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## SLICKS DRIFT PREVISION AND PUBLIC EXPECTANCY IN THE *ERIKA* INCIDENT

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### Météo-France and marine pollution

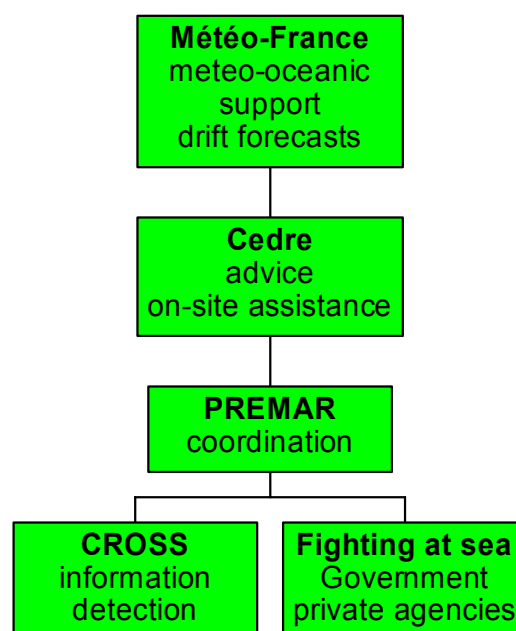


#### 24 h/day support capacity in case of marine pollution emergency operations

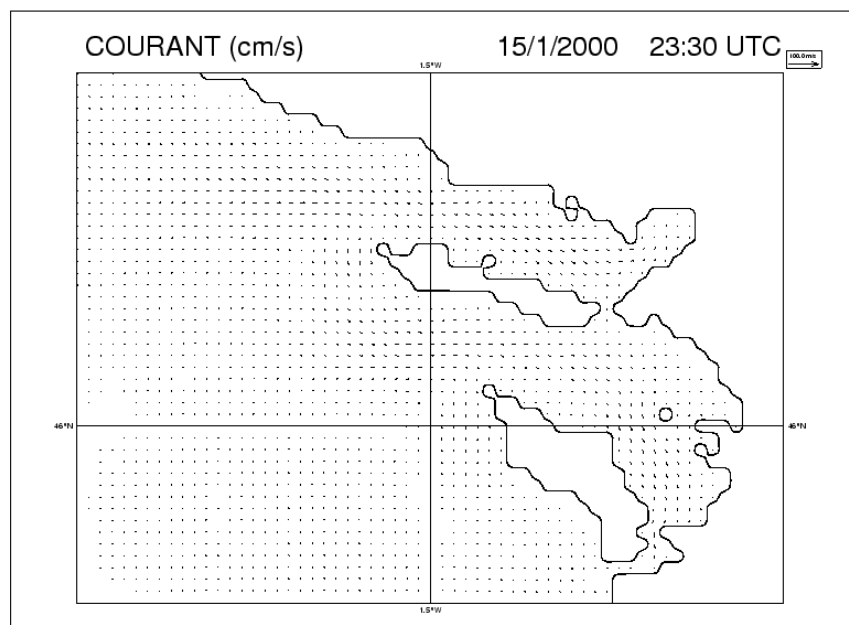
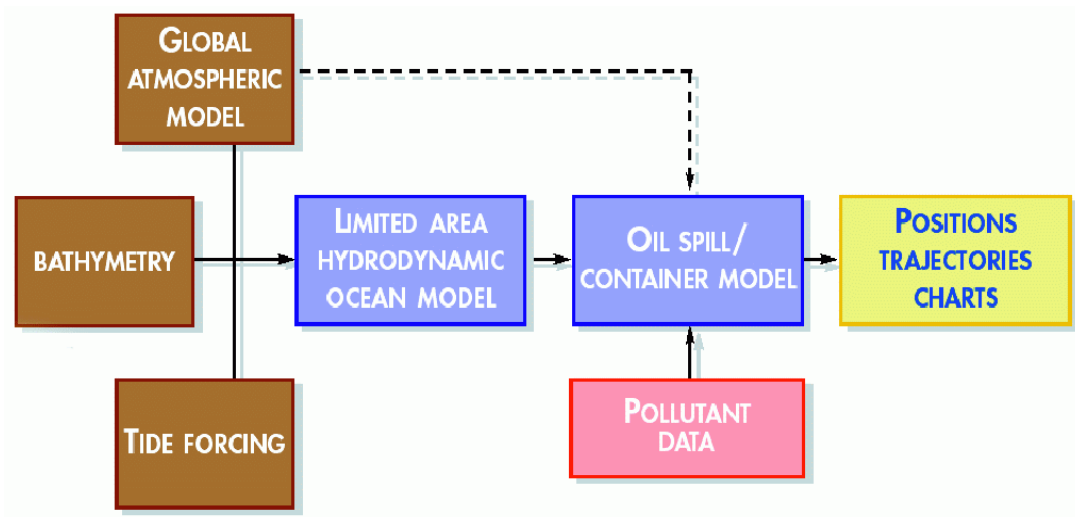
- ➡ Weather and wave forecasts.
- ➡ Pollutant drift forecasts.
- ➡ At a national level: Agreement with CEDRE
- ➡ At an international level: MPERSS



