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Title: Long Range Penetration Units

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Abstract: Report was prepared by The Infantry School from a presentation on the subject of long range penetration units based upon extracts from Brigadier Wingate's report on the operations of the 77th Indian Infantry Brigade in Burma from February to June 1943.

Number of pages: 26 p.

Long range penetration units.

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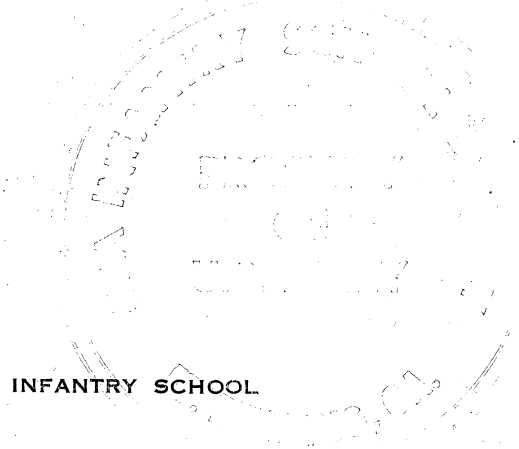
LONG RANGE PENETRATION UNITS



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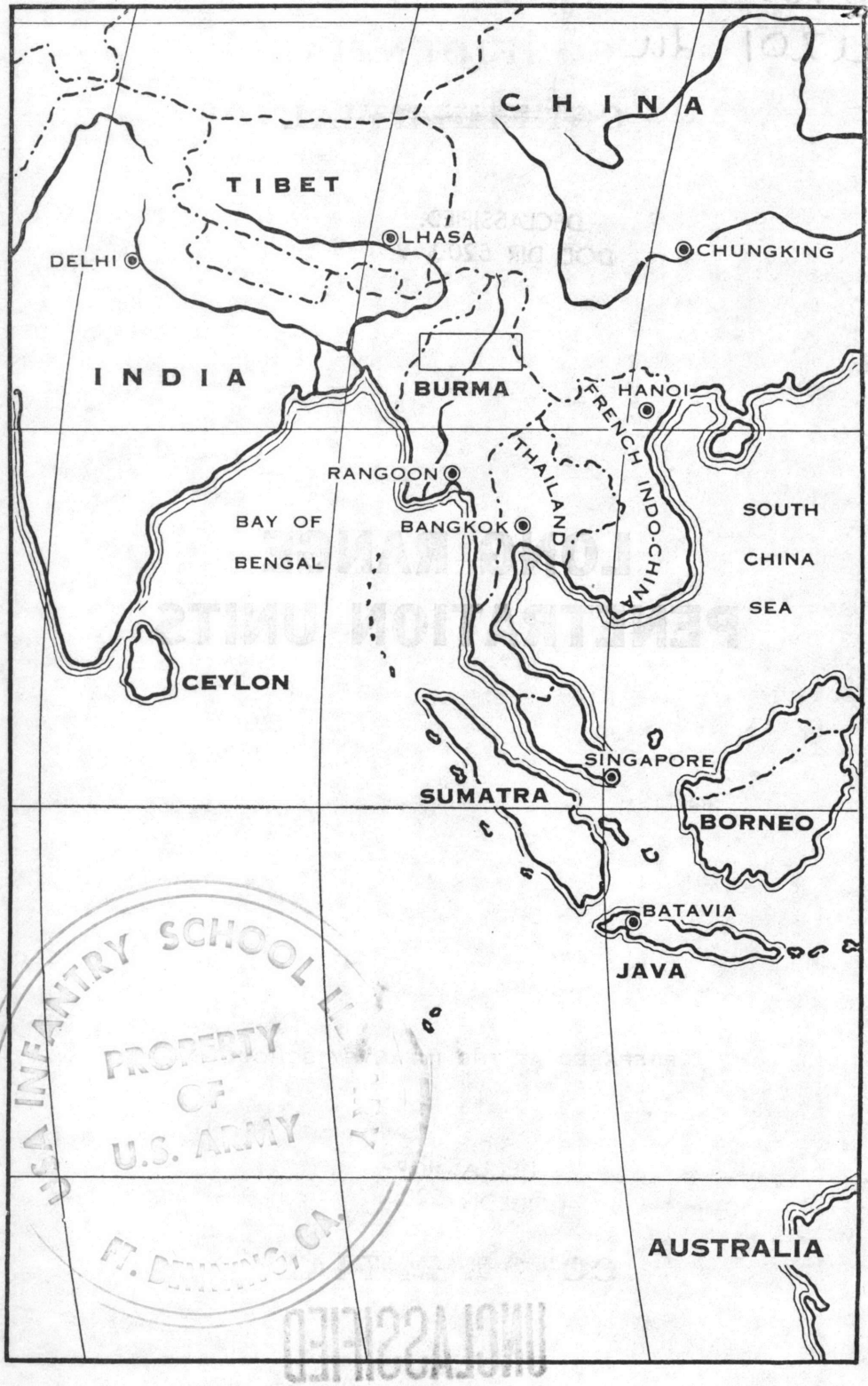
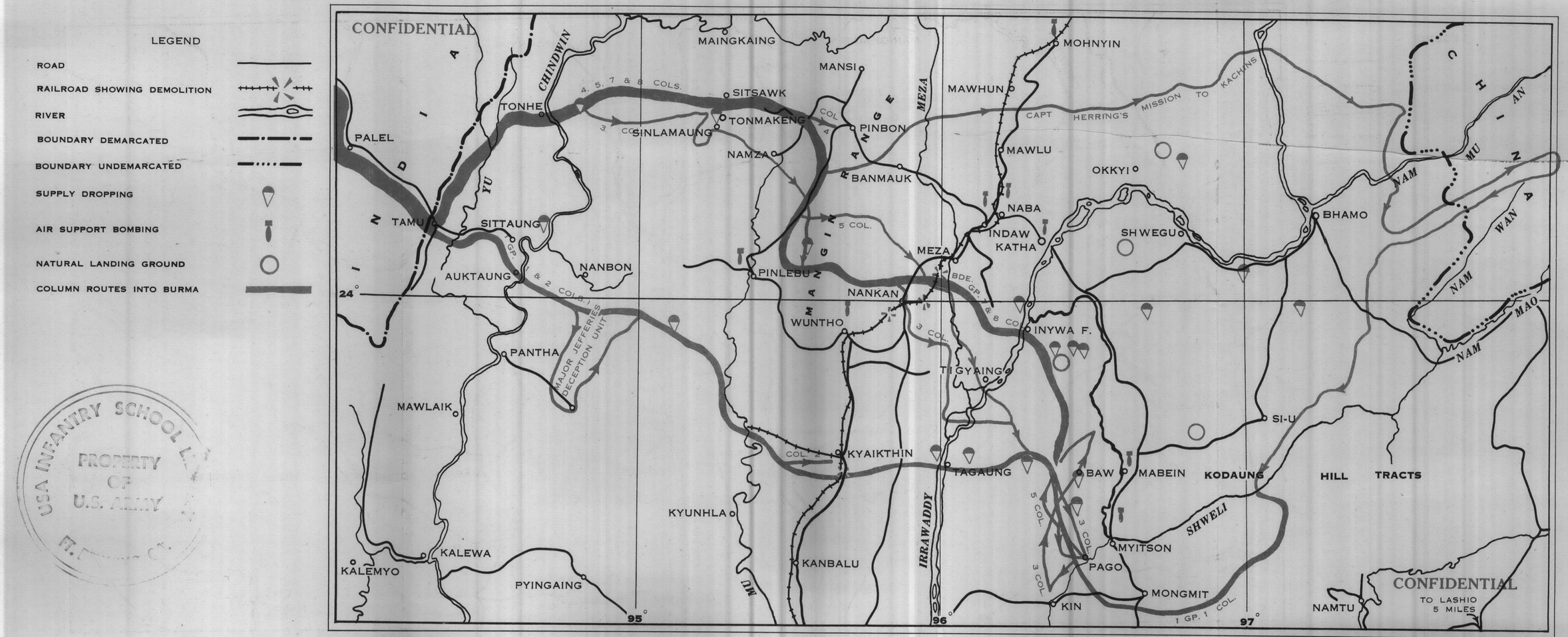


