The Continental Divide National Scenic Trail
User Guide to Mapbooks

Information for Mapbook users

Disclaimers

CDNST

Beware! Trail users need to be prepared for any and all contingencies!

Throughout it's length, the official route of the CDNST is a work in progress, with continuously ongoing changes occuring even as this information is published. With this in mind, it is the Trail user's responsibility to contact local land management agencies for the most current Trail information. It is also the responsibility of the CDNST user to be prepared and understand the risks. Failure to have the necessary knowledge, equipment and conditioning may cause extreme physical danger, injury or even death. ***Know you are utilizing the CDNST and the information contained in this book at your own risk!***

Trail users may find portions of the official route closed or restricted due to ongoing forestry issues such as fires, salvage logging, dangerous downfall, or other events. Users may have to deviate from the maps at times because of these issues. Generally, any closed areas will be identified and alternate routes described. Trail users must utilize these alternate routes where directed to do so.

The CDNST is not fully constructed yet and in places users will find themselves on paved highways and improved roads which can be extremely hazardous, particularly for stock animals. Paved highways and improved roads are not part of the "official" CDNST. No "official" route yet exists in these places. It is the trail users responsibility to study and find alternate safe access around these areas. ***You are responsible for your own safety!*** *Generally, these highways and paved roads currently exist along portions of the CDNST due to private land ownership negotiations still in progress. It is a long term goal to develop Trail off of all these locations strategically over time. In the meantime, please respect private land owners by not trespassing on privately owned property. Landownership is not depicted on the maps and access through non-Federal areas is only allowed at the discretion or by agreement with the landowner.*

There are numerous areas where the trail is faint, unmarked, and largely unbuilt. Navigation through these areas can be extremely challenging. It is strongly suggested that users carry and understand how to operate navigation gear such as GPS and compass. There are places where large streams and rivers must be forded and at times of high water the potential for drowning is high. If you are hiking in a high water time, it is strongly suggested that you travel with another hiker and carry adequate equipment for dealing with deep, dangerous fordings.

Data Accuracy/Liability

The Continental Divide National Scenic Trail (CDNST) GIS map data, developed cooperatively by the Bear Creek Survey Service, LLC and the U.S. Forest Service, the lead federal agency with stewardship responsibility of the CDNST, represents a digital depiction of the Continental Divide National Scenic Trail centerline for recreational and entertainment purposes. The information contained in these data is dynamic and may change over time. Bear Creek Survey Service, LLC and U.S. Forest Service shall not be responsible for errors or omissions in the data and shall not be obligated to provide updates, additions, or corrections to the data in the future. Bear Creek Survey Service, LLC and U.S. Forest Service give no warranty, expressed or implied, as to the accuracy, reliability, or completeness of this data, including travel route data. It is the responsibility of the data user to use the data appropriately. Bear Creek Survey Service, LLC and U.S. Forest Service shall not be held liable for improper or incorrect use of the data described and/or contained herein.

Equestrian or Pack Stock Use

Please check all agency regulations ahead of time for the specific locations you plan on bringing stock. National Parks, Forest Service and BLM, to name a few, may have different regulations across the CDNST states.

Prepare yourself and your stock or pack animals. Much of the CDNST is over 8,000 feet in elevation and in many areas above tree line. Acclimation of stock or pack animals for 2-3 days is advisable. Never push the animal until you are certain that they have totally acclimated to the altitude. Stock and riders with little or no mountain experience may have problems with rapid stream crossings, slide areas, and other unfamiliar conditions.

For more information and sources for stock use on Trails:

Yosemite National Park's website http://www.nps.gov/yose/planyourvisit/stock.htm

Horse & Mule Trail Guide USA http://www.horseandmuletrails.com/Packh.htm

Backcountry Horsemen of America http://www.backcountryhorse.com/

The Backcountry Llama http://bcllama.com/

Leave No Trace !

The responsibility of stewardship falls to every individual who uses and enjoys the backcountry. When we set foot here, we should accept a simple creed – that we will respect these places in their natural stare and that we will strive to leave no trace of our presence.

1. Plan ahead and prepare
2. Travel and camp on durable surfaces
3. Dispose of waste properly
4. Leave what you find
5. Minimize campfire impacts
6. Respect wildlife
7. Be considerate of other visitors

For more information please visit www.lnt.org.

