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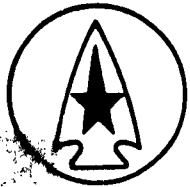
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63-3-2



HEADQUARTERS
UNITED STATES ARMY COMBAT DEVELOPMENTS COMMAND
FORT BELVOIR, VIRGINIA

SDEG-MA

17 April 1963

SUBJECT: Department of Army Approved Small Development Requirement
for Individual Aid and Survival Kit for Special Warfare

TO: See Distribution

401 819

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1. Reference is made to Letter, SDEG-MA, this headquarters, 1 February 1963, subject: Proposed Small Development Requirement for Individual Aid and Survival Kit for Special Warfare, with 1st Indorsement, CRD/L 40 (U), Headquarters, DA, OCRD, 7 March 1963.

2. The proposed SDR submitted by referenced letter was approved by Department of Army by the referenced indorsement and is at Inclosure

3. The assigned CDOG paragraph is 139(B)d(6).

4. The assigned priority is I.

5. The U. S. Army Limited War Laboratory has been designated the development agency for the Individual Aid and Survival Kit for Special Warfare.

FOR THE COMMANDER:

Lewis V. Edner
LEWIS V. EDNER
Major, QMC
Asst Dir, Pers & Admin

1 Incl
as

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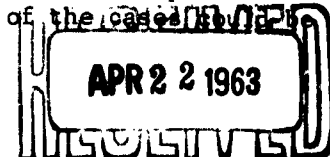
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CO, USA Limited War Laboratory, Aberdeen Proving Ground, Md.	10

APPROVED

SMALL DEVELOPMENT REQUIREMENT FOR INDIVIDUAL AID
AND SURVIVAL KIT FOR SPECIAL WARFARE

1. Paragraph number. CDOG paragraph number is 139(B)d(6).
2. Purpose and operational characteristics.
 - a. To provide minimum essential self-aid and survival articles for a period of up to ten days, when supplemented with foraged foods, for personnel in an evadee status.
 - b. An individual engaged in unconventional warfare and counter-guerrilla operations is frequently exposed to possible capture. In counter-guerrilla operations, indigenous elements with which a US soldier is working may be dispersed, causing complete separation of the soldier from the unit. While in an operational area, he must be continuously prepared to initiate evasive action and conceivably to continue evading for an extended period of time. His possession and proper use of a suitable survival kit may be the critical factor in effecting a successful juncture with friendly personnel. Therefore, there is a requirement for an individual aid and survival kit for issue to personnel participating in special warfare operations.
 - c. The kit must be small enough to encourage its constant wear in order to insure its ready availability in time of emergency.
 - d. Consideration should be given to designing the kit in more than one component as a means of satisfying the requirement for the kit to have a medical, utility, and operational capability. The medical and utility components would constitute the "survival" portion of the kit, and therefore should be sealed (individually or collectively as appropriate) in such a manner as would afford maximum climatic protection. This would tend to discourage premature consumption. The "operational" component container would be furnished empty in the kit. The items to be included in this container should be provided by the user or his commander as deemed appropriate for a given operational area. A suitable packaging envelope should be included in the operational component to permit waterproofing of locally added items. It is anticipated that the operational component would serve as an individual aid kit for short duration (2 to 5 day) operations. Designs which should be considered for the carrier(s) are:

(1) Use of three or four each of the item FSN 8465-577-4927 Case, First Aid Packet or Lensatic Compass, M1956, modified. (It is envisioned that several of these cases could be modified to permit lateral connection. In this manner, such an arrangement of the cases is possible.)



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worn on the back of the pistol belt, and conform to the small of the wearer's back. The individual cases could also be separated and carried elsewhere on the wearer's person according to unit SOP's.) (See Incl 1.)

(2) A slightly arc-shaped, end or top-opening container in the general shape of a parallelepiped, with an approximate dimension of 10" x 4" x 1". (This kit could be worn on the back of the pistol belt, conforming to the small of the wearer's back, or attached elsewhere on the person, such as a pack suspenser strap.) (See Incl 2 and 3)

(3) A fitted combination medical-utility container in the general design and configuration shown in Incl 4. (The container should have the capability of being attached to the waist or pistol belt, strapped across the wearer's chest, or slung from the shoulder.)

(4) A companion container to that described in 3d(3), above, for the food packet and operational components. (The container should have the capability of being attached to the waist or pistol belt, strapped across the wearer's chest, or slung from a shoulder.) (See Incl 5.)

e. Each carrier, with the possible exception of the concept illustrated in Incl 4, should be fitted with a durable, waterproof liner that would protect the contents from damage or degradation during prolonged wear of the kit. The liners should be considered for use as emergency water vessels. If possible, the liners should also be suitable for use as emergency water containers.

f. The maximum weight of the kit, less items furnished for the operational container, should not exceed 24 ounces.

g. It is desired that the entire kit be as small as possible, consistent with operational capabilities. If possible, volume should not exceed 44 cubic inches.

h. Developers are enjoined to make every effort to effectively utilize all available space. The interior of the medical and utility liners should be compartmentalized to facilitate access to a specific item. A list of all items within each of the containers should be printed on the liner.

i. The carrier(s) must be rugged, durable, and capable of withstanding considerable abuse.

j. Packaging, to include carrier(s), should protect components from damage and/or degradation for at least 2 years under ambient covered storage conditions, and for 6 months (1 year desirable) in the hands of troops.

k. The following additional guidance is furnished developers:

(1) Priority of climatic areas of employment are:

- (a) Hot-wet
- (b) Hot-dry
- (c) Temperate
- (d) Arctic

(2) Matches, irrespective of type, are not desired. A small, simple, all-weather fire-making device is desired.

(3) Space provision must be made in the kit for a durable map, approximately 28" x 21", (folded size approximately 2½" x 4" x ½").

(4) A durable survival pamphlet must be included in the kit. An example of survival data currently used is in Incl 6.

(5) Maximum advantage should be taken of the surface area of all component items and containers by listing additional points of survival data not included in survival pamphlet.

(6) The medical component should include as a minimum:

(a) A chemical means of water purification in sufficient quantity to provide the user potable drinking water for a ten day period, assuming an average consumption of two quarts per day.

(b) Analgesics for relief of minor aches, pains, and fevers.

(c) A capability for the treatment of minor cuts, abrasions, burns, and blisters.

(d) Remedies and/or suppressants for major prevalent diseases endemic to areas outside CONUS.

(7) The utility component should include as a minimum:

(a) A capability for the user to kill, snare, or otherwise catch small game and fish.

(b) A tool for cutting vines, palm fronds, or foliage for construction of shelter.

- (c) A small compass for land navigation.
- (d) A simple sewing kit.
- (e) Signalling devices to attract attention of rescue aircraft or parties. Consideration should be given to a simple reflecting surface for daylight signalling.
- (f) A small, sharp, cutting blade.
- (g) An insect repellent for user needs for a ten day period.

3. Supporting justification and data.

a. Cost of development from research, development, test, and evaluation funds.

\$75,000

b. Required type and amount of materials which may not be readily available for current or war production.

None

c. Impact on national production capacity.

Negligible (because of small annual quantity required)

d. Technical feasibility of developing and producing the item by the time frame for which required.

No technical problems anticipated.

e. Costs of prototypes, initial production including tooling costs, and in quantity production.

(1) Prototype cost \$150.00 each

(2) Initial Production 60.00 each
(Incl tooling)

(3) Quantity Production 25.00 each

f. Comparison with existing equipment and indication of standard items to be replaced, if any.

No truly comparable item exists. The U.S. Navy has a related item, Survival Escape and Evasion Kit One, SEEK-1,

RM 4240-731-9909-LA 20, which is not acceptable for ground escape and evasion.

- g. Consideration of human factors including qualitative and quantitative personnel requirements.

Human factors involved include:

- (1) Water requirements
- (2) Legibility and intelligibility of labels and instructional material
- (3) Physiological and psychological aspects of medicines
- (4) Learning and acquisition of survival skills
- (5) Optimization of carrying method
- (6) Compatibility with clothing and other personal and load carrying equipment

- h. Estimate of quantity required under existing priorities and production capability.

Estimate 2,500 per year

- i. Consideration of probable maintenance effort and cost.

Maintenance effort will be limited to in-theatre replacement of components consumed and/or normal cycling of perishable medicines and food. Replacement rate and cost only crudely estimable as 50% per year since consumption is dependent upon operational requirements.

- j. Assistance required from other developing agencies.

