OSERIT HNS

AUTHORS

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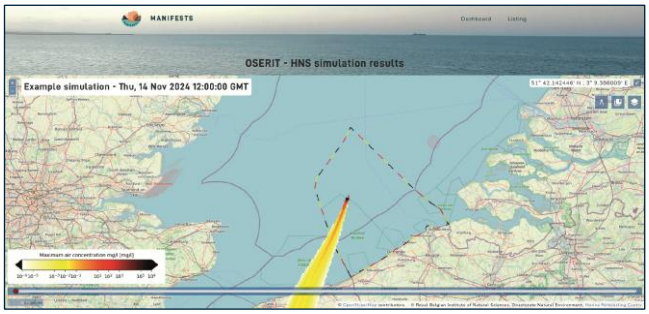
ACCESS/DOWNLOAD AT

https://odnature.naturalsciences.be/oserit/



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APPLICATION AND USE

Purpose/objective of the tool

Simulate the 3D drift of HNS spilled at sea, considering sea and atmospheric conditions, and track the HNS state over time using an online web interface.

Applications of this tool

- Management of crisis and decision making
- Operational response
- Modelling
- Risk assessment

How to use it

The user fills out an online form with simulation metadata, event location and time, release conditions, and HNS properties (can be auto-filled from the HNS database). After waiting a few minutes, the simulation results are displayed in the online web interface.

Key features and functionalities

Estimate the location over time of HNS spilled at sea, including concentration in the water column and air for volatile HNS, and predict potential beaching locations and times. The model uses daily updated forcings to enable simulations for both past event and future evolution of current situations. It supports forward simulations to assess the impact of a release and backward simulations to determine the origin of pollution.

Practical examples where this tool can be used

In the event of a collision involving a vessel transporting HNS, the tool assesses the drift direction of the spill over time. It estimates air concentration to evaluate responder risk and underwater concentration to assess ecosystem impact.

Results or outputs produced

The model provides the location of HNS over time on a map, categorized by surface slick, atmosphere, etc. It estimates the thickness of the surface slick, concentration in air and water, and exposure time above thresholds among others. Time series data includes the mass balance of HNS in different phases and distance travelled.

Co-funded by the European Union

OSERIT HNS

TECHNICAL REQUIREMENTS

Operating system required

- Apple macOS
- Microsoft Windows
- Linux OS

Devices the tool can run on

- PC

Hardware requirements

An internet connection and a computer capable of running a recent version of a modern web browser.

TARGET AUDIENCE

Target audience

- Authorities and companies with legal responsibility of implementing contingency plans
- Port and maritime authorities
- Coastguards
- Emergency responders (Civil protection, firefighters, army, police officers, etc.)

Type of knowledge background required to use this tool

Users should have completed a training session on the tool.

ACCESS

Permissions required

This tool requires a login and is not open to the public.

Obtain permissions

https://odnature.naturalsciences.be/oserit/

USER GUIDANCE

User guides or manuals available

MANIFESTS DSS User guides: https://manifests-project.eu/documents/27/D5.3_-_MANIFESTS_DSS_-_User_guides.pdf

Support documentation

A PowerPoint presentation is provided during the training session.

FREQUENTLY ASKED QUESTIONS

Why aren't particles moving when I do a backward simulation?

The release time should be set at the start of the simulation, not the end.

FEEDBACK

Support email

marine-forecasting-officer@naturalsciences.be

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