

**Field Team Leader
Search Area Operation
NMSAR 2013**

Before Leaving Home

Before accepting a mission, be sure that you are able to do it. Know your own limitations. Your basic SAR pack should be ready at all time. You may be asked to stay in the field for 12 to 24 hours, during bad weather, at various altitude, in unfamiliar terrain, and there are no fast food chains in the wilderness. Ask about the conditions you may encounter when you get The Call, in order to be prepared as much as possible. Bring extra gear, clothing, food and water to IB.

En Route to IB

Drive safely on your way to the scene. Obey the traffic laws. Follow the directions that were given to you. On your way, take the time to reflect on past missions and on what you have learned from them.

Arriving at IB

As soon as you arrive at I.B., park in an area where you will not interfere with mission traffic or where you are instructed to park. Immediately go to the nearest staging area and sign in on the Check-in list - ICS 211. Start a Unit Log - ICS 214. Check your gear again.

Meet Your Team

Acquire your team. Introduce yourself: name, team affiliation, experience. Have team members introduce themselves. Assign functions to team members such as communication, navigation or first aid according to their aptitude and ensure proper equipment for each task is available.

ICS 204 Task Assignment

Get familiar with the Task Assignment form - ICS 204 form: You will be assigned a team call-sign or team number. The mission number, operational period, date and type of team will already be filled out. Sign in your name first as the Team Leader and the name of resource team you are affiliated with. Sign your team members next, add any relevant skills (especially medical) or equipment (GPS, radio...) that the team will carry in the field.

Obtain Briefing

Briefing will be acquired from the Ops or the IC shortly before going in the field. Take notes. Ask questions. Ensure you have a map of your search area. That map may be segmented.

The Ops Briefing

- Ops will first give you an **overview** of the situation, stating the most important aspects of the mission.
- You will learn the names and functions of the current operational period's **organization**: the ICS staff.
- A **time frame** of your expected stay in the field is next.
- Ops will provide you with **information** about the **subject**. Some of that data may be personal and should not be talked about with anyone outside the search personnel.

- Ops will brief you about your designated segment, how far the subject may have travelled, what kind of attraction should be checked on the way, and a general **overview** of the behavior, intentions and expected actions of the lost person.
- You will be handed a segmented **map** and told what type of **coordinates** to use during the mission.
- If there are **clues** at IB or in your segment, you will be briefed of what and where these are.
- As part of your assignment, you will be given specific **tactics** to use in your segment. These may be search techniques such as applying AMDR (Average Maximum Detection Range), using sound and light attractions and searching for small clues.
- Ops will brief you on the **Rescue Plan**, in the event of an injury.
- You will find out if the subject's **family and friends** are at the scene.
- Should someone from the **media** ask you questions, refer them to the PIO or the IC.
- A **Condition Code** will be issued to you in the event that the subject suffered a grave injury or died. This code will be issued by the IC. If you forget the death code, tell the radio operator "I need to talk to the Field Coordinator".
- Ops may give you a **pickup time** if there is a need to be transported as well as an expected time of return.
- You must **Check-in** with IB at regular intervals by radio communication or other selected means as directed by Logs.
- **Communication** to IB or to another staging area will usually be made by radio. The main frequency may be the state SAR's: 155.160, or another alternate SAR frequency. In some areas with little radio coverage, you may need to use a Ham frequency, a cell phone, or other pre-planned means of communication.
- Ops will describe the **terrain** you may encounter during your search so you can have the right equipment to go in the field with.
- Part of the briefing will indicate what kind of **weather** to expect during your time in the field.
- A **safety** message will complete the briefing. If this is the first sortie into the segment, you may discover hazards that the ICS staff is unaware of. These should be reported during debriefing.

The Assignment

All aspects of your assignment should be well explained by Ops or the IC. A segmented map and the preferred way to search the area, a hand-held radio for comm. to IB, a GPS unit, and a thorough briefing should be made available to you as you prepare to go in the field.

