

Encounters Rescue above the fog Despite the adverse weather, the Rega crew from Erstfeld is able to rescue three people in distress in a single day. **8**

Horizons Collapse in the kitchen After undergoing an emergency operation in Vienna, a woman from Ticino is flown home in Rega's new ambulance jet. **24**



Rega's new H145 helicopter

The interior took two years to design – now the first new Rega helicopter has been handed over to the crew in Berne. We tell you what particularly distinguishes it. **18**



The new Rega jet in Lugano (Canton Ticino): when preparing for takeoff, one of the pilot's routine checks is to examine the aircraft for external damage or irregularities.

“A small contribution with a big impact.”



Karin Hörhager
Editor-in-Chief

Dear Reader

A few weeks ago, I watched a Rega mission from my balcony. An injured hiker had to be airlifted with the rescue hoist from a steep, forested slope – not in the mountains, but in the lowlands. The incident was the talk of the neighbourhood and afterwards I was frequently asked about it. My conversation partners all

agreed: it is good that Rega exists. Naturally, I fully concur with this sentiment. However, the fact that Rega is able to provide emergency assistance from the air and come to the aid of over 10,000 people in distress every year is not something that can be taken for granted.

With your annual contribution, you – as a patron – keep Rega in the air, thus enabling the operation of 12 helicopter bases spread all over the country, the 24-hour availability of our crews, our ultra-modern Operations Centre, and investments in state-of-the-art aircraft and infrastructures, such as hospital helipads, and many other things. It is a small contribution, but with a big impact. And a sign of solidarity, too. For even if you do not need Rega’s help yourself, you can be certain that your contribution can make all the difference to someone else in an emergency.

For example, to the three casualties who were rescued in a single day by the Rega crew from Uri. You can read on pages 8–12 how it was possible to perform these rescues from the mountains to the hospitals under the high-lying blanket of cloud.

I wish you an entertaining and fascinating read, and would also like to take this opportunity to thank you most sincerely for your support.

A handwritten signature in black ink, appearing to be 'KH' with a long horizontal stroke extending to the right.



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Through the fog thanks
to instrument flight rules



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Back home in
the new Rega jet



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by Rega's design engineer



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new H145 rescue helicopter

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Knowledge Here you can find some interesting facts and figures relating to the theme.



Online Further details or even a visual titbit are available online via the given link.



Additional information More on the topic that we would like to share with you.

- Visit us at our website www.rega.ch or on www.facebook.com/reg1414.

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Encounters

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Take off

In brief

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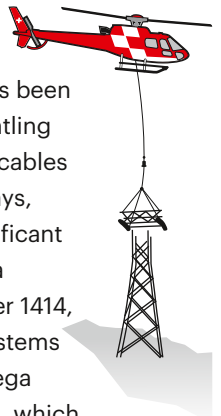


The second new Rega jet now in operation

On 26 July, Rega's second new Challenger 650 jet from Canadian manufacturer Bombardier landed at Zurich Airport. Just two weeks later, a Rega crew flew the first patron from southern Europe back to Switzerland on board the new ambulance jet with the registration number HB-JWB. The third new Rega jet, HB-JWC, is scheduled to join the fleet in November. Then the project to procure three new ambulance jets will come to an end successfully and on schedule.

H125 training helicopter used to dismantle aerial cableways

For a number of years, Rega in collaboration with the Swiss Army has been involved in dismantling disused transport cables and aerial cableways, which pose a significant risk for aircraft. Via emergency number 1414, owners of such systems can contact the Rega Operations Centre, which then arranges for the obstacles to be dismantled and disposed of free of charge. This summer, Rega's training helicopter, the H125 from Airbus Helicopters, was employed to carry out such transport flights for the first time. Rega uses the H125 to train up-and-coming pilots to perform flights with an external load and flights in mountainous regions.



Memorial stone for Rega pioneer Fritz Bühler

Rega pioneer Fritz Bühler was the first Chairman of Swiss Air-Rescue. He considerably shaped the organisation in the 1960s and '70s, and is regarded as one of the founding fathers of the modern-day Rega. This summer, the Swiss Air-Rescue Association (SRFW) renovated the Fritz Bühler memorial site by the Fallboden lake, above the Kleine Scheidegg (Canton Berne), and inaugurated it in the course of a ceremony. In an address, Rega CEO Ernst Kohler praised Bühler's achievements and pointed out that his pioneering spirit lives on in Rega today.



Stunning views for 2019

This year, too, Rega employees have captured unforgettable moments and moods with a camera during Rega missions both at home and abroad. Order your Rega Calendar 2019 now.

► Orders: Rega Shop from page 33 or www.shop.rega.ch

Rega's new H145 helicopter on the Bundesplatz

The helicopter bases in Berne and Basel are currently being equipped with Rega's new H145 helicopter from Airbus Helicopters (see pages 18 & 19). Rega plans to present its new rescue helicopter to the Swiss population at various public events. It will land on the Bundesplatz in Berne on Friday, 2 November and Theaterplatz in Basel on Saturday, 17 November. On Wednesday, 27 February 2019 it is Zurich's turn. The crews from the Rega bases in Lausanne and St. Gallen will also be performing missions with the new rescue helicopter by mid-2019. The H145 replaces the tried-and-tested EC 145 helicopter, which transported over 60,000 patients during its



15 years in the service of the Swiss population.

► More information about the events in Berne, Basel and Zurich: www.events.rega.ch

Expansion of the helicopter fleet

In addition to the six H145 helicopters already purchased, Rega has ordered a seventh helicopter of the same

The numbers in this issue:

1,287

guided tours of the Rega Centre or a helicopter base were organised by Rega last year.

894

HP is the power generated by each of the two engines that drive the rotor blades of Rega's new H145 helicopter.

Four

7

more hospitals will soon be able to be flown in poor visibility too. The instrument approach flights to the hospitals in Nottwil, Zurich, Lucerne and Winterthur are currently undergoing certification by the Federal Office of Civil Aviation FOCA.

type, which will join the fleet in the middle of 2019. More missions and increased training make great demands on the availability of the helicopters. By expanding the Rega fleet to 18 helicopters, Rega is ensuring round-the-clock availability of its 12 helicopter bases countrywide for the coming years.

Rescue above the sea of fog

How the Rega crew from Erstfeld rescue three people in one day and fly under instrument flight rules through the blanket of high-lying fog to deliver them swiftly and safely to hospital.

8





40

weather stations installed or expanded by Rega supply round-the-clock flying weather data.

10

The Reuss Valley in Uri is shrouded in low-lying cloud on this Sunday morning in February. Already at just under 200 vertical metres, the steep walls on the left and right of the valley floor disappear in the dense fog. From the bright blue sky that promises a beautiful winter's day ahead, not a single ray of sunshine breaks through the fog cover to reach the Rega Erstfeld base at 402 metres above sea level. The TV in the recreation room at the helicopter base is showing slow panning shots from the weather cameras in the winter sports resorts. Everywhere the picture is the same: perfect winter sports conditions above an almost seamless sea of fog. So far, the slopes are still empty. The base of Rega 8 – the Uri crew's radio call sign – is already a hive of activity. Immediately after the joint briefing with his colleagues, pilot Stefan Bucheli completed the daily check on the rescue helicopter. Meanwhile, paramedic Gery Bissig and emergency flight physician Marion Städler have checked the medical equipment – Rega 8 is ready for operation.

Blue above, grey below

Today's fog poses a challenge for the crew. The skiers and snowboarders are above the fog, the hospitals below it. "Helicopters usually operate under visual flight rules and are prohibited from flying through a dense bank of fog for safety reasons – even on rescue missions," Bucheli explains. "Thanks to what are known as 'instrument flight rules', however, we are able to pass through a blanket of cloud on a predefined flight route and approach the military airfield in Emmen, for example, even when visibility is at a minimum." Outside the operating hours of the Emmen airfield, such as at the weekend, approaches are only permitted under instrument flight rules (IFR) and take-off is prohibited. The IFR route is therefore only an option for transport to hospital. If the crew are to assist an injured person above the fog today, they will have to find a gap in it that will allow the helicopter an ascent under visual

flight rules. On the computer, Bucheli carefully checks the data from the Rega weather stations and the live images from webcams at the various locations. That gives him an overview of the current weather situation and lets him see how far the sea of fog stretches. He is interrupted by a call from the Operations Centre over the radio on his desk: "Primary mission on Mt. Titlis, shoulder injury." The scene of the accident is above the fog. Less than three minutes later, Rega 8 has taken off and is flying beneath the fog over Lake Uri towards Zug. The aim is to find a hole in the fog cover. On the webcam, the pilot had managed to make one out towards the Albis.

Lifted off the mountainside

A few minutes later, the crew find the gap they were looking for, and Rega 8 climbs beyond the clouds into the sunshine. The cockpit is flooded with light, and the imposing sea of fog stretches across the full north side of the Alps. The mountain peaks of Central Switzerland rise like islands out of the fog. The crew check again the coordinates that the Rega flight coordinator has sent directly to the tablet computer in the cockpit and study the additional information: an off-piste skier has suffered a fall away from the slopes and hurt his shoulder. At the accident scene, Rega flight physician Marion Städler is lowered on the rescue hoist to the injured man. While she is providing medical assistance, pilot Stefan Bucheli and paramedic Gery Bissig wait at a temporary landing site and discuss the next stages of the mission.

