Flag Signalling at Sea

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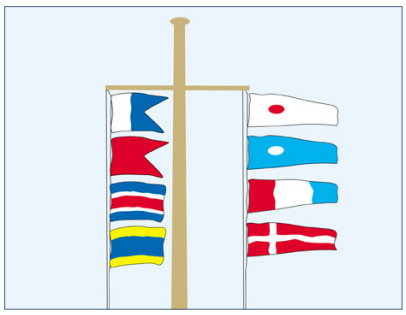
Numerary Systems

The development of Numerary Systems for signalling by flags in the latter part of the 18th century, first by the French, followed by the British, enabled ships for the first time to hold conversations with each other, albeit in a rather stilted form. The enthusiastic response to this was well expressed by Captain Blackwood of the frigate *Euryalis*, keeping watch off Cadiz two days before the Battle of Trafalgar. Writing to his wife he said:

"...though our fleet was at sixteen leagues off, I have let Lord N. know of their coming out...At this moment we are within four miles of the Enemy, and talking to Lord Nelson by means of Sir H Popham's signals, though so distant, but repeated along by the rest of the frigates of this Squadron."

International Code

During the next half century the main effort was devoted to refining the numerary system, and expanding it to include an International Code for merchant ships. This consisted of 26 Alphabetic flags and 10 Numeral pennants, plus a few special flags which we will come to in a minute. Signal flags are usually made in the proportion 5:4.

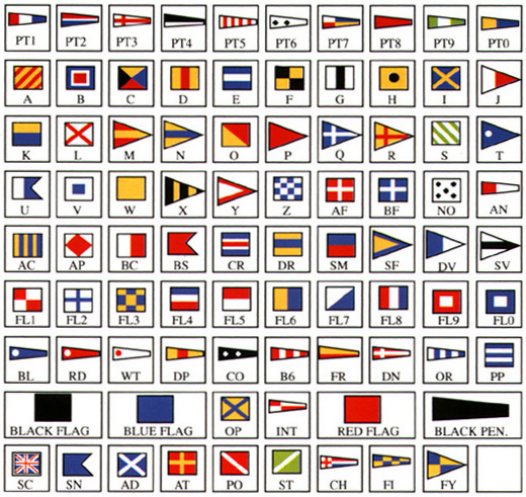


International Signal Flags

Naval Flags

Then came the introduction of steam propulsion and the ability for naval ships to manoeuvre together in close company, and at considerable speeds. Thus there was the need for more comprehensive signal books and procedures to allow for the rapid signalling of manoeuvres, tactics, fighting instructions and so on.

New naval signal books were introduced, together with many new flags and pennants for Naval purposes, and warships had to carry these as well as those used with the International Code.

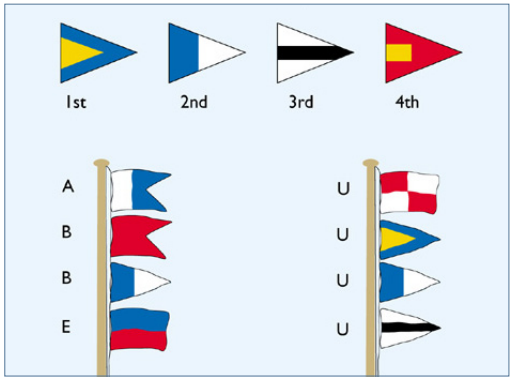


The Royal Navy Signal Flags of 1940

There are many special naval flags and pennants, but the International Code flags and pennants are there, buried amongst the naval ones. The two alphabets, for example, were quite different, although many of the same flags were used. Thus international flag Y was naval flag A, international E was the naval submarine flag, international A is naval U and so on. All very confusing for the wretched signalman who had to learn both systems. Also, each navy adopted its own flag codes, so communication between navies had to be either by international code, or by lending signal books and liaison teams for particular exercises or operations. This was still the case during WW2.

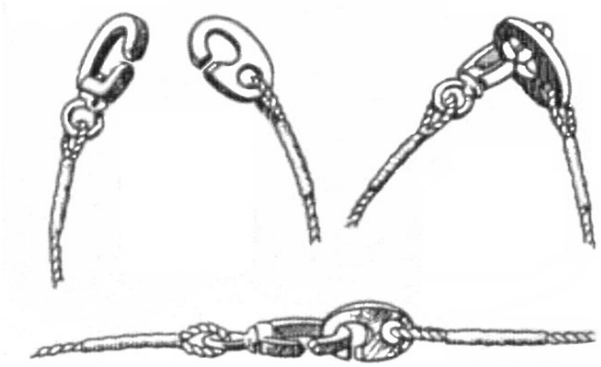
Substitutes

Signal groups (or hoists) were usually limited to three or four flags, but if two or three groups were hoisted together a large number of each flag would have to be carried, and to reduce this number the substitute system was adopted. There are three substitute pennants in the international code and four naval. The 1st sub would represent the top flag in a hoist, the 2nd sub the second flag and so on.



