1. What does terrain refer to?
    a. obstacles-things that affect mobility
    b. cover and concealment
    c. observation and FOF
    d. avenues of approach
    e. key terrain
2. What are offensive and defensive considerations for avenues of approach?
    a. Offensive considerations:
    b. How can these avenues support my movement?
    c. What are the advantages/disadvantages of each? (Consider enemy, speed, cover, and concealment.)
    d. What are the likely enemy counterattack routes?
    e. Defensive considerations:
    f. How can the enemy use these approaches?
    g. Which avenue is most dangerous? Least? (Prioritize each approach.)
    h. Which avenues would support a counterattack?
3. What to T-TC refer to in MET-TC?
    a. What TROOPS are available?
    b. (2) How much TIME is available?
    c. (3) How do CIVILIANS on the Battlefield effect the operation?
4. What is concealment discipline?
    a. Regulation of any activity that may indicate presence in a given area. This can deny the enemy with vital information of your whereabouts or nature of your work.
5. How do light and heat impact your concealment discipline?
    a. Lights at night can be seen at long distances.
    b. Camp fires can be seen from 8 km away; vehicle lights 20km.
6. What is noise discipline? Why is it important?
    a. Reduce actions that cause noise. Sound can travel long distances and human hearing is more active at night
7. How does smell impact concealment discipline?
    a. Using products like tobacco can give away your position; it is not a smell commonly seen in nature.
8. What are the components of a far ambush?
    a. Security and support elements
9. What are the role of security elements during a far ambush?
    a. Establishes left and right security of ambush and provides early warning of enemy approach.
10. What is the role of the support element during a far ambush?
    a. Massed fires into the kill zone
11. Why is there no assault element in a far ambush?
    a. You should not be assaulting through in a far ambush as the goal is to harass enemy elements.
12. What targets cause disproportionate effects of enemy effectiveness?

    a. Roads
    b. Bridges
    c. Power Plants
    d. Fuel Refineries
    e. Railways
    f. Weapon and ammunition factories
    g. Vehicle
    h. Aerospace
    i. Chemical Production
    j. Banks
    k. Credit Unions
    l. Shipyards
    m. Docks
13. What spots are IEDs commonly placed?
    a. Bends in Roads
    b. Vegetated Areas
    c. Urban Areas
    d. Trash
    e. Long and stumps
    f. Tall Grass
    g. Wooded Areas
14. What is OAK-OC?
    a. Key acronym used for terrain analysis, planning for future operations/ defensive positioning, and to define cultural terrain features or landmarks in relation to a potential battle space.
15. What does Observation and fields of fire refer to?
    a. Point on the battlefield that allows observation of movement, deployment, and activity of enemy forces not specifically designated to key terrain. This allows observation to see over and through resulting in the acquisition of primary targets. This allows the clear view for Designated Marksmen, Snipers, and Gunners for automatic rifleman have a clear view of enemy movements and threats. Examples include slopes approaching key terrain, slopes toward defensive positions. high ground, hill, ridges.
16. What do Avenues of Approach refer to?
    a. Corridors/pathways used to maneuver troops between core battle spaces, logistical areas, LOD. Examples include roads, paths, creek beds, railroads, alleyways, back sides of hills. These areas need to have eyes on at all times to observe for troop movements then to be relayed to relative members of friendly element.
17. What does Key Terrain refer to?
    a. Portion of the battlefield, where possession givecs the advantage to the possessor.
    b. Examples include ridgelines, hills, road intersections, bridges, solid structures.
18. What do Obstacles refer to?

    a. Landscape elements tha hinder, block, or canalize movement directing the course of the battle. Dense vegetation, walls, fortifications, ravines, narrow streets, riverbanks, steep cliff faces, rivers, etc.
19. What do Cover and concealment refer to?
    a. Manmade structures, natural landscapes, landform elements, that provide protection or concealment from enemy positions or observation. Examples include trees, riverbanks, ravines, walls, buildings/ structures manmade, foxholes, hills, ditches.
20. Why is it important to ensure you have clean boots? What is the proper procedure for cleaning boots?
    a. Clean your boots after each field evolution. Clean boots protect your feet, stay water repellent, and last longer. To clean military boots, remove insoles and laces. Soak in a tub of warm water. Add regular dish detergent (i.e. Dawn). Lightly scrub with a bristled brush. Toothbrushes or dish brushes work well. Ensure to clean crevices, and seams. Rinse several times to ensure all soap is removed. Air dry out of direct sunlight.
21. What are some considerations for taking care of boots?
    a. Air out your boots often. Take out the insoles. If your boots are soaked, stuff dirty socks in them to try to wick some of the water out overnight. Buy after-market insoles. Fix minor tears and separations in boot leather with super-glue or 'shoe goo.'
22. What are some considerations when using "Mickey Mouse" Boots?
    a. Vapor Barrier Boots (commonly referred to as 'Mickey Mouse Boots or VB Boots) are a boot made from a solid rubber outer shell. As such, they are incredibly waterproof and warm but not breathable. Your feet will sweat quite a bit. As your feet sweat, wipe the inside of the boot at minimum once per day. Change your socks in conjunction with this; use your dirty socks to wipe out the inside of the boot. To keep dry, place boots in your sleeping bag. It will dry them and keep the rubber pliable. White VB Boots are rated 14° F to -60° F. Some Mickey Mouse boots have a pressure release valve. This valve is to equalize pressure when altitude has rapidly changed. Otherwise, keep valve closed to prevent moisture from getting inside the boot's multiple linings.
23. How do you put a knot in your laces? Why should knots be placed on your laces?
    a. Putting a knot in the end of your boot laces will stop your boots from becoming unlaced when you take them off. A simple overhand knot does the trick.
24. How do you wear Leg Gaiters?
    a. Leg gaiters are worn over the boot and trousers. They keep snow, mud and debris out of the boot. They are great kit. To wear: The buckle goes on the outside; there is a 'left' and 'right'. Ensure strap is under the heel. Seat the hook on the bridging lace. The Velcro strip should be to the front. Work the Velcro strip closed.
25. How can laundry be done in the field?
    a. Austere environments force primitive living. Even if briefly rotated to a rear area, Marines clean uniforms and equipment. Laundry forward-deployed is as simple

as a container (bucket, cooler), a washboard, and powder laundry detergent. Fill container with water. Add laundry detergent. Vigorously scrub against washboard (below, right) or similar rough surface. Rinse. Hang to air dry. Marines can clean uniforms in the field. Field expedient methods include sunning and dry scrubbing. Sunning. Lay bedding or clothing out in the sun for 30 minutes. UV rays help kill bacteria and dry damp cloth. Dry Scrubbing. Clothing and bedding is folded onto itself and rubbed together. Dried mud, sweat, and dead skin are scrubbed off of the items.

26. How can you make a knee board?
    a. Light weight, and with infinite uses, knee boards are valuable kit. Start with unused ISOMAT, purchased from the PX, or sourced from other means. Cut into an 18" square. Encapsulate in duct tape. This typically lives in the radio pouch of your ruck, or the internal hydration pouch of your day pack. Knee boards are used for sitting, kneeling or laying to isolate your body from touching wet, cold, or rocky terrain. When used to lay on in the prone (as in ambushes) it can stave off the onset of hypothermia.
27. How can you keep your eye pro from fogging up?
    a. Nothing is more annoying than your eye protection fogging up mid-operation. Here are some field expedient ways to delay the fog. Some of these methods are meant to be done during precombat checks, but some may be done 'on the fly'. The method of defogging is the same for all the listed materials: apply material, rub it around with your finger or soft cloth, rinse until clear, and clean with a soft, non-scratching cloth. Commercial defogger is the best solution, but it may not be handy.
    b. Materials you can use to temporarily defog eye protection:
    c. Toothpaste
    d. Baby Shampoo
    e. Dishwashing Soap
    f. Ivory Soap
    g. Shaving Cream
    h. Spit—the most expedient method— is not effective for very long.
    i. Note: for each of these methods, a little bit goes a long way. Use only a drop or dab. Apply too much, and you will only make the situation worse.
28. How can you make your own waterproofing bags?
    a. The number of issued waterproofing bags are not adequate if you like to keep your gear compartmentalized. Additionally, if the issued bags are lost or ripped, they are expensive to replace. Make your own. Start with a Ziploc bag of your choice size. Lay flat. Carefully layer duct tape, starting at the bottom, and layering at least 1/2 inch. One you are at the top, lay a piece sticky side up. Place another piece covering half of it. Fold down the stick portion, creating a 'flap' at the top. Flip the bag over, and repeat on the other side. Once both sides are done, trim the excess of the edges. We use a lot of these. They are great for hygiene kits, instant coffee, and for compartmentalizing any other gear so that you are not digging through a giant waterproofing sack in the middle of the night.

29. How can you make bungees for your nalgenes?
    a. One of the most useful items around are the bungee loops that are part of the issued tarp. Using these bungees, tie them with a clove hitch around MOLLE loops on your daypack or ruck. Attach a small, cheap s-beaner to your Nalgene. Now, you can stow your Nalgenes in exterior pouches or in the pouches outside your ruck and not worry about loosing them.
30. What is an expedient method to water proof your boots?
    a. To start, you need a candle or a ball of paraffin wax. Gently rub the wax along the seams, leaving a light coat. Once the seams are done, melt the wax. Candles, lighters, or a heat-gun work well. Do not burn the boot. Keep the heat source moving until the wax becomes runny. Allow the wax to dry. The residual wax will be slightly shiny. Do not over apply, and be careful to not get too much wax on the leather.
31. How can you keep your camelback from malfunctioning?
    a. As you drink water from your camelback, it has a tendency to 'fall down' into the hydration pouch. When this happens, it is difficult to get water through the hose, even though there is plenty of water in the camelback bladder. The issued hydration pouches were designed with a small loop underneath the flap. Locate this loop and slide your camelbak bladder 'hook' through it. Now, as you drink, the bladder remains 'upright' and doesn't give you problems as you run low on water.
32. How can you stow the straps on your day pack to attach it to your ruck?
    a. To Stow. Unclip the shoulder straps. Tuck straps from the top into the space on the back of the pack. Roll waist strap and the bottom of the shoulder straps into the slot on the bottom left and right of the pack (picture at bottom). You are now ready to attach the pack to the issued ruck.
33. Does your ruck hurt your shoulders when you hike? Use the load lifters to pull the weight off your shoulders. How can this be done?
    a. Each ruck strap has stitching and a plastic tension keeper (see picture, right). Move the keeper as close to the stitching as possible (picture Below, left). Clip the load lifting clips, and cinch the load lifting strap As close to the tension-keeper as possible (picture below, Right). Now, when you have 120 pounds of light-weight gear, the pain in your shoulders is transferred to the pack straps and the load will sit on your hips.
34. If your NVGs have ever shifted slightly out of place, if your dummy cord has ever interfered with your gear, you need a better dummy cord. How can you create a better dummy cord?
    a. You will need one alligator clip from ALICE gear, two 'S' clips (one very small, one medium), bungee cord (preferably black, white is used here for demonstration), and tape. Attach alligator clip to the Kevlar by passing it through two vegetation slots on the Kevlar cover. This is now the anchor point. Measure bungee. It should reach from the anchor point to your NVGs when they are down. Cut to length. Tie 'S' clips to each end of the bungee, leave 1-2" tail. Tape down the tail and the knot. Small 'S' clips will fit in the dummy cord hole on the NVGs.

Attach the other 'S' clip to your anchor point. When the NVGs are down, the bungee cord should be tight. The tightness and elasticity of the bungee cord will hold NVGs in place, and stop the annoying shifting that interferes with night-time operations.

35. What should you use as NVG Anchor Points?
    a. Dummy cord equipment to points that will not move or come loose. Avoid chin straps as anchor points. Avoid 'cat-eyes' and other things that easily tear. A preferred method is alligator clips from the old ALICE gear.
36. In cold weather, why should you store canteens and Nalgenes upside down?
    a. This prevents the lid from freezing shut and allows you to drink unfrozen water at the bottom. In the event the lid freezes shut, gently tap the lid against a hard object such as an up-armored HMMWV door. After several taps, the lid opens easily. For cold weather areas, Nalgenes are preferred due to their large mouth. In cold weather, avoid camelbacks, as the hoses freeze quickly.
37. What is "Wet out"?
    a. liquid saturates your garment's outer fabric layer above the Gore-Tex membrane, leaving you feeling damp and clammy - as if your garment were leaking, even when it's not.
38. All Gore-Tex shell fabrics are treated with an ultra-thin treatment called DWR. What is DWR? How does it help clothing repel water?
    a. a durable water repellent polymer that is applied to the outermost fabric layer. DWR penetrates the fibers and lowers the surface tension of the fabric, causing water to bead up and roll off this outer layer of fabric, instead of being absorbed.
39. DWR is not permanent. What shortens its lifespan?
    a. Regular wear and tear, plus exposure to dirt, detergents, insect repellent, and other impurities can shorten its lifespan.
40. How should you clean Gore-Tex clothing?
    a. Machine wash it, rinse it, and put it in the dryer, being sure to follow the manufacturer's instructions on the care label inside. The washing removes dirt and other contaminants and the heat from the dryer helps redistribute the DWR treatment on the fabric surface. Do not use fabric softener or dryer sheets, as they will damage DWR treatment. Generally, dry on low or medium heat for 15 minutes to reactivate the DWR finish.
41. What can you test your Gore-Tex?
    a. Sprinkle or spray some drops of water on its exterior. Does it bead up and roll off? Your DWR is in good shape. If you give the fabric a single strong shake, does most of the moisture fly off? If, however, the water sits on the fabric and that section begins to darken slightly, water is making its way to the fibers and wetting the fabric. The DWR treatment has reached the end of its useful life and it's time to revive your DWR.
42. You can restore the garment's water repellency by:
    a. applying a topical water repellency restorative (DWR treatment) for outdoor fabrics, available at your local outdoor retailer. Wash-in treatments are not recommended; they can hinder the fabric's breathability.

43. DWRs work by increasing what?
    a. "contact angle" or "surface tension" created when water contacts a textile. Basi-cally, a high contact angle creates a microscopically "spiky" surface that suspends water droplets on the outer fringe of the fabric.
44. What are some considerations for use of sleep systems?
    a. Keep moisture out; it reduces insulation and will not dry. Be 'comfortably cool.' Cool skin stays dry. Do not breathe inside the sleeping bag, it produces moisture. Unzip the bivy sack vent flap, or unzip bivy sack to allow Moisture to escape. Fluff sleeping bag after unpacking. Fluff insulation throughout the night. As you sleep, the insulation becomes compressed and looses insulating value. Insulation traps air. Trapped air keeps you warm. Keep face exposed when sleeping; protect your face with a balaclava. Sleep in a tactical shelter (as in a snow trench) when able. Shelters add warmth. Clean your gear: clean gear stays warm and waterproof. When not in use, store sleeping system in black mesh bag. Do not store sleeping bag in a compression sack. When sleeping in layered bags, sleep with only the most external zipper closed, for rapidly exiting sleeping bag.
45. What are basic principles behind layering clothing?
    a. The layer against your skin should be a thin, moisture wicking layer that fits snuggly. Wear an insulating layer (grid fleece, field jacket liner, etc) over this base layer. Over these two layers, wear a wind and water resistant top (gortex). 'Loosely layered' clothing creates pockets of air. These air pockets— warmed by your body heat—keep you warm. Do not wear warming layers on patrol, while hiking, or conducting major operations. Marines should begin movements 'comfortably cool' to avoid overheating. During short halts, warming layers should be donned over clothing for temporary warming. Quickly doff warming layers and pack them away before resuming movement.
46. Why should you stop wearing 'skivvy' shirts?
    a. Skivvy shirts, especially cotton, absorb and retain moisture, increasing your risk of hypothermia. In hot climates, skivvy shirts retain body heat increasing discomfort and risk of becoming a heat casualty. A standard approach load should include one skivvy shirt, kept in a dry bag, to be worn as the camouflage utility blouse is drying after a hike, patrol or other operation.
47. Why is a sound practice to tape Map Pens Together?
    a. This easy trick ensures your marking and correction pen are always together. You need is two map pens and a roll of electrical tape. Lay the map pens so the working ends are opposite each other and tape tightly together with electrical tape.
48. During travel, we typically put protractors in the 'kangaroo pouch' of our flak. Why is this a bad idea?
    a. Over time, this leads to the protractor becoming bent, scratched, and unusable.
49. What are some methods for protecting your protractor?
    a. Methods for protecting the protractor include stuffing it into a zipper-closing pouch, usually with notebook, pens, and pencils. The result is usually the same:

a bent, scratched, and unusable protractor. Additionally, it is a hassle to access for quick map checks. Instead, Make your own mini-protractor out of a used one. Simply take the used protractor, and with a pair of scissors, cut out the desired scale. In the example, we cut out the 1:50k scale. Now, you can abuse your new pocket protractor. Use it for quick map checks while your 'good' protractor stays protected.

50. How can you Declinate a Protractor?
    a. One of the most common mistakes in map work is forgetting to add or subtract the GM Angle. By 'declinating' your protractor, you never have to worry about that again. Simply find the GM Angle, and do the math (add or subtract, depending on where you are in the world), strike a line through the protractor. Now, to work in magnetic, simply use the new 'declinated' line. To work in grid, use the north to south index line.
51. Where can Declination instructions be found?
    a. The declination diagram "to convert a grid azimuth to a magnetic azimuth"
52. Most land navigation mistakes are made during what phase?
    a. Plotting points. "Superfine" (defined as a 0.5 mm tip) permanent map pens are preferred for map work. To make accurate plots, line your protractor up on desired grid. Holding the map pen lightly, plot straight down with the map pen. This is the most accurate method. Do not plot with your map pen at an angle, it will usually cause your plot to be off. Small, fine dots are preferred. Large 'blob' like plots can be 50 meters (or more) wide. Pictures below show examples. The plot on the left is blob like, measuring about 50 meters wide. The plot on the right is less than half the size, and assuming it was plotted correctly, is more accurate.
53. Because of their ease of use with things like close air support, circular protractors are preferred. Why is this?
    a. Because you can erase declination lines without loosing the protractor's markings, the 'blue' circular protractors are preferred over the 'red' ones.
54. How can you plot points with a circular protractor?
    a. Locate the 'X' in the scale (circled in picture, (below, left). It should be in the lower left-hand corner when the protractor is laid down. Rotate the protractor one-quarter turn counter-clockwise, so that the 'X" is in the lower right-hand corner (picture below, middle). Now, to plot a point, move the protractor left or right until the number you need to plot is on the easting line.
55. What is one of the more effective methods for cleaning maps without the mess of correction pens or hand sanitizer?
    a. The magic eraser. This household cleaning item works great for sanitizing maps. Drawback to the magic eraser is that over time, it dulls the map laminate. Magic Eraser is useful for erasing unnecessary information from protractors and for clearing mortar plotting boards.
56. What do you need to construct a topographic profile?
    a. You need graph paper (with its printed grids, "Rite in the Rain" paper is ideally suited for this), a straight-edge, pencil and map.
57. What are the steps for making a line of sight survey?

    a. Draw a line across the topographic map through a region of interest to you. Draw a parallel line the length of this line horizontally near the bottom of the piece of graph paper (this is the x-axis). Then draw perpendicular 'elevation' lines on either side of the horizontal line. Add horizontal lines identical to the contour lines. These marks should be the same contour interval. Place the profile on the map, with the x-axis of the profile paper parallel to the line on the topographic map (below, left). Using a ruler, transfer the elevation points from where the contour lines intersect the line on your topographic map straight down onto your graph paper at the corresponding elevation lines as shown (below, left) Plot only elevations that intersect with line A-B. Once your points are plotted on the topographic profile on your graph paper, connect the dots between each contour point. You should not use straight lines to join the points; smooth lines mimic the topography. You will have to estimate the position of the line between the points on the profile.. As a rule, round hill tops slightly, without crossing the next contour line.

58. If not organized, the operations overlay gets crowded with information. What can help you organize information?
    a. The use of small, independently moving overlays ('flappies') helps organize information. Blocks of information are sorted on their flappy: TCMs on one, fire support plan on one, routes on one, and so on.
59. What are Cold Weather Considerations for compass use?
    a. The liquid in the lensatic compass thickens in cold. The heavy liquid slows the action of the compass and may make it inaccurate. Carry this type of compass near the body in the inner clothing to keep the liquid warm and thin. The dry-type compasses are not affected by cold weather.
60. Poor aiming and siting of claymores are the primary factor in what mistake?
    a. In claymores missing their targets.
61. How can you Improvise claymore sights?
    a. Taping straight sticks to the front of an improvised claymore.
62. Sometimes time, terrain, and weather do not permit digging in and siting an improvised claymore. What can be used to create a hasty claymore stand?
    a. The top lid of an ammo can, attached to the claymore with tape, makes an effective claymore stand. The angle of the ammo can handle is the ideal elevation for aiming at man-sized targets.
63. How can you Make a Sliding Tape Knot?
    a. Start with a det cord loop. Place two pieces of electrical tape to close the loop and create blasting cap bed. Place a third piece of electrical tape snugly around the det cord loop, sticky side out. Tape over this to create a sliding tape knot. The sliding tape knot helps quickly secure det cord to your target (picture, below right)
64. How can you Make a Det Cord Connector from a Chem Light?
    a. Hold pieces of det cord tightly and quickly attach to each other by making a det cord connector. Using an expended chemlight, cut a section approximately 1.5". On one side, cut two "V" shapes on each side. Slide on to det cord loop priming system. Attach by rotating the "V's" until it bites onto the connecting det cord.

65. To better handle mortar misfires use a rope hand hold. How can you create a rope hand hold?
    a. On one end, tie a large loop. On the other end, a smaller loop. Tie the rope to the cannon around the breach cap with a slip knot (picture below). During operation in cold weather, mortar cannons can become dangerously icy and slippery. To prevent accidently dropping the cannon, use the rope to lift the cannon (picture below, right). Hold the rope by the fingers. Do not wrap it around the wrist.
66. Mortar firing crews may find it near-impossible to set aiming stakes into frozen ground. How can you set aiming stakes into frozen ground?
    a. Additionally, snow doesn't always make the best material to set aiming stakes. An alternate method is to use a dirt-filled object (cans, MRE boxes, sandbags) to set in aiming stakes on frozen ground. In cold weather environments, and after firing, the baseplate may freeze—especially if it has been in place for several days (picture, below left).
67. How do you make the mortar baseplate easier to pull up?
    a. Attach a chain or rope to the base plate prior to sinking it. When it is time to move positions, yank the baseplate up with the chain after the gun is broken down.
68. In cold temperatures, anti-contact gloves must be worn when prepping or loading ammunition. What are good gloves to use for this purpose? Why is proper glove fit so important?
    a. Gloves can not be bulky or loose fitting, and should be secured by a wrist strap. The gloves must allow for dexterity. Issued Outdoor Research brown intermediate cold weather gloves work reasonably well, but don't have ideal grip. CIF issued wool insert gloves work as well (below, right). They have a rubberized palm and finger grip, but users must ensure they fit snugly. Loose gloves can get sucked into the cannon by the vacuum that occurs when a round is dropped, or can get pinched between the round and the blast attenuator device.
69. How can you control Your Beaten Zone with an M27?
    a. 0311 riflemen are not adequately trained on controlling their beaten zone as automatic riflemen. To control the beaten zone: Feet should be naturally placed, as if standing. Dig toes into the ground. Push hard out of the toes. Body should be in-line with the toes. The weapon should extend in a generally straight line. This allows for efficient shoulder pressure from pushing out of the toes (indicated by yellow line, picture right). The sling should be tight. Fore hand should be 'chopped' inside the sling for additional stability. Pressure starts from the toes, and is transferred to the shoulders, to the weapon, and to the bipod stop. This is very similar to shoulder pressure taught to machine gunners.
70. How do you Open the Trigger Guard for Gloves and Mittens?
    a. The trigger guard on the service rifle is held in place by a retaining pin. To fire the weapon while wearing bulky gloves or mittens, press the retaining pin, and allow the trigger guard to swing down to the pistol grip. Push the retaining pin back in.
71. How can you create an improvised Machine Gun Ammo Satchel?
    a. Open the ammo can and remove the cardboard tops from the 100-round sections. Link the two sections together (not pictured) to create a 200-round belt.

Leave the shoulder loop from one of the bandoleers hanging outside of the ammo can. Now close the lid, and sling as many ammo cans as you are able to carry.

72. What are some considerations for weapon lubrication in cold weather?
    a. Traditional lubricants such as CLP thicken in cold regions. This thickening causes stoppages and sluggish operation of the weapon. CLP will freeze at -35 °F (-37 °C). Before changing lubricant types (for instance, going from CLP to LAW), Marines must strip the weapon of CLP, clean it, dry it and lubricate it with lubricating oil arctic, weapons (LAW). Should Marines be unable to completely strip and clean their weapon, they lightly oil the camming surfaces of the bolt with LAW. The rest of the weapon remains dry. LAW is available in one-quart containers but not in the refillable half-ounce bottles normally found in weapons cleaning kits. If LAW is not available, use a dry graphite lubricant. As a last resort, fire the weapon dry.
73. When are weapons are considered 'cold-soaked'?
    a. their metal and plastic are around the same temperature of the ambient air. Taking a cold-soaked weapon to a warm environment causes the rifle to form condensation—a process known as sweating.
74. How can you prevent condensation of weapon systems in the cold?
    a. keep cold-soaked rifles cold. Place them in the vestibule of a tent, or similar location. If weapons are kept inside, they are kept on or near the floor to minimize condensation. In the event that weapons are taken from a cold to warm environment, frequently dry all components with a rag.
75. How long will weapons "sweat" for?
    a. Weapons will sweat for approximately an hour after being taken into a warm environment. Condensation rusts the weapon, and freezes to ice when taken back outside. Both rust and ice cause stoppages in the weapons.
76. Marines request shoot-through muzzle covers for weapons to keep the weapons clear of snow and ice. If none are available, individuals improvise. What are other methods of keeping weapon bores free of debris? How can you minimize the chances of ice accumulating within your weapon systems?
    a. They can use plastic bags, tape, or condoms. Marines close ejection port covers. Personnel should carry something to de-ice a weapon if part of the weapon becomes frozen. Windshield wiper fluid carried in a small bottle works as does aircraft de-icer and antifreeze. Periodic cycling of the weapon will also keep parts from freezing. Marines operate the action on weapons periodically. This can help identify icing issues. Specifically, Marines action a weapon for two hours after taking it from warm to cold to prevent condensation from freezing.
77. Marines can encounter a visibility problem when: Why is this?
    a. they fire weapons in still air conditions with temperatures below -30 °F (-34 °C). As the round leaves the weapon, the hot propellant gases cause the water vapor in the air to condense. These droplets of condensed water vapor then freeze, creating iceparticles that produce a cloud of ice fog. This fog will hang over the weapon and follow the path of the projectile, obstructing the gunner's vision along

the line of fire as well as revealing the gunner's location to the enemy. When faced with this problem, fire at a slower rate and/or relocate to an alternate firing posi- tion.

78. Tests have shown that even in warmer temperatures, a fog develops around the gun. What creates this fog, and how can you maintain visibility in spite of this fog?
    a. Hot gases from the gun and the breath of the gunner create the fog, making it difficult for the gunner to observe the strike of rounds. For crew-served weapons, the assistant gunner may need to take up a position further left or right to help with adjustments. For individual weapons, Marines may need to change position frequently.
79. When using optics in the cold, gunners must avoid breathing on the sight. Why?
    a. Breathing on the sight causes condensation. Since the warmth put out by the proximity of the face can cloud the sight, individuals allow a space between the eye and the sight. When taken from a cold to a warm environment, individuals allow the optics to adjust to the new temperature slowly to avoid cracking the lens.
80. Rockets have an arming distance, usually around 10-17 meters. How does this impact the method of transportation of rockets?
    a. Due to this, when carrying rockets of any model (M136, M72, Mk-153 SMAW rockets), they are carried 'nose-down' regardless of if they are slung on the body, or strapped to a ruck. In the event of a discharge, the rocket warhead will bury itself in the ground before it arms. The backblast will be directed up and away from personnel.
81. Although newer models of the M136 AT-4 are designed with a rail system for night aiming devices, older versions are not. What does this mean for operators?
    a. The result of this is the M136 can not be fired at night, unless battlefield illumination is coordinated.
82. The field expedient method of night firing the M136 is to activate a chem light. How can this be done?
    a. Cut open the top. Using your finger or a rag, 'paint' the front sight post and rear sight aperture with the chem light liquid. This allows for achieving a sight picture at night. Chem light juice will last 30 min—1 hour.
83. This method requires a point of aim. How can you establish a point of aim?
    a. Point of aim is achieved by pairing tracers from a machine gun or a unit leader's weapon. The rocket gunner aims on the tracer's impacts. While primitive, it works when night aiming equipment is unavailable.
84. Some M136s have a new design rear sight. To transition from the day/narrow sight aperture to the wide/night aperture do the following:
    a. Grab each side of the narrow aperture. Pull slightly 'back' (toward the rear of the launcher). Rotate 180°. To replace the day/narrow aperture, rotate 180° until the narrow aperture locks into the wide "peep" sight. As designed, the narrow sight sits inside of the wide/night sight. Do NOT force the sight to swivel without pulling it away from the wide/night sight first.
85. How can cold weather impact the M-136?

    a. The M136 (AT-4) antitank weapon has plastic and rubber components that become brittle and can crack in extreme cold. When firing the weapon, ice fog and vapor trails occur. Sights are more difficult to release from their covers in cold temperatures. To prevent the icing of sights, the gunner wears a facemask or scarf when temperatures reach -15 °F (-26 °C).

86. How should SMAW rockets be carried in aircraft?
    a. Currently, the only model of rocket that discharges by electrical input are rockets fired from the Mk-153 SMAW. Due to this, when carried aboard an aircraft, SMAW rockets should be temporarily stored in a foil bag to prevent discharge from static electricity. A field expedient foil bag can be made from the shipping foil common to ammunition packaging. Rockets are unpacked, inspected and prepped, then repacked in a foil bag and sealed with tape. Other models of rockets (M136, M72) operate with a mechanical firing mechanism, and don't require this type of packaging.
87. The art of camouflaging involves a few specific skills and a lot of preparation. What are some of these skills?
    a. Tie-ties are usually step one. Tie-ties allow the individual to tie local vegetation. Ideally, tie-ties are made in advance from 550-cord. Boot bands work well too, but overall are expensive. It is best to make a lot of tie-ties in one sitting.
88. How do you make Tie-Ties?
    a. Remove the innards, and save innards for your terrain model kit. On a table, tape a 'god-length' piece of tape, roughly 12" long. The 'god-length' piece is the measured piece for all subsequent pieces. Cut 12" pieces of 550-cord. Singe the ends of each 12" length. When working in bulk, a candle is the preferred method for this. Tie-ties are typically attached to fish net, MOLLE webbing, or your substrate using a clove hitch. Use a bow-tie when tying vegetation into tie-ties. It is easier to strip the vegetation out when you are done, and keeps tie-ties untangled.
89. What is Jute?
    a. Jute is harvested from burlap sandbags or local arts and crafts stores. Jute is a natural fiber that is used to break up unnatural shapes of gear. Jute is incredibly efficient camouflage material, and should be (in conjunction with your substrate of fishing net) the basis for using local vegetation.
90. How do you make jute?
    a. Cut a chunk of burlap from a bag. For a chunkier, 'leaf-like' base, or for tactical vehicles, cut burlap into 1" strips (no guideline here, nothing in nature is perfect). Larger strips are ideal for tying onto camouflage netting for vehicles. Picture at middle right is burlap strip tied on to a helmet Gently pull single strands of jute out of the weaving. Ideally, jute strands will be 8-14" long. Bundle 6-8 strands of jute together, and tie them into your fishing net using a clove hitch (picture bottom right). For larger areas, jute should be tied roughly 6" apart.
91. Conditioning jute and other materials is an important, deliberate and time consuming process. Why is conditioning jute so important?

    a. Conditioning rids materials of shine and breaks them in. Condition materials well ahead of planned exercises and operations.
92. Why should you hang dry the jute after it has been conditioned?
    a. Sun light dries mud, and helps fade colors. Hang to dry and fade for several days. Let the weather be the weather: if it rains all the better.
93. What should you also do after conditioning the jute?
    a. On a rough surface (pavement, or rocks) abrade material by stomping or rubbing. Abrading with a steel brush works well too. The goal is to break up 'dread locks' of mud and jute. Abrading removes shine. This will take several hours for each piece.
94. How can you Camouflage Your Boonie?
    a. The standard-issue boonie has a band sewn into it to accept vegetation. A more effective method is to tie tie-ties onto this band. Tie-in fist-sized clumps of local vegetation.
95. How can you Camouflage Your Ruck using Tie-ties?
    a. There are two main methods for camouflaging your ruck: hasty and deliberate. Deliberate camouflage includes constructing a layer to weave tie-ties and jute into. This method uses the MOLLE webbing on the top lid of the ruck. Vegetation is then tied into the tie-ties.
96. How can you Camouflage Your Ruck using Camouflage Netting?
    a. This deliberate method uses a section of camouflage netting attached to your ruck. When not in use, the netting can be rolled up and stowed with the ISO mat or stowed on the top lid of your ruck. Camouflage netting can be painted to blend in to the local environment. Tie-ties and jute can be tied on to the camouflage netting. When painting camouflage netting, use spray paint designed for use on cloth.
97. How can you Camouflage Your Ruck using a Ghillie Blanket?
    a. This method requires extensive preparation. A 5'x7' blanket was made by sewing fishing net to a mesh substrate with a draw-string. This blanket included webbing to stake the blanket down over a fighting position, and clips that allowed multiple blankets to be put together.
98. Keeping two bungee cords on your gear allows you to quickly camouflage your ruck. How can you use bungee cords to help camouflage your ruck?
    a. Simply attach a bungee cord toward the top and bottom of your ruck. Insert large vegetation through both bungees, shorter vegetation through one. 'Veg up' three sides of your ruck, leaving the frame and harness slick.
99. In the event you do not have bungee cords, where can you place vegetation on your ruck?
    a. Compression straps and MOLLE web-bing. This method does is not as effective due to limited 'real estate' for vegetation. There are two main methods for camouflaging your helmet: hasty and deliberate.
100. What is the main purpose behind camouflaging your helmet? What are hasty and deliberate methods of camouflaging your helmet?

a. The main objective with camouflaging your helmet is to disrupt the distinct shape and outline of the helmet. Hasty methods include using vegetation slots and cat eyes. Deliberate methods include using fishnet, laundry bags, engineer tape, or veils.

101. How can you Camouflage your helmet using vegetation slots?
    a. The slots on the helmet cover are designed to hold pieces of vegetation. For helmet covers that are tight, use a thicker piece of vegetation to act as a guide (picture, right). Repeat until desired effect is achieved.
102. How can you Camouflage your helmet using cat eyes?
    a. Camouflage your helmet quickly by taking fistfuls of vegetation and inserting it into your helmet (picture, below middle) until the desired effect is achieved (picture, below right).
103. How can you Camouflage Your Helmet using Netting, Jute, and Tie-Ties?
    a. Prepare the helmet by sewing, gluing or taping fishing net to the helmet cover (pictures below, top row). Other substates that work include boot bands and a veil (purchased from the local Marine Corps Exchange, picture below, bottom row). Tie jute and tie-ties into the substrate. Condition the helmet cover to decrease shine.
104. How can you camouflage your helmet in snowy environments?
    a. Camouflage your helmet in a manner similar to jute. Using white materials (engineer tape-also known as 'e-tape' works well). After being woven into the substrate, fray the material until it looks similar to the picture at right. Other material that work well are bedsheets cut into 1"x8" strips. Condition the material with snow in a similar manner to conditioning jute. Snow abrades the materials, and decreases shine.
105. How can you camouflage your gear using a ghillie blanket?
    a. Camouflaging gear is best done by making a 'ghillie blanket' ahead of time. This method uses a laundry bag as its base material, and requires quite a bit of preparation. Cut the laundry bag open, and spray paint it a light-brown color. Tie in jute and tie-ties as required and explained in the beginning of the chapter. Condition the ghillie blanket. Using 550-cord, or like item, create attachment points in order to either wear the ghillie blanket in a cape -like fashion or tie it directly onto the flak jacket. The ghillie blanket should sit in such a way as to disrupt the natural human shape created by the shoulders
106. How can you camouflage your weapon for snowy environments?
    a. Black rifles are very noticeable in a white, snowy environment (picture, right). Hastily camouflage your rifle with e-tape. Attach (tie or tape) the e-tape to your rifle. Wrap it around handguards, optics and the buttstock while taking care to not impede the functioning of the rifle.
107. How can you camouflage your weapon using boot bands?
    a. Another simple method for camouflaging your rifle is to use boot bands, rubber bands and local vegeta-tion. Simply wrap boot bands around the handguards, buttstock, and optics and place fist-sized clumps of local vegetation.
108. How can you Camouflage Your Optics?

a. Optics—especially when on an observation post—are camouflaged with the same diligence as personal gear and rifles. Boot bands, rubber bands, and burlap form a great base to stuff vegetation into. Marines from K/3/7 pioneered this method.

109. What are some considerations for Firing Ports in your fighting position?
    a. Be cautious of the area immediately in front of the fighting positions' sandbags. Loose or fine powdered dirt creates smoke and debris when the rifle is fired. Not only does this obscure your view, but it gives away your position. Water down the area to lessen the effects of dirt.
110. How can you use Vegetation Clumps to camouflage your fighting position?
    a. When camouflaging a fighting position it is a best practice to replicate surrounding terrain. The parapet of a fighting position must be camouflaged. The problem is that simply throwing cut vegetation on the Parapet is not effective; it is not '3 dimensional. Dig 'clumps' of vegetation—roots and all—and 'plant' them on your fighting position. By digging up the roots and planting, you increase the life expectancy of the vegetation.
111. How do you construct a Mayan Terrace?
    a. The Mayan culture cultivated crops on steep terrain. They did this by building terraces of the sides of hills. Use sticks to create miniature terraces. Plant vegetation clumps on these terraces.
112. What is not a good method of overhead concealment?
    a. Issued tarps do not work for overhead concealment. Tarps are very shiny and can be seen by UAVs from a considerable distance away.
113. Why should you practice dirt discipline when creating a fighting position?
    a. When digging fighting positions, do not throw the dirt out of the fighting position recklessly. Especially in grassy areas, avoid excessively trampling vegetation as you walk around your fighting position. Both dirt and trampled vegetation are easily seen from UAVs
    b. How do you camouflage your fighting position using Synthetic Sandbags and Mud? Synthetic sandbags are shiny. Their shine can be detected by UAVs flying nearly 900' above ground level and more than 500 meters away. Make synthetic sandbags unnoticeable by mixing up some mud. Smear the mud liberally on the sandbags. This simple trick reduces UAVs ability to detect the shine of sandbags to a level similar to burlap sandbags. The difference a little mud makes. Sandbags were smeared with mud (picture, left) were unable to be detected by a UAV at 100 ft. Sand bags not smeared with mud (picture, right) were able to be detected by a UAV at 867' AGL and over 500 meters away.
114. How do you Camouflage Your Observation Post in a Forested Area?
    a. LP/OP established in support of a platoon defense. OP is manned by 2-4 Marines. Corners are propped up by tripod-lashed deadfall branches assembled before departing and carried on a ruck. Cross beams laid between the tripods form the basis for a "roof" that was layered with a cheap mylar blanket, tarp, and foliage.

115. How can tire tracks give away your position? How can you lower the signature of tire tracks from multiple vehicles?
    a. Tire tracks can be seen from UAVs, day and night. Soil that has been traveled has a different thermal signature than the surrounding terrain, making it easy to see with thermal optics. While tire tracks are unavoidable, traveling within the lead vehicle's tracks is ideal to lower the signature of multiple vehicles. See picture, right.
116. What is heat scarring? How does it contribute to your signature in a combat environnment?
    a. Heat scarring is the latent heat generated from a running vehicle. For a time after the vehicle departs, the heat signature lingers. This, in conjunction with tire tracks, allow positions to be identified or track by enemy observers.
117. How does the reflective shine of a vehicle impact your signature?
    a. There are many parts on tactical vehicles that shine, or reflect light. Glass and headlights should be considered when selecting positions. Their camouflage could be for naught if the sun's position catches reflective surfaces and causes glare. Cover shiny and reflective surfaces with burlap sandbags.
118. How do exhaust systems impact your signature?
    a. Exhaust systems create a very hot, very distinct shape that is visible clearly with thermal optics. Expedient methods of camouflaging them include building 'cages' around the exhaust from discarded HESCO barriers covered in cammie netting (3d Light Armored Reconnaissance Battalion does this quite well), or affixing discarded ammo crates around the exhaust system. Regardless of method, the base idea is to create space between the exhaust system and the camouflage material to allow heat to dissipate, thereby masking its thermal signature. Picture, left shows the distinct outline of a HMMWV exhaust.
119. How can creating space decrease the thermal signature of your equipment?
    a. Thermal camouflage depends on reducing or masking heat signatures. For instance, camouflage netting on an engine hood quickly becomes just as hot as the hood, negating any thermal effects. Creating space between a hot object and its camouflaging layer decreases its thermal signature. Styrofoam blocks from the TOW missile wooden overpack (picture, right) are useful for creating this space. Affix them on the vehicle and lay the cammie netting on top. This creates a space for heat to dissipate, reducing the thermal signature.
120. How do lines and outlines affect your signature?
    a. Tactical vehicles have strong and distinct lines. These distinct lines and outlines are the reason they are easily recognizable. Camouflage—specifically local vegetation—should focus on breaking up the lines and outline of tactical vehicles. Mirrors, exhaust systems, antennae, hoods and wheels should all be considered
121. How do you defeat thermal optics?
    a. The goal of defeating detection by thermal optics isn't to reduce the thermal signature to 'zero' but to disrupt the shape of the object, and make it blend in with the surrounding thermal environment. Typically with vehicles, the key to success

is to create space between the vehicle and the camouflage layer. The easiest—and most preferred—is to place vehicles in areas with overhead cover.

