

ARMY, MARINE CORPS, NAVY, AIR FORCE



**SURVIVAL,
EVASION,
AND
RECOVERY**

**MULTISERVICE
PROCEDURES FOR
SURVIVAL, EVASION, AND
RECOVERY**

**FM 21-76-1
MCRP 3-02H
NWP 3-50.3
AFTTP(I) 3-2.26**

JUNE 1999

**AIR LAND SEA
APPLICATION
CENTER**

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MULTISERVICE TACTICS, TECHNIQUES, AND PROCEDURES

QUICK REFERENCE CHECKLIST

Decide to Survive!

<p>S - Size up the situation, surroundings, physical condition, equipment. U - Use all your senses R - Remember where you are. V - Vanquish fear and panic. I - Improvise and improve. V - Value living. A - Act like the natives. L - Live by your wits.</p>

1. Immediate Actions

- a. Assess immediate situation. **THINK BEFORE YOU ACT!**
- b. Take action to protect yourself from nuclear, biological, or chemical hazards (Chapter IX).
- c. Seek a concealed site.
- d. Assess medical condition; treat as necessary (Chapter V).
- e. Sanitize uniform of potentially compromising information.
- f. Sanitize area; hide equipment you are leaving.
- g. Apply personal camouflage.
- h. Move away from concealed site, zigzag pattern recommended.
- i. Use terrain to advantage, communication, and concealment.
- j. Find a hole-up site.

2. Hole-Up-Site (Chapter I)

- a. Reassess situation; treat injuries, then inventory equipment.
- b. Review plan of action; establish priorities (Chapter VI).
- c. Determine current location.
- d. Improve camouflage.
- e. Focus thoughts on task(s) at hand.
- f. Execute plan of action. Stay flexible!

Recommend inclusion of this manual in the aviator's survival vest.

3. Concealment (Chapter I)

- a. Select a place of concealment providing—
 - (1) Adequate concealment, ground and air.
 - (2) Safe distance from enemy positions and lines of communications (LOC).
 - (3) Listening and observation points.
 - (4) Multiple avenues of escape.
 - (5) Protection from the environment.
 - (6) Possible communications/signaling opportunities.
- b. Stay alert, maintain security.
- c. Drink water.

4. Movement (Chapters I and II)

- a. Travel slowly and deliberately.
- b. **DO NOT** leave evidence of travel; use noise and light discipline.
- c. Stay away from LOC.
- d. Stop, look, listen, and smell; take appropriate action(s).
- e. Move from one concealed area to another.
- f. Use evasion movement techniques (Chapter I).

5. Communications and Signaling (Chapter III)

- a. Communicate as directed in applicable plans/orders, particularly when considering transmitting **in the blind**.
- b. Be prepared to use communications and signaling devices on short notice.
- c. Use of communications and signaling devices may compromise position.

6. Recovery (Chapter IV)

- a. Select site(s) IAW criteria in theater recovery plans.
- b. Ensure site is free of hazards; secure personal gear.
- c. Select best area for communications and signaling devices.
- d. Observe site for proximity to enemy activity and LOC.
- e. Follow recovery force instructions.

FM 21-76-1
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FM 21-76-1 U.S. Army Training and Doctrine Command
Fort Monroe, Virginia
MCRP 3-02H Marine Corps Combat Development Command
Quantico, Virginia
NWP 3-50.3 Navy Warfare Development Command
Newport, Rhode Island
AFTTP(I) 3-2.26 Headquarters Air Force Doctrine Center
Maxwell Air Force Base, Alabama

29 JUNE 1999

Survival, Evasion, and Recovery

Multiservice Procedures for
Survival, Evasion, and Recovery

Note: This *UNCLASSIFIED* publication is designed to provide Service members quick-reference survival, evasion, and recovery information. See Appendix B for the scope, purpose, application, implementation plan, and user information.

TABLE OF CONTENTS

	Page
CHAPTER I EVASION	
1. Planning.....	I-1
2. Camouflage.....	I-1
3. Shelters.....	I-3
4. Movement.....	I-3
CHAPTER II NAVIGATION	
1. Stay or Move Considerations.....	II-1
2. Navigation and Position Determination.....	II-1
3. Travel Considerations.....	II-10
4. River Travel.....	II-10
5. Ice and Snow Travel.....	II-11
6. Mountain Hazards.....	II-12
7. Summer Hazards.....	II-12
8. Dry Climates.....	II-12

