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VC/NVA Sappers (U)

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I. (C) INTRODUCTION.

A. The purpose of this paper is to provide a report of current knowledge of VC/NVA "sapper" units operating in the Republic of Vietnam. This paper represents a preliminary analysis of information currently available. Though further study in depth is required to present a more complete picture of the enemy sapper situation, the conclusions contained herein can be considered valid in the light of information available.

B. In speeches, during the early part of 1968 (nfi), NVN Chairman Ho Chi Minh, Premier Pham Van Dong and General Vo Nguyen Giap emphasized the importance of sapper units as combat arms of the Armed Forces along with Infantry, Artillery and other branches. They said that this newly designated special combat arm required initiative, knowledge of combat techniques utilizing small units, and coordination with other combat arms and local forces. Since May of 1968 and particularly during the recent 1969 "Winter-Spring" offensive enemy operations have been characterized by small unit actions of the sapper type, and long range attacks by fire. Enemy losses have consequently been less during this period than they were for the same period in 1968, while their achievements can be considered to have been very effective.

C. Before discussing sappers in detail two questions arise. What is a "sapper", and what is a "sapper unit"? These are not easy questions to answer.

1. In captured documents and information from interrogated prisoners the term sapper may be used for any person or unit who handles demolitions, engages in terrorist attacks, conducts raids, destroys installations, or performs kidnappings and assassinations. Units comprised of sappers have been called Underwater Demolition Teams, Action Arrows, and Special Action Units, among other names. The enemy appears to make little distinction among the above, with the following exceptions:

a. The difference between Reconnaissance and Sapper units is that a sapper unit reconnoiters its assigned objective whereas a reconnaissance unit reconnoiters an objective for the unit assigned that specific target. A sapper unit is both reconnaissance and combat qualified and may be given a reconnaissance mission by higher authority.

b. Special Action Units are sapper units organized to operate within cities.

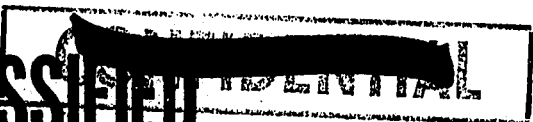
c. Sappers who work in the water are also known as swimmer sappers, naval sappers, frogmen, and underwater demolitionists.

2. For the purposes of this paper the following definitions apply:

a. Sapper: Any individual who has attended sapper training at

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an organized sapper school and is a member of a designated sapper unit.

b. Sapper Unit: Any unit, normally main force, designated by the enemy as a sapper unit which has been trained in reconnaissance and demolition techniques and has an offensive mission to attack and destroy.

c. Engineer Unit: Any unit, normally main force, designated by the enemy as a sapper or engineer unit which has essentially a defensive mission to construct or maintain facilities. (It is noted that units which have engineer-type missions have been used offensively, particularly in the mining of roads. They have also been used in sapper attacks. The predisposing criterion for determining the difference between sapper and engineer units however, is the unit's continued general mission.)

II. (C) DISCUSSION.

A. Mission of the Sapper Unit.

1. The basic mission of the sapper unit is to penetrate deeply, attack, and destroy tactical and strategic enemy installations and positions as a primary assault element.

2. Secondary missions of sapper units:

a. Interdict enemy lines of communication and supply.

b. Perform reconnaissance for higher authority.

c. Support infantry attacks. (The current primary mission reflects a change from the primary mission of two years ago; i.e., to support infantry attacks.)

B. Organization.

1. General. The enemy's deployment and assignment of sapper units is guided by the strength and disposition of friendly forces. Sapper battalions may be found deployed near the major Allied base areas and along primary lines of communication and supply. The organization of a sapper unit is dependent on the unit's location and mission. Identification of sapper units is complicated by three factors:

a. By other units being redesignated sappers without commensurate training.

b. By lack of specific information of unit missions.

c. By other units developing a sapper capability while retaining their original designation and mission.

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2. Command and Control. As with other enemy units the sapper unit may be subordinate to a military region, subregion, or operational main force units. There are cases of sapper battalions and companies being subordinate to infantry regiments and conversely, artillery and infantry companies subordinate to sapper battalions. Missions normally originate at region headquarters and are passed down the chain of command. After the sapper commander makes his estimate of the situation and prepares his plan of action he must submit it to the mission originator for approval. There is no information to indicate that tactical control of the mission rests with other than the tactical commander after the plan is approved. There is information available which indicates that technical control is exercised by higher authority over sapper units.* There appears to have been no change in command and control relationships over the past two years, with one exception. In the past, sapper units have been attached to infantry units and in some cases to artillery units which are in support of an attack. Recently there have been indications that the converse is true; that artillery and infantry units are attached to sapper units who control the attack.

