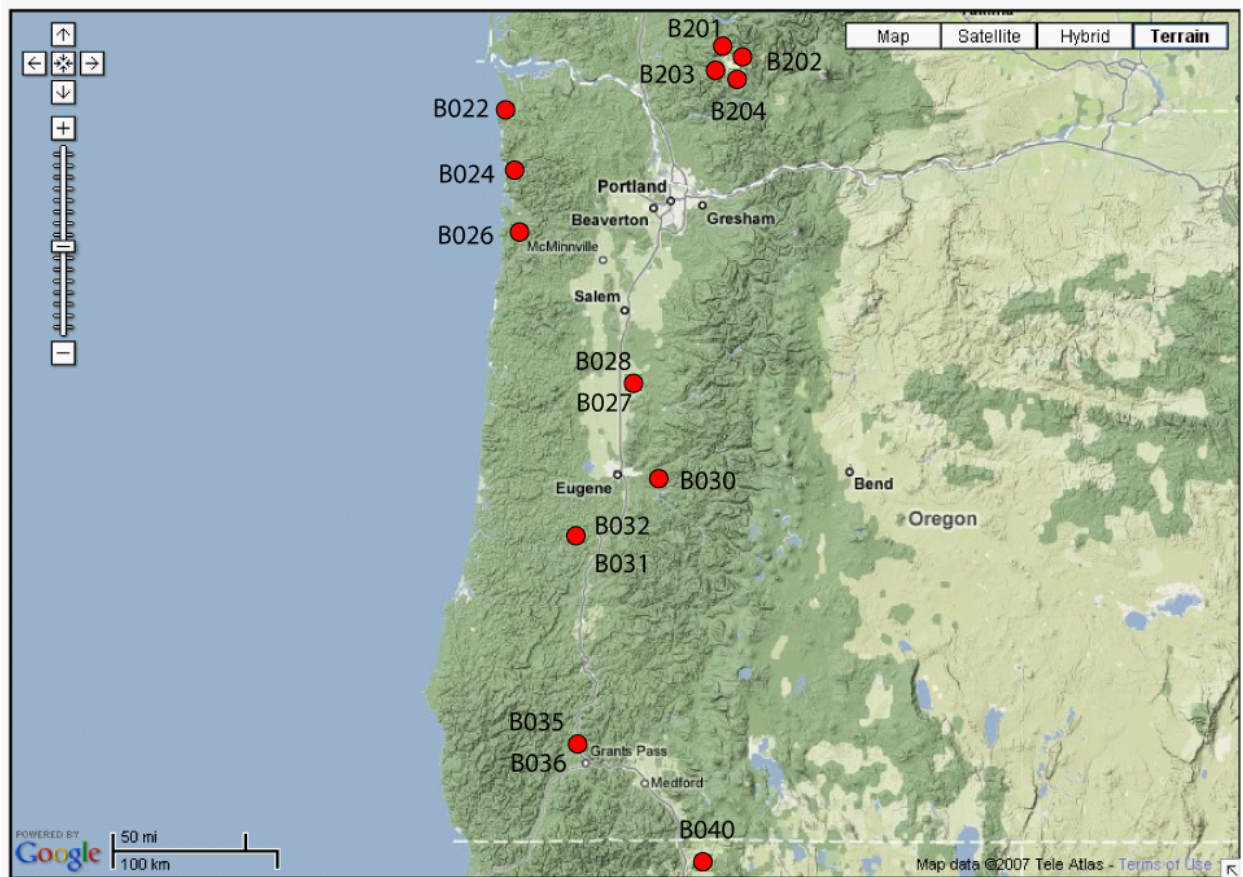


Station Notes for B032, hergrt032bor2007

Latitude: 43.668 (WGS 84)
Longitude: -123.3923 (WGS 84)
Elevation: 63.8 m / 209.3 ft
Install Depth:¹ 234.7 m / 770 ft
Orientations:² CH0=215.8, CH1=155.8, CH2=95.8, CH3= 65.8
Install Date: December 2, 2007
GTSM Technologies #: US62
Executive Process Software: Version 1.14
Logger Software: Version 2.02.2
Home Page: <http://pbo.unavco.org/station/overview/B032>
Notes Last Updated: September 29, 2020

¹Install depth is from the top of the casing to the bottom of the strainmeter.

