

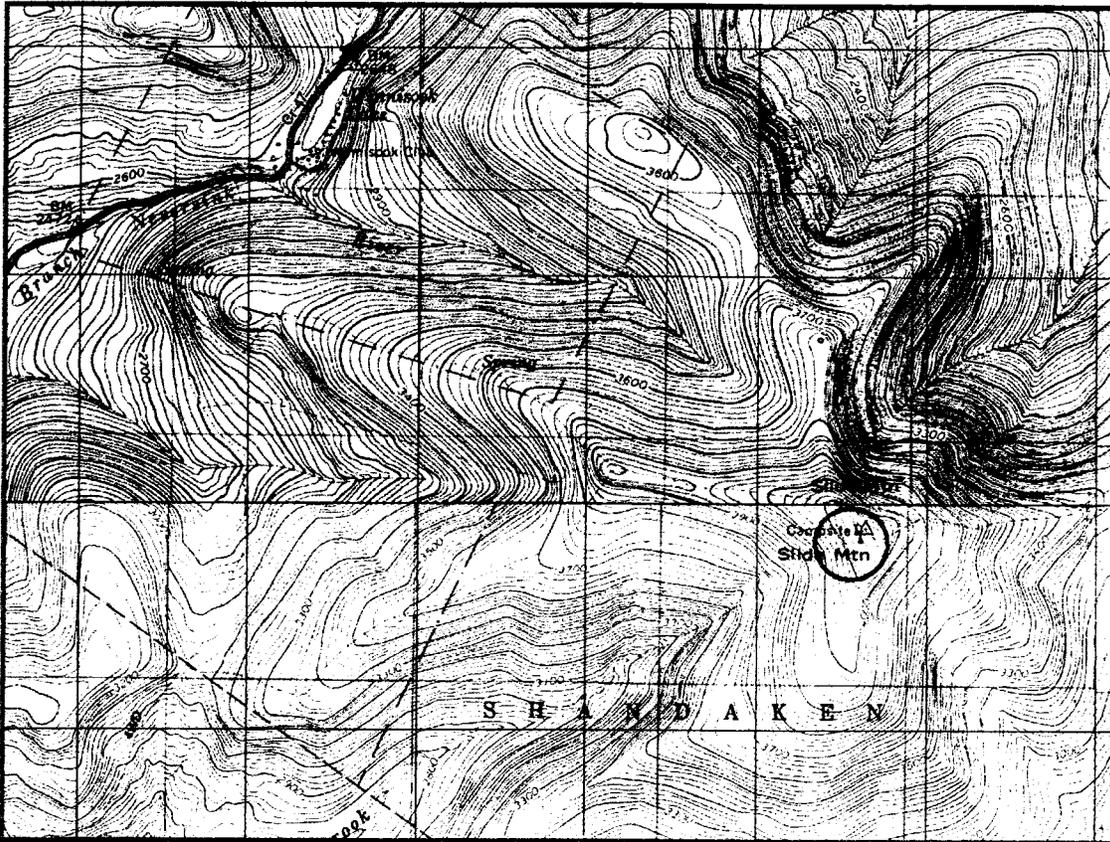


New York State Department of
ENVIRONMENTAL CONSERVATION

www.dec.ny.gov

Basic Wildland Search Skills

Student Manual



Revised April 2009

**BASIC WILDLAND SEARCH SKILLS COURSE
VOLUNTEER TRAINING PROGRAM**

STUDENT MANUAL

New York State Department of Environmental Conservation
Division of Forest Protection
State Forest Rangers
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BASIC WILDLAND SEARCH SKILLS VOLUNTEER TRAINING PROGRAM

The Basic Wildland Search Skills course has been developed by the Division of Forest Protection in the Department of Environmental Conservation and is taught by DEC forest rangers to individuals interested in becoming wildland search volunteers.

This course provides you with the basic knowledge and skills necessary to assist in conducting search missions and to acquaint you with the New York State Forest Ranger Search and Rescue Program.

