

MAINE STATE LEGISLATURE

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FIRST REGULAR SESSION

ONE HUNDRED AND TENTH LEGISLATURE

Legislative Document

No. 989

S. P. 346

In Senate, February 25, 1981

Referred to the Committee on Energy and Natural Resources. Sent down for concurrence and ordered printed.

MAY M. ROSS, Secretary of the Senate

Presented by Senator Ault of Kennebec.

STATE OF MAINE

IN THE YEAR OF OUR LORD NINETEEN HUNDRED AND EIGHTY-ONE

AN ACT to Describe, Define and Officially Adopt a System of Coordinates for Designating the Geographic Position of Points on the Surface of the Earth within the State of Maine.

Be it enacted by the People of the State of Maine, as follows:

33 MRSA c. 13, is repealed and the following enacted in its place:

CHAPTER 13

COORDINATE SYSTEM

§ 801. Definition

The systems of plan coordinates which have been established by the National Ocean Survey and the National Geodetic Survey or its successors for defining and stating the geographic positions of locations of points on the surface of the earth within the State are hereafter to be known and designated as the Maine Coordinate System of 1927 and the Maine Coordinate System of 1983.

For the purpose of the use of these systems the State is divided into an "East Zone" and a "West Zone."

The area now included in the following counties shall constitute the East Zone: Aroostook, Hancock, Knox, Penobscot, Piscataquis, Waldo and Washington.

The area now included in the following counties shall constitute the West Zone:

Androscoggin, Cumberland, Franklin, Kennebec, Lincoln, Oxford, Sagadahoc, Somerset and York.

§ 802. East and West Zones

As established for use in the East Zone, the Maine Coordinate System of 1927 or the Maine Coordinate System of 1983 shall be named, and in any land description in which it is used, it shall be designated the "Maine Coordinate System in 1927 East Zone" or "Maine Coordinate System of 1983 East Zone."

As established for use in the West Zone, the Maine Coordinate System of 1927 or the Maine Coordinate System of 1983 shall be named, and in any land description in which it is used, it shall be designated the "Maine Coordinate System of 1927 West Zone" or "Maine Coordinate System of 1983 West Zone."

§ 803. Plane coordinates of a point

The plane coordinate values for a point on the earth's surface, used to express the geographic position or location of such point in the appropriate zone of this system, shall consist of 2 distances in expressed United States Survey feet and decimals of a foot when using the Maine Coordinate System of 1927 and expressed in meters and decimals of a meter when using the Maine Coordinate System of 1983. One of these distances, to be known as the "x-coordinate," shall give the position in an east-and-west direction; the other, to be known as the "y-coordinate," shall give the position in a north-and-south direction. These coordinates shall be made to depend upon and conform to plane rectangular coordinate values for the monumented points of the North American Horizontal Geodetic Control Network as published by the National Ocean Survey and the National Geodetic Survey, or its successors, and whose plane coordinates have been computed on the systems defined in this chapter. Any such station may be used for establishing a survey connection to either Maine Coordinate System.

§ 803-A. Describing the location of any survey station or land boundary corner

For purposes of describing the location of any survey station or land boundary corner in the State, it shall be considered a complete, legal and satisfactory description of such location to give the position of the survey station or land boundary corner on the system of plane coordinates defined in this chapter.

Nothing contained in this chapter shall require a purchaser or mortgagee of real property to rely wholly on a land description, any part of which depends exclusively upon either Maine coordinate system.

§ 804. Land extending from one zone to another

When any tract of land to be defined by a single description extends from one into the other of the above coordinate zones, the positions of all points on its boundaries may be referred to either of the 2 zones, the zone which is used being specifically named in the description.

§ 805. Technical definition

1. **Maine Coordinate System of 1927.** For purposes of more precisely defining the Maine Coordinate System of 1927, the following definition by the United States Coast and Geodetic Survey, now National Ocean Survey and the National Geodetic Survey, is adopted.

The "Maine Coordinate System of 1927 East Zone," is a transverse Mercator projection of the Clark spheroid of 1866, having a central meridian $68^{\circ} 30'$ west of Greenwich, on which meridian the scale is set one part in 10,000 too small. The origin of the coordinates is at the intersection of the meridian $68^{\circ} 30'$ west of Greenwich and the parallel $43^{\circ} 50'$ north latitude. This origin is given the coordinates; $x = 500,000$ feet and $y = 0$ feet.

The "Maine Coordinate System of 1927 West Zone" is a transverse Mercator projection of the Clark spheroid of 1866, having central meridian $70^{\circ} 10'$ west of Greenwich on which meridian the scale is set one part in 30,000 too small. The origin of coordinates is at the intersection of the meridian $70^{\circ} 10'$ west of Greenwich and the parallel $42^{\circ} 50'$ north latitude. The origin is given the coordinates: $x = 500,000$ feet and $y = 0$ feet.

2. **Maine Coordinate System of 1983.** For purposes of more precisely defining the Maine Coordinate System of 1983, the following definition by the National Ocean Survey and the National Geodetic Survey is adopted.

The "Maine Coordinate System of 1983 East Zone" is a transverse Mercator projection of the North American Datum of 1983, having a central meridian $68^{\circ} 30'$ west of Greenwich on which meridian the scale is set one part in 10,000 too small. The origin of coordinates is at the intersection of the meridian $68^{\circ} 30'$ west of Greenwich and the parallel $43^{\circ} 40'$ north latitude. This origin is given the coordinates: $x = 300,000$ meters and $y = 0$ meters.

The "Maine Coordinate System of 1983 West Zone" is a transverse Mercator projection of the North American Datum of 1983, having a central meridian $70^{\circ} 10'$ west of Greenwich, on which meridian the scale is set one part in 30,000 too small. The origin of coordinates is at the intersection of the meridian $70^{\circ} 10'$ west of Greenwich and the parallel $42^{\circ} 50'$ north latitude. This origin is given the coordinates: $x = 900,000$ meters and $y = 0$ meters.

§ 806. Use in making official records of land boundaries

No coordinates based on either Maine coordinate system, purporting to define the position of a point on a land boundary, shall be presented to be recorded in any public land records or deed records unless such point has been defined by a traverse or triangulation performed to National Geodetic Survey 3rd order Class I specifications in force at the date of the survey between at least 2 monumented horizontal control stations established in conformity with the standards of accuracy and specifications for first and 2nd order geodetic surveying as prepared and published by the Federal Geodetic Control Committee of the United States Department of Commerce.

§ 807. Use of terms

The use of the "Maine Coordinate System of 1927 East Zone," "Maine Coordinate System of 1983 East Zone," "Maine Coordinate System of 1927 West Zone" or "Maine Coordinate System of 1983 West Zone" on any map, report of survey, or other document shall be limited to coordinates based on the Maine coordinate system as defined in this chapter.

§ 807-A. Effective date

The Maine Coordinate System of 1927 shall not be used after December 31, 1989; the Maine Coordinate System of 1983 will be the sole system after this date.

STATEMENT OF FACT

The purpose of this bill is to update the Maine Coordinate System Act to allow for a redefinition of the National Geodetic Datum conducted by the National Geodetic Survey.