



# Methane Monitoring Insights from the Field

Drone Flux Measurement Method

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# Drone Flux Measurement (DFM) Method

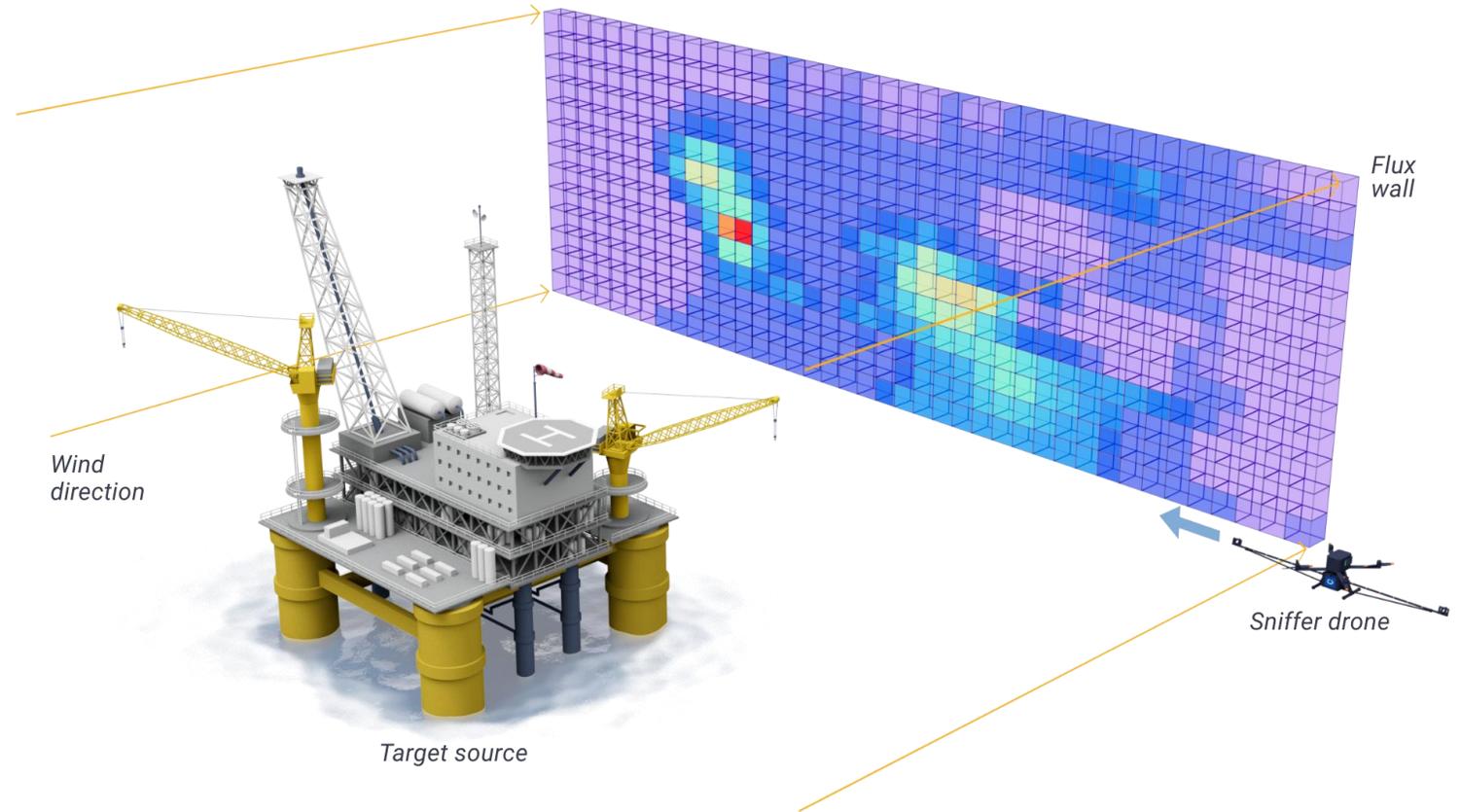
## All-in-one payload

- Dual gas sensors – CH<sub>4</sub> and CO<sub>2</sub>
- 3D wind and temperature sensor

