

Table of Contents

Section One Getting Started	1		24
Chapter 1 Making Your Own Maps	1	UTM	24
Why use mapping software?	2	Scales and quads	25
Deciding what type of software you need	3	Datum, data, datums	27
Using this book	5	Magnetic declination	28
Chapter 2 GPS: A Short Course	8	More about maps	28
Safety first	8	Chapter 5 Free Software:	29
Waypoints, routes, and tracks	9	USAPhotoMaps	
Internet resources	10	Chapter 6 Waypoint and Route	
Firmware	10	Management: EasyGPS	41
Accuracy, WAAS, and DGPS	12	Section Two Maps on CDs	47
Antennae	12	Chapter 7 National Geographic TOPO!	48
Cables	13	Chapter 8 Maptech Terrain Navigator	70
Mounts	14	Chapter 9 Maptech Terrain	91
Communications protocols	14	Navigator Pro	
Using your GPS for real-time tracking	15	Chapter 10 DeLorme 3-D TopoQuads	108
Fun with GPS	15	Chapter 11 A Different Kind of Map:	
More tips	16	DeLorme Topo USA	122
Chapter 3 Hardware and Software	17	Section Three Downloading Maps:	143
Matters		More Microsoft TerraServer-Based	
Hardware	17	Programs	
Printers and paper	17	Chapter 12 TopoFusion	144
Software	18	Chapter 13 ExpertGPS	161
Printing tips	18	Section Four Downloading Maps:	175
Help files	18	Free Maps from USGS and	
Discussion groups and netiquette	19	Other Sources	
File management	20	Chapter 14 Maps 201: Downloading	176
Saving your data	20	Free Maps	
Other software tips	20	Georeferenced images	176
About Macs	22	Vector data	177
Chapter 4 Maps 101	23	Finding free maps online	178
Latitude and longitude	23	TIF (Tagged Image File Format) files	178

Zipped files	178	Chapter 23 Geographic Information System (GIS) and Vector Maps	300
Projection files	179	Vector vs. raster	300
Manual calibration	180	GIS as database	301
Image stitching	181	File formats	301
More tips	181	GIS software	302
Chapter 15 OziExplorer	182	Data sources	302
Chapter 16 Fugawi GPS Mapping Software	219	Internet resources	303
Section Five GPS-Based Maps	247	Chapter 24 Make Your Own Maps: Creating Custom Vector Maps for Your GPS	304
Chapter 17 Garmin MapSource: United States Topo	248	Using OziExplorer to convert shapefiles and tracks	304
Chapter 18 Magellan MapSend Topo in the US	265	Acquiring and converting digital line graph files	305
Chapter 19 Lowrance MapCreate	278	Map authoring resources	306
Chapter 17 Garmin MapSource United States Topo	248	Step 1: Acquiring the data	306
Chapter 18 Magellan Mapsend Topo for the U.S.	265	Step 2: Data extraction	308
Chapter 19 Lowrance MapCreate USA Topo	278	Step 3: Data conversion (SDTS to MIF)	311
Section Six Power Mapping	289	Step 4: Data conversion (MIF to SHP)	313
Chapter 20 Aerial Photos and Satellite Imagery	290	Steps 2 through 4: The Global Mapper alternative	318
Sources of DOQQs	291	Chapter 25 Make Your Own Maps: Transferring Custom Vector Maps to Your GPS	325
Satellite imagery	291	Internet resources	325
Tips	291	Transferring custom maps to Lowrance receivers	325
Chapter 21 Viewing Maps and Aerial Imagery in 3-D	292	Transferring custom maps to Magellan receivers	326
Types and sources of elevation data	292	Transferring custom maps to Garmin receivers	329
Internet resources	294	Chapter 26 Transferring Data Between Programs: Utilities and Compatibility	344
Video drivers	294	Compatibility	344
More tips	294	G7toWin	345
Chapter 22 Moving Maps for PDAs	295	GPSBabel	347
Cables	296	Other utilities	347
Mounting systems	296	Concluding Notes	360
Internet resources	297	Bibliography	361
PDA/moving map software	297	Resources	363
		Index	365