



TO ALL AAS MEMBERS and interested parties

TECHNICAL MEETING

6pm Wednesday 17th November 2004

Long Range Blast Noise Prediction in Australia

by

Ms Rachel Foster
Vipac Engineers & Scientists Ltd

The UNAPS Long Range Noise Prediction model, developed by the US military, has been selected to obtain sufficiently accurate predictions of the resultant peak overpressure levels of loud blast events at large distances from the blast site. The outputs from the model have been compared against the extensive noise monitoring of blasting carried out in 2001 and 2002. The model has been modified to specifically suit an Australian site and its requirements. Additional noise monitoring has also been carried out in 2004 to collect the base data in order to add a commonly tested blast source type into the model.

The model utilises vertical (up to ~10,000m) meteorological profiles, including temperature, humidity, air pressure, and wind strength and direction, topographical and terrain data, in conjunction with acoustic directionality and ray tracing algorithms.

The ultimate aim is to provide forecast estimates of the overpressure levels at different distances/locations from blasting sites and provide the likelihood of causing significant impact (such as high annoyance levels) for measured forecast conditions on the day of blasting.

Rachel Foster is a Senior Consulting Engineer currently leading the Building & Infrastructure Group in the Adelaide Office of Vipac Engineers and Scientists. Rachel has over 9 years' experience working on a wide range of environmental, architectural and industrial acoustic projects, including appearance in court as an expert witness. She is a graduate of the University of Western Australia, and a member of both IEAust and the SA AAS.

The meeting will commence at **6pm on Wednesday 17th November**, at the Adelaide Office of Vipac Engineers and Scientists Ltd, 21 King William Street, Kent Town. Plenty of parking is available on the street outside. Anyone interested in attending the meeting is encouraged to join us afterward for friendly dinner and drinks (free wine, beer and soft drinks for members!) at 7pm at the Kent Town Hotel, corner College Road & Rundle St, Kent Town. (see map below).

Please RSVP to the School of Mechanical Engineering on 8303 5460 or Luke Zoontjens via 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: Vipac Engineers & Scientists
21 King William Street
Kent Town S.A 5067
ph 8362 5445

DATE: WEDNESDAY 17th November, 2004

TIMING: 6pm meeting start at Vipac, with 7pm dinner at the Kent Town Hotel

NOTES: There is plenty of parking at Vipac, and the Kent Town Hotel is only a short walk away.

