

70 years of total commitment.



## Medical assistance by air

Rega brings professional emergency assistance by air to people in distress – around the clock, 365 days a year.

Rega 1414

### Annual Report 2021

There for Switzerland,  
since 1952.

# Rega in numbers



**430**

employees devote themselves to serving our patients, our patrons and our organisation with passion, commitment and expertise.



**13**

Rega helicopter bases are distributed throughout the country in such a way that the crews can reach any location in Switzerland within 15 minutes' flying time.



**12,284**

patients were transported by Rega on board its ambulance jets and rescue helicopters in 2021.



**980**

missions were organised by the Rega Operations Centre in 2021 to help patients abroad.



**18,017**

missions were coordinated by the Rega Operations Centre last year.



**400**

different airports all over the world are flown to by Rega's ambulance jets every year.



**3,678,000**

patrons enable Rega to provide air rescue services for the benefit of the Swiss population.



**14,330**

helicopter missions were organised by Rega's Operations Centre in Switzerland in 2021.



**2,707**

further missions, such as those performed by the mountain rescuers of the Swiss Alpine Club SAC, were organised by the Rega Operations Centre in 2021.

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## 70 years of total commitment for people in distress



Michael Hobmeier



Ernst Kohler

27 April 2022 marks the 70th anniversary of the founding of Rega. Much has happened since then. From parachutists and light aircraft that landed on glaciers right through to state-of-the-art rescue helicopters and ambulance jets. From responsibly-minded but simple emergency interventions to highly complex intensive care medical transports that set standards worldwide.

For all this progress, Rega has at its core remained the same: we place the well-being of our patients at the centre of everything we do and bring medical assistance by air to people in distress. And Rega is in great demand: last year, our Operations Centre organised over 18,000 missions – more than ever before. In addition, Rega continued to perform diverse tasks to support the authorities in dealing with the pandemic – such as acting as a national coordination centre to ensure optimal capacity utilisation of Switzerland's intensive care units. We are constantly working on developing better solutions to rescue even more people in an emergency: the night-vision goggles, which were specially designed for Rega, and the Rega drone are already in use, and our air rescue operations have been further strengthened by stationing a rescue helicopter in Sion.

In short: last year, Rega once again fulfilled its core task and it is impossible to imagine the Swiss healthcare system without it. First and foremost, therefore, we feel gratitude. Gratitude towards our more than 3.6 million patrons. Every single contribution is important for us to be able to make something meaningful even better – for the benefit and well-being of our patients.

**Michael Hobmeier**  
Chairman of the Foundation Board

**Ernst Kohler**  
CEO/Chairman of the Management Board

# News 2022



## A network for Switzerland

**Only if you are already close by can you get to the patient quickly: how, over a period of decades, Rega has built up one of the densest air rescue networks in the world with the support of the Swiss population, and how it continues to strengthen its operational concept in order to constantly improve medical assistance by air.**

In order to reach a person in distress as quickly as possible following an alarm call, Rega currently operates 13 helicopter bases and one partner base nationwide and has at its disposal a fleet of 19 rescue helicopters. The bases are distributed throughout the country in such a way that the rescue crews can reach any location in Switzerland within 15 minutes' flying time. A crew with a rescue helicopter is on standby at the bases around the clock, 365 days a year. This deployment concept proves its worth on a daily basis and enables the helicopter crews to help more than 11,000 patients every year.

### Key considerations already before Rega was founded

Rega's founder, Dr Rudolf Bucher, already laid the foundation stone for the operational model in the early 1950s. In his deliberations and analyses relating to the establishment of an air rescue service, which are documented in his book, "Fliegen Retten Helfen", he states: "However quickly our aircraft may be ready for takeoff, however quickly they may be able to cover relatively long distances, it nevertheless must remain the first priority to keep their approach path as short as possible. In other words,



Ready for takeoff around the clock: the Rega helicopter at the base in Untervaz (Canton Graubünden).

**“A central operational coordination unit can maintain an overview of all the aircraft that are standing by or being deployed [...]. We are responsible for ensuring that the means of rescue that is most appropriate and closest to the scene of the accident is deployed.”**

Dr Rudolf Bucher, *Rega founder*

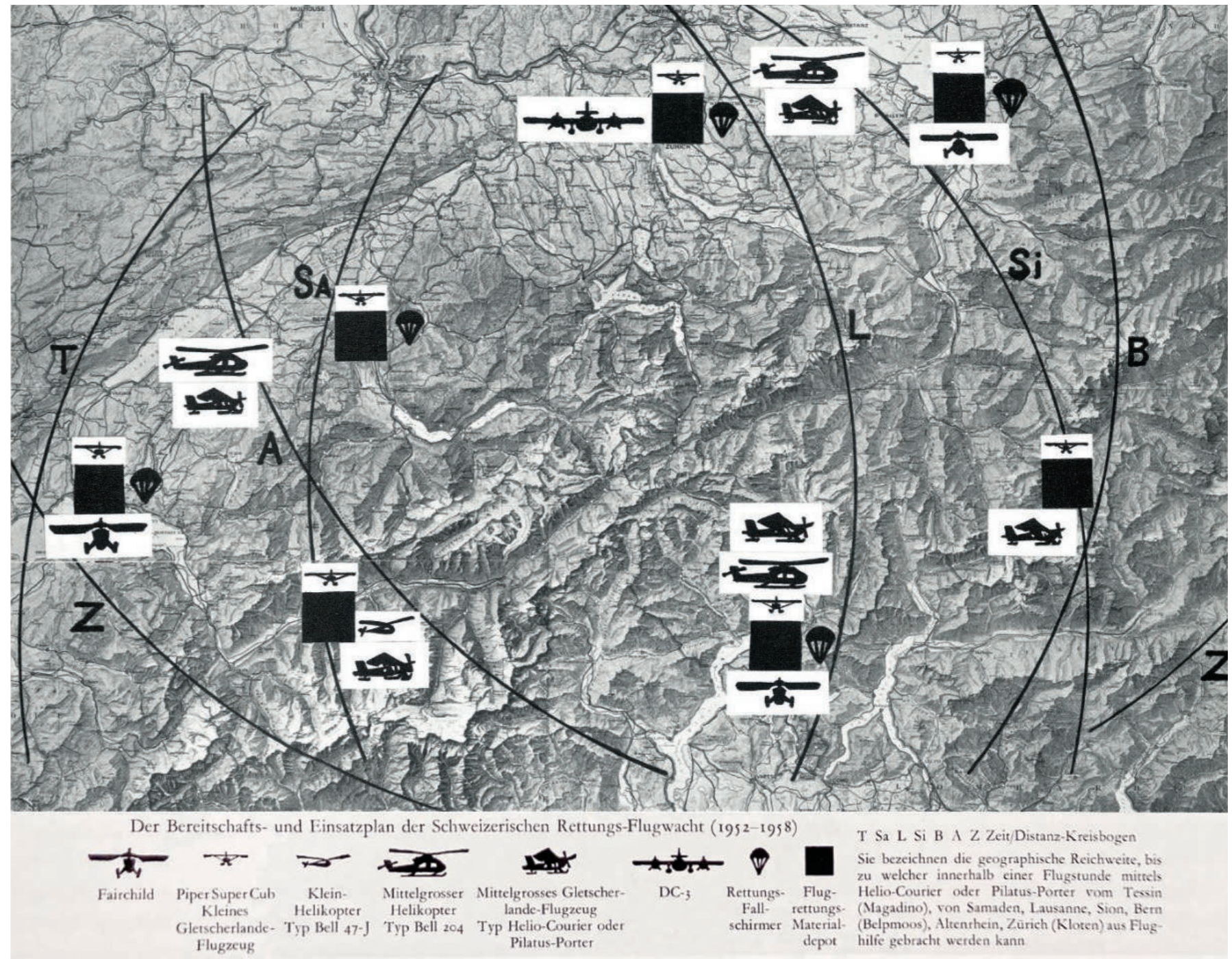
right from the beginning, we do not want to start out on our missions from a single, central point of departure”. In addition, he said, the choice of locations for the bases should not be governed by cantonal borders or political interests, but rather by considering the “operational area” from a mission perspective. In order to evaluate the optimal locations for these bases, Dr Bucher had analysed various factors such as topography, common weather conditions, mountain, aviation and avalanche accident statistics, as well as Switzerland’s population density.

**Gradual development over decades**

In the early days of Swiss Air-Rescue, there was not enough money to operate its own bases or to purchase its own aircraft. Private individuals made their aircraft available for missions, and Rega’s first infrastructure of its own comprised material depots. Rega founder Rudolf Bucher was also aware that the revenue from rescue missions would never cover the running costs of the kind of operation he had mapped out. His solution: with the help of fund-raising campaigns, Rega should purchase aircraft, which it would then put at the disposal of private individuals or companies for commercial use. If an emergency arose, the helicopter would be deployed for the rescue mission.

**The first Rega helicopter was based in Valais**

Just how well this principle worked is demonstrated by the example of Swiss Air-Rescue’s very first own helicopter, which was given to it as a gift by the Association of Swiss Consumers’ Cooperative Societies (VSK). The helicopter, a Bell 47J, was made available by Swiss Air-Rescue to the legendary Valais pilot, Hermann Geiger, and stationed at the airport in Sion. In this way, the maintenance and operation of the helicopter were financed, and a Rega helicopter was always available in Valais to perform rescue missions. This deployment concept set a precedent throughout Switzerland: right through until the mid-1980s, Rega’s commercial partner companies, such as AirGrischa or BOHAG, not only flew rescue missions, but also carried out business flights, such as for the forestry industry, using Rega helicopters.



