



## THE IMAGING & GEOSPATIAL INFORMATION SOCIETY

### ~The Rocky Mountain Compiler~

Issue 1

Spring 2011

Issued Quarterly

*Newsletter of the Rocky Mountain Region of ASPRS, serving Montana, Wyoming, Colorado, and New Mexico*

### President's Message

I'd like to wish all the ASPRS members in the Rocky Mountain Region, and other geospatial professionals and aficionados, a belated Happy Vernal Equinox. The 2011 imaging and data collection season is upon us; may this year's vintage be cloud-free and rich in information content.

This is my first message for the year, and I'm excited to report on the many positive happenings in our region sure to make this a noteworthy year. The new 2011 ASPRS-RMR Board of Directors (BoD) is a team of distinguished professionals representing the many facets of our robust and diverse industry. We are working on many activities and initiatives to benefit our members and region. It is my pleasure and privilege to outline these below.

There are many benefits in being a member of ASPRS-RMR, such as networking opportunities, professional certification, technical tours and seminars, subscription to the top peer-reviewed technical journal in the geospatial sciences, access to over \$40,000 worth of scholarships for students, and more. ASPRS members across all industry segments consistently inform us that the most important benefit of membership is participating in professional networking events. Thus, a main goal in 2011 is to sponsor more networking events and opportunities to meet and engage each other in interesting dialog and discourse.

These networking events can take several forms, and are organized into a few categories:

**Conferences** – I want to bring three conferences to your attention:

- [ASPRS Annual Conference in Milwaukee](#), WI, May 1-5
- [GIS in the Rockies](#), in Denver, CO August 31-September 1,
- [PECORA 18 Conference](#) November 14-18, in Herndon VA.

Please refer to the conference websites at the live links above for more details.

**2011 "GIS in the Rockies" Conference** – is the premier geospatial event in our region which provides an engaging forum to interact with geospatial professionals from all segments of the industry. A few changes this year are designed to invigorate the conference and increase its benefit and appeal. First, it will be held at a very nice modern venue in Denver, the Cable Center on the

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University of Denver Campus. Additionally, there is a concerted effort by the five sponsoring organizations (ASPRS-RMR, GITA, RM-URISA, GISCO and PLSC), to increase attendance and participation by engaging new markets, customers and participants in addition to traditional participants. There is also increased focus on the marketing and promotion of the GISR conference in order to foster more participation and a wider audience, and ultimately a more successful event.

**Professional Development - Technical Tours and Seminars.** The Rocky Mountain Region is an important center for the geo-technologies in the US, and is home to numerous commercial firms, national labs and institutions, federal, state and local government offices, and academic institutions. We plan to offer numerous opportunities for members to participate in tours of facilities as well as professional seminars and presentations by sustaining member companies and organizations in the Rocky Mountain Region. These will include seminars about technological advancements in equipment, software, techniques and methods, and applications.

Our widespread region spans from Montana on the Canadian border in the north to New Mexico on the Mexican border to the south. While visiting physical facilities is always interesting, we will also host events via webinar format in order to be more inclusive. We want to make the region more cohesive and benefit as many of our members as possible, not just those within driving distance in the Front Range. The use of webinars will allow all members to participate in events and increase awareness across the region.

**Support and foster student chapters** – It is a priority to establish, support and foster student chapters to stimulate discourse and exchange of ideas within the academic institutions. We want to reinvigorate inactive student chapters, and provide support and mentor existing student chapters. The BoD has an active campaign to assist the student chapters in enabling meetings with support for lunch, distribution materials and office supplies, etc.

For example, the State of Montana student chapter has over 20 universities, colleges, and other academic institutions across the state. One way to bring those institutions together in a collaborative manner is to have a seminar series where students present their work to their peers. This would also be a virtual meeting in a webinar fashion, via Skype or other virtual media.

Next, we would like to help establish collaboration between the different student chapters, universities

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and colleges across the Rocky Mountain Region to share and proliferate ideas and exchanges across all the academic institutions. Thus, the different student chapters can feel connected to their peers, have a forum to present their work, exchange ideas, share experiences, form user groups share equipment.

