Standards for MCSA (Cape Town Section) SAR Team Members

This document aims to detail three measurable levels of competency to which potential team members of SAR (Search and Rescue) would be trained before being accepted onto the team. Depending on their role and function within the team, each person would be expected to comply with one or more of these levels. Compliance is defined to mean that a person has fulfilled the hiking and climbing minimum requirements as set for a particular level and has demonstrated to the satisfaction of the technical training group that they are proficient in all the skills specified for that level. This is a constantly-evolving document and the requirements as outlined below may change from time to time.

The hiking and rock-climbing requirements proposed below are intended to set the basic background knowledge and skills of the team member. We are a voluntary organisation, able to contribute search and rescue services because we do these things recreationally. Since we are not a full-time, professional team that trains and works in this field on a full-time basis it is only because we spend a lot of time doing this recreationally that we have these fundamentals. Hence they are valid requirements upon which to build specialised search and rescue skills.

It should be stressed that the standards as laid out in this document are intended not only to illuminate the criteria upon which we expect to include potential members of the team, but also as a means by which current members may improve their skills, for inclusion in a more technically advanced team. Mountain rescue is a team activity. The MCSA has a strong search and rescue component because of the varied skills that are brought together; it is not expected, nor required that everyone who joins the team will be a top rock climber, or rope technician. Dedication and willingness to work within the team to the best of one's ability are the most valuable prerequisites.

The following are the three levels of competency:

- **SAR Mountaineering**
  This is the level required by all field team leaders. It includes all non-technical operations (simple stretcher carries, searches, etc) where the primary object of the certification is to ensure that team members can take care of themselves on the mountain and, additionally, be able to render assistance to others. In addition, you will be expected to be familiar with safety in working in and around helicopters and be familiar with the hoisting procedure for Oryx, Alouette III and Skymed 2. For night and overnight operations we would expect all team members to be classified at this level.
- **SAR Technical 1**
  This is the basic level of technical competency required of any team member participating in a technical operation (ie. on steep ground with ropework).
- **SAR Technical 2**
  This is the advanced level of technical competency required of our core technical team. It must include experience in actual operational rescues. All technical field leaders, safety officers, team members with advanced helicopter capabilities (ie:

"helicopter team") and people who "go over the edge" on all but the simplest of technical operations would be expected to possess this level of proficiency.

Detailed requirements of each level

- **SAR Mountaineering**
  - Approximately 100 or more mountain day-walks in a variety of mountain ranges.
  - 5 or more hikes of more than 2 nights out.
  - Good map-reading and navigation skills, including a knowledge of latitude/longitude, as well as UTM grid systems. Familiarity with the use of navigational aides such as compass and GPS.
  - Knowledge of the various stretchers in use and proficiency in their assembly and the conveyance of patients.
  - Basic radio communication skills.
    Familiarity with Mountain Rescue radios and systems.
    Knowledge of basic voice procedure, familiarity with callsigns and interaction with other agencies in the system.
  - Knowledge of basic helicopter procedures and safety.
    Limited to helicopters as transport.
    Hoisting procedure.
  - Ability to assess a situation and provide good sitreps, including weather, condition of patient, safety of the party on the scene. Also, requirements analysis.
  - Attended at least one basic first-aid course.
  - Possess the ability to move safely over complex mountain terrain while carrying personal equipment.
- **SAR Technical 1**
  In addition to the requirements of SAR Mountaineering, team members should have the following skills:
  - Proficient in ordinary, traditional (non-sport) rock climbing as a leader:
    - Placing gear
    - Belaying
    - Ropework
    - Have lead 10 or more rock climbs of grade 14 (F1) or higher
  - Equalising anchors
  - The basic set of knots used by the SAR team:
    - Figure-8 on a bight, figure-8 follow through, figure-8 double loop
    - Clove hitch, Munter hitch, slip hitch
    - Stopper knot, double fisherman's knot, tape knot
    - Prusik knots
    - Dog's tail, Alpine Butterfly
  - Joining ropes
  - Safety belaying
  - Descend ropes with a variety of descenders
  - Ascend ropes with handled ascenders, prusiks, or slings
  - Changing direction while ascending or descending a rope and passing knots

- o Set up a Z-lift system:
  - With the load rope as part of the system
  - As a separate, independant system to the load.
- o General operational procedures at a technical rescue scene
  - Field roles and responsibilities
  - Safety ropes, clipping in, helmets, etc.
- o Helicopter rope extraction procedures
- **SAR Technical 2**
  Whereas the Tech 1 level stresses personal skills, Tech 2 emphasises that the team member will, in addition, possess knowledge and experience in system skills and be able to work within a team, in a technical ropework setting. Team members will have met all of the requirements of SAR Mountaineering and SAR Technical 1 plus the following:
  - o Have lead approximately 100 or more trad rock climbs of grade 15 (F1) or higher
  - o Experience in belaying, ascending, descending, etc as for SAR Technical 1, but with any of the appropriate equipment in the SAR trailer:
    - Proficiency in using all of our tools
    - Advanced improvising skills such as belaying or abseiling with a Munter hitch, or being able to construct simple systems using only basic equipment such as slings and carabiners
  - o Have attended periodic refresher courses in first aid, with an emphasis on trauma and mountain-related medical emergencies.
  - o Technical systems:
    - Lowering and lifting systems
    - Abseil pickoff
    - Portaledge system
    - Aerial cableways
    - Rigging the Table Mountain Cablecar
  - o Helicopter technical SOPs:
    - Safety and general principles, including being able to give a safety briefing at the helicopter
    - Hoisting (single person, double, with equipment)
    - Stretcher hoisting, the use and setup of backropes, etc
    - Advance helicopter techiques (rapelling, short-haul, etc.)
    - Night-flying operations

These requirements may change from time to time, as necessary. We encourage people to undertake additional training and will provide equipment and instruction for such training, if necessary. We also encourage people to offer comment and constructive criticism on any of the requirements outlined above. The Mountain Rescue team has a proud tradition of excellence in the field of Search and Rescue and a safety record that we would like to maintain. Feel free to contact any committee member with rescue-related queries.

MCSA (Cape Town Section) SAR Sub-Committee