

PROPOSAL FOR A MOUNTAIN SEARCH AND
RESCUE PLAN FOR THE WEST KOOTENAY
MOUNTAIN SEARCH AND RESCUE GROUP

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PROPOSAL FOR A MOUNTAIN SEARCH AND

Ian Bult
Selkirk College
Castlegar, B.C.
April 16, 1984

Dennis Herman
Rescue Group Co-ordinator
Nelson, B.C.

Dear Dennis,

The following report is a proposal for the mountain search and rescue plan I committed myself to producing for you. The plan can be found in Appendix III.

In the fall of 1983, I wrote a background research report to prepare for the writing of this plan. This winter, I have received most of the needed reference material from you and formulated a plan that I feel will be of use to the rescue group.

The forms included in the plan should be photo-copied and included in each copy of the plan. Form IV, the accident report form for volunteers, should be distributed to all rescue group members.

Due to a lack of reference material, the plan I am proposing is very similar to your avalanche search plan. I have tried to make the statements of duty and the forms as useful as possible for ground searches and mountain rescues.

I would like to thank you for the guidance and information you supplied for this project. Please contact me through Selkirk College or the number 367-9810. I would be happy to make alterations and corrections if the plan does not meet necessary standards. You could also send written comments on my proposed plan to Box 143, Fruitvale, B.C.

Sincerely yours:

Ian Bult

Ian Bult

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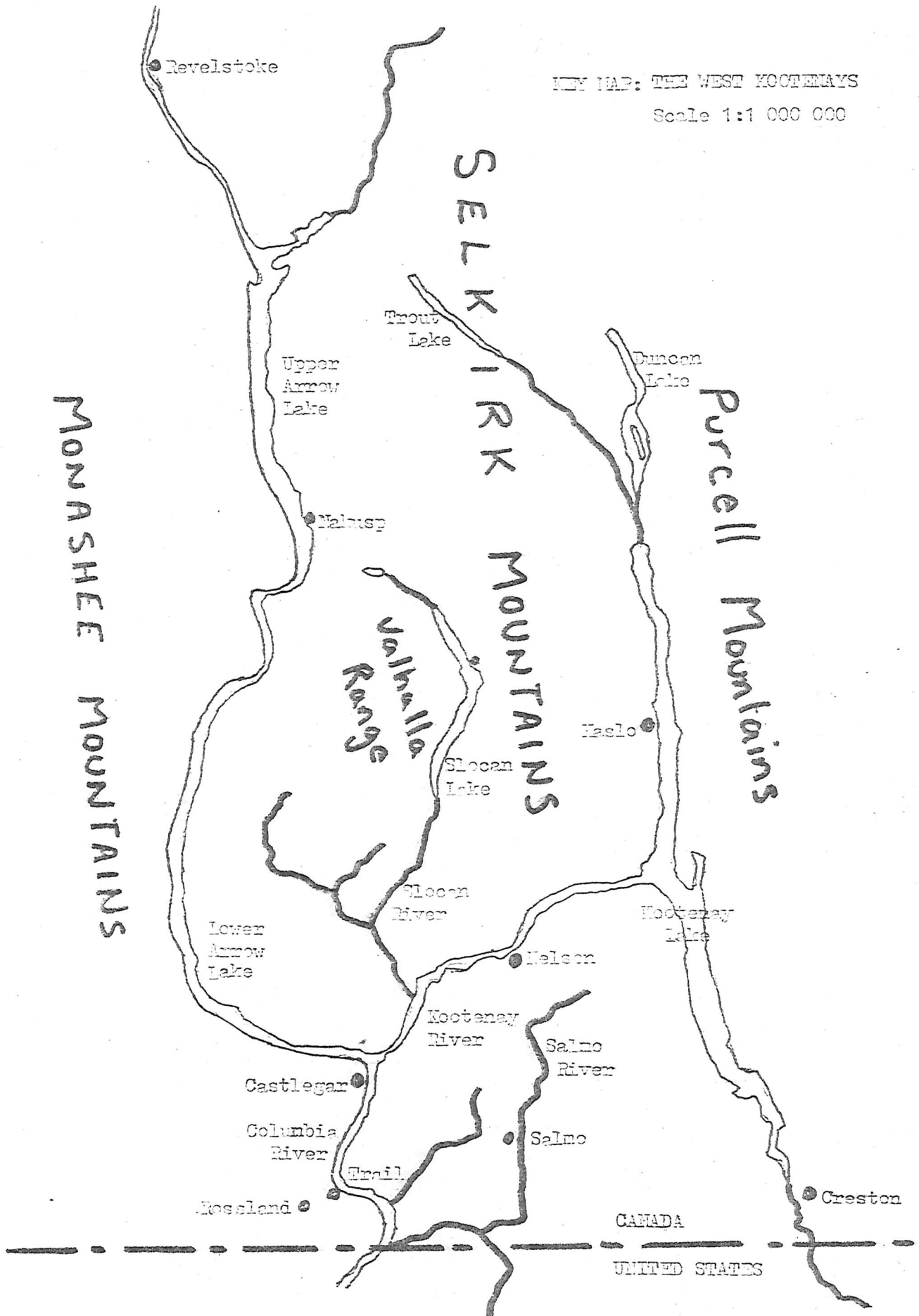
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NEW MAP: THE WEST KOOTENAYS

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ABSTRACT

The proposed mountain search and rescue plan will direct the actions of the West Kootenay Mountain Search and Rescue Group which is a part of the Provincial Emergency Program. Accidents do occur in the area and a standard procedure of action is needed. The proposed plan details actions that will get rescue volunteers to the staging area; it does not detail actual search and rescue procedures. Presently, there is a search and rescue organization and equipment is available. Everything is ready to go except that volunteer lists have not been compiled and no plan of action exists. The proposed plan is simple and easy to read in a stressful situation. The plan is divided up into four sections that are titled Procedure, Responsibilities, Resources, and Forms. Procedures are explained and flow-charts are used to illustrate relationships. The procedures are primarily those of the Field Rescue Leader who is the key figure in a search and rescue operation. Responsibilities are briefly stated so that people are clear on what their role is during an operation. Alternatives for acquiring equipment and manpower are listed in the third section of the plan. A large part of the plan is made up of forms to ensure that all needed information is recorded. For the proposed mountain search and rescue plan to be effective, all procedures must be practiced, volunteers must fully understand the plan, the forms must be distributed to the proper people and appropriate changes should be made to improve the plan if necessary. The proposed mountain search and rescue plan is a simple, easy-to-read guide to search and rescue in the West Kootenay area.

