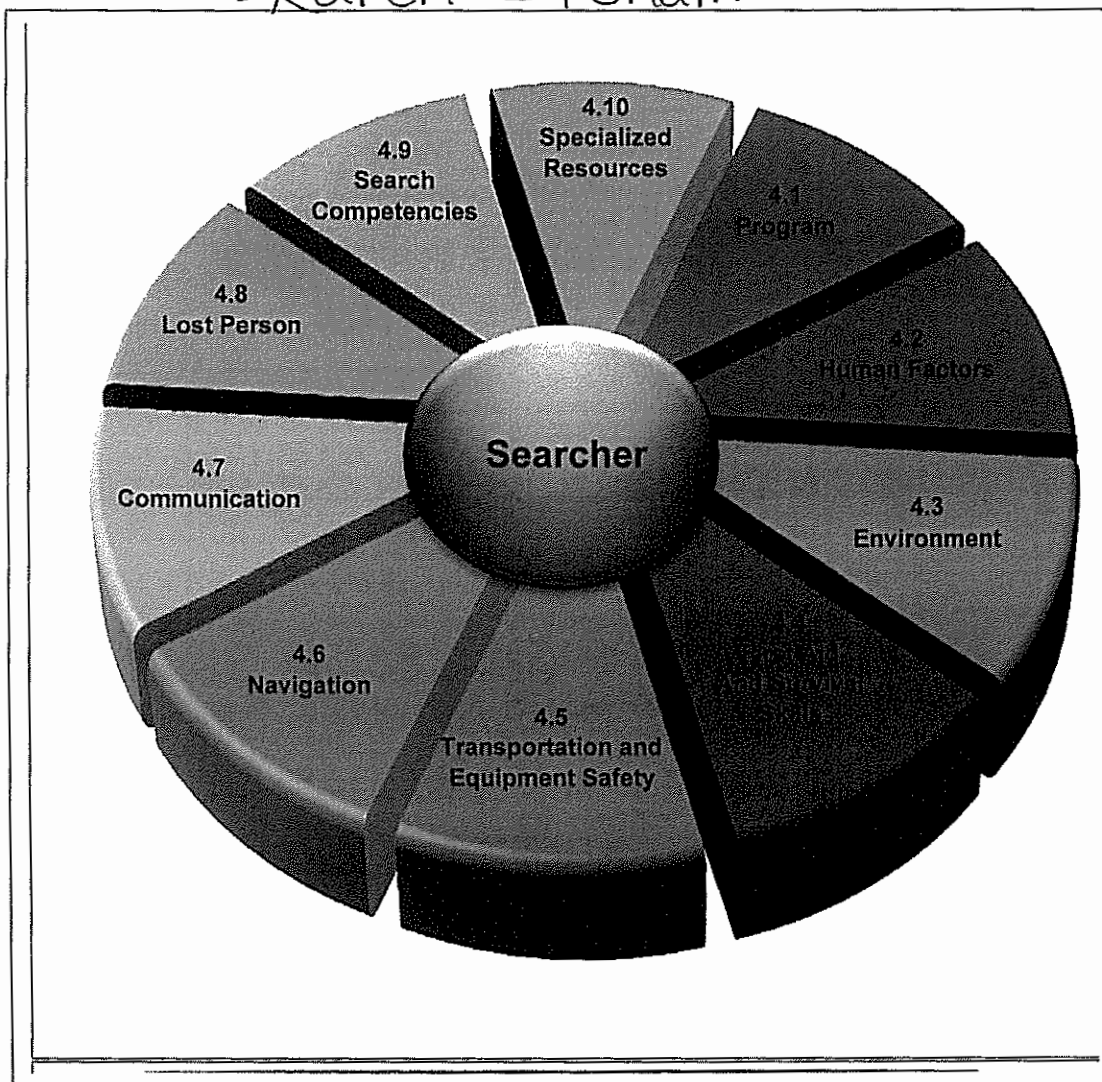


Newfoundland and Labrador Search & Rescue Association

Searcher Manual

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Introduction

Overview:

This manual focuses on the attributes and competencies of ground search and rescue searchers to identify expectations and support capacity building related to this key role. The Searcher operates under direction of the Team Leader and must be well trained and motivated with the experience and background knowledge necessary to operate as part of the team in the field.

Searchers utilize their knowledge, skills, and abilities to conduct search assignments and contribute to the team effort. Safe and effective searchers are aware of risks and follow established policies, protocols, and procedures, enhancing the overall performance of the team. The ten Searcher curriculum categories are

- a) Clause 4.1, Program
- b) Clause 4.2, Human factors
- c) Clause 4.3, Environment
- d) Clause 4.4, First aid and survival skills
- e) Clause 4.5, Transportation and equipment safety
- f) Clause 4.6, Navigation
- g) Clause 4.7, Communication
- h) Clause 4.8, Lost-person behavior
- i) Clause 4.9, Search competencies
- j) Clause 4.10, Specialized resources

This manual complies with the CSA Standards for Ground Search and Rescue:

- a) Core competency standards for ground search and rescue operations:
Searcher, Team Leader, and SAR Manager Z1620-15
- b) Training curriculum standards for ground search and rescue operations:
Searcher, Team Leader, and SAR Manager Z1625-16

4.1 Program

Overview:

Searchers need to understand how SAR is organized and implemented at the local, provincial, territorial, and national levels and that all applicable legal requirements as well as policies and procedures established by the GSAR organization are followed. Searcher competency elements covered in this category are:

- a) Clause 4.1.1, SAR structure in Canada
- b) Clause 4.1.2, Incident command system (ICS)
- c) Clause 4.1.3, Roles and responsibilities
- d) Clause 4.1.4, Legal requirements
- e) Clause 4.1.5, Liability protections and workers compensation
- f) Clause 4.1.6, Finance and administration
- h) Clause 4.1.7, Media policy

4.1.1 SAR Structure in Canada

As a searcher, you should have an understanding of how the team fits within the larger search and rescue organizational structure.

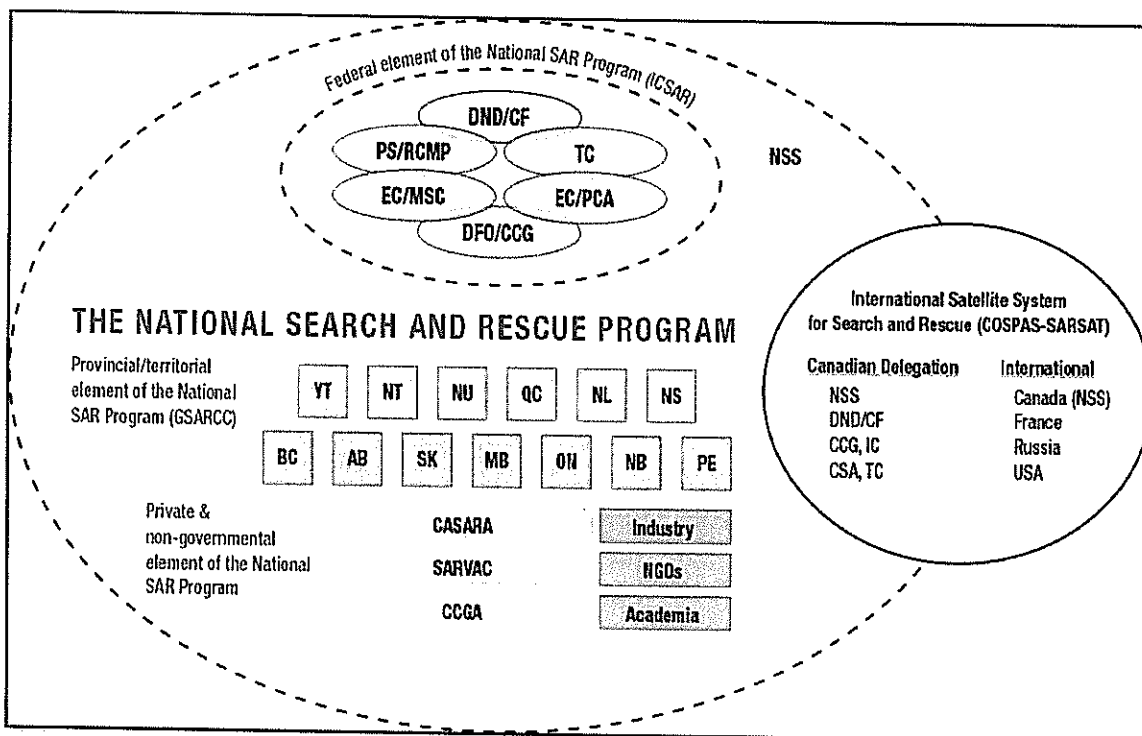


Figure 1: SAR Structure in Canada

Knowledge and understanding of:

- How SAR is structured in Canada, including:
 - a) The definition of SAR
 - b) The components of the National Search and Rescue Program including:
 - I. Response
 - II. Prevention
 - III. Coordination
 - c) SAR Domains including:
 - I. Aeronautical
 - II. Maritime
 - III. Ground and inland waters
 - d) Organizations and agencies involved in SAR, including:
 - I. The federal government including Parks Canada
 - II. Provincial and territorial governments
 - III. Police services within the jurisdictions
 - IV. SAR Associations
- How search and rescue is structured in the applicable jurisdiction.

A Shared Responsibility

Search and Rescue (SAR) is defined as the combined activities and tasks involved in both searching for and rescuing persons who are feared to be in distress. Many searches do not involve rescue and many rescues do not require searches (see the glossary at the end of this manual for definitions of further terms).

In Canada, search and rescue (SAR) is a shared responsibility among federal, provincial/territorial, Parks Canada, municipal organizations, as well as air, ground and maritime volunteer SAR organizations. There is a distinct organizational difference between the responsibility for GSAR and that of aeronautical and maritime SAR.

Due to its vast size and range of environments, Canada relies on a diverse group of government, military, volunteer, academic and industry partners to provide overall SAR services to the Canadian public.

In addition to responding to SAR emergencies, the organizations also invest time and resources in preventative SAR measures (e.g. AdventureSmart program). United by the common theme of “working together to save lives,” the collective work of these partners forms the backbone of Canada’s National SAR Program (NSP).

The National Search and Rescue Program (NSP)

The NSP is a horizontal program that integrates organizations and resources that are involved in the provision of SAR services to Canadians, including SAR response and prevention.

The Minister of Public Safety and Emergency Preparedness is the Lead Minister for Search and Rescue (LMSAR). The Department of National Defence will keep its lead role for the delivery of airborne SAR operations, just as the Canadian Coast Guard (CCG) will remain responsible for maritime SAR, and lead responsibility for GSAR will rest with the provinces and territories. The NSP is led by Public Safety Canada and supported by the National SAR Secretariat (NSS).

The NSS is responsible for the management and coordination of the NSP, ensuring best use is made of SAR partner's diverse resources and capabilities.

It is responsible for:

- The development and coordination of overall SAR policy in consultation with SAR partners.
- Supporting and promoting the activities of the NSP as a means to achieve highly effective and economically responsible SAR programs throughout Canada.
- Working directly with federal, provincial/territorial as well as air, ground and marine volunteer SAR organizations to develop and standardize the quantity and quality of SAR services available to Canadians.

The executive director of the NSS chairs the federal Interdepartmental Committee on Search and Rescue (ICSAR). This committee is responsible for advising the LMSAR and the Government of Canada on issues related to SAR in Canada. Members of the ICSAR include:

- Canadian Armed Forces (CAF) (Department of National Defence)
- Canadian Coast Guard (Department of Fisheries and Oceans Canada)
- Royal Canadian Mounted Police (RCMP) (Public Safety Canada)
- Parks Canada Agency (Environment Canada)
- Transport Canada
- Meteorological Service of Canada (Environment Canada)

CAF Organization for Aeronautical and Maritime SAR

The CAF have the primary responsibility for the provision of aeronautical SAR services (search for downed aircraft) whereas the CCG is responsible for maritime SAR services. The CAF are responsible for the effective operation of this coordinated aeronautical and maritime SAR system. Commander Canadian Joint Operations Command (CJOC), who is accountable for all CAF operations around the world, is responsible for:

- The control and conduct of aeronautical SAR and coordination of maritime SAR operations in the Canadian area of responsibility (AOR).
- Liaison with other SAR operating departments and agencies, nationally and internationally.

- The oversight of annual coordinating activities between the CAF and CCG, and regional SAR staffs.

SAR operations are divided into three Search and Rescue Regions (SRR). These regions are named after their respective Joint Rescue Coordination Centres (JRCC):

- **JRCC Victoria**, in British Columbia
- **JRCC Trenton**, in Ontario
- **JRCC Halifax**, in Nova Scotia

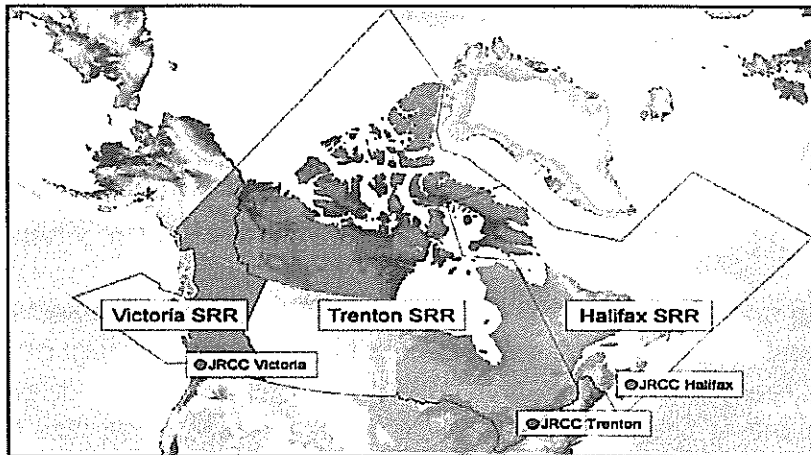


Figure 2: SAR Regions

The JRCC's are operated by a team of professional SAR experts from both the CAF and the CCG. They have access to and can task dedicated military SAR aircraft, CCG vessels and crews to respond to an emergency in their region.

Furthermore, SRR commanders can task additional CAF naval or air resources and CCG resources to respond to SAR missions within their regions. SAR coordinators may call upon any asset having a capacity to assist in any given situation and will use any resource at their disposal to render assistance to those in need as quickly as possible. If more SAR assets are required to support a particular mission, Commander CJOC can task all available CAF resources from anywhere in Canada.

Area of Responsibility (AOR)

The Canadian federal area of responsibility is defined both under International Civil Aviation Organization agreements for aeronautical SAR and International Maritime Organization agreements for maritime SAR. This AOR extends over 18 million square kilometers of land and sea – an area one-and-a-half times that of Canada's landmass.

The aeronautical SAR area extends from the U.S. border to the North Pole, and from approximately 600 nautical miles (1,111 km) west of Vancouver

Island in the Pacific Ocean to 900 nautical miles (1,667 km) east of Newfoundland in the Atlantic.

The maritime SAR mandate includes the oceanic waters, in addition to the St. Lawrence Seaway and the Great Lakes.

The CAF have the capability to provide aeronautical and maritime SAR services into the farthest and most remote locations in our Arctic region. The CCG is capable of providing SAR services to the Arctic on a seasonal basis through the deployment of icebreakers and science vessels.

Ground Search and Rescue (GSAR)

GSAR in Canada is conducted under the legal authority of the individual provinces and territories. This authority is delegated for operational response to the jurisdictional police services.

At the provincial level, the RCMP is the operational authority for GSAR in all Canadian provinces and territories except Ontario, Quebec, and parts of Newfoundland and Labrador. The Ontario Provincial Police, Sûreté du Québec and Royal Newfoundland Constabulary have the authority in these jurisdictions. Parks Canada leads GSAR in federal parks and reserves. The provinces and territories have appointed representatives to the National GSAR Council of Canada to establish provincial and territorial GSAR standards of training and competency.

At the National level, Search and Rescue Volunteer Association of Canada (SARVAC) represent volunteer ground search and rescue and also sit on the GSAR Council of Canada. Each of the provinces and territories also have an umbrella organization in which volunteer search and rescue groups operate.

A team leader must ensure that team members are aware of the functional chain of command within which the team operates.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.1.1
- DND - National Defense and the Canadian Armed Forces – SAR
- Wikipedia – National Search and Rescue Program

4.1.2 Incident Command System (ICS)

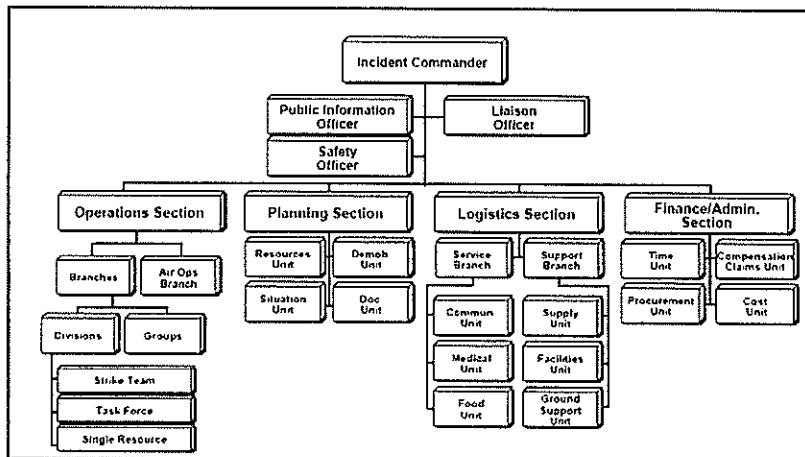


Figure 3: ICS Structure

The Searcher must be familiar with the Incident Command System, and have an understanding of the position and function of the GSAR team within the ICS structure, and their role and responsibility within the ICS structure. A search team operating within the ICS structure would fall under the Operations Section and could be part of a Division or Group and be described as a Task Force or Strike Team depending on the incident's requirements and complexity.

Knowledge and understanding of:

- The history, features, principles, and organizational structure of the ICS.
- The position of the GSAR team in the ICS structure and organization chart.

Observable performance (Do):

- Successful completion of the ICS-100 or IMS-100 or equivalent as determined by the Authority Having Jurisdiction (AHJ).

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.1.2
- ICS Canada
- ICS-100 Introduction to Incident Command System

4.1.3 Roles and Responsibilities

Searchers must have a clear understanding of their key roles and responsibilities so that they can operate effectively when assigned to a team during an incident.



Figure 4: Roles and Responsibilities

Knowledge and understanding of:

- The organization(s) responsible for GSAR in the response area.
- The roles and responsibilities of the organizations involved in GSAR in the response area.
- The structure of the GSAR organization and the roles and responsibilities of GSAR organizational members.
- The eligible and ineligible GSAR activities for the GSAR organization.
- The role and responsibilities of a searcher as part of an incident response.
- Safety priorities for themselves, the team, and the subject.
- The importance of professionalism and confidentiality in all aspects of a search.
- The role of a searcher in dealing with families, the public, and the media (including social media).
- Repercussions of unethical behaviour and the consequences of these behaviours.

Observable performance (Do):

- Act in a professional manner during search missions and when dealing with families, the public, and the media

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations, Section 4.1.3

4.1.4 Legal Requirements

As the actions of a Searcher may be subject to a variety of federal or provincial legislation and/or the policies of a lead jurisdictional agency, or of the volunteer GSAR organization, the Searcher must have an understanding of the applicable legal requirements regarding GSAR operations.

