EarthScope's Alaska TA Station Design Concepts

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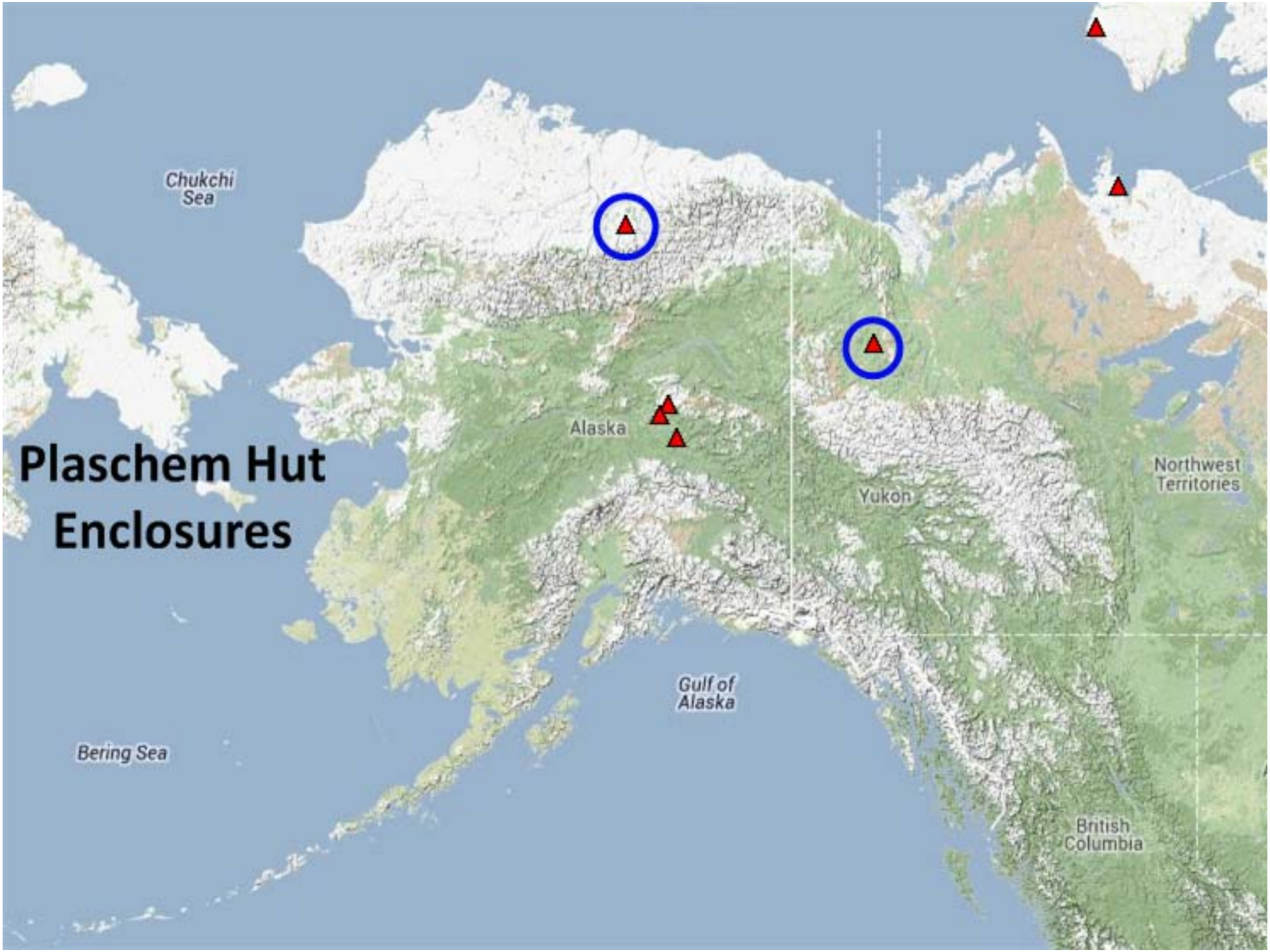
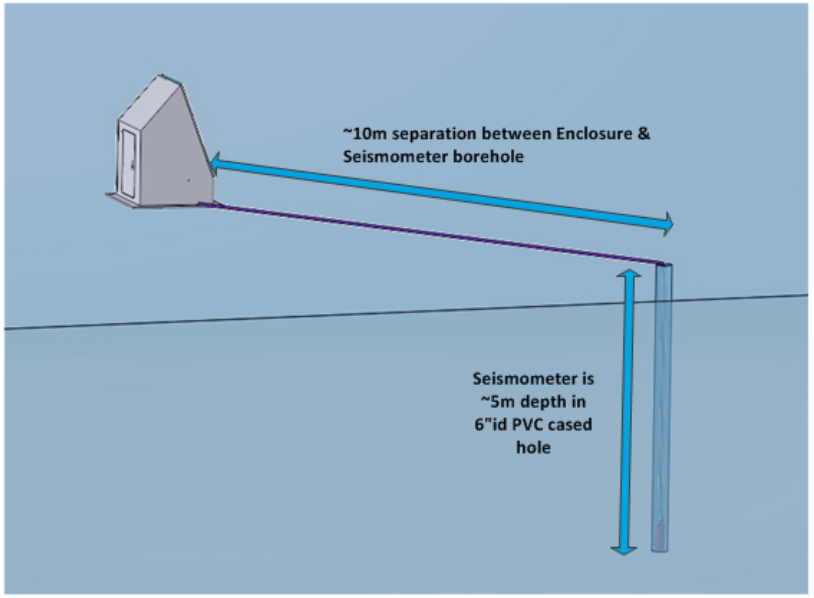
Potential TA Sites in Alaska and Western Canada

