

**UTAH COORDINATE SYSTEM AMENDMENTS**

2001 GENERAL SESSION

STATE OF UTAH

**Sponsor: Parley Hellewell**

**This act modifies the Utah Coordinate System. The act adopts special publications to more precisely define the Utah Coordinate Systems of 1927 and 1983. The act modifies the requirements for any document identifying or using a coordinate system. The act establishes that, in addition to the Utah Coordinate System of 1983, any person, corporation, municipality, county, or state agency establishing a new coordinate network must conform to the current federal coordinate update.**

This act affects sections of Utah Code Annotated 1953 as follows:

AMENDS:

**57-10-6**, as repealed and reenacted by Chapter 60, Laws of Utah 1988

**57-10-8**, as repealed and reenacted by Chapter 60, Laws of Utah 1988

**57-10-9**, as repealed and reenacted by Chapter 60, Laws of Utah 1988

**57-10-11**, as enacted by Chapter 60, Laws of Utah 1988

REPEALS:

**57-10-10**, as enacted by Chapter 60, Laws of Utah 1988

*Be it enacted by the Legislature of the state of Utah:*

Section 1. Section **57-10-6** is amended to read:

**57-10-6. Utah Coordinate Systems of 1927 and 1983 defined.**

~~[(1)]~~ For purposes of more precisely defining the Utah Coordinate ~~[System of 1927]~~ Systems, the following ~~[definition by the United States Coast and Geodetic Survey (not National Ocean Service/National Geodetic Survey) is]~~ special publications are adopted:

(1) For the Utah Coordinate System of 1927, the manual entitled "The State Coordinate Systems (A Manual for Surveyors)," Special Publication No. 235, and "Plane Coordinate Projection Tables for Utah," Special Publication No. 277. Both manuals are published by the U.S.



28 Department of Commerce, Coast and Geodetic Survey, and provide, in part, the following:

29 (a) (i) The "Utah Coordinate System of 1927 North Zone" is a Lambert Conformal Conic  
30 Projection of the Clarke Spheroid of 1866 having standard parallels at north latitudes 41 degrees  
31 47 minutes and 40 degrees 43 minutes, along which parallels the scale shall be exact.

32 (ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes  
33 west of Greenwich and the parallel 40 degrees 20 minutes north latitude.

34 (iii) This origin is given the coordinates: x=2,000,000 feet and y=0 feet.

35 (b) (i) The "Utah Coordinate System of 1927 Central Zone" is a Lambert Conformal Conic  
36 Projection of the Clarke Spheroid of 1866 having standard parallels at north latitudes 40 degrees  
37 39 minutes and 39 degrees 01 minutes, along which parallels the scale shall be exact.

38 (ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes  
39 west of Greenwich and the parallel 38 degrees 20 minutes north latitude.

40 (iii) This origin is given the coordinates: x=2,000,000 feet and y=0 feet.

41 (c) (i) The "Utah Coordinate System of 1927 South Zone" is a Lambert Conformal Conic  
42 Projection of the Clarke Spheroid of 1866 having standard parallels at north latitudes 38 degrees  
43 21 minutes and 37 degrees 13 minutes, along which parallels the scale shall be exact.

44 (ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes  
45 west of Greenwich and the parallel 36 degrees 40 minutes north latitude.

46 (iii) This origin is given the coordinates: x=2,000,000 feet and y=0 feet.

47 (2) For [~~purposes of more precisely defining~~] the Utah Coordinate System of 1983, the  
48 manual entitled "State Plan Coordinate System of 1983," NOAA Manual NOS NGS 5. The  
49 manual is published by the U.S. Department of Commerce, National Oceanic and Atmospheric  
50 Administration, and provides, in part, the following [~~definition by the National Ocean~~  
51 ~~Service/National Geodetic Survey is adopted~~]:

52 (a) (i) The "Utah Coordinate System of 1983 North Zone" is a Lambert Conformal Conic  
53 Projection of the North American Datum of 1983 having standard parallels at north latitudes 41  
54 degrees 47 minutes and 40 degrees 43 minutes, along which parallels the scale shall be exact.

