

Issue 2

Summer 2019

Issued Quarterly

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

President's Message

We hope to see you soon at GIS in the Rockies!

Jeff Young JeffreyMYoung@msn.com ASPRS Rocky Mountain Region President

GLS in the Rockies Conference

32nd Annual "GIS in the Rockies" Conference September 17-18, 2019 (Workshops will be held on September 16) Centennial, Colorado (South Metro Denver) Hilton Denver Inverness **Conference Website**

Join ASPRS Rocky Mountain Region, GIS Colorado, Professional Land Surveyors of Colorado, and Rocky Mountain URISA September 17 & 18, 2019 at the Hilton Denver Inverness for GIS in the Rockies - the Rocky Mountain West's premier geospatial information and technology conference.

The 32nd annual GIS in the Rockies promises to be the best ever, offering an exceptional, content-rich conference.

2019 CONFERENCE HIGHLIGHTS INCLUDE:

- FULL PROGRAM OF EVENTS with outstanding SESSIONS & POSTERS

- 2 DYNAMIC KEYNOTE SPEAKERS:

The opening keynote will be delivered on Tuesday by Mike "Coop" Cooperstein, Weather and Avalanche Forecaster for the Colorado Avalanche Information Center (CAIC). Coop is CAIC's main GIS specialist, working avalanche related GIS projects for the CAIC and Colorado Department of Transportation. Prior to the CAIC, Coop served as a mountain guide with Andes Mountain Guides for 10

years and has had the opportunity to travel to some of the world's most remote places.

Closing Keynote Speaker on Wednesday will be David Hansen, Chief Operating Officer of GEO Jobe GIS Consulting and Director of GEO Jobe's Center for Research and Engineering. David has multiple degrees in GIS and related technology, and he and GEO Jobe have received many awards for the advancement of geospatial technologies.

CAREER DEVELOPMENT ACADEMY -

The Career Development Academy is designed for any individual seeking to, or anticipating, transition from one stage of their career to another. Students, early career professionals, and seasoned GIS experts are all invited to participate on Wednesday afternoon, September 18!

2:30-3:15 pm: State of Geospatial This presentation includes data and statistics about employment, skills in high demand, which areas of the country are hot job markets, and related information about the geospatial employment market.

3:15-3:45 pm: Land that Good Government Job, and Beat the 'ALGOS' at their Own Game After this presentation you will come away with specific techniques and methods to be able to get over hurdles that the hiring process places in your way. You will also get a clearer idea of where to focus your energies to build a satisfying career in the Geospatial Industry.

3:45-5:00 pm: Soft Skills for a Hard Industry Workshop Become confidently prepared to talk about your interpersonal strengths and what you want for the future. This workshop is designed to help you identify what it is that you REALLY want and build the confidence to show up with vision and purpose. Discover your target and choose which direction you would like to aim for it.

<u>resume.html</u>) for anyone in the midst of a job search, those who are gearing up for a big transition, and people who prefer to maintain an up to date resume. Common suggestions are related to formatting, skill-set language that will be flagged appropriately by auto-filters, and guidance to present experience in a way that is most appealing to employers. Submit your resume to GeoSearch, Inc. for constructive feedback aimed at helping individuals advance their careers.

EXCEPTIONAL SLATE OF EXHIBITORS

PRE-CONFERENCE PROFESSIONAL WORKSHOPS (Monday 9/16) – Stay on top of evolving technology!

OUTSTANDING CONFERENCE SOCIAL EVENT (Tuesday 9/17) -- Networking, Geo Quiz, and more...

POST-CONFERENCE TOURS (Thursday 9/19)

* * * * * *

Pre-Conference WORKSHOPS

GIS in the Rockies is pleased to offer pre-conference workshops related to important topics in the GIS industry on Monday, September 16, 2019. There are a limited number of openings for each workshop, so please sign up for a workshop during the registration process. If you have already registered for the conference, you can modify your existing registration to add a workshop.

GIS and Python Programming Using ArcGIS Pro and Arcpy

Time: 8:00 am – 4:30 pm Instructor: Lucas Kaim Thelen Cost: \$100

Workshop Description: This workshop will explain fundamentals of Python as an object-oriented programming language, and how you can use Python in ArcGIS Pro to script geoprocessing workflows for batch processing and map automation. Workshop will be presented in a format combining lectures and guided exercises. Intended Audience: People who want to learn Python or use Python to automate GIS workflows. Tech requirements: Participants should have some GIS experience. Capacity: 20

~ ~ ~ ~ ~ ~

Retrieving Images from Landsat Data Collections

Time: 9:00 am – 12:00 pm Instructor: Ramesh Sivanpillai, PhD, University of Wyoming Cost: \$30 [NOTE: we will donate the fees to ASPRS-