Instrument flight route through the fog

Their plan is to use the Emmen military airfield's instrument flight approach to fly the patient to Nidwalden Cantonal Hospital below the fog. "Just a few months ago, that would not have been allowed on a Sunday. However, now that we have special authorisation from the Federal Office of Civil Aviation (FOCA), Rega can use the IFR approach at the weekend and



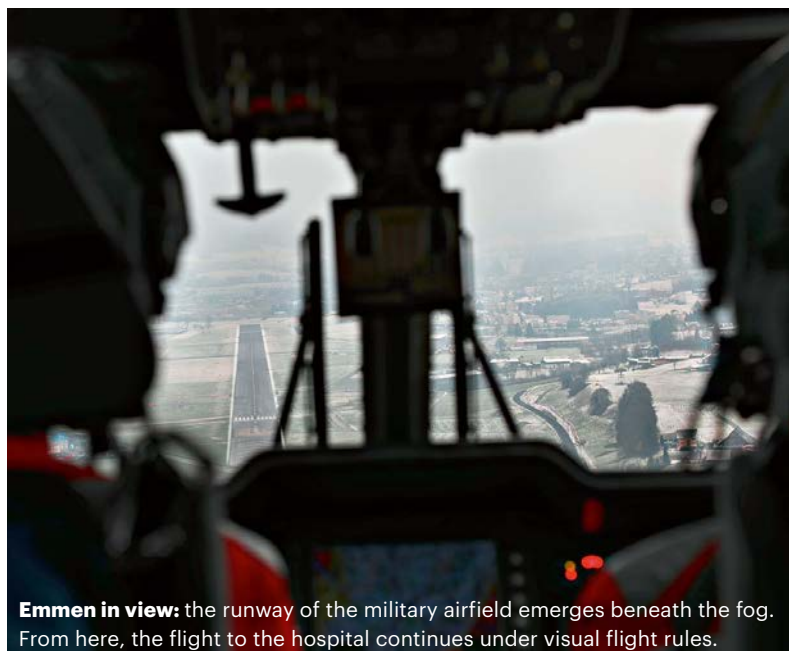
In contact with the Operations Centre: pilot Stefan Bucheli reports the suspected diagnosis, hospital and time of arrival, so that the flight coordinator can notify the hospital of the casualty's details.

during the night,” Bucheli explains. Over the radio, Rega physician Marion Städler reports that she has attended to the patient and prepared him to be transported by rescue hoist. Pilot Stefan Bucheli starts the engines and paramedic Gery Bissig gets ready at the open door for the rescue hoist operation. Moments later, the flight physician and the injured man are suspended beneath the helicopter on a 90-metre-long steel rope. At the temporary landing site, the casualty is transferred to the helicopter and the crew take off for Emmen. Over Central Switzerland, Bucheli switches to the instrument flight route. From this point on, the helicopter flies along the route using the ultraprecise autopilot – with Bucheli and Bissig checking that the parameters are maintained. As the helicopter slowly dips into the sea of fog, darkness fills the cabin. Inside the heavy grey fog, visibility is less than a metre. After a time, it begins to thin out and the runway of Emmen military airfield comes into view. Once beneath the fog, Rega 8 flies under visual flight rules to Nidwalden Cantonal Hospital in Stans.

As soon as the casualty has been handed over, a call comes in on the radio from the Operations Centre in Zurich with the next mission: a skier has had a serious fall in the Airolo ski area and has a suspected broken ankle. On this second mission, too, the crew find a hole in the blanket of fog, climb to a flying altitude of 3,000 metres, and fly over the Gotthard Pass towards Airolo. Having received medical attention at the scene of the accident, the young patient is to be flown to Lucerne Cantonal ▶



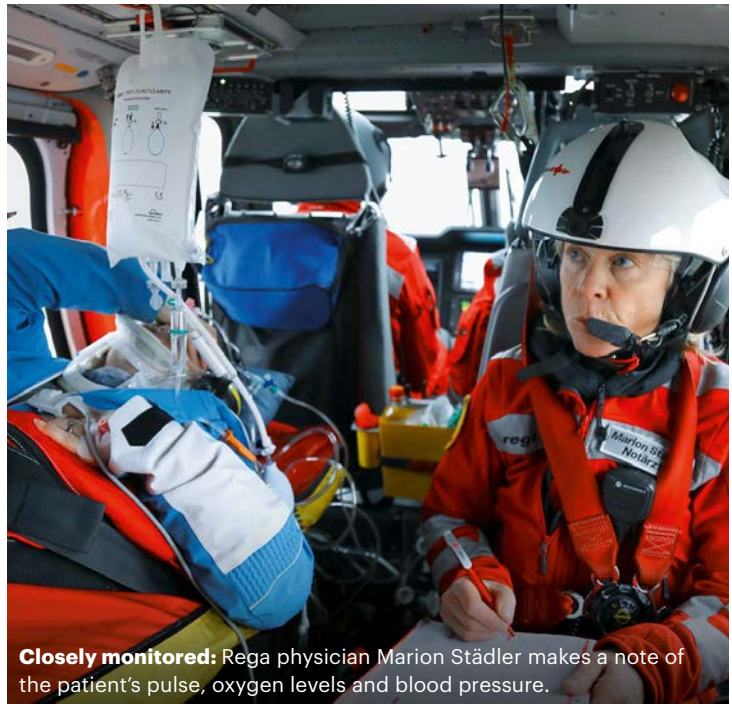
Fog as far as the eye can see: without the IFR procedures, a direct approach to the hospital would be impossible.



Emmen in view: the runway of the military airfield emerges beneath the fog. From here, the flight to the hospital continues under visual flight rules.



Fight against time: with the fog gathering, the crew must work quickly to get the casualty on board.



Closely monitored: Rega physician Marion Stadler makes a note of the patient's pulse, oxygen levels and blood pressure.

Rega's vision of all-weather air rescue has already partly been achieved.

Hospital for further treatment. For the second time that day, Rega 8 uses the instrument flight approach in Emmen to directly and safely negotiate the blanket of fog. "In the past, weather conditions like this meant that we had to cancel missions or hand casualties over to an ambulance if we could only have reached the hospital by taking a major detour," says Bucheli. "The IFR procedures give us new possibilities that directly benefit our patients," he explains.

No time to lose on the slopes

The crew have only just handed over their patient at Lucerne Cantonal Hospital when the third mission of the day emerges: a middle-aged woman in Melchsee-Frutt is complaining of severe headache, dizziness and circulation problems. By now it is late afternoon. Rega 8 flies a large circle over the area. From the air, they can easily make out the ski patrol, who have provisionally laid the woman on a rescue sled. But the patches of fog that are slowly moving in over the slopes are a problem. If the crew are on the ground providing medical assistance for too long, the helicopter could suddenly find itself enveloped in fog and unable to take off. "Particularly in the mountains, the weather sometimes changes extremely quickly. That means we always have to keep a very close eye on the weather situation and work out how much time we have to attend to the casualty on location," explains Bucheli. Not wishing to take any risks, he leaves the engines running

after landing and the sick woman is loaded into the helicopter as quickly as possible. Less than three minutes later, Rega 8 takes off for Lucerne – just in time to avoid being engulfed in the fog. The crew once again find themselves on the IFR route to Emmen. In the cabin, physician Marion Stadler is tending to her patient. She suspects that the woman is not suffering from a dizzy spell, but a cerebral haemorrhage. If that is the case, "time is brain": "The faster a patient can be treated, the less permanent damage occurs," she explains. It later transpires that the professional response of all those involved and the swift transport to hospital meant that the woman could be treated immediately – and suffered no major adverse effects.

Rega's efforts benefit its patients

Back at the base, the crew review their day. "Rega's vision of air rescue in all weathers has already partly been achieved," says Bucheli, referring to the three instrument flight approaches they had made through the fog in a single day. And he adds: "It is great to see that Rega's efforts are paying off. Today alone, three people have benefited from them."

Adrian Schindler



Experience flying through the fog cover in our video: www.ifr.rega.ch

24h Rega

Marcel Kalt, 36, design engineer

As a design engineer at Rega, Marcel Kalt has found his true vocation. In Rega's own design and development centre, he draws up tailored solutions to make crews' everyday lives easier.

Since 2012, Rega has been authorised by the European Aviation Safety Agency EASA to carry out minor modifications on its ambulance jets and rescue helicopters and also certify these itself. Each individual step needs to be precisely documented. "In the field of aviation, demands are particularly high and the specifications are complex and extensive," explains Marcel Kalt. "Each switch, each light that Rega installs, modifies or removes from one of its aircraft must be clearly recorded." Consequently the design engineer spends much of his time with "certification work", as he calls this meticulous documentation.

Whether a fixture in the cockpit for the helicopter pilots' tablet computer, a patient trolley for hospital helipads or an attachment to fasten medical devices to the incubator for premature and newborn babies: "It makes no difference to me how big or small the part is that I have to construct. The main thing is that it benefits the crews and patients."

For the last two years, the design engineer has been part of the project group responsible for the interior of Rega's new H145 helicopter. Together with his engineering colleagues, he coordinates the fitting out of the



cabin, which is subcontracted to and certified by a specialised Swiss firm.

The 36-year-old, who hails from Canton Aargau, has been a member of Rega's engineering team for three years. Every day, Marcel Kalt commutes by public transport to the Rega Centre at Zurich Airport and back again to the Fricktal. It was here that he completed his apprenticeship as a designer. Having further qualified as a Construction

Engineer HF and with over ten years of experience in mechanical engineering, Marcel Kalt perfectly complements the Rega development team. "I never wanted to work on the other side of the Gubrist Tunnel; it's too far to travel. But it's worth making the long journey for Rega," he says, with a twinkle in his eye.

And he would travel much further to realise one of his dreams: "I would love to learn how to sail really well and then sail across the oceans of the world."

Ariane Lendenmann



The design engineer carries out and certifies technical modifications and improvements on the aircraft.

Continue reading on page 14 ►

“I don’t let up until I have found the optimal solution.”



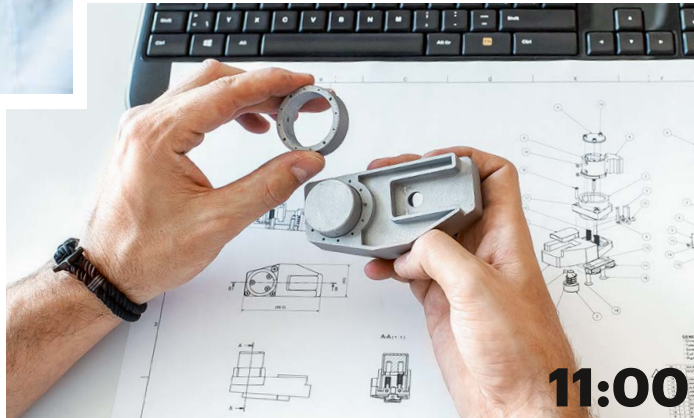
▲ The interior of Rega’s new H145 helicopter is tailored to the needs of both crews and patients. Everything is constructed to be extremely lightweight yet stable and must be able to be installed and dismantled quickly and without tools.

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► Marcel Kalt creates the initial prototypes for a new development using a 3D printer. This enables him to test its functionality without a lengthy wait for an expensive, conventionally manufactured model.

◀ Minor modifications to the ambulance jets and rescue helicopters are developed and certified by Rega’s engineering team itself. To do this, Marcel Kalt draws up complex design drawings and 3D CAD models.



