Q&A withâ€¦ Chase Fly, Delair

To gain real insight into today's geospatial business landscape, 'GIM International' decided to ask some of the sector's most influential companies for their opinions. This series of Q&As captures the current state of the industry from various perspectives, such as which technological and societal developments will have the most impact on the geomatics market, which market segments are the most promising and which areas offer the most substantial growth. The questions also explore the trend towards open data and open-source software. This time, Chase Fly from Delair shares his views on the role of UAVs in the mapping and surveying business.

Which technological developments will affect your product/service portfolio the most in the coming years?

Key technological developments that will impact Delair solutions in the coming years include deep learning, Internet of Things (IoT), telecommunications and cloud technology. Delair provides hardware and software products that form complete aerial data acquisition and analysis solutions which deliver business intelligence. Deep learning algorithms enable Delair to continuously improve the quality and quantity of data analytics which are applied to aerial imagery, such as change detection. Delair's UAVs (drones) are being equipped with advanced telecommunications systems that include cellular connectivity and onboard data processing capabilities in order to extend the range of drones to support beyond visual line of sight (BVLOS) flights and open the door to IoT applications.

Which societal developments will influence your share of the geomatics market the most the coming years? How and why?

Drones, and more importantly the huge data generated by drones, will enable companies to digitise their physical assets, which will provide exciting new insights into what happens in the world around us. Combining these exciting new insights and huge datasets with big data analysis and machine learning techniques will also open new opportunities in the area of predictive solutions. This is likely to lead to a future where physical objects and infrastructure is built to last longer and could also enable a wealth of new business models around servicing physical objects. Delair's UAVs lend themselves well to large-area mapping projects and flying BVLOS, and a 3G/4G communication link is used as one solution for this. The expansion of cellular data network coverage in rural and unpopulated areas throughout the world, where companies frequently have assets they want to map, will enhance the value of the technology Delair is building into its drones.

Which market segments are the most promising for your products/services?

The geospatial, construction, infrastructure, agriculture and environmental markets are the most promising. Delair offers drone platforms designed to provide user-friendly workflows that focus on producing high-quality survey-grade maps and data products. These market segments all have applications that benefit from aerial imagery and Lidar data that can be transformed into actionable business intelligence, which is Delair's core business.

In which parts of the world do you envisage substantial growth in users of your products/services?

Delair has a worldwide distribution network of local dealers who actively market and sell Delair drone solutions. Drone technology adoption is growing all around the world, but regions which are demonstrating rapid uptake include China, Latin America and the United States, where Delair representation is strong and the future looks bright.

Open data is becoming increasingly available all over the world. How will this trend affect your business?

The availability of aerial imagery from satellites available through open data sources will provide landscape-scale imagery which may supplement the high-resolution imagery collected and analysed by Delair customers with drones. Delair solutions also consume satellite imagery as a potential source that will benefit from the open data trend. The push for open data could also be a huge driver for adoption of the Delair solutions, since the providers of open data will need solutions that provide efficient means of acquiring, storing, processing and publishing imagery and geographical data.

Will the tendency of increasing use of open-source software be a threat or an opportunity for your business?

Many of Delair's clients use open-source software (OSS) such as QGIS or other geospatial applications. These applications often enhance the ability of these clients to view or further analyse aerial imagery collected with Delair drones or even processed by Delair's software platform. This is viewed primarily as an opportunity for Delair to offer a drone data acquisition and processing solution that can ultimately feed deliverables into OSS that clients leverage in their everyday activities. Delair software tools are accessible to developers and business specialists through a series of interfaces and APIs. They are encouraged to port their modules on the platform, to access a new base of users and promote their know-how.

About

Chase Fly specialises in applied technologies including GNSS, GIS and unmanned aircraft systems (UAS). He has worked in the geospatial industry for ten years and has a degree in geography. At Delair, Chase is the geospatial product manager, working with the

engineering, sales and marketing teams to ensure that new and existing drone solutions are providing meaningful solutions for real-world applications. Chase holds a private pilot licence and a Part 107 Remote Pilot Certificate in the USA and has operated drones commercially for mapping applications.