

Training 2025-04-06

### Using CalTopo Traveler map

Here is a link to a video where I cover everything covered here. I will include a few details for each answer if you have trouble. Please feel free to contact me if you have specific questions. I would be happy to set up a Zoom call to assist you.

[https://us06web.zoom.us/rec/share/8BjAK8h9ig5Uw4T\\_FNkZACE5GmKiKUvkNUMRLm8snbHnhoa5FINTkfEaTIHO3UkX.2USU\\_qUJL7c89wIL?startTime=1736381946000](https://us06web.zoom.us/rec/share/8BjAK8h9ig5Uw4T_FNkZACE5GmKiKUvkNUMRLm8snbHnhoa5FINTkfEaTIHO3UkX.2USU_qUJL7c89wIL?startTime=1736381946000)

Passcode: R+nB7U6u

### BASAR skill Direction between two map points

What is the magnetic bearing from Peak of Ridges to Billfish Mountain

40.6°M the measured bearing would be 25° and you would then add 15.6° the legend on the map has the magnetic north arrow symbol and is labeled MN -15.6, don't let that fool you. Yes, an angle to the "left" is technically a negative angle but you still need to add the declination to the true bearing measured.

What is the magnetic bearing from The Traveler to South Branch Mountain

304.6°M the measured bearing would be 289° and you would add 15.6°

### BASAR skill Transfer field bearing to the map

You are on the summit of Barrell Ridge and take a magnetic bearing on a peak a short distance off. Your magnetic bearing is 130°M

Bald Mountain in this case you are starting out with a magnetic bearing and need to subtract the declination. You would set your compass to 114.4°

You are on the summit of Black Cat Mountain and take a magnetic bearing on a peak a short distance away. Your magnetic bearing is 68°M

Barrell Ridge again you need to subtract the declination from the true bearing so would set your compass to 52.4°

BASAR skill Determine location elevation on map

What is the elevation Peak of Ridges?

3200' You need to establish the contour interval which is not given in the legend on the map. Surrounding Peak of Ridges you will see a darker line with 3000 on it. If you look further out you will see another darker line with 2000 on it. There are five divisions between these two so the contour interval would be 200'

What is the elevation of The Traveler?

3400' There are at least two contour lines between the line labeled 3000 so the summit of The Traveler would be at least 3400 possibly 3500 but less than 3600 because it does not show a third contour line. A different Baxter map lists the elevation as 3541.

What is the elevation of the low spot on the trail between Peak of Ridges and The Traveler?

3000'

BASAR skill Give location coordinates in Lat/Lon

The map you are provided has numbered Latitude and Longitude marks around the perimeter of the map. You may find it helpful to draw horizontal and vertical lines connecting the numbered marks.

What is the Lat/Lon of the East end of the Howe Brook Trail

46° 5' 20" N 68° 51' 30" W Draw a horizontal line passing through the black dot at the end of the trail extending to the edge of the map. Directly below the line you drew you will see 46°5' and just about the line you drew you will see 46°6'. This indicates that there is 1' between each. Now you need to figure out a way to break the 1" block into smaller sections. If you use the inch scale on your compass or an inch ruler you will see that the distance between 46°5' and 46°6' is 1-1/4" so there are six 1/4" divisions between the two. If you use the 1/4" divisions each 1/4" would represent 10". The dot is just below the 1/2" mark so the fractional part of 1' would be just under 20". Next draw a vertical line through the black dot to the top of the map. Looking at the top of the map you will see that the line you drew falls between -68°51' and -69°52'. Note that the value gets bigger moving to the left. You can again use the 1" scale except this time you will see that the distance between the 1' lines is closer to measuring 1". We can again use the 1/4" marks except this time each 1/4" is 15". The line you drew falls almost in the middle between -68°51' and -68°52' so you would come up with -68° 58'30"

What is the Lat/Lon for the campsite on Long Pond

46° 8' 20" N 68° 50' 15" W Follow the same logic as above. This is the same scale so you could still use 1/4" equals 10" for Latitude and 1/4" equals 15" for Longitude

BASAR skill Find location given Lat/Lon coordinates

Identify the feature given coordinates  $46^{\circ} 5' 25''$  N  $68^{\circ} 54' 52''$  W

South Branch Mountain Follow the same logic as above. This is the same scale so you could still use 1/4" equals 10" for Latitude and 1/4" equals 15" for Longitude. Start by locating  $46^{\circ} 5' 25''$  on the left or right edge of the map and draw a horizontal line across the map. Next locate  $68^{\circ} 54' 52''$  and draw a vertical line on the map. The two lines should intersect at the summit of South Branch Mountain.

Identify the feature given coordinates  $46^{\circ} 7' 10''$  N  $68^{\circ} 54' 50''$  W

South Branch Falls Follow the same logic as above. This is the same scale so you could still use 1/4" equals 10" for Latitude and 1/4" equals 15" for Longitude

BASAR skill Distance between two map points

What is the straight-line distance between Black Cat Mountain and Barrell Ridge

3.6 miles or 5.85km The method I like to use if possible is to use a piece of scrap paper and lay it on the line I need to measure. Make a mark at each point you are trying to measure between and then lay that on the scale on the map. If the distance between your points is longer than the scale, make a mark at the end of the scale and then shift the paper down to line up that mark with the end of the scale.

What is the straight-line distance from Billfish Mountain to Peak of the Ridges

3.8 miles or 6.9km

Using the CalTopo Evans Notch map

BASAR skill Give location coordinates in Lat/Lon

What is the Lat/Lon of West Royce

$44.301^{\circ}$  N  $71.0175^{\circ}$  W This map uses degrees decimal instead of degrees minutes on the Traveler map. The MWS uses degrees decimal as their primary position format. Again, you may find it helpful to draw horizontal and vertical lines on the map. The distance between  $44.3^{\circ}$  and  $44.31^{\circ}$  a little over 1" on the ruler but you could still use the ruler to determine halfway between the two which would be  $44.35^{\circ}$  and estimate from there. The distance between  $-71.01^{\circ}$  and  $71.02^{\circ}$  is just less than 1/2" but you could still use the ruler to estimate halfway, which would be  $-71.015^{\circ}$

What is the Lat/Lon of Ragged Jacket

$44.275^{\circ}$  N  $71.054^{\circ}$  W using the same scale as above

Identify the location given coordinates  $44.2285^{\circ}$  N  $71.068^{\circ}$  W

Baldface Knob similar to the two previous examples except that you would plot the point on the edge of the map and draw a line across.

Identify the location given coordinates  $44.2775^{\circ}$  N  $71.0075^{\circ}$  W

Birch Knoll

One more note about Longitude is that it should be expressed as degrees West or with a – symbol. Because Longitude is measured in degrees from Greenwich, England and goes from  $0^{\circ}$  to  $180^{\circ}$  moving east and  $0^{\circ}$  to  $-180^{\circ}$  moving west you need to include either the minus symbol or label it as West. We are in the northern hemisphere so all Latitudes are positive.