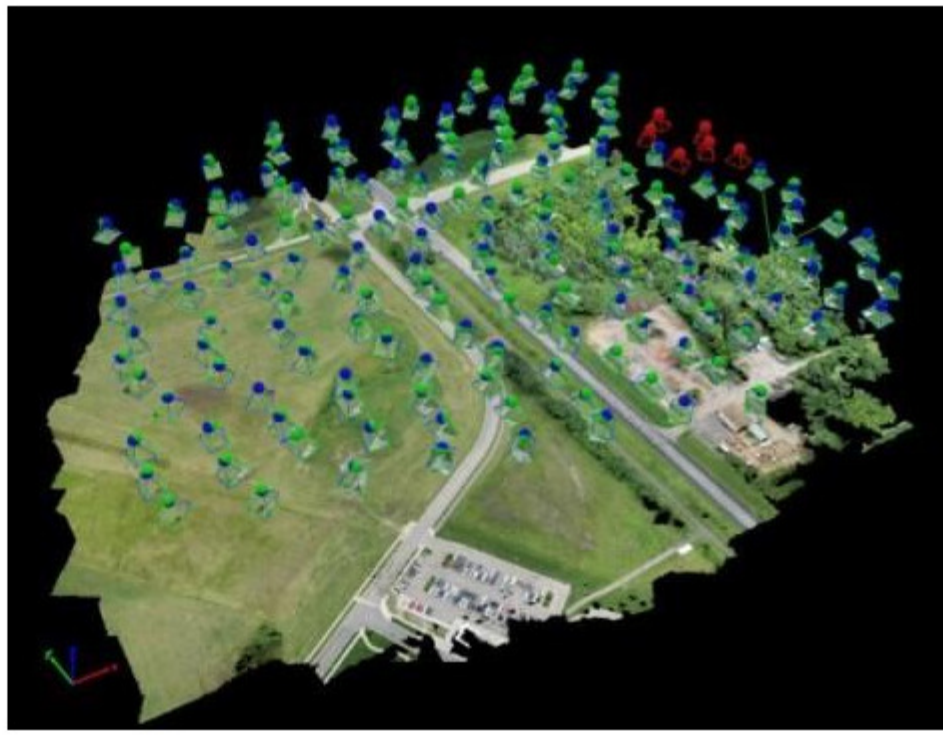


Sustainable Forests Education Cooperative

- Home
- Upcoming Events
- Past Events
- Camp 8 Podcast
- About SFEC
- Continuing Education Credits
- Cloquet Forestry Center

2015 Workshop: Natural Resource Applications of Unmanned Aerial Systems (Brainerd)



The use of unmanned aerial systems (also referred to as UASs, UAVs or drones) is rapidly growing among hobbyists, and also among agriculture researchers and crop consultants. UAS also have potential applications to forestry and natural resource management including inventory, photography, rapid site assessment after disturbance, and perhaps even timber sale administration. This is a one-day workshop including classroom time and field demonstrations designed to introduce natural resource managers to potential applications of UAS in their forest and land management work.

Bill Anderson, Adjunct Professor with the University of Minnesota Department of Forest Resources, was the instructor. The workshop was designed with the following learning objectives:

- Have a working knowledge of UAS system basics: key components and how they function together
- Understand the capabilities and limitations of typical UAS systems
- Participate in a field demonstration of a professional mapping UAS
- See a demonstration of UAS image processing and the generation of output products
- Understand cost/benefit considerations well enough to make a relatively informed decision about potential uses of UASs in their work

Date: Tuesday, October 27 2015 from 8:15am – 4pm

Location: Northland Arboretum, Brainerd MN ([website](#) and [map](#))

Agenda (PDF)

CE Credits: 6.0 Cat 1-CF SAF

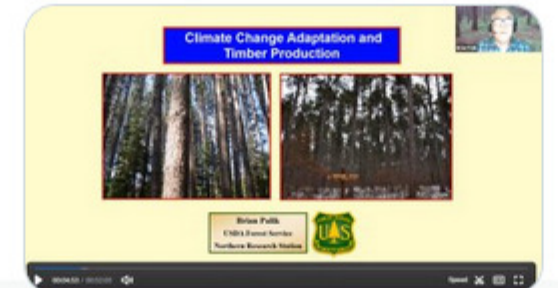
Contact Us

Eli Sagor, SFEC Program Manager
esagor@umn.edu | 218-409-6115

Tweets from @MNForestEd Follow

UMN SF... @MNFores... · Sep 21
Brian Palik gave a great talk yesterday called Adaptive Silviculture for Climate Change: Lessons for timber-oriented managers.

If you missed it, here's the recording:
sfec.cfans.umn.edu/2022-webinar-s...



1

UMN SF... @MNFores... · Sep 20
Starting in 15 minutes: Adaptive Silviculture for Climate Change

Photos from the October workshop:





WORKING AGENDA

Natural Resource Applications of Unmanned Aerial Systems

October 27, 2015 from 8:15am to 4pm, Northland Arboretum, Brainerd MN

Instructor: Bill Anderson, Adjunct Professor, UMN Dept. of Forest Resources

8:00am	Check-in opens
8:15am	<i>Welcome, agenda review, and workshop objectives</i>
8:30am	<i>Overview: Drones for natural resource applications</i> -Multicopter vs. fixed-wing drones -Introduction to mapping drones: examples and sensor types -Case study: Sensefly eBee mapping drone
10:15am	Break
10:30am	<i>Data processing with Postflight Terra 3D</i> -Processing steps, image calibration, mission quality report, dense point cloud generation, and outputs
12:00pm	Lunch break
1:00pm	<i>Flight demonstration (weather permitting)</i> -Plan local mission, eBee takeoff, flight, and landing, and data processing
2:00pm	<i>eBee mission examples and information content</i> -Reviewing data from three Arboretum sites
2:30pm	Break
2:45pm	<i>Post processing of eBee products in 3rd party software</i> -Quick Terrain Reader and QGIS -Global Mapper and Arc Map -Agisoft Photoscan Pro
3:15pm	<i>Legal issues: FAA rules and regulations</i>
3:30pm	<i>Conclusions and discussion</i> -Capabilities and limitations: technical and legal -Applications to your work
4:00pm	<i>Adjourn</i>
