Canadian Seismograph Network Report

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National Earthquake Hazards Program
Geological Survey of Canada
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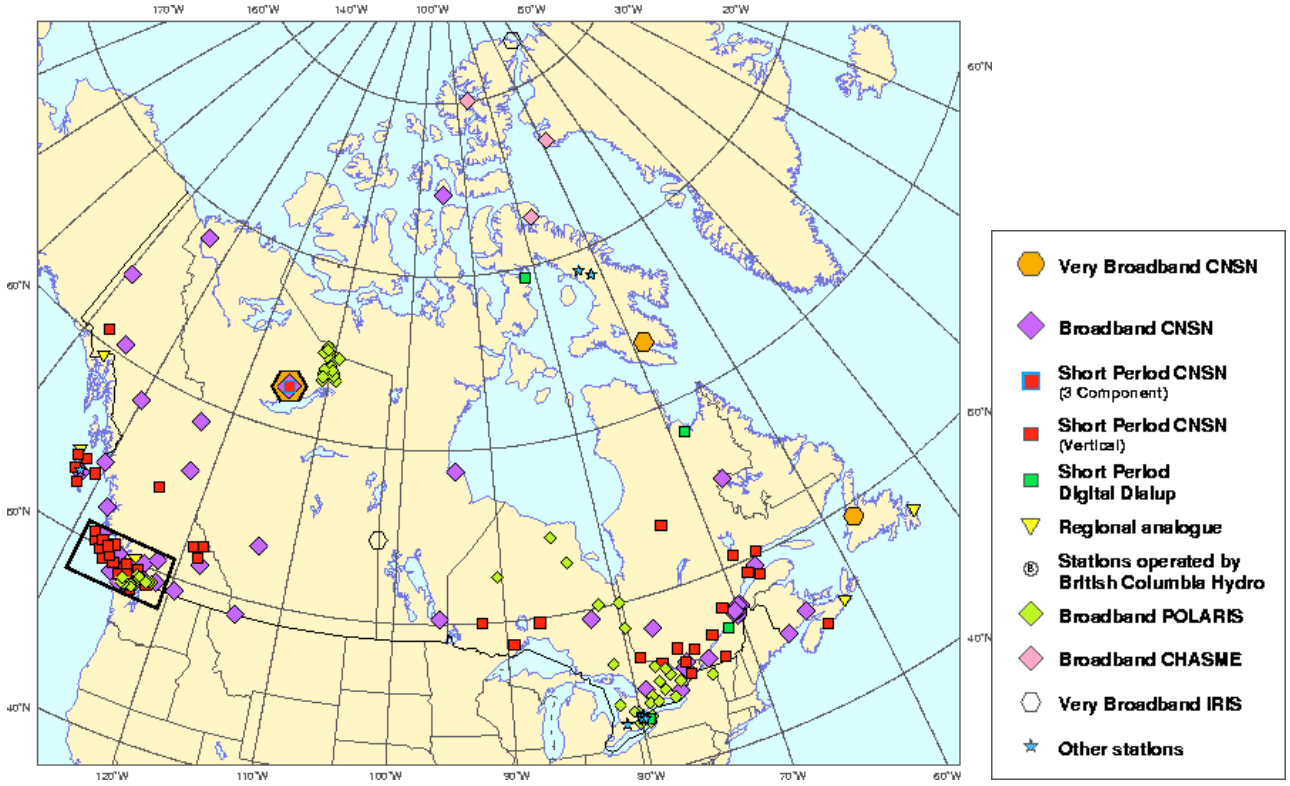
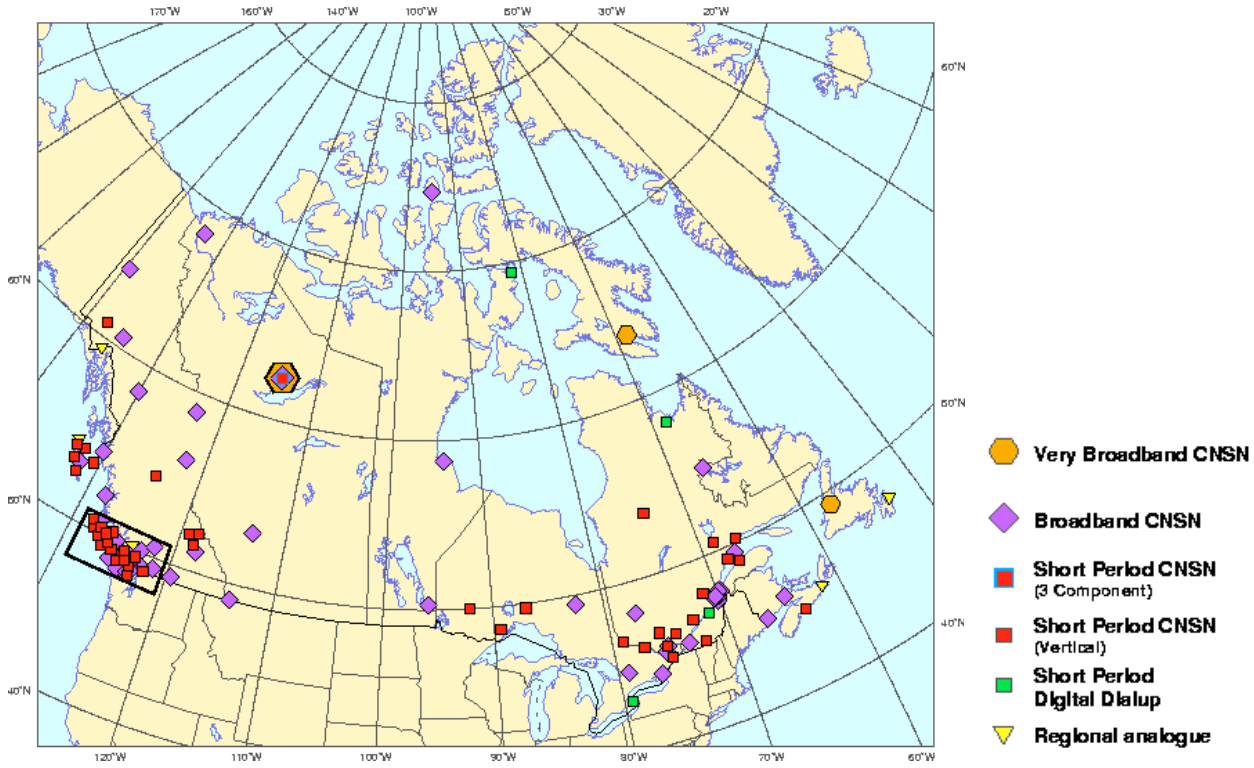