**Social events** – ASPRS-RMR will continue to sponsor social networking events for members to interact with a wide variety of geospatial professionals in a fun environment. These events will be announced by e-mail and in this award-winning newsletter, the *Rocky Mountain Compiler*. The events may include Rocky Rogue get-togethers at the Wynkoop in downtown Denver, Christmas party, annual dinner, and we are planning some casual BBQs at Red Rocks and other locations.

On April 14th, ASPRS-RMR will co-sponsor the very popular “Career Night” at the Tivoli Student Center on the Auraria campus in Denver. We are teaming up with GITA, URISA, and GIS Colorado to host the event which is open to students and GIS organizations. The event will include a panel of geospatial industry professionals to discuss Geospatial Career Paths, the 2011 Industry Marketplace, reviews of resumes, available jobs and internships from companies in the Rocky Mountain Region, educational opportunities and scholarships. Refreshments will be served. Please contact **Janie Pierre** (RM-URISA) at [georoads@comcast.net](mailto:georoads@comcast.net) for more details and to register for the event.

I conclude by reiterating that the overarching goal of the ASPRS-RMR BoD is to provide a professional forum to foster interaction between people and organizations, and be a resource to convey information and aid collaboration among our members. Please do not hesitate to contact ASPRS-RMR BoD members with suggestions or for opportunities to volunteer for an activity or event. Let the collaborations continue!

All the Best,  
**Jeff Liedtke**  
 President, ASPRS-RMR

## National Director’s Report

### ***Change -- The “New Norm” for ASPRS and its Membership***

**Expect Change:** Like many other long-standing institutions, ASPRS is finding change to be the “New Norm.” By no means can ASPRS escape this reality and I will provide you with several examples of sea level changes underway ... First, our website is being revamped and this has been long in coming.

This will allow us to be fresh, crisp and forward leaning in our outward appearance. Several of our members serving in leadership capacities will retire in the next five years, so we can expect a dramatic change in leadership across the board. We are doing our best to reshape the Sustaining Member voting criteria to allow for a higher level of engagement locally, and in ASPRS Division matters, in effect making Sustaining Membership more relevant for individuals working for large organizations. Our Certifications are being actively adopted in some jurisdictions and marginalized in others. We are moving to an electronic voting schema, where we hope to enjoy a higher percent of voting on the part of our full members; again increasing the level of engagement by individual members. Finally, we are considering the formulation of a new "LiDAR Division" as well. Yes indeed, changes are coming to ASPRS!

**Understand Impacts of Current Events:** The geophysical/technological catastrophe in Japan, strife in North Africa, and budget shortfalls for all levels of government ... These are changes of a different type, but they do affect all of our membership. In no small way, many of our members are bound to these dramas. The prospect of nuclear contamination should concern us all. This is a technological problem which is explicitly geographic and has global implications on how we address our future energy requirements. Certainly the contagious political unrest in North Africa even affects our cost and choices in commuting to work and discretionary mobility. Additionally, the level of service provided by Government to its citizens is changing and becoming more reliant on geospatial technologies to influence daily operations and asset management ... a good thing!

**Measure External Influences of ASPRS:** I recently attended SPAR 2011 and was truly impressed with how influential ASPRS is with this community. Our LAS format has seen a very high degree of acceptance by the AEC (Architect, Engineers and Construction) community...Perhaps now the GAEC community where 'G' references Geospatial. However, I suspect few really know of ASPRS. My conclusion: We are brand deficient in that there is little awareness of ASPRS' role in LAS and the significance of our influence on an entire industry. We have a seat at the table but few know we are there or who we are. It is time to change that since, again, change is the "New Norm." I encourage you to please become agents of change in ASPRS and in your professional spheres of influence.

I hope to see many of you in Milwaukee this Spring. Please contact me if you have any questions regarding National ASPRS.