INTRODUCTION

PURPOSE

The purpose of this report is to propose a mountain search and rescue plan for the West Kootenay Mountain Search and Rescue Group. This plan would direct search and rescue procedures in the West Kootenays.

NEED FOR PROPOSED PLAN

Presently, the opportunity exists to develop a mountain search and rescue plan for this area. Outdoor recreation is growing in the West Kootenays, and with it, the number of accidents is increasing. The Valhalla, Kokanee, and Purcell mountains are rugged, extensive wilderness areas. A lost or injured outdoorsman is faced with possible death even if a make-shift search party is finally organized. An organized rescue group in an environment such as the West Kootenays would be useful sooner or later. The plan being proposed will smooth out procedures that carried out under a certain amount of stress in most cases. This plan negates the need to think-out procedures with brain power that could be used more effectively to find and rescue lost or injured outdoors-people.

METHODOLOGY

A mountain search and rescue plan depends on well trained people. The people that are involved in rescue in this area have given ideas how a plan should be set up. Dennis Herman, Rescue Group Co-ordinator, Phil Whitfield, Provincial Parks Planner, Dave Smith, rescue expert, and Len Hiebert, Municipal Emergency Co-ordinator have contributed local information and guidance. Much advice was received from Tom Vines, a rescue advisor from Maryland, U.S.A. Other plans were also used as reference, especially the West Kootenay Area Avalanche Search and Rescue Plan. The final format of the plan was designed and drawn up by Ian Bult.

SCOPE

The mountain search and rescue plan will help to organize rescue efforts. The plan does not detail actual rescue methods. Actions that will get resource people and equipment to the scene are outlined. The plan is a simple document that has complete explanations of roles, flow-chart plans of action, and lists of resource people and equipment. The plan is a small document that can be easily read by all people involved with mountain search and rescue in the West Kootenay area. The West Kootenay area, as defined by this plan, includes all mountain areas most readily accessible from Nelson. Mountain areas closer to Creston are under the jurisdiction of the Creston Provincial Emergency Program. Roughly speaking, this plan is concerned with the southern Selkirks and the west side of the central Purcells. There are qualified and interested resource people in the area

for effective rescue operations. Equipment is being purchased with a reasonable amount of money available through the Provincial Emergency Program. The program, by which the plan is funded, is a government organization. The R.C.M.P. are ultimately responsible for search and rescue operations. The rescue group would work under their direction. The plan is a guiding document directed at the rescue group but the desired procedures of the R.C.M.P. are also stated.

1.0 PRESENT SEARCH AND RESCUE CAPABILITIES IN THE WEST KOOTENAY AREA

If an accident occurred in which Provincial Emergency Program involvement was required presently, rescue group volunteers would be called and plans for action would be decided upon. Only a nominal formal plan exists at present. A history of mountain search and rescue in the West Kootenay area can be found in Appendix I. An account of a rescue from Cape Horn Bluff on Slocan Lake in 1971 can be found in Appendix II.

1.1 ORGANIZATION

The R.C.M.P. is responsible for mountain search and rescue in the West Kootenays. When it is necessary, the R.C.M.P. calls the Provincial Emergency Program for assistance. There are members of this rescue group that are trained in search and rescue techniques. The Provincial Emergency Program in Nelson has identified five people capable of being field rescue leaders and twenty people with varying degrees of rescue experience. Okanagan Helicopter helps in training and rescue operations. (Herman, 1983)

1.2 Most of the members of the Provincial Emergency Program Mountain Rescue Group in Nelson have their own personal mountaineering equipment. The program also has in its possession:

- 3 radios
- 2 aluminum basket stretchers
- oxygen equipment
- 2 11mm climbing ropes
- 3 headlamps
- 6 Silva ranger compasses
- 6 pencil flare kits

Additional equipment is available from the Ministry of Highways, Okanagan Helicopter, Whitewater Pro Patrol and the Parks Division at Kokanee Creek. (Herman, 1983)

2.0 PROPOSED MOUNTAIN SEARCH AND RESCUE PLAN FOR THE WEST KOOTENAY AREA

The plan, as it is seen in Appendix III, is a simple outline of procedure, responsibility and needed information. The plan is divided into four major sections, which are clearly marked for easy reading in a stressful situation. The four sections are identified as procedure, responsibilities, resources, and forms. The plan should be available for base leaders and field leaders. Although the plan is suited to on-the-spot reading, it should be read carefully and be understood by search and rescue volunteers well before it is ever needed. Information on mountain activities and West Kootenay terrain of concern to mountain search and rescue can be found in Appendix IV.

2.1 PROCEDURE

The first section of the plan has a list of what should be done and flow charts further illustrating the procedure to be followed. Call out procedure is the first concern. It is important that everyone is contacted quickly and given the proper information. The personnel flow chart shows how the key people work together during an operation. Once a field rescue leader is assigned, the base rescue leader can concentrate on securing additional resources.

It must be remembered that there is a big difference between a large search for someone lost in the woods and a small rescue of someone with a broken leg on the side of a mountain. The initial procedures of action get the proper people to the staging area of a search operation since most accident victims will have to be found before they can be rescued. Rescue procedures are listed separately.

It is important that the field rescue leader collect all needed information before proceeding to the staging area. This is done by talking to the R.C.M.P. consulting maps of the area and determining weather conditions and amount of daylight available for immediate action. Equipment must be organized quickly and rescue volunteers must be recruited as soon as possible and given the proper information. At this point, the base rescue leader is contacted. He will then answer to any subsequent needs for manpower or equipment.