Rectangle Indicates Area of Operation



LONG RANGE PENETRATION UNITS

INTRODUCTION

The long range penetration unit was first developed by the British, and employed by Brigadier O. C. Wingate in operations of the 77th Indian Infantry Brigade in Burma from February to June, 1943. Long range penetration is a newly developed method of modern warfare. The following notes, prepared by The Infantry School, are a presentation of the subject based upon extracts of Brigadier Wingate's report on the operations of his brigade.

SECTION I

PURPOSE AND ORGANIZATION OF THE LONG RANGE PENETRATION GROUP

1. PURPOSE.—Long range penetration is an offensive weapon, employed within its capabilities to destroy or disrupt those facilities which contribute most to the enemy's ability to maintain himself in forward areas. Successful use against enemy communications and rear installations results in widespread confusion and uncertainty to the enemy, which leads to a progressive weakening in his position and to misdirection of his main forces. Since the enemy can recover from this condition, our main forces should be prepared to exploit it to the full. Long range penetration, by the nature of its operations deep into enemy territory, secures valuable intelligence for our forces, both ground and air, that is unobtainable by other means.

2. EMPLOYMENT.—*a.* The long range penetration group consists of a number of separate self-contained columns, each with a specific route of advance and mission. Supplied by air from a base in the rear area, and directed from a centrally located Group Headquarters by ground and air radio and by air-ground visual signals, these columns operate by deception, evasion, and infiltration for a considerable period (up to three months) in the heart of enemy occupied territory.

b. Long range penetration is based essentially on offensive employment of the columns. Attempted defensive employment is liable to result in the loss of the columns. In areas affording little or no observation, with skillful use of deception, column commanders may capitalize greatly on the enemy's lack of information. In jungle areas, where the "grapevine" is an important channel of information, an aggressive, fast-moving column may overtake and pass the first enemy reports of its own advance.

c. The decision as to how far to advance boldly and rapidly, and when to disappear and employ evasion, is an important and delicate one. The column commander must carefully evaluate each situation and the power

of the enemy to resist. Sometimes he fights and sometimes he eludes the resistance. He does not waste his column away by needless attack. However, he does not employ evasive tactics every time he meets enemy resistance, for in this way too much freedom of action will be lost and the fighting spirit of his column destroyed by making his troops feel they are the hunted rather than the hunters.

d. Terrain barriers which afford but one or two avenues of advance present a difficult problem, for a column must not meet a superior enemy head on. When the avenue of advance through such a barrier has been decided upon, deceptive tactics must be employed to draw the enemy away from positions from which he can block the movement; if reconnaissance indicates the enemy has not reached such a position, the column should advance rapidly to pass it and get in the clear before the enemy can arrive.

e. Short range penetration has been practiced by the Japanese with marked success and they have less to learn than we on that subject. On the other hand, long range penetration not only demands a skill and grasp of the problem, which there is every reason to believe the Japanese do not possess, but is dependent on air superiority which the Japanese are not likely to secure.

3. TERRAIN.—While it is a mistake to conclude that long range penetration is possible only in areas of difficult terrain, such terrain does contribute to the success of the operation. Fighting in jungle or in other difficult terrain is merely infantry fighting under conditions of poor visibility. In terrain where visibility is limited, every headquarters, every artillery battery, and every line of communication installation falls easy prey to bold, well-trained infantry.

4. DETAILS OF ORGANIZATION.—*a.* The number of groups of columns to be employed in long range penetration is limited only by the extent of the area to be penetrated and by the available facilities for supply by air.

b. The size and composition of columns will vary with conditions, the governing principle being that each column must be large enough to deliver blows of the necessary weight while small enough to slip through the enemy's security forces.

c. Each column must be lightly equipped and self-contained. Men must be physically fit and mentally adapted to hardship. Transport is by mule pack and supporting weapons are limited to automatic rifles, light and heavy machine guns, and light and heavy mortars. Rocket launchers may be provided. When the need arises, special items of equipment such as light river crossing equipment and special weapons, whose use is relatively infrequent, will be called for and dropped by air from a reserve established for this purpose in the rear base area. This special equipment, if too heavy for mule transport and removal by air is impracticable, must be destroyed after it has served its purpose.

d. An air force liaison section is an organic part of each column. Since control of air cooperation, particularly supply dropping, is of the greatest importance, the presence and work of such sections is an essential part of long range penetration. To insure maximum cooperation, the commander of each air force liaison section should be a pilot or navigator with recent combat experience in the theater of operation.

e. Each column must have its own organic means of radio communication for use with adjacent columns, with the force commander, and with the air base, as well as air-ground contact. Visual signaling by pyrotechnics, panels, and lamps constitutes a simple and readily portable means of air-ground communication and one which may be used to locate and identify ground elements of the force. The extent and nature of the area to be penetrated must be considered in determining the range of operation, and types of radio sets required.

f. Men specially trained in the use of demolitions, together with necessary explosives and other pioneer materials, must be included in each column, preferably in a separate sabotage section or group. Resupply of demolition materials is effected by air, as required.

g. A guerilla platoon, composed of loyal native hillmen, is considered essential for each column. These men excel in aggressive reconnaissance, in carrying out rapid, bold and intelligent patrols in the face of the enemy, in obtaining local intelligence, and in making and spreading propaganda. They should not be used in defense, or to attack a strongly held position. Where possible, reconnaissance should be made by the guerilla platoon, and all local contacts with inhabitants should first be carried out through elements of this platoon.

h. Where terrain permits such use, column commanders may be provided with a ¼-ton truck (jeep) for command and communication within their column. The headquarters of the long range penetration group should be equipped with two or more such vehicles.

