



Figure 82 F-105 "Thunderchief"



Figure 83 A-4C "Skyhawk"



Figure 84 A6 "Intruder"



Figure 85 F-5 "Freedom Fighter"



Figure 86 F-4C "Phantom"



Figure 87 A-3B "Skywarrior"



Figure 88 RF-101 "Voodoo"



Figure 89 C-47 "Skytrain"



Figure 90 C-123 "Provider"



Figure 91 C-130HC "Hercules"



Figure 92 C-141 "Starlifter"



Figure 93 OV-10 "Mohawk"



Figure 94 HH-3E "Jolly Green Giant"



Figure 95 C-7A "Caribou"

(6) Airlifting food, weapons, equipment and ammunition to ground forces. The insecure land routes of communications and the isolated location of many operations necessitate the delivery of many logistical support items by air.

(7) Providing illumination in the battle area. Flares are invaluable for the protection of outposts, ground troops, airbases and villages under attack during hours of darkness.

(8) Assisting in psychological operations. In support of ground and air operations, aircraft are used to drop leaflets and to broadcast near front lines and suspected VC strong holds.

(9) Providing tactical support by use of miniguns mounted in a FC-47 aircraft. The FC-47 mounts three 7.62mm miniguns. The FC-47 can also carry 20 flares to illuminate the target area. One of the most beneficial uses of this type aircraft has been to assist in the defense of airfields and other fixed installations.

(10) Providing a personnel and cargo parachute delivery capability. This capability was employed recently in Operation JUNCTION CITY when a battalion of US paratroopers spearheaded a multi-division operation.

(11) Interdicting the enemy's infiltration and movement of supplies.

(12) Providing air recovery and rescue service.

(13) Providing a visual reconnaissance program as a means to find and observe the enemy. SVN is divided into visual reconnaissance areas; each area can be covered normally by one O-1 aircraft. Pilots are detailed to cover the same areas on a periodic basis. By doing this, the pilot becomes familiar with the area and can detect any unusual VC activity.

(14) Providing escort cover to transport helicopters and their armed helicopters to and from areas of operations.

(15) Laying minefields. Aircraft are used for laying mines along routes of communication to restrict the enemy's movement of troops and supplies.

(16) Defoliating areas to restrict movement of or deny the enemy the use of covered areas, and destroying crops in fields controlled by the enemy.

(17) Providing B-52 air support. The B-52 force, with its precision and large area bombing capability, plays an important part in the air support role. Although not as responsive as fighter bombers timewise, B-52s are used effectively against almost every type of tactical target. When the need arises, B-52 strikes are employed in close support of friendly ground troops in direct contact with large enemy forces. For example, during Operation HASTINGS in I Corps Zone during July 1966, numerous B-52 strikes were made in support of ARVN and Marine forces against elements of an NVA division.

(18) Providing an all-weather, day or night, area air defense capability for friendly forces, air fields and other military installations in SVN.

(19) Assisting in disaster relief by the timely provision of airlift, supplies and medical evacuation.

(20) Convincing the enemy that he cannot hide, cannot hold the initiative, and he cannot hope to win.

e. Close Air Support - III Marine Amphibious Force. Requirements for tactical air support for Marine combat units are essentially the same as for Army units. However, the concept of operations differs in that the USMC integrates both ground and air elements into a force "package" with the air element commander directly responsible to the overall ground commander.

f. Operating Techniques

(1) Tactical Air Control System (TACS).

(a) The Tactical Air Control Center (TACC) is located at Tan Son Nhut Air Base near Saigon, and is the combined US and VNAF facility which plans and coordinates the entire USAF/VNAF tactical air effort within Vietnam.

(b) Direct Air Support Centers (DASC) are located with the four corps headquarters. The primary function of the DASC is to process and approve all requests for immediate and preplanned close air support.

(c) Tactical Air Control Parties (TACP) are attached to each battalion and higher level ground force tactical headquarters. The TACP at separate brigade and division level consists of an Air Liaison Officer (ALO), four Forward Air Controllers (FAC) and four radio operators. Approximately 125 Air Force personnel are assigned to each US Army division to help coordinate ground-air actions. A FAC is attached to each province advisory team in Vietnam. This FAC advises the province chief on the use of tactical air and controls the air strikes within that province. TACPs are located normally with the unit Fire Support Coordination Center (FSCC) or Tactical Operations Center (TOC) as appropriate.

1 The ALO advises the ground force unit commander on all matters pertaining to the capabilities and employment of tactical air.

2 The FAC is an experienced tactical fighter pilot who has extensive knowledge of tactical air ordnance capabilities and fighter delivery techniques, and who has been trained specially to perform his primary mission of directing air strikes. Experience in Vietnam has shown that the FAC is most effective in directing air strikes when he is airborne. When an ARVN Ranger Battalion in IV Corps was hit by a large VC force, a FAC at province headquarters immediately requested a flashship and fighters. He proceeded to the battle area in an O-1F and established radio contact with the US advisors who were trapped in the compound. Being completely familiar with the area and having obtained the location of VC

forces from the US advisors, the FAC was able to direct the fighters effectively on target. The Ranger unit, together with the Americans, took advantage of this situation and withdrew to a secure area. A reaction force sent in the next morning credited the air strike with killing 38 VC and preventing them from overrunning the post.

(2) Air Support Request Procedures

(a) Requests for immediate air strikes may originate at any echelon and are forwarded through normal channels of communications to the battalion CP. The requests are validated by the battalion commander or his representative and given to the TACP for submission directly to corps headquarters Direct Air Support Centers (DASC). The TACPs at province, brigade and division levels monitor all requests and coordinate with the Fire Support Coordination Center (FSCC) at their level. Provided no echelon above the battalion disapproves the request, the DASC completes the necessary coordination and orders the mission. If available aircraft are in the vicinity of the target area, the response time will be a matter of minutes. If the immediate air strike mission requires the scrambling of fighters from ground alert, it may be thirty minutes before the fighter aircraft are over the target area.

(b) Preplanned requests are forwarded over Army communications facilities, moving progressively up through each level of operational command until they reach the Tactical Air Support Element (TASE) of the MACV Combat Operations Center (COC). Requests are evaluated, coordinated with other fire support means, assigned a priority, and consolidated at each intermediate level of command.

(3) Tactical Airlift Operations. The tactical airlift system in the RVN has proved to be both responsive and reliable in support of rapidly changing, fluid battlefield situations, and in maintaining a viable Air Line of Communications (ALOC). Command and control of the airlift force is exercised through a tactical airlift control system. This system is practically identical to the Direct Air Support Net used to direct and control tactical strike and reconnaissance aircraft.

(a) An Airlift Control Center (ALCC) located at Tan Son Nhut does the same job for tactical airlift that the Tactical Air Control Center (TACC) does for tactical strike and reconnaissance aircraft. Requests for airlift support flow from the requester through normal channels to Combat Operations Center/Traffic Management Agency (COC/TMA) for final approval or disapproval. TMA passes approved requests to the ALCC. TMA's responsibilities for airlift parallel those of the TASE for strike and reconnaissance requirements.

(b) Tactical Airlift Liaison Officers (TALOS) are assigned as members of the Tactical Air Control Parties (TACPs) at field force, division and independent brigade levels. Their airlift responsibilities are similar to those of the ALOs for tactical strike and reconnaissance operations, and they are key personnel in the operation of the Emergency Airlift Net (EARN).

(c) The missions performed by the Air Force tactical airlift system in the RVN include air landing and air dropping combat personnel, supplies and equipment; resupply of ground forces; aeromedical evacuation; defoliation and crop denial; and, maintaining the daily air line of communications to all major aerial ports, air bases and Army units - about 150 airfields throughout the RVN. More than 1,000 airlift sorties (flights) a day are flown by the Lockheed C-130 "Hercules", Fairchild C-123 "Provider" and De Havilland C-7A "Caribou" aircraft that comprise the tactical airlift fleet operated by the 7th Air Force. During Operation Attleboro, from 18 October to 26 November 1966, the tactical airlift fleet flew 3,314 airlift sorties while moving 10,270 tons of troops and equipment to several airfields. That tonnage consisted of 11,304 passengers and 8,902 tons of supplies and equipment. This was done without impairing the normal airlift support missions which still went on. Tactical airlift has proved to be an integral part and highly respected member of the joint air-ground team in RVN.

