

FM 7-42

FIELD MANUAL

COMBAT TRACKER  
AND TRACKER DOG TRAINING  
AND EMPLOYMENT

HEADQUARTERS, DEPARTMENT OF THE ARMY

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COMBAT TRACKER AND TRACKER DOG TRAINING AND EMPLOYMENT

MOS ADDITIONAL SKILL IDENTIFIERS

(AR 611-201)

The MOS additional skill identifier for an 11B infantryman employed as a tracker dog handler is Q2. The MOS 00C, Dog Trainer, designates a primary skill for an instructor in military dog training. The MOS additional skill identifier for 00C tracker dog training is Q2.

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	Paragraph	Page
<b>PART ONE. VISUAL TRACKER TRAINING</b>		
<b>CHAPTER 1. INTRODUCTION</b> .....	1, 2	
2. INTRODUCTION TO TRACKING .....	3-11	4
3. TRACKING SIGNS .....	12-22	31
4. THE TRACK FOLLOWING DRILL .....	23-28	20
5. TRACKER SCOUT .....	29, 30	25
6. TRACKER RECONDO PATROL .....	31-43	27
7. SILENT SIGNALS .....	44, 45	32
8. COMBAT REACTION DRILLS .....	46-49	35
9. READING THE TRACK .....	50-59	37
10. DECEPTION TACTICS .....	60-64	44
11. FINDING A LOST TRACK .....	65-72	40
<b>PART TWO. TRACKER DOG AND TEAM TRAINING</b>		
<b>CHAPTER 12. TRACKER DOG TRAINING</b>		
Section I. General .....	73-76	50
II. Handler qualifications .....	77, 78	51
III. Dog selection criteria .....	79-82	52
IV. Equipment used in training .....	83-86	53
V. Personnel requirements .....	87-90	54
VI. Training areas .....	91-94	54
VII. Tracking conditions .....	95-106	55
VIII. Track picture .....	101-105	57
IX. Laying the track .....	106-112	58
Section X. Basic tracking .....	114-125	60
XI. Intermediate tracking .....	126-131	66
XII. Advanced tracking .....	132-136	72
<b>CHAPTER 13. COMBAT TRACKER TEAMS</b> .....	137-167	75
14. VISUAL TRACKING COURSE .....	168-176	82
<b>APPENDIX REFERENCES</b> .....		85
<b>INDEX</b> .....		86

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**PART ONE**  
**VISUAL TRACKER TRAINING**  
**CHAPTER 1**  
**INTRODUCTION**

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**1. General**

This manual deals with a highly specialized skill whereby a group of five soldiers are trained to track an "enemy," being able to "read" the "signs" where he has traveled over the terrain. These five-man teams consist of a visual tracker, a team leader, radiotelephone operator, a coverman, and a tracker dog handler and tracker dog. Although all team members have knowledge of visual tracking techniques and procedures (except the tracker dog handler) the visual tracker, or "scout," has the primary mission of tracking the enemy, determining his direction of travel, number of personnel, and other facts. Should the visual tracker lose the track, the visual tracker will go through the lost track drill to pick up the

enemy's sign and thereby resume the track. The other three team members have the **responsibility** of protecting the tracking elements, e.g., from ambush or other types of surprise encounter. The mission of the combat tracker team is to reestablish contact with and to collect information about enemy forces; the team avoids contact with the enemy whenever possible.

**2. Purpose and Scope**

The manual is divided into two parts: the first part explains how the visual tracker is trained; the second part deals with training the tracker dog and employment of combat tracker teams.

*Note.* FM 20-20 is a prerequisite to this manual relative to dog training.

## CHAPTER 2

## INTRODUCTION TO TRACKING

## 3. Introduction

a. Visual tracking is the art of being able to follow a person or animal along a path by the signs they leave. When a man or beast moves across an area they alter, to a varying degree, the visual appearance of the ground and/or vegetation. It is by these unusual appearances that a visual tracker is able to follow and track his quarry. Animals do not try to conceal their tracks and have set characteristics, which when known, make tracking them comparatively easy. The enemy, however, may be keen and skillful and will generally try to conceal his tracks.

b. Tracking is a very precise art and all trackers, if they are going to achieve and maintain a high standard of tracking ability, require a considerable amount of practice. There is a great need to be able to interpret signs left by an enemy, as this will disclose important information about him. It should be remembered that it is most difficult even for small groups to move across any terrain without leaving some sort of sign noticeable to the trained eye.

c. When locally enlisted civilians are used as visual trackers, it should be remembered that they will have little or no military knowledge, are skilled only in tracking humans, and may not know the counterdeception drill whereby the friendly tracker team avoids leaving signs the enemy may use against them.

## 4. Tracking

Tracking is the ability of an individual to perform certain tasks.

a. Locate and identify; to find the track and determine if this is the enemy's track to be followed.

b. Follow human or animal; to be able to follow humans or animals by the signs they leave.

c. Interpret. This, by far, is the most important factor in being able to track. First the sign(s)

must be studied carefully. Then the tracker must—

(1) Be able to recognize the same sign(s) among many others.

(2) Identify the type of person being followed, whether he is lazy, tired, alert, confident; these are indications of the morale and discipline of the unit.

(3) Notice any slight change, no matter how small, in his "sign," and investigate it thoroughly.

(4) Through the "sign," be able to determine and anticipate enemy movement, direction, and deceptive tactics, well beforehand.

(5) Have a complete knowledge of all available signs.

(6) Continuously study the ground and country in relation to the direction and movement of the enemy.

d. Types of tracking. The two methods of tracking by which sign(s) can be followed are:

(1) Visual tracking.

(2) Scent tracking.

These two methods of tracking indicate that the senses of *sight* and *smell* are used. In addition, the senses of *hearing* and *feeling* are used, the latter only to a slight degree.

e. In all parts of the world there are many different areas or locations. There are, in Southeast Asia, for example: rubber plantations, palm oil plantations, pineapple plantations, beluka (tall grass), fern, primary jungle, secondary jungle, bamboo patches (these can cover areas measured in square miles), small rocky areas, mangrove swamps, fresh water swamps, paddy fields, and the scattered squatter and kampong (village) areas.

f. A closer look at rubber plantations will show just how much the tracker will have to know about the areas in which he will be required to track. A tracker in rubber plantations must know

the tracking signs for each type of rubber plantation, and under the following conditions: clean rubber, dirty rubber, untapped rubber, disused old rubber. He would have to know that his dominant tracking signs would differ from morning to afternoon, and before, during, and after rain. But the answer is still the same. He could be tracking signs common to the locality, and to follow them, he would first of all need to know the *before* and *after* visual tracking signs.

## 5. Factors That Influence Tracking

## a. Climate.

(1) Sun.

(2) Rain.

(3) Temperature.

b. Terrain. Different types of terrain produce different signs and some terrain is more difficult to track over than others.

(1) *Beluka and secondary jungle.* These are most probably the easiest tracking terrains. Any movement through it is bound to leave considerable *top sign*, especially if cutting is involved. The sign will last a considerable time.

(2) *Primary jungle.* A wide variety of signs will be evident, these include—

(a) Disturbed dry leaves. The damp underside will have a distinctive, darker color (fig 1).

(b) Broken twigs and branches (both green and dead) (fig 2).

(c) Boot impressions in soft ground and rotting matter (fig 3).

(d) Vegetation pushed aside will be in an unnatural position and probably show the light underside of the leaves.

(e) Scratch marks on trees and logs (fig 4).

(f) Broken cobwebs.

(g) Twigs, lying on the ground, although not disturbed themselves, may be pushed into the ground and thus leave an impression.

(3) *Grasslands.* Tracking in high grass is relatively easy. It will be bent and pushed in the direction of travel. A color contrast will be evident also. In shorter grass, the same color contrast will be present, but not so evident (lawnmower effect). Footprints may be found by lifting the crushed grass. Wind and rain will quickly obliterate the track, however.

(4) *Rocky country.* This can be difficult terrain to track in; however—



Figure 1. Disturbed, dry leaves.

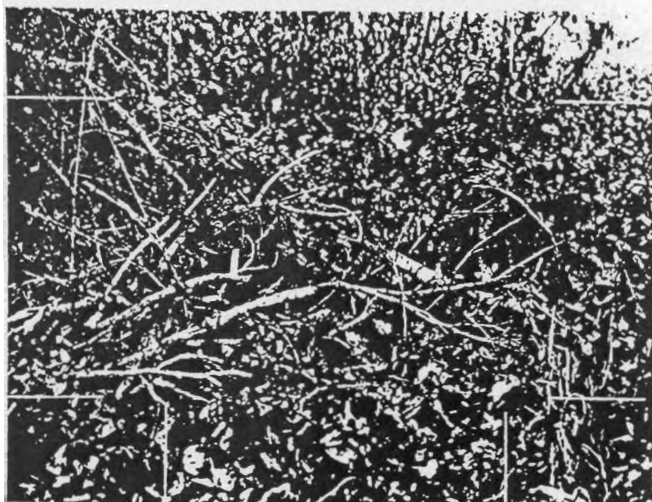


Figure 2. Broken twigs and branches.



Figure 3. Book impression in soft ground.



Figure 4. Scratch mark on trees and logs.

(a) Smaller stones or rocks will be knocked out of their resting places or pressed into the ground. (The underside is usually dirty while the upper side is clean). The exposed soil is usually obvious.

(b) Nailed boots may leave rock scratches, and rubber soled boots may leave black marks on rocks.

(c) Moss growing on rocks will be disturbed.

(d) Crushed insects may be seen.

(e) Sign(s) may be found in the soft area of ground near large rocks.

(f) Enemy movement may be channeled by terrain contours.

(5) *Sand.* Sand is relatively easy to track in; the biggest problem to the tracker is wind. It may obliterate marks and impressions made a few minutes before. The main points to be considered are—

(a) If the surface tends to be hard, the footprint is very clear.

(b) If the surface is soft, the footprint will be quite deep. In the early morning and late afternoon, the walls of the impression may cast a shadow.

(6) *Rivers, streams, marsh, bog, and swamp.* Contrary to general belief, tracking is possible in these areas. In most cases it is made relatively



Figure 2. Broken twigs and branches.



Figure 3. Boot impression in soft ground.



Figure 4. Scratch mark on trees and logs.

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(6) *Rivers, streams, marsh, bog, and swamp.* Contrary to general belief, tracking is possible in these areas. In most cases it is made relatively

easy by the marks left behind. Types of signs are—

- (a) Footprints on the banks.
- (b) Footprints in shallow water.
- (c) Mud stirred up, discoloring the water.
- (d) Rocks splashed with water in a quiet running stream.
- (e) Water on ground at point of exit.
- (f) Boots may have been taken off to wade the stream; look for spots on the banks where this was done and where they were put on again. Normally, there will be signs where the person sat down to remove or replace his boots.
- (g) In mangrove and fresh water swamps, mud will be stirred up. Also, branches will be bent where persons have held onto them to prevent themselves from tripping over roots.

(7) *Rain forest.* When in rain forest or jungle, the tracker will find many ways by which he can track, since it includes undergrowth, live or dead leaves, and live or dead trees. There are also streams with muddy or sandy banks, moss on the forest floor, and rocks. Tracking will be helped by remembering the following details:

(a) Leaves on the forest floor will show up a darker color than those that are undisturbed.

(b) Dry leaves, when disturbed, show a distinct dark brown underneath in contrast to the biscuit color of the bleached upper surface.

(c) Dead leaves also become brittle and crack, or break under pressure of a person walking on them. The same applies for small, dry twigs.

(d) Where the undergrowth is thick, especially on the edges of a forest, the green leaves of bushes that have been pushed aside and probably twisted will show the underside of some of the leaves which will be lighter in shade than the top side. When looking for this sort of sign, the tracker must look *through* the forest, not at it.

(e) Broken twigs will aid the tracker in determining the age of the track. Freshly broken twigs, green or dead, generally are a lighter interior color than the color at the broken edge. This color darkens in time, but if the tracker breaks the twig again he will be able to compare the colors and assess the amount of time since the twig was broken. Only by experiment will the tracker be able to determine the age of the track. Freshly broken green twigs usually retain the smell of sap for 3 or 4 hours.

(f) Boot impressions may be left on fallen, rotting logs.

(g) Marks are usually left on the sides of logs across a path.

(h) Roots across a path or direction of travel may have scrapes or marks on them.

(i) Broken cobwebs across a path may indicate the passage of a human or animal.

(8) *Vegetation.* Different types of vegetation leave different types of signs. Some types of vegetation are—

- (a) Large and small trees.
- (b) Scrubs.
- (c) Clean rubber plantation.
- (d) Dirty rubber plantation.
- (e) Palm plantation.
- (f) Pineapple plantation.
- (g) Beluka (tall grass).
- (h) Fern.
- (i) Bamboo patch.
- (j) Mangrove swamp.
- (k) Fresh water swamp.
- (l) Pine forest.
- (m) Hardwood forest.

## 6. Information To Be Found From a Track

Ideally, a considerable amount of information can be derived from observation of sign(s). A tracker should be able to deduce the following information from a track:

a. Direction the enemy is traveling.

b. *Number of Persons Being Tracked.* This may be estimated by the presence of different types of footprints or by counting the number of prints in one pace. This should be checked frequently for deception. When tracking a small party, the tracker should take a normal pace and then count the number of prints within the pace and divide by two. This will give a fairly accurate answer. Large parties can be counted only by judgment. The tracker may also find conditions where the enemy spent the night or took a break. The tracker then can count the number of positions and thus the number in the party.

c. *Load Being Carried.* This can be determined by the depth and spacing of footprints, and scrapes on trees. At resting and halting places examine the ground for pack and/or haversack imprints, and marks where weapons were set down (bipods, tripods, and rifle butts).

d. *Speed.* This may be gaged by the depth of the print. The deeper the imprint, the greater the speed. Also the length of the stride is im-

portant. The longer the stride the faster the movement of the person.

e. *Sex.* This can be determined under favorable conditions.

f. *Age.* This is perhaps the most important information obtainable from the track. The fresher the track, the closer you are. Age is determined by comparison and is difficult for the inexperienced. To determine the age of sign and/or track one must have a good knowledge of local weather conditions and its effect on soil and foliage. In order to gage the age of a sign and/or track these factors must be kept in mind:

(1) *Rain.* If a track was found at midday and there was a heavy downpour at 0300 hours, and the track is clear, the track was made after the rain, and putting it into a 9-hour time bracket. Conversely, if the tracks are pock marked they were made before or during the rain. If the track is pock marked by mist dropping from the trees, an estimate of their age can be made.

(2) *Foliage.* Some foliage will begin to die in a matter of minutes once exposed to the sun after being broken or bruised.

(3) *Sap.* Various types of sap stop flowing and seal up at different times.

(4) *Worm casts.* In the early hours of the morning these are soft. If exposed to the sun for some time it will dry them out. If stepped on they will powder. Therefore, if powdered worm casts are found within the track and it is midday, it is safe to say that they were made at any time from 1 hour after sunrise. This gives a time bracket of 6 hours. Should the worm cast appear as a button, i.e., flat, circular, and hard, it is safe to assume that the track was made after the rain but prior to 1 hour of sunshine. Assuming that sunrise is 0500 hours, the time bracket is cut down to 2 hours.

(5) *Vegetation.* The state and position of disturbed vegetation must be noted. Various grasses and bushes have different degrees of resilience. Only practice and experience teach the tracker to use this as a factor in knowing the age of the track.

(6) *Prints in mud.* The state of dryness of a track in mud or soft ground must be noted. If the track is very fresh, water will not have run back into the depression made by the foot. Later, the water runs back into the depression and the mud which has been pushed up around the print and kicked forward of the print will begin to dry out.

(7) *Game tracks superimposed.* Most wild animals lie up during the day and move at night. If human prints have animal tracks superimposed on them, and the tracks show that the animals have moved in both directions, the human prints are at least one night old. If the tracks have prints only in one direction, then the human tracks were made during the night, after the animal moved down to water and before it has moved back.

(8) *Leaves covering tracks.* The number of leaves that fall onto a track depends on the amount of rain or wind that has been in the area in the past few days. This helps indicate the age of the track.

## 7. Adverse Factors in Tracking

a. *Direct Sunlight.* This causes the sign to return to normal quicker than is usual.

b. *Strong Winds.* Encourages disturbed vegetation to return to normal and may conceal some ground sign.

c. *Heavy Rain.* This will wash out signs very quickly, especially a ground sign, and can be described as the tracker's worst obstacle.

d. *Time.* The "colder" the track the more difficult it is to follow. It is the most important factor of all in visual tracking.

## 8. Methods of Tracking

a. Upon finding a track the following actions should be carried out:

(1) Mark the sign.

(2) Put a competent tracker on it as soon as possible.

(3) Do not attempt to follow it if you are not an experienced visual tracker.

(4) Do not allow anyone to search around the area until the tracker arrives. People moving around may destroy or alter important signs.

b. The visual tracker requires a coverman while on track.

c. Visual tracking is a slow process. The tracker may examine every sign he finds. He may pass some, but he can see others ahead.

## 9. Deception Tactics

Deception of a good visual tracker is not easy, though he can be delayed. The tracker must be constantly alert for signs of deception on his



track. Such actions as walking backwards or brushing over the track are no real deception. Some methods of deception are—

a. *Walking in a Stream.* Entry and exit points can normally be found. Overhanging branches should be studied carefully.

b. *Fade Out (Jumping Off Track).* Individuals or pairs jump or leave the side of the track as carefully as possible. Careful watching of the sides of the track and constant checking of the number of people being followed should counter this move.

c. *Scatter.* If the enemy scatters, the procedure is to follow the largest group and the easiest track.

d. *Dead End or False Trail.* A search is made back down the trail for the turn off.

e. *Walking Backwards.* Toe and ball of the foot are more pronounced. Loose dirt and leaves will be dragged in the direction of movement. The feet are placed wider apart, although the pace is shorter.

f. *Brushing Over Tracks.* This identifies the track more than it conceals it. Other leaves and dirt are disturbed in the process.

g. *Splitting Up.* Visual trackers working in pairs should detect this procedure.

h. *Tiptoeing.* The length of pace is shorter and toe is more pronounced.

i. *Rock Hopping.* This is extremely difficult to follow if used for a great distance.

j. *Fan.* These tracks will usually meet later on. Follow the easiest track.

## 10. Searches

When the track is lost there are various methods that can be used to find it; these include the following:

a. *Personnel Search.* The last visible sign is marked and the visual tracker searches in a clockwise direction for a radius of 10 to 20 meters.

b. *Retrace.* The visual tracker checks back

along the track, looking for sign of where the enemy has cut off.

c. *Extended Personnel Search.* This search involves both the tracker and the coverman. The coverman uses a compass to maintain direction. The first visual tracker and coverman move forward for 50 meters, turn 90 degrees right for 50 meters, and then turn 90 degrees right for 50 meters until the track is met. The second team of visual tracker and coverman complete the same procedure, but move 50 meters to the rear before starting. If this search fails, it is repeated using larger distances or a cross-grain search is used.

d. *Cross-Grain Search.* This is searching across the grain of the country.

## 11. Conclusion

a. To be a competent visual tracker one needs a combination of natural aptitude, good local knowledge, good memory and intelligence, and physical fitness. It is not a subject that one becomes proficient in overnight.

b. Although patience and experience can make the average soldier a tracker, only those with special aptitude and skills will attain or approach the standards of the expert tracker.

c. Visual tracking is a precise art that requires constant practice. It is a slow process but it can yield a considerable amount of information.

d. Patience, persistence, and acute observation form the basis of good visual tracking.

e. The coverman should NOT try to help the visual tracker look for signs. The best way to help him is to be on the alert for the enemy. The coverman must try to see the enemy before the enemy sees the visual tracker. The tracker's life is in the coverman's hands.

f. Remember, as you follow the signs left by the enemy, he can follow you as well. Don't unnecessarily break branches or kick stones or leave your refuse lying about.

g. All soldiers should be taught fundamental tracking. This will teach them to be alert and observant and better able to detect the enemy before the enemy detects them.

## CHAPTER 3

### TRACKING SIGNS

#### 12. Introduction to Signs

It is fairly easy to identify the difference between animal and human signs, regardless of the type of terrain over which the track is laid. First, there is the shape of the print, and second, the majority of animals make a distinctive "chop" as they move along; whereas the human does not put his feet down or lift them up cleanly. To some, this seems to be elementary; but when you consider tracking across ground that does not permit a clear print, such as rocky or hard ground, it is important to keep this in mind.

#### 13. What Are "Signs"

a. Signs are the telltale marks made on the ground and disturbances of the vegetation made by an animal, man, or group of persons as they pass through an area. There are two kinds of signs: *ground signs* and *top signs*. The dividing line between the two is a line at knee level. Any sign below the knees is a *ground sign*. Any sign above the knees is considered to be a *top sign*.

b. Signs are the essence of visual tracking. The important factors that influence sign and the tracker's ability to follow are—

- (1) Country (terrain, types of vegetation).
- (2) Climate (weather, seasons, rainy, dry).
- (3) Weather (amount of rain, sunlight, wind, since the sign was made).
- (4) Age (how long it has been since the sign was made).
- (5) Visual tracker's ability (is the tracker skilled or a learner).

#### 14. Ground Signs

Ground signs occur where vegetation from knee height down to the ground has been disturbed by passage through the area. Young plants and tree seedlings stepped on or bent over, bruised and scraped vegetation, are considered ground signs. Also, footprints, bootmarks, broken twigs or disturbed leaves, stones or twigs; bruised or bleeding

roots; mud, sand or dirt from boots on leaves or ground vegetation; and water dropped on track are ground signs. Ground signs have two classifications: *large ground signs* and *small ground signs*.

a. *Large Ground Signs.* Large ground signs are found where a large party of 20 or more have passed through any area. The signs are even greater if they are carrying loads. Such marks as kicking or scuffing the ground are usually present. Skid and slide marks up or down hill are also large ground signs.

b. *Small Ground Signs.* Small ground signs are found where a lightly laden group of five to nine have moved through the area. Very often these groups will try to make as little track as possible by placing their feet carefully and disturbing the surrounding vegetation as little as possible. An alert visual tracker would be accustomed to following this type of track. When tracking over flat, bare ground concentration should be centered on such signs as sand on leaves, disturbed grains of sand, and crumpled earth. The tracker should also watch for small stones or rocks kicked or scuffed out of place or pressed into the earth, powdered worm casts, and broken dirt seals.

#### 15. Top Signs

Top signs are found in vegetation that is above knee height. As humans walk through undergrowth which is of varying heights, they must either pass through it or brush past it thus altering its natural position. The most frequent and usually seen top signs are: broken twigs or leaves, scratches on tree trunks or branches, bruised moss, changes in color or natural position of vegetation, wilted and dying vegetation, and cut vegetation. Top signs have two classifications: *large top signs* and *small top signs*.

a. *Large Top Signs.* Large top signs are found where a party of 20 or more persons have passed through an area and leave behind large disturbances to vegetation, even to the extent of breaking off the tops of shoulder-high trees to clear

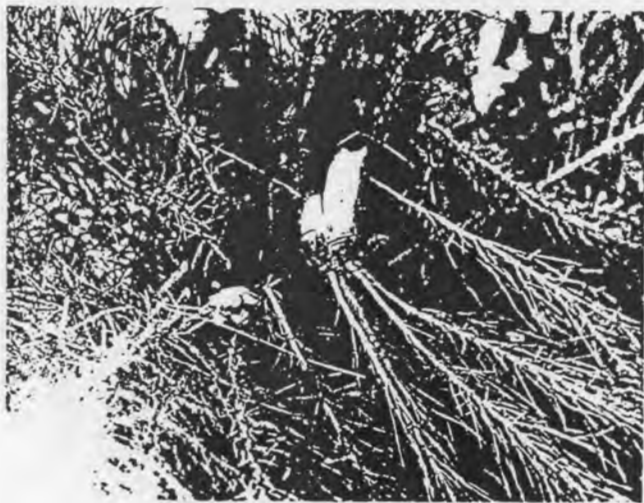


Figure 5. Top of pine sapling broken off.

a path for members of the party in the rear or those carrying equipment (fig 5).

b. *Small Top Signs.* Small top signs are found where a party of five to 10 has passed through the area, deliberately avoiding unnecessary disturbances to the vegetation. Certainly, under no circumstances, is there any cutting or breaking of trees or bushes, though leaves may be turned over (fig 6).

#### 16. Temporary and Permanent Top and Ground Signs

a. Temporary signs are the unavoidable marks left behind on the route of travel. Such things as disturbances of the earth, leaf and stick covering, growing vegetation, and disturbed insect and/or animal life alerted by the presence of humans. These signs are termed "temporary" because after a rain the ground and top signs will eventually return to normal and after a lapse of time the insect and animal life will settle down.

b. Permanent signs are signs of a man-made nature that will last indefinitely. These are such things as cutting or breaking vegetation, especially the larger plants, and rearranging the vegetation into unnatural positions, i.e., transplanting vegetation with leaves close to the ground for camouflage of caches or ambushes.

#### 17. Factors Affecting Sign

a. Direct sunlight will adversely affect signs by drying out ground sign and providing the natural element to bring vegetation back to its normal position.

b. Rain will wash away most damage and generally obliterate ground signs. As with the sun, rain will also return vegetation to its normal state.

c. Wind encourages vegetation to return to normal and covers up some signs.

#### 18. Where to Look for Sign

a. Near banks of rivers and streams (fig 7).

b. Roads, paths, and game trails (fig 8).

c. Muddy patches, soft ground, and steep slopes (fig 9).

d. At the edges of clearings, plantations, and flat ground.

e. Thick under growth (fig 10).

f. Where an obstacle has been crossed or channeled the route.

#### 19. Effect of Terrain on Signs

This may or may not assist the visual tracker. The result depends on the type of country he is



Figure 6. Uprturned leaves on low hanging tree branch.

in, which may be any of a combination of the following:

a. *Grasslands.* If the grass is high, that is, above 3 feet, trails are easy to follow due to the fact that the grass is knocked down and stays down for some time. If it is short the grass springs back more easily into its original position and in a shorter length of time. The following points will aid when tracking in this sort of terrain:

(1) Grass is normally trodden down and pointing in the direction that the person is traveling.

(2) It shows a contrast in color with the surrounding undergrowth when pressed down.

(3) If the grass is wet with dew from the night before the dew will be rubbed off.

(4) Mud or soil from footgear may appear on some of the grass.

(5) If dry grass is broken and crushed, blades and stems will be found. Footprints can normally be found in dry grass areas.

(6) If new vegetation is showing through, it indicates that it is an old track.

