

# ISO Geodetic Registry

|                           |  |  |
|---------------------------|--|--|
| <i>Item class</i>         | GeodeticCRS  |  |
| <i>Name</i>               | <b>ATS77 - LatLon</b>  |  |
| <i>Item status</i>        | VALID  |  |
| <i>Identifier</i>         | 225  |  |
| <i>Alias</i>              | Average Terrestrial System 1977  |  |
| <i>Information source</i> | <i>Title</i>   | A spatial referencing policy for the Province of Nova Scotia: Policy Document  |
|                           | <i>Author</i>  | GeoNOVA Reference Coordinate System Policy Node  |
|                           | <i>Publisher</i>   | GeoNOVA, Service Nova Scotia and Municipal Relations   |
|                           | <i>Publication date</i>  | 2006-01  |
| <i>Information source</i> | <i>Title</i>   | The selection and implementation of a new spatial reference system for Canada's Maritime provinces                     |
|                           | <i>Author</i>  | D. Gillis, A. Hamilton, R.J. Gaudet, J. Ramsay, B. Seely, S. Blackie, A. Flemming, C. Carlin, S. Bernard, L.G. LeBlanc |
|                           | <i>Publisher</i>   | Canadian Institute of Geomatics  |
|                           | <i>Publication date</i>  | 2000   |
|                           | <i>Series/Journal name</i>   | Geomatica  |
|                           | <i>Issue identification</i>  | Volume 54, No. 1   |
|                           | <i>Page</i>  | 25-41  |
| <i>Information source</i> | <i>Title</i>   | The Evolution of Nova Scotia's Spatial Referencing System from its Origins until 2012                                  |
|                           | <i>Author</i>  | J. Bond, W. Robertson  |
|                           | <i>Publisher</i>   | Canadian Institute of Geomatics  |
|                           | <i>Publication date</i>  | 2015   |
|                           | <i>Series/Journal name</i>   | Geomatica  |
|                           | <i>Issue identification</i>  | Volume 69, No. 4   |
|                           | <i>Page</i>  | 407-418  |
| <i>Data source</i>        | ISO Geodetic Registry  |  |
| <i>Scope</i>              | Spatial referencing  |  |
| <i>Datum</i>              | Average Terrestrial System of 1977   |  |
| <i>Coordinate System</i>  | Ellipsoidal 2D CS. Axes: latitude, longitude. Orientations: north, east. UoM: degree |  |

## Extent

|                                |  |        |
|--------------------------------|--|--------|
| <i>Description</i>             | <b>Canada - onshore and offshore - Maritimes (New Brunswick, Nova Scotia, Prince Edward Island).</b> |        |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i>  | -69.05 |
|                                | <i>North-bound latitude</i>  | 48.07  |
|                                | <i>East-bound longitude</i>  | -63.7  |
|                                | <i>South-bound latitude</i>  | 44.56  |

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|                           |   |  |
|---------------------------|---|--|
| <i>Item class</i>         | GeodeticDatum   |  |
| <i>Name</i>               | <b>Average Terrestrial System of 1977</b>   |  |
| <i>Item status</i>        | VALID   |  |
| <i>Identifier</i>         | 200   |  |
| <i>Alias</i>              | ATS77   |  |
| <i>Information source</i> | <i>Title</i>  | The selection and implementation of a new spatial reference system for Canada's Maritime provinces                     |
|                           | <i>Author</i>   | D. Gillis, A. Hamilton, R.J. Gaudet, J. Ramsay, B. Seely, S. Blackie, A. Flemming, C. Carlin, S. Bernard, L.G. LeBlanc |
|                           | <i>Publisher</i>  | Canadian Institute of Geomatics  |
|                           | <i>Publication date</i>   | 2000   |
|                           | <i>Series/Journal name</i>  | Geomatica  |
|                           | <i>Issue identification</i>   | Volume 54, No. 1   |
|                           | <i>Page</i>   | 25-41  |
| <i>Information source</i> | <i>Title</i>  | The Evolution of Nova Scotia's Spatial Referencing System from its Origins until 2012                                  |
|                           | <i>Author</i>   | J. Bond, W. Robertson  |
|                           | <i>Publisher</i>  | Canadian Institute of Geomatics  |
|                           | <i>Publication date</i>   | 2015   |
|                           | <i>Series/Journal name</i>  | Geomatica  |
|                           | <i>Issue identification</i>   | Volume 69, No. 4   |
|                           | <i>Page</i>   | 407-418  |
| <i>Information source</i> | <i>Title</i>  | A spatial referencing policy for the Province of Nova Scotia: Policy Document  |
|                           | <i>Author</i>   | GeoNOVA Reference Coordinate System Policy Node  |
|                           | <i>Publisher</i>  | GeoNOVA, Service Nova Scotia and Municipal Relations   |
|                           | <i>Publication date</i>   | 2006-01  |
| <i>Data source</i>        | ISO Geodetic Registry   |  |
| <i>Remarks</i>            | In use from 1979. Replaced by NAD83(CSRs)v2.  |  |
| <i>Anchor definition</i>  | ATS77 is a geocentric coordinate system defined by the Canadian Geodetic Survey in 1977 for the Maritime provinces. It is a conceptualization of a conventional terrestrial reference system using the ATS77 reference ellipsoid. The ATS77 reference frame was realized by a set of coordinates in the ATS77 system. The coordinates were obtained from the 1979 Maritime Redefinition and Readjustment of the combined three provincial geodetic networks then in existence, using an October 1977 first-order federal network adjustment as constraints. ATS77 is now known to be offset from the true geocenter by about 5 m. |  |
| <i>Release date</i>       | 1977  |  |
| <i>Scope</i>              | Spatial referencing   |  |
| <i>Ellipsoid</i>          | Average Terrestrial System 1977   |  |
| <i>Prime Meridian</i>     | Greenwich   |  |

