

DIMAC SYSTEMS

Aerial Digital Cameras for All GIS Needs

DiMAC Systems s.à.r.l., a privately owned company established in Luxemburg in November 2003, focuses on developing and producing aerial digital cameras for photogrammetric and orthophoto requirements. The belief underpinning the company is that digital image acquisition is the future of any aerial survey firm and the missing link at the top of the whole chain of GIS exploitation systems. DiMAC Systems founder, Pierre Louis, is a civil engineer who has been active in the civil engineering and cartographic fields for the past twenty years.

Though the company was created just a year ago, development of the aerial digital camera at the heart of it began two years ago, initiated by Pierre Louis who also owns the DiMAC patents. Based on his expertise as a pilot and photogrammetrist he decided to develop a new aerial digital camera concept around aspects of technological practicality and simplicity. This led to the development of a modular camera based on the latest technology as regards the CCD sensor, and an in-house FMC to provide the user with an efficient operating system.

Aerial Digital Camera

The company mission is to provide the user with an aerial digital camera that can be used within the whole field of GIS, more specifically for photogrammetric and orthophoto needs. For this the camera needs to integrate all features required by professionals, such as FMC, IMU or RGB and IRC imagery. Besides developing this camera, the second major task for DiMAC is to provide its clients with a dedicated service that will help them to go through every step of their work. Finally, the company applies constant "tests and results analysis"™ to its product to ensure the best possible applications. This implies continual improvement of the DiMAC camera as realised by the R&D department.

Working Together

All of this is supported by DiMAC staff. But these also work in close partnership with numerous subcontractors, who bring new views and ideas to the product. In concrete terms, this means the existence of a concept realisation and production team powered by Belgian partner WOW Company s.a., composed of eight people, mechanical engineer to tooling worker. There is also an aerial team that completes all in-flight tests, which is included within the support department and composed of two persons, pilot and operator. Last but not least, the sales department, which comprises two people, carries out every task linked to commercialisation of the digital camera, including PR, advertising, product demonstration, international trade fairs or market analysis.

A Rising Market

There is a constant need in today's™ world for aerial survey and its derivatives to fulfil a large range of requests, all representing a rising market; local communities for cadastral studies and urbanism, geographical institutes for crops analysis or private engineering firms for road planning. The number of aerial mapping companies in the world is consequently growing, boosted by access of emerging countries to the mapping market; Romania or Bulgaria are examples of countries with an expanding economy where highly qualified and skilled people are seeking opportunities within the GIS niche. This will obviously have an eventual impact on the European and global market, where competition will become stronger than ever.

In this environment, DiMAC Systems provides its services mainly within Europe, close to its customers. Here, central Europe (the Czech Republic or Romania, but also Russia) offers new possibilities and opportunities for bringing DiMAC technology to emerging economies willing to develop businesses into this new phase of digitalisation. The second market focus is North America, where aerial surveying occupies a position of economic importance. Here the company is working on the establishment of an American subsidiary through partnership with an American firm. The setting up of such an organisation responsible for all US, Canadian and Mexican operations will provide access to new potential and allow local customers to be offered the best possible service and support. The company is aiming its partnering efforts at small and medium companies for which they consider their product fit for expectations at every level of image acquisition; but bigger firms or public institutions are also of interest.

Digital Drive and Direction

Recent exhibitions such as Photo-kina or Intergeo in Germany have demonstrated how digital imagery is taking over from film-based technology. As a matter of fact, digital devices and technologies allowing higher performance in terms of velocity and/or accuracy are now driving the entire world and affecting both the private and the industrial sphere. From your personal camera to new music support, from engineering tools to mechanical apparatus - everything is digital. The GIS industry is not lagging behind here and the specific niche of image acquisition will follow the same pace of evolution. It seems therefore more and more obvious that digital image acquisition will soon be the main way to acquire and process aerial photos. From a market point of view, this will manifest in a significant rise in numbers of aerial digital camera customers seeking the latest technology at the lowest cost. Speaking of technology, the company is convinced that the evolution of the matrix CCD sensor will even further improve resolution and number of pixels. In line with this, DiMAC Systems is focusing its research and development on the integration of these new sensors and their adaptation to aerial survey imagery. Such

improvements will provide new possibilities in terms of ground resolution, image width and colour dynamic; developments that will help keep the company at the top of the market.

DiMAC Sytems believes that its evolving CCD sensor technology combined with a dynamic strategy will ensure it a sound place on the coming market. The company also truly believes that behind its mission and desire to offer a new product lies something even more significant: the will to provide a new approach to aerial digital cameras. This concept based as it is on the personal experience of Pierre Louis in cartographic services, focuses on a simple, practical and dedicated device in which functionality and flexibility prevail over rigidity and complexity.

<https://www.gim-international.com/content/article/aerial-digital-cameras-for-all-gis-needs>
