

sextants out of the cases. We have, of course, been greatly helped by Venus and Mars in the evenings and by the Moon at all times, and I personally do not know whether these wanderers are always so conveniently placed, but have no doubt that we shall always be able to pull something out of the sky for our purpose.

We use a Rude indicator for roughing out the plan, but for real cloudy weather only the precise precomputation gives the confidence that makes one keep at it. Even in fine weather in the evenings, the skipper and myself have time to admire (?) the horizon we used to use, *after we have plotted our position on the chart*. Of course there has always been precomputing, but we in the body of the kirk had neither the time nor the inclination nor the talent for it. Nowadays the cadet can precompute half a dozen stars in fifteen minutes. A good A.B. could do it too.

It appears to me that it has at last been decided either (a) that we navigators of the merchant service are not to be trusted beyond simple addition in matters arithmetical, or (b) that the circumstances under which we work are such that we ought not to be pressed beyond that limit. Whatever it is I am in full agreement. ROLL OUT THE HOPPER.

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Radar and Collision at Sea

from Rear-Admiral J. A. Gauw

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THERE is a fast growing realization that the Steering Rules in the Regulations for Preventing Collisions at Sea should be attuned to the use of radar. The principle underlying the suggested rules which follow is to stick to the idea of Rule 18—that in case of risk of collision both vessels should take avoiding action. In order to make these rules practicable, a universal system has been thought out. Thus, the rules are meant to apply to vessels in sight of one another, as well as to vessels in radar-contact, or to a vessel in radar-contact with another vessel which is unaware of her presence. Secondly, there will be one and the same rule for power-driven vessels and sailing vessels.

The old complicated rule dating from the time of the hard-to-mancœuvre square-rigged sailing vessels ought to be cancelled. Most sailing vessels nowadays are able to turn on the spot and, besides, most of them have an auxiliary motor ready for immediate use. Under the proposed rules, sailing yachts would no longer have the right of way over big liners, or over any other power-driven vessels. The old Rule 21, which has not worked so well in the past, should be cancelled. That rule has many times resulted in unpredictable manœuvres at the last moment and consequently in collisions. It served the purpose of ships having the so-called right of way. As no ship can claim the right of way any more under the rules proposed here there is no longer any need for the old Rule 21.

Finally, it seems practicable to do away with the old Rule 24, which has also caused many doubtful situations in the past, and to give a more restricted meaning to the term 'overtaking vessel', such as of a vessel approaching another vessel end-on from astern. Any vessel coming up with another vessel from a

direction between 0 and 16 points will follow Rule 19. The new principle, that both vessels should take avoiding action, should moreover have the advantage that in case of collision it will be hard for one vessel to put all the blame on the other.

In order to shorten this note I will refrain from giving the complete concept of the new Steering Rules, but will indicate only the suggested alterations in, and additions to, the existing Part C of the Regulations for Preventing Collisions at Sea. The old numbering has been kept.

STEERING AND SAILING RULES

1. *To be preceded by: 'The Steering Rules apply in the first place to vessels in visual contact with each other. In the second place they apply in restricted visibility, with due regard to Rule 16, to vessels in radar-contact with each other, or to a vessel in radar-contact with another vessel which is unaware of her presence.'*

2. *A sentence to be added as follows: 'The compass-bearing may be ascertained either by carefully watching the approaching vessel from the compass itself, or by carefully watching the compass-bearing of the vessel on radar.'*

3. *Unchanged.*

Rule 17: To be cancelled.

Rule 18: First line—to omit the words 'power-driven'. To be added: It does apply also to a vessel observed by radar to approach on a compass-bearing that does not appreciably deviate from own compass-course and at a relative speed exceeding own speed.

Rule 19: The old rule to be cancelled. The new rule to read as follows: When two vessels are crossing, so as to involve risk of collision, the vessel which has the other on her own starboard side shall cross astern of the other, whereas the vessel which has the other on her own port side shall cross ahead of the other.

Rule 20: a. to be cancelled.

b. unchanged.

Rule 21: The old rule to be cancelled. The new rule to read as follows: When, by any of these rules, one of the two vessels is not under command, the one not under command shall keep her course and speed. When from any cause a vessel not under command or a vessel fishing with nets, lines or trawl finds herself so close that collision cannot be avoided by the action of the giving-way vessel alone, she shall if possible take avoiding action in accordance with one of the Rules 18, 19, 24, that would apply, with due regard to Rule 27.

Rule 22: To be cancelled.

Rule 23: To be cancelled.

Rule 24: A vessel coming up with another vessel end-on, or nearly end-on from astern, so as to involve risk of collision, will be referred to as 'the overtaking vessel'. The overtaking vessel shall alter her course to starboard so that she may pass on the starboard-side of the other. The vessel that is being overtaken shall alter her course to port to be passed on her starboard side.

Rule 25: Unchanged.

Rule 26: To be added: Vessels fishing with nets, lines or trawl shall, when under way, eventually follow Rule 21.

Rule 27: Unchanged.