from a letter I received from General Rosson on the subject of Technical Intelligence, he pointed out that:

"CMEC, of course, was the creation of Major General Joseph A. McChristian who had assumed the post of Military Assistance Command, Vietnam (MACV) J2 during the summer of 1965 when I was serving as MACV Chief of Staff. From his prior assignment as G2, U.S. Army, Pacific, McChristian had analyzed the overall intelligence posture in Vietnam, and had formulated a plan designed to correct what he considered to be structural weaknesses and lack of effective teamwork between the U.S. services, between the latter and the Central Intelligence Agency (CIA) Station and between the U.S. military and the South Vietnamese military and police. Understandably, the plan encountered some resistance initially, but it is to McChristian's credit that ultimately it was adopted and provided a blueprint for intelligence organization and operations in Vietnam thereafter.

In the domain of efforts to achieve more effective teamwork between U.S. and South Vietnamese intelligence agencies (police as well in the case of South Vietnam), the plan called for creation of a Combined Document Exploitation Center (CDEC), a Combined Military Interrogation Center (CMIC) and a CMEC. Rationale for the first two was based largely on need to overcome the virtually non-existent U.S. ability to provide individuals who were proficient in the Vietnamese language. Additionally, it was recognized that by harnessing the assets and input from both quarters, better intelligence could be produced. Moreover, it was foreseen that the training received by the South Vietnamese would enable them to function on their own at a future stage when U.S. forces had departed.

The case for the CMEC was less convincing, although McChristian was strong in his emphasis on TI and on need to fulfill higher echelon materiel collection and backhaul requirements. For one thing, the language problem was considered to be less acute. For another, each of the U.S. services had TI resources that presumably could handle the requirements. Some felt that technically qualified South Vietnamese were in such short supply that their services should be utilized within their logistic



structure. I myself told McChristian that whereas I was enthusiastic with respect to CDEC and CMIC, I looked upon CMEC as being in the "nice to have but not essential" category. He was adamant, however, and in the end I supported him.

It is worth noting that earlier in 1965 the South Vietnamese had rejected U.S. proposals for combined command and even for a combined staff. In the case of McChristian's plan, however, they agreed to establishment of the three combined centers, each of which they headed -- nominally, at least.

Having established a basic intelligence system, it became necessary to provide the necessary support both in terms of organization and personnel. General Rosson indicated that the nature of the command structure for U.S. forces had a great deal to do with the support that would be provided. In his letter, he said:

"I wish to call attention to another development that affected TI indirectly; the CMEC directly. This was consideration given within MACV and higher headquarters to the kind of U.S. field command structure that should be adopted to accommodate the buildup of U.S. ground forces initiated in the spring of 1965. At the outset, thought was given to establishment of a field army, one that would be responsible for Army operations. Under this arrangement the extant U.S. Army, Vietnam would be something akin to a communication zone or theater army echelon headquarters. Both the field army and U.S. Army, Vietnam would have intelligence functions, but the latter would be concerned primarily with administration and logistics. An alternative formula would have combined the field army and U.S. Army, Vietnam.

For various reasons the field army concept was abandoned in favor of one under which General Westmoreland would don another hat as a field commander exercising jurisdiction over three corps-level entities: III Marine Amphibious Force (III MAF), First Field Force, Vietnam (IFFORCEV) and Second Field Force, Vietnam (II FFORCEV). He also would command U.S. Army, Vietnam in addition to serving as the joint commander of all U.S. forces in Vietnam.

In due time, the three combined intelligence agencies deployed tailored elements to the South Vietnamese Corps Tactical Zones (CTZ's) in which III MAF, I FFORCEV and II FFORCEV resided. I personally would have preferred to see the U.S. TI personnel in CMEC's field teams incorporated within the III MAF and field force G2 sections to work with South Vietnamese counterparts assigned to the South Vietnamese corps head-



quarters. The CMEC at Ton Son Nhut, on the other hand, should have remained combined."

In his 1971 book on the Role of Military Intelligence in Vietnam 1965-1967, General McChristian gave a reasonably good description of Technical Intelligence as he perceived it. In August, 1965, the Military Assistance Command technical intelligence capability was limited. The collection and examination of captured materiel was done as little more than additional duty as time and work load permitted. From this austere beginning a sophisticated, efficient materiel exploitation program evolved. We designed a suitable organization, requisitioned the necessary specialists, and prepared the requisite MACV directives to establish the materiel exploitation system based upon a formal agreement between Military Assistance Command and Republic of Vietnam Armed Forces. Qualified technical intelligence personnel were few. Again, we taught special classes and conducted on-the-job training for fillers while the few experienced, qualified specialists who had been developed in the country sought to get on with the war. Majors Donald D. Rhode and John C. Baker and Vietnamese Army Major Van Lam played key roles in the development of the Combined Materiel Exploitation Center, and through their efforts command technical intelligence grew rapidly and efficiently.

The Technical Intelligence Branch of the Combined Intelligence Center performed equipment analyses, determined weapons and equipment characteristics and specifications, made equipment assessments, and determined vulnerabilities for operational exploitation. In order to produce accurate intelligence on enemy capabilities, vulnerabilities, and order of battle in the technical chemical, ordnance, engineer, quartermaster, medical, signal, and transportation areas, the branch was organized with a headquarters and seven technical specialty sections.

In November 1965, action was initiated to have the 18th Chemical Detachment, 571st Engineer Detachment, 590th Quartermaster Detachment, 18th Signal Detachment, and 30th Transportation Detachment assigned to the 519th Military Intelligence Battalion to support the corresponding sections of the Technical Intelligence Branch. Because these were the only technical intelligence units in Military Assistance Command, centralized control was exercised in order to provide the best possible support for the entire command.

The headquarters element handled the operations and administration of the branch as well as requests for technical intelligence assistance. The Chemical Section monitored the enemy chemical capability, with particular interest in decontamination materials, chemical-related documents, and Soviet-bloc chemical equipment and munitions. The Engineer Section accumulated data on enemy fortifications, structures, tunnel and cave complexes, and barriers about which were produced comprehensive studies of Communist construction, installations, and facilities. The Medical Section was concerned



On 12 December 1966, CHEC moved from a temporary location in



Cholon to Building 614 on Tan Son Nhut.



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tion of the branches osistance. The agenitity, with whet al-related aunitions. The units, are produced for lighting, a with captured medical supplies and equipment as well as medical examinations of prisoners. The Ordnance Section worked on the exploitation of all items of ordnance equipment, while the Quartermaster Section dealt with enemy uniforms and items of general supply. It also provided information for inclusion in various recognition manuals published by the Combined Intelligence Center. The Signal Section, primarily concerned with Communist communications, was especially interested in signal equipment not of U.S. origin.

In addition to the individual section evaluations and reports, the Technical Intelligence Branch as a unit prepared numerous studies and pamphlets on Communist equipment, arms, and materiel. These studies received wide distribution throughout Vietnam and were valuable in training centers in the United States. One particularly important study receiving a high priority and wide distribution was on the enemy use of mines and booby traps.

Finally, the Technical Intelligence Branch of the Combined Intelligence Center developed and maintained the technical intelligence order of battle and provided current information on all of the technical service or support-type units. This information was published in studies designed to give the customer as much information as possible about the enemy's capabilities and vulnerabilities in the technical service fields. The first such study, NVA/VC Signal Order of Battle, was published during January 1967, but it never got to the field or had gone home as war relics by September, 1967.

The Combined Materiel Exploitation Center was charged with collecting and exploiting captured materiel of all types, and the detailed examination, identification, analysis, evaluation of the items, and dissemination of the intelligence obtained. We needed to determine the characteristics, capabilities, and limitations of enemy materiel and equipment so that adequate countermeasures could The center tailored its organization for the Vietnam be devised. environment in an effort to realize maximum exploitation. The Graphics Section provided illustrator and photographic support: the Laboratory performed chemical analysis to determine the composition of unidentified substances; Receiving and Shipping received materiel from capturing units and prepared selected items for shipment to the United States; the Communications-Electronic Section exploited all signal equipment, including electronic and photography items; the Mobility Section evaluated and analyzed enemy mines, booby traps, engineer items, transportation equipment, construction, and barrier materials; the Weapons and Munitions Section analyzed fragments to determine the type of ammunition employed; the Medical Section evaluated enemy medical supplies, equipment, medical capabilities, and noneffective rates due to medical causes among enemy units; and the General Supply and Equipment Section evaluated and analyzed enemy clothing, individual equipment, rations, petroleum products, and chemical, bacteriological, and radiological equipment.









The diverse nature of the material recovered is shown abc

were segregated in the back area and then sent to the different sections for more analysis. The exploitation reports were then sent forward to the Combined Intelligence Center and re-typed and sent forward. These reports were also sent back to the states via the Foreign Science and Technology Center. Recognizing the commands weakness in the area of technical intelligence, classes were taught, a correspondence course was prepared and work was begun on a Technical Intelligence Bulletin designed to be a reference with new material being added as it was recovered. While it was a good idea at the time, it proved to be useless as people took them home as souveniers.

Specific intelligence collection requirements listing items of enemy materiel for which the intelligence community had a need were prepared by the Combined Materiel Exploitation Center and published by J-2, Military Assistance Command, to provide collection guidance to field commanders. When captured or otherwise obtained, items of command interest were reported expeditiously through intelligence channels to J-2, Military Assistance Command, while the materiel itself was tagged by the capturing unit and evacuated to the center for full-scale exploitation. Items of captured materiel determined to be of immediate tactical importance were spot reported through channels and the center dispatched a "go" team to effect immediate exploitation. The lack of experienced technical intelligence personnel hindered exploitation by U.S. units below division and separate brigade. The unit's primary responsibility concerned the recovery and evacuation of materiel from the capture site to the nearest maintenance collecting point, except for food and medical supplies which were handled separately and explosive items that were evacuated through ammunition supply channels. When evacuation was impossible, either because of the tactical situation or the size of the item, all pertinent data were recorded and, along with photographs or sketches, forwarded to the center for analysis and examination.

Exploitation of captured materiel at division and separate brigade level was limited to a determination of the immediate tactical significance, and the materiel was then evacuated to the combined center. The prompt evacuation of significant items of captured materiel was stressed.

Captured materiel was supposed to be channeled to collecting points located within each area support command of the corps tactical zones. Such movements were performed by the maintenance support organizations of the capturing unit or by support organizations providing logistical services within the corps. The materiel normally remained at each echelon until it was examined by technical intelligence personnel. Except for authorized war trophies, captured materiel could not be removed from Mililtary Assistance Command or otherwise disposed of until released by technical intelligence personnel of the Combined Materiel Exploitation Center.

Screening and preliminary field exploitation of captured materiel was done by field co-ordination teams that normally operated in the corps and division support areas. When required, they also provided direct assistance to capturing units. Exploitation functions normally were carried out by these teams at the corps support area collecting points where they gathered items of intelligence significance needed to meet requirements of the Combined Materiel Exploitation Center. Items to be exploited were evacuated to the center through logistical channels using backhaul transportation as much as possible. Other equipment was released to the collecting point commander for disposition in accordance with service department regulations. Captured enemy materiel



requested for retention by capturing units could be returned by the collecting point commander after screening and release by personnel at the center.

The captured materiel sent to the center was examined and evaluated to determine enemy materiel threats, technological capabilities, and performance limitations; to produce information from which military countermeasures were developed; and to provide continuous input to the national integrated scientific and technical intelligence program in accordance with Defense Intelligence Agency and Military Assistance Command policy.

In addition to performing exploitation functions at its fixed facility, the Combined Materiel Exploitation Center also maintained "go" teams to provide field exploitation support when required. These quick-reaction teams were airlifted to objective areas to conduct on-site exploitation of large caches of materiel or items of great intelligence significance.

All materiel in the category of communications and electronic equipment was first screened in accordance with Military Assistance Command directives, then evacuated to corps support area collecting points for examination by technical intelligence personnel.

The complete recovery and expedious evacuation of enemy ammunition and ammunition components contributed essentially to identifying weapons systems used by the Communists and a thorough assessment of the threat posed by each weapons systems used by the Communists. Large caches of ammunition and explosives had to be inspected and declared safe for handling by explosive ordnance disposal (EOD) teams before evacuation. Hazardous items were segregated immediately and destroyed by these teams, or by unit ammunition personnel if they were qualified to perform destruction. Explosives and ammunition declared safe for handling were evacuated to the ammunition supply point or ammunition depot designated by the ammunition officer of the capturing command where screening, preliminary exploitation, and selection of items for further evacuation to the Combined Materiel Exploitation Center for detailed examination were conducted. The center coordinated preliminary exploitation with the staff explosive ordnance disposal officer at the Military Assistance Command Combat Operations Center to permit technical procedures for safe handling of all first found or newly introduced enemy explosive ordnance to be disseminated promptly throughout the country. All significant items -- new, recent, or modified -- or enemy material received special handling and were evacuated without delay with captured or recovered technical documents such as gun books, logbooks, packing slips, firing tables, and manuals directly associated with an item of If the tactical situation did not permit the materiel to materiel. be evacuated, a report was forwarded to the Combined Materiel Exploitation Center with a description of the equipment, complete capture data, and other information of value for a technical evaluation of the end item. Photographs of the meteriel were highly



Captured enemy material being received at the Combined Material Exploitation Center.



Captured enemy radios being analyzed by CMEC personnel.







In reality, the operation of the system in the field did not function as General McChristian described. The logistic system was unable to support the back haul of captured material and pilferage of captured material usually resulted in an erroneous or delayed appreciation for new enemy weapons systems by the combat elements in the field.

The organizational structure for intelligence units at that time called for a Technical Intelligence section attached to the Military Intelligence Detachment which supported the Corps Headquarters. This element would coordinate between the various elements of the Corps Headquarters and Technical Intelligence Field Collection Teams. Because of a shortage of people, the combined Materiel Exploitation Center deployed two of their five "go-teams" to the field where they provided both a T.I. coordination effort and a field collection effort.

The complete history of the war in Vietnam would fill many volumes. The "Pentagon Papers", a historical look at U.S. involvement from the start until March 1968, filled 47 volumes and in March 1968 the U.S. was still heavily involved! The complete history of the Combined Materiel Exploitation Center would likewise fill many chapters of many of the volumes, and an effort to recount the multitude of activity and support that was provided to the Army would be futile to a discussion of Technical Intelligence.

There are, however, three aspects of intelligence operations that are worthy of review and are necessary to understand the function of the field collection teams. Combat Intelligence attempts to locate the enemy force, assess their capability for action, determine how they operate (i.e., tactics), Strategic Intelligence attempts to assess the enemy nations capability to wage war as well as their intentions. How the enemy is organized, equipped and the tactics they use are called "Order of Battle."



CMEC's Engineer Section performing an analysis of captured Viet Cong explosive devices.





Captured Chinese manufactured autoclave.



CMEC personnel preparing reports on captured material.

The third aspect was Scientific and Technical Intelligence which deals with the capabilities and limitations of foreign equipment. It supports both Combat and Strategic Intelligence. In Vietnam, however, the real emphasis was to supply information to assess Soviet capability, not North Vietnam or the South Vietnamese communists.

Order of Battle is a painstaking process of reviewing all prisoner of war interrogation reports, captured weapons and equipment analysis and combining all facts into a series of organizational charts, and attempting to write a book on how the enemy operates. In discussing the Soviet Army Order of Battle, we can take the known organization as it existed during WWII and update it. In Vietnam, there was none and Order of Battle Studies were begun. Once one knows how an enemy force is organized and equipped and is supposed to operate, keeping track of its movements can be accomplisehd by aerial reconnaissance, radio intercept and clandestine agent reports.

By 1966, in Vietnam the 5th Special Forces Group had grown to a strength of about eighty CIDG camps spread the width and breadth of the country. Each camp had at least one man whose specialty was intelligence on virtually a full-time basis. The group headquarters had a sizable S-2 (Intelligence) section at Nha Trang, kept very busy collating and reporting information from the field to J-2 MACV. The J-2 was suitably grateful, as something around 50 percent of all information reports that came into his hands came from the 5th Special Forces. In return, J-2 provided the 5th with maps, terrain studies, and readouts of infrared imagery, suitably sterilized as "hot spot" maps. Nobody in 5th Special Forces was particularly surprised or upset about that, as they never had gotten much from J-2 -- it was pretty much a one-way street. In addition, most of the intelligence people in the 5th were combat intelligence types, more accustomed to debriefing a reconnaissance patrol than interpreting an aerial photo. The 5th Group S-2 officer was usually some crackerjack young infantry major picked for his combat experience and sharpness rather than his knowledge of intelligence. The analytical capability of the S-2 section was minimal, and the CIDG camps didn't get any more help from the Group S-2 section than the group got from J-2. In fact, the Group S-2 section posted the results of each camp's reports as the basis for its Order of Battle of the enemy forces.

The status of each camp's intelligence holdings was pretty much a product of how good an intelligence sergeant it had, and of how active it was in operations outside the camp. It was pretty easy to tell which camps were active on operations by listening to their intelligence briefing. To a lesser extent, the number of contacts, KIAs, and captured weapons was also a direct measure of intelligence excellence or failure. Most of the camps patrolled blindly, covering the assigned area of operations in its entirety about once a month. An elite few of the camps knew exactly what they were looking for and approximately where to find it. The camp

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MACV. The 4-2 was suitably grateful, as something around 50 percent of all information reports that come into his hand drame from the 5th Special Porces. In reduct, -2 provided the 5th with maps, terrain studies, and can be the information of the sport and can be starilized as "hot sport" maps, but that, as they never had gotten much from J-2 -- it was pretty much a one-way street. In addition, most of the intelligence people in the 5th draw street. In the listelligence types, more accustomed to debriefing a reconnaise and off the intelligence types, more accustomed to debriefing a reconnaise and particles was addition, most of the intelligence types, more accustomed to debriefing a reconnaise and off the his count that, setting an serial photo. The 5th draw ledge for his count taget in the Store and shifting a strengt of the draw ledge of the line and that a capability of the store of the draw ledge of indelligence. The analysis of and shifting a strengt is now ledge of the store of the draw strengt is a strengt of the draw ledge of the line of the draw strengt is now ledge to the form the strengt of the store off the draw ledge to the draw strengt is not be the draw ledge of the draw strengt is not be the draw ledge the results of and shifting to a strengt, the draw strengt is for the draw strengt of the draw brace of a strengt, the draw brace of a strengt.

The status of each camp's intelligence holdings was pretty much a product of how good on intelligence sergeant it had, and of how active it was in operations outside the camp. It was pretty sais to tell which camps were active an operations by listening to their intelligence briefing. So a lesser extent, the number of contacts, KIAs, and captured seasons was also a direct measure of intelligence excellence or failing. Most of the camps patrollad blindly, covering the assigned area of the camps in its entirety whost once a month. An elite few of the camps include what they were looking for and approximately where to find it. The camp on Phu Guoc Island was an excellent example of a camp that knew its enemy. Working with the local police and Vietnamese military, Capt. Bob Maples, a veteran Special Forces ex-NCO, compiled the names of the listed 385 VC members of those unis. He systematically went after those units, using combined (all services) amphibious operations, and eliminated all but a handful in less than six months -- a storybook operation. His immediate predecessor never left camp, and the only thing he knew about the enemy was that they mortared his camp several nights a week.

Some camps employed agents within their areas of operations, though most of the agents were simple woodchoppers, fishermen, or farmers who were depended upon for early warning against an impending VC attack. The advent of the NVA regular divisions in early 1965 pretty much negated the use of agents. The NVA depended on local VC agents to provide them the laoyout of the camps and to guide them to the camps for attacks. It was difficult to detect that sort of attack before it was right on you, and then it was too late.

