



**PORTS AND TERMINALS ARE A VITAL LINK IN THE GLOBAL SUPPLY CHAIN,
HOWEVER, IT IS A CHALLENGING ENVIRONMENT TO OPERATE IN**

KEY CHALLENGES



CONGESTION



DIGITALIZATION



EMISSIONS

British Columbia

2 ships collide in the night in Vancouver Harbour



TSB says no injuries or pollution resulted from the collision between 2 large freighters early Sunday

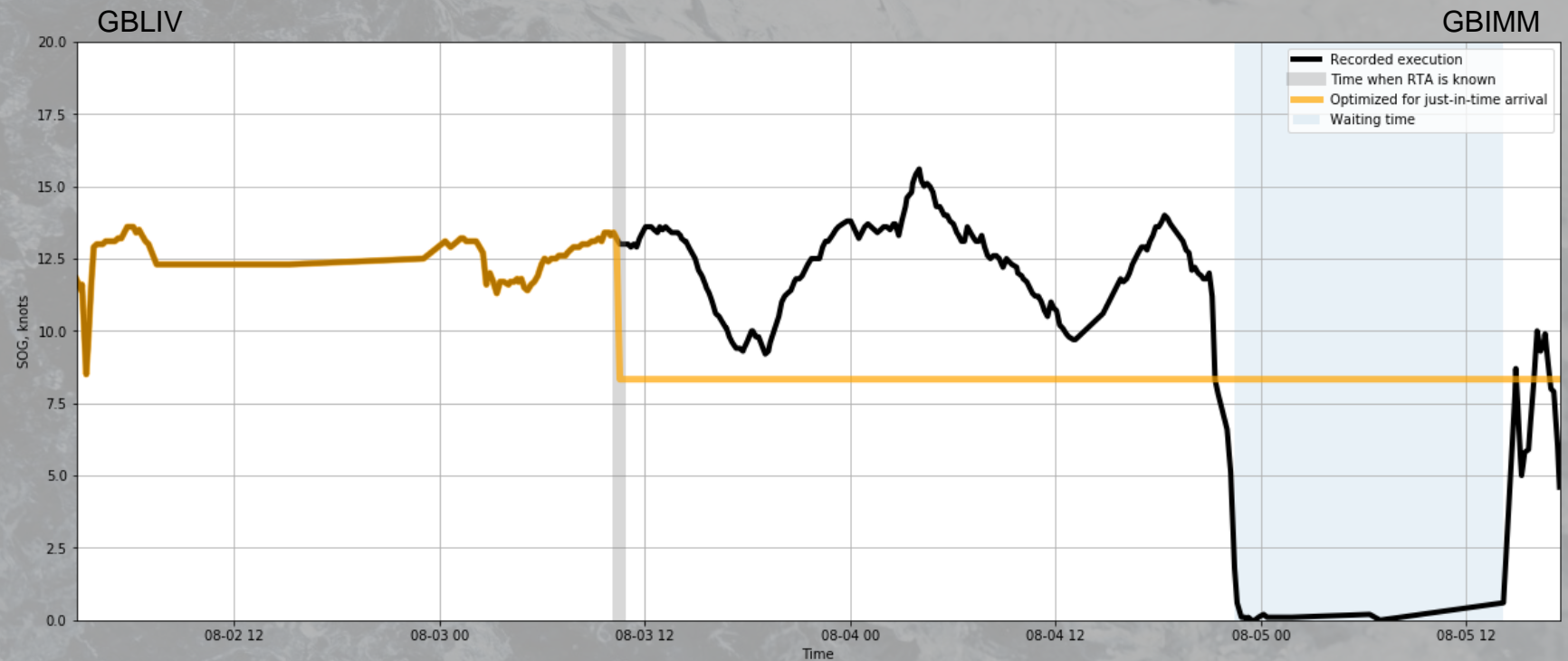
[Karin Larsen](#) · CBC News · Posted: Mar 18, 2019 1:22 PM PT | Last Updated: March 18