**Jeff Young**

National Director, ASPRS-RMR

[jyoung@lizardtech.com](mailto:jyoung@lizardtech.com)

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## GIS in the Rockies 2011 Update

The geospatial industry continues to morph at a rapid pace, and in order to stay abreast of all the latest trends and technologies, it is essential to continue to expand one's knowledge base and networking reach. The planning committee for GIS in the Rockies 2011 is pleased to announce the return of this integral event to Denver, CO to be held at the Cable Center, on campus at the University of Denver on August 31 and September 1, 2011. This will be the 24th year of the event and will focus on emerging technologies in the geospatial world. Professionals, educators, students and GIS enthusiasts alike are invited to come and participate in this two-day event. Track themes are to include: economic development, new energy solutions, emergency response, mapping Census 2010 data, web-based location and communication, mobile technologies, and more! The event will also include a job fair with opportunities to meet key industry contacts and hiring personnel. The deadline for submitting abstracts is May 31, 2011. For more information and to register for this year's event please visit: [www.gisintherockies.org](http://www.gisintherockies.org)

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## RMR Introduces New Board Members

Two of the newly elected Board members resigned during January, as they were unable to serve out their terms for 2011 due to increased work demands. As specified by the Rocky Mountain Region Bylaws, the Executive Committee (President, National Director, and Treasurer) appointed two qualified persons to fill these vacancies. Secretary **Eric Vossenkemper** resigned and was replaced by **Mark Stanton**, Flight Operations Manager at Pixxures, Inc. (a division of XeDAR) in Arvada, CO. Regional Director **Alex Philp** in Montana resigned and was replaced by **Linda Vance, Ph.D**, Senior Ecologist with the Montana Natural Heritage Program. In addition, **Sanchit Agarwal**, Director of Technical Quality at Sanborn in Colorado Springs, CO, was appointed to serve on the GIS in the Rockies Conference Executive Board, a position normally filled by the Immediate Past President. Please join us in welcoming our new Board Members for 2011!

President: **Jeff Liedtke**

Vice-President: **Ramesh Sivanpillai**

Secretary: **Mark Stanton**

Treasurer: **Roger Hanson**

National Director: **Jeff Young**

Regional Director (Communications/Newsletter):

**Kristi Edwards**

Regional Director ("GIS in the Rockies" Planning

Committee): **Ralph Vomaska**

Regional Director ("GIS in the Rockies" Planning

Committee): **Niki Noon**

Regional Director (At-Large - NM): **Michaela**

**Buenemann**

Regional Director (General - MT): **Linda Vance**

Regional Director ("GIS in the Rockies" Executive

Board): **Sanchit Agarwal**

### ***New Board Member Biographies***

**Sanchit Agarwal, CP, CMS, GISP**, is Director of Technical Quality at Sanborn Mapping. Sanchit received his B.Tech degree in Civil Engineering from the Institute of Technology, BHU (India) and an MS in Geomatics Engineering from Ohio State University. During his MS degree, he worked as a Research Associate for the Mars Exploration Rover Mission, where he created 3D terrain maps and crater models for the safe navigation of the rover. For his MS thesis, Sanchit developed an algorithm for automated on-board rover localization. After completing his MS, he worked as a Senior Analyst at Fugro EarthData and was involved with LiDAR and RADAR data processing. He then joined HJW Geospatial as Chief Technologist and later took over as Director of Production.

Altogether, Sanchit has over 8 years of experience in the field of Geomatics. He has worked in both production and R&D environments. He has experience with data production from multiple sensor platforms. Sanchit holds the titles of Certified Photogrammetrist (ASPRS), Certified Mapping Scientist (ASPRS) and GISP (GISCI). His interests include process improvement, automation, workflow optimization and quality control.

**Mark Stanton** is the current Chair of the ASPRS Sustaining Members Council. That term ends in May of this year and Mark is very happy to continue

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volunteering locally with the ASPRS Rocky Mountain Division as Secretary. Mark has over 20 years combined experience in the fields of Geology and Remote Sensing. He has been working for the last 10 years with Pixxures in Arvada, Colorado. Mark has worked positions from Image Analyst, picking tie points and balancing mosaics, to Aerial Photography Film Scanner, to Orthophoto Project Manager and now is Pixxures' Flight Operations Manager. Pixxures owns and operates Leica ADS40 (Sensor Head 51) image sensors. Mark plans orthophoto project requirements, determines ground control requirements, flight parameters, manages training, aircraft positioning, sensor troubleshooting, maintenance, crew logistics, weather monitoring, mission data processing, AT, surface model generation, orthophoto color balancing and production.