Seismograph stations in Canada – June 2003

1. National Seismograph Network (CNSN)



Changes since May 2002

SCHQ: Upgraded digitizer to GSC GD-2 with authentication on 20021211 (IMS)

ULM: Upgraded digitizer to GSC GD-2 with authentication on 20021210 (IMS)

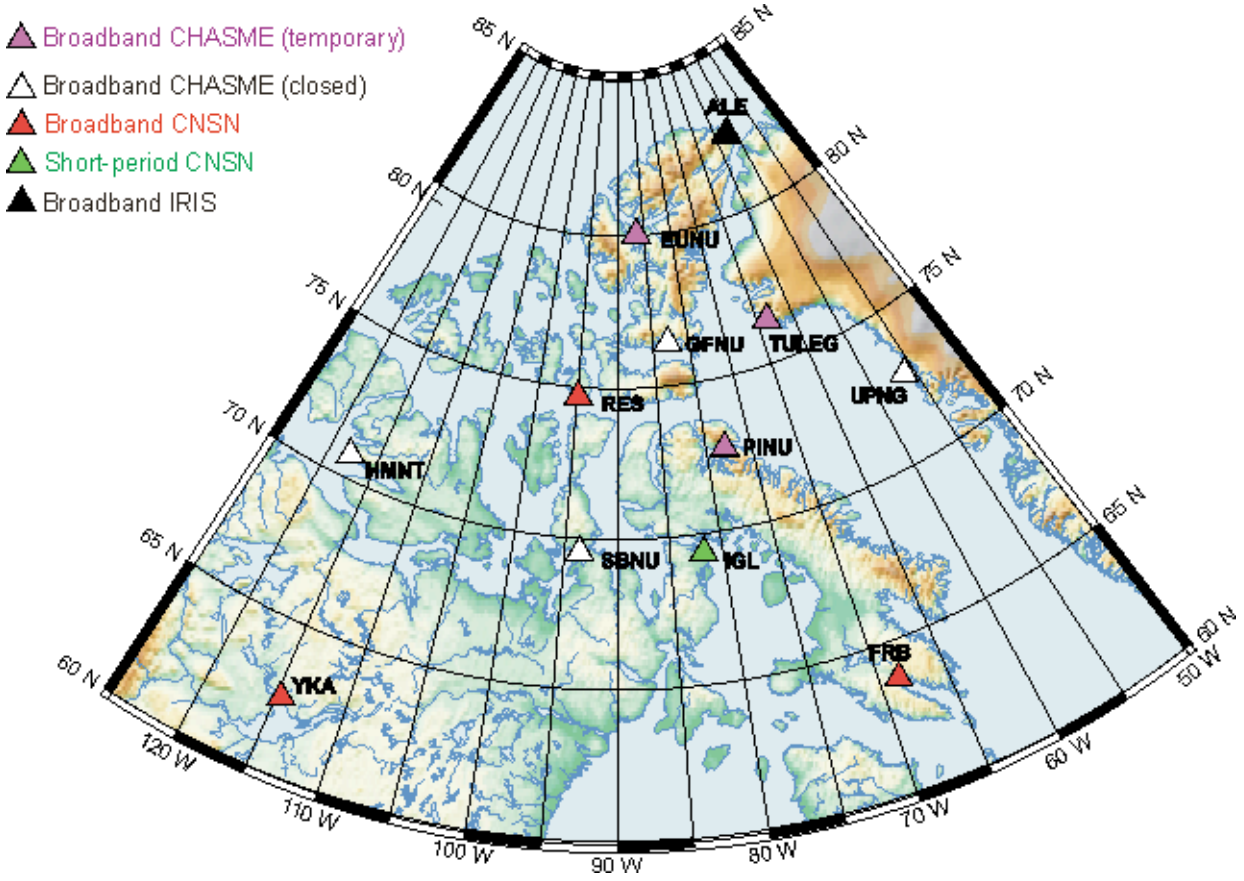
HAL: Upgraded from analog to continuous Internet-linked CNSN EHZ station on 20030113

QCQ: Upgraded from CNSN EHZ dial-up to continuous Internet link on 20030514

VGZ: Upgraded from EHZ to BB (CMG-3ESP, GSC GD-1) on 20030227

WSLR: Installed on 20030509 at lat 50.127 lon -122.921 (Whistler, B.C.)
Guralp CMG-3ESPe seismo, GSC GD-2 digitizer