Development support is required from the Food and Container Institute of the Armed Forces U.S. Army Natick Laboratories and the Surgeon General. Access to library and records is required of USAF Arctic, Desert, and Tropic Information Center, the Air University, Maxwell AFB, Alabama. Results of Air Force developments appropriate to this item will be obtained through coordination with the U. S. Air Force Directorate of Operational Support Engineering (Survival Section), Wright-Patterson Air Force Base, Ohio.

- k. Conflicts with other projects in the use of manpower of facilities.

No conflicts are anticipated.

1. Expressed interest of British or Canadian armies.

None as yet.

- m. Comparison with existing or developmental items of the British and Canadian armies or Mutual Weapons Development Program countries.

The U. K. has a combined survival and operational ration for SEA. However, the ration weight is unacceptable to the U. S. Army.

- n. Pertinent data regarding transportability implications in accordance with AR 705-8.

The item is transportable on the individual.

4. Recommended priority: In view of the urgency of this requirement, this item should be available for issue not later than 1st Qtr FY 64. In accordance with subparagraph 15, AR 705-5, recommended priority for this SDR is I.

5. Maintenance concept: Normal storage and user surveillance. Developers are cautioned not to include as a component any item whose perishability is not compatible with paragraph 2j, above.

6. Background information:

- a. Appropriate agencies are urged to use maximum imagination and ingenuity in developmental considerations of construction materials, and design configuration of all components as well as the carrier(s).

- b. To meet an interim operational requirement, procurement action was recently initiated by the US Army Special Warfare Center to obtain a quantity of the combined medical-utility kits described in paragraph 3d(3), above, and illustrated in Incl 4. It is therefore recommended that during development of the Individual Aid and Survival Kit for Special Warfare consideration be given to this concept as a possible solution to part of the overall requirement.

- c. Training implications. It is envisioned that potential users of the kit will have to be indoctrinated as to its capabilities and limitations.

- d. Personnel implications. Because of the personal nature of this type item, human engineering factors must be thoroughly considered.

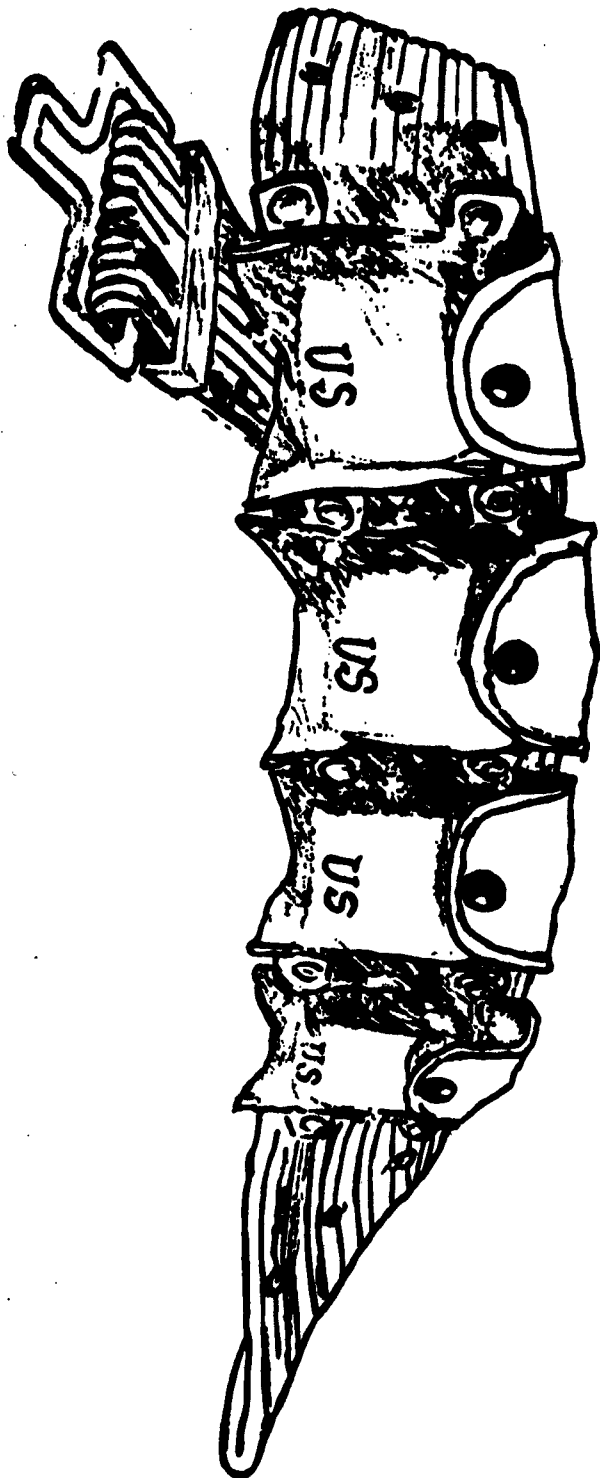
e. Other items affected. None

f. Additional pertinent comments. None

6 Incl

- 1 Concept Number 1, Individual Aid and Survival Kit for Special Warfare
- 2 Concept Number 2, Individual Aid and Survival Kit for Special Warfare
- 3 Concept Number 3, Individual Aid and Survival Kit for Special Warfare
- 4 Concept Number 4, Individual Aid and Survival Kit for Special Warfare
- 5 Companion Container to Concept Number 4, Individual Aid and Survival
Kit for Special Warfare
- 6 Example of Survival Pamphlet

