



BH  **Navigation**

Portland Course Plotter
User Instruction Guide

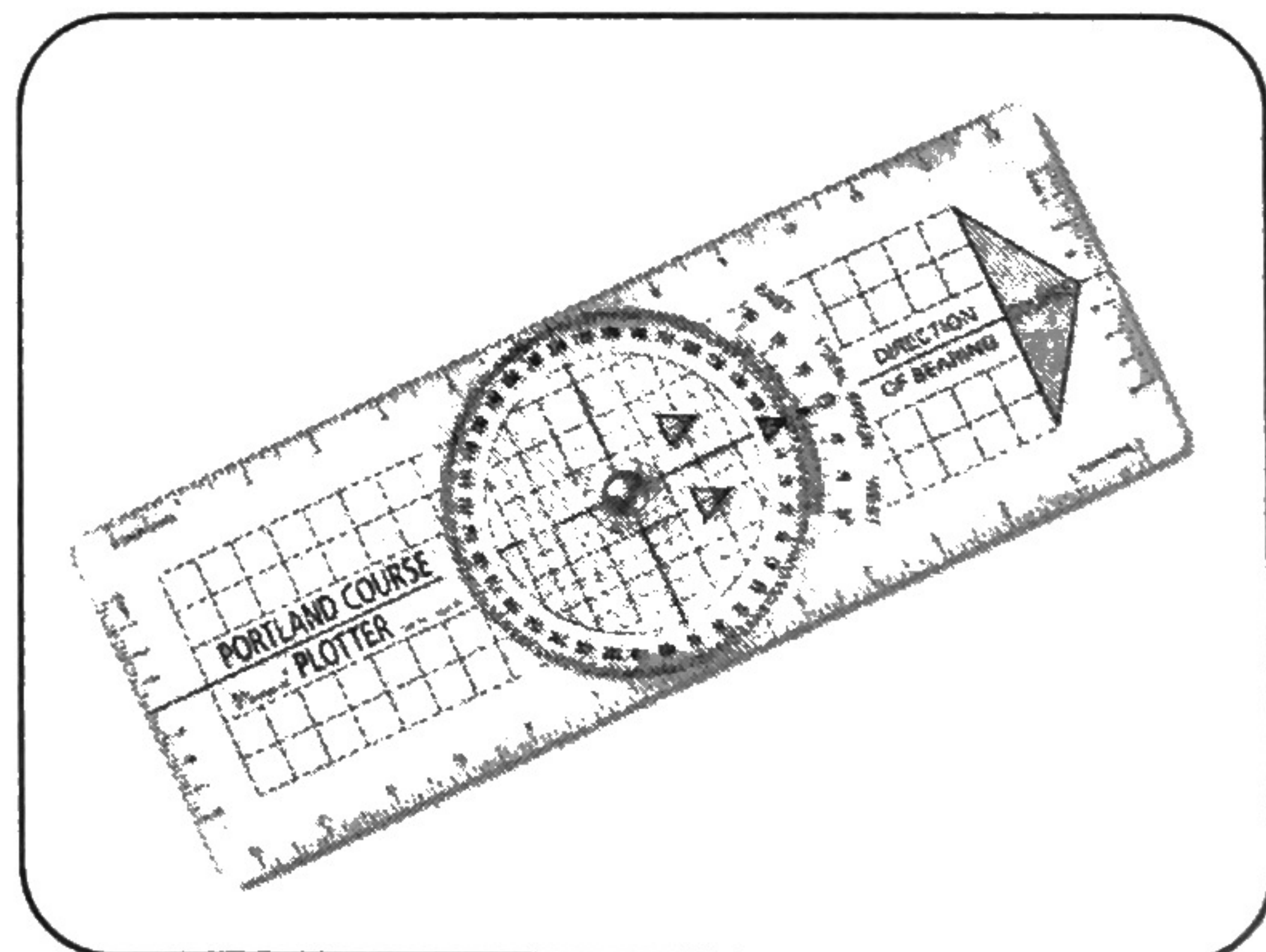


BH  **Navigation**

Our range of chart-table navigation instruments are supplied to the leisure boat and commercial shipping markets. We offer a range of plotters, protractors and parallel rules to suit the differing navigation practices used throughout the world.

Our products are particularly valuable for navigation training purposes and are recommended for the **UK RYA** (Royal Yachting Association) approved training courses.

All products are accurately manufactured from top quality acrylics and have been developed in voyage conditions, incorporating the ideas of many experienced yacht-people. Our instruments provide a practical facility for plotting electronic data onto charts and are essential as a backup in the event of equipment failure.

