

DEPARTMENT OF THE ARMY  
HEADQUARTERS 1ST ENGINEER BATTALION  
APO SF 96345

AVDB-CE-CO

14 April 1967

SUBJECT: 1st Engineer Actions on Operation Junction City

TO: All Men 1st Engineer Battalion

1. Operation JUNCTION CITY has been the largest, and in all probability, the most significant operation in all of Vietnam to this date. From an engineering viewpoint, we have done more construction in less time than ever before. The battalion has been continually over committed, working day and night under fire, to build three (3) C-130 airfields; open, clear, improve and maintain over 74 kilometers of roads on a daily basis; build three timber trestle bridges and two major Bailey bridges, one being the largest and most sophisticated structure built by an engineer battalion since World War II. In addition, tactical support of the infantry brigades included numerous landing zones constructed by engineers descending from CH-47 by ladder and by bulldozers, as well as preparing many fortifications and clearing fields of fire for infantry units in dense jungles. The battalion also supervised construction of two Special Forces camps and an additional C-130 airstrip, the actual construction being done by supporting engineers. JUNCTION CITY, which extended from 22 February to 15 April, has also been one of our more costly operations with 1 KHA and 42 WHA. Casualties occurred principally from mining incidents, mortar and sniper fire. Determined probes against perimeters, particularly B Company, accounted for a number of V.C. (body count included in larger unit reporting). During this period the battalion separately was given credit for 48 V.C.

2. The stage was set for the opening of JUNCTION CITY as A and C Companies moved directly from Operation TUCSON and D Company completed the C-130 field at Suoi Da. On TUCSON, A and C Companies had constructed two timber trestle bridges, put in and maintained six fords and three AVLB sites, and improved 33 kilometers of road. They also redocked two steel truss bridges to permit withdrawal of 1st Infantry Division troops thru the Michelin plantation enroute to the JUNCTION CITY operational area. In the mean time D Company completed the compacted silt C-130 strip and placed T-17 membrane to provide a logistical base for the 1st Division (primarily 3d Brigade) thrust north from Suoi Da to Katum. The airfield started by A Company in December before tactical reasons required their presence elsewhere - was another "first" for the "Always First" battalion. It is the only compacted silt field in II Field Force area and with proper maintenance will provide continuing service for a prolonged

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period. Few believed when the project was conceived that we could get CBR's up to 100 (averaging 35-40) out of what is commonly referred to as "elephant manure".

3. Phase I of JUNCTION CITY commenced on 22 February as the 1st Bde and 173d Airborne Brigade air dropped and landed in the vicinity of Katum and to the northwest of Katum and the 3d Bde thrust north along the road from Suoi Da to Katum. The objective was to provide blocking forces on the east and north for an attack by the 11th ACR and 2d Bde, 25th Infantry Division to the north in the westernmost portion of War Zone C. Engineers with the lead elements (naturally) of the 3d Bde Task Force found the going rough as we lost two tank dozers the first morning to mines (one later salvaged). By that evening the force reached Katum to link up with the 173d Airborne Brigade.

4. Engineer tasks assigned during this first phase (see sketch map attached) were for A and C Companies, along with the 173d Engineer Company to provide combat support to their brigades and open and improve the roads in their brigade sectors including any necessary bridging. D Company was to build the airstrip at Katum and our supporting engineers to build an airstrip and Special Forces Camp at Prek Klok and improve the road south of Prek Klok. After A Company opened the road to Katum, C Company immediately set about making a 500' corduroy road and building a 60' timber trestle bridge to keep a fast failing section of road open to convoy traffic and replace a hasty AVLB site. On 24 February, D Company moved to Katum and was shortly followed by the Battalion Headquarters. D Company set to work on the Katum strip on 25 February and in six days it was fully opened to C-123 traffic (type II) and C-130 traffic on an emergency basis (type I). This strip of compacted silt over laid by a coarse grade of laterite was literally hewn from the jungle as fighting continued. While searching for a source of laterite a party was attacked suffering three casualties within 200 yards of the Battalion CQ. Surveying was interrupted several times by sniper fire and each night the engineer base at Katum was mortared. Similarly, C Company providing local security to its work parties suffered casualties from V.C. snipers 20 meters from their work site. A Company's work was stopped in several instances either by mortar attack or to permit infantry to clean out local ambushes. Regardless of enemy action the work progressed and the six day record for the D Company airstrip will be remembered for a long time. As the field was opened and the first C-123 landed a small celebration including cake and champagne was held to commemorate the occasion.

