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Agenda item [[2]](#footnote-2) 9 (ref ENG1 action 26)

Technical Domain / Task Number 2 Visual & Physical AtoN, flash characters / 5.1.6

Author(s) / Submitter(s) Frank Hermann

German Federal Waterways and Shipping Administration

National AtoN character list (German list)

# Summary

To prepare the update of IALA-Recommendation E-110 for the Rhythmic Characters of Lights on AtoNs, it was decided to collect information on the national characters lists (Action item 26 of report ENG 1).

This information paper describes the German AtoN character list for buoys.

It is proposed that ENG takes a look at the SIGNI document, Signs and Signals on Inland Waterways, Resolution No. 22, 2011, Economic Commission for Europe, United Nations

# Background

The character list is valid for all lights on buoys and simple omnidirectional lights at the banks which are not switched by remote control.

The list is not used for all other lights (non-floating) for example traditional light houses.

The aim of the list is to have a reduced set of flash characters. A reduced set of characters should improve the identification by mariner because the individual characters are chosen so they differ as much as possible from each other.

The reduced list makes it easier for the administration to handle the lantern. Misadjustment is much less likely.

The list is used for the invitations to tender.

The lanterns may be set out on lights for maritime and inland waterways as well, so some flash characters come from inland waterways.

The SIGNI document refers to IALA maritime buoyage system and some other IALA documents but not to IALA-Recommendation E-110 on flash characters. However there is a list of flash characters that might have been copied from E-110.

# List

List of flash characters used for lights on buoys and small lights at the banks in German waterway administration.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Period [s] | Sequence [s] | Colour | Description |
|  |  |  |  |  |
| VQ | 0,6 | 0,3 + (0,3) | W | north cardinal |
| VQ (3) | 5,0 | 3 x [ 0,3 + (0,3) ] + (3,2) | W | east cardinal |
| VQ. (6) + LFl | 10,0 | 6 x [ 0,3 + (0,3) ]+ 2,4 + (4,0) | W | south cardinal |
| VQ. (9) | 10,0 | 9 x [ 0,3 + (0,3) ] + (4,6) | W | west cardinal |
| Q | 1,0 | 0,5 + (0,5) | G, R, W | north cardinal,  lateral  **IW**: bifurcation of the fairway (SIGNI) |
| Q (3) | 10,0 | 3 x [ 0,5 + (0,5) ] + (7,0) | W | east cardinal |
| Q (6) + LFl | 15,0 | 6 x [ 0,5 + (0,5) ] + 3,0 + (6,0) | W | south cardinal |
| Q (9) | 15,0 | 9 x [ 0,5 + (0,5) ] + (6,0) | W | west cardinal |
| Fl. | 3,5 | 0,7 + (2,8) | G, R, Y | **IW**: lateral, cross-over (SIGNI) |
| Fl. | 4,0 | 1,0 + (3,0) | G, R | lateral |
| Fl. | 5,5 | 0,7 + (4,8) | G, R | **IW**: bank, lateral (SIGNI) |
| Fl. (2) | 5,0 | 2 x [ 0,7 + (0,7) ] + (2,2) | Y | **IW**: cross-over (German Specification) |
| Fl. (2) | 9,0 | 2 x [ 1,0 + (2,0) ] + (3,0) | G, R, W | lateral, isolated danger mark |
| Fl. (2+1) | 15,0 | 1,0 + (1,0) +1,0 + (3,0) +1,0 + (8,0) | G, R | bifurcation of channel |
| LFl. | 5,0 | 2,0 + (3,0) | W | safe water mark |
| Iso. | 4,0 | 2,0 + (2,0) | G, R, W | safe water mark,  lateral |
| Iso. | 5,0 | 2,5 + (2,5) | W | **IW**: bifurcation of the fairway (SIGNI) |
| Iso. | 8,0 | 4,0 + (4,0) | W | safe water mark,  lateral |
| Iso. | 10,0 | 5,0 + (5,0) | W | safe water mark |
| Oc. | 4,0 | 3,0 + (1,0) | W | safe water mark |
| Oc. (2) | 9,0 | 2 x [ (1,0) + 2,0 ] + 3,0 | G, R, Y | lateral, special mark |
| Oc. (2) | 12,0 | 2 x [ (1,0) + 2,0 ] + 6,0 | G, R, Y | lateral, special mark |
| Oc. (3) | 12,0 | 3 x [ (1,0) + 2,0 ] + 3,0 | G, R, Y | lateral, special mark |
| Oc. (3) | 15,0 | 3 x [ (1,0) + 2,0 ] + 6,0 | Y | special mark |

Numbers without brackets: duration of appearance in seconds.

Numbers with brackets: duration of eclipse in seconds

IW: Inland Waterway

# References

IALA Rec. E.110

SIGNI, Signs and Signals on Inland Waterways, UNECE, 2011

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)