O-0001
PREPARE GROUND TEAM INDIVIDUAL EQUIPMENT

CONDITIONS

You are a member of a ground team at home prior to a mission.

OBJECTIVE

Collect and efficiently pack all items required of a ground team member. The enclosed list is the suggested national list. Wings may have supplemented this list to suit their environment with national approval, so be sure to use your approved wing list.

TRAINING AND EVALUATION

Training Outline

1. Your individual equipment is designed to keep you functional in the field and to help you do your job.

a. Equipment is divided into two parts -- the 24-hour pack for short activities (typical field gear) and the 72 hour pack for longer duration activities (typically called base gear). This gear list was derived from the gear lists suggested by several CAP wings and other organizations including the National Association for Search and Rescue (NASAR), and modified to meet CAP needs.

1) The 24 hour pack is what you carry while searching. As its name infers, in case of an emergency, this equipment will help you survive in the wilderness for 24 hours. In addition, your 24 hour pack is part of your uniform -- when the public sees you on a mission, they will probably see you wearing your field gear. Because of this, your 24 hour pack must present a professional uniform appearance. Though packs do not need to be identical, it is advantageous for unit members to have similar 24-hour packs. Every ground team member will have this equipment.

2) The extended duration pack is designed to help you live in the field for more than one day, typically 48 to 72 hours. It includes your sleeping bag, tent, and other long term comfort items. The extended duration is not subject to uniformity -- color and size does not matter. The major constraint is how much you can carry. Even if the mission is only expected to last one day, you should always bring your base gear. You never know how long a mission will last, or whether you will go straight to another mission from the current one.

b. For your equipment to be effective, you must insure it is clean and serviceable. Occasionally you will have to replace items such as medicine, batteries or food because it has passed its expiration date.

c. You must be able to carry all your equipment at once, in case you must “hike in” to a mission base. Normally, this means leaving room in your base gear pack to stow all of your field gear.

d. Ensure your gear is properly secured -- nothing should be flapping loose where it could snag in the brush or bang against your body when moving.

e. Restrictions on Knives: You may only wear a sheath knife if authorized by your team leader. Sheath knives cannot have a blade longer than 6” or a total length of greater than 11”. The sheath must adequately secure the knife and protect the wearer from the blade. If authorized, sheath knives will be worn only on the pistol belt or carried inside the pack. The following knife types are not authorized: boot knives, butterfly knives, switch blades, double edged knives, “Rambo” style survival knives, or knives with retracting sheaths. Machetes or hatchets can only be carried by senior members when needed for that specific sortie. No knives may be visible when the member is performing crash sight surveillance duty.

2. The gear list below is the minimum required equipment. Items required of trainees are marked with a "T." You may carry additional equipment subject to team leader approval and your ability to secure and carry it -- remember, you may have to walk a long way carrying it all.

a. 24 hour pack

1) On your person:

a) Complete BDU uniform with BDU cap. The BDU cap may be replaced by a hard hat or bright colored cap based on mission needs.(T)

b) Notepad and pencil (T)

c) All CAP Identification, including 101 card, 76 card, First Aid card, etc. (T)

d) Watch (T)

e) Handkerchief or Tissues

f) Vest, reflective, orange (T)

g) Comb or brush (optional, carry if needed) (T)

h) Ground Team Member's Handbook

i) Signal Mirror

j) Whistle

k) Pocket or utility-type knife, multipurpose with can opener. Swiss Army knives, Leatherman, or Gerber Tools are recommended. (T)

2) Day pack (preferably red or orange), webbed gear, or other SAR/Survival Vest (T) containing:

a) First Aid Kit, stored in zip-lock bag or other waterproof container, recommended that it consists of the following:

(1) 2 Antiseptic cleansing pads
(2) Antiseptic ointment
(3) 6 Band-Aids, various sizes
(4) Moleskin, 2" X 4"
(5) Roller bandage
(6) 2 Safety pins, large
(7) 4 gauze pads
(8) 1 Triangular Bandage
(9) Tape, first aid
(10) Any personal medication (your team leader should know what you have and where you carry it.)(T)
(11) Rubber surgical gloves (two pair minimum)

b) Survival Kit, stored in zip-lock bag or other waterproof container, consisting of:

(1) Duct tape, 5-10 feet (does not need to be a whole role. May be wrapped around a stick.
(2) Leaf bag, large
(3) 12 wooden, waterproofed matches (T)
(4) Match container, waterproof, with striking surface
(5) 1 Chemical Light Stick, Green (T)
(6) 50' of nylon line (paracord or similar line).

c) SAR Equipment stored in zip-lock bags, consisting of:

(1) Change of socks (T)
(2) Flagging Tape, 1 roll
(3) Flashlight (with red or blue lens), with spare bulb and batteries
(4) Spare flashlight (penlight will do) (T)
(5) Insect repellent
(6) Lip balm, with sunscreen.
(7) Sunscreen lotion
(8) Tissue Paper (T)

(9) Work Gloves, leather (T)
(10) Interviewing Form(s), blank
(11) 4 Moist Towelettes, clean, in foil wrapper
(12 Change for phone calls, calling card, or cellular phone (T) to call mission base

d) 2 meals (T)
e) Shelter Material, preferably 8' X 10' (spare military poncho meets the need)
f) Coat for appropriate climate, if necessary (in pack if not wearing it)(T)
g) Poncho, (T)
h) Canteen(s) to carry 2 quarts of water (Some wings require their personnel to have at least one one-quart canteen on a belt while the other is stored in the field pack. At least one quart of water must be carried by all personnel)(T)
i) Compass Pouch, containing compass, lensatic or orienteering (orienteering preferred). Compass should have a "glow in the dark" dial.
j) Leader's Equipment -- only required of Ground Team Leaders
(1) Protractor -- for map work.
(2) Map Case (Large Zip-Loc bags can be used if necessary)
(3) Pencil, with eraser (plus sharpener if not a mechanical pencil)
(4) Alcohol Pens, fine tip, at least 2 colors (neither the color of your colored flashlight lens)
(5) Some way to erase alcohol pens marks on the map case, such as alcohol swabs or a special alcohol pen eraser.
(6) A straightedge ruler, at least 6" long (Some protractors may have a ruler as well).
(7) Ground Team Leader Handbook

b. Extended duration pack: a backpack (preferably with frame) (T) containing:
1) Tent (optional, if you are sharing a tent with someone else who is carrying it) (T)
2) Spare rank and CAP cutouts (for cadets)
3) 5 meals (T)
4) 2 Leaf Bags, large
5) Bag, waterproof (T), containing:
(a) Spare uniform,
(b) Underwear and socks, 3 changes (T)
6) Sleeping pad, foam or inflatable.
7) Spare boot laces.
8) Kit, sewing, with spare buttons.
9) Shoe Shine Kit
10) Toilet Kit, that should contain:
(a) Toothbrush and paste (T)
(b) Shaving Kit (if you shave) (T)
(c) Deodorant (T)
(d) Washcloth and soap (T)
(e) Towel (T)
11) Sleeping Bag or Bedroll appropriate to climate (T)

c. Optional Items
(1) Rainwear, durable
(2) Webbing, nylon, 1" wide, 20' long.
. (3) Handheld FM Transceiver (highly recommended for Ground Team Leaders)
(4) Water Purification Tablets
(5) Eye Protection (highly recommended)
(6) Entrenching Tool (highly recommended for base gear)

Additional Information

More detailed information on this topic is available in Chapter 2 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student:

1. Tell the student to lay out his gear, on top of the 8' X 10' shelter material. Tell him to lay out all items in the order listed on the above list, in rows from left to right (except for the uniform the member is wearing. of course). Inspect all items for presence and serviceability.

2. After inspection of all items, tell the student to reassemble his/her field gear and put it on. Inspect for proper fit and balance.

3. Tell the student to put on all gear, base and field (field gear may be stowed in or secured to the base pack). Inspect for proper fit and balance.

Evaluation

Performance measures	Results	
The individual:		
1. Has all required items of the 24-hour pack.	P	F
2. Has all required items of the extended duration pack (GTM-2 & 1 Only).	P	F
3. When worn, the 24-hour pack is secure from undue shifting, snagging or movement.	P	F
4. All knives are of an approved type, and are worn correctly	P	F
5. When the extended duration pack is worn (with 24-hour pack stowed, worn or secured), Items are secure from undue shifting or movement (GTM-2 & 1 Only).	P	F

NOTE: ALL REQUIRED ITEMS MUST BE PRESENT IN ORDER FOR THE STUDENT TO PASS THIS TASK AT THE LEVEL THEY ARE TESTING FOR. ALL ITEMS MUST MATCH THE DESCRIPTIONS LISTED ABOVE. NO EXCEPTIONS OR SUBSTITUTIONS. TRAINEES ONLY HAVE TO HAVE THE ITEMS MARKED WITH A "T". TEAM LEADERS MUST HAVE ALL LEADER'S EQUIPMENT AS WELL IN ORDER TO PASS.

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0002
CONDUCT INDIVIDUAL REFIT

CONDITIONS

You are a ground team member who has just completed a sortie or has returned home following a mission.

OJECTIVES

Correctly identify and explain the steps to be taken to prepare yourself for the next sortie or mission, using the "4 R's".

TRAINING AND EVALUATION

Training Outline

1. The minute a sortie or mission is completed, a team member should prepare for the next sortie or mission. This means taking care of your equipment and yourself. There is a great temptation after a hard day in the field to not worry about your equipment for a while. But on a mission, you must be prepared to leave on another sortie at a moment's notice. Even when the mission is complete, you may be alerted for another mission within hours -- it happens!

