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SUBJECT: Combat After Action Report - OPERATION RIVER RAIDER I,
Extract, Riverine Operations

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EXTRACTS FROM COMBAT AFTER ACTION REPORT (OPERATION RIVER RAIDER I), 1ST BATTALION, 47th INFANTRY, OPERATIONS IN RSSZ, 16 Feb - 20 Mar 1967 (67X149)

1. SPECIAL EQUIPMENT AND TECHNIQUES:

a. At the beginning of the exercise care was taken to operate within the dictates of available lessons learned, except that companies were rotated through a cycle of 48 hours in the area of operations (AO) followed by a 24 hour period aboard the support ship for "drying out" and refurbishing equipment. A minimum of two companies were consistently in the AO, and on a few occasions companies spent as long as five days in operational areas. The headquarters and fire support elements remained in the AO, with personnel returned to the ship or logistics base on an individual basis, from 16 Feb until 12 March, at which time the command group moved aboard ship. This procedure enabled the battalion to maintain the tempo of the operation.

b. A draft SOP for Riverine Operations was prepared just prior to the beginning of the operation. This SOP (Annex D) provided the working basis for Riverine Operations which were conducted.

c. The boats of RIVDIV 91 (One CCB and six ATC's) provided valuable tactical troop lift as well as performing water patrols; troops were lifted to and from the barracks ship by ATC at all hours of the day or night, sometimes inserting them directly into an AO and sometimes delivering them to the land base. Boats remained in the AO during darkness, where they patrolled on the water side of the combat base, or on the water of an AO. One boat was normally kept within a fifteen minute stand-by range of the land base as transportation for the reaction force. It was called on a number of times and was twice instrumental
in sampan/document captures. In all, these boats provided great flexibility as well as reliability throughout the operation.

d. Night operations, as a deceptive measure, were found very effective in Rung Sat Special Zone (RSSZ). Commonly a rifle company or companies would be positioned around the battalion CP during daylight hours. Under cover of darkness the company would be withdrawn and transported to a new AO where it would make a limited penetration from a perimeter, and place out ambushes. It would then be in a position to begin search and destroy or strike operations at first light. On one occasion a complete Riverine assault, with artillery fires and continuing radio transmissions was staged as a feint while troops remained quietly aboard landing craft as the craft resumed their patrol stations. Under cover of darkness, at 2200 hours, platoons were inserted at divergent ambush locations along the Long Tau River. As soon as troops had become acclimated, it was determined that they could operate in RSSZ with normal effectiveness during darkness.

e. Operations on small waterways pose a definite requirement for plastic assault boats and water safety devices. This battalion used a twenty-seven foot engineer boat and thirteen man inflatable rubber rafts to advantage. They are, however, very vulnerable to small arms fire and their slow speed and inevitable bunching of troops makes them highly vulnerable during movement. Nevertheless, water movement is essential since the VC move primarily by sampan. No amount of trudging through mangrove swamp will outmaneuver the RSSZ VC who seeks to avoid contact.
f. Damage to clothing and equipment as a result of exposure to salt water was a problem but was not so serious as the battalion had been led to expect. The jungle boot stands up well under protracted use and is an excellent piece of footwear. Jungle fatigues were washed aboard the support ship, on an overnight basis, and a small direct exchange (DX) stock was maintained. Though damage requiring DX did occur, it was not much in excess of normal field operations. The principal problem area was in damage to weapons and ammunition. Rust and salt water corrosion were a constant problem. Weapons were broken down and scrubbed in a mixture of cleaning solvent and oil on each return to the ship. 5.56mm ammunition required round-by-round cleaning.

7.62mm MLB was frequently so badly corroded/rusted together that it had to be discarded. After prolonged exposure, lensatic compass parts became frozen and the compasses had to be exchanged. The AN/PRC-25 radio performed magnificently despite exposure to salt water and muck, but abnormal failure of handsets and short antennas was experienced.

g. Since the operation was Riverine, and stores could be left aboard the support ship, only minimum essential equipment was carried by troops. For example, only seven magazines for the M-16 rifle, only 200 rounds for the machine gun, and only 12 rounds of 40mm grenade were the normal load.

h. Each squad carried 100 feet of nylon rope, a ten foot rope with snap link per man, and a grappling hook with 50 feet of line. These items were invaluable in water operations as well as in detonating booby traps. It is significant that, despite the nearly 100 mines and booby traps encountered, only one was unintentionally detonated.
i. Three-man collapsible rubber boats also proved an invaluable aid in river crossing operations and in placing ambush patrols. Small and light enough to be carried or air dropped from even an LOH, they were used in every operation after being acquired.

