



Data Collection & Processing Report for 2015 Seed Project: Quantifying Differential Incision and Rock Uplift Along the Illinois River, OR, Coast Ranges

PI: Wesley von Dassow (vondassw@oregonstate.edu)
Oregon State University, Department of Geology & Geophysics
104 CEOAS Admin Bldg, Corvallis, OR 97331

Data Collection Summary:

| | |
|------------------------------|---|
| Collection Dates, # Flights: | 1 flight on October 7, 2016 (DOY 281) |
| 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: | 88 km ² |

GNSS Reference Station Summary:

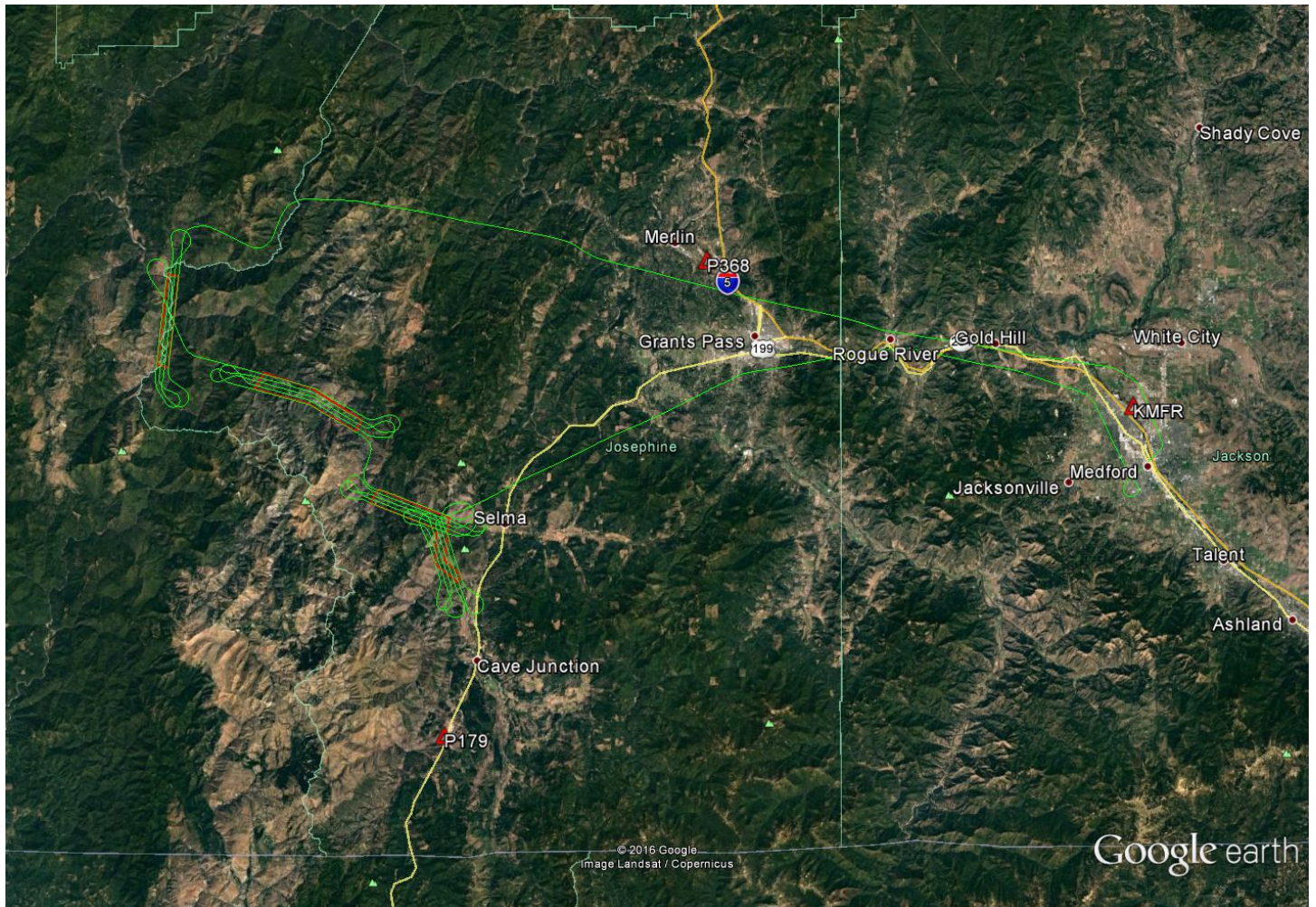
| | | |
|------|--------|---|
| KMFR | User | 42°22'41.22" N, 122°53'29.69" W, 364.33 m (Ellipsoid) |
| P179 | UNAVCO | 42°05'56.29" N, 123°41'08.00" W, 402.63 m (Ellipsoid) |
| P368 | UNAVCO | 42°30'12.67" N, 123°23'00.26" W, 319.86 m (Ellipsoid) |

Data Processing Summary:

| | |
|---------------------------------|--|
| Horizontal / Vertical Datum: | NAD83(2011) / NAVD88 (GEOID12A) |
| Projection / Units: | UTM Zone 10N / meters |
| Point Cloud Tiles: | 1000-m \times 1000-m tiles in LAS format (Version 1.4), classified with ground, uncorrected bathymetry, and non-ground returns |
| Bare-Earth Elevation Models: | ESRI FLT format @ 1-m resolution from classified ground points |
| Bare-Earth Hillshades: | ESRI-created rasters @ 1-m resolution |
| First-Surface Elevation Models: | ESRI FLT format @ 1-m resolution with canopy and buildings included |
| First-Surface Hillshades: | ESRI-created rasters @ 1-m resolution |

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

Area of Interest:



Location of survey polygons (in red), aircraft trajectory (in green), and GNSS reference stations

The requested survey area consisted of three polygons located west of Grants Pass, OR. The polygons enclose approximately 40 km² (15 mi²).