The Searcher's Cube

The searcher's cube is an imaginary bubble surrounding the searcher while walking through the assigned segment. All horizontal sides, as well as the top and bottom of the cube must be scanned effectively and constantly as you move through the segment. Once used to the cube, it is easy to scan down, left, right and ahead but above and behind are often forgotten or not done enough. The best technique is to walk a short distance, stop and scan in all directions including through visual obstructions such as foliage, doing it more often if being distracted by radio chatter, terrain hazard or predator scats.

Segment Assigned

Segmenting insures complete coverage when well defined, easily located and reasonably sized. Each segments will be searched by order of priority. Resources should slightly overlap segments to ensure complete coverage. Segments are unchangeable for the duration of the mission, however they can be divided or additional segments can be added.

Containment

Containment or confinement is used to limit the probability that the subject is in a specific area.

Confinement makes use of roads, trails, blocks, patrols, camp-ins, look-out towers, track traps, fences, string lines and topographic barriers such as hazardous terrain, dense areas, major bodies of water and steep canyons. Confinement can be a passive method of search as in staying put at a specific location.

Search Techniques

In a team of three people, whenever feasible the team leader will be center and the two team members will be flankers (one on each side).

Search Techniques can be Passive: waiting, containment and attraction

Or Active:

Specific location: trailheads, campgrounds, points of interest, known track traps, hazardous areas as well as final destination, parking area, subject's familiar grounds.

Line or trail: roads, trails, drainages, other natural boundaries, and containment lines.

Area search: Systematic search of segments or larger areas.

Urban and sub-urban searches include all structures, vehicles and containers.

AMDR

Average Maximum Detection Range, formally known as Critical Separation is an average estimate of multiple readings of the distance before which a known target stops being visible. AMDR is a rough measure of how well a searcher's eyes can detect an object when knowing its general description.

Attractions and Decision Points

Attractions are areas of interest to the subject such as shelter in bad weather (cabin, cave), historical site, spring or other water source, rock formation...

Decision Points are locations where someone has to choose between two or more options as in the junction of 2 trails, possibly making a mistake in navigation. These points may be obvious to you in the field but not to Plans at IB, they should be pointed out during debrief.

Preparing to Go in the Field

Immediately after the Ops briefing, brief your team. Ensure that you do so away from the subject's family and friends and from the media.

Check your team's equipment for proper footwear, clothing, packs, food and water. Ensure that all team members have the proper physical conditioning for the task.

Ensure that you have a radio with the mission's frequency programmed in, a GPS unit and more than enough spare batteries to last the duration of the assignment.

Leaving IB for the Field

Take GPS coordinates of IB. Call IB for a radio check as soon as you are out of sight of your staging area. Keep your radio turned on at all times.

Leadership in the Field

Follow the search tactics you were instructed to use. Regularly monitor the physical and emotional well-being of your team members. Always be on the look-out for dangerous situations. Maintain a state of positive anticipation.

Looking for Clues

Remember that you are looking both for clues and the subject. Look for tracks, discarded items or other indicators of a human moving through the area.

Communicate with IB

Report your location to IB at regular intervals. During a sizable mission with a lot of traffic on the air, you may be asked to wait until IB calls to report location.

Call IB when discovering clues, when facing a challenging situation that cannot be easily resolved or when locating the subject. Be ready to give coordinates of your location at that time.

Problems on the Way

Talk with your team members whenever facing a problem, assessing a risk, or making a decision that affects the whole group. Should there be disagreement within your team, listen to their objection, discuss the matter and opt for a consensus decision.

If you come upon an illegal operation, leave the area and let law enforcement continue the search. In the event of an accident, injury or illness of a team member, immediately contact IB.

Finding the Subject

Upon finding someone who fits the subject's description, introduce yourself and verify the person's identity. Quickly assess the situation for immediate danger. If available, a Medical Technician should evaluate the physical, mental and emotional state of the subject. If the subject appears rational and in good physical condition, ask if he or she is willing and able to come back with you. Acquire coordinates of the location, then notify IB of the find, give the location's coordinates, and report any possible difficulties for returning to base, such as team assistance needed, medical assessment, transport, and additional supplies.

