

Flight summary May 24, 2022

Boise State University
Created by Anna Roser

North Ham, Hammett ID

Overview:

- This site is located approximately 1 hour from Boise off I-84 East.
- Anna Roser was Pilot in Command for all flights; Ryan Wickersham landed the Mavic several times for battery swaps.
- Anna and Ryan were on site.
- Mission objective was to collect UAS imagery with the goal of creating high spatial resolution point clouds for shrub height measurement, and collect multispectral imagery to assist with differentiating plant types.

Sensor	Above Ground Level	Ground Sampling Distance	Camera Angle	Software	Cross grid	Number of Images	Flight Speed	Forwardlap/Sidelap	Number of batteries	Start/End	Wind Max & Avg
Mavic RGB	41m	1cm	90	Map Pilot	Yes	558	2m/s	70/75	HP7, HP6,C1, C2	10:15am-11:45am	7.9m/s 3.7m/s
P4 Multispec	66m	3.5cm	90	DJI GS Pro	No	468	2m/s	85/75	2x	12:00pm-12:25pm	8.7m/s 3.7m/s

Notes:

- UAS: Mavic 2 Pro. RGB Hasselblad 20MP sensor and Phantom 4 Multispectral (5 band).
- GPS: Topcon RTK from BCAL. There were 9 circular, black and white bucket lids used as GCP's within each site. Ryan and Anna recorded the location of each GCP with the rover.
- Sunny day but windy. Wind speed increased throughout the flights. The sagebrush were not moving too much because there were no reproductive stalks. The cheat grass and weed forbs moved a lot.
- Mavic had a battery error during a swap. There was a small piece of vegetation in the battery compartment which was preventing a clean connection. We were able to continue after I swept out the compartment.
- Small note: give the phantom more room for take-off and landing because its obstacle detection is more sensitive.

Data location:

- Images are on owncloud.