

HJW GeoSpatial: A Foundation of Innovation

It's an ancient axiom: you can't see the forest for the trees. But to the 38 men and women of HJW GeoSpatial, it's a lot more than just an old, familiar saying; to them it is the very heart and foundation of their company.

In 1949, two foresters and a cartographer, in an effort to vastly improve the task of timber harvesting, combined their skills and formed a little company, Hammon, Jensen and Wallen, much later abbreviated to HJW. From the very beginning, Alonzo Hammon, Herbert Jensen and Arnold Wallen brought a professionalism to foresting that depended on the latest technologies and the best customer service they could offer.

Imaging the Earth

Today, HJW GeoSpatial is one of the leaders in aerial imaging and mapping services, working with a wide range of customers, from the U.S. Army Corps of Engineers, to municipalities and utility

companies, to environmental firms and even recreational facilities (to help plan new golf courses and racetracks). Headquartered in Oakland, CA HJW GeoSpatial, Inc. is confident in its ability to provide all aerial imaging services with the quality, time- and cost-efficiencies that its customers demand. The company's slogan, "Imaging the Earth" is a tall order—but the company's 58 enduring years in the field (or, more appropriately, in the air) and its hundreds of successful missions, make it true.

"We are one of the few firms that offer a fully integrated suite of customized professional services," says Susan Jackson, director of sales and marketing. "This allows us to provide a consistent quality product by directly managing all stages of project execution and production workflow."

Technology, skills and experience are the elements that combine to create a

chain reaction of innovation. Most HJW project managers have advanced degrees and collectively they provide more than 75 years of know-how to the business. In turn, that chain has included many industry firsts, including the introduction of airborne GPS in 1993 to facilitate aerial triangulations and mapping production; the development of OrthoView proprietary software in 1995, used to complement standard photogrammetrics to create the highest-quality orthoimagery in urban areas; and the development of innovative QA/QC procedures in 2006 in support of LiDAR related processing.

Accelerating Change

"Aerial imaging technology is constantly changing and today straddles the traditional film-based and rapidly-evolving digital sensor worlds, complemented by non-traditional imaging technologies such as LiDAR and IF-SAR," says Joe Thurgood, president



(Left) Vertical aerial shot of Oakland International Airport; (Right) WNW looking oblique of Oakland International with San Francisco in the background.



Joe Thurgood, president and CEO of HJW.

and CEO, who notes that many end-users are sometimes tied to the quality and accuracy of older technologies more than they're interested in the latest innovations. "Part of our job," he adds, "is to

demonstrate to our customers the benefits of newer technologies in order to accelerate their adoption by the industry." This is especially true in cases where new technologies promote improvements in the entire production chain, which in turn has a positive effect on time- and cost-effectiveness for HJW's customers.

Agfa has been a part of HJW's efforts both in the film-based and digital arenas for many years. HJW has used Agfa aerial film for longer than they can remember and in early 2006 acquired Agfa's :AperTune software, which enhances digital imagery from many kinds of remote sensing devices. :AperTune works automatically, can convert scanned images to high-quality positives, and correct for overexposed or back-lit images. It allows batches of images to be optimized quickly and consistently, and provides a simple-to-use interface to the specific kind of network, computer platform and operating system used by HJW on any particular job.

"Each year we handle several hundred projects of varying sizes that involve thousands of images," Thurgood explains. "As part of our efforts to maximize the utility of the imagery collected, we evaluated :AperTune against

other means to improve overall quality and balancing. Our tests showed that :AperTune had a lot of flexibility and power in extracting the best out of large imagery data sets, which often contain large variations based on varying flight conditions."

HJW plans on continuing to provide feedback to Agfa on its use of :AperTune with many kinds of imaging projects, including those involving the latest digital aerial camera systems.

Mapping the Future

With two single-engine Cessna airplanes in its private fleet and their own pilots on staff, HJW is always ready to reach new heights of quality for its customers. In addition to its dedication to customer service, HJW also hosts occasional technology workshops, maintains an historical aerial library and is actively involved in mapping the future of aerial imaging technology. "Through our ongoing research and development activities we are recognized as a pioneer in processes and products," Jackson says. "We are dedicated to R&D to

evaluate which technologies should be adopted in order to be able to offer clients new tools and improved end-results. Our customers rely on us for innovative solutions and alternative approaches to their important projects."

While current services include aerial image acquisition, aerial triangulation, digital terrain extraction, digital planimetric mapping, remote sensing and more, Thurgood sees significant improvements coming in the near future through CPU-dominated storage bandwidth. He also envisions the emergence of UAVs, or Unmanned Aerial Vehicles, and more sophisticated satellite-based imaging.

Two foresters and a cartographer founded the company with skill and dedication, and more than three dozen professionals keep it soaring today with the same kind of expertise and corporate missions. The past is their guide to the future, because nothing breeds success like success. And that's another old adage that never gets old at HJW Geo-Spatial.



Peter Ashley (left), senior project manager and John Hacker, director of production review a new mapping project at HJW.

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Q&A with John Brandes

Instead of the usual Q&A, I would like to take the opportunity in this issue of our newsletter to give a synopsis of the Agfa Aerial VIP Seminar, which was held at Agfa-Gevaert NV headquarters in Mortsel, Belgium from September 11-15, 2006. There were attendees from across the U.S. and South America, including aerial mapping companies, processing labs, government agencies and more. Our partnering this year with Leica Geosystems provided guests with the additional opportunity of visiting the Leica Camera factory in Heerbrugg, Switzerland, following the Agfa meeting. For those taking advantage of both events, it was truly a unique experience to gain knowledge from both vendors and see some of the most attractive landscapes in Europe, bolstered by exceptionally great weather.

One entire morning was spent in a panel discussion on the state of the aerial imaging industry, now and in the future. This stimulating and interactive session was moderated by George Southard of Leica Geosystems. The focus was on choosing the proper imaging system (analog film, digital imaging, lidar, etc.) for the specific needs of the customer. The discussion made it clear that this is not always an easy task, what with the host of technologies available today and an often confused and misguided end-user customer base. It is now time, we concluded, for all aerial companies to apply consultative selling techniques and to take control of directing custom-



Agfa's John Brandes

ers to the best solutions for their imaging needs.

Attendees were also given an in-depth view of Agfa's commitment to the future of analog film for aerial imaging. Agfa took the group on a tour of our newly-constructed, state-of-the-art, color emulsion manufacturing facility, built for the continued production of color aerial films and color cinematography films. Completed a year ahead of schedule, the facility is now in active production, and all aerial product production is now being handled at the Belgium factory, including color and black & white aerial film, as well as copy films.

One entire day of the meeting was devoted to our new image enhancement software, :Apertune. The group was provided with a complete overview of the software and enjoyed a technical discussion with software engineering personnel. In addition, John Antalovich,

Sr., president of Kucera International Inc., presented a summary of their experience working with :Apertune since November 2005. Industry response to :Apertune has been exceptionally positive, highlighting the ease of use and increased production speed in the analog-to-digital conversion process. :Apertune has proven itself not just for analog film conversion, but also for its ability to enhance digital-camera imaging.

While the seminar received high praise for its technical content, the social side of things clearly stood out, as well. Evening dinners in local restaurants that featured world-class Belgian cuisine; dining on a river cruise; a side trip to Brugge ... these were all part of the unforgettable social activities we all enjoyed.

Time to start planning for next year. It won't be easy to top the 2006 event—but we'll certainly try.

