Matty's

RECON HANDBOOK

The ultimate reconnaissance, surveillance, and target acquisition reference, developed for the Recon Marine and the professional advanced security operator

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THE ULTIMATE RECONNAISSANCE, SURVEILLANCE, AND TARGET ACQUISITION REFERENCE, DEVELOPED FOR THE RECON MARINE AND THE PROFESSIONAL ADVANCED SECURITY OPERATOR

Written and Edited by
M. Speights

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PRINTED IN THE U.S.A.

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TABLE OF CONTENTS

Hey, guys--I really wanted to get in depth on some of these subjects, but didn't have the space. I really need feedback if we want this book to get better. I thought about scrapping large sections of basic gouge to just make an advanced manual...let me know. Check for my RFI notes throughout the book and drop feedback via email.
Thanks, --Matty

CALL FOR TECH ISSUES--I'LL CONSULT PUBS OR BODIES TO GET YOUR ANSWERS WHEN YOU'RE IN THE FIELD. 910-381-0876 BY DAY, ACEOFSPEIGHTS@YAHOO BY NIGHT

To 'Brother Recon'
From Matty

To my friends and brothers who have waited for this: thank you for your patience. This book is dedicated to all present-day operators and our joint brothers-in-arms. Additionally, to the men of Bravo-Two Hateful, 2000-2003. This is the result of a seven-year project to compile gouge which has been floating around our community since the 70's, and update it by comparing old & new info, then essentially separating the meat and the bones. My hope is that this will serve as our very own Ricky-Recon Handbook. Please help me update future editions by not only telling me what to add (keep me abreast of emerging technologies), but what to take away--I know that this could be a lot more in-depth, but space was an important consideration (limited to 740 pages). SOP's are replaced by more generalized SOG's (guidelines). This is an advanced user manual; you are expected to know the basics already. If this is a hit, then the next edition may be printed on Tyvek or some other waterproof material...the investment was too expensive this first time. Special thanks to Patrick J. Delaney, a man whom I thoroughly respect and admire, and who inspired this book. Thanks also to buddies Chuck Johnson, who provided pertinent gouge and checked my progress along the way, Bobby Tullos who assisted Chuck, and John Natcher the uber-survivalist. Recon men and other special operators across the globe, thank you for carrying the torch. Contact me through the Corps grapevine. Love every one of you bastards...

SSgt Matty Speights

Insert 2000-Extract 2005

Not gold, but only Men can make
A nation great and strong
Men who, for truth and honor's sake
Stand fast and suffer long
Brave men who work while others sleep
Who dare while others fly
They build a nation's pillars deep
And lift them to the sky

-Ralph Waldo Emerson

RECON CREED

--**R**ealizing it is my choice and my choice alone to be a Reconnaissance Marine, I accept all challenges involved with this profession. Forever shall I strive to maintain the tremendous reputation of those who went before me.

--**E**xceeding beyond the limitations set down by others shall be my goal. Sacrificing personal comforts and dedicating myself to the completion of the Reconnaissance mission shall be my life. Physical fitness, mental attitude, and high ethics--the title of Recon Marine is my honor.

--**C**onquering all obstacles, both large and small, I shall never quit. To quit, to surrender, to give up is to fail. To be a Recon Marine is to surpass failure; to overcome, to adapt, and to do whatever it takes to complete the mission.

--**O**n the battlefield, as in all areas of life, I shall stand tall above the competition through professional pride, integrity, and teamwork, I shall be the example for all Marines to emulate.

--**N**ever shall I forget the principles I accepted to be a Recon Marine. Honor, Perseverance, Spirit, and Heart. A Recon Marine can speak without saying a word and achieve what others can only imagine.

The Reconnaissance Man

"The reconnaissance man is responsible for providing the amphibious, long range, small unit, ground reconnaissance and raid skills to support the MAGTF. He is the nucleus of a reconnaissance team in the reconnaissance battalion or the reconnaissance or assault team in the force reconnaissance company. In addition to basic infantry skills, he is responsible for highly refined scouting and patrolling skills. Also, he must possess advanced proficiency in scout swimming, small boat operations, close combat skills, helicopter and submarine insertion / extraction techniques, assault climbing, demolitions, forward observer procedures for supporting arms, initial terminal guidance for heliborne, airborne, and waterborne forces, communications, photography, threat weapons and equipment, and various types of point, area, and amphibious reconnaissance operations. Marines assigned to assault teams possess advanced skills in assault weaponry, breaching demolitions, and close quarter battle raid techniques. Selected reconnaissance men are further trained as static line and free fall parachutists and combatant SCUBA divers. Noncommissioned officers are assigned as reconnaissance and assault team leaders or their assistants and may be qualified as jumpmasters, dive supervisors, or insertion / extraction masters."

RANGER CREED

Recognizing that I volunteered as a Ranger, fully knowing the hazards of my chosen profession, I will always endeavor to uphold the prestige, honor, and high esprit de corps of my Ranger Regiment.

Acknowledging the fact that a Ranger is a more elite soldier who arrives at the cutting edge of battle by land, sea, or air, I accept the fact that as a Ranger my country expects me to move farther, faster and fight harder than any other soldier.

Never shall I fail my comrades. I will always keep myself mentally alert, physically strong and morally straight and I will shoulder more than my share of the task whatever it may be. One-hundred-percent and then some.

Gallantly will I show the world that I am a specially selected and well-trained soldier. My courtesy to superior officers, neatness of dress and care of equipment shall set the example for others to follow.

Energetically will I meet the enemies of my country. I shall defeat them on the field of battle for I am better trained and will fight with all my might. Surrender is not a Ranger word. I will never leave a fallen comrade to fall into the hands of the enemy and under no circumstances will I ever embarrass my country.

Readily will I display the intestinal fortitude required to fight on to the Ranger objective and complete the mission though I be the lone survivor. RANGERS LEAD THE WAY!

AMERICAN FIGHTING MAN'S CODE OF CONDUCT (ORIGINAL)

Article I: I am an American fighting man.* I serve 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 lives of my men** 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 this country free. I will trust in my God and in the United States of America.

*Revised Code of Conduct: I am an American, fighting in the forces which guard…
**(Revised): I will never surrender the members of my command while they still…

USMC GENERAL ORDERS *(Hey Recondo, you're still a Marine)*

1. To take charge of this post and all government property in view.
2. To walk my post in a military manner, keeping always on the alert, and observing everything that takes place within sight or hearing.
3. To report all violations of orders I am instructed to enforce.
4. To repeat all calls from posts more distant from the guardhouse than my own.
5. To quit my post only when properly relieved.
6. To receive, obey, and pass on to the sentry who relieves me: all orders from the Commanding Officer, Officer of the Day, officers and noncommissioned officers of the guard only.
7. To talk to no one except in the line of duty.
8. To give the alarm in case of fire or disorder.
9. To call the Corporal of the Guard in any case not covered by instruction.
10. To salute all officers, and all colors and standards not cased.
11. To be especially watchful at night, and during the time for challenging, to challenge all persons on or near my post, and to allow no one to pass without proper authority.
12. To walk my post from flank to flank, and take no shit from any rank!

Reconnaissance: "A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area."

Surveillance: "The all-weather, day and night, continuous systematic observation of the battlefield for intelligence purposes."

Target Acquisition: "The detection, location, and identification of a target with sufficient accuracy and detail to permit the effective employment of weapons."

Intelligence: "The product resulting from collection, evaluation, and interpretation of information which concerns one or more aspects of foreign nations, or of functional or geographic areas, and which is immediately or potentially significant to the development and execution of plans, policies, and operations."

Observation: "The acquisition of facts and the recording of specific information pertaining to the perception of details regarding persons, objects, places, and events.

SCHOOLS AND TRAINING CHECKLIST

ARS
BRC
SERE-A
SERE-C
ADVANCED SERE
MCD
JUMP
MCMA
MFF
RANGER
RSLC (FORMERLY LRSLC)
PATHFINDER
S/L JUMPMASTER
F/F JUMPMASTER
SOSC
TACP
ASSAULT CLIMBER
MLC SUMMER
MLC WINTER
SURVIVAL SUMMER
SURVIVAL WINTER
SNIPER
URBAN SNIPER
ADVANCED SNIPER
R&S
SOTG SHOOTING PACKAGE
DM
RANGE COACH
OMC
CCI
CCIT
ROBIN SAGE
BSR
BREACHER INSTRUCTOR
SOTIC
COMBAT HUNTER
MMTS
MANTRACKER (BRIT)
MFSO
MCIWS
DIVE SUP
DRAEGER TECH
HRST
SLAM
SASO/BUST CADRE
MOUT INSTRUCTOR
ISMT INSTRUCTOR
EMT/PARAMEDIC
18D / SFAS/ Q-COURSE
IDC
DMT
HMMWV DRIVER
5-/7- TON DRIVER
AMMO DRIVER
IFAV DRIVER
MOTORCYCLE DRIVER
BUS DRIVER
RSO/OIC
CPLS COURSE
SGTS COURSE
SNCO ACADEMY
SNCO ADVANCED
COMM CHIEF COURSE
SYSTEMS CHF COURSE
ARABIC LANGUAGE
JRTC
JWTC
TCCC / CAS CARE
HRP
CQB
BREACHER
ATLS (CORPSMEN)
DLI
MMPS
MOUNTAIN RECON

3. RECONNAISSANCE REPORTS GUIDE

(For guys who already know how to use the NATO format)

1. UNITS OF MEASURE

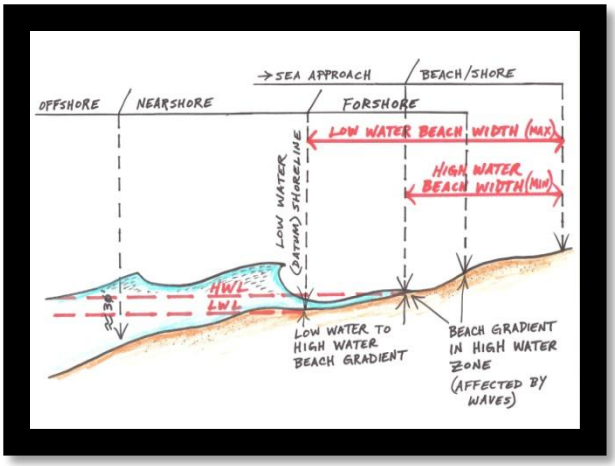
UNITS OF MEASUREMENT	NUMBER CODE
Meters	1
Yards	2
Feet	3
Degrees Magnetic	4
Mils	5
Kilometers per Hour	6
Miles per Hour	7
Knots (Nautical MPH)	8
Degrees Centigrade	9
Degrees Fahrenheit	10

2. TERRAIN RECONNAISSANCE FOR AIRCRAFT LANDING ZONE REPORT (ALZREP)

ALPHA--Units of Measurement **BRAVO**--Date Time Group (Time of ALZREP completion) **CHARLIE**--Location (1. Grid 2. Grid to Datum Point [centralized reference point]) **DELTA**--Orientation (Bearing of the proposed axis of ALZ) ECHO--Description (1. Usable length of ALZ 2. Width 3. Height above sea level 4. Gradient [<1:30] **FOXTROT**--Surface of ALZ (1. Number code [1-Hard 2-Moderate 3-Soft] 2. Letter code [A-Sand B-Grass C-Scrub D-Snow E-Ice F-Coral G-Marsh H-Other]) **GOLF**--Drainage (1. Grids of water sources 2. Report if LZ has standing water (Y/N) 3. Grids for drains) **HOTEL**--Obstacles (1. Bearing 2. Letter code [A-Rocks B-Buildings C-Fences D-Trees E-Pylons/wires F-Poles G-Ditches H-Craters J-Other] 3. Distance 4. Height) **JULIET**--Approach/takeoff obstructions (A-High ground B-Buildings C-Poles D-Trees E-Pylons/wires F-Other **KILO**--Dispersal (Grid reference of an area suitable for aircraft dispersal) **LIMA**--Exits (Grids) **MIKE**--Enemy in area (SALUTE & SPOTREP) **NOVEMBER**--Local resources (for engineers /airfield improvements: 1-Gravel 2-Rock 3-Sand 4-Water 5-Timber 6-Other Quantity: A-Large B-Medium C-Small PAPA--Remarks NOTE: Lines may be omitted if not necessary or known.

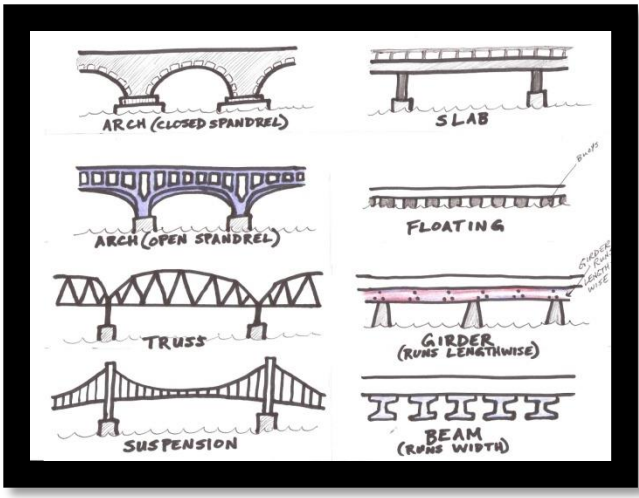
3. BEACH SURVEY REPORT (BEACHREP)

ALPHA--Units of measure **BRAVO**--Location (Grids of left/right flanks of beach) **CHARLIE**--Shape of beach (1-Concave 2-Convex 3-Straight 4-Other) **DELTA**--Beach length (between flanks) **ECHO**--Beach width (High Water Line to Hinterland) **FOXTROT**--Gradient (Foreshore to backshore--use codes: V-Flat [flatter than 1:120]; W-Mild [1:61 to 1:120]; X-Gentle [1:31 to 1:60]; Y-Moderate [1:16 to 1:30]; Z-Steep [steeper than 1:15] **GOLF**--Beach exits (A. Grid B. Use letter code: A-Infantry B-Tracked C-Wheeled D-Unusable C.Width of exit D. Use letter codes from line HOTEL **HOTEL**--Beach trafficability: W-Firm (2WD or 4WD with trailer, no continuous heavy use) X-Moderate (3- or 4-ton vehicles, 4WD and matting recommended) Y-Soft (4WD vehicle on the move, matting recommended) Z-Very soft (No wheeled vehicles; tracked veh's may have difficulty) *Report differences in trafficability **JULIET**--Littoral drift (To nearest 1/10 knot)/direction from sea (L/R)/Date time group **KILO**--Enemy (Either "Y" [include SPOTREP and SALUTE] or "nil") **LIMA**—Remarks



4. BRIDGE REPORT (BRIDGEREP)

ALPHA--Units of measure **BRAVO**--Location **CHARLIE**--Horizontal clearance (Minimum clear distance between inside edges, beginning 30cm or 1 foot above roadway up) **DELTA**--Under bridge clearance (Maximum distance between underside of bridge and surface below. If surface is tidal water, give DTG.) **ECHO**--Spans (1. Material and type [material codes: A-Steel/metal K-Concrete AK-Reinforced concrete KK-Prestressed concrete P-Stone or brick H-Wood M-Other material][type codes: 1-Truss 2-Girders 3-Beams 4-Slab 5-Arch/closed spandrel 6-Arch/open spandrel 7-Suspension 8-Floating 9-Swing 10-Bascule/seesaw-type drawbridge 11-Vertical lift 12-Other] 2. Spans in sequence from West, or from North using "N" 3. Material [see list above] 4. Type [see list above]) **FOXTROT**--Length/condition of spans (Use format from line **ECHO**; if damaged, use A,B, or C for significant, impassable, or destroyed) **GOLF**--Overall length **HOTEL**--Roadway width **JULIET**--Overhead clearance in order: 1. Left shoulder 2.Center of roadway 3. Right shoulder *If unlimited clearance, omit line JULIET **KILO**--Bridge bypass potential (1. Grid 2. P,Q, or R for easy, difficult, impossible) **LIMA**--Remarks (Enemy activity, overhead concealment, etc.)