(7) In very short grass, i.e., up to 12 inches, a boot will damage the grass near the ground and invariably a footprint or impression will be found.

b. *Rocky Ground.* Tracking through this type

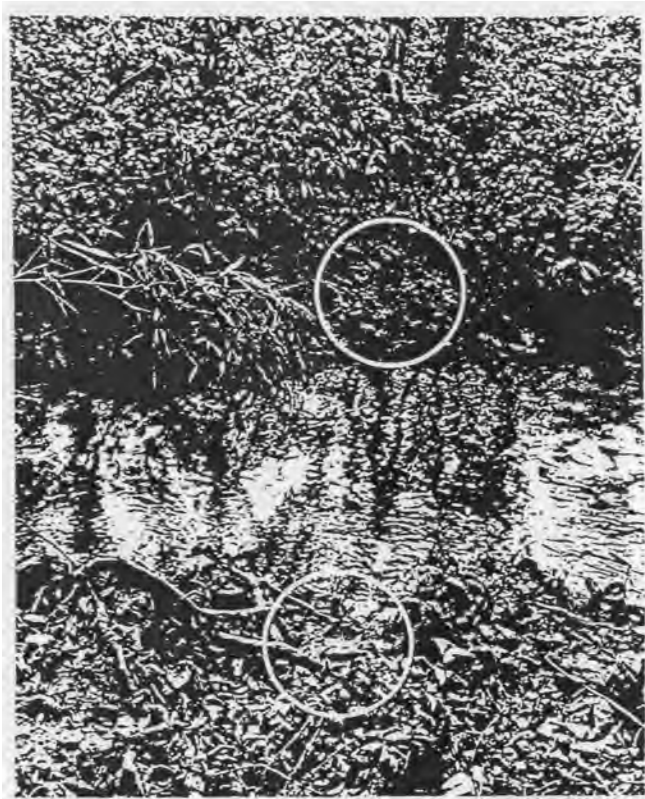


Figure 7. Footprints on near and far sides of streams.

of country is not as difficult as some think. This is due to the fact that rocks are easily disturbed and, generally speaking, easily marked. The following are some points to remember about tracking in this type of terrain:

(1) Unless very large, stones or rocks are either moved aside or rolled over. This will also disturb the soil, leaving a distinct variation in color and an impression. If wet, the underside of the stone will be much darker in color; if dry, it will be much lighter in color.

(2) If moving over large stones, the hobnails and plates on boots will tend to scratch the surface of the rocks.

(3) On sandstone, boot marks tend to be darker in color; on lava, the mark is a shade of white.

(4) If the stone is brittle, it will chip and crumble when walked on. A light patch also appears. The chips can be seen nearby.

(5) Stones or rocks on the sides of hills move slightly or roll away when stepped on, whether the track leads up or down the slope.

(6) Stones on a loose or soft surface are normally pressed into the ground when walked upon, leaving either a ridge around the edge of the stone where it has forced the dirt out, or a

hole where the stone has been pushed below the surface of the ground.

(7) Particles of stone sometimes catch on the sole of the boot and are deposited farther up the trail and show up against a different background.

(8) Where moss is growing on rocks or stones, a boot or hand may scrape off some of the moss.

*c. Rain Forest.* Within rain forests, or jungle, trackers will find many ways to track since this terrain includes undergrowth, live or dead leaves and trees, streams with muddy or sandy banks,

and moss on the forest floor and on rocks. Tracking will be made easier by remembering the following details:

(1) Leaves on the forest floor, when wet, show up a distinct darker color than those undisturbed.

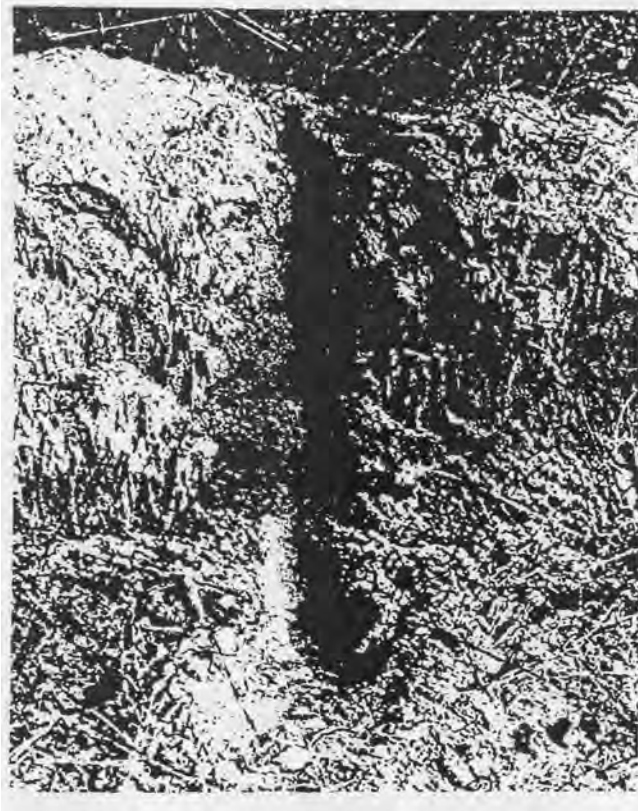
(2) Dead leaves also become brittle and crack or break under pressure of a person walking on them. The same may be said of dry twigs.

(3) Dry leaves, when disturbed, show a distinctive dark brown underneath in comparison with the lighter colored upper surface.

(4) Where the undergrowth is thick, espe-



Figure 8. Animal, or game, path leading into dense vegetation.



1 On side of low embankment

Figure 9. Foot signs.

cially on the edges of the forest, the green leaves of the bushes that have been pushed aside and probably twisted, will show the underside of the leaf that is lighter in color than the upper surface. When looking for this sort of trail, the tracker must look through the forest instead of at it.

(5) Broken twigs can be used to deduce the age of the track. Freshly broken twigs, green or dead, will generally be a lighter color on the interior than at the broken edge. This color gets darker with time so that if the tracker breaks the twig again he will be able to compare colors and thus be able to gage the amount of time that has

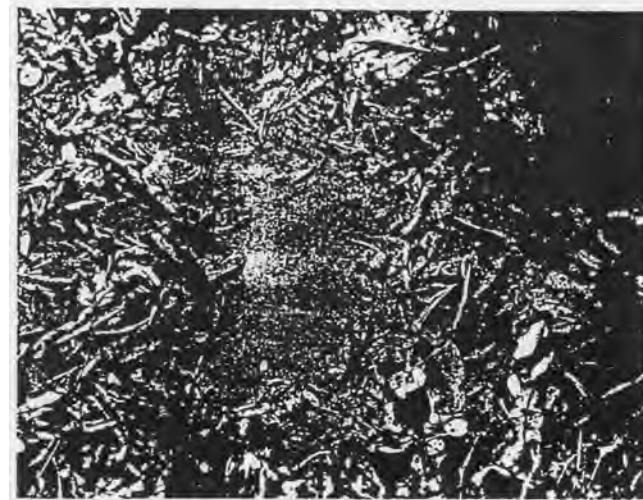
elapsed since the original break occurred. Only with experience and experimentation will the tracker be able to accurately determine the age of the break. Freshly broken twigs will retain the smell of sap for 3 or 4 hours.

(6) Boot impressions may be left on fallen and/or rotting trees.

(7) Marks may be left on the sides of logs which lie across the path.

(8) Where roots run across a path they will show signs of where they have been stepped on.

(9) Broken cobwebs across the path indicate that an animal or human has moved through the area.



2 Disturbed water in wet area

Figure 9—Continued.

*d. Scrub (Secondary Forest).* This is the type of country where the primary growth has been cleared away and the secondary growth has started. It is usually very thick and hard to penetrate. To do so the individual is sometimes forced to make his way through by crawling along at ground level. When tracking in this type of country the main points to watch for are—

(1) Broken branches and twigs.

(2) Leaves knocked off.

(3) Branches facing the direction that the person has gone.

(4) Footprints on the ground that show up clearly since little or no grass grows underneath.

(5) Tunnels (through vegetation) made very low to the ground.

(6) Broken cobwebs.

(7) Pieces of clothing caught on the sharp edge of vines and bushes.

*e. Rivers, Streams, Marshes, Swamps, and Bogs.* Contrary to popular belief, tracking is possible in these areas. In most cases it is made fairly easy by the marks left behind. Signs that the tracker should look for are—

(1) Footprints on the banks and in shallow water.

(2) Mud stirred up and discoloring the water.

(3) Rocks splashed with water in a quietly running stream.

(4) Water on the ground at the point of exit.

(5) Mud on grass or other vegetation near the edge of the water.

*f. Sand.* Sand is relatively easy to track in. The biggest problem is the wind which can obscure or obliterate marks and impressions in a matter of minutes. When tracking on sandy ground the tracker should keep in mind that—

(1) If the surface is inclined to be hard, the footprint is very clear.

(2) If the surface is soft, the footprint will be quite deep and in the early morning or late afternoon hours the walls of the impression will cast a shadow.

## 20. Sun, Rain, and Wind

These are factors that will adversely affect the signs and marks of a track. The degree that the

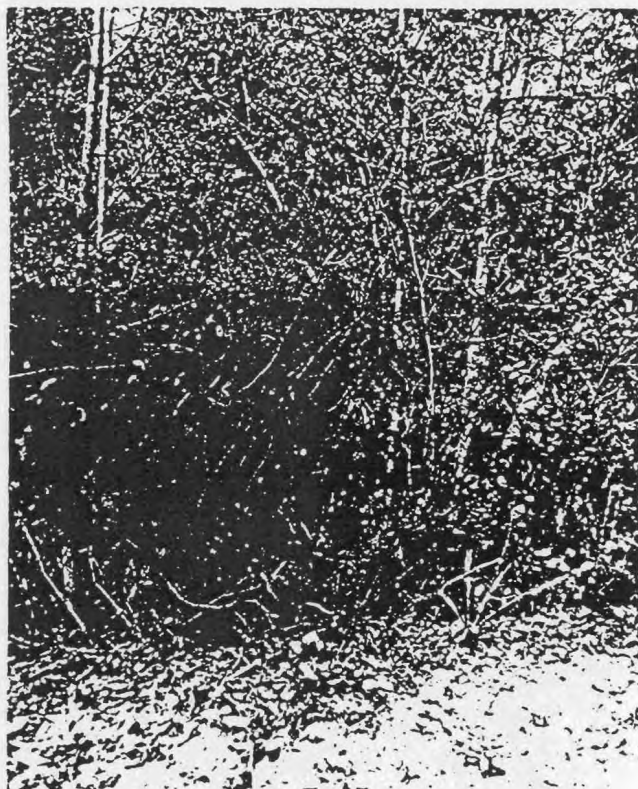


Figure 10. Type of dense foliage and undergrowth.

track is affected depends on the strength and duration of these elements. Generally speaking, tracks or signs sheltered from rain, wind, and direct sunlight can still be readable up to 30 hours after they were made.

#### 21. Time

To be able to assess the time between when a sign was made and when it is found is the hardest task of the visual tracker. Only experience and practice will help to overcome the difficulty of this task.

#### 22. Conclusion

In any one country there will be different areas or

localities where one type of vegetation will be predominant. In any one locality, whether it be primary jungle, secondary jungle, scrub, swamp, sand, or rock, the visual tracker will have up to 30 signs. When following a track through a specific area or locality, the visual tracker will be using the 30 signs at once. He will in fact be following a combination of three to five signs at one time; and these for only a distance of up to 40 meters. Then, because of the nature of the ground or vegetation, the sign may change. So for the next 30 to 40 meters the combination of signs will be different. Obviously, some signs are common to all areas, such as the footprint. Again, when tracking through different localities, one

would see all the area tracking signs, but not all at one time. The visual tracker should always be conscious of climate, season, and local weather

conditions, all of which will greatly influence the amount and kind of sign left in the area.

## CHAPTER 4

### THE TRACK FOLLOWING DRILL

#### 23. Introduction

This chapter explains the necessity of a track following drill and also explains why it is divided into seven steps. Anyone who has taken part in a tree trunk cut blazed trail, or other bushcraft exercises, is often a potential visual tracker. The big difference here is that the quarry is not an armed enemy whose main task is to maim or kill the tracker. There are many competent and proficient game trackers and hunters; but here again, animals don't shoot back.

#### 24. Military Tracker

The military visual tracker is faced with a far greater degree of risk and danger. The military visual tracker will be following and hunting an armed enemy who may be well versed in jungle or bushcraft. This enemy can lie in ambush for the tracker, can practice deception tactics, and will often move much quicker than the visual tracker can follow. Therefore, to enable the tracker to follow, regain contact, and report the enemy's position, a track following drill has been developed.

#### 25. The Seven-Step Drill

There are seven steps to this drill. Each step has been included for a special purpose and it is mandatory that every potential visual tracker learn, and at all times follow, this drill. A detailed, step-by-step explanation of this drill follows:

a. *Step 1.* Assessment of general direction (look ahead 30 to 40 meters for general direction of track).

b. *Step 2.* Eliminate openings and finalize general direction. If two or more openings appear, by comparing age, eliminate the older track.

c. *Step 3.* Visually connect the track with your present position. This is to insure that there is not a split track or that no other form of deception has been used by the enemy and that the visual tracker is still on the same track.

d. *Step 4.* Look through the vegetation to max-

imum visibility for signs of enemy presence. This important step is also carried out before beginning step 1, and the visual tracker is sensitive to the possibility of enemy in the area. Its significance is amplified by including it as a separate step halfway through the track following drill.

e. *Step 5.* Check areas to the left and right for deception tactics. There are many ways that the enemy can confuse or mislead the tracker. This step is to insure that the visual tracker is not being led astray.

f. *Step 6.* Memorize footsteps, and mentally note sound-making vegetation. It is important to note that except for step 4, the visual tracker has not moved, that his head is held up with only the eyes carrying out the drills. He must be alert to all sounds, smells, movement, and vegetation in an unnatural state.

g. *Step 7.* Move forward, not as a tracker, but as a lead scout. When the visual tracker moves, he is most vulnerable. This is when he is in danger of being shot at or walking into a bobbytrap. He must have the track established in his mind and be alert to all areas of danger ahead. When the visual tracker arrives at his next forward sign, he should visually check the area to the front and sides for enemy presence before starting again at step 1 of the track following drill.

h. This track following drill will apply to all areas where there is growing vegetation. (For tracking in desert areas such as found in the Middle East and Australia, the basic principles of this drill will apply; but because of the open ground and dry terrain the drill will have to be modified.)

#### 26. The Steps of the Track Following Drill

a. Start tracking from a definite point where the signs are those made by the enemy. If this is not possible, and the area is where friendly troops have been milling about, or the area is where the enemy was last seen, the first step

will be to "cast" about until the enemy track is engaged. This drill is explained below.

b. Once the start point has been confirmed, look carefully at the signs and estimate the age of the track. This can be checked with the information from friendly forces in the area or those in the ambush or contact position. If the track is 2 days old and contact took place 2 hours ago, the wrong track has been located and casting drill must be repeated.

c. Next, estimate the number of the enemy. By estimating the age of the track and the number of the enemy at the beginning of the track it is possible to recognize any of the following:

(1) Where the enemy has rested and departed, leaving fresher sign (i.e., withdrawing after an ambush to a prearranged location, having a debriefing of an action and a body count of the ambush party). It is probably from this location that the enemy would split up into smaller groups. This would indicate that the ambush was set by locals and they are returning to their respective hamlets or villages. There could possibly be a hardcore element of enemy (or guerrillas) that would be returning to their base camp.

(2) Where another enemy group has joined with the first enemy party, after the first party has departed from the contact or ambush location; fresh tracks will be on top of the first enemy party's tracks. This would indicate that the ambush consisted of several groups in separate parties, and that all were withdrawing to rejoin at a central location for a debriefing conference. This is most probable when the enemy ambush has been successful. If the ambush was unsuccessful, it is more probable that the group split up and went in different directions; but do not overlook the possibility of the enemy having a reorganization and debriefing meeting.

(3) Where civilians have crossed over or converged on the tracks of the enemy may mean that the inhabitants of nearby villages or hamlets are being used to confuse the tracker. This is a definite deception tactic. It may be purely coincidental. However, it opens up the possibility of sympathizers in the area.

(4) By estimating numbers at the start of the track, and even if the deception tactic of individuals dropping off is missed, the tracker will soon notice that the number of enemy on the track has decreased. This is where the enemy had converged from their hamlets to stage the

ambush and during withdrawal split up or returned to their respective hamlets without converging on a prearranged rally point for a debriefing conference.

(5) Step 2 of the track following drill. Take each opening in turn and carry out the following drill:

(a) Look forward (maximum visibility) for top and ground signs.

(b) Remember the age of the track and do not be drawn forward by signs that are older than the track being followed.

(c) Eliminate openings which do not coincide with the age of the track being followed.

(d) Endeavor to end with one opening. This is now the "general direction" of the track. If there is more than one opening, remember: the possibility of a split track; the possibility of a deception and a false track; and that now there are two general directions and one of them will be eliminated upon closer inspection.

(e) Now stand over this definite sign facing in the direction of the enemy withdrawal and look ahead 30 to 40 meters for "general direction." Look for man-sized openings in the undergrowth. These openings are recognized by eliminating areas where humans could not have possibly moved through, that is, where there has been no breaking of the undergrowth or disruption of the vegetation. It is probable that two or three openings will be noted. These openings should be large enough to allow a man to pass through. Insure that you have checked the complete area to the front and also that you are looking as far ahead as possible *THROUGH* and not *AT* the undergrowth.

(f) Step 3 of the track following drill. It has been established that there are visual tracking signs to the front that coincide in age to the track being pursued. It has also been established that in the area ahead the "opening" in the vegetation is such that humans could have moved forward through the area. Step 3 is to confirm that the track being followed is the same track spotted to the front. Step 3 is carried out as follows:

1. Taking the furthestmost sign, back-track with the eyes and note signs that link the furthestmost sign with your present position.

2. A visual tracker must not get into the habit of connecting the track from the nearest point to the next sign ahead.

3. During the early training period, the visual tracker will stand over the last definite

sign while carrying out the drill. The only movement that is permissible will be a slight sideways movement of the head. A visual tracker's eyes must do the work.

4. A visual tracker will never turn his head down to look at the ground in front of him while in a standing position.

5. If at any time the visual tracker wishes to make a closer examination of a sign, he must go down on one knee. He must insure that his coverman knows of his intentions.

6. Back tracking with the eyes and connecting signs will often serve to eliminate any false trails and false openings.

7. When two openings connect, the visual tracker has come across a split track and he will have to decide which one to follow.

8. The visual tracker, by looking ahead in this manner, is better able to see and identify the track, rather than following the individual signs.

9. When in doubt, the individual tracking signs, that is, the signs peculiar to the track (e.g., one man wearing hobnail boots) will confirm the track picture.

(g) Step 4 of the track following drill. Carry out a visual check of the area. Look through the area to maximum visibility for signs of the enemy presence. The track for the next 20 to 30 meters has been established and confirmed. The visual tracker has not moved up to this point. During step 4 he must visually clear the area to the front. This was done before the commencement of step 1 but is included here as a separate step because of the following:

1. During the intervening period an enemy could have moved into the area.

2. To emphasize the importance of attuning himself (tracker) to danger and becoming aware of enemy presence.

3. The visual tracker's concentration will be directed toward looking for possible enemy locations either underground, at ground level, or in the trees overhead. He will be looking for vegetation used as camouflage or an unnatural position.

4. The visual tracker can now move. He will, if necessary, kneel to check at ground level for tunnel-type fire lanes.

(a) He must move from side to side when looking through undergrowth, to see areas behind trees in the immediate foreground.

(b) Finally, by coordinating with the coverman, he will thoroughly (visually) check the track for signs of boobytraps.

5. The visual tracker must become ambush and boobytrap conscious. With this in mind he will be thinking as the enemy would and whenever he would approach a likely ambush site or ideal boobytrap location, he will make a greater effort to visually clear the area before proceeding.

(h) Step 5 of the track following drill. Before step 5 is taken the areas to the left and right have been checked for deception tactics, the track has been established and confirmed, and the area to the front has been checked for ambush positions and boobytraps.

1. In step 5, the visual tracker must now switch his concentration to the possibility that deception tactics have been employed.

2. The visual tracker will look along the confirmed track, concentrating on the area to the left and right to check for signs of "drop off" tracks.

3. There are many ways of confusing a followup party by laying down a false track and employing deception tactics that could lead an unsuspecting visual tracker astray.

4. To combat this, the visual tracker must have complete knowledge of all deception tactics and be aware of the possibility of them whenever tracking.

5. On occasion, the visual tracker may want to followup a deception tactic in order to gain a greater understanding of his foe. The cunning and cleverness, the degree of alertness, and stealth by which deception was executed will help the visual tracker understand the thinking of the enemy. By following through a deception tactic the visual tracker can learn the enemy's degree of alertness, morale, aggressiveness, and possibly his intentions.

6. Learning to understand the enemy will aid the visual tracker in making an intelligent assumption about the enemy's intentions if ever the track is lost. The visual tracker will be in a good position to make recommendations to the patrol commander in identifying locations for patrols to search as likely areas of enemy activity.

7. The visual tracker, with this understanding of the enemy being tracked, may even be able to anticipate possible moves.

(i) Step 6 of the track following drill. Track has already been located and confirmed. Also the area has been visually cleared of ambushes, boobytraps, and deception tactics.

1. For step 6, the visual tracker must

now look at the ground, eyes only, and memorize where he is going to place his next 10 to 15 steps.

2. Vines across the track should be noted carefully as they may catch on boots and cause noise and movement to the surrounding vegetation.

3. Dry sticks on the track can break and create noise.

4. In fact, any sort of vegetation or loose rocks that can make noise must be carefully negotiated.

5. Plants, trees, and other vegetation do not move by themselves. Therefore the visual tracker will note any disturbed vegetation to his front that could move and telegraph his presence in the area.

6. Up to now the visual tracker has not moved one step forward. During step 4 he has moved from side to side, and up and down.

7. For steps 1, 2, 3, 5, and 6, he has remained still, with his head up and looking to the front, so that he could catch any movement or hear the slightest sound made to his front.

(j) Step 7 of the track following drill. At this point the track has been confirmed, the area has been checked for ambushes, boobytraps, and deception tactics, and the visual tracker has memorized where he is going to place each step.

1. The visual tracker now becomes a lead scout and moves forward to the limit of the confirmed track.

2. When moving forward, the visual tracker will be opening new areas to his front which have not been checked.

3. As a moving target he will be obvious to a stationary enemy.

4. When the visual tracker moves forward he must never look at the ground. To check out the ground or confirm possible deceptions, he must go down on one knee and await his coverman's readiness. He will carry out this same drill whenever he wishes to check out a suspected boobytrap area.

5. While moving forward he will insure that any sound he will make does not travel farther than he can see.

6. While moving forward, he will insure that the vegetation does not telegraph his position.

7. He will carry his weapon in an alert and ready position at all times.

8. During this step he is trying to spot the enemy before he is seen (if there are enemy in the area).

9. If he locates a stationary enemy, then he has successfully completed his task and will report the enemy.

10. If he locates and identifies a moving enemy, then he will be guided by his initial briefing as to whether he will shoot or not.

11. If he locates and identifies the enemy at the same time that the enemy sees him, he will shoot to kill.

12. If the enemy shoots first he will return fire and carry prescribed drills.

13. If no enemy is sighted (*and this is the most common occurrence*) and when the visual tracker arrives at his furthestmost sign, before beginning step 1 of the track following drill, he will visually check all areas to his front for signs of the enemy.

## 27. Points to Remember While Tracking

During the early learning periods the tracker will follow each step of the drill, committing it to memory. Eventually, as competence and experience improve, the visual tracker will be able to combine the steps, performing several steps with one quick glance. Moving with stealth will soon become natural and the periods spent between movement bounds will soon become a short pause. He is always aware of becoming too confident. This will result in the realization that he has passed the last sign and there is no more track or when the enemy has spotted him, either because he has made noises or been negligent in checking the area to the front.

a. A visual tracker will realize that he has overshot the area when—

(1) There are no more tracking signs.

(2) Each step, by falling on fresh ground, will cause leaves to crumble or crack and small twigs to break. Worm casts will be crushed and the general feeling underfoot will be different. The visual tracker may also find cobwebs across the track.

(3) Depending on the time of day, he may be brushing the dew off of leaves and making his own track through the undergrowth.

b. Finally, the visual tracker must ask himself the following questions:

(1) How many enemy am I following?

(2) How heavy and what sort of loads are they carrying?

(3) What is the enemy's morale, task, and aggressiveness?

(4) Does the enemy know that he is being followed?

## 28. Precautions

a. When track becomes difficult and the visual tracker is tiring, it is easy to see signs where there are none. The visual tracker must beware of this tendency and not "bluff" himself into following a false track.

b. He must remember that sound travels in all directions. Visibility in close country may be as little as 10 to 15 meters. He must also insure that any sound he makes will not travel farther than he can see, thereby alerting the enemy.

c. Vegetation moved in isolation of surrounding vegetation will alert the enemy of the visual tracker's presence. He must not grab small trees for extra leverage or allow himself to become entangled in vines or overhead creepers.

d. The visual tracker, when moving forward, is the leading man in the patrol and will normally be the first to sight the enemy. *He must never look at the ground when on the move.*

e. He must not go on if exhausted. He should stop and rest. The above points must be remembered to avoid tracking into a bullet or a boobytrap.

## CHAPTER 5 TRACKER SCOUT

### 29. Introduction

A lead scout's responsibility is to follow the signs and pass back the information he gains from the enemy's signs. The lead scout is also the frontal security for the patrol. His job is to insure that his patrol or team is not led into an ambush or a boobytrap.

### 30. Objective

A lead scout should be able to move silently through an area, be alert, and be able to read the signs that the enemy leaves behind. A good lead scout should keep the following points in mind:

a. When moving through an area, try to leave as few signs behind as possible. The enemy can follow signs also.

b. A lead scout is physically fit and keeps his weapon clean and equipment ready at all times.

c. Always move silently and never at such a speed that your presence in the area is detected.

d. The visual tracker's life and the lives of others will depend on the intelligence and information that he gains and passes on as clearly as possible. The more he knows about the enemy, the less are his chances of becoming a casualty.

e. Even a fit and alert scout can become tired. Never push too hard. Fatigue cuts down on alertness and response.

f. Never look down while moving. It may cost a life (yours or one of the others on your team).

g. When faced with thick undergrowth, if possible, go around. If going through, weave over or under the vegetation.

h. Never cut, or allow the pack, body, or equipment to get caught in branches or vines causing movement in the tops of young trees.

i. Remember that sound made by the rattle of poorly packed equipment, unnecessary talking above a whisper, coughing, or a broken twig or stick could alert the enemy.

j. While acting as a lead scout, make sure that the coverman is an adequate distance away, consistent with the tactical situation.

k. The visual tracker never forgets his own signs: make as few of them as possible and consider deception tactics.

l. Always vary the route and the time of returning from and going on patrols; avoid being ambushed.

m. Notice and become familiar with the natural sights and sounds of the insect world for they may help give warning of the presence of the enemy.

n. Once on a patrol, stay alert. Move silently and remain a good distance apart.

o. Be familiar with and practice all rally point drills and procedures.

p. Well disciplined reactions during contact or under fire will result in a beaten and routed enemy.

q. Always be aware of the patrol's mission. Be familiar with all contact drills.

r. On occasion, it is better to let the enemy go by and then report his movement. This is especially true if a much larger group is encountered.

s. On all suspicious sights and sounds, stop and remain still. If the enemy appears and moves across your front, there is a good chance that he will not see you. If the sound is coming towards you, drop slowly to one knee and at the same time raise your weapon to your shoulder and aim at the sound. Always make positive identification before you fire.

t. If possible, always let the first members of an enemy patrol pass by and shoot the third or fourth man. Remember that with the automatic weapon, the tendency is to shoot high; so aim low and shoot to kill.

u. When working with a reconnaissance pa-



trol, keep moving until just before dark, then find a safe place to sleep. Be packed and ready to move at first light.

v. When camping at night, make it hard for the enemy to effect a surprise attack. Select a thick area where the enemy will have to make a lot of noise to get close enough to attack.

w. Reconnaissance patrols try to avoid contact in any way. Try to leave no track or signs behind.

x. Decisions will be required that will affect

the lives of the patrol members. Learn to make the correct ones. Have confidence in your decisions.

y. Remember that a lead scout must always be alert and physically fit.

