

# Wind Farm Helicopter Operations

Lars Hilgert, Head of Flight Operations

WIKING Helikopter Service



Founded **08/1975** by VTG Vereinigte Tanklager & Transportmittel GmbH a company of the former Preussag AG and the **Norwegian helicopter company**, Helikopter Service A.S.



Since **08/2017** 100% shareholder with  
KAAN Air INTERNATIONAL AG, Zurich/Switzerland



## Helicopter operated:

- 4 Airbus Helicopters H145
- 4 Leonardo AW139

## Areas of operation:

- Sea Pilot Transfer
- Crew Change
- HEMS
- HHO
- ATO/Training

## Company locations:

- Wilhelmshaven, DE
- Emden, DE
- Husum, DE
- Wick, UK
- Beccles, UK
- Eemshaven, NL

## Safety Record:

121.000 accident-free flight hours since 1975



**WIKING**

**60.000 Pilot transfers  
mainly served by hoistings**

**154 Employees**

## EASA approved:

- PART145 Maintenance
- PART M (CAMO)
- Approved Training Organisation (ATO)

## IMS:

- ISO 9001:2015
- ISO 14001:2015
- Safety Culture Ladder (SCL)
- ISO 45001

# WIKING Bases

- active
- non-active
- ▲ headquarters



## All Helicopters are certified for

- Offshore
- IFR
- Hoist Operations
- Operations including Sea State level 6

## light Class (H145)

- 2 Pilots
- up to 8 Passengers offshore

## medium Class (AW139)

- 2 Pilots
- up to 12 Passengers
- Thereof 1x 7to version



4 Airbus Helicopters H145



4 Leonardo Helicopters AW139

## Sea Pilot Transfer (dual pilot):

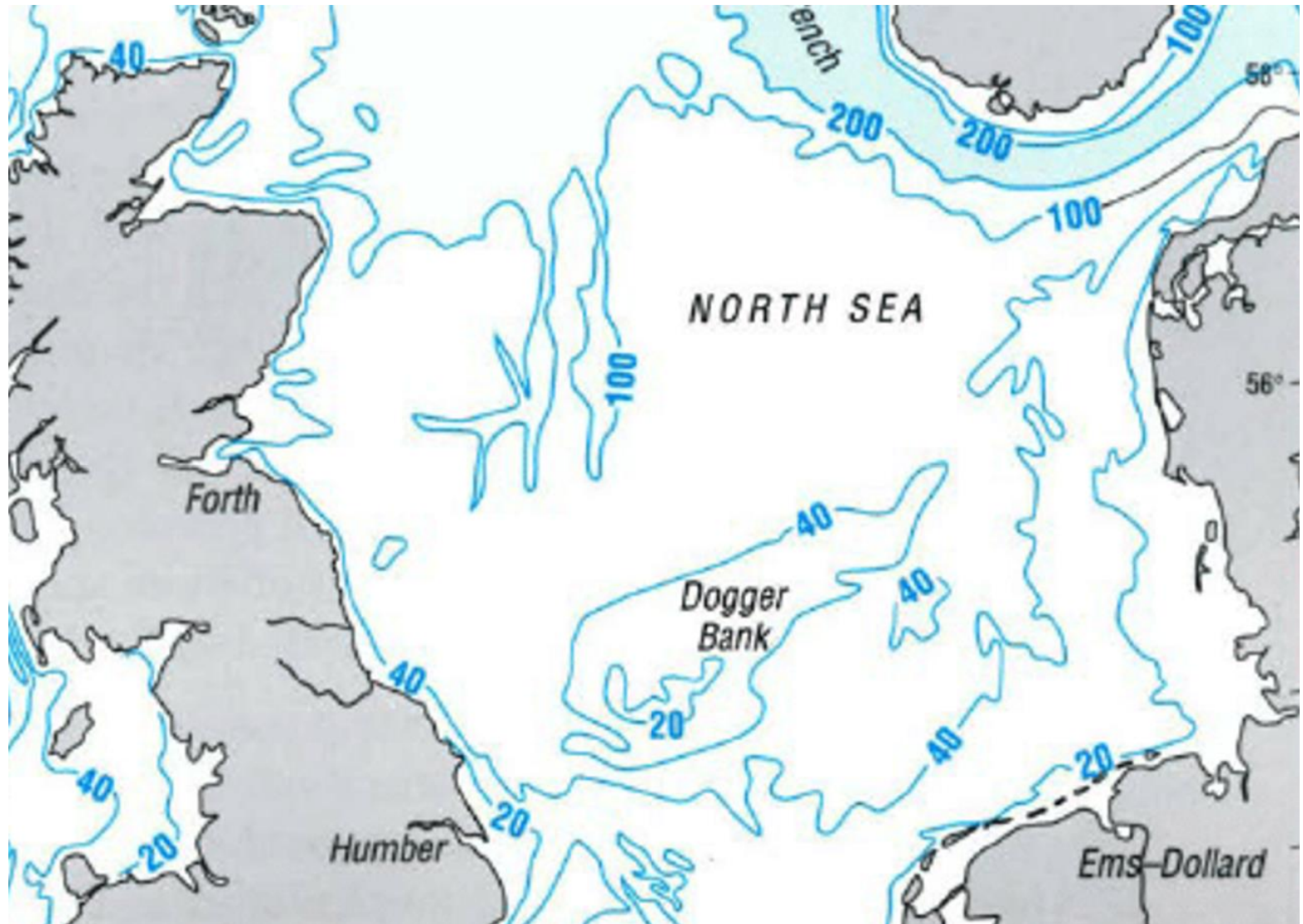
- Transport and Heli Hoist Operation for Sea Pilots within the German Bight, at the rivers Jade/Weser/Elbe/Ems for more than 45 years



