



Adventure Cycling Association

GPS Data Quick Start

Introduction

If you are accustomed to managing GPS waypoints and routes with a PC or Mac program, this quick start guide may be all that you need before you head out. The *GPS Data User Guide* contains more details.

The waypoint files are keyed to the maps of the routes in the Adventure Cycling Bicycle Route Network. We have made waypoints for each turn in the narratives and each facility in the service directories.

The files also contain GPS routes—not to be confused with Adventure Cycling routes.

All the waypoints and routes of one section—one paper map—are in two files:

- A routes file contains one or more GPS routes and the waypoints that lie on them, defining the main and any alternate cycling routes in the section. The route files are available to anyone.
- A routes and services file contains the above plus additional waypoints that locate the services described in the section's service directory. Access to the routes and services files is a benefit of membership in Adventure Cycling.

These files use the GPX format, a public XML text format that virtually all GPS data programs can read.

In addition, the files for all the sections of each Adventure Cycling route are combined in two zipped files—one for routes and one for routes and services—for faster download of an entire cycling route.

Share your experiences, ask questions, and maybe answer a few on the Adventure Cycling Forum GPS Discussion. To find out more, go to:
www.adventurecycling.org/forums/intro.cfm

Disclaimer: Adventure Cycling strives to keep its waypoint information up to date. However, features are continually changing, so the data may not reflect the latest modifications and/or additions. You are solely responsible for safe navigation and the prudent use of this data.

The Waypoint Files

File Names

After downloading and unzipping the files, you will see that their names indicate the route, the section, the

release version, and the format. A typical file is named *NT04Routes_v006.gpx*.

NT, indicates the Northern Tier route.

04 indicates Section 4.

Routes This is a routes file.

v006 indicates the sixth release of this file.

gpx indicates the format.

Because you will be editing the waypoints, we recommend that you make these files read-only to prevent inadvertent saving of changes. Another option is before opening the files, duplicate them elsewhere on your hard driver. (Waypoint names are vital to the correct sequence of waypoints.) Save your changes in your own files.

Using the Waypoints and Routes

Select the files that cover your route and load them into a GPS data program. Build GPS routes for each day of riding and upload them to your GPSR.

Waypoint Names

To identify the waypoints of interest, it helps to know how we have named them. Their names are unique; you may load any combination of waypoint files without conflicting names.

A waypoint name contains exactly six characters chosen to encode its position on the Adventure Cycling map when sorted alphabetically. An example waypoint name is E011C0.

Character 1 identifies the ACA route. The key for all routes is:

A Atlantic Coast	N Great Parks North
B Tidewater Potomac	P Lake Erie Connector
C Great Parks South	Q Grand Canyon Connector
D Great Rivers South	R Green Mountains Loop
E North Lakes	S Florida Connector
F Northern Tier	T Underground Railroad
G Pacific Coast	U Adirondack Park
H Southern Tier	V Allegheny Mountains
J TransAmerica	W Washington Parks
K Western Express	X Utah Cliffs
L Lewis & Clark	Y Sierra Cascades
M Great Divide	

Character 2 identifies alternate routes. 0 stands for the main route and 1, 2, 3, ... Z for alternates. (We use letters A – Z, omitting I and O, when we run out of digits.) E0 for the North Lakes main route, E1 for its Manitowoc alternate.

Character 3 identifies a section, that is, the part of a route printed on one sheet. This character counts from the beginning to the end of the whole route. Waypoints named E01... are on the North Lakes main route, section 1.

Characters 4, 5, and 6 identify waypoints in narrative sequence when riding the route “forward,” that is, in the sequence of the panels on the map.

Waypoint Comments

Every waypoint includes a comment that describes a town, an intersection, a service, or other point of interest. In the routes and services waypoint files, we use abbreviations where the name or symbol of the service needs amplifying:

AS	all services	HS	hostel
B&B	bed & breakfast	M	hotel/motel
BS	bike shop	NB	northbound
CO	cyclists only	R	restaurant
CS	convenience store	RA	rest area
CG	campground	SB	southbound
EB	eastbound	SP	state park
FA	fishing access	SS	service/gas station
G	grocery	WB	westbound

The comments are intended to help you locate waypoints on the paper map, choose which to use for your GPS routes, and create meaningful names for them.

Intersections: The printed narrative can say “turn right onto US 97” because it has separate directions for riding each way. However, a GPS waypoint serves both directions; thus we identify intersections by both roads, for example, “SR 1804/US 97.” When riding forward, this means “ride from SR 1804 onto US 97.” When riding the other way, read the comment from right to left: “ride from US 97 onto SR 1804.” The pointer in your GPSR shows which way to turn.

One-way streets: Where one-way streets require separate routes, the comments include, for example, EB and WB for east- and westbound waypoints. Ignore those marked for the direction you aren’t going.

Off route: “#” begins the comment of an off-route facility or town.

Elevations: Comments include elevations of the waypoints in hilly areas where available.

Meaningful Waypoint Names

Our waypoint names, although good at keeping the waypoints in riding order, are not much use on the bike.

You would probably rather see “7.2 miles to AMERY” than “7.2 miles to E011C0.”

Start a new file for the waypoints that you will use on your ride. Copy those waypoints from the Adventure Cycling files. Select each waypoint and give it a name that is meaningful for your riding direction and your own preferences. Observe the length limit—probably six to ten characters—for your GPSR and do not duplicate the name among the waypoints that you intend to use at once. The waypoint descriptions will help, as will the narrative and service directory on the printed map.

Routes

We include GPS routes in the published files to make the ACA route stand out on the map. They might also serve as sample routes to help you create the actual routes for a day’s riding.

Like waypoint names, GPS route names are unique—not duplicated anywhere in the Adventure Cycling routes—so that you can combine any ACA routes in your computer without conflicting route names. GPS routes use the same alphabet and naming convention as do waypoints. For example, a GPS route might be named F03462:

Character 1 identifies the ACA route. F for Northern Tier.

Character 2 identifies alternates within the ACA route.

Character 3 identifies a route section, that is, the part of a route printed on one sheet.

Characters 4 and 5 identify the panel number as it appears on the section map. (The Great Divide Mountain Bike Route divides its maps differently.)

Character 6 identifies different GPS routes when more than one appear on a map panel.

Thus F03462 names the Northern Tier route, main route, section 3, panel 46, second GPS route on that panel.

Reporting Corrections

Corrections and additions to the waypoints are welcome. When reporting coordinates, please be sure to state their datum, for example, WGS 84 or NAD27. The coordinates are useless without the datum. Send corrections to Routes & Mapping Dept., Adventure Cycling Association, P.O. Box 8308, Missoula, MT 59807; email them to gps@adventurecycling.org or use the online form at adventurecycling.org/routes-and-maps/adventure-cycling-route-network/map-correction-form/.