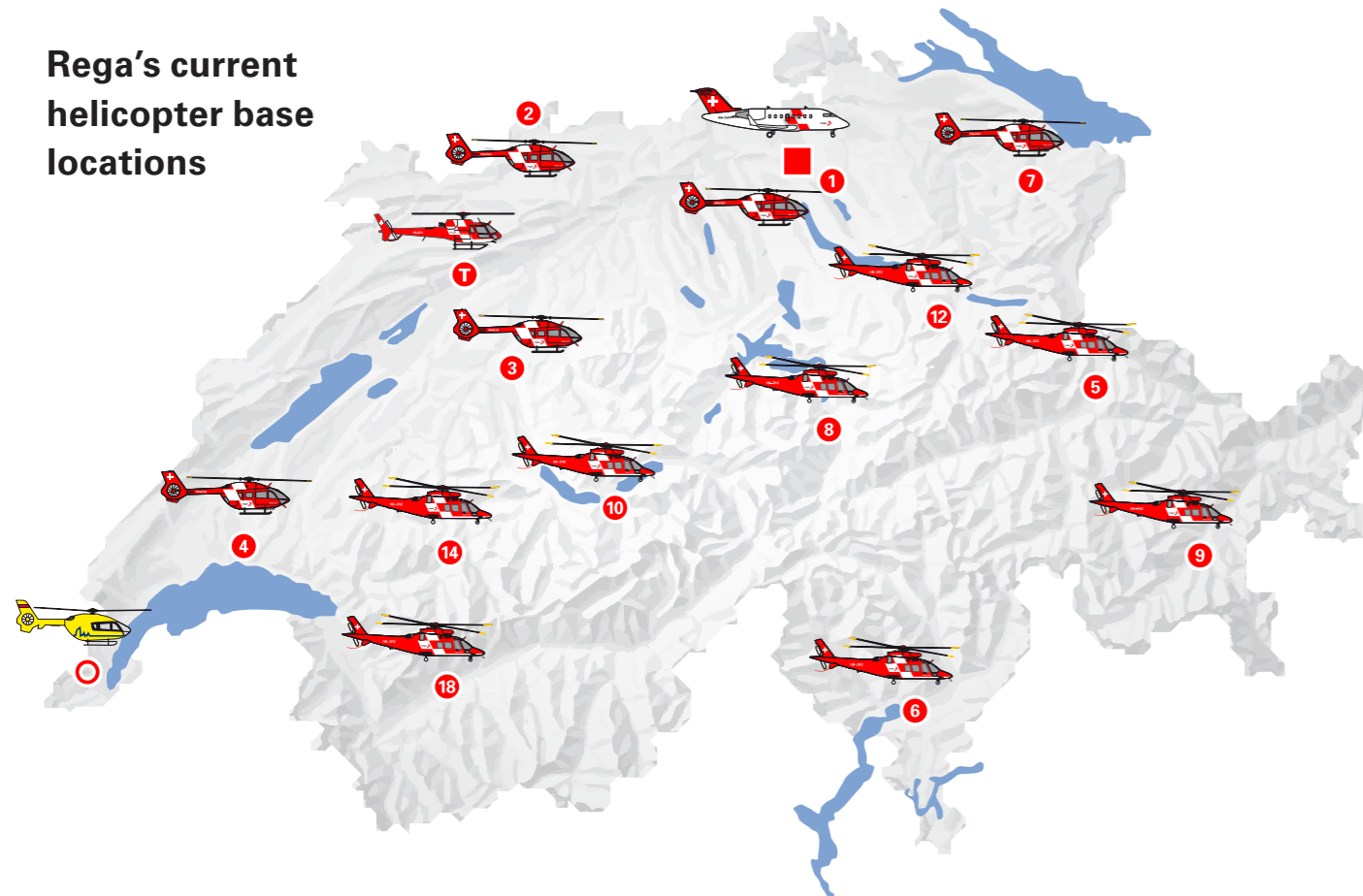
Swiss Air-Rescue’s standby and deployment concept (1952–1958)  
Source: “Fliegen Retten Helfen” by Rudolf Bucher, published in 1961.

**Patrons enable Rega to invest in its own infrastructure and aircraft**

Following the introduction of the Rega patronage system in the mid-1960s, and thanks to the subsequent, steadily growing support of the Swiss population, Rega was able to increasingly invest in its own infrastructure and helicopters during the decades that followed. Parallel to the partnerships

with commercial operators who flew rescue missions on Rega’s behalf, Rega was thus able to establish and operate its own bases and helicopters that were used exclusively for rescue missions. Rega’s management realised that the consistent further improvement of medical assistance by air could only be achieved through the use of twin-engine rescue helicopters coupled with highly specialised training of the

## Rega's current helicopter base locations



- Rega Centre
- ① Rega 1 – Zurich base
- ② Rega 2 – Basel base
- ③ Rega 3 – Berne base
- ④ Rega 4 – Lausanne base
- ⑤ Rega 5 – Untervaz base
- ⑥ Rega 6 – Locarno base
- ⑦ Rega 7 – St. Gallen base
- ⑧ Rega 8 – Erstfeld base
- ⑨ Rega 9 – Samedan base
- ⑩ Rega 10 – Wilderswil base
- ⑫ Rega 12 – Mollis base
- ⑭ Rega 14 – Zweisimmen base
- ⑱ Rega 18 – Sion base
- Rega 15 – Partner base, Geneva
- Ⓣ Training base, Grenchen

Rega paramedics. However, this meant that a mixed operation, in which helicopters and crews could be deployed for both commercial and rescue missions, was no longer in patients' best interests. Rega's present-day nationwide operational concept is geared exclusively to rescue missions and comprises one of the densest and most modern air rescue networks in the world. But this is no reason to stand still: the on-going improvement of medical assistance is still one of Rega's key tasks, which is why it regularly reviews and optimises its deployment model.

### Expansion of the existing infrastructure

In doing so, Rega is continually adapting to changes in society. In order to meet the needs of a 24-hour society, Rega has, for example, successively increased its operational readiness at night over the last 15 years. During this time, the infrastructure of the helicopter bases has also been constantly adapted and expanded – for instance, to incorporate sleeping quarters. The Rega bases in Mollis, Samedan and Zweisimmen are currently being rebuilt or modernised.



The dense network of helicopter bases is structured so that Rega can reach any location in its operational area within 15 minutes' flying time.

suitable crew is always called out, taking into account all the ongoing missions and other relevant factors such as weather conditions. Rega's pioneers had already recognised this, too, and recorded it in Swiss Air-Rescue's (SRFW) Annual Report in 1961: "A central operational coordination unit can maintain an overview of all the aircraft that are standing by or being deployed [...]. We are responsible for ensuring that the means of rescue that is most appropriate and closest to the scene of the accident is deployed" – an insight that, given the ever-increasing number of missions and the growing complexity of the field of air rescue, is more relevant today than ever before. It is for this reason that over the past 70 years, Rega has invested not only in its bases and rescue helicopters, but also in its national air rescue coordination centre – that is, the very core of its operational concept. For it is the combination of decentralised locations and the central, overarching coordination of the rescue helicopters that ensures that in an emergency, medical assistance by air reaches the patient as quickly as possible. This deployment model, which Rega's founder, Dr Bucher, outlined more than 70 years ago, has remained fundamentally unchanged to this day. It has formed the basis for Rega's success and today enables the helicopter crews to come to the aid of on average 34 people in distress every day. And it is an impressive testimony to just how right Dr Bucher and the Rega pioneers were all those decades ago.

### New infrastructure and partnerships

Another way of strengthening the operational model is to station rescue helicopters at new locations or to enter into partnerships. In Geneva, Rega has fostered a partnership with the canton since 1987: the helicopter and the base there are operated by Geneva University Hospitals, while the rescue helicopter is deployed by the Rega Operations Centre. Since Christmas 2021, a Rega crew has also been on standby for missions around the clock at Sion Airport in Valais. This was implemented in collaboration with the local helicopter firm, Héli-Alpes SA. The Rega helicopter is housed in its hangar, and the Héli-Alpes' Bell 429 helicopter will also be used for Rega missions in future. Plans for a new Rega base in the Entlebuch region are still in their infancy: Canton Lucerne and Rega are currently looking for a suitable location.

### The key to rapid help is central coordination

In order for the operational model with the rescue helicopters distributed all over the country to be optimally utilised for the benefit of the patients, all the missions need to be centrally coordinated. This is the only way to ensure that the nearest



Before the emergency flight physician trials one of the prototypes for the new helmet, the design engineer explains to her its special features.

## Making what is good even better

**With its in-house Design and Development Centre, Rega has the necessary expertise to make modifications to its aircraft or to develop equipment parts itself. Two current examples show how even seemingly minor improvements facilitate the work of the crews when out on a mission and thus also benefit the patients.**

Improving its air rescue services is one of Rega's most important tasks. Ever since it was founded, Rega has constantly been developing ideas on how it can further optimise its aircraft and equipment. However, as its requirements are so specific, Rega is often not able to buy off-the-shelf components. Now as back then, the same thing applies: if Rega wants to improve something, it has to develop it itself. Over the years, however, this has become increasingly complex and costly. Nowadays, aviation organ-

isations are required to comply with a large number of regulations and strict specifications by the regulatory authorities.

### Implementing its own developments

For example, since a change in the law in 2006, all modifications made to aircraft must be approved and certified by the European Aviation Safety Agency (EASA). However,

the implementation and certification of modifications by external partners proved to be a very lengthy process. Therefore, in 2011, Rega responded to this by setting up its own Design and Development Centre, so that it could implement its ideas and improvements in-house. Thanks to its recognition by EASA as a so-called "Part 21 Design Organisation", Rega has since then been in the position to make changes to its rescue helicopters and equipment efficiently and flexibly and to implement and certify new developments itself. Two current examples show how the team of five male engineers and one female engineer are improving the equipment.

### Sophisticated fixtures for special intensive care transports

Rega is the only air rescue organisation in Switzerland to perform special intensive care transports.

For example, it is able to transport patients who are dependent on extracorporeal membrane oxygenation (ECMO) equipment. With this intensive care technology, a machine assumes some or all of the patient's respiratory and/or cardiac functions. The numerous regulations that need to be complied with present a major challenge for aircraft to be permitted to carry high-tech medical equipment, such as the 12 kg ECMO machine, on board. For instance, a device and its fixtures must be able to withstand a g-force of up to 20.