Based in Wilhelmshaven  
24/7 – 365 Operation

# German Offshore Wind Farms

Water depth  
average 20-40m



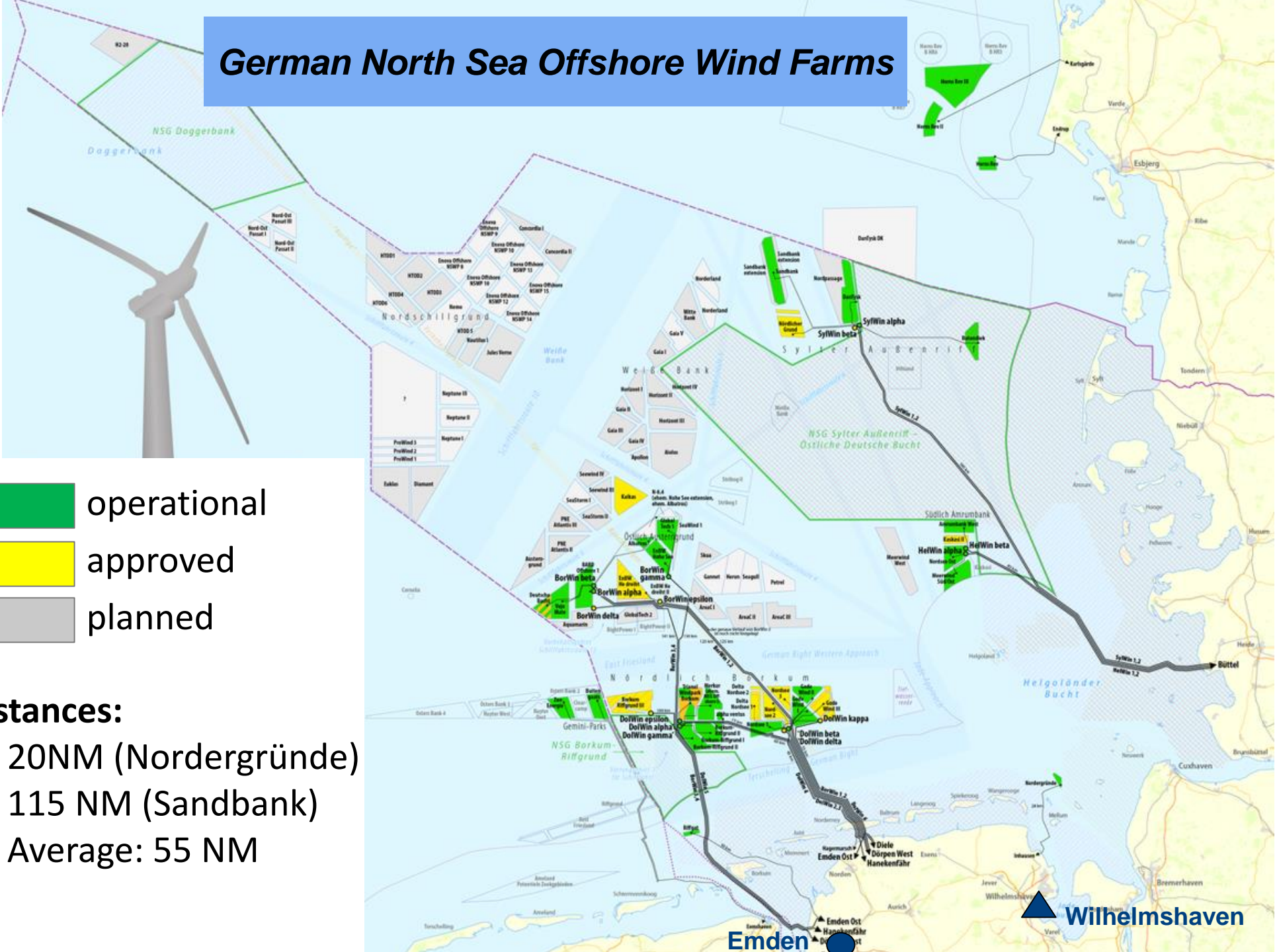
# German Offshore Wind Farms



- **27** Offshore Wind Farms (23 North Sea / 4 Baltic Sea)
- **1.501** Wind Turbine Generators (WTG's) total