122. How can UASs identify vehicles? What are practical means for concealing vehicles?
    a. One of the most distinguishable key identifying features of vehicles from the air is cast shadow. When overhead concealment is not available, passive measures for mitigating cast shadow include parking vehicles in wide ditches, dried river beds (with due caution for flash floods), and between micro-terrain.
123. What is a veg site? What occurs at the veg site?
    a. A critical task for a squad is to establish a "veg site" as a tactical control measure ahead of camouflage intense patrols (ambushes, e.g). At the veg site, the squad halts and 'vegges up' before continuing. This lessens the impact of cutting veg in the objective site.
124. What are tips for Harvesting Vegetation?
    a. When 'vegging up' always cut vegetation; never pull it from the ground. When vegetation is pulled from the ground, the root system is typically pulled up as well. This tends to be lighter in color than the rest of the vegetation, and can cause a unit to be compromised. Trauma shears work well for cutting most vegetation.
125. How can sandbags give away your position?
    a. Due to shine, burlap sandbags are preferred over synthetic/plastic ones. The shine from synthetic sandbags can be seen from sUAS from distances in excess of 500 meters. Additionally, as burlap sandbags become unserviceable for use, Marines can strip them for jute.
126. How does night impact camouflage?
    a. Camouflage is just as important at night. Night optics still see line, outline, shape and shadow
127. How does sloshing water give away your position?
    a. The sloshing sound of water is a dead give away for a unit looking to move silently into position (in ambush, for example). It is a good habit to check for sloshing water during pre-combat checks. Sloshing water is generally caused by half-full canteens, nalegenes, or camelback water sources that still have air in them (picture below).
128. How do you stop sloshing of water in canteens and nalgenes?
    a. To stop sloshing in a canteen or nalgene, simply fill the canteen or nalgene to the very top. When the unit stops to rest, the unit drinks from one canteen or nalgene until it is empty, avoiding the half-full sloshing when the unit moves again. Units at rest should drink from canteens or nalgenes; units on the move or in the attack should drink from their camelbacks.
129. Half-full, air-filled camelback are noisy and the trapped air makes camelbacks pop open, spilling the water everywhere (below, left). How can you stop sloshing water in camelbacks?
    a. To stop sloshing in camelbacks, and to remove air that causes camelbaks to pop open, simply turn the camelback upside down. Using the hose, suck all the air

out of the camelback (picture below, middle); it should be relatively flat when the air is sucked out (picture below, right).

130. How can you procure water using snow?
    a. For illustrative purposes, we are using a Jetboil stove. The process is the same with a Squad Expeditionary Stove, or like-item. Search for an uncontaminated area (no trash areas, human waste). Gather a small amount of snow. It is important to note that if you begin by packing your Jetboil full of snow, it will take longer and use more fuel. Melt this small amount of snow, and bring to a rolling boil. There should be about two inches of water in the bottom of the Jetboil. To this, begin adding snow. Add 3"-4" of snow at a time, and stirring consistently. Do not worry about bringing the snow to boil. Repeat this process until your Jetboil is full. Bring the water to a rolling boil for 30 seconds.
131. How do you use an in line filter?
    a. Disconnect hose from bladder. Reconnect in-line filter, and attach hose. The reservoir is filled with water from the source. As you drink from the tube, the in-line filter cleans the water to acceptable standards. This filter is protects against bacteria, protozoa, and particulates down to .02 microns in size. It does not protect against viruses. It does not protect against Leptospirosis (a bacterial disease caused by bacteria genus Leptospira, which is smaller than .02 microns)
132. What are some other notes on water?
    a. In freezing temperatures, store water upside down. This will allow you to drink unfrozen water at the bottom. For cold weather areas, Nalgenes are preferred due to their large mouth. If you must harvest water from a stream, maintain one "clean" Nalgene and one "dirty" Nalgene. Harvest water in the "dirty" Nalgene. Once sanitized by boiling (or other methods), pour water into the "clean" Nalgene. Do not cross-contaminate the Nalgenes. If your Nalgene lid is frozen, tap it against hard surface to loosing ice in the lid. Do not use Camelbaks in cold environments. Latent water in the hose and mouthpiece could cause the system to burst. If you have no other choice, attempt to keep the Camelbak bladder between insulating lay- ers. Blow into the drinking hose to clear water from the line. Route the hose under the Gortex jacket, and through the sleeve to keep the drinking tube from being exposed to wind and snow.
133. How can you quietly use clips?
    a. When in a patrol base, ambush site, or other place where you can't make a lot of noise, the distinct click sound can be heard for a considerable distance, especially when a group of Marines are doing it. Quietly clip your clips by inserting the male end. When the clip is almost in, place fingers on each side of the female end to 'catch' the clip as it snaps in. This method greatly reduces the sound that clips make.
134. How do you make a ranger roll?
    a. A ranger roll is made from a poncho and poncho liner. It offers a light-weight, multi-use sleeping option in milder weather. Neatly lay out your tarp. Over this, lay out your unzipped poncho liner. Align the gromets on the tarp with the ties on

the poncho liner. Tie the poncho liner to the grommet with a bow tie. Zip up poncho liner and snap the tarp shut where the ends meet.

135. What are general guidelines for packing equipment?
    a. Heavy items are packed 'high and centered' on the individual's back. Light items are packed in the bottom and outside. Carry the same gear all the time. When possible, keep gear out of the top lid. Reserve the top lid for maps and mines. Organize gear according to use. More frequently used gear is kept accessible. The standard is: A Marine finds his gear silently, in the dark, without a light. Balance and compression are critical to load carriage.
136. How can you maintain balance when packing your ruck?
    a. Rucks are packed for balance when moving. Heavy items are not packed on one side. Hydration pouches are worn on the side, preferably one on each side. Improperly packed rucks cause the Marine to work to offset the effects of an unbalanced ruck.
137. How can compressions straps to be used?
    a. Compression straps on each side of the ruck compress gear. Tightly compressed gear decreasing the shifting of the load, and makes movement more efficient. When loads shift inside the ruck, the Marine exerts more energy and effort. All compression straps are used, and the load is tight and secure.
138. How can you make a splint for a broken ruck?
    a. Ruck frames break, and that's a fact of life. Temporarily fix a broken frame by splinting it. Start with a straight object (in the pictures below, a broom handle was used. Any object will work: tree branches, for instance) for a splint. Lay the splint next to the broken frame. Align the frame as best as possible. Using tape, 550-cord, or whatever is at hand, lash the splint to the frame.
139. Why should you pack your ruck the same way every time you use it?
    a. Pack your ruck the same way every time; chow goes in the same place, hygiene kit goes in the same place and so on. With time and practice, you will be able to find your gear silently, in the dark and without a light. Sustainment pouches are for sustainment. Keep an MRE and field coffee in one sustainment pouch. Rifle cleaning gear, baby wipes, beanie, hygiene gear goes in the other sustainment pouch.
140. How can you construct a tarp shelter, in the dark, in ten minutes?
    a. To build a tarp shelter you need one issued tarp, four tent stakes, and two uprights. Uprights can be any sturdy object; recommend 24-36" long. Tent pole sections work well, can be acquired easily, and are lightweight. Plastic tent stakes are readily available at retail stores and are packed in the ruck. Spread out tarp and stake to the ground. Ensure that the tarp bungees are taut. Drive stakes in at a 45° angle. Put uprights in, ensure that they are seated in the gromet of the tarp. In the absence of brush or trees, you ruck and gear can be hasty uprights.
141. How should you pack trash in the field?
    a. Pack your trash out. Personal trash is packed by the individual in their ruck, and periodically gathered via the Company Gunny. MREs can be packed so that trash

doesn't become messy in your ruck. Roll up main meal pouches. Fit them in 'dry' pouches (crackers, for instance). Break spoons in half. Stow everything neatly in the MRE pouch. Fold one half of the MRE pouch down, and behind all the trash, leaving one side up like an envelope flap. Tuck this flap into the pouch. When done well, this method keeps all the MRE trash in the pouch, and will not explode in your ruck.

142. What should go in a four day hygiene kit?
    a. A sample four day hygiene kit (picture, right) includes a four inch toothbrush, 1 oz toothpaste, one razor with handle, anti-itch cream, Chapstick, hand sanitizer, and a small microfiber towel. It weighs less a pound and is packed in a homemade waterproofing bag. Each item is individually waterproofed to avoid the mess that happens when one item gets crushed. Toilet paper for four days is waterproofed and carried separately. Essential items only, no extras.
143. What should go in a four week hygiene kit?
    a. Include replacement items: razors, toothpaste. Additional items: shaving cream, nail clippers, bath towel, bar soap in a waterproof case (chewing tobacco cases work well.
144. Why is gel body wash and shampoo a bad idea?
    a. It may get crushed and explode in your gear. Gel body wash is heavy and hard to pack.
145. What should be in a 4 month hygiene kit?
    a. Replacement Items: Razors, Soap, shaving cream, toothbrush, toothpaste. Additional Items: Dental Floss, Scissors, Deodorant, bath towel and flip-flops,
146. What are considerations for shaving and conducting hygiene in a field environment?
    a. No electric razors; they are too noisy for tactical work. Carry hand sanitizer for use before and after eating. Corporals supervise field hygiene. Shaving removes protective oils from the face. Shave in the late afternoon or evening to allow protective oils to reconstitute. Do not use alcohol-based baby wipes. They contain alcohol and are the same temperature as the ambient air. Their use could lead to contact frost-bite in cold weather. Field showers are accomplished with baby wipes or micro-fiber towel. At minimum, Marines clean their feet, crotch and armpits. Used baby wipes are discarded in empty MRE sleeves. When shaving or brushing teeth, dig out a small hole with the heel of your boot. Spit into this hole. Cover with dirt when you are done.
147. Excrement is a reflection of diet. U.S. excrement smells different than the enemy's. How can you minimize the signature of your shit?
    a. Minimize smell by burying all excrement immediately. Dig individual catholes when mobile. Designate saddle trench when static for hygiene standards and minimizing smell. Saddle trenches are 50 meters away from water features and down wind from enemy. For saddle trenches, all excrement must be covered immediately!
148. What are methods for Drying Socks on the Move?
    a. Dry your socks are you move. Some issued gear (such as the 'cheetah fleece' and happy suit) have mesh pockets perfect for drying socks. Another method is

to tuck socks into your waistband. Both of these methods are useful when you bed down for the day.

149. What is a method for Drying Socks on the Move using your ruck?
    a. Dry your socks on the move by hanging them off of your ruck. It is recommended to carry two bungees. When you need to dry socks, simply tuck them into the bungee. If there are no bungees, tuck the socks through a compression strap.
150. What are methods for Drying Gear at Night?
    a. When drying clothes at night, place small items in your sleeping system. Small items include skivvy shirts, underwear and socks. Do not wear wet clothes to sleep! Place items toward the feet, or between legs. Items such as utilities are place between the sleeping bag and the bivvy sack. Body heat will dry them. Bulkier items—Gortex, for example—is laid between the sleeping system and the ISO mat.
151. Sleeping is a crucial function. What are tips for maximizing sleep?
    a. When afforded the opportunity to rest, sleep is maximized. Loosen trousers and socks. The weather and enemy determine what is worn while sleeping. Boots are worn while sleeping if the enemy is close. Carry a hammock. In wet terrain, a hammock allows the body to dry overnight. Sleep in dry night shirt, put wet clothes back on in the morning.
152. Why is packing away unused equipment important in a combat environment?
    a. Use homemade waterproofing bags to organize contents of pack by function. Before bedding down, Marines pack away all gear. Marines are able to wake up, and move out in minutes.
153. What are Methods of Marking an LZ?
    a. Day, near: Smoke, Air Panel,
    b. Day, far: Pyrotechnics, Signal Mirror,
    c. Night, near: IR Strobe, IR Buzzsaw, 'Desert Box', NATO Y
    d. Night, far: IR Pointer (PEQ-16 or equivalent), Pyrotechnics,
    e. Best practice: Mark for LZ and friendly units is different. Mark LZ with chem lights, friendly positions with
    f. IR Strobe, for example. During the day, if the LZ is marked by air panel, friendly units should not be.
154. How can you stake chemlights to the ground for LZ Marking?
    a. For LZ procedures, chem lights and other objects must be staked and secure. For chem lights, an easy solution is to carry #10 or heavier nails in your LZ Kit. The nail is pushed through the hole in the chem light, and doubly secured by tying the chem light to a rock (or something!) as seen in picturebelow. An alternate method is to tie the chem light through the hole (not the hook), and then tie it to a common tent stake. Ensure to push the stake in until it is flush with the ground.
155. How can you make a buzzsaw to mark an LZ?
    a. Making a buzz saw is relatively easy. You need two chem lights and an eight-foot piece of 550 cord. Due to visibility, red or IR is preferred) Remove the 550 cord innards (keep them for the terrain model kit), tie one chem light approximately

24-36" from the end (picture below, right). Tie the second at the end (picture below, middle). Wrap everything neatly (picture below, right). For farther signaling, tie 3-4 chem lights to the end of the buzz saw.

156. When manufactured strobes are not available, how can you make a hasty directional strobe with an M203/M320?
    a. Simply crack a chem light, and slide it into the barrel of a M203/M320. Place your hand over the barrel, and flash the aircraft in a recognizable pattern (for instance three flashes, pause, three flashes). This is an incredibly efficient method of near ITG and can be used as far ITG. It is very directional— good for a fluid enemy situation—but you must know the direction the aircraft is approaching or it won't be seen.
157. Obstacles on the landing zone must be moved or marked. Why?
    a. If they are marked, the best practice is to make your obstacle mark usable during the day or night. Additionally, every attempt must be made to differentiate obstacles marked by chemlight, and landing points marked by chemlight. One method to separate the two is to place landing point markers in a clearly identifiable geometric shape.
158. What are Other methods for creating Directional Signals?
    a. Any method that shows 'friendly' side while not showing on the 'enemy' side is a directional signal. Anything that can contain the mark and be masked from enemy units works. In the pictures below, a drink bottle is used and a chemlight is taped directionally and nailed to trees.
159. What are some examples of Night Marking Conventions?
    a. All Night Marking SOPs follow the following guidelines:
    b. Intensity indicates importance. Flashing indicates importance. Flashing IR beacons are significant and are reserved for a few key billet holders. Leaders are marked with either steady or flashing marks. Fixed sites are always marked with a steady IR mark. Regardless of importance, fixed sites never flash. For signaling, international distress signals apply.
    c. Standard signal meanings:
    d. One of anything is NO. Two of anything is YES. Three of anything is DANGER.
    e. For positioning, nautical navigation SOPs apply. RED is LEFT. GREEN is RIGHT. IR equivalents: two IR chemlites replace RED. One IR chemlite replaces GREEN. First priority for marking is always the LEFT side.
160. How can you clean dirty comm ports on radios?
    a. If you have a bad connection on radios, clean the comm ports with the eraser of a No. 2 pencil.
161. What can you Program a Radio in the Cold?
    a. When wearing thick cold weather gloves, program a radio with the graphite end of a No. 2 pencil.
162. Why is it important to Lubricate O-Rings in cold weather?
    a. Cold weather tends to cause the O-Ring in most comm ports to become brittle. Typically, in warmer climates, wiping saliva on the O-Ring with a finger does the trick to help the connector seat. In cold weather, Chapstick functions as a good

substitute for saliva. Put chapstick on your finger (picture, below left) and work it into the O-Ring (picture, below right).

163. How do cold environments impact radio battery life? How can radio batteris be kept warm?
    a. Cold environments kill battery life. Improperly stowed radios (picture, right: setting a radio in the snow) can kill batteries in a matter of hours. A method for keeping a radio 'warm' is to waterproof the radio. Place radio inside an issued warming layer (poncho liner, as depicted below) and place inside a water-proofing sack. Leave the antennae exposed.
164. How do you Waterproof a PRC-152?
    a. Start with any plastic bag (MRE sleeves work well too). The radio should slide in so that the closed portion of the bag is at the top (Pictures, right). Cut small holes for handset, antennas, and other connectors. Thread them through the holes so that the plastic bag is over the connectors (picture, left). Tape the connectors securely (picture, right) Secure the loose, open bottom of the bag with a boot band or rubber band. This allows you to easily change batteries, and lift up the bag to program the radio (picture, right).
165. How do you Waterproof a PRC-117?
    a. Start with a large plastic Ziploc bag. Place it over the radio so that the closed end is at the top (picture, right) Carefully cut small holes for any port connectors and rails. Install connections and pull plastic down. Using this method, you can still program the radio with the normal interface. Tape openings shut around the port connectors. Secure the loose bottom of the plastic bag with boot bands or a rubber band in order to change batteries easily.
166. Why is Radio Discipline so important?
    a. It is key to concise communication. It requires practice.
167. Why is short, concise communication important?
    a. Short, concise communication prevents enemy location, targeting and jamming.
168. What does it mean to communicate securely?
    a. Do not say sir, or imply seniority. Do not pass friendly grids in the clear (reference SHACKLE codes). Pass enemy grids in the clear. Say "BEADWINDOW" to identify a security violation
169. How can Eavesdroppping help you on the battlefield?
    a. Eavesdropping is encouraged. Listening to other nets, especially HQ, helps situational awareness.
170. Why should leaders talk to leaders?
    a. To minimize friction, leaders, not radio operators, need to talk directly to each other as much as possible.
171. Why is it important to use absolute time hacks.
    a. "Move at 1530" vice "Move after 30 minutes." Relative time hacks are easily misunderstood and get passed along with inaccuracies.
172. When passing friendly grids in the clear, an easy encryption method is the shackle code. What is the shackle code?

a. A shackle code is a ten letter word that corresponds to a number when it is written out

173. Comm windows require trust and are set according to a predesignated schedule. What happens during comm windows?
    a. During Comm Windows, pertinent information, reports, and position reports are passed. Once over, Comm Windows are not broken except in emergency. Comm Windows are not established along easy patterns. Units getting radio checks at the top of the hour, for instance, invites pattern recognition.
174. What are actions taken during a short halt?
    a. If you are not moving, you are defending. Patrol halts are a form of defense, that is individuals in the patrol take actions to steady increase the unit's defensive posture over time.Patrol halts; individuals provide outboard security. Unit conducts SLLS.
    b. Once the unit is comfortable that it is not being followed, individuals in buddy pairs:
    c. Maintain security. One Marine remains standing while their buddy slowly takes a knee.
    d. Once in a knee, the standing Marine slowly kneels.
    e. With both Marines kneeling, one Marine gets into the prone.
    f. Once in the prone, the other Marine gets in the prone.
    g. Once all Marines are prone, the unit conducts SLLS.
175. What is the only difference between a long and short halt?
    a. The unit continues to improve its defense until such a time as the unit leader directs that they move. Short halts become long halts without the direction of the unit leader.
176. What are actions taken during a long halt?
    a. The unit leader issues sectors of fire to its immediate subordinate leaders (fire team for squad, squad for platoon, etc) Unit leaders place their heaviest automatic weapon along expected avenues of approach Extra ammunition is staged by automatic riflemen Chow and water plan established: one Marine eats while another holds security. ACE reports are given by subordinate units. ACE reports drive consolidation; consolidation does not drive ACE reports.
177. What are procedures for starting movement from a halt?
    a. The unit gets out of a halt using halt procedures in reverse:
    b. Point man takes a knee and reassesses the environment.
    c. Point man stands. Number 2 in the order of movement takes a knee.
    d. Point man begins walking. At the desired interval, number 2 man stands to support the point man. This pattern continues throughout the patrol: the members of the unit in the prone provide security for those in the knee.
    e. Those in the knee provide security for those in the standing and so on.
    f. The patrol DOES NOT stand at once. This violates security principles, and leaves the squad vulnerable to enemy by presenting one large signature.
178. Why is track discipline important?

a. Track discipline is essential when occupying a patrol base in a snow-laden environment. Tracks in the snow can be seen by enemy UAS from a considerable distance. To disguise numbers and locations, Marines use one track to traverse the patrol base.

179. What are the desired methods of trash disposal?
    a. While occupying a patrol base, burying and burning are the least preferred method of trash disposal. Marines pack away their trash. Burying is least preferred, as trash pits are hard to dig on the frozen ground.
180. What are hygiene considerations for operations in cold weather?
    a. Place latrines downwind and at least 100 meters away from snow collection points. Discipline is required; Marines must only used designated areas for head calls to avoid contamination with procuring snow to make water. Alternately, units designate one tree for urinating. No water is collected from the area surrounding this tree.
181. What are considerations for snow patrolling?
    a. The terms broken and unbroken trail have specific meanings. When moving through undisturbed—or unbroken—snow greater than 12 inches, the lead two or three Marines have to pack the snow for the rest of the file. Once accomplished, the trail then becomes broken. The lead personnel will exert more effort and will need to be cycled to the rear of the formation every 15 to 30 minutes. The recommended formation for snow travel is ranger file: it allows for maximum efficiency of trail-breakers, while disguising the number of Marines in the movement from enemy UAS.
182. What is the "Waterfall" Method of Scanning During a Patrol?
    a. While publications write about the need for patrol members to look back every 3-5 paces, this often does last long into the patrol. The 'waterfall' method of scanning during a patrol keeps patrol members honest about scanning their sectors at regular intervals. The method is simple, and is based on the actions of the point man: Point man scans his sector; turns and makes eye contact with the next Marine in formation. In doing so, he scans his flank sector. Point man scans his flank sector again as he faces the front. Upon eye contact, the second in formation immediately begins their sector scan, making eye contact with the next Marine in formation. The process continues to the rear of the formation. As the patrol 'waterfalls' their scan, the point man begins the process again. This action relies on the discipline of the point man. When properly executed, front and flank sectors are continuously scanned from multiple angles. Individual scans should not be quick; each scan is deliberate and detailed. The patrol is hunting, not hiking.
    b. Many tactical positions are occupied using the same basic method. This method—with few variations— is adapted for units to occupying observation posts, objective rally points, ambush positions, defensive positions, or actions at similar tactical control measures. Patrols must be able to occupy positions without sacrificing security or accountability.
183. What is an example procedure for establishing an ORP?

a. The patrol stops short of its objective. When occupying an ORP, it stops short of the ORP as well. Leader's recon occurs. Leader's recon includes the PL and the security team. If selected for occupation, the PL leaves two Marines as security. The PL, plus one security Marine, return for the remainder of the patrol. The APL and PL never recon together. The two security Marines left at the objective assume two roles: point security (designated as 12 o'clock) and MACO (designated as 6 o'clock). MACO is responsible for accountability of the patrol, and for designating security positions for inbound Marines.

184. Why are tight, temporary perimeters advantageous?
    a. Especially true for squads, tight, temporary perimeters offer better fire distribution, accountability, and control.
185. What occurs once the patrol is accounted for?
    a. SLLS conducted, the unit continues the mission (see 'Short Halt' and 'Long Halt' procedures).
186. What are methods of maintaining noise discipline?
    a. Tape all loose gear to prevent objects from hitting each other and making noise. Black electricians tape or green cloth tape works well. Tape weapons sling hardware. Tie all loose straps to prevent objects from hitting each other and making noise. Wear gear tight. Except when resting, belt should always be buckled. Gear should fit: this is a PCC item for NCOs. Improperly worn gear makes more noise and makes you more uncomfortable. Avoid wearing the Gortex. Rain hitting the Gortex makes distinctive noise. Unpacking it, putting it on, and taking it off all make noise. Vegetation catching on the Gortex makes noise. Carry canteens either full or empty. Avoid letting canteens make sloshing sounds. Either drink all of one canteen or let it stay full. Know where your gear is and how to retrieve it silently in the dark. Minimize equipment. Use resealable bags to organize contents of pack by function.
187. What are considerations for conducting SLLS?
    a. Do not wear the Gortex hood. It reduces hearing ability. Do not cover ears with wool cap. Remove helmet. In defensive positions, use nuisance obstacles, such as wired cans with pebbles, to warn of intrusions. Learn normal background sounds. Note absence of crickets and birds. Listen for man-made sounds, especially metal on metal, which are distinctive in the field. Similarly, protect yourself from this sound by taping all metal surfaces that may rub together. Teach yourself the smells of the environment. Smell sap from recently cut tree branches. Smell soil from new-ly turned earth. Both of these smells can be evidence of enemy activity. Cigarettes can be detected downwind at 500m. Smoky fires can be detected farther still. Fish, garlic and other foods being cooked can be smelled several hundred meters away. Smoking cigarettes and cigarette second-hand smoke interferes with your ability to smell. Soldiers can be smelled. The enemy smells different. Clothing absorb smoke and food odors. Enemy excrement smells different due to a different diet.
188. Why are sandbags stronger when the stitching is faced the interior of the sandbag?

a. Sandbags often come with the stitching outboard (picture, below left). Structurally, sand bags are much weaker when filled with the 'stitching out'. Turn the sand bags inside out (picture, below, right). With the stitching inside the sand bag, it is structurally stronger, able to hold more dirt, and withstands more rounds before exploding and loosing all its dirt.

189. How can cuffing sandbags make filling sandbags more efficient?
    a. There is a more efficient way to fill sandbags. Cuff the sandbag much like you would do with a shirt sleeve (picture, below left). Set the sandbag on its end and scoop the first few shovels of dirt in (picture, below middle).
    b. Once full, slam it on the ground to pack it. This makes the sandbag into a 'cup' that stays open. Once filled to the top, uncuff the sandbag a few times and continue to fill. Fill sandbags until they are 3/4 full. Do not fill to the end of the sandbag.
190. Why is packing sandbags important?
    a. Sand and dirt stop bullets more efficiently when packed. After filling your sandbag, slam it quickly on the ground three times to pack the dirt (pictures, below). This packed sandbag will also be easier to set in.
191. What are the most effective procedures for tying sandbags?
    a. After filling and packing, sandbags need to be tied. Grasp approximately 6" at the top to form a tail. Wrap the twine twice in opposite directions. Tie with a bow-tie. This step is important. If you tie the twine with any other knot, it will be difficult to untie and salvage the sandbag if you need to move positions.
192. What are procedures for setting in sandbags?
    a. After filling, packing, and tying, set in your sandbags along your sector of fire. The 'bottom' of the sandbag faces the enemy. The 'tail' of the sandbag is tucked in underneath. This prevents sand and dirt from spilling out of the tail if it was tied poorly and allows you to use sand bags if there was no twine to tie the tail. When emplacing sand bags, site them so as they align with the left and right lateral limits of your sector. The 'firing port' (the opening that you shoot from) should be small; part of the usefulness of sandbags is that they stop bullets. A wider firing port means you are more exposed to enemy fire.
193. What can serve as alternatives for sandbags?
    a. The vagaries of battle demand our imagination. Sandbags may not always be available. Any object that can hold packed earth, snow or rubble should be considered. Ammo crates, MRE boxes, or ammo cans are all acceptable substitutes for sandbags. Imagination is more important than knowledge in this respect.
194. Snow and ice can be used to construct fighting positions. Generally, there are three types of snow. What are they?
    a. Wet Snow. Packs well and is easier to shape. Becomes stronger as it sets and freezes.
    b. Dry Snow. Less suitable for fighting positions. Does not pack as well as wet snow. Takes a few hours to
    c. consolidate after packing.

d. Hard Pack Snow. Snow that has consolidated and is firm. Easy to shape.

195. "Ice-crete" is the preferred material for cold weather fighting positions. What is Ice-crete?
    a. Ice-crete is a frozen mixture of soil, water, rock, gravel, sand and silt. Ice-crete is has similar properties to Portland cement, but will generally melt fast than hard packed snow. Melting can be delayed by covering ice-crete blocks with snow.
196. While snow can be dug and shaped with a shovel, the easiest method is to pack snow into a form. What tools can help you pack snow efficiently?
    a. MRE box- es work well, and are readily available. It is recommended that you acquire 8-10 MRE boxes for this method. Fill MRE boxes with packed snow. Allow them to freeze; the time this takes may vary depending on the ambient air temperatures. After freezing, simply turn the MRE box upside down and slide the newly formed snow-block out. Emplace snow-block.
197. What are assembly areas?
    a. An area within an operational area or battlefield (usually in a sheltered location), where a military unit assembles and makes final preparations for an attack before moving to the line of departure, which is the starting line for the attack. Assembly Areas are assigned a number or codename. Example: AA2. Note: There is no such thing as a 'tactical assembly area'. All assembly areas are tactical control measures, and thus tactical by nature.
198. What are phaselines?
    a. A phase line is a line to show some positional dependency or relation to the passage of time, most often changing phases of a military operation, or changing borders in histogeographic maps.
199. Phase lines are colors. Example: PL Blue. Colors Red, Yellow, and Green are avoided.
200. What are checkpoints?
    a. In a military context, checkpoints involve the setup of a hasty roadblock by mobile truck- or armored vehicle-mounted infantry to disrupt unauthorized or unwanted movement or military activity and to check for valid identification and search for contraband, fugitives, or weapons that are not permitted in civilian hands. Check points are numbers. Example: CP13 Carry several 3x5 index cards colored in with yellow high- lighter. It is much easier to take notes on them with just NVGs.
201. What are tips for reading With NVGs? From time to time, it maybe necessary to read notes in the dark. A trick to seeing notes better is to use what tools?
    a. Yellow highlighter and blue chemlight. Include highlighted index cards (or highlight important parts of formats such as call for fire) and a tape up blue chemlight (the tape helps with light emission) as part of your battle board kit.
202. Why is blue a preferred color for reading under NODs?
    a. Other colors are too bright. Yellow is the preferred highlighter; other colors of highlighter are not as effective.
203. What are notes for use of NVGs?

a. During the day, take your rhino mount off of your Kevlar! Leaving your rhino mount on risks damaging it during day operations. Stow your rhino mount in your NVG bag. During PCC's attach your NVG elbow. Do it during the day, and stow it like that. That way, when it is time to mount NVGs, you are not struggling to attach it. Simply mount your rhino, and mount your NVGs. You should be able to mount your NVGs in the dark with out taking off any gear. In cold weather, keep NVGs outside of sleeping systems and tents. Taking NVGs between cold and warm environments cause unnecessary fogging of the optics. The concentration required to use NVGs reduces smelling ability. NVGs limit fields of view. Supplement NVGs with thermal optics.

204. What is the method for creating a battery bandoleer?
    a. Pack and carry batteries easily and quietly by this simple method.
    b. Lay out two pieces of tape. Lay batteries tightly along tape.
    c. Fold over top and bottom pieces of tape.
    d. Fold the ends in like you are wrapping a present. Place in waterproof bag.
    e. To access, strip or cut of one battery from the bandoleer.
    f. Commercially available battery holders also work very well (picture, below left).
    g. With battery bandoleers, an easy way to differentiate battery
    h. types is to tape AA is groups of two and AAA in groups of 3.
205. Route Selection Matters. What are considerations for selecting routes on patrol?
    a. Confine movements to shadows (as in the shadows of buildings) or the treeline. Electro-optical instruments currently have a difficult time seeing shadow, especially on bright sunny days.
206. When the possibility of EN UAS observation is high, what should you do?
    a. Move slow. Rapid movements are easier for drone operators to see. When alerted, Marines should halt if tactically feasible, and slowly get into a covered, prone position. Do not run. Prone signatures are difficult for EN-UAS to see, especially above 500 ft AGL.
207. Fighting positions must include what?
    a. Overhead concealment or cover. Overhead concealment must include local vegetation. Ponchos and poncho liners are visible to EO and thermal optics. Tarps are shiny, and when warm, sag—creating noticeable shadow.
208. What is thermal crossover?
    a. Thermal crossover is a period of time in the early morning and evening when the ambient air temperature is generally the same as the ground temperature. Operating at dusk and sunset—during thermal crossover— masks thermal signatures of Marines.
209. Conversely, EO cameras in EN UAS can easily see the long shadows cast during morning and evening. How can you minimize the signature of shadows you create while standing?
    a. An average human can cast a shadow 12 feet long during morning or evening. Marines get into the prone to avoid detection, or pick routes that avoid direct sunlight during these times.

210. During MOUT, Marines must stay deeper in rooms with windows that don't have glass. Why is this?
    a. Marines near windows are easily detectable by EN UAS thermal cameras.
211. Each area has a natural thermal signature. What are some examples of this?
    a. For example, in the desert, wadi and dried riverbeds tend to stay 'hotter' at night. Consider them for night movements. During night movements, consider keeping some form of concealment (poncho liner, ghillie blanket, etc) handy for a hasty counter-drone action.
212. How can you use Your Ruck as a CASEVAC Platform?
    a. Your issued ruck sack can serve as a CASEVAC platform in a pinch. Empty contents. Zip the internal compartment separator. Unzip the bottom external zipper . Insert casualty's legs through the openings on each side of the separator. Tighten Straps. While this is not ideal for a variety of injuries, it can be used in emergencies to great effect.
213. What is an example of an EPW Flexicuff SOP?
    a. Each member of the squad keeps 'unzipped' flexicuffs woven into the MOLLE on the back of their flak. Worn this way, one Marine can hold security while another Marine takes the flexicuffs out of the flak and assembles them. The principle of security is never violated. When flexicuffs are 'zipped' and held onto various buckles and clips in gear, they become brittle and get caught on vegetation—simply put, they get in the way.
214. Where should snacks go on your kit?
    a. Easily accessed spot-won't go into kit to grab it
215. What is the definition of bushcraft?
    a. Making what doesnt exist from nature alone
216. What threats can end your life in 3 seconds?
    a. Immediate threat of life through danger or violence
217. What threats can end your life in 3 hours?
    a. Dying of exposure in wet/cold places. shelter, fire, terrain association help with threats.
218. What can end your life over the course of 3 days?
    a. The time humans can go without water.
219. What should the main focus of the medic be?
    a. Advanced procedures such as surgical airway management, transfusion kits, higher level procedures.
220. What can happen if everyone carries an individual first aid kit?
    a. Medic has more room for advanced equipment to conduct more advanced medical procedures.
221. Why is light discipline important?
    a. Lights at night can be seen at long distances. camp fires can be seen from 8 km away; vehicle lights 20km.
222. How can you minimize the creation of tracks while moving?
    a. Human footprints very different from other animals. Utilize dead space, cover, and natural terrain patterns.

223. What are some tips for collecting water?
    a. Be careful when collecting water near hot springs; investigate water sources for nearby sources of contamination
224. What are some NO-GOs for water?
    a. water near chemical or industrial chemical plants
    b. glowing water
    c. unusual colors
    d. unusual foam buildups in water
225. Why is light discipline in patrol base operations is important?
    a. Any light will give away your position. Operations should always be conducted in a very disciplined manner. All focus should be placed on light and noise discipline.
226. When should you take off your boots and socks?
    a. When resting longer than 20 minutes. During night, change socks and dry used ones near heat sources. Socks can also be air dried when marching.
227. How do you keep feet from blistering while ruck marching/patrolling?
    a. Wear socks correctly, with no wrinkles nor pulled too high. This helps provide comfort and the ability to march longer without getting hurt and making blisters. Wear quality wool socks to prevent infection.
228. Why should you Inspect your genitals?
    a. The warm and sweaty conditions of your genitals make them prone to infection, which can be life threatening in any situation.
229. How can the inner sides of the thighs can get injured?
    a. Chafing due to rubbing against one another while walking. Wear tight underwear, and use glycerine if needed to prevent infection.
230. Why should you clean your armpits?
    a. Just like the genitals, your armpits are also very prone to infection. Use wet wipes to clean these areas.
231. How can you improvise the creation of a toothbrush and toothpaste?
    a. it can be created by splitting the end of a branch into many small fibers. Use the ash from your fire as a form of toothpaste. Wash your teeth with water afterwards.
232. Why should you brush your teeth?
    a. The gums are prone to infection over long periods of time. 2-3 days without brushing isn't much of an issue, but longer periods of time can be. Brush your teeth when you get the chance.
233. Why should you clean your face and hair?
    a. Lice, fleas, and ticks can become a problem if ignored
234. Why should you carry something to cut your toenails?
    a. Growing toenails can grow into flesh quickly and cause infections
235. What should you look for when tracking?
    a. Sign-changes from the natural state by man, vehicle, or animal and identify entry and exit points
236. What are indications of vehicle tracks?

a. Breaks in the ground, tire patterns indicate a stop

237. What are the 6 characteristics of sign?
    a. Transfer, color change, flattening, regularity, disturbances, discardables
238. What factors contribute to the aging of sign
    a. type of substrate, exposure, weather, time, other sign
239. What are examples of regularity and shapes you don't see in nature?
    a. boot prints, tire tracks
240. What is the last definite sign?
    a. last point at which we can identify sign
241. How can you assess the general direction of travel of your prey?
    a. mentally place yourself in the quarry's place
242. How can you use terrain to your advantage when moving?
    a. Terrain can be used to mask your silhouette provided you dont walk directly over hills
243. What are the steps for the Step track pursuit drill?
    a. assess the general direction of travel eliminate openings and finalize the direction look for furthest sign and link it back to LDS check left and right for deception move forward as the lead scout
244. What is the 4 step track casting drill?
    a. Initial probe-look at all openings that prey could have moved and investigate from position
    b. initial cast-move back 10-15 meters and make large circle around point of lost sign
    c. mark any signs and complete circle
245. What are indicators of abandoned wildfires?
    a. Heat can be a sign that it has been used recently can be used to eliminate information and supplies SIM cards food, like dry rations, could mean the prey is moving towards water flattening of small rocks could reveal a bedding area regularity could include a bedding area.
246. Grass is a great medium for tracking because:
    a. leaves fold down in direction of movement and provide color change when flattened leaves may show disturbances such as rips and tears, mud and dirt transfer
247. What are track traps?
    a. Natural or man made area that captures impressions made by the quarry's passage
248. What are natural lines of drift
    a. Paths across terrain that are most likely to be used when going from point A to point B
249. What items should sit at the Bottom of your ruck?
    a. Sleep system and Items not commonly used in day
250. What items should sit at the middle of the ruck?
    a. Insulating layers
    b. Spare uniform, socks, underwear

    c. Heavy items
251. What items should sit at the top of the ruck?
    a. Items used frequently
    b. Toiletries
    c. Medications
    d. Food
252. What items should sit in the exterior pockets of the ruck?
    a. Extra canteen and canteen cup
    b. MSR stove with fuel
    c. E-tool with cover
    d. Ponchi with bungees/cordage
    e. Core tex top and bottom
    f. Weapons cleaning kit
    g. Notebook
253. Wearing well fitted and broken-in boots is important for reducing foot injury while moving. What is a good way to mold boots to your feet?
    a. Mold boots to your feet by taking a shower with them and walking in them after. Water softens leather so it molds to your feet
254. What is a method to properly lace your boots?
    a. Do not loosely tie boots, your heel will slip, and you will develop blisters and do not tie boots so tight that you loose blood circulation.
255. What is the proper way to cut your toenails?
    a. If you have long toenails, your boots will be pressing onto your toes causing discomfort. Cut toenails straight across and not along the curves of your toes
256. What are methods for conditioning your feet?
    a. Feet strengthening exercises
    b. Stretching
    c. Taking care of foot arch pain to prevent plantar fascitis
257. Why are wool socks superior to cotton socks?
    a. Cotton socks dry slowly
258. What should you use for foot power, creams, tape on your feet?
    a. Consider using powder before and after rucking so your feet can stay dry when possible If there are locations on your feet that will blister, tape over it with moleskin or duct tape
259. What is the Ranger's creed?
    a. Recognizing that I volunteered as a Ranger, fully knowing the hazards of my chosen profession, I will always endeavor to uphold the prestige, honor, and high esprit de corps of the Rangers.
    b. Acknowledging the fact that a Ranger is a more elite soldier who arrives at the cutting edge of battle by land, sea, or air, I accept the fact that as a Ranger my country expects me to move further, faster, and fight harder than any other soldier

c. Never shall I fail my comrades I will always keep myself mentally alert, physically strong, and morally straight and I will shoulder more than my share of the task whatever it may be, one hundred percent and then some.
d. Gallantly will I show the world that I am a specially selected and well trained soldier. My courtesy to superior officers, neatness of dress, and care of equipment shall set the example for others to follow.
e. Energetically will I meet the enemies of my country. I shall defeat them on the field of battle for I am better trained and will fight with all my might. Surrender is not a Ranger word. I will never leave a fallen comrade to fall into the hands of the enemy and under no circumstances will I ever embarrass my country
f. Readily will I display the intestinal fortitude required to fight on to the Ranger objective and complete the mission, though I be the lone survivor.

260. What are the steps behind troop leading procedures?
a. 1. Receive the mission.
b. 2. Issue a warning order.
c. 3. Make a tentative plan
d. 4. Initiate Movement
e. 5. Reconnoiter.
f. 6. Complete the plan.
g. 7. Issue the complete order.
h. 8. Supervise

261. What are the three leadership principles?
a. Be
b. Know
c. Do

262. What does the leadership principle BE outline?
a. a) Technically and tactically proficient: Can accomplish all tasks to standard that are required to accomplish the wartime mission.
b. (b) Possess professional character traits: Courage, Commitment, Candor, Competence and Integrity

263. What does the leadership principle KNOW outline?
a. (a) Four major factors of leadership and how they affect each other: The Led, The Leader, The Situation, and Communications.
b. (b) Yourself and seek self-improvement: Strengths and weaknesses of your character, knowledge, and skills. Continually develop your strengths and work on overcoming your weaknesses.
c. (c) Your soldiers and lookout for their well-being. Train them for the rigors of combat, take care of their physical/safety needs, and discipline/reward them.