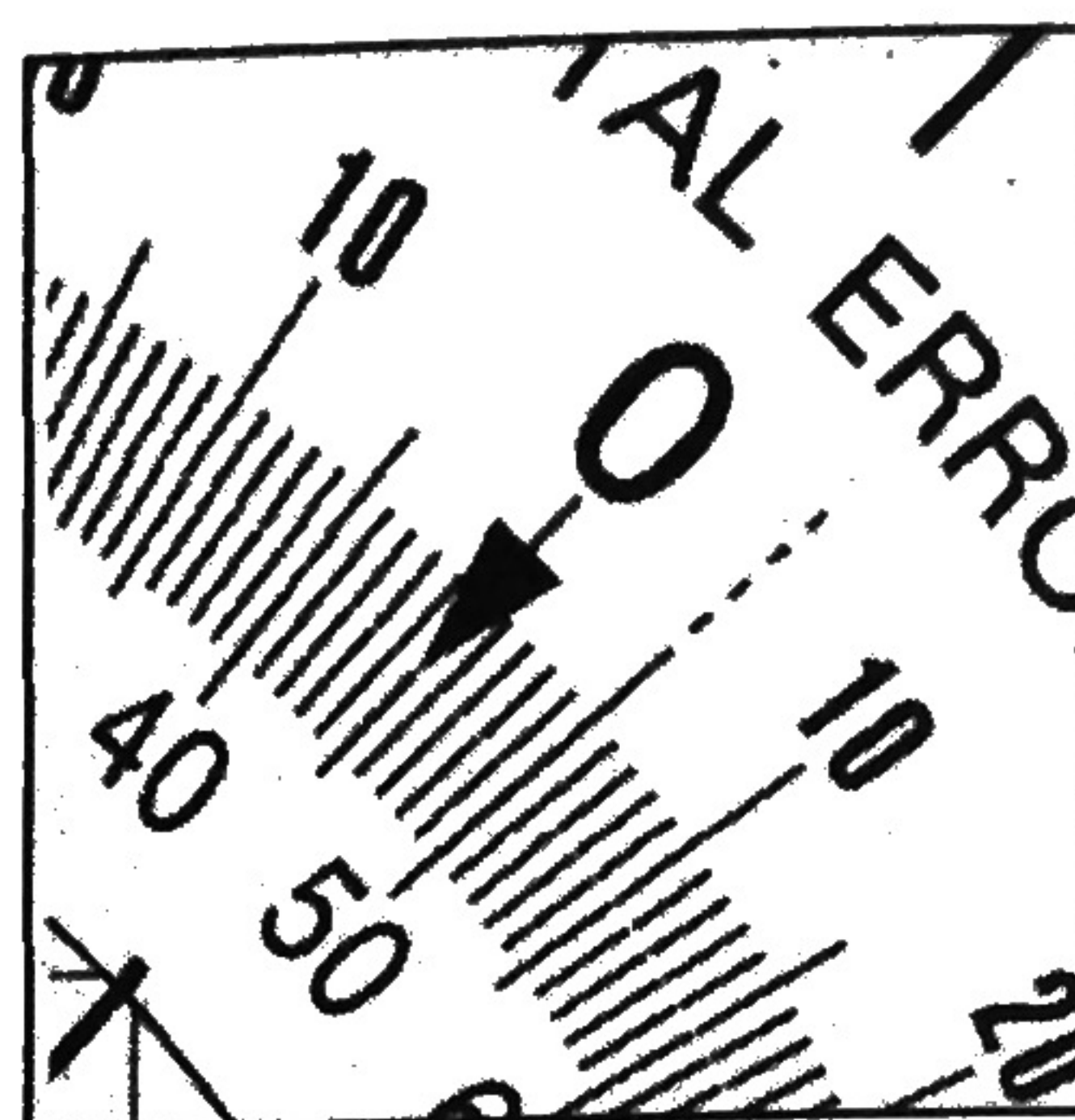
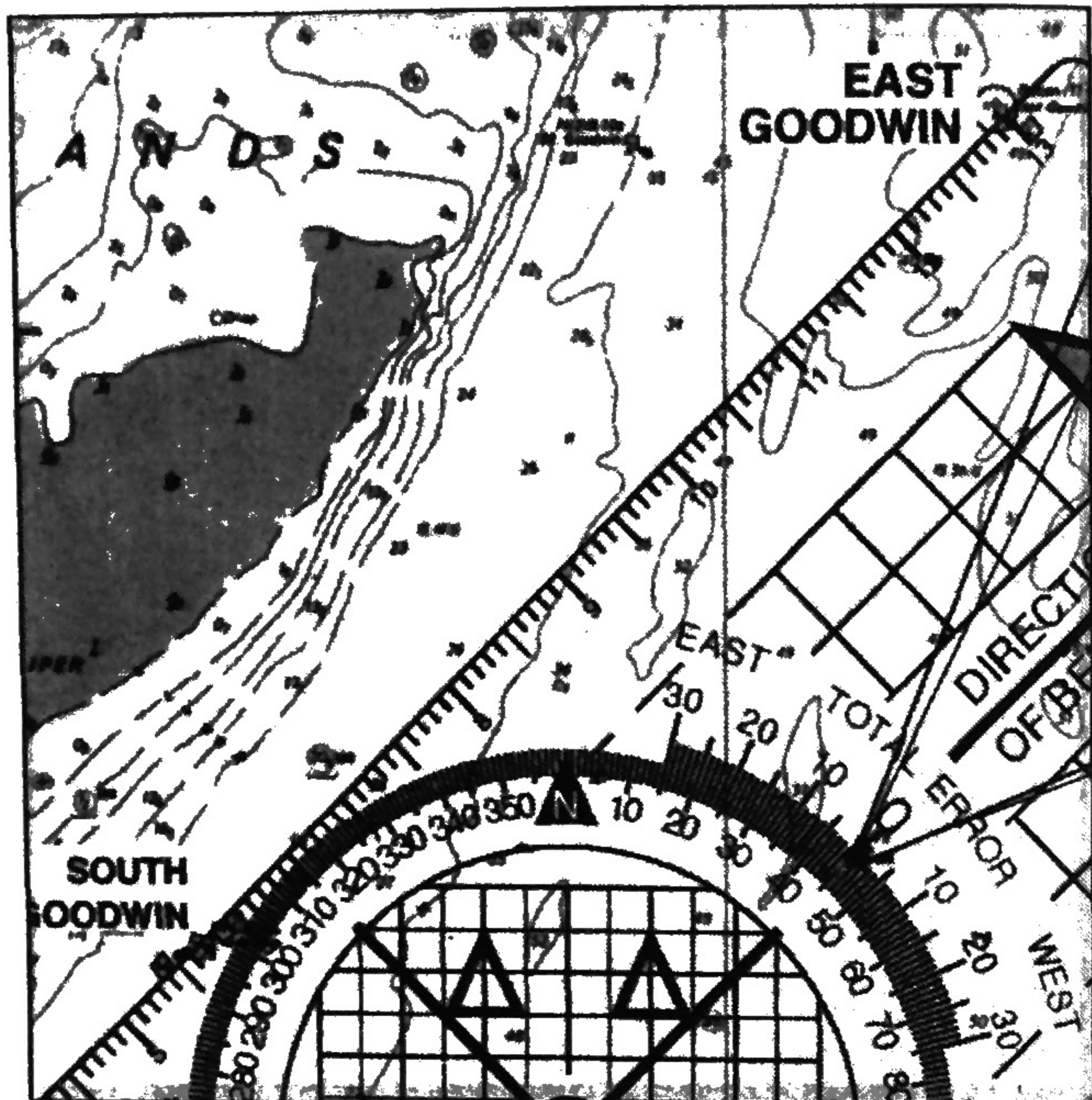


THE COURSE PLOTTER CAN ALSO BE USED TO ILLUSTRATE CHARTWORK IN NAVIGATION CLASSES BY LAYING IT ON AN OVERHEAD PROJECTOR.

