

American Society for Photogrammetry and Remote Sensing

The Imaging and Geospatial Information Society
PUGET SOUND REGION

Issue 02-2

SPRING



THE IMAGING & GEOSPATIAL INFORMATION SOCIETY

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President's Message

By: Ward Carson

Well, the gavel was passed to me on February 8th after our Information Exchange in Richmond, BC and, since I summarize that very good meeting elsewhere in this newsletter, perhaps I'll use this space to introduce myself.

I'm new to the Puget Sound Region, having arrived here near that infamous day of September 11th last year. You could say that I'm just getting my feet wet, but I came most recently from Oregon where I was active before in the ASPRS as a board member of the Columbia River Region for several years in the mid-90s. I was then teaching aerial photo use at Oregon State University, College of Forestry but have retired from there and am now with the USDA Forest Service, in their research branch and located at the University of Washington—back to a desk very near the one I occupied while I taught here in Forest Engineering during the 70s. During the 80s I built a background in photogrammetry—certified by the ASPRS—while running my own mapping and instrument company, Carto Instruments, in Norway. In my current position I've turned my research attention to the subjects of LIDAR and IFSAR. These technologies hold much promise in forestry, and I hope to spend several years here investigating, and hopefully contributing to that potential.

So, I'm certainly a newcomer to the area, but I'm likely to know many of you from before, and all others I look forward to meeting. I do promise to keep our Region active during my year of tenure and hopefully we'll have occasion to meet during one of our sponsored activities in the near future.

Thank You Sustaining Members!

By: Terry Curtis

The Puget Sound Region would like to thank our Region's seven "Sustaining Member" organizations, their proprietors, and staff for providing ongoing support of the National (and Regional) ASPRS, and for their contributions to and/or advancement of the mapping sciences through the products and services they provide.

These organizations pay annual dues at the National level in exchange for several Sustaining Member benefits. These include reduced advertising rates, 4 copies of the PE&RS Journal, reduced rate and preferential exhibit space at conferences, company profile in annual "Directory of the Mapping Sciences", and listing in the "Products and Services" section of the ASPRS homepage.

For more information contact ASPRS Membership Dept. at (301)493-0290 or email at members@asprs.org, or the ASPRS website at <http://www.asprs.org>

In grateful recognition of all the Puget Sound Region's Sustaining Members:

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Shouldn't YOUR company name be included here ?!

The National Perspective

By: Terry Curtis, Puget Sound Region Director

Hello to all Puget Sound Region members. Here's an update on what's happening at the National level of ASPRS. Since we're between national conferences, the list is short at present. I'll provide you a full update after the April conference in Washington DC.

2002 Annual Conference: This is coming up FAST so hopefully you've made your arrangements for travel! Dates are April 19-26 and conference will be held at the Marriott Wardman Park in Washington DC. This should be a great show, and is international in scope through partnerships with ACSM and FIG (International Federation of Surveyors). Lots of workshops, both ASPRS and ACSM sponsored, a wide array of technical sessions, and 3-day exhibition. See ASPRS web site for registration information.

Financial Status: The Society remains HEALTHY in terms of financial status, even with the downturn in the economy. Outstanding fiscal planning and management continues to keep ASPRS in a favorable

position. Ended 2001 with a nearly \$200K surplus of income over expense, partly due to the great turnout at the DEM meeting last fall in Tampa, and increased publication sales.

Building Fund: GREAT NEWS here with the 2000-2001 National “matching” campaign resulting in over \$45K in eligible donations as of end of 2001. This generated a pay-down of over \$90K in the past two years!! The mortgage balance is now only \$165K, and the goal of an early payoff is within our grasp. National officers recently approved a motion to shift an additional \$30K into the matching fund since members’ generous donations completely depleted the original pool of funds! Thanks also to the sustaining members whose generous donations recently (\$30K+) also contributed to the pay-down! Remember, your donations are TAX DEDUCTABLE!!

Regions in Trouble: National has great concerns about the inactivity of some of the Regions, and is considering intervening in the issue. There are a couple that seem to be clinically dead, but still breathing. No activity, no response to Nat’l queries, no elections or viable officers, etc. Some are on the verge of being disbanded and combined with adjacent Regions. We need YOUR help so we don’t let this happen to Puget Sound Region! It’s always been a struggle to get our members involved, and the Region seems to be constantly kept alive by just a handful of folks (generally the Board and officers). We’ve done surveys to find out what YOU want, with little or no response. When we put on a technical meeting, only 10 or 20 of the non board members show up (if we’re lucky). **ANY IDEAS, SUGGESTIONS, OR HELP ?????**

WWW Presence: ASPRS’s website and electronic services continue to improve. Publication sales from the web are surpassing all expectations. Online membership renewals are quick, easy, and convenient. Member database information is improving as members have the ability to update or correct personal/society data. PLEASE VISIT www.asprs.org and update yours if you haven’t recently. The Region is relying more and more on email to communicate with members, and we depend on the national data being current.

