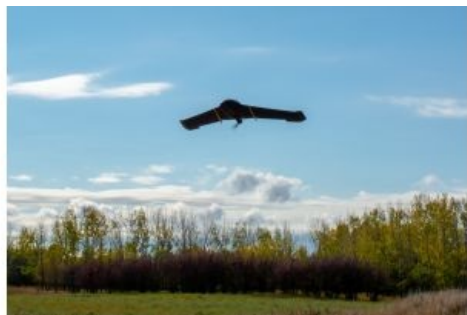


# UAV-based Mapping: Safety First



While it is positive news for our industry that the use of unmanned aerial vehicles (UAVs or 'drones') is continuing to increase, the rise has brought with it a key question: how do we ensure that drone users are operating in a safe and law-abiding manner? In recent months, there have been a number of headlines about both illegal operations and the ensuing legislation. Although these news stories have been focused on consumer drone use, we must be mindful that the same issues apply to commercial activity, according to Jean-Thomas Célette – particularly within the geospatial sector as professionals such as surveyors and GIS managers look to harness the efficiency and benefits that aerial data collection can offer.

Whether newer types of technology like drones are being used for business or leisure, mishaps can be harmful for the entire industry. Because UAVs are remotely (in fact, autonomously) piloted, they present a more abstract issue than, say, driving a car, but the principle remains the same: safety measures must be put in place and users must understand how to operate the equipment responsibly.

## Education is key

Education is key here. I was pleased to see the news that the UK is not only expanding its no-fly zones around airports, but that the government is also working with a retailer as part of a national campaign to increase public awareness of the policies around flying drones. We cannot expect the rules to be followed if people are unaware of what they are, and it is easy to understand how users could overlook the importance of airspace safety, thinking their flight will have no impact. Unfortunately, this is often not the case.

We are only at the beginning of this journey, in terms of discovering both the full extent of drone uses and their benefits, as well as the issues and considerations that arise in turn. The UAV industry is not a static one and, as technological developments advance, so too will the need for new legislation. Take, for example, beyond-visual-line-of-sight (BVLOS) drone missions. With correct planning and execution, including live communication with local air traffic control, BVLOS operations can be an incredibly efficient, cost-effective and, most importantly, safe mapping tool. We know this from our successful BVLOS missions in the USA, Canada and Brazil, plus through the project learnings associated with our exclusive 'Anytime BVLOS' permission in Switzerland.

## Pragmatic future laws

This BVLOS knowledge has also been part and parcel of the developments we have made in providing drone operators with no-fly zone data in our flight planning software and optional integrated ADS-B functionality, which can provide our customers with live air traffic data, on screen, during their drone missions. So far, however, BVLOS operations are only permitted in certain countries; in most countries, such as the USA and Canada, regulators have not yet agreed how the final legislation will look. This is why we continue to work closely with both operators and regulators to carry out real-world BVLOS projects and use the important data collected from trials to better understand exactly what is required to enable pragmatic future laws to be made.

As an industry, we must work together to ensure drones can be used to their full potential, but in the safest way possible. I'll be watching with interest to see how things develop over the coming years, and contributing wherever I can.