j. Ambushes were most successful on well-traveled waterways. An analysis of VC water travel which became available late in the operation was especially helpful. This study should be kept constantly current and be provided automatically to any unit operating in RSSZ.

k. The common concept that an ambush should be moved after being tripped is not necessarily applicable to water ambush in RSSZ. On one occasion, on the Vam Sat River, an ambush was tripped three times in one night, resulting in 7 confirmed VC KIA and the capture of three sampans and two weapons. An interesting side light on technique is that the first sampan captured was tied in the mouth of a small stream and used successfully as a decoy for the second and third sampan.

l. Use of a "mortar boat" is discussed in Annex C (Fire Support).

m. Senior Advisor, RSSZ, employed his boat and air assets along the main ship channel -- and elsewhere within this unit's assigned area of operations -- throughout this operation. Close coordination prevented conflicts and promoted cooperative endeavors. On a number of occasions, every activity was detected by forces responsive to one commander, and forces of the other commander were quickly and effectively dispatched to the scene of action to assist. By agreement between the commanders, all forces on scene were placed under control of the senior man present, designated as "on scene commander". That control continued to be exercised until the "on scene commander"
decided to release the forces concerned. The arrangement was most effective and responsive to unprogramed incidents.

n. Restrictions on maneuver imposed by lack of suitable position areas for artillery, and the great distances involved which cannot be simultaneously covered even by use of two separated artillery positions, make it highly desirable to conduct denial operations in areas of the RSSZ which are not covered by troop operations. In addition, sparsely populated, with friendly civilians concentrated in a few widely dispersed villages separated by "free fire" zones. Accordingly, denial operation was conducted in an area in which previous operations had discovered and destroyed extensive VC base camp complexes, factories, munitions, rice, and other materiel.

On one occasion a denial "package" was delivered in an area in order to disrupt VC activity in the area, and deter further use of the area for a period of time. At 0700 hours, five sorties of gravel mines were laid in a rectangular zone bracketing the target. Thirty minutes later, after the gravel mines had had time to arm, forty 55 gallon drums of CS were delivered on the target by two CH-47's, in order to force the VC to mill around among the gravel mines. After twenty minutes of agent building, three sorties of CBU were delivered on the target, together with bombs, rockets and napalm, to further disrupt any VC in the area. While it was not practical to conduct an on-the-ground post-strike analysis for at least three days following the strikes (gravel mines do not disarm for 72 hours) it is believed that the mines, and persistence of CS in the close, buried vegetation was successful in denying the area to any organized VC activity for at least three days.
2. RECOMMENDATIONS

a. Any unit operating in RSSZ, for other than a special purpose, limited objective operation, should either be a Riverine unit or receive Riverine training at the outset of an operation. Techniques are relatively simple and easily learned, but are of great value in the difficult RSSZ environment.

b. If troops are well conditioned physically and mentally, and command supervision is adequate, troops can operate in the RSSZ over extended periods without adverse effect. The dryout, rearming period should be in direct proportion to the operational period.

c. Since the RSSZ VC is a worker/technician who scrupulously avoids contact, current tactical intelligence is of paramount importance. Units operating in RSSZ, therefore, must aggressively seek intelligence from all sources and agencies. This information is not often offered and, in fact, evaluation of materiel and documents is very slow. The most rapid readback this battalion received was on documents evacuated four days earlier. For another example, this battalion captured from a group of 5 sampans documents and maps showing the location of T-10 headquarters and various stops made by the party along the route they had traveled. Other documents showed delivery of arms to units and the entire VC signal system. Although the general import was obvious at once and the general nature of the contents was apparent to the battalion commander, a readout was not produced in adequate time to permit full exploitation. In a number of cases, neither documents nor translations were returned to this organization. During the late stages of the operation, all documents were initially screened by the S-2 and an interpreter prior to evacuating them.
d. Air mobility is essential to effective operations in the RSSZ.

(1) Command cannot be exercised properly without a command and control helicopter available on continuing basis, adequate to lift commander, fire support coordinator, S-2/Intelligence NCO, S-3 (Air), COMNAVFOR V Liaison Officer, and necessary radio communications; when naval assets are utilized, navy representative should also be aboard. When not required for direct control of operations, the aircraft will be fully utilized for reconnaissance and liaison.

