

MV ANKIE

Van Dam Shipping

Speaker: Jan van Dam, Director

2 VentiFoil

10m x 2.1m

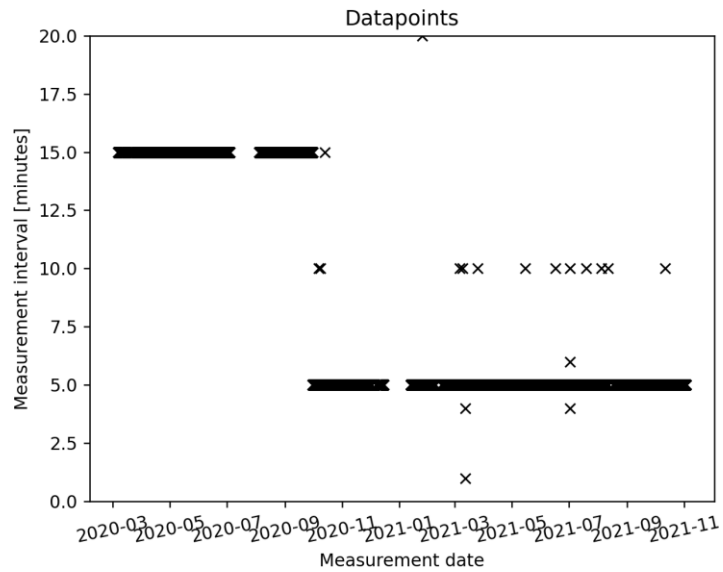


# MV Ankie

- General cargo
- Installation January 2020
- 2 VentiFoil, 10m x 2.1m



Van Dam Shipping



# Data

- Ship data since 6-3-2020 → 1.7 years
- Ventifoil data since 6-10-2020 → 1.1 years
- Data up to 2-11-2021
- Interval = 5 min



Van Dam Shipping



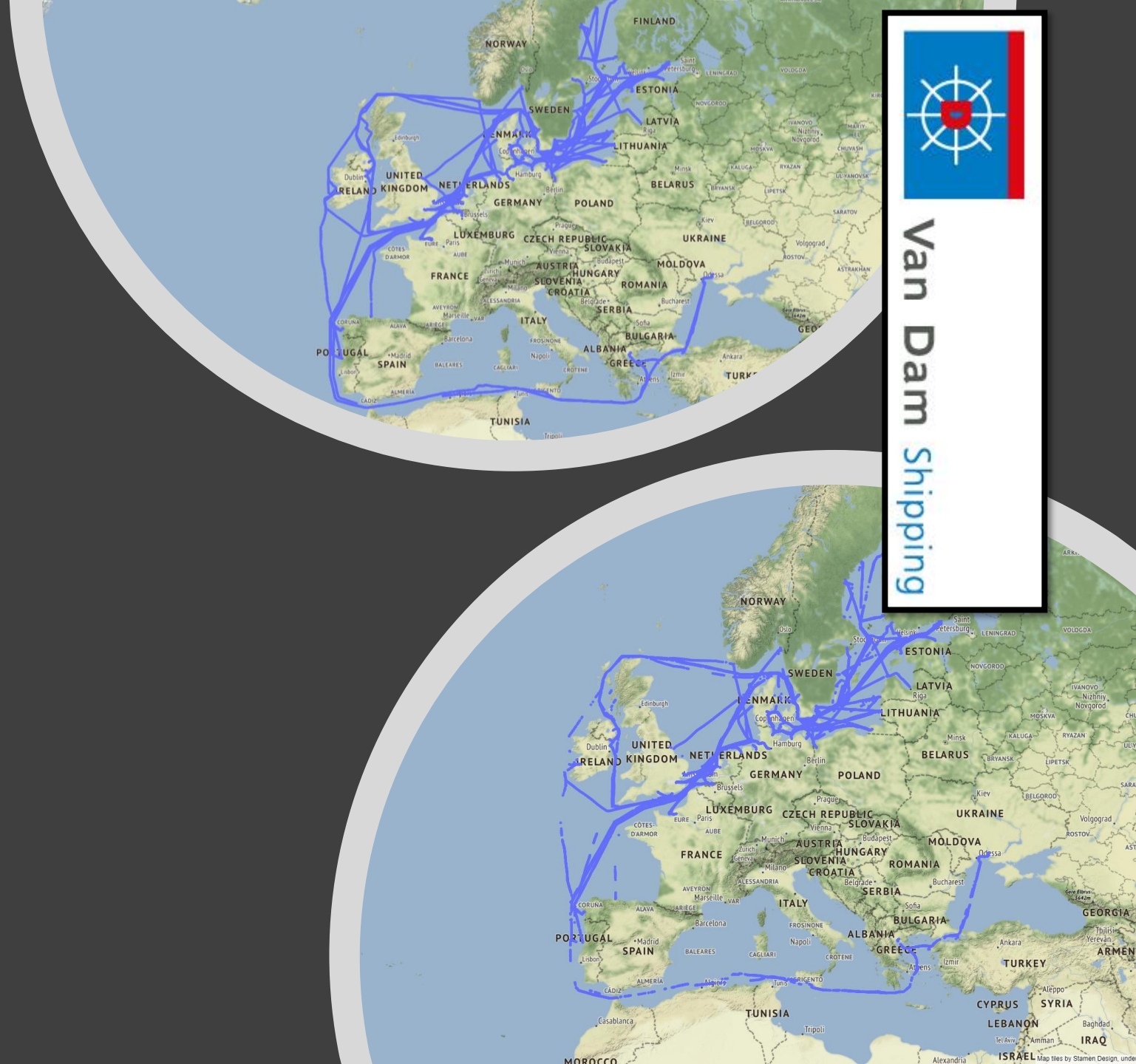
Down – up of the  
ventifoils onboard of  
mv Ankie