(1) Once a lead scout, always a lead scout. The visual tracker will always be the lead scout on a patrol or in a combat tracker team.

(2) Always play it safe, make sure never to fire at anything without being positive that it is the enemy.

## CHAPTER 6

### TRACKER RECONDO PATROL

#### 31. Introduction

What is a tracker recondo\* patrol? A tracker recondo patrol is a detachment from a unit sent out to perform an assigned mission of reconnaissance or combat, or a combination of both. This type of patrol is always "tailored" to the mission it is to execute.

#### 32. Formulation of Patrol Missions

The S2 formulates missions for reconnaissance patrols. The S3 formulates missions for combat patrols. They consider the capabilities of each type of patrol in relation to the mission at hand.

a. Reconnaissance patrols are capable of—

- (1) Point reconnaissance and surveillance.
- (2) Area reconnaissance and surveillance.
- (3) Route reconnaissance and surveillance.

b. Combat patrol are capable of—

- (1) Raids to destroy or capture personnel or equipment, destroy installations, or liberate personnel.
- (2) Ambush of such targets as patrols, carrying parties, wire repair teams, convoys, food and equipment teams, and foot columns.
- (3) Target-of-opportunity missions, especially in counter guerrilla operations.
- (4) Economy-of-force missions, to seize features such as bridges, hills, road junctions, etc.
- (5) Contact missions, to establish and/or maintain contact with either friendly or enemy forces.
- (6) Security missions, especially local security to detect and prevent infiltration and to prevent surprise ambush.

\*The term recondo was coined from the words reconnaissance and comando. During World War II the term reconnaissance action implied the seeking of information, while comando referred to a special type unit assigned to perform hit-and-run actions.

#### 33. Assignment of Patrol Missions

a. A patrol can be assigned only one mission. The essential task of a patrol is accomplished by the elements and teams within the patrol.

b. The mission may be specific: for example, "destroy the enemy OP," or it may be general. A search and attack patrol may be assigned to locate, and within its capability, destroy any guerrilla force in a certain area.

c. Whether specific or general, the mission must be clearly stated, thoroughly understood, and within the capabilities of the patrol.

#### 34. Control

The commander's degree of control over the patrol is limited once it has been dispatched, and what means of control he has are included in the orders issued to the patrol leader.

a. Time of departure and/or return may be stated in general terms, such as departure or return before daylight or after dark. Specific times may be given to prevent congestion in an area, thus reducing contact between friendly patrols and providing stricter control. Information secured by a patrol may lose its value if it does not reach the commander in time. Future operations may hinge on the results of a patrol. Similarly, a patrol may be required to accomplish its mission on or before a certain time. For example, a patrol may have to destroy a communications center at a certain time to aid a planned attack. When there is a reasonable chance that the patrol may not accomplish its mission in time, the order must state the priority. Accomplishment of the mission has first priority and is the commander's responsibility.

b. Checkpoints may be used as a control measure by requiring the patrol to report upon reaching each one.

c. The route used may be generally defined or specifically prescribed.

- (1) A general route may be defined by a

series of checkpoints over or near where the patrol is to pass.

(2) An exact route is seldom prescribed except in route reconnaissance or where close control of movement is required.

d. Point of re-entry into friendly areas may be prescribed. Re-entry at the point of departure may be directed or, to reduce the danger of ambush, re-entry at a different point may be specified.

e. Point of departure from friendly areas may be prescribed.

### 35. Communication

The communication plan specifies reports and type of transmission to be employed. Radio is usually the best means. The type of radio used is determined by the distance to be traveled, availability of radios, field expedient antennas, qualified operators, and method of movement.

a. Simple prearranged codes and code words are used to reduce transmission time and decrease the possibility of compromising the mission.

b. Pyrotechnics (fires or smoke) may be used but increase the possibility of detection.

c. Prearranged code words or pyrotechnics may be used to indicate departures from friendly areas, arrival at checkpoints, accomplishment of mission, or other desired information.

### 36. Support

a. The S3 makes rehearsal areas available and assists in coordination of all areas.

b. The S4 provides equipment not available within the patrol.

c. The fire support coordinator assists the patrol leader in planning effective fire support for the patrol.

d. Upon return, patrols are debriefed by the S2 or representative. Techniques used in debriefing vary. One effective method is for the patrol leader to give a narrative account of the patrol from departure to return. Each patrol member is then asked for additional information. The debriefer asks questions to secure information not covered. Each patrol member is given the opportunity to contribute to the information reported.

### 37. Importance of a Tracker Recondo Patrol

a. A tracker recondo patrol is limited only by the ingenuity with which it is employed and the skill and aggressiveness of its members. For this reason this type patrol is one of the most valuable tools of the commander.

b. Tracker recondo patrols are especially effective in counter guerrilla operations. Aggressive patrolling in an area greatly reduces the guerrilla's freedom of movement, hinders their operations, and reduces their influence on the local population.

### 38. Organization

A tracker recondo patrol is a small highly trained team. It is flexible enough to be applied with as few as four or as many as six men; however, it is based on a five-man concept.

a. The first man is the visual tracker.

b. The second man is the coverman.

c. The third man is the team leader.

d. The fourth man is the radio telephone operator.

e. The fifth man is the rear security and/or tracker dog handler.

f. All members of a tracker recondo patrol are cross trained in all of the patrol positions.

### 39. Equipment

a. All members of a tracker recondo patrol should wear the same kind of dress: camouflage jungle fatigues, jungle boots, camouflage jungle flop hats, belt order (required equipment placed on the belt in a specific arrangement), rucksack, and tote weapons; the reason being—

(1) The camouflage jungle fatigues break the outline of the body.

(2) Jungle boots are light and make walking easier over most types of ground.

(3) The camouflage flop hat breaks the outline of the head and shades the face.

(4) The belt order is there to carry the most important items close at hand.

(5) The rucksack is light and can hold extra food, ammunition, bedding, and equipment that is needed on the patrol.

b. Selection of equipment and weapons and ammunition is based on the question: "What is needed to do the job?" The difficulty of trans-

porting some weapons, because of bulk or weight, must be considered, but is seldom a deciding factor. The value of equipment and weapons in accomplishing the mission is weighed against the difficulty. No weapon is taken unless the personnel who are to use it are proficient in its use. Aerial supply of ammunition is considered for patrols that will be out for an extended distance or time.

c. Routine equipment is normally carried by all patrols. It includes the uniform to be worn and the individual equipment to be carried. Normally, every man should carry his poncho and an extra pair of socks as required by conditions of weather and terrain. Gloves are included, even in warm weather, to protect hands against thorns, rocks, and barbed wire. A patrol SOP prescribing routine uniform and equipment will save the patrol leader time in planning and preparation. In the objective area some of the equipment used includes such items as demolitions, binoculars, rope to bind prisoners, and flashlights. En route equipment that is helpful in reaching the objective quicker and easier includes items such as maps, boats, stream crossing ropes, compasses, and wire cutters.

d. Control-type equipment includes whistles, pyrotechnics, radios, flashlights, and luminous tape to assist in control en route and at the objective.

e. Water and food are also necessary items, and every man on a tracker recondo patrol should carry two or more canteens of water. Only necessary rations are carried. The missing of a single meal or its late consumption is not a hardship and does not reduce combat effectiveness. Aerial resupply of food and water is considered.

### 40. Types of Missions

The mission, or primary mission, of a tracker recondo patrol is either reconnaissance or combat. It has the ability to operate without close support and away from secure areas or bases for long periods of time.

a. *Reconnaissance.* A tracker recondo patrol has the ability to investigate areas of enemy activity and counter guerrilla operations and follow any tracks found in those areas. In carrying out this sort of mission, the patrol must avoid contact. However, at times it must get very close to the enemy in order to obtain detailed information. Recondo techniques and tac-

tics are designed to allow a tracker recondo patrol to do this.

b. *Combat.* A tracker recondo patrol on a combat mission will provide security and harass, destroy, or capture enemy personnel, equipment, and installations. The patrol also collects information whether related to the mission or not. Combat missions are further classified as—

(1) Raid patrols.

(2) Ambush patrols.

(3) Security, contact, and economy-of-force patrols.

### 41. Tactics and Techniques

Every tracker recondo patrol has been trained in the same techniques, and their success has been proven by afteraction reports. The success of any organization depends on its personnel being well-trained. The object of tactics and techniques is to keep the team alive and functioning when in contact with the enemy. A system of "contact drills" is used to do this. During a contact drill each member of the team has a specific task directed towards a common objective. This maintains control over the patrol by eliminating the confusion caused by having the patrol leader trying to shout directions over the noise of gunfire.

#### a. Action at Danger Areas.

(1) A patrol's actions at a danger area should be planned in advance, whenever possible, by the patrol leader. He should identify these areas in advance and make general plans for danger areas that may have to be crossed if they show up unexpected. The following are considered and applied as appropriate: the near side and flanks are first investigated. Then the far side is reconnoitered. After determining that the area is clear, the patrol crosses as a group if the area is small. If the area to be crossed is large enough to expose the group for more than a short period of time, then the group will cross either in small elements or one man at a time.

(2) Gaps in wire or minefields are usually avoided since these areas are usually covered by observation and fire. The patrol will make its own gap and send security through before passing.

(3) When crossing a river or a stream, the near bank is cleared, then the far bank. Then the remainder of the patrol crosses one man at a time. Cover is maintained by the rest of the group during the crossing.

(4) Proper security and reconnaissance are the means to avoid an ambush. The patrol must always be alert and suspicious of all areas. Certain areas are more suitable for ambush than others: roads, trails, narrow gullies, villages, and open areas are examples. All of these areas are approached with caution. Also, routes used by other patrols are avoided.

#### b. Halts.

(1) The patrol is halted occasionally to observe and listen for enemy activity. This is a security halt. When the patrol leader signals for a security halt, every man moves off the track and maintains absolute quiet and looks and listens for enemy activity. Security halts are called whenever the patrol enters a danger area and periodically en route. A security halt is appropriate upon departing friendly areas or before re-entering. When the patrol moves off the track during a halt, each man will either go down on one knee or into the prone position.

(2) The patrol may halt occasionally to check direction or communications. When the patrol leader signals for a direction or communication check, the patrol will also move off the track and maintain silence and assume a kneeling or prone position.

(3) The patrol may halt for rest or food. An area is selected which provides concealment. If possible, cover and defense are secured. All-round security is established and care is taken to insure that everyone moves when the patrol resumes movement.

c. *Infiltration and Exfiltration.* There may be times when the enemy situation prevents a patrol from entering or leaving an area as a unit; however, parts or small groups may be able to sneak into or out of the area without being detected. Movement in this manner into an area is called *infiltration*. Movement out of an area is called *exfiltration*.

(1) *Infiltration.* In this type of movement, the patrol splits up as it leaves the friendly area or at a later specified time. Small groups infiltrate at varying times, each using a different route. After slipping into the enemy area, the groups reassemble at a predetermined location. This rendezvous point must be free of enemy activity and provide concealment and be easily recognizable. An alternate rendezvous point should be indicated in case the first one cannot be used. If all the members of a patrol have not reached the rendezvous point within a reason-

able period of time, the senior man present will decide a course of action.

(2) *Exfiltration.* The same procedure is followed to return to the friendly area. The patrol splits up and returns, reassembling near or within the friendly area. Movement by infiltration or exfiltration breaks up the tactical integrity of a patrol. It is used only when movement as a patrol is not feasible.

#### d. Jungle and/or Bush Craft.

(1) Jungle or bush craft is the art of living tactically and comfortably in that type area. For example, how can you sleep at night and feel reasonably secure? Don't camp on high ground or near rivers. Get on the thickly vegetated side of a hill; this makes it difficult for the enemy to approach your position quietly.

(2) Move silently. Twist or turn your body to keep out of the way of the vegetation. Go around small trees instead of between them so that your body or equipment will not catch on them and make noise.

(3) Detect enemy ambushes (spot the enemy first).

(4) Gain information from signs left by the enemy. The mission is to track the enemy, find him, collect information about him, and destroy him. These techniques are not hard to learn. All it takes is practice along with the basic factors of good tracking, patience, persistence, and acute observation.

(5) Tactical movement is slow. Each man is stepping carefully, checking his arc of observation with his weapon following the same arc as his eyes and head. No one talks. Hand and arm signals direct the group. There should be a signal SOP within the patrol. All signals should be passed back to the rear security. During halts, the members of the patrol move off of the track. A track laid by the enemy can be considered an "avenue of approach" and may be covered by an automatic weapon.

#### 42. Duties Within the Patrol

The duties of each member of a tracker recondo patrol are as follows (fig 11):

a. The duties of the *visual tracker* (VT) are to keep the patrol on the right track and to warn the patrol of any obstacles or danger areas. He will relay all the information he gathers back to the patrol leader. His observation area is 180 degrees to the front.

b. The duty of the *coverman* (CM) is to protect the visual tracker. He is a trained visual tracker and is prepared to assume the duties of primary visual tracker. His observation is 180 degrees to the front.

c. The *team leader* (TL) is responsible for the patrol and the mission of the patrol. He makes all decisions, navigates, and selects routes for the patrol. He is a trained visual tracker which enables him to make decisions about the track and take over as a visual tracker if necessary. His observation is 180 degrees to the front, and to the left and right.

d. The *radio telephone operator* (RTO) is responsible for maintaining communications with the main force. He is a trained visual tracker and is ready to assume the function of a visual tracker. His observation is 180 degrees to the front and to the left and right.

e. The duty of the rear security and/or *tracker dog handler* (TDH) is to cover the area that is behind the patrol. His observation is 180 degrees to the rear of the patrol. (If the rear security is not a dog handler then he will be a trained visual tracker capable of taking over that task should the need arise.)

#### 43. Daily Routine and Movement

Equipment should be arranged and worn so that it is quiet at all times and all loose ends are taped.

a. The belt order is worn at all times, unless the soldier is asleep or told to remove it. All items carried on the belt should be secured so that if at any time the patrol is attacked while at rest the belt can be grabbed without anything falling off. The most important items are carried on the belt: ammunition, first aid kit, emergency rations (one pack), emergency kit, two canteens of water, and purification tablets.

b. The rucksack is never taken off unless the soldier is directed to do so. It should be packed in such a manner that when a particular item is

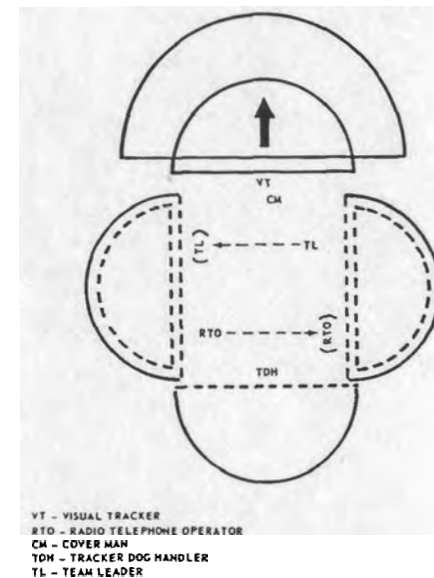


Figure 11. Area(s) covered by team members when on patrol.

taken out, it is the only item taken out, and that you will not have to unpack everything else to get at one item.

(1) Each night take out a day's rations and put it in an outside pocket.

(2) Mess kit and stove should also be carried in an outside pocket.

(3) Extra ammunition is always in an outside pocket.

(4) Pack the shelter half, hammock, dry clothes, blanket, and extra food inside the rucksack.

## CHAPTER 7 SILENT SIGNALS

### 44. Introduction

Silent signals are a method of communicating within a patrol by utilizing signals that are eye catching and allow the patrol to operate and communicate. The signals listed below are different from the standard hand signals and are designed to facilitate communication between trackers and team members.

### 45. Signals and Meanings

See Figure 12 for illustration of signals.

- |  |  |
|--|--|
| <p>1—Clenched fist, thumb up</p> <p>2—Clenched fist, thumb down</p> <p>3—Hand extended, two fingers crossed</p> <p>4—Open hand, fingers together</p> <p>5—Open hand, fingers together, moving from rear to front</p> <p>6—Two fingers on opposite shoulder</p> <p style="padding-left: 20px;">or, three fingers on opposite upper arm</p> <p>7—Two fingers patting lips</p> <p>8—One finger pointing toward throat</p> <p>9—Clenched fist, held against ear like handset</p> <p>10—Open hand, fingers together, back of hand against opposite ear</p> <p>11—Cupped hand, fingers apart, thumb on outside</p> <p>12—Two fingers in inverted V<br/>(Any number of fingers opened from clenched fist (Any) number)</p> <p>13—Open hand, fingers together on top of head</p> <p>14—One finger on tip of nose<br/>(Spread hand on top of head)</p> <p>15—Two fingers extended pointing to eyes</p> <p>16—Hand cupped around ear</p> | <p>On track.</p> <p>Enemy, or danger.</p> <p>Obstacle.</p> <p>Halt.</p> <p>Advance.</p> <p>Signal for team leader to approach person signaling.</p> <p>Signal for team's second-in-charge to approach person signaling.</p> <p>Smoke halt.</p> <p>Meal halt.</p> <p>Communication halt.</p> <p>Bivouac halt.</p> <p>Boobytrap.</p> <p>Reference point.</p> <p>Cover me.</p> <p>Tracker dog wanted by person signaling.</p> <p>Scout dog wanted.)</p> <p>Visual tracker wanted by person signaling.</p> <p>Listening.</p> |
|--|--|



Figure 12. Hand signals used by tracker team.

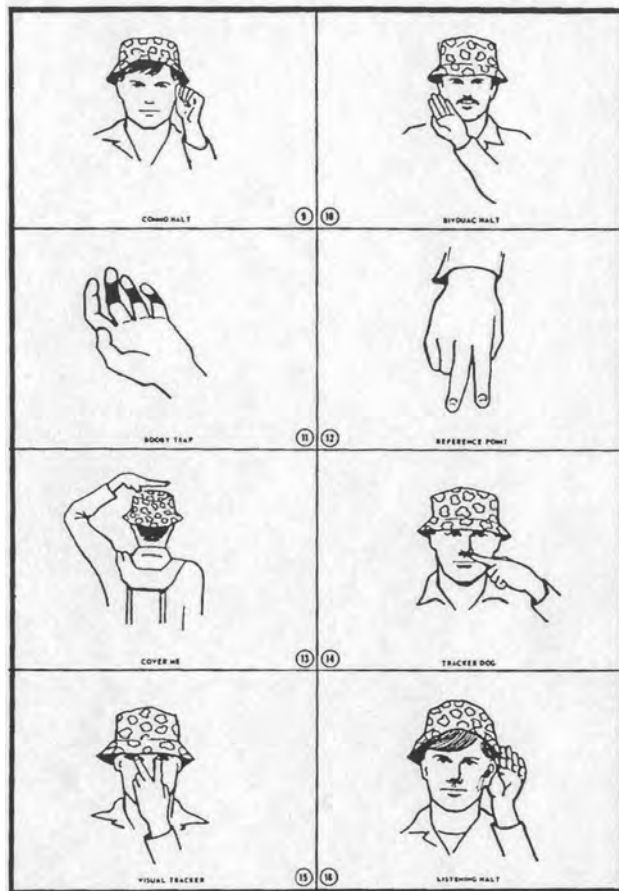


Figure 12—Continued.

## CHAPTER 8

### COMBAT REACTION DRILLS

#### 46. Making Contact

a. When contact is made with the enemy, the team will fire one magazine of ammunition in the direction of the contact. The first two or three rounds in the magazine and the last two or three rounds in the magazine should be tracer ammunition. This will aid the members of the patrol or team in seeing where the rounds are going and know when the magazine is empty. This should be done while falling to the prone position. Getting into the prone position is done only one way. The men will hit the ground as **fast and as low** as possible. They will lie flat on their stomachs.

b. When the team makes contact and hits the ground, the man nearest the enemy should hit the ground and try to reach cover. The rest of the team to his front and/or rear should hit the ground to the right and left in a staggered pattern.

c. This provides a lane for the men pulling back to move through, and provides the men delivering covering fire with some concealment and/or cover.

c. After the visual tracker is in position the team leader will tell the coverman to move back. The coverman will move back through the team and go through the same process as the visual tracker. The visual tracker will then turn and face the contact area.

d. After the coverman is in position the team leader will move back through the team, going through the same process as the visual tracker and coverman. The coverman will then turn and face the contact area.

e. After the team leader is in position, he will tell the radio-telephone operator to move back through the team, going through the same process as the visual tracker, team leader, and radio-telephone operator. The radiotelephone operator will then turn and face the contact area.

f. After the radiotelephone operator is in position, the team leader will tell the rear security to move back. The rear security will move back through the team going through the same process as the visual tracker, team leader, and radiotelephone operator. The radiotelephone operator will then turn and face the contact area.

g. If the tracker dog handler and dog are being used in front of the team they will go through the same process as the visual tracker. If the tracker dog and handler are not in front of the team, they will be the rear security and go through the same process as the rear security. If the visual tracker is not being used in front of the team, he will be the rear security.

#### 47. Breaking Contact—Attack From Front

a. Breaking contact, the team leader gives the command MOVE OUT, MOVE BACK, or the direction he wants the team to move. The team leader will decide which one of the members moves first.

b. If the visual tracker is being used in front of the patrol or team and is fired on from the front, left front, or right front, the team leader will tell the visual tracker to move back. The visual tracker will move back through the team (or patrol) as fast and as low as possible, making sure he is not in the field of fire of any member of the team. The visual tracker will move past the rear security 50 to 75 meters, taking up a position facing to the rear. The rear security will then turn and face the contact area.

#### 48. Breaking Contact—Attack From Rear

a. When hit from the rear, the team leader will decide who moves out first. He will tell the rear security to move out. The rear security will move through the team, making sure he does not move in front of anyone's field of fire. He will move past and 50 to 75 meters to the right or left front of the visual tracker, depending on where the enemy is located. The rear security will take up a position facing to the front.

b. Once the rear security is in position the team leader will tell the radiotelephone operator to move out. The radiotelephone operator will move through the team, going through the same process as the rear security. The rear security will then turn and face the contact area.

c. Once the radiotelephone operator is in position the team leader will move through the team going through the same process as the rear security, and the radiotelephone operator will turn and face the contact area.

d. Once the team leader is in position, he will tell the coverman to move out. The coverman will move through the team going through the same process as the rear security, radiotelephone operator and team leader. The team leader will turn and face the contact area.

e. Once the coverman is in position, the team leader will tell the visual tracker to move out. The visual tracker will move through the team going through the same process as the rear security, radiotelephone operator, team leader, and coverman. The coverman will turn and face the contact area.

f. The team or patrol will go through the reaction drill until the team leader decides they are out of the danger area or killing zone.

#### 49. Immediate Action Drills

a. When a member of the team sees the enemy and the enemy does not see the team, the one who

sees the enemy will halt the team or patrol, will assume a kneeling position, and wait for orders from the team leader; whether to move, and how to move. They will not take the enemy under fire unless the enemy sees them or their orders are to make contact with the enemy.

b. When the enemy and the team see each other at the same time, the team will take the enemy under fire.

c. When a member of the team is hit by enemy fire or wounded by some other means, the man who is closest to the wounded man will apply first aid and move him. The rest of the team or patrol will take up security while the wounded man is being attended. In some cases it may not be possible to get to the wounded man; never endanger the team unnecessarily trying to get the wounded man out.

d. At anytime a member of the team hears a noise that does not come from the rear, *immediate action* should be taken. First the team should stop; then try and determine what the noise was and where it came from.

e. Remember that the team members cannot break contact until they get supporting fire by way of the reaction drill.

f. If time permits when contact is made, the two or three men closest to the enemy should use fragmentation grenades to break contact. A hand grenade is not effective as a killing weapon, but it can cause the enemy to take cover and thus break contact.

## CHAPTER 9

### READING THE TRACK

#### 50. Gaining Information

Basic tracker terminology includes the following:

a. *Tracking signs*—ground and vegetation indications of the enemy's presence and movement.

b. *Tracking distance*—a distance of 15 to 20 meters as in track following drill.

c. *Tracking leg*—an uphill, downhill, or other terrain distance of 100 to 500 meters.

d. *Tracking area*—an area or locality 1,000 meters in distance.

e. *Track picture*—sufficient information about the enemy to know his direction of travel, number of personnel, and possible mission. This is the picture of all track signs built up over a considerable amount of time and distance. To obtain the **complete tracking picture, the visual tracker has to follow the track until he can answer questions about the enemy and state with accuracy the nature of the enemy party. The track picture builds up continually with each new piece of information gained. A visual tracker should be able to deduce part of the picture after a short distance; but he will have to follow through with a complete tracking leg before he can have any real confidence in the information from the track. The farther a track is followed, the more accurate is the information from the track.**

#### 51. How to Determine Direction From a Track

To estimate the direction the enemy is traveling is fairly easy. As with all aspects of visual tracking, it is a process whereby small bits of information are pieced together by the visual tracker to form a larger picture. Knowing what items to look for, how to identify them, and what each item indicates, is where practice and experience will prevent errors on the part of the visual tracker. The following list will explain what the visual tracker should look for.