(2) One UH1D should be placed in DS of each battalion to permit resupply and emergency lift to elements widely scattered over the area. Unless such lift is responsive, and supply made on a timely basis, troop insertions, extractions, positioning of ambushes, and other troop movements will be unnecessarily inhibited.

(3) A battalion can fully and usefully utilize five slick ships and two armed helicopters on a daily basis for about ten hours a day. They are needed for airmobile assaults, positioning of ambushes, troop extractions and transfers (an element must normally be rotated out of the swamp after 48 hours of exposure, imposing steady requirement for lift), eagle flights for ground reconnaissance of beaches and helicopter landing zones, as well as for sampan checks and return to areas previously worked in order to keep the enemy off-balance. In addition, there is a continuing requirement for "snipehunt" missions (one slick with two starlight scopes, and two armed helicopters) in order to interdict VC sampan traffic along the myriad of waterways accessible to such craft. Finally, successful operations can expect to result in substantial "finds" in the area of operations; unless adequate quick
lift is available, it is necessary to destroy the majority of such captured materiel (munitions, cement, large rice stores) rather than evacuate and exploit it.

EXTRACTS FROM ANNEX C (Fire Support) to CAAR Operation River Raider I

1. ARTILLERY

a. General: The RSSZ, embracing the main shipping channel from Vung Tau to Saigon Port, presented a number of coordination and clearance problems. The main shipping channel is patrolled constantly by PBR’s and aircraft which, in combination with the daylight traffic in shipping, required close coordination in employment of artillery or air in order to prevent damage to friendly personnel or equipment. An additional problem was that certain portions of RSSZ are free fired day or night, certain are free fire night only, and in open areas clearance from RVN is required on a mission basis. This problem is dealt with in para b, below.

The artillery support base was initially located at Quang Xuyen and here it was first secured by the Recon platoon and later by the provisional security platoon. The base was displaced 20 Feb in order to provide a wider fire support fan. It continued to be secured there by the provisional security platoon, until it was returned to Camp Cox on 14 March. An additional fire support base was opened at Iy Nhon on 5 March in order to provide fire support along the lower reaches of the Soi Rap River. This had an excellent effect in that more than three-fourths of RSSZ now lay within artillery fire fans. This was
especially valuable in that the Viet Cong in RSSZ seem to plot their movements, insofar as possible, around artillery fire fans. This situation continued until 12 March when an artillery battery was displaced to Thanh Thoi in support of the C-2 operation. In this location it was secured by a rifle company. All three of these locations were excellent fire support bases and, if they were all occupied at once, a unit could strike at widely divergent locations without telegraphing its punches. Movement of a fire support base is a certain warning to the VC who are aware that US Troops seldom operate away from their artillery.

b. US ground clearance for indirect fire was given by the Arty LNO. However, getting RVN clearance at first proved to be time-consuming. Requests for this clearance had to be submitted on a mission basis to Senior Advisor, RSSZ, at Nah Re. Any aircraft in the area of operation would cause a cease fire in the entire Rung Sat. To alleviate this problem a zonal clearance system was worked out by all parties concerned which proved highly successful. The zonal system consisted of a circle with radius 11.5 KM (Max range of 105mm howitzer) drawn on the fire support map using the fire support base (Battery Center) as the center of the circle. The circle was then subdivided like a pie into 8 equal parts or zones and each was numbered from 1 to 8. Thereafter, to obtain clearance, all that was required was to request permission to fire into the zone in question. Also, hold fires were then applied to the zone or zones required instead of in the entire AO.
2. MORTARS

a. Positioning mortars ashore in the RSSZ is difficult and time-consuming because of lack of hardstand. Placing of mortars was done only in the area of the Bn forward CP which seldom displaced. For support of wide ranging operations more mobility was required.

b. During RIVER RAIDER ONE, two 81mm mortars were installed in the forward portion of an LCM (Sketch, Annex H) rear of the ramp, with baseplates in 2½ ton truck tires on a platform of sandbags, with a layer over each baseplate to dampen bounce after recoil. The "Mortar Boat" was nosed into the bank, engines kept running to advance or back in accordance with the tide, and steadied against the current by quartering lines running from the stern forward and outward at an angle of about 30 degrees to the bank on either side of the bow ramp. The majority of the mortar personnel were used to establish local security on the bank. This rig permitted a high degree of mobility, rapid positioning for firing, minimum wasted effort by the gun crews, and an ample supply of ammunition close at hand. The "Mortar Boat" was used both day and night throughout the operation, and provided flexible, mobile, responsive fire support for all types of maneuver.

