RULES OF MANAGEMENT

I. In Rowing to Seaward.

As a general rule, speed must be given to a boat rowing in a heavy surf. Indeed, under some circumstances, her safety depends on the utmost possible speed being attained.

For if the sea be really heavy, and the wind blowing an on-shore gale, it can only be by the utmost exertions of the crew that any headway can be made. The great danger then is, that approaching heavy sea may carry the boat away on its front, and broadside on, or up-end it, either effect being immediately disastrous, for the boat's only chance in such a case is to obtain such way as to cause her to pass, end on, through the crest of the sea, and leave it as quickly as possible behind her. Of course, if there be a rather heavy surf no wind, or the wind off shore, and opposed to the surf as is mostly the case, a boat might be propelled so rapidly through it that the bow would fall more suddenly and heavily after topping the wave than if her way had been checked; and it may, therefore, when the sea is of such magnitude, and the boat is such a small thing that there may be a chance of the former carrying her backwards, that full speed should be given to her.

It may also happen that, by careful management, a boat may be made to avoid the sea, so that the waves may break ahead of her, which may be the only chance of launching a small boat; but if the shore be flat, and the broken water proceeds to a great distance from it, this will often be impossible.

The following general rules for rowing to seaward may be relied on:

1. *If sufficient command can be kept over a boat by those on board her to avoid or "dodge" the sea, if possible, timing it to meet it at the moment of its breaking or curling over.*

2. Against a head gale and heavy surf get all possible speed forward facing the boat on the approach of every wave which cannot be avoided.

3. If more speed can be given to a boat than is sufficient it will stop her being carried back by a surf, her way may be checked on the approach, which will give her an easier passage over it.

UP

II. On Running before a Broken Sea or Surf to the Shore

The one great danger, when running before a broken sea, is that of "broaching to." To that peculiar effect of the sea, so frequently destructive to human life, the utmost attention must be directed.

The cause of a boat's broaching to when running before a broken sea or surf is, that her own motion being in the same direction as that of the sea, whether it be given by the force of oars or sails, or by the force of the sea itself, she opposes no resistance to it, but is carried before it. Thus, is a boat be running with her bow to the shore, and her stern to the sea, the first effect of the surf or roller, on its overtaking her, is to throw up the stern, and as a consequence to depress the bow; if she then has sufficient inertia (which will be proportional to weight) to allow the sea to pass her, she will in succession pass through the descending, the horizontal, and the ascending positions, as the crest of the wave passes successively her stern, her midships, and her bow., in the reverse order in which the same positions occur to a boat propelled to seaward against a surf This may be defined as the safe mode of running before an open sea.

But if a boat, on being overtaken by a heavy surf has not sufficient inertia to allow it to pass her, the first of the three positions above enumerated alone occurs; her stern is raised high in the air, and the wave carries the boat before it, on its front, or unsafe side, sometimes with frightful velocity, the bow all the time deeply immersed in the hollow of the sea, where the water, stationary or comparatively so, offers a resistance, whilst the crest of the sea, having the actual motion which causes it to break, forces onward the stern, or rear end of the boat. A boat will, in this position, sometimes aided by careful oar steerage, run a considerable distance until the wave has broken and expended itself but it will often happen, that if the bow

be low it will be driven under water, when the buoyancy being lost forward, whilst the sea presses on the stern, the boat will be thrown, as it is termed, end over end; or if the bow be high, or it be protected, as in most life-boats, by a bow air chamber, so that it does not become submerged, then the resistance forward acting on the bow will slightly turn the boat's head. and the force of the surf being transferred to the opposite quarter, she will in a moment be turned around broadside by the sea, and be thrown by it on her beam-ends, or altogether capsized. It is in this manner that most boats are upset in a surf, especially on flat coasts, and in this way many lives are annually lost amongst merchant seamen when attempting to land, after being compelled to desert their vessels.

Hence it follow that the management of a boat, when landing through a heavy surf, must, as far as possible, be assimilated to that when proceeding to seaward against one, ***at*** *least so far as to stop her progress shoreward at the moment of being overtaken by a heavy sea, and thus enabling it to pass her. There are different ways of effecting this object:*

1. By turning a boat's head to the sea before entering the broken water, and then backing in stern foremost, pulling a few strokes ahead to meet each heavy sea, and then again backing astern. If a sea be really heavy and a boat small, this plan will be generally the safest, as a boat can be kept more under command when the full force of the oars can be used against a heavy surf than by backing them only.

