Marine pollution observed in 2015

In 2015 a total of 214 flight hours were logged at sea under the Belgian programme for aerial observations over the North Sea. During these flights 73 spills of ship-source marine pollution were observed: 5 operational and 68 accidental spills. The aircraft also commenced aerial monitoring of sulphur emissions from marine vessels.
In 2015 the scientific service MUMM (RBINS – OD Nature) logged a total of 214 flight hours at sea under the Belgian programme for aerial observations over the North Sea. As there were no international missions in 2015, all flights were conducted over Belgian marine areas and the waters of our neighbouring countries, as part of the Belgian Coastguard service. 172 hours were dedicated to pollution control and 42 hours to fishery control flights. About 60 hours (35%) of the pollution control flights were devoted to monitoring the Flinterstar incident (monitoring of accidental oil pollution from the Flinterstar wreck, and aerial assistance for the response vessels).

Aircraft

2015 was an exceptional operational year because our remote sensing aircraft suffered several major maintenance issues which kept it grounded. For almost 6 months we had to use a replacement aircraft which was not equipped with the sensors needed to remotely detect marine pollution. This obviously hampered the detection of operational discharges from ships. Nonetheless, during these national surveillance flights a total of 73 spills of marine pollution were observed in and around the Belgian marine areas in 2015.

Operational discharges

The marine pollution was linked to an operational ship discharge in only 5 of these cases:

- 4 spills of harmful substances other than oil were observed. In three cases the spill could be linked to a vessel, but the discharge was illegal in only one instance, whereas the other two were legally permitted. The fourth spill was detected with no vessel in the vicinity.
- 1 legally permitted discharge of minor quantities of solid cargo residue was also observed.
- In 2015 not one operational discharge of oil at sea was observed, for the first time since aerial surveillance began in 1991. At first sight this is a very good result, but it may be due to the limited availability of the dedicated remote sensing aircraft this year.

Accidental marine pollution

A crucial mission in 2015 was the intense monitoring of accidental oil pollution from 2 shipwrecks, through which a total of 68 oil spills were observed:

- In the 2015 summer period the salvage operations on the Baltic Ace shipwreck, located in adjacent Dutch waters, were observed from the air. A total of 12 accidental releases of oil from the Baltic Ace were observed. In 2 cases the spills necessitated remediation operations.
- In an incident involving the Flinterstar, a cargo vessel which sank in Belgian Territorial Waters near Zeebruges after a collision on 6 October 2015, through which an estimated 100 to 300 tonnes of fuel oil was accidentally released into the sea over a one-month period, our aircraft was deployed

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to monitor the situation at sea from the outset. The aircraft detected a total of 56 accidental oil spills from the Flinterstar, which were reported to the crisis committee on land. The aircraft's role was of prime importance in evaluating the incident and guiding the emergency operations.

Sulphur emission monitoring

In 2015 the aircraft also commenced its aerial monitoring of sulphur emissions from marine vessels. An initial test campaign was conducted using a "sniffer" sensor aboard the aircraft, as part of a European pilot project relating to the enforcement of marine sulphur emission regulations. During the campaign abnormally high sulphur values were measured in the smoke emissions of 5 vessels, all of which were reported to the competent state port control authorities for further investigation. This new offshore surveillance mission will undoubtedly grow in importance over the years to come.

Finally, a single observation was made of an oil spill in the port of Antwerp during a transit flight, and this was immediately reported to the competent authorities for further investigation.