In August 1966, Col. Charles Simpson, the new deputy commander of the group in Nha Trang, visited the S-2 section and asked to see the input from J-2 MACV, they showed him the maps, "hot spot" reports, and a few terrain studies, but that was it. A quick trip to J-2 MACV in Saigon supported the finding: the 5th Special Forces Group was not even on the distribution list for J-2 MACV intelligence products. Those products were virtually all "code word" documents and no one in the 5th Special Forces Group was cleared for code word, for the group did not have even one code word billet! It is highly doubtful that any of the relatively unsophisticated intelligence people in the group even knew that the code word category existed, though it's hard to believe that all of the previous commanders were also ignorant.

The solution to the 5th SF Group's intelligence dilemma appeared about a month later in the person of Lt. Col. Dick Ruble, a professional intelligence officer assigned to MACV. He had control of a large detachment of military intelligence professionals whom he wanted to distribute in a number of our border CIDG camps disguised as Special Forces, but not under the command of the Special Forces commander. I told him that the only way that could take place would be for him and his detachment to join the Special Forces group as bona fide members of 5th Special Forces group, with his detachment distributed at every level from group headquarters to companies, B Detachments, and CIDG camps. He would be the Group S-2, and Col. Simpson would see that he was airborne-qualified.

He finally agreed, and the detachment brought with it a number of code word clearances and billets, so that the senior officers of the group were allowed inside the "green doors" all over Vietnam, and the lights went on! MACV J-2 documents started to stream in once the billets were established and filled, the 110-man detachment



U.S. Troops examining large quantities of enemy rifles and ammunition captured approximatly 25 miles northwest of Saigon in May 1967



An oxcart loaded with wood exemplifies another means the enemy uses to conceal and transport supplies.



Captured enemy 120mm mortar and round.



Captain Leatherwood firing the RPG 7.



Captain James Leatherwood of CMEC prepares to fire captured RPG 2 and RPG 7 rockets for demonstration of techniques used to defeat these rounds.

During 1967, the VC supply system operated by whatever means they could find and their arsenal was whatever they get. For the most part it was surplus WW II weapons and some newer items. Slowly, their arsenal was improving. The design of the 120mm mortar round had changed from the Korean war era. The RPG 2 and RPG 7 rockets were not new as we had seen photographs of them for several years. This was our first chance to recover them in large quantities and to perform in-depth testing of their capabilities and in time to test fire them Eginst U.S. armor plate. Most of the test results were kept classified and only recognition information was widely distributed among the troops. It should have been included in the training of troops in the states but it wasn't.

became the vital nucleus for greatly strengthened S-2 sections at all levels of the group, and Dick got to put his agent nets out. Dick and his men labored deep into the night every day for six months, and got the group's intelligence regulations and practices in line with what the U.S. Army wanted. It was a shock for the 5th Special Forces group to learn all the things of which they were ignorant and which they were doing incorrectly, simply out of necessity. The U.S. Army did not educate its combat arms officers that such regulations and practices even existed -- not at any level of schooling, from basic branch course through the Army War College.

The Group S-2 and each company were augmented by an analysis branch and a counterintelligence branch. The rapidity of analysis dramatically improved the success of field operations as intelligence was provided the CIDG camps for almost the first time.

Counterintelligence was a particularly sensitive subject in CIDG camps. A primitive but effective method used among the highland tribes to ensure no VC were recruited into the strike forces of the camps was the "blood oath." That was simply making certain that every recruit was sponsored by two other members of a strike force, who swore a blood oath that the recruit was not a VC. Despite that, the U.S. Special Forces detachments always acted as though the strike forces were penetrated and contained VC agents. The Special Forces (U.S. and ARVN) lived in separate compounds inside the CIDG camps surrounded by fortifications and barbed wire, usually guarded by a detachment of Nungs under their command. Routinely, but secretly, the camp fortifications were wired for demolitions in the event that VC agents should capture a watchtower or machine gun position inside the camp -- the firing point for those demolitions was invariably in the USSF inner compound. When operations were run outside the camp, the destination of the operation as a matter of Group policy was not revealed until the force was well out of camp and the operation could not be compromised. Of course, internal camp politics often negated that policy for practical reasons.

In addition to those rather simple safeguards, it was also necessary to establish agent networks for counterintelligence. Going by the book, before an agent operation is undertaken, it is necessary to write up a plan which describes the objective of the network, the operational details, and the specific agents that will be recruited. The plan is to be sent up the chain of command and examined at each level, to ensure that the new network will not disrupt the operations of any other intelligence operations under the cognizance of each level of command, and that the prospective agents are not already in the employ of some other U.S. (or ARVN, French, VC) intelligence service. Intelligence operations are closely examined at a highly centralized level in order that they may operate with minimum supervision -- centralized approval and decentralized operations. Only after receiving top-level approval will the agents be recruited and trained, and the network placed in working order. Prior to the advent of Dick Ruble, Special Forces



commanders merely did what they had to, to protect themselves, and the names of their agents were not known to anyone above the CIDG camps. After Ruble, all networks were recorded on written plans approved up the chain of command to MACV J-2 and above, and the agents were carded on central agent record cards forwarded to CIA. In the autumn of 1966, the entire nature of Special Forces intelligence operations changed drastically, though that fact was not widely known, due to the secret nature of the business. Once again, the CIA was in the Special Forces chain of command, though only for intelligence operations. Their role was almost entirely passive -that is, they monitored those Special Forces intelligence operations that the Saigon Chief of Station (CIA) had approved.

One such operation was a cross-border intelligence net operated by Special Forces Detachment B-57. It was a mixture of U.S. Army Military Intelligence personnel assigned to the 5th SFG, wearing Special Forces guise, and a few SF intelligence old-time NCOs, not really of the Special Forces. They were largely U.S. Army professional M.I. officers and men serving a one-time tour with Special Forces. B-57 was not SOG, as many believed, but was the direct result of Ruble's desire to establish agent networks in Special Forces camps along the Cambodian and Laotian borders. There was no participation by any member of the Republic of Vietnam govenment, and, in fact, the operations of B-57 were kept secret from all members of that government. The individual agents who carried out the actual operations were South Vietnamese civilians in the employ of B-57, with U.S. Army agent-handlers in Special Forces uniform. U.S. Personnel did not otherwise take part in cross-border operations; they planned, directed, and managed them, and the information that resulted was handled strictly in U.S. Army intelligence channels. This system remained a classified operation until 1969 when several of the officers involved were arrested for the murder of a double agent. As it was brought out in testimony, numerous illegal crossings of the Laotion and Cambodian borders occurred.

By 1966, intelligence gathering had become the only connection between the Special Forces and the CIA. In 1966, the 5th Special Forces Group rewrote its basic intelligence operations to conform with the rest of the intelligence community. This placed the director of the CIA in the chain of command. The members of the 5th Special Forces Group were responsible to their own officers, and nobody in the CIA had the authority to give any Green Beret any orders, except from the very top. The CIA in Vietnam functioned largely to receive Special Forces intelligence.

In early March 1967, Gen. Earle Wheeler read a secret cable from U.S. Army intelligence in Vietnam that both disturbed and displeased him. The cable indicated an increase in enemy attacks in South Vietnam. Wheeler, as chairman of the Joint Chiefs of Staff, regularly reported on the war effort to President Lyndon Johnson and his top advisers, but this bit of news would not be passed along. This photograph was in the USAREUR identification handbook. Our main concern was to determine if there was a new type of rocket system in the Soviet Arsenal and if so, what were the details. If the 122mm rockets were what we had been thinking were 115mm, were the VC using truck mounted launchers, etc.



115 MM ROCKET LAUNCHER (40-RD) M 1964

As of 14 September 1967, we still had not captured a launcher but had recovered a prisioner who had been a gunner on the weapon. Based upon his description, this drawing was circulated among the troops.



It was not until the following month, that an actual launcher was recovered and evacuated to CMEC. The photograph below shows LTC. Thomas Sutton, CMEC, with the launcher and one round of ammunition. The photo appeared in TIME magazine and was taken by John Cantwell, a free-lance photographer who has dissapeared.



CAPTURED RUSSIAN-MADE 122-MM. ROCKET LAUNCHER IN SAIGON Sophistication along with an unnerving whoosh-crack.

The Enemy's New Weapons

Instead, Wheeler fired off two top-secret cables to Saigon warning that the new numbers were "dynamite" that would "literally blow the lid off of Washington" if they became known. In a cable dated March 9, Wheeler ordered Gen. William C. Westmoreland, the commander of U.S. forces in South Vietnam, to "do whatever is necessary to insure these figures are not -- repeat not -- released to news media or otherwise exposed to public knowledge." In a follow-up cable to Westmoreland two days later, Wheeler made it clear that he did not doubt the accuracy or validity of the new numbers. The problem was that they simply were not sufficiently optimistic.

"I cannot go to the president," Wheeler complained to Westmoreland, "and tell him that, contrary to my reports and those of the other chiefs as to progress of the war -- in which we have laid great stress upon the thesis (that) you have seized the initiative from the enemy -- the situation is such that we are not sure who has the initiative in South Vietnam."

Wheeler, at least, had successfully seized the initiative in an expanding public relations war. The numbers were kept under wraps, and another threat to the official, upbeat version of the war's progress was headed off.

For reasons best left to other historians, the Vietnam conflict's Order of Battle included a count of how many enemy personnel were included in the force. A bitter dispute raged through the command as to the size of the enemy force. Army estimates were lower than the CIA estimates. This became the subject of a television documentary in 1982 and the subject of a lawsuit between General Westmoreland and the network. The allegation was that General Westmoreland led a conspiracy to suppress the "true number" of enemy forces for "political reasons."

I was present in Vietnam during part of the period that this controversy raged back and forth. I was aware that there were conflicting opinions about every aspect of the conflict to include the size and location of enemy units, and I was always grateful that I was not part of the conflict on the number of enemy troops. As a member of the Technical Intelligence effort, I dealt with "hard physical evidence." We knew what weapons existed in the Soviet arsenal but did not in all cases know all the technical details of the weapon. The best example was the 115-mm. Rocket System. The U.S. had photographs of the system, had made measurements of the photograph and deduced technical details and capabilities of the weapon. When the rockets were used for the first time, battlefield recovery of the weapon revealed that it was in actuality a 122-mm. rocket not a 115-mm. as originally suspected. This type of information would prove useful to personnel back in the states who were preparing studies and estimates of the Soviet Army as well as studies on NVA/VC capabilities. It would also prove useful to engineers and scientists who were working on countermeasures to the rocket system or on similar systems for the



Multiple of the Technical "hidd physical didence." M Soviet arsonal of the words, The Soviet arsonal of the words, The minet. The U.S. and shotog apphilities of the warph. tiret time, battlefield record in actuality a 122-am. rockal the tates who were preparing the tates who were preparing true as well as studies on NV prove useful to engineers and prove useful to engineers and prove useful to engineers and

United States, however, this was not generally known in the field. As pointed out by General Rosson.

"...it fell to my tour as CG, Task Force Oregon (later to become the Americal Division), March-July 1967, to endow me with my first exposure to TI in the field. (I had organized the force from separate units while serving as MACV Chief of Staff, and had taken it to southern I CTZ for employment under III MAF.)

General McChristian, still the MACV J2, and the G2, U.S. Army, Vietnam had assisted in the structuring of a suitable G2 staff for the task force and in providing supporting intelligence resources. McChristian had noted the importance of TI, and, if my memory serves me correctly, he had a hand in insuring that a TI-qualified officer or NCO was included within the task force G2 staff. It is possible, in fact, that the individual came from CMEC. (It was, in fact, Maj. John Baker.)

Upon establishment of the main command post of the task force at Chu Lai (I operated from an advance command post with one of the brigades), I discovered early-on that Task Force X-Ray of the 1st Marine Division, also headquartered at Chu Lai, possessed an excellent EOD detachment that entered into liaison with my G2 staff. At the same time the officer in charge of the I CTZ CMEC Team at Danang put in an appearance. When the EOD detachment deployed to the north as Task Force Oregon and relieved Task Force X-Ray, the I CTZ CMEC Team provided necessary TI support.

As an indication of USMC interest in TI, I was given detailed written Essential Elements of Information (EEI) by Lieutenant General Walt, CG, III MAF, when I reported to him for duty. Included were a number of EEI pertaining to enemy materiel and maintenance."

Shortly after this tour, General Rosson became the Commanding General of II Field Force. With its headquarters in Nha Trang, this command controlled all U.S. combat forces in II Corps Tactical Zone, the Central Highlands. In October 1967, I was assigned as the Team Leader of the team in support of II Field Force. I was a temporary replacement and as such was completely ignorant of the tactical situation in the area. I and my NCO's made liaison trips to most of the major U.S. units which consisted of the 4th Infantry Division commanded by General Ray Peers, the 1st Air Cavalry Division commanded by General Tolson and the 173rd Airborne Brigade, a strategic reserve under control of Lt. General Rosson. We also made liaison trips to Special Forces Headquarters in Nha Trang, but I was greeted by arrogance and an egotistical attitude that turned me completely off. Rather than lose my temper, I departed, knowing that my contact point in II CT2 was the G2 Collection Officer. I was also not



US Marines, heavily burdened with flak jackets and extra ammunition bandoliers, carry to the rear captured communist 12.7mm anti-aircraft machine guns. (US Marine Corps)

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the same time the officer in rouge of the I CP4 d

cleared for sensitive intelligence reports and very quickly decided that I did not need such a clearance. Since I travelled about the country and was subject to being captured, I decided the less I knew, the better. My area of expertise was enemy equipment, its operation, the threat it posed, and how to evacuate it to Saigon.

The Vietnam conflict was primarily an Infantry/Artillery operation in the early stages. Initial collection efforts resulted in the collection of numerous Soviet small arms, munitions and other technical service type of equipment. The primary value of Technical Intelligence was the recovery of new Soviet anti-tank weapons, primarily the RPG-7 anti-tank round, the RKG-3M anti-tank hand grenade as well as the production of a Technical Intelligence bulletin which was distributed in July, 1967, and was to be used as a guide for S2's at all levels to assist them to identify "new" material or more precisely material that was new to the conflict. For a variety of reasons, this bulletin became a one time deal and was never updated.

In August 1967, the Intelligence School at Fort Holabird developed a sub-course entitled "Introduction to Technical Intelligence which became part of the Military Intelligence Officer Advanced Course. Copies finally got to Vietnam sometime in 1968, too late to be of any value.

Thus far, I have attempted to confine my discussion of Technical Intelligence and weapons to tanks and anti-tank weapons with a brief mention of some of the strategic weapons. I have not made any effort to discuss in detail the small arms aspect of Technical Intelligence. It is perhaps appropriate to mention briefly some of the background in small arms development.

When the Russians captured samples of the German MP44 in World War II, they began development of similar weapons with the end result being the AK-47 assault rifle based on the 7.62mm x 39mm cartridge. The cartridge was developed first and then weapons were developed for the cartridge. The first was the SKS semi-automatic rifle, and the RPD light machine gun. These weapons were mass produced for the Russian army while the AK-47 was considered a special purpose weapon. In the mid 50's the AK-47 became the standard service rifle and the SKS was phased out.

Col. George Jarrett had recommended that the United States consider adoption of the MP-44 or a refined version. His recommendations were ignored as work was proceeding on a revision of our standard service rifle, the Ml in calibre .30. The end result was the Ml4 rifle in 7.62mm NATO which was compatable with our M60 machine gun and other NATO nations. In 1962, a new weapon, developed independently by Eugene Stoner of Armalite, proved to be effective in Vietnam and procurement of the weapon was begun. It was quite a controversal weapon as there were numerous reports of the weapon malfunctioning in the field. In a book entitled "The Ml6 Controversies" by Thomas McNaugher, the details of this weapon's







Photo above shows efforts of one unit to provide additional security to supply vehicles. The NCOIC was the voice of:"I am the Infantry, Follow Me!" in the official recording.

Was dolled a controversal weapon as there ware numerous reports of the weapon all'unctioning in the field. The prove witcled "The Mis Controversion" of Thomas controvers, the details of this vence's

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development was discussed. In a review by M.L. Brown, the Small Arms Editor of National Defense magazine, it was stated:

"Alas, the poor M 16, a Department of the Army nightmare!

In this solidly researched and documented volume, author McNaugher, a Brookings Institution conventional forces analyst, takes us on a horrifying journey into a dark, remote region of the Twilight Zone called the 'politics of procurement.'

Those unfamiliar with bureaucaracy and the controversies surrounding the acceptance of the current U.S. service rifle are here exposed to a fascinating study of bureaucratic bungling, deliberate chicanery, impervious dogma, emotional exacerbation, fierce intraservice rivalry, technological trauma, and a plethora of other hierarchic political manifestations portrayed against a serious background of U.S. defense decision-making.

The author paints a stark potrait of how those confusing elements were related to the development, testing, adoption, and procurement processes enveloping the M 16, an innovative military rifle which in 1962, with the assistance of a then recently appointed Secretary of Defense Robert S. McNamara, created an ideological confrontation challenging the Army's fundamental tactical doctrine rooted in the dim antiquity of our tragic Civil War.

This, then is not merely an investigation to determine whether one martial rifle is superior to another, M 16 vs. M 14, but whether traditional tactical doctrine is relevant to the dictates of modern conventional warfare: aimed vis-vis saturation fire.

In any event, it sometimes happens in the convoluted course of history that events rather than men settle an issue and, as the author points out, the initial success of the M 16 in Vietnam destroyed the fabric of traditional tactical doctrine.

McNaugher states that 'Since 1968, it (the M 16) has in fact functioned reliably.' That should end the controversies once and for all. But does it? Not generally known beyond the military sphere is the fact that malfunctions, a problem plaguing the M 16 for several years and contributing to the conflict, surfaced again in 1982 during the massive Brightstar I training exercise, conducted by the U.S. in Egypt. Central Command M 16's frequently jammed in the desert operation, the trouble assessed as sand infiltration into the


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operating mechanism. In the aftermath of Brightstar II the following year, the jamming problem was purportedly solved by proper maintenance.

If the work is flawed at all, it is in McNaugher's assessment of the origin that it stemmed from the outstanding reputation for accurate, long-range shooting earned by frontier riflemen during the American Revolution. A more thorough investigation into that aspect of military history would have revealed a heated contemporary debate not unlike the M 16 firepower controversy. Most patriot commanders preferred the short-range, smoothbore musket to the rifle because it could be loaded faster, carried a bayonet, and, more to the point, delivered an awesome hail of lead to a specific target (saturation fire).

The M 16 controversies remain, in many aspects, analogous to the current conflicts raging around the Army's protracted 9-mm handgun procurement program. Perhaps McNaugher's attempt to inform us about the complexities involved in the circumstances surrounding the controversial M 16, as well as his suggestions for program inprovement found in Chapter 7, will broaden intellectual horizons and establish more rational approaches to future materiel procurement and tactical concepts."

Against this background, the Viet Cong in Vietnam were receiving weapons of Soviet design. From 1965 until the TET offensive of 1968, considerable amounts of captured weapons were recovered and evacuated to the Combined Materiel Exploitation Center. As time passed, the Viet Cong arsenal went from surplus WWII and Korean War era weapons to the AK-47 and RPD light machine gun. At the same time, the M 16 rifle was being made and delivered to Vietnam. Of necessity, the combat elements received the first M 16's. Troops who were normally considered rear area troops were still armed with the M 14's and other WWII era weapons.

For a variety of reasons, mostly political, Saigon was considered a secure city and personnel who lived and worked in Saigon did not carry weapons. Most weapons were locked up in arms rooms. On the morning of the TET offensive, many unarmed personnel were caught in the attack and killed. By the second day of the attack, the Technical Intelligence personnel of CMEC began to issue captured weapons to anyone who wanted them. Along with the weapon came a fast class on how to load, operate and disassemble the weapons. This was something that all personnel should have known prior to being sent overseas, but it had not been done since the immediate post Korean War era. Shortly after becoming Chief of Staff upon his departure from Vietnam, Gen. Westmoreland directed in January 1969 that foreign weapons training be included in basic training. At about the same time, I instituted a program of weapons training in

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A large collection of enemy wearons captured by Australian Forces during February 1968



A captured Soviet made 37mm antiaircraft gun

14.5 mm Armor Peircing Incendary ammunition recovered from a North Vietnamese Supply trawler.