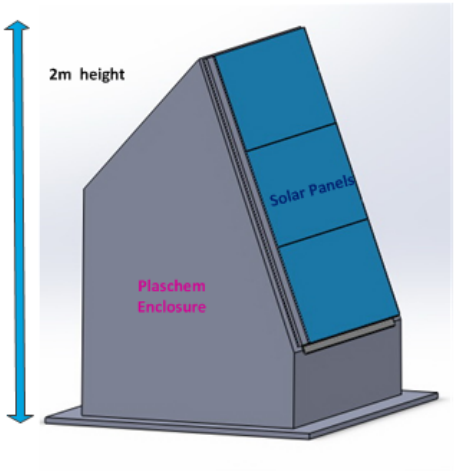


Plaschem Hut Enclosures

Alaska Transportable Array Seismic Station

- Configuration For Sites Near Roadways





Weight	~500 kg
Dimensions	2m high x 1.75m wide x 1.5m deep
Enclosure	Lead-Acid AGM batteries (10) - 1000AH
Contents	Recording and communication electronics
Power	80W Solar panels (3)
	charging batteries (AGM)
Sensors	3-component seismometer (downhole)
	Infrasound
	Pressure
	Temperature
	Wind direction/speed (optional)
	Precipitation (optional)

Plaschem Hut Enclosures

Chukchi Sea

Bering Sea

Northwest Territories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55
54
53
52


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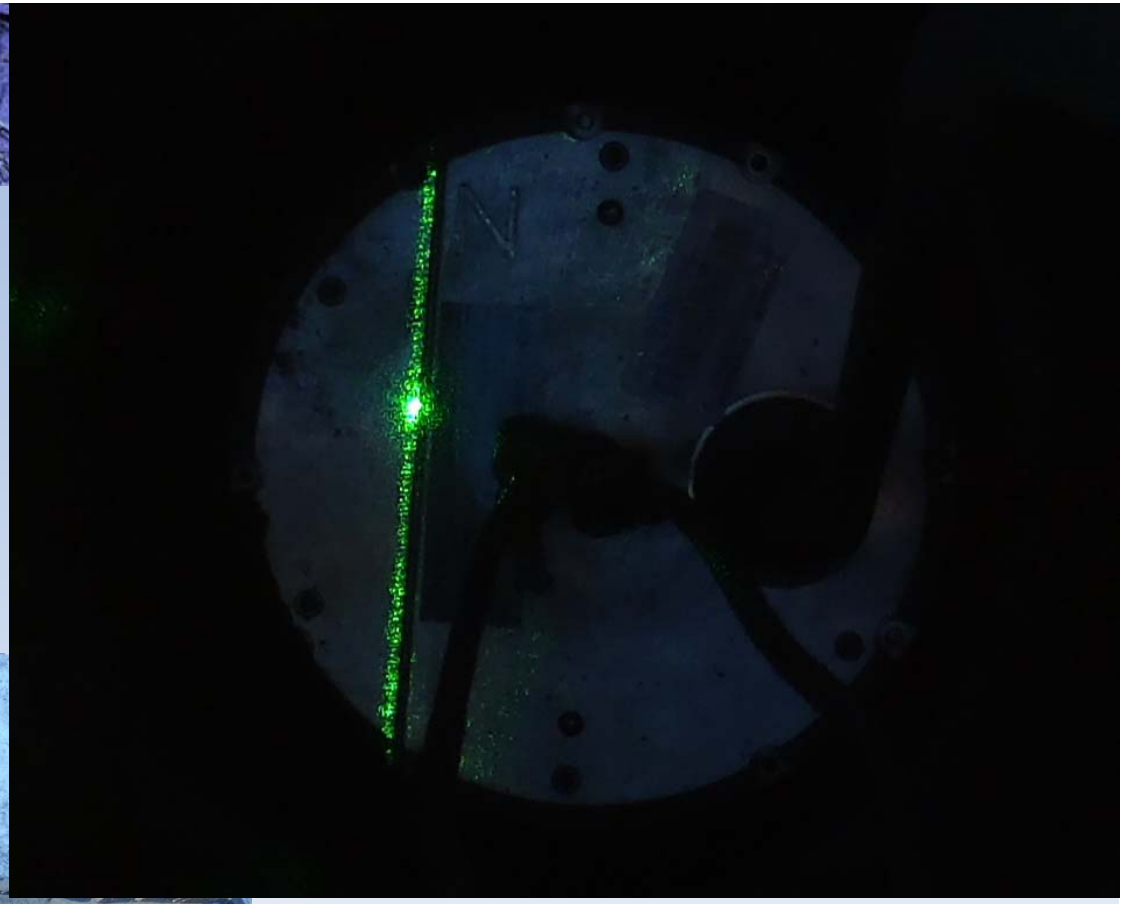
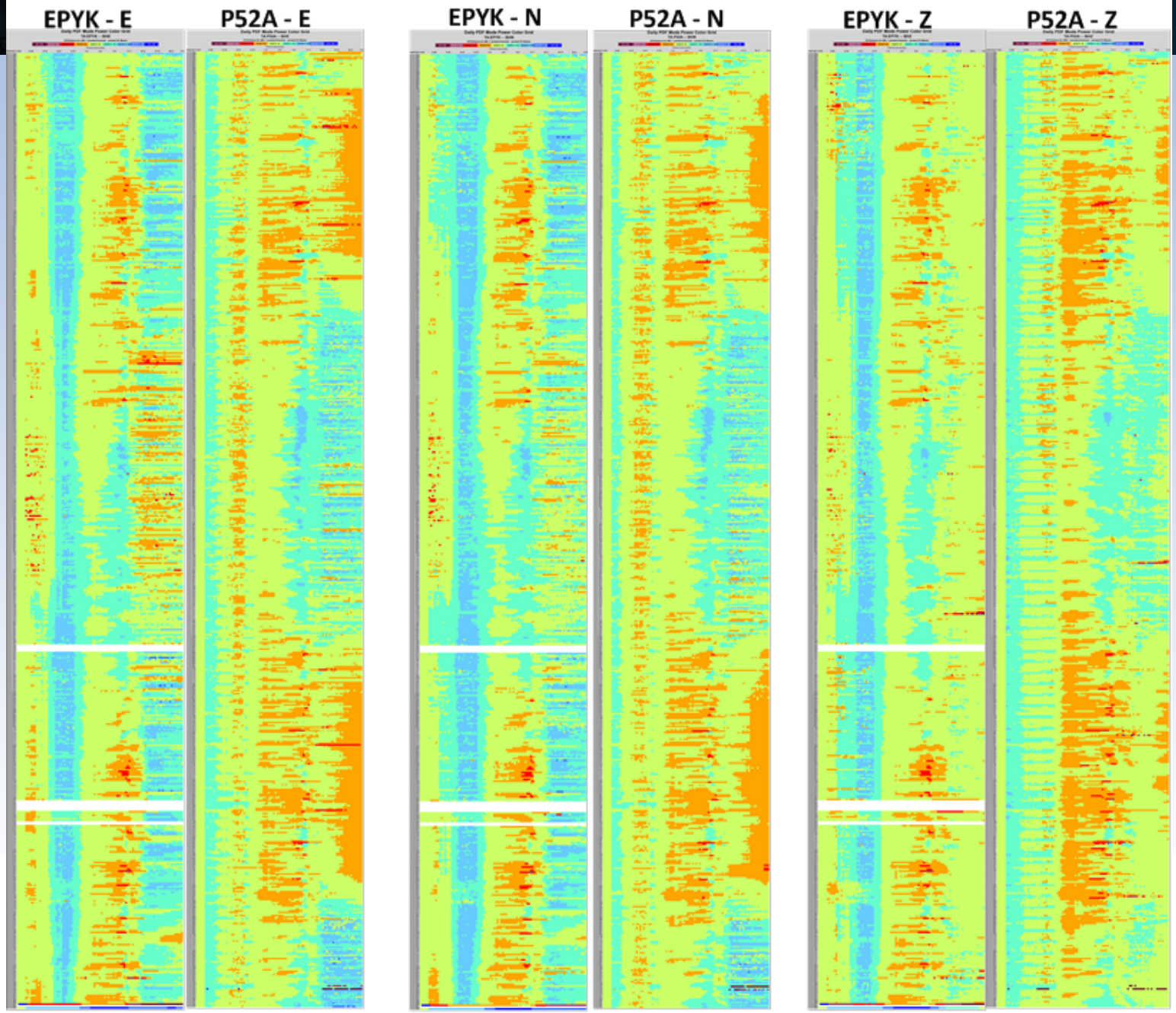
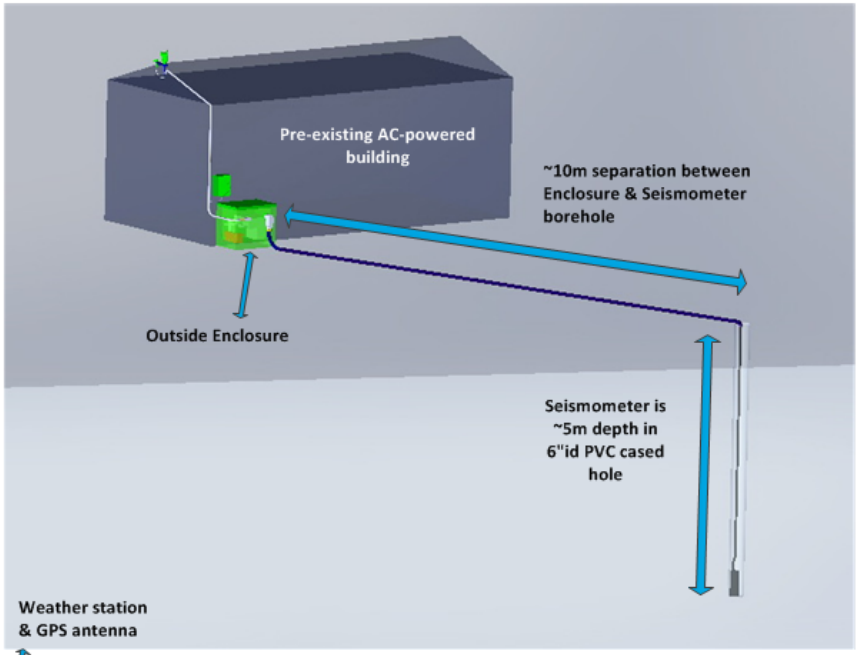


