

**2010-2011 Annual Report**  
**Underwater Acoustics (UW) Technical Committee (TC)**  
**Prepared by Lisa M. Zurk, UWTC Chair**

The Fall 2010 meeting in Cancun had three UW special sessions: “Deep water ambient noise, Buckingham & Siderius, “Acoustic particle velocity and vector fields: Signal processing and communication applications”, Badiy & Abdi, and “Impact of shallow water acoustic propagation by linear internal waves and neutrally buoyant intrusions”, Tang & Bradley. The first place student paper award was awarded to Adam Metzler for "Scintillation statistics of broadband acoustic transmissions in the Gulf of Maine" and second place went to Wu-jung Lee for "Analysis of mixed assemblages of fish using the statistics of echoes from a single beam broadband echosounder". We also wish to congratulate George Frisk, who received the 2010 Pioneers of Underwater Acoustics Medal.

The status of the 2010 UW Technical Initiative (under Dave Bradley and Jeff Simmen) was discussed at the Cancun meeting. This initiative had resulted in the drafting of a letter signed by ASA President Whit Au, and sent to RADM Carr (Chief of Naval Research). Two additional letters (from “Concerned scientists” and UW leadership) were also sent. The letters expressed concern about the levels of funding support for UW research activities from ONR. The response from RADM Carr was read and discussed, this response stated a NNR mandate for a “Robust US research in long-term S&T” and “pipeline of new scientists”.

The evolution of new ASA standards for underwater environments was also presented and discussed at the Cancun meeting, with overwhelming support from the UW community.

The Spring 2011 meeting in Seattle had UW member Eric Thorsos serving as Technical Program Chair and two UW special sessions: “Measurement, characterization, and mitigation of underwater anthropogenic noise”, by Dahl, Frisk & Zurk, and “Sediment Acoustics & Geological Processes”, Holland & Lowrie. The UW TC also discussed planning for the Hong Kong meeting (spring 2012), with a record number of eight special sessions proposed and approved by the committee. We also wish to congratulate Karim Sabra, who received the 2011 Bruce Lindsay Award at the Seattle meeting.

A revised statement of technical scope was presented at the Baltimore meeting and accepted by unanimous vote. The proposed new scope is:

- The Underwater Acoustics TC is focused on sound-wave phenomena in the ocean and seabed, with primary emphasis on the following topics:
  1. Propagation phenomena: steady-state and transient solutions of the wave equation, including boundary effects, and seismoacoustics.
  2. Scattering and reverberation: characterization and quantification.
  3. Ambient noise: noise sources, spectra, directionality, and spatial/temporal fluctuations.
  4. Signal processing and sonar algorithms, with emphasis on the detection of signals in noise and statistical analysis.
  5. Underwater acoustic instrumentation.

Dave Bradley gave a short presentation at the Baltimore meeting concerning the decline in the ONR funding for ocean acoustics and proposed that this concern be voiced in two letters, one from the ASA President and one signed by individuals in the acoustics community. A vote was conducted on the letter from the ASA, and passed overwhelmingly (ONR program managers abstained from the vote). Several ASA members signed the letter from the community. The ASA letter was approved by the Executive Council, and a signed copy is attached to this annual report.