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# Data

- Ship data since 6-3-2020 → 1.7 years
- Ventifoil data since 6-10-2020 → 1.1 years
- Data up to 2-11-2021
- Interval = 5 min
- Europe

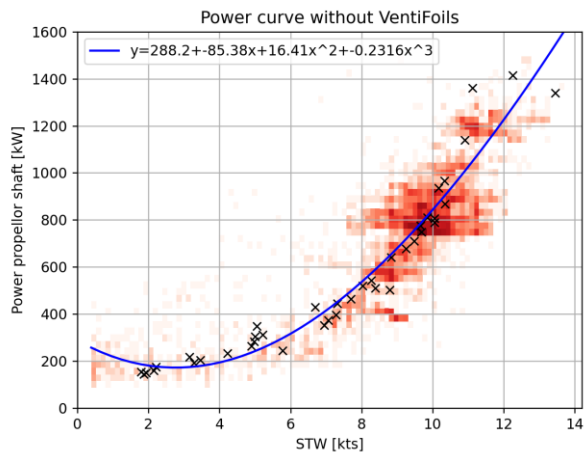
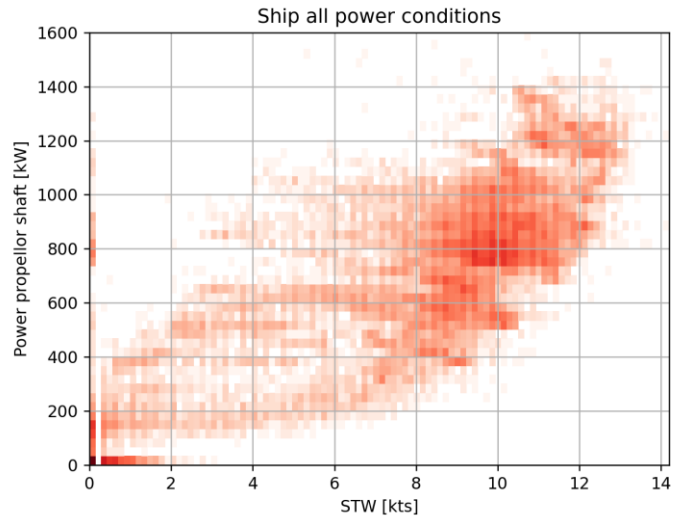