264. What does it mean to seek responsibility and to be accountable for your actions?
a. Leaders must exercise initiative, be resourceful, and take advantage of opportunities on the battlefield that will lead to victory. Accept just criticism and take corrective actions for mistakes.

265. What does it mean to make timely and sound decisions?

a. Rapidly assess the situation and make sound decisions. Gather essential information, announce decisions in time for soldiers to react, and consider short/long-term effects of your decision.

266. What does it mean to set the example?
    a. Be a role model for your soldiers. Set high, but attainable standards, be willing to do what you require of your soldiers, and share dangers and hardships with your soldiers.
267. What does it mean to keep subordinates informed?
    a. Keeping your subordinates informed helps them make decisions and execute plans within your intent, encourage initiative, improve teamwork, and enhance morale
268. What does it mean to develop a sense of responsibility in subordinates?
    a. Teach, challenge, and develop subordinates. Delegation indicates you trust your subordinates and will make them want even more responsibility
269. What does it mean to ensure the task is understood, supervised, and accomplished
    a. Soldiers need to now what you expect from them: What you want done, what the standard is, and when you want it.
270. What does it mean to build a team?
    a. Train and cross train your soldiers until they are confident in the team's technical/tactical abilities. Develop a team spirit that motivates them to go willingly and confidently into combat.
271. What does it mean to employ your unit in accordance with it's capabilities?
    a. Know the capabilities and limitations of your unit. As a leader you are responsible to recognize both of these factors and employ your patrol accordingly.
272. What is the role of the platoon leader?
    a. Responsible for what the patrol does or fails to do. This includes tactical employment, training, administration, personnel management, and logistics. He does this by planning, making timely decisions, issuing orders, assigning tasks, and supervising patrol activities. He must know his men and how to employ the patrol's weapons. He is responsible for positioning and employing all assigned or attached crew-served weapons and employment of supporting weapons
273. What are the responsibilities of the platoon leader?
    a. (1) Establishes time schedule using backwards planning. Consider time for execution, movement to the objective, and the planning and preparation phase of the operation.
    b. (2) Takes the initiative to accomplish the mission in the absence of orders. Keeps higher informed by using periodic situation reports (SITREP).
    c. (3) Plans with the help of the Platoon Sergeant (PSG), Squad leaders, and other key personnel (Team Leaders, FO, attachment leaders).
    d. (4) Stays abreast of the situation through coordination with adjacent patrols and higher HQ, supervise, issue FRAGOs, and accomplish the mission.
    e. (5) If needed to perform the mission, requests more support for his patrol from higher headquarters.

f. (6) Directs and assists the Platoon Sergeant in planning and coordinating the patrol's CSS effort and casualty evacuation (CASEVAC) plan.
g. (7) During planning, receives on-hand status reports from the Platoon Sergeant, and squad leaders.
h. (8) Reviews patrol requirements based on the tactical plan.
i. (9) Checks security, corrects unsatisfactory actions, and spot checks. (10) During execution, positions himself where he can influence the most critical task for mission accomplishment; usually with the main effort.
j. (11) Commands through his squad leaders using the intent of the two levels higher commanders.
k. (12) Conducts rehearsals.

274. What is the role of the platoon sergeant?
a. Senior NCO in the patrol and second in succession of command. Helps and advises the patrol leader, and leads the patrol in the patrol leader's absence. Supervises the patrol's administration, logistics, and maintenance. Prepares and issues paragraph 4 of the patrol OPORD

275. What are the Duties of the Platoon Sergeant?
a. (a) Organizes and controls the patrol CP IAW the unit SOP, patrol leader's guidance, and METT-TC factors.
b. (b) Receives squad leader's requests for rations, water, and ammunition. Work with the company first sergeant or XO to request resupply. Directs the routing of supplies and mail.
c. (c) Directs the patrol medic and patrol aid-litter teams in moving casualties to the rear.
d. (d) Maintains patrol personnel status, consolidate and forward the patrol's casualty reports (DA Forms 1155 and 1156), and receive and orient replacements.
e. (e) Monitors the morale, discipline, and health of patrol members.
f. (f) Supervises task-organized elements of patrol:
g. (g) Quartering parties.
h. (h) Security forces during withdrawals.
i. (i) Support elements during raids or attacks.
j. (j) Security patrols during night attacks.
k. (k) Coordinates and supervises company-directed patrol resupply operations.
l. (l) Ensures that supplies are distributed IAW the patrol leader's guidance and direction.
m. (m)Ensures that ammunition, supplies, and loads are properly and evenly distributed (a critical task during consolidation and reorganization).
n. (n) Ensures the casualty evacuation plan is complete and executed properly.
o. (o) Ensures that the patrol adheres to the Platoon Leader's time schedule.

276. What are the actions of the Platoon Sergeant during movement and halts?
a. (a) Takes action necessary to facilitate movement.
b. (b) Supervises rear security during movement.
c. (c) Supervises, establishes, and maintains security during halts.

d. (d) Knows unit location.
e. (e) Performs additional tasks as required by the patrol leader and assists in every way possible. Focuses on security and control of patrol.

277. What are the actions by Platoon Sergeant at Danger Areas?
a. (a) Directs positioning of near-side security (usually conducted by the trail squad or team). (b) Maintains accountability of personnel

278. What are the actions by Platoon Sergeant on the Objective Area?
a. (a) Assists with ORP occupation.
b. (b) Supervises, establishes, and maintains security at the ORP.
c. (c) Supervises the final preparation of weapons and equipment in the ORP per patrol leader's guidance.
d. (d) Assists the patrol leader in control and security
e. (e) Supervises the reorganization and redistribution of ammo and equipment. Ensures accountability and status of personnel is maintained, to include WIAs and KIAs.
f. (f) Performs additional tasks assigned by the patrol leader and reports status to Platoon Leader.

279. What are the Actions by the Platoon Sergeant in the Patrol Base?
a. (a) Assists in patrol base occupation.
b. (b) Assists in establishing and adjusting perimeter.
c. (c) Enforces security in the patrol base.
d. (d) Keeps movement and noise to a minimum.
e. (e) Supervises and enforces camouflage.
f. (f) Assigns sectors of fire.
g. (g) Ensures designated personnel remain alert and equipment is maintained in a high state of readiness.
h. (h) Requisitions supplies, water, ammo and supervises their distribution.
i. (i) Supervises the priority of work and ensures its accomplishment. 1. Security plan. Ensures crew served weapons tied in according to platoon sector sketch. 2. Maintenance plan. 3. Hygiene plan. 4. Messing plan. 5. Water plan. 6. Rest plan.
j. (j) Performs additional tasks assigned by the patrol leader and assists him in every way possible.

280. What are the duties of the squad leader?
a. (a) Controls the maneuver of his squad and its rate and distribution of fire. (b) Manages the logistical and administrative needs of his squad. Requests and issues ammunition, water, rations, and special equipment. (c) Maintains equipment accountability. (d) Completes casualty feeder reports and review the casualty reports completed by squad members. (e) Directs the maintenance of the squad's weapons and equipment. (f) Inspects the condition of soldiers' weapons, clothing and equipment. (g) Keeps the Platoon Leader/Platoon Sergeant informed on status of squad. (h) Submits ACE report to Platoon Sergeant

281. What are the actions by Squad Leader throughout the mission?
a. (a) Obtains status report from team leaders and submits reports to PL/PSG.

b. (b) Makes a recommendation to the PL/PSG when problems are observed.
c. (c) Ensures tasks are accomplished by delegating tasks to team leaders by establishing a priority of tasks in accordance with orders received from the PL.
d. (d) Uses initiative in the absence of orders.
e. (e) Follows the PL's plan and makes recommendations

282. What are the actions by Squad Leader during movement and halts?
a. (a) Rotates heavy equipment and difficult duties.
b. (b) Ensures PL is notified when rest halts and water replenishment are required.
c. (c) Maintains proper movement techniques while monitoring route, pace, and azimuth.
d. (d) Prevents breaks in contact.
e. (e) Ensures subordinate leaders are disseminating information, assigning sectors of fire, and checks personnel

283. What are the actions by Squad Leader in the objective area?
a. (a) Ensures special equipment has been prepared for actions at the objective. (b) Maintains security and control during conduct of the assault. (c) Obtains status reports from team leaders and ensures ammunition is redistributed and reports status to PL.

284. What are the Actions of the Squad Leader in the patrol base?
a. (a) Ensures patrol base is occupied according to the plan. (b) Ensures that his sector of the patrol base is covered by interlocking fires; makes final adjustments, if necessary. (c) LP/OP's sent out in front of assigned sector. (METT-TC Dependent). (d) Ensures priorities of work are being accomplished and reports accomplished priorities to the PL/PSG. (e) Adheres to time schedule. (f) Ensures personnel know the alert and evacuation plan the locations of key leaders, OPs and the location of the alternate patrol base.

285. What are the responsibilities of the weapons squad leader?
a. Responsible for all that the weapons squad does or fails to do. His duties are the same as the squad leader. Additionally, he controls the machine guns and MAWs in support of the patrol's mission. He advises the PL on employment of his squad.

286. What are the duties of the weapons squad leader?
a. (1) Supervises machine gun teams to ensure they follow priority of work.
b. (2) Inspects machine gun teams for correct range cards, fighting positions, and understanding of fire plan.
c. (3) Supervises maintenance of machine guns (done correctly, deficiencies corrected, reported and does not violate security plan).
d. (4) Assists PL in planning.
e. (5) Positions machine guns not attached to squads according to patrol SOP at halts and danger areas.
f. (6) Rotates loads. Machine gunners normally get tired first.
g. (7) Submits ACE report to PSG.
h. (8) Designates targets for each gun.

i. (9) Gives additional fire commands to achieve maximum effectiveness of firepower: (a) Shifting fires. (b) Corrects windage or elevation to increase accuracy. (c) Alternates firing guns. (d) Prevents lulls in fire. (10) Knows location of assault elements, security elements and prevents fratricide. (11) Reports to higher.

287. What is the role of the team leader?
    a. Controls the movement of his fire team and the rate and placement of fire by leading from the front and using the proper commands and signals. Maintains accountability of his men, weapons and equipment. Ensures his soldiers maintain unit standards in all areas. The following checklist outlines specific duties and responsibilities of team leaders during mission planning and execution
288. What are the Actions Taken by Team Leaders During Planning and Preparation?
    a. (a) Warning Order. (1) Assists in control of the squad. (2) Monitors squad during issue of the order.
    b. (b) OPORD Preparation. (1) Posts changes to time schedule. (2) Posts/Updates team duties on warning order board. (3) Prepares ammo and supply lists. (4) Turns in and picks up supply requests. (5) Distributes ammo and special equipment. (6) Performs all tasks given by the SL special instructions paragraph.
    c. (c) Operation Order. (1) Monitors squad during issue of the order. (2) Assists SL during rehearsals.
    d. What are the Actions taken by Team Leader during a Movement and at Halts? (1) Enforces rear security during movement. (2) Supervises, establishes, and maintains security at all times. (3) Performs additional tasks as required by the SL and assists him in every way possible, particularly control and security.
289. What are the Actions taken by Team Leader in the ORP?
    a. (a) Assists in the occupation of the ORP.
    b. (b) Assists in the supervision, establishment and maintenance of security.
    c. (c) Supervises the final preparation of men, weapons, and equipment in the ORP as per the squad leader guidance.
    d. (d) Assists in control of personnel departing and entering the ORP.
    e. (e) Reorganizes perimeter after recon party departs.
    f. (f) Maintains commo with higher headquarters.
    g. (g) Upon return of recon party, assists in the reorganization of personnel and redistribution of ammo and equipment; ensures accountability of all personnel and equipment are maintained.
    h. (h) Disseminates PIR to his team.
    i. (i) Performs additional tasks assigned by the SL
290. What are the Actions taken by Team Leader in the Patrol Base?
    a. (a) Inspects the perimeter to ensure team has interlocking sectors of fire; prepares team sector sketch. (b) Enforces the priority of work and ensures it is properly accomplished. (c) Performs additional tasks assigned by the SL and assist him in every way possible.
291. What are the Actions taken by Team Leader during Link Up?

a. (a) Assists in the preparation of men and equipment. (b) Ensures all personnel are knowledgeable of their tasks and the operation

292. What are the duties of the medic?
    a. (1) Treats casualties and assists in their evacuation under the control of the PSG. (2) Aids the PL/PSG in field hygiene matters, personally checks the health and physical condition of platoon members. (3) Requests Class VIII (medical) supplies through the PSG. (4) Provides technical expertise and supervision of combat lifesavers. (5) Ensures casualty feeder reports are correct and attached to each evacuated casualty. (6) Carries out other tasks assigned by the PL/PSG.
293. What are the duties of the radiotelephone operator?
    a. Responsible for establishing and maintaining communications with higher headquarters and within the patrol base.
    b. The RTO also serves as an enroute recorder and keeps a detailed patrol log. The patrol RTO must know the use and care of the radio to include: (1) Waterproofing and presetting frequencies. (2) Use of the SOI. (3) How to construct and erect field-expedient antennas.
294. What does assumption of command mean?
    a. Any platoon/squad member may have to take command of his element in an emergency - all members must be prepared to do so.
    b. (1) Informs the unit's subordinate leaders of the command and notifies higher headquarters.
    c. (2) Checks security.
    d. (3) Checks crew served weapons.
    e. (4) Pinpoints location.
    f. (5) Coordinates and checks equipment.
    g. (6) Checks personnel status.
    h. (7) Issues FRAGO (if required).
    i. (8) Reorganizes as needed maintaining unit integrity when possible.
    j. (9) Maintains noise and light discipline.
    k. (10) If done in a patrol base, continues patrol base activities, especially security.
    l. (11) Makes reconnaissance (at a minimum, a map recon).
    m. (12) Finalizes plan.
    n. (13) Executes the mission.
295. What are troop leading procedures?
    a. • Troop leading is the process a leader goes through to prepare his unit to accomplish a tactical mission.
    b. • Begins when he is alerted for a mission or receives a change or a new mission.
    c. • The troop-leading procedures comprise the steps listed below. Steps 3 through 8 may not follow a rigid sequence. Many of the steps may be accomplished concurrently.
296. What should occur during step 1 of troop leading procedures?
    a. Receive the order.
    b. The leader may receive the mission in a warning order, an operation order (OPORD), or a fragmentary order (FRAGO).

c. • The leader should use no more than one third of the available time for his own planning and for issuing his operation order.
d. • The remaining two thirds is for subordinates to plan and prepare for the operation.
e. • Leaders should also consider other factors such as available daylight and travel time to and from orders and rehearsals.

297. What occurs during step 2 of troop leading procedures?
a. Issue a warning order. The leader provides initial instructions in a warning order. The warning order contains enough information to begin preparation as soon as possible
b. • The warning order mirrors the five-paragraph OPORD format. • The following information may be included in a warning order. • The mission or nature of the operation. (mission statement) • Time and place for issuance of the operation (coordinating instructions) • Who is participating in the operation? (coordinating instructions) • Time of the operation. (timeline)

298. Where can the The Higher Commanders' Concept and intent two levels up be found?
a. This information is found in paragraph 1b for two levels up and in paragraphs 2 and 3 for one higher.

299. What are considered the unit's tasks in a WARNO? What are some examples of WARNOS
a. Tasks that are clearly stated in the order (Specified Tasks) or tasks that become apparent as the OPORD is analyzed (Implied Tasks).
b. • Retain hill 545 to prevent envelopment of B Co. • Provide one squad to the 81-mm platoon to carry ammo. • Establish an OP VIC GL124325 NLT 301500 NOV 89. Examples of implied tasks are: • Provide security during movement. • Conduct resupply operations. • Coordinate with adjacent units.

300. What does it mean to consider unit limitations when mission planning? What are some examples of unit limitations?
a. The leader next determines all control measures or instructions in the OPORD that restrict his freedom of action; these are called limitations. In every operation, there are some limitations on the unit. The following are some examples of common limitations:
b. • Graphic control measures. • Cross the LD at 100030 OCT 94. • MOPP4 in effect. • ADA weapons status, tight; warning status, yellow

301. What are mission essential tasks?
a. After reviewing all the above factors, the leader identifies his mission-essential task(s). Failure to accomplish a mission-essential task results in the unit's failure to accomplish its primary purpose for that operation. The mission essential task should be found in the maneuver paragraph.

302. What is The Restated Mission Statement? What does it state?
a. The restated mission statement becomes the focus for the remainder of the estimate process. This is a clear, concise statement of the mission essential task(s) to be accomplished by the unit and the purpose to be achieved The

mission statement will state WHO, WHAT (the task), WHEN (the critical time), WHERE (usually a grid coordinate), and WHY (the purpose the unit must achieve).

303. What are some example of restated mission statements?
    a. • (WHO) 1st Platoon attacks (WHAT) to seize (WHERE) HILL 482 VIC NB 457371 (OBJ BLUE) (WHEN) NLT 09050OZ Dec 92 L 482 (OBJ BLUE) (WHY) to enable the company's main effort to destroy enemy command bunker
    b. • (WHO) 1st Platoon, C Company defends (WHAT) to destroy from (WHERE) AB163456 to AB163486 to AB123486 to AB123456 (WHEN) NLT 28153OZ Oct 97 (WHY) to prevent enemy forces from enveloping B Company, 1-66 infantry (L) from the south.
304. Analyze the situation and develop a course of action. What must each COA be?
    a. (a) Feasible: It accomplishes the mission and supports the commander's concept.
    b. (b) Reasonable: The unit remains an effective force after completing the mission.
    c. (c) Distinguishable: It is not just a minor variation of another COA.
305. With the restated mission from step one to provide focus the leader continues the estimate process using the remaining factors of METT-TC: What are these other factors and what are their significance to the mission?
    a. (a) What is known about the ENEMY?
    b. (b) Composition. This is an analysis of the forces and weapons that the enemy can bring to bear. Determine what weapons systems they have available, and what additional weapons and units are supporting him.
    c. (c) Disposition. The enemy's disposition is how he is arrayed on the terrain, such as in defensive positions, in an assembly area, or moving in march formation.
    d. (d) Strength. Percentage strength.
    e. (e) Recent Activities. Identify recent and significant enemy activities that may indicate future intentions.
    f. (f) Reinforcement Capabilities. Determine positions for reserves and estimated time to counterattack or reinforce.
    g. (g) Possible Courses of Actions. Determine the enemy's possible COAS. Analyzing these COAs may ensure that the friendly unit is not surprised during execution.
306. What is OAKOC?
    a. Obstacles.
    b. Avenues of Approach
    c. Key Terrain
    d. Observation and fields of fire
    e. Cover and Concealment
307. What are the significance of obstacles in OCOKA?
    a. Identify the existing and reinforcing obstacles and hindering terrain that will affect mobility.
308. What is the significance of Cover and concealment in OCOKA?

a. The analysis of cover and concealment is often inseparable from the fields of fires and observation. Weapon positions must have both to be effective and to be survivable. Infantry units are capable of improving poor cover and concealment by digging in and camouflaging their positions. When moving, the terrain is used to provide cover and concealment.

309. What is the relevance of observation and fields of fire in OCOKA?
    a. Determine locations that provide the best observation and fields of fire along the approaches, near the objective, or on key terrain. The analysis of fields of fire is mainly concerned with the ability to cover the terrain with direct fire
310. Why are Avenues of approach important in OCOKA?
    a. Avenues of approach are developed next and identified one level down. Aerial and subterranean avenues must also be considered.
    b. (1) Offensive considerations:
    c. • How can these avenues support my movement?
    d. • What are the advantages/disadvantages of each? (Consider enemy, speed, cover, and concealment.)
    e. • What are the likely enemy counterattack routes?
    f. 2) Defensive considerations: • How can the enemy use these approaches? • Which avenue is most dangerous? Least? (Prioritize each approach.) • Which avenues would support a counterattack?
311. What is key terrain and why is it important to mission planning?
    a. Key terrain is any location or area that the seizure, retention, or control of affords a marked advantage to either combatant. Using the map and information already gathered, look for key terrain that dominates avenues of approach or the objective area. Next, look for decisive terrain that if held or controlled will have an extraordinary impact on the mission. (1) What TROOPS are available? (2) How much TIME is available? (3) How do CIVILIANS on the Battlefield effect the operation?
312. What does it mean to Analyze courses of action (Wargame)?
    a. This analysis is conducted by wargaming the friendly courses of action against the enemy's most probable courses of action.
313. Why should you Compare courses of action during mission planning?
    a. The leader compares the COAs and selects the one that is most likely to accomplish the assigned mission. He considers the advantages and disadvantages for each COA. He also considers how the critical events impact on COAs.
314. STEP 4. Start Necessary Movement. What occurs during this phase?
    a. The unit may need to begin movement while the leader is still planning or forward reconnoitering. This step could occur at any time during the troop-leading procedure.
315. STEP 5. Reconnoiter. What occurs during this phase?
    a. If time allows, the leader makes a personal reconnaissance. When time does not allow, the leader must make a map reconnaissance. Sometimes the leader must rely on others (for example, scouts) to conduct the reconnaissance.

316. STEP 6. Complete the Plan. What occurs during this phase?
    a. The leader completes his plan based on the reconnaissance and any changes in the situation.
317. STEP 7. Issue the Complete Order. What occurs during this phase?
    a. Platoon and squad leaders normally issue oral operations orders to aid subordinates in understanding the concept for the mission. If possible, leaders should issue the order with one or both of the following aides:
    b. (1) Within sight of the objective or on the defensive terrain (2) On a terrain model or sketch. Leaders may require subordinates to repeat all of part of the order or demonstrate on the model or sketch their understanding of the operation. They should also quiz their soldiers to ensure that all soldiers understand the mission.
318. Why do leaders use rehearsals?
    a. • Practice essential tasks (improve performance).
    b. • Reveal weaknesses or problems in the plan.
    c. • Coordinate the actions of subordinate elements.
    d. • Improve soldier understanding of the concept of the operation (foster confidence in soldiers).
319. Rehearsals include the practice of what actions?
    a. having squad leaders brief their planned actions in execution sequence to the platoon leader.
320. The leader should conduct rehearsals on terrain that:
    a. resembles the actual ground, and in similar light conditions
321. The platoon may begin rehearsals of battle drills and other SOP items before the receipt of the operation order. Once the order has been issued, it can rehearse mission specific tasks. Some important tasks to rehearse include--
    a. • Actions on the objective. • Assaulting a trench, bunker, or building. • Actions at the assault position. • Breaching obstacles (mine and wire). • Using special weapons or demolitions. • Actions on unexpected enemy contact
322. What does a backbrief entail?
    a. • Key leaders brief actions required during operation. • Patrol leader controls • Briefed sequentially • Best to conduct the rehearsal two times: (1) immediately following FRAGO (Confirmation Brief) (2) after subordinates develop own plan
323. When is Reduced Force rehearsal used?
    a. • Conducted when time is key constraint • Conducted when security must be maintained • Key leaders normally attend • Mock-ups, sand tables, and small scale replicas used
324. When is a Full Force rehearsal used?
    a. • Most effective type • First executed in daylight and open terrain • Secondly conduct in same conditions as operation • All soldiers participate • May use force on force
325. What are some rehearsal techniques?
    a. (a) Force on Force (b) Map • limited value • limited number of attendees (c) Radio • cannot mass leaders • confirms communications (d) Sand table/terrain

model • key leaders • includes all control measures (e) Rock drill • similar to sand table/terrain model • subordinates are actually moving themselves

326. Squad leaders should conduct initial inspections shortly after receipt of the warning order. The platoon sergeant spot checks throughout the unit's preparation for combat. The platoon leader and platoon sergeant make a final inspection. What should they inspect?
    a. (a) Weapons and ammunition. (b) Uniforms and equipment. (c) Mission-essential equipment. (d) Soldier's understanding of the mission and their specific responsibilities. (e) Communications. (f) Rations and water. (g) Camouflage. (h) Deficiencies noted during earlier inspections.
327. Reporting. All information must be quickly, completely, and accurately reported. Use the SALUTE report format for reporting and recording information. What is the SALUTE report and what is an example?
    a. SIZE - Seven Enemy Soldier
    b. ACTIVITY - Traveling SW
    c. LOCATION - GL123456
    d. UNIT/UNIFORM - OD uniforms with red six-point star on left shoulder
    e. TIME - 210200JAN99
    f. EQUIPMENT - Carrying one machine gun and one rocket launcher
328. What should be done with Captured Documents?
    a. Documents are collected by the leader and turned in when he makes his reports. The documents should be marked as to time and place of capture
329. Prisoners. If prisoners are captured during a patrolling operation, they should be treated IAW the Geneva Convention and handled by the 5-S rule. What are the 5 "S" rules?
    a. (1) Search (2) Silence (3) Segregate (4) Safeguard (5) Speed to Rear
330. What are Warning orders?
    a. Warning orders give subordinates advance notice of operations that are to come. This gives them time to prepare. The order should be brief, but complete. A WARNING ORDER DOES NOT AUTHORIZE EXECUTION UNLESS SPECIFICALLY STATED
331. What does it mean to describe the situation in a WARNO? What factors should be included?
    a. a. Enemy forces. Include significant changes in enemy composition dispositions and courses of action. Information not available for inclusion in the initial WARNO can be included in subsequent warning orders. b. Friendly forces. (Optional) Only address if essential to the WARNO. (1) Higher commander's mission. (2) Higher commander's intent. c. Attachments and detachments. Initial task organization, only address major unit changes.
332. What should be included when describing the mission?
    a. Concise statement of the task and purpose (who, what, when, where, and why). If not all information is known, state which parts of the mission statement are tentative
333. What should be outlined in the WARNO execution?

a. a. Concept of operation. Provide as much information as available. The concept should describe the employment of maneuver elements. b. Tasks to maneuver units. Provide information on tasks to subordinate units for execution, movement to initiate, reconnaissance to initiate, or security to emplace. Identify special teams within squad and platoon. c. Tasks to combat support units. See paragraph 3b

334. Coordinating instructions. Include any information available at the time of the issuance of the WARNO. What are some examples that should be included?
    a. • Uniform and Equipment Common to All (changes in SOP e.g., drop rucks, drop or pick up helmets). • Time line. • CCIR. • Risk guidance. • Deception guidance. • Specific priorities, in order of completion. • Guidance on orders and rehearsals. • Orders group meeting (attendees, location, and time). • Earliest movement time and degree of notice
335. What is considered service support?
    a. Include any known logistics preparation for the operation. a. Special equipment. Identifying requirements, and coordinating transfer to using units. b. Transportation. Identifying requirements, and coordinating for pre-position of assets.
336. What are the components of command and signal?
    a. Command. State the chain of command if different from unit SOP. b. Signal. Identify current SOI edition, and pre-position signal assets to support operation
337. What is an operations order?
    a. An Operations Order (OPORD) is a directive issued by a leader to his subordinates in order to effect the coordinated execution of a specific operation. A five-paragraph format (shown below) is used to organize the briefing, to ensure completeness, and to help subordinate leaders understand and follow the order. Use a terrain model or sketch along with a map to explain the order. When possible, such as in the defense, give the order while observing the objective. The platoon/squad leader briefs his OPROD orally off notes that follow the five-paragraph format. A sample OPORD format follows
338. What is included in an operations order references?
    a. The heading of the plan or order includes a list of maps, charts, datum, or other related documents the unit will need to understand the plan or order. The user does not need to reference the SOP, but may refer to it in the body of the plan or order. The user references a map using the map series number (and country or geographic area, if required), sheet number and name, edition, and scale, if required. Datum is the mathematical model of the earth used to calculate the coordinate on any map. Different nations use different datum for printing coordinates on their maps. The datum is usually referenced in the marginal information of each map.
339. What time zones are used in OPORDS?
    a. The time zone used throughout the order (including annexes and appendixes) is the time zone applicable to the operation. Operations across several time zones use ZULU time.

340. What is the purpose of a task organization?
    a. Describe the allocation of forces to support the commander's concept. Task organization may be shown in one of two places: preceding paragraph one, or in an annex, if the task organization is long and complicated.
341. The enemy situation in higher headquarters' OPORD (paragraph 1.a.) is the basis for this, but the leader refines this to provide the detail required by his subordinates. What are some important details to include?
    a. 1. Include the enemy's composition, disposition, strength 2. Recent activities 3. Known/suspected locations and capabilities 4. Describe the enemy's most likely and most dangerous course of action
342. Friendly forces. This information is in paragraph 1b, 2 and 3 of higher headquarters' OPORD. What information should be included here?
    a. 1. Include the mission, the commander's intent, and concept of operations for headquarters one and two levels up. 2. Locations of units to the left, right, front, and rear. State those units' task and purpose and how those units will influence your unit, particularly adjacent unit patrols
343. Should attachments and detachments be included on OPORDS? How should they be added?
    a. Do not repeat information already listed under Task Organization. Try to put all information in the Task Organization. However, when not in the Task Organization, list units that are attached or detached to the headquarters that issues the order. State when attachment or detachment is to be effective if different from when the OPORD is effective (such as on order, on commitment of the reserve). Use the term "remains attached" when units will be or have been attached for some time
344. What should be included when stating the mission during an OPORD?
    a. State the mission derived during the planning process. There are no subparagraphs in a mission statement. Include the 5 W's: Who, What (task), Where, When, and Why (purpose).
345. Concept of the Operations. The concept of operations may be a single paragraph, may be divided into two or more subparagraphs or, if unusually lengthy, may be prepared as a separate annex. What does the concept describe?
    a. The concept of operations should be based on the COA statement from the decision-making process and will designate the main effort. The concept statement should be concise and understandable and describe, in general terms, how the unit will accomplish its mission from start to finish. • The employment of major maneuver elements in a scheme of maneuver. • A plan of fire support or "scheme of fires" supporting the maneuver with fires. • The integration of other major elements or systems within the operation. These include, for example, reconnaissance and security elements, intelligence assets, engineer assets, and air defense. • Any be-prepared missions.
346. What does the maneuver paragraph address?
    a. The maneuver paragraph addresses, in detail, the mechanics of the operations. Specifically address all subordinate units and attachments by name, giving each

its mission in the form of a task and purpose. The main effort must be designated and all other subordinates' missions must relate to the main effort. Actions on the objective will comprise the majority of this paragraph and therefore could address the plan for actions on the objective, engagement/disengagement criteria, an alternate plan in the event of compromise or unplanned movement of enemy forces, and a withdrawal plan.

347. What does the fires paragraph outline?
    a. Clarify scheme of fires to support the overall concept. This paragraph should state which maneuver unit is the main effort and has priority of fires, to include stating purpose of, priorities for, allocation of, and restrictions for fire support. A target list worksheet and overlay are referenced here, if applicable. Specific targets are discussed and pointed out on the terrain model (see chapter 3, Fire Support).

348. How should tasks be outlined for maneuver units?
    a. Clearly state the missions or tasks for each maneuver unit that reports directly to the headquarters issuing the order. List units in the same sequence as in the task organization, including reserves. Use a separate subparagraph for each maneuver unit. Only state tasks that are necessary for comprehension, clarity, and emphasis. Place tactical tasks that affect two or more units in subparagraph 3d. Platoon leaders task their subordinate squads. Those squads may be tasked to provide any of the following special teams: reconnaissance and security, assault, support, aid and litter, EPW and search, clearing, and demolitions. Detailed instructions may also be given to platoon sergeant, RTO's, compassman, and paceman.

349. How should tasks be outlined to combat support units?
    a. Use these subparagraphs only as necessary. List CS units in subparagraphs in the same order as they appear in the task organization. Use CS subparagraphs to list only those specific tasks that CS units must accomplish and that are not specified or implied elsewhere. Include organization for combat, if not clear from task organization.

350. Coordinating instructions. List only instructions applicable to two or more units and not routinely covered in unit SOPs. This is always the last subparagraph in paragraph 3. Complex instructions should be referred to in an annex. What components of coordinating instructions are mandatory?
    a. 1) Time Schedule (rehearsals, backbriefs, inspections and movement).
    b. (2) Commander's critical information requirements (CCIR) (a) Priority intelligence requirements (PIR) - Intelligence required by the commander needed for planning and decision making. (b) Essential elements of friendly information (EEFI). - Critical aspects of friendly operations that, if known by the enemy, would compromise, lead to failure, or limit success of the operation. (c) Friendly force information requirements (FFIR). - Information the commander needs about friendly forces available for the operation. May include personnel status, ammunition status, and leadership capabilities.

c. (3) Risk reduction control measures. These are measures unique to this operation and not included in unit SOPs and can include mission-oriented protective posture, operational exposure guidance, vehicle recognition signals, and fratricide prevention measures.
d. (4) Rules of engagement (ROE).
e. (5) Environmental considerations.
f. (6) Force Protection
g. (7) Movement Plan. Use terrain model and/or sketch. State azimuths, directions, and grid coordinates. a. Order of Movement, formation, and movement technique b. Actions at halts (long and short). c. Routes. d. Departure and Re-entry of friendly lines. e. Rally points and actions at rally points (plan must include IRP, ORP, PF, and RRP and all other planned rally points to include grid location and terrain reference). f. Actions at danger areas (general plan for unknown linear, small open areas and large open areas; specific plan for all known danger areas that unit will encounter along the route. Reference the SOP's that govern the sustainment operations of the unit. Provide current and proposed company trains locations, casualty, and damaged equipment collection points and routes

351. What is outlined by meterial and services?
a. a. Class I - Rations Plan
b. b. Class V - Ammunition
c. c. Class VII - Major end items (weapons)
d. d. Class VIII - Medical
e. e. Class IX - Repair parts
f. f. Distribution Methods

352. Planning is the continual process of selecting targets on which fires are prearranged to support a phase of the commander's plan. What are the steps to planning?
a. (a) Consider what the commander wants to do.
b. (b) Plan early and continuously.
c. (c) Exploit all available targeting assets.
d. (d) Use all available lethal and non-lethal fire support means.
e. (e) Use the lowest echelon able to furnish effective support.
f. (f) Observe all fires.
g. (g) Use the most effective fire support asset available.
h. (h) Provide adequate fire support.
i. (i) Avoid unnecessary duplication.
j. (j) Provide for safety of friendly forces and installations.
k. (k) Provide for flexibility.
l. (l) Furnish the type of fire support requested.
m. (m) Consider the airspace.
n. (n) Provide rapid and effective coordination.
o. (o) Keep all fire support informed.

353. What are fire support tasks in all operations?
a. (a) Locate targets. (b) Integrate all available assets. (c) Destroy, neutralize, or suppress all enemy direct and indirect fire systems. (d) Provide illumination and

smoke. (e) Provide fires in support of JA/ATT and SEAD missions. (f) Deliver scatterable mines. (g) Prepare for future operations. (h) Provide positive clearance of fires.

354. What are fire support tasks in offensive operations?
    a. (a) Support the movement to contact, chance contact. (b) Soften enemy defenses before the attack by arranging short, violent preparations, where required. (c) Provide support during the attack by attacking high payoff targets. (d) Plan for deep and flanking fires. (e) Plan fires during consolidation. (f) Provide counterfires.
355. A complete fire support overlay must include:
    a. 1) Unit and official capacity of person making overlay. (2) Date the overlay was prepared. (3) Map Sheet Number. (4) Effective Period of Overlay (DTG). (5) Priority target. (6) ORP Location. (7) Call signs and frequencies. (PRI/ALT) (8) Routes - Primary/Alternate. (9) Phase Lines/Checkpoints used by the patrol. (10) Spares. (11) Index marks to position overlay on map. (12) Objective. (13) Target Symbols. (14) Description, location and remarks column, complete.
356. There are two types of close air support requests. What are they?
    a. planned and immediate.
357. What is the format for requesting immediate CAS:
    a. (1) Observer identification.
    b. (2) Warning Order (Request Close Air)
    c. (3) Target location (Grid).
    d. (4) Target description. (Description must include, as a minimum: type and number of targets, activity or movement; point or area targets, include desired results on target and time on target.
    e. (5) Location of Friendly Forces
    f. (6) NAV Details (Elevation).
    g. (7) Threats - ADA, Small Arms, etc.
    h. (8) Hazards - Friendly Aircraft in Area.
    i. (9) Wind Direction.
358. What is the procedure for a fire mission request?
    a. Type of mission: (a) Adjust fire (b) Fire for effect (c) Suppress (d) Immediate suppression
    b. Size of element to fire for effect - When the observer does not specify what size element to fire, the battalion FDC will decide.
    c. Method of target location: (a) Polar Plot (b) Shift from a known point (give point TRP) (c) Grid
    d. Location of Target: (a) Grid Coordinate - 6 digit. 8 digit if greater accuracy is required. (b) Shift from a Known Point:
    e. (1) Send OT direction: - Mils (nearest 10). - Degrees. - Cardinal Direction. - Send lateral shift(Right/Left)(Nearest 10m) - Send range shift (Add/Drop) (Nearest 100m) - Send vertical shift (Up/Down) Use only if it exceeds 35 meters. (Nearest 5m) (c) Polar Plot: (1) Send direction. (Nearest 10 mils) - Send distance. (Nearest 100m) - Send vertical shift. (Nearest 5m)

f. Description of Target: (a) Type. (b) Activity. (c) Number. (d) Degree of protection. (e) Size and shape. (Length/Width or Radius)
g. Method of Engagement: (a) Type of Adjustment - When the observer does not request a specific type of fire control adjustment, area fire issued. (1) Area fire - moving target.

359. To survive on the battlefield, stealth, dispersion, and security must be enforced in all tactical movements. The leader must be skilled in all movement techniques. What dictates movement formations?
    a. Formations are arrangements of elements and soldiers in relation to each other. Squads use formations for control based on a METT-TC analysis. Leaders are where they can best control formations. This allows the fire team leader to lead by example, "Follow me and do as I do." All soldiers in the team must be able to see their leader

360. What is a movement technique?
    a. The manner a unit uses to traverse terrain.

361. There are three movement techniques. What are they?
    a. Traveling, traveling overwatch, and bounding overwatch.

362. The selection of a movement technique is based on the likelihood of:
    a. Enemy contact and the need for speed. Factors to consider for each technique are control, dispersion, speed, and security. Movement techniques are not fixed formations. They refer to the distances between soldiers, teams, and squads that vary based on mission, enemy, terrain, visibility, and any other factor that affects control. Soldiers must be able to see his fire team leaders. The platoon leader should be able to see his lead squad leader. Leaders control movement with arm and-hand signals and use radios only when needed.
    b. Standards
    c. (1) Unit moves on designated route or arrives at specified location IAW OPORD maintaining accountability of all assigned/attached personnel.
    d. (2) Unit uses movement formation and technique ordered by the leader based on METT-TC.
    e. (3) Leaders remain oriented (within 200m) and follow planned route unless METTTC dictates otherwise.
    f. (4) Unit will maintain 360 degree security and a 100% alert during movement.
    g. (5) Unit maintains 360 degree security and a minimum of 75% security during halts.
    h. (6) If contact with the enemy is made, it is made with the smallest element possible.
    i. (7) Control measures are used during movement (head counts, rally points, phase lines, etc.).

363. Why is it important to have a man that knows how to navigate to your objective?
    a. Preparations are worthless if the objective cannot be found in time, or if the patrol is compromised because it is run into during movement. Plan to use at least two compass and pace men per patrol. NOTE: The element point man must not be

tasked to perform compass or pace duties. The point man's sole responsibility is forward security for the element.

364. Why is it important to avoid detection en route to your objective?
    a. Patrols must use stealth, and use the cover and concealment of the terrain to its maximum advantage. Whenever possible, move during limited visibility in order to maximize technological advantages gained by night vision devices and to hinder the enemy's ability to detect the patrol. Exploit the enemy's weaknesses, and attempt to time movements to coincide with other operations that are distracting the enemy

365. Why should you Maintain Constant Security while on mission?
    a. The patrol must use both active and passive security measures constantly. Give men or subunits responsibility for security enroute, at danger areas, at patrol bases, and most importantly in the objective area.

366. The enemy situation determines which of the three movement techniques will be used. When is each movement technique appropriate?
    a. When contact is not likely: TRAVELING;
    b. when possible: TRAVELING OVERWATCH;
    c. expected: BOUNDING OVERWATCH.
    d. Squads/platoons will usually move with traveling overwatch.
    e. (1) The traveling is used when enemy contact is not likely but speed is necessary.
    f. (2) The traveling overwatch is used when enemy contact is possible.
    g. (3) The bounding overwatch is used when enemy contact is likely, or when crossing a danger area.

367. Should you Plan for Use of Support Fires?
    a. Yes. Plan for fire support, (artillery, tactical air, attack helicopter, naval gunfire) even if you think it may not be needed during movement.

368. In open terrain, keep men widely dispersed. Why is this?
    a. When enemy contact is possible, have one fire team well forward and overwatch with the other fire team. Assign duties for the movement

369. How should fire teams be spaced? How far apart can fire teams spread their formations? When should the file be used?
    a. Fire teams maintain visual contact, but the distance between them is such that the entire patrol does not become engaged if contact is made Fire teams can spread their formations as necessary to gain better observation to the flanks. Although widely spaced, men retain their relative position in their wedge and follow their team leader. Only in extreme situations should the file be used.

370. What is the lead squads responsibilities? What is the rear squads responsibilities?
    a. The lead squad must secure the front along with assuming responsibility for navigation. For a long movement, the PL may rotate the lead squad's responsibilities. The fire team/squad in the rear is charged with rear security

371. What are the characteristics of the traveling movement technique?
    a. 1) More control than traveling overwatch but less than bounding overwatch.
    b. (2) Minimum dispersion.

c. (3) Maximum speed.
d. (4) Minimum security.