### National level



## MOTHY : Modèle Océanique de Transport d'HYdrocarbures



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## In operation since 1994

### ➤ Agreement with CEDRE since 1996

- About 10 interventions per year

### ➤ Examples:

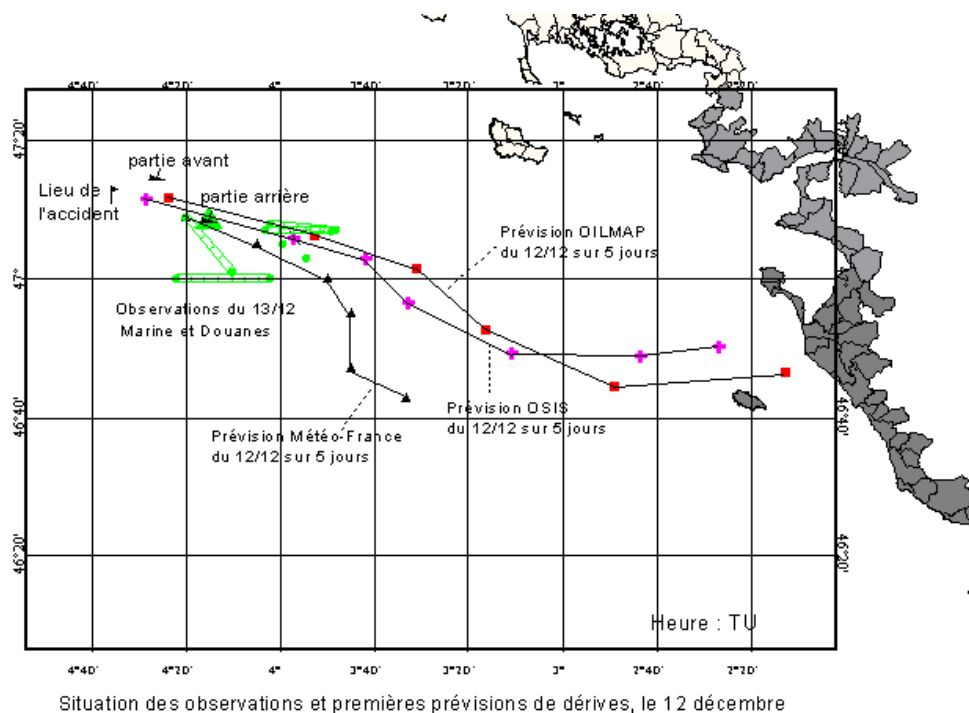
- December 7, 1999: REMPEC exercice in Mediterranean Sea.
- Since December 12, 1999: Erika
- December 14, 1999: Exercice in French Polynesia.
- January 8, 2000: Accidental parafin release in the Channel.