## Fully transparent methodology

- Fully validated ISO 17025-accredited method
- True wind data, no reliance on wind models
- Dynamic deduction of background concentration
- Source distance: ~50–300 m
- Wind speed: 1-12 m/s
- Flight time: 10-35 min

**Method Uncertainty:** ±20% or better, averaged over minimum 3 flux walls, subject to signal/noise ratio>20

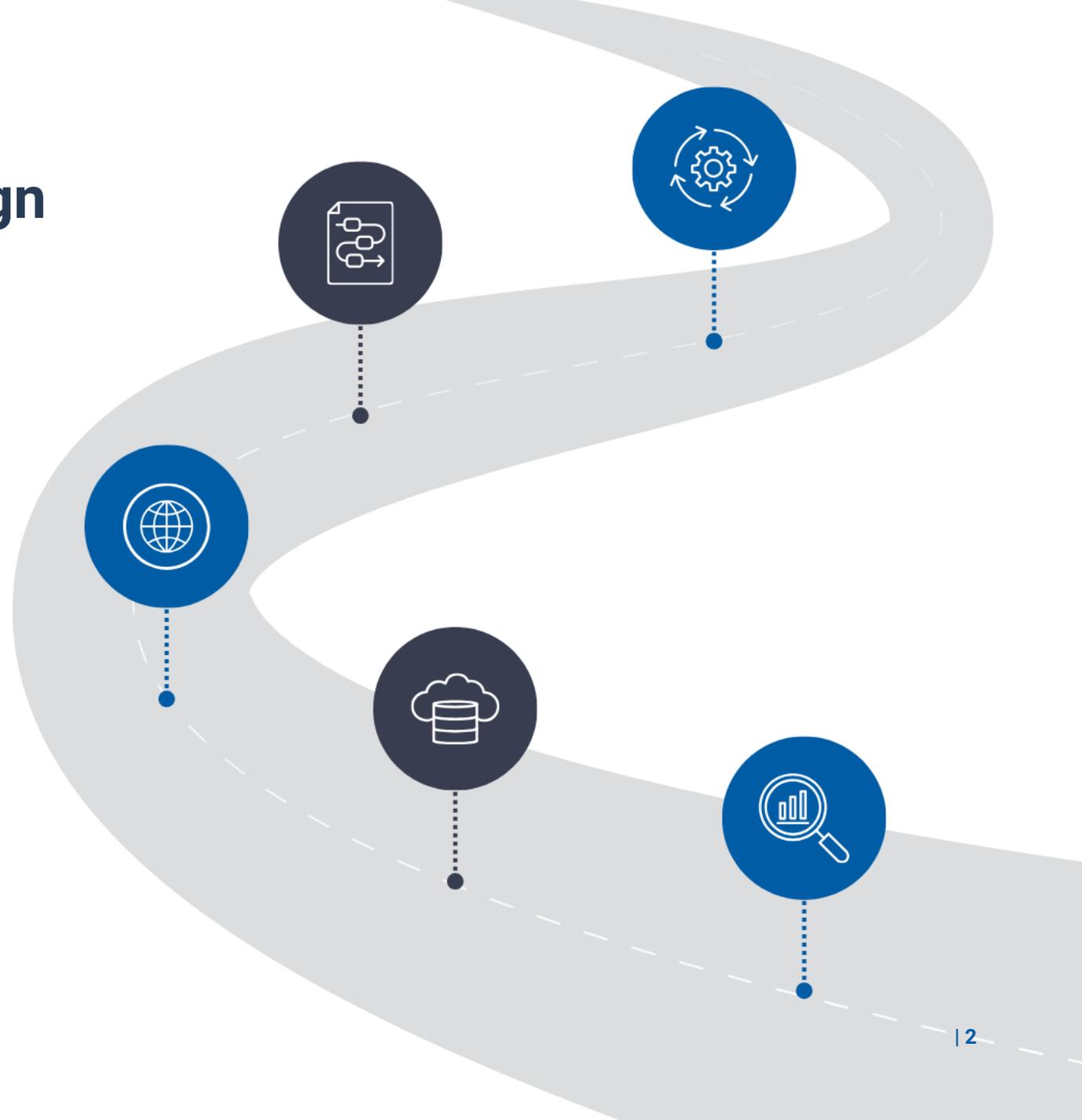


