

the best-fit method employed the use of the Affine computer program to evaluate the conformity of the projections.

#### ACCURACY AND DISTORTION IN HISTORICAL MAPS:

By establishing the Herrman 1673 map as an original source of geographic information, the map's value can be appraised by evaluating its accuracy and reliability. Furthermore, the analytical methodology of this thesis increases the utility of maps as historical source materials by determining the locational accuracy of features, presenting a method for correcting map projection distortion, and tracking the origin of the map features.

The results of this study illustrate the distortions of the Herrman map by projection superimposition and control point network used in the best-fit analysis. The analysis concluded that the latitudinal properties of the Herrman map were relatively accurate but, the longitudinal properties were distorted when compared to contemporary nautical charts. The amount of distortional off-set (length) was determined for a line of latitude as 5.66 mm. and 12.83 mm. along a line of longitude at a map scale of 1:372,250.

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