

A General Review of Communications Work Operations During the Counterattack in Self-Defense Against Vietnam in the Yunnan Province [Theater of Operations]

The counterattack in self-defense against Vietnam was an assault operation coordinated among various armed services and conducted over a fairly broad front to a predetermined depth. It was a test in actual combat of the organization of the communications and liaison [services], of the current organizational structure, technical training, military/political qualities, and communications support capabilities of the communication troops [signal corps]. The operation tested the strategic and tactical functions of communications equipment and the construction of communications networks on the field of battle.

Under the direct leadership of Party committees and leaders at all levels, the entire body of communications personnel conducted in-depth mobilization and conscientious preparations to ensure command operations and coordination during the counterattack in self-defense. They conducted all-around organization to support key areas in accordance with their operational assignments and the characteristics of subtropical mountainous and forested regions. The signal troops worked on the basis of the existing communications structure and equipment. The entire body of communications personnel carried forward the army's glorious tradition of not fearing hardship or death, and possessing courage and steadfastness. [They demonstrated] resourcefulness and versatility, seizing every minute and second, fighting around the clock, and over-

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coming all difficulties. They basically ensured unimpeded communications and liaison services and guaranteed coordinated communications among all levels of combat command and all armed services. Yet, at the same time, the operation also revealed a number of problems. The main points of the general situation are as follows.

A. Inputs of Manpower and Equipment

During this operation alone, the number of communications troops that participated in combat reached XXXXX persons, of whom XXXX were radio operators and XXXXX were wire communications and other communications personnel. During the campaign, a total of XXXX persons, XXX of whom were radio operators and XXXX were wire communications and other personnel, were used to service the Military Region Forward Command; a total of XXXXX persons, XXXX of whom were radio operators and XXXX were wire communications and other personnel, were used to service the three field armies and attached units; a total of XXXX persons, XXX of whom were radio operators and XXXX were wire communications and other personnel, were used to service air force units; a total of XXXX persons, XXX of whom were radio operators and XXXX were wire communications and other personnel, were used to service the artillery; a total of XXX persons, XXX of whom were radio operators and XXX were wire communications and other personnel, were used to service the Yunnan Provincial Military District and the border troops; and a total of XXXX persons, XXX of whom were radio operators and XXX were wire communications and other personnel, were used to service the rear service, engineering, and antichemical warfare units. In addition, the Post and Telecommunications Bureau of Yunnan Province and mainly the post and telecommunications bureaus of Honghe and Wenshan municipalities spared no effort to guarantee communications and liaison services for combat operations; XXXX of their post and telecommunications employees took part in work to support the front.

The stock of main end-items and equipment at various stages of the campaign reached a total of 865 radio transmitters (including communication vehicles) of 10 watts or above, 929 data receivers, 4,831 radio sets of 2 watts or less, 88 sets of radio relay equipment, 822 telephone central devices (switchboards), 14,384 telephones, 285 sets of artillery position telephones, 37 sets of twelve-line carrier terminals (including five sets for post and telecommunication), 52 sets of three-line carrier terminals, 271 sets of single-line terminals, 84 teletype machines, 22 fax machines, 434 sets of various types of generators, 27 telephone, telegram, and power supply vehicles, 21,000 km of covered lines, and 298 km of communication cable. Some 2,464 (*gan*)

km and 10,295 (*dui*) km of long-distance main communications line were utilized.

To guarantee the supply of communications material and equipment, the basic loads of communications equipment for the units participating in combat were increased by supplementary issues of 30 to 50 percent. Moreover, transportation support was organized to build up reserves of the main types of communications equipment and material. A total of more than 6,600 tons of supplemental and reserve communications equipment and material was transported.

