

Chapter 1

Standard Operating Procedures

Abstract: This chapter discusses the philosophy and operating procedures of the China Lake Mountain Rescue Group.

History

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1.1 Introduction

In forming and managing a rescue group, many value judgments must be made. These judgments involve the type of organization desired, the kinds of operations to accept, and the rules of operation to follow. A group's ideas will evolve as experience grows and situations change. This manual contains the current ideas of the China Lake Mountain Rescue Group (CLMRG). This chapter defines the Group's philosophy and standard operating procedures.

1.2 Philosophy

The CLMRG formed because of two perceived needs. It seemed to us that experienced mountaineers should offer their services to those in trouble in the mountains. In addition, we wanted a formalized rescue capability to exist for our own aid in case of an accident.

We need to be well prepared. This requires a good training program. At the same time, we need to keep members interested and active and not frighten off prospective members with too rigid a qualification structure. A lot of work is involved, but we don't want members swept away by



overdoing things. Somehow at China Lake, we seem to have struck a good balance between an all-fun mountaineering club and an all-work-and-rules rescue team.

On any actual operation, we must direct our main effort to aiding the person called the victim here we are trying to find or rescue. Not so obvious, but equally important, are the safety and public relations aspects.

We have found that safety tends to be overlooked when we are trying to save a life. This tendency is sometimes necessary, but it means that our rules must be clear and more rigidly enforced on operations than on recreational activities.

One aim of a rescue group must be to enjoy a good reputation with the public and with the agencies that control Search and Rescue (SAR) operations. Without this, the group is not called and its capabilities are not used to perform rescues not even for its own members. Thus, we must operate so as to inspire confidence in the victim, the victim's family, the legal authorities, and the general public. One consequence of this is that we must respond to virtually any SAR operation for which the authorities request our aid.

1.3 Organization

The Group has changed considerably since its inception in 1958, generally toward more discipline and organization. Despite the examples of other rescue teams, we are reluctant to give our leaders too much authority or to bind our members to overly strict rules. The present rules and organization have evolved over a considerable period and appear to be a reasonable compromise. We have a dual structure one for administration and one for operations. Although this may seem unnecessarily complicated, it works well.

1.3.1 Operational

- Leaders
- Technical
- Rescue
- Support
- Trainee
- Special Skills
- Coordinators

1.3.2 Administrative

- Officers
- Qualifications Committee
- Committees
 - First Aid
 - Equipment
 - Training



– Public Education

- Others: MRA representative, Newsletter Editor, Sheriff’s meeting representative
1. The members elect the officers.
 2. The members elect the Qualifications Committee (QC).
 3. The members rank the potential leaders.
 4. The QC, using the above data, determines the number of leaders.
 5. The officers appoint the committees.
 6. The QC places members in the roster categories.

For administration, elected officers and appointed committees handle training, equipment, finances, public education, and liaison with other groups. We select officers and committees annually, which gives everyone a chance to share the work.

For operations, elected team leaders run all aspects of field activities. We elect these leaders annually, and our call roster lists them in their order of ranking by the membership. We respond on operations only if a leader is available. Normally, the first leader contacted and able to participate becomes the operation leader.

The Group’s call roster lists all members who are qualified and willing to respond on operations. An elected Qualifications Committee (QC) places members in the proper categories on the roster.

On any Group activity, the highest listed field member on the current call roster is in charge unless other arrangements have been made. This holds for all operations, training activities, and outings. This policy throws a lot of responsibility on the leaders, but it reduces disorganized activity that can endanger lives.

Our Group is one of several mountain rescue teams that operate in California. We belong to the national Mountain Rescue Association (MRA) and to the California Region Mountain Rescue Association (CRMRA). CRMRA sponsors workshops and conferences to improve existing teams’ capabilities, tests new teams for proficiency, and promotes the exchange of information and close cooperation among teams in the state.

1.4 Qualifications

The QC recommends general qualifications for the Group’s approval and places members in the proper categories based on their experience and ability.

Our levels of expertise for field members are Technical, Rescue, and Support. The appendix to our Group’s Bylaws in Chapter 2 briefly describes the qualifications for these categories while Chapter 3 lists and describes them in detail. All members requalify annually to retain their status.

