(ii) by terrestrial observations, including the ability to use bearings from landmarks and aids to navigation such as lighthouses, beacons and buoys in conjunction with appropriate charts, notices to mariners and other publications to assess the accuracy of the resulting position fix;

(iii) using all modern ship electronic navigational aids to the satisfaction of the Administration, with specific knowledge of their operating principles, limitations, sources of error, detection of misrepresentation of information and methods of correction to obtain accurate position fixing.

3. *Watchkeeping*

(a) Demonstrate thorough knowledge of content, application and intent of the International Regulations for Preventing Collisions at Sea, including those Annexes concerned with safe navigation.

(b) Demonstrate knowledge of Regulation II/1 – "Basic Principles to be Observed in Keeping a Navigational Watch".

4. *Radar equipment*

Demonstrate in conjunction with the use of radar simulator or, when not available, manoeuvring board, knowledge of the fundamentals of radar and ability in the operation and use of radar, and in the interpretation and analysis of information obtained from this equipment, including:

(a) factors affecting performance and accuracy;

(b) setting up and maintaining displays;

(c) detection of misrepresentation of information, false echoes, sea return, etc;

(d) range and bearing;

(e) identification of critical echoes;

(f) course and speed of other ships;

(g) time and distance of closest approach of crossing, meeting or overtaking ships;

(h) detecting course and speed changes of other ships;

(i) effect of changes in own ship's course or speed or both;

(j) application of the International Regulations for Preventing Collisions at Sea.

5. *Compasses – magnetic and gyro*

Ability to determine and correct the errors of the magnetic and gyro-compasses and knowledge of the means for correcting such errors.

6. *Meteorology and oceanography*

(a) Demonstrate the ability to understand and interpret a synoptic chart and to forecast area weather, taking into account local weather conditions.