► Before a new design can be installed in the aircraft, it is subjected to a stress test. In an emergency, the interior of a Rega helicopter must be able to withstand an acceleration equivalent to twenty times the force of gravity.





◀ In the aerospace industry, the legal guidelines are extremely strict. Drawing up all the necessary records for certification by the European Aviation Safety Agency EASA entails an enormous amount of paperwork.



▲ Together with an avionics technician and an engineer colleague, Marcel Kalt discusses the progress with the installation of the electronic systems and furnishings in the H145 rescue helicopter.



◀ The cabin interior of Rega's new H145 helicopter was honed and optimised over a period of two years before it could be manufactured, installed and certified by a specialised Swiss firm.

► A successful gymnast in his youth, Marcel Kalt is still an active member of his local gym club. Work permitting, he also loves travelling to far-off countries.



Hospital approach flight through the clouds

In our feature on pages 8–12, you can read how the Uri crew used the instrument flight approach of the Emmen military airfield to fly three casualties from ski areas above the high-lying fog down below the fog cover. In order for Rega pilots to be able to fly directly not only to airfields but also to hospitals in poor visibility, instrument approach flight procedures are needed for hospital helipads. Find out why these approaches are so important, where Rega stands today, and how a hospital approach under instrument flight rules works.

16

Rega is hoping for IFR approaches to soon be authorised for the hospitals in Nottwil, Zurich, Lucerne and Winterthur.

Poor visibility is still the most common reason for a Rega crew being unable to embark on a mission or having to abort one that is already underway. In order to be able to help even more people in distress in future, Rega has for many years been pursuing its vision of all-weather air rescue. We are working with the Swiss Air Force and the Skyguide air navigation service to develop the so-called Low Flight Network (LFN), which will enable us to perform rescue missions in almost any weather. In future, this network of instrument flight routes is intended to link airports, airfields, hospitals and Rega bases across Switzerland with each other. Rather like on a motorway, the helicopter can then follow a flight route stored in the on-board computer, even in the poorest visibility. This makes missions possible that until then were out of the question.

Hospitals as network entry and exit points

Some LFN routes are already established and being used by the Rega crews on their missions; others are still under construction (see map on page 17). But there is more to the network than just individual flight routes: similar to a motorway system, the LFN also needs intersections at which the Rega helicopters can join and leave the route network. Up to now, mainly military airfields like the one in Emmen have served as “access routes”, because they already have authorised IFR approaches. However, Rega would like to use hospitals and Rega bases as

points of entry and exit to and from the network, so that in an emergency, patients can be flown to hospital quickly and safely without detours.

Successful pilot project in Berne

How this can work is demonstrated by a pilot project at the Inselspital University Hospital in Berne. This is the only hospital in Switzerland that, since being authorised in 2011, the Rega crews can also fly to and from directly in poor visibility, as it has its own IFR procedure. Now that the system has been operating successfully in Berne for some years and has helped hundreds of patients, the aim is to deploy it elsewhere, too. For example in Nottwil, where casualties with serious back injuries, for whom gentle transportation by rescue helicopter is essential, will be able to be flown to the Swiss Paraplegic Centre located there even in poor visibility – on a direct, fast and safe route.

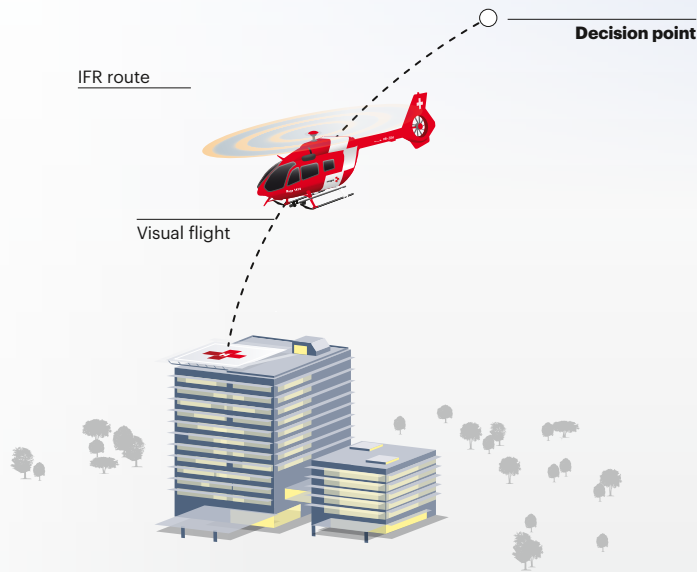
Rega awaiting authorisation

The IFR procedures that Rega has developed for hospital approach flights require approval by the Federal Office of Civil Aviation (FOCA). Rega has submitted the documents required for approaches to the Paraplegic Centre in Nottwil, Zurich University Hospital and the cantonal hospitals in Lucerne and Winterthur and hopes to receive authorisation soon.

As the new IFR procedures make rescue flights possible that until now have had to be declined or aborted, even more patients are

Instrument flight rules

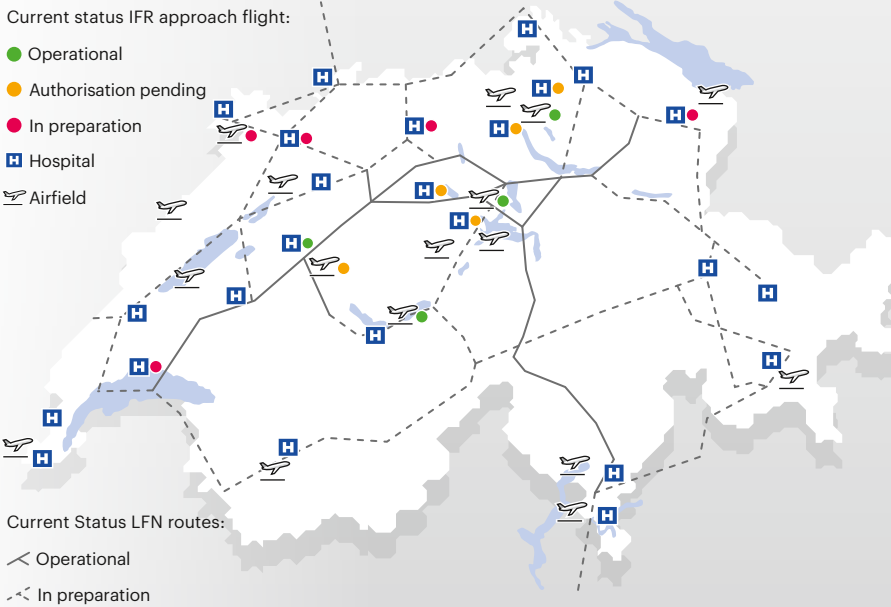
IFR approach procedure to a hospital helipad



How an IFR hospital approach works

The Rega helicopter glides as if on a track through the high-lying fog towards the hospital. The visibility from the cockpit is no more than a few metres. The autopilot navigates the helicopter with great accuracy along a predefined route under instrument flight rules (IFR). During the procedure, pilots do not use their surroundings for reference like on a visual flight, but monitor with the instruments in the cockpit whether the helicopter is following the route stored on the computer. High-precision navigation instruments and cutting-edge satellite navigation systems ensure that the helicopter “knows” where it is in three-dimensional space at any given time. It then arrives at the so-called decision point of the approach flight. This is the defined point at which pilots must decide whether they can deactivate the autopilot and make the approach to land under visual flight rules because the hospital’s helipad is visible – or whether they are forced to continue in instrument flight on the predefined route to an alternative landing site.

Overview Low Flight Network



set to benefit from medical assistance by air in future. The forthcoming expansion of the LFN to include hospitals and Rega bases therefore means a significant improvement in the provision of medical care by air.

Safer missions

The IFR rules also increase safety for patients, crews and third parties. Currently, in dubious weather conditions, the Rega crews must assess whether a visual approach to a hospital is possible or not. If not, they have to divert to

a hospital further afield or transfer the patient to an ambulance – both of which cause delays. With a direct IFR approach, it will be possible in future to fly straight to a hospital even in unstable weather conditions.

The IFR hospital approaches are therefore important components of the Low Flight Network (LFN) – the system of instrument flight routes that is central to Rega’s vision of delivering air rescue to the Swiss population no matter what the weather.

Adrian Schindler



In our video, fly with us on a hospital approach under instrument flight rules :

www.ifr.rega.ch

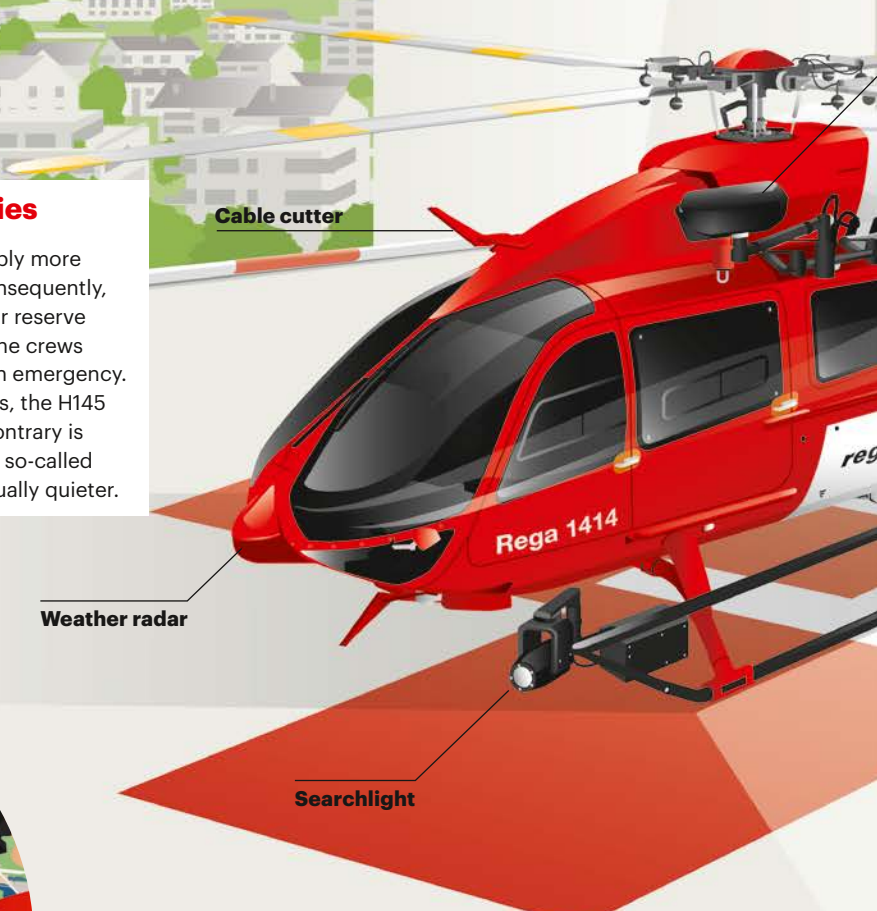
Rega's new H145 helicopter

The crew from the helicopter base in Berne recently commenced operations with Rega's new Airbus Helicopters H145 rescue helicopter. The cabin interior of this latest-generation helicopter has been designed and developed by Rega over the last two years. The helicopter bases in Basel, Zurich, Lausanne and St. Gallen will also be equipped with an H145 by the middle of 2019.