The primary purpose of the training program is to organize, train and maintain search volunteer resources, provide uniform and standard basic search training and to certify search volunteers.

Upon completion of the course and passing a written examination, search volunteers will be issued a laminated search volunteer certification card and patch.

TRAINING COURSE OUTLINE

1. Search Organization
2. Attitude
3. Safety
4. Communications
5. Search Techniques
6. Field Exercise
7. Conclusion
8. Written Examination

What Does an Incident Commander Expect from Search Volunteers?

- Organization
- Discipline
- Cooperation
- Advice
- High Performance Standards
- Proper Clothing/Equipment
- Self-Sufficiency

What Do Search Volunteers Expect from the Incident Commander?

- Awareness and Understanding of Their Capabilities/Expertise
- Knowledge of What They Are Expected To Do
- Briefing on Overall Plan
- Opportunity to Provide Input
- Provide On-going Information
- Debriefing
- Invitation to Critiques

I. SEARCH ORGANIZATION

The success of any search mission depends on how well the search effort is organized. Often a search involves the use of many resources from a wide variety of sources. It is the incident commander's responsibility to organize and use these resources in a manner which will achieve a successful completion of the search mission in the shortest amount of time.

In 1984, New York State passed legislation that authorized DEC to establish, maintain and operate a search and rescue program in fire towns (forest fire protection areas located in forest preserve) and towns in fire districts (forest fire protection areas outside forest preserve). The legislation further authorized DEC forest rangers to organize, direct and execute search and rescue missions for lost persons and civilian aircraft and conduct rescue operations for persons injured or in serious threat of injury in wild, remote and forested areas of fire towns and towns in fire districts in the state.

may even be in urban areas.

Fugitive searches where criminal conduct is suspected fall under the jurisdiction of the appropriate law enforcement agency. Search and rescue missions outside fire towns and towns in fire districts may be conducted by forest rangers upon request by the appropriate agency.

State Forest Rangers Provide:

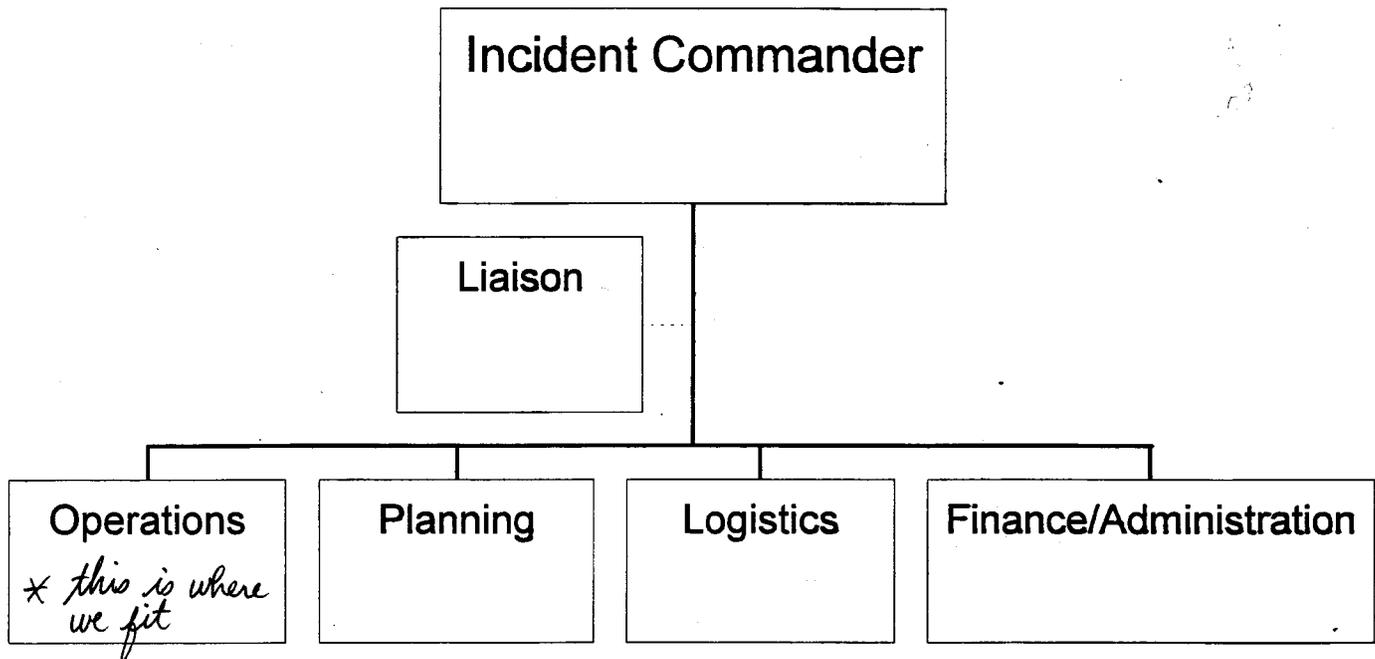
- Search Organization and Management
- Worker's Compensation Insurance
- Equipment and Supplies
- Labor

