

## The Talking Flags from Trafalgar Onwards

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The development of British maritime signal flags from the start of the 19th century. A sequel to *The Talking Flags at Trafalgar*, presented at ICV 10 in Oxford in 1983.

In my paper at the tenth International Congress in Oxford, England in 1983, entitled *The Talking Flags at Trafalgar*, I traced the development of flag signalling in the British Navy up to the year of the Battle of Trafalgar, 1805. In this paper I will summarise this earlier history, and then follow the further development of flag signalling in both the Royal and merchant, navies from the beginning of the 19th century to the present day.

In the previous paper I described the reluctance of British seamen to adopt signal codes. In the 14th century, when other European navies had well-developed codes, British seamen apparently used only two flags. One was a "flag of council", believed to be St George's flag, flown by the Admiral to call a council of his Captains. The other, probably a red flag indicated that the enemy was in sight. The situation had changed little by the time of the Armada in 1588. Drake and other famous British seamen of the time were individualists, privateers at heart, and did not take kindly to discipline. It was said that when the Armada was in the English Channel Drake slipped away from the English fleet one night to seize as a prize a ship which had been damaged and had

dropped behind.

It was not until the middle of the 17th century, after the English Civil War, under the efficient administration of the new ruler Oliver Cromwell, that his Generals at Sea introduced the first British Navy signal code. This code used five existing flags, a "weft" of the Ensign, a pennant, and the plain red, white and blue Admirals' flags. Each flag had a different meaning depending on where it was hoisted. Improvements in this code followed quickly, perhaps because the start of the Dutch Wars in 1652 revealed the Dutch signalling to be superior. In about 1673 the first signal book proper appeared, with coloured drawings of the flags in columns and the meanings opposite each flag. The first printed signal books also appeared at about this time.

For the next hundred years the signalling system remained largely unchanged, while the number of flags increased to about fifty, hoisted in up to seven different positions. The size of the flags had also increased, and they now seem enormous to us. The recommended size of signal flags for a ship of the line was 15ft x 27ft, about 4.5m x 8m. The design of flags followed no specific pattern, although it was acknowledged to be essential that they were simple, and with good contrast between the colours. Chequered flags were regarded as unsatisfactory, and the best colour combinations

were found to be: red and white, blue and yellow, blue and white, and black and white.

By the end of the 18th century the old system had reached its limit, and rapid developments in naval warfare demanded entirely new methods. For a while a tabular system was used. In this the numbers of the instructions were written in the boxes of a table resembling a chessboard. Along the top and down the left hand side were shown the flags to be used to indicate each column and line. Thus any instruction could be indicated by two flags. This system had its drawbacks, however, and in 1790 a simple numerary system was introduced, using ten flags representing the numbers one to zero which, hoisted in groups of up to three flags, provided nine hundred and ninety-nine different combinations. This code also included a number of other flags with special meanings, and was formally approved and issued by the Admiralty in 1799. Because it was now necessary to hoist up to three flags together their size was reduced, to 12ft x 14ft for larger ships.

The signals in the new code, as in previous codes, represented complete instructions, such as Nelson's favourite signal, No 16, which meant "ENGAGE THE ENEMY MORE CLOSELY". In 1800 a vocabulary code was introduced, so that the same ten flags could be used, with a distinguishing flag, to signal single words or letters, as in Nelson's

most famous signal: ENGLAND EXPECTS THAT EVERY MAN WILL DO HIS DUTY. Ships could at last talk to each other with their signal flags. These codes served Nelson well at Trafalgar, and the principles on which they are based remain in use today. The only difference is that the ever increasing number of signals has demanded the use of more and more flags. Now, all the letters of the alphabet are used, as well as the numerals and some other flags, and up to four flags may be used in any one basic group.

Even before Trafalgar, in 1803, Captain Sir Home Popham, who introduced the vocabulary code, had increased the vocabulary from 1000 to 2000 words, and added 1000 useful sentences. Still using the basic ten numeral flags, Popham indicated the numbers 1000 to 2000 by a ball or pennant above the group of flags, and over 2000 by the same below it. Popham was a man dedicated to flag signalling, almost obsessed by it. In 1812, now an Admiral, he again increased his vocabulary, to nearly 6000 words and about 6000 sentences, with tables for geographical signals, technical terms, stores and provisions, and a spare table for local use. This time he had to use more flags, so he designed flags for the letters A to O, making a total of twenty-three when combined with the numeral flags. This gave him 11000 combinations using up to three flags, and a total of

223,675 using four. In 1827 the letters P, Q, R, S, T, V and Y were added, and after many further minor modifications the last major revision of the 19th century took place in 1899. The remaining letters of the alphabet were added, many flags were changed, and numeral and special pennants were introduced.

