assigned squad or section. Soldiers should practice loading, unloading, harness rigging, and hauling techniques prior to field deployment.

Task 6: Bivouac routine (tent drill). Units should practice establishing bivouac sites until all its procedures are standardized and can be accomplished quickly with no wasted motion. At least half of this training should be at night. The important things that should be stressed are that there should be no wasted motion, that every member should have assigned tasks, and that everything should be in its place. During winter, the time between an ordered halt and the establishment of a warm shelter is critical, and all troops should learn to stay busy during that time to prevent chilling.

Task 7: Snowshoeing. Snowshoeing takes little practice to master and can be taught on grass. Standard issue magnesium shoes are very durable and can be used anywhere. The older wood and gut shoes are more easily damaged, but they, too, can be used on lawn grass, with care.

Task 8: Skiing. Attempts to teach skiing on anything besides snow — on straw, for example — have proved largely ineffective. For units not stationed in northern areas, ski training is generally impractical. Although the ability to ski provides a distinct mobility advantage for well-trained troops who can travel light, as long as troops are required to hand-haul ahkio loads, the maneuver advantage of skiing is lost anyway. Snowshoes are better than skis for hauling ahkios, and under these conditions skis are effective for local security patrolling and not much else. The program described in TC 90-11-1 requires about two weeks for training to proficiency on skis. Even units such as the 172d Infantry Brigade in Alaska and the 205th Infantry Brigade in Minnesota usually limit ski proficiency to their scouts.

Victory on the winter battlefield presupposes the ability to use the environment as a force multiplier. The enemy understands this very well; he is trained and equipped to use winter conditions to provide a strong advantage over a less prepared force. The measure of our projected success during winter operations is how well our units can conduct their ARTEP tasks in the cold and the snow. And how well they conduct their ARTEP tasks may be dependent upon how well they have conducted their preparatory cold weather indoctrination.

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Jungle Rappelling

MASTER SERGEANT DAVE GOLDIE

Rappelling operations have become a routine part of virtually every infantry unit's training program in recent years. But one problem still faces each rappel mission — how to deploy the ropes safely. This problem can become catastrophic if the mission is to rappel into an area covered by dense vegetation, such as the jungles of Panama.

Rappelling is an effective means of inserting troops rapidly in a jungle. But it can be effective only if the ropes can get through the triple canopy foliage, and often they cannot.

In the past, units based in the United States but undergoing jungle training with the 193d Infantry Brigade's Jungle Operations Training Center (JOTC) at Fort Sherman in the Republic of Panama have had their jungle training severely hampered by tangled ropes. As a result, the Jungle Warfare Branch of the JOTC set out to find a solution.

Many rope deployment systems had been tried at the JOTC — everything from wrapping a rope around a log and letting it unroll as the log descended to just dropping a carefully coiled rope out the door. But none proved entirely dependable.

The Branch's cadre began experimenting on its own but could not find a workable solution. Eventually, a senior instructor, Sergeant First Class Carold D. Frady, by integrating his parachuting background with his rappelling experience, did come up with a solution to the problem.

The rope deployment bag issued as

Step 1. Starting at the bottom of bag, closest to weight pocket, coil ropes six to eight times.

a component part of the stability operations (STABO) extraction system proved to be an excellent starting point. (A salvaged deployment bag from a military parachute also proved efficient, but it was more bulky.) A device similar to a parachute deployment bag was fabricated and tried out in a field evaluation. After several modifications, the device evolved into an easily constructed, inexpensive deployment system that facilitated rappel missions into the thickest jungle without entanglement. Here are the instructions for making it:

- Using a flat piece of canvas about 48 inches long and 18 inches wide, bar-tack to it two parallel strips of type III nylon the length of the canvas.
- Next, turn up the bottom 9 inches, sewing it along the sides to form a pocket (see illustration). Put rocks or a partially filled sand bag in the pocket to make sure the ropes deploy fully. Two pounds of rocks are enough to ensure that the ropes deploy properly through the trees. (In open areas, the bag can be used without this added weight.)