These instructions have been written by
James Stevens, RYA National Coach

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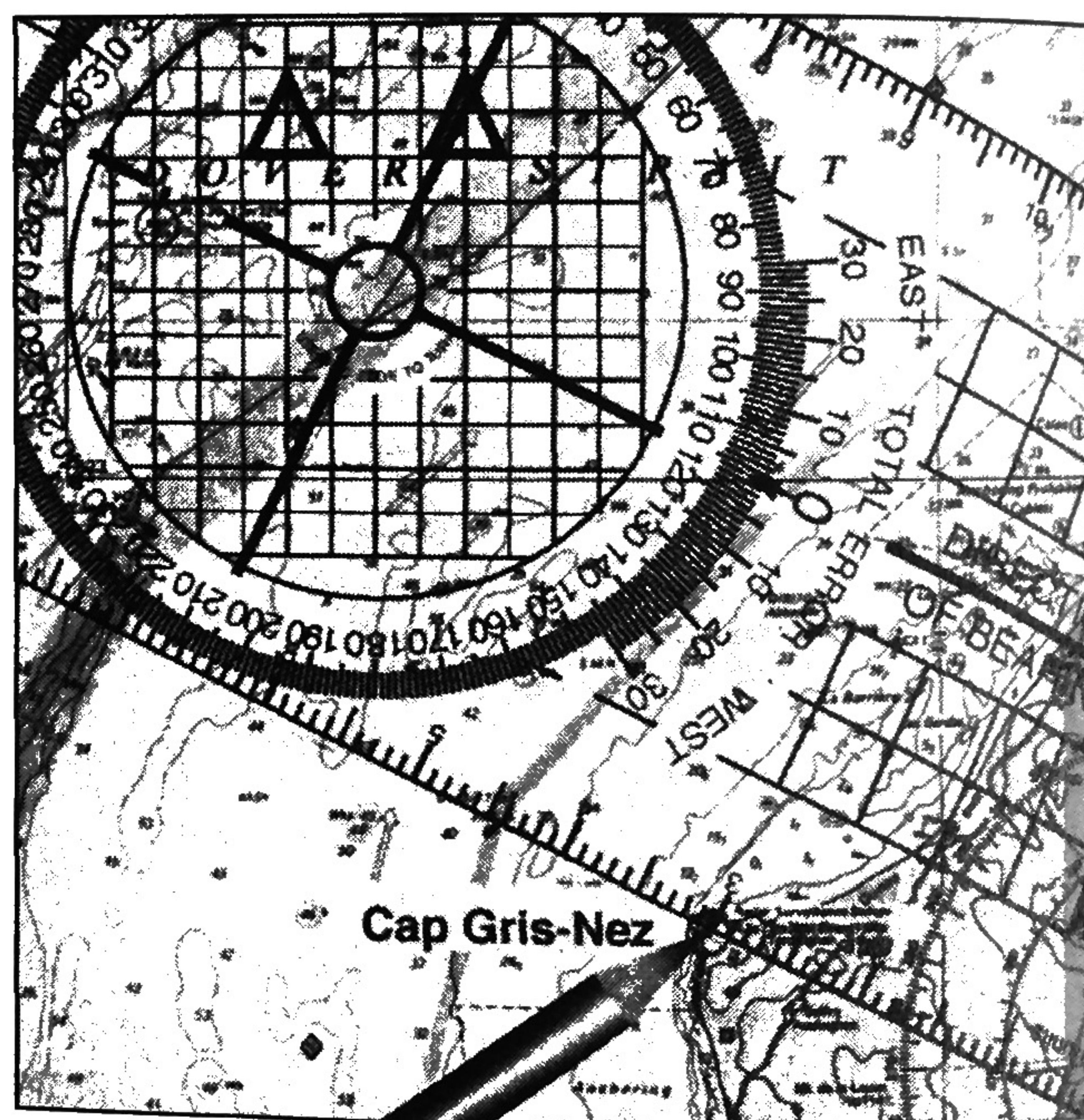
BEARINGS



What is the bearing ($^{\circ}$ M) of East Goodwin Light Vessel from South Goodwin Buoy? Variation 5 $^{\circ}$ W.

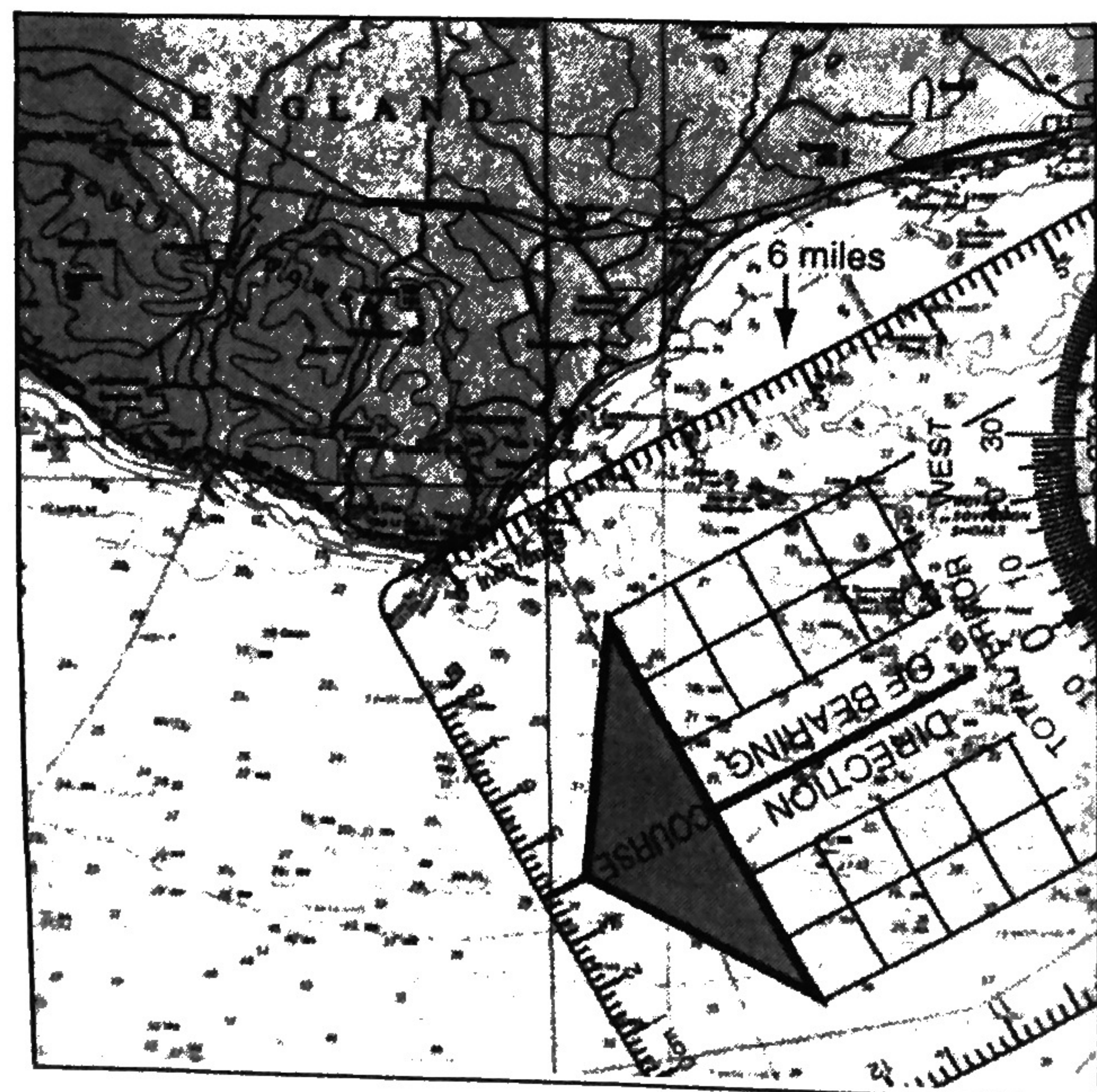
Lay the edge of the Course Plotter along the line between the two marks with the big blue arrow in the direction of the bearing. Swivel the compass rose until N is pointing North and the grid lines up with a convenient line of latitude or longitude.