In the event of a serious injury or if the subject is deceased, as assessed by a trained medic, follow Crime Scene procedures. Notify IB using appropriate "Condition Code". Wait for a response from IB. Be ready with the location's coordinates

Returning to IB

If your assignment has been completed, or if the subject has been located and IB has asked you to come back, return to IB by the easiest travelled route. If returning to IB with the subject, ensure that you do so at the subject's pace, calling in IB at regular interval with progress reports.

Debriefing

Upon your return, the ICS staff will debrief you in order to plan future assignments, whether or not the subject has been found. You should explain what your team actually did; state the amount of completion of your assignment; give an estimate of your POD; describe the location of any clues discovered and give the current status of these clues; describe any difficulties, gaps in coverage or hazards in the search area; and offer suggestions, ideas, and recommendations for future assignments in the same area.

What's Next?

Once rested, if the mission is still opened and the subject has not been found, you may go back in the field or return home after signing out on the Check-in form.

"A successful mission is the result of the fusion of many teams"

DEBRIEFING

Team Number / Call Sign	Mission Number	Operational Period	Debriefed by
	Date Returned	Time Returned	Actual Time in Segment

Explain What the Team Actually Did

Assignment Was: Completed Not Completed Percentage of Completion: %

POD Estimate <i>(Probability Of Detection)</i> Responsive _____ % Non Responsive _____ %	Describe the Location of Any Clues Discovered <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		
	Current Status of These Clues <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		
	Describe Difficulties or Gaps in Coverage <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		
	Describe Any Hazards in Search Area <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>		
Suggestions, Ideas, Recommendations for Future Searches in Same Area <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>			

TASK ASSIGNMENT

Team Number / Call Sign	Mission Number	Operational Period	Date

Type of Team	Name (Team Leader First)	Resource Name (TL, Comm, Navigator)	Skill / Equipment
<input type="checkbox"/> Area <input type="checkbox"/> ATV <input type="checkbox"/> Communications <input type="checkbox"/> Confinement <input type="checkbox"/> Dog <input type="checkbox"/> Fixed Wing <input type="checkbox"/> Grid/Line <input type="checkbox"/> Hasty <input type="checkbox"/> Helicopter <input type="checkbox"/> Horse <input type="checkbox"/> Litter <input type="checkbox"/> Snowmobile <input type="checkbox"/> Technical Rope <input type="checkbox"/> Tracking <input type="checkbox"/> Vehicle	1	TL	
	2		
	3		
	4		
	5		
	6		
	7		
	8		

Assignment Date	Estimated Departure Time	Actual Departure Time	Estimated Time in Segment

Radio Frequency	Briefed by	Reviewed by

Sketch Map of Assignment	Briefing Summary
	<input type="checkbox"/> Overview <input type="checkbox"/> Org. Chart <input type="checkbox"/> Time Frame <input type="checkbox"/> Communication <input type="checkbox"/> Check-in Plan <input type="checkbox"/> Maps / Datum <input type="checkbox"/> Safety <input type="checkbox"/> Terrain <input type="checkbox"/> Weather <input type="checkbox"/> Pickup Time <input type="checkbox"/> Tactics <input type="checkbox"/> Subject Info <input type="checkbox"/> Lost Person Stats <input type="checkbox"/> Condition Code <input type="checkbox"/> Clues <input type="checkbox"/> Rescue Plan <input type="checkbox"/> Family / Media

Assignment and /or Location in the Field:

**Field Team Leader
Responsibilities
NMSAR 2013**

NM SAR Act

It is the purpose of the Search and Rescue Act to prepare, organize and coordinate efforts of federal, state and local governmental agencies and volunteer organizations for prompt and efficient search, location, rescue, recovery, care and treatment of persons lost, entrapped or in physical danger.

FTL - What is it?