More power for all eventualities

The two engines of the H145 are considerably more powerful than those of its predecessor. Consequently, the new lowland helicopter has more power reserve when it is in operation – an advantage for the crews during rescue missions or in the event of an emergency. However, despite its more powerful engines, the H145 is not louder than the EC 145. In fact, the contrary is true: thanks to the shrouded tail rotor – the so-called Fenestron – the new Rega helicopter is actually quieter.

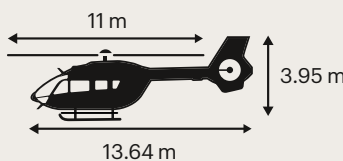
18



Cutting-edge navigation and communication systems

The H145 is equipped with an ultramodern glass cockpit, as well as a newly developed avionics system: during the flight, all the key data for the pilot and paramedic are clearly displayed on three large monitors. The extremely precise 4-axis autopilot does not just control the flight attitude in three axes, but also the performance. Thanks to this "fourth axis", the helicopter can, for example, automatically hover on the spot during a rescue hoist operation.

The H15 in figures



Max. take-off weight:
3,700 kg

Rescue hoist:
90 m cable length

Engines
2 × 894 HP

Operational altitude:
5,000+ m above sea level

Flying speed:
230 km/h

Patient capacity:
1 lying, 1 sitting

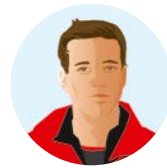


The Rega crew



Pilot

The pilot is responsible for the aircraft and ensures that, from an aeronautical point of view, the mission is carried out precisely, swiftly and safely. At the accident site, if necessary he assists his two colleagues in taking care of the casualty and also communicates with the Operations Centre.



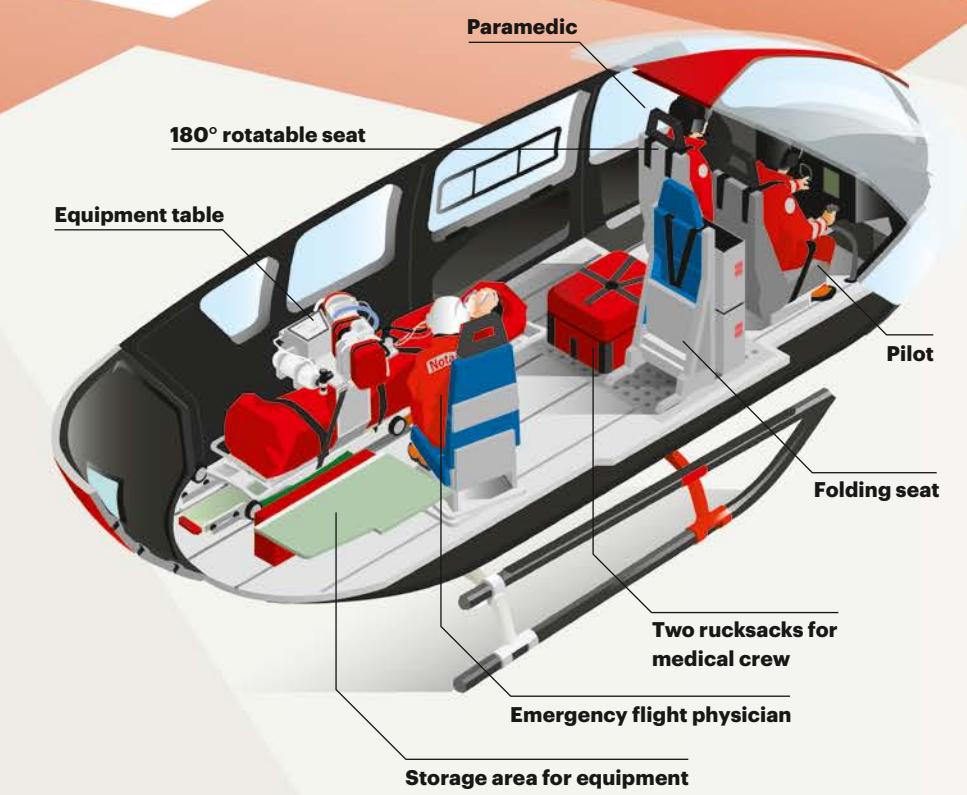
Paramedic

In the air, the paramedic assists the pilot in the cockpit by operating the navigation devices and radio. On the ground, he helps the flight physician to administer first aid. If the helicopter is not able to land next to the casualty, the paramedic is in charge of operating the rescue hoist.



Emergency flight physician

The emergency flight physician bears the medical responsibility for the patient. She checks and stabilises their vital functions, decides whether they are fit for transport and determines the most suitable hospital. She is assisted by the paramedic.



A versatile flying intensive care unit

The operational spectrum of the Rega lowland bases is very broad: it ranges from road and leisure accidents to acute illnesses, right through to special intensive care transports between hospitals. The cabin of the H145, which has been constructed according to Rega's specifications, offers a great amount of flexibility (see page 22): for example, premature babies can be flown in its own transport incubator to a children's hospital. In Rega's "flying intensive care unit", the crew can even attend to seriously ill patients that are attached to a mobile heart-lung machine on the flight to a specialised clinic.

«UND AUF EINMAL WAR MEINE LINKE SEITE WIE GELÄHMT.»



Hören Sie die Rega-Geschichte
von Manuel Höchli, 11.
meinerrettung.ch/manuel

Jetzt Gönner werden.



Opinion

Ernst Kohler

“Rega coordinates in the air, the emergency medical services on the ground. That is efficient, safe and makes sense.”



Not long ago, I was at the Operations Centre with some representatives of a foreign air rescue organisation. I was explaining how our flight coordinators manage Rega’s helicopter missions all over Switzerland. The head of the delegation said to me: “You do it precisely the way it should be done: with your own Operations Centre, which does not just call out the crews, but also coordinates the missions”. He explained that their own crews were deployed by many different control centres, which usually dispatched ambulances and had little knowledge of what rescue helicopters can and cannot do. That resulted in false alarms, delays, and poor coordination with other operational partners. At best, it simply made things difficult, he said; at worst, it hindered the assistance provided to people in need.

Rega’s crews have been coordinated by its own Operations Centre since it was founded over 60 years ago. And for good reason: while rescue by air and on the ground are both about deploying the nearest and most appropriate means of rescue, there are major differences between managing an ambulance operation and a rescue helicopter mission. Throughout the mission, helicopter crews are supplied with information by the Operations Centre that is relevant to flight safety, such as current weather data or, at night, other users of the airspace. The flight coordinators are also responsible for the coordination between Rega crews and other operational partners, such as the mountain rescuers from the Swiss Alpine Club SAC.

The greatest advantage of the Rega Operations Centre, however, is coordination beyond the cantonal borders: as the flight coordinators have an overview of the whereabouts of the helicopters from the 12 Rega bases in Switzerland and those of its partners, they are always in a position to dispatch the most suitable rescue helicopter for the mission. That means that the Rega crew from Erstfeld, for example, may well carry out a rescue mission in the Zurich lowlands – because after handing over a patient at the Zurich Children’s Hospital, they are once again on standby and happen to be closest to the person who is in need of emergency assistance.

The delegation leader’s remarks reminded me that the Rega Operations Centre cannot be taken for granted. There have repeatedly been demands in Switzerland for air rescue coordination to be put in the hands of an ambulance emergency call centre, most recently in 2013 in Canton Berne. Then, the cantonal authorities, Air-Glaciers and Rega came to an agreement that, “in the interests of swift and coordinated deployment”, all rescue helicopters should be coordinated solely by the Rega Operations Centre.

Today, there is no doubt that the solution whereby both emergency services focus on their own core competencies has more than proved itself: Rega coordinates in the air, the emergency medical services on the ground. In an emergency, this clear division saves crucial time – and is efficient, safe and makes sense.

There are major differences between managing an ambulance operation and a rescue helicopter mission.



Ernst Kohler
55, has been CEO of Rega since 2006. The former airport manager and mountain guide has four children and lives in the Lucerne region.

“A quantum leap for crews and patients”

22

“Rega’s new H145 from Airbus Helicopters is more than just a successor model – it represents a new generation of rescue helicopters,” says Markus Reichenbach. Rega’s senior paramedic is responsible, among other things, for designing the cabin interior, which was developed over the last two years.

The H145 is the successor to Rega's proven EC 145 helicopter. In what way are they different?

The most obvious feature is the so-called Fenestron, which houses the tail rotor like a protective capsule. It makes the H145 not only quieter than its predecessor, but also safer

for everyone who works close to it.

In addition, the H145 has considerably more power and is equipped with cutting-edge avionics (see pages 18–19). Our pilots enthusiastically

refer to it as a quantum leap.

How important is more power during a mission?

The additional power reserves give the pilot more leeway – which is an advantage both during normal rescue missions, such as a rescue hoist operation, and in the event of an emergency. Increased power also helps us if we have additional specialists on board, such as a mountain rescuer from the Swiss Alpine Club SAC or a cardio specialist from a central hospital.

Rega acquired the helicopter “empty” except for the cockpit. How did you go about designing the cabin?

We looked at the interior based on our 15 years of experience with the EC 145 and further optimised it for the H145. Over the last two years, in collaboration with our engineers (see from page 13) and a specialised firm, we have made numerous modifications, both big and small, which will enable us to provide our patients with even better care. For instance, by arranging the equipment in a different way in the H145, the Rega

emergency flight physician now has more room, which makes it easier to attend to the patient.

What has changed for you as a paramedic?