Once the field rescue leader has reached the staging area, whether it is at the Nelson heliport or at the end of a logging road, he must ensure that procedures will be carried out smoothly during the search and rescue. Search operations are carried out from a staging area. The field rescue leader is concerned with search strategy and management of the manpower and resources available to him. See Appendix V for a search strategy outline. In a large operation, the field rescue leader should have a radio rescue leader and at least two group leaders. An advisor would be useful to help plan a strategy for large searches.

When missing persons are found in need of technical rescue, the rescue procedures section of the plan is consulted. Rescues may be a preliminary action or a follow-up to a search operation. However, once a rescue is started, the field rescue leader is ultimately concentrating on technical procedures. Technical rescues are carried out most efficiently by a small number of well trained rescuers. This plan does not detail rescue methods but outlines general operational procedures.

Many things must be considered quickly and acted upon during a search and rescue operation. Much of what has to be done is common sense or determined by the responsibilities of the leaders. The procedures stated in the plan are only cursory. It is important that rescue personnel know what must be done in all rescue situations.

2.2 RESPONSIBILITIES

A statement of responsibilities gives concerned people an idea of what each job entails and clears up any confusion over who should be doing what. It is important, for instance, that the base rescue leader be available at all times to ensure a smooth flow of information, resources and manpower. Each rescue person's responsibilities complements the others so that an operation is carried out quickly and efficiently.

2.21 Field Rescue Leader

The field rescue leader is the central figure of any search or rescue operation. He is in charge of all field operations. The details of how an operation is carried out are ultimately his decision. The field rescue leader must ensure that everything runs smoothly and safely. In a rescue situation, he must determine what actions will be safe to undertake considering volunteer expertise and available resources.

2.22 Base Rescue Leader

In this plan, the base rescue leader's principle function is to provide support to the field rescue leader. The base rescue leader ensures a smooth flow of information, equipment and manpower. He spends most of his time doing administrative tasks such as keeping open lines of communication with medical support, transportation support, additional manpower and the authorities. He has to record all information on the master checklist. When an operation is completed, the base rescue leader checks manpower and equipment lists, delegates return of equipment, organizes a de-briefing meeting, and prepares a report on actions taken. The position can be filled by an R.C.M.P. officer or a responsible member of the Provincial Emergency Program Rescue Group.

2.23 Group Leader

Group leaders are needed more for searches than

rescues. In a large search, many responsible people are needed to cover a lot of terrain. The group leaders would take charge of a few people each and systematically explore all possible locations of the missing party. The group leaders report directly to the field rescue leader.

2.24 Radio Rescue Leader

The position of radio rescue leader is not always necessary. When the field rescue leader is busy organizing a search operation or major rescue, it is beneficial to have someone extra in charge of communications. The radio rescue leader also ensures that accurate records are kept of times, manpower and equipment. It is quite possible that many rescues can be carried out easily and quickly. In these cases, it is a waste of time appointing a radio rescue leader. The position is most likely needed during a search operation.

2.3 RESOURCES AND ADDITIONAL INFORMATION

Alternatives for acquiring equipment and manpower are listed in the third section of the plan. It is important to have all resource information close at hand. Volunteer lists should be inserted in this section and updated on a yearly basis. Equipment lists also belong in this section. It is important to know that the equipment is where the resource lists say it is. The resources section of the plan needs to be accurate, so yearly updating is mandatory.

2.4 FORMS

An effective search and rescue plan is dependent on effective communication and decision-making which, in turn, are dependent on having reliable information. A large part of this plan is made up of forms to ensure that all needed information is recorded. The appropriate forms should be readily available to all the leaders during all operations. These forms should be easily found in the back of the plan.

The field rescue leader checklist includes an accident report form, spaces for manpower and equipment lists, and spaces for times to be recorded. The form should be carried by the field rescue leader and updated as the operation progresses.

The base rescue leader checklist is referred to as the master checklist. All manpower and resource information

is recorded in the appropriate slots. A list of events, times and comments are also a component of the checklist. Accident information is detailed and notes on the outcome of a search or rescue operation should be included in the space provided.

A simple accident report form can also be found in the plan for all members of the Nelson Rescue Group. A few copies of this form should be kept near everyone's telephone so that they can accurately record important information when they are called out to help.

The group leader checklist is concerned with the manpower and resources that the group leader is responsible for. It also has space for search strategy to be recorded. The form should be carried by the group leader for the duration of the operation.

3.0 IMPLEMENTATION OF THE MOUNTAIN SEARCH AND RESCUE PLAN

The mountain search and rescue plan proposed in this report is only useful if certain considerations are respected. First of all, volunteer lists must be established and continuously updated. Call-out procedures, individual duties, search and rescue techniques, and emergency response must be practiced enough to ensure adequate expertise during a real operation. Practice sessions should be organized on a monthly basis. Copies should be made of all the forms and distributed to the appropriate people. It is vitally important that everyone involved in using this search and rescue plan understands the procedures. There is room for criticism of the plan, and changes should be made if they will make the plan more effective.

CONCLUSION

The proposed mountain search and rescue plan is document detailing basic procedures to be followed by the Nelson Mountain Rescue Group when an outdoorsman is lost or injured in the mountains of the West Kootenay area. The rescue group will work directly with the R.C.M.P. The plan does not explain actual search and rescue techniques but it does explain things that will be done in almost every operation. At present, there are experienced rescue personnel in the area and needed equipment is available. The proposed plan should be incorporated by the Nelson Mountain Rescue Group as a necessary outline of procedure. The format is simple with four clear sections. With this plan, the rescue group will be somewhat prepared for any possible search and rescue excursions. Effective use of the plan is dependent on practice, careful implementation, and detailed use of the forms. The proposed mountain search and rescue plan is a simple, easy-to-read guide to search and rescue in the West Kootenay area.

