

ASCM INDEX MAPS

Land Surveys Unit, Geodetic Control

Introduction

Alberta Survey Control Marker (ASCM) index maps are a graphical representation of the provincial spatial referencing system. The index maps display the location of integrated ASCMs in relation to various base mapping features including the Alberta Township System, hydrography, geo-administrative boundaries (Municipal and Canada lands), road networks, railways, and airports. In addition, index maps covering urban areas include street names, networks, and major facilities (schools, hospitals, etc.). Only those markers with a marker condition of GOOD or ANOMALOUS are displayed on the index maps. ASCM index maps are available from <https://www.alberta.ca/geodetic-control-unit.aspx#toc-3>.

Urban Index Maps

The urban index maps comprise the 73 (former) Municipal Integrated Survey & Mapping (MISAM) municipalities in Alberta. Each map is named after the municipality that it encompasses. The maps are plotted at a scale of 1:20,000 using a 3-degree Transverse Mercator (3TM) projection. In most cases there is only one index map per MISAM municipality. However, for the Cities of Edmonton and Calgary, multiple index maps at the 1:20,000 scale are used to provide coverage for each city. Edmonton is covered by 9 and Calgary is covered by 12 individual index maps. In addition to the base mapping information on the urban index maps, these maps also display both the North American Datum 1927 and 1983 3TM grid lines for the limits of the 1:5000 cadastral map sheets.

Rural Index Maps

The rural index maps comprise all areas within Alberta (and including parts of southeast British Columbia) that are outside of the 73 MISAM municipalities. The coverage for each map is based on the National Topographic System 1:250,000 scale maps. Therefore, the rural index maps in Alberta cover an area of one degree in latitude and

two degrees in longitude, at a scale of 1:250,000, on the Universal Transverse Mercator (UTM) projection. The name of each index map is based on the latitude and longitude of the map's southeast corner. Hence, the map sheet covering the southeast corner of Alberta is called 49110. In addition to the UTM grid, the rural index maps also display a geographic grid in 15 arc-minute increments in latitude and longitude. The rural maps are referenced to the North American Datum 1927.

Index Map General Information

The original production date of the ASCM index maps varies between 1988 and 1994 with no new maps being produced since that time. Therefore, users should use caution when referring to the non-ASCM information on the index maps. The original Mylar production date is displayed on the lower right-hand side of the index map along with the scanned date and last revision date. Please note that the last revision date usually refers to the date on which a destroyed marker was removed from the Mylar and scanned image. Each index map also includes textual general information regarding ASCMs, has a scale bar, and an index map key showing the location of the map as it relates to its surrounding indexes.

KMZ file with ASCM data

In an effort to modernize the way in which index map ASCM data is available from the Geodetic Control Unit, a Keyhole Markup Language (i.e., KMZ) file has been created. This file allows users to bring up the ASCM data as a layer within programs like Google Earth that gives users a modern spatial view of the Alberta Survey Control network. The KMZ file is maintained on an annual basis and includes information related showing the ASCM number, tablet Marking, NAD83(Original) latitude/longitude, CGVD28 elevation, UTM northing/easting, a urban or rural identifier, and the ASCM's marker condition at the time the KMZ file was created. The KMZ file is available from Geodetic Control by contacting

DirectorofSurveys@gov.ab.ca. The KMZ file includes a metadata file that describes the KMZ file in detail.

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.