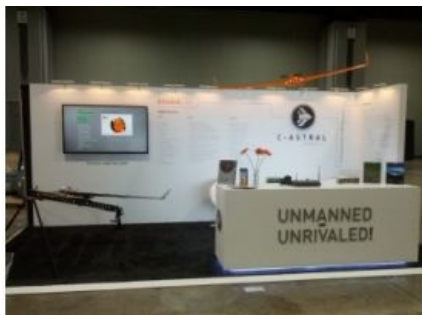


C-Astral Launches Integrated Software/Hardware Solution



C-Astral, Slovenia, has launched a new integrated software/hardware solution for agriculture, forestry and land management in partnership with the GIS software solutions provider Sinergise. Based on the new electric-powered 9lbs MTOW Bramor gEO mkIV unmanned system, capable of 2 hour endurance with dual, visible light (25Mp) and multi-spectral (3.2Mp) sensors on board and a seamless acquisition and processing chain, the integrated system offers a remote sensing and surveying capability that is applicable to agricultural, forestry, classical surveying and land management tasks.

The Bramor gEO mkIV is developed around the legacy advanced Bramor gEO mkII blended wing body systems that are operated by surveying, security and R&D entities on 5 continents. The Bramor gEO mkIV system is capable of acquisition of data and extraction

of NDVI, SAVI, canopy segmentation and NIR/Green ratios, formatted for all major commercial image registration, DTM and GIS mapping software packages due to its flexible hardware and software architecture. The hardware package consists of a 25Mp sensor with a 19mm or 30mm lens and a 3.2Mp CMOS sensor in Red, Green and Near Infrared bands, approximating TM2, TM3 and TM4 and the C-Astral high precision image acquisition and data logging system.

The complete system consists of a Ground Control Station including a guidance system, the C-Astral GeoPilot mission planning suite, which enables arbitrary mission geometry planning for surveying of roads, rivers, riverbeds and following of terrain elevation features and the airborne sensor fixed wing vehicle. The airborne system is completely in-flight reprogrammable and offers an advanced fail-safe architecture and options such as an integrated ADS-B transponder and situational awareness video feeds. The 2 hour endurance can be optionally extended to 3 hours with classical power storage solutions and engine optimisation.

Solutions package

In partnership with Sinergise, C-Astral is providing a solutions package of location based applications that are vertically integrated and networked. Based on GIS libraries Giselle, the framework for efficient spatial and attribute data management and editing that resides in the Cloud, offers an easy to use solution for agricultural and land management that is capable of being integrated with accounting and ERP systems.

From Property and Lease and subsidy management tools, to farm management, the system provides support and comprehensive tools for registration of all actions taken on agricultural and forestry parcels, including crop structure from previous years and planning tools for efficient use of parcels within the current year, including forest management, livestock and dairy management support. Precision farming is supported with a set of tools to produce application maps considering various sets of inputs from ground and air based sensors, such as soil map analysis, agronomical information, nutrient maps, yield maps and other layered live and historical remote sensing data.

The Sinergise/C-Astral solution is completely scalable, from one farm and small scale forestry operations support with individual licensing to large, country scale comprehensive GIS data management and acquisition solutions.

Different elements of the applications were up to now fielded with institutional and research partners in Slovenia, United Kingdom, Croatia, Macedonia, Mauritius, Nigeria and Tanzania using satellite and legacy orthophoto data, but with the pairing of the software suite with the Bramor gEO mkIV system, a completely new scale of revisit times and high-fidelity remote sensing data acquisition is becoming a reality.