



Aquatic Consulting Services

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Boating Tip #17: Determining Set & Drift

To find set (direction of the current) and drift (speed of the current), compare your intended course with the course made good.

Plot your starting position and indicate the time. Draw the track line, correcting for true bearing if necessary. Use 60 D St to find the distance down the track line where you should be at the time of your 2nd fix (your DR plot). Plot your 2nd fix. Find direction from the DR to the 2nd fix. This is the set. Measure distance from the DR to the 2nd fix. Use 60 D ST to find speed. This is the drift.

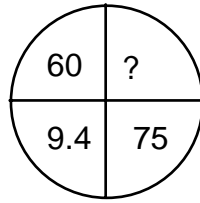
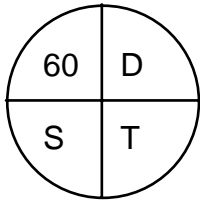
Example: Determining Set & Drift

You depart from the Isthmus on Santa Catalina Island at 1245 enroute to Newport Harbor. Your vessel's speed is 9.4 knots. At 1400, your vessel's position is 33° 27.6' N, 118° 17.4' W. What was the set and drift?

T course = 074°

$$\begin{array}{r|l} 13 & \\ \hline \cancel{14} & 00 + 60 = 60 \\ - 12 & 45 \\ \hline 1 & 15 \quad 1:15 = (1 \times 60) + 15 = 75 \text{ minutes} \end{array}$$

Find distance



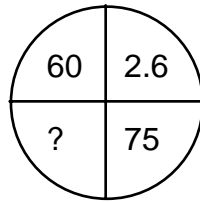
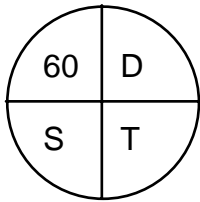
$$\frac{9.4 \times 75}{60} = 11.75 \text{ nautical miles}$$

Time: 75 minutes

Speed: 9.4 knots

Distance: ?

Find speed



$$\frac{60 \times 2.6}{75} = 2.08 \text{ knots}$$

Time: 75 minutes

Speed: ?

Distance: 2.6 nautical miles

Set 210° (Direction of the current)

Drift 1.08 knots (Speed of the current)