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57-10-6, as repealed and reenacted by Chapter 60, Laws of Utah 1988

57-10-8, as repealed and reenacted by Chapter 60, Laws of Utah 1988

57-10-9, as repealed and reenacted by Chapter 60, Laws of Utah 1988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. Department of Commerce, Coast and Geodetic Survey, and provide, in part, the following:

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

(ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes west of

Greenwich and the parallel 40 degrees 20 minutes north latitude.

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

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

(ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes west of

Greenwich and the parallel 38 degrees 20 minutes north latitude.

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

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

(ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes west of

Greenwich and the parallel 36 degrees 40 minutes north latitude.

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

(2) For [~~purposes of more precisely defining~~] the Utah Coordinate System of 1983, the manual entitled "State Plan Coordinate System of 1983," NOAA Manual NOS NGS 5. The manual is published

by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, and provides,

in part, the following [~~definition by the National Ocean Service/National Geodetic Survey is adopted~~]:

(a) (i) The "Utah Coordinate System of 1983 North Zone" is a Lambert Conformal Conic Projection of the North American Datum of 1983 having standard parallels at north latitudes 41 degrees

47 minutes and 40 degrees 43 minutes, along which parallels the scale shall be exact.

(ii) The origin of coordinates is at the intersection of the meridian 111 degrees 30 minutes west of

Greenwich and the parallel 40 degrees 20 minutes north latitude.

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

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

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

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

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

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

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

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

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

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

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

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

(2) Anyone using a coordinate system similar to the Utah coordinate system, such as one where

a modified elevation datum is used, shall clearly include "modified" in the title of the coordinate system.

(3) Any survey or map based on any such modified coordinate system shall show the title of the coordinate system, including "modified" in the title and show the appropriate combined adjustment factor relating the system to the Utah coordinate system.

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

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

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

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

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

After [~~May 1, 1988, persons~~] January 1, 2002, any person, corporation, municipality, county, or state agency who is not utilizing an existing county coordinate system and is establishing a new countywide coordinate network [~~utilizing the Utah coordinate system may use only~~] for surveying or mapping, or both, must conform to the Utah Coordinate System of 1983[~~. After January 1, 1997, persons using a Utah coordinate system may use only the Utah Coordinate System of 1983~~], along with the current federal coordinate update.

Section 5. **Repealer.**

This act repeals:

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