Read off the bearing allowing for 5 $^{\circ}$ W variation, in this case 050 $^{\circ}$ M.



Example:

- Plot a bearing of 123 $^{\circ}$ (M) on Cap Gris-Nez Lighthouse? Variation 7 $^{\circ}$ W.
- Dial the bearing by rotating the compass rose until 123 $^{\circ}$ lines up with 7 $^{\circ}$ W on the total error scale. With a pencil held firmly on Cap Gris-Nez on the chart, swivel the plotter until the grid on the compass disc aligns with a convenient latitude or longitude line.
- Draw bearing.



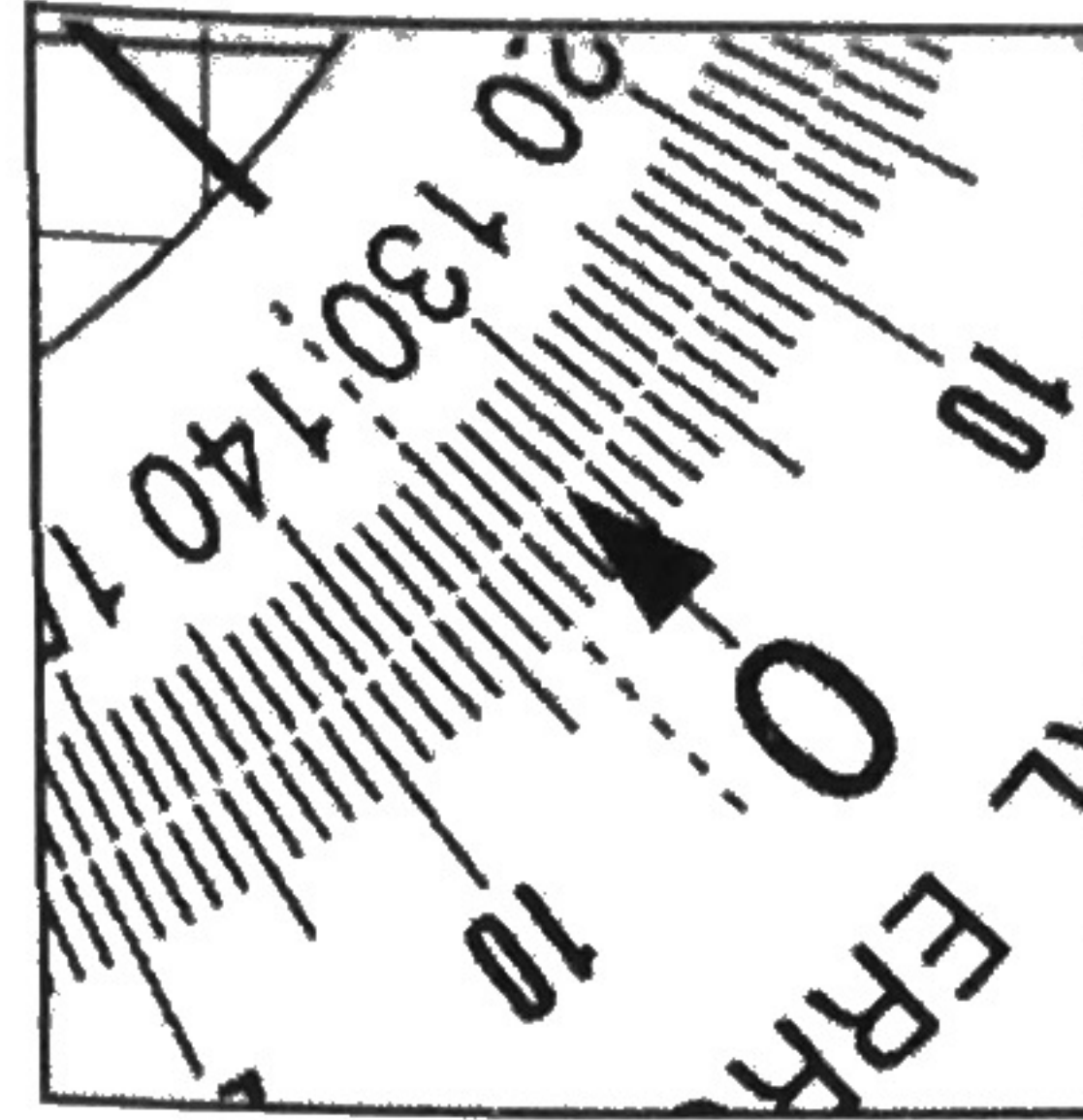
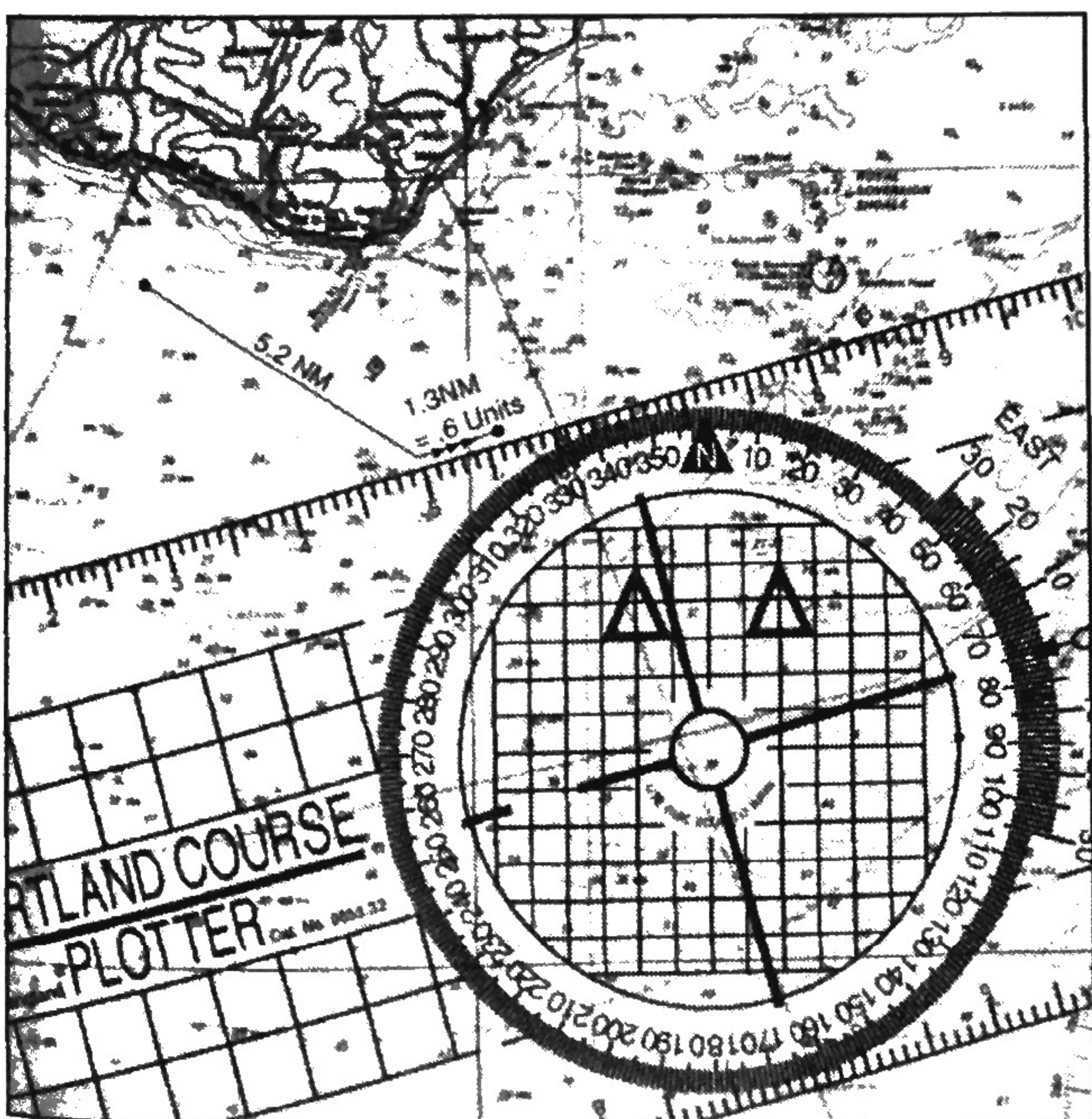
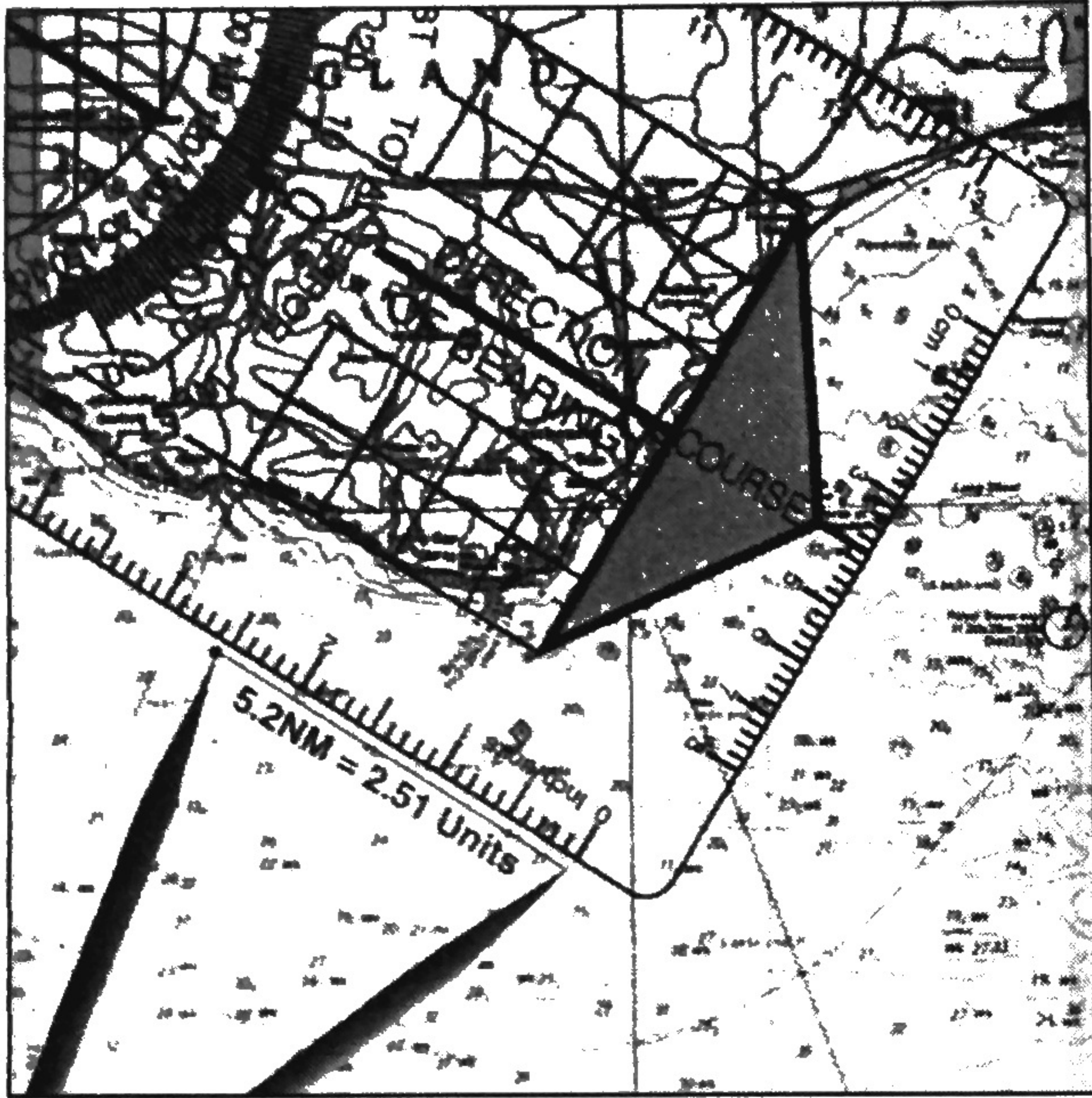
POSITION

Example:

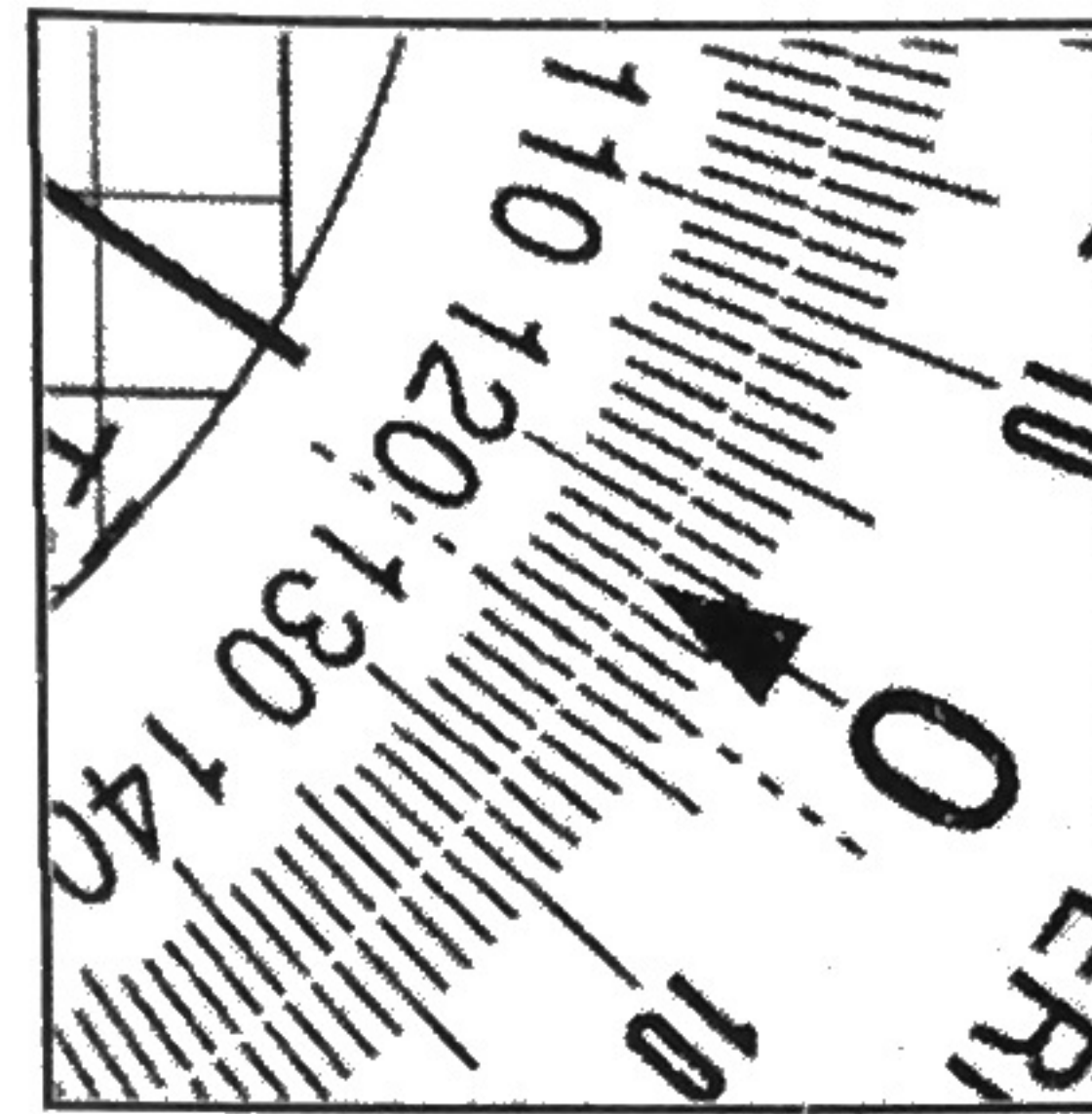
- Plot the GPS position 241 $^{\circ}$ (T) towards Beachy Head lighthouse 6 miles
- Dial in the bearing and line up the Course Plotter as before. You can use the scale on the side of the Course Plotter to transfer distance from the latitude scale on the side of the chart. In the case 6 miles = 2.9 units.

ESTIMATED POSITION

- Course steered 135°C, 3°E deviation. 6°W variation, 10° leeway in a SW wind. 5.2M logged distance and tidal stream 2 hours before HW Springs.
- Dial in course. Tidal correction for deviation and variation is 3°W. Subtract 10° leeway by keeping disc still and rotating Course Plotter away from the wind.

