



Data Collection & Processing Report for Lidar Survey Over the Slumgullion Landslide in Colorado

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Data Collection Summary:

Collection Dates, # Flights:	3 flights on July 3, 7, 10, 2015 (DOY 184, 188, 191)
Aircraft, Equipment:	Piper PA-31-350 Navajo Chieftain (N154WW), Optech Gemini (06SEN195)
Flight Plan Parameters:	Flying Height: 600 m AGL, Swath Width: 320 m, Overlap: 50%, Line Spacing: 320 m
Equipment Parameters:	PRF: 125 kHz, Scan Frequency: 60 Hz, Scan Angle: $\pm 15^\circ$
Collected Area:	18.4 km ²

GNSS Reference Station Summary:

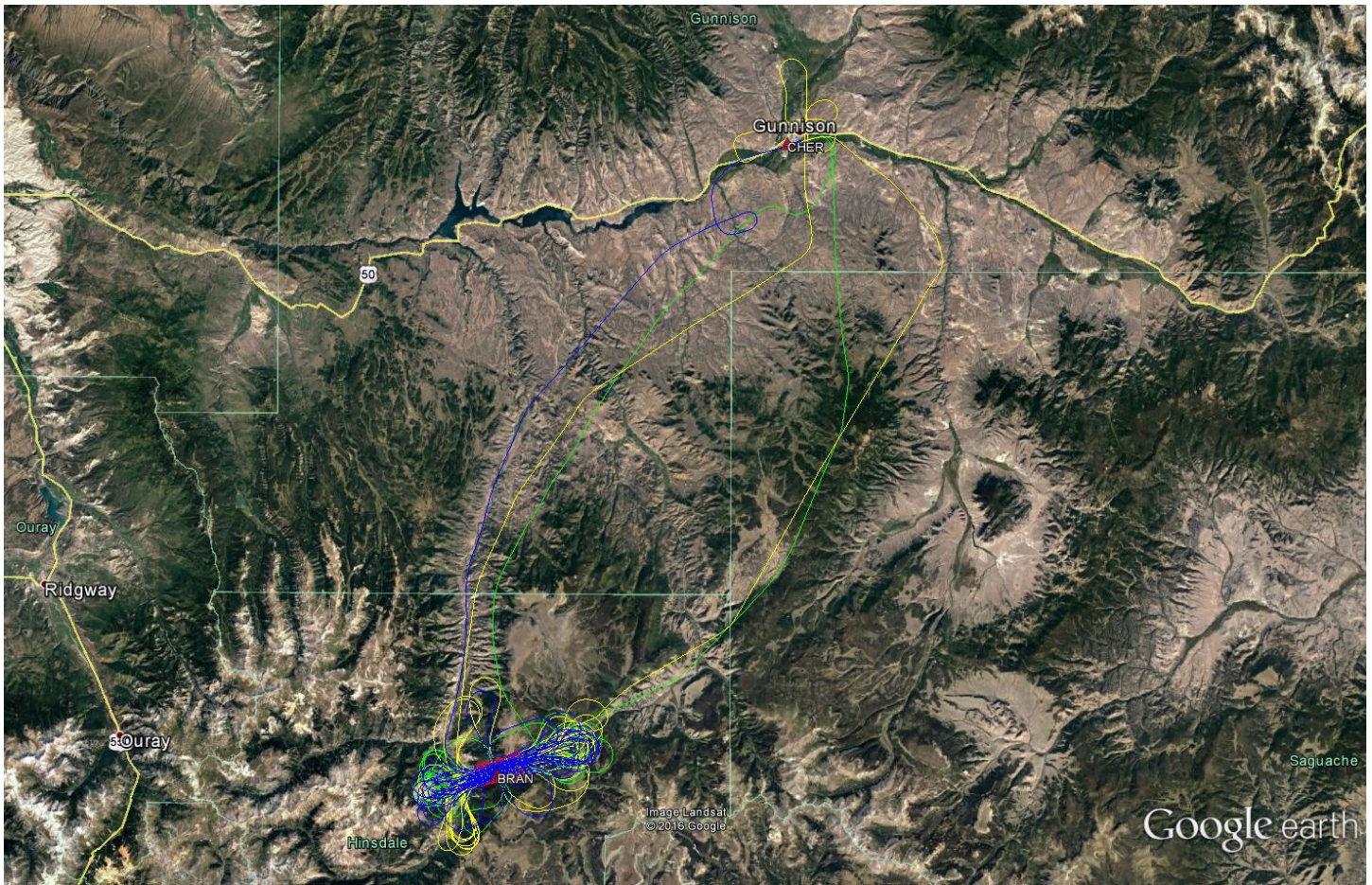
KGUC	User (Gunnison-Crested Butte Regional Airport)	38°32'09" N, 106°56'19" W, 2323 m (Ellipsoid)
SLUM	User (Slumgullion Landslide)	37°59'27" N, 107°15'21" W, 3151 m (Ellipsoid)

Data Processing Summary:

Horizontal / Vertical Datum:	NAD83(2011) / NAVD88 (GEOID12A)
Projection / Units:	UTM Zone 13N / meters
Point Cloud Tiles:	1000-m \times 1000-m tiles in LAS format (Version 1.2), classified with ground and non-ground returns, per day
Bare-Earth Elevation Models:	ESRI FLT format @ 50-cm and 1-m resolution from classified ground points, per day
Bare-Earth Hillshades:	ESRI-created rasters @ 50-cm and 1-m resolution, per day
First-Surface Elevation Models:	ESRI FLT format @ 50-cm and 1-m resolution with canopy included, per day
First-Surface Hillshades:	ESRI-created rasters @ 50-cm and 1-m resolution, per day

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 polygons, aircraft trajectories, and GNSS reference stations

The requested survey area consisted of two overlapping polygons located near Lake City, CO. The polygons enclose approximately 8.5 km² (3.3 mi²).