Olympics: Eye in the sky give viewers dramatic new angle

February 12 2014, by Benoit Finck

A view taken on February 9, 2014 shows the Men's Alpine Skiing Downhill slope at the Rosa Khutor Alpine Center during the Sochi Winter Olympics

The Winter Olympics are jam-packed with daredevil feats that make for dramatic TV pictures. But at the Sochi Games an eye in the sky is offering a whole new perspective on the action below.

A miniature drone with an on-board camera is being used for the first

time in the history of the Games to capture images of freestyle skiers and snowboarders in the spectacular slopestyle competitions.

Next to the slope in the mountains in Rosa Khutor, a drone operator controls the device via radio control while a cameraman peers at a screen to point the camera at the athlete performing spectacular twists and jumps.

The spectators in the stands are too far away to see the spider-like craft but can enjoy the spectacular images that it produces on the big screens at the venue.

The drone, which weighs just four kilograms (nine pounds) and is 1.30 metres wide, can "reach a maximum speed of 70 kilometres (43 miles) an hour, which allows it to catch up with the slopestyler", said the drone's controller, Philippe Delafosse.

"The biggest difficulty is the precision of the trajectory, to respect the security distance. But if it is too far away (from the athlete) it is also not good," he added.

The device, which resembles a miniature helicopter with its six rotors, offers angles and pictures that are impossible to obtain with cameras fixed on cables or the more standard shoulder-operated ones.

Only a helicopter would rival the images but the cost would be much higher, not to mention the disturbances for the athletes caused by the air currents.

- 'Resists the cold and is silent' -

Drones with on-board cameras are being used more and more for television coverage, but this is the first time they have been used at an

Olympic Games.

Dozens of small helicopter and plane drones have also been pressed into service by the Russian authorities as part of unprecedented security measures that are in place for the Games, subject to numerous threats from militants.

The drone taking the pictures was made by Jean-Luc Fornier, an aeronautics enthusiast who in 2009 created his own company in the Paris region.

He works with XD Motion, a Paris start-up company that specialises in airborne video and also in 3D which won a contract with the company that is supplying the television images for the Games for broadcast around the world.

Just one device costs tens of thousands of euros.

"You need to make a special drone that lasts a long time, can resist the cold, makes no noise that could annoy the athletes and can broadcast HD images live," said Fornier.

The drone uses batteries that can last for 16 minutes and are changed regularly. It is not used during rain, which damages the camera.

It must keep at a safe distance of 30 metres (100 feet) from the public. But this poses no problem in the slopestyle, where the competitors perform their tricks high in the air and far from the spectators.

To allow such a device to fly above the Sochi slopes, the drone's operators needed a series of authorisations from the Russian authorities, notably from the Federal Security Service.

"Despite all these authorisations we were often checked by the police who were worried to see a drone flying above," said Fornier. "But this was always very courteous."

Happy with the experience of the Olympic Games, the French operators are in talks to film a slopestyle event in Switzerland.

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