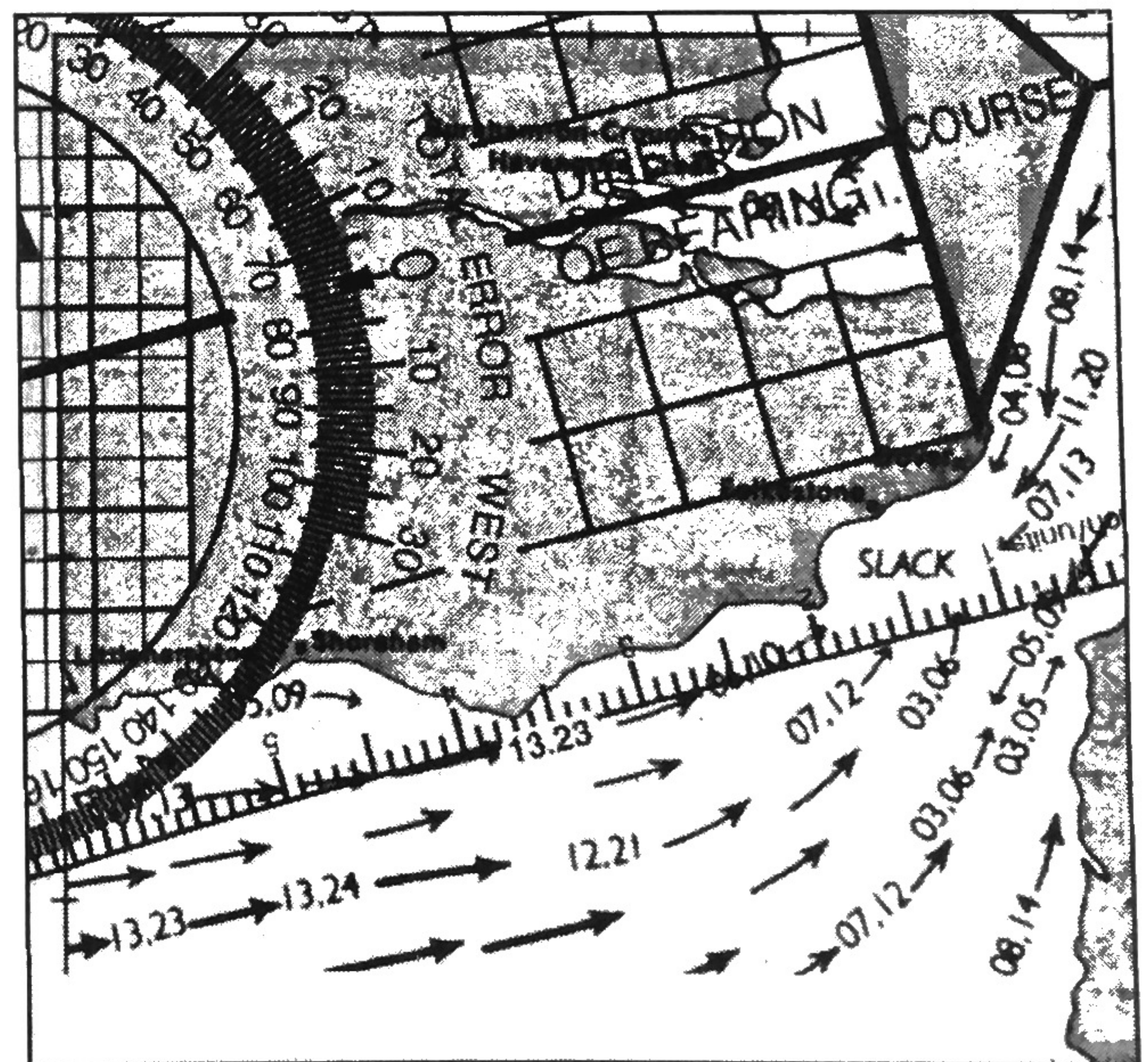


Total correction for deviation and variation is 3°W.



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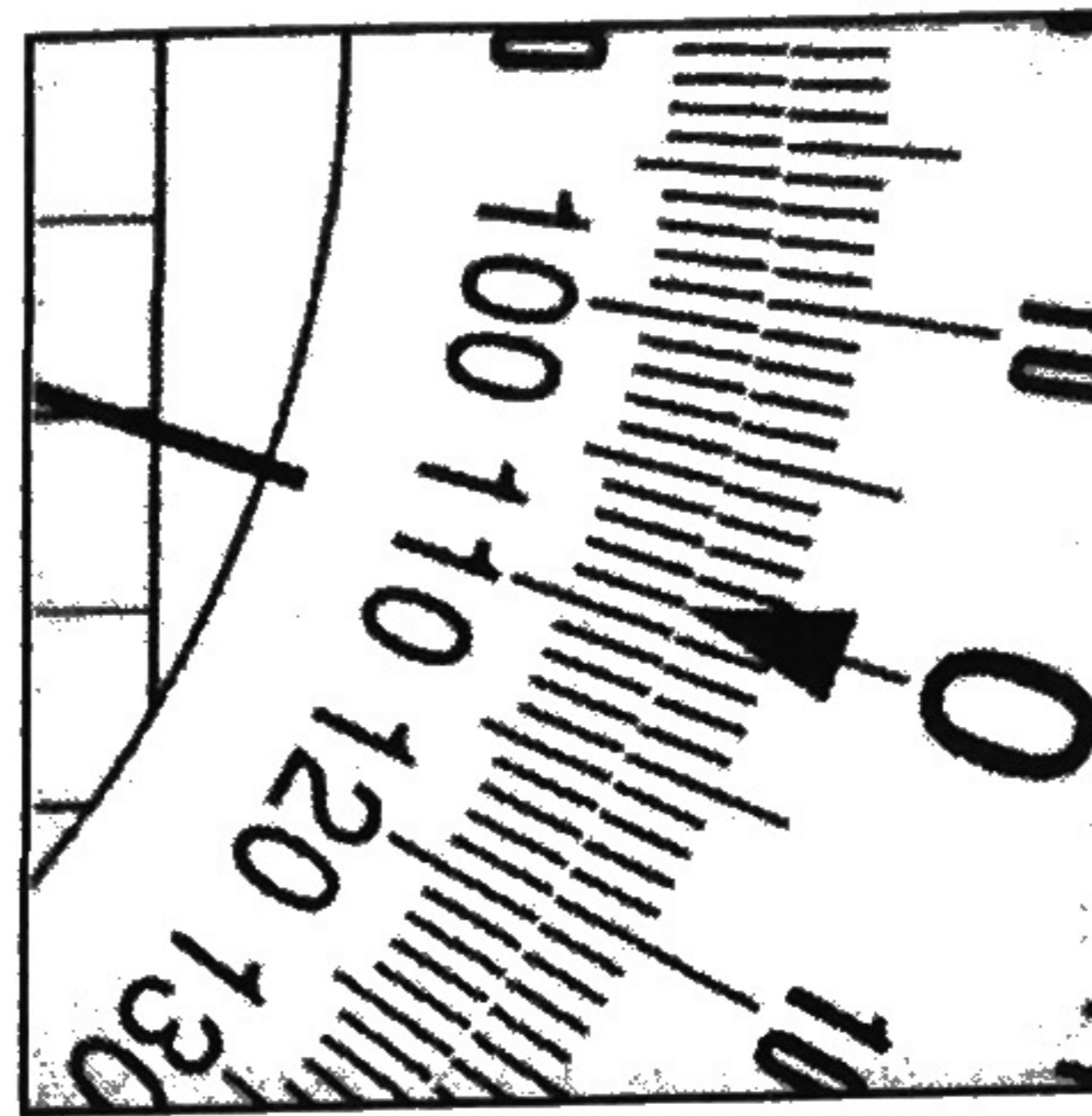
- Plot course by lining up compass rose disc with latitude or longitude.



