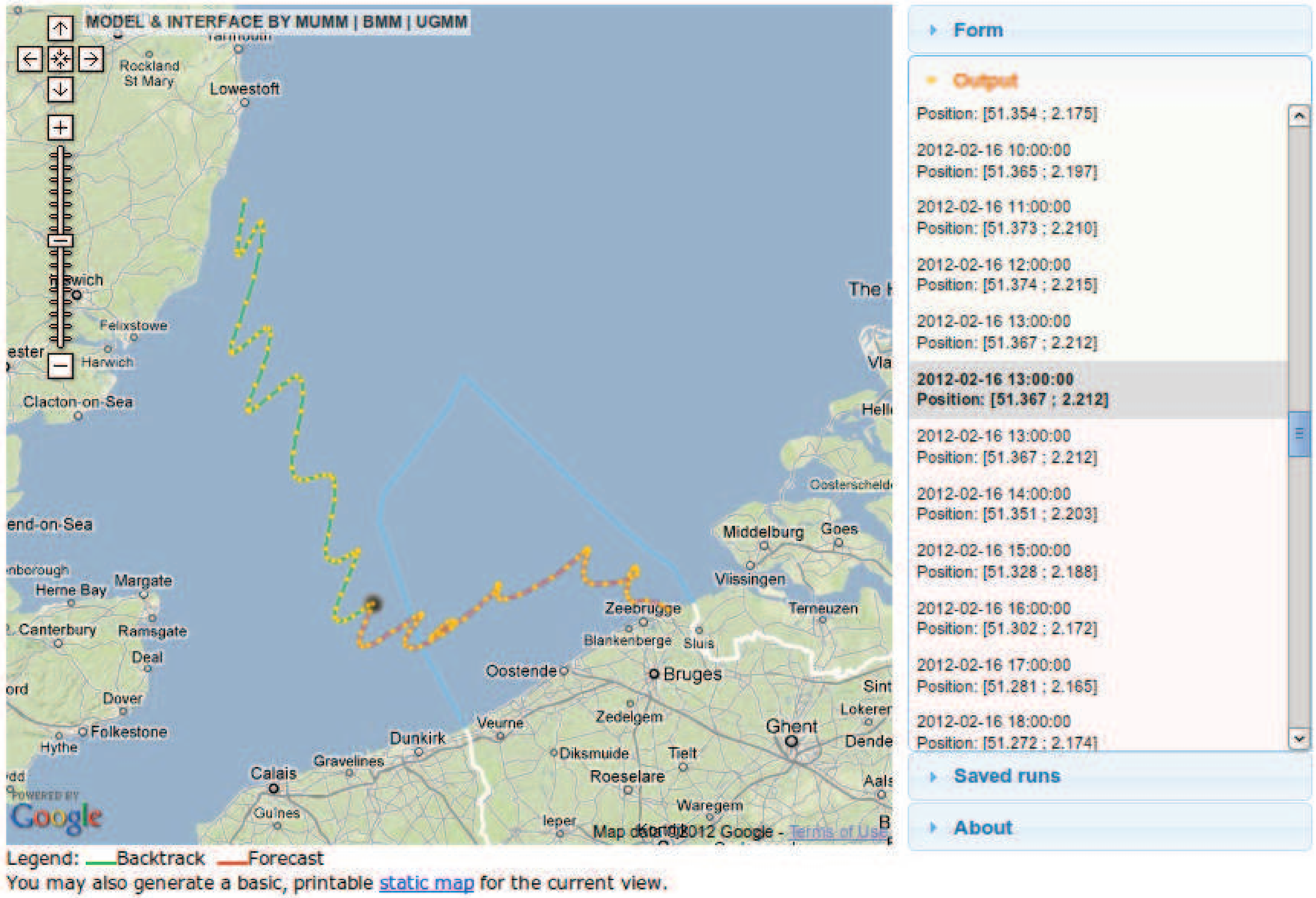
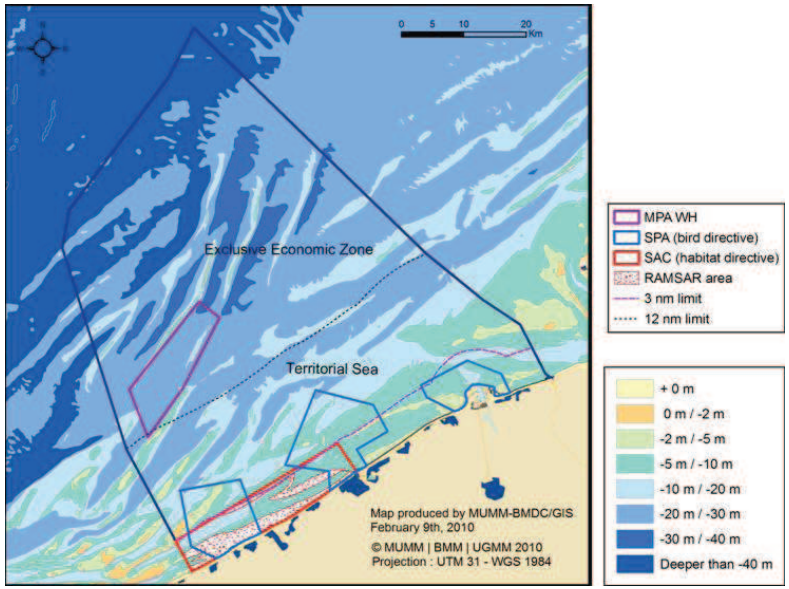
Constraints on Today's oil spill models (based on Belgian's experience)

