

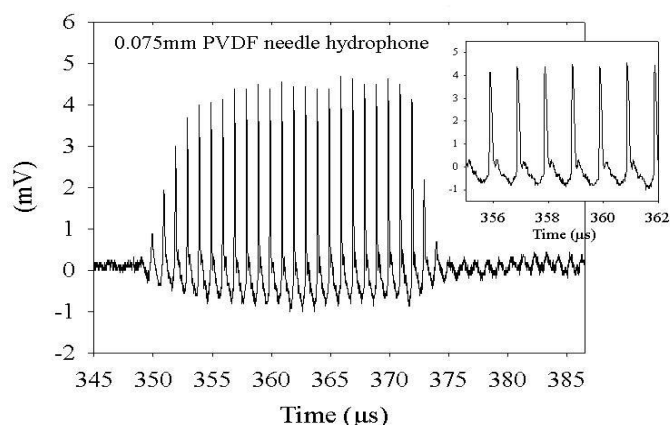
# Hydrophone measurement course

One day course

Practical hands-on teaching

Maximum 4 delegates

In-house at Precision Acoustics lab



**This one-day course aims to give basic competence in selecting and using hydrophones for making pressure measurements in the MHz frequency range.**

The emphasis is on practical skills and approximately 50% of the time will be spent in the measurement laboratory. The maximum number of delegates is four, giving plenty of opportunity to develop "hands-on" skills. Lectures and laboratory work will focus on hydrophones manufactured by Precision Acoustics Ltd, but the material used will be of more general applicability. A majority of the laboratory work will use a submersible single-element transducer and there will also be an opportunity to use linear array transducers attached to a commercial ultrasound scanner.

## Venue

Precision Acoustics Ltd, Hampton Farm Business Park, Higher Bockhampton, Dorchester, Dorset, DT2 8QH

## Application form

Available on the Precision Acoustics website:

## Course content includes:

### Introduction

A brief introduction to Precision Acoustics, the tutors and the other delegates.

### Hydrophone selection

The basic criteria governing selection of the most appropriate hydrophone for a particular application will be presented, including; CW vs. pulsed waveforms, membrane vs. needle devices, sensitivity, element size, spatial averaging, frequency response and directivity.

### Lab Sessions

Opportunity to put some of the procedures into practice.

- Set up and basic measurements
- Measurement of acoustic parameters
- Methods for using hydrophone calibration data
- Ultrasound scanners

### Ultrasound scanner measurements

Discussion of issues relevant to measurement of acoustic output from ultrasound scanners and will cover the following topics: beam geometry, triggering, scanner controls affecting acoustic output, locating the beam maximum and measurement of temporal average quantities.