372. What are the characteristics of traveling overwatch?
a. Traveling Overwatch. The traveling overwatch technique is the basic movement technique
b. (1) The distance between individuals is about 20 meters, between teams about 50 meters
c. (2) In platoon traveling overwatch, the lead squad must be far enough ahead of the rest of the platoon to detect or engage any enemy before the enemy observes or fires on the main body. However, it must be close enough to be supported by the platoon's small arm's fires. This is normally between 50 to 100 meters, depending on terrain, vegetation, and light and weather conditions.
d. (3) In a column formation, only the lead squad should use the traveling overwatch; however, if greater dispersion is desired, all squads may use it.
e. (4) In other formations, all squads use traveling overwatch unless the platoon leader specifies not to.
f. (5) Traveling overwatch has the following characteristics: • Good control • Good dispersion • Good speed • Good security forward

373. What are the characeristics of Bounding Overwatch?
a. (1) In the bounding overwatch technique, the distance between men remains approximately 20 meters. The distance between teams and squads varies. (2) The squad or platoon has a bounding element and an overwatch element. The bounding element moves while the overwatch element occupies an overwatch position that can cover the route of the bounding element by fire. Each bound is within supporting range of the overwatch element.

374. The length of a bound depends on:
a. terrain, visibility, and control

375. Before a bound, the leader gives the following instructions to his subordinates:
a. Direction of the enemy if known
b. • Position of overwatch elements
c. • Next overwatch position
d. • Route of the bounding element
e. • What to do after the bounding element reaches the next position
f. • How the elements receive follow-on orders

376. The characteristics of bounding overwatch are:
a. Maximum control • Maximum dispersion • Minimum speed • Maximum security

377. What is a method for conducting platoon bounding overwatch?
a. Method One. When platoons use bounding overwatch, one squad bounds and one squad overwatches; the third squad awaits orders. Forward observers stay with the overwatching squad to call for fire. Platoon leaders normally stay with the overwatching squad who use machine guns and attached weapons to support the bounding squad. (2) Method Two. Another way is to have one squad use bounding overwatch and have the other two squads use traveling or traveling overwatch technique

378. When deciding where to move the bounding element, what are some factors to consider
    a. Where the enemy is likely to be
    b. • The mission
    c. • The routes to the next overwatch position
    d. • The weapons ranges of the overwatching unit The responsiveness of the rest of the unit
    e. • The fields of fire at the next overwatch position
379. Platoons conduct two types of marches with the company. What are they?
    a. foot marches and motor (road) marches.
380. What is the general purpose of a foot march?
    a. A successful foot march is when troops arrive at their destination at the prescribed time, physically able to execute their tactical mission. Keep in mind that a Ranger moves faster, further, and fights harder than any other soldier. (1) The unit crosses the start point and release point at the time specified in the order. (2) The unit follows the prescribed route, rate of march, and interval without deviation unless required otherwise by enemy action or higher headquarters action
381. METT-TC
    a. Mission- Task and Purpose •
    b. Enemy- Intentions, Capabilities, and Course of Action •
    c. Terrain and Weather- Road Condition/Trafficability, and visibility •
    d. Troops/Equipment- Condition of soldiers and their load, number and types of weapons and radios. •
    e. Time- Start time, release time, rate of march, time available •
    f. Civilians- Movement through populated areas, refugees, OPSEC • Task Organization. • Headquarters- Command and Control • Security- Advance and trail teams • Main Body- Two remaining line squads and weapons squad • Command and Control • Control measures
382. What is the role of the platoon leader before, during, and after the foot march?
    a. Before- Issue Warning Order, FRAGO, inspect, and supervise • During- Makes SP time, ensures interval is maintained, maintains security, checks condition of men, enforces water discipline and field sanitation. • After the March- Ensures men are prepared to accomplish their mission, supervises SLs, and ensures medical coverage is provided to men as needed
383. What is the role of the platoon sergeant before, during, and after the foot march?
    a. Before- Assists PL, makes recommendations, and enforces uniform and packing lists • During- Controls stragglers, assist platoon leader in maintaining proper interval and security • At Halts- Enforces security, ensures welfare of men, enforces field sanitation • After March- Coordinates for water, rations, and medical supplies. Recovers casualties
384. What are the roles of the squad leader before, during, and after the foot march?
    a. • Before- Provides detailed instruction to TLs, inspects boots and socks for serviceability and proper fit, adjustment of equipment, full canteens, and equal

distribution of loads. • During- Controls squad, maintains proper interval between men and equipment, enforces security, and remains oriented. • At Halts- Ensures security is maintained, provided men for water resupply as detailed. Physically checks the men in his squad, ensures they drink water, and change socks as necessary. Rotates heavy equipment. • After March- Occupies squad sector of assembly area, conducts foot inspection and report condition of men to PL, prepares men for accomplishment of the mission.

385. What is the role of the security squad during the foot march?
    a. Lead Team- Point element for platoon, recon route to SP, call in check points, provide early warning, and maintain rate of march • Move 10-20 meters in front of main body
386. What is the role of the medic during foot marches?
    a. Assists platoon leadership in the assessment and treatment of march casualties. Advise the chain of command on the evacuation and transportation requirements of casualties
387. What is the role of the individual during foot marches?
    a. Maintains interval, follows TLs examples, relays hand and arm signals, and remains alert during movement and at halts.
388. When visibility is poor, what are methods to maintain control of personnel?
    a. (1) Use of night vision devices
    b. (2) Leaders move closer to the front
    c. (3) Platoon reduces speed
    d. (4) Use of luminescent tape on equipment
    e. (5) Reduce intervals between men and elements
    f. (6) Headcounts conducted regularly
389. To assist in navigation during limited visibility, leaders may use what following techniques?
    a. (1) Terrain association
    b. (2) Dead reckoning
    c. (3) Resection
    d. (4) Paralleling specific terrain features (handrail)
    e. (5) Guides or marked routes
    f. (6) GSR to guide units to link-ups
    g. (7) Navigation computers
390. For stealth and security in night movements squads and platoons, what control measures should be taken?
    a. (1) Enforce strict noise and light discipline
    b. (2) Use radio-listening silence
    c. (3) Use of camouflage
    d. (4) Use of terrain to avoid detection by enemy surveillance or night vision devices
    e. (5) Make frequent listening halts (SLLS)
    f. (6) Mask the sounds of movement with artillery fires
391. There are two techniques for actions at rally points. What are they?

a. Men available: The assembled members will wait until a set number of men arrive and then go on with the mission under the senior man present. This plan 4-9 is good for a reconnaissance patrol when two or three men may be able to accomplish the mission.
b. Time Available: The assembled members wait for a set period of time, after which the senior man present will decide whether to continue the mission, based on troops and equipment present. This may be the plan when a minimum number of men, or certain items of equipment, or both, are needed to accomplish the mission.

392. What are some considerations to make when acting at rally points?
a. Actions to be taken at rally points must be planned in detail. The plan must provide for continuation as long as there is a good chance to accomplish the mission. Some form of communications must be left in the rally point to inform stragglers of how many men linked up and the direction they took.

393. What is a danger area? What are some examples?
a. A danger area is any place on a unit's route where the leader's estimate process tells him his unit may be exposed to enemy observation or fire. Some examples of danger areas are open areas, roads and trails, native villages, enemy positions, and obstacles such as minefields, streams, and wire obstacles. Avoid danger areas whenever possible. If they must be passed or crossed, use great caution

394. What are some of the fundamental aspects of crossing a danger area?
a. (1) Designate near and far side rally points
b. (2) Secure near side, left and right flank, and rear security
c. (3) Recon and secure the far side
d. (4) Cross the danger area
e. (5) Plan for fires (when possible)

395. What is the procedure for crossing a Linear Danger Area (LDA) for a squad?
a. STEP 1: The alpha team leader (ATL) observes the linear danger area and sends the hand and arm signal to the SL who determines to bound across.
b. STEP 2: SL directs the ATL to move his team across the LDA far enough to fit the remainder of the squad on the far side of the LDA. Bravo team moves to the LDA to the right or left to provide an overwatch position prior to A team crossing.
c. STEP 3: SL receives the hand and arm signal that it is safe to move the rest of the squad across (B team is still providing overwatch).
d. STEP 4: SL moves himself, RTO and B team across the LDA. (A team provides overwatch for squad missions.)
e. STEP 5: A team on azimuth at SLs command or hand and arm signal.

396. How does a platoon size element cross a LDA?
a. a) The lead squad halts the platoon, and signals danger area.
b. (b) The platoon leader moves forward to the lead squad to confirm the danger area and decides if current location is a suitable crossing site.
c. (c) The platoon leader confirms danger area/crossing site and establishes near and far side rally points.

d.

e. (d) On the platoon leader's signal, the A team of the lead squad establishes an overwatch position to the left of the crossing site. Prior to crossing, the compassman with the lead two squads confirm azimuth and pace data.

f. (e) B team of the lead squad establishes an overwatch position to the right of the crossing site.

g. (f) Once overwatch positions are established, the platoon leader gives the second squad in movement the signal to bound across by fire team.

h. (g) Once across, the squad is now lead in movement and continues on azimuth.

i. (h) One stop, look, listen and smell (SLLS) is conducted, squad leader signals platoon leader all clear.

j. (1) Day time—hand and arm signal (e.g. thumbs up)

k. (2) Night time—Clandestine signal (e.g. IR, red lens) (i) Platoon leader receives all clear and crosses with RTO, FO, WSL, and 2 gun teams.

l. (j) Once across, PL signals the 3rd squad in movement to cross at their location.

397. What is the crossing sequence for an LDA?

a. • A and B teams of lead squad occupy overwatch positions

b. • Second squad crosses, and continues on azimuth

c. • PL crosses with RTO, FO, WSL, and 2 gun teams

d. • Third squad crosses in movement, link-up with 1st squad • PSG crosses with medic and gun team

e. • Security squad crosses, link-up with 2nd squad

f. • With the new order of movement (formerly 2nd squad in movement now leading and the former 1st squad in movement in trail) the platoon continues movement on azimuth.

g. Danger Area (Small/Open) (a) The lead squad halts the platoon and signals danger area.

h. (b) The PL moves forward to the lead squad to confirm the danger area.

i. (c) The platoon leader confirms danger area and establishes near and far side rally points.

j. (d) The PL designates lead squad to bypass danger area using the detour bypass method.

k. (e) Upon signal to move, lead squad offsets compass 90 degrees left or

l. (f) right as designated and moves in that direction. Paceman stops pace count and starts new pace count. (g) After moving set distance (as instructed by PL). Lead squad assumes original azimuth, pace man original pace.

m. (h) After passing by the open area, the lead squad once again stops and again offset compass 90 degrees left or right and paceman starts pace once again.

398. What is considered a series of danger areas?

a. A series of danger areas is two or more danger areas within an area that can be either observed or covered by fire.

b. • Double linear danger area (use linear danger area technique and cross as one LDA)

c. • Linear/small open danger area (use by-pass/contour technique. Figure 4- 4)

d. • Linear/large open danger area (use platoon wedge in crossing)

399. What is the procedure for crossing a small LDA?
   a. (a) Lead squad halts the platoon, and signals danger area.
   b. (b) The platoon leader moves forward with RTO and FO and to confirm danger area.
   c. (c) The platoon leader confirms danger area and establishes near and far side rally points.
   d. (d) PL designates direction of movement.
   e. (e) PL may designate change of formation as necessary.

400. Patrols are missions to gather information or to conduct combat operations. Infantry platoons and squads primarily conduct two types of patrols. What are they?
   a. reconnaissance, and combat.

401. All patrols are governed by five principles. What are they?
   a. a. Planning. Quickly make a simple plan and effectively communicate it to the lowest level. A great plan that takes forever to complete and is poorly disseminated isn't a great plan. Plan and prepare to a realistic standard, and rehearse everything.
   b. b. Reconnaissance. Your responsibility as a Ranger leader is to confirm what you think you know, and to find out what you don't.
   c. c. Security. Preserve your force as a whole, and your recon assets in particular. Every Ranger and every rifle counts; anyone could be the difference between victory and defeat.
   d. d. Control. Clear concept of the operation and commander's intent, coupled with disciplined communications, to bring every man and weapon you have available to overwhelm your enemy at the decisive point.
   e. e. Common Sense. Do what you're supposed to do, without someone having to tell you, despite your own personal discomfort or fear.

402. A patrol is a mission, not an organization. To accomplish the patrolling mission, a platoon or squad must perform specific tasks. What are some examples?
   a. for example, secure itself, cross danger areas, recon the patrol objective, breach, support, or assault.

403. As with other missions, the leader tasks elements of his unit in accordance with his estimate of the situation, identifying those tasks his unit must perform and designating which elements of his unit will perform which tasks. What should be maintained while assigning tasks?
   a. Where possible, in assigning tasks, the leader should maintain squad and fire team integrity. The chain of command continues to lead its elements during a patrol. In this chapter, the terms "element" and "team" refer to the squads, fire teams, or buddy teams that perform the tasks as described. Squads and fire teams may perform more than one task in an assigned sequence; others may perform only one task.

404. The leader must plan carefully to ensure that he has identified and assigned all required tasks in the most efficient way. Elements and teams for platoons conducting patrols include the following:

a. (a) Headquarters Element. The headquarters consists of the platoon leader (PL), RTO, platoon sergeant (PSG), FO and FO RTO. It may consist of any attachments that the PL decides that he or the PSG must control directly.
b.
c. (b) Aid and Litter Team. Aid and litter teams are responsible for buddy aid and evacuating casualties.
d. (c) Enemy Prisoner of War (EPW) Team. EPW teams are responsible for controlling enemy prisoners IAW the five S's and the leader's guidance.
e. (d) Surveillance Team. The surveillance team keeps watch on the objective from the time that the leader's reconnaissance ends until the unit deploys for actions on the objective. They then rejoin their parent element.
f. (e) Enroute Recorder. The enroute recorder records all information collected during the mission.
g. (f) Compass Man. The compass man assists in navigation by ensuring the patrol remains on course at all times. Instructions to the compass man must include initial and subsequent azimuths. As a technique, the compass man should preset his compass on the initial azimuth before the unit moves out, especially if the move will be during limited visibility conditions. The platoon or squad leader should also designate an alternate compass man.
h. (g) Point/Pace Man. As required, the PL designates a point man and a pace man for the patrol. The pace man aids in navigation by keeping an accurate count of distance traveled. The point man selects the actual route through the terrain, guided by the compass man or team leader. In addition the point man also provides frontal security.

405. Common elements of Combat Patrols.
a. (a) Assault Element. The assault element seizes and secures the objective and protects special teams as they complete their assigned actions on the objective.
b. (b) Security Element. The security element provides security at danger areas, secures the ORP, isolates the objective, and supports the withdrawal of the rest of the platoon once actions on the objective are complete. The security element may have separate security teams, each with an assigned task or sequence of tasks.
c. (c) Support Element. The support element provides direct and indirect fire support for the unit.
d. (d) Demolition Team. Demolition teams are responsible for preparing and detonating the charges to destroy designated equipment, vehicles, or facilities on the objective.
e. (e) Search Team. The assault element may provide two-man (buddy teams) or four-man (fire team) search teams to search bunkers, buildings, or tunnels on the objective. These teams will search the objective or kill zone for casualties, documents, or equipment. EPW Teams may double as Search Teams.
f. (f) Breach Element. The breach team conducts initial breaches as required in order to allow the patrol to enter an objective. This is typically done IAW

METT-TC and the steps outlined in the "Conduct an initial breach of a mined wire obstacle" battle drill in Chapter 6.

406. What are elements common to reconnaissance patrols?
    a. (a) Reconnaissance Team. Reconnaissance teams reconnoiter the objective area once the security teams are in position. Normally these are two-man teams (buddy teams) to reduce the possibility of detection.
    b. (b) Reconnaissance and Security Teams. R&S teams are normally used in a zone reconnaissance, but may be useful in any situation when it is impractical to separate the responsibilities for reconnaissance and security.
    c. (c) Security Element. When the responsibilities of reconnaissance and security are separate, the security element provides security at danger areas, secures the ORP, isolates the objective, and supports the withdrawal of the rest of the platoon once the recon is complete. The security element may have separate security teams, each with an assigned task or sequence of tasks.
    d. Initial Planning and Coordination. Leaders plan and prepare for patrols using the troop-leading procedures and the estimate of the situation, as described in Chapter 2.
    e. Through an Estimate of the Situation, leaders identify required actions on the objective (mission analysis) and plan backward to departure from friendly lines and forward to reentry of friendly lines.

407. Because patrolling units act independently, move beyond the direct-fire support of the parent unit, and operate forward of friendly units, coordination must be thorough and detailed. Coordination is continuous throughout planning and preparation. PLs use checklists to preclude omitting any items vital to the accomplishment of the mission
    a. (1) Coordination with Higher Headquarters. Includes Intelligence, Operations, and Fire Support Coordination IAW Chapter 2-7, Coordination Checklists. This initial coordination is an integral part of Step 3 of Troop-Leading Procedures, Make a Tentative Plan.
    b. (2) Coordination with Forward Units. The leader coordinates with the unit through which his platoon or squad will conduct its forward and rearward passage of lines, IAW Chapter 2-7, Coordination Checklists.
    c. (3) Coordination with Adjacent Units. The leader also coordinates his unit's patrol activities with the leaders of other units that will be patrolling in adjacent areas at the same time, IAW Chapter 2-7, Coordination Checklists.

408. Key travel and execution times. The leader estimates time requirements for movement to the objective, leaders reconnaissance of the objective, establishment of security and surveillance, completion of all assigned tasks on the objective, and passage through friendly lines. What are some planning factors to include in travel times?
    a. • Movement: Average of 1 KM/HR in Woodland Terrain;
    b. • Leader's Recon: NLT 1 ½ HR;
    c. • Establishment of Security and Surveillance: ½ HR;
    d. • Passage through FFU: NLT ½ HR.

409. What are the roles of primary and alternative routes in mission planning?

a. The leader selects primary and alternate routes to and from the objective. The return routes should differ from the routes to the objective. The PL may delegate route selection to a subordinate, but is ultimately responsible for the routes selected.

410. Challenge and password forward of friendly lines. The challenge and password from the unit's SOI must not be used beyond the FLOT. What are some ways to establish challenge and passwords?
   a. Odd-number system. The leader specifies an odd number. The challenge can be any number less than the specified number. The password will be the number that must be added to it to equal the specified number. (Example: the number is 7; the challenge is 3, and the password is 4)
   b. (b) Running Password. SOIs may also designate a running password. This code word alerts a unit that friendly soldiers are approaching in a less than organized manner and possibly under pressure. This may also be used to get soldiers quickly through a compromised passage of friendly lines. The number of soldiers approaching ("Ranger five") follows the running password
   c. Location of leaders. The PL considers where he and the PSG and other key leaders are located for each phase of the patrol mission.

411. The PL positions himself where he can best control the actions of the patrol. The PSG is normally with the what elements for what type of patrol?
   a. • On an ambush, he normally controls the support element.
   b. • On a raid, he normally controls the CCP.
   c. • On an area reconnaissance, he normally stays in the ORP.
   d. • On a zone reconnaissance, he normally moves with the reconnaissance element that establishes the link-up point.

412. What are actions on enemy contact?
   a. Unless required by the mission, the unit avoids enemy contact. The leader's plan must address actions on chance contact at each phase of the patrol mission. The unit's ability to continue will depend on how early contact is made, whether the platoon is able to break contact successfully (so that its subsequent direction of movement is undetected), and whether the unit receives any casualties as a result of the contact. The plan must address the handling of seriously wounded soldiers and KIAs. The plan must also address the handling of prisoners who are captured as a result of chance contact and are not part of the planned mission.
   b. Contingency Plans. The leader leaves his unit for many reasons throughout the planning, coordination, preparation, and execution of his patrol mission. Each time the leader departs the patrol main body, he must issue a five-point contingency plan to the leader left in charge of the unit.

413. The contingency plan is described by the acronym GOTWA, and includes what factors?
   a. • G: Where the leader is GOING. 5-5
   b. • O: OTHERS he is taking with him.
   c. • T: TIME he plans to be gone.
   d. • W: WHAT to do if the leader does not return in time.

e. • A: The unit's and the leader's ACTIONS on chance contact while the leader is gone.

414. What are Rally points? What must Rally points be?
   a. A rally point is a place designated by the leader where the unit moves to reassemble and reorganize if it becomes dispersed. Soldiers must know which rally point to move to at each phase of the patrol mission should they become separated from the unit. They must also know what actions are required there and how long they are to wait at each rally point before moving to another. • Easy to find; • Have no recent signs of enemy activity. • Have cover and concealment; • Be away from natural lines of drift and high speed avenues of approach. • Be defendable for short periods of time.

415. Actions at the ORP. Actions at the ORP typically include:
   a. • Leaders Recon of the Objective.
   b. • Conduct SLLS and pinpoint location.
   c. • Issuing a FRAGO, if needed.
   d. • Making final preparations before continuing operations; for example, recamouflaging, preparing demolitions, lining up rucksacks for quick recover. Preparing EPW bindings, first aid kits, litters, and inspecting weapons.
   e. • Accounting for soldiers and equipment after actions at the objective are complete.
   f. • Reestablishing the chain of command after actions at the objective are complete.
   g. • Disseminating information from reconnaissance, if contact was not made

416. Leader's Reconnaissance of the Objective.
   a. The plan must include a leader's reconnaissance of the objective once the platoon or squad establishes the ORP. Before departing the leader must issue a 5 point contingency plan. During his reconnaissance, the leader pinpoints the objective, selects reconnaissance, security, support, and assault positions for his elements, and adjusts his plan based on his observation of the objective. Each type of patrol requires different tasks during the leader's reconnaissance. The platoon leader will bring different elements with him. (These are discussed separately under each type of patrol). The leader must plan time to return to the ORP, complete his plan, disseminate information, issue orders and instructions, and allow his squads to make any additional preparations.

417. What is the purpose of recon patrols?
   a. Recon patrols provide timely and accurate information on the enemy and terrain. They confirm the leader's plan before it is executed. Units on reconnaissance operations collect specific information [Priority Intelligence Requirements (PIR)] or general information [Information Requirements (IR)] based on the instructions from their higher commander

418. Why is it important to follow the Fundamentals of Reconnaissance?
   a. In order to have a successful area reconnaissance, the platoon leader must apply the fundamentals of the reconnaissance to his plan during the conduct of the operation.

419. Gain all Required Information: The parent unit tells the patrol leader (PL) what information is required. How is the required information organized?
    a. This information is organized in the form of the IR (Intelligence Requirements) and PIR (Priority Intelligence Requirements). The platoon's mission is then tailored to what information is required. During the entire patrol, members must continuously gain and exchange all information gathered, but cannot consider the mission accomplished unless all PIR has been gathered.
420. Avoid Detection by the Enemy: A patrol must not let the enemy know that it is in the objective area. If the enemy knows he is being observed, he may move, change his plans, or increase his security measures. Methods of avoiding detection are:
    a. (1) Minimize movement in the objective area (Area Recon). (2) Move no closer to the enemy than necessary. (3) If possible use long range surveillance devices or night observation devices. (4) Camouflage, stealth, noise and light discipline. (5) Minimize radio traffic
    b. Employ security measures: A patrol must be able to break contact and return to the friendly unit with what information is gathered. If necessary, break contact and continue the mission. Security elements are emplaced so that they can overwatch the reconnaissance elements and suppress the enemy so the reconnaissance element can break contact.
421. Task Organization: When the platoon leader receives the order, he analyzes his mission to ensure he understands what must be done. What will be done after?
    a. PL organizes his platoon to best accomplish the mission IAW METT-TC. Recons are typically squad-sized missions.
422. What is an area recon patrol?
    a. The area recon patrol collects all available information on PIR and other intelligence requirements specified in the order for the area. The patrol completes the recon and reports all information by the time specified in the order. The patrol is not compromised.
423. What is a zone recon patrol?
    a. The zone recon patrol determines all PIR and other intelligence requirements specified in the order for its assigned zone. The patrol reconnoiters without detection by the enemy. The patrol completes the recon and reports all information by the time specified in the order.
424. The element occupies the ORP as discussed in the section on occupation of the ORP. What is the role of the RTO in the ORP?
    a. RTO calls in spare for occupation of ORP. The leader confirms his location on map while subordinate leaders make necessary perimeter adjustments.
425. The PL organizes the platoon in one of two ways. What are those ways?
    a. With separate recon and security elements, or combined recon and security elements
426. The PL takes subordinates leaders and key personnel on a leader's recon to confirm the objective and plan what actions?
    a. (1) Issues a 5 point contingency plan before departure. (2) Establishes a suitable release point. That is out of sight and sound distance from the objective (if

possible), but (at a minimum) definitely out of sight of the objective, and should also possess good rally point characteristics.
    b. (3) Allows all personnel to become familiar with the release point and surrounding area.
    c. (4) Identifies (pinpoints) the objective and emplaces surveillance. The surveillance team is positioned with one man facing the objective, and one facing back in the direction of the release point.
    d. (5) Takes subordinate leaders forward to pinpoint the objective, establish a limit of advance, and choose vantage points.
    e. (6) Maintains commo with the platoon throughout the leader's recon.
    f. (7) Designates a surveillance team to keep the objective under surveillance. Issues a contingency plan to the senior man remaining with the surveillance team.

427. If necessary, the patrol conducts its recon by short-range observation and surveillance. What are the steps taken during this phase?
    a. (1) Moves to an OP near the objective.
    b. (2) Passes close enough to the objective to gain information.
    c. (3) Gathers all PIR using the acronym SALUTE

428. R&S teams move using a technique such as the cloverleaf method to move to successive OP's. What is the cloverleaf method?
    a. In this method, R&S teams avoid paralleling the objective site, maintain extreme stealth, do not cross the limit of advance, and Maximize the use of available cover and concealment.

429. During the conduct of the recon, each R&S team will return to the release point when any of the following occurs:
    a. (1) They have gathered all their PIR.
    b. (2) They have reached the limit of advance.
    c. (3) The allocated time to conduct the recon has elapsed.
    d. (4) Contact has been made.

430. If the leader determines that he has not gathered sufficient information to meet the PIR requirements, or if the information he and the subordinate leader gathered differs drastically, what must happen?
    a. He may have to send R&S teams back up to the objective site. Before doing this, he will issue new five-point contingency plans all around and may even have to return to the ORP to alert the PSG of the change

431. The R&S element returns undetected to the ORP by the specified time. What must happen during this time?
    a. (1) Disseminates information to all patrol members through key leaders at the ORP, or moves to a position at least one terrain feature or one kilometer away to disseminate. To disseminate, the leader has the RTO prepare three sketches of the objective site based on his (the leader's) sketch and provides the copies to the subordinate leaders to assist in dissemination.
    b. (2) Reports any information requirements and/or any information requiring immediate attention to higher headquarters, and departs for the designated area.

432. What occurs if contact is made during reconnaissance?
    a. (1) Moving to the release point: the recon element will attempt to break contact and return to the ORP, secure rucksacks, and quickly move out of the area. Once they have moved a safe distance away, the leader will inform higher HQ of the situation and take further instructions from them. 5-9
    b. (2) While emplacing surveillance: These individuals will withdraw through the release point to the ORP and follow the same procedures as above.
    c. (3) While conducting the recon: All personnel will fire a full magazine on to the objective site. Surveillance will fire a LAW on the biggest weapon on the objective. All elements will pull off the objective and move to the release point. The senior man will quickly account for all personnel and return to the ORP. Once in the ORP, the procedures as outlined in (1) above will be followed.
433. Actions on the Objective during zone recon?
    a. (a) The element occupies the initial ORP as discussed in the section occupation of the ORP. RTO calls in spare for occupation of ORP. The leader confirms his location on map while subordinate leaders make necessary perimeter adjustments.
    b. (b) The recon team leaders organize their recon elements.
    c. (1) Designate security and recon elements.
    d. (2) Assign responsibilities (point man, pace man, enroute recorder, and rear security), if not already assigned.
    e. (3) Designates easily recognizable rally points.
    f. (4) Ensure local security at all halts.
434. What is the procedure for a patrol moving into the recon zone?
    a. 1) Moves tactically to the ORP's.
    b. (2) Occupies designated ORP's.
    c. (3) Follows the method designated by the PL:
435. What is the fan method for recon?
    a. Utilizes a series of ORP's. The patrol establishes security at the first ORP. Each recon element moves from the ORP along a different fan-shaped route that overlaps with others to ensure recon of the entire area. The leader typically maintains a reserve at the ORP. When all recon elements have returned to the ORP, the PL collects and disseminates all information before moving to the next ORP
436. What is the converging route method for conducting recon?
    a. The PL selects routes from the ORP through the zone to a link-up point at the far side of the zone from the ORP. Each recon element moves and recons along a specified route, and all elements converge at one time and place to link-up
437. What is the box method for conducting reconnaissance?
    a. The PL sends his recon elements from the first ORP along routes that form a box. He sends other elements along routes through the area within the box. All teams link-up at the far side of the box from the ORP.
438. The recon teams perform reconnaissance. What occurs during this phase?
    a. (1) During movement the squad will gather all PIR specified by the order.

b. (2) Recon team leaders will ensure sketches are drawn of all enemy hardsites, roads, and trails.
c. (3) When the squad arrives at new rendezvous point or ORP, the recon team leaders report to the PL with all information gathered.
d. (4) Return to the ORP, or link up at the rendezvous point on time.

439. The PL continues to control the recon elements. What occurs during this phase?
a. 1) PL moves with the recon element that establishes the link-up point.
b. (2) PL changes recon methods as required.
c. (3) PL designates times for the elements to return to the ORP or to link-up.
d. (4) PL collects all information and disseminates it to the entire patrol. PL will brief all key subordinate leaders on information gathered by other squads, establishing one consolidated sketch if possible, and allow team leaders time to brief their teams.
e. (5) PL and PSG account for all personnel.
f. The patrol continues the recon until: all designated areas have been reconned, and returns undetected to friendly lines.

440. The PL must consider the requirements for assaulting the objective, supporting the assault by fire, and security of the entire unit throughout the mission. What are some of these considerations?
a. a. For the assault on the objective, the PL considers the required actions on the objective, the size of the objective, and the known or presumed strength and disposition of the enemy on and near the objective.
b. b. The PL considers the weapons available, and the type and volume of fires required to provide fire support for the assault on the objective.
c. c. The PL considers the requirement to secure the platoon at points along the route, at danger areas, at the ORP, along enemy avenues of approach into the objective, and elsewhere during the mission.
d. d. The PL will also designate engagement/disengagement criteria.

441. Composition of the leader's reconnaissance party. The platoon leader will normally bring the following personnel:
a. • Squad Leaders to include the Weapons Squad Leader.
b. • Surveillance team.
c. • Forward Observer.
d. • Security Element (dependent on time available).

442. Conduct of the leader's reconnaissance. In a combat patrol the PL considers the following additional actions in the conduct of the leader's reconnaissance of the objective:
a. a. The PL designates a release point approximately half way between the ORP and this objective. The PL posts the surveillance team. Squads and fire teams separate at the release point and move to their assigned positions.
b. b. The PL confirms the location of the objective or kill zone. He notes the terrain and identifies where he can place mines or claymores to cover dead space. Any change to his plan is issued to the squad leaders (while overlooking the objective if possible).

c. c. If the objective is the kill zone for an ambush, the leader's reconnaissance party should not cross the objective; to do so will leave tracks that may compromise the mission.
d. d. The PL confirms the suitability of the assault and support positions and routes from them back to the ORP.
e. e. The PL issues a five-point contingency plan before returning to the ORP.

443. What actions outline a hasty ambush?
a. The platoon moves quickly to concealed positions. The ambush is not initiated until the majority of the enemy is in the kill zone. The unit does not become decisively engaged. The platoon surprises the enemy. The patrol captures, kills, or forces the withdrawal of the enemy within the kill zone. On order, the patrol withdraws all personnel and equipment in the kill zone from observation and direct fire. The unit does not become decisively engaged by follow-on elements. The platoon continues follow-on operations.

444. What actions outline a deliberate ambush?
a. The ambush is emplaced NLT the time specified in the order. The patrol surprises the enemy and engages the enemy main body. The patrol kills or captures all enemy in the kill zone and destroys equipment based on the commander's intent. The patrol withdraws all personnel and equipment from the objective, on order, within the time specified in the order. The patrol obtains all available PIR from the ambush and continues follow-on operations

445. When is a hasty ambush conducted?
a. A unit conducts a hasty ambush when it makes visual contact with an enemy force and has time to establish an ambush without being detected The actions for a hasty ambush must be well rehearsed so that soldiers know what to do on the leader's signal. They must also know what action to take if the unit is detected before it is ready to initiate the ambush.

446. A deliberate ambush is conducted against a specific target at a predetermined location. What information is needed when planning for a deliberate ambush?
a. The leader requires the following detailed information in planning a deliberate ambush: size and composition of the targeted enemy, and weapons and equipment available to the enemy.

447. What occurs in a point ambush?
a. In a point ambush, soldiers deploy to attack an enemy in a single kill zone.

448. What occurs in an area ambush?
a. In an area, soldiers deploy in two or more related point ambushes

449. How are linear formations used in ambushes?
a. In an ambush using a linear formation, the assault and support elements deploy parallel to the enemy's route. This positions both elements on the long axis of the kill zone and subjects the enemy to flanking fire. This formation can be used in close terrain that restricts the enemy's ability to maneuver against the platoon, or in open terrain provided a means of keeping the enemy in the kill zone can be effected.

450. How are L shaped ambushes used?
    a. In an L-shaped ambush the assault element forms the long leg parallel to the enemy's direction of movement along the kill zone The support element forms the short leg at one end of and at right angles to the assault element. This provides both flanking (long leg) and enfilading fires (short leg) against the enemy. The L-shaped ambush can be used at a sharp bend in a trail, road, or stream. It should not be used where the short leg would have to cross a straight road or trail.
451. What is a raid? What is the sequence of actions for a raid? What are some fundamentals of a raid?
    a. A raid is a combat operation to attack a position or installation followed by a planning withdrawal. Squads do not conduct raids. The sequence of platoon actions for a raid is similar to those for an ambush. Additionally, the assault element of the platoon may have to conduct a breach of an obstacle. It may have additional tasks to perform on the objective; for example, demolition of fixed facilities.
    b. Fundamentals of the raid include:
    c. • Surprise and speed. Infiltrate and surprise the enemy without being detected.
    d. • Coordinated fires. Seal off the objective with well-synchronized direct and indirect fires.
    e. • Violence of action. Overwhelm the enemy with fire and maneuver.
    f. • Planned withdrawal. Withdraw from the objective in an organized manner, maintaining security.
452. What actions does the PL take before an ambush?
    a. (a) The PL prepares the patrol for the ambush in the ORP. (b) The PL prepares to conduct a leader's recon
    b. (1) Designates the members of the leader's recon party (typically includes squad leaders, surveillance team, RTO/FO, and possibly the security element.
    c. (2) Issues a contingency plan to the PSG. The PL conducts his leader's recon.
    d. (1) Ensures the leader's recon party moves undetected.
    e. (2) Confirms the objective location and suitability for the ambush.
    f. (3) Selects a kill zone.
    g. (4) Posts a surveillance team at the site and issues a contingency plan.
    h. (5) Confirms suitability of assault and support positions and routes from them to the ORP.
453. How does the PL adjust his plan based on info from the recon?
    a. (1) Assigns positions.
    b. (2) Designates withdrawal routes.
    c. (3) Designates necessary control measures.
    d. The PL confirms the ambush formation. (f) The security team(s) occupy first, securing the flanks of the ambush site, and providing early warning. The security element must be in position before the support and assault elements move forward of the release point. A security team remains in the ORP if the patrol plans to return to the ORP after actions on the objective.

454. How does the upport element leader assign sectors of fire?
    a. (1) Emplaces mines and obstacles as designated.
    b. (2) Identifies sectors of fire and emplaces limiting stakes to prevent friendly fires from hitting other elements.
    c. (3) Overwatches the movement of the assault element into position. Once the support element is in position, or on the PLs order, the assault element departs the ORP and moves into position.
455. What actions does the assault element take before the ambush?
    a. (1) Identify individual sectors of fire as assigned by the PL. Emplace aiming stakes.
    b. (2) Emplace claymores and other protective devices.
    c. (3) Emplace claymores, mines, or other explosives in dead space within the kill zone.
    d. (4) Camouflage positions.
    e. (5) Move weapon selector switches to FIRE
456. What is the role of the security element during the ambush?
    a. The security element spots the enemy and notifies the PL, reporting the direction of movement, size of the target, and any special weapons or equipment carried. The security element must also keep the platoon leader informed if any enemy forces are following the lead force. The PL alerts other elements, and determines if the enemy force is too large, or if his ambush can engage successfully. The PL initiates the ambush using the highest casualty-producing device. He may use a command-detonated claymore. He must also plan backup method for initiating the ambush should the primary means fail. This should also be a casualty-producing device such as his individual weapon. This information must be passed out to all soldiers and practiced during rehearsals
457. What does the PL ensure during an ambush?
    a. The PL ensures that the assault and support elements deliver fire with the heaviest, most accurate volume possible.
458. What does the patrol require during the ambush?
    a. The patrol must have a means of engaging the enemy in the kill zone during period of limited visibility if it becomes necessary to initiate the ambush under this situation. Use of tracers must be weighed against how it might help the enemy to identify friendly positions. The platoon leader may use handheld or indirect illumination flares to illuminate the kill zone.
459. What additional actions does the assault element take once the ambush begins?
    a. The assault element assaults before the remaining enemy can react.
    b. (1) Kills or captures enemy in the kill zone.
    c. (2) Uses individual movement techniques or bounds by fire teams to move.
    d. (3) Establishes security for special teams along a designated limit of advance (LOA) and gives ACE reports to higher.
460. What actions are taken for EPWs after an ambush is complete?

a. The PL directs special teams (EPW search, aid and litter, demo) to accomplish their assigned task once the assault element has established its LOA. Once the kill zone has been cleared collect and secure all EPWs and move them out of the kill zone before searching bodies. Establish a location for EPWs and enemy wounded who will not be taken out that provides them cover, yet allows them to be found easily by their units.
b. (2) Search from one side to the other and mark bodies that have been searched to ensure the area is thoroughly covered. Search all dead enemy personnel using two-man search techniques. [As the search team approaches a dead enemy soldier, one man guards while the other man searches. First, he kicks the enemy weapon away. Second, he rolls the body over (if on the stomach) by lying on top and when given the go ahead by the guard (who is positioned at the enemy's head), the searcher rolls the body over on him. This is done for protection in case the enemy soldier has a grenade with the pin pulled underneath him. The searchers then conduct a systematic search of the dead soldier from head to toe removing all papers and anything new (different type rank, shoulder boards, different unit patch, pistol, weapon, or NVD). They note if the enemy has a fresh or shabby haircut and the condition of his uniform and boots. They take note of the radio frequency, SOI, and maps. Once the body has been thoroughly searched, the search team will continue in this manner until all enemy personnel in and near the kill zone have been searched.]
c. (3) Identify, collect, and prepare all equipment to be carried back or destroyed.
d. (4) The demolition team prepares dual-primed explosives (C4 with two M60 fuse lighters and time fuse) or incendiary grenades and awaits the signal to initiate. This is normally the last action performed before the unit departs the objective and may signal the security elements to return to the ORP. (5) Evacuate and treat friendly wounded first, then enemy wounded, time permitting.

461. What occurs if a flank security team makes contact?
a. It fights as long as possible without becoming decisively engaged. It uses a prearranged signal to let the platoon leader know it is breaking contact. The platoon leader may direct a portion of the support element to assist the security team in breaking contact.

462. How does the platoon leader direct the unit's withdrawal from the ambush site?
a. • Elements normally withdraw in the reverse order that they established their positions.
b. • The elements may return to the RP or directly to the ORP, depending on the distance between elements.
c. • The security element of the ORP must be alert to assist the platoon's return to the ORP. It maintains security for the ORP while the rest of the platoon prepares to leave.
d. The PL and PSG direct actions at the ORP, to include accountability of personnel and equipment and recovery of rucksacks and other equipment left at the ORP during the ambush. The platoon leader disseminates information, or moves the

platoon to a safe location (no less than one kilometer or one terrain feature away from the objective) and disseminates information.

463. What actions are taken on the objective during a hasty ambush?
   a. (a) Using visual signals, any soldier alerts the unit that an enemy force is in sight. The soldier continues to monitor the location and activities of the enemy force until his team or squad leader relieves him, and gives the enemy location and direction of movement.
   b. (b) The platoon or squad halts and remains motionless.
   c. (c) The PL gives the signal to conduct a hasty ambush, taking care not to alert the enemy of the patrol's presence. (d) The leader determines the best nearby location for a hasty ambush. He uses arm-and-hand signals to direct the unit members to covered and concealed positions.
   d. (e) The leader designates the location and extent of the kill zone.
   e. (f) Teams and squads move silently to covered and concealed positions, ensuring positions are undetected and have good observation and fields of fire into the kill zone.
   f. (g) Security elements move out to cover each flank and the rear of the unit. The leader directs the security elements to move a given distance, set up, and rejoin the unit on order or, after the ambush (the sound of firing ceases). At squad level, the two outside buddy teams normally provide flank security as well as fires into the kill zone. At platoon level, fire teams make up the security elements.
   g. (h) The PL assigns sectors of fire and issues any other commands necessary (control measures, etc.).
   h. (i) The PL initiates the ambush, using the greatest casualty-producing weapon available, when the largest percentage of enemy is in the kill zone.
   i. (1) Controls the rate and distribution of fire.
   j. (2) Employs indirect fire to support the ambush.
   k. (3) Orders cease-fire.
   l. (h) The PL designates personnel to conduct a hasty search of enemy personnel and process enemy prisoners and equipment.
   m. (i) The PL orders the platoon to withdraw from the ambush site along a covered and concealed route.
   n. (j) The PL gains accountability, reorganizes as necessary, disseminates information, reports the situation, and continues the mission as directed.

