

JUNGLE FTX, 1988

SPECIAL FORCES

COMBAT RECON
MANUAL

TIPS OF THE
TRADE



MRDC
POC: SAWYERZEROONE

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B-720 TIPS (DEC 95), 1/7 SFG

1. The B-720 Tips are an update of the Vietnam era "B-52 TIPS." The B-52 Tips were published in 1970 and captured valuable combat experience in jungle operations. In 1988 the 1st Battalion, 7th Special Forces Group (with several joint attachments), conducted an extensive series of jungle operations. They ended the exercises by updating the B-52 Tips to cover changes in equipment, weapons, and doctrine. These include many new techniques, such as Night Vision Goggles and MH-60 (Blackhawk) tips, and a section on "Hatchet Team" (QRF) operations. The lengthy and detailed "PW Snatch," "Breakout," and "Movement Techniques" portions from B-52 Tips were excluded because, while important, they are step-by-step "how-to" formats, not "tips," and can be found in TC 31-29.

2. The B-720 Tips were not written to be the replacement for B-52 Tips but to provide the Special Operations community with a report of lessons learned (and relearned) in combat patrolling. The reader may note redundancy in certain information; this was done for emphasis. There may also appear to be some inconsistencies; these were allowed to account for variations in technique between teams. These are tips, not regulations.

3. The B-720 Tips are organized into 10 major areas:

- A. Leader Tips
- B. Uniform & Equipment Tips
- C. LCE/Rucksack Tips
- D. NVG Tips
- E. Weapons Tips
- F. Commo Tips
- G. Infil/Exfil Tips
- H. Recon Tips
- I. RON Tips
- J. Hatchet Team Tips

4. Readers who want to do a more in-depth study of jungle operations are reminded that there is a considerable amount of Vietnam experience and techniques available. Proponent school libraries, old Army and Marine manuals, and the professional journals of the day are all good places to start.

A. LEADER TIPS

1. No individual or team can practice or train too much or too often.
2. Teamwork is the key to success and will only come through constant training and rehearsal.
3. While on a mission, minimize fatigue, because tired men become careless.
4. If you show confidence, your team will have confidence.
5. Always have an alternate plan. Think ahead.
6. If you lose your temper, it will affect your judgment. Keep cool!
7. Don't be afraid to take advice from your team members.
8. Realism must be injected into all phases of training, such as zeroing weapons at targets in the jungle, using live training aids for PW snatch or ambush practice, etc.
9. Conduct at least half of your training at night.
10. Teams that have a good physical training program have fewer health problems.
11. Have a pre-mission and post-mission checklist to ensure that nothing is left behind.
12. Correct all personal, individual, and team errors on the spot.
13. Use tact when reprimanding your personnel, especially indigenous team members. If possible, take the man aside to criticize him. This enables him to react positively to the criticism, since he will not lose face, feel ridiculed or lose self-confidence.
14. Conduct English classes for your indigenous personnel, especially interpreters. Conduct classes for your U. S. personnel in your indigenous team members' language.
15. Don't set patterns in your operations.

16. Never do the obvious.
17. On patrol, stay alert at all times. You are never 100-percent safe until you are back home.
18. Have team members write down tips and lessons learned, and collect and consolidate them at the end of each mission.
19. Don't arbitrarily make all "tips of the trade" your team SOP. Always consider METT-T.

B. UNIFORM AND EQUIPMENT COMMON TO ALL

20. Wear camouflage BDUs on operations. Even when soaking wet at night, BDUs are remarkably "invisible" to NVGs. Plain OG-107 jungle fatigues, however, appear completely black when wet, and wet LCE appears like white stripes on them -- a man's silhouette can be clearly and easily seen by an enemy using NVGs.
21. Don't use luminous tape. It's easily spotted at long distance with NVGs.
22. Wear loose-fitting and untailored clothing on field operations. Tight-fitting clothing often tears or rips, allowing mosquitoes and leeches easy access to exposed parts of the body.
23. Tuck your jacket into your pants. You can't use the lower pockets because of your LCE anyway, and, in contact, you can temporarily stuff expended magazines inside your shirt.
24. Wear gloves to protect hands from thorns, poisonous plants, and insect bites, provide camouflage, and aid in holding a weapon when it heats up from firing. Aviator's nomex gloves work well.
25. Sew in a section of VS-17 panel to cover the inside top of your field hat, for use as an emergency daylight position marking signal to friendly aircraft. In the center of that, sew a 2" x 2" piece of USAF "burn tape" for use as a night-time position marking signal to AC-130 gunships (2" x 2" is the size recommended by the AC-130 low-light/night television operators).
26. Sew the same signal pattern inside your fatigue shirt, since hats are easily lost in firefights or pursuits.
27. Do not hang clothing or bandannas on green bamboo if you plan on wearing it afterwards. The fuzz on the bamboo is just like itching powder. Of course, clothing should not be removed or "hung out" on patrol.
28. If your mission requires long ropes, consider the use of 1" nylon tubing instead. It is lighter, more compact, and just as strong.

C. LCE/RUCK TIPS

29. Be sure that all snaps and buckles are taped. Do not use paper tape.
30. Always carry a sharp knife or bayonet on patrol.
31. Always wear your LCE buckled when not sleeping. If you're wounded, your teammates can drag you by your LCE shoulder straps.
32. For survival, each individual should carry a cut-down MRE in his pants' cargo pocket, and one tube of bouillon cubes in the first aid pouch on his LCE. One bouillon cube dissolved in one canteen of water will provide energy for one or two days.
33. Don't use 2-quart canteen covers to carry 30-round magazines. You can fit eight mags in one, but once you take the first mag out, the others rattle loudly and spill out easily. Use regular ammo pouches.
34. Sew a long slim pocket on the side of your ruck to accommodate the long antenna, or use an accessory kit bag clipped and tied to the side of the ruck.
35. Snap the snap link on your rucksack through the loop in the upper portion of your rucksack carrying straps or the frame, so you won't lose it during exfil when you snap it on a ladder or extraction fastrope.
36. Insect repellent leaks and spills easily, so put it in a ziplock bag and isolate it from your other equipment in the rucksack. Also, squeeze air from the repellent container and screw the cap on firmly.
37. Always use the water from canteens in or on your rucksack before using water in the canteens on your belt. This will ensure a supply of water should you ditch or lose your rucksack.
38. Test the shoulder straps on the rucksack before packing it for patrol. Always carry some parachute cord to repair straps on patrol.
39. Use a waterproof bag in the rucksack to protect equipment while on patrol. This is extremely important during the rainy season.
40. Camouflage your rucksack with black spray paint.

D. NIGHT VISION GOGGLES (NVG) TIPS

41. At night, carry NVGs in a claymore bag around your neck on your chest. This allows easy access and protects the NVGs from the elements.
42. Always carry a spare battery for your NVGs.
43. When in an OP at night, scan with NVGs only for a few moments every five minutes or so. If you scan continuously, you increase the chance of the enemy spotting your position (when two persons using NVGs in the passive mode look directly at each other, they will see glowing "cat-eyes," caused by retro-reflectivity).
44. When moving at night, only every other man should wear his NVGs. Point and trail always wear NVGs.
45. "Starlight" NVGs and Thermal Imaging Sights (TISs) complement each other, and are best used in combination. The point wears a PVS-5/7 NVG, and the slack (the man behind the point) uses a TIS.

