

Microsoft Announces Version 2 of UltraCam Osprey



At this week's ASPRS conference in Louisville, Kentucky, USA, Microsoft's UltraCam business unit is introducing an updated version of the UltraCam Osprey, a digital aerial system that combines a high-performing photogrammetric nadir camera with oblique image-capture capabilities.

The new version of the [UltraCam Osprey](#) has been redesigned with an 80mm focal length lens to enhance its nadir collection performance at higher altitudes without reducing resolution. The nadir image size is 11,674 by 7,514 pixels, and the camera collects five bands (PAN, RGB, NIR) with subpixel accuracy and high dynamic range equivalent to other Ultracam cameras. The resulting dataset is appropriate for most photogrammetric applications, such as cadastre, infrastructure planning, and DTM or DSM ortho generation.

The four oblique cameras point forward, backward, left and right and have 120mm focal lengths, increased from 80mm. Each camera is now capable of capturing 60 Megapixels of data. The forward- and backward-looking cameras are redesigned to be single cones instead of two double cones to simplify the hardware and improve reliability. The well-balanced oblique footprint provides 4:3 coverage in each oblique direction, enhancing the quality of 3D models built using this imagery. Together the oblique and nadir imagery is highly useful for 3D urban mapping and corridor mapping applications.

UltraCam Eagle

This third generation UltraCam camera builds on the [UltraCam Eagle](#) technology, including a fast lens system (1 frame per 1.8 seconds) and high speed shutters that help to prevent motion blur in extended lighting conditions. The modular housing concept integrates all components into one unit for simplified installation.

The UltraCam Osprey is fully supported in the [UltraMap](#) workflow software system. The ability to perform aerotriangulation (AT) and dense matching allows for the creation of high accuracy point clouds, DSM, DTM, DSMorthos and DTMorthos (traditional orthos). The camera is also compatible with the UltraNav direct georeferencing and flight management system.

The second version of the UltraCam Osprey incorporates design changes that greatly augment the system's capabilities, said Alexander Wiechert, Microsoft business director. With the rapidly increasing demand for 3D modelling for multiple applications, the Osprey's improved performance levels make it an attractive choice for many mapping firms.

The UltraCam Osprey will be available for delivery to customers in autumn 2014.