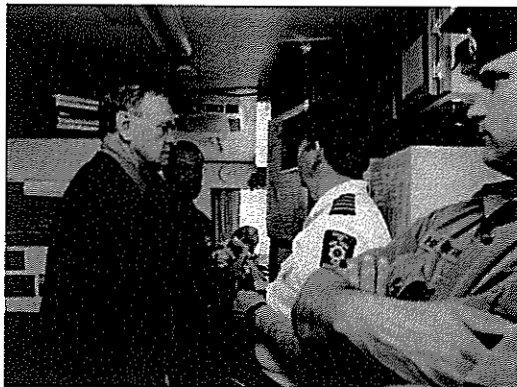
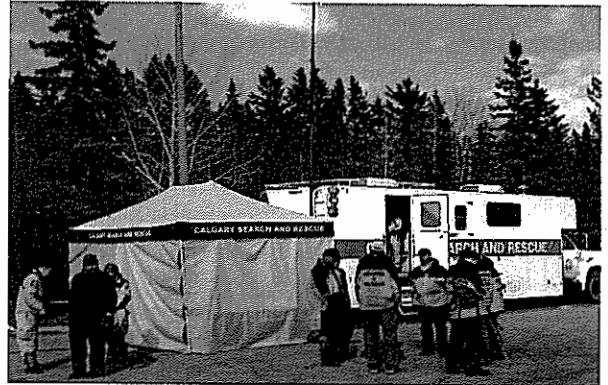
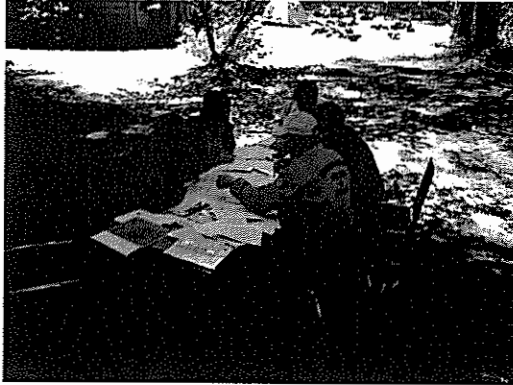


Search and Rescue Management



**Initial Response through Extended Operations
(Best Practices by Experienced Practitioners)**

March 2018

**Search and Rescue Management
Initial Response through Extended Operations
(Best Practices by Experienced Practitioners)**

written and compiled by:

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This text has been written utilizing, in part, previous ERI International texts to include: Search Management for the Initial Response Incident Commander, Urban Search Management for the Initial Response Incident Commander, Search Team Leadership Skills, and Managing Search Operations.

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Disclaimer:

This manual is not the complete instructional manual for search and rescue management or response. The materials are not meant to replace field training by competent search, rescue, and / or emergency response leaders or to replace actual experience. ERI International, Inc., SARI, the authors and contributors to this manual do not endorse any specific equipment mentioned in this manual and program. The authors, contributors, ERI International, Inc., and SARI take no responsibility for the use of this manual or for any information contained therein. ERI International Inc. and SARI takes no responsibility and cannot be held liable for statements made by instructors who utilize this manual. The purchaser or recipient of this manual agrees to protect, save and hold forever harmless ERI International Inc., SARI, the authors, and contributors to this manual, against and from all loss, cost, damage, liability, or expense arising from, or out of the use of this manual. ERI International Inc., SARI, the authors, and contributors of this manual, may not be held liable in any way for any occurrence in connection with an individual's utilization of the materials and instructions set forth in this manual which may result in injury, death, or other damages to the purchaser or receiver of this manual, his family, heirs, or assigns. It is the duty of every community, organization, volunteer group, and agency, to obtain the knowledge and proficiency to perform and maintain effective, efficient search, rescue, emergency / disaster management, and operations. The information presented, and in this publication, serves as the beginning outline and body of knowledge for proper search management and response programs at the community level.

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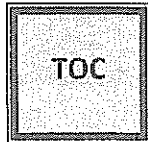
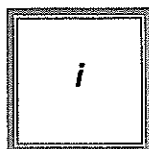


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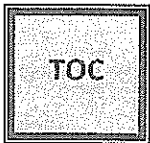


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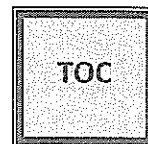
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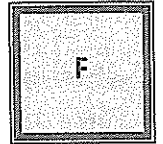
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SEARCH AND RESCUE MANAGEMENT

FOREWARD

**FORWARD****MANAGING SAR OPERATIONS**

Very few individuals know or understand the national search and rescue (SAR) systems that provide response and assistance for overdue, missing or stranded people. Search and rescue is often associated with outdoor activities and people missing in outdoor environments. However, SAR is also an extremely important part of nearly every disaster or major emergency.

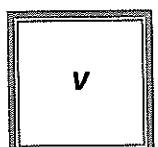
The term SAR denotes two separate functions. Rescue utilizes proven procedures along with a high degree of technical skill for subject retrieval. With known subjects in known locations, the principle rescue problem involves devising the most expedient method of removing that individual from danger to a place of safety and medical aid. On the other hand, searching for the lost or injured subject has developed into a sophisticated science involving numerous modern investigative techniques. Statistics, probabilities, human behavior, interviewing, terrain evaluation, and tracking are but a few of the standard tools used in modern search.

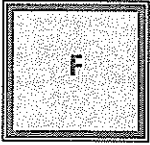
It would be difficult to estimate the total demand for SAR services in Canada today. Some estimate annual numbers of missions, from all regions of the country, to exceed 10,000. The term SAR connotes emergency situations that are as varied nationally, as are the responders who provide relief to persons in distress. Search and rescue programs, equipment, and personnel vary geographically in accordance with local needs.

SAR can probably be best defined as 'finding and aiding people in distress – relieving trauma and suffering.' SAR involves a great many volunteers and professionals, and covers a multitude of skills. Hurricane Katrina is considered one of the world's most catastrophic disasters as well as being one of the largest peacetime search and rescue operations in the history of United States.

This 'SAR Management' course is designed to provide a comprehensive methodology for use by local governments and agencies involving local, provincial, federal, and private organizations in the search for, and rescue of lost or stranded persons on land, in missing aircraft, and in a water environment.

Nearly every type of hazard mentioned in the Comprehensive Emergency Management Plans that exist in all provinces may require search and rescue. Management of these SAR operations can range from directing the actions of a few searchers in a small area to managing an effort involving hundreds and even thousands of searchers in mountainous, heavily forested, coastal or inland environments with numerous threats to human safety. Often, these larger situations also involve several political subdivisions and the coordination of both air and ground resources.



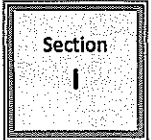


FOREWARD

This course is designed to show local governments, and any other agencies that participate in SAR response, the need for cooperation and coordination among diverse emergency service organizations. Many of the agencies that collectively support multi-organizational SAR responses operate under their own specific statutory authority. From the standpoint of benefit to comprehensive emergency management, search and rescue operations provide the training ground and experience building for disaster response capability at the most elementary level. Management principles used in 'SAR Management' provide the very foundation for management of larger scale emergencies and disasters.



I. INTRODUCTION



**Section
I. INTRODUCTION**

- A. THE EVOLUTION OF SAR MANAGEMENT**
- B. WHAT IS SEARCH AND RESCUE?**
- C. SEARCH AND RESCUE IN CANADA: AN OVERVIEW**
- D. COURSE PHILOSOPHY AND PURPOSE**

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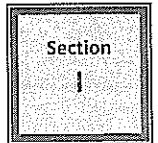
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I

I. INTRODUCTION

NOTES

I-2

I. INTRODUCTION



A. THE EVOLUTION OF SAR MANAGEMENT

Today, search management is recognized as a SAR specialty. Like other specialties such as rope rescue, canine search, swift water rescue, cave rescue, dive rescue, avalanche search, and air operations, search management has its own training courses, symposia, and supporting body of published literature. This chapter explores how search management has developed into a specialty, and it doing so defines the philosophy for this course, 'SAR Management: Initial Response through Extended Operations (Best Practices by Experienced Practitioners)'.

It began in 1973. A park ranger by the name of Bill Wade was working as a Training Specialist at the National Park Service's (NPS) Albright Training Center in Grand Canyon. The training budget for Albright included some money for development of training in 'search and rescue'. Nothing definite – just search and rescue.

Bill Sartuck Developed Lost Person Behavior; published paper.

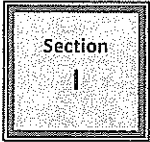
In trying to determine how best to use this money, Bill informally surveyed a number of people active in SAR in the NPS. Gradually it became clear that those areas that had a technical rescue problem (high angle rock, snow and ice, underwater, etc.) had implemented very sophisticated techniques, equipment, and action plans to cope with rescue emergencies. Most areas had highly trained persons readily available, either on the park staff or from nearby volunteer SAR units. On the other hand, it became more and more obvious that the same was not true for plans and techniques that were being used to search for lost persons. Bill decided to pursue efforts to organize a training course in 'search'.

Having earlier worked at Mount Rainier, Bill had become acquainted with some of SAR's more distinctive personalities. He knew that one in particular – the late Bill Syrotuck – had been dabbling in a number of different aspects of searching for lost persons. Syrotuck had a very analytical mind and was looking for ways to improve the effectiveness of searching.

During the latter part of 1973 and early 1974, Bill assembled a myriad of resource materials and suggestions for topics that many thought needed to be addressed in a course. A great deal of time was spent with Syrotuck.

It was determined that the inefficiency and ineffectiveness of searches was not due to the actual searching skills but rather to the overall management – the way that techniques, patterns, and support activities were implemented.

In researching these considerations, some exciting new concepts came to light. Syrotuck had begun assembling data on the behavior of lost persons. Jon Wartes (Washington State Explorer Search and Rescue) was experimenting with the relative effectiveness of various search patterns – in terms of effectiveness. Syrotuck and others were investigating ways of establishing manageable search area segments and means of assigning values representing the probabilities that the subject might be in each defined segment.



A. THE INTRODUCTION OF SAR MANAGEMENT

About this time, Dennis Kelly published his classic book, *Mountain Search for the Lost Victim*. This was the first definitive reference on search and consolidated all known information relevant to the activity.

Air-scenting dogs were coming into their own as a very effective resource in locating lost persons. Ab Taylor and Jack Kearney (U.S. Border Patrol) made a big impact by showing how human tracking and sign-cutting techniques could contribute to determining where the subject 'wasn't'. Containment considerations became important. Dennis Kelley became a strong, vocal advocate for searching for 'clues' rather than the subject – and 'clue-consciousness' became a common term.

All of a sudden, it seemed it was possible for a person in charge of a search mission to have a bunch of new tools available. A lot of new things were happening, and Search Management was born!

Bill pulled all these things into an agenda for a five-day course. First conducted at the Albright Training Center in the early fall, 1974, it was primarily for NPS rangers. But several 'outsiders' also attended, including Rick LaValla, assistant SAR Coordinator for Washington State's Department of Emergency Services. And a number of experts, including Syrotuck, Kelley, and others were used as resource persons in conducting the course.

Although it got rave reviews, there was still a tremendous amount of work to be done to improve the course. This process was hastened by an unfortunate coincidence. Hal Foss, SAR Coordinator for Emergency Services in Washington and a respected leader in the SAR community, died on a climb of Mt. St. Helens, and Rick LaValla stepped into that role. He was able to promote and coordinate the presentation of the course – with improvements – for Washington State SAR folks in August 1974. In 1975, Rick LaValla and Skip Stoffel, who was also working at Washington State Emergency Services, compiled the first cut of a student textbook from articles, professional papers, books, and other assorted SAR resources that were available from around the country.

The NPS conducted the course again in Grand Teton National Park, Wyoming in September 1975, and funded a collateral meeting of the more prominent 'Search Function Researchers', among whom were: Syrotuck, Lee Lucas of China Lake, California SAR Team; Kelly; Bob Mattson from the USAF and National SAR School; and Jon Wartes. As a result of this meeting and other follow-up actions, the concept of probability calculations and manipulating variables to accomplish desired results began to take on a more important role in the course. Now there were ways of predicting and even influencing results that were dependent on the effectiveness of resources and the ways in which they were used. Order of use and specific search patterns began to be important for resource application.

Several more courses were put on during 1975 through 1977, each with refinements from those done earlier. A turning point came in May 1978, when Jim Brady, who had replaced Bill Wade at Albright, convened a working session to organize the instructional materials for the class. After this it became



underwater recovery operations. Others deal with the overall conduct of search and rescue actions, whether on a large or small scale, and involve formulating concepts, deploying teams, allocating resources, supervising, and so on. This last form of command and control, the overall conduct, management of search and rescue actions, is our primary concern in this text.

2.0 WHAT IS THE BASIS OF COMMAND AND CONTROL?

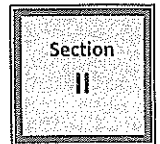
2.1 The basis for all command and control is the authority vested in the incident commander over subordinates. Authority derives from two sources. Official authority is a function of rank and position, and is bestowed by organization and by law. Personal authority is a function of personal influence and derives from factors such as experience, reputation, skill, character, and personal example. In this case it is bestowed by the other members of the organization. Official authority provides the power to act but is rarely enough; most effective commanders also possess a high degree of personal authority. Responsibility, or accountability for results, is a natural corollary of authority. Where there is authority, there must be responsibility in like measure. Conversely, where individuals have responsibility for achieving results, they must also have the authority to initiate the necessary actions.

3.0 WHAT IS THE RELATIONSHIP BETWEEN 'COMMAND' AND 'CONTROL'?

3.1 The traditional view of command and control sees 'command' and 'control' as operating in the same direction: from the top of the organization toward the bottom. Incident commanders impose control on those under their command; commanders are 'in control' of their subordinates, and subordinates are 'under the control' of their commanders.

3.2 We suggest a different and more dynamic view of command and control which sees the incident command as the exercise of authority and control as feedback about the effects of the action taken. The incident commander commands by deciding what needs to be done and by directing or influencing the conduct of others. Control takes the form of feedback, the continuous flow of information about the unfolding situation returning to the incident commander which allows the incident commander to adjust and modify strategy and tactics as needed. Feedback indicates the difference between the mission goals and the situation as it exists. Feedback may come from any direction and in any form, providing information and intelligence about the missing person, information about the status of teams or other functions, or revised guidance from the police based on investigational developments. Feedback is the mechanism that allows incident commanders to adapt to changing circumstances, to exploit transient opportunities, respond to developing problems, modify strategies, or redirect team efforts. In this way, feedback 'controls' subsequent incident command action. In such a command and control system, control is not strictly something that seniors impose on subordinates; rather, the entire system comes 'under control' based on feedback about the changing situation.

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP



A. DEFINING COMMAND AND CONTROL

1.0 WHAT IS COMMAND AND CONTROL?

- 1.1 We often think of command and control as a distinct and specialized function—like logistics, planning, or administration—with its own peculiar methods, considerations, and vocabulary, and occurring independently of other functions. But in fact, command and control encompasses all Search and Rescue, Incident Management functions and operations, giving them meaning and harmonizing them into a meaningful whole. None of the above functions, or any others, would be purposeful without command and control. Command and control is not the business of specialists—unless we consider the incident commander a specialist, because command and control is fundamentally the business of the incident commander.
- 1.2 Command and control is the means by which an incident commander recognizes what needs to be done and sees to it that appropriate actions are taken. Sometimes this recognition takes the form of a conscious command decision—as in deciding on a concept of tactical operations. Sometimes it takes the form of a preconditioned reaction—as in search and rescue training, practiced in advance so that we can execute them reflexively in a moment of a mission. Sometimes it takes the form of a rules-based procedure as in the guiding of a helicopter on final approach to the helo-spot. Some types of command and control must occur so quickly and precisely that they can be accomplished only by computers such as the command and control of an unmanned aerial vehicle in flight. Other forms may require such a degree of judgment and intuition that can be performed only by skilled, experienced people as in devising tactics, operations, and strategies.
- 1.3 Sometimes command and control occurs concurrently with the action being undertaken—in the form of real-time guidance or direction in response to a changing situation. Sometimes it occurs beforehand and even after. Planning, whether rapid time sensitive or deliberate, which determines aims and objectives, develops concepts of operations, allocates resources, and provides for necessary coordination, is an important element of command and control. Furthermore, planning increases knowledge and elevates situational awareness.
- 1.4 Effective training and education, which make it more likely that search and rescue teams will take the proper action in missions, establish command and control before the fact. The training and development mentioned earlier, practiced beforehand, provides command and control. An incident commander's intent, expressed clearly before the evolution begins, is an essential part of command and control. Likewise, analysis after the fact, which ascertains the results and lessons of the action and so informs future actions, contributes to command and control.
- 1.5 Some forms of command and control are primarily procedural or technical in nature—such as the control of aircraft and air space, the coordination of supporting resources, or mountain rescue, or

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP

Management of search and rescue missions over the years have involved from head them off at the pass, or run by the seat of your pants, to the very complex understanding of command and control, management, leadership, and how to make decisions under stress during critical incidents. Lessons learned from after action reports (corrective action reports) over the years have indicated that Incident Commanders, Operations Section Chiefs, and SAR Managers need to perform these functions in a proficient, competent, and credible manner. Your participation in search and rescue missions will be measured by your ability to perform functions in command and control, management, leadership, and the ability to make decisions under stress during these critical incidents. In search and rescue (SAR) leadership is an essential component for very many reasons not the least of which is safety and the glue that binds all the rest together. We will cover the functions mentioned and give you tools to address a greater understanding of your responsibilities in command and control, management, leadership, and decision making. Volunteers expect and deserve good leadership. Without leadership any organizational structure will not attain its full potential and, indeed, may fail. Teams will not be able to provide a quality of service and casualties will not get the attention to be expected in the developing social climate. It would seem, at times, that discussions on the importance of leadership in SAR have been relegated to a minor position in overall schemes of training. Occasionally, views have been expressed that effective leadership is anti-democratic implying that democracy is the ultimate goal. As with many other subjects, the literature on leadership is increasing dramatically. The SAR environment is often hostile and cannot be considered to be a stable factor in preplanning. In addition, a volunteer team's response both in terms of numbers and expertise is not predictably stable and, therefore, compounds the difficulties of preplanning. Paul Williams (1970) stated that "the role of volunteer rescue leader is most demanding, requiring great skills, including knowledge of search and rescue procedures and jurisdictions of responsible agencies. But most important is a knowledge of psychology, the ability to deal with volunteers, and a great sense of tact and diplomacy."

What precisely is leadership has been and is the subject of considerable debate with uncertainty disguised as certainty and opinion stated as fact. To a very large extent leadership is conceptual. To state that it is a soft skill is to underrate its significance. Most team members have strong opinions as to what is and what is not good leadership. It must be stressed that without effective leadership command and management systems will fail. What follows are the ideas of the authors and we claim little validity beyond that. It is hoped that this section will indicate what leadership is, how it impacts on operations, how it may be applied and how it may be developed within SAR organizations. Consideration will be given to command and control, management, and decision making.

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP

Section
II



Section
**II. COMMAND AND CONTROL, DECISION
MAKING, LEADERSHIP**

- A. **DEFINING COMMAND AND CONTROL**
- B. **DECISION MAKING**
- C. **LEADERSHIP**

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II-1

- 3.4 By applying the systems presented in this course, successful graduates will be able to implement appropriate techniques to effectively resolve most searches quickly, and at the same time establish a firm base for those other search and rescue missions that end up as multi-day, major incidents.

CASE STUDY

- An 8-year old girl knocks on a stranger's door, says her mom is drunk.
- Mom's vehicle has collided with a tree nearby, mom has disappeared.
- Wallet is inside vehicle.
- Mom has an extensive DUI record.
- Is this a search incident?

CASE STUDY

- In early December 52 year-old Carolyn advises family she's leaving Alberta and returning to Kelowna, British Columbia. (She lived there previously for a period of time).
- 12/06/21: Her car is discovered parked in a ravine off a well-traveled road. The investigating police officer describes the location as odd but nothing appears out of place.
- 12/06/24: Search initiated in the nearby Gila Wilderness.
- 12/06/25: Difficult to mobilize resources due to holiday.
- 12/06/26: Greatest effort. Carolyn not found. Search terminated.
- Is Carolyn lost, missing, overdue, stranded, deceased, victim, hiding, or ???

I. INTRODUCTION

Section

I

2.4 The 'Missing' Perspective.

Search and rescue management courses have traditionally assumed the subject is 'lost', and in doing so establish a mindset that ignores other possibilities, such as overdue, purposefully hiding, victim of crime, subterfuge, etc. This course advocates always consider the subject 'missing', and giving appropriate consideration to all possibilities.

3.0 JUSTIFYING AN URGENT RESPONSE.

Given that most searches are resolved in hours rather than days, it follows that many are resolved without responder intervention – for instance, the 'missing' person was never lost, or independently resolved the problem. How then can an urgent effort be justified for the initial response period, if the incident is likely to resolve itself anyway?

3.1 Business and government measure success by the 'bottom line' numbers – whether it is profit, production, or services.

3.2 What about search and rescue mission? How can SAR programs be evaluated for effectiveness? Rick Goodman, retired SAR Coordinator for the State of New Mexico, suggests the following three criteria:

- Decrease in the number of incidents per capita.
- Decrease in the length of incidents.
- Decrease in the number of resources used per incident.

3.3 It follows then that an effective SAR program is one embracing the following philosophies:

- a. Early commitment of proper resources and tactics can limit later need to expand operations, thus controlling ultimate complexity and cost.
- b. The potential emergency nature of an incident can't be predicted, so the risk to life and limb must be evaluated and investigated for every missing person report.
- c. Increased effectiveness during the initial response period can ultimately increase the percentage of lost persons incidents resolved in hours rather than days, thus decreasing average incident cost and increasing subject 'saves'.

- e. The agencies these first responders represent have the legal authority and responsibility to search, but may not experience the incident workload to justify funding cadres of search management specialists. Rather, these agencies need all their field personnel to have the knowledge and ability to respond appropriately to overdue person reports, and to manage these incidents professionally and competently for at least the first shift.
- f. Existing courses such as Managing Search Operations, Managing the Lost Person Incident, and Managing the Search Function contain excellent bodies of knowledge. However, the sheer volume of information, the focus on mathematical theory, and the emphasis on large, multi-day incidents contained in these courses does not provide a clear step-by-step practical approach for the Initial Response Incident Commander/SAR Manager.
- g. This course addresses that need. It focuses on the management of the initial response, and is put together in a way that provides a clear, systematic, and practical approach. This course also takes the SAR Manager to the next planning level when the initial response has not been successful.

2.2 Practitioner Based.

- a. This course presents an integrated process. The approach is practical based. The course material does not dwell on theory, or discussion of different and sometimes conflicting concepts. It follows a 'how-to' type curriculum. The material is designed for the SAR practitioner – the park ranger, deputy sheriff, police officer, search team leader, and fire department officer – whose primary concern is what to do when saddled with the responsibility of acting on a report of a lost person.
- b. This course also recognizes that it is not possible to predict which searches will grow into major incidents, and therefore includes those actions to take early in the incident so as to establish a firm foundation and a smooth transition should a complex incident develop.
- c. Some techniques taught in this curriculum are based on those taught in other recognized search and rescue management courses; others are unique to this course. All are field proven and current.

2.3 Focus on Objectives.

We cannot guarantee the subject can or will be located. We should measure our success on how well we achieve objectives related to saving life. And these objectives should be incrementally measureable so we can monitor progress and estimate resource and time requirements.

I. INTRODUCTION

Section

I

- a. Most missing person incidents are resolved in hours rather than days, with the remaining small percentage expanding into multi-day events. Statistical analysis from Alberta, British Columbia, Washington, New Mexico, Oregon, and the United Kingdom have indicated that the majority of search and rescue missions are concluded within 24 hours. Data hours were from callout to stand down for all SAR teams.

| DURATION OF SEARCH INCIDENTS (12,000 + Incidents) | | | | | |
|--|-------------------|---------------------------------------|---------------------------|-----------------------|-------------------|
| | Alberta (2000) | Nat'l Park Service (2005 –2008) | New Mexico (1991–2000) | Oregon (2007–2011) | UK (1991–2000) |
| Less than 12 hours | – | – | – | 81% | – |
| Less than 18 hours | 77% | – | 89% | – | 98% |
| 24 hours or less | 91% | 98% | 97% | 93% | 99% |
| More than 24 hours | 9% | 2% | 3% | 7% | 1% |

- b. The Oregon Office of Emergency Management's analysis of four years of data (2007–2011) is especially demonstrative. Of 3,416 persons missing on land incidents, 25% were found in less than two hours and 50% in less than four hours. (Search and Rescue Annual Report for 2011, http://www.oregon.gov/OMD/OEM/tech_resp/sar_docs/annual_sar_report_2011.pdf?ga=t)
- c. This course is based on a philosophy reflecting this data. That is, all missing person incidents, whether short or long term, have a common beginning, and although most missing person reports are resolved fairly quickly, there is no way to predict which ones will be the exception.
- d. Regardless of how large or complex a missing person incident ends up being, the management of the initial response phase is identical, and crucial to its success. The individuals tasked to manage this initial response phase usually are not search specialists; rather they are emergency and public service generalists: police officers, sheriff deputies, park rangers, conservation officers, fish and wildlife officers, forestry officers, fire fighters, and such.

CASE STUDY

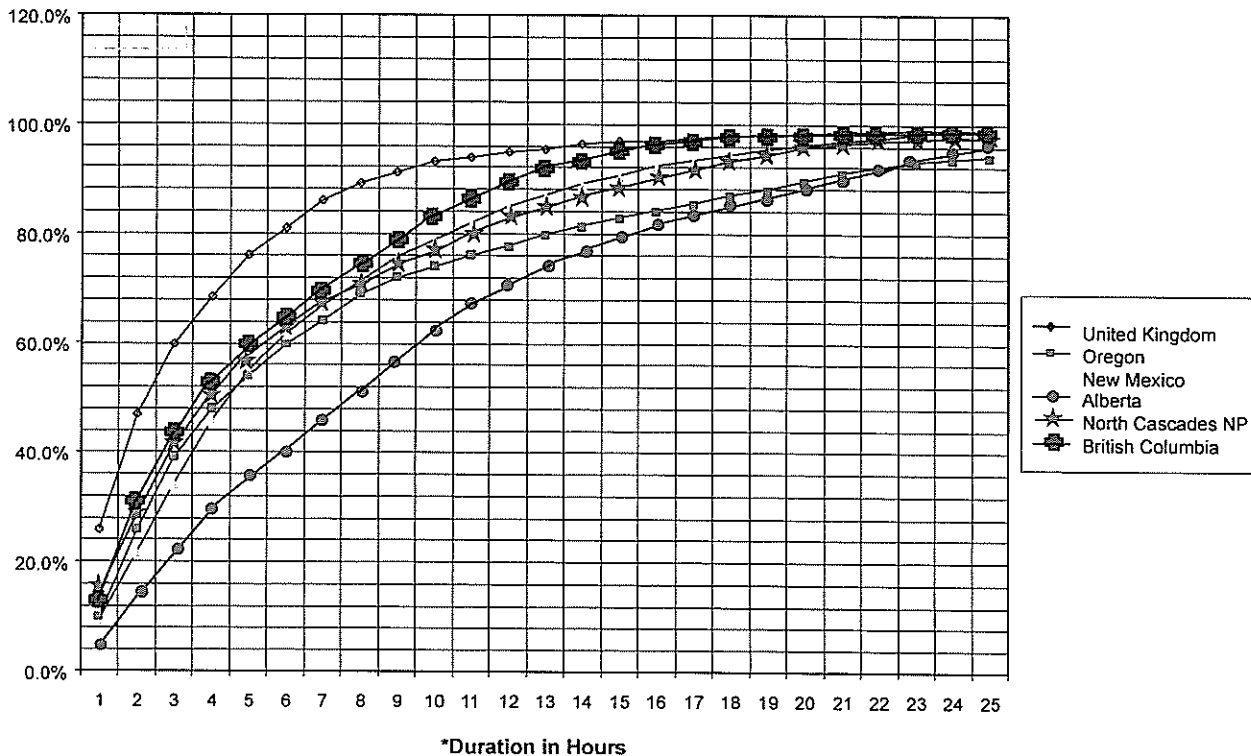
Three adults and their dogs are reported missing from their camping trailer on the west coast of Vancouver Island, British Columbia, coast.

1. Are they lost?
2. Is this urgent?
3. Should you search?
4. If so, where and for how long?
5. When should you stop searching?

2.0 COURSE PHILOSOPHICAL CONCEPTS.

2.1 Common Fundamentals.

Duration of SAR Incidents vs. Frequency (3,000 Cases)



* This charts includes investigation, driving time, and time after the subject is found needed for search resources to return from the field and drive home. Alberta's early figures are probably less because time needed to respond and return home are in more remote areas.

I. INTRODUCTION

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I**D. COURSE PHILOSOPHY AND PURPOSE****1.0 COURSE OBJECTIVES.**

1.1 At the completion of this training, you will be able to:

- a. Appropriately respond to and manage missing person reports.
- b. Formulate and implement effective decisions.
- c. Describe the importance of and contribute to the achievement of objectives.
- d. Identify and manage risk.
- e. Smoothly transition through multiple operational periods.
- F. Develop and implement appropriate actions when the subject cannot be found.

EXERCISE

- Above are listed the broad objectives around which this course was developed.
- Do these objectives mesh with what you hope to gain from this course?
- Are there specific topics or questions you'd like to see addressed? If so, take a few moments to list them on the following page. In 10 minutes we will compile everyone's topics and questions and use them to develop additional objectives.

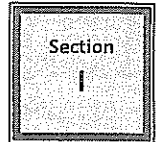
WHAT I WOULD LIKE TO GAIN FROM THIS COURSE:

C. SEARCH AND RESCUE IN CANADA: AN OVERVIEW

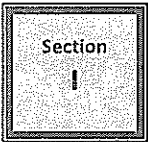
equestrian search, dive recovery, white water aquatic rescue, mountain rescue, cave rescue, and other disciplines. No matter what the discipline, volunteer SAR teams are an invaluable resource, as they combine local knowledge with local resources, expertise, and enthusiasm. Police services, especially in rural areas of Canada, do not have the resources of equipment and trained personnel to conduct urgent, cost effective searches. Most Provinces and Territories have provincial organizations, which help to coordinate with the many SAR teams and tasking agency's standards and training.

- 6.1 The objectives of the National SAR Program are: Save lives throughout Canada's jurisdictional areas; Promote the prevention or mitigation of SAR events, injury, and loss of life; Perform all SAR functions effectively, efficiently, and economically.
- 6.2 The New SAR Initiatives Fund (NIF) was established by the Federal Government in 1988 to provide funding for new search and rescue initiatives that will improve the NSP in Canada. The NIF, which is a contribution program, has an annual budget allocation of \$8.1 million, and as of 2017 has funded over 700 projects totaling over \$150 million.
- 6.3 The NIF objectives are: The enhancement of SAR activities by federal and provincial/territorial organizations with specific jurisdictional responsibilities; The promotion and support of other projects designed to further the objectives of the NSP; The communication of SAR 'best practices' to all parties involved in SAR in Canada.

I. INTRODUCTION

**C. SEARCH AND RESCUE IN CANADA: AN OVERVIEW**

- 1.0** There are many agencies and organizations involved in SAR in Canada, searching for lost and missing subject on the oceans, inland waters, and on land. Each type of SAR incident falls under the mandate of one of a number of different agencies. There is, however, a National Search and Rescue Program that helps to provide coordination and cooperation on a National basis.
- 2.0** In 1986, the Federal Cabinet, acting on one of the recommendations of the Ocean Ranger Commission Report, directed that a National Search and Rescue Program (NSP) be established and managed as a distinct program of government, with overall policy responsibility for SAR resting with the Lead Minister, whose role would be to formulate national policy with all involved ministers. The Minister of National Defense was established as the Lead Minister, and was delegated the authority, responsibility, and accountability for the NSP coordination. The National Search and Rescue Secretariat (NSS) was established to provide direct, independent support to the Lead Minister, and be responsible and accountable for the conduct of the NSP. In 2016, the National Search and Rescue Secretariat came under the authority of Public Safety Canada.
- 3.0** The NSP encompasses cross government efforts and activities, corporate and volunteer sectors, and a variety of organizations and programs related to providing information, applying technology, conducting research and SAR prevention. Within the Federal Government five departments (Environment Canada – Meteorological Service of Canada, Department of Fisheries and Oceans–Canada Coast Guard, Department of National Defense–Canadian Forces, Solicitor General– Royal Canadian Mounted Police, and Transport Canada) and one agency (Parks Canada) are directly involved in the coordination of programs related to SAR.
- 4.0** Federal SAR operations are coordinated by the Joint Rescue Coordination Centre's (JRCC's). SAR operations in the coastal waters, and on the Great Lakes are the responsibility of the Canadian Coast Guard. Operations are often conducted with the assistance and cooperation of the Coast Guard Auxiliary. Searches for downed aircraft are the responsibility of the Canadian Forces, and are conducted with the assistance and cooperation of the Civil Air Search and Rescue Association (CASARA), a volunteer organization. Searches often involve volunteer ground SAR teams as well.
- 5.0** Ground search and rescue and search's for lost and missing persons, and walkaways from downed aircraft, are the responsibility of the individual Provinces and Territories, coordinated by the police service of jurisdiction (the Royal Canadian Mounted Police, Ontario Provincial Police, Surete du Quebec, the Royal Newfoundland Constabulary, or the municipal police service). In the National Parks, Parks Canada retains the responsibility for lost and missing person searches.
- 6.0** While GSAR remains the responsibility of the police service of jurisdiction, in most areas local volunteer SAR teams have been established with many specializing in tracking, canine search,



3.0 DEFINING SEARCH AND RESCUE.

FOUR PHASES (SEQUENCE) OF SEARCH AND RESCUE: S.A.M.E.

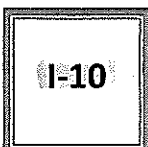
A SAR mission involves a specific sequence of events, each progressing to the next: Search for and find the subject(s); Access and reach the subject(s); Provide any needed Medical aid; Evacuate the subject(s).

3.1 **SEARCH:** The first and often the most time and resource consuming phase is the finding of the subject(s). If the first notice reports provide accurate information as to the last known position or point last seen, and if the missing person(s) has not moved from the reported position or general area, then the search phase may go quickly. But if the location of the missing person(s) is not immediately known, this phase takes much more time. This 'find the subject phase' might last minutes, hours, or days, but must be accomplished prior to the next phase being started.

3.2 **ACCESS:** The second phase is to actually have rescuers reach or establish contact with the subject(s). Terrain, weather, and environment can complicate this phase. If the subject(s) is found but is at the bottom of a cliff, or on the other side of a river, or in some other hard to access location, additional technical resources may be needed to reach the subject(s), even though he/she (they) has been found. In many situations, ground response teams without additional specialized training, can reach the subject, such as when there is a reasonable walk-around route to reach the subject at the bottom of the cliff.

3.3 **MEDICAL:** The third SAR phase involves rendering any medical aid or assistance to the subject(s). This might be as simple as asking if they are 'OK', warming them up so they can assist themselves, providing a splint for a possible fractured limb or managing major bleeding. Aid may also take the form of protecting the subject(s) from the environment until more medically able personnel arrive. The fourth phase begins once the subject(s) have received aid and is stabilized.

3.4 **EVACUATE:** Ultimately, the subject(s) needs to be moved. Options include providing enough assistance so that the subject(s) can walk out by themselves or with minimal support, transporting the subject(s) by litter, or transporting the subjects by helicopter or ground vehicle. Factors that determine how a subject(s) is evacuated include: medical needs, environmental challenges, weather conditions, and available resources.



I. INTRODUCTION

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B. WHAT IS SEARCH AND RESCUE?

Search and Rescue can probably be best defined as 'finding and aiding people in distress—relieving trauma and suffering'. SAR involves a great many SAR providers, SAR responders. SAR workers from any number of agencies both volunteer and government and includes a number of specialized skills. Hurricane Katrina is considered one of the world's most catastrophic disasters as well as being one of the largest peacetime search and rescue operations in the history of United States. SAR is the backbone of emergency management and saving lives takes priority over all other government activities.

1.0 WHAT IS SEARCH AND RESCUE (SAR)?

- 1.1 Search and rescue (SAR) systems provide the response for overdue, lost, injured, or stranded persons, commonly associated with outdoor activities, and outdoor or 'wilderness' environments. SAR is also an extremely important part of every disaster, fire service, law enforcement and emergency medical services (EMS) emergency. Search and rescue programs, equipment and personnel vary geographically in accordance to local needs and available resources.
- 1.2 SAR is the searching for or rescue of any person(s) who becomes lost, injured, or killed while in the out-of-doors or in an urban environment, or as a result of a natural or man-caused disaster.
- 1.3 SAR operations provide benefit to community emergency management programs as the training ground and experience building for disaster response capability.
- 1.4 SAR missions can happen anywhere, in any hostile environment. Even urban areas can become isolated and without emergency services during disasters and major storms. Search and rescue techniques have application to any emergency.

2.0 SEARCH VERSUS RESCUE.

The term search and rescue denotes two separate functions. Searching for a missing subject(s) has developed into a sophisticated process involving investigative techniques, statistics, probability theory, human behavior, interviewing, terrain evaluation, and quick application of hasty search tactics. Rescue utilizes proven procedures along with a high degree of technical skill for subject retrieval. With known subjects in known locations, the principle problem involves devising the most expedient method of removing that individual from danger to a place of safety and providing medical aid as appropriate.

Section

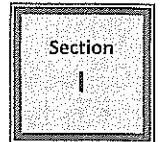
I

A. THE INTRODUCTION OF SAR MANAGEMENT

Careful study and review of After Action Reports, Corrective Action Reports, and Hot Washes from Search and Rescue missions have identified many deficiencies in the transition from the Initial Response Phase (informal planning) to managing multiple operational periods with (formal) advanced planning. Incident Commanders, Operations Section Chiefs, and Search and Rescue Managers can from an information flow and coordination standpoint continue to use the six step process for multiple operational periods to manage a search and rescue missions. The downfall is the failure to implement Command and Control, Incident Management Principals, Leadership, and Decision making through the complexity analysis factors that surface when engaged in producing multiple incident action plans for a number of operational periods involving multiply agencies and resources. In some jurisdictions and in a number of missions the search and rescue resources and management teams where not called in for several days after the incident had begun. The teams were tasked with managing a mission into the third or fourth operational period. The authors identified through a gap analysis that many agencies functioned very well with the search and rescue initial response process and even completed the task of advanced search and rescue planning when SAR incident management teams were called in. An identified major failure is the lack of a seamless transition from initial response phase to advanced planning phase in order to manage a search and rescue missions for extended operations. This text bridges that gap and is a compendium of best practices and standard of care that meets the requirements for the transition from initial response to extended operations involving multiple agencies and multiple jurisdictions.

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I. INTRODUCTION



In May of 1996 at the Washington State SAR Conference ERI presented a 2-day prototype course titled 'Initial Response for the Incident Commander' using the six-step process. A second course was presented in December of 1996 at Camp Murray, Washington State.

In October 1998 Long and LaValla presented a workshop on the initial response concepts at SAR Scene, the Canada National SAR Conference, in Banff, Alberta. The concept was well received.

Development of the initial response course continued, and draft texts were produced in 1999 and 2000. In May of 1999 at the WA State SAR Conference ERI delivered a course titled 'Managing Search Operations – Initial Response'. The working group of instructors for this course included Long, LaValla, Dave Perkins and Pete Roberts from Great Britain, New Mexico SAR Coordinator Rick Goodman, retired RCMP officer Richard Smith, and NPS Ranger Hugh Dougher.

In January, May, and December, 2000, ERI presented three courses titled 'SAR Incident Management – Initial Response'.

Also during 2000 Dave Perkins and Pete Roberts further refined the six step initial response text with inputs from Hugh Dougher, and conducted a full course in the United Kingdom with LaValla, Smith, Dougher, and Goodman in attendance.

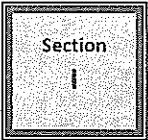
In 2001 ERI International further refined and published the initial attack search management text, using all of Perkins and Roberts text and inputs, and the initial response courses quickly gained in popularity.

The six step decision making process (albeit modified by some) and the term 'initial response' is now accepted by the search management community, and the concepts included in almost all related courses.

But some debate continued. The initial response courses had abandoned the mathematics and focused on 'informal planning'. As noted in Chapter D in this Section most SAR missions are resolved in 24 hours or less using the initial response methods. However, what about the small percentages of missions that go beyond 24 hours and result in multiple operational periods? Do we simply repeat the six step process or at some point do we need to formalize the planning function?

This text and course embraces all of the initial response principles, and also incorporates practitioner based methodologies for transitioning from informal planning (the initial response process) to formal planning and operations for extended missions.





A. THE INTRODUCTION OF SAR MANAGEMENT

By 1993 the amount of new information was such that the Emergency Response Institute rewrote the course and renamed it Managing Search Operations (MSO). The MSO text was designed to be a comprehensive reference textbook, rather than a specific course curriculum, in that it consolidated and summarized a broad range of theories, concepts, and data.

Not long after, NASAR developed its own MSF revision, and titled it Managing the Lost Person Incident (MLPI).

While the MSO and MLPI courses proved to be as popular as the old MSF, experienced instructors were beginning to recognize deficiencies in the curriculum.

MSF (and its offspring MSO and MLPI) are organized by subject, rather than sequence of tasks. For instance, the chapter First Notice, in describing the Lost Person's Questionnaire, gives the impression that the entire questionnaire should be completed at first contact with the reporting party. This is not necessarily true.

Despite their stated course objectives, MSF, MSO, and MLPI do not really prepare students to manage actual searches. Sure, they teach the components of search management, but they do not show students how to actually apply and combine these components to construct a successful search incident response.

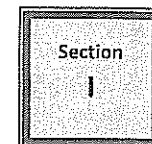
Another problem with the MSF family of curriculums is that over the years a sizable number of well-meaning persons have formulated and published theories, concepts, and data related to search management. Many of these have been incorporated into MSO and MLPI without critical review to ensure validity and practical application.

Some instructors at this time felt that an over-emphasis had been placed on probability theories and the associated mathematics, and that the search management community was becoming entranced with numbers, and were forgetting the basics.

During 1995 Chris Long, Washington State SAR Coordinator, also shared the view that the 40 hour search management courses, while information rich, were too focused on mathematics and did not focus on how to initiate a SAR mission. In discussions with Rick LaValla, Emergency Response Institute, International, and –an original author of MSF and the follow on MSO, Chris suggested that there was a need for a focused 'how to initiate the initial response' course. Chris brought to the table several decision making models. Of interest was the six- step decision making process promoted and used by the International Association of Chiefs of Police and also used by the Federal Emergency Management Agency in their 1990's executive decision making courses.



I. INTRODUCTION



clear that the course was solid enough that its availability could be expanded. Handpicked instructor candidates were brought together at Albright, not only to learn more about instructing the course, but also to critique the newly drafted instructor manual that had been prepared.

During the summer of 1978, Washington State Emergency Services received a small contract from NPS to pay for secretarial support and one month of Paul Green's time to edit the instructional materials. Paul was a professor at Eastern Washington University. Also during that summer, Gene Fear of the Survival Education Association received a contract from the NPS to produce 50 sets of overheads and slides to support the prototype instructor manual that was being edited by Green. (It is interesting to note that at this time there was still no student text.) At the conclusion of Green's efforts, the Government Printing Office printed these first written instructional materials, and Fear delivered the overheads and slides to Albright Training Center. Armed with these new materials, in September of 1978, Brady convened the first formal instructor workshop at Albright for 40 NPS personnel.

By late 1980, there was a definite need to upgrade the course content and produce a more definitive student text. Early in 1981, the newly established Emergency Response Institute received a personal service contract from NPS to develop a student text and a field coordinator's handbook. For the better part of a year, Brady, LaValla, Stoffel, and Wade worked to rewrite, organize and edit the materials in the existing student text into a compendium of information that could be used as an independent resource for search management. In addition, the instructor manual was also revised again. The money in the NPS contract paid only for production costs and was not used for wage compensation to anyone for developmental time. The contract called for the delivery of 50 sets of the materials to Albright Training Center, NPS. These materials were published in late 1981, along with one other important publication: a booklet that an incident commander or search manager could have in his/her hip pocket for quick reference, the Field Coordinator's Handbook.

There was not a source of funding for mass production of these newly developed instructional materials. Gene Fear generously came forward to not only run the first two production printings of the books on his backyard press, but he also personally funded all the artwork used in the overheads and student materials. Permission was granted to the Emergency Response Institute for exclusive use of this copyrighted artwork in the publishing of those training products. Emergency Response Institute thus began publication and sale of course materials.

Thus was born the 40 hour Managing the Search Function, the seminal search management course. MSF quickly gained popularity across the U.S., and international interest from Canada, New Zealand, United Kingdom, Iceland, and South Africa. From the beginning, the course has motivated graduates and search practitioners in general to contribute ideas, concepts, and original research to the body of search management knowledge.

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP

Section
II

3.3 Command and control is thus an interactive process involving all the parts of the system and working in all directions. The result is a mutually supporting system of give and take in which complementary commanding and controlling functions interact to ensure that the mission as a whole can adapt continuously to changing requirements.

4.0 WHAT DOES IT MEAN TO BE 'IN CONTROL'?

4.1 The typical understanding of effective command and control is that someone 'in command' should also be 'in control.' Typically, we think of a strong, coercive type of command and control—a sort of pushbutton control—by which those 'in control' dictate the actions of others and those 'under control' respond promptly and precisely, as a chess player controls the movements of the chess pieces. But given the nature of search and rescue, can incident commanders control their teams with anything even resembling the omnipotence of the chess player? We might say that a police officer is in control of a weapon system or that a pilot is in control of an aircraft. But is a SAR marine leader really directly in control of how the other boat operators run their watercraft?

4.2 We are also fond of saying that incident commanders should be 'in control' of the situation or that the situation is 'under control.' The worst thing that can happen to an incident commander is to 'lose' control of the situation. But are the terrain and weather under the incident commander's control? Are incident commanders even remotely in control of what the lost missing person does? Good incident commanders may sometimes anticipate the missing person's actions and may even influence the missing lost persons actions by seizing the initiative (containment and confinement) forcing the lost missing person to react. But it is a delusion to believe that we can truly be in control of the lost missing person or the situation.

4.3 ~~The truth is that, given the nature of search and rescue, it is a mistake to think that we can be in control with any sort of certitude or precision.~~ And the further removed incident commanders are from the teams actually performing search and rescue operations, the less direct control they have over their actions. We must keep in mind that search and rescue missions are a human endeavor. In search and rescue, unlike in chess, 'pieces' consist of human beings, all reacting to the situation as it pertains to each one separately, each trying to survive, each prone to making mistakes, and each subject to the vagaries of human nature. We could not get people to act like mindless robots, even if we wanted to.

4.4 Given the nature of search and rescue, the remarkable thing is not that incident commanders and operation section chiefs cannot be thoroughly in control but rather that they can achieve much influence at all. We should accept that the proper object of command and control is not to be thoroughly and precisely in control. The turbulence of modern day search and rescue suggests a need for a looser form of influence, some-thing that is more akin to the willing cooperation of a basketball team than to the omnipotent direction of the chess player—that provides the

necessary guidance in an uncertain, disorderly, time-competitive environment without stifling the initiative of other functions.

5.0 WHAT MAKES UP COMMAND AND CONTROL?

5.1 The words 'command' and 'control' can be nouns, and used in this way the phrase command and control describes a system, an arrangement of different elements that interact to produce effective and harmonious actions. The basic elements of our command and control system are people, information, and the command and control support structure (logistics).

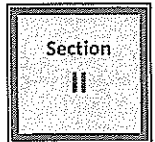
5.2 The first element of command and control is people, people who gather information, make decisions, take action, communicate, and cooperate with one another in the accomplishment of a common goal. People drive the command and control system, they make things happen and the rest of the system exists only to serve them.

5.3 Because of this human element, command is inseparable from leadership. The aim of command and control is not to eliminate or lessen the role of people or to make people act like robots, but rather to help them perform better. Human beings, from the incident commander framing a strategic concept, to a team leader calling in a situation report, are integral components of the command and control system and not merely users of it.

~~5.4~~ All search and rescue personnel feel the effects of fear, hardship, and fatigue. Each has unique, intangible qualities that cannot be captured by any organizational chart, procedure, or piece of equipment. The human mind has a capacity for judgment, intuition, and imagination far superior to the analytical capacity of even the most powerful computer. It is precisely this aspect of the human element that makes search and rescue missions in general, and incident command in particular, ultimately an art rather than a science. An effective command and control system must account for the characteristics and limits of human nature and at the same time exploit and enhance uniquely human skills. At any level, the key individual in the command and control system is the incident commander (agency having jurisdiction) who has the final responsibility for success.

~~5.5~~ The second element of command and control is information which refers to representations of reality that we use to 'inform' to give form and character to our decisions and actions. Information is the words, letters, numbers, images, and symbols we use to represent things, events, ideas, and values. In one way or another, command and control is essentially about information: acquiring it, judging its value, processing it into useful form, acting on it, and sharing it with others. Information is how we give structure and shape to the material world, and it thus allows us to give meaning to and to gain understanding of the events and conditions that surround us. In a very broad sense, information is a control parameter: it allows us to provide control or structure to our actions.

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP



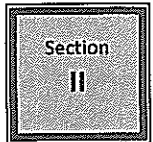
- 5.6 The value of information exists in time since information most often describes transitory conditions. Most information grows stale with time, valuable one moment but irrelevant or even misleading the next.
- 5.7 There are two basic uses for information. The first is to help create situational awareness as the basis for a decision. The second is to direct and coordinate actions in the execution of the decision. While distinct in concept, the two uses of information are rarely mutually exclusive in practice. There will usually be quite a bit of overlap since the same exchange of information often serves both purposes simultaneously. For example, coordination between adjacent teams as they execute the plan can also help shape each team's understanding of the situation and so inform future decisions. An order issued to other functions describes the tasks to be accomplished and provides necessary coordinating instructions; but the same order should provide functions an insight into the larger situation and into how the other functions actions fit into that larger situation. Likewise, a call for a dog team, tracking team with the primary purpose of which is to check out a clue from another search and rescue team from the search area, also provides information about the developing situation in the form of the missing lost person's location, direction of travel.

There Are Eight Key Elements To On-Scene Direction And Control In SAR. These Have Proven Their Importance Through Many Documented Case Histories.

1. All activity and operations in the field must be subject oriented.
2. Identify all hazards.
3. Do efficient reconnaissance (terrain analysis).
4. Protect the access to the search and rescue base site.
5. Monitor and control communications flow and volume; and always have a backup.
6. Brief and debrief as a matter of routine.
7. Establish subject care as soon as possible.
8. Establish and log subject's destination and estimated time of arrival (ETA) at a medical facility.

✱

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP



B. DECISION MAKING

"Failure Is Not An Option."
- Neil Armstrong Apollo 13

1.0 THE SIX STEP PROCESS.

1.1 This 'Six Step Process' (also known as the 'Incident Response Process') was developed by the International Association of Chiefs of Police as an approach for solving an operational problem. It is designed to provide a systematic and logical method whereby incident commanders and managers are able to make rapid decisions on tactics and the application of resources. As the incident evolves and more information becomes available, the Six Steps are repeated. It is a continuous, cyclic process.

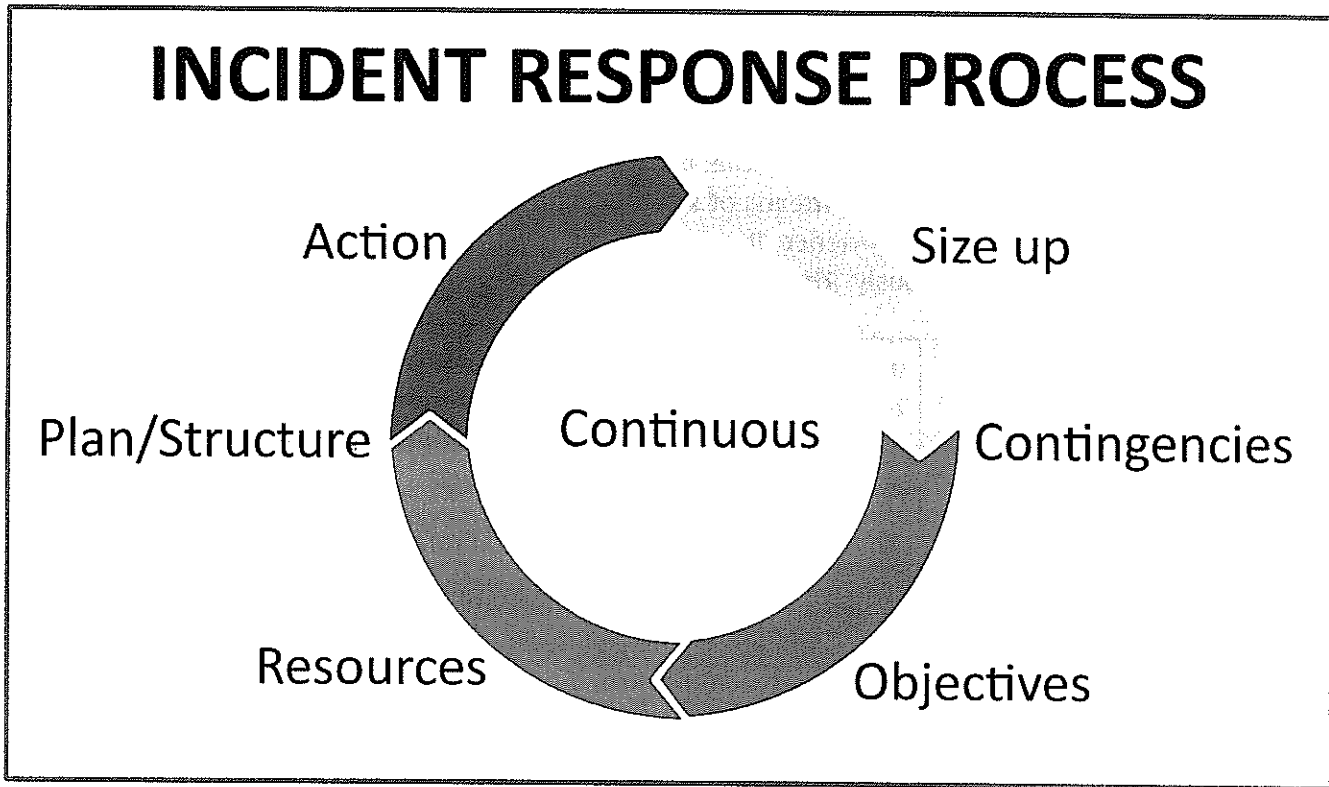
1.2 The Six Step Process is extremely versatile; it is just as valuable as a quick mental technique for the individual responder as it is as a means of structuring a more formalized response to a larger incident. As the user gains experience it will become an instinctive process that can be applied automatically and continuously. The generic process:

| | |
|---|---|
| <p>1. Size-up the Situation</p> | <ul style="list-style-type: none"> a. What is the nature of the incident? b. What hazards are present? c. What hazards exist for response personnel and the public? d. Do warnings need to be issued? e. Are there injured people who need to be treated or assisted? f. Is evacuation required? g. How large an area is involved? h. Can the area be isolated? i. What location would make a good staging area? j. What entrance and exit routes would be good for the flow of response personnel and equipment? |
| <p>2. Identify Contingencies</p> | <ul style="list-style-type: none"> a. What could have happened to cause this situation? b. What could happen to make the situation worse? |
| <p>3. Determine Goals and Objectives</p> | <p>SMART Objectives developed through, Investigation Objectives, Containment Objectives and Search Objectives.</p> |

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B. DECISION MAKING

| | |
|---|---|
| <p>4. Identify Needed Resources</p> | <p>a. What resources are needed? b. Where will we get them? c. How long will it take them to get here? d. Are there any special resource requirements?</p> |
| <p>5. Build a Plan and Structure</p> | <p>a. Responsibilities and tasks. b. Chain of command. c. Coordination.</p> |
| <p>6. Take Action</p> | <p>a. Implement your action plan. b. Supervise/coordinate. c. Continue collecting and analyzing additional information (Step 1 (Size Up) of the next cycle).</p> |



1.3 This generic process is adaptable to virtually any incident. It is especially useful in the Initial Response Phase of a SAR mission. For example, a hasty team leader arriving at a trailhead from which a reported lost person departed, quickly runs through the process to determine where to employ available resources: which trails to run, buildings to check, high hazard areas to check, etc. Then the Incident Commander, while the Hasty Team is still in the field, uses the process to plan the first operational period of the search.

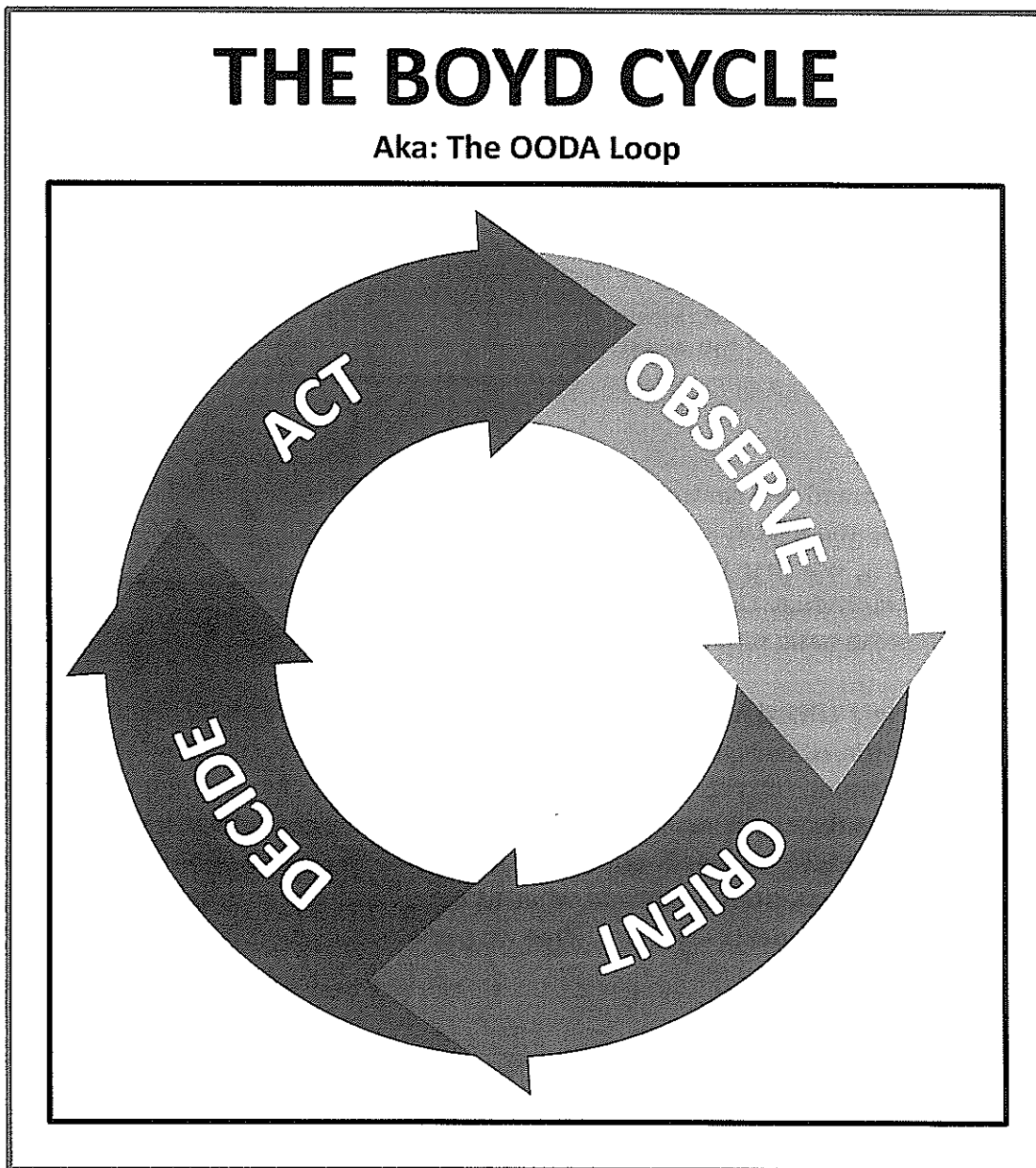
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- 1.4 In the event the mission continues into multiple operational periods, the process is useful to organize an expanded, more formalized planning process.
- 1.5 Section III will detail the Six Step Process from the point where you are notified through to the conclusion of the first Six Step Cycle. For each of the Six Steps it gives you:
- A complete list of all the activities to which you need to attend.
 - Any supporting information that you might need, in the form of text or tables.
 - A list of 'recommended actions' – these are activities that we think you must deal with.
 - References to any documentation that you will need to complete. The documents for this can be found at the back of the workbook.

2.0 THE OODA LOOP.

- 2.1 The study of command and control theory starts with a simple model of the command and control process known as the OODA loop (after Col. John R. Boyd USAF). The OODA loop applies to any two-sided conflict, whether the antagonists are lost, missing persons, wildland fire, or an armed and barricaded individual. OODA is an acronym for observation, orientation, decision, and action, which describes the basic sequence of the command and control process.
- 2.2 When engaged in a critical incident, we first observe the situation that is, we take in information about our own status, our surroundings, and our antagonist. Sometimes we actively seek the information; sometimes it is thrust upon us. Having observed the situation, we next orient to it, we make certain estimates, assumptions, analysis, and judgments about the situation in order to create a cohesive mental image. In other words, we try to figure out what the situation means to us. Based on our orientation, we decide what to do, whether that decision takes the form of an immediate reaction or a deliberate plan. Then we put the decision into action.



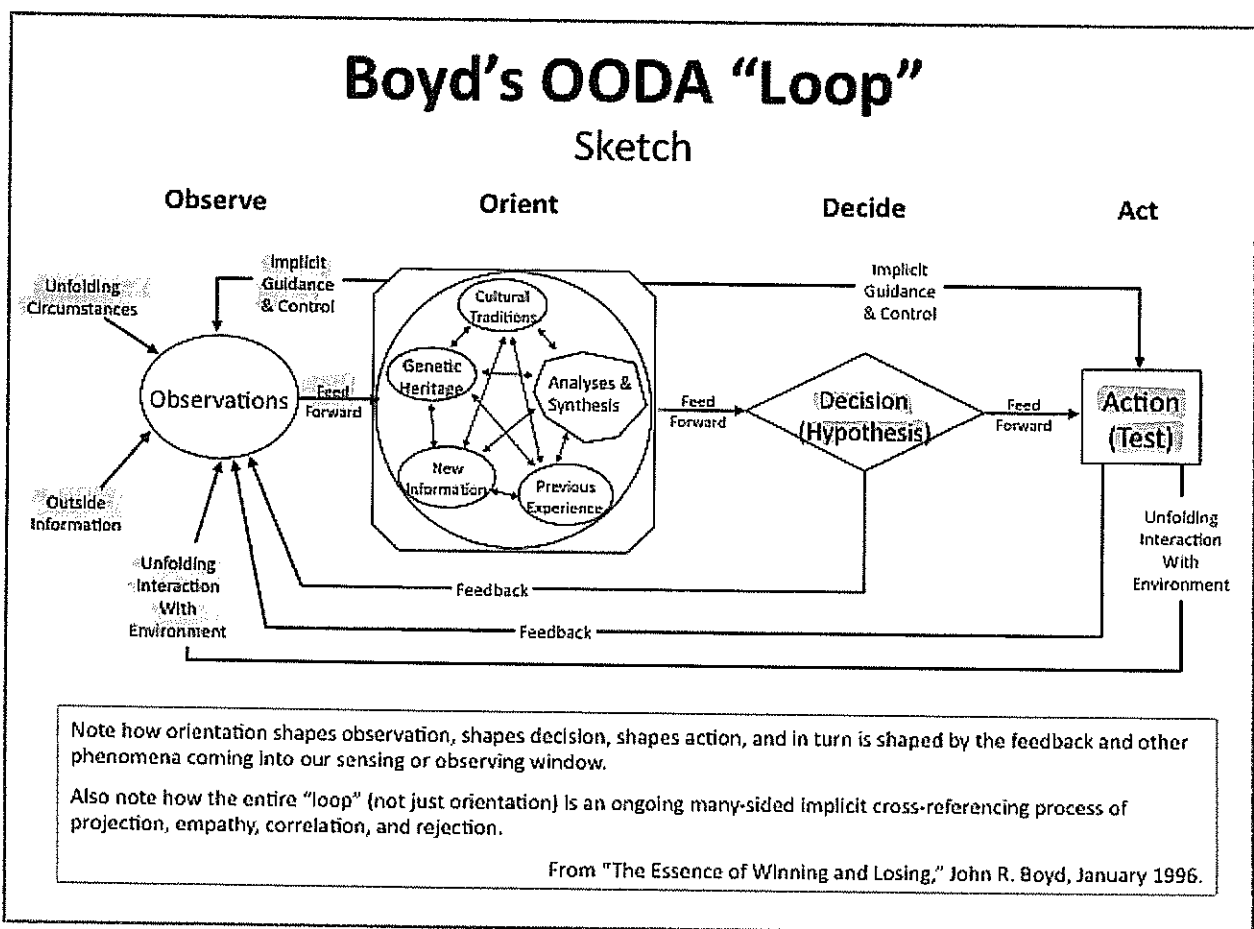
- 2.3 This includes disseminating the decision, supervising to ensure proper execution, and monitoring results through feedback, which takes us full circle to the observation phase. Having acted, we have changed the situation, and so the cycle begins again. It is worth noting that, in any organization with multiple decision makers, multiple OODA loops spin simultaneously, although not necessarily at the same speed, as incident commanders exercise command and control at their own level and locale.

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- 2.4 Importantly, the OODA loop reflects how command and control is a continuous, cyclical process. In any critical incident, the antagonist who can consistently and effectively cycle through the OODA loop faster, who can maintain a higher tempo of actions, gains an ever-increasing advantage with each cycle. With each reaction, the slower antagonist falls farther and farther behind and becomes increasingly unable to cope with the deteriorating situation. With each cycle, the slower antagonist's actions become less relevant to the true situation. Command and control itself deteriorates.