### Simpler handling to allow greater focus on patients

Rega's engineers are currently working on optimising the existing mounts in the cabin and further improving both the handling and the space available for the crew. To do this, a design engineer first produced the components in a 3D printer and then tested them for accuracy of fit and functionality in the helicopter cabin. Finally, a modular, rotatable platform construction was created that can be anchored in the seat rail in the cabin. Thanks to these custom-made mounts, other medical devices can also be installed and secured on the platform in future. Such sophisticated constructions may seem insignificant. But thanks to the equipment being as easy as possible to handle, the work of Rega's engineers plays a part in allowing the medical crew to focus entirely on caring for the critically ill patients on board.



After the initial tests, the design engineer and the emergency flight physician discuss the advantages and disadvantages of the various helmet models.

**New helmets: more than just a procurement project**

The second example concerns a major piece of equipment: the helmets for the helicopter crews. They not only serve as protection, but are also indispensable for communicating over the radio amidst the noise of the helicopter and the wind. Communication between the crew members, as well as with the Operations Centre and operational partners such as the police, must function faultlessly, as it contributes significantly to the success of a mission. The helmets of the individual crew members – pilot, paramedic and emergency flight physician – differ from each other due to their different requirements. For the pilot, for example, it is important that the night vision goggles can be mounted on their helmet easily and safely. The emergency flight physician, on the other hand, not only needs to communicate with the other crew members over the radio, but also to be able to talk to the patient with their helmet on. Consequently, the ear cups of their helmet can be folded back. Now, after 10 to 15 years in use, the helmets are reaching the end of their service life and need to be replaced. As with every procurement project, Rega is looking into what can be further improved.

**Customised yet compatible solutions**

Therefore, in their search for the ideal follow-on models, the engineers at the Design and Development Centre evaluate together with the crew members which technical modifications will enable the future helmets to fulfil the above-mentioned requirements even better than before and what can be further optimised: the hearing protection, for example, or even the radio system. If a wireless solution is possible, this would provide crew members with even greater freedom of movement and enhanced wearing comfort when out on a mission. One particular challenge in this regard is the compatibility of the radio and communication systems that are built into the various crew helmets, which have to work together perfectly. The design engineer is currently having various models tested by the crews to find out exactly what needs to be changed.

**The work of the engineers benefits the patients**

Rega is constantly striving to optimise patient care. By implementing innovative ideas and developing tailor-made solutions, the engineers facilitate the work of the crews during the missions and are thus continuing what was the driving force for the Rega pioneers of yesteryear: the further improvement of medical assistance by air in the service of the Swiss population.

# How medicine learned to fly

**In the early days of Swiss Air-Rescue, medical treatment in the field of air rescue was extremely limited. It was only when technical advances in aviation opened up new possibilities that Rega was able to gradually improve the medical care of its patients.**



Equipped for intensive care transports: Rega's ambulance jets are extremely versatile and the cabin can be adapted in line with the patient's requirements.

Rega's current rescue helicopters and ambulance jets are "flying intensive care units", in which the medical crews can also optimally monitor and care for their patients during the flight. To this end, the aircraft are equipped with mobile high-tech medical devices which, among other things, also make highly complex intensive care transports possible.

**Rescue helicopter: more space, more possibilities**

The situation was very different in the fledgling years of Swiss Air-Rescue in the 1950s: the first helicopters were too small and had too little power to transport patients in the cabin or to fly medical personnel to the scene of the



accident. The great advantage of the helicopter as a means of rescue was that it could reach patients by air within a very short time. At the accident site, the flight assistant could administer first aid and the patient was then flown lying on a stretcher attached to the exterior of the helicopter under a plastic hood to hospital, where they were handed over to the doctors for medical treatment.

**Medical crew on board**

Technological progress in the sphere of aviation, such as the development of larger and more powerful helicopters, enabled the Rega pioneers to provide better medical care during transportation. Consequently, from 1957, Rega was able to transport patients in the cabin of its first own helicopter, a Bell 47J, allowing rudimentary medical care on board. This heralded a new era in air rescue. These developments also opened up new possibilities for Rega in the composition of its crew, which could now be extended to include an emergency flight physician, as well as additional medical equipment.

**Enough space to provide optimal medical care in the jet**

Rega left no stone unturned in its efforts to also optimise the care of its patients on board the ambulance jets. In the 1970s, the introduction of the pressurised cabin, for example, made it possible to repatriate patients with serious illnesses or injuries. With repatriations, too, the question arose as to how the limited space in the cabin of the ambulance jets could be best used for the medical care of the patients.

Although the two Learjets that were in service in the 1970s could fly much faster and cover further distances than their predecessors, the available space was still limited – the stretcher with the patient filled most of the cabin. The emergency flight physician and intensive care nurse stood in a stooped position next to the patient. If a second patient was being transported at the



same time, their feet protruded into the small baggage compartment in the rear of the aircraft.

In the early 1980s, Rega expanded its fleet with the Bombardier CL-600, which not only had a longer range, but also a more spacious cabin. It could accommodate three or more patients, which the medical crew could now attend to standing up straight. The successors of the Learjets, which had to be replaced after ten years in Rega's service, also featured more spacious cabins than their predecessors. The two medium-haul British Aerospace BAe125-800 aircraft allowed additional medical equipment to be carried on board, thus enabling patients in a critical state of health to be monitored in an even more professional manner.

**As in the hospital, so also in the air**

Over the decades, Rega's determination to provide its patients with the best possible medical care and to constantly seek innovative solutions has remained undiminished – true to the principle of what is possible in a hospital environment should also be possible in an aircraft. Just how Rega has pushed the boundaries of the provision of medical care by air in the course of its history is illustrated by the following milestones that have set standards worldwide.

**Milestones in the provision of medical care**

**1957** Swiss Air-Rescue receives from the Association of Swiss Consumers' Cooperative Societies (VSK) the first helicopter of its own and stations it in Sion. In the cabin, patients can be transported lying down (*large picture left*).



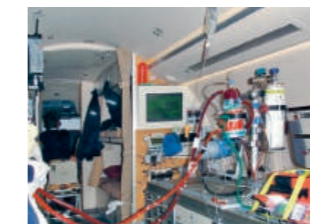
**1960** Swiss Air-Rescue carries out the first repatriation flight in its history. A patient is flown on board a Piaggio 166 fixed-wing aircraft from Châlons-sur-Marne (now Châlons-en-Champagne) in France back to Switzerland.



**1972** Swiss Air-Rescue stations a Jet Ranger helicopter on the roof of the University Children's Hospital in Zurich. As it is frequently used to transport premature babies, it is nicknamed the "Babycopter". With this new type of Rega mission, a paediatrician and a neonatology nurse are also always on board. The premature babies are transported in a special mobile incubator.

**1986** Already in the mid-1980s, Rega is able to transport intubated and artificially ventilated patients on board its ambulance jets. However, the crews can only guess how much oxygen their patients require – based on how blue their lips or nails are, for example. In 1986, Rega introduces the first portable pulse oximeter. This small device is attached to the patient's fingertip or ear and measures the oxygen saturation of the blood within a few seconds.

**1996** The travel behaviour of the Swiss population is changing. The Rega jets fly increasingly longer and further. On 11 June, a mission takes the Rega crew all the way round the world for the very first time. The flight with three patients on board takes a total of 43 hours. The jet makes stopovers in Muscat, Bangkok, Khabarovsk, Anchorage, Reading, Faro und Valencia.



**2010** Rega achieves a world first when it performs the first transatlantic flight at normal altitude carrying a patient attached to an extracorporeal membrane oxygenation device (ECMO). Besides the Rega crew, a cardiologist and cardiac technician are also on board. An ECMO device assumes some or all of the patient's respiratory and/or cardiac functions.



**2015** In response to the Ebola epidemic in West Africa, Rega develops a patient isolation unit (PIU) for transports by air. It enables patients with highly contagious illnesses to be isolated and safely transported on board without the jet having to subsequently undergo a special cleaning and disinfection process.



**2019** Rega performs the longest flight ever made with a patient hooked up to an ECMO device, from London to Kaohsiung in Taiwan, which takes 14.5 hours. The successful mission was made possible by Rega's close cooperation with the University Hospital Zurich and its efforts over many years to use high-tech medical equipment in its aircraft.

# In focus 2021



BROADLY ROOTED IN THE POPULATION

## A huge thank-you to all of our 3,678,000 patrons



Experiencing Rega: at this public event, visitors have the opportunity to inspect a H145 rescue helicopter.

Professional rescue by air around the clock, 365 days a year, with highly qualified staff, state-of-the-art rescue aircraft and equipment, and a dense network of 13 helicopter bases countrywide – it would be impossible to provide all of this in a cost-effective manner. This is only possible thanks to the solidarity contributions of Rega’s patrons. For as an autonomous, privately run, non-profit foundation, Rega provides its services without receiving any subsidies from the State. This system has proved its worth since the mid-1960s: it gives Rega the freedom and independence to fulfil its tasks and allows it to fully focus on the welfare of its patients.



A look behind the scenes: Rega employees show 20,000 visitors around the Rega Centre or a helicopter base every year.

Rega is more broadly rooted in the Swiss population than ever before: last year, 3,678,000 people had taken out a Rega patronage. Thanks to this token of solidarity by its patrons, Rega is able to provide the Swiss people with medical assistance by air around the clock.



The stranded DC-3 Dakota on the Gauli Glacier.

HISTORICAL

## Rega in a special exhibition

Seventy-five years ago, in November 1946, an American military plane crashed on the Gauli Glacier in the Bernese Alps in adverse weather. The subsequent rescue of all twelve passengers – who in a pioneering feat were evacuated from the glacier by the two pilots, Victor Hug and Pista Hitz, using two light aircraft – marked the birth of Alpine air rescue in Switzerland and led to the founding of Swiss Air-Rescue in 1952. Since autumn 2021, the Military History Museum in the Zeughaus in Schaffhausen has dedicated a special exhibition to the events of the time under the title, “Rescue from the Gauli Glacier”, which was opened in the presence of Rega CEO Ernst Kohler at the beginning of October.

