**SEMAPHORE CODE**

The Semaphore flag signaling system is an alphabet signalling system based on the waving of a pair of hand-held flags in a particular pattern.

[flag image](http://www.anbg.gov.au/images/flags/misc/semaphore.gif)The flags are usually square, red and yellow, divided diagonaly with the red portion in the upper hoist.

The flags are held, arms extended, in various positions representing each of the letters of the alphabet. The pattern resembles a clock face divided into eight positions: up, down, out, high, low, for each of the left and right hands (LH and RH) six letters require the hand to be brought across the body so that both flags are on the same side.

[](http://www.anbg.gov.au/images/flags/semaphore/semaphore.gif)Flag positions in Semaphore

One way to visualize the semaphore alphabet is in terms of circles:

* first circle: A, B, C, D, E, F, G;
* second circle: H, I, K, L, M, N (omitting J);
* third circle: O, P, Q, R, S;
* fourth circle: T, U, Y and 'annul';
* fifth circle: 'numeric', J (or 'alphabetic'), V;
* sixth circle: W, X;
* seventh circle: Z

In ther first circle, the letters A to C are made with the right arm, and E to G with the left, and D with either as convenient. In the second circle, the right arm is kept still at the letter A position and the left arm makes the movements; similarly in the remaining circles, the right arm remains fixed while the left arm moves. The arms are kept straight when changing from one position to another (Croft, 2016)

History of Semaphore

Optical “[telegraphs](http://en.wikipedia.org/wiki/Telegraphy)” or signaling devices have been traced back to ancient times (using torches) and were the fastest systems to convey messages over long distances. These “telegraphs” could have since been in the form of torches, smoke signals and eventually [semaphore towers](http://en.wikipedia.org/wiki/Semaphore_line).

The [semaphore tower/semaphore line](http://en.wikipedia.org/wiki/Semaphore_line) design was first thought up by R[obert Hooke](http://en.wikipedia.org/wiki/Robert_Hooke) in 1684 and submitted to the [Royal Society](http://en.wikipedia.org/wiki/Royal_society). The system was not implemented though due to military concerns. However, this did lead to [Claude Chappe](http://en.wikipedia.org/wiki/Claude_Chappe) developing the first visual telegraph in 1792 – eventually covering much of France via 556 stations. In [France](http://en.wikipedia.org/wiki/France), this was the primary source of communication for military and national applications, until it became more widely used in the 1850’s. Designs varied between using shudders open and closed to holes being open and closed, but Chappe’s design became the most widely used semaphore design.

These visual messaging systems eventually led to [semaphore flags](http://www.flagexpressions.com/semaphore-flag-set-18x18.aspx). These flags were used in the same way that the arms were used on the semaphore towers – different fixed positions mean different messages. Semaphore flags were primarily used for naval applications to communicate message between boats. It proved to be a very useful tactic during battles, most famously the [Battle of Trafalgar](http://en.wikipedia.org/wiki/Battle_of_Trafalgar) during the Napoleonic Wars.

Today these flags have become smaller and are usually mounted to small dowels or poles to allow them to be seen easier. Maritime use flags are red and yellow (or the [OSCAR](http://www.flagexpressions.com/nautical-signal-flags-oscar-o.aspx)) flag and while in land use, the flags are blue and white (or the [PAPA](http://www.flagexpressions.com/nautical-signal-flags-oscar-o.aspx)) flag. Even though they are not in use much anymore, they still serve for some boats and ships (flagexpressionss, 2010).

**Reference List**

Croft, J.(2016). Australian National Botanic Gardens, Semaphore Flag Signaling System. Retrieved on May 30, 2016 from <http://www.anbg.gov.au/flags/semaphore.html>

flagexpressions (2010). History Behind Semaphore Flags. Retrieved on May 30, 2016 from <https://flagexpressions.wordpress.com/2010/03/23/history-behind-semaphore-flags/>