WORK CITED

Herman, Dennis. 1983. West kootenay area avalanche search and rescue plan, first search squad. Nelson.

Bult, Ian. 1983. Background research report: mountain search and rescue in the west kootenays. Castlegar.

Parfitt, Dave. 1971. Report on rescue from cape horn bluff, slocan lake. Kootenay Karabiner Volume 14: 9-11.

Mountaineers, the. 1982. Mountaineering, the freedom of the hills. Vancouver: Douglas & McIntyre.

APPENDIX I:

HISTORY OF MOUNTAINEERING AND
SEARCH AND RESCUE IN THE
WEST KOOTENAY AREA

MOUNTAINEERING

Very little mountaineering was done in the West Kootenays until after world war II. Only the easier and more accessible peaks had been ascended by this time. Through the fifties and sixties, British climbers moved to the area, greatly increasing the amount of climbing done. Even today though, the West Kootenay area is less crowded with mountaineers than other similar mountain regions.

ACCIDENTS

Accidents have been relatively infrequent occurrences in this area. Rescue was either carried out by the victims or managed by the R.C.M.P. There have been fatal mountaineering accidents in the West Kootenays. Searches and rescues have quite often been organized haphazardly after an accident has happened.

SEARCH AND RESCUE ORGANIZATION

Sometime between 1965 and 1970, a few members of the Kootenay Mountaineering Club felt that a mountain search and rescue group should be established here in the West Kootenays. In 1970, this group was organized. The members of the rescue group practiced techniques and acquired some of the necessary equipment. After seven years of existence, the group disbanded due to a lack of need for rescue capabilities. The group was called once by the R.C.M.P. to help out on a rescue. No other organizations have been started except for the recent introduction of the Provincial Emergency Program.

APPENDIX II:

RESCUE FROM CAPE HORN BLUFF
ON SLOCAN LAKE

REPORT ON RESCUE FROM CAPE HORN BLUFFS, SLOCAN LAKE

Mark Maddox, Gregory Peak, Charles Reed and Vicki Eggertsen, 22, had been on a four day climbing trip. They had climbed Devil's Couch on the west side of Slocan Lake, crossing by canoe. At approximately 7:00 p.m. on July 10th, they arrived back at the lake and loaded their seventeen foot canoe with themselves and their four large packs to make the return crossing. The canoe was not equipped with life jackets. The lake is about one mile wide at this point (between the mouth of Evans Creek and Cape Horn Bluffs).

About three-quarters of the way across a sudden storm swamped the canoe. All four of them stayed with the canoe attempting to get it to shore. Between one hundred yards and one hundred feet from the east shore, Reed, who had been suffering the most from the cold water, let go of the canoe and disappeared below the surface. About this time Vicki Eggertsen let go of the canoe and hanging on to her floating pack swam to shore. The shore line is very steep at the point where she landed and she had difficulty getting out of the water. She watched as Maddox and Peak got the canoe approximately ten feet from shore. When nearly within reach of her, Peak let go of the canoe and disappeared below the surface. She was able to help Maddox out of the water. He was completely incoherent and she left him on the ledge and started up the broken rock face towards Highway No. 6. They had landed approximately one-quarter mile south of Cape Horn Bluffs and the only route to the highway, seven hundred feet above, was over steep rockslides interspersed with small cliffs and steep slopes covered with wet vegetation. Miss Eggertsen climbed nearly half way to the highway then fell a short distance breaking her left leg just above the ankle. Maddox, who had recovered from the cold water, heard her scream and climbed up to her. It was dusk by this time and he left her to climb to the highway for help, reaching it shortly after 10:00 p.m.

Members of the R. C. M. P. were on the highway above the bluffs by 11:00 p.m. and a Forest Service boat which was alerted was at the base of the bluffs by 11:00 p.m. and spotted Miss Eggertsen on the face.

Corporal Aird and Constable Bloomfield attempted to reach her but found the route blocked by a cliff. They returned to the highway and Corporal Aird advised Constables Jordan and Gordon to start up from the lake. They reached the injured girl at approximately 2:00 a.m. and informed Corporal Aird that it would be almost impossible to take her back down the cliff by stretcher. Meanwhile Corporal Aird and Constable Bloomfield located a route to Miss Eggertsen below the cliff that had foiled their first attempt. After examining both routes in the dark Corporal Aird decided to call out the Kootenay Mountaineering Club Mountain Rescue Group. Assembling at Castlegar R. C. M. P. station at 3:00 a.m., they were driven to Slocan by the R. C. M. P. The five people involved were Ian Hamilton, John Carter, Howie Ridge, Lynn Lennox and Dave Parfitt. At Slocan they were briefed by Corporal Aird then Ian Hamilton and Howie Ridge left for the foot of Cape Horn Bluffs in the Forest Service launch, to re-assess the possibility of evacuating the casualty that way, while the rest of the group were taken to the point on the highway from which they could climb down to her.

By this time dawn was breaking. The Civil Defence Light Rescue Van was in position on Highway 6 above the bluffs and a basket stretcher from it was being carried down the first part of the route by Forest Service personnel as the other three members of the rescue group arrived. They climbed down to Miss Eggertsen, reaching her slightly in advance of Hamilton and Ridge. It had rained during the night and she was extremely cold and in shock. She was given hot soup and additional clothing. Meanwhile, Hamilton and Ridge arrived and confirmed that it would not be practical to take the stretcher down to the lake. Accordingly, together with Carter, they rigged a hand line over the first hundred feet of the uphill evacuation route, the most difficult part. This was firstly a traverse along steep terrain overgrown with bush, followed by crossing a

rubble chute, then up thirty feet of steep hillside to a comparatively flat area. Meanwhile Lynn Lennox, Dave Parfitt and Corporal Aird splinted the injured girl's leg. With six men as bearers, she was soon placed in the stretcher and transported along the fixed rope to easier terrain.