28 March m

Headquarters, Task Force Barker, Americal Division 28 March 1968 SUBJECT: Combat Action Report (RCS AVDF-GCI)

- TO: Commanding Officer uth Infantry Brigade
 - ATTN: XIOP APO 96217
- 1. Type of Operation: Helicopter Assault
- 2. Dates of Operation: 160730 to 161800 Mar 68. 3. Location: My Lai, RVN, BS 728795.
- Command Headquarters: Task Force Barker, 11th Infantry Brigade S. Reporting Officers:
- CPT Ernest Medina, CO, Co C, 1/20 Inf CPT Ernest Medina, CO, Co C, 1/20 Inf CPT Earl Nichols, CO, Co B, 4/3 Inf
- CPT William Rigg, CO, Co A, 3/1 Inf

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- (I) Perso
- 125 KIA
- II VCS CIA (2) Equipment captured: 1 M-1 rifle

 - 2 M-1 carbines 10 Chicom hand grenades 8 US M-26 hand grenades
 - 410 rounds small arms ammo
 - 4 US steel helmets with liner
 - 5 US canteens with covers
 - 7 US pistol belts
 - 9 sets US web equipment
 - 2 short wave transistor radios 3 boxes of medical supplies
- (3) Equipment and facilities destroyed:
 - 16 booby traps
 - I large tunnel complex
 - 14 small tunnel complexes S bunkers
 - nerous sets of web equipment

the II corps tactical zone. Several demonstrations were conducted in Nha Trang. This program ended when I departed from Vietnam and was not reinstated in the military until 1976.

Over the eight years of the American involvement in the Southeast Asian Conflict, the weapons that were recovered in the early phases were evacuated to CONUS test and evaluation agencies, and the detailed technical analysis that were done were consolidated at the Foreign Science and Technology Center. FSTC's primary emphasis was production of the report "Soviet Technological Threat to U.S. Ground Forces" 1960-1980. In addition, FSTC produced numerous guides on small arms ammunition identification and manuals on the use of Communist Bloc small arms.

The field team became the G2's "chief go for" and anything that was questionable became a subject for our team to "go for." During the battle for Dak To in October 1967, based upon intelligence reports of increased enemy activity, General Rosson decided to reinforce the 4th Infantry with the 173rd Airborne Brigade. Reports from the field indicated that Dak To had been attacked by mortar and recoilless rifle fire. One element kept insisting that the enemy was using 122-mm. rockets. Despite my protests that Technical Intelligence was not in the crater analysis business, I was tactfully asked to check it out. As I knew in advance, there were no 122-mm. rockets, I was not anxious to get out in a major battle just for the hell of it! In discussing this with General Rosson, his comments were:

"As for your crater analysis, I did get word both from Peers and from a daily G2 briefing at Nha Trang that enemy rockets had not been used. All things considered, I am satisfied that my G2 saw to it that key information, including that of TI interest, made its way to me. The problem, as we came to know at the close of January 1968, was failure to uncover key information that would have revealed the TET Offensive. True, there were indications that the enemy had something important in mind, but his preparations either escaped detection or were seen as being part of a normal pattern."

Many years later, a magazine article appeared that was written by one of the signal intelligence intercept operators. It seems that during the early phase of the battle a large explosion occurred. This was a much larger explosion than would be produced by our Air Force's B52 strikes. The signal intelligence people speculated that the United States forces had a "Davey Crockett" nuclear weapon stored there which had accidently gone off or, worse yet, that the NVA might have used a nuclear weapon. As it turned out, the engineers had illegally stored some 14,000 lbs. of C4, a high explosive, in a conex container, a large metal box. This had caught on fire and in a confined space had exploded with the same force as a nuclear weapon.

Shortly after the TET offensive, General Rosson moved north to



The original "RED THRUST" Group composed of: Front Row; AO1 Mike Crouch, SFC Perry Davis, Captain William Howard; Back Row; LTJC Raymond Overgard, Captain Mike Kasner, SFC Albert Winkler.



SFC Albert Winkler conducts mechanical Training of AK 47 for elements of IFFV and Nha Trang Area unit personnel as well as 5th Special Forces.

the I Corps Tactical Zone to command what was called Provisional Corps, and General Peers assumed command of II Field Force at Nha Trang. I specifically asked General Rosson if he could provide any details concerning decisions made based solely on Technical Intelligence input. His reply was:

"In response to your request for "any observations, actions, command decisions that you may have made based upon intelligence reports that incorporated advance knowledge of new enemy weapons", I can report none. It may be of interest to you, however, that during Provisional Corps, Vietnam's operation to relieve the Khe Sanh Combat Base in April 1968, intelligence indicated the possibility of enemy employment of Soviet PT-76 and T-54 tanks. This prompted Major General Tolson, Commanding General (CG), 1st Cavalry Division (Airmobile), to prepare his reconnaissance and assault helicopter units to use the SS-11 heliborne wire-guided anti-armor missile. Although these munitions were not needed, one PT-76 tank was destroyed by tactical air."

It is not the purpose of this book to do an in-depth analysis of the entire Vietnam War or all the problems that surfaced in the intelligence organizations, or in material acquisition, however, a short summary of some events in the war are necessary.

In the early phases of the conflict, the mortar and machine gun dominated the Viet Cong arsenal. These were supplemented by antitank rockets and recoilless rifles. In 1967 Technical Intelligence teams began recovering the new RPG 7 anti-tank rocket. At the same time, the enemy introduced the 122-mm. rockets which marked an escalation of the war. In the combat area, PT 76 tanks were used just prior to the TET offensive of 1968. Technical Intelligence efforts to recover these vehicles failed as they were badly destroyed in combat or had important components removed as souvenirs. Shortly after the TET offensive of 1968, Technical Intelligence began recovering large quantities of 100-mm. tank gun ammunition. This information was passed to the intelligence community and efforts were made to locate possible enemy tank staging areas and to confirm or deny the existence of enemy tank units. Based upon the possible threat of tank units, the TOW antitank missile was hastely deployed to Vietnam and arrived in time to stop the enemy's 1972 offensive during which T54 tanks made up the bulk of the North Vietnamese armor. Several years later, in 1975, the North Vietnamese Army launched a major offensive which resulted in the collapse of the Saigon government.

The major contribution of the Combined Material Exploitation Center's was never fully understood because of the time span between the action of T.I. and the reaction of U.S. troops on the ground. Actions by T.I. personnel in 1968 produced a reaction in 1972, some four years later.



As a result of our field collection efforts, the fragment identification boards were completed. The units in the field had been sending in the fragments and we had to send a spot report to the field, a slow and cumber some procedure. Much time was lost in the process.

To rectify this, CMEC began work on the Fragment Identification Guide show to the right. This proved to be of limited value as the troops in the field really did not understand what to do with it or the informat. ion derived from it. It had to be used along with a guide listing weapons ranges.

An incident occured on the DMZ where the troops were receiving incoming fire from enemy artillery that was "just over the hill" because they could hear the guns fire, but could not find the enemy position. Once the caliber of the weapon was determi mined, the correct range was determined and patrols were sent to locate the p positions. They were fou found at a Maximum range of 18,000 meters, much greater than our artillery.

It would take another ten years before the Army would field a weapons range reader that would prove to be effective, but, there were no fragment ID Guides and no fragments. Although I am not anxious to "blow my own horn," I feel that in order to understand future developments in both tank and antitank weapons design as well as changes in intelligence organizations it is necessary to discuss at some length the factors which led to the deployment of the TOW missile system. I quote from a brief summary of my team's performance in 1967-1968, a letter written by my replacement and some information on events at Redstone Arsenal.

"Captain William L. Howard distinguished himself by exceptionally meritorious service in connection with military operations against an armed hostile force in the Republic of Vietnam during the period September 1967 through August 1968, while serving simultaneously as the officer-in-charge of the Combined RVN/US Material Exploitation Center Field Coordinating Team Nr. 2 and also the Technical Intelligence Section, I Field Force During this period, CPT Howard had numerous Vietnam. responsibilities in the areas of collection, evacuation, and exploitation of captured enemy material throughout the entire II Corps Tactical Zone. Immediately upon taking command of the Technical Intelligence effort, CPT Howard realized not only the importance of providing technical intelligence support to the Assistant Chief of Staff G2, I Field Force Vietnam, but also the often less emphasized but equally as important mission of providing technical intelligence knowledge and training to the combat elements in the field. It was only through the tireless efforts of CPT Howard that liaison was created with elements of all the combat, direct combat support and combat service support units in the II Corps Tactical Zone. He diligently applied himself to the task of becoming familiar with the current enemy situation in the II Corps Tactical Zone in order to better evaluate information pertaining to weapons systems and ordnance employed by enemy forces. The mission of technical intelligence requires that the individual carrying out the mission be extremely knowledgeable in all areas of enemy material, with special emphasis on ordnance. In this case, the man and the mission were compatible, as CPT Howard constantly utilized his vast personal knowledge of enemy material and his professional ability to anticipate the requirements of his command and of the soldier in the field in order to accomplish his mission. The Commanding General and the G2, I Field Force Vietnam, were kept informed and given comprehensive briefings on all developments of a technical intelligence nature by CPT Howard. CPT Howard was consulted by members of the General Staff not only because of his title as Technical Intelligence Officer, but rather because his demonstrated knowledge of enemy material was extensive and exacting. CPT Howard was also responsible for the evacuation of enemy material for the entire II Corps Tactical Zone. CPT Howard's efforts in obtaining

THE CTE TECHNICAL INTELLIGENCE SECTION JOURNAL

By sometime in May, CMEC had collected enough schrapnel and captured munitions to produce this guide, "FRAGMENT IDENTIFICATION". This contained complete instructions for anyone who read them on how to identify incoming ordnance. This, it was hoped, would aid the unit S2's and perhaps result in more accurate spot reports. We obtained a supply of these manuals and began passing them out to the Combat units.

FRAGMENT IDENTIFICATION



COMBINED MATERIEL EXPLOITATION CENTER

VIET NAM

I. PURPOSE: The purpose of this manual is to assist in the field identification of enemy projectiles and projectile fragments. After the identity of an incoming round is known, it is relatively easy to determine the kind and size of weapons that fired the round. With this knowledge, the probable locations of the weapon can be plotted by appropriate methods.

II. SCOPE: The data and photographs contained herein are from artillery rounds and mortar shells recovered in the Republic of Vietnam. These rounds are types fired by the enemy and/or friendly troops.

A. The following is a numerical listing of countries which have manufactured ordnance recovered in the Republic of Vietnam. This listing is based on the Foreign Ordnance Materiel Catalog Index which assigns numerical designators to all countries as follows:

GRC UP	1					United States
GROUP	14					Country Unidentified
GROUP	18					Communist Bloc Country Unidentified
GROUP	10					Free World Country Unidentified
GROUP	2					Soviet
GROUP	5					Chinese Communist
GROUP	9					North Vietnam
GROUP	10					North Korea
GROUP	11					Poland
GROUP	12					Romania

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technical intelligence data were often complicated by the difficulties imposed by the widely separated areas of the II CTZ to which he had to travel to personally inspect enemy material. Nevertheless, he constantly sought to find better ways of receiving, analyzing and reporting technical intelligence information so as to provide more rapid response to the intelligence requirements of I FFORCEV.

It was through his efforts alone that many new and significant items of enemy material were first positively identified as being in use in South Vietnam. CPT Howard consistently provided commanders at all echelons with the results of tests and analyses explaining capabilities and uses of enemy ordnance. The introduction of the RPG-2 and RPG-7 Antitank Grenade Launcher in the II Corps Tactical Zone is an example whereby CPT Howard gave on-the-spot evaluation of the weapon itself, utilizing all the information available at that time, to subordinate field commanders. After subsequent tests and detailed analysis of both the projectile and launcher, a training film was produced. CPT Howard made maximum use of the film and arranged for field commanders to show the film to their units. In January of 1968 CPT Howard was designated as a member of the I FFORCEV Rocket Investigation Team. The introduction of Soviet and ChiCom rocket systems has been significant during the course of this conflict, and CPT Howard is credited with the timely and accurate flow of information and material between the CMEC and the II CTZ on this matter. In November of 1967, CPT Howard and members of the area EOD Team began a series of investigations into terrorist activities in the Nha Trang area to include the bombing of the Neptune NCO Club. In December 1967, CPT Howard initiated what was to evolve, due to his efforts, into an extensive museum of captured enemy material from the II CTZ at the I FFORCEV Headquarters in the Grand Hotel, Nha Trang. In late December of that same year CPT Howard displayed a high degree of professional competence as the investigating officer for the Assistant Chief of Staff, G2 into the chemical attack at Pleiku. The recovery and subsequent exploitation of a large amount of enemy material during an unsuccessful enemy attempt to land trawlers on the II Corps coast proved to be one of the most significant aspects of enemy material exploitation since the beginning of this conflict. Complete exploitation was achieved by CPT Howard through his close liaison with the Nha Trang Navy EOD team and other agencies involved. Such items as Soviet radio and radar equipment and the ZPU-2 AA gun were just a few of the valuable items recovered. Through CPT Howard's untiring efforts a meaningful, coordinated program of production and dissemination of technical intelligence

During the Tet offensives the Viet Cong and North Vietnamese lost much equipment which would take some time to replace. (top) "Tunnel rats" display packs and weapons they found in underground tunnel complex. (above) Various captured NVA equip-iment, including bicycles used to make trip down Ho Chi Minh Trail. (right) Gen. Westmoreland is shown weapons found in cache. found in cache.



was established and maintained.

CPT Howard's perserverance, attention to duty, comprehensive knowledge and high degree of professionalism consistently produced results of the highest order. The effectiveness of the technical intelligence effort in the II Corps Tactical Zone can be directly attributed to the tireless determination of CPT Howard. His was an outstanding contribution to the total effort of supplying critically needed information. His outstanding performance of duty, attention to detail and professional competence are upon himself, I Field Force Vietnam, and the United States Army."

I must, in all candor, point out that my "brilliant" performance and extensive knowledge would not have been possible without the support of my non-commissioned officers, the recognition guides prepared by U.S. Army Europe and the commercially available book, "Small Arms of the World."

During the period 23 through 25 February 1968, General Earl Wheeler, the chairman of the JCS and party visited South Vietnam to assess the situation. By February 27, a memorandum was sent to President Johnson on the situation in Vietnam. The first part was a summary in which it was pointed out that the current situation was still developing, that the enemy had gone all out for a general offensive and had failed. They had suffered heavy losses. The Military Advisory Command had lost none of its pre-TET capability but had three major problems. First, the logistic support north of Danang was marginal; second, the defensive posture of the South Vietnamese was allowing the Viet Cong to make rapid in-roads in the formerly pacified countryside; and, third, 50% of all U.S. maneuver battalions had been deployed to I Corps while stripping the rest of the country of adequate reserves and would be hard pressed to defend against a coordinated attack.

The second part of the report discussed the situation as it stands today. Paragraph "a" on enemy capabilities detailed the overall enemy capabilities and then listed each Corps Tactical Zone. Under the heading New Weapons or Tactics; it was pointed out that: "We may see heavier rockets and tube artillery, additional armor, and the use of aircraft, particularly in the I CTZ. The only new tactic in view is infiltration and investment of cities to create chaos, to demoralize the people, to discredit the government, and to tie allied forces to urban security."

Shortly thereafter, the G2 Corps Headquarters asked me for my opinion on the possible use of nuclear weapons by the North Vietnamese Army. In specific, I was asked which of the Free Rocket Over Ground (FROG) systems was most likely to be employed by the enemy. I reviewed the Soviet Identification Guides and reached the conclusion that the FROG 3 was the most probable system. My logic was based on the fact that the FROG 3 was built on the same chassis



CMEC Personnel conduct class on safe handling of captured RPG - 2 Rockets.



as the PT-76 tank, the BTR series of armored personnel carriers, and the ASU 85 assault gun.

It made sense, at least to me, that since the VC/NVA had rather long and hazardous supply lines, they would need equipment that was simple to maintain and had as many common repair parts as possible. With considerable trepidation, I advised the G2 of this fact and also advised him that it was probable that T54 tanks would be used by the North Vietnamese. He promptly threw me out of his office telling me I was "full of shit." As I departed, he said in an apologetic tone, "You're probably right." I continued my departure and let the issue drop.

At the same time but unknown to me General Tolson, C.G. of the 1st Calvary Division (Air Mobile) had received intelligence warnings of the possible use of tanks by the enemy, as General Rosson had pointed out. Based on this, he ordered the SS11 wire guided missiles fitted to helicopters. The SS10 and SS11 wire missiles that had been developed by the French and were based on those captured from the Germans in WWII and acquired by the U.S. These missiles proved to be less effective than had been hoped.

Within the military Advisory Command, personnel changes were about to occur. General Abrams was about to replace General Westmoreland. The Combined Intelligence Center was about to receive a new commander, an Air Force Colonel. The impact of these changes was summed up in several letters from John Baker.

"Technical Intelligence was every minor portion of the 525th MI Group and we never received (or needed) augmentation like the other 525th 'activites.' We finally lost some jeeps, in the spring of '68, when they put an Air Force Colonel in charge of CICV. His supply officer, an overage-in-grade AF Captain, convinced him that CMEC had too many jeeps, so I was directed to turn over field team vehicles to CICV so that some of the CICV branch chiefs (LTCs) could go to the PX during the day. Since I had already justified every man and every piece of equipment, on three separate occasions, I was very upset about this. CMEC had just lost two dead and two medically evacuated to CONUS, so my spring was wound pretty tight. I did the unpardonable, in the military. I lost my temper: I suggested to the AF Colonel that, since he obviously had no confidence in me, as a leader and manager, that he should relieve me and get someone else. Needless to say, he was displeased with my remarks. He was still writing bad reports on me after I returned to AMC! In addition, the PT-76 tank got me in a lot of trouble. Someone from CMEC (probably Major Hasford) briefed the incoming COMUSMACV, General Abrams, on various items of CEM, among them some things which CMEC and the Signal Intelligence people had removed from the damaged PT-76. Two days later, a CICV Order of

-150-

MINE DETECTOR VIM-203M

USSR

Two models of the VIM-203M are employed; one uses a rectangular search coil and the other, a circular search coil. There are slight variations between the two models in the weights of the component parts and the voltage of the "A" battery. The circular-coil model, believed to be the latest version of the VIM-203M, is slightly heavier and has a higher voltage for its "A" battery. This detector has a 30-hour continuous operating life and has a detection range for buried mines of 20 to 30 centimeters (8 to 12 in). The VIM-203M weighs: 11,9 kg (26.4 lbs). As is common with most Soviet mine detectors, there is a device on the search coil which permits its use on either a search pole or a rifle muzzle.

CHARACTERISTICS

Total weight Detector head assembly Weight 11.9 kg (26.4 lbs) 38cm diameter, circular search coil 6.56 kg (14.5 lbs)





The Soviet IMP mine detector had been recovered in the Au Shau Valley. It was the free porlds first knowledge of the new item. It was fully transistorized and ran from a power burce of 4 dry cell batteries. When I briefed the CG of the 18th Engineer Brigade, his only comment was to the effect, "How do I get them for our troops!" even heard of CMEC briefed that there were no tanks in SVN! The Air Force Colonel who commanded CICV got his ass reamed and <u>he</u> blamed me! Gave me a very bad Officer Evaluation Report, including the <u>fatal statement</u>, 'this officer does not <u>fully</u> coordinate staff actions.'"

