

1 IN THE SENATE

BY SENATOR KILCHER

2 SENATE BILL NO. 245

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 THIRD LEGISLATURE - SECOND SESSION

5 A BILL

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

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

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

11 CHAPTER 20. THE ALASKA COORDINATE SYSTEM

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

18 Sec. 38.20.020. ZONES. For the purpose of the use of  
19 this system the state is divided into ten zones, numbered  
20 1 - 10, which are defined as follows:

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

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

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

1                   (4) Zone 4: that part of Alaska lying between  
2 meridians 148° 00' and 152° 00' west of Greenwich and in  
3 addition all of Latouche Island, all of Evans Island, and  
4 all of the Kenai Peninsula, but excluding Marmot Island, all  
5 of Afognak Island, all of the Barren Islands, all of Kalgin  
6 Island, all of Perry Island, and all of Esther Island;

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

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

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

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

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

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

28                   Sec. 38.20.030. DESIGNATION OF ZONES. In any land  
29 description in which it is used a zone of the coordinate

1 system is designated the "Alaska Coordinate System, Zone  
2 \_\_\_\_."

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

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

22 Sec. 38.20.060. CHARACTERISTICS OF ZONES. The zones  
23 of the Alaska Coordinate System have the following character-  
24 istics:

25 (1) Zone 1 is an oblique Mercator projection of  
26 the Clarke spheroid of 1866, having an origin at the inter-  
27 section of parallel 57° 00' north latitude and meridian 133°  
28 40' west of Greenwich, at which the scale is set one part in  
29 10,000 too small, and through which the axis of symmetry is

1 in geodetic azimuth arc tangent  $-3/4$ , reckoned clockwise  
2 from south. The origin is assigned values such that all  
3 final coordinates will be positive.

4 (2) Zone 2 is a transverse Mercator projection of  
5 the Clarke spheroid of 1866, having a central meridian  $142^{\circ}$   
6  $00'$  west of Greenwich, on which meridian the scale is set  
7 one part in 10,000 too small. The origin of coordinates is  
8 at the intersection of the meridian  $142^{\circ} 00'$  west of  
9 Greenwich and the parallel of  $54^{\circ} 00'$  north latitude. This  
10 origin is given the coordinates:  $x = 500,000$  feet and  $y =$   
11  $0$  feet.

12 (3) Zone 3 is a transverse Mercator projection of  
13 the Clarke spheroid of 1866, having a central meridian  $146^{\circ}$   
14  $00'$  west of Greenwich, on which meridian the scale is set at  
15 one part in 10,000 too small. The origin of coordinates is  
16 at the intersection of the meridian  $146^{\circ} 00'$  west of  
17 Greenwich and the parallel  $54^{\circ} 00'$  north latitude. This  
18 origin is given the coordinates:  $x = 500,000$  feet and  $y =$   
19  $0$  feet.

20 (4) Zone 4 is a transverse Mercator projection of  
21 the Clarke spheroid of 1866, having a central meridian  $150^{\circ}$   
22  $00'$  west of Greenwich, on which meridian the scale is set at  
23 one part in 10,000 too small. The origin of coordinates is  
24 at the intersection of the meridian  $150^{\circ} 00'$  west of  
25 Greenwich and the parallel  $54^{\circ} 00'$  north latitude. This  
26 origin is given the coordinates:  $x = 500,000$  feet and  $y =$   
27  $0$  feet.

28 (5) Zone 5 is a transverse Mercator projection of  
29 the Clarke spheroid of 1866, having a central meridian  $154^{\circ}$

1 00' west of Greenwich, on which meridian the scale is set at  
2 one part in 10,000 too small. The origin of coordinates is  
3 at the intersection of the meridian 154° 00' west of  
4 Greenwich and the parallel 54° 00' north latitude. This  
5 origin is given the coordinates:  $x = 500,000$  feet and  $y =$   
6 0 feet.

7 (6) Zone 6 is a transverse Mercator projection  
8 of the Clarke spheroid of 1866, having a central meridian  
9 158° 00' west of Greenwich, on which meridian the scale is  
10 set at one part in 10,000 too small. The origin of co-  
11 ordinates is at the intersection of the meridian 158° 00'  
12 west of Greenwich and the parallel 54° 00' north latitude.  
13 This origin is given the coordinates:  $x = 500,000$  feet and  
14  $y = 0$  feet.

15 (7) Zone 7 is a transverse Mercator projection  
16 of the Clarke Spheroid of 1866, having a central meridian  
17 162° 00' west of Greenwich, on which meridian the scale is  
18 set at one part in 10,000 too small. The origin of co-  
19 ordinates is at the intersection of the meridian 162° 00'  
20 west of Greenwich and the parallel 54° 00' north latitude.  
21 This origin is given the coordinates:  $x = 700,000$  feet and  
22  $y = 0$  feet.

23 (8) Zone 8 is a transverse Mercator projection  
24 of the Clarke spheroid of 1866, having a central meridian  
25 166° 00' west of Greenwich, on which meridian the scale is  
26 set at one part in 10,000 too small. The origin of co-  
27 ordinates is at the intersection of the meridian 166° west  
28 of Greenwich and the parallel 54° 00' north latitude. This  
29 origin is given the coordinates:  $x = 500,000$  feet and  $y =$

1 0 feet.

2 (9) Zone 9 is a transverse Mercator projection  
3 of the Clarke spheroid of 1866, having a central meridian  
4  $170^{\circ} 00'$  west of Greenwich, on which meridian the scale is  
5 set at one part in 10,000 too small. The origin of co-  
6 ordinates is at the intersection of the meridian  $170^{\circ} 00'$   
7 west of Greenwich and the parallel  $54^{\circ} 00'$  north latitude.  
8 This origin is given the coordinates:  $x = 600,000$  feet and  
9  $y = 0$  feet.

10 (10) Zone 10 is a Lambert conformal conic pro-  
11 jection of the Clarke spheroid of 1866, having standard  
12 parallels at north latitudes  $51^{\circ} 50'$  and  $53^{\circ} 50'$ , along  
13 which parallels the scale shall be exact. The origin of co-  
14 ordinates is at the intersection of the meridian  $176^{\circ} 00'$   
15 west of Greenwich and the parallel  $51^{\circ} 00'$  north latitude.  
16 This origin is given the coordinates:  $x = 3,000,000$  feet  
17 and  $y = 0$  feet.

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

28 Sec. 38.20.080. LIMITATION. No coordinates based on  
29 the Alaska Coordinate System, purporting to define the

1 position of a point on a land boundary, shall be presented  
2 to be recorded in any public land records or deed records  
3 unless such point is within two miles of a triangulation or  
4 traverse station established in conformity with the stand-  
5 ards prescribed in sec. 70 of this chapter. The two-mile  
6 limitation may be modified by a state agency to meet local  
7 conditions.

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

12 Sec. 38.20.100. USE OF PUBLIC LAND SURVEY DESCRIPTIONS.  
13 Whenever coordinates based on the Alaska Coordinate System  
14 are used to describe any tract of land which in the same  
15 document is also described by reference to any subdivision,  
16 line, or corner of the United States public land surveys,  
17 the description by coordinates shall be construed as supple-  
18 mental to the basic description of such subdivision, line,  
19 or corner contained in the official plats and field notes  
20 filed of record, and in the event of any conflict the  
21 description by reference to the subdivision, line, or corner  
22 of the United States public land surveys prevails over the  
23 description by coordinates.

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

28 \* Sec. 2. This Act takes effect January 1, 1965.  
29