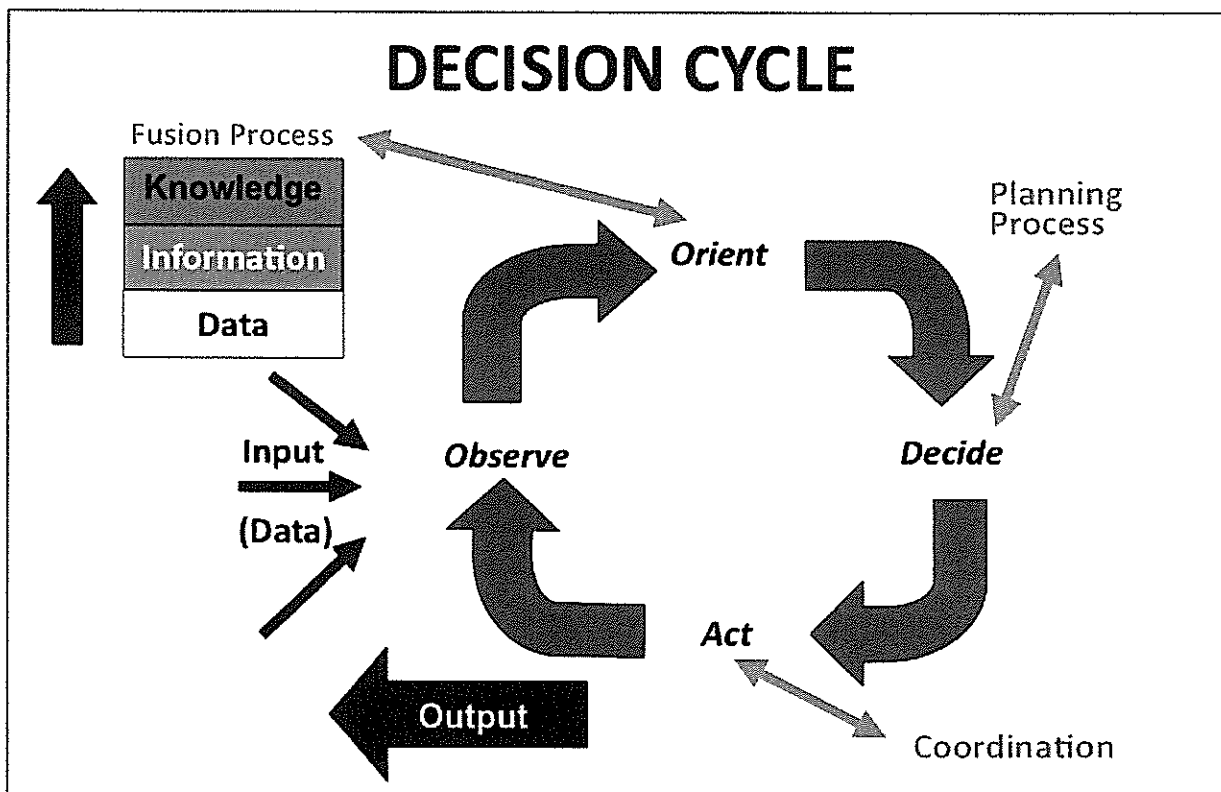


- 2.5 The lesson of the OODA loop is the importance of generating tempo in command and control. In other words, speed is an essential element of effective command and control. Speed in command and control means shortening the time needed to make decisions, plan, coordinate, and communicate. Since search and rescue missions are dangerous, dynamic, complex, and confusing with the lost missing person being ever evolving and ever changing, it is not absolute speed that matters, but speed relative to the person you are looking for: the aim is to be faster than our

antagonist or the person you are working for, which means interfering with the person's command and control as well as streamlining our own. You need to constantly make a decision faster than the other person. The speed differential does not necessarily have to be a large one: a small advantage exploited repeatedly can quickly lead to decisive results. We should recognize that the ability and desire to generate a higher operational tempo does not negate the willingness to bide time when the situation calls for patience. The aim is not merely rapid action, but also meaningful action. The OODA loop principals are based on synthesizing information and the situation, and not analyzing. Under stress during critical incidents you are far better off looking at all of the parts that you have, synthesizing, and then making up the whole, then analyzing the situation, which means you break the whole down into parts. Critical incidents are by their very nature, dangerous, dynamic, complex, and confusing. When speed and process are essential, being a synthesis and not an analysis is a superior process and behavior. To maintain peak situational awareness, you must continue to synthesize, correlate, and turn the information into useful intelligence. The OODA loop gives you this tactical advantage over your adversary, as it is a process of making a decision faster than your opponent.

- 2.6 The backbone of modern day decision making is situational awareness. Incident commanders and team leaders can increase their decision confidence by maintaining good situational awareness. Incident commanders and SAR leaders can increase their confidence by using time efficiently. In the search and rescue environment, decisions have serious consequences and often have life or death implications for others. With so much at stake, we have a responsibility to understand the decision-making process, the components, the flow, the effect of time, and to develop the skills and confidence that enables us to make the best decision possible with the information and time available.

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2.7 From command and control, leadership, and decision making to management requires a more formalized response process. The Six Step Process is extremely versatile; it is just as valuable as a quick mental technique for the individual responder as it is as a means of structuring a more formalized response to larger incidents. The Six Step Process allows the user, once they gain experience to complete the process intuitively, to apply it automatically and continuously.

"There are fifty who can reason synthetically for one who can reason analytically".
- Sir Arthur Conan Doyle (Sherlock Holmes)

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C. LEADERSHIP**“Lead, Follow, or Get The Hell Out of The Way.”****- Old Soliders Maxium****1.0 DEFINITION OF LEADERSHIP.**

- 1.1 It is appropriate to draw clear distinctions between leadership, command and control, and management. All of them are significant and interrelated but without effective leadership command and control, management will fail to provide a quality of service required of any SAR operations. Ultimately the safety of all may be compromised.

“Leaders are made, they are not born. They are made by hard effort, which is the price which all of us must pay to achieve any goal that is worthwhile.”**- Vince Lombardi**

- 1.2 A working definition of leadership may be stated as ‘the art and craft of influencing teams and members of teams in order to complete an operation in the manner necessary for the safe attainment of quality of service to the casualty or casualties’. It is axiomatic that effective leadership is required at virtually all levels of activity during an operation. Whilst this definition concentrates on the requirements for operations it is true to say that the general running of SAR teams requires leadership at all times if those teams are to be fully prepared for the operations they will undertake.

Daughenbaugh (2002) in a Significant Paper Stated:**“Leadership is, quite simply, what is necessary to complete the task utilizing the services of others.”**

He also commented that the issues faced by a SAR leadership are unique in that each situation is potentially life or death. The uniqueness of leadership in SAR is questioned. There are many other situations and many others organizations where the consequences of poor leadership can or will pose a serious threat to all those involved in a particular situation.

1.3 The principles of SAR leadership may be summarized as follows:

- a. Know yourself and seek self-improvement.
- b. Be technically and tactically proficient.
- c. Seek responsibility and take responsibility for your actions.
- d. Make sound and timely decisions.
- e. Set the example.
- f. Know your team members and look out for their wellbeing.
- g. Keep your team members informed.
- h. Develop a sense of responsibility in your team members.
- i. Ensure the task is understood, supervised, and accomplished.
- j. Build the team.
- k. Employ the team in accordance with its capabilities.
- l. Honesty and integrity with yourself and the teams being supervised.

“Leadership is based on a spiritual quality – the power to inspire, the power to inspire others to follow.”

- Vince Lombardi

1.4 Lorenz (2005) considered these principles and added the following additional points:

- a. Know when the situation is dangerous or beyond your capabilities.
- b. Praise in public, criticize in private.
- c. Know your rescuers, their capabilities and limitations.
- d. Train your rescuers as a team.
- e. Stress safety, balancing the risks with the mission to be accomplished.

1.5 Lorenz went on to advocate the use of SMEAC – The five-paragraph operation order as an aid to clear instructions, SMEAC is a briefing tool: The Military use the SMEAC system to document their orders and instructions for field operations during training and theater of war operations, so that they can pass this information on to their troops.

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**In His Review Of Some Lessons Learned By The United States (US) Army In
World War I, General George C. Marshall Wrote:**

"In studying the examples of the orders issued to our troops in France, several important points deserve consideration in determining the relative excellence of the orders issued. It is frequently the case that what appears to have been a model order was actually the reverse, and a poorly and apparently hastily prepared order will often be erroneously condemned. Many orders, models in their form, failed to reach the troops in time to affect their actions, and many apparently crude and fragmentary instructions did reach front-line commanders in time to enable the purpose of higher command to be carried out on the battlefield. It is apparent that unless an order is issued in time for its instructions to percolate down throughout the organization sufficiently in advance of an engagement to enable each commander to arrange his unit accordingly, that order is a failure, however perfect it may appear on paper. Our troops suffered much from the delays involved in preparing long and complicated orders due to the failure of the staff...to recognize that speed was more important than technique."

So that started the evolution to a formal briefing order and by 1940, we had the 5 Paragraph Field Order format - it was tweaked during WW2 with General George Patton using it for command and control briefings and today it is remarkably similar now to what it was then. In fact - one of the case studies today for the near perfect order was VII Corps operations order to attack near Remagen in March 1945.

While you probably don't have military personal at your command, there are times I'm sure when you need to give a SAR personnel, a business colleague, a family member, a friend instructions or directions for a task or project – and the SMEAC system is ideal format!

Situation This is the background to your problem, or a description of what has happened. What were the events leading up to where you are now?

Again, consider the 5WH of the situation. What has happened? Why is it a problem? Who else is involved? When did it happen/ sequence of events? Where did it happen? How did it happen?

The point of this part of the process is to provide a snapshot or background to the following set of instructions. Often referred to as a SITREP.

Mission So now we know what has happened, the mission is what we need to do about it. The mission should be a short, clear, correct and concise statement of what you want to achieve – "Our mission is to organize the Search and Rescue Bar B Q".

At this stage, there's no need to include any detail – because that's what the EA&C is for.

Execution Execution is the 'how' part of the plan – how you are going to achieve your mission. Detail the steps required, and again 5WH applies. What are you going to do? Why? When? Where? Who is involved? How?

The execution part of the process is usually the longest and should provide sufficient information to allow you [or your SAR team] to go and do the job.

Administration The military term is actually 'Administration and Logistics' and is about what resources you need to do the job, and how these resources are to be coordinated. Under the Incident Command System, it is broken down into Logistics, Finance and Administration.

Command and Communications This is the who's who of the job – who's in charge, who do you report to, and how you communicate with each other. This part details the functions established under the Incident Command System.

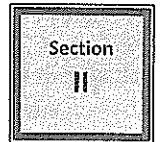
Lorenz concluded with a short consideration of the importance of leadership training.

- S** – Situation.
- M** – Mission or incident objectives.
- E** – Execution.
- A** – Administration and logistics.
- C** – Control and communications.

2.0 AUTHORITY.

2.1 Authority is required for the exercise of leadership as is the acceptance of that authority by the team or group. Consideration of the derivation of this authority is of importance in volunteer SAR teams. It is suggested that the derivation will vary with circumstances:

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In routine administration and training the authority is derived from the team or group, and during actual operations, a significant element of authority is derived from the legal entity under which the leader is operating. Some residual authority is derived from the team.

Williams (1970) Stated:

"It is imperative that the volunteer rescue leader recognize that the unit [Team] has no inherent jurisdiction to rescue, and that the only authority to activate is a derivative one through delegation of authority from the responsible agency."

2.2 Derivation.

Within SAR mission, a leader's authority is, in the first instance, derived from the appointment to leadership either by the action of the executive committee or by popular vote of the membership. If the fact of the appointment is accepted by the legal entity, the authority of the leader is considerably enhanced. However, such an appointment by a team does not necessarily mean that a particular appointment is acceptable to the legal authority. Lack of acceptance would be unusual but would greatly diminish the authority of the leader.

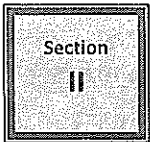
Daughenbaugh (2002) Identified Three Forms Of Authority Directly Related To The Requirements Of SAR:

- 1. Legitimate authority which is based on a leader's position in the chain of command.**
- 2. Expert authority which refers to knowledge, experience and judgment.**
- 3. Referent authority derived from the leader's acceptance by other team or party members.**

Skidelsky (1993) maintained that a true leader's authority is personal. This fourth form of authority is of importance in SAR.

2.3 Levels of Authority.

Levels of authority derive from the legal framework in which SAR operates, that is the Chain of Command applicable to any particular jurisdiction. In many cases the ultimate but somewhat



nebulous command is the senior elected official of that jurisdiction. In the context of SAR, the chain of command may be considered to start with the duly appointed law enforcement officer and progresses downwards through all levels to the leader of a small team dispatched to the field to undertake a specific task during an operation. Within a team or group the level of authority is dependent on the operational structure of the team.

2.4 Discipline.

There is a direct relationship between good leadership and effective discipline for without discipline there is nothing to lead. Discipline is one of the more difficult (contentious) concepts for many involved in SAR, particularly the volunteers. Discipline is absolutely essential for effective, high quality work. Lack of discipline is a threat to the safety of all. It is a fragile concept that must be nurtured and respected. If one cannot accept discipline, if one assaults discipline, one cannot expect discipline to be granted to you by others. In volunteer SAR teams, there are few, if any, effective sanctions that may be imposed when discipline breaks down. When discipline breaks down the quality of the job diminishes very rapidly and may become hazardous.

**Morrison (2003) Quoted The Comment Of The Duke Of Wellington After His First
Cabinet Meeting:**

“Extraordinary! I gave them their orders and they wanted to sit there discussing them.”

2.4 Levels of Leadership.

Most, if not all organizations need a structure in order to function. This is as true of a volunteer SAR team as it is for all other organizations. In addition, it is essential for the successful completion of any SAR operation. The existence of organization implies the existence of 'rank', whether informal as in many volunteer teams or formal as in the uniformed services.

If the concept of rank is accepted, then it must be accepted that are different levels of leadership. While leadership skills are required at all levels, what changes is the level (amount) of responsibility, which increases significantly with rank – the higher the rank, the greater the responsibility. Performing a function under command and control systems denotes a level of rank over subordinates of other units within that function. Then leadership is an expressed and implied condition based on that specific function. Discipline, dress and deportment all play an integral part of your leadership model. Not only to your team but to your agency and critical allies involved in the search and rescue mission.

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"Leadership is not just one quality, but rather a blend of many qualities; and while no one individual possesses all of the needed talents that go into leadership, each man can develop a combination to make him a leader."

- Vince Lombardi



SOME SPECIFIC LEADERSHIP CONSIDERATIONS FOR SAR MANAGEMENT.

- 1. Identify key people. Leaders must be identified and obviously marked (uniform, vest, identifying hat, etc.).**
- 2. Everyone must know "who is in charge"!**
- 3. You must exert your authority, by taking action and being responsible for decisions.**
- 4. When the organization/SAR effort is large, you have to delegate and use subordinates.**
- 5. Identify locations of key functions in base camp.**

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C. LEADERSHIP

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III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

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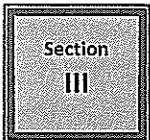


Section

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

- A. INTRODUCTION TO THE SIX STEP PROCESS
- B. STEP 1 – SIZE UP THE SITUATION
- C. STEP 2 – IDENTIFY CONTINGENCIES
- D. STEP 3 – DETERMINE GOAL AND OBJECTIVES
- E. STEP 4 – IDENTIFY RESOURCES NEEDED
- F. STEP 5 – BUILD A PLAN AND A STRUCTURE
- G. STEP 6 – TAKE ACTION

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A. INTRODUCTION TO THE SIX STEP PROCESS

At the beginning of this course the Incident Response Process is introduced as an effective methodology for resolving problems. A key end product of this course is a systematic list of search and rescue actions for the purpose of simplifying the decision-making process and enhancing search and rescue effectiveness. This list is provided below.

The list is not comprehensive. Problems and challenges not anticipated in this list will occur. Remember and utilize the Incident Response Process for those specific situations, in the same manner as for resolving the overall incident goal. A continuous use of the OODA Loop will enhance decision making capability.

- ✓ Size-up the situation.
- ✓ Identify Contingencies.
- ✓ Determine Objectives.
- ✓ Identify needed Resources.
- ✓ Build a Plan and structure.
- ✓ Take Action.

SCORPA

Six Step Action Checklist

1. Size-up the Situation: What is the nature of the incident and what are the hazards.

- Interview reporting party directly. Establish ongoing communications link with reporting party.
- Consciously decide (OODA Loop) whether a response is justified. Is there a 'lost' person? Does your agency have jurisdiction? If appropriate, initiate a response by notifying reporting party, supervisor, and agency dispatch.
- Begin compiling a Missing Person Profile. The Missing Person Profile Worksheet (SAR Form 2) can be helpful.
- Determine response urgency. The Urgency Analysis Worksheet (SAR Form 5) can be helpful.
- Assign Incident Commander (IC). Notify all involved personnel and agency dispatch.
- Determine ending time of first operational period.
- Arrange for relief Incident Commander for second operational period.

- Establish Incident Command Post (ICP) and locate the IC there.
- If possible, personally investigate the IPP.

2. Identify Contingencies.

- Identify and prioritize scenarios that might have caused subject's loss, and his/her possible subsequent activities. Prioritization might be based on:
 - Relative life safety risk;
 - Ease of resolution; and/or
 - Scenario's likelihood.
- By priority ranking, target the scenario(s) for resolution.
- Determine the classification (mobility and responsiveness) of the subject under these targeted scenarios.
- What could make things worse?
- What if?
- What can I do to be prepared?

3. Determine Objectives.

- Identify investigative actions to address the targeted scenarios, including the protection/investigation of the IPP. State in terms of objective(s).
- Establish search area boundaries:
 - Identify travel aids leading away from the IPP region.
 - Determine theoretical rate of subject's travel along each travel aid. Multiply rate of travel by number of hours since subject became lost, to calculate subject's maximum distance from the IPP. Repeat for each travel aid.
 - Consider these maximum distance points as markers for the search area boundary.
- Identify containment actions to address the targeted scenarios. State in terms of objective(s).
 - For each travel aid, determine whether to place containment at the search area boundary, or at a strategic passage along the travel aid.
 - Consider directing resources sweep travel aids en-route to selected containment locations.
- Identify active search efforts (hasty search) to address the targeted scenarios. State in term of objective(s).

4. Identify Needed Resources.

- Determine tasks and resources needed to achieve all the objectives and

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- contingencies. Rank the tasks by importance.
- Order needed resources.
- 5. Build a Plan and a Structure: What are your initial staffing needs? How will you organize and deploy resources?**
- Establish an organizational structure that can effectively support efforts. Remember span of control.
 - Develop and implement assignments to support the tasks.
 - Each assignment should pass a risk assessment analysis.
 - Assignments should be initiated in a sequence reflecting the task ranking (taking into consideration logistical, resource, and other considerations).
- 6. Take Action:** *Feedback, Quality Debriefing*
- Brief all arriving personnel.
 - If not already accomplished, finalize assignments with resources, including risk assessments. Provide assignment briefings. Use SMEAC for briefings (See Section II, Chapter C).
 - Track resources. Ensure health of incident. Practice incident management principles and the search crucials.
 - Debrief all resources immediately upon completion of assignments. Remember to obtain safety input.
 - Finalize Incident Action Plan for next Operational Period.
 - Brief relief IC as to IAP.
 - Go home and get some sleep.

10 90 - 90 90 rule.

cyclic Process.

IMPORTANT NOTE

During the initial response period the agency person (agency having jurisdiction [AHJ]) in charge will be the Incident Commander and the Search Manager, this will often be the Law Enforcement Agency of Jurisdiction. As the incident expands, the roles will need to be separated to decrease the work load and ensure a proper span of control. This Section was developed for one person conducting both roles or two people working together to bring a successful conclusion to the incident. Hence, the term Incident Commander and SAR Manager are synonymous in this context.

As stated earlier this generic process is adaptable to virtually any incident. It is especially useful in the Initial Response Phase of a SAR mission. For example, a Hasty Team leader arriving at a trailhead from which a reported lost person departed, quickly runs through the process to determine where to employ his resources: which trails to run, buildings to check, high hazard areas to check, etc. Then the Incident Commander, while the Hasty Team is still in the field, uses the process to plan the first operational period of the search.

In the event the mission continues into multiple operational periods, the process is useful to organize an expanded, more formalized planning process.

The following Chapters will detail the Six Step Process from the point where you are notified through to the conclusion of the first Six Step Cycle. For each of the Six Steps it gives you:

- √ A complete list of all the activities to which you need to attend.
- √ Any supporting information that you might need, in the form of text or tables.
- √ A list of 'recommended actions' – these are activities that we think you must deal with.
- √ References to any documentation (forms) that you will need to complete. The documents (forms) for this can be found in Section VI.

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B. STEP 1 – SIZE UP THE SITUATION

Step 1 is concerned with collecting, recording, and assessing the known facts about the incident. You are going to build a Missing Person Profile and an Incident History. You may discover that there are facts which you need and which you do not have. If that is the case then you must think about where you can get them from and how you will go about getting them. You must collect and record all the facts that are currently available to you. You will need to assess them to decide whether you have a mission and the degree of urgency involved.

This is likely to lead to a process of investigation and interviewing.

1.0 STEP 1 - ACTIONS.

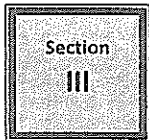
1.1 Receive Notification (First Notice).

Missing Person Report VI-3 or RNC Form.

- ✓ First Notice is your first notification that you might have a search and rescue mission. It can come from a witness, a friend of the probable lost, overdue, missing person, a family member via a tasking agency, or your superior. You can receive First Notice in a number of ways: verbally, cell phone, telephone, or dispatch via radio.
- ✓ You must record who contacts you, when and what they tell you. Use the First Notice Record Sheet (SAR Form 1).
- ✓ You must maintain contact with the complainant/informant; write down how you will do this on the First Notice Record Sheet. It might be a telephone number, or instructions to the complainant/informant on what to do – ‘stay at the campground, trailhead or crossroads.’

1.2 Establish Structure. *Always and IIC.*

- ✓ Now there is a search and rescue incident, so there must be someone to direct it. Identify the person who will be the Initial Response Incident Commander. THIS IS PROBABLY YOURSELF. This person (YOU) will be responsible for all aspects of the incident until the end of the operational period or otherwise formally relieved by a person of authority from the responsible agency having jurisdiction (AHJ).



B. STEP 1 – SIZE UP THE SITUATION

1.3 Define Operational Periods.

Define the operational period schedule. What happens if you do not locate the lost, missing person quickly? What is a reasonable time for you to be able to effectively perform until you need rest? What types of work shift schedules within the operational period will best facilitate search and rescue efforts? Commonly, operational periods run for 12 hours, with a daytime operational period and a night operational period. But if a different arrangement better serves your needs, chose it. Whatever time period(s) you choose operational periods are identified by the 1st Operational Period, the 2nd Operational Period, and so on.

1.4 Determine the Initial Planning Point (IPP).

Could have evidence.

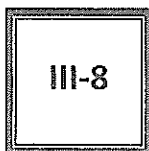
a. The IPP is the single most important fact that you will collect. It is the last definite place that the lost, missing person was known to be. It will either be the PLS (Point Last Seen), or the LKP (Last Known Position). The PLS depends on a positive, identified sighting. In the case of the LKP the person was not seen but left some item that can be identified as being theirs, for example a car, truck left parked, an item of equipment or an entry in a logbook. The IPP must be marked on the map and protected (for example taped off) because:

- It may yield valuable clues; for example, a trained tracker may be able to identify a direction of travel by locating footprints.
- A Police K-9 or SAR dog may be able to pick up a scent and follow a track of the lost missing person.
- There may have been a crime committed and the IPP might have to be examined by criminal investigators

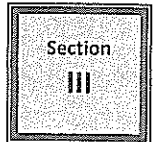
Recommendation: If at all feasible, eyeball the IPP yourself. A personal on-scene inspection may reveal insight not otherwise possible. It may well be contaminated by others who have already tried searching for the lost missing subject.

1.5 Collect and Record the Known Facts.

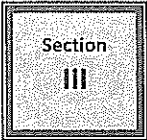
a. Remember that anything that you have been told so far may be second-hand; you need to get hold of a person who can give you information which is reliable and of which they have first-hand knowledge. For example, if the IPP is a PLS then talk to the person who made the sighting (observation) rather than rely on what they have told someone else. There are two kinds of factual information that you must start to collect and record:



III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS




- ✓ Information about the lost/missing person – use the Lost/Missing Person Profile (SAR Form 2).
 - ✓ Information about what has happened – use the Incident History (SAR Form 3).
- b. You should also record the name and means of contact of everyone who can provide information that confirms the story you have been told.
- 1.6 Consult Lost Person Behavior Statistics (or local data base) to give you some idea as to what people have done in the past when they have been lost. This also gives you some indication of the most appropriate types of tactics to employ.
- Not 100% but a good starting place.*
- a. Different types of people behave in different ways. Lost Person Behavior Statistics recognize this and divide case histories into different categories of lost/missing persons. In order to use this valuable tool, you must decide what kind of person you are looking for. You do this by considering the information that you have so far, and deciding into which category the person falls. Examples of categories you can choose from are hunters, hikers, children aged 1 to 6 years, children aged 7 to 12 years, youths aged 13 to 15 years, despondents, mountain bikers, skiers, off highway vehicle operators, walkaways, etc. If none of those adequately corresponds to your understanding of the lost/missing person then there is a category called 'miscellaneous adults'. Or, select the two or three categories that are closest to describing your missing subject, and selectively choose the statistical data from these categories. (Also applicable in the case of a person that is an adult chronologically but functions at the level of a much younger person.) Choose the category that is most appropriate, and write it down on the Lost/Missing Person Profile (SAR Form 2). Read what the Lost Person Behavior Statistics tell you about past missions involving missing persons in the category you have chosen. (See Section IX, Chapter H, Lost Person Behavior Checklists.)
 - b. 'Lost' persons can theoretically travel in a straight line in any direction, but experience has shown that this does not happen. Instead they follow some kind of route; come across terrain features that cause them to change direction or to be attracted toward certain places.
- X* Remember that there are four methods of establishing a search and rescue area (See Section VIII) and lost/missing person's data is just one method. You must also consider the theoretical distance the person could of travelled in any direction, and did they travel on a path of least resistance in the search and rescue area, which took them beyond what the lost missing person data and statistics is telling you.
- 1.7 Carry out a 'terrain and topography analysis.'
- a. Begin by identifying any Hazardous Locations in the vicinity (cliffs, rivers, falls, caves, crevasses, sinkholes, lakes, etc.). If you are not sufficiently familiar with the area then find



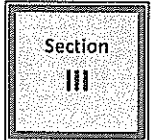
B. STEP 1 – SIZE UP THE SITUATION

someone who is, or assign resources to perform a reconnaissance. You must mark any known hazardous locations on the map.

-  b. Mark Trails or Routes on your map that the lost/missing person might have followed (both manmade and natural). Make note of Barriers. Identify attractions and magnets.
- c. The lost/missing person may be following trails or some other kind of route. Mark any features in the Initial Search Area that could act as travel routes for the missing person. (Lost Person Behavior Statistics may give you some ideas.) Features that have less barriers to human travel than the surroundings can include:
- Trails, both animal and manmade.
 - Roads, logging, mining, oil and gas exploration.
 - Utility right-of-way's, pipelines, transmissions lines.
 - Water courses and stream banks.
 - Open forest, reforestation areas, and other brush-free vegetation types.
 - Ridges and slopes.
 - Valley bottoms and rural urban interface areas.
- d. Keep in mind that these travel routes that provide easy travel may allow the missing person to travel outside the statistical boundaries. Therefore, they may give you a weird shaped search area.
- e. Lost/missing persons will probably not just head off in a straight line and keep going. At some point, they will most likely come across something that will cause them to change direction. This can happen when they meet a stream or river that they cannot cross, some steep ground that they cannot climb, or a roadway, trail that looks as though it might lead them to safety. The features that can cause a change in direction are called 'barriers,' and we can use them to mark out an area on the map that at this stage we will consider the missing person to be in. The area inside this boundary is called the Initial Search Area, and that is how we will refer to it from now on. We are not saying that the lost/missing person will definitely be in there – what we are saying is that this is the area where we think they are likely to be and it is where we are going to start our searching. Read what the Lost Person Behavior Statistics say about the category of person you are looking for and then draw barriers on your map.



III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS



- f. Typical barriers are:
- Streams or rivers that are not easy for the missing person to cross.
 - Trees or bushes too thick to walk into if there is an easy alternative.
 - Uphill gradients that they would find too steep.
 - The top of a ridge – they would probably have to go uphill to retrace their steps.
 - Roads, tracks or trails which are easy to follow or might lead to safety.

Recommendation: Do not automatically assume that trails and forest roads will by themselves be effective barriers or used by the lost missing person. Not infrequently, lost/missing persons have come to a trail or logging road, evaluated their options, and chose to cross the trail/road and continue with their original travel plan. Consider patrols or other techniques to enhance effectiveness of such barriers.

- g. You must realize that the terrain and its features will look very different to members of the different categories. What might be a barrier to one might not be a barrier to another. You must take notice what Lost Person Behavior Statistics tell you, and what you know about the missing person. However, be aware that comments such as 'can barely walk fifty meters (yards) on the flat' can often be very misleading and have been shown to be serious underestimates of someone's capability, particularly when made with reference to elderly persons. Obtain corroborating statements from others about the lost/missing person on their physical abilities.
- h. Ideally, you should identify a barrier in every direction from the IPP, so that the IPP is completely surrounded by them. Some barriers might be close to the IPP, others may be some way off. You might find that the barriers almost indicate a direction of travel from the IPP, for example if the IPP is right up against a river. That is all right at this stage so long as you are confident about your choice of barriers.
- i. Lost Person Behavior Statistics tell you how far from the IPP other people have been found in the past. These are given as straight-line distances and are not related in any way to the actual distance that the person may have travelled. The table of data for your chosen category tells you how far 10%, 20%, 30%, and so on up to 100% of the people in that category have been found in miles and kilometers from the IPP. You can use this information to check against your Initial Search Area.
- j. If your Initial Search Area goes beyond the 100% distance in any direction then you must remember when you are defining your Objectives that you do not need to search all the way

out to the barriers in that direction. Mark the 100% distance on the map in that direction and take that as the absolute limit for the time being. In reality you are unlikely to want to search beyond the 80% distance at this stage – that would account for 4 out of every 5 missing persons in the category you have chosen.

- k. If it does not extend out as far as the 20% distance in any direction, then have a good look at the features that you have used as barriers in that direction. If you are confident that they really would form barriers then use them, otherwise you might look for barriers further out from the IPP. If there are not any, then use your original ones.

- l. ~~✗~~ Magnets: studies have shown that lost/missing persons are often attracted towards certain features. These may be related to the activity they were doing, or may be likely places of safety such as the lights of a tower, campground or town at night, or what the person might perceive as a secure location near some obvious feature of the landscape. These are referred to as 'attractions or magnets' since they attract the person towards them. Read the Missing Person Profile (SAR Form 2) to see what the person might have been doing, and the Lost Person Behavior Statistics for the category that you have decided upon to see what might constitute as an attraction or magnet. Mark any you find in your Initial Search Area on your map. Typical attractions or magnets are:

- The lights of a building at night.
- A location associated with some past experience.
- The interface between two types of terrain or vegetation.
- A solitary or 'different' tree or rock formation.
- Viewpoints.
- Some form of shelter.
- Locations for some activity, such as crags for rock hounds, nesting places for ornithologists, and so on.
- Human-caused sounds such as trains, highway traffic, logging operations, etc.

SAR #4. sheet

- VI-9. ↗
1.8 Make a list of the resources that are currently available and that you might want to send out to search when you have devised your initial search plan. Use the Resources Sheet (SAR Form 4) and record their status. At this stage that is going to be either 'enroute' or 'available for use.' If they are enroute, record their ETA.

- (VI-1)
1.9 Carry out an Urgency Analysis, using the Urgency Analysis Checklist (SAR Form 5). The purpose of this is to help you to determine your level of response. The information you will use for this will come from the Lost/Missing Person Profile, investigation, and the incident history, together with local knowledge. Remember that it is intended to give you guidelines only.

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"The Incident Response Process is a logical sequence of actions and thought processes followed by the incident commander in developing and executing a plan. The purpose is to ensure the best use of time and resources in accomplishing the incident objectives. All the steps are covered, even if each takes only a few seconds. Some steps may be taken concurrently. The process is not rigid: modify it to fit the mission, situation and available time. Not all the tasks listed under each step will apply to every 'cycle' of the six step process or to every mission. Take what's useful, add to it as you gain experience. Rather than a checklist, view the six steps as a continuous process. As you complete one 'cycle' you immediately start the process again. As you gain experience you will find it becomes virtually instinctive."

-Snowshoe Thompson, 1856

Step #1: Recommended Actions

- Either maintain contact with your complainant/informant directly or know where he/she is at all times.
- Fill in the First Notice Record Sheet (SAR Form 1).
- Identify the Incident Commander and notify all personnel.
- Define the Operational Period Schedule. Write the start and finish times in the spaces provided on the Incident Action Plan (SAR Form 7).
- Identify the IPP, mark it on the map and protect it.
- Locate if possible the people with first hand knowledge of both what has happened and the person involved, and interview them.
- Fill in the Lost/Missing Person Profile (SAR Form 2).
- Fill in the Incident History (SAR Form 3).
- Read the Lost/Missing Person Behavioral Statistics for that category.
 - Consider theoretical distance travelled by the lost/missing person.
- Carry out a Terrain and Topography Analysis. Mark on map:
 - Any known hazardous locations.

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B. STEP 1 – SIZE UP THE SITUATION

- Barriers to mark out the Initial Search Area (ISA).
 - Likely trails or travel routes in the Initial Search Area.
 - Any attractions and magnets in the Initial Search Area.
 - Check, modify Initial Search Area boundaries against lost person behavior (LPB), theoretical, subjective, and deductive reasoning, and distance travelled data.
- List the resources currently available on the Resources Sheet and their status (SAR Form 4).
- Carry out an Urgency Analysis (SAR Form 5) and respond accordingly.

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

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C. STEP 2 – IDENTIFY CONTINGENCIES

Step 1 was concerned with facts; Step 2 is concerned with 'maybes.'

What else could have happened?

1.0 STEP 2 - ACTIONS.


- 1.1 Carry out a Scenario Analysis (SAR Form 6), suggesting a number of possible alternatives for what might have happened (where the person might have gone, what they might have done, and what might have happened to them). These will help you to decide on where to deploy the search and rescue resources available to you.
- Your map now has lots of 'maybes' marked on it in the form of barriers, attractions, and magnets and possible routes, but it has only one fact on it relating to the lost/missing person, and that is the IPP. You now need to consider the biggest set of maybes of all and that is what they might have done after they left the IPP. This is called Scenario Analysis.
 - Scenario Analysis is a valuable exercise because it encourages you to come up with a number of plausible stories (scenarios) that fit in with the marks you have made on your map. These stories should:
 - Be real possibilities.
 - Fit in with what Lost/Missing Person Behavior Statistics tell you.
 - Indicate where you think the lost/missing person might have gone.
 - Ideally be done in conjunction with someone who either knows the area or knows the person or has valuable experience in this area.
 - Be written down. Write down at least three of the most plausible scenarios.
 - Use the Scenario Analysis Record Sheet (SAR Form 6), which has room for ten of them. You will be referring to these to decide where you are going to go and search, and so you need to indicate how likely you consider each of your scenarios to be. Use the abbreviations suggested on SAR Form 6 (very likely to very unlikely) and write them in the right-hand column.

Note: *More than one scenario may be possible and need to be considered in your planning.*

**Section
III****C. STEP 2 – IDENTIFY CONTINGENCIES**

1.2 Conduct a 'risk assessment' and identify safety concerns. Sometimes known as a Hazard Vulnerability Assessment. (See Attachment 1 to this Chapter.)

- a. Risk is an inherent factor in all emergency responses. For search and rescue, common risks include: type of lost/missing person you are looking for, adverse weather; rough terrain; long hours; poor night visibility; swift water; helicopter blades.
 - All risks cannot be eliminated, but they can be managed.
- b. Simply telling SAR personnel to 'search in a safe manner' will not make the search and rescue effort any safer. Safety actions must also occur; safety is too important to reduce to a simple phrase. Safety must be fully integrated into all search and rescue incident activities. The use of risk assessment tools such Green, Amber, Red (GAR), and/or Lookout, Communications, Escape Route, Safety Zone (LCES), and proper documentation will bring due diligence and accountability to the risk management process. (See Attachment 1 to this Chapter.)
- c. A risk assessment should be performed for each search and rescue assignment. Consider the following questions for each assignment. If the answer to any of these questions is 'no,' the assignment should be redesigned.
 - Have the hazards associated with this SAR assignment been identified?
 - What are these hazards (list)?
 - Does the assigned SAR resource have the training, capabilities, and equipment to mitigate the hazards?
 - Is there a process in place to ensure the assigned SAR resource will be notified of the potential hazards?
 - Will the SAR resource be advised as to the risk exposure at which to cancel the assignment?
 - Does the risk justify the benefit?
 - Is this the safest manner by which to accomplish the SAR assignment?

 **Remember** the prime directive of all emergency responses: 'The life of the rescuer takes precedence over all other concerns, including the well-being of the potential survivor (victim).' (use of GAR and LCES)

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

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1.3 Use this information in Step 3 and Step 6.

- a. Be sure to integrate your hazard risk assessment into the establishing goals and objectives process, Step 3.
- b. Be sure to 'brief' all personnel on safety issues, including identification of hazards and instructions for mitigating risks, Step 6.
- c. Each resource should also be 'debriefed' immediately upon completing an assignment. Ask them to identify any hazards encountered, and encourage them to make recommendations to improve safety right away, Step 6.

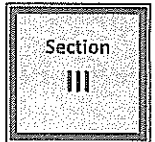
Step #2: Recommended Actions

- Carry out a Scenario Analysis and write down at least three likely scenarios, and their likelihood (SAR Form 6).
- Identify the range of possibilities that might have caused the person(s) to become lost/missing, overdue.
- Consider 'worse case' scenarios.
- Identify highest risk scenarios.
- Consider the potential that this is a result of a criminal act, until proven otherwise; List suspicions.
- Conduct mental 'hazard, risk assessment;' Identify safety concerns. (use of GAR, LCES)

NOTES

Large lined area for taking notes, consisting of approximately 20 horizontal lines.

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS



Attachment

1. Risk Management

A. INTRODUCTION.

1. Risk is an inherent factor in all emergency responses. For search and rescue, common risks include, type of person you are searching for, adverse weather, rough terrain, long hours, poor night visibility, swift water, and helicopter blades.
2. All risks cannot be eliminated, but they can be managed.
3. Not uncommonly in the past, safety has been addressed by either including an incident objective such as 'search in a safe manner', or adding the word 'safely' to existing incident objectives.
4. While these words may emphasize the importance of safety, they do not in themselves make the incident safer. Action must also occur.
5. On a proactive and preventative basis, most safety training and awareness should be accomplished before the SAR mission. Are your people trained, equipped and capable of performing the assignments expected of them? However, even a robust safety preparedness program cannot anticipate every risk. The following discussion focuses on identifying and managing SAR incident specific risks.
6. SAR incident safety is accomplished by both specific recognition and mitigation efforts and, in a broader sense, increased awareness among all SAR personnel. Make safety awareness both specific to the mission and generic. Safety must be clearly established as part of the SAR organizational culture. Safety does not occur because the Incident Commander (IC), or Safety Officer mentions safety in a briefing. Every field exercise and SAR mission must include provisions for safety as conditions warrant. SAR unit leaders must be trained and held responsible for safety of their search and rescue groups. SAR responders, workers, and providers (volunteers) must be trained and expected to comply with safety policies and play a role in promoting safety among their cohorts. SAR leaders must lead by example.
7. This discussion suggests actions and decision processes that can help manage the risks associated with wilderness search and rescue.

B. SAFETY AS AN OBJECTIVE.

1. The concept of mission goals, objectives, strategies, and assignments (GOSA) should include safety.



2. A simple 'search in a safe manner' statement is a goal, not an objective. It is not measurable, achievable, nor flexible. Further, safety is too important to relegate to a simple phrase – it must be fully integrated into all SAR incident activities.
3. A better safety objective is 'establish an effective SAR risk management program'. The components (strategies) of this program can include conducting a SAR risk assessment for each assignment, effective performance of Safety Officer duties, implementing Personnel Accountability Report (PAR), Green, Amber, Red (GAR), and/or Lookout, Communications, Escape Route, Safety Zone (LCES), and including safety as a key briefing/debriefing topic.

C. RISK MANAGEMENT STRATEGIES.

1. SAFETY OFFICER – A Management Tool.

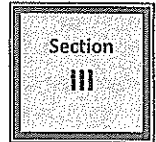
- a. Every incident has a Safety Officer. If not specifically delegated, the function is the IC's responsibility. But it is difficult for an IC to also perform the Safety Officer's job. The IC's primary duties require he/she be based at the Incident Command Post, while an effective Safety Officer spends most of his/her time in the field observing, coaching, identifying, and mitigating hazards, and generally ensuring safe SAR operations.
- b. Whether retained by the IC, or delegated to a subordinate, the safety-related duties that must be performed on every incident include:
 - ✓ Promoting the responsibility for safety to all unit leaders.
 - ✓ Enhancing the situational awareness and importance of safety.
 - ✓ Identifying hazardous situations and potentially unsafe situations.
 - ✓ Exercising authority to stop and prevent unsafe acts.
 - ✓ Investigating accidents and near miss incidents.

2. RISK ASSESSMENT – A Management Tool.

- a. A SAR Risk Assessment can be as simple as addressing the questions listed in the 'SAR Risk Assessment Worksheet' form shown on the next page.

THE #1 INCIDENT PRIORITY IS ALWAYS LIFE SAFETY!

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS



EXERCISE

Read the following case study and individually complete the SAR Risk Assessment Worksheet provided on the following page.

CASE STUDY

It is 1100 hours on the third day of a search and rescue mission. The subject has just been located and flown to Base Camp. Demobilization is in full swing. Wet and tired personnel are anxious to go home. A search and rescue team radios that they are eight kilometers (five miles) from the trailhead, and one of their members has injured his ankle. He cannot walk, there's no deformity, and distal circulation and sensory feeling is good. The SAR team is requesting a helicopter evacuation, and states there is a small forest clearing nearby.

| RISK ASSESSMENT WORKSHEET | 1. Assignment Number, Activity Description, Or Other Designator: | 2. Date & Time: | 3. Prepared By: |
|---|--|-----------------|-----------------|
| CONSIDER THE FOLLOWING QUESTIONS FOR EACH ASSIGNMENT AND ACTIVITY | | | |
| ITEM | YES | NO | |
| Have the hazards associated with this assignment been identified? | ✓ | ✗ | |
| What are these hazards? <i>additional injuries</i> | | | |
| Does the assigned SAR resource have the training, capabilities, and equipment to mitigate the hazards? | | | |
| Is there a process in place to ensure the assigned SAR resource will be notified of the potential hazards? | | | |
| Will the SAR resource be advised as to the risk exposure at which to cancel the assignment? | | | |
| Does the risk justify the benefit? (Risk Benefit Analysis) | | | |
| Is this the safest manner by which to accomplish the task? | | | |
| Other options considered: <i>additional injuries</i> | | | |
| If the answer to any of the above questions is 'no,' the assignment should be redesigned. | | | |
| Remember the prime directive of all emergency responses: 'The life of the rescuer takes precedence over all other concerns, including the well-being of the subject'. | | | |



3. IMPLEMENTING STANDARD WORK/REST GUIDELINES – A Management Tool.

- a. These guidelines are consistent with the USA Interagency Incident Business Management Handbook, USA National Wildfire Coordinating Group (NWCG) Handbook 2, Chapter 10, Section 12.7-1 & 12.7-1a; the USA National Interagency Mobilization Guide, Chapter 10, Section 13; the Canada Labour Code and most Provincial Occupational Health and Safety Guidelines.
 - ✓ Work/rest guidelines should be met on all SAR incidents. Plan for and ensure that all SAR personnel are provided a minimum 2:1 work to rest ratio (for every 2 hours of work or travel, provide 1 hour or sleep and/or rest).
 - ✓ Work shifts that exceed 16 hours and/or consecutive days that do not meet the 2:1 work/rest ratio should be the exception, and no work shift should exceed 24 hours. However, in situations where this does occur, incident management personnel will resume 2:1 work/rest ratio as quickly as possible.

4. BRIEFING – A Management Tool.

- a. Safety issues, including identification of hazards and instructions for mitigating risks should be provided to all SAR personnel at time of task assignment.
- b. Each individual on the incident must understand he or she has the right and obligation to report safety problems and contribute ideas regarding his or her safety. One of the biggest injury risks in SAR is the misalignment of SAR assignments to personnel who are not physically capable, equipped or trained to safely accomplish. SAR personnel must be appropriately assigned.

RIGHT OF REFUSAL

An important concept to cover during briefings is the individual's right to refuse SAR assignments where safety is an issue. Initial SAR training and retraining should include the right and responsibility of SAR personnel for their safety and point out the particular vulnerability of new SAR recruits who may have too much adrenaline and peer pressure and get in over their heads as a result. They will also likely be reluctant to raise safety concerns if not trained otherwise.

When an individual feels a SAR assignment is unsafe he or she also has the obligation to identify – to the degree possible – safe alternatives for completing that SAR assignment. Turning down a SAR assignment is one possible outcome of managing risk.

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

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This is counter to how many organizations have traditionally allowed their personnel to operate. That is, they've deferred to SAR field personnel to independently accept risk.

Individuals may turn down a SAR assignment as unsafe when:

- ✓ There is a violation of safe work practices.
- ✓ Environmental conditions make the work unsafe.
- ✓ The person lacks the necessary qualifications or experience.
- ✓ Defective equipment is being used.
- ✓ A Hazard Risk Assessment of the search and rescue assignment has not been conducted.

5. **DEBRIEFING** – A Searcher Tool.

Each SAR resource should be debriefed immediately upon completing a SAR assignment. As part of this debriefing the SAR resource should be asked to identify any hazards encountered, and encouraged to make recommendations to improve safety.

6. **SAFETY LEAD ON EACH TEAM** – A Searcher Tool.

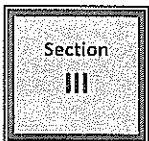
Encourage each SAR team leader to assign safety as a collateral duty to a SAR team member.

7. **PAR** – A Management Tool.

- a. The Personnel Accountability Report (PAR) was developed by the structural fire community and has been adopted by the USA Federal Emergency Management Agency (FEMA) Urban Search and Rescue teams, and is taught in FEMA disaster search curricula.
- b. PAR is simply confirming full team accountability, and reporting location, percentage of assignment completed, and estimated time of completion to higher authority on a regularly scheduled or emergency basis.

8. **LCES** – A Team Tool.

LCES was developed by the wildland fire community decades ago to address the frequency of crews being caught by forest fire blowups. It is very applicable to SAR situations where personnel are working in proximity to recognized hazards such as rock fall, avalanche potential, pending weather, dangerous wildlife, and moving water.



 C. STEP 2 – IDENTIFY CONTINGENCIES

- | | | |
|----------|----------------|---|
| L | Lookout | The team designates one person as lookout who positions him/herself to provide over watch and timely warning. |
| C | Communications | All team members are able to communicate with each other, and the team leader with the next higher level of command. |
| E | Escape Route | An escape route is prepared and known to all members. |
| S | Safety Zone | The escape route leads to a nearby designated safe location where all members rendezvous if the Lookout communicates a warning. |

 9. **ORM** – A Management and Searcher Tool.

- a. The Operational Risk Management (ORM) model – especially the Green, Amber, Red (GAR) component – is being institutionalized by entities involved in search and rescue response such as the Navy, Air Force, Civil Air Patrol, Coast Guard, National Park Service, Washington State Search and Rescue Volunteer Advisory Council, and an increasing number of local agencies and volunteer SAR units. It has been incorporated into the USA Catastrophic Incident Search and Rescue (CISAR) Addendum (Version 2.0; November, 2009) to the USA National Search and Rescue Supplement.
- b. Under this model, a SAR team evaluates an assignment's risk upon being given the assignment, but before acceptance. It is a simple process that only takes a few minutes.
- c. Risk value is calculated by assigning a personal estimation* of the risk to each of six (or seven – depending upon the agency; below is the CISAR version) key elements: a value of 0 for no risk up to a value of 10 for maximum risk.

*** Note: *These number values are subjective, based on the experience of the individual or group.***



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| ORM - Assessing Risk | | |
|------------------------------|--|--|
| Element | Explanation | Estimation of Risk <small>(Rate 0-10 for each)</small> |
| Supervision | How qualified is the supervisor? How closely do the team members need to be supervised? The higher the risk, the more the supervisor needs to be focused on observing and checking. A supervisor who is actively involved in a task is easily distracted and should not be considered an effective safety observer in moderate to high-risk conditions. The higher the risk, the more the supervisor should focus on observing and checking. | |
| Planning/Preparation | How much information is available? How clear is the information? How much time is available to plan and execute the assignment? | |
| Team Member Selection | Consider the experience/training of the members. If individuals are substituted during the assignment, assess their experience and ensure proper turnover. | |
| Team Fitness | The physical and mental state of the members. This is a function of the amount and quality of rest they have had. Fatigue normally becomes a factor after 18 hours without rest; however, lack of quality sleep builds a deficit that worsens the effects of fatigue. | |
| Environment | Factors that affect personnel, team readiness, and resource performance. These factors may include time of day, weather, terrain, distance to hike, and hazards. | |
| Assignment Complexity | Consider both the time and resources required to conduct the assignment. The longer the exposure to hazards, the greater the risks. What is the precision level needed to successfully complete the assignment? | |
| Total Risk Score: | | |

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C. STEP 2 – IDENTIFY CONTINGENCIES

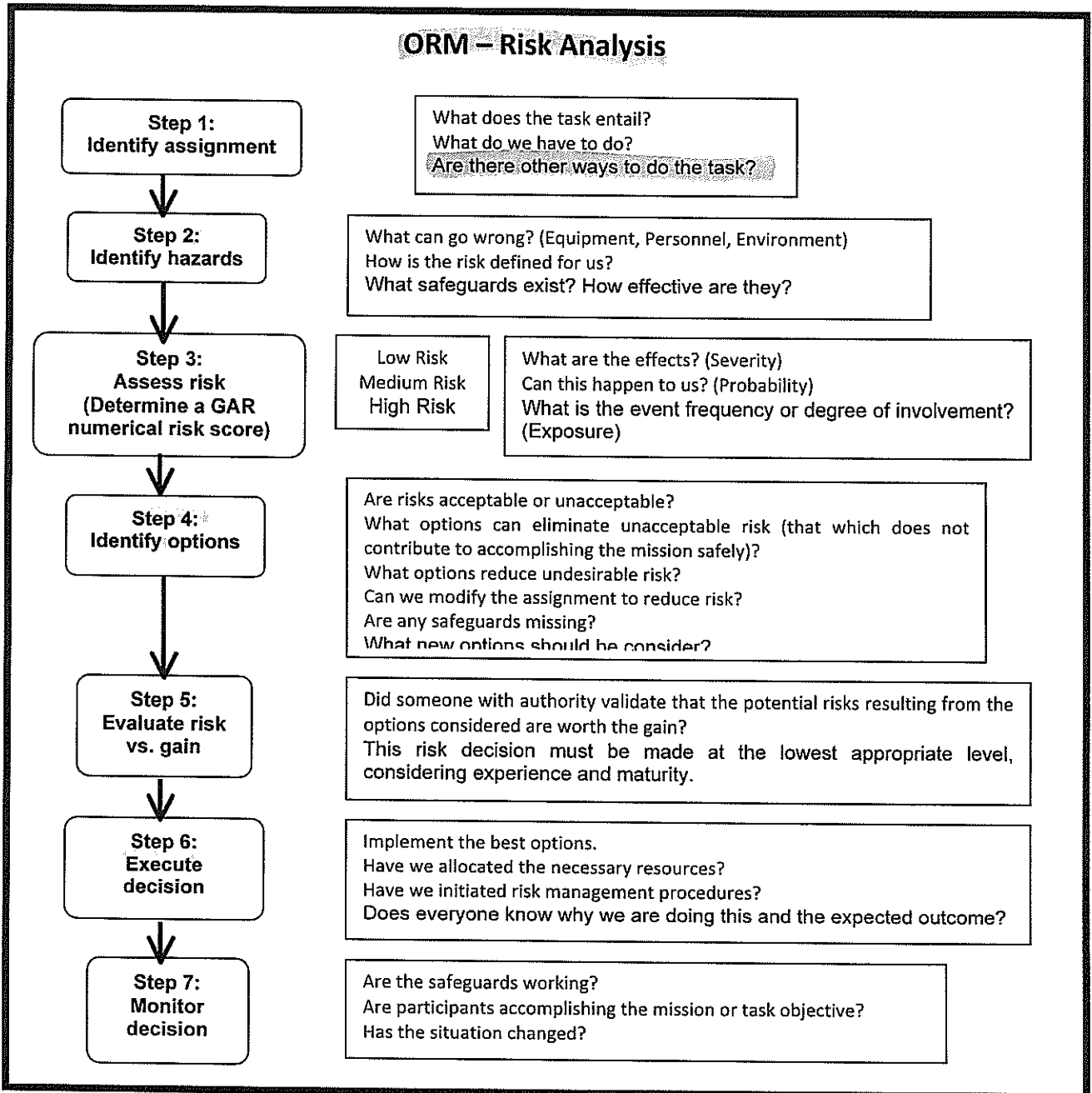
- d. The model uses the visualization of traffic light colors to categorize an assignment’s level of risk. If the total risk value is less than a value of 24, the risk falls in the Green Zone and is rated as low. If the total risk value is between 24 and 44, the risk is in the moderate Amber Zone, and the team should consider options to further minimize. If the total value is greater than 44, the risk is in the high Red Zone and the team should carefully consider whether to accept the assignment without either modification.

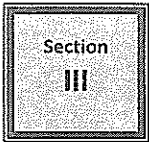
| ORM’s GAR Evaluation Scale | | |
|----------------------------|---|--|
| 0-23 | 24-44 | 45-60 |
| Green Low risk. | Amber Medium risk. Consider procedures and actions to minimize risk. | Red High risk. Implement measures to reduce risk prior to accepting assignment. |

| ORM’s GAR Risk Assessment Tool | | | |
|--------------------------------|---|-------------|--|
| | High Gain | Medium Gain | Low Gain |
| Low Risk (0-23) | Accept the assignment. Continue to monitor Risk Factors for any condition or assignment changes. | | Accept the assignment. Reevaluate Risk versus Gain should Risk Factors change. |
| Medium Risk (24-44) | Accept the assignment. Continue to monitor Risk Factors. Identify, and if possible, employ any potential options to mitigate identified hazards that exceed an acceptable degree of risk. | | Accept the assignment. Continue to monitor Risk Factors. Actively pursue any possible options to mitigate identified hazards to reduce risk. |
| High Risk (45-60) | Accept the assignment only after higher authority confirms they are aware of the Risk vs. Gain. Actively pursue options to reduce risk. | | Do not accept the assignment. Notify higher authority. Wait until Risk Factors change. |

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

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C. STEP 2 – IDENTIFY CONTINGENCIES

10. SAR GAR (ORM GAR Modification) – A Search and Rescue Tool

The formal ORM GAR model described above has the following field application complications:

- a. Not all agencies use the same risk element structure. While they all consider the same issues, some organize them into six elements, others into seven elements. This results in differing GAR scores, which can cause confusion in interagency incidents.
- b. Basing decisions on a subjective numerical score – rather than addressing each amber and red element – can potentially result in failure to appropriately manage a risk.
- c. Under emergency response stresses it can be challenging to remember the elements, and mathematically calculate the scores. This is an important consideration. Please note the box below.

SAR Team discussion to understand the risks and how they will be managed is what is important - not the ability to assign numerical values or colors to risk elements.

D. FINAL POINTS.

SAR objectives should be (SMART) specific, measurable, action orientated, realistic and time sensitive. Being flexible, and adjustable are also considerations. Terms such as 'search in a safe manner' and 'safely' do not meet these criteria, and alone do not make an operation safe. Actions - such as designating and performing the duties of a Safety Officer, incorporating hazard risk assessment processes into the development and acceptance of SAR assignments, and empowering search and rescue personnel, contribute to the safety of SAR incidents

- ✓ Accept risk only when the benefits outweigh the cost.
- ✓ Accept no unnecessary risk.
- ✓ Anticipate and manage risk by planning and communications.
- ✓ Make risk decisions at the proper level.



III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

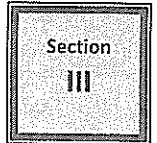
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| CHALLENGES | SOLUTIONS |
|---|--|
| Tendency to act on reflex or impulse; and/or improvise. | Recognize improvisation as a major red flag. Always identify and consider alternative plan. Designate a Team Safety Officer for every assignment. |
| Failure to recognize hazards. | Slow down! Take the time to identify and mitigate risk factors |
| Lack of empowerment. | Insist all SAR members are informed and concur, and positively reinforce the right of refusal. |
| Tendency to revert to habits when under stress, rather than implement unfamiliar processes. | Institutionalize the above in all SAR training and other unit activities so they become habitual. |

NOTES

Lined area for notes.

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS



D. STEP 3 – DETERMINE GOAL AND OBJECTIVES

Steps 1 and 2 were all about the missing person. Steps 3 to 6 are about your response.

Your Goal is to find the missing person, and your Objectives are the major steps you will take so that you make progress towards achieving it. Your Objectives will include a number of separate investigation, confinement and search activities that you will want to pursue. It is unlikely that you will have the resources available to do them all straight away, and therefore you will have to prioritize them so that they can be dealt with as resources become available.

However, do not feel limited in only identifying activities that can be completed during this 1st Operational Period. Rather, itemize all of the things you might reasonably want to do to locate the subject, based on the Size Up (Step 1) and Contingency (Step 2) processes. One of your jobs as Initial Response Incident Commander will be to develop an Incident Action Plan for the next Operational Period. Those activities not accomplished during your shift will carry forward into the next Operational Period's Incident Action Plan.

1.0 STEP 3 - ACTIONS.

1.1 Establish Objectives. Important points to consider when determining your Objectives are:

- a. How many Objectives should there be? There are three kinds of Objective – Investigation Objectives, Confinement Objectives and Search Objectives and you will probably have two or three of each kind, so expect between six and ten Objectives in total. SAR Form 7 gives you room for ten if you use both sides.
- b. How detailed should they be? Objectives should be sufficiently detailed to show what is to be done but not so detailed as they specify how it is to be done or who is going to do it. Bear in mind that an Objective is a major step towards your Goal and that each of your Objectives will be broken down into a set of separate Tasks, each of which will be assigned to a separate resource.

Objectives should be SMART (specific, measurable, action orientated, realistic and time sensitive).

- c. How far into the future should your Objectives stretch? This is an easy answer. You will be working towards achieving some of the tasks in the first Operational Period, and also developing a set of prioritized tasks for the second Operational Period. The ones you are developing for the second Operational Period will be based on the latest information from searcher debriefings and investigation findings. They comprise an important part of the Incident Action Plan you develop for the next Operational Period.

These objectives do not have to be perfect, exact, or comprehensive. Objectives are expected to be modified and adjusted as the mission unfolds based on information flow and coordination.

- d. What do typical Objectives look like? Here are some examples:

- **Investigation Objectives:** these are likely to relate to filling any gaps in the information you have collected so far about the missing person on SAR Form 2 ('find out more about the missing person'), or about the incident on SAR Form 3 ('check any known transport out of the area to see if anyone picked up a lift').

EXAMPLE INVESTIGATION OBJECTIVES

Examples of Investigational objectives are:

1. Interview complainant, reporting party, obtain as much missing person information as possible so you can complete a profile of the lost missing person. IE: interview the mother/father.
2. Identify the Point Last Seen or the Last Known Point.
3. Interview other persons in the area who may have seen the lost missing person. The camper in the next site over or the hikers who saw the person pass them on the trail and are now at the trail head, staging area.
4. Interview other family members of the lost missing person. Brother or sister, uncle, aunt, or cousin.
5. Investigate what the weather was like at the time the person went missing.
6. Investigate the terrain and topography of the area. Complete an area analysis.
7. Investigate and determine any attractions in the initial search area.
8. Investigate and determine the number of people using the area and similar activity to the person reported lost or missing.

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9. Investigate the number of other incidents that have occurred in the same area. Complete a comparison analysis from previous incidents.
10. Investigate the medical condition of the lost missing person.
11. Investigate and determine wildlife and domestic animals in the area.
12. Investigate the potential of a crime being committed.

- **Confinement Objectives:** confinement means making sure that the person you are looking for does not move out of the area you are searching. It is discussed in detail in 1.3. A typical Confinement Objective might be about patrolling an area just beyond where you are searching ('drive the roads to the north and west of the Initial Search Area').

Example Containment Objectives

Containment objectives should be based on your determination of the Initial Search Area and the theoretical, statistical distance traveled by the lost missing person. You can only complete this process once you have completed a terrain and topography analysis of the Initial Search Area. Considerations must be given to both natural and manmade paths of least resistance transecting through the ISA. Examples of Containment Objectives:

1. Contain the area based on the ability of the person to potentially travel a distance of 5 kilometers/3 miles in any given direction from the PLS using trails, corridors, both natural and manmade.
2. Confine the subject to (based on lost person behavior statistics) Shunda Creek and Highway 11 to the north and the forestry road and power line to the south.
3. Contain the area using the outer loop trail and the campground from the PLS.
4. Confine the subject within the campground, provincial/state park boundaries.
5. Contain the person based on your investigational information on the subject's health and medical condition.
6. Confine the person to the identified attractions that can be observed from the IPP.

- **Search Objectives:** these are likely to relate to an area on the map ('search the farmland between the road and the river'), or routes ('search the trails through the woods north of the camping ground', 'search the side roads off the highway'), or magnets ('search the likely fishing spots along the river'), or hazards ('search along the base of the cliffs').

Example Search Objectives

Search objectives will allow you to check the most likely areas that you have identified through your planning process. A thorough and comprehensive search of physical areas with resources in a given operational period will support where the subject has been, where they are going and additional information found within the Initial Search Area. Hasty Teams can identify hazards, observe trails, cut lines, and new disturbances on the environment within the search area. Examples of search objects:

1. Search the trail that goes from the campground and around the lake.
2. Search along the highway corridor both north and south from the campground entrance to the forestry road and back.
3. Search all cabins along the lakeshore, from the west staging area to the east road.
4. Search all infrastructure within the campground and maintenance yard.
5. Search all other campsites within the park and interview other campers found at those sites.
6. Search the hazard areas found within the Initial Search Area from the IPP.
7. Search the tent, camper, and holiday trailer at the PLS.
8. Search the subject's vehicle found at the trail head.
9. Search 300m around the wilderness campsite, abandoned Off Highway Vehicle, downed aircraft or found canoe.
10. Search x number of degrees on either side of the intended direction of travel or intended destination.
11. Search the lake within 30m of the lakeshore from the day use area.
12. Complete an underwater search of the river from the campground bridge to the lake.

1.2 Objectives and Tasks.

- a. An Objective is a major step towards achieving your Goal.
- b. Each Objective will consist of a number of Tasks; a Task is an assignment that can be given to a resource. Examples of typical Objectives and their related Tasks:

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| |
|---|
| Investigation Objective: 'Find out more about the missing person.' |
| Task 1 Find out what the missing person had with them. |
| Task 2 Find out about the missing person's medical condition. |
| Confinement Objective: 'Drive the roads to the north and west of the Initial Search Area.' |
| Task 1 Drive from the North Bridge to the crossroads and back every hour. |
| Task 2 Drive from the crossroads to the West Bridge and back every hour. |
| Search Objective*: 'Search the farmland between the road and the river.' |
| Task 1 Search all the paths. |
| Task 2 Walk the boundary fences. |
| Task 3 Search the riverbank |

*** Note: If any of your Search tasks involve searching an area then make sure that it is not too large and its boundaries are well defined. Read about Segmentation in Section VIII, Chapter C.**

1.3 Your Objectives and Tasks need to be written onto SAR Form 7. The recommended approach is to write down all your Objectives first and then break them down into Tasks. At this stage do not worry about writing down more than you think you can accomplish in a short time; what is important is that you get them written down.

- v **Investigation Objectives** – is any information missing from SAR Forms 2 and 3? Is there anywhere outside the Initial Search Area that you would check (e.g. the person's home, place of work, motels and so on). Write them down as Objectives on SAR Form 7.

You need to break each of your Objectives down into a number of Tasks – remember that a Task is an assignment that you are going to give to a resource to carry out. Write down the Tasks next to the Objective on SAR Form 7.

- v **Confinement Objectives** – look at the barriers you identified around your Initial Search Area and the routes you have marked on your map. Are there any route / barrier intersections where you should establish a confinement location? What areas outside the barriers would you patrol? Write them down as Objectives on SAR Form 7.

- v **Search Objectives** – look at the marks you have made on your map and read your scenarios. What areas does that tell you to go and search? Write them down as Objectives on SAR Form 7.

1.4 Prioritize your Tasks.

- a. It is unlikely that you will have enough resources to attend to all of the Tasks that you have identified straight away. You must therefore prioritize them by using the following guidelines:

Investigation Tasks: If you think that there is important information that you still need to obtain then that will need a high priority.

Confinement Tasks: It is likely that your scenarios will give you some idea which Confinement Tasks you will give a high priority to.

Search Tasks: You gave each scenario a likelihood rating – use that to help you to decide which of them you need to assign resources to first.

- b. Read through all the Tasks you have written on SAR Form 7. Decide which of them you think is the most important Task for you to assign resources to in order to achieve your Goal. Give that a Task Priority of 1 on SAR Form 7. Then decide which is the next most important and give that a Task Priority of 2; and so on, until you have prioritized all of the tasks on SAR Form 7.

