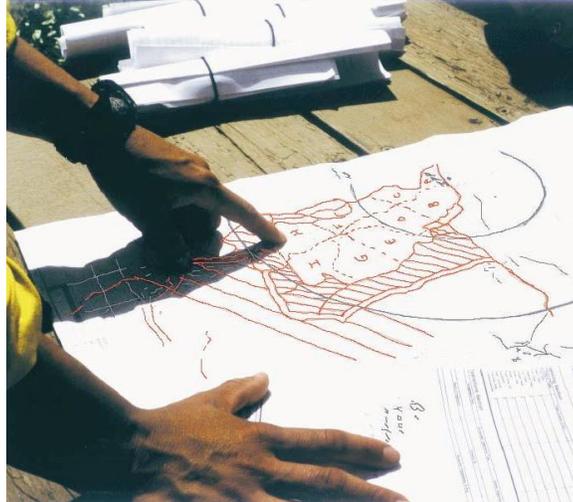


Management of Land Search Operations



Plan of Instruction For Management of Land Search Operations- Basic



**A World Standard for Planning & Management
In Search**
Management of Land Search Operations

Background

The term SAR denotes two separate functions; first search and second rescue. Rescue utilizes proven procedures along with a high degree of technical skill for victim retrieval. With known victims in known locations, the principle problem involves devising the quickest method of removing that individual from danger to a place of safety and providing medical aid. On the other hand, search for missing or lost subjects often involves sophisticated science, and many investigative techniques including: statistics, probability, human behavior and interviewing. These are but a few of the standard tools used in land search strategies.

Traditionally, search and rescue systems provide the response for missing, overdue, lost, injured, or stranded people, in outdoor environments. However, SAR and more specifically the function of search now regularly surfaces in rural and urban settings. In SAR, wilderness takes on several meanings. For instance, most consider "wilderness" as generally uninhabited and devoid of anything man-made. While this certainly describes natural areas such as large parks and open countryside, it also describes urban areas after devastation by natural forces such as the recent earthquakes and tsunamis in Japan or the U.S. East Coast after Hurricane Sandy. The major flash flooding in Colorado during 2013 is another good example. Even the explosion and crash of Pan American Flight 103 in Lockerbie, Scotland, decades ago proved to be one of the largest Wide Area Search operations for evidence and human remains in Europe's history. The search for all the pieces of the space shuttle Columbia across Texas is another example of events pertaining to Wide Area Search.

It would be difficult to estimate the total demand for SAR services around the world today. Some estimate the numbers of missions in the U.S. alone, exceed 150,000 every year. SAR refers to emergency situations that vary from nation to nation as much as the responders vary in the way they provide relief to persons in distress. SAR programs, equipment and personnel vary geographically in accordance with local needs and also the requirement for Wide Area Search techniques. SAR plays an extremely important role in virtually every disaster, fire response, law enforcement and even many EMS emergencies.

Comprehensive emergency management continuously benefits from ongoing SAR operations. Those operations provide a training ground and experience building opportunities for disaster response capabilities at the most elementary level. Management concepts used in SAR Operations establish a foundation for providing a response to larger scale emergencies and disasters. Nearly every type of hazard mentioned in Comprehensive Emergency Management Plans (*state and local*) require search and rescue as an Emergency Support Function. Management of SAR operations ranges from directing the actions of a few responders in a small community, to managing an effort involving hundreds or even thousands of searchers in larger urban calamities. The varieties of environments and situations span mountains and heavily forested terrain, coastal and inland environments, all with numerous threats to human safety. Often, these larger situations also involve several political subdivisions and the coordination of both air and ground resources. Local governments and any other agencies or organizations that participate in SAR response must practice cooperation and coordination among diverse multi-skilled responders. From a comprehensive perspective, this course provides the foundation for planning efforts and cooperation crucial to a fully integrated emergency response system at the local level.

The New Managing Land Search Operations Training Courses

The "*Management of Land Search Operations*" original course was designed for those who have the responsibility to plan, prepare for, and respond to search operations for missing or lost people in wilderness, rural, or urban environments. The course has now been divided into two integrated, but sequential training programs. The split from the original 5-day MLSO curriculum is aimed at both reducing the costs of training and also targeting operational functions. The split into two courses has also proven to be more conducive to normal work schedules as well.