*BC team does 4 trainings
per ~~year~~ year: 2 indoor,
2 outdoor*

The Incident Command System is used by forest rangers to organize searches and provides an overall framework of organization.

- Provides chain of command
- Limits span of control *1:5 ratio is ideal*
- Flexibility: Expands or contracts as search dictates

SAMPLE WILDLAND SEARCH OVERHEAD TEAM



INCIDENT COMMAND POST

The incident command post may start as a vehicle during early phases of a search and develop into a major complex as the search progresses.

Characteristics of a Good Command Post

- Locate Away from Subject's Home
- Close to Search Area
- Radio/Telephone Communications

- Separate “Operations Room”
- Area for Crew Staging
- Rest Room Facilities
- Kitchen/Food Serving Area
- Ample Parking
- Separate Room for Interviews

II. ATTITUDE

Looking for a lost or missing person is often a long and difficult task. Severe weather conditions, long hours, and dense vegetation places a great deal of stress on search personnel. In addition, the urgency of the mission often intensifies these factors. Search volunteers should be mentally prepared to carry out their assignments. Volunteers should also be aware that their attitude can greatly influence the success and efficiency of the entire search mission.

A search is a “true emergency” and can be an emotional experience. Family members may be present, and as a search volunteer, you should be aware that your actions, comments, and attitude can have a serious impact on them.

Keep a positive personal attitude:

- Assume the person is alive.
- Believe the subject is out there and you will find them.
- Remember you are working for the lost person.

Attitude around family:

- Be aware family members may be present.
- Maintain high degree of professionalism.
- Exercise discretion in comments/actions.

Attitude when subject is found:

- Determine subject’s condition.
- Watch for signs of stress.

II. SAFETY

Like most emergency situations, looking for a lost subject can be a difficult and physically demanding job. Volunteers must consider their own physical capabilities and limitations in order to prevent unsafe actions.

Volunteers should be aware of the hazards often encountered when conducting a wildland search.

The following safety factors should be considered:

- Physical Fitness
- Natural Hazards
- Physical Fatigue
- Transportation Safety
- Night Safety
- Map and Compass
- Personal Gear

Do not wear clothing similar to the search subject.

Long pants, long sleeve shirt, and hiking boots (regardless of time of year) is practically a requirement.

Search volunteers should carry sufficient personal gear to provide for their safety and comfort and to permit them to complete their assignment. The amount of gear will depend on search characteristics, weather, terrain, and job assignment. Remember, the lost subject will depend upon you when initially found.