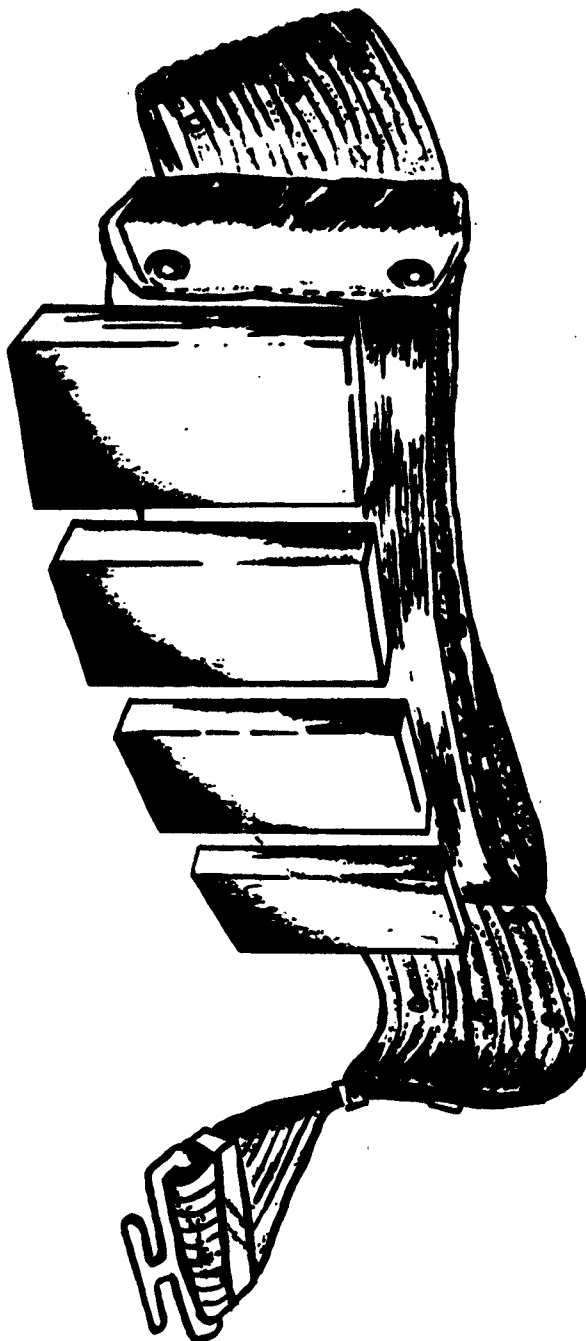
INDIVIDUAL AID AND SURVIVAL KIT FOR SPECIAL WARFARE
CONCEPT NO. 1



Incl 1

INDIVIDUAL AID AND SURVIVAL KIT FOR SPECIAL WARFARE

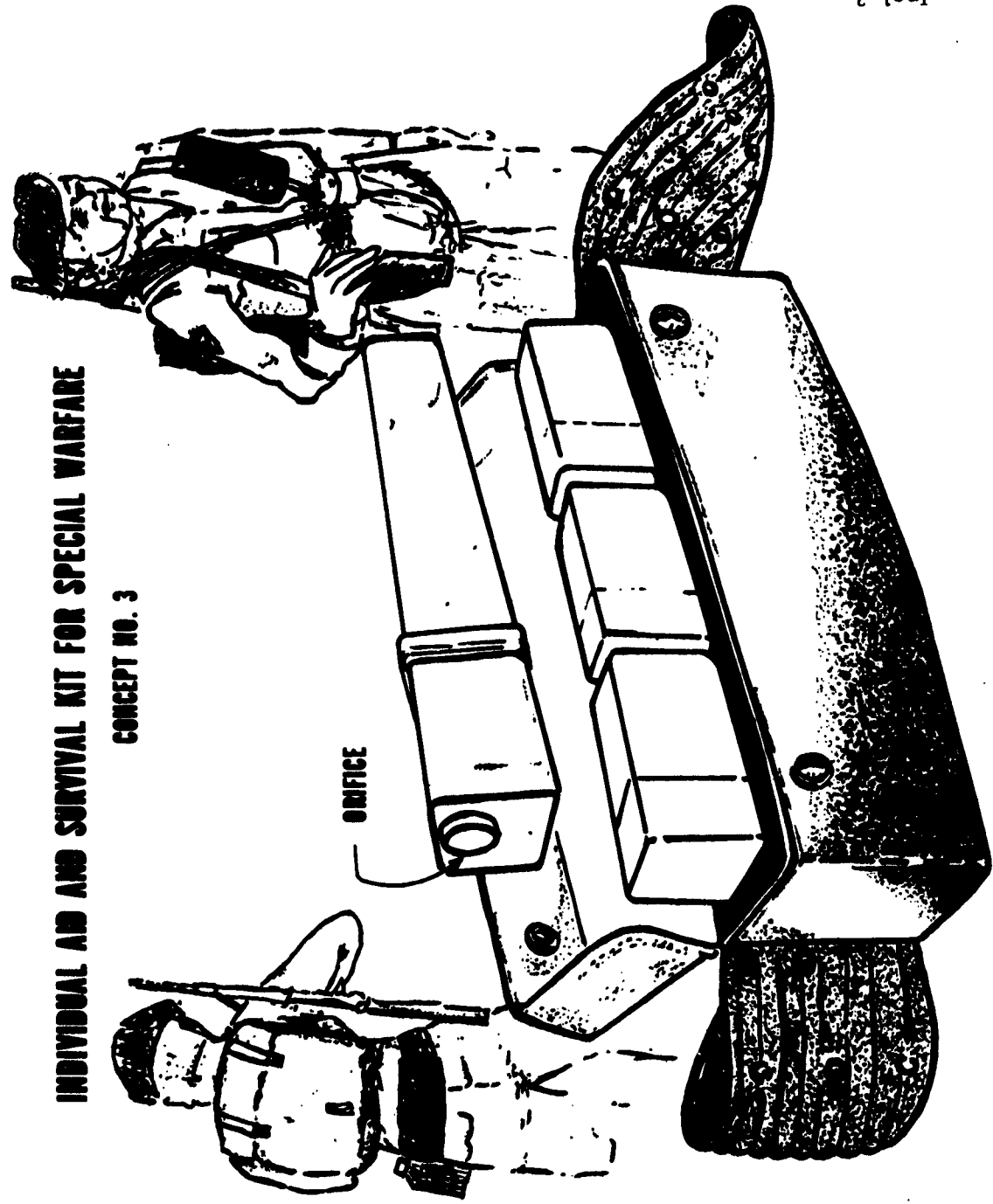
CONCEPT NO. 2



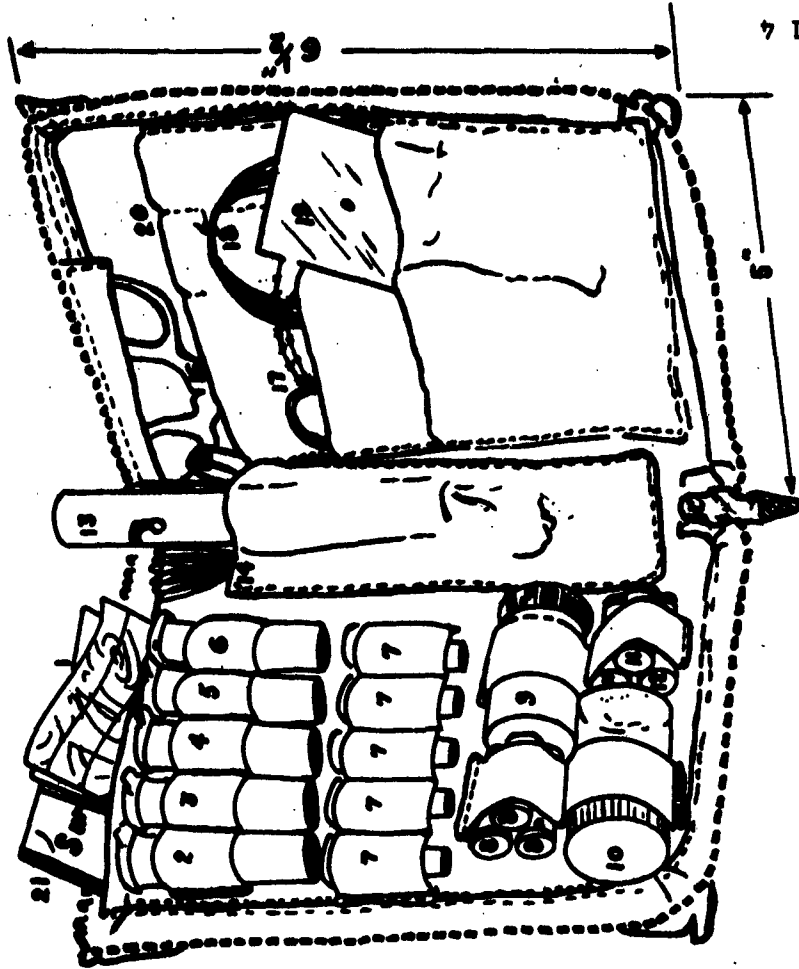
Incl 2

INDIVIDUAL AID AND SURVIVAL KIT FOR SPECIAL WARFARE

CONCEPT NO. 3



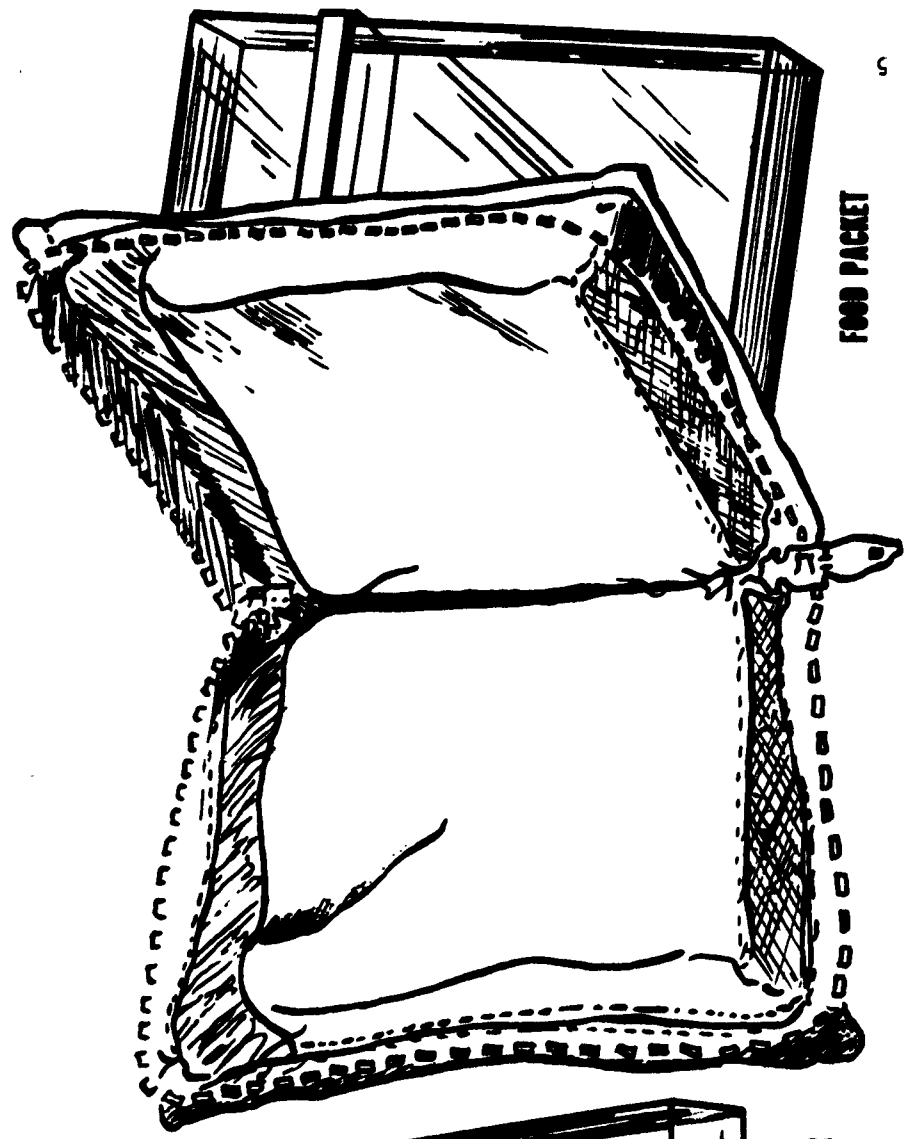
SWC SURVIVAL KIT PROTOTYPE CONCEPT NUMBER 4 - Individual Aid and Survival Kit for Special Warfare