# German North Sea Offshore Wind Farms



- operational
- approved
- planned

## Distances:

- 20NM (Nordergründe)
- 115 NM (Sandbank)
- Average: 55 NM

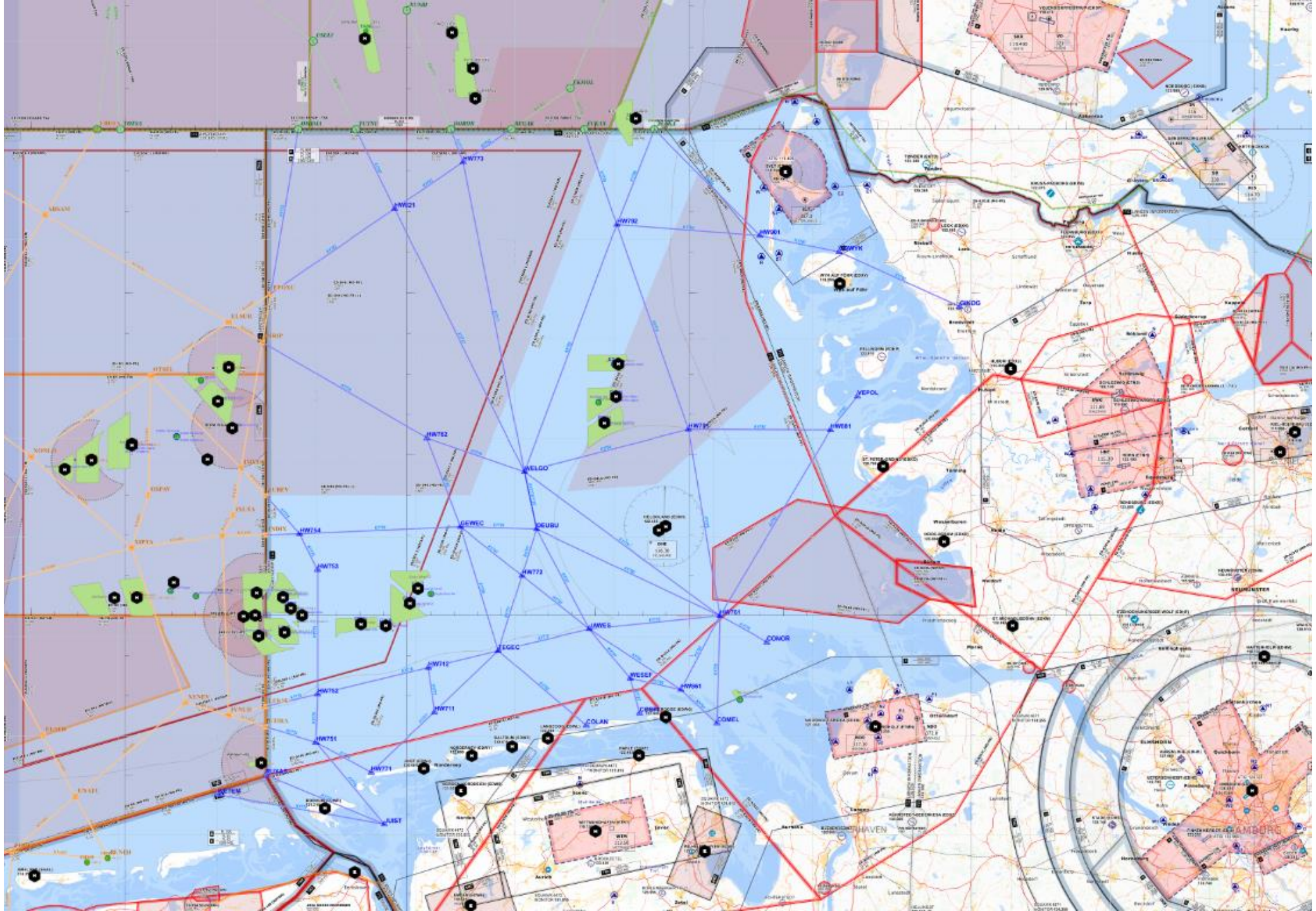
Emden ▲ Wilhelmshaven

## Crew Change Service:

- Offshore Platforms / OSS
- Jack-up Vessels
- Offshore Service Vessels



**Bases:** Wilhelmshaven DE, Emden DE, Husum DE, Rostock DE, Eemshaven