5. On completion of the Katum field the 1st Engineers were withdrawn south to refit for Phase II operations. The 168th Engineers continued work on the airstrip and special forces camp at Prek Klok which were completed about a month later.

6. After a day's standdown for maintenance A Company, B Company, E Company (-) w/Battalion Headquarters (being flown directly from Suoi Da to

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Quan Loi), moved into Phase III establishing an engineer base in the rubber about 5 kilometers west of An Loc. During this phase B Company was to open the road west to the Saigon River; A, B and E Companies were to work on a 220' Bailey bridge to enter War Zone C; D Company was to build yet another C-130 strip at the bridge crossing site; and the 27th Engineers were to put in the Special Forces Camp at the site. B Company was to push on west after the crossing with the 2d Brigade.

7. On 7 March A Company engineers accompanied the infantry to the Saigon River Bridge site and attempted unsuccessfully to extract the existing collapsed 160' DD Bailey from the stream bed to permit erection of a pier. The alternate plan of constructing a bridge just up stream of the existing bridge using a sand bar as a base for the pier was implemented and on 8 March layout and construction began. As A Company and B Company alternated working day and night pouring a concrete foundation for the pier, the now extensive approaches and abutment retaining walls were constructed. E Company implaced a high line to transport concrete to mid stream and as soon as the near shore approach was completed they commenced assembly of the Bailey structure consisting of 2 spans of 120' DD and 100' TS. The morning of 11 March the nose of the 100' TS was launched to the Bailey pier and by noon on 12 March the bridge was completed and opened to traffic. Considerable additional effort was required to provide an adequate road net work on the far shore and to emplace a concrete and timber fender around the supporting Bailey pier. A Company moved from the Bailey bridge to a 50' timber trestle bridge so that the 27th Engineers could commence clearing operations at the special forces camp.

8. On 14 March, D Company rolled north to the engineer camp west of An Loc and the next day commenced clearing for the C-130 airstrip west of the bridge site. This field required considerably greater earth moving than the Katun field but fortunately we were blessed by abundant laterite sources. Cuts up to 8' and fills to  $4\frac{1}{2}$ ' were required over extensive areas of the field to provide proper alignment and profile. Earth moving went on day and night through the construction period. On 1 April the field was accepted and D Company shortly withdrew to Di An (less a platoon to up grade the Quan Loi airstrip) to perform maintenance on some weary bodies and pieces of equipment.

9. Battling Bravo Company, which was not actively engaged in Phase I, soon found much action as they were heavily mortared on 5 nights and withstood probing attacks on their perimeter in the 2d Brigade base camp. After completing the Saigon River Bridge they pushed forward along route 246 to Fire Support Base Charlie and later to Objective Thrust where major jungle clearing for artillery and fields of fire for the infantry were required. Road work continued to take considerable effort particularly as the showers commenced after the long dry season. From controlling dust (about 50,000 gallons of palliatives used by B Company alone) to suppressing mud became the name of the game.

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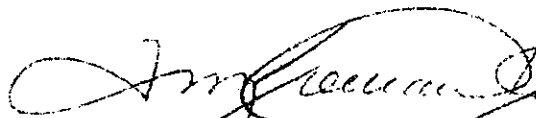
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10. Since engineers are never in reserve, particularly the First Engineers, A Company on completion of the fender for the Saigon River bridge was road marched to Lai Khe and thence to their home base of Phuoc Vinh (they've been there for 1 week since last October) to prepare for the Song Be bridging job. (We are checking records but it is understood that this is the longest (437') and most sophisticated (110' DD single span cantilevered off of two 163.5' DD spans) bridge constructed since World War II). Calculations for the bridge design were made by LTC Smith, Battalion Executive Officer and considerable technical assistance was provided by E Company in modifying existing Bailey parts for the modified bridge (a requirement was to place the DD trusses within the 17' 8" clearing between the old French concrete trusses - normal clearance required is 21' 10"). A unique method of construction was used wherein the modified trusses and transoms were erected in skeleton form on the existing steel bridge truss whose capacity was rated as 30 tons. Specially fabricated pinned joints were emplaced and braced while the skeleton frames were jacked up from the old steel truss and the older truss dropped into the river 100' below with a beautifully executed demolition charge. The new truss was then jacked down into final position, the cantilevered spans completed, abutments and approaches prepared, the pinned joints freed to permit the center section to act as a simple 110' span, and the double story emplaced on the 110' span. This structure was completed as Operation JUNCTION CITY came to a close and enabled the next Division operation for the Phuoc Vinh area to employ tanks and fully loaded resupply vehicles whereas before Class 23 was the maximum allowable load. While initial estimates by other organizations proposed a double-triple design using a Company-month of effort, the "Always First" battalion accomplished the job using a double-double cantilever (saving 1/3 of the panels) and a Company (-) for 10 days.