$$\text{Net emissions rate (kg/h)} = C_{net} \times W_n \times A$$

# Planning a Successful Campaign

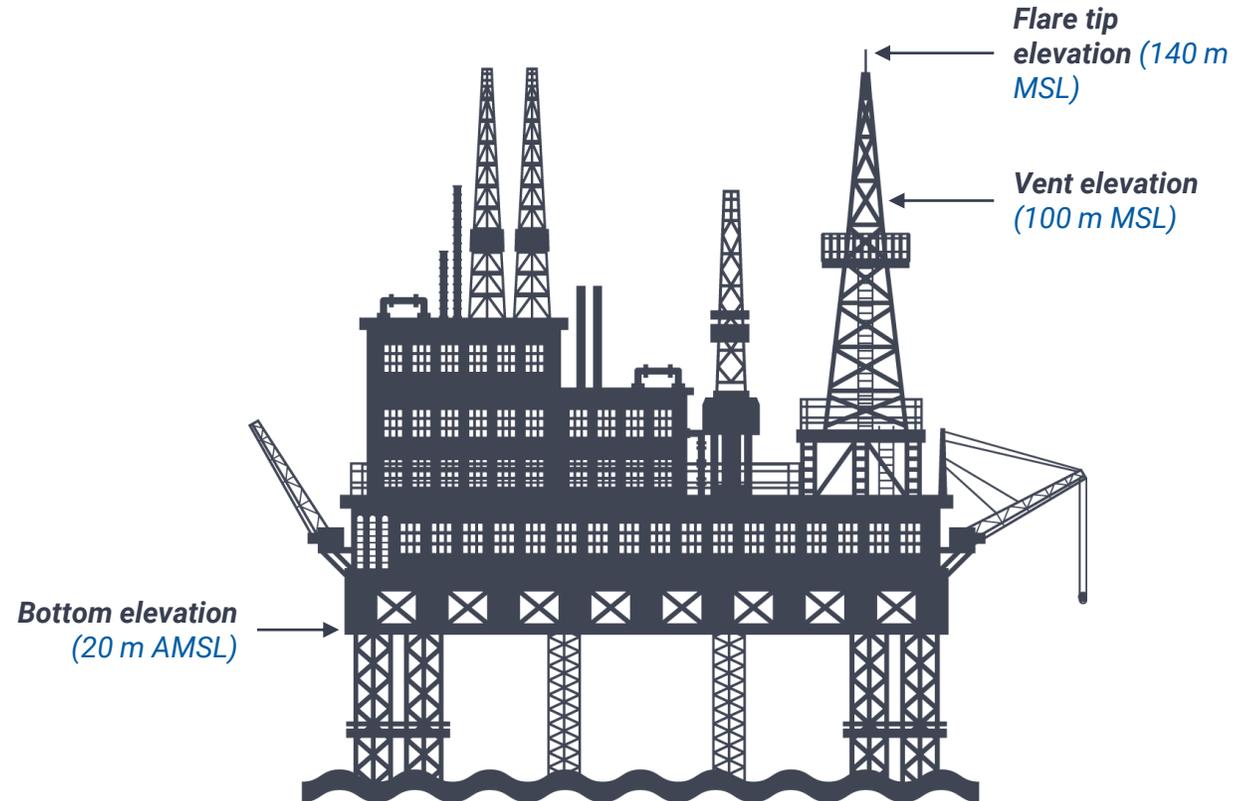
## Effective communication

Before | During | After the campaign



# Case 1

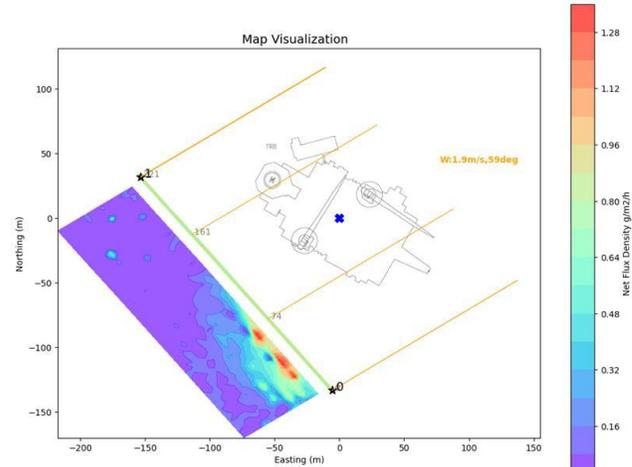
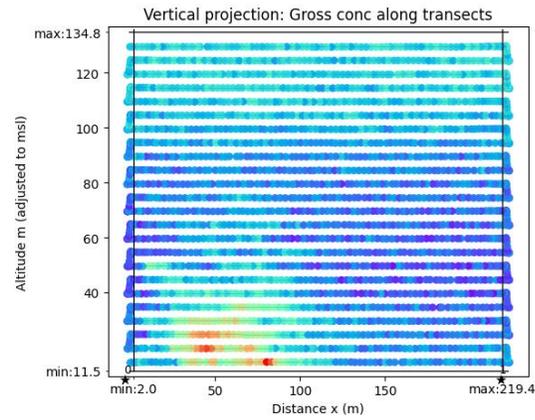
-  Prior knowledge about **emission sources** is extremely important.
