



The Rule is followed by an explanation Rule 6 Safe speed

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

In determining a safe speed the following factors shall be among those taken into account:

(a) By all vessels:

- (i) the state of visibility;
- (ii) the traffic density including concentrations of fishing vessels or any other vessels;
- (iii) the manoeuvrability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;
- (iv) at night the presence of background light such as from shore lights or from back scatter of her own lights;
- (v) the state of wind, sea and current, and the proximity of navigational hazards;
- (vi) the draught in relation to the available depth of water.

(b) Additionally, by vessels with operational radar:

- (i) the characteristics, efficiency and limitations of the radar equipment;
- (ii) any constraints imposed by the radar range scale in use;
- (iii) the effect on radar detection of the sea state, weather and other sources of interference;
- (iv) the possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range;
- (v) the number, location and movement of vessels detected by radar;
- (vi) the more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.

Explanation

Every vessel shall **at all times**," indicating its universal application, in good visibility as well as poor.

How much does speed affect safety? There have been very few collisions between stopped vessels. Vessels that are involved in collisions, excessive speed is usually a factor.

Consideration of speed must always be borne in mind as a closing situation may develop rapidly. A watch keeper should be free to make a reduction in speed without having first to notify the master or engineers, this might mean having the engines on stand-by ready for immediate manoeuvre, particularly an area of restricted visibility.

6 ai) Visibility is conventionally the most important consideration in setting the speed of a vessel and must always be considered when setting a safe speed.



6 aii) Traffic density is important because the probability of a collision increases with the density of traffic. It should be remembered that slowing will allow more time to assess the situation in dense traffic.



6 aiii) The vessel's manoeuvrability considering the vessels stopping distance and turning circle for the condition of the vessel (loaded, lightship)



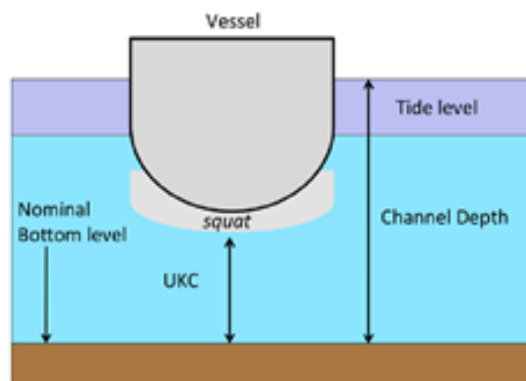
6a iv) Background lights can cause a decrease in night vision and back scatter can mean that small or even large ships lights are lost in shore lights. More look-outs might be need, use of the radar and a reduction in speed should be considered.

6a v) The state of wind, sea and current, and the proximity of navigational hazards must be monitored and considered when determining a safe speed.

6a vi) Draft needs as if there is little underkeel clearance there is a likelihood of running aground, slower speed gives more time to assess the situation and if a grounding cannot be avoided, the damage will be less.

If a vessel's draft means it cannot navigate outside a channel it's options for manoeuvre are limited to reducing speed or stopping. A major course alteration to avoid collision may result in grounding.

Lack of UKC may also cause squat and the proximity of banks may cause banking of the vessel.

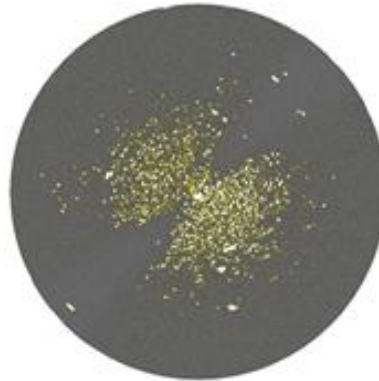


6 bi) The navigator needs to be aware of any blind sectors the radar set may have, if it is X-Band or S-Band radar

S-Band can see long ranges better and through weather. X-Band give a better image of the surrounding area but have a limited range and are used for navigation.

6 bii) The range scale selected determines the nature of the information available to the navigator. Short range gives good resolution and enables the detection of small targets. Long range scales sacrifice detail to gain early detection. It is best if the navigator switches scales regularly, or if the navigator has two or more sets, uses a different range scale on each set.

6 biii) Clutter should be adjusted correctly sea clutter to reduce interference caused by waves and rain clutter used with caution to reduce clutter caused by rain, so that targets can be detected.



6 biv) The location of the vessel and activities that may take place in the area such as fishing fleets. The season of the year are important in judging whether undetected vessels or ice may be present.

6 bv) Accurate radar plotting becomes more difficult as the number of vessels increases. Automated radar plotting aids (ARPA) make the task easier.

6 bvi) Visibility can be assessed accurately by noting when a vessel is first sighted or at night, when the vessel's lights are first seen.

