ALASKA
STATE
LEGISLATURE

Introduced: 3/2/65
Referred: State Affairs

IN THE SENATE BY SENATOR KILCHER

SENATE BILL NO. 149

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act to adopt the Alaska Coordinate System; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. AS 38 is amended by adding a new chapter to read:

CHAPTER 20. THE ALASKA COORDINATE SYSTEM

Sec. 38.20.010. ADOPTION. The system of rectangular plane coordinates established by the United States Coast and Geodetic Survey for defining and stating the positions or locations of points on the surface of the earth within this state is adopted. It is to be known as the "Alaska Coordinate System."

Sec. 38.20.020. ZONES. For the purpose of the use of this system the state is divided into ten zones, numbered 1 - 10, which are defined as follows:

(1) Zone 1: that part of Alaska lying east of meridian 141° 00' west of Greenwich;

(2) Zone 2: that part of Alaska lying between meridians 141° 00' and 144° 00' west of Greenwich;

(3) Zone 3: that part of Alaska lying between meridians 144° 00' and 148° 00' west of Greenwich and in addition all of Perry Island and all of Esther Island, but excluding all of Latouche Island, all of Evans Island, and all of the Kenai Peninsula;

(4) Zone 4: that part of Alaska lying between

meridians 148° 00' and 152° 00' west of Greenwich and in addition all of Latouche Island, all of Evans Island, and all of the Kenai Peninsula, but excluding Marmot Island, all of Afognak Island, all of the Barren Islands, all of Kalgin Island, all of Perry Island, and all of Esther Island;

(5) Zone 5: that part of Alaska lying between meridians 152° 00' and 156° 00' west of Greenwich and in addition Marmot Island, all of Afognak Island, all of the Barren Islands, and all of Kalgin Island;

(6) Zone 6: that part of Alaska lying between meridians 156° 00' and 160° 00' west of Greenwich and in addition Andronica Island and all of Nagai Island;

(7) Zone 7: that part of Alaska lying between meridians 160° 00' and 164° 00' west of Greenwich and in addition all of Unimak Island, but excluding Andronica Island and all of Nagai Island;

(8) Zone 8: that part of Alaska lying between meridians 164° 00' and 168° 00' west of Greenwich and in addition King Island, Little Diomede Island, and all of Cape Prince of Wales, but excluding any of the Aleutian Islands;

(9) Zone 9: all islands in the Bering Sea lying west of meridian 168° 00' west of Greenwich, excluding any of the Aleutian Islands, King Island, and Little Diomede Island;

(10) Zone 10: all of the Aleutian Island group lying west and south of Unimak Pass.

Sec. 38.20.030. DESIGNATION OF ZONES. In any land description in which it is used a zone of the coordinate system is designated the "Alaska Coordinate System, Zone __."

Sec. 38.20.040. USE OF COORDINATE SYSTEM. The plane coordinates of a point on the earth's surface, to be used in expressing the position or location of the point in the appropriate zone of this system, consist of two distances, expressed in feet and decimals of a foot. One of these distances, known as the "x-coordinate", gives the position in an east-and-west direction; the other, known as the "y-coordinate" gives the position in a north-and-south direction. These coordinates shall be made to depend upon and conform to the coordinates, on the Alaska Coordinate System, of the triangulation and traverse stations of the United States Coast and Geodetic Survey in the state, as those coordinates have been determined by the survey.

Sec. 38.20.050. LAND LYING IN TWO ZONES. When a tract of land to be defined by a single description extends from one coordinate zone into another, the positions of all points on its boundaries may be referred to either of the two zones, the zone which is used being specifically named in the description.

Sec. 38.20.060. CHARACTERISTICS OF ZONES. The zones of the Alaska Coordinate System have the following characteristics:

(1) Zone 1 is an oblique Mercator projection of the Clarke spheroid of 1866, having an origin at the intersection of parallel 57° 00' north latitude and meridian 133° 40' west of Greenwich, at which the scale is set one part in 10,000 too small, and through which the axis of symmetry is in geodetic azimuth arc tangent - 3/4, reckoned clockwise from south. The origin is assigned values such

that all final coordinates will be positive.

(2) Zone 2 is a transverse Mercator projection of the Clarke spheroid of 1866, having a central meridian 142° 00' 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 142° 00' west of Greenwich and the parallel of 54° 00' north latitude. This origin is given the coordinates: x = 500,000 feet and y = 0 feet.

(3) Zone 3 is a transverse Mercator projection of the Clarke spheroid of 1866, having a central meridian 146° 00' west of Greenwich, on which meridian the scale is set at one part in 10,000 too small. The origin of coordinates is at the intersection of the meridian 146° 00' west of Greenwich and the parallel 54° 00' north latitude. This origin is given the coordinates: x = 500,000 feet and y = 0 feet.

