

Orrengrund – HaminaKotka

Voyage planning for cruise vessels



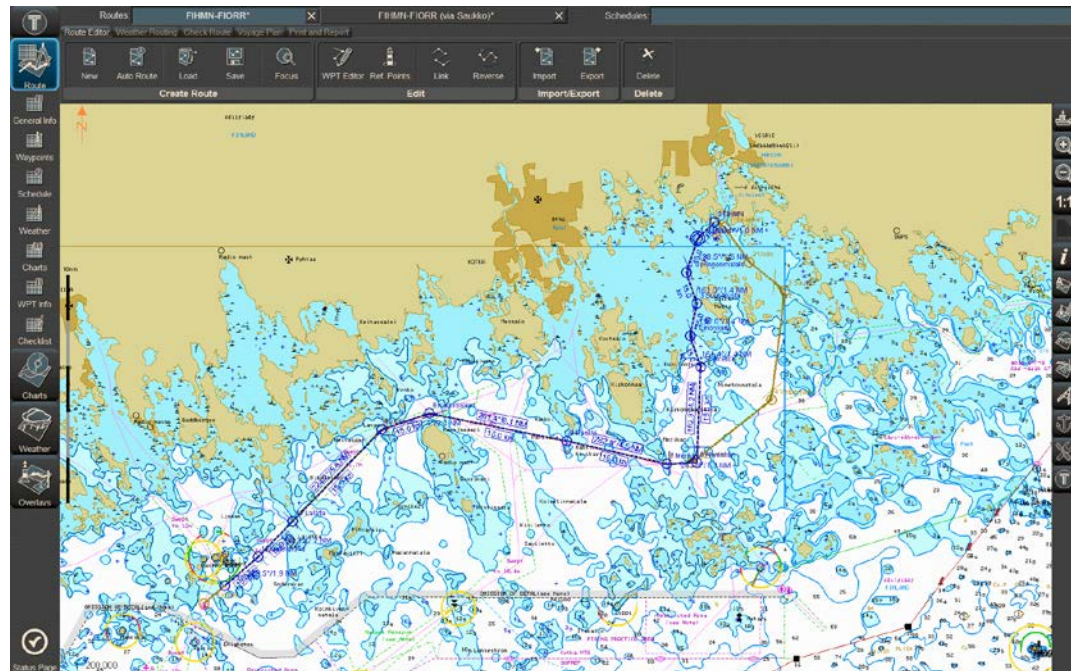
23.1.2020

Orrengrund – Hamina

General



- Two (2) available routes inbound / outbound
- Either fairway has no restrictions vessel Loa – Loa > 300 m route planning speed essential
- Via Einonkari
 - Recommended fairway by pilots
 - Pilotage 37'
 - Max draught 8,6 m
 - Swept to 10,0 m
 - Turning radius 1,0' - 0,75'
- Via Saukko
 - Pilotage 39'
 - Max draught 12,0 m (FIKSY dest)
 - Swept to 13,5 m
 - Turning radius 1,0' - 0,75'