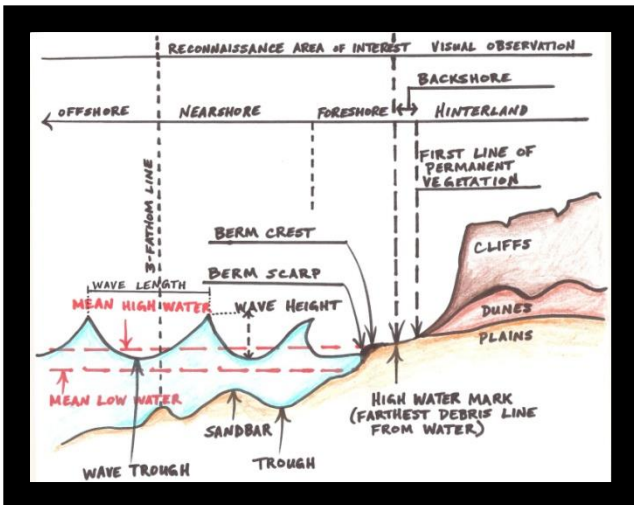
5. CLOSE AIR SUPPORT REQUEST (CASREP)

A--MSN# B--ROUTE C--ENROUTE FREQ D--MSM CODES E--CONTACT POINT (CP) F--CONTROLLER CALLSIGN AND FREQ **1**--IP **2**--Heading (degrees mag, with offset L or R) **3**--Distance **4**--Tgt elev **5**--Tgt descr **6**--Tgt loc **7**--Mark type **8**--Friendlies **9**--Egress **10**--Bcn (tgt in degrees mag)/bearing and bcn grid **11**--Bcn tgt (meters and tgt grid) **12**--Bcn elevation (feet ASL) **13**--Remarks **14**--TOT/TTT

6. CONFIRMATORY BEACH REPORT (CONBREP)

ALPHA--Units of measure **BRAVO**--Offshore obstructions: 1-Description 2-Location by grid or bearings & ranges from known landmarks **CHARLIE**--Littoral drift, plus DTG of when recorded **DELTA**--DP's (fixed positions to which the sounding lines are referenced, listed alphabetically with corresponding grid reference; example: A-1234 5650, B-1234 5700, C-1234 5750) **ECHO**--Sounding Interval **FOXTROT**--Sounding lines, listed F1, F2, F3, etc. Info for each line is broken into five sections, listed alphabetically: A--Location of waterline at the time of sounding (WLTS), expressed as a bearing/range from DP B--Bearing of sounding line as viewed from seaward C--DTG of when sounding was taken D—Distance from

WLTS to back of beach (BOB); Use UOM from line ALPHA or the following letter codes: flat-V, mild-W, gentle-X, moderate-Y, steep-Z E--Sounding depth to the nearest 1/10 meter or ½ foot, followed by bottom composition (use chart from line HOTEL). For subsequent lines, bearing and distance from previous line's WLTS or from current line's DP **GOLF**--Underwater obstacles (type, location, depth of water over obstacle, estimated size) **HOTEL**--Beach composition: mud-A, clay-B, sand-C, gravel-D, pebbles-E, cobbles-F, boulders-G, coral-H, other (describe briefly)-J **JULIET**--Trafficability of beach: firm-W (2WD vehicles), moderate-X (5- and 7-ton vehicles, from resting stop), soft-Y (4WD vehicles on the move and tracked vehicles), very soft-Z (impassable) **KILO**--Exits: infantry only-A, tracked vehicles and infantry-B, wheeled vehicles and infantry-C, unusable-D **LIMA**--Position of beach reconnaissance patrols **MIKE**--enemy 1.grid 2.strength/number 3.weapons **NOVEMBER**--Remarks



7. CONTACT REPORT (CONTACTREP)

(Radio transmission: "Contact-Contact-Contact, [you] this is [me]" Call sign, Occurrence, Needs, Time/location, Action taken, Casualties

8. DELTA REPORT (DELTAREP)--[River/Estuary Report]

ALPHA--Units of measure **BRAVO**--Location **CHARLIE**--Main channel 1.Location of entrance 2.Seaward approach bearing (if no change, "NC") 3.Reference points that can be observed from seaward (A-prominent features, B-transits [these are two points occurring in a row from line of sight facing entrance from seaward]) **DELTA**--Navigation aids: 1-starboard hand bouys (shape and color) 2-Port hand buoys (shape and color) 3-Team-placed buoys/markers (description and location) **ECHO**--Hazards: A-sandbars B-wrecks C-rocks D-tidal races E-nets (describe) F-bridges (report overhead clearance) G-other (describe as required) **FOXTROT**--Navigational limits (provide the grid reference to the highest point upstream that has one of the following depths: A-2 meters, B-1 meter, C-½ meter) **GOLF**--Beaching/landing points and exits 1.grid reference 2.type (A-landing craft, medium/utility B-landing craft, personnel C-shallow boats with outboard engines D-other craft as required) 3.overall trafficability of beaching point and exit (1.firm/2WD vehicles 2.moderate/4WD 3.soft/4WD OM 4.very soft/impass except possibly tracked ***If any point is totally unsuitable for any vehicles, "NIL." If the mission is for a team to confirm information, and it is correct, "NC" [no change].) 4.width of exit **HOTEL**--Current 1.velocity of water 2.cardinal direction of flow (N, NE, SW, etc.) **JULIET**--Texture of river bed 1.grid of sample 2.letter code for composition: A-mud B-sand C-rock D-shingles E-vegetation F-other (describe briefly) **KILO**--remarks (note: team should bring properly labeled samples on mission extract for debrief)

9. DROP ZONE REPORT (DZREP)

[Subject line of message, serial # and/or DZ codename or ID letter (allocated prior to reconnaissance), map sheet details (as required) **ALPHA**--Units of measure **BRAVO**--Time of recon completion **CHARLIE**--Grid reference of intended Point of Impact (PI; this is where the first parachutes should touch down) **DELTA**--Height of PI (AMSL), followed by height of DZ (AMSL) ECHO--Location of DZ's extremities **FOXTROT**--Description in three parts: 1-Usable length 2-Usable breadth 3-Gradient (expressed as a ratio, pref less than 1:10 without surface irregularities. Slopes steeper than 1:3 unusable) **GOLF**--Surface and nature of ground, in number/letter form (1-Hard; 2wd vehicles or 4wd with trailer 2-
Moderate; 3ton and 4ton vehicles should be able to start from rest

position 3-Soft; 4wd vehicles might be able to make it across if already moving) (A-Sand B-Grass C-Scrub D-Snow E-Ice G-Other) **HOTEL**--DZ obstructions (bearing, type, and distance from PI; use following codes for type: A-Rock B-Building C-Fence D-Hedge E-Tree F-Pole G-Pylons/high tension wires H-river, lake, or canal J-Ditch K-Crater L-Other) **JULIET**--Suitability (1-Personnel drop, 2-Platform drop, 3-Supply drop, 4-Other) **KILO**--Vehicle exit points (grid references) **LIMA**--DZ Marking **MIKE**--Recommended direction of run in/out tracks in sequence (Primary run in, pri run out, alt run in, alt run out) **NOVEMBER**--Target Approach Point (TAP; report pri and alt; report this line only if one more suitable than provisionally selected and briefed is observed) **PAPA**--Obstacles/hazards on run in/out tracks, reported as follows: bearing, obstacle, distance from the PI, height of obstacle (A-High tension wires, B-Built-up areas, C-Cliffs, D-Ravines, E-River, lake, canal; F-Woods, G-Haste, chimney, pylon; H-High ground, J-Other *If not possible to fully observe the area between the TAP and the DZ, the suffix "N" should be added to the end of this group) **QUEBEC**--Ground-Air communications (Pri and alt line numbers) **ROMEO**--Enemy (SALUTE format) **SIERRA**--Weather (In order: wind direction from/to, cloud cover, visibility distance, temperature, remarks)

10. (FLASHREP)

(Radio transmission: "Flash-Flash-Flash, [you] this is [me]" **1.**Type of report (flash/action), serial #, codename, map sheet details as required **2.**Reporting Unit **3.**Time A.DTG of report, B.DTG of incident **4.**Reference **5.**Location A.Enemy B.Friendly (encrypted) 6.Incident description **7.**Action taken/being taken **8.**Friendly casualties (encrypted) A.KIA B.WIA C.MIA **9.**Enemy casualties A.KIA B.WIA C.POW(EPW) **10.**Captured enemy weapons, equipment, and documents **11.**Friendly weapons/equip damaged, destroyed, or lost **12.**Remarks DTG *****MINIMUM FLASHREP CONSISTS OF LINES 1,2,3,5,6,and 7**

11. FREQUENCY INTERFERENCE REPORT (FIRREP)

FIRREP--serial number followed by code name and map sheet details as required **1.**Time **2.**Unit **3.**Frequency **4.**Type (meaconing, intrusion, jamming, interference) **5.**Remarks DTG

12. RIVER FORDING RECON REPORT (FORDREP)

ALPHA--Units of measure **BRAVO**--DTG **CHARLIE**--Location **DELTA**--Capabilities: 1-light infantry 2-light military vehicles (no snorkel) 3-light military vehicles (w/snorkel) 4-swimming vehicles 5-

other **ECHO**--Length of ford **FOXTROT**--1.Depth at ford site 2.Velocity at ford site 3.DTG of sounding (expressed as such: F1.3/2 042315H, F2.6/7 050340H, etc.) **GOLF**--Bottom composition 1-mud 2-clay 3-sand 4-rock 5-gravel 6-artificial pavement 7-other (brief descr) **HOTEL**--Gradient of ford's approach and exit (expressed as a percentage of slope for both approach and exit **JULIET**--Composition of ford's approach and exit (same number code as line GOLF, same sequence as line HOTEL; example--J1.5, J2.4) **KILO**--Usable width of approach and exit (same as HOTEL and JULIET, using UOM from line ALPHA) **LIMA**--Remarks

13. HELICOPTER LANDING SITE REPORT (HELLSREP)

ALPHA--Units of measure **BRAVO**--DTG **CHARLIE**--Location (use 2-letter grid zone designator) **DELTA**--Orientation of long azis of landing site ECHO--Number and size of landing points (large, medium, small--example: 2L, 2M, 3S) **FOXTROT**--Method of deplaning: 1-land 2-hover 3-fastrope 4-rappel 5-SPIE 6-other (specify) **GOLF**--Landing site surface (3 parts: 1-trafficability 1-hard 2-moderate 3-soft; 2-type A-sand B-grass C-scrub D-snow E-ice F-marsh G-dust H-paddy J-other (specify); 3-ability of surface to recirculate y-yes n-no) **HOTEL**--1.Direction of approach 2.Direction of egress (best if into wind) **JULIET**--Wind direction and speed **KILO**--Approach angle (no steeper than 1 unit of descent per 10 units of forward movement, or 1:10) **LIMA**--Locations and types of recognition aids 1.grid location 2.type (A-green smoke B-yellow air panel C-signal mirror D-strobe E-other [specify]) **MIKE**--Landing aids (if none, "NIL") 1-glide slope indicator 2-torch "T" 3-inverted "Y" 4-other (specify) **NOVEMBER**--Cloud cover and estimated height above landing site 1.percentage of sky obscured by clouds 2.est height above LS **PAPA**--Visibility and temperature 1.visibility of LS 2.temp on LS **QUEBEC**--Enemy (follow report with SPOTREP/SALUTE) **ROMEO**--Position of ART **SIERRA**--Obstructions (list sequentially 1.grid 2.code letter A-building B-trees C-poles D-pylons/high-tension wires E-other [specify] 3.height of obstacle **TANGO**--Exits from landing site 1.grid 2.description A-infantry B-wheeled vehicles C-unusable **UNIFORM**--Restrictions to troop movement 1-heavy restrictions 2-moderate 3-unrestricted movement **VICTOR**--Remarks *Avoid using WP or white smoke in an area covered with fires and natural smoke *pre-coordinate a wave-off *pre-coordinate recognition signals

14. MEACONING, INTRUSION, JAMMING, INTERFERENCE REPORT (MIJIREP)

MIJIREP-Serial #, code name, map sheet details as required **1.**Type of report: A-Meaconing (transmission of false navigation signals) B-Intrusion (bogus stations, imitative deception) C-Jamming (deliberate disruption of friendly communications) D-Interference (natural or manmade obstructions that cause difficulty in receiving radio signals) **2.**Effects on station **3.**Station location **4.**Frequency or channel affected **5.**Type of equipment affected **6.**Characteristics of interference **7.**Strength of interference **8.**Time that interference started **9.**Effectiveness of interference (scale of 1-10) **10.**Operator's name and rank **11.**Remarks (explain exactly what happened) ***LINES 10 AND 11 WILL BE OMITTED IF TRANSMITTED ELECTRONICALLY** DTG

15. NUCLEAR, BIOLOGICAL, AND CHEMICAL REPORT (NBCREP)

ALPHA--Units of measurement **BRAVO**--Location of observer **CHARLIE**--Direction of attack from observer **DELTA**--Time attack started **ECHO**--Time attack ended **FOXTROT**--Location of area being attacked **GOLF**--Type of attack (method of delivery: rockets, missles, mortars, arty, spray, etc.) **HOTEL**--Wind direction and velocity **JULIET**--Type of agent (if not known, describe effects here) **KILO**--Remarks

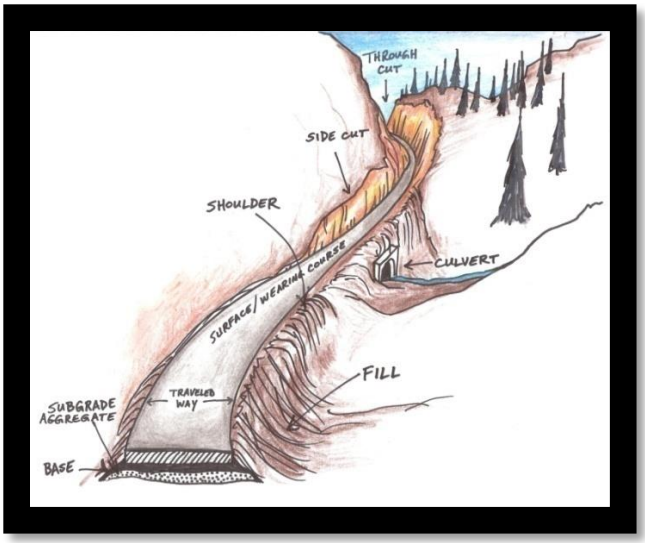
16. RAILROAD RECONNAISSANCE REPORT (RAILREP)

ALPHA--Units of measurement **BRAVO**--DTG **CHARLIE**--Location (of beginning and end of track being reconnoitered) and cardinal direction of the axis (N, S, SW, NE, etc.) **DELTA**--Military classification (only made by qualified personnel [engineers]) **ECHO**--Length of rails and number of ties 1.length of a rail section 2.number of ties per rail section (for a ten foot rail with eight ties, send: E1.10 E2.8) **FOXTROT**--Track gauge (this is the distance between the inside of each rail; 60% of the world's tracks are a standard 1435mm, or 4' 8 ½." If less, then classified as a narrow gauge; if more, wide gauge. Report exact distance **GOLF**--Track width 1.outside width of track 2.inside width of track 3.width of railroad bed **HOTEL**--Composition of railroad bed 1-rock 2-gravel 3-cinders 4-timber 5-concrete 6-other (specify, briefly describe) **JULIET**--Gradient (reported as a ratio) **KILO**--Railroad conditions 1-undamaged 2-boobytrapped but not damaged 3-slightly damaged 4-significantly damaged 5-destroyed

LIMA--Concealment along
route 1-good concealment at regular intervals 2-some concealment -little or none **MIKE**--Track constrictions 1-nature of constriction 2-location 3-type (A-height B-width C-radius of a curve D-gradient E-other [specify and describe]) **NOVEMBER**--Location of switching stations **PAPA**--Activity 1-DTG 2-speed of enemy train followed by cardinal direction 3-location of the sighting (grid) 4-composition of train in following sequence: the number of each type followed by the letter code designator (A-engines B-personnel C-freight D-flat car E-fuel car F-chemical car [describe] G-cattle/livestock H-other [specify and describe]) **QUEBEC**--Remarks ***Individual follow-up reports should be provided for all enemy activity and other landmarks, bridges, routes, etc. along the rail line

17. ROUTE AND ROAD REPORT (ROUTEREP)

ALPHA--Units of measurement **BRAVO**--Locations of start and finish point **CHARLIE**--Type of route X-all-weather Y-limited all-weather (tidal area, flood zone, snow & ice prone) Z-fair-weather **DELTA**--Military classification-to be determined only by qualified personnel (engineers) Class 50-average traffic, Class 80-heavy traffic, Class 100-very heavy traffic **ECHO**--Width 1.average width of traveled way 2.average width of entire route, including grade of shoulder **FOXTROT**--Route constrictions 1-nature (1-height 2-width 3-radius of a curve 4-gradient 5-other) 2-location 3-dimension 4-bypass potential (P-bypass easy Q-bypass difficult/possible after engineering improvements R-bypass impossible **GOLF**--Concealment along route 1-good/regular intervals 2-some 3-little or none **HOTEL**--Special considerations/meteorological obstacles 1-snow 2-flooding 3-ice 4-other (snow conditions: P-no hindrance to vehicles Q-4WD vehicle movement difficult R-movement impossible for wheeled vehicles; flooding conditions: P-no hindrance to wheeled vehicles Q-movement difficult/some damming or fording may be needed R-movement impossible for wheeled vehicles; ice conditions: P-no hindrance Q-movement difficult/salt, sand, or gravel may be needed R-movement impossible for wheeled vehicles S-condition temporary, followed by DTG that team expects ice to melt) **JULIET**--Remarks (wind speed, temperature, drift of snow, water speed during flooding, etc. may be especially helpful)



18. STANDARD SHELLING/MORTAR/BOMB REPORT (SHELL/MORT/BOMBREP)

ALPHA--Units of measure **BRAVO**--Unit of origin (callsign/address/group or code name) **CHARLIE**--Position of observer **DELTA**--Bearing of flash or sound **ECHO**--Time from (when began) **FOXTROT**--Time to (when ended) **GOLF**--Area shelled, mortared, or bombed (polar plot or grid) **HOTEL**--Nature of fire (registration, harassment, bombardment, etc.) **JULIET**--Caliber/size of ordnance being fired (if known) **KILO**--Time from flash to bang (in seconds) **LIMA**--Battle damage assessment (BDA) **MIKE**--Remarks

19. SITUATION REPORT (SITREP)

1.DTG **2.**Friendly position **3.**Activities conducted since last report **4.**Actions planned (next 12-hr period) **5.**Logistical requirements (food, ammo, pyro, water, supplies) **6.**Personnel casualties (since last CASREP) **7.**Remarks

20. ENEMY SIGHTING REPORT (SPOTREP)

ALPHA--Units of measure **BRAVO**--Size (give number of each

type[and description and/or dimensions]: A-infantry B-APC's C-tanks D-arty E-antitank wpns F-AA wpns G-military trucks H-light military vehicles J-helicopters K-aircraft L-radars M-command post N-minefield P-other tank obstacles Q-other) **CHARLIE**--Activity 1-on the move 2-stationary, but not dug in 3-in prepared positions 4-other **DELTA**--Location **ECHO**--Unit or description **FOXTROT**--DTG of sighting **GOLF**--Equipment specifics **HOTEL**--Remarks

