



SHIP EMISSIONS & FUEL SULFUR CONTENT

MONITORING WITH THE DR2000 FLYING LABORATORY

Through navigating our DR2000 unit into ship/naval vessel plumes, pilots can now analyse the gas composition and determine the Fuel Sulphur Content (FSC). Through monitoring FSC emissions caused by ships, mitigation solutions can be investigated, allowing for a further reduction in air pollution for coastal port cities from ship exhaust. **The DR2000**, when equipped with the appropriate sensor load-out, can be used to fly near downwind exhaust plumes and quickly determine pollutant levels. A real-time algorithm will calculate the sulphur to carbon ratio, and the sulphur content of the ship's fuel.

DR2000 MONITORING PROCESS



Step 1: Initial Analysis

Determine ambient air levels without direct emissions testing. This is done to obtain background concentration values of monitored gasses



Step 2: Exhaust Testing

The DR2000 then analyses the exhaust plume, maintaining a fixed distance/altitude. This is completed several times to ensure optimal readings.



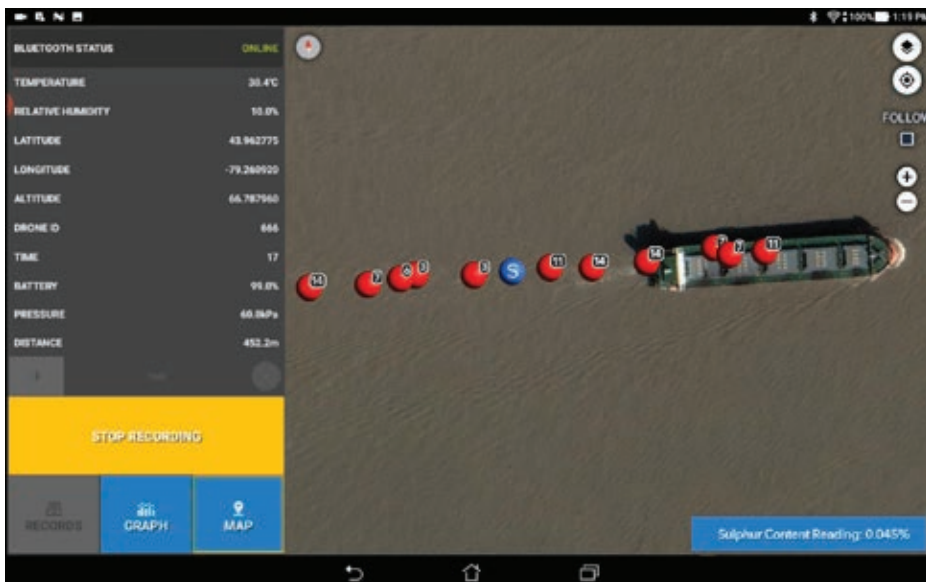
Step 3: Real-time Reporting

Ground Station software further calculates and displays a Sulphur Content Reading of the naval vessel in real-time.



Step 4: Post Analysis

The pilot will now have access to aerial photos, thermal imaging (if applicable), reports, and all monitoring related data.



Real-time visualization of our DR2000 Ground Station software analysing Sulphur Content

The DR2000 will be able to monitor a vessel without boarding it. In just a few minutes, the average fuel consumption concent (FSC) can be determined. With the use of Scentroid high accuracy drone monitoring, dangerous sulphur emitters can quickly and safely be screened and flagged.

