

ALASKA STATE LEGISLATURE

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House Bill 285 - Sponsor Statement (31-LS1595\A)

"An Act relating to the Alaska Coordinate System of 2022."

House Bill 285 revises Alaska Statute chapter 38.20, known as the Alaska Coordinate System, to reflect changes in the federal datum used as a base for the coordinate system and to allow for future updates. The updated 2022 datum and Alaska Coordinate System will greatly improve accuracy, eliminate known issues, and provide Alaskans an easy system to share positioning data and access to the National Spatial Reference System.

The national coordinate system is defined and managed by the National Geodetic Survey (NGS), a division of the National Oceanic and Atmospheric Administration's National Ocean Service. NGS has identified shortcomings and inaccuracies in the current official horizontal and vertical datums of the North American Datum of 1983 (NAD 83) and the North American Vertical Datum of 1988 (NAVD 88). A ten-year effort to improve the National Spatial Reference System is underway and a new modern datum, using global positioning systems (GPS), airborne gravimetric measurements, and time-based positioning modeling is being deployed in January 2022.

Alaska State Plane Coordinate Systems are widely used in land surveying, Geographic Information Systems (GIS) applications, and map production. These reference systems are federal reference systems supported and maintained by NGS. The first system was known as the North American Datum of 1927 (NAD27). Later, a new reference system, based on the NAD83 was developed to reflect improved technology and accuracy. Persons using the Alaska Coordinate System have been required to use either NAD27 or NAD83. Using a defined coordinate system provides a common language for identifying location coordinates that are expressed in terms of an "x" value (an east-west direction) and a "y" value (a north-south direction).

The Alaska Coordinate System requires that reference points be expressed in meters. These values expressed in meters, or converted to feet, can then be entered into a database and be shared with anyone using the Alaska Coordinate System. This ensures that shared data is in the proper location. Once the National Geodetic Survey provides the new, more accurate coordinate system beginning in 2022, NAD83 will no longer be supported. All federal data, such as FEMA flood maps, will be transitioned to the new datum. However, Alaska may continue to use the older systems for current activities such as oil leases. This Bill allows that continued use.

Forty-eight states have adopted state plane coordinate systems into their statutes. All will need to be revised. In addition to improved zone locations that will cover population and resources areas, a new statewide zone will be created for Alaska, which will reduce the distortion of the current projection currently in use and improve the display of statewide geographic data. Alaska will benefit more than any other state from the new datum and improved coordinate system, since the inaccuracies in the current systems increase moving westerly across North America from the east coast of the United States.

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