New applicants are placed in the Trainee category after completing the requirements for acceptance. As soon as a Trainee has demonstrated dependability and mountaineering potential, we put him on the call roster as a Support member so that he can participate on operations. Support members can advance to the Rescue level after about two or three years of experience.

Rescue members are mountaineers who assist on technical rescues and participate fully on less technical rescues and searches. Some Rescue members are former support members who are working actively to become qualified as Technical members. Others may be good climbers who do not choose (or may not have the time) to become trained in all SAR skills. Still others may be former



Technical members who no longer maintain the minimum qualifications for Technical status but whose experience and leadership are important on operations.

Advancing from Rescue to Technical usually takes two or three years of active participation in operations, training, and climbing. Technical members are expected to know how to carry out all phases of technical rescues and searches. They must be skilled in all of the specialties of first aid, technical climbing and rescue, tracking, search strategy, and leadership.

Coordinators and Special Skills members, are listed separately on the call roster. Coordinators assist the operation leader in the initial mobilization for an operation by having the roster called for field members to participate. Coordinators interface with the requesting agencies, the Kern County Sheriff's Office, and the media. They provide in-town coordination as a home base communication link for liaison and logistics during the course of the operation. Special Skills members are usually non-mountaineers who possess useful skills for operations such as ham radio operation, telephoning, and medical support.

A Coordinator or Special Skills member must have a current Special Deputy card. In addition, to participate in other than an "at home" role, the Coordinator or Special Skills member must have current CPR and first aid cards.

We list each member's special capabilities and resources in separate columns on the roster. This allows an operation leader to easily communicate his priorities during a callout. Items listed at the present time indicate a ready pack (stored at the rescue hut), rescue climbing lead rating, tracking ability, winter or ski mountaineering qualification, Emergency Locator Transmitter (ELT) training, and four-wheel-drive vehicle. These items can change as operational experience indicates the need.

1.5 Training and Equipment

All field members are expected to engage in regular aerobic and altitude conditioning exercise and to be active on Group outings, practices, and operations. Participation in Group climbs is especially encouraged as a means to gain altitude acclimitization, terrain familiarization, and practice in climbing skills and rope handling. Learning the capabilities, limitations, and demeanor of other Group members is vitally important.

The Group's training program includes training in mountaineering and rock climbing, SAR techniques, and first aid. In our summer basic mountaineering classes, we try to get people interested in climbing and in the Group. Our trips into the Sierra Nevada and nearby desert ranges every one or two weeks teach further aspects of mountaineering. Two or three stretcher practices per year teach rescue techniques and teamwork. One or two practice searches a year teach search, organization, and tracking skills. Qualified Group members teach first aid classes under the auspices of the American Red Cross. The classes are designed to have a mountaineering situation bias.

The best training comes, of course, from actual operations. Frequently, Rescue members who are working toward Technical status are included in the technical phases of an operation. This way, they can learn by working with veterans. Leadership training comes the same way by observing the operation from the inside.

Books on mountaineering and SAR can provide a background. A list of recommended books can be obtained from the Training Committee.

New members receive a list of recommended personal gear for operations. They should obtain these items as soon as possible. Good boots and bivouac gear are necessary for going into the field. Members are also asked to have a brightly colored parka (preferably orange), an orange shirt, a specified first aid kit, a headlamp, slings and carabiners, and a helmet. Expensive gear such as climbing ropes and hardware can be furnished by experienced climbers on training climbs so new members need not buy them right away. Members who have enough gear should consider placing



a ready pack and clothing bag in the rescue hut. This will speed up mobilizations during both working and non-working hours.

Initially, we had trouble getting our individualistic mountaineers to wear anything suggesting a uniform. Now, however, our veterans realize the usefulness of a uniform parka and shirt. If our Group looks professional, we get a stronger voice in the operation and can do more good for the victim. Also, we are more apt to instill confidence in the family and friends of the victim. The color is a very highly visible international orange so that our teams are easily spotted. Headgear and packs are non-uniform to permit distinguishing individual members at a distance.