Knowledge and understanding of:

- Health and safety legal requirements applicable for GSAR operations, including:
 - a) applicable provincial or territorial legislative and policy requirements within the jurisdiction
 - b) rights and duties of workers and supervisors under applicable
 - c) occupational health and safety legislation (e.g., right to refuse unsafe work)
 - d) applicable sections of the Criminal Code of Canada (e.g., s. 217.1)
 - e) applicable Canada Labour Code requirements; and the legal duties and obligations of a searcher
- The GSAR organization's workplace health and safety policies and procedures including:
 - a) reporting unsafe conditions, hazards and accidents
 - b) emergency response
 - c) safety priorities (themselves, the team, and the subject)
 - d) use of safety equipment, devices, and clothing
 - e) activity or behaviour that could create a hazard to themselves or to any other person
 - f) ensuring ability to work is not impaired by fatigue, alcohol, drugs, stress, or other causes
- Legal and civil rights, including policies for human rights and respectful workplace (e.g., harassment prevention)
- Concepts of civil action, criminal activity, crime scene, and coroner's courts (e.g., as a subject as well as a witness)
- Legislation and policies on privacy of personal information and freedom of information requirements
- Identification and credentialing requirements (e.g., proof of identification, credentialing, and association with the GSAR Team)
- Policies for criminal record checks and vulnerable person's checks and re-checks

Observable performance (Do):

- Adhere to safe working policies and procedures
- Respond to search missions with required proof of identification and/or credentials
- Adhere to policies regarding the privacy of personal information

Health and Safety

Most workers in Newfoundland and Labrador are required to receive health and safety training through their work and are therefore familiar with the concepts

and requirements of Newfoundland and Labrador's Occupational Health and Safety Act.

Actions of SAR team members fall under and may be subject to other legislation, such as the Criminal Code of Canada Section 217.1 regarding the "*Duty of Persons Directing Work*", which states:

"Everyone who undertakes, or has the authority to direct how another person does work or performs a task is under a legal duty to take reasonable steps to prevent bodily harm to that person, or any other person, arising from that work or task."

One way to comply or mitigate this obligation is to ensure that actions are taken in accordance with known and accepted standards of care. Therefore the basic principles of the Occupational Health and Safety Act should be followed. These include:

- The right to participate - All members should be encouraged to be part of the process of identifying and resolving health and safety concerns.
- The right to know - All members have the right to know about any potential hazards to which they may be exposed. This means they must receive training and information on the equipment, conditions, and activities in which they will be participating or may be asked to participate in.
- The right to refuse work - All members have the right to refuse work they believe is dangerous to either their own health and safety or that of another person. These concerns must be brought to the attention of the IC or command.
- The right to stop work - During SAR activities, the following individuals may stop or order an activity be modified:
 - The team leader or an executive member of the SAR organization.
 - A designated safety officer under the ICS structure.
 - Certain types of specialty teams may also have their own designated safety officer (e.g. high angle or swift water rescue).
 - Directions from the lead jurisdictional agency.

All members must follow these directions and should always ensure their actions are in accordance with the principals stated above.

Legal and Civil Rights

All Searchers must be aware that they may be held responsible for breaches of legal and civil rights, which can involve their team members. This includes policies for human rights and respectful workplaces (which does include volunteer SAR organizations). The Newfoundland and Labrador Human Rights Code states:

- Every person has a right to equal treatment with respect to services, goods and facilities, without discrimination because of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation,

gender identity, gender expression, age, marital status, family status or disability.

- Every person has a right to freedom from harassment (Harassment means engaging in a course of vexatious comment or conduct that is known or ought reasonably to be known to be unwelcome). Searchers must understand that harassment or other violations of the Human Rights Code will not be tolerated.
- No person shall infringe or do, directly or indirectly, anything that infringes on these rights.

All actions by a SAR member or against a member, which violate the Human Rights Code, must be reported within the chain of command as soon as possible. Failure to ensure the protection offered by the Human Rights Code may result in an inquiry by the Human Rights Tribunal of Newfoundland and Labrador or civil action against the individuals and organization involved.

Involvement with Investigations

Searchers must be aware that SAR activities may be subject to civil action, criminal investigation, and other formal inquiries, or could involve the discovery of a crime scene. For these reasons the Team Leader and Searcher must ensure:

- All activities are documented as per SAR organizational requirements and that of the lead agency.
- Team leaders and members must be aware of the importance of evidence protection.
- Notes and documentation of actions must be carried out in a manner consistent with the expectation that a team leader and/or members may be required to testify as a witness or defend their actions in court or before an inquiry.

Protection of Privacy

Searchers must protect the privacy of personal information as per Newfoundland and Labrador's legislation; lead jurisdictional agencies and the SAR organizational policies on privacy of personal information. Searchers must also be aware that information which they have collected, may under some circumstances become subject to Newfoundland and Labrador's freedom of information requirements:

- Additionally, all information collected as part of a SAR activity under a lead jurisdictional agency may be considered subject to the Freedom of Information and Protection of Privacy Act.
- Under the Freedom of Information and Protection of Privacy Act "personal information" means recorded information about an identifiable individual, including:
 - a) Information relating to the race, national or ethnic origin, colour, religion, age, gender, sexual orientation or marital or family status of the individual.

- b) Information relating to the education or the medical, psychiatric, psychological, criminal or employment history of the individual, or information relating to financial transactions in which the individual has been involved.
- c) Any identifying number, symbol or other particulars assigned to the individual.
- d) Address, telephone number, fingerprints or blood type of the individual.
- e) Correspondence sent to an institution by the individual that is implicitly or explicitly of a private or confidential nature, and replies to that correspondence that would reveal the contents of the original correspondence.
- f) Individual's name where it appears with other personal information relating to the individual or where the disclosure of the name would reveal other personal information about the individual.

Searchers are not authorized to release any information and should refer requests to the Team Leader who will refer them to Search Manager or AHJ onsite. Prior to the release of any information permission and approval for release by the lead jurisdictional agency and/or family member (spouse/parent and/or legal guardian) should be received. When in doubt, the lead jurisdictional agency should be contacted to clarify the requirements regarding the release of any such information.

Identification

Searchers must ensure they are aware of their organization's policies regarding identification and credential requirements related to operating equipment or performing certain tasks, including:

- All SAR participants should be carrying at a minimum, identification such as driver license, health card and NLSARA ID Card, and wear the GSAR organization's uniform as required.
- Where vehicle, equipment or operation requires additional licenses, such as a boat operator's card, searchers should ensure that they have the appropriate licenses with them.

Criminal Record Check (CRC)

Searchers must be aware of the requirement of their organizations for policies such as criminal record check and vulnerable person check:

- RNC/RCMP require annual CRC (and some organizations also require vulnerable person check) for volunteer SAR team members.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations, Section 4.1.4
- NLSARA Search Techniques Manual Section 7.6 Legal Issues in Search and Rescue

- Newfoundland and Labrador's Occupational Health and Safety Act
<http://www.assembly.nl.ca/legislation/sr/statutes/o03.htm>
- Newfoundland and Labrador's Personal Privacy Act
<http://assembly.nl.ca/Legislation/sr/statutes/p22.htm>
- Newfoundland and Labrador's Human Rights Act
<http://www.assembly.nl.ca/Legislation/sr/statutes/h13-1.htm>
- Canada's Law website <http://laws-lois.justice.gc.ca>
- Legal Issues in Search and Rescue by John Chaffey (SARBC.org)

4.1.5 Liability Protections and Workers Compensation

SAR activities may place a team member at risk for injury or legal action. There are a number of federal and provincial laws that offer liability protection and/or compensation for injuries. Searchers should advise Team Leaders of any issues as soon as possible. Team leaders should have an understanding of these issues in order to advise members, and to ensure that they recognize and provide notification within their chain of command of any issues that they or their teams may encounter.

Knowledge and understanding of:

- Types of liability protections and workers compensation coverage within the jurisdiction, including:
 - a) applicable legislative protections:
 - I. provincial or territorial emergency and SAR legislation
 - II. the Good Samaritan Act
 - b) applicable workers compensation coverage
 - c) applicable municipal government insurance
 - d) private insurance
 - e) limitations of protection and coverage
- Documenting and reporting of claims and the use of tasking numbers.

Observable performance (Do):

- Adhere to requirements for documenting and reporting of a claim.

Applicable Legislative Protections and/or Legislation

Searchers should be aware that no Newfoundland and Labrador legislation defines negligence or offers protection in relationship to volunteers and their actions during SAR activities.

Claims of negligence and/or of liability due to injury or damage that may occur from actions taken (or not taken) are often a concern to team members involved in SAR activities. Searchers should be aware of what constitutes legal negligence and liability in the context of SAR activities. Case law and the rational/statements of judges in making these past rulings provide some guidance as follows:

- To sue for negligence the following criteria must be met (Hanna 1994):

- A duty to rescue exists.
- One or more standards of care are breached.
- Actual injuries are suffered.
- Negligence is the proximate cause of the injuries.
- Plaintiff's position is not prejudiced (e.g. assumption of risk, or contributory negligence).
- The following are possible circumstances that may constitute negligence in the context of SAR (Gruzman 1991):
 - Delay in initiating a search.
 - Negligence in the conduct of the search (e.g. an inadequate search, defective equipment).
 - Ineffective use of resources to conduct search.
 - Negligent termination of the search.

It is important to note that training, knowledge, and implementation of SAR techniques/ methodology and documentation of actions, conducted in good faith, will provide a due diligence defense to accusations or legal proceedings of negligence.

Legal Liability and Newfoundland and Labrador Good Samaritan (Emergency Medical Aid Act)

In most Canadian jurisdictions, there is no legal obligation for a member of the public to help someone in an emergency. However, most Canadian provincial and territorial legislatures (including Newfoundland and Labrador) do have statutes requiring drivers of motor vehicles who are involved in accidents to, among other things, "*give to a person injured in the accident reasonable assistance*" (Highway Traffic Act sec. 169).

Newfoundland and Labrador's Emergency Medical Aid Act applies to individuals who may find themselves in an emergency first aid situation, such as SAR personnel. The Act offers legal protection to those persons acting in good faith who render assistance.

Note - if you are a health care professional (a member of a College of a health profession set out in the Regulated Health Professions Act) specific rules may apply.

For specific legal details please refer to the actual legislation

<http://www.assembly.nl.ca/legislation/sr/annualstatutes/RSN1990/E09.c90.htm>.

In general: "the physician, registered nurse or other person is not liable for damages for injuries to or the death of that person alleged to have been caused by an act or omission on his or her part in rendering the medical services or first aid assistance, unless it is established that the injury or death was caused by gross negligence on his or her part."

Some of the commonly referenced Canadian judicial definitions of gross negligence include:

- Very great negligence
- A marked departure from the applicable standard of care. Some older cases refer to a very marked departure from the applicable standard of care
- Positive or affirmative negligence rather than passive negligence
- Conduct so arbitrary it reflects complete disregard for the consequences

A court case, Cleary v. Hansen (1981) provides a clearer definition of standard of care. It reads, in part:

“Even during an attempt to assist someone in an emergency, the law expects reasonable care to be exercised, even though the standard is relaxed to a certain extent. The court does not expect perfection, but rescuers must be sensible. They, like anyone else, must weigh the advantages and the risks of their conduct. Their conduct, too, however laudable, must measure up to the standard of the reasonable person in similar circumstances.”

SAR personnel, due to their training and experience, should therefore strive to ensure that they meet and exceed this basic standard of care. SAR responders are also expected to act in accordance with their level of training, knowledge and skills. The basic principles of first aid should always be followed:

- Identify one’s self as a first aider.
- Receive consent from casualty.
- If casualty is unresponsive, consent is implied.
- For children, get consent from parent or guardian, if they are not present consent can be assumed.
- Treat within current level of training and skill.
- Use common sense and ensure actions are in the best interest of the causality.
- Do not abandon a casualty.
- Continue first aid until relieved by another aider, medical assistance (EMS) or the casualty withdraws consent.

Team leaders should be aware that organizations such as Red Cross and St. John Ambulance have general liability insurance coverage for persons who have one of their current first aid certificates. Coverage is typically limited to where and when the action and treatment given were in accordance with the level and aid methods of the training received. There have been no successful suits in Canada against anyone providing first aid that were trained by a recognized agent.

Applicable Workers Compensation Coverage (Injuries)

Searchers may qualify for assistance by the Workers Compensation if injured during a SAR mission where the team was called out by the RNC/RCMP. The Workplace Health Safety and Compensation Act section 40 item (h) states:

"Coverage for particular workers

volunteers engaged in search and rescue activities as tasked by the Royal Newfoundland Constabulary or the Royal Canadian Mounted Police,"

There are other situations under section 40 of the Workplace, Health, Safety and Compensation act which team members could be eligible for coverage under and you should refer to the act for details.

Team leaders must be able to advise their members on the requirements for documenting and reporting of any potential claims. The Workplace NL website contains a link describing the process to be followed to complete a claim (<http://www.workplaceni.ca/WVS Submitting a New Claim or Recurrence WHSCC>)

Any injury should be reported to the Team Leader immediately and that information should then be reported through the chain of command. A description of what happened and the names of witnesses should be included in the report. A team leader should have knowledge and offer assistance to a team member in filing a claim if:

- They were injured in an accident.
- They developed medical problems that they believe were related to the work performed.
- They developed a disease or medical problems that they believe was due to exposure such as to noise, chemicals, or dust during covered activities.

In order to receive benefits, a member must file a claim as soon as possible, and no later than six months from the date of the accident. If the issue is a disablement (a condition that emerges gradually over time), the six months runs from the date you report the disablement as work-related.

All injuries must be reported and documented, as soon as possible, within the chain of command during a SAR activity and in accordance with the team members SAR organization's policies.

Insurance

Private insurance coverage for equipment and personnel is available to SAR organizations. Since 1999, Algoma Insurance Brokers Limited has been providing a National Insurance Program to SARVAC and its membership. Members must be aware if their organization has a policy. If so they should review that policy and be aware of the specific coverage offered. In general, coverage can include:

- Liability - \$5,000,000.
- Accidental death and dismemberment - \$100,000/volunteer.
- Owned/non-owned watercraft.
- Non-owned/unlicensed motorized vehicles (ATVs, Snowmobile, etc.)

Coverage of non-owned vehicles or watercraft requires a written agreement between the owner and the SAR organization. The vehicles or watercraft must be insured by the owner. Algoma Insurance must be notified as soon as possible of the agreement.

Members should be aware that GSAR operations under or as part of the Canadian Coast Guard (or Auxiliary) or with CASARA have separate insurance and liability coverage and requirements.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations, Section 4.1.5
- Emergency Medical Aid Act
<http://assembly.nl.ca/Legislation/sr/statutes/e09.htm>
- Newfoundland and Labrador Highway Traffic Act
<http://www.assembly.nl.ca/legislation/sr/statutes/h03.htm>
- Workplace, Health, Safety and Compensation Commission website Workplace NL
<http://www.workplacel.ca/home.whscc>
- Workplace, Health, Safety and Compensation Act
<http://www.assembly.nl.ca/legislation/sr/statutes/w11.htm#79>
- Algoma Financial Group website <https://algomafinancialgroup.com/sarvac/>

4.1.6 Finance and Administration

Have an awareness of the administration and financial requirements related to maintaining a GSAR organization. Members must follow policies and procedures while operating as part of the team. Finance and Administration policies and procedures support activities such sign in/out of volunteers, the tracking of volunteer hours for the SAR Volunteer Tax Credit, reporting of lost or damaged equipment, and reimbursement of expenses.

Knowledge and understanding of:

- The financial and reporting responsibilities of the GSAR organization, as applicable (e.g., claims procedures).

Observable performance (Do):

- Adhere to financial policies and procedures.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations, Section 4.1.6

4.1.7 Media Policy

Media relations and managing the release of information have become a major concern and source of stress for command. Strong media relationships and positive coverage are beneficial in both the immediate and long term. The unapproved release of information or the release of materials indicating inappropriate actions, images or comments can cause lingering damage to an organization's reputation and may cause distractions or difficulties in the management of ongoing SAR activity.

The media is neither friend nor the enemy. They have a job to do and they believe it is very important. Never use the phrase "no comment". Explain who can provide information and where they are located (e.g. command post). Remember that any camera or microphone can be on, at any time. Assume everything said, posted or sent electronically (images, voice or text) will be passed on. The phrase "off the record" is not a guarantee.

Searchers during a SAR incident should neither attempt to attract nor hide from the media. They should continue with their assignments, and ensure that they are acting in a manner, which represents their organizations professionalism.

Knowledge and understanding of:

- The applicable media policy within the jurisdiction, including:
 - a) the process for referring media enquiries
 - b) whose role it is to speak to the media
 - c) whose role it is to speak to the public
 - d) restrictions about reporting information externally (e.g., social media)
 - e) repercussions of breaching media policy and confidentiality requirements.

Observable performance (Do):

- Adhere to the media policy.
- Act in a professional manner during search missions and when dealing with families, the public, and media.

The Role of the Searcher Regarding Media Policy

A searcher must be aware of the policies that their SAR organization has put in place regarding organized/professional media, social media and the release of information relating to SAR activities. These policies may restrict the use of personal devices such as phones, personal GPS tracking, cameras or the posting of information/photos regarding training or actual search activities.

A failure to act in accordance with good media and information-handling practices can damage an organization's credibility, reduce public support, result in legal actions or affect the outcome of a criminal investigation or inquiry.

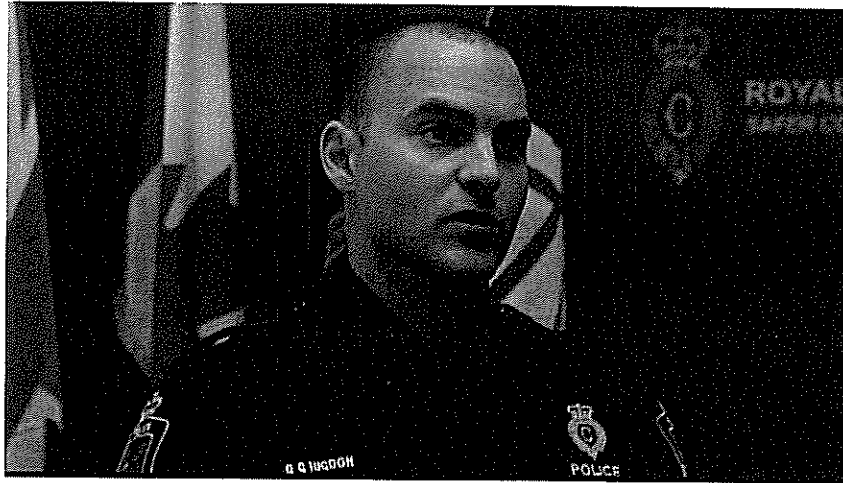


Figure 5: Police Media Briefing

Under standard ICS management, media requests will be directed to the Incident Commander (IC). If an incident is large or has drawn media and public attention the ICS structure can be grown to include incident command staff. A position such as an Information Officer (IO) may be created, as part of the incident command staff. This position is responsible for the development and release of emergency information to the media and the public regarding an incident. However, final approval for interviews and/or the release of information remains with the IC.