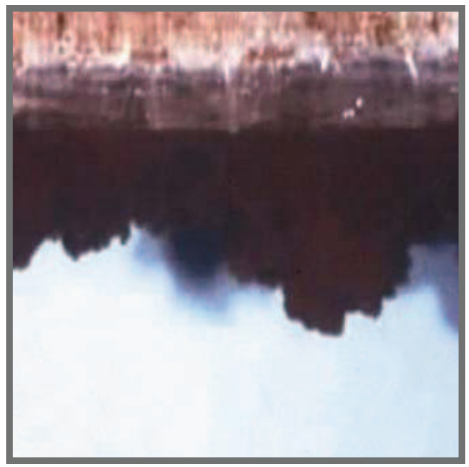
By Valérie Dulière and Sébastien Legrand

FLOAT


MODEL & INTERFACE BY MUMM | BMM | UGMM
Rockland St Mary
Lowestoft
Felixstowe
Harwich
Clacton-on-Sea
Margate
Herne Bay
Canterbury
Ramsgate
Deal
Dover
Folkestone
Hythe
Calais
Gravelines
Dunkirk
Guînes
Veurne
Oostende
Bruges
Zeebrugge
Blankenberge
Sluis
Zedelgem
Diksmuide
Roeselare
Tielt
Ghent
Waregem
Ieper
Middelburg
Goes
Vlissingen
Terneuzen
Oosterschelde
Lokeren
Dender
POWERED BY Google
Form
Output
Position: [51.354 ; 2.175]
2012-02-16 10:00:00
Position: [51.365 ; 2.197]
2012-02-16 11:00:00
Position: [51.373 ; 2.210]
2012-02-16 12:00:00
Position: [51.374 ; 2.215]
2012-02-16 13:00:00
Position: [51.367 ; 2.212]
2012-02-16 13:00:00
Position: [51.367 ; 2.212]
2012-02-16 13:00:00
Position: [51.367 ; 2.212]
2012-02-16 14:00:00
Position: [51.351 ; 2.203]
2012-02-16 15:00:00
Position: [51.328 ; 2.188]
2012-02-16 16:00:00
Position: [51.302 ; 2.172]
2012-02-16 17:00:00
Position: [51.281 ; 2.165]
2012-02-16 18:00:00
Position: [51.272 ; 2.174]
Saved runs
About
Legend: Backtrack Forecast
You may also generate a basic, printable static map for the current view.