RMR (50%) and GISITR Student Scholarships(50%)]

Landsat satellites (http://landsat.usgs.gov) provide invaluable Earth Observation data for monitoring and mapping applications. These data have been available to users from the US Geological Survey (USGS) at no cost since 2008. Starting in 2016, USGS started organizing Landsat data in a tiered collection structure based on data quality and level of processing. Users interested in time-series analyses will be able to evaluate and select Landsat images based on this tiered structure. This lecture and demonstration-style workshop will introduce remote sensing concepts and Landsat data characteristics. Participants will also learn how to search and download these data and products from USGS archives. Upon successful course completion, participants will receive a completion certificate.

Intended Audience: GIS practitioners and others familiar with spatial (raster and vector) data. Tech requirements: Participants must provide their own laptops.

Presenter Bio: Ramesh Sivanpillai is a research scientist at the University of Wyoming. He has more than 29 years of experience in working with remotely sensed and related geospatial data in the US and abroad. He manages the WyomingView program (www.uwyo.edu/wyview) at UW, whose primary goal is to promote remote sensing science and applications through education and applied research.

Learning Objectives: At the end of this workshop, students will be familiar with the following topics: raster data characteristics (spatial, spectral, temporal and radiometric) – unique characteristics of Landsat data – derived products (vegetation

Rocky Mountain Compiler

indices) – terminology of Landsat data archive – searching USGS data archives.

~ ~ ~ ~ ~ ~

Integrating Landsat Analysis Ready Data in GIS Workflow

Time: 1:30 pm – 4:30 pm Instructor: Ramesh Sivanpillai, PhD, University of Wyoming Cost: \$30 [NOTE: we will donate the fees to ASPRS-RMR (50%) and GISITR Student Scholarships(50%)]

Workshop Description: Landsat satellites (http://landsat.usgs.gov) provide invaluable Earth Observation data for monitoring and mapping applications. In 2017, USGS released Landsat Analysis Ready Data (ARD) consisting of a suite of processed and derived data layers dating back to 1972. ARD data are processed to the highest level of science standards required for monitoring and assessing landscape change. ARD data will reduce the individual user need to download and preprocess large amounts of Landsat data for timeseries analysis. This lecture and demonstration-style workshop will introduce Landsat data characteristics and products such as vegetation indices, burn severity products, etc. Participants will also learn how to search and download these data and products from USGS archives. Upon successful completion, participants will receive a course completion certificate.

Intended Audience: GIS and remote sensing practitioners and students.

Tech requirements: Familiarity with spatial (raster and vector) data.

~ ~ ~ ~ ~ ~

Capacity: 25

Editing with QGIS 3.8

Time: 8:30 am – 12:00 pm Instructor: Dave Murray, GISP Cost: \$75

Workshop Description: How many times have you wanted to jump into editing a spatial dataset without the hassles of vendor licensing? Well now you can with a wide array of free and open source tools provided by the QGIS project. This class will introduce you to the many ways of editing and maintaining your geographic features. We will review basic point, line and polygon editing tools. The class will cover the more advanced editing topics with multi-layer snapping and topology. We will use a number of ways to created data from coordinates to the extensive list of data processing tools.

Attend this half-day workshop if you are interested in learning how to keep your data up-to-date with the industry leading QGIS 3.8. You will need to have QGIS installed on your laptop. Windows, Mac or Linux laptops are suitable for this workshop. The instructor is Dave Murray, GISP, who has many years teaching FOSS4G classes and is enthusiastic about the use of open source technology to "GET THE JOB DONE."

Intended Audience: GIS users who would like to learn how to edit in QGIS.

Tech requirements: Basic familiarity with QGIS interfaces and tools. This is not a class for beginners. Users must have QGIS 3.8 installed on a laptop. Windows, Mac or Linux is fine. The instructor cannot help with Mac or Linux installations. 1GB of data storage is also necessary. Data will be provided through an FTP download 5 days before the workshop.

Capacity: 20

Advanced Cartographic Techniques Using QGIS 3.8

~ ~ ~ ~ ~ ~

Time: 1:00 pm – 4:30 pm Instructor: Dave Murray, GISP Cost: \$75

Workshop Description: The integration of advanced graphic design methods and GIS mapping has found a home in the latest version of the desktop GIS program, QGIS 3. Most users of QGIS do not dive deep enough below the surface to realize the power of the many cartographic tools that this program holds. There are professional blending tools for both vector and raster datasets. This program allows you to control all elements of cartographic display using data derived overrides. Just about every element in your map can be customized and designed by you. This can be intimidating at first but once you use get the hang of the interfaces, it becomes transformative. This class will give you the experience to take your cartography to the next level.

