Data Collection & Product Report for 2021 Seed Project: Quantifying Channel Change in Response to a Post-Fire Debris Flow in a Steep, Coastal Stream in Big Sur, California

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Data Collection Summary:

Collection Dates, Flights:	1 flight on October 13, 2022 (DOY 286)
Aircraft, Equipment:	Robinson R44 II (N7106Z), RIEGL VUX-240 (H2224985)
Flight Plan Parameters:	Flying Height: 300 m AGL, Speed: 60 kt, Overlap: 50%
Equipment Parameters:	PRR: 300 kHz, LPS: 220 Hz, Scan Angle: ± 37.5°
Collected Area:	7.0 km²

GNSS Reference Station Summary:

Station Name	Operating Agency	Coordinates (ITRF2014 epoch 2022.7822 / Ellipsoid)
P172	UNAVCO	36°13'41.07745" N, 121°46'02.10382" W, 312.634 m
P180	UNAVCO	36°17'34.20553" N, 121°24'11.68171" W, 693.200 m
QCY2	UNAVCO	36°09'39.84613" N, 121°08'14.47332" W, 101.461 m

Data Processing Summary:

Scan Angle Cutoff	N/A
Data Adjustments:	RiPRECISION least-squares best-fit adjustment to trajectory
Ground Classification:	Two iterations of moderate ground determination, manual classification of misclassified ground
Elevation Model Generation:	Bare-earth calculated from Kriging, first-return calculated from TIN model

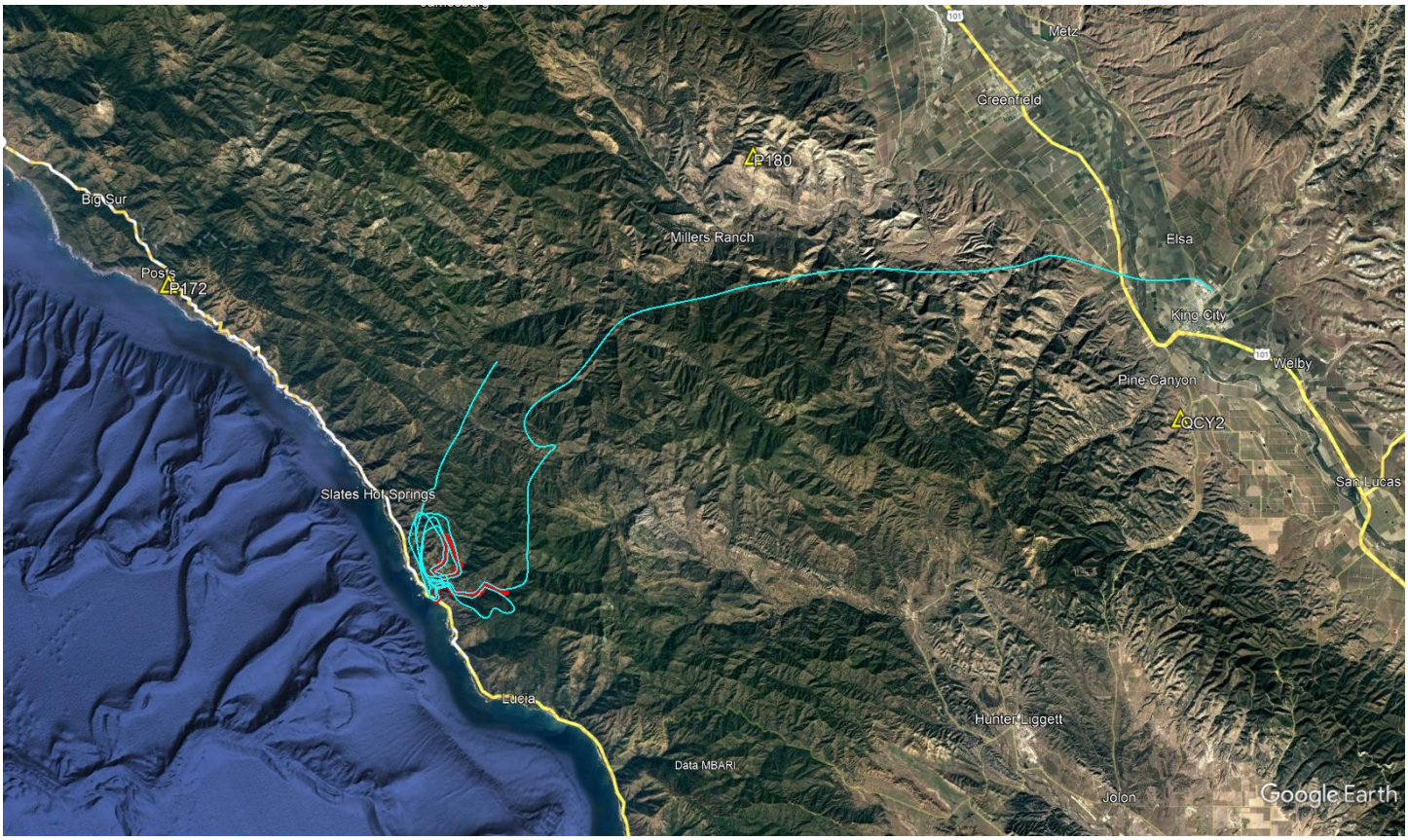
Data Accuracy Summary

Strip-to-Strip Average	0.099 m
GCP Residual RMS	N/A

Data Product Summary:

Horizontal / Vertical Datum:	NAD83(2011) epoch 2010.00 / NAVD88 (GEOID12B)
Projection / Units:	UTM Zone 10N / meters (EPSG: 6339)
Point Cloud Tiles:	1000-m × 1000-m tiles in LAS format (Version 1.4) with non-ground (1), ground (2), low point (7), and high point (18) returns
Bare-Earth Elevation Model:	GeoTIFF @ 50-cm resolution from classified ground
First-Surface Elevation Model:	GeoTIFF @ 50-cm resolution with vegetation included

Area of Interest:



Location of survey polygon, aircraft trajectory, and GNSS reference stations

The requested survey area consisted of one polygon located west of King City, CA. The polygon enclosed approximately 2.0 km^2 (0.8 mi^2).