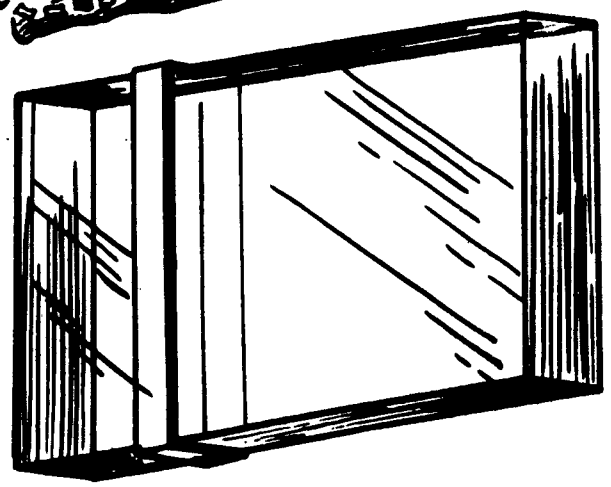
COMPONENTS

1. Weather Resistant Map
2. Tetracycline Tablets
3. Scalpel Blades, Safety Pins, and Fish Hooks
4. Spensin Tablets
5. Matches
6. APC's with Codeine
7. Flares
8. Water Purification Tablets
9. 3 Bouillon Cubes, and Compass
10. Betadine (Surgical Scrub)
11. Dexedrine
12. Vitamin Tablets
13. Flare Launcher
14. 50 ft Fish Line
15. Heavy Rubber Band
16. Hemostat
17. Wire Saw
18. Coil of Snare Wire
19. Signal Mirror
20. Auxillary Pockets
21. Survival Instructions

Incl 4



FOOD PACKET



OPERATIONAL CONTAINER

Size up the situation

Undue haste makes waste

Remember where you are .

Vanquish fear and panic

Improvise

Value living

Act like the natives

Learn basic skills

INDEX

I. GENERAL

II. SHELTER

•III. LAND NAVIGATION

IV. SIGNALLING INSTRUCTIONS

V. FOOD

VI. HEALTH

I. GENERAL:

YOUR JOB IS TO GET BACK. DON'T PANIC. YOUR ODDS OF SURVIVING ARE BETTER THAN YOU THINK. BE PATIENT. Your will to survive coupled with your ability to withstand hardships, overcome obstacles, and your military training have prepared you for this moment. A few elementary precautions and the contents of this kit will increase your chances and add to your comfort.

1. As soon as possible, sit down, relax, think out your problem and READ ALL OF THESE SURVIVAL TIPS.

a. Pinpoint your location as accurately as possible (use compass, watch, sun, map, known landmarks, etc.).

b. Take stock of your water and rations and keep it readily available at all times. You may have to move out in a hurry.

c. Determine direction of movement and move in one direction but not in a straight line. Avoid obstacles, don't fight them. Take advantage of natural cover and concealment. Blundering through jungle and wooded areas leads to bruises, scratches, and possible capture.

d. Keep alert, check bearings often.

e. Follow paths and trails if not over 20 degrees off course, except in known enemy territory. Even in enemy territory roads and trails can be used to guide on, but stay alert. Avoid crossroads and road junctions; conceal yourself upon the approach of any other person until he passes or you determine him to be friendly.

f. Avoid travel on exposed ridge crests.

g. Consider advantages of travel by stream.

h. When close to known enemy locations move right after sunset or just before sunrise when there is sufficient light to enable you to avoid enemy installations and mine fields but dark enough to prevent recognition by the enemy.

- i. Conserve your strength.
- j. Use firearms only in an emergency and keep them concealed, if possible, until situation requires a show of arms.
- k. Remember fires and smoke expose your location to the enemy. Avoid making fires except when absolutely necessary. Best times are just after sundown or just before sunup. Extinguish fires made after sundown before dark and fires made in the morning prior to sunup.
- l. Do not leave cigarettes, paper, wrappers, etc. exposed. Bury them. If the enemy finds them they may lead to your capture.
- m. Watches, fountain pens, rings, etc., may prove to be valuable for barter with the natives.
- n. Avoid villages and people as long as possible. When you determine that you can no longer hope to proceed on your own because of sickness, lack of food, or other cogent reason, then and only then, should you seek native assistance. Follow these procedures when necessary to contact natives:
 - (1) Avoid young and rich.
 - (2) Do not make contact with a group.
 - (3) Make contact in an isolated area, not in a village.
 - (4) Be cautious during first contact.
- o. When requesting native assistance observe the following:
 - (1) Be careful not to offend them. They may save your life. Deal with recognized headman.
 - (2) Show friendliness, courtesy and patience. Don't show fright; don't display weapons.
 - (3) Treat natives like human beings.
 - (4) Respect local customs and manners.
 - (5) Respect property. LEAVE THE WOMEN ALONE.
 - (6) Don't take offense at pranks played on you. Primitive people are especially fond of practical jokes.
 - (7) Learn all you can about woodcraft, and getting food and drink. Take their advice on local hazards.

(8) .Avoid physical contact without seeming to do so.

(9) Paper money is worthless in most areas. Use hard coin and barter items such as tobacco, salt, empty containers, etc.

(10) Whatever you do, LEAVE A GOOD IMPRESSION. Other men may need this help.

II. SHELTER:

You should have no problem with shelter in the jungle. Use your imagination; remember your training.

1. Selecting a site:

- a. If possible pick a site on a knob or high spot.
- b. Don't place shelter under large trees with dead limbs or under a coconut tree.
- c. Nights may be cool. Get out of the wind.
- d. Avoid dry river beds; they can be flooded in a few hours.

2. Types of shelter:

- a. Poncho, if available.
- b. Thatch shelter made by covering "A" type framework with a good thickness of leaves, pieces of bark, mats of grass, etc. Banana leaves and leaves from the palm tree are especially good materials. Slant the thatch "shingle fashion" from the botton upward. Ditch the shelter after completion the same as you would a tent.

3. Beds: Don't sleep on the ground. Make a platform with bamboo or small branches and cover with palm leaves, use jungle vines as ropes or twine to tie platform together.