AWARD-WINNING

## Rescue from the icy-cold Seealpsee

At the end of March 2021, the Rega crew from the Mollis base rescued two men at the last minute from the icy-cold Seealpsee (Canton Appenzell Innerrhoden). They had skied onto the frozen-over lake and fallen through the ice. The emergency flight physician was lowered to the two men on the end of the rescue hoist, and he pulled them one after the other out of the water. The Christophorus-Rat of the Swiss Lifesaving Society (SLRG) awarded the crew a certificate of merit and a medal for their actions.



The award-winning Rega crew in front of the Da Vinci rescue helicopter in Mollis.

PATIENT TRANSPORT

## The PIU is further developed

The transport of patients with highly contagious diseases is one of Rega’s tasks. On these flights, Rega uses its patient isolation unit (PIU), which it developed in 2015 in response to the Ebola epidemic in West Africa. The PIU and the accompanying transport concept enable Rega to transport patients with known or unidentified infectious diseases on board its own ambulance jets relatively easily yet safely and with a minimum of personnel. During the coronavirus pandemic, the PIU provided valuable services and made it possible to transport Covid-19 patients. It is now being further optimised, drawing on the experiences gained when it was in use. In 2021, Rega’s medical division launched a corresponding project in collaboration with the Design and Development Centre: the new PIU should be lighter and easier to stow away and offer patients the best possible comfort.



Transporting patients with highly contagious diseases easily yet safely.

OUR INVOLVEMENT

## Teaching first aid at schools

The programme, “Retten ist KLASSE”, which was launched in 2021 by the Swiss Samaritan Federation (SSB) and Rega, aims to raise awareness among schoolchildren aged 12 and over of the subject of first aid, to teach them basic first aid and to motivate them to take action in an emergency. In collaboration with Rega, the SSB has developed three learning modules, which are placed at teachers’ disposal in the form of an eBook. The programme has got off to a promising start: since it was launched, a total of 198 school classes with 2,909 schoolchildren have completed the units and explored the subject of first aid in greater depth within the framework of the course.

[www.samariter.ch/retten-ist-klasse](http://www.samariter.ch/retten-ist-klasse)



Schoolchildren learn how to respond to an emergency correctly – in line with the motto, “The only thing you can do wrong is do nothing at all!”

OPERATIONAL RESOURCES

## Combined technical devices for the search to the rescue

One of Rega’s tasks is to search for missing persons. If Rega is called out by the authorities to perform a rescue search, the Rega Operations Centre has various means at its disposal – for example, a search flight by the search helicopter, Rega 11, which is equipped with the IR/EOS multi-sensor search system. Since February 2021, this system has been supplemented with the so-called “Lifeseeker”. With this device, the missing person’s mobile phone can be located from the air, enabling the search area to be narrowed down substantially. If poor visibility conditions make the use of the search helicopter impossible, in future the Rega drone will go into action. Rega’s drone system has now reached the stage of being able to perform its first real-life missions to locate missing persons. Based on a provisional operational concept, Rega’s Operations Centre can deploy the drone as a supplementary rescue device.



The IR/EOS search system comprises a highly sensitive thermal imaging camera and optical sensors.



The Rega drone as a supplementary rescue device.

# Activities 2021



## A busy year of missions

Rega can look back on the busiest year in its history so far: in 2021, the Rega Operations Centre organised 18,017 missions, which is equivalent to an average of 50 missions per 24 hours and 10.7% more than in the previous year. Not only were the Rega helicopters in the air particularly frequently; the three ambulance jets also recorded a higher number of missions than in 2020. In addition, Rega continued to support the Swiss authorities in their efforts to deal with the coronavirus pandemic.



	2021	2020	+/-
Total missions	<b>18,017</b>	16,273	+10.7%
■ Helicopters	<b>14,330</b>	13,253	+8.1%
■ Jets/Scheduled aircraft	<b>980</b>	770	+27.3%
■ Other missions <sup>1</sup>	<b>2,707</b>	2,250	+20.3%

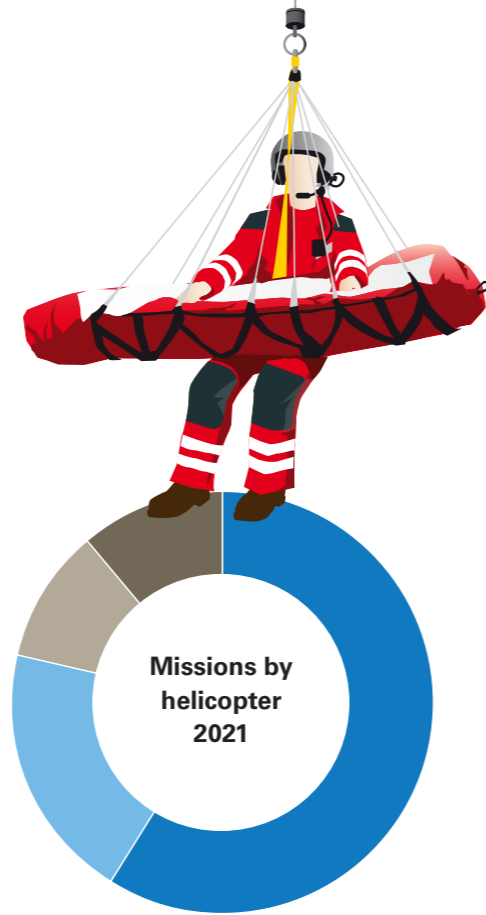
<sup>1</sup> Transports by ambulance, missions on behalf of the Swiss Alpine Club SAC, Spéléo-Secours, Redog, etc.

## Helicopter missions

Never before has the Helicopter Operations Centre organised so many missions (14,330, + 8.1%) as in the past year. Both the primary missions (8,444, + 8.6%) and the secondary missions (2,854, + 9.2%) registered an increase. The Rega helicopters were also in the air more often at night than in the previous year (2,745, + 4.8%), which corresponds to every fourth mission performed by a Rega helicopter. The amount of contadino missions organised by Rega's Operations Centre rose to 1,460 (+ 5.6%). These transports of injured or dead livestock for mountain farmers are carried out by commercial helicopter transport firms on Rega's behalf.

	2021	2020	+/-
Total missions by helicopter	<b>14,330</b>	13,253	+ 8.1 %
of which are performed at night	<b>2,745</b>	2,620	+ 4.8 %
■ Primary missions <sup>1</sup>	<b>8,444</b>	7,774	+ 8.6 %
■ Secondary missions <sup>2</sup>	<b>2,854</b>	2,614	+ 9.2 %
■ Assistance to mountain farmers	<b>1,460</b>	1,383	+ 5.6 %
■ Special missions <sup>3</sup>	<b>1,572</b>	1,482	+ 6.1 %

<sup>1</sup> Emergency missions directly at the scene of the incident  
<sup>2</sup> Inter-hospital transfers, neonatology, organ transports  
<sup>3</sup> Non-medical Rega missions (search, route securing and reconnaissance flights on behalf of operation partners) and missions performed by other helicopters



With its rescue helicopters, Rega is in operation around the clock, 365 days a year, in the service of the Swiss population.

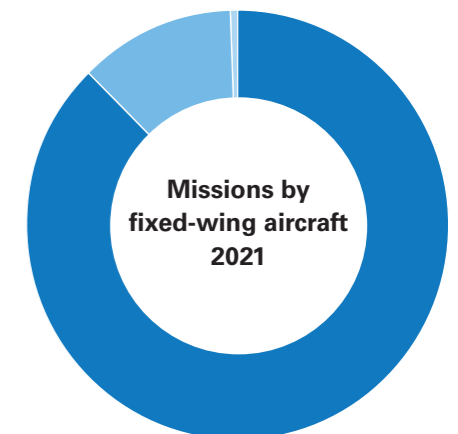


Rega builds a bridge back home for people in distress all over the world. Its three own ambulance jets are used exclusively for medical patient transports.

## Fixed-wing aircraft missions

After international travel was brought to a virtual standstill in 2020 as a result of the coronavirus pandemic, it recovered somewhat in 2021. This was reflected in the mission numbers: last year, the Rega crews repatriated significantly more patients from abroad than in the previous year (970, + 28.0%). Rega's three ambulance jets took off on 859 missions and flew 858 patients back home (+32.6%). The three jets spent longer in the air than in the previous year: the number of flight hours (4,632, + 1.0%) was the second highest since that recorded in 2018.

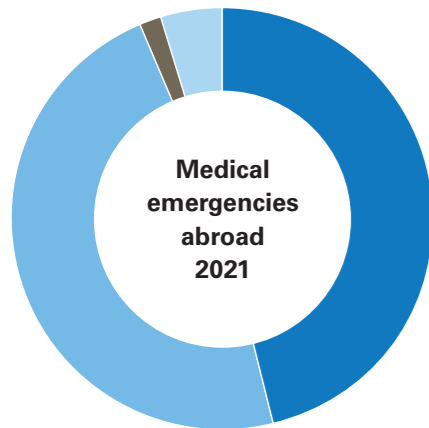
Rega repatriated almost the same number of patients on board commercial aircraft as in 2020 (112, 2020: 111). This more cost-effective and ecological alternative to the ambulance jet is employed provided that the patient's medical condition is sufficiently stable, that this form of transport is not expected to have a negative impact on other passengers, and that there are enough seats available on board the plane. In total, 27 patients (- 34.1%) were repatriated on scheduled flights accompanied by a Rega flight physician or intensive care nurse. The amount of unaccompanied repatriations totalled 85 (+21.4%). In such cases, the Rega Operations Centre organises the return journey for patients who are able to travel without a medical escort.