Attend this half-day workshop if you are interested in learning how to create advanced cartographic products with QGIS 3.8. You will need to have QGIS installed on your laptop and familiarity how to make maps and use data in QGIS 3. THIS IS NOT A BEGINNER CLASS. Windows, Mac or Linux laptops are suitable for this workshop. The instructor is Dave Murray, GISP, who has many years teaching FOSS4G classes and is enthusiastic about the use of open source technology TO MAKE BEAUTIFL MAPS. Intended Audience: GIS users who would like to learn how to improve their cartographic skills in QGIS.

Tech requirements: Basic familiarity with QGIS interfaces and tools. This is not a class for beginners. Users must have QGIS 3.8 installed on a laptop. Windows, Mac or Linux is fine. The instructor cannot help with Mac or Linux installations. 1GB of data storage is also necessary. Data will be provided through an FTP download 5 days before the workshop.

Capacity: 20

Insights for ArcGIS

Time: 8:30 am – 11:30 am Instructor: David Vaillancourt Cost: \$30 (proceeds go to GISCO) Location: Room# (tbd) Workshop Description: (TBD) Intended Audience: GIS professionals. Tech requirements: Basic understanding of ArcGIS online recommended, but not required. A bonus would be to have an idea of a project you want to work on during the exercise. Participants must provide their own laptops, as laptops are required for the exercises. Capacity: 20

ArcGIS Pro: Beyond the Basics

Time: 1:00 pm – 4:30 pm Instructor: Peter Gamberg Cost: \$30 (proceeds go to GISCO) Workshop Description: (TBD) Intended Audience: GIS professionals. Tech requirements: Basic understanding of ArcGIS online recommended, but not required. A bonus would be to have an idea of a project you want to work on during the exercise. Participants must provide their own laptops, as laptops are required for the exercises. Capacity: 20

Post-Conference Tours

GIS in the Rockies is excited to offer postconference tours on Thursday, September 19, 2019. There are three outings offered this year which are designed to provide a variety of entertaining and educational experiences related to GIS, Geology, History, and even Chemistry! Tours are spaced apart throughout the day so that if you so desire, you can easily attend them all. Check out the descriptions below for more information. Tours are located in Lakewood and Denver, Colorado. Attendees are responsible for transportation to and from the locations.

There are a limited number of openings for each tour, so please sign up during the registration process. If you have already registered for the conference, you can modify your existing registration to reserve your spot for the postconference tour of your choice.

National Science Foundation Ice Core Facility (Denver Federal Center, Lakewood, CO)

This one-of-a-kind facility is for storing, curating, and studying meteoric ice cores recovered from the glaciated regions of the world. NSF-ICF provides scientists with the capability to conduct examinations and measurements on ice cores, and it preserves the integrity of these ice cores in a longterm repository for future investigations. NSF-ICF is located at the Denver Federal Center in Lakewood, Colorado, and is funded by the NSF. NSF-ICF is housed administratively within the USGS, Core Science Systems Mission Area, which is responsible for all operational aspects of the facility.

Tour Director: Chuck Anderson Maximum Capacity: 35 people Time: 9:45 am (Security Gate Check-in); 10:00 to 11:15 pm (Tour) Cost: Free Meeting Location: One Denver Federal Center, Building 810, Entrance E-11, MS 975 Denver, CO 80225-0046 Additional Information: Some time needed for security gate/check-in. Bring ID. Recommended to wear closed-toe-shoes, long pants and bring a jacket for a brief walk-through the freezer! Gloves and hats

are also recommended for comfort but not required.

Rocky Mountain Compiler

The Old Map Gallery

Located in Historic Lower Downtown Denver, The Old Map Gallery has specialized in antique and vintage maps for the last thirty years, with maps from the early age of exploration in the 1500's, up to the 20th century and the beginning of space exploration. With a focus on Colorado and the West, they cover any part of the globe, and specialize in pictorial and culturally focused maps from the 1920's -50's.

Tour Director: Curtis Bird

Maximum Capacity: 24 people Time: 3:00 – 4:00 pm

Cost: Free

Meeting Location: 1801 Wynkoop St., Denver, CO 80202

Additional Information: No direct parking lot on site and will likely need to pay for metered or garage parking. It is also very close to the light rail and Union Station!

Old Map Gallery

~ ~ ~ ~ ~ ~

Great Divide Brewing Company (RiNo Facility)

Private tour of the state-of-the-art packaging facility, which includes a tasting of a specialty beer in the Barrel Cellar. This is located in the booming RiNo district of Denver. Tour Director: Andrea Bracken Maximum Capacity: 20 people Time: 5:15 – 6:30 pm Cost: \$7 / person Meeting Location: 3403 Brighton Blvd, Denver, CO 80216 Additional Information: Must be 21 or older. Bring valid ID. Transportation option details to follow... Please drive responsibly.

