



## A Furtherance of Achievements

I wish readers a successful and fulfilling 2018. What better way to start the year than the International LIDAR Mapping Forum (ILMF) in Denver! This conference is epochal, because for the first time it is co-located with the annual conference of ASPRS, resulting in richer, more extensive technical programs, workshops and exhibition than ever before. I am deeply involved in the LIDAR Leaders Awards, the new initiative of Diversified Communications (the company that runs ILMF and several other events in our field) and *LIDAR Magazine*. There were no less than 86 nominations, providing numerous high quality candidates in all three categories—Enterprise, Team and Individual. We’ve highlighted many of them in the preview you’ll find on page 6. See our March publication for an in-depth look at the winners.

This year’s technical programs—one for ILMF and one for ASPRS, though most attendees are purchasing registrations that enable them to participate in both—are very enticing. The preconference workshops and events comprise both the range of topics characteristic of ASPRS conferences but also two ILMF events about Riegl products and the LAS format specification. Simultaneously, the ILMF product previews, sequences of quick pitches from suppliers, proceed apace. It is unhelpful here to attempt a precis of the technical program, since readers will have it before they receive this magazine! Suffice it to say that both the ILMF and ASPRS programs provide attractive plenaries, keynotes and parallel sessions. The ILMF sessions typically involve two parallel sessions and the ASPRS ones, four, there are poster sessions too, so participants should never be short of a relevant topic. If I am to enjoy my privilege as editor to highlight a presentation or two, I am delighted that Professor Uwe Sörgel from the University of Stuttgart, who was featured in the December 2017 issue, will be speaking about bathymetry. As you have read, Uwe and I share the same interpretation of current trends: the way of the future is professional selection and use of complementary technologies, including electro-optical imagery, SAR, LIDAR, sonar, thermal, conventional land surveying and others. Secondly, just as I was writing this, ASPRS confirmed their closing keynote, to be given by NASA luminary Scott Luthcke, who will focus on NASA’s Earth-observing, space-based LIDARs (SLA-1, SLA-2, ICESat-1, ICESat-2, GEDI): we mainly work in airborne LIDAR, TLS, MMS and automotive, but spaceborne sensors are a less familiar, tantalizing and enthralling aspect of our field.

Each of us has our favorite technologies or project scenarios in the LIDAR world and we all try to discern the trends that will influence the industry or the innovations that will become “game changers”. It’s

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clear, for example, that large projects will continue to be executed from manned aircraft and helicopters, using LIDAR sensors and cameras that offer better and better price/performance. Single-photon and Geiger-mode will strive to become part of the LIDAR “establishment”. The excitement surrounding UASs will not abate and the availability of LIDAR sensors for these aircraft and the enormous expertise on the integration side will ensure impressive growth. Around the world, many more jurisdictions will make their LIDAR holdings available free of charge and we can be sure that there will be portals and software to facilitate their use. We are conscious of the huge automotive market, in terms of both autonomous vehicles and advanced driver-assistance systems (ADAS), driving the development of technologies that can be exploited for UAS LIDAR and mobile mapping systems. Less visible, so to speak, are underwater LIDAR and LIDAR from space, but there is plenty of evidence that these application areas will be active in 2018. We will all find something to intrigue, impress or involve us!

Let’s go back in time. During the holiday season celebrations in our home, my architect son-in-law gave me his copy of Douglas Preston’s 2017 bestseller, *The Lost City of the Monkey God* (Grand Central Publishing, New York, 328 pp; parts had already appeared in *New Yorker* and *National Geographic Magazine*). This transpired to be a compelling account of the discovery and investigation of a “lost city” in Honduras. LIDAR was the hero: after the area was flown at the beginning of May 2012, the results astounded the first viewers—LIDAR had seen through the dense tropical rain forest and found geometric ruins beyond archaeologists’

wildest dreams. The book has been written for the general public and is an easy read, summarizing decades of exploration before the days of LIDAR, then grippingly guiding readers through the expedition and its aftermath. Some passages, featuring poisonous snakes, creepy-crawlies and the nasty diseases contracted from them, are not for the squeamish. LIDAR folk, of course, will be not unfamiliar with published accounts of LIDAR discoveries. The LIDAR expert on the Honduras expedition was Dr. Juan Carlos Fernandez Diaz (University of Houston), who had an article seven years ago, “Lifting the canopy veil” in *Imaging Notes*, volume 26, issue 2, pages 31-34, describing LIDAR mapping of the Mayan city of Caracol on the Vaca Plateau of Belize. And I remember Christopher Begley, Associate Professor of Anthropology at Transylvania University, beginning the technical program of the ASPRS 2014 Annual Conference in Louisville, Kentucky, with a fascinating keynote on “Lost cities, lasers, and the vestiges of the colonial discourse of archaeology”. Professor Begley made some controversial inputs when the expedition in Preston’s book returned from the field. Archaeology, like most fields, has its rivalries and tiffs; irritations, like sand in the oyster, can generate pearls of intellectual progress!

Returning to the 20<sup>th</sup> century, my library has unearthed further nuggets as the scanning process continues. I found a reprint, curiously on paper of size 8.5 x 22 inches, from *Surveying and Mapping*, vol. 24, issue 1, March 1964, pages 75-82, of a *tour de force* by Walter S. Dix, president of ACSM at the time, “The land surveyor of the future”. After masterfully articulating his review, Dix quoted (p82) President John F. Kennedy,

enunciating a mellifluous paragraph at the ACSM 1962 convention:

“Since the beginnings of our Nation, those of your professional calling have contributed in full measure to its opening, growth and development. Today, our horizons have extended beyond the limits of the imagination of our forebears. They who founded our Nation included in their numbers men whose professional efforts were devoted, as are yours, to the description in ever more precise terms of the world about us. Then, as now, this effort has made possible even fuller use of the God-given resources available to us. I know that you, with the inspiration which has characterized the work of your profession, are more than equal to the challenge of the future. Among the great contributions on which all of us can count is your continued and valued support of the educational development of those who will follow you. Your efforts in their behalf will help to assure a furtherance of achievements thus far realized.”

As we gather in Denver for the 2018 ILMF/ASPRS, learn new skills in workshops, applaud the winners of the LIDAR Leaders Awards, listen to the presentations, view the exhibition and network with droves of committed, keen professionals, I think we can assuredly reply, “Yes, Mr. President!”



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