

CONTENTS

Preface	vii	
Introduction	1	
Glossary	2	
Guide to selecting map projections	5	
Distortion diagrams	8	
Cylindrical projections		
Mercator	10	
Transverse Mercator	12	
Oblique Mercator	14	
Lambert Cylindrical Equal-Area	16	
Behrmann Cylindrical Equal-Area	19	
Plate Carrée	22	
Equirectangular	24	
Cassini	26	
Oblique Plate Carrée	28	
Central Cylindrical	30	
Gall	33	
Miller Cylindrical	35	
Pseudocylindrical projections		
Sinusoidal	37	
McBryde-Thomas Flat-Polar Sinusoidal	44	
Eckert V	46	
Winkel I	48	
Eckert VI	50	
McBryde S3	52	
Mollweide	54	
Eckert III	58	
Eckert IV	60	
Putnîş P ₂ '	62	
Hatano Asymmetrical Equal-Area	64	
Goode Homolosine	66	
Boggs Eumorphic	68	
Craster Parabolic	70	
McBryde-Thomas Flat-Polar Parabolic	72	
Quartic Authalic	74	
McBryde-Thomas Flat-Polar Quartic	76	
Putnîş P ₅	78	
DeNoyer Semi-Elliptical	80	
Robinson	82	
Collignon	84	
Eckert I	86	
Eckert II	88	
Loximuthal	90	
Conic projections		
Equidistant Conic	92	
Lambert Conformal Conic	95	
Bipolar Oblique Conic Conformal	99	
Albers Equal-Area Conic	100	
Lambert Equal-Area Conic	102	
Perspective Conic	104	
Polyconic	106	
Rectangular Polyconic	110	
Modified Polyconic, International Map of the World series	111	
Bonne	112	
Werner	114	
Azimuthal projections		
Perspective		
Gnomonic	116	
Stereographic	120	
Orthographic	124	
General Vertical Perspective	128	
Nonperspective		
Azimuthal Equidistant	132	
Lambert Azimuthal Equal-Area	136	
Airy	140	

CONTENTS

Modified

- Two-Point Azimuthal 144
- Two-Point Equidistant 146
- Miller Oblated Stereographic 148
- Wiechel 149
- Craig Retroazimuthal 150
- Hammer Retroazimuthal 152
- Littrow 154
- Berghaus Star 156
- Aitoff 158
- Hammer 160
- Briesemeister 162
- Winkel Tripel 164
- Eckert-Greifendorff 166
- Wagner VII 168
- Chamberlin Trimetric 170
- Tilted Perspective 172

Miscellaneous

- Bacon Globular 174
- Fournier Globular 175
- Nicolosi Globular 176
- Apian Globular I 177
- Ortelius Oval 178
- Lagrange 180
- Eisenlohr 184
- August Epicycloidal 186

- Guyou 188
- Peirce Quincuncial 190
- Adams Hemisphere in a Square 192
- Adams World in a Square I 194
- Adams World in a Square II 195
- Lee Conformal World in a Triangle 196
- Conformal World in an Ellipse 198
- Van der Grinten I 200
- Van der Grinten II 202
- Van der Grinten III 203
- Van der Grinten IV 204
- Armadillo 206
- GS50 208
- Space Oblique Mercator 211
- Satellite Tracking 213
- Appendix: Formulas for projections 216
- Cylindrical projections 218
- Pseudocylindrical projections 220
- Conic projections 224
- Pseudoconic projections 225
- Azimuthal projections
 - Perspective 226
 - Nonperspective 228
 - Modified 230
- Miscellaneous projections 234
- Selected references 240
- Index 242