3. Organizational Structure. Due to the great number of functional task organizations which depend upon varying specific individual missions and locations, it is impractical to set forth sapper organizational diagrams in this paper. The three to five man cell is basic to all sapper units. Almost all units are bastardizations of the standard sapper company which has three platoons, each having three squads of one to three cells each. Battalions have from two to five companies plus varying numbers of support platoons, squads and cells performing signal, reconnaissance, commo-liaison, heavy weapons, medical and rear services support. There have been no significant identifiable trends in organizational structure; however, analysis of this aspect is still incomplete.

4. Operational Unit Status. Until 1968 the only sapper units identified were Viet Cong, which then totaled six battalions and an additional 16 companies or platoons. January 1968 saw the introduction of the first two NVA sapper battalions. One was assigned to I CTZ and the other to II CTZ. NVA sapper battalions totaled nine in October of 1968, while VC battalions increased to a total of nine and companies/platoons increased to twenty-eight. As of 1 April 1969, a total of eight NVA battalions, 17 VC battalions and 38 VC companies/platoons were accepted in OB holdings. TABLE I provides an indication of the emphasis placed on forming sapper units.

* COSVN reportedly has a sapper staff which drafts plans establishing and organizing sapper units, drafts training programs and exercises staff cognizance over sapper units.

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TABLE I

Sapper Units In RVN

<u>Date</u>	<u>NVA Bn</u>	<u>VC(MF) Bn</u>	<u>VC(LF) Bn</u>	<u>VC(MF/LF) Co/Plt</u>
Jan 68	2	6	-	16
Jun 68	8	8	1	16
Oct 68	9	8	1	28
Jan 69	6	17	2	36
Apr 69	8	15	2	38

5. Strengths. Unit strengths depend on the unit's location, mission, source of replacements and recent combat activity. While sapper units undoubtedly have Tables of Organization (although a standard is not yet well defined to us), their functional tasking and replacement availability have the greatest influence on unit strengths. Most reports place the approximate strength of a sapper battalion at 500 and a company at 100 personnel. In reality, they are usually manned at about 50% strength. As opposed to other units, however, the military regions try to keep their sapper units up to operational strength at the expense of other combat arms, particularly the infantry.

C. Concept of Operations.

1. General. Sapper attacks are characterized by the use of small numbers of men who attempt to inflict extensive damage to Allied installations and war materials. Their primary objective is to destroy supplies, equipment and installations. They have the ability to attack and destroy heavily guarded and fortified structures that are located deep within controlled areas. Sapper attacks do not depend on firepower or overwhelming numbers of men to breach installations but rather on the ability of sappers to infiltrate without being detected; sappers normally attempt to penetrate the defenses of an objective by employing stealth, enabling them to reach targets within the objective, and then to detonate explosives.

a. The advantages of utilizing sapper units include:

- (1) Economy of force because sapper units operate in small groups.
- (2) Relative ease of combat organization because sapper units do not depend on complicated combat service support.
- (3) Relative mobility of sapper units because they are independent of a complicated logistical system.

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(4) Significant destruction can be obtained with a small commitment of personnel.

b. The disadvantages of utilizing sapper units include:

(1) The inability to decisively and overwhelmingly confront the enemy because of the small units that characterize sapper operations

(2) The fact that early discovery of the attack by Allied troops is fatal because of the small-unit independent operation.

2. Objectives.

a. To penetrate deep into Allied rear bases and Allied controlled cities to destroy:

(1) Supply sources: supply depots; airfields; harbors; armored vehicle parks; POL depots; ammunition dumps; and related equipment.

(2) Area headquarters and command posts.

(3) Communications centers.

(4) Local administrative posts.

(5) Allied billeting and recreation areas.

(6) Critical points on lines of communication such as bridges and railroads.

b. Independently or in coordination with infantry or artillery, attack important objectives such as airfields, military posts, District Headquarters, and strategic hamlets and occupy them for a period of time as prescribed by higher authority.

c. Attack friendly combat complexes in the field such as hasty defensive positions, concentrated firepower positions, tactical airfields, independently or in conjunction with infantry or artillery units.

