Forum

Collision Regulations and Fast Craft

R. D. Pike

KEY WORDS

1. Colregs. 2. Sea. 3. Safety.

1. INTRODUCTION. I wrote a paper for this Journal called *Fast Craft and Collision Regulations* two years ago that was an attempt to highlight weaknesses in the current Colregs that had become apparent through the advent of large fast craft, mainly fast ferries. The paper offered possible amendments to the Colregs in order to correct the situation and bring some order to this increasingly complex situation. The matter of amendments to the Colregs was discussed at length right up to IMO sub-committee level, but amendment of the current Colregs was rejected largely because of the diversity of opinion about this subject. Without a consensus, it is difficult to effect change and with hindsight the proposals presented in my paper were too complex, and perhaps too far reaching. The purpose of this second paper is to propose a much simpler solution, one which takes into account current practice and which does not close the door to more defined action in the future.

2. CURRENT PRACTICE. Fast craft are not defined in the Colregs and so they are required to take action like any other vessel that comes under the auspices of the Colregs. However, IMO has taken two tentative steps into the world of fast craft firstly by requiring hovercraft to have an identifying flashing orange light and secondly by requiring Wing in Ground (WIG) craft to keep clear of all other vessels. The orange light on hovercraft is there to indicate that, because it is air not sea related, it will probably not be tracking in the way its navigation lights might indicate. This is irrelevant to the general fast craft situation, but it did reinforce the possibility of special signals for special craft, a possibility already established for fishing vessels, dredgers etc. The second point is much more relevant because it establishes the case for certain fast craft to keep out of the way of vessels, irrespective of other requirements of the Colregs.

3. RE-VISITING THE EARLIER PROPOSALS. One of the proposals put forward in my earlier paper was to have a special identifying signal for fast craft, but this was where much of the disagreement occurred. The idea came from the signal used on hovercraft, but hindsight suggests that, whilst such a signal may be desirable, it is not essential. It is difficult to develop a light signal that might be visible at an adequate distance for both day and night use, and the signal would not necessarily be visible at an early enough stage of an encounter to be viable and in poor visibility it would not be much help.

Trying to define what is a fast vessel is another problem area. What may be fast for a large ferry, may be quite reasonable for a small and highly manoeuvrable fast patrol boat or yacht, and it is not practical to have different speed classifications for different types of vessel. The solution to this aspect probably lies in setting a speed to which fast vessels should reduce to at a certain point of the collision avoidance manoeuvre.

The ruling that WIG craft should keep clear of all other craft sets a precedent which could be followed, with reservations, by other fast craft. Taking unilateral avoiding action to prevent a collision whilst distance and thus time separate the conflicting vessels is both logical and practical, such is the pattern set for WIG craft. It should be possible for a fast vessel to detect other craft either visually or by radar to enable such unilateral avoidance action to be taken. However this may not be the case when the encounters involve small craft such as yachts and fishing boats, which may only be detected perhaps within a 2 mile range or less in adverse conditions.

Part of the reason for proposing new rules for fast craft within the Colregs was to take the element of surprise out of encounters between fast and slow vessels. In the case of large vessels, this surprise could come from the realisation that there is not time to carry out collision avoidance manoeuvres when they are the give-way vessel in a fast craft encounter. For small craft it could be in the realisation that a fast vessel is only identified at close quarters when there may not be adequate time to take avoiding action. These problems suggest that there is a need for fast craft to slow to a more moderate speed when they come within a certain range of another vessel so that there is time to cope with the situation. This would also be the requirement in multi-vessel encounters.

4. PROPOSALS FOR CHANGE. Based on these requirements, there is a relatively simple solution to avoidance tactics involving fast craft which is:-

> A fast vessel may take avoiding action in its own right to avoid a collision, but when it comes within 2 miles of another vessel, it must slow down to a maximum of 30 knots.

If we establish the principle demonstrated in this proposed rule, then debate can establish the precise parameters. 30 knots has been proposed as the maximum speed because it is the sort of speed of the new generation of container, ro-ro and passenger ships, so it would not introduce any change in the collision avoidance tactics of these vessels, and they would not be included in the fast vessel definition. It is also a speed which is practical, in terms of not requiring a dramatic slowing down of the fast ferries so that there would be minimal interruption to their timetables.

The two mile distance for action is a compromise between a distance that still allows a reasonable time for collision avoidance action to be taken and the element of surprise for slow vessels, which may not have time to avoid the fast vessel. This is also the sort of distance at which many small craft might be detected by a fast vessel. However, one of the attractions of the proposed new rule is that these speeds and distances can be fine-tuned in the light of debate and if shipping circumstances change.