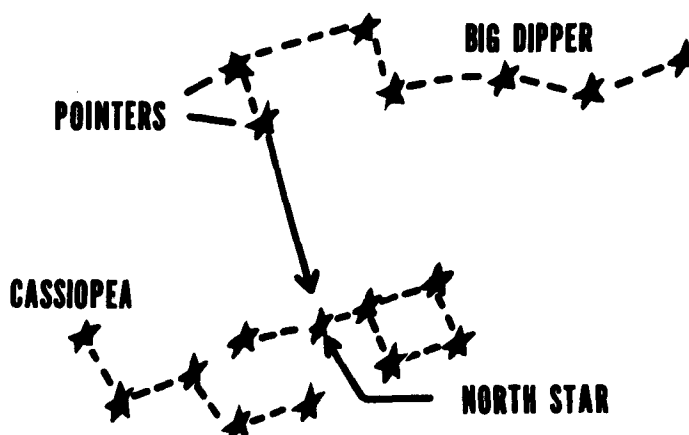
III. LAND NAVIGATION:

Your kit contains a small compass. Use it. Take bearings frequently. If you have a map, use it. Orient your location on the ground with your location on the map. Keep a careful check of your movement on the ground and record it on your map. If you have no map, you should know the general direction of friendly elements (troops, camps, villages, etc.). Determine your course and stick

to it. The following is a list of aids to finding your way without a compass; this list may also be used to supplement your compass:

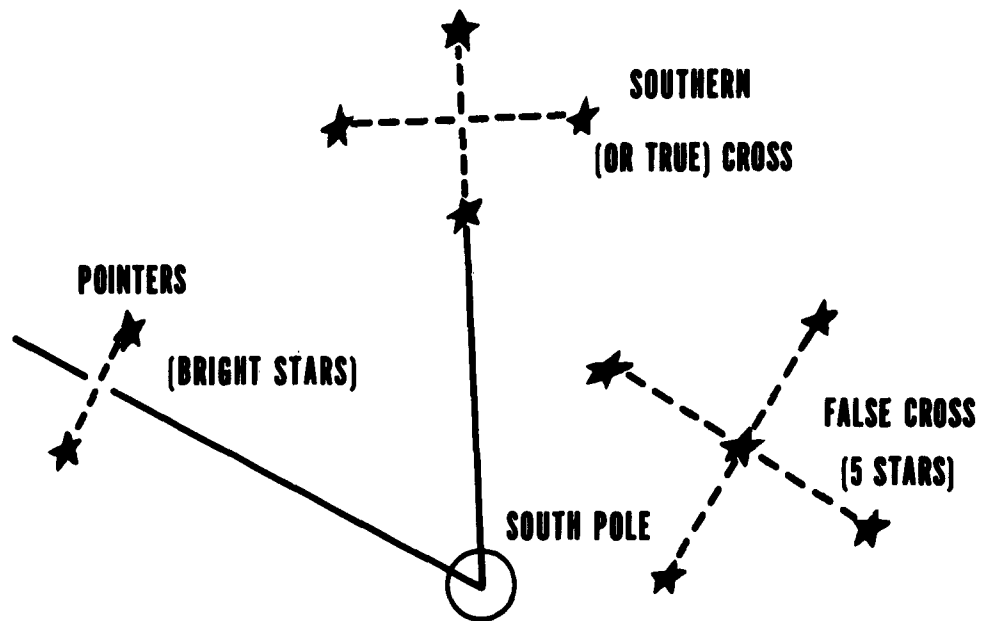
1. You can find the general direction of north by observing the sun when it rises or sets. North of the equator, from 21 September to 21 March, the sun rises east by southeast and sets west by southwest. From 21 March to 21 September, the sun rises each by northeast and sets west by northwest. The reverse is true south of the equator. (Thailand, Burma, Laos, and Vietnam are north of the equator.)

2. North of the equator the North Star is never more than approximately 1 degree from the Celestial North Pole. Find it by locating the Big Dipper and using the pointers of the Big Dipper.



3. To find north by the stars when south of the equator: There is no star above the South Pole. However, the Southern Cross and two bright star pointers east of the Cross can be used to locate the Celestial South Pole. The Southern Cross or True Cross points toward the South Pole and contains a total of FOUR STARS, two of them the brightest in the heavens. Beware of the False Cross which is also in the southern sky and resembles the Southern Cross. However, the stars in the False Cross are less bright, the cross is larger, and the stars are spaced farther apart. Also, the False Cross has five stars--one in the center.

The Southern or True Cross does not have a star in the center. To find south, extend an imaginary line along the long axis of the True Cross to the south. Join the two bright stars to the east of the cross with an imaginary line. Bisect this line with an imaginary line at right angles. The intersection of this line with the line through the True Cross is approximately the point above the South Pole.

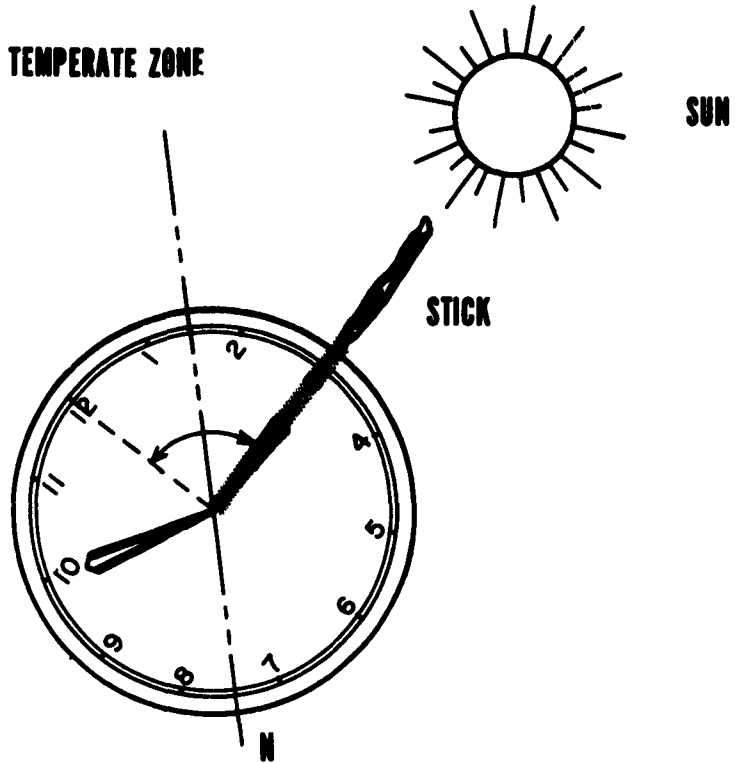


4. Finding north by use of a watch:

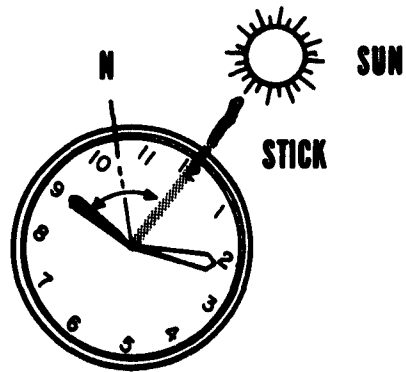
a. North of the equator the hour hand is pointed toward the sun. A north-south line can be found midway between the hour hand and twelve o'clock. If there is any doubt about which end of the line to use, remember the sun is in the eastern sky before noon and in the western sky in the afternoon.

FINDING NORTH BY THE WATCH METHOD

NORTH TEMPERATE ZONE



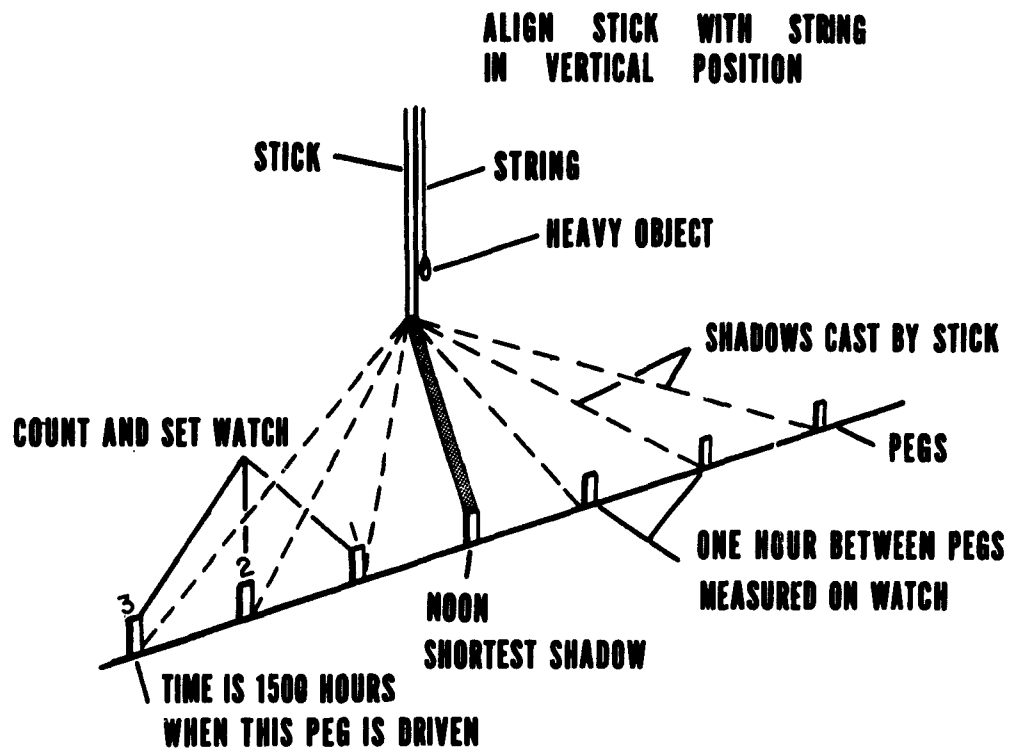
b. South of the equator the 12 o'clock numeral on the watch is pointed toward the sun. Half way between the numeral 12 and the hour hand lies the north-south line.