-  Details such as **location** and **elevation** help in decision-making.
-  Planning flights correctly from the start helps **save time** and **avoid unnecessary data uncertainty**.



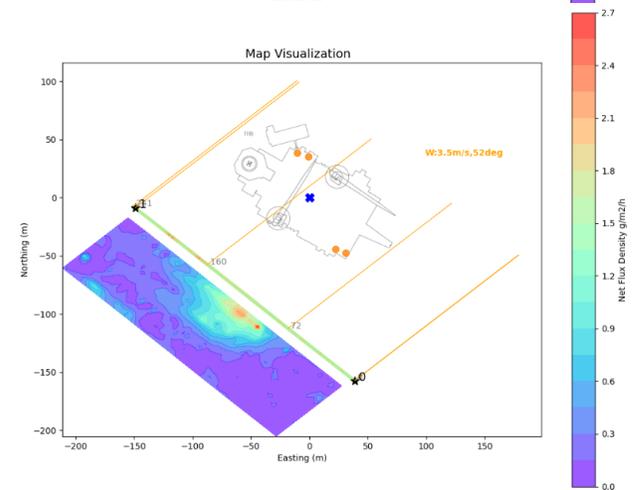
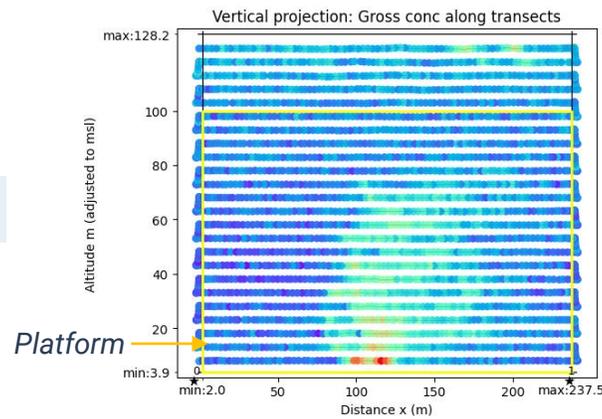
# Case 2

CH<sub>4</sub> emissions were partially detected from the third flight onward at altitudes above 110 m.