During the flight, I normally sit to the left of the pilot and help him with

the navigation and radio communication, so I first had to get used to the new layout of the monitors and equipment in the cockpit. Also, I can now rotate my seat 180 degrees

to face the cabin. This enables me to assist the flight physician if the patient's condition deteriorates during the flight.

On missions, you operate the rescue hoist. Has this been changed?

Our tried-and-tested rescue hoist with its 90-metre-long steel cable is the same, but we have optimised how we handle it during a mission. Thanks to the rotatable seat in the cockpit, the paramedic can now turn round during the flight in order to operate the rescue hoist and set the flight physician down on the ground. Until now, we have always had to make a temporary landing before performing a hoist rescue. Another of our project team's ideas that we have implemented helps us during hoist rescues at night: via the winch operating handle, the paramedic can control a spotlight on the underside of the helicopter to illuminate the accident site.

Are there other examples of customised innovations?

Every fourth Rega mission takes place at night. As a result, our pilots



Multifunctional and stable interior



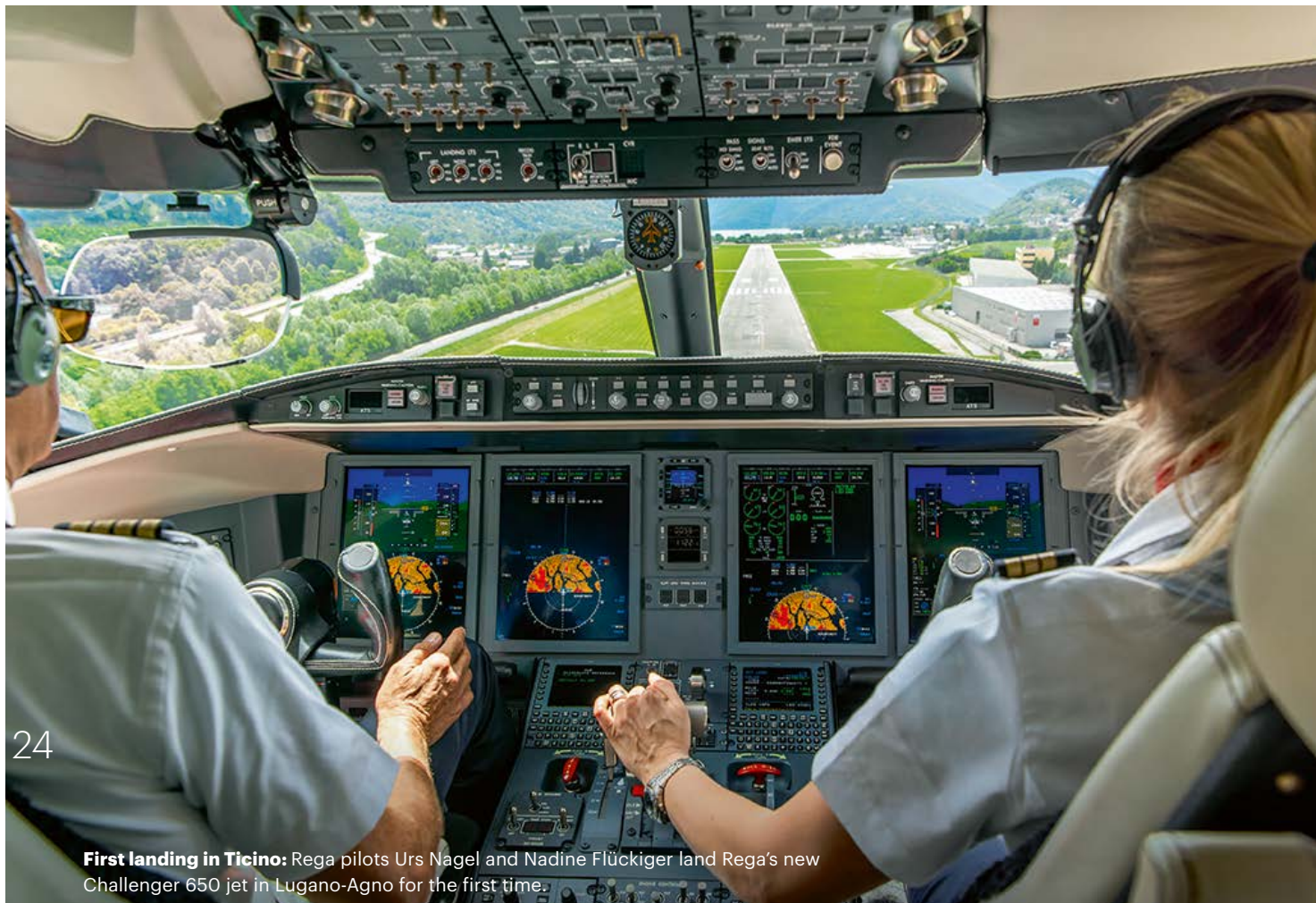
The demands made of the interior of the Rega helicopter are extremely complex: it needs to be as light as possible yet extremely stable in order to meet the requirement of the European Aviation Safety Agency EASA to be able to withstand a g-force of 20 in an emergency. In addition, the crew must be able to install specialised equipment, such as for transporting premature babies, very quickly and without the use of tools.

wear night-vision goggles, which intensify any residual light. How bright can the lighting in the cabin be so that the physician can fill a syringe without the light source disturbing the pilot? The solution came in the form of LED lights, which can be dimmed at a touch of a switch. Of prime importance in the cabin is functionality – so anything is useful that makes our everyday rescue activities easier and allows us to focus on what matters – our patients.

The new Rega helicopter recently commenced operations. What has the reaction been?

We have had excellent feedback from our crews. I am convinced that we are seamlessly continuing the success story of the proven predecessor, the EC 145, which transported over 60,000 patients during its 15 years of service, and that we will write a new chapter in Rega's history books.

Interview: Ariane Lendenmann



24

First landing in Ticino: Rega pilots Urs Nagel and Nadine Flückiger land Rega's new Challenger 650 jet in Lugano-Agno for the first time.



Handover on the tarmac: accompanied by the Rega flight physician, the patient is taken by ambulance to the regional hospital in Lugano for further treatment.

Precision landing in sunny Ticino

Absolute concentration is required: landing at Lugano-Agno Airport is one of the more challenging manoeuvres of its kind in Europe due to its short runway. For it not only requires excellent piloting skills, but also precise planning. If there is too much tailwind or the tank is too full, the runway is not long enough for larger aircraft such as the Rega jet to come to a standstill before reaching the end. Rega Chief Pilot and captain Urs Nagel and co-pilot Nadine Flückiger have often landed in Lugano-Agno. And yet today's flight is rather special: it is the first time that Rega's brand new Bombardier Challenger 650 jet will be landing in Lugano.

In the cabin of the ambulance jet, both the Ticinese patient, Margarete Torti, and her husband, who is seated close by, are oblivious of the landing preparations in the cockpit. The Ticino sunshine is flooding in through the large windows. Rega flight physician Harald Nater checks the infusion and other medical devices before he, too, has to take his seat and fasten his seatbelt in readiness for the landing. He speaks quietly to the elderly lady: "We'll be landing in Lugano in a few minutes. In the hospital so close to your home, you'll soon be back on your feet again."

Collapsed during the evening meal

Three weeks earlier, in Vienna, Mrs Torti had suddenly collapsed while she and her husband were eating their dinner. "She went to pass me my plate, turned around, and suddenly passed out," says Mr Torti, recollecting that frightening moment in the holiday apartment

After a gallbladder operation, a patient is flown from Vienna to Lugano. The new Rega jet lands for the first time on the short runway at the airport in Ticino.

25

in Vienna, the city where the couple had first met at university over 60 years ago. "At first, I thought she had fainted," he recalls. "I phoned a friend of ours who is a doctor. He arrived shortly afterwards and took some blood samples there and then." Fortunately, the medic immediately realises the seriousness of the situation, and shortly afterwards in hospital, Mrs Torti is diagnosed with a ruptured gallbladder and undergoes surgery. However, after the operation she suffers complications and is not well enough to return home for further treatment. Despite this, Mr Torti repeatedly asks the attending doctor when his wife will be able to go home. Finally, the physician gives the go-ahead for her to be transported to Lugano. Mr Torti contacts his insurance company, which then entrusts Rega with the task of making the necessary medical clarifications and organising and performing the repatriation. At the Rega Operations Centre, the medical consultant contacts the attending doctor in Vienna in ►

The air pressure in an aircraft is approximately equivalent to that at 2,000 metres above sea level.

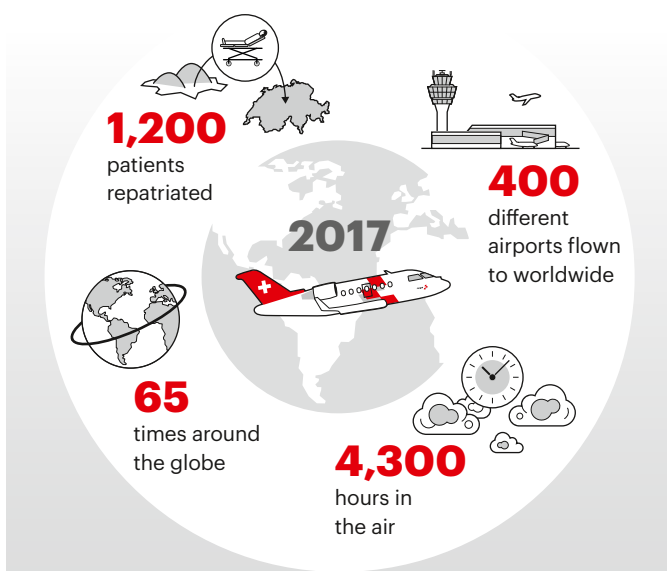
order to obtain an as precise a picture as possible of Mrs Torti’s medical condition. Is she really in a fit state to be transported?

Precise clarifications before repatriation

Very great care needs to be taken after operations in the abdominal area: despite having a pressurised cabin, the air pressure in an aircraft is approximately equivalent to that at an altitude of 2,000 metres above sea level. The lower pressure in the cabin causes the air in the body cavities – such as the intestines, for example – to expand, which can give rise to problems. The oxygen saturation is also lower at this altitude. All these issues need to be taken into consideration during the clarifications. After a lengthy conversation with the Viennese doctor, thorough study of the medical reports provided, and clarifications with the destination hospital in

Lugano, the Rega medical consultant also gives the all-clear: Mrs Torti can be flown back to Switzerland in the ambulance jet lying down and very closely monitored. The Operations Centre immediately sets about organising the repatriation mission from A to Z. Transport from the hospital to Vienna International Airport, calling out the crew, calculating the correct amount of fuel for the flight, drawing up the flight plans for air traffic control, transport to the regional hospital after landing in Ticino, arranging for the patient to be admitted to hospital: everything is planned right down to the smallest detail so that the mission on the following day will go off without a hitch. However, Mr Torti knows nothing of these complex organisational activities going on in the background when the Rega flight coordinator phones to inform him that he and his wife will be collected from hospital the next day and flown home on board the Rega jet.