5. ORGANIZATION OF THE AIR BASE.—Timely and adequate organization of an air base by the Theater is essential to the successful operation of long range penetration. There is no reserve forward of the air base. Basic principles are summarized as follows:

a. The air field must be suitable for operations, afford safe dispersal, possess adequate supply and maintenance facilities, and be well defended. To give an alert enemy opportunity to make a surprise attack on this vital installation is fatal.

b. Adequate supplies must be accumulated in order fully to maintain the long range penetration columns in their operations. Additional equipment and supplies must be on hand as a safeguard against contingencies, to provide for special missions, to permit decoy air droppings, and to have readily available replacements for damaged and worn-out equipment. Ordnance materiel and signal equipment are particularly important. Supplies must be dispersed and necessary facilities provided for safe storage.

c. There must be a competent supply staff to supervise storage and dispatch. This staff should consist of personnel assigned to the headquarters of the long range penetration group in order personally to represent the commander.

d. A rear party, also detailed from the long range penetration group and composed of selected personnel trained in supply dropping, should be provided. Packers at the base must be expert.

e. It is essential that pilots of planes provided for supply dropping at all times have a clear picture of the tactical and strategical position and relationship of the columns they are supplying. In addition, close attention must be given to technique and discipline of communications personnel to insure prompt and accurate receipt of radio requests for supply droppings.

SECTION II

TRAINING METHODS

6. BASIC FACTORS.—The speed and efficacy of training in long range penetration tactics are dependent on the following factors:

The number of instructors and their quality, which will determine the degree of centralization to be employed.

The intelligence, general education, and age of the men being trained.

The suitability of the training area, which should closely resemble the actual area in which operations are to be conducted, both as to physical aspects and weather, and which should be near or include a large river for training in swimming and handling small boats.

7. PROGRESSIVE TRAINING.—*a. Individual and small unit training.*—Training should progress from the basic and technical training of individuals in fundamentals of marching, marksmanship, scouting and patrolling, individual combat, first aid and hygiene, individual subsistence, and employment on security missions, to the specialized training of unit leaders, communication personnel, air force liaison section, saboteurs, and animal transport personnel. All members should receive cross training in the duties of other members until they become so versatile that casualties or the incidents of campaign will not render any group function inoperative. Construction of road blocks, use of ambush, practice in evasive tactics, employment of code and cipher (see *Note*), and use of deception must be stressed. Large size sand tables or sand pits are of value in teaching minor tactics. During this period of small unit training, mules should be hardened by marching for progressively longer distances with combat loads; training should include swimming animals across wide streams. The technique of packing, with both standard and improvised loads, should be mastered by the entire command. Each column commander should then conduct a series of tactical marches and exercises in which reconnaissance, security, deception, raiding by infiltration, and maximum use of communications are stressed throughout.

(*Note*: In his report on the operations of the 77th Indian Infantry Brigade, Brigadier Wingate comments as follows on the use of cipher.

A quick foolproof cipher is what is wanted. * * * The R.A.F. produced quantities of One Time Pads. These were ideal for our purpose and I do not think any L.R.P.G. (long range penetration group) should go in without a complete set.

All officers must know how to work the cipher. It is always a surprise to discover the time occupied by enciphering and deciphering. Throughout operations, Column Commanders complained that Brigade gave them no news, and Brigade that Columns failed to forward the indispensable minimum of information, the truth being that both parties were working full stretch at the business of coding.

Nevertheless the One Time Pad was far the most satisfactory cipher I have known in operations. Compromise was impossible and this took a load off the minds of Commanders. * * * All officers from Commander downwards must fully understand the cipher and how it can be compromised.)

b. Combined training.—In the final phase of training, columns should function as a long range penetration group under command of the group commander. In this training, exercises lasting several days should be prescribed in order to test communications, the tactical handling of columns as part of the larger force, and supply by air transport. A final test should be held involving long and rapid marches by each column and culminating in the delivery of a coordinated attack by all columns.

c. Training of column commanders and staffs.—During all phases of training, column commanders and staffs should be linked to the Theater in which they are to operate by maintaining up-to-date situation maps from enemy data furnished by G-2 of the Theater and by visits to the group commander and to members of his staff under whom they will function. In addition, they should participate in as many operational flights as possible over the probable areas in which they will operate. Air mosaics should be provided covering all probable objectives, and column commanders and staffs must be required to familiarize themselves with these areas in detail.

SECTION III

ORGANIZATION OF BRITISH LONG RANGE PENETRATION GROUP EMPLOYED IN BURMA EARLY IN 1943

8. COMPONENTS AND DETAILED ORGANIZATION.—*a.* The following units comprised the "raw material" from which the experimental force of eight columns was shaped and organized:

13th Battalion, The King's (Liverpool) Regiment. After necessary elimination during the course of training, the remaining strength of this battalion was about 400; subsequent piecemeal reinforcement brought the battalion up to some 900 officers and men.

3/2nd Gurkha Rifles. Necessary elimination during training left not more than 550 of the original Gurkhas of this battalion. To these, some

1,200 were added from the Gurkha Regimental Centers only a few weeks before the end of training.

142 Company. This company was at first to have been a battalion. Its function was to provide each column with a unit of fighting saboteurs. The first to join this company were Commando personnel originally destined for another mission; later, groups of volunteers from Infantry regiments were added, with a few trained Sappers from the Royal Engineers, and infantry taken from the Deolali (native) drafts.

2nd Burma Rifles. This battalion of Burman hillmen (Karens, Kachins, and Chins) had accompanied its British officers out of Burma. It was reorganized into guerilla platoons, these platoons being assigned to the respective columns and given specialized training in patrolling and reconnaissance.

b. With the addition of R.A.F. sections and the 3/2nd Gurkha Mule Transport Company, the Long Range Penetration Group was finally organized as eight columns, a typical column comprising the following:

	British Officers	*Native Officers*	*Enlisted Men*	*Mules*	*Supporting Weapons (mule-borne)*
Headquarters	2		6	2	
Air Liaison Section	1		4	4	
Medical	1		4	2	
Communication Section	—		11	8	
Sabotage Section	1		28	13	
Guerilla Platoon	2	2	41	4	
Infantry Company	5		110	25	) 4 AT rifles;) 9 Lt. MG.
Support Group	1		30	17	) 2—3" mortars;) 2 Hv. MG.
2d Line Transport	1	1	55	25	) 2 AA Lt. MG.
TOTAL	14	3	289	100	

SECTION IV

HISTORICAL NARRATIVE OF BRIGADIER WINGATE'S LONG RANGE PENETRATION OPERATIONS IN BURMA, 1943

Note: The Operation map inserted to follow page 16 should be consulted as required.

9. THE PLAN OF OPERATIONS.—The operation was experimental in character. The problem was how to get 3,000 men and 1,000 animals through the enemy front and to the Kanbalu (95-23)—Mohnyin (96-24) railroad, some 150 miles away, without being intercepted. The country to be traversed, the size of the enemy forces occupying the area to be crossed,

the reactions of the enemy, and the feasibility of communication by radio and supply by air were all relatively unknown factors. With so many variables, success depended upon the most careful planning.

The first task was to insure that the enemy was misled as to the purpose of the operation. To secure this, a diversion was planned whereby the southern force, composed of a headquarters and the 1st and 2d columns, was to cross the Chindwin at Auktaung and proceed east, with an element dispatched south in the general direction of Kalewa, while at the same time the 23rd Division of the 4th Corps (Theater troops) was to stage a raid on the west bank of the Chindwin in the direction of Kalewa. Such a pincers move on one of the main Japanese outposts (Kalewa) was by no means improbable, and would serve as a feint to screen the real objective.

