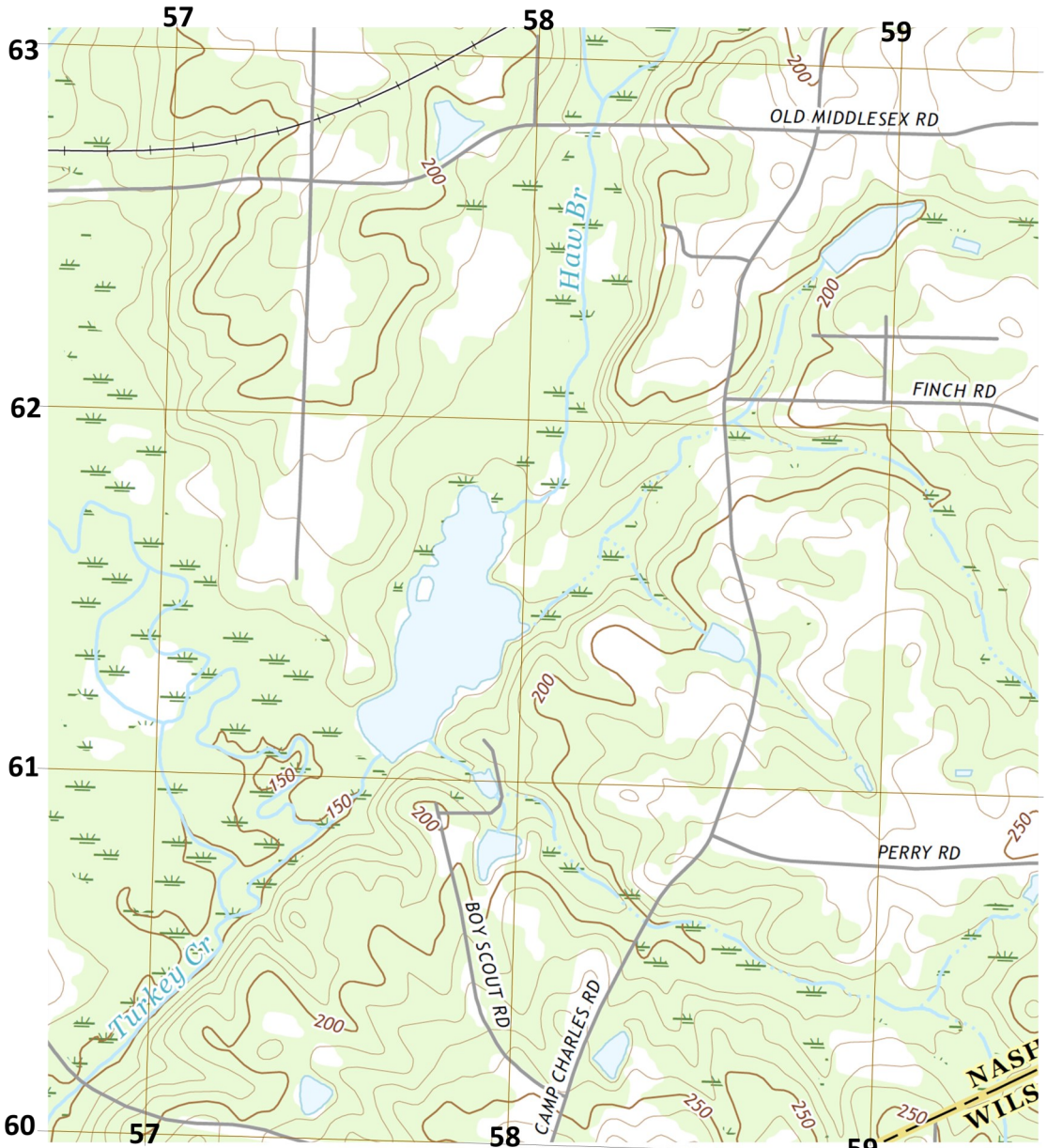
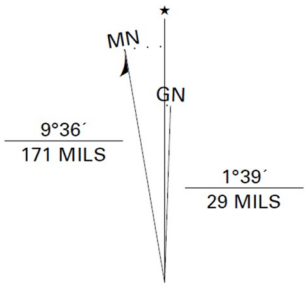