(4) Locating VC Movement at Night. Two techniques for locating VC movement at night have proved to be extremely successful. Both methods, "Snipehunt" and "Firefly", employ airborne radar combined with quick reacting armed aircraft.

(a) Snipehunt. Fighter aircraft are the quick reaction fire power used in the Snipehunt. Once a target has been located by airborne radar and clearance has been obtained from the ground force commander, a flareship is called in to illuminate the target area for a FAC-controlled fighter aircraft. An example of the effectiveness of this technique was demonstrated in IV Corps. The VC had just completed loading seven sampans with supplies, and started moving across the Saigon River in the middle of the night. The sampans' movement was detected by airborne radar and, in a matter of minutes, airborne fighter aircraft and a flareship were summoned and all seven sampans were sunk.

(b) Firefly. The Firefly method employs a team of searchlight equipped helicopters and three or four armed helicopters. After the target has been located by airborne radar and clearance obtained from the ground force commander, the helicopter team is called into action. The searchlight helicopters illuminate the target and the armed helicopters attack and destroy it. A variation of this method is an armed ship and a searchlight helicopter working as a team without the assistance of radar. Once a target is identified and illuminated, the armed ship attacks and destroys it. Firefly teams have been successful particularly against VC vehicular and boat movements.

g. Armament Available.

(1) High explosive bombs varying from 100 to 2000 pounds are used when destruction of a target is desired.

(2) Napalm is an effective antipersonnel weapon frequently used against the VC. Although it will neither collapse nor destroy reinforced bunkers, it usually will kill the occupants.

(3) Fragmentation bombs are extremely effective against exposed personnel. Since they explode in the air and shower thousands of fragments in all directions, they are excellent preassault and area suppression munitions.

(4) Air-to-surface missiles are used against fortified positions and other point targets. Thus far, only a few VC targets suitable for destruction by air-to-surface missiles have been located.

(5) 20mm guns installed on most tactical aircraft provide highly accurate firepower effective against a large variety of ground targets.

3. Armed Helicopters.

a. Missions. Armed Helicopters can provide timely and accurate fire support in both offensive and defensive actions. They normally are employed to escort transport helicopters and deliver suppressive fires. Other missions include:

(1) Armed visual reconnaissance. The purpose of this type mission is to obtain enemy information and to locate and destroy VC targets. Normally a minimum of two armed helicopters are utilized.

(2) Convoy escort. There are two methods of performing the mission. In the first method, an O-1 type observation aircraft stays with the convoy at all times, while armed helicopters deploy by bounds as the convoy progresses. The armed ships are always within five minutes flying time of the convoy. If the convoy is ambushed, the O-1 pilot immediately scrambles the armed ships by radio and directs the initial strikes on the VC ambush force. The second method -- armed helicopters flying continuous column cover -- is used when an O-1 aircraft is not required because the convoy distance is short or if the danger is great.

(3) Overhead cover for ground operations. The purpose here is to allow uninterrupted movement of friendly forces by providing aerial fire support as needed. The armed ships fly at an altitude which will afford the best observation without undue risk. They assist the ground force commander by:

the following: to assist the pilot in the use of more powerful weapons. Screening flank, front and rear of his troop units.

(b) Advising him of likely ambush sites.

(c) Advising him of likely enemy locations so he can reconnoiter by fire with small arms, artillery or armed helicopters.

(d) Providing radio relay and control.

b. Armament. Armed helicopters may have one or more of the following weapons systems: four 7.62mm machine guns and fourteen 2.75 inch rockets; two rocket pods, each carrying twenty-four 2.75 inch rockets; a nose mounted XM 75, 40mm grenade launcher; two pod-mounted .50 caliber machine guns; two 7.62 mm machine guns mounted on each side of the helicopter; the XM-21 system with two XM-134 7.62 mm miniguns and two XM-157 2.75 inch rocket launchers; and/or three wire-guided missiles mounted on each side of the helicopter.

c. Operating Techniques

(1) For the proper employment of the ships and their armament the pilots must know:

(a) The location of friendly forces. Identify friendly unit locations by using panels, smoke, colored scarves or an easily identifiable terrain feature.

(b) The location of enemy forces. Identify positions of VC forces by giving the pilot an azimuth and distance from a known location. When identifying VC forces, exercise extreme care to avoid inflicting unnecessary non-combatant casualties.

(c) The long axis of the target. Maximum advantage should be taken of the armed helicopter weapons "beaten zone" by identifying the long axis of the target.

(d) Friendly force movements, artillery fires and the presence or absence of tactical air support. This information allows the pilot to plan his time over the target area and his rate of ammunition expenditure.

(e) Armed helicopters can be used effectively to block a withdrawing enemy until ground troops can be employed.

SECTION II. ARTILLERY SUPPORT

4. General

The missions assigned to artillery units, the ammunition used, and the basic techniques of employment are no different in Vietnam than elsewhere in the world. Here, as in Korea, artillery accounts for a large percentage of the enemy casualties. Instances have been discovered in which the Viet Cong actually have called off attacks on friendly installations because of their fear of artillery. There are, however, refinements in artillery techniques required by the special circumstances of the fight against this enemy. For example, special attention must be given always to the reduction of casualties among noncombatants who are intermingled often with the enemy troops. Listed below are a number of local variations in normal artillery employment procedures which may increase the effectiveness of fire support missions.

5. Employment Techniques

a. Positioning Artillery

(1) Since the effectiveness of artillery fire decreases as the number of firing elements is reduced, artillery normally should not be employed in less than battery size units. Three suitable battery position layouts which may be used are the "Triangular", "Hexagonal", and "Star" formations. The advantage of such dispositions is that a good dispersion pattern is maintained regardless of the direction of fire. The large number of areas requiring artillery support may reduce the number of units which can be massed on a single target; however, each fire unit should have another fire unit within supporting range for mutual defense against ground attack. Artillery must be disposed to provide support for all deploying units at all times. A direct support artillery battalion's capability to support multiple company/platoon size operations can be enhanced considerably through the formation of a fourth, 4-gun battery. Employing three such 4-gun batteries and one 6-gun battery, the battalion can provide adequate fire power to support several small operations while still retaining the capability to mass the fires of two or more batteries.

(2) Be prepared for the unexpected; never assume artillery will not be needed. The threat of a VC attack from any direction is constant. Artillery units should be prepared to fire in any direction from the firing position.

(3) The requirement for all-around fire support necessitates a change in the normal plotting chart procedures used in the FDC. Battery positions frequently are plotted at the center of the chart and the size of the chart is increased on one or all four sides to permit maximum range measurements for the weapon being employed. The 1:50,000 scale firing chart normally is used for medium and heavy artillery units. A larger scale chart would be too large for a 6400 mil firing capability.

(4) Azimuth stakes should be positioned around the gun pit revetment every 800 mils to facilitate rapid change of direction and reduce the possibility of firing in the wrong direction (3200 mils out). For the same reason, fire commands include the desired azimuth of fire as their second element.

(5) The VC try to camp out of range of the artillery whenever possible. VC operational plans take into account range and location as well as probable time required for the artillery to respond to fire requests. Frequent changes of position will add to effectiveness and security of artillery and disrupt VC plans.

(6) Artillery units should be prepared also for rapid movement to new areas by boats, helicopters, transport airplanes, M-113s or conventional vehicles. Helicopter air movement has the advantage of increasing the number of accessible firing positions while not requiring secure ground routes.

(7) The VC consider artillery positions prime targets for mortar and ground attack. Consistent with providing prompt fire support, defensive positions with overhead protection should be prepared and improved as time permits. The FDC and ammunition should be revetted first and the position continuously improved while occupied. Defensive positions should be destroyed upon departure, since the VC may occupy abandoned positions and attempt

to prevent our return. In most cases, artillery security requires reinforcement of artillery position area defenses with infantry.

b. Fire direction

(1) Ground observation of artillery fire is hampered by dense vegetation, especially in the jungle areas of II and III Corps. To overcome this limitation, units should take advantage of air observers for adjustment of artillery fire. The employment of WP, smoke, or a high air burst on the first round often will assist the observer in bringing subsequent rounds rapidly on target.

(2) Ground and aerial observers often can be employed effectively as a team. The ground observer marks his position and gives directions to the aerial observer, who subsequently adjusts the fire.