E. WEAPONS TIPS

46. Never assume that your weapon is clean enough on an operation. **CLEAN YOUR WEAPON DAILY.**
47. Always carry rifle-cleaning equipment on operations - bore and chamber brushes, cleaning rag and patches, cleaning rod with handle and tip, and a small vial of weapons oil. A shaving brush is very useful.
48. When you fire your weapon, shoot low, particularly at night. Ricochets will kill just as well, and most people hit the ground when shooting starts.
49. Use one magazine full of tracer during infiltration and exfiltration. If taken under fire during infiltration or exfiltration, the tracers can be used to identify enemy positions to friendly air support.
50. The last three rounds in each magazine should be tracer to remind the firer that he needs a fresh magazine. Alternative: The last eight rounds are three tracers followed by five balls.
51. Quietly replace the cartridge in the chamber of your weapon each morning. Condensation may cause a malfunction.
52. Oil the selector switch on your weapon daily and work the switch back and forth, especially during rainy season. This will prevent the common occurrence of a stuck switch.
53. Always carry your weapon with the selector switch on "safe."
54. Use a plastic muzzle cap or tape to keep water and dirt out of the barrel.
55. To improve noise discipline, tape all sling swivels.
56. Rig the jungle sling so it is easily adjustable (for easy transition from rappel/fastrope to carry/fire). Tape a spare field dressing to the sling at the stock, using a single strip of wide cloth tape with a quick-release tab.

57. Check all magazines before going on an operation to ensure they are clean, properly loaded and that the springs are oiled and functioning. Magazine problems cause the majority of weapons malfunctions.
58. Place magazines upside down in your pouches to keep out dirt and water.
59. Do not retrieve your first expended magazine during contact because it will consume valuable time.
60. If you use a PAQ-4 Aiming Light on an M16A2 rifle, you must modify the handguard to allow the thumb switch to travel far enough to activate the light. Using the serrated edge of your bayonet, file down the area under the thumb switch (between the eighth and tenth ribs from the slip ring) about 1/4." This is not a problem on the M16A2 Carbine, because the handguard is smaller.

M203 Gunner Tips

61. In dense jungle, carry a 1:1 ratio of buckshot to HE, with 2-star clusters and 2-star parachutes for signalling aircraft.
62. In the jungle, point and trail men should be M203 gunners with buckshot in the chamber.
63. If you fire HE in the jungle at night, be ready to have it bounce off a tree limb right back at you and go off in your face.
64. Oil your M203 with 30W or 40W motor oil, especially the trigger, safety housing, and slide, due to rain and humidity in the jungle.

Saw Gunner Tips

65. Silence ammo in plastic drums by making inserts from tablet-back cardboard covered with acetate. Cut to fit two per drum.
66. When moving, use a 30-round magazine in the SAW. Attach a drum in the ORP or once in position in a hasty ambush.

67. SAW drum pouches are tightly-fitted and tend to pop open when you drop into the prone. Use cloth tape with quick-release tabs to prevent this. The 2-quart canteen covers are acceptable substitutes.

Claymore Tips

68. Claymores are factory-packed "backwards;" i.e., to be emplaced from the firing position to the mine position, with the excess wire left at the mine. This is corrected by removing all the firing wire from the plastic spool, discarding the spool, re-rolling the wire "S"- or "Figure-8"-fashion, and replacing it in the bag so as to enable the mine to be emplaced first and the wire laid back to the firing position. The clacker with circuit tester attached is preconnected to the firing wire and stowed in the mine pouch. The unit commander must make the decision to either prime the mine before departing on the mission, or to only put the shipping plugs on the electric and nonelectric blasting caps to speed priming during emplacement.
69. Dual-prime each claymore for both electric and nonelectric firing. The time fuses should be pre-cut for 30-, 60-, or 120-second delay, for pursuit/break-contact situations. However, the burn time on the fuse becomes undependable the longer the fuse is exposed to wet/humid conditions.
70. Waterproof your nonelectric firing systems.
71. Carry the claymore in the rucksack so it's immediately accessible, so after breaking contact it can be quickly armed and emplaced on the back trail (even while it's still in the ruck) to delay pursuers.
72. When placing claymores around your position (OP, ambush, RON, etc.), they should be emplaced one at a time by two men - one man emplacing the mine, and the other standing guard.
73. Never emplace a claymore in a position that prevents you from having visual contact with it.
74. Because you only emplace a claymore where you can observe it, if you are operating in dense jungle, you may consider cutting your firing wire in half since you won't use more than 50 feet/5 meters of wire, easing emplacement and recovery and cutting weight.

75. Emplace each claymore so the blast parallels the team, and the firing wire does not lead straight back to the team position from the mine. If the claymores are turned around by the enemy, they will not point at the team.
76. Determine in advance who will fire each claymore and who will give the command or signal to fire.

Grenade Tips

77. Make continuous daily checks on all grenades when on patrol to ensure that the primers are not coming unscrewed.
78. Do not bend the pins on the grenades flat. The rings are too hard to pull when needed.
79. Fold paper tape through the rings of grenades and tape the ring to the body of the grenade. The paper tape will tear for fast use, while plastic or cloth tape will not. It also keeps the ring open for your finger, stops noise and prevents snagging.
80. All team members should carry a mixture of fragmentation, CS and WP grenades on their belts for the following reasons:
 - Fragmentation grenades are good for inflicting casualties.
 - CS grenades are ideal for stopping or slowing down enemy troops and dogs pursuing your team, and are effective in damp and wet weather, whereas CS powder will dissipate.
 - WP grenades have a great psychological effect against enemy troops and can be used for the same purpose as CS grenades. The use of CS and WP at the same time will more than double their effectiveness.
81. Thoroughly train and test your indigenous troops in grenade-throwing, particularly WP. Not all of them might be adept at baseball-style throwing, or be able to get much distance.
82. Violet and red are the smoke colors most visible from the air. However, in dense jungle or wet weather, use WP to signal aircraft.

83. Notify aircraft before signalling with WP. Gunships or fighter-bombers may mistake it for a marking rocket indicating an enemy position and attack you.
84. Camouflage smoke, CS, and WP grenades, using black or OD spray paint.
85. Smoke grenades should be carried in or on the pack and not on the LCE. You don't fight with smoke grenades, and if you need one, 99 times out of 100, you will have time to get it from your pack.
86. Each team should carry one thermite grenade for destruction of either friendly or enemy equipment.
87. DO NOT carry rubber baseball-style CS grenades. They were designed for riot control on city streets and are inadequate in the jungle.