#### 52. Ground Signs

a. On flat, dry ground, broken twigs or sticks will sometimes show the two broken ends separated and at an angle to each other. The apex of this angle points in the direction of travel.

b. Sticks that have been caught by a passing boot may point in the direction of travel.

c. Rotten logs and sticks when stepped on will crumble and break in a downward direction. The downward direction and the angle of the break may show the direction. Also, there may be bits and pieces of the log or branch that will stick to the boot and then be wiped off on low vegetation farther along the track, thus indicating direction.

d. Bark that has been rubbed off logs and branches at a level approximately 3/4 of an inch above the ground and down to ground level will usually be knocked forward in the direction of travel. If a log, branch, or root is 6 inches to 3 feet above the ground the bark will be knocked to the rear of the log or branch away from the direction of travel.

e. Stepping over (not on) logs or branches leaves footprints closer to the object the higher it is. **The rear side of the obstruction will clearly show the forward part of the print while the forward side will show the heel or the full print clearly. Very often the forward print will be deeper than the rear print.**

f. In leaf carpeted areas, by tracking in the direction of movement, shadow will become more evident. Each stepped-on leaf which has been displaced, bent, broken or tilted will have more distance between it and the ground than an undisturbed leaf and will cast a shadow. By looking behind and along the track, the shadow will contrast with the shine on the leaves and give the direction of movement.

g. In places where the leaf carpet is deep, place a hand in the print impression and feel for heel and toe depressions.

h. Tilted leaves will most often be turned in the direction of travel.

i. In tropical areas, where there are no seasons, young, growing plants can be encountered all year long. In areas where there are seasons, spring will be the time for young plants. When this young, tender vegetation is stepped on, it will be squashed, broken, bruised, or bent and expose the white underside of the leaf. These small plants will be bent over in the direction of travel.

j. In soft ground, the footprint can be used to guide the visual tracker into an ambush. Deception may be employed by walking backwards. Note where the toe print is seen; the enemy, if walking forward, will carry dirt forward of the print. If it is suspected that the enemy is walking backwards, look at the heel of the print. If the enemy is walking backwards, dirt will be dragged backward from the heel of the print.

k. Skid and slide marks when going up or down a hill will indicate the direction of travel (chap 2).

l. Small stones and rocks will all be moved slightly if not completely overturned when stepped on. With overturned stones, find the original position and the stone should be forward of this spot. Rocks when stepped on will tilt slightly forward and then return to their original position. This leaves a slight gap between the stone and the dirt in the direction of travel.

m. In tropical monsoon countries, small exposed roots and twigs, branches, and vines on the ground have a ridge of earth, a dirt seal, beneath them. The dirt seal will be crushed when the twig or branch is stepped on. In the case of roots, upon being stepped on, the root pushes the dirt ridge away from itself and in the direction of travel, and then returns to its original position. When encountering this sign, by recreating the original root disturbance, the direction of travel may be ascertained.

n. Ant hills are found in most of the tropical areas of bush and jungle around the world. They differ in size and construction. Some have elaborate domes varying in height from 3 inches to 3 feet, while others are open cast holes where earth has been deposited around the entrance to the nest, creating a volcano-like mound. Some are made of sand and some are made of clay. In all cases they are made with earth brought up from below. Being familiar with ant hills in the area

will aid in tracking by noting any damage to them.

o. Worm casts are useful in determining direction. Once the visual tracker is familiar with worm casts, damp, wet or dry, he will find that they too can help determine the direction the enemy is taking.

### 53. Top Signs

a. Where the vegetation crosses a path, the enemy will have opened the vegetation in the form of the gate. Though this vegetation will often swing back across the path, the visual tracker will be able to discover direction by opening the vegetation up in the path of least resistance.

b. Often in moving through vegetation the enemy will brush up against leaf-covered branches. These leaves will be slightly tilted, showing the lighter underside of the leaf. The degree of tilt, bruising, and damage will depend on the number of the enemy that passed through the area and the loads that they were carrying. After a heavy rain, the leaves will fall back into position provided that the branches have not been broken.

c. In all forested, wooded, or jungle areas the natural phenomenon of falling leaves and branches produces dead branches and leaves hanging in the vegetation. When the enemy passes through such an area, this dead vegetation will be broken or knocked to the ground, showing his direction.

d. The openings caused by the passage of the enemy through the vegetation will contain many signs in both the growing and dead vegetation. As a visual tracker, do not accept one or even two of the above items as confirmation of a track. Use each individual sign to confirm an opinion. Of the 10 different signs given, a visual tracker would be able to accurately determine the direction of the enemy after seeing and confirming 5 to 7 of the signs. Each separate sign should confirm the previous signs found.

### 54. How to Gage the Speed of Movement

a. The visual tracker must be aware of the body size of the enemy that he is following. He must be familiar with the distance between steps of this enemy traveling at a normal walking rate. The normal distance of a 6-foot man's stride will be greater than that of a 4-foot man. If

the track shows prints that are a greater distance apart than the normal walking step, then the enemy is moving faster than a normal walk.

b. Next confirm the prints. If the ball and forward portion of the print is very pronounced this is noted and recorded before any further assessment is made. If there is scuffed earth to the rear as well as to the front, then the probability of a rapidly moving group is increased.

c. Finally, a close examination of both top and ground signs is made. The visual tracker is now looking for greater disturbances of the vegetation. Broken sticks that have been vigorously broken, torn and jagged vegetation, branches that have been roughly thrust aside and an increase in the amount and size of broken branches indicate that the enemy is moving very rapidly. There is a possibility of finding clothing threads on the vegetation. Young ground vegetation will have been thoroughly crushed and flattened.

### 55. How to Estimate Numbers From a Track

a. Estimating the enemy strength can be quite simple for numbers up to 15. Enemy groups of 15 will leave such a large track that following it will present no difficulty at all. Getting an accurate estimation of numbers of a group this large can be done only after finding a campsite or resting place and the individual resting places counted. Experience will help a great deal in the estimation of large numbers of the enemy by looking at the track.

b. Follow the track to soft ground. Then take what would be an extra large step for the enemy. (A 6-foot European's extra large step would probably equal two steps of an Asian.) Bear in mind that the enemy may be heavily or lightly laden, or be moving fast or slow. Now count every boot, or part of a boot impression visible within the gap of the extra large step. Divide by two. This will give you a fairly accurate estimate of the number of enemy personnel. The difficult part of the task comes when you are counting the boot imprints. One must realize that if the person who was first was lighter in weight than those following him, his footprints may be wiped out by others in the party. This can be overcome by repetition whenever soft ground appears. Remember that the enemy uses scouts also, and that he may go ahead of the main group and then return. Watch for this sort of a track and have a good

look at the prints of any person detaching himself from the main body.

c. A simplified version of estimating numbers (fig 13) with parallel prints is: by counting from a 30- to 36-inch step, 8 boot (or parts of boots) impressions are obtained. Dividing by two indicates 4 people on the track. Or, when 9 foot marks or parts of boot impressions are counted within the same distance, take the next largest number, 5 people.

### 56. How to Gage Load Carried From Track Sign

The visual tracker needs to know the average unladen weight of the enemy he is tracking. A 90-pound Asian living and operating as a guerrilla has been known to carry a 90-pound load and leave no more trail than a 180-pound Western soldier with no load at all. This load, if it consists of something like rice and fish, could provide food for quite some time.

a. Follow the track to soft ground, then, adjacent to the print, make another print alongside to the same depth. By estimating the weight required to produce the same depth of print and deducting estimated body weight, the visual tracker will have the estimated weight of the load being carried.

b. The heavier the load the less spring in the step. The distance between steps will be less than normal. There will be a tendency for all of the prints to be made with regular intervals between them.

c. The visual tracker will now see a greater number of full prints. The heel will be very obvious.

d. Visual trackers will notice that the enemy will be crossing obstacles with much more care. Often overhanging and side vegetation will have been cleared. When approaching and stepping over logs, note the care being taken.

e. When the track leads either up or down hill the visual tracker will be able to see how much care has been used in placing the feet to keep balance.

f. The openings in the undergrowth must be made large enough to let the load through. The width and degree of shoulder high disturbance to the vegetation will aid the visual tracker. A load with awkward protrusions will catch on and strip the leaves from the branches. Height of load

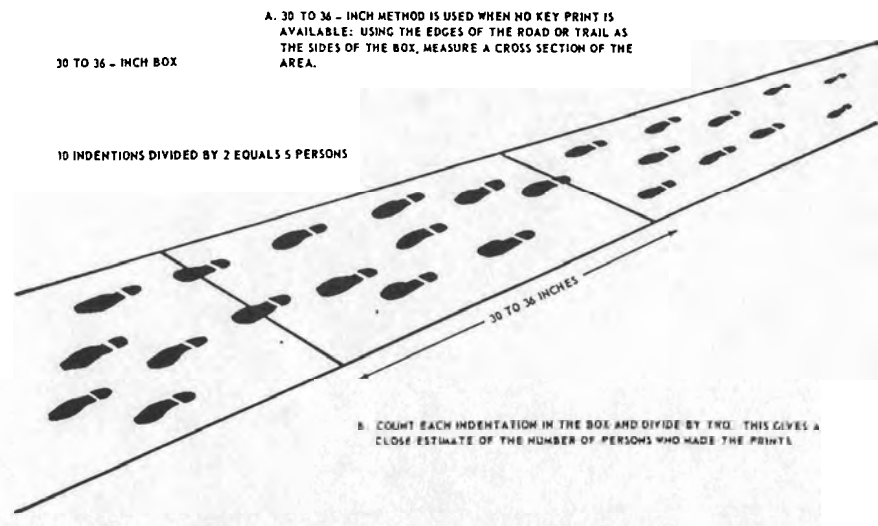


Figure 13. Estimating numbers of persons from footprints.

can be estimated by checking the underside of branches, creepers, or vines.

*g.* The best places to get an idea of how heavy and what type of loads are being carried is at rest places.

(1) At a standing rest location the visual tracker will be looking for scratches, scrapes, or rub marks on the trunks of trees. This could indicate that the load is not in a pack but on a frame (tools, heavy weapon parts, round of ammunition). With this type of load it is quite probable that the load may be removed from the back and rested on the ground. The visual tracker should look at the ground to guess the type of load being carried by the enemy.

(2) At a sitting rest location, the visual tracker will have much more information available. Packs or loads will be removed and set down. Large objects will most probably be placed against trees. The visual tracker should look for ground impressions and scraped bark. Any dropped or forgotten articles or packing can help in identifying what is being carried.

### 57. How to Estimate Age of Track

Judging the age of a track is the most difficult part of visual tracking and can only be done after much practice and experience. The three important factors to be kept in mind are: weather, exposure, and type of object from which the estimate is being made.

*a. Weather.* Rain, wind, and sun will all have different effects on objects.

*b. Exposure.* Exposure means the amount of weather the object is subjected to. The same object will age at different rates and in different ways if it is lying in the open field or left in the middle of a jungle. The visual tracker's method of estimating age is to first look at the object and decide whether it is a quick aging or slow aging object. He then must remember what the weather has been during the last three 24-hour periods. The visual tracker must then determine what the object has been exposed to. Smell is important. Fresh sap, tobacco, wood smoke, or the smell of scented soap clinging to the waters of a stream near a camp will indicate a fresh track.

Where there is no smell the track is older. How old is gaged by further investigation.

*c. Exposed Earth.* Freshly scuffed or turned earth looks and smells different from surrounding, undisturbed earth. Weather and exposure will eventually remove the smell and the look of the newly exposed earth. A closer examination of the dirt will reveal two things. First, it smells different because the newly exposed earth uncovers freshly disturbed or squashed roots and insects, but more important, it contains moisture. It is this that gives off the smell. The smooth edge of the plow or shovel contributes to a different look. Upon closer examination the earth has an unnatural look. Clods and lumps of earth will be balanced on top of one another. Even small stones and grains of sand will be precariously balanced. Weather and exposure begin to take action and evaporation commences. Birds remove plant shoots and insects, while rain will begin to level the earth.

*d. Weathering.* The process discussed above also applies to a track that the visual tracker is examining. He will notice that fresh boot impressions will have flat surfaces with straight edges outlining the pattern of the boot sole. Both color and smell will be different. Close examination will show small particles of earth and grains of sand balanced upon one another. Weather will begin to erase the print. The sun will dry out the print making it dull in color and blending into the background. The wind will blow the balanced grains of sand down and blow away the finely powdered earth. Rain will begin to wash away the distinct outline of the print. Now the print is blurred, indistinct, and unstriking in appearance. Leaves may begin to fall and cover up the print and hide it from view altogether. Prints made 10 to 20 meters apart may age at different rates depending on the amount of exposure each is subjected to.

*e. Dry Leaves and Sticks on the Ground.* With a fresh track over this type of ground, the visual tracker will have to look for the following: the overall disturbance to the area will cause a different color to appear over the track. Each leaf that has been stepped on will either be cracked, broken, or crumbled. Some will be tilted. The effect that will be apparent is a greater shadow, and so a darker color. Along the edges of torn or broken leaves there is a lighter color. Also, fine fiber hairs will be seen along the fresh breaks. Sand and dirt may be found on the leaves. Tilted leaves will be in an unbalanced state. Sticks, as

with leaves, will have fine fiber hairs from the breaks. The breaks will be lighter in color than the rest of the area, and the sticks may be in an unnatural position. Often with overturned sticks and leaves, the underside will be darker in color. Dirt and sand may also be clinging to the underside. Weather and exposure will soon begin to age this picture. Rain will pat the leaves or sticks back down and wash dirt or sand off them. The exposed broken ends will begin to darken and the fiber ends will curl up and disappear. Sunshine following rain will speed up the aging process so that 24 hours later all signs of freshness will be gone.

*f. Growing Vegetation.* Think of a vase of flowers. With no water, and placed in direct sunlight, they will soon wither and die. When placed in water and in the shade, they will stay fresh and alive for a much longer time. Now, think of the many different kinds of flowers. Some, when given the water and shade treatment, will last 2 or 3 days, while others, such as orchids, will bloom over 7 weeks later. The visual tracker should be aware of the differences between various types of vegetation. He knows that pulpy leaves and stalks with a high water content will soon wither and die if bruised, broken, or exposed. The same plant with rain, or in the shade, will appear freshly cut 3 or 4 hours later. The tip leaves of plants are the new, tender leaves, and will be the first to die. With vegetation that is more woody and has less water content, the appearance of freshness will last a much longer time. When exposed to the sun, however, and subjected to heavy rain, it will rot at a much quicker rate. The visual tracker must also be aware of the plants' reaction to cutting, breaking, or bruising. The previous discussion considered the removed part. The growing part must also be taken into consideration. First, sap will appear and then congeal or dry. Next, when the cut end has dried, it will turn brown. The speed of browning will vary with different plants and only experience will help the visual tracker determine the age. Finally, under different exposure conditions, growth will begin again below the cut. This process can take anywhere from 3 to 9 months depending on the species of the plant and weather conditions.

*g. Manmade Objects.* Man, when moving through the jungle or bush must take with him many manmade objects for support. A listing of such items includes food, clothing, medical supplies, camping and sleeping equipment, weapons



and ammunition, some items of luxury, and communication equipment. When the visual tracker locates a camp he will need to know the speed of aging of the items listed above. He will automatically check the fire to estimate when the camp was last used. Generally, this should give an estimate within a 24-hour bracket. The visual tracker then moves around the camp, checking out manmade objects and the damaged vegetation in the area. He will need to know that a metal can that is made to contain a substance with a high acid content will have to be more durable than one made to hold a natural substance. For example, a can for evaporated milk will not last as long as a can for beer. A can made in the United States will be of different quality than one made in Asia. The quality of the product, purpose of the product, and origin of manufacture must be remembered when trying to estimate age for such items as writing paper and newspapers, cloth products, plastic products, food containers, and webbing. The manmade objects found by the visual tracker, either along a track, or in a camp site, will assist the visual tracker in determining the age of a track.

#### 58. Determining the Condition of the Enemy From Track

The visual tracker will soon be able to assess the condition of the enemy that he is following. With an alert, well-trained, well-disciplined, and aggressive enemy, high in morale, he will notice the following:

- a. Whether the group is using deception tactics to cover their track.
- b. How the enemy is crossing obstacles and what sort of obstacles he is willing to negotiate.
- c. Whether the enemy gets into all-round security positions during rest breaks.
- d. If the group, after a rest halt, cleaned the area and put vegetation back into natural position.
- e. Whether the group is leaving very little trail and placing their feet carefully when in soft ground.
- f. Condition and state of overnight resting places and the position of sentry positions.
- g. Whether the group is using listening halts.
- h. Condition of track on hilly ground or in difficult terrain.

#### i. Action of enemy in contact.

j. The visual tracker will be able, in like manner, to determine if the enemy is exhausted, poorly trained, badly disciplined, careless, and of low morale by noting the following.

- (1) Slip, slide, or skid marks when moving up or down hill.
- (2) Clearing of track by cutting vegetation.
- (3) Leaving excessive ground signs when crossing soft ground.
- (4) Discarding items to lighten the load when crossing difficult ground.
- (5) Careless dropping of items such as cigarette butts, candy wrappers, and the like.
- (6) Crowding during rest halts, with no sentries posted.
- (7) No deception tactics.
- (8) Poorly sited and protected overnight campsites.
- (9) Lack of effort in clearing and camouflage to area of overnight campsites.

#### 59. Weapons Carried and Sex of Party

This information is most likely to be found at rest halts and overnight campsites. These are places that will confirm information for the visual tracker. When the visual tracker wishes to assess the weapon or sex of the members of the party he should note the following:

- a. Personnel or hand carried weapons and crew weapons will all leave sign when laid on the ground or placed against trees and vegetation. Expended or unexpended rounds along the track, at rest areas, and base camps will help indicate the type of enemy weapons. A thorough knowledge of enemy weapons is necessary for an accurate evaluation of the type weapon.
- b. Sex of the enemy may be determined by several means. This is easiest to do in rest places and overnight positions. The following should be kept in mind when looking for sex:
  - (1) Undergarments.
  - (2) Items used for personal hygiene.
  - (3) Cooking and sleeping arrangements.
  - (4) Footprints.
- c. No tracker can look at one spot and determine all of the previous items. He must track for some distance over all sorts of ground. Ideal lo-

cations for data are soft ground, up and down hill, thick undergrowth, resting places, and overnight campsites. A tracker must learn to think as the enemy does. He must always put himself in the place of the enemy. He must observe how the

enemy solves many of the problems of movement and obstacle crossing. By doing this the tracker will be in a far better position to interpret the information gained from following the track.

## CHAPTER 10

### DECEPTION TACTICS

#### 60. Deception Tactics No. 1—Change of Direction, Big Tree

a. While moving along in any given direction and when moving from a thick area to a more open area, walk past a big tree (diameter 3/4 feet or larger) toward the open vegetation for three to five paces and then walk backwards to the forward side of the tree and make a 90-degree change in direction, passing the tree on its forward side. Step carefully and leave as little sign as possible. If this is not the direction that you wish to go, change direction again 50 to 100 meters farther on at a suitably placed big tree and repeat the previous steps.

b. The purpose is to draw the following party into the open area where it is harder for them to track. This will have them searching in the wrong area when they realize that they have lost the track.

c. If you are led astray and follow a big tree deception tactic, remember the track following drill. Three to five paces past the big tree you should start walking on virgin ground. You should realize this. Stop. You should remember the big tree and go back and check it and around it.

#### 61. Deception Tactic No. 2—Change of Direction, Marked Tracks

a. This deception tactic is used when moving through a known area and upon an established jungle track going at right angles to your line of movement. Before reaching the track (approximately 100 meters) change direction and approach the track at a 45-degree angle. When arriving at the track continue forward along the track 20 to 30 meters, leaving considerable ground and top signs of your presence. Then walk backwards to the point where you joined the track, go straight across the track and leave no sign of your re-entering the jungle. Then move off for approximately 100 meters at an angle of 45 degrees, but this time on the other

side of the track and in the reverse of your approach march. Insure that the last member of your patrol is detailed to cover up all signs of your movement. When changing direction back to your original line or march, the big tree tactic can be used.

b. The purpose of this tactic is to draw the following party along the easier going jungle track. You have, by changing direction before reaching the track, indicated that this is your new line of march. If you are successful, the following party will be casting and searching even farther away in the wrong direction when they realize that they have lost your track.

c. A visual tracker should be able to read a map. He will know that he is approaching a known jungle track, and knowing about it and this type of deceptive tactic, he should automatically check the opposite side of the track for signs. If he follows along the jungle path before realizing that the track "peters out," he will automatically detail a second visual tracker to go back to where the path was first encountered and make a search in that area.

#### 62. Deception Tactic No. 3—Change of Direction, Clearing

a. Walk backwards over soft ground to leave a reasonably clear footprint. Endeavor not to leave every footprint clear and do not leave an impression of more than a 1/4-inch deep. Continue this deception until you are on hard ground. Select the ground carefully to insure that you have at least 20 to 30 meters of this deception. This tactic will normally be used when leaving a stream.

b. The purpose here, by leaving backward footprints, is to get the following party to look in a direction opposite to your line of travel. Always use this when coming out of a river or stream. To add even further confusion to the following party, this tactic can be used several times to lay false trails before actually leaving the stream.

c. Any footprint left in soft ground by a human walking backwards will always have earth brushed over the lip of the heel. This earth will always indicate the true nature of movement. Remember that top signs and ground signs also point out the direction the enemy is moving. The distance between steps will also be shorter.

#### 63. Deception Tactic No. 4—Use of Rivers and Streams

a. When moving through a familiar area, change direction 100 meters before approaching a known stream and approach it at a 45-degree angle. Upon entering the stream, turn in a false direction and proceed down the stream for at least 20 to 30 meters and then back track and move off into the intended direction. Changing direction before entering the stream may confuse any following party. When the following party enters the stream they should follow the false trail until the track is lost. The following party will be in a false-start position to try and relocate the track. They will begin to probe farther, and will get farther away. They will have to start examining both banks. This is time consuming and therefore a good delaying tactic that is easy to set up and does not require much time.

b. *Explanation.* When moving along a stream and using it as a deception tactic, the fact that you are in the stream will slow down anyone in pursuit. Even greater success can be achieved by entering and leaving the stream carefully. Some of the following points will also aid in eluding a following party:

- (1) Stay in the stream for 100 to 200 meters.
- (2) Keep in the center of the stream and deep water.
- (3) Watch for rocks or roots near the banks that are not covered with moss or vegetation and leave the stream at this point.
- (4) Walk out backward on soft ground.
- (5) Walk up small, vegetation-covered tributary and replace vegetation in natural position.
- (6) Walk downstream until coming to main river, then depart on log or prepositioned boat.
- (7) Enter stream, having first carried out the above tactic, then exit at the point of entry and make a large backward loop, crossing and checking it, and move off in a different direction.
- (8) Using a stream as a deception tactic is one of the most successful moves that can be

employed to slow down and lose a following party. The deception starts 100 meters from the stream and the successful completion of the tactic is to insure that the following party does not know where to exit from the stream.

c. Every visual tracker is constantly reading the track picture, gauging the "personality" of both the track and those who made it. It is hoped that he will have a good idea of the cunning, skill, and morale of the enemy before coming across a stream deception tactic. This type of tactic will slow down a tracker, but if common sense and a methodical, determined search is made, a good tracker will be back on the right track. On searching for the track on a stream deception tactic the tracker should remember the following:

- (1) If it is clear water and the bottom is visible, it is still possible to track. Move along slowly, watch for boot prints, disturbed stones (practice and familiarization will enable the tracker to recognize the natural position or stance in a stream bed) and the lack of sticks and other vegetation wedged or caught by boulders and rocks.
- (2) Lack of spider webs across narrow streams.
- (3) Disturbed, overhanging vegetation.
- (4) Most river banks are of soft soil and will mark or crumble under the weight of someone leaving or entering the stream. There will often be slide or skid marks from boots.
- (5) Any person exiting from a stream leaves behind two signs: water draining from trousers and boots, and mud from the stream on rocks or grass.
- (6) Parties checking up and down stream are warned to look out for overhanging branches. Because of their nearness to water, the branches may be moss covered. The overhanging branches will have a high water content and the bark will mark easily. Watch for places where the bark has been freshly scraped off.

#### 64. Deception Tactic No. 5—Clean Orchard Leaf Covered Area

a. It is often necessary, when moving from place to place and when making contact with the local population, or when moving to a pre-arranged ambush position, to move through an orchard area. If possible, always select an area that has been kept free of undergrowth. If pos-

sible move through the area at night, preferably on moonlit nights. If this is not possible, the lead man, plus the remainder of the party, will be marked with luminous leaves on either the right or left shoulder. Orchards are often contour plowed and the drainage ditches are filled with leaves. A straight line through such an area will mean stumbling over the ridges of the plowed ground. Always move through the area by following a tree line. This will be a cleared area with good visibility at ground level. Be sure to clear the area by daylight. Watch the seasons, for when the trees shed their leaves, movement can be seen from the air on a moonlit night. The purpose here is obvious. It is almost impossible for a following party to determine between you and the locals.

c. If you have followed the enemy into this type of area and discovered that he is using it, then tracking can be a slow job. But careful attention to detail can bring success. When an enemy party of 3, 4, 5, 10 or more pass through

the area they will leave a lot more signs. If the track is too difficult to follow, have parties move along parallel to a center group and keep to the areas where the enemy may have been. If the track is lost, try checking the edge of the orchard where it meets adjoining fields or woods for signs of where the party re-entered and left the orchard. If this is impractical, make an intelligent guess as to where the enemy could have gone and then move forward and search around this area. Be careful when operating in an area where local workers may be sympathetic to the enemy, as they may reveal your presence in the area.

d. Predominant signs include bruised surface roots of freshly broken or disturbed sticks, fruit or nuts pressed into the ground, and disturbed, bent, unbalanced leaves. Footprints may be found in softer patches of ground. Branches, roots, and logs may have signs of scraping and bruising. In any orchard there will be worn casts. Check to see if they have been crushed.

## CHAPTER 11

### FINDING A LOST TRACK

#### 65. Last Definite Sign

As explained earlier, the track following drill has been evolved not only to assist the visual tracker when following a track, but to prevent him from walking into an ambush or a booby-trap. It is also designed to prevent him from losing the track. Step two of the track following drill emphasizes that the visual tracker must remember his last definite sign, and that when in doubt he should have a definite mark not more than 3 to 5 meters away where he can re-establish the track. Because of the many different deception tactics which can be used to lose a tracker, a visual tracker should always be conscious of the fact that losing a track can be a matter of only taking one or two steps in the wrong direction. He knows that human nature can lead him astray by letting himself "think" he is following a track that is not there.

#### 66. The Initial Cast

A visual tracker always remembers his individual signs. He never moves farther than the last definite sign without another definite sign in front of him. If what appears to be a definite sign turns out to be false or incorrect upon closer inspection, the visual tracker must stop and go through the track following drill again. If no definite sign can be found, he must return to the last definite sign and start again.

#### 67. The Drill

Carry out the track following drill from this location. If no track is found, return to the last definite sign and carry out the track following drill again. If the track still cannot be found, the initial cast must be made.