All lead SAR agencies such as police will have specific rules surrounding media contacts and the release of information regarding search and rescue activities occurring or which have occurred under their jurisdiction. Volunteer SAR organizations must in addition to their own internal policies/procedures, comply and follow the directions of the lead jurisdictional agency regarding media and other information releases.

It is therefore critical that searchers understand the procedures and policies regarding media, the public and the release of information relating to SAR activities.

Process for Referring Media Enquires

All media contacts and requests must be handled in a polite, professional and timely manner. SAR personnel should direct all media or information requests to the Information Officer (IO) or command. Media contact forms are a common and useful method of tracking the requests and ensuring that proper authorization has been received before a SAR member speaks to the media. Most SAR lead agencies will have their own forms. (See **Annex D – Media Contact Report** for example of a media contact form).

If contacted, a Searcher should direct the inquiry to the Team Leader who will pass the request on up the chain of command to the appropriate persons (Information Officer or Incident Commander) for a decision to be made

regarding the request. If the Searcher is not actively part of a Search Team (i.e. no assigned Team Leader) then direct the inquiry to the Incident Commander or AHJ.

Confirmation or providing information that a search or rescue activity is on-going, and a general description such as, "we are conducting a search" is usually acceptable. Be polite but firm; do not answer any further questions or confirm any statements/comments made by the media regarding the on-going SAR activity until permission has been received.

If media personnel have arrived on site they should be directed to command to make contact with the Information Officer. The Incident Commander or incident command staff must be notified immediately of the arrival of media. If possible keep someone with or near the media area to ensure that the location of the reporter(s) is known. All on-site SAR personnel should be advised of the presence of the media.

Reporters and/or members of the public may film SAR activities conducted out in the open legally. SAR members should do nothing to prevent such actions. SAR personnel are not to detain or otherwise hold a member of the public or media at any location. If the action of the media or a member of the public creates an unsafe situation or may interfere with ongoing search activities warn the persons involved and immediately request assistance of the lead jurisdictional agency. When/where possible ask that personnel from the lead agency with jurisdiction over the SAR activity (or police) take charge of the media.

Restrictions on Collecting/Creating/Reporting/Passing on Information

The collection of information and providing that information to outside sources must only be done in accordance with the policies and procedures of the appropriate SAR organization(s) and of the jurisdictional lead agency in the SAR activity.

SAR activities and the information provided by the lead agency, police or family/friends may be confidential in nature as it may contain personal health, financial, legal information or other details regarding the person or persons involved. The release of such information may be subject to legal restrictions and prohibitions found in legislation or other agreements.

Additionally, although most SAR activities do not involve criminal investigations, it may occur. It is impossible to tell whether or not the activity the team leader is currently taking part or have taken part in, will become such an occurrence. It is therefore important that all information (notes, photos, video or personal recollections) be retained and handled responsibly, as they may potentially be considered as evidence. Unapproved release or failure to protect this information integrity, security, and confidentiality is not only unprofessional, it may constitute interference with an investigation.

Repercussions of Breaching Media Policy/Confidentiality

Volunteer SAR organizations and team members train and work hard to learn the skills to be considered valuable and even professional in their abilities relating to SAR activities. Over time this hard work can lead to strong relationships with other agencies and a high level of trust and support from the public. These can all be destroyed by the release of a photo, video or comments, which reflect negatively on a SAR activity or the agencies involved.

The release of any SAR activity information may be subject to legal restrictions and prohibitions. Therefore, an unapproved release of information may be an offense, subject to prosecution or civil suit against the person(s) and/or organization, which released or allowed the release of the information.

Some information gathered or collected during SAR activities may cause undue anguish or distress to relatives or friends if released. Consideration of this must be taken into account when press releases or interviews are granted. For example the release of information (through proper approved channels) that *"a drowned person was found to be not wearing an approved PFD"* may be regarded as appropriate. However, their friends and family of the deceased will certainly view the release of information or comments to the professional or through social media *"that the victim was negligent because they were not wearing a PFD"* negatively.

Other concerns may be the release of comments, images or information, which questions the effectiveness or management of the search or indicate horseplay or other unprofessional activities. Although the release of such information may have been intended for a small select private audience once evidence, opinions, video, or photos are expressed or posted on-line the information may spread widely and be used in a manner not expected or anticipated.

Such events can cause a loss of faith in a SAR organization by the public and/or the jurisdictional agencies, which were involved and/or have legal repercussions.

All team members also should be aware that breaches of confidentiality might result in dismissal from a SAR team or organization.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.1.7
- Managing the Lost Person Incident - NASAR (1997)

4.2 Human Factors

Overview:

Searchers need to recognize the physical and psychological demands of a search mission and take appropriate steps to ensure the safety of themselves and others. Searcher competency elements covered in this competency category are:

- a) Clause 4.2.1, Personal qualities and/or attributes
- b) Clause 4.2.2, Physical demands
- c) Clause 4.2.3, Psychological demands
- d) Clause 4.2.4, Personal clothing and equipment
- e) Clause 4.2.5, Body management

4.2.1 Personal qualities and/or attributes

At the heart of GSAR, are small groups of people working together under difficult and stressful conditions to search an area to find a missing person. The Searcher, in order to carry out his/her assignments must be able to work effectively in a team structure. It is necessary that the Searcher be able to take direction and work with others to carry out the assigned task. Searchers are expected to attend training which is an important part of team building and helps members obtain skills necessary for searches. Searchers must be available to attend searches and come prepared with the necessary equipment that will allow them to be deployed. Safety is every team member's responsibility. You are responsible for your own safety and should speak up if you have a safety concern that could impact yourself or anyone else.

Knowledge and understanding of:

- The following qualities and attributes necessary for performing the duties and tasks of a searcher:
 - a) **Commitment** - Respond to GSAR missions and be in a state of readiness and willing to put in the time to attend training and maintain proficiencies.
 - b) **Team player** - Take direction and work with others.
 - c) **Communication skills** - Communicate clearly to search team members and to those in authority.
 - d) **Accountability** - Communicating your limitations and abilities.
 - e) **Professionalism** - Act in a professional manner (i.e., appropriate dress, proper language and terminology, etc.) and adhere to the Code of Ethics/Conduct of the GSAR organization.
 - f) **Responsibility** - For personal safety. (i.e., you are the primary person responsible for your own safety).

Observable performance (Do):

- Attend required orientation and training and maintains proficiencies.
- Respond to search missions in a state of readiness.
- Act in a professional manner and adhere to the Code of Ethics and/or Conduct.
- Take direction and work well with team members.

Commitment

Searchers must have the time available to attend training sessions and actual searches when called out. Training is scheduled and planned whereas searches are random and can occur at any time of the day or night. It will be necessary to travel to attend training and searches making personal transportation essential.

Team Player

Searchers must be able to operate in a team environment. As part of the team you will be taking direction from a Team Leader and must be able to work as directed. Respect for other team members is essential. Listening skills are very important and will help ensure that directions are clearly understood. Searchers should not be afraid to ask questions and seek help from the Team Leader and other team members. Searchers should be comfortable sharing their ideas and skills with others and ask for help when required.

The most common characteristics of an effective team include:

- Clear roles/clear rules: team members understand and agree with the expectations of the organization and established standards of conduct, and perform their roles accordingly; tasks are distributed fairly.
- Climate of trust: facilitate relationships within the team, encourage respect, promote camaraderie and an esprit de corps.
- Common purpose: team members share mutual goals.
- Competence: team members have access to the training and resources necessary to perform duties competently; demonstrate a high level of professionalism.
- Conflict resolution: processes are in place to work through disagreements; team members recognize healthy conflict as an opportunity for growth.
- Open communication: information is shared, communication is truthful and there are no hidden agendas.
- Participation: team members are encouraged to participate in team processes, decision-making and problem solving.
- Team integrity: team members encourage, support and listen to each other, and work to each other's strengths; individual and team efforts are recognized.

Communication Skills

One of the best communication skills is the ability to listen. To ensure you have a clear understanding, you can repeat back what you have heard and ask questions if necessary to clarify the instructions. Share your ideas and concerns so they can be addressed. Not all communications are verbal and it is helpful to be able to pick up on body language and facial expressions that are part of the communication experience. Get to know other team members and that will help you understand them and their communication style.

Accountability

Searchers are responsible for their actions and should always feel comfortable carrying out tasks they have been assigned. Be sure to share your skills with the Team Leader

and other team members. Equally important is letting the Team Leader know when you are not comfortable with an assigned task. Searchers are part of a team and will work collectively together to accomplish a task that they are assigned. They help each other, share their knowledge/skills, openly communicate with each other, and ask for help when necessary.

Professionalism

The manner in which a searcher conducts themselves reflects on the organization and the team. Searchers must act in a professional manner and follow GSAR code of ethics/conduct. People should always be treated with respect and dignity. Not all issues should be addressed publicly (example interpersonal issue between 2 team members) and it is important to show respect for each other in discussions. It takes a long time for an organization to build a professional image and this can be damaged if care is not taken by searchers to ensure they are conducting themselves professionally.

Responsibility

As part of a team, the Searcher has a responsibility to carry out the assigned task in a safe manner. Searchers have a responsibility for their personal safety and should also make others aware of safety issues that could affect them. Searchers should share their skills/knowledge to ensure the team is successful and have the humility to admit mistakes so that others can learn from them and not repeat the same mistake.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.2.1
- NLSARA Search Techniques Manual Section 2.14 Team Roles

4.2.2 Physical demands

As a member of the SAR team you must be physically capable of completing assigned tasks. The terrain you will be operating in can be extremely varied and physically challenging. In addition to the terrain is the aspect of weather which adds to the already challenging terrain. Conducting a winter search will have different physical challenges as opposed to the same search in summer conditions. Searchers must maintain good physical conditioning to be effective in the field and know their limitations. It is important to notify the Team Leader (or Team Coordinator) of physical conditions/medical concerns that may put the Searcher and search team at risk in the field.

Note - All personal information is confidential and should be treated as such. It can only be shared with consent of the Searcher.



Figure 6: Physical demands

Knowledge and understanding of:

- The expected physical demands for task-specific GSAR missions.
- Potential consequences of attempting to work outside their limits of endurance and physical abilities.

Observable Performance (Do):

- Attests to being physically capable of performing assigned duties and tasks as set by the jurisdiction.
- Informs supervisor of any physical impairments that could affect their ability to perform assigned duties and tasks.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.2.2

4.2.3 Psychological demands

Stress is present in everyday life but as a Searcher, you will be placing yourself into situations that will place demands on your psychological wellbeing. Not all searches end in a live find and the search may become a recovery operation or perhaps the individual is not found. You should have an understanding of Critical Incident Stress (CIS) and how it can be managed. Searchers should participate in debriefing sessions and can avail of services to help deal with Critical Incident stress.

Knowledge and understanding of:

- Psychological demands associated with a SAR incident, including:
 - a) types of stress: acute, delayed, cumulative
 - b) categories of stress: cognitive, emotional, physical, and behavioural
 - c) stressors for searcher during and following an event

- d) stress that a lost or missing person can face
- e) how stress affects a searcher's ability to perform tasks
- Critical incident stress (CIS) and CIS management, including:
 - a) common signs and symptoms of critical incident stress
 - b) key aspects of critical incident stress management
 - c) critical incident stress defusing
 - d) critical incident stress debriefing
 - e) how CIS can have an impact on others
 - f) the role of mental health professionals
- Services and resources available for CIS

Observable performance (Do):

- Shows responsibility towards their own psychological health and safety.
- Informs supervisor of any situations that can harm or threaten searchers with respect to psychological safety.
- Recognizes and reports any signs of CIS.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.2.3

4.2.4 Personal clothing and equipment

Searchers must arrive with proper clothing and equipment necessary for them to be safe and survive when deployed. Clothing will vary depending on season and weather conditions but layering and protection against the elements is critical. Comfortable footwear that allows the Searcher to functioning in the field is necessary. Basic equipment that allows the Searcher to build a shelter, start a fire, navigate, and feed themselves is essential. There may also be specialized equipment and/or PPE required should the searcher be assigned to activities such as a boat or duties like chainsaw operation.

Knowledge and understanding of:

- Appropriate personal protective clothing and equipment to be worn by searchers during any exercise, training, or operational task, including:
 - a) clothing to protect from the weather and environment
 - b) limb and body protection worn while using equipment such as chainsaws
 - c) head, face/eye protection, footwear
 - d) high-visibility apparel
 - e) respiratory protection
 - f) personal floatation devices (PFDs)
 - g) safety equipment for specialty assigned tasks
- The basics of clothing decisions for assigned GSAR operations in various weather conditions.

- Information on layering systems, pros and cons of available materials, and care of clothing.
- Selection of appropriate footwear for GSAR missions.
- Personal protective equipment that should form part of every searcher's SAR ready pack carried in the field.
- What a SAR ready pack is and why it is critical to a mission.
- The essential contents of a SAR ready pack and how the season and the location of a search mission can influence the contents of the ready pack.

Observable performance (Do):

- Wears appropriate footwear and clothing for GSAR missions.
- Prepares a SAR ready pack for inspection.
- Demonstrates knowledge and use of the pack contents.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.2.4
- NLSARA Search Techniques Manual Unit 3 –Safety in the Field

4.2.5 Body management

Searchers must have a knowledge of their body and what is required to ensure they remain healthy and are able to function at their peak level when in the field. Proper hydration, nutrition and rest are required as well as an understanding that the environmental conditions can place added stress on the body. Heat/cold must be managed and if not considered these factors can lead to life threatening illness.

Knowledge and understanding of:

- The signs and symptoms of hypothermia and hyperthermia.
- How hypothermia and hyperthermia can be prevented and treated.
- How the body gains and loses heat.
- Proper hygiene care during a mission and how personal cleanliness can be maintained.
- Correct procedures for personal waste disposal.
- The benefits of rest and sleep for both the mind and body.
- How fatigue can affect performance in GSAR missions.
- How alcohol and drugs can affect performance on GASR missions.
- Foot care.
- Hydration and nutrition requirements for GSAR operations.

Observable performance (Do):

- Takes appropriate precautions to prevent hypothermia, hyperthermia, and dehydration.
- Demonstrates proper hygiene care and personal cleanliness during a mission.
- Practices correct procedures for personal waste disposal.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.2.5
- NLSARA Search Techniques Manual Unit 3 – Safety in the Field
- Dr. Gordon Giesbrecht “Baby It’s Cold Outside”
<https://bicorescue.com/>
- Dr. Gordon Giesbrecht “Cold Water Boot Camp”
<http://www.coldwaterbootcamp.com/pages/home.html>

4.3 Environment

Overview:

Searchers need to understand the potential hazards associated with environmental factors in the search area, take appropriate steps to ensure the search is effective, and ensure the safety of themselves and others. Searcher competency elements covered in this competency category are:

- a) Weather
- b) Natural Hazards
- c) Animals
- d) Insects and Arachnids
- e) Plants
- f) Terrain



Figure 7: Environment

4.3.1 Weather

Knowledge of various weather conditions and the risks they may represent is key to the safety of the team and the efficient implementation of search assignments.

Knowledge and understanding of:

- Be aware of the weather conditions that have occurred or are likely to prevail.
- Understand search hazards that can result from extreme weather, including freezing rain, major snowfall, strong winds, extreme cold and/or wind chill, lightning, extreme heat and/or humidity.
- Be familiar with weather information sources that can be utilized to prepare for a search assignment.
- Be familiar with the precautions to take for the variety of weather conditions and understand the limitations to respond.

Observable performance (Do):

- Use weather information sources to prepare for a search mission.
- Take appropriate precautions to account for the variety of weather conditions.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.3.1
- Government of Canada website <http://www.weather.gc.ca/>

4.3.2 Natural Hazards

Knowledge of natural hazards and the risks they may represent for team members is key to the safety of the team and the efficient implementation of search assignments.

Knowledge and understanding of:

- Be familiar with natural hazards, including flooding, landslides, avalanches, fires, wild land fires, lightning, earthquakes, hurricanes, high winds, tsunamis, and terrain that are relevant to the region.

Observable performance (Do):

- Recognizes and prepares for search missions equipped to deal with natural hazards.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.3.2
- NLSARA Search Techniques Manual Unit 3 – Safety in the Field

4.3.3 Animals

Knowledge of wild and domesticated animals, the risks they may represent for team members and how to handle animal encounters is key to the safety of the team and the efficient implementation of search assignments.



Figure 8: Animals

Knowledge and understanding of:

- Animal species that can cause harm, including:
 - Bears
 - Moose
 - Coyote
 - Dogs and other domestic animals/livestock
 - Snakes
- Actions that can be taken to reduce the risk of negative animal encounters and what to do when confronted with an animal or attack.
- Symptoms of disease that animals can cause if bitten (e.g. rabies).
- First aid treatment for animal attacks and/or bites.
- The process for reporting animal encounters or attacks.

Observable performance (Do):

- Identify animal species in the area that can cause harm.
- Recognize symptoms of disease from animal bites and provides first aid treatment.
- Report an animal encounter or attack.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.3.3

4.3.4 Insects and Arachnids

Knowledge of insects and arachnids and the risks they may represent for team members is key for the safety of the team and the efficient implementation of search assignments.

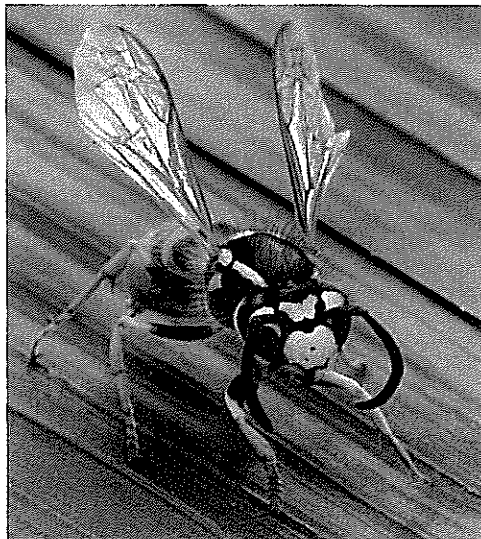


Figure 9: Insects

Knowledge and understanding of:

- Insects and arachnids that can cause harm, including:
 - a) Ticks
 - b) Bees
 - c) Wasps and hornets
 - d) Mosquitoes
 - e) Black flies
 - f) Spiders
- Actions that can be taken to reduce the risk of contact with insects and arachnids that could cause harm.
- Symptoms of disease that insects and arachnids can cause if bitten

Observable performance (Do):

- Identify insect and arachnids that can cause harm.
- Recognize symptoms of disease from insect and arachnid bites and provides first aid treatment.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.3.4
- Government of Canada — Health Canadians website:
<https://www.canada.ca/en/services/health.html>
- Government of Canada — Health Canadians website (Diseases and Conditions):
<https://www.canada.ca/en/services/health/diseases-conditions.html>

4.3.5 Plants

Knowledge of poisonous or harmful plants and the risks they may represent for team members is key for the safety of the team and the efficient implementation of search assignments.



Figure 10: Plants

Knowledge and understanding of:

- Plant species in the area that are poisonous or can cause harm.
- Actions to take to reduce the risk of contact with poisonous or harmful plants.
- Actions to take upon discovery of a person suspected of poisoning by a plant.

Observable performance (Do):

- Identify plant species that can cause harm.
- Recognize symptoms of a person suspected of poisoning by a plant and provides first aid treatment.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.3.5
- Government of Canada – Canadian Poisonous Plants Information
<http://www.cbif.gc.ca/acp/eng/poisonous-plants/search>

4.3.6 Terrain

Knowledge of the terrain and the risks it may represent for team members is key for the safety of the team and the efficient implementation of search assignments.