11. Including bridging in JUNCTION CITY, you have now constructed more than one half of all Bailey Bridging employed to date in Vietnam (in comparison with the accomplishments of 20 engineer battalions of the Engineer Command plus all divisional engineer battalions and separate companies). You have constructed half of all C-130 airfields built by U.S. Engineers in the II Field Force area. You have literally changed the face of the map in the III Corps Tactical Zone.

"Always First"



J.M. KIERAN, JR.  
LTC, CE  
Commanding

# COMBAT 1 COMMENTS

NO 1-67

## CHASING CHARLIE

Months before a good fighter enters the ring against an opponent he studies every move his opposition makes. He wants to find weak spots where he can hit the opponent hard and finish him quickly. War with Charlie is hardly different; when we hit Charlie we aim to do lasting damage, to stop him permanently.

In late December and early January the BIG RED ONE studied its opponent well. Where could we do Charlie some real permanent damage? Several locations looked like good bets.

From the CAU DINH Jungle, southeast of the IRON TRIANGLE, Charlie harasses movement on Highways 13 and 14. He uses the jungle as a staging area from which to mine our convoys and to tax civilian traffic as it passes. The CAU DINH Jungle is vital to Charlie's control of the area. If we could hit that jungle with one decisive blow we would inflict permanent damage. Charlie would lose a secure base area from which to control the Highways.

Moving up Highway 14, we noted the village of BEN SUC, just northwest of the IRON TRIANGLE. BEN SUC was VC dominated. It served as a major tax collection headquarters for the heavy traffic moving up and down the SAIGON River from DAU TIENG to SAIGON, and was a relatively safe haven for the VC. In addition the nearby IRON TRIANGLE provided an excellent refuge if BEN SUC was threatened. One direct blow at BEN SUC could wipe out a VC stronghold that had existed for many years.

What of the IRON TRIANGLE itself, that 100 square kilometers of unbroken jungle? Charlie was in there for sure. Trouble was, there were no roads or landing zones available to get in and deliver Charlie a killing punch. If that Triangle could be weakened the very heart which makes Charlie tick would be weakened.

Closer to our own base camps (the ones we visit briefly now and then) the TRANG BUNG BUNG Jungle and TAN HIEP WOODS were worthy of careful scrutiny. The village of HOA LOI I, HOA LOI II and CHANH LONG were known to contain VC. Charlie operates from the villages and disappears into his jungle base camps nearby if the villagers are in danger. The PHU LOI Bn and other VC units camp in the TRANG BUNG BUNG and TAN HIEP WOODS and resupply from the villages. A couple of hard rights in that area would drive Charlie from the villages and force him

meaning of the Division's unofficial motto. The VC may try to continue to use the IRON TRIANGLE, but at a far greater risk. With BIEN SUC gone the entire area has been declared a free fire zone, and with roads zig-zagging all over the TRIANGLE, Charlie is vulnerable to rapid airborne and mechanized assault by the BIG RED ONE. A vital spot in Charlie's defense has received a staggering blow. He may be back in "THE TRIANGLE", but he will never be back in "THE IRON TRIANGLE".