The NMSAR Certified Field Team Leader (FTL) is a trained person responsible and in charge of a team of searchers at Incident Base (IB) and in the Field during a SAR mission from the time the team is formed until the final debriefing as directed by the Operations Section Chief (Ops), the Planning Section Chief (Plans) or the Incident Commander (IC).

SAR Incident Command System Staff at Incident Base (IB)

The IC is in charge of the management of the mission.

Three Officers (Public Information (PIO), Safety and Liaison) help the IC in their respective function.

Three Section Chiefs (Planning, Operations and Logistics) are assigned particular tasks, and work under the direct supervision of the IC.

Plans is responsible for the collection, evaluation, dissemination and use of information about the development of the incident and the status of resources.

Ops is responsible for the management of all operations directly applicable to the primary mission.

Logistics (Logs) is responsible for providing facilities, services, and material in support of the incident.

All Section Chiefs:

- Participate in the development and implementation of the Incident Action Plan (IAP);
- Supervise their respective section's Deputies, Branches, Divisions and Units;
- Work under the direct supervision of the IC

FTL Practical Responsibilities

The team, as a whole, has a responsibility not only to its members but to the subject as well.

The FTL should make sure that the team:

- Is properly outfitted,
- Has knowledge of basic search techniques and navigation,
- Has good communication with IB/ICP,
- Is aware of known hazards in the assigned segment and is responsible for the overall safety of the team
- Has the appropriate training and skills for the assignment.

FTL Qualities

A good leader inspires, challenges, teaches and encourages his or her team; is patient, never gives up; avoids bad mannerisms; shows no favoritism; practices safety at all time, speaks clearly and distinctly; and emphasizes important lessons learned. A good leader becomes a role model.

Three Primary Functions

An FTL must provide three basic functions to his/her team at all times during the operation of a mission: one is working to accomplish the tasks the group has been asked to do; another is to develop and maintain functional relationships within the group and last and most important is to maintain the safety of the team at all time.

Responsibilities and Solutions

A good FTL should:

- Give and receive information, relevant suggestions and opinions; *Encourage everyone to participate in discussions, be receptive to others' ideas, be an active listener, support individuality.*
- Initiate action and give direction on how to proceed; *Observe team effectiveness, insure everyone's participation.*
- Evaluate, diagnose and summarize major points and accomplishments; *Compromise when necessary, set standards.*
- Coordinate and balance activities; *Ease tension, suggest breaks, communicate well, evaluate emotional climate, discuss conflicts, build trust.*
- Encourage a high quality of teamwork; *Keep a positive attitude, discuss alternatives, praise success.*
- Maintain safety of the team at all time; *Always scrutinize ahead for danger, protect and ensure team's welfare.*
- Improve personal skills; *Practice, review, examine performance, self-debrief, obtain and learn from additional experience, take continuing education.*

Be Prepared

A search or a rescue is an event that you can prepare for.

Many factors can and will interfere with the perfect operation of a mission such as weather, terrain, hazards, visibility, clandestine activities, difficult communication and/or more.

At all times, use good judgement, practice impartial management, and follow the "Standard of Care".

Search and Rescue

A successful search is dependent upon a combination of search planning, the FTL's skills, and the field team's abilities.

A successful search requires that all of its elements are carried out professionally and safely for the benefit of the subject and the satisfaction of all those involved in the mission.

PROBABILITY OF DETECTION PERCENTAGE CHARACTERISTICS

General characteristics of subjective factors to help estimate POD.

Responsive POD

Low (0 - 25%):

Unable to use standard attraction techniques such as whistles, yells, sirens, lights; unfavorable weather such as high wind, blizzard, extreme heat; noisy running water; densely vegetated areas; area too large for the amount of searchers, night search.

Medium (30% - 65%):

Standard attraction techniques used infrequently; moderate weather such as winds, heat, rain or snow; medium dense vegetation; small canyons or small flat areas; low-light search.

High (70% - 90%)

Standard attraction techniques used very often; good weather; no running water; sparse vegetation; large flat areas, wide canyons, tops of ridges, or other places where sound carries well and far distances can be viewed; multiple search teams per segment; daylight search.