2. Canadian High Arctic Monitoring Experiment (CHASME)

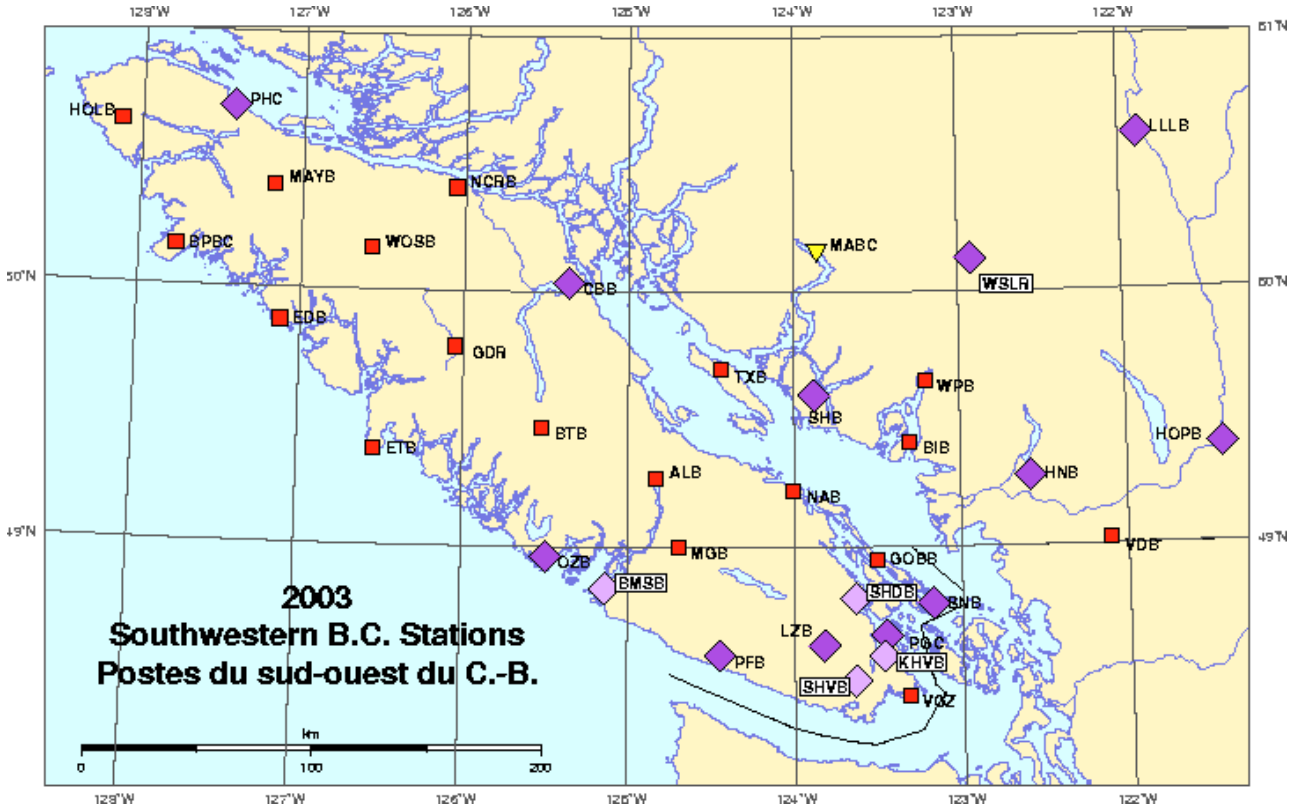


Deployed during the summer of 2000. All but three stations have now been closed: TULEG (Guralp CMG-40T), Pond Inlet (CMG-3), and Eureka (CMG-3). All use Nanometrics Inc. (NMX) Orion data loggers; removable disks exchanged ~ monthly.

3. Temporary B.C deployment to monitor silent slip event (BCSS03)

Four (4) temporary BB sites have been deployed in southwestern BC to help monitor the silent slip event. All use Guralp CMG-3ESPe seismometers and GSC GD-2 digitizers. BMSB has already been closed; the other sites will be closed by the end of the summer.

