

## A DEVICE FOR READING DESCRIPTIONS OF LIGHTS ON FOREIGN CHARTS

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At the first Meeting of Committee No. II of the International Hydrographic Conference, London, 3rd. July 1919, Captain Smith (a delegate of Great Britain) remarked that "a large number of British merchant vessels make voyages touching at many ports throughout the world, and it is obviously impossible for them to have the plans of all harbours which they may have to visit; they may carry the coastal charts and it is quite possible that they have the Sailing Directions."

Surely it is permissible to go further and to add that this is the case with merchant vessels of other nations also. In addition they are likely to lack, not only the plans of all harbours, but detailed large scale charts of many a foreign coast as well. If, when in some foreign harbour, they receive telegraphic orders to go a-coasting off the country or colony to which the harbour belongs, the Masters would consider themselves very well served if they were able to read easily and quickly the foreign charts available in a national depot at the harbour. When not running on a regular line it is possible that they may have a complete set of Sailing Directions for the world and a corresponding List of Lights.

Now a serious impediment to reading charts of another nation is the difficulty in comprehending the foreign abbreviated descriptions of lights. As a step towards a solution of this difficulty it is proposed to use international conventional symbols to indicate the characters and colours, and to paste on (or in) the various hydrographic publications small tables which show the national abbreviation which corresponds to each of the international symbols.

In this way nothing need be altered on the charts, in Sailing Directions or Lists of Lights.

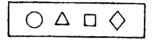
If, for instance, on all charts issued by each country, there were printed a table of the national abbreviations for characters and colours, and opposite them their corresponding international symbols, the following effect might be obtained:—

By comparing the table on some foreign chart with that on the navigator's national charts the understanding of the foreign abbreviations will be made easy.

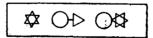
This device would be very easy to use if every navigator knew the international symbols by heart.

The principal points put forward above make it quite evident that the proposed symbols will have to comply with two desiderata: They should never leave room for doubt and they must be constructed on such clear and logical lines that everybody can easily learn them by heart.

"Circle", "triangle", and "square" might do very well. Every navigator knows their features. From them the following set of basic symbols can be made:—



which set is analytically systematized in that the continuous contour of the circle is to be used for denoting continuous steady lights, the cornered contours of the square and rhombus for steady lights that are interrupted by intervals of darkness, the sharp pointed contour of the equilateral triangle for lights of a flashing type. These may be called lights of a single type. Lights of a compound type may be represented by a combination of two basic forms:—



This systematization makes memorising easy. Immediately the question arises whether it be possible to assign all kinds of lights throughout the world to seven symbols only.

This question was answered in the affirmative by the last International Hydrographic Conference. This Conference, in 1919, adopted the following resolutions on the classification of characteristics of lights:

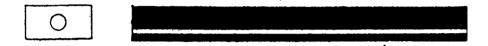
I. — It is advisable to aim at uniformity between nations on the basis of a system which will describe the lights as they are seen by the navigator.

II. — The British system of describing the characteristics of lights should be adopted, with two exceptions \* etc.

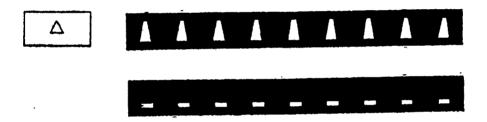
This system has, in fact, seven standard types.

Resolution "I", if carried into practice will never give abbreviations legible to those who do not know the foreign language employed. It appears, however, that the proposed symbols might make them comprehensible.

Thus we arrive at the following use of these symbols:



English: Fixed. French: Fixe. German: Fest. Italian: Fissa. Netherlands: Vast. Scandinavian: Fast. Spanish: Fija.



E: Flashing, F: à Eclats. G: Blink. I: a Splendori. N: Schitter. Sc: Blink. Sp: Destellos.



Group Flashing — à Groupe d'Eclats — mit Gruppen von Blinken — a Gruppi di Splendori — Groep Schitter — Gruppe Blink — Grupo de Destellos.

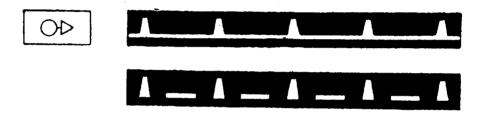
<sup>\*</sup> Now cancelled on account of the new Lists of Lights.



Occulting — à Occultations — Unterbrochenes — Intermittente — Onderbroken — Formorkelser — Ocultaciones.



Group Occulting — à Groupe d'Occultations — mit Gruppen von Unterbrechungen — Intermittente a gruppi di eclissi — Groep Onderbroken — med Gruppe Formôrkelser — Grupo de Ocultaciones.



Fixed and Flashing. Fixe à Eclats. Fest mit Blinken. Fissa a Splendori. Vast en Schitter. Fast med Blink. Fija y Destellos.



Fixed and Group Flashing. Fixe à Groupe d'Eclats. Fest mit Gruppen von Blinken. Fissa a Gruppi di Splendori. Fija y Grupo de Destellos.

If the lights corresponding to these proposed standard symbols change colour during their period, we might denote: "Alternating", "Alternatif", "Wechsel", "Alternata", "Kleurwisselend", "Vekslend", and "Alternata", by encircling the standard symbols, thus:



Signs for converting the various abbreviations of colours might be derived from the heraldic system which is already international, but simplified in order to get clear printing; thus:

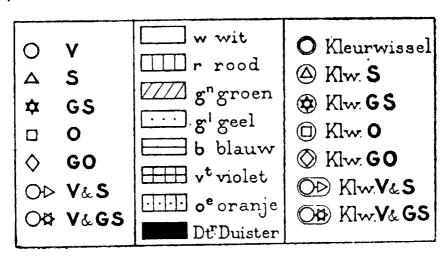
<b>W</b> (hite)	$\mathbf{r}$ (ed)	g (reen)
y (ellow)	<b>b</b> (lue)	vi (olet)
or (ange)		

By adding to this set of symbol for colours the sign for "obscured"



the proposed device would be suitable also for reading the abbreviations in marked sectors of lights.

Thus, for instance, on charts issued by the Netherlands a table (with such lettering and of the shape and scale as is considered suitable from the technical point of view) constructed on the following lines might be used:—



N. B. — It seems unnecessary to adopt such a device universally; e. g. two nations might agree upon it.