Inglefield Clips

Speed and accuracy in signalling became paramount. The rope eye and toggles were not conducive to speed, especially in cold weather when the ropes tended to freeze solid. Edward Inglefield, flag lieutenant to the C-in-C Channel Squadron in 1888 described how the signalmen had to open the rope eyes with their teeth, and he thought of designing clips "rather like putting the forefinger and thumb together with a slight opening". He had some made for trial and immediately his ship began winning all the flag signalling competitions. Eventually other ships realised the reason for this, and by about 1900 the Inglefield Clip had become the standard fitting for naval flags.



Inglefield Clips

To speed up flag hoisting, flags were stowed in the locker with the clips outward, so that the signalman could bend on three or four flags and then the halyard pulled the whole lot out as the group was hoisted. In the first half of the 20th century, even with the advent of wireless, manoeuvring by flags still held sway. It could only be used by day of course, but then it was not policy to engage in full scale battles at night. Flags were an efficient system for ships in close company, and popular because admirals and captains could see what was happening and they felt firmly in control of the situation.

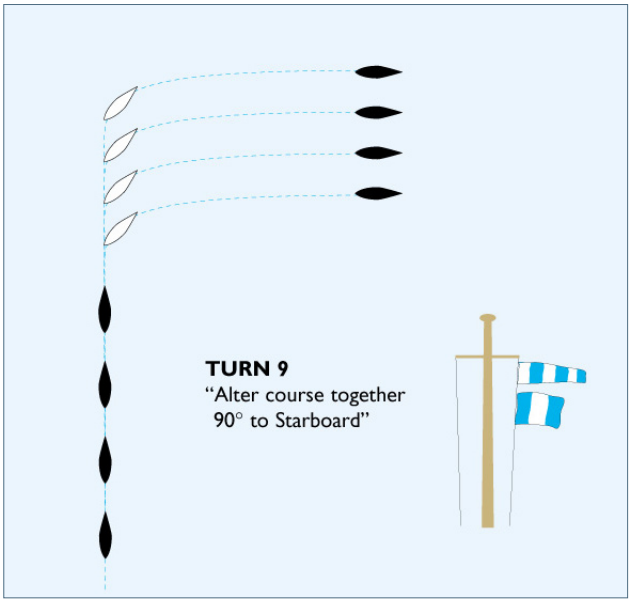
I mentioned that each navy had its own flag codes, and surprisingly it was not until after WW2 that all NATO navies adopted a common flag code.

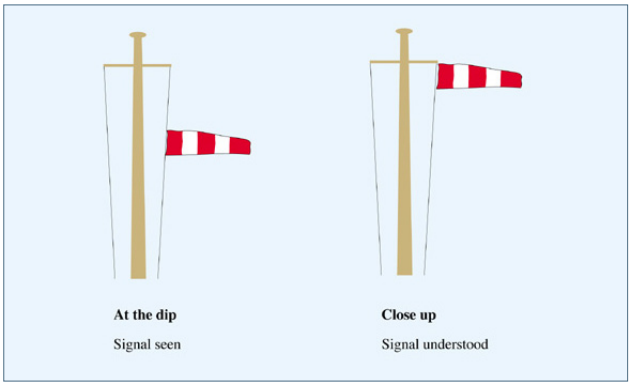
Manoeuvring by Flags

Here are examples of how simple manoeuvres are signalled. Most basic manoeuvres involve ships either turning together, or following each other round in succession.