When Mark is not working with imagery, he may be found performing as part of the cello section with the Denver Philharmonic Orchestra, climbing, or cross country skiing somewhere in our Rocky Mountain backyard playground.

### **ASPRS-RMR Annual Dinner Meeting Report**

A fun evening was had by all at the Rocky Mountain Region's Annual Dinner Meeting, held once again at the Wellshire Country Club in Denver on January 29th, 2011. Close to 30 people attended, including most of the previous year's board members, the incoming board, and other distinguished guests from the community at large, including two past national presidents of ASPRS, some of the Rocky Mountain Region's past presidents and several members of the industry.

New in this year's program was a guest speaker (right), **Bo Dunaway**, President and Founder of Pikes Peak Technologies, who gave an interesting and introspective presentation entitled, "Consider the Image, A Practitioner's Perspective." A disabled veteran and retired Infantry Officer, Bo Dunaway spent over 29 years working in



the Dept. of Defense and Federal government in a variety of disciplines. Additionally, he has over 30 years of experience in the geospatial industry. Bo taught geography at the US Air Force Academy, and served as the Deputy Director of the Institute for National Security Studies, including working with the Russian Academy of Sciences to help establish a Russian National GIS program. After that he led the US Army Space Command's only production center for civil and commercial imagery, the Spectral Operations Resource Center (SORC), which supported operations worldwide, including disaster relief, operational planning and execution, and combat operations. During his tenure as Director, the SORC responded to the Pacific Tsunami, the Bam, Iran earthquake, wildfires throughout the United States, Hurricane Katrina, and combat operations in Southwest Asia. Bo has also served in several positions supporting the design and deployment of satellite systems, as well as the US Army's first mobile ground station for commercial imagery, Eagle Vision II. Later, Bo went to work for SANZ as the Director of Government Programs, then started Rocky Mountain Cartographics, which later merged with Pikes Peak Technologies, a natural resource analysis and consulting firm. Bo's recent projects include mine reclamation analysis and precision farming support.

ASPRS-RMR National Director, **Jeff Young**, acted as Master of Ceremonies for the evening. As an icebreaker, Jeff instructed each guest to write the elevation of their birthplace on their name tag and then to sit with others whose places of birth were in the same elevation range. This facilitated some lively conversations and the beginnings of new friendships. Once the evening program was underway, Jeff Young reviewed the previous year and recognized the goals that were pursued in the region, including the scholarship awards program.

**Dr. Roger Hoffer**, and **Dr. Tina Cary**, both National Past Presidents and ASPRS Fellows, presided over the induction of the new officers of the Rocky Mountain Region's board able to attend. Roger reflected on the growth and development of ASPRS, from its humble beginnings to the strong and active organization it is today.

The Rocky Mountain Region's five scholarship award winners were announced and scholarships were presented to the four winners who were able to attend the dinner. Before receiving their scholarship awards, each winner talked to the group about their research interests and project work at their respective universities. The winners were:

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*Installation of new RMR officers (l-r) Jeff Liedtke, Roger Hanson, Ralph Vomaska and Jeff Young by Dr. Roger Hoffer.*

**Adina Racoviteanu** – (\$1,500), graduate student at the University of Colorado

"Decadal Changes in Glacier Parameters in Sikkim Himalaya Using Remote Sensing and GIS Analysis." Adina's research has been focused on remote sensing of the Himalayan glaciers to develop comprehensive inventories of glacier parameters using a combination of ASTER imagery, GIS and field measurements at various spatial and temporal scales. The ultimate goal is to understand spatial patterns of glacier fluctuations in relation to regional climatic variability across the entire Himalayan mountain range.

**Michael MacFerrin** – (\$1,500), graduate student at the University of Colorado

"Lidar-Derived Error Estimates of SPOT and ASTER DEM products over the Greenland Ice Sheet." He is working with visible, airborne lidar, space-based lidar, and satellite gravity data to understand how and why the Greenland ice sheet is changing, and the implication of those changes for global sea level rise.