(3) A system has been developed for rapid location of target areas using an alphabetical designation for each 1000 meter map grid square within a unit's sector of responsibility. This system has been used to good advantage by some units.

c. Coordination and Communication

(1) There is a great volume of air traffic throughout Vietnam. Consequently, the ability for close, rapid coordination must be maintained with operational flight elements at all times. In addition, each unit should have an individual at the firing position watching for friendly aircraft along the gun-target line. Artillery can be fired safely over air columns if the fires are coordinated closely with the flight leaders. One effective method is to place an artillery forward observer with each FAC to coordinate artillery firing during air strike. This technique ensures that all elements are informed of firing in progress and provides immediate response for lifting or shifting fires.

(2) Radio has been the primary means of communication for the artillery. Experience has indicated that most artillery units are employed beyond the normal rated range of their FM radios. As a result, it frequently is necessary to rely on continuous employment of FM airborne radio relays and on use of AM radio communication in order to control artillery fires.

(3) During field operations, aircraft control and coordination may be obtained by using an artillery advisory broadcast on a predetermined channel. The advisory consists of essential information such as artillery position, direction of fire and impact area.

(4) The 1st Cavalry Division (AM) has airlifted successfully the 155mm howitzer into position otherwise inaccessible. The CH-54 "Flying Crane" is utilized to sling-lift the howitzers into position. This capability provides medium range artillery support to ground elements in practically all types of terrain.

d. Weapons capabilities and characteristics have a major impact on employment of artillery. These capabilities are listed below:

TYPE	WT(LBS)	MAX RANGE (KM)	MIN RANGE (MTRS)(HA)	MAX RATE OF FIRE RDS/MIN
M55, Quad .50MG	800	1.8	25 (Direct fire)	450-555 (Each barrel)
M42, 40mm (AWSP)	48,000	5.0	33 (Direct fire)	240
M30, 4.2 Mortar	654	5.9	800	10
M1A1, 75mm Pack How	1,440	8.8	3,100	6
M108, 105mm How (SP)	46,200	11.5	1,000	10

TYPE	WT(LBS)	MAX RANGE (KM)	MIN RANGE (MTRS)(HA)	MAX RATE OF FIRE RDS/MIN
M101A, 105mm How	4,980	11.0	1,000	10
M102, 105mm How (Figure 96)	3,100	11.5	1,000	10
M109, 155mm How (SP)	48,000	14.6	2,300	3
M114A1, 155mm How (Figure 97)	12,900	14.6	2,300	4
M110, 8" How (SP)	58,500	16.8	4,200	0.5
M115, 8" How	29,700	16.8	4,200	0.5
M107, 175mm Gun (Figure 98)	62,100	32.8	11,500	0.5

e. Special Considerations

(1) In addition to delivering destructive fires on the VC, artillery can be utilized to illuminate critical areas at night, to orient friendly combat forces in dense undergrowth, to flush VC from hidden locations, to deny him escape routes, to deceive him on avenues of attack, to interdict suspected VC positions and for numerous other missions. Harassing and Interdiction (H&I) fires based on an understanding of the current intelligence situation can be very effective in demoralizing the VC both day and night.

(2) The selection of fuse action invariably cannot be dictated by terrain, as might be expected; rather, the fuse action that actually gives the best results against each specific target must be determined and selected. For example, it has long been thought that the employment of the VT fuse

in the dense jungle area would be ineffective. The VC has placed numerous snipers high in the trees. VT fuse action has been used to attack successfully this type of target.

(3) Aerial artillery of the Air Cavalry Division (AM) provides an added artillery support capability. One of the artillery battalions in the division is equipped completely with helicopters armed with 2.75 inch rockets, SS-11 missiles, and searchlights. Elements of the battalion are used to provide closely coordinated fires in support of air assault elements, against targets that rapidly develop on the battlefield, and for attacking moving targets. The artillery countermortar program is enhanced by placing aerial artillery helicopters on countermortar air alert. These airborne ships are on alert continuously for mortar flashes and immediately strike known or suspected locations. Several methods have been developed for using artillery as navigational aids to infantry units in dense jungle when the sky is overcast or cannot be seen through the jungle canopy. Two such methods are:

(a) To help a lost patrol generally locate itself on a map, an artillery round is fired at a location such as a grid line intersection near the patrol. Several rounds may have to be fired and the patrol may have to shift rounds based on sound. When a round is close enough to the patrol for a definite sensing, the patrol can then determine its general location on a map relative to the coordinates fired by the artillery.



Figure 96 M102 Howitzer(105mm)



FIGURE 97 M114 Howitzer (155mm)



FIGURE 98 175mm Gun

(b) To help a unit maintain its direction of attack in heavy jungle, artillery may be fired several hundred meters in front of the unit, shifting to new targets in the direction of march. The unit then "follows" the artillery to the objective. This system is preplanned and based on the infantry scheme of maneuver. The concentrations are preplanned so the artillery forward observer with the infantry unit can call for particular concentrations.

f. Safety

(1) General. The intermingling of enemy with friendly inhabitants in and near friendly installations requires diligent checks on firing data and absolute adherence by all artillery units to proven procedures and techniques. Gunnery errors which lead to the death or injury of friendly soldiers or non-combatants can be eliminated through sound training programs and active command supervision of every stage, from the reception of a fire mission until the delivery of the rounds on the target. The need for immediate responsive fire support should not be satisfied at the sacrifice of the maximum possible accuracy in providing that support.

(2) Procedures. Checks must be made at each step from the initiation to the termination of a fire mission.

(a) Particularly important are the checks to insure accurate transmission and recording of fire requests and firing data. Readback procedures must be followed habitually.

(b) The use of check charts, independent computation of firing data by at least two persons, and checks to insure that proper settings are applied to the pieces should be required. Discrepancies in the results obtained in computations by different persons should be resolved immediately by the Fire Direction Officer before firing.

(c) Fire direction centers should make every effort to keep abreast of friendly troop locations and post an overlay of these locations on firing charts. Fire Direction Officers will examine the location of each target plot, the plots of rounds fired in adjustment relative to the friendly forces and no-fire lines or areas.

(d) Fires near inhabited areas should be governed by the following additional guidance:

1 Target plots will be compared with best available data on locations of inhabited areas.

2 Unobserved fires should not be planned closer than 1000 meters from friendly villages or hamlets unless specifically requested by ARVN or clearly identified as hostile and cleared for firing by ARVN/GVN authorities.

(e) Full use should be made of available metro and survey data. Registrations should be conducted for every charge likely to be used from a given position. For base camps these registrations should be conducted concurrently with determination of metro data and as frequently as required to insure accurate delivery of fire. For tactical field positions every effort should be made to conduct registrations as soon after occupation of position as possible. If fires must be delivered before registration, the best corrections available should be applied, e.g., VE and recent metro message.

(f) Commanders and air observers should periodically request check rounds on registration points and known concentrations to check accuracy of firing data. Defensive concentrations should be check fired with utmost caution. A single round should be used as an initial check, and a full battery sheaf will be subsequently fired if time and ammunition permit. Individual piece corrections, if known, should be applied when defensive concentrations are plotted near friendly positions.

(g) Personnel shift changes in fire direction centers should not be made until the new shift has been briefed thoroughly by the old shift on the tactical situation, location of supported units, concentrations fired and all other pertinent information.

(h) Drills for fire direction and firing battery personnel should be conducted frequently under close supervision. Deviations from prescribed procedures detected during the drills must not be tolerated.

(i) Batteries on independent missions should have augmented FDCs to insure a 24 hour capability with rested and alert personnel.

SECTION III. NAVAL GUNFIRE SUPPORT

6. General

US Navy ships operating offshore can provide fast, accurate fire support for ground forces operating in the vicinity of the coast. This support can be either direct fire, where the target is visible from the ship, or indirect fire directed by air or ground observers. Because of their mobility, ships can be used to provide fire support over a wide area with little time lost between missions. Their support should be used whenever conditions permit. Ammunition available includes high explosive, white phosphorous, and illuminating rounds with mechanical time, point detonating, or VT fuzes.