Camp Charles Special

Bailey, NC

MIDDLESEX QUADRANGLE
NORTH CAROLINA
7.5-MINUTE SERIES

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988



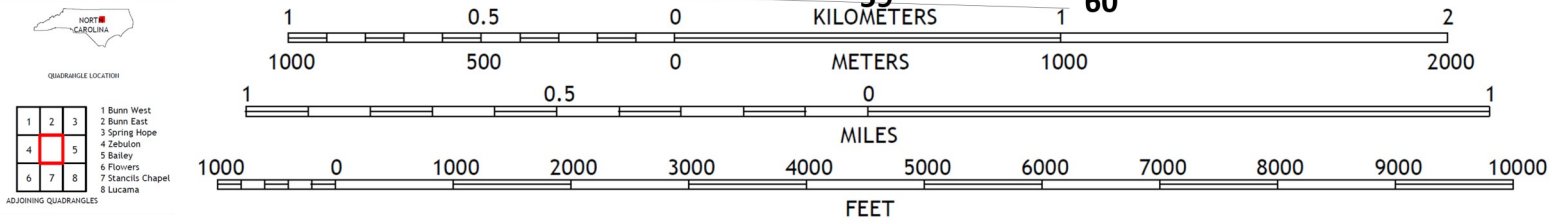
UTM GRID AND 2019 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

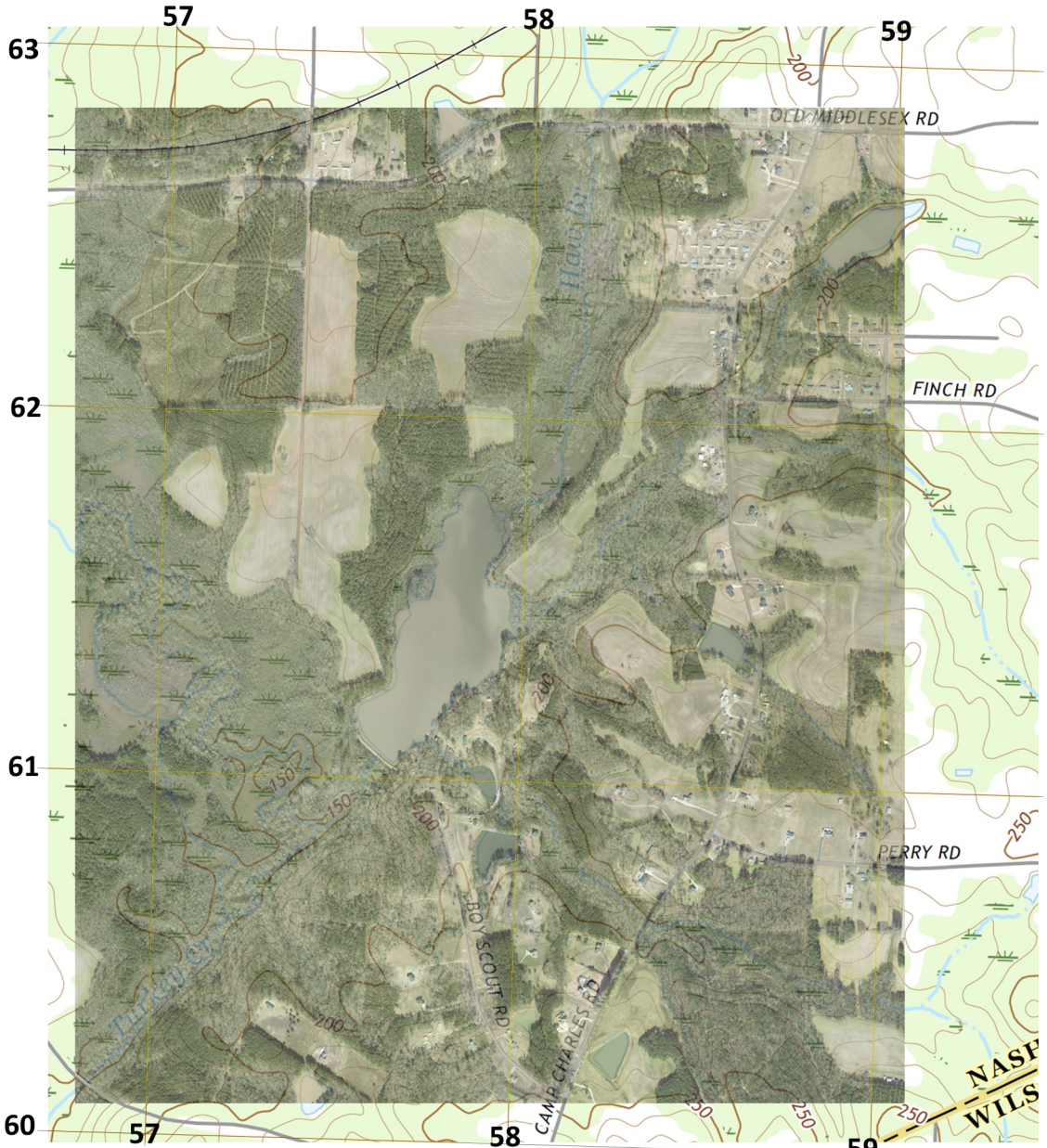
U.S. National Grid
100,000 - m Square ID
QV
Grid Zone Designation 17S