## Extent

|                    |  |
|--------------------|--|
| <i>Description</i> | <b>Canada - onshore and offshore - Maritimes (New Brunswick, Nova Scotia, Prince Edward Island).</b> |
|--------------------|--|

|                                |                             |        |
|--------------------------------|-----------------------------|--------|
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | -69.05 |
|                                | <i>North-bound latitude</i> | 48.07  |
|                                | <i>East-bound longitude</i> | -63.7  |
|                                | <i>South-bound latitude</i> | 44.56  |

# ISO Geodetic Registry

|                           |  |  |
|---------------------------|--|--|
| <i>Item class</i>         | Ellipsoid                              |  |
| <i>Name</i>               | <b>Average Terrestrial System 1977</b> |  |
| <i>Item status</i>        | VALID                                  |  |
| <i>Identifier</i>         | 26                                     |  |
| <i>Alias</i>              | ATS77                                  |  |
| <i>Information source</i> | <i>Title</i>                           | The selection and implementation of a new spatial reference system for Canada's Maritime provinces                     |
|                           | <i>Author</i>                          | D. Gillis, A. Hamilton, R.J. Gaudet, J. Ramsay, B. Seely, S. Blackie, A. Flemming, C. Carlin, S. Bernard, L.G. LeBlanc |
|                           | <i>Publisher</i>                       | Canadian Institute of Geomatics  |
|                           | <i>Publication date</i>                | 2000   |
|                           | <i>Series/Journal name</i>             | Geomatica  |
|                           | <i>Issue identification</i>            | Volume 54, No. 1   |
|                           | <i>Page</i>                            | 25-41  |
|                           | <i>Title</i>                           | New Brunswick Control Monument Database Information: Explanation of Fields and Glossary of Terms                       |
|                           | <i>Author</i>                          | Service New Brunswick  |
|                           | <i>Publisher</i>                       | Service New Brunswick, Government of New Brunswick   |
| <i>Data source</i>        | <i>Publication date</i>                | 2002-04-23   |
|                           | ISO Geodetic Registry                  |  |
| <i>Semi-major axis</i>    | 6378135.0 m                            |  |
| <i>Inverse flattening</i> | 298.257 m                              |  |

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|                            |                               |   |
|----------------------------|-------------------------------|---|
| <i>Item class</i>          | PrimeMeridian                 |   |
| <i>Name</i>                | <b>Greenwich</b>              |   |
| <i>Item status</i>         | VALID                         |   |
| <i>Identifier</i>          | 25                            |   |
| <i>Alias</i>               | Zero meridian                 |   |
| <i>Information source</i>  | <i>Title</i>                  | Why the Greenwich meridian moved                                |
|                            | <i>Author</i>                 | S. Malys, J.H. Seago, N.K. Pavlis, P.K. Seidelmann, G.H. Kaplan |
|                            | <i>Publisher</i>              | Springer International Publishing                               |
|                            | <i>Publication date</i>       | 2015-12   |
|                            | <i>Series/Journal name</i>    | Journal of Geodesy  |
|                            | <i>Issue identification</i>   | Volume 89, No. 12   |
|                            | <i>Page</i>                   | 1263–1272   |
| <i>Information source</i>  | <i>Title</i>                  | IERS Conventions (2010)   |
|                            | <i>Author</i>                 | G. Petit, B.J. Luzum (eds)                                      |
|                            | <i>Publisher</i>              | Verlag des Bundesamts fur Kartographie und Geodasie             |
|                            | <i>Publication date</i>       | 2010  |
|                            | <i>Edition date</i>           |   |
|                            | <i>Series/Journal name</i>    | IERS Technical Notes  |
|                            | <i>Issue identification</i>   | 36.0  |
| <i>Data source</i>         | <i>Other citation details</i> | ISSN: 1019-4568   |
|                            | ISO Geodetic Registry         |   |
| <i>Greenwich longitude</i> | 0.0 °                         |   |