B. Organization and Implementation of Communications and Liaison

Campaign communications support was implemented by such means as wireless communications, wire communications, wireless relays, simplified signals, and mobile communications in order to ensure implementation of uninterrupted combat command of the troops at all stages of the campaign. During the campaign's initial stage and when it went over to defense, the main form of communications used was wire communications, supplemented by mobile communications and used in conjunction with various other means of communications. Radio silence was maintained. During the initiation of the campaign, the main form of communications was wireless communications. All efforts were made to provide unimpeded wireless communications for units at and above the division level. Units below the division level also proactively used wired communications, mobile communications, and simplified signals. [They used] reciprocal combinations and simultaneous use of multiple means, multiple methods, and mutually supplementary avenues to ensure combat command [during the operation].

C. Some Experiences

1. Prior to Combat, Make Ample Preparations for All Aspects [of Combat]

The army units carried out three “about-faces” (from peace to a state of war, from being friends to being foes, and from assistance to punitive action) by means of education centered on the “three attitudes” (hatred, contempt, and disdain). They conducted in-depth mobilization, and fully aroused the confidence and determination of the broad masses of communications cadres and fighters in gaining victory over the Vietnamese revisionists and accomplishing their communications support assignments. The units fostered the noble

concept of winning merit and becoming a hero. The troops eagerly sought combat assignments, resolutely completed their tasks in combat, carried forward the spirit of revolutionary heroism of fearing neither hardship nor death, won honor for their motherland, and rendered new meritorious service to the people.

2. Adjusting Troop Dispositions and Increasing the Stock of Equipment

Personnel, equipment, and material were all increased to meet the requirements of operational command and the augmentation of unit establishments. Ordinary units acquired between 30 and 50 percent more equipment than prescribed by establishment quotas. All categories of communications personnel were adjusted and confirmed. Wire communication detachments were basically guaranteed two backbone operators per squad; 15-watt radio stations had one or two backbone operators, and transistorized 2-watt and 884¹-type radio transmitters had one backbone operator per set. The command issues of support detachments were resolved, and their commands were reinforced.

3. [Pay] Close Attention to Prebattle Training

Emphasis was placed on [various aspects of training] in accordance with the characteristics of the battle zone and the diverse assignments of the units. They followed the principle of first learning urgently needed things and things which appeared to be deficient in some aspect. More training was given on key subjects and repeated training was conducted on difficult subjects. During the training, [the troops] also persevered in learning while doing, training while learning, training during operations, training while standing duty, training from the needs of actual combat, and rigorous training according to rigorous demands. Most of the comrades quickly mastered various specialized skills and learned the things urgently needed for fighting this war.

4. Pay Close Attention to Maintenance, Repair, and the Resupply of Equipment and Material

[Paragraph numbering as in original document.] Maintenance personnel repeatedly examined and repaired communications equipment and material. While ensuring that their equipment was in good combat condition, all units acquired a certain amount of backup equipment. This extra equipment provided a fairly good reserve for equipment supplies throughout the entire course of the fighting.

2. Conduct All-Around Organization and Ensure Key Aspects

[Paragraph numbering as in original document.] This operation was marked by the participation of numerous combat units, complex coordination among various arms, frequent movements on the part of command headquarters of all levels, rapid changes in command relationships, and frequently changing situations. During the troops' advance phase, communications were organized and ensured mainly by utilizing existing wire communications facilities plus fixed communications stations supplemented by mobile communications to relay messages. After the campaign was initiated, all levels at and below the army level mainly used radio communications in active and simultaneous combination with many other means including wire communications, mobile communications, and simplified signal communications. Army and division forward commands, basic commands, rear area commands, artillery commands, and support detachments, respectively, organized radio networks and dedicated communications. Radio bypass connections were organized for divisions and regiments conducting operations on the main axes of advance, and overall organization was conducted using wire communications. When the fighting began, army forward command generally ensured three to five wire and radio relay voice channels to the forward commands of each division. During the fighting, follow-up wire communications were organized with the divisions, and where follow-up wire communications were not possible or there was no time to set up radio posts when command headquarters changed positions, 2-watt encrypted radio message traffic was employed. In all phases, emphasis was placed on strengthening communications with top leaders and combat and artillery commands. Attention was given to grasping organization and regulation of communications and liaison support during the organizing of combat operations, during attacks by enemy artillery, during adjustments of dispositions, and during displacements of command headquarters.