Original Goals and Objectives

The original 5-day curriculum was designed to provide a comprehensive methodology in search for use by local government jurisdictions and land management agencies. That objective has not changed. The methods described in both the Basic and Advanced Search Planning courses are used for evidence searches in many police operations as well as prison breaks. Neither of these courses are field skills training. They are management oriented. Participants learn how to plan for, organize and manage a search effort for missing or lost persons using the Incident Command System (NIMS ICS) as the accepted management structure. Both courses emphasize the right resources to do the job, reflex tasking based on Lost Person Behavior research in the International Search and Rescue Incident Database, and the correct application of the "science" of search theory and planning. Participants find out how to properly manage a search effort for a lost or missing person in an effective manner. Small group discussion and case study tabletop map exercises are used periodically throughout both the Basic and Advanced courses.

Dividing the Managing Land Search Operations Course

For decades the ERI 5-day basic course focused on two comprehensive areas:

The first centered on the overall organization/structure and management of a response effort to find a missing or lost person. Course emphasis included logistics, resources, organizational structure, planning, SAR hazard vulnerability assessments, documentation, and rudiments of investigation, interviewing and protocols for suspending the operation. In recent years we added Lost Person Behavior as another foundation concept in our basic approach.

The second area of emphasis in the ERI longer course focused on "Search Planning." This aspect of the SAR incident has received increased emphasis over the past half-decade. This function represents a discipline unto itself. Started in the 1940's under the banner of Operations Research, the search planning component describes a special resource within the management structure of a search incident. Because this function in search is so important on complicated or extended operations, ERI has endeavored to at least include the rudiments of this discipline in all basic courses. The rationale behind this emphasis is that any extended operational search must be based on specific documentation and numerical assessments initiated early in the operation. Specific decisions about tactics and numbers of resources must be based on verifiable operational procedures that are repeatable in a wide array of environments.

The Split

Far more local agency personnel and designated volunteer responders will be involved in first-on-scene operations than will ever be involved in protracted or extended searches. The bottom line is that while the numbers of incidents are not necessarily going down, planning for rapid first response based on sound management principles solves a good number of search problems fairly quickly. Volunteer overhead team members still need to be familiar with search nomenclature and protocols, multi-organizational structure and responsibilities, as well as the basic concepts of effective search. In addition, local resources and capabilities must be matched with reflex tasking tied to the growing research databases for lost subject behavior. Early documentation combined with basic numerical assessments still ensures effective search operations in all cases both simple and complex. All of these basic components are contained in the initial three-day "*Basic Management of Land Search Operations*."

For years many in the SAR community have stated that "Probability Theory" (or *formal Search Planning*) and the use of mathematics is really not necessary in search because the majority of incidents are over in 12 to 24 hours. This off hand reference, based on gut feeling and anecdotes, is now coming into focus as more statistical data builds within the International Search and Rescue Incident Database (ISRID). In analyzing nearly 10,000 SAR cases, it was found that 81% were resolved within 12 hours. Based on the data now available, while 81% of searches seem to be resolved within that 12 hour window, statistics also indicate that approximately 20% (or 1 in 5) searches have the potential of being more difficult and so require more formal search planning. Even if you push the time frame to 24 hours one search out of twenty (or approximately 5%) has a huge potential for either

some type of legal action or worse, finding the subject too late to save them. 1 in 20 searches represent about one or two more complicated incidents per year for many (busy) teams across the U.S.

If a jurisdiction or SAR Team adheres to the philosophy that most searches only last 12 to 24 hours and they train for only this outcome, that training leads to a very unrealistic expectation of success. In fact, this approach may prove detrimental or even disastrous in a protracted search where sound theory and analysis provide insights beyond simple repeated processes. For this reason *Advanced Search Planning for Managing Land Search Operations* then follows after the foundation laid in the Basic course described above. The focus of the advanced training creates a specialized resource for local jurisdictions for use in protracted or very difficult search operations. From a raw numbers perspective, it is obvious that the majority of personnel in a local jurisdiction would not need this level of specialized training and information. As mentioned earlier, a Search Planner functions as a specialized resource separate from incident command both in duties and responsibilities. Four to six individuals in a large jurisdiction or region of a state serving as primary and backup resources provides more functionality along with more cost effective training for everyone.