Figure 11: Terrain

Knowledge and understanding of:

- Understand how the terrain can have an impact including:
 - a) Selection and use of clothing and footwear, search gear, equipment and vehicles.
 - b) Type of search technique utilized.

- c) Method of travel.
- d) Rescue technique.
- e) The need for additional or specialized resources.
- Be familiar with the terrain types and hazards for the search area, including:
 - a) Forests and wetlands.
 - b) Lakes, rivers, creeks, canals, moving water.
 - c) Mountains (avalanche hazard), hills, cliffs.
 - d) Mine shafts, caves, crevices, wells.
 - e) Urban environment.
 - f) Snow or ice travel.
 - g) Farmland, pastures.
 - h) Gas lines, power lines.
 - i) Construction sites, industrial sites.
 - j) Roads, highways, railroads.
 - k) Sunlight and/or darkness.

Observable performance (Do):

- Wear appropriate clothing and footwear for the terrain.
- Is equipped with the appropriate search gear and equipment for the terrain.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.3.6

4.4 First Aid and Survival Skills

Overview:

Searchers apply their training and knowledge to demonstrate the ability to administer first aid and to survive in emergency situations. Team members must have the required first aid credentials and survival skills suitable to their assignment. The team should be equipped with essential first aid/survival supplies and equipment necessary for their assignment. Searcher competency elements covered in this competency category are:

- a) First Aid
- b) Survival Skills

4.4.1 First Aid

In situations requiring first aid or a rescue, the team leader is responsible for overseeing the process, assigning tasks to team members and requesting additional resources as required.



Figure 12: First Aid

Knowledge and understanding of:

- First aid procedures.
- Essential first aid supplies to be included in the SAR ready pack.

Observable performance (Do):

- Complete and provide proof of first aid training, as recognized by the authority having jurisdiction.
- Demonstrate ability to provide first aid treatment.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.4.1
- NLSARA Search Techniques Manual Unit 3 – Safety in the Field

4.4.2 Survival Skills

As search operations may take place in remote areas and in adverse conditions, team members must have a firm understanding of the skills necessary to survive in these conditions. These skills must extend to caring for an injured or ill person for an extended period of time. Team members must remember these two rules of thumb: *“Dress for the season not for the day”*. *“Prepare for the worst and hope for the best.”*

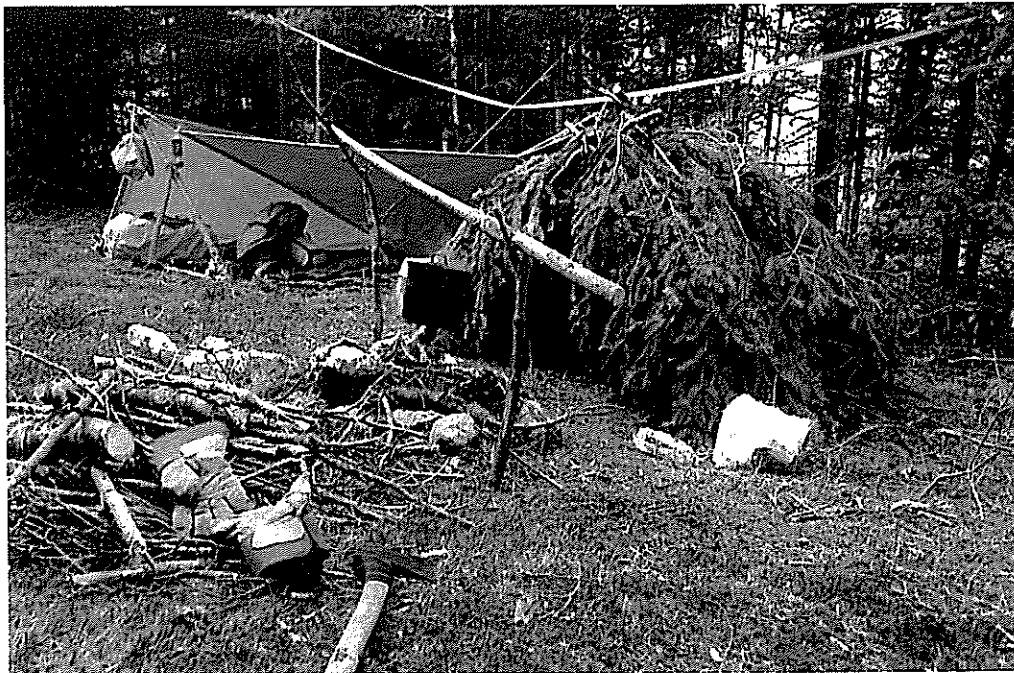


Figure 13: Survival Skills

Knowledge and understanding of:

- Psychological demands associated with being in a survival situation (e.g. Importance of a positive mental attitude).
- Risks associated with fear and how to control.
- Systemic survival planning and how it can be applied.
- Contents of a personal survival kit.
- Actions to take when mission personnel become lost or injured.
- Actions to take when a victim is located and requires assistance.
- Necessities of life elements and how they are relevant in GSAR.
- Steps involved in building and using fire and the materials required.
- Types of emergency shelters and how they are constructed.
- Selection of locations for emergency shelters.
- Methods of water purification.
- Potential sources of water in survival situations.
- Selection of food and food preparation.
- Sources of food in survival situations.
- Emergency signaling in survival situations.
- Basic knot tying.

Observable performance (Do):

- Prepare a survival kit.
- Use the contents of survival kit appropriately.
- Build a fire using materials found in the field and carried in a SAR ready pack that will provide personal warmth, team warmth, or warmth for a found subject.
- Demonstrate various signaling methods, including ground to air.
- Erect a shelter that is well-marked and visible to searchers and durable, using materials contained in the survival pack or found in the field.
- Demonstrate ability to tie basic knots.
- Identify potential water sources.
- Locate or identify alternate shelter.

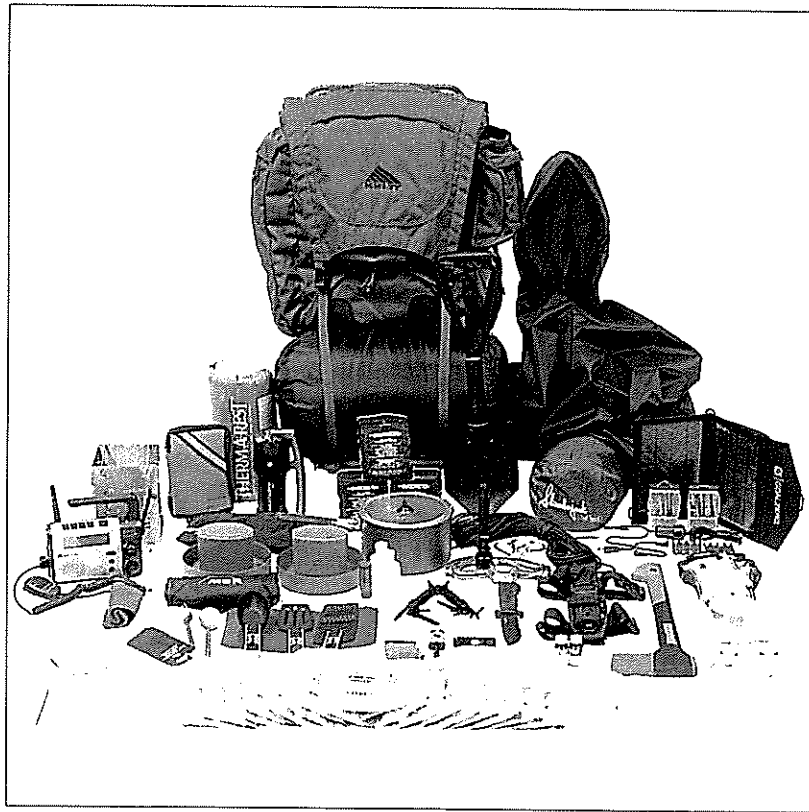


Figure 14: Survival Pack

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.4.2
- NLSARA Search Techniques Manual Unit 4 – Basic Survival and First Aid

4.5 Transportation and Equipment Safety

Overview:

Searchers need to understand and adhere to the rules for the operation of vehicles and equipment they are authorized to use to safely transport goods and/or people before, during, and after a search mission. Searcher competency elements covered in this competency category are:

- a) Personal Vehicles
- b) SAR Response Vehicles
- c) Vehicle and Trailer Combinations
- d) Marine Emergency Vessels
- e) Snowmobiles
- f) All-Terrain Vehicles (ATV)
- g) Aircraft – Rotary Wing

4.5.1 Personal Vehicles

Knowledge and understanding of:

- Applicable legislation and regulations, including insurance and licensing requirements.
- Transportation and safety equipment policies and procedures within the specific jurisdiction.
- Safe operating condition of vehicle.
- Weather and road conditions and potential animal hazards on route to scene.
- Limits of personal vehicle to avoid damage.
- Parking procedures at the scene so as to not obstruct entry or exit to the rally point or prevent public access to the property.
- Hazards associated with the drive home (e.g., fatigue, animal hazards) and potential need for co-driver.

Observable performance (Do):

- Shows proof of required driver's licence and insurance.
- Drives personal vehicle safely and effectively to arrive at, move around and depart the scene, and return home.
- Follows applicable laws (e.g., traffic acts).

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.5.1
- NLSARA Search Techniques Manual Unit 3 – Safety in the Field

4.5.2 SAR Response Vehicles

Team members may be required to operate team response vehicles and must have the required license and training to do so safely.

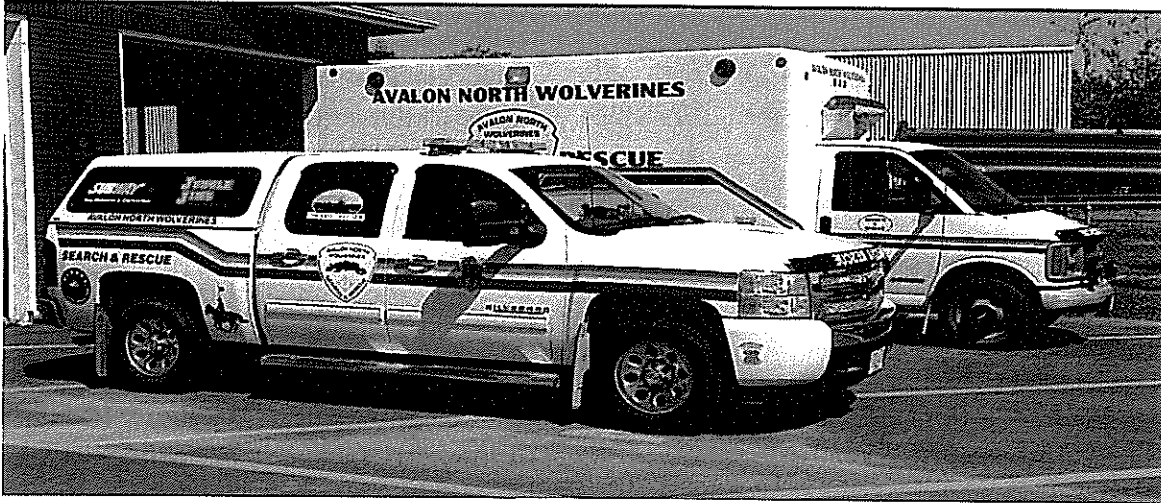


Figure 15: Response Vehicles

Knowledge and understanding of:

- Applicable laws and jurisdictional requirements for the operation of SAR response vehicles, including user authorization and licence requirements.
- Transportation policies and procedures within the specific jurisdiction.
- Risk factors associated with safe use of SAR response vehicles.
- Special precautions when operating SAR response vehicles.
- Safety procedures associated with returning SAR response vehicles to home base, including:
 - a) fatigue hazard after prolonged search and the potential need for a co-driver
 - b) replenish fuel and fluid levels
 - c) reporting service issues
 - d) reporting consumables used

Observable performance (Do):

- Conduct a vehicle inspection prior to operation of vehicle.
- Operate an emergency response vehicle safely in accordance with policies and procedures.
- Park and position vehicle at the scene, including:
 - a) park for easy exit
 - b) do not obstruct entry/exit
 - c) use spotter when reversing
 - d) establish pre-determined signals with spotter

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.5.2
- NLSARA Search Techniques Manual Unit 3 – Safety in the Field

4.5.3 Vehicle and Trailer Combinations

In addition to holding a driver's license the operator will require additional skills and training to tow a trailer. The operator must have the knowledge/skills to safely connect/disconnect the trailer and maneuver it through traffic and difficult parking situations. Also of importance is the proper loading of the trailer to ensure safe handling/operation of the tow vehicle.



Figure 16: Vehicle and Trailer Combination

Knowledge and understanding of:

- Proper loading and securement procedures for vehicle and trailer combination.
- Items to check prior to moving trailer, including
 - a) lights
 - b) braking systems (difference between hydraulic and electric)
 - c) tire pressure
 - d) trailer components

Observable performance (Do):

- Follow procedure for proper loading and securing of loads.
- Conduct a pre-trip inspection of the vehicle and trailer before leaving.
- Operate vehicle and trailer combination safely.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.5.3
- NLSARA Search Techniques Manual Unit 3 – Safety in the Field

4.5.4 Marine Emergency Vessels

Marine vessels are often utilized as part of an operation and require specific knowledge and skills to be deployed and operated safely. There are specific regulations based on size, equipment, and how the vessel is being utilized that operators must be aware of.



Figure 17: Marine vessel

Knowledge and understanding of:

- Required personal protective equipment (PPE), including personal flotation devices (PFDs).
- Legislation and regulations concerning watercraft licensing for commercial watercraft.
Note: A boat used by a SAR team is considered a commercial vessel, rather than a pleasure craft.
- Safety equipment required for type and length of vessel and information contained on vessel capacity plate.
- Location of the emergency kit and items in the kit.
- Safety protocols for the vessel, the role of the water authority, and special considerations for different types of weather.
- Safety equipment to have on hand in the boat, such as a knife, ropes, a map, a flashlight, food, water, clothing, spare clothing, a whistle, and a helmet, etc.

Observable performance (Do):

- Complete a small vessel operator's proficiency (SVOP) course and provide proof of licensing/certificate as required by law in the jurisdiction.
- Properly use items in emergency kit.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.5.4
- Safe Boating Guide – Transport Canada – Office of Boating Safety
<http://www.tc.gc.ca/media/documents/marinesafety/TP-511e.pdf>

4.5.5 Snowmobiles

Snowmobiles are often utilized as part of an operation and require specific knowledge and skills to be deployed and operated safely. Snowmobiles provide mobility and speed when operating in snow covered areas. Since they are operated off road, there may be dangers hidden below the snow requiring the operator to be very diligent. Snowmobiles are sometimes operated on ice covered ponds/lakes and this may require that additional safety considerations be taken.

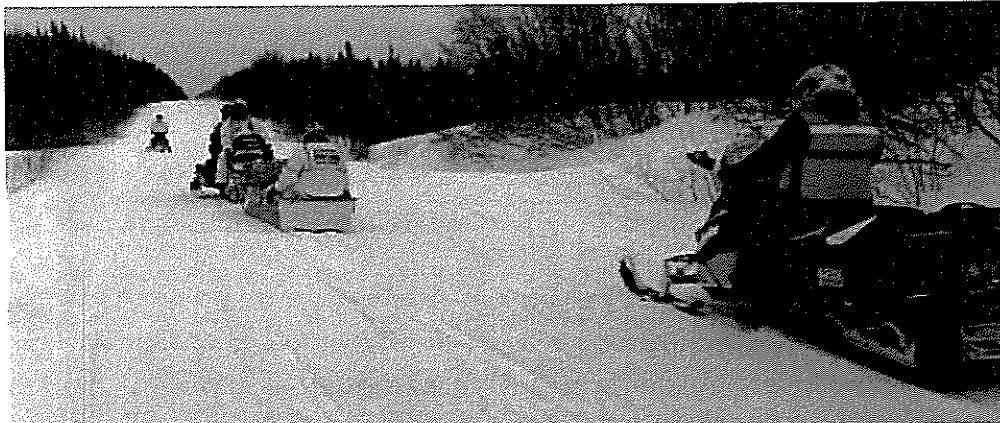


Figure 18: Snowmobiles

Knowledge and understanding of:

- Types of safety equipment for use with snowmobile, including:
 - a) approved safety helmet
 - b) appropriate clothing
 - c) emergency kit
- Laws and regulations for the use and operation of snowmobiles.
- Precautions and preparations to be taken to ensure safe travel in a snowmobile including:
 - a) carrying passengers only on approved models
 - b) importance of carrying a tool kit with spare belt and spark plugs
 - c) loading and unloading

Observable performance (Do):

- Operate snowmobile safely according to conditions.
- Wear approved helmet.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.5.5
- NLSARA Search Techniques Manual Unit 3 – Safety in the Field
- NLSARA Search Techniques Manual Unit 8.14 – Snowmobile Searches
- Motorized snow vehicle and all-terrain vehicle regulations website <http://www.assembly.nl.ca/Legislation/sr/Regulations/rc961163.htm>

4.5.6 All-Terrain Vehicles (ATV)

ATV's are often utilized as part of an operation and require specific knowledge and skills to be deployed and operated safely. ATV's provide mobility and speed when operating off road and can bring people/equipment to search sites. Since they are operated off road they require the operator to be very diligent and understand the dangers presented by the terrain they are operating on.



Figure 19: ATV

Knowledge and understanding of:

- General operation and limitations of all-terrain vehicles (ATVs).
- Safety equipment required in use of ATVs, including
 - a) approved safety helmet
 - b) protective footwear
 - c) emergency kit
- Local laws and regulations for ATV use and operation.
- Precautions and preparations to be taken in the use of ATVs, including
 - a) carrying passengers only on approved models;
 - b) importance of having a tool

Observable performance (Do):

- Drive ATV safely according to conditions.
- Wear an approved helmet.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.5.6
- NLSARA Search Techniques Manual Unit 3 – Safety in the Field
- ServiceNL ATV Safety website <http://www.servicenl.gov.nl.ca/drivers/atvsafety/>
- Motorized snow vehicle and all-terrain vehicle regulations website <http://www.assembly.nl.ca/Legislation/sr/Regulations/rc961163.htm>

4.5.7 Aircraft – Rotary Wing

Aircraft are often utilized as part of an operation. This platform enables rapid searching of a vast area that would not be possible with solely ground based personnel. Aircraft can also be equipped with special equipment such as search lights and FLIR (Forward Looking Infrared Radiometer) which can help locate the missing individuals. Ground search and rescue personnel may also be deployed as spotters aboard the aircraft.



Figure 20: Aircraft

Knowledge and understanding of:

- Hazards and safety procedures when working with, around, or in aircraft (i.e., fixed and rotational wing) including
 - a) basic functions of a helicopter
 - b) flying debris during take-off and landing
 - c) use of personal protective equipment
 - d) importance of following instructions of pilot for movement in the helicopter
 - e) an approaching helicopter
 - f) communication procedures during take-off and landing
 - g) location of safety equipment and first aid kit on the aircraft

Observable performance (Do):

- Follow procedures for safe behaviour of search team in and around aircraft.