CEDAR FALLS ended, and the BIG RED ONE charged into its own backyard to deliver those two hard rights, one to the TRANG BUNG BUNG jungle and another to the TAN HIEP WOODS. Both areas were surrounded, bombarded, searched and flattened. 35 dozers lumbered down from the IRON TRIANGLE and cleared 3.5 sq kms in the TRANG BUNG BUNG and 4 sq kms in the TAN HIEP WOODS. Consider the impact on Charlie. He runs from his home in HOA LOI I or II or CHANH LONG, heads for his jungle base camp only to find himself standing on a bald billiard table, with open country all around. He no longer has a supply point, a secure base, a home. There is no place for him to hide.

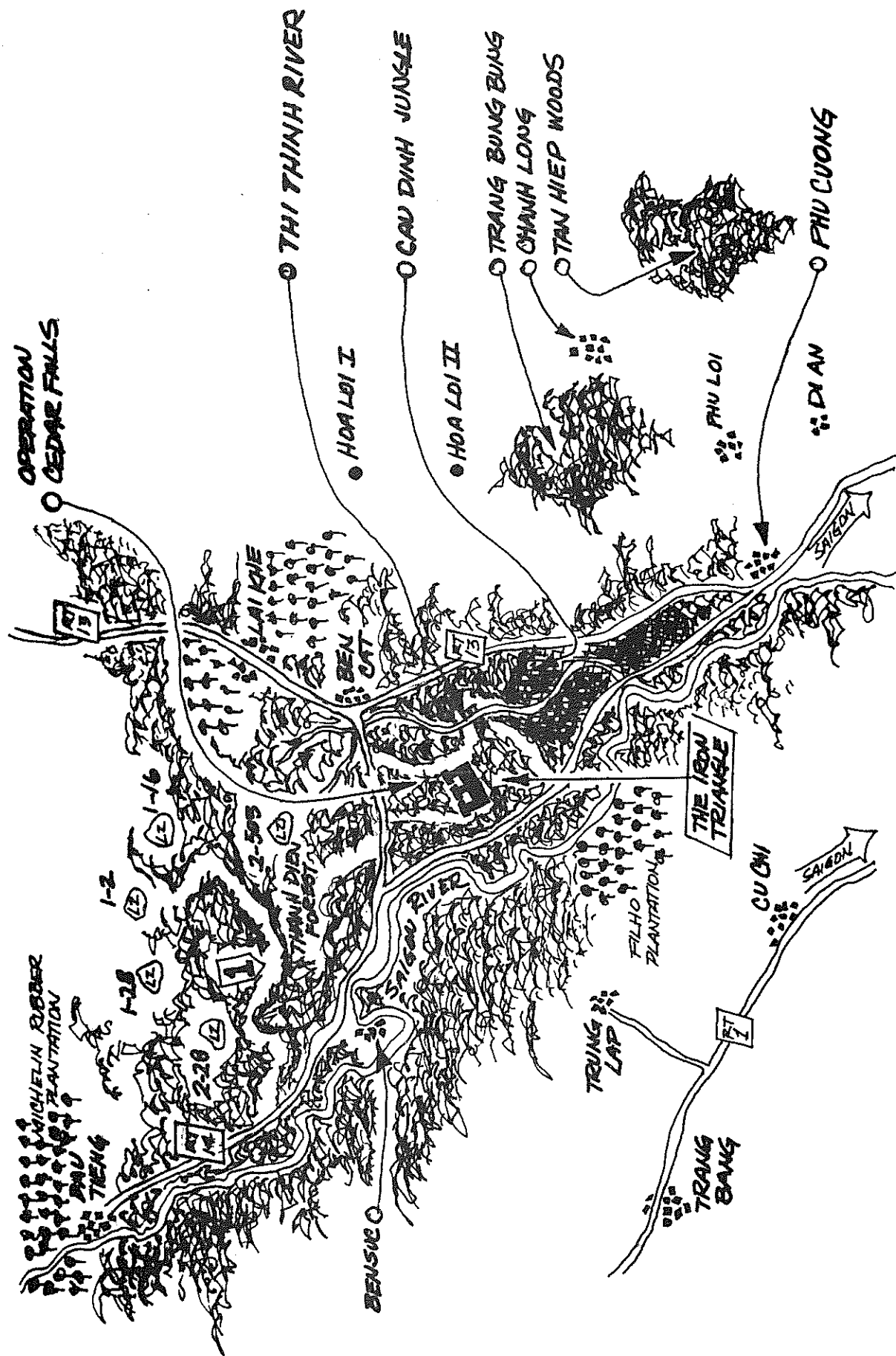
To compound his miseries, Charlie is going to be hungry. During January he lost 3364 tons of rice in the 1st Division area, and that ain't hay -- it's enough rice to feed  $24\frac{1}{2}$  VC battalions for one year.

