Very special

Aviation journalist and helicopter pilot ***Stephan Mark Stirnimann***** describes his 'rescue' by the Swiss helicopter mountain rescue service. Pictures: Roger Steiner*

As part of their yearly refresher, the Swiss mountain rescue service REGA, in co-operation with Swiss Rescue Mountaineers, was given the task of evacuating a group of journalists 'marooned' in a broken-down cable car high in the Alps. The exercise took place at the cable railway of 'Mettmen Alp' in the Swiss canton of Glarus on June 8th, 2016.

According to Roger Baumann, a representative of all 2,452 different Swiss cable transport operators, there is only one cable railway evacuation by helicopter per year in Switzerland. As most of the operators have access to emergency power or diesel engines, and maintain so-called 'rescue cars' specifically for emergencies, the red and white Swiss rescue helicopters are very rarely needed.

However in some situations the helicopter can be the only option for a safe evacuation, especially if the cable car is stranded over rough ground and a terrestrial evacuation by abseiling would be too risky. With a group of fellow journalists I was able to experience how it feels to be flown out, dangling on a 100-foot, half inch thick rope.

First we entered the cable car and 'drove up' halfway to the top station, which lies at 5,275 feet above mean sea level. The operator stopped us at a height of some 200 feet over rough terrain – trees and rocks – where abseiling was not an option.

Pretending there was no emergency or backup power and no help was available from a rescue car which would normally be positioned at the top station, the REGA helicopter, an AgustaWestland 109 SP Grand 'Da Vinci', made its way to our position with two Rescue Specialists Helicopter (RSH) hooked up together at the end of the 100 foot

Left: badge of the REGA base in Mollis, which flies 300 rescue missions a year

air service

rope. It was quite a sight to see these two mountain specialists approaching our car, trying to get a good grip. The downwash from the helicopter in relatively calm wind conditions was definitely noticeable and gave the whole exercise an air of real-life drama.

As soon as both rescuers had been safely dropped off onto the cable car roof and had secured themselves, it took just a few moments for one of them to open the hatch and give us a big smile. In a real-life rescue scenario, it would certainly comfort distressed passengers to see the friendly face of their 'hero'. In the meantime the helicopter landed in a field further down the valley and shut down its engines.

With soothing but firm words, our rescuer explained to us the procedure: we would be flown out in pairs, and each of us had to get into so-called 'rescue triangles', nicknamed 'diapers'. These enable you to fly in a comfortable seating position with three metal rings joined in front of you.

Now came the most daring part: climbing through the hatch on top of the cabin, everyone being clipped safely to the railings, my partner and I trusting to the capabilities of our rescuers. With the next pilot on board – several pilots did the refresher training – the helicopter was already hovering above us, and the rope with its huge shiny hook on the end was safely caught by one of our rescuers.

After the hook was attached to a combination of rings and mountaineering ropes between me and my partner-to-be-evacuated, we were released from the safety bars and we could feel first a gentle, then a firm pull up – and off we went! Adrenaline rushed through our bodies as we gained height. Then

REGA's workhorse, the twin-engine AgustaWestland 109 Grand 'Da Vinci'

Far left: two Rescue Specialists Helicopter approaching the 'stranded' cable car
Left: safely on top of the car, the 'RSH' begin the process of evacuating those trapped
Above: the friendly face of a rescuer appears at the hatch in the cable car roof

there was a change in direction: we felt a horizontal acceleration while losing altitude, flying past the steep sides of mountains, rocks, waterfalls and streams. We knew the "flight" wouldn't last long and as experienced aviators we enjoyed this most exciting part of the exercise. At the final touchdown we were helped by a crew member on the ground who was telling the pilot in command how many feet above ground we were. It was a soft touchdown indeed!

In comparison to this thrilling experience, the next exercise, abseiling down onto unchallenging terrain, was rather easy and relaxing. The same procedures were repeated, the helicopter dropping the rescue team onto the roof of the cable car and leaving them equipped with enough rope to abseil

Left: in difficult terrain the helicopter may have to carry trapped people some distance Above: author's-eye view upwards, hanging under 100 feet of steel-reinforced cord

everybody. The most difficult part was to unhook us once we reached the ground, and avoid tripping into puddles.

The Swiss mountain rescue service REGA is a private, independent organisation which relies on subscriptions from members – currently it has about

Above: safe on terra firma, Stephan holds the 'diaper' in which he was rescued
Right: less-exciting terrestrial rescue means abseiling onto safe terrain

2.5 million – to fund its operations, and which charges members no fees for search, rescue and repatriation. Its air arm was founded in 1952.

Each REGA helicopter carries a crew of three – a pilot, an emergency doctor, and a paramedic who is trained to assist the pilot in radio communications, navigation,

Left: members of the REGA with the Swiss Alpine Club mountain rescue team
Below: pilot and paramedic-winchman assess the situation from above
Right: ground crew member makes a final check on the rescue rope and hook


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terrain avoidance and winch operations. When they are evacuating cable cars or rescuing climbers from rock faces, a specialist crewman trained by the Swiss Alpine Club is carried.

REGA operates 17 helicopters – six EC145s, which are used in lower altitude areas, and 11 AgustaWestland 109 SP Grand 'Da Vinci' models. With parent company Finmeccanica having now changed its name to Leonardo

Left: the array of cables makes manoeuvring a rescue helicopter extremely tricky
Above: Senior pilot Marco Lehmann (4th from left in red REGA uniform) briefs the team
Right: flying in a narrow valley with low clouds calls for exceptional airmanship

Aerospace, this helicopter is now of course the 'Leonardo Da Vinci'. They also have three Bombardier Challenger jets for repatriation. The name 'REGA' is a conflation of the German and French words for Swiss Air Rescue Guard.

Unusually, members in distress can call REGA direct from their mobile phones. They can also call on REGA to repatriate them from foreign countries in case of medical emergency.

While it is financially and operationally free of government, REGA operates hand in glove with the Swiss Air Force, using its tracking facilities and radio network where necessary. It also has close

relationships with police, ambulance and fire services, the Swiss Alpine Club and the road rescue organisation TCS, Touring Club Suisse.

In Switzerland the maximum rescue time (starting with sounding the alarm and ending with the last person safely on ground) is stated as three and a half hours – a time frame that was more than met, with professionalism and good co-operation between the teams of the REGA and the Swiss Alpine Club. Senior Pilot Markus Reichenbach said that only two things had made the day's exercise a bit harder – rain on the windscreen distorting the view, and additional cables of a transportation lift for a new mountain hotel. In common with all cables in Switzerland, these had been officially reported and had been incorporated on special obstacles maps, which are constantly updated.

The Mettmen Alp is an idyllic place for a holiday. In fact, it encompasses Europe's oldest nature reserve, the 106-square-kilometre 'Freiberg Kärpf' where you can see different kinds of deer, mountain goats, marmots, eagles and even black grouse. For more information see www.glarnerland.ch and www.berghotel-mettmen.ch. For dam enthusiasts, check out the Garichti reservoir and its dam, built between 1929 and 1931. It produces 130 million kWh of electricity per year thanks to a 'fall' of 3000 feet. And for all you helicopter fans, there might always be a chance of witnessing an evacuation by the Swiss REGA – preferably an exercise!

**Stephan Mark Stirnimann is a former instructor with North Shore Helicopters in New Zealand and has some 850 hours on the R22, R44, B206 and EC120. He has a Mountain Flying Endorsement and is currently doing scenic flights in a JetRanger.* ❑

Below: Swiss aviation writer Stephan Mark Stirnimann before his evacuation… Main photo: …and after, just a few feet before touchdown