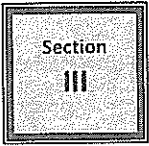
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Step #3: Recommended Actions

- Write down your mission Goal (SAR Form 7).
- Read the Lost Person Behavior Statistics for this category of person.
- On SAR Form 7, write down every Objective to do with investigation, confinement, and searching that you want to accomplish in at least the First Operational Period.
- Break down each Objective into a number of Tasks.
- Prioritize all of your Tasks and give each a Task Priority number (1, 2, 3, and so on) on SAR Form 7.



D. STEP 3 – DETERMINE GOAL AND OBJECTIVES

NOTES



III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

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Attachment

1. Further Discussions on Investigation, Containment and Searching

A. INVESTIGATION.

"Search is a classic mystery" (Search Crucial #2).

"Search for clues and the subject" (Search Crucial #3).

"Search management is information management" (Search Crucial #7).

1.0 LOST, OVERDUE, OR MISSING? THERE IS A DIFFERENCE.

- √ A lost person is someone who does not know where he/she is, and wants help.
- √ An overdue person is someone the reporting party believes is late for some appointment. The overdue person may or may not be lost.
- √ A missing person is someone the reporting party cannot find. The missing person may or may not be lost or overdue. Other possibilities include runaways, fraud (staged disappearances), and criminal acts.
- √ Although most search incidents involve lost or overdue subjects, it is important to consider all possibilities when responding to a 'lost' person report. If not recognized as such, incidents involving runaways, fraud, and crimes can expend enormous energy as searchers diligently search for a 'lost' person.

Investigation efforts should not just focus on revealing clues to assist search efforts, but also on exploring the possibilities of criminal or fraudulent actions.

2.0 INVESTIGATION TACTICS:

- √ Consider the possibility of a crime.
- √ Notify the law enforcement agency having criminal jurisdiction.
 - Encourage the agency to assign a detective/investigator to the incident.
 - Request review of criminal histories of the subject, friends, associates, and involved persons.

- Evaluate the circumstances:
 - o Did the disappearance occur in a wilderness setting, rural or urban area?
 - o Are the circumstances logical and reasonable?
 - o Does the activity, ages, types of persons, and equipment support the witness/reporting party statements?
 - o What are the family, financial, and emotional situations of the missing person and the witness/reporting party?

- √ Have authorities locate and interview all persons who may be able to provide critical information, such as friends, companions, and relatives.

- √ Maintain ongoing contact with the reporting party.

- √ Protect the IPP.
 - Secure the IPP and immediate vicinity with flagging or police tape.
 - Ensure appropriate distance between the PLS/LKP and the ICP or Base, to minimize the risk of contamination associated with the incident response.
 - Limit entry into the subject's vehicle.

- √ Protect possible scent.
 - Don't allow exhaust fumes to contaminate the immediate area.
 - Don't touch possible scent articles, wait for the dog handler.

- √ Protect tracks.
 - Mark/flag any tracks discovered.
 - Protect discovered tracks for deterioration from wind, rain, drying, or trampling. Consider covering with a box or plastic.

- √ Be systematic and thorough in processing the IPP. The optimum task force configuration for this effort is:
 - Investigator.
 - Tracker(s).
 - Tracking or trailing, air scent dog team.

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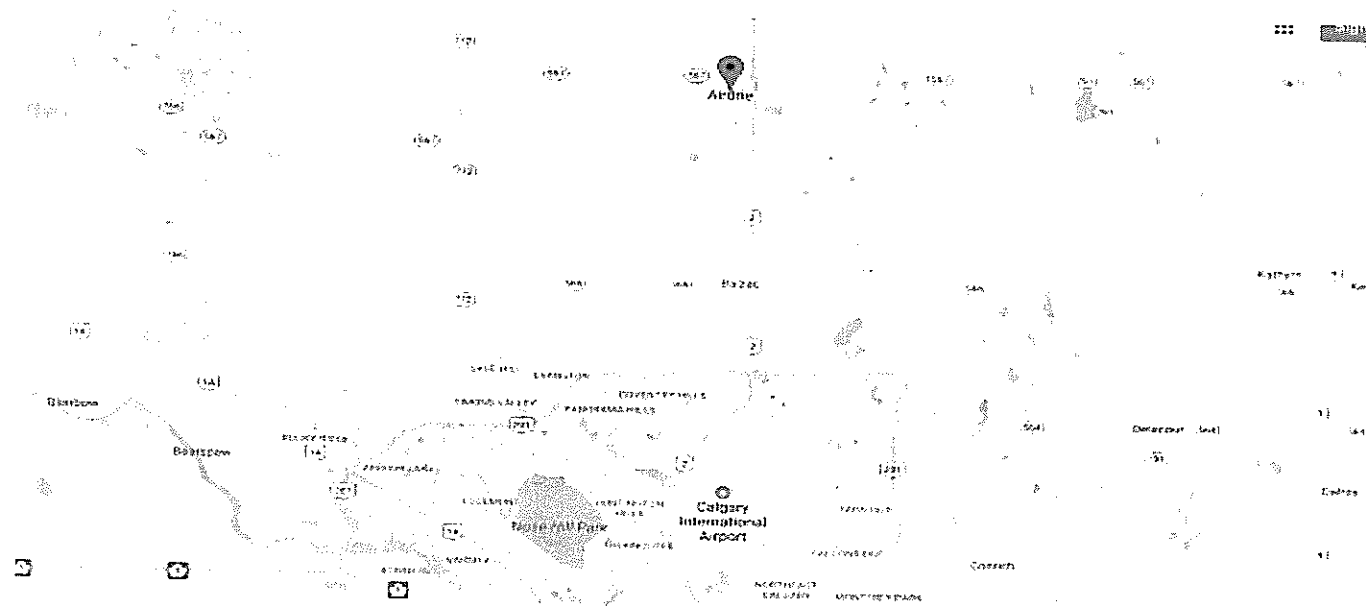
EXERCISE

CASE STUDY

On June 4th 57-year-old Dawna is a reported missing from her home in Airdrie, Alberta. A neighbor - the last person known to have seen her - states she left her apartment quickly at about 8:30 AM on June 1st. Telephone records show that on the morning of June 1st she telephoned a dentist in Calgary (45 Kilometers to the south). The dentist states she had been on prescription pain medication for a day or so but called at 8:30 AM on June 1st and complained it was not working, so his office made an emergency appointment for her at 10 AM. She never arrived.

Foul play is not ruled out, but there were no signs that anything was wrong in Dawna's apartment.

Dawna normally travels Hwy 2 to Calgary, but could also have taken Hwy 722 or Center Street. She drives a black Chevrolet Silverado pickup truck.



Assignment: as a class:

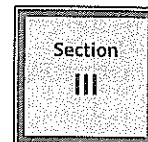
- a. Identify several Investigation objectives.
- b. Identify several Containment objectives
- c. Identify several Search objectives.

Note: Objectives should be 'SMART'.

3.0 LOCATING SUBJECT BY CELL PHONE.

- a. Attempt to contact missing subject:
 - √ Obtain missing subject's cell phone number.
 - √ Attempt to call subject. If the phone rings before going to voicemail it may be registered on a network. If it goes to voicemail, or does so only after 1 or 2 rings, it is most likely out of coverage. Of course, if it is answered ...
 - √ Send subject a text message. A text message advantage is that it is stored in a queue and delivered when the phone is on and in range - user intervention is not required. Another advantage is it may be delivered at lower signal strength than a voice call.
- b. If unsuccessful, obtain name of Wireless Service Provider:
 - √ Through family.
 - √ At <http://www.nationalpooling.com/> (click on 'Reports', then 'Block Report'), or <http://www.nanpa.com/> (in middle of page click on 'Central Office Code Reports', then 'Central Office Code Utilized Report'). Note in Canada the police complete this function through the service provider.
 - √ Or by inquiring to each Wireless Service Provider.
- c. Law Enforcement contact Wireless Service Provider's Exigent Circumstances Compliance Office. Provide:

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS



- ✓ Missing subject's phone number.
 - ✓ Name on phone account.
 - ✓ Timeframe since last known phone activity.
 - ✓ Subject's expected or last known location, and/or suspected route.
- d. Information that may be available:

The Wireless Service Provider can now check for any activity on the cell phone and may be able to send a signal to the phone to see if it is turned on and possibly determine the general area the phone is at by accessing:

- ✓ Call detail records (requires the expertise of a Wireless Service Provider employee to interpret).
- ✓ Location (VLR timestamp).
- ✓ Propagation maps.

INTERVIEWS THAT MADE A DIFFERENCE

1. Two men became separated from a group near the eastern boundary of the Willmore Wilderness during a violent thunderstorm. While SAR personnel were enroute, one of the two 'lost' men came out, and after taking a sedative and drinking two beers, reported that his companion was suffering from hypothermia for the second night in a row, and probably had a broken leg. He had left the injured man lying by a stream, covered with a camouflaged tarp. The reporting party was unable to pinpoint the location on a map.

During a subsequent interview the man explained how and where the two had separated from the others. The interviewer determined the fall and broken leg had occurred on a slippery slope. Studying a map, the interviewer located such terrain along two streams in the area. Meanwhile stormy weather was hampering search efforts. During a short weather window a National Parks Helicopter was able to fly to the most likely spot as determined by the interview and map analysis and found the injured man directly below. The weather closed shortly after the subject was hoisted aboard the helicopter.

2. A man on medication for Alzheimer's walked away from his home in Cochrane, Alberta. During the initial interviews his wife and neighbors stated the man consistently took daily sunset walks on a specific route and always returned home without incident. SAR teams unsuccessfully conducted searches along that route during the first operational period.

During the second operational period a follow-up interview with the wife by a different interviewer revealed that each day the couple drove to the post office – it was the highlight of his day. On the day he disappeared the couple discovered the letters to be mailed were missing when they arrived at the post office. It seems he had placed them on top of the car for some reason prior to their departure. When they arrived home, they found all but one letter near where the car had been parked. The wife went inside to start dinner, and the subject left the house to presumably take his sunset walk. Based upon this new information, teams sent to search in the direction of the prevailing winds quickly found his tracks and eventually the subject.

3. Two college students disappeared in the Kicking Horse Ski Basin after leaving their skiing companions to try out a backcountry challenge they had heard about. In the initial interview the companions stated the subjects planned to take a popular cross-country ski route south from the top of the ski lift. Assignments to search south were being implemented when one searcher reported his conversation with the companions indicated the subjects had actually intended to go north. Assignments were redone and the subjects were found a few hours later trapped in a bowl where they'd spent a very cold sub-zero night. The searcher's casual conversation with the companions probably saved their lives.
4. An elderly woman with undiagnosed memory loss walked away from her home. Family members reported she was probably at her water irrigation channel. Searches in that area all night found no clues. Individual interviews of family members on the second day revealed issues of abuse. Thinking the subject might try to return to a place where she had been happy, searches were conducted around her previous home. She was found there.

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B. CONTAINMENT.

**“Know if the subject leaves the search area” (Search Crucial #5).
“Search Management is information management” (Search Crucial #7).**

One obvious reason for containment is to prevent the search area from expanding, by containing the potential movements of the subject(s). Another, just as important purpose is to 'capture' any information entering or leaving the area. Both these considerations are discussed below.

1.0 CONTAINMENT (CONFINEMENT) TACTICS.

Containment is generally one of the first tactics applied in a search response, it is often the tactic that is overlooked. One hundred percent confidence of subject containment is never possible. Containment can be active (where the searchers move) or passive (where the searchers are stationary).

1.1 Active Containment Tactics.

Active containment tactics commonly use small teams of one or more persons to patrol travel routes, track traps, and the search area's perimeter.

- a. Consider the fact that the person might still be mobile and heading out of the area; confinement tactics will be needed in order to prevent that from happening. Confinement is the term used to describe those efforts focused on limiting the growth of the search area. Logically, search area size directly influences incident complexity. The larger the area, the harder the task. Therefore, it is important to initiate confinement early in the response so as to minimize search area size. This section discusses ways to implement effective confinement efforts. (Section IX, Chapter I, for additional information).
- b. If the missing person is mobile and using travel routes, they will have the greatest ability to move away from the IPP and thus increase search area size. Confinement efforts thus should be prioritized along travel routes. This is done by identifying the location(s) where the travel

route intersects a barrier you have already marked on your map. These locations funnel the subject through confined areas. They might include mountain passes, trail junctions, river fords, and areas where the travel route moves through breaks in thick vegetation.

c. Suggested confinement tactics:

- Establish confinement locations at travel route / barrier intersections and establish a presence there.
- Use vehicles or aircraft to patrol outside your barriers.
- Set up an Observation Post or some kind of beacon (sound and / or light) in a prominent place.

1.2 Passive Containment Tactics.

a. Passive containment tactics refer to techniques where either:

- √ The searchers are stationary, and watch for or attempt to attract the subject(s). Examples include:
 - Lookouts stationed at high points.
 - Blockers at trail junctions, passes, and similar strategic locations. Other chapters will explain how to identify these strategic locations.
 - √ Information is solicited from the public. Everyone visiting the search area is a potential source of important knowledge – what they didn't see might be as important as what they saw. The information they provide can reveal where the subject(s) have AND have not been. Solicit information from these people by:
 - Stationing interviewers at park officers/ranger stations, visitor centers, lodges, parking areas, etc.
 - Directing searchers to interview everyone with whom they come in contact.
 - Placing notes on cars parked in and near the search area.
 - Posting flyers at trailheads, local businesses, etc.
 - Media publicity.
- b. Many passive techniques don't require highly trained personnel, and can be appropriate tasks for friends, neighbors, and other non-trained volunteers.

**Search and Rescue Management
Initial Response through Extended Operations
(Best Practices by Experienced Practitioners)**

written and compiled by:

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This text has been written utilizing, in part, previous ERI International texts to include: Search Management for the Initial Response Incident Commander, Urban Search Management for the Initial Response Incident Commander, Search Team Leadership Skills, and Managing Search Operations.

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Disclaimer:

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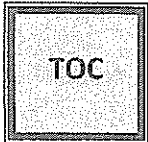


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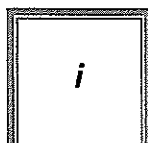
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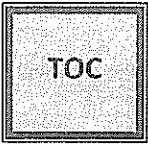


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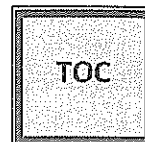
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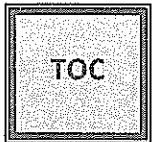
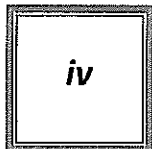
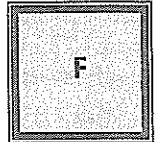


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MANAGING SAR OPERATIONS

Very few individuals know or understand the national search and rescue (SAR) systems that provide response and assistance for overdue, missing or stranded people. Search and rescue is often associated with outdoor activities and people missing in outdoor environments. However, SAR is also an extremely important part of nearly every disaster or major emergency.

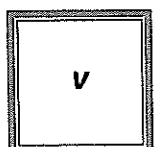
The term SAR denotes two separate functions. Rescue utilizes proven procedures along with a high degree of technical skill for subject retrieval. With known subjects in known locations, the principle rescue problem involves devising the most expedient method of removing that individual from danger to a place of safety and medical aid. On the other hand, searching for the lost or injured subject has developed into a sophisticated science involving numerous modern investigative techniques. Statistics, probabilities, human behavior, interviewing, terrain evaluation, and tracking are but a few of the standard tools used in modern search.

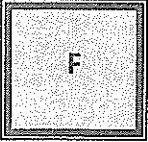
It would be difficult to estimate the total demand for SAR services in Canada today. Some estimate annual numbers of missions, from all regions of the country, to exceed 10,000. The term SAR connotes emergency situations that are as varied nationally, as are the responders who provide relief to persons in distress. Search and rescue programs, equipment, and personnel vary geographically in accordance with local needs.

SAR can probably be best defined as 'finding and aiding people in distress – relieving trauma and suffering.' SAR involves a great many volunteers and professionals, and covers a multitude of skills. Hurricane Katrina is considered one of the world's most catastrophic disasters as well as being one of the largest peacetime search and rescue operations in the history of United States.

This 'SAR Management' course is designed to provide a comprehensive methodology for use by local governments and agencies involving local, provincial, federal, and private organizations in the search for, and rescue of lost or stranded persons on land, in missing aircraft, and in a water environment.

Nearly every type of hazard mentioned in the Comprehensive Emergency Management Plans that exist in all provinces may require search and rescue. Management of these SAR operations can range from directing the actions of a few searchers in a small area to managing an effort involving hundreds and even thousands of searchers in mountainous, heavily forested, coastal or inland environments with numerous threats to human safety. Often, these larger situations also involve several political subdivisions and the coordination of both air and ground resources.



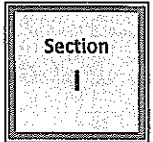


FOREWARD

This course is designed to show local governments, and any other agencies that participate in SAR response, the need for cooperation and coordination among diverse emergency service organizations. Many of the agencies that collectively support multi-organizational SAR responses operate under their own specific statutory authority. From the standpoint of benefit to comprehensive emergency management, search and rescue operations provide the training ground and experience building for disaster response capability at the most elementary level. Management principles used in 'SAR Management' provide the very foundation for management of larger scale emergencies and disasters.



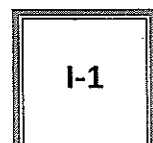
I. INTRODUCTION



Section
I. INTRODUCTION

- A. THE EVOLUTION OF SAR MANAGEMENT
- B. WHAT IS SEARCH AND RESCUE?
- C. SEARCH AND RESCUE IN CANADA: AN OVERVIEW
- D. COURSE PHILOSOPHY AND PURPOSE

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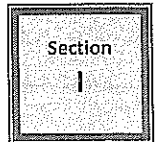
I. INTRODUCTION

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I. INTRODUCTION



A. THE EVOLUTION OF SAR MANAGEMENT

Today, search management is recognized as a SAR specialty. Like other specialties such as rope rescue, canine search, swift water rescue, cave rescue, dive rescue, avalanche search, and air operations, search management has its own training courses, symposia, and supporting body of published literature. This chapter explores how search management has developed into a specialty, and it doing so defines the philosophy for this course, 'SAR Management: Initial Response through Extended Operations (Best Practices by Experienced Practitioners)'.

It began in 1973. A park ranger by the name of Bill Wade was working as a Training Specialist at the National Park Service's (NPS) Albright Training Center in Grand Canyon. The training budget for Albright included some money for development of training in 'search and rescue'. Nothing definite – just search and rescue.

Bill Sartuck Developed Lost Person Behavior; published paper.

In trying to determine how best to use this money, Bill informally surveyed a number of people active in SAR in the NPS. Gradually it became clear that those areas that had a technical rescue problem (high angle rock, snow and ice, underwater, etc.) had implemented very sophisticated techniques, equipment, and action plans to cope with rescue emergencies. Most areas had highly trained persons readily available, either on the park staff or from nearby volunteer SAR units. On the other hand, it became more and more obvious that the same was not true for plans and techniques that were being used to search for lost persons. Bill decided to pursue efforts to organize a training course in 'search'.

Having earlier worked at Mount Rainier, Bill had become acquainted with some of SAR's more distinctive personalities. He knew that one in particular – the late Bill Syrotuck – had been dabbling in a number of different aspects of searching for lost persons. Syrotuck had a very analytical mind and was looking for ways to improve the effectiveness of searching.

During the latter part of 1973 and early 1974, Bill assembled a myriad of resource materials and suggestions for topics that many thought needed to be addressed in a course. A great deal of time was spent with Syrotuck.

It was determined that the inefficiency and ineffectiveness of searches was not due to the actual searching skills but rather to the overall management – the way that techniques, patterns, and support activities were implemented.

In researching these considerations, some exciting new concepts came to light. Syrotuck had begun assembling data on the behavior of lost persons. Jon Wartes (Washington State Explorer Search and Rescue) was experimenting with the relative effectiveness of various search patterns – in terms of effectiveness. Syrotuck and others were investigating ways of establishing manageable search area segments and means of assigning values representing the probabilities that the subject might be in each defined segment.

A. THE INTRODUCTION OF SAR MANAGEMENT

About this time, Dennis Kelly published his classic book, *Mountain Search for the Lost Victim*. This was the first definitive reference on search and consolidated all known information relevant to the activity.

Air-scenting dogs were coming into their own as a very effective resource in locating lost persons. Ab Taylor and Jack Kearney (U.S. Border Patrol) made a big impact by showing how human tracking and sign-cutting techniques could contribute to determining where the subject 'wasn't'. Containment considerations became important. Dennis Kelley became a strong, vocal advocate for searching for 'clues' rather than the subject – and 'clue-consciousness' became a common term.

All of a sudden, it seemed it was possible for a person in charge of a search mission to have a bunch of new tools available. A lot of new things were happening, and Search Management was born!

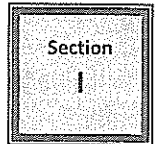
Bill pulled all these things into an agenda for a five-day course. First conducted at the Albright Training Center in the early fall, 1974, it was primarily for NPS rangers. But several 'outsiders' also attended, including Rick LaValla, assistant SAR Coordinator for Washington State's Department of Emergency Services. And a number of experts, including Syrotuck, Kelley, and others were used as resource persons in conducting the course.

Although it got rave reviews, there was still a tremendous amount of work to be done to improve the course. This process was hastened by an unfortunate coincidence. Hal Foss, SAR Coordinator for Emergency Services in Washington and a respected leader in the SAR community, died on a climb of Mt. St. Helens, and Rick LaValla stepped into that role. He was able to promote and coordinate the presentation of the course – with improvements – for Washington State SAR folks in August 1974. In 1975, Rick LaValla and Skip Stoffel, who was also working at Washington State Emergency Services, compiled the first cut of a student textbook from articles, professional papers, books, and other assorted SAR resources that were available from around the country.

The NPS conducted the course again in Grand Teton National Park, Wyoming in September 1975, and funded a collateral meeting of the more prominent 'Search Function Researchers', among whom were: Syrotuck, Lee Lucas of China Lake, California SAR Team; Kelly; Bob Mattson from the USAF and National SAR School; and Jon Wartes. As a result of this meeting and other follow-up actions, the concept of probability calculations and manipulating variables to accomplish desired results began to take on a more important role in the course. Now there were ways of predicting and even influencing results that were dependent on the effectiveness of resources and the ways in which they were used. Order of use and specific search patterns began to be important for resource application.

Several more courses were put on during 1975 through 1977, each with refinements from those done earlier. A turning point came in May 1978, when Jim Brady, who had replaced Bill Wade at Albright, convened a working session to organize the instructional materials for the class. After this it became

I. INTRODUCTION



clear that the course was solid enough that its availability could be expanded. Handpicked instructor candidates were brought together at Albright, not only to learn more about instructing the course, but also to critique the newly drafted instructor manual that had been prepared.

During the summer of 1978, Washington State Emergency Services received a small contract from NPS to pay for secretarial support and one month of Paul Green's time to edit the instructional materials. Paul was a professor at Eastern Washington University. Also during that summer, Gene Fear of the Survival Education Association received a contract from the NPS to produce 50 sets of overheads and slides to support the prototype instructor manual that was being edited by Green. (It is interesting to note that at this time there was still no student text.) At the conclusion of Green's efforts, the Government Printing Office printed these first written instructional materials, and Fear delivered the overheads and slides to Albright Training Center. Armed with these new materials, in September of 1978, Brady convened the first formal instructor workshop at Albright for 40 NPS personnel.

By late 1980, there was a definite need to upgrade the course content and produce a more definitive student text. Early in 1981, the newly established Emergency Response Institute received a personal service contract from NPS to develop a student text and a field coordinator's handbook. For the better part of a year, Brady, LaValla, Stoffel, and Wade worked to rewrite, organize and edit the materials in the existing student text into a compendium of information that could be used as an independent resource for search management. In addition, the instructor manual was also revised again. The money in the NPS contract paid only for production costs and was not used for wage compensation to anyone for developmental time. The contract called for the delivery of 50 sets of the materials to Albright Training Center, NPS. These materials were published in late 1981, along with one other important publication: a booklet that an incident commander or search manager could have in his/her hip pocket for quick reference, the Field Coordinator's Handbook.

There was not a source of funding for mass production of these newly developed instructional materials. Gene Fear generously came forward to not only run the first two production printings of the books on his backyard press, but he also personally funded all the artwork used in the overheads and student materials. Permission was granted to the Emergency Response Institute for exclusive use of this copyrighted artwork in the publishing of those training products. Emergency Response Institute thus began publication and sale of course materials.

Thus was born the 40 hour Managing the Search Function, the seminal search management course. MSF quickly gained popularity across the U.S., and international interest from Canada, New Zealand, United Kingdom, Iceland, and South Africa. From the beginning, the course has motivated graduates and search practitioners in general to contribute ideas, concepts, and original research to the body of search management knowledge.

A. THE INTRODUCTION OF SAR MANAGEMENT

By 1993 the amount of new information was such that the Emergency Response Institute rewrote the course and renamed it Managing Search Operations (MSO). The MSO text was designed to be a comprehensive reference textbook, rather than a specific course curriculum, in that it consolidated and summarized a broad range of theories, concepts, and data.

Not long after, NASAR developed its own MSF revision, and titled it Managing the Lost Person Incident (MLPI).

While the MSO and MLPI courses proved to be as popular as the old MSF, experienced instructors were beginning to recognize deficiencies in the curriculum.

MSF (and its offspring MSO and MLPI) are organized by subject, rather than sequence of tasks. For instance, the chapter First Notice, in describing the Lost Person's Questionnaire, gives the impression that the entire questionnaire should be completed at first contact with the reporting party. This is not necessarily true.

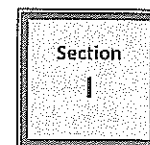
Despite their stated course objectives, MSF, MSO, and MLPI do not really prepare students to manage actual searches. Sure, they teach the components of search management, but they do not show students how to actually apply and combine these components to construct a successful search incident response.

Another problem with the MSF family of curriculums is that over the years a sizable number of well-meaning persons have formulated and published theories, concepts, and data related to search management. Many of these have been incorporated into MSO and MLPI without critical review to ensure validity and practical application.

Some instructors at this time felt that an over-emphasis had been placed on probability theories and the associated mathematics, and that the search management community was becoming entranced with numbers, and were forgetting the basics.

During 1995 Chris Long, Washington State SAR Coordinator, also shared the view that the 40 hour search management courses, while information rich, were too focused on mathematics and did not focus on how to initiate a SAR mission. In discussions with Rick LaValla, Emergency Response Institute, International, and –an original author of MSF and the follow on MSO, Chris suggested that there was a need for a focused 'how to initiate the initial response' course. Chris brought to the table several decision making models. Of interest was the six- step decision making process promoted and used by the International Association of Chiefs of Police and also used by the Federal Emergency Management Agency in their 1990's executive decision making courses.

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In May of 1996 at the Washington State SAR Conference ERI presented a 2-day prototype course titled 'Initial Response for the Incident Commander' using the six-step process. A second course was presented in December of 1996 at Camp Murray, Washington State.

In October 1998 Long and LaValla presented a workshop on the initial response concepts at SAR Scene, the Canada National SAR Conference, in Banff, Alberta. The concept was well received.

Development of the initial response course continued, and draft texts were produced in 1999 and 2000. In May of 1999 at the WA State SAR Conference ERI delivered a course titled 'Managing Search Operations – Initial Response'. The working group of instructors for this course included Long, LaValla, Dave Perkins and Pete Roberts from Great Britain, New Mexico SAR Coordinator Rick Goodman, retired RCMP officer Richard Smith, and NPS Ranger Hugh Dougher.

In January, May, and December, 2000, ERI presented three courses titled 'SAR Incident Management – Initial Response'.

Also during 2000 Dave Perkins and Pete Roberts further refined the six step initial response text with inputs from Hugh Dougher, and conducted a full course in the United Kingdom with LaValla, Smith, Dougher, and Goodman in attendance.

In 2001 ERI International further refined and published the initial attack search management text, using all of Perkins and Roberts text and inputs, and the initial response courses quickly gained in popularity.

The six step decision making process (albeit modified by some) and the term 'initial response' is now accepted by the search management community, and the concepts included in almost all related courses.

But some debate continued. The initial response courses had abandoned the mathematics and focused on 'informal planning'. As noted in Chapter D in this Section most SAR missions are resolved in 24 hours or less using the initial response methods. However, what about the small percentages of missions that go beyond 24 hours and result in multiple operational periods? Do we simply repeat the six step process or at some point do we need to formalize the planning function?

This text and course embraces all of the initial response principles, and also incorporates practitioner based methodologies for transitioning from informal planning (the initial response process) to formal planning and operations for extended missions.

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A. THE INTRODUCTION OF SAR MANAGEMENT

Careful study and review of After Action Reports, Corrective Action Reports, and Hot Washes from Search and Rescue missions have identified many deficiencies in the transition from the Initial Response Phase (informal planning) to managing multiple operational periods with (formal) advanced planning. Incident Commanders, Operations Section Chiefs, and Search and Rescue Managers can from an information flow and coordination standpoint continue to use the six step process for multiple operational periods to manage a search and rescue missions. The downfall is the failure to implement Command and Control, Incident Management Principals, Leadership, and Decision making through the complexity analysis factors that surface when engaged in producing multiple incident action plans for a number of operational periods involving multiply agencies and resources. In some jurisdictions and in a number of missions the search and rescue resources and management teams where not called in for several days after the incident had begun. The teams were tasked with managing a mission into the third or fourth operational period. The authors identified through a gap analysis that many agencies functioned very well with the search and rescue initial response process and even completed the task of advanced search and rescue planning when SAR incident management teams were called in. An identified major failure is the lack of a seamless transition from initial response phase to advanced planning phase in order to manage a search and rescue missions for extended operations. This text bridges that gap and is a compendium of best practices and standard of care that meets the requirements for the transition from initial response to extended operations involving multiple agencies and multiple jurisdictions.

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I. INTRODUCTION

Section

I

B. WHAT IS SEARCH AND RESCUE?

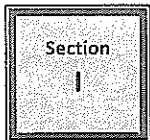
Search and Rescue can probably be best defined as 'finding and aiding people in distress—relieving trauma and suffering'. SAR involves a great many SAR providers, SAR responders. SAR workers from any number of agencies both volunteer and government and includes a number of specialized skills. Hurricane Katrina is considered one of the world's most catastrophic disasters as well as being one of the largest peacetime search and rescue operations in the history of United States. SAR is the backbone of emergency management and saving lives takes priority over all other government activities.

1.0 WHAT IS SEARCH AND RESCUE (SAR)?

- 1.1 Search and rescue (SAR) systems provide the response for overdue, lost, injured, or stranded persons, commonly associated with outdoor activities, and outdoor or 'wilderness' environments. SAR is also an extremely important part of every disaster, fire service, law enforcement and emergency medical services (EMS) emergency. Search and rescue programs, equipment and personnel vary geographically in accordance to local needs and available resources.
- 1.2 SAR is the searching for or rescue of any person(s) who becomes lost, injured, or killed while in the out-of-doors or in an urban environment, or as a result of a natural or man-caused disaster.
- 1.3 SAR operations provide benefit to community emergency management programs as the training ground and experience building for disaster response capability.
- 1.4 SAR missions can happen anywhere, in any hostile environment. Even urban areas can become isolated and without emergency services during disasters and major storms. Search and rescue techniques have application to any emergency.

2.0 SEARCH VERSUS RESCUE.

The term search and rescue denotes two separate functions. Searching for a missing subject(s) has developed into a sophisticated process involving investigative techniques, statistics, probability theory, human behavior, interviewing, terrain evaluation, and quick application of hasty search tactics. Rescue utilizes proven procedures along with a high degree of technical skill for subject retrieval. With known subjects in known locations, the principle problem involves devising the most expedient method of removing that individual from danger to a place of safety and providing medical aid as appropriate.



3.0 DEFINING SEARCH AND RESCUE.

FOUR PHASES (SEQUENCE) OF SEARCH AND RESCUE: S.A.M.E.

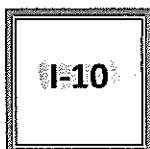
A SAR mission involves a specific sequence of events, each progressing to the next: Search for and find the subject(s); Access and reach the subject(s); Provide any needed Medical aid; Evacuate the subject(s).

3.1 **SEARCH:** The first and often the most time and resource consuming phase is the finding of the subject(s). If the first notice reports provide accurate information as to the last known position or point last seen, and if the missing person(s) has not moved from the reported position or general area, then the search phase may go quickly. But if the location of the missing person(s) is not immediately known, this phase takes much more time. This 'find the subject phase' might last minutes, hours, or days, but must be accomplished prior to the next phase being started.

3.2 **ACCESS:** The second phase is to actually have rescuers reach or establish contact with the subject(s). Terrain, weather, and environment can complicate this phase. If the subject(s) is found but is at the bottom of a cliff, or on the other side of a river, or in some other hard to access location, additional technical resources may be needed to reach the subject(s), even though he/she (they) has been found. In many situations, ground response teams without additional specialized training, can reach the subject, such as when there is a reasonable walk-around route to reach the subject at the bottom of the cliff.

3.3 **MEDICAL:** The third SAR phase involves rendering any medical aid or assistance to the subject(s). This might be as simple as asking if they are 'OK', warming them up so they can assist themselves, providing a splint for a possible fractured limb or managing major bleeding. Aid may also take the form of protecting the subject(s) from the environment until more medically able personnel arrive. The fourth phase begins once the subject(s) have received aid and is stabilized.

3.4 **EVACUATE:** Ultimately, the subject(s) needs to be moved. Options include providing enough assistance so that the subject(s) can walk out by themselves or with minimal support, transporting the subject(s) by litter, or transporting the subjects by helicopter or ground vehicle. Factors that determine how a subject(s) is evacuated include: medical needs, environmental challenges, weather conditions, and available resources.



I. INTRODUCTION

Section

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C. SEARCH AND RESCUE IN CANADA: AN OVERVIEW

- 1.0** There are many agencies and organizations involved in SAR in Canada, searching for lost and missing subject on the oceans, inland waters, and on land. Each type of SAR incident falls under the mandate of one of a number of different agencies. There is, however, a National Search and Rescue Program that helps to provide coordination and cooperation on a National basis.
- 2.0** In 1986, the Federal Cabinet, acting on one of the recommendations of the Ocean Ranger Commission Report, directed that a National Search and Rescue Program (NSP) be established and managed as a distinct program of government, with overall policy responsibility for SAR resting with the Lead Minister, whose role would be to formulate national policy with all involved ministers. The Minister of National Defense was established as the Lead Minister, and was delegated the authority, responsibility, and accountability for the NSP coordination. The National Search and Rescue Secretariat (NSS) was established to provide direct, independent support to the Lead Minister, and be responsible and accountable for the conduct of the NSP. In 2016, the National Search and Rescue Secretariat came under the authority of Public Safety Canada.
- 3.0** The NSP encompasses cross government efforts and activities, corporate and volunteer sectors, and a variety of organizations and programs related to providing information, applying technology, conducting research and SAR prevention. Within the Federal Government five departments (Environment Canada – Meteorological Service of Canada, Department of Fisheries and Oceans–Canada Coast Guard, Department of National Defense–Canadian Forces, Solicitor General– Royal Canadian Mounted Police, and Transport Canada) and one agency (Parks Canada) are directly involved in the coordination of programs related to SAR.
- 4.0** Federal SAR operations are coordinated by the Joint Rescue Coordination Centre’s (JRCC’s). SAR operations in the coastal waters, and on the Great Lakes are the responsibility of the Canadian Coast Guard. Operations are often conducted with the assistance and cooperation of the Coast Guard Auxiliary. Searches for downed aircraft are the responsibility of the Canadian Forces, and are conducted with the assistance and cooperation of the Civil Air Search and Rescue Association (CASARA), a volunteer organization. Searches often involve volunteer ground SAR teams as well.
- 5.0** Ground search and rescue and search’s for lost and missing persons, and walkaways from downed aircraft, are the responsibility of the individual Provinces and Territories, coordinated by the police service of jurisdiction (the Royal Canadian Mounted Police, Ontario Provincial Police, Surete du Quebec, the Royal Newfoundland Constabulary, or the municipal police service). In the National Parks, Parks Canada retains the responsibility for lost and missing person searches.
- 6.0** While GSAR remains the responsibility of the police service of jurisdiction, in most areas local volunteer SAR teams have been established with many specializing in tracking, canine search,

C. SEARCH AND RESCUE IN CANADA: AN OVERVIEW

equestrian search, dive recovery, white water aquatic rescue, mountain rescue, cave rescue, and other disciplines. No matter what the discipline, volunteer SAR teams are an invaluable resource, as they combine local knowledge with local resources, expertise, and enthusiasm. Police services, especially in rural areas of Canada, do not have the resources of equipment and trained personnel to conduct urgent, cost effective searches. Most Provinces and Territories have provincial organizations, which help to coordinate with the many SAR teams and tasking agency's standards and training.

- 6.1 The objectives of the National SAR Program are: Save lives throughout Canada's jurisdictional areas; Promote the prevention or mitigation of SAR events, injury, and loss of life; Perform all SAR functions effectively, efficiently, and economically.
- 6.2 The New SAR Initiatives Fund (NIF) was established by the Federal Government in 1988 to provide funding for new search and rescue initiatives that will improve the NSP in Canada. The NIF, which is a contribution program, has an annual budget allocation of \$8.1 million, and as of 2017 has funded over 700 projects totaling over \$150 million.
- 6.3 The NIF objectives are: The enhancement of SAR activities by federal and provincial/territorial organizations with specific jurisdictional responsibilities; The promotion and support of other projects designed to further the objectives of the NSP; The communication of SAR 'best practices' to all parties involved in SAR in Canada.

I. INTRODUCTION

Section

I

D. COURSE PHILOSOPHY AND PURPOSE**1.0 COURSE OBJECTIVES.**

1.1 At the completion of this training, you will be able to:

- a. Appropriately respond to and manage missing person reports.
- b. Formulate and implement effective decisions.
- c. Describe the importance of and contribute to the achievement of objectives.
- d. Identify and manage risk.
- e. Smoothly transition through multiple operational periods.
- f. Develop and implement appropriate actions when the subject cannot be found.

EXERCISE

- Above are listed the broad objectives around which this course was developed.
- Do these objectives mesh with what you hope to gain from this course?
- Are there specific topics or questions you'd like to see addressed? If so, take a few moments to list them on the following page. In 10 minutes we will compile everyone's topics and questions and use them to develop additional objectives.

WHAT I WOULD LIKE TO GAIN FROM THIS COURSE:

CASE STUDY

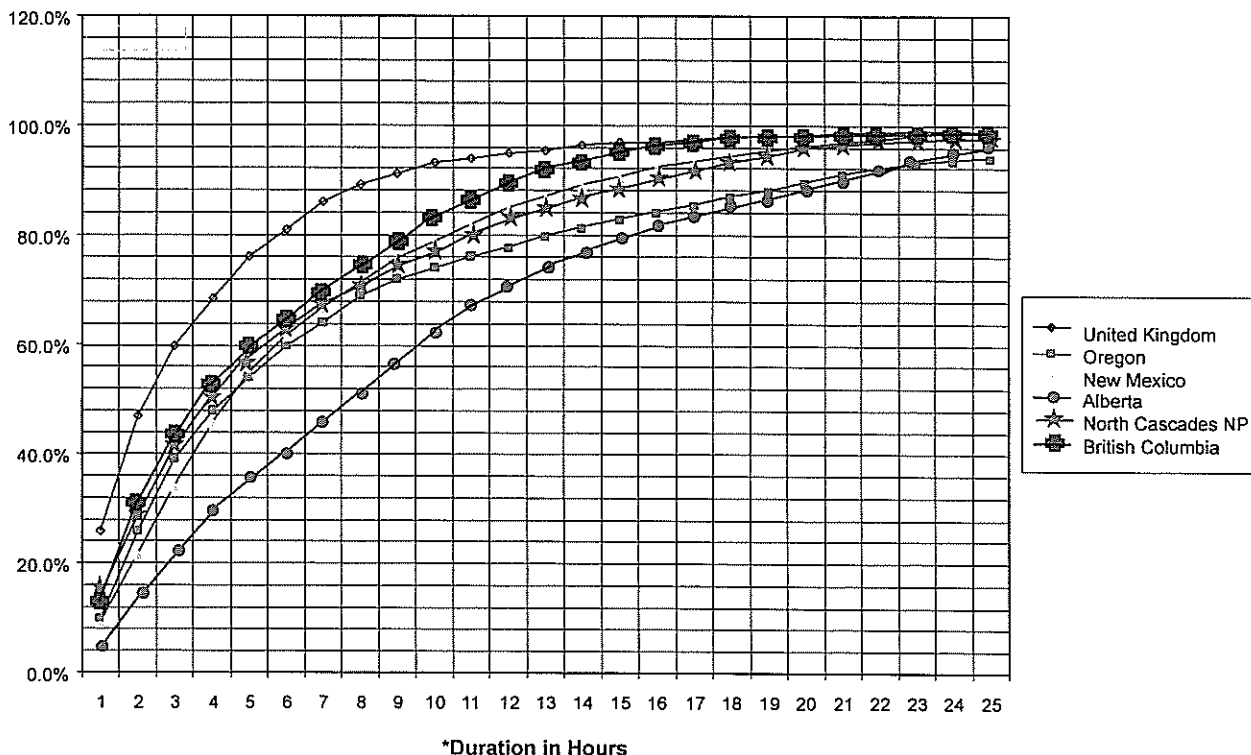
Three adults and their dogs are reported missing from their camping trailer on the west coast of Vancouver Island, British Columbia, coast.

1. Are they lost?
2. Is this urgent?
3. Should you search?
4. If so, where and for how long?
5. When should you stop searching?

2.0 COURSE PHILOSOPHICAL CONCEPTS.

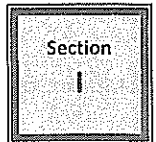
2.1 Common Fundamentals.

Duration of SAR Incidents vs. Frequency (3,000 Cases)



* This charts includes investigation, driving time, and time after the subject is found needed for search resources to return from the field and drive home. Alberta's early figures are probably less because time needed to respond and return home are in more remote areas.

I. INTRODUCTION



- a. Most missing person incidents are resolved in hours rather than days, with the remaining small percentage expanding into multi-day events. Statistical analysis from Alberta, British Columbia, Washington, New Mexico, Oregon, and the United Kingdom have indicated that the majority of search and rescue missions are concluded within 24 hours. Data hours were from callout to stand down for all SAR teams.

| DURATION OF SEARCH INCIDENTS (12,000 + Incidents) | | | | | |
|--|-------------------|---------------------------------------|---------------------------|-----------------------|-------------------|
| | Alberta (2000) | Nat'l Park Service (2005 -2008) | New Mexico (1991-2000) | Oregon (2007-2011) | UK (1991-2000) |
| Less than 12 hours | – | – | – | ✗ 81% | – |
| Less than 18 hours | 77% | – | 89% | – | 98% |
| 24 hours or less | 91% | 98% | 97% | 93% | 99% |
| More than 24 hours | 9% | 2% | 3% | 7% | 1% |

- b. The Oregon Office of Emergency Management's analysis of four years of data (2007–2011) is especially demonstrative. Of 3,416 persons missing on land incidents, 25% were found in less than two hours and 50% in less than four hours. (Search and Rescue Annual Report for 2011, http://www.oregon.gov/OMD/OEM/tech_resp/sar_docs/annual_sar_report_2011.pdf?ga=t)
- c. This course is based on a philosophy reflecting this data. That is, all missing person incidents, whether short or long term, have a common beginning, and although most missing person reports are resolved fairly quickly, there is no way to predict which ones will be the exception.
- d. Regardless of how large or complex a missing person incident ends up being, the management of the initial response phase is identical, and crucial to its success. The individuals tasked to manage this initial response phase usually are not search specialists; rather they are emergency and public service generalists: police officers, sheriff deputies, park rangers, conservation officers, fish and wildlife officers, forestry officers, fire fighters, and such.

- e. The agencies these first responders represent have the legal authority and responsibility to search, but may not experience the incident workload to justify funding cadres of search management specialists. Rather, these agencies need all their field personnel to have the knowledge and ability to respond appropriately to overdue person reports, and to manage these incidents professionally and competently for at least the first shift.
- f. Existing courses such as Managing Search Operations, Managing the Lost Person Incident, and Managing the Search Function contain excellent bodies of knowledge. However, the sheer volume of information, the focus on mathematical theory, and the emphasis on large, multi-day incidents contained in these courses does not provide a clear step-by-step practical approach for the Initial Response Incident Commander/SAR Manager.
- g. This course addresses that need. It focuses on the management of the initial response, and is put together in a way that provides a clear, systematic, and practical approach. This course also takes the SAR Manager to the next planning level when the initial response has not been successful.

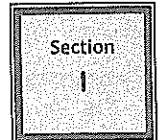
2.2 Practitioner Based.

- a. This course presents an integrated process. The approach is practical based. The course material does not dwell on theory, or discussion of different and sometimes conflicting concepts. It follows a 'how-to' type curriculum. The material is designed for the SAR practitioner – the park ranger, deputy sheriff, police officer, search team leader, and fire department officer – whose primary concern is what to do when saddled with the responsibility of acting on a report of a lost person.
- b. This course also recognizes that it is not possible to predict which searches will grow into major incidents, and therefore includes those actions to take early in the incident so as to establish a firm foundation and a smooth transition should a complex incident develop.
- c. Some techniques taught in this curriculum are based on those taught in other recognized search and rescue management courses; others are unique to this course. All are field proven and current.

2.3 Focus on Objectives.

We cannot guarantee the subject can or will be located. We should measure our success on how well we achieve objectives related to saving life. And these objectives should be incrementally measureable so we can monitor progress and estimate resource and time requirements.

I. INTRODUCTION



2.4 The 'Missing' Perspective.

Search and rescue management courses have traditionally assumed the subject is 'lost', and in doing so establish a mindset that ignores other possibilities, such as overdue, purposefully hiding, victim of crime, subterfuge, etc. This course advocates always consider the subject 'missing', and giving appropriate consideration to all possibilities.

3.0 JUSTIFYING AN URGENT RESPONSE.

Given that most searches are resolved in hours rather than days, it follows that many are resolved without responder intervention – for instance, the 'missing' person was never lost, or independently resolved the problem. How then can an urgent effort be justified for the initial response period, if the incident is likely to resolve itself anyway?

3.1 Business and government measure success by the 'bottom line' numbers – whether it is profit, production, or services.

3.2 What about search and rescue mission? How can SAR programs be evaluated for effectiveness? Rick Goodman, retired SAR Coordinator for the State of New Mexico, suggests the following three criteria:

- Decrease in the number of incidents per capita.
- Decrease in the length of incidents.
- Decrease in the number of resources used per incident.

3.3 It follows then that an effective SAR program is one embracing the following philosophies:

- a. Early commitment of proper resources and tactics can limit later need to expand operations, thus controlling ultimate complexity and cost.
- b. The potential emergency nature of an incident can't be predicted, so the risk to life and limb must be evaluated and investigated for every missing person report.
- c. Increased effectiveness during the initial response period can ultimately increase the percentage of lost persons incidents resolved in hours rather than days, thus decreasing average incident cost and increasing subject 'saves'.

- 3.4 By applying the systems presented in this course, successful graduates will be able to implement appropriate techniques to effectively resolve most searches quickly, and at the same time establish a firm base for those other search and rescue missions that end up as multi-day, major incidents.

CASE STUDY

- An 8-year old girl knocks on a stranger's door, says her mom is drunk.
- Mom's vehicle has collided with a tree nearby, mom has disappeared.
- Wallet is inside vehicle.
- Mom has an extensive DUI record.
- Is this a search incident?

CASE STUDY

- In early December 52 year-old Carolyn advises family she's leaving Alberta and returning to Kelowna, British Columbia. (She lived there previously for a period of time).
- 12/06/21: Her car is discovered parked in a ravine off a well-traveled road. The investigating police officer describes the location as odd but nothing appears out of place.
- 12/06/24: Search initiated in the nearby Gila Wilderness.
- 12/06/25: Difficult to mobilize resources due to holiday.
- 12/06/26: Greatest effort. Carolyn not found. Search terminated.
- Is Carolyn lost, missing, overdue, stranded, deceased, victim, hiding, or ???

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP

Section
II



Section
**II. COMMAND AND CONTROL, DECISION
MAKING, LEADERSHIP**

- A. DEFINING COMMAND AND CONTROL
- B. DECISION MAKING
- C. LEADERSHIP

vAugust 2017

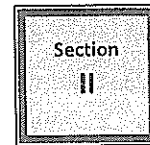
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II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP

Management of search and rescue missions over the years have involved from head them off at the pass, or run by the seat of your pants, to the very complex understanding of command and control, management, leadership, and how to make decisions under stress during critical incidents. Lessons learned from after action reports (corrective action reports) over the years have indicated that Incident Commanders, Operations Section Chiefs, and SAR Managers need to perform these functions in a proficient, competent, and credible manner. Your participation in search and rescue missions will be measured by your ability to perform functions in command and control, management, leadership, and the ability to make decisions under stress during these critical incidents. In search and rescue (SAR) leadership is an essential component for very many reasons not the least of which is safety and the glue that binds all the rest together. We will cover the functions mentioned and give you tools to address a greater understanding of your responsibilities in command and control, management, leadership, and decision making. Volunteers expect and deserve good leadership. Without leadership any organizational structure will not attain its full potential and, indeed, may fail. Teams will not be able to provide a quality of service and casualties will not get the attention to be expected in the developing social climate. It would seem, at times, that discussions on the importance of leadership in SAR have been relegated to a minor position in overall schemes of training. Occasionally, views have been expressed that effective leadership is anti-democratic implying that democracy is the ultimate goal. As with many other subjects, the literature on leadership is increasing dramatically. The SAR environment is often hostile and cannot be considered to be a stable factor in preplanning. In addition, a volunteer team's response both in terms of numbers and expertise is not predictably stable and, therefore, compounds the difficulties of preplanning. Paul Williams (1970) stated that "the role of volunteer rescue leader is most demanding, requiring great skills, including knowledge of search and rescue procedures and jurisdictions of responsible agencies. But most important is a knowledge of psychology, the ability to deal with volunteers, and a great sense of tact and diplomacy."

What precisely is leadership has been and is the subject of considerable debate with uncertainty disguised as certainty and opinion stated as fact. To a very large extent leadership is conceptual. To state that it is a soft skill is to underrate its significance. Most team members have strong opinions as to what is and what is not good leadership. It must be stressed that without effective leadership command and management systems will fail. What follows are the ideas of the authors and we claim little validity beyond that. It is hoped that this section will indicate what leadership is, how it impacts on operations, how it may be applied and how it may be developed within SAR organizations. Consideration will be given to command and control, management, and decision making.

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP

**A. DEFINING COMMAND AND CONTROL****1.0 WHAT IS COMMAND AND CONTROL?**

- 1.1 We often think of command and control as a distinct and specialized function—like logistics, planning, or administration—with its own peculiar methods, considerations, and vocabulary, and occurring independently of other functions. But in fact, command and control encompasses all Search and Rescue, Incident Management functions and operations, giving them meaning and harmonizing them into a meaningful whole. None of the above functions, or any others, would be purposeful without command and control. Command and control is not the business of specialists—unless we consider the incident commander a specialist, because command and control is fundamentally the business of the incident commander.
- 1.2 Command and control is the means by which an incident commander recognizes what needs to be done and sees to it that appropriate actions are taken. Sometimes this recognition takes the form of a conscious command decision—as in deciding on a concept of tactical operations. Sometimes it takes the form of a preconditioned reaction—as in search and rescue training, practiced in advance so that we can execute them reflexively in a moment of a mission. Sometimes it takes the form of a rules-based procedure as in the guiding of a helicopter on final approach to the helo-spot. Some types of command and control must occur so quickly and precisely that they can be accomplished only by computers such as the command and control of an unmanned aerial vehicle in flight. Other forms may require such a degree of judgment and intuition that can be performed only by skilled, experienced people as in devising tactics, operations, and strategies.
- 1.3 Sometimes command and control occurs concurrently with the action being undertaken—in the form of real-time guidance or direction in response to a changing situation. Sometimes it occurs beforehand and even after. Planning, whether rapid time sensitive or deliberate, which determines aims and objectives, develops concepts of operations, allocates resources, and provides for necessary coordination, is an important element of command and control. Furthermore, planning increases knowledge and elevates situational awareness.
- 1.4 Effective training and education, which make it more likely that search and rescue teams will take the proper action in missions, establish command and control before the fact. The training and development mentioned earlier, practiced beforehand, provides command and control. An incident commander's intent, expressed clearly before the evolution begins, is an essential part of command and control. Likewise, analysis after the fact, which ascertains the results and lessons of the action and so informs future actions, contributes to command and control.
- 1.5 Some forms of command and control are primarily procedural or technical in nature—such as the control of aircraft and air space, the coordination of supporting resources, or mountain rescue, or

underwater recovery operations. Others deal with the overall conduct of search and rescue actions, whether on a large or small scale, and involve formulating concepts, deploying teams, allocating resources, supervising, and so on. This last form of command and control, the overall conduct, management of search and rescue actions, is our primary concern in this text.

2.0 WHAT IS THE BASIS OF COMMAND AND CONTROL?

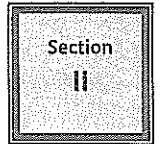
2.1 The basis for all command and control is the authority vested in the incident commander over subordinates. Authority derives from two sources. Official authority is a function of rank and position, and is bestowed by organization and by law. Personal authority is a function of personal influence and derives from factors such as experience, reputation, skill, character, and personal example. In this case it is bestowed by the other members of the organization. Official authority provides the power to act but is rarely enough; most effective commanders also possess a high degree of personal authority. Responsibility, or accountability for results, is a natural corollary of authority. Where there is authority, there must be responsibility in like measure. Conversely, where individuals have responsibility for achieving results, they must also have the authority to initiate the necessary actions.

3.0 WHAT IS THE RELATIONSHIP BETWEEN 'COMMAND' AND 'CONTROL'?

3.1 The traditional view of command and control sees 'command' and 'control' as operating in the same direction: from the top of the organization toward the bottom. Incident commanders impose control on those under their command; commanders are 'in control' of their subordinates, and subordinates are 'under the control' of their commanders.

3.2 We suggest a different and more dynamic view of command and control which sees the incident command as the exercise of authority and control as feedback about the effects of the action taken. The incident commander commands by deciding what needs to be done and by directing or influencing the conduct of others. Control takes the form of feedback, the continuous flow of information about the unfolding situation returning to the incident commander which allows the incident commander to adjust and modify strategy and tactics as needed. Feedback indicates the difference between the mission goals and the situation as it exists. Feedback may come from any direction and in any form, providing information and intelligence about the missing person, information about the status of teams or other functions, or revised guidance from the police based on investigational developments. Feedback is the mechanism that allows incident commanders to adapt to changing circumstances, to exploit transient opportunities, respond to developing problems, modify strategies, or redirect team efforts. In this way, feedback 'controls' subsequent incident command action. In such a command and control system, control is not strictly something that seniors impose on subordinates; rather, the entire system comes 'under control' based on feedback about the changing situation.

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP



3.3 Command and control is thus an interactive process involving all the parts of the system and working in all directions. The result is a mutually supporting system of give and take in which complementary commanding and controlling functions interact to ensure that the mission as a whole can adapt continuously to changing requirements.

4.0 WHAT DOES IT MEAN TO BE 'IN CONTROL'?

4.1 The typical understanding of effective command and control is that someone 'in command' should also be 'in control.' Typically, we think of a strong, coercive type of command and control—a sort of pushbutton control—by which those 'in control' dictate the actions of others and those 'under control' respond promptly and precisely, as a chess player controls the movements of the chess pieces. But given the nature of search and rescue, can incident commanders control their teams with anything even resembling the omnipotence of the chess player? We might say that a police officer is in control of a weapon system or that a pilot is in control of an aircraft. But is a SAR marine leader really directly in control of how the other boat operators run their watercraft?

4.2 We are also fond of saying that incident commanders should be 'in control' of the situation or that the situation is 'under control.' The worst thing that can happen to an incident commander is to 'lose' control of the situation. But are the terrain and weather under the incident commander's control? Are incident commanders even remotely in control of what the lost missing person does? Good incident commanders may sometimes anticipate the missing person's actions and may even influence the missing lost persons actions by seizing the initiative (containment and confinement) forcing the lost missing person to react. But it is a delusion to believe that we can truly be in control of the lost missing person or the situation.

~~4.3~~ The truth is that, given the nature of search and rescue, it is a mistake to think that we can be in control with any sort of certitude or precision. And the further removed incident commanders are from the teams actually performing search and rescue operations, the less direct control they have over their actions. We must keep in mind that search and rescue missions are a human endeavor. In search and rescue, unlike in chess, 'pieces' consist of human beings, all reacting to the situation as it pertains to each one separately, each trying to survive, each prone to making mistakes, and each subject to the vagaries of human nature. We could not get people to act like mindless robots, even if we wanted to.

4.4 Given the nature of search and rescue, the remarkable thing is not that incident commanders and operation section chiefs cannot be thoroughly in control but rather that they can achieve much influence at all. We should accept that the proper object of command and control is not to be thoroughly and precisely in control. The turbulence of modern day search and rescue suggests a need for a looser form of influence, some-thing that is more akin to the willing cooperation of a basketball team than to the omnipotent direction of the chess player—that provides the

necessary guidance in an uncertain, disorderly, time-competitive environment without stifling the initiative of other functions.

5.0 WHAT MAKES UP COMMAND AND CONTROL?

5.1 The words 'command' and 'control' can be nouns, and used in this way the phrase command and control describes a system, an arrangement of different elements that interact to produce effective and harmonious actions. The basic elements of our command and control system are people, information, and the command and control support structure (logistics).

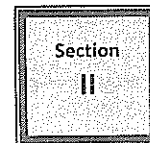
5.2 The first element of command and control is people, people who gather information, make decisions, take action, communicate, and cooperate with one another in the accomplishment of a common goal. People drive the command and control system, they make things happen and the rest of the system exists only to serve them.

5.3 Because of this human element, command is inseparable from leadership. The aim of command and control is not to eliminate or lessen the role of people or to make people act like robots, but rather to help them perform better. Human beings, from the incident commander framing a strategic concept, to a team leader calling in a situation report, are integral components of the command and control system and not merely users of it.

~~5.4~~ All search and rescue personnel feel the effects of fear, hardship, and fatigue. Each has unique, intangible qualities that cannot be captured by any organizational chart, procedure, or piece of equipment. The human mind has a capacity for judgment, intuition, and imagination far superior to the analytical capacity of even the most powerful computer. It is precisely this aspect of the human element that makes search and rescue missions in general, and incident command in particular, ultimately an art rather than a science. An effective command and control system must account for the characteristics and limits of human nature and at the same time exploit and enhance uniquely human skills. At any level, the key individual in the command and control system is the incident commander (agency having jurisdiction) who has the final responsibility for success.

~~5.5~~ The second element of command and control is information which refers to representations of reality that we use to 'inform' to give form and character to our decisions and actions. Information is the words, letters, numbers, images, and symbols we use to represent things, events, ideas, and values. In one way or another, command and control is essentially about information: acquiring it, judging its value, processing it into useful form, acting on it, and sharing it with others. Information is how we give structure and shape to the material world, and it thus allows us to give meaning to and to gain understanding of the events and conditions that surround us. In a very broad sense, information is a control parameter: it allows us to provide control or structure to our actions.

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP



- 5.6 The value of information exists in time since information most often describes transitory conditions. Most information grows stale with time, valuable one moment but irrelevant or even misleading the next.
- 5.7 There are two basic uses for information. The first is to help create situational awareness as the basis for a decision. The second is to direct and coordinate actions in the execution of the decision. While distinct in concept, the two uses of information are rarely mutually exclusive in practice. There will usually be quite a bit of overlap since the same exchange of information often serves both purposes simultaneously. For example, coordination between adjacent teams as they execute the plan can also help shape each team's understanding of the situation and so inform future decisions. An order issued to other functions describes the tasks to be accomplished and provides necessary coordinating instructions; but the same order should provide functions an insight into the larger situation and into how the other functions actions fit into that larger situation. Likewise, a call for a dog team, tracking team with the primary purpose of which is to check out a clue from another search and rescue team from the search area, also provides information about the developing situation in the form of the missing lost person's location, direction of travel.

There Are Eight Key Elements To On-Scene Direction And Control In SAR. These Have Proven Their Importance Through Many Documented Case Histories.

1. All activity and operations in the field must be subject oriented.
2. Identify all hazards.
3. Do efficient reconnaissance (terrain analysis).
4. Protect the access to the search and rescue base site.
5. Monitor and control communications flow and volume; and always have a backup.
6. Brief and debrief as a matter of routine.
7. Establish subject care as soon as possible.
8. Establish and log subject's destination and estimated time of arrival (ETA) at a medical facility.

✱

NOTES

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP

Section
II

B. DECISION MAKING

"Failure Is Not An Option."

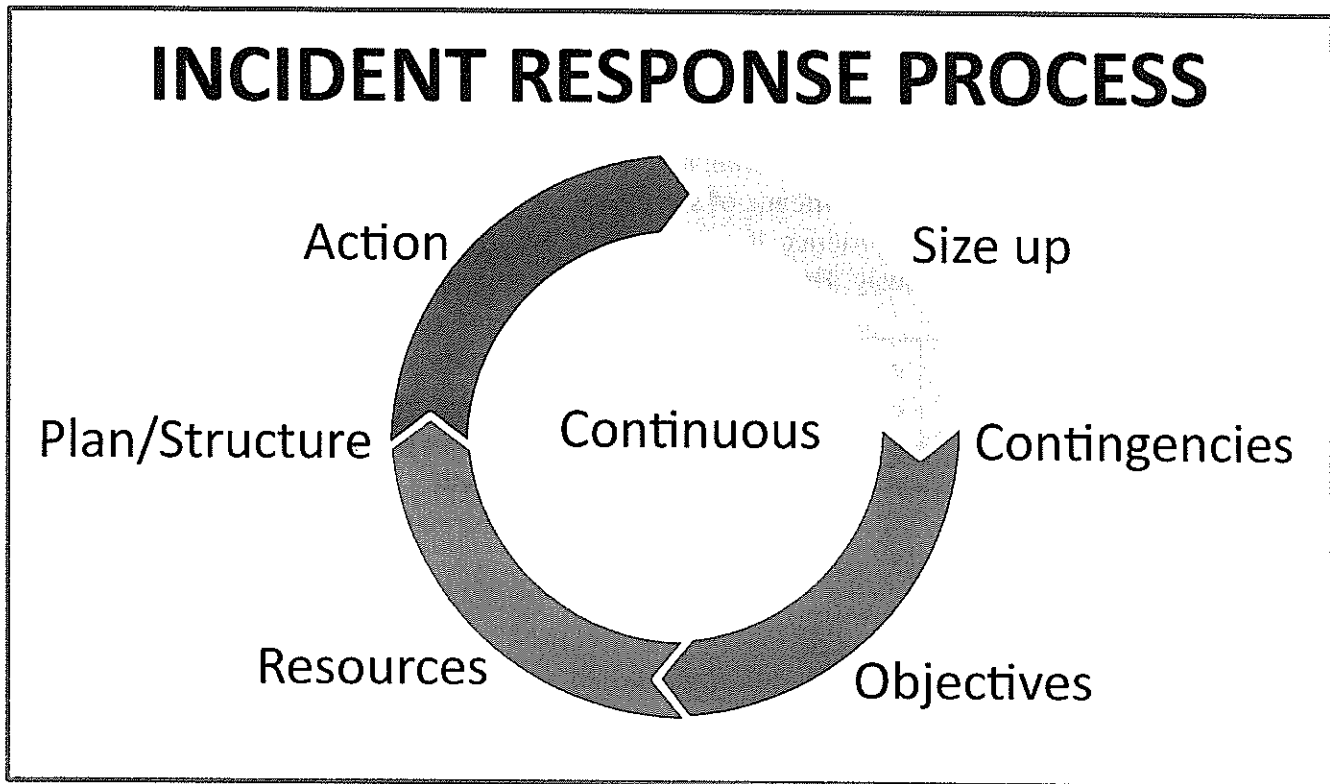
- Neil Armstrong Apollo 13

1.0 THE SIX STEP PROCESS.

- 1.1 This 'Six Step Process' (also known as the 'Incident Response Process') was developed by the International Association of Chiefs of Police as an approach for solving an operational problem. It is designed to provide a systematic and logical method whereby incident commanders and managers are able to make rapid decisions on tactics and the application of resources. As the incident evolves and more information becomes available, the Six Steps are repeated. It is a continuous, cyclic process.
- 1.2 The Six Step Process is extremely versatile; it is just as valuable as a quick mental technique for the individual responder as it is as a means of structuring a more formalized response to a larger incident. As the user gains experience it will become an instinctive process that can be applied automatically and continuously. The generic process:

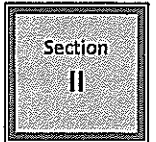
| | |
|--|---|
| 1. Size-up the Situation | <ul style="list-style-type: none"> a. What is the nature of the incident? b. What hazards are present? c. What hazards exist for response personnel and the public? d. Do warnings need to be issued? e. Are there injured people who need to be treated or assisted? f. Is evacuation required? g. How large an area is involved? h. Can the area be isolated? i. What location would make a good staging area? j. What entrance and exit routes would be good for the flow of response personnel and equipment? |
| 2. Identify Contingencies | <ul style="list-style-type: none"> a. What could have happened to cause this situation? b. What could happen to make the situation worse? |
| 3. Determine Goals and Objectives | SMART Objectives developed through, Investigation Objectives, Containment Objectives and Search Objectives. |

| | |
|---|---|
| <p>4. Identify Needed Resources</p> | <p>a. What resources are needed? b. Where will we get them? c. How long will it take them to get here? d. Are there any special resource requirements?</p> |
| <p>5. Build a Plan and Structure</p> | <p>a. Responsibilities and tasks. b. Chain of command. c. Coordination.</p> |
| <p>6. Take Action</p> | <p>a. Implement your action plan. b. Supervise/coordinate. c. Continue collecting and analyzing additional information (Step 1 (Size Up) of the next cycle).</p> |



1.3 This generic process is adaptable to virtually any incident. It is especially useful in the Initial Response Phase of a SAR mission. For example, a hasty team leader arriving at a trailhead from which a reported lost person departed, quickly runs through the process to determine where to employ available resources: which trails to run, buildings to check, high hazard areas to check, etc. Then the Incident Commander, while the Hasty Team is still in the field, uses the process to plan the first operational period of the search.