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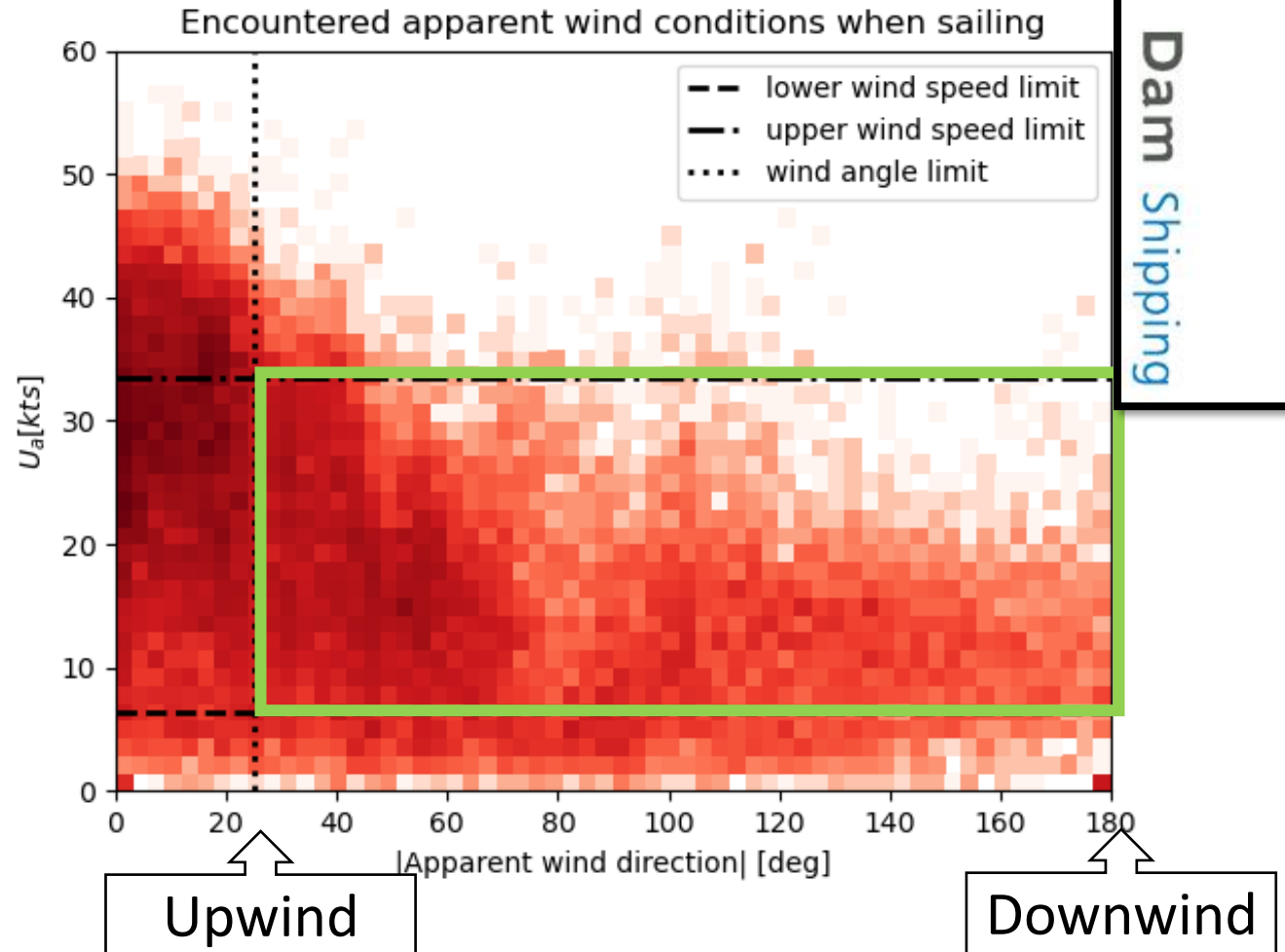
# Propulsion power