21. SURF OBSERVATION REPORT (SURFREP)

ALPHA--Units of measure **BRAVO**--DTG when completed **CHARLIE**--Significant breaker height (highest 1/3 of all breakers in a 10-minute period) **DELTA**--Maximum breaker height (the largest breaker observed) **ECHO**--Period (time in seconds between breakers to the nearest half second) **FOXTROT**--Breaker types A-spilling (white crest, mild break) B-plunging (violent, exploding break) C-surging (wave dissolves before break/base forward movement surpasses crest forward movement) **GOLF**--Angle/direction (degrees from shoreline, right or left in relation to the observer) **HOTEL**--Littoral drift (inshore current) 1-speed 2-direction as viewed from seaward (L/R) **JULIET**--Lines of breakers and width of the surf zone (report number of well-defined breaker lines in the surf zone, followed by the width of the surf zone) **KILO**--Remarks

22. TUNNEL REPORT (TUNNELREP)

ALPHA--Units of measure **BRAVO**--DTG of when completed **CHARLIE**--Location & classification (grid + engineering classification, if known) **DELTA**--Length and condition of tunnel A-not damaged B-boobytrapped C-slightly damaged D-significantly damaged E-destroyed **ECHO**--Horizontal clearance (minimum clear distance between inside edges of tunnel beginning at a height of 1 foot) **FOXTROT**--Width of traveled way (minimum distance between the curbs just above the traveled way [clearance below 1 foot]) **GOLF**--Overhead clearance (3 parts: 1-left shoulder 2-center 3-right shoulder) **HOTEL**--Gradient, as a ratio (units of height per same units of distance [3:10, e.g.]) **INDIA**--Tunnel use 1-highway/road tunnel 2-railroad tunnel 3-other (specify) **JULIET**--Tunnel bypass 1-location 2-code (P-bypass easy, Q-bypass difficult R-bypass impossible) 3-nature of bypass/description 4-restrictions and dimensions **KILO**--Construction material A-steel or other metal K-concrete AK-reinforced concrete KK-prestressed concrete P-stone or brick H-wood M-other material (specify or describe) **LIMA**--Remarks

ADDITIONAL FORMATS, CHARTS, & DIAGRAMS

STANDARD RECON SITREP

SIZE:
ACTIVITY:
LOCATION:
UNIT/UNIFORM:
TIME/DATE (DTG)
EQUIPMENT & WEAPONS

STANDARD SNIPER SITREP

SIZE:
ACTIVITY:
LOCATION:
UNIT/UNIFORM:
TIME/DATE (DTG)
EQUIPMENT & WEAPONS
SNIPER/COUNTER SNIPERS/SNIPER WEAPONS
REMARKS (INCLUDE NBC CAPABILITIES)

HOTEL/TANGO REPORT

DTG:_____ TM:_____ CALLSIGN:_____LOC:_____

ALPHA: DESCRIPTION: 1-HOTEL 2-TANGO 3-UNIFORM (UNKNOWN)

BRAVO: SEX: 1-MALE 2-FEMALE

CHARLIE: RACE: 1-WHT 2-HISP 3-BLK 4-ORNTL 5-INDN 6-ARAB 7-UNK

DELTA: HEAD GEAR: 1-BALL CAP 2-SKI MASK 3-RAGS/TUNIC 4-HOOD 5-OTHER 6-NONE

ECHO: GLASSES: 1-YES 2-NO TYPE:_____

FOXTROT: HAIR: 1-BLK 2-BLND 3-RED 4-BRN 5-GRAY 6-WHT 7-BALD
A-LONG B-MEDIUM C-SHORT
1-CURLY 2-STRAIGHT

GOLF: FACIAL HAIR: 1-MUSTACHE 2-FU-MAN-CHU 3-GOATEE 4-BEARD 5-SIDEBURNS 6-MUSTACHE & BEARD 7-NONE

HOTEL: BODY: 1-SKINNY 2-FLABBY 3-MUSCULAR 4-AVERAGE
BUILD: A-SMALL B-MEDIUM C-LARGE

INDIA: ESTIMATED WEIGHT IN 5LB INCREMENTS:_____

JULIET: SHIRT COLOR/TYPE:_____

KILO: PANTS COLOR/TYPE:_____

LIMA: SHOES COLOR/TYPE:_____

MIKE: AGE: 1-TEENS 2-TWENTIES 3-THIRTIES 4-FORTIES 5-FIFTY+

NOVEMBER: WEAPONS: 1-PISTOL 2-RIFLE 3-MACHINE GUN 4-ANTI-TANK 5-ANTI-AIR 6-OTHER

OSCAR: DEXTERITY: 1-LEFT 2-RIGHT 3-AMBIDEXTROUS 4-UNKNOWN

PAPA: LOCATION (USE MATRIX):_____

QUEBEC: DUTY/ROLE: 1-LEADER 2-ROVING SENTRY 3-GUARD 4-LOOKOUT 5-PRISONER 6-HVT 7-DRIVER 8-FO/FAC 9-SNIPER 10-OTHER 11-UNKNOWN

ROMEO: REMARKS:_____

2. OBSERVATION LOG

SHEET_____ of _____

ORIGINATOR_____DTG_____

MISSION_____POSITION_____

VISIBILITY_____

REMARKS_____

_____

_____

SER	TIME	DIR/DIST	EVENT	ACTIONS/RMKS

2. PHOTO LOG

PHOTOGRAPHER_____

TARGET_____

CAMERA/LENS_____

FILM/ASA USED_____

LIGHTING CONDITIONS_____

DATE_____

EXPOSURE	DATE (DTG)	SPEED	RANGE	AZIMUTH	8-DIGIT GRID	REMARKS

NATO PATROL REPORT FORMAT

1. TO:_____
2. MAPS:_____
3. PATROL SIZE AND COMPOSITION:_____

_____

4. TASK / MISSION:_____

_____

5. TOD:_____ 6. TOR:_____
7. ROUTES:_____
8. TERRAIN:_____
9. ENEMY: a) Strength:_____

b) Capabilities & limitations:_____

c) Disposition_____

d) Conditions of defense (patterns)_____

e) Uniform & Equipment_____

f) Weapons observed_____

g) Attitude_____

h) Morale_____

i) Locations of positions, obstacles, patrols, etc._____

j) Movement or shift in disposition_____

k) DTG's of observation_____

l) Team's position while collecting information_____

10. MAP CORRECTIONS:_____
11. MISC INFO:_____
12. RESULTS OF ENEMY ENCOUNTERS:_____
13. CONDITION OF PATROL:_____
14. CONCLUSIONS AND RECOMMENDATIONS:_____

APPENDIX AJ / FINAL BRIEF FORMAT

BRIEFER		TOPIC
S-3	**Opening Remarks**	*Map of AO *Friendly forces
	Task Organization	*Company/Plt covering mission
S-2	**Enemy Situation**	*Enemy forces *Terrain and weather *WX/TX impacts insert, movemt, survivability and sustainability
S-3	**Mission**	*Brief Higher's Mission Statement
CO	**Commander's Intent**	
S-3	**CONOPS**	*Broad brush *Type of inserts planned *Which teams accomplish which missions
AIR	**Fire Support**	*Air available *Fire support available
INSERT OFFICER	**Insert**	*Details
TL(s)	**Mission**	*Teams assigned mission
	Troop List	*Team Leader *Assistant Team Leader *Radio Operator *Automatic Rifleman *Point Man *Assistant Radio Operator
	Scheme of Maneuver	*Time & method of insert *Routes, tactics, techniques to be used *Time & method of extract *Wave-tops / broad brush strokes
	Actions on Objective	*Details of plan *Actions/techniques used to accomplish the mission
	Extract	*Details to include emergency extract
	Fire Support	*Details pertaining to team's mission
	Coordinating Instr's	*Gear common to all *Special equip *Overall timeline up to insert *Go/No-Go criteria *Contingency plans *No-comm plan *Actions on compromise (active & passive)
EXTRACT OFFICER		*Details of routine extract and emergency extract specifics
S-3	**S-3-Specific**	*Mission Go/No-Go criteria
	Coord. Instrctns	*Higher/Adjacent/Supporting *Liaison Officer requirements & assignments
	Emergency Ext. (all missions)	*Details/triggers *Extract force *Extract Officer

S-2	**E&R Plan**	*Team scheme of maneuver plan *Conventional recovery plan (if available) *Unconventional assisted
S-4	**Logistics**	*Plan *Re-supply options *MEDEVAC plan
	Reception Plan	*Reception/triage of casualties *Accountability of personnel, wpns, serialized gear, crypto *S-2 debrief *Collection of ammunition, pyro
S-6	**Comm Nets**	*Primary reporting net *Secondary reporting net *Recognition plan *Challenge and Passwords (pri & alt)
	Comm Config Diagram	*ROC *Supporting arms *Teams *Comm windows *Others
S-3	**Op Risk Mgmt (ORM)**	*Operational risk as it applies to the mission's success/compromise/insert casualties
AIR OFFICER	**Time Hack**	

BRIEF BACK FORMAT

TEAM LEADER *Introduce Self and Team *Give an overview of the enemy situation *Give an overview of the friendly situation *Give mission statement *Give assigned EEI's and PIR's

POINTMAN *Show patrol route *Describe the type of terrain that will be encountered and its effect on the patrol. *Give weather forecast and its effect on the patrol. *Give procedures for exit and re-entry of friendly lines to include link up with friendly units as well as inter-team link up procedures.

TEAM LEADER *Briefly describe actions at the objective. *Explain Rules of Engagement. *Explain weapon assignments and special equipment of each team member.

ASSISTANT TEAM LEADER *Explain emergency extract and E&R plan. *Explain what to do if team mbrs become lost or separated. *Give fire support plan. *Explain logistics and re-supply plan.

RADIO OPERATOR *Explain what type of radios will be carried, nets used, and type of antennas you have. *Explain what mandatory reports will be sent and when they must be sent. *Explain No Comm plan.

ASSISTANT TEAM LEADER *Give medical plan and medevac procedures.

(TEAM LEADER OPENS IT UP FOR QUESTIONS)

MARINES' BEER TROUBLESHOOTING GUIDE

FEET COLD & WET
GLASS HELD INCORRECT ANGLE, POINT OPEN END TOWARD CEILING

FEET WARM & WET
IMPROPER BLADDER CONTROL, BLAME DOG

PALE, TASTELESS BEER
A. IT'S A LIGHT BEER, OR B. BOTTLE IS EMPTY

OPPOSITE WALL COVERED WITH FLOURESCENT LIGHTS
YOU'VE FALLEN OVER BACKWARDS, HAVE BUDDIES HOLD YOU UP

MOUTH FULL OF CIGARETTE BUTTS
YOU'VE FALLEN FORWARD, SEE ABOVE

BLAND BEER, WET SHIRT
GLASS APPLIED TO WRONG PART OF FACE; PRACTICE IN BATHROOM MIRROR

FLOOR BLURRED
YOU'RE LOOKING THROUGH THE BOTTOM OF AN EMPTY GLASS; HAVE SOMEBODY BUY YOU ANOTHER BEER

FLOOR MOVING
YOU'RE BEING CARRIED OUT—FIND OUT IF YOU'RE ENROUTE TO ANOTHER BAR

ROOM UNUSUALLY DARK
BAR HAS CLOSED. CONFIRM ADDRESS WITH BARTENDER. IF NO STAFF, FINISH BEER & RUN

TAXI TAKES ON COLOR-FUL ASPECT
PERSONAL ALCOHOL CONSUMPTION PARAMETERS EXCEEDED, ROLL DOWN WINDOW AND PUKE

EVERYONE LOOKS UP AT YOU AND SMILES
YOU'RE DANCING ON THE TABLE—FALL ON SOMEONE CUSHY-LOOKING

MARINES' BEER TROUBLESHOOTING GUIDE (CONTINUED)

BEER IS CRYSTAL-CLEAR
IT'S WATER! SOMEONE IS TRYING TO SOBER YOU UP… PUNCH HIM

PEOPLE STANDING AROUND URINALS APPLYING MAKEUP
YOU'RE IN THE LADIES ROOM. DO NOT USE URINALS! CASUALLY STROLL OUT. GET A PHONE #

HANDS HURT, NOSE HURTS, MIND UNUSUALLY CLEAR
YOU'VE BEEN FIGHTING, APOLOGIZE TO EVERYONE IN CASE IT WAS THEM

DON'T RECOGNIZE FACES OR SURROUNDINGS
YOU'VE WANDERED INTO THE WRONG PARTY…SEE IF THEY HAVE FREE BEER

BEDROOM IS GRAY WITH A CONCRETE SLAB FLOOR, INTERESTING STEEL DOOR, AND A CONVENIENTLY CLOSE TOILET
YOU'RE IN JAIL. SLEEP IT OFF, DON'T TALK TO ANYBODY, & UNDER NO CIRCUMSTANCES SLEEP ON YOUR STOMACH

DANCING TO VILLAGE PEOPLE, PARTNER IN LEATHER CHAPS
YOU'RE IN A GAY BAR. KEEP BACK TO THE WALL AND GET OUT. ACCEPT NO FREE DRINKS OR BACK RUBS

YOUR SINGING SOUNDS DISTORTED
THE BEER IS TOO WEAK; HAVE MORE BEER UNTIL YOUR VOICE IMPROVES

DON'T REMEMBER THE WORDS TO THE SONG
BEER IS JUST RIGHT. JAM OUT ON AIR GUITAR

YOU HEAR SIRENS AND DOGS
RUN…FOLLOW EVERYBODY ELSE

PEOPLE AROUND YOU WET AND ANGRY
YOU JUST PISSED ON THEM. (A) APOLOGIZE, (B) BLAME DOG, OR (C) RUN

KILL SHEET

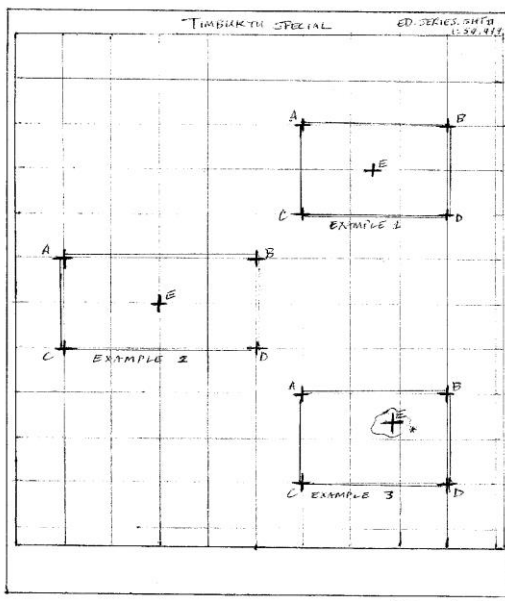
TEAM KILL SHEET

TEAM: _____ CALLSIGN: _____

INSERT DTG: _____ EXTRACT DTG: _____

NAME	RANK	SSN	BT	PRIMARY WEAPON	SECONDARY WEAPON	BAYONET	PEQ-2	DAY OPTICS	NIGHT OPTICS	COMM GEAR	

QUICK REFERENCE GRID RECOGNITION SYSTEM



EXAMPLE 1: CENTER OF BOXED-IN AC IS ON THE HORIZONTAL GRIDLINE, AND IS CENTERED (E) ON THE VERTICAL GRIDLINES

GRID REFERENCE SYSTEM

CAPTIVE TAG

(Securely affix to captive)

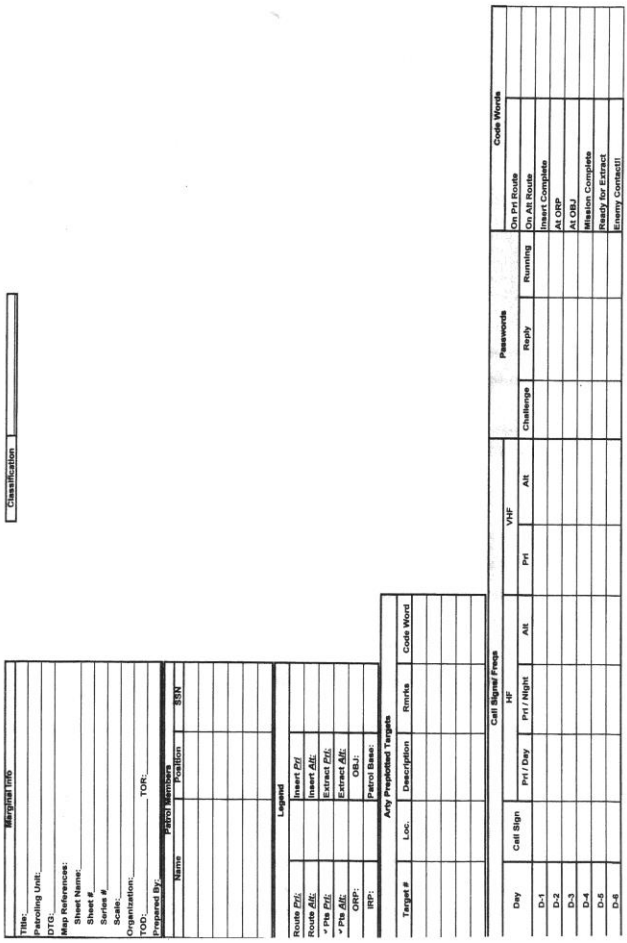
TAG NUMBER
DATE / TIME OF CAPTURE
PLACE OF CAPTURE (COORDINATES)
WEAPONS (Y/N--IF YES, GIVE NUMBER, TYPE, DESCRIPTION)
DOCUMENTS (Y/N--IF YES, FILL OUT DOCUMENT TAG BELOW)
CAPTURING UNIT

DOCUMENT TAG

(Can be used for solitary documents found on a captive, or for a bundle of documents found on an individual captive. Protect document against loss or damage and securely affix tag to document or group of documents)

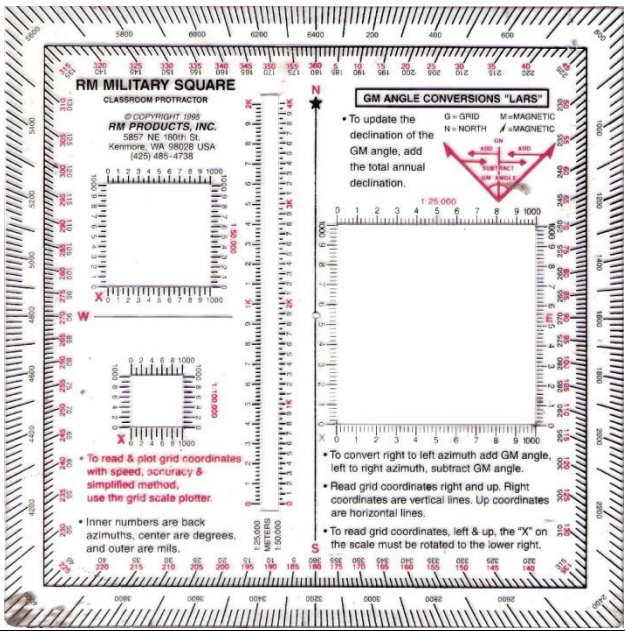
TAG NUMBER
DATE / TIME OF CAPTURE
PLACE OF CAPTURE (COORDINATES)
DOCUMENT FOUND ON (CAPTIVE, OTHER)
CAPTURING UNIT

ROUTE OVERLAY



(EMAIL ME FOR COPIES OF DOCUMENTS)

LAND NAVIGATION



Land nav is an acquired skill. We are all macho men and would like to think that we have a stronger navigational instinct than the man beside us. The truth is, there is one common element which links all good navigators, point men, trackers, hunters, stalkers, and survivalists. It is, simply, experience in the bush. The more time you spend in the bush, the better you will

be, period. Additionally, here are some skills that professional operator

should continue to hone:
(1) Situational Awareness -- SA is the most important personal skill. It goes hand-in-hand with common sense. Elements of SA include basic sensory perceptions (listening, observation, feeling, scent), sense of direction, alertness, and scope (the big picture, and where you fit in).
(2) Pace Count -- Know your normal pace count, your running count, uphill, downhill, in the mud, in the rain, etc. As your team gets tighter, note who has longer or shorter paces.
(3) Map and Compass Skills -- Orientation (where things are physically in relation to where they are on the map), Checkpoints (use and recognition), Compass use (day and night), Distance measuring (on the map, during movement, and when estimating range between yourself and an object [or between multiple objects]), Location (yours or a distant object's).