F. COMMUNICATION TIPS

88. Communication is everyone's responsibility, not just the communication sergeant's.
89. Always inventory and inspect your radios, kitbags, secures and sensors before and after all missions.
90. Place a plastic cover over your PRC-77/KY-57, and wrap them in an additional waterproof bag.
91. Pre-set frequencies on the PRC-77 so that a quick turn of the dials will put you on the desired frequency. This is especially helpful at night when you want to avoid a light.
92. Carefully inspect your X-mode cable for bent pins and dirt in the female connectors.
93. Take along secure hand-held radios with earphones and whisper mikes for internal in-position team communications during ambush and PW snatch missions.
94. Perform pre-mission radio checks:
 - with your radio and secure packed in your ruck exactly the way you will carry them in the field;
 - after your crypto has been loaded;
 - with and without the secure hooked up;
 - with your FOB, helicopters, fire support, the hatchet team, other teams operating adjacent to your AO, and your internal radios;
 - bending the X-mode cable while receiving/transmitting to check for excessive static and/or loss of communication.
95. Before a mission, always place fresh batteries into your communication gear and sensors, especially the BA-1372 memory battery for the KY-57.
96. Always carry spare PRC-77 and KY-57 batteries, but do not remove the spares from their plastic wrapping prior to use, or they may lose power.

97. Carry the lithium BA-5598 batteries for the PRC-77. This cuts weight, and since the spare is in the battery cover, it speeds emergency replacement.
98. Ensure the PRC-77 battery cover vent is operational, because of the gases produced by the lithium batteries.
99. Ensure the cover vent is on the same side as the battery connector.
100. After you put the battery in your TEMIG beacon, cycle the TEMIG to make sure it is "off," and not silently transmitting.
101. Don't try to weatherproof your handmike with a plastic wrapper. Water condenses on the inside anyway, it rustles loudly, and at night, it shines like a signal light when viewed through NVGs.
102. Always carry a spare handmike in a waterproof bag.
103. Don't carry your spare handmike where it might get crushed when you drop your ruck.
104. Clean all contacts daily with the eraser end of a standard No. 2 pencil.
105. Waterproof your CEOI and authentication tables by laminating them with acetate or putting them in a plastic zip-lock bag.
106. Constantly check to make sure your CEOI authentication tables are folded open to the page showing the most current set. This will prevent dangerous delays when your AC-130 requests authentication, especially at night.
107. Carry a single strand of claymore firing wire or WD-1 cut to your operating frequency for use as a field-expedient antenna. Secure one end (stripped of insulation) to the radio with an antenna base, then string the wire straight up to a branch (omni-directional), or lay it on the ground in the direction of the receiving station (directional).
108. Minimize radio traffic.
109. Do not send "same" or "no change" when reporting team location. Always send your coordinates.
110. Say back grid coordinates sent to you to ensure accurate copy.

111. The FOB must avoid making unnecessary, unscheduled "radio checks" just because they haven't heard from a team for a while. Be patient.
112. Whisper into the hand mike while in the field. Exhale first, then speak, or your transmission will sound like a tire leaking air. Cup your hand over the hand mike mouthpiece and your mouth to mask your voice.
113. Always remain calm and professional, no matter what happens. Screaming or speaking in emotional, angry, or desperate tones will cause the FOB to doubt your judgment and the accuracy of whatever you're saying.

G. INFILTRATION/EXFILTRATION TIPS

114. When loading the aircraft for infiltration, ensure the team is seated so that they can exit the proper door.
115. Load the team in reverse order.
116. Sudden shifts of weight in flight will cause temporary loss of aircraft control. Don't cause any.
117. The team leader and pilot will determine direction of approach to the infiltration LZ.
118. The team leader will wear a headset to talk with the pilot until just before touchdown/insertion.
119. The team leader will follow the flight with his 1:50,000 map from the FOB to his infiltration LZ. The team leader, not the pilot, is the man ultimately responsible for where the team is inserted.
120. When unloading a UH-1 at the hover, team members will unload one at a time to enable the pilot to stabilize his aircraft.
121. If the aircraft has to hover more than 6-8 feet off the ground, use a fastrope/ladder to avoid injury to team members.
122. If the first man exits the aircraft under fire, the entire team will exit the aircraft.
123. If the aircraft crashes, the team leader is in command on the ground. He will do the following:
 - Secure an area 50 meters in front of the aircraft.
 - Account for his team and aircrew.
 - Call for a rescue aircraft.
 - Treat casualties.
 - With the pilot return to the aircraft to zero the radios and secures, turn off the gas, destroy the battery, and remove maps, CEOs, pilot's notebooks, weapons (door guns) and ammunition.
 - Evacuate aircrew and casualties (including KIA) on the first aircraft.

- Evacuate remainder of team on the last aircraft.
 - Inform your personnel in what order they will be extracted prior to the arrival of the extraction aircraft. The LZ should be secured prior to the arrival of the aircraft.
 - Give the pilot an LZ description and approach heading.
 - Notify aircraft before firing pen-flares, because they look like tracers.
124. Never turn your back without covering fire. If none is available, return fire while backing off.
125. The assistant team leader is the first to enter the exfiltration aircraft and counts the team aboard. The team leader or senior remaining detachment member is the last to enter aircraft, and the only man who can give the pilot the O.K. to lift off. Make sure you have everyone.
126. During extraction, do not fire weapons from helicopters after leaving the LZ, because a helicopter may be passing under you without your knowledge.
127. In selection of LZs, avoid likely or large LZs.

H. RECONNAISSANCE PATROL TIPS

128. When making an aerial visual reconnaissance (VRs), always mark every LZ within and adjacent to your AO on your map. Plan the route of march so that you will always know the distance and azimuth to the nearest LZ.
129. Always plan a primary exfiltration LZ and two or more alternates.
130. Your alternate LZs should be in the direction of your E. & E. corridor.
131. Don't cut off too much of the map showing your AO. Always keep at least 5-10 km surrounding your AO as "running room."
132. Base the number of canteens per man on the weather and availability of water in the AO. Select water points when planning your route of march.
133. Inspect each team member's uniform and equipment, especially radios, sensors, NVGs, cameras and strobe lights, prior to departure on a mission.
134. Check all team members prior to departing homebase for passes, ID cards, notebooks with writing in them, cigarettes, lighters and rings with insignia, etc. Personnel should only carry dog tags while on patrol.
135. Always carry maps and notebooks in waterproof containers.
136. Use a pencil to make notes during an operation. Ink smears when it becomes wet; lead does not.
137. Use "Storm-Safe" or "Wet-Notes" waterproof notebooks (commercially available) so you can take notes, make sketches, etc., while it's raining.
138. During the rainy season, take extra cough medicine and codeine on patrol.
139. During the dry season, do not urinate on rocks or leaves, because the wet spot may be seen, and the odor will carry. Use a hole or small crevice.

