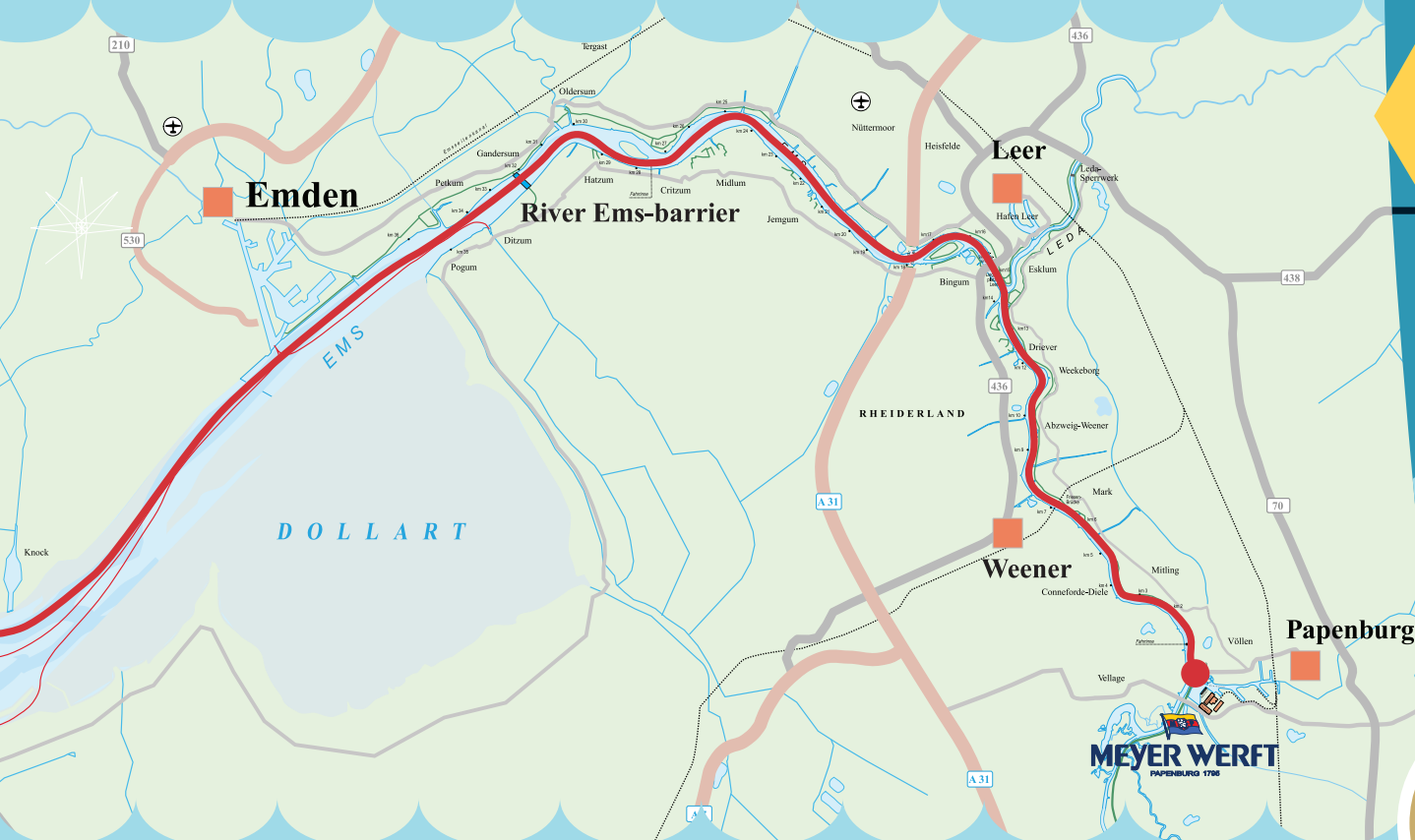


Quantum of the SeasSM CONVEYANCE FACTS

The river conveyance is a unique process for ships built at the Meyer Werft Shipyard in Papenburg, Germany. Unconventionally situated inland to avoid impact from storms in the North Seas, Meyer Werft has been sailing ships down the River Ems 32 kilometers to sea since 1795.