What effect does the loss of so much rice have on the VC? Obviously all that rice did not grow where it was found; it had to be transported there. Probably very little of it was from nearby, because the nearby rice producing areas are government controlled. Mainly it came from VC controlled areas, some from the delta, some from War Zone C, some from War Zone D. Furthermore, much of it was the product of VC taxes and theft. To replace almost 4,500 tons of rice taken during ATTLEBORO and CEDAR FALLS, the VC must spend more money, tax more heavily, steal more, and beg more. In addition, VC soldiers who would normally be fighting must be pulled away from that task to harvest and transport rice. Charlie is not only faced with the grim prospect of hunger, he must lean still harder on an already overburdened civilian population, and he must pull fighting troops from their already understrength units.

One thing which is impossible to measure is how truly frustrated and demoralized Charlie must become. Imagine working as hard as he does to obtain, transport, and store 4,500 tons of rice only to have it taken away. It's kind of like beating his head against a big rock wall -- or a BIG RED ONE.

Listed below are the rice figures for ATTLEBORO and CEDAR FALLS.

	<u>CEDAR FALLS</u>	<u>ATTLEBORO</u>
Total rice captured and destroyed	3347 T	1136 T
Total VC Bns (500 men ea) which could be fed for one year;	24.4 Bns	8.3 Bns
Total VC Bns which could be fed for one month:	294	100





CPT MILLAR

# COMBAT COMMENTS

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## Horseshoes with Charlie

On 22 February 1967 a gigantic military horseshoe was pitched into the pit of War Zone C and the largest operation of the Vietnamese war was underway. (See JUNCTION CITY I map attached) By evening of the 22d, a casual observer flying over War Zone C would have spotted settling dust as the well-aimed horseshoe slid into place. That settling dust was a direct result of mechanized, airmobile, and airborne forces of the US 25th Infantry Division, the 173d Airborne Brigade and the BIG RED ONE. The western and northwestern portions of the horseshoe were occupied by the 25th Infantry Division. The northeastern and eastern portions of the horseshoe were occupied by forces of the 1st Infantry Division and 173d Airborne Brigade.

From MINH THANH the 1st Bn, 2d Inf, 1st Bn 26th Inf and 1st Bn, 23th Inf conducted heliborne assaults in the north along Route 246. From QUAN LOI, the 4th Bn, 503d Inf and 1st Bn, 503d Inf of the 173d Airborne Brigade under the operational control of the 1st Division, conducted heliborne assaults in the northeast along Route 246. From BIEN HOA the 2d Bn, 503d Inf conducted the first battalion-size parachute assault since the Korean War. Their drop zone was north of KATUM along Route 246. The eastern portion of the horseshoe was occupied by the 1st Sqdn, 4th Cav with Co B, 34th Armor attached, the 2d Bn (Mech), 2d Inf and the 1st Bn, 16th Inf. From 1st Sqdn, 4th Cav positions in the south to 1st Bn, 2d Inf positions in the north, 12 batteries of artillery thundered 105mm, 155mm, and 8 inch howitzer support. When all blocking units were in position, search and destroy forces surged into the open end of the horseshoe toward blocking forces in the north.