c. On cloudy days, place a stick at the center of the watch and hold it so that the shadow of the stick falls along the hour hand. One half the distance between the shadow and twelve o'clock is north.



d. To set your watch in the event it stops: Place a stick several feet long in the ground in a vertical position. To insure that stick is vertical (straight up and down in reference to the ground), tie any heavy object to a string and fasten string to top of stick. Let the heavy object hang down toward the ground. Align stick with the string. Sometime before midday wind your watch and start marking the end of the shadow by driving pegs into the ground. Use your watch regardless of time on watch and place a peg at the end of the shadow each hour. Record time on watch as you place each stick. Continue marking and recording time until the shadows of the stick definitely begin to lengthen. The shortest shadow is local apparent noon. You will probably have to estimate the position of the shortest shadow by finding a line midway between two shadows of equal length, one before noon and one afternoon. Wait until it is time to put out the next shadow marking peg, place out the peg and count the number of pegs from the noon shadow to the last peg. Each peg represents one hour past noon. The number of pegs counted gives you the local apparent time. If you had to estimate the apparent noon shadow half way between two even marked lines, count the first peg as one half hour.



e. To estimate noon observe your own shadow and shadows of surrounding objects. If the shadows cast appear to be a blob, almost equally distributed around your feet or around the base of the objects observed, it is approximately local noon.

f. When using compass, especially with a map, don't forget magnetic declination. Magnetic declination of Vietnam is negligible.

g. Since it is impossible to travel in a straight line, when using a compass or any other method of direction finding, observe the following: Pick out a landmark in your direction of travel, determine your azimuth to this landmark and move toward it. After arrival at the landmark, pick another in your direction of travel and move on. Landmark selected should be easily recognizable and visible periodically during your movement. In dense undergrowth the landmarks will, at times, be only a very short distance away. In more open country they may be several miles away. Always use a landmark to guide on. Even with a compass, trying to estimate the twists and turns over your route of travel may get you considerably off your course.







IV. SIGNALLING INSTRUCTIONS:

Any signal must contrast with the surroundings. Remember that you are but a speck when seen from an aircraft. Use the signalling mirror by holding over one eye, fully extending the other arm with thumb vertical, keeping the airplane at the tip of thumb and the reflected light from the mirror on the thumb nail. Jiggle the mirror slightly.



Use Ground/Air Emergency Code if you are certain only friendly aircraft are in area.

GROUND/AIR EMERGENCY CODE

I Require doctor	II Require medical supplies	X Unable to Proceed	F Require food & water	 Require firearms & ammo	K Indicate direction to proceed
 Am proceed- ing in this direction	 Will attempt takeoff	 Aircraft badly damaged	 Probably safe to land here	LL All Well	L Require fuel & oil
N No - Negative	Y Yes - Positive Affirmative	JL Not Understood	W Require engineer	 Require compass & Map	! Require Signal Lamp
S O S . . . - - - . . .			Make symbols 8 feet long of wood, stones, snow, parachute strips, or men lying down.		

V. FOOD:

There is an abundance of food in the jungle. Eat regularly if possible; don't nibble. Plan one good meal each day and cook it if you can. Cooking makes food safer, more digestible, and palatable. Keep strenuous work to a minimum. The less you work the less food and water you require. Some foods in the jungle are poisonous. Any food eaten by monkeys or other animals is generally safe for human consumption. If in doubt, eat the food in small quantities and find out. A small quantity of even a poison food is not likely to prove fatal or dangerous. Eat strange foods slowly. Wait several hours and if nothing happens, eat the food. (NOTE: THIS DOES NOT APPLY TO MUSHROOMS.)

1. Fish: There is no rule to determine edible fish. Eat only a small portion, if you feel no ill effects, it is safe to continue eating. Cooking DOES NOT kill the poison in fish. Never eat fish with shiny gills, sunken eyes or mushy flesh. Never eat eggs or intestines of fish. Never eat fresh water fish without cooking.

2. Animal Food: Anything that creeps, crawls, swims, or flies is a possible source of food. Grasshoppers, hairless caterpillars, wood boring beetles, larvae and pupae, ant eggs, and termites are high in fat content. Frogs, newts, and salamanders abound in jungle areas. All are good food. Snakes (poisonous and non-poisonous), alligators, turtles, grubs, birds and mammals will provide you with edible meat. Be sure to cook mice and rats well done before eating. Boil turtles for a short while to facilitate removal of shells. Heat alligator over a fire before skinning to loosen plates. Remove head and skin of snakes, rats, mice, and frogs before cooking.

3. Plant Food: Plants are available everywhere to provide energy while you forage for wild meat. It is generally safe to try wild plant foods you see eaten by birds and animals. Try a small amount. If there are no ill effects after several hours, eat the food. If possible, cook all plants prior to eating. EXCEPT FOR MUSHROOMS, plant poisons are removed by cooking. The jungle natives of Southeast Asia use the slash/burn system of farming and move their villages approximately every seven years. This is your good luck. It leaves many formerly cultivated areas throughout the jungle. In some sections, the jungle is literally pock-marked with these formerly cultivated areas. In these areas you will find bananas, coconuts, papaya, and plantain trees. Occasionally you will find rice and the same vegetables you have known at home. The latter may require a search effort to locate because of the weeds and jungle growth.

a. Bananas: Bananas grow in bunches with the end of the banana pointing upward. They may be eaten green if cooked prior to eating. Do not eat uncooked green bananas.

b. Plantain: Plantain very closely resembles bananas except they grow in clusters with the end of the fruit pointing downward. Do not eat plantain unless it is cooked.

c. Papaya: This is a gourd-like fruit with reddish orange flesh when ripe. Do not get the milky white sap of the trees in the eyes. It will cause extreme pain for a long period and possibly blindness. The leaves may be cooked and eaten as greens.

d. Coconut: Both the meat and the milk of the coconut is nourishing.

e. Since some plants are poisonous and identification from printed material is difficult, only the more easily recognized ones will be described.

(1) Trees: The inner bark of most trees is edible if cooked. Do not use bark from trees that have a milky white sap. It could be poisonous. Do not use outer bark. The chestnut tree is common in Southeast Asia. The nut looks just like the chestnut you see in the stores at home. Boil or roast. If boiled, nut should be mashed like potatoes before eating. Bamboo shoots may be boiled and eaten.

(2) Grass: No known grass is poisonous. If kernals are still soft and do not have large stiff barbs attached, you may boil them for porridge. Be sure to separate weeds from the grass. To avoid ergot poisoning from infected heads of cereals or grasses, discard all grain heads having black spurs in place of normal seed grains.

(3) Cattail: The cattail is found along marshes and streams and looks just like the cattails back home, except it grows larger and taller. The root or tuber can be peeled and the white inner portion eaten raw or boiled. The young growing shoots are excellent and are similar to asparagus when boiled.

(4) Bulrush: Found in wet swampy areas. The roots or tubers and white stems can be eaten cooked or raw.

(5) Tubers: Perhaps you are acquainted with many more than are listed here. Most tubers contain a high starch content. In some cases, this starch is not digestible unless cooked. Also cooking kills the poison and makes them safe to eat. Best rule is to cook all tubers.

(6) Mushrooms: The highly touted mushroom has very little food value. Additionally, it is difficult for most people to distinguish between the poisonous and non-poisonous. **COOKING DOES NOT KILL THE POISON IN MUSHROOMS.** The taste and wait method of checking edibility of foods as outlined herein **DOES NOT APPLY TO MUSHROOMS.** AVOID ALL MUSHROOMS.



Acrostichum
aureum

Rang lam choi

Fern of Brackish Swamps
Tender young leaves edible
when boiled.



Water Chestnut
(Eleocharis dulcis)

fresh water
swamps

Tubers edible boiled or roasted.



Colocasia
esculenta

Mon-nuroc

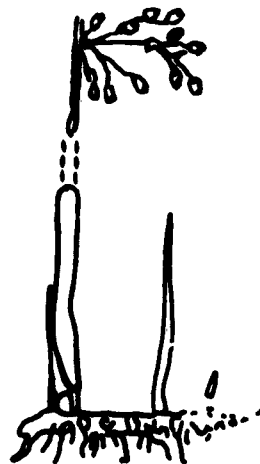
Marsh emergent. Tubers good
roasted or boiled. Young leaves
drastically boiled are edible.