2. As soon as you complete a sortie or mission, perform the following steps, known as the "**4 R's**":

a. **REPLENISH**

1) After a sortie, ensure you still have all required equipment. If something is missing, see if a team mate has a spare. If not, inform your team leader. He or she might be able to arrange for you to purchase the item before the next sortie. Also replenish anything you used, especially food and water. Don't be caught without a meal in your field gear and full canteens. Also check things like flashlight batteries, medical supplies, matches, etc. These items can expire, be used up, or (for medical supplies) be damaged and no longer sterile. Inform your team leader if you need certain supplies replenished.

2) After a mission, purchase any replacements you need.

b. **REPAIR**

1) After a sortie, this means inspecting all your equipment to see what is broken, and making what field repairs you can. This includes repairing rips in clothing, patching holes in ponchos or tents with duct tape, etc. Make the repair now, before you need to use that item. Remove mud from boots, and polish them to maintain water resistance.

2) After a mission, this also means cleaning uniforms and other items. Dirty clothing and sleeping bags do not insulate well. Wet tents can mildew -- set them up and dry them out. Air out your sleeping bag.

c. **REPACK** -- after the above steps, repack your gear so you can move out at a moment's notice. Don't be caught with your equipment spread throughout the house (or your tent at mission base) when the call to move occurs.

d. **REST** - AFTER you have prepared your gear for the next mission or sortie, get a well-deserved rest. The next sortie or mission could happen at night.

3. Your team leader may also make you responsible for team equipment. Make sure that equipment gets REPLENISHED, REPAIRED, and REPACKED as well before you REST.

Additional Information

More detailed information on this topic is available in Chapter 2 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Ask the student to describe how he or she would conduct the "4 R's" of individual refit after a sortie. Then ask how he or she would conduct the "4 R's" after a mission.

Evaluation

Performance measures	Results	
1. Describes, in order, how to REPLENISH, REPAIR, REPACK and REST after a sortie.	P	F
2. Describes, in order, how to REPLENISH, REPAIR, REPACK and REST after a mission.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0003

PREVENT AND TREAT HOT WEATHER INJURIES

CONDITIONS

You are part of a ground team on a mission during on a hot day. Members of your team begin to exhibit symptoms of heat-related injuries.

OJECTIVES

Take steps to prevent hot weather injuries and recognize and treat those that do occur.

TRAINING AND EVALUATION

Training Outline

1. Heat injuries (sometimes called heat stress) are the result of overexertion and dehydration. These conditions can occur at any time during the year, but are most common during the summer months with high temperatures and humidity.

2. To prevent heat stress:

a. Ensure you are drinking enough water per day. Two quarts per day is the absolute minimum on a mild day. On a hot summer day, drink 6-8 quarts a day or 1 quart an hour. Frequent sipping is better than trying to drink an entire quart at a time.

b. Monitor the color of your urine. It should be almost clear in color. If it is brown or dark yellow, you are becoming dehydrated.

c. Wear loose fitting and open clothing.

d. Do not overexert yourself. Know your limits and do not exceed them. Take frequent breaks.

e. Avoid sunburn by using sunscreen or keeping your sleeves down.

f. Watch other members of the team for beginning signs of heat stress. Immediately stop, rest and drink some water. Once a person succumbs to a heat injury, he will not be back for the rest of the day.

g. Use the buddy system -- assign everyone a partner to watch for heat stress and to monitor water intake.

3. There are three major types of heat injuries: heat cramps, heat exhaustion, and heat stroke.

a. Heat cramps are usually the first stage of heat stress. They are the result of dehydration and loss of electrolytes in body tissues.

1). Symptom of heat cramps:

a) Severe muscle cramps, usually in the legs and abdomen.

b) General Weakness

c) Sometimes dizziness and faintness.

2) Treatment of heat cramps:

a) Move the patient to a cool, shady place.

b) Provide salted water or a commercial electrolyte (i.e. Gatorade).

c) Massage the cramped area.

d) Apply some pressure to the cramped area, but stop if it makes the patient more uncomfortable.

e) Apply moist towels to the patient's forehead and the cramped muscle.

f) If symptoms worsen, immediately transport the person to a medical care facility.

b. Heat exhaustion is the next phase of heat stress (although some individuals may never develop heat cramps before going into heat exhaustion).

1). Symptoms of heat exhaustion:

a) Rapid and shallow breathing.

b) Weak pulse.

c) Cold and clammy skin.

d) Heavy perspiration

e) Weakness and dizziness that may lead to unconsciousness

2) Treatment of heat exhaustion:

a) Move the patient to a cool, shady place and keep him at rest.

b) Remove enough clothing to cool (not chill) the patient.

c) Fan the patient's skin to promote sweat evaporation.

d) If the patient is conscious, provide salted water or a commercial electrolyte (i.e. Gatorade).

e) Treat for shock and transport the patient to a medical care facility.

c. Heat Stroke is the final phase of heat stress. It is a life-threatening condition. It is the result of the body's absolute failure to regulate heat, and as a result the bodies core temperature starts to rise (hyperthermia).

This leads to the rapid destruction of body tissues and brain cells. Permanent brain damage and death are possible outcomes of heat stroke. Even if successfully treated, it will take days for the patient to recover.

1) Symptoms of heat stroke:

a) Deep breathing becoming progressively shallower.

b) A rapid, strong pulse becoming weaker.

c) Dry and hot skin

d) Dilated pupils.

e) Possible unconsciousness, seizures, and muscular twitching.

2) Treatment of heat stroke. The key is to cool the patient as rapidly as possible.

a) Remove the person from any heat sources and remove clothing.

b) If possible immerse the patient in cool water, or use cold wet towels or ice packs in the patient's armpits, groin, under neck and behind knees..

c) Treat for shock and transport the patient to a medical care facility.

Additional Information

More detailed information on this topic is available in Chapter 2 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Ask the student to answer the questions listed below, one at a time.

Evaluation

Performance measures	Results	
The individual:		
1. Describes three ways to help prevent heat stress	P	F
2. Describes three signs of heat cramps	P	F
3. Describes three treatment steps for heat cramps	P	F
4. Describes three signs of heat exhaustion	P	F
5. Describes three treatment steps for heat exhaustion	P	F
6. Describes three signs of heat stroke	P	F
7. Describes three treatment steps for heat stroke	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0004

PREVENT AND TREAT COLD WEATHER INJURIES

CONDITIONS

You are part of a ground team on a mission during on a cold day. Members of your team begin to exhibit symptoms of cold-related injuries.

OJECTIVES

Take steps to prevent cold weather injuries and recognize and treat those that do occur

TRAINING AND EVALUATION

Training Outline

1. You are part of a ground team on a mission during on a cold day. Members of your team begin to exhibit symptoms of cold-related injuries. In order to continue your mission, you must treat these injuries and prevent them from happening again.

2. Cold injuries are a result of unstopped cooling of body parts of the whole body. To prevent cold weather injuries, it is essential to remain warm and dry. If the skin is wet, it will lose heat twenty times faster than if it is dry. People who have had cold weather injuries in the past are more likely to have them again.

3. To avoid cold weather injuries.

a. Cover all extremities by using gloves, wool socks and a knit hat or hood over your ears.

b. Use the layer principle -- several loose layers of clothing keep a person warmer than one bulky item of clothing. The multiple layers trap warm air pockets, which help maintain a uniform body temperature. As you exert yourself and begin heating up, remove layers as needed. Put them back on as you cool down. Layers can include underwear, socks, thermal underwear, sweater or sweatshirt, uniform, field jacket liner, field jacket, knit hat, glove liners and gloves.

c. Choose clothing that will trap air pockets yet allow moisture to pass through. Wool, polypropylene and Gore-Tex are good fabric choices that remain warm when wet. Rubber or vinyl coats are extremely bad, as they hold the body's moisture in.

d. Avoid getting wet, especially your feet. Stay out of streams and muddy places.

e. Avoid overexertion that could cause you to sweat.

f. Identify all personnel in your team who have a history of cold weather injuries, and watch them carefully.

g. Change clothing when it is dirty or wet, especially socks.

h. Use the buddy system -- assign each person a partner. Each pair watches each other for signs of cold weather injuries.

4. The main cold weather injuries of concern to ground teams are frostbite and hypothermia.

a. Frostbite occurs in the body extremities (fingers, toes, feet, hands, tip of nose and ears) when the body part is exposed to intensely cold air or liquid. Freezing of the affected area begins and ice crystals begin forming in the skin. In severe cases, the body tissue dies and gangrene sets in, leading to the loss of the body part. Frostbite usually takes time to develop, but most people are unaware that it has begun. Frostbite occurs in two stages that have different treatments:

1) Early Stage of Frostbite:

a) Symptoms:

(1) Skin turns from red to white and waxy.

(2) Numbness in the affected area

b) Treatment: Warm the affected area using body heat. Hands and feet can be placed in another team member's armpit for warmth. Patient will probably sense tingling or burning in the affected area as it is re-warmed. DO NOT MASSAGE A FROSTBITTEN BODY PART.

2) Later Stage of Frostbite (if early stage is not treated)

a) Symptoms: Skin turns mottled or blotchy, yellow, and finally greyish-blue

b) Treatment:

(1) Transport the patient to medical care immediately.