Managing Land Search Operations – Basic

Basic

The **Basic Course** spans three days and features the selection of multiple map exercises for use depending on desired (local) geography. Presentations are in the latest PowerPoint computer generated formats with embedded videos.

Agency personnel and volunteer responders routinely arriving as first on-scene-in-charge at a missing or lost person incident must establish documentation and numerical assessments that will provide essential guidance, regardless of incident length or complexity. The course "*Basic Management of Land Search Operations*" provides the essence of what the first-on-scene IC will have to initiate, manage and document on Type 5, 4, or 3 incidents. For the most part, this training is non-technical, but provides a building-block foundation for both ongoing management of the operation and technical search planning that could be necessary in coming operational periods. Most searches begin as Type 5, 4, or 3 incidents and usually can be resolved using the informal search planning tactics and management contained in this course. The Basic course sets the foundation for the application of search planning as detailed in the Advanced Search Planning program. This training explains the principals involved in the analysis of Lost Person Behavior and lays the foundation for Reflex Tasking, statistical analysis and the use of numerical assessments.

PURPOSE AND SCOPE OF THE TRAINING

Managing Land Search Operations **Basic** provides participants with information and knowledge about conducting search operations and the overall management of a missing person incident. Course completion enables participants to manage and direct search efforts for missing or lost persons in a more coordinated and efficient manner. The training serves as a state-of-the-art forum of information exchange about conducting search operations in wilderness, rural, or urban environments. Current text materials, articles, research documents, and the combined experience and knowledge of the instructors and course participants all combine to create an "*Information Rich Learning Environment.*" That environment and methodology of information sharing is one of the leading attributes of the course.

- The ultimate goal of the *Basic Managing Land Search Operations* course is to improve search incident management. Informed and trained Incident Commanders with state-of-the-art search methods have more capabilities, provide better coordination, usually communicate better, and use preplanning as a hedge against poor results and failure.
- Progressive teaching techniques maximize the use of case histories and problem solving exercises that provide practical application and challenge the participants. Practical map exercises based on real anecdotal cases serve as the basis for decision making on similar situations that may be encountered by course by participants in future actual SAR missions.

- The MLSO Basic training course (Part I) will be of interest to any agency or organization, whether professional or volunteer, with search related interests, responsibilities, or capabilities.
- Throughout the course, and use of the Textbook, search management and planning tenets are described generically for land search so that participants can make the widest possible application of the principles and recommendations. Regardless of the environment (*flat land, mountains, lakes, rivers, air search, urban or suburban neighborhoods etc.*) the elements of good land search management and planning will be the same.
- The training uses focused research and case studies to identify past mistakes with an expectation that lessons learned may well prevent future problems of the same nature.

There is no doubt that many attending this course will know some of the material presented by the very nature of having been involved in SAR at the local level for a period of time. Some may even feel that they already know all the material. While the latter is doubtful, it is none-the-less important to encourage participants to keep an open mind, and consider the scope of the entire training package as well as the inter-relationships of all the parts.

The training discusses and builds on a logical, disciplined, and organized approach to finding a missing, lost or overdue person. It is important to stress that common sense, experience and professional needs should provide both direction and value to the course and text content.

OBJECTIVES for the Managing Land Search Operations - Basic Course

After successful completion of this training course, participants will have had exposure to all of the basic tenets of incident management for land search operations and the rudiments of search planning.

After successful completion of the **Basic** Managing Land Search Operations course, participants will be able to:

1. Manage a search as the Incident Commander on a search effort for single or multiple missing or lost persons.
2. Participate as an overhead team member on a search, for a missing or lost person.
3. List the functions and responsibilities within the organizational structure of the Incident Command System for SAR.
4. List the essential elements of a written preplan for search operations and describe the document's importance to a successful and effective effort.
5. List the basic types of search resources and discuss their function and limitations.
6. Describe the most productive and efficient tactics that can be used in search for lost or missing persons in either wilderness, rural, suburban or urban environments.
7. Describe the importance of Reflex Tasking functions that are based on Lost Person Behavior categories.
8. Describe an ordered priority sequence of initial actions in applying SAR resources to locate missing people.
9. Describe the functions of vision, target orientation, search image and briefing as they relate to search, detection and recognition.
10. List at least six specific questions that should be asked of searchers during debriefing at the end of the operational period.
11. Demonstrate the ability to establish a workable and realistic probable search area and searchable subdivisions in a map exercise
12. Identify the key factors involved in deciding to suspend a mission.