SUGGESTED PERSONAL GEAR

- ▶ First aid kit (small)
- ▶ Map and compass
- ▶ Whistle
- ▶ Matches in waterproof container/Cigarette lighter
- ▶ Candle
- ▶ Canteen/*water bottle + water purification*
- ▶ Flashlight (extra bulb and batteries) + *headlamp*
- ▶ Complete rain suit/poncho
- ▶ Snacks - *watch out for food allergies*
- ▶ Extra socks - *not cotton; wool/poly is best*
- ▶ Duct tape
- ▶ Flagging - *write why flagged on.*
- ▶ Pen, pencil, marker, paper - *Sharpie*
- ▶ *Insect repellent.*
- ▶ *Suntan lotion*

When responding, always pack extra water and food. It may not be available at start of search.

- ▶ Knife
- ▶ Emergency blanket
- ▶ Watch
- ▶ Toilet paper
- ▶ Bug dope

OPTIONAL EQUIPMENT FOR EXTENDED ASSIGNMENT

- ▶ Extra clothing appropriate for weather
- ▶ Eye protection - *especially at night*
- ▶ Cooking pot, tea, coffee
- ▶ Foam pad
- ▶ Extra canteen
- ▶ *Tube tent*
- ▶ *Rope/webbing (nylon)* ▶ *glow sticks*

IV. COMMUNICATION

A good communication system plays a key role in implementing a successful search mission. Each crew should have common communication with the incident command post whenever they are in the field. It is also essential that there are open lines of communication between field personnel and the incident commander. Crews should be properly briefed before going into the field and debriefed when returning from a work assignment.

Often many communication systems are used on search missions:

- Make sure your system is linked to the incident command post.
- Know your frequency
- Use "plain text." (*Speak plainly - no special jargon*)
- Consider the sensitivity of listeners.
- *Minimize chatter - Speak slowly and clearly.*

Upon arrival at a search scene, "check in" at Incident Command Post.

- Send a representative to the incident command post to be briefed.
- Assemble at the staging area (you will be assigned as soon as an assignment is ready for you).
- Do not gather around the incident command table.
- Be prepared for immediate assignment, or be prepared to wait for assignment.

All crews must be briefed before going to the field to carry out an assignment.

Elements of Crew Briefing

- Crew Boss Briefed at Incident Command Post
- Information Concerning Missing Person
- Crew Assignment
- Radio Assignment
- Transportation
- Food
- Special Instructions

All crews must be debriefed after completion of an assignment.

Elements of Crew Debriefing

- Area Covered
- How Well Area Covered
- What You Found/Did Not Find
- Hazards, Difficulties, Problems
- Suggestions
- When Crew Ready for New Assignment –

V. SEARCH TECHNIQUES

If you do not ask for a new assignment, you will not be assigned one.

The search volunteer plays a significant role in the implementation of a search mission by supplying the much needed labor to carry out various search functions. It is important that the volunteer have a basic understanding of the stages that a search goes through from the point of initial notification that a person is lost to implementing the actual search activities. It is also essential that the volunteer become familiar with the different techniques used to search for and locate the missing person.

Stages in the development of a search:

- (1) Initial Notification - 911
- (2) Verification
- (3) Activation

There are two basic modes used during this activation phase of a search mission:

(1) PASSIVE MODE

Definition: "A search technique used whereby the subject is encouraged to come to your location."

(2) ACTIVE MODE

Definition: The placement of resources in the field to find the subject or clues in the search area."

There are four different techniques used during the active mode:

(1) Type I

(2) Type II

(3) Type II Modified (*Came after Type III.*)

(4) Type III

Type I Search Technique:

Definition: "A planned, rapid search of immediate area, travel routes, drainages, etc., by small fast-moving, clue-conscious crews with communications."

Resources used during the Type I search technique include:

- Small clue-conscious crews
- Trackers and sign cutters
- Search dogs
- Aircraft
- Investigators

Areas to be checked:

- Attractive nuisances (eg., cabins, abandoned autos, open wells, etc.)
- Travel routes/natural features (eg., trails, streams, ponds, etc.)