## Erika: December 12, 1999

**07:30 UTC: reception of a fax from CEDRE**

**08:40 UTC: we send the first drift forecasts with a weather bulletin**

## First model predictions



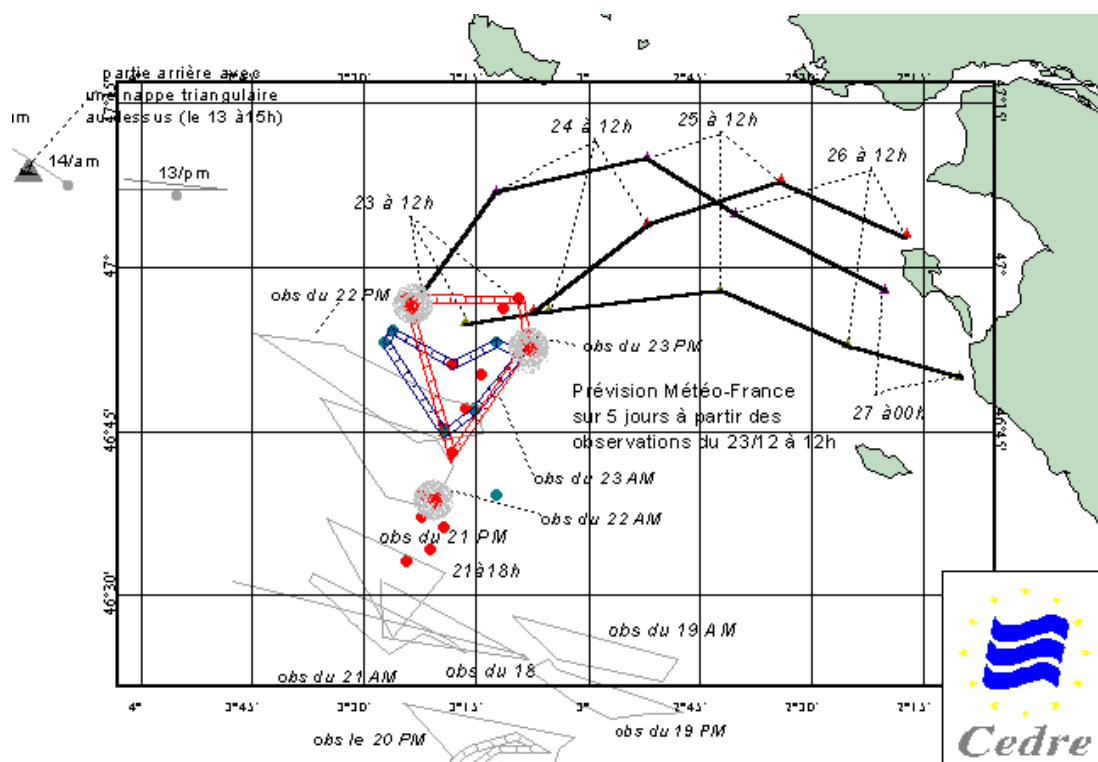
## Models and simulations before oil beaching

- 10 days forecasts with ECMWF ensemble predictions.
- 5 days forecasts with ECMWF.
- 4 days forecasts with ARPEGE.
- Transmission of the information through Internet.