Five Characteristics of a good navigator: Observation, memory for detail, calm methodology, determination, patience.

Military Map: A model of the earth's surface drawn to scale, showing all or part of the earth's surface including man-made and natural features.

Military Map Scales:
Small Scale -- 1:600,000 - 1:1,000,000 (1:1,000,000 is standard). Used for general planning and high-echelon strategic studies.
Medium Scale -- 1:75,000 - 1:599,999 (1:250,000 is standard). Used for planning operations.
Large Scale -- 1:75,000(-) (1:50,000 is standard). Used to meet tactical, technical, administrative needs of field units.

Different types of maps you may use or encounter: **military special** (topographic or 'topo,'), **green-light readable** (better than standard red-light readable map; compare and decide), **civilian, foreign, pilot's navigational chart, nautical chart, hand-drawn** (graph paper works best), **worn** (especially at creases or edges), **evasion chart** (made of tyvek; good for waterproof layer), **overhead matrix** (basically, any map with a grid system incorporated / overlaid--usually, this is for in-close operations, possibly on the map of a town), **map chip** (section of map, typically mass produced and laminated for carrying in your AKAK bag when maps are not available to all members of team or platoon)…be prepared to use any or all of these in furthering the accomplishment of your mission. Keep in mind, when you make COPIES, to copy the map TO SCALE! Also, don't be so naive as to think that maps will always be available. If a hasty mission comes down the pipe in an area that was not previously planned upon, you will need to use every bit of whatever information you can glean on the area, and roll with what you got. Use photos, sketches, 3D models, terrain models, descriptions of the area from previous LP/OP/patrols, aerial reconnaissance, e.g. Contact HET, the Intelligence section of your unit, and the operational centers of all adjacent units in your AO, including joint service units.

Why laminate? -- 1.(Obvious) waterproof. 2. Ease of marking/map pen or grease pencil. 3. Avoid instance of wear due to creasing.

Map parts:

Marginal Information (found on the margin of the map, contains info about the body):

***Sheet Name** -- Found top center and bottom right. Generally, a map is named after the largest nearby city or outstanding cultural /

geographic feature.

***Sheet Number** -- Upper right. Used for reference when dealing with multiple sheets.

***Series Name / Scale** -- Upper left. Series of map sheets is named for most prominent area. Scale is a ratio of map units compared toground units (example: on a 1:50,000 map, one inch on the map is equal to 50,000 inches on the ground)

***Series Number** -- Upper right & lower left. Used for reference, it is a comprehensive number made up of 4 numeric digits or a letter followed by 3 or 4 numeric digits.

***Edition Number** -- Top right and bottom left. A higher numeric digit constitutes a more recent and updated edition (example: A map bearing the edition "3-AMS" [the third edition of that map, prepared by the Army Mapping Service] would supersede the same map with a "2-DMA" edition [the second edition of that map, prepared by the Defense Mapping Agency].

***Bar Scales** -- Located bottom center. Basically, these are rulers for figuring distances on a map in yards, miles, nautical miles, etc.

***Credit Note** -- Bottom left. Important in determining credibility of a map, and includes the map's producer, dates, and methods of preparation or revision.

***Index to Adjoining Sheets** -- Bottom right. Used to help connect different map sheets in a series.

***Projection Note** -- Lower margin. States the framework of the map.

***Grid Note** -- Bottom center. Info pertaining to grid system, interval between grid lines, and the number of digits omitted from grid lines.

***Grid Reference Box** -- Bottom center. Contains sample 100 meter reference, 100,000m square identification, grid zone designation, and

grid reference instructions.

***Vertical / Horizontal Datum Note** -- Bottom center. Designates the basis for all vertical and horizontal control situations, contours, and elevations on map.

***Legend** -- Bottom left. Comprised of topographic symbols used to depict prominent features on the map. Always refer to the legend, because symbols are not the same on every map.

***Declination Diagram** -- Lower margin. Indicates the angular relationships of true, grid, and magnetic north.

***User Note** -- Bottom center. Request for cooperation in correcting errors or omissions on the map.

***Contour Interval** -- Bottom center. States vertical distance between adjacent contour lines on map.

***Stock Number Identification** -- Bottom right. All DMA maps contain these numbers which are used in requisitioning map supplies. The ID consists of the words "Stock No." followed by the series number, sheet number, recently printed sheet, and edition number. Designation is limited to 15 alphanumeric digits.

***Elevation Guide** -- Bottom right (not on all map sheets). Displays the high, medium, and low elevations and larger waterways located on the map.

***Boundary Index** -- Bottom right (not on all map sheets). Displays the county, state, region, and national boundaries located on the map.

***Security Classification** -- Top and bottom center (not on all map sheets). When security classification is not printed, it is presumed to be unclassified.

Topographic Colors and Symbols

Black -- All man-made objects, except main roads
Blue -- Water (lakes, ponds, streams, rivers, marshes / swamps)
Brown -- Elevation and relief features (contour lines, cuts, fills, etc.)
Green -- Vegetation
Red -- Main roads, built-up areas, special features
Other Colors -- Used occasionally for special information depicted in the legend
*Topographic symbols depicted on a map's legend are generally printed in such a way that the center of the object, as printed, correlates with the center of the phyysical center of that object (off the map).
Buildings -- Typically depicted as squares, rectangles, or a series or combo of same
Church -- Building with a cross on top
School -- Building with a rectangular flag on top
Fort -- Empty box with a diagonal line protruding outward from each corner
Light or Lighthouse -- Typically, a six-point star
Ruined or Destroyed Area -- Series of buildings with close-grid hash marks overtop
Tower, Chimney, Air Beacon, Monument, other elevated object -- Usually labeled
Underground Pipeline -- Dashed line running along a cleared right-of-way
Pipeline -- Solid line, usually labeled
Ruins -- Similar to buildings, except boxes aren't filled in, & outside lines dashed
Prominent Fence -- Alternating dashes or elongated lines and x's (---x---x---x---)
Mine Shaft or Mine Tunnel -- Crossed pickaxes (a shaft is vertical, tunnel is horizontal)
Open-pit Mine or Quarry -- Crossed pickaxes in center of a cleared area with relief
Prominent Wall -- Solid line, usually labeled
Airfield -- Encircled plane or bird of prey (wings spread), beside true-shape airfield
Landing Strip -- airplane/bird (wings spread) beside true-shape landing strip
Single-track, Broad-gage RR, in Operation -- Solid line w / intersecting hash marks
Single-track, Narrow-gage RR, in Operation -- Solid line with perpendicular marks running alternately along track
Single-track Railroad, Non-operating -- Same as operating, except line is broken
Double- or Multiple-track Railroad -- Same as single, except with multiple lines
Underpass -- Road or railroad is covered by another road or railroad, which usually has short, flared parallel lines on sides, representing a bridge
Overpass -- Road or railroad, usually having short, flared parallel lines on sides (representing a bridge), covers another road or railroad
Road Tunnel -- Road ends with an arrowhead, followed by single or double dashes or x's, then road begins again with an opposite-facing arrow
Railroad Tunnel -- Same as road, except on a RR line
Hard Surface, Hvy Dty Road -- Thick, filled line; two lanes unless otherwise labeled
Hard Surface, Medium Duty Road -- Parallel lines (unfilled road); 3 lanes unless " "
Rapids -- Coupled perpendicular hash marks along river or stream
Scrub Brush -- Sandy-looking vegetation (green peppered area)

Marsh or Swamp -- Sandy-looking area peppered with 3-pronged vegetation, usually near stream or lake; no distinction is made between fresh and salt marshes

Perennial Stream, Pond, or Lake -- Dashed shoreline denotes indefinite or unsurveyed

Spring -- looks like a sperm or tadpole. Only shown in arid areas or where they are important landmark features. If intermittent, mineral, alkaline, non-potable, or hot, it will be so labeled.

Intermittent Stream -- Alternating solid line and dotted line

Orchard -- Rows of evenly spaced trees

Plantation -- Vegetated area with defined edges (typically square or rectangular)

TERRAIN FEATURES

Hill -- Concentric circles, widely spaced; the smallest circle is the top of the hill

Mountain -- Concentric rings, generally narrow and not evenly shaped; smallest ring is the top; mountains and hills differ mainly in elevation

Convex Slope -- Typical of a hill; contour lines arc away from center (top) ring)

Concave Slope -- More common on mountains; contour lines arc in towards center ring

Saddle -- Low area between two elevated areas; usually, two hills within a contour line

Finger -- Peninsula-like, tapering land mass that protrudes from a larger mass; characteristic “U’ or “V” shape points downhill

Spur -- The crevice between two fingers; characteristic “U’ or “V” shape points uphill

Depression -- Concentric rings having perpendicular tic-marks that point toward the center (or smallest ring)

Uniform Gentle Slope -- Contour lines evenly spaced and wide apart

Uniform Steep Slope -- Contour lines evenly spaced and close together

Ridge -- Long axis of a hill, mountain, or a series of hills or mountains that passes through the center of the apex or apexes

Draw -- a depressed area with steep walls, usually cut by water erosion from an elevated area; the small version of a gorge; depicted on a map by contour lines that all point sharply inward toward an area of elevation

Valley -- A depressed area amidst elevated slopes, or at the bottom of a range, which usually contains a series of draws

Cut -- A man-made feature denoting excavation for a traveled way; depicted as two opposite lines that interrupt the surrounding contour lines; these two lines usually have perpendicular tic-marks pointing inward (toward traveled way)

Fill -- A man-made feature denoting filled ground for a traveled way; depicted as two opposite lines with perpendicular tic-marks pointing outward

Cliff -- A vertical or near-vertical slope, represented on a map by converging / merging contour lines

Plateau -- A contour ring having perpendicular tic-marks that point away from the ring

The Military Grid Reference System: A Quick Lesson

This system is used so that no two points on the globe could be accidentally mistaken for the same point. The earth is divided into sixty Grid Zones. The **Grid Zone Designator**, a 2-digit number in a map's Grid Reference Box, identifies the Grid Zone that the map is located in. The letter which follows identifies the specific **Time Zone** that the map is located in. Each Grid Zone is divided into 100,000 meter sections, referenced by a two-letter designator. These two letters immediately precede the actual digits of a grid (**AB** 1234 5678). In this sample eight-digit grid, the first and fifth digits represent the **10,000 Meter Square** (AB **1**234 **5**678). The second and sixth digits represent the **1,000 Meter Square**. The third and seventh digits represent the **100 Meter Square**. The fourth and eighth digits represent the **10 Meter Square**.

Grid Line Identification

Grid lines are marked on the outer margin of the map with coordinates, which are identification numbers that increase from left to right and from bottom to top (remember "RIGHT and UP"). The outer line of a map's grid box is called a **neat line** and must not be considered a grid line, nor should it be presumed to complete a 1,000 meter grid square.

Protractors

A protractor is an absolute necessity during mission planning. It is of course considered essential gear, and is required during your mission to enable you to give accurate and precise information at intervals. It is, however, not good to use on the fly. A thorough knowledge and

application of map skills, brought about by field experience, are necessary long before you rely on a protractor. Train yourself and your team to give accurate coordinates without a protractor. There's no secret--practice makes perfect.

Go big or go home. Buy the fifteen dollar protractor, you cheap bastard. The less expensive ones become brittle after prolonged use and exposure to the sun, and as Murphy would have it, will break exactly when you need it not to.

If you poke a hole at the center of your protractor, make it a very small one, such as the sort made with a needle, not the tip of your Benchmade. Use thread from your sewing kit for a line; you may need to replace it more often, but consider this: if you're using a strand of 550 cord guts as your protractor string, you may come up as much as 10' away from your objective over a 500 meter area.

There are several types, shapes, and sizes of protractors available, and they all serve the same purpose. In the military, we generally use a square protractor. Keep in mind that if you need to, you can always create a **field-expedient protractor** using any reliable 90 degree angle (a manufactured paper's corner--this page for instance) and your map's 100-meter bar scale (extends to the left of your 1,000 meter bar scale).

Elevation and Relief

Three elements are used to identify terrain features on a map: the datum plane, elevation, and relief. **The Datum Plane** is a reference for vertical measurement. For most military maps, this means sea level, as measured in 1929. **Elevation** is the vertical distance above or below the

Datum Plane. **Relief** is the representation of the shape and height of land formations and the characterizations of the earth's surface.

A **Contour Line** is an imaginary line on the earth's surface, which represents the same elevation of all points along that line. Each has an elevation assigned to it. Typically printed in brown on military maps. **Index Contour Lines** are dark, heavy reference lines that generally occur every fifth line beginning at zero elevation. The contour lines between these indexes are called **Intermediate Contour Lines. Supplementary Contour Lines**, represented as light dashes, are sometimes drawn between contour lines to add more definitive scope to terrain features. **Approximate Contour Lines**, rarely seen, are used when the elevation and relief of an area is not known. Such lines are also expressed as light dashes, the difference being that they do not occur alternately between solid contour lines.

Contour Interval varies between maps, and is therefore always shown in a map's marginal area. Regardless of how close together two contour lines appear to be on the map, the contour interval represents the vertical distance on the ground. **Bench Marks** are surveyed and staked elevation landmarks, each represented on a map by a black "X" with an elevation number beside it (the center of the X is the exact location). Additionally, **Spot Elevation** marks can be found on maps near prominent terrain features (hilltops, road intersections, etc.). These are not as accurate as bench marks. Represented on the map by a brown "X."

Direction and Azimuths

An **Azimuth** is a direction or line of sight from an observer to a distant point. There are two common ways to express an azimuth: **Mils** (6400

mils in a circle; primarily used for arty and for range estimation) and **Degrees** (360 degrees in a circle; primarily used for navigation). Degrees can be subdivided into **Minutes** (60 minutes per degree [if more than 30 minutes, round up to the next degree]) and **Seconds** (60 seconds in a minute). A **Back Azimuth** is the reverse direction of an azimuth. To determine a back azimuth, add 180 degrees to an azimuth of 180 degrees or less; subtract 180 degrees from an azimuth of 180 degrees or more. The back azimuth of 180 may be expressed as either 0 degrees or 360 degrees, but 0 degrees is most common.

Types of North

There are three basic reference lines in navigation: **True North** is a line from any position on the earth's surface to the North Pole. Usually symbolized by a star. **Magnetic North** is the direction indicated by the north-seeking needle of a navigational instrument, drawn into place by the North Magnetic Pole. Usually symbolized by a half arrow head. **Grid North** is represented by the vertical grid lines on a map, and is usually symbolized by the letter 'Y' or the letters 'GN.'

Declination Diagram

Declination is the angular difference between True North and either Magnetic or Grid North. As a professional military operator, you will not need to know the relative location of True North nearly as often as the relationship between Grid and Magnetic North. The latter is referred to as the **Grid-Magnetic Angle, or G-M Angle**. On each map that contains a declination diagram, there are conversion notes that tell how to convert a grid azimuth (your map azimuth) to a magnetic azimuth (your compass azimuth), or vice versa. The rule of thumb for deciding whether to add or subtract the G-M angle is the **LARS Rule** (Left Add,

Right Subtract). In some cases, a map will display the annual magnetic change, expressed in degrees, minutes, or seconds.

To **plot an azimuth**, place the center of your protractor at the start point, then, ensuring that your protractor is parallel with the North-South or East-West grid lines, make a tick mark at the outside edge of the protractor where the appropriate azimuth corresponds. Then, use a straightedge to draw a line between your start point and destination.