Segment Names and Mileages - New Mexico

Seg.#	Length Miles	Accum. Miles	Segment Name	Map Plates
1	25.6	0.0	Mexico Border AP	1-4
2	19.6	25.6	NM Hwy 81 AP	4-7
3	12.8	45.2	NM Hwy 9 AP	7-10
4	25.3	58.0	NM Hwy 113 AP	10-13
5	32.6	83.3	NM Hwy 494 (Shakespeare AP)	13-18
6	28.6	115.9	Burro Peak TH	18-22
7	20.1	144.5	Silver City AP (US Hwy 180)	22-24
8	21.8	164.6	NM Hwy 15 (Arrastra Site TH)	24-27
9	13.0	186.4	NM Hwy 35 AP	27-28
10	34.6	199.4	Rocky Point AP (FR 150)	28-33
11	15.1	234.0	FR 226 AP	33-34
12	25.5	249.1	NM Hwy 59 TH	34-38
13	32.4	274.6	NM Hwy 163 AP	38-4
14	27.4	307.0	Coyote Stock Tank AP (County Rd. 16)	43-46
15	24.4	333.7	FR 3070 AP	46-48
16	39.2	358.1	NM Hwy 12 TH	48-54
17	25.5	397.3	Omega AP (US Hwy 60)	54-59
18	22.7	422.8	NM Hwy 36 & 117 Jnct AP	59-63
19	55.2	445.5	NM Hwy 117 AP	63-71
20	27.3	500.7	Zuni-Acoma TH (NM Hwy 117)	71-75
21	26.4	527.1	Mt. Taylor TH	75-79
22	17.9	553.5	FR 239 AP	79-82
23	29.8	571.4	FR 239A TH	82-86
24	35.5	601.2	Cerro Colorado AP	86-91
25	19.7	636.7	Los Pinos TH	91-94
26	14.6	656.4	NM Hwy 96 AP	94-96
27	14.4	671.0	Skull Bridge TH	96-98
28	23.0	685.4	US Hwy 84 AP	98-101
29	29.4	708.4	NM Hwy 110 AP	101-104
30	17.7	737.8	Hopewell Lake AP (US Hwy 64)	104-107
31	20.6	755.5	Lagunitas CG AP	107-109
	2.8	776.1	NM/CO State Line	109
		778.9	Cumbres Pass TH	109

Segment Names and Mileages - Colorado

Seg.#	Length	Accum.	Segment Name	Map Plates
1	29.8	0.0	New Mexico Border to Blue Lake	1-4
2	24.5	54.3	Blue Lake to Elwood Pass	4-7
3	17.6	71.9	Elwood Pass to Wolf Creek Pass	7-8
4	19.6	91.5	Wolf Creek Pass to South River Peak	8-10
5	23.7	115.2	South River Peak to Squaw Pass	10-13
6	12.8	128.0	Squaw Pass to Weminuche Pass	13-14
7	10.6	138.6	Weminuche Pass to Twin Lakes	14-16
8	10.1	148.7	Twin Lakes to Beartown	16-17
9	7.8	156.5	Beartown to Stony Pass	17-18
10	16.2	172.7	Stony Pass to Carson Saddle	18-20
11	17.2	189.9	Carson Saddle to Spring Creek Pass	20-22
12	14.6	204.5	Spring Creek Pass to San Luis Pass	22-24
13	12.7	217.2	San Luis Pass to Eddiesville	24-26
14	13.6	230.8	Eddiesville to Saguache Park Road	26-28
15	13.7	244.5	Saguache Park Road to Highway 114	28-30
16	20.4	264.9	Highway 114 to Sargents Mesa	30-32
17	14.7	279.6	Sargents Mesa to Marshall Pass	32-34
18	10.8	290.2	Marshall Pass to Monarch Pass	34-36
19	17.8	308.0	Monarch Pass to Hancock	36-38
20	14.3	322.3	Hancock to Garden Basin	38-39
21	10.4	332.7	Garden Basin to Cottonwood Pass Road	39-40
22	25.1	357.8	Cottonwood Pass Road to Sheep Gulch	40-42
23	23.6	381.4	Sheep Gulch to Halfmoon Creek	42-45
24	13.1	394.5	Halfmoon Creek to Timberline Lake	45-47
25	13.2	407.7	Timberline Lake to Tennessee Pass	47-49
26	24.7	432.4	Tennessee Pass to Copper Mountain	49-51
27	12.8	445.2	Copper Mountain to Gold Hill	51-52
28	20.0	465.2	Gold Hill to Georgia Pass	52-54
29	18.4	483.6	Georgia Pass to Argentine Pass	54-56
30	16.8	500.4	Argentine Pass to Herman Gulch	56-57
31	20.6	521.0	Herman Gulch to Berthoud Pass	57-60
32	9.5	530.5	Berthoud Pass to Rainbow Road	60-61
33	11.4	541.9	Rainbow Road to Rollins Pass	61-62
34	19.4	561.3	Rollins Pass to Monarch Lake	62-65