- Speed-Power curve plots



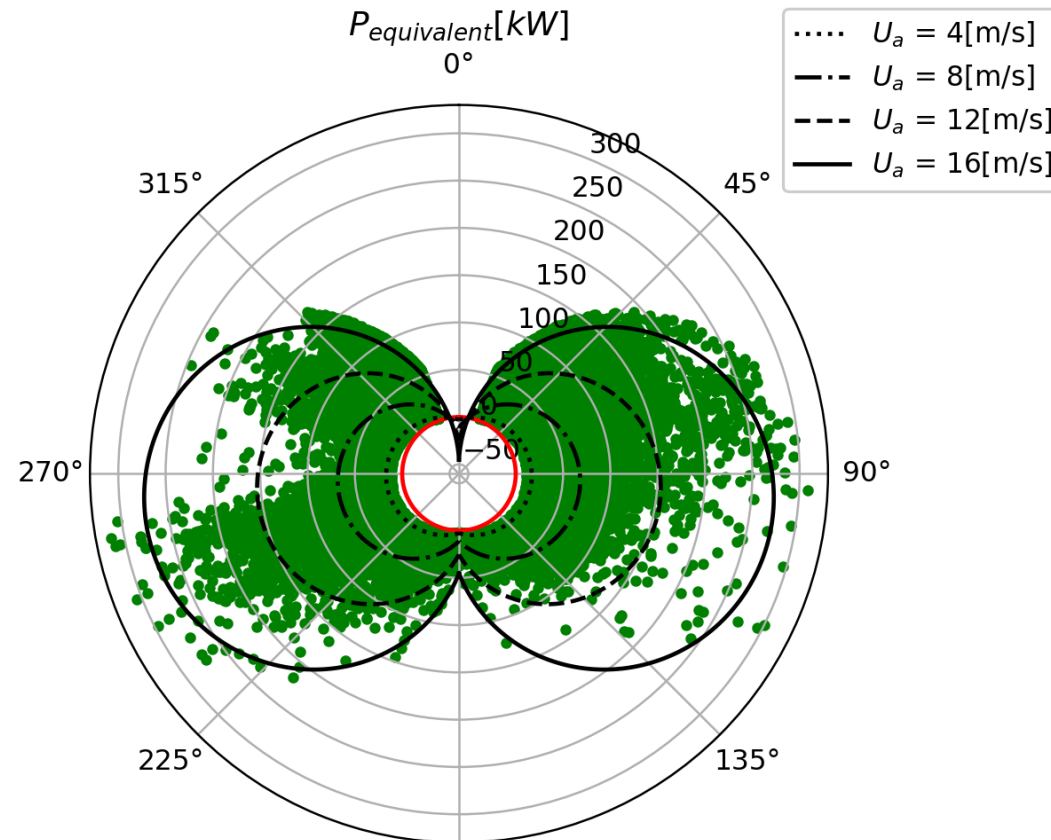
# Wind conditions

- VentiFoil usable:
  - Apparent wind speed  $\geq 3$  bft
  - Apparent wind speed  $\leq 7$  bft
  - Apparent wind direction  $\geq 25$
- Lift/Drag is important
- Foldable

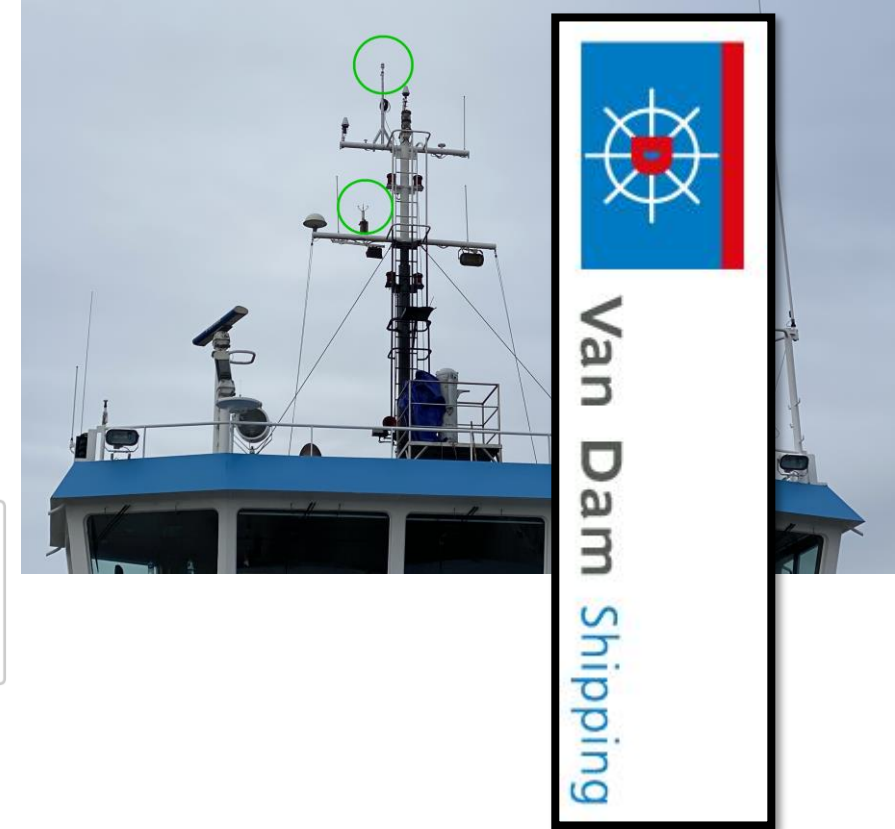


# Equivalent power polar

- Power generated by VentiFoil



time usable at sea = 3327[hours]  
saving total = 174689[kWh]  
P equivalent average when usable at sea = 53[kW]