9. Tropical Climates	II-13
10. Open Seas	II-13
CHAPTER III RADIO COMMUNICATIONS AND SIGNALING	
1. Radio Communications (Voice and Data).....	III-1
2. Signaling.....	III-2
CHAPTER IV RECOVERY	
1. Responsibilities.....	IV-1
2. Site Selection.....	IV-1
3. Site Preparation.....	IV-1
4. Recovery Procedures	IV-1
CHAPTER V MEDICAL	
1. Immediate First Aid Actions.....	V-1
2. Common Injuries and Illnesses.....	V-9
3. Plant Medicine.....	V-15
4. Health and Hygiene.....	V-18
6. Rules for Avoiding Illness.....	V-18
CHAPTER VI PERSONAL PROTECTION	
1. Priorities	VI-1
2. Care and Use of Clothing	VI-1
3. Other Protective Equipment.....	VI-2
4. Shelters.....	VI-3
5. Fires	VI-8
CHAPTER VII WATER	
1. Water Requirements	VII-1
2. Water Procurement	VII-1
3. Water Preparation and Storage.....	VII-7
CHAPTER VIII FOOD	
1. Food Procurement.....	VIII-1
2. Food Preparation	VIII-9
3. Food Preservation.....	VIII-11
CHAPTER IX INDUCED CONDITIONS	
1. Nuclear Conditions	IX-1
2. Biological Conditions	IX-6
3. Chemical Conditions	IX-7
APPENDIX A THE WILL TO SURVIVE	A-1
APPENDIX B PUBLICATION INFORMATION	B-2

THE CODE OF CONDUCT

ARTICLE I

I am an American, fighting in the forces which guard my country and our way of life. I am prepared to give my life in their defense.

ARTICLE II

I will never surrender of my own free will. If in command, I will never surrender the members of my command while they still have the means to resist.

ARTICLE III

If I am captured, I will continue to resist by all means available. I will make every effort to escape and aid others to escape. I will accept neither parole nor special favors from the enemy.

ARTICLE IV

If I become a prisoner of war, I will keep faith with my fellow prisoners. I will give no information or take part in any action which might be harmful to my comrades. If I am senior, I will take command. If not, I will obey the lawful orders of those appointed over me and will back them up in every way.

ARTICLE V

When questioned, should I become a prisoner of war, I am required to give name, rank, service number and date of birth. I will evade answering further questions to the utmost of my ability. I will make no oral or written statements disloyal to my country and its allies or harmful to their cause.

ARTICLE VI

I will never forget that I am an American, fighting for freedom, responsible for my actions, and dedicated to the principles which made my country free. I will trust in my God and in the United States of America.

Chapter I

EVASION

1. Planning

- a. Review the quick reference checklist on the inside cover.
- b. Guidelines for successful evasion include—
 - (1) Keeping a positive attitude.
 - (2) Using established procedures.
 - (3) Following your evasion plan of action.
 - (4) Being patient.
 - (5) Drinking water (**DO NOT** eat food without water).
 - (6) Conserving strength for critical periods.
 - (7) Resting and sleeping as much as possible.
 - (8) Staying out of sight.
- c. The following odors stand out and may give an evader away:
 - (1) Scented soaps and shampoos.
 - (2) Shaving cream, after-shave lotion, or other cosmetics.
 - (3) Insect repellent (camouflage stick is least scented).
 - (4) Gum and candy (smell is strong or sweet).
 - (5) Tobacco (odor is unmistakable).
- d. Where to go (initiate evasion plan of action):
 - (1) Near a suitable area for recovery.
 - (2) Selected area for evasion.
 - (3) Neutral or friendly country or area.
 - (4) Designated area for recovery.

2. Camouflage

- a. Basic principles:
 - (1) Disturb the area as little as possible.
 - (2) Avoid activity that reveals movement to the enemy.
 - (3) Apply personal camouflage.
- b. Camouflage patterns (**Figure I-1**):
 - (1) Blotch pattern.
 - (a) Temperate deciduous (leaf shedding) areas.
 - (b) Desert areas (barren).
 - (c) Snow (barren).
 - (2) Slash pattern.
 - (a) Coniferous areas (broad slashes).

- (b) Jungle areas (broad slashes).
- (c) Grass (narrow slashes).
- (3) Combination. May use blotched and slash together.



Figure I-1. Camouflage Patterns

- c. Personal camouflage application follows:
 - (1) Face. Use dark colors on high spots and light colors on any remaining exposed areas. Use a hat, netting, or mask if available.
 - (2) Ears. The insides and the backs should have **2** colors to break up outlines.
 - (3) Head, neck, hands, and the under chin. Use scarf, collar, vegetation, netting, or coloration methods.
 - (4) Light colored hair. Give special attention to conceal with a scarf or mosquito head net.
- d. Position and movement camouflage follows:
 - (1) Avoid unnecessary movement.
 - (2) Take advantage of natural concealment:
 - (a) Cut foliage fades and wilts, change regularly.
 - (b) Change camouflage depending on the surroundings.
 - (c) **DO NOT** select vegetation from same source.
 - (d) Use stains from grasses, berries, dirt, and charcoal.
 - (3) **DO NOT** over camouflage.
 - (4) Remember when using shadows, they shift with the sun.

