



Using Chart 1210TR, plan a cruise from Woods Hole to New Bedford. ATD from the G “13” Bell buoy west of Woods Hole is 1000 hours. Your boat will do about 5 knots in the light wind of the day. Plot via the N “8” (nun) buoy at Weepecket Rock and the BW “BB” Mo (A) BELL safe water buoy to the “5” Fl 4sec buoy at the approach to the channel leading into New Bedford.

1. What is the true course from the N”8” buoy to the BW “BB” buoy?
2. What is the compass course using the deviation table below?
3. What is your ETA to “BB” based on a speed of 5.0 knots?
4. At 1045 you get the following hand bearings:
032° to the R”10” Fl R 4sec GONG buoy
292° to the G “1” Fl G 4sec Buoy
What is your latitude and longitude at 1045?
5. What is your speed made good?
6. Change course to the G “1” Fl G 4sec Buoy. What is the new magnetic course?
7. What is at L 41° 30.5’ N, λ 70° 48.7’ W?
8. Plot a Dead Reckoning latitude and longitude for 1100 hours. (Use VMG)
9. While steering a true course of 270°, what is the compass course?
10. While sailing on a compass course of 340°, what is the true course?

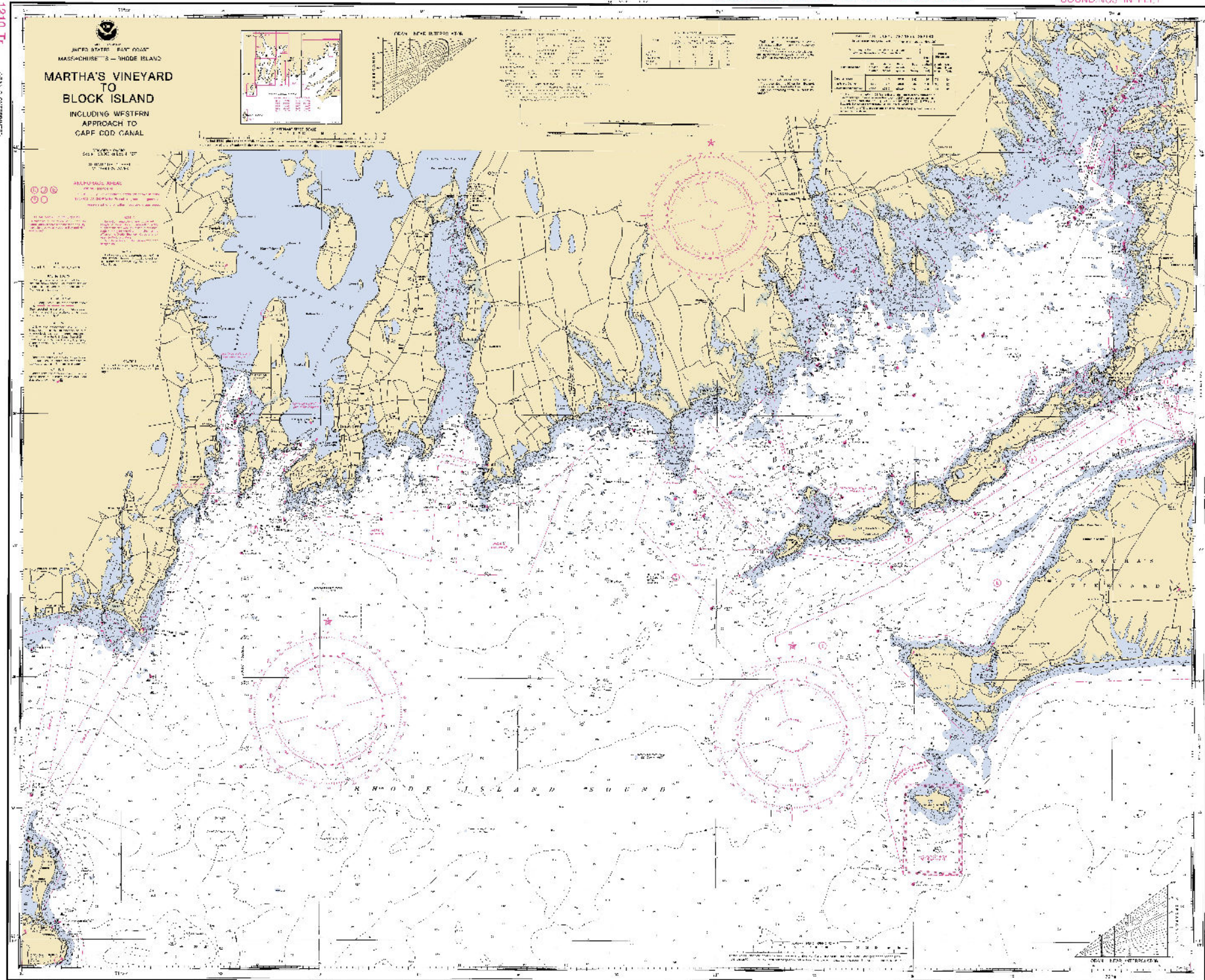
PSC°	Deviation	Mag°	PSC°	Deviation	Mag°	PSC°	Deviation	Mag°
000°	5* W	355°	120°	7° E	127°	240°	0°	240°
010°	5* W	005°	130°	9° E	139°	250°	2° W	248°
020	5* W	015°	140°	10° E	150°	260°	4° W	256°
030	5* W	025°	150°	10° E	160°	270°	5° W	265°
040	5* W	035°	160°	10° E	170°	280°	6° W	274°
050	4° W	046°	170°	11° E	181°	290°	6° W	284°
060	4° W	056°	180°	10° E	190°	300°	6° W	294°
070	3° W	067°	190°	9° E	199°	310°	6° W	304°
080	2 ° W	078°	200°	7° E	207°	320°	6° W	314°
090	1° W	089°	210°	5° E	215°	330°	5° W	325°
100	1° E	101°	220°	4° E	224°	340°	5° W	335°
110	4° E	114°	230°	2° E	232°	350°	5° W	345°