It was obvious to those of us in the field that conditions were getting worse, not better. Instructions had come down that we were to turn over to the logistic system, the responsibility for the evacuation of captured material. I had hoped that upon departure from Vietnam, I would be assigned to duties with the Foreign Science and Technology Center or at the Defense Intelligence Agency or in a weapons research assignment. Instead, I was assigned to the G2 section of Fort Polk, Louisiana, a basic training center.

The remainder of my tour was without incident or very much enemy activity. In August 1968 I was replaced by Lt. Bud McFadin. I turned over to him our collection of weapons, our reference books and I provided him with as much information as I could. Once back in the States, I stayed in contact with Lt. McFadin for several months, but it was not until many years later that he managed to set down in a letter his experience. It is necessary to quote from his letter to show what transpired between August 1968 and late 1969.

"On 23 January 1968, the Pueblo incident alerted the military to the fact that the North Koreans were still there and just might begin to, once again, cause trouble for South Korea. The decision was made to beef up the aerial reconnaissance efforts over the north. A special Photo Interpretation class was scheduled and, after OCS, I was granted my transfer and placed in the class. I was not sure I knew what interpreting aerial photos involved. In the five months it took me to complete the training, it became apparent that the Pueblo incident was not the first step to a massive invasion of South Korea; I was destined to go to Vietnam after all.

I arrived in Vietnam in July, 1968, and was assigned to the 55th MI Det. in Nha Trang. All I knew about it was that it supported the IFFV HQ, who had control over II CTZ. After several days of inprocessing, I was told I would be replacing a Captain Howard as the TI officer. I frantically began inquiring "What the hell is a TI officer?"

Captain Howard began to acquaint me with the job, but it soon became apparent that I lacked the experience and education, as well as the authority, to be as effective as the CMEC Go-Team leader. It seemed like such a short time before I was on my own to do a job I was not at all sure about; a situation I found to be quite common throughout this whole effort in Vietnam.



Above: Sp 4 Ray DuBois, son of Admiral DuBois, of the 55th MI Detachment Technical Intelligence Team test fires a Chinese assault rifle against the newly developed light weight body armor. Sp4 Dubois was later transferred to the highlands.



Photo Above: USAF Sgt Thompson and Lt. Bud McFaddin now with IFFV G 2 Air, plot possible locations of NVA/VC tank staging areas in Laos and Cambodia.

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I was assigned a Specialist 4 Clerk and given the TI office at Roberts Compound. We were left almost entirely on our own. The first few months I spent studying reports and technical manuals, going to CMEC HQ in Saigon for briefings, and registering war trophies. My trips to CMEC HQ were not very fruitful in that I was considered somewhat of an "outsider" and had to dig for information while there. My immediate impression of the TI effort was that we were constantly looking for upgraded weapons systems -- particularly tanks. Rumors of sightings of tanks, surface to air and other more sophisticated conventional weapons, were flying everywhere. Such field sightings were difficult, if not impossible, to substantiate. With all of the cries of "Wolf," it was hard to maintain any degree of determination in pursuing verification. I never could, while TI officer, confirm the use of any heavy weapons. That changed, however, later in the sixteen months of my tour.

After about three months, we were given orders to move our office to the 55th MI Det HQ compound along the beach road in Nha Trang. We moved into a 10' x 12' trailer that was sitting on the front lawn of a home on one of the busiest streets in town. We instantly became the center of attention. Everyone coming by considered it a part of his tour to stop and see the displays of captured enemy weapons and receive a personal briefing on enemy ordnance. I knew that this was part of my job -- information and education -- but we had little control of the situation and constant interruptions made this situation unbearable. All of a sudden, TI was the glamour assignment.

Then things really began to happen. Did someone get to the CO or was it my imagination? My clerk was reassigned to an interrogation outfit, I think in Da Lat. I was reassigned to the G-2 Air Office in Nha Trang. A sergeant was given the TI job along with a clerk. I was not given the opportunity to brief the incoming sergeant and he had no desire to be briefed. He had inherited a goldmine of weapons, attention and prestige. The office was still there through November, 1969, when I returned CONUS. I never heard of or saw any TI being performed after I left. I stopped in a few times afterward to discuss the situation with the clerk but never could catch the NCO in the office. I was told the only thing being done out of that office was war trophy registration. I was unaware of any other TI efforts within II CTZ.

My story of enemy weapons systems would have stopped here except that I was able to learn a lot about the goings on within the area through my G-2 Air assign-



Military Intelligence

should have been providing the same kind of information to field units, but they weren't, and that was only one aspect of MI's failures in the Brigade. They were no worse and no better than most intelligence units in Vietnam. They were just part of the sickness. Perhaps their weaknesses were partly caused by the reluctance of anyone to capitalize on their information. It had been a long, long time since anyone had used intelligence intelligently, and if the MI people were frustrated and stale, it was understandable.

This map and the short paragraph on Military Intelligence were taken from LTC Anthony Herbert's book, "Soldier" which covers his career and time with the 173rd Airborne Brigade. I was long gone from Vietnam at this time so make no observations other than to say it is included to show the area of operations in II CTZ and LTC Herbert's views on Military Intelligence, in specific Combat Intelligence. ment. While scheduling aerial reconnaissance missions, reports, rumors and speculation of increased tank activity around the area of the Vietnam, Laos and Cambodia borders continued to come in. Units had reported being fired upon by tanks. I knew of no efforts of a TI team being sent to verify, although that may have been done out of CMEC HQ in Saigon. We never seemed to be too concerned with this problem. I did spend a lot of time and effort in trying to verify or locate something by way of air but was unsuccessful.

Around July, 1969, I was assigned to the Photo Interpretation Unit at IFFV HQ. Finally, this was what I was trained to do. I immediately began trying to locate the staging and support areas for the tanks. We knew that if we could knock these out, we would see no more tanks. I went to CICV HQ in Saigon and visited a friend of mine who worked in the Photo Interpretation Unit there.

The NVA were obviously using Cambodia as an assembly area for attacks across the border. The 4th Division at Dac To II were reporting limited but consistant contact with armor. I asked the CICV unit for information on photos of Cambodia. I was told that Cambodia was off limits to US/ARVN aircraft and that such photos did not exist. Further inquiries brought a different story. It appeared that photos did exist, however, they were classified "Secret." I was denied access to them even though I possessed the necessary clearance. It appeared I did not have "the need to know." I was again later told that we had Special Forces LRRP units in Cambodia and MACV did not want that information out. I guess they thought I would be able to read the insignias and see the berets from the photos. At any rate, I got no photos of Cambodia.

Around September, I was able to scrounge some hand held camera photos of destroyed tanks near Dac To II. They were taken by a helicopter pilot, of poor quality and the tanks were badly destroyed but could be identified. As I recall, they were of the Soviet T-54 series. There had been much speculation that the NVA/VC had managed to get their hands on a few US tanks and had put together a few bastard armored units built around them. I left Vietnam in November, 1969, feeling that most intelligence reports were not fully utilized because of the complicated political situation."

While Lt. McFadin was learning about Technical Intelligence, CMEC and events in II CTZ, the Marine Corps in the I CTZ had been extremely busy. ment. While scheduling aerial reconnaissance missions, reports, rumors and speculation of increased tank activity around the area of the Vietnam, Laos and Cambodis borders continued to come in. Units had reported being fired upon by tanks. I knew of no efforts of a TI team being pent to verify, although that may have been done out of CMEC HO in Saigon. We never seemed to be too concerned with this problem. I did spend a lot of time and effort in trying to verify or locate something by way of air hot was unsuccessful.

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The major blow during February against enemy combat power in I CTZ was delivered in southern Quang Tri province, where the 9th Marines Operation DEWEY CANYON ruined at least temporarily an extensive NVA staging and infiltration complex astride Route 922 overlooking the Da Krong Valley. Initially launched in late January, the offensive melded successfully the elements of surprise and combined-arms firepower to strike the enemy at both a time and place he least expected -- by end-February reducing to disarray the command and control apparatus of enemy Base Area 611.

Situated between three major enemy base areas (101 in Quang Tri, 114 in Thua Thien, and 611 on the Republic of Vietnam/Laos border), the DEWEY CANYON area of operations centered on a suspected enemy logistic and infiltration network capable of feeding war stocks and replacement units into Thua Thien and Quang Nam via Routes 548 and 547 through A Shau Valley to the southeast. With III MAF large unit operations athwart enemy lines of communication in northern and western Quang Tri effectively blocking these former high-use enemy avenues of approach, this Route 922/A Shau artery had assumed a greater magnitude of troop and supply traffic. Late-1968 aerial reconnaissance detection of major engineering works and extensive vehicular traffic, coupled with a marked increase in anti-aircraft fire, identified the area as a lucrative target.

Initial combat operations in the DEWEY CANYON area encountered little organized resistance, as enemy forces were not deployed for a defense-in-depth. With the vitals of his system abutting the Laotion border, the enemy obviously felt secure from flanking attack. And, relying on a combination of difficult terrain, well-dispersed and entrenched anti-aircraft guns, and traditionally long periods of poor weather to check friendly maneuver through the Da Krong Valley, the enemy also considered himself reasonably invulnerable to ground or heliborne frontal assault. However, the enemy again underestimated the reach of III MAF combat power. Establishing Fire Support Bases (FSB's) Shiloh, Razor, and Riley in the northern sector of the Da Krong, 9th Marines elements began a systematic probing for enemy troop formations and fortifications, displacing sequentially forward to new FSB's along the axis of advance. Early contact was restricted largely to brief clashes with small enemy units. The location, by advancing Marines, of small living areas complete with well-tended garden plots, was not uncommon, evidence the enemy had become domestic to the area. On several occasions, the occupants had abandoned weapons in their haste to retreat.

On 2 February, there occurred the first real harbinger of determined opposition to the campaign, as the enemy fired 40 rounds of 122mm artillery on elements of 3d Battalion, 9th Marines at Fire Support Base Cunningham, six miles north of the Laotian border. Traces of powder smoke, however, compromised the enemy firing position, and counterbattery fire caused three secondary explosions. The enemy artillery attack, the first in I CTZ since 18 November 1968, was fired from within South Vietnam.



Poor weather, however, a condition plaguing the conduct of the operation throughout, was a serious impediment to the initial momentum of the assault. Ground fog and heavy overcast impaired the effectiveness of logistical, as well as tactical, air support, slowing the requisite build-up of ammunition and supplies on station to support a broad-based attack. Nevertheless, the attacking forces pushed outward from their FSB's, affording the enemy little opportunity to mount offensive counteraction. Numerous small caches and fortifications were searched and destroyed, evidence of increased enemy presence in the southern sector of the valley. One substantial cache, uncovered by Company H on the 10th, contained 393 RPG rounds, 157 mortar shells, ten cases of ammunition, and 19 rifles.

As the Marine advance neared Route 922 at the southern end of the objective area, enemy resistance stiffened. At 220 on the 11th, he mounted a probing attack at FSB Erskine, which Company D repulsed, killing 12 NVA. At 1700 on the 12th, after fighting a day-long series of patrol actions, Company M threw back a mortar-supported ground attack by an estimated NVA platoon, two miles west of Erskine, likewise killing 12 and taking eight weapons. On the 13th, the point squad of Company C developed contact with a mortar and machine gun-reinforced enemy platoon, deployed in a line defense on a hilltop, two and one-half miles southeast of Erskine. The ensuing Marine assault forced the enemy from the hill, killing 15 NVA. That night, the Marines employed mortars and artillery to break an enemy effort to retake the hill, claiming an additional 13 NVA during the battle.

By mid-month, the overland attack, aided by a break in the weather which enhanced fixed wing and helicopter support, had achieved full momentum -- against increasingly stubborn opposition. Determined to protect his logistic and command and control mechanism, the enemy fought from newly constructed fighting positions and launched probing counterattacks, supported by mortar and artillery fire, against the 9th Marines advance. He also made prolific use of sniper fire to slow the assault, often tying riflemen to tree branches to ensure they did not retreat.

The enemy's resistance availed him little success. Employing a heavy volume of artillery fire (over 81,500 rounds during February in DEWEY CANYON) and air strikes (410 fixed wing sorties despite the marginal weather obtaining throughout the month) in support of resolute ground maneuver, the three battalions advanced steadily southward. Attesting to the performance of III MAF firepower (with an aerial observer calling the missions), two active NVA 122mm guns were destroyed on the 15th -- one by air strikes, the other by artillery fire. Marine scout/sniper teams also contributed measurably to the success of the attack, negating on numerous occasions the effect of their NVA counterparts by shooting them out of trees.

Sharp clashes across the entire front marked the action during 16 and 17 February. On the left flant, Company K, moving toward a 16 February objective, was attacked from the front and rear at 0845. Utilizing all available supporting arms to silence enemy mortar and RPG fire, the company killed 17 NVA and seized ten weapons in taking the position, sustaining one killed and 18 wounded in the action. On the 17th, advancing along the right flank, Companies E and G exchanged organic and supporting fire with an enemy company in a daylong, running battle.

Earlier on the 17th, FSB Cunningham was subjected to a pre-dawn sapper attack, aimed from three sides and supported by mortar fire. The sappers, clad only in green shorts and skull caps, carried satchel charges, RPG's, and packs full of grenades. The Marines repulsed the attack before daybreak, killing 37 sappers, 13 inside the perimeter. A police of the battlefield turned up 11 weapons, 12 packs, two radios, numerous hand and rifle grenades, and 253 bambooencased explosive devices. Friendly casualties were four killed, eight wounded, and one 105mm howitzer heavily damaged.

The heaviest fighting of the campaign took place during 18-22 February, the majority occurring in the 1st Battalion's sector in the center of the line. On the morning of the 18th, Company A encountered stiff opposition from an enemy platoon dug-in on a ridgeline, three and one-half miles southeast of FSB Erskine. Armed with automatic weapons and three machine guns, the enemy was prepared to hold. Preceded by air and artillery attacks, Company A assaulted and overran the position, counting 27 NVA dead in their fighting holes. To the north, Company C seized a hilltop emplacement, killing 32 NVA in a similar engagement on the following morning. Friendly casualties resulting from the two actions were one killed and 12 wounded and evacuated.

Pressing the attack to the south, Company C regained contact during late afternoon on the 20th, engaging a large enemy force deployed in bunkers and trenches. Two hours later, the Marine assault carried the position, killing 71 NVA. Equipment captured included two 122mm, towed howitzers (the first seized in the war), a five-ton, tracked prime mover, and a 12.7mm anti-aircraft gun. In a related action less than a mile to the southwest, Company A overran an enemy emplacement, killing 17 NVA and seizing a truck and assorted artillery and anti-aircraft ammunition. Friendly losses sustained in the two actions were four killed and 22 wounded in Company C, and one killed and two wounded in Company A.

As the attacking forces neared the Quang Tri/Laos border, protection of the regimental right flank generated the tactical necessity of deploying troops (sanctioned by COMUSMACV) across the international boundary. On 21 February, Company H established an ambush along Route 922, approximately one mile inside Laos. The maneuver paid dividends, as a truck convoy carrying ammunition to the battlefield triggered the ambush at 0240 on the 22d. Results were three trucks and several tons of ammunition destroyed, ten NVA killed, and the road blocked with flaming debris. Throughout the operation, Marine penetration into Laos was restricted to that required for flank protection, and in no instance exceeded 2,000 meters.

The last large-scale battle began during late afternoon on the 22d, when Company A attacked a well-armed, firmly entrenched NVA battalion just north of the border. Reinforced by Company D and the supporting fires of artillery and fixed wing aircraft, the Marines flanked the complex, then overran it. Results included 105 NVA killed and 25 weapons taken; the dead, clad in new uniforms, included several officers, all of whom were highly decorated veterans of other campaigns. Our casualties, not light were ten killed and 51 wounded and evacuated.

Meanwhile, on the left flank, although encountering much lighter opposition, the 3d Battalion nevertheless gained substantial results. Attacking generally down the trace of Route 548 (extension of 922 into Quang Tri), elements of the battalion uncovered enemy facilities containing tons of supplies and equipment. On the 18th, Company L located an NVA cemetery composed of 185 marked graves. On the 21st, Company M found a well-camouflaged maintenance facility, complete with six repair pits, a bulldozer, a front-end loader, several disassembled engines, and more than 300 fifty-gallon drums. Pushing southward, the battalion began a detailed search of the Tam Boi mountain area, discovering on the 23d two 122mm howitzers, along with a prime mover and assorted artillery, mortar, and small arms ammunition. Penetration of the Tam Boi complex, which resulted in the ultimate destruction of major enemy headquarters and administrative facilities, featured the detection of an installation composed of 11 immense tunnels carved into the rocks. These 150 to 250-foot tunnels, capable of housing extensive repair, hospital, or storage facilities, could withstand direct hits from air and artillery attacks.

The largest cache, however, was uncovered by the 1st Battalion on the last day of the month, astride Route 922. Requiring more than two days to explore and inventory, the repository yield included 629 rifles, 108 crew-served weapons (60 machine guns, 14 mortars, 15 reoilless rifles, and 19 anti-aircraft guns), and well over 100 tons of artillery, mortar, and small arms ammunition, mines, grenades, and explosives.

Through the first week of March, contact in Operation DEWEY CANYON remained sporadic, with our forces continuing to uncover large amounts of supplies, munitions, and additional weapons. By 6 March, the total materiel take included 1,212 individual weapons, 239 crew-served weapons (six 122mm artillery pieces, four 35mm guns, 24 recoilless rifles, 25 mortars, 49 anti-aircraft guns, and 131 machine guns), 957 122mm and 140mm rockets, 7,287 122mm shells, one-half million rounds of small arms ammunition, over 60,000 mortar rounds, 66 trucks, 220,000 pounds of rice, and tons of other munitions and equipment. Additionally, at least six artillery weapons and 17 anti-aircraft guns were destroyed by friendly supporting arms fire. In sum, Operation DEWEY CANYON should be ranked among the most significant campaigns of the war -- both in terms of concept and results. Despite marginal weather, an independent regimental operation, projected some 30 air miles from the nearest base, was sustained through a month and a half of heavy combat. Nearly 1,500 NVA regulars were killed during this period, and hundreds of tons of war supplies (the vast majority of which were new, destined for throughput to other battlefields) taken.

The final score of the operation, however, reached far beyond mere statistical results. III MAF mobile striking power ruptured the organizational apparatus of Base Area 611, effectively blocking the enemy's main I CTZ line of communication. The resultant impact undoubtedly caused repercussions at both ends -- to the south, the enemies' combat elements, for a time, did without certain war materials required to support already planned actions; to the north, the supply lane was in disorder all the way to the source.

This brief description of the operations in DEWEY CANYON was prepared from official U.S. Marine Corps records written shortly after the operation. From the hindsights of many years the operation was one of many operations which stalled the eventual end and by ought time for U.S. elements to train the South Vietnamese.

The captured material was evacuated and gone over by CMEC personnel. CMEC, however, had accomplished its major tasks by late 1968. The recovery of the 122mm Howitzers and subsequent exploitation became part of a report prepared by the Foreign Science and Technology entitled Gun and Howitzer Systems -- Eurasian Communist Countries which was released in December 1970.

In July 1969, the M55I Sheridan Light Reconnaissance vehicle had had its baptism of fire in Vietnam and had proven to be ineffective. The General Accounting Office charged the Army had rushed the Sheridan into production before completing tests successfully. At the same time, a House Armed Services subcommittee severely criticized the Sheridan program, attributing American casualties to ammunition that misfired and saying the vehicle was vulnerable to land mines.

The Sheridan was designed to fill a role that had originally been the ultimate goal of the light tank development program toward the end of WW II. The Soviets had fielded the PT 76 tank. It was by definition a light tank but as an armored fighting vehicle it was less than adequate for the modern battlefield.