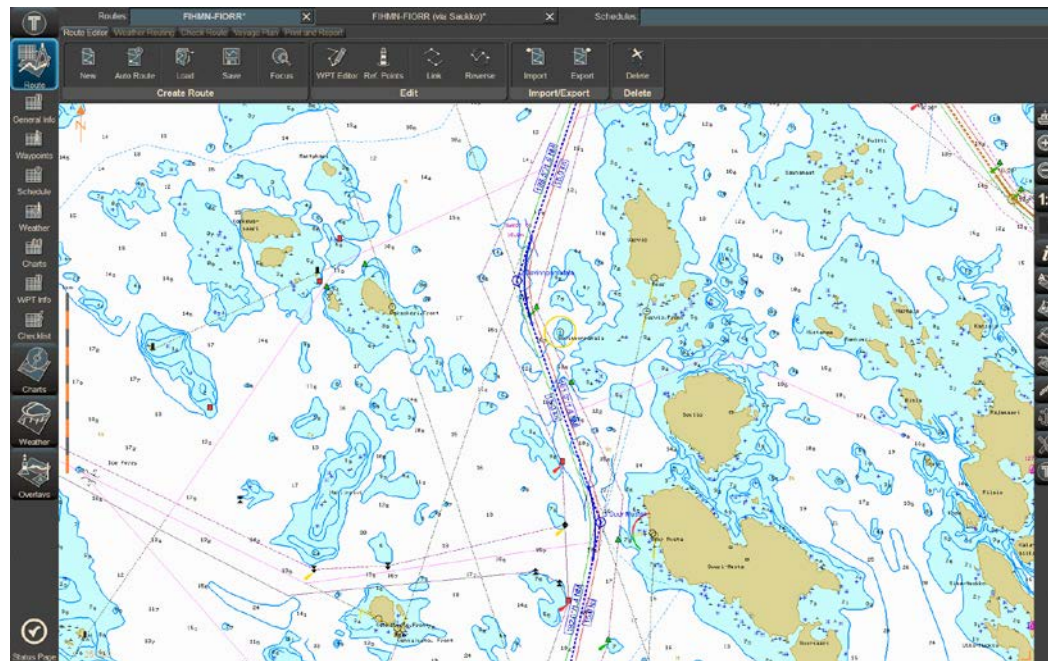


Orrengrund – Hamina

Einonkari fairway



- Recommended fairway by pilots
- Cruising speed can be kept up until arriving Einonkari (6' before port)
 - After that speed with vessel close to max draught (8,6 m) 10 – 12 kts
- Tight turn around Merikari
 - Turn 90 deg
 - 0,75 – 1,0 nm radius recommended
 - ROT 15 kts (1,0 nm radius) 14 deg/min – ROT 15 kts (0,75 radius) 19 deg/min
- "Tightest turn" N of Sovinnonmatala
 - Turn 37 degrees
 - < 0,75 nm radius recommended
 - ROT 12 kts ~ 15 deg/min – ROT 10 kts ~ 13 deg / min

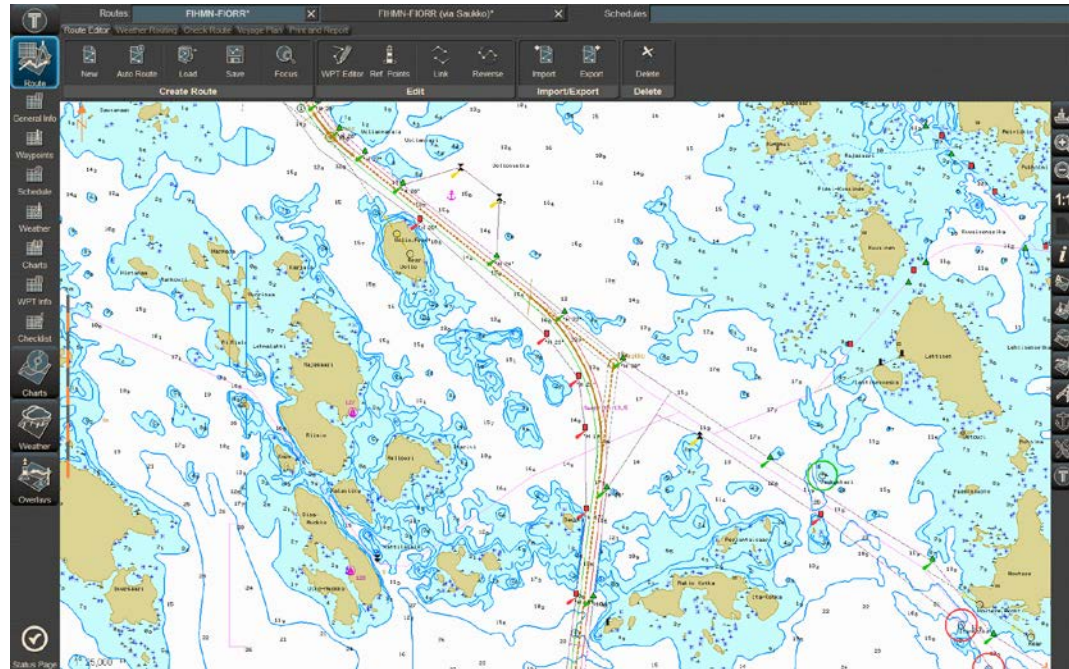


Orrengrund – Hamina

Saukko fairway



- Design vessel L 210 m – B 32 m
- Cruising speed can be kept up until arriving Saukko (6' before port)
- Saukko channel 180 m wide – quite open with the southerly winds
 - If wind sufficient speed must be kept
- "Tightest turn" N of Saukko
 - Turn 58 degrees
 - < 0,75 nm radius recommended
 - ROT 12 kts ~ 15 deg/min – ROT 10 kts ~ 13 deg / min

