

ASCM DATA PRODUCTS

Land Surveys Unit, Geodetic Control

Introduction

Geodetic Control publishes coordinate data with respect to the North American Datum of 1927 (NAD27) and the North American Datum of 1983 (NAD83). The NAD83 coordinate data is further broken down into coordinate data relative to the original implementation of NAD83 (NAD83(Original)) and the Canadian Spatial Referencing System implementation of NAD83 (NAD83(CSRS)). This fact sheet outlines the format and location where Alberta Survey Control Marker (ASCM) coordinate data is available.

NAD27 Coordinate Data

NAD27 coordinate data is available from the Government of Alberta (GOA) open data portal at <https://www.alberta.ca/geodetic-control-unit.aspx#toc-5>. The data is in the form of an excel spreadsheet with NAD27 coordinates along with non-coordinate data. Elevations are referenced to the Canadian Geodetic Vertical Datum of 1928 (CGVD28). The coordinate data is current to June 1, 1994.

NAD83(Original) Coordinate Data

NAD83(Original) coordinate and non-coordinate data is available from the Alberta Land Titles Spatial Information (SPIN) System (see <https://alta.registries.gov.ab.ca/spinii/logon.aspx>). This data is provided in the standard ASCM Identification Card format (see <https://www.alberta.ca/geodetic-control-unit.aspx#toc-1>) for further information on ASCM ID cards). The coordinate, elevation and non-coordinate data is current to the "Last Updated" date as shown on the ASCM ID card. NOTE: See Fact Sheet No.2 for further information on phasing out of NAD83(Original) coordinate data.

NAD83(CSRS) Coordinate Data

NAD83(CSRS) coordinate and non-coordinate data is available from the GOA open data portal at https://open.alberta.ca/publications/nad83-csrs-v7_e2010_cgvd2013_data.xlsx. The data is in the form of an excel spreadsheet with NAD83(CSRS)v7 Epoch 2010 coordinates along with non-coordinate data. Elevations are referenced to the Canadian Geodetic Vertical Datum of 2013 (CGVD2013). The coordinate, elevation and non-coordinate data is current to November 6, 2020. See Fact Sheet No.1 for further information. **NOTE: Users of this information are strongly encouraged check the GOA open data portal to verify they have the most current data.**

NAD83(CSRS) – High Precision Network Dataset

A subset of ASCMs make up the Alberta High Precision Network (HPN). The ASCMs that make up the Alberta HPN are integrated via 1st order surveying techniques (i.e., Global Navigation Satellite System (GNSS) observations) as well as being rigorously adjusted such that these HPN ASCMs support high precision surveying in Alberta. For example, all new and/or existing HPN ASCMs within the City of Calgary are a part of the subset as well as those HPN ASCMs in Edmonton, Red Deer and other municipal/rural areas of Alberta. NAD83(CSRS)v7 E2010 coordinates and CGVD2013 elevation data for the HPN ASCMs are available from https://open.alberta.ca/publications/nad83-csrs-v7_e2010_cgvd2013_provincial_hpn_data.xlsx. The coordinate and non-coordinate data is current to November 6, 2020. **NOTE: Users of this information are strongly encouraged check the GOA open data portal to verify they have the most current data.**

NAD83(CSRS) – Older Epochs

Geodetic Control has previously published NAD83(CSRS) coordinate data which is available upon request. Coordinate data is only published for a subset of ASCMs within the Alberta Survey Control

network. Subset data sets are available from the NAD83-CSRS98 and NAD83(CSRS) Epoch2002 provincial readjustments. Please contact Geodetic Control for further information and the excel format spreadsheets for these older derivations of NAD83(CSRS) in Alberta.

Other Information

The Geodetic Control web page(s) at <https://www.alberta.ca/geodetic-control-unit.aspx> contain a wealth of information related to ASCM index maps, ASCM condition reports, Electronic Distance Measurement equipment calibration baselines and GNSS validation basenets. Of note, ASCM condition reports can be emailed to Geodetic Control via DirectorofSurveys@gov.ab.ca.

Need more information?

This fact sheet is one of a series published by Lands Division, Land Surveys Unit, Geodetic Control. For more information, please visit our web site or contact us at (780) 422-1291.