NL



## Hoisting to Wind Turbines (dual pilot):

- Transfer of Service Technicians:
  - “trouble shooting” on short notice
  - Planned maintenance when vessels cannot be utilized
- Parts & Tools (especially time critical items)



**Bases:** Wilhelmshaven, Emden / DE  
Beccles UK, Wick / UK

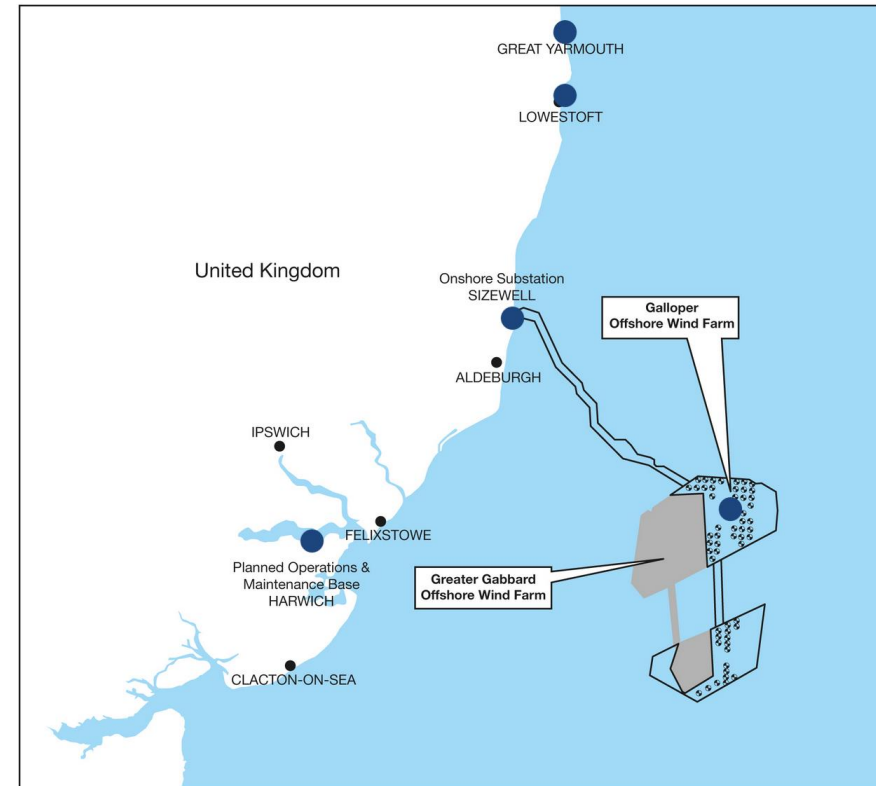
*Operations – HHO to WTG  
- Transfer by vessel*