7. Requests for Naval Gunfire

Any qualified observer can originate a request for naval gunfire. This request for naval gunfire support (NGFS) is transmitted through normal fire support channels to the nearest Fire Support Coordination Center (FSCC) where a Naval Gunfire Liaison Officer (NGLO) is located, or to the nearest Coastal Surveillance Center (CSC). The CSC or NGLO will complete processing of the request. The NGLO also will make arrangements for the necessary observers or spotters. Requests for NGFS must contain the following information:

- (1) Coordinates (lat, long, grid, etc.).
- (2) Target description (troops in open, caves, etc.).
- (3) Time ship is to commence firing.
- (4) Type ammunition desired.

8. Gunfire Support

a. NGFS falls into two broad categories.

- (1) Preplanned (requested or scheduled 48 hours or more in advance).
- (2) Nonscheduled (normally requests requiring quick response).

b. An example of the rapid reaction and accuracy of naval gunfire support occurred during the US Marine Corps operation "Starlite". A large group of VC attempting to cross a clearing to escape encirclement were seen by a forward observer. The grid coordinates of the clearing were radioed to the offshore ships and, within seconds, the first rounds were "on the way". When the smoke had settled, the clearing was littered with the bodies of over 60 VC.

9. NGFS Ship Capabilities

<u>TYPE SHIP</u>	<u>LARGEST GUN</u>	<u>RATE OF FIRE (RD/MIN)</u>	<u>MAXIMUM EFFECTIVE RANGE</u>
Heavy Cruiser (CA) (Fig 99)	8"	4	23,800 meters
Light Cruiser (CL) (Fig 100)	6"	8	19,200 meters
Destroyer (DD) (Fig 101)	5"/38	15	13,700 meters
	5"/54	30	16,500 meters
Destroyer (DE) Escort (Fig 102)	3"	20	6,900 meters
Rocket Ship (LSMR) (Fig 103)	5" rkt	200	9,100 meters

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Figure 99 USS Saint Paul



Figure 100 Cruiser Guided Missile



Figure 101 Destroyer (DD).



Figure 102 USS BRIDGET (Destroyer Escort)

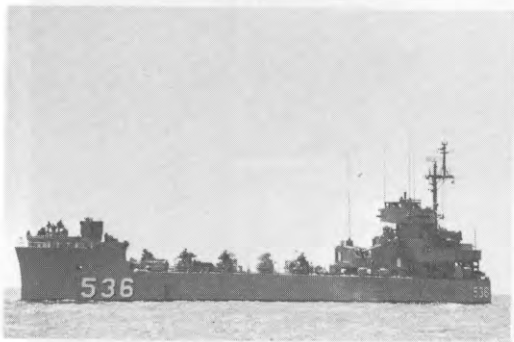


Figure 103 USS WHITE RIVER
(Medium Landing Ship Rocket)

SECTION IV. COMBAT OPERATIONS

10. General

A Combat Support Coordination Center (CSCC) is used to insure effective and coordinated use of all available combat support. The CSCC is used at those levels of command required to integrate plans and combat operations in which US, RVNAF, BOK, and other FVMAF participate in a coordinated effort. A CSCC should be organized for regimental or smaller operations to insure that all combat support elements are coordinated. In operations involving combined forces which taken in combination exceed those of regimental size, a CSCC is established and may be modified as necessary to suit the combat support elements available for the contemplated action.

11. Organization. Representatives of Artillery, Air, Naval Gunfire, Psychological Warfare, and other agencies as deemed necessary by the commander are grouped at the CSCC to assist the commander in planning, coordinating, and controlling the means of combat support available in an operation.

a. As a minimum, the CSCC will be staffed with the following:

- (1) Coordinator
- (2) Aviation Support Element
- (3) Artillery Support Element
- (4) Tactical Air Control Party
- (5) Psychological Warfare Element

b. Additionally, the following shall be represented in the CSCC as required at the discretion of the commander:

- (1) Naval Bunfire Support Element
- (2) Logistics Support Element
- (3) Intelligence Element
- (4) Liaison Officers from US and/or FVMAF artillery units supporting the operation.
- (5) Liaison personnel from province or district to advise on territorial matters which may be effected by the tactical operation.
- (6) Other support elements (e.g., River Assault Group Element, Junk Fleet Element).

SUMMARY

Effective use of our combat support means has resulted in large numbers of VC casualties. To prevent prohibitive losses, the VC will try to neutralize or avoid our supporting fires. Sound and timely fire support planning and coordination will anticipate and thwart the defensive actions of the enemy. To be truly effective, this planning and coordination must be accomplished at all command echelons and in both the supporting and combat arms.

CHAPTER 6

US COMBAT SERVICE SUPPORT

INTRODUCTION

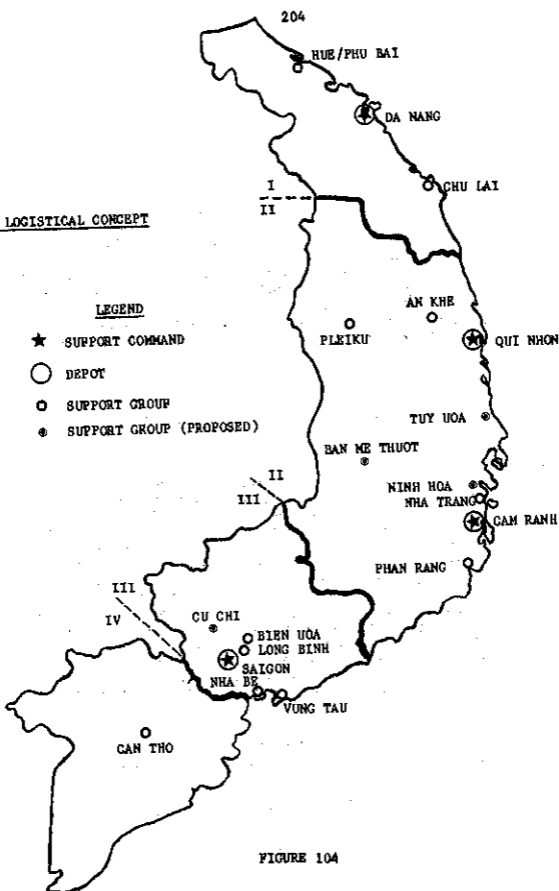
Until early 1965, the logistic support of all US military personnel in the Republic of Vietnam was concentrated in Saigon by the various services using a simple system whereby supplies were delivered to the user primarily by air. There were practically no stocks of supplies in-country nor were logistic facilities available for the support of large scale US forces. Almost all incoming supplies were received either by air or through the port of Saigon. To meet the need for a logistic system that would provide the rapid response and comprehensive logistic support required for the buildup of US and Free World forces in the Republic of Vietnam, an extensive base development program was undertaken to provide the necessary installations to support the logistic concept discussed below.

SECTION I. US LOGISTIC CONCEPT

1. General

The present logistics support concept is based on the major logistics facilities that have been established in the Republic of Vietnam, and on the available air, land and sea transportation. Logistics support of US forces in Vietnam is organized essentially on an area basis. The Commander Naval Forces, Vietnam, is responsible for logistics support in the I Corps Tactical Zone and the Commanding General US Army, Vietnam is responsible for the II, III and IV Corps Tactical Zones (See Figure 104).

US LOGISTICAL CONCEPT



2. I Corps Tactical Zone

US Forces in the I CTZ are provided common-item support by the Commander Naval Forces, Vietnam. The Naval Support activity, Danang, has been established as the wholesale supplier of common-item supplies for units located in I Corps. The Force Logistics Command of the III Marine Amphibious Force operates support groups at Danang and Chu Lai, and smaller support units at Dong Ha and Hue/Phu Bai. Support for items limited to units of a particular service is provided by the service involved.

3. II, III and IV Corps Tactical Zones

US Forces located in II, III and IV CTZ are provided common-item support by the Commanding General, US Army, Vietnam. The CG, 1st Logistical Command, with his headquarters in Saigon, is charged with the Army's logistic responsibilities, and exercises command over three major support commands located at Saigon, Cam Ranh Bay, and Qui Nhon. Each support command operates a major depot complex to provide general support level supplies, maintenance and services in its assigned area. In addition, local support groups have been established at key locations to provide retail or direct support level supplies, maintenance and services in areas of major troop population. Support for items limited to units of a particular service is provided by the service involved.

