

Canadian Seismograph Networks changes since July 2003

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Earthquakes Canada

2004/08



Natural Resources Canada

Ressources naturelles Canada





Canadian Seismograph Stations

National Seismograph Network (CNSN)



CNSN installations /changes:

DIB 20040315	New	site,	BB	3	components
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NLLB	20031230	replace NAB,	1.715	КM	from	old	site,	upgraded	from	EHZ	to	
		3-component	BB									

SHB 20040722 upgraded seismo from CMG-40T to 3ESP

EDB 20040611 moved seismo ~100m, upgraded from EHZ to 3-component BB

CBB 20040213 upgraded seismo from CMG-40T to CMG-3T, digitizer from GSC GD1 to GD2

HGVO 20040803 temporary site, 3-component BB

STJN 20031003 upgraded from Regional-analog SP to became CNSN EHZ

Note: Station DIB was opened on Queen Charlotte Islands to serve as a backup for IMS hydroacoustic site VIB for enhanced reliability in this remote area.

For more detailed information, see the CNSN Station Book pages at:

http://www.seismo.nrcan.gc.ca/cnsn/stn_book/

All CNSN data are received in real time, processed, and archived at the GSC/EarthquakesCanada National Data Centre. They are freely available via AutoDRM:

http://www.seismo.nrcan.gc.ca/nwfa/autodrm/autodrm_req_e.php

and NetDC:

http://www.seismo.nrcan.gc.ca/nwfa/netdc/request_e.php

B.C. Silent Slip Deployment

These temporary stations (dubbed ETS sites) have been deployed to monitor Episodic Tremor and Slip on the Cascadia Megathrust Earthquake Zone. Note: they are closed and moved frequently.

ETS SEISMOMETER STATIONS								
	SIT	E INFORM	ATION	INSTRUMENTATION				
CODE	FULL NAME	LAT	LONG	巳 (m)	Status	MODEL	NOTES	
AHCB	Chemainus	48.9325	123.7373	50		3ESPe		
BMSB	Bamfield	48.83561	125.13549	10		3ESP		
CPLB	Carmanah Pt.	48.61181	124.57119	40		3ESP	installed 04-04-16	
DHLB	Ladysmith	48.9915	123.8152	30	removed	3ESPe + Orion		
GHNB	Nanoose	49.3065	124.2364	5		40T	Orion 286 to FDAS	
GLBC	Glintz Lake Rd	48.39599	123.63631	100	removed	40T + FDAS	removed 04-08-12	
JRBC	Jordan River	48.39572	123.96005	20	removed	3ESP+FDAS	removed 04-08-12	
KHVB	Brentw ood Bay	48.56883	123.46633	39	removed	3ESPe + GD2 + MSS1	removed 04-08-06?	
LCBC	Lost Creek	48.48377	124.26190	100	removed	40T + Orion	removed 04-08-12	
PHYB	Yellow point (Cedar)	49.08280	123.84310	39		3ESPe		
SHDB	Sharon, Duncun	48.79700	123.63629	90		3ESPe		
SHVB	Victoria	48.47232	123.37375	69		40T	(seismo from OZB)	
TFRB	Telus, Franklin R.	48.93323	124.63631	853	removed	40T + Orion	removed 04-08-20	
THAB	Alberni-2	49.2800	124.9184	115		3ESP		
TSJB	San Juan	48.6055	123.9923	524	converted		to POLARIS	
YOUB	Youbou	48.9008	125.2619	?	converted		to POLARIS	

CHASME

Canadian High Arctic Seismic Monitoring Experiment



No changes - only the three stations at Tuleg, Pond Inlet, and Eureka remain running. They are non-real time, using Guralp seismometers and Nanometrics ORION data loggers with removable discs exchanged monthly.