(2) If transport is not immediately available, immerse the affected area in warm (not hot) water until circulation and re-warming occur. Do not let the affected part touch the sides of the container the body part is immersed in. DO NOT MASSAGE A FROSTBITTEN BODY PART.

b. Hypothermia is the systemic cooling of the entire body. The body's core temperature falls below average and starts affecting the body's circulatory system. Like frostbite, hypothermia has two stages that require different treatments:

1) Early Stage of Hypothermia:

a) Symptoms:

(1) Uncontrollable shivering.

(2) Numbness.

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b) Treatment:

(1) Keep the patient warm and dry.

(2) Remove wet clothing.

(3) Warm the central body before the extremities, to keep blood from flowing away from the major organs. If available, place hot packs on the neck, in the armpits, and in the groin.

2) Later Stage of Hypothermia (if early stage is not treated)

a) Symptoms:

(1) Drowsiness, inability to perform simple actions.

(2) Slow pulse and breathing rate.

(3) Failing eyesight and a “glassy stare.".

(4) Finally, unconsciousness

b) Treatment:

(1) All treatment steps for early hypothermia

(2) Handle the patient gently, and place in a head-down position.

(3) Transport the patient to medical care immediately.

Additional Information

More detailed information on this topic is available in Chapter 2 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Ask the student to answer the questions listed below, one at a time.

Evaluation

Performance measures	Results	
1. Describes three ways to help prevent cold injuries	P	F
2. Explains the layer principle	P	F
2. Describes two signs of early frostbite	P	F
3. Describes the treatment for early frostbite	P	F
4. Describes the sign of late frostbite	P	F
5. Describes two treatment steps for late frostbite	P	F
6. Explains that you never massage a frostbitten body part	P	F
7. Describes two signs of early hypothermia	P	F
8. Describes three treatment steps for early hypothermia	P	F
9. Describes two signs of late hypothermia	P	F
10. Describes three treatment steps for late hypothermia	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0101
IDENTIFY NATURAL HAZARDS

CONDITIONS

You are part of a ground team moving through the wilderness.

OJECTIVES

Recognize and avoid the various types of natural hazards.

TRAINING AND EVALUATION

Training Outline

There are three categories of natural hazards: terrain, plants and animals.

1. Terrain

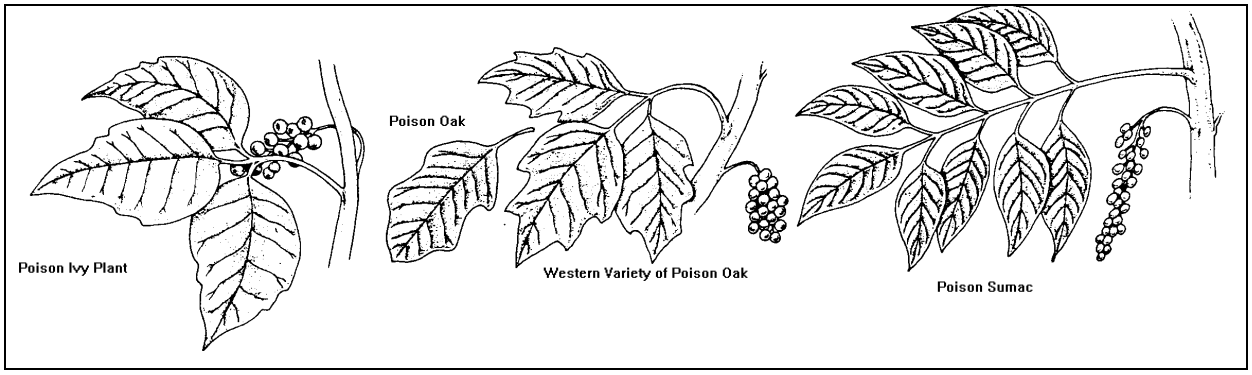
a. Cliffs and steep terrain. These can often be identified on maps by closely spaced contour lines. Choose routes around these features. If you must search the area, search parallel to the slope, rather than climbing or descending it.

b. Drainage and flood areas. These are sometimes marked on maps. Avoid moving through these areas. If the search requires you, ensure your team is properly dressed, and exercise extreme care.

c. Rough terrain, such as boulder fields. You will often have to search through these areas. Slow your rate of movement to allow all team members to exercise proper caution.

2. Plants. Search teams can avoid most poisonous plants simply by not eating any berries or wild plants. There are, however, "irritant" plants that can affect team members who touch them. All three can cause an irritating rash that may take one to three days to develop.

a. There are three irritant plants -- poison ivy, poison oak, and poison sumac:



1) Poison ivy is an irritant vine that grows close to the ground and along the trunks of trees. The vine has green almond shaped leaves in sets of three, and is prevalent in the spring through the fall.

2) Poison oak is very similar to poison ivy, with green, three leafed vines. However the leaves are broader and flatter.

3) Poison sumac is a similar plant, but the leaves can come in sets of nine to ten or more and there are small red berries attached to the plants.

b. To avoid exposure to these plants:

1) Cover exposed skin when in the woods (long sleeves, gloves, etc.).

2) Do not handle any plants or vines unnecessarily.

3) To avoid poison ivy and oak, remember the adage "IF LEAVES ARE THREE, LET THIS PLANT BE."

4) If you are exposed to one of these plants, wash the affected area thoroughly to remove any resin from the plant on the skin. If you have resin on your clothes, change them as well.

3. Animals. Ground teams avoid any animals in wilderness areas.

a. There are certain animals that do represent a direct hazard to humans who disturb them.

1) Rodents. Raccoons, skunks, squirrels, rats and possums fall into this category. The main danger from these animals is that they carry rabies. In addition, skunks will use its scent sprayer if cornered.

a) Identification: All are four legged, small and furry. Skunks are black with a white stripe down the length of their backs.

b) Avoidance:

(1) Do not put you hands or feet under logs or into holes where these animals may have nests.

(2) Give all small, furry animals a wide berth. Do not attempt to pet, feed or provoke any animal in its own habitat.

2) Insects. Bees, wasps, mosquitoes, and fire ants are stinging insects that tend to plague searchers in the wilderness. To avoid these insects :

a) Be watchful for bees' and wasps' nests and fire ant hills, and do not disturb them.

b) Dispose of trash properly to avoid attracting insects.

c) If you are allergic to bees stings, carry your medication and ensure everyone on your team is aware of your condition and where your medication is.

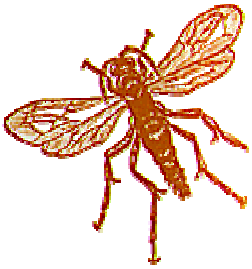
d) The only way to avoid mosquitoes is with an appropriate insect repellent. Apply repellent to all areas of exposed skin, especially around wrists, ankles, arms, legs and neck. Do not spray repellent directly on your face; instead spray it on your hands and rub it on your face. Be careful with repellent on your forehead - sweat can make it drip into your eyes. You can spray repellent to the brim of your hat instead of your forehead.



Fire Ant



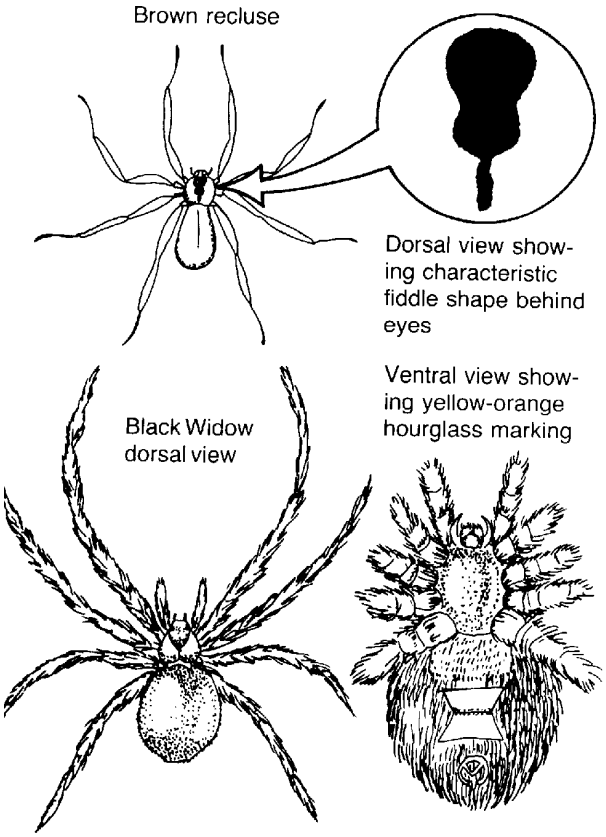
Honey/Bumble Bee



Wasp

3) Spiders. Spiders tend to be more of a nuisance than a danger. Only two spiders in North America are considered poisonous - the Black Widow and the Brown Recluse. The bite of either of these spiders is painful but rarely fatal. Approximately 5% of the population will have an allergic reaction to the bite and a few people may develop shock. Hypersensitive people will develop anaphylactic shock that can become life threatening.

a) Identification: The black widow is a ground dwelling spider found mostly in the Western United States. It is black with a yellow-orange hourglass marking on its underside. The brown recluse another ground dwelling spider. It is furry and brown, with a dark fiddle-shape mark on it's back right between the eyes.



Identification of Brown Recluse and Black Widow.

b) Avoidance:

(1) Don't put your hands anywhere you haven't looked first.

(2) Avoid contact with all spiders.

