Terrestrial - Bearing Problems

USCG Navigation Problem (Near Coastal) Question 592

While on a course of 214°pgc, a light bears 9° on the port bow at a distance of 7.4 miles. What course should you steer to pass 2 miles abeam of the light leaving it to port?

Explanation (Bearing Problem - Cn To Steer for Distance Abeam)

Since the question is asking what course to steer, given in pgc (per gyro compass) and does not request a true course to steer, the student can use pgc bearings/ headings for the entire problem.

●1 Using the maneuvering board, choose the appropriate scale. The 1:1 scale will work for this problem. The numbers printed inside of the maneuvering board is 1:1 as opposed to using the scales printed on either side of the board.

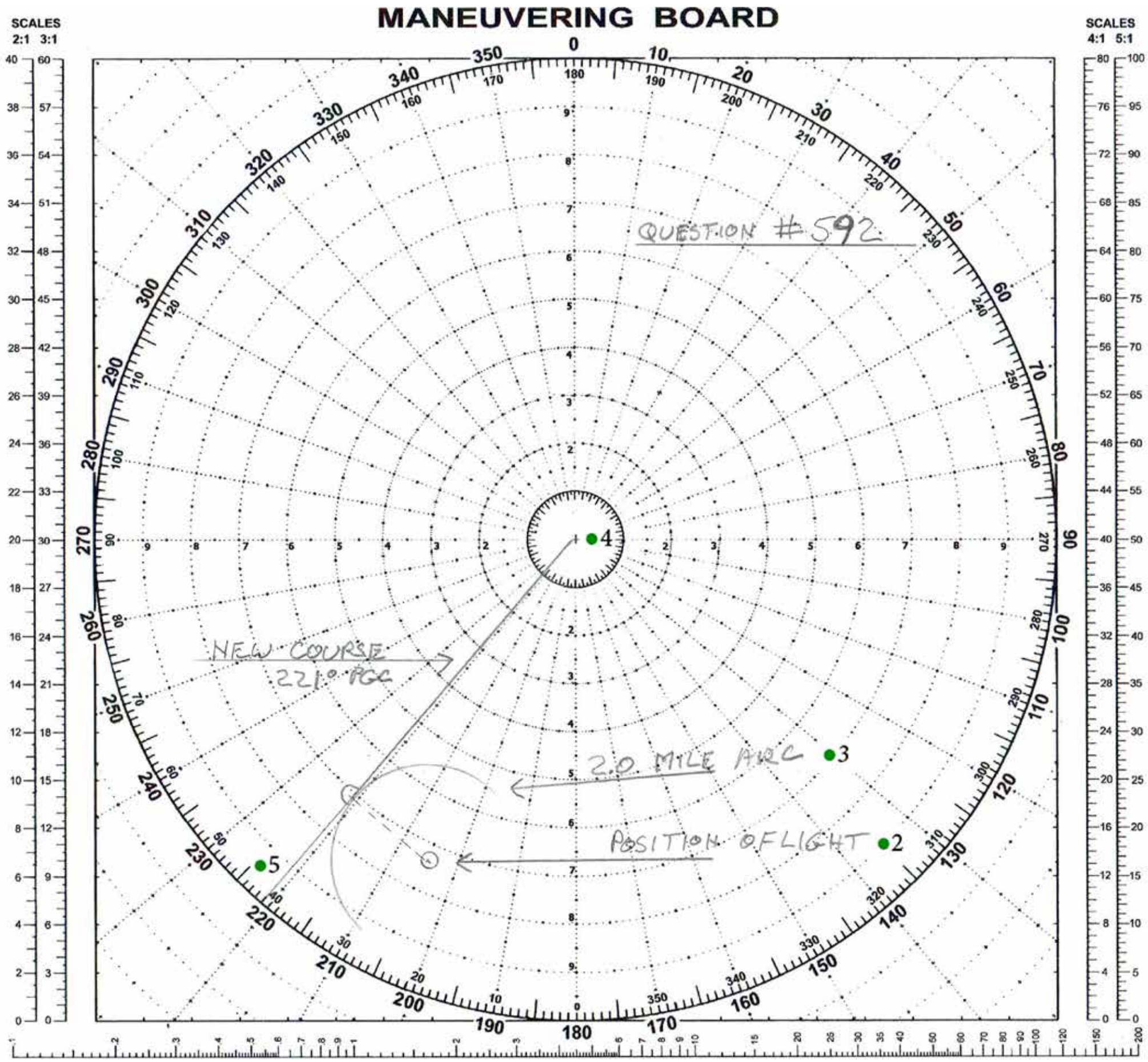
●2 Plot the position of light using the bearing and range giving in the problem. Since the light is 9° on the port and vessel's is 214°pgc we subtract 9° from 214°pgc giving us 205°pgc. Using a bearing 205°pgc, measure out 7.4 miles placing a small dot.

●3 Draw a 2.0mile semicircle or arc as needed around the light on the side vessel is to pass.

●4 Place pencil at center of maneuvering board. Using triangle or a straight edge pivot off pencil then draw a tangent line on side vessel is to pass.

●5 Extend the line to outer ring. Read correct course to steer.

Answer: Cn 221°pgc



USCG Book Nav Problem (Near Coastal) Question 592 Maneuvering Board