

7 – NATIONAL MATTERS

Finland

National Matters Update by Finland

Finnish Transport Infrastructure Agency is in the process of digitalising the services provided for seafarers. This includes supporting materials that are intended to be used during the voyage planning.

Digital Fairway Card

Finnish Transport Infrastructure Agency publishes so called Fairway Cards for seafarers. They contain information on fairways and ports that complements official nautical charts and publications. The fairway cards cover the major shipping lanes, i.e. channels to all ports that are kept open even in winter, during the ice cover.

A Fairway Card contains facts about the fairway dimensions, navigability and navigational conditions, traffic recommendations and restrictions and traffic services provided. Drawings of the fairway and the harbour are appended. It is to be noted that the drawings in the Fairway Card are not intended for navigational use. They outline the channel alignment and buoyage, the fairway area, safe clearance depths, berths, and other places which the text in the Fairway Card refers to.

The Fairway Cards have been earlier published in pdf-format and updated manually, which has caused some delays when the information changes. To ensure that the information in Fairway Cards is always up to date, the publishing is now being moved to a dynamically updated web service platform. The platform uses API interfaces to collect information from multiple sources (e.g. fairway and AtoN registry, AtoN remote monitoring, winter navigation assistance, traffic situation, water level, weather information, etc.). Information can be viewed in electrical format via computer or mobile devices but also printed out as a paper copy if that is preferred.

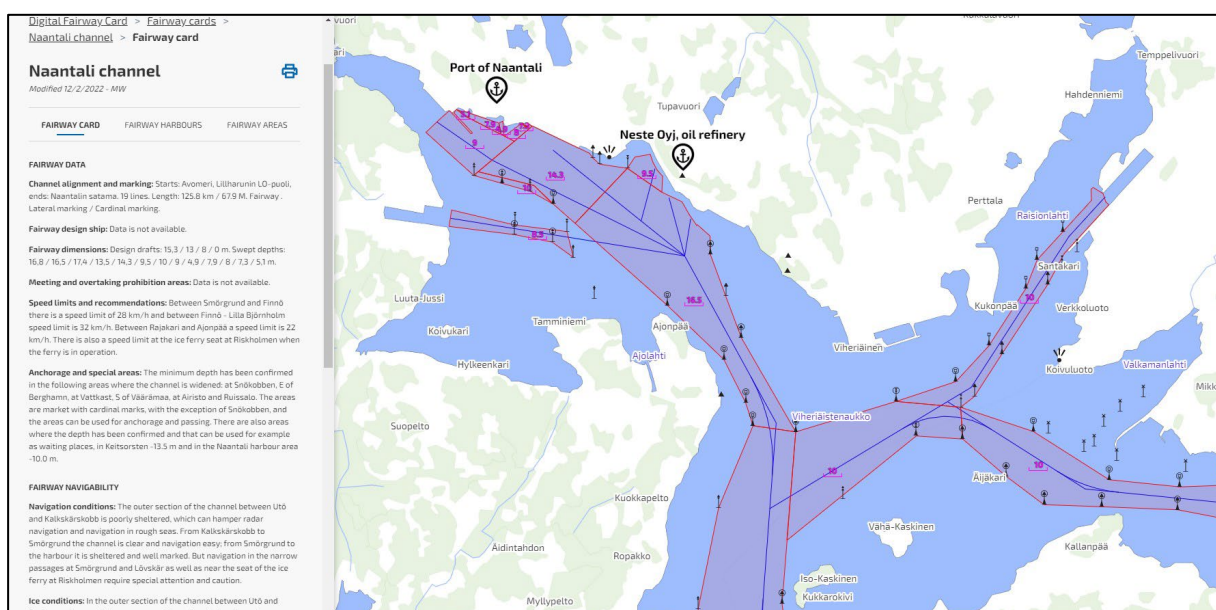


Figure 1. Example of digital Fairway Card information portrayal.



Load Calculator

Finnish Transport Infrastructure Agency publishes Load Calculator to assist seafarers in estimating vessels squat (i.e. increase of vessels draft as the function of the vessels speed) in different fairway cross section types. Calculator uses Huuska-Guliev method which is one of the methods recommended by PIANC. The Load Calculator is intended to be used only for evaluational purposes.

The calculator has earlier been provided as a MS Excel -sheet that users can download to their own computer. It is now being transferred to a web -based service in three language versions (Finnish, Swedish and English).

Squat Calculation

General

Vessel

General

Length BPP * 0.00 m

Breadth * 0.00 m

Draught * 0.00 m

Block Coefficient * 0.75

Displacement * 0 mt

Detailed

Total Lateral Wind Surface 0 m²

Estimated Deck Cargo 0 m²

Bow Thruster 0 kW

Bow Thruster Efficiency 100 %

Select Vessel Profile *

Bulker / Tanker

Container

Ferry

LNG Tanker

Environment

Weather

Set Wind Speed 0 m/s

Set True Wind / Wave Direction 90 °

Set Wave Height 0 m

Set Wave Period 0 s

Wave Length 0.00 m

Wave Amplitude 0.00 m

Fairway

Sweet Depth 0 m

Water Level 0 cm

Estimated water depth 0 m

Form of Fairway *

Open Water

Channel

Shaped Channel

Calculations

Squat

Heel Due Wind 0 °

Constant Heel Due Turn 0 °

Corrected Draught 0 m

Corrected Draught During Turn 0 m

UKC Vessel Motions 0 m

UKC Straight Course 0 m

UKC During Turn 0 m

Squat, Open Water 0 m

Wind Force

Relative Wind Direction 0 °

Relative Wind Speed 0 m/s

Wave Force 0 mt

Bow Thruster Force 0 mt

Remaining Safety Margin %

Minimum External Force Required -

Drift

Relative Wind Direction 0 °

Relative Wind Speed 0 m/s

Estimated Drift Angle 0 °

Estimated Vessel Breadth Due Drift 0 m

Stability

KG 0.00

GM 0.15

KB 0.00

KB 0.00

Set Vessel Course 0 °

Set Vessel Speed 0 kts

Set Turning Radius 0.75 nm

Attribute

Set Density of Air

Set Density of Water

Figure 2. Web-based Load Calculator user interface.