Flying high in the helicopter parachute market

While airplane crashes may make big headlines, the safety of helicopters and gyroplanes is an issue that can sometimes be overlooked. But with rotorcraft being involved in more accidents than fixed-wing aircraft per hour of flight time, and with helicopters traditionally being used in dangerous and difficult environments, ensuring the safety of both machine and pilot is essential. Since the 1990s, the Czech company Stratos 07 has been developing parachutes and rescue systems for helicopters, gliders and light aircraft that rely on Twaron to provide a safer flight experience.

From take-off in Czechoslovakia to a worldwide dealership
Stratos 07 can trace its roots back to 1975, when Joseph Straka, then trainer of the Czechoslovakian hang gliding team, began to create his first rescue devices by adapting discarded military parachutes. After the fall of the Soviet Union in the early 90s, his company started to produce ballistic parachute systems featuring high-strength fibers. After meeting with Teijin Aramid representatives at a military exhibition in Slovakia, Teijin became the preferred supplier of aramid fibers to Stratos 07. Now in 2015, the Czech company also produces ballistic protection equipment, and its network of dealers reaches across the world.

A winning partnership
“We’ve been working with Teijin Aramid since the 1990s, initially on the development and production of ballistic protection, and later in the development of helicopter parachute systems,” says Ing. Romana Velková, Quality Manager at Stratos 07. “We’ve always been very impressed with their perfect service, and it has been exciting to see these two companies grow together. Teijin Aramid has always been on hand to advise us and share their expertise. In particular, Mr. Martin Klang has provided us with a lot of high-quality consultancy service.”

Relying on Twaron’s strength
Teijin Aramid has not only provided expertise to Stratos 07; Twaron has become an indispensable element of many rescue systems. In particular, the helicopter parachute system crucially relies on the strength of Twaron. “This particular parachute system needs to operate even when the helicopter blades are rotating,” explains Romana. “As the system will be deployed at an angle from flight direction, the thrust force can be quite strong. The main anchor cable, which runs from the parachute to the suspension points, has to support forces of up to 6G, which is why we need Twaron. The system couldn’t work without it.”

Aiming for the sky
The collaboration between Stratos 07 and Teijin has so far proved successful, and it is likely that this partnership will grow further. “At Stratos 07, we’re always looking for new opportunities and new innovations, and we’d like to grow in several markets, particularly South America,” says Romana. “Innovation is important to us: we’re always looking to increase the speeds and weights that our products and systems can safely operate at, so we have open dialogue with Teijin Aramid. We hope Endumax will be part of our future projects. In terms of what we can achieve together, the sky is the limit!”