SECTION II. LOGISTIC SUPPORT FOR FREE WORLD FORCES

4. General

Free World Military Assistance Force Commanders are responsible for providing or arranging for the logistic support of their own forces.

5. US Support of Free World Forces

The United States provides Combat Service Support to Free World Military Assistance Forces in accordance with bilateral arrangements. The responsibility for providing such support rests with the US component commanders in whose area these forces are operating.

6. RVN Support of Free World Forces

Free World Military Assistance Forces are provided MAP peculiar items by RVNAF in accordance with arrangements agreed upon by the national authorities involved.

SECTION III. LOGISTICS SUPPORT FOR US ADVISORS

7. General

US military personnel assigned to MACV Advisory Teams working with the ARVN forces are supported by both the US and Republic of Vietnam logistics systems.

8. Logistics Support

Advisory personnel are issued field equipment and a weapon during their processing period prior to departure for assigned duty stations. Upon arrival at a duty station such items as vehicles, communications equipment, and fortification materials are supplied by the Republic of Vietnam Armed Forces. Other items such as rations and expendables are provided by a US logistics element on an area basis. For example, advisors in the I CTZ are supported either by support elements of the III Marine Amphibious Force or the Naval Support Activity, Danang. Advisors in II, III and IV CTZ areas are supported by the nearest supply installation operated by an element of the 1st Logistical Command.

SECTION IV. LOGISTICS CONSIDERATIONS

9. General

The geographical features of the Republic of Vietnam greatly influence the planning for and execution of combat service support in Vietnam. The country is divided into three geographical sections and each has its own impact on logistics system.

10. Geographical and Weather Limitations

a. The Highlands Region is comprised of a ridge of mountains extending from the 17th parallel almost to Saigon; about 90% of the Highlands is covered by thick, dense jungle growth, and about 50% of this growth is double canopy jungle. The second region consists of the Coastal Plain which extends along the coast from the 17th parallel to Saigon and is the densely populated area. The third region is the Delta, which sometimes is referred to as the "Bread Basket of Asia." The Delta Region is interlaced with about 4,500 miles of waterways, rivers and canals.

b. The weather in the Republic of Vietnam consists of two seasons; the hot season and monsoon season. In the southern part of the country, the southwest monsoon lasts from May until October; and in the North, the northeast monsoon season lasts from September through February. During these periods, the sky is overcast generally and heavy rains start and stop without warning. Weather and geographical limitations such as the monsoon effect on port operations, damage to roads resulting from the rains, and the reduced mobility in the dense jungles must be considered to insure the proper logistics support to forces in the field.

11. Transportation and Supply

a. Sealift is the major means by which supplies arrive from CONUS and other off-shore bases. It also plays a large role in the transshipment of supplies from one location within Vietnam to another. Six principal ports currently are being used; Danang, Qui Nhon, Nha Trang, Cam Ranh Bay, Vung Tau and the major port in South Vietnam, Saigon.

b. Airlift plays a very important role in transportation of supplies as well as supporting tactical operations. There are many areas in the Republic of Vietnam where forces can be supported only by aerial means. All types of supplies are transported by air, from livestock, rice and chickens, to ammunition.

c. Land transportation at present is hampered by a poor and insecure transportation system and congestion in the large cities. Highways in many areas are not secure and the system is not adequate to support large scale operations. Roads are lightly surfaced and have many low-capacity bridges. Little use is made of the railroad at the present time, with operations confined to short stretches where repair and security requirements are minimized.

12. Maintenance

In addition to the normal equipment maintenance difficulties, unfavorable environmental conditions and continuous operational use tend to accelerate equipment failure rates. Accordingly, these factors require greater maintenance efforts at all levels and necessitate added enthusiasm and new insight. The demands of combat effectiveness permit no other course.

SECTION V. HOSPITALIZATION AND EVACUATION

13. General

The American serviceman wounded in Vietnam today has the best chance of recovery that he has had in any war to date. Although it is not appropriate to make direct comparisons between wars due to the many variables involved, it is noted that mortality among wounded reaching medical channels approximates less than 1%. This compares favorably with the 2.2% figure in Korea, 4.5% in World War II and the 8.5% experienced in World War I. The more significant factors which have increased greatly the chance of recovery among wounded are discussed below.

14. Hospitalization

a. Improved Medical Facilities. The most modern medical equipment and improved environmental control techniques allow surgical treatment and care of wounds in the forward combat zone hospital installations.

b. Advanced Surgical Techniques. All forward hospitals, not just selected hospitals, are applying the most advanced surgical techniques. For example, blood vessel surgery sporadically used in Korea is now common place in Vietnam.

c. Whole Blood. An efficient blood distribution system has kept pace with increasing requirements. At no time has blood, a highly perishable commodity, not been available in the quantities necessary.

15. Evacuation

a. In country. With the improved evacuation capability resulting from the use of forward located helicopters and fixed-wing assault airlift aircraft, patients are moved from the battlefield to a hospital in minutes instead of hours. This rapid patient evacuation to the source of professional medical and hospital care has reduced significantly the occurrence of complications from wounds, shock and prolonged surface transportations.

b. Out of Country. Intergration of supporting hospitals throughout the Pacific and within CONUS with the forward hospitals in Vietnam has been achieved through a highly effective "out of country" aeromedical evacuation system. This allows patients in Vietnam whose condition indicates they will not return to duty within a reasonable period to be evacuated to supporting hospitals.

SUMMARY

Success in battle depends on manpower, mobility, and firepower. The potential mobility and firepower of any Command is dependent, to a great extent, on the combat service support provided to the Command. To provide a combat service support system which is responsive to the needs of the combat forces, sound and timely logistics planning and coordination must be accomplished at all command echelons.

CHAPTER 7

REVOLUTIONARY DEVELOPMENT

1. United States and Free World Military Assistance Forces are playing a major role in the present struggle in Vietnam. Our forces have been requested by the Government of Vietnam to lend support in its struggle against communist aggression from both internal and external sources.

2. The Government of Vietnam is faced with the task of building a new Republic of Vietnam and at the same time defeating the enemy in the field. Either of these tasks alone would be difficult, but in South Vietnam, the problem is magnified by the fact that they must be accomplished simultaneously.

3. In order to accomplish this dual task, the Government of Vietnam has combined the aspects of both military operations and civil nation building programs into a process which is called Revolutionary Development (RD). This process is aimed at liberating the people from communist control, assisting them to choose their own government, and helping them to carry out various projects which will give them a better life under the protection of the Central Government.

4. Revolutionary Development is the integrated military and civil process to restore, consolidate and expand government control so that nation building can progress throughout the Republic of Vietnam. It consists of those coordinated military and civil actions to liberate the people from VC control; restore public security; initiate political, economic, and social development; extend effective GVN authority; and win the willing support of the people to these ends.

5. To carry out this process, the Government of Vietnam and the United States have developed parallel lines of organization for directing and coordinating the RD effort. As shown at Figure 105, the organization consists of a series of councils on the GVN side and a series of civil and military advisory teams on the US side.

6. On the GVN side the Central Revolutionary Development Council develops policy and programs and provides overall guidance. The direction of the RD effort is accomplished by the Minister of Revolutionary Development. The Minister of RD (concurrently a Commissioner General charged with supervision over the Ministries of Agriculture, Public Works and youth) functions under the direction of the Prime Minister.

7. On the US side, the Deputy Ambassador has been assigned primary responsibility for the civilian aspects of Revolutionary Development. The Deputy Ambassador, through the office of Civil Operations (OCO), coordinates the activities of civilian agencies such as USAID, JUSPAD and OSA with the military operations.

8. Below the national level, the Vietnamese have organized RD councils at each step in the formal civil/military chain. The functions of the councils are to plan for RD, allocate resources, and supervise and coordinate the planning at lower levels. At Corps/Region level there are both military and civil members in the RD council since the Corps Commander has both civil and military responsibilities. Therefore, the US Advisory elements include both MACV and OCO representation. Although the division RD council contains civilian members, the primary function of the division in the RD process is military support and therefore only a MACV advisory team is provided.