It is interesting to note that an amendment in 1868 included the first reference to signalling by flashing light, using the dots and dashes code of the American artist and inventor Samuel Morse. It was also about this time that semaphore was first used at sea in the Royal Navy. A system devised by none other than Admiral Popham had been in use between the Admiralty and the nearer naval ports since around 1820. Popham's semaphore was a simple device with arms, using a code which, with little variation, has become the one so familiar to boy, and girl scouts throughout the world. The word semaphore is derived from the Greek "sema", a sign, and "pneo", bear. Both semaphore and morse codes were much more efficient for passing long messages in specific directions, but flags remained supreme for signalling brief messages such as coded groups, simultaneously in all directions until the advent of the wireless telegraph in the early years of the 20th century.

Before following the development of naval signal flags into the 20th century, we will go back

now to the beginning of the 19th century to have a look at the "private sector", flag signals in the merchant navy and, briefly, in the yachting world. A few flag signals, notably the one for a pilot, had been in use among merchantmen since the 15th century, but it was apparently the ubiquitous Captain Popham yet again who produced the first code in 1804 at the request of the East India Company. Thereafter, though, Popham devoted his energies to naval signalling, and it was Commander Frederick Marryat who produced the first "Code of Signals for the Merchant Service" in 1817. He suggested a further reduction in the size of flags to 6ft x 8ft for the larger ships. Like the naval code, Marryat's was numerary, but he designed a completely new set of flags for it. As in Popham's code, he used distinguishing pennants to indicate the section of the code to which the signal referred. The sections consisted of: warship names, merchant ship names, ports, headlands etc, useful sentences, and a vocabulary adapted from Popham's.

A few years after Marryat produced his code he became involved in a discussion with the Admiralty over his adoption of the naval practice of using the Union Flag in his code for identifying warships. It was also of concern to their Lordships that merchant ships were following the naval custom of hoisting the Union Flag as the signal for

a pilot. This custom was a relic of the use of the Union Flag as the Council flag, calling officers onboard for briefings. Any use of the Union Flag by merchant ships had been prohibited since 1634, in order that warships and merchant ships could readily be distinguished one from the other. Marryat suggested the use of a Union Flag with a red border at the fly and the foot, a cut down red ensign in fact. The Admiralty had no objection to the use of a full red ensign, but they suspected that this border, of unspecified width, would be reduced so as to be indistinguishable at a distance. In July 1823 they countered with the instruction that a Union Flag with a white border was to be used for signals, including the signal for a pilot. Thereafter several other European countries adopted the practice of using their national flag with a white border as the signal for a pilot.

In 1830 Marryat was promoted to Captain, and retired from the Navy. He became much more widely known as a novelist, a very successful one. His code was also a great success, and went through ten editions before he died in 1848. It was said that's European vessel is rarely met unprovided with these signals', although by now there were several rival systems.

At around the time that Commander Marryat was devising his code the Royal Yacht Club deemed it necessary to have its own code. It was

largely based on Popham's 1812 code, with an amended vocabulary more suited to yachting requirements. In 1823 the Club introduced what was called a "self evident" code, in which the flags were intended to be readily identifiable without reference to the codebook. Flag one was plain, flag two was divided into two, and so on. The two exceptions were flags eight and zero, which were intended to resemble the numbers they represented. Flag eight was quartered diagonally, and zero had a narrow border. Other clubs followed suit, with variations on this theme.

The Royal Yacht Squadron, the premier British squadron, which enjoys the privilege of flying the white ensign, produced its own signal books, one in 1840 and another in 1847, using Marryat's flags. The flags were changed round so as to be as "self evident" as possible. Marryat's five became one, three became two, Telegraph became three and nine became four. After that it became a little difficult. The signals in these codes summed up the lifestyle of Victorian yachting gentlemen. 6491 was "I can strongly recommend my washerwoman". 3482 was "I want a carriage at the hour shown", and 9719 was "Can you spare a soup tureen?". By the middle of the 19th century the need for a more extensive commercial code was urgent. An enormous increase in merchant ship signalling had resulted from the rapid growth of merchant fleets as

worldwide trade expanded, and as shipping became more strictly regulated. In 1857 the British Board of Trade issued a Commercial Code of Signals'. This code used most of Marryat's flags and some others. It was alphabetical rather than numeral to provide more signals, although X, Y and Z were omitted, as were all the vowels. This was a classic example of Victorian prudery. The committee devising the code stated that: "The omission of the vowels was forced upon us from the circumstance that, by introducing them, every objectionable word composed of four letters or less, not only in our own but in foreign languages, would appear in the code in the course of the permutation of the letters of the alphabet".