3. Tactics.

a. There are no established patterns to the tactics utilized by sappers. Their tactics are essentially the same as infantry with emphasis placed upon the following five basic principles:

(1) Detailed planning and reconnaissance. Every mission is planned in detail to insure success. Planning not only covers the friendly and enemy situation. It also considers the political attitudes of civilians in the area of operations. Operations are rehearsed extensively. Reconnaissance of the objective normally is covered in two phases. First, a

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preliminary reconnaissance by a recon team, then a command reconnaissance by the officer who is to be in command during the battle and all subordinate commanders. Both phases normally cover:

- (a) Routes of advance and withdrawal.
- (b) Surrounding terrain.
- (c) Perimeter fencing.
- (d) Minefields, trip wires, flares, punji pits.
- (e) Strong points.
- (f) Guards (number, location, alertness, routine).
- (g) Construction of fortifications.
- (h) Internal layout with particular emphasis on location of the headquarters, communication center, power sources, and other prime targets.
- (i) Local political climate of the populace. (Conducted by the sapper unit political officer.)

(2) Secrecy and surprise. Every unit performs its mission in the utmost secrecy and attempts to preserve the element of surprise. The importance of secrecy and surprise is stressed by constant training of personnel in stealth, tactical discipline, and camouflage.

(3) Speed. Units move rapidly to enable the assault elements to reach the objective in a minimal amount of time to exploit the defenders' disorganization.

(4) Initiative. Units take advantage of any favorable circumstances which arise during the mission. Initiative is encouraged by thorough indoctrination and training.

(5) Flexibility. Each mission dictates the type and amount of weapons and equipment to be used. The sapper unit tailors its needs to the individual characteristics of the mission. When things do not go according to plan there is an inability to deviate from the plan at the moment to regain the initiative. This has been noted in captured after-action reports and prisoner interrogations. However, they are endeavoring to achieve more flexibility.

b. A note of caution should be sounded at this point. Individual commanders have been known to have, and undoubtedly still have, individual policies which deviate from the sound tactical principles set forth above.

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Caution must be exercised when reviewing one unit's operations and not mistake local policy for changes in tactical principles.

c. To accomplish objectives, sapper units must be prepared to participate in countering Allied sweep operations and ambushes; attacking aircraft; and conducting ambushes, conventional ground operations and guerrilla attacks.

d. A tactic which has received additional emphasis in the past year by sapper units, as evidenced through captured training documents, is combat in cities.

e. Waterborne and underwater mining tactics have also received additional emphasis as evidenced by the increase in such incidents over the past year. Two units have been accepted into the order of battle holdings; the 126th NVA Sapper Regiment with a training section and combat units in North Vietnam and I CTZ respectively, and the 8th Swimmer Sapper Battalion in the III CTZ. The increasing number of incidents in II and IV CTZs along with information indicating that five units have swimmer sapper capabilities points to increased activities in the mining of naval vessels.

f. The concept of sapper employment also appears to have changed. In the past, the infantry units would take the sappers with them in the assault. Recently, however, the sappers have been performing the initial assault supported by the infantry who are available to exploit sapper successes.

4. Techniques. Sapper techniques are many and varied. This paper does not attempt to set forth the numerous techniques which have been stock-in-trade for Commando/Ranger/Special Forces-type units to which the sapper unit is closely analogous. Individuals assigned to sapper units have been found to have artillery, armor, parachute, intelligence, naval, and communications capabilities. The use to which these personnel may be put is limited only by the scope of the enemy's imagination. There have been instances where personnel with artillery and armor capabilities have been tasked to seize pieces of Allied equipment and use them in support of the enemy attack. Deception is used by the sapper as both a tactic and a technique. There have been cases reported of sappers wearing U S and ARVN uniforms to perform reconnaissance or to bait traps. A technique that is emphasized is that of remaining close to the "enemy" in order to limit the effectiveness of friendly supporting arms and automatic weapons fire. Every attempt is made to reconnoiter on-the-spot than from a distance. In cities, special action units close in on targets to insure a kill.

D. Recruitment and Assignment. Recruitment and assignment of personnel to sapper units appears to be based primarily on the needs of the unit. Criteria for selection and assignment vary in different parts of the country and with different units. In general, individuals with a high degree of dedication, courage, and professional skill are desired. However, battle losses and lack of qualified manpower have forced the enemy to lower those


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requirements. Qualifications desired in a sapper trainee are aggressiveness, resourcefulness, bravery, combat experience, and thorough political indoctrination. In North Vietnam volunteers are not encouraged or readily accepted, according to most prisoner interrogation reports. Recruitment and assignment varies as follows:

1. North Vietnam.

a. Sources. Personnel are assigned to sapper units from basic training or from other branches of the service if they have passed the selection criteria.

b. Background. Recent prisoner interrogations of sappers reveal that single male ancestor worshippers, who are party members or sympathizers, between the ages of 18 and 35 and in good physical condition, comprise the majority of sapper personnel.