Segment Names and Mileages - Colorado (cont)

Seg.#	Length	Accum.	Segment Name	Map Plates
35	14.3	575.6	Monarch Lake to Grand Lake	65-67
37	10.3		RMNP Short Route (-17.7 miles)	67, 70
36	28.0	603.6	Grand Lake to Bowen Gulch	67-71
37	19.6	623.2	Bowen Gulch to Willow Creek Pass	71-73
38	11.8	635.0	Willow Creek Pass to Troublesome Pass	73-74
39	11.4	646.4	Troublesome Pass to FR 104	74-75
40	30.0	676.4	FR 104 to Rabbit Ears Pass	75-79
41	15.4	691.8	Rabbit Ears Pass to Buffalo Pass	79-81
42	20.8	712.6	Buffalo Pass to North Lake	81-84
43	25.1	737.7	North Lake to Wyoming Border	84-88
44	3.1	740.8	Wyoming Border to Fireline Trail	88

Segment Names and Mileages - Wyoming

Seg.#	Length Miles	Accum. Miles	Segment Name	Map Plates
1	21.2	0.0	Colorado Border to Battle Pass TH	1-3
2	23.6	44.8	Battle Pass to CR 401	3-6
3	6.2	51.0	CR 401 to BLM 3328	6-7
4	36.8	87.8	BLM 3328 to Bridger Pass Rd Access	7-12
5	18.8	106.6	Bridger Pass Rd Access to US287	12-15
6	18.4	125.0	US287 to CR 63	15-18
7	21.9	146.9	CR 63 to CR 22	18-21
8	35.3	182.2	CR 22 AP to Bison Basin Rd	21-26
9	25.7	207.9	Bison Basin Rd to Sweetwater Bridge	26-30
10	14.5	222.4	Sweetwater Bridge to South Pass City	30-32
11	23.0	245.4	South Pass City to Sweetwater Guard Station	32-35
12	22.5	267.9	Sweetwater Guard Station to Big Sandy	35-38
13	26.0	293.9	Big Sandy to North Fork Lake	38-42
14	26.7	320.6	North Fork Lake to Summit Lake	42-45
15	34.1	354.7	Summit Lake to Union Pass	45-49
16	21.1	375.8	Union Pass to Sheridan Pass	50-52
17	19.4	395.2	Sheridan Pass to Brooks Lake TH	52-54
18	23.3	418.5	Brooks Lake TH to N. Fork Buffalo River	54-57
19	23.3	441.8	N. Fork Buffalo River to Fox Park	57-60
20	27.1	468.9	Fox Park to Heart Lake TH (Hwy 287)	60-64
21	24.0	492.9	Heart Lake TH (Hwy 287) to Howard Eaton TH	64-67
22	17.0	509.9	Howard Eaton TH to Idaho Border	67-70
01	8.9	8.9	Idaho Border to first road access	70