Mid-term quiz work

- 1) Use parallel rules to read answer
Ans: 258°T
- 2) $T = 258^\circ$
 $V = +15^\circ 30'$
 $M = 273^\circ$
 $D = +6^\circ$
 $C = 279^\circ$
- 3) $60 \times D = S \times T$
 $D = 6.3\text{NM}$
 $60(6.3) = 5 \times T$
 $60(6.3)/5 = T$
 $T = 76 \text{ minutes or } 1:16$
11:16
- 4) Draw vectors using parallel rules and magnetic compass rose to draw fix;
Use dividers or other tool to read latitude and longitude of fix.
L: 41° 31.5' N
 λ : 70° 47.3' W
- 5) $D = \text{Distance from origin of plot to fix}$
 $D = 4.1 \text{ NM}$
 $T = 45 \text{ min}$
 $60(4.1) = 45 \times S$
 $60(4.1)/45 = S$
 $S = 5.5 \text{ kts}$
- 6) **292° M** (See bearing in question 4)
(PSC would add 6° west deviation to give 298° C)
- 7) Use dividers or other tool to examine chart;
Discover a **wreck** at a reported depth of 37 feet considered a hazard to navigation
- 8) $S = 5.5$
 $T = 15 \text{ min (from fix found in question 4)}$
 $60(D) = 5.5(15)$
 $D = 5.5(15)/60$
 $D = 1.4\text{NM}$
Plot DR position 1.4NM along course line toward 292°M
L = 42° 31.7' N
 $\lambda = 70^\circ 49.2' \text{ W}$
- 9) $T = 270^\circ$
 $V = +15^\circ 30'$
 $M = 285^\circ$
 $D = +6^\circ$
 $C = 291^\circ$
(+W)
- 10) $C = 340^\circ$
 $D = -5^\circ$
 $M = 335^\circ$
 $V = -15^\circ 30'$
T = 320°

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DATA 3 OVERPRINTED



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