

Nova Scotia Coordinate Referencing System (NSCRS)

Since the 1960s, the Province has carried a mandate of providing a spatial referencing framework for its citizens. In the late 1970s, tremendous effort was devoted to implementing this framework through the Land Registration and Information Service (LRIS). This framework is the foundation for all geographic information in the Province. It allows surveyors conduct their surveys to locate boundaries of parcels of land. The resulting survey plans provide the underlying data sets for Property On-Line - the Province's key tool for managing land information. The framework is also the cornerstone of the Land Titles system to which the Province has recently migrated.



Nova Scotia Active Control Stations (NSACS)

The NSACS network is similar to a conventional survey network in that survey monuments have been created and coordinated for users. Unlike conventional survey networks, however, the Province is going a step further and mounting permanent GPS equipment at each survey monument. A major benefit of this approach is that users no longer have to physically occupy a survey monument to access the NSCRS. This combination of a survey monument with permanent GPS equipment is referred to as an “Active Control Station” (ACS). Data from each ACS can be accessed in the field over the internet for real-time kinematic surveys or downloaded for post processing. The NSACS network deployed for the test project consists of eight GPS stations.



Nova Scotia Active Passive Control Stations

The NSCRS provides a mechanism to spatially relate all objects and features within the Province. In its simplest form, this mechanism is represented by a grid coordinate system. The gridlines illustrated are not tangible objects. Consequently, it is necessary to provide a physical manifestation of the coordinate system to relate objects and features to this virtual entity. This is achieved by putting in place “survey monuments” (sometimes referred to as “control monuments”) across the Province.

In the 1970s, over 23,000 survey monuments were put in place, mainly along the road networks across the Province (see Figure 1). The survey monuments are accessed by professionals (Nova Scotia Land Surveyors) trained to measure from them to the objects of interest. All of the boundary fabric in Nova Scotia is related to the NSCRS, which provides the information necessary to manage the Province’s land assets and to populate the Property On-Line database.