Ceratopteris
thalictroides

Rang Mac-diep

Submerged or floating in fresh
water swamps. Whole plant edible
raw or cooked.



Scirpus

spp.

Salt Marsh Emergents

American Scirpus validus et al have
edible "spears" which also relieve
thirst. Dried rootstocks yield a
meal, and boiling young roots yields
a sweet syrup. The seeds and pollen
also yield starch.



Rattan Palm
Calamus spp.

Sap furnishes safe drinking water. Fruits edible. Terminal bud yields "cabbage". Roasted base of plant edible.



Nipa Palm
Nipa fruticans

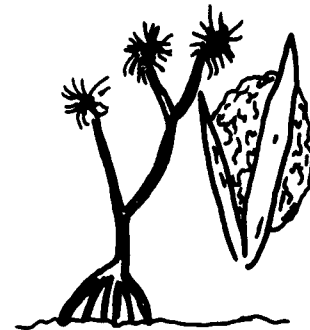
Common in brackish swamps. Young seeds edible; nature seeds require grinding.



Sagittaria sagittaeifolia L.

"Co Tu-Co"

Emergent Aquatic. fresh or brackish waters. Roots of many spp. of Sagittaria develop potato-like tubers which have an unpleasant milky taste corrected by boiling or roasting.



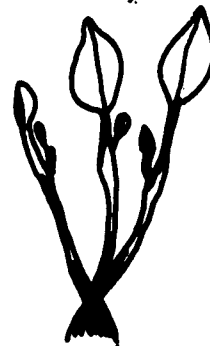
Screwpine

Pandanus tectorius

Red fruits edible raw. Small seeds edible raw. Terminal buds yield "cabbage". Prop roots yield potable water.



Acorus calamus L.
Bo-Bo

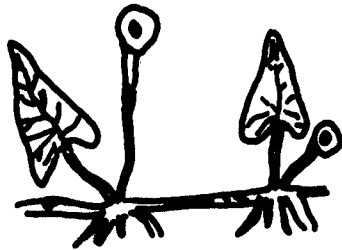


flowers blue

Monochoria vaginalis

Rau Mac la thon

Emergent in open marshes and along streams. Plant (except roots) edible raw, boiled or steamed.



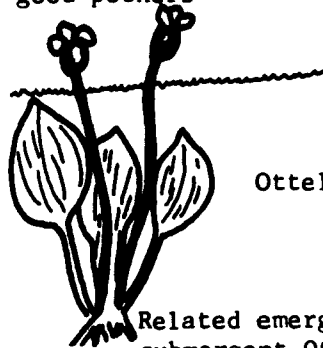
Ipomea Aquatica

Tra kuon Giâu muong
Young leaves and stems make a
good potherb



Eichornia
crassipes

Free floater in fresh water
Steamed young leaves and
flower buds edible



Ottelia japonica

Related emergent or
submergent Ottelia
aliamoides may be cooked
entire as a potherb



Centella
asiatica (L.)
Urban
"Rau Ma"

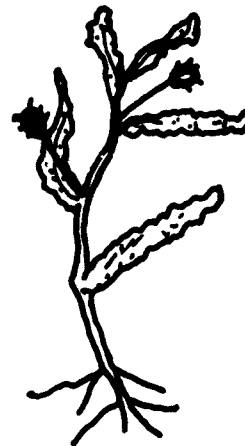
Green parts edible raw in
salads or steamed.



Trapa
bicornis

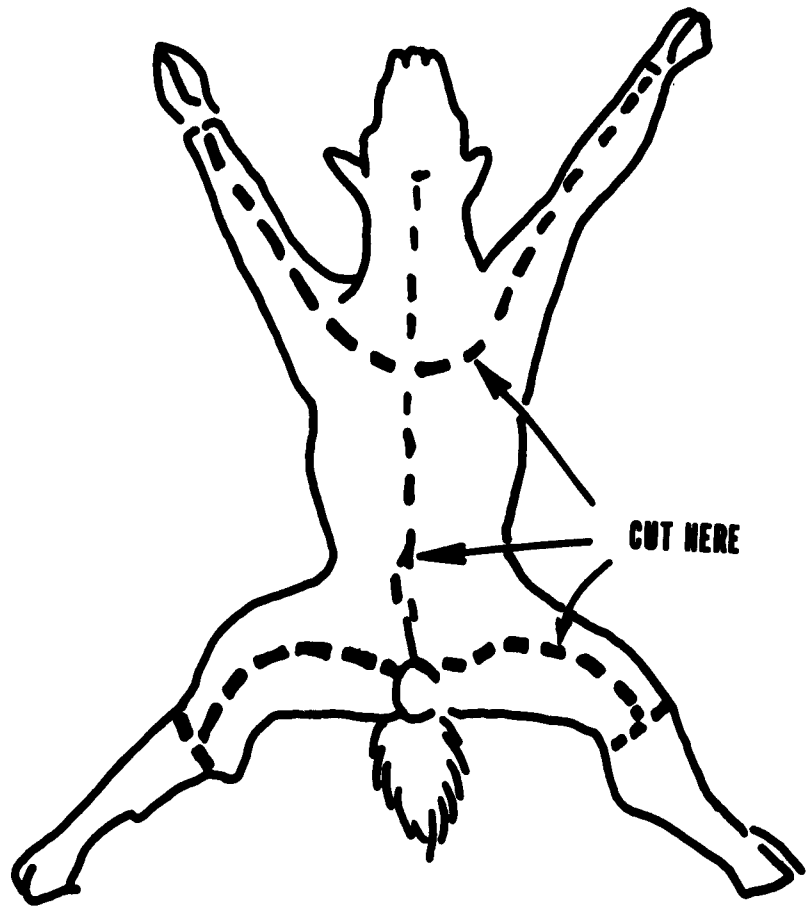
"Au"

Seeds of Trapa may yield a coarse
flour which may be hard to digest.
The nuts may be roasted or candied.
Although beginning life as an
anchored floater, this frequently
forms "islands" of vegetation.

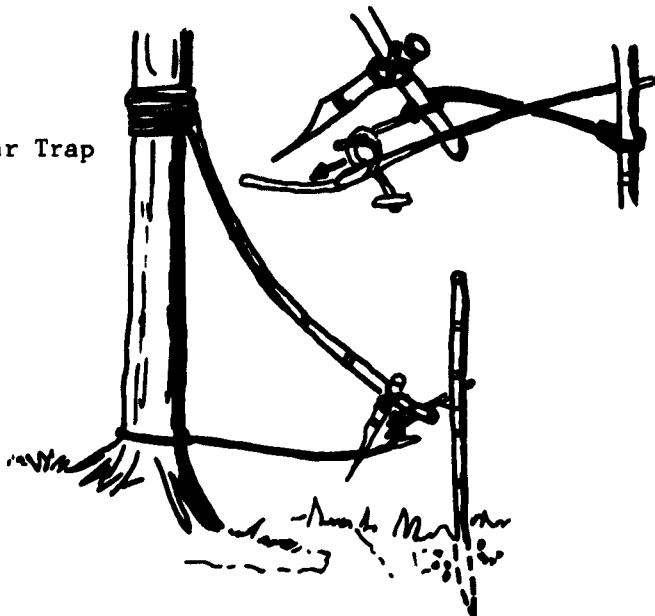


Potamogeton
spp.

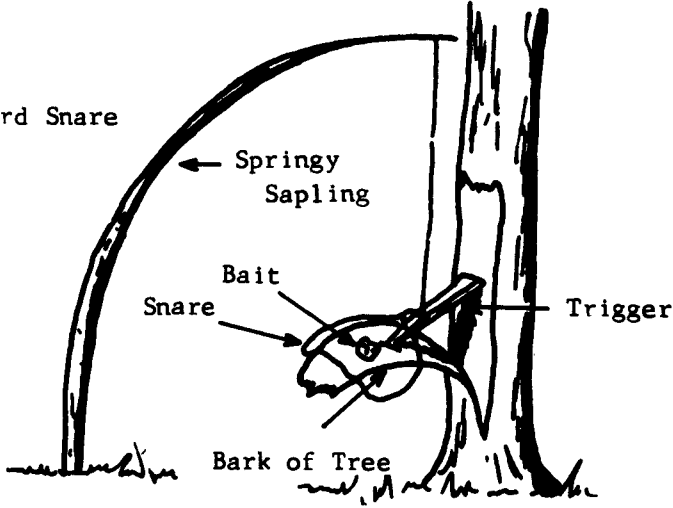
Submerged or floating aquatica
of fresh waters.
Some American spp., at least,
produce edible tubers at the
ends of the roots.