2.If rowing to shore with the stern to seaward, by backing all the oars on the approach of a heavy sea, and rowing ahead again as soon as it has passed to the bow of the boat, thus rowing in on the back of the wave; or, as is practiced in some life-boats, placing the after-oarsmen with their faces forward, and making them row back at each sea on its approach.

3.If rowed in bow foremost, by towing astern a pig of ballast or large none, or a large basket, or a canvas bag termed a "drogue" or drag, made for the purpose, the object of each being to hold the boat's stern back, and prevent her being turned broadside to the sea or broaching to.

Drogues are in common use by the boatmen on the Norfolk coast; they are conical-shaped bags of about the same form and proportionate length and breadth as a candle extinguisher, about two feet wide at the mouth, and four and a half feet long. They are towed with the mouth foremost by a stout rope, a small line, termed a tripping line, being fast to the apex or pointed end. When towed with the mouth foremost they fill with water, and offer a considerable resistance, thereby holding back the stern; by letting go the stouter rope and retaining the smaller line, their position is reversed, when they collapse, and can be readily hauled into the boat.

— Drogues are chiefly used in sailing-boats, when they both serve to check a boat's way and to keep her end on to the sea. They are, however, a great source of safety in rowing-boats, and the rowing life-boats of the National Lifeboat Institution are now all provided with them.

A boat's sail bent to a yard and towed astern loosed, the yard being attached to a line capable of being veered, hauled, or let go, will act in some measure as a drogue, and will tend much to break the force of the sea immediately astern of the boat.

Heavy weights should be kept out of the extreme ends of the boat; but when rowing before a heavy sea the best trim is deepest by the stern, which prevents the stern being readily thrown on one side by the sea.

A boat should be steered by an oar over the stern, or on one quarter, when running before a sea, as the rudder will then at times be of no use. If the rudder be shipped, it should be kept amidships on a sea breaking over the stern.

The following general rules may, therefore, be depended on when running before, or attempting to land, through a heavy surf or broken water:

1.As far as possible avoid each sea by placing the boat where the sea will break ahead or astern of her.

2.If the sea be very heavy, or the boat be very small, and especially if she have a square stern, bring her bow round to seaward and back her in, rowing ahead against each heavy surf that cannot be avoided sufficiently to allow it to pass the boat.

— 3. If it be considered safe to proceed to the shore bow foremost, back the oars against each sea on its approach, so as to stop the boat's way through the water as far as possible, and if there is a drogue, or any other instrument in the boat which may be used as one, tow it astern to aid in keeping the boat end on to the sea, which is the chief object in view.

4.Bring the principal weights in the boat towards the end that is to seaward, but not to the extreme end.

5. If a boat, worked by both sails and oars, be running under sail for the land through a heavy sea, her crew should under all circumstances, unless the beach is quite steep, take down her masts and sails before entering the broken water, and take her to land under oars alone, as above described, If she have sails only, her sails should be much reduced, a half-lowered foresail or other small head-sail being sufficient.

UP

III. Beaching or Landing through a Surf

The running before a surf or broken sea, and the beaching or landing of a boat, are two distinct operations; the management of boats, as above recommended, has exclusive reference to running before a surf where the shore is so flat that the broken water extends to some distance from the beach. Thus on a very steep beach, the first heavy fall of broken water will be on the beach itself, whilst on some very flat shores there will be broken water as far as the eye can reach, sometimes extending to even four or five miles from the land. The outermost line of broken water, on a flat shore, where the waves break in three and four fathoms water, is the heaviest, and therefore the most dangerous, and, when it has been passed through in safety, the danger lessens as the water shoals, until, on nearing the land, its force is spent and its power harmless. As the character of the sea is quite different on steep and flat shores, so is the customary management of boats on landing different in the two situations. On the flat shore, whether a boat be run or backed in, she is kept straight before or end on to the sea until she is fairly aground, when each surf takes her further in as it overtakes her, aided by the crew, who will then generally jump out to lighten her, and drag her in by her sides. As above stated, sail will in this case have been previously taken in if set, and the boat will have been rowed or backed in by oars alone.

On the other hand, on the steep beach it is the general practice, in a boat of any size, to retain speed right on to the beach, and in the act of landing, whether under oars or sail, to turn the boat's bow half round towards the direction from which the surf is running, so that she may be thrown on her broadside up the beach, where abundance of help is usually at hand to haul her as quickly as possible out of the reach of the sea. In such situations, we believe, it is nowhere the practice to back a boat in stern foremost under oars, but to row in under full speed as above described.