-
- (5) Never expose shiny objects (like a watch, glasses, or pens).
 - (6) Ensure watch alarms and hourly chimes are turned off.
 - (7) Remove unit patches, name tags, rank insignia, etc.
 - (8) Break up the outline of the body, “V” of crotch/armpits.
 - (9) Conduct observation from a prone and concealed position.

3. Shelters

- a. Use camouflage and concealment.
- b. Locate carefully—easy to remember acronym: **BLISS**.

<p>B - Blend L - Low silhouette I - Irregular shape S - Small S - Secluded location</p>
--

- (1) Choose an area—
 - (a) Least likely to be searched (drainages, rough terrain, etc.) and blends with the environment.
 - (b) With escape routes (**DO NOT** corner yourself).
 - (c) With observable approaches.
- (2) Locate entrances and exits in brush and along ridges, ditches, and rocks to keep from forming paths to site.
- (3) Be wary of flash floods in ravines and canyons.
- (4) Conceal with minimal to no preparation.
- (5) Take the direction finding threat into account before transmitting from shelter.
- (6) Ensure overhead concealment.

4. Movement

- a. A moving object is easy to spot. If travel is necessary—
 - (1) Mask with natural cover (**Figure I-2**).
 - (2) Use the military crest.
 - (3) Restrict to periods of low light, bad weather, wind, or reduced enemy activity.

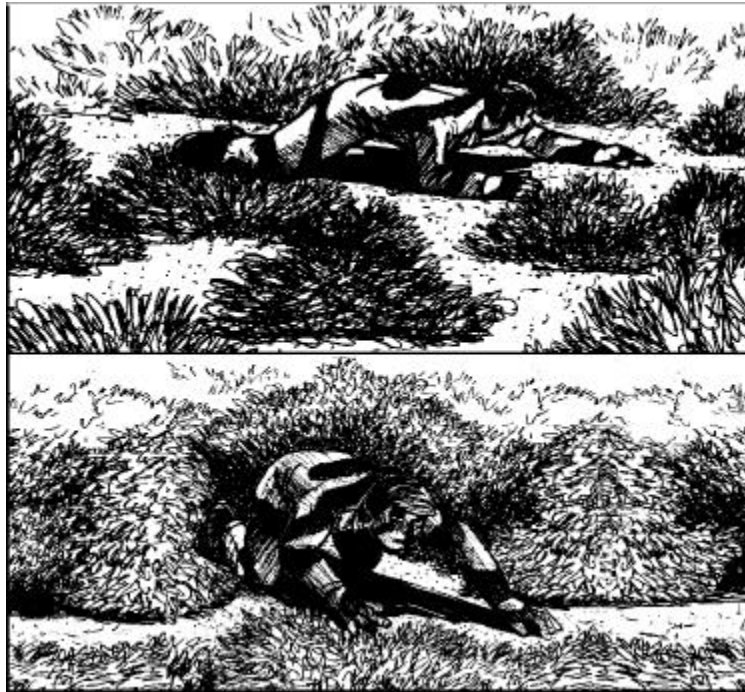


Figure I-2. Ground Movement

- (4) Avoid silhouetting (**Figure I-3**).
- (5) At irregular intervals—
 - (a) **STOP** at a point of concealment.
 - (b) **LOOK** for signs of human or animal activity (smoke, tracks, roads, troops, vehicles, aircraft, wire, buildings, etc.). Watch for trip wires or booby traps and avoid leaving evidence of travel. Peripheral vision is more effective for recognizing movement at night and twilight.
 - (c) **LISTEN** for vehicles, troops, aircraft, weapons, animals, etc.
 - (d) **SMELL** for vehicles, troops, animals, fires, etc.



Figure I-3. Avoid Silhouetting

- (6) Employ noise discipline; check clothing and equipment for items that could make noise during movement and secure them.
 - b. Break up the human shape or recognizable lines.
 - c. Route selection requires detailed planning and special techniques (irregular route/zigzag) to camouflage evidence of travel.
 - d. Some techniques for concealing evidence of travel follows:
 - (1) Avoid disturbing the vegetation above knee level.
 - (2) **DO NOT** break branches, leaves, or grass.
 - (3) Use a walking stick to part vegetation and push it back to its original position.
 - (4) **DO NOT** grab small trees or brush. (This may scuff the bark or create movement that is easily spotted. In snow country, this creates a path of snowless vegetation revealing your route.)
 - (5) Pick firm footing (carefully place the foot lightly but squarely on the surface to avoid slipping). **TRY NOT TO—**
 - (a) Overturn ground cover, rocks, and sticks.
 - (b) Scuff bark on logs and sticks.
 - (c) Make noise by breaking sticks. (Cloth wrapped around feet helps muffle this.)
 - (d) Mangle grass and bushes that normally spring back.

