

THE SIX PROJECTIONS OF CHINA



WGS 1984



UTM ZONE 50N



MERCATOR



ALBERS EQUAL AREA



LAMBERT CONFORMAL



EQUIDISTANT CONIC

The WGS84 is a reference ellipsoid that determines coordinates of every point on Earth using latitude, longitude and height about the surface. However, the error of WGS84 is believed to be less than 2 centimeters to the center mass. The UTM projection minimizes distortion within that zone. So this means that when you want to show features within several UTM zone, it becomes a poor choice of projection. Distortion is small near the central meridian, and as you move away it worsens. The Mercator projection allows ease of navigation. It uses a basis of rectangular latitude and longitude lines. These lines use true geometric angles between each country, thus, by calculating the angle of passage- a ship pilot can steer the ship using that bearing. Although, it the most common map projection, it skews the size of countries that are closest to the north and south poles. The Albers Equal Area is commonly used for displaying large countries that require equal-area representation. However, areas are equal to the same areas on Earth, though it's not conformal, perspective, or equidistant. The Lambert Conformal projection retains conformality. Despite how distances are reasonable accurate and retained along standard parallels, it isn't equal-area as distortion increases away from standard parallels. The Equidistant Conic projection is suitable for mapping continental and regional areas. However they are generally not well-suited for mapping very large areas.