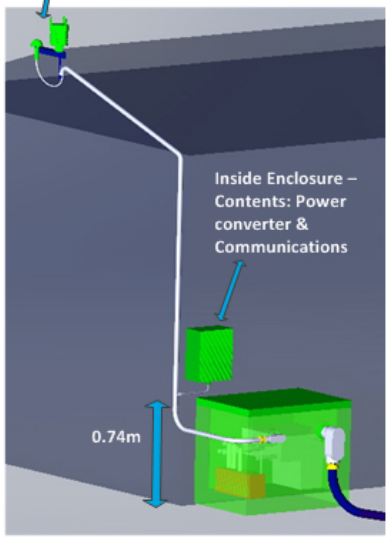
Power Spectral Density Mean



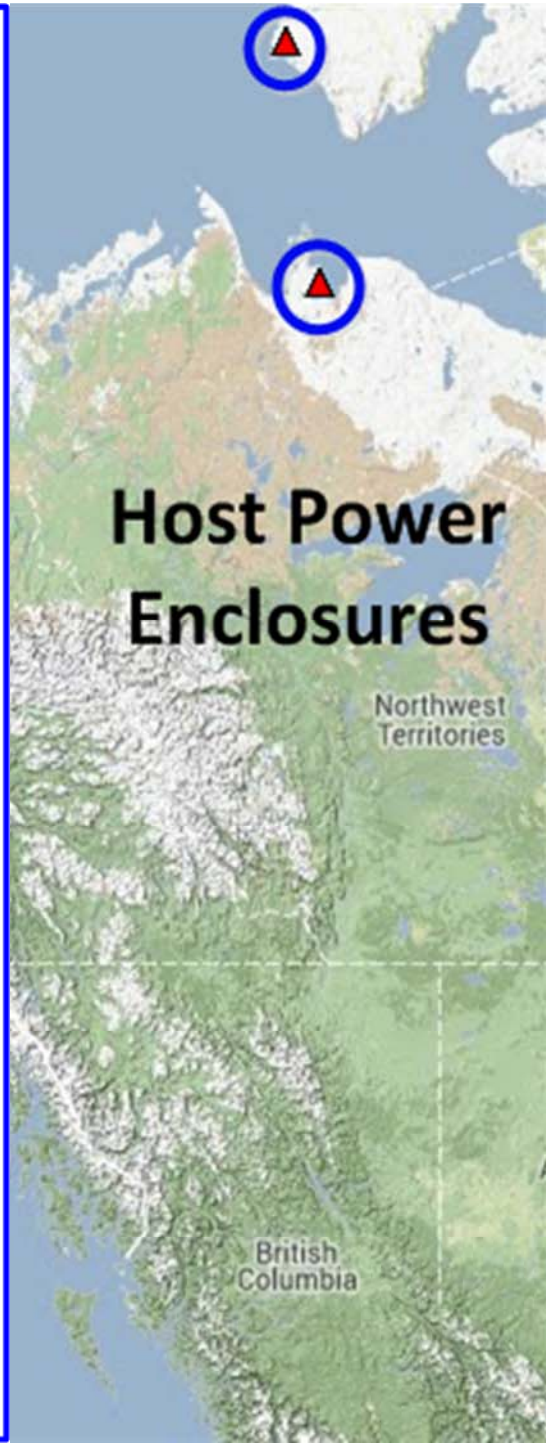
Alaska Transportable Array Seismic Station

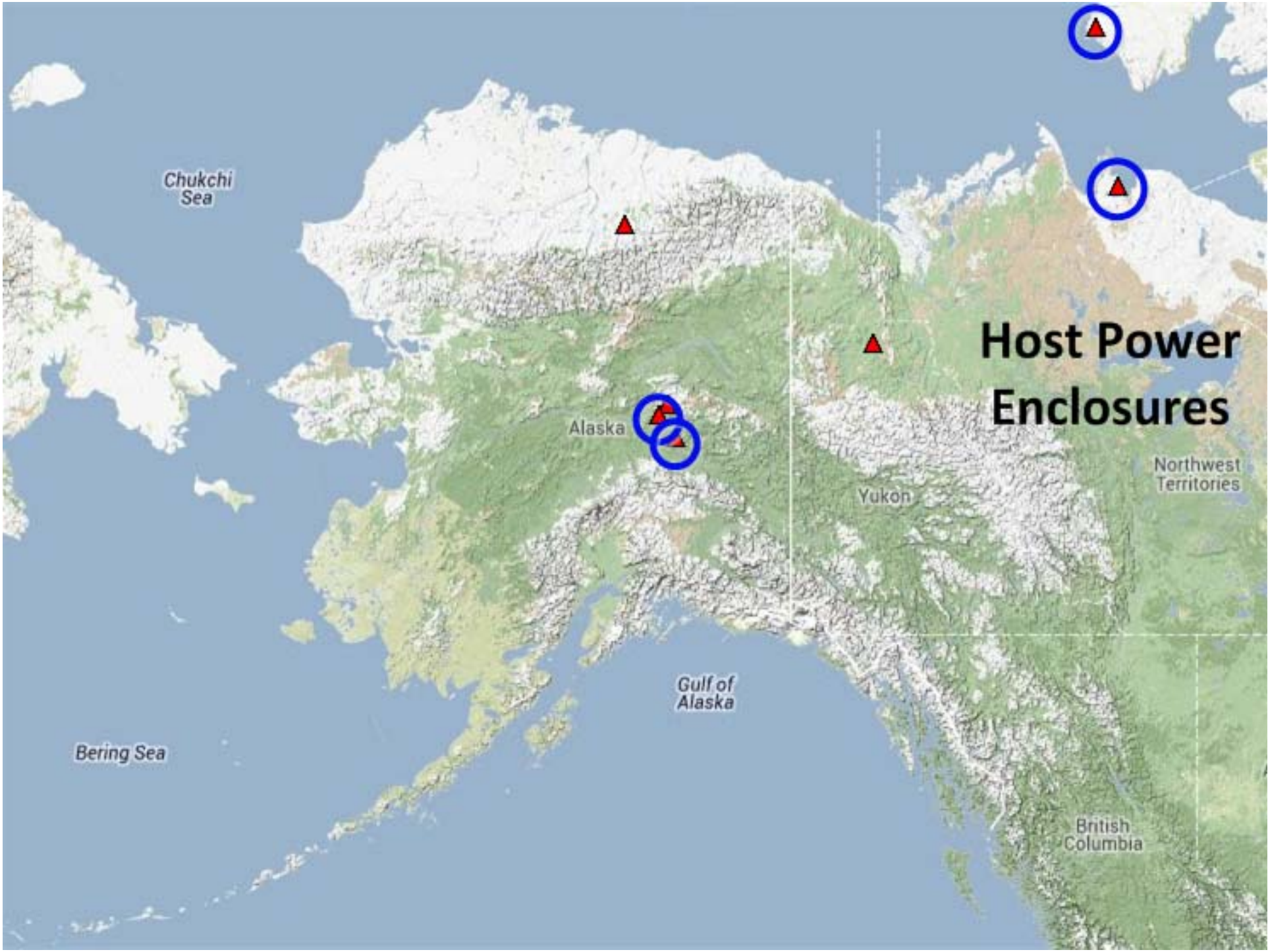
- Configuration For Sites Near AC-Powered Buildings