- References:
- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.5.7
- NLSARA Search Techniques Manual Unit 3.9 - Transportation

4.6 Navigation

Overview:

Searchers need to demonstrate their knowledge and skills in the use of equipment and tools to navigate safely through the search area, to another location, or out of the search area when instructed, and demonstrate confidence in their navigation skills in the search for a lost person. Searcher competency elements covered in this competency category are:

- Maps
- Compass
- Global Positioning System (GPS)
- Map and Compass
- GPS and Map

4.6.1 Maps

Maps are crucial to being able to understand the search area and navigate through the terrain. Various types of maps can be utilized and are available in paper and electronic formats. Searchers need to have an understanding of maps and how they can be utilized to ensure safe travel during the operation.



Figure 21: Map

Knowledge and understanding of:

- Different types of maps used for GSAR (e.g., topographical maps or marine charts).
- How to select the appropriate area map according to the National Topographic System (NTS).
- The significance of map data.
- Map scales, in order to identify map distance and actual distance.
- How to read and interpret map legends.

- The main feature categories on a map, including cultural, main roads, water, relief, vegetation features, and topography.
- How contour lines are used to determine actual terrain and elevations.
- Latitude and longitude coordinates (lat/long).
- How to determine Universal Transverse Mercator (UTM) co-ordinates or equivalent positioning format.

Observable performance (Do):

- Select appropriate map for search mission.
- Navigate and travel utilizing maps as required for search location, based on jurisdiction.
- Use map scale to identify map distance and actual distance.
- Read and interpret a map legend.
- Utilize contour lines to determine actual terrain and elevations.
- Determine lat/long co-ordinates of a location by map.
- Identify a location on a map using lat/long co-ordinates.
- Report/communicate lat/long co-ordinates.
- Determine UTM co-ordinates of a location by map.
- Identify a location on a map using UTM co-ordinates.
- Report/communicate UTM co-ordinates.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.6.1
- NLSARA Search Techniques Manual Unit 2 – Compass and Navigation

4.6.2 Compass

Searchers will utilize a compass during operations and understanding how to navigate with a compass will help ensure their safety in field operations. While many electronic devices include a compass the electronics can fail, necessitating the use of a basic handheld compass that requires no battery to operate.

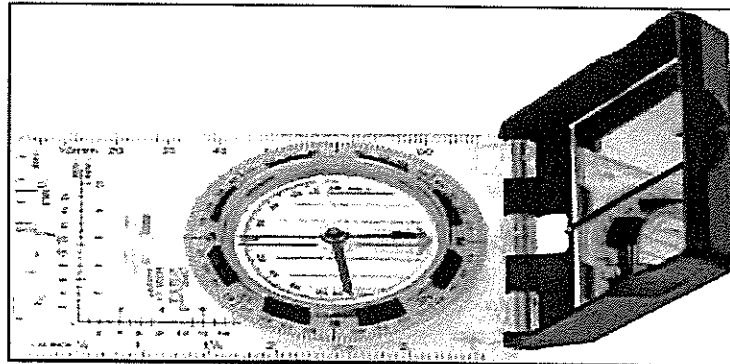


Figure 22: Compass

Knowledge and understanding of:

- The 360° system and the compass rose.
- Bearing and back bearing, and why it is used.
- The parts of a compass, including:
 - a) base plate
 - b) magnetic needle
 - c) orientation arrow
 - d) sight line
 - e) graduated dial
 - f) meridian lines
- Interference factors and compass limitations.
- True north, grid north, and magnetic north.
- Declination, and how to set declination on a compass.
- Sighting ahead to follow a straight line.
- Circumnavigation around an obstacle.
- Basic maintenance and care of compass.
- Night navigation capabilities of compass.

Observable performance (Do):

- Adjust compass given a declination value.
- Determine the bearing and back bearing of a given object.
- Navigate a five-point bearing course over a one-kilometre distance.
- Navigate a triangle.
- Demonstrate sighting ahead to follow a straight line.
- Demonstrate circumnavigation around an obstacle.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.6.2
- NLSARA Search Techniques Manual Unit 2 – Compass and Navigation

4.6.3 Global Positioning System (GPS)

Global Positioning is now available on many devices such as phones, wrist watches, and dedicated handheld GPS devices. Being able to navigate via GPS allows for precise location of teams in the field, discovered articles and individuals that may have been found.



Figure 23: GPS

Knowledge and understanding of:

- Basic GPS use, including on/off, battery, and unit care.
- Interference factors and GPS limitations.
- How to clear track log.
- Appropriate coordinate format (know your device).
- How to program appropriate data.
- How to mark, edit, and delete a waypoint in a GPS receiver.
- How to read UTM coordinates.
- How to read lat/long coordinates.
- How to switch from UTM to lat/long, and vice versa.

Observable performance (Do):

- Select appropriate data.
- Mark, edit, and delete a waypoint in a GPS receiver.
- Program specified coordinate format.
- Report/communicate UTM and or lat/long coordinates.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.6.2
- NLSARA Search Techniques Manual – Unit 5 Global Positioning System

4.6.4 Map and Compass

Utilizing a map and compass allows searchers to navigate the search site in a safe manner. The compass provides information such as direction of travel/bearing and when overlaid with a map, the searcher can develop a mental picture of the terrain and their location in the search area.

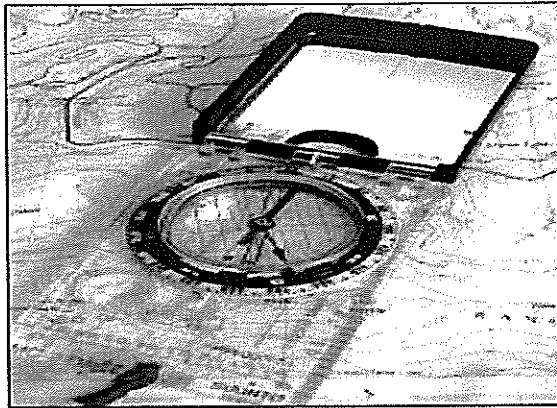


Figure 24: Map and Compass

Knowledge and understanding of:

- Pacing and its use in SAR.
- How to orient a map to terrain using a compass.
- How to determine a bearing to travel between points using a map and compass.
- How to use a bearing to plot a direction on a map.
- How to fix your position on a map.
- Triangulation.

Observable performance (Do):

- Orient a map to terrain using a compass.
- Use a bearing to plot a direction on a map.
- Fix a position on a map.
- Demonstrate triangulation.
- Accurately pace a prescribed distance based on the determination of personal pacing factor
 - a) on flat terrain
 - b) on rolling terrain
 - c) on heavily treed terrain
 - d) in thick brush

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 5.6.4
- NLSARA Search Techniques Manual Unit 2 – Compass and Navigation

4.6.5 GPS and Map

Utilizing a map and GPS allow a Searcher to navigate the search site in a safe manner. The handheld device (depending on model) can provide an electronic compass, GPS positioning, digital mapping, satellite image overlays, texting/messaging capability and other functionality. When this is combined with a map the Searcher has a very powerful navigational aid at their disposal. GPS functionality and mapping is available for both land based and marine based activities.



Figure 25: Map and GPS

Knowledge and understanding of:

- Having a working knowledge of how to use the GPS with the maps being utilized including:
 - Paper maps.
 - Digital maps.
 - Pre-loaded maps in GPS unit.

Observable performance (Do):

- Be able to verify the proper use of map and GPS by team members for various search related purposes, including:
 - Transfer GPS coordinates to a map.
 - Transfer map coordinates to the GPS.
 - Access the map feature on the GPS.
 - Check that the GPS and the map datum are the same.
 - Change the map datum to coordinate with the map in use.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 5.6.5
- NLSARA Search Techniques Manual Unit 2 – Compass and Navigation
- NLSARA Search Techniques Manual Unit 5 – Global Position System

4.7 Communication

Overview:

Searchers use their knowledge of communications equipment and systems to ensure that communications utilized by the search team during a search are effective and follow established protocols. Searcher competency elements covered in this competency category are:

- a) Awareness of Role of Communication during an Incident
- b) Radio Operations
- c) Satellite and Cell Phones
- d) Alerting Technologies
- e) Emerging Communication Technologies

4.7.1 Awareness of Role of Communication during an Incident

Good communications are essential during a deployment and Searchers may be asked to carry the radio and communicate with command during the search. While most communication will occur over team radios it is possible that other means such as cell phones also become part of the communication chain.

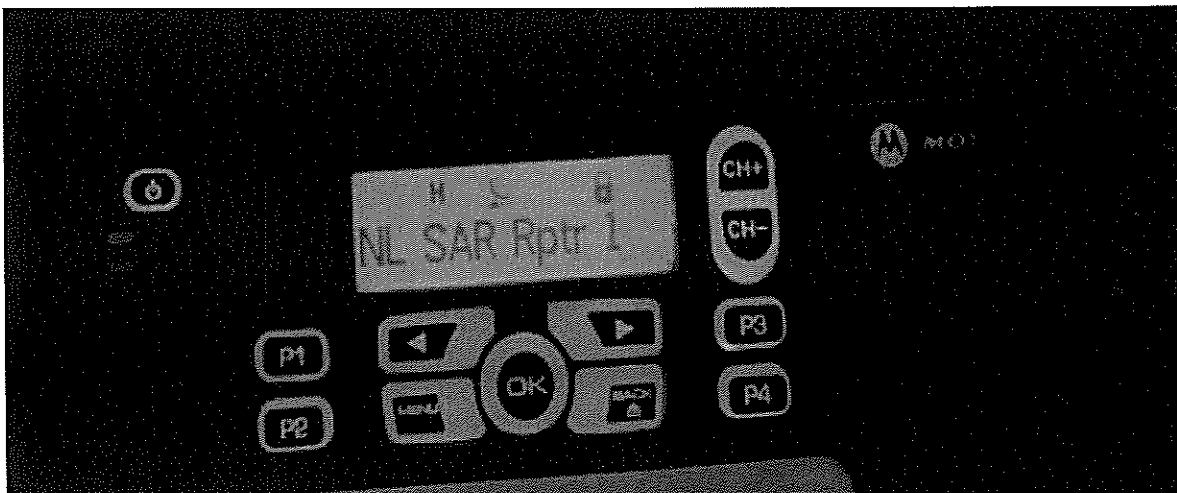


Figure 26: Radio

Knowledge and understanding of:

- The importance of communication during a search event.
- Responsibility for communications during a search event.
- Importance of following all established communications protocols.
- Provincial or territorial regulations regarding the use of communication devices while travelling on public, private, and industrial roads.

Observable performance (Do):

- Maintain confidentiality of communications.
- Follow established communication protocols.
- Direct media requests to the appropriate authority (e.g., command post).

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.7.1
- NLSARA Search Techniques Manual Unit 6 Radio Communications

4.7.2 Radio Operations

As part of the team, searchers may be asked to help set up/operate radio equipment. They will need to be familiar with the various pieces of equipment and how these are utilized during the search

Phonetic Alphabet	
A - alpha	N - november
B - bravo	O - oscar
C - charlie	P - papa
D - delta	Q - quebec
E - echo	R - romeo
F - foxtrot	S - sierra
G - golf	T - tango
H - hotel	U - uniform
I - india	V - victor
J - juliet	W - whiskey
K - kilo	X - x-ray
L - lima	Y - yankee
M - mike	Z - zulu

Figure 27: Phonetic Alphabet

Knowledge and understanding of:

- Components and limitations of the equipment.
- Different communication systems used in GSAR.
- The phonetic alphabet (i.e., phrasing and/or pronunciation).
- The 24-hour clock.
- Protocols and procedures for communications, including
 - a) general messages;
 - b) distress, urgency, and safety signals and messages; and
 - c) confidentiality of communications (codes).

Observable performance (Do):

- Use phonetic alphabet with correct phrasing and/or pronunciation.
- Use the 24-hour clock.
- Follow protocols and procedures for general operations and messages, distress, urgency, and safety signals and messages

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.7.2
- NLSARA Search Techniques Manual Unit 6 Radio Communications

4.7.3 Satellite and Cell Phones

Technology advancements have significantly improved communications devices and made them more readily available to not only Searchers but the general public. Devices often has the functionality to perform many tasks such as communicate, give GPS position, take geo-located pictures, text, and issue an electronic SOS. Searchers need to be aware of these technologies and how to leverage them during a search.



Figure 28: Satellite and Cell Phones

Knowledge and understanding of:

- Standard operations for satellite and cell phones.
- Limitations based on coverage, range, etc.
- Electronic messaging and device-specific messaging (e.g., text, PIN, etc.).
- Protocols surrounding the use of messaging, personal cell phones, and electronic devices.

Observable performance (Do):

- Operate satellite and cell phones in accordance with procedures and policies.
- Use device-specific messaging (e.g., text, PIN, etc.).
- Follow protocols for messaging, personal cell phones, and electronic devices.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.7.3
- NLSARA Search Techniques Manual
- Transport Canada <http://www.tc.gc.ca/eng/menu.htm>

4.7.4 Alerting Technologies

Searchers should be aware of alert technologies that may be available for them to use. It's possible that the lost person may be utilizing an alert technology to signal that they need assistance.



Figure 29: Alerting Devices

Knowledge and understanding of:

- Alerting devices on 406 frequencies, where available.
- Alerting devices, including beacon devices, when available, for air, marine, and ground searches.
- Device limitations.

Observable performance (Do):

- Demonstrate knowledge of alerting devices for emergency locator transmitters.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.7.4
- Transport Canada <http://www.tc.gc.ca/eng/menu.htm>

4.7.5 Emerging Communication Technologies

Technology advancements have made significant improvement in the area of communications. Devices have become available that integrate functionality from phones, GPS, cameras, alerting, and many other things that would have formerly required a separate device for each function. In addition to the devices many areas now support communication via cell phone and geo-location to the cell phone that would have not previously been available.



Figure 30: GPS Watch

Knowledge and understanding of:

- Technologies, when adopted and incorporated by the team during a search that can assist in the search for subjects, including
 - a) alternate alerting beacons
 - b) internet digital devices
 - c) tablets
- Operation of electronic devices, including pairing of devices, memory storage functions, and messaging.
- Device limitations.

Observable performance (Do):

- Make use of technologies, when implemented, to search for subjects.
- Proficiently operate electronic devices, when implemented, including pairing devices, use of memory storage functions, and messaging.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.7.5

4.8 Lost Person Behaviour

Overview:

Searchers are able to apply their knowledge and understanding of lost-person behaviour theory to support the search efforts of the team.

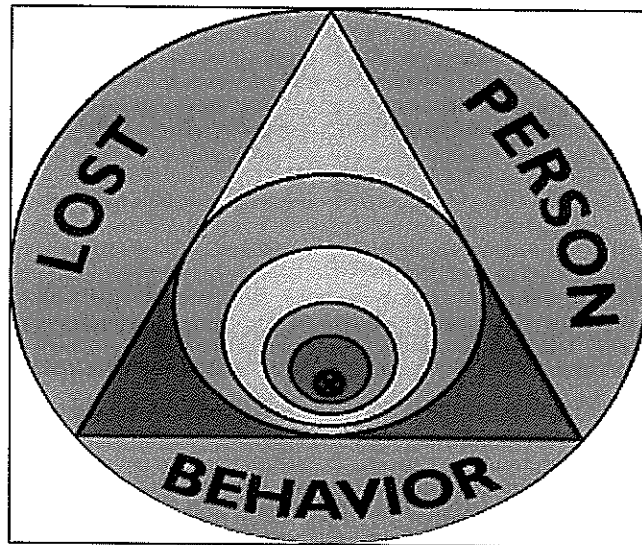


Figure 31: Lost Person Behaviour

4.8.1 Lost Person Behaviour

Knowledge and understanding of:

- The difference between the concepts of a lost person and a missing person.
- General concepts associated with lost-person behaviour analysis.
- Relevance of lost-person behaviour as it applies to GSAR tactics.
- How lost-person behaviour should be considered in searching.
- The connection between the lost-person profile, search tactics, and the probability of detection (POD).
- How to use lost-person behaviour to aid in passive and active searching.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 5.8.1
- NLSARA Search Techniques Manual Unit 7 – Lost Person Behavior
- Lost Person Behaviour, A Search and Rescue Guide on Where to Look – for Land, Air and Water: Robert J. Koester
- Missing Person Behaviour Handbook – First Edition (June 2003): Dave Perkins and Pete Roberts
- Why do people get lost? UK Mountain Rescue Conference, Stirling, Scotland, Sept 6, 2008

4.9 Search Competencies

Overview:

Searchers use knowledge of search theory and search types, patterns, and techniques to conduct a search that will lead to the location of a lost person. Searchers follow established protocols in dealing with clues and evidence and understand the challenges associated with searches at night, from shorelines, and in urban environments, and can demonstrate the ability to conduct and effective searches under these specific environments. Searcher competency elements covered in this category are:

- a) Search Theory
- b) Notification
- c) Activation (call-out), Checking in, and Initial Briefing
- d) Assignments
- e) Search Techniques
- f) Confinement/Containment
- g) Attraction Methods
- h) Clue Awareness and Detection
- i) Demobilization Process
- j) Night Searches
- k) Land-Water Interface Searches
- l) Evidence Handling
- m) Dealing with Deceased Persons
- n) Urban Searches

4.9.1 Search Theory

Although Searchers are not directly involved in search management, their understanding of team assignments is enhanced by a solid understanding of search theory, as it provides a rationale and context for the assignments.

Knowledge and understanding of:

- Factors that make SAR incidents emergencies. These factors include the potential, as time passes, for:
 - Expansion of the search area.
 - Deterioration of physical or mental condition of the lost person.
 - Change in level of responsiveness of the lost person.
 - Deterioration of weather conditions.
 - Contamination or loss of clues.
 - Exhaustion of available resources.
- Evaluation of search urgency, Be familiar with the criteria used to determine the level of search urgency and how they are rated as this may affect decision/recommendations in the field.
- Components of a search, including:
 - a) Pre-planning; (being familiar with the group's operational pre-plan and keeping knowledge current regarding: checklists, resource lists, reference documents, standard operating procedures (SOP's) and memoranda of agreement).

- b) Notification; (See Section 4.9.2 Notification).
- c) Response; (See Section 4.9.4 Assignments).
- d) Tactics and/or operations; (See Sections 4.9.5 to 4.9.14).
- e) Suspension; (contributing to determining factors such as safety of searchers, weather conditions, depletion of resources, lack of clues, search coverage achieved).
- f) Evaluation/Review. (Debriefings as part of their respective team during incidents as well as participating in post incident reviews).
- Key concepts of search management, including:
 - a) Probability of detection (POD);
 - b) Probability of area (POA);
 - c) Point last seen (PLS);
 - d) Last known position (LKP);
 - e) Initial planning point (IPP). Which can be the PLS or the LKP (See Sections 7.1 and 7.2 of NLSARA Search Techniques Manual).

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.9.1
- ICS 202 Incident Objectives
- Managing the Lost Person Incident (NASAR, 1997 – 2011)

4.9.2 Notification

Although it is not a responsibility of Searchers to receive and initiate response to the initial notification, they should be familiar with the type of information that may help supplement planning and searching information in the event the team encounters individuals who may have information to contribute.