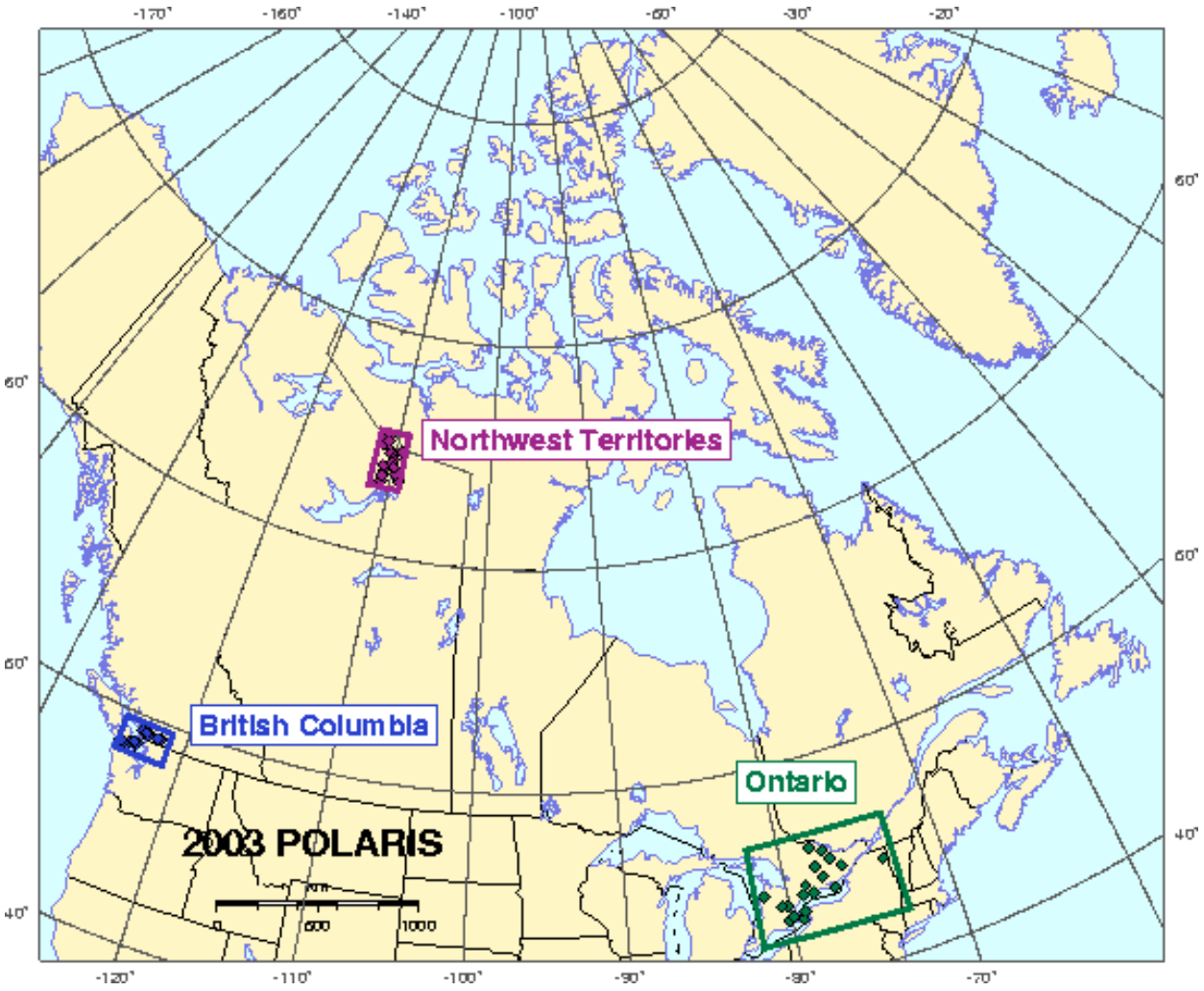
BMSB	Bamfield	48.836	-125.135	20030307 - 20030513
KHVB	Wang	48.569	-123.466	20030228
SHDB	Maple Bay	48.797	-123.636	20030228
SHVB	Paradis	48.472	-123.636	20030227



New temporary stations (4) are marked in lighter shade of purple with name in a white box. Also shown is new permanent CNSN station WSLR.