-
- (6) Mask unavoidable tracks in soft footing by—
 - (a) Placing tracks in the shadows of vegetation, downed logs, and snowdrifts.
 - (b) Moving before and during precipitation allows tracks to fill in.
 - (c) Traveling during windy periods.
 - (d) Taking advantage of solid surfaces (logs, rocks, etc.) leaving less evidence of travel.
 - (e) Patting out tracks lightly to speed their breakdown or make them look old.
 - (7) Secure trash or loose equipment—hide or bury discarded items. (Trash or lost equipment identifies who lost it.)
 - (8) Concentrate on defeating the handler if pursued by dogs.
 - e. Penetrate obstacles as follows:
 - (1) Enter deep ditches feet first to avoid injury.
 - (2) Go around chain-link and wire fences. Go under fence if unavoidable, crossing at damaged areas. **DO NOT** touch fence; look for electrical insulators or security devices.
 - (3) Penetrate rail fences, passing under or between lower rails. If impractical, go over the top, presenting as low a silhouette as possible (**Figure I-4**).
 - (4) Cross roads after observation from concealment to determine enemy activity. Cross at points offering concealment such as bushes, shadows, bend in road, etc. Cross in a manner leaving your footprints parallel (cross step sideways) to the road. (**Figure I-5**)
 - (5) Use same method of observation for railroad tracks that was used for roads. Next, align body parallel to tracks with face down, cross tracks using a semi-pushup motion. Repeat for the second track. (**Figure I-6**).

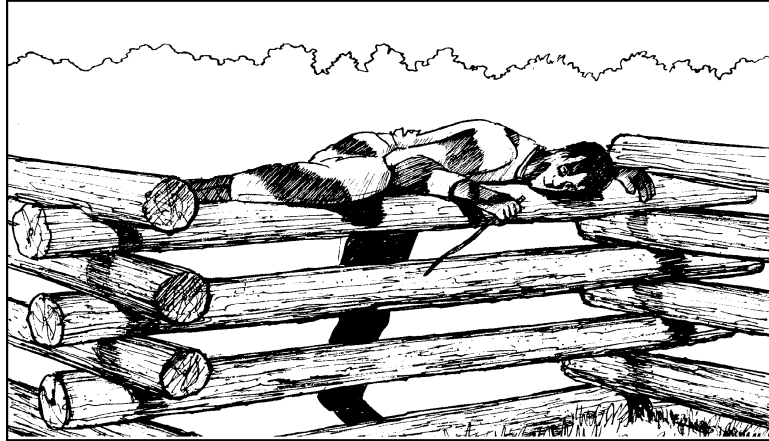


Figure I-4. Rail Fences



Figure I-5. Road Crossing

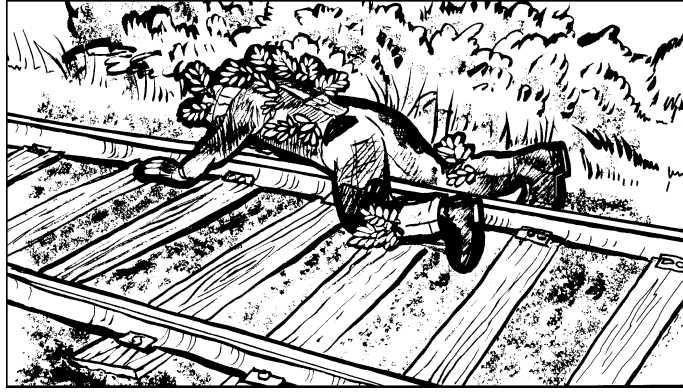


Figure I-6. Railroad Tracks

WARNING: If 3 rails exist, 1 may be electrified.

Chapter II

NAVIGATION

Assess the threat and apply appropriate evasion principles.

1. Stay or Move Considerations

- a. Stay with the vehicle/aircraft in a non-combat environment.
- b. Leave only when—
 - (1) Dictated by the threat.
 - (2) Are certain of your location, have a known destination, and have the ability to get there.
 - (3) Can reach water, food, shelter, and/or help.
 - (4) Convinced rescue is not coming.
- c. Consider the following if you decide to travel:
 - (1) Follow the briefed evasion plan.
 - (2) Determine which direction to travel and why.
 - (3) Decide what equipment to take, cache, or destroy.
- d. Leave information at your starting point (in a non-combat environment) that includes—
 - (1) Destination.
 - (2) Route of travel.
 - (3) Personal condition.
 - (4) Supplies available.
- e. Consider the following for maps (in a combat environment):
 - (1) **DO NOT** write on the map.
 - (2) **DO NOT** soil the map by touching the destination.
 - (3) **DO NOT** fold in a manner providing travel information.