Unresponsive POD

Low (0 - 25%)

Rate of resource travel greater than two mph; few searchers in a large area; difficult terrain; subject wearing camouflage or brown colors; unfavorable weather; hasty search tactics; night search.

Medium (30 - 65%)

Rate of resource travel lesser than two mph; adequate number of searchers to cover the area; moderate terrain; subject wearing easily-seen clothing; fair weather; somewhat thorough search tactics; adequate light.

High (70 - 90%)

Slow rate of resource travel; more than enough searchers to cover the area; easy terrain; subject wearing bright-colored clothing; excellent weather; very thorough search tactics; bright daylight.

CUMULATIVE PROBABILITY OF DETECTION (CPOD) TABLE

The first POD or previous CPOD for a particular segment or area is entered in the Vertical column \uparrow , the following POD for the same segment is entered in the Horizontal column \leftrightarrow , the new CPOD is found at the intersection of the two.

	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
5	10	15	19	24	29	34	38	43	48	53	57	62	67	72	76	81	86	91	95
10	15	19	24	28	33	37	42	46	51	55	60	64	69	73	78	82	87	91	96
15	19	24	28	32	36	41	45	49	53	58	62	66	70	75	79	83	87	92	96
20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96
25	29	33	36	40	44	48	51	55	59	63	66	70	74	78	81	85	89	93	96
30	34	37	41	44	48	51	55	58	62	65	69	72	76	79	83	86	90	93	97
35	38	42	45	48	51	55	58	61	64	68	71	74	77	81	84	87	90	94	97
40	43	46	49	52	55	58	61	64	67	70	73	76	79	82	85	88	91	94	97
45	48	51	53	56	59	62	64	67	70	73	75	78	81	84	86	89	92	95	97
50	53	55	58	60	63	65	68	70	73	75	78	80	83	85	88	90	93	95	98
55	57	60	62	64	66	69	71	73	75	78	80	82	84	87	89	91	93	96	98
60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	91	93	95	97
65	67	69	70	72	74	76	77	79	81	83	84	86	88	90	91	93	94	96	97
70	72	73	75	76	78	79	81	82	84	85	87	88	90	91	92	93	94	95	99
75	76	78	79	80	81	83	84	85	86	88	89	90	91	92	93	94	95	96	97
80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
85	86	87	87	88	89	90	90	91	92	93	93	94	95	96	97	97	98	99	100
90	91	91	92	92	93	93	94	94	95	95	96	97	97	98	98	99	99	99	100
95	95	96	96	96	97	97	97	97	98	98	98	98	98	99	99	99	99	100	100

$$CPOD = 1 - ((POD V_a) \times (POD V_b) \times (POD V_c)) \times \dots$$

POA Consensus

POA: The probability or chance that the target of the search effort is in a particular segment, unit or other defined portion of the search area.

Why:

At first, it helps assign subjective values to likely scenarios, determine general areas to search and develop consensus among ICS staff, agency partners (unified command) and critical allies.

Later, it can be used to assign subjective values to segments (POA) which can be calculated with PODs and CPOD to determine POS (Probability Of Success) especially when considerable search effort have failed to discover any clues.

How:

- The search area must be divided into segments or units of relative uniform size according to difficulty, hazards, distances,...
- A group of individuals are selected consisting of members of the ICS teams, representatives of the agencies involved if any, technical specialists, or other people with pertinent interest.
- A briefing is given to the group that will include physical, emotional, medical, behavior profile information about the subject, possible scenarios, search results so far as well as search area conditions and any other pertinent information.
- Each member of the group will independently without other members' influence assign a value of 1 to 9 to each segment or unit, without forgetting the ROW unit. 9 indicates the greater chance that the segment or unit contains the target.
- Each individual's values are then entered on the POA consensus worksheet, the values are combined and translated to percentages.

What:

POA consensus will assist in:

- Decision making;
- Prioritization of segments and/or scenarios for strategic planning and tactical assignments;
- Resource management, especially when limited;
- Monitoring and re-defining search areas;
- Building cooperation amongst partners and key allies;
- Resizing search area.

