

BACK TO THE FUTURE AT VEXCEL IMAGING

GEOCONNEXION ASKED ALEXANDER WIECHERT, CEO OF VEXCEL IMAGING, ABOUT THE COMPANY'S REMARKABLE REBIRTH AND SUCCESS IN A BUOYANT GLOBAL MARKET FOR AERIAL IMAGERY

GEOconnexion (GEO): What has been the main change in the company's business focus following the MBO from Microsoft last March?

Alexander Wiechert (AW): There has been little to no changes to our commercial business. We exited Microsoft with all the IP related to our offerings and are actively marketing and selling the full portfolio of products, including those that were withheld by Microsoft which are: the UltraCam Condor wide area aerial mapping system, the UltraCam Mustang mobile mapping system, the UltraCam Panther portable mapping system, and the UltraMap 3DTIN processor algorithms. Given this, we can now fully focus on the commercial business.

GEO: What do you see as key trends in the aerial imagery market? And your prognosis for the future of this market – and for Vexcel?

AW: The aerial imagery market has now grown to \$1.5bn per year and is expected to continue growing at almost 15% (14.5% to be exact) annually over next five years. New vertical markets are emerging for large volumes of new and continuously updated aerial and terrestrial data. The global trend toward Smart Cities is driving stronger demand, as population centers explode. This requires rich visualisation and highly-accurate geospatial data for urban planning, at a faster refresh rate than we've seen in the past.

We also see increasing demand for wide-area mapping projects, as nations and companies seek to understand environmental changes. Lastly, there is a growing need for accurate terrestrial data for AR and mixed reality applications, both indoors and outdoors.

We expect this to drive increased demand for sensors, both those already offered in the market but also for new innovations to more efficiently and cost-effectively collect, process and utilize this data. Vexcel Imaging has a history of creating products and programs that address such needs and will continue to invest in our business to meet the needs of the market.

GEO: Last year saw a flurry of new and updated UltraCam products from Vexcel including the Condor wide area mapping camera and the Mustang mobile mapping camera, as well as the latest release of the UltraMap workflow and Orbit GT mobile



Alexander Wiechert has been with Vexcel Imaging since 2008, first as its General Manager, then as a Business Director following the company's acquisition by Microsoft, and as Managing Partner and CEO following its return to private ownership in 2016. Prior to 2008, he was Managing Partner at TopoSys GmbH.

mapping software packages. Can we expect this to continue?

AW: Absolutely. We won't stop innovating and will continue to offer an upgrade path to ease our customers' ability to keep pace with our innovation. At the upcoming Intergeo 2017 conference we will officially launch the UltraCam Panther portable mapping system that we pre-announced in May of this year along with updates to our nadir aerial sensor systems. The market has come to expect this kind of cadence in product releases from us and that will not change because of our returned status as an independent company.

GEO: We have heard little of the base-level UltraCam Hawk camera since its introduction in 2013. Is this model discontinued?

AW: The demand for larger footprint systems has overshadowed demand for the UltraCam Hawk. While we have not officially discontinued the system, it is no longer routinely manufactured and promoted. However, it can be supplied on request for customers with very specific applications that would be best served by it.

GEO: Again, can you update us on the re-design of the UltraCam Panther backpack?

AW: The UltraCam Panther portable mapping system was pre-announced in May of this year and will be officially launched at INTERGEO 2017. The system features complementary sensors to capture high-resolution full-spherical imagery and video, dense 3D LiDAR point clouds and precise trajectory information



VEXCEL IMAGING GMBH

Headquarters: Anzengrubergasse 8, 8010 Graz, Austria

History: Founded in 1992, Vexcel Imaging boasts more than 20 years of photogrammetric and remote sensing expertise, with its highly successful line of UltraCam aerial camera systems being launched in 2003. In 2006, Vexcel Imaging was acquired by Microsoft Corporation and contributed to the success of Microsoft's Bing program. This pushed the envelope of photogrammetric hardware and software technology and saw the birth of the UltraMap photogrammetric workflow software solution. Today, Vexcel Imaging is once again a private company and continuing its story of success with an expanding portfolio of products that leverage the latest advances in opto-electronics

Web: <http://www.vexcel-imaging.com>

Vexcel's UltraCam aerial cameras and its UltraMap photogrammetric software work seamlessly together to produce a range of imagery deliverables

in both indoor and outdoor environments. It offers outstanding flexibility for mapping and virtual reality applications through its technical performance in the areas of image quality, video performance, accuracy and ease of use.

GEO: The UltraCam Condor, together with the Eagle, Falcon and Osprey models, completes the Vexcel aerial camera lineup. So what is likely to be the next development in this core segment of your business?

AW: We will continue to enhance the systems in ways that make them increasingly productive and reliable and such that they help our customers to operate more efficiently and competitively.

GEO: You hosted a two-day UltraCam user group meeting in Denver early this year. What were some of the key issues raised here?

AW: UltraCam customers have been asking for an oblique data viewer to provide to their end customers, which we of course now offer through our partnership with Orbit GT. UltraCam already provides highly competitive frame rates but customers would like to see even faster cycle rates. They would also like optional exchangeable lens kits of different focal lengths — a significant competitive advantage of the UltraCam Eagle—available with the UltraCam Falcon and UltraCam Osprey models.

GEO: The latest release (4.0) of the UltraMap photogrammetric workflow software introduces an extensively updated radiometry module for both nadir and oblique imagery. What are the advantages of this development and how do you see it being applied in practice by users?

AW: The new radiometry module in UltraMap v4.0 accomplishes radiometric adjustment in two steps: first, there is an automated color

balancing of the entire image block and then manual fine-tuning can be applied to the block or to single images. The user benefits from interacting with, and seeing the results of, the color balancing on an ortho preview of the image block. This helps to prepare the output products as early in the workflow as possible. Additionally, the automated color balancing algorithm combines the nadir and oblique images in the processing for facilitating the complex user task of the combined adjustment of the different viewing directions.

GEO: Can you say something about the

Vexcel Imaging Awards and your research links with academic bodies?

AW: Vexcel Imaging has always maintained a close co-operation with, and have supported, organisations such as ASPRS and ISPRS, as well as academic bodies such as universities. For example, we have extended our awards to those whose outstanding talents benefit the community. This is a small industry and we feel that, as a company, we have a responsibility not only to be a successful business but also to provide support for individuals and projects that have a global benefit..



The UltraCam Mustang vehicle-based mobile mapping system represents a proven, state-of-the-art system for capturing street-level georeferenced panoramic imagery and 3D data