

A night-time aerial photograph of a coastal area with a dark sea and a dark sky. The text is overlaid in white.

Night operations

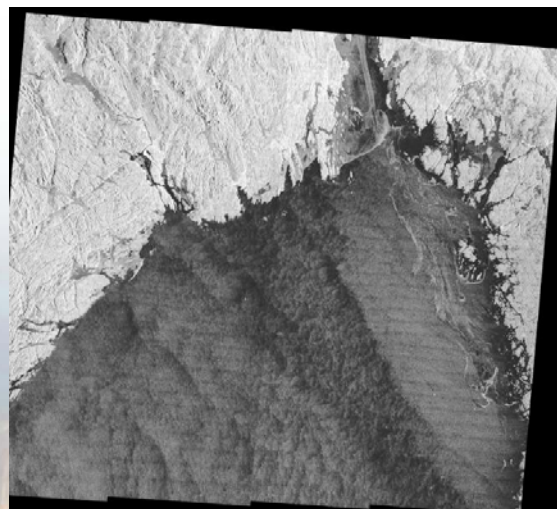
Exercise SCOPE 2017 - Observers program
Ole Kristian Bjerkemo
Senior adviser, Norwegian Coastal Administration

SCOPE 2017 Skagerrak Chemical Oilspill Pollution Exercise 

 Co-funded by European Union Civil Protection

Tools for night operations

- AIS buoys/IR buoys
- Satellite images
- Surveillance aircrafts with night capacity
- FLIR Camera on vessels
- Oil drift predictions



Satellite image received during the Godafoss incident

Oil spill response at night – action order

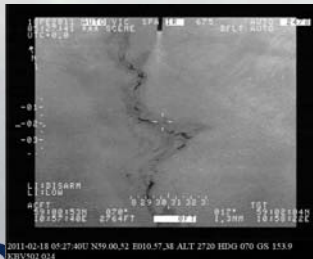
- Will be described in the ACTION ORDRE as a task for the On Scene Commander (OSC), e.g.:
 - Collect oil by mechanical methods close to the source
 - Avoid spreading of the oil
 - Avoid beaching of the oil on sensitive areas based on oil drift prognosis
- The OSC will prepare a plan for the night operation
 - Large vessels- collect oil – one boat system with paravan
 - Surveillance aircraft – guide the vessels
 - IR-buoys

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Surveillance aircrafts



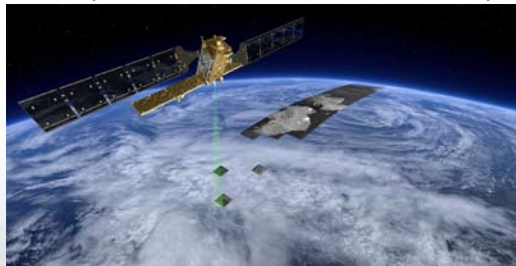
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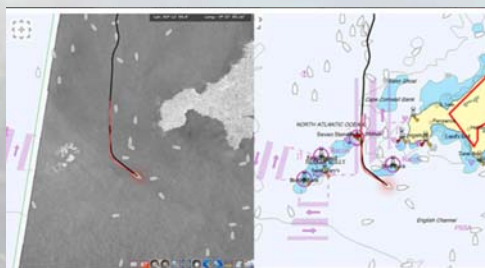


Satellite services (K-SAT and EMSA)

Satellites
3-4 scenes
pr day, each
Covering typical
300x300 km



Example satellite
detection illegal spill from vessel



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FLIR (Forward Looking Infra Red)

Oil detected by a Rutter
radar from CGV Harstad



***Oil on water thicker than 50um (0,05mm) is visible with IR.
IR black (Cold) represent the thinnest part, but at least 50um
and IR White (Hot) represent the thickest part/Emulsion. Thin
Oil films is not visible with IR.***

Visual Video



IR Video



<https://www.aptomar.com/aptotube/>

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KYSTVERKET
NORWEGIAN COASTAL ADMINISTRATION



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