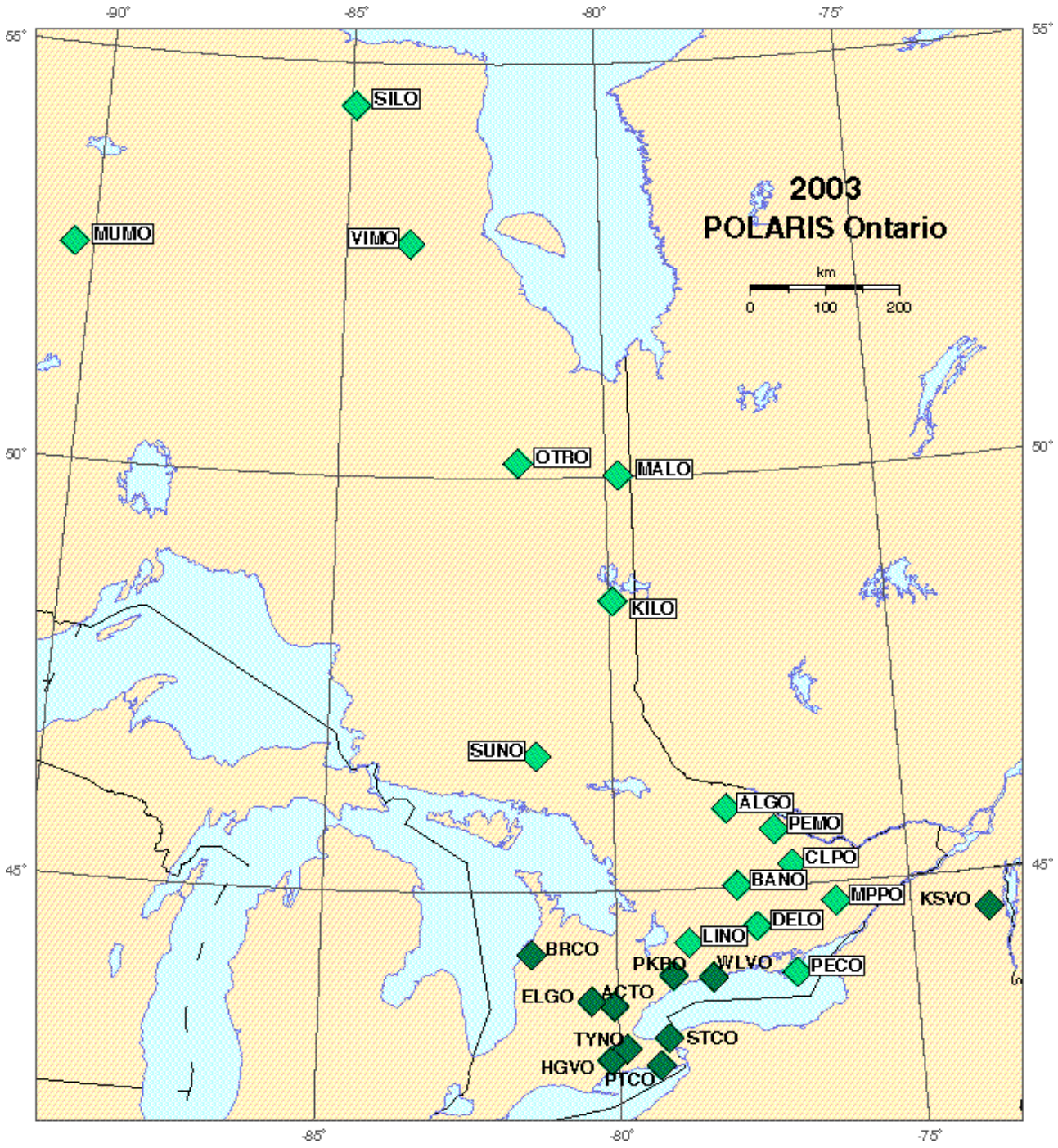
4. POLARIS Network

From May 2002 through mid-June 2003, 45 new HBB stations have been added to the **P**ortable **O**bservatories for **L**ithospheric **A**nalysis and **R**esearch **I**nvestigating **S**eismicity (POLARIS) network. Most are equipped with Guralp