#### 68. The Initial Cast Drill

Move back along the track from the last definite sign for 10 to 15 meters. The tracker and his coverman will move off alone, walking in a small circle 20 to 30 meters in diameter around the

point of departure. The visual tracker's aim here is to cut across the enemy's track. Whether the visual tracker moves off to the left or the right is optional. He will be influenced by the general direction of the enemy, and his own idea of which way the enemy may have gone.

a. If the tracker comes across a track he must make sure that it is the enemy's track that he has found. He will check the track for age and number of people, to establish the track as the one he is following. He then checks backward to see if the track connects with the known track and then checks forward to see if the track he has found is an enemy deception. He then completes the circle in case of an enemy split. It is possible that the visual tracker and his coverman will be in sight of the patrol leader. While the tracker is moving, the coverman travels a little apart and to the rear of the visual tracker. He must be alert at all times, facing the direction of possible danger, listening intently, and alert for any sign of the enemy's presence.

b. Before the visual tracker and his coverman move off on the initial cast the patrol leader moves forward and positions himself at the starting point of the cast. He remains in this position and awaits the return of the visual tracker and the coverman. He must make sure that all the members of the patrol know the direction the cast started and the direction from which the visual tracker and the coverman will return. During this period the members of the patrol will move off track and take up all-round ambush positions. Silence is of the utmost importance during this period, as the visual tracker and the coverman are extremely vulnerable at this point. The patrol is warned to hold their fire until positive identification is made. (It has happened that visual trackers and covermen have been fired upon by their own patrol.) When the visual tracker and coverman return they give all information to the patrol leader as to the status of the track. The patrol then moves off

with the visual tracker and coverman in the lead. The visual tracker then insures that the track connects with the track found. The time it will take for the visual tracker to carry out the initial cast may vary from 15 to 60 minutes, depending on the suspected nearness of the enemy, terrain, and difficulty of tracking conditions.

#### 69. The Extended Cast

On the return of the visual tracker from the initial cast, if no track has been located, the patrol leader may order an extended cast. If available, a secondary visual tracker and coverman will be called forward. The visual tracker and coverman will remove packs and equipment, which will be handed to patrol members for safe keeping. They will carry weapons, ammunition, and water.

a. Start the drill by moving back 50 to 60 meters from the last definite sign. One visual tracker and coverman will circle outward and forward from the left of the track, and one visual tracker and coverman will circle outward and forward from the right of the track. The visual trackers will now be moving in a semi-circle from the last definite sign. The visual trackers will meet approximately 50 meters out in front of the last sign. If a visual tracker comes across the track, he will confirm it and then continue checking the ground until he meets with the other visual tracker. During this period the members of the patrol will have removed their packs and be in an all-round defense position. As in the initial cast the patrol leader will be at the last definite sign. The time taken for the visual trackers to carry out this drill may be from 1 to 2 hours.

b. A quick reaction section will be on standby to move out immediately if firing is heard, indicating that a visual tracker and his coverman are in contact with the enemy.

c. Once the track has been found and the visual trackers have returned, the follow up will continue as before. If the track has not been found the patrol leader may order a box search.

#### 70. The Box Search

If both the initial cast and extended cast fail to locate the enemy track, the box search becomes necessary. It will be seen that the visual trackers have covered the ground on two occasions with circles of 20 to 30 and 50 to 60 meters in dia-

meter. These casts have been time consuming (up to 3 hr). By ordering a box search the patrol leader recognizes that they will have to stay in the area for at least another 4 hours. At this stage, and before starting a new search, both visual trackers and covermen will need a short rest. The patrol leader will order one third of his patrol to conduct the box search. The patrol leader must also consider the time of day before ordering the box search.

#### 71. The Drill

Ideally, four 3- to 4-man patrols are formed, each patrol with a track recognizing ability. From the area of last definite sign, the patrol leader will decide on an azimuth and instruct the patrols to move out in opposite directions to a distance of approximately 500 meters, i.e., two patrols move north and two patrols move south. These patrols will split and begin their independent searches for tracks and sign of the enemy. All four patrols will be working to an azimuth and set distances.

a. Each 3- to 4-man patrol will cover one quadrant of a square 1,000 by 1,000 meters. To prevent the patrols from meeting each other head on, and to avoid the possibility of mistaken identity and shooting, a verification method can be employed in the box search.

b. Each patrol moves out on a cardinal azimuth to the required distance and completes its search of the required quadrant. The azimuths are important to insure that the patrols cross an outward path on which to return to the last sign. If only two patrols are available they will have to cover twice as much area and the search will take much longer.

c. An alternative to the box search is to use the "Fan Method." Composition and number of each individual patrol will depend on availability of personnel. This method tends to be more time consuming, although it will give a greater coverage of ground. This type search can take up to 7 hours. If no track turns up after this search the patrol leader may order the fan search to be conducted again with larger distances from 100 to 200 meters, or he may choose another method such as:

- (1) The base line method.
- (2) The stream line method.
- (3) The cross-grain search.
- (4) The likely area(s) probe.

#### 72. Additional Search Methods

All searches so far have centered on the last definite sign. With the *base line method*, *stream line method*, and the *cross grain search*, larger areas are covered and the patrols are increased in number. These searching patrols, now working closely restricted limits and boundaries, are searching for signs of the enemy's presence in the area. All track information will be reported and the patrol leader will decide where and when to continue the follow up if the enemy is sighted or his track found. Finally, the *likely area probe* can be mounted before the other three if the patrol leader feels that it will be more successful in locating enemy tracks. The following factors will be considered before the patrol leader orders this type of search:

a. The possible task and intentions of the enemy being followed.

b. Age of track and time of day when the enemy was at the place where the last definite sign is located.

c. By close study of the map, he will question the possibility of the enemy splitting up and moving to populated areas.

d. Weather conditions at the time the track was made and after the track was lost (i.e., has it rained heavily and continuously since the enemy was at last known position?).

e. Having due consideration of the above factors, the patrol leader may now direct his 3- to 4-man patrols to move forward and check for sign at the following locations:

- (1) River banks.
- (2) Areas of track junctions.
- (3) Areas of steep gradients.
- (4) Areas of likely campsites.

(5) Any other area(s) where the patrol leader feels that the enemy may have gone, or where there is a good chance of picking up sign.

PART 2  
TRACKER DOG AND TEAM TRAINING

CHAPTER 12  
TRACKER DOG TRAINING

Section I. GENERAL

73. Mission of the Combat Tracker Team—  
Employment of Tracker Dog

The team's mission is to establish contact with

the enemy by following scent tracks over terrain that does not hold visual signs (fig 14). (The dog handler and dog are considered a "team" within the "combat tracker team.")



Figure 14. A five-man combat tracker team.

74. Dog's Capabilities

The ability of a tracker dog team to complete a track successfully is dependent primarily upon the distribution, quantity, and life of the scent being followed. This, in turn, is influenced by the climate, terrain, and age of the track concerned. Normally, a well-trained tracker dog can be expected to track the quarry until he is caught or until such time as all scent dissipates or is hopelessly mingled with other odors. Given suitable tracking conditions, it is reasonable to expect a tracker dog team to follow the natural wanderings of single or multiple quarries for at least 5,000 meters over rugged and varied terrain, on a scent track that is at least 12 hours old. While tracking, the dog is also capable of alerting its handler to the presence of tripwires and ambushes.

75. Dog's Limitations

Despite their proven effectiveness, tracker dog teams can fail to complete their mission due to a multitude of tangible and intangible reasons. The most common causes, however, stem from a combination of poor terrain, adverse climatic conditions, and failure to employ the dog team promptly. Other causative factors include—

- a. Lack of followup training.
- b. Poor physical conditioning.
- c. Faulty handler motivation.
- d. Inability to verify the track.
- e. The requirement to track extensively in built-up areas or along hard surfaced roads.

76. Scope of the Training Program

Tracker dogs and dog handlers are trained in preparation for integration into a combat tracker team. Such training includes in-depth instruction on canine behavior as it relates to tracker dogs, animal care and grooming, first aid, the prevention of disease in dogs, kennel management, and those safety requirements that are unique to dog training activities. Before specialized training commences all teams are required to become proficient in basic and advanced obedience exercises, and the animals are accustomed to working under gunfire. Specialized training consists of basic, intermediate, and advanced tracking as well as training designed to condition the animal in detecting boobytraps and ambushes.

Section II. HANDLER QUALIFICATIONS

77. Essential Traits

Successful care and training of dogs depends, to a great extent, on the personal characteristics of the handler. Experience has shown that the following traits are essential:

a. *Friendly Attitude Toward Dogs.* Any individual selected to train and handle dogs must have a genuine fondness for and interest in them. If this quality cannot be readily identified in prospective handlers, they should be considered unacceptable.

b. *Intelligence.* It has been demonstrated that individuals with less than average intelligence cannot be taught to care for and train dogs successfully.

c. *Patience and Perseverance.* The handler cannot force desired behavior upon dogs, nor can he expect dogs to learn as rapidly as human beings. He must be patient and he must persevere until each exercise is brought to a successful conclusion.

d. *Mental and Physical Coordination.* A good handler must be able to convey his wishes to the dog by body movement and gestures as well as voice. This requires a definite amount of mental and physical coordination.

e. *Physical Endurance.* Not only must the handler be able to show good coordination, he must be able to maintain his efforts as long as necessary. The handler must be able to "outlast" his dog during each training period. This includes being able to swim, since overseas operations include waterborne patrols.

f. *Resourcefulness.* Although training procedures are carefully set forth, it is inevitable that situations will arise calling for action not covered by published guidance. A handler must be able to meet these situations successfully.

g. *Dependability.* The welfare of the dog is entirely in the hands of the handler. Dogs cannot disclose how they are being treated nor can they make reports. Their physical well-being depends primarily on the willingness of the handler to

do such manual labor as is necessary for kennel management, feeding, and dog cleanliness. Failure in these responsibilities means failure of the training program.

### 78. Determining Qualifications

There are no purely objective methods of determining how well a prospective handler qualifies in the desirable traits. Despite this fact, prospective handlers cannot be selected haphazardly. Interviews provide a satisfactory basis for selection if carefully conducted by a responsible

and duly qualified officer. Each candidate should be examined before he is permitted to undergo any training with military dogs. To insure the effectiveness of this procedure, each candidate should undergo a second interview after 1 week of training. At this time the candidate should be able to give a reasonably clear and intelligent account of the instruction he has received, and his attitude toward military dog training should be carefully evaluated. If the candidate is rated unsatisfactory upon completion of this interview, he should receive no further training and should be transferred to another organization.

## Section III. DOG SELECTION CRITERIA

### 79. General

The Labrador Retriever is the breed best suited for military tracking requirements (fig 15). A willing worker that is generally insensitive to

gunfire and other explosive devices, it manifests excellent tracking ability, while its coat and physical structure facilitate ready adaptation to extreme variations in climate and terrain.



Figure 15. Type tracker dog, the Labrador Retriever.

Although the Labrador Retriever is not the only breed of dog capable of performing well as a combat tracker, it has been found that a more competent tracker dog can be produced from this breed than any other that is available.

### 80. Temperament

Tracker dogs must have a bold, confident temperament that permits them to adjust to changing situations. Sudden movements, or noise, to include gunfire, should not cause them to lose their composure. Although they must be sufficiently aggressive to perform the task required of them, they should be composed and controllable when required to work in close proximity to people and other animals. They should be energetic but not excitable, willing but not fawning, and inquisitive without being distractable. The general impression should be one of energy, vigor, steadfastness, and willingness to work for an intangible reward.

### 81. Physique

In order to withstand the rigors of extended field exercises tracker dogs must be healthy, sturdy, and agile. Lithe, wiry animals are preferable since heavily-built dogs often do not have the stamina or agility necessary to traverse rug-

ged terrain under adverse climatic conditions. Ability to perform is the primary criterion, however, and heavy-boned, large dogs should not be eliminated for this reason alone. Generally speaking, any dog of good conformation according to the standards of the breed is acceptable as long as it can meet the established performance objectives for combat tracker dogs.

### 82. Screening Procedures

The term "screening" refers to the procedure used to classify dogs for the type of military service for which they seem best qualified. This classification is based on observation of the physical and psychological traits manifested by the dogs from the time they are given the test on arrival at reception and training centers. Screening continues throughout the basic training period, and even after they have begun specialized training. It is imperative to continue observing the dogs throughout the training program because potentialities of some dogs and inherent weaknesses of others may come to light unexpectedly. The dogs are observed by a classification board consisting of the commanding officer and selected instructors. On the basis of physical and psychological traits manifested, the board may reject a dog at any time during training.

## Section IV. EQUIPMENT USED IN TRAINING

### 83. General

The basic equipment in the training program consists of the following, and is issued for each dog (FM 20-20):

- a. A feeding and watering pan.
- b. A leather muzzle used when transporting a dog, when the veterinarian is treating or operating on a dog, or in an emergency.
- c. A 25-foot leash of cotton webbing used during obedience training and when a certain distance between the dog and handler is desired.
- d. A 5-foot leather leash used to control the dog during obedience training, and while performing nontracking duties.
- e. A leather leash holder that the handler wears on his belt to hold his dog equipment.
- f. A steel chain, choke-type collar used for obedience training and for controlling a dog when moving from one area to another.

g. A leather collar (1 1/4 inches wide, 27 inches long) is used as required, especially to tie nonworking tracker dogs.

h. A zinc-coated (72- or 106- inch long) kennel chain is used with the leather collar to tie dogs in the field.

i. A comb.

j. A grooming brush.

k. A harness of cotton webbing, used only with tracker dogs when they work a training problem or perform an operational track.

### 84. Proper Use

The proper use of these items of equipment is of the utmost importance since it is by these means, combined with voice and gestures, that the handler communicates his wishes to the dog and controls and corrects it.

### 85. Proper and Comfortable Fit

If required, all muzzles, harness, and leather collars should have additional holes punched in them so the equipment can be properly and comfortably fitted to any size dog.

## Section V. PERSONNEL REQUIREMENTS

### 87. General

In order to train tracker dogs properly, an unusually high instructor-student ratio is required. Except for obedience exercises, all practical applicatory training concerning tracking must be conducted on an individual basis. This is due primarily to the length and age of the tracks run during training, and the nature of the terrain that the handler and instructor must traverse. For this reason, sufficient qualified personnel must be available to permit the assignment of one instructor and four tracklayers to each dog and handler undergoing training. To provide realism, insure troop safety, and achieve the requisite technical proficiency, this ratio should be followed as closely as possible.

### 88. Dog Handler

Each handler should meet the requirements discussed in section II of this chapter, and he is responsible for the daily care and grooming of his animal and the maintenance of its kennel area. Due to the requirement to establish and maintain a strong bond of affection between the dog and its handler, the concept of multiple handling is not acceptable with respect to tracker dogs. For this reason, each handler should be assigned only one dog, and he should retain that animal until they graduate as a team or until one of them is eliminated from the training program.

## Section VI. TRAINING AREAS

### 91. General

Terrain and climate are important considerations when selecting a site for conducting tracker dog training. Ideally, the terrain and climatic conditions should approximate those in which the team will operate under actual combat conditions. Since this is not always possible, each team should be permitted to acclimatize itself at its new duty station before it is assigned an operational tracking assignment. Humidity, the

### 86. Daily Checks and Maintenance

All equipment should be checked daily for serviceability and maintenance is performed as needed. Clean leather with saddle soap, and when partially dry apply neat's-foot oil to keep it from drying out and cracking.

### 89. Instructors

Responsibility for conducting tracker dog training should rest with qualified military dog trainers. If possible, all should have previous experience in training dogs to track, to include familiarity with the Labrador Retriever breed of dog. When a shortage of qualified trainers exists, experienced tracker dog handlers may be assigned duties as instructors. This is not desirable, however, as few handlers have the depth of experience necessary to cope with many of the training and motivational problems that inevitably develop in training dogs to track.

### 90. Tracklayers

The availability of tracklayers is a key factor in the successful training of a tracker dog team. Without skilled and highly motivated personnel to lay track for the team to follow, student performance objectives cannot be met, and successful tracking under combat conditions cannot be achieved. Tracklayers are professional quarry that lay scent trails for the dog to follow. Personnel selected for this duty must be expert at this task and capable of following instructions explicitly. In addition to being highly motivated, tracklayers must also be proficient in land navigation, laying tripwires and boobytraps, and establishing and conducting ambushes.

mean temperature of the area, the composition of the soil, and the nature of the vegetation all have a direct bearing on the dog's ability to track.

### 92. Terrain

Extensive swamps or marshlands are not suitable for tracker dog training. The same is true of sandy areas where there is little or no ground cover. While tracker dog teams should be exposed

to the problems encountered when tracking in such locations, extended periods of training in these areas is not desirable. This is especially true during the early stages of training. Terrain such as that found in the southeastern part of the United States or Western Europe is particularly well suited to tracker dog training. Rugged country with extensive tracts of timberland, good ground cover, ample vegetation, some pastureland, and moderate rainfall is ideal. Also, if tracking under subfreezing conditions is anticipated, tracker dog teams should be exposed to some track following drills conducted in ice and snow.

### 93. Acreage Requirements

Extensive acreage is required if tracker dog teams are to receive diversified and comprehensive training. During the early stages of training, isolated areas are preferable since extraneous odors from humans and domestic animals must be minimized. As training progresses, however, areas should be selected in which those extraneous odors are habitually present as this conditions the dog to retain its scent picture while tracking under actual field conditions.

## Section VII. TRACKING CONDITIONS

### 95. General

A multitude of factors affect a tracker dog team's ability to follow a track successfully. Many relate to the terrain and climate involved. Others are procedural in nature: such as the effectiveness of notification procedures; the speed with which the tracker dog team arrives at the scene; and the ability to establish a valid starting point. Other variables such as the length of the track, its age and the number of distractions present must also be taken into consideration. In essence, tracking conditions are every bit as important as the technical proficiency of the dog and its handler.

### 96. Favorable Conditions

Rarely, if ever, will tracker dog teams have the opportunity to perform their duties under ideal circumstances. During training, especially during the initial stages, tracking conditions should be as favorable as possible so that the dog has every opportunity to complete the track successfully. This, in turn, permits the handler to study his dog's behavior and learn to read

Training areas should also be rotated frequently to permit the terrain to return to its natural state and allow old scent trails to dissipate. As a result, no single area should be overworked as both dogs and handlers will become too familiar with it and attempt to use past experience, rather than ground scent, to follow up the track. Anticipation by the dog, and a tendency by the handler to track visually, must be minimized; therefore, new and challenging tracking situations are essential.

### 94. Climate

Climatic conditions are an important factor in the success or failure of any tracking exercise. High winds or heavy rainfall will destroy ground scent quickly; so will intense heat. By the same token, arid climates are extremely difficult to track in since a combination of sparse ground cover, high temperatures, and low humidity cause scent trails to evaporate quickly. Because of this, tracker dog training should be conducted in a temperate climate with moderate to high humidity, where extreme variances in temperature and wind velocity will not have an adverse impact upon training.

his animal accurately. After a certain amount of proficiency has been attained, ideal conditions are not as essential, for both the dog and the man must learn to cope with real world situations and adjust to the tracking environment as completely as possible. During advanced training, difficulties should be purposely injected into tracking exercises. The handler should then be evaluated on his ability to overcome these difficulties and optimize the resources available in order to complete the track. The following conditions will have a positive effect on the dog's ability to track, and the extent to which they are present will largely determine the tracker team's effectiveness.

- a. Cool, cloudy weather—limits evaporation of scent.
- b. Good ground cover, thick vegetation, high undergrowth—restrict the dissemination of scent.
- c. Night or early morning—evaporation of scent is less rapid.
- d. Lack of surface wind—keeps the scent

close to the ground and permits the dog to track along the actual route followed by the quarry.

e. Rapidly moving quarry—leaves more body scent.

f. Unclean quarry—leaves a more distinctive scent trail.

g. Definite start point—a visual sign or an item of clothing left by the quarry.

h. Fresh spoor—the ability to commence tracking promptly following the departure of the quarry increases chances of success.

#### 97. Unfavorable Conditions

a. The following factors will have an adverse effect upon the tracker dog team's ability to follow the quarry. Under certain circumstances, however, dogs will have to track under one or more of these unfavorable conditions. As a result, a tracker dog must be exposed to adverse tracking conditions during training. This teaches the handler to understand his dog's tracking behavior under such circumstances and compensate for it.

b. All dogs do not react in a uniform manner when required to track under adverse conditions. Therefore, some will be more effective than others when confronted with poor tracking conditions. Regardless of this, however, significant loss in technique proficiency can be expected when tracking conditions are less than satisfactory, such as:

- (1) Hot sun—evaporation of scent is rapid.
- (2) Strong wind—disperses scent and causes the dog to track downwind.
- (3) Heavy rainfall—washes the scent away.
- (4) Dry ground surface—does not retain scent.
- (5) Manure and farmyards—masks the scent of the quarry or distracts the dog from its primary task.
- (6) Populated areas—make scent discrimination extremely difficult.

#### 98. Tracking Through Water

The requirement to track through water is one

of the most difficult tasks tracker dog team faces. Water is the classical enemy of the tracker dog, for it either stifles scent or carries it away with the current. Limited success may be achieved if the water is shallow or still, especially if vegetation protrudes from it. Running water is an entirely different matter, however, as it quickly dissipates any scent left by the quarry. If possible, the best technique is to identify the point where the quarry exited the water, and recast the dog from that point. Generally speaking, when confronted with a water barrier, visual signs left by the quarry are of more assistance than the dog's ability to discriminate his scent.

#### 99. Tracking Through Ice and Snow

Tracking in subfreezing temperatures can be extremely difficult for tracker dogs. The temperature is not, in itself, the major consideration; instead, it is the location of the track. If the track is laid on top of the ice, snow, or frost, tracking conditions will be excellent, since the humidity will cause the scent to cling to the track. If ice or snow is allowed to form over the track and the top cover remains frozen, tracking is almost impossible as there will be little or no scent for the dog to follow. In situations of this nature, however, the track will remain intact at the same age it was when the freeze occurred. If a tracker dog is placed upon the track as thawing begins, it stands an excellent chance of completing the track successfully.

#### 100. Tracking at Night

From a scent discrimination viewpoint tracking conditions are excellent at night since scent will generally cling to the ground and surrounding vegetation in a highly concentrated state. Although operational tracking at night is not desirable, it may be necessary under certain conditions. Therefore, tracker dog teams must be exposed to night tracking exercises. This is necessary in order to acquaint the dogs with altered conditions and teach the handler to read his dog under conditions of reduced visibility. Motivation and control are major difficulties, especially in rugged terrain where movement is difficult, and frequent halts are required. Many dogs lose motivation under these conditions. This, coupled with the fact that ambush is much more likely, makes night tracking in combat impractical.

### Section VIII. TRACK PICTURE

#### 101. General

a. Dogs have a recognition capability that shapes their existence: the ability to discriminate various scents. Scent discrimination is the olfactory process by which the dog identifies a particular odor. This capability is extremely important, for it is through this process that the dog obtains food, senses danger, and finds a mate. For obvious reasons, this capability is extremely important to the dog, but man, too, has a vital interest in this unique phenomenon.

b. According to scientific studies, the dog's superior scenting ability is primarily attributable to three factors:

- (1) A better means of getting air to the sensitive membranes of the nose.
- (2) An olfactory area that is sensitive to a wider spectrum of scents than that of man.
- (3) A brain that is extremely well equipped to register, interpret, and remember the information its nose brings it.

c. Another important consideration is the fact that, to a dog, the world is a vast panorama of scent; much like a rainbow is to humans. Since a dog lives in a myriad of odors it must have an ability to tell one from another. This is true even though the animal may never perceive an odor in an isolated state. It is highly possible that an odor a man might consider as a single unit is, in fact, a conglomeration of scents each of which is clearly discernible to a dog. It is from this theory that the term "scent picture" is derived. Since this term is applicable to many canine skills involving olfaction, the term "track picture" is more appropriate when referring to a dog's tracking ability.

#### 102. Track Picture

For all practical purposes, the track picture is a combination of scents that permit the dog to identify and track the quarry. The track picture stems from ground scent derived from several sources:

- a. Individual scent.
  - b. Reinforcing scents.
  - c. Scent derived from disturbances in the ecology.
- From this it may be concluded that the dog does not identify and track the quarry based upon

a single chemical substance unique to that individual. Instead, the dog relies upon a complex pattern of substances that contribute to the complete track picture (fig 16).

#### 103. Individual Scent

With respect to the track picture, individual scent left by the quarry is the most important consideration. Generally speaking, individual scent consists of body secretions that originate in the feet and work their way out through the shoes. Although each region of the body has a distinctive scent, it is the feet that are most important in relation to the individual scent. This is probably due to the large number of sweat glands that are present in the human feet. Human sweat contains a significant amount of butyric acid which, in turn, is easily identifiable by a trained tracker dog. Add to this scent relating to sex and race and a track picture of the quarry begins to emerge.

#### 104. Reinforcing Scents

These scents are exactly what the term implies; they strengthen or reinforce the elements of individual scent discussed above. Elements reinforcing scents include the type material used to construct the footwear worn by the quarry, whether or not shoe polish was used, and the fabric used in the socks, trousers, and other articles of clothing. Other scents stem from occupational considerations. If the quarry is a farmer, butcher, baker, or service station attendant, his body and clothing will exude distinct odors associated with that trade. These are all important elements of the total track picture.

#### 105. Ecological Scents

Earth scent also plays an important role in the overall track picture. For the tracker dog, the most important factor is scent derived from disturbances in the ecology such as crushed insects, bruised vegetables, and broken ground. These factors are easily discernible, and many experts feel that a trained dog could follow this type scent track alone, even without the presence of individual and reinforcing scents. Some of this scent will obviously adhere to the quarry's feet and assist the dog in tracking him from one type of terrain to another.



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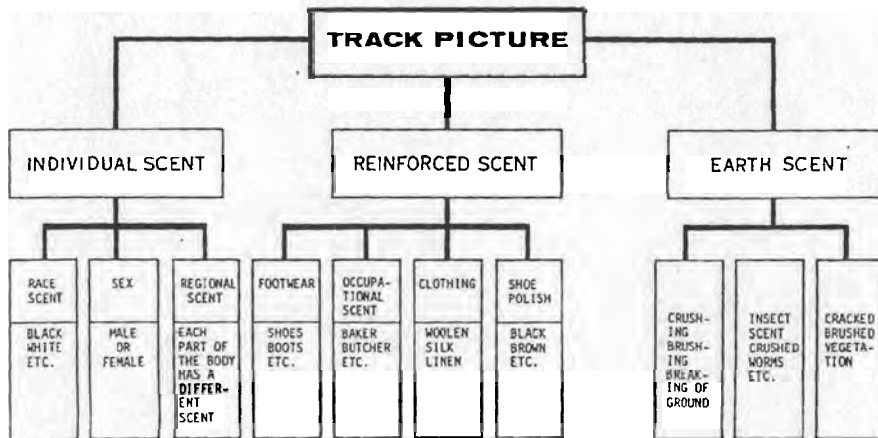


Figure 16. The track picture.