²Orientations are in degrees East of North.



Oregon PBO strainmeters, December 2007

43.668 -123.3923 63.8 m

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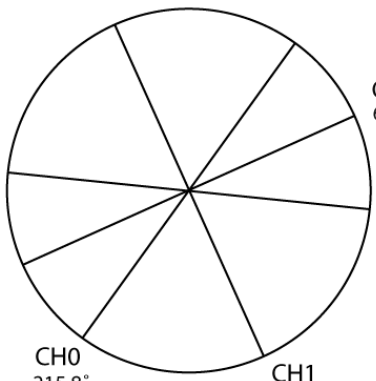
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773 ft, inclination ??°



Instrumentation at Strainmeter

Instrument	Units	Bottle/ASCII Scale Factor	SEED Scale Factor
Pore Pressure	Hecto Pascals	None Installed	---
GTSM Barometer	Kilopascals	1.0	0.0001
Rain Gauge	Millimeters/hour	1.0	0.252
Down hole Temperature Sensor	Degrees Celsius	1.0	0.0001
Logger Temperature Sensor	Degrees Celsius	1.0	0.0001
Setra Barometer	Hecto Pascals	None Installed	

1. Installation notes

December 1, 2007 UTC

16:50 - Onsite. Off load equipment.

17:30 - Sound hole at 773'.

18:49 - Put US62 on test.

December 2, 2007 UTC

16:00 - Onsite.

16:25 - Pull data off US62. Data is a bit noisy, but there was a lot of rain and wind.

18:24 - Compass test X: 2.247 1.292 Y: 1.712 0.844.

18:52 - Start mixing grout.

18:59 - Last water and grout.

19:09 - Pour into baler.

19:15 - Baler loaded.

19:20 - On bottom.

19:25 - Out of grout.

19:50 - GTSM at 770 ft.

19:54 - Turn on. Y: 1.416 X: 2.165

20:09 - Called good.

20:15 - Rename.

20:50 - Offsite

2. General Information

- This station is part of a cluster that includes B032, hergrt032bor2007.
- Sensitivities of all EH channels corrected on March 4, 2010.
- The rain gauge was unplugged from May 29 through August 9, 2013.

3. Strainmeter Maintenance

- February 11, 2008 UTC
 - 20:28 - Onsite. Enclosure doors are both unlocked and the back door is ajar. Turn on AC power at pole and discover power strip is bad. Replace bad GTSM batteries (1.7 V).
 - 21:20 - Leave to get new surge protector.
 - 22:15 - Return to site. Plug in surge protector. Turn on GTSM, all channels are at G3 and everything is running. Warren confirms both Hergert sites are online.
 - 22:40 - Offsite.
- September 19, 2008 - Warren Gallaher upgraded the GTSM logger software from version 1.15 to 2.02.2. The site was offline from about 16:00 until about 16:30 UTC.