Note: **These actions may compromise information if captured.**

2. Navigation and Position Determination

- a. Determine your general location by—
 - (1) Developing a working knowledge of the operational area.
 - (a) Geographic checkpoints.
 - (b) Man-made checkpoints.
 - (c) Previous knowledge of operational area.
 - (2) Using the **Rate x Time = Distance** formula.
 - (3) Using information provided in the map legend.
 - (4) Using prominent landmarks.

- (5) Visualizing map to determine position.
- b. Determine cardinal directions (north, south, east, and west) by—
- (1) Using compass.

CAUTION: The following methods are **NOT** highly accurate and give only general cardinal direction.

- (2) Using stick and shadow method to determine a true north-south line (**Figure II-1**).

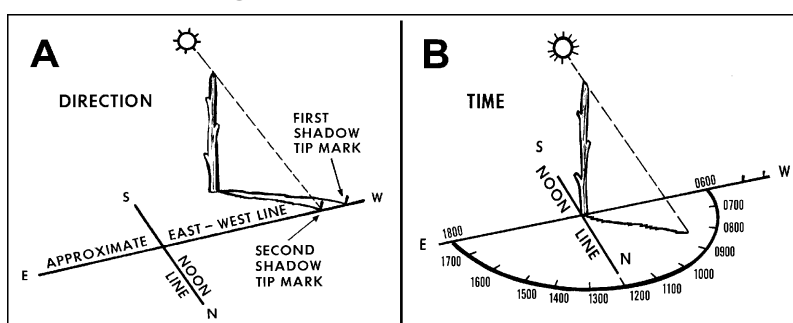
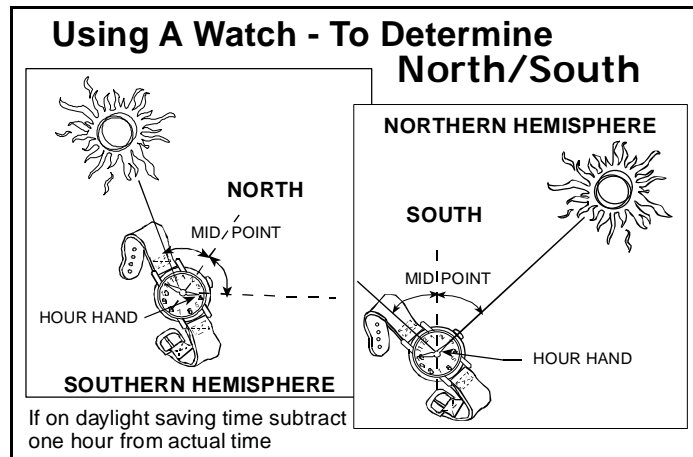


Figure II-1. Stick and Shadow Method

- (3) Remembering the sunrise/moonrise is in the east and sunset/moonset is in the west.
- (4) Using a wristwatch to determine general cardinal direction (**Figure II-2**).
 - (a) Digital watches. Visualize a clock face on the watch.
 - (b) Northern Hemisphere. Point hour hand at the sun. South is halfway between the hour hand and 12 o'clock position.
 - (c) Southern Hemisphere. Point the 12 o'clock position on your watch at the sun. North is halfway between the 12 o'clock position and the hour hand.



- (5) Using a pocket navigator (**Figure II-3**)—
- (a) Gather the following necessary materials:
 - Flat writing material (such as an MRE box).
 - 1-2 inch shadow tip device (a twig, nail, or match).
 - Pen or pencil.
 - (b) Start construction at sunup; end construction at sundown. Do the following:
 - Attach shadow tip device in center of paper.
 - Secure navigator on flat surface (**DO NOT** move during set up period).
 - Mark tip of shadow every 30 minutes annotating the time.
 - Connect marks to form an arc.
 - Indicate north with a drawn arrow.
- Note:** The shortest line between base of shadow tip device and curved line is a north-south line.
- (c) Do the following during travel:
 - Hold navigator so the shadow aligns with mark of present time (drawn arrow now points to true north).

(d) Remember the navigator is current for approximately 1 week.

CAUTION: The Pocket Navigator is **NOT** recommended if evading.

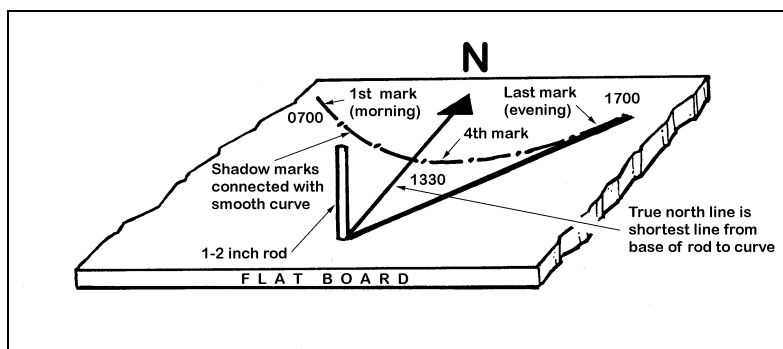


Figure II-3. Pocket Navigator

- (6) Using the stars (Figure II-4) the—
- North Star is used to locate true north-south line.
 - Southern Cross is used to locate true south-north line.