9. The Vietnamese Province, or Sector, is the operating level for RD. It is here that the detailed RD plan is developed and subsequently executed after coordination and approval by higher

ORGANIZATION FOR REVOLUTIONARY DEVELOPMENT

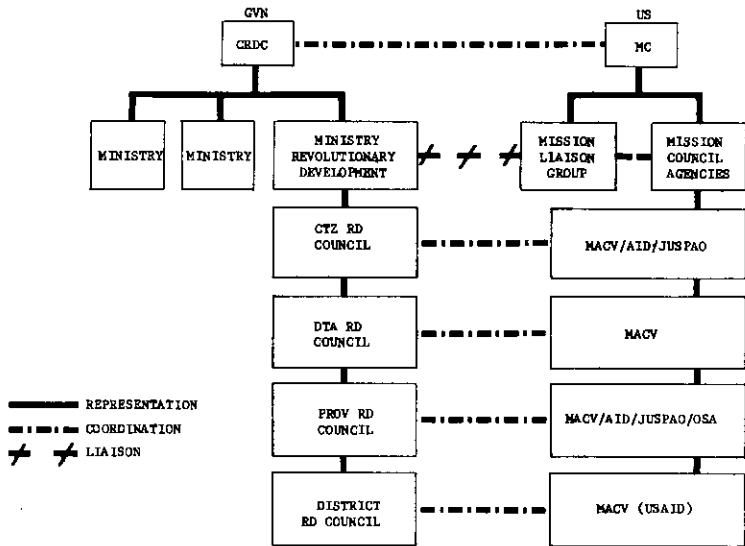


FIGURE 105

levels. Because of the key role of the Province in RD, both the GVN and US structure contain full military and civilian agency membership.

10. The District or Subsector is the lowest formal level of Vietnamese government. Although the District Chief does have duties in both the military and civil fields, only a MAGV advisory team is provided. In order to accomplish his duties in both fields, the MAGV Subsector Advisor must draw on the resources and talents of the Province where civilian agency representation is found.

11. With the overall concept and the organization for RD as background, the actual process of Revolutionary Development may now be examined.

12. The RD process consists of three successive phases: clearing; securing; and developing.

13. Clearing Phase. The objective of the clearing phase is to clear a relatively large zone surrounding the hamlet so that a defense in depth can be established. As a guide, an area is considered to have been cleared when enemy main forces of company size or larger have been destroyed or ejected. In addition, military forces capable of maintaining and increasing security must be available to the hamlet. Clearing phase is discussed also in Section VIII, paragraph 32a.

14. Securing Phase.

a. The securing phase has as its purpose the eliminating of the remaining communist influence, the establishment of local protection against its return and the initiation of local government at the hamlet level so that substantive and permanent development projects can be started.

b. An area is considered to be secure when all hamlets within the area meet one of the several sets of criteria for a secured hamlet and sufficient military or police forces are available to provide security and prevent the incursion of an organized enemy force into the area.

c. As adequate security is achieved, RD Cadre groups are introduced. These groups are trained at national level under the supervision of the Ministry of Revolutionary Development. The Cadre operate under the control of the District Chief, principally within the hamlets. Their purpose is to establish initial government administration, to include population control, organize the people for self defense, assist in gathering and reporting information of the VC infrastructure and initiate simple economic and social development projects to win the confidence and loyalty of the people. Military self-help civic action projects are undertaken by all forces in the area with emphasis placed on ensuring that credit for the results is given to the Government of Vietnam. Securing phase is discussed also in Section VIII, paragraph 32b.

15. The final phase, developing, has as its goal the further economic, political and social development of secure hamlets, the establishment of permanent hamlet and village government administration and the expansion of complete civil control over the area.

16. Revolutionary Development Cadre will assist the people by helping in the formation of local government administration, strengthening the people's self defense force and promoting, with technical cadre, long range and more complex development projects in such fields as education, health, agriculture, land reform and construction. At this stage, security will be the function of the National Police, aided if required, by the people's self defense forces.

17. From this brief summary of Revolutionary Development, it should be apparent that the prime requirement for the beginning of Revolutionary Development is military security. Without such security, RD cannot progress and attempts to introduce it in insecure areas will result only in failure with the consequence that later introduction of RD will be much more difficult. It should be apparent also that RD requires a fully coordinated military and civil effort. Coordination of military support for, and participation in, RD must be

effected through local RVN officials to ensure that such support contributes to the Revolutionary Development Plan.

18. The RD program is of vital interest to every serviceman in Vietnam. Aside from his obvious mission of helping to bring security to the areas where Revolutionary Development is to take place, he is individually and collectively a participant in the effort to build a nation, and must be alert to every opportunity to lend advice and support to his counterparts or to participate in the overall effort.

APPENDIX I

REFERENCES

The additional references should prove useful to the reader.

1. DA Pamphlet 381-11, "Guide to Selected VC Equipment and Explosive Devices".
2. DA Pamphlet 381-12, "Recognition Guide of Ammunition Available to or in Use by the Viet Cong".
3. MACV Directive 10-11 (S), 3 June 1966, Subject: "Organizations and Functions; Command Relationships and Terms of Reference for USMACV" (U), with change 1, dated 15 June 1966 and change 2, dated 21 June 1966.
4. DOD PG-21 A/DA Pam 360-411, "A Pocket Guide to Vietnam".
5. MACV Booklet "Mines and Booby Traps Used by the Viet Cong in South Vietnam", dated November 1965.

APPENDIX II

PERSONAL HYGIENE TIPS

1. Uniforms

DO NOT CUT OFF OR SHORTEN SLEEVES ON FATIGUE UNIFORMS. Keeping the forearms covered prevents cuts and infections caused by dense underbrush and reduces the incidence of mosquito bites.

2. Food

LOCAL PRODUCE MUST BE PROPERLY CLEANED AND PREPARED. All locally obtained meat must be cooked well. Do not eat raw fish. All local vegetables must be soaked in chlorinated water for thirty minutes and cleaned before eating. Fruits must be peeled before eating.

a. C-rations. Do not carry one plastic spoon but rather use the new clean spoon with each ration. Sterilize the can opener with a match.

b. Infections. Carry a small bottle (such as issue plastic bottles of insect repellent) full of alcohol. Treat all insect bites, plus all minor cuts and scratches to prevent infections.

3. Water

a. BOIL OR TREAT ALL WATER USED FOR DRINKING. All water in Vietnam is nonpotable unless from an approved water point. It must be boiled for a full five minutes or disinfected with chlorine or iodine before drinking. When using water purification tablets, use one tablet per canteen if the water is clear, two if the water is cloudy and three if the water is muddy. Water should be permitted to stand 30 minutes after adding the tablets before drinking. Water used to make ice should be treated the same way. All ice not supplied by the Armed Forces must be considered dangerous. If water is plentiful at your unit location,

drink plenty of water just before the day's movement begins. This technique will permit an individual to go longer during the day before feeling acute thirst.

b. DRINK MORE WATER. The body requires more water in a tropical climate to replace body fluids lost due to the heat and humidity. Carry two canteens of water in field operations and drink as much water as your body requires. However, you should drink small amounts at a time to avoid the possibility of getting stomach cramps. A large amount of body salt also is lost through heavy perspiration. This must be replaced by taking salt tablets and salting foods liberally.

4. Malaria and other insect borne diseases.

a. INSECT BORNE DISEASES COMMON IN VIETNAM ARE MALARIA, DENGUE FEVER, ENCEPHALITIS, PLAGUE AND SCRUB TYPHUS. The only sure way to prevent contacting any of these diseases is not to be bitten by disease bearing insects. Liberal use of insect repellent and the use of mosquito nets will assist in the prevention of insect bites. Such actions as the use of mosquito nets, when possible, keeping sleeves rolled down from dusk to dawn, and the use of insect sprays and repellents are the best means of preventing these diseases.

b. FULL-LENGTH TROUSERS AND LONG-SLEEVED SHIRTS ARE THE ONLY PROPER OUTER GARMENTS FOR WEAR IN VIETNAM, PARTICULARLY IN MALARIOUS AREAS. During daylight hours, sleeves may be rolled up; however, at dusk, during the night, or in dark jungle areas, sleeves must be rolled down and the neck of the shirt buttoned.

c. USE INSECT REPELLENT FREELY. The standard insect repellent should be applied to all exposed areas of skin and adjacent uniform edges no less than every two hours beginning at dusk. The repellent is effective in reducing mosquito bites. It must be stressed that repellent DOES NOT aid the enemy in locating or identifying friendly forces.

d. **BED NETS AND HEAD NETS SHOULD BE USED WHENEVER FEASIBLE.** Bed nets represent the best method for reducing mosquito bites among sleeping troops. Prior to use, the inside of the bed net must be sprayed with standard insecticide.

e. **SPRAY WITH INSECTICIDE THE INTERIOR OF ANY BUILDING OR TENT INTENDED FOR OCCUPANCY.** Use the spray at dusk and/or any time prior to beginning work, relaxation or sleep. Use of the standard insecticide in the open is not effective; if building is occupied it will be sprayed thoroughly with insecticide, preferably of the residual variety.

g. **TAKE THE ANTIMALARIAL TABLET WEEKLY.** Chemoprophylaxis alone will not prevent the occurrence of malaria. Some malaria parasites have the ability to persist in spite of the presence of an antimalarial drug. Too many bites may provide enough malaria organisms to overwhelm any known drug. Each US military individual will take one chloroquine-primaquine antimalarial tablet on the same day of each week. Personnel assigned to combat battalions, Special Forces units and other individuals deemed to be in a high risk malaria area will take in addition to the weekly tablet a daily tablet (DDS or Dapsone).

