

ILMF 2008

The 8th annual International Lidar Mapping Forum (ILMF) held in Denver (CO, USA) from 21 to 22 February 2008 turned out to be the best ever. With over 580 registered delegates from 32 countries and 40 international exhibitors, the ILMF reinforced the growing international focus of this flagship event for the Lidar mapping industry. The event, supported by the American Society for Photogrammetry and Remote Sensing (ASPRS), provided a packed programme of exhibits, training sessions and a full technical conference, as well as a busy social schedule.

The extensive exhibits floor displayed a variety of Lidar technology products, data processing and survey services providers from across the world, both in Lidar scanner technology and also in data processing software and visualisation systems. International contractor Blom Aerofilms showed its combined topographic and bathymetric Lidar capabilities and first-timer Tiltan Systems Engineering of Israel showed TLiD software solutions for automated processing of large Lidar data sets.

Advances in new Lidar technology for hydrographic surveying were represented by Airborne Hydrography of Sweden, with their dual-mode systems, and the Riegl booth was busy detailing its unique echo waveform digitisation techniques with the new LMS-S560 system. Even survey aircraft suppliers were represented through Dynamic Aviation.

The key issue of processing the massive amounts of geospatial imaging data generated by Lidar systems was brought into focus by GeoCue with its integrated end-to-end processing framework solutions. Production of digital terrain models, 3D building models and visualisation suites were represented. Full-service providers included Woolpert, Merrick, Fugro, Spectrum Mapping and Blom Aerofilms.

Training and Recruitment

In common with many technology-based industries, recruiting and retaining sufficient personnel to meet work level demand is becoming a critical issue. To address this, ILMF introduced the 'Basics of Lidar' workshops. This was a series of teach-ins, open to all delegates, and aimed at increasing awareness and understanding of Lidar among students and others just starting in the geospatial community. The presentations were delivered by representatives of the global Lidar technology leaders such as Ron Roth of Leica Geosystems, Jim Green of Optech and Jim van Rens of Riegl USA.

All the sessions were completely oversubscribed resulting in standing room only. Versha Carter of the ILMF organisers Intelligent Exhibitions Ltd commented to be surprised that these sessions were enjoyed as much by the experienced people in the business as they were by the newcomers.

Technical Conference

The Technical Conference programme for the 2-day event consisted of 34 technical papers. These were presented by representatives from Lidar users, service providers, national and state government departments and Lidar technology manufacturers.

The Conference was chaired by Alastair MacDonald of TMS International Ltd, the ILMF's other organising partner. "We had nearly 100 abstracts submitted for the Conference this year. This reflects the growing importance of Lidar to the world's mapping industries as the key way to acquire massive amounts of high-resolution digital data very cost-effectively".

A dual-track programme on the first day included papers covering aspects of Lidar data acquisition and processing and technology integration. The rapidly increasing data-acquisition capabilities of Lidar sensors were noted by many speakers.

Topics on the second day focussed on recent Lidar projects, data management and new technology trends.

In the bathymetric sector, Rick Hudson of Woolpert noted that the state of Florida was operating a USD29 million programme of up-dating coastal surge models, which involved over 15,000 square miles of new Lidar data being acquired. Anders Ekelund of Airborne Hydrography gave a thought-provoking paper by noting that, whilst the original driver for developing bathymetric Lidar came from the military need to hunt for submarines in shallow waters, the new driver for this sector is global warming. This requires a focus on mapping coastal zones, for which Lidar is eminently suited; for example, the HawkEye system, which combines 4,000 bathymetric soundings with 64,000 topographic soundings and one digital image per second. Although water clarity does limit depth of penetration by Lidar, performance of bathymetric Lidar systems can be up to 70 metres water depth.

Finally, the trend for miniaturisation of digital electronics seen in other industries now seems to be influencing Lidar. There is increasing demand for Lidar use in unmanned aerial vehicles (UAVs) for aerial mapping purposes.

Social Programme

ILMF hosted an ice-breaker event in conjunction with the Rocky Rogues, a very welcoming group of geospatial folks in Colorado, and on the opening night everyone enjoyed a reception buffet and networking on the main exhibits floor. On the Saturday after the Conference ended, the ILMF took nearly 40 hardy skiers and snowboarders up to the snow-covered Rockies surrounding Denver for an active day of snow sports.

Judging by the extremely positive feedback from delegates and exhibitors, this was one of the most rewarding ILMF events ever. The date and venue for ILMF 2009 have yet to be chosen. Everyone attending this year's event genuinely remarked that they would be back in