ANNEX C, d Bu, 47th Inf SOP for Riverine Operations, CAAR Operation River Raider I

1. Movement to and aboard ship:

a. During training phase schedule is tight and requires that schedule be closely followed.

b. Troops should arrive aboard ship as early as possible in order to complete first day of training and allow for settling in.
2. Billeting aboard ship:
   a. Troop compartments are crowded and in this climate become un-
      bearably hot when air conditioning fails.
   b. Troops should be moved onto open tank or main decks if this
      condition occurs.

3. Billeting, training and operating aboard ship.
   a. Since Riverine operations are based on boat groups of about 40
      men, personnel should be designated as boat groups for billeting, chow,
      and operations. They should also work with the same boat crews con-
      sistently.
   b. The standard rifle platoon or weapons platoon adapts well as a
      boat group. Troops should have both life jackets and flak jackets on
      hand while embarked and wear them during general quarters.

4. Equipment carried on operations:
   a. Troops need to have equipment available, but move under light
      equipment when ashore.
   b. Rations, water and ammunition should be stowed and carried aboard
      the boat. Spare batteries and contingency equipment (e.g.,
      demolitions) should be handled in like manner. Extra canteens, poncho
      and other comfort items should also be stowed on the boat unless an
      overnight operation is contemplated.

5. Use of rope and knowledge of rope skills:
   a. Use of rope and knowledge of rope skills is a requirement in
      loading boats from the mother ship, in stream crossings and sometimes
      in getting ashore through deep water or mud flats.
b. Each platoon should have a grappling hook, each squad 100 feet of rope, and each individual a 10 foot length of rope and a snap link.

c. Troops should be taught basic rope and knot skills prior to beginning riverine operations.

6. Loading boats from the mother ship:
   a. Handlers must go into the boats first to receive heavy equipment passed either from a pontoon or directly from the deck of the mother ship.

   b. Troops should be formed on the main deck, in boat group order, facing the direction of intended loading, each boat group in three files. Lead rank of a boat group carries only individual equipment and becomes handling detail on loading the boat. Heavy equipment (e.g., crew served weapons) is carried and passed into the boats by the second and succeeding ranks until exhausted.

7. Use of 81mm mortars:
   a. The use of 81mm mortars provides certain and close fire support and marking, but solid ground on which to mount the mortar is scarce.

   b. Each weapons platoon and the 4.2mm mortar platoon should mount two 81mm mortars in the bow of their boat. This can be accomplished by forming a base for the base plate from an old truck tire filled with sandbags; sandbags further form a base for the bipod legs. When the boat is beached during an assault a stable firing platform is achieved. Mortars can be dismounted and carried forward if time and terrain permit, or support from the river line.

8. Flexibility in operations:
   a. Boats, like any other form of transportation, are subject
to mechanical failure, or loss during operations. They normally carry forty personnel but can carry sixty without undue crowding.

b. Units must accept and anticipate such happenings and be able to split one group onto two other boats, while under way if necessary.

9. Landing Operations:

a. Two primary factors, landing troops on a shore, and maintaining coordination between troops and boats, are paramount during and after a landing.

b. The firmest possible landing site which allows accomplishment of the mission should be selected and troop limits should be easily identifiable from boats.

(1) All available recon and maps should be used in selecting landing sites.

(2) Troops should be trained in and expect, landing over adverse terrain such as mud flats. The short, choppy lineman's charge is the best means of crossing such terrain.

(3) Unit flanks can be marked on the river line by means of aircraft recognition panels in order that direct fire weapons on boats may deliver supporting fire on the unit flanks.

10. Firepower during landing:

a. Since the organization is very vulnerable during landing, maximum fires must be delivered on the river line up to the final moment of assault.

b. Direct fire weapons on the boats will fire into the landing area until the final run into the shore. From this point until the ramp is dropped, M60 machine guns should deliver fire on the beach through the firing ports in the ramp.
11. Control of movement while troops are ashore:
   a. Since most operations are in thickly wooded or mangrove terrain, movement is difficult and aids are often necessary to maintain direction.
   b. Units should carry aircraft recognition panels and smoke adequate to mark CP's and forward trace, as well as to establish location. Advantages of using a helicopter to assist in command and control, as well as in navigation, are magnified by the type operations and the terrain.