4) Snakes. Approximately 50,000 people per year are bitten by snakes in the US, with poisonous snakes accounting for 15% of these bites. Even with over 7,500 poisonous snake bites per year, fewer than 10 people die per year (less than the number from bee and wasp stings). There are two kinds of poisonous snakes in the US: pit vipers and neurotoxic snakes. Pit vipers are distinguished by the small pit in the snake's head directly between the eyes. This pit is essentially a heat sensor that the snake uses to find warm-blooded creatures. Pit vipers have long fangs, that are used to bite and inject poison into the victim. The poison is carried by the blood to other body tissues. Neurotoxic snakes are similar, but their poison affects the nervous system rather than the blood stream.

a) Identification. In the US, there are three common types of pit vipers (water moccasins, rattlesnakes, and copperheads) and one neurotoxic snake (coral snake):

(1) Water Moccasins. Water moccasins are dark snakes often called cottonmouths because of the bright white interior of their mouths when fully opened. They are usually found in lakes, ponds, swamps, and rivers.

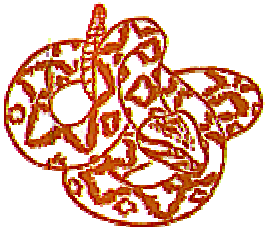


Cottonmouth / Water Moccasin

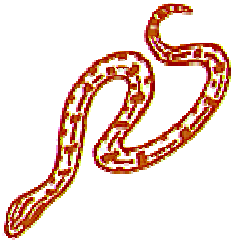
(2) Rattlesnakes. Rattlesnakes are usually dark or brown snakes noted for the rattle on the tail. The rattle is used to distract prey or as a warning when the snake is cornered. It can be easily heard when you get close to the snake. They are also known as diamondbacks because of the colored patterns formed on their backs.



Canebreak Rattlesnake



Eastern Diamondback Rattlesnake



Pigmy Rattlesnake

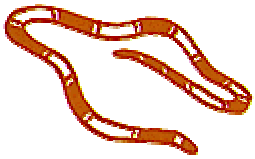
(3) Copperheads. Copperheads are brown-orange in color with alternating bands of color along their backs. Frequently, a strong "cucumber" smell is noted in the area.



Copperhead Snake



Copperhead Snake Closeup



(4) Coral Snakes. Coral snakes are small, with alternating black and red-orange bands along their length, separated by thin yellow bands. Its mouth is small, usually only wide enough to bite on a finger or a two.

Coral Snake

b) Avoidance:

(1) Avoid putting your hands and feet anywhere you haven't visually inspected, especially holes or under rocks and logs.

(2) Wear leather boots and gloves.

Additional Information

More detailed information on this topic is available in Chapter 4 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Obtain pictures (preferably color) of at least one hazardous plant, five hazardous animals, and a drawing/picture of a hazardous terrain feature.

Brief Student: Show the student the pictures, one at a time, and ask him to identify the hazard, and give two ways of avoiding it.

Evaluation

Performance measures	Results	
1. Correctly identifies 6 of the seven pictures	P	F
2. For at least 6 of the pictures, identifies two ways of avoiding each hazard	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0102
PREVENT AND TREAT FATIGUE

CONDITIONS

Given a scenario in which the individual has been operating in the field for some time.

OJECTIVES

Recognize and react to fatigue symptoms in yourself and others.

TRAINING AND EVALUATION

Training Outline

1. Search and rescue operations are frequently conducted in adverse weather and terrain conditions and at night. These are all conditions that will accelerate fatigue in individual team members and leaders. At a minimum, team member fatigue results in reduced search effectiveness due to a lack of concentration. More serious results are endangering yourself and others in the field. Vehicle operators are especially susceptible to fatigue, sometimes with tragic results. The chances of field injuries are also greatly increased.

2. Fatigue symptoms should be recognized by all team members. Recognize them in yourself and others so that you know when you have to stop and rest. Some symptoms are:

a. Inability to concentrate.

b. Slurring words, incomplete sentences and speech patterns.

c. 'Bloodshot' eyes and haggard expressions

d. Inability to walk properly.

e. Drooping eyelids.

f. False energy or 'slap happiness'.

Individuals showing these signs are ineffective as searchers and represent dangers to themselves and other

3. Ways of preventing or relieving fatigue are:

a. Taking frequent breaks or catnaps when not on duty.

b. Eating light snacks through the day.

c. Changing seating arrangements in vehicles regularly.

d. Ensuring that team members sleep for as long as possible during the night or when off duty (at least 6 to 8 hours per night).

e. Eating complete meals and ensuring adequate water intake.

f. Sit, lay down, rest, sleep whenever possible.

g. Do not engage in unnecessary physical activity when waiting for an assignment.

h. Use the buddy system - assign members in pairs. Each member of the pair watches the other for signs of fatigue.

i. If a member of the team shows signs of fatigue, take them off duty and allow them to rest until they can be effective searchers.

Additional Information

More detailed information on this topic is available in Chapter 4 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Ask the student to identify four fatigue symptoms, and three ways to relieve fatigue.

Evaluation

Performance measures	Results	
1. Identifies four fatigue symptoms	P	F
2. Identifies three ways to relieve fatigue	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0103
CONDUCT FIELD SANITATION AND HYGIENE

CONDITIONS

You are part of a ground team on an extended mission in the field.

OJECTIVES

Throughout the mission, take measures for:

1. Care of the feet.
2. Avoiding unpurified water.
3. Proper disposal of waste.
4. Proper personal hygiene.

TRAINING AND EVALUATION

Training Outline

1. Proper field sanitation and hygiene will keep you and your team healthy while living and working in the field. If you become sick or injured, you are incapable of doing your job and become a burden on your team.

2. Taking Care of the Feet. As a ground team member, your feet are your primary mode of transportation. If they are not functioning, you cannot function. While anyone can walk in the woods for a while, extended operations require you to actively take care of your feet.

a. Before Movement.

1) Make sure your boots are correctly fitted and broken in. Do not wear new boots to the field.

2) Make sure your socks are clean, fitted, and free of holes and knotty darns that might rub your foot raw. Always bring extra socks and foot powder.

3) Treat and protect blisters, pressure spots and infections before each sortie.

b. During Movement.

1) Keep your feet as dry as possible. Never walk in water or mud if you can avoid it. It takes days for boots to dry out fully.

2) Change damp or dirty socks as soon as possible.

3) Dust your feet with foot powder to keep them dry.

4) If your feet begin to bother your, adjust your socks and boot lacing to relieve pressure on sensitive spots.

c. Blisters. If you get a blister, clean it with soap and water. Watch for signs of redness, throbbing and drainage. If this occurs, seek medical treatment.

2. Avoid unpurified water, Only drink and fill canteens from known pure water, such as from a faucet. Anything else can make you very sick. Avoid all streams and lake water. If you must purify water, get your team leader's approval and follow the instructions on whatever water purification chemicals you use (NOTE: This is as a last resort only).

3. Waste Disposal. One of the quickest ways to make you and your team sick is to improperly dispose of garbage or human waste. If this material ends up in someone's food or water, in can incapacitate everyone who ingests it. In addition, waste can draw disease carrying insects and wild animals.

a. Human Waste. Whenever possible, use bathrooms/latrines. If none are available, then dig a "cat hole" at least one foot deep. Make sure the hole is at least 100 yards down wind from any bivouac site. Also make sure your hole is not uphill from the bivouac to avoid drainage problems. After use, fill the hole back in.

b. Garbage. Only put garbage in designated trash cans and bags. If none are available, seal your garbage in plastic bags and pack it out of the field.

c. Cooking Gear. If you use reusable utensils, mess kits, canteen cups, etc., wash then with hot water and soap after each use.

4. Personal Hygiene:

a. Brush your teeth at least once a day, preferable after every meal.

b. Whenever water is available, wash your hands after using the latrine and before every meal.

Additional Information

More detailed information on this topic is available in Chapter 4 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: This task is tested over the course of an overnight field exercise. The exercise should include at least two miles of dismounted movement. You should observe the students over the course of the exercise and evaluate them at the conclusion of the exercise. Anything not directly observed (such as the use of a cathole) should be evaluated through oral questioning.

Brief Student: Inform the individuals to be tested that they will be evaluated over the course of the next 24 hours on their ability to conduct field sanitation and hygiene.

Evaluation

Performance measures	Results	
The individual:		
1. Takes proper care of feet:		
a. Before movement	P	F
1) Makes sure boots are properly fitted.		
2) Makes sure boots are broken in (not new boots)		
3) Wears clean socks, free of holes and knotty darns.		
b. Takes proper care of the feet during movement	P	F
1) Keeps feet as dry as possible.		
2) Changes damp socks.		
3) Dusts feet lightly with foot powder.		
4) Adjusts footgear to relieve the tender spots on the feet		
c. Takes care of blisters:	P	F
1) Washes the blister and surrounding area with soap and water.		
2) Seeks medical treatment for painful blisters or signs of infection, such as redness, throbbing and drainage.		
2. Avoids unpurified water whenever possible. If forced to use such water, checks with the team leader and then correctly purifies the water in accordance with the water purification tablet instructions.	P	F
3. Properly disposes of waste:		

a. Properly uses cat holes to dispose of human waste. P F

1) Digs at least one foot deep and fills it in afterwards.

2) Digs hole at least 100 meters, downwind, and not uphill from the bivouac site.

b. Disposes of garbage only in designated containers. Otherwise, packs out all garbage in waterproof bags. P F

c. Washes all utensils, cups, mess kits, etc. with hot water and soap after use. P F

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4. Practices personal hygiene:

a. Brushes teeth daily P F

b. When water is available, washes hands after using the latrine and before eating. If not available, uses alternative method like alcohol prep pads. P F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0601
CONDUCT ACTIONS WHEN LOST

CONDITIONS

You have become separated from your ground team in the wilderness, and do not know where they are or where you are.