To **determine an azimuth** between two points, draw a line using a straight edge that extends well beyond the finish point. Place the center of your protractor on the start point, and ensuring that the left or right edge of your protractor is parallel to its nearest vertical (North-South) line, note the degree point which your drawn line passes through. That is your azimuth.

FINDING NORTH WITH A WRISTWATCH: If you or someone on your team wears an analog wristwatch, the time is correct, and you can locate the sun, you will always know your cardinal directions. Hold the wristwatch face up with 12 O'clock to the left. Rotate until the hour hand until it points at the sun. The halfway point between the sun and 12 is South (if you are in the Northern Hemisphere, or North if you are in the Southern Hemisphere). Subtract one hour from the hour hand's location during Daylight Savings.

Check out mapwatch.com. They've got every link to every agency you need in order to get your hands on land, aerial, and nautical maps and charts. Also, for an annual $20 fee, you can have unlimited access to U.S. topo maps that you can print off all day.

Knots and ropework…Important yet perishable skills that require practice in repetition. Crucial in HRST, assault climbing, and nautical applications. Rope skills are necessary for snares, equipment lashing, rigging, rope bridges, and safety harnesses.

First, some basic rope information. The amount of weight a rope will hold longitudinally before breaking is measured in tensile strength. The tensile strength of a rope will decrease over time, and will be compounded by any of the following elements or circumstances: sun, water, dirt, impact, rubbing, cuts or abrasions. Carefully inspect your ropes prior to use, and store in a dry area away from sunlight's damaging UV rays. As a rule of thumb, do not cut or splice a climbing or rappelling rope, avoid dropping or stepping on ropes, and pad sharply angled surfaces where tensioned rope makes contact. Burn, tape, or whip rope ends to protect against fray. There are several types of rope

that you will come across. Here are the most common:

Static 'Kermantle' (core-sheath)—a durable braided poly sheath over a (typically) nylon core. Most of your climbing ropes are still made in this fashion. Available in sizes from 5/16" or 8 mm through 5/8" or 16 mm. Most common size is 7/16" (11mm) or 1/2" (13mm). Usually in lengths of 50, 60, or 70 m, or 150' length. "Static" means it is simply designed to take on full weight, as opposed to "dynamic," which is a more elastic rope used largely in safety applications. Tensile strength: typically 6,500 lbs dry.

Military Greenline or "One Twenty Line"—aptly named for the 120' sections it generally comes in. Same common size as static kernmantle. Rope is 'laid,' as opposed to braided or sheathed, giving it a coiled appearance . 30% stretch under applied load. Tensile strength: typically 3,650 lbs dry.

Tubular Nylon—used for sheathing ropes, making accessory loops to hold equipment on body, and several lightweight applications such as rescue etriers (ladders), safety harnesses and slings.

Accessory Cordage—includes 550 cord (i.e., paracord, riggers' cord), 3-strand and 16-plait prussic cords and various attaching / rigging loops where high tensile strength is not required. Sizes vary from 2 mm to 8 mm, tensile strengths from 400 to 950 lbs.

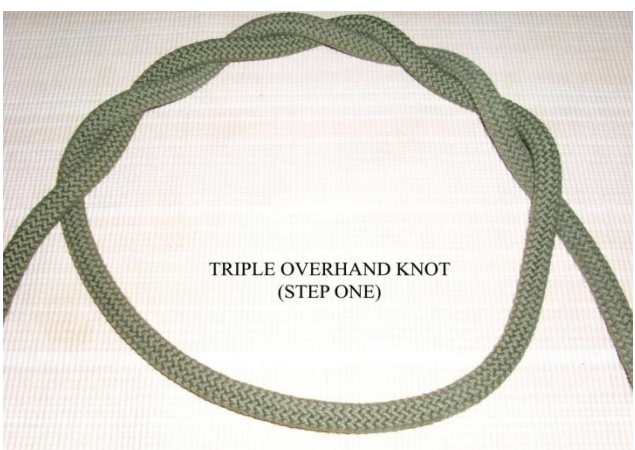
A7A Strap / Type X nylon webbing—although not a rope, it is important to mention because of its hand-in-hand relationship with rope users (that would be you), especially in the military. This nylon strap is the main one used in securing everything from Pelican cases on ships to cargo aircraft on the flight line during hurricanes, and is used on

parachutes, cargo nets, and helicopter load slings. If you have a stitch buddy in the riggers or flight equipment shop, you can have A7A turned into drop extenders for fixed-blade knives, seat / chest / SPIE harnesses (use approved stitching patterns and Nomex thread), or whatever you can imagine. Average of 6500 lb. tensile strength at any single point.

SPIE rope--This is a "2-in-1" nylon rope, 1" in diameter, that is 120' long and is rated at 24,000 lbs. This rope has a standard 10-man capacity, and the propensity to carry 14 men total by inserting an additional 4 D-rings. Integral rings rated at 10K lbs apiece.

Military Fast Rope--this is a synthetic eight-strand braided rope that is 1 ¾" in diameter, rated at 35,000 lbs (bolts in sleeve, 26K apiece; ring atop sleeve, 2500 lbs; sleeve itself, 9K). The rope comes in three lengths: 60, 90, and 120 feet.


OVERHAND BEND
(STEP TWO)


TRIPLE OVERHAND KNOT
(STEP ONE)

TRIPLE OVERHAND KNOT
(STEP TWO)

DOUBLE FISHERMAN'S KNOT
(STEP ONE)

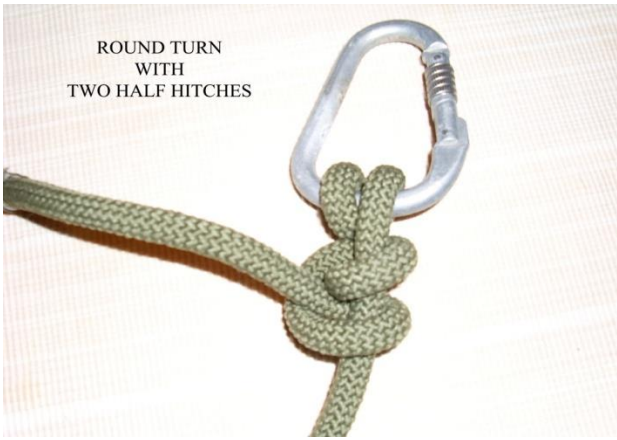
DOUBLE FISHERMAN'S KNOT
(STEP TWO)

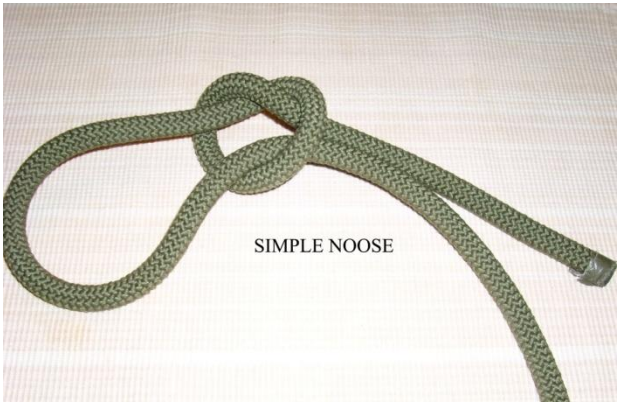
DOUBLE FISHERMAN'S KNOT
(STEP THREE)


HALF
HITCH

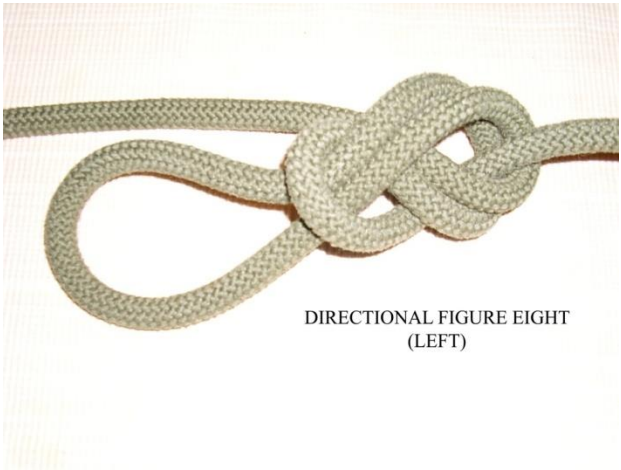

QUICK DISCONNECT
HITCH


TWO
HALF
HITCHES


ROUND TURN
WITH
TWO HALF HITCHES

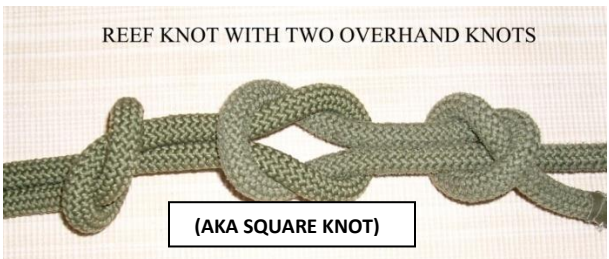

SIMPLE NOOSE


CLOVE HITCH



DIRECTIONAL FIGURE EIGHT
(LEFT)

DIRECTIONAL FIGURE EIGHT
(RIGHT)


REEF KNOT WITH TWO OVERHAND KNOTS
(AKA SQUARE KNOT)

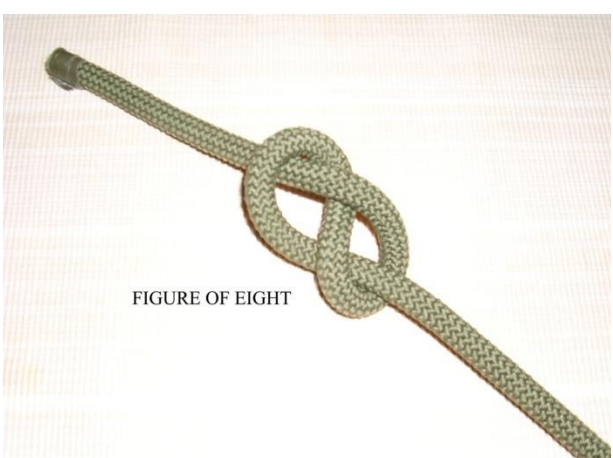
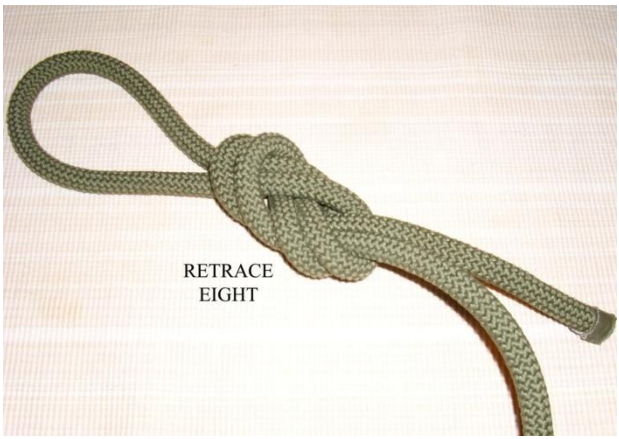


FIGURE OF EIGHT


RETRACE
EIGHT

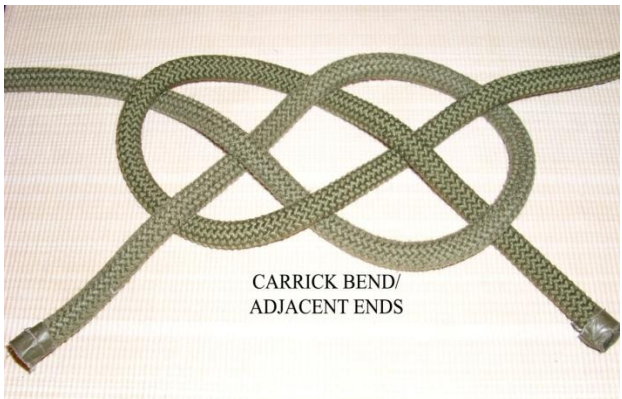

SURGEON'S
KNOT
(STEP ONE)


SURGEON'S KNOT
(STEP TWO)


DAISY CHAIN
(STEP ONE)


DAISY CHAIN
(STEP TWO)


CARRICK BEND/
OPOSING ENDS


CARRICK BEND/
ADJACENT ENDS


SHEET BEND

ALBRIGHT
BLOOD BEND
(STEP ONE)

ALBRIGHT
BLOOD BEND
(STEP 2)

BOWLINE SECURED WITH AN OVERHAND KNOT

CHINESE HANDCUFFS
(STEP ONE)

CHINESE HANDCUFFS (STEP TWO)

CHINESE HANDCUFFS
(STEP THREE)

RAPPEL SEAT

1. WRAP ROPE AROUND WAIST,TIE A DOUBLE OVER-HAND KNOT (LEFT PHOTO)

2. REACH BEHIND YOU AND PULL RUNNING ENDS THROUGH LEGS (RIGHT PHOTO)

NOTE: BE SURE TO TUCK YOUR SHIRT IN AND TIGHTEN YOUR BELT BEFORE TYING HARNESS. LOOSE CLOTHING IS NOT PARTICULARLY FRIENDLY TO RAPPEL OPERATIONS.

3. PUSH RUNNING END OF ROPE UP THROUGH THE WAIST BAND YOU PREVIOUSLY CREATED BY THE ROPE. THEN PUSH THE RUNNING END TOWARD YOUR REAR AND LOOP AROUND TOWARD YOUR FRONT, PASSING BETWEEN YOUR HIP AND THE ANGULAR ROPE (ABOVE). REPEAT THIS PROCESS WITH THE OPPOSITE RUNNING END ON YOUR OPPOSITE SIDE.

4. CINCH DOWN ON BOTH ROPES AND ROCK YOUR BODY SIDE TO SIDE TO DRAW UP SLACK IN THE HARNESS. WHEN YOU STAND UP (KEEPING TENSION ON THE ROPE ENDS), THE HARNESS SHOULD RIDE LOW AND TIGHT. ADJUST YOUR BAWLS, AND SMOOTH OUT ANY BULGING MATERIAL AROUND YOUR WAIST OR GROIN AREA.

5. TIE OFF ENDS WITH A SQUARE KNOT SECURED BY 2 OVERHAND KNOTS. TUCK EXCESS ENDS IN YOUR POCKET.

6. USE ORIGINAL DOUBLE OVERHAND WAIST WRAP TO HOOK YOUR D-RING TO.

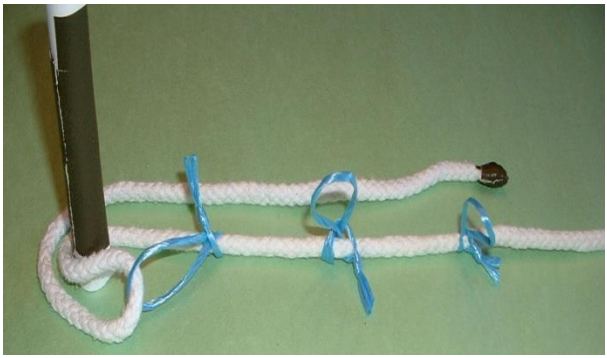
BOWLINE ON A BIGHT

Okay, Guys--Humor Me...

I TOOK THESE PICTURES AT MY MOTHER-IN-LAW'S HOUSE IN SUBURBAN OHIO OVER THANKSGIVING. I HAD NO ROPE, I HAD NO RIVER, I HADN'T EVEN A TREE...BUT BY GOLLY (HITS THE SPITOON), I HAD SOME CHEAP STRING, A CAMERA, AND SOME IMAGINATION.

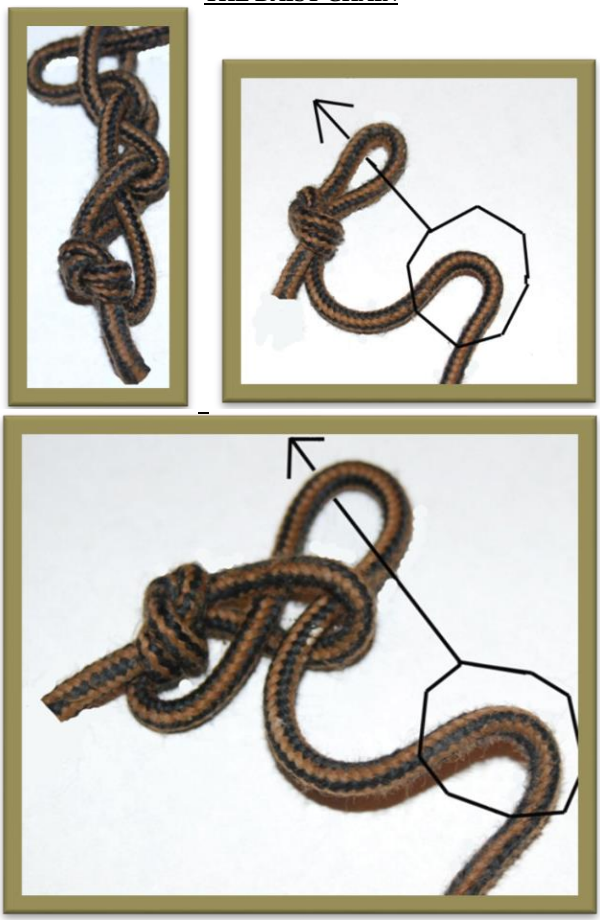
HERE'S YOUR ROPE BRIDGE (CONCEPTUAL):

THE LITTLE PAPER TUBE AT LEFT, WELL, THAT'S A TREE. OR A 'ROCK OR SOMETHING.' AN ANCHOR. THE WHITE SHOELACE IS YOUR 120 LINE, AND THE BLUE (GRAY IF THIS BOOK IS PRINTED IN BLACK & WHITE) RIBBONS? THOSE ARE PRUSSIK CORDS. SOMEWHERE UNDERNEATH THAT 120 LINE, CAREENING PERPENDICULAR, IS A RAGING RIVER OF DEATH.



