



NOFO Oil-on-water exercise 2011



Programme for Oil-on-water 2011

1. Test dispersion equipment:

**Upgradet dispersion systems on-board Stril Power and Stril Mermaid.
Discharge of up to 30 m³ Balder crude oil.**

2. Test other equipment:

NO 800 R field boom and Norén skimmer (Norwegian Coastal Administration). Discharge of up to 20 m³ Oseberg emulsion.

3. Practical testing together with OSRL:

**Use of LN-TRG aircraft to guide OSRL Hercules over target.
Water application only.**

4. There was also focus on the following aspects:

- Operational management.**
- Communication between participants**
- Efficient use of oil recovery equipment**
- Use of infrared images transmitted from the helicopter/aircraft to oil recovery vessels (Line-of-sight downlink)**
- Use of ship-mounted IR equipment and X-band Oil Spill Detection (OSD) radar**
- Use of AIS buoys to monitor oil drift trajectory.**

7 June - Day 1

"Dispersion" using Hercules – together with spotter aircraft

- **LN-TRG guides the Hercules aircraft to the target deployed by the command vessel M/V Normann Jarl.**
- **Collaboration between On-Scene Commander, LN-TRG and OSR Hercules was very good.**
- **The AIS buoys were hit – The test was successful**

OSRL water application



7 June - Day 1

We had to delay the first oil discharge by one day as the weather was outside acceptances criteria laid down in the discharge permit from the Norwegian Climate and Pollution Agency.

Recovery using Norèn skimmer on-board KV Bergen

- **Discharge of 20 m³ emulsion into KV Bergen's boom**
- **Recovery using Norèn skimmer – brush and discs**
- **Stril Power recovered emulsion as 2nd system**
- **LN-TRG surveillance – remaining oil was considered not recoverable**
- **Test concluded**

Test with KV Bergen



8 June - day 2

Ship dispersant application test

- **Location for planned discharge moved, due to observation of killer whales in the area**
- **M/V Stril Mermaid discharged a total of 30 m³ Balder crude oil**
- **Oseberg SAR Helicopter (LN-OJD) arrived in the area and guided the vessels using IR camera**
- **Swedish Coastguard Vessel KBV 001 Poseidon used own equipment to recover the remaining emulsion. M/V Normand Jarl assisted by use of remote sensing.**
- **No recoverable oil remaining in the sea – exercise termination.**

Ship dispersion



Oil-on-water 2011 – Summing up

- **No personal injuries or damage to equipment**
- **All planned tests were carried out**
 - **The plan was changed along the way due to the weather conditions**
- **Collaboration and accuracy with Hercules/LN-TRG worked well**
- **KV Bergen tested its equipment**
- **Promising results on satellite remote sensing**
- **Change the discharge area on day 2 due to sighting of killer whales in the area.**
- **Ship dispersion testing successful**
- **KBV Poseidon–Swedish Coast Guard tested own recovery equipment in connection with the dispersion test.**

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Results from the governmental audit

The Norwegian Climate and Pollution Agency found no non-conformance and had no negative remarks.