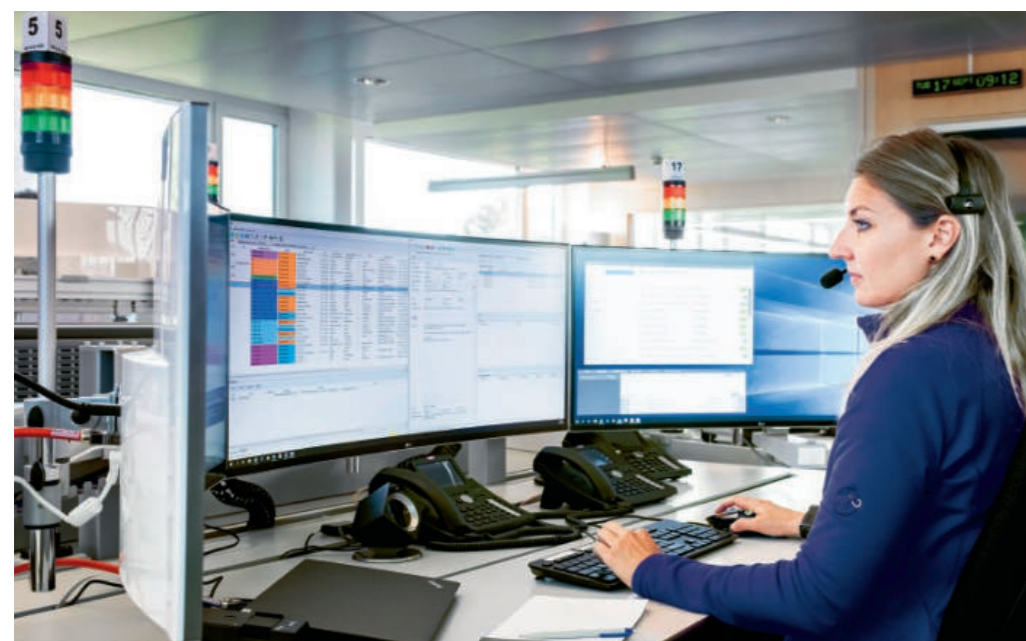
	2021	2020	+/-
Total missions	<b>980</b>	770	+ 27.3 %
■ Ambulance jets	<b>859</b>	649	+ 32.4 %
■ Scheduled aircraft	<b>116</b>	109	+ 6.4 %
■ Chartered aircraft	<b>5</b>	12	- 58.3 %

## Medical advice and assistance by Rega physicians

Prior to each repatriation mission, extensive medical clarifications are carried out by one of Rega's medical consultants. In liaison with the Operations Centre, the physician on duty decides whether repatriation of the patient is necessary and sensible, and if so, what form it should take. As with the flight coordinators, Rega's medical consultants work in shifts around the clock. Last year, the latter provided a total of 1,809 people (+ 26.0 %) suffering from medical problems abroad with competent advice. In 970 cases, the medical clarifications led to the patient being repatriated on board a Rega ambulance jet or a commercial airline. Individual insurance companies also ask Rega's medical consultants to clarify the medical condition of their policy holders who have become seriously injured or ill abroad, even if they are not Rega patrons. Rega makes a recommendation as to whether from a medical point of view the patient needs or is fit enough to be transported, and the insurance company then decides if and how repatriation should take place.



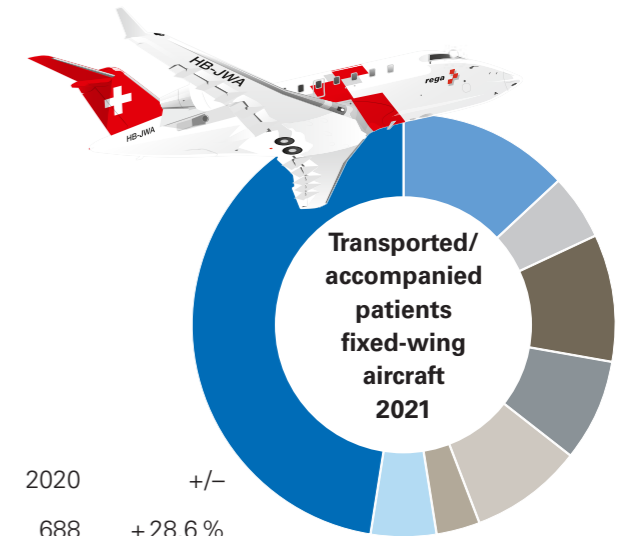
	2021	2020	+/-
Total patients	<b>1,809</b>	1,436	+ 26.0 %
Medical advice	<b>839</b>	678	+ 23.7 %
Repatriation by Rega ambulance jet	<b>858</b>	647	+ 32.6 %
Repatriation by scheduled aircraft, accompanied	<b>27</b>	41	- 34.1 %
Repatriation by scheduled aircraft, unaccompanied	<b>85</b>	70	+ 21.4 %



Whether a repatriation in a Rega jet or an escorted flight home on a scheduled flight: the flight coordinators plan and organise all the missions abroad and are in contact with authorities, hospitals and airports all over the world.

## Transported patients

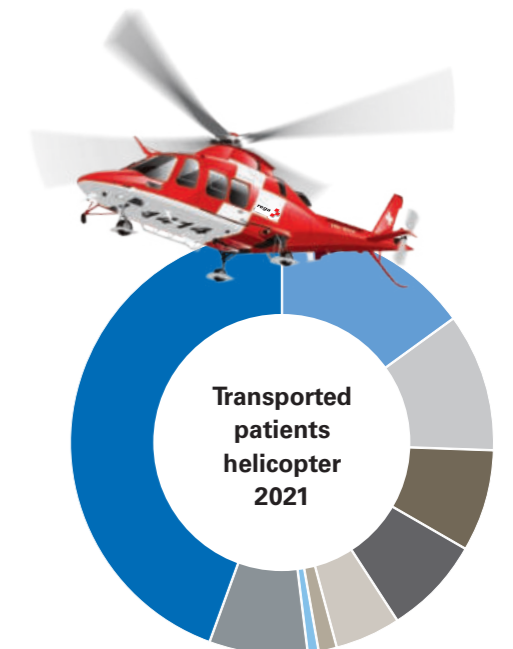
In 2021, the Rega crews transported a total of 12,284 patients (+ 10.3 %) on board their aircraft. They thus came to the assistance of on average 34 people per day.



	2021	2020	+/-
Total patients	<b>885</b>	688	+ 28.6 %
Limb injuries	<b>117</b>	72	+ 62.5 %
Craniocerebral trauma	<b>45</b>	30	+ 50.0 %
Other injuries	<b>84</b>	49	+ 71.4 %
Cardiovascular diseases	<b>71</b>	62	+ 14.5 %
Strokes	<b>76</b>	56	+ 35.7 %
Gastrointestinal diseases	<b>28</b>	24	+ 16.7 %
Malignant tumours	<b>44</b>	55	- 20.0 %
Other illnesses	<b>420</b>	340	+ 23.5 %

## Fluctuation in mission and patient numbers

The number of transported patients and missions do not always concur, because either several patients are transported at the same time or flights are performed without any patients at all – for example, if a search flight conducted by a Rega helicopter proves unsuccessful. The mission statistics relating to the Rega helicopters are subject to natural fluctuations and reflect the meteorological conditions, as well as the leisure activities and travel behaviour of both the Swiss population and foreign tourists in Switzerland. The number of repatriations also fluctuates and the deployment of the Rega jets varies depending on the travel- and work-related activities of Swiss people abroad.



	2021	2020	+/-
Total patients	<b>11,314</b>	10,376	+ 9.0 %
Winter sport accidents	<b>1,715</b>	1,580	+ 8.5 %
Occupational accidents	<b>1,179</b>	1,117	+ 5.6 %
Road accidents	<b>882</b>	835	+ 5.6 %
Alpine accidents	<b>860</b>	902	- 4.7 %
Sports accidents	<b>572</b>	642	- 10.9 %
Aviation accidents	<b>125</b>	130	- 3.8 %
Avalanche accidents	<b>62</b>	13	+ 376.9 %
Other causes	<b>834</b>	794	+ 5.0 %
Illnesses	<b>5,085</b>	4,363	+ 16.5 %

## Transport of Covid patients and assistance for the authorities



The patient isolation unit developed by Rega was frequently used when repatriating Covid-19 patients.

In 2021, Rega transported a total of 702 (+ 53.9 %) patients infected with Covid-19 on board its aircraft: 471 (+ 49.1 %) by rescue helicopter and 231 (+ 65.0 %) on board an ambulance jet. In addition, as in the previous year, Rega assisted the authorities in their efforts to deal with the pandemic and also took on new tasks. Among other things, at the request of the government, Rega's Operations Centre continued to support the Swiss hospitals as a national coordination centre by organising the distribution of patients among the intensive care units. Moreover, in autumn 2021, Rega assumed the role of coordination centre for repatriations and was tasked with coordinating the transfer requests by assistance companies for intensive care patients domiciled in Switzerland.

## New night vision goggles

Every fourth mission performed by Rega helicopters takes place after dark. For over 30 years now, Rega crews have been using night vision goggles in order to also bring medical assistance to people in distress at night. New, improved night vision goggles specially adapted to Rega's needs have been in use since April 2021. They combine the best components of various devices and are tailored to Rega's requirements. With these new night vision goggles, Rega is continuing to write its decades-long success story: already back in 1987, Rega was the first civilian air rescue organisation in the world to equip all its helicopter crews with night vision goggles.



The new night vision goggles offer a wider field of vision and greater contrast.



In future, the all-weather AW169-FIPS helicopter will be part of the Rega fleet.

## Expansion of the helicopter fleet

Rega's future all-weather AW169-FIPS helicopter from the manufacturer Leonardo is currently under development. Having been brought to a halt due to the pandemic, the series of test flights with the prototype in North America were resumed in 2021. The organisational work relating to the addition of the three AW169-FIPS to the fleet has also begun. This includes procuring the necessary special tools and spare parts, planning the training of the helicopter mechanics at Rega's own aircraft maintenance facility and providing the necessary IT infrastructure for the helicopters. Delivery of the three new rescue helicopters is scheduled for 2023.

More missions and increased training make great demands on the availability of the Rega helicopters. In order to be ready for action around the clock, Rega must always be in a position to also respond to unforeseeable events, such as technical defects on its aircraft. Last year, the decision was made to expand the fleet with an additional Airbus H145 rescue helicopter. Rega is thus planning for the long term and ensuring the 24-hour readiness of its 13 country-wide operational bases for the coming years.