## Efficiency of the helicopter:

### Galloper OWF

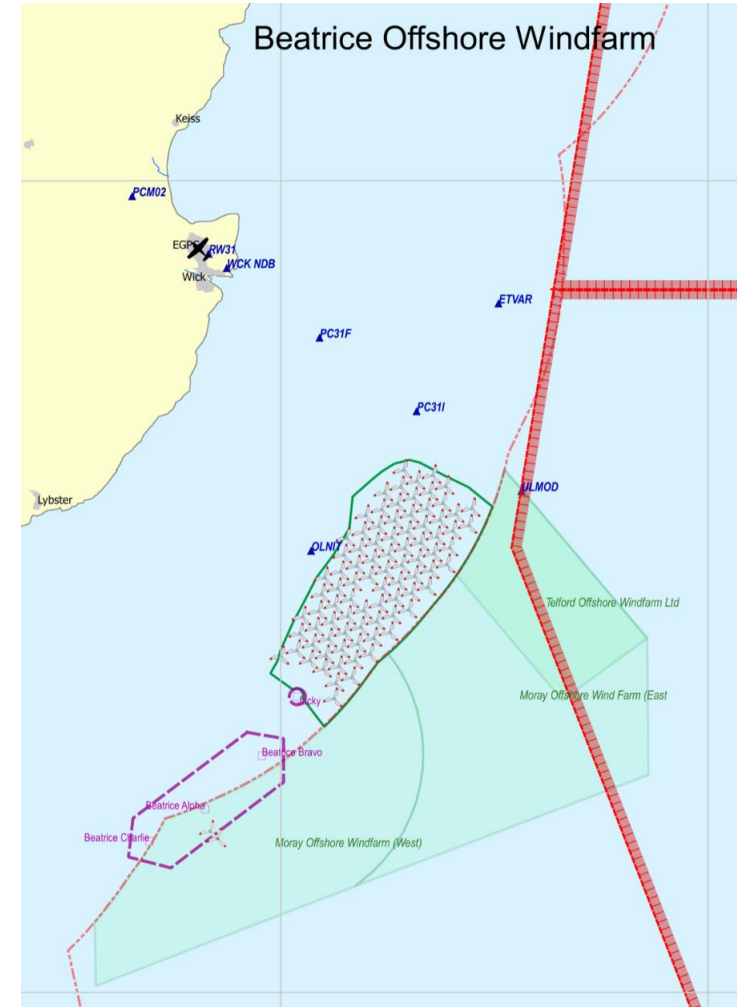
- 33 NM / 18min flight time / 1.5h travel time by CTV in normal conditions.
- Payload (2min OEI, 50% of wind factored) between 370 and 540kg
- Turbine down overnight Friday to Saturday. No CTV transfer possible due to Sea State.
- Helicopter crew was informed 0600 loc.
- Helicopter launched at 0715 loc with team of two technicians.
- On the turbine to start work at 0745 loc.
- While waiting for the pick-up the crew was informed of a second task on another turbine (faulty sensor report).
- Pick-up of the team – transfer to second and loiter in vicinity of the turbine to allow team to check the sensor.
- Pick-up of the team - helicopter landed at 10:04hrs at Great Oakley