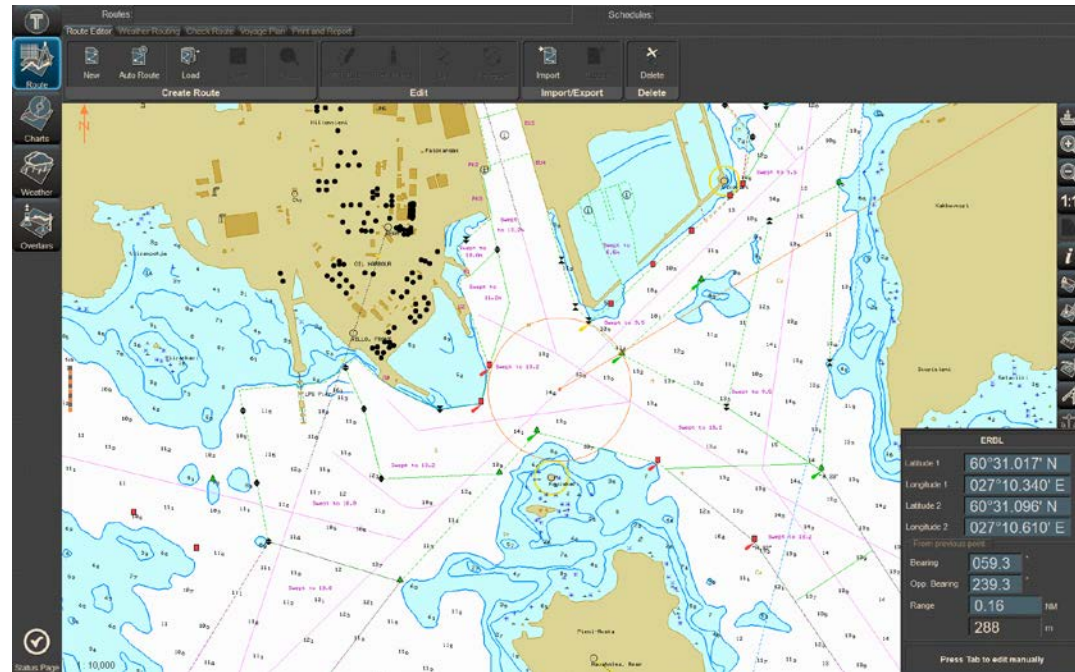


Orrengrund – Hamina

Hamina port - turning area



- Turning area in front of Hamina port > 500 m diameter
- Option to use Saukko – Einonkari fairway for turning
- Wind speed reduced due to islands ~ 3 m/s compared to Mussalo port
- For pilot perspective ideal place to turn vessel around – escape route always available