CMG-3ESP seismometers (a few have 40-T's); all use a NMX Trident digitizer.



Location of the British Columbia, NWT, and Ontario POLARIS sub-networks

4.1 POLARIS ONTARIO Sub-net



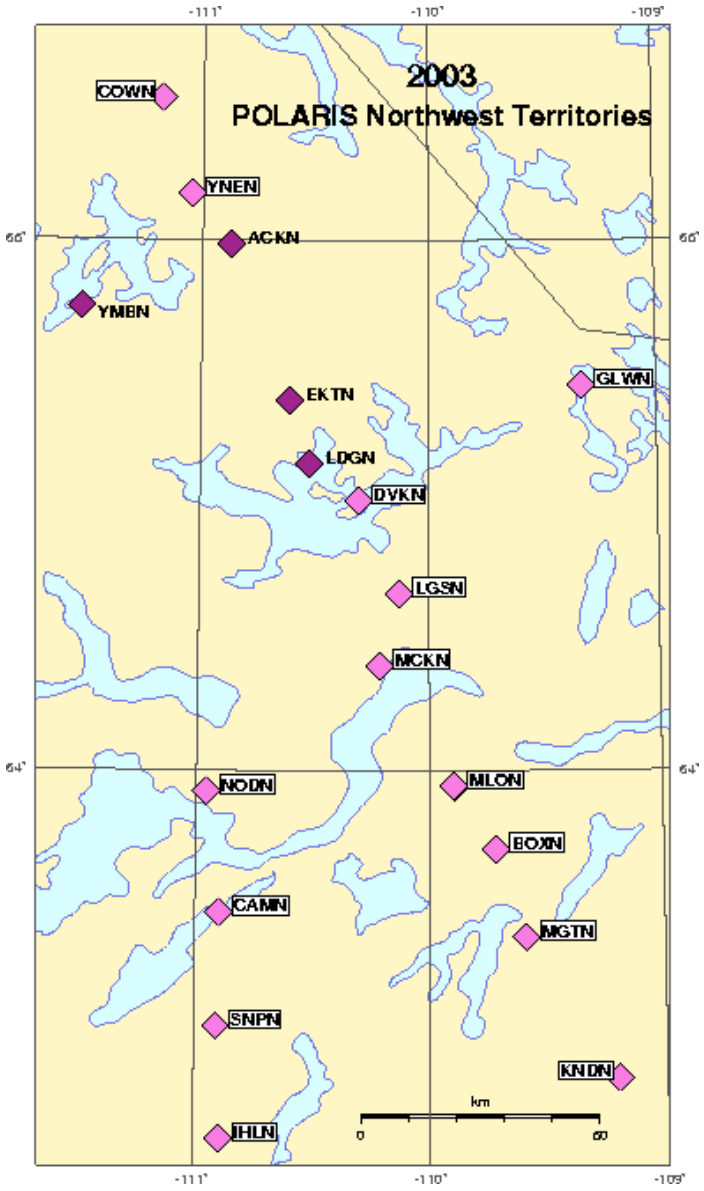
New stations (16 to date) are marked in lighter shade of green and name in a white box.