II. COMMAND AND CONTROL, DECISION MAKING, LEADERSHIP



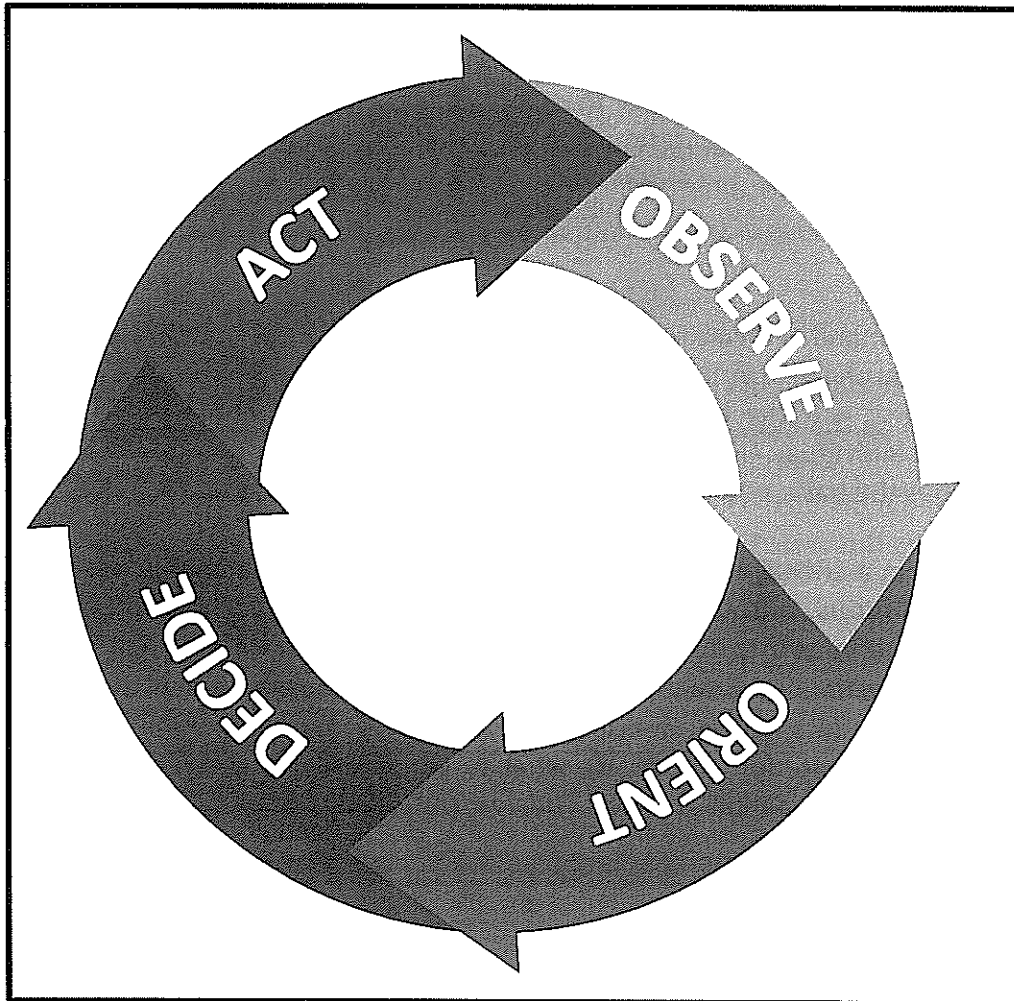
- 1.4 In the event the mission continues into multiple operational periods, the process is useful to organize an expanded, more formalized planning process.
- 1.5 Section III will detail the Six Step Process from the point where you are notified through to the conclusion of the first Six Step Cycle. For each of the Six Steps it gives you:
- A complete list of all the activities to which you need to attend.
 - Any supporting information that you might need, in the form of text or tables.
 - A list of 'recommended actions' – these are activities that we think you must deal with.
 - References to any documentation that you will need to complete. The documents for this can be found at the back of the workbook.

2.0 THE OODA LOOP.

- 2.1 The study of command and control theory starts with a simple model of the command and control process known as the OODA loop (after Col. John R. Boyd USAF). The OODA loop applies to any two-sided conflict, whether the antagonists are lost, missing persons, wildland fire, or an armed and barricaded individual. OODA is an acronym for observation, orientation, decision, and action, which describes the basic sequence of the command and control process.
- 2.2 When engaged in a critical incident, we first observe the situation that is, we take in information about our own status, our surroundings, and our antagonist. Sometimes we actively seek the information; sometimes it is thrust upon us. Having observed the situation, we next orient to it, we make certain estimates, assumptions, analysis, and judgments about the situation in order to create a cohesive mental image. In other words, we try to figure out what the situation means to us. Based on our orientation, we decide what to do, whether that decision takes the form of an immediate reaction or a deliberate plan. Then we put the decision into action.

THE BOYD CYCLE

Aka: The OODA Loop

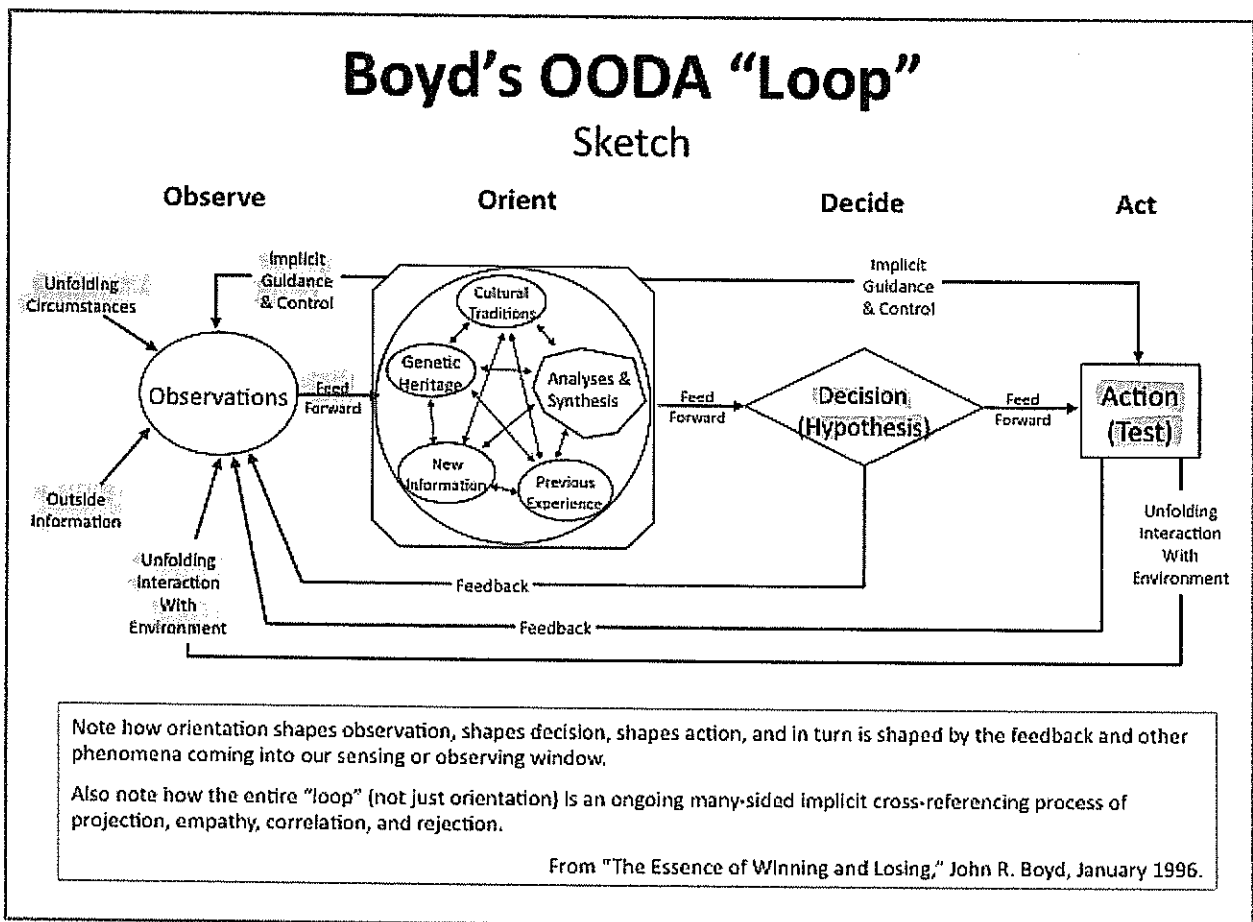


2.3 This includes disseminating the decision, supervising to ensure proper execution, and monitoring results through feedback, which takes us full circle to the observation phase. Having acted, we have changed the situation, and so the cycle begins again. It is worth noting that, in any organization with multiple decision makers, multiple OODA loops spin simultaneously, although not necessarily at the same speed, as incident commanders exercise command and control at their own level and locale.

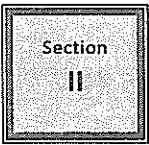
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- 2.4 Importantly, the OODA loop reflects how command and control is a continuous, cyclical process. In any critical incident, the antagonist who can consistently and effectively cycle through the OODA loop faster, who can maintain a higher tempo of actions, gains an ever-increasing advantage with each cycle. With each reaction, the slower antagonist falls farther and farther behind and becomes increasingly unable to cope with the deteriorating situation. With each cycle, the slower antagonist's actions become less relevant to the true situation. Command and control itself deteriorates.



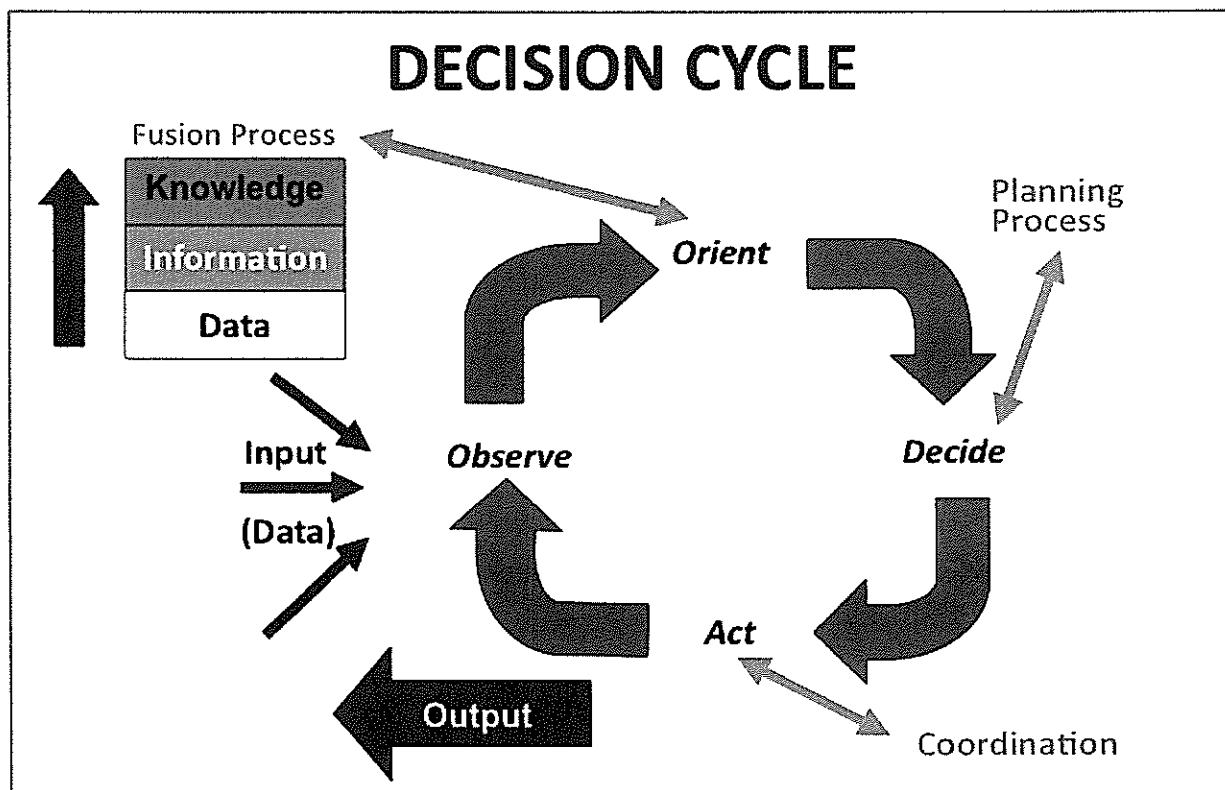
- 2.5 The lesson of the OODA loop is the importance of generating tempo in command and control. In other words, speed is an essential element of effective command and control. Speed in command and control means shortening the time needed to make decisions, plan, coordinate, and communicate. Since search and rescue missions are dangerous, dynamic, complex, and confusing with the lost missing person being ever evolving and ever changing, it is not absolute speed that matters, but speed relative to the person you are looking for: the aim is to be faster than our



antagonist or the person you are working for, which means interfering with the person's command and control as well as streamlining our own. You need to constantly make a decision faster than the other person. The speed differential does not necessarily have to be a large one: a small advantage exploited repeatedly can quickly lead to decisive results. We should recognize that the ability and desire to generate a higher operational tempo does not negate the willingness to bide time when the situation calls for patience. The aim is not merely rapid action, but also meaningful action. The OODA loop principals are based on synthesizing information and the situation, and not analyzing. Under stress during critical incidents you are far better off looking at all of the parts that you have, synthesizing, and then making up the whole, then analyzing the situation, which means you break the whole down into parts. Critical incidents are by their very nature, dangerous, dynamic, complex, and confusing. When speed and process are essential, being a synthesis and not an analysis is a superior process and behavior. To maintain peak situational awareness, you must continue to synthesize, correlate, and turn the information into useful intelligence. The OODA loop gives you this tactical advantage over your adversary, as it is a process of making a decision faster than your opponent.

- 2.6 The backbone of modern day decision making is situational awareness. Incident commanders and team leaders can increase their decision confidence by maintaining good situational awareness. Incident commanders and SAR leaders can increase their confidence by using time efficiently. In the search and rescue environment, decisions have serious consequences and often have life or death implications for others. With so much at stake, we have a responsibility to understand the decision-making process, the components, the flow, the effect of time, and to develop the skills and confidence that enables us to make the best decision possible with the information and time available.





2.7 From command and control, leadership, and decision making to management requires a more formalized response process. The Six Step Process is extremely versatile; it is just as valuable as a quick mental technique for the individual responder as it is as a means of structuring a more formalized response to larger incidents. The Six Step Process allows the user, once they gain experience to complete the process intuitively, to apply it automatically and continuously.

"There are fifty who can reason synthetically for one who can reason analytically".
- Sir Arthur Conan Doyle (Sherlock Holmes)

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C. LEADERSHIP

"Lead, Follow, or Get The Hell Out of The Way."

- Old Soliders Maxium

1.0 DEFINITION OF LEADERSHIP.

- 1.1 It is appropriate to draw clear distinctions between leadership, command and control, and management. All of them are significant and interrelated but without effective leadership command and control, management will fail to provide a quality of service required of any SAR operations. Ultimately the safety of all may be compromised.

"Leaders are made, they are not born. They are made by hard effort, which is the price which all of us must pay to achieve any goal that is worthwhile."

- Vince Lombardi

- 1.2 A working definition of leadership may be stated as 'the art and craft of influencing teams and members of teams in order to complete an operation in the manner necessary for the safe attainment of quality of service to the casualty or casualties'. It is axiomatic that effective leadership is required at virtually all levels of activity during an operation. Whilst this definition concentrates on the requirements for operations it is true to say that the general running of SAR teams requires leadership at all times if those teams are to be fully prepared for the operations they will undertake.

Daughenbaugh (2002) in a Significant Paper Stated:

"Leadership is, quite simply, what is necessary to complete the task utilizing the services of others."

He also commented that the issues faced by a SAR leadership are unique in that each situation is potentially life or death. The uniqueness of leadership in SAR is questioned. There are many other situations and many others organizations where the consequences of poor leadership can or will pose a serious threat to all those involved in a particular situation.

1.3 The principles of SAR leadership may be summarized as follows:

- a. Know yourself and seek self-improvement.
- b. Be technically and tactically proficient.
- c. Seek responsibility and take responsibility for your actions.
- d. Make sound and timely decisions.
- e. Set the example.
- f. Know your team members and look out for their wellbeing.
- g. Keep your team members informed.
- h. Develop a sense of responsibility in your team members.
- i. Ensure the task is understood, supervised, and accomplished.
- j. Build the team.
- k. Employ the team in accordance with its capabilities.
- l. Honesty and integrity with yourself and the teams being supervised.

“Leadership is based on a spiritual quality – the power to inspire, the power to inspire others to follow.”

- Vince Lombardi

1.4 Lorenz (2005) considered these principles and added the following additional points:

- a. Know when the situation is dangerous or beyond your capabilities.
- b. Praise in public, criticize in private.
- c. Know your rescuers, their capabilities and limitations.
- d. Train your rescuers as a team.
- e. Stress safety, balancing the risks with the mission to be accomplished.

1.5 Lorenz went on to advocate the use of SMEAC – The five-paragraph operation order as an aid to clear instructions, SMEAC is a briefing tool: The Military use the SMEAC system to document their orders and instructions for field operations during training and theater of war operations, so that they can pass this information on to their troops.

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In His Review Of Some Lessons Learned By The United States (US) Army In World War I, General George C. Marshall Wrote:

"In studying the examples of the orders issued to our troops in France, several important points deserve consideration in determining the relative excellence of the orders issued. It is frequently the case that what appears to have been a model order was actually the reverse, and a poorly and apparently hastily prepared order will often be erroneously condemned. Many orders, models in their form, failed to reach the troops in time to affect their actions, and many apparently crude and fragmentary instructions did reach front-line commanders in time to enable the purpose of higher command to be carried out on the battlefield. It is apparent that unless an order is issued in time for its instructions to percolate down throughout the organization sufficiently in advance of an engagement to enable each commander to arrange his unit accordingly, that order is a failure, however perfect it may appear on paper. Our troops suffered much from the delays involved in preparing long and complicated orders due to the failure of the staff...to recognize that speed was more important than technique."

So that started the evolution to a formal briefing order and by 1940, we had the 5 Paragraph Field Order format - it was tweaked during WW2 with General George Patton using it for command and control briefings and today it is remarkably similar now to what it was then. In fact - one of the case studies today for the near perfect order was VII Corps operations order to attack near Remagen in March 1945.

While you probably don't have military personal at your command, there are times I'm sure when you need to give a SAR personnel, a business colleague, a family member, a friend instructions or directions for a task or project – and the SMEAC system is ideal format!

Situation This is the background to your problem, or a description of what has happened. What were the events leading up to where you are now?

Again, consider the 5WH of the situation. What has happened? Why is it a problem? Who else is involved? When did it happen/ sequence of events? Where did it happen? How did it happen?

The point of this part of the process is to provide a snapshot or background to the following set of instructions. Often referred to as a SITREP.

Mission So now we know what has happened, the mission is what we need to do about it. The mission should be a short, clear, correct and concise statement of what you want to achieve – "Our mission is to organize the Search and Rescue Bar B Q".

Smeac. - skill used by military & police.

At this stage, there's no need to include any detail – because that's what the EA&C is for.

Execution Execution is the 'how' part of the plan – how you are going to achieve your mission. Detail the steps required, and again 5WH applies. What are you going to do? Why? When? Where? Who is involved? How?

The execution part of the process is usually the longest and should provide sufficient information to allow you [or your SAR team] to go and do the job.

Administration The military term is actually 'Administration and Logistics' and is about what resources you need to do the job, and how these resources are to be coordinated. Under the Incident Command System, it is broken down into Logistics, Finance and Administration.

Command and Communications This is the who's who of the job – who's in charge, who do you report to, and how you communicate with each other. This part details the functions established under the Incident Command System.

Lorenz concluded with a short consideration of the importance of leadership training.

- | | | |
|----------|---|---------------------------------|
| S | – | Situation. |
| M | – | Mission or incident objectives. |
| E | – | Execution. |
| A | – | Administration and logistics. |
| C | – | Control and communications. |

2.0 AUTHORITY.

2.1 Authority is required for the exercise of leadership as is the acceptance of that authority by the team or group. Consideration of the derivation of this authority is of importance in volunteer SAR teams. It is suggested that the derivation will vary with circumstances:

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In routine administration and training the authority is derived from the team or group, and during actual operations, a significant element of authority is derived from the legal entity under which the leader is operating. Some residual authority is derived from the team.

Williams (1970) Stated:

“It is imperative that the volunteer rescue leader recognize that the unit [Team] has no inherent jurisdiction to rescue, and that the only authority to activate is a derivative one through delegation of authority from the responsible agency.”

2.2 Derivation.

Within SAR mission, a leader’s authority is, in the first instance, derived from the appointment to leadership either by the action of the executive committee or by popular vote of the membership. If the fact of the appointment is accepted by the legal entity, the authority of the leader is considerably enhanced. However, such an appointment by a team does not necessarily mean that a particular appointment is acceptable to the legal authority. Lack of acceptance would be unusual but would greatly diminish the authority of the leader.

Daughenbaugh (2002) Identified Three Forms Of Authority Directly Related To The Requirements Of SAR:

- 1. Legitimate authority which is based on a leader’s position in the chain of command.**
- 2. Expert authority which refers to knowledge, experience and judgment.**
- 3. Referent authority derived from the leader’s acceptance by other team or party members.**

Skidelsky (1993) maintained that a true leader’s authority is personal. This fourth form of authority is of importance in SAR.

2.3 Levels of Authority.

Levels of authority derive from the legal framework in which SAR operates, that is the Chain of Command applicable to any particular jurisdiction. In many cases the ultimate but somewhat

nebulous command is the senior elected official of that jurisdiction. In the context of SAR, the chain of command may be considered to start with the duly appointed law enforcement officer and progresses downwards through all levels to the leader of a small team dispatched to the field to undertake a specific task during an operation. Within a team or group the level of authority is dependent on the operational structure of the team.

2.4 Discipline.

There is a direct relationship between good leadership and effective discipline for without discipline there is nothing to lead. Discipline is one of the more difficult (contentious) concepts for many involved in SAR, particularly the volunteers. Discipline is absolutely essential for effective, high quality work. Lack of discipline is a threat to the safety of all. It is a fragile concept that must be nurtured and respected. If one cannot accept discipline, if one assaults discipline, one cannot expect discipline to be granted to you by others. In volunteer SAR teams, there are few, if any, effective sanctions that may be imposed when discipline breaks down. When discipline breaks down the quality of the job diminishes very rapidly and may become hazardous.

Morrison (2003) Quoted The Comment Of The Duke Of Wellington After His First Cabinet Meeting:

“Extraordinary! I gave them their orders and they wanted to sit there discussing them.”

2.4 Levels of Leadership.

Most, if not all organizations need a structure in order to function. This is as true of a volunteer SAR team as it is for all other organizations. In addition, it is essential for the successful completion of any SAR operation. The existence of organization implies the existence of ‘rank’, whether informal as in many volunteer teams or formal as in the uniformed services.

If the concept of rank is accepted, then it must be accepted that there are different levels of leadership. While leadership skills are required at all levels, what changes is the level (amount) of responsibility, which increases significantly with rank – the higher the rank, the greater the responsibility. Performing a function under command and control systems denotes a level of rank over subordinates of other units within that function. Then leadership is an expressed and implied condition based on that specific function. Discipline, dress and deportment all play an integral part of your leadership model. Not only to your team but to your agency and critical allies involved in the search and rescue mission.

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“Leadership is not just one quality, but rather a blend of many qualities; and while no one individual possesses all of the needed talents that go into leadership, each man can develop a combination to make him a leader.”

- Vince Lombardi



SOME SPECIFIC LEADERSHIP CONSIDERATIONS FOR SAR MANAGEMENT.

- 1. Identify key people. Leaders must be identified and obviously marked (uniform, vest, identifying hat, etc.).**
- 2. Everyone must know “who is in charge”!**
- 3. You must exert your authority, by taking action and being responsible for decisions.**
- 4. When the organization/SAR effort is large, you have to delegate and use subordinates.**
- 5. Identify locations of key functions in base camp.**

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- B. STEP 1 – SIZE UP THE SITUATION
- C. STEP 2 – IDENTIFY CONTINGENCIES
- D. STEP 3 – DETERMINE GOAL AND OBJECTIVES
- E. STEP 4 – IDENTIFY RESOURCES NEEDED
- F. STEP 5 – BUILD A PLAN AND A STRUCTURE
- G. STEP 6 – TAKE ACTION

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A. INTRODUCTION TO THE SIX STEP PROCESS

At the beginning of this course the Incident Response Process is introduced as an effective methodology for resolving problems. A key end product of this course is a systematic list of search and rescue actions for the purpose of simplifying the decision-making process and enhancing search and rescue effectiveness. This list is provided below.

The list is not comprehensive. Problems and challenges not anticipated in this list will occur. Remember and utilize the Incident Response Process for those specific situations, in the same manner as for resolving the overall incident goal. A continuous use of the OODA Loop will enhance decision making capability.

- ✓ Size-up the situation.
- ✓ Identify Contingencies.
- ✓ Determine Objectives.
- ✓ Identify needed Resources.
- ✓ Build a Plan and structure.
- ✓ Take Action.

SCORPA

Six Step Action Checklist

1. Size-up the Situation: What is the nature of the incident and what are the hazards.

- Interview reporting party directly. Establish ongoing communications link with reporting party.
- Consciously decide (OODA Loop) whether a response is justified. Is there a 'lost' person? Does your agency have jurisdiction? If appropriate, initiate a response by notifying reporting party, supervisor, and agency dispatch.
- Begin compiling a Missing Person Profile. The Missing Person Profile Worksheet (SAR Form 2) can be helpful.
- Determine response urgency. The Urgency Analysis Worksheet (SAR Form 5) can be helpful.
- Assign Incident Commander (IC). Notify all involved personnel and agency dispatch.
- Determine ending time of first operational period.
- Arrange for relief Incident Commander for second operational period.

- Establish Incident Command Post (ICP) and locate the IC there.
- If possible, personally investigate the IPP.

2. Identify Contingencies.

- Identify and prioritize scenarios that might have caused subject's loss, and his/her possible subsequent activities. Prioritization might be based on:
 - Relative life safety risk;
 - Ease of resolution; and/or
 - Scenario's likelihood.
- By priority ranking, target the scenario(s) for resolution.
- Determine the classification (mobility and responsiveness) of the subject under these targeted scenarios.
- What could make things worse?
- What if?
- What can I do to be prepared?

3. Determine Objectives.

- Identify investigative actions to address the targeted scenarios, including the protection/investigation of the IPP. State in terms of objective(s).
- Establish search area boundaries:
 - Identify travel aids leading away from the IPP region.
 - Determine theoretical rate of subject's travel along each travel aid. Multiply rate of travel by number of hours since subject became lost, to calculate subject's maximum distance from the IPP. Repeat for each travel aid.
 - Consider these maximum distance points as markers for the search area boundary.
- Identify containment actions to address the targeted scenarios. State in terms of objective(s).
 - For each travel aid, determine whether to place containment at the search area boundary, or at a strategic passage along the travel aid.
 - Consider directing resources sweep travel aids en-route to selected containment locations.
- Identify active search efforts (hasty search) to address the targeted scenarios. State in term of objective(s).

4. Identify Needed Resources.

- Determine tasks and resources needed to achieve all the objectives and

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contingencies. Rank the tasks by importance.

- Order needed resources.

5. Build a Plan and a Structure: What are your initial staffing needs? How will you organize and deploy resources?

- Establish an organizational structure that can effectively support efforts. Remember span of control.
- Develop and implement assignments to support the tasks.
 - Each assignment should pass a risk assessment analysis.
 - Assignments should be initiated in a sequence reflecting the task ranking (taking into consideration logistical, resource, and other considerations).

6. Take Action: *Feedback, Quality Debriefing*

- Brief all arriving personnel.
- If not already accomplished, finalize assignments with resources, including risk assessments. Provide assignment briefings. Use SMEAC for briefings (See Section II, Chapter C).
- Track resources. Ensure health of incident. Practice incident management principles and the search crucials.
- Debrief all resources immediately upon completion of assignments. Remember to obtain safety input.
- Finalize Incident Action Plan for next Operational Period.
- Brief relief IC as to IAP.
- Go home and get some sleep.

10 90 - 90 90 rule.

cyclic Process.

IMPORTANT NOTE

During the initial response period the agency person (agency having jurisdiction [AHJJ]) in charge will be the Incident Commander and the Search Manager, this will often be the Law Enforcement Agency of Jurisdiction. As the incident expands, the roles will need to be separated to decrease the work load and ensure a proper span of control. This Section was developed for one person conducting both roles or two people working together to bring a successful conclusion to the incident. Hence, the term Incident Commander and SAR Manager are synonymous in this context.

As stated earlier this generic process is adaptable to virtually any incident. It is especially useful in the Initial Response Phase of a SAR mission. For example, a Hasty Team leader arriving at a trailhead from which a reported lost person departed, quickly runs through the process to determine where to employ his resources: which trails to run, buildings to check, high hazard areas to check, etc. Then the Incident Commander, while the Hasty Team is still in the field, uses the process to plan the first operational period of the search.

In the event the mission continues into multiple operational periods, the process is useful to organize an expanded, more formalized planning process.

The following Chapters will detail the Six Step Process from the point where you are notified through to the conclusion of the first Six Step Cycle. For each of the Six Steps it gives you:

- √ A complete list of all the activities to which you need to attend.
- √ Any supporting information that you might need, in the form of text or tables.
- √ A list of 'recommended actions' – these are activities that we think you must deal with.
- √ References to any documentation (forms) that you will need to complete. The documents (forms) for this can be found in Section VI.

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B. STEP 1 – SIZE UP THE SITUATION

Step 1 is concerned with collecting, recording, and assessing the known facts about the incident. You are going to build a Missing Person Profile and an Incident History. You may discover that there are facts which you need and which you do not have. If that is the case then you must think about where you can get them from and how you will go about getting them. You must collect and record all the facts that are currently available to you. You will need to assess them to decide whether you have a mission and the degree of urgency involved.

This is likely to lead to a process of investigation and interviewing.

1.0 STEP 1 - ACTIONS.

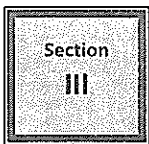
1.1 Receive Notification (First Notice).

Missing Person Report VI-3 or RNC Form.

- ✓ First Notice is your first notification that you might have a search and rescue mission. It can come from a witness, a friend of the probable lost, overdue, missing person, a family member via a tasking agency, or your superior. You can receive First Notice in a number of ways: verbally, cell phone, telephone, or dispatch via radio.
- ✓ You must record who contacts you, when and what they tell you. Use the First Notice Record Sheet (SAR Form 1).
- ✓ You must maintain contact with the complainant/informant; write down how you will do this on the First Notice Record Sheet. It might be a telephone number, or instructions to the complainant/informant on what to do – 'stay at the campground, trailhead or crossroads.'

1.2 Establish Structure. *Always and IIC.*

- ✓ Now there is a search and rescue incident, so there must be someone to direct it. Identify the person who will be the Initial Response Incident Commander. THIS IS PROBABLY YOURSELF. This person (YOU) will be responsible for all aspects of the incident until the end of the operational period or otherwise formally relieved by a person of authority from the responsible agency having jurisdiction (AHJ).



1.3 Define Operational Periods.

Define the operational period schedule. What happens if you do not locate the lost, missing person quickly? What is a reasonable time for you to be able to effectively perform until you need rest? What types of work shift schedules within the operational period will best facilitate search and rescue efforts? Commonly, operational periods run for 12 hours, with a daytime operational period and a night operational period. But if a different arrangement better serves your needs, chose it. Whatever time period(s) you choose operational periods are identified by the 1st Operational Period, the 2nd Operational Period, and so on.

1.4 Determine the Initial Planning Point (IPP). *Could have evidence.*

a. The IPP is the single most important fact that you will collect. It is the last definite place that the lost, missing person was known to be. It will either be the PLS (Point Last Seen), or the LKP (Last Known Position). The PLS depends on a positive, identified sighting. In the case of the LKP the person was not seen but left some item that can be identified as being theirs, for example a car, truck left parked, an item of equipment or an entry in a logbook. The IPP must be marked on the map and protected (for example taped off) because:

- It may yield valuable clues; for example, a trained tracker may be able to identify a direction of travel by locating footprints.
- A Police K-9 or SAR dog may be able to pick up a scent and follow a track of the lost missing person.
- There may have been a crime committed and the IPP might have to be examined by criminal investigators

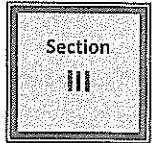
Recommendation: If at all feasible, eyeball the IPP yourself. A personal on-scene inspection may reveal insight not otherwise possible. It may well be contaminated by others who have already tried searching for the lost missing subject.

1.5 Collect and Record the Known Facts.

a. Remember that anything that you have been told so far may be second-hand; you need to get hold of a person who can give you information which is reliable and of which they have first-hand knowledge. For example, if the IPP is a PLS then talk to the person who made the sighting (observation) rather than rely on what they have told someone else. There are two kinds of factual information that you must start to collect and record:



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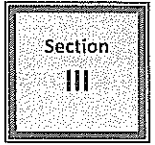


- ✓ Information about the lost/missing person – use the Lost/Missing Person Profile (SAR Form 2).
 - ✓ Information about what has happened – use the Incident History (SAR Form 3).
- b. You should also record the name and means of contact of everyone who can provide information that confirms the story you have been told.
- 1.6 Consult ~~Lost Person Behavior Statistics~~ (or local data base) to give you some idea as to what people have done in the past when they have been lost. This also gives you some indication of the most appropriate types of tactics to employ.
- Not 100% but a good start starting place.*
- a. Different types of people behave in different ways. Lost Person Behavior Statistics recognize this and divide case histories into different categories of lost/missing persons. In order to use this valuable tool, you must decide what kind of person you are looking for. You do this by considering the information that you have so far, and deciding into which category the person falls. Examples of categories you can choose from are hunters, hikers, children aged 1 to 6 years, children aged 7 to 12 years, youths aged 13 to 15 years, despondents, mountain bikers, skiers, off highway vehicle operators, walkaways, etc. If none of those adequately corresponds to your understanding of the lost/missing person then there is a category called 'miscellaneous adults'. Or, select the two or three categories that are closest to describing your missing subject, and selectively choose the statistical data from these categories. (Also applicable in the case of a person that is an adult chronologically but functions at the level of a much younger person.) Choose the category that is most appropriate, and write it down on the Lost/Missing Person Profile (SAR Form 2). Read what the Lost Person Behavior Statistics tell you about past missions involving missing persons in the category you have chosen. (See Section IX, Chapter H, Lost Person Behavior Checklists.)
 - b. 'Lost' persons can theoretically travel in a straight line in any direction, but experience has shown that this does not happen. Instead they follow some kind of route; come across terrain features that cause them to change direction or to be attracted toward certain places.
- X* Remember that there are four methods of establishing a search and rescue area (See Section VIII) and lost/missing person's data is just one method. You must also consider the theoretical distance the person could of travelled in any direction, and did they travel on a path of least resistance in the search and rescue area, which took them beyond what the lost missing person data and statistics is telling you.
- 1.7 'Carry out a 'terrain and topography analysis.'
- a. Begin by identifying any Hazardous Locations in the vicinity (cliffs, rivers, falls, caves, crevasses, sinkholes, lakes, etc.). If you are not sufficiently familiar with the area then find

someone who is, or assign resources to perform a reconnaissance. You must mark any known hazardous locations on the map.

- b. ~~Mark Trails or Routes on your map that the lost/missing person might have followed (both manmade and natural). Make note of Barriers. Identify attractions and magnets.~~
- c. The lost/missing person may be following trails or some other kind of route. Mark any features in the Initial Search Area that could act as travel routes for the missing person. (Lost Person Behavior Statistics may give you some ideas.) Features that have less barriers to human travel than the surroundings can include:
- Trails, both animal and manmade.
 - Roads, logging, mining, oil and gas exploration.
 - Utility right-of-way's, pipelines, transmissions lines.
 - Water courses and stream banks.
 - Open forest, reforestation areas, and other brush-free vegetation types.
 - Ridges and slopes.
 - Valley bottoms and rural urban interface areas.
- d. Keep in mind that these travel routes that provide easy travel may allow the missing person to travel outside the statistical boundaries. Therefore, they may give you a weird shaped search area.
- e. Lost/missing persons will probably not just head off in a straight line and keep going. At some point, they will most likely come across something that will cause them to change direction. This can happen when they meet a stream or river that they cannot cross, some steep ground that they cannot climb, or a roadway, trail that looks as though it might lead them to safety. The features that can cause a change in direction are called 'barriers,' and we can use them to mark out an area on the map that at this stage we will consider the missing person to be in. The area inside this boundary is called the Initial Search Area, and that is how we will refer to it from now on. We are not saying that the lost/missing person will definitely be in there – what we are saying is that this is the area where we think they are likely to be and it is where we are going to start our searching. Read what the Lost Person Behavior Statistics say about the category of person you are looking for and then draw barriers on your map.

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- f. Typical barriers are:
- Streams or rivers that are not easy for the missing person to cross.
 - Trees or bushes too thick to walk into if there is an easy alternative.
 - Uphill gradients that they would find too steep.
 - The top of a ridge – they would probably have to go uphill to retrace their steps.
 - Roads, tracks or trails which are easy to follow or might lead to safety.

Recommendation: Do not automatically assume that trails and forest roads will by themselves be effective barriers or used by the lost missing person. Not infrequently, lost/missing persons have come to a trail or logging road, evaluated their options, and chose to cross the trail/road and continue with their original travel plan. Consider patrols or other techniques to enhance effectiveness of such barriers.

- g. You must realize that the terrain and its features will look very different to members of the different categories. What might be a barrier to one might not be a barrier to another. You must take notice what Lost Person Behavior Statistics tell you, and what you know about the missing person. However, be aware that comments such as 'can barely walk fifty meters (yards) on the flat' can often be very misleading and have been shown to be serious underestimates of someone's capability, particularly when made with reference to elderly persons. Obtain corroborating statements from others about the lost/missing person on their physical abilities.
- h. Ideally, you should identify a barrier in every direction from the IPP, so that the IPP is completely surrounded by them. Some barriers might be close to the IPP, others may be some way off. You might find that the barriers almost indicate a direction of travel from the IPP, for example if the IPP is right up against a river. That is all right at this stage so long as you are confident about your choice of barriers.
- i. Lost Person Behavior Statistics tell you how far from the IPP other people have been found in the past. These are given as straight-line distances and are not related in any way to the actual distance that the person may have travelled. The table of data for your chosen category tells you how far 10%, 20%, 30%, and so on up to 100% of the people in that category have been found in miles and kilometers from the IPP. You can use this information to check against your Initial Search Area.
- j. If your Initial Search Area goes beyond the 100% distance in any direction then you must remember when you are defining your Objectives that you do not need to search all the way



out to the barriers in that direction. Mark the 100% distance on the map in that direction and take that as the absolute limit for the time being. In reality you are unlikely to want to search beyond the 80% distance at this stage – that would account for 4 out of every 5 missing persons in the category you have chosen.

k. If it does not extend out as far as the 20% distance in any direction, then have a good look at the features that you have used as barriers in that direction. If you are confident that they really would form barriers then use them, otherwise you might look for barriers further out from the IPP. If there are not any, then use your original ones.

✗ i. Magnets: studies have shown that lost/missing persons are often attracted towards certain features. These may be related to the activity they were doing, or may be likely places of safety such as the lights of a tower, campground or town at night, or what the person might perceive as a secure location near some obvious feature of the landscape. These are referred to as 'attractions or magnets' since they attract the person towards them. Read the Missing Person Profile (SAR Form 2) to see what the person might have been doing, and the Lost Person Behavior Statistics for the category that you have decided upon to see what might constitute as an attraction or magnet. Mark any you find in your Initial Search Area on your map. Typical attractions or magnets are:

- The lights of a building at night.
- A location associated with some past experience.
- The interface between two types of terrain or vegetation.
- A solitary or 'different' tree or rock formation.
- Viewpoints.
- Some form of shelter.
- Locations for some activity, such as crags for rock hounds, nesting places for ornithologists, and so on.
- Human-caused sounds such as trains, highway traffic, logging operations, etc.

VI-9. ↗
SAR #4. sheet.
1.8 Make a list of the resources that are currently available and that you might want to send out to search when you have devised your initial search plan. Use the Resources Sheet (SAR Form 4) and record their status. At this stage that is going to be either 'enroute' or 'available for use.' If they are enroute, record their ETA.

(VI-1)
1.9 Carry out an Urgency Analysis, using the Urgency Analysis Checklist (SAR Form 5). The purpose of this is to help you to determine your level of response. The information you will use for this will come from the Lost/Missing Person Profile, investigation, and the incident history, together with local knowledge. Remember that it is intended to give you guidelines only.

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"The Incident Response Process is a logical sequence of actions and thought processes followed by the incident commander in developing and executing a plan. The purpose is to ensure the best use of time and resources in accomplishing the incident objectives. All the steps are covered, even if each takes only a few seconds. Some steps may be taken concurrently. The process is not rigid: modify it to fit the mission, situation and available time. Not all the tasks listed under each step will apply to every 'cycle' of the six step process or to every mission. Take what's useful, add to it as you gain experience. Rather than a checklist, view the six steps as a continuous process. As you complete one 'cycle' you immediately start the process again. As you gain experience you will find it becomes virtually instinctive."

-Snowshoe Thompson, 1856

Step #1: Recommended Actions

- Either maintain contact with your complainant/informant directly or know where he/she is at all times.
- Fill in the First Notice Record Sheet (SAR Form 1).
- Identify the Incident Commander and notify all personnel.
- Define the Operational Period Schedule. Write the start and finish times in the spaces provided on the Incident Action Plan (SAR Form 7).
- Identify the IPP, mark it on the map and protect it.
- Locate if possible the people with first hand knowledge of both what has happened and the person involved, and interview them.
- Fill in the Lost/Missing Person Profile (SAR Form 2).
- Fill in the Incident History (SAR Form 3).
- Read the Lost/Missing Person Behavioral Statistics for that category.
 - Consider theoretical distance travelled by the lost/missing person.
- Carry out a Terrain and Topography Analysis. Mark on map:
 - Any known hazardous locations.

- Barriers to mark out the Initial Search Area (ISA).
 - Likely trails or travel routes in the Initial Search Area.
 - Any attractions and magnets in the Initial Search Area.
 - Check, modify Initial Search Area boundaries against lost person behavior (LPB), theoretical, subjective, and deductive reasoning, and distance travelled data.
- List the resources currently available on the Resources Sheet and their status (SAR Form 4).
- Carry out an Urgency Analysis (SAR Form 5) and respond accordingly.

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C. STEP 2 – IDENTIFY CONTINGENCIES

Step 1 was concerned with facts; Step 2 is concerned with 'maybes.'

What else could have happened?


1.0 STEP 2 - ACTIONS.

- 1.1 Carry out a Scenario Analysis (SAR Form 6), suggesting a number of possible alternatives for what might have happened (where the person might have gone, what they might have done, and what might have happened to them). These will help you to decide on where to deploy the search and rescue resources available to you.
- a. Your map now has lots of 'maybes' marked on it in the form of barriers, attractions, and magnets and possible routes, but it has only one fact on it relating to the lost/missing person, and that is the IPP. You now need to consider the biggest set of maybes of all and that is what they might have done after they left the IPP. This is called Scenario Analysis.
 - b. Scenario Analysis is a valuable exercise because it encourages you to come up with a number of plausible stories (scenarios) that fit in with the marks you have made on your map. These stories should:
 - Be real possibilities.
 - Fit in with what Lost/Missing Person Behavior Statistics tell you.
 - Indicate where you think the lost/missing person might have gone.
 - Ideally be done in conjunction with someone who either knows the area or knows the person or has valuable experience in this area.
 - Be written down. Write down at least three of the most plausible scenarios.
 - c. Use the Scenario Analysis Record Sheet (SAR Form 6), which has room for ten of them. You will be referring to these to decide where you are going to go and search, and so you need to indicate how likely you consider each of your scenarios to be. Use the abbreviations suggested on SAR Form 6 (very likely to very unlikely) and write them in the right-hand column.

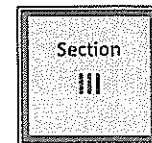
Note: *More than one scenario may be possible and need to be considered in your planning.*

1.2 Conduct a 'risk assessment' and identify safety concerns. Sometimes known as a Hazard Vulnerability Assessment. (See Attachment 1 to this Chapter.)

- a. Risk is an inherent factor in all emergency responses. For search and rescue, common risks include: type of lost/missing person you are looking for, adverse weather; rough terrain; long hours; poor night visibility; swift water; helicopter blades.
 - All risks cannot be eliminated, but they can be managed.
- b. Simply telling SAR personnel to 'search in a safe manner' will not make the search and rescue effort any safer. Safety actions must also occur; safety is too important to reduce to a simple phrase. Safety must be fully integrated into all search and rescue incident activities. The use of risk assessment tools such Green, Amber, Red (GAR), and/or Lookout, Communications, Escape Route, Safety Zone (LCES), and proper documentation will bring due diligence and accountability to the risk management process. (See Attachment 1 to this Chapter.)
- c. A risk assessment should be performed for each search and rescue assignment. Consider the following questions for each assignment. If the answer to any of these questions is 'no,' the assignment should be redesigned.
 - Have the hazards associated with this SAR assignment been identified?
 - What are these hazards (list)?
 - Does the assigned SAR resource have the training, capabilities, and equipment to mitigate the hazards?
 - Is there a process in place to ensure the assigned SAR resource will be notified of the potential hazards?
 - Will the SAR resource be advised as to the risk exposure at which to cancel the assignment?
 - Does the risk justify the benefit?
 - Is this the safest manner by which to accomplish the SAR assignment?

 **Remember** the prime directive of all emergency responses: 'The life of the rescuer takes precedence over all other concerns, including the well-being of the potential survivor (victim).' (use of GAR and LCES)

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1.3 Use this information in Step 3 and Step 6.

- a. Be sure to integrate your hazard risk assessment into the establishing goals and objectives process, Step 3.
- b. Be sure to 'brief' all personnel on safety issues, including identification of hazards and instructions for mitigating risks, Step 6.
- c. Each resource should also be 'debriefed' immediately upon completing an assignment. Ask them to identify any hazards encountered, and encourage them to make recommendations to improve safety right away, Step 6.

Step #2: Recommended Actions

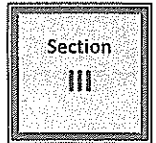
- Carry out a Scenario Analysis and write down at least three likely scenarios, and their likelihood (SAR Form 6).
- Identify the range of possibilities that might have caused the person(s) to become lost/missing, overdue.
- Consider 'worse case' scenarios.
- Identify highest risk scenarios.
- Consider the potential that this is a result of a criminal act, until proven otherwise; List suspicions.
- Conduct mental 'hazard, risk assessment;' Identify safety concerns. (use of GAR, LCES)

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Attachment

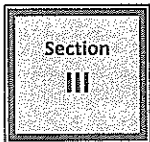
1. Risk Management

A. INTRODUCTION.

1. Risk is an inherent factor in all emergency responses. For search and rescue, common risks include, type of person you are searching for, adverse weather, rough terrain, long hours, poor night visibility, swift water, and helicopter blades.
2. All risks cannot be eliminated, but they can be managed.
3. Not uncommonly in the past, safety has been addressed by either including an incident objective such as 'search in a safe manner', or adding the word 'safely' to existing incident objectives.
4. While these words may emphasize the importance of safety, they do not in themselves make the incident safer. Action must also occur.
5. On a proactive and preventative basis, most safety training and awareness should be accomplished before the SAR mission. Are your people trained, equipped and capable of performing the assignments expected of them? However, even a robust safety preparedness program cannot anticipate every risk. The following discussion focuses on identifying and managing SAR incident specific risks.
6. SAR incident safety is accomplished by both specific recognition and mitigation efforts and, in a broader sense, increased awareness among all SAR personnel. Make safety awareness both specific to the mission and generic. Safety must be clearly established as part of the SAR organizational culture. Safety does not occur because the Incident Commander (IC), or Safety Officer mentions safety in a briefing. Every field exercise and SAR mission must include provisions for safety as conditions warrant. SAR unit leaders must be trained and held responsible for safety of their search and rescue groups. SAR responders, workers, and providers (volunteers) must be trained and expected to comply with safety policies and play a role in promoting safety among their cohorts. SAR leaders must lead by example.
7. This discussion suggests actions and decision processes that can help manage the risks associated with wilderness search and rescue.

B. SAFETY AS AN OBJECTIVE.

1. The concept of mission goals, objectives, strategies, and assignments (GOSA) should include safety.



2. A simple 'search in a safe manner' statement is a goal, not an objective. It is not measurable, achievable, nor flexible. Further, safety is too important to relegate to a simple phrase – it must be fully integrated into all SAR incident activities.
3. A better safety objective is 'establish an effective SAR risk management program'. The components (strategies) of this program can include conducting a SAR risk assessment for each assignment, effective performance of Safety Officer duties, implementing Personnel Accountability Report (PAR), Green, Amber, Red (GAR), and/or Lookout, Communications, Escape Route, Safety Zone (LCES), and including safety as a key briefing/debriefing topic.

C. RISK MANAGEMENT STRATEGIES.

1. SAFETY OFFICER – A Management Tool.

- a. Every incident has a Safety Officer. If not specifically delegated, the function is the IC's responsibility. But it is difficult for an IC to also perform the Safety Officer's job. The IC's primary duties require he/she be based at the Incident Command Post, while an effective Safety Officer spends most of his/her time in the field observing, coaching, identifying, and mitigating hazards, and generally ensuring safe SAR operations.
- b. Whether retained by the IC, or delegated to a subordinate, the safety-related duties that must be performed on every incident include:
 - ✓ Promoting the responsibility for safety to all unit leaders.
 - ✓ Enhancing the situational awareness and importance of safety.
 - ✓ Identifying hazardous situations and potentially unsafe situations.
 - ✓ Exercising authority to stop and prevent unsafe acts.
 - ✓ Investigating accidents and near miss incidents.

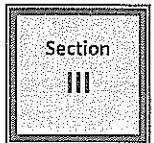
2. RISK ASSESSMENT – A Management Tool.

- a. A SAR Risk Assessment can be as simple as addressing the questions listed in the 'SAR Risk Assessment Worksheet' form shown on the next page.

THE #1 INCIDENT PRIORITY IS ALWAYS LIFE SAFETY!



III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS



EXERCISE

Read the following case study and individually complete the SAR Risk Assessment Worksheet provided on the following page.

CASE STUDY

It is 1100 hours on the third day of a search and rescue mission. The subject has just been located and flown to Base Camp. Demobilization is in full swing. Wet and tired personnel are anxious to go home. A search and rescue team radios that they are eight kilometers (five miles) from the trailhead, and one of their members has injured his ankle. He cannot walk, there's no deformity, and distal circulation and sensory feeling is good. The SAR team is requesting a helicopter evacuation, and states there is a small forest clearing nearby.

| RISK ASSESSMENT WORKSHEET | 1. Assignment Number, Activity Description, Or Other Designator: | 2. Date & Time: | 3. Prepared By: | |
|---|--|-----------------|-----------------|--|
| CONSIDER THE FOLLOWING QUESTIONS FOR EACH ASSIGNMENT AND ACTIVITY | | | | |
| ITEM | YES | NO | | |
| Have the hazards associated with this assignment been identified? | ✓ | ✗ | | |
| What are these hazards? <i>additional injuries</i> | | | | |
| Does the assigned SAR resource have the training, capabilities, and equipment to mitigate the hazards? | | | | |
| Is there a process in place to ensure the assigned SAR resource will be notified of the potential hazards? | | | | |
| Will the SAR resource be advised as to the risk exposure at which to cancel the assignment? | | | | |
| Does the risk justify the benefit? (Risk Benefit Analysis) | | | | |
| Is this the safest manner by which to accomplish the task? | | | | |
| Other options considered: <i>additional injuries</i> | | | | |
| If the answer to any of the above questions is 'no,' the assignment should be redesigned. | | | | |
| Remember the prime directive of all emergency responses: 'The life of the rescuer takes precedence over all other concerns, including the well-being of the subject'. | | | | |



3. IMPLEMENTING STANDARD WORK/REST GUIDELINES – A Management Tool.

- a. These guidelines are consistent with the USA Interagency Incident Business Management Handbook, USA National Wildfire Coordinating Group (NWCG) Handbook 2, Chapter 10, Section 12.7-1 & 12.7-1a; the USA National Interagency Mobilization Guide, Chapter 10, Section 13; the Canada Labour Code and most Provincial Occupational Health and Safety Guidelines.
 - ✓ Work/rest guidelines should be met on all SAR incidents. Plan for and ensure that all SAR personnel are provided a minimum 2:1 work to rest ratio (for every 2 hours of work or travel, provide 1 hour or sleep and/or rest).[#]
 - ✓ Work shifts that exceed 16 hours and/or consecutive days that do not meet the 2:1 work/rest ratio should be the exception, and no work shift should exceed 24 hours. However, in situations where this does occur, incident management personnel will resume 2:1 work/rest ratio as quickly as possible.

4. BRIEFING – A Management Tool.

- a. Safety issues, including identification of hazards and instructions for mitigating risks should be provided to all SAR personnel at time of task assignment.
- b. Each individual on the incident must understand he or she has the right and obligation to report safety problems and contribute ideas regarding his or her safety. One of the biggest injury risks in SAR is the misalignment of SAR assignments to personnel who are not physically capable, equipped or trained to safely accomplish. SAR personnel must be appropriately assigned.

RIGHT OF REFUSAL

An important concept to cover during briefings is the individual's right to refuse SAR assignments where safety is an issue. Initial SAR training and retraining should include the right and responsibility of SAR personnel for their safety and point out the particular vulnerability of new SAR recruits who may have too much adrenaline and peer pressure and get in over their heads as a result. They will also likely be reluctant to raise safety concerns if not trained otherwise.

When an individual feels a SAR assignment is unsafe he or she also has the obligation to identify – to the degree possible – safe alternatives for completing that SAR assignment. Turning down a SAR assignment is one possible outcome of managing risk.

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This is counter to how many organizations have traditionally allowed their personnel to operate. That is, they've deferred to SAR field personnel to independently accept risk.

Individuals may turn down a SAR assignment as unsafe when:

- ✓ There is a violation of safe work practices.
- ✓ Environmental conditions make the work unsafe.
- ✓ The person lacks the necessary qualifications or experience.
- ✓ Defective equipment is being used.
- ✓ A Hazard Risk Assessment of the search and rescue assignment has not been conducted.

5. **DEBRIEFING** – A Searcher Tool.

Each SAR resource should be debriefed immediately upon completing a SAR assignment. As part of this debriefing the SAR resource should be asked to identify any hazards encountered, and encouraged to make recommendations to improve safety.

6. **SAFETY LEAD ON EACH TEAM** – A Searcher Tool.

Encourage each SAR team leader to assign safety as a collateral duty to a SAR team member.

7. **PAR** – A Management Tool.

- a. The Personnel Accountability Report (PAR) was developed by the structural fire community and has been adopted by the USA Federal Emergency Management Agency (FEMA) Urban Search and Rescue teams, and is taught in FEMA disaster search curricula.
- b. PAR is simply confirming full team accountability, and reporting location, percentage of assignment completed, and estimated time of completion to higher authority on a regularly scheduled or emergency basis.

8. **LCES** – A Team Tool.

LCES was developed by the wildland fire community decades ago to address the frequency of crews being caught by forest fire blowups. It is very applicable to SAR situations where personnel are working in proximity to recognized hazards such as rock fall, avalanche potential, pending weather, dangerous wildlife, and moving water.

- | | | |
|----------|----------------|---|
| L | Lookout | The team designates one person as lookout who positions him/herself to provide over watch and timely warning. |
| C | Communications | All team members are able to communicate with each other, and the team leader with the next higher level of command. |
| E | Escape Route | An escape route is prepared and known to all members. |
| S | Safety Zone | The escape route leads to a nearby designated safe location where all members rendezvous if the Lookout communicates a warning. |

9. **ORM** – A Management and Searcher Tool.

- a. The Operational Risk Management (ORM) model – especially the Green, Amber, Red (GAR) component – is being institutionalized by entities involved in search and rescue response such as the Navy, Air Force, Civil Air Patrol, Coast Guard, National Park Service, Washington State Search and Rescue Volunteer Advisory Council, and an increasing number of local agencies and volunteer SAR units. It has been incorporated into the USA Catastrophic Incident Search and Rescue (CISAR) Addendum (Version 2.0; November, 2009) to the USA National Search and Rescue Supplement.
- b. Under this model, a SAR team evaluates an assignment's risk upon being given the assignment, but before acceptance. It is a simple process that only takes a few minutes.
- c. Risk value is calculated by assigning a personal estimation* of the risk to each of six (or seven – depending upon the agency; below is the CISAR version) key elements: a value of 0 for no risk up to a value of 10 for maximum risk.

*** Note: *These number values are subjective, based on the experience of the individual or group.***

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| ORM - Assessing Risk | | |
|--------------------------------------|--|--|
| Element | Explanation | Estimation of Risk (Rate 0-10 for each) |
| Supervision | How qualified is the supervisor? How closely do the team members need to be supervised? The higher the risk, the more the supervisor needs to be focused on observing and checking. A supervisor who is actively involved in a task is easily distracted and should not be considered an effective safety observer in moderate to high-risk conditions. The higher the risk, the more the supervisor should focus on observing and checking. | |
| Planning/ Preparation | How much information is available? How clear is the information? How much time is available to plan and execute the assignment? | |
| Team Member Selection | Consider the experience/training of the members. If individuals are substituted during the assignment, assess their experience and ensure proper turnover. | |
| Team Fitness | The physical and mental state of the members. This is a function of the amount and quality of rest they have had. Fatigue normally becomes a factor after 18 hours without rest; however, lack of quality sleep builds a deficit that worsens the effects of fatigue. | |
| Environment | Factors that affect personnel, team readiness, and resource performance. These factors may include time of day, weather, terrain, distance to hike, and hazards. | |
| Assignment Complexity | Consider both the time and resources required to conduct the assignment. The longer the exposure to hazards, the greater the risks. What is the precision level needed to successfully complete the assignment? | |
| Total Risk Score: | | |

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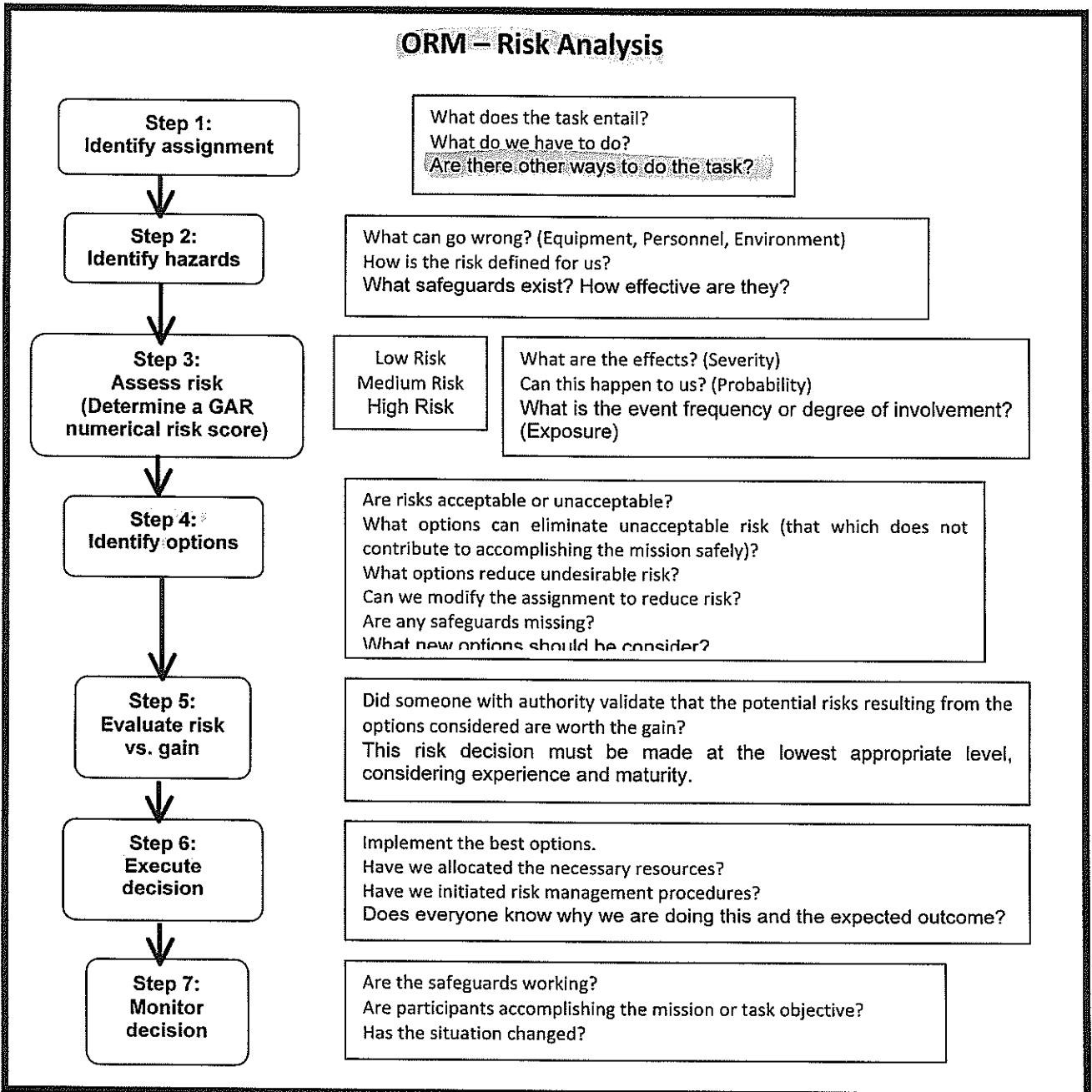
- d. The model uses the visualization of traffic light colors to categorize an assignment’s level of risk. If the total risk value is less than a value of 24, the risk falls in the Green Zone and is rated as low. If the total risk value is between 24 and 44, the risk is in the moderate Amber Zone, and the team should consider options to further minimize. If the total value is greater than 44, the risk is in the high Red Zone and the team should carefully consider whether to accept the assignment without either modification.

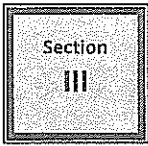
| ORM’s GAR Evaluation Scale | | |
|----------------------------|---|--|
| 0-23 | 24-44 | 45-60 |
| Green Low risk. | Amber Medium risk. Consider procedures and actions to minimize risk. | Red High risk. Implement measures to reduce risk prior to accepting assignment. |

| ORM’s GAR Risk Assessment Tool | | | |
|--------------------------------|---|-------------|--|
| | High Gain | Medium Gain | Low Gain |
| Low Risk (0-23) | Accept the assignment. Continue to monitor Risk Factors for any condition or assignment changes. | | Accept the assignment. Reevaluate Risk versus Gain should Risk Factors change. |
| Medium Risk (24-44) | Accept the assignment. Continue to monitor Risk Factors. Identify, and if possible, employ any potential options to mitigate identified hazards that exceed an acceptable degree of risk. | | Accept the assignment. Continue to monitor Risk Factors. Actively pursue any possible options to mitigate identified hazards to reduce risk. |
| High Risk (45-60) | Accept the assignment only after higher authority confirms they are aware of the Risk vs. Gain. Actively pursue options to reduce risk. | | Do not accept the assignment. Notify higher authority. Wait until Risk Factors change. |

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10. SAR GAR (ORM GAR Modification) – A Search and Rescue Tool

The formal ORM GAR model described above has the following field application complications:

- a. Not all agencies use the same risk element structure. While they all consider the same issues, some organize them into six elements, others into seven elements. This results in differing GAR scores, which can cause confusion in interagency incidents.
- b. Basing decisions on a subjective numerical score – rather than addressing each amber and red element – can potentially result in failure to appropriately manage a risk.
- c. Under emergency response stresses it can be challenging to remember the elements, and mathematically calculate the scores. This is an important consideration. Please note the box below.

SAR Team discussion to understand the risks and how they will be managed is what is important - not the ability to assign numerical values or colors to risk elements.

D. FINAL POINTS.

SAR objectives should be (SMART) specific, measurable, action orientated, realistic and time sensitive. Being flexible, and adjustable are also considerations. Terms such as 'search in a safe manner' and 'safely' do not meet these criteria, and alone do not make an operation safe. Actions - such as designating and performing the duties of a Safety Officer, incorporating hazard risk assessment processes into the development and acceptance of SAR assignments, and empowering search and rescue personnel, contribute to the safety of SAR incidents

- ✓ Accept risk only when the benefits outweigh the cost.
- ✓ Accept no unnecessary risk.
- ✓ Anticipate and manage risk by planning and communications.
- ✓ Make risk decisions at the proper level.



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| CHALLENGES | SOLUTIONS |
|---|--|
| Tendency to act on reflex or impulse; and/or improvise. | Recognize improvisation as a major red flag. Always identify and consider alternative plan. Designate a Team Safety Officer for every assignment. |
| Failure to recognize hazards. | Slow down! Take the time to identify and mitigate risk factors |
| Lack of empowerment. | Insist all SAR members are informed and concur, and positively reinforce the right of refusal. |
| Tendency to revert to habits when under stress, rather than implement unfamiliar processes. | Institutionalize the above in all SAR training and other unit activities so they become habitual. |

NOTES

Lined area for notes.