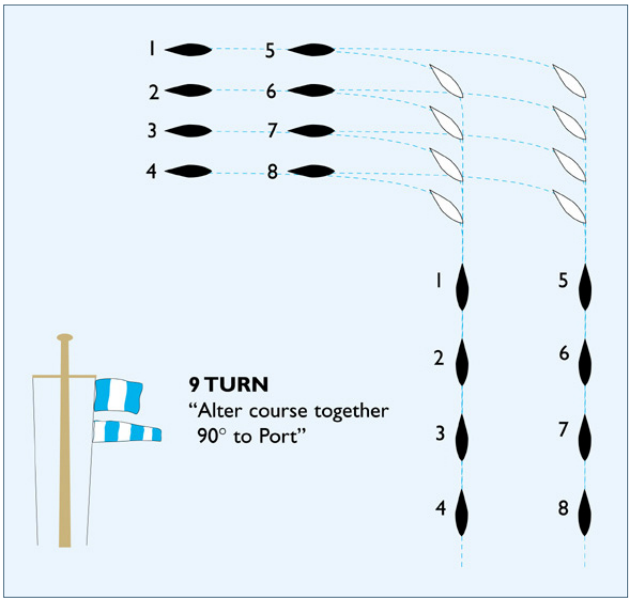
TURN 9 means "Turn together 090° to starboard". Other ships hoist the ANSWER pennant 'at the dip', half way up, to indicate that they have seen the hoist. When they have decoded and understood the meaning, and are ready to carry out the manoeuvre, they hoist it close up.

To 'execute' the manoeuvre the flagship hauls down the signal, and other ships haul down the ANSWER pennant. If it is difficult for some ships to read the signal, for example when in single line ahead, ships in between will repeat the flagship's hoist instead of the ANSWER pennant, first at the dip, then close up.

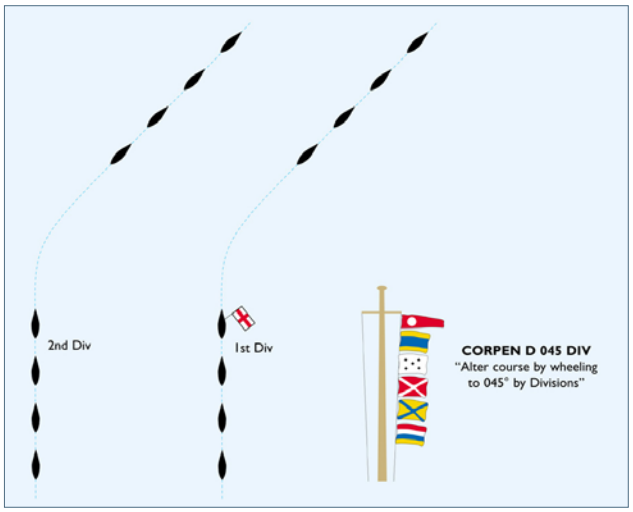




To turn to port instead of starboard, the position of the flags is reversed, thus 9 TURN means "Turn 90° to port".



To order a turn in succession, also called a wheel, the CORPEN pennant is used. Thus CORPEN D 045 DIV means "Alter course by wheeling to 045° by Divisions".



If more than one signal is hoisted at the same time, as here in the flagship of a battle squadron, then the upper is read before the lower, and if there are hoists on the same yardarm, starboard before port. In this case in the naval code of the day the upper hoist is: Flag Zero Pennant 5 which is the address of the 5th Battle Squadron, and the lower hoist is: Flag G Numeral flags 25, which means "Speed is to be 25 knots". When other ships have their ANSWER pennants close up the Admiral is free to execute the manoeuvre by smartly hauling down both hoists.

Sometimes things go wrong, like 'Hoist Adrift'. Then someone has to go aloft to recover the halyard, or possibly use a gadget like this. The only thing for the flagship to do is quickly hoist the same signal on another halyard.

Gadget hauled up on another halyard to try to recover a hoist that has been let go

Marching Manoeuvres

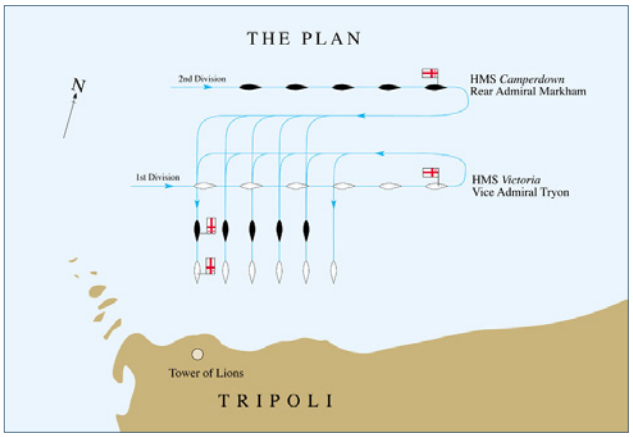
Training Signalmen was of course vital. This was done by what were called Marching Manoeuvres. Here each man represents a ship, the 'Admiral' with an appropriate flag, the others with ANSWER pennants. The 'Admiral' shouts out the flag signal, the ANSWER pennants are held out horizontally, or at the dip, until the signal is understood, then held up vertically until the Admiral shouts 'Execute' and off they go. Of course the aim of the class would often be to try to delay or misunderstand the signal so that the class would go galloping through the flower beds.