Ontario sub-net additions

ALGO	45.954	-78.051	20020911
BANO	45.020	-77.928	20020825
BRPO	45.651	-77.506	20020910 - 20021113
CLPO	45.246	-76.964	20021011
DELO	44.518	-77.619	20020827
LINO	44.354	-78.780	20020907
KILO*	TBD		
MALO*	TBD		
MUMO*	52.613	-90.391	20030615
MPPO	44.770	-76.265	20020822
OTRO*	TBD		20030619
PECO	43.934	-76.994	20020906
PEMO	45.677	-77.247	20021113
SILO*	54.479	-84.913	20030609
SUNO*	TBD		
VIMO*	52.817	-83.745	20030611

Station BRPO was closed and moved to a new location near Pembroke. New code is PEMO. New Northern Ontario stations (marked by an asterisk following the station code) are GSC stations installed in collaboration with POLARIS and other clients; they should all be installed by the end of June 2003. In Southern Ontario, 6 new stations are to be sited and installed by August 2003; KSVO will be moved to the vicinity of Rochester, NY.

4.2 POLARIS Northwest Territories Sub-net



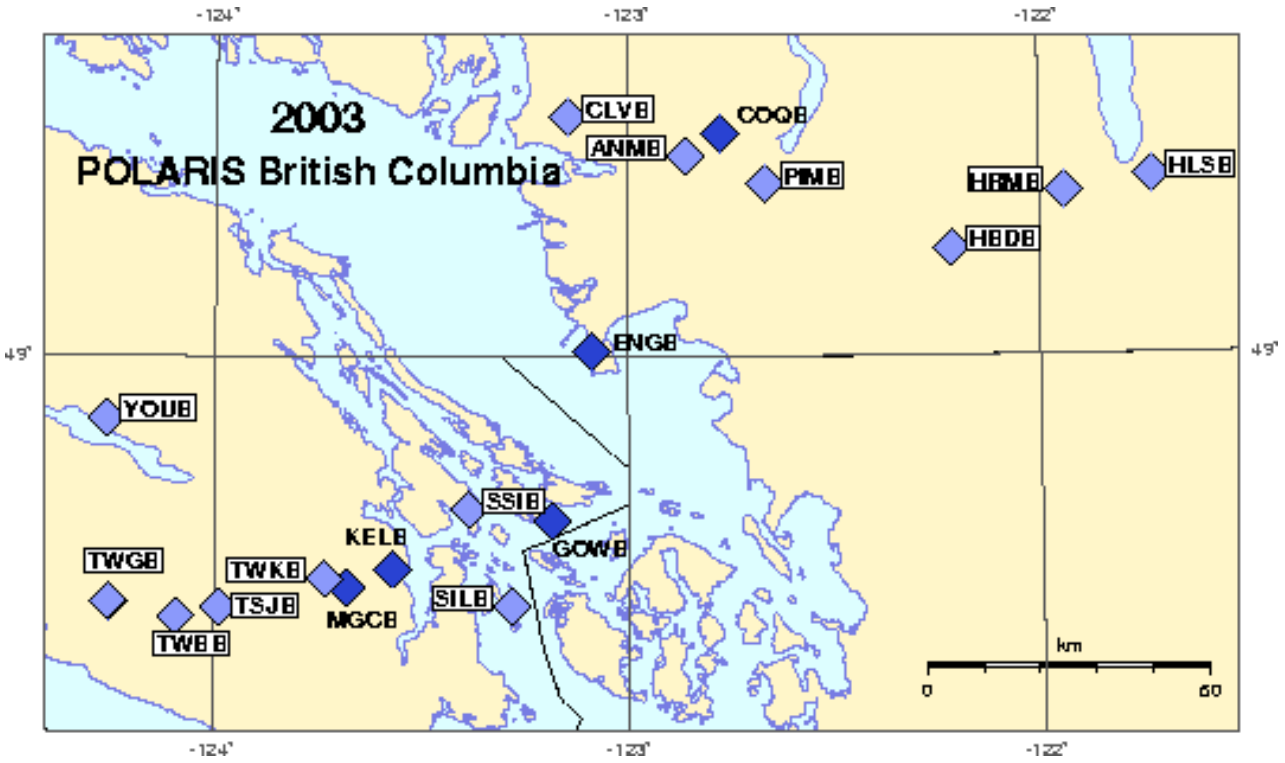
New stations (14) are marked in lighter shade of purple with name in a white box.