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D. STEP 3 – DETERMINE GOAL AND OBJECTIVES

Steps 1 and 2 were all about the missing person. Steps 3 to 6 are about your response.

Your Goal is to find the missing person, and your Objectives are the major steps you will take so that you make progress towards achieving it. Your Objectives will include a number of separate investigation, confinement and search activities that you will want to pursue. It is unlikely that you will have the resources available to do them all straight away, and therefore you will have to prioritize them so that they can be dealt with as resources become available.

However, do not feel limited in only identifying activities that can be completed during this 1st Operational Period. Rather, itemize all of the things you might reasonably want to do to locate the subject, based on the Size Up (Step 1) and Contingency (Step 2) processes. One of your jobs as Initial Response Incident Commander will be to develop an Incident Action Plan for the next Operational Period. Those activities not accomplished during your shift will carry forward into the next Operational Period's Incident Action Plan.

1.0 STEP 3 - ACTIONS.

1.1 Establish Objectives. Important points to consider when determining your Objectives are:

- a. How many Objectives should there be? There are three kinds of Objective – Investigation Objectives, Confinement Objectives and Search Objectives and you will probably have two or three of each kind, so expect between six and ten Objectives in total. SAR Form 7 gives you room for ten if you use both sides.
- b. How detailed should they be? Objectives should be sufficiently detailed to show what is to be done but not so detailed as they specify how it is to be done or who is going to do it. Bear in mind that an Objective is a major step towards your Goal and that each of your Objectives will be broken down into a set of separate Tasks, each of which will be assigned to a separate resource.

Objectives should be SMART (specific, measurable, action orientated, realistic and time sensitive).

- c. How far into the future should your Objectives stretch? This is an easy answer. You will be working towards achieving some of the tasks in the first Operational Period, and also developing a set of prioritized tasks for the second Operational Period. The ones you are developing for the second Operational Period will be based on the latest information from searcher debriefings and investigation findings. They comprise an important part of the Incident Action Plan you develop for the next Operational Period.

These objectives do not have to be perfect, exact, or comprehensive. Objectives are expected to be modified and adjusted as the mission unfolds based on information flow and coordination.

- d. What do typical Objectives look like? Here are some examples:
- **Investigation Objectives:** these are likely to relate to filling any gaps in the information you have collected so far about the missing person on SAR Form 2 ('find out more about the missing person'), or about the incident on SAR Form 3 ('check any known transport out of the area to see if anyone picked up a lift').

EXAMPLE INVESTIGATION OBJECTIVES

Examples of Investigational objectives are:

1. Interview complainant, reporting party, obtain as much missing person information as possible so you can complete a profile of the lost missing person. IE: interview the mother/father.
2. Identify the Point Last Seen or the Last Known Point.
3. Interview other persons in the area who may have seen the lost missing person. The camper in the next site over or the hikers who saw the person pass them on the trail and are now at the trail head, staging area.
4. Interview other family members of the lost missing person. Brother or sister, uncle, aunt, or cousin.
5. Investigate what the weather was like at the time the person went missing.
6. Investigate the terrain and topography of the area. Complete an area analysis.
7. Investigate and determine any attractions in the initial search area.
8. Investigate and determine the number of people using the area and similar activity to the person reported lost or missing.

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9. Investigate the number of other incidents that have occurred in the same area. Complete a comparison analysis from previous incidents.
10. Investigate the medical condition of the lost missing person.
11. Investigate and determine wildlife and domestic animals in the area.
12. Investigate the potential of a crime being committed.

- **Confinement Objectives:** confinement means making sure that the person you are looking for does not move out of the area you are searching. It is discussed in detail in 1.3. A typical Confinement Objective might be about patrolling an area just beyond where you are searching ('drive the roads to the north and west of the Initial Search Area').

Example Containment Objectives

Containment objectives should be based on your determination of the Initial Search Area and the theoretical, statistical distance traveled by the lost missing person. You can only complete this process once you have completed a terrain and topography analysis of the Initial Search Area. Considerations must be given to both natural and manmade paths of least resistance transecting through the ISA. Examples of Containment Objectives:

1. Contain the area based on the ability of the person to potentially travel a distance of 5 kilometers/3 miles in any given direction from the PLS using trails, corridors, both natural and manmade.
2. Confine the subject to (based on lost person behavior statistics) Shunda Creek and Highway 11 to the north and the forestry road and power line to the south.
3. Contain the area using the outer loop trail and the campground from the PLS.
4. Confine the subject within the campground, provincial/state park boundaries.
5. Contain the person based on your investigational information on the subject's health and medical condition.
6. Confine the person to the identified attractions that can be observed from the IPP.

- **Search Objectives:** these are likely to relate to an area on the map ('search the farmland between the road and the river'), or routes ('search the trails through the woods north of the camping ground', 'search the side roads off the highway'), or magnets ('search the likely fishing spots along the river'), or hazards ('search along the base of the cliffs').

Example Search Objectives

Search objectives will allow you to check the most likely areas that you have identified through your planning process. A thorough and comprehensive search of physical areas with resources in a given operational period will support where the subject has been, where they are going and additional information found within the Initial Search Area. Hasty Teams can identify hazards, observe trails, cut lines, and new disturbances on the environment within the search area. Examples of search objects:

1. Search the trail that goes from the campground and around the lake.
2. Search along the highway corridor both north and south from the campground entrance to the forestry road and back.
3. Search all cabins along the lakeshore, from the west staging area to the east road.
4. Search all infrastructure within the campground and maintenance yard.
5. Search all other campsites within the park and interview other campers found at those sites.
6. Search the hazard areas found within the Initial Search Area from the IPP.
7. Search the tent, camper, and holiday trailer at the PLS.
8. Search the subject's vehicle found at the trail head.
9. Search 300m around the wilderness campsite, abandoned Off Highway Vehicle, downed aircraft or found canoe.
10. Search x number of degrees on either side of the intended direction of travel or intended destination.
11. Search the lake within 30m of the lakeshore from the day use area.
12. Complete an underwater search of the river from the campground bridge to the lake.

1.2 Objectives and Tasks.

- a. An Objective is a major step towards achieving your Goal.
- b. Each Objective will consist of a number of Tasks; a Task is an assignment that can be given to a resource. Examples of typical Objectives and their related Tasks:

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| |
|---|
| Investigation Objective: 'Find out more about the missing person.' |
| Task 1 Find out what the missing person had with them. |
| Task 2 Find out about the missing person's medical condition. |
| Confinement Objective: 'Drive the roads to the north and west of the Initial Search Area.' |
| Task 1 Drive from the North Bridge to the crossroads and back every hour. |
| Task 2 Drive from the crossroads to the West Bridge and back every hour. |
| Search Objective*: 'Search the farmland between the road and the river.' |
| Task 1 Search all the paths. |
| Task 2 Walk the boundary fences. |
| Task 3 Search the riverbank |

*** Note: If any of your Search tasks involve searching an area then make sure that it is not too large and its boundaries are well defined. Read about Segmentation in Section VIII, Chapter C.**

1.3 Your Objectives and Tasks need to be written onto SAR Form 7. The recommended approach is to write down all your Objectives first and then break them down into Tasks. At this stage do not worry about writing down more than you think you can accomplish in a short time; what is important is that you get them written down.

- v **Investigation Objectives** – is any information missing from SAR Forms 2 and 3? Is there anywhere outside the Initial Search Area that you would check (e.g. the person's home, place of work, motels and so on). Write them down as Objectives on SAR Form 7.

You need to break each of your Objectives down into a number of Tasks – remember that a Task is an assignment that you are going to give to a resource to carry out. Write down the Tasks next to the Objective on SAR Form 7.

- ✓ **Confinement Objectives** – look at the barriers you identified around your Initial Search Area and the routes you have marked on your map. Are there any route / barrier intersections where you should establish a confinement location? What areas outside the barriers would you patrol? Write them down as Objectives on SAR Form 7.
- ✓ **Search Objectives** – look at the marks you have made on your map and read your scenarios. What areas does that tell you to go and search? Write them down as Objectives on SAR Form 7.

1.4 Prioritize your Tasks.

- a. It is unlikely that you will have enough resources to attend to all of the Tasks that you have identified straight away. You must therefore prioritize them by using the following guidelines:

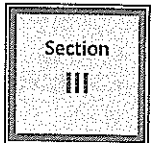
Investigation Tasks: If you think that there is important information that you still need to obtain then that will need a high priority.

Confinement Tasks: It is likely that your scenarios will give you some idea which Confinement Tasks you will give a high priority to.

Search Tasks: You gave each scenario a likelihood rating – use that to help you to decide which of them you need to assign resources to first.

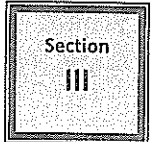
- b. Read through all the Tasks you have written on SAR Form 7. Decide which of them you think is the most important Task for you to assign resources to in order to achieve your Goal. Give that a Task Priority of 1 on SAR Form 7. Then decide which is the next most important and give that a Task Priority of 2; and so on, until you have prioritized all of the tasks on SAR Form 7.

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**Step #3: Recommended Actions**

- Write down your mission Goal (SAR Form 7).
- Read the Lost Person Behavior Statistics for this category of person.
- On SAR Form 7, write down every Objective to do with investigation, confinement, and searching that you want to accomplish in at least the First Operational Period.
- Break down each Objective into a number of Tasks.
- Prioritize all of your Tasks and give each a Task Priority number (1, 2, 3, and so on) on SAR Form 7.

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Attachment

1. Further Discussions on Investigation, Containment and Searching

A. INVESTIGATION.

"Search is a classic mystery" (Search Crucial #2).
 "Search for clues and the subject" (Search Crucial #3).
 "Search management is information management" (Search Crucial #7).

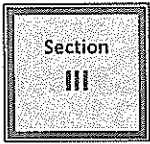
1.0 LOST, OVERDUE, OR MISSING? THERE IS A DIFFERENCE.

- ✓ A lost person is someone who does not know where he/she is, and wants help.
- ✓ An overdue person is someone the reporting party believes is late for some appointment. The overdue person may or may not be lost.
- ✓ A missing person is someone the reporting party cannot find. The missing person may or may not be lost or overdue. Other possibilities include runaways, fraud (staged disappearances), and criminal acts.
- ✓ Although most search incidents involve lost or overdue subjects, it is important to consider all possibilities when responding to a 'lost' person report. If not recognized as such, incidents involving runaways, fraud, and crimes can expend enormous energy as searchers diligently search for a 'lost' person.

Investigation efforts should not just focus on revealing clues to assist search efforts, but also on exploring the possibilities of criminal or fraudulent actions.

2.0 INVESTIGATION TACTICS:

- ✓ Consider the possibility of a crime.
- ✓ Notify the law enforcement agency having criminal jurisdiction.
 - Encourage the agency to assign a detective/investigator to the incident.
 - Request review of criminal histories of the subject, friends, associates, and involved persons.



- Evaluate the circumstances:
 - Did the disappearance occur in a wilderness setting, rural or urban area?
 - Are the circumstances logical and reasonable?
 - Does the activity, ages, types of persons, and equipment support the witness/reporting party statements?
 - What are the family, financial, and emotional situations of the missing person and the witness/reporting party?

- √ Have authorities locate and interview all persons who may be able to provide critical information, such as friends, companions, and relatives.

- √ Maintain ongoing contact with the reporting party.

- √ Protect the IPP.
 - Secure the IPP and immediate vicinity with flagging or police tape.
 - Ensure appropriate distance between the PLS/LKP and the ICP or Base, to minimize the risk of contamination associated with the incident response.
 - Limit entry into the subject's vehicle.

- √ Protect possible scent.
 - Don't allow exhaust fumes to contaminate the immediate area.
 - Don't touch possible scent articles, wait for the dog handler.

- √ Protect tracks.
 - Mark/flag any tracks discovered.
 - Protect discovered tracks for deterioration from wind, rain, drying, or trampling. Consider covering with a box or plastic.

- √ Be systematic and thorough in processing the IPP. The optimum task force configuration for this effort is:
 - Investigator.
 - Tracker(s).
 - Tracking or trailing, air scent dog team.



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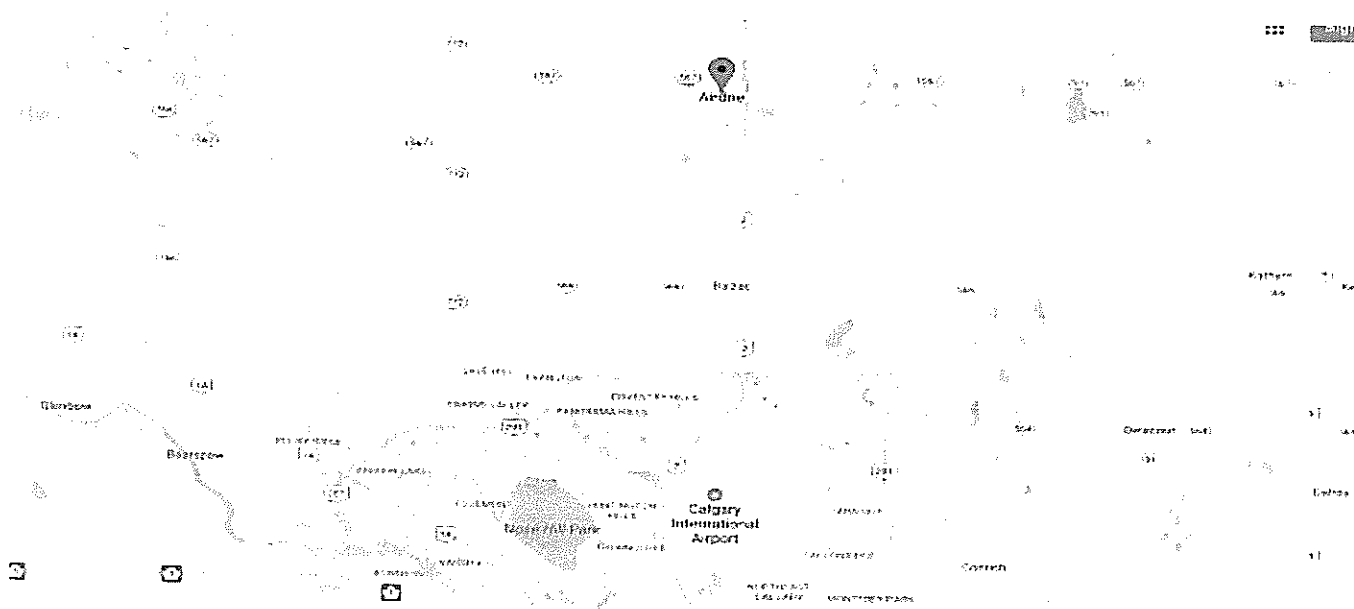
EXERCISE

CASE STUDY

On June 4th 57-year-old Dawna is a reported missing from her home in Airdrie, Alberta. A neighbor - the last person known to have seen her - states she left her apartment quickly at about 8:30 AM on June 1st. Telephone records show that on the morning of June 1st she telephoned a dentist in Calgary (45 Kilometers to the south). The dentist states she had been on prescription pain medication for a day or so but called at 8:30 AM on June 1st and complained it was not working, so his office made an emergency appointment for her at 10 AM. She never arrived.

Foul play is not ruled out, but there were no signs that anything was wrong in Dawna's apartment.

Dawna normally travels Hwy 2 to Calgary, but could also have taken Hwy 722 or Center Street. She drives a black Chevrolet Silverado pickup truck.



Assignment: as a class:

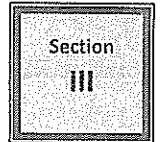
- a. Identify several Investigation objectives.
- b. Identify several Containment objectives
- c. Identify several Search objectives.

Note: Objectives should be 'SMART'.

3.0 LOCATING SUBJECT BY CELL PHONE.

- a. Attempt to contact missing subject:
 - √ Obtain missing subject's cell phone number.
 - √ Attempt to call subject. If the phone rings before going to voicemail it may be registered on a network. If it goes to voicemail, or does so only after 1 or 2 rings, it is most likely out of coverage. Of course, if it is answered ...
 - √ Send subject a text message. A text message advantage is that it is stored in a queue and delivered when the phone is on and in range - user intervention is not required. Another advantage is it may be delivered at lower signal strength than a voice call.
- b. If unsuccessful, obtain name of Wireless Service Provider:
 - √ Through family.
 - √ At <http://www.nationalpooling.com/> (click on 'Reports', then 'Block Report'), or <http://www.nanpa.com/> (in middle of page click on 'Central Office Code Reports', then 'Central Office Code Utilized Report'). Note in Canada the police complete this function through the service provider.
 - √ Or by inquiring to each Wireless Service Provider.
- c. Law Enforcement contact Wireless Service Provider's Exigent Circumstances Compliance Office. Provide:

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- ✓ Missing subject's phone number.
- ✓ Name on phone account.
- ✓ Timeframe since last known phone activity.
- ✓ Subject's expected or last known location, and/or suspected route.

d. Information that may be available:

The Wireless Service Provider can now check for any activity on the cell phone and may be able to send a signal to the phone to see if it is turned on and possibly determine the general area the phone is at by accessing:

- ✓ Call detail records (requires the expertise of a Wireless Service Provider employee to interpret).
- ✓ Location (VLR timestamp).
- ✓ Propagation maps.

INTERVIEWS THAT MADE A DIFFERENCE

1. Two men became separated from a group near the eastern boundary of the Willmore Wilderness during a violent thunderstorm. While SAR personnel were enroute, one of the two 'lost' men came out, and after taking a sedative and drinking two beers, reported that his companion was suffering from hypothermia for the second night in a row, and probably had a broken leg. He had left the injured man lying by a stream, covered with a camouflaged tarp. The reporting party was unable to pinpoint the location on a map.

During a subsequent interview the man explained how and where the two had separated from the others. The interviewer determined the fall and broken leg had occurred on a slippery slope. Studying a map, the interviewer located such terrain along two streams in the area. Meanwhile stormy weather was hampering search efforts. During a short weather window a National Parks Helicopter was able to fly to the most likely spot as determined by the interview and map analysis and found the injured man directly below. The weather closed shortly after the subject was hoisted aboard the helicopter.

2. A man on medication for Alzheimer's walked away from his home in Cochrane, Alberta. During the initial interviews his wife and neighbors stated the man consistently took daily sunset walks on a specific route and always returned home without incident. SAR teams unsuccessfully conducted searches along that route during the first operational period.

During the second operational period a follow-up interview with the wife by a different interviewer revealed that each day the couple drove to the post office – it was the highlight of his day. On the day he disappeared the couple discovered the letters to be mailed were missing when they arrived at the post office. It seems he had placed them on top of the car for some reason prior to their departure. When they arrived home, they found all but one letter near where the car had been parked. The wife went inside to start dinner, and the subject left the house to presumably take his sunset walk. Based upon this new information, teams sent to search in the direction of the prevailing winds quickly found his tracks and eventually the subject.

3. Two college students disappeared in the Kicking Horse Ski Basin after leaving their skiing companions to try out a backcountry challenge they had heard about. In the initial interview the companions stated the subjects planned to take a popular cross-country ski route south from the top of the ski lift. Assignments to search south were being implemented when one searcher reported his conversation with the companions indicated the subjects had actually intended to go north. Assignments were redone and the subjects were found a few hours later trapped in a bowl where they'd spent a very cold sub-zero night. The searcher's casual conversation with the companions probably saved their lives.
4. An elderly woman with undiagnosed memory loss walked away from her home. Family members reported she was probably at her water irrigation channel. Searches in that area all night found no clues. Individual interviews of family members on the second day revealed issues of abuse. Thinking the subject might try to return to a place where she had been happy, searches were conducted around her previous home. She was found there.

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B. CONTAINMENT.

**"Know if the subject leaves the search area" (Search Crucial #5).
"Search Management is information management" (Search Crucial #7).**

One obvious reason for containment is to prevent the search area from expanding, by containing the potential movements of the subject(s). Another, just as important purpose is to 'capture' any information entering or leaving the area. Both these considerations are discussed below.

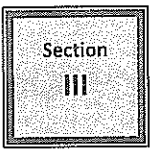
1.0 CONTAINMENT (CONFINEMENT) TACTICS.

Containment is generally one of the first tactics applied in a search response, it is often the tactic that is overlooked. One hundred percent confidence of subject containment is never possible. Containment can be active (where the searchers move) or passive (where the searchers are stationary).

1.1 Active Containment Tactics.

Active containment tactics commonly use small teams of one or more persons to patrol travel routes, track traps, and the search area's perimeter.

- a. Consider the fact that the person might still be mobile and heading out of the area; confinement tactics will be needed in order to prevent that from happening. Confinement is the term used to describe those efforts focused on limiting the growth of the search area. Logically, search area size directly influences incident complexity. The larger the area, the harder the task. Therefore, it is important to initiate confinement early in the response so as to minimize search area size. This section discusses ways to implement effective confinement efforts. (Section IX, Chapter I, for additional information).
- b. If the missing person is mobile and using travel routes, they will have the greatest ability to move away from the IPP and thus increase search area size. Confinement efforts thus should be prioritized along travel routes. This is done by identifying the location(s) where the travel



route intersects a barrier you have already marked on your map. These locations funnel the subject through confined areas. They might include mountain passes, trail junctions, river fords, and areas where the travel route moves through breaks in thick vegetation.

c. Suggested confinement tactics:

- Establish confinement locations at travel route / barrier intersections and establish a presence there.
- Use vehicles or aircraft to patrol outside your barriers.
- Set up an Observation Post or some kind of beacon (sound and / or light) in a prominent place.

1.2 Passive Containment Tactics.

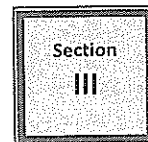
a. Passive containment tactics refer to techniques where either:

- √ The searchers are stationary, and watch for or attempt to attract the subject(s). Examples include:
 - Lookouts stationed at high points.
 - Blockers at trail junctions, passes, and similar strategic locations. Other chapters will explain how to identify these strategic locations.
- √ Information is solicited from the public. Everyone visiting the search area is a potential source of important knowledge – what they didn't see might be as important as what they saw. The information they provide can reveal where the subject(s) have AND have not been. Solicit information from these people by:
 - Stationing interviewers at park officers/ranger stations, visitor centers, lodges, parking areas, etc.
 - Directing searchers to interview everyone with whom they come in contact.
 - Placing notes on cars parked in and near the search area.
 - Posting flyers at trailheads, local businesses, etc.
 - Media publicity.

b. Many passive techniques don't require highly trained personnel, and can be appropriate tasks for friends, neighbors, and other non-trained volunteers.



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2.0 ATTRACTION.

2.1 Attraction methods can be used with both active and passive containment. Attraction methods include:

- ✓ Visual (lights, smoke, flares, etc.).
- ✓ Sound (P.A. systems, sirens, voice, blaring music, etc.). Be sure to intersperse periods of quiet listening.

CAUTION

When using attraction tactics, avoid situations that might draw the subject(s) into hazardous areas.

C. HASTY SEARCHING.

**“Search is an emergency” (Search Crucial #1).
“Search for clues and the subject” (Search Crucial #3).
“Grid search as a last resort” (Search Crucial #6).**

1.0 HASTY SEARCH TACTICS:

Utilize mobile resources to quickly move through a designated area for the purpose of scouting for clues, assessing the likelihood of the area containing the subject, and obtaining information regarding geography, vegetation, travel barriers, and travel aids.

- 1.1 Since search is an emergency, it is important to respond quickly and to locate subject(s) who may be injured. Hasty tactics facilitate these efforts.
- 1.2 Hasty search efforts focus on checking places most likely to contain the subject or clues, such as travel aids, edges of travel barriers, road shoulders, and stream banks, etc. The types of locations, number of personnel, speed of travel, and other assignment specifics will depend upon what is being searched for: footprints, odor of wood smoke, human voice, immobile/nonresponsive concealed person, etc.

1.3 Commonly used hasty search resources include small teams of one or more persons, aircraft, and air scent dogs.

1.4 Hasty Search (Ground):

- a. For ground SAR personnel, hasty searching is corridor searching. That is, the searchers travel a narrow band.
- b. Hasty searching is the opposite of grid searching. (In grid searching, searchers line-up at some pre-selected spacing, and sweep through an area as a group.)

1.5 Advantages of Hasty Search Tactics (as compared with Grid Search Tactics):

- ✓ Allows a 'quick peek' at a large amount of real estate.
- ✓ Provides the incident management team with current field intelligence (Data), critical for valid decision-making.
- ✓ Much simpler to activate, organize, supervise, and support than larger, more cumbersome grid search efforts.
- ✓ Because of quick response and mobility characteristics, hasty tactics have a greater chance than grid search tactics of finding subjects facing life-threatening risks.

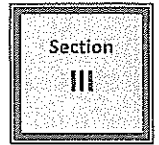
1.6 Organizational Considerations:

- ✓ Keep the group to the size necessary to accomplish the assignment. One-person teams are perfectly acceptable if supported by risk assessment and assignment considerations.
- ✓ Team size shouldn't exceed span of control, and each team should have a formally designated leader.
- ✓ Each team should be able to communicate with the ICP by radio.
- ✓ Only trained and qualified SAR personnel should be used for hasty assignments. Hasty searchers should be skilled with navigation and radio communication, be track and clue aware, and be self-sufficient for at least 24 hours in the expected terrain and conditions.

2.0 THE TACTIC OF CRITICAL SEPARATION.

2.1 Critical Separation refers to a technique whereby the spacing between searchers is adjusted so as to produce a predictable probability of detection (POD). The spacing is dependent upon terrain, vegetation, and lighting. Two searchers are said to be at Critical Separation when an object representing the target (subject or clue) is halfway between them and at the limit of visibility of each of the searchers. Critical Separation is determined in the field by each party of searchers at the start of each assignment, and then adjusted as conditions change. It is important to stress that Critical Separation is an elastic unit that is responsive to terrain and conditions of visibility. If conditions change the Critical Separation spacing can be re-determined easily.

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2.2 Critical Separation:

- ✓ Gives a theoretical POD of 50%.
- ✓ Produces a practical POD approaching 80%.
- ✓ Is determined in the field based on conditions.

2.3 Critical Separation can be utilized both for hasty and grid searching. The following are recommendations for its use in hasty searching.

- ✓ Critical Separation is a useful technique for hasty searching wide travel aid corridors such as valley bottoms and stands of open forest, and travel barrier corridors such as escarpments and brush fields.
- ✓ Limit team size to no more than eight individuals (remember the Incident Management Principle of Span of Control). A team size of six may be optimum.
- ✓ One of the team leader's functions is to control the forward movement and direction of travel of individuals, so that the team remains a unit. For this reason the leader should be situated in the middle of the line.
- ✓ Each team member must utilize a compass to maintain correct direction of travel, especially since they'll be searching by the concept of 'purposeful wandering'.
- ✓ Searchers must use the Searcher Cube, that is look up, down, and all around.

2.4 Critical Separation is demonstrated and practiced during the optional Field Lab portion of this course. It was first described in Probability of Detection (POD) Research and other Concepts for Search Management: A Collection of Papers, Featuring Critical Separation, by Dave Perkins (1989).

2.5 In 2008 Mr. Perkins refined the procedure to establish Critical Separation and the Probability of Detection for Grid Searching by a Land SAR Field Team. This refined procedure is:

- a. Upon arrival in the assigned search unit, the team selects a location they consider representative of the entire unit's terrain, vegetation, and conditions.
- b. Place an object representing the target (person, clue, etc.) in color and size in the selected location.
- c. An even number of team members gathers around the object. Each team member walk away from the object, heading in a direction directly opposed to a colleague on the other side of the object. Each involved member looks back at the object at regular intervals, until the point at which the object can no longer be seen. Each involved member determines the exact point at which the object 'disappears' from view by moving back and forth toward and away from the object. Each involved member marks this location (flagging, pole, scuff mark, etc.).
- d. One team member is designated as pacer and by pacing measures the distance between each opposing pair of markers.

- e. The average of these distances is the Critical Separation (CS).
- f. The pacer paces out the spacing between searchers at the start of the area the team is to search.
- g. Repeat the procedure when the terrain, vegetation, or conditions change.

Note: *If there are only two or three members on the team, the pair selected to determine the visibility distance should repeat the exercise at a 90-degree angle (if the first exercise was on a north-south axis, repeat it on a east-west axis). The average of the two resulting distances (north to south, and east to west) is the CS.*

3.0 SIGN CUTTING.

- 3.1 An effective hasty tactic whereby searchers check stream banks, road shoulders, snow fields, muddy areas, dusty sections of trails, and other surface features where footprints can be easily detected.

4.0 LEAPFROGGING.

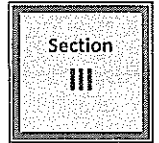
- 4.1 Intersecting the subject(s) known route of travel to locate sign.

5.0 HELICOPTERS.

- 5.1 Effectiveness of Helicopters: Deserts.

- a. John Bownds and co-workers have published results of experiments conducted in the Tucson, Arizona area to determine the POD of helicopter searches in desert areas. The area was essentially flat with scattered desert vegetation cover. It was their stated intention to produce conservative POD tables. In the experiments use was made of Huey 1H helicopters crewed by members of Detachment 1, 37th ARRS, USAF. The helicopters carried between two and four observers.
- b. The average search speed was 60 knots and at about 53 meters (175 feet) above ground level. The experiments showed that lighting conditions had a very significant influence on the POD. The Table on the next page is adapted from their results. For the interested reader, their paper also includes tables estimating the number of flying hours required to achieve a desired POD in a given area for both bright, sunny conditions and for cloudy, subdued light.

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Effectiveness Of Helicopter: Deserts

| Number of Passes | POD | |
|------------------|--------------------|---------------------|
| | Bright Lighting, % | Subdued Lighting, % |
| 1 | 31 | 65 |
| 2 | 50 | 86 |
| 3 | 63 | 93 |
| 4 | 71 | 96 |
| 5 | 77 | 98 |
| 6 | 82 | 99 |
| 7 | 85 | 99 |
| 8 | 88 | 99 |
| 9 | 90 | 99 |
| 10 | 92 | 99 |
| 11 | 93 | 99 |
| 12 | 94 | 99 |
| 13 | 95 | 99 |
| 14 | 96 | 99 |
| 15 | 96 | 99 |

5.2 Effectiveness of Helicopters: Mountains.

- a. Bownds and his co-authors conducted a second study (published in the same paper) on and around Green Mountain, also near Tucson. The area lies at elevations between 1,829 and 2,408 meters (6,000 and 7,900 feet) and is covered by a variable density of evergreen and deciduous trees. As in the earlier study use was made of Huey 1H helicopters from Det. 1, 37th ARRS, USAF. There were two or three observers on the aircraft. Search speeds varied between 20 and 60 knots and slant ranges between 61 and 274 meters (200 and 900 feet). The helicopters flew descending, contour search, and route search patterns. The experiments were conducted in sunny weather. It was noted that the actions of the 'victims' were very significant to increasing the chances of being seen. The authors determined:

- ✓ No 'lost persons' who were motionless under cover were found.
- ✓ 'Lost persons' waving and upright had a POD of 60%. 'Lost persons' lying spread eagle had a POD of 81%.
- ✓ The overall experimental POD was 67%.

b. These studies suggest aircraft (both helicopters and planes) are most productive searching non-forested areas in subdued lighting.

5.3 Tactical Considerations for Hasty Searching with Aircraft.

a. For hasty searching with aircraft during the initial response phase consider:

- ✓ Aircraft and crew must be matched to the mission. Different aircraft have different performance capabilities.
- ✓ Inexperienced spotters do not know what to look for, and lack correct mental images. They need pre-mission training for mental/target calibration. Consider providing this training by flying the new spotters over an object (such as a person) representing the search target.
- ✓ Airsick spotters are cargo and not searchers. Spotters should be selected on ability, not desire.
- ✓ Focusing aerial search on locations that might be hazardous to the subject(s).
- ✓ Assigning helicopters to search open areas (even if only small clearings interspersed in forest).
- ✓ In forest regions, consider using helicopters as logistical resources to transport searchers, rather than as search resources.
- ✓ If searching forest, try to do so when shadows are least (midday and overcast).
- ✓ Realize that the subject(s), if in the search area, will likely hear or see the search aircraft. Try methods that encourage the subject(s) to move to open areas, generate a signal, or travel toward ground searchers. Such methods include:
 - Fly the aircraft in predictable patterns. Periodically repeat flight routes. Repeatedly search the same locations, hoping the subject(s) will recognize the pattern and move to one of these locations.
 - Instruct flight crews and passengers to actively search from takeoff to landing, even on logistical flights.
 - Fly containment teams to high points. Make each flight - and each team's presence - as noticeable as possible in case the subject(s) are in the area. The containment teams should make themselves as visible and loud as possible – build a signal fire, play a boom box at full volume (interspersed with periods of listening), display a bright tarp. Have the helicopter periodically return to the containment teams to emphasize their presence.

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

Section

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TEMPORARY FLIGHT RESTRICTIONS

A Temporary Flight Restriction (TFR) is a type of Notices to Airmen (NOTAM). A TFR defines an area restricted to air travel due to a hazardous condition, a special event, or a general warning for the entire Transport Canada, FAA airspace. The incident commander or designee can request Transport Canada, FAA to establish a TFR by contacting the appropriate Air Route Traffic Control Center (ARTCC), and providing a clear definition of the area in nautical miles, the altitude affected, and reason for the TFR.

Temporary Flight Restrictions are codified in 14 CFR Section 91.137. Excerpts of which are:

- (a) The Administrator will issue a Notice to Airmen (NOTAM) designating an area within which temporary flight restrictions apply and specifying the hazard or condition requiring their imposition, whenever he determines it is necessary in order to...
- (b) Provide a safe environment for the operation of disaster relief aircraft...
- (c) When a NOTAM has been issued under paragraph (a)(2) of this section, no person may operate an aircraft within the designated area unless at least one of the following conditions are met:
 - (1) The aircraft is participating in hazard relief activities and is being operated under the direction of the official in charge of on scene emergency response activities.
 - (2) The aircraft is carrying law enforcement officials.
 - (3) The aircraft is operating under the ATC approved IFR flight plan.
 - (4) The operation is conducted directly to or from an airport within the area, or is necessitated by the impracticability of VFR flight above or around the area due to weather, or terrain; notification is given to the Flight Service Station (FSS) or ATC facility specified in the NOTAM to receive advisories concerning disaster relief aircraft operations; and the operation does not hamper or endanger relief activities and is not conducted for the purpose of observing the disaster.
 - (5) The aircraft is carrying properly accredited news representatives, and, prior to entering the area, a flight plan is filed with the appropriate Transport Canada, FAA or ATC facility specified in the Notice to Airmen and the operation is conducted above the altitude used by the disaster relief aircraft, unless otherwise authorized by the official in charge of on scene emergency response activities.

Go to www.faa.gov for additional info on TFR's, including ARTCC locations.

EXERCISE

Read the following case study and answer the questions as a team.

CASE STUDY

Yesterday afternoon 22 year old Julia reported her boyfriend, Randolph, was ill and needed assistance. She and Randolph had been returning from a day hike to the summit of Rugged Peak in the White Goat Wilderness area when he became ill. She left him in a drainage on the east side of the peak. Based on her description, you believed he was either along Blue Creek or Cascade Branch. Search teams were dispatched.

At about noon today Team 2 found Randolph in rugged Blue Creek Canyon, about 8 Kilometers (5 miles) from the road. He was suffering from dehydration and mild hypothermia. A helicopter was requested, and winched Randolph aboard at 1600 hours. It is now 1630 hours. The helicopter is at Base.

The leader of Team 2 radios that they are exhausted and request they also be flown out.

You know it would take about 8 hours for the team to hike out.

*How many people?
Time of day?*

QUESTIONS

Decide how to extricate Team 2. Strategies include:

- (1) Evacuate by helicopter. This will require a winch operation.
- (2) Evacuate by ground. This will likely extend the operation into tomorrow.

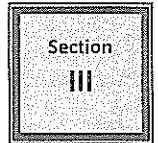
Access? Boat? ATV?

If you chose strategy (1) stop here.

If you chose strategy (2) answer the following:

- a. Select the ending times for both the current operational period and the next operational period.
Ending time for current operational period: _____
Ending time for next operational period: _____
- b. Sketch your planned organizational structure for 1900 hours this evening.
- c. List objectives for both the remainder of this operational period and the next operational period.

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

**E. STEP 4 – IDENTIFY RESOURCES NEEDED**

Each Task will eventually have a resource associated with it. You may have some resources on-scene and available to you, but it is unlikely that you will have sufficient resources to meet all Tasks.

1.0 STEP 4 - ACTIONS.

- 1.1 Decide what additional SAR resources you need, and how you will obtain them. Lost Person Behavior Statistics give you an indication of the kind of resources you need by describing the subject's likely actions.
- 1.2 See Section IX, Chapter I, for information on response resources and tactics.
- 1.3 Record on the Resources Sheet (SAR Form 4) what resources you need, where they are coming from, and when you expect them to arrive. Mark them as 'enroute' if that is the case, and write in their ETA.
- 1.4 Remember that until now you have been concerned with search and confinement resources. At this point also consider specialist resources, such as technical rescue or medical, that you may need if the subject is suddenly located. Remember that most searches are resolved in the First Operational Period, so there is a good chance rescue and medical will be needed. Include these resources on the Resources Sheet (SAR Form 4).

Step #4: Recommended Actions

- Establish what resources you are going to need to meet each of the Tasks for the First Operational Period.**
- Record them on the Resources Sheet (SAR Form 4), together with an ETA if they are on the way.**

"From this day to the ending of the world, but we in it shall be remembered; We few, we happy few, we band of brothers; For he today that sheds his blood with me shall be my brother."

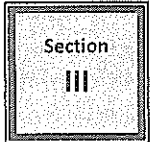
- Shakespeare, Henry the Fifth

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**F. STEP 5 – BUILD A PLAN AND A STRUCTURE**

Part of this Step is concerned with creating your SAR Plan. This will involve assigning available resources to the Tasks you prioritized in Step 3. The other part of this Step is concerned with establishing the structure that will enable you to manage the mission. This will involve setting up your Command Post and the support facilities that go with it. Likewise, you will need to establish the procedures that go with managing the mission.

1.0 STEP 5 - ACTIONS.

1.1 Designate the location of the Command Post. This is 'home' of the Incident Commander and members of the overhead team. For the Initial Response Incident Commander, the Command Post (CP) is often his/her vehicle. It can also be an office or other facility. Whatever is chosen, the Command Post location must be known to all involved personnel and agencies.

- If a vehicle, it should be stationary at one location.

Recommendation: Protect the integrity of possible clues at the IPP. Don't locate the CP (or for that matter Base or Staging Areas) at the IPP. Locate these facilities sufficient distance to avoid the IPP being overrun by curious searchers and others.

- 1.2 In addition, you may need to appoint people to fill subordinate functions or positions. (See Section IV Incident Management)
- a. The job of the IC is to manage. The IC will not be effective if he/she is busy 'doing things' and has not time to supervise, direct, and plan. The effective span of control of a supervisor is no more than seven subordinates. As IC, envision the level of complexity of the incident by the end of the First Operational Period, and structure it so that effective span of control is not exceeded.
 - b. Make the effort necessary to ensure that appointed subordinates fully understand the functions they are to perform.

- c. As a minimum, seriously consider delegating the functions of Staging Area Manager, Resource Status (Restat), and Communications to subordinates. If you do delegate, then write the names of the persons assigned on the Incident History (SAR Form 3).
- 1.3 Identify Locations for Base Camp, Staging Areas, Helispot, and other necessary facilities. Mark these on the incident map. There may be numbers of vehicles and people arriving, and there will be a need for communications. Someone will have to plan for all of this before it happens.
- 1.4 Decide which tasks can be met with the resources currently available or arriving in the near future. (Remember that you have already prioritized your Tasks on your Incident Action Plan, SAR Form 7). Assign Available Resources to Tasks (going as far down the list as you can with available resources), starting with the Tasks assigned 'Priority 1,' then 'Priority 2', and so on.
- a. Assigning a resource to a Task requires three actions:
- Make sure that the resource is appropriate for the task you are giving it.
 - Write the name of the resource that you 'tasked assigned' next to that Task on the Incident Action Plan (SAR Form 7).
 - Record the resource status as 'assigned' on the Resource Sheet (SAR Form 4).

Step #5: Recommended Actions

- Designate the Command Post, mark location on the incident map, and notify all personnel. Locate yourself there.
- Make yourself clearly identifiable as the Incident Commander.
- Delegate people to fill subordinate roles (functions) as required.
- Designate needed Base Camp, Staging Areas, Helispot, and other facilities. Mark their locations on the incident map.
- Assign resources to Tasks, starting with the Priority 1 Task.
- Record the tasked resources as 'assigned' on the Resources Sheet (SAR Form 4).

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

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"Now." said the rabbit. "This is a search and I've organized it . . ."

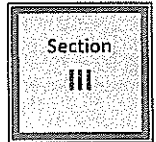
"Done what to it?" said Pooh.

"Organized it. Which means . . . well, it's what you do to a search, when you don't all look in the same place at once . . ."

A. A. Milne, 1928

K 9 - Kilo -
SAR - Sierra -
Manne - Mike -
Horse - Hotel -
Divers - Delta -

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS

**G. STEP 6 -TAKE ACTION**

Your plan is now put into operation. The resources are briefed and sent into the field.

1.0 STEP 6 - ACTIONS.

- 1.1 Brief SAR Resources before they go out to their allocated tasks (use SMEAC). They need to know:
- a. Where they are going; the area that they are to search needs to be described to them in a clear and unambiguous fashion. Particular attention needs to be paid to boundaries – do they search them or is someone else doing that? The best way to convey this information is to draw it on a map.
 - b. How they get there? What are the transport arrangements? Are there defined routes in and out of the area that need to be followed?
 - c. What do they do when they get there; how are they going to search? Will they search in an active or passive manner? Should they be primarily looking for a mobile responsive, mobile unresponsive, immobile responsive, or immobile unresponsive subject? Each of the types entails different tactics. Lost Person Behavior Statistics suggests the most suitable method for the category of missing person under which the subject falls.
 - d. What do they look for? They will need a description of the lost missing person, a name to call, and to be made aware of the importance of looking for clues.
 - e. How long have they got for their assignment? They need to be aware of the timetable for this part of the mission.
 - f. Procedures for communications, for example, call signs, codes, and channels.
 - g. What they are to do if they find the person? This should cover all eventualities, namely alive and well, injured, or deceased.
 - h. What they are to do if they find a potential clue? Do they report it and leave it, stay with it or bring it in with them?

- i. Briefing information should be provided for the SAR resources in written form (SAR Form 8A) and a copy kept at the Command Post.
- j. What documentation is expected from SAR personnel during debriefing.

2.0 DEPLOY AVAILABLE RESOURCES TO TASKS IN PRIORITY SEQUENCE.

2.1 Continue the Investigation, in particular the 'off the hill' (off site) investigation.

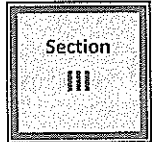
2.2 Keep a record of the SAR resources assigned to the incident, and their current disposition and location (SAR Form 4).

2.3 Debrief SAR Resources when they return. Debriefing should be based on their original brief to see the extent to which it was carried out. You need to know:

- a. Where they went. Did they cover all of the area that you had asked them to cover in their brief?
- b. What they did. Were they able to accomplish all of the search tasks that were in their brief? Did they run out of time? Was the terrain too difficult for them? If there were any areas that they were not able to search then these need to be identified and marked on the map. You will most likely want to get these searched when either conditions are more suitable, for example in daylight, or when a resources which is better suited to the task is available.
- c. What they saw, including conditions, hazards, etc.
- d. How likely do they think they would have been to see the missing person if had that person been in the area that they searched? Get them to estimate this on a scale from 0 (extremely unlikely to have seen them) to 10 (absolutely certain to have seen them) and write it on the debrief sheet. If this is either high (greater than 7) or low (less than 4) ask them for a reason and write that on the debrief sheet as well.
- e. What do they know (think)? Obtain their recommendations, suggestions.
- f. Were there any communications problems? If there is a chance that another search and rescue resource will be going into that area then you might need to put some alternative communications plan into operation.

2.4 All of this information should be recorded (SAR Form 8B) and kept at the Command Post along with the original briefing for each search resource.

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- 2.5 Put a 'tick' (checkmark) against that Task on SAR Form 7 in the last column to show that the Task was completed and the resource debriefed.
- 2.6 Think about what is going to happen next. This is covered in Section III, Chapter H, The Second Cycle and Beyond.
- 2.7 If you locate the missing person, then read the sections 'Evacuation' and 'Demobilization' found in Section III Chapter H, The Second Cycle and Beyond.

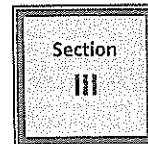
"The Incident Response Process is a logical sequence of actions and thought processes followed by the incident commander in developing and executing a plan. The purpose is to ensure the best use of time and resources in accomplishing the incident objectives. All the steps are covered, even if each takes only a few seconds. Some steps may be taken concurrently. The process is not rigid: modify it to fit the mission, situation and available time. Not all the tasks listed under each step will apply to every 'cycle' of the six step process or to every mission. Take what's useful, add to it as you gain experience. Rather than a checklist, view the six steps as a continuous process. As you complete one 'cycle' you immediately start the process again. As you gain experience you will find it becomes virtually instinctive."

-Snowshoe Thompson, 1856

Step #6: Recommended Actions

- Brief and deploy available resources to priority Tasks in accordance with your plan.
- Assign arriving SAR resources to Tasks after check-in.
- Continue with the investigation (on and off site).
- Maintain resource status.
- Prepare a written brief (SAR Form 8A).
- Debrief resources on return and keep a written record (SAR Form 8B).
- Start thinking about what you are going to do next. Read 'Continuing the Search – 1' and 'The Second Six Step Cycle' in the next chapter.

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H. THE SECOND CYCLE AND BEYOND

1.0 CONTINUING THE SEARCH, NOTE #1.

Once resources are assigned and in the field, it is time to move into the Second Six Step Cycle. Some of the information provided by the first cycle searchers will be important enough to justify adjusting current Objectives and Tasks. Other information will influence the Objectives and Tasks for the next and subsequent operational periods. Once again, you work your way through the Six Step Process, but this time you will be building on what you have already accomplished. The scale of the mission will probably change in that more SAR personnel will be involved and it may cover a wider area, but you will essentially be following the same activities as before. This is explained in the next section.

2.0 THE SECOND SIX STEP CYCLE.

Note: *Everything in this section is a 'Recommended Action'.*

2.1 Step 1 – Size up the Situation.

- a. You are once again concerned with the facts. You will need to re-assess the facts that you originally collected and wrote on the First Notice Record Sheet, the Missing Person Profile, and the Incident History.
- b. Has the Planning Point Changed from the IPP? Has there been evidence of a PLS or LKP which is more recent than the IPP? If so, then you have a New Planning Point (NPP), and if it is significantly different from the IPP then you are going to have to do a lot of the work you did in the First Six Step Cycle again (because, essentially, this becomes a new search). This will be explained as we go along. Note that by 'significantly different from the IPP' we mean that the NPP is probably outside your Initial Search Area.
- c. Have any 'new facts' come to light? A new fact could be extra information about the person, or possibly a clue that a search team has discovered. Are there any gaps in your documentation that you have not filled in yet? If there are any new facts available then do they make any difference to where you will search? If the answer is yes to that question then you will need to make some serious changes to your 'Task Priorities' in Step 5.
- d. Has Anything Happened to Change the Urgency? Re-do the Urgency Analysis if necessary.

2.2 Step 2 – Identify Contingencies.

- If you have a significantly new NPP then you will need to reconsider your barriers, magnets, routes and trails. In addition, you will need to look again at the distances missing persons have travelled, but this time based on your NPP. Bear in mind that this could change your scenarios and 'Confinement Objectives.' *↳ New Planning point*

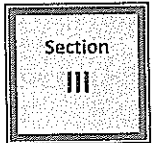
2.3 Step 3 – Determine Goals and Objectives.

- a. Does your Goal remain the same as before? If so then many of your Objectives will remain unchanged. However, if your goal has changed, or if you have a NPP, wherever it is, or if your scenarios have changed and perhaps there are now new hazardous locations or magnets that have come into play, then you should reconsider your Objectives.
- b. You may also need to reassess your Task Priorities, either to allow for any new Objectives and Tasks that you have included or to allow you repeat any Search Task that has already been completed in this Operational Period. If you need to change Task Priorities for either of these reasons then we recommend that you write out a second version of your Incident Action Plan (SAR Form 7) and mark it at the top '2nd Cycle'. This will clarify all that has happened for the Incident Commander who will take over from you.
- c. On your new Incident Action Plan, you should assign Task Priorities along the following guidelines:
 - New Tasks plus Tasks that have been completed and that are to be done again – give them a high priority (1, 2, 3, and so on). This category will also include Confinement and Investigation Tasks that you want to continue with.
 - Tasks from the previous Cycle that are not yet done – give them the next highest priority.
 - Tasks that are completed and that are not to be done again – give them a low priority.
- d. Exactly what the Priority numbers are that you give to the Tasks will depend on the number of Tasks in each of the three categories and the priority that you attach to the Tasks within each category.

2.4 Step 4 – Identify Resources Needed.

- a. Check that all the resources that are either on scene or on the way are recorded on SAR Form 4. Has any information come out of debriefing to suggest that the ground is very different

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS



from what you expected? If so, does this effect the resources that you had decided you needed in the First Six Step Cycle?

2.5 Step 5 – Build a Plan and a Structure.

- a. Is your command and control structure large enough to cope with the incident? If not, then you will have to appoint more people to subordinate functions as required. Write their names on the Incident History (SAR Form 3).
- b. Assign SAR resources to the highest priority Tasks which have not had a resource assigned to them. If you have written out a new Incident Action Plan for this Cycle then start with the Task with Priority 1, otherwise continue from the Priority number you reached when you assigned resources in the previous Cycle.
- c. Remember that there are three things to do each time you assign a resource to a Task:
 - Make sure that the SAR resource is appropriate for the task you are giving it.
 - Write the name of the SAR resource you assign to a Task next to that Task on the Incident Action Plan (SAR Form 7).
 - Record the resource status as 'assigned' on the Resource Sheet (SAR Form 4).

2.6 Step 6 – Take Action.

- a. Your SAR resources will need to be briefed before they go out and debriefed when they come back, exactly as before.
- b. Once the searching for the Second Six Step Cycle is underway, you need to think about what happens next. Read the next section, 'Continuing the Search, Note 2'.

3.0 CONTINUING THE SEARCH, NOTE #2.

- a. As a result of what has happened so far, either:
 - You locate the lost missing person. Read the following sections called 'Evacuation' and 'Demobilization'.
 - You do not locate the lost missing person and you have not yet reached the end of the First Operational Period. In this case you go into the next Six Step Cycle; you work your way once more through the section 'The Second Six Step Cycle', bearing in mind of course that you are now in a later Cycle.

- You do not locate the missing person but you have reached the end of the First Operational Period. You must ensure a smooth transfer of command occurs. The following checklist identifies the requirements of a smooth transfer of command:

b. Transfer of Command Checklist.

- All the paperwork for what has happened so far is in place.
- An Incident Action Plan for the next operational period is complete.
- You have arranged to meet with the Incident Commander for the next Operational Period to brief him/her as to what has happened so far. Include objectives, current status, safety considerations and concerns, work shifts, and need for additional resources.
- You have arranged for the SAR resources you consider necessary, to arrive at the Command Post or designated Staging Area for the start of the next Operational Period.
- You have constructed an organizational structure for the next Operational Period, and have ordered the necessary personnel to fill the identified functions. Section IV, Incident Management, Chapter B, lists the duties of the most likely functions that need to be staffed.

4.0 EVACUATION (OF THE LOST MISSING PERSON).

Note: See Section IX, Chapter M, Rescue/Recovery for further details.

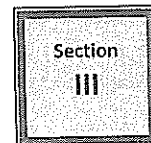
The technical details of how to treat and evacuate the lost missing person once you have located him/her are outside the scope of this handbook. But, remember, the management of the treating and evacuating of the missing person is, like all other aspects of the incident, ultimately the responsibility of the Incident Commander.

This is done by applying the Six Step Process.

4.1 Step 1 – Size up the Situation.

- What are the facts relating to the person's condition?
- Are they alive?
- Are they injured? If so, what are their injuries?
- Will they be able to walk out?
- Are any SAR specialist personnel or equipment required?
- If they are not alive, then what is the legal situation? What procedures need to be followed?

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- What are the facts relating to the find-site?
- What is the terrain? Exactly where is it?
- How easy is the access for SAR personnel and vehicles?
- What are the possible exit routes for evacuating the lost missing person?
- Who is on-scene?
- What are their capabilities?
- What equipment do they have with them?
- How good are communications with the find-site?

4.2 Step 2 – Identify Contingencies.

- Could conditions (daylight or weather) deteriorate and what difference would it make?
- How stable is the person's condition?
- What are the risks related to each contingency?

4.3 Step 3 – Determine Goals and Objectives.

- a. The Goals might be to:
 - o Stabilize any medical problems the missing person may have.
 - o Prevent deterioration of the subject's condition.
 - o Evacuate the subject(s) in a safe manner.
 - o Maintain due regard to the safety of the SAR personnel involved.
- b. Each of these Goals will have its own set of Objectives, depending on the circumstances of the incident. The Objectives for Goals (a), (b), and (c) will involve the provision of personnel and equipment as required to the find-site. The Objectives for Goal (d) will involve such things as 'waymarking' safe routes, possibly taping off any hazardous areas, the provision of safety personnel at appropriate points, and making everyone involved aware of potential problems through their briefing. Consider the risks related to each Objective, and take appropriate actions to minimize these risks (use GAR and LCES).

4.4 Step 4 – Identify SAR Resources Needed.

- The Objectives you have set will indicate what your requirements are for equipment and personnel.

4.5 Step 5 – Build a Plan and a Structure.

- a. Ensure that there are appropriately qualified SAR personnel in charge of each of the aspects

of your plan, for example Logistics, Communications, technical rescue and recovery, and the provision of medical support. Keep track of all resources so that they can all be accounted for at the end of the day (Resource Status).

- b. Do not lose sight of the fact that you may have search and confinement resources still in the field away from the find-site.

4.6 Step 6 – Take Action. Implement, Manage, and Support.

5.0 DEMOBILIZATION.

Note: See Section IX, Chapter P, Demobilization for further details.

5.1 Demobilization occurs at two levels: demobilization after the subject is found, and demobilization of individual SAR resources during the life of the incident. The first level involves the release of all SAR personnel as quickly as feasible. The second level can be conducted in a more orderly process.

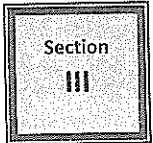
5.2 Demobilization after the subject is found essentially comes down to the following:

- Tell everyone that it is all over and that they are to return to the Command Post.
- Check that they got the message.
- Check them in when they return.
- Make sure that everyone is accounted for.
- Make sure that all equipment is accounted for.
- Check that all the paperwork is complete and is in the right form to pass over to whichever authority has need of it.

5.3 Demobilization planning begins when SAR resources arrive. Demobilization of individual SAR resources during the incident can be managed using the following guidelines:

- Ensure that all SAR resources arriving at the incident are checked-in by someone performing the duties of Resource Status.
- Resource Status (Restat) should obtain the extent of availability for each individual. Individual SAR volunteers may only be help for a certain period before they have to return to job or family commitments. Agency personnel may have also have time constraints.

III. INITIAL RESPONSE (WILDERNESS) USING THE SIX STEP PROCESS



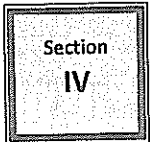
- Resource Status (Restat) must track these time limitations, and be sure they are reflected in Incident Action Plan assignments.
- Individuals needing to leave should be advised well in advance of their release times, and notified of the process they must follow before leaving the incident.

Remember: As Incident Commander a prime responsibility is to ensure that everyone is accounted for at the end of the Operational Period. You cannot go home until the location and status of all searchers is determined.

NOTES

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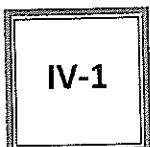
IV. INCIDENT MANAGEMENT



Section
IV. INCIDENT MANAGEMENT

- A. INCIDENT MANAGEMENT PRINCIPLES**
- B. COMMON FUNCTIONS FIRST OPERATIONAL PERIOD**
- C. KEY FACTORS FACILITATING AN EFFECTIVE INCIDENT ORGANIZATION**

vAugust 2017



IV. INCIDENT MANAGEMENT

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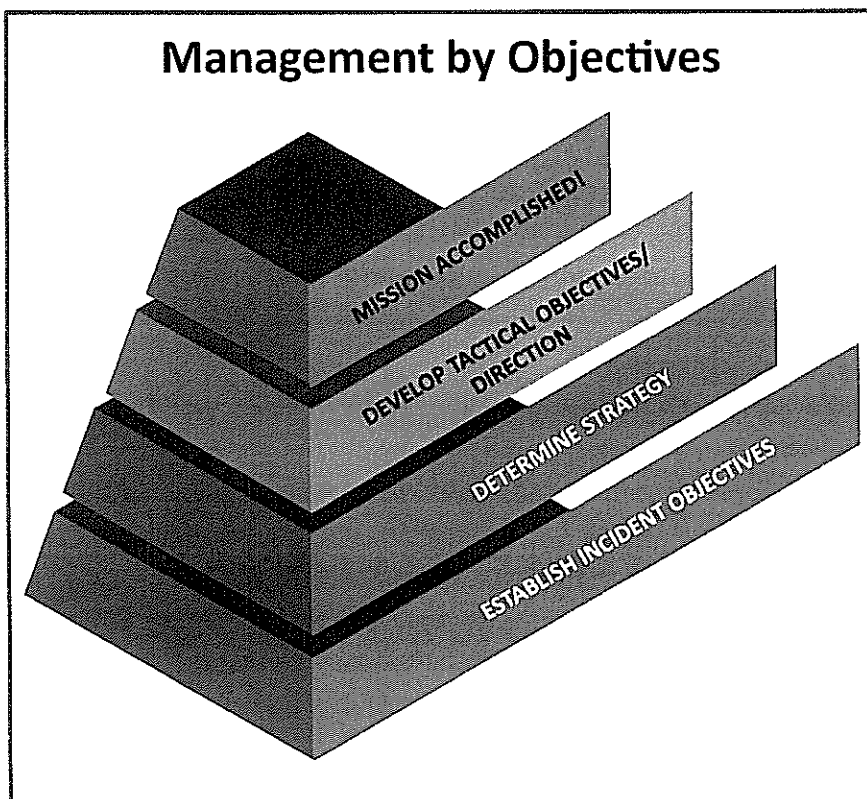
A. INCIDENT MANAGEMENT PRINCIPLES

The concepts discussed below provide the foundation for effective incident management. These principles have been tested and proven over time during incident response. These principles are applied and integrated throughout this course, and are the same as those recognized by the Incident Command System (ICS).

1.0 MANAGEMENT BY OBJECTIVES (MBO).

1.1 MBO is a process whereby all efforts are focused on achieving an articulated purpose. MBO covers four essential steps that should take place on every incident regardless of size or complexity:

- Understand agency policy and direction.
- Establish incident objectives.
- Select appropriate strategy.
- Establish tactical direction.



2.0 UNITY AND CHAIN OF COMMAND.

| | |
|------------------|---|
| Unity of Command | Every individual has one and only one supervisor. |
| Chain of Command | An orderly line of authority within the ranks of the organization with lower levels subordinate to, and connected to, higher levels. |

3.0 ESTABLISHMENT AND TRANSFER OF COMMAND.

3.1 The failure of the Agency Having Jurisdictional (AHJ) to formally designate an incident commander (IC), or the failure to notify all involved personnel and other agencies of such designation, can cause breakdowns in command and control, communications, and thereby in unity and chain of command.

3.2 Establishment and transfer of command is achieved by practicing the following guidelines:

- a. The first representative of the agency having jurisdictional to arrive on scene automatically assumes the responsibilities of Incident Commander (IC), and so notifies all other incident personnel, his/her agency dispatch, and agency executive.
- b. The initial IC retains command until formally relieved by his/her supervisor or other authorized person. The initial IC does not relinquish command upon the arrival of a supervisor. The supervisor must make a definite declaration (accept command) for such a change in command to occur.

3.3 ~~Command changes should be considered when:~~

- ~~Incident complexity changes.~~
- ~~Jurisdictional interest changes~~ (such as a search area expanding into an adjoining county, National Park, etc).
- ~~As part of normal turnover of personnel on long or extended incidents.~~
- ~~It otherwise makes good management sense.~~
- ~~A more qualified person from the AHJ arrives on the scene.~~

3.4 A change of command requires that notifications of such command change is made to:

- Current and replacement incident commanders.
- All incident personnel (command staff, general staff).
- All involved agencies (assisting and cooperating).

IV. INCIDENT MANAGEMENT

Section
IV**TRANSFER OF COMMAND STEPS**

1. The outgoing IC should brief the incoming IC in person. This should take place at least one hour to 30 minutes before the new IC takes command.
2. The briefing should cover:
 - Incident history (what has happened).
 - Priorities and objectives.
 - Current plan.
 - Resource assignments.
 - Incident organization.
 - Resources ordered/needed.
 - Facilities established.
 - Status of communications.
 - Any constraints or limitations.
 - Incident potential.
 - Delegation of Authority.

The ICS Form 201 can be a useful tool to facilitate transfer of command briefings, especially during the early stages of an incident prior to development of a formal IAP.

3. Time of transfer of command determined.
4. Notice of transfer of command made to:
 - Agency headquarters.
 - All incident personnel.
 - Other involved agencies.
5. The future role of the outgoing IC determined:
 - Released,
 - Reassigned to a different function, or
 - Returning as IC next Operational Period.

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A. INCIDENT MANAGEMENT PRINCIPLES

4.0 FLEXIBLE AND MODULAR ORGANIZATION. (SEE ICS ORGANIZATIONAL CHART ON NEXT PAGE.)

- 4.1 The organizational structure develops in a modular fashion based upon the size of the search and rescue mission. The organization at any given time should reflect only what is required to meet planned mission goals and objectives, and incident complexity.
- 4.2 The size of the current organization and that of the next operational period is determined through the incident planning process. The Operations Section Chief advises the IC on span of control and organizational structure.
- 4.3 Organizational functions should be activated only as needed. Each activated function must have a person in charge of it. Functions, which have been activated and are clearly no longer needed, should be deactivated to decrease organizational size.

The organization should develop from the top down. 'Top down' means that, at the very least, the command function is established. The first arriving supervisor, commander or manager assumes the responsibilities of the incident commander and starts organizing the incident. As the incident's management needs dictate, additional responsibilities in other functional areas may be assigned below the IC. Prior to the IC delegating functional responsibility to other functions, he or she is responsible for those functions.

"The aim (of education) must be the training of independently acting and thinking individuals who, however, can see in the service to the community their highest life achievement."

- Albert Einstein

- 4.4 Under the Incident Command System (ICS), the organizational structure may include five functional areas:

| | |
|---|---|
| Incident Command <i>(Who is in charge?)</i> | Responsible for overall command of the incident. May include command staff positions for: Safety, Public Information, Agency Liaison, Family Liaison, Scribe. |
| Operations <i>(What is being done?)</i> | Responsible for implementing the incident action plan all tactical operations at the incident. |

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IV. INCIDENT MANAGEMENT

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| | |
|---|---|
| Planning <i>(What has happened? What is happening? What will happen?)</i> | Responsible for collection, evaluation, dissemination, and use of information about incident development (situational awareness) and the status of resources. Will develop objectives for additional operational periods. |
| Logistics <i>(What is needed?)</i> | Responsible for providing facilities, services, and materials to the incident. |
| Finance/Administration <i>(Paperwork and costs?)</i> | Responsible for all costs, claims, person hours, contracts and financial considerations of the incident. |

- 4.5 Under modular organization, the incident can shrink or expand depending on the magnitude of the incident, or operational necessity (incident complexity). The specific organizational structure is based on the management needs of the incident.

The number of persons assigned management responsibilities change, but the number of functions that must be completed does not change.

No matter the size of the incident, all critical functions must be completed.

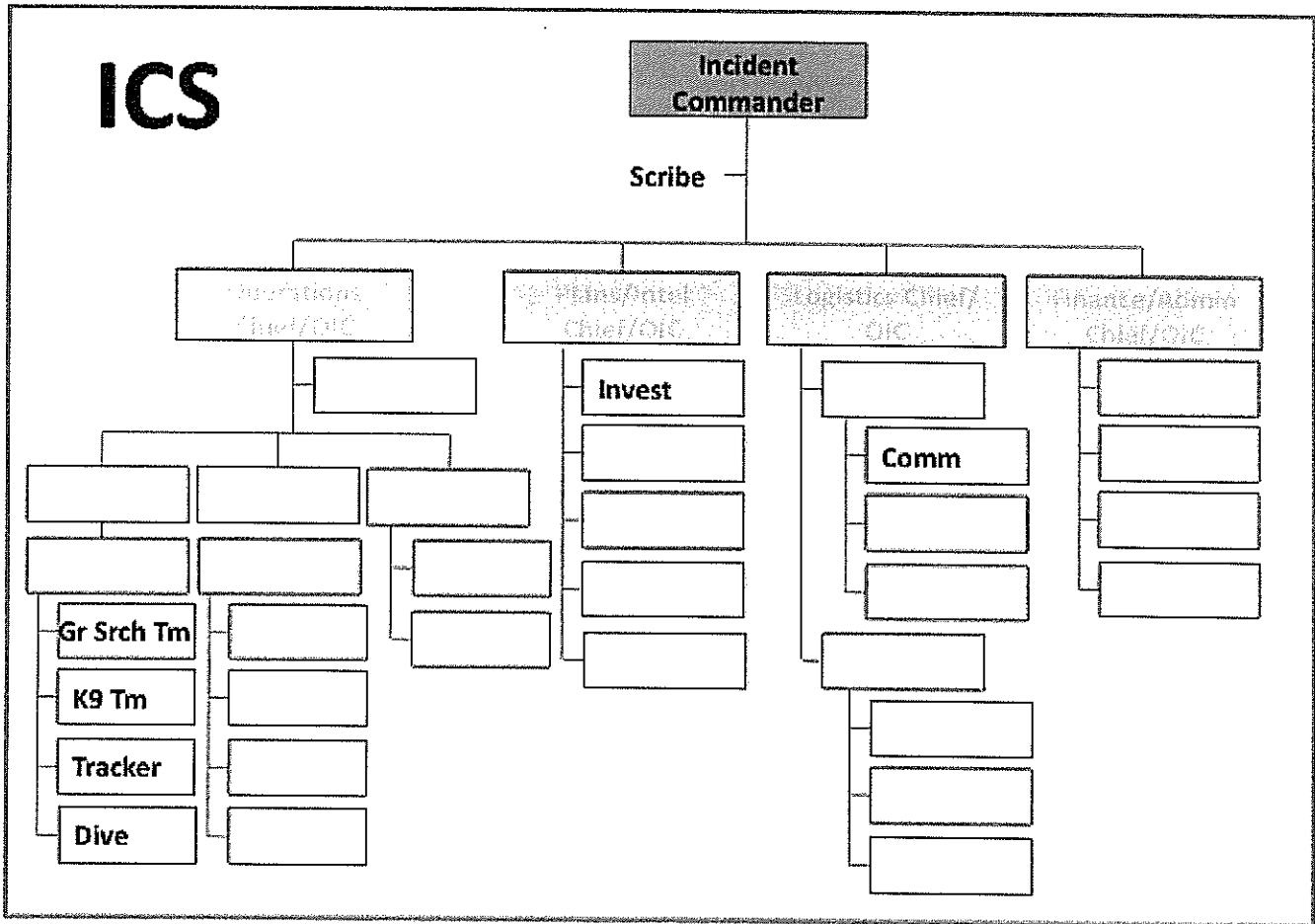
On smaller incidents, one person may be responsible for multiple functions, i.e. the IC (one person) performs all functions. When a second qualified person arrives to assist, the IC delegates functional responsibility.