Numerous historical works have been done on the Vietnam war and as time progresses, more will be done; however, the general consensus is that by late 1968, the war had reached a turning point and fighting will had collapsed among the troops. It was becoming increasingly obvious that the United States was not going to achieve a clear cut victory as it had in WW II. While it is now obvious, it was not that apparent in 1969. My own personal feeling was that the



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as time provi consensus 1 and fighting increasingly a clear cut w wis not that United States primary concern was still the defense of central Europe which meant counting Warsaw Pact designed and developed equipment. Most of my fellow officers at Fort Polk were concerned with Vietnam. I thought a great deal about the world situation, but reality for me was a basic training company and new recruits who for the most part would end up in Vietnam.

In mid summer 1969, the United States landed the first men on the moon. It was a moment of glory for the nation. The elation was short lived and we were all back to reality in a few days. Reality in Vietnam was the increased capability of the North Vietnamese army.

Basic training, as the name implied, was very basic and the troops, upon completion, were only qualified with their basic weapon, the M14. By mid 1969, we had begun to convert to the M16. Since all of the troops were going to some form of advanced training, they were not given much tactical training. I discovered that the local Explosive Ordnance Detachment had an extensive museum of land mines and other types of munitions. I quickly worked out a deal where we supplied them with traine@labor for cleaning and they gave my trainees a fast class on enemy munitions.

One of my NCO's, St. Chenowith, using his imagination and scrap material, had his platoon construct a mockup of a Viet Cong village complete with underground tunnels and bunkers. It was built one weekend while I was gone and, when I returned, there it was. I didn't know what reaction to have. I was worried that the troops might see it, think about Vietnam, and go AWOL. Since it was in place, I let it stay and added a few booby traps and dummy demolition charges for added realism.

During my 18 months at Fort Polk, Lt. Gen. Harry Kritz was the Fourth Army Commander and we had three changes in post commanders. Major General Charles Mount had moved on to become the 1st Army Commander, and General William Fulton had become post commander. During his tenure as commanding general, there had been an increased emphasis on the suggestion program and again the 1st Brigade commanded by Col. Alexander Lembres led the others in the number of suggestions submitted. One suggestion that I submitted was to take all the captured material recovered in Vietnam and assemble it into training aid kits and issue them down to Battalion S2 level. I had in mind an updated version of the Japanese mine training kits that had been manufactured in World War II. This suggestion got up to DA Staff and was disapproved. In the May-June issue of Infantry Magazine, an article appeared, written by Lt. Gen. Willaird Pearson, entitled, "More on Mines & Booby Traps." General Pearson had been with the 101st Airborne Division, the J3 at HQ USMACV and Deputy Commanding General of USMACV Forward, now designated as 24th Corps. General Pearson stressed the need for better training in detecting mines and booby traps.

During this period, the first AK-47's began to show up at the Individual Tactical Training ranges. Despite the fact that much



The photograph above was taken in late 1969 and shows the officers of the 1st Bh, 1st BCT Brigade. Front Row, seated: Cpt J.F. Bakody, LtCol Thomas Stanford, Cpt. R.Holland, Lt. W.R. Smith, Cpt R. Rockwell, Absent: Cpt W. Howard, Rear Row, Standing: CSM Stringfield, 2Lt Garza, 2Lt Brightman, 2Lt Geister, 2Lt Porter, 2Lt Fulton(KIA) 2Lt Turpin, 2Lt Werder, 2Lt Naylor.

amphasis on the stygeneous control of the others in the dumber of dommanded by Col. Alexander Lembres is that I submittee was to take au gestions submitted. One surgestick that I submittee was to take if the captured material recovered in fistness and assemble it into training aid kits and issue them down to Battalion of level. I had in mind an updated version of the Japaness sine training kits that had been manufactured in Marid War II. This suggestion get up to DR staff and was disapproved. In the May-June issue of Infantry Magazine, an article appeared, written by Ut. Gen. Willaird Pearson, entitled "More on Minus & Booby Trans." General Farson had been with the 101st Airborne Division, the Ja at Mg of ACV and Deputy deneral Pearson stressed the need for better training in detecting deneral Pearson stressed the need for better training in detecting aires and booby traps.

During this period, the first AK-A7's began to show up at the Individual Tactical Training ranges. Despite the fact that much earlier, General Westmoreland, the Army Chief of Staff, had decided that this familiarization was to be done for all recruits and it would include a live-fire demonstration. What we ended up with were some non-functioning SKS rifles and AK-47's. They were never demonstrated.

In late 1969, it was made public that in March 1968 there had been a massacre of innocent civilians at a town called My Lai in I CTZ. In another unrelated announcement, it was learned that Col. Robert Rheault, the commander of the 5th Special Forces, had formally been charged with the murder of a Vietnamese agent. Action was underway to drag the river in Nha Trang for evidence of other crimes. This was the famous Green Beret murder case. Briefly reviewing the situation, the 5th Special Forces operated "all over!" Detachment B-57 was running the clandestine intelligence missions along the border of Laos and Combodia.

By the spring of 1969, B-57 was probably one of our most successful secret operations. Most commanders in the field felt that these intelligence-gathering missions, though "illegal," had saved numerous American and South Vietnamese lives. It had begun to appear that Captain Leland Brumley's dream would come true -- that America would be able to fight a war in which American intelligence prevailed. His intelligence work against the North Vietnamese and the Viet Cong was so successful that by April of 1969 he and the people with whom he was working were intercepting information from the NVA-VC Courier Service. Through such intelligence, the Green Berets had eliminated a highly effective enemy intelligence reconnaissance unit operating from the islands off Nha Trang Bay and from the mountains south of the city.

And Brumley had done extensive work in operations to stop the graft and corruption of our Vietnamese allies, and especially the LLDB (Vietnamese Special Forces). This included the selling of weapons and medical supplies to the North Vietnamese Army and the murder of their own troops for threat of exposure.

B-57 had been created to establish agent networks in those Special Forces camps that would operate across the Vietnamese border into Cambodia and sometimes Laos. Our ally, the Republic of Vietnam, was not supposed to know of its existence, even though B-57, to succeed, had to use South Vietnamese employees. Because America, by crossing the border into Cambodia and Laos, was in violation of treaties with those contraities as well as South Vietnam, there was a general policy against American "grey ghosts" actually crossing the borders.

Col. Robert Rheault, the commander of the 5th Special Forces was arrested after all others had been arrested. Captain Stephen Berry was assigned the task of defending these men. As he pointed out in his book on the subject:

"I discovered that Rheault had never met most of

his codefendents. He dealt directly with Maj. Tom Middleton, who was Group S-2 (Intelligence) and was the principal staff operator officer to report on intelligence to Rheault. Major David Crew was the commander of B-57, and he, like Middleton, reported to a Colonel Facey, who was Rheault's deputy. Middleton had staff responsibility for Crew's operation and these two dealt with Rheault, while Leland Brumley, as chief of counterintelligence reported directly to Middleton. At the time they were charged with murder and conspiracy to commit murder, Rheault had never met Leland Brumley, nor had he ever met a number of the other intelligence officers who were made defendants -- Budge Williams, Bob Marasco, and Eddie Boyle were people whom Colonel Rheault would see for the first time in a courtroom, while being charged with conspiring with them to commit the murder (of Thai Khah Chuyen).

Colonel Facey generally testified to the military necessity of the nets that were in existence and had been compromised. He testified to the CIA funding for Green Beret activities, and to the fact that when Black Beard went across the Cambodian border, the equipment carried could not be regular U.S. Army equipment but rather had to be sanitized, since it was not being used on official American missions.

Under examination, the witness identified Black Beard as the code name for B-57 intelligence operations into Cambodia. He further testified that if Chuyen were allowed to compromise B-57's mission, and even if that compromise did not result in the deaths of members of the net, it would render the net ineffective "in addition to placing the United states in an unfavorable light." When I asked him if General Abrams himself had not approved of the nets and their results, he answered, "I sat next to COMUSMACV when he made that statement." It always delighted me when Abrams was referred to simply as COMUSMACV (Commander of the United States Military Assistance Command in Vietnam) -- somehow reminiscent of the papacy."

The top-secret Cambodian bombing had begun, and B-57 was sending back map overlays from the area to aid the Air Force in targeting enemy installations. Some of these overlays were obtained by indigenous personnel, both Cambodian and Vietnamese, recruited and trained by B-57, who operated under the cover of selling food to the VC/NVA units in Cambodia. The information they gathered was transmitted by clandestine radio, or by a secret courier system, to sources who then transmitted it directly to the White House. Bombing attacks were planned, based on the overlays and other intelligence gathered by agents working for B-57. But Marasco had been complaining that his net was drying up.



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The top-secret Cambodian bombing had begun, and S-12 was sending back map overlays from the area to aid the enemy installations. Some of these over attacks were plauned, based on the overla gathered by agents working for B-57. Bu



The Vietnamese who worked for B-57 were not Vietnamese Special Forces, and the Vietnamese government did not receive any of the B-57 intelligence. Captain Budge Williams had long thought that the real reason for the unilateral nature of the operation was for the protection of our own agents. The Vietnamese Special Forces had a Mafia-like reputation for staking down intelligence agents for their salary, and forcing them into compromising situations, and feeding them false intelligence. When Captain Marasco had arrived from the 101st Airborne Division, Williams was the operations officer for B-57. Williams had never met Brumley or his assistant, WO Eddie Boyle. While it was Williams's duty to gather intelligence, Brumley and Boyle as counterintelligence officers were concerned with security investigations, polygraphs, and other methods to keep enemy intelligence at bay. It was not unusual that Brumley and Williams would not have met; B-57 was spread out in a dozen camps along the Cambodian border, and there were many people involved in the operation who had never met one another.

Captain Williams related that he had crossed over into Cambodia on several occasions, working with Vietnamese nationals. Normally, Americans did not cross over into Cambodia, but operated there through our allied agents. Crossing the border, other than in hot pursuit of Viet Cong Forces, was dangerous, partly because we had no method with our system to recover Americans once they got into Cambodia, and partly because the discovered presence of an American might well have "blown" our missions there. So Captain Budge Williams had tried to stay on the Vietnamese side of the border whenever possible. But he had been involved in reconnaissance and interception of communications by wire taps on telephone cables, and in other forms of intelligence gathering. He had always gone over "sterile" with no American equipment. It was his custom to use foreign weapons, foreign radios, and false identification papers.

The full details of the case and the legal proceedings which took place are discussed in detail in Berry's book, "<u>Those Gallant</u> <u>Men</u>, on trial in Vietnam." Suffice to say that many of the enemy weapons and equipment that had been captured in 1967 and 1968 had been evacuated to CMEC and many were turned over to the Special Forces. The "incestuous marriage between the sneaky Petes and the Spooks" was severly strained as a result of the allegations of murder.

Perhaps of greater impact on the military was the My Lai murder trial of Lt. Calley and others, since it involved conventional forces. The primary charge against Lt. Calley and his platoon was the murder of 128 civilians. Part of the investigation was directed at the senior officers to include the Division Commander Major General Koster and Asistant Commander B. Gen. George Young. The allegation was that the difference between the number of "enemy killed" and the "number of weapons captured" should have caused an investigation. LTG William Peers, my former corps commander, was chosen as the investigating officer. The My Lai incident would eclipse all other aspects of the war for many people, as it was





investigation. LTG Willi LEAN TOTHER COIDS COMMANDEL, WAS chosen as the investigating officer. The My Lai indident would

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feared a witch hunt would follow. I chose to depart from active duty. I had aspirations of working on developing improved weapons. Subsequent events would prove the value of our early efforts in Technical Intelligence, as well as confirm that our pre-Vietnam era intelligence training of combat troops was non-existant.

As of 1969, it was too early in the war to attempt to make any assessment of events, but from hind sight, it would have made good sense to have a technical intelligence support element at Fort Polk.

At the same time that I had been in Europe and Vietnam, 1964-1968, the Army Missile Command had been developing an improved version of the SS10-SS11 system. The XM26 TOW Missile System was jointly developed by the Army and Hughes Aircraft and was tested at Redstone Arsenal from 1966 to 1968. The system was taken to Germany and demonstrated for possible use. Following this demonstration, the helicopters were returned to the United States, the weapons were placed in storage and the helicopters were sent to Fort Lewis, Washington for further tests.

During much of 1969, Jim Leatherwod, the former Chief of CMEC's weapons and munitions section had been assigned to the Foreign Science and Technology Center, and had been working on testing the RPG-7's that we had sent back from Vietnam. Gen. Westmoreland had recommended that the U.S. consider adoption of these weapons as a replacement for our M72 LAW which had not been as effective as desired. The heavy anti-tank weapons, the TOW had not completely entered the system.

Tests of the RPG7 were conducted in the United States under the auspices of the Foreign Science and Technology Center. These tests confirmed the results that we had obtained in Vietnam. Because of the potential effect upon troop moral the actual penetration capability of the weapon was not released, however, a "watered down version" was made public and created considerable confusion. The results of these tests and tests of the AK-47 were briefed to Gen. Frank Besson of the Army Material Command with the recommendation that the U.S. consider adoption of the AK-47 and RPG7 as Gen. Westmoreland had suggested in 1968. Gen. Besson's comments, heavily censored, were to the effect that the U.S. was not going to re-tool and manufacture Russian designed weapons!

Despite Gen. Besson's remarks, the U.S. was in fact about to manufacture "Russian ammunition." By the first half of 1970, U.S. intervention in Cambodia had intensified to the point that on 15 April, the Nixon administration began a program of direct military assistance to the Lon Nol government. The Saigon government had, in the meantime, turned over thousands of captured AK-47s and RDPs to the Cambodians. Ammunition for these weapons was of immediate concern.

The United States had been obtaining modest quantities of 7.62 x 39mm ComBlock ammo from the Finnish government. Soviet pressure
on Finland and a rather mysterious explosion at the Lapua factory suddenly ended this source of supply.

Using information and specifications supplied by those both within and outside of the U.S. ordnance infrastructure, test runs were initiated at Frankford Arsenal. The first lots were assembled using foreign components: Lapua (Finnish Arsenal) bullets and brass formed from 6.5 x 54mm Norma cases. The first run using U.S. components took place at the Frankford Arsenal in September 1970. WC-type ball powder was finally selected as the most appropriate.

Upon successful completion of the Frankford tests, the entire operation was moved to the Lake City Arsenal, where more than 15 million rounds were eventually produced. A small portion was sent to Ft. Hood, Texas, and the rest overseas, only to be swallowed up in the ensuing debacle of the Vietnam War.

The very first production runs were headstamped "LC71." However, shortly after production commenced at Lake City, the headstamping equipment in the production line was totally bypassed (the not-so-clever assumption being that without headstampings, no one would know who was producing the ammo).

Now, the stupidity of this charade rests in the fact that only the United States, as well as a few other countries, including Canada and Israel, that utilize U.S.-made production machinery, use the Boxer primer. The Boxer primer consists of a primer cup containing the priming mixture and an integral anvil, while the primer seat in the cartridge case had but one centered flash hole.

The Berdan primer is predominant throughout the rest of the world, including all of the ComBloc nations. In this type of percussion priming, the primer is a simple cup containing the priming mixture only, the anvil being formed as a port of the cartridge case. In addition, the Berdan primer usually has two flash holes, 180 degrees apart, on either side of the anvil.

Inspection of a fired case or one in which the bullet and powder had been pulled would of course reveal the type of priming immediately.

So, who was fooled by this rather inept ruse? No one, presumably, with the possible exception of U.S. cartridge collectors. As specimens began to trickle out, collectors, befuddled by the lack of headstamping, began to spread the imaginative story that the ammo must have been produced for the CIA. As only a very few are privy to the real story, the phrase stuck, and to this day, cartridge collectors refer to it as the "CIA 7.62 x 39mm ComBloc ammo."

This, of course, was another case where qualified Technical Intelligence personnel, had they been consulted, could have assisted the effort.



As General Westmoreland pointed out in his book, "Soldier Reports," the TOW was not used in Vietnam because of the absence of North Vietnamese armor. This changed considerably during 1970 and 1971. By late 1971, most of the Technical Intelligence assets had been withdrawn from South Vietnam and by early 1972, the threat of North Vietnamese armor had increased considerably. By March 1972, it was recognized that anti-armor systems in use in Vietnam would prove inadequate to stop an armored offensive by the North Vietnamese. It was decided that it was time to deploy the TOW system to Vietnam.

On the morning of 12 April 1972 several men sat around a table at Redstone Arsenal in the office of Brigadier General Louis Rachmeler, Deputy Commanding General of the Army Missile Command. There were Hugh McInnish; Col. Robert W. Huntzinger, TOW Project Manager; Robert Taylor, TOW Deputy Project Manager; and Major General Edwin Donnley, Commanding General of Redstone.

The problem was best stated by Col. Huntzinger, Project Director:

"Normally, the Army fields a weapon by a plan that includes development, production, testing and deployment. It's done on an orderly basis and takes into account when equipment is available, when it can be supported -- and when it's needed.

But the XM26 (airborne TOW) is an experimental subsystem developed by the Army and Hughes (Aircraft) to adapt the UH-1B helicopter for firing TOW missiles. Because the hardware is experimental there are only a limited number of complete subsystems -- the missile launchers, stabilized sights and electronics for the fire control systems -- in existence. Taken together, these things were called the "package."

Many problems remained before the "package" could be delivered to Vietnam. The TOW equipment was in storage -- and not one U.S. Army soldier had ever fired the TOW from a helicopter. The men in Gen. Rachmeler's office believe these problems should be solved immediately -- and within two days, the Department of the Army asked to have the airborne TOW sent to Vietnam, to be ready for combat in seven days in the battles of the Easter offensive.

There was no time to train new men. McInnish, a civilian engineer, became leader of the technical-support team going with the team to Vietnam. Traveling with him would be as many as possible of the demonstration team that had been sent to Germany. The phone calls began. Jim Follett of Bell Aircraft, expert technician on the UH-1B helicopter, came from a navy project in San Diego. The TOW's prime contractor, Hughes Aircraft, contributed four men to the team -- Tom Zogorski and Dennis Camp, engineers, and technicians James Faulk and Kenneth Blum -- all experts on the TOW's airbone guidance system.

Phone calls continued to locate the two gunships, found at Ft. Lewis, Washington. The remaining XM26 hardware was flown to the Culver City, California, Hughes Aircraft plant where it was combined with equipment already stored for completed XM26 systems and assembled and checked. At the same time, refurbishment began on the helicopters at Ft. Lewis, and two more men were added to the crew; Lt. Col. Patrick L. Feore, Jr., and Chief Warrant Officer Lester Whitels, the gunships' current pilots.

At Redstone, three C-141 aircraft were designated to handle the choppers, crews, missiles and equipment. Plans also were made to pick up TOW missiles at the Hughes plant in Tucson. The XM26 was readied in El Segundo, California. Six days after the word to go, McInnish left Huntsville, Alabama, by commercial flight to Culver City for the final packaging of the XM26. C-141's were loaded and headed west. After going through Hawaii, Wake Island and Guam, the group unloaded at Tan Son Nhut on 24 April 1972.

An unusual feature of the mission was the speed of deployment. From the moment Hugh McInnish at Redstone was notified on 12 April 1972 that the Department of the Army wanted to "send to another location the same 'package' that was sent to Germany last year" to the time the TOW arrived in Ton Son Nhut Airbase, only 10 days passed. McInnish said later that when the recreation of the Germany demonstration was mentioned "at another location," he was offered "a real target."

Yet another unusual feature of the mission was the use of civilian Army employees, like McInnish, in the deployment and as technical advisers in combat. The reason was simple -- civilians, having tested the prototype, knew how it worked. No Army personnel had ever fired a TOW from a helicopter.