Disaster

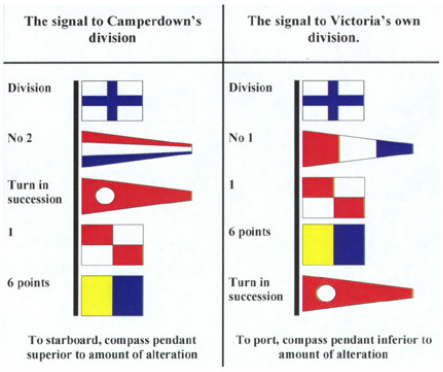
If the correct procedure was not followed, disaster could result. In 1893 the British Mediterranean Fleet was being manoeuvred by the C-in-C, Admiral Tryon, prior to anchoring off Beirut. The admiral was a great innovator and manoeuvring expert and loved testing his captains with new ideas . Like most admirals of the time, he had a beard, looked pretty fierce and was both feared and respected by more junior officers.

Admirals Tryon and Markham

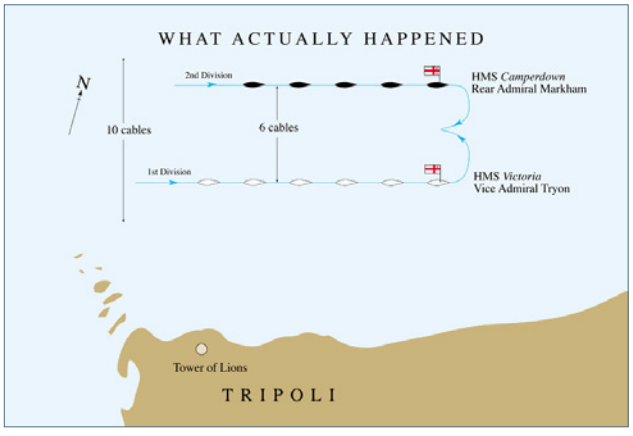
His second-in-command was Rear Admiral Markham, who commanded the 2nd Division. The C-in-C's plan was to reverse the course of the fleet by each Division wheeling inwards, then turning together towards the anchoring position. At the start the two columns were 6 cables (1,200 yards) apart, and as the ship's turning circles were about 4 cables, this was too close to carry out the proposed manoeuvre. To be safe the columns needed to be at least 10 cables apart, that is twice the diameter of the turning circles plus at least two cables. The staff pointed this out to the admiral, rather diffidently, but he said "Leave it as it is". Despite their misgivings, the staff assumed that he knew what he was doing and no doubt had something clever up his sleeve.



So up went the two hoists, one telling the 1st Division to wheel to port, the other for the 2nd Division to wheel to starboard.



Other ships hoisted their ANSWER pennants at the dip, but kept them there while they checked what the signals meant. They all realised that the manoeuvre appeared to be impossible, but like the admiral's staff they assumed their much respected admiral had a solution, and one after the other the ANSWER pennants went close up. Except in the *Camperdown*, where Admiral Markham and his flag captain still pondered what to do. However, the C-in-C, tired of waiting, had the *Camperdown's* identification pennants hoisted, a standard method of issuing a rebuke for tardiness in obeying orders, and at the same time had his Yeoman signal by semaphore "What are you waiting for?". This so unnerved Markham that he ordered his ship to go 'close up', the flagship's signals were executed, and the two leading ships started turning towards each other.



Inevitably disaster struck, *Camperdown* rammed *Victoria*, and within twenty minutes the flagship had sunk with the loss of some 400 men. Admiral Tryon himself was drowned, his last words said to have been "It was all my fault". Well it was, but the disaster would have been avoided if the other ships had refused to hoist their ANSWER pennants close up.

