



Data Collection & Processing Report for 2016 Seed Project: Structural Analysis of Obsidian Lava Surfaces

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Data Collection Summary:

Collection Dates, # Flights:	1 flight on June 6, 2016 (DOY 158)
Aircraft, Equipment:	Piper PA-31-350 Navajo Chieftain (N640WA), Optech Titan (14SEN340)
Flight Plan Parameters:	Flying Height: 700 m AGL, Swath Width: 800 m, Overlap: 50%, Line Spacing: 400 m
Equipment Parameters:	PRF: 100 kHz, Scan Frequency: 26 Hz, Scan Angle: $\pm 30^\circ$
Collected Area:	55.9 km ²

GNSS Reference Station Summary:

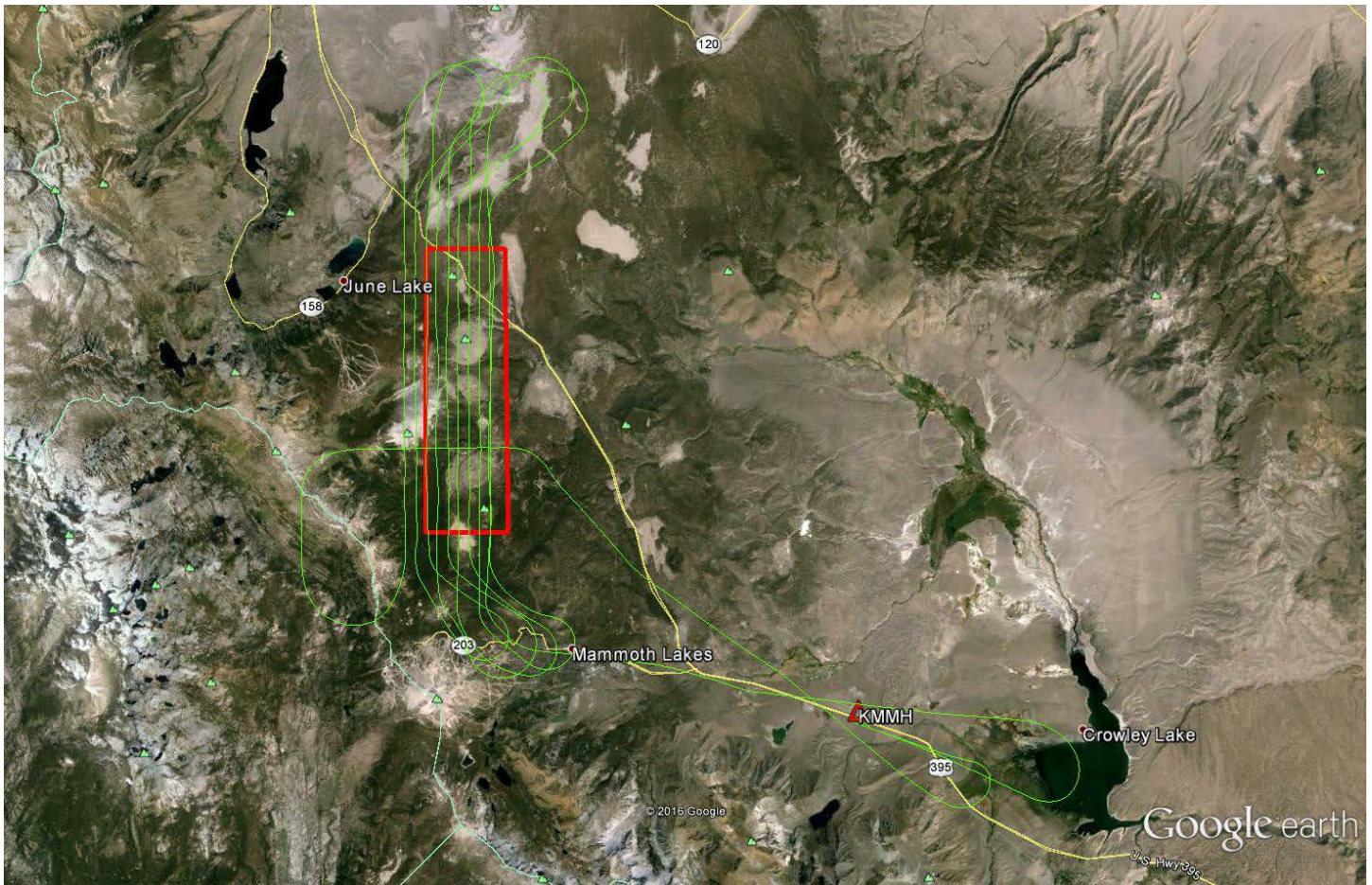
KMMH	User (Mammoth Yosemite Airport)	37°34'34.80517" N, 118°50'34.83096" W, 2145.510 m (Ellipsoid)
P632	UNAVCO	37°47'08.37948" N, 119°05'09.81596" W, 2390.442 m (Ellipsoid)
P634	UNAVCO	37°41'47.71757" N, 119°01'32.75573" W, 2468.077 m (Ellipsoid)
P648	UNAVCO	37°48'00.04303" N, 119°01'09.11188" W, 2573.002 m (Ellipsoid)

Data Processing Summary:

Horizontal / Vertical Datum:	NAD83(2011) / NAVD88 (GEOID12A)
Projection / Units:	UTM Zone 11N / meters
Point Cloud Tiles:	1000-m \times 1000-m tiles in LAS format (Version 1.2), classified with ground and non-ground returns
Bare-Earth Elevation Model:	ESRI FLT format @ 1-m resolution from classified ground points
Bare-Earth Hillshade:	ESRI-created raster @ 1-m resolution
First-Surface Elevation Model:	ESRI FLT format @ 1-m resolution with canopy and buildings included
First-Surface Hillshade:	ESRI-created raster @ 1-m resolution

A detailed summary of the equipment and processing techniques used by NCALM is included in the [Data Collection & Processing Summary](#).

Area of Interest:



Location of survey polygon (in red), aircraft trajectory (in green), and GNSS reference station

The requested survey area consisted of one polygon located northwest of Mammoth Lakes, CA. The polygon encloses approximately 36 km² (14 mi²).