The route from here angled up over a large rockslide for two hundred yards, where a rope's length below the road the rock was smaller and less stable. A rope was attached to the stretcher at this point and R. C. M. P. constables on the road supplied tension to assist the group carrying the stretcher.

Miss Eggertsen was loaded into the Civil Defence Van for transportation to Nakusp Hospital at approximately 6:00 a.m.

The body of one of the drowned men was recovered several days later. The search for the other was abandoned.

Comments: The climbers' mistakes are obvious. As far as the rescue is concerned, we feel that had we been called out at 11:00 p.m., working with headlights, we could have removed Miss Eggertsen from the face two to three hours earlier.

Dave Parfitt,
Co-Ordinator, Mountain Rescue Group,
Kootenay Mountaineering Club.

APPENDIX III:

MOUNTAIN SEARCH AND RESCUE
PLAN FOR THE WEST KOOTENAY
MOUNTAIN SEARCH AND RESCUE
GROUP

INTRODUCTION

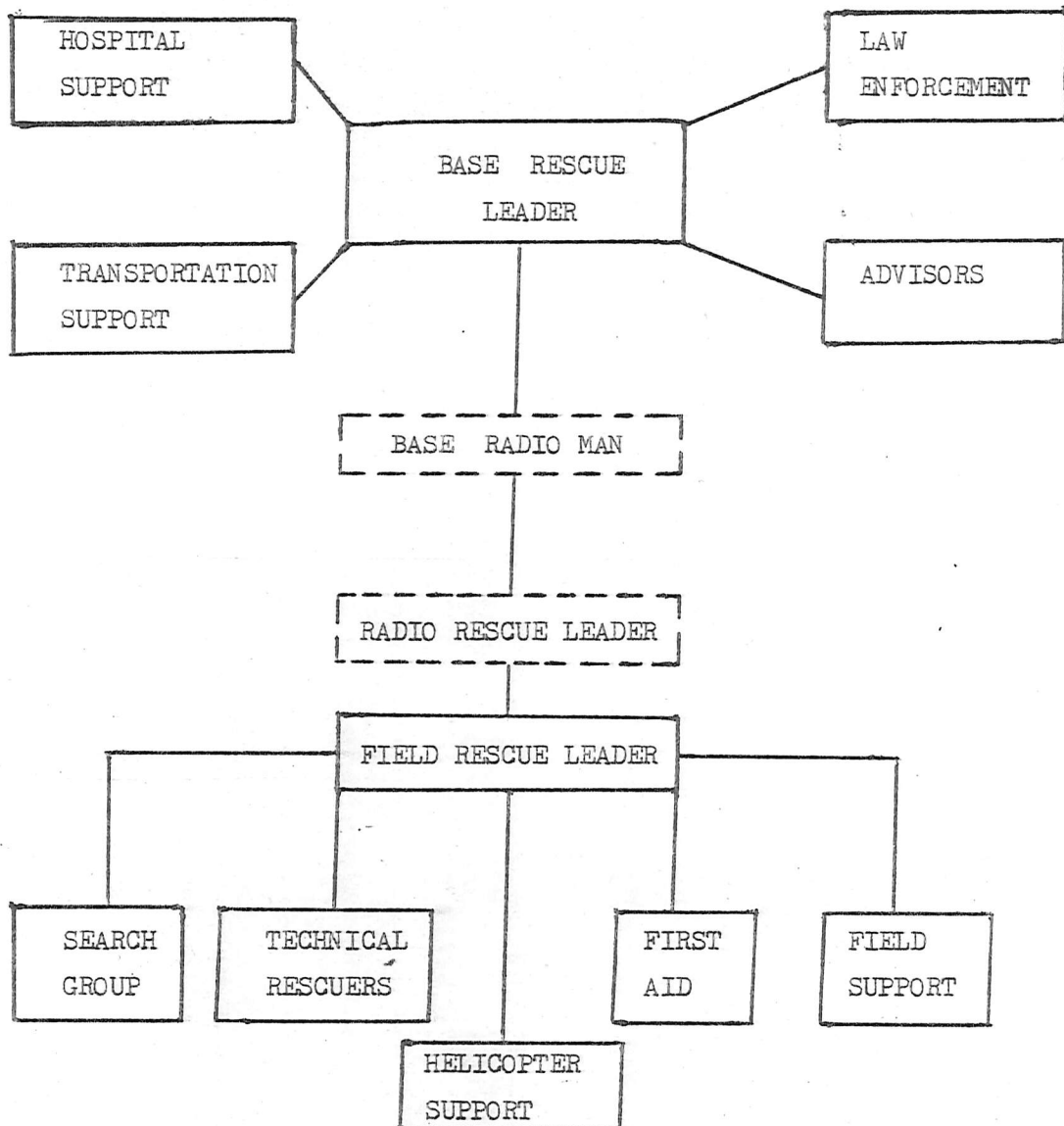
In the province of British Columbia the R.C.M.P. are usually the first to be advised of a lost or injured person in the mountains. If it appears that a search and rescue operation is beyond immediate R.C.M.P. resources, then volunteer members of the Provincial Emergency Program Mountain Search and Rescue Group are requested to assist.

The R.C.M.P. are responsible for search and rescue. During an operation, rescue group volunteers work under the direction of the R.C.M.P. When a party is overdue in returning from the mountains of the West Kootenay area, a search operation is initiated. Rescue operations are a progression of searches. If the situation dictates an immediate rescue response, then use the " Rescue Procedure " section of this plan.

The R.C.M.P. are responsible for the extent of a search and rescue operation, including the Emergency Program participation. They are also responsible for arranging rental of special equipment such as helicopters, planes or boats.