The Commercial Code became widely accepted, and in about 1880 its name was changed to International Code. Soon afterwards it became clear that further expansion was necessary. The amendments proposed by the British were discussed by the principal maritime powers and at an international conference in Washington in 1889, and the result was a complete revision of the code.

One of the new demands placed upon the code was increased speed of signalling necessary because of the increased speed of ships. Steam was replacing sail, and passing steamers were within signalling distance of each other for a much shorter time. There was a great need for as many

signals as possible with as few flags as possible. The remaining letters of the alphabet were therefore added, with care being taken to avoid objectionable words as far as possible. It was decided that the previous objections had been "sentimental rather than practical".

The new code provided three times the number of one and two flag signals as were in the old code, and the total number of signals using up to four flags was increased more than tenfold to 375,000. One and two flag signals were used for the most important and urgent messages, and three flags were used for the general vocabulary and supplementary information. Four flag groups beginning with A and B were used for geographic positions, those beginning with C provided a spelling table, while the rest, not included in the code but found in other publications, were used for ships identifying letters, or call signs. The new code was published in 1899 and brought into force on 1st January, 1901.

As in many other aspects of life at the beginning of the 20th century, the rate of change in maritime signalling requirements was increasing steadily. As was also the case with other aspects of life, this rate of change was accelerated by war. In the First World War the 1901 International Code proved to be inadequate, and the main reason for this was the rapid development of wireless

telegraphy. After the war yet another committee was set up to revise the code yet again. Some of the alphabetical flags were changed, and a set of numeral pendants was added. Three substitute flags were also introduced, making it possible to repeat flags without the need for extra sets of flags. The new code was compiled in two volumes, one for visual signalling and the other for radiotelegraphy, as it was now called. The second volume also included signals for aircraft, the other great development of the period. Radio telegraphy had taken over to the extent that the new code was both initiated and adopted at international radio telegraphy conferences, the first in Washington DC in 1927, and the second in Madrid in 1932. It came into general use in 1934. It must have given great satisfaction to the spirits of Popham and Marryat, walking the heavenly clouds and feeling their toes tingling with radio waves, that they were carrying signals directly descended from their codes of over one hundred years before.

The next great development in signalling was the introduction of radiotelephony during the 1930's; the talking handle took over from the talking flag. Ironically, this development has resulted in stability for the flags of the code for nearly sixty years. The signals may have changed, but the flags have remained the same. In 1959 the newly formed International Maritime Organisation

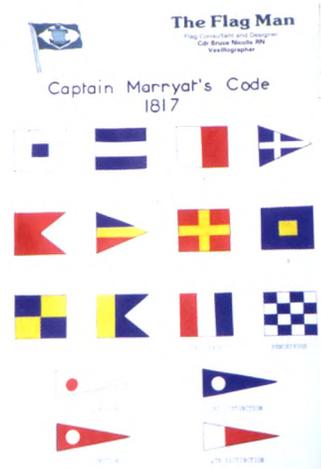
assumed responsibility for the International Code of Signals, and in 1964 a "comprehensive review" of the code was completed. There have been a few minor amendments since then, and its present purpose is "to provide ways and means of communication in situations related essentially to safety of navigation and persons, especially when language difficulties arise". The one and two letter urgent and important signals remain, and three letter groups are devoted exclusively to a large medical section. No four-letter groups remain, they are all now allocated for ships identifying letters, or call signs, and are published elsewhere. Radio signalling has now taken over to the extent that British merchant ships, other than fishing vessels, are no longer required by law to carry code flags. Nevertheless, they are still necessary for some purposes, and for emergency use in the event of complete power failure. The British Department of Transport expects every ship to have at least one set of flags, and training in their use is still required for deck officers' qualifying examinations.