OJECTIVES

Take correct actions needed to survive and be found.

TRAINING AND EVALUATION

Training Outline

1. Search and rescue operations are frequently conducted in adverse weather and terrain conditions. The same environment that caused the search objective to be missing could cause the same difficulties for a team member. All ground team members should have a knowledge of basic survival skills. This will decrease the chances of serious injuries and decrease the time before the team member can be found.

2. If you are in a survival situation, remember the acronyms **SURVIVAL** or **STOP**:

a. SURVIVAL:

1) **S**ize up the situation. Look at where you are. What resources (water, wood, etc.) are available nearby? What dangers are there? (see task O-0101 - Identify Natural Hazards.) Inventory your equipment to establish what tools you have to handle the situation. Are there people nearby who might be able to help you? For example, if you just became separated from you team, just blowing your whistle might rescue you. (See task O-0406 - Use Whistle Signals)

2) **U**ndue Haste Makes Waste. STOP. Walking around aimlessly is a waste of energy. Take your time and think about your decisions. You could easily make the situation worse by moving farther from help, injuring yourself, or losing an important item.

3) **R**emember Where You Are. You may not be as lost as you think, just momentarily disoriented. Think about the last time you knew where you were, and what happened next. Mark your current location, and memorize it. That way, as you look around, you will not become more lost.

4) **V**anquish Fear and Panic. These feelings are natural, but might lead you to do something that you have not thought through clearly. If you are tired, frustrated, or near panic, stop and rest. Provide your body and mind with a few minutes or hours of down time. This will help to calm anxieties and better prepare you to handle the situation. Keep a positive mental attitude -- believe you are going to be all right.

5) **I**mprove Your Situation. Think about how to be found, safe from danger, and more comfortable.

a) Find a clear area. This will facilitate your being spotted from the air.

b) Establish shelter for your body. If you have to spend the night in the wilderness, spend the necessary time to build adequate shelter and a fire. Maintaining body warmth and protection is a high priority.

c) Establish signals. Place orange markers or vests in nearby location. Preferably where they can be seen from the air. Do not forget Ground to Air Signals (task O-0703). Build a large signal fire. Establish a schedule for blowing your whistle to attract anybody in the area. If you are moving at night, stay in the open. Tie your chem-lite to the end of a string and swing it in a circle over your head. This will make you easy to spot from the air, and make it easy for the pilots to tell the difference between you and the lights of the ground searchers looking for you.

d) Find water. If you are in a wilderness area, remember that downhill always leads to water. Do not drink standing water, build a fire and boil it at least one minute to remove bacteria. Rain water, melting snow or ice will provide adequate bacteria-free water.

e) If you have to move, remember that downhill and downstream leads to civilization. Moving uphill will rarely lead you to any help.

6) **V**alue Living. Never stop trying. Giving up is the surest way to ensure failure. No matter how cold, wet, or tired you get, do not forget that positive mental attitude. Never give up!

7) **A**ct Like the Natives. Observe animals in the area. They live here -- they know where the where food and water are, and what the dangers are. (be careful what you eat, though. Some plants are poisonous to people but harmless to animals.)

8) **L**earn Basic Skills. And use them. This book is full of them. Make sure you know how to build a fire, avoid hazards, build a shelter, signal for help, and find water.

b. STOP:

1) **S**tay where you are. Rather than wandering aimlessly, don't move unless it is more hazardous to stay where you are than to move.

2) **T**hink before acting rashly. If something does not seem right, it probably isn't. If you take the time to stop and think, you may come up with a better solution.

3) **O**bserve your surrounding and its' inhabitants. Animals survive on natural instinct experience in their surroundings. By observing their habits, and in many cases mimicking them, you will survive.

4) **P**lan for the worst. Most people who do not survive had the tools and the knowledge to survive, but got caught off guard and didn't do anything about it. If you plan for the worst using what you have, you will at least be ready, and kept your mind off of being lost and re-focused your energy on living.

3. If you ever end up in a survival situation, remember that a Positive Mental Attitude will save you. If you don't want to live, then most of what you do will be a waste of time, but if you really do want to live then you have a chance. There are many stories of people that should have died days earlier being rescued and returning to happy and healthy lives long after the normal person dies. And there are obviously many other of people who died that shouldn't have. Stay focused, and tell yourself you want to live!

Additional Information

More detailed information on this topic is available in Chapter 9 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Tell the individual that that he has become separated from his team and darkness is 2 hours away. Have him describe his immediate actions and survival steps.

Evaluation

Performance measures	Results	
The individual:		
1. Identifies and describes the SURVIVAL or STOP procedure steps.	P	F
2. Defines Positive Mental Attitude and demonstrates understanding the importance of it.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0902
EXERCISE UNIVERSAL PRECAUTIONS

CONDITIONS

In participating as a member of the CAP mission team, you encounter a patient that needs to be assessed and possibly treated.

OJECTIVES

The student will take adequate action to protect himself from bloodborne pathogens utilizing universal precautions while assessing and possibly treating the patient.

TRAINING AND EVALUATION

Training Outline

1. Universal Precautions is the concept that all blood and certain body fluids are to be treated as if contaminated with Human Immunodeficiency Virus (HIV), Hepatitis B Virus (HBV), or other bloodborne pathogens

2. An acceptable alternative to Universal Precautions is Body Substance Isolation (the treating of all fluids and substances as infectious).

3. Materials requiring universal precautions:

    a. Blood

    b. Semen

    c. Vaginal secretions

    d. Cerebrospinal fluid

    e. Synovial fluid

    f. Pleural fluid

    g. Any body fluid with visible blood

    h. Any unidentifiable body fluid

    i. Saliva from dental procedures

4. Materials not requiring universal precautions unless there is visible blood:

    a. Feces

    b. Nasal secretions

    c. Sputum

d. Sweat

e. Tears

f. Urine

g. Vomitus

NOTE: Though not required, it be difficult for team members to determine if blood is present, and they should exercise universal precautions if unsure to be safe.

5. Personal protective equipment like gloves and a mask must be used whenever you might be exposed to blood or other potentially infectious materials. Rubber gloves and surgical masks create a basic barrier between the provider and the survivor, and protects both from transmitting potentially harmful diseases. There are some basic rules to follow in exercising Universal Precautions.

a. When conducting a hands-on assessment of a patient, always wear rubber gloves, and if the potential exists for airborne transmission or being splashed with blood or other pathogenic fluids, at least wear a surgical mask and goggles or face shield.

b. Change gloves between patients. This avoids the transmission of pathogens between patients.

c. Use well-fitting, disposable, latex or vinyl gloves for any task involving exposure to blood and other body fluids. Make sure extra pairs are available.

d. Before putting on gloves, make sure they have no holes, cracks or tears.

e. Change gloves if they become torn or dirty.

f. Remove gloves by grasping the cuffs and pulling them off inside out.

g. Use work gloves over latex gloves when working around broken glass or sharp surfaces - for instance when removing a person from an auto wreck or crashed aircraft.

h. Dispose of latex gloves in identifiable medical-waste containers.

i. Wash hands following removal of gloves. Handwashing is the best overall protective measure against most communicable diseases. Wash your hands and other skin surfaces thoroughly with soap and running water immediately after contact with blood or other body fluids. When running water is not available, waterless, hand-wash substitutes should be used until a more thorough handwashing can be accomplished.

Additional Information

More detailed information on this topic is available in Chapter 16 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: The evaluator will moulage a patient for the student to assess. The patient should have formal signs of trauma, preferably with "bleeding" wounds. If multiple patients are to be examined in a large group exercise, insure that the provider changes gloves between patients. If only one patient is to be assessed, determine

verbally what the student would do if multiple patients needed to be assessed. More than one student can be assessed at the same time, but a one-to-one ratio of evaluators to students is preferable.

Brief Student: The student will be briefed to perform a basic assessment of the patient utilizing training and equipment required of all ground team members.

Evaluation

Performance measures	Results	
1. The student assesses the scene and determines accurately to wear rubber gloves, and face shield and goggles or other eye protection as necessary?	P	F
2. The student properly demonstrates how to remove rubber gloves without exposing himself to potential pathogenic materials.	P	F
3. The student either demonstrates or verbally explains why changing gloves between patients is necessary.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0403

EMPLOY SCANNING TECHNIQUES WHILE ON FOOT

CONDITIONS

You are part of a ground team on a search mission in the field.

OJECTIVES

Employ appropriate scanning techniques and identify clues while moving across the terrain.

TRAINING AND EVALUATION

Training Outline

1. Searching systematically is the mission of the ground search and rescue team. Individual team members accomplish this by scanning their assigned search sector systematically to ensure that the entire area is covered. Night scanning is similar to day scanning, but relies more on peripheral vision, which is more effective than direct vision in limited visibility conditions.

2. The following rules apply to individuals moving as part of a search line or team:

a. Scan the entire area in front of you from left to right and then from right to left.

b. Observe areas blocked by foliage or terrain that should be investigated closely.

c. Look down at the ground close at hand and up in the tree branches for clues.

d. As you move through the woods investigate the areas that were blocked by foliage on your initial scan.

e. Remember that clue-consciousness is critical. Look for the clues that will lead you to the target, not just the target itself.

f. Occasionally stop for a moment and listen for clues.

g. Turn around and observe the area behind you for clues that could have been missed as you passed through.

h. Individual searchers do not need to maintain an absolutely straight line when moving through the woods. Move around as required to investigate and search the entire area. Ensure that you know and do maintain the teams base direction of movement.