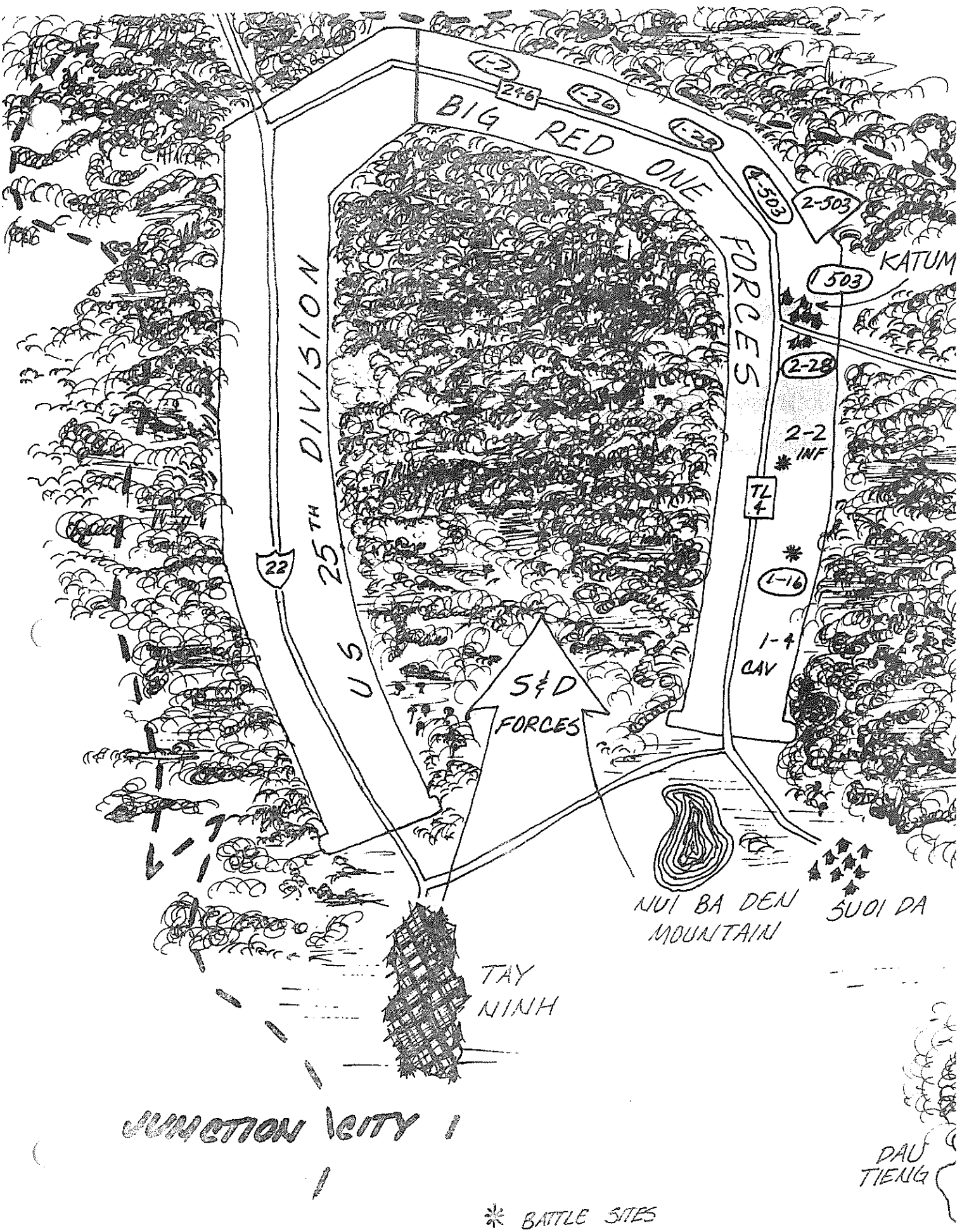
As those forces charged north, let's consider some of the reasons which brought about Operation JUNCTION CITY. In November 1966, the 1st Infantry Division entered the southern portions of War Zone C on Operation



a number of important reasons. First, a CIDG compound and airstrip were to be constructed along Route 246 west of AN LOC. Forces in the area would provide security for engineer work parties. Second, this area was the only remaining portion of War Zone C which had never before been searched by US forces. In mid-February 1967, Operation TUCSON had covered the area south of MINH THANH between the Michelin Plantation and Route 13. JUNCTION CITY I covered the western portions of Zone C. To completely blanket the zone, the JUNCTION CITY II area was selected. Third, intelligence gathered from documents, informers, ralliers, aerial observers, and airborne radar indicated substantial VC traffic flowing northeast and southwest in the same general direction as the SAIGON River, north of DAU TIENG. JUNCTION CITY II was the last phase of a plan designed to sweep through War Zone C in TAY NINH Province and to demonstrate to the VC that an area they use as their major stronghold and headquarters for all South Vietnam is vulnerable to entry by American forces. Prior to this time no American forces had ever operated in eastern War Zone C.