K A year of repatriations in figures



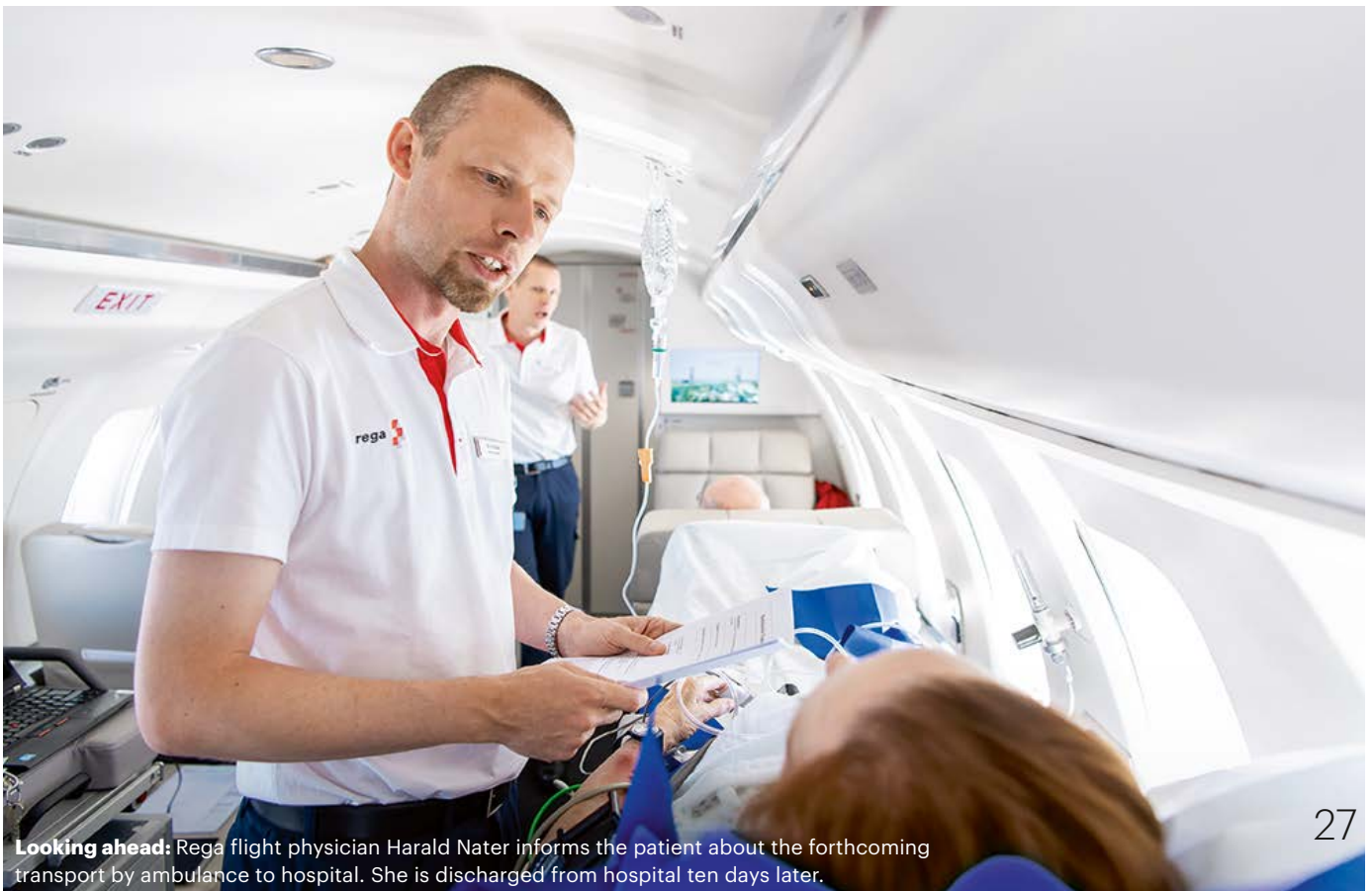
The three Rega jets fly to around 400 different airports all over the world every year. That is approximately four times as many as the largest Swiss airline. Wherever possible, Rega always chooses the airport that is nearest to the patient.

The husband has been repatriated before

The Challenger 650 has just completed a long left turn and is now making its descent between the hills to the north of Lugano-Agno Airport. So far, everything has gone exactly to plan. Mr Torti tells intensive care nurse Dirk Räber, who is sitting opposite him, about his own experience with Rega. “Many years ago, I myself was repatriated by Rega jet from Amsterdam due to a medical emergency. However, I don’t remember very much about the flight any more – except that in those days it was not so nice and bright inside the aircraft.”

The pilots have everything in view

In the cockpit, Urs Nagel and Nadine Flückiger are concentrating on the imminent landing. The landing gear has already been extended. Meanwhile, Lugano Airport looms larger and larger in the cockpit window as the aircraft approaches. Only the runway still appears short, even at close quarters. Displayed on the four large monitors in the cockpit are all the key data: position, altitude and speed, as well as



Looking ahead: Rega flight physician Harald Nater informs the patient about the forthcoming transport by ambulance to hospital. She is discharged from hospital ten days later.

meteorological data and the elevation of the surrounding hills. For the approach flight, pilot Urs Nagel folds down the so-called “head-up display” so that it is directly in front of his eyes. With this device, selected flight data is projected onto a transparent disc, so that the Rega pilot constantly has all the data in his field of vision without having to look down at the instruments. Approximately 15 metres above ground level, the Rega pilots pull back the throttle and lift the nose of the Rega jet. The HB-JWA gently touches down in Lugano and comes to a standstill well before the end of the runway.

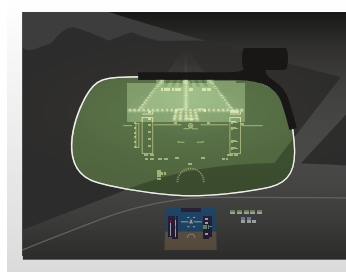
physician Harald Nater accompanies the couple to the hospital and officially hands over his patient to the doctor in charge. On saying their goodbyes, Mr Torti mentions that for many years he and his wife have watched the Rega helicopters landing every day at Lugano Hospital from their house. “I have always said that we are Rega patrons because we never know if one day we too might be lying in one of those rescue helicopters,” he says. “As it turns out, it wasn’t a Rega helicopter, but a Rega jet that we needed. And that for the second time.”

Harald Schreiber

Medical care right through to the handover

With practised hand movements, co-pilot Nadine Flückiger opens the door at the exit of the Rega jet and carefully lowers the steps. Together with Urs Nagel, she installs the ramp, which during the flight was folded up inside the exterior wall of the jet. Right on time, the ground ambulance that has been organised by the Rega Operations Centre drives across the tarmac, its blue light flashing. The Ticino colleagues from the Croce Verde Lugano are greeted and they immediately help push Mrs Torti on the stretcher trolley slowly and gently down the ramp and into the ambulance. Flight

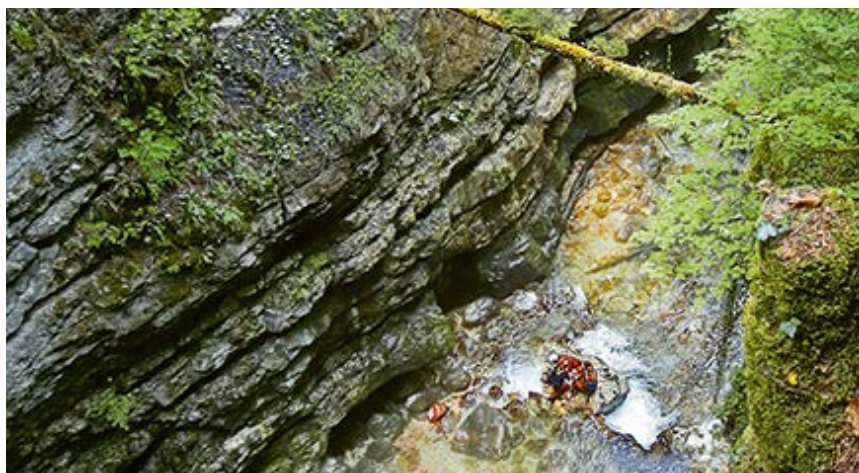
K Rega cockpit: high-tech directly before your eyes



Besides selected flight data, a thermal image of the surrounding area can also be projected onto the pilot’s head-up display. The information is delivered by an infrared camera that is installed on the nose of the Rega jet.

Fall into the gorge

During a hike, a seven-year-old boy falls 35 metres into the Areuse Gorge (Canton Neuchâtel). For the rescue services, the fight begins to save the young boy's life.



28

Boudry (NE), 1.5.2018

A family is hiking along the Areuse Gorge. Suddenly the son slips and falls down the steep slope leading to the icy water of the Areuse river. While the water absorbs much of the impact, he remains lying there, motionless. Fortunately at this point of the river, the current is weak and his face remains above the surface of the water.

His parents immediately call the ambulance service 144. First on the scene are the rescue team and height rescuers from the Neuchâtel fire and rescue services. They climb down into the gorge, reach the boy and lay him on a small rock. He has already spent many minutes in the cold water and his body temperature has dropped to a life-threatening 27 degrees. Shortly afterwards, the rescue helicopter from the Rega base in Berne is hovering above the gorge. Emergency flight physician Myriam Gassmann is set down using the rescue hoist.

Jacques-André Dévaud, pilot
 “The difficult hoist operation challenged the entire crew.”

Pilot Jacques-André Dévaud recalls: “A tree trunk was lying directly over the water. It was a difficult hoist operation, which required absolute aeronautical precision and excellent communication between the crew members.” The injured boy and the flight physician are flown out of the gorge on the end of the rescue hoist. “His condition was unstable, but he was still breathing and we mobilised every last bit of energy to save him,” relates Rega paramedic Didier Pasquier. On the flight to the Inselspital University Hospital in Berne, the seven-year-old's heart stops beating. The Rega crew fight to save the young boy's life and perform heart massage until they arrive at the hospital. There the medical staff take over and hook him up to a heart-lung machine. Today, the young boy's health is improving day by day. “Only the efficiency of the entire rescue chain enabled him to survive these frightening moments.”