POLARIS

Portable Observatories for Lithospheric Analysis and Research Investigating Seismology



- a second antenna pointed at the ANIK E2R satellite was installed at the Ottawa hub to provide more bandwidth and better coverage of the north
- currently have 82 Libra VSAT and 1 Internet-linked stations live
- 5 continuous MT and 2 continuous GPS stations are running using Libra serial ports

Summary of new POLARIS installations:

DSMN2003071863.179930-113.9003900.307000KLBO2003072845.356570-80.2132000.177000TOBO2003072945.225730-81.5233700.169000PLIO2003082241.750530-82.6283700.143000GBLN2003092464.199530-112.9935000.392000ILKN2003092764.224130-115.1293300.266000ALFO2003100245.628280-74.8841900.000000BUKO2003110245.442280-79.3989500.317000TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004061149.673700-93.7258200.437300PLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300CTLN2004071864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	+ sta	ondate	+ offdate	+ lat	+ lon	elev
KLBO2003072845.356570-80.2132000.177000TOBO2003072945.225730-81.5233700.169000PLIO2003082241.750530-82.6283700.143000GBLN2003092464.199530-112.9935000.392000ILKN2003092764.224130-115.1293300.266000ALFO2003100245.628280-74.8841900.000000BUKO2003110245.442280-79.3989500.317000TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004061149.673700-93.7258200.437300RDLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300CTLN2004071864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	LUPN	20030711	+	65.738340	-111.256860	0.505000
TOBO2003072945.225730-81.5233700.169000PLIO2003082241.750530-82.6283700.143000GBLN2003092464.199530-112.9935000.392000ILKN2003092764.224130-115.1293300.266000ALFO2003100245.628280-74.8841900.000000BUKO2003110245.442280-79.3989500.317000TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004061345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	DSMN	20030718	ĺ	63.179930	-113.900390	0.307000
PLIO2003082241.750530-82.6283700.143000GBLN2003092464.199530-112.9935000.392000ILKN2003092764.224130-115.1293300.266000ALFO2003100245.628280-74.8841900.000000BUKO2003110245.442280-79.3989500.317000TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004061149.673700-93.7258200.437300RDLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300GALN2004072064.116720-117.3142500.340000	KLBO	20030728		45.356570	-80.213200	0.177000
GBLN2003092464.199530-112.9935000.392000ILKN2003092764.224130-115.1293300.266000ALFO2003100245.628280-74.8841900.000000BUKO2003110245.442280-79.3989500.317000TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004061149.673700-93.7258200.437300RDLO2004061551.498670-90.3521900.376200PKLO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300GALN2004072064.116720-117.3142500.340000	TOBO	20030729		45.225730	-81.523370	0.169000
ILKN2003092764.224130-115.1293300.266000ALFO2003100245.628280-74.8841900.000000BUKO2003110245.442280-79.3989500.317000TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004061149.673700-93.7258200.437300RDLO2004061350.974480-93.9124400.390900PKLO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300GALN2004072064.116720-117.3142500.340000	PLIO	20030822		41.750530	-82.628370	0.143000
ALFO2003100245.628280-74.8841900.00000BUKO2003110245.442280-79.3989500.317000TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004061149.673700-93.7258200.437300RDLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	GBLN	20030924		64.199530	-112.993500	0.392000
BUKO2003110245.442280-79.3989500.317000TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004061149.673700-93.7258200.437300EPLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	ILKN	20030927		64.224130	-115.129330	0.266000
TORO2004050443.613630-79.3433000.080000MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004060948.823100-91.6004500.382700EPLO2004061149.673700-93.7258200.437300RDLO2004061350.974480-93.9124400.390900PKLO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300CTLN2004071864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	ALFO	20031002		45.628280	-74.884190	0.000000
MEDO2004050743.164600-78.4546200.190500PLVO2004051345.039642-77.0753800.000000KLNB2004060348.661070-123.5706300.000000ATKO2004060948.823100-91.6004500.382700EPLO2004061149.673700-93.7258200.437300RDLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	BUKO	20031102		45.442280	-79.398950	0.317000
PLVO2004051345.039642-77.0753800.00000KLNB2004060348.661070-123.5706300.000000ATKO2004060948.823100-91.6004500.382700EPLO2004061149.673700-93.7258200.437300RDLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	TORO	20040504		43.613630	-79.343300	0.080000
KLNB2004060348.661070-123.5706300.00000ATKO2004060948.823100-91.6004500.382700EPLO2004061149.673700-93.7258200.437300RDLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	MEDO	20040507		43.164600	-78.454620	0.190500
ATKO2004060948.823100-91.6004500.382700EPLO2004061149.673700-93.7258200.437300RDLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	PLVO	20040513		45.039642	-77.075380	0.000000
EPLO2004061149.673700-93.7258200.437300RDLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300CTLN2004071864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	KLNB	20040603		48.661070	-123.570630	0.000000
RDLO2004061350.974480-93.9124400.390900PKLO2004061551.498670-90.3521900.376200LDIO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300CTLN2004071864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	ATKO	20040609		48.823100	-91.600450	0.382700
PKLO 20040615 51.498670 -90.352190 0.376200 LDIO 20040616 49.174990 -89.595510 0.500200 PNPO 20040618 48.595680 -86.284630 0.219300 CTLN 20040718 64.428730 -116.018900 0.552000 GALN 20040720 64.116720 -117.314250 0.340000	EPLO	20040611		49.673700	-93.725820	0.437300
LDIO2004061649.174990-89.5955100.500200PNPO2004061848.595680-86.2846300.219300CTLN2004071864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	RDLO	20040613		50.974480	-93.912440	0.390900
PNPO2004061848.595680-86.2846300.219300CTLN2004071864.428730-116.0189000.552000GALN2004072064.116720-117.3142500.340000	PKLO	20040615		51.498670	-90.352190	0.376200
CTLN 20040718 64.428730 -116.018900 0.552000 GALN 20040720 64.116720 -117.314250 0.340000	LDIO	20040616		49.174990	-89.595510	0.500200
GALN 20040720 64.116720 -117.314250 0.340000	PNPO	20040618		48.595680	-86.284630	0.219300
	CTLN	20040718		64.428730	-116.018900	0.552000
CBRO 20040730 47 309150 -76 470730 0 30700	GALN	20040720		64.116720	-117.314250	0.340000
	CBRQ	20040730		47.309150	-76.470730	0.307000
RSPO 20040805 46.073400 -79.760200 0.264000	RSPO	20040805		46.073400	-79.760200	0.264000
MRHQ 20040807 45.887000 -74.212700 0.422000	MRHQ	20040807		45.887000	-74.212700	0.422000

