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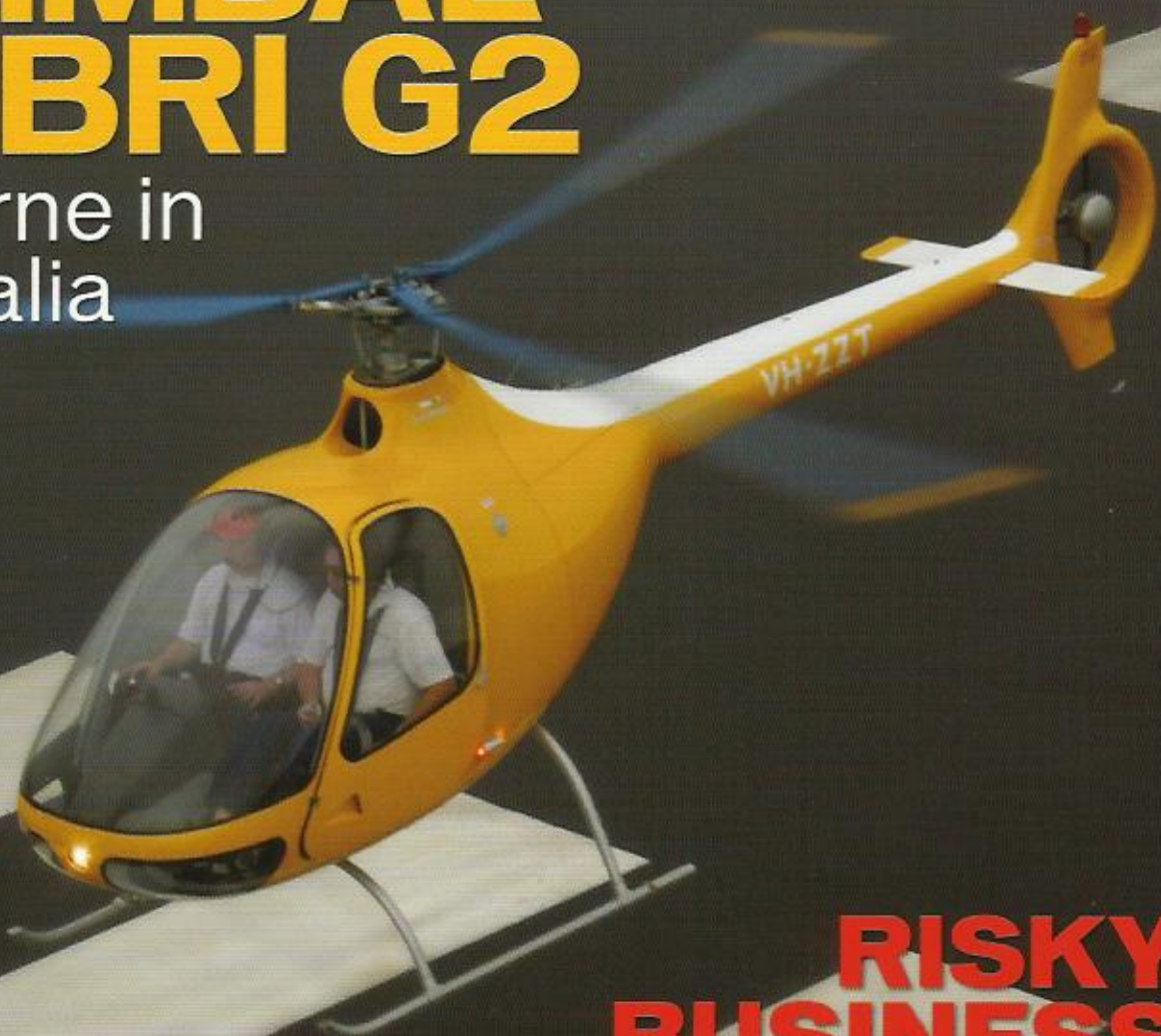
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GUIMBAL CABRI G2

Airborne in
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**RISKY
BUSINESS**