Type II and Type II Modified Search Techniques:

Definition: "A fast systematic search of high probability search area using techniques that produce high probability of detection/searcher hours of effort."

NOTE: This search technique requires special training beyond the scope of this course.

Type III Search Technique:

Definition: "A coordinated effort, supported by a specific plan for a field organization to systematically search a designated area." *Ideally 100% coverage*

This search technique is used:

- When the Type I or Type II search technique is unsuccessful
- In conjunction with other search techniques
- When the missing person is: *Automatically done in these cases:*
 - ▶ child
 - ▶ elderly
 - ▶ mental/medical patient*These subjects don't follow typical behaviors.*

The following steps are taken in implementing the Type III search technique:

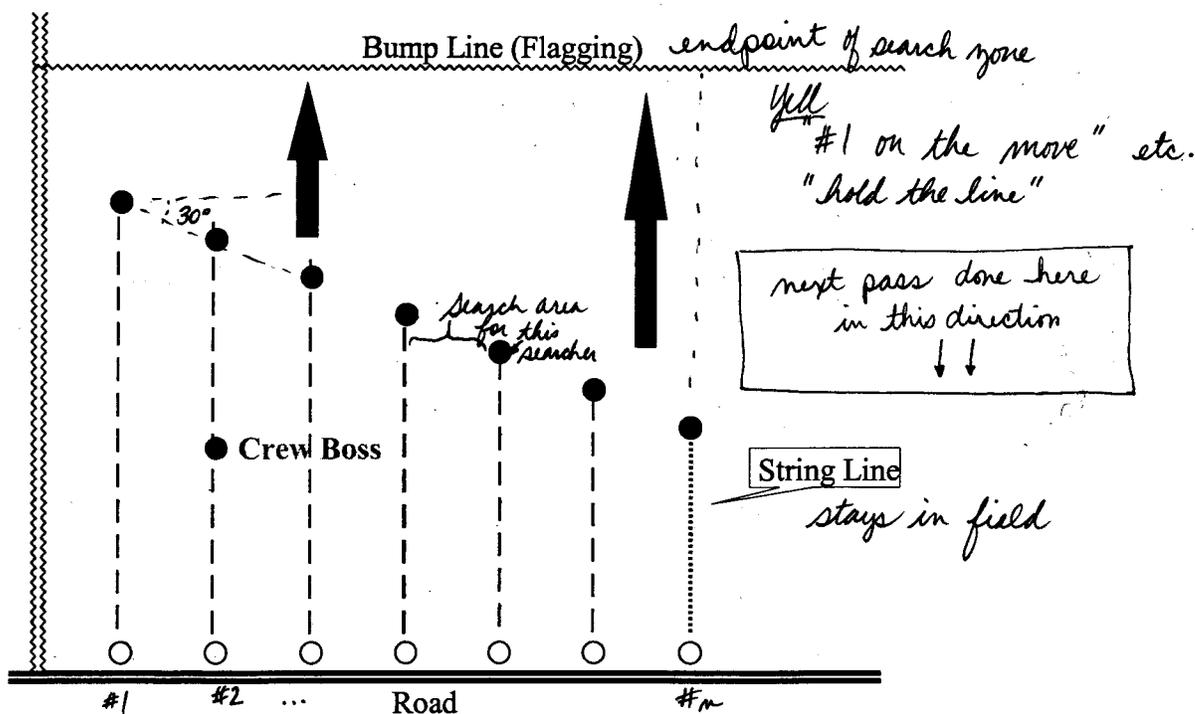
1. Initial Type I crews, scouts, etc. are debriefed.
2. The search area is divided into blocks -- bump lines are established using fence rows, natural barriers, flagging, etc.
3. Crews consisting of 10 to 12 people are assigned to search a designated area.
4. Crews are debriefed upon completion of the assignment.