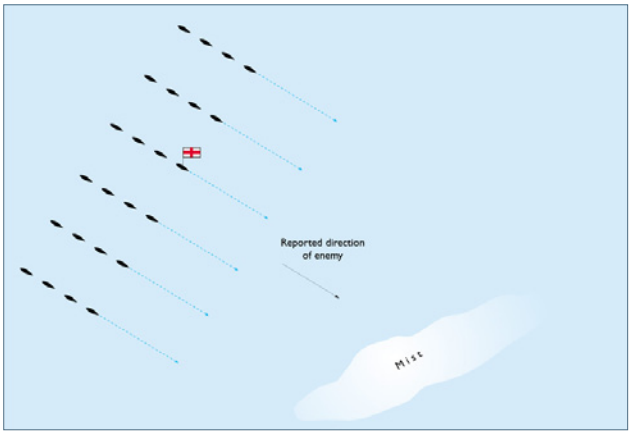
Could anything else have been done? Obviously Admiral Tryon's staff should have insisted that the manoeuvre was unsafe, and the Captains of both the *Victoria* and *Camperdown* should have refused to put their helms over, but of course in those days it wasn't easy to argue with such a senior officer. If Admiral Markham had been quick off the mark, he could have turned his Division to port, the signal 2 BLUE perhaps (Turn together two points to port), and then back to starboard (BLUE 2) as soon as they were out to a safe distance.

The only explanation seems to be that Tryon had a mental aberration, in some way confusing the mathematics of the manoeuvre.

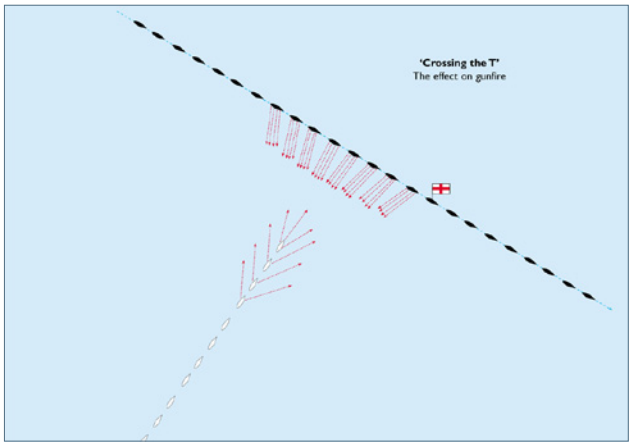
The accident happened mid-afternoon. Back in Malta, Lady Tryon was holding a reception at Admiralty House, and at about the same time several guests were surprised to see the Admiral coming down the stairs...

The Jutland Deployment Signal

An important flag signal in the history of the Royal Navy is the Deployment signal which was the opening move at the Battle of Jutland. The Grand Fleet, 24 battleships commanded by Admiral Jellicoe (who as a young Lieutenant had been a survivor from the *Victoria*), was approaching the supposed position of the German High Seas Fleet in six columns, the normal approach formation.

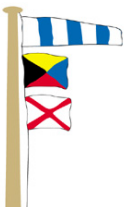


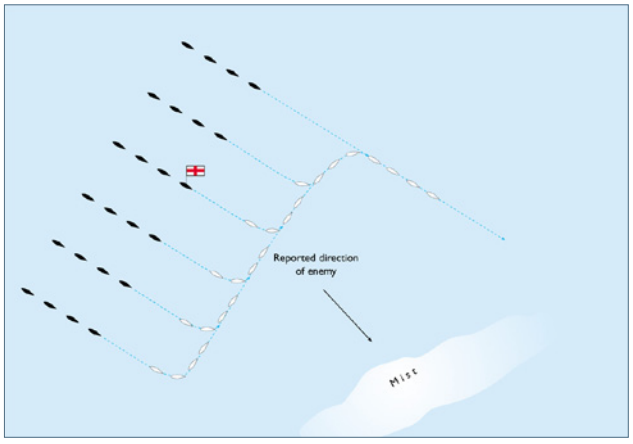
A battleship action was fought in line ahead and the aim was to deploy into a single line so that you "crossed the T" of the enemy. This gave you maximum advantage, with most of your guns able to bear on the leading ships of the enemy while most of his guns were either blocked by ships ahead, or were too distant.



For a successful deployment you needed to know the direction of the enemy. The problem at Jutland was that it was very misty, there was much doubt as to the whereabouts of the enemy, and although the battle cruisers ahead of each fleet had been hammering away at each other for a couple of hours, they failed to make clear reports by wireless to tell Jellicoe what was going on, and there were serious navigation differences between the two groups. Just in time Jellicoe realised the enemy was coming up on his starboard bow, so he hoisted the signal to deploy on the port column. The whole manoeuvre was ordered by this three flag signal, in the jargon of the day EQUAL SPEED CHARLIE LONDON.