3. At night, the following additional rules apply:

a. Do not stare at any one spot too long.

b. Do not use white light (unless conducting a full light search). White light will destroy your night vision.

c. Avoid white light for 30 minutes prior to the search to give your eyes time to adjust. If you are moving to the search site by car, turn off the overhead dome light.

d. Be especially alert for movement or noise.

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Choose a wooded area to search. Place five identifiable clues in the area to be searched

Brief Student: Inform the student that he is part of a search line. Indicate the direction of search. Tell him to move through the woods and scan for clues. Then ask him to describe the additional rules for night search.

Evaluation

Performance measures	Results	
1. Scans the search area in front of him systematically (right, left, up & down)	P	F
2. Observes behind him for clues	P	F
3. Recognizes and investigates blocked areas	P	F
4. Identifies 3 out of 5 clues placed by the evaluator	P	F
5. Maintains the teams base direction	P	F
6. Identifies 3 of the additional rules for night search	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0404
MOVE AS PART OF A SEARCH LINE

CONDITIONS

You are a member of a ground team moving through the woods on a line search.

OJECTIVES

Maintain the specified interval, direction, and speed, expanding and contracting on the base man as needed, while remaining alert for both the search target and commands from the team leader.

TRAINING AND EVALUATION

Training Outline

1. When moving in a line search it is extremely important to maintain the proper interval, direction and speed. As a team member, you must maintain this direction and your interval while moving through varying terrain in order to ensure an efficient search.

a. The interval between members is specified by the team leader to insure a certain level of coverage. Team interval is defined as the number of team members to your left and right you must keep in sight. For a very spread out search, the team leader will specify that you only need to see one person on your left and right. For a very concentrated search, you might be told to keep two or three people on each side within your sight.

b. The search line also has a direction of movement. This is determined by guiding on something such as a compass azimuth, a terrain feature like a road, or a marked line left by the team's last sweep through the area. One team member will normally be designated as the *base* team member. He or she is responsible for maintaining direction. This will normally be the person at one end of the search line, following a terrain feature or marked route. It could be someone in the middle, though, if the team is following an azimuth or a terrain feature in the middle of the search line. In very spread out searches (with an interval of one person on either side in sight), it is probable that all members of the team might be given the compass azimuth to follow.

c. Search lines move as fast as the slowest searcher. Some parts of the search area might be harder to search or more difficult to travel through. The team should always slow down for the slowest searcher, not make that person speed up and possibly miss a clue.

d. Search lines do not have to be silent. Feel free to talk to the team members on your left and right in order to maintain proper interval, direction and speed. Don't confuse this for idle chit-chat being acceptable. Remember to stay focused on your job.

2. To move as part of a search line:

a. Know the appropriate interval, direction and location of the base team member (to your left or right).

b. As you move, space yourself so you can barely see the number of team members on either side specified by the interval.

c. If the terrain changes and you cannot see the required number of team members, move towards the base. If you cannot see the persons farther away from the base than you, then advise them to move in as well.

d. Maintain proper direction either with your own compass (if specified) or by observing the team members closer to the base member than you.

e. You do not have to keep an absolutely straight line as you walk. You can move about in order to effectively search all the terrain, as long as you maintain the appropriate general direction.

f. Try to stay on-line with other members. If they stop, you stop.

g. Do not rush to catch up. If it is taking longer to search the area you are in, have the other team members slow down.

h. Any team member may halt the line for safety or possible clue/find, but only the leader can forward the line.

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Place the individual on a search line of at least five people. Choose an area of restricted visibility terrain, such as woods, to move through.

Brief Student: Inform the team that you will act as the team leader. Provide the team with a direction, designate a base student, and specify an interval of 2 individuals. Forward the team and observe. At some point during the movement, change the interval to 3 individuals.

Evaluation

Performance measures	Results	
1. Maintains correct interval	P	F
2. Maintains correct direction	P	F
3. Maintains proper speed.	P	F
4. Communicates with other members to maintain interval, direction and speed.	P	F
5. Adequately searches assigned area.	P	F
6. Remains alert to team leader commands.	P	F
7. Correctly adjusts interval as directed.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0405

COMMUNICATE TO OTHER MEMBERS OF THE SEARCH LINE

CONDITIONS

You are a part of a team conducting a line search, and the team leader issues a verbal command to the team or a team member calls for the team leader.

OJECTIVES

Quickly relay all verbal commands and reports to team members farther from the speaker.

TRAINING AND EVALUATION

Training Outline

1. The primary means of communication within a search line is verbal. Since a team is spread out to cover a large search area, not everyone can hear everyone else. To solve this problem, team members relay leader commands and member reports to other members of the team who are further away from the speaker or whistle signals are utilized in accordance with task O-0406.

2. To relay a command or a report.

a. Immediately obey the command. (If you hear “HALT THE LINE," then halt immediately before relaying the command.)

b. Determine from which direction the command came.

c. Repeat the message exactly, shouting it in the direction of team members farther from the speaker than yourself. If you are sure that there is no one farther from the speaker than you, you need not repeat the message.

d. Example: You hear “FORWARD THE LINE” from someone on your left. Start moving. Then turn to the team members on your right, and shout “FORWARD THE LINE."

3. To send a verbal message:

a. Shout your message toward where you believe the team leader is.

b. Listen to ensure that the team members on either side of you have relayed your message appropriately. If no response is heard, repeat your message until the team members at your side do respond.

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Position the student in a field facing a specific direction. Stand to his left or right and act as the team leader

Brief Student: Brief the student that he is on a search line at position number seven, that you are the team leader, and that there are other team members to his right and left. Issue the command "Forward the Line" and have the student respond. Then have the student halt the entire search line by verbal command.

Evaluation

Performance measures	Results	
1. The student begins moving and shouts "FORWARD THE LINE" in the opposite direction.	P	F
2. The student shouts "HALT THE LINE" and listens for response.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0406
USE WHISTLE SIGNALS

CONDITIONS

You are part of a team in the field, and wish to communicate using a whistle.

OJECTIVES

Demonstrate the four whistle signals correctly.

TRAINING AND EVALUATION

Training Outline

1. Whistle signals are used to transmit commands along the search line or whenever team members are separated too far for voice communications.

2. Normally, team members do not repeat whistle signals that they here. This can cause confusion. However, if you believe the signal can't be heard by some members of the team, repeat the signal you hear.

3. The whistle signals are:

    a. 1 short blast -- Forward the line (team moves forward)

    b. 2 short blasts -- Stop the line (team stops). If you are moving and hear only one blast, stop anyway.

    c. 3 short blasts -- Help or danger signal (Stop immediately)

    d. 1 long blast -- Assemble on the signal origin (the person blowing the whistle)

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Ensure that the student has a whistle.

Brief Student: Tell the student to demonstrate, one at a time, the whistle signals listed below.

Evaluation

Performance measures	Results	
1. Demonstrates the halt whistle signal	P	F
2. Demonstrates the assemble whistle signal	P	F
3. Demonstrates the help whistle signal	P	F
4. Demonstrates the forward whistle signal	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0407
CONDUCT ATTRACTION TECHNIQUES

CONDITIONS

You are part of a ground team on a search for a missing person or persons. You want to make it easy for the missing persons to find YOU.

OJECTIVES

Identify sound and light attraction techniques that a team can conduct.

TRAINING AND EVALUATION

Training Outline

1. If the target of a search is conscious, it is advantageous to let the target know you are in the area. That way, even if you don't spot him, he may signal you. This is done by conducting *attraction tasks* - basically being visible and easily heard. Stealth is not a good thing on a search line. However, you still need moments of silence when you listen for the target's response. By day, noise is the primary attraction. At night, noise and light are effective.

2. Sound Attraction Techniques (usable day or night).

a. Shouting out the target's name (make sure it has been released by the Public Affairs Officer first.)

b. Honking vehicle horns during route searches.

c. Use of public address systems.

d. The "Sound Sweep:

1) On command from the team leader, the team halts and all members blow their whistles for 15 seconds.

2) After blowing the whistle, the team remains stationary and silent for one minute listening for a response.

3. Light Attraction Techniques (usable at night):

a. Building a bonfire (when stationary for long periods).

b. Hanging light sticks in the trees (when stationary). Be sure to collect them when you leave.

c. Shining Flashlights. Avoid blinding team members. IF you are searching without lights, use a red or blue lens for an attraction light (to avoid night blindness).

d. Car headlights during vehicle searches.

e. Hanging signs that direct the lost person towards your camp or base.

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Ask the student to identify three day and three night attraction techniques and describes their use.

Evaluation

Performance measures	Results	
1. Identifies three day attraction techniques and describes their use.	P	F
2. Identifies three night attraction techniques and describes their use.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0408
IDENTIFY AIRCRAFT SEARCH CLUES

CONDITIONS

You are part of a ground team searching for a missing aircraft.

OJECTIVES

Identify search clues for which to look.

TRAINING AND EVALUATION

Training Outline

1. Searching for a missing aircraft is an exercise in locating clues that will lead to the location of the aircraft. These clues are found by conducting air and ground search, airfield searches ("ramp checks"), and witness interviews.

2. Ground team members on searches in wilderness areas should look for the following:

a. Changes in the Terrain:

1) Broken or disturbed trees and underbrush.

