**GeoBC and NR Sector Data Services**
**BRITISH COLUMBIA ACTIVE CONTROL SYSTEM**

GNSS ACTIVE CONTROL POINT as of 2022/02/14

STATION: BCPR
GEODETIC MARK: 637272
FULL NAME: BCACS - Prince Rupert ACP
CLASS: BCACS Primary
LOCATION: Prince Rupert, B.C., Canada

Installed on stainless steel pillar at Prince Rupert airport

- 2006/08/03
MARKER COORDINATES: Latitude N 54 16 36.61684
Longitude W 130 26 04.47809
Hybrid Ellipsoid Height (HEH) 28.965m*
Orthometric Height 36.945m

*The Hybrid Ellipsoid Height was derived via connections to passive GCMs where the orthometric heights of the passive GCMs were held fixed in conjunction with the HTv2.0 separation (N). It is not a true GNSS-derived ellipsoid height. BCACS, since inception, was designed for optimal compatibility with orthometric CGVD28 heights in the surrounding passive control networks.

GEODETIC ATTRIBUTES: Datum/Ellipsoid = NAD83(CSRS) 4.0.0.BC.1
Geoid Model = HTV2.0 (1997.0)
N = -7.98 m

OBSOLETE

~~- 2004/06/16~~
~~MARKER COORDINATES: Latitude N 54 16 36.61714~~
~~Preliminary Longitude W 130 26 4.47806~~
~~Ellipsoid Height 29.097m~~
~~Orthometric Height 37.004m~~

~~GEODETIC ATTRIBUTES: Datum/Ellipsoid = NAD83~~
~~Geoid Model = HT97~~
~~N = -7.907~~

~~- 2004/11/04~~
~~MARKER COORDINATES: Latitude N 54 16 36.61552~~
~~Preliminary Longitude W 130 26 4.47971~~
~~Ellipsoid Height 29.026m~~
~~Orthometric Height 36.933m~~

~~GEODETIC ATTRIBUTES: Datum/Ellipsoid = NAD83~~
~~Geoid Model = HT97~~
~~N = -7.907~~

REFERENCE NETWORKS:
Inner: nil

Outer:

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COLLOCATION TIES:
- nil

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ANTENNA HEIGHT: >

| | | |
|---|---|---|
| - 2004/11/04 | 00:00UT | 0.000m |

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GNSS RECEIVER:

| | | |
|---|---|---|
| - 2022/02/14 | 18:00UT | Leica GR50 s/n 1870604 |
| - 2006/02/13 | 18:00UT | Leica GRX1200 Pro s/n 462144 |
| - 2004/11/04 | 00:00UT | Leica RS500 s/n# 82195 |

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FIRMWARE:

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|---|---|---|
| - 2022/02/14 | 18:00UT | Firmware 4.11.606 / ME 7.102 |
| - 2015/06/18 | 14:17UT | Firmware 9.20 / ME 2.127 |
| - 2013/11/06 | 18:33UT | Firmware 8.71 / ME 2.127 |
| - 2011/09/12 | 16:10UT | Firmware 8.20 / ME 2.125 |
| - 2011/02/22 | 17:00UT | Firmware 8.10 / ME 2.125 |
| - 2010/09/09 | 14:24UT | Firmware 8.0 |
| - 2010/05/05 | 18:30UT | Firmware 7.80 |
| - 2009/05/05 | 15:00UT | Firmware 7.50 |
| - 2008/10/31 | 15:00UT | Firmware 6.00 |
| - 2008/02/26 | 16:10UT | Firmware 5.62 |
| - 2007/11/01 | 22:25UT | Firmware 5.60 |
| - 2007/03/07 | 15:52UT | Firmware 5.10 |
| - 2006/10/30 | 18:28UT | Firmware 4.10 |
| - 2006/02/13 | 18:00UT | Firmware 3.00 |
| - 2004/11/04 | 00:00UT | Firmware 5.00 |

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ANTENNA (diagram below):

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|---|---|---|
| - 2022/02/14 | 18:00UT | Leica AR20 with LEIM radome s/n 20262007 |
| - 2004/11/04 | 00:00UT | Leica AT504 with LEIS radome s/n 905 |

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ANTENNA CABLE:

| | |
|---|---|
| - 2004/11/04 | 00:00UT |

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CLOCK:

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|---|---|---|
| - 2022/02/14 | 18:00UT | GNSS Receiver Internal Clock |
| - 2004/11/04 | 00:00UT | GPS Receiver Internal Clock |

COMPUTER HARDWARE:

- 2004/11/04 00:00UT N/A

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MODEMS:

- 2006/02/13 18:00UT N/A
- 2004/11/04 00:00UT Sixnet VTModem 5

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UNINTERUPTABLE POWER SUPPLY:
- 2004/11/04 00:00UT APC

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STATUS:
- 2004/11/04 00:00UT Operational

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AGENCY: GeoBC and NR Sector Data Services
Natural Resource Information & Digital Services Division
Ministry of Water, Land and Resource Stewardship

CONTACT: Foundational Information and Technology Branch
3400 Davidson Ave.
Victoria, BC, Canada V8Z 3P8
email: GeoBCinfo@gov.bc.ca

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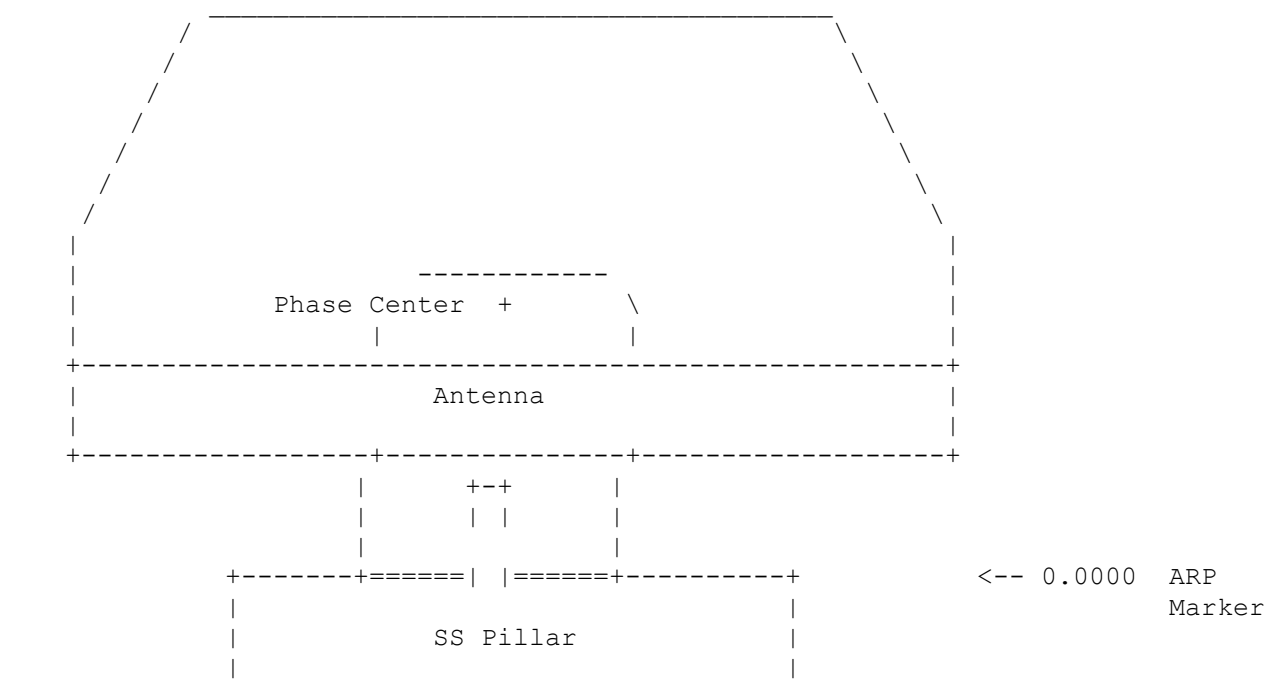
ANTENNA DIAGRAM:

2022/02/14  DIAGRAM NOT AVAILABLE
            Antenna & Radom Models: LEIAR20 LEIM
            HEIGHT OF BASE ABOVE TOP FACE OF PIER CONTINUES TO BE 0.0000m

2004/11/04          Dorne Margolin Leica Choke Ring with Leica radome(AT504 LEIS)

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ACRONYMS:

ACRONYMS
ACP ... Active Control Point
ARP ... Antenna Reference Point
BCACS ... British Columbia Active Control System
GNSS ... Global Navigation Satellite System
HEH ... Hybrid Ellipsoid Height
HTV2.0 (1997.0) ... Height Transformation Model Version 2.0 Epoch 1997.0
N ... geoid-ellipsoid separation
NAD83(CSRS) 4.0.0.BC.1... North American Datum 1983, Canadian Spatial Reference System, Version 4, Epoch 2002, British Columbia