In addition, each participant should be able to assist his/her local jurisdiction in the following areas:

1. Assist local Emergency Managers in developing local emergency response plans for all search and rescue operations.
2. Coordinate and provide necessary training to other agencies, personnel, and volunteers assigned Search and Rescue operational duties.
3. In consultation with the local Emergency Manager, develop the local SOPs for the Community Emergency Operations Plan that deal with both the search and rescue functions.

QUALIFICATIONS FOR ATTENDANCE

The MLSO Basic course was designed for those agency members that have responsibilities for conducting search operations in rural, wilderness, urban or missing aircraft related incidents. This may include personnel from law enforcement agencies, land management agencies, federal reservations, fire rescue services, emergency medical groups and all three levels of government: (local, state and federal). In addition, selected representatives from volunteer and private search organizations will definitely have a need for information contained in this course as well.

SPECIAL REQUIREMENTS FOR THE CONDUCT OF THE TRAINING

During the case study map exercises the participants will need to break into small working groups. Additional classroom space or small break-out rooms for discussion work well. Group size for break-out and discussion groups for the map exercise sessions should be a maximum of 6 participants.

BASIC MANAGEMENT OF LAND SEARCH OPERATIONS

Basic - Summary of Basic Course Subject Areas and Times

1. Introductions, handout books, initial admin announcements1.0 Hr

Pre-Operations and Planning (*Concepts, Philosophy and Responsibilities*)

2. Changing Concepts in Search Planning & Management.....1.0 Hr
3. Legal Issues and Public Expectations1.0 Hr
4. Search IC - The Job of Managing a Search.....1.0 Hr
5. SAR Vulnerability Assessment & Statistics.....0.5 Hr
6. Operational Preplanning - Developing a Written Plan1.0 Hr
7. SAR Resources & Their Application2.0 Hrs
8. Case Studies of Search - Different Outcomes with valuable Lessons1.0 Hr

Operational Response (*Responding when the call comes in*)

9. Getting Started: First Notice, Urgency, Planning/Searching Data, Callout, MPR1.0 Hr
10. Investigation & Interviewing1.0 Hr
11. Lost Person Behavior and Reflex Tasking.....2.0 Hr
12. Organizational Structure: ICS and the Six Step Process for SAR Ops1.0 Hr
13. Introductory Exercise (Map Tabletop #1).....2.0 Hr
14. Introduction to the Science of Search – (*Search Planning Theory*)..... 1.0 Hr
15. Establishing the Search Area (POA).....1.0 Hr
16. Probability of Detection (POD) & Probability of Success (POS)..... 1.0 Hr
17. Information Exchange - Briefing and Debriefing1.0 Hr
18. Searching in the Urban Environment1.5 Hr

Management Issues for Base Operations - Post Search Admin

19. Base Operations & Documentation.....1.0 Hr
20. Suspending Operations - Demobilization, Post Mission & Critique1.0 Hr
21. Map Exercise (Map Tabletop #2)2.0 Hrs
22. Critique, Closing Comments and Certificates0.5 Hr

TOTAL.....**24.5 Hrs**

Basic Management of Land Search Operations

UNITS OF INSTRUCTION

1. Introduction, Course Administration, Class Objectives (1 Hr)

Scope: Welcome, familiarization with the facilities, administrative information, course purpose, objectives, agenda and instructional staff introduction. Class participants establish their primary objectives for attending the course and introduce themselves.

2. Changing Concepts in Search Management (1.0 Hr)

Scope: A review of how the conduct of land search for missing or lost people has changed dramatically in the last decade with added research and an international data for lost person behavior; Revised and added crucials for base line planning; new terms, definitions and practical use of the science of search for finding missing and lost persons; also the basic math skills necessary for search planning.

3. Legal Issues and Public Expectations (1.0 Hr)

Scope: Discusses the basic issues of liability in SAR response, elements used to prove liability, and the most common causes of lawsuits in SAR Response. Emphasis is placed on understanding the law with regard to trespass on private property, the process and how most lawsuits occur. Volunteer status, Necessity and the Good Samaritan laws are also reviewed.

