



Data Collection & Product Report for 2025 NCALM NOW Project: Change Detection to Test Models for Post-Wildfire Erosion Following the Palisades Fire in the Santa Monica Mountains

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Data Collection Summary:

Collection Dates, Flights:	2 flights on February 20–21, 2025 (DOY 051–052)
Aircraft, Equipment:	Piper PA-23-250 Aztec (N95TK), RIEGL VQ-580 II-S (H2229296)
Nominal Flight Parameters:	Flying Height: 600 m AGL, Speed: 130 kt, Overlap: 50%
Nominal Equipment Parameters:	Pulse Rate: 600 kHz, Scan Rate: 165 Hz, Scan Angle: $\pm 37.5^\circ$
Collected Area:	256.3 km ²

GNSS Reference Station Summary:

Station Name	Operating Agency	Approximate Coordinates (NAD83(2011) epoch 2010.00 / Ellipsoid)
CTDM	UNAVCO	34.51655° N, 118.61321° W, 406.079 m
KBUR	NCALM	34.20093° N, 118.36440° W, 193.303 m
LAPC	UNAVCO	34.18193° N, 118.57466° W, 207.813 m
SKYB	UNAVCO	34.43862° N, 118.47862° W, 520.968 m
VDCY	UNAVCO	34.17856° N, 118.21999° W, 318.859 m
VIMT	UNAVCO	34.12645° N, 118.51442° W, 553.710 m
VNCX	UNAVCO	34.29320° N, 118.48454° W, 328.586 m

Data Processing Summary:

Scan Angle Cutoff:	N/A
Data Adjustments:	RIPRECISION least-squares best-fit adjustment to trajectory
Ground Classification:	3 iterations of moderate ground determination, manual classification of misclassified ground
Elevation Model Generation:	Bare-earth calculated from Kriging, first-return calculated from highest-return model

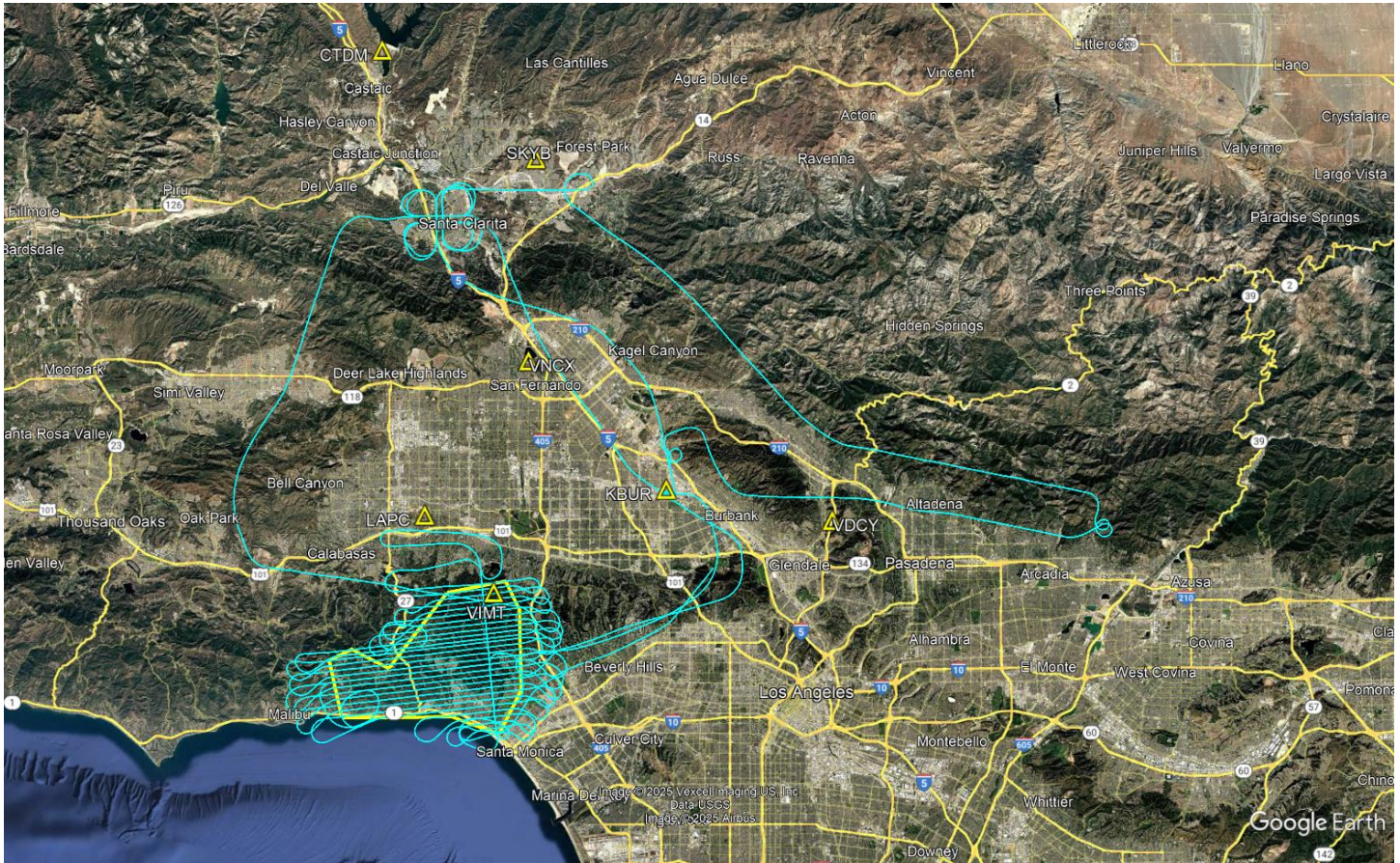
Data Accuracy Summary:

Strip-to-Strip Average:	N/A
GCP Residual RMS:	0.033 m (calibration area)

Data Product Summary:

Horizontal / Vertical Datum:	NAD83(2011) epoch 2010.00 / orthometric (GEOID18)
Projection / Units:	UTM Zone 11N / meters (EPSG:6340 + 5703)
Point Cloud Tiles:	1000-m $\times$ 1000-m tiles in LAS format (Version 1.4) with non-ground (1), ground (2), close to ground (8: ± 10 cm from ground classified returns), intermediate (4), and low noise (7), and high noise (18) returns
Bare-Earth Elevation Model:	GeoTIFF @ 50-cm resolution from classified ground
First-Surface Elevation Model:	GeoTIFF @ 1-m resolution with canopy and buildings included

Area of Interest:



Location of survey polygon, aircraft trajectories (including other project and instrument calibration), and GNSS reference stations

The requested survey area consisted of one polygon located northwest of Santa Monica, CA and west of I-405. The polygon enclosed approximately 116.0 km² (44.6 mi²).