Almost immediately after arriving on 24 April 1972 in C-141's, McInnish and the TOW team began to prepare the helicopters for flight and to install the XM-26 (the airborne TOW) systems. The TOW-support crew began cram courses to teach Army aviators to use the stabilized missile sight and its controls. The Army aviators learned quickly and, as a graduation exercise, fired two



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missiles each from the special choppers.

Original plans called for the TOW choppers to fight in the battle in progress at An Loc. These plans were changed on 28 April. The team was ordered to head north, not south to the Delta. The destination would be Camp Holloway, just outside Pleiku in Vietnam's central highlands. The choppers left, followed by the rest of the crew and equipment in C-130's.

A major attack on Kontum was expected. The day the TOW team reached Vietnam, the NVA had overrun Tan Canh, northwest of Kontum, and heavy fighting was reported at firebases at the northern and western approaches to the provincial capital.

In addition to conventional infantry assaults, the NVA was deploying Soviet armor -- T-54 medium tanks and PT-76 amphibious tanks. On the morning of 2 May 1972 an M41 tank lumbered down the dusty road outside Kontum City. Although the M41 tank had been built in America, its occupants were North Vietnamese (NVA) who had captured it and were using it against U.S. and ARVN units falling back to Kontum.

That morning, Army Warrant Officer Carroll W. Lain "made history," according to the U.S. Army Missile Command (MICOM) at Redstone Arsenal, Alabama, when he touched off one of six TOW (tube-launched, opticallytracked, wire-guided) missiles carried by his helicopter. The missile destroyed its target. Later in the morning, missiles reduced three other enemy tanks to rubble.

The Redstone "package" had arrived in Kontum.

MICOM credits Lain with being "the first American soldier to fire an American guided missile in combat." American soldiers had fired some French-developed ENTAC wire-guided missiles early in the war, but the TOW was the first American wire-guided missile to be used. Many other Americans would fire TOW's in the following weeks.

During May and June of 1972, the two TOW-firing helicopters (the only two in existence and still technically prototypes) fired 81 missiles in combat around Kontum, destroying 24 tanks, several armored personnel carriers, trucks, machine-gun positions, artillery pieces, bunkers, a rocket-launching site, an ammunition dump, a wooden bridge and various other point targets, for a total of 47 kills."

To summarize these events and draw conclusion one is forced to do so in complete isolation from all other factors of the Vietnam

conflict. Nevertheless, it is obvious that all the intelligence collection done after the Korean War, primarily by our attaches in Moscow, produced the basic information that resulted in the Identification Guides. Technical Intelligence collection and analysis of foreign armor and anti-armor systems led to the recognition of the threat and the design and development of the SS10, SS11 and TOW missiles. Corps level Technical Intelligence Operations in 1968 confirmed that ammunition for the T54 series Soviet tanks, as well as heavy artillery, was entering the conflict, however, it was not until other intelligence operations provided confirmations that action was taken at the last moments prior to the 1972 offensive to deploy the TOW. Of the many criticisms of the Vietnam War, one was that the short tour for officers produced considerable confusion. The constant rotation of Technical Intelligence personnel as well as other intelligence personnel was also a crucial factor in the delay in deploying the TOW system. It is my personal feeling that the failure of the Army to keep its Technical Intelligence personnel in Technical Intelligence positions also created problems. Of the three or four key people in the Technical Intelligence chain of command in 1967-1968 with the knowledge of the combat situation, none were retained in service positions where their knowledge and experience could contribute directly to the Vietnam War. LTC John Baker, the U.S. Director of CMEC had been reassigned to the Army Material Command and was in the Mid-East collecting material from the 1967 Mid-East wars. Jim Leatherwood, Chief of Weapons and Munitions Section had been reassigned to the Foreign Science and Technology Center to work on getting the United States to adopt the RPG-7 antitank rocket launcher. Within months, he departed from the Army.

I had been reassigned to command a basic training company, and in February 1970, after 18 months, I departed from active duty. My counterpart in ICTZ also departed from active duty. I understand he later returned to active duty, hence, he remains nameless. The lack of experienced intelligence or technical intelligence personnel at Redstone Arsenal also contributed to the delay in fielding the TOW. As it turned out, there were no adverse effects, but the same conditions still existed late into the 1980's and future conflicts would see the same problems.

"I share your very discouraged view of our declining military capabilities. I also agree that the concept that, "Hi-Tech" will enable us ("the good guys") to overcome the Communists' overwhelming superiority in numbers, looks great on the drawing board. It falls apart, however, when you put "gold-plated", "Rube Goldberg" equipment in the field which the troops can neither maintain nor and/or use, effectively. We learned, in the late 50's, that the Soviet concept for the service life of tanks was "3^{rds} in combat." Yet, we continue to design and build <u>all</u> our "major items" to have an "indefinite" (30 years?) service life. This is one reason why we always fight the current conflict with

obsolete equipment. Another reason, of course, and one with which you are intimately acquainted is the unbelievable period of time which elapses between the generation of a Specific Intelligence Collection Requirement, in Defense Intelligence Agency and the dissemination of useful technical information to the threat people and then to design engineers. I perceived the outlines of the problems when I returned to Army Materiel Command Research and Development, in 1968, and saw what little utilization had been made of the admittedly low level data and materiel which we had shed blood, sweat and tears for, in Vietnam, and even the slightly higher level take "bought" so dearly from the Israelis. Our whole system is too big, cumbersome and unwieldly. Unresponsive is the word Tom Sutton used. The British (and the Soviets, I'm sure) accomplish a great deal more with much less money and far fewer people. You are certainly aware of the problems caused by the U.S. military "career management system" which says that all officers must have command time, etc., etc. We lose that all important element, continuity because we insist on "musical chairs" every three years or so."

All too frequently historians tend to look upon a conflict as if it occurred in a complete vacuum. Despite the attention that the Vietnam conflict commanded, both in the news media and in the military, the U.S. had commitments all over the world. Large military forces existed in Europe and in Korea. Smaller operations were in other areas. Planning had to consider our worldwide threat. The House Armed Service Committee of the Congress noticed in 1967 that, in spite of funds having been appropriated each year, the Army had not deployed the new M60AlEl tanks. A special investigating subcommittee was created for the purpose of determining the cause of the delay. Production of the M60Al had been slowed down and finally stopped in 1967 in anticipation of producing the M60AlE2.

The report of the subcommittee was submitted in 1969. It was critical of the program and its findings received considerable newspaper publicity at the time. However, the report was unfair in that it criticized the entire Shillelegh weapons system whereas the missile handling capacity of the Shillelegh operated extremely well. It was the caseless ammunition for the conventional projectile which caused the problem. It was true that the caseless conventional ammunition developed for the Shillelegh had been considered unsafe by virtue of residue and smoke as early as 1961. By 1964 the effects of humidity which caused misfires and broken rounds had become another problem, followed by another of premature detonation. In 1966, Army Research and Development approved procurement because of a fear of loss of funds in spite of a recommendation to stop procurement until the problems were solved.

Another redesign of the ammunition eliminated the premature detonation problem but the smouldering residue problem continued to be troublesome and dangerous. The weapon itself received an open breech scavenging mechanism using air jets in 1967. In the same year the M60AlEl turrets were found to have defective hydraulic stabilizers. They could not be mounted but continued to be produced. They were placed in storage while studies continued toward developing a new stabilizer. The scavenger device also was produced before testing and when it became available was found to be dangerous, resulting in slowing the rate of fire. The report went on to describe another redesign of the breech scavenger in 1968. This time it was of the closed breech type.

Some of the new tanks were completed as M60Al and some were tested with other types of armament. A metal cartridge case was proposed in the same year but it was not adopted because it still was felt that a solution was "just around the corner." The constant optimism and fear of losing funds may have caused a compromise with the original goals but the report was unfair in stating that the result was a weapon lacking any real improvement over existing weapons. The missile firing capability of the Shillelegh is satisfactory, and it was expected that a solution would be found for the problems of the conventional ammunition even if a return had to be made to cased ammunition.

As previously mentioned, some of the Sheridans had been sent to Vietnam. In addition to the problems discussed, some problems were found in the considerable shock of firing a heavy weapon in this lighter vehicle, with fouling, with the gun not always returning to battery and with the ammunition which sometimes proved fragile. In general, however, the vehicle and weapon were considered satisfactory by the using service and to have definite potential. The problem of humidity was solved by encasing the rounds in thin plastic in the ammunition racks.

The subcommittee held that the Soviet armour threat was not growing fast enough to justify the actions which had permitted production before development was complete, but General Westmoreland, the Army Chief of Staff, reminded the Armed Services Committee in later testimony that the threat was considered real at the time the decision was made and that it continued to exist. He admitted that the integration of gun, turret and stabilization in the M60A1E2 "proved more difficult" than anticipated.

The vast bulk of the Technical Intelligence assets had departed from Vietnam in late 1971. The collection emphasis on hardware had shifted from Southeast Asia to the Mid-east where large amounts of Soviet designed and developed material had been captured to include the new T62 tank. The T62 had made its first official appearance in 1965 in the victory parade to celebrate the 20th anniversary of the victory over Germany. Reports and photographs of these tanks were transmitted back to the Defense Intelligence Agency by attaches, but it was not until after the 1973 Arab-Israeli War that actual T62 tanks came into the possession of the U.S. and could be openly exploited and the details made public.



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Under the auspices of the Foreign Science and Technology Center, several contract research and development labs began doing studies on Soviet equipment, as well as scientific and technical advances that might effect Soviet tanks. In August 1968 a report was prepared entitled Armor Materials-USSR(u) which was the first comprehensive report on armor materials in use in the Soviet Union and on research on new substances.

Under a separate program the Joint Technical Coordinating Group for Munitions Effectiveness had been conducting a series of tests to determine the lethality of U.S. ammunition against Soviet armored vehicles. This secret report was completed by 1 January 1970. Much of the information in the report was based on photographs of battledamaged vehicles. In a separate project, the Foreign Science and Technology Center completed the preparation of a book, "Small Arms Identification and Operation Guide - Eurasian Communist Countries." It was unclassified and was printed in November 1970, some eleven months after the cutoff date for information coming in from the field.

In the Southeast Asian Conflict, as previously pointed out, the North Vietnamese were preparing to launch their 1972 offense which marked the first large scale use of tanks. U.S. support for the war was on the wane but with the potential threat of tanks, the TOW missile system was deployed to Vietnam. Inaccurate intelligence assessment meant that ARVN anti-armor defenses were inadequate in trying to stem the progress of the VPA armored columns. The "surprise" appearance of AFV's on the battlefield demonstrated the devastating psychological effect they can have on an unprepared force.

The NVA unleashed two miniature weapons with considerable effectiveness. The Soviet AT-3 Saggers were wire guided antitank missiles used against South Vietnamese armored vehicles, communications bunkers and even small outposts. In addition, the SA-7 heat seeking SAM was employed and was an even more serious threat because it could disrupt allied control of the air over the battlefield. While samples of these weapons undoubtedly fell into the hands of the South Vietnamese, nothing was done with them. U.S. Technical Intelligence units in Vietnam had been inactivated in September 1969 and by October 1971 the 55th Ml Detachment, a corps support unit with a technical intelligence capability, had been inactivated.

By May of 1972, based on observation of recent maneuvers and conversations with field commanders, Gen. Westmoreland, then chief of staff, directed the revival of the aggressor program and made the CONARC (Continental Army Command) Commanding General responsible for



Army-wide implementation of the program. The best example of the implementation of this program was the one created by the 101st Airborne Division (Airmobile) at Fort Campbell, Kentucky, which began on August 3, 1972, under the guidance of Major R. T. Smith, Jr., the AC of S, G2. An aggressor advisory team was created to work with the brigades of the 101st which had returned from Vietnam.

To maintain my reserve status, I joined the 1st Brigade of the 100th Division (Training) and became the assistant Brigade Operations Officer since Training Brigades were still not authorized intelligence officers. I was in an attached status and did not get paid. The Brigade was one of two basic training brigades in the division and also one of the two brigades that were in Eastern Kentucky. Our mission was to conduct basic training, a repetition of my time at Fork Polk.

In a departure from previous years, the 100th was to conduct its annual training at Fort Polk. I brought my home movies of the training ranges to the Reserve Center and provided the brigade staff with a comprehensive briefing of Fort Polk. This was a job that should have been done by the intelligence officer, but since there was none I assumed that aspect of staff work. I continued to add items to my collection and went to the Ohio Valley Military Relics shows in Cincinnati where I obtained numerous Soviet and Chinese items which were added to my display. During the summer I managed to obtain an AK-47 which I donated to the Citadel Museum where it arrived in time to complement the "Westmoreland exhibit," and rounded out the museum's collection of Soviet weapons.

From other parts of the world information was being collected concerning future tank developments. There was a T67 which would turn out to be an evolutionary link between the T62 and the next tank. This T67 led to what was called the M1970 with an enlarged turret, a larger gun improved suspension and perhaps a new engine. This was information that could be collected by both satellite photographs, agents in Russia, emigres and other sources of unconfirmed information.

By 1972 this information as well as other reports became the basis of the Ballistic Research Lab Report No. 1593 entitled EVOLUTION AND FORECAST OF THE SOVIET MAIN BATTLE TANK(u), June 1972. In June 1973, a classified report entitled ANTI-TANK WEAPON SYSTEMS(u) was prepared for the Defense Advanced Research Project Agency and would become the cornerstone of DARPA's work on liquid propellant guns, automatic tank cannon, long rod penetrators as well as other work.

Based upon the threat posed by Soviet tanks, the Army's Training and Doctrine Command prepared a booklet, "Tips for Tankers", on defeating Soviet armor which was distributed to the field in May of 1973. In June of 1973 an unrelated event took place that would have some significance much later and that was the establishment of Maneuver Training Commands, large Reserve units who were given the



mission of conducting battalion level training exercises for the Army Reserve and National Guard. From December 1972 until June 1973, I had been a member of the Support BN of the 70th Training Division. As the Battalion S-2, my major project had been getting Security clearances for the enlisted men of the unit so they could get promoted. It was a most frustrating experience since many of the men were of Polish or Russian extraction, many spoke Polish or Russian as their native language yet they were now truck drivers and had no need for security clearances. What was even more frustrating was the fact that the Government was paying a fortune to have Russian documents translated. As far as intelligence was concerned, we had no need of it. The unit had no overseas mission and were not likely to come in contact with any intelligence information. The major exception to this was the result of my coming in contact with William Rasmussen, a police officer from Royal Oak, Michigan who with his wife ran a small business called the Historical Shop which catered to collectors of war relics. Bill had come across a banner which had belonged to a partisan group during WW II. He offered to return it to the Soviet Government. In return he was given, along with his wife and another couple, a complete tour of the Soviet Union. He said they received better treatment than President Nixon. They had an extensive collection of pictures taken in various Military Museums. They were also allowed into areas that were normally restricted to foreigners. Since my reserve unit had no need for the information and there was no effort made to keep the USAR informed of intelligence requirements.

To a large extent, the Army Reserve and National Guard had become a haven for personnel who wished to avoid military service in Vietnam. Army wide, there was little effort made to inform the troops, active or reserve, about enemy weapons or any foreign equipment. In many units', their equipment was so poor or outdated that realistic training would have demoralized the unit completely.

There was an informal network within the country which served to collect information on foreign weapons and to disseminate the The most prevalent effort was to satisfy the needs of information. a large number of people who collected WW II memorabilia. The only formal effort to keep personnel informed about foreign weapons was a column written for National Defense Magazine by a British Army Officer, Major F.W.A. Hobart. He had begun writing for Ordnance Magazine in 1971 and by 1973 was the regular author of its department on Foreign weapons. At the same time, numerous organizations sprung up devoted to collectors of militaria. The National Association of Automatic Pistol Collectors was one such organization as was the Japanese Military Collectors Association. There also appeared an organization entitled American Artillery Collectors Association, "Quad A" for short which was devoted to the study of artillery ammunition. The founder and chief motivator was a man named David Webb. Several Army explosive Ordnance disposal personnel were members as were several former members of the Combined Material Exploitation Center. There was a tremendous amount of information available on Soviet artillery but there was

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not formal means of transmitting this to the intelligence community. Quad A ceased to function after a few years following the mysterious death of Dave Webb. Through Quad A, I met Walter Hershberger, a Vietnam veteran and currently a student at Eastern Kentucky University.

During the late summer of 1973, the 100th Maneuver Training Command went to summer camp at Fort Knox where classes were conducted on how to prepare and conduct training exercises. Since I had been to annual training in May with the support battalion, I was not allowed to attend the training session.

It seemed to me that Technical Intelligence had been forgotten by the Army, and I felt that something should be done to preserve the records on what had transpired in Vietnam and to put some of the information out into the field on current Soviet developments. I contacted a firm called Exposition Press to see about the possibility of publishing a Handbook on Technical Intelligence. I found the cost far exceeded my limited resources so I abandoned the project, but continued doing research on weapons development.

On March 1, 1973, U.S. Army Europe had published USAREUR Pam 30-60-1 on IDENTIFICATION GUIDE PART ONE WEAPONS AND EQUIPMENT, EAST EUROPEAN COMMUNIST ARMIES. There were at least four volumes, but they got to the Reserve System by accident, and I was unaware of this series until 1976. I had, however, contacted Fort Monmouth's Signal Corps Museum with a request for information on an item of World War II German communication equipment. Since it was assumed that the Russians had for the most part copied all the World War II German equipment, I considered it logical to assume that this item would also be copied. My quest for information took me to the West German Army Signal School from whom I received a detailed response.

The particular item of equipment had been a "code reference oscillator," a device that was used to calibrate radios. It made use of a "chopper relay," which in the U.S. had been called a vibrator, for a power supply which converted six volts into plus or minus 120 volts for the tube. It was a one-tube device which generated a constant frequency against which the tested radio could be calibrated. In the U.S., our electronics industry had been developing communications equipment using "solid-state" components. These had evolved from the transistor invented by personnel at Bell Laboratories during World War II. Based upon our observations of captured radios in Vietnam, we concluded that the Chinese were at least 20 years behind us in electronics and the Russians were almost as far behind; however, with the capture of the IMP mine detector in 1968, with its fully transistorized circuits, we realized the Russians were closing the technological gap. I speculated that there was little chance that the Russians would copy this particular item of German equipment as it would be easier to purchase equipment from commercial sources in the free world.

The words "Detent" and "Salt" were creeping into our language,

and they seemed to imply some form of "equality or parity" with the Russians and a supposed lessening of tension. It was readily accepted by the American public which had grown weary of the Vietnam War and had begun to dismantle its armed forces. The draft for military service was terminated, and the all-volunteer Army was becoming reality. Under political pressure from Washington, many senior military leaders spoke in praise of "VOLAR," but most of us who had a knowledge of Soviet operations were at best skeptical.

The only remaining vestige of the Technical Intelligence effort was D Co. of the 519th MI Battalion which had returned from Vietnam and was stationed at Fort Bragg. From the time of their return until 30 November 1972 the unit had been engaged in post beautification procedures or as one troop I spoke to put it, "we painted rocks at taxpayers' expense." No one seemed to know what to do with the unit.

I had been collecting war relics with the ultimate goal of establishing a small version of the Ordnance Museum, as I had done in Vietnam. The Ordnance Museum had closed in 1966 to make room for the Test and Evaluation Command. Through the efforts of several retired Ordnance General Officers and Col. J. B. Jarrett, the Ordnance Center of Technology Foundation, Inc. was established to construct a new museum. This was done in May 1973 and the building was turned over to the Army and the corporation was dissolved.

