

Agenda

Presented by

Mark D. Jones P.E. Principal, Hartech Engineering & Consulting, LLC

Aerial Mapping: Technologies and Procedures Day One

Tuesday, October 27, 2020 | 8:30 am - 12:00 pm CDT (including a 15-min. break)

Aerial Mapping Program Overview

UAS-Drone Platforms

Types of UAS/sUAS platforms	Uses of drone technology
Cameras	UAS Costs

UAS Mapping Principles

General aerial photography	Ortho-photos
Photogrammetry	3D models
Terrain modeling	LiDAR point clouds and scanning
GIS dataset acquisition	

History and Development of the UAS Platforms

UAS Photogrammetry-Principles and Procedures

Photogrammetry basics	GPS and coordinate systems
Data georeferencing	Survey control
Data acquisition	Post processing and adjustments

Aerial Mapping: Technologies and Procedures Day Two

Wednesday, October 28, 2020 | 8:30 am - 12:15 pm CDT (including a 15-min. break)

Post Processing - Software Applications

Basic data requirements	Computer hardware
Commercial software applications	
• Pix4D	• Drone Deploy
• AutoDesk	• Others

Demonstration of Small Photogrammetry Project

Live demonstration of a small project using Pix4D

FAA Commercial UAS Regulations

Commercial use activities
FAA Part 107 licensing requirements
Flight regulations for UAS
Airspace restrictions

FAA Knowledge Test - General Overview

Primer on the FAA Part 107 knowledge test
Knowledge test areas of study
Do I need to be a pilot?
General do's and don'ts of UAS operations
Commercial operator liability considerations

Aerial Mapping: Technologies and Procedures

Online - Tues., October 27 and Wed., October 28, 2020



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Altoona, WI 54720-0278

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Learning Objectives

You'll be able to:

Explore unmanned aircraft system (UAS), or drone, platforms.

Discuss the use of UAS for aerial photography, ortho-photos, terrain modeling, 3-D, LiDAR and GIS data set acquisition.

Examine UAS photogrammetry principles and procedures.

Review commercial software, including Pix4D, DroneDeploy and AutoDesk.

Identify FAA UAS regulations and get an overview on the FAA Part 107 knowledge test.



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HalfMoon Education Online Learning

Aerial Mapping: Technologies and Procedures

Live, Interactive Webinar Series

Tuesday, October 27 and Wednesday, October 28, 2020



Discuss the use of unmanned aircraft systems (UAS), or drones, for general aerial photography, terrain modeling, 3D models, LiDAR and GIS dataset acquisition

Explore procedures for UAS photogrammetry

Review commercial software applications, including Pix4D, DroneDeploy and AutoDesk

Examine FAA commercial UAS regulations

Learn about areas of study for the FAA knowledge test

Continuing Education Credits

Professional Engineers

6.5 PDHs in all states

Floodplain Managers

6.5 ASFPM CECS

Land Surveyors

6.5 PDHs,
excluding FL, KS, NJ, TN, TX



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Faculty

Mark D. Jones *P.E. Principal, Hartech Engineering & Consulting, LLC*
Mr. Jones, PE, is president of Hartech Engineering which was founded in 2007 as a multi-discipline civil engineering consulting firm providing infrastructure, development and municipal design services for the public and private sectors. Bringing over 30 years of engineering expertise along with specific state-of-the-art, computer-aided technology to achieve efficient, cost saving design solutions, he also provides hydrology and hydraulic studies and reports along with general civil engineering support for prime consultants to PennDOT or local municipality projects. Mr. Jones is a licensed pilot and studied Military Civil Engineering while serving in the USAF and continues his masters education locally through Penn State. Additionally, he is also a registered professional engineer in the states of Pennsylvania, Maryland, Arizona and Georgia.

Here’s what past attendees had to say about the program and presenter Mark Jones:

- “Loved the seminar!” – *CAD Designer*
- “Very informative & useful course for mapping with drones. Covers basics to mission accomplishment.” – *Land Surveyor and Professional Engineer*
- “Mark is very knowledgeable of material he presented. He also had a very good delivery & ability to teach. Open format for audience questions was very helpful.” – *Civil Engineering/Land Surveying/Architecture*

Webinar Information

Day One: Tuesday, October 27, 2020
8:30 am - 12:00 pm CDT (including a 15-min. break)

Day Two: Wednesday, October 28, 2020
8:30 am - 12:15 pm CDT (including a 15-min. break)
(please log into the webinar 15 - 30 minutes before start time)

Tuition
\$299 for individual registration
\$199 for three or more registrants from the same company at the same time.
Included with your registration: *PDF seminar manual.*

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Webinars are presented via GoToWebinar. Instructions and login information will be provided in an email sent close to the date of the webinar. For more information, please visit our FAQ section of our website, or visit www.gotowebinar.com.

Cancellations: Cancel at least 48 hours before the start of the webinar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another webinar or the self-study package. You may also authorize another person to take your place.

Additional Learning

Structural Steel Design Concepts
- Thurs., October 15, 2020 | 8:00 am - 1:30 pm CDT

Commercial Energy Conservation Code Essentials for Architects
- Fri., October 16, 2020 | 11:00 am - 2:15 pm CDT

Soils in Construction
- Tues., October 20, 2020 | 11:00 am - 3:00 pm CDT
- Wed., October 21, 2020 | 11:00 am - 3:00 pm CDT

Designing for Accessibility under ADA Standards and IBC
- Wed., October 21, 2020 | 8:30 am - 4:30 pm CDT

2018 International Residential Code: Non-Structural Design
- Fri., October 23, 2020, 11:00 am – 3:30 pm CDT

International Building Code 2018
- Mon., October 26, 2020 | 9:00 am - 5:30 pm CDT

For more information and other online learning opportunities visit:
www.halfmoonseminars.org/webinars/

Continuing Education Credit Information

This interactive webinar offers 6.5 PDHs/continuing education hours to professional engineers licensed in all states, and 6.5 PDHs to land surveyors licensed in all states, except those in Florida, Kansas, New Jersey, Tennessee, and Texas.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina (S-0130), and North Dakota.

HalfMoon Education is deemed an approved continuing education provider for engineers and land surveyors licensed in New York via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69-1.5(i)(2)).

HalfMoon Education is an approved continuing education sponsor for land surveyors licensed in Indiana (License No. CE21700059), Maryland, North Carolina (S-0130), and North Dakota.

The Association of State Floodplain Managers has approved this course for 6.5 CECs for certified floodplain managers.

Course completion certificates will be awarded to participants who complete the webinar in its entirety, respond to all the verification prompts during the instruction, and earn a score of 80% on the quiz that follows the instruction (multiple attempts allowed).

Can’t Attend? Order the Webinar as a Self-Study Package!
Recordings of this webinar are available for purchase. 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

Aerial Mapping: Technologies and Procedures

Live, Interactive Webinar - Tuesday, October 27, 2020 and Wednesday, October 28, 2020

How to Register		Registrant Information	
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		Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.	
		() I need special accommodations. Please contact me.	

Tuition	
() I will be attending the live webinar. Single Registrant - \$299.00 . Three or more registrants from the same company registering at the same time - \$199.00 each.	
() I am not attending. Please send me the webinar recording:	
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☐ USB Video/PDF Manual for \$279.00 .	
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