



TO ALL AAS MEMBERS and interested parties

TECHNICAL MEETING

7:45pm Wednesday 21st June 2006

Introduction of Boundary and Finite Element Methods (BEM and FEM) to the Signatures and Acoustics Department at ASC

by

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ASC Pty Ltd

After delivery of the COLLINS CLASS submarines, ASC continues to undertake acoustic engineering. The focus of the acoustic engineering includes sustainment (maintaining the existing design), generation (introduction of new and modified systems), and research and development.

However access to the submarines is minimal nowadays due to their operational constraints. As ASC can no longer undertake extensive measurements, introduction of an acoustic modelling tool was initiated.

Two of the leading acoustic modelling tools were evaluated. The most suitable tool was subsequently purchased and installed. This tool undertakes analysis based on BEM (boundary element methods) and FEM (finite element methods).

Currently in the commissioning phase, ASC is undertaking continued modelling of simple structures, such that measurements can be used to calibrate the models and hone the acoustic engineers experience with the tool. Measurements used for such calibration include sound pressure and vibration measurements, as well as sound intensity mapping and modal analysis.

Anyone interested in attending the meeting is encouraged to join us prior to the meeting for dinner and drinks at Rumours Café at **6:30pm on Wednesday 21st June**, Level 6 of the Union House (see map below). The meeting will commence at 8pm in the H.H. Davis Room, Department of Mechanical Engineering, Engineering South Building. Parking is available on Victoria Drive.

Please RSVP to Luke Zoontjens via 8303 5460 or luke.zoontjens@mecheng.adelaide.edu.au, to help us organise the event.



Australian Acoustical Society

A.C.N. 000 712 658

SOUTH AUSTRALIA DIVISION

PLACE: H.H. Davis Room, Level 1, Engineering South Building, The University of Adelaide, North Terrace Campus.

DATE: WEDNESDAY 21ST JUNE, 2006

TIMING: 6:30pm at Rumours, Level 6 for dinner and drinks, and ~7:45pm in the H.H. Davis Room for the meeting.