**Flight A**

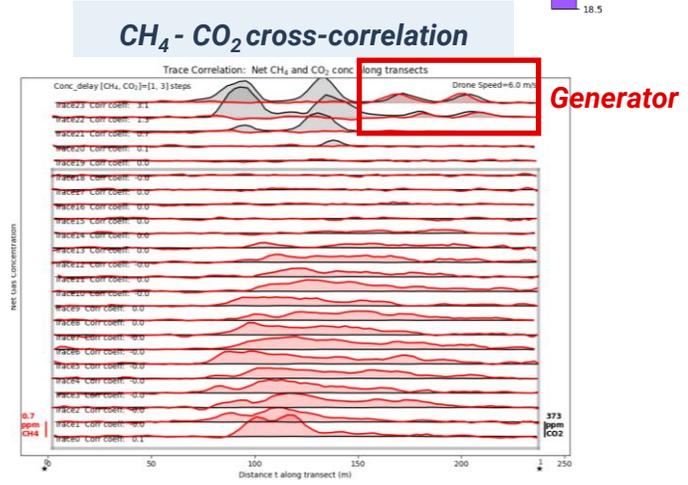
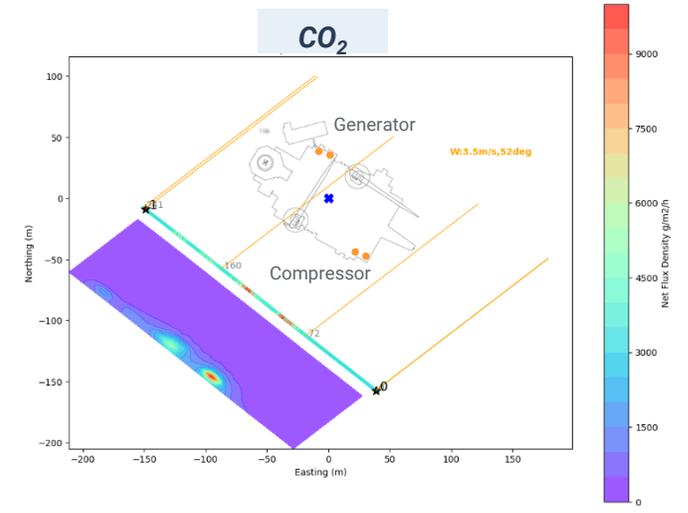
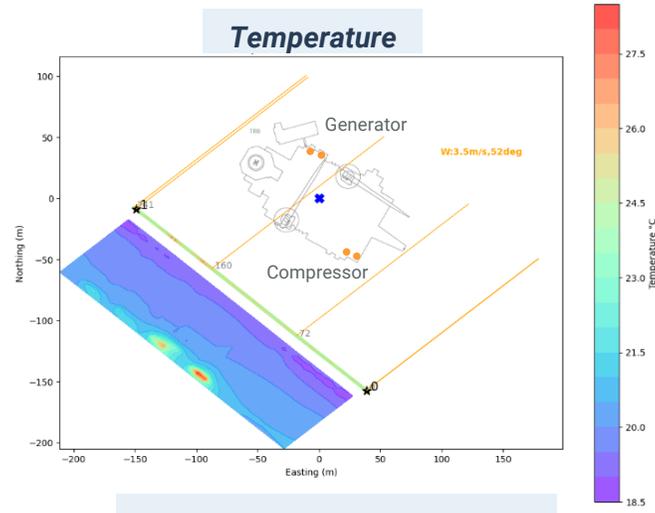
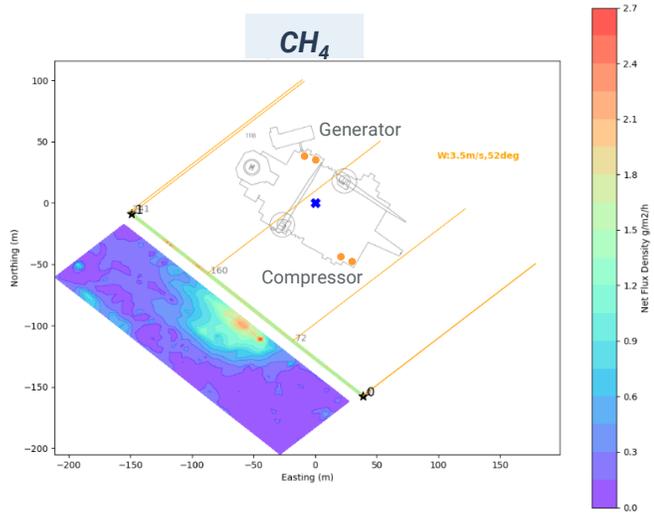