# ISO Geodetic Registry

|                           |   |   |
|---------------------------|---|---|
| <i>Item class</i>         | EllipsoidalCS   |   |
| <i>Name</i>               | <b>Ellipsoidal 2D CS. Axes: latitude, longitude. Orientations: north, east. UoM: degree</b>   |   |
| <i>Item status</i>        | VALID   |   |
| <i>Identifier</i>         | 43  |   |
| <i>Information source</i> | <i>Title</i>  | ISO 19111 Geographical information - Spatial referencing by coordinates |
|                           | <i>Author</i>   | International Organization for Standardization (ISO)                    |
|                           | <i>Publisher</i>  | International Organization for Standardization (ISO)                    |
|                           | <i>Publication date</i>   | 2007-07-01  |
|                           | <i>Edition</i>  | Second Edition  |
|                           | <i>Series/Journal name</i>  | International Standard  |
|                           | <i>Issue identification</i>   | ISO 19111:2007  |
| <i>Data source</i>        | ISO Geodetic Registry   |   |
| <i>Remarks</i>            | Used in geographic 2D coordinate reference systems. Coordinates referenced to this CS are in degrees. Any degree representation (e.g. DMSH, decimal, etc.) may be used but that used must be declared for the user by the supplier of data. |   |

## Axes

|                           |   |   |
|---------------------------|---|---|
| <i>Item class</i>         | CoordinateSystemAxis  |   |
| <i>Name</i>               | <b>Geodetic latitude</b>  |   |
| <i>Item status</i>        | VALID   |   |
| <i>Identifier</i>         | 38  |   |
| <i>Information source</i> | <i>Title</i>  | ISO 19111 Geographical information - Spatial referencing by coordinates |
|                           | <i>Author</i>   | International Organization for Standardization (ISO)                    |
|                           | <i>Publisher</i>  | International Organization for Standardization (ISO)                    |
|                           | <i>Publication date</i>   | 2007-07-01  |
|                           | <i>Edition</i>  | Second Edition  |
|                           | <i>Series/Journal name</i>  | International Standard  |
|                           | <i>Issue identification</i>   | ISO 19111:2007  |
| <i>Data source</i>        | ISO Geodetic Registry   |   |
| <i>Remarks</i>            | Used in geographic 2D and geographic 3D coordinate reference systems. |   |
| <i>Abbreviation</i>       | Lat   |   |
| <i>Direction</i>          | north   |   |
| <i>Unit</i>               | degree (supplier to define representation)                            |   |

|                           |                           |   |
|---------------------------|---------------------------|---|
| <i>Item class</i>         | CoordinateSystemAxis      |   |
| <i>Name</i>               | <b>Geodetic longitude</b> |   |
| <i>Item status</i>        | VALID                     |   |
| <i>Identifier</i>         | 34                        |   |
| <i>Information source</i> | <i>Title</i>              | ISO 19111 Geographical information - Spatial referencing by coordinates |
|                           | <i>Author</i>             | International Organization for Standardization (ISO)                    |

|                     |   |  |
|---------------------|---|--|
|                     | <i>Publisher</i>  | International Organization for Standardization (ISO) |
|                     | <i>Publication date</i>   | 2007-07-01   |
|                     | <i>Edition</i>  | Second Edition                                       |
|                     | <i>Series/Journal name</i>  | International Standard                               |
|                     | <i>Issue identification</i>   | ISO 19111:2007                                       |
| <i>Data source</i>  | ISO Geodetic Registry   |  |
| <i>Remarks</i>      | Used in geographic 2D and geographic 3D coordinate reference systems. |  |
| <i>Abbreviation</i> | Lon   |  |
| <i>Direction</i>    | east  |  |
| <i>Unit</i>         | degree (supplier to define representation)                            |  |