Aerial Survey Results 2016

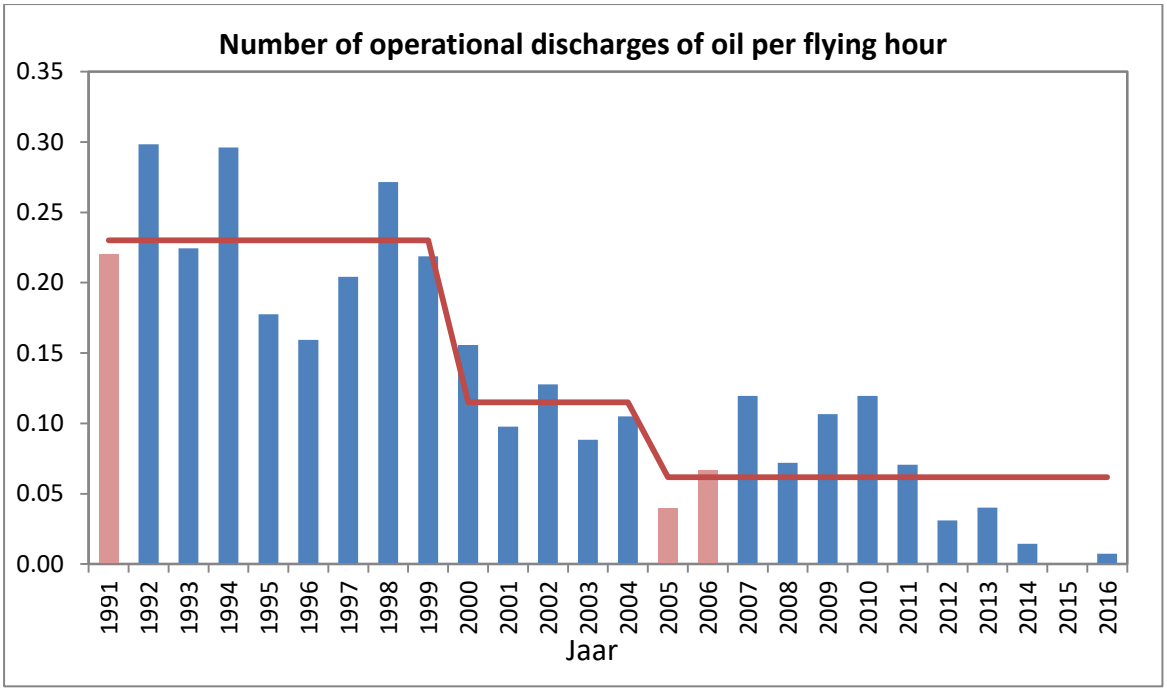
In 2016 RBINS flew a total of 273 hours on missions to observe the North Sea from the air. Our operators detected 33 instances of pollution caused by vessels at sea: 13 operational discharges and 20 accidental discharges. They also investigated sulphur emissions at sea: 120 vessels were suspected of emitting high levels of sulphur from their exhausts. The Scientific Service Management Unit of the North Sea Mathematical Models of RBINS, which is responsible for airborne marine surveillance, collected the results for 2016.

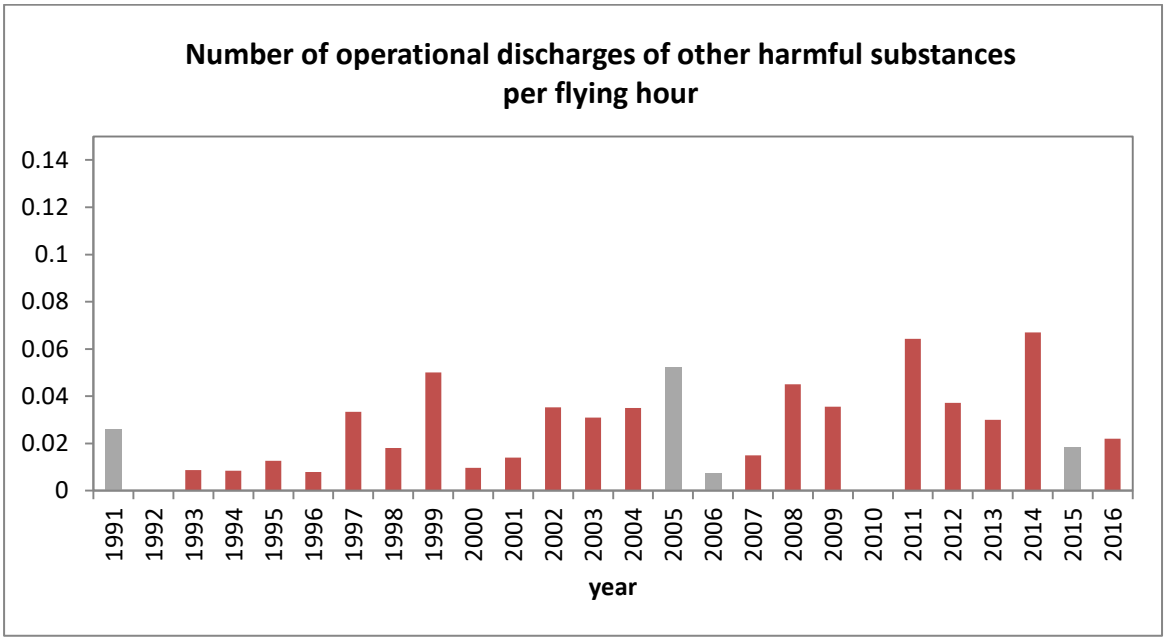
In 2016 a total of 273 flight-hours were logged under the Belgian North Sea aerial survey programme. Of these, 239 were flown on Belgian coastguard enforcement missions over Belgian and neighbouring marine territories. 25 hours were spent on international flights requested by the Netherlands and 9 were spent on scientific monitoring of sea mammals. Of the 239 'Coastguard' flight hours, 40 were devoted to fishery surveillance, 110 to sulphur emissions from vessels and the remaining 89 to the surveillance of pollution by oil and other harmful substances.