464. What actions are taken on the objective during a raid?
   a. (a) The patrol moves to and occupies the ORP IAW the patrol SOP. The patrol prepares for the leader's recon.
   b. (b) The PL, squad leaders, and selected personnel conduct a leader's recon. (1) PL leaves a contingency plan with the PSG.
   c. (2) PL establishes the RP, pinpoints the objective, observes the objective, and verifies and updates intelligence information.
   d. (3) Leader's recon verifies location of and routes to security, support, and
   e. (4) assault positions.
   f. (5) Leader's recon conducts the recon without compromising the patrol.

g. (6) Leader's recon normally recons support first, then assault.
h. (7) PL leaves a surveillance team to observe the objective.
i. (8) If the security teams were brought forward on the leader's reconnaissance, the security leader can begin moving security into position while the platoon leader and the remainder of the leaders reconnaissance party move back to the ORP

465. How do security elements occupy designated positions?
a. Moving undetected into positions that provide early warning and can seal off the objective from outside support or reinforcement.

466. How do support elements occupy their designated positions?
a. The support element leader moves the support element to designated positions.
b. The support element leader ensures his element can place well-aimed fire on the objective

467. How does the assault element occupy their designated position?
a. The PL moves with the assault element into the assault position. The assault position is normally the last covered and concealed position before reaching the objective. As it passes through the assault position the platoon deploys into its assault formation; that is, its squads and fire teams deploy to place the bulk of their firepower to the front as they assault the objective. (1) Makes contact with the surveillance team to confirm any enemy activity on the objective. (2) Ensures that the assault position is close enough for immediate assault if the assault element is detected early. (3) Moves into position undetected, and establish local security and fire control measures.

468. What do element leader do when their elements are ready in position?
a. Element leaders inform the PL when their elements are in position and ready. (h) The PL directs the support element to fire. (i) Upon gaining fire superiority, the PL directs the assault element to move towards the objective. (1) Assault element holds fire until engaged, or until ready to penetrate the objective. (2) PL signals the support element to lift or shift fires.The support element lifts or shifts fires as directed, shifting fire to the flanks of targets or areas as directed in the FRAGO

469. How does the assault element secure the objective?
a. The assault element attacks and secures the objective. The assault element may be required to breech a wire obstacle. As the platoon or its assault element moves onto the objective, it must increase the volume and accuracy of fires. 5-23 Squad leaders assign specific targets or objectives for their fire teams. Only when these direct fires keep the enemy suppressed can the rest of the unit maneuver. As the assault element gets closer to the enemy, there is more emphasis on suppression and less on maneuver. Ultimately, all but one fire team may be suppressing to allow that one fire team to break into the enemy position. Throughout the assault, soldiers use proper individual movement techniques, and fire teams retain their basic shallow wedge formation. The platoon does not get "on-line" to sweep across the objective.
b. (1) Assault element assaults all the way through the objective to the designated LOA.

c. (2) Assault element leaders establish local security along the LOA, and consolidate and reorganize as necessary, providing ACE reports to the PL and PSG. The platoon establishes security, mans key weapons, provides first aid and prepares wounded soldiers for MEDEVAC, redistributes ammunition and supplies, relocates selected weapons to alternate positions if leaders believe that the enemy may have pinpointed them during the attack, adjusts other positions to maintain mutual support and squad and team leader provide ammunition, casualty, and equipment (ACE) reports to the platoon leader. The PL/PSG reorganize the patrol based on the contact.
d. (a) On order, special teams accomplish all assigned tasks under the supervision of the PL, who positions himself where required to maintain control of the patrol.
e. (b) Special Team Leaders report to PL when assigned tasks are complete.

470. What occurs once the security element returns?
a. Once the security element returns, the platoon will move out of the objective area as soon as possible, normally within 2 - 3 minutes.
b. (1) Prior to withdrawal, demo team activates demo devices and charges.
c. (2) Support element or designated personnel within the assault element maintain local security during withdrawal.
d. (3) Leaders report updated accountability and status (ACE report) to the PL and PSG.

471. How do squads withdraw from the objective?
a. Squads withdraw from the objective in the order designated in the FRAGO to the ORP
b. 1) Account for personnel and equipment.
c. (2) Disseminate information.
d. (3) Redistribute ammunition and equipment as required.
e. (m) The PL reports mission accomplishment to higher and continues the mission.
f. (1) Reports raid assessment to higher.
g. (2) Informs higher of any IR/PIR gathered.

472. What must be done during passage of lines?
a. Movement in and around forward units must be controlled, coordinated, and kept to a minimum to preclude the possibility of being engaged by friendly forces and /or activating their reconnaissance, surveillance, and target acquisition devices. Additionally, the forward unit positions are considered danger areas and it must be assumed that they are under enemy surveillance at all times. The unit moves all personnel and equipment through the stationary unit NLT the time specified in the order. The enemy surprises neither unit main body during passage of lines.

473. What are Planning Considerations for the passage of lines?
a. • Conduct the passage as quickly as possible.
b. • Avoid masking the fires of the forward unit.
c. • Coordinate early during the planning process and maintain coordination and liaison during execution.
d. • Plan for likely contingencies.
e. • When possible, bypass the stationary unit.

f. • When possible, avoid passing through a unit in contact.

474. What are coordination measures for the passage of lines?
   a. Identify both units.
   b. • Provide the size of both units.
   c. • Provide the times of departure and return.
   d. • Provide the departing unit's AO (but not specific objectives or missions).
   e. • Plan for exchange of intelligence.
   f. • Plan for recon of the stationary unit's position.
   g. • Plan for exchange of tactical plans.
   h. • Plan for exchange of communication information.
   i. • Plan for near and far recognition signals.
   j. • Plan for guides and traffic control measures.
   k. • Plan for security measures during the passage.
   l. • Plan specific control measures for the passage (contact points, passage lanes and points, release points, assembly areas, and rally points).
   m. • Coordinate fire support responsibilities and fire plans.
   n. • Determine transfer of responsibility or action on enemy contact during passage.
   o. • Coordinate any CSS.
   p. • Coordinate contingency plans for both units.

475. The PL should recon and locate what things before the passage of lines if time permits?
   a. • Passage lanes and passage points.
   b. • Obstacles and safety lanes.
   c. • Release Points.
   d. • Assembly Areas.
   e. • Contact points, start points, and routes.
   f. • Positions of the stationary force.
   g. • CS and CSS elements.
   h. • Enemy positions in the AO.

476. What is the method of execution for the passage of lines?
   a. (a) The patrol moves at the specified time to a covered/concealed position near the contact point.
   b. (b) Link up with stationary unit guides that lead the patrol from the contact point through the passage lanes and passage points to the release point (RP).
   c. (c) Confirm or update the plan with the unit guide, and effect final coordination with the stationary unit commander.
   d. (d) The guide leads the patrol to the Passage Point (PP). Enroute to the PP, the guide designates the Initial Rally Point (IRP) using the appropriate hand and arm signal, and all personnel ensure they know its location. This can easily be accomplished by passing by, moving through, or actually occupying.
   e. (e) Patrol clears forward of the RP to the first covered and concealed position using security elements.
   f. (f) Patrol moves forward to the RP once the area is cleared.

g. (g) PSG counts the patrol through the RP with the unit guide, and makes the following final coordination:
h. • Confirms the number of personnel in the patrol.
i. • Confirms the time the guide will wait at the RP.
j. Confirms the running password.
k. (h) The patrol ensures continuous movement through the RP, and conducts a security halt to orient to the sights, sounds, and smells of the battlefield only once it has moved beyond the stationary unit FPF.

477. What is the method of Execution for Rearward Passage?
a. (a) The patrol occupies the reentry rally point.
b. (b) PL contacts the forward unit by radio and tells them that the platoon is ready to reenter.
c. (c) During good visibility the moving element has 2 chances at finding the break in the wire, during limited visibility they only have one chance.
d. (d) Upon confirmation of reentry with the stationary unit, the PL and a security team move to the contact point.
e. (1) The security team establishes contact with the guide using far and near recognition signals.
f. (2) Upon link-up with the guide, the security team leads the platoon forward to the passage point.
g. (e) The PSG and guide count each man through the passage point, and the PSG identifies each man.
h. (f) The patrol follows the guide without stopping to an assembly area to the rear of the stationary unit.
i. (g) The PL reports to the CP of the stationary unit and provides tactical information concerning the commander's area of responsibility.
j. (h) The PL rejoins the patrol and moves to the location designated in the order.

478. What are Actions taken on Enemy Contact during Forward Passage?
a. (1) If contact is made while the squad/platoon is at the security halt location and the squad/platoon leader is at the FFU's command post, the PSG will take command of the patrol and take guidance from the guide.
b. (2) If contact is made while the patrol is moving toward the PP, the patrol will occupy the IRP as a security perimeter, call higher for orders, and stay in the IRP unless a representative from the friendly unit moves the squad/platoon.
c. (3) If contact is made while the squad/platoon is the passage lane, they will turn around and move back through the PP and occupy the IRP. They will inform higher of the situation and await orders.
d. (4) If the squad/platoon gets outside the PP but not yet gone beyond the friendly forward unit's FPF and contact is made, the squad leader will issue verbal instructions as to whether to go forward or back to the guide. If the squad/platoon goes back, they will use the running password to enter the PP and occupy the IRP and inform higher. Otherwise, the squad/platoon leader will simply attempt to break contact using the appropriate battle drill and then continue on the mission.

e. (5) If the squad/platoon is already outside the FPF and makes contact, they will use the appropriate battle drill to react to or break contact.
f. The units link up at the time and place specified in the order. The enemy does not surprise the main bodies. The link-up units establish a consolidated chain of command. The leader identifies a tentative link-up site by map reconnaissance or higher headquarters designates a link-up site.

479. The link-up site should have what characteristics?
a. (a) Easy to recognize.
b. (b) Provides cover and concealment.
c. (c) Has no tactical value to the enemy.
d. (d) Away from natural lines of drift.
e. (e) Defendable.
f. (f) Provides multiple access and escape routes.

480. What actions does the stationary unit take?
a. (1) Occupies the link-up rally point NLT the time specified in the order.
b. (2) Establishes all-around security, establishes commo, and prepares to accept the moving unit.
c. (3) The security team clears the immediate area around the link-up point. It then marks the link-up point with the coordinated recognition signal. The unit moves to a covered and concealed position and observes the linkup point and immediate area around it.

481. What actions does the moving unit take?
a. (1) If using radio communications, the unit reports its location using phase lines, checkpoints, or other control measures.
b. (2) Halts at a safe distance from the link-up point in a covered and concealed position (the link-up rally point).
c. The PL and a contact team prepare to make physical contact with the stationary unit.
(1) Issue a contingency plan to the PSG.
d. (2) Maintain commo with the platoon; verify near and far recognition signals for link-up (Good Visibility and Limited Visibility).
e. (3) Exchange far and near recognition signals with the link-up unit; conduct final coordination with the link-up unit.
f. The stationary unit guides the patrol from its link-up rally point to the stationary unit link-up rally point.
g. (1) Link-up is complete by the time specified in the order.
h. (2) The main body of the stationary unit is alerted before the moving unit is brought forward.

482. Coordination Checklist. The PL coordinates or obtains the following information from the unit that his patrol will link-up with:
a. (a) Exchange frequencies, call signs, codes, and other communication information.
b. (b) Verify near and far recognition signals.
c. (c) Exchange fire coordination measures.

d. (d) Determine command relationship with the link-up unit; plan for consolidation of chain of command.
e. (e) Plan actions following link-up.
f. (f) Exchange control measures (contact points, phase lines, contact points, and others as appropriate)

483. Immediately after the platoon or squad returns, personnel from higher headquarters conduct a thorough debrief. This may include all members of the platoon or the leaders, RTO's, and any attached personnel. Normally the debriefing is oral. Sometimes a written report is required. What information should be on this written report?
a. • Size and composition of the unit conducting the patrol.
b. • Mission of the platoon (type of patrol, location, and purpose).
c. • Departure and return times.
d. • Routes. Use checkpoints, grid coordinates for each leg or include an overlay.
e. • Detailed description of terrain and enemy positions that were identified.
f. • Results of any contact with the enemy.
g. • Unit status at the conclusion of the patrol mission, including the disposition of dead or wounded soldiers.
h. • Conclusions or recommendations.

484. What actions are taken during occupation of the ORP?
a. (a) The patrol halts beyond sight and sound of the tentative ORP (200-400m in good visibility, 100-200m in limited visibility).
b. (b) The patrol establishes a security halt IAW the unit SOP.
c. (c) After issuing a contingency plan to the PSG, the PL moves forward with a recon element to conduct a leader's recon of the ORP.
d. (d) For a squad-sized patrol, the PL moves forward with a compass man and one member of each fire team to confirm the ORP.
e. (1) After physically clearing the ORP location, the PL leaves two men at the 6 o'clock position facing in opposite directions.
f. (2) The PL issues a contingency plan and returns with the compass man to guide the patrol forward.
g. (3) The PL guides the patrol forward into the ORP, with one team occupying from 3 o'clock through 12 o'clock to 9 o'clock, and the other occupying from 9 o'clock through 6 o'clock to 3 o'clock.
h. (a) For a platoon-sized patrol, the PL follows the same sequence, taking one ammo bearer or assistant gunner from each gun team forward and positioning them at 10, 2, and 6 o'clock.
i. (1) The first squad in the order of march is the base squad, occupying from 10 to 2 o'clock.
j. (2) The trail squads occupy from 2 to 6 o'clock and 6 to 10 o'clock respectively.
k. (3) The patrol headquarters element occupies the center of the triangle.

485. What actions are taken in the ORP?
a. The unit prepares for the mission in the ORP. During the leader's recon of the objective, once the objective is pinpointed, the PSG will generally line up rucks IAW unit SOP in the center of the ORP.

486. What is a patrol base?
    a. A patrol base is a security perimeter that is set up when a squad or platoon conducting a patrol halts for an extended period. Patrol bases should not be occupied for more than a 24 hour period (except in emergency). A patrol never uses the same patrol base twice.
487. Why are patrol bases typically used?
    a. • To avoid detection by eliminating movement.
    b. • To hide a unit during a long detailed reconnaissance.
    c. • To perform maintenance on weapons, equipment, eat and rest.
    d. • To plan and issue orders.
    e. • To reorganize after infiltrating on an enemy area.
    f. • To establish a base from which to execute several consecutive or concurrent operations.
488. How are PB sites selected?
    a. The leader selects the tentative site from a map or by aerial reconnaissance. The site's suitability must be confirmed and secured before the unit moves into it. Plans to establish a patrol base must include selecting an alternate patrol base site. The alternate site is used if the first site is unsuitable or if the patrol must unexpectedly evacuate the first patrol base.
489. Security Measures. Security measures involve what criteria and planning considerations?
    a. • Select Terrain the enemy would probably consider of little tactical value.
    b. • Select Terrain that is off main lines of drift.
    c. • Select difficult terrain that would impede foot movement such as an area of dense vegetation, preferably bushes and trees that spread close to the ground.
    d. • Select Terrain near a source of water.
    e. • Select Terrain that can be defended for a short period of time and that offers good cover and concealment.
    f. • Avoid known or suspected enemy positions.
    g. • Avoid Built-up areas.
    h. • Avoid Ridges and hilltops, except as needed for maintaining communications.
    i. • Avoid Small valleys.
    j. • Avoid Roads and trails.
490. What does the PL plan for in the PB?
    a. • Observation posts and communication with observation posts.
    b. • Patrol or platoon fire plan.
    c. • Alert Plan.
    d. • Withdrawal plan from the patrol base to include withdrawal routes and a rally point, rendezvous point, or alternate patrol base.
    e. • A security system to make sure that specific soldiers are awake at all times.
    f. • Enforcement of camouflage, noise, and light discipline.
    g. • The conduct of required activities with minimum movement and noise.
    h. • Priorities of Work.
491. How is a PB reconned and occupied?

a. A PB is reconned and occupied in the same manner as an ORP, with the exception that the platoon will typically plan to enter at a 90 degree turn (this is METT-TC dependent; if there is nothing to be gained by this step, the patrol does not do it). The PL leaves a two-man OP at the turn, and the patrol covers any tracks from the turn to the PB.
b. The platoon moves into the PB. Squad-sized patrols will generally occupy a cigar-shaped perimeter; platoon-sized patrols will generally occupy a triangle-shaped perimeter. The PL and another designated leader start at 6 o'clock and move in a clockwise manner, inspecting and adjusting the perimeter as necessary. Each R&S team departs at the left flank of its squad, moves a prescribed distance and direction, and reenters at the right flank of its own squad. (a) Squad-sized patrols do not normally send out an R&S team at night. (b) R&S teams will prepare a sketch of the area to the squad front if possible. (c) The patrol remains at 100 % alert during this recon. (d) If the PL feels the patrol was tracked or followed, he may elect to wait in silence at 100 % alert before sending out R&S teams. (e) The R&S teams may use methods such as the "I", the "Box", or the T". Regardless of the method chosen the R&S team must be able to provide the PL with the same information.

492. What is the purpose of a passive patrol base?
a. (1) The purpose of a passive patrol base is for the rest of a squad or smaller size element.
b. (2) Unit moves as a whole and occupies in force.
c. (3) Squad leader ensures that the unit moves in at a 90-degree angle to the order of movement.
d. (4) A claymore mine is emplaced on route entering patrol base.
e. (5) Alpha and Bravo teams sit back to back facing outward, ensuring that atleast one individual per team is alert and providing security.

493. What security measures are taken in the PB?
a. Security (continuous).
b. • Prepare to utilize all passive and active measures to cover 100% of the perimeter 100% of the time, regardless of the percentage of weapons used to cover that 100% of the terrain.
c. • Readjust after R&S teams return, or based on current priority of work (such as weapons maintenance).
d. • Employ all elements, weapons, elements and personnel to meet conditions of the terrain, enemy or situation.
e. • Assign sectors of fire to all personnel and weapons. Develop squad sector sketches and platoon fire plan.
f. • Confirm location of fighting positions for cover, concealment, and observation and fields of fire. SLs supervise placement of aiming stakes and claymores.
g. • Only use one point of entry and exit, and count personnel in and out. Everyone is challenged IAW the unit SOP.
h. • Hasty fighting positions are prepared at least 18 inches deep (at the front), and sloping gently from front to rear, with a grenade sump if possible

494. What is the PB withdrawal plan?
    a. The PL designates the signal for withdrawal, order of withdrawal, and the platoon rendezvous point and/or alternate patrol base.
495. What role does communication play in the PB?
    a. Commo must be maintained with higher headquarters, OP's, and within the unit. May be rotated between the patrol's RTOs to allow accomplishment of continuous radio monitoring, radio maintenance, act as runners for PL, or conduct other priorities of work
496. How does the PL use the PB?
    a. The PL uses the patrol base to plan, issue orders, rehearse, inspect, and prepare for future missions
497. What does the PL ensure regarding weapons and equipment in the PB?
    a. The PL ensures that machine guns, weapon systems, commo equipment, and night vision devices (as well as other equipment) is maintained. These items are not broken down at the same time for maintenance (NMT 25 % at one time), and weapons are not disassembled at night. If one machine gun is down, then security for all remaining systems is raised.
498. How is Water Re-Supply conducted in the PB?
    a. The PSG organizes watering parties as necessary. The watering party carries canteens in an empty rucksack or duffel bag, and must have commo and a contingency plan prior to departure
499. How is the mess plan structured in the PB?
    a. Mess plan. At a minimum, security and weapons maintenance areperformed prior to mess. No more than half of the platoon typically eats at one time, and men will typically eat 1-3 M behind their fighting positions.
500. What else is planned in the PB?
    a. (a) Rest/sleep plan management. The patrol conducts rest as necessary to prepare for future operations.
    b. (b) Alert Plan and Stand-to. The PL states the alert posture and the stand-to time. He sets up the plan to ensure all positions are checked periodically, OP's are relieved periodically and that at least one leader is always alert. 5-34 The patrol typically conducts stand-to at a time specified by unit SOP (i.e., 30 minutes prior to and after BMNT or EENT).
    c. (c) Re-supply. Distribute or cross-load ammunition, meals, equipment, etc.
    d. (d) Sanitation and Personal Hygiene. The PSG and medic ensure a slit trench is prepared and marked, and that squads designate urine areas. All soldiers will shave, brush teeth, wash face, hands, armpits, groin, and feet, and darken (brush shine) boots daily. The patrol will not leave trash behind.
501. What is movement to contact?
    a. The movement to contact (MTC) is one of the five types of offensive operations.
    b. A MTC gains or regains contact with the enemy. Once contact is made, the unit develops the situation. Normally a platoon conducts a MTC as part of a larger force. There are two techniques of conducting a movement to contact: Approach march and search & attack

502. When is search and attack utilized?
    a. This technique is utilized when the enemy is dispersed, is expected to avoid contact, disengage or withdraw, or you have to deny his movement in an area. The search and attack technique involves the use of multiple platoons, squads, and fire teams coordinating their actions to make contact with the enemy. Platoons typically attempt to find the enemy and then fix and finish him. They combine patrolling techniques with the requirement to conduct hasty or deliberate attacks once the enemy has been found.
503. What are patrol base planning considerations?
    a. The factors of METT-TC.
    b. • The requirement for decentralized execution.
    c. Patrol Base
    d. •Machine Guns positioned at 2, 6, and 10 o'clock to cover the front of the squad to their left
    e. • Slit Trench and urine holes designated
    f. • Hasty fighting Positions (18" Deep)
    g. • PL establishes priorities of work IAW METT-TC
    h. 10 o'clock 6 o'clock 2 o'clock
504. HQs Patrol Base
    a. •Size dictated by METT-TC
    b. • Occupied same as ORP
    c. •OP initially positioned along route from security halt
    d. • R&S Teams clear to occupation 1st Squad 2nd 3 Squad rd Squad
    e. • The requirement for mutual support.
    f. • The length of operations.
    g. • Minimize soldier's load to facilitate stealth and speed.
    h. • Resupply and MEDEVAC.
    i. • Positioning key leaders and equipment.
    j. • Employment of key weapons.
    k. • Requirement for patrol bases.
    l. • Concept for entering the zone of action.
    m. • The concept for link-ups while in contact
505. What is the purpose of the approach march?
    a. The concept of the approach march is to make contact with the smallest element, allowing the commander the flexibility of destroying or bypassing the enemy. A platoon uses the approach march method as part of a larger unit. It can be tasked as the advance guard, move as part of the main body, or provide flank or rear security for the company or battalion. They may also receive on-order missions as part of the main body
506. What fundamentals are common to all movements to contact?
    a. (1) Make enemy contact with smallest element possible.
    b. (2) Rapidly develop combat power upon enemy contact.
    c. (3) Provide all-round security for the unit.
    d. (4) Support higher unit's concept.

e. (5) Reports all information rapidly and accurately and strives to gain and maintain contact with the enemy.
f. (6) Requires decentralized execution.
g. (7) The following issues should be considered heavily for MTC operations:
h. (a) Factors of METT-TC.
i. (b) Reduced soldier's load.

507. When does the platoon move to contact?
a. The platoon moves NLT the time specified in the order. The platoon makes contact with the smallest element possible, and the main body is not surprised by the enemy. Once the platoon makes contact, it maintains contact. The platoon destroys squad and smaller-sized elements, and fixes elements larger than a squad.

508. What are other considerations when the platoon begins movement to contact?
a. The platoon maintains sufficient fighting force capable of conducting further combat operations. Reports of enemy locations and contact are forwarded. If not detected by the enemy, the PL initiates a hasty attack. The platoon sustains no casualties from friendly fire. The platoon is prepared to initiate further movement within 25 minutes of contact, and all personnel and equipment are accounted for.

509. What are the characteristics of a battle drill?
a. • They require minimal leader orders to accomplish and are standard throughout the Army.
b. • Sequential actions are vital to success in combat or critical to preserving life.
c. • They apply to platoon or smaller units.
d. • They are trained responses to enemy actions or leader's orders.
e. • They represent mental steps followed for offensive and defensive actions in training and combat.

510. What impact the unit’s ability to accomplish its mission?
a. A unit's ability to accomplish its mission often depends on soldiers and leaders to execute key actions quickly. All soldiers and their leaders must know their immediate reaction to enemy contact as well as follow-up actions. Drills are limited to situations requiring instantaneous response; therefore, soldiers must execute drills instinctively. This results from continual practice.

511. How do battle drills aid small unit capabilities?
a. Drills provide small units with standard procedures essential for building strength and aggressiveness.
b. • They identify key actions that leaders and soldiers must perform quickly.
c. • They provide for a smooth transition from one activity to another; for example, from movement to offensive action to defensive action.
d. • They provide standardized actions that link soldier and collective tasks at platoon level and below. (Soldiers perform individual tasks to CTT or SDT standard.)
e. • They require the full understanding of each individual and leader, and continual practice.

512. What occurs when the platoon initiates contact?

a. The platoon leader plans when and how his base-of fire element initiates contact with the enemy to establish a base of fire. This element must be in position and briefed before it initiates contact. If the platoon has not been detected, STEPS 1 and 2 consist of positioning the support element and identifying the enemy's positions

513. What actions are taken if the enemy initiates contact?
   a. (1) The squad in contact reacts to contact. It attempts to achieve suppressive fires with one fire team and maneuvers the other team to attack the enemy in the flank. The squad leader notifies the platoon leader of his action.
   b. (2) The platoon leader, his RTO, the platoon FO, the squad leader of the next squad, and one machine gun team move forward to link up with the squad leader of the squad in contact.
   c. (3) The squad leader of the trail squad moves to the front of his lead fire team.
   d. (4) The platoon sergeant moves forward with the second machine gun team and links up with the platoon leader. If directed, he assumes control of the base-offire element and positions the machine guns to add suppressive fires against the enemy.
   e. (5) The platoon leader assesses the situation. He follows the success of the squad's flank attack by leading the trail squads along the covered and concealed route taken by the assaulting fire team of the squad in contact.
   f. (6) If the squad in contact cannot achieve suppressive fire, the squad leader reports to the platoon leader.
   g. (a) The squad in contact establishes a base of fire. The squad leader deploys his squad to provide effective, sustained fires on the enemy position. The squad leader reports his final position to the platoon leader.
   h. (b) The remaining squads (not in contact) take up covered and concealed positions in place and observe to the flanks and rear of the platoon.
   i. (c) The platoon leader moves forward with his RATELO, the platoon FO, the squad leader of the nearest squad, and one machine gun team.

514. How is enemy location communicated to leadership?
   a. a. The squad leader of the squad in contact reports the enemy size and location, and any other information to the platoon leader. The platoon leader completes the squad leader's assessment of the situation.
   b. b. The squad continues to engage the enemy's position.
   c. c. The platoon sergeant moves forward with the second machine gun team and links up with the platoon leader.
   d. The platoon leader determines if the squad in contact can gain suppressive fire against the enemy based on the volume and accuracy of the enemy's return fire.

515. What actions are taken if the squad in contact can suppress the enemy element?
   a. (1) If the answer is YES, he directs the squad (with one or both machine guns) to continue suppressing the enemy:
   b. (a) The squad in contact destroys or suppresses enemy weapons that are firing most effectively against it (normally crew-served weapons).

c. (b) The squad in contact places screening smoke (M203) to prevent the enemy from seeing the maneuver element.

516. What actions are taken if the squad in contact cannot suppress the enemy element?
   a. (2) If the answer is NO, the platoon leader deploys another squad and the second machine gun team to suppress the enemy position. (The platoon leader may direct the platoon sergeant to position this squad and one or both machine gun teams in a better support-by-fire position)
   b. The platoon leader again determines if the platoon can gain suppressive fires against the enemy. If the answer is YES, he continues to suppress the enemy with the two squads and two machine guns. (a) The platoon sergeant assumes control of the base-of-fire element (squad in contact, the machine gun teams, and any other squads designated by the platoon leader). (b) The machine gun team takes up a covered and concealed position and suppresses the enemy position. (c) The platoon FO calls for and adjusts fires based on the platoon leader's directions. (The platoon leader does not wait for indirect fires before continuing with his actions) (2) If the answer is still NO, the platoon leader deploys the last squad to provide flank and rear security and to guide the rest of the company forward as necessary, and reports the situation to the company commander. Normally the platoon will become the base-of-fire element for the company and may deploy the last squad to add suppressive fires. The platoon continues to suppress or fix the enemy with direct and indirect fire, and responds to orders from the company commander.

517. If the squad(s) in contact together with the machine gun(s) can suppress the enemy, the platoon leader determines if the remaining squad(s) not in contact can maneuver. What assessment does the PL make at this point?
   a. • Location of enemy positions and obstacles.
   b. • Size of the enemy force engaging the squad. (The number of enemy automatic weapons, the presence of any vehicles, and the employment of indirect fires are indicators of enemy strength.)
   c. • Vulnerable flank.
   d. • Covered and concealed flanking route to the enemy position.

518. What actions are taken if the squads not in contact can maneuver on the enemy?
   a. If the answer is YES, the platoon leader maneuvers the squad(s) into the assault:
   b. (1) Once the platoon leader has ensured that the base-of-fire element is in position and providing suppressive fires, he leads the assaulting squad(s) to the assault position.
   c. (2) Once in position, the platoon leader gives the prearranged signal for the base-offire element to lift or shift direct fires to the opposite flank of the enemy position (The assault element MUST pickup and maintain effective fires throughout the 6-4 assault. Handover of responsibility for direct fires from the base-of-fire element to the assault element is critical.)
   d. (3) The platoon FO shifts indirect fires to isolate the enemy position.
   e. (4) The assaulting squad(s) fight through enemy positions using fire and maneuver. The platoon leader controls the movement of his squads. He assigns

specific objectives for each squad and designates the main effort or base maneuver element. (The base-of-fire element must be able to identify the near flank of the assaulting squad(s).)

519. What occurs during the assault of the enemy element?
    a. In the assault, the squad leader determines the way in which he will move the elements of his squad based on the volume and accuracy of enemy fire against his squad and the amount of cover afforded by the terrain. In all cases, each soldier uses individual movement techniques as appropriate.
    b. (a) The squad leader designates one fire team to support the movement of the other team by fires.
    c. (b) The squad leader designates a distance or direction for the team to move. He accompanies one of the fire teams.
    d. (c) Soldiers must maintain contact with team members and leaders.
    e. (d) Soldiers time their firing and reloading in order to sustain their rate of fire.
    f. (e) The moving fire team proceeds to the next covered position. Teams use the wedge formation when assaulting. Soldiers move in rushes or by crawling.
    g. (f) The squad leader directs the next team to move.
    h. (g) If necessary, the team leader directs soldiers to bound forward as individuals within buddy teams. Soldiers coordinate their movement and fires with within the buddy team. They maintain contact with their team leader.
    i. (h) Soldiers fire from covered positions. They select the next covered position before moving. They either rush forward (no more than 5 seconds), or use high or low crawl techniques based on terrain and enemy fires.

520. What occurs when the assaulting squad seizes the enemy position?
    a. Once the assaulting squad(s) has seized the enemy position, the platoon leader establishes local security. (The platoon must prepare to defeat an enemy counterattack. The platoon is most vulnerable at the conclusion of the assault)
    b. (1) The platoon leader signals for the base-of-fire element to move up into designated positions.
    c. (2) The platoon leader assigns sectors of fire for each squad.
    d. (3) The platoon leader positions key weapons to cover the most dangerous avenue(s) of approach.
    e. (4) The platoon sergeant begins coordination for ammunition resupply.
    f. (5) Soldiers take up hasty defensive positions.
    g. (6) The platoon leader and his FO develop a quick fire plan.
    h. (7) The squads place out OPs to warn of enemy counterattacks.

521. The platoon performs what tasks after it completes the consolidation of the objective?
    a. (a) Reestablish the chain of command.
    b. (b) Redistribute and resupply ammunition.
    c. (c) Man crew-served weapons first.
    d. (d) Redistribute critical equipment (radios, NBC, NVDs).
    e. (e) Treat casualties and evacuate wounded.
    f. (f) Fill vacancies in key positions.

g. (g) Search, silence, segregate, safeguard, and speed EPWs to collection points.
h. (h) Collect and report enemy information and materiel.

522. What do squad leaders provide to the PSG?
a. ammunition, casualty, and equipment (ACE) reports to the platoon leader.

523. What is the first step when contact is made with the enemy?
a. a. Soldiers receiving fire take up nearest positions that afford protection from enemy fire (cover) and observation (concealment). b. The fire team in contact immediately returns heavy volume of suppressive fire in the direction of the enemy. (1) Soldiers in the fire team in contact move to positions (bound or crawl) from which they can fire their weapons, position themselves to ensure that they have observation, fields of fire, cover, and concealment. They continue to fire and report known or suspected enemy positions to the fire team leader. (2) The team leader directs fires using tracers or standard fire commands. (3) The fire team not in contact takes covered and concealed positions and provides security to the flanks and rear of the squad. (4) The squad leader reports contact to the platoon leader and moves toward the fire team in contact.

524. What actions are taken to locate the enemy?
a. a. Using sight and sound, the fire team in contact acquires known or suspected enemy positions. b. The fire team in contact begins to place well-aimed fires on suspected enemy positions. c. The squad leader moves to a position where he can observe the enemy and assess the situation. 6-6 d. The squad leader requests, through the platoon leader, immediate suppression indirect fires (normally 60-mm mortars). e. The squad leader reports the enemy size, location, and any other information to the platoon leader. (As the platoon leader comes forward, he completes the squad leader's assessment of the situation.)

525. What actions are taken to suppress the enemy?
a. The squad leader determines if the fire team in contact can gain suppressive fire based on the volume and accuracy of the enemy fire. a. If the answer is YES, the fire team leader continues to suppress the enemy: (1) The fire team destroys or suppresses enemy crew-served weapons first. (2) The fire team places smoke (M203) on the enemy position to obscure it. (3) The fire team leader continues to control fires using tracers or standard fire commands. Fires must be well aimed and continue at a sustained rate with no lulls. (4) Buddy teams fire their weapons so that they are not reloading their weapons at the same time. b. If the answer is NO, the squad leader deploys the fire team not in contact to establish a support-by-fire position. He reports the situation to the platoon leader. Normally, the squad will become the base-of-fire element for the platoon. The squad continues to suppress the enemy and respond to orders from the platoon leader. (The platoon leader, his RATELO, the platoon FO, one machine gun team, and the squad leader of the next squad, as well as the platoon sergeant and the other machine gun team, are already moving forward IAW Battle Drill 1, Platoon Attack.)

526. What actions are taken to attack the enemy?

i. • If the fire team in contact can suppress the enemy, the squad leader determines if the fire team not in contact can maneuver. He makes the following assessment: • Location of enemy position(s) and obstacles.
ii. • Size of enemy force engaging the squad. (The number of enemy automatic weapons, the presence of any vehicles, and the employment of indirect fires are indicators of enemy strength.)
iii. • Vulnerable flank.
iv. • Covered and concealed flanking route to the enemy position.

527. What actions are taken if the fire team not in contact can maneuver on the enemy?
   a. If the answer is YES, the squad leader maneuvers the fire team in the assault:
   b. (1) The squad leader directs the fire team in contact to support the movement of the other fire team. He then leads or directs the assaulting fire team leader to maneuver his fire team along a route that places the fire team in a position to assault the enemy. (The assaulting fire team must pick up and maintain fire superiority throughout the assault. Handover of responsibility for direct fires from the supporting fire team to the assaulting fire team is critical.)
   c. (2) Once in position, the squad leader gives the prearranged signal for the supporting fire team to lift fires or shift fires to the opposite flank of the enemy position
   d. (3) The assaulting fire team fights through enemy positions using fire and movement. (The supporting fire team must be able to identify the near flank of the assaulting fire team.) (a) The team leader selects the route that allows him to reach his objective, while providing the best available cover and concealment for his team. The team leader then leads his team, from up front, in a shallow wedge throughout the attack. (b) Fire team members conduct individual movement techniques as individuals or buddy-teams, while maintaining their relative position in the assault formation. At the end of each move, soldiers take up covered and concealed positions and resume firing.

528. What actions are taken if the assaulting team cannot maneuver on the enemy?
   a. If the answer is NO or the assaulting fire team cannot continue to move, the squad leader deploys the assaulting fire team to add its fires against the enemy, reports to the platoon leader and requests instructions.The squad continues suppressing enemy positions and responds to the orders of the platoon leader.

529. What occurs once the fire team has seized the enemy position?
   a. Once the assaulting fire team has seized the enemy position, the squad leader establishes local security. (The squad leader must quickly prepare to defeat any enemy counterattack. At the conclusion of the assault, the squad is most vulnerable.)
   b. (1) The squad leader signals for the supporting fire team to move up into a designated position.
   c. (2) The squad leader assigns sectors of fire for both fire teams.
   d. (3) The squad leader positions key weapons.
   e. (4) All soldiers take up hasty defensive positions.

f. (5) The squad leader develops an initial fire support plan against an enemy counterattack. (As the platoon moves up, he hands the plan to the platoon leader for further development.)
g. (6) The squad leader posts an OP to warn of enemy activity.

530. The squad takes what actions after the enemy position is seized?
a. (1) Reestablish the chain of command.
b. (2) Redistribute and resupply ammunition.
c. (3) Man crew-served weapons first.
d. (4) Redistribute critical equipment (for example, radios, NBC, NVDs).
e. (5) Treat casualties and evacuate wounded.
f. (6) Fill vacancies in key positions.
g. (7) Search, silence, segregate, safeguard, and speed EPWs to collection points. =
h. (8) Collect and report enemy information and materiel. Team leaders provide ammunition, casualty, and equipment (ACE) reports to the squad leader.
i. d. The squad leader consolidates the ACE report and passes it to the platoon leader (or platoon sergeant).
j. e. The squad continues the mission after receiving instructions from the platoon leader. (The platoon follows the success of the squad's flanking attack with the remaining squads as part of the platoon attack.) The squad leader reports the situation to the platoon leader.

531. What are required actions for battle drill 2 (React to Contact)?
a. 1. Soldiers immediately take up the nearest covered positions and return fire in the direction of contact.
b. 2. Team/squad leaders locate and engage known or suspected enemy positions with well-aimed fire, and pass information to the squad/platoon leader.
c. 3. Fire team leaders control fire using standard fire commands (initial and supplemental) containing the following elements: • Alert. • Direction. • Description of target. • Range. • Method of fire (manipulation and rate of fire). • Command to commence firing.
d. 4. Soldiers maintain contact with the soldiers on their left and right.
e. 5. Soldiers maintain contact with their team leaders and report the location of enemy positions.
f. 6. Leaders check the status of their personnel.
g. 7. The team/squad leaders maintain contact with the squad/platoon leader.
h. 8. The squad/platoon leader— a. Moves up to the fire team/squad in contact and links up with its leader. (The platoon leader brings his RATELO, platoon FO, the squad leader of the nearest squad, and one machine gun team. The squad leader of the trail squad moves to the front of his lead fire team. The platoon sergeant also moves forward with the second machine gun team and links up with the platoon leader, ready to assume control of the base-of-fire element.) b. Determines whether or not his squad/platoon must move out of an engagement area. c. Determines whether or not he can gain and maintain suppressive fires with his element already in contact (based on the volume and accuracy of enemy

fires against the element in contact). d. Makes an assessment of the situation. He identifies: • The location of the enemy position and obstacles. • The size of the enemy force. (The number of enemy automatic weapons, the presence of any vehicles, and the employment of indirect fires are indicators of the enemy strength.) • Vulnerable flanks. • Covered and concealed flanking routes to the enemy position. e. Determines the next course of action (for example, fire and movement, assault, breach, knock out bunker, enter and clear a building or trench). 6-9 f. Reports the situation to the platoon leader/company commander and begins to maneuver. Figure 6-1. React to Contact g. Calls for and adjusts indirect fire (mortars or artillery). (Squad leaders relay requests through the platoon leader.)

i. 9. Team leaders lead their teams by example; for example, "Follow me, do as I do."

j. 10. Leaders relay all commands and signals from the platoon chain of command.

532. What are required actions during battle drill 3 (Break Contact)?

a. 1. The squad/platoon leader directs one fire-team/squad in contact to support the disengagement of the remainder of the unit.

b. 2. The squad/platoon leader orders a distance and direction, or a terrain feature, or last objective rally point for the movement of the first fire team/squad.

c. 3. The base of fire (fire team/squad) continues to suppress the enemy.

d. 4. The moving element uses fragmentation, concussion, and smoke grenades to mask its movement.

e. 5. The moving element takes up the designated position and engages the enemy position.

f. 6. The platoon leader directs the base-of-fire element to move to its next location. (Based on the terrain and the volume and accuracy of the enemy's fire, the moving fire team/squad may need to use fire and movement techniques.

g. 7. The squad/platoon continues to bound away from the enemy until (the squad/platoon must continue to suppress the enemy as it breaks contact): • It breaks contact. 6-10 • It passes through a higher level support-by-fire position. • Its fire teams/squads are in the assigned position to conduct the next mission.

h. 8. The leader should consider changing the direction of movement once contact is broken. This will reduce the ability of the enemy to place effective indirect fires on the unit.

i. 9. If the squad or platoon becomes disrupted, soldiers stay together and move to the last designated rally point.

j. 10. Squad/platoon leaders account for soldiers, report, reorganize as necessary and continue the mission.