4. Search IC: The Job of Managing a Search (1.0 Hr)

Scope: Responsibilities of the Search Incident Commander; Professional competencies; Common mistakes made during previous searches and how to avoid them; core skills of the IC position and the mix of leadership and management; Continuing operational problems in search; What volunteers expect of search managers and what search managers expect of volunteers; and Contents of a good search management kit to take on-scene.

5. SAR Vulnerability Assessment & SAR Statistics (0.5 Hr)

Scope: The importance and benefits of the SAR vulnerability assessment and its role in developing a written plan; Identification of SAR mission types; Collection of information; Hazard mapping and the assessment report; The importance of maintaining local SAR mission data-bases and the overall benefits of SAR statistics.

6. Operational Preplanning: Developing a Written Plan (1.0 Hr)

Scope: Definition of the SAR Operational Preplan; The reasons for planning; Major influences affecting the plan and a detailed discussion of what should go on during the planning process; Characteristics and Components of the written preplan; The SAR planning process and examples of good plan components from a wide source of written plans; Also a template for developing a written plan is presented.

7. SAR Resources and Their Application (2.0 Hours)

Scope: Identifies the types and categories of SAR resources and their functions, limitations, sources, training and availability; State or regional specific resources and their use in that area; Tactical application or how those resources are applied in a practical sense to the field. The sequence of initial actions for applying resources is outlined as appropriate to establishing strategy and tactics. Detection modes, search techniques, and an overview of search resource capability are also covered. Depending on the area and types of searches conducted in the region, guest speakers on dogs, tracking, and aircraft may be used. The objective is to give participants a broad based understanding of how and when resources should be applied.

8. Case Studies of Search - Different Outcomes with Valuable Lessons (1.0 Hr)

Scope: These anecdotal cases were chosen because of their extreme complexities, and the uniqueness of each of the situations. These incidents provide a rationale for why this course was developed and point out the difficulties that can occur in some searches. We want to avoid mistakes and learn from the experiences of others. This is a discussion of two actual searches with very different outcomes. The first ended with the missing child being found dead and the second resulted in finding the young boy, but only after considerable effort and time. The lack of investigation and interviewing was crucial to each incident. At the conclusion of the case studies, there should be a briefing on how the map problems will be conducted during the context of the course.

9. Getting Started (1.0 Hr)

Scope: This is a collective module was designed to capsulize the GETTING STARTED PROCESS when the call comes in for a potential missing person. *(This is a combination of previous modules encompassing First Notice, Determining Urgency, Planning and Searching Data, Callout and specific reference to the Missing Person Report Form)* As a potential search incident unfolds, all of these tasks must be completed: Initial contact with the reporting party; Gathering initial information; Evaluation of the problem; Gathering more information and determining priority questions. All the factors involved in determining the urgency of the situation and how these help to set the relative level and speed of response is discussed; The minimum information and data necessary to start the incident management process is outlined along with Information needed by searchers to effectively search in the field. An in-depth look at the Initial and Full Missing Person Report form contents is covered.

10. Investigation and Interviewing (1 Hr)

Scope: Identifies the necessity for, and the general principles of investigation to include: Assembling a complete profile; The four types of evidence; Criminal possibilities; Sources of leads and clues; The fundamental elements of interviewing witnesses and persons with potential intimate knowledge of the missing person or circumstances surrounding how the missing subject went missing; pitfalls to the interviewing process; The importance of the Communications Triad; and Where to get specific information.

11. Missing/Lost Person Behavior and Reflex Tasking (2.0 Hr)

Scope: Identifies the importance of establishing a detailed subject profile using behavior data as a foundation; The basis and underlying principles behind ISRID (International Search and Rescue Incident Database); Notable behavior of lost and missing persons; The need for data collection and the use of previous mission data in determining probable search areas; The difference between being lost and not being lost; Probability zones based on international data and eco regions.

This module also covers initial actions on every search, regardless of the circumstances that are based on Lost Person Behavior subject categories; Reflex tasking is defined and described along with a useful "Bike Wheel Model" for on-scene initial response; The logical sequence for planning a search effort is given along with guidelines for developing attainable, verifiable operational period objectives, which can be easily evaluated. The search planning time table for each operational period is discussed and where overlaps should occur.