The Group owns specialized rescue gear and radios. We have accumulated equipment slowly as we learned what we needed. After improvising stretchers from cabin doors and airplane wings, we became convinced of the need for backpackable stretchers. The aluminum breakdown Stokes litters are light enough for one person to carry. With each litter go some rope slings for anchors and rigging, aluminum hardware, 200-foot ropes, and a bottom cover to make the litter more usable on snow. For the victim's comfort, we have a foam pad that fits into the litter and a specially made sleeping bag.

Communication was a serious problem that we have solved by buying better radio gear. We now have a reasonably complete radio capability on the special emergency FM frequencies of 155.160 MHz and 155.235 MHz. These channels are also used by the other mountain rescue teams in California, which makes cooperation easier on joint operations.

The Group also owns several Global Positioning System (GPS) navigational units. GPS technology locates rescue teams precisely and has proved to be very useful.

Currently, all Group equipment is stored in our rescue hut located at 76-A Harpoon Street at NAWS, China Lake. To simplify equipment selection, most operations begin with a mobilization at the hut. Occasional "hut nights" familiarize members with the location, setup, and operation of Group equipment.

1.6 Conduct of Operations

Each operation is different. A certain pattern, however, has emerged, and we have worked out procedures and rules for each phase of an operation to ensure efficiency and safety. These are discussed in the order normally occurring on an operation: alert, mobilization, transit, base camp, joint operations, in the field, evacuation, return home, and critique and report.

1.6.1 Alert

Calls for the Group's assistance usually come from a county sheriff or a park ranger. These agencies are ultimately responsible for conducting SAR operations. The call eventually reaches a Group leader who assumes responsibility for responding, decides what kind of response is appropriate, and enlists a Coordinator to call field members. Exceptions to this rule occur if another leader already has the weekend duty or if the contacted leader cannot go. If a leader is not available, we do not field a team.

Delicate situations can arise between the authorities and our Group if we start an operation before being requested officially. If the problem appears urgent, however, we should mobilize and get on scene while at the same time trying to notify the responsible agency of the problem and our ongoing response.

The operation leader decides whether to put members on alert or to have an immediate mobilization. He tells the Coordinator the kind of operation (search or rescue), its location, how many members and what skills (rock climbers, trackers, winter, ELT, etc) he wants, when and where to meet, the



type of gear likely to be needed, and how many days to prepare for. This information is passed on to each member. The leader also decides who to call and in what order. He is under no obligation to call a member who in his judgment lacks the proper experience or equipment. When called, members have three possible responses: “Yes”, “No”, or “Later.” Members who are going must understand the information given, when and where to meet, and what gear to bring. If it is an alert, they should get ready and keep the Coordinator informed where they can be reached until the alert is over. Members who are not going must not delay the callout by asking questions.

New leaders can obtain examples of leaders’ notebooks that contain alert and callout sheets, addresses and phone numbers, base camp log sheets, report forms, and general information. Leaders should add any information they want and keep the notebooks current. Leaders may want two notebooks, one at home and one at work since they are likely to get called at any time.

1.6.2 Mobilization

Members, with their gear, meet at the designated place (usually the rescue hut) and time. When packing, if in doubt about gear, members should take anything they might need to the mobilization point. They can always leave unnecessary items behind. The first members to arrive should start to organize the Group equipment for the operation. This will help get the team on the road faster and may prevent something from being forgotten.

As soon as everyone is present, the operation leader briefs all members about the nature of the problem and what his plans are. Up to this time, any member may withdraw for personal or technical reasons. Beyond this point, a member should have a very good reason for dropping out or for refusing a leader’s directions. In particular, no member should withdraw in a manner to discredit the leader or Group, nor should anyone leave without informing the leader.

Members and gear are divided among the available vehicles and a rendezvous location is agreed upon. Drivers should be sure they know where to go and how to get there. A team leader should be in charge of each vehicle and responsible for the equipment it carries.

Often, sending an advance team to stabilize an injured victim, to evaluate the situation, or to coordinate with other teams present is a good idea. The advance team needs maps, radios, and first aid and survival gear but can leave heavier items for others to bring. The advance team may go by helicopter with the other members following in vehicles.