## Rega strengthens its air rescue operations

At the end of 2021, Swiss Air-Rescue Rega further strengthened its countrywide air rescue operations by stationing a rescue helicopter in Sion (Canton Valais). The stationing of an Agusta-Westland Da Vinci helicopter in Sion is being carried out in collaboration with the local helicopter firm, Héli-Alpes SA, in whose hangar the Rega helicopter will be based. The Rega crew is on standby around the clock and can thus take off within just a few minutes, including at night, in order to bring medical assistance wherever it is needed. Similarly to all of Rega's helicopters, the rescue helicopter in Sion is equipped with a rescue hoist and can be deployed for Rega's entire scope of operations, including transporting intensive care patients and newborn or premature babies.



An AgustaWestland Da Vinci rescue helicopter is now also stationed in Sion.



When visibility is poor, the rescue helicopter can follow a flight route stored in the on-board computer.

## Low Flight Network is expanded

For many years, Rega has been pursuing its vision of performing all-weather air rescue in order to be able to help even more people in distress. Together with the Swiss Air Force and the Skyguide air navigation service, it has been working on setting up and putting into operation the Low Flight Network (LFN). This country-wide network of instrument flight routes links airports, airfields, hospitals and Rega bases with each other. The rescue helicopter can thus follow a flight route stored in the on-board computer, including in very poor visibility. This means that missions can be carried out that previously had not been possible.

With the adoption by the Swiss Parliament of the motion proposed by Council of States member Josef Dittli (FDP) at the end of 2020, the LFN has been assigned the status of a critical aviation infrastructure of national importance, which is to be operated and expanded on behalf of the Confederation. Thus, the Confederation has been given the mandate to create the necessary legal framework and secure the financing to achieve this. To this end, the expanded project, “National LFN”, was launched in April 2021 under the lead of the Federal Office of Civil Aviation (FOCA). Besides Rega and the Swiss Air Force, the Skyguide air navigation service and the Federal Office of Meteorology and Climatology, MeteoSwiss, are also involved.

In the first half of 2021, Rega submitted various applications to expand the LFN with additional locations. As of the end of January 2022, the applications to use instrument flight procedures for Breitfeld/Winkeln (Canton St. Gallen), the Cantonal Hospitals in Frauenfeld (Canton Thurgau) and Lucerne, and Les Eplatures Airport (Canton Jura), among others, were still pending with the governmental authorities.

## New fallback location

At the end of 2021, Rega’s flight coordinators put their new fallback location into operation. This is a fully functional, second Operations Centre, which has the same systems and infrastructure as the one at the Rega Centre at Zurich Airport. It enables the operation and availability of the national air rescue coordination centre to be maintained in exactly the same way if the infrastructure at the Rega Centre were to malfunction.



At the Operations Centre, the flight coordinators receive emergency calls around the clock and organise all the missions in Switzerland and abroad.

## Renovated hospital helipads in Zurich, Chur and Frauenfeld

The safety of crews, patients and third parties is of top priority to Rega. As a result, it is actively taking steps to modernise various hospital helipads. It advises and supports the hospitals in the corresponding projects and also contributes towards some of the costs. In the past year, three new hospital helipads – which were realised with the close involvement of Rega – were put into operation: the University Hospital Zurich, the Cantonal Hospital Chur and the Cantonal Hospital Frauenfeld now have modern helipads that meet the current requirements in terms of size, maximum load, lighting and other safety-related factors.



Temporary landing on the new helipad on the roof of the University Hospital Zurich: the H145 rescue helicopter.

## Simulator for various helicopter types

Highly-trained crews are fundamental for successful and safe rescue flights. In the simulator, pilots can replicate emergency procedures and situations that can hardly – or not at all – be practised in real life. In 2021, Rega signed an agreement to purchase a new helicopter simulator. Thanks to the interchangeable cockpits, it can be used for different helicopter types. Initially, the simulator will be fitted with the cockpit of Rega’s future all-weather AW169-FIPS helicopter. Subsequently the new system can be adapted to incorporate other helicopter types in the Rega fleet, and all helicopter simulator training exercises for the crews can be conducted at the same location near Zurich Airport. This considerably reduces time and travel for crew training. Rega is investing around CHF 15 million in the new system, which is scheduled to start operation at Lufthansa Aviation Training in Opfikon (Canton Zurich) in 2023. In addition, any free capacities will be offered to other customers.

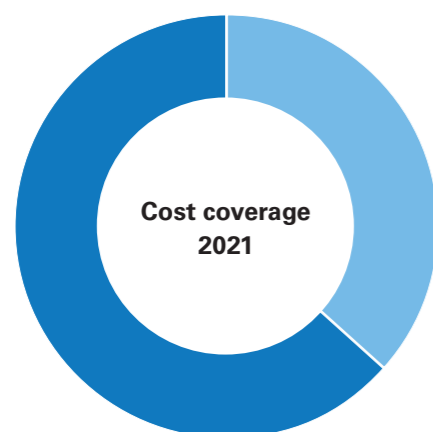


The cockpit module of the future helicopter simulator is interchangeable.



# Key figures 2021

Rega is an autonomous, privately run, non-profit foundation. With its 3,678,000 patrons, it is deeply rooted in the Swiss population. Rega operates independently of political interests and is not subsidised by the State. It is an integral part of primary healthcare in Switzerland and with its work contributes towards improving the quality of life, the economy and tourism in this country.



- Patrons' contributions and donations: CHF 133.1 million (63.5%)
- Cost bearers and other revenue: CHF 76.4 million (36.5%)

## Financial development and investments

In the 2021 business year, Rega's operating income totalled CHF 205.4 million, while the operating expenses came to CHF 187.9 million. This resulted in a positive operating result of CHF 17.6 million. The annual result amounted to CHF 29.8 million. In 2021, Rega's patrons supported Rega with annual contributions, donations and bequests totalling CHF 133.1 million (2020: CHF 107.4), thus bearing around 63.5 percent of the overall costs. The remaining 36.5 percent is mainly covered by cost bearers, such as health, accident or travel insurers, in the form of payments for the rescue services provided. In line with its strategic goals, Rega is almost 100 percent self-financed and does not need outside capital to finance its investments.

## The key figures for 2021 at a glance

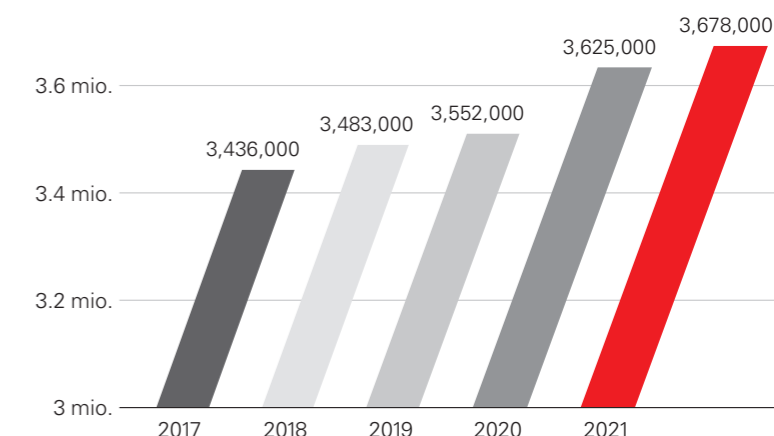
<b>Total number of missions organised</b>	<b>18,017</b>
Helicopter missions	14,330
Fixed-wing aircraft missions	980
Other missions <sup>1</sup>	2,707
Patronage contributions and donations (CHF million)	133.1
No. of patrons (in millions)	3.678
No. of employees <sup>2</sup>	381
Operating revenue (CHF million)	205.4
Operating expenditure (CHF million)	187.9
Operating result (CHF million)	17.6
Balance sheet total (CHF million)	622.2

<sup>1</sup> Other missions: transports by ambulance, missions on behalf of the Swiss Alpine Club SAC, Spéléo-Secours, Redog, etc.  
<sup>2</sup> Equivalent to no. of full-time positions as of the end of December

## Development in the number of patrons

Thanks to the solidarity contributions by its patrons, Rega is able to provide nationwide medical assistance by air – without receiving any subsidies from the State. These contributions allow Switzerland to benefit from an air rescue service that sets standards and is held in great esteem all over the world. In the year under review, Rega once again registered a growth in support: as of 31 December 2021, a total of 3,678,000 patrons were recorded on Rega's computer system. This represents approximately 53,000 additional patronages or a net increase of 1.4 percent compared to the previous year.

According to its Conditions of Patronage, in grateful acknowledgement of patrons' support, Rega can waive or reduce the costs of any emergency services that it has provided or organised on their behalf in the event that insurance companies are not liable to pay.



You can find the Financial Statements 2021 (in D/F/I) at [report.rega.ch/2021](https://report.rega.ch/2021)

# Foundation Board



## Foundation Board of Swiss Air-Rescue Rega

Michael Hobmeier, Bäch, since 2007  
Chairman and Member of the Executive Committee

Christian Kern, Prof. Dr. med., Geneva, since 2009, Vice-Chairman and Member of the Executive Committee

Patrizia Pesenti, Zollikon, since 2009  
Member of the Executive Committee

Gabi Huber, Dr. iur., Altdorf, since 2015  
Member of the Executive Committee

Josef Meier, Wettingen, since 2013  
Member of the Executive Committee

Heidi Hanselmann, Walenstadt, since 2010

Thomas P. Emmerich, Riehen, since 2011

Marco Maggiorini, Prof. Dr. med., Schindellegi, since 2011

Adrian Amstutz, Schwanden, since 2013

Franz Stämpfli, Innertkirchen, since 2015

Gerold Biner, Zermatt, since 2015

Thomas Holderegger, Waldstatt, since 2015

Markus Furrer, Prof. Dr. med., Felsberg, since 2019

Paul Hälg, Dr. sc. techn., Wollerau, since 2019

Thomas von Wyl, Dr. med., Unterseen, since 2021

## Medical Commission

Christian Kern, Prof. Dr. med., Chairman

Marco Maggiorini, Prof. Dr. med.

Markus Furrer, Prof. Dr. med.

Thomas von Wyl, Dr. med.

## Finance Commission

Josef Meier, Chairman

Michael Hobmeier

Paul Hälg, Dr. sc. techn.

