ICAR Congress 2017

Rescue techniques in big walls
Theo Maurer

- Head of Training
  Swiss Alpine Rescue

- Mountain guide
Wendenstöcke

200 – 300 metres vertical, overhanging
2300 – 3000 m above sea level
Eiger - North Face

1800 metres rock, snow, ice
2200 – 4000 m above sea level
Which resources are used

Primarily helicopters are used
Resources / Techniques

Helicopter with a rescue winch
(winch rope up to 85 metres long)

Helicopter with a longline on a central hook
(rope length up to 230 metres)

Purely terrestrial (not used in big walls)

Combined rescue (helicopter and terrestrial)
1. Helicopter with a rescue winch

Winch rope up to 85 metres long

Pilot
Paramedic (operates winch)
Technical Specialist Helicopter (mountain guide)
Doctor (intermediate landing site)
Eiger - North Face

18 December 2016, 18:00

1 climber injured
Exit chimneys 3650 m above sea level
Night

Decision:
Helicopter with a rescue winch
Eiger - North Face

18 December 2016

19:15 Start of mission
19:45 Mountain guide put down by patient

20:15 Patient rescued
18 December 2016

20:30 Slight mist
   Wait 15 minutes

20:45 Start second trip

21:15 Second climber and mountain guide rescued
Conditions for a rescue of this type

Training for the helicopter crew, realistic and in the simulator

Latest technology
High-performance helicopter with a winch
1. Night vision goggles (NVG)
2. Fixed landing light
3. Integral searchlight
4. Big searchlight
5. Landing light 30° to the left
6. Winch spotlight
2. Helicopter with a longline on a central hook

(rope up to 230 metres long)

Pilot
Paramedic (supports the pilot)
2-3 Technical Specialists Helicopter (mountain guides)
Doctor (intermediate landing site)
Lauterbrunnen base jumper
Lauterbrunnen base jumper

7 August 2016  Mürrenfluh

19:25 Base jumper crashes
Lauterbrunnen base jumper

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19:25 Base jumper crashes

19:40 Reconnaissance flight with helicopter

Base jumper alive
Overhang 25 metres

20:10 First attempt at a direct rescue with a longline
Lauterbrunnen base jumper

7 August 2016  Mürrenfluh

20:30 Evaluation of the situation

Decision:
To put down 2 mountain guides in the wall with a longline

Abseil terrestrially beneath the overhang

Rescue with a longline
Lauterbrunnenen base jumper

7/8 August 2016 Mürrenfluh

20:45 Start of mission

2 mountain guides put on wall via a longline
Terrestrial to beneath the overhang

Advance with bolts in the dark

03:30 Mountain guides reach patient
Await daylight
Lauterbrunnen base jumper

8 August 2016  Mürrenfluh

06:15 Daylight
   Abseil patient

07:15 Rescue with a longline

07:45 End of mission
Lauterbrunnen base jumper
Thank you