TAKE THE RUNNING END OF YOUR ROPE, AND LOOP IT THROUGH YOUR FIRST PRUSSIK CORD. PULL TAUT, WRAP AROUND THE TREE, AND LOOP THE RUNNING END OF YOUR ROPE THROUGH THE 2ND PRUSSIK. REPEAT THE PROCESS, AND YOU HAVE EFFECTIVELY TIGHTENED THE ROPE AT SEVERAL TIMES YOUR STRENGTH. IT SHOULD BE TIGHT ENOUGH TO WALK ON OR ZIP ACROSS. NOW TIE OFF YOUR LINE.

THE DAISY CHAIN



The Daisy Chain is a fast and effective space saver for wires, ropes, and cordage. Make a loop at the end of your line to start. Pass a second loop through the first. Repeat. Repeat. Repeat...

Assault Climber's Glossary of Terms:

Abseil -- To rappel
Alpine -- Relating to high mountain altitudes
Alpine Start -- An early start to beat the snow-softening sun
AMS -- Acute Mountain Sickness; essentially, hypoxia--low blood oxygen due to high altitude
Anchor -- Any object that will securely bear a climber's weight
Anchor System -- A safer 'hedged-bet' approach to anchoring, which equalizes weight across multiple anchors
Ascender -- A mechanical used by a climber for self-belay while ascending or descending a fixed vertical rope
Aussie -- The style of rappelling that the Australians developed for the reason of descending without compromising security. By moving down an obstacle headfirst, you can survey; and using only one hand, your other hand is freed up for shooting.
Axe -- An ice-climber's tool that consists of a pointed shaft, and a head with an adze and a pick
Belay -- A safety technique wherein a stationary climber 'spots' a mobile climber to control falls
Static belay keeps the brakes on tight, dynamic belay slows the fall so as not to strain the anchor that will catch the falling climber
Belay Device -- A piece of safety equipment that creates friction that slows a fall (Fig 8, ATC)
Belay Station -- An anchored position from where a belay man provides assistance
Biner -- See carabiner
Bivy -- Bivouac. An impromptu or hasty campsite
Bollard -- A notched section of snow or ice to be used for anchoring
Bolt -- A strong, usually permanent anchor that is screwed into stone or ice
Boulder -- To free climb, without a rope or harness, usually at minimally dangerous heights
Cairn -- A marking made of natural surroundings, usually a pile of wood or rock
Cam -- A spring-loaded device that wedges into a crack or crevice to provide an anchor
Carabiner -- (Biner, D-ring, bent-gate, etc.) A gated mechanical device used for connecting various climbing components and climbers. Some are D-shaped, or oval, or misshapen oval; some have manual or spring-loaded locking gates for extra safety. They are crucial for attaching to anchor points along a climber's route, through which the climber's rope is then threaded. See "Stubai."
Chalk Bag -- Carried on the climber's harness, it provides chalk or talcum for grip; from operator's perspective, chalk lines on a mountain face are huge target indicators, so use sparingly
Cleanup -- The follow climber's responsibility to remove all temporary gear and devices as he ascends.
Clip In -- The act of securing one's self to a rope, anchor, other climber, or belay station

Crampons -- Metal spiked frames that strap to the bottom of a climber's boots for ice and snow

Cross-body Rappel -- A method of rappelling that uses rope friction against meaty portions of the body to control descent, as opposed to mechanical devices

Downclimb -- A supposed safer (albeit more difficult) means of descending

Edging -- The act of using only a the edge of one's boot or climbing shoe to maintain a foothold

Etrier -- A safety / rescue ladder fashioned out of tubular nylon

Falling! -- The warning shout of a falling climber

Fall Line -- The avenue that a climber would likely fall if footing was lost based upon the position of anchors. A fall line is ideally vertical to prevent pendulum effect.

Figure Eight -- (Figure of Eight, Retrace Eight, e.g.) The fundamental tie-in knot for a lead climber

Fixed Station -- A solid anchor or series of anchors capable of supporting multiple bodies

Fluke -- A dynamic snow anchor

Follow Climber -- TEC…The cleanup man with the safer climb

Free Climb -- To climb unassisted by another climber or any mechanical means

HACE -- High-Altitude Cerebral Edema; the most serious form of altitude sickness--brain swelling due to rapidly dying cells and fluid increase

HADE -- High-Altitude Dumb Effect; The rather harmless feeling of giddiness or drunkenness due to initial altitude effects on the body

Hammer -- An ice-climber's tool; a shaft with a handle grip, and a hammer / pick head

HAPE -- High-Altitude Pulmonary Edema; fluid buildup in the lungs--can lead to HACE if descent isn't immediate

Harness -- A protective climbing device fashioned of high-strength nylon webbing and stitching and designed either as a seat, or a chest cavity sling, or for full-body use.

Hex -- (Hexcentric) A hollow metal hexagonal tube section that can be used as a wedge anchor

Hypothermia -- Enemy of survivalists; Loss of body heat due to ambient temps

Jamming -- (jam climbing) An almost religious form of climbing wherein the climbers may not use any mechanical devices to anchor in, instead using body parts (a clenched fist, foot, forearm, etc.)

Lead -- The climber who lays the rope track, essentially, the point man on a climbing team

Loops and Slings -- The methods a climber uses for carrying gear

Microcam -- Miniature camming on with attached braided steel wire for providing stoppage in areas of small relief

Mixed climb -- An ascent that will cover rock, snow, and ice, or a combination of two thereof

Nut -- A wedge used for anchoring into a rock

Overextension -- A common reason for muscle pulls when mountain climbing

Piton -- (PEE-tahn) A solid cut metal anchor that drives into stone and holds almost permanently

Prussik -- 1. A type of self-tensioning knot 2. Cordage of a diameter typically less than 8mm that is used to attach to other ropes for dynamic self-belay or general accessory attachments. Pronounced "PREW-sick." 3. Prussik climb -- a difficult method of ascent

Rappel -- A preferred method of descent, using rope friction against either two carabiners, three carabiners, a biner / figure eight or safety 8 combo, and a backup belay person or device

Stubai -- A climbing equipment company...in the Marines, Stubai is the trade name associated with, and the only authorized, steel locking carabiner to be used to support a human (5500 lb tensile strength)

Top Roping -- The act of belaying a climber from above, from a belay station below. This is done using pulley action from a top anchor that was already reached.

Traversing -- Climbing laterally.

Tubing --Tubular nylon, used for sheathing ropes, loops and gear slings, and general purpose high-strength applications

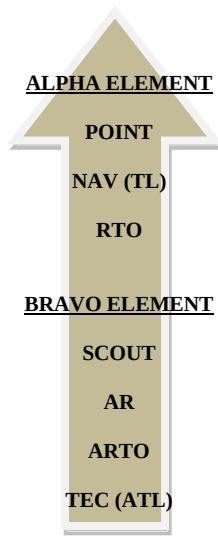
Webbing -- The broad term given to nylon straps of varying thickness & length

1. WEBBING
2. SIT / SEAT HARNESS
3. HEXES
4. NUTS / STOPS / WEDGES
5. MISC TUBULAR NYLON
6. 1/2" AND 5/8" PULLEYS
7. HAMMER (LEFT) & AXE (RIGHT)
8. MICROCAMS
9. BIG CAMS
10. CLIMBER'S HELMET
11. CORDAGE: PRUSSIKS, LOOPS, SLINGS
12. ADJUSTA-TENSION ASCENDERS
13. AESCENDERS
14. PITONS

THE RECONNAISSANCE TEAM

The standard Recon team is comprised of six men, give or take one dependent upon the size of the platoon. Each team in a platoon is structured according to its strengths; for instance: The jump team may consist of 6 Airborne -qualified men, two of which are freefall qualified and one of which is a jumpmaster. This team would be the likely candidate for a square-chute Yuma DFT or a USPA school nomination. That is not to say that the men in said team cannot also be divers, snipers, pathfinders, etc.

During movement (vehicular, patrolling, or otherwise), the team is typically split into two elements, Alpha and Bravo. Alpha element consists of the Point Man, Navigator (Team Leader), and Radio Operator. Bravo consists of the Assistant Team Leader (who will typically pull 'Tail End Charlie' when the team is together, and pull Bravo Point when elements are separated), Automatic Rifleman / SAW Gunner and Assistant Radio Operator. In a seven-man configuration, the spare body will augment the Bravo element as a Slack man (load mule) or as a Scout.



When on patrol, the Team Leader (TL) may be referred to as the Patrol Leader (PL). Same for the ATL. When moving, it is imperative that the Radio Operator is always within the TL's reach, and likewise, that the ARTO is within the ATL's reach.

DUTIES COMMON TO ALL:

--360 degree security (overlapping)
--Stealth, camouflage, concealment
--Situational awareness
--Mission, terrain, and route familiarization
--Relay all hand & arm signals
--Maintain a record of enemy sightings and other pertinent information for debrief
--Sterilization and policing

SUB-UNIT TASKS:

At the objective area, the team will split into two different types of elements. The first element is the R&S element that will actively reconnoiter the target or objective. This is also known as a Leader's Recon. This R&S team is responsible for noting lateral limits on the objective, sketching, photographing, and plotting azimuths and ranges to the target(s) from the team's position. This team usually consists of the Point and the NAV.

The second element is the Security team, consisting of everyone else. This team provides rear and flank security for the R&S team. Stay awake and alert. When the R&S team detaches to move to the objective, the leader will, using the acronym ***GOTWA*** for reference, state where he is Going, Other members he is taking with him, estimated Time he'll be back, What to do if they do not return, and Actions on enemy contact.

Additionally, sub-unit teams are assigned for special team requirements:

1. THE AID & LITTER TEAM 2-3 team members for carrying wounded to extract

2. THE POW / SEARCH TEAM 2-3 member team for enemy search and escort...use 5 S's and a T. Search dead also. Watch for booby traps.

Individuals on the team have unique skill set responsibilities as well. Photographer, Sketcher, Scout Swimmer, Lead Climber...just to name a few. Special skills mean special gear, so pack accordingly. Cater the skill sets to the mission, and designate alternates within the team as well (alternate sketcher, photographer, e.g.).

INDIVIDUAL RESPONSIBILITIES ON PATROL:

POINT --10 O'clock to 2 O'clock security

--Stay on azimuth
--Warn team members of upcoming dangers
--Maintain steady rate of speed
--Recommend En Route Rally Points
--First in order of march

TL --Responsible for everything team does or fails to do
--8 O'clock to 12 O'clock security
--Alpha element leader
--R&S Team Leader
--Approve En route Rally Points
--Navigator
--Pace man
--Memorize azimuths and legs (distances)
--Second in order of march

RTO --12 O'clock to 4 O'clock security
--Maintain HF or SATCOM with the rear
--Sign out, op check, waterproof, and safeguard all comm equipment
--Carry AKAC, Brevity, and essential comm data in AKAC bag
--Maintain FEAK and misc. radio repair items
--Keep w/i close proximity of TL at all times unless otherwise ordered
--BPT call for fire, medevac, or casevac at any time
--Make req'd comm checks with higher according to scheduled times
--Memorize sensitive comm info, freqs, codes, callsigns, target info
--Third in order of march

AR --6 O'clock to 10 O'clock security
--Keep auto weapon clean and ready for chance contact w/enemy
--Carry ammo complement for a min of 3 sustained 15-min gunfights
--Alternate pace man
--Bravo element point man
--Fourth in order of march

ARTO --6 O'clock to 2 O'clock security
--Assist RTO in duties and distribution of weight, i.e. batteries
--Memorize sensitive comm information, freqs, codes, callsigns, tgts
--Carry AKAC/Brevity/essential data around neck in AKAC bag
--Maintain FEAK and misc. radio repair items
--Assume primary RTO duties in his absence
--Fifth in order of march

ATL --Second in command
--TEC, 4 O'clock to 8 O'clock security
--BPT assume TL responsibilities
--Bravo element leader
--Security team leader
--Head counts
--Personnel and equipment accountability

--Sterilization of team-occupied areas, target indicator removal, trail sweeper
--"Pusher." Tightens the team up so the TL doesn't have to
--Assist TL at all times, especially during mission prep
--Last in order of march

The Reconnaissance Team Leader

The Recon Team Leader is, as previously stated, responsible for everything his team does or fails to do. It is his responsibility in to ensure the mental, medical, physical, and spiritual well-being of his team. Train, train, train. There is no substitute for field time.

(1) Train your ass off. Keep realism in training. Live fire ranges are not the endstate of training, because nobody shoots back. Leave the MILES gear to the Army. SESAMS / Simunition and paintball all day, twice on Sunday. Wear Nomex bags. Thin material on troops' bodies ensures realistic shooting and moving tactics in the natural avoidance of painful projectiles. Use CS. Whatever burns, stings, or sucks will ensure that your training is pertinent. Oh yeah, and here's a novel concept--more night training. For crying out loud, night operations in badguyville is our specialty. "The more you sweat in peace, the less you bleed in war."--David Hackworth, USA

(2) Conversely, garrison time should be dedicated to weapons and equipment maintenance; nutrition, personal hygiene and rest; a regular PT regime; education and paper training; and personal time for family, religious devotions, and relaxation.

(3) You are a Recon Team Leader, not a pimp, Jake. Don't give up members of your team for bull crap duties. Maintain team integrity through both the shit and the sugar, down to the most miniscule of tasks. Before you know it, you'll be functioning as one body, or a literal *Corps*.

(4) Maintain a team binder with SOPs that fall within the platoon's mission. Write After-Action Reports for all training evolutions that your team or platoon participates in. Hold open or guided discussions with your team on how to improve upon SOP's. Marines thrive on adaptation and improvement, so foster out-of-the-box, better mousetrap thinking. Remember, every member of your team has something important to offer. Also to keep in your binder: Training request sheets for ranges and S-3 matters; supply request sheets for gear, boats, vehicles, ammo, whatever; school noms, counseling worksheets, and team's interpersonal data; finally, a contact list with phone numbers and email addresses of everybody and anybody you may need to contact in the course of your duties as a TL.

(5) SHARE YOUR KNOWLEDGE. I know that's tough for the uber-competitive Alpha Male. You should be training every swinging dick in your charge to take your place in the unexpected event that you punch out of this world. Using your binder as a model, help your team members to establish their own individual

SOP's to use when they themselves become Team Leaders. Take personal interest in their PME, civilian education, and their individual goals and accomplishments.

(6) Finally, love your guys. No, you won't find that in a text book. Kill them physically (pain breeds loyalty), encourage them morally, and drop kick the hell out of them when they screw up, but love them unconditionally, as a father would his child. You are then BUILDING a team, not just leading a team that was chosen for you. You will earn the respect of your team, and will contribute to the betterment of the reconnaissance community's future by improving human assets.

PATROLLING AND THE BUSH

"Don't run to the bushes and try to hide, 'cause that's where he lives and you'll surely die"
--"Bushmaster" Running Cadence

The Reconnaissance Man is a literal Bushmaster. The field, the forest, the swamp, the littoral coast, and the jungle are his friend. It is human nature to avoid mosquitoes, ticks, leeches, spiders, snakes, gators, jellyfish, sharks, wild boars and bears and wolves and dangerous animals of all sorts, thorns and brambles, impenetrable dark forests. You have chosen this lifestyle. You embrace it. This is your bread and butter. The title you hold is rooted deeply in the tradition of expert field craft and clandestine movement through the harshest of conditions...and NO ONE DOES THIS BETTER.

Patrolling should probably take up a major portion of this book, however, there are a million ways to skin this cat, and I don't want to step on the toes of individual unit SOP's. This chapter includes some guidelines, diagrams, and photos. The detailed SOG's come directly out of my old SOP binder--some of which I wrote, most of which were passed down.

This really is a great subject. Develop some of your own SOP's. Remember, outlandish ideas are not necessarily bad ideas; it's all about audacity. What are you willing to try? Be adaptive & overcome new obstacles as they emerge. Also remember to capitalize on every bit of gray matter in your team for formulating ideas. 6 heads are better than one, regardless of rank.

Lastly, there is no substitute for time in the bush! Study up on Medal of Honor recipient Alvin C. York, who followed in the ways of Daniel Boone in the backwoods of Tennessee and Kentucky. Knowledge comes from reading and listening, wisdom from experience.

PATROL SOGS

A SOG does not become an SOP until it is known by all and adhered to.

Learn them, rehearse them. Remember, Charlie's not stupid either. Charlie conducts detailed mission planning and executes all types of missions--just like you.

PATROL PREP

*See Chapter 9, "Operational Planning & Mission Prep," for more detailed info.

Upon receipt of the mission, the team is in isolation. Contact with anyone who is not involved with the execution or planning of the mission is prohibited. Upon receipt of the mission, the TL will issue a verbal Warning Order to the team and post a written Warning Order as soon as possible. The team will prep for the mission in accordance with said Warning Order. The TL will issue a Patrol Order to the team using the ARS/BRC patrol order format. At a minimum, the team will submit (2) patrol overlays to the Platoon Commander; they will be created in black map pen on the platoon overlay sheet. A team Kill Sheet will be submitted to the Platoon Sergeant. All logistical requests will be coordinated through the Platoon Sergeant. Whenever possible, the TL will make accomodations for the Platoon Sergeant or the Platoon Commander to accompany him when conducting coordination for the patrol. The RTO will submit Comm request to the Platoon Comm Chief. The ATL will conduct a thorough initial inspection of all individual gear, weapons, pyro, and special equipment prior to packing for patrol. It will be laid out on a poncho for inspection. He will notify the Platoon Sergeant before beginning the inspection. Prior to packing, all comm gear will be op-checked and a successful comm check will be established with the ROC and with adjacent teams operating in the AO. The ATL is responsible for collecting all notes and materials used during mission prep, ensuring turnover to Platoon Sergeant or S-2 rep for proper disposal. The ATL is also responsible for overall sterilization of the area throughout the planning process. Prior to final inspection, the team will conduct a test fire of all weapons taken on patrol. The Platoon Sergeant will designate the test fire and rehearsal area. The TL will notify the Platoon Commander before conducting the final inspection. At the final inspection, the team will be cammied up and ready to step. The team will brief back the Platoon Commander and the Platoon Sergeant using a standardized brief back SOP. This will be done prior to final inspection.