Since the southern force comprised a considerable part of the total strength employed, it was necessary to combine its mission of deception with a useful operational role. To effect this, the commander had orders to continue eastward at all speed, destroy the railroad near Kyaikthin, cross the Irrawaddy at Tagaung, and continue to the mountains around Mongmit. A small party, under command of Major Jeffries, was to break away from the southern force soon after crossing the Chindwin and continue the feint in the direction of Kalewa to confuse the enemy as long as possible. It was then to rejoin the southern force.

The main body, consisting of the Group Headquarters and columns 3 to 8, inclusive, was to march with the southern force as far as Tamu in order to carry out the policy of deception (movement to the southeast), and then fade out by small groups, to reassemble for the crossing of the Chindwin at Tonhe, which, it was hoped, would be unopposed. The movement was so timed that the crossing at Tonhe would follow that at Auktaung by one day, thus giving the Japanese time to withdraw their northern garrisons to protect their base at Kalewa from the threatened attack.

The main body, having effected a crossing, was to continue eastward to Sinlamaung, cross the mountains, move south and east through the valley of the Mu, and strike east to cut the railroad between the towns of Nankan and Meza.

The success of these thrusts would undoubtedly produce a powerful Japanese reaction which would result in an attempt to surround and annihilate the invading force. To escape such a net, it seemed best to cross the Irrawaddy, continue the movement to the east with the possibility of reaching and cutting the Japanese secondary north-south line of communication, the road from Lashio (97-22) to Bhamo (97-24). If this did not prove possible, the return to India would then be made by the dispersal method, (see paragraph 11).

10. NARRATIVE.—Months of preparation were climaxed on 6 February with a review at Imphal by the Commander in Chief. With his final salute to the troops, the march on Burma began. In accordance with the

original plan, the brigade marched as a unit to Tamu, where the main body began its gradual, concealed withdrawal northward to effect a crossing of the Chindwin at Tonhe.

The southern force, which had the responsibility of deceiving the enemy, continued on to Auktaung, where a daylight supply dropping was successfully carried out on the 14th of the month, and the crossing of the Chindwin on the 14th and 15th. It was hoped that the supply dropping and the crossing at Auktaung would serve finally to convince the Japanese that the main effort was being made in the direction of Kalewa. If this succeeded, the crossing of the main body at Tonhe would be effectively screened and carried out without opposition.

After a feint toward Kalewa, the southern force continued on to the railroad at Kyaikthin, accomplishing there such demolitions as possible, and then moved east of the Irrawaddy to effect a union with the main force.

Their orders were successfully carried out and had it not been for the disastrous defeat of the 2d column near Kyaikthin and its forced, disorganized retreat to the Chindwin, the success of the southern force would have been outstanding. Even with the loss of the 2d column, the remainder of the force succeeded in fulfilling its mission and eventually reached the Brigade rendevous in the Kodaung Hills.

While the southern force, assisted by the 23rd Division, carried out the screening operation, the main body moved into position for a crossing near Tonhe. Headquarters 2nd Burma Rifles preceded the main body by two days, crossing the Chindwin on 13 February, and moving on in the direction of Sinlamaung as an advance scouting party.

The main body completed its crossing of the Chindwin on the 18th, although the crossing was a much more difficult operation than had originally been contemplated. In the meantime, a partially successful supply dropping for the main body had been effected during the nights of the 15th to the 18th. One grave error was committed, which, fortunately, had a favorable outcome. On the night of the 15th, one pilot, unable to locate the dropping point due to a local thunderstorm, and not wishing to attempt the return trip over the mountains to his base with a full load, jettisoned his cargo near the Chindwin. Unfortunately, he selected a spot near a Japanese camp, the dropping being quickly collected. Had the cargo been limited to rations little harm would have been done, but mail for the entire main force was included, thus giving the Japanese a present of the British order of battle.

Meanwhile, Headquarters 2nd Burma Rifles, which had moved forward without waiting for supplies, found that enemy patrols were active throughout the entire area of penetration and that a strongly intrenched Japanese position had been recently established at Sinlamaung. Had the Japanese defended these positions, the entire British northern force might have been neutralized. Fortunately, however, the deceptive tactics originally employed, plus the knowledge secured from the mail dropping on the night of the 15th, seemed to have created among the Japanese fear of a

large scale British-Chinese pincers on the whole of northern Burma. To protect themselves from a possible encirclement, the Japanese began withdrawing their patrols on 19 February, and by the 24th all posts between the Chindwin and the Mu, including Sinlamaung, had been evacuated.

The route to the valley of the Mu was now open, and the opportunity of passing unmolested through the mountains and into the valley should have been exploited before the Japanese recovered. This was impossible due to the necessity of securing additional supplies. A supply dropping was arranged for the 24th to 26th at Tonmakeng, and to protect this, the 3d, 7th, and 8th columns were to attack Sinlamaung. This latter move was considered particularly important, for it would give the troops involved their first battle experience and provide an opportunity to test their methods as well as to gain important information about the enemy. The advance, carried out on 24 February, occupied Sinlamaung without opposition, since the Japanese had withdrawn a few hours earlier.

On 1 March, after an easy march through the mountains, the British reached the Mu valley and bivouacked not far from Pinbon. Here, the 4th column was ordered to ambush the Mansi motor road and seek to by-pass Pinbon through the mountains and determine if the route to Indaw was clear. The 5th column was to move south and east by way of Happy Valley to attack the railway in the vicinity of Mankat, between Nankan and Meza.

At this time, Captain Herring and a guerilla platoon (2nd Burma Rifles) were detached from the 7th column with orders to march independently to the Kachin mountains east of the Irrawaddy to determine the attitude of the mountaineers and the possibilities of a successful revolt in this area against the Japanese. Upon completing this mission, Captain Herring was to return westward to effect a junction with the 7th column, which was to direct and lend strength to the contemplated revolt. Later changes in the situation forced a modification in these plans, and Captain Herring eventually joined the southern force in the mountains east of the Irrawaddy for the return to India.

The 3d column was already moving down the valley of the Mu, after having independently crossed the mountains from Sinlamaung, with orders to determine enemy strength in the direction of Wuntho. The remainder of the northern force moved down the Pinbon-Pinlebu motor road with Indaw as the ultimate objective. By 3 March it was necessary to turn east through the mountains toward the railroad, and not having heard from the 5th column concerning the Happy Valley route, the Group commander decided to follow the route of the 3d column.

Before turning east from the Pinbon-Pinlebu motor road for the mountains, the 8th column was ordered to continue on toward Pinlebu to create a diversion and to convince the Japanese that the latter town was the major objective of the British attack. This it effectively accomplished.

In the meantime the 4th column, which had been carrying out various reconnaissances in the Pinbon area, was ordered, on 4 March, to join the

main force. In attempting to accomplish this, it encountered an enemy force of unknown strength somewhat south and west of Pinbon. Due to panic on the part of a portion of the native troops which comprised the major portion of the column, it suffered a severe defeat, losing its cipher and much equipment. Without supplies or means of communication, the 4th column commander decided to return to the Chindwin.