12. Extraction:
   a. It is essential that troops be extracted expeditiously since they are highly vulnerable at this point.
   b. Considerations similar to those of a landing site apply to an extraction site. In addition, certain controls must be established:
      (1) A code word is used to signal to the boats that the unit is ready to begin extraction.
      (2) During daylight a 3' X 3' white canvas panel with black numeral corresponding to the boat group can be used on the river bank to signal a boat in to an exact landing area. This panel can be carried in the same manner as an aircraft recognition panel and displayed as the boat makes its final approach.
      (3) During a night extraction a flashlight with red filter can be used to signal boats. Number of short flashes corresponds to number of boat group. At least thirty seconds pause between signals.

13. Day Navigation:
   a. Although basic navigation from mother ship to target area is
primarily a Navy matter, coordination is essential and final approval of landing site must rest with the Army Commander.

b. Combined study of Army maps and Navy charts insures arrival at correct target area.

(1) Fish stakes and beacons frequently appear on Navy charts but are not on Army maps.

(2) Mud flats and sand beaches are useful in fixing location.

(3) Tributary water courses are useful in navigation but are frequently difficult to distinguish in RSSZ.

(4) Once ashore, land navigation becomes a matter of dead reckoning except for use of helicopters and marking rounds.

14. Night navigation:

a. With dense vegetation ashore and unpredictable placement of fish traps and fish stakes, night navigation is difficult in either area.

b. The starlight scope is an outstanding navigational aid, enabling a boat to spot fish stakes at about 250 meters. A starlight scope should be in the first and last boat of each unit, and two should be aboard the CCB. Radar may also be useful defensive measure when boats are orbiting during night operations.

EXTRACTS FROM ANNEX G (Medical), to After Action Report to River Raider I

1. Personal Hygiene

While at Bearcat, troops have had adequate bathing and showering facilities and no problems pertaining to personal hygiene have been encountered. This Bn has been on combat operations since 7 Feb 67
and a number of problems have arisen. Troops on combat operations in the Rung Sat Special Zone are continually in an environment of mud and, as the water is saline and dirty, adequate bathing facilities do not exist. The water is brought in from Bearcat for shaving and drinking and it is impossible to get adequate water supply for showering. The main problems encountered have been those pertaining to the care of the soldiers' feet, which are liable to damage from immersion. The following measures have been instituted to safeguard the health of the troops:

a. Troops stay on combat operations for 48 hours at a time and are then sent to the troopship in the Vung Tau area where adequate shower facilities are available and every man has a bunk for the night.

b. All companies have received instructions on the care of the feet which include the thorough washing of feet, drying between the web spaces and instructions to all medics to inspect feet daily. Furthermore, the Bn Surgeon has carried out frequent inspections and all cases of dermatophytosis have been treated using fungicidal ointments and powders.

c. An experiment to determine the efficiency of the Dow-Corning Silicone Ointment has been carried out using a total of 76 soldiers who used the ointment on a daily basis. Thus far, 6 cases of immersion foot have been seen, 4 of which used the above preparation. It is therefore, recommended that this preparation not be used, since the system of rotating troops for a 48 hour "drying out" period and continuous inspection of feet directing necessary treatment to existing conditions as soon as they arise is superior to any preventive ointment.
d. The condition of the troops' clothing while at Bearcat has been good, but the terrain of the Rung Sat leaves clothing in a most deplorable state. Laundry facilities exist on the troopship and each man can put on clean clothes when he arrives for the drying out period. Supply channels are able to keep up with the replacement of torn clothing and boots. It is further recommended that no undergarments be worn as the standard jungle fatigues dry out more rapidly than the undergarments, thus giving the soldier a chance to air dry more quickly. No comment is required on sanitary conditions while at Bearcat. In the field, latrines have been constructed that empty out into waterways and are thus continually clean. One hot meal daily is served and brought out in Mermite cans; disposable plates and utensils are used.
Annex H
Improvised Mortar Boat
After Action Report
River Raider I

1. Quartering Lines

2. 2½ T. Trk Tire
3. Sandbags on Top of Base Plate of 81mm Mortar

18
### Combat After Action Report: OPERATION RIVER RAIDER I, Extract, Riverine Operations

**Experiences of unit engaged in counterinsurgency operations.**

CO, 3d Bn, 47th Inf.

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