Emilie Pralong

By train to the helicopter

Alp Grüm (GR), 27.6.2018 A woman has an accident during a hike. The pilot is not able to land directly at the accident site due to gusty wind. So the Rega flight physician transports the patient on board the Rhaetian Railway to the next wind-protected train stop, from where she is flown to hospital.

Rescue thanks to the Rega App

Egerkingen (SO), 25.7.2018 In the middle of the night, a motorist calls the police – he has come off the road in a self-inflicted accident and is now in his car, injured. Where he is, he does not know. Initially, the rescue services search in vain. The solution: using the Rega app, the injured man transmits his precise location to the Rega Operations Centre and is promptly rescued.

Hit by a rock on the alp

Alpiglen Oberberg (BE), 1.8.2018 A young woman is hit by a falling rock on an alpine meadow in the Bernese Oberland and seriously injured. The Rega crew from the Wilderswil base fly the patient directly to hospital on the rescue hoist.

In contact with our patrons

260 days were spent by Rega in 2017 at trade fairs and events with an information stand.

1,287 guided tours of the Rega Centre or a helicopter base were organised by Rega last year.

800 babies and toddlers on average are registered every month as part of a Family patronage.



Rega kids

Competition Follow the animal tracks in the snow and work out the solution by adding or subtracting the numbers along the way. Our calculation key will help you. We've already filled out a few fields for you.

Calculation key	-5 in this direction	-4 in this direction	-6 or +6 both are possible
<input type="text"/>		<input type="text"/>	<input type="text"/>
<input type="text"/>		<input type="text"/>	<input type="text"/>
13		18	22
			<input type="text"/>

Solution

Spot the differences Ben has built a snowman. His friends tried to copy him, but their efforts were not entirely successful. Can you find the differences between Ben's snowman and the others?



29

Picture puzzle The Rega helicopter has to fly through the fog to reach the hospital helipad. Show it the way!

Competition

Write the answer on a postcard and send by 31 December 2018 at the very latest to:

Swiss Air-Rescue Rega
 "Competition" Rega Magazine 1414
 PO Box 1414
 CH-8058 Zurich Airport

Ten winners drawn from the correct answers will each receive a model of our AgustaWestland Da Vinci rescue helicopter to the scale of 1:43.

We're keeping our fingers crossed for you!



Solution from No. 90: Lausanne

Each of the following has won a sports bag:

- L. Hill, Uster | B. Sauter, Bülach | D. Giger, Oberaach |
- L. Krummenacher, Kerns | A. Binder, Berne |
- T. Gamboni, Camignolo | S. Giudici, Savosa |
- N. Schäublin, Delémont | E. Siegenthaler, Rivaz |
- M. Adamine, Fey **Congratulations!**

Knowledge



30

Tobogganing is a winter sport that can be enjoyed by all the family. If you observe a few basic rules, you can spend many fun and carefree hours in the snow.

For many people, the low temperatures during the cold months of the year are no reason to stay at home. Whether on skis, a snowboard or a toboggan: engaging in activities outside in the snow should above all be fun. Tobogganing is a particularly popular pastime in winter. It is considered to be easy to learn and does not need much equipment.

However, tobogganing does not always end up being so lighthearted and carefree. According to the Council for Accident Prevention (bfu), around 7,000 tobogganists injure themselves in Switzerland every year by falling off their toboggan or colliding with rocks, trees, other people or even vehicles. Fortunately, the vast majority of tobogganing accidents are not serious, but occasionally Rega is called on to provide

medical assistance from the air: last year, the Rega crews administered first aid to some 90 tobogganists and flew them to hospital.

Not every slope is suitable

To ensure that tobogganists do not end up in a doctor's surgery or even in a Rega helicopter, a number of basic rules should be observed. Safe and foresighted behaviour and the correct equipment can greatly reduce the risk of injury. This already begins with the choice of toboggan run: particular caution should be

Rega tip

“When tobogganing, wear a helmet, sturdy boots, warm clothes and gloves.”

exercised if there are obstacles such as walls, fences, people or vehicles nearby. Ideally, tobogganists should stay on the specially marked runs; according to bfu, two-thirds of the most serious tobogganing accidents happen on unofficial or even closed-off toboggan slopes. Ski pistes are usually off-limits for tobogganists.

Tobogganing with a ski helmet

It also pays off to wear the correct clothing: besides gloves and warm clothes, sturdy boots – possibly even with an additional breaking aid on the heel – belong to a tobogganist's basic equipment. Warm clothing does not just shield against snow and the airstream caused by the motion, but in the event of an accident also protects against hypothermia until help arrives. It is also advisable to

wear a snow sports helmet to avoid head and brain injuries.

React correctly in an emergency

If, despite all these safety precautions, you do witness an accident, try to stay calm. First of all, secure the accident site so that the tobogganists behind do not collide with the injured person. Administer first aid and call out the rescue services.

Piste rescue service or Rega ?

If you are in a ski area, it is best to alert the local piste rescue service. The piste patrollers are trained to deal with medical emergencies and know the area inside out. If necessary, they will call out Rega. If you are in rough terrain outside a ski area and far away from a road, you should contact Rega directly via emergency number 1414. If you use the Rega app, your exact position will also be automatically transmitted to the Rega Operations Centre, which enables you to be quickly and easily located. Tip: carry your smartphone under your clothes; your body heat will help extend the life of the battery.

In order to prevent a tobogganing accident in the first place, we have compiled for you 10 Rules of Conduct for tobogganists, which you can find in the column on the right.

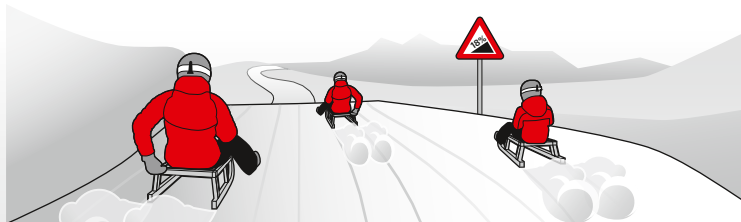
We wish you much enjoyment in the snow and an accident-free winter season.

Harald Schreiber

► You can find more on the topic in the bfu guide at: www.tobogganing.rega.ch



The 10 Rules of Conduct for tobogganists



1. Show consideration for others

Behave in such a way that you do not endanger or harm other people.

2. Match speed and tobogganing style to your ability

Ride feet first and always make sure you can see where you are going. Adapt your speed and manner of tobogganing to your ability, as well as to the terrain, snow and weather conditions, and number of people using the run. Do not attach toboggans to each other.

3. Respect the track of the person in front

If approaching from behind, choose your route so you do not impede or endanger the tobogganist ahead.

4. Overtake at a distance

You may overtake from the left or the right, but always leave a wide berth so that the person being overtaken still has plenty of room to manoeuvre.

5. Look behind you before entering the run

Look up and down the slope before entering the run or setting off to ensure that you are not endangering anyone.

6. Stop at the edge of the run

Only stop at the edge of the run where you can easily be seen, and avoid lingering in narrow places. If you fall off your toboggan, you should vacate the spot as quickly as possible.

7. Ascend and descend at the edge of the run

When ascending or descending on foot, you should do so at the edge of the run.

8. Observe the signs

You must comply with all the signs and markings.

9. Help others

In the event of an accident, you are obliged to stop and provide assistance.

10. Provide your personal details

In the event of an accident, you must provide your name and address, irrelevant of whether you are directly involved or a witness, or whether you are responsible or not.


Source: bfu guide "Schlitteln – Sicher in Fahrt"



Entdecken Sie Ihr
Potenzial unter
sphair.ch

Helpfen als Militärpilot/-in

Helikopterpiloten und -pilotinnen der Schweizer Luftwaffe leisten wichtige Hilfe, zum Beispiel bei Suchaktionen, Löscheinsätzen und Friedensmissionen. Mit SPHAIR finden Sie heraus, ob der Beruf zu Ihnen passt.

 Schweizerische Eidgenossenschaft
Confédération suisse
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Confederaziun svizra

 **SPHAIR**

Rega Shop

Popular articles for fans of all ages and attractive gift ideas for family and friends

OUR
HIGH-
LIGHTS

NEW



1 Headlamp 49.—

The multifunctional "Spot" headlamp from the Black Diamond brand brings light into the darkness – with two beams for close range and distance, as well as a red signal lamp. Adjustable head strap. Comes with a free pouch to protect it from dust, sand and water.

- Brightness: 300 lumens
- Distance: up to 80 metres
- Burn time: between 30 hours (300 lumens) and 125 hours (4 lumens)
- Blinking, dimming and strobe modes
- Memory mode
- Waterproof IPX8 standard
- 3 AAA batteries (included)
- Weight with batteries: 88 g
- Guarantee: 3 years

2 Wall clock 49.—

Radio-controlled wall clock with a nostalgic design featuring a cockpit altimeter.

- Plastic housing Ø 24.5 cm
- Flat standard glass
- Dial with an altimeter design
- White hour and minute hands, red second hand
- For indoor use only
- Weighs approx. 800 g
- Includes 1.5 volt AA battery
- 1 year guarantee



33

CLASSIC



3 "Traveller" multitool by Victorinox 112.—

Pocket knife, thermometer, altimeter and barometer all in one. Free extra: high-quality leather case.

NEW



4 Airbus Helicopters H145 29.—

The high-performance, spacious helicopter is stationed at the lowland bases to help people in distress. Collector's model to a scale of 1:48, 28 cm, metal. Not suitable as a toy.



5 Challenger 650 29.—

Light as a feather, elegant, detailed: Rega's new twin-engine Challenger 650 ambulance jet to a scale of 1:100, 21 cm, plastic (ABS), collector's model. Not suitable as a toy.

34

Only a few left in stock

Marketplace

Make someone happy: in our Winter Shop product range, you can find stylish gifts for your family and friends. Besides articles sporting the brand new Rega design, the Marketplace section also includes some items with the former Rega logo. Order now – only available while stocks last!



Swiss made

6 Solar watches 230.— instead of 289.—

A lot of Swiss handicraft has gone into creating these solar watches.



7 Alarm 1414 – Swiss rescue board game 30.— instead of 49.—

For 2 to 4 players aged 8 – 99 years (D/F/I).