The 3d column was now in the vicinity of its principal objective, the main north-south railroad. To effect a successful attack on the road, the 3d column commander felt that deception was essential. To accomplish this, he requested an air attack on Wuntho, which he hoped would confuse the Japanese as to locale of the expected attack. Additional bombing missions against Katha and Naba were also requested, to add to the general uncertainty and confusion. The actual attack on the railroad was successfully carried out on 6 March in the vicinity of Nankan, where three bridges were destroyed and the line cut in 70 places. During the demolition, the 3d column was joined by a portion of the 7th column, which was undertaking a similar task. Several simultaneous skirmishes with Japanese forces in the area resulted in Japanese withdrawals.

The 5th column had also reached the railroad midway between Nankan and Meza. Here it encountered some Japanese resistance, but soon overcame it. Assigned demolition was primarily that of destroying bridges and undermining cliffs to fill in railway cuts. Both missions were satisfactorily accomplished, and the 5th column moved on toward the Irrawaddy.

With the railroad destroyed, it was now necessary to determine the future movements of the main unit of the northern force which consisted of Brigade Headquarters and the 7th and 8th columns. Two plans seemed possible. One was to proceed north to Indaw, continuing demolitions on the way, and return to India by a route similar to the one used coming into Burma. The second was to cross the Irrawaddy and proceed east to cut the motor road from Lashio to Bhamo. The decision proved much easier than anticipated. The Japanese had effectively blocked any movement north and only the route to the south and east remained open.

Both the 3d and 5th columns, having completed their demolitions, had continued on to the Irrawaddy, which they successfully crossed. It was now arranged that Brigade Headquarters and the 7th and 8th columns should follow, effecting a union of all columns east of the Irrawaddy in the vicinity of Baw for a coordinated attack on the Lashio-Bhamo motor road. The river was successfully crossed on 18 March and the movement south and east to the rendezvous begun.

Increasing difficulties with Japanese forces and the information that supply droppings east of the Irrawaddy were extremely hazardous, forced Brigadier Wingate to forego the attempt on the Lashio-Bhamo road. Continued Japanese pressure, difficulties with supplies, and the general weariness of the men, brought the reluctant decision to return to India, a decision made 24 March.

To gain time, and to further confuse the Japanese concerning his intentions, Brigadier Wingate ordered a decoy supply dropping in the hills between the Shwegu-Bhamo and the Mabein-Bhamo roads. Genuine mail was dropped and the thing was done in such a way as to suggest convincingly that several columns were in this area on their way east. Following this dropping, pressure on the northern force relaxed, indicating that the Japanese were regrouping their forces in light of the new threat.

On 26 March, in a conference with all available column commanders, orders were given for the return march. The 3d column immediately broke up into small dispersal groups (between 40 and 50 men each) and began the return march. The remainder of the northern force was to march as a unit as far as possible, then break up into dispersal groups for the last part of the march. This force reached the Irrawaddy on 29 March and a crossing was attempted, but was interrupted by the Japanese after the first few men were across. The impossibility of keeping a united march unit was immediately apparent, and orders were issued to each column to arrange one more supply dropping and then to break up into dispersal groups for the return to India. Column commanders were warned to abandon unnecessary transportation and equipment.

1 April saw the complete dispersal of the northern force, each small unit, led by an officer, making its way independently to friendly territory.

The southern force, having provided the original deception to enable the northern force to cross the Chindwin at Tonhe without opposition, had moved eastward, destroyed the railroad at Kyaikthin, crossed the Irrawaddy at Tagaung, and continued eastward to effect a union with the northern force in the Kodaung Hills. This rendezvous was not reached until 8 April which made union impossible. Consequently, the southern force was ordered to proceed independently on the return march to India. Owing to a lack of sufficient officers to command dispersal groups, the southern force attempted the return march as a unit, but was broken up east of the Chindwin by the Japanese, and finally crossed into India in disorganized, scattered parties.

The vast majority of all dispersal groups reached India successfully; those of the 7th column only after marching to China and being flown out by United States air units. A few dispersal groups had not been heard from at the time of Brigadier Wingate's report (July, 1943), but it was felt that some of them might still reach India.

Of the 3,000 men that entered Burma, 2,000 had returned to India by the time of the writing of this report, 450 were known battle casualties, 120 native Burmans received permission to remain in their home areas for reconnaissance missions, and 430 were missing.

11. LESSONS OF THE DISPERSAL.—The sole purpose in forming a dispersal group is to regain friendly territory as rapidly as possible with a minimum number of losses. To succeed in this, the group must be able to remain concealed and live off the country. These two essentials, in turn, are dependent upon the following factors:

a. Size of dispersal group.—The size of the dispersal group determines, to a large extent, its success. A group of from 40 to 50 men is considered to be the most advantageous. A larger group would find it extremely difficult to conceal its movement and evade the enemy. Also, a larger group would find it almost impossible to live off the country and remain concealed at the same time. Even a group of 40 finds foraging exceedingly difficult if continued for any length of time. However, a smaller group is at the mercy of small Japanese patrols (usually 20 men and an officer) and finds it difficult, if not impossible to move at all.

b. Equipment.—Unnecessary equipment is a burden that may result in capture or failure. Only that needed to regain friendly territory should be taken. *All other equipment must be destroyed.* Any attempt to save equipment while en route *at the risk of losing lives* is not warranted.

c. Transportation.—Animals, or other forms of transport, serve no useful purpose, prevent the use of the safest routes, and often warn the enemy of the existence of the dispersal group. All transport must be destroyed.

d. Knowledge of fieldcraft.—A dispersal group, living off the country and traveling with the lightest of equipment must be able to feed and protect itself without recourse to supplies or equipment other than those available in the area through which it passes. On arrival in India, the Burmans were the only members of the original force who had retained their general good health. This was due to their knowledge of fieldcraft of the area covered in their withdrawal. Every effort should be made to give troops participating in long range penetrations the knowledge necessary to live off the country.

12. TREATMENT OF SICK AND WOUNDED.—It is simple logic that a column marching through enemy territory, hundreds of miles from its base, must abandon anyone who for any reason cannot move at the pace which tactical and strategical considerations impose on the column. This understanding must be impressed upon, and accepted by, every member of the column prior to beginning its march. Without such an understanding by all members, morale may be lowered.

When abandonment is absolutely necessary, every effort must be made to provide adequately for the sick and wounded by leaving them in the care of some village. All wounded should be placed under the care of a specially detailed officer at the tail of the column. During the march, the seriously wounded can be dropped off at a village previously selected by the column commander with adequate money and medical supplies.

It is also possible, even in the most rugged country, to evacuate the sick and seriously wounded by air. This is particularly true when small planes of the type of the American Piper Cub are available and emergency landing fields are properly developed. Not only will this method save many who might otherwise be lost, but its morale effect would be spectacular.

