

SPILL CONFERENCE & EXHIBITION





# **NOFO Oil-on-water exercise 2011**





1. Test dispersion equipment:

Upgradet dispersion systems on-board Stril Power and Stril Mermaid. Discharge of up to 30 m<sup>3</sup> Balder crude oil.

2. Test other equipment:

NO 800 R field boom and Norén skimmer (Norwegian Coastal Administration). Discharge of up to 20 m<sup>3</sup> 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

Norwegian clean seas association for operating companies



# **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.

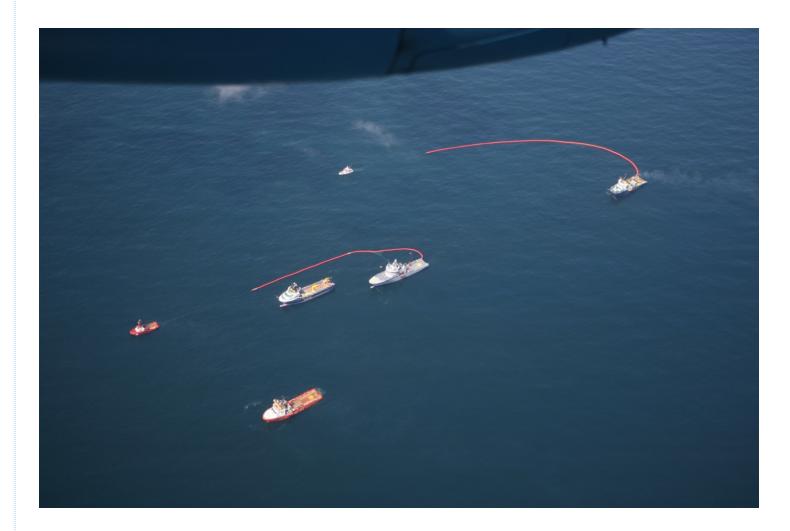
**Recovery using Norèn skimmer on-board KV Bergen** 

Discharge of 20 m<sup>3</sup> 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 m<sup>3</sup>
   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.



# NOFO Oil-on-water 2011

#### **Results from the governmental audit**

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