12. Organizational Structure: ICS and the Six Step Process for SAR Ops (1 Hour)

Scope: How good organization enhances coordination, cooperation and functional positions. The ICS on-scene management system; Operational problems and pitfalls as pointed out in case studies and research; Functional management with specific responsibilities is emphasized along with critical components of an

effective management system; Concludes with the cyclic Six Step Management Process developed by the International Association of Chiefs of Police - it is repeated during every operational period.

13. Introductory Map Exercise - Tabletop # 1 (2 Hrs)

Scope: This introductory map problem utilizes all of the basic principles introduced in the course to this point. It is an actual case and course participants must use the same resources that were available during the actual incident. Interviewing and investigation are emphasized to gather planning data and searching data along with missing and lost person behavior. Participants are also given ground rules for participation in the tabletop map exercises to follow.

14. Introduction to the Science of Search (*Search Planning Theory*) (1.0 Hr)

Scope: The history and derivation of search theory dating back to WWI and Operations Research is outlined; Review of current approaches to management and planning of searches; The need for quantification and a detailed explanation of how to use and apply mathematical units of measure; statistical concepts and their application to the problem of search; probability zones and the use of conventional notation for Search Probability Theory plus selected definitions. The module also discusses probability of success and its importance as a management tool.

15. Establishing the Search Area –(POA) (1 Hr)

Scope: The process to establish a search area and the four methods used to reduce that area to a manageable size. The potential search area is described as a function of probable scenarios. Identify potential travel distances and probable locations identified for specific regions of probability. All methods of establishing a search area are brought together in a sample problem.

The concept of assigning probabilities to search segments by proportional consensus; Subjective regions of probability combined with missing/lost person behavior data probability zones are also discussed; The concept of shifting probabilities of area and the mathematical analysis necessary for tracking changing values is also covered. As a final practical exercise, the entire process is tracked from start to finish using one incident and all the associated processes and figures.

16. Probability of Detection (POD) and Probability of Success (POS) (1 Hr)

Scope: POD is defined; The original research and experiments on probability of detection done in the Pacific Northwest along with methods developed in the UK; Tactics that are used in search for missing persons, objects and evidence are discussed in detail. Operations research is discussed as it relates to determination of *Sweep Width* and *Coverage*. Methods of determining POD for volunteers using "Average Range of Detection" (AROD or R_d) and the current research that substantiates this procedure are also covered. Sample problems with representative calculations are provided along with practical application and use; emphasis on practical procedures to determine reasonably accurate probability of detection calculations. **Type 5, 4, and 3 Incident Commanders** will become familiar with search planning terminology in this module and the two above. They will also learn what information that a formal search planner will need if the incident escalates to a **Type 2 or Type 1 incident**.

This module also provides an overview of all the basic principles involved in the search theory standard notation formula: $(POA \times POD = POS)$. The importance of quantifying values for both search area designation and the ability of resources to detect the missing subject in the field are both emphasized. Practical examples are given concerning decisions about effort allocation and the options that are open to a search ICs when committing resources to the field; The POS for each segment and the overall search effort throughout the search area..

17. Map Exercise - Tabletop # 2 (2 Hrs)

Scope: The second tabletop map exercise is designed to utilize all of the basic principles introduced during the course up to this point. It is another actual search effort and course participants, as before, use the same resources that were available during the actual incident. Interviewing and investigation and use of forms are emphasized to gather planning and searching data along with missing and lost person behavior. Participants are encouraged to document everything; this is the first problem to involve a shift change between groups during the problem.

18. Information Exchange - Briefing/Debriefing (1.0 Hr)

Scope: Discusses the important elements of briefing to include the function and responsibility of briefing, tips on giving briefings, where and when they should occur, the minimum information for a briefing, and some guidelines as to how they should be conducted. Discusses the important elements of debriefing to include the function and responsibility of doing the debriefing; Who should be debriefed and when that activity needs to take place; Specific information that should be gathered and what kind of documentation should be kept in writing.