Step 3. Repeat the process of coiling and stowing until only 18 inches remain before the lower snap-link.

Step 2. Slip stack of coils into retainer bands on each side.

- Tack the two parallel nylon strips every two inches, and secure retainer bands (type 64 rubber bands work fine) between each tack, similar to those on a D-bag.
- Prepare the ropes in the normal rappel configuration and stretch them to full length. Place the bag at the loose ends of rope opposite the snaplinks.
- Make sure all the rubber bands are present along the stowing lines of the bag and then form a bite in the two running ends of the rappel ropes, and place the bite in the center retainer band just above the stow pocket.

Step 4. With final center locking stow in place, roll bag from bottom to top.

- Fold the rope in an S-fold and stow it in the retainer band, working from side to side making sure the folds do not extend past either side of the bag.
- Place six to eight folds of rope in each retainer band, working toward the top of the bag. Then form a bite in the climbing ropes 24 inches below the first snaplink and stow it in the top center retainer band.
- After the bag has been inspected, roll the bag, going from bottom to

Step 5. Secure top flap of bag with tape.

top, leaving the snaplinks exposed. Secure the top flap of the bag with tape.

This bag proved so successful that the JOTC now requires the troops that come from the United States to use it for all their jungle rappel missions. In the JOTC program of instruction, each soldier must be able to attach climbing ropes to the bag and S-fold them so that no folds are sticking out of the sides of the bag. They have to pack, roll, and tape the bag in 10 minutes.

Because of the effectiveness and ease of packing, transporting, and employing rappelling ropes with this system, many units in the United States, including the 101st Airborne Division (Air Assault), have adopted it for all of their rappelling missions, regardless of the terrain.

Anyone who has experienced rope entanglements during a rappelling operation should try this system. It is worth the small cost in time and money.

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C D Training

LIEUTENANT KENNETH W. ARNOLD

Unlike most of the Army's infantry brigades, the 193d Infantry Brigade in the Republic of Panama has the additional mission of protecting American citizens and key installations in the event of civil unrest in its area of responsibility. This additional mission challenges the leadership of the Brigade's various organizations, and particularly that of its infantry companies.

Like other infantry missions, successful civil disturbance (CD) operations result from organized training and practice. The Brigade's CD training program, therefore, has been designed to build on the basic soldiering skills, beginning with the individual soldier and concluding with the company organization. Other types of units as well might find a similar program useful.

In the first phase of the program, individual soldiers, instructed by their squad leaders, learn the three uses of the riot baton: rest, defense, and offense. They also learn how to care for and use CD equipment, from flak vests to face shields, which are invaluable aids to a unit during an actual CD operation.

Once the soldiers have mastered the use of the riot baton, the squad leaders teach them how to use the M16A1 rifle, with and without a bayonet, in CD situations. Great emphasis is placed on this aspect of the training program, for rifles are used in a CD operation only when the greatest possible force is required.

When a squad leader determines that his soldiers have mastered their individual skills, and with his platoon leader's permission, he begins training at the squad level. This second phase of training builds on the soldiers' individual skills to develop an effective maneuver force that can use the three key CD formations — squad time, squad echelon right (left), and squad wedge.

Because of the fluid nature of most CD operations, it is important for a squad to be able to change its formations rapidly while remaining under the full control of its leader. And because a CD operation can start at any time, a squad leader must train his soldiers in those tasks that will enable them to react quickly and effectively. These include practicing alert procedures, inspecting personnel and equipment frequently, issuing orders, and conducting rehearsals.

The third phase of training moves from the squad to the platoon level. At this stage, the basic formations are the platoon line; the platoon line with general, close, or lateral support; platoon echelon right (left); platoon echelon right (left) with general, close, or lateral support; platoon wedge; and platoon wedge with general, close, or lateral support. Great stress is placed on coordinating the squads as they move through the various formations.

In addition, the platoons are