2. South Vietnam (VC Units).

a. Sources. Personnel for sapper units have been drawn from infiltration groups, other combat units, or the civilian populace. In other words, many NVA are being introduced into the VC sapper units, as well as other types of units. Furthermore, VC units appear to select rather than recruit volunteers. Previously it was believed that VC sappers were selected from volunteers.

b. Background. Those having relatives working for GVN are not chosen unless their loyalty to the VC cause is unquestioned. An attempt is made to recruit people who live in the area where they will be utilized. Generally, those who are in their late teens are most desirable, as they are usually single, physically prime, and more easily swayed by Communist propaganda. The above qualifications are often waived because of the number of sapper trainees required as replacements. This large number is due to the extremely dangerous nature of sapper work and the consequent rapid loss of sapper personnel. The quality of prisoners, who were sappers recruited locally in RVN and who have been recently interrogated, indicate that dedication, not intelligence, is the most important criterion.

c. Selection. If the trainee is being selected from other than a military unit or infiltration group, a five-step process is often used:

(1) Selection. A trainee's selection is frequently based on the potential utilization of his civilian position and location.

(2) Contact. Upon selection, the recruit is contacted through previous friendship or an offer of financial assistance. Intimidation is used if his background contains exploitable information and other approaches

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fail. During this stage, indoctrination is initiated upon which the trainee later may be tested.

(3) Activity Test. The trainee is sent on one mission, usually reconnaissance or as a courier with an inconsequential item, to test his sincerity and potential.

(4) Formal Training. The trainee is sent to a training camp to undergo sapper training. Some units have their own formal training programs for trainees. Training is discussed in detail below.

(5) Formal Sapper Operations. Opportunity is generally provided to gain proficiency through operation with experienced personnel.

3. Females. Information regarding the use of females as sappers is sketchy. Though female sapper units have been reported in the past in SR-5 and Hue, none of this information has been confirmed. It has reportedly been the policy in North Vietnam, at least since approximately the end of 1966, to replace men with women in routine tasks in military and political agencies. Females have also been reported working as reconnaissance or commo-liaison personnel and in transportation sections of sapper battalions. An analysis of reports of individual female sappers indicates that they are in one of the three categories mentioned in the preceding sentence or are "terrorists". It is likely that women are being utilized more frequently in support roles due to the shortage of males.

E. Training.

1. General. Sapper training schools are conducted at battalion level or above. On-the-job training is conducted below company level. In North Vietnam trainees go to formal schools. In RVN trainees may go to a training camp or be trained by the parent unit. If a sapper unit receives a small number of replacements, the trainees are distributed among the squads and receive on-the-job training. When a large number of replacements is received, the unit Commanding Officer usually establishes a training program. Training programs are also established for replacements from infiltration units to familiarize them with local techniques. NCO and Officer schools are conducted in North Vietnam and by military region headquarters in RVN. They stress military leadership and political indoctrination. Evidence from captured documents and recent prisoner interrogations indicates that this training is generally well organized, thorough, and continuous. Following each training period and combat operation, a critique is held during which individual and unit performance is evaluated, reappraised, and a retraining process instituted as appropriate.

2. Length. The training cycle normally lasts from three to six months. Formal schools in North Vietnam may last as long as eighteen months, depending on the sponsor and subjects taught. The training cycle in RVN is usually divided into two phases. The first phase consists of classroom,

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practical application, and field exercises. The second phase involves varying degrees of actual combat operation experience. Classroom activities are normally held during the day and field exercises conducted at night. Practical application periods are held both in daylight and in hours of darkness.

3. Subjects. Subjects taught vary according to current combat needs of the unit and the physical limitations of the training site. A typical curriculum for a basic course includes the following subjects:

- a. Weapons.
- b. Explosives and mines: arming and disarming various types.
- c. Individual movement.
- d. Techniques of penetration.
- e. Reconnaissance.
- f. Use of field expedients.
- g. Sapper Tactics: theory, principles and techniques of attacking blockhouses, posts, enemy troops, ships, docks, airfields, etc.
- h. Political indoctrination.

