

## “DRONEOLOGY” TODAY – Part 1



Our articles of September 2014 and February 2015 discussed the future of drones and their potential effects on the average person. Fast forward 3 years and look at where we are today. The original term “drone” referred to a preprogrammed unmanned aircraft which could fly in circles or in a straight line; today this catchall term refers to any unmanned robot, programmed or remotely controlled (more complex when used by governmental agencies); today they range from 1 - 8 sets of rotors and carry more than just cameras. They have come a long way from being toy-like; uses are becoming more widespread and used by many different sectors. This Part 1 article takes a look at some areas to watch.

### Health/Emergency Services:

- Swedish researchers have simulated drones outfitted with defibrillators which can arrive 16 minutes quicker than emergency services to save a cardiac arrest victim where every second is vital. Other possible medical tools could include intravenous bags or surgical equipment to use when transporting a patient is not immediately possible.
- German-based **DHL** has already been delivering blood samples and pharmaceutical products using its “Parcelcopter,” efficient in reaching remote mountain villages.

An Australian consortium recently launched a drone project (“medi-drones”) to carry blood samples as well as transplant organs to their recipients as quickly as possible.

- **BT** has already tested drones as temporary internet providers to disaster zones, hard-to-reach areas as well as war zones...flood and earthquake victims are prime examples of putting these drones to work.
- Lifeguards in California and New Jersey already use drones to monitor nearby shark activity that could be dangerous for swimmers. And in Spain, resort areas of Marbella, Cartagena Benalmadena, Ribadesella and Isla are equipped with drones carrying inflatable life preservers that can be directed to swimmers in distress. In these cases an unmanned aircraft can reach a drowning victim 3 times faster than its human equivalent; with about 400 drownings a year on Spanish beaches, we can see how useful these drones can be in saving lives.

#### **Retail:**

- Product deliveries by drones are well underway at some of **Amazon’s** facilities and can include supermarket purchases...deliveries have been made 13 minutes from clicking the order in. As there are more drone-usage possibilities you can bet this marketing behemoth headed by Jeff Bezos will be at the forefront so watch this company closely as other global retailers follow suit.
- Dubai’s launch of people-carrying drones begins regular operation this summer - one passenger weighing up to 100 kg. for a 30-minute flight; short but innovative.

#### **Security:**

- In the UK police departments are testing drones with HD cameras to search for missing people, monitor traffic accidents and capture crime scene photos – more uses will undoubtedly surface. These drones can be equipped with sensors (like infrared) using their heat signatures to locate people trapped or imprisoned; streaming video helps rescue personnel in precisely locating those in distress.
- Drone surveillance has been used repeatedly to track and apprehend criminals, fugitives and terrorists. Anyone reading the daily news can understand the importance of detection by a robotic device as opposed to a human being placed in jeopardy.
- School campuses are monitored by drones to detect abnormal activity, potential threats, unsavory characters – with the intent of protecting its students, faculty, parents and visitors.
- Businesses located in dubious areas are using drones to surveil parking lots and structures to protect their employees when going to their vehicles at night or working late.

More to come in Part 2 next month