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Technical Lecture

Alternatives to Domes as Pressure Hull End Closures

Kevin Heaney, BMT



Date: Monday 19/03/2018

Time: Refreshments at 19:00, start at 19:25

Venue: Lecture Theatre 2.3, Building 5 West, University of Bath, BA2 7AY

Organiser: Kevin Heaney

Contact: secretary.wjb@imarest.org

Summary:

Submarine pressure hulls typically utilise hemispherical or torispherical domes as end closures. These domes are difficult to manufacture as they require double curvature to be pressed in thick steel plate petals. The buckling failure mode of the domes leads to relatively high safety factors and build tolerances. This lecture presents two alternative pressure hull end closure geometries which do not require double curvature; faceted domes and flat bulkheads. FEA has been used to examine the structural response and viability of the potential alternative end closures. This lecture discusses the advantages and disadvantages of the different end closure options and their suitability.

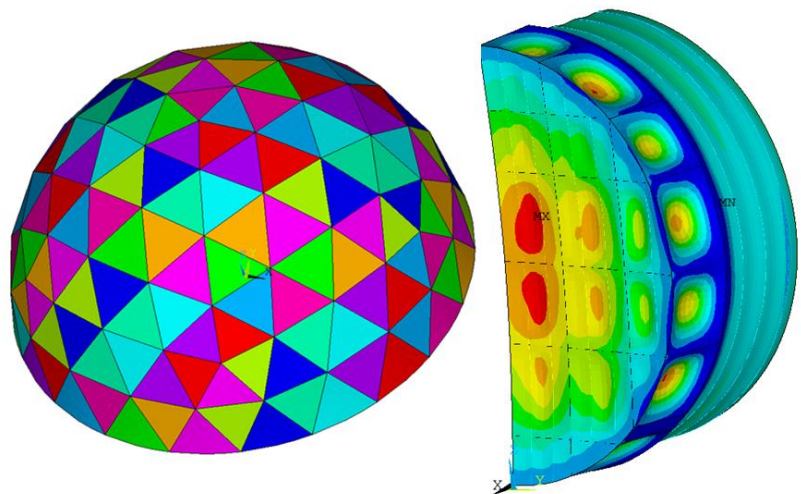


Image: BMT Defence Services Ltd.



Speaker:

Kevin Heaney is a Senior Naval Architect at BMT and is currently the Naval Architecture Lead on the Team 31 bid team. In his time at BMT he has been heavily involved in the development of a number of alternative submarine end closures which is the basis of this lecture.



Continuing Professional Development: Certificate of attendance

Attendee	Committee endorsement
Signed: _____	Signed: _____
Name: _____	Position: _____

Next event: Tidal Lagoon

Date: Mon 16/04/2018, **Time:** Refreshments at 19:00, start at 19:25

Venue: Lecture Theatre 1N05, Building N, University of the West of England, BS16 1QY

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