533. BATTLE DRILL 4. REACT TO AMBUSH SITUATION:

a. What are required actions during battle drill 4 (React to Ambush)?

b. If the squad/platoon enters a kill zone and the enemy initiates an ambush with a casualty-producing device and a high volume of fire, the unit takes the following actions. In a near ambush (within hand-grenade range), soldiers receiving fire immediately return fire, take up covered positions, and throw fragmentation,

concussion, and smoke grenades. a. Immediately after the grenades detonate, soldiers in the kill zone assault through the ambush using fire and movement. b. Soldiers not in the kill zone immediately:

c. • Identify enemy positions.

d. • Initiate immediate suppressive fires against the enemy.

e. • Take up covered positions.

f. • Shift fires as the soldiers in the kill zone assault through the ambush.

g. 2. In a far ambush (beyond hand-grenade range), soldiers receiving fire immediately return fire, take up covered positions, and suppress the enemy by:

h. • Destroying or suppressing enemy crew-served weapons first.

i. • Obscuring the enemy position with smoke (M203).

j. • Sustaining suppressive fires.

k. a. Soldiers (teams/squads) not receiving fires move by a covered and concealed route to a vulnerable flank of the enemy position and assault using fire and movement techniques. b. Soldiers in the kill zone continue suppressive fires and shift fires as the assaulting team/squad fights through the enemy position.

l. 3. The platoon FO calls for and adjusts indirect fires as directed by the platoon leader. On order, he lifts fires or shifts them to isolate the enemy position, or to attack them with indirect fires as they retreat.

m. 4. The squad/platoon leader reports, reorganizes as necessary, and continues the mission.

534. BATTLE DRILL 5. KNOCK OUT BUNKERS

a. a. The squad/team in contact establishes a base of fire.If mounted, the squad dismounts, establishes local security, and adds suppressive fires against the enemy. The platoon leader, radio telephone operator, and platoon FO dismount, and if not with the lead section, moves forward with the other squad leader and linkup with the squad leader of the lead squad.
b. Weapons squad leader positions machine guns to reinforce rifle squad in contact.
c. Platoon sergeant moves to support-by-fire position and assumes control of the position's fires and repositions vehicles if necessary,to provide additional observation and base of fire. The weapons squad leader repositions another machine gun, as needed, based on METT-TC.
d. The squad in contact gains and maintains fire superiority by —

1. (1) Destroying or suppressing enemy crew-served weapons.
   (2) Continuing suppressive fires at the lowest possible level.
   (3) Suppressing the bunker and supporting positions.
   (4) The squad employs SLMs, as required.e. The platoon FO calls for and adjusts indirect fires as directed by the platoon leader, including the use of smoke.
2. f. Establishes security to rear and flanks of SBF position.

b. The unit reports:

i. a. Submits contact reports.
   b. Submits size, activity, location, unit, time, and equipment (SALUTE)

report to commander.
c. Submits SITREP, as needed.

c. Unit personnel evaluate and develop the situation:

i. a. The platoon leader, radio telephone operator, and platoon FO move forward to linkup with the squad leader of the squad in contact.
b. The platoon sergeant evaluates the situation by identifying the enemy's composition, disposition, and capabilities:

ii. (1) Identifies enemy disposition: number and location of enemy bunkers, level of mutual support and overlapping fires between positions, and connecting trenches and protective obstacles.
(2) Identifies enemy composition and strength: the number of enemy automatic weapons, the presence of vehicles, and employment of indirect fires are indicators of enemy strength.
(3) Identifies enemy capability: to defend, reinforce, attack, and withdraw.c. Platoon leader develops the situation by determining where he can move to a position of advantage. These include —

d. (1) A vulnerable flank or blind spot to at least one bunker.
(2) A covered and concealed flanking route to the flank of the bunker.

i. 4. Unit personnel develop a COA:

e. a. The platoon sergeant determines

i. (1) Which bunker poses the greatest threat .
(2) Where the adjoining bunkers are located.
(3) Requirement to breach protective obstacles.b. Platoon leader determines where support positions will be placed.
c. Platoon leader determines size and make up of assault squad.

f. Unit personnel execute COA:

i. a. Platoon leader directs the supporting element to suppress bunker :

ii. (1) Platoon sergeant repositions a squad, fire team, machine gun team, and mounted element to isolate the bunker and continue suppressive fires, as necessary.
(2) FO shifts fires, as needed.b. Platoon leader directs the assault squad to attack the bunker :

iii. (1) The assaulting squad, platoon leader, and radio -telephone operator move along the covered and concealed route to an assault position and do not mask the fires of the support-by-fire element.
(2) Soldiers constantly watch for other bunkers or enemy positions in support of bunkers.
(3) On the platoon leader’s signal, the supporting element shifts or ceases fire (direct fire and indirect fire).
(4) Upon reaching the last covered and concealed position —

iv. (a) Buddy team #1 (team leader and automatic rifleman) remain where they can cover buddy team #2 grenadier and rifleman .
(b) The squad leader positions himself where best to control the teams.

On the squad leader’s signal, the base-of-fire element lifts or shifts fires to the opposite side of the bunker from the assaulting fire team’s approach.(5) Buddy team #2 moves to a blind spot near the bunker.

v. (a) One Soldier takes up a covered position near the exit.
(b) The other Soldier cooks off a grenade (two seconds, maximum), announces, "FRAG OUT," and throws it through an aperture.
(c) After the grenade detonates, the Soldier covering the exit enters first and the team clears the bunker.(6) Buddy team #1 moves to join buddy team #2.

g. The team leader—

i. (a) Inspects the bunker.
(b) Marks the bunker according to unit SOP.
(c) Signals the squad leader that the bunker is clear.

h. The platoon leader Directs the supporting squad to move up and knock out the next bunker. OR directs the assaulting squad to continue and knock out the next bunker. Rotates squads, as necessary.

i. Unit leaders account for Soldiers, provide a SITREP to higher headquarters, consolidate and reorganize as necessary, and continue the mission.

535. BATTLE DRILL 7. ENTER/CLEAR A TRENCH

a. The platoon leader directs one squad to enter the trench and secure a foothold.

b. 2. The platoon leader designates the entry point of the trench line and the direction of movement once the platoon begins clearing.

c. 3. The platoon sergeant positions soldiers and machine guns to suppress the trench and isolate the entry point.

d. 4. The assaulting squad executes actions to enter the trench and establish a foothold. The squad leader directs one fire team to assault and one fire team to support by fire initially, then follow and support the assaulting fire team. He designates the entry point of the trench line. a. The squad leader and the assault fire team move to the last covered and concealed position short of the entry point. (1) The squad leader marks the entry point. (2) The base-of-fire element shifts direct fires away from the entry point and continues to suppress adjacent enemy positions or isolate the trench as required.

e. (3) The assault fire team leader and the automatic rifleman remain in a position short of the trench to add suppressive fires for the initial entry. (4) The two remaining soldiers of the assault fire team (rifleman and grenadier) continue toward the entry point. They move in rushes or by crawling.

f. (5) The squad leader positions himself where he can best control his teams. b. The first two soldiers (rifleman and grenadier) of the assault fire team move to the edge of the trench; parallel to the trench and on their backs; on the squad leader's command, cook-off grenades (two seconds maximum), shout FRAG OUT, and throw the grenades into the trench.

g. (1) After ensuring that both grenades detonate, the soldiers roll into the trench, landing on their feet, and back-to-back. They fire their weapons down the trench in opposite directions. Immediately, both soldiers move in opposite directions

down the trench, continuing to fire three-round bursts. Each soldier continues until he reaches the first corner or intersection. Both soldiers halt and take up positions to block any enemy movement toward the entry point.

h. (2) Upon detonation of the grenades, the assault fire team leader and the automatic rifleman immediately move to the entry point and enter the trench. The squad leader directs them to one of the secured corners or intersections to relieve the rifleman or grenadier who then rejoins his buddy team at the opposite end of the foothold.
i. c. The squad leader remains at the entry point and marks it.
j. d. The squad leader reports to the platoon leader that he has entered the trench and secured a foothold. The platoon follows the success of the seizure of the foothold with the remainder of the platoon as part of the platoon actions to clear a trench line.
k. e. The squad reorganizes as necessary. Leaders redistribute ammunition.
l. 5. The platoon leader directs one of the base-of-fire element squads to move into the trench and begin clearing it in the direction of movement from the foothold.
m. 6. The base-of-fire element repositions as necessary to continue suppressive fires.
n. 7. The platoon leader moves into the trench with the assaulting squad.
o. 8. The assaulting squad passes the squad that has secured the foothold and executes actions to take the lead and clear the trench.
p. a. The squad leader designates a lead fire team and a trail fire team.
q. b. The lead fire team and the squad leader move to the forward most secure corner or intersection. The squad leader tells the team securing that corner or intersection that his squad is ready to continue clearing the trench. The trail fire team follows by maintaining visual contact with the last soldier of the lead team.
r. The lead fire team passes the element securing the foothold.
s. (1) The lead soldier of the fire team moves abreast of the soldier securing the corner or intersection, taps him, and announces TAKING THE LEAD.
t. (2) The soldier securing the corner or intersection acknowledges that he is handing over the lead by shouting OKAY. He allows the fire team to pass him.
u. d. The lead fire team starts clearing in the direction of movement. They arrive at a corner or intersection.
v. (1) Allowing for cook-off (two seconds maximum) and shouting FRAG OUT, the second soldier prepares and throws a grenade around the corner.
w. (2) Upon detonation of the grenade, the lead soldier moves around the corner firing three round bursts and advancing as he fires. The entire fire team follows him to the next corner or intersection.
x. e. The squad leader:
    i. (1) Follows immediately behind the lead team.
    ii. (2) Ensures that the trailing fire team moves up and is ready to pass the lead at his direction.
    iii. (3) Rotates fire teams as necessary to keep his soldiers fresh and to maintain the momentum of the attack.

iv. (4) Requests indirect fires, if necessary, through the platoon leader.

y. At each corner or intersection, the lead fire team performs the same actions described above (paragraph d). g. If the lead soldier finds that he is nearly out of ammunition before reaching a corner or intersection, he announces AMMO.

z. (1) Immediately, the lead soldier stops and moves against one side of the trench, ready to let the rest of the team pass. He continues to aim his weapon down the trench in the direction of movement.

aa. (2) The next soldier ensures that he has a full magazine, moves up abreast of the lead soldier, taps him and announces TAKING THE LEAD. 6-17

bb. (3) The lead soldier acknowledges that he is handing over the lead by shouting OKAY, positions rotate, and the squad continues forward.

cc. h. The trailing fire team secures intersections and marks the route within the trench as the squad moves forward. The trailing fire team leader ensures that follow-on squads relieve his buddy teams to maintain security.

dd. i. The squad leader reports the progress of the clearing operation. (The base-of-fire element must be able to identify the location of the lead fire team in the trench at all times)

ee. 9. The platoon leader rotates squads to keep soldiers fresh and to maintain the momentum of the assault.

ff. 10. The platoon sergeant calls forward ammunition resupply and organizes teams to move it forward into the trench.

gg. 11. The base-of-fire element ensures that all friendly forces move into the trench ONLY through the designated entry point. (All movement must be made in the trench to avoid casualties by friendly fires)

hh. 12. The platoon leader reports to the company commander that the trench line is secured, or that he is no longer able to continue clearing.

536. BATTLE DRILL 8. CONDUCT INITIAL BREACH OF A MINED WIRE OBSTACLE

a. The platoon leader, his RATELO, platoon FO, and one machine gun team move forward to link up with the squad leader of the lead squad.

b. 2. The platoon leader determines that he can maneuver by identifying-

c. a. The obstacle and enemy positions covering it by fire.

d. b. The size of the enemy force engaging the squad. (The number of enemy automatic weapons, the presence of any vehicles, and the employment of indirect fires are indicators of enemy strength.)

e. c. A breach point.

f. d. A covered and concealed route to the breach point.

g. e. A support-by-fire position large enough for a squad reinforced with machine guns.

h. 3. The platoon leader directs one squad to support the movement of another squad(s) to the breach point. He indicates the support-by-fire position, the route to it, the enemy position to be suppressed, the breach point, and the route that the rest of the platoon will take to it. He also gives instructions for lifting and shifting fires.

i. 4. The platoon leader designates one squad as the breach squad, and the remaining squad, as the assault squad once the breach has been made. (The assault squad may add its fires to the base-of-fire element. Normally, it follows the covered and conceled route of the breach squad and assaults through immediately after the breach is made)
j. 5. The designated squad moves to and establishes a base of fire.
k. 6. The platoon sergeant moves forward to the base-of-fire element with the second machine gun team and assumes control of the element.
l. 7. On the platoon leader's signal, the base-of-fire element: a. Destroys or suppresses enemy crew-served weapons, first. b. Obscures the enemy position with smoke (M203). c. Sustains suppressive fires at the lowest possible level.
m. 8. The platoon leader designates the breach point and leads the breach and assault squads along the covered and concealed route to it.
n. 9. The platoon FO calls for and adjusts indirect fires as directed by the platoon leader.
o. 10. The breach squad executes actions to breach the obstacle. a. The squad leader directs one fire team to support the movement of the other fire team to the breach point. b. The squad leader identifies the breach point. c. The base-of-fire element continues to provide suppressive fires and isolates the breach point. d. The breaching fire team, with the squad leader, move to the breach point using the covered and concealed route.
p. (1) The squad leader and breaching fire team leader employ smoke grenades to obscure the breach point. The platoon base-of-fire element shifts direct fires away from the breach point and continue to suppress key enemy positions. The platoon FO lifts indirect fires or shifts them beyond the obstacle.
q. (2) The breaching fire team leader positions himself and the automatic rifleman on one flank of the breach point to provide close security.
r. (3) The grenadier and rifleman of the breaching fire team probe for mines, and cut the wire obstacle, marking their path as they proceed. (Bangalore is preferred, if available)
s. (4) Once the obstacle has been breached, the breaching fire team leader and the automatic rifleman move to the far side of the obstacle and take up covered and concealed positions with the rifleman and grenadier. The team leader signals to the squad leader when they are in position and ready to support. e. The squad leader signals the supporting fire team leader to move his fire team up and through the breach. He then moves through the obstacle and joins the breaching fire team, leaving the grenadier and rifleman of the supporting fire team on the near side of the breach to guide the rest of the platoon through. 6-21 f. Using the same covered and concealed route as the breaching fire team, the supporting fire team moves through the breach and takes up covered and concealed positions on the far side. g. The squad leader reports to the platoon leader and consolidates as needed.

t. 11. The platoon leader leads the assault squad through the breach in the obstacle and positions them beyond the breach to support the movement of the remainder of the platoon or assaults the enemy position covering the obstacle.
u. 12. The platoon leader reports the situation to the company commander and directs his base-of-fire element to move up and through the obstacle. The platoon leader leaves guides to guide the company through the breach point. 13. The company follows up the success of the platoon as it conducts the breach and continues the assault against the enemy positions.

537. Manpack Radio Assembly.
a. To assemble a manpack radio you must first check and install a battery
b. (1) Inspect the battery box for dirt or damage
c. (2) Stand RT on front panel guards
d. (3) Check battery life condition (you will be using the rechargeable BB-390 batteries)
e. (4) Place battery in box
f. (5) Close battery cover, and secure using latches
g. (6) Return radio to upright position
h. (7) If used battery was installed, enter the battery life condition into radio by performing the following
i. (8) Set FCTN to LD
j. (9) Press BAT; then CLR
k. (10) Enter number recorded on side of battery
l. (11) Press STO
m. (12) Set FCTN to SQ ON

538. Antenna
a. (1) Inspect whip antenna connector on antenna and on radio for damage
b. (2) Screw whip antenna into base
c. (3) Hand tighten
d. (4) Carefully mate antenna base with RT ANT connector
e. (5) Hand tighten
f. (6) Position antenna as needed by bending goose neck

539. Handset
a. (1) Inspect the handset for damage (2) Push handset on AUD/DATA and twist clockwise to lock in place

540. Field Pack
a. Place RT in field pack with antenna on the left shoulder (2) Fold top flap of field over RT and secure flap to field pack using straps and buckles

541. Setting Presets
a. (1) Set CHAN to 1
b. (2) Set MODE to SC
c. (3) Set RF PWR to HI
d. (4) Set VOL to mid range
e. (5) Set DIM full clockwise
f. (6) Set FCTN to LD

g. (7) Set DATA RATE to off

542. Single Channel Loading Frequencies
   a. (1) Obtain Ranger SOI
   b. (2) Set FCTN to LD
   c. (3) Set mode to SC
   d. (4) Set CHAN to MAN, Cue, or desired channel where frequency is to be stored
   e. (5) Press FREQ(display will show "00000", or frequency RT is currently turned on)
   f. (6) Press CLR(display will show five lines)
   g. (7) Enter the number of the new frequency
   h. (8) If you make a mistake with a number press CLR
   i. (9) Press STO(display will blink)
   j. (10) Set FCTN to SQ ON

543. Clearing Frequencies
   a. (1) Set mode to SC
   b. (2) Set CHAN to MAN, Cue or desired channel where frequency is to be cleared
   c. (3) Press FREQ
   d. (4) Press CLR
   e. (5) Press Load; then press STO
   f. (6) Set FCTN to SQ ON

544. Scanning more than one frequency
   a. (1) Load all desired frequencies using "Single Channel Loading Frequencies" instructions
   b. (2) Set CHAN to CUE
   c. (3) Set SC to FH
   d. (4) Set FCTN to SQ ON
   e. (5) Press STO (display will say SCAN)
   f. (6) Press 8. You will now be able to scan more than one frequency

545. Radio assembly
   a. (1) Check and install the battery
   b. (2) Inspect the battery box for dirt and damage
   c. (3) Check battery life condition (you will be using the rechargeable BB-388 battery)
   d. (4) Place battery in box
   e. (5) Close battery cover and secure latches

546. Successful air assault execution is based on a careful analysis of METT-TC and detailed, precise reverse planning. Five basic plans that comprise the reverse planning sequence are developed for each air assault operation. What are the five basic plans?
   a. Ground Tactical Plan
   b. The Landing Plan
   c. The Air Movement Plan
   d. The Loading Plan
   e. The Staging Plan.

547. Ground Tactical Plan

a. The foundation of a successful air assault operation is the commander's ground tactical plan. All additional plans must support this plan. The plan specifies actions in the objective area to ultimately accomplish the mission and address subsequent operations.

548. The Landing Plan
    a. The landing plan must support the ground tactical plan. This plan outlines a sequence of events that allows elements to move into the area of operations, and ensures that units arrive at designated locations at prescribed times prepared to execute the ground tactical plan.
549. The Air Movement Plan
    a. The air movement plan is based on the ground tactical and landing plans. It specifies the schedule and provides instructions for air movement of troops, equipment, and supplies from PZs to LZs.
550. The Loading Plan
    a. The loading plan is based on the air movement plan. It ensures that troops, equipment, and supplies are loaded on the correct aircraft. Unit integrity is maintained when aircraft loads are planned. Cross-loading may be necessary in order to ensure survivability of command and control assets, and the mix of weapons arriving at the LZ are ready to fight.
551. The Staging Plan.
    a. The staging plan is based on the loading plan and prescribes the arrival time of ground units (troops, equipment and supplies) at the PZ in the order of movement
552. Surface conditions
    a. Avoid potential hazards e.g. sand, blowing dust, snow, tree stumps, large rocks.
    b. Ground slope
    c. • 0% - 6 % -- land upslope
    d. • 7% - 15% -- land sideslope
    e. • over 15% -- no touchdown (aircraft may hover)
553. Obstacles
    a. An obstacle clearance ratio of 10 to 1 is used in planning approach and departure of the PZ and LZ (Eg: a ten foot tall tree requires 100 feet of horizontal distance for approach or departure). Obstacles will be marked with a red chem light at night or red panels during the daytime. Markings will not be used if they cause the position to be seen by the enemy.
554. Approach/Departure
    a. Approach and departure are made into the wind and along the long axis of the PZ/LZ.
555. Loads
    a. The greater the load, the larger the PZ/LZ must be to accommodate the insertion or extraction.
556. Marking PZs and LZs.

a. Day. A ground guide will mark the PZ or LZ for the lead aircraft by holding an M16/M4 rifle over his head, by displaying a folded VS-17 panel chest high, or by other coordinated and identifiable means.
b. Night. The code letter Y (Inverted Y) is used to mark the landing point of the lead aircraft at night (figure 8-1). Chemical lights or "beanbag" lights are used to maintain light discipline. A swinging chem light may also be used to mark the landing point.

557. Air Assault Formations.
a. Aircraft supporting an operation may use any of the following PZ/LZ configurations which are prescribed by the Air Assault Task Force (AATF) Commander working in conjunction with the Air Mission Commander (AMC):
b. (1) Heavy Left or Right. Requires a relatively long, wide landing area; presents difficulty in pre-positioning loads; restricts suppressive fire by inboard gunners; provides firepower to front and flank.
c. (2) Diamond. Allows rapid deployment for all-round security; requires small landing area; presents some difficulty in pre-positioning loads; restricts suppressive fire of inboard gunners.
d. (3) Vee. Requires a relatively small landing area; allows rapid deployment of forces to the front; restricts suppressive fire of inboard gunners; presents some difficulty in pre-positioning loads.
e. (4) Echelon Left or Right. Requires a relatively long, wide landing area; presents some difficulty in pre-positioning loads; allows rapid deployment of forces to the flank; allows unrestricted suppressive fire by gunners.
f. (5) Trail. Requires a relatively small landing area; allows rapid deployment of forces to the flank; simplifies pre-positioning loads; allows unrestricted suppressive fire by gunners.
g. (6) Staggered Trail Left or Right. Requires a relatively long, wide landing area; simplifies pre-positioning loads; allows rapid deployment for all round security; gunners' suppressive fire restricted somewhat.

558. Occupation of patrol/squad assembly area. Patrol leader/squad leader should accomplish the following:
a. (a) Maintain all-around security of the assembly area.
b. (b) Maintain communications.
c. (c) Organize personnel and equipment into chalks and loads.
d. d) Conduct safety briefing and equipment check of troops

559. What is the primary concern of all leaders when operating around aircraft?
a. Safety is the primary concern of all leaders when operating in/around aircraft. The inclusion of aircraft into Ranger operations carries an inherent "high" risk factor. The following guidelines are to be considered.
b. 1) Approach the aircraft from 90 degrees to 45 degrees off the (2) nose.
c. (3) Weapons with blank firing adapters are pointed muzzles up.
d. (4) Weapons loaded with live ammunition are muzzles down.
e. (5) The ballistic helmet is worn.

f. (6) When possible, an air crew safety brief is conducted with all (7) personnel. At a minimum it will include loading and offloading, emergencies, and egress procedures.
g. (8) Leaders need to carry a manifest and turn a copy into higher.

560. What is the organization of the river crossing team?
a. (a) Number 1 man: Lead safety swimmer and far side lifeguard.
b. (b) Number 2 man: Rope puller, swims water obstacle pulling 150-foot rope, ties off rope on far side anchor point.
c. (c) Number 3 man: Near side lifeguard is the last man to cross water obstacle.
d. (d) Number 4 man: Bridge Team Commander (BTC).
e. (e) Number 5 and 6 men: Rope Tighteners.

561. What equipment is necessary for a river crossing?
a. (1) Two snaplinks per piece of heavy equipment.
b. (2) Two snaplinks for every 120 feet of rope.
c. (3) One 14-foot utility rope per person.
d. (4) Two snaplinks per person.
e. (5) One waterproof bag per RATELO.
f. (6) Three B-7 life preservers.
g. (7) Three floatation work vests.
h. (8) Two 150-foot nylon ropes.

562. Rehearsals and inspections:
a. (1) The stream crossing team always rehearses.
b. (2) Rehearse the entire stream crossing emphasizing:
c. (a) Security and actions on enemy contact.
d. (b) Actual construction of the rope bridge within EIGHT minutes on dry land.
e. (c) Individual preparation.
f. (d) Order of crossing.
g. (e) All signals and control measures.
h. (f) Reorganization.
i. (3) Conduct rehearsals as realistically as possible.
j. (4) Ensure personnel are proficient in the mechanics of a stream crossing operation.
k. (5) Inspect for equipment completeness, correct rigging and preparation, personnel knowledge and understanding of the operation.
l. (6) Actions of the #4 man (Bridge Team Commander(BTC) during the preparation phase.
m. (a) Rehearse the bridge team.
n. (b) Accounts for all equipment in the bridge kit.
o. (c) Ensures 120-foot rope is coiled.

563. What are the steps for the establishment and conduct of bridge stream crossing?
a. (a) Unit leader halts short of the river, local security is established, and a recon is conducted of the area for the presence of the enemy and for crossing site suitability/ necessity. He directs the BTC to construct the bridge.

b. (b) Security is established up and downstream while unit leader briefs BTC on anchor points. The unit leader counts individuals across.
c. (c) The bridge team begins to establish the rope bridge while unit members begin individual preparation.
d. (d) The BTC is responsible for construction of one-rope bridge and selection of the near side anchor point as well as the far side anchor point if visibility permits. He will tie a swimmer's safety line to anchor himself into the bridge. Tying a bowline around the waist secured with an overhand knot, and on the free running end, an end of line bowline with an overhand knot. A snap link will be placed on the loop portion of the end of line bowline, which will extend no further than arms length away from the soldier (standard waterborne uniform). This will ensure that the soldier is never more than arms length away from the rope bridge should he lose his grip.
e. (e) Noise and light discipline is enforced and security is maintained.
f. (f) Individual soldiers put a snaplink in their end-of-the rope bowline and the sight blade of every M-4/M16 or M203. M240 gunners put a snaplink through the front sight blade and rear swivel of their M240 MG. RATELOS (and others with heavy rucksacks) place an additional snaplink on their rucksack frame, top center

564. What is the role of the number 1 man during a river crossing?
a. (1) Grounds rucksack (with snaplink through top of frame) to the rear of the near side anchor point. Wears equipment in the following order (body out): Waterborne Uniform (top button buttoned, pants unbloused), B7 life preserver-or engineer work vest, LCE, weapon (across the back), carrying a safety line to assume duties of far side lifeguard.
b. (2) The Number 1 man enters the water upstream from the Number 2 man and stays an arms length away from the Number 2 man on the upstream side. He identifies the far side anchor point upon exiting the water and once the Number 2 man has exited the water moves to his far side lifeguard position downstream 9-3 of the rope bridge with knotted safety line on wrist, LCE/weapon grounded, and work vest held in throwing hand. He continues to wear the B7

565. What is the role of the number 2 man during a river crossing?
a. Number 2 man (rope puller) in waterborne uniform (same as Number 1 man) wears his equipment in the following order, Work vest, LCE, weapon (across the back), Australian rappel seat with snap link to the rear. He grounds his rucksack (with snaplink through top of frame) to the rear of the near side anchor point.His duties are to swim across the water obstacle pulling the rope. He ties off the rope on the anchor point identified by the Number 1 man with a round turn and two half hitches with a quick release. The direction of the round turn is the same direction as the flow of water (current) to facilitate exit off the rope bridge.

566. What is the role of the number 3 man during a river crossing?
a. Number 3 man (near side lifeguard) in the same waterborne uniform as the far side lifeguard. The Number 3 man positions himself on the downstream side of the bridge before the number 1 and 2 men enter the water, grounding his rucksack (with snaplink through top of frame) on rear of near-side anchor point.

His duties include untying the quick release at the near side anchor point after the PSG crosses and verifies the headcount.

b. The Number 3 man reties his safety line into an Australian rappel seat, hooks the end of line bowline into his snaplink, connects his snaplink to the snaplink on the end-of-line bowline of the rope, and is the last man pulled across the water obstacle. He puts on the work vest prior to crossing the water obstacle with his equipment in order of B7, work vest, LCE and weapon.

567. What is the role of the number 4 man during a river crossing?

a. Number 4 man (Bridge Team Commander - BTC) (1) He is in the standard waterborne uniform with LCE and sling rope tied in safety line (round the waist bowline with end of line bowline at arms length). He is responsible for construction of rope bridge and organization of bridge team. He is also responsible for back feeding the rope and tying end of line bowlines. (2) He designates the near side anchor point, ties the wireman's knot of the transport tightening system, and hooking all personnel to the rope bridge. He ensures that the transport tightening knot is on the upstream side of the rope bridge. He ensures that all individuals are in the waterborne uniform, hooked into the rope facing the current with the safety line routed through the trailing shoulder of the individual's LCE and rucksack. He ensures that the weapon is hooked onto the rope. He controls the flow of traffic on the bridge. He is responsible for crossing with the Number 1 man's rucksack. He is generally the next to the last man to cross (follows PSG who is keeping headcount).

568. What is the role of the number 5 and 6 man during a river crossing?

a. Number 5 and 6 men (rope tighteners) in waterborne uniform with LCE and safety line. They are responsible for tightening the transport tightening knot. They are also responsible for taking the rucksacks of the Number 2 and 3 men across. Once on the far side, they are responsible for pulling the last man (Number 3 man) across. The rucksacks of 1/2/3 men are transported across by 4/5/6 men. The rucksacks of 1/2/3 are hooked into the rope by the snaplink through the top of the frames and the 4/5/6 men pull them across. The weapons of 4/5/6 men are attached between the 4/5/6 men and the rucksack that they are pulling across the bridge

569. What actions are taken to cross a river?

a. Bridge Team Commander rehearses the bridge team during the planning sessions and directs construction and emplacement. The unit leader selects the crossing site which complements the tactical plan. Number 3 man positions himself downstream of crossing site. (2) Number 1 man enters water upstream of number 2. He stays one arm's length from the number 2 man and is prepared to render any assistance to the number 2 man. Both swim in conjunction upstream to compensate for the current. BTC feeds rope out of rucksack positioned on the downstream side of near side anchor point. The number 1 man exits and identifies (hugs) the far side anchor point (if BTC cannot identify it for the Number 2 man). Number 2 man exits on the upstream side of the far side anchor point. The rope is now routed to facilitate movement onto and off the bridge.Radios and

heavy equipment are waterproofed and rigged. All individuals don waterborne uniform and tie safety lines. PSG moves to anchor point and maintains accountability through headcount. Number 2 man signals the BTC that the rope is at the far side anchor point, and the BTC pulls out excess slack and ties a round turn with two (2) half hitches and emplaces snaplink. The BTC signals the number 2 man who pulls the rope 1/5 of the way across. The number 2 man selects a point on the far side anchor point that is 18 - 24 inches off the water. After this is done, the number 2 man ties a round turn and two half hitches, the first half hitch is tied in a quick release. Number 2 man signals the BTC and the pulling team (4,5,6) tightens the bridge, pulling the wireman's knot as close as possible to the near side anchor point. The number 1 man moves downstream and assumes his duties as the far side lifeguard. The bridge team commander will tie off the rope with a round turn and two half hitches around the near side anchor point. The BTC will place himself on the upstream side of the bridge (facing downstream). He begins to hook individuals into the rope inspecting them for safety. NOTE: Any Ranger identified as a weak swimmer will cross with no other personnel on the rope bridge. The weak swimmer crosses individually to allow the near and far side lifeguards to focus their attention exclusively on the weak swimmer and not be distracted by other personnel crossing the bridge. Number 2 man moves upstream to provide far side security. Number 5 and Number 6 cross (taking the rucks of 2/3). The number 5 man maintains far side headcount and unhooks all individuals on the far side (he positions himself on the upstream side of the bridge facing downstream). Number 6 precedes the remainder of the patrol. The BTC maintains the flow of traffic ensuring that no more than three individuals are on the bridge at any one time (one hooking up, one near the center, and one being unhooked). Once the PSG has accounted for all individuals on the near side, he withdraws L/R security sending them across. PSG follows security across. Number 3 man hooks the BTC (with number I's rucksack) onto the rope. Once the BTC has crossed, number 3 unhooks near side anchor point and the BTC unties far side anchor Point.Number 3 man ties an Australian rappel seat with snaplink to the front, hooks onto the snaplink that is in the end of the line bowline on the 120-foot rope-and signals 4/5/6 men to take in slack. Number 3 man extends arms in front of his head, slightly upstream to fend off debris and is pulled across by 9-5 4/5/6. All individuals (except 1/2/3 and RATELOs) wear rucksacks across. The 4/5/6 men hook the rucksacks of 1/2/3 men onto bridge by the snaplink. All individuals cross facing upstream.

570. What is a poncho raft typically used for?
    a. Normally a poncho raft is constructed to cross rivers and streams when the current is not swift. A poncho raft is especially useful when the unit is still dry and the platoon leader desires to keep the individuals equipment dry
571. What equipment is required to construct a poncho raft?
    a. Equipment Requirements:
    b. (1) Two serviceable ponchos.
    c. (2) Two weapons (poles can be used in lieu of weapons).

d. (3) Two rucksacks per team.
e. (4) 10 feet of utility cord per team.
f. (5) One sling rope per team.

572. What conditions are ideal for usage of a poncho raft?
a. Conditions: Poncho rafts are used to cross water obstacles when any or all of the following conditions are found:
b. (1) The water obstacle is too wide for 120-foot rope.
c. (2) No sufficient near or far shore anchor points are available to allow rope bridge construction.
d. (3) Under no circumstances will poncho rafts be used as a means to cross a water obstacle if an unusually swift current is present.

573. Choosing a crossing site: Before a crossing site is used, a thorough reconnaissance of the immediate area is made. What considerations are made during this time?
a. Analyzing the situation using METT-TC, the patrol leader chooses a crossing site that offers as much cover and concealment as possible and has entrance and exit points that are as shallow as possible. For speed of movement it is best to choose a crossing site that has near and far shore banks that are easily traversed by an individual Ranger.

574. How do you build a poncho raft?
a. (1) Pair off the unit/patrol in order to have the necessary equipment.
b. (2) Tie off the hood of one poncho and lay out on the ground with the hood up.
c. (3) Weapons are then placed in the center of the poncho, approximately 18 inches apart, muzzle to butt.
d. (4) Next, rucksacks and LCE are placed between the weapons with the two individuals placing their rucksacks as far apart as possible.
e. (5) The two will then start to undress (bottom to top), first with their boots, taking the laces completely out for subsequent use as tie downs if necessary).
f. (6) The boots are then placed over muzzle/butt of weapon toe in.
g. (7) Members continue to undress, folding each item neatly and placing on top of their boots.
h. (8) Once all of the equipment is placed between the two weapons or poles, the poncho is snapped together. The snapped portion of the poncho is then lifted into the air and tightly rolled down to the equipment. Start at the center and work out to the end of the raft creating pigtails at the end. This is accomplished much easier if done by both soldiers together. The pigtailed ends are then folded in toward the center top of the raft and tied off with a single boot lace.
i. (9) The other poncho is then laid out on the ground with the hood up and the first poncho with equipment is placed in its center. The second poncho is then snapped, rolled and tied in the same manner as the first poncho. The third and fourth boot laces (or utility cord) are then tied around the raft approximately one foot from each end for added security. The poncho raft is now complete.

575. What are embarking and debarking procedures for boats?
a. (a) When launching, the crew will maintain a firm grip on the boat until they are inside it: similarly, when beaching or debarking, they hold on to the boat until it is

completely out of the water. Loading and unloading is done using the bow as the entrance and exit point.

b. (b) Keep a low center of mass when entering and existing the boat to avoid capsizing. Maintain 3 points of contact at all times.
c. (c) The long count is a method of loading and unloading by which the boat crew embarks or debarks individually over the bow of the boat. It is used at river banks, on loading ramps, and when deep water prohibits the use of the short count method.
d. (d) The short count is a method of loading or unloading by which the boat crew embarks or debarks in pairs over the sides of boat while the boat is in the water. It is used in shallow water allowing the boat to be quickly carried out of the water.
e. (e) Beaching the boat is a method of debarking the entire crew at once into shallow water and quickly carrying the boat out of the water.

576. What are considerations for securing a landing site?
    a. Early warning (e.g. scout swimmers) is considered. These personnel swim to shore from the assault boats and signal the boats to land. All signals and actions are rehearsed prior to the actual operation.
    b. (b) If the patrol is going into an unsecured landing site it can provide security by having a security boat land, reconnoiter the landing site and then signal to the remaining boats to land. This is the preferred technique.
    c. (c) The landing site can be secured by force with all the assault boats landing simultaneously in a line formation. While this is the least desirable method of securing a landing site, it is rehearsed in the event the tactical situation requires its use.
    d. (d) Arrival at the debarkation point.
    e. (1) Unit members disembark according to leaders order.
    f. (2) Local security is established.
    g. (3) Leaders account for personnel and equipment.
    h. (4) Unit continues movement
577. What should happen if you hear the order "Prepare to capsize"?
    a. This command alerts the crew and they raise paddles above their heads, with the blade pointed outward. Before capsizing, the coxswain will conduct a long count.
578. What should happen if you hear the order "Pass paddles"?
    a. All paddles are passed back and collected by the number nine and ten men.
579. What should happen if you hear the order "Capsize the boat"?
    a. All personnel slide into the water except the number three, five, and seven men. The number one man secures the bowline. They grasp the capsize lines (ensuring the lines are routed under the safety lines) and stand on the buoyancy tubes opposite the capsize lines anchor points. The boat is then turned over by the three, five and seven men by leaning back and straightening their legs as they pull back on the capsize lines. As the boat lifts off the water, the number four man grasps the center carrying handle and rides the boat over. Once the boat is over, the number four man helps the number three and seven men back onto the boat at which time the number five man holds onto the center carrying handle

and again, the boat is turned over the same way. The number five man rides the boat back over and helps the rest of the crew into the boat

580. What are the coxswain's duties when the boat capsizes?
   a. As soon as the boat is capsized, the coxswain commands a long count to ensure that no one is trapped under the boat or sank. Every time the boat is turned over, a long count must be conducted.

581. What are the characteristics of a river?
   a. (1) Know local conditions prior to embarking on river movement.
   b. (2) A bend is a turn in the river course.
   c. (3) A reach is a straight portion of river between two curves.
   d. (4) A slough is a dead end branch from a river. They are normally quite deep and can be distinguished from the true river by their lack of current
   e. (5) Dead water is a part of the river, due to erosion and changes in the river course that has no current. Dead water is characterized by excessive snags and debris.
   f. (6) An island is usually a pear-shaped mass of land in the main current of the river. Upstream portions of islands usually catch debris and are avoided.
   g. (7) The current in a narrow part of a reach is normally greater than in the wide portion.
   h. (8) The current is greatest on the outside of a curve; sandbars and shallow water are found on the inside of the curve.
   i. (9) Sandbars are located at those points where a tributary feeds into the main body of a river or stream.
   j. (10) The coxswain and the #1 man must (and the observer, if designated) watch the water for obstacles and overhanging vegetation and projections from the bank

582. Navigation. The Patrol Leader is responsible for navigation. There are three acceptable methods of river navigation which are used:
   a. (1) Checkpoint and general route. These methods are used when the drop site is marked by a well-defined checkpoint and the waterway is not confused by a lot of branches and tributaries. They are best used during daylight hours and for short distances.
   b. (2) Navigator-observer method. This method is the most accurate means of river navigation and is used effectively in all light conditions.
   c. (a) Equipment needed: • Compass • Photo map(1st choice) • Topographical map (2nd choice) • Poncho (for night use) • Pencil/Grease pencil • Flashlight (for night use)
   d. (b) Navigator is positioned in center of boat and does not paddle. During hours of darkness, he uses his flashlight under the poncho to check his map. The observer (or #1 man) is at the front of the boat.
   e. (c) The navigator keeps his map and compass oriented at all time.
   f. (d)The navigator keeps the observer informed of the configuration of the river by announcing bends, sloughs, reaches and stream junctions as shown on his map.

g. (e) The observer compares this information with the bends, sloughs, reaches and stream junctions he actually sees. When these are confirmed the navigator confirms the boat's location on his map.
h. (f) The navigator also keeps the observer informed of the general azimuths of reaches as shown on his map and the observer confirms these with actual compass readings of the river.
i. (g) The navigator announces only one configuration at a time to the observer and does not announce another until it is confirmed and completed.
j. (h) A strip-map drawn on clear acetate backed by luminous tape may be used. The drawing is to scale or a schematic. It should show all curves and the azimuth and distance of all reaches. It may also show terrain features, stream junctions and sloughs

583. What determines the boat formations used on operations?
a. Various boat formations are used (day and night) for control, speed and security. The choice of which is used depends on the tactical situation and the discretion of the patrol leader. He should use hand and arm signals to control his assault boats.

584. What are the formations used?
a. (a) Wedge (b) Line (c) File (d) Echelon (e) VEE

585. What are ropes used for during operations?
a. Ropes are intended to provide security for climbers and equipment in operations involving steep ascents and descents. They are also used for establishing rope installations and hauling equipment.

586. What type of ropes are to be used for mountaineering?
a. Nylon laid ropes or Kernmantle ropes can be used in military mountaineering. Nylon laid ropes are used by most units to perform most mountaineering tasks. Nylon laid ropes are easy to inspect and have many uses but are not as durable or flexible as kernmantle. Kernmantle ropes come in two types: dynamic and static. Dynamic ropes are used in climbing and in mountaineering operations where rope stretch is needed. A dynamic rope stretches 8-12% of its length. Static kernmantle ropes stretch approximately 2% of their length. Static ropes are used in mountaineering operations where rope stretch is not needed, as in installations (Rope Bridge or fixed rope)

587. What are the criteria for rope selection?
a. (a) Selection is based on intended use and mission.
b. (b) Impact force (the jerk on a climber caused by a fall) should be minimal.
c. (c) Elasticity (stretch)is considered (dynamic vs. static ropes for ascending and descending).
d. (d) Weight is considered (rope length and tensile strength).
e. (e) Versatile, select multi-use ropes.
f. (f) Know the tensile strength, characteristics and capabilities of the rope you select

588. What are the methods for the care of ropes?

a. (1) Inspect ropes thoroughly before, during and after use for cuts, frays, abrasions, mildew, soft or worn spots.
b. (2) When wet, hang rope to drip dry on a rounded wooden peg, at room temperature (do not apply heat).
c. (3) Do not step on the rope or drag it on the ground unnecessarily.
d. (4) Avoid running rope over sharp or rough edges (pad if necessary).
e. (5) Keep ropes away from oil, acids and other corrosive substances.
f. (6) Avoid running ropes across one another under tension (nylon to nylon contact will damage ropes).
g. (7) Do not leave ropes knotted or under tension longer than necessary.
h. (8) Clean in cool water, loosely coil and hang to dry out of direct sunlight. Ultraviolet light rays harm synthetic fibers. Store in a cool dry shaded area on a peg.

