

Commercial aerial photography and mapping

CASE STUDY

Aerial photography firm embraces new technology to deliver cost-effective digital mapping solutions

Customer: BLOM Aerofilms, Cheddar, UK

Industry: GIS, commercial aerial photography and mapping

Background

BLOM Aerofilms, part of the BLOM ASA group, is the UK's leading provider of aerial photography and digital map solutions for civil engineering design, environmental assessment and land information management. The company employs 130 staff, the majority of whom are qualified in surveying, photogrammetry, geodesy and GIS, which allows BLOM Aerofilms to complete large-scale, complex projects in a cost-effective manner. By embracing new technologies such as Pictometry™, LIDAR, digital aerial photography and automated change detection, together with original data capture techniques, the company can offer innovative geospatial solutions to their clients throughout the UK, and in select areas of Asia, Europe, the Middle East and the Caribbean.

The challenge

BLOM Aerofilms has seen a remarkable increase in business over the past three years, primarily due to the increasing size of projects and various government agencies adopting long-term framework contracts as the preferred method of procurement. Technology is seen as the approach to use in completing such projects successfully and dealing with large image and data libraries. However, BLOM Aerofilms is competing in a tough marketplace. The UK has several suppliers of nationwide orthorectified imagery, so a cost-effective workflow is a key element to profitability when price levels are necessarily modest.

The evaluation

BLOM Aerofilms' approach is to allocate jobs to workstations according to project type, to alleviate compatibility and import issues, and to optimize production.

With a heritage in aerial photography, they are adept at capturing and processing high-quality photographs to provide superb geospatial imagery and information. Images from aerial film cameras are used in analytical plotters or scanned and processed on digital photogrammetric workstations. BLOM Aerofilms has also introduced digital aerial photography successfully into their production flowlines. For photogrammetry production, SOCET SET® provides versatility and speed in their flowlines for editing digital terrain models (DTMs) and producing routine orthophotos. These processes are integrated with other flowlines to create a first-rate production environment.

BLOM Aerofilms uses their six SOCET SET workstations for editing DTMs and generating orthophotos. They find the DTM editing tools in the ITE (Interactive Terrain Editing) module to be excellent, enabling them to meet specifications quickly.



BLOM Aerofilms—a pioneer in aerial photography, began taking photographs of the UK as early as 1919, and today has a collection of over 2.7 million oblique and vertical photographs, including many historic events. These aerial photographs offer a unique perspective of the landscape that attracts a broad and growing range of customers.

They use thorough, semi-automated approaches to orthophoto quality control, with software developed in-house. Therefore, SOCET SET's high accuracy and rigorous mathematics ensure minimal reworking. The workstations are used for BLOM Aerofilms' own UK Perspectives product and for a variety of contracts for the UK and overseas clients. Equally important is SOCET SET's interoperability—its functionality in terms of ingesting and exporting imagery and data from and to other software products allows the company to design their flowlines exactly as required.

Over the years, a few of BLOM Aerofilms' clients have requested true orthos, i.e., orthorectified imagery with building lean corrected, so again SOCET SET is the ideal tool. SOCET SET's compatibility with the new generation of airborne digital sensors and its continuous refinement of automated processes such as point matching for triangulation and DTM generation provide a smooth path into the future.

Conclusion

BLOM Aerofilms is enjoying a period of phenomenal growth, from both acquisition (Aerofilms, 1997) and generic growth through careful expansion combined with extremely productive approaches to routine photogrammetric tasks. SOCET SET satisfies its requirements for cost-effective, high volume production, especially for DTMs and orthorectified imagery. SOCET SET's interoperability ensures it can play a fully effective role within BLOM Aerofilms complex collection of workflows and software solutions.

For more information, visit www.socetgxp.com.



“SOCET SET’s strengths in its DTM editing tools, easy to use orthophoto production environment and its flexibility in its data import and export options have made it our first choice for large and small DTM and orthophoto projects. I believe that amongst other things it has given us our competitive edge over the past five years.”

Allan Jamieson

*Digital Imagery Manager,
BLOM Aerofilms*

Aerial photos courtesy of BLOM Aerofilms.

Page 1 top—Part of Bristol, England, taken with an aerial film camera at a scale of 1:10,000 and scanned to provide a ground sample distance of 25 cm.

Page 1 bottom—Color image of part of Milton Keynes, England, flown with BLOM Aerofilms' recently purchased Vexcel UltraCamD airborne digital sensor, with flying height 460 m and ground sample distance 4 cm.

Page 2—Color image of part of Milton Keynes, England, flown with the Vexcel UltraCamD, with flying height 1500 m and ground sample distance 13 cm.