Future Conferences: Fall 2002 - Denver (Pecora), Spring 2003 - Anchorage (Don’t miss this opportunity to visit the “Great White North”)

Richmond Info Exchange

By: Ward Carson

The Info Exchange meeting in Richmond, BC in February.

Susan Muleme of Triathlon successfully organized a dozen speakers and another 15 attendees to compose an interesting meeting held between 9am and 4pm in a conference room of the MacDonald Detwiller Building on Friday, February 8th. The presentations and discussions that followed provided a truly productive exchange of information about the imaging and geospatial activities in our Puget Sound Region.

The day began with a spirited discussion of LIDAR accuracy following Ward Carson’s report about a “successful” study comparing LIDAR, ground survey, and photogrammetry-derived coordinate data collected on the Washington State DNR Capitol Forest. The US Forest Service, DNR study apparently

confirmed the claims that LIDAR-derived Digital Elevation Models are supplying coordinates within meters of surveyed reference points and within a few meters of photogrammetric points. Others in the audience had a much worse experience and, at the end of the discussion, it was agreed that the quality of data collection and processing (--or the lack thereof--) can still produce little more than poor and unreliable results. (The buyer must still be aware!)

John Tull reported on the “State of Photogrammetry” in the Washington Dept. of Transportation. Their 6 LH Systems workstations, three 9 Terrabyte RAID storage systems, and 8 employees were anticipating some large projects. (Only the money was in doubt, of course!) Again, the presentation stimulated an exchange of questions and the experience that digital photogrammetry has brought to WADOT and other groups.

Mark Hird-Rutter had prepared an interesting presentation on what I’ll call “the pain and pitfalls” of orthophoto production. The point of view was “How does the producer get the client to appreciate the many problems that can arise?” Among other things, we heard about dust in the scanner, the offset and radiometric imbalance along seamlines, the validity of a little “touch up”, and the frustrations around a highway interchange. Again, the discussion between the orthophoto producers was most enlightening.

As we next heard from Ken Schuurman of BCIT, Mark Hird-Rutter’s efforts are part of a new effort to revitalize Photogrammetric education in their Bachelor of Technology Program in Geomatics. The program is a strong one, and their graduates are having little trouble finding jobs. Jonathan Candy, also of BCIT, discussed his GeoRanger research.

Dr. Arthur Roberts from Simon Fraser University discussed the multispectral data that he was collecting on film with his special, four lens, I-squared S Fairchild (surplus) metric camera. Dr. Roberts is recording on Kodak 2424 B&W film 4 bands of narrowly filtered data. As he pointed out, the four lens and independent filtering provides superior control over the ranges of spectral data collected.

Phillipe Roland of RSI gave a comprehensive overview of the RADARSAT 2 system. Possibly the most striking improvement over RADARSAT 1 is the introduction of the 3 meter resolution offering a very competitive source for Digital Terrain Model production for (say) 30x30 meter grids with 15 meters of vertical accuracy.

Ward Carson presented an additional LIDAR study being completed by Hans-Erik Andersen of the University of Washington. Andersen has been using a mathematical morphological technique to distinguish individual tree crowns from the cloud of high density LIDAR data collected over forest canopies. The success, judged by comparisons with stereo examinations on large scale photos, has been in excess of 80%. Andersen is continuing this and other research with LIDAR’s potential to measure forest canopy structure, and the potential for success seems good.

Finally, Terry Curtis and Dick Petermann from the Washington State DNR discussed a large orthophoto project composed from 2000, 1:32000 photos collected over the Olympic Peninsula with a GPS/IMU system. They reported considerable growing pains, but they claim to have achieved their goal of complete orthophoto coverage, at better than 15 foot planimetric accuracy, **without ground control!** There was much interest in the obstacles they met with their continuing attempts to adjust the large block of photos. They did claim that if they had it to do again, they would! It does seem that for some

projects, GPS/IMU data is well worth the extra cost (--apparently about 30% of the total aerial survey price tag).

I'm sure all attendees would like to thank Triathlon, and especially Susan Muleme and Gary Manser, for the meeting, the lunch, and the informative tour of their facilities after lunch. And the Puget Sound Regional board would like to thank them as well for the room where the Annual General Meeting was held at the end of the day.

Upcoming National Events

April 2002

April 20-25, 2002, ASPRS will hold its Annual Conference, together with the American Congress on Surveying and Mapping (ACSM) and the International Federation of Surveyors (FIG), in Washington, DC.

<http://www.fig2002.com/>

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