5. Pats, Mascots and Stray Animals

REGARD ALL ANIMAL BITES AS A POSSIBLE SOURCE OF RABIES. Rabies is prevalent throughout Vietnam. Close contact with stray animals should be avoided. Pets and/or mascots acquired by individuals or units must be immunized against rabies and registered. Any individuals bitten by stray animals, pets or mascots should report to the nearest medical facility immediately. If possible, the animal inflicting the bite should be apprehended and quarantined. See a physician as soon as possible.

6. Snakes

TREAT ALL SNAKEBITES AS POISONOUS. If an individual is bitten by a snake, take no chances; consider the snakebite to be poisonous. If possible, kill and keep the snake

so that it can be identified and the proper antivenom serum given. Be sure all personnel are familiar with aid procedures for snakebites.

7. Leeches.

AVOID LEECH BITES. Leeches live in water or on moist jungle undergrowth. Before entering streams, canals or rivers, tighten jacket cuffs to the wrists and fasten the bottom of trousers legs outside the boot. Apply insect repellent to uncovered portions of the body and check the clothing and body frequently. If leeches are found on the body do not pull them off quickly as they will leave their heads in the bite and thus cause infection. Insect repellent or heat (from a cigarette for example) will cause them to release their grip and drop off. If these remedies are not available, remove the leech carefully, attempting to remove the head. Seek treatment from your unit medical personnel.

8. Fungus

TAKE MEASURES TO PREVENT FUNGUS INFECTIONS. Superficial fungus infections such as "Jock Itch" and athlete's foot are quite common in a tropical climate. Cleaning and drying of armpits, groin and feet whenever possible as well as frequent changes of clothing and socks will prevent fungus infections. Apply foot powder daily. If fungus persists or worsens, seek proper medical attention.

9. Immersion Foot.

Prolonged exposure to moisture may result in a condition called "Immersion Foot." Make all efforts to keep feet dry as possible and change to clean dry socks at least once each day if possible.

10. Sunstroke

a. **KNOW THE SYMPTOMS OF SUNSTROKE.** They are:

- (1) Flushed face

- (2) Dry skin
- (3) Spots before eyes
- (4) Headache
- (5) High temperature

b. If sunstroke is known or suspected, treat in the following manner.

- (1) Remove individual from sun
- (2) Loosen clothing
- (3) Elevate head and shoulders
- (4) Apply cool compresses or bathe patient in cool water
- (5) Give patient cool salt water
- (6) Seek medical attention promptly

11. Heat Exhaustion

a. KNOW THE SYMPTOMS OF HEAT EXHAUSTION. They are:

- (1) Dizziness
- (2) Nausea
- (3) Cramps
- (4) Pale face
- (5) Cold clammy skin
- (6) weak pulse

b. If heat exhaustion is known or suspected, treat in the following manner:

- (1) Move patient to shade
- (2) Loosen clothing
- (3) Give patient cool salt water

APPENDIX III
HANDLING PRISONERS OF WAR (PW)

1. General.

All members of the US military Forces must comply with the Geneva Prisoner of War Convention of 1949 to which the United States adheres. Under this convention:

a. US Forces personnel will:

- (1) Disarm the prisoner
- (2) Immediately search the prisoner thoroughly
- (3) Require the prisoner to be silent
- (4) Segregate the prisoner from other prisoners
- (5) Guard the prisoner carefully
- (6) Take the prisoner to the place designated by the unit commander

b. US Forces personnel cannot and must not:

- (1) Mistreat a prisoner
- (2) Humiliate a prisoner
- (3) Take any of the prisoner's personal effects which do not have significant military value
- (4) Refuse a prisoner medical treatment if required and available

2. Handling of PW.

a. Handle PW firmly, promptly, but humanely. The prisoner must be disarmed, searched, secured and watched.

But he must also be treated at all times as a human being. He must not be tortured, killed, mutilated, or degraded, even if he refuses to talk. If the captive is a woman, treat her with all respect due her sex.

b. Take the prisoner quickly to security. As soon as possible, evacuate the prisoner to a place of safety for interrogations, but the prisoner will keep his personal equipment, except weapons.

c. Mistreatment of any prisoners is a criminal offense. Every soldier is responsible personally for the enemy in his hands. It is both dishonorable and foolish to mistreat a prisoner. It also is a punishable offense. Not even a beaten enemy will surrender if he knows his captors will torture or kill him. He will resist and make his capture more costly. Fair treatment of prisoners encourages the enemy to surrender.

d. Treat the sick and wounded prisoners as best as you can. The prisoner saved may be an intelligence source. In any case, he is a human being and must be treated like one. The soldier who ignores the sick and wounded degrades his uniform.

e. All detained persons, whether Prisoners of War or civilians, must be protected against violence, insults, curiosity and reprisals of any kind. Leave punishment to the courts and judges. The soldier shows his strength by his fairness, firmness and humanity to the persons in his hands.

3. Key Phrases

ENGLISH

VIETNAMESE

Halt

Dung Lai

Lay down your gun

Buong sung xuong

Put up your hands

Dua tay len

Keep your hands on your head

Dua tay len dau

I will search you	Tôi khám bng
Do not talk	Đừng nói chuyện
Walk there	Lại đằng kia
Turn right	Xây bên phải
Turn left	Xây bên trái

APPENDIX IV

SECURITY OF MILITARY INFORMATION

The tempo of operations being conducted in Vietnam today has generated necessarily large amounts of classified information. The safeguarding of this information is incumbent on each individual who has access to, or knowledge of information that would be of assistance to the enemy. To accomplish the desired level of security consciousness every possible precaution must be taken to preclude inadvertent disclosure.

DO NOT discuss classified information over the telephone radio. You don't know who is listening

DO NOT make veiled references to, or attempt to "double talk" classified information over the telephone or radio

DO NOT carry classified material not essential to the mission into areas where the possibility exists of its falling into enemy hands.

DO develop a sense of security consciousness and instill in your subordinates a respect for classified information.

DO refer to and follow current directives relating to the security and handling of classified matter.

DO treat Vietnamese Classified matter with the comparable degree of security required of US documents and information.

