

ArcGIS Supported Map Projections

		Properties							Suitable Extent					Location or Shape						General Purpose						
		Conformal	Equal Area	Equidistant*	True Direction*	Perspective	Compromise	Straight Rhumbs	World	Hemisphere	Continent/Ocean	Region/Sea	Medium Scale	Large Scale	North/South	East/West	Oblique	Equatorial	Midlatitude	Polar/Circular	Topographic	Geologic	Thematic	Presentation	Navigation	USGS
Projection	Type																									
Aitoff	Modified Azimuthal	~	~				✓		✓										✓					✓		
Alaska Grid¹	Modified Planar	✓	~		✓							✓							✓				✓			✓
Alaska Series E	Pseudocylindrical												✓								✓					✓
Albers equal area conic	Conic		✓									✓	✓			✓			✓				✓	✓		✓
Azimuthal equidistant	Planar			✓	✓				~	✓	✓	✓		~			✓	✓	✓	✓	✓				✓	✓
Behrmann equal area cylindrical	Cylindrical		✓						✓									✓	✓					✓		
Berghaus Star	Interrupted, faceted				✓		✓		✓								✓							✓		
Bipolar oblique conformal conic	Conic (Oblique)	✓										✓										✓		✓		✓
Bonne	Pseudoconic		✓									✓			~											
Cassini-Soldner	Cylindrical													✓	✓						✓					
Chamberlin Trimetric	Modified Planar			~								✓														
Craster Parabolic	Pseudocylindrical		✓						✓																	
Cube²	Faceted						✓																			
Cylindrical equal area	Cylindrical		✓		✓											✓			✓					✓		
Double Stereographic	Planar	✓			✓	✓				✓	✓	✓					✓	✓	✓	✓		✓			✓	
Eckert I	Pseudocylindrical								✓																	
Eckert II	Pseudocylindrical		✓						✓																	
Eckert III	Pseudocylindrical								✓															✓		
Eckert IV	Pseudocylindrical		✓						✓															✓		
Eckert V	Pseudocylindrical								✓															✓		
Eckert VI	Pseudocylindrical		✓						✓															✓		
Equidistant conic	Conic			✓								~	✓			✓			✓					✓		
Equidistant cylindrical³	Cylindrical			✓										✓												✓
Fuller	Faceted						✓		✓															✓	✓	
Gall's Stereographic	Cylindrical					✓			~															✓		
Gauss-Kruger	Cylindrical (Transverse)	✓										✓	✓	✓	✓	✓			✓	✓	✓	✓				
Geocentric⁴	Spherical								✓																	
Geographic⁴	Spherical								✓																	
Gnomonic	Planar				✓	✓						~					✓	✓	✓	✓				✓	✓	
Goode Homolosine⁵	Interrupted Pseudo-cylindrical Equal-Area		✓						✓														✓	✓		
Great Britain National Grid	Cylindrical	✓										✓	✓	✓	✓	✓					✓	✓				
Hammer-Aitoff	Modified Planar		✓						✓														✓	✓		
Hotine Oblique Mercator	Cylindrical (Oblique)	✓										✓	✓	✓			✓				✓					✓
Krovak	Conic	✓										✓	✓	✓			✓				✓	✓		✓	✓	
Lambert Azimuthal equal area	Planar		✓		✓					✓	✓	✓					✓	✓	✓	✓			✓	✓	✓	✓
Lambert conformal conic	Conic	✓										✓	✓	✓	✓		✓		✓		✓	✓		✓	✓	✓
Local Cartesian System	Planar													✓												
Loximuthal	Pseudocylindrical							✓																	✓	
McBryde-Thomas Flat Polar Quartic	Pseudocylindrical		✓						✓																	
Mercator	Cylindrical	✓						✓	~			✓	✓	✓		✓		✓			✓	✓			✓	✓
Miller Cylindrical	Cylindrical						✓		✓															✓		✓
Mollweide	Pseudocylindrical		✓						✓															✓		
New Zealand Grid	Modified Cylindrical	✓											✓	✓			✓				✓	✓				
Oblique Mercator	Cylindrical (Oblique)	✓										✓	✓	✓			✓				✓					✓
Orthographic	Planar				✓	✓				✓	✓						✓	✓	✓	✓				✓		✓
Perspective⁵					✓	✓						✓	✓				✓	✓	✓	✓				✓		
Plate-Carée	Cylindrical			✓										✓												✓
Polar Stereographic	Planar	✓			✓	~				✓	✓		✓							✓	✓			✓		✓
Polyconic	Conic			~			✓						~	~	✓						✓					✓
Quartic Authalic	Pseudocylindrical		✓						✓															✓		
Robinson	Pseudocylindrical						✓		✓															✓	✓	
Rectified Skew Orthomorphic	Cylindrical (Oblique)	✓											✓	✓			✓				✓					
Simple Conic	Conic			✓								~	✓			✓			✓					✓		
Sinusoidal	Pseudocylindrical		✓	~					✓			✓			✓				✓					✓		✓
Space Oblique Mercator	Modified Cylindrical	~												✓							✓					✓
State Plane ⁶		✓											✓	✓							✓	✓		✓		✓
Stereographic	Planar	✓			✓	✓				✓	✓	✓					✓	✓	✓	✓		✓			✓	✓
Times	Pseudocylindrical						✓		✓															✓	✓	
Transverse Mercator	Cylindrical (Transverse)	✓										✓	✓	✓	✓			✓	✓		✓	✓				✓
Two Point Equidistant	Modified Planar			✓					~			✓	✓				✓						✓		~	
Universal Polar Stereographic	Planar	✓			✓	~						✓	✓	✓						✓	✓	✓		✓		✓
Universal Transverse Mercator (UTM)	Cylindrical (Transverse)	✓											✓	✓	✓			✓	✓		✓					✓
Van der Grinten I	Circular						✓		~															✓		✓
Vertical Near-side Perspective⁷	Planar				✓	✓						✓	✓				✓	✓	✓	✓				✓		
Winkel I	Pseudocylindrical								✓									✓	✓	✓				✓		
Winkel II	Pseudocylindrical								✓															✓		
Winkel Tripel	Modified Planar						✓		✓															✓	✓	

1 Modified Stereographic Conformal
2 Used in ArcGlobe - true direction in limited areas
3 Also known as Equirectangular
4 Not a map projection. The earth is modeled as a sphere or spheroid

5 Combination of the Mollweide and Sinusoidal projections
6 See Lambert Conformal Conic, Transverse Mercator, and Hotine Oblique Mercator
7 Also known as Perspective or Vertical Perspective

✓ = Minimal Distortion
~ = Distortion is moderate for most of the area
* = Distortion is minimal in certain directions or at particular points