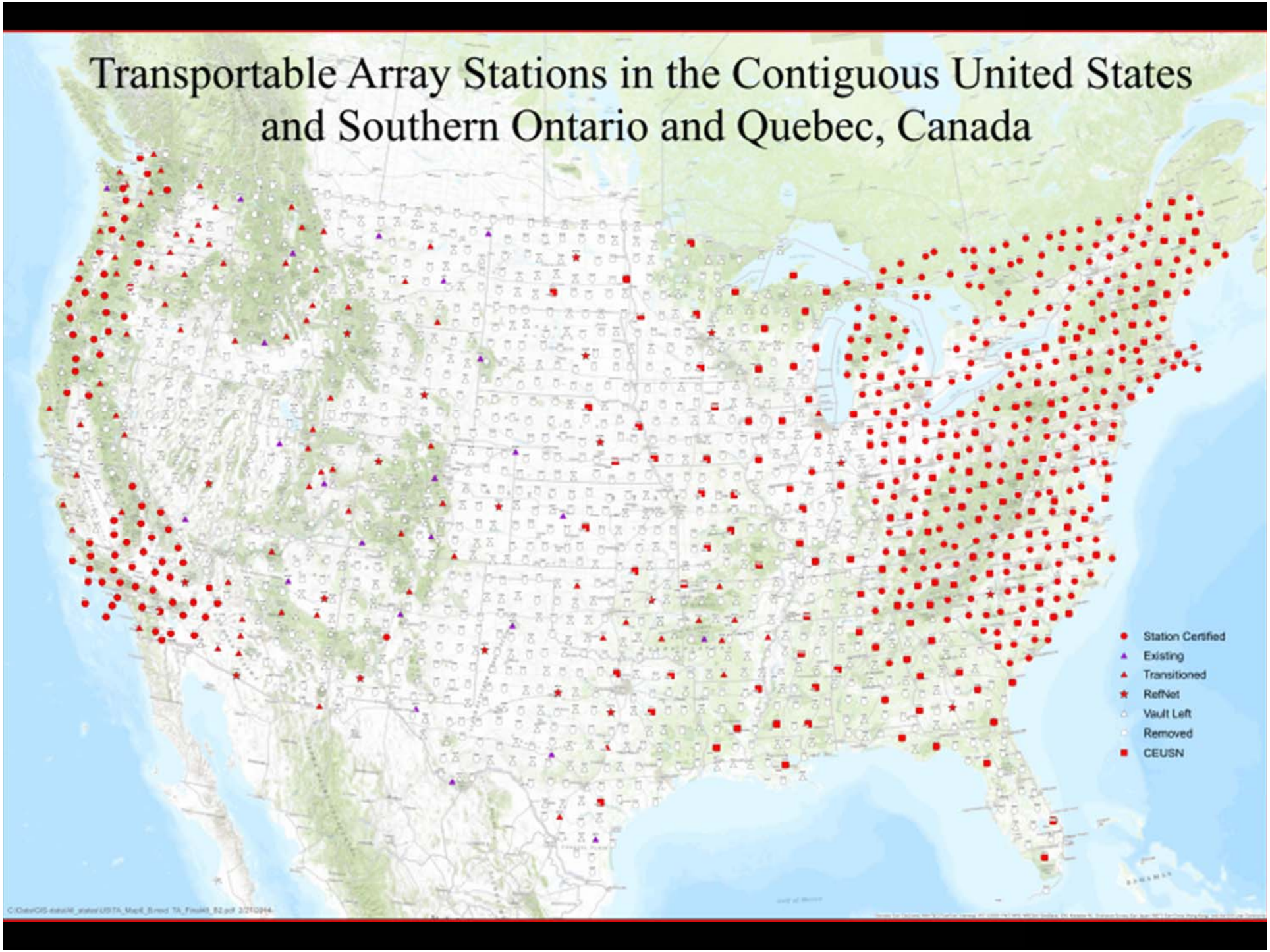




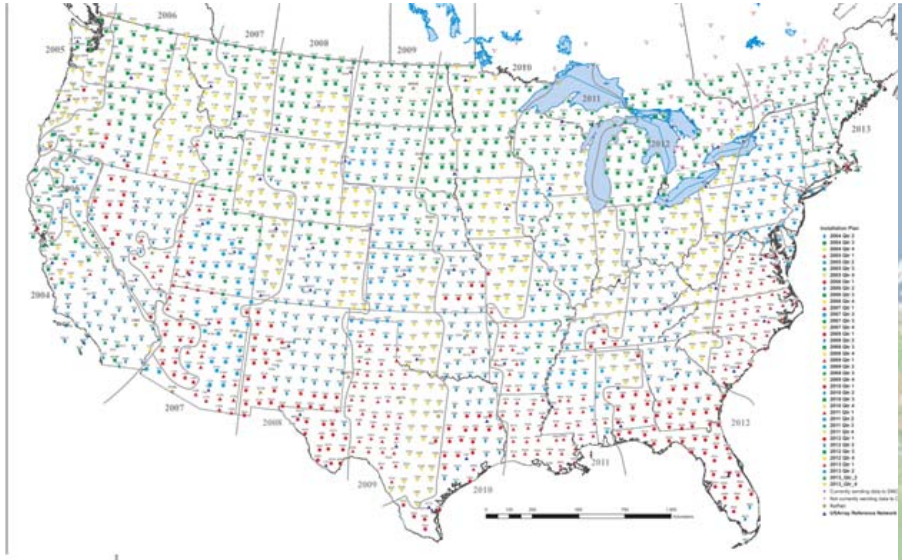
Outside Enclosure	
Weight	~70 kg
Dimensions	29" (.74m) high x 31.5" (.8m) wide x 22.5" (.57m) deep
Enclosure Contents	Lead-Acid AGM batteries (1) - 100AH Recording and communication electronics
Power	~8 Watts supplied by host building
Sensors	3-component seismometer (downhole)
	Infrasound
	Pressure
	Temperature
	Wind direction/speed (optional)
	Precipitation (optional)