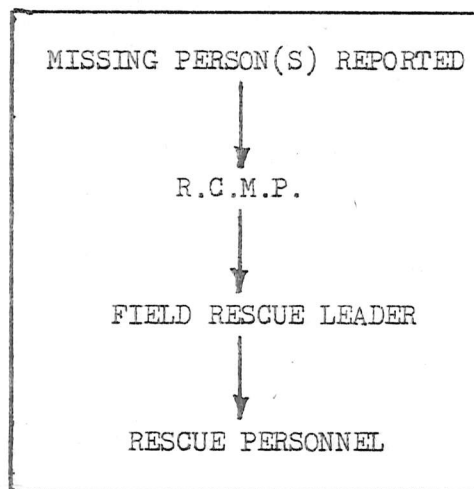
Enrolled members of the Emergency Program are covered by the Workmen's Compensation Act if called out by a responsible Emergency Program officer.

SEARCH AND RESCUE PERSONNEL FLOW CHART



SEARCH PROCEDURE (CALL-OUT)

1. R.C.M.P. requests the assistance of the Nelson Rescue Group. They may also just ask the rescue group to stand by.
2. A FIELD RESCUE LEADER is called and briefed on the present situation. He should start using Form I at this time.



CALL-OUT FLOW CHART

3. A BASE RESCUE LEADER is established at a convenient location (BASE). He should start using Form II at this time.
4. The BASE RESCUE LEADER contacts needed volunteers who can write important information on Form III. The BASE RESCUE LEADER also ensures open communication with support factions and the FIELD RESCUE LEADER.
5. The FIELD RESCUE LEADER collects needed resources and proceeds to the staging area with the initial search team.

SEARCH PROCEDURE (AT STAGING AREA)

1. Ensure that all personnel are properly equipped.
2. Carry out initial search. This is done most effectively by helicopter but the situation will dictate procedure. Initial and subsequent searches should be preplanned to cover terrain as effectively as possible.
3. If necessary, request additional manpower and resources to increase search efforts.
4. Designate a RADIO RESCUE LEADER to remain at staging area. Have him record names and times of personnel and equipment moving to and from staging area. This procedure may not be necessary in small operations.
5. Dispatch enough searchers to effectively cover area in which victim(s) is most likely lost.
6. Appoint GROUP LEADERS who can take charge of a small group of searchers. GROUP LEADERS will use Form IV.
7. Ensure that GROUP LEADERS know the terrain and where they should be looking.
8. Keep BASE RESCUE LEADER and the R.C.M.P. informed.
9. Brief additional manpower as it arrives and integrate into operation. Search personnel safety is a prime concern.

SEARCH PROCEDURE

10. Administer first-aid and quickly evacuate victims as soon as possible after being found. Preparations should be made for technical rescue if victims are found in need of assistance on technical terrain. The GROUP LEADER will contact the FIELD RESCUE LEADER as soon as possible so that an effective and safe rescue can be implemented.
 11. Upon termination of the search, collect all manpower names, equipment lists and notes. Make sure you can account for all personnel. Meet with GROUP LEADERS, RADIO RESCUE LEADER, BASE RESCUE LEADER, and the R.C.M.P. to de-brief the operation.
-

REMEMBER

Be prepared for the worst possible conditions.

Ensure open communication between all concerned.

Searchers should make noise followed by a period of silence so that victims can be heard.

Utilize knowledge of where victims planned on being and possible diversions from plans.

Open areas require few searchers while dense bush might have to be covered extensively.

RESCUE PROCEDURE

1. Evaluate hazards and possible risks
2. Set up field base for possibly complicated rescue operation.
3. Determine method of rescue and any additional resources needed, which should be requested as soon as possible.

Would the rescue involve RAISING
 LOWERING
 HELICOPTER FLY-AWAY
 GLACIER RESCUE
 STRETCHER EVACUATION

4. DO NOT EXCEED ABILITIES OF RESCUE VOLUNTEERS. IF
NECESSARY, CALL IN RESCUE EXPERTS FROM OTHER AREAS.
KEEP BASE RESCUE LEADER AND R.C.M.P. INFORMED.
5. Prepare for and carry out a safe evacuation.

REMEMBER

DO NOT EXCEED ABILITIES OF VOLUNTEERS or capabilities of the equipment being used.

The first concern is the safety of the victims. Ensure they get proper first-aid treatment and are kept warm.

Keep notes and work methodically (quickly and safely).

RESPONSIBILITIES

FIELD RESCUE LEADER

1. Plan and implement search and rescue operations.
2. Supervise and control all field operations.
3. Assure that all procedures are carried out with care.
4. Keep base informed of developments.
5. Maintain communication with GROUP LEADERS in a search operation.
6. Request assistance and equipment, as required.

BASE RESCUE LEADER

1. Dispatch personnel, equipment and supplies as requested by the FIELD RESCUE LEADER.
2. Maintain a record of all events during an operation.
3. Assure availability of needed support personnel and resources.
4. Co-ordinate the activities of the administrative support staff.
5. Keep authorities and news media informed.
6. Advise FIELD RESCUE LEADER of capability limitations.
7. Upon conclusion of an operation, check all manpower and equipment lists, delegate return of equipment, meet with FIELD RESCUE LEADER and other concerned people to de-brief operation and prepare a report on actions taken.

RESPONSIBILITIES

GROUP LEADER(S)

1. Proceed to staging area with needed resources as directed by the BASE RESCUE LEADER. Report to the RADIO RESCUE LEADER or the FIELD RESCUE LEADER and proceed to search area at his direction.
2. Keep control of your party. Safety of your group is your foremost concern.
3. Follow instructions of the FIELD RESCUE LEADER.
4. When victim(s) are found:
 - a) If possible, assure safety to victim(s).
 - b) Contact FIELD RESCUE LEADER and advise on further action (Technical Rescue?).
 - c) Render first-aid if possible.
5. Do not exceed abilities of the group members on mountainous terrain.

RADIO RESCUE LEADER

1. Report to staging area and record all useful information including names of volunteers and resources being used.
2. Relay information to GROUP LEADERS during search operations.
3. Facilitate communication between FIELD RESCUE LEADER and the BASE RESCUE LEADER.
4. Make sure all information, including times, is recorded.
5. Help the FIELD RESCUE LEADER with extraneous chores at the staging area.