13. DEDUCTIONS AND CONCLUSIONS.—Although the strategical value of the campaign was negative in that it served only to upset the enemy's plans and prevent a number of expected developments, it nevertheless provided sufficient experience from which certain deductions and conclusions may be drawn as to future offensive use of long range penetration.

a. Use of long range penetration.—Valuable information on long range penetration was secured as a result of this experimental attempt. Future use of long range penetration must depend on its employment on the largest possible scale as an essential role in the re-conquest of occupied territory. The advantage which we now have should not be dissipated by premature or ineffective application.

b. Relation to air power.—Long range penetration is the only method whereby the superiority of the United Nations in the air can be fully exploited against a widely dispersed enemy living in forested and thickly enclosed country.

c. Unity of control.—Long range penetration will prove a dismal failure unless conducted from one central headquarters, with one plan, one doctrine, one type of training, and one control in the field. Unity of purpose and unity of direction is mandatory.

d. The time factor.—The probable effective period for any single group participating in long range penetration is twelve weeks. For this reason, several complete long range groups will be necessary, to relieve each other in succession, if such operations are to continue for a longer period.

e. Personnel.—Personnel must be selected with the greatest of care, both officers and men. Sufficient numbers should be selected originally so that the necessary weeding out process will not reduce the final count below that needed for the campaign. The attempt to fill the ranks by replacements at the end of the training season is most unsatisfactory. If necessary, the transfer of men from other branches must be undertaken to secure the proper type of personnel. Above all, it must be remembered that intelligence is a prerequisite to training, and that all individuals involved must not only be able to learn rapidly, but must be able to remember and apply what they learn. Good intentions are not enough; capacity and ability should be the sole bases for selection.

f. Number of columns within a group.—The total number of columns in a group used for long range penetration must be several times the number used to strike enemy installations. The covering and diversion creating ability of two or more columns is necessary in order that one column may be able to engage effectively in demolition or other destruction. Without this cover and the diversions, the work of the demolition columns would have been impossible.

g. Dropping grounds.—Originally it was felt that droppings must be made in open spaces and preferably during daylight. Actual experience proved that night droppings were not only easier for the pilot but pro-

vided better concealment and cover for the ground forces. The open field not only was found to be unnecessary but frequently less desirable than a wooded area. The wooded areas provided cover and concealment, and the trees aided in breaking the fall of the supplies, thus preserving much that otherwise might be ruined. Where supplies must be dropped in the open, protection must be provided by an all-around defense of the position and by adequate reconnaissance of the surrounding area.

APPENDIX

The following information on special aspects of Brigadier Wingate's operations in North Burma has been extracted from the body of his report and from the appendices thereto, and is included here under appropriate headings.

CONDITIONS IN BURMA

Topographical.—The major disadvantage of the mountain regions for long range penetration is that trails must be used, and trails are infrequent. A determined enemy, alert to the danger and likelihood of penetrations, could block all trails and rally forces to resist any column with which he had made contact. However an enemy so engaged would be faced with a difficult maintenance problem. Particularly for the Japanese, who live off the country, this problem would be aggravated by the barren character of the region. Marching in the mountains is surprisingly easy, and excellent going is found along the highest ridges. Probably the best use of the high mountains is for a feint, covering a main attack elsewhere.

The marshland is the most impenetrable part of Burma. It may constitute a complete obstacle up to March, possibly later. Even late in the dry season it is such that progress through it is slower than in any other region of the country. In other regions there are patches of evergreen forests, and also bamboo thickets, which are too dense to make it tactically advisable to penetrate them. However both of these types of growth are in all cases small enough in extent and infrequent enough in occurrence to make it a simple matter for columns to skirt them. Mountain precipices, which occur frequently, as well as dense jungle and marshland, may cause sudden slowing or stopping of columns. Precautions against enemy pursuit are necessary in such situations. Ambushes and booby traps may be effectively used.

The teak forests north of Schwebo provide excellent ground for penetration. However water is scarce, inhabitants are unfriendly, and adequate motor roads provide rapid transport for enemy forces.

Political.—Japanese occupation of North Burma involves little more than military control of trade, labor, and travel, without direct taxation. Agencies with either Japanese or Burmese personnel each control a number of villages through local agents, who pass on Japanese demands for forced labor, food contributions, and other requirements. Payment, which is lower than Burma has been accustomed to from the British, is in Japanese currency, which is universally unpopular. The poverty-stricken character of the Japanese nation becomes quickly apparent to subject peoples, and has great propaganda value. Japanese claims of being highly civilized also become unconvincing to people in contact with Japanese soldiers. Likewise the carefully reiterated assertions that they are a Buddhist

people ring hollow in the ears of true Buddhists in Burma after direct contact with Japanese soldiers has provided substance for first-hand opinions.

Due to the virtual cessation of trade, rice is very abundant and sugar, cloth, and all luxuries are scarce. Oil and gasoline are very scarce, and are rigorously controlled by the Japanese.

In rural Burma the Japanese are disliked and feared. In the river valleys they will be without doubt supported. However the growing prospect of Japanese defeat is a powerful propaganda aid. Propaganda will be necessary and can be fruitful.

SUPPLY DROPPING AND AIR COOPERATION

Supply dropping involves three echelons: the air base, which handles all matters of supply up to the point of air dispatch; aircraft and signals, which connect the base with the field forces; and the receiving field forces, which establish, designate and secure the dropping area.

A base forwarding party and an Indian air supply company operated at the air base, which was approximately 200 miles from the point at which the column crossed into Burma and 400 miles from the farthest advance of the column. The base forwarding party comprised the rear echelon of Brigade Headquarters and rear parties from units in the field.

The air base site was near a railroad siding; within quick-loading distance of the airfield and connected thereto by road; beyond the acute danger zone from bombs directed at the airfield; accessible to a field supply depot; and connected by phone with the air liaison officer and appropriate air force sections. Bad features of the site included poor concealment, lack of accommodations for hanging parachutes to prevent injury from dampness, lack of concrete floors to protect stores from ants and rats, and fire hazard.

An alternate base was established at a distance of 50-odd miles, for use in case the main base became temporarily inoperative. It was stocked with supplies for seven days, ready packed for air shipment, and manned by sufficient personnel for emergency operation. However it never became necessary to use it.

In addition to supply matters, the base forwarding party was also responsible for local defense and its own communications and liaison. It handled all stored equipment, personnel records, and mail for the field forces. The air supply company worked in close cooperation with the air force and handled the stevedoring at the airfield.

Aircraft and signals.—Radio communication from the column to the rear is essential. The sets used by the air liaison parties were adequate, but including all accessories they weighed close to 700 pounds, comprising three heavy mule loads. The ideal is a set equal in performance but weighing only a quarter as much, and so transported by one mule.

Some difficulty was encountered in radio communication, mainly due to the necessity of relaying messages through stations operating under different code systems and procedures. The codes set up for use between field and base were found satisfactory when transmissions flowed freely to the destination, but further improvement and standardization of the codes themselves was recommended. This code scheme assigned code words to eight categories of supplies, such as spare parts for weapons, signal equipment, clothing, and so forth. Under each category anywhere from 65 to more than 300 items were assigned numbers. These code lists were not widely used.

For indicating sites, fires in prearranged patterns worked well at night. Given accurate location with reference to a prominent nearby terrain feature, ground displays sufficed to indicate areas for daylight dropping. Signals displayed by means of rectangular bamboo frames were found suitable. Lamps and pyrotechnics provided alternate means and were of vital assistance in countering Japanese efforts to mislead pilots of aircraft on supply-dropping missions. Such enemy attempts to give false signals were uniformly unsuccessful.