Flying over water

**RICHARD
DE CRESPIGNY**

Surviving systems failure



LETTER BOX



According to CASA, there are currently 2840 helicopter pilots registered in Australia. This includes 11 students, who have passed their GFPT, 565 PPL holders, 1604 CPL holders and 660 ATPL holders. A search on the CASA website's civil aircraft register reveals 1849 registered helicopters. This puts the ratio of pilots to machines at 1.5 to 1. I'd be interested to know what you think about this, especially in contrast to the rest of the Asia-Pacific. Send in your thoughts via email. Also, Nick Lappos is not in this edition because he recently went back to work for Sikorsky and their legal team couldn't give us approval for his column in time.

SASKIA PICKLES

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*Above:
See page 36 for
a unique story
on helicopter
operations.
Photo: Dmo
Marcellino*

Letters

As you asked for some comments, here they are! I am very impressed with the Helinews magazine, which I have been subscribing to for some two years now. The recent issues have been excellent, as they have just the right balance of training articles and news. Please keep this up. In particular:

- *Pilot profile (gives me an insight to what other pilots are doing).*
- *Safety (my awareness is always raised).*
- *Helen Krasner's articles are always good value.*
- *Ron Newman's instructional element is the best in the country, if not the world. Very clear and always relative. Has excellent colour diagrams.*
- *Quiz at the end to keep us on our toes and realise what we don't know!*
- *Nick Lappos – another great instructional piece. I only wish he added in diagrams like Ron does?!*

*Don't change a thing – it's a great informative read every time.
Kind regards,*

KEITH FOREMAN





POOCH TO THE RESCUE

Dino Marcellino visits Italy's School of Water Rescue for Dogs. For the last test in their course all handlers and dogs must learn how to operate out of helicopters.

*Above:
The dogs are first familiarised with the aircraft without the rotors running, as they are very sensitive to noise.*

*Opposite page:
A Newfoundland dog waits to get in the AS350 B3.*

Photos: Dino Marcellino

In north Italy in the central Alps, the pleasant temperature and beautiful sunny, spring morning invites many to stroll along the banks of Lake Iseo. Olive groves and vineyards grow nearby and the surrounding mountains are reflected in the lake, the waters of which are rippled by a gentle breeze. From the small port of Pisogne village, a lone fisherman leaves the shore in his little boat and makes his way towards the middle of the lake. About 500 metres from shore, he anchors and starts fishing. It looks like a scene prepared for a landscape painter until, shaken by the waves of a passing ferry, the standing fisherman suddenly loses his balance and topples into the cold water. The scene is observed from the shores of the lake and an alarm is given. Luckily for the fisherman, the men and women of the Italian School of Water Rescue Dogs (SICS) are engaged in a helicopter rescue training session nearby.

Using an Ecoureuil AS350 B3 owned by Eliwork Society, the pilot starts up the engine and a SICS instructor and his Newfoundland dog jump on board with a rescue crewman. The flight is short and it's not long before the man and dog are seen jumping from the helicopter positioned at a low hover above the water, at a safe distance from the now drowning fisherman.

The odd couple of man and dog swim side by side until they reach the victim and the rescuer performs manoeuvres to support the fisherman, who is thrashing violently and making it difficult to rescue him. The dog swims around the two men and they both now grasp onto the vest he is wearing and he starts to swim to shore, dragging them through the water. The Newfoundland dog is swimming slowly but steadily and to watch them it almost seems unreal that a dog could pull two men in the water so well. While the rescuer makes sure



the fisherman stays attached to the dog's vest with his head above water, they all continue ashore. The fisherman is given proper medical care by SICS members and the dog is congratulated and given a delicious meal as reward for his rescue.

THE RESCUERS

SICS (Scuola Italiana Cani Salvataggio) was founded by Ferruccio Pilenga in 1989, when Pilenga began training his female Newfoundland dog, Mas, for water sports tests similar to those already existing in France. It wasn't long before Pilenga realised Newfoundland dogs were well-suited to water sports, but perhaps would be even better at the more serious endeavour of carrying out water rescues. Pilenga went on to create the school that today is a vital and recognised part of Italy's water rescue environment.