Section IX. LAYING THE TRACK

106. General

a. A properly laid scent track for the dog to follow is absolutely essential for the conduct of effective training. This is especially important when turns in the track are introduced to the dog and when the animal is exposed to tripwires and ambushes. Although tracks will vary in length, age, and complexity, each track is, in itself, extremely important and should never be treated lightly by tracklayers.

b. Except during basic tracking exercises tracks should not follow an established pattern such as adhering to fence lines or known paths. Instead, each track should be laid in a manner that will preclude dogs from developing habits in relation to tracking.

107. Scuff Marks

a. During early training a strong, easily discernible scent trail is essential. This is accomplished best by leaving scuff marks along the track. Scuff marks are indentations in the ground cover made when the tracklayer deliberately drags his feet. Normally, scuff marks are approximately 18 inches long and 6 inches wide, and they serve two purposes: first, scuff marks reinforce the

scent picture for the dog; second, they inform the handler of the exact location of the track and allow him to evaluate his dog's progress accordingly.

b. The size of the scuff marks, and the frequency with which they are left along the track, will be determined by the instructor. Their use should be discontinued as soon as possible in order to develop the tracking potential of the dog and increase the handler's confidence in his dog's ability. To expedite training, however, scuff marks should always be left by the tracklayer when he enters and leaves streams, as well as prior to and after crossing roads and trails.

108. Scent Pads

Scent pads differ from scuff marks in that they are used only at the start of the track to identify the starting point and enable the dog to develop a scent picture of the quarry. Scent pads are generally a rectangular scuff mark in which the tracklayer stands for a few moments prior to laying the track. Items of clothing or equipment belonging to the quarry may also be used as scent pads. The decision as to when to discontinue the use of scent pads will be made by the in-

structor based upon the proficiency demonstrated by each tracker dog team in identifying the track.

109. Turns

a. A tracker dog must be able to follow the natural wanderings of the quarry over varied and rugged terrain. As a result, the ability to negotiate turns in the track is essential. Turns in the track should be introduced gradually, and initially each turn should be identified by a scuff mark (fig 17). Before running the track, the handler should be briefed on its configuration and informed about the general location of the turn and its direction. The angle of the turn should increase gradually until the dog can negotiate at least a 90-degree turn in the track.

b. As soon as possible the use of scuff marks and briefings should be discontinued, so that the team is able to negotiate multiple 90-degree turns without visual assistance. The location of turns in relation to the starting point should be varied. Also, if possible, turns in the track should not always coincide with obstacles or directions that an individual would normally take. During early training, turns should not be laid into the wind, especially if the turn is made close to the end of the track. This is necessary to keep the dog from wind-scenting the quarry and following the scent cone rather than the track. After proficiency develops, however, turns should be made into

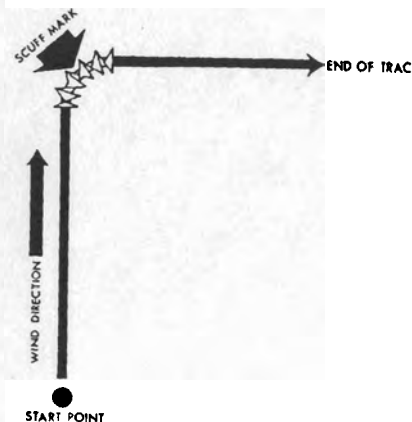


Figure 17. Scuff mark on turn.

the wind in order to test the dog's tracking ability.

110. Crosstracks

A crosstrack is a scent track that cuts across the main track and is laid by an individual other than the tracklayer. This is done to test the dog's ability to remain on the correct track. As this is an advanced tracking requirement, it should not be introduced to the dog too early in the training cycle. Initially, all crosstracks should be laid at right angles to the main track, at a point where the track is running straight. Failure to do this will confuse the dog and lead to complications later in training. It is also essential that the location of the crosstrack be clearly marked for the handler so that he will not mistakenly praise his dog if the animal selects the wrong scent track to follow. At the beginning of this stage of training, the crosstracks should not be laid less than 20 minutes before the real track is to be run. This is a significant consideration because the time element makes a difference in the strength of the scents between which the dog must discriminate.

111. Wind Direction

As with all aspects of dog training that involve nose work, wind direction is a critical consideration. This is especially true during basic tracking drills when the primary goal is to get the dog to use ground scent rather than wind-borne scent to follow the quarry. For this reason all tracks should be laid downwind from the start point (fig 18). This causes the dog to place

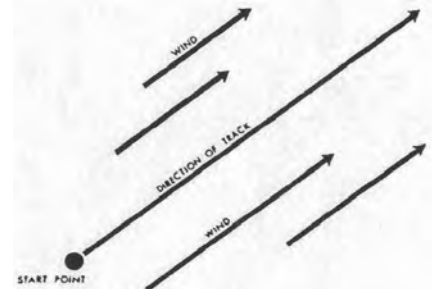


Figure 18. Wind and track direction.

its nose close to the ground in order to find and follow the quarry's scent. Although the animal must ultimately be able to track into the wind it should not be required to do so until the latter stages of training when the tracks are longer and the quarry is far ahead of the tracker dog.

### 112. Track Length

The length of each track should be determined by the instructor before the track laying element moves out. During basic tracking only short, straight tracks are utilized. Later, during more advanced stages of training, tracks will grow progressively longer and turns, tripwires, and ambushes will be employed against the tracker dog team. The length of the track alone is not the primary criterion for assessing a tracker dog's proficiency. It does, however, measure a dog's willingness to track the quarry, and this is almost as important as the dog's technical proficiency in discriminating scent. Track willingness, then,

is an important consideration, and a good tracker dog will track the quarry as long as any scent remains.

### 113. Age of the Track

Of all the factors that affect a dog's ability to follow a scent track, none is more significant than the age of the track itself. Although the weather and terrain can be adverse factors, they can frequently be overcome if the track is fresh. Even with good weather and terrain, however, a dog cannot follow a scent track that has aged too long. Normally, little success can be expected if a track is over 12 hours old at the time a tracker dog is placed on it. Generally speaking, therefore, the fresher (hotter) the track the better. Obviously, then, the most challenging task a tracker dog can face is the requirement to run a long track on a "cold" trail, for this tests its willingness and scent discrimination ability to the utmost.

## Section X. BASIC TRACKING

### 114. Team Performance Objective

By the end of the basic tracking phase the team must be able to track a stranger for at least 500 meters on a straight trail that is 30 minutes old.

### 115. General

a. Most dogs have the physical ability to discriminate scent well enough to track. Few, however, are willing to use this ability routinely. As a result, capability and aptitude are entirely different matters, and a major goal in basic tracking is to test the dog's aptitude for performing this arduous and demanding task.

b. A valid test of the dog's aptitude for tracking cannot be conducted until a strong dog and handler relationship is developed. This should have been accomplished by the time the team completes its obedience phase of training. If meaningful rapport was not established at that time, the basic compatibility of the team should be examined and corrective action initiated.

c. Basic tracking is the foundation upon which all subsequent specialized training rests. Because of this, most dogs that are ultimately eliminated from the program are eliminated during this phase of training. As a result, the goals to be

achieved during this stage of training may be summarized as follows:

- (1) To strengthen existing dog and handler relationships.
- (2) To condition the dog to associate tracking commands with the task required.
- (3) To condition the dog to associate the tracking harness with the requirement to find the quarry by ground scent rather than airborne scent.
- (4) To train the dog to identify a specific scent track and follow it to its terminus.
- (5) To train the dog to discriminate the specific scent of the quarry from among extraneous odors along the track.
- (6) To improve the dog's motivation to follow scent tracks.
- (7) To teach the handler to read and interpret his dog's behavior while tracking.

### 116. Commands Used While Tracking

Five basic commands are used in training a dog to track. Two of these commands will have been used previously during obedience training, but will attain new significance when employed during tracking drills. Essentially, these commands

are used to put the dog on track, keep it there, and control its speed.

a. *Seek, Seek.* This command is given in a high, excited tone of voice and is used only when a dog is attempting to establish the track. Normally used during initial casting, it may also be used to reestablish the track once the animal has lost it, or when the dog becomes confused.

b. *Seek On.* This command is given when the dog verifies the starting point and acknowledges the track. Uttered in a high, excited voice, it may also be used to encourage the dog while tracking.

c. *No, Leave It.* Used when the dog attempts to leave the track for an obvious reason not associated with tracking. An example would be to find shade, examine a strange object, or empty the bladder. This command is uttered in a harsh, disapproving voice and will always be followed by SEEK, SEEK, or SEEK ON whichever is appropriate.

d. *Easy.* This command is used to regulate the dog's speed on track, and keep it from losing the scent picture. It is particularly useful when the dog is struggling through heavy cover and the handler cannot maintain the pace. The command should be given in a soothing tone of voice, and repeated as required in order to regulate the dog's pace.

e. *Stay.* This command, given in an authoritative tone of voice, should cause the animal to cease all movement. It is extremely useful when moving through heavy cover or when a momentary halt is required and it is not desirable for the dog to wander off the track.

### 117. Changeover

a. Prior to the start of any tracking exercise the choke chain on the dog must be replaced by a tracking harness. The harness provides the dog with greater freedom of movement while casting for scent, facilitates placing the nose on or near the ground, and acts as a reinforcing stimulus in itself.

b. Changeover is accomplished by requiring the dog to sit in the general vicinity of the point where the track begins. The handler then straddles the dog and places the harness on the animal, making those adjustments necessary to insure proper fit. If the dog tries to break position during the changeover, it should be corrected immediately and brought under control before re-

suming the changeover. As soon as the harness is correctly adjusted, the 25-foot tracking leash should be snapped to the D-ring on the tracking harness, and the choke chain removed. Changeover is then complete (FM 20-20).

### 118. Establishing the Track

a. *General.* Nothing is more critical than the requirement to establish the actual track laid by the quarry. During early training this will be done by the instructor who will indicate the location of the scent pad to the dog handler. As training progresses, however, the dog handler will have to find the starting point for himself. This can be accomplished visually by the handler, or by the use of the dog's olfactory senses. In isolated areas this can be accomplished with ease; when working in habitated areas the problem becomes more complex. Despite the problems involved, however, the correct scent must be identified before meaningful tracking can begin.

b. *The Point Method.* This technique is used when the exact location of the track is known. Information of this type is generally gained by visual examination of the area. Footprints, visible breaks in the underbrush, scuff marks, or items of equipment may be available by which the handler may identify the scent of the quarry. Having identified the start of the track, the dog is brought to that point and changed over. If the starting point is identified from a scuff mark or item of equipment, the dog is allowed to smell the scent pad and the handler commands SEEK, SEEK, until the dog acknowledges the track. At that time SEEK ON is given and the animal is allowed to move down the track after the quarry.

c. *The Cast Method.* This procedure is used when the exact location of the track is unknown. It may also be employed to reestablish the track if the dog loses it while trailing the quarry. Casting differs from the point method in that the dog uses its olfactory sense to find the track, because the handler has been unable to do so from visual signs left by the quarry. Since the requirement to cast for scent is extremely demanding, the handler should have some idea where the track begins, otherwise the dog will tire quickly and lose interest. In order to cast the dog, the animal must be already changed over into the tracking harness. Casting in a pre-arranged pattern may then begin. This pattern is commonly known as the *box cast*. The dog must complete the entire box before the track can be definitely established by the handler. Casting be-

gins when the handler commands SEEK, SEEK, and begins moving his dog in a prearranged pattern. Best control is achieved if the handler will use only 5 or 6 feet of his tracking leash while casting (fig 19). He should begin by moving near a location where he suspects the track to be. He should then keep the dog between him and the suspected direction of travel. The dog should always be cast downwind along the direction of movement for about 15 meters before any change in direction is made. If the dog fails to locate the track on the initial cast, the handler should then increase the size of the box by 15 meters (fig 20). Once the dog has located the track and the handler is certain that it is the correct one, the command SEEK ON is given.

#### 119. Acknowledging the Track

a. While casting his dog, the handler must have a thorough understanding of how his dog reacts upon discovering a track. This is especially important since most tracker dogs will respond to any human scent track they encounter while casting. When the point method is used this consideration is not as critical, since the dog will be placed on the correct scent track by its handler. When casting is employed, however, serious



Figure 19. Casting.

problems can develop, for once the dog identifies a human scent track it will follow that track if it receives even slight encouragement from its handler. This is why the casting must be completed before active tracking commences. Therefore, if more than one scent track is identified, the handler must decide which track to follow with the dog. Although each dog will acknowledge the presence of a track in a slightly different manner, one or more of the following behavioral patterns usually indicates the presence of a human scent track:

(1) Moving off at an angle and returning across the line of sight before moving forward.

(2) Momentarily dropping its head to confirm the track and then moving forward at a quick pace.

(3) Moving off at a slight angle and ultimately paralleling the known track laid by the quarry.

b. Tracking downwind of the actual scent track usually occurs when there is a strong crosswind. As a result, the distance between the actual track and the position of the dog will depend solely upon the velocity of the wind. A handler should not be alarmed if his dog tracks 5 to 10

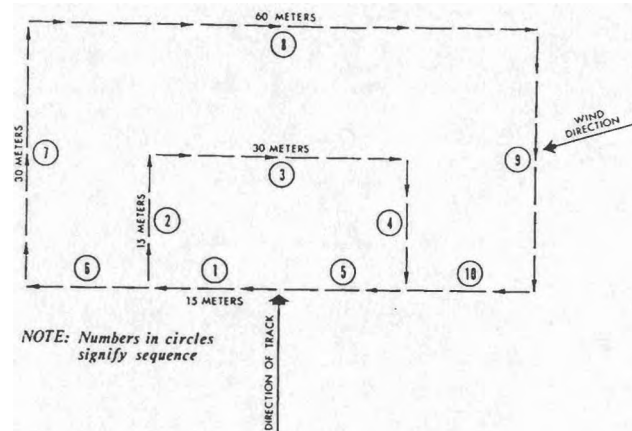


Figure 20. Box cast.

meters downwind of the actual track under such conditions. During early training, however, instructors should monitor wind velocity carefully to be certain the dog is actually tracking the quarry, rather than following another scent track.

#### 120. Tracking Speed

a. When tracking human quarry, accuracy is far more important than speed. This is especially significant because of a human's ability to initiate well-planned evasive action. Also, over exceptionally long tracks in rugged terrain the handler cannot keep up with a dog that tracks at a run.

b. Dogs that track too fast tend to miss turns in the track, and frequently fail to alert on tripwires and ambushes. As a result, time lost in recasting the dog negates any advantage gained by a rapid tracking pace.

c. By the end of the basic tracking phase of training each dog should have developed a steady tracking pace that it will follow throughout the remainder of training. Ideally, this pace should be no faster than a brisk walk. Some dogs, however, will track even more slowly, and this should not be discouraged.

d. During early tracking exercises the dog should be encouraged to follow the track as enthusiastically as possible. Generally this will re-

sult in a rapid gait, and this should be permitted until the animal develops its "track willingness" to the point that it will track strangers reliably on short, hot tracks. At that time determined efforts should be made to slow the tracking pace as much as possible without causing the animal to lose interest in the tracking requirement.

e. Tracking speed may be regulated by repeated use of the command EASY and by exerting gentle but steady tension on the tracking leash. In some cases it may be necessary to utilize the choke chain in conjunction with the tracking harness in order to slow the dog's speed on the track.

#### 121. Training Procedures

a. *General.* Before basic tracking exercises are begun, it is essential that a strong dog and handler relationship exists. This insures that the dog will actively search for its handler when the two are separated. Several methods may be employed to teach the dog to follow a scent track left by its handler and they are discussed in order of their merit. Once one of these techniques has proven successful, there is no need to employ another method. It must be remembered that the initial goal is to train the dog to track its handler, and the requirement to track strangers should not be introduced until the dog tracks its handler reliably, with enthusiasm.

b. *Seek-Find Technique.* Most dogs respond quite readily to this method and it should be employed initially with all dogs. When using this technique the handler should move his dog to the exact point where the track is to begin. If possible this should be in an open area with ankle high grass that is free of dense vegetation.

(1) The handler should relinquish control of his dog to an instructor and move in a straight line 40 or 50 meters downwind of the dog. While moving he should call the dog and encourage the dog to come to him. At the end of the track the handler should turn and face the dog without any attempt at concealment.

(2) While waiting, the instructor should excite the dog by saying, "Where is he, boy (girl)", and "Watch him, boy (girl)." After waiting for approximately 2 minutes the instructor should effect changeover (para 117) and encourage the dog to move down the track to the handler. Initially the 5-foot leash should be used for better control, as training progresses, however, the 25-foot tracking leash should be introduced to permit more freedom of movement.

(3) Often it will be necessary to place the dog in the down position at the scent pad in



Figure 21. Dog at scent pad.

order to get its nose closer to the ground and to help develop the track picture for the animal (fig 21). Also, from the very first track, all tracking commands should be utilized.

(4) When the dog arrives at the handler's location, he should praise the dog enthusiastically. Upon completion of the track, but subsequent to praising, the dog should be changed back into the choke chain. This is important because it informs the dog that the tracking requirement is over.

(5) As training progresses, the handler should continue to lay short, hot tracks, but he should conceal himself at the end of the track. This will increase the dog's anxiety, test its trail willingness, and encourage the animal to rely upon ground scent alone to find its handler.

c. *Seek-Chase Technique.* This method is essentially the same as the procedure discussed above except that the dog is allowed to pursue its handler at the completion of the track. This should not be confused with agitation, for it is not. Instead, it is merely a playful reward for the animal that is used to stimulate its motivation to track. If the dog will not follow the track completely to its handler, the handler may initiate

the chase by running from the dog and hiding in dense cover. After the dog overtakes its handler, it should receive lavish praise and be changed back into its choke chain.

d. *Seek-Feed Technique.* This method is used only as a last resort after the first two techniques have failed. As the track is laid the handler drops small quantities of food along the track at intervals of 3 to 5 meters. This causes the dog to place its nose near the ground, provides a motivational inducement, and reinforces the track picture. When the dog reaches its handler it should receive additional food and a great deal of praise. As with the other techniques, the dog should be changed back into its choke collar immediately. Food inducement should be removed gradually so the animal will ultimately track for praise alone. If this cannot be accomplished, the dog should be eliminated from the training program. While this technique will work on some dogs, experience indicates that animals requiring this form of inducement rarely develop into truly competent trackers.

## 122. Tracking Strangers

a. A major goal that must be achieved during basic tracking is that of motivating the dog to track strangers. This requirement should be introduced after the dog has developed proficiency in tracking his handler for 200 meters on a straight track that is 30 minutes old. Many dogs will totally reject the requirement to track strangers; therefore, this stage of training is critical.

b. Initially, all tracks involving strangers should be laid by more than one tracklayer. This increases the strength of the scent trail and facilitates maintenance of the scent picture by the dog. Until the dog develops the requisite proficiency and motivation, all scent trails should be short and hot, with scuff marks every 15 meters along the track. In addition to reinforcing the scent picture, scuff marks assist the instructor in determining whether or not the animal is on the correct track.

c. As the dog becomes more competent, the length and age of the track may be increased gradually. Throughout this stage of training it is essential that the dog be allowed to identify the quarry. Therefore, the tracklayers, as well as the handler, should praise the dog at the end of each track.

d. Under no circumstances should tracklayers

be allowed to startle the dog or make it apprehensive. Instead, each track should be a highly pleasing experience for the animal. This practice reinforces the dog's interest in tracking and makes the transition to longer, more difficult tracks much easier.

## 123. Increasing Age and Distance

As with other facets of dog training, it is essential that the animal achieve success as frequently as possible. This is particularly important with tracker training. Given favorable terrain and weather the two most important considerations are the length of the track and its age. Therefore, the two should never be increased simultaneously. For example, if the dog has demonstrated competence in 100-meter tracks that are 15 minutes old, the next track may be made more difficult by either making it 150 meters long or 20 minutes old, but not both.

## 124. The Over-Train Theory

In order to stimulate motivation, and develop optimum technical proficiency, minimum team performance objectives should be exceeded throughout the training program. For this reason training exercises should be conducted on tracks that are at least 10 percent longer than required. Known as the over-train theory, this practice increases the dog's interest in tracking by making it more challenging. The length and age of the track should be varied on a daily basis and all tracks should not necessarily be progressively longer and more difficult. Short, hot tracks should be integrated with long, difficult ones in order to develop flexibility in the animal to the greatest extent possible. This keeps tracking exercises exciting and challenging for the dog—an attitude that must be maintained if consistent performance is to be achieved.

## 125. Reading the Dog on Track

Total uniformity of behavior while tracking cannot be expected since each dog has its own individual temperament. Therefore, each handler must be able to read his animal's behavior quickly and accurately. He must know at all times whether or not his dog is tracking and be able to take corrective action if required. The position of the head, the manner in which the tail is carried, and a number of other factors unique to each animal become extremely important with respect to tracking behavior. With practice and intelligent observation, the handler can learn to

read his dog's behavior proficiently. This knowledge will be invaluable when, in a later stage of training, the dog is required to follow a strange scent track on a track that is unfamiliar to the handler. Failure in practical tracking stems more

frequently from handler error than it does from the dog's inability to follow a specific scent track. This shortcoming can be minimized if each handler thoroughly understands his dog's tracking behavior and interprets it correctly.

## Section XI. INTERMEDIATE TRACKING

### 126. Team Performance Objective

To complete the intermediate tracking phase of training, tracker dogs must be capable of following a 6-hour old track for 1,500 meters over rugged and varied terrain. In conjunction with such tracks, they must also successfully negotiate at least one 90-degree turn, detect one booby-trap device, and provide early warning of an ambush.

### 127. General

a. Basic tracking exercises laid the foundation for more realistic and demanding training problems. The basic techniques discussed in preceding portions of this manual still apply in advanced exercises and will not be repeated in this section or in subsequent sections pertaining to advanced tracking exercises.

b. Before entering this phase of training the dog must be proficient in following scent track laid by strangers and demonstrate a high degree of track willingness. The handler, on the other hand, must be able to handle his dog properly while tracking and read its tracking behavior accurately.

c. During intermediate tracking both the dog and handler are required to perform under stress, and their proficiency is assessed continually. To accomplish this, instructors function primarily as lane graders whose main job is to evaluate student performance and insure troop safety. Detailed guidance is provided students only when new training requirements are introduced. In essence, then, the handler must establish the track, control his animal's speed, and interpret its behavior without assistance from an instructor.

d. In order to provide realism and prepare students for operational tracking in combat, all dog handlers will wear full field equipment and carry individual weapons. Tracklayers will require maps, compasses, smoke grenades, blank ammunition, individual weapons, and boobytrap simulators.

### 128. Turns in the Track

a. Continuous training on scent track that run in a straight line, or track that always follow the path of least resistance, fail to develop the full potential of the dog. This practice certainly will not prepare a tracker dog team for actual field service. For this reason turns in the track must be introduced into training exercises as soon as the dog is proficient in tracking strangers and the handler has become skilled in reading his animal's behavior.

b. The first few tracks involving turns should run straight for about 50 meters before a gradual bend to the right or left is made. After the bend is laid the tracklayer should continue on a straight course for a short distance before terminating the track (fig 22). As with all other

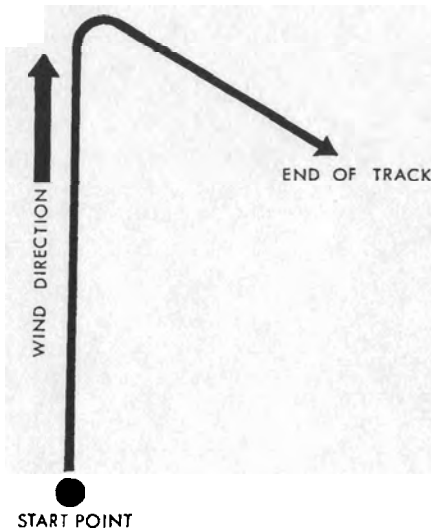


Figure 22. Turn in track.

variations in training, turns should be introduced gradually. While turns should be made progressively more acute until they take a circular shape, instructors must insure that the dog has mastered one type of turn before another is attempted. In order to verify technical proficiency, five types of turns should be employed at random once basic competence is developed (fig 23).

c. General guidance relating to turns was discussed in paragraph 109, and should be followed when laying tracks. Handler requirements are more demanding, however, and must be discussed in more detail.

d. The speed at which a dog tracks is a major factor and determines, to a large extent, the ease with which the animal will be trained to negotiate turns in the scent track. Dogs that track at a rapid pace tend to overrun turns in the scent track and require frequent recasting. Slower moving animals, on the other hand, adapt readily to turns in the track and have to be recast much less frequently. Because of this fact, it is highly desirable that all dogs be steadied to a reasonable pace before turns in the track are introduced.

e. At first the handler must know where the turn in the track is located. This enables him to observe his dog's behavior and assist it in negotiating the turn, if necessary. The handler should

not cue his dog by anticipating the turn and regulate his animal's tracking speed accordingly. Instead, he should permit his dog to follow its normal tracking pace until it reaches or, as often happens, overruns the scuff mark denoting the turn. If the dog negotiates the turn, the animal should be praised and the command SEEK ON repeated.

f. When the dog fails to recognize a turn in the track, the handler should slow the tracking pace and observe his animal closely. If the dog becomes confused and starts to search for scent of the quarry, the handler should take no corrective action immediately. It is extremely likely that the dog will cast itself and reacknowledge the correct trail. When this occurs the dog should be praised and told to SEEK ON.

g. On the other hand, if the dog fails to re-discover the track within a reasonable length of time, the handler should take the initiative and recast his dog. In this case, however, recasting is designed more to enable the dog to negotiate the turn than it is to find the quarry's scent track. This is obvious since the handler knows where the track is and has already identified the location and direction of the turn. As a result, he should cast in a manner that moves the dog back up wind and across a straight leg in the track (fig 24). Once the animal is back on the track

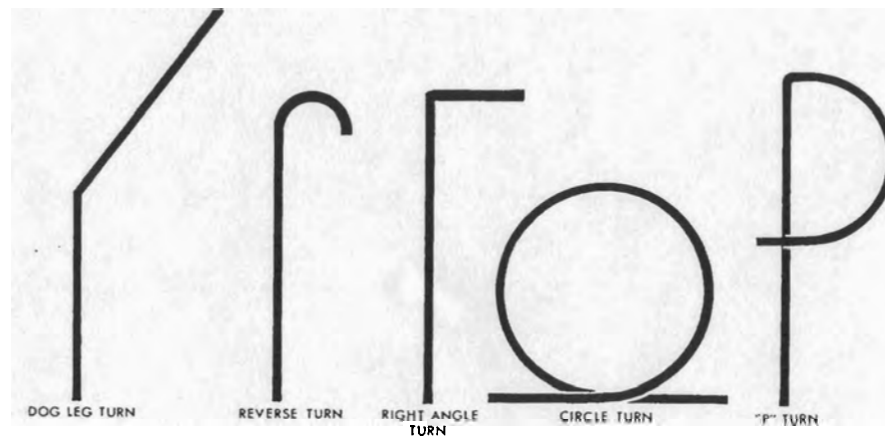


Figure 23. Types of turns.

the dog handler should decrease tracking speed as the animal approaches the scuff mark denoting the turn. When the dog places its nose in the scuff and changes its direction of movement accordingly, it should be praised lavishly and commanded to SEEK ON.

h. In cases where both of the above mentioned techniques fail, more positive guidance by the handler will be required. Under these circumstances the handler should follow close behind the dog. It may even be necessary to return to the 5-foot leash during this stage of training. As the dog overruns the turn the handler should immediately command NO, SEEK, SEEK, and physically show the scuff mark to the dog and assist it in negotiating the turn. Having accomplished

this, the dog should receive praise and be told to SEEK ON.

i. A handler must be able to tell when his dog is confused, distracted, or not tracking; turns in the track are excellent means for accomplishing this. Since the handler will know initially where turns are located, it will provide him with ample opportunity to observe his animal's behavior when it loses the track. The ability to recognize this behavior is essential when the tracker dog and handler must negotiate turns in the track that are not discernible by visual means. For this reason, handlers should overcome the tendency to guide their dogs around turns. Instead, they should study their dog's behavior when it misses a turn, and catalog this information for future

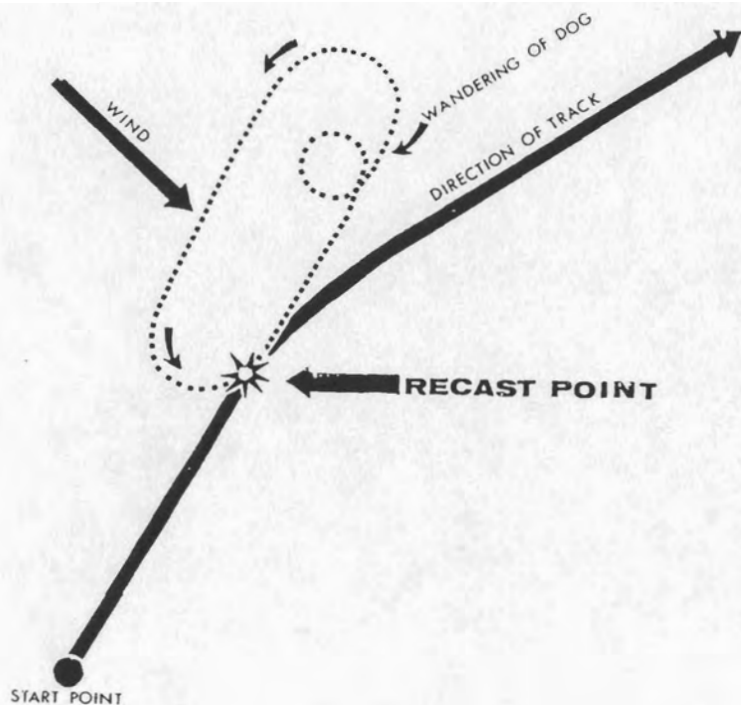


Figure 24. Recasting the dog.

use. Then, when assistance is clearly required, they should initiate remedial action by recasting the dog in a manner that will insure successful completion of the turn.