2) Landslides

3). Horsetails caused by windblown snow or sand

4). Breaks in terrain.

5). Blackened or discolored areas

6) Smoke

7) Presence of scavengers (vultures, wolves)

b. Smells:

1) Smoke

2) Decomposition odors.

3) Fuel, oil, or brake fluid

c. Signs of the Aircraft

1) Pieces of wreckage (twisted metal, seats, etc.)

2) Fuel, oil, or brake fluid.

d. Signs of the Pilot/Passengers

1) Bits of clothing or personal effects

2) Trail markings

3) Footprints

4) Campfires

5) Garbage

6) Signals (mirrors, etc.)

e. Unusual sounds (voices, creaking metal)

3. Downed aircraft do not usually come down intact and do not usually even look like aircraft on the ground. YOU ARE NOT LOOKING FOR AN AIRPLANE - YOU ARE LOOKING FOR SIGNS OF AN AIRPLANE CRASH. Recognition and detection of clues to the aircraft location is critical.

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Brief the student that he is on a missing aircraft search. Tell him to identify eight clues to aircraft crash locations.

Evaluation

Performance measures	Results	
1. Identifies eight specific aircraft search clues from the above list	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0409

IDENTIFY MISSING PERSON SEARCH CLUES

CONDITIONS

You are part of a ground team on a search for a missing person or persons.

OJECTIVES

Identify search clues for which to look.

TRAINING AND EVALUATION

Training Outline

1. Searching for a missing person is an exercise in locating clues that will lead you to the location of the individual or group. These clues are found by conducting ground searches, air search, and witness interviews.

2. Ground team members on searches in wilderness areas should look for the following:

a. Physical clues

1) Pieces of clothing or equipment.

2) Smoke, by sight or smell.

3) Food wrappers or trash, cigarette butts.

4) Broken or disturbed trees and underbrush.

5) Presence of scavengers (vultures, wolves, etc.).

6) Signs of human passage or occupation.

7) Decomposition odors.

b. Recorded Clues

1) Trail registers

2) Sign-in logs

c. People

1) Witnesses

2) Family and friends

d. Events

1) Signals

2) Falling rocks

3) Unusual noises

3. Missing people are considered to be clue generators. Rarely can any person travel through or be in the woods without leaving signs of their passage. Clue-consciousness on the team member's part is critical. Do not look for the missing person, look for the clues that lead you to him.

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Brief the student that he is on a missing person search. Tell him to identify eight missing person search clues.

Evaluation

Performance measures	Results	
1. Identifies eight missing person search clues	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0410
MARK A ROUTE

CONDITIONS

Given a roll of surveyor's tape or other marking paper or tape and daylight. You are the end person on a search line, or the designated marker while moving in column. Your team leader has told you to mark your route through the woods.

OJECTIVES

Mark a route of travel so that you can you can back track on it.

TRAINING AND EVALUATION

Training Outline

1.. Route marking is very important when searching. If a team marks the edges of the area it searches, it can ensure it does not miss or "double cover" any terrain. Marking can also be important in other situations, such as marking the route to an isolated crash site in order to assist emergency workers in getting to the site.

2. Normally a team marks both the left and right side of the area it searches unless:

a. One side of the search area is a clearly definable linear terrain feature, such as a road, stream, or edge of a forest.

b. One side is already marked from the teams previous pass through the area.

3. To mark a route:

a. Determine what color of marking tape to use. It is best to use a different color for each end of the line. Also, to avoid confusion, ensure the area does not already contain old markings in the same color.

b. As you walk, tie a band of surveyor's tape at eye level around a tree, fence post or other feature. If moving through a field, use the highest plant you can find.

c. Ensure the tape is visible from all directions.

d. Place tape at intervals where you can always see the next band from the previous one, in either direction. Tie bands more frequently as the terrain restricts visibility.

e. Slow the search line down as necessary in order to have time to leave good marks. Do not get in a hurry and do a poor marking job.

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Choose a wooded area at least 400 meters long. Give a roll of marking tape to the student.

Brief Student: Have the student follow you (or walk on the end of a search line) for at least 400 meters while marking the route.

Evaluation

Performance measures	Results	
1. Leaves markings at eye level, visible in all directions	P	F
2. Ensures markings are close enough to see the next mark from the last one in both directions.	P	F
3. Lets the team leader know if the team is moving too fast for good marking.	P	F

Student must receives a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0411
CONDUCT INDIVIDUAL ACTIONS ON LOCATING A CLUE

CONDITIONS

You are moving as part of a search team when you discover a clue.

OJECTIVES

Demonstrate the appropriate actions on finding a clue

TRAINING AND EVALUATION

Training Outline

1. If an individual team member spots a clue relating to the search objective (missing aircraft or person), the primary concern is to relay this information to mission base. Mission base can then re-prioritize search resources based on the new information. Clues are found during ground searches, ramp checks, distress beacon searches, and witness interviews.

2. The actions that an individual team member would take are the same no matter what the source of the clue.

a. Halt in place. On a ground search, immediately call "Halt the line" and ensure that the search team stops in place.

b. Alert the team leader of a possible clue find and your position on the line.

c. From your position visually survey the surrounding area for safety hazards such as falling tree limbs, wreckage, etc.

d. Do not disturb anything in the area or disturb the clue in anyway. If it is clothing, do not pick it up as your scent on it will interfere with search dog resources.

e. Brief the team leader on what you see and any safety hazards when he arrives at your position.

f. In the woods, secure the area around the clue with marking tape to keep others away from it.

Additional Information

More detailed information on this topic is available in Chapters 7 and 15 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None.

Brief Student: Brief the student that he is on a missing aircraft search and he has just spotted a possible clue (piece of metal) approximately 20 meters in front of him. He is position #4 on the search line. Tell him to demonstrate the actions he would take.

Evaluation

Performance measures	Results	
1. Halts in place	P	F
2. Halts the team immediately	P	F
3. Calls for team leader with position number	P	F
4. Performs safety survey and identifies hazards.	P	F
5. Does not disturb the clue	P	F
6. Briefs the team leader upon arrival	P	F
7. Secures area with marking tape	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0412
CONDUCT INDIVIDUAL ACTIONS ON FIND

CONDITIONS

You are moving as part of a search team when you discover the search target.

OJECTIVES

Demonstrate the appropriate actions on finding the search target.

TRAINING AND EVALUATION

Training Outline

1. At the point when an individual team member first sights the object of a SAR mission, the search phase ends and the rescue and recovery phase begins. In this process, the safety of the search objective, the individual team member, and the team as a whole is a primary concern.

2. The actions an individual takes are the same for a missing aircraft or a missing person search.

a. Halt in place. Immediately call "Halt the line" or use the appropriate whistle signal to halt the team and ensure that the search team stops in place.

b. Alert the team leader of a possible find and your position on the line.

c. From your position visually survey the surrounding area for safety hazards such as falling tree limbs, wreckage, etc.

d. Brief the team leader on what you see and any safety hazards when he arrives at your position.

Additional Information

More detailed information on this topic is available in Chapters 7 and 15 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None.

Brief Student: Brief the student that he is on a missing aircraft search and he has just spotted aircraft wreckage approximately 20 meters in front of him. He is position #4 on the search line. Tell him to demonstrate the actions he would take.

Evaluation

Performance measures	Results	
1. Halts in place	P	F
2. Halts the team immediately	P	F
3. Calls for team leader with position number	P	F
4. Performs safety survey and identifies hazards	P	F
5. Briefs team leader on arrival	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0413
PARTICIPATE IN A HASTY SEARCH

CONDITIONS

You are a member of a ground team assigned to perform a hasty search of a specific area.

OJECTIVES

Search an assigned area with minimal assistance and report back to the team leader with the results.

TRAINING AND EVALUATION

Training Outline

1. In the course of conducting a search ground team are often broken up into smaller teams of qualified personnel to search very specific areas. Typically this team is made up of two or three personnel with advanced training to be able to assist survivors if found before a full team arrives. The suggested make-up of this team is:

a. A qualified Ground Team Leader. This person may be serving as the assistant team leader for the larger team, but has the necessary skills to lead the team if necessary.

b. A Communicator. This person has the skills to communicate effectively with the larger team and mission base as necessary including finding better locations to transmit from.

c. A Medic, First Responder or other higher qualified medical person. This person must have the basic skills to handle the initial medical problems encountered in victims before the larger team or local EMS arrives.

2. Many searches are resolved via hasty searches of "hot spots" assigned by the mission coordinator. Examples of these hot spots include:

a. Trails, fire roads, or other access points to the area of high probability.

b. Streams, rivers, drainages, lake edges and other runoff points.

c. Routes towards known gathering places.

d. Known visited places by the missing.

e. Common aircraft accident locations.

f. Other logical places the missing might go.

3. It is essential that this team maintain adequate communications. Though this team could probably deal with incidents effectively for the short term, members could easily be overwhelmed by tasks necessary to accomplishing the mission. Quick and effective requests for assistance should be accomplished as soon possible on finding the objective. Don't be a hero, lives are at stake.

Additional Information

More detailed information on this topic is available in Chapter 7 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: None

Brief Student: Brief the student that he is to be assigned to a hasty search of a specific area. Ask him to describe who is normally a part of a hasty search, and the areas normally searched by a hasty team.

Evaluation

Performance measures	Results	
1. Student identifies the three key personnel/assignments of the normal team assigned to a hasty search.	P	F
2. The Student is able to list at least five common places that a hasty search may be used.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0502

PARTICIPATE IN A LITTER OR STRETCHER CARRY

CONDITIONS

As part of team you are required to evacuate a patient from a wilderness environment using a litter or stretcher.