140. The location and proper use of morphine should be known by all team members.
141. Each team member should carry maps, notebooks, and CEOs in the same pockets of each uniform, for hasty removal by other team members if someone becomes a casualty.
142. All survival equipment should be tied or secured to the uniform or harness to prevent loss if pockets become torn, etc.
143. Do not take Zippo-style cigarette lighters to the field, as they make too much noise when opening and closing. Of course: you never smoke on patrol, because the odor travels long distances in the jungle.
144. Have designated primary and alternate rally points and LZs at all times. The team leader is responsible for ensuring that each team member knows the azimuth and distance to each rally point/LZ.
145. Never take pictures of team members while on patrol. If the enemy captures the camera, he will have gained valuable intelligence.
146. At least two pen lights with infrared filters should be carried by the team.
147. While on patrol, move 20 minutes and halt and listen for 10 minutes. Listen half the amount of time you move. Move and halt at irregular intervals.
148. Deviate from your route of march often. Never move in a straight line.
149. Never move along bottoms, ridgelines, or other easy and obvious routes. Always use the military crest of hills for your movement.
150. Stay alert at all times. You are never 100-percent safe until you are back home.
151. Avoid overconfidence, it leads to carelessness. Just because you haven't seen any sign of the enemy for 3 or 4 days doesn't mean that he isn't there or hasn't seen you.
152. A large percentage of patrols have been compromised due to poor noise discipline. Speak and talk quietly.

153. Never break limbs or branches on trees or bushes, or you will leave a clear trail for the enemy to follow.
154. Put insect/leech repellent around tops of boots, on pants fly, belt, and cuffs to stop leeches and insects.
155. Do most of your moving during the morning hours to conserve water. However, never be afraid to move at night, especially if you think your RON has been compromised.
156. Continually check to ensure your point man is on the correct azimuth. Change direction often.
157. If followed by trackers, change direction of movement often and attempt to evade or ambush them. They make good PWs.
158. Force yourself to cough whenever a high performance aircraft passes over. It will clear your throat, ease tension, and cannot be heard. If you must cough, cough into your hat or neckerchief to smother the noise.
159. Never take your web gear off, day or night. In an area where it is necessary to put on jungle sweaters/gore-tex jackets at night, no more than two patrol members should do so at a time. Take the sweaters/jackets off the next morning to prevent colds and overheating.
160. If you change socks, especially in the rainy season, try to wait until RON and have no more than two patrol members change socks at one time. Never take off both boots at the same time.
161. When a team member starts to come down with immersion foot, stop in a secure position, remove the injured person's boots, dry off his feet, put foot powder on them and place a poncho over them so they can dry out. Continued walking will only aggravate the injury, ensuring that the man will become a casualty, and halting any further progress of the team.
162. Desenex Ointment or Vaseline rubbed on the feet during the rainy season or in wet conditions will aid in the prevention of immersion foot. Put on the hands, it will also help avoid chapping.

163. All personnel should camouflage faces and backs of hands in the morning, at noon and in RON or ORP positions.
164. Never cook or build heating fires on patrol.
165. No more than 25-percent of personnel should eat chow at any one time. The rest of the team should be on security.
166. Whenever the team makes an extended halt, always check 50 meters out from the perimeter.
167. All team members should take notes while on an operation and compare them nightly.
168. Each man on a team must continually observe the men in front of and behind him (as well as the other team members) for hand and arm signals.
169. A reconnaissance team with a mine emplacement mission should never place more than one mine (AP or AT) in one small section of the road or trail at a time. If more than one is set out, the team is just resupplying the enemy, because when a mine goes off, a search will be made of the immediate area for others, and they will surely be found.
170. If your mission calls for emplacing a mine in a road, take an extra fuse along, in case one is lost.
171. When crossing streams observe first for activity, then send security across to check the far side. Then cross the rest of the patrol one at a time, with each man taking water as he crosses. If necessary, have all personnel cross prior to getting water.
172. Treat all trails (old and new), streams, hilltops, ridgelines, and open areas as danger areas.
173. Carry one extra pair of socks, plus foot powder, while on patrol, especially during the rainy season. Each team member should also carry an oversized pair of thick socks to pull over his boots when walking or crossing a trail or stream to disguise his tracks.
174. During rest halts, don't take off your pack or leave your weapon. During long breaks, such as for noon chow, don't take off your pack

until your perimeter has been checked at least 50 meters out for 360 degrees.

175. During breaks, throw nothing on the ground. Stow trash in your ruck immediately. Don't bury trash, because trackers or animals will dig it up.
176. If you hear people speaking, move close enough to hear what they are saying, and take notes.
177. A dead enemy's shirt and the contents of his pockets and pack are normally more valuable than his weapon.
178. If the enemy is pursuing you, deploy delay grenades and/or delay claymores of 60-120 seconds. In addition, throw CS grenades to your rear and flanks. Give the enemy a reason or excuse to quit.
179. If you're being pursued at night, HC (white smoke) and CS grenades in combination will help you break contact, blind NVGs, and screen your escape.

I. RON (Remain Over Night) TIPS

180. Practice proper RON procedures when your team is training, even if you are on a rifle range. Take advantage of all training opportunities.
181. Select a tentative RON site from your map at least two hours in advance.
182. After passing a suitable RON site, "fish-hook" back and move into your selected position so that you can observe your own trail.
183. Don't form the common habit of constantly turning to the same direction (always to the left, or always to the right) when fish-hooking.
184. When in position, personnel should keep their equipment on and remain alert until the perimeter has been checked for 360 degrees at a distance of no less than 50 meters.
185. Packs should not be taken off until it is dark.
186. When deploying the team for RON, place the point man in a position opposite the most likely avenue of approach, to lead the team out in case of emergency.
187. Use aiming stakes to help orient weapons toward avenues of approach.
188. Azimuths (OT lines) and distances to preplanned targets should be recorded prior to nightfall. Nearby large trees or pre-positioned stakes can aid as hasty reference points for calling in artillery at night.
189. Prior to dark, the team leader should tell each man the primary and alternate rally points.
190. One half of the team should have their compasses set for the primary rally point and the other half for the alternate. If the enemy comes from the direction of the primary rally point, any man with the azimuth of the alternate rally point set on his compass can lead the team out.
191. A buddy system should be established in case casualties are taken at night. Each man will take care of his buddy and his buddy's equipment if the buddy is wounded, injured, or killed.

192. The pack or rucksack can be used as a pillow. However, ensure that the carrying straps are in the "up" position for easy insertion of the arms in case of rapid withdrawal.
193. It is permissible to unhook your LCE in the RON, but it should never be taken completely off at any time during the entire stay in the field.
194. A poncho, jungle sweater and rain jacket are sufficient for sleeping.
195. If a person coughs in his sleep, give him as much cough syrup as he can tolerate without going punchy.
196. Team members should not "bunch up" or sleep next to each other. One grenade or burst of fire could get them all. In small reconnaissance patrols, all team members should be able to touch each other without moving from position. When this is not possible due to the terrain, breakable cord can be tied from patrol member to patrol member for alerting each other at night.
197. Know what your next day's plans are before settling down for the night.
198. At dark, each team member should take out two or three grenades and place them near at hand for use if hit at night. Set them so they won't roll away if they're accidentally bumped.
199. Wait until last light to emplace your claymores around your RON site so you won't lose them if you're run out of your RON before dark.
200. When the enemy discovers your RON at night, use frags first, then claymores (explosions are disorienting and don't necessarily give your position away), then M16/M203 (the muzzle flashes will pinpoint your location), and lastly SAW/M60 (automatic weapons always draw maximum return fire).
201. In some instances, it is better not to put claymores around RON positions but to rely on the use of CS grenades instead, for the following reasons:
 - When claymores have been put out and the enemy is discovered to be moving in on the team, the team might stay in place too long, waiting for the enemy to enter the killing zone.

