

Qualifications dGPS and sight level measurements on Katsuk

MIT PhD in Mechanical Engineering



Seattle
University
Professor in
Mechanical
Engineering



Bulgers

100 highest with 400ft prominence based on quads from 1970s, with exceptions

1. Peaks must have 400ft of prominence based on 1970s quads

- 2. Volcanic sub summits need 800ft prominence
- 3. Named peaks with <400ft prominence considered for inclusion

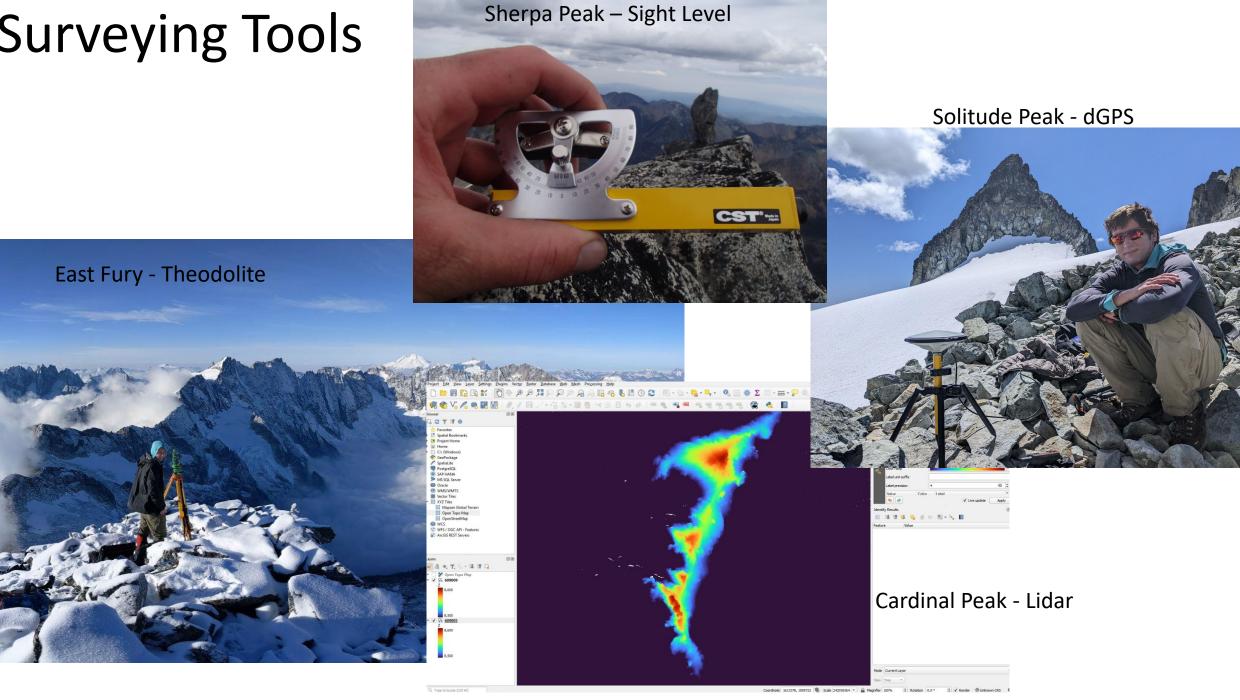
WA Top 100

100 highest with strict 400ft prominence requirement

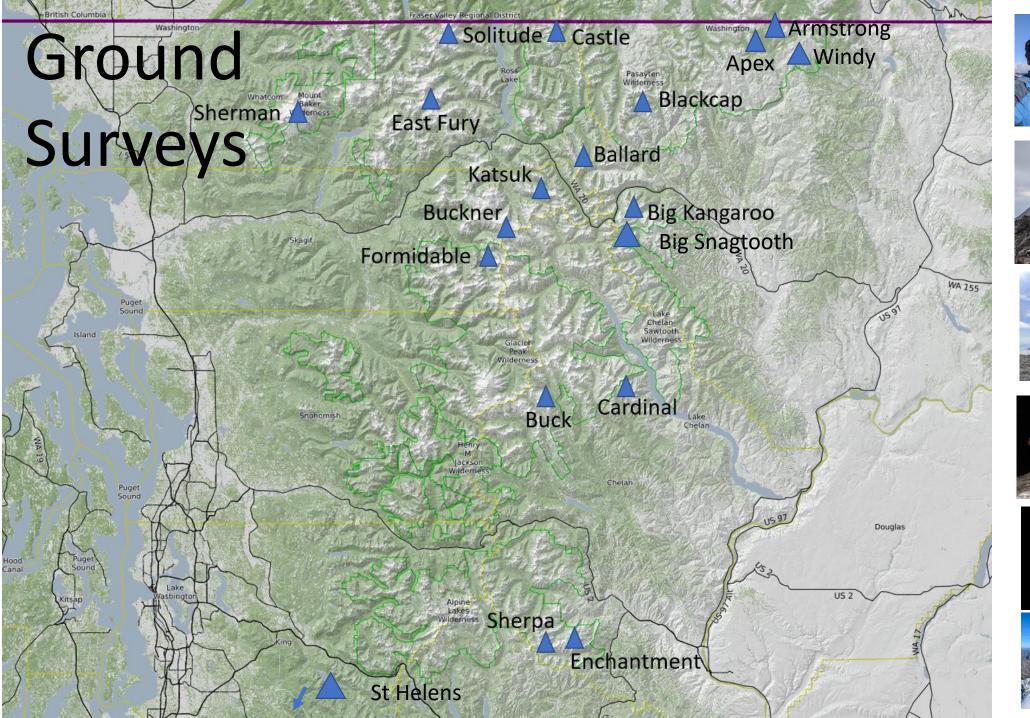
1. Peaks must have 400ft of prominence

Peaks Removed from Bulgers	Peaks Added to WA Top 100
SFJ	Liberty Cap
Sahale	Sherman
Dark	Colfax
Rahm	Lincoln
Horseshoe	Ballard
Little Annapurna	Luna
Blackcap	Castle

Surveying Tools









Big Kangaroo



Blackcap



Sherman



St Helens



East Fury



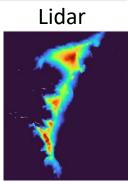
Formidable

Measurement Uncertainty

Measurement	Uncertainty
Quad Contours	80ft
Digital Elevation Model (3DEP DEM)	80ft