The primary goal of search planning is to maximize the POS as quickly as possible with the available resources, providing a mechanism for analyzing data to assist in decision making and resource management.

**Field Team Leader
Handling the Crime Scene
NMSAR 2013**

What is a Crime Scene?

When a deceased human body is found, the body itself or its remains and its immediate surroundings become a crime scene. The Crime Scene needs to be handled very differently from a regular search segment.

Three Steps

Discover

Secure

Report

Means of Discovery

Actual find of a body or remains of a body while searching.

Observation of agitated wildlife such as ravens, large predators, multitude of insects.

Other clues can be large amount of body fluids, multiple scats in a small area, strong scent.

Assessing and Securing

Stop as soon as discovering the body, stand still and observe surroundings for any possible danger including weather, terrain, criminal activity, dominant wildlife, body fluids...

Start a log to record as much information including time and location of discovery, names of team members, condition of remains...

Take control of the scene.

Only you should approach the remains to confirm identity if possible and to observe the surrounding for obvious clues and/or for danger. Look for possible approach and escape routes. The preferred approach should not be the most obvious one, nor should it be a trail with tracks or clues on it.

The remaining team members should be instructed to stay back at a location nearby that will not interfere with possible evidence that may explain how the body may have succumbed while constantly observing the surroundings for clues and danger.

No one in the team should make a phone call, text or send pictures to the outside world in regards to the find.

Maintain emotional control.

Determine the boundaries of the crime scene.

Be able to describe the scene and keep appropriate notes on its environmental and physical conditions.

Keep unauthorized personnel out of the area.

Protect the scene by encircling it or its main approaches with tape.

Reporting the Situation

Obtain coordinates for the main part of the remains.

Backtrack and return to awaiting team using the same path in and out and check emotional status of team members.

Call IB, identifying team and use only the Condition Code.

Wait for instructions from the IC.

Releasing the Crime Scene

Follow instructions from IC.

Do not move body.

Do not collect evidence unless directed by a Law Enforcement Officer (LEO) to do so.

If a disposable camera is available, take pictures only when directed to do so.

Wait for a Medical Investigator or a LEO - NMSP, or local county Sheriff Officer (SO) - to arrive and take control of the scene, unless instructed otherwise by the IC.

Once LEOs have taken control of the scene, record the time, date, name of officers and agency.

Return to IB as directed.

Debrief

While returning to IB, talk with your team members about the situation and again assess their emotional status.

Upon return to IB, immediately debrief, accompanied by your team members.

Ask for Critical Incident Stress Management (CISM) for additional debrief.

Next Day

The following few days after finding a deceased person are the hardest, as the senses' memories can invade some of your activities without warning.

Find someone to confide in, talk with your IC or team members, or request another Critical Incident Stress Debriefing (CISD).

Always remember that you have helped give closure to someone's family and friends.

"Thank you for being a SAR Volunteer"

**Field Team Leader
NMSAR 2013
Clues and P.O.D.**

Clues

A search is a classic mystery

A clue is a piece of evidence or information used in the solving of a mystery.

The art of searching for missing persons is primarily one of finding clues, evaluating their importance, and taking the proper action based on the find.

Seeking Clues

Searching for clues is an ongoing process. The subject is a clue generator.

A subject will leave behind an average of 2,000 clues per mile travelled.

The subject is the ultimate clue.

Kinds of Clues

Physical: vehicle, discarded items, footprints, land utilization, scents.

Interview: family, RP, friends, co-workers, neighbors, other people in search areas.

Recorded: trip plan, notes, trail register, printed material, phone messages.

Occurrence: sound, light, signal, campfire, PLB, ELT.

Analytical: Lost Person Behavior Statistics, subject's personality profile, probability calculations, terrain study, physical circumstances, lack of clues.

Finding Clues

Can show a previous location of the subject;

Can give a direction of travel;

May offer a new destination or direction of travel;

May force a change of tactics or action in the field;

Can lead to the subject.