- If the team discovers the enemy moving in on them, the enemy will normally be "on line," not knowing the exact position of the team. If no claymores are out, predesignated team members will throw CS grenades in the direction of the enemy force. After the gas begins to disperse, the team can withdraw. When the enemy is hit with the CS, he will normally panic. If he has gas masks with him and puts them on, he will not see clearly. If he does not have them, he will run away and may even fire his weapons indiscriminately, causing overall confusion and panic. In either case, the team has a good chance to escape, unharmed and unseen.
 - If a claymore is triggered, a grenade thrown or a rifle fired, the enemy might be able to orient on the team, flank it, and box it in.
 - If claymores are used around an RON site, consider taping plastic packets of CS to the front of the mines.
202. Do not send radio transmissions from your RON site unless they are absolutely necessary. Be prepared to move if you do transmit.
203. Never smoke or chew tobacco or eat chow in your RON position. The odor of the food or tobacco will give your position away.
204. All team members should be awake, alert, and ready to move prior to first light.
205. Another 360-degree check of the perimeter at a distance of at least 50 meters should be made prior to recovering claymores and sensors and moving out.
206. A thorough check should be made of the RON site just before departure to ensure that nothing is left behind and that the entire site is sterile.
207. Be alert when leaving your RON. If you have been seen, you will probably be attacked or ambushed within 300 meters.
208. Habits are easily formed around certain times of the day. For example, some teams always move into a RON site at 1830 or into a noon break position at exactly 1100 every day. If the enemy has been observing you, he will notice this and plan an ambush for you.

J. HATCHET TEAM TIPS

209. "Hatchet Teams" are fighting elements of team, platoon, or company size with the mission of rescuing compromised reconnaissance teams by combat action. The fighting elements and the helicopters and/or vehicles that move them must be on five-minute alert the entire time the reconnaissance teams are operational. The emphasis in their organization, equipment, and tactics is on SPEED and FIREPOWER.

Tactics Tips

210. Experience has shown that the Hatchet Teams face one of four basic tactical scenarios when committed (these scenarios are completed by Link-Up and Extraction of both Teams):

- Reconnaissance Team stationary and in contact with the enemy; Hatchet Team inserts an offset LZ and moves to attack enemy flank.
- Reconnaissance Team Stationary with enemy near but not in contact; Hatchet Team inserts on top of Reconnaissance Team to reinforce the position.
- Reconnaissance Team moving with enemy in pursuit; Hatchet Team inserts on offset LZ and moves to block or ambush enemy.
- Reconnaissance Team moving with enemy near but pursuit uncertain; Hatchet Team inserts/secures an LZ/extraction site and receives the Reconnaissance Team.

Organizational Tips

211. If the Hatchet Team is an ODA, a Ranger-style patrol organization works well: Team Leader is Patrol Leader (PL), XO is Assistant Patrol Leader (APL), Team Sergeant is "A" Fire Team Leader (A-TL), and Intel Sergeant is "5B" Fire Team Leader (B-TL). Divide the other team members. split-team style, into fire teams.

212. Get 1xSAW and 2xM203s for each fire team.

213. Designate an additional medic as the "Chase Medic/STABO-Master." His duties are to serve as an AST while the Hatchet Team is on Standby in its ready room or strip alert area. Once the team is

committed, he rides the chase helicopter carrying the resupply bundle and rigged for STABO extraction. If another helicopter is not available, upon the return of the insertion aircraft to base, he loads the resupply bundle and rigs the aircraft appropriately.

214. In the MEDEVAC role, the Chase Medic receives patients onto the aircraft, allowing the other medics to remain on the ground with their team.
215. In the resupply role, he lowers or kicks the resupply rucks as requested by the ground element.
216. In the STABO extraction role, he throws the kit bag with the STABO harnesses (if required) and, with the assistance of the crew chiefs, throws the fastropes (FRIES) or STABO ropes.
217. The Chase Medic carries a pistol, M5 bag modified for trauma only, a backboard, and should pre-rig IV sets on the fuel bladder harnesses, if possible.
218. Ideally, the Hatchet Team and its helicopter(s) are collocated with the FOB/SFOB:
219. The team can remain current on the tactical situation and anticipate possible events and courses of action.
220. When alerted, the Team Leader/PL and pilot can receive their orders and guidance directly from the commander in the FOB while the XO/APL oversees the last-minute preparation and inspection of the team and the helicopter is cranked.

Equipment Tips

221. The point should carry a magazine of tracer in his weapon. In a contact, his fire will help orient the team to the enemy location.
222. Recommended basic load:
 - for each M16: 13x30-round magazines (one in the weapon); 4xHE-frag, 1xCS, 1xWP or red/violet smoke hand grenades and 1xClaymore

- for each M203: 13x30-round magazines (one in the weapon); 2xStar clusters, 2xStar parachutes, 4xCS, 8xHE, 8xBuckshot 40mm grenades (worn on vest):
- for each SAW gunner: 4x30-round magazines (one in the weapon) and 3x200-round drums (two on the belt, one in the buttpack).
- If an M16/M203 bearer also carries a pistol, delete 3x30-round magazines and add 2x15-round 9mm magazines (one in the weapon, one on the scabbard).
- Common to all: Rappel seat and 2xSnap links (worn); NVGs (carried in slung claymore bag): buttpack with 1xRation, 1xIV set, 1xIR and 1xColored chemlights, 2xFlex-cuffs, 1xSandbag, 1xBlindfold, 1xGag, 2x1Quart canteens; plus LCE as per team SOP (maps, compasses, strobes, bayonet and scabbard, etc.).
- Special: PAQ-4s for M16 bearers; pen flare sets for PL and APL; modified M5 bags carried in medium ALICE rucks and white-light penlight for medics; PRC-77s with KY-57s, CEOs, TEMIG beacons, and VS-17s in rucks with frames for RTOs (recommend APL carry his own radio); camera for designated photographer; PRC-90s for fire team leaders (emergency use only).

223. Resupply Bundle (Label each ruck to indicate contents and unit):

- For each team member (separately bagged and tagged by team member): Another complete basic load of ammunition pre-loaded into magazines.
- For each team: 1xRation per man. 1x2-quart canteen per man. 2xPRC-90s.

Medic Tips

224. Modify the M5 aid bag for trauma only, especially for gunshot wounds and snake/insect bites.

225. Pack the aid bag so you can get to anything you need without rummaging. This is very important at night. The medium ALICE rucksack works well.