55 (ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes  
56 west of Greenwich and the parallel 40 degrees 20 minutes north latitude.

57 (iii) This origin is given the coordinates: x or E=500,000 meters and y or N=1,000,000  
58 meters.

59 (b) (i) The "Utah Coordinate System of 1983 Central Zone" is a Lambert Conformal Conic  
60 Projection of the North American Datum of 1983 having standard parallels at north latitudes 40  
61 degrees 39 minutes and 39 degrees 01 minutes, along which parallels the scale shall be exact.

62 (ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes  
63 west Greenwich and the parallel 38 degrees 20 minutes north latitude.

64 (iii) This origin is given the coordinates: x or E=500,000 meters and y or N=2,000,000  
65 meters.

66 (c) (i) The "Utah Coordinate System of 1983 South Zone" is a Lambert Conformal Conic  
67 Projection of the North American Datum of 1983 having standard parallels at north latitudes 38  
68 degrees 21 minutes and 37 degrees 13 minutes, along which parallels the scale shall be exact.

69 (ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes  
70 west of Greenwich and the parallel 36 degrees 40 minutes north latitude.

71 (iii) This origin is given the coordinates: x or E=500,000 meters and y or N=3,000,000  
72 meters.

73 Section 2. Section **57-10-8** is amended to read:

74 **57-10-8. Use of terms on maps and documents.**

75 (1) Any document identifying or using a coordinate system shall, in accordance with  
76 Section 57-10-9, clearly and completely identify the system used.

77 [(+) (a) The use of the term "Utah Coordinate System of 1927 (North, Central, South)  
78 Zone" on any map, report of survey, or other document [~~is limited to~~] shall be used to reference  
79 the system, the coordinates [based on the Utah coordinate system], and the unit of measure as  
80 defined in [this chapter] Subsection 57-10-6(1).

81 (b) The use of the term "Utah Coordinate System of 1983 (HARN 1994, or the current  
82 federal coordinate update used as the basis of the system being used) (North, Central, South) Zone"  
83 shall be used to reference the system, the coordinates, and the unit of measure as defined in  
84 Subsection 57-10-6(2).

85 (2) Anyone using a coordinate system similar to the Utah coordinate system, such as one  
86 where a modified elevation datum is used, shall clearly include "modified" in the title of the  
87 coordinate system.

88 (3) Any survey or map based on any such modified coordinate system shall show the title  
89 of the coordinate system, including "modified" in the title and show the appropriate combined

90 adjustment factor relating the system to the Utah coordinate system.

91 Section 3. Section **57-10-9** is amended to read:

92 **57-10-9. Use of coordinate system optional.**

93 The use of the Utah coordinate system by any person, corporation, or governmental agency  
94 engaged in land surveying or mapping, or both, is optional.

95 Section 4. Section **57-10-11** is amended to read:

96 **57-10-11. 1983 system to be used after certain dates.**

97 After ~~h~~ ~~[May 1, 1988]~~ JAN. 1, 2002 ~~h~~ , [persons] any person, corporation, municipality,  
97a county, or state agency ~~h~~ **WHO IS NOT UTILIZING AN EXISTING COUNTY COORDINATE SYSTEM**

97b **AND IS** ~~h~~

98 establishing a new ~~h~~ **COUNTYWIDE** ~~h~~ coordinate network [~~utilizing the Utah coordinate system may~~  
98a ~~use only~~] for

99 surveying or mapping, or both, must conform to the Utah Coordinate System of 1983 [~~After~~

100 ~~January 1, 1997, persons using a Utah coordinate system may use only the Utah Coordinate System~~  
101 ~~of 1983~~], along with the current federal coordinate update.

102 Section 5. **Repealer.**

103 This act repeals:

104 Section **57-10-10, Feet to meters conversion specified.**

**Legislative Review Note**  
**as of 12-15-00 10:02 AM**

A limited legal review of this legislation raises no obvious constitutional or statutory concerns.

**Office of Legislative Research and General Counsel**