Section IV

A. INCIDENT MANAGEMENT PRINCIPLES

4.6 This is an example of a simple ICS Chart with the Incident Command filling all the roles, functions, and responsibilities of the 'overhead team'.

Note: The incident organization expands or contracts depending upon (incident complexity) the magnitude of the response and the number of responders present or expected.

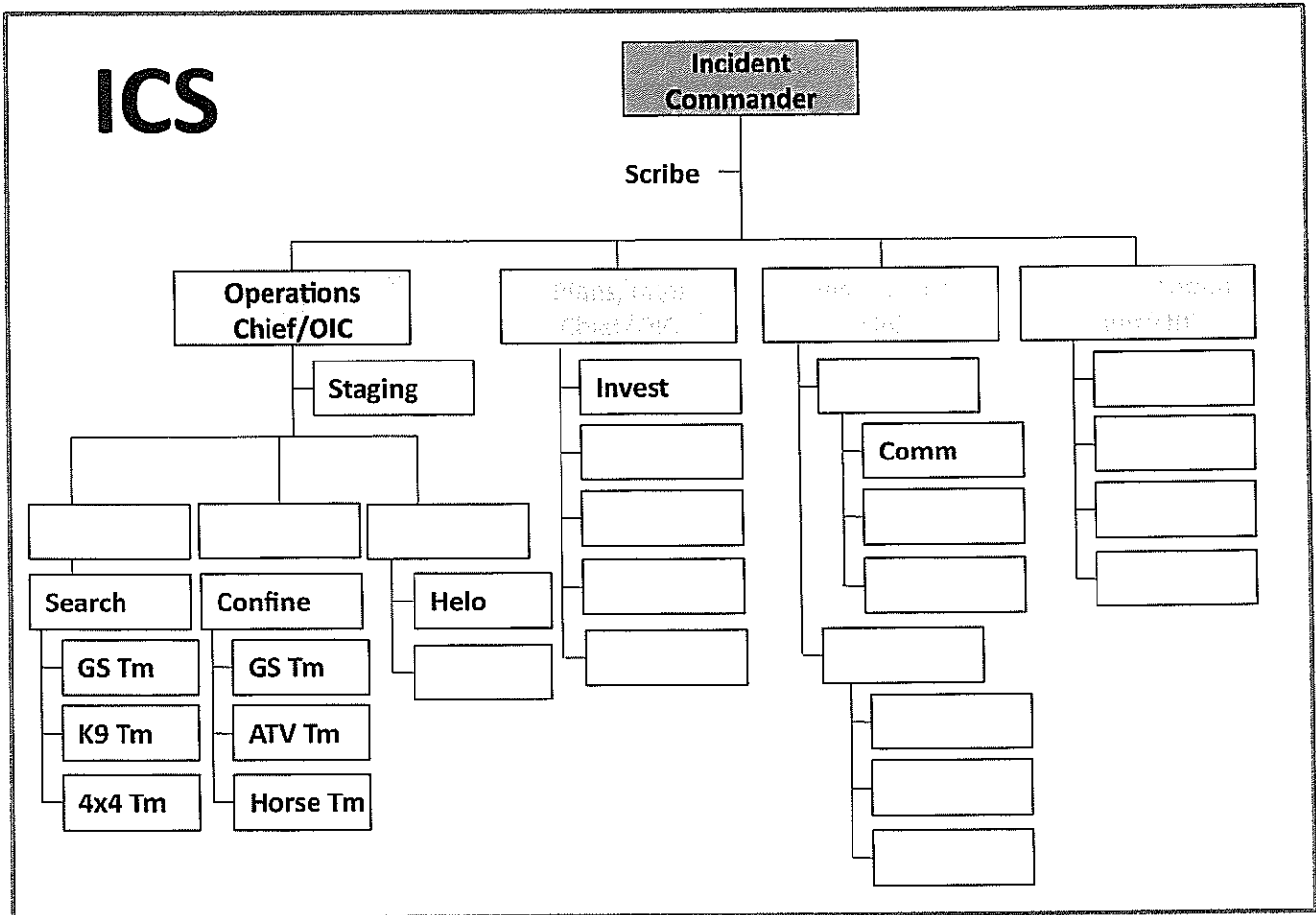


IV. INCIDENT MANAGEMENT

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4.7 This is an example of a mission that has expanded. The Incident Commander has now appointed an Operations Chief.

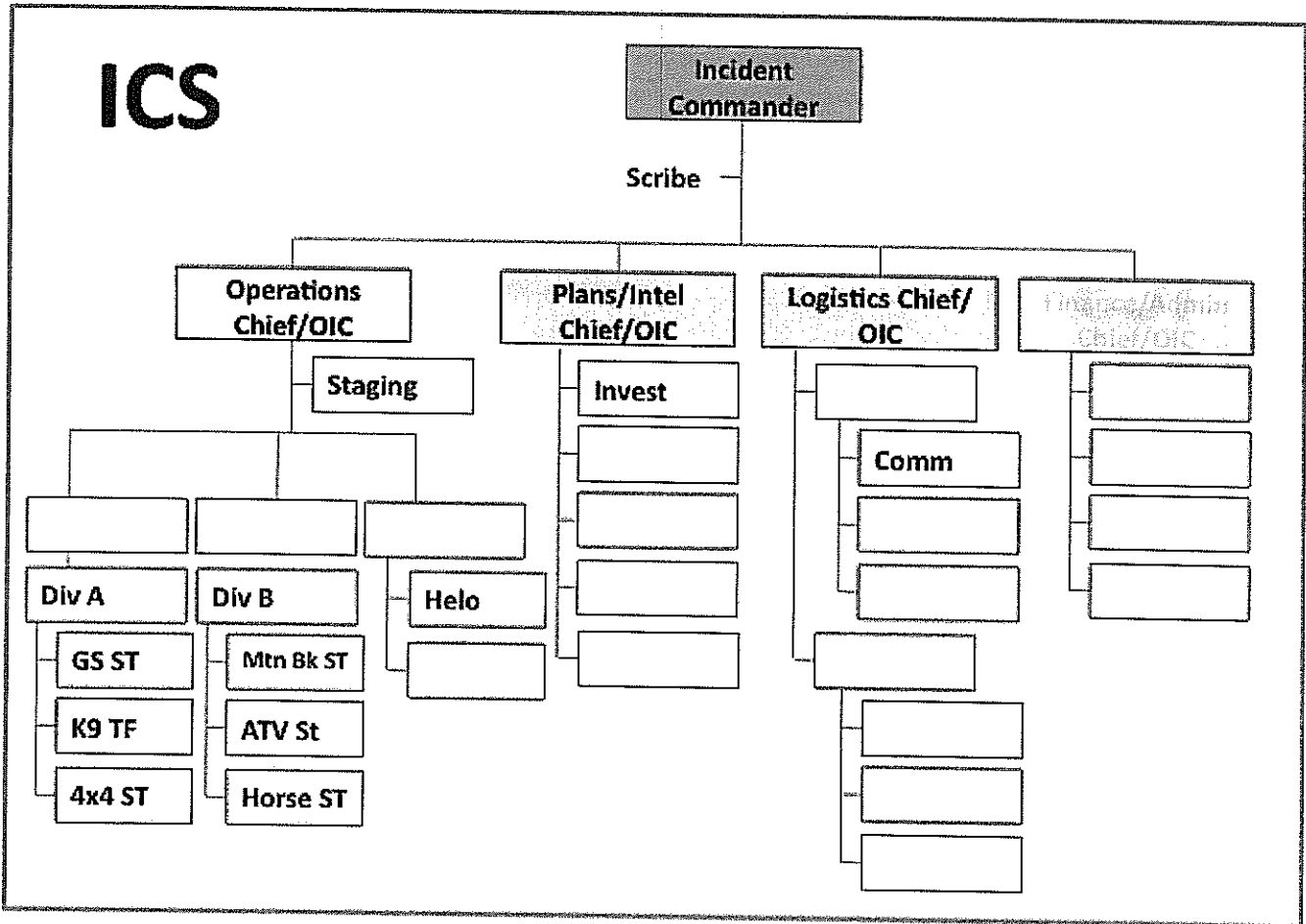
Note: *The incident organization expands or contracts depending upon (incident complexity) the magnitude of the response and the number of responders present or expected.*



Section IV

A. INCIDENT MANAGEMENT PRINCIPLES

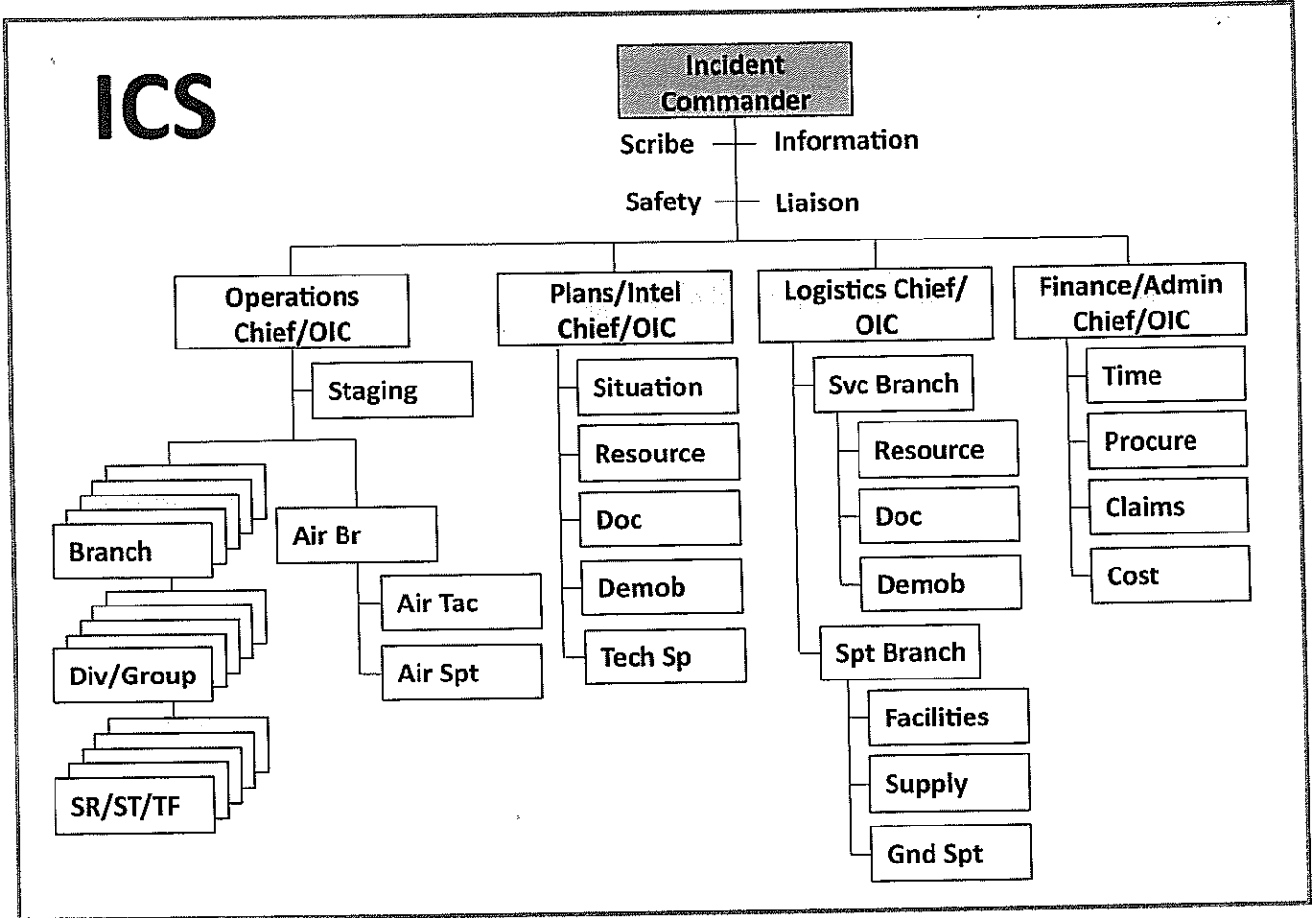
4.8 This is an example where the incident has expanded even more, and more duties, roles, and responsibilities, have been delegated by the Incident Commander. He/she has retained the Finance and Administration role.



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IV. INCIDENT MANAGEMENT

4.9 This is an example of a full ICS organization.



The Organization...

(Management Structure)

Successful search and rescue management depends upon the efficient and effective utilization and **organization** of available and potential resources applied to the problem of searching for missing people.

Everyone, including the searcher, needs to know...
where they fit in!

5.0 UNIFIED COMMAND.

5.1 The concept of unified command simply means that all agencies that have a jurisdictional responsibility at a multi-jurisdictional search and rescue mission contribute to the process of:

- Determining overall search and rescue objectives.
- Selection of strategies.
- Ensuring that joint planning for tactical operations will be accomplished.
- Ensuring that integrated tactical operations are conducted.
- Making maximum use of all assigned resources.
- Agreement on organizational structure.
- Choosing an Operations Section Chief.

5.2 A unified command structure could consist of key responsible officials from each jurisdiction in a multi-jurisdictional situation, or it could consist of several functional groups within a single political jurisdiction. It could also invite the advice of individuals or agencies having functional expertise or capability, including the private sector.

5.3 To make this work, the Unified Command 'team' must be co-located and in constant contact. Common objectives, strategies, and tactics on major multi-jurisdictional search and rescue missions should be written. The objectives, strategies, and tactics then guide development of the search and rescue plan (IAP).

5.4 Under Unified Command, the following always applies:

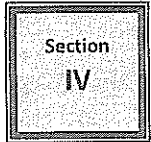
- The incident functions under a single, coordinated Incident Action Plan.
- One Operations Section Chief has responsibility for implementing the Incident Action Plan.
- One Incident Command Post or Emergency Operations Center is established.
- Single ICS organizational structure.

6.0 MANAGEABLE SPAN OF CONTROL.

6.1 Safety factors as well as sound management planning both influence and dictate span of control considerations. In general, the span of control of any individual with search and rescue management responsibility should range from three to seven people - with five being established as the general optimum. Of course, there will be exceptions (e.g., an individual team leader can have more than five personnel under supervision).

6.2 The nature of the task, hazard and safety factors, and distances among functions will influence span of control considerations. The operations section chief advises the IC on span of control as the operations section builds from the ground up.

IV. INCIDENT MANAGEMENT



7.0 COMMON TERMINOLOGY.

- 7.1 Whether discussing search and rescue team assignments or ordering resources, members of the SAR community must be able to communicate clearly with each other.
- 7.2 The Incident Command System (ICS) establishes common terminology for functions, personnel, resources, equipment, and facilities.
- 7.3 Radio transmissions are conducted using clear text (plain language), without 'ten' codes or agency specific codes. There may be specific codes for finding the lost missing subject and his/her medical condition.

8.0 INCIDENT ACTION PLAN (IAP).

- 8.1 The IAP is a plan for finding the lost, missing subject. Every search and rescue mission needs some form of an incident action plan. Use the forms located in this manual for documenting the search and rescue effort. All search and rescue missions require documentation. Incident action plans should be written and form the basis of a case management system.
- 8.2 A formal, written IAP consists of the objectives, strategy, and tactics along with an organizational chart, divisional assignments, and maps. Larger search and rescue missions may require additional attachments such as a communications plan, rescue plan, medical plan, transportation evacuation plan, and a demobilization plan.
- 8.3 The purpose of the IAP is to provide all incident supervisory personnel with appropriate direction for future actions. It must be dynamic, flexible, and should be prepared on an operational period basis. An IAP should address four items:
 - Goals.
 - Objectives.
 - Assignments.
 - Any other support information important to the incident, i.e. maps, communications, weather, subject profile, etc.

9.0 INTEGRATED COMMUNICATIONS.

- 9.1 Communications at the scene should be managed through the use of a common communications plan and an on-scene communications center established solely for the use of tactical and support resources assigned to the SAR mission. All communications among organizational functions at a search and rescue mission should be easy to understand (plain text) or comprehend. No '10' codes

A. INCIDENT MANAGEMENT PRINCIPLES

should be used, but a specific code(s) for use when locating the subject and communicating his/her condition should be used. All communications should be confined only to essential messages.

- 9.2 The Communications Unit is responsible for all communications planning at the search and rescue incident. This will include incident-established radio networks, on-site telephone, public address, and off-site telephone/ cell phone, smartphones, satellite phones / radio systems (UHF, VHF).

10.0 DESIGNATED INCIDENT FACILITIES.

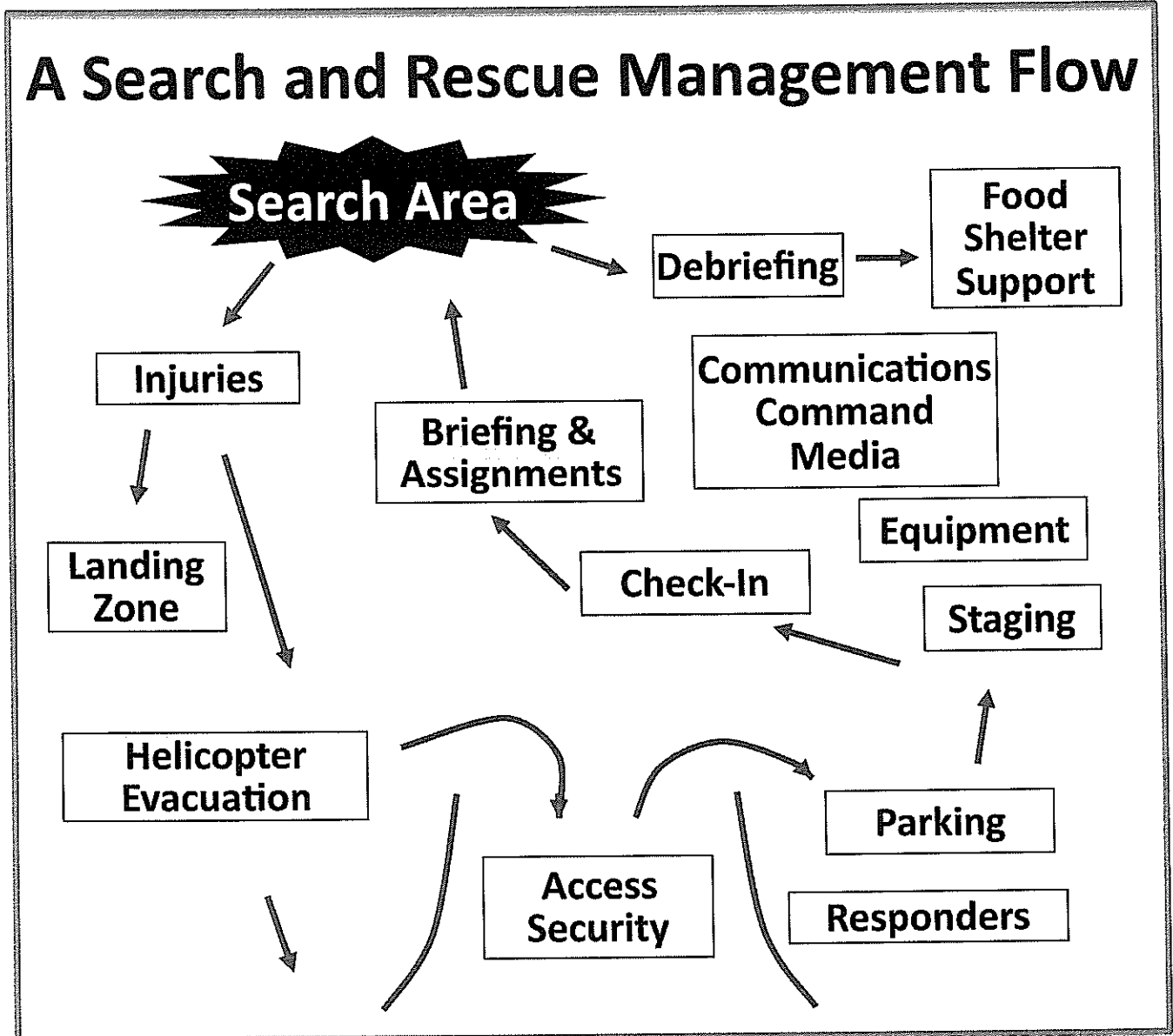
- 10.1 Command post, base camp, staging areas, heli-spots, and other facilities should be clearly designated and marked.

11.0 COMPREHENSIVE RESOURCE MANAGEMENT.

- 11.1 SAR resources should be organized to maximize their use, to reduce communications load, to provide effective supervision, to provide accountability, minimize freelancing, and enhance personnel safety.

Key Elements For Success In SAR Operations

1. **Good coordination of resources - use the right people and physical resources to do the job.**
2. **Communications - be able to talk to everyone in the field.**
3. **Good management practices - Delegate and Manage!**



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IV

A. INCIDENT MANAGEMENT PRINCIPLES

NOTES

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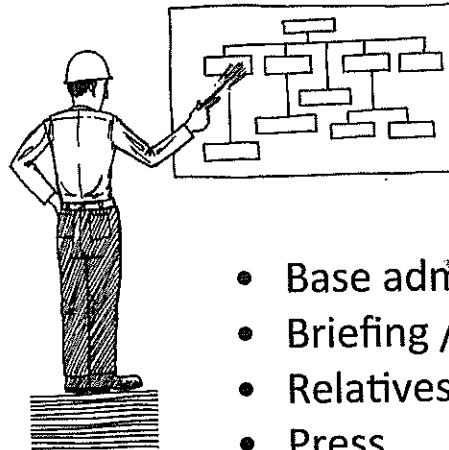
SEARCH AND RESCUE MANAGEMENT

B. COMMON FUNCTIONS FIRST OPERATIONAL PERIOD

A function is a grouping of related tasks and is an example of the management principle of modular organization. Function is not synonymous with person. Within workload constraints, one person can perform the duties of multiple functions. For instance, until he/she delegates them, the Incident Commander (IC) performs all the functions of incident management. The following charts list the duties of the more common functions filled in the first Operational Periods.

The Organization

*Think function –
not people*



- Coordination
- Search manager
- Investigation
- Support services
- Plans
- Operations
- Communications

- Base administration
- Briefing / Debriefing
- Relatives
- Press
- Political
- Criminal
- Replacing personnel
- Documentation

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B. COMMON FUNCTIONS FIRST OPERATIONAL PERIOD

| | |
|--|---|
| <p>Incident Command (On-Scene Management) is responsible for:</p> | <ul style="list-style-type: none"> • All on-scene activities. • Minute to minute decisions. • Establishing 'CP' site. • Establishing consensus from the 'overhead team.' • Carrying out policy, etc. • Establishing communications with the dispatch or local responsible agency main office. • Maintaining situational awareness. • Approving the Incident Action Plan. |
| <p>Operations is responsible for transforming search and rescue objectives, strategies, and tactics into on-scene SAR actions plus:</p> | <ul style="list-style-type: none"> • Carrying out tactical activities. • Committing resources. • Doing what needs to be done now - air - water - ground. • Operations implements the tactical aspects of the Search and Rescue Action Plan and assigns operational work assignments (tasks) based on the contents of that Plan. All operational decisions are made to reflect and support the Incident Action Plan and its SAR objectives. |
| <p>Planning is responsible for:</p> | <ul style="list-style-type: none"> • Getting information about: <ul style="list-style-type: none"> – What has happened? – What is happening? – What will likely happen? – What are you going to do? • Resource information management: <ul style="list-style-type: none"> – Inventory of all resources. • Maps, records, photos, meteorology, etc. • Briefing/debriefing. • Establishing strategy. • Demobilization. |
| <p>Liaison is responsible for:</p> | <ul style="list-style-type: none"> • Getting the right resources from other agencies, organizations, and jurisdictions to do the job. Working with cooperating and assisting agencies. |
| <p>Finance / Administration is responsible for establishing costs for:</p> | <ul style="list-style-type: none"> • Damage survey (lost or damaged property). • Resource costs (actually used). • Injury claims/compensation. • Person/hours/days. • Documentation and logs. • Cost accounting figures for resources to be used. |

IV. INCIDENT MANAGEMENT

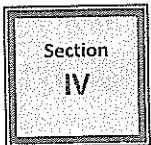
| | |
|--|---|
| <p>Family Liaison Duties.</p> | <ul style="list-style-type: none"> • Develops rapport with family members. • Knows location of key family members at all times. • Serves as primary link between family and incident personnel, media, and others. • Keeps family informed of current and planned actions, relays family concerns, perspective, and ideas to IC. |
| <p>Helispot/ Helibase Manager.</p> | <ul style="list-style-type: none"> • Responsible for safety at helicopter landing area. • Manifests and loads personnel and cargo. • Fuel and maintenance of helicopters. |
| <p>Logistics provides facilities, services, and material in support of the incident. In the early Operational Periods, these duties commonly include:</p> | <ul style="list-style-type: none"> • Organizing the Command Post. • Developing the Communications Plan, and obtaining necessary radios, cell phones, and smart phones. • Obtaining vehicles, providing transportation, both on and off road. • Providing food, sanitation, and accommodations to incident personnel. • Processing and filling requests for additional resources. |
| <p>Public Information Officer (PIO).</p> | <ul style="list-style-type: none"> • Coordinates public information activities with the jurisdictional agency. • Establishes single incident information center. • Prepares information summary and press releases. • Manages all social media, Facebook, twitter, Pinterest, snapchat, Instagram, etc. • Observes constraints on the release of information imposed by IC. • Arranges for meetings between media and incident personnel. • Provides escort services to the media and VIP's. |
| <p>Restat Duties. 'Restat' is an acronym for 'Resources Status'.</p> | <ul style="list-style-type: none"> • Restat is part of the Planning function. • Tracks the status of all resources as either 'assigned', 'available', 'enroute' or 'out of service.' • Identifies anticipated needs, including additional resources, and support services. • Determines the projected impact of additional resources responding to the incident. |
| <p>Sitstat Duties. 'Sitstat' is an acronym for 'Situation Status.' Sitstat is responsible for the collection and organization of incident</p> | <ul style="list-style-type: none"> • Sitstat is part of the Planning function. • Responsible for the currency of information on the incident map. • Facilitates the collection and assimilation of debriefing information. • Monitors the incident's organizational structure. Responsible for making recommendations to the IC regarding enlarging and |

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B. COMMON FUNCTIONS FIRST OPERATIONAL PERIOD

| | |
|--|--|
| <p>status and situation information.</p> | <p>contracting the structure, based on span of control considerations.</p> |
| <p>Staging Area Manager. Responsible for managing all activities within a staging area.</p> | <ul style="list-style-type: none"> • Establish staging area layout. • Establish check-in function as appropriate. • Forms single resources into SAR task forces, SAR strike teams, and other SAR teams. • Obtain and issue receipts for equipment and supplies distributed and received at staging area. • Report resource status changes as required to operations section chief and resource unit leader. • Demobilize staging area in accordance with incident demobilization plan. |
| <p>Additional separate functions to consider:</p> | <ul style="list-style-type: none"> • Safety – Risk, Hazard Vulnerability Analysis. • Technical Analysis - Special problems. • Investigation, intelligence services. |

IV. INCIDENT MANAGEMENT



C. KEY FACTORS FACILITATING AN EFFECTIVE INCIDENT ORGANIZATION

1.0 AN EFFECTIVE INCIDENT COMMANDER. (ALSO SEE THE EFFECTIVE SAR TEAM LEADER, SEE 6.0 BELOW.)

- 1.1 The Incident Commander (IC) is responsible for achieving incident objectives and managing the organization.
- 1.2 An effective IC is proactive, decisive, objective, calm, a quick thinker, and able to motivate, trust, and support the SAR incident management team.
- 1.3 Section IX, Chapter J, Evaluating the Health of a SAR Response, provides a checklist of items by which the Incident Commander can measure his/her performance of the above responsibilities, and overall response effectiveness.

2.0 DELEGATION OF AUTHORITY.

A delegation of authority establishes the authority and limits of discretion for the Incident Commander. It is issued verbally or in writing by a higher authority (generically called agency administrator or executive), such as a supervisor, agency manager, chief elected official, or chief executive officer. The agency administrator can only delegate authorities within his or her scope of responsibility, and it does not relieve the agency administrator of the ultimate responsibility for the incident. A delegation of authority simply authorizes the Incident Commander to perform within specified limits under the supervision of the agency administrator.

2.1 When is delegation of authority needed?

- a. A delegation of authority is usually not necessary when the Incident Commander is an employee of the agency of jurisdiction, and is acting within his or her existing authorities.
- b. A delegation is recommended when the Incident Commander is managing an incident that crosses jurisdictional boundaries, agency policy.

Section
IV**C. KEY FACTORS FACILITATING AN EFFECTIVE INCIDENT ORGANIZATION**

- c. A delegation is required when the incident is outside the Incident Commander's home jurisdiction, is complex or beyond existing authorities, or required by law or procedures.

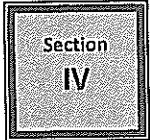
2.2 Delegation of authority described.

- a. A delegation of authority is commonly a one-page memo to the Incident Commander, signed by the Agency Executive or Administrator.
- b. The delegation addresses such issues as:
- Formal authority for the Incident Commander to act for the Agency Administrator.
 - The actual duties of the incident command staff, and the product expected by the Agency Administrator.
 - Post-incident products to be submitted (final documentation and report, financial package, etc.).
 - Establishes limits for activities such as:
 - ✓ Levels of expenditure.
 - ✓ Purchasing procedures.
 - ✓ Media contacts and press releases.
 - ✓ Resource protection (felling trees for heli-spots, location, and restoration of camps, etc.).
 - ✓ Investigative actions.
- c. The example Delegation of Authority presented on the following page is provided in a generic format that can be utilized on an actual search incident.

2.3 Delegation of authority responsibility.

- The identification of the need for and preparation of the delegation of authority is the responsibility of the Incident Commander. Of course, the specifics of the document should be developed in consultation with the Agency Administrator.

IV. INCIDENT MANAGEMENT



MEMORANDUM

To: _____

From: _____

Subject: Delegation of Authority

The following limited Delegation of Authority is hereby given to you to manage all efforts in this jurisdiction related to the search for _____. The authority covers the period beginning _____ hours on _____. You have full authority and responsibility for managing incident activities within the framework of law, regulation, agency policy, this Delegation, and guidance provided in initial and subsequent meetings.

Specific direction and management considerations for this incident are:

1. I appoint _____ to serve as my Agency Advisor. She/he has full authority to make decisions in my stead.
2. For the safety of incident personnel and the public, identify hazards and assess and mitigate risks before taking actions.
3. Ensure all actions are based on clearly established objectives.
4. Work with agency staff to ensure all incident operations are in compliance with all laws, regulations, and policies.
5. You are authorized to request and obtain resources from outside this agency, as long as such resources do not require the obligation of agency funds.
6. You are not authorized to obligate agency funds. All such obligations require the specific approval of my Agency Advisor, or me and upon approval must follow normal agency purchasing procedures.
7. Record and document all plans, actions, and assigned personnel; and provide a complete documentation package prior to your departure.
8. Provide accurate and timely information to incident personnel, cooperating agencies, family, media, and the public.
9. Media interviews will be provided by:
 - Yourself, or a designated member of your team (or),
 - _____ (name & title).
10. Agency personnel may be assigned to the incident only upon my approval, or that of my Agency Advisor.
11. Prepare a list, to be used for letters of appreciation, of any cooperative agencies, and their personnel that are assigned to this incident.
12. Ensure that incident facilities and equipment are cleaned, refurbished, and returned to good order prior to final demobilization.
13. Notify me or my Agency Advisor immediately of the following:
 - Discovery of significant clues,
 - Discovery of subject,
 - Injuries requiring transport to a medical facility, fatality, or accidents involving property damage in excess of \$_____.
15. Meet with me personally for a closeout meeting prior to your departure.

Agency Administrator

Date



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C. KEY FACTORS FACILITATING AN EFFECTIVE INCIDENT ORGANIZATION

3.0 THE INCIDENT COMMAND POST.

3.1 Every incident has an Incident Command Post (ICP). It may be as simple as the hood of a vehicle, or more complex such as a command tent, mobile command center (RV), or a convenient fixed structure. It is the office of the IC and his/her key staff.

3.2 The ICP provides a working space for the IC and key staff to perform their work functions. Considerations:

- There is only one ICP.
- The Command Post should be isolated from the noise and confusion associated with the incident.
- The Command Post needs effective communication capability.
- A status board or maps in the Command Post are helpful.
- A view of the incident is preferred but not essential.
- Everyone on the incident needs to know the ICP's location.

4.0 RECOGNIZING INCIDENT PRIORITIES.

4.1 There are three major incident priorities:

- Life safety.
- Incident stabilization.
- Property conservation and the environment.

4.2 The first priority is always the life safety of the emergency response personnel and the public.

Life Safety Must Come Before All Other Priorities.

4.3 The second priority is incident stabilization. The IC is responsible for determining the strategy that will minimize the effect the incident may have on the surrounding area. A course of action must be identified to minimize the overall effect of the incident, and the resources to control the incident must be managed. Routine incidents usually require minimal effort, whereas complex incidents require greater command and control.

4.4 The third priority is property conservation and the environment (emergency management, disaster response). Property conservation and environment means minimizing the damage to

IV. INCIDENT MANAGEMENT

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property while achieving the goals and objectives at an incident. Because conservation of property and the environment is always less important than conservation of life, property conservation, and environment is sometimes neglected due to limited resources. However, an incident cannot be considered successfully managed unless property conservation is given proper consideration and implemented in a timely manner.

4.5 The safety and survival of all personnel must be a constant consideration when determining objectives.

5.0 ANTICIPATING WORKLOADS.

5.1 The initial responder to a missing person report performs not only as incident commander but also all the other functions structured under ICS. As the incident escalates and workload increases, some of these functions should be delegated. Anticipate heavy workloads (and logical functions to delegate):

1st OPERATIONAL PERIOD

- a. Planning Section (Situation Status and Resource Status):
 - Gather, record, assimilate, and organize information from interviews, investigation, terrain analysis, subject behavior data, etc.
 - Determine boundaries of defined search and rescue area.
 - Develop and maintain a master map showing IPP, clues, assignments, and completed tasks.
 - Track status of all personnel on the incident.
- b. Family Liaison.
- c. Safety Officer:
 - Implement an effective risk management program utilizing strategies such as risk assessments, GAR, and/or LCES.

Green ↙
Amber
Red.

↳ Lookout, Communications,
Escape Route, Safety Zones

C. KEY FACTORS FACILITATING AN EFFECTIVE INCIDENT ORGANIZATION**BEGINNING 2nd OPERATIONAL PERIOD**

- a. Operations Section to direct resources assigned to tasks.
- b. Planning Section:
 - Gather and assimilate information reported by resources.
 - Facilitate the development of the IAP for the next operational period.
- c. Logistics Section:
 - Support the facilities, transportation, food, shelter, and communications needs of the searchers.
- d. Public Information Officer:
 - Inform searchers, community, and media.
 - Cultivate media interest.
- e. Family Liaison
- f. Safety

DE-ESCALATING OPERATIONAL PERIODS

- a. Planning Section (Documentation and Demobilization)
- b. Logistics
- c. Safety

6.0 EFFECTIVE SAR TEAM LEADERS.

6.1 The SAR team leader translates the directions and objectives of the incident commander into action in the field and encourages the team to search in the most effective manner so that the chances of finding the lost subject, or evidence of the lost subject are as high as possible. The SAR team leader is responsible for what the team does or does not do in the field during the search.

6.2 The best IAP is meaningless without effective Team Leaders. It has been said that SAR management really happens in the field at the team leader level.

6.3 SAR team leader responsibilities:

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IV**SAR TEAM LEADER RESPONSIBILITIES**

- Ensure all team members check-in per incident procedures.
- Maintain Unit Log (ICS form 214).
- Understand the Incident Action Plan (IAP).
- Receive assignment briefing from higher authority.
- Ensure team capabilities/equipment is compatible with assignment.
- Ensure all team members are cognizant of IAP and assignment.
- Conduct risk assessment or GAR (green, amber, red) of assignments involving all team members. Decline assignments with unbalanced risk versus reward.
- Ensure team members are properly equipped, and all specialized equipment is with the team and functional prior to field.
- Throughout the assignment maintain communications with all team members and with higher authority.
- Implement ongoing LCES (lookout, communications, escape route, safety).
- Consult with higher authority and team members before exposure to any unanticipated hazards.
- Maintain team integrity. Consider posting a strong member at rear to avoid team fragmentation.
- Monitor and ensure team member welfare.
- Maintain appropriate span of control. Consider unit (squad) leader designations when span of control exceeds seven, or if team divides into subunits.
- Provide higher authority a debriefing attended by entire team at conclusion of assignment.
- Ensure no team member exceeds a 2:1 work/rest ratio.
- Ensure documentation is completed and delivered to Planning Section in timely manner.
- Understand and comply with incident demobilization procedures, including ensuring team members understand to call-in upon arrival at home, if incident has implemented such a procedure.
- Ensure safe return to home of team members (such as arranging for exhausted members to be driven home or back to their base).

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C. KEY FACTORS FACILITATING AN EFFECTIVE INCIDENT ORGANIZATION

NOTES

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V. INCIDENT PLANNING

- A. THE SAR PLANNING 'P' PROCESS
- B. GAP ANALYSIS
- C. SAR PLANNING CONSIDERATIONS

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SEARCH AND RESCUE MANAGEMENT

A. THE SAR PLANNING 'P' PROCESS

The Incident Commander and all members of the Overhead Team should continuously use the OODA loop throughout each step of the Planning Cycle and the Planning 'P'. This will continue to reinforce the decision-making process each step of the planning cycle, and maintain situational awareness for the IC and other members of the planning team. Even though you are using the planning process and the incident response process you must continuously make decisions each step of the way by synthesizing information, correlating and turning it into useful intelligence so you can not only maintain situational awareness but be able to make decisions.

Be Sure to Ensure:

- A strong focus on the planning section and all of its functions, briefing unit leaders, and debriefing unit leaders.
- Implementation of the advance planning unit for multiple operational periods, and the requirement of producing multiple IAP's.
- Use the planning 'P' process.

| SAR Planning 'P' Process | | |
|--|---|--|
| <i>From the Informal to the Formal</i> | | |
| Planning Step | Actions | Forms/Job Aids |
| Six Step Process (Initial Response) | <ul style="list-style-type: none"> • Use OODA Loop. • Complete forms. • Assign resources to Investigate, Confine, and Search. • Initiate the documentation collection and collation process. • Ensure Safety Plan developed. | <ul style="list-style-type: none"> • Initial Response Forms 1-8. • ICS 203, 204, 205, 206, 207, 208, 211 + Risk Assessment Worksheet (215A). • Maps. • Weather statement/bulletin. • Safety Plan (ICS 208). • Filing system for documents (folders, accordion files etc.). |
| GAP Analysis - Assess 6 Step Process | <ul style="list-style-type: none"> • Use OODA Loop. • Review actions and any information discovered as a result. | <ul style="list-style-type: none"> • Completed forms, maps, and investigative information. • Forms for new 6 Step cycle. |

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V

A. THE SAR PLANNING 'P' PROCESS

SAR Planning 'P' Process

From the Informal to the Formal

| Planning Step | Actions | Forms/Job Aids |
|---|--|---|
| | <ul style="list-style-type: none"> Decide to repeat 6 Step Process or move to more comprehensive planning. Continue documentation collection, and collation. <ul style="list-style-type: none"> Review current organization; modify as needed. | |
| Decide to repeat 6 Step Cycle or move to comprehensive planning. | | |
| If formal planning is initiated for multi-operational periods, then proceed to next steps below. | | |
| Activate SAR Incident Management Team | <ul style="list-style-type: none"> List the 'triggers' that have caused planning to go from the 'informal' to the 'formal'. | <ul style="list-style-type: none"> Completed Forms – Incident Action Plan (IAP). Maps. Completed ICS 209 (Incident Status Summary). |
| Tactics Meeting | <ul style="list-style-type: none"> Use OODA Loop. Review Goals, Objectives, Strategies, and Tactics (GOST). Ensure documentation is up-to-date. Review current organization; modify as needed. | |
| Assess and Review Current Incident Goals, Objectives, Strategy, and Tactics (GOST) | <ul style="list-style-type: none"> Ensure forms and maps are complete. Segment map. Assign POAs to segments. Ensure Safety Plan reviewed and updated. Calculate and assess POA (shifting) and POD (cum). | <ul style="list-style-type: none"> Maps. Forms. Modified Mattson Consensus forms. Resource Management – sufficient, capable, and effective. Safety Plan (ICS 208). |

↳ Goals, Objectives, Strategies, Tactics

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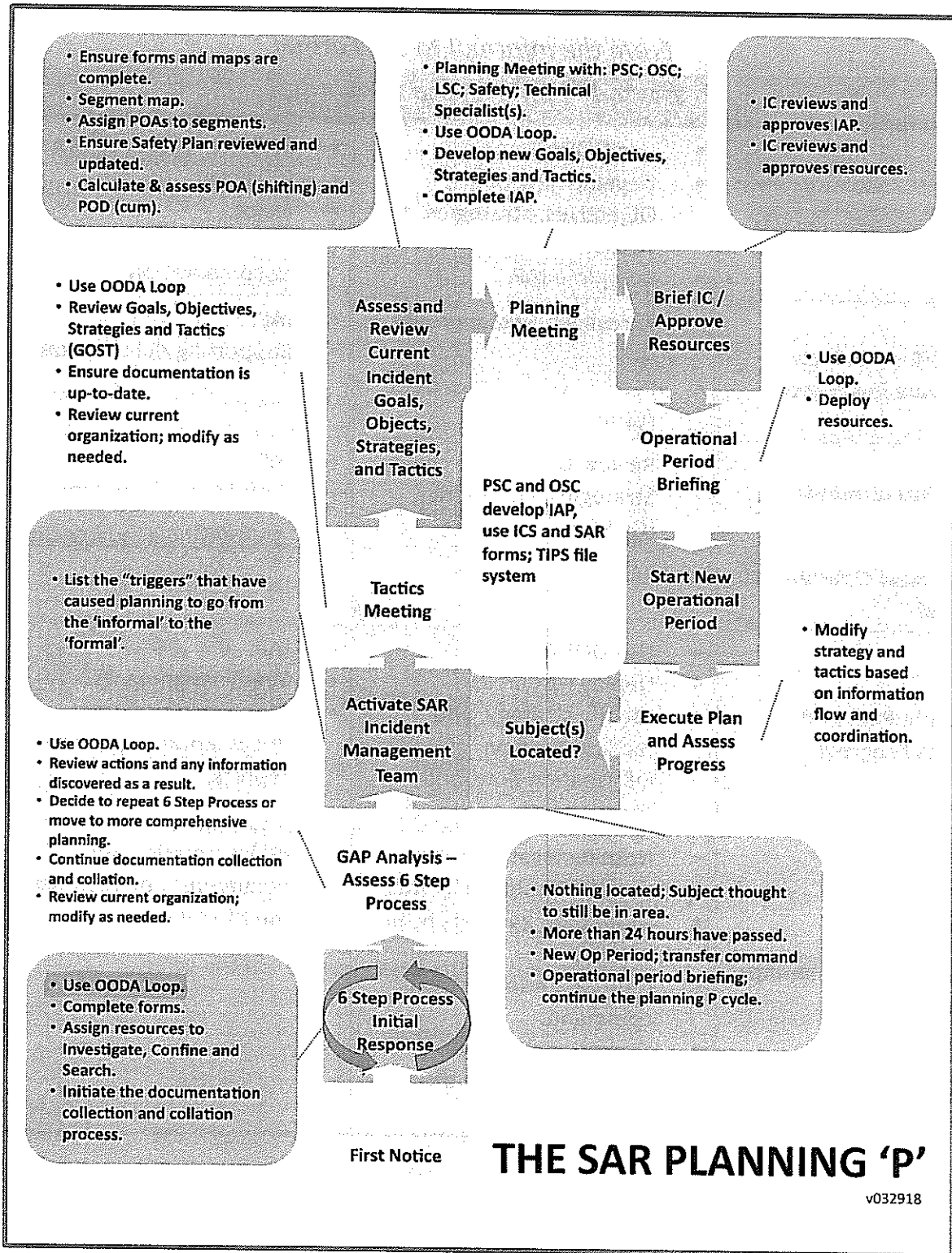
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| <p align="center">SAR Planning 'P' Process <i>From the Informal to the Formal</i></p> | | |
|--|---|---|
| Planning Step | Actions | Forms/Job Aids |
| <p>Planning Meeting with: PSC; OSC; LSC; Safety; Technical Specialist(s)</p> | <ul style="list-style-type: none"> • Use OODA Loop. • Develop new Goals, Objectives, Strategies, and Tactics. • Complete IAP. | <ul style="list-style-type: none"> • SAR Management forms. • ICS forms. • Maps. • Other supporting documentation. |
| <p>Brief IC on IAP, and Approve Resources</p> | <ul style="list-style-type: none"> • IC reviews, and approves IAP. • IC reviews, and approves resources. | <ul style="list-style-type: none"> • IAP. • Supporting documentation. |
| <p>Operations Briefing</p> | <ul style="list-style-type: none"> • Review Goals, Objectives, Strategies, and Tactics (GOST). | <ul style="list-style-type: none"> • IAP. • Supporting documentation |
| <p>Start New Operational Period</p> | | |
| <p>Execute Plan and Assess Progress</p> | <ul style="list-style-type: none"> • Use OODA Loop. • Deploy resources. • Modify strategy, and tactics based on information flow, and coordination. | <ul style="list-style-type: none"> • IAP. • Team assignments. • Manage information, documentation, debriefing reports. |
| <p>Begin a New Planning Cycle?</p> | <ul style="list-style-type: none"> • Nothing located; Subject thought to still be in area. • More than 24 hours have passed. • New Op Period; transfer command. • Operational period briefing; continue the planning P cycle. | <ul style="list-style-type: none"> • All information, and documentation reviewed, and 'on the table'. |

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A. THE SAR PLANNING 'P' PROCESS

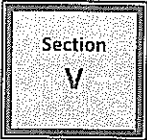


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V**B. GAP ANALYSIS****1.0 INTRODUCTION.**

- 1.1 Since the inception of search management concepts in the 1970's, curricula have struggled to define an effective process for determining when to significantly de-escalate an incident after sustained efforts fail to locate the subject(s). Over the years, suggestions have included 'Suspending the Mission', 'Limited Continuous Search', and the use of probability estimations such as Probability of Success, Shifting Probability of Area, and Cumulative Probability of Detection. None have proven satisfactory. The terms 'suspending the mission' and 'limited continuous search' have been interpreted by families to infer that the agency having jurisdiction and/or incident personnel are giving up or have lost interest, and are now abandoning their loved one. As for probabilities, the father of one missing woman expressed family perspective very well when he stated before a television camera 'They're figuring their job from the odds, I'm figuring my job from saving my daughter's life'. The gap analysis process described in this unit avoids these perceptions. It is objective ('What else can be done?') rather than opinion ('It's time to suspend') based, and through its methodology cultivates consensus.
- 1.2 A gap analysis is useful for determining and achieving agreement among critical allies and stakeholders for future actions whenever sustained efforts have failed to locate the missing subject(s). While a gap analysis exercise may result in consensus when to significantly de-escalate, its purpose isn't to convince others the time has come to de-escalate. Because it is an objective process, it facilitates the identification of what has been missed or still needs to be done. One possible result can be identifying additional objectives justifying continued sustained efforts to the degree that the incident's tempo remains the same or even increases. Under such circumstances multiple gap analyses may be necessary over the incident's evolution before a consensus to de-escalate is reached.
- 1.3 A gap analysis can be especially useful when elements of critical allies or stakeholders propose the time has come to significantly decrease active search efforts, but where such a decision might be opposed by other elements. Under these circumstances such a decision can cause significant strife and anger between opposing camps if made unilaterally by the incident commander or agency having jurisdiction. The gap analysis process minimizes such conflict by building consensus and ownership in the decision.
- 1.4 The gap analysis process is a broadly used business development and problem solving technique. The method described below has been adapted for search and incorporates techniques successfully used in incidents - especially when it was necessary to achieve the consensus of stakeholders and critical allies.



2.0 KEY POINTS.

- 2.1 Search is an emergency. The incident response should be focused on doing everything possible to save life. The incident response cannot ensure the subject(s) will be found: the incident response may not have the capability to detect the subject(s) even if in the search and rescue area, the subject(s) may be somewhere else, or something other than becoming lost/stranded/injured may have occurred. In order to do everything possible to save life the incident response should develop - and focus on achieving - objectives. The tempo and intensity of the response is that appropriate to achieve these objectives. There may be periods (or there will come a time) when there are no established objectives related to actual searching. During these periods (or at that time) there is no value and it makes no sense to have resources wandering about exposed to hazards without purpose.
- 2.2 The incident commander and the overhead team in a sense works for the subject. Since the subject is absent, the family represents him or her. The media, elected officials, and the public recognize this, and usually defer to the family's lead. Therefore, it is critical to obtain the support and consensus of the family; especially in a decision as critical as de-escalating active search measures.
- 2.3 Without family support it can be very difficult to significantly decrease active search efforts. Even if family and media pressure isn't sufficient to pressure the agency having jurisdiction to continue efforts, family members and citizens may organize and conduct their own efforts. Such independent efforts are undesirable because they can compromise search/investigative actions, challenge agency credibility, and place citizens at risk.
- 2.4 Keep the family fully informed throughout the incident, not just at a gap analysis exercise. Provide a least two complete briefings to the family every operational period and maintain a family liaison function within command staff.
- 2.5 Accomplish all identified objectives. (Remember, objectives are flexible. If the original objectives are unrealistic, modify, adjust, and revise them so they can be achieved. But do not leave objectives uncompleted).

3.0 GAP ANALYSIS. *size up, contingencies, objectives, resources, plan, action*

- 3.1 A gap analysis ^{size up} explores the past, present and future, using the same logical decision making process as SCORPA, structured in a formal meeting setting. As used in the search and rescue incident context it explores two questions: 'What has been accomplished?', and 'What else can we do to ensure we've done everything possible to save the subject(s) life?'. The answer to the first question is necessary to establish the framework for answering the second question, which is the real purpose of the gap analysis.



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Section
V**The Gap Analysis Process****Prepare for a Gap Analysis Meeting**

- Determine the key stakeholders and critical allies to be represented.
- Select a time and location that will maximize attendance of the invitees.
- Invite the key stakeholders and critical allies, and ensure they understand the purpose and desired product, which is to identify of all reasonable tasks remaining to be completed.
- Select a facilitator. The default ICS function for this designation is the Plans Section Chief. However, if a level of conflict exists among the stakeholders and critical allies to the degree it could hamper the process, a neutral person may be preferred.
- Select the persons to make presentations, and ensure each understands what he/she is expected to speak to.
- Control the presentation of investigative intelligence, and of information that might be embarrassing to the subject(s) and family (a family member could be suspect in a criminal investigation). Such information should only be presented as necessary, and in a sensitive manner.
- Limit attendance to invitees only. Media attendance is normally not appropriate as candid and confidential opinions will be encouraged.

Part I of the Gap Analysis Meeting: What has been accomplished?

- Following a prepared agenda, a series of speakers with subject matter expertise brief the attendees on all relevant information uncovered since First Notice. This may include subject(s) profile information, possible scenarios that could have caused the subject(s) to become missing, subject(s) known and possible actions, the process by which the search and rescue area boundaries were defined, containment actions, investigative results, search efforts and outcomes including quantitative analysis (cumulative PODs, shifting POAs, etc.), clues found and how resolved, search and rescue resource capabilities, terrain and vegetation, safety concerns, hazards, weather, and psychic reports.

Part II of the Gap Analysis Meeting: What else can we do to ensure we've done everything possible to save the subject(s) life?

- Establish ground rules:
 - Brainstorming is encouraged.
 - Everyone is expected to listen to ideas with an open mind.
 - Negative criticism and argumentative challenges are inappropriate.
 - Confidentiality is expected. What is said at the meeting stays at the meeting.
- Facilitate brainstorming. Attendee ideas are listed on a whiteboard or laptop without critical analysis.

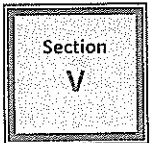
Part III of the Gap Analysis Meeting: Develop an action list from the ideas generated through the brainstorming.

- Review and encourage discussion regarding the items identified in the brainstorming session.
- Establish consensus as to which will be acted upon.
- Assure the attendees the selected ideas will be prioritized and completed.
- Adjourn the meeting.

Implement the consensus items developed in the Gap Analysis Meeting.

- The Planning Section function incorporates the list of consensus items into the SAR Incident Action Plan(s). Objectives are established, resource needs identified, and assignments developed.
- As SAR resources become excessive to the need, they are released. For example, once no more flights are needed all remaining aircraft are released.
- Discovered clues or other information are investigated and resolved. Additional SAR resources are mobilized if appropriate.
- Once the objectives identified by the gap analysis (and any other objectives developed as the result of additional intelligence) near completion, arrange a subsequent gap analysis meeting, or implement a SAR demobilization plan to the significantly decrease active search and rescue efforts.
- At some point all identified items will be completed and there will no longer be any search and rescue resources in the field. In effect, active search and rescue efforts will stop. But that doesn't mean that the search and rescue mission is permanently ended. The agency is not 'giving up'. Any information or clues that may be uncovered in the future will be aggressively resolved.

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C. SAR FORMAL PLANNING CONSIDERATIONS

1.0 THE IMPORTANCE OF SEARCH AND RESCUE (SAR) PLANNING.

1.1 Some thoughts:

- a. Planning is the glue that binds SAR resources together, producing a coordinated, effective emergency response.
- b. Planning transforms the search and rescue objectives into realistic strategies and tactics (actions) to resolve or control the SAR mission.
- c. Planning ensures effective, efficient use of available and potential SAR resources applied to the problem, reducing redundancy and confusion, evaluating success, and focusing efforts directly into resolution of the emergency.
- d. ~~Planning is a key component of operational success.~~ It must be a conscious, ongoing function. The planning function is a continuous cyclic process and the plan must be modified and adjusted based on information flow and coordination. When you receive information from the field team leaders, you go through the OODA loop, which then allows you to modify and adjust strategy and tactics as the mission unfolds.
- e. ~~Operational SAR planning differs from SAR preplanning, but is based upon the preplanned information.~~
- f. All search and rescue operations follow similar patterns. Planning, both pre-incident and search and rescue action planning, reduces the time needed to conclude the emergency by speeding up the transition from reaction to proactive management. Planning keeps search and rescue operations 'ahead of the eight ball.'

2.0 EVERY SAR MISSION REQUIRES A PLAN.

2.1 Every SAR mission must have a written SAR plan as it will aid law enforcement agencies (AHJ) in their missing person investigations. The SAR plan may be shared when:

- Several agencies are involved.
- More than one jurisdiction is involved.
- More than one operational period is involved and it is unified command.

3.0 THE SEARCH AND RESCUE INCIDENT ACTION PLAN (IAP).

3.1 The SAR IAP defined: A plan for successfully resolving the search and rescue incident:

- Must be dynamic (flexible).
- Must be updated for each operational period.
- Must be only one plan for the operational period.

3.2 The role of the SAR IAP in Operations is extremely important to the overall SAR management effort. It should provide the operations function with the following:

- a. Defined operational periods.
- b. Written search and rescue objectives reflecting the policy and needs of all jurisdictions.
- c. Divisional and area assignment lists (tactical assignments).
- d. Organizational chart, based on the Incident Command System.
- e. Search and Rescue maps delineating assignment areas.
- f. Communications plan.
- g. Resource status and availability.
- h. Mission situation/status reports.
- i. Weather information.
- j. Situation predictions.
- k. Medical plan.
- l. Transportation plan.
- m. Subject profile for lost/missing person.
- n. Safety considerations for weather, hazards, etc.

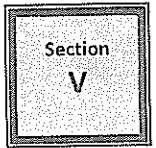
"A SAR IAP is where the rubber meets the road, and the planning effort gets its report card."

- Snowshoe Thompson, 1856

4.0 OVERVIEW OF A SAR INCIDENT ACTION PLAN (IAP) DEVELOPMENT.

- a. Developed by the Plans Section in consultation with the general staff.
- b. Initially prepared at first planning meeting.
- c. The Incident Commander (SAR Manager) establishes information requirements and reporting schedules for all organizational elements.

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- d. The Incident Commander (SAR Manager) presents general control objectives and alternatives which define legal, policy, resource, and fiscal constraints for the SAR mission in accordance with the preplans and policies of the involved jurisdictions.
- e. Operations and objectives are discussed with general staff relative to:
- Resource status and availability.
 - Situation status including hazards, risks, work accomplishment.
 - Situation predictions. What is the best guess (SWAG) at what is likely to happen?
 - Communications capabilities.
 - Weather.
- f. Plans Section then takes this information and develops the SAR IAP:
- Coordinates strategies and tactics with the Operations Chief.
 - Coordinates resource support and service needs with the Logistics Chief.
 - Develops the SAR IAP in written form with alternatives.
 - Presents plan to the Search and Rescue Manager for approval.
- g. Plans Section conducts briefing of general staff.
- h. Plans Section makes necessary adjustments to the plan and duplicates and prepares for distribution at field SAR team leader briefing.

"The key to making a plan work is the ability to vividly paint clear mental images of the plan and tasks to be done in the minds of the people who need to know and who will have to respond and act."

- Snowshoe Thompson, 1856

5.0 CONSIDERATIONS INVOLVED IN SAR PLANNING.

- 5.1 Avoiding Alligators - As the prophet said: "When you are up to your armpits in alligators, it is difficult to remind yourself that your initial objective was to drain the swamp." Good planning is alligator control. Proper management of information can avoid irritations and distractions, and allow all aspects of the search to focus on draining the swamp.

- 5.2 In some jurisdictions, the Operations Section Chief will be the SAR Manager and the AHJ or police service will be the Incident Commander. The incident commander and the SAR manager may also be one of the same, depending on the jurisdiction and the number of resources available at the start of the initial response phase.
- 5.3 Information management - A good deal of search and rescue planning involves the management of information. Properly managed information can reveal guideposts to logical actions (i.e. a plan). Among the items the Plans Section Chief considers when developing strategy includes:
- Investigation results from interviews and deductive reasoning.
 - Subject profile compiled from investigation.
 - Lost/missing subject behavior data from local and national data bases.
 - Search and rescue resources available: types, how many, for how long, and training.
 - Terrain and vegetation analysis.
 - Weather, both past, present, and predicted.
 - Outside political pressures from critical allies or external influences.
- 5.4 This is a lot of information, and it can be overwhelming. But if organized and filtered correctly it provides clear direction and ensures effective use of SAR resources. Some ideas on how to collect and manage this information follow.

Note: During the initial response many of these actions are done 'informally' using the 6-step process. Once the decision is made to move from informal to formal planning all of the following formal planning actions need to be considered.

- 5.5 Assign a SAR Incident Management Team when you transition from informal to formal and include additional ICS functions to manage the information flow and coordination.
- 5.6 **SITUATION UNIT.** To manage the expected flood of information the Plans Section Chief should immediately assume or assign someone the responsibilities of Situation Unit Leader. This person manages all data through the use of maps, resource status cards, assignment summaries, computer software programs, and other tools discussed in detail below. Delays in establishing a Situation Unit will result in loss of data caused by poor documentation. The Situation Unit Leader is normally a full-time responsibility.
- 5.7 **RESOURCE UNIT.** The other critical Plans Section position is the Resources Unit Leader. This person maintains current records on the status of all SAR resources, including assisting and

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cooperating agencies This may be a full-time position, or it might be combined with the responsibilities of Check-In Recorder, Timekeeper, or Situation Unit Leader.

5.8 Determine appropriate action. Identify the range of possibilities that might have caused the person to become lost/missing or overdue. Then prioritize response to the potentially most life threatening or serious possibility. For instance, on a lost/missing child report, several high priority possibilities might become apparent, such as a water accident or kidnapping, abduction. Thus a high level of response is warranted to investigate these two possibilities, and less urgent responses aimed at dealing with the others.

- This worst-case concept has applicability in all planning sequences, and is especially useful in the initial response when either available information indicates a low overall urgency, or limited resources force a focusing of efforts.

5.9 Develop a lost/missing subject profile. This profile will be useful in:

- Defining search and rescue objectives.
- Estimating SAR resource needs.
- Determining strategy and tactics.
- Mapping the search and rescue area.
- Providing planning data and searching data.
- Briefing search and rescue teams.

The lost/missing subject profile should consider a discussion of the lost/missing person's survivability relative to their specific personality, their mobility and responsiveness to searchers, local weather, and other conditions. (See Section IX, Chapter 8 Lost Missing Subject Behavior.)

5.10 Establish Search and Rescue Objectives. These should address the following questions:

- How much time do we have to find the subject alive? (Consider weather, subject profile, statistics and any other subject survivability factors.)
- How large an area will we ultimately search?
- What final POD can we accept (how thoroughly will we search)?

When these objectives are accomplished, the search and rescue mission generally de-escalates. Therefore, the search and rescue objectives usually prescribe a level of thoroughness for searching a large area. However, these objectives must be developed and approved in concert with the SAR Manager/Incident Commander.

- 5.11 Determine and staff the boundaries of the search and rescue area. Consider theoretical, statistical, deductive and subjective methods, search objectives, subject profile, and lost subject behavior data.
- Apply all reasonable and necessary confinement techniques.
- 5.12 Segment the search and rescue area.
- Use features that are visible in the field whenever possible. Features can include ridgelines, streams, fences, roads, vegetation changes, string lines, and streamer lines.
 - Make the segments small enough to permit assigned resources to cover entire segments in a 4 to 6 hour period. This will vary depending on terrain and topography. (See Section VIII, Chapter C, Search Area Segmentation.)
 - Segment boundaries must not be realigned once SAR efforts begin. Any realignment complicates cumulative POD and shifting POA computations. However, combining and subdividing segments can be done if necessary. Erase, add, but do not reroute boundaries. Computer programs are available to assist with this task.
- 5.13 Once the segments have been determined and identified determine the probability of area of each. This is done utilizing the Modified Mattson Consensus Method. See Section VIII, Chapter D.
- 5.14 Prioritize segments. Consider subjective, statistical, investigative and deductive factors, subject profile, debriefing information, and compare this data with search priority ranking. By now a few segments will begin to appear as having the most likely chance of containing the subject (since he/she/they have not been located in the initial response search areas). Consider the intended destination of the lost missing person. When you have identified the 50% and 90% percentiles based on statistical data, then if the lost missing subject had an intended destination determine the angle of dispersion from that intended destination based on the available data. See Section IX, Chapter H.
- 5.15 Estimate acreage. Use a template to determine the size of each segment. Knowing the area of each segment is necessary for determining Probability Density, and is required to calculate the time needed for resources to complete their assignments.

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Note: It is important to determine the size of the area in relation to the POA. SAR resources will have a greater success in a smaller area than a larger one.

- 5.16 Determine Probability Density. Probability density (PDEN) is the probability that the lost person is in a given segment, divided by the size of that segment ($PDEN = POA/Size$). The higher the probability density, the greater the chance of finding the subject faster; i.e. a higher POA per square foot (or yards or meters, depending on the measure). Consideration should be given to searching segments with the highest PDEN's first.
- 5.17 **Resources.** Work up an estimate of the total SAR resources needed to achieve the search and rescue objectives. See Section IX, Chapter 9, **Search Tactics and Resources. Consider:**
- **The type of SAR resources needed or available.**
 - **How long each is available.**
 - **Time available versus area to be covered.**
 - **Estimated POD or POD Tables for each SAR resource.**
- 5.18 Encourage Input. Do not plan in a vacuum. SAR personnel, family, and locals will have good ideas, some of which you may not have considered. Obtain their input by methods such as:
- a. Directing agency and family liaisons to solicit suggestions and forward these ideas to the Plans Section.
 - b. Organize a brainstorming session:
 - 1) Invite key people to participate, including the SAR Manager/IC, Operations Section Chief, selected family members, representatives of participating organizations, individuals with special knowledge of the search area, persons well skilled in strategy and tactics, and free-lance locals (First Nations, hunters and trappers).
 - 2) Provide a briefing.
 - 3) Allow each person two to five minutes to make and justify recommendations. List each of these on a flip chart, whiteboard, or laptop.
 - 4) After everyone has made recommendations, provide a certain amount of time for discussion.
 - c. These techniques allow everyone the opportunity to provide input, draws the free-lance locals into the operation, provides for the family to participate, identifies original ideas while still allowing decisions to be made in a timely manner, and saves time.