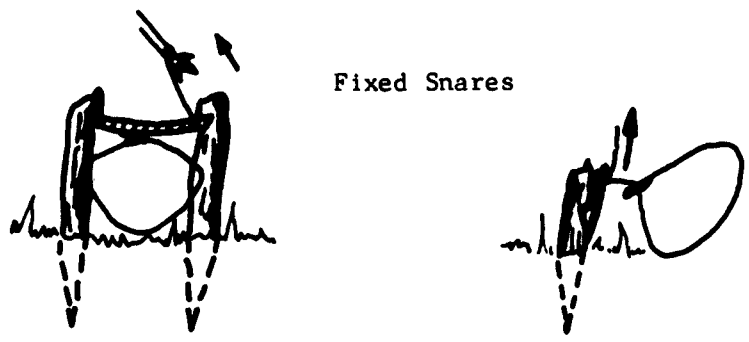
Spring and Spear Trap



Bird Snare



Fixed Snares



TRAPS AND SNARES

Deadfall

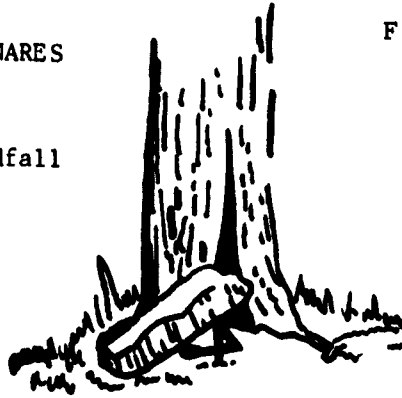
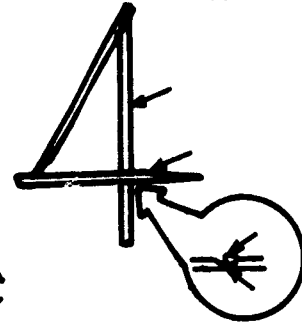
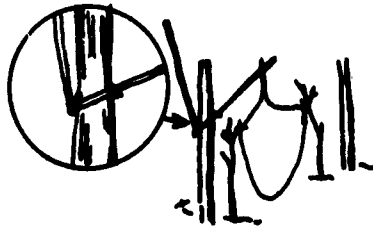


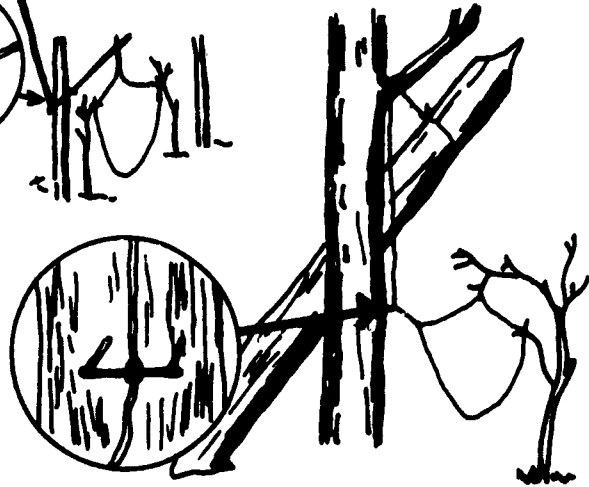
Figure Four Trigger



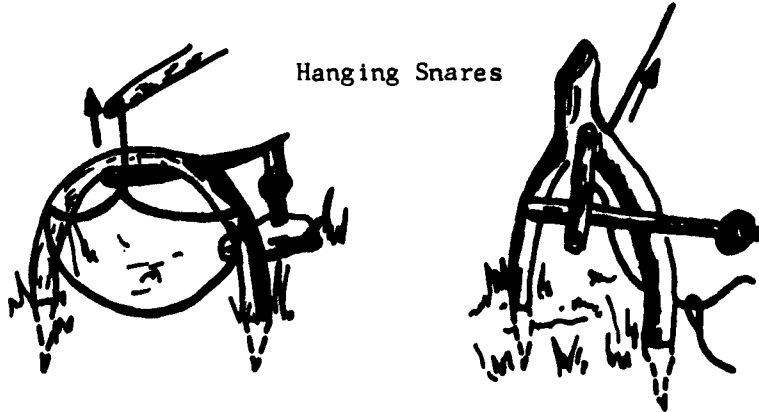
Twitch-up Snare



Deadfall and Dragsnare



Hanging Snares



VI. HEALTH:

To survive, elude the enemy and get back depends on keeping your body healthy and strong. This kit contains medicines to assist you in treating injuries and in combating the diseases prevalent in your area of operations. Directions for use are printed on each container in the medical packet of your kit. Observance of certain common sense rules, however, will greatly increase your chances.

1. Take care of your feet. Keep feet as well as other skin areas of the body dry and clean.
2. Do not neglect personal hygiene. Jungle diseases are carried by mosquito, ticks, lice and contaminated food and water. Avoid them, use your repellent.
3. If you get fever, make no attempt to travel until fever is gone. Drink plenty of treated water.
4. Avoid infection. Infection spreads rapidly in the tropics. Treat every wound or sore immediately. Use sterile dressing if possible.
5. Prevent heat injury by drinking purified water, relaxing in shade and using salt tablets.
6. Malaria: Take one tablet of the Chloroquine and Primquine every week. This will prevent malaria. Wear your headnet in mosquito areas, especially between sundown and two hours after dark and two hours before daylight until sunup. USE YOUR REPELLENT frequently. Clothing should be tucked into boots (or socks).
7. Dengue Fever; Yellow Fever: Wear headnet and use repellent to prevent. These are mosquito borne diseases.
8. Dysentery: Caused by polluted food or drinking water. Use Spensin from medical package as directed on label.
9. Leeches: Blood sucking animals that cling to blades of grass, leaves, and twigs and fasten themselves to passing individuals. Bites are frequently followed by infection. Remove by touching leech with lighted cigarette, match or moist tobacco or salt. Treatment of the laceration after removal of the leech should be the same as used on a small cut or scratch; attempt to sterilize the wound and keep it covered. Keep trousers tucked inside boots.

Avoid sitting on damp ground. Search body periodically and remove any leeches. Check water before drinking. Leeches are dangerous if swallowed.

10. Flukes or Flatworms: Microscopic parasites found in sluggish fresh water that cause internal damage. They enter the body through the skin, in food, or in drinking water. If possible, use only fresh running water for bathing and to purify for drinking.

11. Snakes: Aggressive snakes are the exception. In spite of rumors, snakes cannot outrun a man. To treat poisonous snake bites (if you cannot recognize a snake as non-poisonous treat as for poison snake), immediately tie a band about four inches above the bite in the direction of the heart. Tie the band tight BUT NOT TIGHT ENOUGH TO CUT OFF ARTERIAL CIRCULATION--you should be able to feel the pulse beat below the band. Contrary to what you may have heard, DO NOT CUT OR MAKE AN INCISION on the bitten area. This only exposes more surface to the poison plus increases possibility of infection. If you have no sores on or in your mouth, apply the mouth directly to the bite, suck out the venom, and spit it out. Otherwise use a piece of plastic (several pieces are used to wrap the articles in your kit) over the bite and suck out the poison with the mouth using the plastic between the mouth and the bite as protection. Try not to swallow any of the poison but don't be alarmed if you do, it won't hurt you. Sit down and be quiet. DON'T BECOME HYSTERICAL. Hysteria increases the rate of blood flow and causes the poison to spread more rapidly. If the bitten area swells, move the band in the direction of the heat so as to keep it about four inches above the swelling. Keep the band on until the swelling disappears and you feel all right. While waiting for the swelling to disappear, keep all movement to a minimum and keep warm to prevent shock. Most of the people who die from snake bite actually die from shock and not from the snake venom.

12. Wounds: Clean out with hot water if possible; if not, wash it out with urine and/or pick out all foreign matter. In an extreme emergency maggots may be used to clean out a wound. Maggots eat only dead tissue. Case histories of PW's show that all types of surgery have been performed successfully by non-medical personnel--without anesthesia.

13. Boils: Soak in hot water for several days if possible. If the soaking does not draw out the infection, open it up. Apply clean dressing.