589. What are square knots to be used for?
a. Two interlocking bites, running ends exit on same side of standing portion of rope, 180 degrees away from each other. Each running end is secured with an overhand knot on the standing end flush with the bight.

590. What are round turn two half hitches used for?
a. Used to tie the end of a rope to an anchor. It must have constant tension. Rope forms a complete round turn around the anchor point with both ropes parallel to each other touching, but not crossing. Both half hitches are tightly dressed against the round turn with the locking bar on top and have a minimum of 4 inches in length.

591. What is the end of the rope clove hitch used for?
a. The end of the rope clove hitch is an intermediate anchor knot, which requires constant tension. Two turns around the anchor with a locking bar that runs diagonally from one side to the other. No more than one rope width between turns of rope. Locking bar is opposite direction of pull. Minimum of 4 inch tail remaining after the knot is dressed.

592. What is the middle of the rope clove hitch?
a. The middle of the rope clove hitch is a middle of the rope anchor knot used to secure the middle of the rope to an anchor. Knot forms two turns around the anchor with a locking bar that runs diagonally from one side to the other. No more than one rope width between turns. Locking bar is opposite direction of pull. Tails are within 6 inches of being equal in length.

593. What is the rappel seat left hand brake used for?
a. The rappel seat is utilized to form a rope harness for rappelling and can be tied for use with the left or right hand.

594. What is the Figure 8 loop used for?
a. Figure 8 loop knot is utilized to form a fixed loop in the end of the rope. It can be tied at the end of the rope or anywhere along the length of the rope. Figure 8 loop knots are formed by two ropes parallel to each other in the shape of a figure 8, no twists are in the figure eight. Fixed loops are 10-5 large enough to insert a

carabiner. Minimum of a four inch tail remains after dressing the double figure eight

595. What is the rerouted figure 8 knot?
    a. The rerouted figure 8 knot is utilized to attach a climber to the climbing rope with two ropes running parallel. Figure 8 is approximately the diameter of the anchor point away from the anchor point. A minimum of a four inch tail remains after dressing the knot.
596. What is the figure 8 slip knot used for?
    a. The figure 8 slip is utilized to form an adjustable loop in the middle of a rope. Knot is in the shape of a figure 8. Both ropes of the bight pass through the same loop of the figure 8. The bight is adjustable by means of a sliding section.
597. What is the End of the rope prusik used for?
    a. The end of the rope prusik is utilized to attach a movable rope to a fixed rope. The knot consists of two round turns with a locking bar perpendicular to the standing end of the rope. A bowline is tied no more than 6 inches from the locking bar. Minimum of 4 inch tail after dressing the bowline. Knot does not move freely on fixed rope.
598. What is the middle of the rope prusik used for?
    a. The middle of the rope prusik is utilized to attach a movable rope to a fixed rope anywhere along the length of the fixed rope
599. What is the Bowline on a coil used for?
    a. The bowline on a coil is utilized to secure a climber to the end of the climbing rope. Utilize a minimum of three wraps parallel to each other and laying between the hip bone and lower set of ribs. All coils touch and are tight enough to ensure that a fist cannot be inserted between the wraps and the body. Wraps are free of clothing. Three distinct coils show through the bight of the bowline. The rope coming off the bottom of the coils is on the right side, forward of the hip and forms the bight and the overhand knot. The rope coming off the top of the coils is on the left side, forward of the hips and forms the third and final coil showing through the bight
600. What is belaying?
    a. Belaying is a method of applying friction to the rope to control the amount of rope that is paid out or taken in. It is also used to arrest a climber that has fallen or to control the rate of descent of a load from a higher elevation to a lower elevation. The belay man must be anchored to a suitable anchor to prevent him from being pulled out of his belay position.
601. When is the body belay used?
    a. Is used where the rope runs around the belayer's body creating friction. To control the rope there are two basic types of body belays: Standing and Sitting. Sitting is preferred because it offers the most stable position.
602. When are mechanical belays used?
    a. Equipment is used to provide the friction to control the rate of descent. There are a variety of devices in mountaineering that are used to construct a mechanical belay. One of the most often used that requires little equipment is the munter

hitch belay. Ensure when conducting a munter hitch belay that you use a locking carabiner

603. What are actions taken when performing duties as a belay man?
    a. (1) "Brake" Command given to the belay man to secure the rope and to not pay any more rope out.
    b. (2) "Slack" This is a command given to the belay man to move to the slack position so rope can be paid out. The belay man does not push rope to the climber or load, the climber pulls what he needs.
    c. (3) "Up rope" This command is given to the belay man to tell him to take in all the slack between him and the climber or load. Once all slack is taken in, the belay man will go to the brake position.
    d. (4) "Tension" This command is given to the belay man to tell him to take up all the slack between him and the climber or load, pull the rope tight, and go to the brake position.
604. What are tightening systems used for? What knots are used for tightening systems?
    a. Tightening systems are used to tighten ropes in installations such as rope bridges, suspension traverses and fixed ropes.
    b. a. Knots used for tightening systems are: figure eight slip, directional figure 8 slip and prusiks.
    c. b. Most systems should be constructed with static ropes since their working elongation is only 2 percent. Dynamic ropes stretch 8-12 percent and will require more adjustment and maintenance.
605. What are factors in tension climbing or direct aid climbing?
    a. (1) Limited hand and foot holds
    b. (2) Relying on artificial hand and foot holds (ateriers)
606. What are the components of the mountaineering harness?
    a. Consists of CAMP body harness, one locking steel carabiner, one steel figure eight descender, one aluminum locking carabiner and a double headed safety line (sling rope, two steel ovals). The harness is worn as shown (figure 10-13).
607. What is the purpose of assault climbers?
    a. Assault climbers move forward of the main element and install installations for the main body. Assault climbers install fixed ropes, vertical hauling lines and suspension traverses for troops to overcome mountain obstacles. It is the responsibility of the climbing team that installed the installation to manage and maintain the installation.
608. What is the A-frame used for?
    a. The A-frame Is used to gain artificial height when needed. Two systems requiring artificial height are the vertical hauling line and the suspension traverse.
609. What is the use of a fixed rope during mountaineering?
    a. Is in place to assist personnel moving on difficult terrain. Allows personnel with heavy loads to negotiate dangerous mountain routes quickly and safely
    b. (1) Most suitable location, ease of negotiation, avoids obstacles.
    c. (2) Availability of anchors (natural and artificial)
    d. (3) Area is safe from fallen rock and ice.

e. (4) Tactical considerations are met.
f. (5) Rope routed between knee and chest high.
g. (6) Fairly tight except at obstacles which a climber must avoid.
h. At these (7) points, the rope should be loose enough to permit passage.
i. (8) No rope crossovers. The climber should not have to cross over the top of the rope at any point.
j. (9) An adequate number of intermediate anchor points.

610. What is a vertical hauling line?
a. Vertical hauling line Is an installation used to move men and equipment up vertical or near vertical slopes. It is often used in conjunction with the fixed rope.
b. (1) Most suitable location.
c. (2) Availability of anchors (natural and artificial).
d. (3) Good loading and off loading platforms.
e. (4) Sufficient clearance for load.
f. (5) A-Frame used for artificial height.
g. (6) Hauling line used to move personnel and equipment up and down slope.
h. (7) Pulley or locking carabiner on A-Frame to ease friction on hauling line.
i. (8) Knotted hand line used to assist personnel up installation.
j. (9) Personnel placed at top and bottom of installation to monitor safe operation.

611. What is the suspension traverse?
a. Is an installation used to move men and equipment over rivers, ravines, chasms, and up and down a vertical rock face. The system may be established from horizontal to near vertical slopes. (1) A-Frame to add height if needed. (2) Upper and lower anchors. (3) Loading and unloading anchors. (4) Sufficient clearance for loads. (5) Location. (6) Personnel placed at top and bottom of installation to monitor safe operation.

612. What is a rope bridge and what is it used for?
a. A rope bridge is employed in mountainous terrain when streams are more than thigh deep. Such crossings are dangerous since the force of flowing water may be great. Sudden rain or thaws can change a placid stream into a roaring torrent. The maximum span that can be bridged with a standard 120 ft climbing rope is 20 meters. (1) Personnel are trained in water survival techniques to include unexpected entry into the water. (2) Good site selection. (3) Suitable near and far anchors. (4) Good on and off loading platforms. (5) Preparation of men and equipment. 10-14 (6) Rescue swimmers posted. (7) Bridge is as tight as possible with no more than 6 man tightening team. (8) Bridge is knee to waist high. (9) Methods of crossings: Commando crawl, Monkey crawl, Tyrolean traverse (10) One man at a time on one rope bridge. (11) Up to three on a two rope bridge (one mounting, one in center, one dismounting).

613. What is the most dangerous task performed in mountaineering?
a. Rappelling is the most dangerous task performed in mountaineering. The ranger relies totally on his equipment.

614. What are considerations for establishing a rappel point?
a. When establishing a rappel point the following must be considered:

b. (a) Types
c. (1) Body rappel
d. (2) Hasty rappel
e. (3) Seat hip shoulder.
f. (4) Seat hip
g. Establishment (1) Select a suitable primary and secondary anchor and test them. (2) Rappel point has primary and secondary anchors. (3) Rappel point has equal tension between all anchor points. (4) Double rope is used when possible. (5) Ropes must reach the off loading platform. (6) Site has suitable on and off loading platforms. (7) Personnel working near the edge are tied in. (8) Select a smooth route free of loose rock and debris.

615. What are considerations for rappelling during an operation?
   a. (1) Personnel at the top of the rappel point must have communication with the bottom of the rappel point.
   b. (2) Belay men are used at the bottom of each lane.
   c. (3) Rappellers move down the cliff in a controlled descent.
   d. (4) Rappeller wears gloves and helmet.
   e. (5) Rappeller clears the ropes once off rappel.

616. When you become isolated or separated in a hostile area, either as an individual or as a group, your evasion and survival skills will determine whether or not you return to friendly lines. What are evasion considerations?
   a. a. When unable to continue the mission or unable to rejoin your unit, leave the immediate area and move to your last rally point.
   b. b. Observe activity in the area and form a plan.
   c. c. Traveling alone offers the least possibility of detection, but traveling in groups of two to three is more desirable.
   d. d. Plan a primary and alternate route. Consider distance, cover, food and water. The easiest and shortest route may not be the best.
   e. e. Food and water are daily requirements. You can do without food for several days; water, however, is essential.
   f. f. Move at night. Use the daylight to observe, plan, and rest in a hide position.
   g. g. Linkup only during daylight hours. Place friendly lines under observation.
   h. h. Attempt to identify the unit you approach, note their movements and routine.
   i. i. After carefully considering your approach route, make voice contact with the unit as soon as possible.

617. How can you overcome the challenges you face in a survival situation?
   a. With training, equipment, and the WILL TO SURVIVE, you will find you can overcome any obstacle you may face. You will survive. You must understand the emotional states associated with survival, "knowing thyself" is extremely important in a survival situation. It bears directly on how well you cope with serious stresses, anxiety, pain, injury, illness; cold, heat, thirst, hunger, fatigue, sleep deprivation, boredom, loneliness and isolation.

618. You can overcome and reduce the shock of being isolated behind enemy lines if you keep the key word S-U-R-V-I-V-A-L foremost in your mind. What are the components of SURVIVAL and what do they mean?
    a. (1) S - Size up the situation; size up your surroundings; size up your physical condition; size up your equipment.
    b. (2) U - Undue haste makes waste; don't be too eager to move. Plan your moves. 11-2
    c. (3) R - Remember where you are in relation to, the location of enemy units and controlled areas. The location of friendly units and controlled areas. The location of local water sources (this is especially important in the desert). Areas that will provide good cover and concealment. The above information will allow you to make intelligent decisions when you are in a survival/evasion situation.
    d. (4) V - Vanquish fear and panic.
    e. (5) I - Improvise; the situation can be improved. Learn to use natural things around you for different needs. Use your imagination.
    f. (6) V - Value living. Remember your goal - getting out alive. Stubbornness, a refusal to give into problems and obstacles that face you, will give you the mental and physical strength to endure.
    g. (7) A - Act like the natives; watch their daily routines. When, where, and how they get their food. Where they get their water.
    h. (8) L - Live by your wits. Learn basic skills
619. What are methods for finding your bearing without a compass?
    a. In a survival situation, an individual may well find himself without a compass. The ability to determine directions may enable an individual to navigate back to his unit or to a friendly sanctuary. Two methods that are easy to use when there is sunlight are the shadow-tip and the watch. a. Use the sun to find approximate true north. This method can be used any time the sun is bright enough for a stick to cast a shadow. Find a fairly straight stick about three feet long and follow the diagram below (figure 11-l).
    b. b. Watch method. You can also determine direction using a watch (figure 11-2). The steps you take will depend on whether you are in the northern Temperate Zone or in the southern Temperate Zone. The northern temperate zone is located between 11-3 23.4 north and 26.6 north. The southern Temperate Zone is located between 23.4 south and 66.6 south.
620. What are procedures for finding your bearing in the northern temperate zone using a conventional watch?
    a. (1) Place a small stick in the ground so that it casts a definite shadow. (2) Place your watch on the ground so that the hour hand points toward and along the shadow of the stick. (3) Find the point on the watch midway between the hour hand and 12 o'clock and draw an imaginary line from that point through and beyond the center of the watch. This imaginary line is a north-south line. You can then tell the other directions
621. What are procedures for finding your bearing in the southern temperate zone using a conventional watch?

a. (1) Place a small stick in the ground so that it casts a definite shadow. (2) Place your watch on the ground so that 2 o'clock points to and along the shadow. (3) Find the midway point between the hour and 12 o'clock and draw an imaginary line from the point through and beyond the center of the watch. This is a north-south line. A hasty shortcut using a conventional watch is simply to point the hour hand at the sun in the northern temperate zone (or point the 12 at the sun in the southern temperate zone) and then follow the last step of the watch method above to find your directions. This shortcut, of course, is not as accurate as the regular method but quicker. Your situation will dictate which method to use.

622. Why is water one of the biggest needs in a survival situation?
    a. Water is one of your most urgent needs in a survival situation. You can't live long without it, especially in hot areas where you lose so much through sweating. Even in cold areas, you need a minimum of 2 quarts of water a day to maintain efficiency. More than three-fourths of your body is composed of fluids. Your body loses fluid as a result of heat, cold, stress, and exertion. The fluid your body loses must be replaced for you to function effectively. So, one of your first objectives is to obtain an adequate supply of water.
623. What are methods for purifying water?
    a. (1) by boiling for at least one minute (plus 1 minute for each additional 1,000 feet above sea level) or boil for 10 minutes no matter where you are;
    b. (2) by using water purification tablets or
    c. (3) by adding 8 drops of 2-1/2% solution of iodine to a quart (canteen full) of water and letting it stand for 10 minutes before drinking Rain water collected directly in clean containers or on plants is generally safe to drink without purifying. Don't drink urine or sea water -- the salt content is too high -- Old bluish sea ice can be used, but new, gray ice may be salty. Glacier ice is safe to melt and drink.
624. What are considerations for water in a desert environment?
    a. In a desert environment water has a tremendous physiological effect on soldiers. If a unit does not plan properly and cannot be resupplied, their water supply could run out. There are four indicators or signs of water that you should look for in the desert. They are, animal trails, vegetation, birds, and civilization. Adequate water supply is critical in a hot desert environment if a unit is to survive and maintain the soldier's physical condition necessary to accomplish the mission.
625. What are considerations for water resupply?
    a. Unit leaders must enforce water discipline and plan for water re-supply. The leader can use the following planning considerations for water re-supply.
    b. (1) Units average water consumption. (2) Drop sites. (3) Aviation support. (4) DZ and LZ parties. (5) Caches. (6) Targets of opportunity (enemy).
626. You should select a site where you believe the soil will contain moisture (such as a dry stream bed or a spot where rain water has collected), where the soil is easy to dig, and where sunlight hits most of the day. What are the steps for building water still?
    a. (a) Dig a bowl-shaped hole approximately 3 feet across and 2 feet deep.

b. (b) Dig a sump in center of the hole. The depth and the perimeter of the sump will depend on the size of the container that you have to set in it. The bottom of the sump should allow the container to stand upright.
c. (c) Anchor the tubing to the bottom of the container by forming a loose overhand knot in the tubing.
d. (d) Place the container upright in the sump.
e. (e) Extend the unanchored end of the tubing up, over, and beyond the lip of the hole.
f. (f) Place plastic sheeting over the hole covering the edge with soil to hold it in place.
g. (g) Place a rock in the center of the plastic.
h. (h) Allow the plastic to lower into the hole until it is about 15 inches below ground level. The plastic now forms an inverted cone with the rock at its apex. Make sure that the apex of the cone is directly over your container. Also make sure the plastic cone does not touch the sides of the hole because the earth will absorb the condensed water.
i. You can drink water without disturbing the still by using the tube as a straw. You may want to use plants in the hole as a moisture source If so, when you dig the hole you should dig out additional soil from the sides of the hole to form a slope on which to place the plants. Then proceed as above

627. Universal Edibility Test. Before testing a plant for edibility, make sure there are a sufficient number of plants to make testing worth your time and effort. You need more than 24 hours to apply the edibility test. What are the steps for the edibility test?
a. (1) Test only one part of a potential food plant at a time.
b. (2) Break the plant into its basic components, leaves, stems, roots, buds, and flowers.
c. (3) Smell the food for strong or acid odors. Keep in mind that smell alone does not indicate a plant is edible.
d. (4) Do not eat for 8 hours before starting the test.
e. (5) During the 8 hours you are abstaining from eating, test for contact poisoning by placing a piece of the plant you are testing on the inside of your elbow or wrist. Usually 15 minutes is enough time to allow for reaction.
f. (6) During the test period, take nothing by mouth except purified water and the plant part being tested.
g. (7) Select a small portion and prepare it the way you plan to eat it. (8) Before putting the prepared plant part in your mouth, touch a small portion (a pinch) to the outer surface of the lip to test for burning or itching.
h. (9) If after 3 minutes there is no reaction on your lip, place the plant part on your tongue, holding there for 15 minutes.
i. (10) If there is no reaction, thoroughly chew a pinch and hold it in your mouth for 15 minutes. DO NOT SWALLOW.
j. (11) If no burning, itching, numbing, stinging, or other irritation occurs during the 15 minutes, swallow the food.

k. (12) Wait 8 hours. If any ill effects occur during this period, induce vomiting and drink a lot of water.
l. (13) If no ill effects occur eat 1/2 cup of the same plant part prepared the same way. Wait another 8 hours. If no ill effects occur, the plant part as prepared is safe for eating.

628. You should not eat unknown plants that have what characteristics?
a. 1) Have a milky sap or a sap that turns black when exposed to air.
b. (2) Are mushroom like.
c. (a) Resemble onion or garlic.
d. (b) Resemble parsley, parsnip, or dill.
e. (c) Have carrot-like leaves, roots, or tubers.

629. Why are animals so important as a food source?
a. Animal food contains the most food value per pound. Anything that creeps, crawls, swims, or flies is a possible source of food, however you must first catch, kill and butcher it before this is possible. There are numerous methods for catching fish and animals in a survival situation. You can catch fish by using a net across a small stream, (figure 11-4) or by making fish traps and baskets.

630. Why are traps desirable for hunting game?
a. For an unarmed survivor or evader, or when the sound of a rifle shot could be a problem, trapping or snaring wild game is a good alternative. Several well-placed traps have the potential to catch much more game than a man with a rifle is likely to shoot.

631. How can you be effective with any type of trap or snare?
a. (1) Be familiar with the species of animal you intend to catch.
b. (2) Be capable of constructing a proper trap.
c. (3) Not alarm the prey by leaving signs of your presence.

632. There are no catchall traps you can set for all animals. You must determine what species are in a given area and set your traps specifically with those animals in mind.What are things to look for when setting a trap location?
a. (1) Runs and trails. (2) Tracks. (3) Droppings. (4) Chewed or rubbed vegetation. (5) Nesting or roosting sites. (6) Feeding and watering areas.

633. What is the difference between a run and a trail?
a. Position your traps and snares where there is proof that animals pass through. You must determine if it is a "run" or a "trail." A trail will show signs of use by several species and will be rather distinct. A run is usually smaller and less distinct and will only contain signs of one species.

634. Why is location important when setting up a snare?
a. You may construct a perfect snare, but it will not catch anything if haphazardly placed in the woods. Animals have bedding areas, waterholes, and feeding areas with trails leading from one to another. You must place snares and traps around these areas to be effective.
b. For an evader in a hostile environment, trap and snare concealment is important. It is equally important, however, not to create a disturbance that will alarm the animal and cause it to avoid the trap. Therefore, if you must dig, remove all fresh

dirt from the area. Most animals will instinctively avoid a pitfall-type trap. Prepare the various parts of a trap or snare away from the site, carry them in, and set them up. Such actions make it easier to avoid disturbing the local vegetation, thereby alerting the prey. Do not use freshly cut, live vegetation to construct a trap or snare. Freshly cut vegetation will "bleed" sap that has an odor the prey will be able to smell. It is an alarm signal to the animal.

635. Why must you remove or mask the human scent on and around the trap you set? How can you do so?
    a. Although birds do not have a developed sense of smell, nearly all mammals depend on smell even more than on sight. Even the slightest human scent on a trap will alarm the prey and cause it to avoid the area. Actually removing the scent from a trap is difficult but masking it is relatively easy. Use the fluid from the gall and urine bladders of previous kills.Do not use human urine. Mud, particularly from an area with plenty of rotting vegetation, is also good. Use it to coat your hands when handling the trap and to coat the trap when setting it. In nearly all 11-9 parts of the world, animals know the smell of burned vegetation and smoke. It is only when a fire is actually burning that they become alarmed. Therefore, smoking the trap parts is an effective means to mask your scent. If one of the above techniques is not practical, and if time permits, allow a trap to weather for a few days and then set it. Do not handle a trap while it is weathering. When you position the trap, camouflage it as naturally as possible to prevent detection by the enemy and to avoid alarming the prey.

636. Traps or snares placed on a trail or run should use canalization. How do you build a channel?
    a. To build a channel, construct a funnel-shaped barrier extending from the sides of the trail toward the trap, with the narrowest part nearest the trap. Canalization should be inconspicuous to avoid alerting the prey. As the animal gets to the trap, it cannot turn left or right and continues into the trap.Few wild animals will back up, preferring to face the direction of travel. Canalization does not have to be an impassable barrier. You only have to make it inconvenient for the animal to go over or through the barrier. For best effect, the canalization should reduce the trail's width to just slightly wider than the targeted animal's body. Maintain this constriction at least as far back from the trap as the animal's body length, then begin the widening toward the mouth of the funnel.

637. How do you build a Treadle Spring Snare?
    a. Use a treadle snare against small game on a trail (Figure 11-6). Dig a shallow hole in the trail. Then drive a forked stick (fork down) into the ground on each side of the hole on the same side of the trail. Select two fairly straight sticks that span the two forks. Position these two sticks so that their ends engage the forks. Place several sticks over the hole in the trail by positioning one end over the lower horizontal stick and the other on the ground on the other side of the hole. Cover the hole with enough sticks so that the prey must step on at least one of them to set off the snare. Tie one end of a piece of cordage to a twitch-up or to a weight suspended over a tree limb. Bend the twitch-up or raise the suspended

weight to determine where you will tie a 5 centimeter or so long trigger. Form a noose with the other end of the cordage.

638. What is a snare? How do you make one?
   a. A snare is a noose that will slip and strangle or hold any animal caught in it. You can use inner core strands of parachute suspension lines, wire, bark of small hardwood saplings as well as hide strips from previously caught animals to make snares. The drag noose snare, figure 11-7, is usually the most desirable in that it allows you to move away from the site, plus it is one of the easiest to make and fastest to set.
   b. Use lightweight wire to make this snare, i.e., trip wire, from vehicle or aircraft electrical system. To construct this snare, cut a piece of wire twice the length of the desired snare wire. Double the wire and attach the running ends to a securely placed object, such as the branch of a tree. Place a stick about 1/2 inch in diameter through the loop end of the wire; holding the wire taut, turn the stick in a winding motion so that the wire is twisted together. You should have four to five twists per inch. Detach the wire from the branch and then remove the loop from the stick; make a figure 8 in the l/2-inch loop by twisting the loop over itself then fold the figure 8 so the small loops are almost overlapping; run the loose wire ends through these loops. This forms a stiff noose that is strong. Tie the loose end to the stick (for a drag noose square) or branch you are using to complete the snare. This is an excellent snare for catching large animals.

639. What are considerations for eating fish?
   a. You must know how to tell if fish are free of bacterial decomposition that makes the fish dangerous to eat. Although cooking may destroy the toxin from bacterial decomposition, do not eat fish that appear spoiled. Signs of spoilage are:
   b. • A peculiar odor.
   c. • A suspicious color. (Gills should be red or pink. Scales should be a pronounced-not faded shade of gray).
   d. • A dent remaining after pressing the thumb against the flesh.
   e. • A slimy rather than moist or wet body.
   f. • A sharp or peppery taste.

640. Why is it a bad idea to eat spoiled fish?
   a. Eating spoiled or poisoned fish may cause diarrhea, nausea, cramps, vomiting, itching; paralysis, or a metallic taste in the mouth. These symptoms appear suddenly 1 to 6 hours after eating. If you are near the sea, drink sea water immediately upon on set of such symptoms and force yourself to vomit.

641. Why should you prepare fish quickly after catching them?
   a. Fish spoil quickly after death, especially on a hot day, so prepare fish for eating as soon as possible after you catch them. Cut out the gills and large blood vessels that lie next to the backbone. You can leave the head if you plan to cook the fish on a spit).

642. How do you gut fish that are more than 4 inches long?
   a. Cut along the abdomen and scrape out the intestines.

643. Why is it a good idea to cook fish with the skin on?

a. You can impale a whole fish on a stick and cook it over an "open fire". However, boiling the fish with the skin on is the best way to get the most food value. The fats and oil are under the skin, and by boiling the fish, you can save the juices for broth. Any of the methods used for cooking plant food can be used for cooking fish. Fish is done when the meat flakes off. To dry fish in the sun, hang them from branches or spread them on hot rocks. When the meat has dried, splash it with sea water, if available, to salt the outside. Do not keep any seafood unless it is well dried or salted.

644. All poisonous and nonpoisonous fresh water and land snakes are edible. How do you prepare snakes for eating?
    a. (a) Grip the snake firmly behind the head and cut off the head with a knife.
    b. (b) Slit the belly and remove the innards. (You can use the innards for baiting traps and snares). (c) Skin the snake. (You can use the skin for improvising, belts, straps, or similar items).

645. What is the process for dressing fowl?
    a. Your first step after killing a fowl for eating or preserving is to pluck its feathers. If plucking is impractical, you can skin the fowl. Keep in mind, however, that a fowl cooked with the skin on retains more food value. Waterfowl are easier to pluck while dry, but other fowl are easier to pluck after scalding.
    b. After you pluck the fowl:
    c. (a) Cut off its neck close to the body.
    d. (b) Cut an incision in the abdominal cavity and clean out the insides. Save the neck, liver, and heart for stew. Thoroughly clean and dry the entrails to use for cordage. 11-14
    e. (c) Wash out the abdominal cavity with fresh clean water. You can boil fowl or cook it on a spit over a fire. You should boil scavenger birds such as vultures and buzzards for at least 20 minutes to kill any parasites. Use the feathers from fowl for insulating your shoes clothing, or bedding. You can also use feathers for fish lures.

646. What are considerations for trapping medium sized animals?
    a. The game you trap or snare will generally be alive when you find it and therefore dangerous. Be careful when you approach a trapped animal. Use a spear or club to kill it so you can keep a safe distance from it. After you kill an animal, immediately bleed it by cutting its throat. If you must drag the carcass any distance, do so before you cut off the hide so that the carcass is protected from dirt and debris that might contaminate it. Clean the animal near a stream if possible so that you can wash and cool the carcass and edible parts. Fleas and parasites will leave a cooled body so if the situation allows, wait until the animal cools before cleaning and dressing the carcass.

647. What is the process for skinning and dressing an animal?
    a. (a) Place carcass, belly up, on a slope if available. You can use rocks or brush to support it. (b) Remove genitals or udder.
    b. (c) Remove musk glands to avoid tainting meat. 11-15

c. (d) Split hide from tail to throat. Make the cut shallow so that you do not pierce the stomach.
d. (e) Insert your knife under the skin, taking care not to cut into the body cavity. Peel the hide back several inches on each side to keep hair out of the meat.
e. (f) Open the chest cavity by splitting the sternum. You can do this by cutting to one side of the sternum where the ribs join.
f. (g) Reach inside and cut the windpipe and gullet as close to the base of the skull as possible.
g. (h) With the forward end of the intestinal tract free, work your way to the rear lifting out internal organs and intestines. Cut only where necessary to free them.
h. (i) Carefully cut the bladder away from the carcass so that you do not puncture the bladder (urine can contaminate meat). Pinch the urethra tightly and cut it beyond the point you are pinching.
i. (j) Remove the bladder.
j. (k) From the outside of the carcass, cut a circle around the anus. (l) Pull the anus into the body cavity and out of the carcass.
k. (m) Lift or roll the carcass to drain all blood. NOTE: Try to save as much blood as you can as it is a vital source of food and salt. Boil the blood.
l. (n) Remove the hide, make cuts along the inside of the legs to just above the hoof or paw. Then peel the skin back, using your knife in a slicing motion to cut the membrane between the skin and meat. Continue this until the entire skin is removed.
m. (o) Most of the entrails are usable. The heart, liver, and kidneys are edible. Cut open the heart and remove the blood from its chambers. Slice the kidneys and if enough water is available, soak or rinse them. In all animals except those of the deer family, the gall bladder (a small, dark-colored, clear-textured sac) is attached to the liver.
n. (p) Sometimes the sac looks like a blister on the liver. To remove the sac, hold the top portion of it and cut the liver around and behind the sac. If the gall bladder breaks and gall gets on the meat, wash it off immediately so the meat will not become tainted. Dispose of the gall.
o. (q) Clean blood splattered on the meat will glaze over and help preserve the meat for a short time. However, if an animal is not bled properly, the blood will settle in the lowest part of its body and will spoil in a short time. Cut out any meat that becomes contaminated.
p. (r) When temperatures are below 40 degrees, you can leave meat hanging for several days without danger of spoilage. If maggots get on the meat, remove the maggots and cut out the discolored meat. The remaining meat is edible. Maggots, which are the larvae of insects, are also edible.
q. (s) Blood, which contains salts and nutrients is a good base for soups.
r. (t) Thoroughly clean the intestines and use them for storing or smoking food or lashings for general use. Make sure they are completely dry to preclude rotting.

s. (u) The head of most animals contains a lot of meat, which is relatively easy to get. Skin the head, saving the skin for leather. Clean the mouth thoroughly and cut out the tongue. Remove the outer skin from the tongue after cooking. Cut or scrape the meat from the head. If you prefer, you can roast the head over an open fire before cutting off the meat. Eyes are edible. Cook them but discard the retina (this is a plastic like disc). The brain is also edible; in fact, some people consider it a delicacy. The brain is also used to tan leather, the theory being that the brain of an animal is adequate to tan its hide.

t. (v) Use the tendons and ligaments of the body of large animals for lashings.

u. (w) The marrow in bones is a rich-food source. Crack the bones and scrap out the marrow, and use bones to make weapons.

v. (x) If the situation and time allow, you should preserve the extra meat for later use. If the air is cold enough, you can freeze the meat. In warmer climates however, you will need to use a drying or smoking process to preserve it. One night of heavy smoking will make meat edible for about 1 week. Two nights will make it remain edible for 2 to 4 weeks. To prepare meat for drying or smoking, cut it with the grain in quarter inch strips. To air dry the meat, hang it in the wind and hot sun out the reach of animals; cover it so that blow flies cannot land on it.

w. (y) To smoke meat, you will need an enclosed area - for instance, a teepee (figure 11-12) or a pit. You will also need wood from deciduous trees, preferably green. Do not use conifer trees such as pines, firs, spruces, or cedars as the smoke from these trees give the meat a disagreeable taste.

648. How do you smoke meat using a teepee fire?

a. When using the para-teepee or other enclosed area with a vent at the top, set the fire in the center and let it burn down to coals, then stoke it with green wood. Place the strips of meat on a grate or hang them from the top 11-17 of the enclosure so that they are about 2 feet above the smoking coals. To use the pit method of smoking meat dig, a hole about 3 feet (1 meter) deep and 1 1/2 feet (1/2 meter) in diameter. Make a fire at the bottom of the hole. After it starts burning well, add chipped green wood or small branches of green wood to make it smoke. Place a wooden grate about 1 1/2 feet (1/2 meter) above the fire and lay the strips of meat on the grate. Cover the pit with poles, boughs, leaves, or other material.

649. After determining your shelter site, you should keep in mind the type of shelter (protection) you need. What factors do you need to consider?

a. (1) How much time and effort are needed to build the shelter?

b. (2) Will the shelter adequately protect you from the elements (rain, snow, wind, sun, etc.)?

c. (3) Do you have tools to build it? If not, can you improvise tools from materials in the area?

d. (4) Do you have the type and amount of manmade materials needed to build it? If not, are there sufficient natural materials in the area? You need to know how to make different types of shelters. Only two are described in this handbook. Additional information is available in FM 21-76.

650. How do you construct a poncho lean-to shelter?
    a. It takes only a short time and minimal equipment to build this lean-to (figure 10-13). You need a poncho, 6 to 10 feet of rope, three stakes about 6 inches long, and two trees (or two poles) 7 to 9 feet apart. Before you select the trees you will use (or decide where to place the poles), check the wind direction. Make sure the back of your lean-to will be into the wind
651. How can you build a lean to shelter?
    a. (1) Tie off the hood of the poncho. To do this, pull the draw cord tight; roll the hood long ways, fold it into thirds, and tie it with the draw cord
    b. (2) Cut the rope in half, on one long side of the poncho, tie half of the rope to one corner grommet and the other half to the other corner grommet.
    c. (3) Attach a drip stick (about a 4-inch stick) to each rope 1/4 to 3/4 inches away from the grommet. These drip sticks will keep rainwater from running down the ropes into the lean-to. Using drip lines is another way to prevent dripping inside the shelter. Tie lines or string about 4 inches long to each grommet along the top edge of the shelter. This allows water to run to and down the line without dripping into the shelter.
    d. (4) Tie the ropes about waist high on the trees (uprights). Use a round turn and two half hitches with quick-release knot.
    e. (5) Spread the poncho into the wind and anchor to the ground. To do this, put three sharpened sticks through the grommets and into the ground.
    f. (6) If you plan to use the lean-to for more than one night, or if you expect rain, make a center support to the lean-to. You can do this by stretching a rope between two upright poles or trees that are in line with the center of the poncho.
    g. (7) Tie another rope to the poncho hood; pull it upward so that it lifts the center of the poncho, and tie it firmly to the rope stretched between the two uprights.
    h. (8) Another method is to cut a stick to place upright under the center of the lean-to. This method, however, will restrict your space and movements in the shelter.
    i. (9) To give additional protection from wind and rain, place boughs, brush, your rucksack, or other equipment at the sides of the lean-to.
    j. (10) To reduce heat loss to the ground, place some type of insulating material, such as leaves or pine needles, inside your lean-to. NOTE: When at rest, as much as 80 percent of your body heat can be lost to the ground.
    k. (11) To increase your security from enemy observation, lower the silhouette of the lean-to by making two modifications. (a) Secure the support lines to the trees knee-high rather than waist-high. (b) Use two knee-high sticks in the two center grommets (sides of lean-to), and angle the poncho to the ground, securing it with sharpened sticks as above.
652. What is the process for building a field expedient lean-to shelter?
    a. If you are in a wooded area and have sufficient natural materials, you can make an expedient lean-to (figure 11-14) without the aid of tools or with only a knife. You need more time to make it than the shelter previously mentioned, but it will protect you from most environmental elements You will need two trees, (or

two upright poles), about 6 feet apart; one pole about 7 feet long and 1 inch in diameter. Five to eight poles about 10 feet long and 1 inch in diameter for beams, cord or vines for securing, the horizontal support to the trees and other poles, saplings, or vines to crisscross the beams

653. To make this lean-to:
    a. (1) Tie the 7-foot pole to the two trees at point about waist to chest high. This is your horizontal support. If there is a fork in the tree, you can rest the pole in it instead of tying the pole in place. If a standing tree is not available, construct a bipod using an Y-shaped sticks or two tripods. (2) Place one end of the beams (10-foot poles) one side of the horizontal support. As with all lean-to type shelters, make sure the backside of the lean-to is placed into the wind. (3) Crisscross sapling or vines on the beams. (4) Cover the framework with brush, leaves, pine needles, or grass, starting at the bottom and working your way up like shingling. (5) Place straw, leaves, pine needles, or grass inside the shelter for bedding. (6) In cold weather you can add to the comfort of your lean-to by building a fire-reflector wall (figure 11-14). Drive four stakes about 4 feet long into the ground to support the wall. Stack green logs on top of one another between the support stales. Bind the top of the support stakes so the green logs will stay in place. Fill in the spaces between the logs with twigs or small branches. With just a little more effort you can have a drying rack: Cut a few 3/4 inch diameter poles (length depends on distance between the lean-to support and the top of the fire-reflector wall). Lay one end of the poles on the lean-to horizontal support and the other ends on top of the reflector wall. Place and tie into place smaller sticks across these poles. You now have a place to dry clothes, meat, or fish.

654. When selecting a site to build a fire, you should consider the following:
    a. (1) The area (terrain and climate) in which you are operating.
    b. (2) The material and tools available.
    c. (3) How much time you have.
    d. (4) Why you need a fire.
    e. (5) The nearness of the enemy.

655. To prepare a site for a fire, look for a dry spot that has the following:
    a. (1) That is protected from the wind.
    b. (2) That is suitably placed in relation to your shelter (if any).
    c. (3) That will concentrate the heat in the direction you desire.
    d. (4) Where a supply of wood or other fire burning material is available.
    e. (5) If you are in a wooded or brush-covered area, clear brush away, and scrape the surface soil from the spot you selected. The cleared circle should be at least 3 feet (1 meter) in diameter so that there is little chance of the fire spreading.

656. How do you build a dakota fire hole?
    a. In some situations you may find that an underground fireplace will best meet your need. It conceals the fire to some extent and serves well for cooking food. To make an underground fireplace or Dakota fire hole
    b. (1) Dig a hole in the ground. (2) On the upwind side of this hole, poke one large connecting hole for ventilation.

657. How can you create fire in a snow covered or wet area?
    a. If you are in a snow covered or wet area, you can use green logs to make a dry base for your fire (figure 11-16). Trees with wrist-size trunks are easily broken in extreme cold. Cut or break several green logs and lay them side by side on top of the snow. Add one or two more layers, laying the top layer logs in a direction opposite those of the layer below it.
658. There are several methods for laying a fire for quick fire making. What are three methods to help you do so?
    a. Tepee, lean-to, and cross-ditch.
659. How do you build a teepee fire?
    a. Arrange tinder and a few sticks of kindling in the shape of a cone. Fire the center. As the cone burns away, the outside logs will fall inward, feeding the heart of the fire. This type of fire burns well even with wet wood.
660. How do you build a Lean-to fire?
    a. Push a green stick into the ground at a 30 degree angle. Point the end of the stick in the direction of the wind. Place some tinder (at least a handful) deep inside this lean-to stick. Light the tinder. As the kindling catches fire from the tinder, add more kindling.
661. How do you build a cross ditch fire?
    a. Scratch a cross about 1 foot in size in the ground. Dig the cross 3 inches deep. Put a large wad of tinder in the middle of the cross. Build a kindling pyramid above the tinder. The shallow ditch allows air to sweep under the fire to provide a draft.
662. What is the procedure for treating snake bites?
    a. 1. Get the casualty away from the snake.
    b. 2. Remove all rings and bracelets from the affected extremity.
    c. 3. Reassure the casualty and keep him quiet.
    d. 4. Apply constricting band(s) 1-2 finger widths proximal to the bite. One finger should be able to be slipped between the band and skin. ARM or LEG Bite - Place one band above and one band below the bite site. HAND or FOOT Bite - Place one band above the wrist or ankle.
    e. 5. Immobilize the affected limb in a position below the level of the heart.
    f. 6. Kill the snake, if possible, (without damaging its head or endangering yourself) and send it with the casualty.
    g. 7. Seek medical treatment immediately.
663. Brown recluse Black Widow Spider bites
    a. 1. Keep the casualty calm.
    b. 2. Wash the area.
    c. 3. Apply ice or a freeze pack, if available.
    d. 4. Seek medical treatment.
664. Tarantula bite, Scorpion sting, Ant bites
    a. 1. Wash the area.
    b. 2. Apply ice or a freeze pack, if available.

c. 3. Apply baking soda, calamine lotion, or meat tenderizer to the bite site to relieve pain and itching.
d. 4. If site of bite(s) or sting(s) is on the face, neck (possible airway blockage), or genital area, or if reaction is severe, or if the sting is by the dangerous Southwestern scorpion, keep the casualty as quiet as possible and seek immediate medical aid.