Need for detailed scientifically-based info

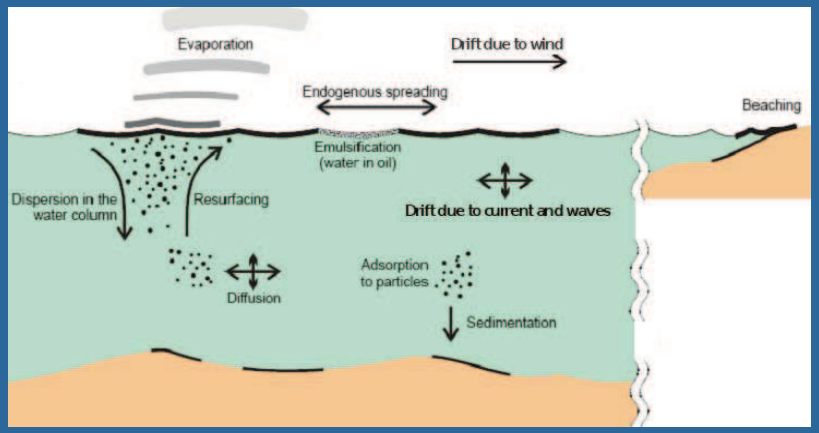




Development of a new oil spill model

- From 2D to 3D
- Drift and fate
- Hybrid approach

Lagrangian approach



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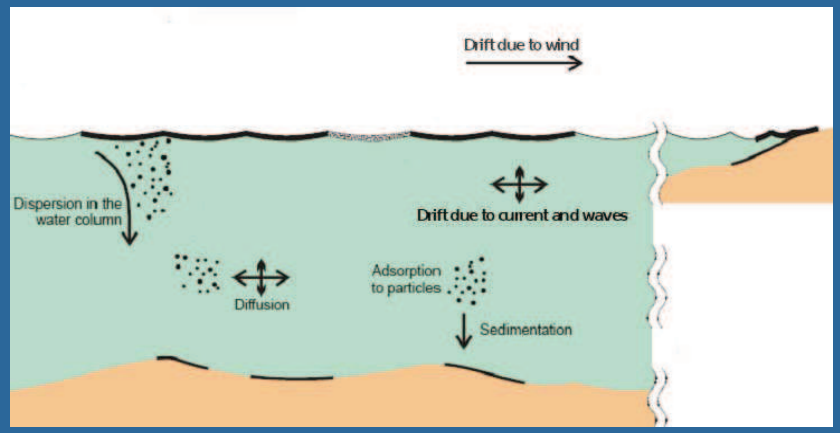
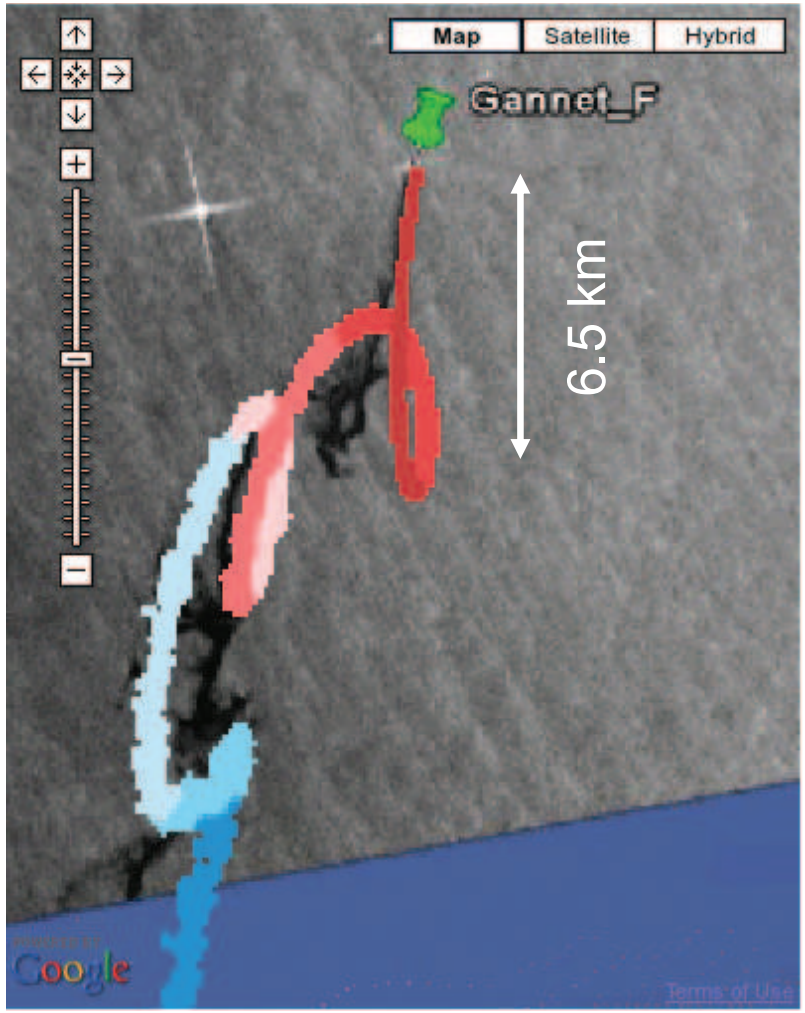
Eulerian approach



- Oil database
- Many release scenarios
- Last updated met-ocean forcing

Real case study : “Gannet”

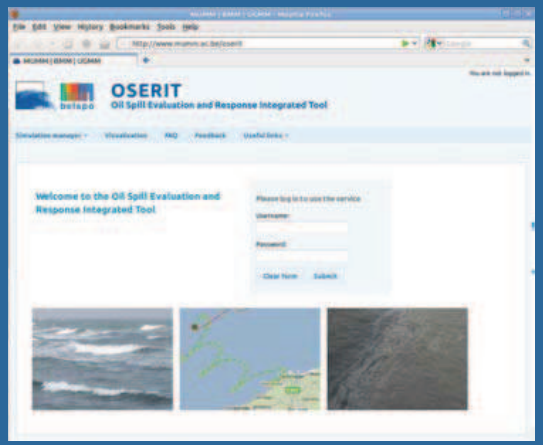


Satellite observation vs. OSERIT model results
19/08/2011 05:31 UTC

Development of a new tool (OSERIT)

A new 3D drift and fate oil spill model

Web interface



Post-processing system

- Time residency of oil concentration
- Maximum oil concentration
- …

Next steps to improve our oil spill drift forecasts

- Training of intervention teams
- Access to higher resolution met-ocean forcing
- Improve spill monitoring means