PATROL ORDER

*See Chapter 9, "Operational Planning & Mission Prep"

BASIC RESPONSIBILITIES / ORDER OF MARCH

1. POINT – Assistant Navigator, responsible for observation logs, primary sketch and photo man. Accompanies TL on all leader's recons

2. TL – In charge of the planning, successful operation, and overall conduct of patrol, Navigator, conducts all mission briefs. Alpha Element leader.

3. RTO—Responsible for all commo gear and CEOI. Maintains comm logs and oversees all incoming and outgoing transmissions

4. AR – Load Hacker. Primary responsibility is maintaining functionality of machine gun, and laying down suppressive or covering fire in accordance with team SOP's.

5. ARTO – Assists the RTO. Slack man--Carries other mission essential gear for team. Instantly assumes RTO position in RTO's absence.

6. ATL – 2nd in Command of the patrol. Ensures timeline adherence. Assists TL in planning and throughout patrol. TEC / rear security. Bravo Element leader. Collects up data for S2 debrief, i.e. notes, soil composition samples, etc.

GENERAL CONDUCT OF RECON PATROLS

1. Collect, confirm, or deny information ISO intelligence requirements for a parent unit's mission.

2. Reconnaissance and / or surveillance of an area (small point) or a zone (may consist of several areas)

3. Maximize stealth and use of concealment at all times. Remain undetected. Fire only in defense or as required by mission (recon by fire, for instance)

DEPARTURE / RE-ENTRY OF FRIENDLY LINES

Definition: To come into or leave from an area held, controlled and defended by forces sympathetic to your mission.

"They've got us surrounded. Good. Now we can fire in any direction... Those bastards won't get away this time!"

--Gen. Lewis B. "Chesty" Puller, in Korea, having been surrounded nearly 30 to 1 by ten Chinese divisions

Reason for use:

Inserting or extracting teams
Pass on pertinent information about enemy or terrain
Re-supply
Protection from enemy forces
Determined by mission
Designated by Higher
Designated by PL/TL

Patrol Leader Will:
Identify the patrol
State mission in general terms
Give time of departure and return
State boundaries of recon area of operations

Patrol Leader will ask for:
Description of local terrain
Known suspected enemy locations and activity
Positions of forward units LP's and OP's
Barrier plan
Friendly fire support plan
Frequencies and call sign
Forward units challenge and password
Running password
Reaction force
Litter team
Guides location
Navigational aids and signals
Location of IRP
Near and for recognition signals
Emergency signals (final protective fire, FPF)

Selection:

Point of exit
PL/TL determines point of exit and time of exit
Coordinate through FUC
Guide and assistant guide from forward unit to lead team out to release point.
Release point should be out of small arms range (600m) or at least one terrain feature from friendly lines.
Guide team heads back to friendly lines
Recon team conducts SLLS and starts patrol

NOTES ON MOVEMENT: TRAVELING AT NIGHT SACRIFICES BOTH SPEED OF MOVEMENT AND NOISE DISCIPLINE FOR DETECTION BY VISUAL OBSERVATION. NIGHT MOVEMENT UNDER HIGH ILLUM, OR MOVEMENT DURING PERIODS OF LIMITED VISIBILITY, MAXIMIZE ADVANTAGES OF SPEED AND STEALTH. REMEMBER TO AVOID CONTRAST OF BACKGROUND, AND AVOID SILHOUETTING BY KEEPING ON THE MILITARY CREST.

RE-ENTRY OF FRIENDLY LINES:

PL contacts FUC for re-entry via radio. PL coordinates guides, guide link-up point, time of link-up and alternate link-up point. Guide needs at least one assistant and must know the area. The link-up point must be out of small arms range (600m) or one terrain feature from friendly lines. PL determines a Re-entry Rally Point (RRP) a terrain feature at least 1200 meters from friendly lines. The Patrol moves to RRP and sets up 360 security. PL gives a 5-point contingency plan to his team. PL and 2 other team members do a leaders recon of the link-up point. Meet guide and authenticate using challenge and password. One member of recon team stays with guide. PL and remaining team member return to RRP and then move team to the link-up point. PL contacts FUC via radio and relays the size of his patrol coming in.
Guide team leads all through friendly lines (NOTE: Guide team stays in front). APL counts in team member, the team members state their last name as they pass the APL.

INSERT / EXTRACT

The platoon will provide an insert/extract officer to accompany team on insert, responsible for assisting TL with coordination of the insert platform, navigation, coordination of fire support, assistance in the event of an emergency, ensuring the insert platform is providing the necessary support to the team, communication with the team on the ground, aiding in the emergency extract of the team and coordination of the sparrow hawk/bald eagle.

AIRCRAFT INSERT / EXTRACT SOG

The type of aircraft for the insert/extract will be identified to team as soon as possible. Rehearsals with the aircraft will be conducted whenever possible. The type of escort gun ships will be identified to team. The type of emergency extract aircraft will be identified to team. Fire support for the insert will be coordinated. The insert aircraft will be rigged for SPIE in case of an emergency extract. The insert/extract officer will be a HRST master or one will accompany him. The TL will give a Pilot Brief to include a route plan to the pilots. The primary and alternate zones will be coordinated with the S-3 and pilots. A deception plan to include dummy drops will be coordinated with the pilots. The TL will do a face to

face with the Platoon Commander of the react teams for Sparrow Hawk. A comm check with the insert aircraft will be conducted prior to lift off. The No-Comm Signals Plan will be coordinated with the pilots prior to take off. Primary for immediate extract in the zone will be voice. Alternate is a red star cluster. This is for both day and night. In addition, the team will mark its position with an air panel during the day and IR buzz saw at night. Whenever possible the TL will coordinate with the pilots of the extract aircraft to ensure they know the extract zone and no-comm signals. If the TL cannot coordinate with the pilots of the extract aircraft, it is the responsibility of the insert/extract officer to coordinate and insure all comm and signal plans are understood as well as the correct extract zone and times. **Prior to insert the aircraft will make one dummy drop. Once the Team has been inserted the aircraft will make one more dummy drop then remain on station 3 to 5 miles from the insert zone until the team has called and reported insert complete. If after 10 minutes there is no comm the aircraft will conduct a fly-over of the zone. If the team needs an extract they will mark with one IR buzz saw.

GROUND INSERT SOG

If the team inserts by vehicle, a primary and alternate vehicle will be identified to the team. The TL will coordinate a route with S-3 for the insert vehicles to follow. The lead vehicle will maintain comm with the ROC. Each vehicle in the convoy will have comm with each other. The route will have designated check points that will be called in to the ROC en route. A vehicle load and bump plan will be established and rehearsed. The bump plan will cover in detail what action will be taken if a vehicle goes down. The team will rehearse actions in the event of a vehicular ambush. A fire support plan will be coordinated with the S-3. A recovery plan will be coordinated with Motor T in the event all vehicles go down. A reaction force will be coordinated with the Sparrow Hawk Platoon. Escort aircraft will be coordinated when possible. The team will rehearse actions at the insert point, actions on contact during insert and emergency extract with vehicles. TL's will coordinate with vehicle drivers to ensure they know the team "no comm" signal plan and link up plan. If the team inserts by foot through friendly lines, the TL, Platoon Commander and Communicator will coordinate with the forward unit's CO. At a minimum you will coordinate the location of the IRP, location of the POD and POR, departure/re-entry procedures, Comm Plan, emergency signals, and challenge & password. The forward unit should provide a reaction force and a guide through their barrier plan.

SMALL BOAT INSERT SOG

We will avoid (as much as possible) teams inserting themselves by small boat and risking compromise by trying to cache a boat. Whenever possible the platoon will use supporting units to insert the teams by small boat (SBU, BLT Boat Company, RAC Platoon). When unable to use outside support, we will use another team as coxswains. Only as a last resort will a team insert themselves and cache a boat at the BLS. The Team leader will coordinate a Navigation plan with the ships Quartermaster. A fire support plan will be coordinated with the ships fire support coordinator. Aircraft will be coordinated for fire support through the MEU.

Emergency recovery prior to the landing will be coordinated through the MEU. Emergency recovery at the BLS and in the AO will be coordinated through the MEU. A no- comm signal plan will be coordinated with the insert craft. The insert craft will have the means necessary to communicate with the team once they reach the BLS. The boat will be rigged as per the Team SOP. It will have, at a minimum: 6 paddles, 2 pumps, broaching lines, towing bridle, tool kit and a compass. All boat team members will have fins and UDT vest. The team will coordinate with the ship a signal plan for link up in the event the team has navigation problems and cannot locate the ship. Once inserted, the insert craft will remain on station until notified by the team that they are all secure.

WEAPONS & EQUIPMENT

All equipment will be silenced (rigger's tape on wpn, wristwatch silenced), secured (waterproofing and dummy-cord), and subdued. The type of deuce gear and ruck worn by individual team mbrs is up to the TL. The color and camouflage pattern will be appropriate according to environment (OD, woodland, digital, desert, chocolate chip, tan, earth tones, urban). No black in the bush. At a minimum, 782 gear will contain (2) one-quart canteens with NBC caps attached. Also required are provisions for (13) magazines or (2) SAW drums, and a buttpack. Keep AKAC, CEOI, sensitive info in a smart pack with location common to all. At a minimum, each team mbr will carry the following equipment on his person during all patrols, training or actual:

13 magazines or 4 SAW drums
Red/green lens flashlight w/batts
Small air panel
Laminated map of AO to include E&R corridor
Map pens/pencil
Waterproof watch
Iodine tablets
2 locking carabiners
Signal mirror
Fixed blade knife
Individual weapon
Survival MRE
IV kit
Ranger roll
Lensatic compass
Strobe w/ IR filter
Cammie paint
Laminated NATO rept formats
Waterproof notebook
Rifle cleaning gear
Sling rope
Patrol gloves
UDT vest w/CO2 cartriges
5 IR chem lights
Survival kit
Bleeder kit
First aid kit

***Survival kit** will be waterproofed, and will include, at a minimum: 2 separate/different sources of multiple-fire starts (i.e., magnesium block, parrafin matches, zippo); additional water purification source (iodine tabs, Catadyn pump); small pocket knife; plastic bag; kindling and tinder; fish hooks & line; and 10' of 550. Recommend the pocket version of the SAS Survival Handbook. ***Bleeder kit** will consist of: 2 pressure bandages, 1 cravat, white tape, and curlex. ***IV kit** will consist of: IV, drip tube, syringe, and bag of NaCl solution or lactate ringer's solution (preferred). Individuals will be responsible for ensuring life-support equipment servicability and a bag with proper expiration date. Strips of dog-eared med tape or rigger's tape will be attached along length of the bag. ***First aid kit**

will contain, at a minimum: 2 rolls of sterile gauze, assorted size (larger) adhesive bandages, petrolatum gauze, aspirin (silenced with wadding), tolnaftate antifungal solution (eyedrop-sized bottle), 4" square moleskin, and DEET insect repellant. All items available from BAS. ***Rifle cleaning gear** will contain a full bottle of CLP prior to stepping for any mission. At a minimum, the following equipment will be carried by each team during all patrols, training or actual:

2 pairs of 7x50 binos
Photo log
Patrol log
2 laser rangefinders
2 VHF radios, 2 HF or SATCOM radios
GPS /PLGR
4 night vision devices
Comm log
Sketch kit
Camera
FEAK with pri/alt freqs pre-cut
Spotter scope

FIELD UNIFORM SOG

All team members will be uniform in their outward appearance. Standard issue camouflage utilities will be the uniform worn by all personnel in the field unless mission dictates otherwise. Uniforms may be altered to suit the wearer in ways that reflect good taste and are not in violation of unit's field uniform SOP. Alteration ideas: pockets sewn on sleeves, lower blouse pockets removed, reinforcing knees and seat of trousers, reinforcing elbows of blouse, netting replacement atop bush cover, trimmed and stitched brim of bush cover. The utility uniform will be serviceable. No holes or tears in the uniform. Extremely faded utilities that no longer provide adequate camouflage will not be worn. No rank insignia to be worn in the field. No rings or jewelry, regardless of importance or meaning, will be worn while conducting field training. No type of identifying information will be carried in the field except military ID and dog tags. Blousing of boots should only be required as needed (leeches in swamps, infestation of crawling insects). Bush cover and patrolling gloves will be dummy-corded. Footgear other than military boots must be authorized by the Platoon Sergeant. Bush cover and P- cap are the only two types of authorized headgear in the field. P-caps will only be worn during cold weather conditions. Spray-painting of gear is authorized in earth-tone or urban colors dependent upon environment. Only colors authorized in the field are OD, pine green, brown, and tan for woodland operations; tan, white, light brown, and green (sparingly, dependent upon AO) for desert operations; and shades of gray for urban operations. Black watch caps or patrol gloves are not authorized outside of the urban environment. Protective eyewear will be subdued or clear, and non-reflective. Belts will be either OD rigger's belt, or authorized MCMAP belt for that individual. Belt must be capable of supporting the weight of the wearer while on rappel. No identifying logos of any sort will be worn on any clothing while in the field.

EQUIPMENT SOG ADDENDUM

When establishing your SOP's, take photos or drawings of your gear, laid out, with neat lines labeling the locations of various items and the contents of each pocket or fold. For equipment common to all, refer to the list in Chapter 9 of this book, "Operational Planning & Mission Prep." Equipment CTA (Common to All)

includes absolutely everything that each person is carrying that his brother is also carrying. Each item should be carried in the same place on each patrol member. Specialized equipment includes anything that is NOT carried by every member of the patrol, and may include the most menial of items (Jake's Copenhagen, Joe's eyeglasses). You should have separate sets of deuce gear for greenside, blackside, seaside, and desert operations, so lay them out individually and photo / sketch / label accordingly. All mission essential gear should be carried in a separate pack inside your ruck (your "Me" bag). Weapons are distributed typically so that officers and staff NCO's have pistols, the AR on the team carries an M-249 SAW, the TL carries an M4 with his 40mm attachment, as does the PT. All others carry M4's. Ammo, grenades, smokes, illum, and situation-dependent special weapons must also be carried by the team, but allocations will vary completely dependent upon the mission. Same goes for gear required by special mission sub-teams or elements. Likewise, your vehicles could have .240's, .50 cals or MK-19's mounted on them. Distribute ammo accordingly. Make sure your SOP's have a minimum gear & equipment requirement for each type of environment that you could possibly operate in (desert, arctic, amphib, forest/jungle, urban).

The following illustrations give uniform & equipment SOP examples. Keep your photos neat and orderly, and spot check your men. Add pockets where you need them, keep uniforms serviceable, and have at least two full uniforms Permetherin-treated (Buzz-Off, e.g.) for bugs. Every strap, piece of metal, or ruck squeak silenced before movement--most combat patrol compromises are sound related, so this cannot be stressed enough. Dummy cord EVERYTHING. Uniform illustration example is for a right-handed individual.

1. Boonie / bush cover. Trim back the brim to roughly 1.5 inches. Fray and stitch the edges to keep from unraveling. Pin the front of the cover up to remove shadow over face. Cut out the top and replace with netting to minimize overheating and to reduce thermal image. Loop daisy-chained 550 cord around stitched webbing on cover. Place indigenous stiff vegetation randomly in its proper position (i.e., plants looking natural) in and around your boonie.

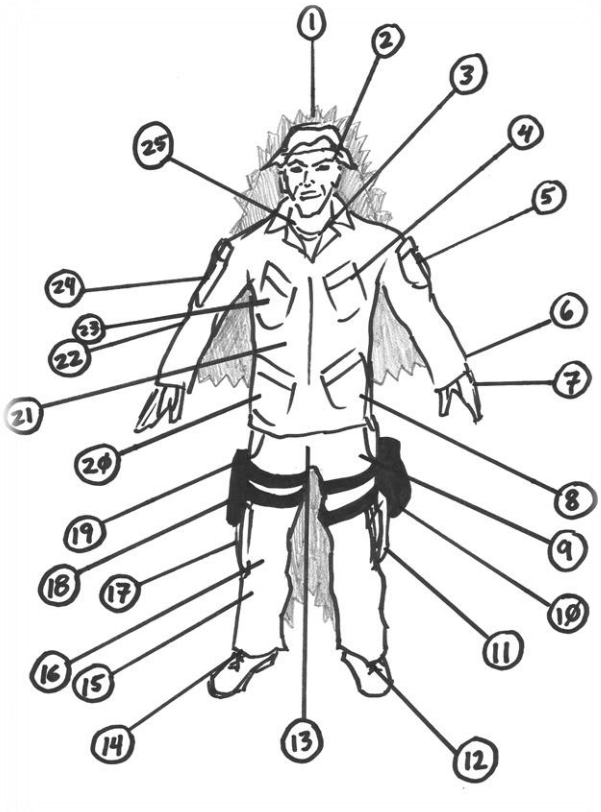
2. Apply camouflage to the face and neck, close to the eyes and inside of ears. Blend into hairline. Use loam, earthy and sandy colors, darker on the ridges and lobes of your face, light in the crevasses, in an unrecognizable pattern (splotches work well). Start with a green base, paint a brown branch/limb combo across your face, use a buddy or a mirror, don't use black paint, and be quick about it. Reapply camo often, and cover all exposed skin. Believe it or not, don't be afraid to use a touch of white paint on your personal or equipment camouflage.

*See the shaded areas of the drawing? These are the natural V's created by the human form. Break these up with yeti net stitched between the vees, or with a sniper guillie suit (which would also serve to break up the natural outline of the body (that I have not shaded).