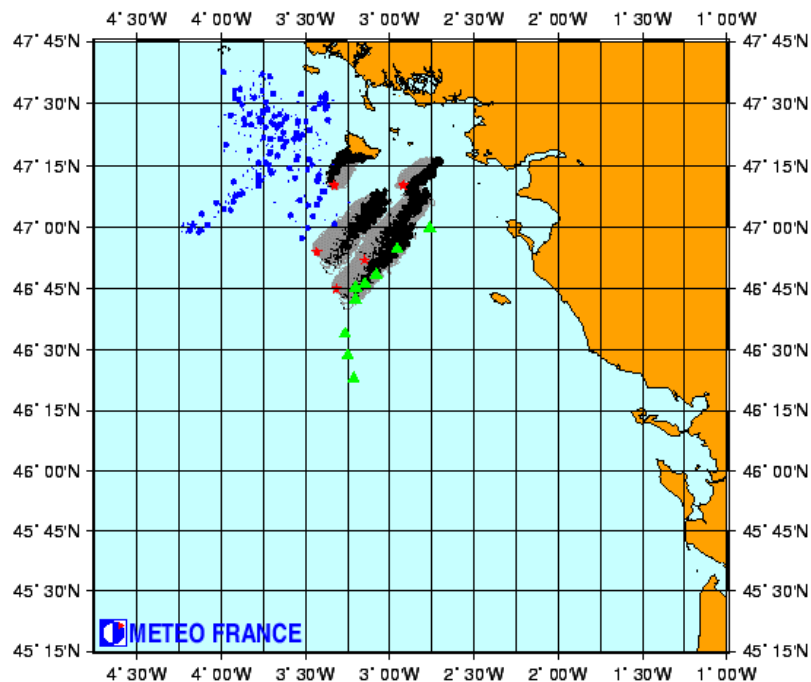
## Buoys drop

**Initial position : one point**

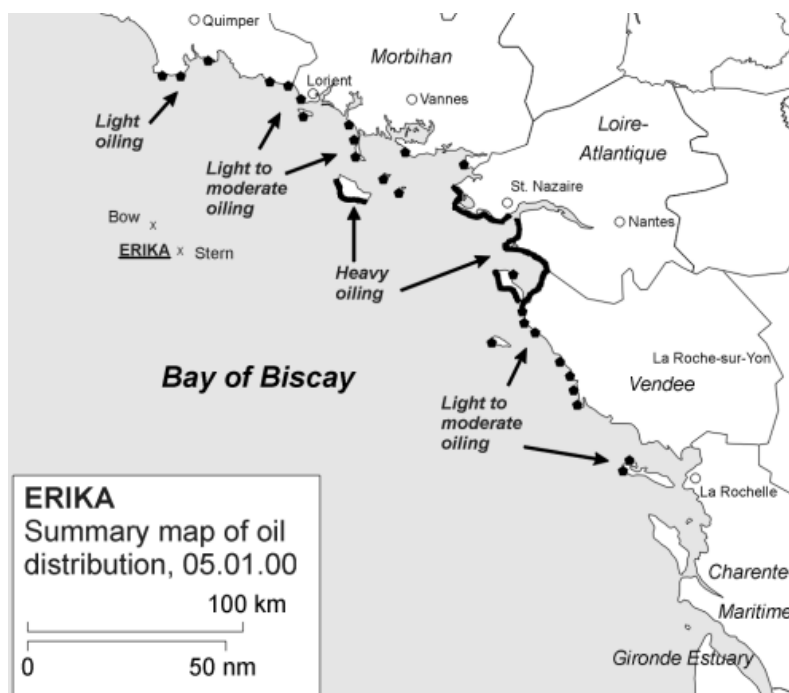


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MOTHY : Pr vision pour le 25/12/1999   00 utc



## Summary map of oil distribution

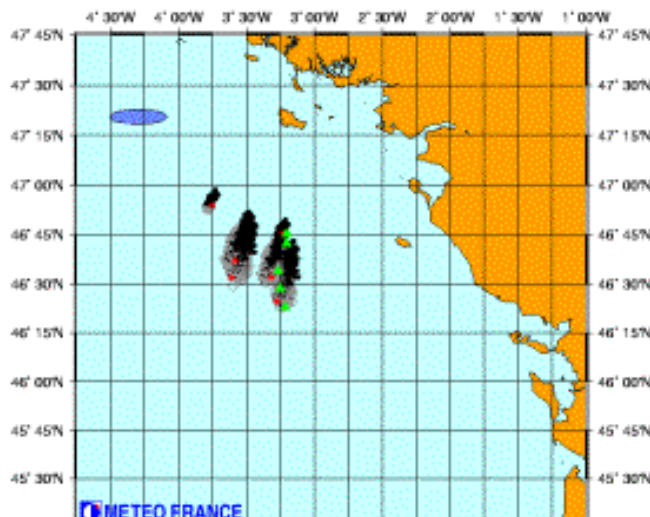


(Source: ITOPF)

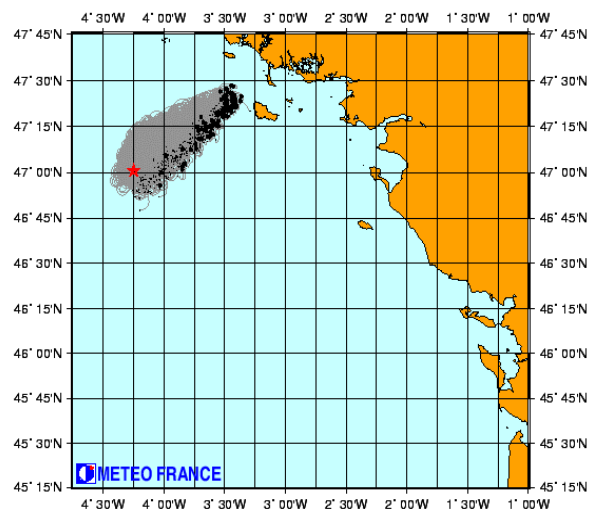
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## Forgetfulness

