

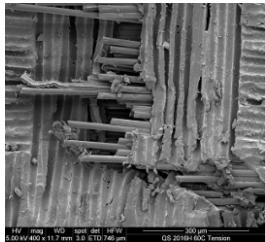
IFREMER-ONR workshop programme

Final Programme

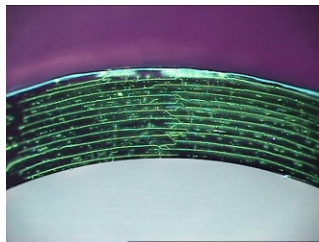
Durability of composites in a marine environment

On August 23rd, 24th 2012

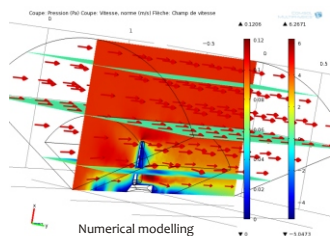
At the IFREMER Centre in Nantes



Damage mechanisms



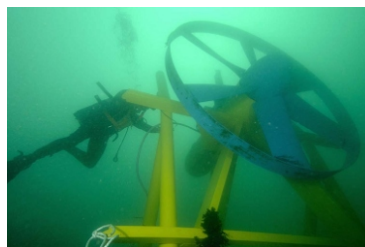
Thick marine composites



Numerical modelling



Service experience



Ocean Energy (Sabella-Gladu-Balao)

IFREMER-ONR Workshop programme Durability of composites in a marine environment

Thursday 23rd August

From 8 h 30 : Registrations and Coffee

9h30 Welcome

J. Binot, Ifremer Nantes Centre

Workshop Introduction

Dr. P. Davies, Ifremer, Dr. Y. Rajapakse, ONR

Overview of ONR Marine Composite Research

Dr. Y. Rajapakse, ONR, USA

10h15-11h00

*Durability of composites in the marine environment
(Plenary)*

Dr. J. Summerscales, Univ. Plymouth, UK

COFFEE BREAK

Damage induced by water 11h30-12h30

- Influence of glass fibres and interfaces

Dr E. Dallies, Dr J M Senecot, Owens Corning Vetrotex

- Humid aging of polymers and organic matrix composites

Professor X. Colin, Professor J. Verdu, ENSAM Paris

LUNCH

Modelling of water ingress and coupling 14h-15h

- Water sorption thermodynamics and transport in polymer matrices

Professor G. Mensitieri, Univ. Naples

- Water-mechanical property coupling

Professor F. Jacquemin, Univ. Nantes

TEA BREAK

Accelerated aging tests 15h30-16h30

- Accelerated testing methodology for long term durability of CFRP

Professor M. Nakada, Kanazawa Institute of Technology

- Accelerated aging tests for marine energy applications

Dr. P. Davies, Ifremer Brest

16h30-17h15

Effect of sea environment on sandwich materials(Plenary)

Professor. D. Penumadu, Univ. Tennessee

20h00 - Social Event, dinner

Friday 24th August

Including durability in design 8h30-10h15

Integrating durability in marine composite certification (Plenary)

Professor A. Echtermeyer (NTNU Trondheim)

- Life prediction of composite materials under complex loading

Professor D. Perreux, Univ. Franche Comté

- Design of racing yachts for durability

Dr A. Miller, R. Balze, H. Devaux, HDS, France

COFFEE BREAK

10h45-12h30 Specific marine loadings

Imaging fatigue mechanisms in marine composites (Plenary)

Professor JM Barton, Professor RA Shenoj, Univ. Southampton

Southampton

- Seawater aging of vinylester and carbon reinforced vinylester

Professor LA Carlsson, Florida Atlantic Univ, Dr C. Berggreen, DTU

- Durability of composite material for underwater applications

D. Choqueuse, Ifremer Brest

LUNCH

In-service experience 14h-15h

In-service experience at DCNS

F. Le Lay, DCNS, Nantes

Service experience and lifetime prediction of Naval Composites

J. Dalzel-Job, G. Kotsikos, J. Mawella, Qinetiq, Rosyth

15h00-16h00

Discussion, Round Table, (ONR, Ifremer + plenary speakers)

What further research is needed to improve the long term reliability of marine composites ?

16h00 - Closing remarks.

Registration is open on the website :

http://wwz.ifremer.fr/rd_technologiques/A-la-une/Workshop-Durability-of-composites-in-a-marine-environment