A Lack of Clues

Can eliminate a search area;

Can be suggestive of ineffective tactics;

Can indicate a "bastard search".

Most unsuccessful searches are the result of clues going unnoticed or unreported.

Seeing versus Looking

As we are bombarded with visual stimuli in our daily life, we look at things daily without seeing them. We must re-learn how to see.

Area searchers must look for all visual cues not just actual tracks and keep an open mind to be able to see all that is relevant to the search.

Look all around you as well as up, down and behind you.

Go as slow as needed in order to see everything.

Focusing for long periods at the ground can bring on eye fatigue. Exercise your eyes by changing your focus or stop for a minute and close your eyes. Use this occasion to increase your senses of smell and hearing.

Visual Attention

We pay attention visually in three different ways: Selective, Divided, and Automatic.

- Attending to one task over another requires Selective Attention, such as focusing only on ground tracks.

- During Divided Attention only one cognitive process occurs efficiently at a time. Some attention processes are automatically carried out, such as walking, while others occur unconsciously. Self-preservation will occupy most of the attention while clue consciousness will become secondary and get limited attention.

- Automatic Visual Attention does not require focus, things are perceived broadly but not in detail, like driving a car and reading road signs at a glance.

Seeing Things

Things are seen better when they are dissimilar from their surroundings.

Movement	Position
Shape	Color
Shadow	Silhouette
Spacing	Scale / Proportion
Texture	Shine
Sound	Smell

Clue Awareness

Clue seeking begins with preplanning and ends with the final debrief of each mission. All clues should have equal weight until they can be positively identified, evaluated, or eliminated.

Upon finding a possible clue, forming a hasty opinion about its value leads to looking only for clues to support that opinion.

There is only one missing person, but numerous clues.

The best way to become clue aware is by training and practicing.

Possible Physical Clues

The subject may leave many clues behind when moving through the search area.

Do not neglect important signs, such as:

Indicators left deliberately by the subject,

Bits of gear dropped accidentally or shed in an attempt to lighten the load,

Trash dropped,

Other subtle indicators left while moving through the area such as broken branches, overturned rocks...

Although footprints are by far the most common clue left by a subject, not all footprints found in the field belong to the subject.

Find out what type of footwear (size, sole pattern, etc.) was worn by the subject.

The Ops briefing should include the kind of gear, clothing, and other objects the subject may carry, if known.

Find out if other teams have been in the area or if the area is highly visited at this particular season.

Tracks

Tracks are marks made as the subject moves over the ground.

In addition to footprints, these marks may include grasses bent over in the direction of travel, a path of disturbed frost, dew, scraped lichens or moss on the ground, regular walking patterns on soft ground, disturbed small rocks at regular intervals, track traps...

Resources

Different resources can detect different types of clues:

Area searchers, including trackers, ground teams, hasty teams, dogs and horses are generally the most successful in locating clues, being the closest to the potential path of the subject.

Vehicle searches are restricted to roads, wide trails and open non-wilderness areas and are very useful for perimeter containment.

Aircraft are used mostly in fairly open areas for locating large items such as a tent, a raft or the subject.

Grid searching using all available ground teams should be used only for small children or small clues and used as a last resort because the nature of a grid search destroys all clues in the designated area.

Finding and Protecting Clues

A person on foot or on horseback will most likely walk in the middle of a trail.

Try not to travel in the center of a trail, but rather on its sides.

At a crossroad, try to make a wide circle around it to protect possible footprints and help locate the next track.

Don't disturb the clue but mark it for future resources to investigate.

Determine whether the object you find is relevant.

Report the find to Incident Base with GPS coordinates of the clue's location and to find out what to do about it.

Protecting the Clue

Once you have located a clue, reported it, described it and its location, you must protect it.

You can use biodegradable flagging with date, time, mission number and team call sign written on it and placed near the clue.

Draw a circle around a definite track so other searchers will be aware of it;

You may be asked to take a transportable clue with you back to IB.