RESOURCES AND ADDITIONAL INFORMATION

LIST OF FIELD RESCUE LEADERS

(Put list here)

RESCUE PERSONNEL AVAILABLE

(Put list here)

(ADDITIONAL RESOURCES
AND RESCUE EXPERTS)

Possibly Kootenay National Park Wardens
Service or local rescue experts.

FORM I: FIELD RESCUE LEADER ACCIDENT REPORT

TIME NOW: _____ TIME LOST PARTY CONSIDERED OVERDUE: _____

AREA INVOLVED (AS SPECIFIC AS POSSIBLE): _____

SITUATION (# OF PEOPLE MISSING, NAMES, EXPERIENCE, PLANS OF MISSING PARTY):

EQUIPMENT CARRIED BY MISSING PARTY: _____

LOCATION OF MISSING PARTY'S VEHICLE: _____

DESCRIPTION OF VEHICLE: _____

WEATHER: _____

ACTIONS RECOMMENDED OR REQUIRED: _____

NOTES: _____

FORM I: FIELD RESCUE LEADER CHECKLIST

FIELD RESCUE LEADER NAME: _____

FIRST PARTY MEMBERS: _____

EQUIPMENT: _____

TIME OF ARRIVAL AT STAGING AREA: _____

TIME:

SITUATION

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

NOTES: _____

FORM II: BASE RESCUE LEADER CHECKLIST

BASE RESCUE LEADER: _____ DATE: _____

TIME

SITUATION

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

FIRST PARTY MEMBERS: _____

ADDITIONAL PARTY MEMBERS: _____

RESOURCES BEING USED: _____

COMMUNICATION NOTES: _____

FORM II: BASE RESCUE LEADER CHECKLIST

MISSING PARTY FOUND AT WHAT TIME: _____

NEED FOR TECHNICAL RESCUE: YES _____ NO _____ SITUATION DETAILS:

RESCUE DETAILS: _____

MISSING PERSONS NAMES:

CONDITION

_____	_____
_____	_____
_____	_____
_____	_____

DETAILS OF INJURIES: _____

OPERATION SECURE: TIME _____ DATE: _____

ALL MANPOWER ACCOUNTED FOR: _____ ALL EQUIPMENT ACCOUNTED FOR: _____

NOTES: _____

FORM III: ACCIDENT REPORT FORM AND VOLUNTEER INFORMATION

NAME: _____ DATE: _____

TIME NOW: _____ SITUATION: _____

AREA INVOLVED: _____

LOCATION OF STAGING AREA (RENDEVOUS LOCATION): _____

TIME OF RENDEVOUS: _____ PROCEDURE TO FOLLOW: _____

EQUIPMENT: _____

NOTES: _____

REMEMBER:

MOVE FAST BUT SAFELY

BE PREPARED FOR THE WORST CONDITIONS

KEEP NOTES

FOLLOW FIRST AID A-B-C's

DON'T FORGET YOUR BOOTS!!

DO NOT EXCEED ABILITIES

COMMUNICATE CLEARLY

STAY CALM

BE POSITIVE WITH VICTIMS

DON'T FORGET YOUR RAINGEAR!!

FORM IV: GROUP LEADER CHECKLIST

GROUP LEADER NAME: _____

GROUP MEMBERS: _____

EQUIPMENT: _____

TIME:

SITUATION:

MISSING PARTY FOUND: _____

RESCUE REQUIRED: _____

DESCRIPTION OF LOCATION: _____

NAME OF VICTIM:

CONDITION:

FORM IV: GROUP LEADER CHECKLIST (ACCIDENT INFORMATION)

VICTIM INJURY DETAILS: _____

RESCUE RECOMMENDATIONS: _____

DESCRIPTION OF ACCIDENT: _____

AVAILABLE EQUIPMENT (AT ACCIDENT SITE): _____

RESCUE DETAILS (AFTER OPERATION): _____

ALL MEN ACCOUNTED FOR: _____

ALL EQUIPMENT ACCOUNTED FOR: _____

NOTES: _____

APPENDIX IV:
A DESCRIPTION OF THE
WEST KOOTENAYS AND MOUNTAIN
RECREATION IN THE AREA

THE WEST KOOTENAYS

The West Kootenay area is located in the south-east corner of British Columbia. The area is a part of the Columbia Mountains. These mountains are divided up into two ranges known as the Selkirks and the Purcells. The Arrow Lakes, Slocan Lake, and Kootenay Lake lie between these two ranges in a north-south direction. Most of the area is heavily forested up to 7000 feet above sea-level. The country above this elevation ranges in character from gentle meadows to rugged glacier hung peaks.

The West Kootenays are considered to be an interior wet belt. In comparison with the Okanagan region, this area receives a lot of precipitation. Winter brings heavy snowfalls. Summer and fall are dryer seasons with temperatures reaching 35 degrees Celcius in July and August. In winter, the temperature can drop to -35 degrees Celcius, but is mild for much of the time.

WILDERNESS AREAS

The mountains of the West Kootenays are rugged both above and below treeline. Except for human settlement in the main valleys, this area could be considered wilderness. The land above treeline is characterized by alpine lakes, meadows, scree slopes, cliffs, rock peaks, glaciers and snow slopes. Travel over this terrain varies from easy walking to difficult technical climbing. Below treeline, the West Kootenay area is characterized by avalanche paths, dense forests and impenetrable bush. This is interrupted though, by logging roads, clearcuts, burned off areas, small patches of grasslands, and wilderness hiking trails.

MOUNTAIN RECREATION IN THE WEST KOOTENAY AREA

This area lends itself well to many varried forms of recreation. Rivers, caves, meadows, forests and mountains are the playgrounds of local outdoor enthusiasts.

MOUNTAINEERING AND HIKING

The local alpine regions are quite easily accessible and provide limitless hiking and climbing opportunities. Both forms of recreation are popular in the area. On a sunny day in Kokanee Glacier Provincial Park, a hiker is bound to meet quite a few fellow outdoorsmen. Mountaineering can be done in a glacier setting or on small rock spires. The Kootenay Mountaineering Club has regular trips into the local mountains. Hiking and mountaineering activity is heaviest during July, August, and September, when the ground is free of snow.