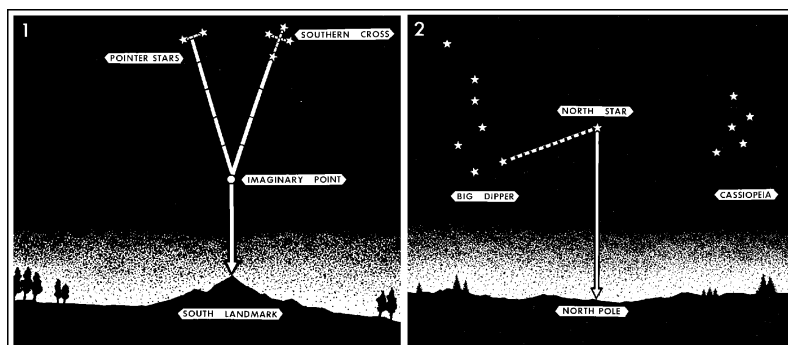


Figure II-4. Stars

- c. Orient the map by—
- Using a true north-south line (Figure II-5)—
 - Unfold map and place on a firm, flat, level nonmetallic surface.

- (b) Align the compass on a true north-south line.
- (c) Rotate map and compass until stationary index line aligns with the magnetic variation indicated in marginal information.
 - Easterly (subtract variation from 360 degrees).
 - Westerly (add variation to 360 degrees).

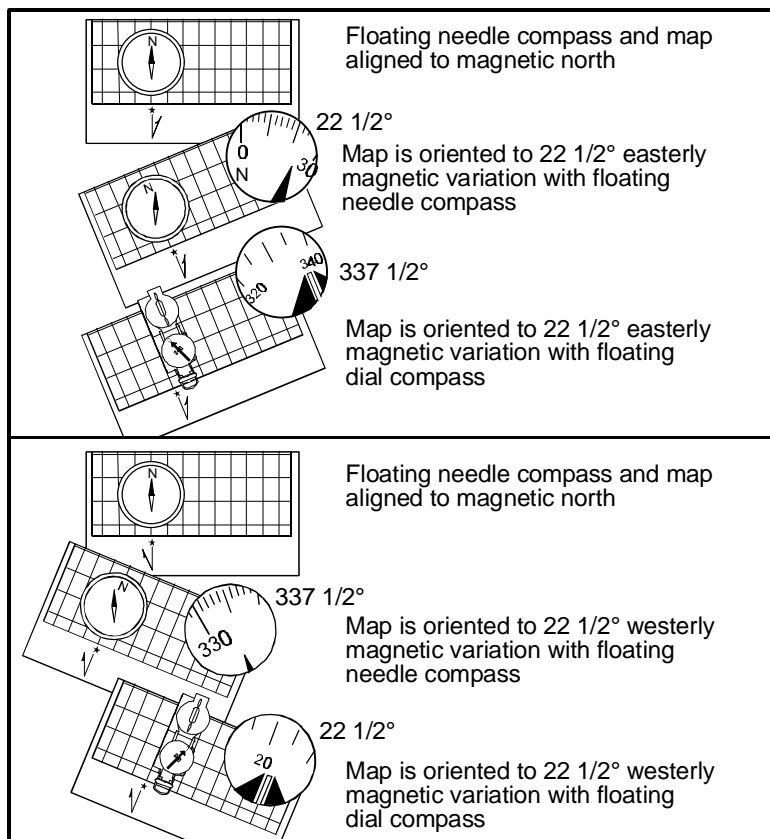


Figure II-5. Orienting a Map Using a True North-South Line

- (2) Using a compass rose (**Figure II-6**)—
- (a) Place edge of the lensatic compass on magnetic north line of the compass rose closest to your location.
 - (b) Rotate map and compass until compass reads 360 degrees.
- degrees.