**Katherine Williams** – (\$1,500), graduate student at the University of Denver

"A Geostatistical Approach to Topographical Controls on Soil Moisture Distribution: Combining Field Data, Lidar, and High-Resolution Aerial Photography." Katherine's research focuses on characterizing soil moisture in the Loch Vale Watershed research site, a long-term ecological research site within a wilderness area in Rocky Mountain National Park.

**Dennis McCarville** – (\$1,000), graduate student at New Mexico State University, was not able to attend the dinner, and received his award by mail.

"Atmospheric Correction of Landsat Thermal Infrared Data."

Atmospheric corrections that are currently available for Landsat TIR data either do not utilize data covering the entire Landsat operational period, or do not allow the user to specify atmospheric profiles for the desired time and location of the Landsat overpass, which leads users to rely on highly generalized, standard atmospheric profiles. Dennis is working to overcome these limitations by designing a new atmospheric correction application for these data.

**Elizabeth Lynch** – (\$1,000), graduate student at the University of Wyoming

"Developing Methods to Analyze Groundstone Using Photogrammetry."

Elizabeth is employing a novel approach to the use of GIS, GPS, and close-range photogrammetry for Anthropology. She is studying prehistoric bedrock grinding surfaces near Pinyon Canyon in southeastern Colorado. By creating DEMs of each grinding surface, she will test hypotheses about prehistoric use of these features, an unusual and creative application of GIS and Remote Sensing techniques.



2011 RMR President Jeff Liedtke and scholarship winners Elizabeth Lynch (UWyo), Adina Raconviteanu (CU), Katherine Williams (DU), and Michael MacFerrin (DU). Dennis McCarville (NMSU) was unable to attend.

All in all, it was an interesting and engaging evening for everyone who attended. Please plan to join us next year!

## Help Wanted for Region Website

Web programmer with expertise in Open Source CMS, PHP, Joomla! (or WordPress) and MySQL needed for redesign of Region website. Volunteer time or reasonable hourly rates welcome. Please contact Sheila Pelczarski at 303-628-6511 or [sgp@denverwater.org](mailto:sgp@denverwater.org).

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### Welcome New Members

Joshua Baldwin  
Jonathan Gale  
Elizabeth Lynch  
Michael MacFerrin  
Brian Malyon  
Yahia Othman

Fabio Pacifici  
Darlene Servana  
Mark Simpson  
Valeska Soliday  
Jeremiah Vinyard-Houx  
Lynn Yee

### 2011 Geospatial Career Night – Denver Auraria Campus

RM-URISA, GITA, GIS Colorado and ASPRS-RMR invite Denver area college students to a geospatial career information meeting on the Auraria campus. Student hosts are the UCD GES/GIS Club and MSES0.

What: Geospatial career information and panel of professionals

When: **Thursday, April 14, 2011, 5 – 7pm**

Where: Auraria campus, Tivoli Student Center, Room 320 B & C

<http://www.tivoli.org/tivoli/map.htm>

Topics:

Student GIS Organizations  
Professional Associations  
Geospatial Career Paths  
2011 Industry Marketplace  
Resume Reviews  
Available Jobs and Internships  
Educational Opportunities  
Scholarships

Questions? Contact **Kaelin Groom** (GES/GIS) at [kaelin.groom@email.ucdenver.edu](mailto:kaelin.groom@email.ucdenver.edu) or **Janie Pierre** (RM-URISA) at [georoads@comcast.net](mailto:georoads@comcast.net).

### News from Headquarters – ASPRS Annual Conference

Join ASPRS: The American Society for Photogrammetry and Remote Sensing, May 1 to May 5, 2011, in Milwaukee, Wisconsin for the ASPRS 2011 Annual Conference. The conference theme "Ride On The Geospatial Revolution" will offer an outstanding program of general and technical sessions looking to the future of the geospatial industry.

The conference will be held at the Frontier Airlines Center, with the conference hotel being the Hyatt Hotel. *And here's the best part: The evening social event will be held at the Harley-Davidson Museum!!!* (Thus, the conference theme!) To register, visit <http://www.asprs.org/milwaukee2011/fees.html>.