SIMULATION ALGORITHM: JIT ARRIVAL

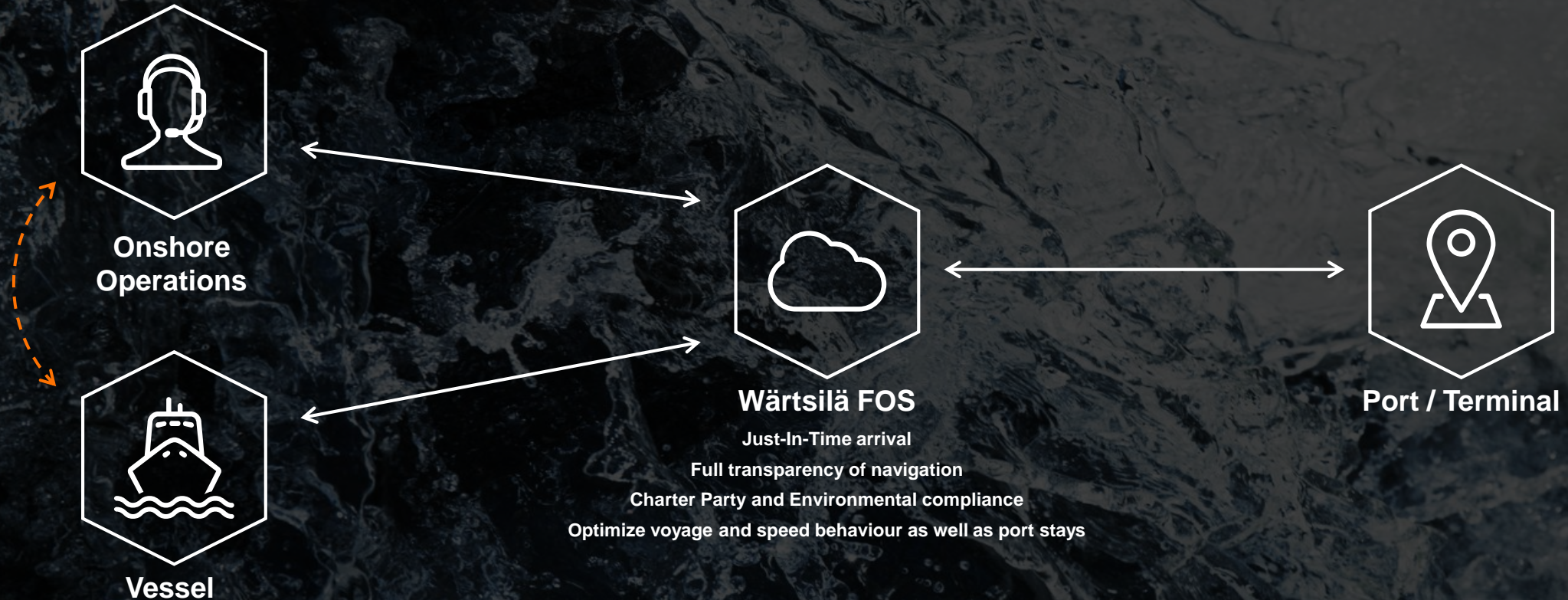
Speed is reduced for Just-In-Time arrival