Knowledge and understanding of:

- Definition of notification and the notification process.
- The importance of collecting and documenting information at the initial stage and potentially during the search and the level of detail required (e.g., full name of reporting person, contact information, precise details of reporting person conversation).
- Note - This data will be used by the SAR manager to determine the initial search response and assist in defining the initial search area.
- The importance of maintaining contact with the reporting person should additional information and clarification be required.
- The communication process for transferring information to the search manager.
- Processes and procedures to request additional resources.

Observable performance (Do):

- Follow the communication process for transferring information to the search manager.

- Collect and document information for use by the Team Leader and SAR manager.
- The type of information that should be recorded when encountering an individual during an assignment that may have information about the lost person, includes:

About the individual:

- a) Name
- b) Contact information
- c) Relationship to lost person
- d) State of mind

About the lost person:

- e) Name
- f) PLS/LKP
- g) Direction of travel
- h) Mode of travel
- i) Physical description
- j) Clothing/footwear
- k) Equipment
- l) Physical condition
- m) State of mind
- n) Purpose
- o) Number in party

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.9.2
- ICS 201 Incident Briefing

4.9.3 Activation (Call-out), Checking In, Initial Briefing

At the onset of a search, the primary (lead) team is busy gathering information, and developing plans, setting up teams, and developing assignments, and setting up facilities, and equipment.

Knowledge and understanding of:

- Call-out procedures and information provided in a call-out.
- Assembly process and location (e.g., tasking and mission number, communication protocols).
- Where to check in and/or reporting locations.
- Whom to contact for updated information.
- The process for accessing or providing updated situational information.
- Accountability processes and procedures, including:
 - a) sign in/check in procedures
 - b) tag system and/or member identification
 - c) change of command
 - d) team identifiers
 - e) sign-out/checkout procedures

- Procedure to notify, if subject is located.
- Types of information covered in the briefing by the team leader, depending on size of operation.

Observable performance (Do):

- Follow process and procedures for checking in and/or signing out.
- Find out reporting details (e.g., who, where, how to report).
- Participate in briefings.
- Take notes during briefings.
- Ensure physical and mental readiness to do the task.
- Acquire tracking and mission numbers.
- Use required tag system and/or member identification and team identifiers.
- Follow procedure for accessing and providing updated situation information.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.9.3

4.9.4 Assignments

Searchers participate in the carrying out of team assignments in an efficient and effective manner utilizing available tools/equipment. Team assignments are initiated by a briefing from Operations Section, followed by team briefing, securing of equipment, delegation of roles and responsibilities, supervision of team assignment to ensure quality control, handling of unexpected circumstances, clear and timely communications with overhead team, debriefing with team and Planning Section and team demobilization/reassignment. Searchers should listen attentively during this process and carry out the assigned tasks, to ensure the team is properly prepared prior to entering the assigned search area.

Knowledge and understanding of:

- Types of tasks for searchers.
- Team identifiers and identification of other teams in the area.
- Decision making process for assigned tasks, including:
 - a) concept of area of search
 - b) search tactics to be deployed
 - c) search pattern to be utilized
 - d) method of marking search areas
 - e) probability of detection expected
 - f) potential lost-person behaviour
- Record and reporting requirements (e.g., periodic call-in, subject located).
- Starting and end points.

Observable performance (Do):

- Carry out assigned tasks as per plan.
- Follow protocol when subject located.
- Complete recording and reporting procedures for assignments.
- Mark search areas.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.9.4

4.9.5 Search Techniques

Searchers in the field of will use various search types, patterns and techniques. This requires both a clear understanding of the concepts described below to ensure that the search objectives are met in a safe and efficient manner.

Figure 32: Search Technique

Knowledge and understanding of:

- Search types, patterns, and techniques, including
 - a) passive
 - b) active
- Search area segmentation.
- Clue-detection techniques.
- Types of searches:
 - a) hasty (quick search)
 - b) efficient search (open grid)
 - c) thorough search (closed grid)
 - d) evidence search
- Types of search patterns:
 - a) trail or route search
 - b) lookout search

- c) contour search
- d) wandering search
- e) line search
- f) grid searches
- g) perimeter search
- h) purposeful wandering search
- i) binary search and/or sign cutting
- j) sound sweeps
- How to match search types to patterns.
- Number of team members required for each search pattern.
- Importance of using all senses during search types and patterns.
- Critical distance techniques and calculations.
- Factors affecting search pace.

Observable performance (Do):

- Provide continual communication as search progresses to team leader.
- Perform different types of searches.
- Match search types to patterns.
- Apply various types of search patterns.
- Follow critical distance techniques (e.g., critical separation, critical spacing, and average maximum detection range).

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 5.9.5
- NLSARA Search Techniques Manual Unit 8 – Search Techniques

4.9.6 Confinement/Containment

Teams may receive assignments requiring the implementation of confinement/containment methods. A clear understanding of the role and importance of confinement and containment will assist the Searcher and help to achieve search objectives.

Knowledge and understanding of:

- The role of confinement and containment in search and associated challenges, including:
 - a) time
 - b) topography
 - c) resources
 - d) weather
 - e) cover
- Types of methods of containment:
 - a) road blocks
 - b) trail blocks
 - c) camps at strategic locations;

- d) lookouts
 - e) listening posts
 - f) string line and/or hip chain
 - g) track traps
 - h) messages at strategic locations
 - i) perimeter sign cuts
 - j) vehicle patrols
 - k) use of media
- Timing of confinement/containment (e.g., early in the operation).
 - Combining methods of confinement and containment with search tactics, such as attraction and tracking.
 - Reasons why a confinement area might be expanded.

Observable performance (Do):

- Identify the challenges relating to confinement and containment.
- Use methods of containment and combine with search tactics.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 5.9.6
- NLSARA Search Techniques Manual Unit 8 - Search Techniques

4.9.7 Attraction Methods

Teams may be tasked to assignments requiring the implementation of attraction methods. The Searcher is responsible for the safe and efficient usage of these methods. A clear understanding of the role of attraction methods, and their related challenges, will assist in utilizing these methods to achieve search objectives.

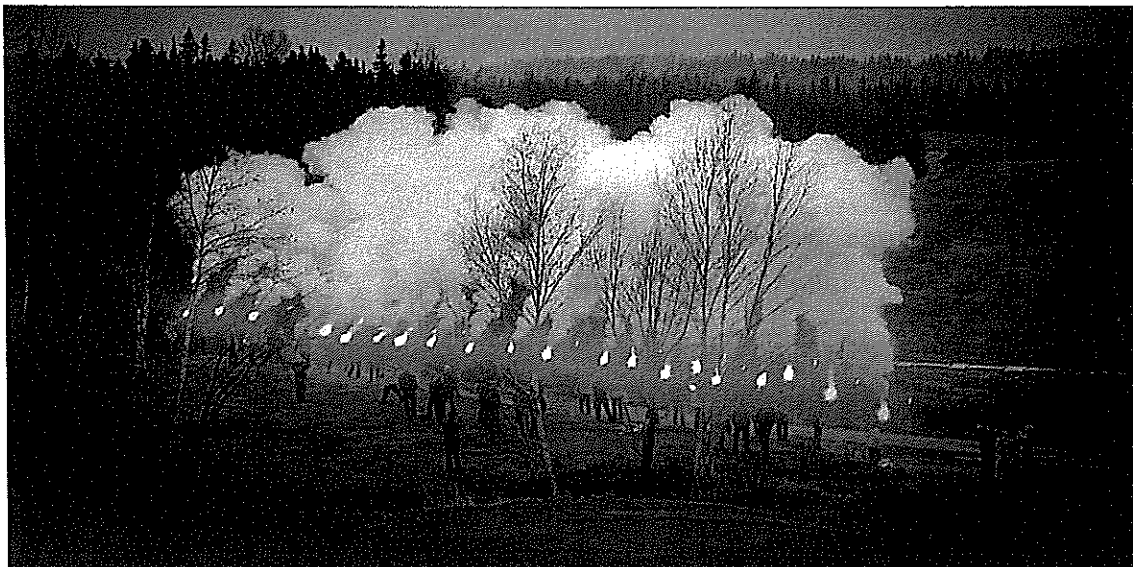


Figure 33: Attraction

Knowledge and understanding of:

- Reasons for incorporating attraction methods into a search.
- Urgency of using attraction methods (e.g., reduce search area).
- Various attraction methods, including
 - a) visual
 - b) night time tools
 - c) sound
- Challenges associated with attraction, including
 - a) responsiveness of subject
 - b) stopping to listen at appropriate intervals
 - c) weather conditions
 - d) natural sounds
 - e) topography
 - f) impairment of senses
 - g) hearing protection for searchers
- Importance of communication when using attraction methods.
- Notice to others of attraction methods being used and intervals established.
- Protocol for notifying when contact with subject is established.

Observable performance (Do):

- Use various attraction methods.
- Notify Team Leader of attempts, methods used, and timing intervals.
- Follow protocols for communication in case of response from subject.
- Coordinate the use of attraction methods with others in the immediate search area.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.9.7
- NLSARA Search Techniques Manual Unit 8 – Search Techniques

4.9.8 Clue Awareness

Clue awareness and detection is an ongoing, ever-present process during an incident. Searchers must have a full understanding of the aspects of clue seeking, detection, preserving, collecting, recording, and reporting within the search team. Searchers must remain focused while on assignment to ensure they discover clues in the search area.



Figure 34: Clue Awareness

Knowledge and understanding of:

- Reasons for incorporating clue awareness and detection in searches.
- Components and tools for clue awareness and detection, including:
 - a) cognitive vision
 - b) seeing the unseen
 - c) signs
 - d) sign cutting
 - e) clues
 - f) shine (i.e., flattening)
 - g) trampling, bruising
 - h) track
 - i) tracking techniques
 - j) use of other senses
- How to control the immediate areas of clues to help identify additional clues.
- Clue identification process (e.g., labelling, clue description, footwear description).
- Clue-handling process.
- Impact of time of day on clue awareness and detection.
- Other challenges associated with clue awareness and detection

Observable performance (Do):

- Identify and reports clues.
- Provide Team Leader with initial interpretation of clues.
- Handle and/or follow clues.
- Complete required documentation for clues.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.9.8
- NLSARA Search Techniques Manual Unit 8 – Search Techniques

4.9.9 Demobilization Process

An organized and cohesive set-up (mobilization) is vital to a search incident; the demobilization process is just as important in that all equipment, resources, and people must be accounted for. This allows the group to be fully prepared for the next incident.

Knowledge and understanding of:

- The importance of debriefing and providing post-search information.
- Types of information to be covered in incident debriefing.
- The purpose of notes and reports (e.g., damage report, expense claims, log book).
- Procedures for handling of returned equipment, including:
 - a) sign-in process and where to store equipment;
 - b) inspection and marking for repair; and
 - c) types of consumables to be replenished.
- The process for dismantling and packing physical infrastructure.
- The command base and station restoration process.
- Accountability systems (e.g., tags).
- The impact of fatigue on personal safety (e.g., drive home).

Observable performance (Do):

- Complete equipment and infrastructure inspection and clean-up.
- Return equipment and sign it in.
- Replenish consumables.
- Dismantle and pack physical infrastructure.
- Clean up and/or restore command base and station.
- Follow personnel and accountability system (e.g., returns accountability tag).
- Contribute to debriefings and after action reviews.
- Perform administrative requirements (e.g., copies of notes from notebook, damage reports, expense claims, and log book).

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.9.9

4.9.10 Night Searches

A search is an emergency, which makes night searches unavoidable at times. Darkness brings complications in terrain management, team fatigue, and individual stress. Initial planning, precise navigation and communication will be required for the team to be successful.

Knowledge and understanding of:

- Reasons for implementing a night search.
- Advantages associated with implementing a night search, including:
 - a) stationary object
 - b) expanded search time

- c) less noise and sound travels better
- Challenges associated with implementing a night search, including:
 - a) maintaining personal night vision
 - b) unresponsive subject
 - c) destruction of clues
 - d) poor visibility
 - e) topography
 - f) harder to coordinate team
 - g) reliability of light sources
- Risk considerations of night searches to searchers and subject (e.g., fear of dark, night vision, fatigue, need for experienced searchers).
- Critical separation and/or critical spacing considerations.
- Types of night vision equipment.
- Types of lighting devices.

Observable performance (Do):

- Follow procedures for preserving personal night vision and specialized equipment used during night searches.
- Follow procedures for using light devices during night searches.
- Employ critical separation and/or critical spacing considerations during night searches.
- Operate specialized night search equipment.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.9.10

4.9.11 Land-Water Interface Searches

The interface between land-water searches sets up some very demanding challenges for a team. Vigilance and good team dynamics, through open communication will allow the team leader to assess and address situations as they arise.

Knowledge and understanding of:

- Reasons for implementing a shoreline search (e.g., urgency, subject profile, weather).
- Types of shorelines (e.g., ocean, lakes, rivers, streams, glacial streams, ponds, sloughs, and wetlands).
- Types of hazards and risk considerations and limitations of GSAR personnel.
- Expanded confinement and critical spacing considerations with shoreline searches.
- Environmental considerations associated with shoreline searches.
- Types of water-crossing techniques.
- Types of equipment used in shoreline rescues.
- Types of assistance that can be provided by specialized teams, including

- a) dive team
- b) boat rescue
- c) rope rescue
- d) swift water rescue
- e) ice rescue
- f) aircraft

Observable performance (Do):

- Employ safety actions and follows procedures for crossing techniques.
- Take into account environmental considerations associated with shoreline searches.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.9.11

4.9.12 Evidence Handling

The proper handling, reporting, and documentation of all evidence and clues are extremely important as every scene may be considered a potential crime scene. Searchers must adhere to protocols and procedures for protection of a crime scene. Searchers may negatively impact the credibility of the SAR organization, not to mention themselves, if evidence handling protocols are not followed.

Knowledge and understanding of:

- Chain of evidence concept.
- Types of evidence damage caused by the elements.
- Types of contamination or cross-contamination.
- Authorities to contact to handle the evidence.
- Evidence-protecting techniques and procedures.
- Note-taking techniques and procedures.
- Confidentiality requirements.
- Process and procedures for presenting evidence (e.g., in court or inquest).

Observable performance (Do):

- Ensure potential evidence is left undisturbed.
- Protect evidence from the elements.
- Prevent contamination or cross-contamination of evidence (e.g., use of appropriate PPE).
- Establish a secure perimeter around the evidence.
- Alert SAR Manager about the site and potential evidence.
- Use proper note-taking techniques to properly document evidence and ensure chain of evidence (e.g., unit logs, team and crew logs).

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 4.9.12

4.9.13 Dealing with Deceased Persons

Searchers will need to follow protocols, procedures, and legalities during the finding of and dealing with a deceased person. While doing this, searchers must be respectful and care for the deceased individual as they are transported and transferred to the authorities. Searchers should maintain a calm demeanor and compassionate disposition in order to maintain a clear focused effort from all. If a searcher is not comfortable dealing with deceased persons, they should make this known to the Team Leader.

Knowledge and understanding of:

- Legal aspects of the jurisdiction where death of person occurred (e.g., coroner or medical examiner).
- Appropriate PPE and procedures for transporting human remains.
- Types of psychological demands arising from handling human remains (see Competency element, Clause 4.2.3).
- Protection of personal information requirements for deceased and family members.

Observable performance (Do):

- Take precautions to not disturb or move human remains unless authorized by the appropriate authority.
- Use appropriate PPE when handling or transporting human remains.

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations Section 5.9.13

4.9.14 Urban Searches

Urban searches are the most hazard-rich, clue-rich, logistically and legally complex search type that the team leader will likely encounter. Care in planning/execution and coordinated communication throughout the assignments are the keys to completing the assignments in a safe and efficient manner. Team safety is paramount.

Knowledge and understanding of:

- Potential causes of disappearances in an urban environment and information sources:
 - a) unintentional
 - b) criminal act
 - c) intentional
- Types of behaviour profiles linked to urban disappearances, including

- a) schizophrenia
- b) dementia
- c) children
- d) despondent
- e) runaways
- f) autistic
- Specific tactics used in urban searches, including
 - a) door-to-door
 - b) urban confinement
 - c) building searches
 - d) evidence searches
- Legal implications and limitations of urban searches, including
 - a) trespass rules
 - b) private buildings
 - c) privacy of personal information
- Hazards specific to urban search, including
 - a) traffic
 - b) abandoned or damaged buildings
 - c) industrial or chemical storage areas or contaminated areas
 - d) rapid destruction of clues
 - e) clue-rich environment
 - f) scale of search areas (easy access to transportation for disappeared)
 - g) convergent volunteers
 - h) interference from media
 - i) animals at large (e.g., dogs)
 - j) criminal elements (e.g., gang members, grow ops)
 - k) precautions for searching refuse (e.g., needle sticks)
 - l) hazardous materials
- Three levels of door-to-door canvassing.

Observable performance (Do):

- Demonstrate ability to navigate in urban environment using a city map and/or GPS.
- Demonstrate proper search techniques in urban environments (e.g. alleys, buildings, streets, yards, etc.).

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 4.9.14

4.10 Specialized Resources

Overview:

Searchers need to understand and apply knowledge of the features and limitations of specialized resources in the use of these resources during a search. Searcher competency elements covered in this competency category are:

- Specialized Resources

4.10.1 Specialized Resources

Knowledge and understanding of:

- Specialized resources that exist, including
 - a) infrared and optical devices, including forward-looking infrared radar (FLIR), handheld or aerial, night vision goggles, thermal imagery
 - b) sensory and acoustic devices, including remote listening devices, side scanning sonar, reflective fabrics or fabrics having sensing and/or detection capabilities, ELT homing (121.5 and 406 MHz)
 - c) electronic search devices such as satellite-enabled notification devices and cellular phone/satellite phone tracking
 - d) radio frequency-based transmitters and/or receivers
 - e) use of remote operating vehicles (ROVs) and unmanned aerial vehicles (UAVs)
 - f) use of satellite imagery or active signaling technology,
 - g) automatic identification system (AIS) and automatic dependent surveillance broadcast (AD-SB)
 - h) air assets, including fixed and rotary wing assets, aerial spotters, and helicopter long-line rescue teams (HETS)
 - i) marine assets, including boats, personal watercraft, hovercraft, submersibles and ice rescue, underwater recovery teams, and swift water rescue
 - j) ground assets such as avalanche and crevasse rescue, confined space, cave rescue, high angle rescue, swift water rescue, rope teams, canine teams, equine teams
 - k) military
 - l) convergent volunteers
- How to operate concurrently should any of these specialized resources be deployed.
- Limitations with regards to areas under the control of specialized resources (to avoid track contamination by canine teams, for example), or restrictions on the type of activity (e.g., use of flares during night vision goggle deployment) while specialized resources are mobilized.

Observable performance (Do):

- Operate concurrently with specialized resources in collaborative and coordinated manner.
- Adhere to limitations and restrictions on types of activities deployed when specialized resources are mobilized, including
 - a) search area limitations to avoid track contamination when canine units are used

- b) use of flares during night vision goggle deployment
- c) activity limits during night operations when infrared/optical search devices are in use

References:

- Z1620-15 Core Competency Standards for ground search and rescue operations
Section 5.10.1

Reference

The following documents were reviewed prior to the publication of this manual. These books and guides could assist team leaders to develop a better understanding for what is available as reference material.