665. Bee stings
a. 1. If the stinger is present, remove by scraping with a knife or finger nail.
b. DO NOT squeeze venom sack on stinger, more venom may be injected.
c. 2. Wash the area.
d. 3. Apply ice or freeze pack, if available.
e. 4. If allergic signs or symptoms appear, be prepared to perform CPR and seek medical assistance.

666. Human and Other animal Bites
a. 1. Cleanse the wound thoroughly with soap or detergent solution.
b. 2. Flush bite well with water.
c. 3. Cover bite with a sterile dressing.
d. 4. Immobilize injured extremity.
e. 5. Transport casualty to a medical treatment facility.
f. 6. Kill the animal, if possible, without damaging its head or endangering yourself, and send it with the casualty

667. Sharks, Barracuda, and Alligators
a. 1. Control the bleeding.
b. 2. Prevent shock.
c. 3. Provide basic life support.
d. 4. Splint any orthopedic injuries.
e. 5. Provide immediate medical attention.

668. How should you treat wounds from turtles, eels, or corals?
a. 1. Clean the wound(s) thoroughly.
b. 2. Splint if necessary

669. How should you treat wounds from Jellyfish, Portuguese Mano-War, Anemones, etc.?
a. 1. Gently remove clinging tentacles with a towel.
b. 2. Apply diluted ammonia, alcohol, meat tenderizer, or talcum powder.
c. 3. Seek medical attention.

670. How should you treat injuries from Spineyfish, Urchins, Stingrays, and Conch shells?
a. 1. Soak the wound in warm water for 30-60 minutes.
b. 2. Seek further first aid as necessary

671. What is line 1 of a MEDEVAC?
a. Location of pick-up site.
b. Encrypt the grid coordinates of the pick-up site. When using the DRYAD Numeral Cipher, the same "SET" line is used to encrypt both the grid zone letters and the coordinates. To preclude misunderstanding, a statement should be made that

grid zone letters are included in the message. (Unless unit SOP specifies its use at all times.)

672. What is line 2 of a MEDEVAC?
    a. Radio frequency, call sign w/suffix.
    b. Encrypt the frequency of the radio at the pick-up site and not a relay frequency. The call sign (and suffix if used) of person to be contacted at the pick-up site may be transmitted in the clear.
673. What is line 3 of a MEDEVAC?
    a. Number of patients by precedence
    b. Report only applicable information and encrypt the appropriate amount(s) and brevity number(s). (#)-1-Urgent - Save life/limb/eyesight EVAC w/in 2 hours (#)-2-Priority - Evac w/in 4 hours. (#)-3-Routine - Evac w/in 24 hours. (#)-4-Tactical Immediate - ASAP. If two or more categories must be reported in the same request, insert the word "BREAK" between each category.
674. What is line 4 of a MEDEVAC?
    a. Special equipment required.
    b. Encrypt the appropriate brevity number(s).
    c. 5 - None
    d. 6 - Hoist
    e. 7 - Stokes Litter
    f. 8 - Forest/Jungle Penetrator
675. What is line 5 of a MEDEVAC?
    a. Number of casualties by type
    b. Report only applicable information and encrypt the appropriate amount(s) and brevity number(s). If requesting MEDEVAC for both types, insert the proword "BREAK" between the litter entry and ambulatory entry. (#) - Litter (#) - Ambulatory (sitting)
676. What is line 6 of a MEDEVAC?
    a. Security of pick up site
    b. 1 - No enemy troops in area. 2 - Possibly enemy troops in area (approach with caution). 3 - Enemy troops in area (approach with caution). 4 - Enemy troops in area (armed escort required). 5 - Peacetime
677. What is line 7 of a MEDEVAC?
    a. Signaling method
    b. Encrypt the appropriate brevity number(s): 5 - Panels. 6 - Pyrotechnic signal. 7 - Smoke signal. 8 - Signal person. 9 - Strips of fabric or parachute. 0 - Tree branches, pieces of wood, or stones placed together. 1 - Signal lamp or flashlight. 2 - Vehicle lights. 3 - Open flame.
678. What is line 8 of a MEDEVAC?
    a. Patient's nationality and status.
    b. The number of patients in each category need not be transmitted. Encrypt only the appropriate brevity number(s): 4 - US military. 5 - US civilian. 6 - Non-US military. 7 - Non-US civilian. 8 - EPW
679. What is line 9 of a MEDEVAC?

a. NBC Contamination Include this line only when applicable. Encrypt the appropriate brevity number(s). 9 - Nuclear 0 - Biological 1 - Chemical - Peacetime

680. What are the symptoms and treatments for a head injury?
   a. SYMPTOMS
   b. (1) Bleeding (2) Deformity (3) Unconsciousness (4) Memory loss (5) Clear fluid or blood leaking from nose and ears (6) Staggering/dizziness (7) Change in pulse (8) Breathing problems (9) Nausea or vomiting (10) Convulsions (11) Slurred speech (12) Confusion (13) Sleepiness (14) Black eyes (15) Eye problems (16) Paralysis (17) Headache
   c. TREATMENTS
   d. (1) Maintain open airway. (2) Place a dressing over wounded area. (3) Do not attempt to clean the wound. (4) Keep casualty warm. (5) Do not attempt to remove an impaled object from the head. (6) Do not give the casualty anything to eat or drink. (7) Do not administer morphine or similar drugs. (8) Do not attempt to push any brain matter back into the head. (9) Keep the airway clean. (10) Position the casualty on his side opposite the site of injury.

681. What are the symptoms of chilblain? What are the treatments?
   a. SYMPTOMS
   b. Red, swollen, hot, tender, itching skin. Continued exposure may lead to infected (ulcerated bleeding) skin lesions.
   c. TREATMENTS
   d. 1. Area usually responds to locally applied warming (body heat). 2. Do Not rub or massage area. 3. Seek medical treatment.

682. What are the symptoms of trench foot? What are the treatments?
   a. SYMPTOMS
   b. Affected parts are cold, numb, and painless. As parts warm they may be hot, with burning and shooting pains. Advanced stage: skin pale with bluish cast: pulse decreases, blistering, swelling, heat hemorrhages, and gangrene may follow.
   c. TREATMENTS
   d. 1. Gradual warming by exposure to warm air. 2. DO NOT massage or moisten skin. 3. Protect affected parts from trauma. 4. Dry feet thoroughly: avoid walking. 5. Seek medical treatment.

683. What are symptoms and treatments for superficial frostbite?
   a. SUPERFICIAL: Redness, blisters in 24-36 hours and sloughing of the skin. DEEP: Preceded by superficial frostbite; skin is painless, paleyellowish, waxy, "wooden" or solid to touch, blisters form in 12-36 hour
   b. SUPERFICIAL: 1. Keep casualty warm; gently warm affected parts. 2. Decrease constricting clothing, increase exercise and insulation. DEEP: 1. Protect the part from additional injury. 2. Seek medical treatment as fast as possible.

684. What are the symptoms and treatments of snow blindness?
   a. Eyes may feel scratchy, watering, redness, headache, increased pain with exposure to light can occur.
   b. 1. Cover the eyes with a dark cloth. 2. Seek medical treatment.

685. What are treatments of dehydration?
    a. Similar to heat exhaustion.
    b. 1. Keep warm, loosen clothes.
    c. 2. Replace lost fluids, rest, and additional medical treatment.
686. What are symptoms of hypothermia? What are some of the treatments?
    a. Casualty is cold, uncontrolled shivering, until shivering stops, rectal (core)temp less 95 degrees F consciousness may be altered, uncoordinated movements may occur, shock and coma occur as body temperature drops.
687. What are the procedures for handling casualties with mild hypothermia?
    a. 1. Warm body evenly and without delay. (Heat source must be provided.)
    b. 2. Keep dry, protect from elements.
    c. 3. Warm liquids may be given to conscious casualty only.
    d. 4. Be prepared to start CPR.
    e. 5. Seek medical treatment immediately.
688. What is the procedures for handling casualties with severe hypothermia?
    a. 1. Quickly stabilize body temperature.
    b. 2. Attempt to prevent further heat loss.
    c. 3. Handle the casualty gently.
    d. 4. Evacuate to nearest medical treatment facility as soon as possible.
689. What are the symptoms and treatments for heat cramps?
    a. SYMPTOMS
    b. Casualty experiences muscle cramps in arms, legs and/or stomach, may also have wet skin and extreme thirst.
    c. TREATMENTS
    d. 1. Move the casualty to a shaded area and loosen clothing.
    e. 2. Allow casualty to drink 1 quart of cool water slowly per hour.
    f. 3. Monitor casualty and provide water as needed.
    g. 4. Seek medical attention if cramps persist.
690. What are the symptoms and treatments of heat exhaustion?
    a. SYMPTOMS
    b. Casualty experiences loss of appetite, headache, excessive sweating, weakness or faintness, dizziness, nausea, muscle cramps. The skin is moist, pale and clammy.
    c. TREATMENTS
    d. Move the casualty to a cool, shaded area and loosen clothing.
    e. Pour water on casualty and fan to increase cooling effect of evaporation.
    f. Provide at least one quart of water to replace lost fluids.
    g. Elevate legs.
    h. Seek medical aid if symptoms continue.
691. What are the symptoms of a heatstroke? What is the treatment for heatstroke?
    a. SYMPTOMS
    b. Casualty stops sweating (hot, dry skin), may experience headache, dizziness, nausea, vomiting, rapid pulse and respiration, seizures, mental confusion.

Casualty may suddenly collapse and lose consciousness. THIS IS A MEDICAL EMERGENCY!

c. TREATMENTS
d. 1. Move casualty to a cool, shaded area, loosen clothing, remove outer clothing if the situation permits.
e. 2. Immerse in cool water. If a cool bath is not available, massage arms and legs with cool water. Fan casualty to increase the cooling effect of evaporation.
f. 3. If conscious, slowly consume one quart of water.
g. 4. SEEK MEDICAL AID AND EVACUATE AS SOON AS POSSIBLE. Perform any lifesaving measures.

692. Why must infantry units be proficient in conducting operations in urban combat?
   a. Infantry units must be trained to conduct urban combat under high-intensity conditions. High-intensity urban combat requires the employment of combat power of the joint combined arms team. An Infantry unit's mission is normally to recon, isolate, penetrate, systematically clear, defend the urban area, and engaging and defeating the enemy with decisive combat power. Although the changing world situation may have made urban combat under high-intensity conditions less likely for US forces, it represents the high end of the combat spectrum, and units must be trained for it. High-intensity urban operations can be casualty-intensive for both sides. With the integrated firepower of the joint, combined arms team, leaders must make every attempt to limit unnecessary destruction of critical infrastructure and casualties among noncombatants

693. How do infantry units effectively operate in urban settings with civilian populations?
   a. Infantry units train to defeat an enemy that is mixed with non-combatants in precision urban combat. Leaders plan to limit civilian casualties and collateral damage through the establishment of strict rules of engagement (ROE) and the employment of precision weapons and munitions. The ROE provides the focus for the use and restraint of combat power. The ROE may be significantly more restrictive than under high-intensity conditions.

694. When are operations conducted under surgical conditions?
   a. Operations conducted under surgical conditions include special-purpose raids, small precision strikes, or small scale personnel seizure or recovery operations in an urban environment (for example, hostage rescue). Joint special operation forces usually conduct these operations. They may closely resemble US police operations performed by Special Weapons and Tactics (SWAT) teams. They may even involve cooperation between US forces and host nation police. Though regular units may not usually be involved in the actual surgical operation, they 14-2 - may support it by isolating the area, by providing security or crowd control, or providing search and rescue teams.

695. Why must leaders prepare to operate in multiple types of urban combat?
   a. Leaders must always be prepared to transition rapidly from one type of urban combat to another, and back. Lessons learned from combat demonstrate that urban operations can rapidly deteriorate with little or no forewarning to

combatants. It is quite possible for a force involved in stability and support operations, to suddenly find themselves in a high-intensity combat situation.

696. What does it mean to surprise the enemy?
    a. Strike the enemy at a time or place or in a manner for which he is unprepared. Key to success: gives the assaulting element the advantage

697. Why is security essential for urban operations?
    a. Never permit the enemy to acquire unexpected advantage.
    b. (1) Maintain during all phases of the operation.
    c. (2) Four-dimensional battlefield (height, depth, width, subterranean).
    d. (3) Always maintain 360 degree security (include elevated and subterranean areas).
    e. (4) Mission is never complete as long as you remain in the urban environment. The status of actors in the urban environment does not afford the sense of security offered by "open" terrain. The key to survivability is a constant state of situational awareness.

698. What does it mean to keep planning in urban combat simple?
    a. Prepare clear, uncomplicated plans, and provide subordinates with concise orders to ensure thorough understanding.
    b. (1) Always keep plans simple.
    c. (2) Ensure everyone understands the mission and the commander's intent.
    d. (3) Plan and prepare for the worst.

699. What is speed and why is important for success in urban combat?
    a. Rate of military action.
    b. (1) Acts as security.
    c. (2) Move in a careful hurry
    d. (3) Smooth is fast and fast is smooth.
    e. (4) Never move faster than you can accurately engage targets.
    f. (5) Exercise tactical patience.

700. What is Violence of Action?
    a. Violence of Action. Eliminate the enemy with sudden, explosive force.
    b. (1) Combined with speed gives surprise.
    c. (2) Prevents enemy reaction.
    d. (3) Both physical and mental.

701. What factors influence mission planning in terms of enemy structure?
    a. Enemy (1) Disposition. Analyze the arrayal of enemy forces in and around your objective, known and suspected. Example: Known or suspected locations of minefields, obstacles, and strong points.
    b. (2) Composition and Strength. Analyze the enemy's task organization, troops available, suspected strength, and amount of support from local civilian populace based on intelligence estimates. Is the enemy a conventional or unconventional force?
    c. (3) Morale. Analyze the enemy's current operational status based on friendly intelligence estimates. Example: Is the enemy well supplied, have they had recent success against friendly forces, taken many casualties, current weather?

d. (4) Capabilities. Determine what the enemy can employ against your forces. Example: Enemy's weapons, artillery assets, engineer assets, air defense assets, NBC threats, thermal/NVG capabilities, close air support, armor threat, etc.
e. (5) Probable Course(s) of Action. Based on friendly intelligence estimates, determine how the enemy will fight within his area of operation (in and around your area of operation).

702. How does terrain impact urban operations?
a. (1) Leaders conduct a detailed terrain analysis of each urban setting, considering the types of built-up areas and composition of existing structures
b. (2) Utilize OCOKA when analyzing terrain, in and around the area of operation.
c. Troops Analyze your forces utilizing their disposition, composition, strength, morale, capabilities, etc. Leaders must also consider the type and size of the objective to plan effective use of troops available.

703. How does time impact urban operations?
a. Operations in an urban environment have a slower pace and tempo. Leaders must consider the amount of time required to secure, clear, or seize the urban objective and stress and fatigue soldiers will encounter. Additional time must also be allowed for area analysis efforts, these may include, but are not limited to:
b. • Maps and urban plans Recon and analysis
c. • Hydrological data analysis
d. • Line-of-sight surveys
e. • Long Range Surveillance and Scout reconnaissance
f. Similar to the conduct of other military operations, leaders need to designate time for rehearsals. Urban operations require a variety of individual, collective, and special tasks, which are not associated with operations on less complex terrain. These task require additional rehearsal time for clearing, breaching, obstacle reduction, casualty evacuation, and support teams. Additionally, rehearsal time must be identified for rehearsals with combined arms elements. These may include, but are not limited to:• Artillery • Armor • Aviation • Armor • Engineers

704. How do civilians impact urban operations?
a. Civilians: Authorities such as the National Command will establish the Rules of Engagement. Commanders at all levels, may provide further guidance regarding civilians occupying the area of operations (AO). Leaders must daily reiterate the ROE to subordinates, and immediately inform them of any changes to the ROE. Rangers must have the discipline to identify the enemy from noncombatants and ensure civilians understand and follow all directed commands.

705. What determines who wins close quarter engagements?
a. Due to the very nature of a CQC encounter, engagements will be very close (within 10 meters) and very fast (targets exposed for only a few seconds). Most close quarter's engagements are won by who hits first and puts the enemy down.

706. What is the most important component of CQB?
a. It is more important to knock a man down as soon as possible than it is to kill him. In order to win a close quarters engagement, Rangers must make quick,

accurate shots by mere reflex. This is accomplished by reflexive fire training. Remember, no matter how proficient you are, always fire until the enemy goes down. All reflexive fire training is conducted with the eyes open.

707. Describe the optimal stance for firing your weapon.
    a. Feet are shoulder width apart, toes pointed straight to the front (direction of movement). The firing side foot is slightly staggered to the rear of the non-firing foot. Knees are slightly bent and the upper body leans slightly forward. Shoulders are not rolled or slouched. Weapon is held with the butt stock in the pocket of the shoulder. The firing side elbow is kept in against the body. The stance should be modified to ensure the Ranger maintains a comfortable boxer stance.
708. Describe the low carry technique.
    a. The butt stock of the weapon is placed in the pocket of the shoulder. The barrel is pointed down so the front sight post and day optic is just out of the field of vision. The head is always up identifying targets. This technique is safest and is recommended for use by the clearing team once inside the room
709. Describe the high carry technique.
    a. The butt stock of the weapon is held in the armpit. The barrel is pointed slighted up with the front sight post in the peripheral vision of the individual. Push out on the pistol grip and thrust the weapon forward and pull straight back into the pocket of the shoulder to assume the proper firing position. This technique is best suited for the line-up outside the door. Exercise caution with this technique always maintaining situational awareness, particularly in a multi-floored building.
710. Why is Muzzle awareness critical to the successful execution of close quarter's operations?
    a. Rangers must never point their weapons or cross the bodies of their fellow Rangers at any time. Additionally Rangers should always avoid exposing the muzzle of their weapons around corners; this is referred to as "flagging".
711. What occurs if you experience a weapon malfunction during CQC?
    a. If a Ranger has a malfunction with his weapon during any CQC training, he will take a knee to conduct immediate action. Once the malfunction is cleared there is no need to immediately stand up to engage targets. Rangers can save precious seconds by continuing to engage from one knee. Whenever other members of the team see a Ranger down, they must automatically clear his sector of fire. Before rising to his feet, the Ranger warns his team members of his movement and only rises after they acknowledge him. If a malfunction occurs once committed to a doorway, the Ranger must enter the room far enough to allow those following him to enter and move away from the door. This drill must be continually practiced until it is second nature.
712. What are actions taken upon approaching a building or breach point?
    a. One of the trademarks of ranger operations is the use of limited visibility conditions. Whenever possible, breaching and entry operations should be executed during hours and conditions of limited visibility Rangers should always take advantage of all available cover and concealment when approaching breach and entry points. When natural or manmade cover and concealment is not

available, Rangers should employ obscurants to conceal their approach. There are times when Rangers will want to employ obscurants to enhance existing cover and concealment. Members of the breach / entry team should be numbered for identification, communication, and control purposes. (1) The number one man should always be the most experienced / mature member of the team, next to the team leader. The number one man is responsible for frontal and entry / breach point security. (2) The number two man is directly behind the number one man in the order of movement and is normally responsible as an entry or clearing team member. 14-7 - (3) The number three man is normally the team leader and is responsible for initiating all voice and physical commands. The team leader must exercise situational awareness at all time with respect to the task, friendly force, and enemy activity. One technique would be to use the number three man as the breach man. The breach man may employ one of the three breaching techniques, which are: • Ballistic (Shotgun, Rifle, etc...) • Mechanical (Hooligan Tool, Prybar, Sledge Hammer, etc...) • Explosive (Door Knob Charge, Chain-link Ladder Charge, E-Silhouette Charge, etc...) (4) The number four man is normally the automatic rifleman and is usually equipped with an M249 Squad Automatic Weapon. He is responsible for rear security and is normally the last man into the room and can respond with a tremendous amount of firepower, should the team leader require him to do so. Another technique is to utilize the number four man as the breach man.

713. What are Actions Outside the Point of Entry?
    a. Entry point position and individual weapon positions are important. The clearing team members should stand as close to the entry point as possible, ready to enter. Weapons are oriented in such a manner that the team provides itself with 360 degree security at all times. Team members must signal to one another that they are ready at the point of entry. This is best accomplished by sending up a "squeeze". If a tap method is used, an inadvertent bump may be misunderstood as a tap.
714. What are the actions upon entry into structures?
    a. Non-lethal grenades can be used prior to entering any type of structure. If an enemy force is known to occupy a room, fragmentation grenades can be used if the walls and foundations are suitable. A fragmentation grenade has tremendous overpressure and missile hazard and may severely damage lightly constructed buildings. Team members must exercise fire control and discriminate between enemy and noncombatant targets. Rooms are never entered with less than two men. The #1 or #2 man may shout "Short Room" if the room is too small for the whole team.
715. How do you clear the entry point?
    a. Team members must clear the point of entry to eliminate the enemy threat and allow remaining team members to move into the room. An entry point acts as a fatal funnel since it is the focal point for enemy weapon acquisition.
716. How do you clear the room?

a. Team members move away from the entry point and assume positions within the room where the threat can be best eliminated. Any threat is eliminated or neutralized as individual team members move to their points of domination, not once you get there. Never move faster than you can accurately engage targets

717. How are sectors of fire divided in rooms?
    a. The number one man enters and goes left or right based on immediate threat location. The number two man goes the opposite direction of the number one man and engages all targets of opportunity in his sector. These actions normally result in the room being "divided" in half and 100% of the room being scanned except for the upper levels. The number three man enters, clears the fatal funnel to the left or the right, and primarily scans overhead areas. The number four man enters and goes opposite the number three man and continues to provide rear security as the situation dictates.
718. What are the steps for locking down a room?
    a. (1) Control the situation within the room.
    b. (2) Use clear, concise arm and had signals. Voice commands should be kept to a minimum to reduce the amount of confusion and to prevent the enemy (which may be in the next room) from discerning what is going on. This enhances the opportunity for surprise and allows the assault force the opportunity to detect any approaching force.
    c. (3) Physically and psychologically dominate.
    d. (4) Establish security / report status.
    e. (5) Cursory search of the room to include the ceiling (3 Dimensional Fight). 14-9 -
    f. (6) Identify the dead using reflexive response techniques (Eye thump method).
    g. (7) Search the room for PIR, precious cargo as per the mission and time available.
    h. (8) Evacuate personnel.
    i. (9) Mark room clear (chemlights, engineer tape, chalk, paint, VS-17 panels, etc.).
719. Closed Stairwell: Any Stairwell separated by walls between flights of stairs. Figure 14-5-5 depicts a closed stairwell. How do you clear an open stairwell?
    a. STEP 1: The #1 man checks high to insure there is no opening on the landing or between the stairs.
    b. STEP 2: The #2 man pulls long security to the next bend or landing.
    c. STEP 3: The #1 man or #3 man with the #2 man move up the steps. As they approach the corner the #2 man will tap the #1 man on the shoulder signaling that he is with him.
    d. STEP 4: Keying off the #1 man's movement, they will both simultaneously break around the corner.
    e. STEP 5: If no fire is received #2 man will move to the opposite wall and continue to move up until they reach their objective.
    f. STEP 6: The #3 and #4 men will continue to move 3 to 4 steps behind. NOTE: Do not get locked into security position. (e.g. Inside stairwell) Do not get spread out thin or separated by more than one floor of stairs.
720. How do you clear an open stairwell?

a. STEP 1: The #1 man pulls security on the highest point he can see / engage.
b. STEP 2: The #2 man moves up the stairs on the inside with the #3 man to a point that he can see / engage the next landing, where he turns around and continues to move up to the next landing.
c. STEP 3: The #3 man moves up the stairs with the #2 man on the outside and engages the threat on the immediate landing.
d. STEP 4: The #4 man moves up the stairs with the #1 man, on the squeeze, the #2 man turns around to engage the next landing.
e. STEP 5: The flow continues with the #2 man picking up the sector of the #1 man had. The #3 man picks up where the #2 man was. The #4 man picks up where the #3 man was. The #1 man picks up where the #4 man was.

721. What is the process for clearing multiple rooms and multiple teams?
a. STEP 1: First team enters and clears Room #1.
b. STEP 2: Squad Leader determines direction the second clearing team must enter Room #1 based on location of Room #2 entry point.
c. STEP 3: First team collapses inward to allow the second team to move into the room.
d. STEP 4: Second team "stacks left" and prepares to enter Room #2

722. What is the process for clearing a T-intersection?
a. STEP 1: Each #1 man goes to a knee covering his sector.
b. STEP 2: On a predetermined signal each two man team will break the corner picking up their sectors of fire. NOTE: This technique can incorporate the Dynamic Corner Clear.

723. What is he process for clearing a hallway?
a. Clearing team(s) move down the hallway utilizing the frontal security (cross cover technique). See Figure 14-5-6.

724. What is the process for clearing a dynamic corner?
a. STEP 1: The #1 and #2 man as they approach the corner they have to clear do not slow down.
b. STEP 2: The #2 man will tap the #1 man on the shoulder about 2 - 3 meters away from the corner letting the #1 man know the #2 man is with him.
c. STEP 3: Keying off the #1 man's movement they both break the corner simultaneously.
d. STEP 4: The #1 man goes to low to a knee, the #2 man stays high.
e. STEP 5: If the Rangers are not receiving fire the #2 man rabbits / moves to the far side.
f.
g. STEP 5: The #1 and #2 man take up sectors of fire.
h. STEP 6: The #3 and #4 man take long security in the direction of movement.
i. What is the procedure for clreaing a three way intersection STEP 1: The #1- 4 men will use one of the corner clearing techniques to clear the corner that they have.
j. STEP 2: The #5 and #6 man move through the intersection and enter the room as the #1 and #2 man or pick cross coverage if they are entering more hallway.

k. STEP 3: The #3 and #4 man will then follow into the stack as a four man team, or they will become the rear flank security if entering more hallway.
l. STEP 4: The #1 and #2 man will provide security where needed unless they are needed in the room. If entering more hallway the #1 man will become center ling security and the #2 man will become rear or floater

725. What is the purpose of mechanical breaching? What are some tools commonly used for mechanical breaching?
a. Mechanical Breaching should be an important part of a leader's breaching training program because it is almost always an option. Mechanical Breaching is best described as gaining access by the use of tools or saws. Although most tools and saws used are recognizable and self explanatory to the individual Ranger, one must practice on various techniques to increase speed an effectiveness. This reduces fatigue and expedites the actual assault.
b. Mechanical Breaching Tools.
c. (a) Hooligan Tools (Doors/windows of all types).
d. (b) Sledge Hammer (Heavy Duty Doors, Locks, and Window Frames).
e. (c) Picket Pounder (Doors of all types, Light Walls).
f. (d) Bolt Cutters (Chain Link Fence, Locks, and Wire Obstacles).
g. (e) Pick Ax (Lightweight Doors and Locks).
h. (f) Saws (Fences, Light Doors, Locks).

726. Ballistic. Ballistic Breaching is defined as a forced entry or exit by the use of weapons. Whether using shotguns, M16A2/M4, M249 SAW, specific considerations must be addressed. What are considerations for ballistic breaching?
a. Ballistic Breaching Considerations.
b. (a) Type of round and ricochet factor.
c. (b) Composition of the breaching point.
d. (c) Composition of the floor beyond the door.
e. (d) Personnel behind the door (Friendly/Enemy).
f. (e) Always shoot at a 45 degree angle.

727. Explosive Breaching is the most viable because it is the most effective. When employing explosives during breaching operations, leaders must consider three major factors. What are they?
a. (1) Overpressure. The amount of PSI released from the concussion of the blast.
b. (2) Missile Hazard. Fragmentation or projectiles sent at tremendous speed from the explosion area. This occurs from either the charge or target being breached.
c. (3) Minimum safe distance requirements (MSDs). Use of explosives in the urban environment must consider the presence of noncombatants and friendly forces. Additionally, the are many hazardous materials located in the urban environment, these may include chemicals as well as construction materials. There is always a risk of secondary explosions and fires, when employing explosive breaching techniques.
d. (4) Charges. Various charges can be utilized for explosive breaching. Leaders must conduct extensive training on the use of the charges to get proper target feedback.

728. What are examples of charges used for explosive breaching?
    a. (a) Water Impulse (Steel/Wood Doors).
    b. (b) Flexible Linear (Wood Doors).
    c. (c) Ranger Wall Breach (Masonry/Brick Walls)
    d. (d) Chain Link Ladder (Chain Link Fence)
    e. (e) E-Type Silhouette (Wood Doors)
    f. (f) Brashier Breacher (Concertina Wire)
729. What is the format for the 9-line MEDEVAC?
    a. •LOCATION OF PICK-UP SITE
    b. •FREQUENCY AND CALL SIGN
    c. •NUMBER OF PATIENTS BY PRECEDENCE (URGENT/PRIORITY/ROUTINE)
    d. •SPECIAL EQUIPMENT NEEDED
    e. •NUMBER OF PATIENTS BY TYPE
    f. •SECURITY OF PICK-UP SITE
    g. •METHOD OF MARKING PICK-UP SITE
    h. •PATIENT'S NATIONALITY/STATUS
    i. •NBC CONTAMINATION
730. What are some facts for operating in cold temperature?
    a. •CLEANLINESS AND CARE. CLOTHING FEET AND SOCKS FREE OR DIRT/OIL. CONSTANT CARE OF HE FEET IS ESSENTIAL.
    b. •OVERHEATING. ROBS HEAT VIA SWEAT AND CAUSES DEHYDRATION.
    c. •LOOSE & LAYERED. ENSURE CIRCULATION & INSULATION. ADJUST NUMBER OF LAYERS TO TEMPERATURE & ACTIVITY.
    d. •DRY. ESSENTIAL FOR HEAT RETENTION, ESPECIALLY INNER LAYERS. MOISTURE DECREASES INSULATION CAPABILITY.

731. What are defintions and examples operational variables?
    a. Political. Describes the distribution of responsibility and power at all levels of governance—formally constituted authorities, as well as informal or covert political powers. (Who is the tribal leader in the village?)
    b. Military. Exposes the military and paramilitary capabilities of all relevant actors (enemy, friendly, and neutral) in a given operational environment. (Does the enemy in this neighborhood have antitank missiles?)
    c. Economic. Encompasses individual and group behaviors related to producing, distributing, and consuming resources. (Does the village have a high unemployment rate?)
    d. Social. Describes the cultural, religious, and ethnic makeup within an operational environment and the beliefs, values, customs, and behaviors of society members. (Who are the influential people in the village? For example, religious leaders, tribal leaders, warlords, criminal bosses, or prominent families.)
    e. Information. Describes the nature, scope, characteristics, and effects of individuals, organizations, and systems that collect, process, manipulate, disseminate, or act on information. (How much access does the local population have to news media or the Internet?)

f. Infrastructure. Comprises the basic facilities, services, and installations needed for the functioning of a community or society. (Is the electrical generator in the village working?) Physical environment. Includes the geography and man-made structures as well as the climate and weather in the area of operations. (What types of terrain or weather conditions in this area of operation favor enemy operations?)
g. Time. Describes the timing and duration of activities, events, or conditions within an operational environment, as well, as how the timing and duration are perceived by various actors in the operational environment. (For example, at what times are people likely to congest roads or conduct activities that provide cover for hostile operations?)

732. What occurs upon receipt of a WARNO?
a. leaders filter relevant information categorized by the operational variables into the categories of the mission variables used during mission analysis. The mission variables consist of METT-TC. The Infantry platoon interacts with people at many levels. In general, the people in any area of operation can be categorized as a threat, an enemy, an adversary, a neutral, or a friend. One reason land operations are complex is all categories are intermixed, often with no easy means to distinguish one from another.Threat. Any combination of actors, entities, or forces that have the capability and intent to harm U.S. forces, U.S. national interests, or the homeland.
b. Enemy. A party identified as hostile against which the use of force is authorized.
c. An enemy is a combatant and is treated as such under the law of war. Adversary. A party acknowledged as potentially hostile to a friendly party and against which the use of force may be envisaged. Neutral. A party identified as neither supporting nor opposing friendly or enemy forces. Host Nation. A nation which receives the forces and supplies of allied nations and NATO organizations to be located on, to operate in, or to transit through its territory.

733. What may threats include?
a. Threats may include individuals, groups of individuals (organized or not organized), paramilitary or military forces, nation-states, or national alliances. When threats execute their capability to do harm to the United States, they become enemies. Preparing for and managing these threats requires employing all instruments of national power: diplomatic, informational, military, and economic.

734. What does the term hybrid threat refer to? What are hybrid threats?
a. The term hybrid threat has evolved to capture the seemingly increased complexity of operations, and the multiplicity of actors involved, and the blurring between traditional elements of conflict. A hybrid threat is the diverse and dynamic combination of regular forces, irregular forces, terrorist forces, or criminal elements unified to achieve mutually beneficial effects. Hybrid threats combine regular forces governed by international law, military tradition, and customs with irregular forces that act with no restrictions on violence or targets for violence. Such varied forces and capabilities enable hybrid threats to

capitalize on perceived vulnerabilities, making them particularly effective. While the existence of innovative enemies is not new, hybrid threats demand the Infantry platoon and squad prepare for a range of possible threats simultaneously

735. Why are cicivl considerations essential for mission planning?
    a. Incorporating civil considerations into mission analysis requires critical thinking, collaboration, continuous learning, and adaptation. It requires analyzing ASCOPE. In support of unified land operations, Army forces at every echelon must strive to obtain support from the indigenous population and institutions.
736. What are mission variables?
    a. Mission variables describe characteristics of the area of operation, focusing on how they might affect a mission. Incorporating the analysis of the operational variables into METT-TC ensures Army leaders consider the best available relevant information about conditions that pertain to the mission. Using the operational variables as a source of relevant information for the mission variables allows commanders to refine their situational understanding of their operational environment and to visualize, describe, direct, lead and assess operations
737. What does the M in METT-TC refer to?
    a. Mission. Commanders and staffs view all of the mission variables in terms of their impact on mission accomplishment. The mission is the task, together with the purpose, that clearly indicates the action to be taken and the reason for the action. It is always the first variable commanders consider during decisionmaking. A mission statement contains the, who, what, when, where, and why of the operation.
738. What does the E in METT-TC refer to?
    a. Enemy. The second variable to consider is the enemy dispositions (including organization, strength, location, and tactical mobility), doctrine, equipment, capabilities, vulnerabilities, and probable courses of action.
739. What does the first T in METT-TC refer to?
    a. Terrain and weather. Terrain and weather analysis are inseparable and directly influence each other's impact on military operations. Terrain includes natural features (such as rivers and mountains) and man-made features (such as cities, airfields, and bridges). Commanders analyze terrain using the five military aspects of terrain, observation and fields of fire, avenues of approach, key and decisive terrain, obstacles, cover and concealment (OAKOC). The military aspects of weather include visibility, wind, precipitation, cloud cover, temperature, and humidity.
740. What does the second T in METT-TC refer to?
    a. Troops and support available. This variable includes the number, type, capabilities, and condition of available friendly troops and support. This includes supplies, services, and support available from joint, host nation and unified action partners. They also include support from civilians and contractors employed by military organizations, such as the Defense Logistics Agency and the Army Materiel Command.
741. What does the third T in METT-TC refer to?

a. Time available. Commanders assess the time available for planning, preparing, and executing tasks and operations. This includes the time required to assemble, deploy, and maneuver units in relationship to the enemy and conditions.

742. What does the C in METT-TC refer to?
    a. Civil considerations. Civil considerations are the influence of manmade infrastructure, civilian institutions, and activities of the civilian leaders, populations, and organizations within an area of operation on the conduct of military operations. Civil considerations comprise six characteristics, expressed as ASCOPE: areas, structures, capabilities, organizations, people, and events.
743. What is the Army's operational concept?
    a. The Army's operational concept is unified land operations. It is based on the central idea that Army units seize, retain, and exploit the initiative, accepting prudent risk to gain a position of relative advantage over the enemy. This is accomplished through simultaneous combination of offensive, defensive, and stability-setting conditions for favorable conflict resolution.
744. What is the foundation of unified land operations?
    a. The foundation of unified land operations is built upon initiative, decisive action, Army core competencies and mission command. By integrating the four foundations of unified land operations, leaders can achieve strategic success
745. How do army forces seize initiative?
    a. To seize, to retain, and to exploit the initiative, Army forces strike the enemy, lethal and nonlethal, in time, places, or manners for which the enemy is not prepared. To seize the initiative (setting and dictating the terms of action), Army forces degrade the enemy's ability to function as a coherent force. Leaders then prevent the enemy's recovery by retaining the initiative.
746. How do army forces conduct Decisive and sustainable land Operations?
    a. Army forces conduct decisive and sustainable land operations through the simultaneous combination of offense, defense, and stability (or defense support of civil authorities) appropriate to the mission and environment. Army forces conduct regular and irregular warfare against conventional and hybrid threats
747. What are offensive tasks?
    a. Offensive tasks are tasks conducted to defeat and destroy enemy forces, and seize terrain, resources, and population centers. They impose the leader's will on the enemy
748. What are defensive tasks?
    a. Defensive tasks are tasks conducted to defeat an enemy attack, to gain time, to economize forces, and to develop conditions favorable for offensive or stability missions. Defense is aggressive, and platoon leaders use all available means to disrupt enemy forces
749. What are stability tasks?
    a. Stability tasks include various missions, tasks, and activities conducted outside the United States in coordination with other instruments of national power to maintain or reestablish a safe and secure environment, restore essential

government services, and provide emergency infrastructure reconstruction and humanitarian relief

750. What does homeland defense refer to?
    a. Homeland defense is the protection of U.S. sovereignty, territory, domestic population, and critical defense infrastructure against external threats and aggression, or other threats as directed by the President. DOD leads the response, with other departments and agencies in support of the DOD efforts
751. What is the philosophy of mission command?
    a. The philosophy of mission command—the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent—guide leaders in the execution of unified land operations. Unified land operations begin and end with the exercise of collective and individual initiative to gain a position of advantage while degrading and defeating the enemy throughout the depth of enemy's organization
752. What is the operations process?
    a. The operations process is the Army's overarching framework to integrate processes and activities across the force by means of mission command
753. What is the planning process?
    a. Planning is the process by which leaders translate the commander's visualization into a specific course of action (COA) for preparation and execution, focusing on the expected results. Planning to determine the relationship among the mission variables begins with the analysis and assessment of conditions in the operational environment, with particular emphasis on the enemy. It involves understanding and framing the problem and envisioning the set of conditions representing the desired end state
754. What is the preparation process?
    a. Preparation consists of activities performed by units to improve their ability to execute an operation. Preparation includes, but is not limited to, plan refinement, rehearsals, information collection and assessing, surveillance, and reconnaissance. This includes coordination, confirmation briefs and back briefs, inspections, and movement
755. What is the execution process?
    a. Execution is putting a plan into action by applying combat power to accomplish the mission, and using situational understanding to assess progress and make execution and adjustment decisions
756. What is the assessment process?
    a. Assessment refers to the continuous monitoring and evaluation of the current situation and progress of an operation. Assessment precedes and guides every operations process activity and concludes each operation or phase of an operation. It involves a comparison of forecasted outcomes to actual events
757. What are the eight elements of combat power?
    a. Combat power is the total means of a unit's destructive, constructive, and information capabilities that can apply at a given time. Infantry platoons and squads generate combat power by converting potential into action. There are

eight elements of combat power which include the six-warfighting functions (mission command, movement and maneuver, intelligence, fires, sustainment, and protection) plus leadership and information.

758. What is the definition of leadership?
    a. Leadership is the multiplying and unifying element of combat power. The Army defines leadership as the process of influencing people by providing purpose, direction, and motivation, while operating to accomplish the mission and improve the organization. Army leaders of character, competence, and commitment understand the strategic implications of their decisions and actions. They motivate others to do what is right understanding that decisions and actions that are inconsistent with the Army profession are not tolerated and that any such act(s) can compromise the mission and have strategic implications contrary to the national interest.
759. What does information do?
    a. Information enables leaders at all levels to make informed decisions on how best to apply combat power. Ultimately, this creates opportunities to achieve decisive results
760. What are considered required complementary tasks?
    a. Required complementary tasks include: Information-related capabilities that developed synchronized multiple information related capabilities in planning, coordination, synchronization, and assessment requirements in support of commander's objectives. Cyber electromagnetic activities to ensure information availability, protection, and delivery, as well as a means to deny, degrade, or disrupt the enemy's use of its mission command systems and other cyber capabilities. Knowledge management to make informed, timely decisions despite the uncertainty of operations and information management to make and disseminate decisions.
761. What is the area of operations?
    a. Area of operation refers to areas assigned to Army units by higher headquarters. Within their area of operation, commanders integrate and synchronize maneuver, fires, and interdiction. To facilitate this integration and synchronization, commanders have the authority to designate targeting priorities and timing of fires
762. What is the area of influence?
    a. Area of influence is a geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control. (ADRP 3-0) The area of influence normally surrounds and includes the area of operation
763. What is the area of interest?
    a. Area of interest is that area of concern to the commander, including the area of influence, adjacent areas, and areas extending into enemy territory. This area also includes areas occupied by enemy forces that could jeopardize the accomplishment of the mission.
764. What is a deep-close security framework? What are deep operations?

a. Deep-close-security framework that has been associated historically with a terrain orientation but can be applied to temporal and organizational orientations as well. Deep operations involve efforts to disrupt uncommitted enemy forces. Close operations involve efforts to have immediate effects with committed friendly forces, potentially in direct contact with enemy forces, to include enemy reserves available for immediate commitment.

765. What are security operations?
    a. Security operations involve efforts to provide early and accurate warning of enemy operations, provide the force with time and maneuver space within which to react to the enemy, protect the force from surprise, and develop the situation so the commander can use the force.