4.8% FUEL SAVINGS



JUST-IN-TIME BY WÄRTSILÄ

A SINGLE PLATFORM CONNECTING VESSELS, ONSHORE OPERATIONS AND PORTS

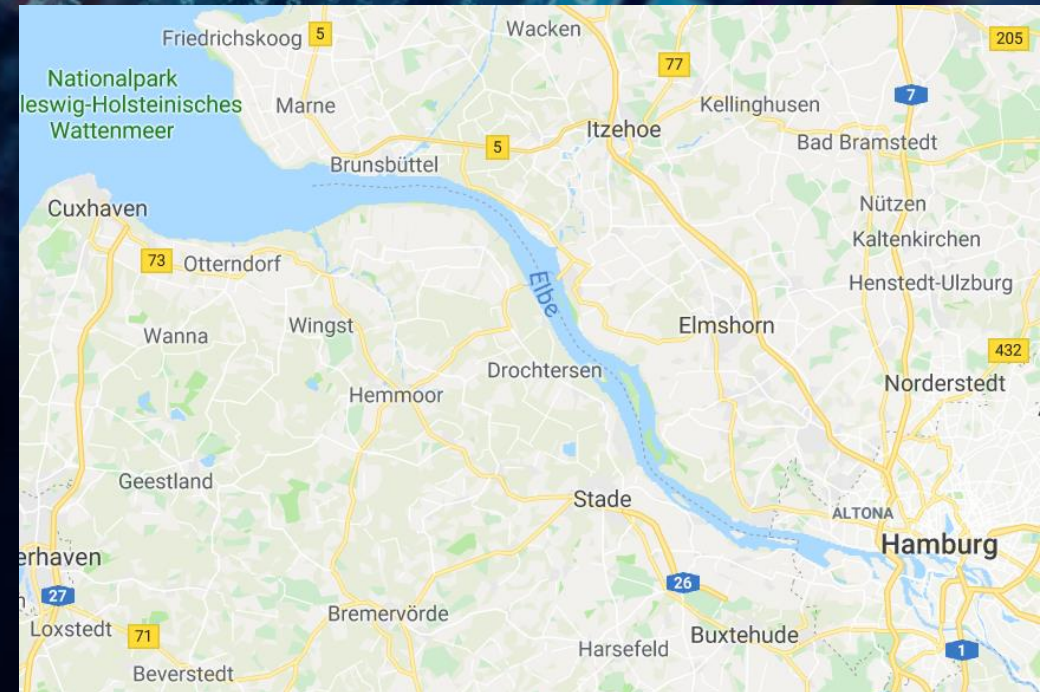


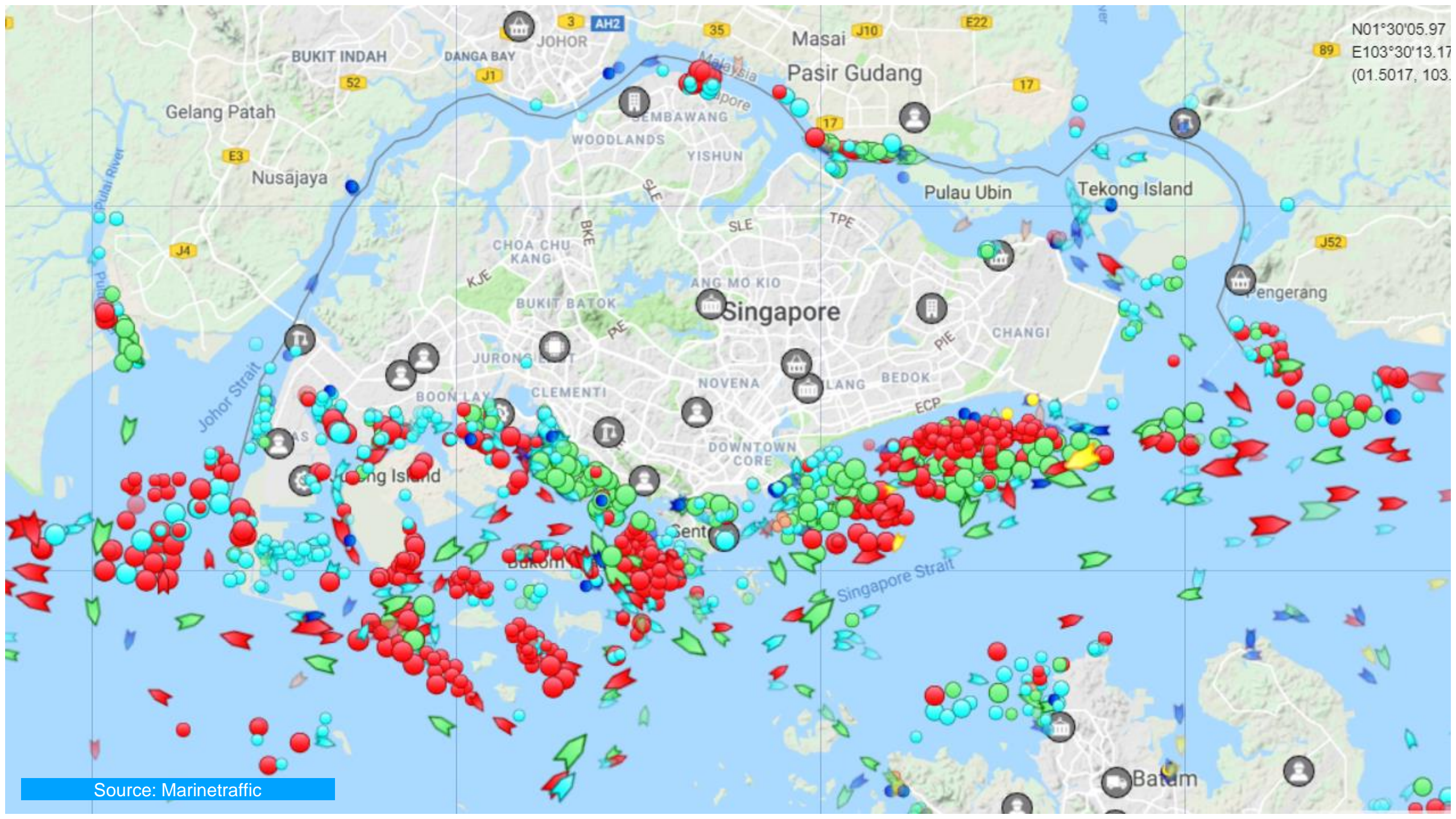
Across a voyage, the vessel and shore exchange information in a secure environment about the optimum time to arrive at port, maximising fuel saving opportunities and reducing time at anchorage

