

CURACAO OIL SPILL MODEL

OIL SPILL MODEL SETUP AND RESPONSE TRAINING

In August 2012 there was a recorded oil spill near the Bullenbaai Oil Terminal, Curacao. In response to this event ISLA, the terminal operator, has decided to setup an oil spill model and to train its personnel to react adequately in case of an oil spill.

Svašek Hydraulics has in cooperation with Ecovision, a local environmental consultant, set up an oil spill model of Curacao and an accompanying training programme for ISLA personnel.

The oil spill model is setup in GNOME (General NOAA Operational Modelling Environment). In this modelling environment it is possible to schematise a local coastline and the main drivers of oil transport such as currents and wind.

Around Curacao three types of movers are of importance; wind, large scale ocean currents and wind driven currents. The first two are adopted from NOAA's GFS and RTOFS model, the last have been modelled with Svašek's inhouse developed hydrodynamic model FINEL2D.

The oil spill response training was focussed on how to model a future oil spill for non modellers: no black box usage! A two day course with customised exercises in which was focussed on learning how to be critical about the model results.

As a final step to optimisation of the model field measurements with an orange spill were carried out. The main conclusion coming from these measurements was that local variations in wind are very important and that an improvement of the near shore spreading of oil spills can be made by increasing the resolution of the wind input. Nevertheless, the model results and the field measurements exhibited a lot of similarities proving the GNOME model an adequate tool to use in oil spill response.

CLIENT

Ecovision/ISLA

LOCATION

Curacao

DATE

2014

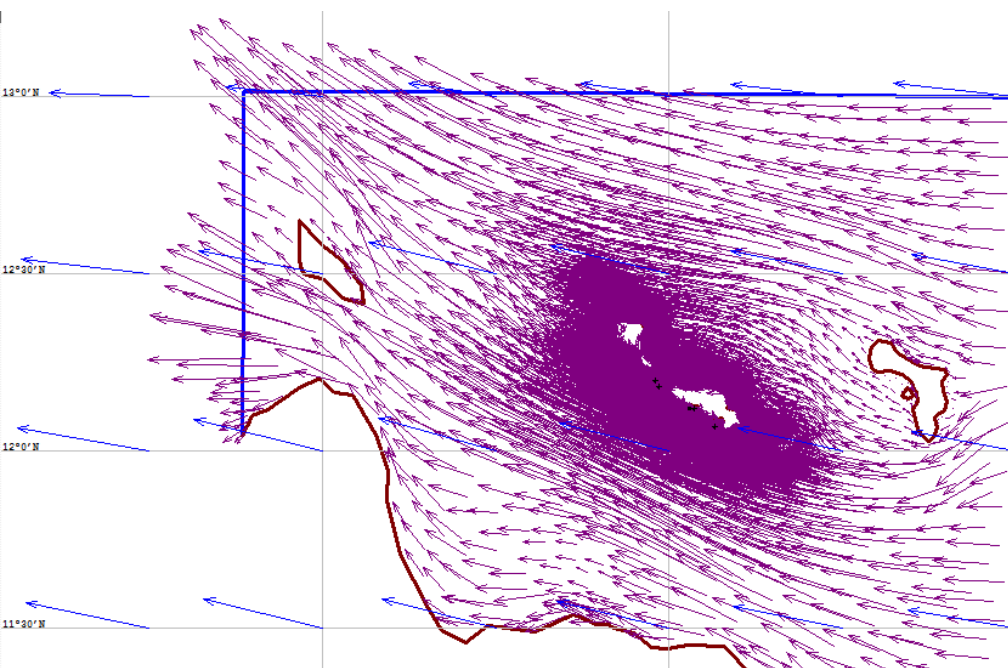
SERVICES

FINEL2D

Oil spill modelling/GNOME

Response training

Field measurements



SVASEK
HYDRAULICS
COASTAL, HARBOUR AND RIVER CONSULTANTS

Svasek Hydraulics
Schiehaven 13G
3024 EC Rotterdam
the Netherlands

Phone: +31 10 467 13 61
Internet: www.svasek.com
E-mail: info@svasek.com