Keystone UAS Imagery Testing Yields Accurate Results

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Keystone Aerial Surveys, Inc. announces the release of a new white paper detailing the accuracy and dependability of Unmanned Aerial Systems (UAS) for survey and other geospatial applications. Using two of its UAS, Keystone successfully flew and generated products for comparison testing in the paper. Keystone's work demonstrates to the geospatial community at large that non-metric cameras from relatively inexpensive UAS can be used to generate mapping and survey grade results with residuals of less than a quarter of an inch.

Keystone has been a leader in the remote sensing community for over 50 years, collecting large format data from its large fleet of manned aircraft. In Spring of 2015, Keystone was among the first to obtain a Section 333 Exemption from the FAA to fly UAS for commercial use. Since then, Keystone has continued to make major investments in the development of its systems, training of its pilots and its processing capabilities. By the end of 2015, Keystone had successfully completed multiple commercial flights with its UAS and generated numerous production-quality examples for its test flights. Keystone offers, and has produced, a wide range of products including point clouds, DEM, TINs, ortho photo and more from its three UAS platforms.

The release of this white paper demonstrates Keystone's commitment to providing quality data from its UAS and mastering the tools and techniques to capitalize on its systems. "We recognized early on that using existing photogrammetric tools for post-production of drone imagery was not going to work, we needed to find the right software and develop techniques to perfect the workflow", said David Day, Executive Vice President of Keystone and UAS Division Director. "Customer satisfaction comes first for Keystone, so we knew we needed to be able to assist our customers with a high level of knowledge and expertise", continued Day. The white paper, entitled "Unmanned Aerial System Survey Point Collection Accuracy Assessment" and available at this link, helps to achieve this goal by giving the reader an understanding of the techniques used to maximize the output from a specific software package (Datugram3D from Datumate, Ltd.) while also highlighting the accuracy and usage beyond the application discussed.

Keystone UAS

Keystone offers two types of UAS: a fixed-wing Altavian Nova F6500 with both RGB and near-IR payloads for large area mapping and two rotorcraft or vertical take-off and landing (VTOL) aircraft with both RGB, Video and NDVI payloads. The combination of these sensors and platforms allows Keystone to offer services for a wide range of applications, including survey, mapping, inspection, real estate, precision agriculture and construction monitoring and as-built documentation. Learn more about Keystone's UAS Division.

About Keystone

Keystone Aerial Surveys, Inc. (Keystone), established in 1963, specializes in providing quality aerial surveys throughout North America as well as abroad. Keystone has flown millions of survey miles throughout the United States on projects with varied specifications. Keystone maintains four permanent locations; Philadelphia, PA (headquarters), Tyler, TX, Tucson, AZ and Los Angeles, CA. Keystone operates twenty-one aircraft, nine metric film camera systems, eight large-format digital sensors and two Optech LiDAR systems.