Aerial Mapping Technologies and Procedures
Denver, CO - Friday, March 13, 2020

Learn about the use of unmanned aircraft systems (UAS) for photogrammetry and LiDAR.
Examine best practices for achieving good data.
Review a Pix4D photogrammetry demonstration/case study.
Study FAA commercial UAS regulations.

Learning Objectives

You’ll be able to:

Learn about the use of unmanned aircraft systems (UAS) for photogrammetry and LiDAR.
Explore UAS fixed-wing and rotorcraft platforms.
Discuss preflight planning and flight operations.
Examine best practices for achieving good data.
Review a Pix4D photogrammetry demonstration/case study.
Study FAA commercial UAS regulations.

Agenda

Presented by Paul Wheeler

Introductions

FAA Commercial UAS Regulations
Purpose
Commercial/recreational UAS

FAA Part 107 Remote Pilot License
How to obtain a license
Part 107 rules
Resources to comply with 107
Resources to prepare for test
Locations for testing
LAANC, waivers, and COA
Best practices for waiver approval
Airspace
Airport traffic
Aviation weather
Liability

Overview of Aerial Mapping Technologies
Manned aircraft vs. unmanned
UAS photogrammetry
LiDAR
Photogrammetry vs. LiDAR

UAS Photogrammetry
What can I expect to achieve using UAS photogrammetry?
Strengths and weaknesses of UAS photogrammetry
Best practices for achieving good deliverables

UAS Platforms
Strengths and weaknesses of UAS platforms
Fixed wing
Rotocraft

Mapping Using UAS
GPS Equipment – understanding consumer, RTK, and PPK
Ground control points
Preflight planning
Flight mapping software
Flight operations and considerations
Post-flight review

Post Processing Software Applications
Application overview
Post processing in cloud vs. local hardware

Photogrammetry Demonstration/Case Study
Pix4D interactive demonstration

Data Use Cases
Traditional vs point cloud
Camera angles
Hybrid method to achieve the highest quality deliverable
Quality control and assurance of data
Paul Wheeler Utah Department of Transportation

Mr. Wheeler is the Unmanned Aerial Systems Program Manager at the Utah Department of Transportation. He is an instrument-rated pilot and serves on multiple national committees to help foster innovation through the use of unmanned aerial systems (UAS). He was named one of the top seven drone visionaries in civil infrastructure by Commercial UAV Expo and is an internationally recognized speaker and innovator for UAS technologies.

Here’s what attendees had to say about presenter Paul Wheeler:

"Mr. Wheeler was well prepared and an excellent instructor." - Civil Engineer

"Coming from a different background I have a much better understanding." - Analyst/Drone Pilot

"Very useful information- extremely knowledgeable and answered questions with ease." - Civil Engineer

"Excellent seminar! Paul was willing to answer questions and provide suggestions." - Land Surveyor

Seminar Information

Renaissance Denver Stapleton Hotel
3801 Quebec Street
Denver, CO 80207
(303) 399-7500

Tuition
$299 for individual registration
$279 for three or more simultaneous registrations.

Included with your registration:
Complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of $101 for most individuals who complete the entire event. Attendance certificates not available at the seminar. This event offers 7.0 non-credit continuing education hours to geologists.

Continuing Education Credit Information
This course is open to the public and offers 7.0 continuing education hours for PDHs to professional engineers in all states. Continuing education is not required to maintain a license in Colorado. This seminar offers 7.0 continuing education hours for PDHs to professional land surveys in most states. HalfMoon Education has not sought approval from states that require preapproval of continuing education courses. Continuing education is not required to maintain a license in Colorado.

HalfMoon Education is an approved continuing education provider for the Florida Board of Professional Engineers. HalfMoon Education is an approved CE provider for land surveyors licensed in New York. This event offers 7.0 non-credit continuing education hours to geologists.

Attendee will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can’t Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!
Audio recordings of this seminar are available for purchase starting at $279. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration Information

Name: Company/Firm: Address:
City: State: Zip:
Occupation: Email: Phone:

Additional Registrants:
Name: Occupation: Email: Phone:

Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278

Tuition
I am attending. Please send me the self-study package: $299.00
I am not attending. Please send me the self-study package: $279.00

Checks: Make payable to HalfMoon Education Inc.
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