- Core Competency Standards for ground search and rescue operations Z1620-15
- Training curriculum standards for ground search and rescue operations: Searcher, Team Leader, and SAR Manager Z1625-16
- NLSARA Search Techniques Manual
- ICS 100 Introduction to Incident Command System
- ICS 200 Incident Command System
- Newfoundland and Labrador's Emergency Medical Aid Act (Good Samaritan Act)
<http://www.assembly.nl.ca/legislation/sr/annualstatutes/RSN1990/E09.c90.htm>
- Newfoundland and Labrador's Freedom of Information and Protection of Privacy Act <http://assembly.nl.ca/Legislation/sr/statutes/p22.htm>
- Newfoundland and Labrador's Occupational Health and Safety Act
<http://www.assembly.nl.ca/legislation/sr/statutes/o03.htm>
- Workplace NL website <http://www.workplacenl.ca/default.whscc>
- Newfoundland and Labrador Labor Standards Act
<http://assembly.nl.ca/legislation/sr/statutes/l02.htm>
- Managing Lost Person Incident – NASAR (1997)
- Safe Boating Guide – Transport Canada – Office of Boating Safety
- Lost Person Behaviour, A Search and Rescue on Where to Look – for Land, Air and Water – Robert J. Koester

Glossary

- **Agency** - an agency is a division of government with a specific function, or a non-governmental organization (e.g. private contractor, business, etc.) that offers a particular kind of assistance. In ICS, agencies are defined as jurisdictional (having statutory responsibility for incident mitigation) or assisting and / or cooperation (providing resources and / or assistance).
- **Aging Sign and Track** - the ability to determine how long ago a particular piece of sign or track was produced.
- **Assignment** - a particular set of actions assigned to a GSAR team as part of a search operation in order to meet specific search objectives
- **Attraction** - a search tactic involving attempts to signal the subject and get him or her to travel toward searchers. Techniques include the use of sound as well as visual signals.
- **Authority Having Jurisdiction** - the agency established by a federal, provincial, or territorial government that has responsibility for search and rescue.
- **Azimuth** - same as bearing. Refers to the degree of bearing from your current position to a landmark or destination. Reversing the bearing would be known as a back azimuth or back bearing.
- **Back Bearing** - the 180° site of the azimuth or bearing. Also known as a back azimuth.
- **Back Country** - the area beyond mid-country access. More than four hours walking distance of a vehicle-navigable road/track or trail head.
- **Base** - the location at which primary logistics functions for an incident are coordinated and administered. There is only one base per incident. The command post may be co-located or shared with the base.
- **Basic Life Support** - a combination of emergency responses, which maintains the ABC priorities: AIRWAY, BREATHING, and CIRCULATION.
- **Bearing** - the direction of travel from your current position to a landmark of destination expressed in degrees from 1 to 360. Same as azimuth.
- **Belay** - to belay is to use a rope or ropes attached to a secure position and used to steady the movement of stretchers or to facilitate the secure movement of searchers up or down a slope.
- **Bench Mark** - a permanent object that is either natural or man-made and is a known elevation that can be used as a reference point when navigating.
- **Binary Search** - a search strategy that involves sending sign cutters in a direction that is perpendicular to the subject's assumed direction of travel, in an effort to narrow down the size of the search area.
- **Briefing** - the process of providing searchers with the information they need to adequately perform their task.
- **Call-out** - the authority having jurisdiction's call to conduct a search and rescue operation whereby GSAR personnel are requested to respond.

- **Camp** - a geographical site, within the general incident area separate from the incident Base, equipped and staffed to provide sleeping, food, water, and sanitary services to incident personnel.
- **Cardinal Points** - the four main points of direction on a compass are North, 360°; East, 90°; South, 180°; and West, 270°.
- **Closed Grid Search** - a closed grid search will normally be carried out with searcher spacing of less than 10m. This method is considered extremely thorough and is often taken as evidence that the victim or clue is not in the area searched.
- **Clue** - a tangible or non-tangible piece of evidence. A message or signal that serves to reduce uncertainty with respect to the subject's location, as well as identification purposes for police authorities.
- **Clue Awareness** - the ability to perceive clues left by the subject (i.e. tracks and other sign), rather than just the subject.
- **Command Post (CP)** - that location at which the primary command and control functions are executed. It is usually located with the search base.
- **Command Staff** - in ICS, those officers who contribute to the command function and report directly to the Incident Commander (or Search Manager) and may include Safety Officers, Liaison Officers, Information Officers, and Technical Specialists.
- **Confinement** - a strategy used to ensure the subject cannot leave a specific location in the search area without the searchers being aware of the departure.
- **Containment** - a tactic or geological feature such as a large body of water, which very likely will keep a subject within the limits of a search.
- **Contour Lines** - each contour line on a map comprises an often-irregular closed loop that connects points of equal elevation. Elevations are printed on some of the lines on a regular basis and elevations refer to elevation above sea level.
- **Convergent Volunteer** - an individual that offers his or her service and/or expertise for no remuneration during a recognized public safety line activity and is signed into the task and is not already registered as a public safety line volunteer.
- **Core Competency** - the essential knowledge, skills, abilities, and attributes required to successfully accomplish assigned tasks or roles.
- **Craft** - any air or water-surface vehicle, or submersible of any kind or size.
- **Critical Incident** - An incident causing such a high level of psychological stress that many exposed to it, develop immediate or delayed stress reactions.
- **Course Deviation Indicator (CDI)** - is typically displayed with a line or an arrow as an indicator of your being on or off course when following a route.
- **Critical Incident Stress Debriefing (CISD)** - is a form of limited intervention that is highly effective in preventing many of the ill effects resulting from exposure to a critical incident and its immediate and delayed stress reactions.
- **Critical Incident Stress (CIS)** - a stress reaction experienced by searchers and/or emergency responders during the incident that could have long-term, debilitating psychological and physiological effects upon them.
- **Critical Separation** - two searchers walking away from a simulated subject in opposite directions, until each searcher can just see the simulated subject and determine critical separation. The distance between them is the critical separation.

- **Cumulative Probability of Detection** - the overall probability of detection that results when a segment has been searched more than once.
- **Cumulative Stress Reaction** - a set of abnormal and mal adaptive responses to chronic high levels of stress.
- **Datum** - the most probable position of a search object, corrected for drift, at any specific time.
- **Datum Line** - a line that runs perpendicular to the base line of a search area and are usually marked at either end of the search area to define the area adequately.
- **Debriefing** - the exchange of information, usually at the close of a tasking that conveys important knowledge and experience. A SAR team will be debriefed when it returns from the field so important information can be gathered to help with the search planning. At the end of a SAR incident all those who participated are usually debriefed on the event and how it unfolded.
- **Decision Point** - positions on trails, climbing routes and rivers where decisions must be made on a direction to take. Often, spots where people can make mistakes and take wrong directions.
- **Declination** - the angle between true north (geodetic north) from magnetic north (the direction a compass points toward the magnetic north pole).
- **Delayed Stress Reaction** - a psychological reaction characterized by unusual physical, emotional, cognitive, and behavioral signs and symptoms. Often occurring weeks or months after exposure to a critical incident and often triggered by a seemingly innocuous stimulus.
- **Delegation of Authority** - a statement provided to the incident commander by the agency executive delegating authority and assigning responsibility. The delegation of authority can include objectives, priorities, expectations, constraints, and other considerations or guidelines as needed. Many agencies require written delegation of authority to be given to incident commanders prior to their assuming command on larger incidents.
- **Demobilization** - occurs at the end of a search successful or otherwise and includes all of the sign-out procedures and the return of equipment and the debriefing, as well as the reorganization of personal gear for the next response.
- **Despondent** - a category of missing person who is characterized at the time as being depressed and having lost courage and hope.
- **Differential GPS (DGPS)** - a system, which incorporates a stationary GPS receiver at a known position, which calculates the cumulative positioning error and transmits a correction factor by radio/modem signal to other GPS receivers, the objective being a more precise fix.
- **Distress** - a search and rescue incident where there is a reasonable certainty that one or more individuals are threatened by grave and imminent danger and require immediate assistance.
- **Distress Alerting** - the reporting of a distress incident to a unit which can provide or coordinate assistance.
- **Distress Beacon** - a generic term used to describe any emergency locator transmitter (ELT), emergency position-indicating radio beacon (EPIRB), or a personal locator beacon (PLB).

- **Emergency Locator Transmitter (ELT)** - aeronautical radio distress beacon for alerting and enabling rescue units to locate the scene of the distress.
- **Emergency Measures Organization (EMO)** - provincially mandated organization responsible for plans and operations of major emergency events in the province.
- **Emergency Position-Indicating Radio Beacon (EPIRB)** - a marine radio distress beacon carried aboard maritime craft that transmits a signal that alerts search and rescue authorities and enables rescue units to locate the scene of the distress.
- **Elopement** - the act of leaving without permission the place you are expected to be (see Walk away).
- **Estimated Position Error (EPE)** - a number expressed in feet or meters, and is an indicator of the expected accuracy of the coordinates shown on the GPS in real time.
- **Evidence** - something legally acceptable before a court, such as an object or a witness, which bears on or establishes an issue. In tracking, evidence is divided into physical and incorporeal.
- **Evidence Search** - a search for evidence that could be used in a court of law.
- **Extrication** - the act of releasing people trapped in or under vehicles, industrial machines, or natural or man-made enclosures or crevices as a result of an accident. These people might or might not be injured.
- **Field Evacuation** - the removal of a person, usually injured or adversely affected, from an isolated wilderness environment to a secure staging area, command post, or control centre.
- **First Responder** - a person trained in the medical and mechanical skills and knowledge necessary to successfully manage the care of an individual on the first discovery until the person can either be evacuated or placed under more intense care. The term *First Responder* is usually associated with police, fire and ambulance response in the non-SAR environments.
- **Front Country** - the area within one hour walking distance of a vehicle navigable road/track or trailhead.
- **Geographic Information System (GIS) Mapping** - is system of computer software, hardware and data that will analyze and present information that is tied to a specific search area.
- **Global Positioning System (GPS)** - a specific satellite-based system used in conjunction with mobile equipment to determine the precise position of the mobile equipment.
- **Grid Location** - most maps used in search and rescue has a grid superimposed to aid in describing the location of particular points. The rectangular grid runs approximately north south and east west. A point on the map can be described by its position relative to the grid.
- **Grid Search** - an attempt to find the subject (or clues) by lining up 3 or more searchers and having them proceed in a parallel fashion through their assigned search area (aka *sweep, line, or creeping line* search).
- **Ground (or Ground SAR Incident)** - a *ground* search or rescue activity is one that occurs on land. For the purposes of these procedures, this includes the ground portion of all activities associated with missing aircraft, and the air portion of all activities involving searches for or rescues of people on land.

- **Ground Search and Rescue (GSAR)** - the conduct of a search and rescue operation to assist persons lost, missing, or in distress on land and inland waters.
- **Ground Search Party** - a group formed to conduct all or part of an organized GSAR operation.
- **Hasty Search** - an initial response aimed at searching high probability areas, trails and likely spots, usually by the Hasty Team. Decisions will be focused around lost-person behaviour with concentration on trails, decision points, and other likely spots.
- **Hasty Team** - a group of trained individuals that can be convened quickly for the purpose of responding to an emergency situation.
- **Hip Chain** - used to measure distance. It is a belt case containing thin string that runs through a measuring device that registers as the string is paid out. Biodegradable string is recommended for a hip chain.
- **Human Trackers** - searchers who attempt to follow the visible signs left by the lost person (aka *man-trackers* or *visual trackers*).
- **Hypoxia** - low oxygen levels.
- **Incident Action Plans** - a document outlining search objectives for the current operational period.
- **Incident Base** - the area where all primary incident services and support activities are located.
- **Incident Commander** - an individual charged with functional responsibility for an entire incident. Not necessarily the highest-ranking official, just the one in charge.
- **Incident Command Post (CP)** - a location, usually located with the search base, at which the primary command and control functions are executed.
- **Incident Command System (ICS)** - a widely applied management system for handling any type of emergency incident or public event.
- **Incident Critique** - procedure for constructive review of an incident.
- **Incident Objectives** - part of the Incident Action Plan, a document outlining search objectives for the current operational period.
- **Information Officer** - the officer in the Command Staff who serves as the initial contact person for the media and other persons seeking information about the incident.
- **Initial Planning Point (IPP)** - a point that is initially used to plan the search incident based on last known position (LKP) or point last seen (PLS).
- **Initial Response** - the first response to a search event usually by a small team of 3 searchers that are fit, fast and skilled that can quickly search high probability areas. Initial response teams are usually trained beyond the level of the basic searcher.
- **Last Known Position (LKP)** - the last known location for the missing subject as determined by physical evidence or clue such as a parked car, discarded object such as a wallet, or a footprint that places the missing subject. Note – LKP can be revised during the search.
- **Latitude** - the distance in degrees north of south from the equator. These lines run laterally (horizontally) around the globe and parallel to the equator. One minute of latitude equals one nautical mile.
- **Likely Spot** - features or areas that may offer attraction to the missing or lost person(s). Lost-person behaviour is often used along with interview information to determine likely spots a lost person might go.

- **Listening Post** - can be established anywhere in and around the search area where there is a chance that a searcher may overhear the subject of a search trying to get someone's attention.
- **Longitude** - the distance in degrees east and west from the prime meridian established in Greenwich, England. These lines run vertically (lengthwise) around the globe and connect each pole.
- **Lookout** - a searcher who takes a position on a hill or ridge affording a view of several potential travel routes. A lookout will have a radio and a set of binoculars and will often work with a partner at a lower elevation to inspect suspicious objects found by the lookout.
- **Lost Person** - a person who is disoriented, potentially in distress, and wishes to be found or return to a known location. Often referred to as "*the subject of the search.*"
- **Lost Person Behaviour** - the travel and self-help behaviour generally exhibited by persons in various age groups, mental conditions or demographic type when lost.
- **Lost Person Incident** - an organized search for a person who has been reported missing to a jurisdictional police authority.
- **Lost Person Profile** - a vivid biographical and character sketch of a lost person, derived from information gleaned through investigation, interviewing and the Lost Person Questionnaire.
- **Lost Person Questionnaire** - a written document that describes all available physical and mental characteristics of a missing or lost person(s).
- **Magnetic North** - the geographical region towards which all magnetic needles point. This point is approximately thirteen hundred miles south of the true north and moves slightly each year due to the earth's rotation and the friction between its solid crust and liquid centre.
- **Marine SAR** - the employment of vessels and/or aircraft for the conduct of a SAR operation that occurs on or under water.
- **Medical Plan** - the plan for treating and evacuating injured searchers.
- **Memorandum of Understanding** - an agreement drawn up to clarify roles, responsibilities, functions and procedures between two or more organizations. Not binding as a contract, but important to establish understandings and arrangements prior to the occurrence of an emergency situation.
- **Mid-Country** - the area within 1 to 4 hours walking distance of a vehicle navigable road/track or trailhead.
- **Military Grid Reference System (MGRS)** - a shortened version of UTM coordinate display currently in use by SAR.
- **Missing Person, Voluntary** - someone who has control over his or her actions and has decided to leave his or her home or society. A police investigation is generally initiated.
- **Missing Person, Involuntary** - someone who has gone missing against his or her will, e.g., abduction or murder victim. A police investigation is initiated.
- **National Search and Rescue Secretariat (NSS)** - reports to the Lead Minister for SAR (currently the Minister of Public Safety), coordinates the National Search and Rescue Program which aims to facilitate SAR prevention and response services of involved agencies and to maintain a coordinated national perspective on SAR.

- **Operational Period** - the period of time scheduled for the achievement of operational objectives as specified in the incident action plan. Operational periods can be of various lengths (typically 12h, although not usually over 24 h).
- **Orienteering** - using map and compass in the field to determine your route of travel. Has commonly come to mean a type of competition at which competitors try to navigate across challenging terrain from point to point arriving at the finish first.
- **Pace** - the distance between two successive stationary positions of the same foot in walking. (For example: 122 steps would equal 61 paces)
- **Passive Search Techniques** - passive techniques can include such procedures as looking out or listening, or attraction using light or sound to draw the subject of a search to you as opposed to going out and looking for the subject.
- **Performance Objective** - a level of skill of performance that must be attained as part of a training program.
- **Perimeter Cut** - experienced trackers may be able to check the Last Known Position (LKP) for tracks, clue, direction of travel, etc. and then sign cut the perimeter of the area to determine if the subject has left the search area; therefore eliminating the need to search it.
- **Personal Flotation Device (PFD)/Lifejacket** - a wearable flotation device. Note – These terms are used interchangeably in this manual
- **Personal Locator Beacon (PLB)** - a portable distress alerting beacon that is designed to be carried by individual persons that is manually activated and operates exclusively on 406 and 121.5 Mhz. PLBs signals can be received by the COSPAS SARSAT satellite system.
- **Point Last Seen (PLS)** - an essential bit of information when initiating a search, PLS comes from a reliable source that may describe the direction of travel, the time that the missing or lost person(s) was seen and the state of the person (distracted, tired, frisky, etc.). Also described as the location where a confirmed visual sighting occurred.
- **Police Force of Jurisdiction** - the police force within whose jurisdiction a GSAR response is initiated. As the search progresses the police force of jurisdiction may change at the agreement of the police authorities involved. The Search Commander will normally be appointed by the police force of local jurisdiction.
- **Preplan** - A document, which provides incident managers with information, instructions, resource lists, checklists, standard operating procedures, and technical data that, will be used during a search incident.
- **Probability Density** - the POA of a specific area or segment, divided by the size of the area. High probability density segments will normally receive higher priority.
- **Probability of Area (POA)** - the likelihood or probability that the subject is located in a specific area; expressed as a percentage (e.g. 50%) or decimal number (e.g. 0.50).
- **Probability of Detection (POD)** - the likelihood of probability of finding clues (assuming that clues are available to be found), given the nature of the search and the type of resources employed; expressed as a percentage (e.g. 50%).

- **Probability of Success** - the probability of finding the subject in a specific place or area, given the type of search tactic employed. Derived from the formula $POS=POA \times POD$.
- **Professional** - a person to whom SAR is a principal calling, vocation, or employment requiring specialized knowledge and often long and intensive academic preparation, and characterized by or conforming to technical or ethical standards.
- **Provincial/Territorial Authority** - has overall responsibility for the organization and management of ground search and rescue policies within the boundaries of the province/territory, and has the authority to put in place regulatory measures to govern the conduct of GSAR activities within the province.
- **Record** - includes all of the expense forms, all of the sign in/out sheets, as well as the communications log and the equipment sign in/out log and any records or documents related to the search that may pertain to evidence and clues found and the outcome of the search. All of this information is kept as part of the teams or associations records for a reasonable amount of time.
- **Relief** - the elevations or inequalities of a land surface.
- **Rescue** - an operation to retrieve persons in distress, provide for their initial medical or other needs and deliver them to a place of safety.
- **Rescue Breathing** - mouth-to-mouth or mouth-to-nose artificial respiration.
- **Rescue Coordination** - the function of integrating the efforts of search and rescue (SAR) facilities and resources to achieve concerted and harmonized resolution of SAR incidents in an effective and efficient manner.
- **Resource List** - a list of search or logistical resources that can be employed during an incident; part of the preplan.
- **Risk Control** - the process of decision making for managing risk and the implementation, enforcement, and re-evaluation of its effectiveness from time to time, with input from the results of risk assessment.
- **Risk Management** - the process of decision making for managing risk and the implementation, enforcement, and re-evaluation of its effectiveness from time to time, with input from the results of risk assessment. A structured, common sense approach to reducing the frequency and severity of loss events.
- **Recovery** - the retrieval of human remains following a fatal incident, also known as "body recovery."
- **Reporting Person** - the person who initially reported someone lost or missing.
- **Route (RTE)** - includes at least two waypoints (up to 20) and at any given time 1 waypoint is the, *from WPT* and the other is the, *to WPT*.
- **SAR Volunteers** - members of an organized group of volunteers who assist in the conduct of GSAR incidents. *Organized* means working cooperatively and systematically and apply recognized skills toward the successful resolution of a GSAR incident. There are various configurations of Canadian GSAR volunteers, and many groups have appointed officers to be responsible for different branches of the organization, such as operations, safety, and logistics.
- **SAR Manager** - a person who manages and coordinates a search and/or rescue incident, leads and directs the SAR resources, is trained and experienced in search

and rescue, and might or might not be the incident commander under the ICS system.