- 5.19 Prepare SAR Assignments. SAR assignments must be written.
- a. The use of GIS systems for tactical mapping and planning will greatly aid in this process.
 - Write and display all SAR assignments on Chart paper or use a laptop and projector.
 - Combine all documentation of SAR assignments for one operational period on a map and photocopy, photograph, and use overlays to enhance documentation and presentation for briefings.
 - Additional instructions are written on search and rescue management forms or SAR ICS forms, do not write assignments on blank separate paper.
 - Date and time stamp each map and instructions.
 - Both the photocopied map and the instructions are prepared as decisions are made.
 - A copy of the map and instructions, together with other information such as subject profile, operational period objectives, communications plan, and debriefing questionnaire serve as the briefing packet to be given to each team leader by Operations.
 - b. This method minimizes preparation time, provides for fast briefings, serves as documentation, can be carried into the field, minimizes confusion, and lets everyone know what everyone else is doing.
 - c. Also, list SAR team assignments in large letters on flip chart paper or whiteboard and post for quick reference at Plans. Include columns for status, and accomplishments. These charts allow for quick reference, and comparisons.
- 5.20 Coordinate with Operations for implementation of the SAR plans.
- 5.21 Plan for Operational Periods: Always plan at least 12 hours in advance and use the planning 'P'. Outline a general plan for the next shift, subject to revision as further information is received. Meet with Operations and Logistics and lay the groundwork for the following phases:

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| | |
|---|---|
| <p>INITIAL RESPONSE: This phase of the response to a search and rescue mission can be the most difficult. In general, it is:</p> | <ul style="list-style-type: none"> • Aimed at high probability areas. • Approached with speed as a priority. • The first few hours of the mission, which can last from a couple of hours to 24 hours. |
| <p>FIRST OPERATIONAL PERIOD: This phase of the mission includes the initial response phase and is generally:</p> | <ul style="list-style-type: none"> • Aimed at high probability areas that have been determined by the initial response. • Approached with speed and efficiency as priorities. • Considered the first day's search and rescue effort. It usually ends at either 18:00 hrs. (6 p.m.) or 06:00 hrs. (6 a.m.) depending on when the initial SAR response took place. Generally, from 4 to 24 hours. |
| <p>SECOND OPERATIONAL PERIOD: This phase is normally after the initial response and will start the formal advance planning process. From this point on the operational periods usually last 12 hours in duration, until the end of the search and rescue mission. Generally it is:</p> | <ul style="list-style-type: none"> • Aimed at NEW high probability areas and secondary search areas that have been previously covered. • Approached with efficiency and thoroughness as priorities. • Terminated at either 18:00 hrs. (6 p.m.) or 06:00 hrs. (6 a.m.) depending on when the initial response was started and then continues for 12 hours. |
| <p>SUBSEQUENT OPERATIONAL PERIODS: This phase of the search mission will probably follow the planning process started during the first full operational period regardless of when it was started. This phase is generally:</p> | <ul style="list-style-type: none"> • Aimed at high and low probability areas simultaneously. • Approached with efficiency and thoroughness. • Involves 12 hour periods of time throughout the rest of the search and rescue mission. • Review, and if necessary, revise the search and rescue objectives, resource needs, subject profile, urgency, etc. • Involves more formal advanced planning. |

5.22 Debrief. Debrief returning SAR team leaders (or teams). Document debriefing information on transparencies overlaid on a master map.

5.23 Crunch Numbers. Prepare a summary (SitRep) of shift efforts:

Prob. of
Area

Note: Use the calculation spreadsheets found in See Section VIII, Chapter G, POA and POD Calculation Charts. These are available in Excel format from the instructors or (insert web link)

→ Prob of Detection

- Calculate cumulative POD for each segment.
- Calculate shifting POA for each segment.
- Recalculate Search Priority for the next shift.
- List highlights of the shift.

The new cumulative POD's, shifting POA's and Search Priority will indicate new segments to be searched; These are critical to updating strategy. The calculations are not difficult, but they are repetitive. It can take hours to compute by hand cumulative POD's and shifting POA's for a search area having ten segments, and most search areas have more than ten segments. A computer can shorten the time needed to compute the calculations to a few minutes. Programs to accomplish these calculations are available from various sources.

However, it's not always necessary for Plans to be active 24 hours per day. In most search and rescue missions the Plans Section can complete it's responsibilities in 15-16 hours. This may be preferred as it allows for greater continuity, avoids the need for time consuming briefings to the relief shift, and releases persons to other tasks.

6.0 FINAL COMMENTS AND SUGGESTIONS.

- 6.1 Do not make the situation worse than it is.
- 6.2 Do not let the management of the search and rescue mission generate its own special problems. Troubleshoot early, and encourage everyone to keep sight of the search and rescue objectives.
- 6.3 ~~There is an inverse relationship between level of responsibility and workload; the higher the responsibility, the less the workload. SAR Managers are paid to think, not man the production line.~~ The SAR Manager, and to a lesser extent, the Plans Section, Operations Section, and other Chiefs should save themselves for the main events and refuse to be drawn into trivia. As Chiefs they need

V. INCIDENT PLANNING

Section
V

to be available to their subordinates, and have time to evaluate, and think ahead. Effective Chiefs and managers delegate as much as possible so they are prepared to handle the additional problems that are sure to appear.

- 6.4 The only thing worse than a bad decision is indecision. ~~There is no such thing as a 'bad' decision if it is made in good judgment based on available information.~~
- 6.5 Search and rescue missions are great opportunities to receive on-the-job training in managing large scale incidents. Take advantage of this by assigning inexperienced persons to various overhead operations to learn by 'shadowing' a mentor.
- 6.6 A common problem on many search and rescue missions is the down time of SAR teams as they wait for additional assignments. Briefing teams over the radio congests communications. These problems can be minimized by giving each team secondary and alternative assignments during the initial briefing, continuously planning for the arrival of additional teams and additional assignments, or use a number of radio frequencies, channels to facilitate communications on the missions.

SUGGESTED PLANNING CHECKLIST
by Ken Hill

- ✓ Do you have sufficient lost person data to plan the search?
- ✓ Have you determined the urgency of the incident?
- ✓ Have you computed the theoretical search distance for this subject?
- ✓ Have you computed the statistical search distance for this subject?
- ✓ Have you established the subject's direction of travel from the IPP?
- ✓ Have you identified all natural boundaries (roads, blue lines, etc.)?
- ✓ Have you identified points where confinement should occur?
- ✓ Have you identified all travel aids (roads, trails, drainages, clearings etc.)?
- ✓ Do all plans follow logically from the Incident Objectives?
- ✓ Has the search locale been divided into manageable segments?
- ✓ Has a Probability of Area been assigned to each of the segments?
- ✓ Are resources being tasked in terms of desired probability of detection?
- ✓ Are resources diversified with respect to location, tactics, and resource type?
- ✓ Have you planned for resources necessary for the next operational period.

V. INCIDENT PLANNING

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SUGGESTED ITEMS FOR A SAR PLANNING KIT

- Briefcase - Soft cordura is easier to transport than stiff leather.
- 50 clear 8 X 11 transparencies, or role of transparency.
- Selection of water soluble or dry erase markers.
- Selection of permanent markers for chart paper.
- Erasers for erasable pens.
- Ruler and map scales, mathematics set.
- Pens and pencils.
- Pad of paper.
- Wall chart / flip chart paper.
- Tape. (Drafting or painter's tape so that maps and documents are not destroyed.)
- Template for determining area.
- Resource status card organizer or 3 X 5 index cards.
- This text.
- Search Initiation Guide (field notebook and operations guide). Available from ERI International Bookstore: <http://eri-intl.com>
- Lost subject behavior statistics for your area or provincial, state, national ones.
- POD Tables.
- Forms. See Section VI Forms.
- Computer, laptop, tablet with pre-loaded search management programs.
- External drive with search program(s)
- USB drives, thumb drives.
- Laminated map(s) of search and rescue area, or mapping software on a laptop. Used for planning in the field, or on briefing bulletin board at incident command post.

NOTES

Lined area for notes.

VI. SAR FORMS AND DOCUMENTATION

Section
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Section

VI.SAR FORMS AND DOCUMENTATIONS

- SAR FORM #1: FIRST NOTICE RECORD SHEET
- SAR FORM #2: MISSING PERSON PROFILE
- SAR FORM #3: INCIDENT HISTORY
- SAR FORM #4: RESOURCES SHEET
- SAR FORM #5: URGENCY ANALYSIS
- SAR FORM #6: SCENARIO ANALYSIS RECORD SHEET
- SAR FORM #7: INCIDENT ACTION PLAN – MISSION GOAL AND OBJECTIVES
- SAR FORM #8–A: BRIEFING CHECKLIST
- SAR FORM #8–B: DEBRIEFING CHECKLIST
- SAR FORM #9: RURAL / URBAN INTERFACE INQUIRIES
- SAR FORM #10: A FORMAT FOR A MISSING PERSON QUESTIONNAIRE
- SAR FORM #11: EVALUATING THE "HEALTH OF A SEARCH RESPONSE"
CHECKLIST
- SAR FORM #12: SEARCH AND RESCUE MISSION DATA SHEET
- SAR FORM #13: SAR 6-STEP PLANNING PROCESS
- SAR FORM #14: POA CONSENSUS WORKSHEET
- SAR FORM #15: SAFETY MESSAGE/PLAN (ICS 208 – ERI VERSION)
- SAR FORM #16: RISK ASSESSMENT WORKSHEET
- SAR FORM #17: ASSIGNMENT LIST (SAR VERSION)
- SAR FORM #18: (ICS 203) ORGANIZATION ASSIGNMENT LIST
- SAR FORM #19: (ICS 206) MEDICAL PLAN
- SAR FORM #20: (ICS 207) INCIDENT ORGANIZATION CHART
- SAR FORM #21: (ICS 209) INCIDENT STATUS SUMMARY
- SAR FORM #22: (ICS 211) INCIDENT CHECK-IN LIST
- SAR FORM #23: ICS 215A) INCIDENT ACTION PLAN SAFETY ANALYSIS

vMarch 2018

Section
VI

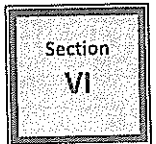
VI. SAR FORMS AND DOCUMENTATION

NOTES

Lined area for notes with multiple horizontal lines.

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VI. SAR FORMS AND DOCUMENTATION



| SAR Form #1 First Notice Record Sheet | | |
|---|------------------------|--------------------|
| Person Receiving Report: | Date Received: | Time Received: |
| Name and Contact Information of Complainant: | | |
| Report Received by (9-1-1 agency, communication center [SPOT, INREACH, RCC] or if other explain): | | |
| Name of Missing Person and Date of Birth: | | |
| Date and Time Last Seen: | | |
| Circumstances of Loss: | | |
| Point Last Seen (PLS) or Last Known Point (LKP): | | |
| What Does Complainant Think Happened: | | |
| What Does Complainant Want Done: | | |
| Instructions to Complainant: | | |
| Signature _____ | Date (yr/mo/day) _____ | Time (24 hr) _____ |



Section
VI

1. FIRST NOTICE RECORD SHEET

INSTRUCTIONS, FORM 1

This is the form you use to record the information you are given at First Notice. You should write something in every box.

Remember that you may have to hand this form on to someone who takes over from you as Incident Commander – write down everything you are told.

Note date and time of any subsequent information recorded on this form after initial use.

Include full names, addresses and telephone numbers where appropriate.

The **complainant** is the person who gives you the First Notice information.

Person Receiving Report and Date Received and Time Received: Enter the name of the person completing form, date and time report taken.

Name and Contact Information of Complainant: Means the name, address, telephone number or a location where the person can definitely be contacted. You may need to change this later if they move to another location.

Report Received By (9-1-1 Agency, or if other explain): The name of the department (police, fire), agency, or business.

Name of Missing Person and Date of Birth: Self explanatory.

Date and Time Last Seen: Include the name of the person who saw the subject and any contact information you have for them.

Circumstances of Loss: What the subject was doing, where they were, where they might have been going and whom they were with. Give any other known information, for example intentions and times.

Point Last Seen (PLS) or Last Known Point (LKP): Circle PLS or LKP as appropriate. Describe the location in such a way that there can be no confusion as to where it is. Give a map reference if possible.

What Does Complainant Think Happened: Record any ideas that the informant has, otherwise write 'not known'.

What Does Complainant Want Done: This may cause the informant to provide information that they otherwise might not have done. Write down everything they suggest.

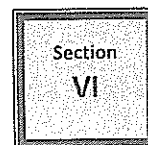
Instructions to Complainant: Write down exactly what you tell them so that they can be contacted if needed.

Signature, Date, and Time: Self explanatory.

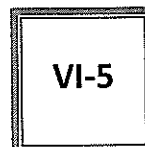
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SEARCH AND RESCUE MANAGEMENT

VI. SAR FORMS AND DOCUMENTATION



| SAR Form #2 Missing Person Profile | | |
|---|------------------------|--------------------|
| Name: | Gender: | Age: |
| Name Person Answers To, If Different: | | Date of Birth: |
| Address: | | |
| Physical Description (height, weight, marks, scars, tattoos, etc.): | | |
| Clothing Worn: | | |
| Additional Items Carried: | | |
| Capability / Health: | | |
| Habits / Hobbies / Interests / Activity: | | |
| Previous Relevant History: | | |
| Category of Missing Person (from Lost Person Behavior) | | |
| Signature _____ | Date (yr/mo/day) _____ | Time (24 hr) _____ |



Section
VI

2. MISSING PERSON PROFILE

INSTRUCTIONS, FORM 2

Use this form to build up a profile of the subject. You may not be able to fill in all the boxes from the information you have been given at First Notice. Each time you get another piece of information that helps to build up a profile of the subject remember to add it to this form.

Attach a picture of the subject if available.

Name / M or F / Age / Date of Birth / Address: Record the subject's full name and any other names they are known by or would answer to. Circle or write "M" for Male or "F" for Female. Enter the subject's age, date of birth and address.

Physical Description: The minimum information required is height, weight, build, facial appearance (complexion, facial hair, if wearing glasses, hair color, length and style), general appearance and any distinguishing marks or features.

Clothing Worn: Style, make and color of all clothing including footwear and sole pattern.

Additional Items Carried: Items of personal gear or anything relating to the activity that the subject was undertaking. Include sufficient detail to make an identification if anything is found. Was the subject carrying money – how much? – or credit cards?

Capability / Health: Record any known information, for example fit and healthy, any problems which could affect the distance the subject might travel, any medication taken regularly and if so have they got it with them, did they have full control of all their faculties, did they always behave rationally.

Habits / Hobbies / Interests / Likely Activities: Record any information available that might indicate what the subject might have been doing or where they might have gone.

Previous Relevant History: Have they been missing before? If so, when was it, where did they go missing from, where were they found and what were they doing.

Category Of Missing Person: There are many categories of Missing Person. Determine the category that best fits the known information in this incident. Children and young persons are categorized by age, adults by mental state or activity. Categories include:

- Child
- Dementia / Alzheimer's / Elderly Walk-a-ways
- Intellectually Disabled
- Drug Affected
- Despondent
- Psychotic
- Run-Away
- Abduction-Parental
- Abduction-Criminal
- Hiker
- Hunter
- Fisherman
- X-country Skier
- Climber
- OHV User
- Mtn Biker

Signature, Date, and Time: Self-explanatory.

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VI. SAR FORMS AND DOCUMENTATION



| SAR Form #3 Incident History | | |
|---------------------------------|------------------------|--------------------|
| Incident Name: | Operational Period #: | |
| | Start Date / Time: | |
| Incident Commander: | Ending Date / Time: | |
| OSC/SAR Manager: | | |
| Initial Planning Point (IPP): | | |
| New IPP: | Reason: | |
| Initial Story / Circumstances: | | |
| Confirmed By: | | |
| Assigned Functions: | | |
| Family Liaison: | | |
| PIO: | | |
| Planning: | | |
| • Investigation | | |
| • Situation Status: | | |
| • Resource Status: | | |
| Logistics: | | |
| Operations: | | |
| • Staging: | | |
| • Air Ops: | | |
| Other: | | |
| Further Developments: | | |
| Signature _____ | Date (yr/mo/day) _____ | Time (24 hr) _____ |



INSTRUCTIONS, FORM 3

Record here the information that will help you to manage the incident.

Incident Name / Operational Period # / Beginning Date/Time / Ending Date/Time / Incident Commander, Operations Section Chief (OCS)/SAR Manager: Use the incident or mission number if you have one, otherwise use the name of the subject and the date. Indicate the shift number, beginning and ending date and time.

Initial Planning Point / Reason: Copy this from "Form 1" and write PLS or LKP as appropriate.

New IPP / Reason: If the Planning Point changes then record the New Planning Point here; write PLS or LKP as appropriate and give the reason for the change in Planning Point.

Initial Story / Circumstances: Write down a brief version of what is written on "Form 1."

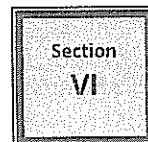
Confirmed By: Has the information given by the informant been checked? Write down the names and contact information of all those people who can confirm what happened. Confirming the story could become part of your Investigation Objectives.

Assigned Functions: Write down the names of any persons to whom you delegate one of these functions.

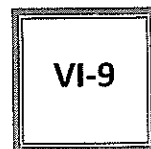
Further Developments: Any major event or item of information which influences the search, for example a clue being found, the person being found elsewhere.

Signature, Date, and Time: Self-explanatory.

VI. SAR FORMS AND DOCUMENTATION



| SAR Form #4 Resources Sheet | | | |
|--|--|------------------------|--------------------------------|
| Resource (Police, Mutual Aid, SAR Team, Other) | Status: En route, Assigned, Available, Out Of Service | Arriving From / ETA | Available Until <i>Time</i> |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Signature _____ | | Date (yr/mo/day) _____ | Time (24 hr) _____ |



INSTRUCTIONS, FORM 4

This is where you record information about resources. At the start of the incident, it is likely that there will not be much information to go on here; you will update it in Step 4 and make use of it in Step 5.

Resource (Police, Mutual Aid, SAR Team, Other): Give the name and the number of operational units the resource provides. This will help you to assign resources to Tasks in Step 5. Examples: Mountain View County GSAR 6 units, Calgary SAR Search Team 12 units.

Status: This will change as resources arrive, are assigned to Tasks, complete their assignment and become available again. It must be kept up to date to reflect the current status of all resources. Options are:

'En route' means the resource has been requested and is on the way. It is not yet available for assignment. In the next column you need to record where it is coming from and when it will arrive—ask them when you call for them, and record their ETA as an actual time. An ETA of '1 hour' is of no use to someone else who may be allocating resources to assignments before their arrival.

'Assigned' means that the resource is currently assigned to a Task on "Form 7." It is not available for assignment to another Task.

'Available' means that the resource can be given an assignment.

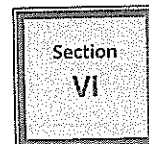
'Out of service' means that the resource cannot be given an assignment. It is either out of commission, resting after assignment or similar.

Where From/ETA: Identify where the resource will be coming from and the estimated time of arrival (ETA).

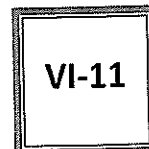
Available Until: When you call for resources ask them how long they can stay. Record the information here. If nothing is recorded then it will be assumed that the resource can remain indefinitely.

Signature, Date, and Time: Self-explanatory.

VI. SAR FORMS AND DOCUMENTATION



| SAR Form #5 Urgency Analysis | | | |
|---|---|---|--|
| Name of Incident: | | | Date and Time: |
| Urgency Analysis Compiled By: | | | |
| Question | Put a checkmark (✓) against the word or phrase which best represents the response to each question. | | |
| How Many? (Number in Group) | Solo Separated Split Group | Not Known Any Other | Entire Group Missing |
| How Old? | All or Mostly Young All or Mostly Elderly | Not Known Any Other | All Adult |
| Medical Condition? | Known ill or Injured Known Medical Condition, List: | Not Known Any Other | Known Fit and Well |
| Dressed for Weather? Equipped for Terrain? | All or Mostly ill Equipped | Not Known Any Other | All or Mostly Well Equipped |
| Familiar with this Area? | All or Most with None | Not Known Any Other | All or Most Familiar |
| Experienced In this Type of Environment and Terrain? | All or Most with None | Not Known Any Other | All or Most Familiar |
| Terrain? | Contains Hazards or Navigation Problems | Not Known Any Other | No Hazards or Navigation Problems |
| Weather? | Past and Present Bad Forecast Bad | Not Known Any Other | Past and Present Good Forecast Good |
| Number of Checkmarks | (one or more = Very High) | | |
| Urgency Rating | Very High | High | Low |
| Suggested Response | Respond Immediately With High Priority Continue Investigation | Respond Immediately Continue Investigation | Continue Investigation Prepare to Respond |
| Signature _____ | | Date (yr/mo/day) _____ | Time (24 hr) _____ |

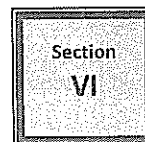


INSTRUCTIONS, FORM 5

- Form #5 consists of a number of questions down the left of the page. There are three sets of alternative answers to each question; you put a "√" (checkmark or an "x") against the one that you think best fits the current incident. If you do not have that information or if none of the alternatives fits then put your "√" in the middle column against 'not known' or 'any other.'
- When you have worked through all of the questions, count how many "√" you have put in each column. This is referred to as the number of hits for that column and you write that number on the row headed 'Number of Hits.'
- If there are any responses at all in the first column, i.e. with an Urgency Rating of 'very high', then that means that you have a very high priority incident with a very high level of urgency. You must respond immediately.
- If there are no hits at the 'very high' rating then whichever of the other two columns has the larger number of hits gives you the suggested level of urgency for the incident. A suggested response is given on the line below your number of hits.
- If the Urgency Rating that you get is 'high,' the suggested response is 'respond immediately and get more information.' This is because there are too many questions on the Checklist that you do not know the answer to at the current time. You must collect more information to fill in the gaps. That extra information could cause the urgency to change to 'very high,' and so you must be prepared for that to happen.
- There is nothing wrong with increasing the Urgency Rating to a level above that indicated by the Urgency Analysis if you feel that it would better reflect the situation. It is, however, dangerous and not advisable to reduce the Urgency Rating.
- Always remember that the level of urgency may change at a later stage when further information becomes available.

Signature, Date, and Time: Self-explanatory.

VI. SAR FORMS AND DOCUMENTATION

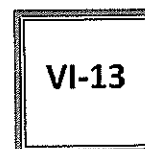


| SAR Form #6 Scenario Analysis Record Sheet | | |
|---|------------------|------------|
| No. | Scenario Details | Likelihood |
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| 9. | | |
| 10. | | |

LEGEND = Likelihood: Write in the abbreviation you think best fits each scenario.

VL = Very Likely L = Likely A = Average U = Unlikely VU = Very Unlikely

Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____



INSTRUCTIONS, FORM 6

A scenario is a plausible story that describes what might have happened and which fits in with the known facts. You will use your scenarios to help you plan where to search and where to locate confinement.

Scenarios should ideally be done with the active participation of someone who knows the area. Keep in mind what the informant has told you about what they think has happened. Scenarios should:

- Be real possibilities.
- Fit in with the Missing Person Profile.
- Fit in with Lost Person Behavior information.
- Indicate where the subject might have gone.
- Be written down on this form.

Scenario Details: Write down any scenarios you think have some possibility of describing what has happened to the subject. You should aim for at least three. You can write them down in any order.

Likelihood: Each scenario needs to be given a 'likelihood rating.' This is a measure of how likely you think it is that this scenario describes what actually happened. Use the abbreviations at the bottom of the sheet. Be realistic. Base your likelihood rating on what you have been told about the subject and Lost Person Behavior information.

Signature, Date, and Time: Self-explanatory.

Section VI

VI. FORMS

SAR Form #7

Incident Action Plan – Mission Goal and Objectives

| Mission Goal | Find Missing persons by 2200 hrs | First Operational Period | | |
|-------------------------|---------------------------------------|--------------------------|-------------------|---------------------------------------|
| | | Start Time | Finish Time | |
| Investigation Objective | Task | Task Priority | Resource Assigned | Task Completed and Resource Debriefed |
| Complete NIRA by BOCHS | Terrain Analysis | 1 | Safety | |
| | Hazard Identification | 2 | Safety | |
| Maintain Overhead Team | | | | |
| | | | | |
| | | | | |
| Acquire Mod Information | Interview Parents / friends / school. | 6 | 2 Dist Analyst. | |
| | Bank Accounts / Media (social) | | | |
| Signature | Date (yr/mo/day) | Time (24 hr) | | |

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Section VI

7. INCIDENT ACTION PLAN – MISSION GOAL AND OBJECTIVES

| Containment / Confinement Objective | Task | Task Priority | Resource Assigned | Task Completed and Resource Debriefed |
|---|--|---------------|-------------------|---------------------------------------|
| Establish containment. | Camp in junction of south / west. | 11 | Kodur Rect 1 | |
| | Mobile patrols along highway, 11 between east / west | | | |
| Search local area. IPP. | Search within 300 meters. | 10 | | 1213 |
| | Search school. | 13. | | 1214. |
| Develop Initial Search area in map. | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____ | | | | |

Section
VI

VI. FORMS

| Search Objective | Task | Task Priority | Resource Assigned | Task Completed and Resource Debriefed |
|------------------|------|---------------|-------------------|---------------------------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____

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7. INCIDENT ACTION PLAN – MISSION GOAL AND OBJECTIVES

INSTRUCTIONS, FORM 7

This form is your Incident Action Plan for the First Operational Period. Its purpose is to identify what you are going to do and who is going to do it.

Goal: 'Find Sally' or 'find Sally by midnight.' Complete the remainder of the form a column at a time starting from the left.

Objective: An Objective is a general description of what you need to do to meet your Goal. There are three types of Objective:

- Investigation Objectives,
- Confinement Objectives, and
- Search Objectives.

Search Objectives and Confinement Objectives will relate to your scenarios, Lost Person Behavior information and marks you have made on the map. Investigation Objectives could include getting information you need for the Missing Person Profile, checking for anyone who might have seen them or getting some kind of specialist advice. Examples are:

- **Investigation Objectives** – 'find out if the subject used public transport,' 'complete the Missing Person Profile,' 'interview all the people who visited the facility yesterday afternoon,' 'check the family's and friends' homes,' 'check with persons working in the surrounding area to see what they saw.'
- **Confinement Objectives** – 'check for anyone walking on the roads east and south of the Initial Search Area,' 'check for people moving north of the river.'
- **Search Objectives** - 'search the river,' 'search the roads,' 'search the buildings.'

Task: A Task is an assignment that can be given to a resource unit. Each Objective needs to be divided into a set of Tasks. Examples are (but limited to):

- The **Investigation Objective** 'find out if the subject used public transport' could be divided into the Tasks 'talk to the bus company,' 'check with local taxi operators' and so on.
- The **Confinement Objective** 'check for anyone walking on the streets east and south of the Initial Search Area' could be divided into the Tasks 'drive the road from 68th Street to the junction with Hwy 17 and back every half hour,' 'drive all the roads between the City limits and Packwood,' and so on.
- The **Search Objective** 'search the river' could be divided into the Tasks 'search west along the south bank from 10th Street to 5th Street,' 'search for objects in the water' and so on.

Details of exactly what each Task entails will be given when the resource unit is briefed.

Task Priority: All the Tasks need a priority number that establishes their relative importance, starting with 1 for the highest priority, then 2 and so on. Refer to the scenario likelihoods and decide how important you think any information might be that might come out of the investigation you want to do.

Resource Assigned: Write in the name of the resource assigned to this Task.

Task Completed and Resource Debriefed: Initial this column when the resource has been debriefed after completing its assignment.

Signature, Date, and Time: Self-explanatory.

VI. FORMS

Section
VISAR Form #8 - A
Briefing Checklist

Information To Share With Search and Rescue Prior To Deployment (use SMEAC format when briefing):

- Incident summary, including:**
- Subject description, and lost subject profile.
 - Actions to date.
 - Clues found.
 - Evidence handling.
 - Terrain.
 - Weather.
 - Private property.
 - Safety.
 - Traffic concerns.
 - Animal, wildlife control.
 - Specific hazards.
 - Media.
 - Family; domestic conflicts (if any).
 - Actions to take if subject found.
 - Rescue and medical plans.
- Assignment.**
- Type of subject to base tactics on (mobile / responsive, mobile / unresponsive, immobile / responsive, immobile / unresponsive, criminal / non-criminal).**
- Transportation to and from assignment.**
- Needed personal equipment.**
- Needed team equipment.**
- Team and base radio call signs.**
- Radio frequency(ies) and telephone numbers (landline and cell).**
- Expected time of return.**
- Where and to whom to report upon return, for debriefing.**

Signature _____

Date (yr/mo/day) _____

Time (24 hr) _____

INSTRUCTIONS FORM 8-A

This is a checklist of information to share with the resource unit before deployment. Use the SMEAC order for the briefing.

- S – Situation.
- M – Mission or incident objectives.
- E – Execution.
- A – Administration and logistics.
- C – Control and communications.

Write down what you tell them and keep a copy for the debriefing.

Assignment:

- If possible provide them with a marked map.
- Make sure that they know exactly what to do:
 - Where to go.
 - Boundaries and limits.
 - How to accomplish the Task.

Signature, Date, and Time: Self-explanatory.

VI. FORMS

Section
VISAR Form # 8 - B
Debriefing Checklist

Information To Obtain From Searchers Upon Their Return.

Note: Recommended information be documented in writing, and on incident map.

- Searchers present at debriefing.
- What was the assignment.
- Time started.
- What was actually accomplished and estimated POD.
- Time completed.
- Evidence/clues.
- Location and status of any clues located.
- Search difficulties or gaps in coverage.
- Hazards observed in the area.
- Communication problems.
- Suggestions, ideas, or recommendations for future actions.
- Full documentation (photos, maps, sketches): Copy or original of all notes, SD Cards, MiCro Cards.

Note: Update "Restat Function" as to searchers new status.

Signature _____

Date (yr/mo/day) _____

Time (24 hr) _____

INSTRUCTIONS, FORM 8-B

This is a checklist of items that need to be covered at a debriefing. Debrief the resource unit as soon as possible after they return from their assignment. Do it face to face. Refer to the information they were given at their briefing. Write down what is said.

What did they accomplish:

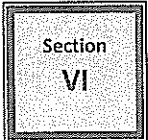
- Did they cover the entire area they were given?
- Which parts were not covered? Mark them on the map.
- How likely were they to have seen the subject had they been in that area? – Use a scale of 0 to 10 (0 means no chance at all of seeing them, 10 means absolutely certain to have seen them).

Initial Form 7 when the debriefing is complete.

Update the status on Form 4.

Signature, Date, and Time: Self-explanatory.

VI. FORMS



SAR Form #9
Rural / Urban / Interface Inquires

The following form can be used to complete either door to door inquires in the urban area, or cabin to cabin inquires in a rural area around a lake or in cottage country. The form can also be used to complete 'camp site to camp site' inquiries in a Provincial, State, Federal Park or campground.

Address: _____ Phone: _____

OCCUPANTS: List all occupants whether they are regular residents – include those visiting at time of the incident.

| | | |
|----------------|--------------|-----------|
| 1. Name: _____ | D.O.B. _____ | Sex _____ |
| 2. Name: _____ | D.O.B. _____ | Sex _____ |
| 3. Name: _____ | D.O.B. _____ | Sex _____ |
| 4. Name: _____ | D.O.B. _____ | Sex _____ |

DESCRIPTION: Height, weight, hair, eyes, moustache, glasses, marks / scars / tattoos, ethnic origin.

1. _____

2. _____

3. _____

4. _____

EMPLOYEMENT / SCHOOL:

| | |
|----------|-------------|
| 1. _____ | Phone _____ |
| 2. _____ | Phone _____ |
| 3. _____ | Phone _____ |
| 4. _____ | Phone _____ |

VEHICLES: Match vehicle to occupant. List vehicle description and license number.

| | | |
|------------------|-----------------|-------------------|
| Occupant # _____ | License # _____ | Checked: Yes / No |
| Occupant # _____ | License # _____ | Checked: Yes / No |
| Occupant # _____ | License # _____ | Checked: Yes / No |
| Occupant # _____ | License # _____ | Checked: Yes / No |

NARRATIVE: Specify which occupant supplied information. Note any clues, statements, searcher comments etc. If necessary use another form for continuing information.

Badge # / REG # _____ Name: _____

Badge # / REG # _____ Name: _____

Team Members: _____

Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____



Section
VI

9. RURAL/URBAN/INTERFACE INQUIRES

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VI. FORMS

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SAR Form #10
A Format for a Missing Person Questionnaire

A jurisdiction or organization can use the following checklist to construct a "Missing / Lost Person Questionnaire" for their use. Be sure to include adequate space after each item for the report takers to record information. **NOTE:** Use pencil/black ink, print clearly, avoid confusing phrases/words, unfamiliar abbreviations. Complete and detail answers are required for future use. It is imperative to make notations in all blanks for which questions have been asked, even if the answer is "NONE," "N.A.," "UNSURE," etc. Strive to answer ALL questions.

- Incident Title:
 - Today's Date:
 - Time:
 - Name of Person Taking Info:
 - Case/Incident #:
 - SAR #:
 - Police File #:
- A. MISSING PERSON**
- Name:
 - Nickname(s):
 - Home Address:
 - Local Address:
 - Home Phone #:
 - Local phone #:
 - Date of Birth:
 - Birthplace:
 - Gender:
 - Passwords for Children:
- B. SOURCE(S) OF INFORMATION FOR QUESTIONNAIRE**
- Name (of reporting party):
 - How taken (phone, in person, etc.):
 - Address of reporting party:
 - Phone #:
 - 2nd phone #:
 - Relationship (to missing person):
 - Where/how to contact now:
 - Where/how to contact later (include times):
 - What does reporting person believe happened to mission person:
 - What does reporting person think the missing person's current activities are:
 - What actions has reporting person or other individuals taken to date:
 - What does reporting person think the interviewer/agency should do:
 - Written statement: (yes, no)
- C. POINT LAST SEEN / LAST KNOWN LOCATION**
- Date:
 - Time:
 - Where:
 - Why/how:
 - Activity missing person engaged in at time:
 - Seen by whom:
 - Location now:
 - Who last talked at length with person:
 - Where:
 - Subjects discussed:
 - Weather at time:
 - Weather since:
 - Seen going which way:
 - When:
 - Reason for leaving:
 - Attitude (confident, confused, etc.):
 - Subject complaining of anything:
 - Subject seem tired:
 - Cold/hot:
 - Other:
 - Comments:
- D. PLANS OF SUBJECT**
- Started at:
 - When:
 - Going to:
 - Via:
 - Purpose:
 - Done/completed this activity before:
 - For how long?
 - Group Size:
 - Transported by whom/means:
 - Vehicle now located at (or last confirmed/seen at):
 - Type:
 - Color:
 - License #:
 - State/Prov:

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10. A FORMAT FOR A MISSING PERSON QUESTIONNAIRE

- Verified: (yes, no)
- Who:
- Return time:
- From where:
- By whom/what:
- Additional names, cars, licenses, etc. for party:
- Alternate plans/routes/objectives discussed:
- Discussed with whom:
- When:
- Comments:

E. CONTACTS PERSON WOULD MAKE UPON RETURNING

- #1. Name:
 - Relationship:
 - Address:
 - Phone #:
 - Anyone home now:
- #2. Name:
 - Relationship:
 - Address:
 - Phone #:
 - Anyone home now:

F. PAST EXPERIENCE

- Familiar with area: (yes, no)
 - How recent:
 - Other:
- Describe formal outdoor training:
 - Degree:
 - Where:
 - When:
- Describe medical training:
 - When:
- Describe scouting experience:
 - When:
 - Where:
 - How much:
 - Scout Leader:
- Describe military experience: (yes, no?)
 - What:
 - When:
 - Where:
 - Rank:
 - Other:
- Describe missing person's experience in the sport/activity related to loss:
- Generalized previous outdoor experience:

- Ever been lost before: (yes, no)
 - Where:
 - When:
- Ever go out alone:
 - Where:
- Stay on streets, take short
 - cuts:
- How fast does subject travel:
- Athletic/other interests:
- Comments:

G. HABITS / PERSONALITY ATTRIBUTES

- Missing person's mental condition (confident, confused, etc.):
- Missing person's condition (energetic, tired, cold, etc.):
- Missing person complaining of anything:
- Attitude when last seen (confident, confused, etc.):
- Hitchhike: (yes, no)
 - Accepts rides easily:

Circle the Appropriate Number for the Following

- Thrives on Risk 5 4 3 2 1 Avoids Risk
- Very Independent 5 4 3 2 1 Highly Dependent
- Very Assertive 5 4 3 2 1 Not Assertive
- Excellent Physical Condition 5 4 3 2 1 Poor Condition
- Leader 5 4 3 2 1 Follower
- Outgoing 5 4 3 2 1 Quiet
- Gregarious 5 4 3 2 1 Loner
- Keeps Going 5 4 3 2 1 Gives Up Easily
- Interviewee's perception of missing person's outdoor skills
 - Highly Skilled 5 4 3 2 1 No Skill
- Tobacco (describe use):
 - How often:
 - What:
 - Brand:
- Alcohol (describe use):
 - How often:
 - What:
 - Brand:
- Recreational drugs (describe use):
 - How often:
- Gum, candy, other :
 - Brands:
- Hobbies/Interests:
- Fears (heights, dark, adults, animals, etc.):
- Legal problems (past/present):

VI. FORMS

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- Personal, family problems (past/present):
 - Known psychological problems:
 - Knowledgeable person and phone #:
 - Personal values:
 - Clean / Well Groomed / Dirty / Unkempt:
 - Emotional history:
 - Religious: (yes, no)
 - Faith:
 - Degree:
 - Philosophy:
 - Local/fictional hero:
 - Education:
 - Grade:
 - Current status:
 - Teacher(s):
 - School name:
 - College education:
 - Subject/degree:
 - Year:
 - Person closest to missing person:
 - Name, location, phone number:
 - Comments:
- H. HEALTH AND GENERAL CONDITION**
- Overall health:
 - Overall physical condition:
 - Known medical problems:
 - Knowledgeable doctor:
 - Phone #:
 - Handicaps:
 - Medications:
 - Purpose:
 - Does missing person have medications:
 - Amounts:
 - Does missing person take medications regularly:
 - Consequences of not taking medications:
 - Knowledgeable person regarding medications:
 - Phone #:
 - Eyesight without glasses:
 - Spares: (yes, no)
 - Comments:
- I. PHYSICAL DESCRIPTION**
- Height:
 - Weight:
 - Age:
 - Build:
 - Hair:
 - Color:
 - Length:
 - Style:
 - Facial hair:
 - Beard:
 - Mustache:
 - Sideburns:
 - Facial features/shape:
 - Complexion:
 - Distinguishing marks, scars, tattoos:
 - Overall appearance:
 - Photo available: (yes, no)
 - How old is picture?
 - o Where:
 - o Need to be returned?
 - Comments:
- J. CLOTHING**
- Determine the: Style; COLOR; Size; Manufacturer; Other Significant Information on each of the following:
 - Shirt/sweater:
 - Pants:
 - Outer wear:
 - Inner wear:
 - Head wear:
 - Rain wear:
 - Glasses:
 - Gloves:
 - Extra clothing:
 - Footwear:
 - Boot/shoe size:
 - Make/model:
 - Sole type:
 - Sample available:
 - Where:
 - Attach sketch of sole pattern:
 - Scent articles available: (yes, no)
 - What:
 - Secured: (yes, no)
 - Where now:
 - Overall coloration as seen from air:
- K. EQUIPMENT**
- Determine the: Style; Color; Brand; Size; Manufacturer; of the following:
 - Bag, purse:
 - Briefcase:
 - Fanny pack:
 - Cane:
 - Walker:

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10. A FORMAT FOR A MISSING PERSON QUESTIONNAIRE

- Day pack:
- FSR radio:
- Medical tracking devices:
- Medical ID tags:
- Liquid container:
 - o How much fluid:
 - o What kind:
- Map or Guidebook:
 - o Of where:
- How competent with map/compass:
- Whistle:
- Smart/Cellular phone and #:
 - Make, telephone service provider:
- SPOT, INREACH, PLB, GPS:
- Knife:
- Camera:
 - Lens:
- Food and snacks:
 - Brands:
- Money:
 - Amount:
 - Credit Cards:
- Other documents:
- Comments:

L. WITH FAMILY PET/GUIDEDOG

- Name:
- Breed:
- Training:
- Collar:
- Leash:
- Poop and scoop equipment:

M. CHILDREN

- Password:
- Street proofing training:
- Afraid of dark:
 - Animals:
 - Afraid of: _____
- Feeling toward adults:
 - Strangers:
- Reactions when hurt:
 - Cry:
- Training when lost:
- Active/lethargic/antisocial:
- Would respond to searcher's calls?
- Would respond to what name or nickname?
- Known attractions:
- Comments:

N. MEDIA / FAMILY RELATIONS

- Next of kin:
 - Relationship:
 - Address:
 - Phone #:
 - Occupation:
- Person to notify when subject found:
 - Relationship:
 - Address:
 - Phone #:
 - Occupation:
 - Where are they, or where will they be:
- Significant family problems:
- Family's desire to employ special assistance:
- Comments:

VI. FORMS

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SAR Form #11

Evaluating The "Health of a Search Response" Checklist

This checklist is useful for evaluating the "health" of a search and rescue response. If any of the following can't be checked, they may be warning signals that incident management staffing is not "in synch" with the search and rescue effort. This could also be an indication that the Incident Commander may have lost situational awareness. Consider increasing or rotating personnel, or downsizing operations.

- I have time to review this list.
- An atmosphere of positive urgency is being maintained.
- Leads are being aggressively pursued through investigation. Friends, family and possible witnesses have been (or will shortly be) contacted.
- Clues are being tracked, and resolved promptly.
- Staff has time for breaks and meals. There isn't a major backlog of tasks. Individuals are not working beyond scheduled shifts.
- Scenarios as to cause of incident have been discussed and evaluated, and reflect current knowledge.
- Search efforts are focused to eliminate scenarios in established priority order.
- Current and ordered resources do complement identified needs.
- Safety, investigation, containment, and search objectives have been identified, and have been reviewed in the past 24 hours.
- The number, location and status of all incident personnel is known.
- Logistical needs (transport, food, shelter) are met for the next 12 hours.
- Unassigned personnel aren't wandering about the command post area.
- Assignments (oral or written) are ready prior to resource arrival.
- Teams returning from assignments are being debriefed promptly. Debriefing information is being recorded, and is being considered in developing future objectives.
- The family supports the search effort.
- A PIO has been identified, or the press has been notified.
- A rescue/medical plan has been identified, and is ready for immediate implementation.
- An air operations function has been activated to support any helicopter activities.

Signature _____

Date (yr/mo/day) _____

Time (24 hr) _____

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11. EVALUATING THE "HEALTH OF A SEARCH RESPONSE" CHECKLIST

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VI. SAR FORMS AND DOCUMENTATIONS

- SAR FORM #1: FIRST NOTICE RECORD SHEET
- SAR FORM #2: MISSING PERSON PROFILE
- SAR FORM #3: INCIDENT HISTORY
- SAR FORM #4: RESOURCES SHEET
- SAR FORM #5: URGENCY ANALYSIS
- SAR FORM #6: SCENARIO ANALYSIS RECORD SHEET
- SAR FORM #7: INCIDENT ACTION PLAN – MISSION GOAL AND OBJECTIVES
- SAR FORM #8–A: BRIEFING CHECKLIST
- SAR FORM #8–B: DEBRIEFING CHECKLIST
- SAR FORM #9: RURAL / URBAN INTERFACE INQUIRIES
- SAR FORM #10: A FORMAT FOR A MISSING PERSON QUESTIONNAIRE
- SAR FORM #11: EVALUATING THE "HEALTH OF A SEARCH RESPONSE"
CHECKLIST
- SAR FORM #12: SEARCH AND RESCUE MISSION DATA SHEET
- SAR FORM #13: SAR 6-STEP PLANNING PROCESS
- SAR FORM #14: POA CONSENSUS WORKSHEET
- SAR FORM #15: SAFETY MESSAGE/PLAN (ICS 208 – ERI VERSION)
- SAR FORM #16: RISK ASSESSMENT WORKSHEET
- SAR FORM #17: ASSIGNMENT LIST (SAR VERSION)
- SAR FORM #18: (ICS 203) ORGANIZATION ASSIGNMENT LIST
- SAR FORM #19: (ICS 206) MEDICAL PLAN
- SAR FORM #20: (ICS 207) INCIDENT ORGANIZATION CHART
- SAR FORM #21: (ICS 209) INCIDENT STATUS SUMMARY
- SAR FORM #22: (ICS 211) INCIDENT CHECK-IN LIST
- SAR FORM #23: ICS 215A) INCIDENT ACTION PLAN SAFETY ANALYSIS

vMarch 2018

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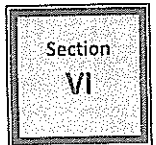
VI. SAR FORMS AND DOCUMENTATION

NOTES

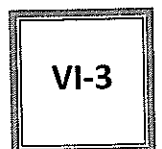
Lined area for taking notes.

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VI. SAR FORMS AND DOCUMENTATION



| SAR Form #1 First Notice Record Sheet | | |
|---|------------------------|--------------------|
| Person Receiving Report: | Date Received: | Time Received: |
| Name and Contact Information of Complainant: | | |
| Report Received by (9-1-1 agency, communication center [SPOT, INREACH, RCC] or if other explain): | | |
| Name of Missing Person and Date of Birth: | | |
| Date and Time Last Seen: | | |
| Circumstances of Loss: | | |
| Point Last Seen (PLS) or Last Known Point (LKP): | | |
| What Does Complainant Think Happened: | | |
| What Does Complainant Want Done: | | |
| Instructions to Complainant: | | |
| Signature _____ | Date (yr/mo/day) _____ | Time (24 hr) _____ |



Section
VI**1. FIRST NOTICE RECORD SHEET****INSTRUCTIONS, FORM 1**

This is the form you use to record the information you are given at First Notice. You should write something in every box.

Remember that you may have to hand this form on to someone who takes over from you as Incident Commander – write down everything you are told.

Note date and time of any subsequent information recorded on this form after initial use.

Include full names, addresses and telephone numbers where appropriate.

The **complainant** is the person who gives you the First Notice information.

Person Receiving Report and Date Received and Time Received: Enter the name of the person completing form, date and time report taken.

Name and Contact Information of Complainant: Means the name, address, telephone number or a location where the person can definitely be contacted. You may need to change this later if they move to another location.

Report Received By (9-1-1 Agency, or if other explain): The name of the department (police, fire), agency, or business.

Name of Missing Person and Date of Birth: Self explanatory.

Date and Time Last Seen: Include the name of the person who saw the subject and any contact information you have for them.

Circumstances of Loss: What the subject was doing, where they were, where they might have been going and whom they were with. Give any other known information, for example intentions and times.

Point Last Seen (PLS) or Last Known Point (LKP): Circle PLS or LKP as appropriate. Describe the location in such a way that there can be no confusion as to where it is. Give a map reference if possible.

What Does Complainant Think Happened: Record any ideas that the informant has, otherwise write 'not known'.

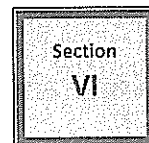
What Does Complainant Want Done: This may cause the informant to provide information that they otherwise might not have done. Write down everything they suggest.

Instructions to Complainant: Write down exactly what you tell them so that they can be contacted if needed.

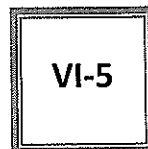
Signature, Date, and Time: Self explanatory.

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VI. SAR FORMS AND DOCUMENTATION



| SAR Form #2 Missing Person Profile | | |
|---|------------------------|--------------------|
| Name: | Gender: | Age: |
| Name Person Answers To, If Different: | | Date of Birth: |
| Address: | | |
| Physical Description (height, weight, marks, scars, tattoos, etc.): | | |
| Clothing Worn: | | |
| Additional Items Carried: | | |
| Capability / Health: | | |
| Habits / Hobbies / Interests / Activity: | | |
| Previous Relevant History: | | |
| Category of Missing Person (from Lost Person Behavior) | | |
| Signature _____ | Date (yr/mo/day) _____ | Time (24 hr) _____ |



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2. MISSING PERSON PROFILE

INSTRUCTIONS, FORM 2

Use this form to build up a profile of the subject. You may not be able to fill in all the boxes from the information you have been given at First Notice. Each time you get another piece of information that helps to build up a profile of the subject remember to add it to this form.

Attach a picture of the subject if available.

Name / M or F / Age / Date of Birth / Address: Record the subject's full name and any other names they are known by or would answer to. Circle or write "M" for Male or "F" for Female. Enter the subject's age, date of birth and address.

Physical Description: The minimum information required is height, weight, build, facial appearance (complexion, facial hair, if wearing glasses, hair color, length and style), general appearance and any distinguishing marks or features.

Clothing Worn: Style, make and color of all clothing including footwear and sole pattern.

Additional Items Carried: Items of personal gear or anything relating to the activity that the subject was undertaking. Include sufficient detail to make an identification if anything is found. Was the subject carrying money – how much? – or credit cards?

Capability / Health: Record any known information, for example fit and healthy, any problems which could affect the distance the subject might travel, any medication taken regularly and if so have they got it with them, did they have full control of all their faculties, did they always behave rationally.

Habits / Hobbies / Interests / Likely Activities: Record any information available that might indicate what the subject might have been doing or where they might have gone.

Previous Relevant History: Have they been missing before? If so, when was it, where did they go missing from, where were they found and what were they doing.

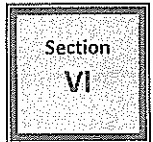
Category Of Missing Person: There are many categories of Missing Person. Determine the category that best fits the known information in this incident. Children and young persons are categorized by age, adults by mental state or activity. Categories include:

- Child
- Dementia / Alzheimer's / Elderly Walk-a-ways
- Intellectually Disabled
- Drug Affected
- Despondent
- Psychotic
- Run-Away
- Abduction-Parental
- Abduction-Criminal
- Hiker
- Hunter
- Fisherman
- X-country Skier
- Climber
- OHV User
- Mtn Biker

Signature, Date, and Time: Self-explanatory.

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VI. SAR FORMS AND DOCUMENTATION



| SAR Form #3 Incident History | |
|---------------------------------|------------------------|
| Incident Name: | Operational Period #: |
| | Start Date / Time: |
| Incident Commander: | Ending Date / Time: |
| OSC/SAR Manager: | |
| Initial Planning Point (IPP): | |
| New IPP: | Reason: |
| Initial Story / Circumstances: | |
| Confirmed By: | |
| Assigned Functions: | |
| Family Liaison: | |
| PIO: | |
| Planning: | |
| • Investigation | |
| • Situation Status: | |
| • Resource Status: | |
| Logistics: | |
| Operations: | |
| • Staging: | |
| • Air Ops: | |
| Other: | |
| Further Developments: | |
| Signature _____ | Date (yr/mo/day) _____ |
| | Time (24 hr) _____ |



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3. INCIDENT HISTORY

INSTRUCTIONS, FORM 3

Record here the information that will help you to manage the incident.

Incident Name / Operational Period # / Beginning Date/Time / Ending Date/Time / Incident Commander, Operations Section Chief (OCS)/SAR Manager: Use the incident or mission number if you have one, otherwise use the name of the subject and the date. Indicate the shift number, beginning and ending date and time.

Initial Planning Point / Reason: Copy this from "Form 1" and write PLS or LKP as appropriate.

New IPP / Reason: If the Planning Point changes then record the New Planning Point here; write PLS or LKP as appropriate and give the reason for the change in Planning Point.

Initial Story / Circumstances: Write down a brief version of what is written on "Form 1."

Confirmed By: Has the information given by the informant been checked? Write down the names and contact information of all those people who can confirm what happened. Confirming the story could become part of your Investigation Objectives.

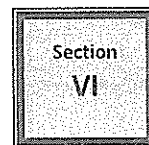
Assigned Functions: Write down the names of any persons to whom you delegate one of these functions.

Further Developments: Any major event or item of information which influences the search, for example a clue being found, the person being found elsewhere.

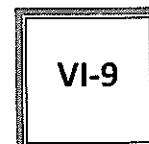
Signature, Date, and Time: Self-explanatory.

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VI. SAR FORMS AND DOCUMENTATION



| SAR Form #4 Resources Sheet | | | |
|---|--|------------------------|--------------------------------|
| Resource (Police, Mutual Aid, SAR Team, Other) | Status: En route, Assigned, Available, Out Of Service | Arriving From / ETA | Available Until <i>Time</i> |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Signature _____ | | Date (yr/mo/day) _____ | Time (24 hr) _____ |



INSTRUCTIONS, FORM 4

This is where you record information about resources. At the start of the incident, it is likely that there will not be much information to go on here; you will update it in Step 4 and make use of it in Step 5.

Resource (Police, Mutual Aid, SAR Team, Other): Give the name and the number of operational units the resource provides. This will help you to assign resources to Tasks in Step 5. Examples: Mountain View County GSAR 6 units, Calgary SAR Search Team 12 units.

Status: This will change as resources arrive, are assigned to Tasks, complete their assignment and become available again. It must be kept up to date to reflect the current status of all resources. Options are:

'En route' means the resource has been requested and is on the way. It is not yet available for assignment. In the next column you need to record where it is coming from and when it will arrive—ask them when you call for them, and record their ETA as an actual time. An ETA of '1 hour' is of no use to someone else who may be allocating resources to assignments before their arrival.

'Assigned' means that the resource is currently assigned to a Task on "Form 7." It is not available for assignment to another Task.

'Available' means that the resource can be given an assignment.

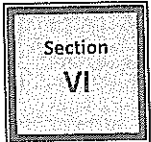
'Out of service' means that the resource cannot be given an assignment. It is either out of commission, resting after assignment or similar.

Where From/ETA: Identify where the resource will be coming from and the estimated time of arrival (ETA).

Available Until: When you call for resources ask them how long they can stay. Record the information here. If nothing is recorded then it will be assumed that the resource can remain indefinitely.

Signature, Date, and Time: Self-explanatory.

VI. SAR FORMS AND DOCUMENTATION



| SAR Form #5 Urgency Analysis | | | |
|---|---|---|--|
| Name of Incident: | | | Date and Time: |
| Urgency Analysis Compiled By: | | | |
| Question | Put a checkmark (✓) against the word or phrase which best represents the response to each question. | | |
| How Many? (Number in Group) | Solo Separated Split Group | Not Known Any Other | Entire Group Missing |
| How Old? | All or Mostly Young All or Mostly Elderly | Not Known Any Other | All Adult |
| Medical Condition? | Known ill or Injured Known Medical Condition, List: | Not Known Any Other | Known Fit and Well |
| Dressed for Weather? Equipped for Terrain? | All or Mostly ill Equipped | Not Known Any Other | All or Mostly Well Equipped |
| Familiar with this Area? | All or Most with None | Not Known Any Other | All or Most Familiar |
| Experienced In this Type of Environment and Terrain? | All or Most with None | Not Known Any Other | All or Most Familiar |
| Terrain? | Contains Hazards or Navigation Problems | Not Known Any Other | No Hazards or Navigation Problems |
| Weather? | Past and Present Bad Forecast Bad | Not Known Any Other | Past and Present Good Forecast Good |
| Number of Checkmarks | (one or more = Very High) | | |
| Urgency Rating | Very High | High | Low |
| Suggested Response | Respond Immediately With High Priority Continue Investigation | Respond Immediately Continue Investigation | Continue Investigation Prepare to Respond |
| Signature _____ | | Date (yr/mo/day) _____ | Time (24 hr) _____ |

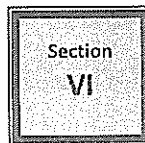


INSTRUCTIONS, FORM 5

- Form #5 consists of a number of questions down the left of the page. There are three sets of alternative answers to each question; you put a "√" (checkmark or an "x") against the one that you think best fits the current incident. If you do not have that information or if none of the alternatives fits then put your "√" in the middle column against 'not known' or 'any other.'
- When you have worked through all of the questions, count how many "√" you have put in each column. This is referred to as the number of hits for that column and you write that number on the row headed 'Number of Hits.'
- If there are any responses at all in the first column, i.e. with an Urgency Rating of 'very high', then that means that you have a very high priority incident with a very high level of urgency. You must respond immediately.
- If there are no hits at the 'very high' rating then whichever of the other two columns has the larger number of hits gives you the suggested level of urgency for the incident. A suggested response is given on the line below your number of hits.
- If the Urgency Rating that you get is 'high,' the suggested response is 'respond immediately and get more information.' This is because there are too many questions on the Checklist that you do not know the answer to at the current time. You must collect more information to fill in the gaps. That extra information could cause the urgency to change to 'very high,' and so you must be prepared for that to happen.
- There is nothing wrong with increasing the Urgency Rating to a level above that indicated by the Urgency Analysis if you feel that it would better reflect the situation. It is, however, dangerous and not advisable to reduce the Urgency Rating.
- Always remember that the level of urgency may change at a later stage when further information becomes available.

Signature, Date, and Time: Self-explanatory.

VI. SAR FORMS AND DOCUMENTATION

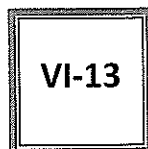


| SAR Form #6 Scenario Analysis Record Sheet | | |
|---|------------------|------------|
| No. | Scenario Details | Likelihood |
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| 9. | | |
| 10. | | |

LEGEND = Likelihood: Write in the abbreviation you think best fits each scenario.

VL = Very Likely L = Likely A = Average U = Unlikely VU = Very Unlikely

Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____



INSTRUCTIONS, FORM 6

A scenario is a plausible story that describes what might have happened and which fits in with the known facts. You will use your scenarios to help you plan where to search and where to locate confinement.

Scenarios should ideally be done with the active participation of someone who knows the area. Keep in mind what the informant has told you about what they think has happened. Scenarios should:

- Be real possibilities.
- Fit in with the Missing Person Profile.
- Fit in with Lost Person Behavior information.
- Indicate where the subject might have gone.
- Be written down on this form.

Scenario Details: Write down any scenarios you think have some possibility of describing what has happened to the subject. You should aim for at least three. You can write them down in any order.

Likelihood: Each scenario needs to be given a 'likelihood rating.' This is a measure of how likely you think it is that this scenario describes what actually happened. Use the abbreviations at the bottom of the sheet. Be realistic. Base your likelihood rating on what you have been told about the subject and Lost Person Behavior information.

Signature, Date, and Time: Self-explanatory.

Section VI

VI. FORMS

SAR Form #7

Incident Action Plan – Mission Goal and Objectives

| Mission Goal | Find Missing persons by 2200 hrs | First Operational Period | | |
|---------------------------|---------------------------------------|--------------------------|-------------------|---------------------------------------|
| | | Start Time | Finish Time | |
| Investigation Objective | Task | Task Priority | Resource Assigned | Task Completed and Resource Debriefed |
| Complete NARA by 1300 hrs | Terrain Analysis | 1 | Safety | |
| | Hazard Identification | 2 | Safety | |
| maintain Overhead Team | | | | |
| | | | | |
| | | | | |
| Acquire Mod Information | Interview Parents / friends / school. | 6 | 2 Dist Analyst. | |
| | Bank Accounts / Media (social) | | | |
| Signature _____ | Date (yr/mo/day) _____ | Time (24 hr) _____ | | |

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Section VI

7. INCIDENT ACTION PLAN – MISSION GOAL AND OBJECTIVES

| Containment / Confinement Objective | Task | Task Priority | Resource Assigned | Task Completed and Resource Debriefed |
|---|--|---------------|-------------------|---------------------------------------|
| Establish containment | Camp in junction of south / west. | 11 | Koduo Keel 1 | |
| | Mobile patrols along highway, 11 between east / west | | | |
| Search local area. IPP. | Search within 300 meters | 10 | | 1213 |
| | Search school | 13. | | 1214. |
| Develop Initial Search area in map. | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____ | | | | |

Section VI

VI. FORMS

| Search Objective | Task | Task Priority | Resource Assigned | Task Completed and Resource Debriefed |
|------------------|------|---------------|-------------------|---------------------------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____

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7. INCIDENT ACTION PLAN – MISSION GOAL AND OBJECTIVES

INSTRUCTIONS, FORM 7

This form is your Incident Action Plan for the First Operational Period. Its purpose is to identify what you are going to do and who is going to do it.

Goal: 'Find Sally' or 'find Sally by midnight.' Complete the remainder of the form a column at a time starting from the left.

Objective: An Objective is a general description of what you need to do to meet your Goal. There are three types of Objective:

- Investigation Objectives,
- Confinement Objectives, and
- Search Objectives.

Search Objectives and Confinement Objectives will relate to your scenarios, Lost Person Behavior information and marks you have made on the map. Investigation Objectives could include getting information you need for the Missing Person Profile, checking for anyone who might have seen them or getting some kind of specialist advice. Examples are:

- **Investigation Objectives** – 'find out if the subject used public transport,' 'complete the Missing Person Profile,' 'interview all the people who visited the facility yesterday afternoon,' 'check the family's and friends' homes,' 'check with persons working in the surrounding area to see what they saw.'
- **Confinement Objectives** – 'check for anyone walking on the roads east and south of the Initial Search Area,' 'check for people moving north of the river.'
- **Search Objectives** - 'search the river,' 'search the roads,' 'search the buildings.'

Task: A Task is an assignment that can be given to a resource unit. Each Objective needs to be divided into a set of Tasks. Examples are (but limited to):

- The **Investigation Objective** 'find out if the subject used public transport' could be **divided into the Tasks** 'talk to the bus company,' 'check with local taxi operators' and so on.
- The **Confinement Objective** 'check for anyone walking on the streets east and south of the Initial Search Area' could be divided into the Tasks 'drive the road from 68th Street to the junction with Hwy 17 and back every half hour,' 'drive all the roads between the City limits and Packwood,' and so on.
- The **Search Objective** 'search the river' could be divided into the Tasks 'search west along the south bank from 10th Street to 5th Street,' 'search for objects in the water' and so on.

Details of exactly what each Task entails will be given when the resource unit is briefed.

Task Priority: All the Tasks need a priority number that establishes their relative importance, starting with 1 for the highest priority, then 2 and so on. Refer to the scenario likelihoods and decide how important you think any information might be that might come out of the investigation you want to do.

Resource Assigned: Write in the name of the resource assigned to this Task.

Task Completed and Resource Debriefed: Initial this column when the resource has been debriefed after completing its assignment.

Signature, Date, and Time: Self-explanatory.

VI. FORMS

Section VI

SAR Form #8 - A
Briefing Checklist

Information To Share With Search and Rescue Prior To Deployment (use SMEAC format when briefing):

- Incident summary, including:
 - Subject description, and lost subject profile.
 - Actions to date.
 - Clues found.
 - Evidence handling.
 - Terrain.
 - Weather.
 - Private property.
 - Safety.
 - Traffic concerns.
 - Animal, wildlife control.
 - Specific hazards.
 - Media.
 - Family; domestic conflicts (if any).
 - Actions to take if subject found.
 - Rescue and medical plans.
- Assignment.
- Type of subject to base tactics on (mobile / responsive, mobile / unresponsive, immobile / responsive, immobile / unresponsive, criminal / non-criminal).
- Transportation to and from assignment.
- Needed personal equipment.
- Needed team equipment.
- Team and base radio call signs.
- Radio frequency(ies) and telephone numbers (landline and cell).
- Expected time of return.
- Where and to whom to report upon return, for debriefing.

Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____

INSTRUCTIONS FORM 8-A

This is a checklist of information to share with the resource unit before deployment. Use the SMEAC order for the briefing.

- S** – Situation.
- M** – Mission or incident objectives.
- E** – Execution.
- A** – Administration and logistics.
- C** – Control and communications.

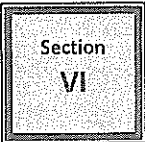
Write down what you tell them and keep a copy for the debriefing.

Assignment:

- If possible provide them with a marked map.
- Make sure that they know exactly what to do:
 - Where to go.
 - Boundaries and limits.
 - How to accomplish the Task.

Signature, Date, and Time: Self-explanatory.

VI. FORMS



SAR Form # 8 - B
Debriefing Checklist

Information To Obtain From Searchers Upon Their Return.

Note: Recommended information be documented in writing, and on incident map.

- Searchers present at debriefing.
- What was the assignment.
- Time started.
- What was actually accomplished and estimated POD.
- Time completed.
- Evidence/clues.
- Location and status of any clues located.
- Search difficulties or gaps in coverage.
- Hazards observed in the area.
- Communication problems.
- Suggestions, ideas, or recommendations for future actions.
- Full documentation (photos, maps, sketches): Copy or original of all notes, SD Cards, MiCro Cards.

Note: Update "Restat Function" as to searchers new status.

| | | |
|-----------------|------------------------|--------------------|
| Signature _____ | Date (yr/mo/day) _____ | Time (24 hr) _____ |
|-----------------|------------------------|--------------------|



INSTRUCTIONS, FORM 8-B

This is a checklist of items that need to be covered at a debriefing. Debrief the resource unit as soon as possible after they return from their assignment. Do it face to face. Refer to the information they were given at their briefing. Write down what is said.

What did they accomplish:

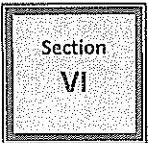
- Did they cover the entire area they were given?
- Which parts were not covered? Mark them on the map.
- How likely were they to have seen the subject had they been in that area? – Use a scale of 0 to 10 (0 means no chance at all of seeing them, 10 means absolutely certain to have seen them).

Initial Form 7 when the debriefing is complete.

Update the status on Form 4.

Signature, Date, and Time: Self-explanatory.

VI. FORMS



SAR Form #9
Rural / Urban / Interface Inquires

The following form can be used to complete either door to door inquires in the urban area, or cabin to cabin inquires in a rural area around a lake or in cottage country. The form can also be used to complete 'camp site to camp site' inquiries in a Provincial, State, Federal Park or campground.