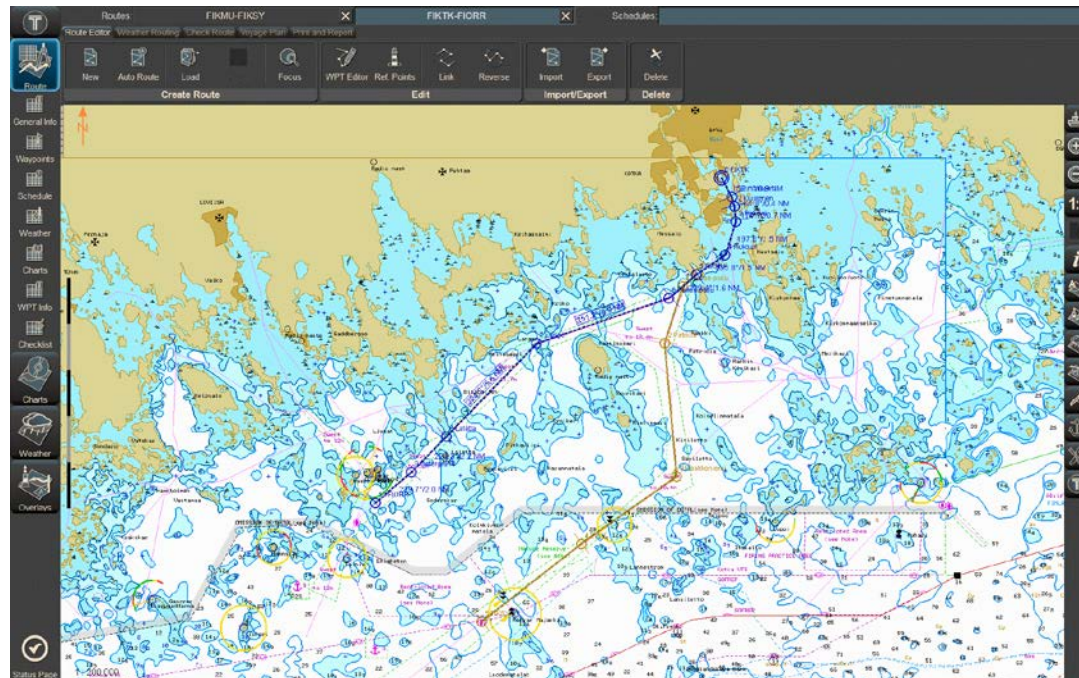


Orrengrund – Kotka

General



- Two (2) available routes inbound / outbound
- Either fairway has no restrictions vessel Loa
- Via Orrengrund
 - Recommended fairway by pilots
 - Pilotage Mussalo 19' / Kotka 23'
 - Max draught 10,0 m
 - Swept to 11,2 m
 - Turning radius >1,0'
- Via Kotka LH
 - Pilotage Mussalo 20' / Kotka 24'
 - Max draught 15,3 m
 - Min draught >10,0 m
 - Swept to 17,3 m
 - Turning radius >1,0'

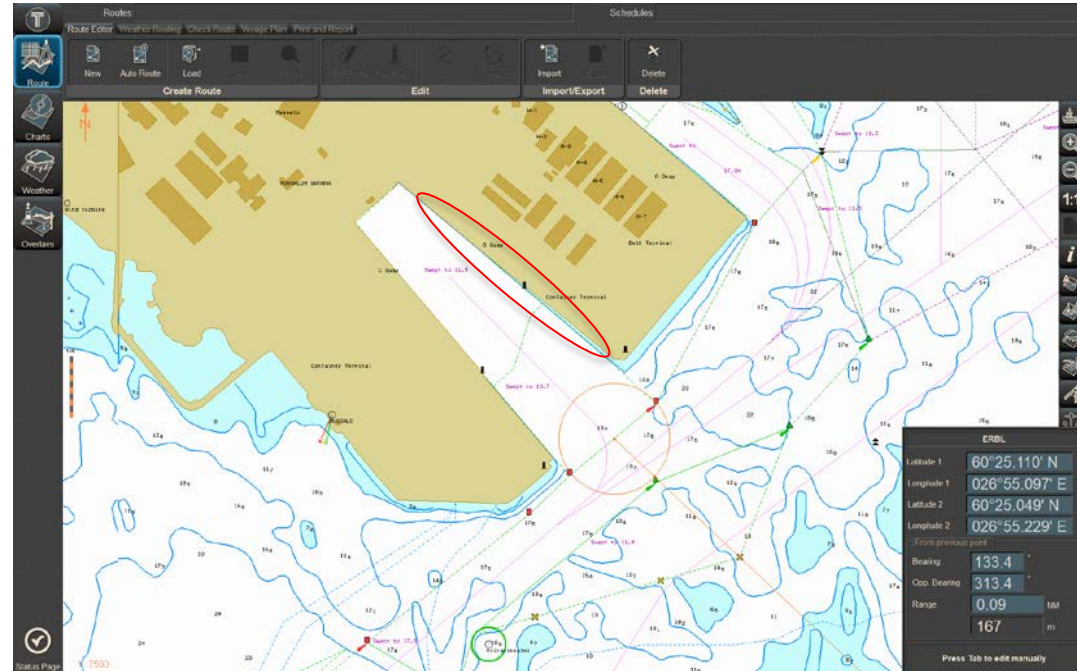


Orrengrund – Kotka

Mussalo port



- Most likely destination B side – excellent fendering
- Width of entrance 330 m
- Entering requires 90 degree turn
 - Green buoy opposite the bay complicates turning vessel > 230 m
 - Safe area E-side of green buoy – swept to 11,9 m