COLLABORATION: HVCC HAMBURG

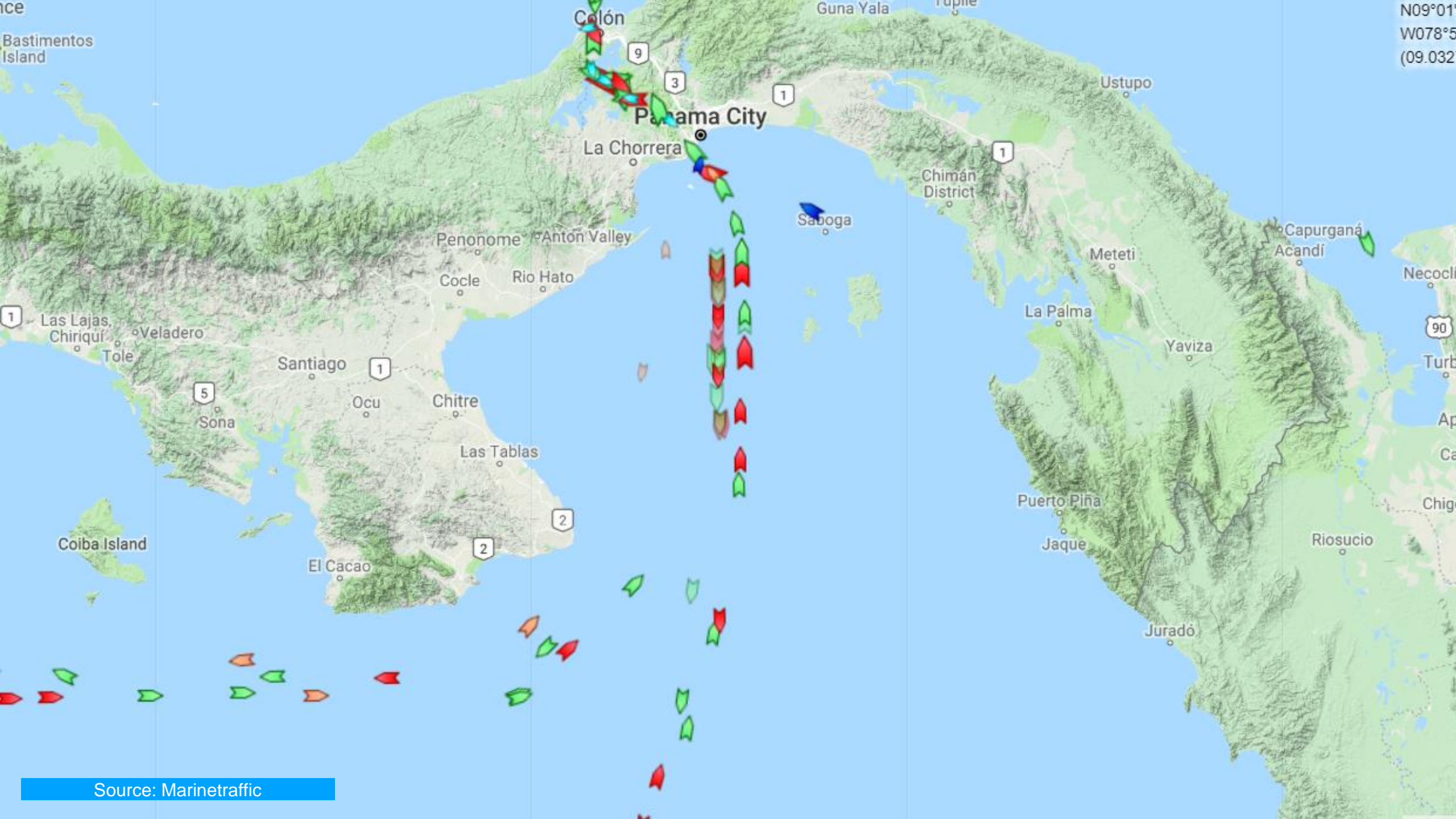
Passage plan and ETA exchange between ship ECDIS and port system

- Reduced congestion in Elbe river
- Reduced fuel and emissions
- Reduced workload for HVCC
- Improved predictability of traffic
- Improved safety





Source: Marinetrtraffic



N09°01'
W078°5'
(09.032)

Source: Marinetráfico



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