Segment Names and Mileages - Montana

Seg.#	Length Miles	Accum. Miles	Segment Name	Map Plates
0	13.7	0.0	Biscuit Basin to Idaho Border	1-3
1	36.1	36.1	Idaho border to Targhee Pass	3-7
2	33.7	69.8	Targhee Pass to Red Rock Pass	7-11
3	30.6	100.4	Red Rock Pass to Aldous Lake TH	11-14
4	31.8	132.2	Aldous Lake TH to Interstate 15	14-18
5	41.8	174.0	Interstate 15 to Bannack Pass	18-23
6	37.0	211.0	Bannack Pass to Morrison Lake	23-27
7	24.9	235.9	Morrison Lake to Bannock Pass	27-31
8	27.1	263.0	Bannock Pass to Lemhi Pass	31-34
9	19.5	282.5	Lemhi Pass to Goldstone Pass	34-36
10	24.2	306.7	Goldstone Pass to Miner Lakes TH	36-39
11	35.9	342.6	Miner Lakes TH to Big Hole Pass	39-43
12	16.6	359.2	Big Hole Pass to Chief Joseph Pass	43-45
13	18.2	377.4	Chief Joseph Pass to Schultz Saddle	45-47
14	31.4	408.8	Schultz Saddle to Johnson Lake	47-51
15	34.3	443.1	Johnson Lake to Lower Seymour Lake	51-54
16	43.9	487.0	Lower Seymour Lake to Interstate 15	54-59
17	35.8	522.8	Interstate 15 to Homestake Pass	59-63
18	29.1	551.9	Homestake Pass to I-15/Elk Park	63-66
19	74.9	626.8	I-15/Elk Park to MacDonald Pass	66-73
20	23.8	650.6	MacDonald Pass to Dana Spring	73-76
21	18.1	668.7	Dana Spring to Stemple Pass	76-79
22	24.9	693.6	Stemple Pass to Rogers Pass	79-82
23	58.6	752.2	Rogers Pass to Benchmark	82-90
24	84.3	836.5	Benchmark to Badger Pass	90-101
25	35.8	872.9	Badger Pass to Marias Pass	101-105
26	15.7	888.6	Marias Pass to East Glacier	105-107
27	10.7	899.3	East Glacier to Two Medicine CG	107-108
28	40.6	939.9	Two Medicine CG to GTTS Road	108-112
29	13.3	953.2	GTTS Road to Many Glacier	112-113
30	35.9	989.1	Many Glacier to Goat Haunt	113-116
30C	4.3	993.4	Goat Haunt to Waterton Townsite	117
31	27.4	980.6	Many Glacier to Chief Mountain	113, 118-121

Creating the maps:

The lines depicting The Continental Divide Trail in this book are actually GPS recordings collected by a field crew during the summers of 2009-2011 and maintained since to reflect changes. The GPS gear consists of two professional grade Ashtech receivers with sub-meter or better accuracies. The receivers are allowed to run continuously, with positions collected systematically while hiking. Whenever features such as intersections, roads, creeks, etc. are encountered the GPS is held stationary for a period of time to enhance accuracy. The data is differentially corrected, either by satellite based augmentation (SBAS) or post-processing to improve accuracy. More than 5.2 million points were recorded over about 3,047 miles of trail then thinned to favor accuracy based upon satellite geometry. The resulting database contains individual points with average spacing of about 6 feet which are connected to make a very detailed line. The map images are made by digitally cutting and combining hundreds of USGS topographical maps into smaller maps that reflect the trail corridor. The line and waypoint data was added and final images created for printing. Old map lines depicting the CDT, which are wildly erroneous in some places, were removed to prevent confusion.

How to use these maps:

These maps are intended to be used in conjunction with navigation tools such as a GPS receiver and/or compass. The maps show positions at critical intersections, stream crossings, and other features along the way. To save weight, the maps were reduced in scale from the original 1 inch = 2000 feet of the USGS maps to a scale of 1 inch = 3000 feet. The maps have UTM grid lines drawn on them to assist in navigation. There is a scale bar on every map to assist in locating a GPS position from the UTM grid. (See **With a GPS** for details.)

The trail is divided into hiking segments for the purpose of the guide. A typical title looks like this: **Map 1 Seg 1 Mi 0.0 to 06.1.** This means that the map covers part of Segment 1, and is used to travel from waypoints at mile 0.0 to mile 6.1. A subsequent map titled **Map 2 Seg 1 Mi 5.6 to 13.9**. would cover Segment one, mile 5.6 to mile 13.9. The mileages begin in each segment with 0.0 and finish with the length of the segment.

Map symbols and GPS Coding:

Red lines depict trail. **Black lines** depict roads.

A gps point name consists of a mileage and descriptor. Decimal points are assumed to 1/10th of a mile. The coding for the point **12_363XR** means segment 12, mile 36.3, Intersection, turn Right.

Codes:

TH, AP=Trailhead or Access Point.

XX, XR, XL describe trail intersections. **XR=**Right turn. **XL**= Left turn. **XX=**Ahead without turning.

RX, RR, and RL describe road intersections. **RR** = Right turn. **RL** = Left turn. **RX** = Ahead without turning.

HP= High Point. Ridges, passes, saddles.

MC, MS= Markers, Cairns or Signs. Noted in places where the trail is poorly defined. Very useful as gps navigation points.