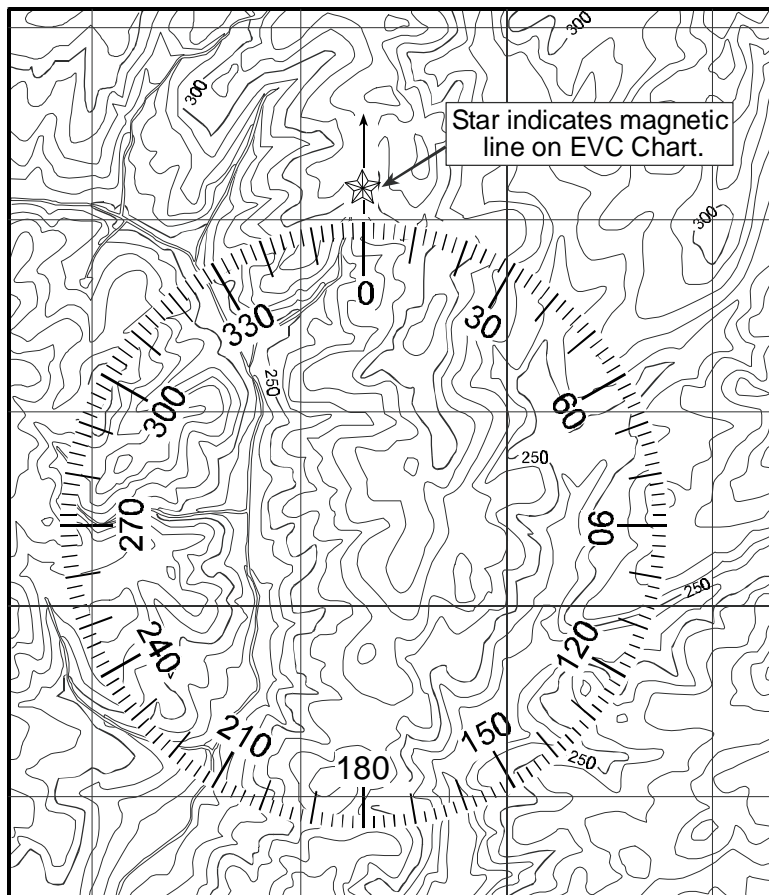


Figure II-6. Map Orientation with Compass Rose

- (3) If there is **NO** compass, orient map using cardinal direction obtained by the stick and shadow method or the celestial aids (stars) method.
- d. Determine specific location.
 - (1) Global Positioning System (GPS).
 - (a) **DO NOT** use GPS for primary navigation.
 - (b) Use GPS to confirm your position **ONLY**.
 - (c) Select area providing maximum satellite reception.
 - (d) Conserve GPS battery life.
 - (2) Triangulation (resection) with a compass (**Figure II-7**).

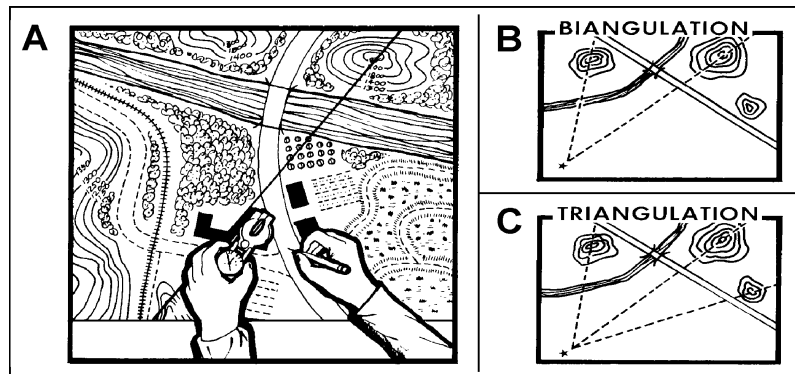


Figure II-7. Triangulation

- (a) Try to use **3** or more azimuths.
- (b) Positively identify a major land feature and determine a line of position (LOP).
- (c) Check map orientation each time compass is used.
- (d) Plot the LOP using a thin stick or blade of grass (combat) or pencil line (non-combat).
- (e) Repeat steps **(b)** through **(d)** for other LOPs.
- e. Use the compass for night navigation by—
 - (1) Setting up compass for night navigation (**Figure II-8**).
 - (2) Aligning north-seeking arrow with luminous line and follow front of compass.
 - (3) Using point-to-point navigation.
- f. Route selection techniques follow:

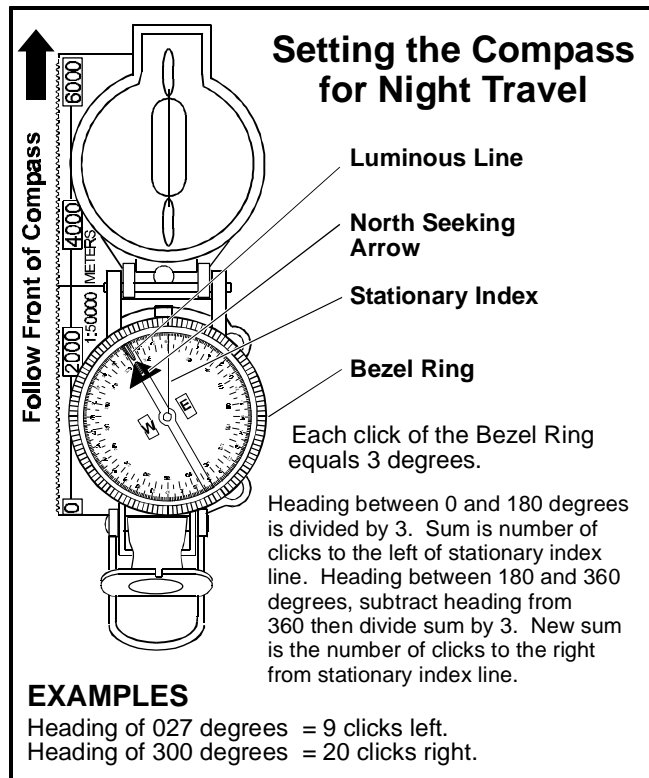


Figure II-8. Compass Night Navigation Setup

- (1) Circumnavigation.
 - (a) Find a prominent landmark on the opposite side of the obstacle.
 - (b) Contour around obstacle to landmark.
 - (c) Resume your route of travel.
- (2) Dogleg and 90 degree offset (**Figure II-9**).
- (3) Straight-line heading as follows:
 - (a) Maintain heading until reaching destination.
 - (b) Measure distance by counting the number of paces in a given course and convert to map units.

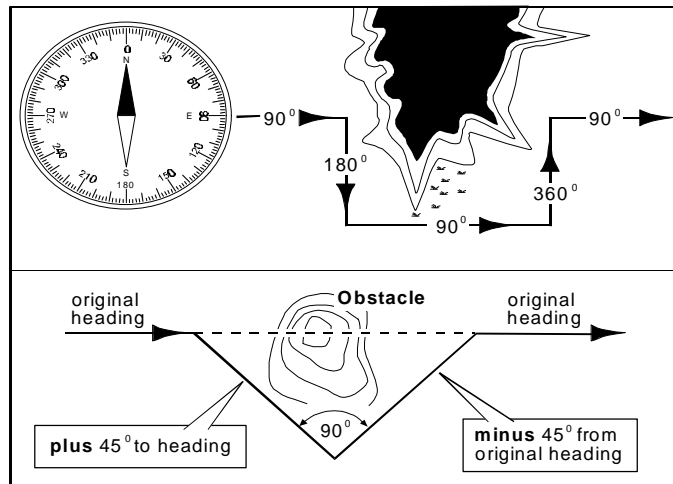


Figure II-9. Dogleg and 90 Degree Offset

- One pace is the distance covered each time the same foot touches the ground.

- Distances measured by paces are approximate (example in open terrain, 900 paces per kilometer [average], or example in rough terrain, 1200 paces per kilometer [average]).

(c) Use pace count in conjunction with terrain evaluation and heading to determine location. An individual's pace varies because of factors such as steep terrain, day/night travel, or injured/uninjured condition. Adjust estimation of distance traveled against these factors to get relative accuracy when using a pace count.

(4) Deliberate offset is—

(a) Used when finding a point on a linear feature (that is, road or river).

(b) Intentionally navigated to left or right of target so you know which way to turn at the linear feature.

(5) Point-to-point is same as straight line.

(a) Pick out landmarks on the heading and walk the trail of least resistance to a point.

(b) On reaching a point, establish another landmark and continue.

3. Travel Considerations

- a. Pick the easiest and safest route (non-combat).
- b. Maintain a realistic pace; take rest stops when needed.
- c. Avoid overdressing and overheating.
- d. Consider food and water requirements.
- e. Take special care of feet (change socks regularly).
- f. Pack equipment to prevent loss, damage, pack imbalance, and personal safety.
- g. Go **around** obstacles, not over or through them.
- h. Travel on trails whenever possible (non-combat).
- i. Travel in forested areas if possible.
- j. Avoid creek bottoms and ravines with **NO** escape in the event of heavy rains.
- k. Consider the following for swamps, lakes, and unfordable rivers:
 - (1) Circumnavigate swamps, lakes, and bogs if needed.
 - (2) Travel downstream to find people and slower water.
 - (3) Travel upstream to find narrower and shallow water.

4. River Travel

River travel may be faster and save energy when hypothermia is not a factor. It may be a primary mode of travel and LOC in a tropical environment (**use with caution if evading**).

- a. Use flotation device (raft, log, bamboo, etc.).
- b. Use a pole to move the raft in shallow water.
- c. Use an oar in deep water.
- d. Stay near inside edge of river bends (current speed is less).
- e. Keep near shore.
- f. Watch for the following **DANGERS**:
 - (1) Snags.
 - (2) Sweepers (overhanging limbs and trees).
 - (3) Rapids (**DO NOT** attempt to shoot the rapids).
 - (4) Waterfalls.
 - (5) Hazardous animals.
- g. Consider using a flotation device when crossing rivers or large/deep streams.

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