ROAD CLASSIFICATION

Expressway	Local Connector
Secondary Hwy	Local Road
Ramp	4WD
Interstate Route	US Route / State Route

Wood Badge Project. NST15-426-22
Questions or recommendations contact Mark Blanchard, Troop 937. 703-203-8461 mmblanchard01@gmail.com





Camp Charles Special

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7.5-MINUTE SERIES

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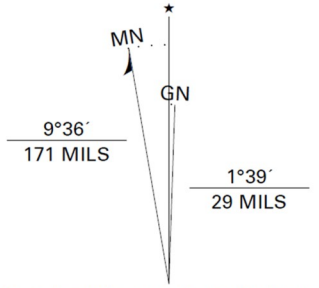

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QUADRAHGLE LOCATION

1	2	3
4		5
6	7	8

1 Bunn West
2 Bunn East
3 Spring Hope
4 Zebulon
5 Bailey
6 Flowers
7 Stancils Chapel
8 Lucama

ADJOINING QUADRANGLES

1 0.5 0 KILOMETERS 1 2

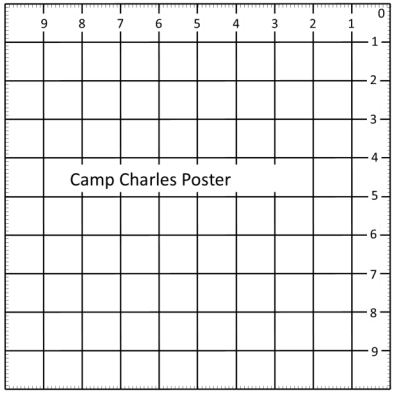
1000 500 0 METERS 1000 2000

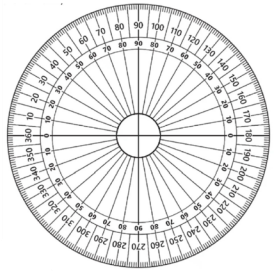
1 0.5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

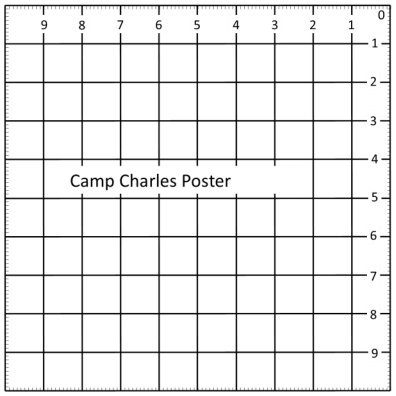
FEET

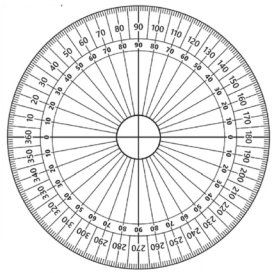




Place upper right corner (0) of this protractor at the lower left corner of four digit grid square. Then slide protractor right until you reach the third and fourth digit of first half of grid coordinates. Then slide protractor up until you reach the third and fourth digit of second half of grid coordinate. The upper right corner of protractor (0 point) now rests at the eight digit grid location. If 10 digit grid, approximate the fifth digits to refine your plotting of the grid.

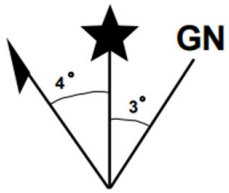
Ensure your protractor remains parallel with grid square lines on the map.





LARS stands for **Left Add, Right Subtract**, and is used when going from *the known azimuth* to the *unknown azimuth*, irrespective of grid or magnetic azimuth. Once one has created a declination diagram and found the GM angle, LARS users are concerned only with the direction (right or left) from the known angle (azimuth) to the unknown angle, for the cardinal direction (east or west) is no longer relevant. Once the appropriate direction is determined, the GM angle is then added or subtracted to the known azimuth.

In this example, the known azimuth is 270 magnetic. Using LARS, convert to a grid azimuth.



1. GM Angle= 7W
2. Known= 270 **mag**
3. Going from the known (line representing mag az), to the unknown (line representing grid az) we went RIGHT. Now subtract the GM angle of 7 to find a grid azimuth of 263 deg.