June 1973 marked a milestone in both the area of Foreign Science and Technology and troop training. On the level of Scientific and Technical Intelligence, Battelle Columbus Laboratories researchers prepared a report for DARPA on Antitank Weapon Systems which formed the basis for further work on liquid propellant guns, automatic tank cannon and long rod penetrators. The work at Battelle Labs had been contracted for some time earlier. The role of DARPA was to insure that promising new technologies that had military application did not get overlooked. Unfortunately, events of 1972 were starting to have an effect upon the military in more ways than one. Writing in 1986, Professor Hans Bethe and John Bardeen pointed out that science increasingly transforms the military, political and economic landscape in which governments must operate. Nevertheless, since 1972, scientific advice to the U.S. government has been remarkably haphazard. For that and other reasons, the nation is embarked on vast programs based on the misconceptions that we have an unlimited supply of scientific talent and that there need be no relationship between cost and benefit.

This prodigality has a hidden price: It is destroying our ability to compete in international markets, which we created. We must recapture our traditional pragmatism, or the foundations on which our security rests will crumble away.

We once had a sound scientific advisory apparatus. Established by President Dwight D. Eisenhower, it was headed by a full-time science adviser who was chairman of the President's Science Advisory Committee, composed of prominent scientists and engineers whose appointments were not correlated to Presidential elections. This system provided advice relatively uncontaminated by personal ambition and political bias.

The committee played a crucial role in many national security initiatives, including establishment of the post of director (now under-secretary) of defense for research and engineering, and also the Defense Advanced Research Program Agency. It supported the development of missile-carrying submarines, the most survivable part of our strategic forces. It fostered innovations that led to surveillance of the Soviet Union by planes and satellites, and it started the research that led to today's excellent capability to detect underground nuclear weapons tests.

In 1972, President Richard M. Nixon liquidated the entire Science Advisory Committee organization because it had opposed two of his pet projects: deployment of anti-ballistic missile defenses and construction of a supersonic transport. Nixon's subsequent about-face on the anti-ballistic missile, and the bitter English-French experience with the Concorde, soon confirmed the committee's judgments. Though the post of science adviser was eventually reestablished, it never regained the status it had when it was backed by a body with the standing of the committee.

In 1972, however, the Congressional Office of Technology Assessment was established to provide Congress with advice concerning technology and its impact on the military and political matters. This was the basic role of the Technical Intelligence Organizations but as they had been decimated by the Vietnam Conflict and its aftermath, there was a requirement for something and OTA appeared to fill the gap.

In July 1973, the Army issued a chart entitled "SOVIET SQUAD WEAPONS" reproduced on the opposite page. It pointed out the new Soviet weapons and contrasted them with the old family of weapons. The RPK, the AKM and the RPG-7 were shown as was the AKM bayonet, however, it did not get tothe USAR until 1977 or 1978. There was a × great deal that could have been done to add realism to training had there been a Technical Intelligence operation in the field but there was none. Within the Maneuver Training Command, I had been assigned as a member of the AGRESSOR Umpire group whose function it was to portray the aggressor and prepare intelligence input to training I began to consider methods of making use of my exercises. collection of Soviet War relics but I quickly realized that the National Guard units were lacking in basic skills relating to combat intelligence. I concentrated my efforts on getting our alleged intelligence personnel trained. Most of the enlisted men who were in intelligence positions had been cooks or telephone linemen in the now deactivated Combat Support Training Brigade. I was the only intelligence officer in the unit with combat zone experience and that had not really been combat intelligence.

At the national level, the Nation was reeling from the impact

of the Watergate scandal and the resignation of President Nixon. Nixon had made use of various intelligence assets to break into the Democratic Party Headquarters in the Watergate Hotel. It marked a low period for the intelligence community and many people departed from the intelligence effort. Having reacted in a panic to the publication of the Pentagon Papers, plus the scandal of Watergate, the government was down grading security clearances of people who were not actively involved in intelligence operations.

Within a few months, the Mid-East erupted in another war. The October 1973 war between the Arabs and the Israeli's was a devastating conflict and the first time that modern Soviet vehicles were employed against modern free-world vehicles. The surprise appearance of the Soviet AT3 Sagger Missile had devastating effects upon the Israeli forces. Massive amounts of American aid sustained the Israeli armed forces. In return, large amounts of the captured material was recovered and samples were provided to the U.S. The recovery of this material was handled by civilian personnel from AMC and DIA rather than military personnel. Again, the element of the surprise introduction of a weapon on the battlefield caused great confusion until the capabilities of the weapons were understood. During September and October, the Human Engineering Laboratory at Aberdeen Proving Ground conducted the third of a series of tests known as HELBAT (Human Engineering Laboratory, Battalion Artillery Tests). These tests had begun in 1969 in an effort to assess how well an operational artillery battalion could perform with its existing equipment. As new technologies and equipment were developed for artillery, these items would be added into the tests.

A study done by the Development Center to define what combat vehicles would be needed by the Marines in the 1985-1995 time period reached the conclusion that they needed a highly mobile weapon capable of providing direct fire support at the times during landing operations when no tanks were present. This was designated the Mobile Protected Weapon System (MPWS). The Marine Corps also began taking part in the Armored Combat Vehicle Technology Program in conjunction with the U.S. Army and the Defense Advanced Research Project Agency.

At 1400 hours on October 6, 1973, the fifth Arab-Israeli conflict in 25 years was launched by Egypt and Syria against Israel on two diverse fronts. In the Golan Heights region, the Syrians initiated a three-echelon attack comprised of artillery, armor, and air support. The Israeli army did not react in force for two days due to the holy day of Yom Kippur (Day of atonement) which is the culmination of the ten-day abstinence period in the Jewish religion. Yom Kippur requires total involvement in religious observances which explains why no more than a token ordnance or personnel force was on station.

Shortly after 1400 hours on October 6, 1973, Egyptian commandos, supported by air strikes, attacked into the Sinai Peninsula --Israel's prize from the 1967 war. Israel did not effectively muster an infantry, armor, or artillery force until October 12 due to Yom Kippur. Too, they did not believe that a war would be perpetrated at such a time. By October 11, the Israeli force was able to launch a major artillery-airstrike offensive against Syria. With coordinated air and artillery fires they were quickly in control of the valley region north of the Golan area, a distance of 18 miles from Damascus. This drive was made even though Iraqi and Jordanian troops were brought on-line by Syria. The Israeli army also recaptured Mount Hermon -- the Middle East's highest point.

At dawn on October 14, the Egyptians pressed their advantage and launched an armor attack against the Sinai passes. The resulting tank battle turned the entire peninsula into a combat zone. The ensuing armor conflict was the largest since World War II and even involved armored battles fought at point-blank range. As a point of information, much of the Israeli combat armament was provided from the United States' inventory in Europe itself, as well as most of our reserve capacity. On October 15, the Israeli army launched "Operation Gazelle" which crossed the Suez Canal the following morning and made a pincer move to the South. On the eastern bank, the encirclement of the Egyptian Third Army was begun and completed by October 23. As the Israelis entered Suez City on the east bank, the Egyptians surprised the force by counter-attacking from the This required a hasty retreat by the overwhelmed The ceasefire line of October 25 found the built-up area. Israeli force. victorious Israeli army in control of a twenty kilometer from south and west of Ismailia to just to the west of Suez City -- all in Egypt proper. In the Sinai, the Egyptian army remained surrounded.

Subsequent diplomatic negotiations caused the return of all Syrian territory lost during the war, plus some sixty kilometers of land gained by the Israelis during the 1967 war. On the southern front, the Egyptians gained an approximately ten-kilometer strip to the east of the canal extending from the Mediterranean to the Gulf of Suez, as well as the return of the Abu Rudeis oil fields. Both the Sinai and Syrian fronts were insured by a United Nations Zone of Disengagement Force. The future of the Golan Heights region is still in question at the time of this writing.

The war was significant as it revealed the state of the art for the mid-1970's period. The Soviets insured that Egypt and Syria did not repeat their 1967 humiliation by providing massive technical and training advice. The Soviets revealed where all those "whitesidewall tired" vehicles used to trundle all that sophisticated hardware around Red Square went. Here, the U.S.S.R. exported their latest weapons technology, e.g., SA-7 missile systems, RPG-7 rocket grenades, snapper, and sagger wire-guided missile systems. This transpired despite Egypt's earlier claim that 17,000 Soviet technicians had been thrown out of the country during 1973. The aid also included air defense means: radar, AAA guns, and electronic warfare capabilities, which seemed to portend the demise of air space control by only one side for the near future. In the use of anti-armor and infantry, Egypt revealed the capability of Soviet tanks, saggers, and other remotely conrolled field devices. In a new approach to supply and all-echelon maintenance, all parties revealed their ability to modify American procedures to local conditions. In the electronic warfare field it was learned that radar must be tied to digitally-controlled warning systems. The Israeli use of U.S. weapons such as the chaff system were highly effective in naval and aerial applications. In strategy, the use of static lines of defense, such as the Bar Lev line, were shown to be as improbable as the Maginot. In tactics, it was shown that an armor, mechanized infantry force coordinated with a mobile air defense team was highly effective. In artillery tactics, both sides revealed that they had learned the lessons of their respective artillery instructors well. The Syrian and Egyptian forces used the Soviet doctrine of counterbattery and massed preplanned fires, while the Israeli force proved the tactical superiority of observed fires -a complimentary lesson taught at Fort Sill. In the end, Israel's superior leadership, esprit de corps, and combined arms, including naval forces, saved the day. Again, there was limited information available to the USAR and National Guard. What information there was came from newspaper accounts which as soon as the next major crisis occurred faded from the scene. As a result of the logistic support provided the Israeli Military, a considerable amount of captured Soviet material was returned to the states for evaluation. The American ships and planes that carried military supplies to Israel during the 1973 Arab-Israeli war did not all return empty. Aboard one was a great prize of espionage -- a captured Russian super-weapon called the ZSU-23-4, which was known to intelligence agents as Shilka. What exactly a Shilka was, and what it might do, had long troubled the Pentagon. Although it looked like nothing more than a small tank, Shilka was in fact a radar-directed, computer-controlled anti-aircraft cannon. If, as rumored, it could destroy even low-flying aircraft with ease. Shilka might make Soviet armored columns nearly unstoppable.

The weapon, taken by Israeli soldiers from an Egyptian tank division, was moved to a mountain gunnery range near Fort Bliss, Texas. There, in a series of tests code-named Hitval, Shilka's performance was evaluated. Fortunately for U.S. pilots, the results were not impressive. Shilka's fire-control computers were inaccurate and slow. It rapidly exhausted its ammunition, and was very difficult to reload. But most important, it proved unable to hit maneuvering targets. It could threaten only aircraft flying straight, predictable lines -- and no aircraft is likely to do that in combat.

Shilka, then, was not the decisive super-weapon many had feared. But, looking it over, U.S. Army officials were envious, nonetheless. The Army badly needed a new anti-aircraft gun to protect its tanks and troops at the front lines. And the Army badly wanted what Shilka had in abundance: the glamour of high technology. Since World War II, nearly all the expensive, exotic weaponry had gone to the Air Force and the Navy; the Army had been consistently frustrated in its desire to obtain what around the Pentagon is called "ultra" or "cosmic" equipment. The Army had been trying to change that for years, and during the 1970s it won congressional funds for a jet-engine-powered tank (the M-1); a laserguided artillery shell (the Copperhead); an anti-aircraft missile patterned after the anti-ballistic missile (the Patriot); a \$3.6 million armored, "air-droppable" bulldozer (the ACE); a helicopter that costs at least as much as a supersonic fighter plane (the AH-64 Apache); a helicopter-borne radar system modeled after the one on the AWACs surveillance plane; and many other sophisticated weapons. Pondering Shilka's computers and radars, Army officials began to think that something along the same lines would suit their hightechnology campaign perfectly.

None of this information, however, was transmitted to the troops in the field, either active or reserve. The lack of an effective Technical Intelligence effort in the field was the main reason. Another factor that cannot be ignored was the fact that the recovery of the material was handled by civilian personnel from AMC and DIA. One lesson relearned was that the surprise introduction of a "new" weapon on the battlefield caused considerable confusion until it was understood. The departure of technical intelligence from Vietnam prior to the 1972 offensive had its effect. It is pointless to speculate on how much we would have provided the Israelis if we had had the information. The Sagger Missile did, however, spur a chain reaction in the western industries and suddenly new anti-armor missile systems began to emerge from arsenals world-wide. In an effort to inform U.S. troops of the capabilities of the weapons, the U.S. Army Training and Doctrine Command, TRADOC, published TRADOC Bulletin #1, "Range and Lethality of U.S. and Soviet Anti-Armor Weapons" and TRADOC Bulletin #2, "Soviet ATGM, Capabilities and Countermeasures." This was the task of Technical Intelligence units but since these units had been inactivated and the people dispersed, TRADOC had to do the work.

As of December 1973, the Maneuver Training Command was still getting organized. As with all new units or organizations, it was having growing pains and had trouble getting established. With an organizational structure similar to a Corps Headquarters, I decided that it offered a possible means of getting information on foreign weapons and Technical Intelligence out to the troops. Our area of operations included Kentucky, Indiana, Michigan and Ohio. Dealings with the Ohio National Guard were strained due to the incident at Kent State where Guardsmen had fired on and killed several students as well as other events.

By June 1974, the 100th Maneuver Training Command was reorganized and I found myself assigned as the Intelligence Officer of an Infantry Team. This marked the first time I had any real contact with combat intelligence and infantry units. Our team leader was LTC Lee Harris and our chief controller was Major Bill Adams who had been with MAC SOG and had been part of the operation that put captured weapons back into the field. I never saw him in Vietnam, but he had been the contact man at the Combined Material

Exploitation Center.

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Our team's first exercise was to be an Infantry Bn Map Maneuver conducted in Logansport, Indiana, for elements of the National Guard in January of 1975. The exercise at Logansport came off without any major problems, but it did serve to demonstrate that the unit was very weak in the area of intelligence. The Maneuver Training Command was not much better but we did have an edge, we wrote and controlled both sides of the the exercise! Shortly after Logansport, our team picked up the mission of taking a computer controlled map maneuver system dubbed CAMMS and making it work for the National Guard. I became the chief writer of all the intelligence documents. I did manage to include a "PRETECHREP" in most of the exercises which at least got the idea out to the field that there were such documents. When it came to actually running the exercise, the enemy force consisted of map symbols with computer codes and the intelligence effort consisted of moving them about the map. Since there was no intelligence support for the national guard units, there was almost no realism in the exercise at all. The various battalion staffs did get some practice at processing combat information but as far as a realistic exercise, that would take several more years.

With the recovery and exploitation of the material from the Mid-East and the subsequent release of the exploitation reports, efforts were undertaken to manufacture training aids. A British firm began to manufacture cast metal models of current Soviet vehicles which ranged in price from \$15 to \$30 a piece. Much too expensive for use by troops in the field. The Austrian firm of ROCO manufactured plastic model ranging in price fom \$1.00 to \$4.00 which made their use more practical. Another firm began the manufacture of 1:300 scale models which allowed trainers to use these for presentation of larger formations.

TRADOC, which had become responsible for all matters pertaining to training and doctrine and included all schools, included training, training centers and the various training aid support centers, had plans underway for the construction of rubberized plastic replicas of various Soviet weapons. The G 2 of the 1st Cavalry Division at Fort Hood, Texas, and his staff developed a "whiz wheel" which provided a pocket sized guide to the range of "AGGRESSOR" weapons. This was not mass produced but the Field Artillery School picked up on the idea and began to manufacture GTA 30-3-15 "SOVIET WEAPONS WHIZ WHEEL" which was based upon the new "THREAT" format. The Agressor whiz wheel had been based upon information extracted from the Army's FM 30-102 "HANDBOOK ON THE AGGRESSOR" which had derived much of its information from Technical Intelligence generated after WW II and Korea. The new Soviet Weapons Whiz Wheel was based on information provided by technical intelligence studies of the material recovered in Vietnam and the Mid-East.

"THREAT" was the then popular name for the training enemy and was replacing aggressor in the military vocabulary. In June of 1975, the Department of the Army produced FM 30-40, "HANDBOOK ON SOVIET GROUND FORCES" which was a descripton of the Soviet Army, it's doctrine and tactics. Within a few years, the Defense Intelligence Agency began publishing a whole series of pamphlets on the Soviet Military which were unclassified. During May and June, the U.S. Army Armor School's tank demonstration platoon, led by Lt. Michael Ryan had been at Aberdeen Proving Ground conducting a limited operational test of the T 62 tanks that had been recovered in the Mid-East. The results were presented at the Annual Armor Conference and were published in the November-December 1975 issue of Armor Magazine.

In June 1975, D Co/519th M.I. Battalion had been transferred to Aberdeen Proving Ground under the command of Major D. Morris. The unit now consisted of 175 men with 87 different military occupational specialties. Writing in 1977, Captain James Cox, a former member of the unit pointed out that since mid-1975, D Company, 519th MI Bn, had received three major shipments of foreign materiel totalling 29 T-54 and T-62 medium tanks, 1 BMP, 7 PT-76 light tanks, approximately 20 APC's, 9 missile firing jeeps, a fairly large quantity of small arms and tank ammunition, several hundred small arms, and a few selected pieces of communication and Chemical, Biological, and Radiological Threat (CBR) gear.

These items became the basis of several operators manuals and technical intelligence bulletins that were distributed to the field. Once again, no effort was made to distribute the information to the USAR.

In addition to the technical intelligence unit was the establishment of the "RED THRUST DETACHMENT" at Fort Hood whose purpose was to provide units with briefings on Soviet doctrine and tactics and classes on how to conduct realistic training.

In the arena of public policy and foreign policy, the country was beginning to feel the effects of the Black Power Movement, the Women's Liberation Movement and the Environment protection movement, as well as the impact of various oil embargos and various problems stemming from Soviet Expansion in Africa as well as in the Mid-East. In September, the Army published TC 90-3 which provided interim guidelines for training armor units pending publication of FM 90-3, DESERT OPERATIONS. In the preface, it stated that, today an explosive combination of political, economic and strategic circumstances in the middle east has made that region a focal point of international concern and a seedbed of potential conflict. Simultaneously, the necessity of U.S. forces maintaining an active capability of successfully engaging in desert combat has become readily apparent. Virtually all the service schools began to develop training programs that included some form of Mid-East scenario.

Within the Maneuver Training Command, we received a rather long document which had been generated by the Defense Intelligence Agency which explained the procedure for requesting intelligence support in collection. We had no need for the document as we had no real need for current intelligence. Our training exercises generated their own intelligence and it was strictly training in the basics. What was needed was not available through official channels. The Maneuver Training Command was still trying to get organized and figure out how it was to function. Some elements were functioning quite well and others were doing nothing. Plans were underway to reorganize the unit again. I was still a captain in a unit overrun with captains, and by this time I was commuting from Florida to Louisville for weekend drills. It was becoming clear to me that intelligence support for the Reserve was extremely poor, and was almost a "do-ityourself" project the quality of which varied from team to team.

In November, I summed up my observations in a letter to Florida's Senator Lawton Chiles. His reply is reproduced below.

By December 1975, I had been promoted to Major and made Chief of the Opposing Forces Section. Our purpose was to provide the unit with information on the opposing force program and with information on foreign weapons from D Co./519 Military Intelligence Battalion. On the strategic level, there was considerable discussion about the Strategic Arms Limitations Talks and various trade agreements with the Russians. What little information there was available to the reserve forces came from the news media and several organizations which at best could be classified as intelligence lobbying organizations. The American Security Council and the Intelligence and Security Fund were among those who published a newsletter of sorts. In addition, a new magazine began to appear on the stands, "SOLDIER OF FORTUNE" which combined a blend of Vietnam era war stories, current crisis area stories and several articles on weapons.

