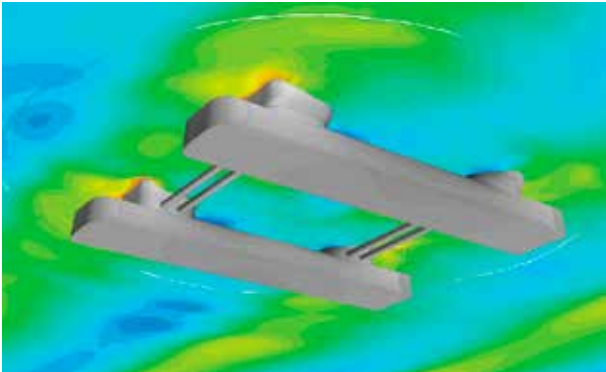


# Hydrodynamic Offshore Service

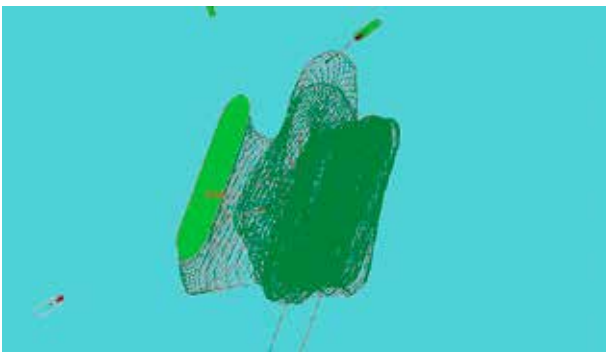
– Service provided by FORCE Technology to the offshore Industry include:



## Initial design services

We perform a complete suite of initial design services including:

- Seakeeping calculations & operability studies
- CFD flow review and optimisation
- Dynamic Positioning (DP) calculations

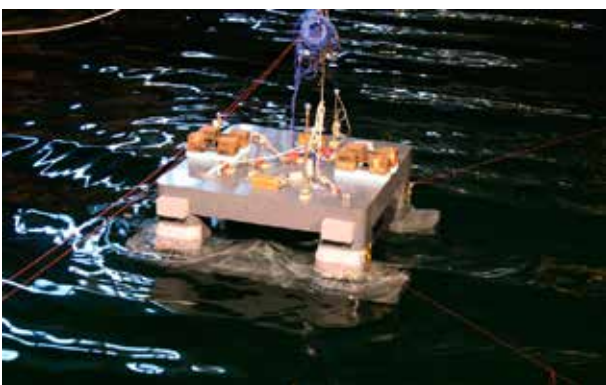


## Advanced simulations

We perform a large range of simulation services including:

- Engineering simulations in fast time mode
- Full mission simulations with man in the loop

Simulation experience includes mooring simulations, DP simulations, approach simulations etc.



## Seakeeping assignments

We perform seakeeping tests on floating and fixed structures such as:

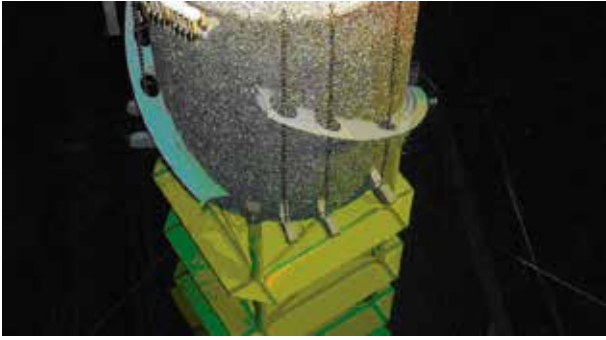
- Seakeeping tests in wind, waves and current
- Seakeeping tests in truncated mooring systems or soft mooring systems



## Dynamic Positioning assignments

We perform Dynamic Positioning (DP) tests on ships and floating platforms:

- DP tests under the influence of wind, waves and current
- DP tests can be performed with in-house DP algorithm or vendor systems
- The DP tests can include failure mode investigations in



### **Vortex Induced Motion assignments**

We provide numerous types of vortex induced motion (VIM) investigations including:

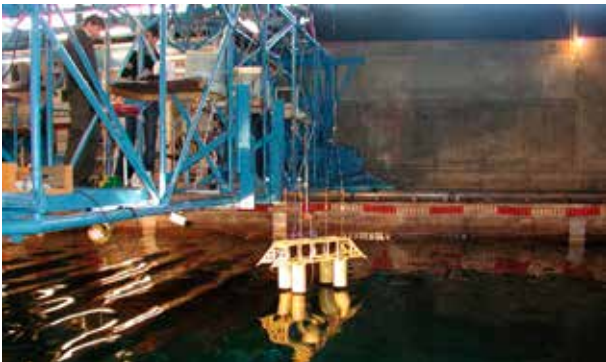
- VIM on risers and cables
- VIM tests on SPAR and semi-submersible platforms
- VIM tests on large floating structures in general



### **Extreme wave assignments**

We perform various investigations including:

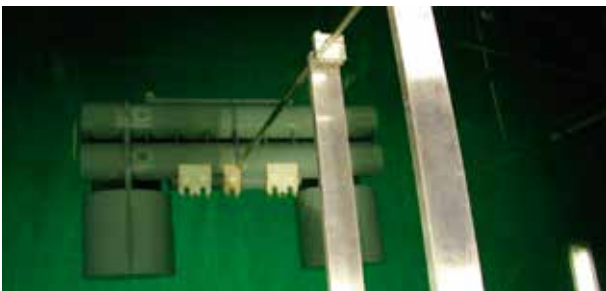
- Wave in deck loads tests
- Wave in bridge loads tests
- Wave run up and green water tests
- Wave slamming tests



### **Subsea structures assignments**

We provide tests within a large range of service including:

- Installation tests using vertical PMM (VPMM) or using crane vessel models
- Desk top overtrawlability assessment
- Fishery and fishing equipment assessment
- Overtrawling tests (in air and in towing tank)



### **Added mass and damping tests**

We provide numerous types of investigations on floating and subsea structures including:

- Forced dynamic tests utilising our Vertical PMM (VPMM)
- Free decay tests

FORCE Technology has a profound know-how in hydro- and aerodynamics. Through dedicated and highly skilled staff we cooperate with leading offshore designers, consulting engineers and shipyards all over the world.

Our aim is always to liaise closely with the client throughout an assignment - from initial inquiry until the final report has been approved by the client.

#### **Further information**

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