OJECTIVES

Participate as part of a litter team to properly evacuate a simulated patient from the wilderness over several obstacles.

TRAINING AND EVALUATION

Training Outline

1. At times the ground search and rescue team will be required to assist in the transportation of a patient from a remote location to medical assistance. This is usually done by placing the patient in a stretcher or litter and having a six to eight person team manually transport them to safety. As part of the team, the individual is responsible for knowing how to lift, carry, pass the litter, and set the patient down properly.

2. Litter lifting. Once the patient is in the litter and secured, the team must bring the litter to waist height to begin transport.

a. To do this four to six individuals line up on alongside the litter (two or three per side), the person at the right front (head position) is in charge of the lift. All individuals get down on one knee facing the litter. Grab the litter rail with both hands.

b. On the command "lift to the knees," straighten your back and lift with both hands, pulling the litter up to knee height.

c. On the command "lift to the waist," use your rear leg to lever yourself to a standing position, with both hands still on the litter.

3. Litter Carry.

a. After the litter is lifted, the team leader commands 'face front.' At this point take your front hand off the litter and rotate your body to face the front (head) of the litter.

b. On the command 'forward', start walking with your inside foot first. Ideally the people on each side of the litter are 'out of step with each other,' to avoid bouncing the litter, but moving the litter should not be stopped to simply stay in step.

c. If you tire and need relief, alert the team leader. A relief bearer will come up directly behind you and grab the litter. When he tells you that he has 'got the litter' you may let go and move off to the side. At this point you join the pool of relief bearers.

4. Pass over obstacles. Fences, rocks, or fallen logs represent obstacles to properly carrying the litter. To overcome these:

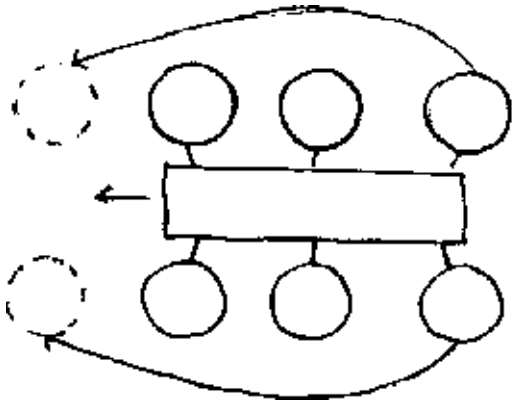
a. The team leader brings the litter directly up to the obstacle and halts the team.

b. Two relief bearers cross the obstacle and position themselves at the head. The litter is passed forward to so that the relief bearers take over the front of the litter.

c. The bearers at the rear of the litter who just passed their load forward, then cross the obstacle and position themselves in front of the relief bearers.

d. The litter is again passed forward until the only the rear of the litter is on the obstacle.

e. The process is repeated until the litter and all the bearers are passed the obstacle and normal travel can resume.



Litter Transfer Uphill or Over an Obstacle

5. This same technique should be used when moving up or down a steep slope (whenever possible, however, avoid such slopes). Ropes can be secured to the litter to allow personnel at the top of the slope to assist in the movement up or downhill.

6. Setting the litter down

a. To set the litter down, the team leader calls a halt and then 'face center.' At this point the bearers rotate their bodies to face into the litter and grab the litter rails with both hands.

b. The team leaders then command 'lower to the knees.' At this point keep your back straight and lower yourself to a kneeling position with the litter in front of you and at knee height.

c. On the command 'lower to the ground,' bend forward slightly until the litter is safely on the ground. At this point move away from the litter to allow the team medic to check out the patient.

6. Lift straps. If you have a length of 1" webbing in your gear, it may be easier on your arms to construct a sling to help carry the litter. Tie a water knot in the webbing to secure the ends together. Girth hitch or snaplink the webbing to the litter rail and place the long loop over your shoulder. Adjust the position of the water knot to set the loop to the proper length. On long evacuations, this will reduce fatigue.

Additional Information

More detailed information on this topic is available in Chapter 8 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Place the student on stretcher team. Provide the team with a litter and a simulated patient secured to the litter. (You can use an actual person in the litter, or something of similar weight.) Prepare a course of at least 300 meters containing at least 3 obstacles that will the team must pass the litter over.

Brief Student: Tell the team that you will call all commands for the team. Show them the course they must carry the stretcher over. Have the students line up on the stretcher, with the relief bearers off to the side. Tell all students that they should request relief at least once during the 300 meter course.

Evaluation

Performance measures	Results	
1. Lifts the litter on command to the knees while keeping his back straight.	P	F
2. Lifts the litter to the waist properly	P	F
3. Relieves another litter bearer properly	P	F
4. Participates in transfer over an obstacle properly	P	F
5. Lowers the litter to his knees and ground on command.	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.

O-0702
USE A SIGNAL MIRROR

CONDITIONS

You are in the field, alone or with your team, in daylight, and need to attract the attention of an overflying aircraft

OJECTIVES

With a mirror, correctly signal in the direction of an overflying aircraft.

TRAINING AND EVALUATION

Training Outline

1. At times, you may have radio difficulties and need to attract the attention of an aircraft. Even if you have radio communication with the airplane, the pilot might be having difficulty in spotting you. In daylight, using a signal mirror is an excellent way to attract a pilot's attention, or let him know where you are. Mirror signals can be seen for over 70 miles under normal conditions. Over desert terrain or on the water they can be seen from over 100 miles. A signal mirror can be a high-tech glass mirror (military MK-3 signal mirror) or just a highly polished piece of metal. Mirror signals work well even on hazy or overcast days.

2. To use the MK-3 signal mirror:

a. Outstretch one hand in the direction of the airplane, leaving the palm facing you.

b. With the mirror, reflect sunlight into the palm your outstretched hand.

c. Move your outstretched hand out of the way. Slowly bring the mirror up to eye-level and look through the sighting hole. You will see a bright spot of light. This is the aim indicator.

d. Hold the mirror near your eye and slowly turn and manipulate it so that the bright spot is on the target aircraft. If having a tough time lining up on the airplane, the individual might try sighting the mirror between two fingers on the outstretched hand.

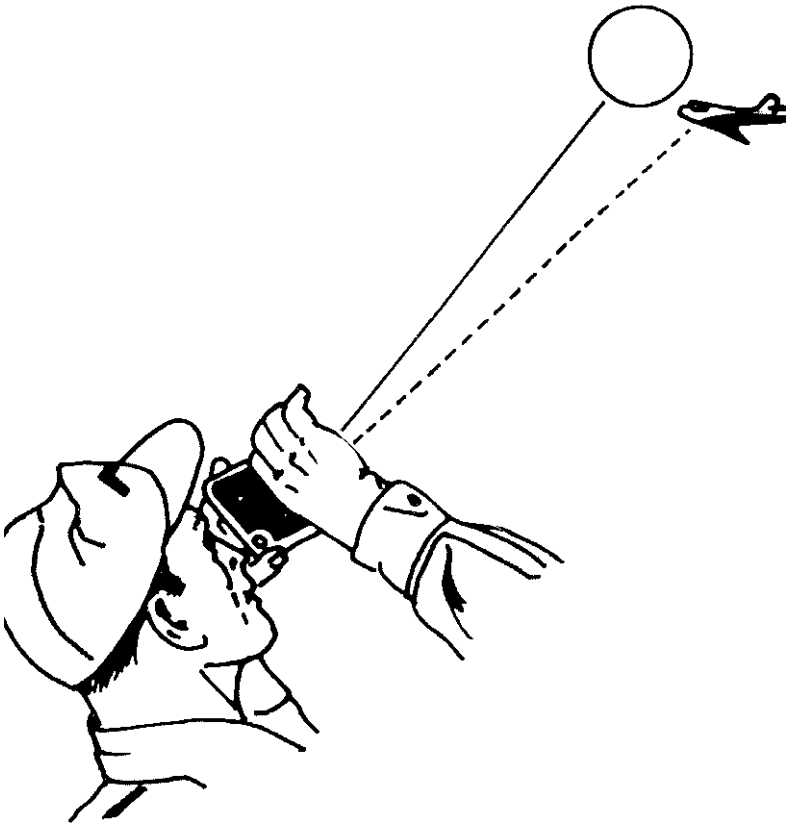
3. To use a polished metal surface:

a. Outstretch one hand in the direction of the airplane, leaving the palm facing you.

b. With the mirror, reflect sunlight into the palm your outstretched hand.

c. Slowly bring the mirror to chest level while maintaining the reflected light on your hand

d. Move your outstretched hand out of the way. Maneuver the mirror so that the light reflection is in the direction of the overhead aircraft. Move your hand in and out in front of the beam to create flashes or simply manipulate the mirror.



Using an MK-3 mirror

Additional Information

More detailed information on this topic is available in Chapter 10 of the Ground Team Member & Leader Reference Text.

Evaluation Preparation

Setup: Place someone on a distant point (preferably higher ground than where the student is standing). This person will simulate the airplane. Ensure he has communications with you. Ensure the student has signal mirror, preferably the one from that student's own field gear.

Brief Student: Tell the student to use the mirror to signal the person simulating the aircraft.

Evaluation

Performance measures	Results	
1. The student produces a reflection on his hand	P	F
2. The student successfully directs the flashes toward the target within 15 seconds	P	F

Student must receive a pass on all performance measures to qualify in this task. If the individual fails any measure, show what was done wrong and how to do it correctly.