**Flight B**



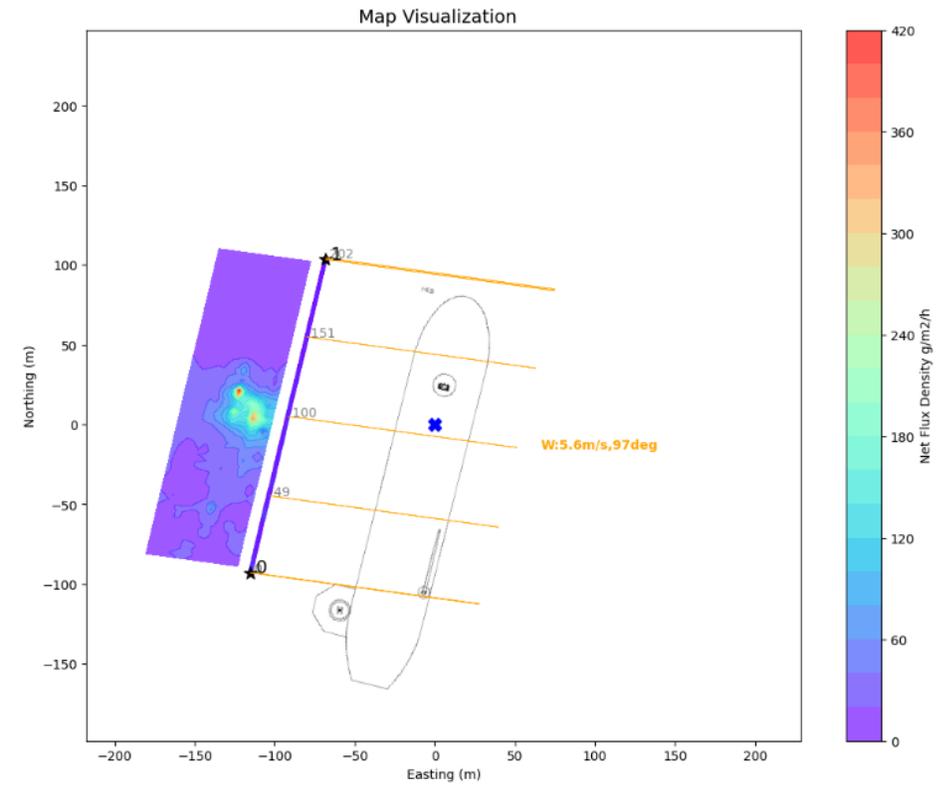
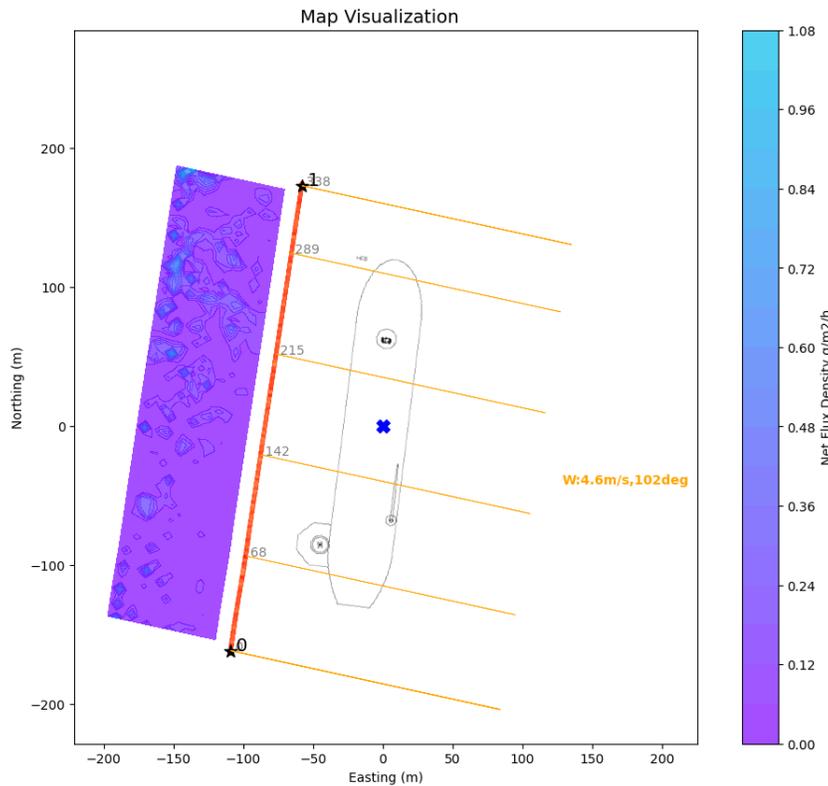
# Case 2

Generator exhaust stack emissions were partially intercepted on the third flight onwards.



# Case 3

Emissions measured during normal operations and a scheduled vent release.



# Making a Difference in Emissions Monitoring.

Virum, Denmark (HQ)  
Lüneburg, Germany  
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