

ABSTRACT

A TOOLBOX OF COMPUTATION METHODS FOR THE PROBLEM OF DOUBLE PROPORTION CORNER RESTORATION IN THE UNITED STATES PUBLIC LAND SYSTEM

Double proportion is prescribed for restoration of many lost section corners in the Public Lands, based on relative distances to the nearest existing corners. The government agencies in charge have long prescribed an algorithm based on major vector components of record dimensions.

Lines often result that are out of proportion to the record. This study proposes new methods and tests them on many miles of existing data. Preliminary findings are that one new method comes closer to the existing corner more often than the official method. A more detailed study is proposed.

Additional findings are that large blocks of lost corners are commonplace in the West and that skepticism for the method is discovered to exist among practicing surveyors, who have sometimes used different methods.

A key outcome is that the several methods provide a toolbox of methods to help surveyors search for corners before concluding them to be lost.

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May 2007