-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

Hanover House
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- **0068665** **-Session-1986-87**
-Superclass- **ZF**

-Title- **CHARTWORK 2 (x $^{1}/_{2}$)**

-DESCRIPTION-

Type and Purpose	A general module ($^{1}/_{2}$) which enables the student to extend his/her ability to plot a position and to establish the safe passage of a vessel.
Preferred Entry Level	08613 Chartwork 1
Learning Outcomes	The student should: 1. fix the position of a vessel by different types of position line and position circle; 2. estimate the position of a vessel from available data; 3. plot a running fix; 4. establish the course to steer to make good an intended track; 5. use a single position line to make a landfall.
Content/ Context	Corresponding to the Learning Outcomes: 1. Use of lines of sounding, bearings, transits, radio bearings, horizontal angles, vertical angles, dipping distances, radar distances and Decca lines to fix a vessel's position.

2. (a) Understanding of terms: track, track angle, track made good, heading, course, course to steer, set, drift, drift angle, leeway, leeway angle, DR (and symbol), EP (and symbol), Sea Position and Most Probable Position.

   (b) Application of above terms to establish DR and EP, course and distance made good and ETA.

3. Transfer of position lines, both bearings (astronomical and terrestrial) and horizontal angles to fix a vessel's position, establishing distance and time off specified points. Four point bearings and doubling angle on bow.

4. Establishing course to steer to counteract current and leeway; speed required to arrive at a specified time.

5. Use of a single position line (astronomical or terrestrial) to make a landfall.

Suggested Learning and Teaching Approaches

Active learning and teaching approaches should be used throughout, with students being exposed to charts and equipment at as early a stage as possible.

Students should work individually, in pairs and in groups.

The importance of safety and accuracy should be emphasised throughout.

Assessment Procedures

A checklist should be used for formative assessment of learning outcomes 1-5 inclusive. The student should be kept informed of progress throughout and remedial tuition should be provided in a suitable form when appropriate. Learning outcomes 1-5 inclusive should be summatively assessed by the following checklist. A tick or cross should be used to record satisfactory/unsatisfactory performance. Satisfactory performance in all items of the checklist on two occasions should be considered as adequate evidence that the student has achieved the learning outcomes.

Checklist

The student:

1. selects appropriate chart;

2. selects appropriate navigational drawing instruments;

3. selects appropriate publications as information sources;

4. correctly obtains required information from publications;

5. uses appropriate combinations of data as indicated in paragraph 1 of content/context to fix the position of a vessel;

6. correctly calculates DR and EP from given data;

7. estimates course correctly;

8. correctly estimates distance made good;

9. estimates appropriate ETA at a given point;

10. correctly uses position lines and horizontal angles to fix the position of a vessel and to establish distance and time off specified points;

11. establishes correct course to steer to counteract current and leeway;

12. establishes correct speed required to arrive at a given position at a given time;

13. uses a single position line to make an acceptable landfall.