# Station Notes for B928, bamfld928bbc2007

Latitude:	48.8337 (WGS 84)		
Longitude:	-125.1345 (WGS 84)		
Elevation:	9.5 m / 31 ft		
Install Depth: <sup>1</sup>	243.4 m / 798.5 ft		
Orientations: <sup>2</sup>	CH0=284.1, CH1=224.1, CH2=164.1, CH3=134.1		
Install Date:	November 28, 2007		
GTSM Technologies #:	US58		
Executive Process Software:	Version 1.14		
Logger Software:	Version 2.02.2		
Home Page:	http://pboweb.unavco.org/stations/?checkkey=B928		
Notes Last Updated:	September 23, 2018		

<sup>1</sup>Install depth is from the top of the casing to the bottom of the strainmeter. <sup>2</sup>Orientations are in degrees East of North.



Pacific Northwest PBO strainmeter network, April 23, 2008



#### **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

November 28 2007

16:30 - On site, position trucks.

17:00 - Check out GTSM, quads are set and data looks good.

17:00-19:00 - Video log hole. Bottom section looks good, though plan is to still hang

instrument to avoid the bottom 3' section. Spend the rest of the morning setting up for install. 20:05 - Shutdown GTSM.

20:30 - Compass test Xmin 1.926 Xmax2.806 Ymin1.485 Ymax2.300.

22:03 - Start mixing 8 sacks of MF 1441 batch #161607629T7.

22:12 - Last water added (14.4 gal distilled).

22;22 - Stop mixing.

22;36 - Tripped on bottom.

22:48 - Lowering GTSM, lower to 798.5' (797' on logs).

23:08 - GTSM turned on, quads look good, and temp is 0.588 and going up.

23:35 - Shutdown to adjust down hole temperature, set to 0.179V.

23:50 - Meet with Bamfield Research station director.

23:59 - Off site.

November 29 2007

16:45 - On site.

17:06 - Shutdown GTSM.

17:16 - Restart GTSM, channel 0 is stuck on gain 0.

17:52 - Shut down channel 0. Crew leave to get cement and concrete.

17:54 - Restart channel 0 with board SPARE RT0, no display on LCD.

17:59 - Restart Channel 0 with board SPARE RT2, no display on LCD. Login via

hyperterminal and status update states it is at gain 3 now. Looks decent on scope.

18:02 Shutdown channel 0 and channel restart with RT boards swapped. This time both get to gain 3.

18:08 - Restart both boards with their original RT boards, this time Channel 0 is still only able to get to gain 0, channel 1 gets to gain3.

18:14 - Restart both boards in the swapped state. Both channels are able to get to gain 3.

19:28 - Test seismometer #95.

21:30 - Start lowering seismometer on 3/32" vinyl coated cable.

21:55 - Lowered to 776'.

22:02 - Start tripping in 1.5" pipe.

23:27 - Tag grout at 783', clean up site.

23:59 - Off site.

### 2. General Information

• Sensitivities of all EH channels corrected in the dataless on March 4, 2010

## 3. Strainmeter Maintenance

- 3/7/2008 Bamfield staff set up a wired ethernet solution to get the station into their internet connection. Steve Smith was able to finish off the rest of the configuration remotely and get the station online.
- February 12, 2009 Wade Johnson and Mike Gottlieb visited the site. The were onsite from 12:30-13:30 PST. They swapped the RT0 board (pulled SPARE RT and replaced with US56RT1). This seems to have fixed the spikes in the data. Also installed a Setra barometer, took pictures, and adjusted quadrature.
- July 14, 2009 RT boards need firmware upgraded.
- September 15, 2010 Liz visited the site. The rain gauge was filled with pine needles and was cleaned out.
- March 19, 2012 Station did not have GPS time. Sent coldstart command remotely at 13:15 Pacific time. Station now tracking 6 satellites. The stations clock was ~520 seconds slow when it was reset.
- July 13, 2012 Channels 1 and 3 were in G2. They were rebooted manually, and returned to G3. Checked quads and Chop but did not have to adjust. Cleaned debris out of rain gage. The rain gauge wasn't fully clogged yet, but there was significant accumulation.
- January 23, 2014 Liz issued the cold start command to fix the GPS time being invalid.
- March 19, 2014 CH1 and CH3 are at G2. A remote logger reboot did not resolve the problem. Quadratures need to be check next visit.
- October 27, 2015 Swapped marmot. GTSM RT boards were repeatedly restarting and calibrating. OL lights on all RT boards. GTSM power box warning light was also on. Attempted a system restart, but no change. Swapped GTSM power box, but with no change. Looked at system voltage going into system, which was good. Liz noted that if she turned on every board but the logger board the system operated fine. Swapped logger board and modified setting. Adjusted quads and chops. Cleaned out rain gauge, which was plugged and pooling water.
- August 1, 2018 Replaced batteries. Cleaned out rain gauge and replaced locks.