"To do what you have just seen," Pilenga tells me, "requires extensive training both for the dog and the handler. Some races of dog have an innate propensity for water and for saving, especially the Newfoundland, Labrador and golden retriever. The challenge is to transform this instinct into a real capacity to rescue. It is a crucial and unique relationship each handler has with his dog. He must be able to train his dog, have the necessary passion for rescues and have a lot of dedication, because the training and maintenance of the qualification they eventually receive requires great effort. If the handler and the dog have all of these things, then we at SICS can transform them into an efficient and effective water

"Some races of dog have an innate propensity for water and for saving... the challenge is to transform this instinct into a real capacity." – Ferruccio Pilenga

rescue K-9 unit and transfer to them our knowledge, experience, skills and equipment," he adds.

The training the dogs receive at SICS is long and includes several steps with tests that they must pass before they can graduate with a nationally recognised certificate. The dogs learn how to swim faster and are taught how to swim alongside the handler in a way that won't hinder or scratch them. The dogs learn to stand in water, how to position themselves in respect to the person they are trying to save and how to offer their special lifejackets, which people can grasp. They also learn how to tow people to shore and, if necessary, to drag a small boat. They train in water and aboard small boats, in difficult weather conditions all year round. The handler is taught to work with his dog, drive a boat, handle equipment such as transceivers and safety apparatus and provide first aid. When both the handler and the dog have successfully completed all the steps in their training, they are issued with a SICS operative water rescue certificate. The final step required to gain the certificate is to pass the most demanding test: demonstrating an ability to operate from a helicopter. The



handler and dog must jump from a helicopter hovering two to four metres above the water and from there carry out a rescue.

THE FINAL TEST

When I meet Pilenga it is at a final test with about 20 K-9 teams. Some of the handlers and dogs are there for their annual reviews, but for others it is their first flight experience. Pilenga starts the operations speaking with authority and severity.

"Working with helicopters is not a game. Whoever is here to have fun should leave now and go to an amusement park," he advises. It's a necessary warning that reflects how dangerous the operation is. The handlers and their dogs are first tasked with boarding and disembarking the helicopter with its rotors not moving. This is to familiarise them with being on board and keep the dogs calm. Next, everyone is told what their positions will be on board the helicopter. An adult Newfoundland dog weighs over 50 kilograms and the volume it occupies in a small space like the cabin of a Squirrel is not insignificant. Directions on how to time their jump from the aircraft are given and last, but not least, seatbelt fastening advice is given as the flight is operated with open doors.

Now the challenge gets much harder, as the pilot starts up the Squirrel and the rotors start moving. The dogs are extremely sensitive to noise and a helicopter in motion generates noise in abundance. This is a stress factor for the dogs and they have to get used to the new situation.