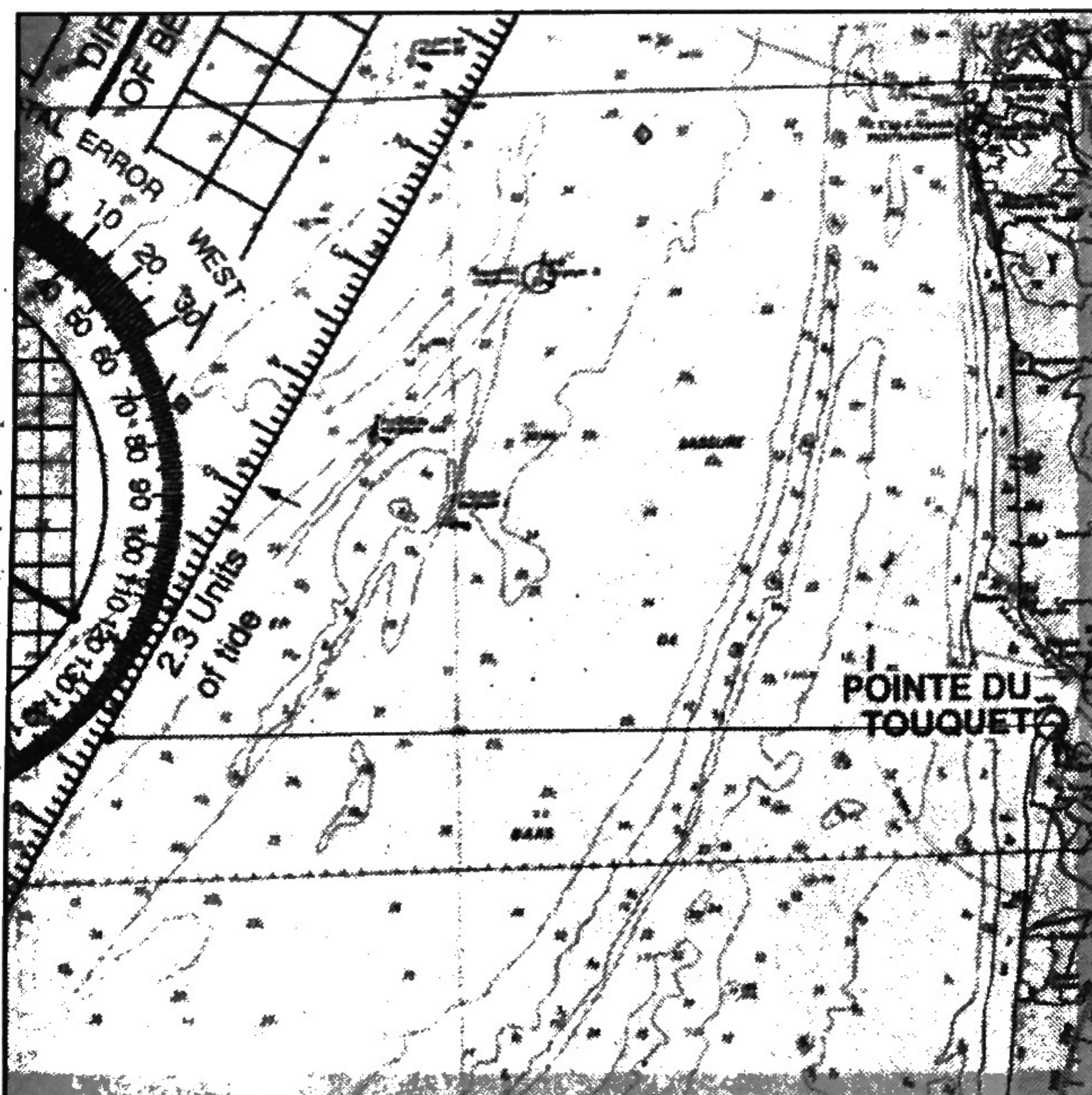
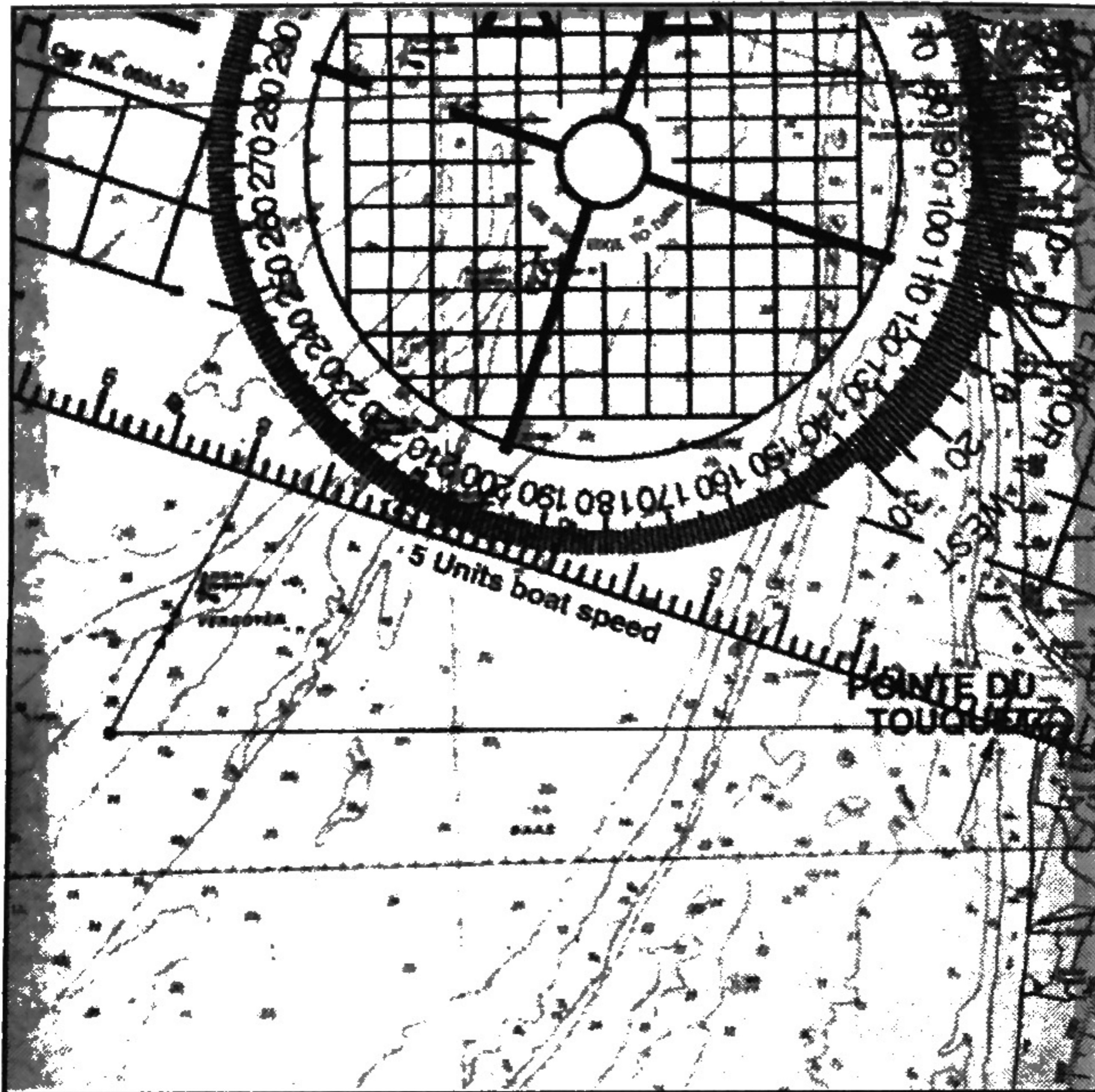
- Take tidal stream direction directly from tidal stream atlas.
- Transfer to chart.

QUICK COURSE TO STEER

- Using Scale Plotter, course to Pointe du Touquet, boat speed 5 knots, tidal stream 030° 2.3 knots. Variation 5°W.
- Plot tidal stream from the boat's position using 2.3 units on side of Course Plotter.



- Rotate disc to give course to steer 109° (T), 114° (M).



- Measure five units from end of tidal vector to rhumb line.