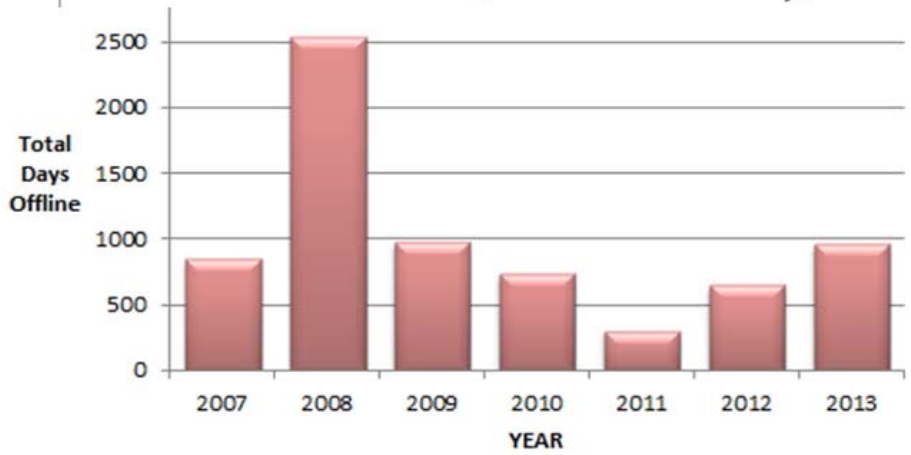


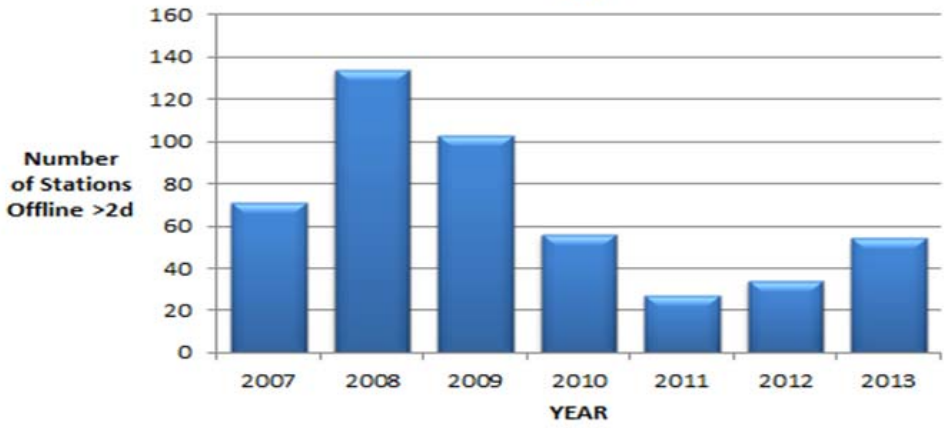

Chukchi Sea
Alaska
Yukon
Northwest Territories
Gulf of Alaska
Bering Sea
British Columbia
Host Power Enclosures


Transportable Array Stations in the Contiguous United States and Southern Ontario and Quebec, Canada
Station Certified
Existing
Transitioned
RefNet
Vault Left
Removed
CEUSN