Returning now to the Royal Navy, we left the development of naval signal flags at the end of the 19th century, when their use was giving way to the new systems entering service: semaphore, the flashing light, and wireless telegraphy. The comprehensive set of flags adopted in 1889 remained in use for more than fifty years, although

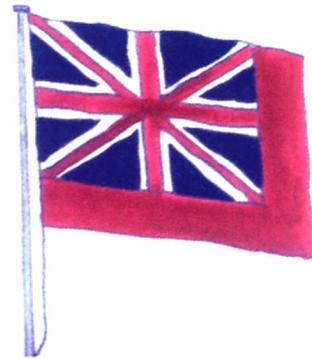
additional special flags and pennants were steadily added. From a total of fifty-four in 1889, the number of flags increased to over seventy. Including the International Code flags, British warships carried well over one hundred flags by the outbreak of the Second World War in 1939. As Captain Barraclough said in "Flags of the World": "It will readily be appreciated that this state of affairs did not make for speedy communication between units of the Royal Navy and those of the United States during the period of hostilities when the closest co-operation was of vital importance. Certain wartime arrangements were made, and worked reasonably well".

After the war two major revisions were carried out, the second one inspired by the formation of the North Atlantic Treaty Organisation (NATO) in 1949. The International Code flags, which had been used for some purposes during the war, were formally adopted, and the naval code alphabetical flags dispensed with. Many changes were made in the special flags and pennants. There was virtually no loss of security resulting from using the International Code flags, the security lay in the meanings of the groups, kept in classified books and changed from time to time. In any case, flag signalling was used mainly for logistic and administrative purposes, and only unclassified or very short-term operational events.

The situation remains the same today. Although radio rules, flags still have their place in naval communications. At sea they are still used for some purposes, and one of their most common uses is for close quarters manoeuvres, either for exercise or when radio silence has been imposed. It cannot be denied, though, that there are practical problems in using signal flags in modern warships. Their masts are small and cluttered with radar and radio aerials, and their bridges are enclosed, often with poor visibility astern. The flags are now very small, the largest being 3ft 4in x 5ft, just over 1m x 1 1/2m. In harbour, flags control the movement of ships and are used to pass many other messages. This range from the historic red flag, now warning of the handling of fuel or explosives, to the church pennant, advising that the ship's company is at prayer. And, of course, the supreme use of naval signal flags is as much in evidence as ever. The ceremony of dressing ship is still carried out on frequent occasions, and there is no finer vexillographical sight, in my view, than warships in harbour, often these days from many nations, with all their bunting blowing brilliantly in bright sunshine and a brisk breeze.



Captain Marryat's Code, 1817

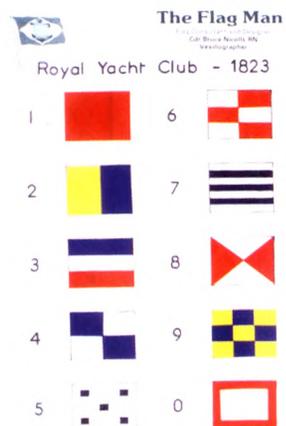


Marryat Pilot Jack

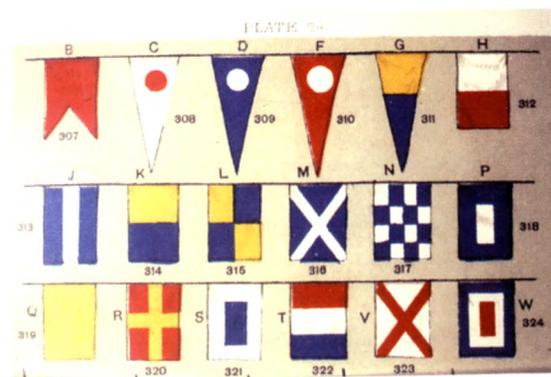


British Merchants

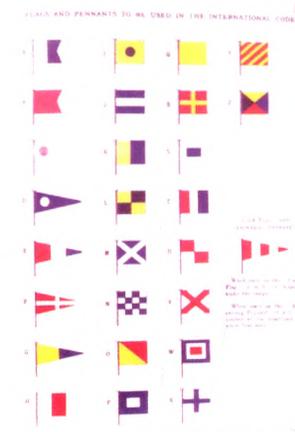
Pilot Jack 1854



Captain Marryat's Code, 1817



Comm. Int. Code, 1857



Int. Code, 1901