### 129. Crosstracks

a. Tracker dogs must be able to follow a specific scent track to the exclusion of all others. This is a particularly difficult requirement, especially when tracking through populated areas or locations where numerous game tracks will tend to distract the dog. The use of crosstracks provides a means by which a dog's dedication to a specific scent track may be tested. By the same token, crosstracks are an excellent means of training dogs to ignore extraneous odors that interdict the main track. Before encountering crosstracks, however, the dog must be capable of following scent tracks that are 40 to 50 minutes old.

b. In their purest form, crosstracks are scent tracks laid by someone other than the quarry that cross the main track. In actual practice, however, game tracks and farmyards may be used for the same purpose. In fact, they should be employed periodically to insure that the dog will not leave human scent and follow wild game or domestic animals.

c. As with turns, crosstracks must be introduced gradually, with the crosstrack clearly marked and the handler briefed as to its approximate location. Later in the training cycle, however, dogs should be able to follow the primary scent track and ignore all crosstracks encountered along the way, without the handler having any knowledge concerning the location of the crosstracks.

d. Initially, all crosstracks should be laid in the manner discussed in paragraph 110. Later on, however, crosstracks may be laid at any point along the track, to include on turns. The time element involved may also vary from 5 minutes prior to the dog's arrival, to laying the primary track over old scent tracks that run across the main track.

e. When approaching the crosstrack the handler must be careful not to alter his behavior in any way. He should merely observe his dog's reactions as it encounters the divergent scent track. Some dogs will totally ignore the crosstrack, while others will explore it for a few feet then ignore it and return to the main track. A

few dogs, on the other hand, will follow the crosstrack enthusiastically. Because varied behavior patterns can be expected the handler must note his dog's reactions carefully.

f. Hopefully the dog will disregard the first crosstrack it encounters and will continue to do so throughout training. If the dog investigates the crosstrack, however, the handler should not become unduly alarmed since the dog may be discriminating between the two scents. In this case the handler should halt, say nothing to his dog and merely observe its actions. If the dog decides to ignore the crosstrack and returns to the main scent, it should be praised and told to SEEK ON.

g. When the dog follows the crosstrack it must be corrected in a firm but gentle manner. Harsh corrections must be avoided, as the dog is still trying to please the handler despite its error. A gentle NO! Leave It! accompanied by firm but steady pressure on the leash should discourage the animal. The handler should then guide his dog away from the crosstrack and recast it with the command SEEK, SEEK. When the dog resumes tracking the main scent track it should receive praise and the order to SEEK ON.

h. The need for firm but gentle guidance re-emphasizes the importance of knowing where the crosstrack is located. If, through ignorance, the handler encourages his dog to follow the crosstrack irreparable damage could result. Therefore, the employment of crosstracks must be carefully controlled and adjusted as training progresses according to the needs of each dog. After the dog can consistently follow a mile-long scent track, and totally ignore the presence of three crosstracks, it may be considered proficient in this aspect of training.

### 130. Ambushes

a. By virtue of his position within the combat tracker team, the dog handler is extremely vulnerable to hostile fire while tracking. Because of this, it is essential for the dog to become proficient in detecting ambushes. While this is an additional traitner than a primary skill it is one that is extremely valuable under field conditions. This requirement is introduced to the student team during intermediate tracking.

b. Obviously, gunsny dogs will not perform well during this stage of training. While some will develop proficiency in detecting ambushes,

few will maintain their willingness to track when repeatedly confronted with contact drills incidental to ambushes.

c. Initially, ambushes should be established at the end of each track. This can be accomplished by one tracklayer, although two or more personnel in the ambush party is more desirable. Regardless of the number of personnel involved, however, the site selected should be realistic and well concealed. As the dog and handler approach, the ambush party must give it every opportunity to alert. If the dog fails to alter its behavior in any perceptible manner, the quarry should fire a burst of 10 to 15 rounds of blank ammunition and detonate a boobytrap simulator or smoke grenade. At this time the tracker dog and handler should assume the prone position and the handler should return fire. Extreme care must be taken to insure that the dog is not injured or unnecessarily frightened during ambush drills.

d. The surprise associated with ambush drills conditions the dog to the fact that excessive concentrations of human scent often lead to unpleasant repercussions. Although scent is an important consideration, cues perceived by sight or sound should also be included into training exercises.

e. During early training the dog must be given every opportunity to alert on the presence of the quarry. Tracklayers can assist in this by laying their ambush upwind from the dog a short distance from a turn in the track (fig 25). If necessary, they may also make subtle noises that will cause the dog to alert. Ultimately, however, the dog must be capable of alerting from scent alone.

f. Until proficiency develops, both the dog handler and the instructor must know the approximate location of the ambush. This allows them to study the animal's behavior to determine whether or not the dog is alerting on the presence of the quarry. Initially, any behavior change, no matter how slight, should be acknowledged by lavish praise from the handler. The normal ambush drill should follow immediately. After several repetitions the dog will develop a clearly discernible method of alerting on the quarry. Most dogs will stop tracking and raise their nose in quest of airborne scent; others will refuse to advance, while some will return to their handler. Any type of alert is acceptable so long as it is consistent and the handler can read it.

g. After alerting behavior has been developed the dog must be taught to assume the down position immediately when the quarry opens fire.

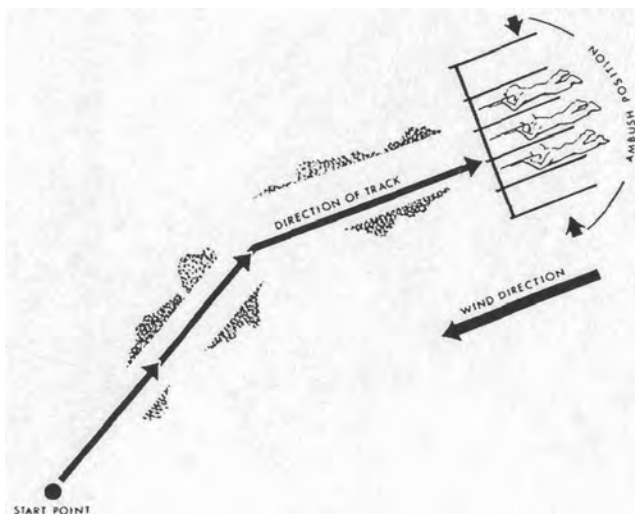


Figure 25. Ambush positions on the track.

This allows the handler to return fire promptly without having to worry about his dog's location or the extent to which it is exposed to hostile fire. Generally, this is easily accomplished by commanding DOWN as soon as the first round is fired by the quarry. Thus stimulus is reinforced by the fact that the handler also assumes the prone position and opens fire with his weapon.

h. Ultimately these reactions must become automatic for both the dog and the handler. Because of this, briefings concerning the location of the ambush site should be discontinued as soon as possible. Also, the location of the ambush site in relation to the track should vary from day to day. This will prevent anticipation by either the dog or the handler and permit objective evaluation of the dog's alerting ability.

### 131. Tripwires and Boobytraps

a. The speed with which tracker dogs move makes them extremely vulnerable to tripwires left along the track by the quarry. As a result, extensive tripwire detection training is essential in order to prepare the tracker dog and handler for field service. As with ambush detection, the ability to alert its handler to the presence of tripwires is not a primary criterion for graduation. The primary criterion is, and should remain, the dog's ability to follow human scent tracks. As an additional skill, however, the ability to detect tripwires is extremely valuable and most dogs can be expected to develop considerable proficiency in this area.

b. At first, pyrotechnics should not be used in conjunction with tripwire detection training. Commonly referred to as deadwires, tripwires are used to impede the dog's progress along the track without exposing it to the trauma of an explosion. Communication wire is an excellent device for this purpose.

c. During early stages of training, the dog handler must know the exact location of each tripwire. This is essential if the dog handler is to prevent his dog from developing bad habits such as running into, stumbling over, or playing with tripwires. Since this type of training is extremely tedious, the dog must be afforded every opportunity to locate the tripwire without making physical contact with it. Because of this the person who lays the tripwire should handle the entire length of the wire before securing it in place. This leaves the maximum amount of scent possible for the dog to detect. Experience indi-

cates that trained dogs alert on tripwires for one or more of the following reasons:

(1) An increased concentration of human scent contained on the tripwire, the explosive device, or the terrain near the boobytrap.

(2) A visual observation of the tripwire and/or the explosive device.

(3) A high-pitched vibration caused when the wire is blown by the wind or surrounding vegetation brushes against the tripwire.

d. During the introductory stage of this training, short, hot tracks should be utilized. As proficiency develops, however, more realistic tracks will be required. When exposed to tripwires the dog should be in its tracking harness, and each exercise should involve tracking to some degree.

e. Having been briefed on the exact location of the tripwire, the handler should allow his dog to track until it makes physical contact with the wire. At that instant the dog should be corrected by a firm NO accompanied by a strong rearward jerk on the harness. The dog should then be placed in a sitting position directly in front of the tripwire while the instructor snaps the wire on the dog's nose and the handler gives the command NO and jerks to the rear on the harness. Although corrections should be stern, the wire must not be snapped against the dog's nose in such a manner as to cause injury or extreme discomfort. Having completed the correction, the handler should move his dog upwind around the tripwire. This exercise should be repeated until the dog refuses to advance beyond the tripwire after detecting it.

f. After the dog has developed proficiency in detecting deadwires, pyrotechnics should be introduced into tracking exercises. When errors occur, the resulting explosion will reinforce the dog's aversion to tripwires. This also adds realism to the training exercise, and vividly portrays to both the dog and handler the seriousness of their mistake.

g. Overexposure to pyrotechnics can lead to serious training problems. This is especially true since dogs that detonate an excessive number of explosive devices are not proficient in detecting tripwires and need remedial training. Protracted exposure to pyrotechnic devices will cause many dogs to become track-shy and either refuse to track or become preoccupied with finding tripwires. This can also occur from repeated ambush



drills in which excessive amounts of blank ammunition and explosive devices are utilized.

*h.* An acceptable control factor is to employ no more than one boobytrap simulator on 40 to 60 percent of the tracks run during intermediate and advanced tracking. On the remainder of the tracks, however, deadwires should be used to test

## Section XII. ADVANCED TRACKING

### 132. Team Performance Objective

To complete the advanced tracking phase of training, tracker dog teams must be able to follow a scent track left by a single quarry over varied and rugged terrain for a distance of at least 5,000 meters. The track must be at least 12 hours old at the time tracking commences, and the team must negotiate two right angle turns, discriminate the main track from two cross-tracks, and alert on a minimum of one ambush and one tripwire.

### 133. General

*a.* This stage of training is extremely demanding upon both the dog and the handler. All exercises are conducted under field conditions in an environment that closely approximates combat conditions. Also, instructor participation is minimal, with their primary concern being to evaluate student performance and insure troop safety.

*b.* The main burden of establishing and following the track rests with the tracker dog team. Verification of the starting point, initial casting, controlling tracking speed, recasting, and identifying and verifying alerts are all responsibilities of the handler. The animal, too, will receive daily evaluation by instructor personnel. Track willingness, technical proficiency in scent discrimination, the strength of alerts on tripwires and ambushes, distractibility, and its general physical condition are all matters of concern to lane graders.

*c.* Advanced tracking exercises encompass all of the basic procedures discussed previously in this chapter except that they are performed under as realistic conditions as possible. In order to develop optimum efficiency following unknown tracks, tracking on hard surfaces and through populated areas should be emphasized. Training of this type can be accomplished with relative ease, however, if tracker dog teams have mastered the basic principles discussed earlier.

the dog's proficiency. Controls should also be imposed during ambush drills. Each time contact is made, the tracklayer should expend no more than two magazines of blank ammunition and one pyrotechnic device. When returning fire the dog handler should fire no more than 20 rounds of blank ammunition and no expenditure of pyrotechnics is necessary.

*d.* Consistently competent performance is the primary concern throughout this stage of training. Erratic performance cannot be tolerated, and should be cause for elimination despite the fact that the team has successfully completed the first two stages of specialized training. If either member of the team fails to cope with its environment, or loses proficiency when working under stress, the team should not be allowed to begin combat tracker team training or be deployed to a field unit.

### 134. Unknown Tracks

*a.* During advanced tracking the use of scuff marks are discontinued except when requested by an instructor. For the most part, dog handlers should be unaware of the starting point and have no idea where the track will terminate. Starting points are identified by casting for human scent in a particular area or identifying the scent track left by the quarry from an item of equipment or a clearly identifiable disturbance in the terrain. Obviously, unknown tracks of this type place both the dog and the handler under stress; therefore, the length, age, and complexity of such tracks must be increased gradually.

*b.* At first, unknown tracks should be relatively simple. The age should be slightly below that for which the dog is competent, and no crosstracks should be employed. The handler should be made aware of the general vicinity of the starting point, but should have no idea where the track will end.

*c.* As each track is mastered, the next should be made progressively more difficult. Training should be programmed so that the team succeeds as frequently as possible, otherwise despondency will develop in both the dog and the handler. Instances will arise, however, in which the dog will fail to complete the track. In such cases, the handler should immediately run a short, hot track thereby causing the training session to end on a positive note.

*d.* Despite the importance of unknown tracks, the advanced stages of training should not be confined to that type track alone. On the contrary, known tracks should be run frequently in order to evaluate the dog's accuracy while tracking. Instructors should brief tracklayers carefully as to where to start, the direction of turns, proposed sites for ambushes and tripwires, and the terminal point. Frequent utilization of known tracks strengthens the handler's understanding of his dog's tracking behavior, and points out idiosyncrasies unique to each animal. This, in turn, permits objective evaluation of the dog's technical proficiency.

*e.* During advanced tracking, all tracks, both known and unknown, should be laid in a practical manner. They should run along trails adhere to fence lines, traverse populated areas, cross streams or follow any type route that a person might reasonably use. Only by making training realistic can the team be prepared for field service.

### 135. Tracking on Roads

*a.* Roads and other manmade surfaces are extremely difficult to track on since they do not retain scent to any significant degree. Poor scent retention is further aggravated by wind, rain, sunlight, and passage of time. Much can be done, however, to improve a dog's ability to track on roads or other hard surfaces.

*b.* Initially, straight tracks should be used that run along the shoulder of the road (fig 26). As

proficiency develops, tracks should start on the shoulder, then follow the surface of the road for a short distance before returning to the shoulder (fig 27). Training should be continued until the dog is capable of crossing and recrossing the entire road in pursuit of the scent track (fig 28). The age of the track used must be varied on a daily basis to compensate for climatic conditions, or other contingencies that would destroy the scent track prior to the dog's arrival. When tracking on or adjacent to hard surfaces, a great deal of initiative by the handler is required. If the dog loses scent when crossing a road, or becomes confused when it reaches the other side, the handler should recast his dog in a logical manner in order to successfully reestablish the track. Failure to do this promptly will cause the dog to lose interest, and ultimately lead to the unsuccessful conclusion of the track.

### 136. Tracking Through Populated Areas

*a.* Tracking through populated areas is the single most demanding task a tracker dog team can face. As a result, tracker dogs and their handlers must receive extensive exposure to this requirement during advanced tracking. This may be accomplished by using playgrounds, housing areas, parade fields, farmyards, or any other area in which there is a large concentration of human or animal scent.

*b.* People, traffic, loud noise, foreign odors, and domestic animals can all create an atmosphere of confusion for the tracker dog. Because of this, handlers must be extremely competent before they

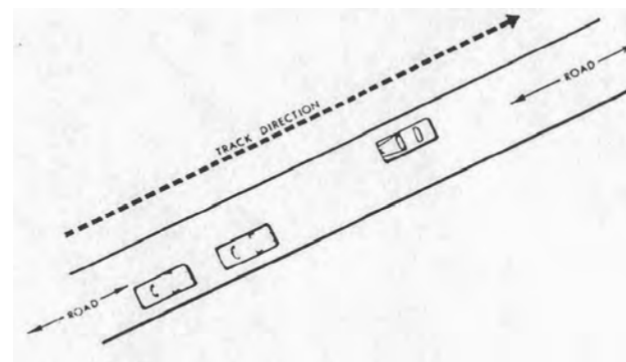


Figure 26. Tracks along shoulder of road.

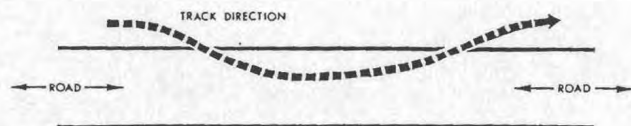


Figure 27. Tracks alternating on and off road.

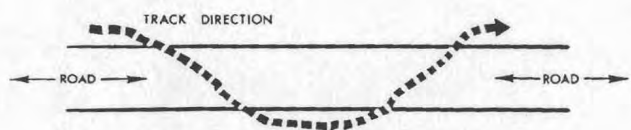


Figure 28. Tracks crossing and recrossing road.

are required to run a track through populated areas. Obviously, training should commence with short, hot, known tracks on which maximum control is imposed.

c. Maintenance of a vivid scent picture is absolutely essential. To assist in this, three or four tracklayers should be used throughout early stages of this training. Also, the area selected should be only moderately populated so that the dog can achieve reasonable success as soon as possible. The handler should also be given a definite starting point for each track.

d. To provide realism, tracks should be diversified so that they begin in, traverse, or terminate in populated areas in no particular order of priority. By the time training is completed, dogs should be able to track a single quarry through a populated area on a track of reasonable age. Also, if given the scent of a particular individual the dog should be able to establish the correct scent track within a populated area and follow that specific track until the quarry is caught. The dog must also be able to follow a track from an isolated area into a populated area without losing the scent.

e. All animals will not perform in a uniform

manner and should not be expected to do so. The ability to follow an hour-old track through a populated area is reasonable under ideal circumstances. Some dogs will do much better than this; however, they will be the exception to the rule. As a result, the age of the track to be followed must be determined according to the needs of the individual animal.

f. A moderate to slow tracking speed is highly desirable as it allows the dog to discriminate carefully between the scent of the quarry and other extraneous odors in the immediate vicinity. Handlers should avoid recasting the dog too frequently. Instead, the animal should be allowed to work out the scent track, if possible. With suitable encouragement from the handler most dogs will accomplish the task with little difficulty.

g. After the dog has become proficient in running known tracks through a populated area, unknown tracks should be introduced. This should be accomplished slowly, with the length and age of the track corresponding to the needs of each team. Ultimately, tracking through populated areas should be integrated into normal tracking exercises, and teams should be able to encounter such areas with only a marginal reduction in efficiency.

## CHAPTER 13

### COMBAT TRACKER TEAMS

#### 137. Introduction

a. One of the problems which face security forces during counterinsurgency operations is that of following the enemy after a contact has been made. Only by vigorously pursuing him to wherever he is located will it be possible for the security forces to dominate an area and reduce the activities of the enemy.

b. The combat tracker team evolved during World War II and was revitalized during the more recent United Kingdom Forces Operations in Malaya, Kenya, Cyprus, and Borneo.

#### 138. Characteristics and Organization

a. *Requirements.* The main requirements of the team are that they should be—

- (1) Highly trained in tracking, woods craft and skill at arms.
- (2) Trained as a close-knit team.
- (3) Lightly equipped.
- (4) Highly mobile i.e., capable of moving by foot, air, road.
- (5) Able to remain in the field for 5 to 6 days without resupply.

b. *Organization.* The combat tracker team is divided into three elements.

- (1) The command.
- (2) The tracking element.
- (3) Protection element.

c. *Team Composition.* It consists of a five-man team plus one dog. The composition is as follows:

- (1) Team leader.
- (2) Visual tracker.
- (3) Tracker dog handler with tracker dog.
- (4) Radiotelephone operator.
- (5) Coverman.

#### 139. Description of the Team

a. The team leader is usually a noncommissioned

officer and his task calls for initiative and practical knowledge.

b. The radiotelephone operator maintains communications for the team and can become a second coverman.

c. The visual tracker is a school-trained visual tracker with a high degree of skill in visual tracking.

d. The dog handler is a school-trained dog handler.

e. The coverman is a school-trained visual tracker who acts as security for the team.

#### 140. Responsibility of Team Members

a. *Team Leader.*

- (1) Supervises and plans the training of his team.
- (2) Insures that rally points are selected, and that they are easily recognizable and dependable.
- (3) Sees that the team members are skilled in first aid.
- (4) Relays all information to his support unit.
- (5) If the track splits, decides which to follow.
- (6) Is sure that his team is in a state of readiness when on standby.
- (7) Maintains a high standard of navigation ability.
- (8) Insure that antimalarial precautions are taken by team members.
- (9) Decides if his team can handle enemy contact.

b. *Visual Tracker.*

- (1) Makes sure that team leader gets all available information from the track.
- (2) Is responsible for team protection when not actually tracking.

(3) Insures that team members practice tracking regularly.

*c. Coverman.*

(1) Sees that the team leader is given all information when contact is made.

(2) Protects the visual tracker and the dog handler.

(3) Is always alert for the enemy.

*d. Radiotelephone Operator.*

(1) Is responsible for the team's protection.

(2) Teaches all team members to operate radio.

(3) Requests help from the team leader if help is needed to set up radio.

(4) Normal signal duties.

*e. Dog Handler.*

(1) Is responsible for his own protection when not tracking.

(2) Consults the visual tracker when not certain his dog is on track.

(3) Paces the team for the team leader when in reserve.

*f. Weapons and Equipment.* The weapons and equipment carried by the team are in accordance with the individual unit and the team SOP.

#### 141. Capabilities of a Tracker Team

*a.* They are a closely knit team used to working together and have a working knowledge of each others duties.

*b.* The team can carry sufficient food and water to operate for 5 to 6 days. Any increase in rations will add weight and slow down the followup. Providing the team can be resupplied, they can operate indefinitely. However, it is advisable to relieve tracker dogs every 48 hours where possible.

#### 142. Limitations of a Tracker Team

*a.* It is unable to track at night in a tactical manner through thick jungle.

*b.* Visual trackers and dogs find it difficult to follow a track after a heavy rain.

*c.* To follow a track that is more than 24 hours old is difficult.

#### 143. The Tracker Dog

*a. Advantage.*

(1) It is normally faster than a visual tracker.

(2) It can track over terrain that, for practical purposes, has no signs.

(3) It can track at night.

(4) It may indicate when it is nearing the enemy.

*b. Disadvantage.*

(1) When required to work a long track under difficult conditions, its tracking ability deteriorates.

(2) Under difficult conditions it may go off track to get water.

#### 144. The Visual Tracker

*a. Advantages.*

(1) He is able to give a verbal account of information.

(2) He can assist the dog handler to find the track if the dog has lost it.

(3) Even when not tracking, his superior powers of observation are invaluable.

*b. Disadvantages.*

(1) He cannot track at night without a light.

(2) He is normally slower than the dog in the followup.

#### 145. The Scout Dog

The scout dog is not a tracker dog. It is taught to indicate the presence of humans in an area through airborne scent. This type of dog, although not a part of the team, can be of assistance under certain conditions while following the track and especially if the team is used as a reconnaissance patrol.

#### 146. Tracker Team Ability

Ideally, it would be best if every subunit was able to follow a track and followup on contact with the enemy. This is not often possible because of the degree of skill and the detailed and continuous training needed to produce a first rate combat tracker team. Therefore, what is needed is a small number of trained tracker teams that can be sent to those units that need them to follow the enemy from a point of contact, and lead the followup forces to the enemy.

#### 147. Requirements

The tracker team should be able to fulfill the following requirements:

*a.* Arrive at the point of contact and lead the followup unit until contact with the enemy is made again.

*b.* Investigate an area that is believed to contain the enemy and follow any tracks that are found.

*c.* Act as a source of intelligence for the commanding officer.

*d.* Train section commanders and lead scouts of the units in the art of observation and the principles of visual tracking.

#### 148. Requirements of the Team Leader

*a.* Supervise and plan the training of his team.