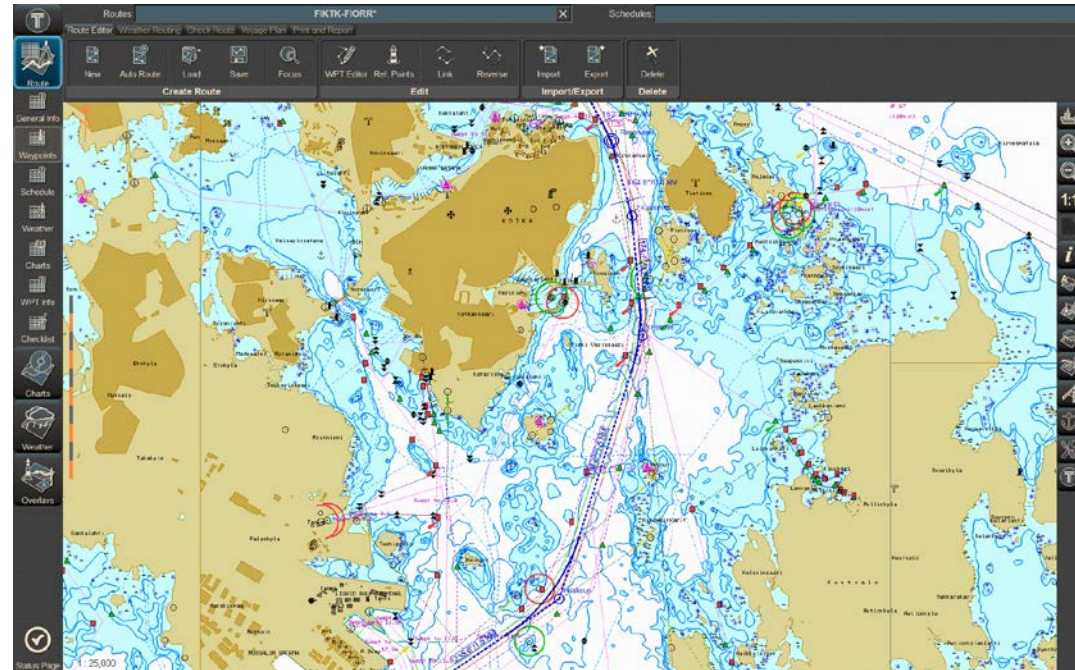


Orrengrund – Kotka

Fairway Mussalo - Kantasatama



- Design vessel L 180 m – B 25 m
- Recommend Loa < 230 m
- Cruising speed can be kept up until arriving Mussalo (5' before port)
 - After that speed with vessel close to max draught (10,0 m) 10 – 12 kts
- Radius 1,0' is available along the fairway
- Min width of fairway 130 m close Pirkoyri

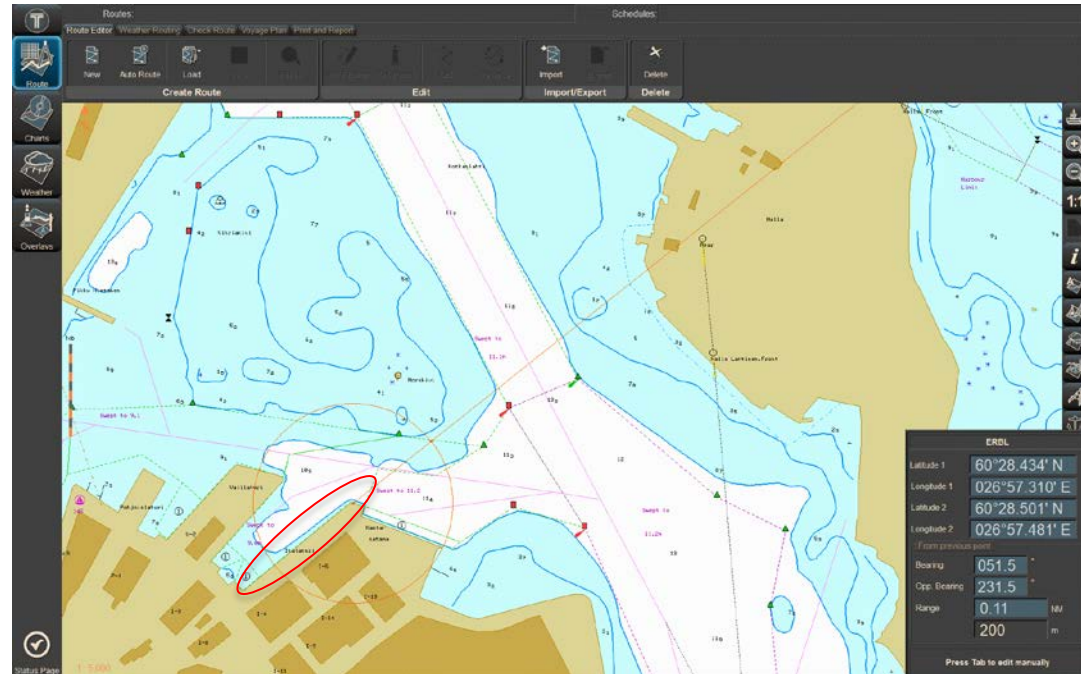


Orrengrund – Kotka

Kantasatama port



- Most likely destination I1 – I2 jetty
- Max Loa recommended < 200 m
- Turning of vessel must be done on the fairway
- Port is extremely sheltered winds and waves



Veitkari fairway

General



- Fairway saves 40' when bound for / to St. Petersburg
- Max draught 8,0 m
- Max Loa < 178 m
- Vessels > 160 m daylight only, wind speed < 10 m/s
- Narrowest part close Haapasaari island - 135 m