POLARIS BC sub-net (POLB)



Initial deployment of Libra VSAT-linked stations now complete; procurement underway for portable instruments. Activity included:

KELB closed and moved to KLBN

POLARIS NWT sub-net (POLN)



Initial POLN deployment essentially complete. Activity included:

- 6 new Libra sites installed (denoted by lighter shade of purple fill and station names in white box in map above)
- 5 sites have co-located Magneto-telluric sensors with continuous telemetry
- software development is underway to acquire, display, and archive continuous MT data in an extended IAGA format (IAGA+)



POLARIS Ontario sub-net (POLO)

Initial POLO deployment is almost complete. Activity included:

17 new Libra sites installed (denoted by lighter shade of green fill and station names in white box), including 2 in Quebec

- final site to go in south of Montreal, QU will complete POLO sub-net
- new Federal funding covered additional 6 sites in western Ontario above Lake Superior
- CLPO and CLWO closed
- PTCO reopened

Further information on the POLARIS network deployment can be found at:

http://www.polarisnet.ca/

All continuous POLARIS network data are received in real time, processed, and archived at the GSC/EarthquakesCanada National Data Centre. They are freely available via AutoDRM:

http://www.seismo.nrcan.gc.ca/nwfa/autodrm/autodrm_req_e.php

and NetDC:

http://www.seismo.nrcan.gc.ca/nwfa/netdc/request_e.php

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