Communications departments kept themselves constantly informed of the circumstances, promptly notified the relevant communications departments and detachments, and assigned clear and concise tasks. In all the main directions (axes of the attack), backbone operators and veteran servicemen were put on the machines, and cadres at all levels stood at the first line. They stayed with key stations and posts, personally kept track of and handled situations, and took strong measures to ensure unimpeded communications and liaison service. For example, during the fighting, the XX Division's communications detachment employed the method of combining the division with the regiment,² providing focused support, and giving priority to the primary aspects while giving consideration to the general [operation]. Follow-up installation of wire communications gave full play to the effects of relay communications,

and follow-up wire communications were installed wherever command posts were established. In addition to linking up main-direction (primary axes of advance) regiments and battalions with radio networks, dedicated wireless communications were set up to implement key command operations. Construction of communications junctions and the laying of follow-up installations proceeded rapidly, as did repairs of breaks in the lines. Owing to the use of multiple means and the close integration of wire communications, radio, and mobile communications, unimpeded communications and liaison service was ensured in all circumstances—when pursuing fleeing enemy forces or during displacement of command posts.

3. Carry Forward the [Combat] Style of Courage and Tenacity, of Enduring Hardships and Fatigue, of Resourcefulness and Versatility, and of Solidarity and Cooperation

During the completion of communication assignments, it was necessary to give full play to the subjective initiative of personnel of all categories, proactively fulfill tasks, and ensure creativeness of command as well as fully mobilize the masses and stick to the mass line. During the fighting, all communications personnel were devoted to the spirit of revolutionary heroism characterized by courage and tenacity, not fearing death, and enduring hardship and fatigue. Linesmen and radio operators accompanying infantry advances persisted in maintaining liaison service, putting up lines, and repairing lines under frequent enemy artillery fire. Personnel putting up wire installations, in particular, frequently worked alone with two reels of line slung over their backs and carrying a telephone. To ensure uninterrupted command communications, they kept the phone connected to a reel and maintained communications as they put up lines. In the latter stage of the campaign, the line detachments, often working in teams of two or three men, checked the lines day and night, ate dry rations when they had no other food, and used raincoats as protection against wind and cold. Telephone operators and line repairmen constantly kept one another informed, maintained close coordination, battled in unison, ensured that the lines were kept open, and at all times received and transmitted phone calls.

4. Strengthen Leadership at All Levels, Stick to Systems, and Grasp Key Issues

Strengthening leadership over the organization and the implementation processes of communications is the key to doing a proper job of communication support. Emphasis should be placed on grasping the following links.

1. Each time communications networks are started up, the key personnel of the communications departments should personally take the relevant cadres of the communications detachments to conduct on-site surveys, select key locations, define tasks, and put forward requirements. Cadres at all levels should personally organize, inspect, and see to the establishment of communications hubs.
2. Take the initiative in strengthening cooperation with confidential operational departments, stay informed about combat developments, define the focus and requirements of services in each period, promptly adjust one's forces, and adopt effective methods.
3. Set up and perfect the post-responsibility systems of all specialized personnel, persist in examining and carrying out all systems, emphasize the spirit of proactive volunteerism and high sense of responsibility, and be strict and impartial in meting out rewards and punishments.
4. Correctly administer and use communications detachments. Use technically proficient cadres and detachments on the main directions [of attack] and in key periods. Cadres at all levels must be able to take a personal hand in all assignments. For example, cadres shall personally operate the machines at crucial moments during the provision of liaison services to units operating on the main direction of attack.