Theodolite or Sight Level Relative to Quad-surveyed point	1-40ft
Quad-surveyed point	1-40ft
Lidar	1-3ft
Differential GPS	0.1ft

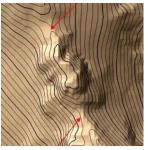


Differential GPS





Quad Contours



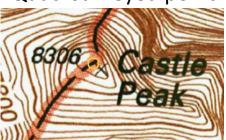
DEM

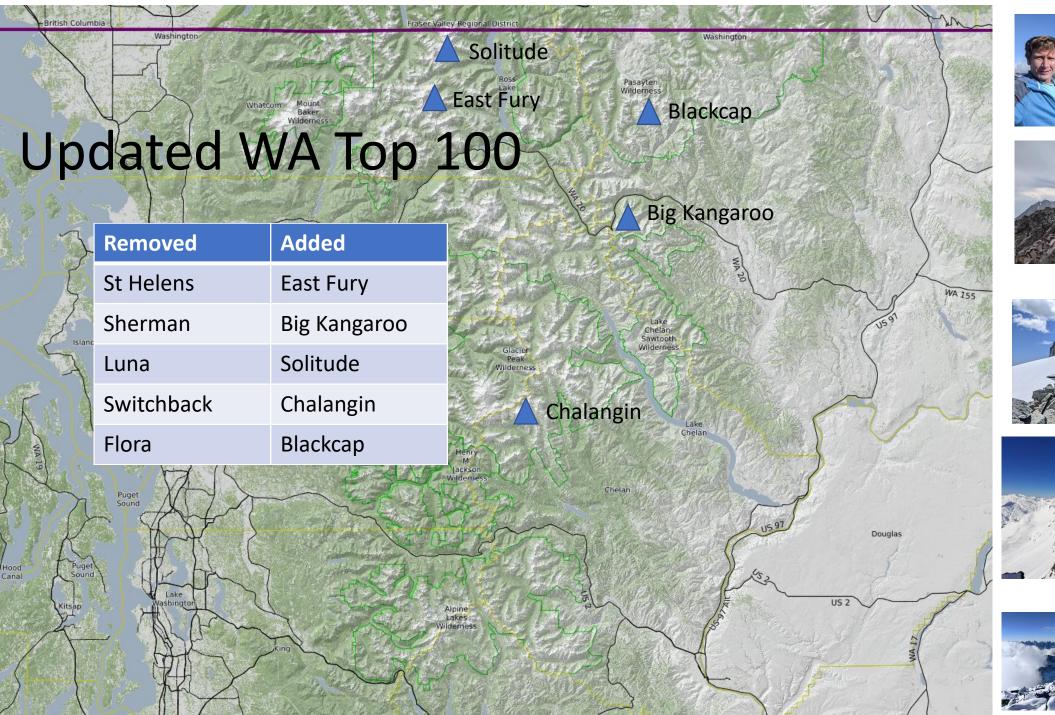
Theodolite Survey





Quad-surveyed point







Big Kangaroo



Blackcap



Solitude



Chalangin

East Fury



Double Summits



Sherpa

Peak	True Summit
Sherpa	West, 2ft taller than balanced rock
Cardinal	South, 7in taller than middle
Enchantment	NE, 6-7ft taller than SW
Buckner	SW, 1.6ft taller than NE
Buck	Middle, 30ft taller than N
Greenwood	South, 3.8ft taller than N
Copper	North, 1.8ft taller than south
Katsuk	Unclear, E and W within 3in of height (dGPS, sight levels)
Big Craggy	Unclear, E and W within 1 in height (Lidar)



Cardinal



Enchantment



Buckner



Buck

Katsuk

Future Work

1. dGPS measurement for all Bulger peaks

2. Double SummitsKatsukBig Craggy

3. dGPS measurement for all edge-case peaks Luna Flora Switchback Andrew