Remember to mark the clue's location on your map.

Probability of Detection

POD is the probability or chance, usually expressed as a percentage, that the subject will be (predictive) or would have been, detected (in retrospect) by the search action if the subject was in the search area.

Segmentation of the Search Area

The search area is the geographic location presumed to contain the missing subject and to which search operations are confined.

Plans divides the search area into segments based on information gathered from the initial and subsequent investigations and search teams PODs. The area outside of the search segments is known as the Rest of the World (ROW).

Probability of Area

POA is the estimate of the probability that the subject is within a specific segmented area, expressed as a percentage, as estimated by Plans as a result of the PODs reported by debriefed field teams.

Future assignments are based on POA considerations.

Two Types of POD

Responsive: the subject is able to communicate and/or to move.

Unresponsive: the subject is unable to communicate and/or is immobile.

Average POD

An average POD will be between 5% and 90% depending on resources, objectives, environment and tactics.

The Four Variables of POD

Subjective Factors affecting the POD

- 1 - The effectiveness of the search team
- 2 - The search objectives
- 3 - The search tactics
- 4 - The environment

The Search Team

Effectiveness depends on resources' variables such as:

Kind of resources for the Objective, the Tactics, and the Environment,

Number of resources for the Operational Period.

Kind of equipment available to the team

Experience of the team

The Search Objectives

What the searchers are looking for:

Clues and the Subject

The Search Tactics

Search techniques (active or passive); Available resources; Time frame; Rate of progress; Communication; Available information

The Search Environment

Terrain difficulty; Weather; Visibility; Search segmentation; Safety

"That Others May Live"

POD	Probability of Detection
POS	Probability of Success
PPE	Personal Protection Equipment
PSAP	Public Safety Answering Point
RO	Resource Officer
ROW	Rest of the World
RP	Reporting Party
SAR	Search and Rescue
SAREX	Search And Rescue Exercise
SC	Section Chief
SO	Sheriff's Office
TFR	Temporary Flight Restriction
UTM	Universal Transverse Mercator
UHF	Ultra High Frequency
VHF	Very High Frequency
WGS84	World Geodesic System of 1984
Wx	Weather

NMSAR ACRONYMS

	AOD - Air Operations	Branch	Director
AC	Area Commander		
A/C	Aircraft		
AFRCC	Air Force Rescue Coordination Center		
AGL	Above Ground Level		
AMDR	Average Maximum Detection Range		
CAP	Civil Air Patrol		
COML	Communication Unit Leader		
CONUS	Continental United States		
CPOD	Cumulative Probability of Detection		<u>5280</u>
DOA	Dead on Arrival		<u>2</u>
DPS	Department of Public Safety		
ELT	Emergency Locator Transmitter		
EPIRB	Emergency Position Indicating Radio Beacon		<u>2500</u>
ESW	Effective Sweep Width		<u>100</u>
FAA	Federal Aviation Administration		<u>40</u>
FLIR	Forward Looking InfraRed imaging		
FTL	Field Team Leader		
GMRS	General Mobile Radio Service		<u>2640</u>
GPS	Global Positioning System		
IAP	Incident Action Plan		
IB	Incident Base		
IC	Incident Commander		
ICP	Incident Command Post		
ICS	Incident Command System		
IPP	Initial Planning Point		
ISRID	International Search & Rescue Incident Database		
LEO	Law Enforcement Officer		
LKP	Last Known Point		
Logs	Logistics Section Chief		
LZ	Landing Zone		
MHz	Mega Hertz		
MI	Mission Initiator (NMSP)		
NMSP	New Mexico State Police		
NAD27	North American Datum 1927		
NAD83	North American Datum 1983		
NOTAM	Notice To Airmen		
NVG	Night Vision Goggles		
OMI	Office of the Medical Investigator		
Ops	Operation Section Chief		
PIO	Public Information Officer		
Plans	Planning Section Chief		
PLB	Personal Locator Beacon		
PLS	Point Last Seen		
POA	Probability of Area		