226. Carry a white-light penlight to inspect patients at night.

227. Recommended trauma aid bag contents:

- Poncho (for litter);
- IV fluid set;
- 2x2s;
- tape;
- bandages;
- dressings;
- cravats;
- ace wraps;
- telfa pads;
- motrin/aspirin;
- bee sting kit;
- BP cuff;
- stethoscope;
- tourniquet;
- providine/betadine ointment;
- narcotics (in tupperware container for protection).

228. Have each man on the team carry: IV fluid set; insect repellent; foot powder; two field dressings (GSWs usually cause two holes: entry and exit).

229. Train all team members in the use of field dressings, IV fluid sets, medical narcotics use, and snake/insect ID and bite treatment.

230. If you have a dedicated MEDEVAC helicopter, install a jungle penetrator on board and practice using it.

231. Recommended IAD for chance contact with African (killer) bees: Run as fast as you possibly can for 300 meters back the way you just came, and don't look over your shoulder.

MH-60 (Blackhawk) Tips

232. Helicopters must be dual-rigged for both rappel and fastrope insertion, because the forest canopy may be higher than the length of the fastrope.

233. Rappel ropes must be dual-rigged for both rappel and STABO. This is no problem if "Figure-Eight" descenders are used for rappelling.

234. Hatchet team members must board the helicopter with their rappel seats on because the insertion point may change from a landing zone (LZ) or fast-rope zone (FZ) to a rappel zone (RZ) while enroute. The seats may also be necessary for a STABO-style extraction.
235. Have the "Figure-Eight" descenders already mounted on the rappel ropes in the helicopter. As team members "sit in the door," they pull down the next "Figure-Eight" on their rope, clip it into the snap links on their rappel seat, pull up one arm's-length of slack, and exit the helicopter by vigorously twisting away from the aircraft from the sitting position, brake hand away from the aircraft and guide hand momentarily off the rope. DO NOT attempt to attain the "L"-shaped body position used with UH-1 rappelling.
236. Recommended helicopter configuration: no seats, doors open, door safety straps in place, rappel rope deployment bags stowed on top of the fuel bladders (aft ropes) and on floor inside forward of troop doors (forward ropes), fastrope arms extended, fastropes coiled and centered on the doors directly behind the men sitting in the doors, to be used as seats (one man per coil), with two headsets so the Team Leader/PL and XO/APL can talk with the aircrew.
237. Recommended seating: Team Leader /PL (first man out) sits by the leading edge of the left door, legs out, headset on, clear lens goggles on (giving him the best view possible); Team Sergeant same place in the right door; XO/APL between the crew chief seats, headset on, facing aft (giving him the best view of the cabin; he's the last man out); SAW and/or M203 gunners sit by the trailing edge of the doors (because of the bulk of their weapons, making it easier and faster for them to exit, and putting major firepower on the ground quickly); everyone else sits toboggan-style, oriented toward their exit door.
238. Even at night, the Team Leader/PL should wear clear-lens goggles during flight instead of night-vision goggles because the aircrew is already wearing NVGs and it is far easier to remain oriented, read a map (using a filtered penlight), and check the terrain with the naked eye.
239. Recommended actions on insertion: At the "one-minute" warning, undo safety straps and stow to the rear, move fastrope coils or rappel rope D-bags between the men sitting in the doors; at the "Short-Final" warning, Team Leader/PL confirms and O.K's insertion point to pilot,

then removes and passes his headset to the crew chief; XO/APL performs duties as Ropemaster.

WARNING: *Team Leader/PL, remember it is YOUR responsibility to deliver your team safely to the correct location, NOT the aircrew's. DO NOT blindly take orders from the pilots or crew chiefs to throw ropes and "go." Experience has shown the computer navigation system to be accurate to only 500 meters.*

240. Don't rely completely on the pilot's MH-60 Doppler radar altimeter to tell you how far above the ground you are. He may be getting a false return from the jungle canopy.
241. When rappelling, throw the left forward and right aft D-bags first, then the left aft and right forward D-bags, to avoid entanglement.
242. When fastroping, have only one man on a fastrope at a time. This prevents "pile-ups" and injuries, particularly at night.
243. When fastroping or rappelling, wear work gloves over aviator's gloves and ditch or pocket the work gloves once on the ground.
244. With the pilots, decide on an SOP for the crew chiefs to either cut away or retrieve the rappel/fastropes after the team is inserted.
245. After the team is inserted, the aircraft should remain on station for ten minutes to provide doorgun fire support and emergency extraction if something goes wrong. This is NOT a viable technique for reconnaissance teams.
246. When required to STABO-extract persons lacking appropriate harnesses or seats (PWs, detainees, rescued aircrews, etc.), the aircraft will hover over the extraction point long enough to allow the on-board STABO-Master to throw a weighted kit bag with the necessary number of harnesses to the ground. While the aircraft orbits to provide doorgun fire support, the ground element rigs the designated personnel, and when ready, calls the aircraft back. The STABO-Master then ensures accurate rope delivery and confirms the "Lift Away" signal from the ground (infrared chem-lite or flashlight twirled or swung in a circle).
247. When signaling to aircraft at night, turn off infrared strobes and use infrared chem-lites once the aircraft is sure of your position and is in line-of-sight. The strobe is so bright it "whites-out" the pilots' NVGs

at close range. An infrared chem-lite twirled on a string is an excellent signal.

248. The maximum allowable cargo load (ACL) for a fully-fueled MH-60 is 12 Americans carrying fighting loads. Even with less fuel, more than twelve men in the cabin is very awkward and uncomfortable and unsafe during fastroping and rappelling.

ANNEX 1 – C.A.L.L. HANDBOOK 9-95 JUNGLE TIPS

This section is organized into three parts. The first is a packing list. The second is a listing of tracking tips and techniques; the third is a listing of general combat tips that works well in the jungle.

TOPIC: Packing List.

DISCUSSION: Packing lists are a subject of endless debate. About the only item that has total consensus is the maximum weight of the soldier's load, 50 pounds. What follows is a suggested packing list based on the experience of soldiers at the Jungle Operations Training Battalion and units in Vietnam.

LESSON(S):

The LBE should have the following items:

- "Butt" pack
- Insect repellent (Garlic pills)
- Signal Mirror (one per squad)
- VS 17 panel
- Compass (on person)
- Map (on person)
- Water purification tablets (two bottles)
- Survival knife
- Flashlight
- Heat tab (Emergency sterilization)
- Tweezers
- Compress Bandage (two ea)
- Cravat (one ea)

The rucksack should contain the following items:

- T-Shirt (two ea)
- Socks (three pair)
- BDU Trousers (one pair)
- Poncho
- Mosquito Bar (Bug Net)
- Gloves
- Waterproof bags (two ea)
- Two-quart Canteen
- Entrenching tool

- Machete (one/fire team)
- Weapons cleaning kit with extra CLP
- IV Kit, compress bandage (one ea), cravat (one ea)
- Radio battery
- Personal hygiene items
- Unscented soap
- Foot powder
- Razor blades
- Three days rations (stripped if MREs)
- 550 cord, 30-50' (can substitute for sling ropes)
- Snap Link
- Sewing kit
- Zip Loc Bags
- Trash bags (two ea)
- Electrical tape (one roll per fire team)

TOPIC: Tracking and The Use of the Human Senses during Jungle Operations.