The relatively simple new rule would cover most fast vessel encounter situations and would offer protection to the small craft that are currently particularly vulnerable to fast craft both because they are often difficult to see and because they can find it difficult to take avoiding action. Other changes to help improve the situation of encounters between slow and fast craft would be brighter navigation lights on small

craft, and special radar identification for fast craft, but these do not have to be included in the proposed basic rule.

5. CONCLUSIONS:

(a) The simple rule proposed in this paper could improve the safety of encounters between slow and fast craft.
(b) The proposed rule would also help in multi-vessel encounters.
(c) The proposed rule builds on established precedents in the rules such as WIGs taking unilateral avoiding action and slowing down in poor visibility.

Removal of an Ambiguity from the Maritime Collision Regulations

R. W. Cooper

KEY WORDS

1. Colregs. 2. Sea. 3. Safety.

One of the essentials of the Collision Regulations is that they should, so far as possible, eliminate doubt in the minds of navigators using them. In recent years, an amendment has introduced a serious, dangerous doubt.

Consider a smallish vessel X crossing from the Thames Estuary to Flanders. To achieve this she must cross the SW-bound lane of the Dover Straits Separation Scheme at an angle as close to the normal as possible. Let us also consider a large vessel A bound south-west through the Straits. She will observe X on her starboard bow, and appreciate that a crossing situation requiring action under rule 15 exists. However, before taking that action, she observes that X is a smallish vessel.

If Ship X is less than 20 metres in length, she is required by rule 10(j) not to impede larger vessels in the lanes, and might be expected to act accordingly, probably by altering course. If she is more than 20 metres in length, she is forbidden this action under rule 17, which states that in this case, she 'shall keep her course and speed'.

We come to the first doubt. Ship A does not know whether Ship X's length is greater or less than 20 metres and thus does not know whether X will stand on or give way, a lack of knowledge that must affect A's decision.

Ship X knows her own length, and her future conduct depends on it. If she is less than 20 metres (case XX, say), then she is required 'not to impede' Ship A (rule 10(j)). The word impede is philosophically imprecise because it implies a quality judgement, in that one can have degrees of impedance. One can say, however, that any vessel with 2 miles of sea-room all round and keeping a proper look-out, would not normally be impeded at all by a requirement to observe rule 15. Small ship XX, who is willing to do whatever is best, is therefore in some doubt what to do. If she decides to interpret rule 10(j) generously and alters course to port to pass under A's stern, she risks coming head to head with Ship A altering course to starboard, perhaps one of the most dangerous situations in collision avoidance. (We assume that the vessels are far enough apart for rule 17(a)(ii) and 17(c) to be inappropriate).

What if ship X is just over 20 metres? (Call her XY). She is required to stand on under rule 17, which has no exception for her. She *must* stand on. But doubt and worry is in her mind also. Does Ship A (XY asks herself) know that I am over 20 metres and therefore not affected by rule 10(j)? Will A also stand on, mistakenly expecting me not to impede her, even though I am not permitted to take such action? With both ships standing on waiting for the other to make first move, we are in a dangerous game of chicken.

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This is a situation I frequently face aboard a working barge of 27 metres LOA. In many crossings I have yet to experience one without such a problem, for rule 10(j) has created an expectation in many ships that anything smaller than themselves is subject to it. In fact, things are usually resolved by a word or two on VHF but not all vessels respond to a VHF call, and not all navigators have enough English to have a sensible discussion. Radio, must then be discarded as a reliable way of resolution.

Clearly, given the number of very small yachts about, there is a need for a rule along the lines of rule 10(j), even though almost any yachtsman prefers to keep himself well clear of larger vessels, if only to avoid the effects of their wash as they pass. But few vessels between 20 and 30 metres are driven by amateurs and there is an urgent need for amendment to clarify. Intuition is not a good enough tool for collision avoidance in waters such as the Dover Straits.

It might be thought that an obligation on a vessel under 20 metres to display an indicating shape would do. I think not. It is poor psychology to require the vessel accepting a limitation to display the signal. In any event, yachtsmen are notorious for not displaying signals: the motor-sailing cone is a case in point: it is almost never seen.

It could be suggested that the size of 20 metres be increased to 30 metres, but that would only transfer the problem up the scale of size. There are valid arguments that the rule should specify 30 metres anyway, but that is beside this point. Rule 10(d) for example, prohibits a vessel of 21 metres from using the inshore traffic zones for a through passage, which is frankly silly.

Rule 10 is generally inadequately clear and needs review. If rule 10(j) is to be kept, then some form of visual signal is required.