## Advisory Committee Partner Organisations

Franz Stämpfli, Member of the Rega Foundation Board, Chairman

Thomas P. Emmerich, Member of the Rega Foundation Board

Stefan Goerre, Dr. med., Swiss Alpine Rescue representative

Andy Scheurer, Spéléo-Secours representative

Markus Denzler, police commanders representative

Marc Ziegler, Swiss Cable Cars Association representative

Sibylle Frey, Swiss Air Force representative

Roman Burkart, Medical Emergency Call Centres 144 representative

Renato Belloli, Swiss Helicopter Association (SHA) representative

Daniel Weisskopf, Swiss Fire Service Coordination (FKS) representative

## Auditors

KPMG AG, Zurich

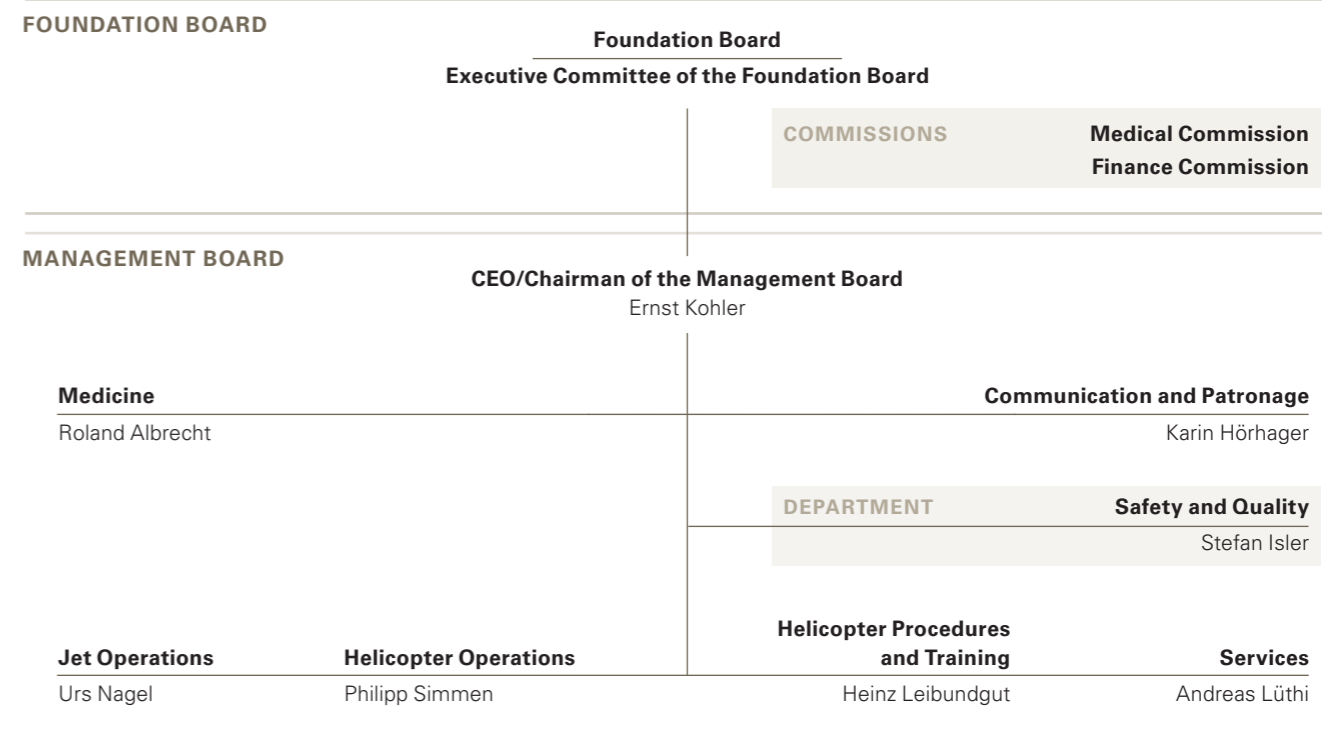
as of 1 January 2022

# Management Board



From left: Andreas Lüthi, Karin Hörhager, Roland Albrecht, Heinz Leibundgut, Ernst Kohler, Philipp Simmen, Urs Nagel

## Organigram as of 1 January 2022



# Mission Statement



## Our purpose

We provide an around-the-clock service offering swift, expert assistance by air. In particular, we transport medical care to the casualty and help in emergency situations.

This assistance also takes the form of medical advice and the use of our infrastructure.

Our operations are characterised by our highly qualified, professional members of staff and the very best equipment available in the fields of rescue, medical and flight technology.

## Our fundamental concept

We are a non-profit organisation that is funded by its patrons. Our services are primarily geared towards the needs of the Swiss population. We are financed by means of private funding. This enables us to operate independently in the service of our patients.

In the interest of the patient, we take an active stand against the commercialisation of air rescue.

Emergency missions and other operations carried out on behalf of the general public are not conditional upon whether or not the ensuing costs are covered.

Our rescue activities are based on the Fundamental Principles of the Red Cross.

## Our patrons

Thanks to their annual contributions, our patrons enable us to build up and operate a suitable infrastructure to perform air rescue operations on behalf of the Swiss population.

The services rendered by Rega to its patrons are not of a contractual nature and are therefore not deemed to be insurance benefits.

## Our partners

We are fully aware of the importance of working in close collaboration with our partner organisations, and actively foster a successful working relationship with them.

We act as a fair and reliable partner.

We focus our activities on the fields of air rescue, air-ambulance repatriation services and medical advice.

In order to maintain and further improve the top level of expertise of our medical staff, we also perform medically indicated flights on behalf of international clients.

## Our staff

Our members of staff play a decisive role in fulfilling our purpose. The following factors are of particular importance in this respect:

- personal identification with the organisation and its purpose;
- independence and responsibility;
- willingness to perform, flexibility and motivation.

We aim to achieve this by means of:

- on-going training appropriate to the various hierarchical levels;
- progressive working conditions;
- appropriate salaries and attractive social benefits.

We foster a style of behaviour among our staff that is open, cooperative and characterised by mutual respect.

## Our values

We strive to provide around-the-clock services of first-class quality and safety, as well as to cultivate a conscious, structured manner of dealing with risks.

Our organisational structures are characterised by a clear-cut delineation of tasks, competences and responsibilities. These are implemented and respected at all hierarchical levels, from ordinary employees right up to the members of the Foundation Board.

We act and communicate in an open and transparent way, both within our organisation and towards the outside.

We are conscious of a potential conflict between performing our work and protecting the environment, and take this into account in everything we do.

# Governance and compliance



The purpose of the Swiss Air-Rescue Rega Foundation is above all to help people in distress and in need of assistance, in accordance with the Fundamental Principles of the Red Cross. It provides its services without discrimination as to person, financial circumstances, social status, nationality, race, religious beliefs or political opinions.

Rega is fully committed to conducting its business according to the principles of good corporate governance. It upholds the guiding principles of non-profit governance: checks and balances, responsibility and efficiency, transparency, and safeguarding the interests of patrons and donors. Rega's guiding principles relating to corporate governance are embedded in its Foundation Deed and Regulations, its organisation and management regulations, its Mission Statement and its Code of Conduct. The Foundation Board monitors these principles on a regular basis.

#### **Foundation Board**

The Foundation Board is Rega's supreme body. It lays down the guiding principles of the organisation in accordance with the Foundation Deed. It draws up the Mission Statement and pertinent regulations, and adopts the strategy and the budget. It approves the Annual Report and the annual financial statements.

It defines the supervision and monitoring of the business activities. It also authorises the principles relating to the remuneration of the members of the Foundation Board and the Management Board.

The Foundation Board comprises a maximum of 15 members. The term of office is four years. Members are eligible for re-election up to their 70th birthday. There is no limitation on the length of service of the members of the Foundation Board. The Foundation Board elects from among its members a Chairman, as well as the five members of the Executive Committee, and also defines the Committee's tasks and competences.

#### **Executive Committee of the Foundation Board**

The Executive Committee comprises five members of the Foundation Board: the Chairman, the Vice-Chairman, the Chairman of the Medical Commission, the Chairman of the Finance Commission, and one other member of the Foundation Board.

The Executive Committee of the Foundation Board is responsible for carrying out the tasks delegated to it. It coordinates the permanent commissions of the Foundation Board. Furthermore, on behalf of the Foundation Board, it supervises

and monitors the Management Board and issues it with the necessary instructions.

The members of the Executive Committee also serve on the Board of Directors of the subsidiaries, Swiss Air Ambulance Ltd. and Airmed AG.

#### Management Board

The Chairman of the Management Board is charged with managing the operative business, implementing the resolutions adopted by the Foundation Board and the Executive Committee, and delegating the various tasks and competences within the organisation.

#### Tasks and procedures of the permanent commissions and the Advisory Committee

Each specialist body is governed by a set of regulations specifying its various tasks and competences, and is headed by a chairperson elected by the Foundation Board. The commissions meet on a regular basis to discuss specialist matters, which are specified by the relevant chairperson.

Prior to the meeting, the commission members receive the relevant documents so that they can prepare for the various items on the agenda.

#### Medical Commission

The Medical Commission comprises the Chairman, Prof. Dr. med. Christian Kern, and three physicians, all of whom are members of the Foundation Board.

The meetings are also attended by the Chairman of the Management Board, the Medical Director and, where necessary, other specialists, who are present in an advisory capacity and have the right to propose motions.

The Medical Commission is an advisory body to the Foundation Board and the Medical Director. It deals with and considers specialist matters relating to emergency and rescue medicine that fall within the competence of the Foundation Board, prior to the latter taking any decisions. When drawing up medical guidelines and quality controls, the Commission is assisted by Rega's Medical Service.

#### Finance Commission

The Finance Commission comprises its Chairman, Josef Meier, and other members of the Foundation Board. The meetings are also attended by the Chairman of the Management Board, the Chief Financial Officer and, where necessary, other specialists, who are present in an advisory capacity and have the right to propose motions.

The Finance Commission is an advisory body to the Foundation Board. It deals with matters relating to financial planning, budgeting, investment policy and the internal control system, and periodically examines the form and scope of financial reporting.

