

A magnificent plan and some flying machines

Green Aviation is an Irish commercial drone company and its CEO, Oisin Green has flying ambitions to enter new and profitable sectors.

Green Aviation recently broke an Irish record. It was the first company to fly a commercial drone above the 20kg maximum take-off weight. Is that heavy you may ask? In short yes, and it gives a glimpse into the future of drone technology.

There are currently 60 or so commercial drone companies in Ireland, most of them operating what are known as ‘hobby box’ drones - the flying machines that you can buy online from Amazon.

[Green Aviation's](#) unique selling point is that it operates and leases large drones ranging from 11kg to 150kg in weight and flying cameras weighing anywhere between 3kgs to 35kgs.

“At the launch of our services we flew a 27kg drone, the biggest ever flown in Ireland,” says Green. “There was a lot of anticipation around the flight but we worked closely with the Aviation Authority, and it was a great success.”

Contrary to what many people think, especially those who have watched amateur drone footage on YouTube, flying a drone in Ireland requires a licence. It is regulated heavily, and if you are not certified to fly a drone, either as a private person or business, you can get into trouble with the long arm of the law.

“It’s a serious issue to fly a drone. Once you get airborne, you are in the realm of the aviation authorities who have strict rules in place governing the commercial and private use of drones in Ireland, and across the EU. In fact most countries have some form of regulations now in place,” says Green.

“In Ireland if you are found to be in contravention of these regulations, An Garda Síochána are then brought in to deal with any violations. While it can be bought in a hobby shop, a 12kg drone landing on you can do some serious damage. These regulations are there for the safety of everyone involved,” says Green.

How did it all begin?

Having spent 12 years in the army, retiring in the rank of Captain in 2008, Green then became a

commercial airline pilot with Ryanair, flying Boeing 737s. However, in 2003 when he was a member of the procurement board that acquired the drone currently being used by the Defence Forces, the idea for Green Aviation came to him. “To me, it was quite obvious what the benefits would be in the commercial sector.”

Starting the company involved sourcing investment from Enterprise Ireland through the [Competitive Start Fund](#) (CSF). Green also involved his bank and it put him in touch with a new funding scheme for SMEs from the European Investment Bank.

“Between those two sources we managed to move things along nicely to the point of where we are now offering commercial services in full compliance with Irish Aviation Authority regulations. We are also in further discussions with some VCs to come on board in the next few weeks with substantial funding being offered.”

Green Aviation sources its drones directly from manufacturers. “The systems we use are larger than hobby shop drones, which is where the vast majority of drones are come from. We have put in place supplier agreements with various companies including UMS Aero Group, Textron, Northrop Grumman, and Flying-Cam.”

Who flies the drones?

For the larger drones, Green Aviation uses either qualified pilots or ex-military drone operators.

“They have the knowledge of airspace regulations and the requirements of being a pilot, as well as the experience that goes with it,” says Green. “This information is not something you can fully understand on a two-day course but is learned over a long period through education and practical experience.”

This begs the question, is ‘drone pilot’ now a profession?

“Drone pilot certainly is a profession and will become more common in years to come,” says Green. “When you see the smaller systems, you tend to question whether the word ‘pilot’ actually suits the job, but when you branch out into the much larger systems, it deserves that title. There are organisations that currently offer generic training courses on regulations. Manufacturers of the larger systems also offer in-house training courses that often last for eight weeks or more, depending on the size and complexity of these drones.”

Who needs large drones?

Many people are aware that drones can operate in a military surveillance setting, but what other sectors require their services and how can Green expand his business?

“The more we speak with different people in different industries, the wider the uses become, so we have decided to focus on a few sectors.

“Large infrastructure owners use the larger drones. For example, electrical power grids, wind farms, big factories, owners of large tracts of land like Bord na Móna and others. They would use the larger systems as they can carry a greater variety of sensors on the one platform, but they also have a much greater endurance than the smaller electric ones. For example, battery power only lets you fly realistically for about 30 minutes at present. However, by using a larger internal combustion engine powered drone, we can get endurance anywhere from five hours to 15 hours or so.”

Cost efficient, quieter and a good deal safer

Drones are useful for many sectors including utility inspections, farming, search and rescue, telecoms and security.

As software advances, Green expects drone technology to become much more widely used.

“The cost savings for the user are phenomenal,” he says. “It is very expensive to send up a helicopter to inspect something or to go searching for something or data collection. Drones are up to 50% more cost efficient and 90% more energy efficient than helicopters. They are also safer; the pilots remain on the ground.

“There’s a lot of warm feeling towards the idea of using drones in the future from organisations that otherwise use more expensive flying machines. We’re confident and ambitious for the future. It’s a good place to be.”