1.6.3 Transit

The Explorer vehicle is capable of carrying four members and gear. It should be used because of its installed radios and the expense of driving personal vehicles. If more than four members respond, we normally use personal vehicles. While en route, members can discuss possible actions and gear likely to be needed and organize their packs accordingly. Members can discuss matters that should not be talked about in base camp and forewarn newer members. Examples of sensitive topics are the victim’s chances of survival and how to report a fatality knowing that our radio frequency is monitored. If the driving time to base camp is lengthy, consider stopping every hour or two en route to call and verify that the operation is still going on. Monitoring specific radio frequencies to receive updates of the operation is also possible.

1.6.4 Base Camp

The rendezvous point may be at a campground or a trail head. If no base camp is established, the advance team and the operation leader should help choose a location. This should be done deliberately. Most inexperienced rescuers are in a hurry to get into the field, but 10 to 20 minutes



of discussion usually saves time later. It might save the entire operation. The operation leader needs to be sure that he has all the pertinent data before moving everyone to a new location or committing teams to the field.

If our team is the first to arrive, we should set up base camp for the entire operation. This means getting information about the victim and determining what has been done already, what other teams are expected to participate, and what general plans have already been made by the person in charge. It means selecting a spot to set up base radios, getting maps ready, and making suggestions to the person in charge. Explaining carefully why we are staying in base camp and not going into the field immediately is important. It helps if everyone in base camp is busy. When base camp is in order and an initial plan is made, teams can then go into the field. An expanded base camp staff may be needed until all teams arrive and are briefed and in the field.

Initially, base camp is likely to appear to be a very confused place. Newer members unsure of what to do are best advised to get their packs ready, inventory team resources (technical gear, ropes, tents, food, stoves, etc.), and wait for their leader to return with a field assignment.

Each team going into the field needs a field team leader, one or more radios, maps, and someone good at route finding. A GPS navigational unit should be taken if available. Each team should be self-sufficient and prepared to render vital aid to the victim. Aid to the victim is likely to mean (1) food and water (at least one canteen just for him), (2) warm sleeping bag and pad, stove and pots, etc., depending on the weather, and (3) first aid (each member should carry the prescribed personal first aid kit).

When teams go into the field, base camp coordinates their activities. Field team leaders must remember to keep base camp informed of their location and progress. It is more usual to pass too little information than too much. When radio traffic is low, a team should consider giving its location and plans to base camp in case radio contact is lost later. Base camp always welcomes ideas and suggestions from teams in the field. Radio messages should be thought out in advance to keep the radio net from being overloaded. Search teams should not try to rush but should be careful and thorough. Even advance teams on a rescue should go carefully enough to avoid getting off route or missing the victim.

The operation leader and other team leaders usually ask for opinions before acting. A leader however, is not expected to debate his decisions during the operation. Unless safety is a factor, members should follow the leader's decisions faithfully.

The operation leader should bear in mind that the sheriff's deputy or park ranger has the final say on most matters. Once we have voiced our opinion, it is usually not wise to persist if he disagrees. Remember that he has very definite responsibilities that we must respect. We can refuse any dangerous mission, but it is worthwhile for the operation leader to explain carefully why an assignment might be too dangerous.

If news reporters appear, the responsible officer or the operation leader usually designates one person to brief the them. Other rescuers should not discuss the operation with anyone unknown to them. In particular, nothing derogatory concerning the victim, his companions, other rescue teams, or the legal authorities should be voiced.

1.6.5 Joint Operations

When other mountain rescue teams are involved, a single joint operation leader is chosen to direct the operation. Normally, he will be the leader of the first team called or the leader of the "home" organization. Our operation leader should stay in base camp to help run the operation and to act as liaison for our Group. If he chooses to go into the field, he should designate another Group leader as base camp liaison. Only if our team is very small should this be neglected. We normally have an area or task assigned to our Group with our leaders in charge of our members in the field.



On joint operations, we follow the joint operation procedures adopted by the CRMRA. Our leaders are expected to know these procedures and to keep a copy in their notebooks.