Close-support bombing should prove an important part in future operations in the theater. Colored smoke should be valuable in indicating targets. The East Asian Theater presents only small, obscure air targets, and only the observer at close quarters on the ground can help drive the air attack home. It is essential that there be close joint training of air and ground units participating in the operation, and intimate knowledge of the ground problem on the part of the air support. For this reason an air officer (pilot or navigator) should be assigned to each column. (See par. 4*d*.)

Operation of the dropping area.—Large cultivated sections may be used for dropping areas in safe territory, but are usually too near to communication and populated areas for use in unsafe regions. However clearings and sparse areas in the jungles proved satisfactory. Minimum dimensions for dropping areas are 400 by 100 yards. Parachute loads are apt to fall short and "free" articles to fall beyond the area. Plateaus or basins will serve for daytime dropping in mountainous areas.

From the standpoint of ground security, the most important part of selecting a dropping area is to choose one that the enemy will not think of and reach first. This need present no difficulty. It was only near the end of the expedition that it was found supply dropping could be carried out quite as successfully in forests as in paddy fields. In future this should make the dropping of supplies a far safer and more leisurely proceeding for the troops on the ground. A curious detail is that forest trees actually broke the fall of parachutes that opened imperfectly, thus saving their contents. A certain proportion stayed up in trees but were easily cut down.

The problem in the tactical defense of a dropping area is to insure the rapid recovery of all stores and their removal to a secure place near at hand where they can be broken down and distributed. It is essential to keep control of the large number of column representatives who otherwise form

a good target for the enemy and give away the layout. There must be a sound tactical plan for dealing with the enemy after he has arrived. This requires one or more support groups of mortars with predetermined data and machine guns laid on fixed lines, to cover not only approaches but also areas where the enemy can be expected to collect. Decoys in the shape of heaps of tin and dummies, placed at some distance from the dropping area, may be useful. A central reserve is always essential, together with a plan for rapidly assembling and using all additional personnel on the ground at the time. No headquarters or bivouac areas should be within a mile of the dropping area.

During the period when stores are being recovered and removed some confusion is inevitable no matter how thorough the organization. Hundreds of mules and muleteers will be present. Continual coming and going of small administrative parties is absolutely necessary. If the enemy has not anticipated the dropping, this initial stage can be completed and the defense ready to fight a successful engagement before any hostile forces can arrive. If, despite all care taken in the selection of the area, the enemy appears before the actual dropping has taken place, it is best to abandon the operation. It is not feasible to organize the collection, breaking up, and distribution of supplies under fire, and while it is fairly easy to drive off individual hostile parties, it is usually impossible to clear the terrain surrounding the dropping area.

SABOTEUR SECTIONS

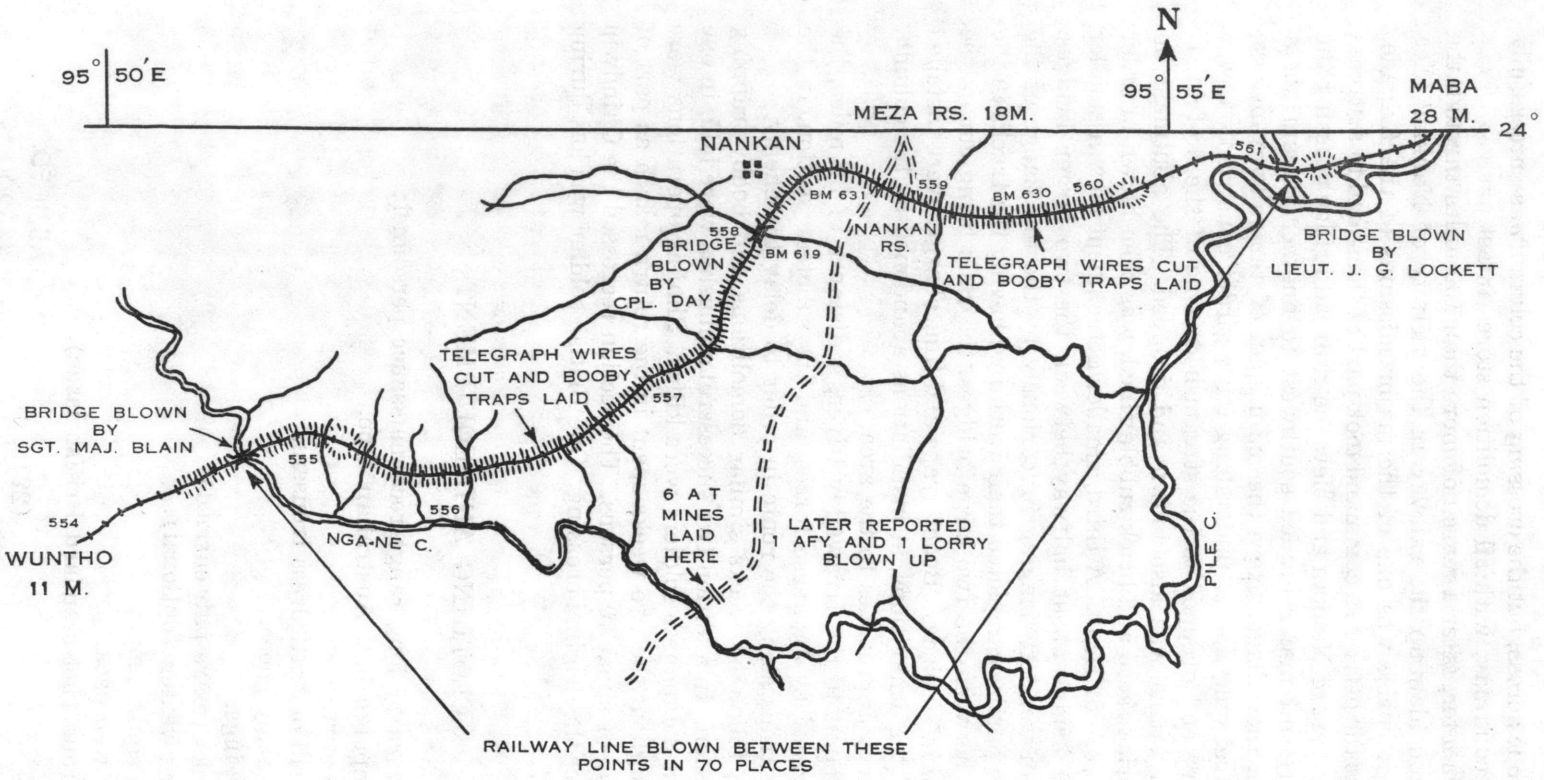
The saboteur section, which functioned partly like U. S. combat engineer detachments, partly like the rear guard in a delaying action, was made up of one officer and 18 men plus 10 muleteers for its equipment train. Following completion of the operations in North Burma, it was concluded that detachments of 30 to 40 men and two officers would have been better. Personnel should be selected for intelligence, education, and high fighting quality. Two months of intensive specialized training will suffice to turn a good combat soldier into a qualified member of such a section.