* * * * * *

About GIS in the Rockies:

GIS in the Rockies is the Rocky Mountain West's premier geospatial information and technology conference. The conference offers opportunities for industry professionals to learn more about geospatial technology issues and business-centric strategies supporting every vertical market touched by the geospatial industry. Historically, attendees have included representatives from local, state, and federal government, the utilities industry, environmental services, land surveying professionals, the oil and gas industry, students, educational practitioners, and retail and business marketing professionals. Whether you are a seasoned GIS professional or are new to the industry, GIS in the Rockies Conference will offer industry insights and opportunities for everyone.

Local chapters of the following member professional societies are involved in conference planning: <u>American Society for Photogrammetry and Remote</u> <u>Sensing (ASPRS), GIS Colorado (GISCO),</u> <u>Professional Land Surveyors of Colorado (PLSC)</u>, and <u>Urban and Regional Information Systems Association</u> (URISA).

The conference is organized by the GIS in the Rockies Planning Committee. The planning committee generally consists of volunteer GIS professionals who currently work in the industry, although the committee is not limited to GIS professionals. If you are interested in joining the planning committee or have questions about the committee, please <u>contact us</u>.

Welcome New Members!!

Dylan Addington Neal Carter Matthew Emmett Nathan Mangsen Timothy Nagle-McNaughton Ryan Shields

Stay tuned for upcoming Technical Tours and Social Events! Check out new professional opportunities and upcoming events on the Rocky Mountain Region website ...

Rocky Mountain Region Website

Contact the Rocky Mountain Region

Student Scholarship Program

In its continuing efforts to support and build awareness for the Remote Sensing and GIS / Geospatial Sciences, the Rocky Mountain Region of ASPRS is proud to announce its academic scholarship program for 2019-2020. The ASPRS-RMR offers scholarships to deserving undergraduate and graduate students every year. There will be at least one scholarship awarded (assuming sufficient applications are received) in the range of at least \$500 to \$1,000 each, depending on level of study (Bachelor's, Master's or Ph.D.).

The scholarships are intended for students throughout the Rocky Mountain Region (Montana, Wyoming, Colorado and New Mexico) who demonstrate excellence while pursuing careers in the fields of Photogrammetry, Remote Sensing, and Geographic Information Systems (GIS) or related disciplines. Both undergraduate and graduate students of any third-level educational institution within the four-state region who are pursuing careers in these disciplines are encouraged to apply.

Awards will be presented sometime in early 2020. Preference will be given to those studies that apply sound scientific principles to practical applications in the geospatial sciences (including Photogrammetry, Remote Sensing, Geographic Information Systems, and related disciplines). Awards at both the undergraduate and the graduate levels are based on academic merit; that is, the application form does not request any personal financial data.

Student membership in ASPRS is not required to apply, but if selected, membership is required at time of scholarship award.

You can download the application from the "Newsletters" page at <u>http://www.asprs-rmr.org</u> For more information or if you have questions, send an email to <u>news@asprs-rmr.org</u>

Applications should be submitted by the January 10, 2020 deadline.

(Be sure to follow submittal instructions on the bottom of the application.)

Student Rebate Offer

ASPRS Rocky Mountain Region will reimburse \$25 of the \$50 cost of student membership, so your net cost is only \$25 for all the benefits of membership in the Society!

Download the Student Membership Rebate Form at <u>http://www.asprs-rmr.org</u> (on the Student Chapters page). Here's the best part: This offer from the Region is good for every year you are a full-time student!

GeoBytes

In addition to the ASPRS Webinars, our organization also offers free online seminars presented by ASPRS and sponsored by the ASPRS GIS Division, in cooperation with AAGS and CaGIS. Attention those seeking ASPRS Certification: ASPRS Online Seminars are a great way to gain Professional Development Hours! <u>Click here to learn more</u>

Tech Tours, Social Networking

Let's get to know each other better! Be on the lookout for Technical Tours and Social Networking Events (aka Happy Hours) coming up. We encourage those of you in all areas around Montana, Wyoming, New Mexico, and Colorado to organize your own get-togethers. Got an idea for an event in your area? Contact Sheila with ideas, suggestions, or questions. We can help you organize an event. We hope to hear from you soon! Sheila Pelczarski Communications Director ASPRS Rocky Mountain Region news@asprs-rmr.org

Rocky Mountain Region Website

Contact the Rocky Mountain Region