

Flight summary May 20, 2022

Boise State University
Created by Anna Roser

Corrals TH, Boise ID

Overview:

- This site is located approximately 10mins up Bogus Basin Road from Boise. Park at the Corrals trailhead, walk approx. .25 mile up the trail to the junction and trash can. The site is on the South facing slope across an old road.
- Anna Roser was Remote Pilot in Command for all flights; Ryan Wickersham was the pilot for the multispectral flight.
- Anna, Andrii, Sandra, 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	446	2m/s	70/75	C3, C1, HP9	12:40pm-1:40pm	4.4m/s 1.7m/s
P4 Multispec	66m	3.5cm	90	DJI GS Pro	No	314	2m/s	85/75	1	12:05pm-12:20pm	4.3m/s 1.4m/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. Andrii recorded the location of each GCP with the rover.
- No clouds for the multispectral flight. In the last ¼ of the RGB flight we started to get much larger clouds covering the sun and some changing light conditions. I could not pause the drone for clouds and resume because the clouds were only becoming thicker so waiting would not help.
- Poa bulbosa is seeding. Cheat grass is purple/red on south slopes. Thick matt of medusa and cheat on southern exposures -> true ground detection from 3D model will not be possible in those areas.

Data location:

- Images are on owncloud.