D. Main Problems

Although communications and liaison support basically ensured command during the current operation, they also revealed quite a few problems. Practice has shown that the troops' communications establishment³ and equipment are still fraught with a substantial number of problems and will hardly be able to deal with sudden enemy attacks in future wars. For example:

1. In Terms of Organizational Establishment and Equipment

1. The method of expanding communications detachment establishments at the last minute before a battle is not feasible because it fails to resolve the problem of backbone technical personnel. For example, after the expansion of the XXX Division's communications battalion, newly assigned troops accounted for 53.8 percent [of the battalion's strength], but none of them were familiar with communications technology despite the fact that 45 percent of the newly assigned personnel were veteran soldiers. Eleven of the communications squads of the XX Division were unable to fill the positions of deputy squad leaders, most squads only had one or two veteran soldiers, and there was only one backbone operator per

- transmitter among the operators of transmitters of 2 watts or less. XX percent of the XX Division's communications section and subsection chiefs had been promoted from among [outsiders], and XX percent of staff officers and XX percent of communications company commanders were newly promoted. In some line squads only the squad leader was a veteran soldier, and carrier-wave technicians had been promoted from among carrier-wave squad leaders. Such circumstances made it quite difficult to complete tasks.
2. The troops' authorized strength equipment was incomplete and the quality of some was substandard. For example, a fairly large proportion of the communications vehicles were short of authorized equipment, and even more serious was the shortage of 861-type communications and command equipment. The XX Division provided 150 supplementary sets (the helmets were too stuffy and needed improvement) only three days before the fighting began, directly affecting command at and below the company level. During the Dainai defensive operation, for example, communications below the company level depended on commanding officers running back and forth, and a substantial number of cadres of all levels were killed and wounded as they moved about. Telephone exchanges were few in number and of poor quality, prone to crosstalk, and plugs on these sets sometimes made poor contact. Phone sets did not have enough volume. Most of the authorized motorcycles were unusable.
 3. The numbers of authorized personnel in the communications units at all levels were too small during the fighting. For example, the army and division communications departments (sections) consisted of only six persons or of only four if their two dispatchers [messengers] were excluded. They were simply unable to cope with the work. Regimental communications subsections, too, consisted of only three persons, or two persons, minus the dispatcher. These elements were provided with large quantities of communications equipment but had no one to maintain the equipment. The unit leaders proposed that military affairs and vocational departments together organize a team to go to the units, look into the situation, conscientiously study the problems, and work out appropriate solutions.
 4. The army and division communications battalions were provided with motor vehicles and motorcycles, as well as horses, mules, and runners, but no command vehicles. Therefore, they were unable to move by relying entirely on their own authorized vehicles or keep up with the displacements of the command posts [they supported]. They were un-

able to transport all of their equipment and frequently had to do so by stages. All these matters need to be studied.

5. Infantry battalions had no radio operator training teams. The army was provided with a 42-man radio operator training team that could train personnel for units directly under the army, but the divisions were unable to resolve the training problem or even to retain technical backbone elements. For example, the XX Division had one 15-watt radio transmitter but only one backbone operator. Three other soldiers [on the team] were unable to do the work on their own, so that one person stayed on the machine for 15 days and nights, even eating and sleeping in the transmitter room. The 2-watt radio transmitters, too, only had one primary technician, and liaison communications would have been forced to shut down if these fighters had been killed or wounded.
6. The official complement of radio stations was too small in number to satisfy the need for them. For example, the infantry was assigned seven army-authorized radio transmitters of 15 watts, but in reality about fifteen of these were installed, and it was assigned six division-authorized radio transmitters, but in fact set up more than fifteen, overstepping the authorized figures by about 50 to 100 percent. [The infantry] had to rely on last-minute additional issues of transmitters, but these could not work without operators. Radio communications at and below the regimental level were often affected by terrain and weather conditions. Frequent interruptions in liaison service occurred because of the low power of 2-watt radio transmitters. The 10-watt single sideband radio transmitters used this time were quite effective. It is hoped that the equipment list can be improved over the original basis of issue. Radio operators should also be issued weapons under the establishment. Also, the authorized establishment should be expanded to include more acoustic telegraph machines for regiments, more Type 122 fax machines for divisions and regiments, and more telephone-telegraph terminals for divisions.
7. The line detachments were the hardest-working units during combat. They frequently did their jobs under the threat of enemy fire. Maintenance was very hard work. Line squads usually consisted of only seven men, and sometimes only six. They were unable even to take along all their equipment. Few were issued guns. Completing tasks was difficult. Army line-stringing companies also had few personnel. During the current operation, wire liaison was ensured only because the military district reinforced each army with a wire-laying company. Follow-up wire-laying at and below the division level encountered fairly big difficulties, as the lines were often crushed or severed by men, horses, and