Northwest Territories sub-net additions:

BOXN	63.852	-109.717	20020802
CAMN	63.732	-110.899	20020730
COWN	65.268	-111.186	20020719
DVKN	64.509	-110.310	20020726
GLWN	64.725	-109.330	20020723
IHLN	63.305	-110.891	20020731
KNDN	63.419	-109.201	20020804
LGSN	64.334	-110.131	20020724
MCKN	64.198	-110.213	20020726
MGTN	63.686	-109.591	20020803
MLON	63.970	-109.895	20020803
NODN	63.961	-110.960	20020729
SNPN	63.518	-110.908	20020731
YNEN	65.088	-111.050	20020724

The 4 existing stations were upgraded to NMX Trident digitizers and new Libra VSATs; sample rate doubled from 20 to 40 sps. Two more installations are planned this summer.

4.3 POLARIS British Columbia Sub-net



New stations (13) are marked in lighter shade of blue with name in a white box.

British Columbia sub-net additions:

ANMB	49.319	-122.859	20021118
CLVB	49.382	-123.145	20021117
HBDB	49.170	-122.213	20030529
HLSB	49.284	-121.725	20021110
HRMB	49.261	-121.939	20021112
PIMB	49.274	-122.666	20021114
SILB	48.602	-123.281	20030222
SSIB	48.756	-123.387	20021204
TSJB	48.601	-123.989	20030518
TWBB	48.585	-124.092	20021127
TWGB	48.608	-124.256	20021125
TWKB	48.645	-123.733	20021120
YOUB	48.901	-124.262	20030515

The final(18^{th}) Libra site now installed; remaining B.C. stations will use portable Orion-like instruments; 3 NMX Orions are to be deployed in June-July 2003.

4.4 Test of Internet-linked sites

Have successfully tested a non-VSAT version of the NMX Libra technology (the Janus system) designed for two-way communication and data transmission over an Internet connection. Data from a test station at a private home with Cable Internet connection and a second test site at the Geological Survey of Canada Laboratory with T1 connection are being transmitted to the POLARIS UWO hub in London. Data from Internet stations are integrated with the rest of POLARIS VSAT data and available to the end-user in the same way.

4.5 Second POLARIS Data Acquisition Hub installed in Ottawa

A second POLARIS Data Acquisition Hub was installed at a temporary GSC location in Ottawa and started operation May 21, 2003. For now the Ottawa Hub and the initial Hub at UWO in London are pointed to the same satellite. A dozen POLARIS stations currently transmit data to both Hubs.

For current information about the POLARIS network, see:

http://www.polarisnet.ca