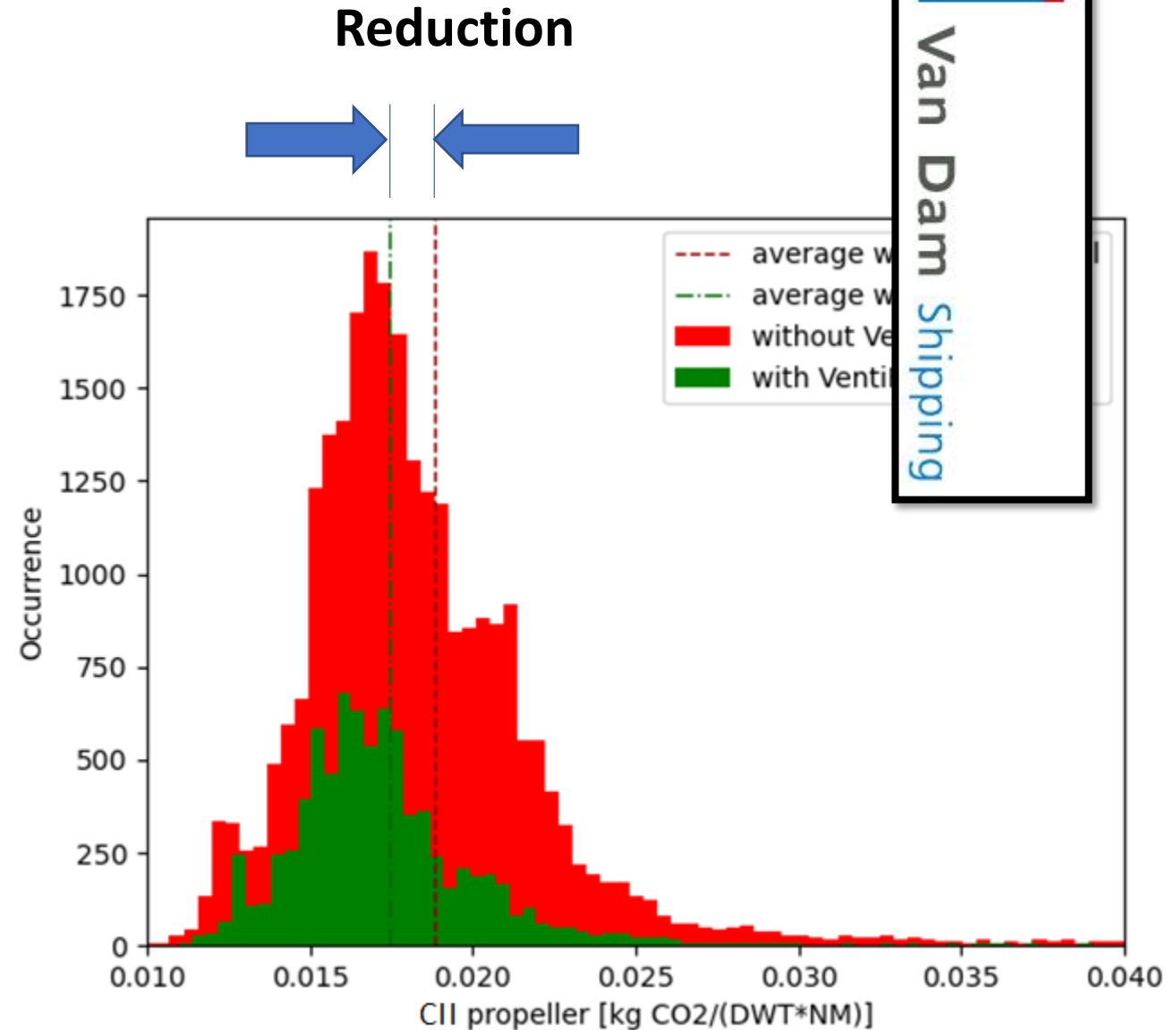
**270 kW maximal**

**53 kW average**



# CII saving propeller

- Averaging
- Propeller power reduction:
  - 4,9% over the year
  - 10,3% on long-haul trip
  - 22% maximal





Van Dam Shipping

April 2022

Extended wings

3m extra



Van Dam Shipping

April 2022

Extended wings

3m extra

# Operations of the Ventifoils

- Van Dam shipping ordered one of the First VentiFoils
- Adjustments made during the 2 years that the vessel with Ventifoils are Operational
- With the present retrofit only exemption technical failures are expected



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# Technical failure

- Sensors and encodes had frequently failure
- Hid by a wave, when ventiFoil was in down position



# Practical failure

- Missing (inmerency) procedures and operational manuals
- Frequently failures, resulted in reduced motivation of crew
- This resulted in reduced use of the Ventifoil
- 



# Practical improvement

- Retrofit of the VentiFoil is improving the motivation onboard
- Make indication Signs when wind speed and direction is good to have the ventiFoil operation
- As van Dam Shipping we had to share more information with our crew

# Favour of the VentiFoil

- A lot of positive Attention
- New Information for new Technologies
- Saving of Fuel