19. Searching in the Urban Environment (1.5 Hrs)

Scope: Some search topics are the same in the urban environment, and many are different. This module is a synopsis of a three day course on searching in the urban environment. The need for a comprehensive pre-plan is emphasized with component parts of the vulnerability assessment necessary for planning. The subject profile for the urban search is stressed along with map management, pre-designated search base sites, searcher safety, good investigative techniques, and use of the media plus containment strategies in the city. Urban tactics are discussed with specifics about house to house inquiries and searching buildings. The last portion of this module deals with abduction and international data that provides guidelines in these incidents.

20. Search Base Operations & Documentation (1.0 Hr)

Scope: Describes the various types of search operation facilities and their use, plus guidelines for establishing search bases, camps, the command post, heli-bases, staging areas and other special facilities. Emphasis is placed on safety and organizational layout for best efficiency of operation; the documentation process in terms of why it is important, what and how activities should be recorded and the personnel positions that should be responsible for recording the information.

21. Suspending the Mission, Demobilization & Post Mission (1 Hour)

Scope: Identifies the key factors involved in deciding when to suspend a search mission. Discusses the importance and inter-relationships of these factors to the decision making process. The elements of a limited-continuous search are also reviewed along with ideas and techniques for a final debriefing session; the definition and principles of demobilization; Identifies the six parts of the demobilization plan. Special emphasis is placed on the legal ramifications of inadequate or no demobilization planning; The objectives and techniques involved in meeting post-search mission responsibilities including organizing and conducting a critique, guidelines and follow-up action, post mission paperwork, thank you letters, etc. Emphasis is placed on improving operations in the future by learning from the mistakes of the past.

22. Final Map Exercise Tabletop #3 (2 Hours)

Scope: Practical application of all concepts and principles presented throughout the course.

Basic Managing Land Search Operations
Sample Agenda

The course must have a flexible agenda based on local needs & tangent discussion topics

Times for each module are approximate and vary with location and course participant needs.
 Depending on start times, modify time hacks as appropriate; Times for each module are approximate.

DAY 1: 0800 to 0900 Introductions, Handout text, initial Admin. **INSTRUCTOR** _____

Pre-Operations and Planning (*Concepts, Philosophy & Responsibilities*)

-55min	Changing Concepts in Search Management	_____
-55min	Legal Issues and Public Expectations	_____
1030 -1045	Break (coffee/tea)	_____
-55min	Search Incident Commander - The Job of Managing a Search	_____
-30min	SAR Vulnerability Assessment & Statistics	_____
-55 min	Preplanning - Developing an Operational Plan	_____
1200-1300	Lunch	_____
-120min	SAR Resources & Their Application	_____
-55 min	Case Studies of Search – Different Outcomes with valuable Lessons	_____
1700	Class ends for the first day	_____

DAY 2:

0800 -	Class Starts	
-55min	GETTING STARTED: First Notice, Determining Urgency, Planning & Searching Data, Callout -Missing Person Report Form Search Management - Initial Response (26 min. video)	_____
-55min	Investigation & Interviewing	_____
-120min	Missing /Lost Person Behavior and Reflex Tasking	_____
1015 - 1200	Organizational Structure: ICS and the Six Step Process	_____
-50min	Lunch	_____
1200 -1300		
1300 -1500		
2.0 hrs	Map Exercise #1	_____
1500 -1515	Break (coffee/tea)	_____
-55min	Introduction to the Science of Search	_____
-55min	Establishing the Search Area (POA)	_____
1700 -	Class ends for 2nd day	

DAY 3:

0800 -	Class Starts	
0800 - 1000		
-55min	Probability of Detection (POD) & Probability of Success (POS)	_____
-55min	Information Exchange – Brief/Debrief	_____
1000 -1015	Break (coffee/tea)	_____
1015 -1200	Searching in the Urban Environment	_____
-90min	Lunch	_____
1200 -1300		
1300 -1500		
-55min	Base Operations and Documentation	_____
-55min	Suspending the Mission, Demobilization & Critique	_____
1500 - 1515	Break (coffee/tea)	_____
2.0 hrs	Map Exercise #2	_____
1630-1700	Formal course ends. Discussion, closing remarks	_____
	Critique, Certificates - -	_____
1700 -	Course ends on 3rd day	

TOTAL.....24.5 Hrs

EVALUATION

There should be some feedback and evaluation on the course utility and practical value at the end of the course. The feedback should consist of measuring objectives by various methods and techniques outlined in the lesson plans and in the end-of-course critique. Some law enforcement academies prefer a written test as evaluation which is included in the Instructor Suite. The map problems serve as one of the best indicators for participant understanding of essential planning and management concepts.