When using the Type II search technique:

1. Crew starts by lining up on a road or base line.
2. First person follows the guide line.
3. Subsequent searchers remain slightly behind and to one side of the person they are guiding on.
4. Use an oblique line (approx. 30% angle).
5. End person lays out string line.

TYPE III SEARCH TECHNIQUE

Type III searches are very time consuming when done correctly!



VI. HANDLING OF EVIDENCE

Evidence on a search can include footprints, matted vegetation, discarded clothing and/or equipment, excrement and any other clue indicating that the subject is or has been in the area.

- ▶ All evidence should be reported to the crew boss.
- ▶ Crew boss evaluates evidence and reports it to the incident command post.
- ▶ Incident command post advises the crew boss as to how to handle the evidence.

Locating the Subject:

When the lost person is found, determine the subject's condition and notify the incident command post.

- ▶ If the subject is alive, the search becomes a rescue. Appropriate medical assistance should be sought.
- ▶ If the subject is deceased, the site should be secured until appropriate investigators arrive. Non-essential team members may be released to return to the incident base.

Do not cover the body / close the eyes / etc. Once death is confirmed, do not touch body.

VII. CONCLUSION

As a search volunteer, you will be performing a very valuable job by providing the much-needed labor required to conduct a search mission. The training that you have received will provide you with the basic knowledge to be a more efficient search team member and improve the effectiveness of the entire search effort.

NOTES

You won't know how you'll react until it happens. Each incident is individual.

CRITICAL INCIDENT STRESS

(1) Critical Incident Stress

Normal people having normal reactions to abnormal circumstances.

(2) Three Types of Stress

1. Acute (First 24 hours)
2. Delayed (Later)
3. Cumulative (Buildup)

(3) Incidents Which Often Results in High Stress

1. Death to child.
2. Injury to child, especially by adults.
3. Death to other person.
4. Injury to emergency worker.
5. Line-of-duty death.

(4) Factors that Affect Severity of Stress Impairment

1. Suddenness of event
2. Intensity
3. Degree (how many effected)
4. Duration
5. Level
6. Age of rescue worker (18+)
7. Injury or death of close relative
8. Resources

(5) Symptoms of Critical Incident Stress

Emotional

Anxiety
Denial
Panic Reactions
Depression
Grief
Inappropriate Emotions

Cognitive

Blaming Someone Else
Confusion
Poor Attention Span
Difficulty w/ Decision Making
Heightened/Lowered Alertness
Increased/Decreased Awareness
of Surroundings

Behavioral

Change in Activity
Change in Speech
Withdrawal
Angry Outbursts
Change in Interactions
w/ Others
Increase/Decrease Food
Consumption
Increase Alcohol Consumption
Disrupted Sleep
Fatigue

Physical

Dizzy Spells
Headaches
Muscle Tremors
Fatigue
Twitches of Eyes
Nausea
Blurred Vision
Difficulty Hearing
Excessive Thirst
Chills
Profuse Sweating
Shock Symptoms
Chest Pain
Difficulty Breathing

(6) Reduce Stress When Working in Field

1. Adequate briefing (about things about to see/hear).
2. Take frequent breaks (2 hrs. on/15-20 min. off).
3. Take breaks away from scene.
4. Take adequate fluids (avoid caffeine)
- (water, juice, hot cocoa, herbal tea)
5. Avoid high sugar intake.
6. Narrow focus of assignments.
7. Cover mutilated bodies.
8. Emergency personnel should be 18 years or older.
9. Get non-essential personnel away from scene quickly.

7. What Can be Done to Reduce Stress

1. Defusing at the scene.
2. Demobilization.
3. Individual consulting.
4. "Critical Incident Stress Debriefing"

8. Personnel "Stress Prevention" Techniques

1. Training
2. Work as a team
3. Deep breathing skills
4. Show emotions
5. Eat (even if not hungry)
6. Rotate personnel
7. Physical exercise within 24 hours
8. Eat/sleep/rest
9. Work normal schedule
10. Avoid boredom