Chukchi Sea
Bering Sea

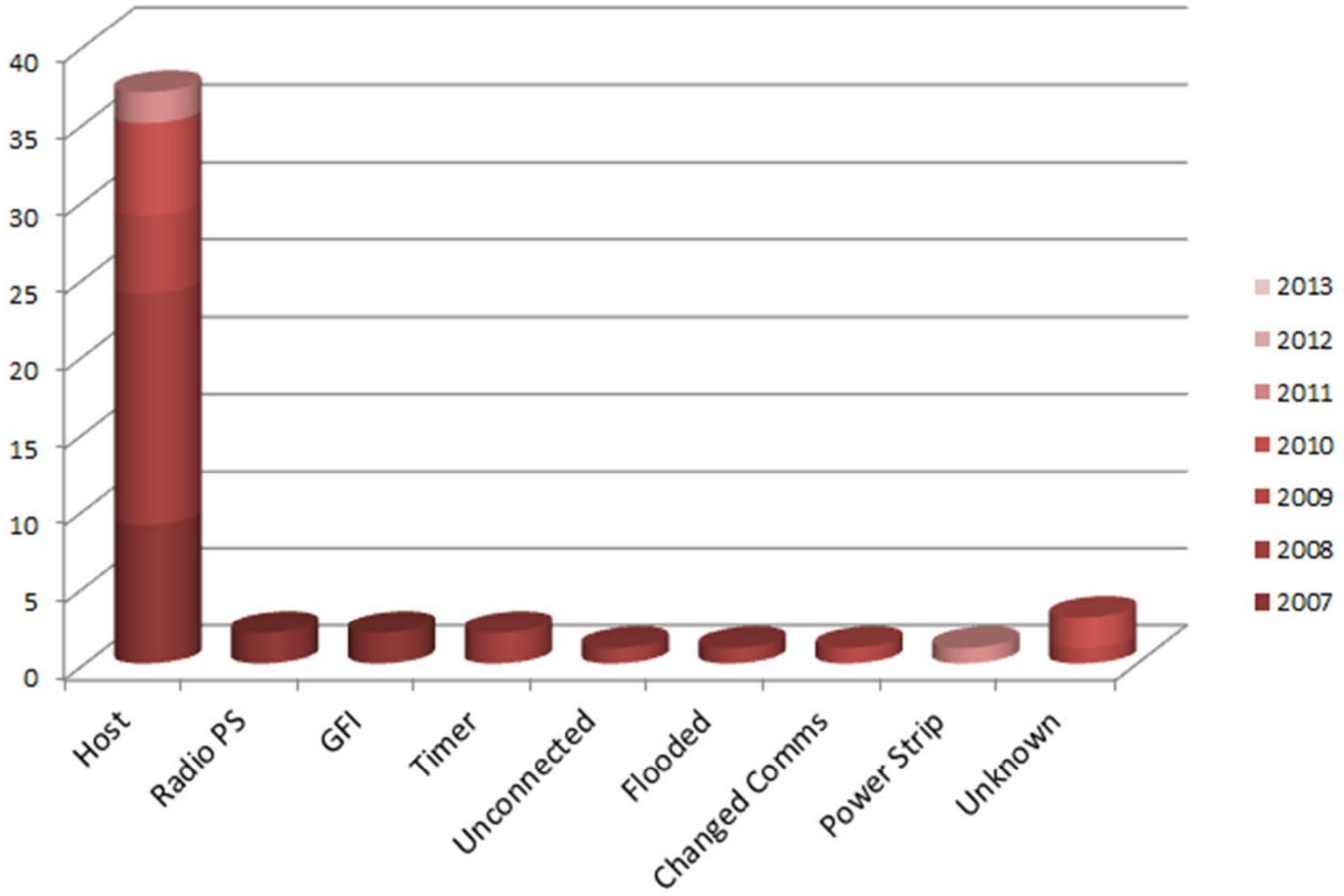


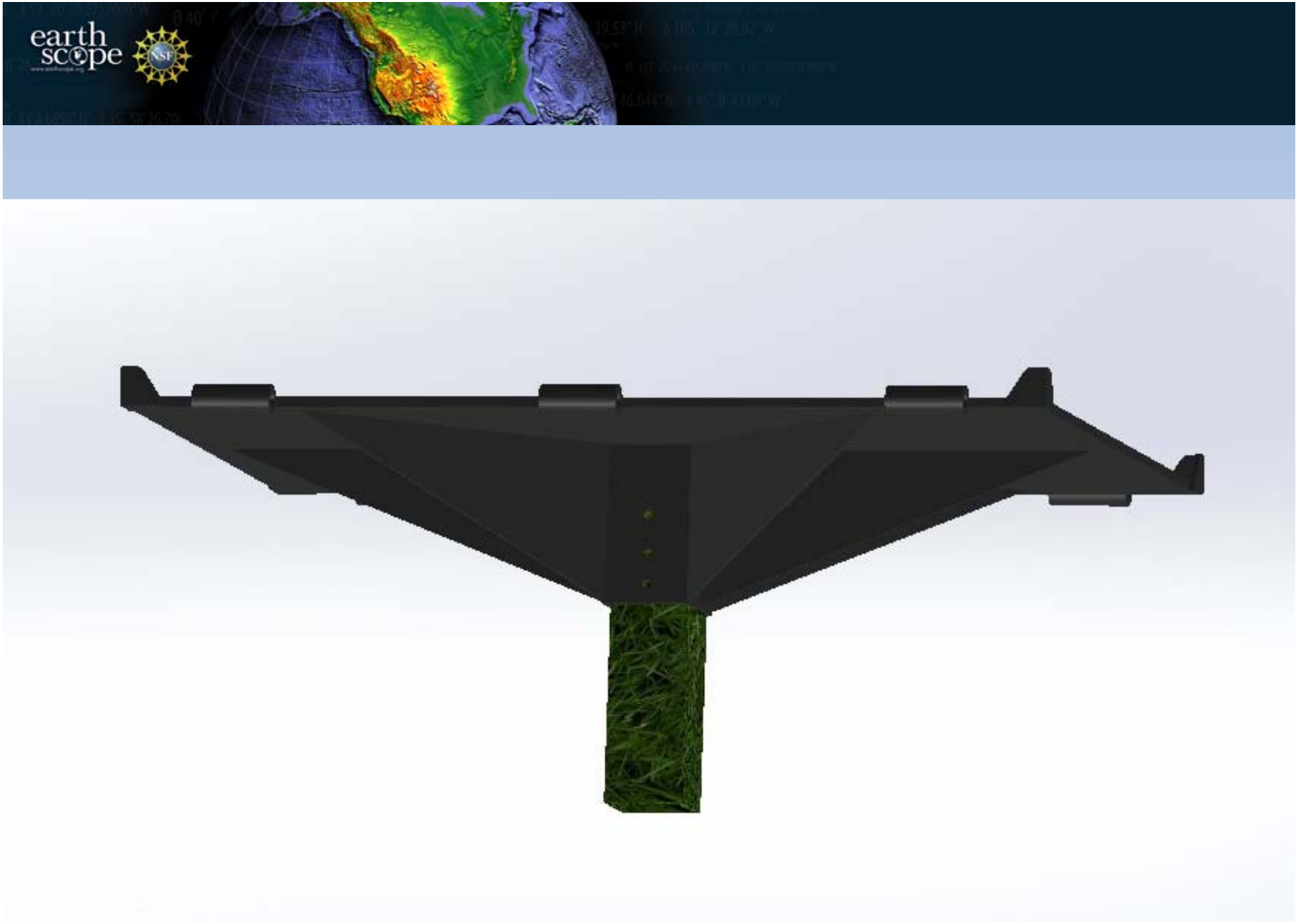

Total Days Offline
2500
2000
1500
1000
500
0
2007
2008
2009
2010
2011
2012
2013
YEAR

