

Project – The Natural Communities Coalition (NCC) in collaboration with colleagues from Utah State University is working on a recreation ecology and human evaluation study within OC parks (Aliso and Wood Canyons and Laguna Coast) and throughout the reserve investigating trail impacts. Due to travel restrictions, they had asked OC Survey to assist in collecting the needed drone data in the form of raw photos.

Specifications – Requested data specifications were as followed:

1. Capture photos in RAW (DNG) format.
2. Photo overlap is 80% forward and 80% side.
3. Flight design
 - a. (NADIR) - 3 lines parallel to the trail with vertical images (left of the trail centerline, over the trail centerline, right to the trail centerline)
 - b. (OBLIQUE) - 1 line over the centerline with oblique images (35°) heading uphill.
4. Desired ground sampling distance (GSD) is 1 cm.

Actual Flight Settings and Procedures:

1. All flights were performed using the following drones.
 - a. DJI Inspire II with X4S camera (model FC6510)
 - b. DJI Phantom 4 Pro (model FC6310)
 - c. DJI Mavic 2 Pro (model L1D-20c)
2. All flights were controlled using an IPAD with the “Maps Made Easy” application with terrain Aware.
3. Camera settings; Shutter Priority, Focus Infinity, White Balance Auto.
4. All flights were performed at 102 feet Above Ground Level (AGL).
5. Photo overlap 80% forward and 80% side.
6. Photo format RAW (DNG).

Actual Flight Collection Schedule:

Day 1 – April 15, 2020

Mariposa – NADIR and OBLIQUES using Inspire II

Sunflower - NADIR and OBLIQUES using Phantom 4 Pro

AQ12 - NADIR and OBLIQUES using Mavic 2 Pro

Cholla – NADIR and OBLIQUES using Inspire II

Stair Step - NADIR and OBLIQUES using Phantom 4 Pro

Day 2 – April 16, 2020

R34 – NADIR and OBLIQUES using Inspire II

S25 – NADIR and OBLIQUES using Inspire II

Lauren Spur – NADIR using Phantom 4 Pro, OBLIQUES using Mavic 2 Pro

I17 – NADIR and OBLIQUES using Inspire II

Day 3 – April 22, 2020

Laguna Ridge – NADIR using Inspire II, OBLIQUES using Phantom 4 Pro

AF23 – NADIR and OBLIQUES using Mavic 2 Pro

OC Survey Drone Team

Art Andrew – Supervisor and Drone Pilot

Dan Barrie – Drone Pilot

Eric Ostrowski – Drone Pilot