Flinterstar wreck and oil pollution (Picture MUMM-OD NATURE-RBINS)

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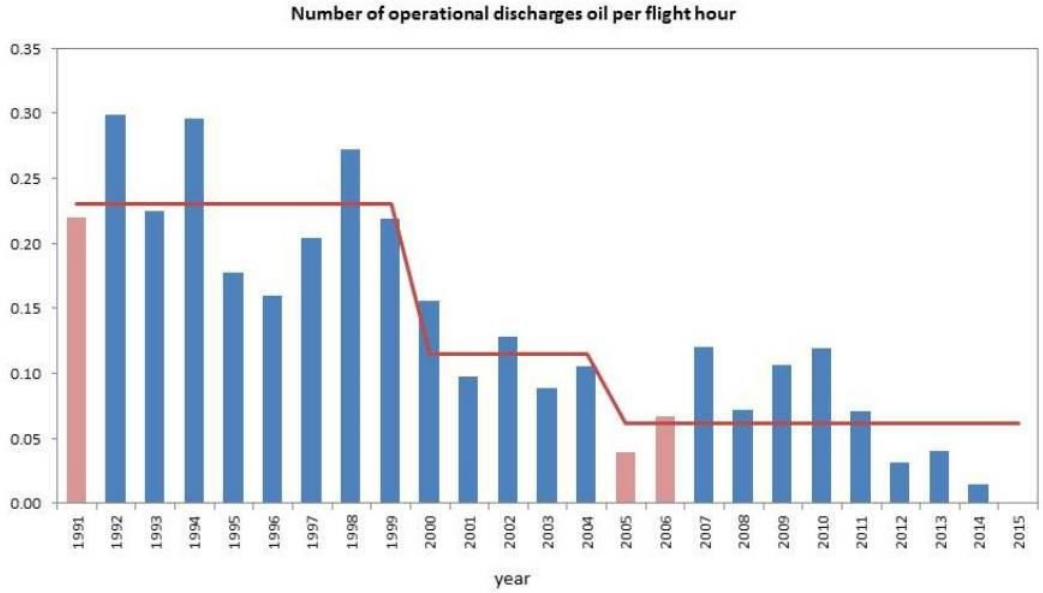
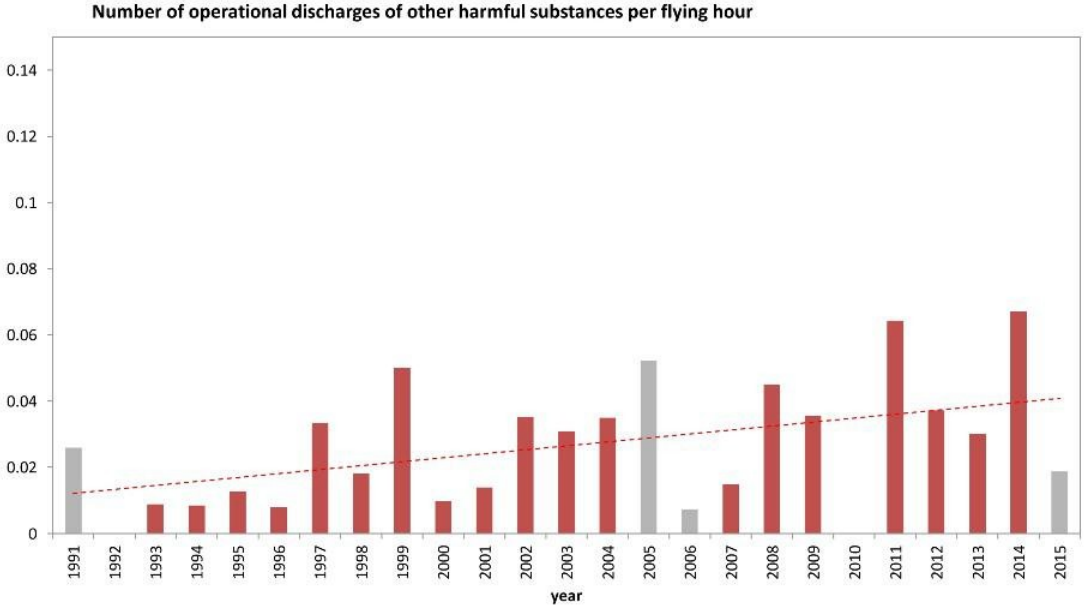

Number of operational discharges oil per flight hour
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
year


Number of operational discharges of other harmful substances per flying hour
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
year