During the latter part of 1975, the Maneuver Training Command had been tasked to take the computer assisted map maneuver system in use at Fort Knox and expand it to the National Guard. The system provided a computerized method of keeping track of troop units personnel strength, logistic support and in a more complex program, it did battle calculations of conflict simulations. Our first exercise was to be conducted in Michigan. The exercise went well but as far as intelligence, there was none to speak of. There was the initial intelligence briefing but after that, there was little support for the units involved. We had four battalions represented on the map and the intelligence and operations section of the Brigade present but the normal support that would have been provided by division and corps assets was non existant. As to the enemy force on the map, we simply put up map symbols and waited. The results were surprising to most units as they were wiped out in a matter of moments. Some units claimed it was rigged in favor of the OPPOSING FORCE. Then when an explanation of Soviet capabilities was presented, they began to realize what had happened. The Soviet Recon force equipped with BRDM armored cars and PT 76 light tanks was no match for the U.S. force equipped with jeeps. The exercise had tremendous potential as a training exercise and all aspects of intelligence could be cranked into the exercise but the National Guard units were simply unprepared in the area of combat intelligence.

The map maneuvers provided training for the staff but were of little value to the troops. They were active young men and wanted to be doing something. Technical Intelligence could have made field training more realistic but there was none. While conducting the CAMMS exercises, we had numerous visitors and I was tasked to host a LTC from Fort Leavenworth who was interested in the intelligence aspect of the exercise. I supplied him with a complete set of the intelligence documents that we had generated for the exercise.

In December, I was advised that I had been selected for promotion to Major, two years early by USAR standards, however the orders would not arrive until April, 1976. Much later, I learned that I was in reality being carried as the Chief of the Opposing Forces Section of a group entitled the Training Support Group. In the spring of 1976, I moved to that job and discovered that we were completely understaffed. We were being tasked to conduct classes on a war game that supposedly taught company level tactics. Our the Strategic from Limited in Talks and various trade discussion about with the Atesians. S at little information there was available to the reserve forces care from the news media and several organizations which at heat could be classified is intelligence lobbying organizations. The American Security Council and the Intelligence and Security Fund were among those who published a newslatter of sorts. To addition, a to magazine berge to appear on the stands, "SUDIER OF FORTURE" which combined a blend of Vietnam ara war stories, current crists are stories and reveal articles on weapons.

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FIRING LINE — Under the watchful eye of First Lieutenant Walter F. Hershberger, left background, members of the 3rd Infantry's "Old Guard" live-fire the Soviet AK-series assault rifle.

purpose, however, was to provide instruction to the entire unit with information from the RED THRUST Detachment on Soviet Doctrine and Tactics and with information on foreign weapons which was to come from D Co/519th Military Intelligence Battalion. One of the officers who had been transferred to D Co./519 was Lt. Walter Hershberger. Lt. Hershberger, one of three brothers from Indianna, had seen service as an enlisted man in Vietnam. Lt. Hershberger and his brothers had acquired my entire collection of war relics. Lt. Hershberger, was one of the few members of the unit who understood Technical Intelligence and was assigned as the Platoon Leader of the New Foreign Material Training Platoon.

The Technical Intelligence unit was attempting to secure supplies of foreign weapons to support training programs. I thought back to my days in Vietnam when I tried to get CMEC to save all the captured materiel. As a result of pressure by the Treasury Department's Bureau of Alcohol, Tax and Firearms, many veterans who had illegally brought back captured AK-47s were turning them in to the ATF where they were destroyed! Some people turned them over to museums. I gave up all hope of using my automatic weapons collection for training and turned them over to the Citadel Museum.

In attempting to get the foreign weapons training program going, a major problem area was the lack of ammunition. The United States had destroyed the dies needed to manufacture the 7.62 x 39mm ammo! The next major problem area was the RPD light machine gun. Unlike U.S. made weapons which used disintegrating link belt ammo, the RPD as issued came with reusable belts, but no one had bothered to save the captured belts! I again reflected back on my year in Vietnam, and our failure to have learned from WW II and Korea.

Because of events that were to transpire in the next ten years, I consider it important to discuss the organization of the USAR and National Guard in the area of Readiness Region VI. The National Guard units from Michigan, Ohio and Indiana made up the 38th Infantry Division with Headquarters in Indianapolis. The Kentucky National Guard made up an Armored Brigade which was assigned the mission of "rounding out" the 1st Cavalry Division at Fort Hood. There were other National Guard units in the area, in fact there were almost enough non-divisional units to make up an entire combat ready corps. The logistic support for the corps would have come from the non divisional National Guard units and the various Army Reserve units that were loosely grouped under various ARCOMS, Army Reserve Commands. While the National Guard units were under the control of their respective Adjutant Generals, they were subject to training requirements and missions established by the Regular Army. Basic guidance for all these units came from the Readiness Region at Fort Knox, commanded by a Major General. The Readiness Region had numerous Advisory Groups some as separate entities and some directly assigned to units. The organizational structure of the USAR units was confusing to most people. Military Intelligence Detachments were assigned to Artillery Battalions who, in turn, were part of a Signal Group who reported to an ARCOM. Within the Region, there was the 906th MI Detachment in Detroit who supported the New Jersey National Guard some 900 miles away. There was an MI Detachment in Sharonville, Ohio, which supported the 38th Infantry Divison. There was one of the four Special Forces MI Detachments in Louisville, Kentucy, which supported the Special Forces. In Western Kentucky there were several ASA Detachments and in Indianapolis there was a strategic intelligence detachment which was a medical intelligence unit. There was no effective coordination among any of these units.

The 100th Maneuver Training Command was assigned to the 100th Division (Tng) for administration and logistics but came under the operational control of the Readiness Region. This produced considerable friction between the Division and the MTC. There was considerable jealousy between the Division officers in the training division, but by virtue of being a training division, they had become men of limited vision. The sarcastic comment made was that "if you used 20 pencils at summer camp last year, order 60 pencils and your job was done for the next three years!" The Division and the Maneuver Training Command operated out of a brick armory and three wooden buildings and drilled on alternate weekends. The MTC never had any permanent space and teams set up and operated wherever they could. The Division Commander's prime project was the construction of a new brick armory and it is to his credit that it was finally completed in the late 1970's. Several years after his retirement, I discussed the role of the MTC with him and he said it was a constant concern of his that the MTC, upon Mobilization had no clearly defined mission and that the personnel in the MTC would not be available to the Division, if mobilized. Many of us were very glad not to be a part of the Training Division and had no real desire to be mobilized with them. I and many others were more concerned with the training of the various USAR and National Guard

units that would actually fight a war if they were mobilized.

The Division Commander did make the comment in the field once, "Hell, we're supposed to be training these people to fight a war!." but there was a limited ability to do that. Many of my fellow officers were quite bitter about the fact that the MTC has become the Division Commanders "dumping ground." Any LTC or Col. that he didn't want in the Division was sent over to the MTC and put in charge of some group. With positions for 12 full colonels, it was very tempting. With this situation, we were always getting new senior officers who knew very little about intelligence.

The most vivid memory that I have of the lack of support for intelligence occurred shortly after the Division Commander had assumed his Command. The Maneuver Training Command had six full time technicians responsible for the day to day operation of the unit. The unit was about to undergo it's annual General Inspection and the unit technicians took vital records and hid them from the inspectors. The unit failed the inspection and the following weekend the Division Commander held a formation of the entire unit and relieved the unit commander and publicly humiliated him before the entire unit. Then, rather than forcing him to depart the unit, made him the MTC's S2, intelligence officer. The following week, the "missing records" were located and the unit was reinspected and passed. The relieved officer spent most of his effort trying to rectify his unwarranted removal from command, and no effort was made to improve intelligence in the unit.

Within the Military Intelligence Branch, the impact of electronic warfare in the Mid-East had not gone unnoticed. There was the realization that electronics played an important part in the conflict. There were plans to create CEWI units (Combat Electronic Warfare Intelligence) and the first unit under discussion was the CEWI Group to support a Corps Headquarters. Those who had been around for a while realized it was nothing more than an MI Group by a new name. Some felt it would never happen, others hoped it would. I had two feelings, one was that it was a long way off for the USAR/NG and the other feeling was that I needed solutions to current training problems, not some organization ten years in the future. The solution to more realistic training was through a better maneuver enemy.

On 1 November, 1975, the Secretary of Defense approved the OPFOR concept but restricted the use of actual foreign uniforms, insignia and unit identification. The Secretary of the Army approved implementation of OPFOR on 3 December 1975 and the actual implementation was scheduled on 2 February 1976. During the early part of 1976, while still a member of an Infantry Exercise team, I had become involved with preparation for adminstering a series of Army Training Tests to elements of the Ohio National Guard. At that time, the Maneuver enemy was being called "The Thrust" but very little information was published other than Soviet Equipment Handboks and FM 30-40 Handbook on Soviet Ground Forces. During the three ATT's I was the maneuver enemy force controller assisted by SFC Haven's of the 100th MTC. I created an updated version of an enemy force uniform consisting of West German Army boots, U.S. Army jungle Fatigue jacket with homemade shoulder boards resembling the Soviet Military System.

As previously mentioned, in April 1976, I officially assumed the duties of Chief, OPPOSING FORCE DIVISION. Lt. Lucien Hawes was assigned to the section and together we presented several classes on a war game entitled "FIREFIGHT." It was just one of many experiences where we did as we were ordered, not what was right or was needed. Our actual mission was to maintain a library of material on Soviet Doctrine and Tactics but we had no place to store what there was and the end result was that, as with many of the teams, the material was stored in a briefcase and was taken home at night and brought back at the next drill. Since most of the information that existed on the Soviets was classified, the unit never received any of it and we were forced to make use of various training pamphlets and whatever books individuals decided to purchase at their own expense.

In May of 1976, I left my civilian occupation as an insurance investigator and took on several active duty tours as an instructor at the Armor Center, teaching Armor Officer Advanced Course. During the next four years, I spent many tours as an instructor. It was very apparent that most of the company level officers had almost no concept of combat intelligence, strategic intelligence or Soviet weapons systems. This began to change during the next few years. The major exception to this general ignorance was the large number of Vietnam veterans who at least had seen most of the small arms while in Vietnam. I realized that something was needed to spark their interest as well as the interest of troops in the field. All that I could do was to create some form of Soviet looking uniform using what was available. Having examined numerous photographs over the years, I noted that many other personnel had similar ideas.

On 2 September, 1976, I wrote to World Wide Emblem Company to determine the cost of making patches that resembled the Sovet Motorized Rifle emblem. A rapid response was received and ten patches were ordered on 9 September. On 17 September 1976, lacking a suggestion award form, I wrote to the Commanding General TRADOC with a list of suggested field expedient means of creating realism in an opposing force. Eventually the ideas were adopted army wide.

On 16 September, I wrote to Globe Militaria to attempt to locate additional Soviet equipment. I received several of their mailings but Soviet items were either scarce, too expensive or of limited value. Lack of personal funds forced me to abandon this project for the time being. Command emphasis was still lacking, at least in the Reserve System. My contacts with the Hershbergers had become limited but I was aware that Lt. Hershberger was being sent to Chicago to learn how to operate a magna-flux machine which would be used to certify as safe to fire all museum weapons as plans were underway to locate and possibly recall war trophies for training.

During this same time period, I began the process of updating the 1967 Technical Intelligence bulletin eliminating Viet Cong material and including only Soviet material. My prime emphasis was on Soviet communication equipment from unclassified sources. My rational had been that there were numerous civilian books on weapons, most military reports on Soviet communications equipment were classified, and troops needed the information. My prime source of information was the displays of captured radios in the Fort Monmouth Museum that I had taken photogaphs of several years earlier.

I had these pages reprinted and assembled them into a document entitled, "OPPOSING FORCES TECHNICAL INFORMATION MANUAL" and sent them to the 100th MTC's S3, Operations Section, with a recommendation that they be distributed throughout the region. One of the senior technicians became scared that we might be violating some copywright law so the project was dropped.

One of the peculiar features of the MTC was that no matter what your official duty position was, you had to scout about to find an exercise to participate in so that you got your retirement points. I became involved with a series of exercises for the 72nd Support Center (Rear Area Operations) of the Michigan National Guard. The unit had existed for some time but the people assigned were being used elsewhere and, in effect, the unit was non-existant. The Army carried it on the books as a Rear Area Operations Center for wartime planning but the unit just wasn't there. They had been contacted about going to Europe for summer training but had to decline an embarrassing situation for the state adjutant general! He decreed that the unit was to become operational and the MTC took on that task.

The unit, a company sized unit, as far as personnel strength, had a mission at the Corps level. We were tasked to produce a scenario for Europe and provide all the support that a Corps would normally have, but using a very small team. In addition to being a rear area operations center, the unit had a state mission of controlling several logistic units and Company F, 425th Infantry, a long range recon unit which operated at Corps level. We were eventually tasked to prepare a Corps level intelligence exercise for this unit.

In the Fall of 1976, I returned to college at the University of South Florida to pursue a degree in Engineering Technology. In addition, I signed up for the USAR school program for the Command and General Staff College. It would take three years to complete the course which was about how long it would take me to finish at the university. Within the Maneuver Training Command, from October 1976 until February 1977, I was acting as the chief controller for a Combat Service Support Team and was conducting a series of map exercises for the Rear Area Operations Center of the Michigan National Guard. READINESS GROUP KNOX began to publish an Intelligence Report which continued until August 1977 when it ceased to be published.

Within the 5th Army area, studies of the organization of the Meneuver Training Commands were being undertaken and reorganizations were planned. Based upon the density and types of units within readiness region VI, it was planned to create 17 functional teams each of which was to be branch oriented. Military Intelligence was not one of them as there were only two Military Intelligence units that could use our services. In June of 1977, the reorganization took place and my Opposing Forces Section was disbanded. Because I was still officially a Military Intelligence officer, my only choice was to leave the entire system or take over the job of a group level OPFOR/INTELL officer in the Combat Service Support Group which was to be headed by Col. Frank Powers, my former boss and also a Military Intelligence officer.

Unknown to me, in August of 1977, Col. Edwin Adam, one of our senior officers, began planning for a presentation by the "RED THRUST TEAM" from Ft. Hood. This presentation was to be on 19 October 1977. At this time, I had written to Major General Charles Beach, our Division Commander, suggesting that we consider creation of a Division Museum. I had a two-fold purpose in mind. One was to preserve the history of the 100th Division and also to create a repository for captured enemy weapons. I was not familiar with the extent of the Kentucky Military History Museum, but later learned that they were conducting demonstrations of Soviet weapons for the National Guard and others.

On 24 October, I distributed to all our Combat Service Support Teams, copies of the Technical Intelligence bulletin pages with the intention of using this as part of the intelligence plan for the forthcoming multiple unit exercise in Michigan. Final coordination for a presentation by the newly established "RED THRUST" Detachment had been accomplished by Col. Adam and Captain Schnitz, the Red Thrust's Operations officer. No coordination was conducted with the OPFOR/INTEL officers of the groups in the MTC.

The Red Thrust Presentation was interesting and informative but of little value. It was basically oriented on Soviet Tactics and how to prepare training exercises for maneuver units. Our Combat Group had been doing this since 1974. Therewas very little in the presentation that would benefit the Combat Service Support Types. Major Chuck Russell was the Team Leader of the MTT (Mobile Training Team) which made the presentation, and I was advised that there were two of these MTT's. I sent Major Russell a complete set of our standard Infantry Bn Map exercise which we had developed in 1974. I received his reply dated 18 November 1977, along with a copy of the RED THRUST Star newsletter #1 from October-December 1977. This was an excellent magazine type publication but only had seven pages. It outlined the purpose of Red Thrust and indicated that since January 1977, they had made fifty support visits throughout CONUS. During the summer priority went to Reserve Components and during the winter, the emphasis was on the Active Components.

Ten years had elapsed since I had done the same basic job in Vietnam and it appeared that we were going over the same ground that had been covered in the late 1950's. The Active Force sending people around to tell us all about the Soviets and then leaving us with nothing to work with in the field. It is a credit to the RED THRUST that their newsletter survived for many years and by the 1980's included information on various Soviet weapons. I was, however, quite irritated when they incorrectly identified the KPV Heavy Machine Gun in 14.5mm as a DShK 12.5mm gun. I remembered the difficult time SFC Winkler and I had getting the gun from Nha Trang to Saigon! The friction which had existed in Vietnam between Technical Intelligence and Intelligence had continued into a friction between RED THRUST and D/519th MI.

The training exercises that we conducted in the field for the various logistic units were extremely poor. Some resembled little more than camping trips. After each exercise, I was constantly reminded of the difference between reality on the modern battlefield and what the Reserve had to work with for training. Slowly, the lessons of the Mid-East wars and an awareness of the Soviets was creeping into the system but it was slow going.

At one training session conducted at Camp Grayling, Michigan, I had occasion to visit a demonstration put on by D Co/519th MI Battalion. The Foreign Science and Technology Center had produced a film, "A LOOK DOWN THE SOVIET BARREL" which was shown to the troops along with displays of the Soviet weapons. I spoke to one of the NCOs who accompanied the display and was advised that they had been literally thrown off several posts because as he put it, "We scared the hell out of the troops!" Soviet weapons, at least as far as the ground level soldier was concerned, out classed the U.S. inventory. The BMP was compared to the M114 Armored Personnel Carrier, the T62 was compared to our M48 tanks and the M60 series. Many disparaging remarks were made by senior armor officers about the T62 tanks needing midgets with long left arms to load the main gun. To be certain, the T62 tank had serious shortcomings by American standards but what seemed missing was an understanding that Soviet tanks were built and designed for a different purpose than were American Open source literature of the period contained numerous tanks. articles about the next generation of combat vehicles that the U.S. was going to field. Yet doctrine was being developed based on outdated information on the threat. The most positive comment that can be made was that at least new manuals were including descriptions of threat equipment.

The 100th Division was in the process of undergoing conversion training from Infantry to Armor. Along with many other officers, I requested a transfer to Armor, which was eventually granted. I also began to recognize that there was little that could be done in the area of OPFOR for the Reserve without a drastic reorganization of the USAR. Since my official position was with a Combat Service Support Group, our area of interest had to be the threat to the rear area which was, of course, the Soviet Airborne Force, as well as chemical and nuclear warfare. The MTC made numerous attempts to include this in the training but it simply got no command support or emphasis. On several of my travels about the region, I observed numerous combat vehicles sitting in "junk yards" rusting away. Numerous inquiries were made as to who was actually signed for the equipment and if there was any way to get the material assigned to us for use in training exercises. No one would admit to ownership and I had limited time to expand on a project that had a limited chance of success. I did, however, manage to construct several training aids of weapons development and chemical warfare equipment, all of which I had to purchase from Army Navy surplus stores.

On one visit to Indiana, I was able to tour the Hershbergers home and view portions of the collection that they had amassed. I was saddened that there was a tremendous amount of material that was available for training, but was not being used. I was again reminded of the Technical Intelligence museum that CMEC had set up and the many people who passed through it and the small museum that I had set up in Corps Headquarters. Vietnam was still a sore point among many people and it was seldom discussed. Most people either didn't understand it and didn't want to learn or it was a past issue to be forgotten, the Mid-East having eclipsed the real lessons of Vietnam. Like many of my fellow veterans, I remained silent on the subject.

Although I did not know it for several more years, the official after action report on the move of the logistic bases from France had been declassified. The loss of our logistic bases in France was of much greater significance than the demise of South Vietnam, especially since it would effect our doctine for Europe as well as the design of new equipment. Most of the major items of equipment that would be entering the inventory had been conceived in the late 1960's with the final design decisions being made in the early 1970's, while the Army was still thinking about Vietnam style warfare. I doubted that any of the designers had ever consulted a history book or even looked at Technical Intelligence Reports. Granted, the Technical Intelligence Reports were about weapons encountered in the early stages of the Vietnam war and were, by the time the decisions were made, somewhat dated material. Since I was not a part of the vehicle design effort and had little hope of becoming involved, I concentrated my efforts on the role that technical intelligence could play in supporting training.