

China in Six Coordinate Systems



WGS 1984



UTM Zone 50N



Mercator



Albers Equal Area Conic



Lambert Conformal Conic



Equidistant Conic

WGS 1984 preserves shape and distance near the equator however the closer to the poles the more distortion is present. UTM Zone 50N keeps the scale along the north and south meridians constant but the scales varies along east-west parallels. Albers Equal Area is a projection that uses two standard parallels. Although scale and shape are not preserved, distortion is minimal between the standard parallels. The Mercator preserves angles and directions in a small area. However it's bad for understanding the real size and shape of continents and countries. The Equidistant Conic is equally spaced cutting parallels at right angles, it compromises direction, area, and shape. The Lambert Conformal Conic retains conformality however it isn't equal-area and distortion increases away from the parallels.