HUNTING

Hunting is fairly popular in this area. White-tail deer, mule deer, elk and grouse are the most available game to hunt. This activity is mostly confined to the sub-alpine regions. Hunters mainly stay on existing roads, old logging roads, trails and open hillsides.

FISHING

Fishing is a popular sport on many of the lakes and streams of the West Kootenays. A lot of the sub-alpine lakes are stocked providing fairly good fishing. Fishing in this area is not superb in relationship to other areas in British Columbia, but many local people enjoy the many diverse settings where fishing is fair in the West Kootenay area.

CAVING

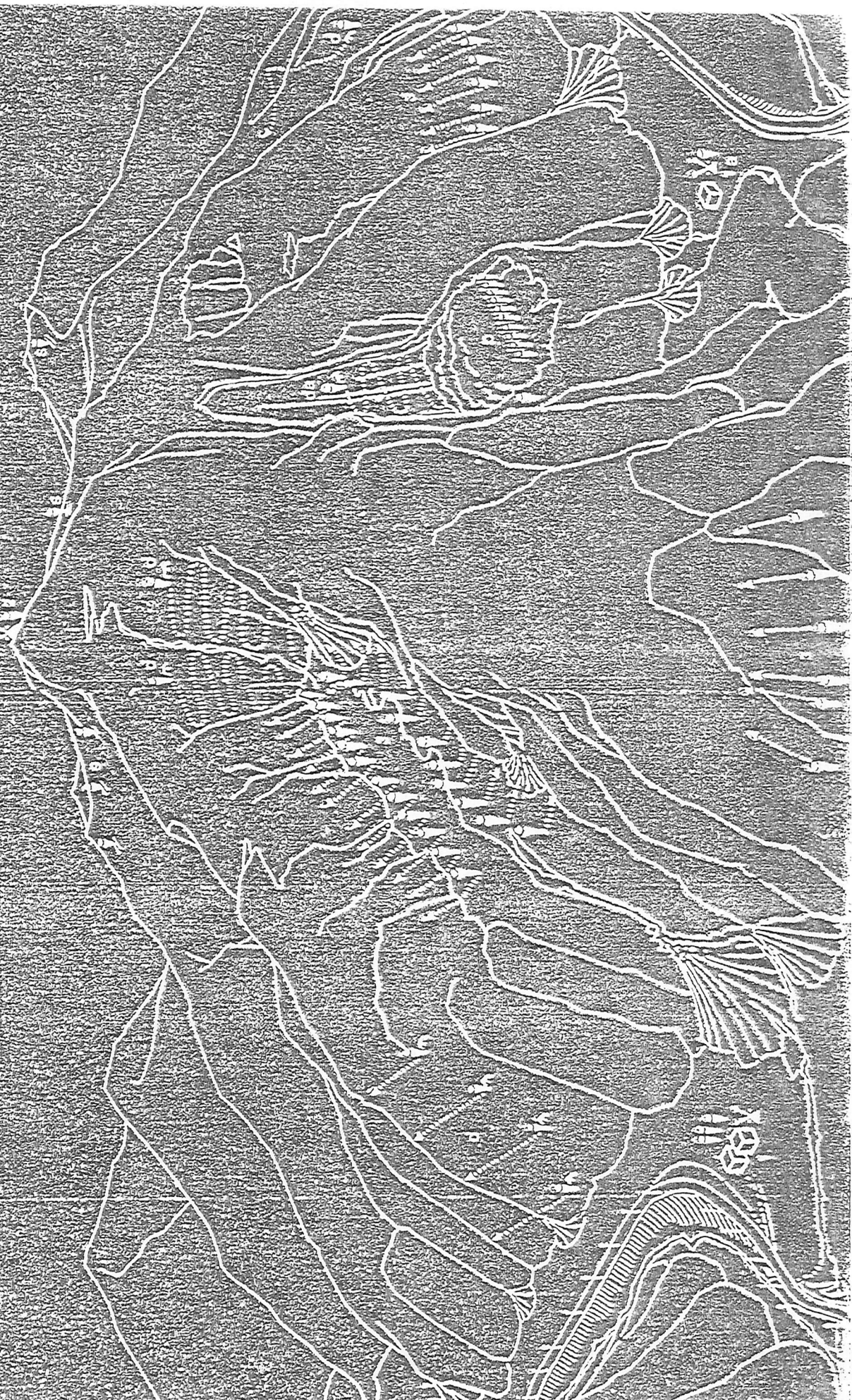
Although not a very popular sport in this area, caving should be mentioned due to the rescue implications of an underground accident. Cody caves, near Kootenay Lake, is the best known and most frequented cave of the area. Many inexperienced cavers venture into the Cody system so there is potential for lost or injured adventurers.

APPENDIX V:
SEARCH STRATEGY

Searches

A large scale search

Research carried out by the British Antarctic Survey (BAS) has revealed that the vast majority of the world's searchers are concentrated along the coast of Antarctica. The results of the search are shown in the map below. The map shows the distribution of searchers in the Antarctic region. The searchers are concentrated along the coast of Antarctica, particularly in the area of the Antarctic Peninsula. The map also shows the distribution of searchers in the Arctic region. The searchers are concentrated along the coast of the Arctic region, particularly in the area of the Arctic Circle. The map shows that the searchers are concentrated in the coastal areas of both the Arctic and Antarctic regions. This is because the searchers are looking for the remains of ships and aircraft that have been lost in the Arctic and Antarctic regions. The searchers are also looking for the remains of people who have been lost in the Arctic and Antarctic regions. The map shows that the searchers are concentrated in the coastal areas of both the Arctic and Antarctic regions. This is because the searchers are looking for the remains of ships and aircraft that have been lost in the Arctic and Antarctic regions. The searchers are also looking for the remains of people who have been lost in the Arctic and Antarctic regions.



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