USE OF THE HUMAN SENSES

In the jungle, the three most useful senses of the five senses are smell, touch, and hearing.

SMELL. Your sense of smell can give you advanced warning of the enemy, often well before you see him. British troops in Malaya and Borneo as well as U.S. troops in Vietnam found this to be true.

Cigarette smoke can be detected up to one-quarter of a mile away if the wind conditions are right. You can smell fish, garlic, and other foods being cooked for several hundred meters. You may be able to detect a person who has been using scented soap or eating specific foods from up to 100 meters away, thus discovering an ambush before walking into it.

There are many types of wood used for fuel in the jungle. Some are good for making cooking fires, while others are only burned to repel insects or ward off the night chill in highland jungles. Being able to identify the smell of some of these woods may allow you to determine the purpose and general location of the fire.

For the person who seldom uses scented soap, after-shave lotion, or other such toiletries, it is easy to detect a person using these items at a considerable distance. In some areas of the world, the best way to prevent detection is not to use them. The British discovered this in Malaya. Often they would set an ambush on a known guerrilla trail. The guerrillas would get close to the ambush, then suddenly back-track and disappear into the jungle. Later, during the interrogations of captured guerrillas, they discovered why. Either the point man had smelled soap, nonindigenous food, or insect repellent used by the ambush party.

A good rule to follow is that if the local indigenous population does not use it, you should not use it either.

A final item that has a distinctive odor is explosives. Use surgical gloves to handle explosives when you can. Then put the used gloves in a Zip Loc bag. Always have one squad member who stays upwind of the explosives. He can then check to see if you are detectable at a distance. Also, make sure you package and seal all charges to where the scent of explosives is not detectable at a distance.

TOUCH. You may find yourself having to search buildings, tunnels, or enemy dead at night with no means of illumination or when illumination is unwise due to the tactical situation. To use the sense of touch to identify an object, you must consider four factors: shape, moisture, temperature, and texture.

- Shape refers to the general outline of the object.
- Moisture refers to the moisture content of the object. Is it wetter or drier than the immediate surroundings?
- Temperature is the object's heat in relation to the surrounding environment.
- Texture is the smoothness or roughness of the object.

By taking the four factors into consideration, you should be able to identify most basic objects. An example might be the searching of a dead enemy. You may feel his trousers and realize that they are moister than his shirt, indicating he crossed water recently. Upon touching his boots, you realize they are moist, covered with mud, and that the tread is well worn. This would confirm the crossing of water and indicate that he was an experienced soldier. The warmth of his body indicates that he was moving rapidly. The shape of the insignia on his collar indicates that he was an officer. All combine to give you a good idea of who he is and what he was doing in the last few hours of his life.

Touch is also useful in detecting trip wires. There are several methods. One is to use your exposed skin to feel for them. Another is to search by holding a very fine branch in front of you. If it strikes anything, you will feel it without triggering the trip wire. Still another is to use a piece of wire with a small weight on one end, hanging down from a stick. Held before you as you walk, it will detect trip wires without triggering them.

HEARING. The sound of a safety catch being released or a bolt slamming home could warn you of an ambush or a sniper. The sudden sound of animals moving or dogs barking may indicate enemy movement. It may also warn the enemy of your movements. However, do not automatically assume that humans caused the disturbance. Many jungles of the world are home to large predators who can spook game or cause dogs to bark.

Similarly, sudden cessation of normal wildlife sounds may indicate passage of the enemy, or an animal's or a bird's detection of you. Thus, it is important to become familiar with the distress and warning cries of birds and wild animals in the area of operation. Also the sound of a man talking, running, or crawling is important to recognize.

When performing reconnaissance, always move cautiously enough to hear sounds made by the enemy before they see you.

Other important sounds that you must be able to recognize are the sound of the striker of a hand grenade and the sound of its handle flying off. Sound can also assist you in determining the range to an explosion or blast.

If you can see the flash of the explosion and can determine the number of seconds from the flash to the time you hear the sound, you can determine the approximate range. Sound travels at approximately 1,100 feet per second, which rounds off to about 400 meters per second. With a little practice, you can learn to determine the range to enemy weapons systems.

Whenever you hear a noise, rotate your body with your hand cupped over your ears. In addition, open your mouth slightly. When the noise is the loudest, you are pointing in its general direction. When there is no wind, air currents generally carry sound downhill at night and uphill during daylight due to changes in ambient air temperature.

TRACKING

Tracking involves using the five senses plus common sense to follow a trail through the jungle. It is a learned skill. However, soldiers with especially keen

senses of smell, hearing, and sight are at a distinct advantage. A good source of personnel with basic tracking skills is soldiers who were raised in rural areas. Hunters and farmers are generally good basic trackers. Whenever possible, employ native trackers. A general rule is the more primitive, the better.

The following example from the tracking experiences of the LRRP Company (Company L, 75th Rangers) of the 101st Airborne Division in Vietnam is instructive.

A reconnaissance team was moving through the jungle. It came to the crest of a hill. It was pocketed with fighting positions. The holes were deep, but not as wide as Americans dig them. In the spoil around the positions were blurred footprints, similar to those left by "Ho Chi Minh Sandals" (strips of tires with thongs attached). The team concluded (correctly) that the area had been occupied by the Viet Cong. Counting the firing positions gave it an accurate estimate of enemy strength.

During a sweep of the immediate area, the team found numerous piles of what it recognized as elephant dung. The quantity found suggested that 20 plus animals had been picketed in the vicinity. The dung was still fairly fresh, estimated it to be no more than two days old. Elephants were frequently used by the Viet Cong to transport supplies and heavy equipment, particularly 122-mm rockets and mortars.

In an adjacent area there was a small frame house, carefully camouflaged and well fortified that appeared to be the command post. There were a dozen or so split gourds strewn about the room. Bits of cooked rice, perhaps 15 - 20 grains, still clung to the sides of the gourds. They were still soft to the touch.

Using all of this information, the team reasoned that a enemy force of approximately battalion strength had been there not more than 48 hours prior.

There are four major factors to consider in tracking: displacement, staining, littering, and weathering.

DISPLACEMENT. Displacement is the disturbance of soil, vegetation, or wildlife from its natural state. This means that a tracker needs to study the soil, vegetation, and wildlife of his area of operations.

Footprints are the form of displacement that most clearly indicate human traffic. They can indicate the number of personnel in the party, their direction of movement, sex, and, in some cases, the type of load they are carrying.

Studying a set of prints for worn or unworn heels, cuts in the heels, and tread pattern of the soles can allow the tracker to recognize certain individual prints. Also noting the angle of impression relative to the direction of movement.