## Efficiency of the helicopter:

### Beatrice OWF

- 11 NM / 8min flight time / 0.5h travel time by CTV in normal conditions.
- Payload (2min OEI, 50% of wind factored) between 400 and 590kg
- The location brings high winds and high sea states - In october 2017 the port of Wick could be used by CTV's only for 6 days



## HEMS (Helicopter Emergency Medical Service):

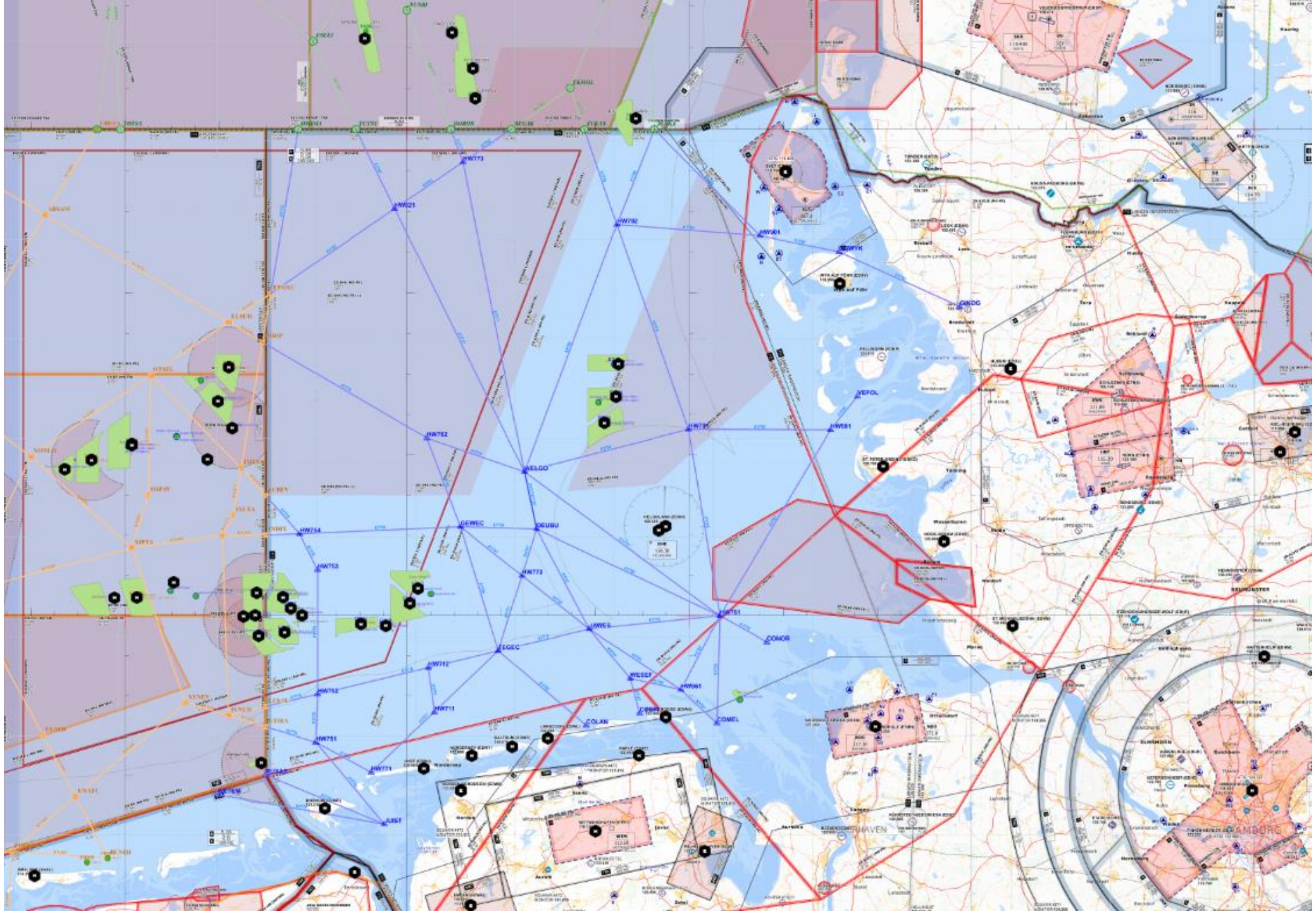
- Emergency rescue to assure North-/Baltic sea / OWP rescue chain
- North Sea SAR in collaboration with DGzRS (Maritime Search and Rescue Service)