- December 4, 2008 – Wade Johnson visited the site to replace the fiber optic modem.
- September 20, 2010 – Mike Gottlieb replaced the Intuicom Eb6 radio, antenna, cable, and manually turned power up to 7.
- December 22, 2010 – Wade visited the site to get it back online. A wasp got into the breaker at the power drop and tripped it. Breaker was repaired but should be replaced on next site visit. VSAT at B031 looks good. Showing 80 ACP and 72 signal. Its still pretty wet and lots of rain clouds to the south. VPN still very unstable, the time out may need to be adjusted.
- August 5, 2011 – The top of the rain gauge had blown off. There was also a hornets nest in the rain gauge, but it was not on the part the tips. The lid/funnel was placed back on.
- March 31, 2012 – The blackberry bush on the gate and road was removed. Looking forward, as this will always be an issue, we should hire someone local to cut the blackberry bush back. The yellow jacket nest in the rain gauge was also removed.
- October 18, 2012 – Liz visited the site to adjust the VSAT. Due to the large number of Yellow Jacket nests, she was unable to work on the VSAT. Instead she observed the VSAT signal strength and photographed the site. She will return when it is cold.
- May 12, 2013 – The blackberry bush had once again taken the gate and the combination lock was stuck (the last two numbers would only turn together). Liz started cutting the vines back and worked the lock intermittently.
- May 29, 2013 – When Liz arrived the IDU at the site was dead, no lights on. She switched to a new power inverter, still nothing. A new IDU was added. Receive was adjusted from 61% to a max of 76%. The signal was flaky, sometimes going to 0% and she could not get transmit above 55%. The ODU (The old transmit horn on the ODU is kept because spare had a bolt end broken off into it) and cable were replaced. No change to the flaky signal. She re-terminated the cable ends on the old cable. There was some corrosion on the tip of the old connector going into the IDU. The signal greatly improved. After re-terminating the cables receive max was 91%. However to get transmit to pass at a max of 66% receive was also knocked down to 66%. Not ideal, but passes.
- May 30, 2013 – In the AM the router was replaced, adding the file for the Hergert site from the hotel. The router was added to the site. Liz could surf the web and ping both sites. She called to have someone ping the site. They had to restart the VPN. The VSAT dish should be adjusted one more time during a sunny day. Another option is to switch the comms to a Verizon CDMA, which may remove the VPN issue.
- June 5, 2013 – The VSAT was adjusted to improve signal strength and potentially help with the VPN issues. When Liz arrived the Receive was 66% and the cross-pole/transmit was off. Receive was adjusted to 87%. The cross-pole could not be adjusted to over 50%. Liz replaced the IDU power inverter, re-terminated the cable ends. She tested the cables for continuity. She also tried a new cable. She swapped the dual cable on the ODU and IDU to see if only the transmit cable half is good, but there was no change. She then swapped the ODU (the spare feed horn did not look reliable). After several hours the cross-pole was left at 60%, which passes. Receive was still at 87%. The VPN has been stable since.
- June 12, 2013 – Replaced the batteries at the site, 4 for the GTSM and 6 for the main battery bank (2x3). Diatomaceous earth was added to the floor of the enclosure and the desiccants were replaced. The equipment wiring was rearranged and the equipment was strapped to the equipment rack. The quads and chop were adjusted. There was a rain gauge at the site that was not hooked up to the power box. The rain gauge was soldered and tipped several times to test it.
- August 7, 2013 – Liz replaced the powerbox at 12:45-13:00 PST.
- August 8, 2013 – Liz repaired the rain gauge soldering job around 5:30 pm PST

- January 23, 2014 – Liz sent the cold start command to try and fix the invalid GPS time. It did not work.
- February 25, 2014 – Removed blackberry bush and poison oak growing around the gate. Replaced GTSM power box and GTSM antenna.
- October 31, 2016 – Station had lost GPS time. Applied Cold Start command to correct timing.
- May 16, 2018 – On arrival equipment was off. Battery main bank was at 10.7V. GTSM was on, no data lost. There was no power at site, including outlet. Turned breaker back on at power drop box on power pole. Looks like cows use the drop box to rub against. If this happens again a barrier will need to be built.
- March 19, 2019 – Located top of rain gauge and put it back on. Adjusted chops and quads, very noisy.
- July 30, 2020 – Station was offline. Cleared vegetation and replaced rusted lock. Breaker was off, reset breaker and worked with gfci outlet until power was reset. Rain gauge top was missing, large yellow jacket nest in rain gauge. Located top and cleaned out rain.