Among the conclusions reached by the officer in command of one saboteur section were:

1. It is of extreme importance that stores and tools be properly cared for and waterproofed and that the men be adequately trained in this work. In spite of countless stream crossings, of 70 charges laid in one day not one failed to explode.

2. Booby-trapping in the rear of the column was of the greatest value. Bivouacs, dumps, and battlefields were always booby-trapped when they were abandoned. These tactics succeeded in delaying and confusing the enemy.

The first task of this section, a typical saboteur unit, was in aiding the crossing of the Chindwin, which was very wide and swift. The section was



REF. TO 1″ = 1 MILE MAP SHEET 84 M/13

SCALE OF SKETCH 1″ = 1 MILE. 1 : 63,360

FURLONGS 8 6 4 2 0 1 2 3 MILES

unable to get a rope across, but the crossing of the column was successfully completed the second day, with all demolition stores intact.

Twenty days later, after a march of more than 100 miles through the jungle, the section blew up the railway in the vicinity of Nankan (See sketch). This enterprise was one of the major missions of the Brigade. In carrying it out the officer in command took part of the squad to a stream about three miles east of Nankan and blew the railroad bridge crossing the stream. The sergeant major headed southwest to another stream about three miles from the village. Here the main span of the railway bridge, which was 120 feet long and of underslung truss girder construction, was blown so that one end dropped to the stream bed. One of the 60-foot, I-girder, approach spans was also blown and dropped. The abutment on this same end, brick faced and brick rubble filled, was then blown in order to make repair more difficult. A third, smaller detachment blew a smaller I-girder railway bridge about halfway between the two larger bridges. This 60-foot span was left hanging precariously by the top flange of the girder. All three parties completed their work by blowing the tracks in the six-mile stretch between the two large bridges, the rails being cut or the track overturned in 70 places. Booby traps and time charges were installed near the sites of the demolitions, at installations abandoned by the column, and along highway approaches to the area.

From this point to the Irrawaddy River, a distance of 30 miles, the column was pursued by Japanese forces, and the saboteur section, in the rear, laid booby traps along the route in order to delay the enemy.

During the following weeks similar demolitions and booby-trapping occupied the section. In addition two successful ambushes were laid, in one of which at least 8 Japanese soldiers were killed. Similar operations were carried on throughout the two weeks spent in the return march as part of a dispersal group of about 40 persons. The section recrossed the Chindwin two months after the original crossing. One British soldier was lost during the operation.

CLOTHING AND EQUIPMENT

Clothing worn by long range reconnaissance personnel:
- Felt campaign hat, Australian type.
- Tuck-in shirt.
- Khaki drill or battledress trousers.
- Leather army shoes.
- Web leggings.
- Issue socks (extra pair carried).
- Pullover sweater (optional).

Individual equipment:
- Regular web pack.
- Toggle rope (not standard British issue).

Water wings (not standard British issue).
Head net (not standard British issue).
Six days rations.
Chagul (native leather water bag).
Kashmir blanket.
Waterproof groundsheet.

The most general criticism was that various items weighed too much. For such operations lighter weight clothing and equipment is more desirable than extreme long-wearing qualities. Jungle green would have been preferable to the khaki-colored uniforms, and disruptive dyeing still better.

A lighter shoe, enabling quiet movement but sturdy enough to last a month would be preferable. It should have rubber sole and heel, and the idea of fashioning the sole to leave a print like a bare foot was suggested.

All types of issue socks shrank badly.

A metal frame pack was suggested. Some, of rod iron, were tried. They weighed 7 pounds. One, of tublar aluminum, was obtained. It weighed 1¼-pounds. With a good pack of this type a large man can carry 75 pounds.

The toggle ropes were not used. Silk parachute cords were in great demand and widely used. A 20-foot length of such cord, with about 200-pound breaking strain, is recommended.

Waterwings were used both individually and to provide additional flotation for improvised rafts. They were also used to carry rice and small items. Inflatable rubber belts, dropped in the late stages of the campaign, were preferred although they provided slightly less flotation.

A head net with a draw-string to draw it tight over the brim of the hat, the lower end being tucked into the shirt, was used and preferred to the British issue type.

The water bags were issued, but carrying them was not made compulsory.

Blankets and groundsheets were carried on the baggage mules. When traveling without mules most men discarded the groundsheet and tore the blanket in half. The two items together weighed nearly ten pounds. The blankets were lighter than regular issue but they were not of the true Kashmir shawl type, which would have been still lighter and less bulky for equal warmth. Apparently the groundsheet was heavier than the corresponding U. S. shelter half.

REPORT OF A MEDICAL OFFICER ASSIGNED TO A COLUMN

The column medical officer's first major job should be performed during joint training with the task force. He should, at this time, with the aid of the combat officers, weed out the physically and mentally unfit. During this period he should avoid any "semi-invalid" category—men should be sent to the hospital or else pull their full weight in the training program.

However it is worth noting that in the Burma operation, while sick call was average through training, once the expedition got under way no one showed up at sick call at all.

With two mules to carry all medical supplies for 430 men, the column's equipment was augmented by means of well-stocked first-aid haversacks distributed to combat personnel who were given brief special instruction in first aid. The responsibility of the extra job more than compensated the selected personnel for the extra weight. Milk, tea, and tobacco proved more valuable than many drugs since they gave the doctor's bag the reputation of a storehouse of treasure in time of need.

In the march medical problems yielded to prompt action. Hard-wool Indian socks proved worse than no socks, producing an 80 per cent incidence of blisters. After proper treatment at the first long halt the condition of the men's feet steadily improved despite the blisters. Quinine took care of threatened malaria; sulfaguanidine of diarrhea. Jungle sores caused less trouble than anticipated, sulfa drugs being the chief element in the treatment given. Strong iodine followed by vaseline disposed of ticks. After a period of inadequate rations several officers and men developed a numbness and tingling in the feet and hands and weakness and cramp in the calf muscles, particularly at night. The medical officer attributed this to a lack of vitamin B, and the symptoms disappeared when vitamin concentrates were given.

Sanitary measures were frequently impromptu. Water—obtained anywhere but always chlorinated, either individually or collectively. Garbage —none. Tins and paper—a security rather than a sanitary hazard. Urination—anywhere. Latrines—each dispersal group responsible for its own shallow pit, on the march a small hole dug with a bayonet or any handy implement. Bathing and brushing of teeth—the men were only too eager to wash whenever the opportunity was presented.

Lack of facilities for evacuation proved not nearly so black a picture as one would imagine. Battle casualties were not heavy. In this column the only man left behind, in the care of friendly natives, was the sole pneumonia case that developed. All casualties were able to walk or to be transported by horse.

A proclamation had been prepared in advance to be issued by column commanders, when necessary, to headmen of villages where wounded were deposited. This included a brief statement of British intentions, a word of anti-Japanese propaganda, and a request that the wounded men be well cared for. It continued with the explanation that the names of the natives would be sent on to the British government, that those who gave good treatment to the soldiers would be liberally rewarded, and that any who were guilty of ill-treatment or did not take care of the wounded soldiers' property would be punished.