

**YEAR 2014**

«TRIMARAN AT3 » Project

**- NAVAL- OFFSHORE -**

Oceanographic vessel « MARION DUFRESNE »

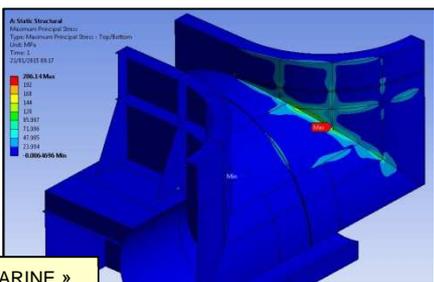
- Refit «Jouvence 2015»
- Upgrading of ILOT area (capstans, sheaves & handling frame)
- Calculation & modification of deck structure under new « A frame »
- Mooring winch installation



« MARION DUFRESNE »



« ORANGE MARINE »

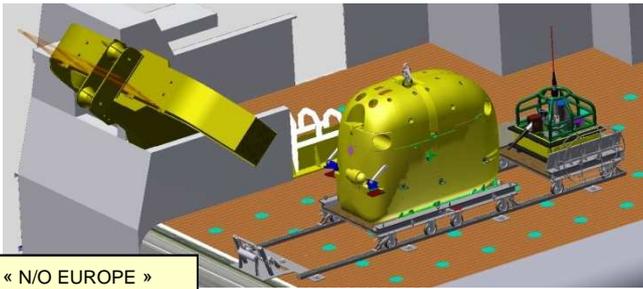


ORANGE MARINE

- Design of equipment dedicated to cable laying & lifting

Oceanographic vessel «EUROPE»

- Setting up « HROV & lest » trolleys
- Manufacturing drawings of trolleys & rails
- Docking & deck calculation



« N/O EUROPE »  
HROV setting up



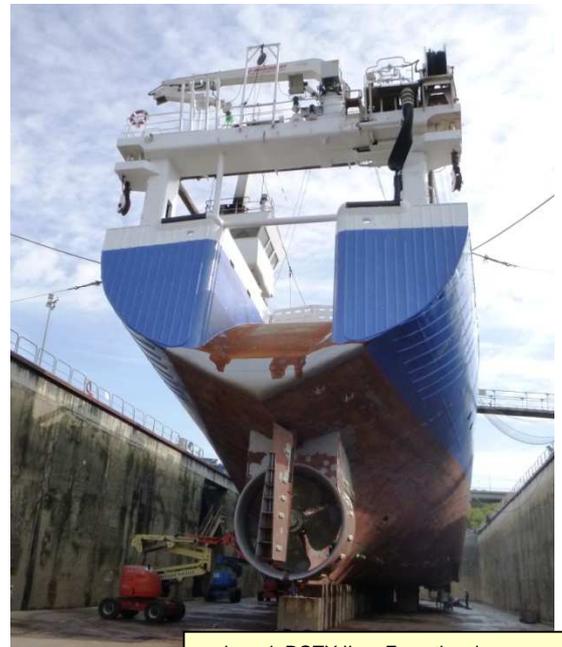
## VISUAL INSPECTION

- BE « VIGILANTE » & « ENGAGEANTE »
- BHO « BEAUTEMPS BEAUPRE »
- Aviso « LV LE HENAFF »
- Aviso « Cdt L'HERMINIER »
- BH « LAPLACE »

## HULL EXPERTISE (Agréments BV & DNV)

- Hydrographic vessel « LAPLACE »
- Tanker « STENA PROGRESS »
- Trawler « JOSEPH ROTY II »
- Seismic vessel « OCEANIC PHOENIX »
- Oceanographic vessel « IXPLORER »
- Hydrographic vessel « LAPEROUSE »

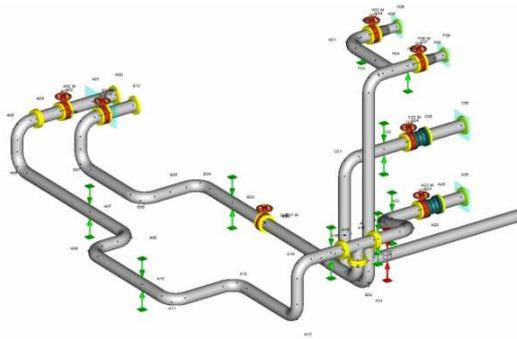
## - INDUSTRY -



« Joseph ROTY II » : Expertise de coque



Thermal power plant



## THERMAL POWER PLANT

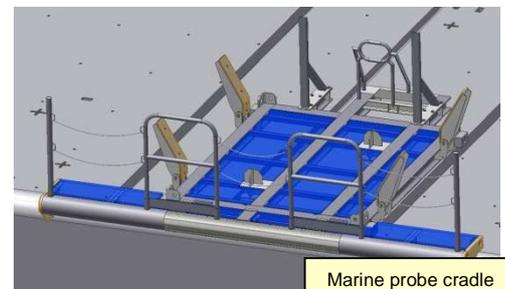
- Heat recovery network :  
Modelling on « Autopipe » software, calculation of expansion joints and thrusts on supports

## ELECTRIC POWER PLANT

- Design of a refueling grid, pressure loss calculation

## IFREMER

- Design & manufacturing drawings of a cradle for marine probe « Penfeld »



Marine probe cradle

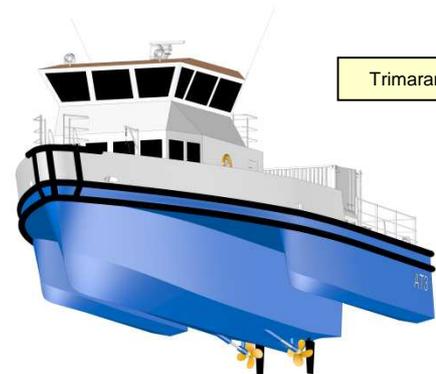
## THALES UNDERWATER SYSTEMS

- Detailed drawings for data transmission cable

## ENSTA PROJECT

(Ecole Nationale Supérieure des Techniques Avancées)

- Design of a service trimaran intended for Marine Renewable Energy
- Architectural options, ship design iteration
- Subdivision, stability & propulsion
- Hull design & sizing; equipment features



Trimaran AT3

## ALPHA TECHNIQUES

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