Midwest Aerial
MIDWEST AERIAL ACQUIRES 3-CM IMAGERY WITH DMC II IN USDA PROJECT

For 12 years, the U.S. Department of Agriculture has relied on Midwest Aerial Photography to collect high-quality imagery in tight acquisition windows over thousands of sites nationwide as part of the National Resources Inventory (NRI). In 2011, Midwest Aerial assisted USDA in raising the bar for NRI image accuracy by capturing four-band digital imagery at a stunning 3-cm GSD with its DMC II camera during a special Digital Study pilot.

The NRI has traditionally drawn upon film photography as the basis for a statistical survey of land use and natural resource conditions to examine the effects of conservation efforts on nonfederal U.S. lands. Serving as a prime contractor under a QBSC-contract award process, Midwest Aerial has captured imagery over as many as 16,000 sites in a single NRI season, often requiring the Ohio firm to deploy several of its six aircraft simultaneously.

With a typical acquisition window of 30-60 days and thousands of small targets spread over large regions, the Midwest Aerial team puts its 100+ combined years of aerial photography experience to the test on each NRI project. The firm has consistently scored a 99 percent or higher reliability rate at successfully collecting imagery over target sites on the first flight regardless of weather conditions and, in many cases, complex airspace restrictions.

In 2010, Midwest Aerial became the first to purchase a DMC II, an enhanced version of the large-format, square-frame Digital Mapping Camera developed by Z/1 Imaging and known for high-quality geometric resolution. The DMC II and its all-digital workflow cut weeks from the standard processing time for aerial photography. The purchase proved so beneficial to Midwest Aerial and its clients that the firm bought a second in 2011, making it the only airborne mapping company in the world with two of the systems.

USDA called upon Midwest Aerial to take the lead in the 2011 pilot to test the efficacy of using digital imagery instead of film photography for NRI applications. The specific goal of the project was to achieve a 3-cm GSD spatial resolution in visible and near-infrared bands over the small-area sites that typify NRI collections. As requested by USDA, the DMC II was deployed for the study.

Midwest Aerial successfully acquired digital four-band imagery over the targets at the specified spatial resolution. In addition to superior image clarity, the project highlighted other advantages of the DMC II. Among these were the ability to simultaneously capture natural color, near-infrared and black-and-white imagery on a single flight pass, dramatically reducing project fuel costs.

Impressed with the deliverables, USDA is now considering the future of digital aerial imaging in the National Resources Inventory project.
Precision Photogrammetric Imaging Backed by Decades of Expertise

When your mapping project requires precise imagery and reliable acquisition on a tight schedule, you need Midwest Aerial Photography on your team. With more than 100 years of combined personnel experience and six aircraft, we have been managing large-area airborne imaging projects across the United States and Canada since 1989.

Our reputation for reliably collecting high-quality imagery and getting it right the first time has been the key to our selection as both a prime and subcontractor on multiple QBS awards at the federal and state level. Last year, we completed our 12th year of flying for the USDA Small Area Contract.

Our imaging capabilities are unparalleled. Midwest Aerial was the first firm in the Americas to purchase the DMC II digital four-band camera system, and we are the only one in the world to buy a second DMC II. This camera is the only large format system designed specifically for photogrammetric mapping. Its single pixel array is a rigid square frame with a fixed geometry that results in highly accurate resolution and precise acquisition at all altitudes and mapping scales.

The DMC II has emerged as the sensor of choice for government and private sector projects nationwide, and it has made our clients and partners more competitive.

Call Midwest Aerial today and learn how our unique combination of experience and technical capabilities can give you the competitive edge.