- **Scale** - the distance between two points on a map as they relate to the distance between those two points on the earth.
- **Scenario Analysis** - an attempt to prioritize the segments in the search area when more than one scenario is present, or when there is conflicting information about the missing lost person's PLS or direction of travel.
- **Scent Article** - an article of clothing or other material with which a trailing dog can determine the subject's unique scent.
- **Search** - a search involves assembling, coordinating and using the necessary resources to find lost, stranded, trapped, or injured people, to save lives or avoid further injury to them. Search is its own discipline with its own theories, strategies, and tactics.
- **Searcher** - the person, reporting to the team leader, responding to an incident as a member of a GSAR team.
- **Searching Data** - that information that searchers require in order to search for the lost subject, such as the subject's name, description, clothing, footwear and items carried.
- **Search and Rescue (SAR)** - the combined activities and tasks involved in both searching for and rescuing persons who are feared to be in distress. Many searches do not involve rescue and many rescues do not require searches.
- **Search and Rescue Plan** - a general term used to describe documents which exist at all levels of the international, national, provincial, and municipal search and rescue structure to describe goals, arrangements, and procedures which support the provision of search and rescue services.
- **Search and Rescue Unit** - a unit composed of trained personnel and provided with equipment suitable for the expeditious conduct of search and rescue operations.
- **Search Commander** - has the overall responsibility for the execution of the SAR operation and who represents the authority responsible for the area in which an incident has occurred. This is usually a police officer assigned to the search operation by the police force of jurisdiction. In Canadian National Parks, the Search Commander may be a park warden.
- **Search Dogs** - dogs who, with their handlers, have successfully completed a course of training resulting in the ability to track missing or lost person(s) and behave under handler control during the search operation.
- **Search Manager** - under the general direction of the Search Commander, will manage the search and lead and direct individual SAR resources. Is usually an experienced member of a volunteer ground SAR organization or park warden, forest ranger, or police officer. Under special circumstances the Search Commander may act as the Search Manager.
- **Search Tactics** - methods of searching; implementation of strategy.
- **Search Techniques** - a body of techniques used in the orderly conduct of a search. These include patterns of coordinated movement, employment of sound or visual signals, self-orientation during movement, and awareness of others and their positions.

- **Segmenting the Area** - parceling the search map up into manageable sections or segments with clearly defined boundaries.
- **Shifting POA** - changing the probabilities of area after segments have been searched.
- **Shock** - an inadequacy of the circulation system, which supplies the cells. Pallor and clamminess of the skin, decreased blood pressure, feeble rapid pulse, decreased respiration, restlessness, anxiety, and sometimes unconsciousness mark shock.
- **Sight Line** - sometimes called line of sight, this refers to the imaginary line that you sight along to take your bearing.
- **Sign** - is regarded as evidence of a person's passage through a search area.
- **Sign Cutting** - the process of looking for sign along natural barriers such as creeks, banks or roads.
- **SITREP** - the short form for situation report, it is usually used to give updates to the command post and involved personnel and is often done on a scheduled basis throughout a search.
- **Sound Sweep** - sound sweeps utilize sound attraction in combination with wide searcher spacing to cover large search areas. A sound sweep is 3 to 4 times more effective than a visual sweep and is a practical night searching technique.
- **Specialized SAR Groups** - groups with special skills needed on GSAR operations and may include police, provincial or federal officials, volunteers, or military personnel. These could cover such special areas as avalanche rescue; cave rescue, cliff rescue, crevasse rescue, flat ice rescue, and underwater photography and rescue.
- **Spontaneous Volunteer** - a person not belonging to a participating agency of SAR team who appears at incident and volunteers assistance.
- **Staging Area** - that location where personnel and equipment are assigned to an operational status. Is usually in such a location that resources can be immediately committed to the field.
- **Standby** - is the period normally following alert when the Search Commander believes that deployment for the search is imminent. Personnel are placed on standby being ready to respond immediately
- **Stand-Down** - that period when the Search Commander declares that the search is terminated, personnel are recalled, debriefed and released.
- **Stress Defusing** - a short meeting (30 to 60 minutes) held shortly after an incident, conducted by qualified peer counselors, directed at those people who are assumed to be experiencing stress from the incident.
- **String Line** - or hip chain consisting of a spool of thin string and a measuring device that registers as the string is paid out. Can be used to mark search areas and to guide a missing or lost person(s) out of the wilderness. Biodegradable string is recommended.
- **Subject** - the object of a search.
- **Subjective Search Area** - the reduced area within a theoretical maximum search area, which is bounded by physical barriers, which would prevent or discourage the search subject from passing them.

- **Sweep Search** - can be open grid or closed grid and are conducted in high probability areas as an efficient way to search for clues and subjects. Searchers are spaced in a line according to the urgency assessment and other factors.
- **Tally System** - can be used to estimate distance and/or time traveled quite accurately. 1 Tally is equal to 100m and the number of steps taken to cover this distance varies from person to person but once entrenched it is a very useful skill.
- **Tasking** - a role delegated to a searcher or to a search team to carry out as part of a search and rescue operation
- **Team Leader** - the person responsible for the conduct of a GSAR team. The team leader reports to the search manager.
- **Terrain Analysis** - an attempt by a search planner to determine how the terrain may have affected the missing or lost person's behaviour, such as mazes, confusion factors, boundaries, and travel aides.
- **Theoretical Search Area** - the area that is defined by the distance that the subject could theoretically have traveled in the time elapsed since they became missing.
- **Track** - an impression left from the passage of a person or an animal.
- **Tracking** - following someone or something by stringing together a continuous chain of his or her sign. Following a chronology of sign.
- **Track Trap** – a track trap is an area that is especially good for finding sign.
- **Trained SAR Volunteer** - a person who voluntarily agrees to participate in search and rescue related activities and has attained at least the *Basic SAR* performance objectives suggested by the training requirements for his/her level of involvement.
- **Training Standard** - a set of requirements that define the amount and degree of training necessary to qualify a person as *trained* in the subject in question.
- **Universal Time Coordinated (UTC)** - a term used to define the 24 hr clock system and sometimes referred to as ZULU or Greenwich Mean Time.
- **Universal Transverse Mercator (UTM)** - UTM on most maps is a grid superimposed to aid in describing a particular point. This grid is called a UTM grid and it is rectangular with the grid running north south and east west with north being the top of the map.
- **Unfounded** - refers to a search subject that was never lost.
- **Urgency Analysis** - the use of data collected with values assigned affecting survivability, totaled to give a reasonable estimate of urgency of response.
- **Ventilation** - the exchange of air between the lungs and the atmosphere.
- **Volunteer** - an individual or group donating time and talents to a specific task or project without salary or compensation other than for allowable out of pocket expenses associated with the volunteer activity.
- **Vulnerability Assessment** - also known as urgency assessment. The SAR manager will use information collected to develop a relative urgency rating. Values are assigned to different factors affecting survivability and by totaling these values; a reasonable estimate of urgency of response can be determined.
- **Walk Away** – a type of missing person with some mental cognitive deficiency, who has wandered away from a constant care environment. Alzheimer's and other forms of dementia are often associated with a walk-away.
- **Waypoint (WPT)** - a checkpoint used as a point of reference for GPS.

- **Wide Area Augmentation System (WAAS)** - a method of clarifying and improving accuracy or displayed coordinates using known ground based locations to accomplish the task (set GPS receivers to use this system whenever possible).

Annex A – Check List – Briefing

CHECKLIST - BRIEFING TO TEAM		
1	Incident Management Details	
	Task # / Police #	
	Time of Police request	
	Time reported missing	
	Time SAR unit called out	
	Summary of how subject went missing	
2	Subject Information	
	Name (include name to call out for)	
	PLS/LKP - time last seen	
	Physical description	
	Circumstances / Trip plan	
	Clothing types / colours	
	Equipment	
	Shoe print description	
	Brands of candy, cigarettes, etc....	
	Experience level	
	Condition	
	Physical	
	Medical	
	Mental	
	Behavioural traits	
	Concerns	
Lost person behavioural data		
Urgency rating		
Theories		
3	Map Orientation	
	Map number / Grid reference	
	GPS datum reference	
	Magnetic declination	
	PLS/LKP - shown on map	
	Hazards	
	Physical description of segment/route/area	
	Nature/type of terrain/vegetation	
	Physical boundaries	
Prominent geographic landmarks		

	Altitude	
	Exit routes	
	Radio repeater locations	
	Location of CP and other facilities	
	Weather	
4	Past	
	Current	
	Forecast	
	Other Search Efforts	
5	Where	
	POD	
	Clues found	
	Other Search Support	
6	Location of other teams	
	Capabilities of other teams	
7	Significant Events/Information	

Annex B – Check List – SMEAC

CHECKLIST - SMEAC	
	Situation
1	Brief description of incident:
	Mission
2	Brief description search technique, specific location, POD and timeframe:

Execution	
General Overview of Team Plan by Phase	
	PHASE 1 - Preparation
	PHASE 2 - Movement to mission area
	PHASE 3 - Execution of mission
	PHASE 4 - Return to CP
	PHASE 5 - Post mission actions (debrief, etc.)
Specific Individual Tasks by Phase	
	PHASE 1 - Preparation
	PHASE 2 - Movement to mission area
	PHASE 3 - Execution of mission
	PHASE 4 - Return to CP
	PHASE 5 - Post mission actions (debrief, etc.)
Coordinating Details	
	1. Timings (time of departure/return - by phase)
	2. Movement
3	Staging area(s)
	Vehicle coordination
	Gas
	Parking
	Transportation routes
	Group orders
	Air Transport
	3. Search Tactic instructions (details on how search task will be carried out)
	4. Marking/flagging instructions
	5. Attraction techniques
	6. Clues (mark, isolate, protect, record and report)
	7. Action on finding subject
	Alive (walk out or evacuate)
	Injured (carry out or helicopter)
	Dead/crime scene (preservation of evidence / proper documentation)
	8. Boundaries

	9. Special equipment	
	10. Camp site / Bivouac	
	11. Safety	
	Hazards	
	Hypothermia / Hyperthermia	
	Equipment	
	Action on lost or injured searcher	
	Exit routes	
	"NO-GO "criteria	
	12. Fire and weather watch	
	13. Debriefing	
	Location	
	Time	
	To discuss by phase	
	Estimated POD	
	Subject survivability	
	Hazards/attractions and confusion factors	
	Map corrections	
	What went well / what did not	
	Recommendations	
	Administration / Logistics	
	Food / Water	
	Shelter	
	Equipment / Clothing	
	Individual	
	Team	
	Subject	
	Special safety gear	
	Stores	
	Transport	
	Rest	
4	Medical	
	Sanitation	
	Media	
	Policy on interviews	
	Policy on presence in area (CP or search area)	
	Relatives / Co-workers / Video Cameras	
	Present on team?	
	Where located/used	
	Warning - language/jokes - professionalism	
	Firearms (if present - storage; use)	
	Expenses	

	CP / Other Facilities Routine	
	Command / Communication	
	Command	
	Name of Incident Commander and Search Mgr.	
	Team Leader(s)	
	Assistant Team Leader(s)	
	Location of Command Post (CP)	
	Communications	
5	Frequency / channel	
	Call signs	
	Code words (if applicable)	
	Radio checks	
	Reports	
	Synchronize watches	
	Questions - to / from	

Annex C – Check List – Mission Planning

CHECKLIST - MISSION PLANNING	
Pre-Assignment	
SAR Manager Briefing	
1	Review status map prior to briefing
	Take notes of search from SAR manager
	Ask questions to ensure you have all info
PHASE 1 - Planning and Preparation	
Initial Planning	
	Select Assistant Team Leader (ASL)
	Initial map review
	Initial time assessment (by phase)
	Select briefing area
	Initial plan
	Draft ATL briefing
ATL briefing	
	General situation (2-3 sentences)
	Mission - who, what, when, where, POD
	Personnel - who is on team
	Team briefing location & time
	Equipment needed
	Special Instructions
2	Deliver ATL briefing to assistant team leader
Detailed Planning	
	Detailed map review
	Detailed time assessment
	Plans for each phase
	Forward planning (anticipate contingences)
	Assign individual tasks in each phase
	Draft team briefing (refer to detailed SMEAC format)
Team Briefing	
	Situation
	Mission
	Execution
	Administration / Logistics
	Command / Communication
	Questions

	Prepare to Move	
	Final preparation	
	Complete any admin/logistic requirement	
	Radio checks	
	Equipment checks	
	PHASE 2 - Move to Mission Area	
3	Maintain control	
	Ensure team safety	
	Communicate effectively	
	PHASE 3 - Complete the Mission	
4	Report to CP at start/end of mission	
	Assume command	
	Delegate tasks	
	Supervise tasks	
	Poised under pressure	
	See the big picture	
	Remain focused	
	Communicate effectively	
	Use proper methods & procedures	
	Scene safety	
	Complete mission in allotted time	
	PHASE 4 - Return to Base	
5	Maintain control	
	Ensure team / subject safety	
	Communicate effectively	
	PHASE 5 - Post Mission Procedures	
6	Confirm / check all members OK	
	Debrief team	
	Complete written report	
	Report to SAR management team	
	Close radio communication with CP	
	Update Team	

Annex D – Media Contact Report


Name of Event:	
Date of Call:	Time of Call.
Name and Organization of Contact/Reporter	Contact Number/Email or On-Site:
News Organization:	Type of Interview (Radio, Print, TV/Video, etc):
Person Contacted:	Person Requested for Interview:

Short Description of Reason/Rational and Topic of Interview:	
Questions (Provided by Reporter)	Suggested Answers or Other Information to be Provided
1)	
2)	
3)	

Permission Granted for interview	Person to be Interviewed (Name and Title)	Location and Time	Permission Granted by (Name and Title)
(Y/N)			

Interview Summary: (Additional Questions/Answers and/or Possible Contentious Issues)

Annex E – ICS 201 Incident Briefing

ICS 

ICS Form 201

INCIDENT BRIEFING	1. INCIDENT NAME	2. DATE PREPARED	3. TIME PREPARED
4. MAP SKETCH			
5. SITUATION SUMMARY AND SAFETY BRIEFING			
ICS 201 Page 1 of 4	6. PREPARED BY (Name and Position)		



ICS Form 201

7. CURRENT AND PLANNED OBJECTIVES

8. CURRENT AND PLANNED ACTIONS, STRATEGIES AND TACTICS

Time:	Actions:

9. PREPARED BY (Name and Position)



ICS Form 201

10. CURRENT ORGANIZATION

<p>ICS 201 Page 3 of 4</p>	<p>11. PREPARED BY (Name and Position)</p>

Annex E



ICS Form 201

12. RESOURCES SUMMARY

Resources Ordered	Resource Identification	ETA	On Scene	Location/Assignment
ICS 201 Page 4 of 4	13. PREPARED BY (Name and Position)			

Annex F – ICS 202 Incident Objectives



ICS Form 202

INCIDENT OBJECTIVES	1. INCIDENT NAME	2. DATE	3. TIME									
4. OPERATIONAL PERIOD (Date/Time)												
5. GENERAL CONTROL OBJECTIVES FOR THE INCIDENT (Include alternatives)												
6. WEATHER FORECAST												
7. GENERAL SAFETY MESSAGE												
8. ATTACHMENTS (Check if attached) <table border="0" style="width: 100%;"> <tr> <td><input type="checkbox"/> Organization List (ICS 203)</td> <td><input type="checkbox"/> Medical Plan (ICS 206)</td> <td><input type="checkbox"/> _____</td> </tr> <tr> <td><input type="checkbox"/> Assignment List (ICS 204)</td> <td><input type="checkbox"/> Incident Map</td> <td><input type="checkbox"/> _____</td> </tr> <tr> <td><input type="checkbox"/> Communications Plan (ICS 205)</td> <td><input type="checkbox"/> Traffic Plan</td> <td><input type="checkbox"/> _____</td> </tr> </table>				<input type="checkbox"/> Organization List (ICS 203)	<input type="checkbox"/> Medical Plan (ICS 206)	<input type="checkbox"/> _____	<input type="checkbox"/> Assignment List (ICS 204)	<input type="checkbox"/> Incident Map	<input type="checkbox"/> _____	<input type="checkbox"/> Communications Plan (ICS 205)	<input type="checkbox"/> Traffic Plan	<input type="checkbox"/> _____
<input type="checkbox"/> Organization List (ICS 203)	<input type="checkbox"/> Medical Plan (ICS 206)	<input type="checkbox"/> _____										
<input type="checkbox"/> Assignment List (ICS 204)	<input type="checkbox"/> Incident Map	<input type="checkbox"/> _____										
<input type="checkbox"/> Communications Plan (ICS 205)	<input type="checkbox"/> Traffic Plan	<input type="checkbox"/> _____										
9. PREPARED BY (Planning Section Chief)		10. APPROVED BY (Incident Commander)										

ICS 202

Annex G – ICS 204 Assignment List



ICS Form 204

1. BRANCH		2. DIVISION/GROUP		ASSIGNMENT LIST ICS 204					
3. INCIDENT NAME			4. OPERATIONAL PERIOD Date _____ Time _____						
5. OPERATIONAL PERSONNEL Operations Chief _____ Division/Group Supervisor _____ Branch Director _____									
6. RESOURCES ASSIGNED TO THIS PERIOD									
Resource Identifier	Leader	No. of Persons	Contact Cell #, radio freq. etc.	Reporting Location, Special Equipment and Supplies, Remarks					
7. WORK ASSIGNMENTS									
8. SPECIAL INSTRUCTIONS									
9. DIVISION/GROUP COMMUNICATIONS SUMMARY									
Function		Freq.	System	Chan.	Function		Freq.	System	Chan.
Command	Local Repeat				Command	Local Repeat			
Div./Group Tactical					Ground to Air				
PREPARED BY (Resource Unit Leader)				APPROVED BY (Planning Section Chief)				Date	Time

Annex H – ICS 309 Communication Log



Communications Log (ICS 309)

1. INCIDENT NAME AND ACTIVATION NUMBER			2. OPERATIONAL PERIOD (Date/Time)		
			From		To
3. RADIO NET NAME (for NCOs) OR POSITION/TACTICAL CALL			4. RADIO OPERATOR (Name, Call Sign)		
5. FREQUENCY/CHANNEL					
Time (24:00)	FROM		TO		Message
	Call Sign/ID	Msg #	Call Sign/ID	Msg #	
ICS 309	6. PREPARED BY (Name, Call Sign)			7. DATE & TIME PREPARED	