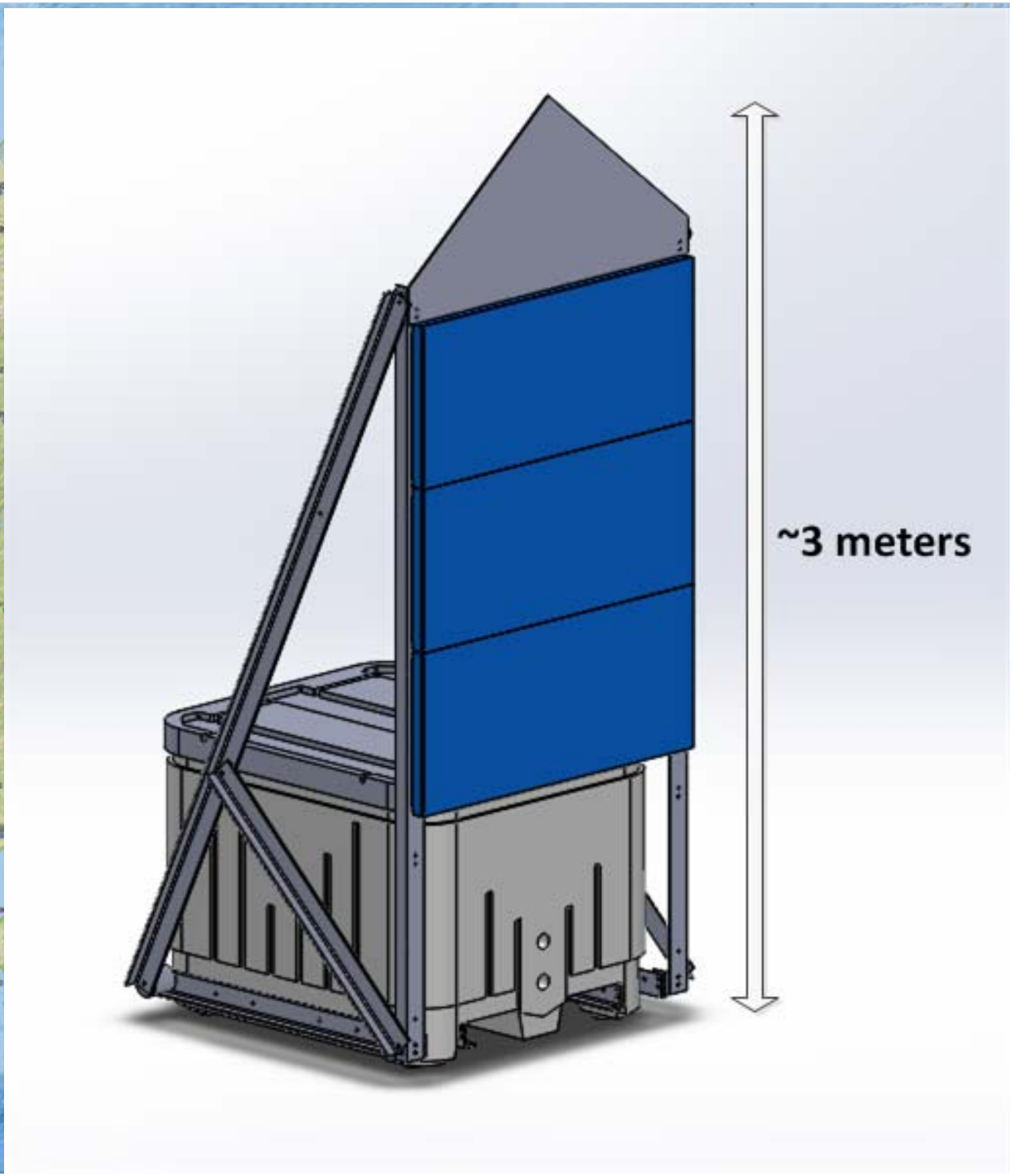

Number of Stations Offline >2d
160
140
120
100
80
60
40
20
0
2007
2008
2009
2010
2011
2012
2013
YEAR


Northwest Territories
British Columbia

AC VSAT Power Failures





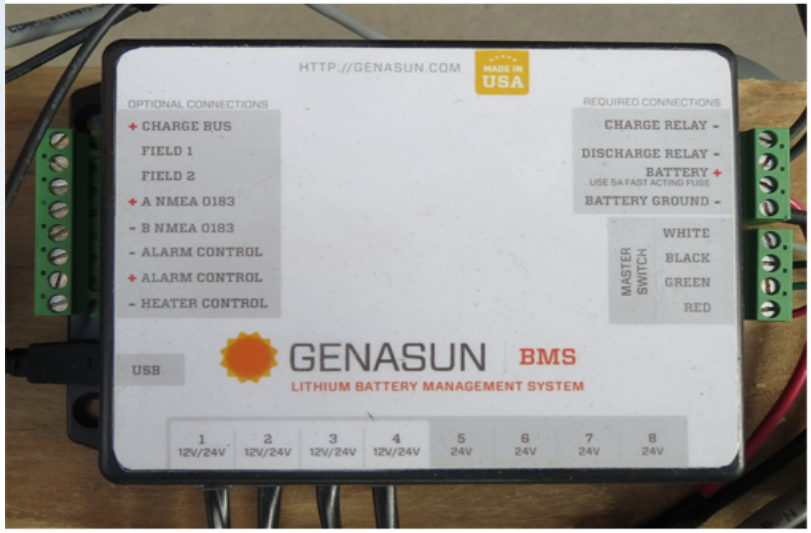

~3 meters

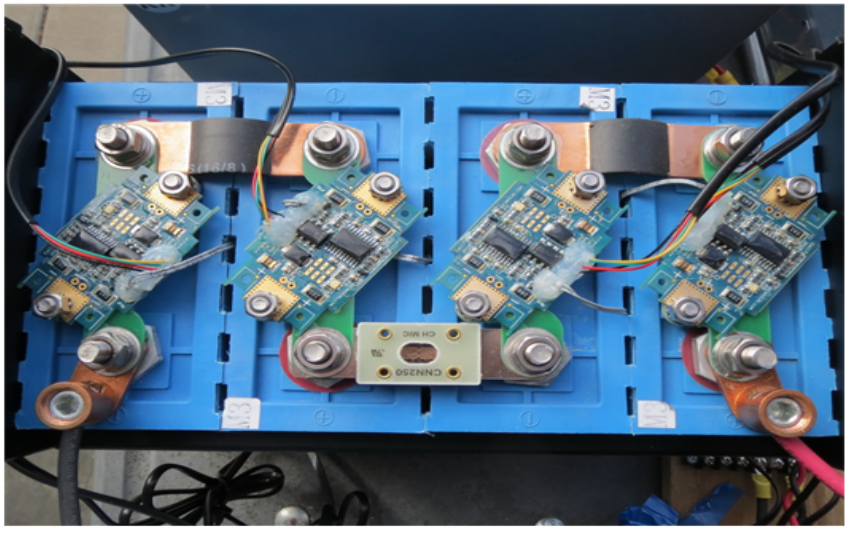

YETI


Rev 1.01
S/N: 301 - 508

Lithium Batteries

Battery Type	LiFePO4 (LFP)
Capacity	360AH (100AH version shown
Manufacturer	Genasun
Part #	GLI-12-360
Weight	113.5 Lbs
Size	24.5"x8.3"x12.5"
Advantages	Loses little capacity in the cold Appears that it can be recharged at relatively cold temps (early season recharging)






375HH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