Prints that are normally spaced, but with exceptionally deep prints indicate persons carrying heavy loads. By following them to an area where they took a rest break, you may be able to see where they set their loads down. By studying that imprint and the surrounding area, you may be able to determine what the loads consisted of.

Vegetation often provides valuable clues. When most vegetation is stepped on, dragged out of place, or cut, the lighter colored underside of the leaves show up. Vines tend to be dragged parallel to the direction of movement. When tread upon, grass generally bends in the direction of movement. Displaced bark from a log or tree generally falls in the direction of movement, exposing the lighter, inner bark.

Due to the large number of thorny plants in the jungle, it is not uncommon to find shreds of clothing. This is particularly true if the enemy was in a hurry.

Birds and animals, when they are suddenly flushed from cover, are another clue to a tracker. Birds in particular usually emit cries of warning. They are also the most likely creature of the jungle to follow a group of humans moving through the jungle. Most animals will run away from man.

STAINING. Staining is the depositing of liquids or soil not natural to a specific location. Bloodstains are a good tracking clue. By examining the volume, type, height, and color, you should be able to get a fairly good picture of the nature of the wound of the person you are tracking. For example, pink frothy blood found on leaves at chest height could indicate a chest wound. spurts of dark blood found at regular intervals could indicate uncontrolled arterial bleeding.

Observe logs, grass, and stones for signs of soil displacement from footgear. The color and composition of the soil may indicate a previous location or route. The muddying of clear water is normally a sign of very recent movement. If the water in the footprints is clear, the prints are most likely an hour or more old.

LITTERING. Littering is the result of carelessness or poor discipline. Anything, such as cigarette butts, scraps of paper, matches, or any other man-made items, may serve as an indicator. However, litter can be used as a

tell tale, for example, leaving a pack of indigenous cigarettes on a trail as you pass. On your return, if the cigarettes are gone, someone has been there. Do not leave U. S. cigarettes; it will point out your presence to the enemy! Uncovered human feces is another type of littering that can tell you a good deal about the person who left it.

WEATHERING. Weathering is the effect of rain, wind, and sun on the appearance of trail signs. Rain has a significant effect on footprints and litter. A light rain will tend to round out footprints, blurring their edges. A heavy rain will obliterate footprints very quickly. Rain tends to flatten paper scraps and other litter. Remembering the date and time of the last rainfall is very important.

Sunlight erodes footprints more slowly than rain. At first, footprints have a ridge of moist earth pushed up around the sides. Sunlight and air will dry the ridge of dirt, causing a slow crumbling effect. If you find a print that is actually crumbling, be cautious for you are closing in on the enemy. Litter is bleached by sunlight. Most paper will become slightly yellowed within three days in the sun. Dark-colored paper and cloth take longer. The only guide for determining how long they have been in the sun is experience.

Wind may blow grass, leaves and other light litter into footprints. It is important to know when the wind was last blowing. Also, check the litter to see if it has been crushed. Litter may be carried some distance by the wind. You may have to search the surrounding vegetation to spot it. Wind can also carry sounds and odors.

All of the factors listed above combine to cause metal to rust or oxidize. Check recently exposed portions of metal. For example, check the rim of ration cans where the opener stripped the paint. Rust normally forms on such surfaces in 12 hours or less.

TOPIC: General Tips.

DISCUSSION: The following is a listing of general combat tips that were proven in Vietnam and at the JOTB.

LESSON(S):

- Wrap radio hand sets in a sock, then in plastic. The sock will absorb any moisture that gets through the plastic.

- A 550 cord "handrail" run from the ORP to a site near the objective will assist the leader's reconnaissance in returning rapidly to the ORP. It will also facilitate linkup if the leader's reconnaissance doesn't have time to return to the ORP for any reason.
- Line M249 ammunition cases with mole skin to reduce noise.
- Field-strip MREs to reduce trash backhaul.
- Use an opened compass slung on your rucksack to aid in night movements.
- Use pre-rigged claymores during the offense to aid in counter-reconnaissance operations, during the defense to cover withdrawals.
- Don't tie wet socks to LBE, they won't dry. They will become snagged and shred. Put them on the back of your rucksack, as close to the middle as possible.
- Ground all unnecessary equipment in the ORP prior to the leader's reconnaissance to reduce noise.
- When clearing jungle huts, remember they are generally made of grass, which has little effect on grenade fragments, 5.56 rounds, and 7.62 rounds. Just fire through the structure in the direction of your advance. Otherwise you will almost certainly fire on your own troops. Keep in mind that any grenades thrown into the hut will most likely throw fragments out.
- M60 tripods have extremely limited value in the jungle. METT-T must be applied.
- The average life of the AN/PRC 126 in the jungle during the rainy season is roughly two weeks.
- Keep your compass and map on your person at all times. They are your basic tools for a return to friendly lines.
- Have tracers as the last four or five rounds in each magazine. It will give you a visual clue as to when you are running low on ammunition.

- Carry at least five bungee cords to construct field expedient shelters quickly.
- To make a pad for taking notes at night, laminate a sheet of cat's eye material. Then you can write on it with an alcohol pen or other marker.
- Keep your packing list mission-oriented.
- Don't wear restrictive clothing in the jungle.
- Wear a regular watch with a luminous dial. Fancy watches that beep or chime are guaranteed to go off at the worst possible moment. A regular watch can be used to navigate, while a digital watch cannot.
- Do not smoke when in the field.
- Put batteries in a waterproof bag along with some sort of material to absorb moisture, such as a sock.
- Do not wear regular BDUs in the jungle.
- Cover your boots with socks to cross trails and open areas as a counter-tracking measure.
- Carry magazines upside down in your pouches to prevent moisture accumulating in them. When you have empties, place them right-side up so you can feel them at night.
- Use a shotgun or M203 with flechette (buckshot) round as the point man's weapon.
- Put extra smoke grenades on the outside of your rucksack, not on your LBE.
- Use your hand grenade holders on your ammunition pouches for fragmentation grenades, not for your flashlight or other items.
- Use silent hand signals to the maximum extent possible. Practice them frequently.
- Rig a headset to use with your radio. Use it while in a patrol base, ORP or position to constantly monitor the radio.

- Before it gets dark, put up your field-expedient shelter and your field-expedient antenna.
- Change your compass man and point man occasionally during long movements.
- Always ensure your weapon is pointing where you are looking.
- Ensure your weapon is taped to prevent noise.
- Do not forget to scan the trees as you move through the jungle.
- Unless required by your mission, avoid human habitations. Unoccupied houses may be boobytrapped.
- Always sterilize your trail when on patrol.
- Sleep close enough to touch each other.
- If you snore, put a handkerchief over your mouth. Try sleeping on your stomach.
- To be more comfortable while you sleep, do not remove equipment.
- If you are on guard at night and have trouble staying awake, kneel instead of sitting.
- Dead foliage may be old camouflage, while tied-down or cut brush may indicate a field of fire.