(4) Zone 4 is a transverse Mercator projection of the Clarke spheroid of 1866, having a central meridian 150° 00' west of Greenwich, on which meridian the scale is set at one part in 10,000 too small. The origin of coordinates is at the intersection of the meridian 150° 00' west of Greenwich and the parallel 54° 00' north latitude. This origin is given the coordinates: x = 500,000 feet and y = 0 feet.

(5) Zone 5 is a transverse Mercator projection of the Clarke spheroid of 1866, having a central meridian 154° 00' west of Greenwich, on which meridian the scale is set at one part in 10,000 too small. The origin of coordinates is

at the intersection of the meridian 154° 00' west of Greenwich and the parallel 54° 00' north latitude. This origin is given the coordinates: x = 500,000 feet and y = 0 feet.

(6) Zone 6 is a transverse Mercator projection of the Clarke spheroid of 1866, having a central meridian 158° 00' west of Greenwich, on which meridian the scale is set at one part in 10,000 too small. The origin of coordinates is at the intersection of the meridian 158° 00' west of Greenwich and the parallel 54° 00' north latitude. This origin is given the coordinates: x = 500,000 feet and y = 0 feet.

(7) Zone 7 is a transverse Mercator projection of the Clarke Spheroid of 1866, having a central meridian 162° 00' west of Greenwich, on which meridian the scale is set at one part in 10,000 too small. The origin of coordinates is at the intersection of the meridian 162° 00' west of Greenwich and the parallel 54° 00' north latitude. This origin is given the coordinates: x = 700,000 feet and y = 0 feet.

(8) Zone 8 is a transverse Mercator projection of the Clarke spheroid of 1866, having a central meridian 166° 00' west of Greenwich, on which meridian the scale is set at one part in 10,000 too small. The origin of coordinates is at the intersection of the meridian 166° west of Greenwich and the parallel 54° 00' north latitude. This origin is given the coordinates: x = 500,000 feet and y = 0 feet.

(9) Zone 9 is a transverse Mercator projection

of the Clarke spheroid of 1866, having a central meridian 170° 00' west of Greenwich, on which meridian the scale is set at one part in 10,000 too small. The origin of coordinates is at the intersection of the meridian 170° 00' west of Greenwich and the parallel 54° 00' north latitude. This origin is given the coordinates: x = 600,000 feet and y = 0 feet.

(10) Zone 10 is a Lambert conformal conic projection of the Clarke spheroid of 1866, having standard parallels at north latitudes 51° 50' and 53° 50', along which parallels the scale shall be exact. The origin of coordinates is at the intersection of the meridian 176° 00' west of Greenwich and the parallel 51° 00' north latitude. This origin is given the coordinates: x = 3,000,000 feet and y = 0 feet.

Sec. 38.20.070. POSITION OF SYSTEM. The position of the Alaska Coordinate System shall be as marked on the ground by triangulation or traverse stations established in conformity with the standards adopted by the United States Coast and Geodetic Survey for first-order, second-order, and third-order work, whose geodetic positions have been rigidly adjusted on the North American datum of 1927 and whose coordinates have been computed on the system defined in this chapter. Any such station may be used for establishing a survey connection with the Alaska Coordinate System.

Sec. 38.20.080. LIMITATION. No coordinates based on the Alaska 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 is within two miles of a triangulation or traverse station established in conformity with the standards prescribed in sec. 70 of this chapter. The two-mile limitation may be modified by a state agency to meet local conditions.

Sec. 38.20.090. USE OF SYSTEM NAME. The use of the term "Alaska Coordinate System" on any map, report of survey, or other document is limited to coordinates based on the Alaska Coordinate System as defined in this chapter.

Sec. 38.20.100. USE OF PUBLIC LAND SURVEY DESCRIPTIONS. Whenever coordinates based on the Alaska Coordinate System are used to describe any tract of land which in the same document is also described by reference to any subdivision, line, or corner of the United States public land surveys, the description by coordinates shall be construed as supplemental to the basic description of such subdivisions, line, or corner contained in the official plats and field notes filed of record, and in the event of any conflict the description by reference to the subdivision, line, or corner of the United States public land surveys prevails over the description by coordinates.

Sec. 38.20.110. USE OF SYSTEM NOT REQUIRED. Nothing in this chapter requires any purchaser or mortgagee to rely on a description, any part of which depends exclusively upon the Alaska Coordinate System.

* Sec. 2. This Act takes effect January 1, 1966.