1.6.6 In the Field

For safety, no one travels or acts alone. If any one member gets separated, the entire operation switches to finding him. We hope that the knowledge that this will happen is enough to discourage lone adventurers. Another safety rule is that no one is asked to climb beyond his level of confidence. Also, all anchors, brake setups, and litter riggings are checked by a designated safety officer before use.

Whenever a large team is about to divide into smaller separate teams, members should sit down and discuss plans. Each team leader should be sure that his intentions are known by the other leaders and by the operation leader. Then he should follow his plan.

A log should be kept at base camp and by each team leader to record the dispatching of field teams (including names and radio numbers), loans of equipment, radio messages, significant events, and volunteered information with name address, and phone number of the informant.

1.6.7 Evacuation

When the victim is reached, the team leader must think about treatment and evacuation. He should try not to do these jobs himself but should designate other rescuers to be responsible.

A vital thing to consider is communication. The more base camp knows, the more it can help, and the less chance that unnecessary and dangerous activities will be initiated. (Remember, for example, that each helicopter flight into the mountains carries some risk.) The best rule is to keep base camp fully informed.

The team leader should assign one rescuer to stay with the victim (one for each victim) throughout the evacuation to render first aid as needed. This is far better than having several rescuers all trying to help. He can learn the victim's needs and explain delays. Also, he can monitor and record vital signs. If a helicopter evacuation is planned, he can explain to the victim what to expect.

The stretcher must be set up rapidly, since much of first aid consists of getting the victim into a warm sleeping bag and into the stretcher. Simultaneously, teams need to scout the route for evacuation. Picking a good route and setting anchors properly requires highly experienced rescuers.

1.6.8 Return Home

The operation is not over until all teams are out of the field and back home and all equipment is returned to the hut in ready condition. The operation leader is responsible for seeing that all gear is returned and properly stored and that final reporting is completed. Also, he should inform the Quartermaster of any non-functioning or worn equipment (including maps).

1.6.9 Critique and Report

After the operation, the operation leader must write several reports. He should fill out the Group operation report immediately. If the operation caused members to miss work, the leader must write an excused time request. He should note who drove and how far so the drivers can be reimbursed. He should write a narrative report including lessons learned if appropriate for the Talus Pile. He should document mountaineering accidents on the American Alpine Club's form for their annual



survey. All these reports should be filed with the QC. After reviewing the reports, the QC distributes them.

A critique is especially important for complicated or controversial operations. The operation leader should consider contacting the other groups involved, including the officer in charge. In addition to getting information, these contacts can clear up any outstanding problems or misunderstandings. Normally, a critique is held at the next Group meeting. Any ideas for improving operations and any problems encountered should be aired at this time. The Talus Pile report and search and accident reports can be modified after this critique to take advantage of the discussion. However, the reports should be timely.

A stress debrief should be considered after any operation that involves an unsuccessful search or a body recovery. Critical stress debriefs should be led by experienced facilitators and counselors, who are available at the Desert Counseling Center.

1.7 Public Relations

Volunteer groups such as ours are subject to unheralded demise, so we must regularly let people know that we are still around and active. A good public relations program depends on being able to perform as expected. The program thus starts with an examination of what we promise. Our circulars to legal authorities must be clear and honest. We must avoid any appearance of boasting or of making promises we cannot keep.

Fund raising depends on public recognition of our worth. We have a Public Education committee whose function is to organize demonstrations and presentations about the Group. No harm results from letting it be known that we will accept donations. An equally important function of this committee is to reach potential victims with our safety education program before they get into trouble.

On operations, we must appear as professional as we are. The uniform shirt and parka are part of this appearance. Neatness of our base camp is important. Our behavior must be above reproach, particularly regarding the fate of our victim. Members should be very careful with off-hand remarks around base camp. One careless comment overheard by someone outside the Group could jeopardize years of work in building a good working relationship with the authorities, with other rescue teams, and with the public.

Publicity about operations should be fair to everyone involved. We should never release a report critical of other organizations unless the entire Group has so voted. Almost always, we are only part of an operation and act under the authority of some legally responsible agency. Any news release should mention under whose authority we were called. We should credit all participating groups accurately. On a search, we normally do not credit the specific person or team who actually finds the victim because the success of the operation depends on the contributions of everyone involved.