The plan for the second phase in War Zone C was quite simple: place two brigades of infantry, reinforced with armored and mechanized forces, across the flow of VC traffic. The 2d Brigade and 173d Airborne Brigade, under operational control of the 1st Division, were chosen for the task. They executed search and destroy operations in the general area indicated on the JUNCTION CITY II map, attached. The 1st Brigade secured QUAN LOI, Route 246 to the bridge site, and Route 245 to MINH THANH. The 1st Brigade of the 9th Division, also under 1st Division control, secured Route 13 from LAI KHE to QUAN LOI. During this phase of the operation the 1st Infantry Division controlled five brigades and an armored cavalry regiment in addition to supporting artillery, engineer, aviation, signal, and logistical units.

Two significant enemy contacts occurred during JUNCTION CITY II. The first took place at a destroyed village named BAU BANG, eight miles north of LAI KHE along Route 13. At that location, the 3d Sqdn, 5th Cavalry was securing B Battery, 7th Bn, 9th Artillery inside a perimeter of 20 M113 armored personnel carriers and six M48A3 tanks. At ten minutes past midnight on 20 March the base came under heavy caliber .50 machine gun, mortar, and recoilless rifle fire. At 0135 hours the perimeter came under heavy ground attack from two battalions of the 273d VC Regiment reinforced with local guerrillas. Heavy enemy machine gun fire was directed into the perimeter from along a railroad track embankment 50-100 meters east of the perimeter. Friendly forces replied with intensive, sustained small arms fires, M60 and caliber .50 machine gun fires, 90mm tank fires, 4.2 inch mortar fires, 3000 rounds of 105mm, 155mm, 8 inch, and 175mm artillery fires, coupled with 87 sorties of tactical fighter support. A police of the battle area the following morning revealed 231 VC killed and three wounded PW's. US forces sustained three killed and 63 wounded; 26 of the wounded were evacuated. As in the 10 March battle, the ability of the mechanized/armored perimeter to fight off repeated attacks kept the VC in position for friendly artillery and air attack.



\* BATTLE SITES

# Operation JUNCTION CITY Totals

VIET CONG KILLED	1781
VIET CONG CAPTURED	25
VIET CONG RALLIERS	3
TOTAL	1809

## WEAPONS AND AMMUNITION

Arty Ammo	98 rds	M79 Ammo	88 rds
Blasting Caps	1785	Mines	348
CBU	185	Mortar Ammo	519 rds
Demolitions	1179 lbs	Pack How Ammo	25 rds
Det Cord	1600 m	Small Arms Ammo	64,809 rds
Flares	1013	Small Arms	251
Grenades	4019		

## FOODSTUFFS

Beans	700 lbs	Rice	311 tons
Dried Fish	10 tons	Salt	8 tons
Milk	283 cans	Sugar	75 lbs
Peanuts	200 lbs		

## EQUIPMENT

Air Compressor Drill	2	Oil	535 gal
Amp Meters	3	Oil Lamps	83
Auto Coils	3	Pencils	700
Auto Gears	5	Phones	23
Axes	2	Plastic Wpns Cases	82
Ball Point Pens	500	Radios	18
Batteries	6,650	Reams of Carbon	10
Bicycles	127	Reams of Paper	70
Bicycle Tires	200	Rulers	10
Bicycle Tubes	222	Sandals	7,914
Bolt Threader	29	Sand Bags	586
Commo Wire	6 mi	Sand Paper	8,000 sheets
Copper Wire	6,000 ft	Saws	6
Drafting Kit	1	Screw Drivers	20
Drill Bits	50	Sewing Machines	5
Dynamos	2	Shovels	226
Electrical Resistors	100	Solder	17 spools
Electrical Wire	1,825 ft	Switchboards	2
Erasers	1,750	Tap and Die Tools	50
Field Glasses	1	Tape Recorder	1
Generators	6	Tin	473 sheets
Generator Brushes	50	Transformers	4
Hacksaw Blades	254	Transistor Radios	38
Hand Drills	50	Truck Gears	8
Hand Grinders	1	Typewriters	10
Kerosene	300 gal	Uniforms	761
Machetes	4	Water Pump	1
Med Supplies	637 lbs		