In the City and Guilds Institute of London under the Profiles in Professionalism category for vocational training, police and other law enforcement students have the option of submitting a personal evaluation of a search case study within 6 months after attending the course. By asking students to read, study and comment on real cases and compare their findings with the internationally accepted principles of search planning and management, instructors may fully assess a student's knowledge of applied principles to real life situations in the search arena.

Specific competencies, particularly in complicated courses like Advanced Search Planning for Managing Land Search Operations, are not retained indefinitely. The skills and knowledge presented during the training are definitely perishable. Written evaluations serve the following purposes: to evaluate the participant's degree of understanding; to determine the need for revisions in future courses; and to determine the scope of future refresher courses.

DEPLOYMENT

The (*introductory*) **Basic Managing Land Search Operations** course should be taken sometime in the first year of assignment for newly designated local SAR coordinators and Search Incident Commanders. This exposure will provide a clear template and knowledge for managing Type 5, 4 or 3 SAR incidents. It will also provide a foundation of knowledge and terminology required to supervise or manage the formal search planning function on a protracted search. A refresher course for this training should be attended by those with search responsibilities at a minimum of every three years.

Every jurisdiction should have access to the specialized capability of a search planner. Whether that is in the form of a volunteer or an official agency representative, the function is indispensable for Type 2 and Type 1 incidents involving protracted or wide area searches. As mentioned above, the majority of personnel in a local jurisdiction would not need this level of specialized training and information. The Search Planner functions as a specialized resource which is separate from incident command both in duties and responsibilities. Volunteers can serve this vital function well as a specialized local resource or team. Four to six individuals in a large jurisdiction or region of a state serving as primary and backup resources provides more functionality along with more cost effective training for everyone. **The Advanced Search Planning course** should be attended within at least 6 months of going through the **Basic** and should be followed up with a refresher at a minimum of every three years. This is particularly important for those that have the responsibility to supervise longer more complicated search operations.

MATERIALS CHECKLIST: Basic MLSO Course

STUDENT TEXTS

Required: Text - The Textbook for Managing Land Search Operations

Required for Instructors: Lost Person Behavior – A Search and Rescue Guide on Where to Look – for Land, Air and Water by Robert J. Koester

Optional: Handbook - The Handbook For Managing Land Search Operations

Optional: Selected papers from research studies

NOTE: Many states and sponsoring agencies prefer to provide 3-ring binders for the student text. This is so other information specific to the country, state, region, or community can be inserted in the book. The books are shrink-wrapped in plastic, 3-hole punched and spiral bound. This means the books can be used independently or placed in a ring binder.

STUDENT MATERIALS

Student pre-work or assignments (*Train the trainer courses usually have pre-work*)

3-ring notebooks (*if necessary*)

Name tent for each participant (*pass around marker to write names*)

Course critique forms

Certificates and MLSO Pins

Calculators for math computations and straight edge for measurement on maps

INSTRUCTIONAL AIDS

Instructional Suite PowerPoint (Instructor Package available thru ERI)

Laminated maps for use in tabletop exercises

Vinyl overlays for operational period designations

Embedded videos and case studies on CD

CLASSROOM FACILITIES

Blackboard, chalk and eraser

Flipchart and felt tip markers

Podium or instructor table at front of classroom

Reference tables for handouts, journals, research materials and example texts, etc (*two*)

Student seating - Desks? Tables with chairs work out much better

Separate work or breakout areas for students to work exercises/problems

Separate work-table for instructors (layout and organize instructional materials)

Room that can be secured for storage and access to a copy machine

3-hole punch for students to insert handouts and extra worksheets into text

AV EQUIPMENT

Overhead projector if available to assist with the map exercises for assignments

Computer projector

Extra bulbs and extension cord

Sources of immediate back-up equipment

Screen (*as large as possible*); realistically this should be at least 6 X 8 feet.

MISCELLANEOUS ADMIN. MATERIALS

Receipt book if necessary for registrations

Paper, pens or pencils & tape (*masking tape to hold down vinyl overlays*)

Extra transparencies (vinyl) & water soluble pens

ESSENTIAL: Means to make and distribute a class roster