#### Advisory Committee Partner Organisations

Under the chairmanship of Franz Stämpfli, the Advisory Committee comprises members of Rega's Foundation Board together with representatives from the following partner organisations: Swiss Alpine Rescue, commercial helicopter firms, the Canton of Valais Air-Rescue Service, the Swiss Air Force, the Swiss Cable Cars Association, police commanders, Spéléo-Secours Switzerland, Swiss Fire Service Coordination (FKS) and the Medical Emergency Call Centres 144.

The Advisory Committee is concerned with tasks relating to the collaboration between the partner organisations and promotes the exchange of information between the various network members.

#### Accounting and auditing

The financial statements of the Swiss Air-Rescue Rega Foundation

and its subsidiaries are prepared in accordance with the principles of Swiss GAAP FER accounting and reporting recommendations (in particular, GAAP FER 21), and give a true and fair view of its net assets, financial position and earnings performance.

At Rega, the "four eyes" principle is applied. This means that fundamentally two joint signatures are required at all levels. The Foundation Board has drawn up a set of regulations governing competences and signatory rights. Both internal and external control bodies periodically check that these regulations are being complied with.

#### Risk Management – Internal Control System

The highly complex nature of emergency medical rescue, coupled with the strict requirements of aviation law and the demands of the Code of Obligations, make it necessary to take a structured approach to risks. Rega has combined demands from the Internal Control System and Safety and Quality Management to create integrated risk management in order to identify and view risks holistically and make use of available synergies.

As Rega's supreme body, the Foundation Board is responsible for risk management at Rega and all its subsidiaries. The key risks are systematically identified and evaluated every year, and appropriate risk control measures are taken. The identified risks are additionally monitored on an ongoing basis.

#### Rega's interests

Rega has interests in various companies domiciled in Switzerland. Strategic interests in companies and foundations in which Swiss Air-Rescue Rega directly or indirectly holds more than 50 percent of the voting rights or which are controlled by the Foundation Board are consolidated in the annual financial statements. An overview of these interests is provided in Rega's consolidated annual financial statements.

Rega further holds operative and functional minority interests in helicopter companies, airfield companies and cooperatives, and partner companies. This portfolio is maintained in order to fulfil the purpose of the Foundation.

Rega also has interests/investments which are managed by external asset managers according to a portfolio management agreement.

#### Foundation Board compensation

Compensation of the Foundation Board is based on the set of regulations approved by the Swiss Federal Supervisory Board for Foundations. Compensation (fixed sums, attendance fees and expenses) covers part of the expenses of Foundation Board members for preparing meetings, reviewing documents and attending meetings of the Foundation Board, Foundation Board Committee, specialist and ad hoc committees, Advisory Committee, partner organisations, pension foundations and other companies in which Rega has an interest. All compensation made to the Foundation Board and its Chairman is reported in detail in Rega's consolidated annual financial statements.

#### Foundation supervisory authority

As a non-profit foundation, Rega is subject to the supervision of the Swiss Federal Supervisory Board for Foundations in Berne, to which it is required to submit a management report each year. The last assessment and review by the Federal Supervisory Board was conducted on 2 March 2022; no objections of any kind were raised.

# Milestones in Rega's history



27.4.1952

**The organisation is founded**  
Swiss Air-Rescue is founded as a sub-section of the Swiss rescue association, Schweizerische Lebensrettungsgesellschaft (SLRG), in the Hotel Bären in Twann.



1952

**Swiss Air-Rescue is ready to start operations**

On 25 December, Dr Rudolf Bucher, the head of Swiss Air-Rescue, announces over Radio Beromünster that the parachutists and helicopters are ready for action.



1957

**The first helicopter of its own**

A countrywide collection by the Association of Swiss Consumers' Cooperative Societies (now Coop) produces sufficient funds to purchase a Bell 47J helicopter.



1960

**An autonomous organisation under Fritz Bühler**

Swiss Air-Rescue breaks away from its parent organisation, the SLRG. Fritz Bühler is appointed Technical Director.



**First repatriation**

For its first repatriation mission, the private Piaggio 166 aircraft owned by Dr Armin Meyer flies a patient from France back home to Switzerland.



1971

**First direct rescue from the Eiger north face**

What until now had been deemed impossible, suddenly becomes reality: using a rescue hoist, the crew from the Gsteigwiler base lift two climbers directly off the rock face.



**First Alouette III**

The Alouette III SE 316 HB-XDF is Rega's first helicopter to be financed by patrons' contributions. The picture shows it in operation at the Engadin Ski Marathon in 1972.



1979

**Rega becomes a non-profit foundation**

The Association sets up a Foundation. Fritz Bühler is appointed the first Chairman of the Foundation Board. In 1981, Rega also becomes a Corporate member of the Swiss Red Cross.



1987

**Helicopters with night vision goggles**

Rega is the first non-military organisation in the world to equip all of its helicopters with night vision goggles, thus increasing the safety of night missions.



2002

**Three new Challenger CL-604 jets**

Three identical aircraft from the Canadian manufacturer, Bombardier, replace the 15-year-old air ambulance fleet.



**Five Eurocopter EC 145 helicopters**

Rega purchases five spacious rescue helicopters from helicopter manufacturer Eurocopter for use at its lowland bases. This is followed by a sixth.



1996

**The first round the world flight**

In a mission lasting 43 hours, the Challenger CL-600 transports three patients in consecutive legs, a journey that takes it all the way round the world for the first time.



1956

**Emergency assistance in the USA**

After a plane accident, Swiss Air-Rescue pioneers recover the bodies of 128 persons from an inaccessible area in the Grand Canyon region.



1953

**The first rescue parachutists**

In winter 1953, Swiss Air-Rescue parachutists are used on a rescue mission for the first time.



1968

**Bell 206A, the first turbine-powered helicopter**

The Jet Ranger HB-XCU has a turbine, but no rescue hoist. In mountainous areas where the helicopter is unable to land, rescue is only possible using the fixed rope.



1966

**Self-help by means of patronage**

No funds from the Swiss government. However, a nationwide appeal for help proves successful. 25,000 patrons save Swiss Air-Rescue from financial ruin.



1973

**Twin-engine helicopter**

The introduction of the Bolkov BO-105C – depicted here on the roof of the University Children's Hospital in Zurich – marks the beginning of the era of twin-engine helicopters at Rega.



**Operations abroad with its own aircraft**

Rega's Learjet 24D HB-VCY is the first civilian ambulance jet in the world. It is fully equipped with medical apparatus and is on stand-by around the clock.



1984

**Long-haul ambulance jet**

The Challenger CL-600 HB-VFV is equipped to perform long-haul operations with several patients on board. In Geneva, it is christened "Fritz Bühler".



1992

**The new fleet is made up of Agustas**

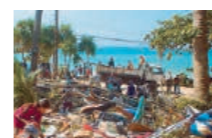
On 14 August, the Untervaz base in Canton Graubünden puts the first of the 15 new twin-engine Agusta A 109 K2 helicopters into operation.



1997

**New Rega Centre at Zurich-Kloten**

For the first time, Rega's hangar, Operations Centre, maintenance works, logistics operations, Patronage Centre and Administration Department are all united under one roof.



2004

**Tsunami in Southeast Asia**

Rega is pushed to the limit. Over a period of ten days, 16 medical teams are in operation. Within the space of a week, more than 60 casualties are repatriated to Switzerland.



2009

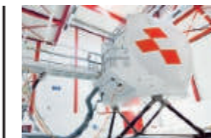
**The AgustaWestland Da Vinci is Rega's new mountain helicopter**

Rega purchases from helicopter manufacturer AgustaWestland 11 rescue helicopters for use at its mountain bases.



**Mobile heart-lung machine on board**

For the first time, critically-ill patients can be hooked up to a heart-lung machine in the Rega helicopters and jets.



2013

**The flight simulator for the AgustaWestland Da Vinci sets new standards**

Instrument flight and emergency scenarios can now be practised realistically and efficiently – in safety and without harming the environment.



2014

**Premiere for Rega's new transport incubator,**

which can be used in both the jets and the helicopters and provides premature or newborn babies with the best possible medical care.



2016

**Rescue despite poor visibility thanks to IFR flight route network**

In December, two routes of the Low Flight Network for helicopters, which is based on satellite navigation, are certified for daytime use.



2015

**Rega orders three all-weather AW169-FIPS helicopters**

from Leonardo (formerly AgustaWestland), which are equipped with an anti-icing system and will go into operation in 2023.



2017

**Precise flight weather data**

60 new or enhanced measuring stations and weather cameras now continually supply Rega's helicopter pilots with up-to-date meteorological information – a key prerequisite for IFR flights.



**Authorisation for Low Flight Network**

Rega receives special authorisation to use key intersections of the nationwide network of IFR flight routes on missions virtually around the clock.



2019

**The Rega drone,** which is to be used to search for missing or injured persons,

is presented for the first time. The newly developed drone system aims to supplement Rega's scope of operations.



2021

**Support for Switzerland**

Rega supports the Confederation, the cantons and the Swiss population in their efforts to deal with the coronavirus pandemic with its expertise and infrastructure.



**New night vision goggles**

Rega also brings medical assistance by air in the dark. To do this, it uses night vision goggles that have been specially developed for Rega.



2018

**Three new ambulance jets**

The new Challenger 650 jets from Bombardier fly patients from all over the world back to Switzerland. The Rega jets replace the three CL-604s that have been in operation since 2002.



**New generation Rega helicopters**

The first two H145 helicopters from Airbus Helicopters are stationed at the Berne and Basel bases as high-performance successors of the EC 145 fleet, which repatriated over 60,000 patients.



2020

**456 Covid-19 patients**

are transported on board Rega's aircraft during the coronavirus pandemic, 316 of them by rescue helicopter and 140 in an ambulance jet.



**Emergency doctor vehicles**

at the Rega bases in Mollis and Erstfeld enable the emergency physician and paramedic to also be called out if, for example, the rescue helicopter cannot fly due to bad weather.



You can find a comprehensive history of Rega at [rega.ch/history](https://www.rega.ch/history)

# You can also find our Annual Report 2021 online at [report.rega.ch/2021](http://report.rega.ch/2021)

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