

Special rescue from heights and depths – cable-way rescue



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Special rescue from heights and depths

Rescue technique and operations necessitates a perfect knowledge and mastery of equipment used in different spheres:

- difficult access,
- confined spaces,
- highlines...

Education programme

Special rope rescue courses are organized:

- in two levels (basic L1, advanced L2),
- in the seat of certain unit (fire department), so the characteristics of terrain are included in education programme,
- helicopter rescue programme is developing by Administration for civil protection and disaster relief (Ministry of defence);

Why training?

It is important to recognize that it is impossible to help others, if you do not take care of yourself.

All systems must have a back up safety system!

Cable-way



Important

- to evacuate the passengers from all types of ski lifts, rescuer must intervene in any weather conditions,
- several different teams must be able to react rapidly after breakdown,
- cooperation with other rescue services requires coordination,
- rescuers must react with maximum safety in minimum time
- double check of equipment before rescue,
- risk of injury because of fatigue,
- if you make a mistake, you will not be able to talk about it later!

Preparation

- personal protective equipment (PPE),
- suitable garment for rescuers (winter, summer,...),
- coordinate activities with other rescue services on the field,
- form rescue teams of three members),
- difficult access (terrain, snow, bad weather...);

Equipment

PPE:

full body harness, helmet (2), descender, ascender, round slings, static rope (11 mm, 50 – 100 m), carabiners (snaplock, HMS, up to 10), knife, headlamp, gloves;

Equipment:

Special equipment:

large auto locking connector for cables, rescue roller for cables, rescue triangel, lanyard (Petzl Grillon);



Charasteristics of cable-way rescue

- advanced rope rescue,
- difficult acces, use of PPE is necessary,
- becouse of regular training, there will be a kind of automatism during the action;

Technic characteristics

- rescue approach is based on cave and mountain rescue technic,
- equipment used must be lightweight and reliable,
- maneuvers of rescuers must be simplified,
- be fast, but beware of the risk of fall,
- use simple, efficient and safe technic;

Rescue team

- made up of three members:
 - No. 1 - on the ground of the tower,
 - No. 2 - upper rescuer,
 - No. 3 - on the ground below gondola/chair lift,
- after a while (from tower to tower), rescuers are relieved to avoid danger of injury;

Access on the cable-way tower

- by using a mountaineering climbing technic,
- reducing the height of the fall by anchor points during climbing using round slinks,
- all activities on the tower must be supported by rescuer on the ground of tower;



Access on the cable-way tower

- using ladder (weather conditions, ice, snow,...),
- anchor point on top of the tower while fixing roller and connector on the cable;



Access on to the cable

Rescuer is supported throughout the descent:

- by rescue rope (controlled by rescuer on the ground of the ladder),
- by a lanyard rope through the descender (5 - 10 m long, 11 mm);

Chair lift

- communication between rescuer and passengers,
- different types of chair lifts (sitting places) and towers;



Chair lift

- while fitting a rescue triangel and helmet on one passenger, take care of the other by fixing her/him with round sling,
- safety bar with footrest;



Gondola

- communication,
- opening the doors of the gondola by pressing the safety mechanism on top of the gondola,
- descending into gondola,
- mounting the helmet and rescue triangle,
- rescuing is controlled by rescuer on the ground of the tower (in the start over the tower, later over upper chair/gondola);

Gondola

- access/descent on the cable,
- access to the gondola,
- positioning on top of the gondola



Gondola evacuation

- complete check before start,
- upper rescuer help while passenger is leaving the gondola,
- evacuation/rescueing of passengers is supported from the ground all the time;

Traversing a cable

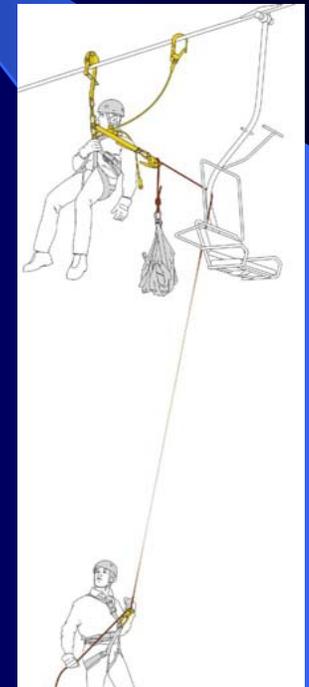


Traversing a cable - procedure

- if safety rope is long enough, there is no need to displace anchor point,
- rescuer on the ground of cable-way tower is supporting upper rescuer during ascending/descending from the cable to the gondola and backwards,
- cable connector and rescue roller have to be transposed over the gondola/chair carrier;

Traversing a cable when anchor point have to be displaced

- traversing a cable must be efficient, simplified and fast,
- unnecessarily complications during searching for appropriate anchor point (tree, tower...) can take too many time;



Rescue services in case of cable-way accidents

- mountain rescue services,
- ski resort rescue teams,
- professional firefighter departments,
- others (medical services...);

Ski resort teams

- rescue equipment by Pooma, Girak...,
- chair lift approach:



Ski resort teams

- gondola evacuation:



Conclusion

- mountain rescue services and professional firefighters use similar or even the same rescue equipment and technical approach (Petzl),
- distinction between ski resort rescue teams equipment and Petzl equipment (MRS, PFFA) is noticeable, but it can be used very similar;

Therefore

- jointly training is recommended,
- we can be better together;

Thank You for Your attention.



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