9 AgustaWestland Da Vinci 19.— instead of 29.—

Collector's model, scale 1:43, metal.



10 uvex ski goggles 99.— instead of 119.—

uvex downhill 2000 ski goggles. Ladies' model white, men's model black. Made in Germany.



8 Wooden Rega jet 10.— instead of 15.—

Playtime fun for children aged 10 months and over.

Offers valid until the end of December and only while stocks last.

NEW



11 Wall calendar 2019 22.—

Rega employees have captured out-of-the-ordinary scenes with a camera: 12 spectacular photographs accompany you throughout the year 2019. Format 48 × 33 cm. Picture captions in D/F/I/E.



12 Card holder with RFID blocking 69.—

Protect your credit cards from skimming: this handy leather wallet protects against digital theft by largely blocking the RFID (Radio Frequency Identification) signal.

Compact credit card holder for at least 10 cards and several banknotes. Your two most important cards, stored on the front and back of the case, are quickly to hand. Black.

- 7 slots, capacity for at least 10 cards and several banknotes
- Closure: stainless steel clip
- Dimensions: 90 × 70 × 10 cm (H × W × D)



13 Sports sunglasses 179.—

"TN Air" sports sunglasses with 4 interchangeable lenses, Swiss brand. High-tech frame made from high-grade material, flexible yet stable. The Class 1 lenses (TALT system) are shatterproof. 100% UV protection up to 400 nm. CE-certified. The sunglasses come in a protective case with a microfibre pouch for storing and cleaning them.

Four interchangeable lenses:

- Clear (category 0, dusk)
- Orange (category 1, sunny)
- Smoke (category 2, medium sun exposure)
- Black revo (category 3, beach, snow, mountains)

- Colour: black frame
- Protective pouch for the lenses
- Case with belt buckle and karabiner
- Microfibre pouch

► **More information:** www.tnsunglasses.ch



14 Sports and travel bag 49.—

The spacious main compartment of this bag can be extended by opening two additional zips. Black & red. Two reflective stripes for improved visibility in the dark. Comes with a laundry bag and a combination lock.

- Volume: 50 litres (max. 70 litres)
- External dimensions: 50 × 35 × 30 cm (L × H × D); length expandable to max. 68 cm
- Material: polyester 600D
- Weight: 1200 g

► **Extras:** Free drinking bottle, 600 ml, Swiss made

BESTSELLER



15 Outdoor first aid kit 89.—

The most important first aid items for outdoor use, compiled by Rega doctors. This set contains top-quality material (from IVF Hartmann) and is characterised by its innovative moist wound dressings. The case can be expanded by means of an extra zip, making room for additional products.

Contents

- Face shield (for protected mouth-to-mouth resuscitation)
- Tick removal card
- Sterillium hand disinfection wipes
- Antiseptic wipes for cleaning wounds
- Tear-resistant Nitril disposable gloves
- Waterproof spray plaster 21.5 ml
- Pouch containing adhesive plasters
- Graze and burn plasters
- Blister plasters
- Sterile compresses
- Cooling bandage 6 cm x 4 m
- Self-adhesive bandage 6 cm x 3 m
- Gauze finger bandage 4 x 50 cm
- Set of wound closure strips 6 x 76 mm
- Set with scissors, tweezers and safety pin
- Roll of adhesive plaster to secure bandages 2.5 cm x 5 m
- Foil emergency blanket
- Storage container for medicaments
- First aid checklist
- External dimensions: 20 x 13 x 6 cm (L x W x D)
- Weight: 595 g

Online Shop

Place your orders in comfort and around the clock online via the Rega Shop.

www.shop.rega.ch

Orders by telephone or fax

We would also be pleased to accept your orders direct via the following Rega Shop numbers.

Telephone orders **0848 514 514**

Fax orders **0848 514 510**

Terms and Conditions

- Articles are available as long as stocks last.
- Articles can be returned within 7 days.
- A charge of CHF 8.80 is made per order to cover postage and packaging costs within Switzerland.
- Delivery abroad (Europe): against advance payment only. A charge of EUR 30.- (CHF 30.-) will be made per order to cover postage and packaging costs. Any import charges (VAT, customs duty, etc.) are levied in accordance with the regulations of the destination country and are payable by the recipient.

The articles sold in the Rega Shop are of high quality and have been specially selected for our patrons. By purchasing an item, you are helping Rega to transport emergency medical assistance by air to people in distress 365 days a year.

You can order Rega Shop articles through our online shop at www.shop.rega.ch or by completing the order form and sending it in a stamped envelope to: Rega Shop, Bolligenstrasse 82, CH-3006 Bern.

Sender (please complete in block letters)

Ms Mr

Family name _____

First name _____

Street/No. _____

Area code/Town _____

Tel. _____

Patron no. _____

Signature _____

Thank you for your order.

For the youngest Rega fans



16

16 Helicopter and jet soft toy 10.—

For young children to play with and cuddle. The rescue helicopter is 14 cm and the ambulance jet 9 cm high; both are 24 cm long.

17 Wooden Rega helicopter 15.—

With this helicopter made from maplewood, there is plenty to discover: rounded contours and a movable propeller and wheels. For children aged 10 months and over. Manufactured by Hape Toys, complies with European toy standards. 12.7 cm long, 8.8 cm high.

CLASSIC

18 Globi storybook 20.—

"Globi bei der Rettungsflugwacht" storybook, 99 pages (only available in German).

19 Globi colouring book 4.—

Colouring book, 6 pictures to colour in, 23×16 cm.

17



18



19



Order Form

Please write your name and address clearly on the front of this card, detach and send in a stamped envelope.



No.	Article	Price (CHF)	Amount	Ref.
1	Headlamp	49.—	_____	90079
2	"Cockpit" wall clock	49.—	_____	60013
3	Victorinox "Traveller" multitool	112.—	_____	90082
4	Airbus Helicopter H145	29.—	_____	50018
5	Challenger 650	29.—	_____	50020
Marketplace				
6	"Commander" solar watch, black instead of 289.—	230.—	_____	60004
	"Passenger" solar watch, red, instead of 289.—	230.—	_____	60012
7	Swiss rescue board game, instead of 49.—	30.—	_____	40034
8	Wooden Rega jet, instead of 15.—	10.—	_____	40029
9	AgustaWestland Da Vinci, 1:43, instead of 29.—	19.—	_____	50006
10	Ski goggles, ladies' model, instead of 119.—	99.—	_____	90071
	Ski goggles, men's model, instead of 119.—	99.—	_____	90072

No.	Article	Price (CHF)	Amount	Ref.
11	Wall calendar 2019	22.—	_____	90001
12	Card holder with RFID blocking	69.—	_____	90077
13	Sports sunglasses	179.—	_____	90075
14	Sports and travel bag	49.—	_____	90081
15	Outdoor first aid kit	89.—	_____	90080
For the youngest Rega fans				
16	Helicopter soft toy	10.—	_____	50004
	Jet soft toy	10.—	_____	50022
17	Wooden Rega helicopter	15.—	_____	40028
18	Globi storybook, in German	20.—	_____	40002
19	Globi colouring book, 6 pictures	4.—	_____	40001

Outdoor, see webshop: www.shop.rega.ch

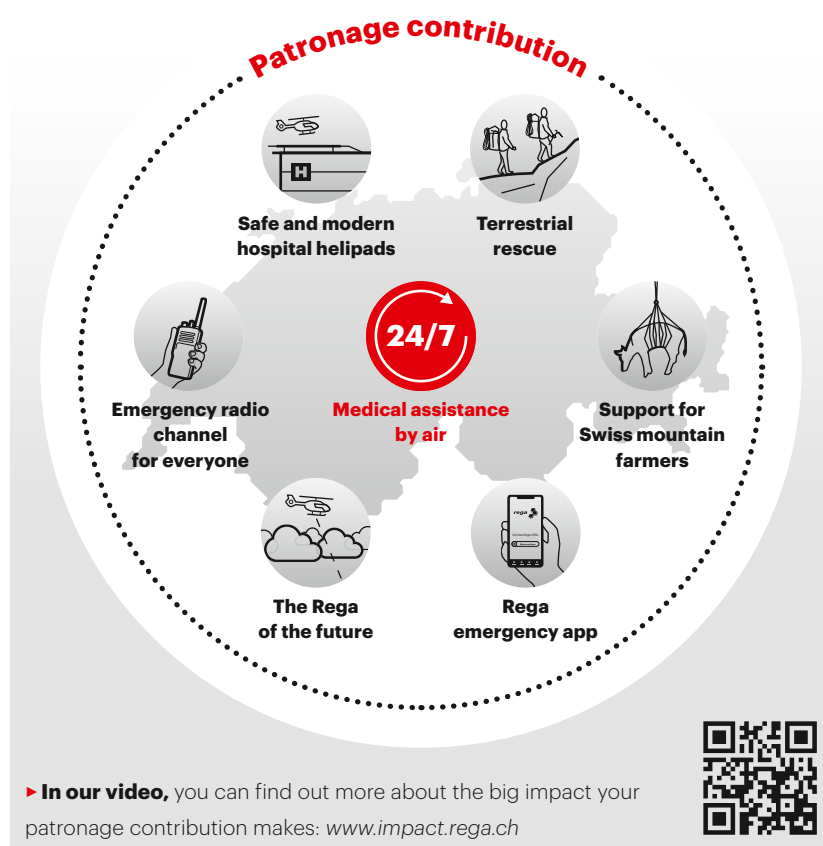
Daypack	79.—	_____	90076
Toiletry bag	29.—	_____	90078
Capcool	39.—	_____	30050
"Rega Backstage" illustrated book (D/F/I/E)	45.—	_____	10017

● New ● Bestseller ● Classic

For more articles in our range: www.shop.rega.ch

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► **In our video**, you can find out more about the big impact your patronage contribution makes: www.impact.rega.ch

Our help begins with your contribution

Did you know that Rega is continually investing in improving air rescue services in Switzerland? For instance, in its own Operations Centre, in the 12 Rega helicopter bases, or in safe and modern hospital helipads.

These are just some examples of the impact you, together with more than 3.4 million other patrons, make in Switzerland. Many thanks for your support!

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Changes to patronage **www.info.rega.ch**
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 Tel. international **+41 44 654 32 22**

Monday–Friday
 8.30–12.00 noon, 1.00–4.30pm

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www.newsletter.rega.ch

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