The column nearest SE by E
is to alter course in succession
to the point of the compass (indicated),
the remaining columns altering course
leading ships together, the rest in succession
so as to form astern of that column,
maintaining the speed of the fleet.





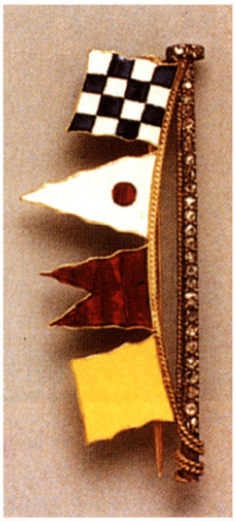
Jellicoe got it right, and this simple three flag signal started the ships moving into their single battle line, led by the port column, the others following on behind. The manoeuvre was only half completed when the German battlefleet appeared through the mist in exactly the right position, so that the T was nicely crossed. Taken by surprise the Germans immediately did an about turn, reversing course after only a few salvos had been exchanged, and they disappeared behind smoke back into the mist. Jellicoe was slow to follow them, fearing torpedo attacks by German destroyers and submarines. However some twenty minutes later, when British ships gun's crews had been let out to get some fresh air, the German battlefleet suddenly re-appeared out of the mist, again in exactly the wrong position for them. There was more surprise and confusion on both sides, the Germans turned about once more and disappeared into the mist and gathering darkness. It is thought they miscalculated and had meant to cut across the rear of the Grand Fleet and head for home.

By then it was dark, and although there were skirmishes during the night between destroyers, again there was a lack of coherent wireless reports and Jellicoe did not realise that the two fleets were steaming south within a few miles of each other. Jellicoe thought he was ahead of the enemy, but in fact the Germans gradually pulled ahead and by dawn were out of sight and well on their way home. This three flag Deployment Signal has become famous in the RN; it is used as a blazer badge, and the flags are hoisted over the Signal School on special occasions. Indeed it is also hoisted occasionally in other strange places, in this case by the Saint Francis Yacht Club in San Francisco whenever RN ships are present, by courtesy of Lieutenant John Hau, USNR. And the White Ensign as well! Actually, as the Equal Speed pennant no longer exists he has to use the blue and white TURN pennant which has one less white stripe.

Jokey Signals

The signal codes are often used for other purposes. Quotes from the Bible are favourites — there is something for almost any occasion.

Here is a brooch given by King Edward VII to his Mistress, Mrs Keppel, after sailing during Cowes Week.



Flag Z

Pennant 9

Red Burgee

Flag W

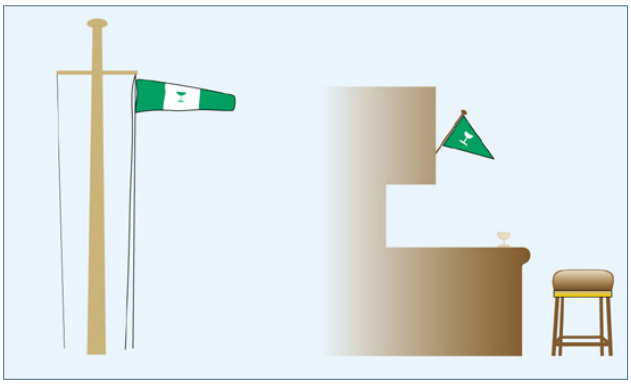
'Position quartarly and open,
I am about to fire
a Whitehead torpedo ahead'

How Not to Do It

Finally two examples of strange mistakes. This is a painting of HMS *Hampshire*, which struck a mine in the North Sea while carrying Field Marshal Kitchener to Russia. The ship was lost and Kitchener drowned. The painting hangs in his old house near Canterbury in Kent. As you see, it has a Jackstaff in the bow from which is flying the White Ensign! Ensigns of course are flown at the stern or from a gaff on the mast, and the Jack is flown from the bow but only in harbour. At sea nothing is flown from the jackstaff which indeed would be struck down as it would be damaged by heavy seas, or shot to bits by ones own guns! How did such an error occur without anyone spotting it and telling the artist?

And this is almost worse! The British are well known for finding it difficult to know which way up to fly the Union Flag, but this splendid spinnaker on a naval yacht has the Union Flag the wrong way round! An expensive mistake and again, how on earth did no one notice!

On a happier note, here is the Gin pennant which invites officers from other ships in harbour to come over as the bar is open. Obviously it is best flown when there are not too many ships present!



So, hopefully, the bar is now open here though possibly only for coffee!