MOTHY : Prévision pour le 23/12/1999 à 00 utc



MOTHY : Prévision pour le 25/12/1999 à 12 utc



Position initiale :  
 le 20/12/1999 à 14h30 utc  
 Latitude : 47.01  
 Longitude : -4.25  
 Polluant : Fuel numero 2  
 Masse volumique : 1002 kg/m3

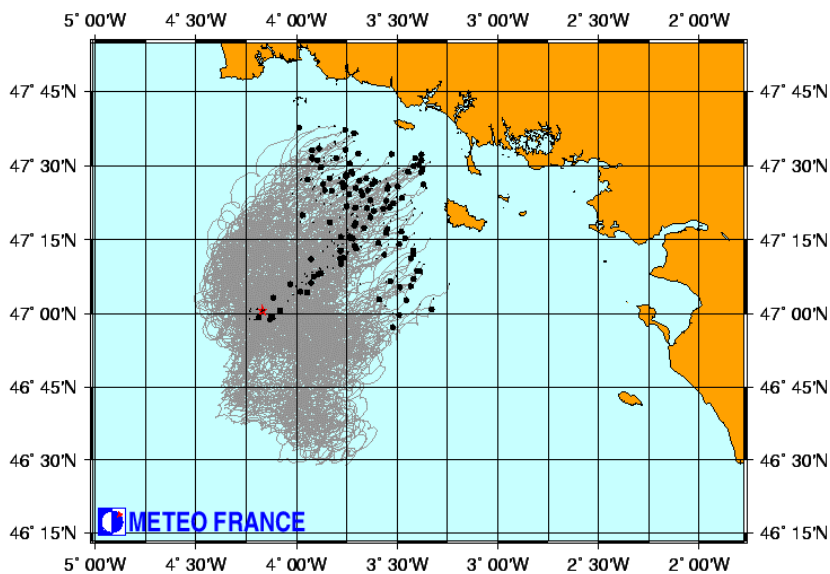
19% en surface  
 79% dans la colonne d'eau  
 2% au fond  
 0% à la cote

## Models and simulations after oil beaching

- ➡ Refloating and redeposition:
  - Backwards simulations.
- ➡ Beaching from Penmarc'h to Belle Ile:
  - Continuous release from the wreck.
  - Continuous release before the break.

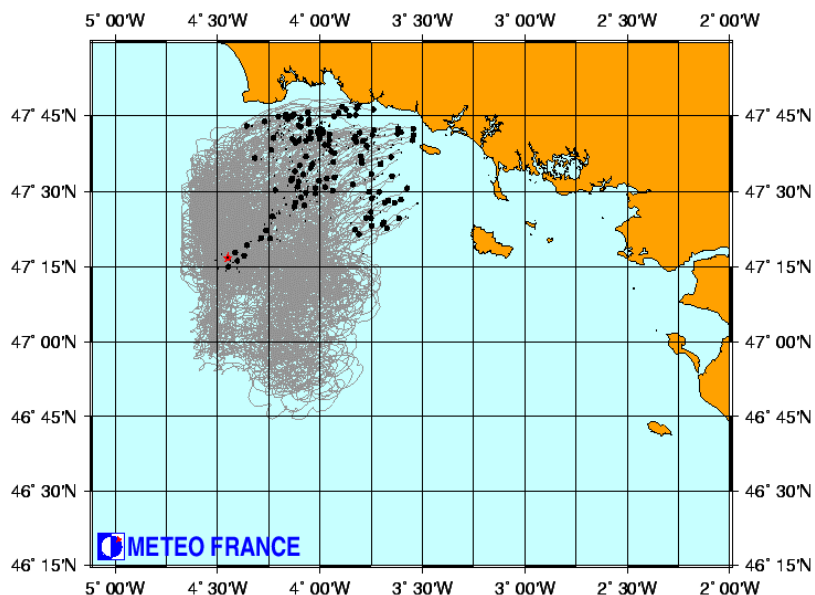
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MOTHY/ARPEGE : Pr vision pour le 25/12/1999   00 utc



Continuous  
release  
from the stern

MOTHY/ARPEGE : Pr vision pour le 25/12/1999   00 utc



Continuous  
release  
from the bow