*b.* Control the three elements of the team on operations.

*c.* Decide when to use dog or visual tracker.

*d.* Pass back information to his headquarters.

#### 149. Tactical Employment

The tracker teams will normally be held centrally for reasons of economy, under the control of the commanding officer who will allocate them to specific missions as they arise. With two or more teams at headquarters, it is possible to have a team on immediate standby 24 hours a day. This team will be moved to the point of contact by the quickest means available. The sequence of events are along the following lines:

*a.* The standby team is called for operational duty.

*b.* A second team, if available, comes to 1-hour notice to move. It will then be required to—

(1) Take on a fresh mission if the enemy has split up.

(2) Take over for the team already committed, if necessary.

(3) Take on a fresh mission if one should arise.

*c.* The first team reaches the point of contact and establishes the direction in which the enemy has moved.

*d.* The first team starts tracking the enemy; it is supported, whenever possible, by an appropriate strength infantry unit.

*e.* The first team locates the enemy and reports it to the support unit and disengages.

*f.* The support unit destroys the enemy.

*g.* The tracker team with its dog handler and visual tracker is not designed to attack and destroy the enemy. This is a job for the infantry support unit. The sole job of the tracker team is to find the enemy. The best form of transportation in jungle areas is by helicopter. However, there are occasions when there is no available landing space close enough to be used. This problem is solved by the use of rappelling gear. With this equipment a man can be lowered through the trees to the beginning of a track, saving time and effort. A special harness is used for lowering the dog.

#### 150. Training

*a. General.* Normal training is carried out by the teams with a special emphasis on tracking and working with dogs.

*b. Visual Tracking Observation.*

(1) The principles of visual tracking are taught to all members of the team. Proficiency at visual tracking can only be maintained by frequent and closely supervised practice and training.

(2) The powers of observation are continually being tested during visual tracking exercises but observation tests should be held weekly in the form of a track with different kinds of enemy equipment hidden on or near the trail. This training is given to the team to help them obtain additional information about the enemy.

#### 151. Tracker Dog Training

This is carried out by the dog handler at least three times a week varying the length and age of each track. The whole team will follow the dog at least once a week.

#### 152. Marksmanship

All team members should practice marksmanship and quick fire shooting exercises at least twice a week or whenever possible.

#### 153. Physical Training

It is important that all team members keep physically fit. This is achieved by dog and visual tracking exercises and also by morning physical fitness exercises. The time that a team can spend on a mission is relative to their physical fitness.

**154. Helicopter**

The basic drills are rehearsed continually and descent by rappel is practiced as often as possible.

**155. Signal Training**

Every member of the team is instructed in the use of any radio sets used by the team. They all must be proficient in operating the sets and should practice to this end.

**156. Training, General**

If the enemy is to be hunted after his tracks have been found, tracker teams with trained trackers and dogs are essential, otherwise contact is unlikely to be gained. Furthermore, it is vital that no time be lost in reaching the point of contact so the track will be as fresh as possible. It is essential that friendly troops interfere with the enemy tracks as little as possible and mark the advance of the enemy, if possible. If the team is committed early, the combination of the visual tracker and dog (with a small support unit plus command element) can furnish the commanding officer with an important weapon in his search for the enemy. The team needs constant and regular training to improve its tracking and experience and thus increases its chances of success. The commanding officer must bear in mind that while the team can defend itself and may even take limited defensive action, it is not a hunter-killer group and is only designed to find the enemy, not fight him.

**157. Operational Employment of a Combat Tracker Team**

Sequence of events:

- a. Standby team is alerted. Replaced by second team.
  - (1) Team commander briefed on—
    - (a) Where to go.
    - (b) Reason for callout.
    - (c) Method of transportation.
    - (d) Whom to contact on arrival.
    - (e) Radio details.
    - (f) Other friendly forces in area.
    - (g) Details of support unit.
  - (2) Team leader briefs team.
  - (3) Team moves to contact location.
- b. When teams arrive at contact location—
  - (1) Team leader is briefed by local commander.
  - (2) Radiotelephone operator establishes radio contact with support unit.

(3) Remainder take up all-round defense.

(4) Information secured on—

- (a) Present grid reference.
- (b) Details of enemy:
  1. Time last seen.
  2. Number, estimated.
  3. Number seen.
  4. Weapons carried.
  5. Equipment.
  6. Dress.
- (c) Limits of movement of own troops.
- (d) Weather at time of incident and before incident.
- (e) Details of friendly, enemy troops in the area.
- (f) Whether friendly forces in area have been warned that a tracker team is in the area.
- (g) Strength and composition or support unit.
- (h) Signal operating instructions (SOI) to be used.
- (5) Visual tracker and covermen briefed.
- (6) Visual tracker to go to limit of local movement and search for enemy sign. Make sure friendly forces are informed.
- (7) Remainder of team is briefed.

**158. When Visual Tracker Returns With Information**

- a. Visual tracker's information is compared with that obtained on arrival at contact point.
- b. Additional briefing for team and support unit, if necessary, is given.
- c. Team and support unit move off on track, led by the visual tracker.
- d. Team leader replaces visual tracker with dog when he considers it appropriate.

**159. Order of March**

There are two orders of march for the tracker team. They are for either open country or close country.

**a. Close Country.**

- (1) When dog leads:
  - (a) Dog.
  - (b) Dog handler.
  - (c) Coverman.
  - (d) Team leader or visual tracker (interchangeable).
  - (e) Radiotelephone operator.
- (2) When visual tracker leads:

- (a) Visual tracker.
- (b) Coverman.
- (c) Team leader.
- (d) Radiotelephone operator or dog handler and dog (interchangeable).

**b. Open Country.**

- (1) When dog leads (position on track):

\*DH  
CM  
VT            TL  
RTO/CM

- (2) Visual tracker leading (position on track):

VT  
CM  
TC            RTO/CM  
DH

**160. Resting/Radio Communication**

The team must keep the headquarters element informed of the situation.

- a. The team leader selects a tactically acceptable area and halts the team.
- b. Leading tracker (dog or visual) moves forward.
- c. Team in all-round defense position.
- d. Routine situation report—maximum interval, 3 hours.
  - (1) Grid reference.
  - (2) Time arrived.
  - (3) Number of enemy being tracked.
  - (4) Age of track.
  - (5) General direction taken by enemy.
  - (6) Planned time of departure.

**161. Night Stop**

a. In order to make up time on the enemy and maybe catch them when they have halted for the night, the team must track on until the last possible minute, that is, until it is too dark for the visual tracker to see signs. The time of day

**\*Abbreviations:**

DH	.....	Dog handler.
CM	.....	Coverman.
VT	.....	Visual tracker.
TL	.....	Team leader.
RTO	.....	Radiotelephone operator.

that this occurs will vary according to weather and the amount of cover overhead.

b. The team leader halts at selected areas and informs support unit.

c. Team tracks on to insure that the enemy is not in the area.

d. The limit of their forward movement is noted and they return to the security area. By this time it will be 20 to 30 minutes before dark.

e. All personnel in the support unit must be up in time to pack and move forward to the point where the team stopped and be ready to follow the team as they resume tracking in the morning. The time to start is as soon as the visual tracker has enough light to read signs.

**162. Meals**

a. While pursuing the enemy there will be no set time for meals. Meal breaks will be up to the team leader.

b. The halt for breakfast should not be made until it is obvious that it is too late in the day to contact the enemy in his overnight area.

**163. Action if the Track is Lost**

a. As soon as the tracker dog handler suspects that his dog is not on the track, he must stop and inform the team leader.

b. The team leader will then decide, according to circumstances, whether the dog handler should cast his dog, or a visual track is to be used.

c. If the visual tracker is to be used, the normal procedure is:

(1) Personnel search (first step of the lost track drill).

(2) Retrace, checking back along the track.

(3) Extended personnel search, if the previous methods fail.

(4) Box search or another area type search until track is reestablished.

**164. Team Locates the Enemy****a. Either—**

(1) The dog alerts on the near presence of the enemy.

(2) A coverman sees the enemy.

(3) Very fresh sign is found (crumbling

footprints, burning cigarette butts, smell of food or fire).

b. Visual tracker, coverman, and team leader search forward.

c. Visual tracker and coverman remain; team leader returns to team.

d. Team leader and support unit commander make their plan by radio and dog handler moves back.

e. The enemy is attacked. (The team may be used as a blocking force or as a support group.)

f. If the rear of the enemy party is seen, and they do not know that the team is on their tail, it is usually best to shoot them immediately. If the teams halts to form a plan, the enemy may have moved to an unknown location.

#### 165. After the Attack

a. Clear and definite enemy area.

b. Prepare a situation report.

c. Establish limit of movement of own troops.

d. Box search by visual tracker and coverman.

e. Make followup plan, after visual tracker and coverman have reported the results of their searches.

f. If all enemy personnel have not all been accounted for, tracking restarts.

#### 166. Danger Area

A danger area is any area which requires increased or additional security precautions. The track is not to be abandoned for a danger area. The tracker team must remain on the track when reaching a danger area. Unlike ranger or long range reconnaissance patrol teams, tracker teams cannot always completely avoid potential danger areas. Keeping on track is their primary mission and all danger areas cannot be completely avoided.

#### 167. Action at Danger Area

a. *Trails, Roads, and Streams.* When the visual tracker or dog handler determines that a trail, road, or stream is a danger area, he will pass back the silent signal that means obstacle or danger area ahead. Every member of the team will pass the same silent signal back. The rear security coverman and radio operator will pass

the same signal forward to the team leader to let him know that they got the signal and are aware of the obstacle or danger area. The visual tracker or dog handler will then pass back the silent signal that means team leader forward. This silent signal is also passed back to the rear security coverman and back up to the team leader. This is to let every member of the team know that the team leader will be moving forward with the visual tracker and the team will be at a halt until the team leader gives the order to move out. The visual tracker will explain to the team leader what type obstacle or danger area it is. The team leader will decide how he will cross the obstacle or danger area. When the team leader approaches the visual tracker, the coverman will take up a good tactical position either left or right of the visual tracker. When the team leader decides how and where he will cross the obstacle or danger area, he will take up a good tactical position and have his visual tracker and coverman to check left and right 50 to 75 meters for signs of the enemy and to see if the enemy moved up or down the trail, road, or stream, or if they crossed the trail, road, or stream. If the team leader sees that he needs more support before he moves his team out, he may call the supporting unit. Gunships or any supporting fire he has may be used to support the team. If the track goes across the trail, road, or stream and the team leader sees he has to cross, he will have one man cross at a time. The visual tracker and coverman will move close to the edge and stay under cover if possible. The visual tracker will check the other side of the trail, road, or stream for possible enemy position and preselect a good fighting position for himself to advance across the trail, road, or stream as a lead scout, not as a visual tracker. The coverman will take up a good fighting position and cover the visual tracker while he crosses. After the visual tracker is in position he will check the area again for a possible enemy position. After he has checked the area and determined that the area is clear, he will pass the silent signal that means OK back to the coverman. Remember, every silent signal that is given is passed to every member of the team and back to the team leader. After the visual tracker has passed back the OK signal, the team leader will take up a good fighting position where he can advance across the danger area and provide cover for the coverman while the coverman crosses the danger area. The radio operator will move up and take up a good fighting position close to the danger area.

The rear security will also move forward and take up another good fighting position. After everyone is in position the coverman will preselect a good fighting position across the danger area and move across the danger area. When he gets into his new position he will check the area for a possible enemy position. When he determines that the area is clear he will pass back the signal OK to the team leader. At this time the radiotelephone operator will move close to the edge of the danger area, keeping under cover, so he can cover the team leader while the team leader crosses the danger area. The rear security will also move close to the danger area. After everyone is in position the team leader will preselect a good fighting position across the danger area, and move across. After the team leader is in position he will check the area for possible enemy position. After he determines the area is clear, he will pass back the signal OK. The rear security will move close to the edge of the danger area. The rear security will face to the rear. After everyone is in position the radiotelephone operator preselects a good fighting position and moves across the danger area. Once the team leader is in position and checks the area for possible enemy he will turn around and face to the rear so he can provide security to the rear while the rear security crosses the danger area. At this time the radiotelephone operator will pass the OK signal back to the rear security. The rear security will preselect a good fighting position, and move across the danger area. Once he is in position he will turn and take up security to the rear. The radiotelephone operator will then turn and face to the front. The team leader will have his visual trackers and coverman confirm the track; the team leader, radiotelephone operator, and rear security will stay in position and apply security for the visual tracker and the coverman while they confirm the track. Once the visual tracker confirms the track he gives the OK or confirm signal. The team will move out on track. If the track goes up or down a trail or road the team will move along beside the trail, or road, and the visual tracker will check the trail or road every 50 to 75 meters to make sure the track is still on the road.

b. *Open Areas (Fields, Open Terrain).* When the visual tracker approaches an open area he will halt the team and pass back the obstacle or danger area silent signal. He will then pass back the signal for the team leader to move to his position. The coverman will move left or right

and take up a good tactical position. The team leader will decide when to move his team across the danger area, he may want more support to cover his team while they cross the danger area. When the team moves through an open area they will go into an open formation. They will still keep in visual contact with each member of the team. Every member in the team has to be able to see the signal that the team leader has selected to gain the team's attention.

c. *Logs.* When they approach a log the visual tracker will pass back the obstacle or danger area silent signal. This signal is passed back to every member of the team and then back to the team leader. The visual tracker will move to the log and stay. The coverman will take up a good position where he can cover the visual tracker. The visual tracker will move across the log and take up a good position and check the area for possible enemy presence. Once he determines the area is safe he will give the signal OK. The coverman will then move across the log. Once he is across he will move to the visual tracker's position and let the visual tracker know he is across. The team will move out on track. The visual tracker and rear security will cross the log the same way as the visual tracker and coverman. The radiotelephone operator will cover the team leader once the team leader has moved across the log and sets up a good fighting position; he will cover the radiotelephone operator while he crosses the log. Once the radiotelephone operator gets across the log he will let the team know he is across. The team leader will move out. The radiotelephone operator will turn and face to the rear and cover the rear of the team while the rear security moves across the log. Once the rear security gets across the log the radiotelephone operator will move out, and the team will move back to the normal pace.

d. *Path or Small Trails.* When the team approaches a path or small trail, the visual tracker will pass back the danger area silent signal. The visual tracker and the coverman will move to the edge of the path or small trail and check the area for possible enemy presence. When they determine the area is clear, they will move across. The visual tracker will slow down the pace for the remainder of the team to cross. The team leader will move to the edge of the path or small trail and check for possible enemy presence, once

he determines it is safe, he will cross. The radiotelephone operator will go through the same precautions as the team leader. Once the team has crossed the path or small trail they will move at a normal pace.

*e. Native Villages.* When approaching a native village the visual tracker or dog handler passes back the danger area silent signal. After the signal has been passed back to the team leader, the visual tracker will pass the silent signal for the team leader to move to his position, and he will signal the coverman to take up a good fighting position; he will cover the front. It is left up to the team leader to make the decision how the team will approach this danger area.

*f. Minefield.* When the team approaches a minefield, the visual tracker or dog handler will pass back the danger area silent signal. After the signal has been passed back to all members of the team, and back to the team leader, the visual tracker or dog handler will pass the signal for the team leader to move to his position. The coverman will move away from the visual tracker or dog handler and take up a good fighting position where he can cover to his front. The team leader will decide what action he will take to get his team across the minefield.

*g. Enemy Position.* When the team approaches an enemy position the member of the team who sees the enemy position first will stop the team by using a silent signal; after the team has stopped and taken cover the member who saw the enemy position will signal the team leader to his position. He will point out the enemy position.

The team leader will determine where he will have the visual tracker and coverman check the position for information; or whether to have the team to pull back to a safe area and ask the support unit to check the area, or call in an artillery fire mission, or gunships, or an Air

*h. Boobytrap.* When the team approaches a boobytrap, the visual tracker or coverman will pass back the silent signal that means boobytrap and stop the team. After the signal has been passed back to the team leader, the visual tracker will pass the signal for the team leader to come to his position. Once the signal is passed back to the team leader the coverman (or dog handler) will move left or right and take up a good fighting position. The team leader will check the boobytrap or have the visual tracker, or coverman, check. At no time will the team blow the boobytrap. The team leader will determine where to step over the boobytrap or go around. Once the team moves out the visual tracker and coverman will slow the pace down so the team can step over or go around the boobytrap. The team leader points out the boobytrap to the radiotelephone operator; once the radiotelephone operator crosses or goes around the boobytrap he will point out the boobytrap to the rear security coverman. If the team has a support unit following them, the team leader will inform the support commander and give the location of the boobytrap and mark it. If the team is on a recondo patrol they will not mark the boobytrap; they will leave the boobytrap in place and call back its location to their headquarters.

## CHAPTER 14

### VISUAL TRACKING COURSE

#### 168. General

The visual tracking course will be divided into four phases with each phase after the first being more difficult.

#### 169. Purpose

The purpose of the course is to give the students practice in all aspects of the team jobs of lead scout and visual tracker or a member of a tracker team when searching for and following the enemy.

#### 170. Outline of Exercise

The distances are suggested and are used as examples. Course personnel will be divided into groups to act as patrols searching a given area for signs of the enemy.

#### 171. Day I—From Start Point to Camp A

Course personnel will be given an azimuth to work to and instructed to move through the area checking for signs of the enemy in the area. They are to report by radio all information gained. They are to mount a limited followup of any fresh tracks found in the area (maximum 500 meters). They will engage the enemy if located. Finally, the team is given a grid coordinate to be at by darkness that day. From this grid coordinate there will be a 500-meter fresh track to an overnight campsite where rations and overnight sleeping equipment is located. There should be specific situations set up for the students to cope with.

These are—

- Fresh track leading to ambush position of five men.
- Fresh track leading to old five-man camp.
- Fresh track leading to tunnel.
- No tracks. Five-man ambush of patrol.
- Fresh track leading to where two wounded were tended.

*f.* Fresh track deception tactic.

*g.* Fresh track leading to sleeping sentry.

*h.* Fresh track leading to freshly dug grave.

*i.* Fresh track leading to small food dump.

*j.* Fresh track leading to overnight base camp and evening meal.

#### 172. Day II—From Camp A to Camp B

*a.* Head-on clash with noisy enemy patrol.

*b.* Wood chopping in enemy base camp.

*c.* Lone enemy moving towards patrol.

*d.* Fresh tracks leading to boobytraps.

*e.* Fresh track leading to occupied ambush position.

*f.* Fresh track, easy to follow deception of split track, enemy to circle and attack patrol from rear.

*g.* Talking, coughing, and cooking noises to lead patrol into an ambush.

*h.* Fresh track with enemy rear coverman firing one shot and then withdrawing.

*i.* Fresh track leading to boobytrapped food dump.

*j.* Fresh track leading to main overnight base camp and evening meal.

#### 173. Day III—From Camp B to Camp C

*a.* Head-on contact with silent and alert enemy patrol.

*b.* Sniper fire from trees.

*c.* Sniper fire from bunker.

*d.* Fresh track leading to well-concealed and camouflaged ambush site.

*e.* Immediate counterattack of above ambush site after withdrawal.

*l.* Fresh track leading to well-concealed boobytraps.

*p.* Fresh track leading past camouflaged tunnel air vents.

*h.* One enemy to follow up patrol and snipe during lunch break.

*i.* Fresh track leading to boobytrapped, small food dump.

*j.* Fresh track leading to overnight base camp and evening meal.

#### 174. Day IV—From Camp C to End of Track

*a.* Enemy track laid along full length of patrol's azimuth.

*b.* Boobytraps along track

*c.* Ambush, side front

*d.* Ambush, rear.

*e.* Final head-on contact where it is expected that the patrol will eliminate enemy group.

#### 175. Administration Instructions

*a.* Safety vehicle and driver for duration of exercise will be available. All surplus food and equipment will be carried on this vehicle to the next base camp area.

*b.* Radios and operators for course personnel use and as a link to training course headquarters unit. To remain with and move with the safety vehicle.

*c.* Medical team and vehicle also moves with safety vehicle.

#### 176. Equipment

Normal sleeping equipment, boobytrap simulators, blank cartridges, and radios

## APPENDIX A

### REFERENCES

#### Field Manuals (FM)

(C)5-31  
20-20  
20-32  
21-6  
21-11  
21-26  
21-50  
21-76  
21-76  
24-18  
30-5

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Survival, Evasion, and Escape.  
Field Radio Techniques.  
Combat Intelligence.

## INDEX

	Paragraph	Page
Advanced tracking	133-136	72, 73
Adverse factors, tracking	7	9
Base tracking	115-125	60-65
Boobytraps	167	80
Box search	70	48
Casting drills:		
Initial	66-68	47
Extended	69	48
Combat reaction drill:		
Breaking contact:		
Attack from front	47	35
Attack from rear	48	35
Immediate action drills	49	36
Making contact	46	36
Combat tracker teams:		
After attack, action	165	80
Briefing	158	78
Characteristics/organization	138	75
Danger area, action	166, 167	80
Locating enemy	164	79
Lost track, action	163	79
Meals	162	79
Night stop	161	79
Operational employment	157	78
Order of march	159	78
Physical training, team	153	77
Signal training	155, 160	78, 79
Tactical employment	149	77
Team ability	140	76
Team capabilities	141	76
Team description	139	75
Team leader requirements	148	77
Team limitations	143	76
Team member responsibilities	140	75
Team requirements	147	76
The dog	143	76
The visual tracker	144	76
Training, dog	151	77
Training, team	150	77
Climatic factors	5	5
Commands with dog	116	60
Danger areas:		
Boobytrap	167	80
Enemy position	167	80
Minefield	167	80
Logs	167	80
Open areas (fields)	167	80
Path, small trails	167	80
Trails, road, stream	167	80
Villages	167	80
Deception tactics:		
Change of direction:		
Dig tree	60	44
Clearing	62	44
Marked tracks	61	44

## Deception tactics—Continued

Change of direction—Continued		
General	6	45
Orchard area	6	45
Use of rivers, streams	6	45
Dog handler	87	54
Dog handler qualifications:		
Essential traits	75	41
Determining factors	75	42
Dog selection:		
Physique	84	50
Screening procedures	82	50
Temperament	83	50
Dog training area:		
Acreage requirement	53	50
Climate	54	50
Terrain	52	54
Dog training equipment	52-54	53, 54
Dog training personnel:		
Handler	81	54
Instructor	85	54
Tracklayer	86	54
Drills:		
Immediate action	70	57
Reaction	52-53	55
Ground signs	52	57
Immediate action drill	49	36
Instructor	65	54
Intermediate tracking	52-54	66-71
Laying the track (training):		
Crosstracks	111	59
Scent pads	113	58
Scuff marks	117	58
Track age	115	60
Track length	112	60
Turns	116	59
Wind direction	111	59
Lost track, finding:		
Box search drill	73	48
Extended cast drill	68	48
Initial cast drill	66-68	47
Last definite sign	71	47
Other search methods	71	48
Military tracker (visual)	20, 21	20, 21
Minefields	167	80
Reading the track:		
Determining condition of person being tracked	50	42
Determining direction	51	37
Determining weapons being carried	50	42
Estimate age of track	52	40
Estimate number persons being tracked	52	39
Estimate type load being carried	50	39
Gaging speed of movement	54	36
Gaining information	52	37
Ground signs	52	36
Top signs	52	36
Reaction drill	52	36
Reconno patrol, tracker	71	27, 31
Scents, types of:		
Ecological	101	57
Individual	101	57
Reinforcing	101	57



	Paragraph	Page
Searching for tracks .....	10	10
Searching for track signs .....	65-72	47-49
Searching, types of:		
Cross grain .....	10	10
Extended personnel .....	10	10
Personnel .....	10	10
Retrace .....	10	10
Signs:		
Climate .....	20	17
Definition .....	13	11
Factors affecting .....	17	12
Ground .....	14	11
Introduction .....	12	11
Temporary, permanent .....	16	12
Terrain, effect on .....	19	12
Time .....	21	18
Top .....	15	11
Where to look for .....	18	12
Signs, effects of terrain on:		
Desert .....	19	12
Forest .....	19	12
Grassland .....	19	12
Mountainous .....	19	12
Water area .....	19	12
Silent signals .....	44, Fig 12	32, 33
Terrain factors:		
Desert .....	5	5
Forest .....	5	5
Grassland .....	5	5
Jungle .....	5	5
Mountainous .....	5	5
Vegetation .....	5	5
Water areas .....	5	5
Top signs .....	53	38
Track following drill:		
Points to remember .....	27	23
Precautions .....	28	24
Seven-step drill .....	25, 26	20
Tracklayer .....	90	54
Track picture (training):		
Ecological scents .....	105	57
General .....	101	57
Individual scent .....	103	57
Picture .....	102	57
Reinforcing scents .....	104	57
Track, reading .....	50-59	37
Track, searching for .....	10	10
Tracker dog (team) training:		
Dog's capabilities .....	74	51
Dog's limitations .....	75	51
Training program .....	76	51
Tracker scout .....	21, 29	20, 25
Tracker reconno patrol:		
Communication .....	25	28
Control .....	34	27
Duties within patrol .....	42	30
Equipment .....	25	28
Importance of .....	37	28
Missions .....	32, 33, 40	27, 29
Organization .....	28	28
Route/movement .....	43	31
Support .....	36	28

	Paragraph	Page
Tracker reconno patrol—Continued		
Tactics/techniques:		
Actions at danger areas .....	41	29
Halts .....	41	29
Infiltration/exfiltration .....	41	29
Jungle and/or bushcraft .....	41	29
Tracker training—dog team:		
Advanced tracking:		
General .....	133	72
Team performance objective .....	132	72
Tracking on roads .....	135	73
Tracking through populated areas .....	136	73
Unknown tracks .....	134	72
Basic tracking:		
Acknowledging the track .....	119	62
Changeover .....	117	61
Commands .....	116	60
Establishing track .....	118	61
General .....	115	60
Increasing age and distance .....	123	65
Over-train theory .....	124	65
Reading dog on track .....	125	65
Tracking speed .....	130	63
Tracking strangers .....	122	65
Training procedures .....	121	63
Intermediate tracking:		
Ambushes .....	130	65
Crosstracks .....	129	69
General .....	127	66
Team performance objective .....	126	66
Tripwires/boobytraps .....	131	71
Turns in track .....	125	66
Tracking, ability .....	4	4
Tracking, adverse factors .....	7	9
Tracking, art of .....	3	4
Tracking conditions (training):		
At night .....	100	56
Favorable .....	96	55
Through ice, snow .....	99	56
Through water .....	95	56
Unfavorable .....	97	56
Tracking, deception tactics .....	9	9
Tracking, factors that influence:		
Climate .....	5	5
Terrain .....	5	5
Tracking, methods of .....	5	9
Tracking, types of .....	4	4
Visual tracking course:		
Administration/equipment .....	175, 176	84
Four-day course .....	170-17c	82, 84
Purpose .....	169	83