CONVEYANCE TAKES
10 HOURS
to sail **32 KILOMETERS**
down the River Ems,
the same amount of time it takes to fly
from New York to Athens, Greece



The time will vary based on a variety of conditions leaving only an exact window of time for launch onto the River Ems

QUANTUM OF THE SEAS IS THE **LARGEST SHIP** TO LEAVE MEYER WERFT AND TRAVEL THROUGH THE RIVER EMS AT **168,666 GROSS REGISTERED TONS**



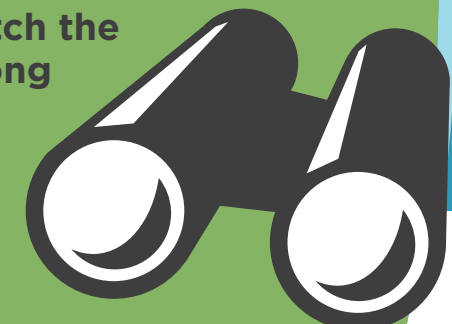
There are only a **few centimeters** of clearance on either side of the ship as it travels from the shipyard to the channel

4 BRIDGES ARE EITHER OPENED OR REMOVED,



AND POWER IS CUTOFF TO POWER LINES AT 3 LOCATIONS CAUSING THEM TO SHRINK AND RISE UP SO THE SHIP CAN PASS WITH AS LITTLE CLEARANCE AS 1.8 M

THOUSANDS OF SPECTATORS come out to watch the conveyances along the River Ems



THE SHIP PASSES THROUGH



CAR AND RAILWAY BRIDGES

USING 3 GPS DEVICES AND 4 PILOTS TO ENSURE SAFE PASSAGE



THE SHIP MUST MANEUVER **BACKWARDS** DOWN THE RIVER IN ORDER TO OPTIMIZE CONTROL

This protects the azipods / propellers since the rear of the ship stays in the center of the river when maneuvering in reverse

2

TUGBOATS EACH WITH **9,000 HORSEPOWER** ARE REQUIRED TO GUIDE THE SHIP



THE SHIP MOVES AT APPROXIMATELY **2-3 KNOTS** DOWN RIVER, THE SAME NORMAL WALKING PACE AS A 40-YEAR OLD MAN

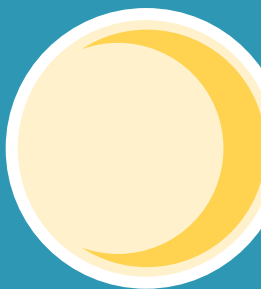


In order to have a successful **CONVEYANCE** the following conditions must be met:

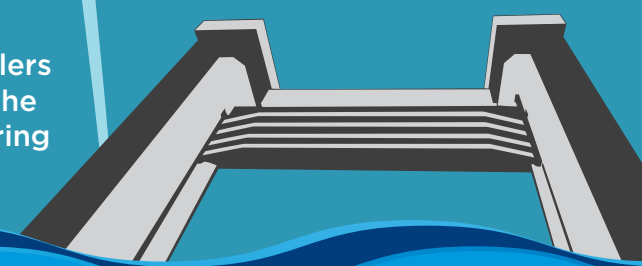
wind speed = **20 knots or less**



FULL or new moon

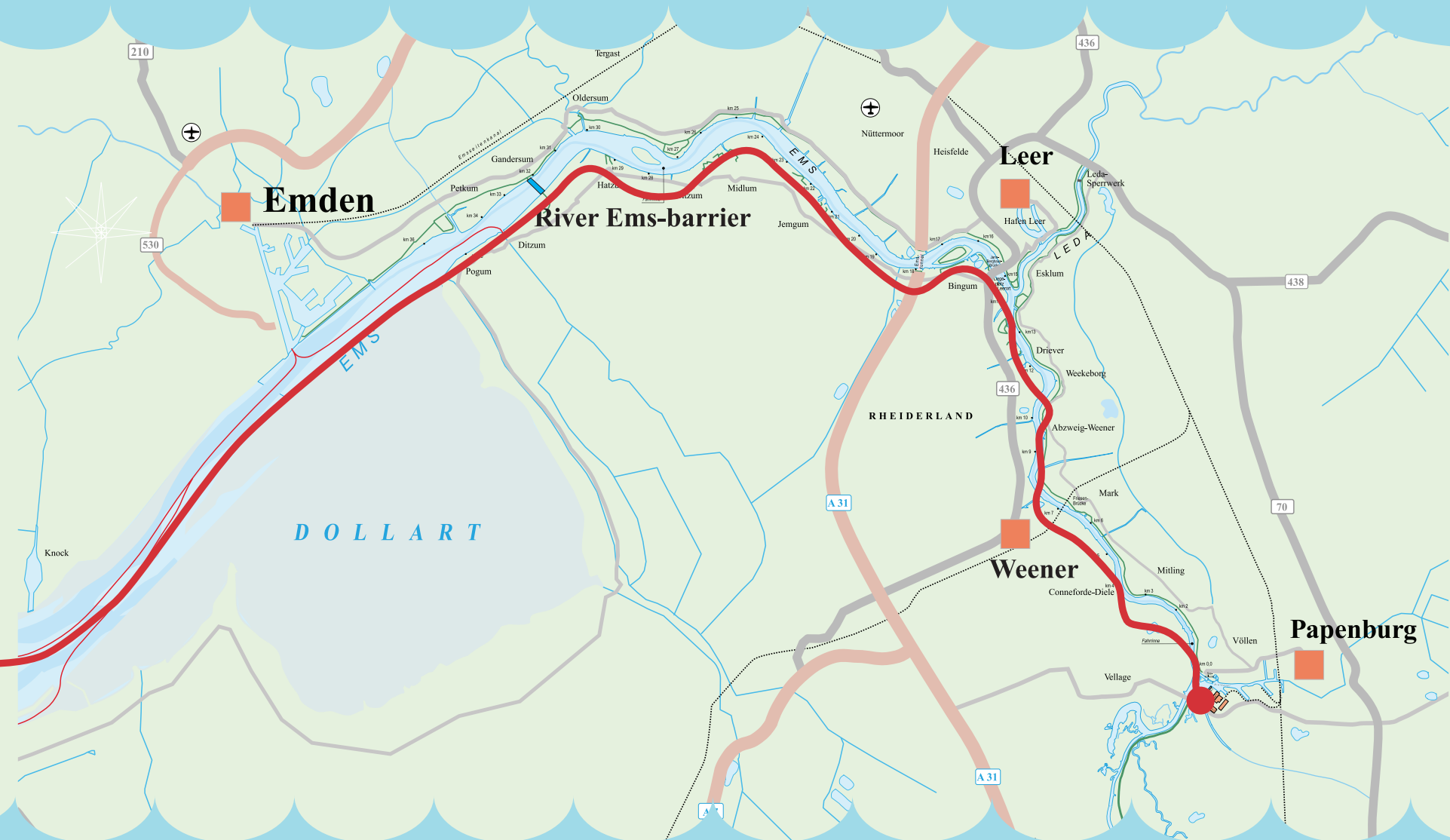


TIDAL BARRIERS must be closed in order to ensure enough depth remains under the ship's hull



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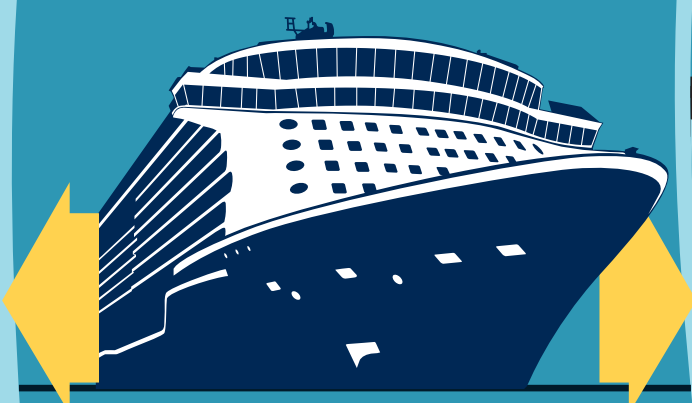


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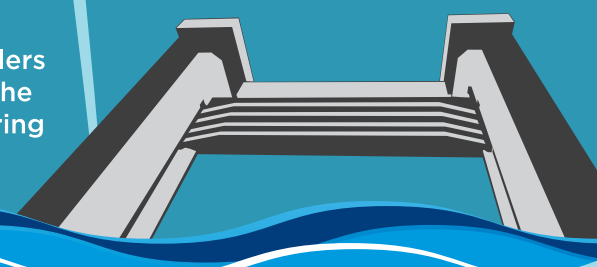
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