Address: _____ Phone: _____

OCCUPANTS: List all occupants whether they are regular residents – include those visiting at time of the incident.

| | | |
|----------------|--------------|-----------|
| 1. Name: _____ | D.O.B. _____ | Sex _____ |
| 2. Name: _____ | D.O.B. _____ | Sex _____ |
| 3. Name: _____ | D.O.B. _____ | Sex _____ |
| 4. Name: _____ | D.O.B. _____ | Sex _____ |

DESCRIPTION: Height, weight, hair, eyes, moustache, glasses, marks / scars / tattoos, ethnic origin.

1. _____

2. _____

3. _____

4. _____

EMPLOYMENT / SCHOOL:

| | |
|----------|-------------|
| 1. _____ | Phone _____ |
| 2. _____ | Phone _____ |
| 3. _____ | Phone _____ |
| 4. _____ | Phone _____ |

VEHICLES: Match vehicle to occupant. List vehicle description and license number.

| | | |
|------------------|-----------------|-------------------|
| Occupant # _____ | License # _____ | Checked: Yes / No |
| Occupant # _____ | License # _____ | Checked: Yes / No |
| Occupant # _____ | License # _____ | Checked: Yes / No |
| Occupant # _____ | License # _____ | Checked: Yes / No |

NARRATIVE: Specify which occupant supplied information. Note any clues, statements, searcher comments etc. If necessary use another form for continuing information.

Badge # / REG # _____ Name: _____

Badge # / REG # _____ Name: _____

Team Members: _____

Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____



9. RURAL/URBAN/INTERFACE INQUIRES

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SEARCH AND RESCUE MANAGEMENT

VI. FORMS

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SAR Form #10
A Format for a Missing Person Questionnaire

A jurisdiction or organization can use the following checklist to construct a "Missing / Lost Person Questionnaire" for their use. Be sure to include adequate space after each item for the report takers to record information. **NOTE:** Use pencil/black ink, print clearly, avoid confusing phrases/words, unfamiliar abbreviations. Complete and detail answers are required for future use. It is imperative to make notations in all blanks for which questions have been asked, even if the answer is "NONE," "N.A.," "UNSURE," etc. Strive to answer ALL questions.

- Incident Title:
 - Today's Date:
 - Time:
 - Name of Person Taking Info:
 - Case/Incident #:
 - SAR #:
 - Police File #:
- A. MISSING PERSON**
- Name:
 - Nickname(s):
 - Home Address:
 - Local Address:
 - Home Phone #:
 - Local phone #:
 - Date of Birth:
 - Birthplace:
 - Gender:
 - Passwords for Children:
- B. SOURCE(S) OF INFORMATION FOR QUESTIONNAIRE**
- Name (of reporting party):
 - How taken (phone, in person, etc.):
 - Address of reporting party:
 - Phone #:
 - 2nd phone #:
 - Relationship (to missing person):
 - Where/how to contact now:
 - Where/how to contact later (include times):
 - What does reporting person believe happened to mission person:
 - What does reporting person think the missing person's current activities are:
 - What actions has reporting person or other individuals taken to date:
 - What does reporting person think the interviewer/agency should do:
 - Written statement: (yes, no)
- C. POINT LAST SEEN / LAST KNOWN LOCATION**
- Date:
 - Time:
 - Where:
 - Why/how:
 - Activity missing person engaged in at time:
 - Seen by whom:
 - Location now:
 - Who last talked at length with person:
 - Where:
 - Subjects discussed:
 - Weather at time:
 - Weather since:
 - Seen going which way:
 - When:
 - Reason for leaving:
 - Attitude (confident, confused, etc.):
 - Subject complaining of anything:
 - Subject seem tired:
 - Cold/hot:
 - Other:
 - Comments:
- D. PLANS OF SUBJECT**
- Started at:
 - When:
 - Going to:
 - Via:
 - Purpose:
 - Done/completed this activity before:
 - For how long?
 - Group Size:
 - Transported by whom/means:
 - Vehicle now located at (or last confirmed/seen at):
 - Type:
 - Color:
 - License #:
 - State/Prov:

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10. A FORMAT FOR A MISSING PERSON QUESTIONNAIRE

- Verified: (yes, no)
- Who:
- Return time:
- From where:
- By whom/what:
- Additional names, cars, licenses, etc. for party:
- Alternate plans/routes/objectives discussed:
- Discussed with whom:
- When:
- Comments:

E. CONTACTS PERSON WOULD MAKE UPON RETURNING

- #1. Name:
 - Relationship:
 - Address:
 - Phone #:
 - Anyone home now:
- #2. Name:
 - Relationship:
 - Address:
 - Phone #:
 - Anyone home now:

F. PAST EXPERIENCE

- Familiar with area: (yes, no)
 - How recent:
 - Other:
- Describe formal outdoor training:
 - Degree:
 - Where:
 - When:
- Describe medical training:
 - When:
- Describe scouting experience:
 - When:
 - Where:
 - How much:
 - Scout Leader:
- Describe military experience: (yes, no?)
 - What:
 - When:
 - Where:
 - Rank:
 - Other:
- Describe missing person's experience in the sport/activity related to loss:
- Generalized previous outdoor experience:

- Ever been lost before: (yes, no)
 - Where:
 - When:
- Ever go out alone:
 - Where:
- Stay on streets, take short
 - cuts:
- How fast does subject travel:
- Athletic/other interests:
- Comments:

G. HABITS / PERSONALITY ATTRIBUTES

- Missing person's mental condition (confident, confused, etc.):
- Missing person's condition (energetic, tired, cold, etc.):
- Missing person complaining of anything:
- Attitude when last seen (confident, confused, etc.):
- Hitchhike: (yes, no)
 - Accepts rides easily:

Circle the Appropriate Number for the Following

- Thrives on Risk 5 4 3 2 1 Avoids Risk
- Very Independent 5 4 3 2 1 Highly Dependent
- Very Assertive 5 4 3 2 1 Not Assertive
- Excellent Physical Condition 5 4 3 2 1 Poor Condition
- Leader 5 4 3 2 1 Follower
- Outgoing 5 4 3 2 1 Quiet
- Gregarious 5 4 3 2 1 Loner
- Keeps Going 5 4 3 2 1 Gives Up Easily
- Interviewee's perception of missing person's outdoor skills
 - Highly Skilled 5 4 3 2 1 No Skill
- Tobacco (describe use):
 - How often:
 - What:
 - Brand:
- Alcohol (describe use):
 - How often:
 - What:
 - Brand:
- Recreational drugs (describe use):
 - How often:
- Gum, candy, other :
 - Brands:
- Hobbies/Interests:
- Fears (heights, dark, adults, animals, etc.):
- Legal problems (past/present):

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- Personal, family problems (past/present):
 - Known psychological problems:
 - Knowledgeable person and phone #:
 - Personal values:
 - Clean / Well Groomed / Dirty / Unkempt:
 - Emotional history:
 - Religious: (yes, no)
 - Faith:
 - Degree:
 - Philosophy:
 - Local/fictional hero:
 - Education:
 - Grade:
 - Current status:
 - Teacher(s):
 - School name:
 - College education:
 - Subject/degree:
 - Year:
 - Person closest to missing person:
 - Name, location, phone number:
 - Comments:
- H. HEALTH AND GENERAL CONDITION**
- Overall health:
 - Overall physical condition:
 - Known medical problems:
 - Knowledgeable doctor:
 - Phone #:
 - Handicaps:
 - Medications:
 - Purpose:
 - Does missing person have medications:
 - Amounts:
 - Does missing person take medications regularly:
 - Consequences of not taking medications:
 - Knowledgeable person regarding medications:
 - Phone #:
 - Eyesight without glasses:
 - Spares: (yes, no)
 - Comments:
- I. PHYSICAL DESCRIPTION**
- Height:
 - Weight:
 - Age:
 - Build:
 - Hair:
 - Color:
 - Length:
 - Style:
- J. CLOTHING**
- Determine the: Style; COLOR; Size; Manufacturer; Other Significant Information on each of the following:
 - Shirt/sweater:
 - Pants:
 - Outer wear:
 - Inner wear:
 - Head wear:
 - Rain wear:
 - Glasses:
 - Gloves:
 - Extra clothing:
 - Footwear:
 - Boot/shoe size:
 - Make/model:
 - Sole type:
 - Sample available:
 - Where:
 - Attach sketch of sole pattern:
 - Scent articles available: (yes, no)
 - What:
 - Secured: (yes, no)
 - Where now:
 - Overall coloration as seen from air:
- K. EQUIPMENT**
- Determine the: Style; Color; Brand; Size; Manufacturer; of the following:
 - Bag, purse:
 - Briefcase:
 - Fanny pack:
 - Cane:
 - Walker:

Section
VI

10. A FORMAT FOR A MISSING PERSON QUESTIONNAIRE

- Day pack:
- FSR radio:
- Medical tracking devices:
- Medical ID tags:
- Liquid container:
 - o How much fluid:
 - o What kind:
- Map or Guidebook:
 - o Of where:
- How competent with map/compass:
- Whistle:
- Smart/Cellular phone and #:
 - Make, telephone service provider:
- SPOT, INREACH, PLB, GPS:
- Knife:
- Camera:
 - Lens:
- Food and snacks:
 - Brands:
- Money:
 - Amount:
 - Credit Cards:
- Other documents:
- Comments:

L. WITH FAMILY PET/GUIDEDOG

- Name:
- Breed:
- Training:
- Collar:
- Leash:
- Poop and scoop equipment:

M. CHILDREN

- Password:
- Street proofing training:
- Afraid of dark:
 - Animals:
 - Afraid of: _____
- Feeling toward adults:
 - Strangers:
- Reactions when hurt:
 - Cry:
- Training when lost:
- Active/lethargic/antisocial:
- Would respond to searcher's calls?
- Would respond to what name or nickname?
- Known attractions:
- Comments:

N. MEDIA / FAMILY RELATIONS

- Next of kin:
 - Relationship:
 - Address:
 - Phone #:
 - Occupation:
- Person to notify when subject found:
 - Relationship:
 - Address:
 - Phone #:
 - Occupation:
 - Where are they, or where will they be:
- Significant family problems:
- Family's desire to employ special assistance:
- Comments:

VI. FORMS

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SAR Form #11

Evaluating The "Health of a Search Response" Checklist

This checklist is useful for evaluating the "health" of a search and rescue response. If any of the following can't be checked, they may be warning signals that incident management staffing is not "in synch" with the search and rescue effort. This could also be an indication that the Incident Commander may have lost situational awareness. Consider increasing or rotating personnel, or downsizing operations.

- I have time to review this list.
- An atmosphere of positive urgency is being maintained.
- Leads are being aggressively pursued through investigation. Friends, family and possible witnesses have been (or will shortly be) contacted.
- Clues are being tracked, and resolved promptly.
- Staff has time for breaks and meals. There isn't a major backlog of tasks. Individuals are not working beyond scheduled shifts.
- Scenarios as to cause of incident have been discussed and evaluated, and reflect current knowledge.
- Search efforts are focused to eliminate scenarios in established priority order.
- Current and ordered resources do complement identified needs.
- Safety, investigation, containment, and search objectives have been identified, and have been reviewed in the past 24 hours.
- The number, location and status of all incident personnel is known.
- Logistical needs (transport, food, shelter) are met for the next 12 hours.
- Unassigned personnel aren't wandering about the command post area.
- Assignments (oral or written) are ready prior to resource arrival.
- Teams returning from assignments are being debriefed promptly. Debriefing information is being recorded, and is being considered in developing future objectives.
- The family supports the search effort.
- A PIO has been identified, or the press has been notified.
- A rescue/medical plan has been identified, and is ready for immediate implementation.
- An air operations function has been activated to support any helicopter activities.

Signature _____

Date (yr/mo/day) _____

Time (24 hr) _____

Section
VI

11. EVALUATING THE "HEALTH OF A SEARCH RESPONSE" CHECKLIST

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VI. FORMS



| SAR Form #12 Search and Rescue Mission Data Sheet | | | | | |
|--|---|---|---|---|-----------------------------------|
| RESPONSIBLE AGENCY: | | INCIDENT COMMANDER: | | PHONE: | |
| MISSION DATE: Yr / Mo / Day | | TIME: 24 hour clock | | INCIDENT #: Local State AFRCC Other | |
| SUBJECT INFORMATION | | | | | |
| Place Injured or Last Known Position: UMS - Grid: | | Lat | N Long | | W |
| | | Degrees/Minutes/Seconds | | Degrees/Minutes/Seconds | |
| USNG: Location Common Name: | | | | | |
| Category: | | | | | |
| <input type="checkbox"/> Aircraft | <input type="checkbox"/> Deceased | <input type="checkbox"/> Horseback | <input type="checkbox"/> Motorcycle | <input type="checkbox"/> Raft | <input type="checkbox"/> Vehicle |
| <input type="checkbox"/> Alzheimer | <input type="checkbox"/> Despondent | <input type="checkbox"/> Hunter | <input type="checkbox"/> Mountain Bike | <input type="checkbox"/> Retarded | <input type="checkbox"/> Walkway |
| <input type="checkbox"/> Boater | <input type="checkbox"/> Elderly | <input type="checkbox"/> Injured | <input type="checkbox"/> Overdue | <input type="checkbox"/> Downhill Skier | <input type="checkbox"/> XC Skier |
| <input type="checkbox"/> Camper | <input type="checkbox"/> Fisherman | <input type="checkbox"/> Intentional | <input type="checkbox"/> Photographer | <input type="checkbox"/> Snowmobile | <input type="checkbox"/> Other |
| <input type="checkbox"/> Child | <input type="checkbox"/> Handicapped | <input type="checkbox"/> Lost | <input type="checkbox"/> Picker | <input type="checkbox"/> Swimmer | |
| <input type="checkbox"/> Climber | <input type="checkbox"/> Hiker | | | | |
| Cause: | | | | | |
| <input type="checkbox"/> Alcohol | <input type="checkbox"/> Drugs | <input type="checkbox"/> Got Lost | <input type="checkbox"/> Poor Equipment | <input type="checkbox"/> Unknown | |
| <input type="checkbox"/> Change/ Weather | <input type="checkbox"/> Equipment Failed | <input type="checkbox"/> Inexperience | <input type="checkbox"/> Poor Fitness | <input type="checkbox"/> Weather | |
| <input type="checkbox"/> Darkness | <input type="checkbox"/> Fall | <input type="checkbox"/> Injury | <input type="checkbox"/> Poor Supervision | <input type="checkbox"/> Other | |
| <input type="checkbox"/> Despondent | <input type="checkbox"/> Falling Object | <input type="checkbox"/> Mental | <input type="checkbox"/> Separation | | |
| Behavior: | | | | | |
| <input type="checkbox"/> Built Fire | <input type="checkbox"/> Followed Terrain | <input type="checkbox"/> Moved During Night | <input type="checkbox"/> Stayed Put | <input type="checkbox"/> Unknown | |
| <input type="checkbox"/> Constructed Shelter | <input type="checkbox"/> Headed to Civilization | <input type="checkbox"/> Moved Uphill | <input type="checkbox"/> Stayed on Road | <input type="checkbox"/> Wandered | |
| <input type="checkbox"/> Did Nothing | <input type="checkbox"/> Moved During Day | <input type="checkbox"/> Panicked | <input type="checkbox"/> Stayed on Trail | <input type="checkbox"/> X-Country | |
| <input type="checkbox"/> Discarded Gear | <input type="checkbox"/> Moved Downhill | <input type="checkbox"/> Signaled for Help | <input type="checkbox"/> Used Travel Aids | | |
| Subjects: | | | | | |
| 1. Name: | Address: | Phone #: | Sex: | Age: | |
| 2. Name: | Address: | Phone #: | Sex: | Age: | |
| 3. Name: | Address: | Phone #: | Sex: | Age: | |
| Subject Realized Lost | Date: | Time (24-hr): | Time Subject Found | Date: | Time (24-hr): |
| Subject Reported Missing | Date: | Time (24-hr): | Total Search Time | Days: | Hours: |
| Call-Out Initialed | Date: | Time (24-hr): | Total Time Lost | Days: | Hours: |
| Resources Arrival at IPP | Date: | Time (24-hr): | | | |
| SEARCH AREA INFORMATION | | | | | |
| Weather: | | | | | |
| <input type="checkbox"/> Clear | <u>Temperature</u> | <u>Wind/Km/mph</u> | <u>Rain</u> | <u>Snow</u> | |
| <input type="checkbox"/> Fog | High | High | <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | |
| <input type="checkbox"/> Overcast | Low | Low | <input type="checkbox"/> Occasional | <input type="checkbox"/> Occasional | |
| <input type="checkbox"/> Partly Cloudy | | | <input type="checkbox"/> Drizzle | <input type="checkbox"/> Light | |
| <input type="checkbox"/> Stormy | Visibility: Distance | | <input type="checkbox"/> Heavy | <input type="checkbox"/> Heavy | |
| | | | | <input type="checkbox"/> Depth | |
| Terrain: | | | | | |
| <u>Topography</u> | <u>Mountain</u> | <u>Ground Cover</u> | <u>Water</u> | <u>Timber</u> | <u>Elevation:</u> ft. |
| <input type="checkbox"/> Urban | Prairie | <input type="checkbox"/> 0 | <input type="checkbox"/> Canal | <input type="checkbox"/> Dense | |
| <input type="checkbox"/> Suburban | Flat | <input type="checkbox"/> Light | <input type="checkbox"/> Lake | <input type="checkbox"/> Moderate | |
| <input type="checkbox"/> Rural | Rolling | <input type="checkbox"/> Moderate | <input type="checkbox"/> River | <input type="checkbox"/> None | |
| <input type="checkbox"/> Wilderness | Rugged | <input type="checkbox"/> Dense | <input type="checkbox"/> Sound | <input type="checkbox"/> Some | |
| | | <input type="checkbox"/> Height | <input type="checkbox"/> Ocean | | |



Section VI

12. SEARCH AND RESCUE MISSION DATA SHEET

SEARCH AND RESCUE MISSION DATA SHEET (Continued) (Incident # - _____)

RESPONSE Search Rescue Recovery

Tactics:

| | | | | |
|--|--|---|--|-------------------------------------|
| <input type="checkbox"/> Air Scent Dog | <input type="checkbox"/> ATV | <input type="checkbox"/> Fixed Wing | <input type="checkbox"/> Motorcycle | <input type="checkbox"/> Snowmobile |
| <input type="checkbox"/> Attraction | <input type="checkbox"/> Boat | <input type="checkbox"/> Ground Scent Dog | <input type="checkbox"/> Mountain Bike | <input type="checkbox"/> Sweep |
| | <input type="checkbox"/> Closed Grid -30 | <input type="checkbox"/> Hasty Team | <input type="checkbox"/> Open Grid +30 | <input type="checkbox"/> Tracking |
| | <input type="checkbox"/> Confinement | <input type="checkbox"/> Helicopter | <input type="checkbox"/> Raft | <input type="checkbox"/> Vehicle |
| | <input type="checkbox"/> Diver | <input type="checkbox"/> Horseback | <input type="checkbox"/> Road Search | <input type="checkbox"/> Other |

Clues Found By:

| | | | | |
|--|---|-------------------------------------|--|---|
| <input type="checkbox"/> Air Scent Dog | <input type="checkbox"/> Closed Grid -30 | <input type="checkbox"/> Hasty Team | <input type="checkbox"/> Mountain Bike | <input type="checkbox"/> Sweep |
| <input type="checkbox"/> Attraction | <input type="checkbox"/> Confinement | <input type="checkbox"/> Helicopter | <input type="checkbox"/> Open Grid +30 | <input type="checkbox"/> Statistical Data |
| <input type="checkbox"/> ATV | <input type="checkbox"/> Diver | <input type="checkbox"/> Horseback | <input type="checkbox"/> Raft | <input type="checkbox"/> Trackers |
| <input type="checkbox"/> Behavioral Data | <input type="checkbox"/> Fixed Wing | <input type="checkbox"/> Interview | <input type="checkbox"/> Repeat Search | <input type="checkbox"/> Vehicle |
| <input type="checkbox"/> Boat | <input type="checkbox"/> Ground Scent Dog | <input type="checkbox"/> Motorcycle | <input type="checkbox"/> Snowmobile | <input type="checkbox"/> Other |

Subject Found By:

| | | | | |
|--|---|--|--|-----------------------------------|
| <input type="checkbox"/> Air Scent Dog | <input type="checkbox"/> Confinement | <input type="checkbox"/> Hasty Search | <input type="checkbox"/> Non SAR Personnel | <input type="checkbox"/> Sweep |
| <input type="checkbox"/> Attraction | <input type="checkbox"/> Diver | <input type="checkbox"/> Helicopter | <input type="checkbox"/> Open Grid +30 | <input type="checkbox"/> Tracking |
| <input type="checkbox"/> ATV | <input type="checkbox"/> Fixed Wing | <input type="checkbox"/> Horseback | <input type="checkbox"/> Raft | <input type="checkbox"/> Vehicle |
| <input type="checkbox"/> Boat | <input type="checkbox"/> Friends | <input type="checkbox"/> Motorcycle | <input type="checkbox"/> Relatives | <input type="checkbox"/> Other |
| <input type="checkbox"/> Closed Grid -30 | <input type="checkbox"/> Ground Scent Dog | <input type="checkbox"/> Mountain Bike | <input type="checkbox"/> Snowmobile | |

MISSION SUSPENSION/TERMINATION

Reason:

| | | | | |
|---|---|---|---|----------------------------------|
| <input type="checkbox"/> Authority Decision | <input type="checkbox"/> Family | <input type="checkbox"/> Lack of Clues/Evidence | <input type="checkbox"/> Subj. not in Search Area | <input type="checkbox"/> Weather |
| <input type="checkbox"/> False Report | <input type="checkbox"/> Hazards to Searchers | <input type="checkbox"/> Subject Found | <input type="checkbox"/> Survivability | <input type="checkbox"/> Other |

Subject Found:

| | | | | |
|-----------------------------------|--------------------------------------|---|---|-------------------------------|
| <input type="checkbox"/> Deceased | <input type="checkbox"/> Hypothermia | <input type="checkbox"/> Major Injuries | <input type="checkbox"/> Minor Injuries | <input type="checkbox"/> Well |
|-----------------------------------|--------------------------------------|---|---|-------------------------------|

Distance from Last Known Position: Kms/Miles _____ ; _____ Tenths _____

Elevation difference from Last Known Position _____ ; _____ to _____ ft.

REMARKS

| Resources Used: | | | | |
|------------------------|------|-----------|-------|-------|
| 1 | Unit | Personnel | Hours | Miles |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

Comments, Observations, Problems:

Report Prepared By: _____ Title: _____

Report Signed By: (Print) _____ Agency: _____ Title: _____

Signature _____ Date (yr/mo/day) _____ Time (24 hr) _____

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Section VI

| SAR Form #13 SAR 6-STEP PLANNING PROCESS | | | Date & Time Ended: | | |
|---|---|--|--|--|---|
| 1. SIZE UP | 2. CONTINGENCIES | 3. OBJECTIVES | 4. RESOURCES | 5. PLAN | 6. ACTION |
| Interview reporting party directly. | Identify and prioritize scenarios that might have caused subject's loss, and his/her possible subsequent activities. | Identify investigative actions to address the targeted scenarios | Determine tasks and resources needed to achieve all the objectives and contingencies | Establish an organizational structure that can effectively support efforts. | Brief all arriving personnel. |
| Consciously decide whether a response is justified. | By priority ranking, target the scenario(s) for resolution. | Identify containment actions to address the targeted scenarios. Establish search area boundaries: | Establish check-in procedures and resource status system to track resources | Develop and implement assignments to support the objectives. Assess Risks. Initiate in sequence. | If not already accomplished, finalize assignments with resources, including risk assessments. Provide assignment briefings. |
| Secure, investigate, and process IPP. If possible, personally inspect. | Determine the classification (mobility and responsiveness) of the subject under these targeted scenarios. | Identify magnets, travel aids, travel barriers, and passages. Determine subject's theoretical travel distance along each travel aid. | | | Track resources. Ensure health of incident. Practice incident management principles and search crucials. |
| Begin compiling a Lost Subject Profile. | What could make things worse? | Establish containment strategies for each travel aid at the theoretical travel distance (and if applicable then sweeping to a passage closer to the IPP. | | | Debrief all resources immediately upon completion of assignments. Remember safety input. |
| Determine response urgency. | "What if's?" considered. | Identify active search efforts (hasty search) to address the targeted scenarios. | Order needed resources. | | Finalize Incident Action Plan for next Operational Period. |
| Assign Incident Commander (IC). | What can I do to be prepared? Identify and prioritize scenarios that might have caused subject's loss, and his/her possible subsequent activities. | Implement n effective risk management program (Safety objective). Consider delegating the Safety Officer function, addressing safety in briefings and debriefings, and conducting a risk assessment for each assignment. | | | Brief relief IC as to IAP. |
| Determine ending time of first operational period. Arrange for relief IC. | By priority ranking, target the scenario(s) for resolution. | | | | Go home and catch some sleep. |
| Establish Incident Command Post (ICP), and locate IC there | Determine classification (mobility and responsiveness) of the subject under these targeted scenarios. | | | | |
| Instructions: Place a large check (V) in boxes for which tasks are initiated. | | | | | |

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14. POA CONSENSUS WORKSHEET

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SEARCH AND RESCUE MANAGEMENT

VI. FORMS

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| SAR Form #14 POA CONSENSUS WORKSHEET | | 1. Incident Name: | | | | | 2. Date Prepared: | | | | | 3. Time Prepared: | | | | |
|--|-------------|-------------------|--|------------|--|--|-------------------|-----------------|--|--|--|-------------------|--|--|-----|-------------------|
| Evaluator | Search Unit | | | | | | | | | | | | | | ROW | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| 4. Total for Each Unit | | | | | | | | | | | | | | | | |
| 5. Total of All Units | | | | | | | | | | | | | | | | |
| POA Percentage (Block #4 ÷ Block #5) | | | | | | | | | | | | | | | | |
| Probability Estimate Scale | | | | | | | | | | | | | | | | |
| A = Very likely | | | | B = Likely | | | | C = Even chance | | | | D = Unlikely | | | | E = Very unlikely |
| 5 | | | | 4 | | | | 3 | | | | 2 | | | | 1 |
| <p>Instructions: Record the letter designation for each unit (a unit being a scenario, region or segment) in the blocks directly below "Search Unit". (ROW refers to the rest of the world: i.e. outside the search area). Record the names of the evaluators in the left column.</p> <p>Each Evaluator: On scratch paper rate for each unit – WITHOUT OTHER EVALUATOR INPUT – your opinion as to the relative likelihood of the unit containing the subject, using the above Probability Estimate Scale. Then record your ratings in your name's row. Total the ratings for each unit in Block #4. Block #5 is the total of all units. Block #6 is calculated by dividing Block #4 by Block #5.</p> | | | | | | | | | | | | | | | | |
| Prepared By: | | | | | | | | Approved By: | | | | | | | | |

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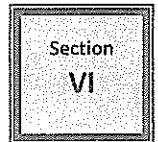
14. POA CONSENSUS WORKSHEET

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SEARCH AND RESCUE MANAGEMENT

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SAR Form #15
Safety Message/Plan (ICS 208 – ERI Version)

| | | | |
|---|-------------------------------|-----------------|------------|
| 1. Incident Name: | 2. Operational Period: | Date From: | Date To: |
| | | Time From: | Time To: |
| <p>3. Safety Message/Expanded Safety Message, Safety Plan, Site Safety Plan:</p> <p>Establish and maintain an effective risk management program by implementing the strategies checked (✓) below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Safety Officer Function: _____ is the designated incident Safety Officer. <input type="checkbox"/> A Risk Assessment identifying and evaluating hazards; determining appropriate resource training, capabilities, and equipment to mitigate these hazards; ensuring resources are advised of the hazards and appropriate risk exposure levels; establishing that the risk justifies the potential benefit, and that the identified tactic is the safest manner by which to accomplish the task will be conducted for each assignment. <input type="checkbox"/> Standard Work/Rest Guidelines. Personnel should not exceed _____ hour shifts. Personnel completing long shifts or physically demanding tasks will be evaluated before driving long distances. <input type="checkbox"/> Briefings. ____ Teams will be provided verbal briefings of assignments. ____ Teams will be provided written briefings (such as the Task Assignment form) of assignments. Searcher "right of refusal" will be affirmed in the briefings. <input type="checkbox"/> Debriefings. Teams will be promptly debriefed upon assignment completion, including hazards encountered and risk management recommendations for future assignments. <input type="checkbox"/> PAR. The Operations Section Chief will implement a "Personnel Accountability Report" process and schedule. <input type="checkbox"/> Safety Lead on each team. Each team leader is encouraged to assign safety as a collateral duty to a team member. <input type="checkbox"/> LCES. Teams are encouraged to maintain situational awareness using the "Lookouts, Communication, Escape Routes, and Safety Zone" concept. <input type="checkbox"/> ORM/GAR. Command will implement a structured Operational Risk Management "Green/Amber/Red" partnership process with assigned resources (including determination of risk scores) to assess and mitigate risk exposures. OR <input type="checkbox"/> SAR GAR. Teams are directed to assess their perceptions of individual risk exposures using the "SAFETI" model (Supervision, Assignment, Fitness, Environment, Team, Improvisation avoidance) upon task assignment, and whenever significant changes occur during the assignment. Teams unable to mitigate a "Red" element to a lower level of risk will consult with higher authority before accepting assignment. Teams will be directed to refuse all non life-threatening assignments they perceive as having four or more "Red" elements. | | | |
| 5. Prepared by: (Name) | | Position/Title: | Signature: |
| ICS 208 | IAP Page _____ | Date/Time: | |



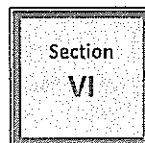
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16. RISK ASSESSMENT WORKSHEET

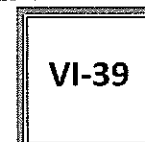
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| | | | |
|---|--|----------------|----------------|
| SAR Form #16 RISK ASSESSMENT WORKSHEET | 1. ASSIGNMENT NUMBER, ACTIVITY DESCRIPTION, OR OTHER DESIGNATOR: | 2. DATE & TIME | 3. PREPARED BY |
| CONSIDER THE FOLLOWING QUESTIONS FOR EACH ASSIGNMENT AND ACTIVITY | | | |
| ITEM | YES | NO | |
| Have the hazards associated with this assignment been identified? | | | |
| What are these hazards? | | | |
| Does the assigned resource have the training, capabilities, and equipment to mitigate the hazards? | | | |
| Is there a process in place to ensure the assigned resource will be notified of the potential hazards? | | | |
| Will the resource be advised as to the risk exposure at which to cancel the assignment? | | | |
| Does the risk justify the benefit? | | | |
| Is this the safest manner by which to accomplish the task? | | | |
| Other options considered: | | | |
| If the answer to any of the above questions is "no", the assignment should be redesigned. | | | |
| Remember the prime directive of all emergency responses: "The life of the rescuer takes precedence over all other concerns, including the well-being of the subject" . | | | |
| Prepared by: (Name) | Position/Title: | Signature: | |



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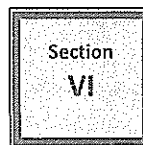
16. RISK ASSESSMENT WORKSHEET

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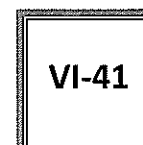
SEARCH AND RESCUE MANAGEMENT

VI. FORMS



| | | | | | |
|---|--|--------------------------------------|---|---|------------|
| SAR Form #17 ASSIGNMENT LIST (SAR VERSION) | | 1. INCIDENT NAME | 2. DATE PREPARED | 3. TIME PREPARED | |
| 4. BRANCH | | 5. DIVISON/GROUP | 6. OPERATIONAL PERIOD DATE TIME | 7. TASK/TEAM NO. | |
| A S S I G N M E N T | 8. ASSIGNMENT INSTRUCTIONS | | | 9. DISCUSS <input type="checkbox"/> Press <input type="checkbox"/> Family <input type="checkbox"/> Clues <input type="checkbox"/> Summary to date <input type="checkbox"/> Time frame <input type="checkbox"/> Terrain <input type="checkbox"/> Anticipated POD <input type="checkbox"/> Tactics <input type="checkbox"/> Weather <input type="checkbox"/> Safety | |
| | 10. TRANSPORTATION AND ROUTING INFORMATION (to and from assignment) | | | | |
| P E R S O N N E L | 11. FUNCTION | 12. NAME | 13. SPECIAL SKILLS | 14. AT BRIEFING | 15. AGENCY |
| | 1. Team Leader | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | 2. | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | 3. | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | 4. | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | 5. | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| | 6. | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | |
| E Q U I P M E N T | 16. PERSONAL | | | 17. TEAM | |
| | | | | | |
| C O M M S | 18. TASK/TEAM CALL SIGN & FREQUENCY | | 19. BASE CALL SIGN & FREQUENCY | 20. PERTINANT PHONE NUMBERS | |
| | 21. SPECIAL INSTRUCTIONS OR OTHER FREQUENCIES | | | | |
| A T T A C H E D | 22. "X" IF ATTACHED <input type="checkbox"/> Map (Original) <input type="checkbox"/> Assignment Sketched on second map <input type="checkbox"/> Subject Information <input type="checkbox"/> Subject Profile <input type="checkbox"/> Incident Briefing (ICS-201) | | <input type="checkbox"/> Incident Objectives (ICS-202) <input type="checkbox"/> Organization Assignment List (ICS-203) <input type="checkbox"/> Radio Plan (ICS-205) <input type="checkbox"/> Medical Plan (ICS-206) <input type="checkbox"/> Incident Status Summary (ICS-209) <input type="checkbox"/> Air Ops Summary (ICS-220) | <input type="checkbox"/> Coroner Plan <input type="checkbox"/> Rescue Plan | |
| | | | | | |
| PREPARED BY | | APPROVED BY (PLANNING SECTION CHIEF) | | TEAM BRIEFED BY | |
| ICS-204 (SAR) | Team Leader: Upon completion of assignment, report to Debriefing at _____ (location). At that time give your copy of this form to the Debriefing Officer. Debriefing Officer: include this copy with debriefing packet. | | | | |

(INSTRUCTIONS ON REVERSE SIDE)



INSTRUCTIONS FOR COMPLETING THE ASSIGNMENT LIST (SAR VERSION)

USE: Required if used as a substitute for the standard Assignment List (ICS-204). Optional if used with the ICS-204.

RESPONSIBILITY FOR COMPLETION: Under standard ICS organization, Resources Unit Leader. Depending upon specific incident, may be completed by other functions in Plans, or by Operations.

PURPOSE: Provide written instructions to teams, record assignments, and serve as a format for briefing.

WHERE TO OBTAIN PERTINENT INFORMATION:

- Incident Briefing (ICS-201)
- Incident Objectives (ICS-202)
- Organization Assignment List (ICS-203)
- Radio Plan (ICS-205)
- Operational Planning Work Sheet (ICS-215), or IAP Worksheet.
- Resources Unit
- Logistics

DISTRIBUTION: Original to Team Leader, copy to Operations, copy to Documentation.

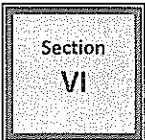
FREQUENCY OF UPDATE/REVISION: As each assignment is prepared.

USER INSTRUCTIONS:

- | | | |
|-----|-------------------------|--|
| 1. | Incident Name | The name of the incident. |
| 4. | Branch | For some large incidents, a functional or geographic organization under Operations. |
| 5. | Division/Group | For some large incidents, a functional or geographic organization below Branch. |
| 6. | Operational Period | A block of time, usually 12 hours (i.e. 6AM-6PM). |
| 7. | Assignment/Team #: | The number of this specific assignment. Each task should be sequentially assigned an individual number for documentation purposes. |
| 8. | Assignment Instructions | Concisely state assignment. |
| 9. | Discuss | Suggested topics to cover during briefing of team. |
| 11. | Function | Individual team member responsibilities. |
| 12. | Name | Name of team member. |
| 13. | Special Skills | Special qualifications of team members important for task completion. |
| 15. | Agency | Team member affiliation. |
| 16. | Personal | Equipment to be carried by each team member. |
| 17. | Team | Group equipment to be carried with team. |

Hugh Dougher, 5/94

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SAR Form #18 (ICS 203) ORGANIZATION ASSIGNMENT LIST

| | | | |
|---|----------------|--|--|
| 1. Incident Name: | | 2. Operational Period: Date From: _____ Date To: _____ Time From: _____ Time To: _____ | |
| 3. Incident Commander(s) and Command Staff: | | 7. Operations Section: | |
| IC/UCs | | Chief | |
| | | Deputy | |
| Deputy | | Staging Area | |
| Safety Officer | | Branch | |
| Public Info. Officer | | Branch Director | |
| Liaison Officer | | Deputy | |
| 4. Agency/Organization Representatives: | | Division/Group | |
| Agency/Organization | Name | Division/Group | |
| | | Division/Group | |
| | | Division/Group | |
| | | Branch | |
| | | Branch Director | |
| | | Deputy | |
| 5. Planning Section: | | Division/Group | |
| Chief | | Division/Group | |
| Deputy | | Division/Group | |
| Resources Unit | | Division/Group | |
| Situation Unit | | Division/Group | |
| Documentation Unit | | Branch | |
| Demobilization Unit | | Branch Director | |
| Technical Specialists | | Deputy | |
| | | Division/Group | |
| 6. Logistics Section: | | Division/Group | |
| Chief | | Division/Group | |
| Deputy | | Air Operations Branch | |
| Support Branch | | Air Ops Branch Dir. | |
| Director | | | |
| Supply Unit | | | |
| Facilities Unit | | 8. Finance/Administration Section: | |
| Ground Support Unit | | Chief | |
| Service Branch | | Deputy | |
| Director | | Time Unit | |
| Communications Unit | | Procurement Unit | |
| Medical Unit | | Comp/Claims Unit | |
| Food Unit | | Cost Unit | |
| 9. Prepared by: Name: _____ Position/Title: _____ Signature: _____ | | | |
| ICS 203 | IAP Page _____ | Date/Time: _____ | |



SAR FORM #18 (ICS 203) ORGANIZATION ASSIGNMENT LIST

Purpose. The Organization Assignment List (ICS 203) provides ICS personnel with information on the units that are currently activated and the names of personnel staffing each position/unit. It is used to complete the Incident Organization Chart (ICS 207) which is posted on the Incident Command Post display. An actual organization will be incident or event-specific. Not all positions need to be filled. Some blocks may contain more than one name. The size of the organization is dependent on the magnitude of the incident, and can be expanded or contracted as necessary.

Preparation. The Resources Unit prepares and maintains this list under the direction of the Planning Section Chief. Complete only the blocks for the positions that are being used for the incident. If a trainee is assigned to a position, indicate this with a "T" in parentheses behind the name (e.g., "A. Smith (T)").

Distribution. The ICS 203 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit.

Notes.

The ICS 203 serves as part of the IAP.

If needed, more than one name can be put in each block by inserting a slash.

If additional pages are needed, use a blank ICS 203 and repaginate as needed.

ICS allows for organizational flexibility, so the Intelligence/Investigations Function can be embedded in several different places within the organizational structure.

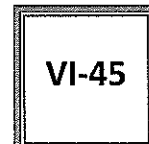
For More Information About This Form See:
NATIONAL INCIDENT MANAGEMENT SYSTEM INCIDENT COMMAND SYSTEM
ICS FORMS BOOKLET, FEMA 502-2, September 2010

VI. FORMS



SAR Form #19 (ICS 206) MEDICAL PLAN

| 1. Incident Name: | | 2. Operational Period: | | Date From: | Date To: | | |
|--|--|-------------------------------|---|------------------|--|---|---|
| | | | | Time From: | Time To: | | |
| 3. Medical Aid Stations: | | | | | | | |
| Name | Location | Contact Number(s)/Frequency | Paramedics on Site? | | | | |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | |
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | |
| 4. Transportation (Indicate air or ground): | | | | | | | |
| Ambulance Service | Location | Contact Number(s)/Frequency | Level of Service | | | | |
| | | | <input type="checkbox"/> ALS <input type="checkbox"/> BLS | | | | |
| | | | <input type="checkbox"/> ALS <input type="checkbox"/> BLS | | | | |
| | | | <input type="checkbox"/> ALS <input type="checkbox"/> BLS | | | | |
| | | | <input type="checkbox"/> ALS <input type="checkbox"/> BLS | | | | |
| 5. Hospitals: | | | | | | | |
| Hospital Name | Address, Latitude & Longitude if Helipad | Contact Number(s)/Frequency | Travel Time | | Trauma Center | Burn Center | Helipad |
| | | | Air | Ground | | | |
| | | | | | <input type="checkbox"/> Yes Level: _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | | | <input type="checkbox"/> Yes Level: _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | | | <input type="checkbox"/> Yes Level: _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | | | <input type="checkbox"/> Yes Level: _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | | | | <input type="checkbox"/> Yes Level: _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Special Medical Emergency Procedures: | | | | | | | |
| <input type="checkbox"/> Check box if aviation assets are utilized for rescue. If assets are used, coordinate with Air Operations. | | | | | | | |
| 7. Prepared by (Medical Unit Leader): Name: _____ Signature: _____ | | | | | | | |
| 8. Approved by (Safety Officer): Name: _____ Signature: _____ | | | | | | | |
| ICS 206 | | IAP Page _____ | | Date/Time: _____ | | | |



SAR FORM #19 (ICS 206) MEDICAL PLAN

Purpose. The Medical Plan (ICS 206) provides information on incident medical aid stations, transportation services, hospitals, and medical emergency procedures.

Preparation. The ICS 206 is prepared by the Medical Unit Leader and reviewed by the Safety Officer to ensure ICS coordination. If aviation assets are utilized for rescue, coordinate with Air Operations.

Distribution. The ICS 206 is duplicated and attached to the Incident Objectives (ICS 202) and given to all recipients as part of the Incident Action Plan (IAP). Information from the plan pertaining to incident medical aid stations and medical emergency procedures may be noted on the Assignment List (ICS 204). All completed original forms must be given to the Documentation Unit.

Notes.

The ICS 206 serves as part of the IAP.
This form can include multiple pages.

For More Information About This Form See:
NATIONAL INCIDENT MANAGEMENT SYSTEM INCIDENT COMMAND SYSTEM
ICS FORMS BOOKLET, FEMA 502-2, September 2010

SAR FORM #20 (ICS 207) INCIDENT ORGANIZATION CHART

| | | |
|---|---|---|
| 1. Incident Name: | 2. Operational Period: Date From: _____ Date To: _____ Time From: _____ Time To: _____ | |
| 3. Organization Chart | | |
| <pre> graph TD IC[Incident Commander(s)] --- LO[Liaison Officer] IC --- SO[Safety Officer] IC --- PIO[Public Information Officer] IC --- OSC[Operations Section Chief] IC --- SAM[Staging Area Manager] OSC --- U1[] OSC --- U2[] OSC --- U3[] OSC --- U4[] SAM --- S1[] SAM --- S2[] SAM --- S3[] SAM --- S4[] IC --- PSC[Planning Section Chief] IC --- LSC[Logistics Section Chief] IC --- FASC[Finance/Admin Section Chief] PSC --- RUL[Resources Unit Ldr.] PSC --- SUL[Situation Unit Ldr.] PSC --- DUL[Documentation Unit Ldr.] PSC --- DUL2[Demobilization Unit Ldr.] PSC --- U5[] LSC --- SBD[Support Branch Dir.] LSC --- SUL2[Supply Unit Ldr.] LSC --- FUL[Facilities Unit Ldr.] LSC --- GUL[Ground Spl. Unit Ldr.] LSC --- SBD2[Service Branch Dir.] SBD2 --- CUL[Comms Unit Ldr.] SBD2 --- MUL[Medical Unit Ldr.] SBD2 --- FUL2[Food Unit Ldr.] FASC --- TUL[Time Unit Ldr.] FASC --- PUL[Procurement Unit Ldr.] FASC --- CUL3[Comp./Claims Unit Ldr.] FASC --- CUL4[Cost Unit Ldr.] FASC --- U6[] </pre> | | |
| ICS 207 | IAP Page _____ | 4. Prepared by: Name: _____ Position/Title: _____ Signature: _____ Date/Time: _____ |

SAR FORM #20 (ICS 207) INCIDENT ORGANIZATION CHART

Purpose. The Incident Organization Chart (ICS 207) provides a **visual wall chart** depicting the ICS organization position assignments for the incident. The ICS 207 is used to indicate what ICS organizational elements are currently activated and the names of personnel staffing each element. An actual organization will be event-specific. The size of the organization is dependent on the specifics and magnitude of the incident and is scalable and flexible. Personnel responsible for managing organizational positions are listed in each box as appropriate.

Preparation. The ICS 207 is prepared by the Resources Unit Leader and reviewed by the Incident Commander. Complete only the blocks where positions have been activated, and add additional blocks as needed, especially for Agency Representatives and all Operations Section organizational elements. For detailed information about positions, consult the NIMS ICS Field Operations Guide. The ICS 207 is intended to be used as a wall-size chart and printed on a plotter for better visibility. A chart is completed for each operational period, and updated when organizational changes occur.

Distribution. The ICS 207 is intended to be **wall mounted** at Incident Command Posts and other incident locations as needed, and is not intended to be part of the Incident Action Plan (IAP). All completed original forms must be given to the Documentation Unit.

Notes:

The ICS 207 is intended to be **wall mounted** (printed on a plotter). Document size can be modified based on individual needs.

Also available as 8½ x 14 (legal size) chart.

ICS allows for organizational flexibility, so the Intelligence/Investigative Function can be embedded in several different places within the organizational structure.

Use additional pages if more than three branches are activated. Additional pages can be added based on individual need (such as to distinguish more Division/Groups and Branches as they are activated).

For More Information About This Form See:
NATIONAL INCIDENT MANAGEMENT SYSTEM INCIDENT COMMAND SYSTEM
ICS FORMS BOOKLET, FEMA 502-2, September 2010

VI. FORMS



SAR FORM #21 (ICS 209) INCIDENT STATUS SUMMARY

| | | | | |
|--|--|----------------------------|---|--|
| *1. Incident Name: | | 2. Incident Number: | | |
| *3. Report Version (check one box on left): <input type="checkbox"/> Initial (rpt #) <input type="checkbox"/> Update (if used): <input type="checkbox"/> Final | *4. Incident Commander(s) & Agency or Organization: | | 5. Incident Management Organization: | *6. Incident Start Date/Time: Date: _____ Time: _____ Time Zone: _____ |
| | | | | 7. Current Incident Size or Area Involved (use unit label - e.g., "sq mi," "city block"): |

Approval & Routing Information

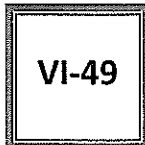
| | |
|--|--|
| *12. Prepared By: Print Name: _____ ICS Position: _____ Date/Time Prepared: _____ | *13. Date/Time Submitted: _____ Time Zone: _____ |
| *14. Approved By: Print Name: _____ ICS Position: _____ Signature: _____ | *15. Primary Location, Organization, or Agency Sent To: |

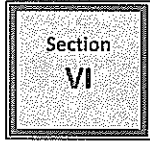
Incident Location Information

| | | |
|--|--|--|
| *16. State: | *17. County/Parish/Borough: | *18. City: |
| 19. Unit or Other: | *20. Incident Jurisdiction: | 21. Incident Location Ownership (if different than jurisdiction): |
| 22. Longitude (indicate format): _____ Latitude (indicate format): _____ | 23. US National Grid Reference: | 24. Legal Description (township, section, range): |
| *25. Short Location or Area Description (list all affected areas or a reference point): | | 26. UTM Coordinates: |
| 27. Note any electronic geospatial data included or attached (indicate data format, content, and collection time information and labels): | | |

Incident Summary

| | | | | |
|--|--|----------------------------------|----------------------|------------------------|
| *28. Significant Events for the Time Period Reported (summarize significant progress made, evacuations, incident growth, etc.): | | | | |
| 29. Primary Materials or Hazards Involved (hazardous chemicals, fuel types, infectious agents, radiation, etc.): | | | | |
| 30. Damage Assessment Information (summarize damage and/or restriction of use or availability to residential or commercial property, natural resources, critical infrastructure and key resources, etc.): | A. Structural Summary | B. If Threatened (72 hrs) | C. If Damaged | D. If Destroyed |
| | E. Single Residences | | | |
| | F. Nonresidential Commercial Property | | | |
| | Other Minor Structures | | | |
| | Other | | | |
| ICS 209, Page 1 of ____ | | * Required when applicable. | | |





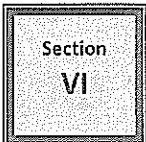
21. (ICS 209) INCIDENT STATUS SUMMARY

SAR FORM #21 (ICS 209) INCIDENT STATUS SUMMARY (Continued)

| | | | | | |
|---|----------------------------|---------------------|--|----------------------------|--------------------|
| *1. Incident Name: | | 2. Incident Number: | | | |
| <i>Additional Incident Decision Support Information</i> | | | | | |
| *31. Public Status Summary: | A. # This Reporting Period | B. Total # to Date | *32. Responder Status Summary: | A. # This Reporting Period | B. Total # to Date |
| <i>C. Indicate Number of Civilians (Public) Below:</i> | | | <i>C. Indicate Number of Responders Below:</i> | | |
| D. Fatalities | | | D. Fatalities | | |
| E. With Injuries/Illness | | | E. With Injuries/Illness | | |
| F. Trapped/In Need of Rescue | | | F. Trapped/In Need of Rescue | | |
| G. Missing (note if estimated) | | | G. Missing | | |
| H. Evacuated (note if estimated) | | | H. Sheltering in Place | | |
| I. Sheltering in Place (note if estimated) | | | I. Have Received Immunizations | | |
| J. In Temporary Shelters (note if est.) | | | J. Require Immunizations | | |
| K. Have Received Mass Immunizations | | | K. In Quarantine | | |
| L. Require Immunizations (note if est.) | | | | | |
| M. In Quarantine | | | | | |
| N. Total # Civilians (Public) Affected: | | | N. Total # Responders Affected: | | |
| *33. Life, Safety, and Health Status/Threat Remarks: | | | *34. Life, Safety, and Health Threat Management: | | A. Check if Active |
| *35. Weather Concerns (synopsis of current and predicted weather; discuss related factors that may cause concern): | | | A. No Likely Threat | <input type="checkbox"/> | |
| | | | B. Potential Future Threat | <input type="checkbox"/> | |
| | | | C. Mass Notifications in Progress | <input type="checkbox"/> | |
| | | | D. Mass Notifications Completed | <input type="checkbox"/> | |
| | | | E. No Evacuation(s) Imminent | <input type="checkbox"/> | |
| | | | F. Planning for Evacuation | <input type="checkbox"/> | |
| | | | G. Planning for Shelter-in-Place | <input type="checkbox"/> | |
| | | | H. Evacuation(s) in Progress | <input type="checkbox"/> | |
| | | | I. Shelter-in-Place in Progress | <input type="checkbox"/> | |
| | | | J. Repopulation in Progress | <input type="checkbox"/> | |
| | | | K. Mass Immunization in Progress | <input type="checkbox"/> | |
| | | | L. Mass Immunization Complete | <input type="checkbox"/> | |
| | | | M. Quarantine in Progress | <input type="checkbox"/> | |
| | | | N. Area Restriction in Effect | <input type="checkbox"/> | |
| *36. Projected Incident Activity, Potential, Movement, Escalation, or Spread and influencing factors during the next operational period and in 12-, 24-, 48-, and 72-hour timeframes: | | | | | |
| 12 hours: | | | | | |
| 24 hours: | | | | | |
| 48 hours: | | | | | |
| 72 hours: | | | | | |
| Anticipated after 72 hours: | | | | | |
| *37. Strategic Objectives (define planned end-state for incident): | | | | | |
| ICS 209, Page 2 of ____ | | | * Required when applicable. | | |



VI. FORMS



SAR FORM #21 (ICS 209) INCIDENT STATUS SUMMARY (Continued)

| | |
|--|-----------------------------|
| *1. Incident Name: | 2. Incident Number: |
| <i>Additional Incident Decision Support Information (continued)</i> | |
| <p>38. Current Incident Threat Summary and Risk Information in 12-, 24-, 48-, and 72-hour timeframes and beyond. Summarize primary incident threats to life, property, communities and community stability, residences, health care facilities, other critical infrastructure and key resources, commercial facilities, natural and environmental resources, cultural resources, and continuity of operations and/or business. Identify corresponding incident-related potential economic or cascading impacts.</p> <p>12 hours:</p> <p>24 hours:</p> <p>48 hours:</p> <p>72 hours:</p> <p>Anticipated after 72 hours:</p> | |
| <p>39. Critical Resource Needs in 12-, 24-, 48-, and 72-hour timeframes and beyond to meet critical incident objectives. List resource category, kind, and/or type, and amount needed, in priority order:</p> <p>12 hours:</p> <p>24 hours:</p> <p>48 hours:</p> <p>72 hours:</p> <p>Anticipated after 72 hours:</p> | |
| <p>40. Strategic Discussion: Explain the relation of overall strategy, constraints, and current available information to:</p> <ul style="list-style-type: none"> 1) critical resource needs identified above, 2) the Incident Action Plan and management objectives and targets, 3) anticipated results. <p>Explain major problems and concerns such as operational challenges, incident management problems, and social, political, economic, or environmental concerns or impacts.</p> | |
| 41. Planned Actions for Next Operational Period: | |
| 42. Projected Final Incident Size/Area (use unit label – e.g., "sq mi"): | |
| 43. Anticipated Incident Management Completion Date: | |
| 44. Projected Significant Resource Demobilization Start Date: | |
| 45. Estimated Incident Costs to Date: | |
| 46. Projected Final Incident Cost Estimate: | |
| 47. Remarks (or continuation of any blocks above – list block number in notation): | |
| ICS 209, Page 3 of ____ | * Required when applicable. |



VI. FORMS

Section
VI**SAR FORM 21 (ICS 209) INCIDENT STATUS SUMMARY**

Purpose. The ICS 209 is used for reporting information on significant incidents. It is not intended for every incident, as most incidents are of short duration and do not require scarce resources, significant mutual aid, or additional support and attention. The ICS 209 contains basic information elements needed to support decision making at all levels above the incident to support the incident. Decision makers may include the agency having jurisdiction, but also all multiagency coordination system (MACS) elements and parties, such as cooperating and assisting agencies/organizations, dispatch centers, emergency operations centers, administrators, elected officials, and local, First Nation, tribal, county, Provincial/State, and Federal agencies. Once ICS 209 information has been submitted from the incident, decision makers and others at all incident support and coordination points may transmit and share the information (based on its sensitivity and appropriateness) for access and use at local, regional, State, and national levels as it is needed to facilitate support.

Accurate and timely completion of the ICS 209 is necessary to identify appropriate resource needs, determine allocation of limited resources when multiple incidents occur, and secure additional capability when there are limited resources due to constraints of time, distance, or other factors. The information included on the ICS 209 influences the priority of the incident, and thus its share of available resources and incident support.

The ICS 209 is designed to provide a "snapshot in time" to effectively move incident decision support information where it is needed. It should contain the most accurate and up-to-date information available at the time it is prepared. However, readers of the ICS 209 may have access to more up-to-date or real-time information in reference to certain information elements on the ICS 209. Coordination among communications and information management elements within ICS and among MACS should delineate authoritative sources for more up-to-date and/or real-time information when ICS 209 information becomes outdated in a quickly evolving incident.

Reporting Requirements. The ICS 209 is intended to be used when an incident reaches a certain threshold where it becomes significant enough to merit special attention, require additional resource support needs, or cause media attention, increased public safety threat, etc. Agencies or organizations may set reporting requirements and, therefore, ICS 209s should be completed according to each jurisdiction or discipline's policies, mobilization guide, or preparedness plans. It is recommended that consistent ICS 209 reporting parameters be adopted and used by jurisdictions or disciplines for consistency over time, documentation, efficiency, trend monitoring, incident tracking, etc.

For example, an agency or MAC (Multiagency Coordination) Group may require the submission of an initial ICS 209 when a new incident has reached a certain pre-designated level of significance, such as when a given number of resources are committed to the incident, when a new incident is not completed within a certain timeframe, or when impacts/threats to life and safety reach a given level.

Typically, ICS 209 forms are completed either once daily or for each operational period – in addition to the initial submission. Jurisdictional or organizational guidance may indicate frequency of ICS 209 submission for particular definitions of incidents or for all incidents. This specific guidance may help determine submission timelines when operational periods are extremely short (e.g., 2 hours) and it is not necessary to submit new ICS 209 forms for all operational periods.

Any plans or guidelines should also indicate parameters for when it is appropriate to stop submitting ICS 209s for an incident, based upon incident activity and support levels.

Preparation. When an Incident Management Organization (such as an Incident Management Team) is in place, the Situation Unit Leader or Planning Section Chief prepares the ICS 209 at the incident. On other incidents, the ICS 209 may be completed by a dispatcher in the local communications center, or by another staff person or manager. This form should be completed at the incident or at the closest level to the incident.

The ICS 209 should be completed with the best possible, currently available, and verifiable information at the time it is completed and signed.

This form is designed to serve incidents impacting specific geographic areas that can easily be defined. It also has the flexibility for use on ubiquitous events, or those events that cover extremely large areas and that may involve many jurisdictions and ICS organizations. For these incidents, it will be useful to clarify on the form exactly which portion of the larger incident the ICS 209 is meant to address. For

example, a particular ICS 209 submitted during a statewide outbreak of mumps may be relevant only to mumps-related activities in Clearwater County, Alberta. This can be indicated in both the incident name, Block 1, and in the Incident Location Information section in Blocks 16–26.

While most of the “Incident Location Information” in Blocks 16–26 is optional, the more information that can be submitted, the better. Submission of multiple location indicators increases accuracy, improves interoperability, and increases information sharing between disparate systems. Preparers should be certain to follow accepted protocols or standards when entering location information, and clearly label all location information. As with other ICS 209 data, geospatial information may be widely shared and utilized, so accuracy is essential.

If electronic data is submitted with the ICS 209, do not attach or send extremely large data files. Incident geospatial data that is distributed with the ICS 209 should be in simple incident geospatial basics, such as the incident perimeter, point of origin, etc. Data file sizes should be small enough to be easily transmitted through dial-up connections or other limited communications capabilities when ICS 209 information is transmitted electronically. Any attached data should be clearly labeled as to format content and collection time, and should follow existing naming conventions and standards.

Distribution. ICS 209 information is meant to be completed at the level as close to the incident as possible, preferably at the incident. Once the ICS 209 has been submitted outside the incident to a dispatch center or MACS element, it may subsequently be transmitted to various incident supports and coordination entities based on the support needs and the decisions made within the MACS in which the incident occurs.

Coordination with public information system elements and investigative/intelligence information organizations at the incident and within MACS is essential to protect information security and to ensure optimal information sharing and coordination. There may be times in which particular ICS 209s contain sensitive information that should not be released to the public (such as information regarding active investigations, fatalities, etc.). When this occurs, the ICS 209 (or relevant sections of it) should be labeled appropriately, and care should be taken in distributing the information within MACS.

All completed and signed original ICS 209 forms **MUST** be given to the incident’s Documentation Unit and/or maintained as part of the official incident record.

Notes:

- To promote flexibility, only a limited number of ICS 209 blocks are typically required, and most of those are required only when applicable.
- Most fields are optional, to allow responders to use the form as best fits their needs and protocols for information collection.
- For the purposes of the ICS 209, responders are those personnel who are assigned to an incident or who are a part of the response community.. This may include critical infrastructure owners and operators, nongovernmental and nonprofit organizational personnel, and contract employees (such as caterers), depending on local/jurisdictional/discipline practices.
- For additional flexibility only pages 1–3 are numbered, for two reasons:
 - Possible submission of additional pages for the Remarks Section (Block 47), and
 - Possible submission of additional copies of the fourth/last page (the “Incident Resource Commitment Summary”) to provide a more detailed resource summary.

For More Information About This Form See:
NATIONAL INCIDENT MANAGEMENT SYSTEM INCIDENT COMMAND SYSTEM
ICS FORMS BOOKLET, FEMA 502-2, September 2010

Section VI

VI. FORMS

SAR FORM #22 (ICS 211) INCIDENT CHECK-IN LIST

| | | | | | | | | | | | | | | | |
|---|--|---------------------|------|--|--------------------|-----------------------|------------------|---|----------------------------------|-------------------------|------------------------------------|----------------------|-------------------------|--------------------------|-------------------------------------|
| 1. Incident Name: | | 2. Incident Number: | | 3. Check-In Location (complete all that apply): <input type="checkbox"/> Base <input type="checkbox"/> Staging Area <input type="checkbox"/> ICP <input type="checkbox"/> Helibase <input type="checkbox"/> Other | | | | 4. Start Date/Time: Date: _____ Time: _____ | | | | | | | |
| Check-In Information (use reverse of form for remarks or comments) | | | | | | | | | | | | | | | |
| 5. List single resource personnel (overhead) by agency and name, OR list resources by the following format: | | | | | 6. Order Request # | 7. Date/Time Check-In | 8. Leader's Name | 9. Total Number of Personnel | 10. Incident Contact Information | 11. Home Unit or Agency | 12. Departure Point, Date and Time | 13. Method of Travel | 14. Incident Assignment | 15. Other Qualifications | 16. Data Provided to Resources Unit |
| State | Agency | Category | Kind | Type | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| ICS 211 | 17. Prepared by: Name: _____ Position/Title: _____ Signature: _____ Date/Time: _____ | | | | | | | | | | | | | | |

VI-55

SAR FORM #22 (ICS 211) INCIDENT CHECK-IN LIST

Purpose. Personnel and equipment arriving at the incident can check in at various incident locations. Check-in consists of reporting specific information, which is recorded on the Check-In List (ICS 211). The ICS 211 serves several purposes, as it: (1) records arrival times at the incident of all overhead personnel and equipment, (2) records the initial location of personnel and equipment to facilitate subsequent assignments, and (3) supports demobilization by recording the home base, method of travel, etc., for resources checked in.

Preparation. The ICS 211 is initiated at a number of incident locations including: Staging Areas, Base, and Incident Command Post (ICP). Preparation may be completed by: (1) overhead at these locations, who record the information and give it to the Resources Unit as soon as possible, (2) the Incident Communications Center Manager located in the Communications Center, who records the information and gives it to the Resources Unit as soon as possible, (3) a recorder from the Resources Unit during check-in to the ICP. As an option, the ICS 211 can be printed on colored paper to match the designated Resource Status Card (ICS 219) colors. The purpose of this is to aid the process of completing a large volume of ICS 219s. The ICS 219 colors are:

- 219-1: Header Card – Gray (used only as label cards for T-Card racks)
- 219-2: Crew/Team Card – Green
- 219-3: Engine Card – Rose
- 219-4: Helicopter Card – Blue
- 219-5: Personnel Card – White
- 219-6: Fixed-Wing Card – Orange
- 219-7: Equipment Card – Yellow
- 219-8: Miscellaneous Equipment/Task Force Card – Tan
- 219-10: Generic Card – Light Purple

Distribution. ICS 211s, which are completed by personnel at the various check-in locations, are provided to the Resources Unit, Demobilization Unit, and Finance/Administration Section. The Resources Unit maintains a master list of all equipment and personnel that have reported to the incident.

Notes:

- Also available as 8½ x 14 (legal size) or 11 x 17 chart.
- Use reverse side of form for remarks or comments.
- If additional pages are needed for any form page, use a blank ICS 211 and repaginate as needed.
- Contact information for sender and receiver can be added for communications purposes to confirm resource orders. Refer to 213RR example (Appendix B)

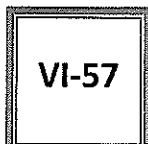
For More Information About This Form See:
NATIONAL INCIDENT MANAGEMENT SYSTEM INCIDENT COMMAND SYSTEM
ICS FORMS BOOKLET, FEMA 502-2, September 2010

VI. FORMS



SAR FORM #23 (ICS 215A) INCIDENT ACTION PLAN SAFETY ANALYSIS

| | | | |
|--|------------------|--|--|
| 1. Incident Name: | | 2. Incident Number: | |
| 3. Date/Time Prepared: Date: Time: | | 4. Operational Period: Date From: Date To: Time From: Time To: | |
| 5. Incident Area | 6. Hazards/Risks | 7. Mitigations | |
| | | | |
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| | | | |
| 8. Prepared by (Safety Officer): Name: _____ Signature: _____ | | | |
| Prepared by (Operations Section Chief): Name: _____ Signature: _____ | | | |
| ICS 215A | Date/Time: _____ | | |



23. (ICS 215A) INCIDENT ACTION PLAN SAFETY ANALYSIS

SAR FORM #23 (ICS 215A) INCIDENT ACTION PLAN SAFETY ANALYSIS

Purpose. The purpose of the Incident Action Plan Safety Analysis (ICS 215A) is to aid the Safety Officer in completing an operational risk assessment to prioritize hazards, safety, and health issues, and to develop appropriate controls. This worksheet addresses communications challenges between planning and operations, and is best utilized in the planning phase and for Operations Section briefings.

Preparation. The ICS 215A is typically prepared by the Safety Officer during the incident action planning cycle. When the Operations Section Chief is preparing for the tactics meeting, the Safety Officer collaborates with the Operations Section Chief to complete the Incident Action Plan Safety Analysis. This worksheet is closely linked to the Operational Planning Worksheet (ICS 215). Incident areas or regions are listed along with associated hazards and risks. For those assignments involving risks and hazards, mitigations or controls should be developed to safeguard responders, and appropriate incident personnel should be briefed on the hazards, mitigations, and related measures. Use additional sheets as needed.

Distribution. When the safety analysis is completed, the form is distributed to the Resources Unit to help prepare the Operations Section briefing. All completed original forms must be given to the Documentation Unit.

Notes:

- This worksheet can be made into a wall mount, and can be part of the IAP.
- If additional pages are needed, use a blank ICS 215A and repaginate as needed.

For More Information About This Form See:

NATIONAL INCIDENT MANAGEMENT SYSTEM INCIDENT COMMAND SYSTEM
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