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Finnish Transport Infrastructure Agency

Aids to Navigations Availability Rate (AAR) calculations in the Finnish waters

# Summary

All general navigation channels in Finland are classified into channel classes VL1–VL6 according to the in Finland established waterway classification system. The channel class defines the significance of the traffic and, through this, the importance of maintaining the channel. The classes VL1 and VL2 pertain to commercial shipping routes, while the classes VL3–VL6 pertain to other waterways (shallow channels). Channel class VL1 aids to navigation availability rates are calculated all year around when the other channels aids to navigation available rates are calculated in-between seasons. Seasons are established for lower waterway classes due to the arctic weather conditions. The AtoN faults are also divided in to 8 different categories witch some of the faults are not included in the calculations such as AtoNs under constructions. Faults like visual obstruction (vegetation) on fixed AtoNs in waterway class VL3-6 should achieve 90% functionality.

The Availability Rates are calculated annually as the ratio (%) of downtime (h) to operational time (h) for the entire aids to navigation system, by waterway (AtoN) manager and category group. The operational times of each aid to navigations are summed up annually by categorisation group with an accuracy of one hour and are then related to the total operational time of the entire aids to navigation system, by waterway manager and category group. In the annex presented functionality percentages must be achieved over a three-year calculation period.

This document mainly focuses on availability rate calculations but it is worth mentioning that other risk management tools are used to evaluate the function of the service level on waterways in Finnish waters. For an example the VTS service provider collects data of deflections on waterways and produces an annually report to the authorities. The VTS provider also attend to create a risk management tool in cooperation with Open risk II project.

## Purpose of the document

The document is an information paper. The purpose of this document is to provide an example of availability rate calculations for a review to WG3, risk management task 1.4.11 that was requested in ARM 18.

# Action requested of the Committee

The Committee is requested to:

1. note the information paper and
2. consider to include the availability rate calculations examples in further guidelines if needed.

# List of Annexes

## Annex 1

Example of availability calculations in Finnish waters.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-2)
2. Leave open if uncertain [↑](#footnote-ref-3)