GT=Gate

WT=Water. Includes lakes, streams, springs, and cache boxes.

M=Mileage marker only, no feature.

OP= Other Point. This is a sort of catch-all for miscellaneous points along the trail such as boundaries, power lines, buildings, etc.

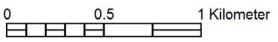
Understanding UTM Coordinates

The best way to think of a rectangular coordinate system is to view the earth as a giant checkerboard of equally sized squares. UTM coordinates tell you where you are on the board. The easting (X) value is how many meters you are east of a projected longitude line. The Y value tells you how far north you are of the equator. If you are heading towards a waypoint, your gps will display where you are on the checkerboard, and how far you have to go to get where you want to go. This is also possible in a latitude and longitude system, but it is generally easier to think of your position in terms of meters as opposed to degrees, minutes, and seconds. The maps have this checkerboard already drawn as light blue lines in 2000 meter intervals.

This example shows part of a map with the trail on it. The light blue lines are the UTM grid. The Eastings (X) are printed along the bottoms and tops of the maps, and the Northings (Y) are printed along the sides in blue. In the example, the first Northing is 4,922,000. The first Easting is 388,000. To locate a place on the map, you have to measure how far east (or west) and north (or south) it is from the nearest blue lines. (Remember the lines are 2,000 meters apart.) Now look at the waypoint located at mile 12.5. It is possible to determine it's UTM position by measuring how far east it is of the nearest north-south line and how far north (or south) it is of the east-west line. Without even measuring, I would guess it is not quite halfway to the 390,000 meter line. I would guess about 900 meters east of the 388,000 meter line.

Adding this value to the value of the line measured from, plus my easting (X) would be 388,900 It is north of the blue line, which is 4,922,000 meters. I would guess halfway, or 4,923,000 meters. Checking the actual position of the waypoint in the file, it is 388,865 E and 4,923,013 N.

My guess was within 40 meters of the actual location! If you use a specialized ruler, known as a scale, you can do much better than a guess. Scales are printed on every map. You can easily create your own portable scale by tracing a printed one onto a piece of paper or thin cardboard. Then you will be able to quickly determine your gps location on the maps.



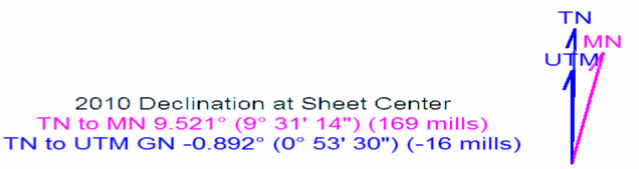
Map Scale

If you think you might be lost simply reverse the process to find out where you are. Turn on the gps, read your UTM location, and transfer that to the map using the scale. You will be able to see where you are on the map. To get back on track navigate to the nearest waypoint to where you are and continue your trek.

Important!!! None of this information will be of much help if your gps is set up wrong. In order to use this data your gps *MUST* be set up in **WGS84** *BEFORE* you type in any data! If you want your gps data to match the maps then it must be this way.

GPS receivers all have a Setup screen where you can choose between many different systems, datums, and formats. On many Garmin units, try SETUP> UNITS> and select UTM UPS from the list. Click on MAP DATUM and select WGS 84 from the list. That's it – you are ready to go. Some of the newer Garmins will use slightly different terms: SETUP> Position Format>UTM UPS>Map Datum WGS84. Magellan units are similar. Press MENU>Setup>Map Datum>WGS84 Then press Coord System>UTM.

Using a compass: A North-South arrow is printed on every map. The pink line represents magnetic north. To orient the map, lay a compass parallel and along the edge of the pink line, then rotate the map until the compass needle points to zero. The map should now be oriented properly. Move the compass around on the oriented map to determine a bearing ahead. To set the declination in the compass, follow the step above then move the compass to the left or right edge of the map. (Note: this will differ depending upon whether the map is printed in a portrait or landscape orientation.) Being careful to not move the map, adjust the compass so the needle points to zero. Now the compass will point to true north whenever the needle points to zero. Declinations are calculated for every map and change along the way, so the easiest way to orient is by using the declination arrow. Declinations are in a constant state of change. You should change the declination settings in your compass occasionally to that shown on the map currently in use. Any declination on a map published more than ten years in the past is likely to be significantly erroneous and should not be trusted.



Example of a Magnetic Declination Arrow