- vehicles. Wire-laying could not reach some locations because of the distances. It is hoped that [units] will be equipped with small radio relay transmitters. The 720-type relay transmitters tried out this time were quite popular. However, after being encrypted, substantial deterioration occurred in their sound quality and volume, and communication sometimes became impossible. Improvements need to be made to confidential communications equipment. Other types of relay transmitters were too large, and recharging problems could not be resolved.
8. There were too many models of communications equipment, creating inconveniences for organizing their use and supply. For example, there were four types of relay equipment—the 404, 350, 63-A, and 720 models—and three types of facsimile machines—the 51, 55 and 62 models. Carrier terminals came with ring signals of 500 and 2100 cycles and neither formed complete sets. Additionally they could not be connected together or synchronized.
 9. Divisions that had been assigned by general headquarters to execute penetration assignments listened primarily for signals from the general headquarters warning/alert stations but to this day there is no authorized establishment for warning station personnel at any level. This lack of personnel caused considerable difficulties for those cadres tasked to implement the plans of the general headquarters. It is hoped that this problem will be studied and resolved.
 10. The signal handguns and cartridges with which the troops are equipped are too clumsy and heavy. These fill up an entire sack, whereas company communications personnel are already overloaded with equipment. Flares with red casings that have been exposed to dampness cannot be inserted in the gun barrels nor can the casings be removed, and their limited range makes them impractical. Newer products have been trial-manufactured for many years but have not been issued. It is hoped that this problem can be studied and resolved.
 11. Buglers, who do not play much of a role in ordinary times, receive no attention from the companies and are of no use in combat. One might consider removing them from the authorized institution (establishment).
 12. Authorization for the institution of military mail stations was delayed until the first days of February. Once set up, more than thirty persons were sent to reinforce and work together with local post and telecommunication bureaus. However they did not go out of the country this time because of the brief duration [of the operation]. If troops are to deploy outside the borders for any length of time, the army postal service should go abroad. However, it would not be able to fulfill its tasks as too few vehicles are assigned to it.

13. During the current operation, communications for rear services, the artillery and engineering units, for infantry/tank coordination, and for ground/air recognition were improvised at the last moment and many problems existed. Those of infantry/tank coordination and communications were, in particular, poorly resolved. With regard to ground/air recognition, the military district at the last moment issued to the infantry battalions three sets of white cloth panels (four panels per set, each of 6 meters) and six smoke canisters. Two sets were also issued to each division and regiment. However, no clear explanation was given about how these items should be used in view of the combat zone's characteristics of high mountains, thick forests, low clouds, heavy mists, and few open spaces. Furthermore, in view of the planes' high speeds and the fact that [such signals] could be used by the army's planes as well as the enemy's, it is clear that better instructions are needed. All these problems remain to be resolved.
14. The problem of aircraft/artillery coordination was also poorly resolved. The air force antiaircraft divisions' 513-type radars are currently equipped with 621-type interrogator challengers that can identify combat aircraft, but the army's antiaircraft [units] are not equipped with these items, and misunderstandings are very likely to occur. For example, on March 9, the 45th Anti-Aircraft Division⁴ detected two aircraft over enemy territory. They had already loaded their antiaircraft guns but did not fire because the planes had flown out of range. If they had fired, serious consequences might have ensued. It is proposed [that these problems] should by all means be resolved.

