



# A BOY AND HIS DRONE

UAVS COULD SOON BECOME UBIQUITOUS – AND NOT JUST AT INTERGEO,  
PREDICTS ALISTAIR MACLENAN

As the mercury rises and school terms draw to a close, there is a final hurdle to overcome before the summer can be enjoyed; the dreaded sports day. In school fields around the world, sounds of tantrums and tears mix with squeals of delights as children of various abilities run towards a paparazzi scrum of parents armed with camera phones.

It is not somewhere I have ever wanted to be but what can I do? I'd love to get a picture or maybe a video of my children. And then it struck me, like a wildly misdirected javelin; I work in the geospatial industry. I can rise above all of this. Literally.

The rise of the use of unmanned aerial vehicles or 'drones', to give them their more popular name, has been remarkable and shows no sign of slowing down. As today's children don't understand how people ever met up before the invention of mobile phones, the next generation may well look at someone who hasn't got their own personal drone, with the same bemusement.

Every child may soon have an aerial companion hovering above them. Offering safety from all manner of threats, a constant health monitor and a local storage capacity available for homework and personal files; literally, a cloud-based solution.

If you think I'm being Orwellian, check out Lily!

The designers of Lily, the latest flying camera to be offered into an ever more crowded market, have removed what they see as one of the barriers for more people to own a drone; learning to fly it. So Lily starts working simply by throwing it (her?) into the air. This motion starts the four rotor blades and Lily hovers above the owner of a tracking device, the size of a large pebble which can be worn on the wrist.

And that's it. As the camera is built in – the company tags Lily as the 'camera that follows you' not a drone – you simply go off snowboarding or kayaking and Lily obediently follows, videoing every jump and roll you make. Twenty minutes later and you have a personal video that will be the envy of your friends.

Constant surveillance is nothing new. Geostationary satellites, in orbits roughly 36,786 kms above sea level, complete their circular

journeys in the same time it takes the earth to revolve. The distances involved in maintaining a geostationary orbit make optical high resolution images difficult but by using an infrared imager, the Fire Urgency Estimation from Geosynchronous Orbit project team believe that they can spot the start of a forest fire.

Given that the fire can spread at up to speeds of 30m per minute, the quicker the fire is detected, the quicker it can be brought under control. Easier said than done – forests can be huge and the start of the fire may well be many hours flying time from the nearest Fire Department air field.

So why not have automated drones on stand-by? Once the location of the start of a fire is detected by the permanently overhead satellite system, the drones, carrying the appropriate fire-retardant would set off to contain what would be a relatively small incident. No one would be in danger and the damage would be a limited to a few trees.

There are obstacles to this, the major ones being the trees themselves. The inventor of Lily is quick to point out that she has no optical collision avoidance system which in plain English means, she will fly into things in front of her. But give it time and this will be yet another hurdle jumped.

This month sees the InterGEO show in Germany – the largest gathering of land management specialists. I have been attending for many years and can remember when a drone manufacturer stand was an oddity amongst the theodolites and light aircraft. However, it isn't a wild prediction to say these new flying machines will dominate this year's show hugely. New drones and new applications will be everywhere.

Many will fear a new era of constant surveillance and feel extremely uncomfortable about literally being followed around. But who now worries about carrying around a geolocator, or as they prefer to call it, a phone? In time, everyone's constant companion may well be found hovering a few feet above them and parents everywhere will enjoy their summers just a little more.

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