**Concept:** HEMS Helicopter (Main + Spare HC) based in Wilhelmshaven

2 pilots, 1 hoist operator, doctor and paramedic 24/7 – 365 days a year (notice: 15min day / 30min night)

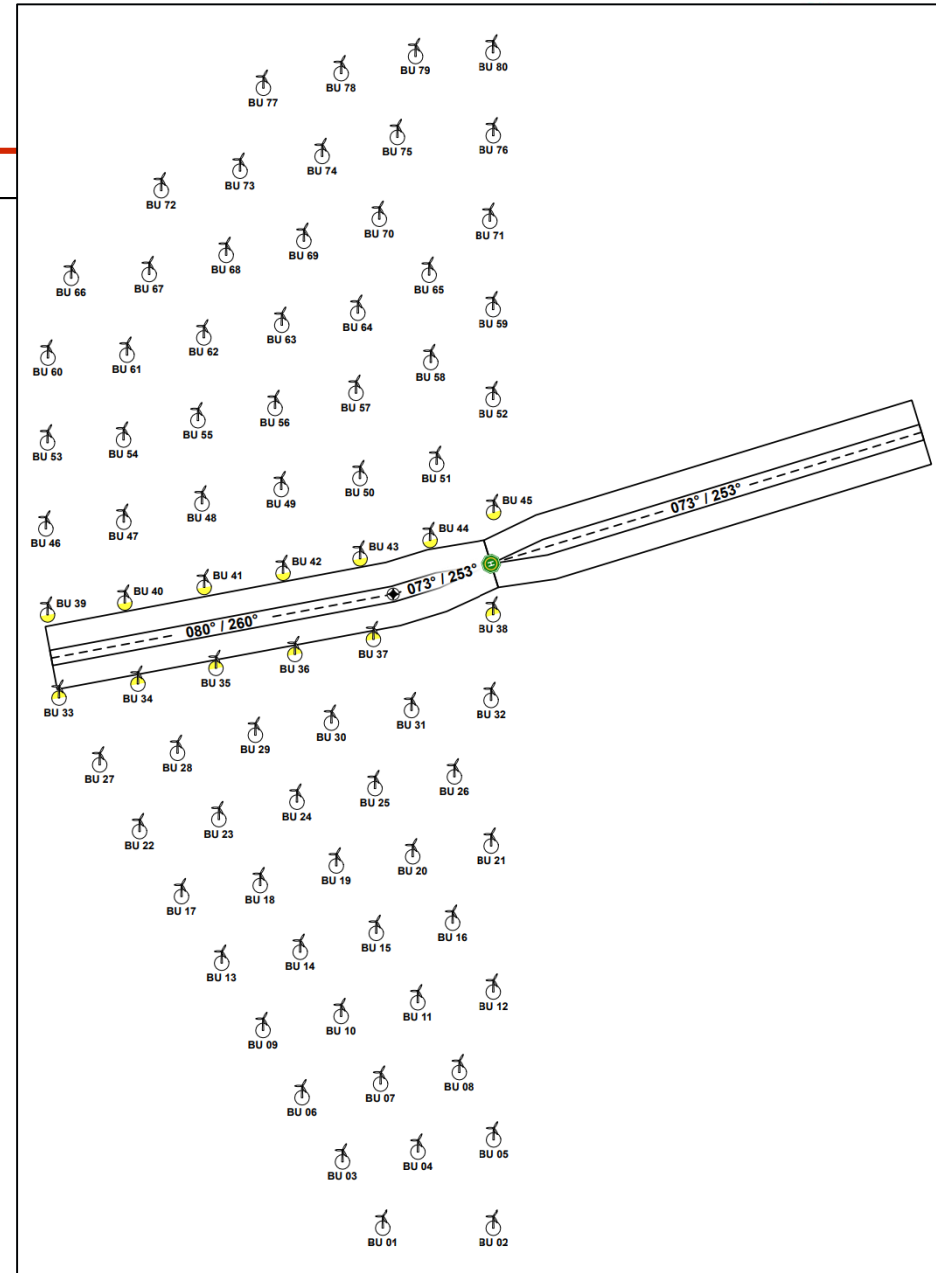
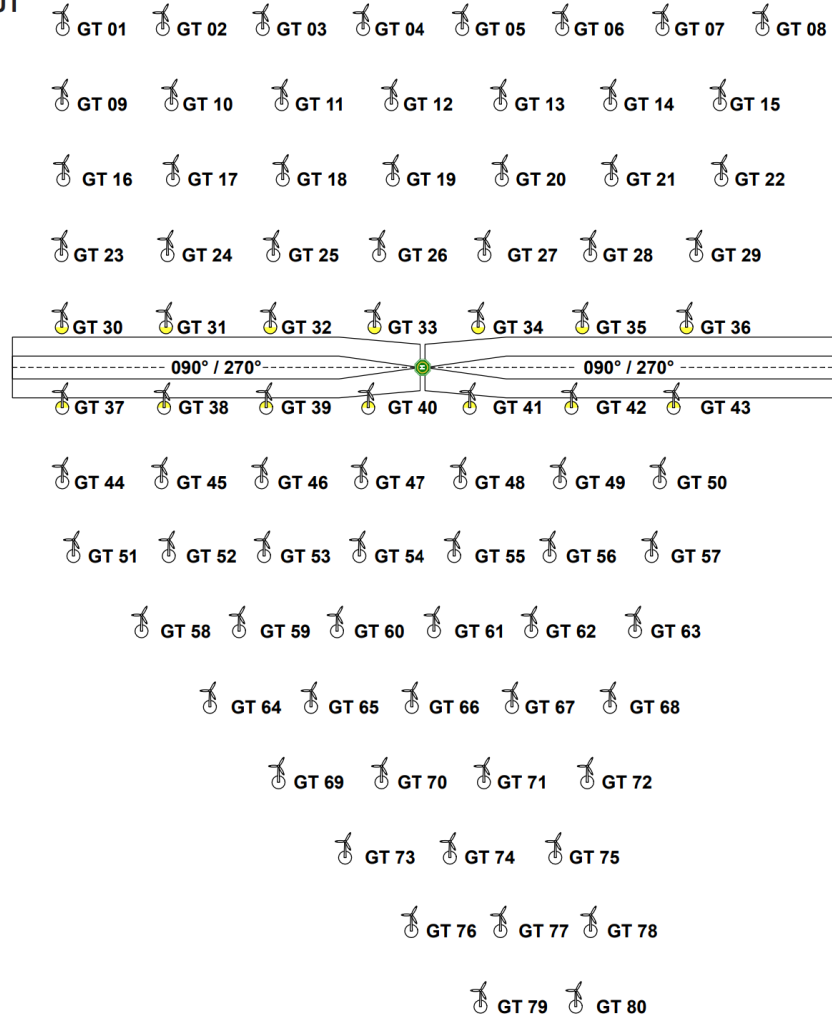




- Pricing and commercial constraints vs. customer expectations / requirements
- Customer mindset “Vessel” vs “Helicopter”
- Infrastructure for Helicopter Offshore Operations

# Challenges

## WINDFARM LAYOUT



- Infrastructure for Helicopter Offshore Operations
- German Airspace
- Oversight and control by National Aviation Authority

# Questions?



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