2. In Other Respects

1. Some commanders often tend to judge the quality of communications services by the availability or otherwise of wired telephone communications, but are not good at using other means of communications. Some leading cadres of divisions and regiments do not even permit turning on radios for liaison or for replying [to messages] when they lead troops forward during penetration operations and advances.
2. Coordination and cooperation among the three departments (branches)—combat arms, transportation services, and communications support—are poor, indicating a lack of joint training in ordinary times. They were able to exchange information during the campaign's preparatory stage, but in general failed to hold any meetings on coordination. During the fighting, some communications departments did not do enough to inform themselves promptly about the operational intent or the positions

- of scheduled troop movements. Nor did some top leaders of operational departments proactively provide such information. This caused unfavorable situations in the infantry's work.
3. Some of the troops were not familiar with the use of radio signals, one reason being that there were too many varieties. Generally speaking, all used three different types—those used by the general staff [department], the military district, and the armies. In terms of use, these [sets of signals] were not unified, quite troublesome, and prone to errors. At the same time the contents need further looking into.
 4. There were no repairmen or backup machines for the telephone encryption machines with which the infantry divisions and armies were equipped. Those that broke down had to be sent to the military district for repairs. This was quite inconvenient and affected their use. Hopefully, consideration may be given to devolving authorization for repairs to lower levels. Also, there are no security measures for the wire communications used by the border defense companies (in the area along the river).⁵ This matter should be resolved, and connections should be made with the military district.
 5. The military district's communications department reported that communications equipment was kept in the custody of the communications department, but that distribution planning was being managed by the equipment department, which did not discuss matters with the communications department, so that distribution planning frequently did not suit the troops' needs. In the military district's opinion, unified planning should best be conducted by the communications department. For example, prior to the operation, the equipment department assigned all of the Type 861 command and communications sets that had been issued by the general headquarters to the XX army. As a result neither the XX army nor the XX army had any.
 6. The enemy forces' communications equipment captured by the troops on the battle field were not reported to the communications department, and the said department never got to see some of the captured equipment. This hampered studies of the enemy's communications equipment. For example, the communications section was completely unaware that the XX Division's reconnaissance section had captured a radio set from the enemy forces, and the army asked for it three times without obtaining it.
 7. It was possible to do communications document procedures during maneuvers, but this procedure was difficult to apply in actual combat and in general was not done during this operation.
 8. In the southern Yunnan war zone, Sino-Vietnamese border defenses had

borders but no defenses. Communications construction was also weak. The few open elevated lines (telegraph/telephone lines on poles) in existence would hardly be able to ensure the needs of war zone command. The authors propose that consideration be given, during future border defense construction, to combining peacetime and wartime needs and to combining field operation stations with permanent stations. While putting up more open elevated lines, some border defense cables should be installed underground.

9. A poor sense of responsibility was shown by a few radio operators. Instances occurred of telegrams piling up and of some radio operators sleeping while on duty. Circuits were sometimes severed because of poor coordination between repair personnel and radio operators. Loss of radio signals also took place. Some personnel were technically incompetent, knew nothing about operating procedures, and made inappropriate choices of [communications] circuits (modes), causing interruptions in the traffic going across the circuits and affecting command [and control].

Notes

1. This notation is likely a typographical error for the Chinese transistorized 883 portable radio transceivers. The People's Liberation Army (PLA) issued these items of equipment to companies and smaller units.

2. The exact nature of this "combining" is not clear from the context. It may mean the co-location of the command post of the division with the command posts of one or more of its regiments.

3. In this context the term "establishment" refers to the set numbers of personnel (by specialty) and their assigned equipment. The "establishment" is sometimes referred to as the "table of organization and equipment" in other armies.

4. The identification of this unit by its true unit designator is probably a security gaffe by the author. At this level of classification, most units are simply identified by "X" (e.g., the XXX Division).

5. This observation probably refers to the border defense units based in Honghe Hani and Yi Autonomous Prefecture in Yunnan. The Red River passes through this border county.

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