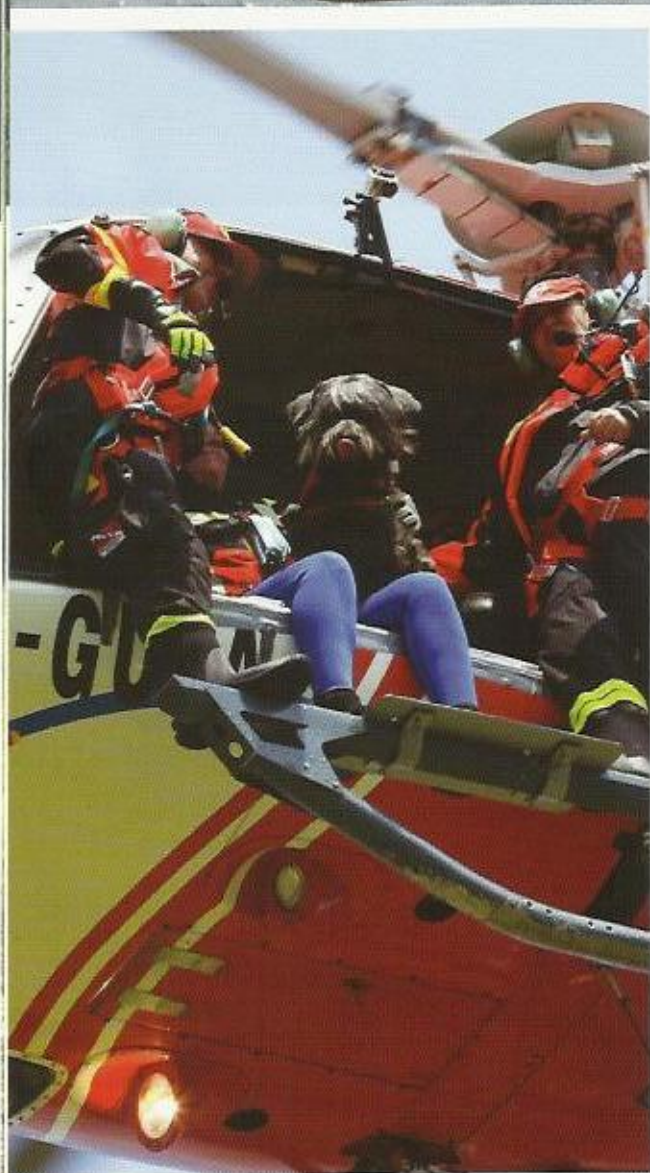
The K-9 units facing flight for the first time are carried out over the water, but only their handlers jump this time. This is so that the dog can observe what happens and is a precautionary approach to make sure the dog is not forced to jump and possibly become traumatised. Jumping out of the helicopter is no mean feat. SICS vice president Donatella Pasquale says it's not as easy as it seems.

"The helicopter must hover over the water at a distance between two and four metres," she says. "A wrong assessment of more than five metres can be dangerous for the dog. Our instructors take care of this particular aspect by continually talking with the pilot. The other big problem is the downwash generated by the rotor, which becomes heavier and more troublesome the larger the helicopter is. We have gained experience with various types of helicopters: the Lama, NH500, Alouette III, AB412, HH3F and others, so we have a fair idea. Having to stay a few metres from the water means the rotor's airflow creates a real storm of wind and waves and a lot of water particles suspended in the air. All of these disturb swimming skills for both the dog and the handler, and also reduce visibility, especially for the dog who does not have the help of an underwater mask. Being able to breathe in this situation can also become problematic, ironically precisely at the time when you need maximum physical performance."

For the first phase of the water rescue, with both the dog and the handler jumping out of the helicopter, the victim is supported in the arms of the rescuer and the

Above: Training begins on the ground for SICS handlers and their dogs.

Opposite page: SICS have trialled other helicopters besides the AS350, including the Lama, NH500, Alouette III, AB412 and HH3F.



The helicopter pilots know to retrieve canine units from the water by approaching from behind, so that the dog, handler and survivors are not forced to swim against the wind and the waves.

