



NOVA SCOTIA COORDINATE REFERENCE SYSTEM

QUICK FACTS

- ✦ *defines the Provincial Reference Standards*
 - *reference frames (network of points and coordinates)*
 - *NAD83(CSRs), ATS77, NAD27 and CGVD28*
 - *transformation models between Reference Frames*
 - *map projections for provincial mapping*
- ✦ *Coordinate Transformation Service*
- ✦ *NSCRS Network Database (control point information)*
- ✦ *integrated with the national coordinate system*
- ✦ *enables compatibility and interoperability of the spatial component of different geographic data and applications.*



What is the Nova Scotia Coordinate Reference System?

The Nova Scotia Coordinate Reference System (NSCRS) is a spatial reference standard and infrastructure used for spatial referencing activities in Nova Scotia.

Standardizing spatial data

One of the most effective ways to describe the location of features on or near the surface of the earth is mathematically through a coordinate system. In other words, with a set of coordinates.

Today, primarily due to Global Positioning System (GPS) technology, more information and data with a spatial context are making use of this concept. Simply put, information is getting coordinates attached to it.

As spatial data becomes more accessible to the general public through the use of hand-held GPS units, mobile in-vehicle navigation devices, and Internet mapping applications, the requirement for a standard spatial reference system becomes more and more important.

To effectively use spatial information from different sources, it is necessary to express data in the same coordinate system realization and have a positional accuracy estimate with respect to the coordinate system. This is exactly what the Nova Scotia Coordinate Reference System can offer.

How does it work?

Currently the Nova Scotia Coordinate Reference System can be accessed in two ways:

- ✦ *directly, by making positioning measurements (e.g., GPS observations, distances, directions) with respect to one or more appropriate network reference points (i.e., control monuments) and using their corresponding coordinates as the basis for the computation of coordinates for your data*
- ✦ *indirectly, by using the elements of the Canadian Spatial Reference System that are compatible at the desired accuracy level with the Nova Scotia Coordinate Reference System*