

## PTSAR quiz for 2020-04-04

For this “quiz” we will be using the Maine Atlas and Gazetteer Mine is the 32<sup>nd</sup> edition copy write 2011. I will include sample maps but there may be slight differences.

1. What Map datum does the Maine Atlas and Gazetteer use? **WGS84**
2. What is the map Scale? **1:135,000 which means one unit on the map, say one inch, equals 135,000 units in the field or 135,000 inches or 1" = 11250' or about 2.13 miles.**
3. What is the contour interval? **100'** It is not noted anywhere that I could find. You have to find two contour lines that are labeled and count the number of contour lines in between. I located a contour line marked as 1000 and another that was 1500 with 5 spaces between the lines so 500' difference with 5 spaces is  $500 / 5 = 100$

It is early February and your group decides to hike Mt. Kineo Map 41 A-1. The lake has at least 2' of ice with little or no snow cover. The weather is predicted to be in the 20s with snow showers predicted for later in the day. Currently the wind is calm and visibility is unlimited. From the boat launch at Rockwood you can see the point of land where the old hotel used to be and currently identified on the map as Kineo CG. You walk across the lake, and reach the summit without incident. You descend down the north east side and end up back on the frozen lake in the southern end of North Cove near the “U” in Mount Kineo (if you have the same edition as I do). The weather is starting to pick up with light snow. You follow the shore and end up back at the point marked at Kineo CG. It is now snowing hard with zero visibility.

Questions:

1. What is your magnetic heading to get back to the boat launch? Assume a 16° West declination.  **$208 + 16 = 224M$ .**
2. What bearing will you actually follow? **I would follow a bearing of slightly greater than 224M. If you tried to follow exactly 224 and drifted a little east of that bearing with zero visibility you could potentially miss the boat launch and stray out into the middle of the lake. By intentionally “aiming off” you would hit the shore and then follow it “left” to the boat launch.**
3. How far is it from Kineo CG to the boat launch? **A little less than 1 mile approx.**
4. How long do you estimate it will take to get to the boat launch? **15 – 20 minutes**
5. What is the Lat/Lon of Kineo CG? **45° 41' 20"N 69° 43'50"W**
6. What is the Lat/Lon of the boat launch? **45° 40'30"N 69° 44' 10"W**

Bonus question what would you back azimuth from the boat launch back to Kineo CG be? **44°M**

Refer to Map 10 C-1 in the bottom right corner locate Mountain Rd. Follow Mtn. Road until it changes to a trail. Follow the trail to its end.

1. What is the Lat/Lon for the end of the trail?  $44^{\circ} 15' 38''\text{N } 70^{\circ} 56' 53''\text{W}$
2. What is the elevation at that point?  $1150'$
3. What is the magnetic bearing from the end of the trail to the summit of Palmer Mtn?  $242 + 15 = 257^{\circ}\text{M}$
4. What is the distance from the end of the trail to the summit of Palmer Mtn?  $3800'$  or a little less than  $\frac{3}{4}$  mile or 1,100 meters
5. How long will it take you to hike that distance? Lots of variables, elevation, vegetation, traction, etc.  $\text{Roughly } 1 \text{ hour}$
6. What is your bearing back to the end of the trail?  $\text{Your back bearing, or back azimuth, would be your original bearing minus } 180, \text{ or } 77^{\circ}\text{M}$
7. What bearing would you actually follow?  $\text{If you try to follow your bearing of } 77^{\circ}\text{M and drift just a little to the north you will miss the end of the road and would travel about another } 800 \text{ meters before hitting the other road. One tactic would be to "aim off" a little to the south. That way you would hit the road at some point and then be able to follow it back to the end.. The other option would be to try to follow the bearing as close as possible and watch for the intermittent stream and then follow that. The dashed line indicates an intermittent or seasonal body of water but the course should still be noticeable if you watch for it.}$