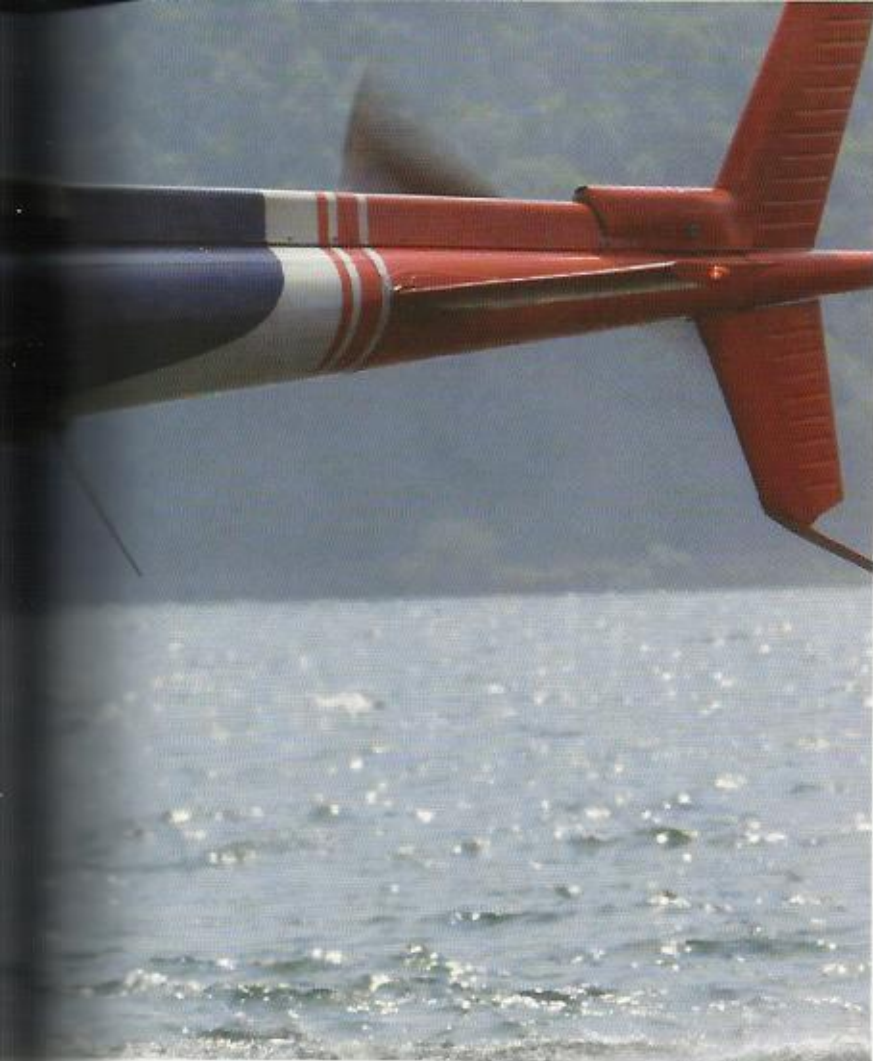
dog swims back to shore if the distance is not too far. If the distance does not allow the dog to swim back to shore and helicopter is equipped with a winch, then the dog's vest allows for easy winching back onto the helicopter. The dog's vest is made in high visibility colours, is light and easy to fit and is comfortable enough that the dog can wear it all day. It is equipped with handles that can be fastened to rope or the winch hook. For winch operations, both the dog and the handler are given proper training. The handler is taught how to operate it safely, how to keep in communication with the helicopter crew and to familiarise themselves with all the technical equipment. The helicopter pilots know to retrieve canine units from the water by approaching from behind, so that the dog, handler and survivors are not forced to swim against the wind and the waves generated by the downwash.

COLLABORATING WITH THE COAST GUARD AND AIR FORCE

It is a serious exercise at SICS teaching handlers and dogs how to operate out of a helicopter. The helicopter test

*Above:
The dogs are slowly introduced to jumping out of helicopters, so they aren't traumatised by the experience.*

*Left:
A dog and his handler prepare for their jump from the helicopter.*



marks the most complicated part of the syllabus and also the end of the course. The certificate is only valid for 12 months, though, and all SICS handlers and dogs must take the course every year to remain current.

Jumping out of helicopters only became a part of the SICS course in 1992. By 1996, the Italian Coast Guard and Air Force's Search and Rescue team collaborated with SICS to improve the helicopter operation.

SICS has developed so much over the years that today it has expanded from one headquarters to include nine branches spread throughout Italy. Qualified trainers operate at each base and more than 200 water rescue dog K-9 units are currently active.

All the handlers and dogs are volunteers and can be alerted to action by the local rescue services and the Coast Guard. The K-9 unit offers its services free of charge on all Italian beaches.

SICS is the only school for water rescue dogs in Europe, maybe even in the world. If you know of the existence of any others, please let *Helinetes* know, as I would be happy to hear of their respective experiences. In the meantime I wish you a serene and safe swim in Italian lakes and waters under the sight of these fabulous K-9 teams. **HN**

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