TOI MAT - TOP SECRET

MAT - SECRET

KIN - CONFIDENTIAL

APPENDIX V

PLANNING DATA ON ARMY AIRCRAFT

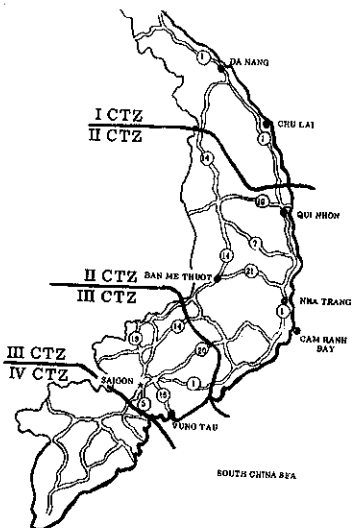
Aircraft	Unit	O-1 observation "Bird Dog"	OY-1A observation "Mohawk"	U-6A utility "Beaver"	U-1A utility "Otter"	UH-1B utility "Iroquois"	UH-1D utility "Iroquois"	CH-47A cargo "Chinook"	OH-6A LOH
Height door above . ground.	In.....	.....	.....	46	46	27	32	30	25
Usable length cargo compartment.	In.....	.....	.....	76	152	60	92	366	46
Width of floor.....	In.....	.....	.....	48	60	92	97	90	50
Height of cargo ... compartment.	In.....	.....	.....	51	60	54	54	78	48
Cargo Space.....	Cu. ft..	.....	.....	125	243	140	220	1,462	38
Door, width by height.	In.....	.....	.....	39 x 40	46 x 45	49 x 48	74 x 48	90 x 78	26 x 40
External cargo.....	Lbs.....	500	4,000	1,000	.....	3,500	4,000	16,000	.....
Passengers.....	.....	1	.....	4	9	8	12	33	3
Litter and ambula- tory.	.....	0+1	.....	2+3	4+3	3+0	6+0	24+3	0+3
Internal payload .. when A/C has full fuel.	Lbs.....	111	304	935	1,500	2,570	2,290	11,970	1,000
Normal cruise speed	Kts.....	87	190	105	100	104	104	130	100
Endurance hrs plus. min.	.....	4+30	1+55	5+30	8+30	1+10	1+50	1+45	2+25
Type fuel.....	.....	115/145	JP-4	115/145	115/145	JP-4	JP-4	JP-4	JP-4

APPENDIX VI

CONVERSION TABLE - WEIGHTS AND MEASURES

MULTIPLY	BY	TO OBTAIN
Acres	.405	Hectares
Caliber	25.4	Millimeter
Centimeters	.3937	Inches
Degrees	17.8	Mils
Fathoms	6	Feet
Feet	.1667	Fathoms
Gallons (US)	3.785	Liters
Grains	.00228	Ounces
Grams	.03527	Ounces
Hectares	2.471	Acres
Inches	2.54	Centimeters
Kilometers	.6214	Miles
Knots	1.152	Miles per Hour
Liters	.2642	Gallons (US)
Meters	1.094	Yards
Miles	1.609	Kilometers
Miles Per Hour	.8684	Knots
Millimeter	.0394	Caliber
Mils	.056	Degrees
Ounces	437.5	Grains
Ounces	28.35	Grams
Pounds	.4536	Kilograms
Temperature (G) +17.8	1.8	Temperature (F)
Temperature (F) -32	.5556	Temperature (C)
Yards	.8114	Meters

APPENDIX VII - ROAD MAP



APPENDIX VIII

GLOSSARY OF TERMS AND ABBREVIATIONS

- ADSL Company - Administrative and Direct Support Logistics Company. There is at least one per Sector for support of RF/FP with Finance, Maintenance, Supply, Medical and Transportation sections.
- AIK - Assistance in Kind. Those materials and services which the Government of Vietnam furnishes MACV without reimbursement.
- ARVN - Army of Vietnam. The common term used to refer to regular Army forces to include Airborne and Ranger units.
- ALC - Area Logistic Command. An ARVN organization that provides logistical support to units within a specified area.
- CAS - Controlled American Source
- CIDG - Civilian Irregular Defense Group. Local Vietnamese or ethnic paramilitary forces that provides border security, advised by US Special Forces personnel.
- COMUSMACV - Commander, US Military Assistance Command, Vietnam
- CRCC - Central Rural Construction Council
- CRS - Catholic Relief Service
- CTZ - Corps Tactical Zone. The geographical area of responsibility of a Corpa, but frequently used to refer to the Corps Headquarters itself, e.g., "CTZ will review...", "DTA will submit to CTZ..."

APPENDIX VIII - GLOSSARY OF TERMS AND ABBREVIATIONS (Cont)

- PAD - Public Administration Division. A USAID agency with interest chiefly in assisting in the development of the Vietnamese governmental organization and administration.
- NVA - North Vietnamese Army forces.
- PHD - Public Health Division. A USAID agency with interest in assisting the Vietnamese public health program.
- PF - Popular Forces. Military forces recruited and employed within a district; organized in platoons and squads.
- PSU - Public Safety Division. A USAID agency which assist Vietnamese Development of police forces.
- RF - Regional Forces. Military forces recruited and employed within a Province. Organized as companies.
- RNV - Republic of Vietnam. Sometimes used interchangeably with GVN when referring to the government or with SVN when referring to the land.
- RVNAF - Republic of Vietnam Armed Forces. All armed forces of the Republic, all services.
- STAT - Seabee Technical Assistance Team. A construction team which drills wells, constructs sewers, and accomplishes other public works type projects. These teams also initiate self-help projects and render technical assistance.
- Chieu Hoi - The "Open arms" program for encouraging the VC to defect to the GVN side.

APPENDIX VIII - GLOSSARY OF TERMS AND ABBREVIATIONS (Cont)

- DSU - Division Support Unit. The third echelon technical service support unit. Each serves in a particular technical service chain, e.g., Ord DSU, QM DSU.
- DTA - Division Tactical Area. The geographical area of responsibility of a division, but frequently used to refer to the division headquarters itself, as with CTZ, above.
- FMMAF - Free World Military Assistance Forces
- GVN - Government of Vietnam. Used to refer to the National Government, to the entire governmental structure, or as an adjective to describe one of its agents or agencies.
- IVS - International Voluntary Services.
- JUSPAO - Joint United States Public Affairs Office. Services US interest as well as advising Vietnamese in the information and psychological field.
- MAF - Marine Amphibious Force
- MEDCAP - Medical Civic Action Program
- MILCAP - Military Civic Action Program
- MILPHAP - Military Provincial Hospital Assistance Program. Under this program 15-man US military medical teams render medical assistance to province hospitals.
- SVN - South Vietnam. Generally connotes the land itself.
- US Mission - The entire United States team, headed by the US Ambassador and including all US forces and agencies assigned to Vietnam to assist the South Vietnamese Government.

APPENDIX VIII- GLOSSARY OF TERMS AND ABBREVIATIONS (Cont)

- USARV - United States Army, Vietnam
- VAC - Village Administrative Committee
- VC - Viet Cong, Communist insurgents against the South Vietnamese Government.
- VCC - Village Citizens Council
- VIS - Vietnamese Information Service
- VR - Vietnam, Vietnamese
- VNAF - Vietnamese Air Force
- VNN - Vietnamese Navy
- VNMC - Vietnamese Marine Corps

INF CO 175 TRPS-HOURS TO MOVE
25 SORTIES

RESUPPLY / DAY
10 SORTIES (LIGHT CONTACT)

NO	UH-1D	LIPTS	DISTANCE							
				0	1	2	3	4	5	
10		2.5	10 KM	0+26						
			25 KM	0+56						
			50 KM	1+51						
20		1.3	10 KM	0+18						
			25 KM	0+35						
			50 KM	1+09						
30		0.9	10 KM	0+10						
			25 KM	0+26						
			50 KM	0+27						

INF BN 625 TRPS-HOURS TO MOVE
90 SORTIES

RESUPPLY / DAY
37 SORTIES (LIGHT CONTACT)

NO UH-1D	LIFTS	DISTANCE	HOURS TO MOVE				
			0	1	2	3	4	5
10	9	10 KM	1+26				
		25 KM	3+38				
		50 KM	7+15				
		10 KM	0+48				
20	4.5	25 KM	1+42				
		50 KM	4+21				
		10 KM	0+30				
		25 KM	1+00				
30	3	50 KM	1+55				

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105MM HOW BTRY - HOURS TO MOVE
13 SORTIES
(960 RND5 AMMO)

NO CH-47	LIFTS	DISTANCE	HOURS TO MOVE									
			0	1	2	3	4	5	6	7	8	9	10
2	6.5	10 KM	1+25									
		25 KM	3+00									
		50 KM	6+00									
4	3.3	10 KM	0+50									
		25 KM	1+25									
		50 KM	3+00									
6	2.2	10 KM	0+35									
		25 KM	1+00									
		50 KM	2+20									

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AMMO RESUPPLY

D+1 10 SORTIES 1600 RND5
D+2 1 SORTIE 160 RND5 (LIGHT CONTACT)
3 SORTIES 480 RND5 (MOD CONTACT)
6 SORTIES 960 RND5 (HWY CONTACT)

WATER AND RATIONS

2 SORTIES PER DAY

NOTE: INCLUDES LOADING AND REFUELING TIME