4. Political Indoctrination. The amount of political indoctrination varies from unit to unit depending on the political officer, and from individual to individual in accordance with his level of political sophistication. Individuals have been subjected to as much as three to six months of political indoctrination on occasion. The normal schedule consists of eight to sixteen hours per week. Subjects taught include the following:

- a. The victories of the VC and progress of the war.
- b. The purposes of the war.
- c. The cruelty of the American fighting man.
- d. The principles of discipline.

5. Cross-training and Special Training.

a. The fact that personnel from other branches of the service are retrained as sappers constitutes a form of cross-training. There is no evidence, however, that sappers are sent to other branches of the service for cross-training.

b. Special Training. Apart from swimmer or naval sappers who

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receive special training in swimming, naval ordnance and its emplacement, and limited use of scuba gear along with a few NVA who have reportedly received intelligence training, there has been no indication that sappers receive any specialized training in addition to normal sapper training. Excepting rehearsals for attacks on special targets, there is no evidence to indicate that sappers receive special training for particular targets. The very nature of sapper tactical principles and techniques supposedly prepares them for any target.

6. Trends. The only significant trend discernable from captured training documents and prisoner interrogations is the significant emphasis being placed on street fighting and combat in built-up areas.

F. Logistics.

1. General. Little information is currently available on sapper resupply channels. Since their mission is combat oriented, they must remain partly self-sufficient and mobile. These requirements force the sapper unit to give priority to the supply of arms, ammunition, explosives, and food. For other items, heavy emphasis is placed on field expedients. Reportedly, higher authorities place a high priority on keeping sapper units well equipped and fed. This is borne out by captured documents and prisoner interrogation reports. Monetary subsidies are used to purchase food, medical supplies and other required materials. All other evidence indicates that direct support units are resupplied by their parent unit and independent units are resupplied by the Rear Services or Forward Supply Councils in the unit's operating area.

2. Ordnance.

a. Sappers usually have more automatic weapons, particularly the AK-47 assault rifle, and rocket launchers than an infantry unit of the same size. Some of the larger sapper units have organic heavy weapons support elements equipped with heavy machine guns, mortars, and recoilless rifles. Especially characteristic of sappers is the emphasis placed on mines, grenades, and explosives in their arsenal. Naval sapper units operating from the DMZ are equipped with HAT-2 mines and HBF self-propelled bombs.

b. There is no evidence of a standard Table of Equipment for sapper units. The typical three-man cell engaged in an attack will normally be equipped with an AK-47 assault rifle and one RPG-2 rocket launcher. The third man would be armed with grenades and explosives only.

G. Morale and Combat Effectiveness.

1. Enemy sapper units in RVN, when compared to typical infantry units, have a priority on receipt of supplies and replacements. Selection criteria for sappers in most cases continues to be high with only the most dedicated being accepted. These factors have assisted in creating a higher esprit de corps within sapper units, which keeps morale high despite the hardships of family separation, combat losses, and a general lack of supplies in spite of their supply priority.

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2. Enemy sapper units continue to be sufficiently trained and motivated to accomplish their mission despite combat losses. The combat effectiveness of most all sapper units is considered to be high.

III. (C) CONCLUSIONS.

A. The number of identified confirmed sapper units has increased significantly over the past year.

B. That sappers themselves are not volunteers, but selected on fairly rigid criteria.

C. There has been a definite increase in the number of attacks by identifiable sapper units which were not in direct support of other units. However, it is difficult to identify any overall increase in sapper activity over the past year. Early in 1968 sappers still operated in support of infantry and artillery units and were not specifically identified in the attacking elements. Additionally, unidentified guerrillas employed many sapper tactics in their harassment of friendly outposts. This could further distort any comparison.

D. There has been an intensification of sapper activity in the naval/swimmer sapper field.

E. Special emphasis has also recently been placed on the use of sappers in cities and towns. The volume of training documents and interrogation reports which indicate this trend suggests that cities, and the military installations which protect them, have become primary targets of sapper units.

F. Finally, present indications do not point to any reduction of other forces in favor of activating more sapper units. Moreover, the enemy's use of sappers cannot necessarily be equated to a new phase in the war. Rather it appears that he realized that strongly defended positions or installations could not be neutralized using infantry or heavy weapons units without great losses or expenditure of large amounts of ammunition. Emphasizing the use of sappers appeared to represent an answer to this problem.

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