1. **Operational Marine Pollution**

In 2016, 13 of the 33 observed instances of marine pollution were caused by an operational discharge from a vessel.

- 2 operational oil discharges were observed in 2016: small quantities of oil with a limited impact on the environment. This is in line with the general trend of recent years, whereby observed numbers of operational oil discharges are declining systematically.
- In 6 cases the discharges involved a hazardous substance other than oil. On 3 occasions the slick could be linked to a vessel, but in each case the discharge was legal. In the other cases there was no vessel in the vicinity to which the slick could be linked.
- On 5 occasions a slick was detected, but the substance could not be visually identified. One of these cases involved a slick in Swedish waters, observed during a transit flight.





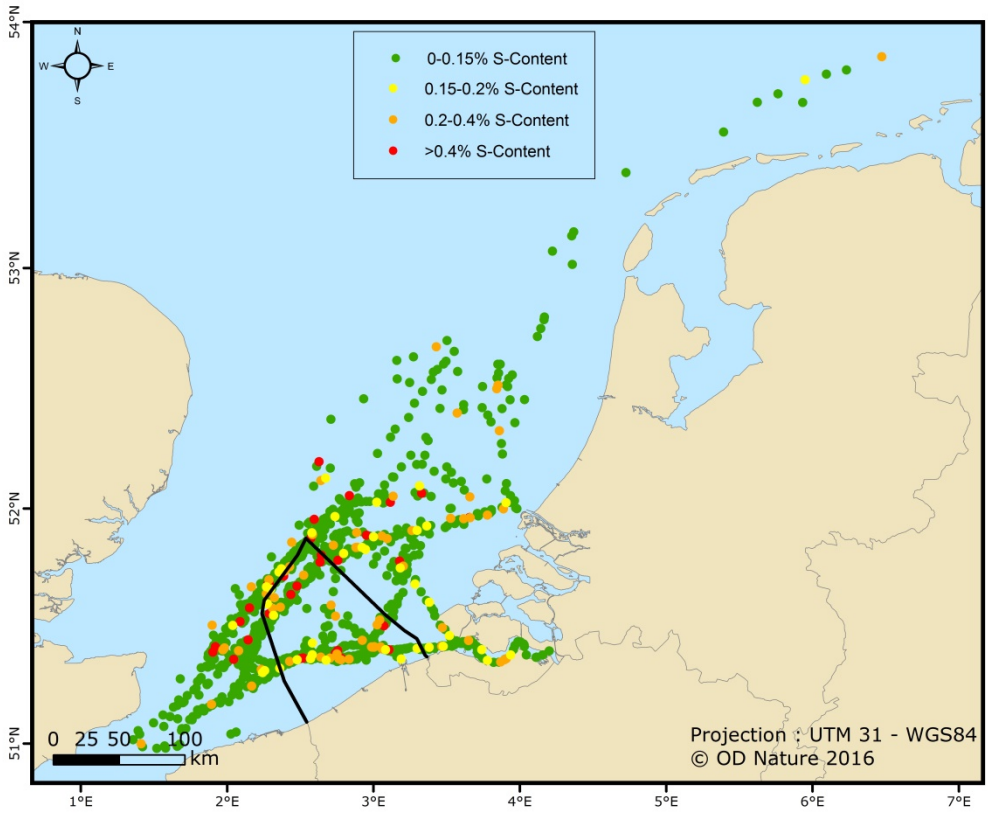
2. Accidental Oil Spills

After the incident of 6 October 2015, in which the tanker Al Oraiq collided with the Flinterstar and caused the latter to sink near the port of Zeebrugge, the wreck was salvaged in the summer of 2016. In the period before and after the salvage operations it was important to observe the Flinterstar site regularly from the air and monitor any further, accidental oil spills from the wreck. Fortunately, no large oil spills were observed throughout the Flinterstar surveillance and salvage operations. However, 20 smaller, accidental spills of oil from the wreck were observed, but were impossible to clean up.

3. Sulphur Emissions

After taking delivery of a specially developed sensor, the so-called sniffer-sensor, the MUMM monitored sulphur emissions from vessels in the North Sea regularly between August and November 2016, as part of the European CEF subsidised Compliance Monitoring project (CompMon). A total of 135 operational hours were flown (110 over Belgian and 25 over Dutch marine territory) and sulphur emissions from over 1,300 vessels were measured. On 120 vessels we registered high sulphur values.

The results and experience gained from this CompMon campaign show that the monitoring results can be effectively used to identify vessels at sea, which are thought to be emitting high levels of sulphur, for specific on-board inspection at the next port of call. Thanks to these notable efforts and results we can safely say that Belgium, and therefore the MUMM, along with a small group of other European countries, has assumed an important pioneering role in the enforcement of sulphur emissions standards at sea.



4. Oil Slicks in Belgian Ports

On transit flights, 2 oil slicks were observed in the port of Antwerp and 3 oil slicks were observed in the port of Ostend. They were immediately reported to the competent authorities to ensure prosecution.