3. Green skivvy shirt, no markings
4. Left breast pocket: Compass, whistle (stuffed with an end-knotted 3" strip of 550 cord and taped for quick release [dogear]), mechanical pencils, grease

pencil, green WP notebook

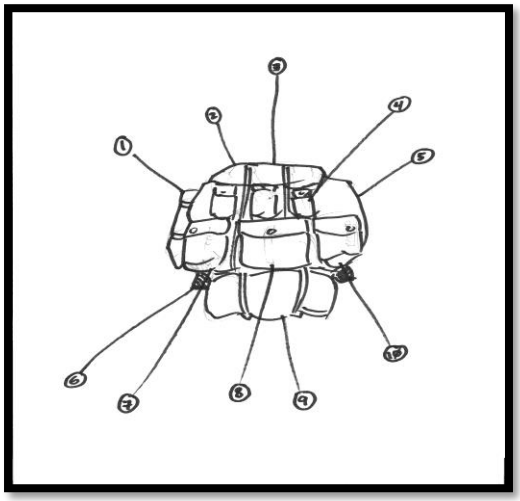
5. Left shoulder pocket: Copenhagen / Levi Garrett / Black Maria...keeps you alert and keeps a scratchy throat from coughing in a pinch (increases production of saliva). Above pocket, with a black permanent marker, write first initial of last name, last 4 of social, and blood type (X1234 O-POS).
6. Sleeves unbuttoned during movement for breathability, buttoned during long static periods to further prevent ticks and other unwanted insects.
7. Nomex aircrew gloves or padded tanker gloves; you're better off weaseling them through the supply system somehow, as their $60 Blackhawk / HellStorm counterparts (et al) won't last much longer. If you chop the trigger finger or regularly roll your gloves up onto your hands, don't forget to paint your finger and wrists /forearms. Wear a silenced and subdued wristwatch.
8. Lower left shirt pocket: body survival kit
9. Left hip pocket: Deet non-scent bug dope, camo compact with sewing kit taped in top of lid.
10. Gas mask & holder on weak side. Under this, carry fixed blade on an extender (easily made with cargo strap; supply a simple pattern to the rigger shop.
11. Left trouser cargo pocket: WP Matty's & Unit SOP
12. Dogtag laced into left boot. First initial of last name, last 4 of social, blood type on left heel. "X1234 O-POS." Clean, dry socks underneath.
13. Clean silkies, huge testicles
14. Trousers open during movement to keep nuts and legs aired-out. Keep boot bands on boots, and blouse trousers during long static periods to keep the critters out. Use 550 cord for boot laces and wrap an additional 10' around each boot.
15. Serviceable utility trousers, with belt. Recommend durable tactical belt by London Bridge. *Note: these belts do not support your body weight when loaded with deuce gear and a full ruck. I've personally watched somebody fall 30' and bust their hump. Gerber or Leatherman multi-tool on belt.
16. Pad your knees, elbows, and boot soles and toes as required for stealth movement.
17. Right Cargo pocket: Soft map case with laminated map, E&E map chip, map pens, alcohol swabs, protractor with 550 gut string tied at center.
18. MEUSOC .45 & Surefire / Safariland tactical drop holster, or M-9 / issued OD cloth holster
19. Right hip pocket: Pocket folder clipped, pen light, 2 spare batteries (WP / ZipLock)
20. Lower right shirt pocket: Mini binos, small IR laser range finder (Meyers / commercial)
21. Serviceable utility shirt
22. Stitch a hidden pocket inside your sleeve, write important data on cloth and affix inside
23. Right breast pocket: Signal mirror, pen flare, flares
24. Right shoulder pocket: Sealed jerky or pemmican / trail food; strobe light with IR hood and serviceable WP battery



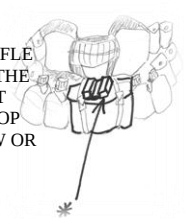
25. Silenced (taped) dog tags, also AKAC bag for CEOI & sensitive info, also a laminated quick reference map chip and alcohol pen

GET THE PICTURE? OTHER EXAMPLES FOR DETAILED SOP'S ARE BELOW. WHETHER YOUR TEAM USES A STANDARD MOUNTAIN RUCK AND H- OR Y-HARNESS, LBV, MOLLE, CHEST RIG, RANGER BUTT PACK OR ALICE BUTT PACK, EAGLE GEAR OR MEAN GENE

CUSTOM RIG, TAKE PHOTOS OR DRAWINGS, LABEL THEM, AND IF YOU USE NUMBERS, YOU CAN KEEP THE PICTURES AND CHANGE THE MATERIAL SHEETS ACCORDINGLY (OR USE PLASTIC DOCUMENT SHEETS, AND WRITE THE MATERIAL INFO WITH AN ALCOHOL PEN...THIS IS ALSO A GREAT IDEA FOR YOUR PATROL ORDER...KEEP A TEMPLATE AND SIMPLY WRITE ON THE PLASTIC. YOUR SOP BINDER SHOULD BE SCALABLE; THAT IS, ALLOW ROOM FOR CHANGES.



TIP: SEE THE ISOMAT/RIGGER'S TAPE SNIPER RIFLE PAD (RIGHT)? TRY STICKING A CAMELBAK ON THE INSIDE OF THE BUTTPACK--ONE WITH A DECENT BITE VALVE...WHEN YOU SET UP YOUR RIFLE, POP THE COILED TUBE OUT OF THE PACK AND BLOW OR BITE TO ADD / DROP ELEVATION



WATERPROOFING

Won't spend much time here. Please, waterproof your sensitive items. Also waterproof your BA- and BB- radio batteries, or the eventual fumes will

(figuratively) kill you. And you'll be SOL on batts. Ammo cans are good rigid containers. If they're old, test them first. GI water and gas cans are great for keeping liquid OUT as well as in. Pelican cases are great in every way, but pricy. DUI bags are great. GI Willie Pete Bags and cascade bags, not so much...both are better as secondary liners than primary waterproofing shields. ZipLocks, tape, and trash bags...where are you, BOOT CAMP? Invest the money, cheapskate. Save the Ziplocks & tape for small items, but leave the trash bags in trash cans. They're loud, large, and outdated for WP purposes (unless nothing else is available). For electrical connection ends and exposed wire (not hooked up), use bullsnot or 100% (clear) silicone. Otherwise, electrical tape and caps all the way. CLP, Silicon sealant, Dux-Seal, Sex Wax, Vaseline, synthetic grease, and even personal lubricants are all possible forms of waterproofing. Paraffin matches, unlubed condom muzzle socks (taped), and even Tupperware-type containers can work. The sky's the limit, MacGyver.

TEAM LEADERS CHECKLIST

Receive mission
Issue Warning order
Make Terrain Model
Draw weapons / optics
Draw MRE's
Draw Comm gear
Test all optics and Comm gear
Calibrate Compasses and check pace count
Coordinate insert / extract with S-3
Coordinate route with S-3
Coordinate fire support with fire support coordinator
Coordinate emergency extract / Sparrow hawk
Get E&R Plan from S-2
Issue Order
Rehearsals (Contact, Actions at Obj. at a minimum)
Brief back
Test fire weapons
Final inspection

RALLY POINTS

In the event that a team is separated, these pre-established locations provide for reassembly and reorganization. Several types--the most common are the IRP, or initial rally point; RRP, or reentry rally point; ERP, or enroute rally point (generally established during movement); and ORP, objective rally point. RP's should be easily recognizable, offer cover & concealment, be away from natural lines of drift (culverts, paths, edge of field, i.e. easy paths), and be defendable for a short period of time.

LP / OP's

(Listening / Observation Posts)--These are fixed positions from which surveillance is maintained over a particular area or sector. Must provide optimum observation (or listening ability) over the area of interest, should provide for clandestine operations; simultaneously, good comm must be established with higher

CHECKPOINTS

Cut & dry. Along with pre-planned targets, checkpoints are among your most important route planningg considerations. Much like waypoints to an aerial or nautical navigator, these key control measures are the points where your route azimuth and distance changes.

CATCHPOINTS

Catchpoint is an Army term for what Marines know as a 'stop measure.' Whatever you want to call it, it is a control measure that mentally keeps one from going too far beyond a checkpoint. "If you reach the river, you've gone too far." The river, in this case, is the catchpoint.

FPP / TFPP

Final Preparation Position, used to prepare for RSTA operations on the objective. Preparations may include final instructions/changes, comm checks, leader's recon, gear checks, special kit or equipment (ME bag) breakouts, etc. Must be easily identifiable, defensible for a short period of time, and provide good cover & concealment. "T" denotes a tentative position.

FFP / TFFP

Final Firing Position, used by sniper teams as the location at which final observation and target data is obtained, dopes are recorded for range card targeting, and kill shots are made. "T" denotes a tentative position.

5-POINT CONTINGENCY PLAN

GOTWA -- Typically used on a leader's recon. G--Where I'm going. O--Others I'm taking with me. T--Estimated time of return. W--What to do if I don't return. A--Actions on enemy contact (both elements).

VANTAGE POINT

This is a form of OP used in conjunction with other OP's to provide a bigger picture to higher through the overlapping of visual (lateral or vertical) limits during surveillance operations

RENDEZVOUS POINT

This is a pre-planned point that has been chosen for elements of your team to link up at in the event of contact in the objective area. It is located on the far side of the objective, distant from the FFP.

HALTS

Short--water, map check, designate an ERP (sometimes). Long--extensive map check, gear setup, shift to alternate plan or route, long comm traffic (to report activity, etc.). Extended--this is essentially a long halt that has become a little too long, and only out of necessity. Good time to dig in and assume a more defensive posture (emplace claymores). Listening halt--purely to conduct SLLS, either reactive (someone thought they heard something) or preventive--simply to orient the team's senses to their respective environment. Remember, the stationary element has the advantage.

DANGER AREAS

Classified as linear, small open, large open, and series; principles common to all include establishing near and far side rendezvous points, dividing into elements to secure the near side and flanks of a danger area, and conducting a recon and securing the far side. See IA drill section for common techniques.

PATROL BASE

Used for security & work. Choose terrain of little tactical value to the enemy. Difficult terrain with good cover & concealment is optimal. Should be defendable for a short period of time (and have multiple egress routes). Well off the beaten path (deep bush). Reconnoiter the tentative site (in place, OM, or via leader's recon) before occupying. Hook or dogleg into the site. Use during low light. Conceal your approach. As with any stop, emplace claymores in an overlapping 360 sheaf. Make plans to defend your site. Conduct rehearsals, adjustments, etc., at the patrol base. Do not occupy beyond 24 hours. If slightest possibility of compromise, pack up & haul balls.

HARBOR SITE

Same as patrol base, except you sleep, not work. Overlapping 360 security is still required. Can be turned into a Patrol Base, but not vice versa.

FIRM BASE

Semi-permanent position that is, for all intensive purposes, an extended stay harbor site & patrol base combined into one. Located inside an AO where hard defensive positions are established.

COMM SOG

The type of radios carried by individual teams will be based on the distance required to communicate and the frequency required to communicate with adjacent, supported and supporting units. This will always used as a determining factor when selecting a comm site during patrol. Teams will always operate on a covered net. If a radio loses its fill while on patrol and the Team does not have the means to refill, the team will use the platoon brevity or shackle sheets to communicate. At no time will Teams pass information over the net in plain voice. Prior to insert, Teams will conduct a successful radio check with the ROC and adjacent Teams. The insert/extract platforms will have the ability to communicate with the Team. If that is not possible the Insert/Extract Officer will carry a compatible radio. Once on the ground, Teams will send "insert complete" as soon as possible. Team Comm windows will be every four hours. The window for each team will be issued in the Comm plan. The Comm windows are the minimum reporting times required. Teams should report as often as is safely possible. At each Comm window the team will notify the ROC of past, present and future actions. EEI's and information critical to the supported unit will be sent as soon as possible. The ROC will continuously monitor all nets. Teams will be notified by the ROC when they must continuously monitor their individual net. A Comm log will be kept by the team communicator that will include the following: all message traffic sent or received, time of comm shots, and type antennas used. NO COMM SOP---No comm for 24 hours will require the Team to execute the "No Comm Plan". Message traffic passed through other teams or units will be considered a successful comm shot. Once the Team has had No Comm for 24 hours they will move to their extract point. (The Team Leader will determine if the Primary or Alternate is most suitable). They will have 12 hours to get there. Once in the Extract site the Team will continuously monitor all nets. 36 hours after No Comm, extract of the Team will be conducted. The extract vehicle will check the primary extract point first, then the alternate. The Team will remain at the Primary or Alternate extract point for 24 hours to allow the extraction to take place under suitable conditions to remain tactical. If after a total of 60 hours of no comm, and an extract vehicle does not show up to pick up the Team, The Team will execute the E and R Plan.

SIGNALS SOG ADDENDUM

DAYTIME INTER- PLATOON LINK-UP -- Initial contact will be made via Comm. Two elements will agree who will remain stationary and who will be moving. Stationary element will give posrep to moving element. Stationary element will talk moving element into their position. Once visual contact is made stationary element pointman will make hand and arm signal of Vee. Moving element pointman will return with hand and arm signal of wedge. No Comm link-up will be hand and arm signals only.
NIGHTIME INTER-PLATOON LINK-UP -- Initial contact will be made via Comm. Two elements will agree who will remain stationary and who will be moving. Stationary element will give posrep to moving element. Stationary element will talk moving element into their position. Stationary element will tell

moving element to stop and give signal. Moving element marks with three flashes of a red lens. The Stationary unit will return with two flashes. The moving unit returns with one flash.

BEACH SECURE -- Two IR Chemlites made directional to boat team. Placed where boat team should come ashore.

TEAM IN CONTACT ON BEACH OR LZ AND NEED EMERGENCY EXTRACT -- Nightime is Red Star Cluster, Team marked with IR buzz saw. Daytime is Red smoke, Team marked with Violet air panel. Teams in contact on the ground in daylight will use a signal mirror, smoke grenade or air panel to signal aircraft.

LINK-UP PROCEDURES

Pre coordinate a linkup time and place. Have a grace period in place. If info was Not pre-coordinated, use brevity matrix or encrypted radio communication. Designate one team to control the site. Moving team initiates VHF comm once inside 500 meters, maintain until visual contact is made. Stationary team, from a covered and concealed position, will orient the moving team into position using clock positions off the moving Point Man. Moving unit initiates near recognition signal (VS-17 panel by day, IR strobe or buzzsaw by night), stationary team returns signal using 3-2-1. Once signal is authenticated, moving PT takes off cover and holds in left hand out to side of body, holds weapon to other side in 'T' fashion, reports on how many members of patrol there are in tow (total). Moving unit takes hub of 360, conducts SLLS along with host unit. Host unit maintains perimeter security until the [previously] moving unit has conducted priorities of work.

No Comm (day)--pre-plan location and have predetermined windows. Same link up procedures except that the moving unit moves to the linkup site and scans in a 360, looking for near recognition to be initiated by the host (stationary) unit (3-2-1 panel by day, IR buzz or strobe by night, or verbal challenge & pass). Once signal is authenticated, PT removes cover & weapon, assumes "T"...

BACK-UP PLANS

Always have them, period. Have contingencies for operations, training, and any type of plan. Always have alternate routes, alternate procedures, ect. Play the "what if?" game to formulate new ideas. Be receptive to ideas from other members of the team, regardless of rank--two heads are better than one.

DIVERSIONS & DECEPTION

Evaluate the need for either of the above. In many cases, it is advantageous NOT to attempt a diversion or deception tactic, because of (1) increased capacity for failure and compromise, or (2) time or mission constraints. A good use of deception is the blatant placing of target indicators in order to canalize or bait the enemy into your kill or snatch zone. A good example of diversion would be the

'port & cover' method of [breaking and raking a house window] in order to draw attention from the actual breach entry point.

LONG RANGE RECCE

For guidelines on LRR SOP development, see chapter 16 in this book: Deep Ground Reconnaissance & Surveillance.

SURVEILLANCE PROCEDURES

When developing a surveillance SOP, the key is to maintain overlapping eyes or ears (RRT--signals exploitation bubbas) on the target (target frequency, RRT). More guys, more eyes. This means incorporating a scalable plan for different time blocks (have a 3-hour plan, a 6-hour plan, 12, 24, 48, 96, 7 day, etc.). Surveillance is deliberate, systematic, and continuous--the latter being what specifically sets 'surveillance' apart from 'reconnaissance.'

REPORTING

The standard SITREP format is SALUTE. Suffixes may be added to cater to the specific mission (Use SALUTE-R as an all-encompassing, easily inferred report which allows for "Remarks") All reports should be communicated using the standard Marine Corps or NATO report formats. A CEOI should be kept by each member of the team, which contains CoC information, callsigns & frequencies (among other gouge). A minimum of 3 logs should be kept by each team: A comm log, a surveillance log, and a personal patrol log (the latter should be kept by every member of the team).

EMERGENCY EXTRACT

The Team Leader will call for an Emergency Extract when he feels the Team or Mission have been compromised but does not feel it is necessary to execute the E&R Plan. An Emergency Extract will be considered any extract other than the planned extract in the Patrol Order. Emergency Extracts may be from a passive or active compromise, injury to a team member, when directed from higher, or when the Team Leader feels the mission cannot be completed. The emergency extract point will be an on call position sent by the Team Leader. Consideration must be taken to the accessibility of the extract point to the extract vehicle as well as terrain that provides cover and concealment from the enemy. Once the Emergency Extract grid has been coordinated with the ROC, the Team Leader will give an estimated time for the Teams arrival to the extract point. Once the Team arrives at the extract point they will notify the ROC and continuously monitor comm in order to ITG the extract vehicle into the pickup point.

EVASION AND RECOVERY SOG

Prior to every patrol Teams will be issued an E & R Plan. All Team members will have a map with the designated Evasion Corridor on it, be familiar with the Designated areas of Recovery, have blood chits and be familiar with all link-up